

UNIVAC 9400 SYSTEM OPERATIONS HANDBOOK

OPERATOR
REFERENCE

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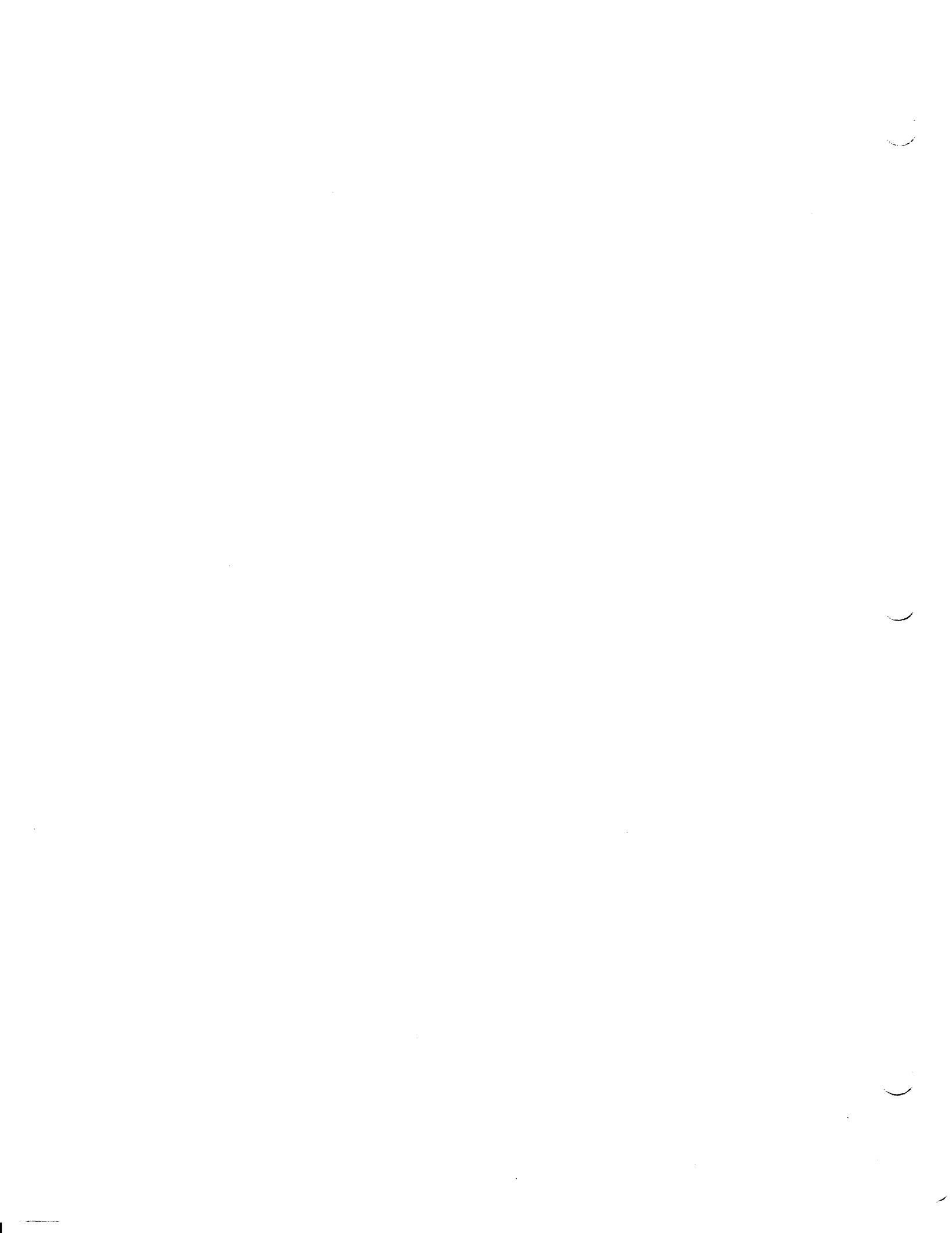
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I. SYSTEM ORIENTATION

1.1. SCOPE

This manual contains the basic information and procedures required for the operation of the UNIVAC 9400 System.

The manual is divided into nine sections:

- System Orientation
- Job Management
- Console Operation
- Central Processor Controls and Indicators
- System Initialization
- Device Preparation and Error Recovery Procedures
- Storage Dumps
- Communications Environment
- Operator's Run Book

All messages displayed at the console, along with the operator action required, if any, are provided in Appendix A, in alphanumeric order. The use of the rotary selector switches is explained in Appendix B.

1.2. PURPOSE

The UNIVAC 9400 System, shown in Figure 1-1, is a data processing system that electronically performs a task usually performed manually or on other types of data processing or calculating equipment. Refer to *UNIVAC Computer Systems: Basic Principles, UP-7570* (current version) for the basic principles of data processing.

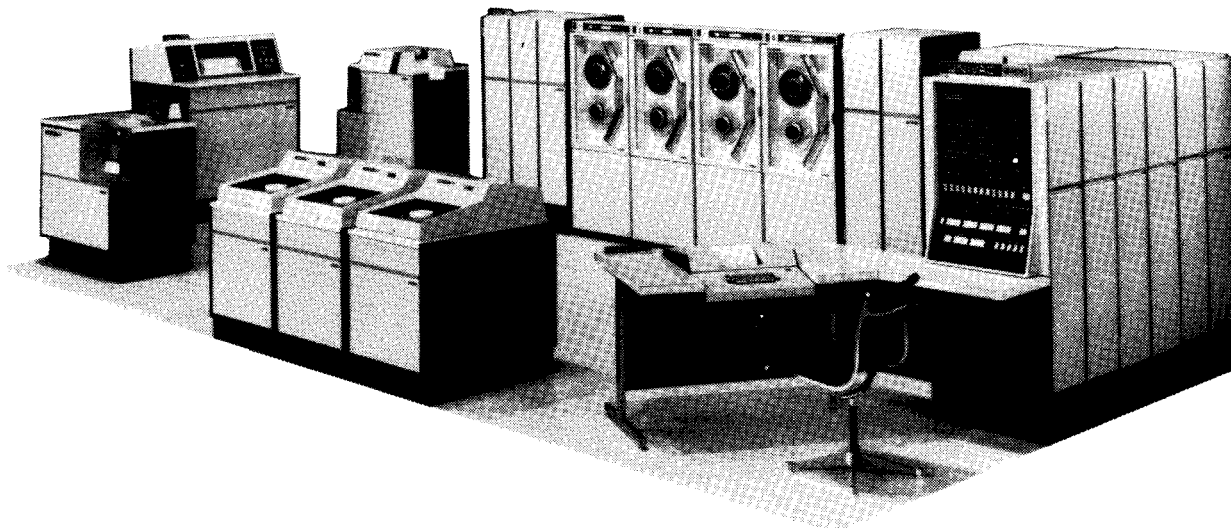


Figure 1-1. The UNIVAC 9400 System

1.3. SYSTEM CONFIGURATION

The processor (see Figure 1-2) includes main storage, control, arithmetic, and input/output sections.

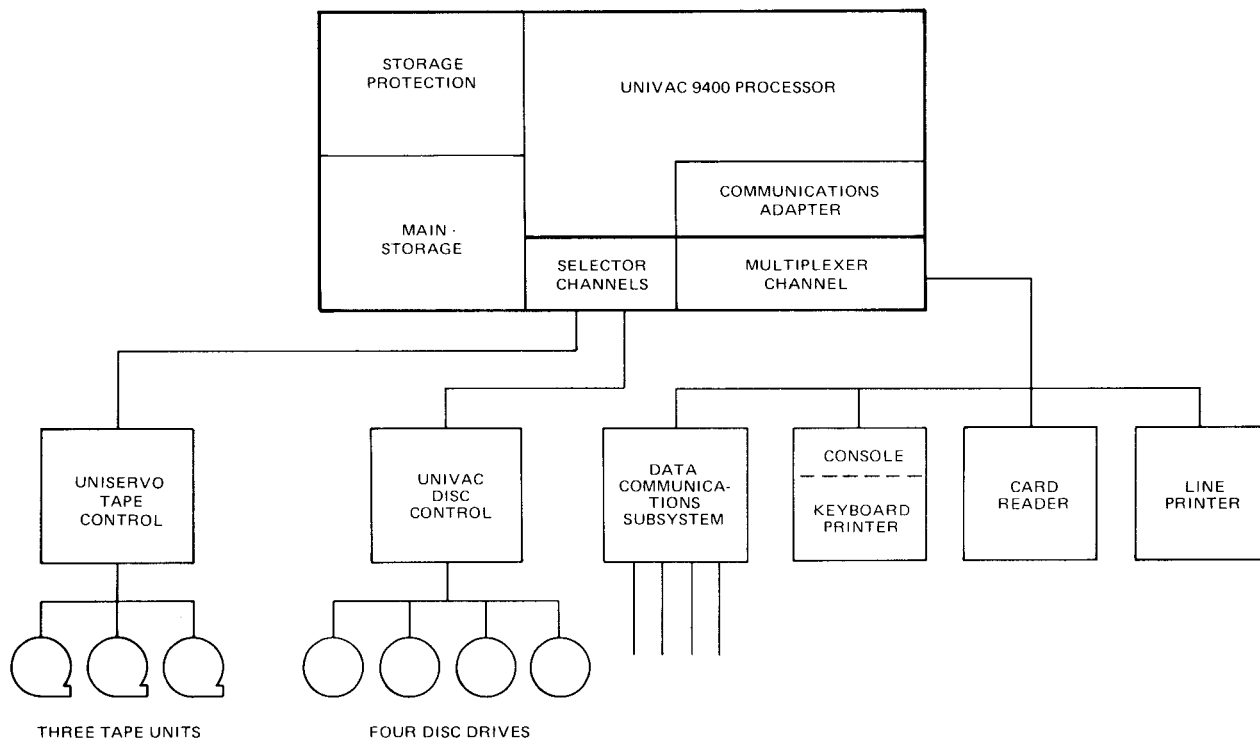


Figure 1-2. Block Diagram of a Typical System Configuration

The UNIVAC 9400 processor is a unit that has the ability to perform substantial computation, accounting functions, logical and arithmetic analysis, and decision making. It performs these functions by accepting data, by processing it, and by supplying the results of these operations in accordance with a set of instructions called a program.

The main storage of the UNIVAC 9400 System is contained in freestanding cabinets. The individually addressable units of main storage are called bytes. Information stored in this area comprises the programs currently being executed and the data being processed. Any portion of main storage (except for a small section called low-order storage) may contain either instructions or data, depending on the programs being executed. Programs, therefore, normally incorporate instructions and data areas as they are loaded into main storage.

The control unit governs the operation of the entire system in accordance with the instructions contained in main storage. Once a program is loaded and execution of instructions has begun, the control unit ensures that the instructions are executed in sequence unless otherwise directed by a branch instruction or interrupt. The control unit further directs the arithmetic and input/output sections in the execution of instructions.

The input/output (I/O) control section of the UNIVAC 9400 processor unit is made up of selector channels, multiplexer channels, and communications adapters. These channels and adapters initiate, direct, and monitor the transfer of data between the user programs being run by the operator in main storage and the peripheral subsystems (or input/output devices). The I/O section comprises a multiplexer channel to which low-speed devices such as card readers, printers, and UNISERVO VI-C Magnetic Tape Units are connected; one or two selector channels to which high-speed devices such as disc storage devices and UNISERVO 12/16 Magnetic Tape Units are connected; and the standard interface which controls the selection and activation of these devices.

The functions of the processor are to read data from input devices, to perform calculations and logical operations such as decisions based on comparisons, and to write the resulting data on output devices, all under control of a program or set of instructions. However, the speed of the central processor is so great that in average circumstances it completes its data manipulation functions and must wait for the results to be recorded on output devices and for the next set of data to be brought in from input devices. For this reason, more than one problem program may be entered into the UNIVAC 9400 System. By alternately performing portions of each program, the central processor may execute its functions for each program while others are bringing in data (input) or writing results (output); this technique is called multiprogramming.

1.4. INPUT/OUTPUT DEVICES

A full line of peripheral devices and subsystems is available for use with the UNIVAC 9400 System. These devices and subsystems are:

- Console
- Card Reader
- Card Punch
- Printer
- UNISERVO VI-C and 12/16 Magnetic Tape Subsystems
- UNIVAC 8411 and/or 8414 Disc Subsystems
- Paper Tape Subsystem
- UNIVAC 2703 Optical Document Reader Subsystem
- UNIVAC 1004/1005 Subsystem

- UNIVAC 9200/9300 Subsystem
- Data Communications Subsystem
 - UNISCOPE 100/300
 - DCT 500/1000/2000
 - TTY KSR 33/35
 - UNIVAC 1004/1005 Subsystem
 - UNIVAC 9200/9300 Subsystem

1.4.1. CONSOLE AND MAINTENANCE PANEL

The console and the adjacent Operator's Panel (the oblique panel below the Maintenance Panel) located on the front of the processor cabinet are the two main sections of control available to the UNIVAC 9400 operator.

The UNIVAC 9400 System console is a means of communication between the operator and the operating system. The console consists of a keyboard, console printer, and switches and indicators which are housed in a platform attached to the processor as shown in Figure 1-3. The associated control and interface I/O logic is housed in the processor.

The Maintenance Panel is divided into three portions: The upper portion or Auxiliary Maintenance Panel includes two switches and two indicators. If data communications capability is present, it may also include a data communications operator's control panel. The center portion includes four rotary selector switches and their associated rollers and switch/indicators. The lower portion is the control section of the Maintenance Panel.

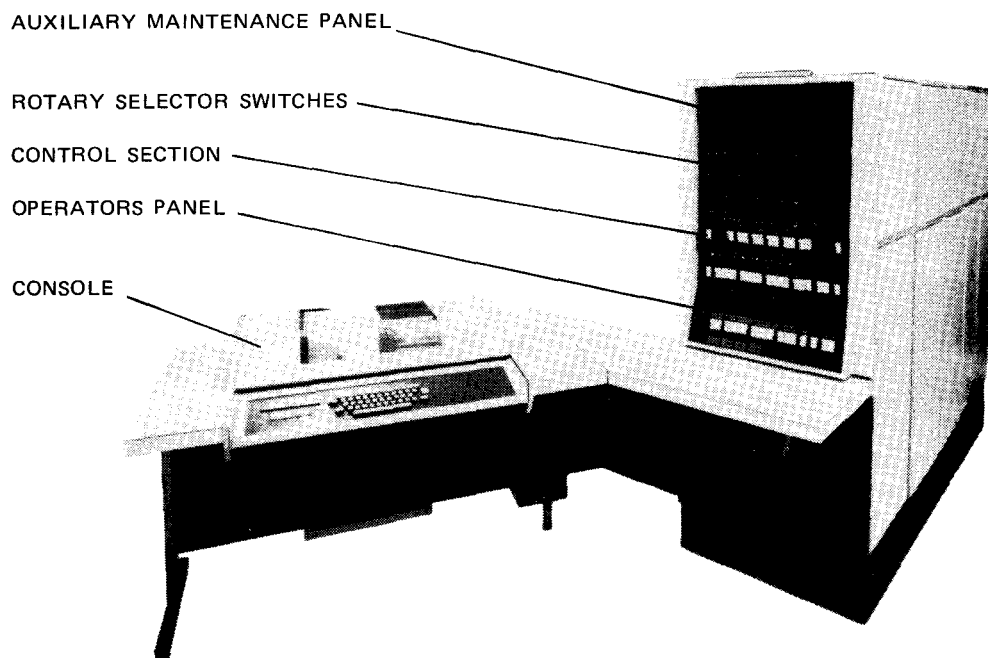


Figure 1-3. Console and Maintenance Panel

1.5. OPERATING SYSTEM

Figure 1-4 is a basic illustration showing the various components of the UNIVAC 9400 Operating System.

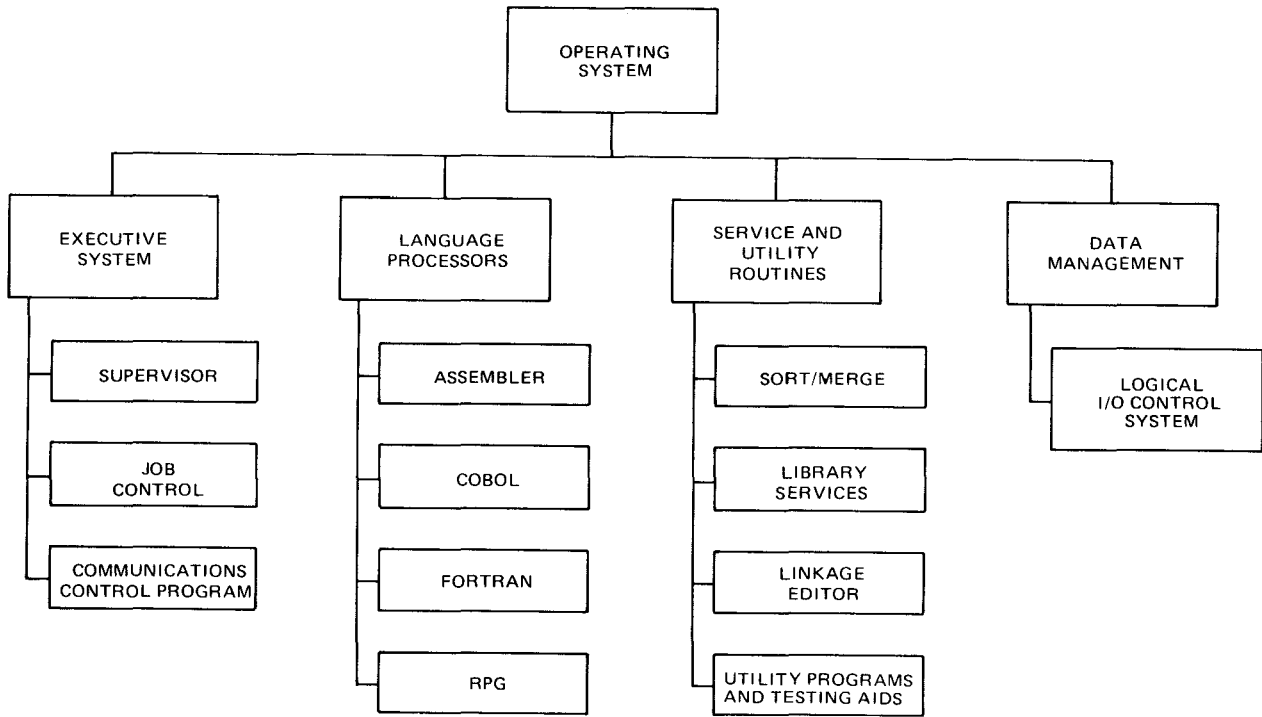


Figure 1-4. UNIVAC 9400 Operating System

■ Executive System

To control the operation of the problem programs running in the system, to perform the switching, and to centralize the passing of orders to input/output devices, a special supervisory program is necessary. This program remains in storage while the programs which process the data are loaded, executed, and then replaced by other programs.

Arranging the placement of various programs and controlling the initiation and termination of them are also complex functions best performed by another program. Because a program of this nature is necessary only to initiate or to terminate other programs, it does not remain resident in main storage but is called in by the Supervisor between jobs.

■ Language Processors

The creation of programs to process data is another highly complex task which is made simpler for the programmer by allowing him to write programs in pseudo-English, then enter the pseudo-English program as data into a language processor program which creates a data processing program in a form which the machine can use. There are several language processor programs, enabling the programmer to write in more than one pseudo-English language and have the computer perform the complex task of creating the programs he designs to process data.

■ Utility and Service Routines

Certain data processing is executed by most computer users to perform general tasks, where the tasks are only slightly different for processing different data. An example of such a task is sorting information. Programs are available within the UNIVAC 9400 System to process such general tasks. Creating, modifying, and making these programs and user programs available to the computer is another highly complex task which is also performed by programs which may be considered service programs.

■ Data Management

Finally, the instructions that are necessary to access a record from an input device or send a record to an output device in the most economical manner, within any program, are also rather complex. For this reason, a series of routines is provided to reduce the efforts of the programmer. These routines are included, or called upon by the programmer, during the generation of his own programs and are never run by the operator as individual programs. However, since the operator is concerned with the messages these routines produce and with the maintenance of these routines, this special category of the operating system is mentioned here.

This entire group of programs, supplied by Univac, is considered the Operating System. These programs and those created by the user are made accessible to the computer by placing and maintaining them on either a tape or a disc. The unit on which this operating system tape or disc is mounted is known as the System Resident (SYSRES) device.

The programs in the operating system are more formally described in the ensuing paragraphs.

1.5.1. EXECUTIVE SYSTEM

At system initialization time, the Supervisor must be loaded into main storage; it remains there until the machine either is turned off or has to be reinitialized after a software or hardware malfunction. The Supervisor is the part of the UNIVAC 9400 Operating System that is responsible for the administration of control commands to the computer system. It coordinates all input/output activity of the programs the operator is running in the system, and coordinates all of the other services provided by the components of the operating system. It schedules processing time for the jobs in a multiprogramming environment, and then supervises the execution of those jobs.

Multiprogramming is the technique by which more than one program resides in main storage and one to four additional programs can be activated, or execution can be resumed, before the execution of the currently running program is completed. The multiprogramming technique used in the UNIVAC 9400 System involves the distribution of processing time to programs, based on program priorities, time allocation, and input/output utilization.

Job Control is the component of the operating system that is responsible for the initiation, processing, and termination of jobs in the system as directed by the user by means of the Job Control language. A job, from the user's point of view, is a unit of work to be accomplished by the execution of one or more programs. Each program executed within a job is known as a job step. The Job Control language consists of a set (or sequence) of control statements that are used to define the particular aspects of a job and direct its execution. A sequence of control statements describing a job is known as a control stream.

As control streams are submitted by the user to the UNIVAC 9400 Disc Operating System they are read in from the system input device and are stored in a job file on the resident direct access storage device for subsequent retrieval and execution. In the UNIVAC 9400 Tape Operating System, control streams are read in either from the card reader or from a file of control streams on magnetic tape, and are executed one statement at a time.

The Communications Control program for the UNIVAC 9400 System provides the user with the capability of executing his own message control and message processing programs by using simplified GET/PUT macro instructions, while the Message Control Program controls all the input/output data transfers over communication lines.

1.5.2. LANGUAGE PROCESSORS

Language processors are provided to allow the UNIVAC 9400 System users a great deal of flexibility in preparing programs. Programs may be written in assembly language, COBOL, FORTRAN, or through the facilities provided by the Report Program Generator.

1.5.2.1. ASSEMBLER

The symbolic language of the Assembler provides a simple and convenient method of writing programs through the use of mnemonic instruction codes, assembler directives, data generation instructions, assembly time modification instructions, and the powerful macro generation calls.

Output from an Assembler run comprises a complete listing of symbolic code, generated object code, diagnostic messages, and error indicators. An object module (which may be a complete program or a portion of a program) which is produced is suitable for linking to other modules (such as preassembled Data Management modules supplied by Univac) prior to loading for subsequent execution. The output object module may be written on tape or recorded on the disc file.

1.5.2.2. COBOL AND FORTRAN

The user may elect to write programs in either COBOL or FORTRAN. COBOL is a programming language oriented toward the solving of data processing problems in business applications. The language is specified by using a notation similar to the English language, rather than a notation which considers the technical aspects of a particular computing system. FORTRAN is a problem-oriented programming language designed primarily for performing the mathematical computations required for the solutions of engineering and scientific problems but is also useful for many nonscientific data processing applications. FORTRAN is problem oriented in the sense that the language is designed so that the user can express his solution in a way which is natural to his problem.

A program written in FORTRAN or COBOL is input to another program, the compiler. This compiler translates the FORTRAN or COBOL program into a code which is more nearly in a form ready to be executed by the computer. (The code must be processed by one more program, the Linkage Editor, before it is ready for execution.)

1.5.2.3. REPORT PROGRAM GENERATOR (RPG)

The Report Program Generator provides for the automatic preparation of accurate report programs. The user describes the input records, the calculations to be performed, and the output records. The Report Program Generator produces an object program (which must be linked prior to loading and executing) that prepares the desired report.

1.5.3. UTILITY AND SERVICE ROUTINES

Utility and service routines are provided to lessen the burden of accomplishing common functions in operating the UNIVAC 9400 System. Some of these functions include sorting data according to a specified order, merging data to facilitate processing, maintaining files on magnetic tape and/or direct access storage, and linking output modules of language processors into a single executable program.

1.5.4. DATA MANAGEMENT

Data Management (sometimes called Logical IOCS) is that part of the software which provides a convenient and easy-to-use interface between problem programs and the hardware-oriented I/O portions of the Supervisor (called Physical IOCS). The use of Data Management allows the user to describe in programming terminology an input or output file of data records and then access the records with simple GET/PUT macro instructions.

Data Management coding may be generated within the Supervisor, where it handles the interface between PIOCS and more than one program; or it may be generated within each program. When it is generated within the Supervisor, it is called common code. Common code, therefore, saves space when operating in a multiprogramming environment, because coding is not duplicated in the various problem programs.

1.6. STATEMENT AND COMMAND CONVENTIONS

The conventions used to illustrate statements and commands in this manual are as follows:

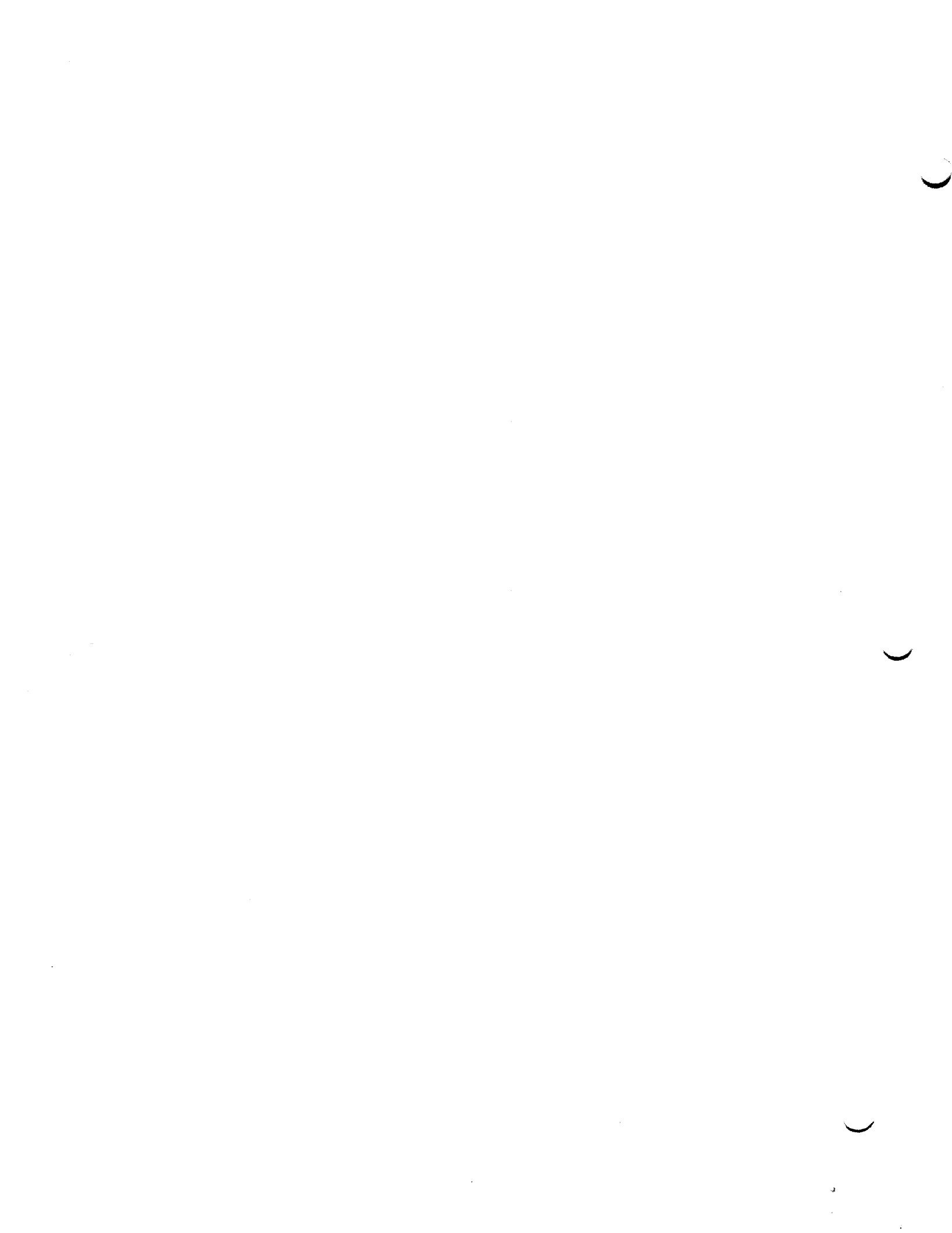
- Capital letters and punctuation marks (except braces, brackets, and ellipses) are information that must be coded exactly as shown.
- Lowercase letters and terms represent information that must be supplied by the programmer.
- Information contained within braces represents necessary entries of which one must be chosen.
- Information contained within brackets represents optional entries that are included or omitted, depending on program requirements.

Braces within brackets signify that one of the entries must be chosen if that operand is included.

- An ellipsis (a series of three periods) indicates that the number of entries is indeterminate.
- Commas are required when positional parameters are omitted, except for trailing parameters.

2. JOB MANAGEMENT

(This section to be supplied in a subsequent release.)



3. CONSOLE OPERATION

3.1. GENERAL

Facilities are provided in the UNIVAC 9400 System to permit two-way communications between the operator and both the operating system and problem programs. These communications facilities include the following:

- Operator messages to the operating system
- Operating system messages to the operator
- Operator messages to problem programs
- Problem program messages to the operator
- Operator commands to the operating system

All messages between the operator and the operating system or problem programs are printed at the system console and are automatically time stamped by the operator communications function of the Supervisor (that is, prefixed by the time). For a detailed discussion of operator communications, refer to *UNIVAC 9400 System Supervisor Programmer Reference, UP-7689* (current version).

3.2. COMMUNICATION WITH THE OPERATING SYSTEM AND PROBLEM PROGRAMS

All messages have the following general format:

type time job-number message

- TYPE

The message type is indicated by a two-character group:

First character position:

- * — indicates a message to the operator, to which he must reply before processing of the job can continue.
- @ — indicates that the operator is submitting a message to the system. This character is automatically typed whenever the operator presses ATTENTION at the console.
- if blank — indicates a message to the operator.

Second character position:

- A — indicates that the operator perform an action as indicated by the message (for example, dismounting all tapes at the end of a job).
- I — indicates that the message is informational only.
- D — indicates that the operator must make a decision and reply accordingly.
- R — indicates that the operator must reply with a READY command as specified by the message.

■ TIME

The time is inserted by the Supervisor as the next portion of any message, whether the message is to the operator or the result of the operator pressing ATTENTION. The time is expressed in hours and minutes as follows:

hh:mm

After the time has been printed, the Supervisor leaves one space.

■ JOB NUMBER

It is necessary to identify each job so that the operator knows which job is supplying information or requesting a reply. It is also necessary for the operator to identify the job for which he is supplying information, whether the message is unsolicited or is a reply to a message from the problem program.

Each job, therefore, is assigned a job number which is inserted following the time stamp. Problem programs are assigned a sequential job number (10 through 99) by the operating system as they are prepared for execution, and the operator is informed of the job number assignment during job initialization. Certain job numbers (00 through 09) are reserved for operating system functions:

- 00 is the error job number.
- 01 is the Job Control job number.
- 02 is the Supervisor functional routine job number.
- 04 is the 1004 handler number.
- 05 is the Cooperative job number.
- 06 is the 9200/9300 handler number or the second 1004 handler number.
- 09 is the Supervisor initialization job number.

The format of the job number is as follows:

nnn

where:

- nn — is the assigned job number from 00 through 99.

y — may have one of the following values:

blank if the message is from a job to the operator.

R if the operator is replying to a problem program message; must be followed by one blank.

Ⓢ if the operator is supplying an unsolicited message to a problem program. (Following a typein of Ⓢ, the Supervisor prints a comma and then leaves one space to indicate that it is ready to receive the unsolicited message. If it is not ready it prints NAK.)

NOTE: When an operator types in (on the console) a command, a response (nnR), or an unsolicited message (nnⓈ), the typein may be rejected by the system. This rejection can occur when any typein is entered and is noted by the timeout of NAK immediately after the end of transmission is typed in. A NAK can occur:

- after a response (nnR), where nn is a nonexistent job number;
- after a response (nnR) when the job (nn) does not expect console input;
- after an unsolicited message (nnⓈ) where operator communication island code does not exist for the job (nn) or if island code cannot be entered because a previous, unsolicited message is being processed;
- when the system is busy with a previous console command; and
- when the system is busy with a simulated console command.

(Only one console command function can be active at a time. Automatic volume recognition (AVR) and automatic filing (FLE) are functions that are implemented by simulating console commands. Therefore, if an attention interrupt is received by the system from a tape unit, disc drive, or card reader prior to a console command typein, the possibility exists that the command may be rejected with a NAK. The operator must retype the command.)

■ MESSAGE

The form of the message content depends on the problem program which prints a message or expects a reply. All such message forms should be documented for handy reference by the operator. Conventions may be established for the format of message content, and operators should become familiar with the formats for user programs. Univac software uses such conventions. A four-character message identifier is printed after the job number. The identifier consists of two alphabetic characters and two alphanumeric characters. This convention makes it easier for the operator to identify the message, its content, its meaning, and the reply expected. All messages for Univac software are listed in Appendix A of this manual in alphanumeric order. Users are encouraged to adopt a similar convention to reference messages in user programs.

3.3. OPERATOR COMMANDS TO THE OPERATING SYSTEM

Commands from the operator to the operating system are messages directing the Supervisor in its operations.

These commands have the following format:

@hh:mm command Ⓢ

- @ — This character is automatically typed whenever the operator presses ATTENTION at the console.
- hh:mm — The time is inserted by the Supervisor as a result of the operator pressing ATTENTION. Following the time stamp, the Supervisor leaves one space.
- command — The command is a string of from two to eight characters beginning with an alphabetic character. Certain command and command parameters can be defined by typing in only the first two characters; for example, SE for SET, or DE for DELETE.

If parameters are required by the command, at least one blank character must separate the command from its parameters, and parameters must be separated by commas. Parameters which identify subfunctions can also be specified by the first two characters; for example, SE CL for SET CLOCK.

In the paragraphs which follow, underscoring indicates the characters that may be typed in to abbreviate a command or command parameter; for example, if SE CL may be typed in as the abbreviation of SET CLOCK, SE and CL are underscored to indicate this fact.

3.3.1. ALTER COMMAND

The ALTER command is used to introduce object code alterations by means of the system console at program run time.

The format of the ALTER command is:

$$\underline{\text{ALTER}} \text{ [jobnumber,] } \left[\left(\begin{array}{l} \underline{\text{PM}} \\ \underline{\text{RST}} \\ \text{A*address} \\ \text{P*address} \\ \text{R*address} \\ \text{address} \\ \underline{\text{ORG}} \end{array} \right) \right] \left[\left(\begin{array}{l} \text{program-mask} \\ \text{rst-address} \\ \text{change} \\ \text{org-address} \end{array} \right) \right] \left[\left(\begin{array}{l} \underline{\text{RESET}} \\ \underline{\text{CARDS}} \\ \underline{\text{LAST}} \end{array} \right) \right]$$

Positional Parameter 1

- jobnumber** – a two-character job number assigned to the job by Job Control and printed at the system console following the RUN command.
- if blank** – A*address or ORG must be specified as positional parameter 2.

Positional Parameter 2

- PM** – indicates that bits 2 through 5 of the byte specified by positional parameter 3 are to replace the condition code and program mask portion of the job's program status word, bits 34 through 37. (These bits are located in the job control block at JB\$PSW+4.) Bits 0, 1, 6, and 7 are ignored.
- RST** – indicates that the main storage address specified by positional parameter 3 is to replace the program restart address in the job's program status word, bits 47 through 63. (These bits are located in the job control block at JB\$PSW+5 through JB\$PSW+7.)
- A*address** – the characters A* are used to indicate an absolute address.
- P*address** – the characters P* are used to indicate an address that is relative to the first byte of the problem program's job preamble.
- R*address** – the characters R* may be used to indicate that the address is relative to the code image area of the problem program. Relative patches must be computed by means of the Linker map and/or Assembler listings.
- address** – the hexadecimal main storage address of the first byte of an area into which the byte or bytes specified by positional parameter 3 (change) are to be stored. This field may be one through five hexadecimal digits.
- When this address is *not* prefixed with the characters A* or P*, it is assumed to be relative to the code image area of the problem program (that is, this address agrees with the code-edit listing for programs assembled relative to zero).
- ORG** – indicates that the address specified by positional parameter 3 is to be added to the addresses appearing in the following ALTER commands. This address is used as the base address in the calculation of effective addresses in the following ALTER commands. This base address remains effective until another ORG specification is encountered or until LAST is specified as positional parameter 4.

NOTES: (1) The ALTER routine calculates effective main storage addresses as follows:

- (a) if *address* or *R*address*: $E = I + A + O$
- (b) if *A*address*: $E = A + O$
- (c) if *P*address*: $E = P + A + O$

where:

- E is the effective address.
- I is the code image base address.
- P is the preamble address.
- A is the address from positional parameter 2.
- O is the ORG address previously specified.

- (2) Main storage addresses specified in the forms *R*address*, *P*address*, and *address* are verified to be within the main storage area assigned to the job. In the event an address is not within the permitted address range, the ALTER command is rejected.
- (3) Main storage addresses in the form *A*address* do not require a job number in positional parameter 1.
 - (a) If a job number is supplied, the *A*address* is verified to be within the main storage area assigned to the job.
 - (b) If a job number is not supplied the *A*address* is verified to be within the limits of the central processor as defined in the system information block.

Positional Parameter 3

program-mask — two hexadecimal digits representing a single byte to replace the condition code and program mask portion of the job's program status word, bits 34 through 37. The format of the program mask is:

BIT POSITIONS	0	1	2	3	4	5	6	7
CONTENTS	0	0	NEW CONDITION CODE		NEW PROGRAM CODE		0	0

rst-address — the hexadecimal address relative to the first byte of the code image area of the job at which the job is to resume control. This value plus the code base address is stored in the restart PSW in the Job Control block of the problem job.

The effective address $rst\text{-}address + I$ is verified to be within the problem program's code image.

change — specifies the byte or bytes to be stored in main storage beginning at the address specified by positional parameter 2 and extending for as many byte positions as indicated by this parameter.

This parameter can take the following forms:

- (a) X'ccccccc...' or cccccccc... — either of these forms can be used to specify the change characters in hexadecimal. The number of characters in the character string must be even, thus indicating a change to one or more complete bytes. The maximum number of hexadecimal characters allowed is 16; that is, eight bytes.
- (b) C'ccccccc...' — used to specify EBCDIC characters. The number of characters in the string indicates the number of bytes to be changed in main storage.

Change characters are not stored if both the lowest and the highest effective addresses of the change are not valid. (See notes (2) and (3) under positional parameter 2.)

org-address — a base address that is to be added to subsequent main storage addresses in the computation of effective addresses. This may be one through five hexadecimal digits.

Positional Parameter 4

- LAST — used to indicate the last of a series of alterations beginning initially with an ALTER command or ALTER Job Control statement. The parameter causes the termination of the alter function.
- RESET — causes the resetting of the job's alter mode indicator after this command is processed. Reset implies the LAST option.
- CARDS — causes the ALTER statements to be read from the card reader. This option cannot be used unless the system device specified as RDR is set to a card reader device. The option cannot be used while jobs are running in a TOS buffered control stream system or in a DOS-only system.
- if blank — the alter routine processes the current change and solicits another by means of a console message.

Examples:

```
@ 16:45 AL 24,1000,X'01FF341000' Ⓢ  
* 16:45 02 ST19 ENTR Ⓢ  
@ 16:46 AL 79,PM,18 Ⓢ  
* 16:46 02 ST19 ENTR Ⓢ  
@ 16:46 02R 10E0,C'ABC',LA Ⓢ
```

3.3.2. CANCEL COMMAND

The CANCEL command is used to cause the immediate cessation of all processing for a job running in the system. The CANCEL command can be given at any time and results in immediate termination of the current job step and any remaining job steps scheduled for the job.

The CANCEL command has the format:

CANCEL jobnumber,jobname [,NODUMP]

Positional Parameter 1

jobnumber — the jobnumber assigned to the job by Job Control and printed at the console following the RUN command.

Positional Parameter 2

jobname — the one- to eight-character job identification appearing in the JOB statement. The number and name of the job are both required to avoid erroneous job cancellations due to type-in errors by the operator. The jobname is retrieved and compared against the name appearing in the CANCEL command. If the name and number are not as specified by the Job Control program, the CANCEL command is rejected. The operator must then resubmit the command with the correct number and name.

Positional Parameter 3

NODUMP — causes the immediate termination of the job step and any remaining job steps without the initiation of a main storage dump.

if blank — causes the immediate termination of the job step and any remaining job steps with a main storage dump directed to the system LST device.

An example of the CANCEL command is:

```
@ 11:43 CANCEL 33,PAYROLL,NODUMP ©  
I 11:43 01 JT07 ABEND NODUMP JP$SF 5000 JP$EW 00000000  
I 11:43 01 JT01 33 PAYROLL RUN TIME 9: :001
```

3.3.3. DELETE COMMAND (DISC SYSTEMS ONLY)

The DELETE command is used to call the delete function of Job Control for the purpose of deleting control streams from the job file on the system resident direct access device.

The DELETE command has the format:

```
DELETE { jobname }  
          { ALL }
```

Positional Parameter 1

jobname — the one- to eight-character job identification appearing in the JOB statement of the filed control stream to be deleted from the job file.

ALL — used to delete all entries in the index of the job file. When ALL is used, the entire storage area assigned to the job file is reclaimed for subsequent filing operations.

Examples of the DELETE command are:

```
@ 15:29 DELETE TESTRUN0 Ⓢ
@ 16:16 DE ALL Ⓢ
```

3.3.4. DISPLAY COMMAND

The DISPLAY command can be used to cause the printing of selected areas of main storage at the system console.

The format of the DISPLAY command is:

$$\text{DISPLAY [jobnumber,] } \left\{ \begin{array}{l} \text{PM} \\ \text{RST} \\ \text{A*address} \\ \text{P*address} \\ \text{R*address} \\ \text{address} \end{array} \right\} [, \text{ number-bytes}]$$

Positional Parameter 1

- jobnumber – a two-character job number assigned to the job by Job Control and printed at the system console following the RUN command. (This parameter is not required if positional parameter 2 is in the form A*address.)
- if blank – A*address must be specified as positional parameter 2.

Positional Parameter 2

- PM – indicates that the job's program mask and condition code (at the last interrupt) should be displayed. The information is obtained from the job control block located at JB\$PSW+4.

The format of the printout is:

ST10 xx

where xx is the hexadecimal representation of a single byte.

The format of this byte is:

BIT POSITIONS	0	1	2	3	4	5	6	7
CONTENTS	0	0	CONDITION CODE	PROGRAM MASK	0	0		

- RST** — indicates that the program relative address of the job's restart point at the last interrupt is to be displayed. This is obtained in the job control block at JB\$PSW+5 through JB\$PSW+7 and converted to a relative address.
- A*address** — the characters A* are used to indicate an absolute address.
- P*address** — the characters P* are used to indicate an address that is relative to the first byte of the problem program's job preamble.
- R*address** — the characters R* are used to indicate that the address is relative to the code image area of the problem program. Relative patches must be computed by means of the Linker map and/or Assembler listings.
- address** — the hexadecimal main storage address of the first byte of an area which is to be displayed. This field may be one through five hexadecimal digits.

When this address is *not* prefixed with the characters A* or P*, it is assumed to be relative to the code image area of the problem program (that is, this address agrees with the code-edit listing for programs assembled relative to zero).

Positional Parameter 3

- number-bytes** — specifies the number of main storage locations to be printed at the system console.

For hexadecimal printout, the forms are XLn or n; where n is a decimal integer 1 through 8.

For EBCDIC printout, the form is CLn; where n is a decimal integer 1 through 58.

- if blank** — 1 is assumed.

The following example assumes the contents of main storage beginning at the job relative address X'F00' to be X'F1F2F3F4F5F6F7F8...':

```
@ 13:50 D1 42,F00,CL8 Ⓢ  
113:51 02 ST10 12345678 Ⓢ  
@ 13:51 01 42,F00,4 Ⓢ  
113:51 02 ST10 F1F2F3F4 Ⓢ
```

3.3.5. DUMP COMMAND

The DUMP command is used to get a printout of main storage and terminate a job step if specified. Remaining job steps for the job are not cancelled, and control is given to Job Control following the printout.

The DUMP command has the format:

```
DUMP { SYSTEM  
          { jobnumber,jobname } }
```

Positional Parameter 1

jobnumber — the jobnumber assigned to the job by Job Control.

SYSTEM — causes the printout of all of main storage. No jobs are terminated.

Positional Parameter 2

jobname — the one- to eight-character job identification appearing in the JOB statement. The number and name of the job are both required to avoid erroneous job step cancellations due to typein errors by the operator. The jobname is retrieved and compared against the name appearing in the DUMP command. If the name and number are not as specified by Job Control, the DUMP command is rejected. The operator must then resubmit the command with the correct number and name.

Examples of the DUMP command follow:

```
@ 06:39 DUMP 12,JOB01 Ⓢ
```

```
@ 09:32 DUMP SYSTEM Ⓢ
```

3.3.6. FILE COMMAND

The FILE command is used to store control streams on the resident direct access storage device and for tape buffering operations.

The Supervisor initiates the file function of Job Control. Therefore, in order for the file function to run, there must be adequate main storage space to contain the control routine. If there is not enough space, a message is printed at the system console indicating the reason the file function cannot be run. If the control routine is running in response to another operator command, or as the result of a macro instruction executed in a problem program, the function in process is allowed to terminate normally; then, the file function is started.

Each FILE command entered into the system creates a 'FILE' job which performs the FILE function. Each FILE job takes one user job partition.

The FILE command has the format:

$$\underline{\text{FILE}} [n] \left[, \text{volume-serial-number} \left[, \left\{ \begin{array}{c} \text{EOF} \\ m \end{array} \right\} \right] \right]$$
Positional Parameter 1

n — indicates the number of control streams to be filed. Each control stream is identified by a JOB statement and is terminated by an end-of-job (/&) statement.

if blank — the filing process continues until all submitted control streams are filed. The filing process is terminated when five blank cards are detected following an end-of-job (/&) statement.

Positional Parameter 2

volume-serial-number — is the volume serial number of the volume on which the control stream is to be filed. This parameter is required for tape buffering; it is not used in a disc-oriented system.

Positional Parameter 3

EOF — indicates that Job Control is to start writing at the end of the preceding job file for a particular volume.

m — indicates that Job Control is to start writing after the specified number of tape marks.

if blank — indicates that Job Control is to start writing after the VOL1 header label.

NOTE: This positional parameter is used, optionally, with tape buffering. It is not used in a disc-oriented system.

An example of the file command is:

```
@ 13:42 FILE 6 Ⓢ  
@ 14:30 FILE 3,AB123 Ⓢ
```

3.3.7. GO COMMAND

Jobs loaded by the RUN command without the GO parameter are not allowed to compete for central processor time after their resources have been allocated (devices as well as main storage), due to their nonready status. The GO command changes the job status from nonready to ready.

The GO command has the format:

GO jobnumber

Positional Parameter 1

jobnumber — the job number (10 through 99) assigned by Job Control and printed at the console following the RUN command. This number identifies the job to be made ready for execution.

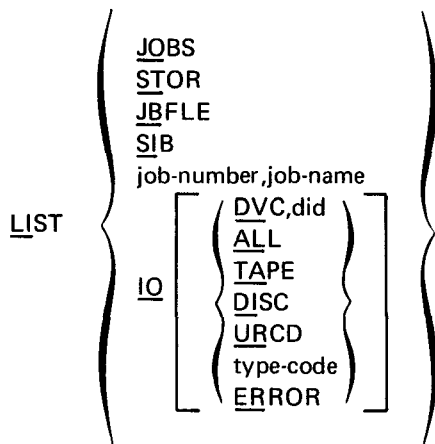
An example of the GO command is:

```
@ 10:20 GO 27 Ⓢ
```


3.3.8. LIST COMMAND

The LIST command displays the information necessary to monitor and control the execution of jobs in the system.

The LIST command has the format:



Positional Parameter 1

- JOBS** – specifies that the job-name, assigned job-number, priority, and main storage partition of all jobs resident in the system be displayed on the console. Job-number 01 and job-name U9400JCL are displayed for a job that is in the initiation (RUN) stage.
- STOR** – specifies that the location and size of all unassigned main storage partitions in the system be displayed on the console.
- JBFLE** – specifies that the job-names of all jobs in the disc job file be displayed on the console.
- SIB** – specifies that a summary of system and Supervisor characteristics be displayed on the console.
- job-number** – specifies the 2-character job-number assigned to the job by Job Control.
- IO** – specifies that an I/O summary consisting of the device identification, type, and status information be displayed on the console subject to the specification of positional parameter 3.

Positional Parameter 2

- job-name** – specifies the job-name used on the RUN command/statement to identify the job. The job-number and job-name are validated, and a summary of environmental and operational information for the job is displayed on the console.
- DVC** – specifies a summary display of the device identified by positional parameter 3.
- ALL (or blank)** – specifies a summary display of all devices identified in the resident Supervisor (except the console).

- TAPE – specifies a summary display of all tape devices identified in the resident Supervisor.
- DISC – specifies a summary display of all disc devices identified in the resident Supervisor.
- URCD – specifies a summary display of all card readers, card punches, and printers identified in the resident Supervisor.
- type-code – specifies a summary display of the device types specified at system generation time.
- ERROR – specifies a display of the device identification for those devices with error messages outstanding.

Positional Parameter 3

- did – specifies the three-character EBCDIC device identification.

Examples:

```
@ 17:57 LIST SIB Ⓢ  
@ 18:44 LI IO,DISC Ⓢ
```

3.3.9. LOG COMMAND

The LOG command is used to cause all Job Control statements to be included in the system log as they are processed and executed by Job Control.

The LOG command has the format:

LOG

No parameters are required by the LOG command.

An example of the LOG command is:

```
@ 08:17 LOG Ⓢ
```

3.3.10. MOUNT COMMAND

The MOUNT command is used to inform the Supervisor that a volume has been mounted on a tape or disc peripheral device. The volume mount function verifies that the device specified by the operator is operable and available for assignment. The volume label is then read and the serial numbers are compared to verify that the correct volume has been mounted. If the serial numbers agree, the six-character volume serial number is stored in the physical unit block to identify the mounted volume; if the volume is magnetic tape, it is rewound to its load point. If the volume serial numbers do not agree, a message is typed at the system console, and blanks are stored in the volume serial number field of the physical unit block; if the volume is a magnetic tape, it is rewound with interlock.

The format of the MOUNT command is:

MOUNT device-id[,volume-serial-number] [,S]

Positional Parameter 1

device-id — three characters identifying the physical unit block for the peripheral device on which the disc or tape volume is mounted.

Positional Parameter 2

volume-serial-number — one to six characters identifying the disc or tape volume mounted on the peripheral device. If this number has fewer than six characters, it is right-justified and zero-filled to the left.

if blank — used to indicate a dismounted volume. Blanks are stored in the physical unit block.

Positional Parameter 3

S — indicates that the volume mounted is sharable and that the appropriate indicator within the physical unit block is to be set to 1.

if blank — the disc or tape volume is assumed to be nonsharable and the appropriate indicator within the physical unit block is to be set to 0.

Example:

```
@ 03:47 MOUNT AC2,SP9763,S Ⓢ
```

3.3.11. MTC COMMAND

The MTC (Magnetic Tape Control) command is used to position tape volumes previously mounted on tape units. The following functions can be directed by the MTC command:

- Space the volume forward a specified number of tape marks.
- Space the volume forward a specified number of blocks.
- Space the volume backward a specified number of tape marks.
- Space the volume backward a specified number of blocks.
- Rewind volume to load point.
- Rewind volume and unload.
- Write tape mark.

The format of the MTC command is:

$$\text{MTC device-id, } \left\{ \begin{array}{l} \text{FM,nn} \\ \text{FB,nn} \\ \text{BM,nn} \\ \text{BB,nn} \\ \text{WM,nn} \\ \text{RL} \\ \text{RU} \end{array} \right\}$$

Positional Parameter 1

device-id — three characters identifying the physical unit block for the tape unit to be positioned.

Positional Parameter 2

FM — Space the volume forward a specified number of tape marks.

FB — Space the volume forward a specified number of blocks.

BM — Space the volume backward a specified number of tape marks.

BB — Space the volume backward a specified number of blocks.

WM — Write tape mark.

RL — Rewind the volume to load point.

RU — Rewind the volume and unload.

Positional Parameter 3

nn — specifies the number of blocks or tape marks that the volume is to be spaced, either backward or forward.

Example:

@ 05:58 MTC AC0,RL Ⓢ

3.3.12. NOLOG COMMAND

The NOLOG command is used to suppress the logging of all Job Control statements.

The NOLOG command has the format:

NOLOG

No parameters are required by the NOLOG command.

An example of the NOLOG command is:

```
@ 09:41 NOLOG Ⓢ
```

3.3.13. PAUSE COMMAND

The PAUSE command is used to cause a delay between two job steps of a specific job and can be used for operator intervention. This command can be given at any time after the program has been initiated by Job Control. The pause occurs at the conclusion of the current job step and remains in effect until a CANCEL, DUMP, READY, or STOP command is entered by the operator.

The PAUSE command has the format:

```
PAUSE jobnumber,user-comment
```

Positional Parameter 1

jobnumber — the jobnumber assigned to the job by Job Control and printed at the console following the RUN command.

Positional Parameter 2

user-comment — any character string to be printed at the system console.

NOTE: When the pause occurs, the PAUSING message is displayed on the console.

An example of the PAUSE command followed by the message printed when the delay occurs is:

```
@ 11:00 PAUSE 19,END PASS1 Ⓢ
```

```
111:01 01 JC07 19 PAUSING
```

3.3.14. READY COMMAND

The READY command is used to inform Job Control that requested operator actions have been completed and is also used as a reply to control stream OPR statements that request an operator reply.

The READY command has the format:

```
READY jobnumber
```

Positional Parameter 1

jobnumber — the job number (10 through 99) assigned to the job by Job Control and printed at the system console following the RUN command. This number indicates which job the operator's actions pertain to and can be correlated with the requests appearing in the system log.

An example of the READY command is:

```
@ 10:10 READY 20 Ⓢ
```

3.3.15. RUN COMMAND

The RUN command is used to call the control portion of Job Control for the purpose of preparing and loading a job for execution. In disc systems, only control streams filed in the job file can be selected. In tape systems, the control stream is introduced either through the card reader or through a tape drive.

The RUN command has the format:

```
RUN jobname[,priority][,GO][,partition-length][,preamble-address]
```

Positional Parameter 1

jobname — the one- to eight-character job identification appearing in the JOB statement of the control stream to be executed.

Positional Parameter 2

priority — the number 1, 2, or 3 indicating the user priority level at which the job will be run. This priority code overrides the one specified by the JOB statement.

if blank — the priority level specified by the JOB statement is used.

Positional Parameter 3

GO — the job is assigned to the switch list and marked ready immediately following the job preparation sequence.

if blank — the job is assigned to the switch list and marked nonready. A GO command is necessary to change the status to ready when the GO parameter is not included in the RUN command.

Positional Parameter 4

partition-length — the length in hexadecimal of the entire storage partition including the extent area (if present) and preamble.

if blank — Job Control assigns storage depending on the contents of the control stream.

Positional Parameter 5

preamble-address — the absolute address in hexadecimal at which the storage partition (preamble) is to begin.

if blank — the preamble address resides in any free space available.

NOTE: If positional parameters 4 and 5 are specified, and are other than a 512 or 1024 decimal boundary alignment, they are rounded upward to the next storage protection boundary (multiple of 512 or 1024).

An example of the RUN command is:

```
@ 09:01 RUN TEST02,,GO,3C00,7E00 Ⓢ
```

3.3.16. SET COMMAND

The SET command is used for any of the following: to set the date (month, day, and year) in the system information block; to set the time of day in the simulated day clock; to set the system program switch indicator in the system information block; to store a character string in the system communication region of the system information block; or to set specific information and status bits in the physical unit blocks. The particular function performed by the SET command is determined by positional parameter 1, which follows the word SET. Because of the variations and complexity of the SET command, each of the functions is illustrated separately.

■ DATE

The SET command has the following format when used to set the date field in the system information block:

```
SET DATE,xx/xx/xx[,yyddd] [,yyddd]
```

Positional Parameter 1

DATE – indicates that the following positional parameter(s) will be stored in the appropriate date fields within the system information block.

Positional Parameter 2

xx/xx/xx – specifies the month (01–12), the day (01–31), and the year (00–99) in any order.

Positional Parameter 3

yyddd – this date is stored in the form byyddd (in EBCDIC) and is used by Data Management when checking tape file labels.

if blank – the appropriate field in the system information block remains unchanged.

Positional Parameter 4

yyddd – is stored in the form bydd (discontinuous binary) and is used by Data Management to check disc file labels.

if blank – when positional parameter 4 is not specified and positional parameter 3 is specified, positional parameter 3 is converted to the form bydd . If, however, positional parameter 4 is specified, the date specified by that parameter is converted to the form bydd and stored in the appropriate field of the system information block.

An example of the SET DATE command is:

```
@ 09:40 SE DA,09/30/71,71273,71273 Ⓢ
```

■ CLOCK

The SET command has the following format when used to set the time of day in the simulated day clock:

SET CLOCK,hh:mm

Positional Parameter 1

CLOCK – indicates that the simulated day clock will be set to the time specified by positional parameter 2.

Positional Parameter 2

hh:mm – hh specifies the hour (00 – 23) and mm specifies the minute (00 – 59).

An example of the SET CLOCK command is:

```
@ 09:50 SE CL,09:59Ⓢ
```

■ COMREG (Communication Region)

The SET command has the following format when used to store information in the system communication region:

SET COMREG,character-string

Positional Parameter 1

COMREG – indicates that the character-string specified by positional parameter 2 will be stored in the system communication region in the system information block.

Positional Parameter 2

character-string – 1 to 24 hexadecimal characters (specified by X'xx...') or 1 to 12 EBCDIC characters (specified by C'cc...') to be stored in the 12-byte system communication region.

An example of the SET COMREG command is:

```
@ 11:40 SE CO,X'01001A4BFFFF01298800FFFF'Ⓢ
```

■ SPSI (System Program Switch Indicator)

The SET command has the following format when used to set the system program switch indicator:

SET SPSI,switch-setting

Positional Parameter 1

SPSI — indicates that the system program switch indicator will be set to the bit pattern specified by positional parameter 2.

Positional Parameter 2

switch-setting — one to eight characters, either 0, 1, or X. Each typed-in 1 or 0 character is used to change an individual bit position of the system program switch indicator within the system information block. (The SPSI is the last byte in the 12-byte system communication region.) Character positions containing 0 cause the respective bit positions to be set to 0; character positions containing 1 cause the respective bit positions to be set to 1; character positions containing X are unchanged. Any unspecified rightmost character positions are assumed to be X.

Example:

CONDITION	SPSI BIT POSITIONS							
	0	1	2	3	4	5	6	7
ASSUMED SETTING	0	1	1	1	0	0	0	1
FIRST TYPEIN — SET SPSI,1								
FIRST RESULT	1	1	1	1	0	0	0	1
SECOND TYPEIN — SET SPSI,X0001								
SECOND RESULT	1	0	0	0	1	0	0	1
THIRD TYPEIN — SET SPSI,XXXXXXXX0								
THIRD RESULT	1	0	0	0	1	0	0	0
FOURTH TYPEIN — SET SPSI,00000000								
FOURTH RESULT	0	0	0	0	0	0	0	0

An example of the SET SPSI command is:

```
@ 11:59 SET SPSI,0111XXX @
```

■ IO

The SET command has the following format when used to set bits within the physical unit blocks:

```

SET IO,device-id,
{
  DOWN
  UP
  SHARE
  NOSHARE
  CHANNEL,cochnl/chnl
  TYPE,type-code
  DEVICE,device-address
  VOLUME,volume-serial-number
  RES
  RDR
  IPT
  LOG[,PCH] [LST]
  PCH[,LST] [LOG]
  LST[,LOG] [PCH]
  MODE,mode-setting
  COOP
}

```

Positional Parameter 1

IO — indicates that a change is to be made in the physical unit block for the device specified by positional parameter 2.

Positional Parameter 2

device-id — three EBCDIC characters identifying the device to be changed in the physical unit block (these characters are available following system generation).

Positional Parameter 3

DOWN — sets the device status to down.

UP — sets the device status to up.

SHARE — permits the device to be allocated to more than one program simultaneously.

NOSHARE — forbids allocation of the device to more than one program simultaneously.

CHANNEL — stores positional parameter 4 in the cochannel/channel field of the physical unit block.

TYPE — stores positional parameter 4 in the device field of the physical unit block.

DEVICE — stores positional parameter 4 in the device-address field of the physical unit block.

VOLUME — stores positional parameter 4 in the volume-serial-number field of the physical unit block.

RES — used to identify the peripheral device specified by positional parameter 2 as the system resident device. This device can be either a magnetic tape unit or a disc drive.

RDR — used to identify the peripheral device specified by positional parameter 2 as the system reader. This device can be a card reader, magnetic tape unit, or disc drive.

- IPT — used to identify the peripheral device specified by positional parameter 2 as the system primary input device for reading control streams. This device can be a card reader or magnetic tape unit.
- LOG — used to identify the peripheral device specified by positional parameter 2 as the system logging device. This device is usually the system console.
- PCH — used to identify the peripheral device specified by positional parameter 2 as the system card punch, magnetic tape unit, or disc drive.
- LST — used to identify the peripheral device specified by positional parameter 2 as the system listing device. This device can be a line printer, magnetic tape unit, or disc drive.
- MODE — stores positional parameter 4 in the mode-setting field of the physical unit block.
- COOP — specifies that the device identified by positional parameter 2 is to be used as the LOG, LST, and PCH cooperative output device. (For additional information, see *UNIVAC 9400 Supervisor Programmer Reference, UP-7689* (current version).)

Positional Parameter 4

- cochnl/chnl — two characters specifying the legal channel routes to the device. The first character specifies the secondary channel and the second specifies the primary channel. If the two characters are equal, no cochanneling is possible.
- type-code — two characters specifying the device and its options.
- device-address — two characters specifying the device address. Duplicate device addresses must not be present in the system.
- volume-serial-number — from one to six characters representing the volume serial number to be stored in the physical unit block. This number is considered to be right-justified and, if less than six characters, is zero-filled to the left.
- mode-setting — two characters specifying the desired mode setting.
- PCH }
LST } — same as positional parameter 3 except that the peripheral device specified by positional
LOG } parameter 2 must be a tape or disc device.

Positional Parameter 5

- LST }
LOG } — same as positional parameter 3 except that the peripheral device specified by positional
PCH } parameter 2 must be a tape or disc device.

Examples of the SET IO command are:

```
@ 09:40 SET IO,EB0,DOⓈ
@ 09:42 SET IO,BD2,UPⓈ
@ 09:44 SET IO,BD2,SHⓈ
@ 09:46 SET IO,J83,NOⓈ
@ 09:48 SET IO,G90,CH,21Ⓢ
@ 09:50 SET IO,G91,TY,52Ⓢ
@ 09:54 SET IO,G92,DE,93Ⓢ
@ 09:58 SET IO,G93,DE,92Ⓢ
@ 09:59 SET IO,AC0,RESⓈ
@ 10:01 SET IO,090,RDRⓈ
@ 10:02 SET IO,090,IPTⓈ
@ 10:05 SET IO,G94,IPTⓈ
@ 10:10 SET IO,080,LOGⓈ
@ 10:11 SET IO,G95,LOⓈ
@ 10:13 SET IO,FA0,PCHⓈ
@ 10:15 SET IO,G95,PCⓈ
@ 10:18 SET IO,G95,LSⓈ
@ 10:20 SET IO,EB0,LSTⓈ
@ 10:23 SET IO,G92,MO,B0Ⓢ
```

3.3.17. STOP COMMAND

The STOP command is used to suspend a job between job steps; it *must* follow a PAUSE command for the same job. The job is terminated normally by Job Control. No remaining job steps are executed. (The DELETE statement is not effective in suspended jobs.)

The STOP command has the format:

STOP jobnumber,jobname

Positional Parameter 1

jobnumber — the jobnumber assigned to the job by Job Control and printed at the system console following the RUN command.

Positional Parameter 2

jobname — the one- to eight-character job identification appearing in the JOB statement. The number and name of the job are both required to avoid erroneous job suspensions due to typen errors by the operator. The jobname is retrieved and compared against the name appearing in the STOP command. If the name and number are not as specified by Job Control, the STOP command is rejected. The operator must then resubmit the command with the correct number and name.

NOTE: When the STOP command is effective, the JC09 message is displayed.

An example of the STOP command followed by the message printed when the termination occurs is:

```
@ 12:13 STOP 12,MEANVALUⓈ
I 12:30 01 JC09 12 MEANVALU SUSPENDED
I 12:30 01 JT01 12 MEANVALU 00:01:30:105
```

4. CENTRAL PROCESSOR CONTROLS AND INDICATORS

4.1. GENERAL

This section describes the controls and indicators used on the console, the Operator's Panel, and the Maintenance Panel of the UNIVAC 9400 Central Processor. The controls and indicators discussed are rocker switches, neon indicators, neon switch/indicators, toggle switches, momentary-contact switches, momentary-contact switch/indicators, and rotary selector switches.

There are two types of rocker switches: Two position and momentary contact. In the case of the two position rocker switch, when the upper portion is pressed, the switch is in the on position; when the lower portion is pressed, it is in the off position. In the case of the momentary-contact rocker switch, the switch is mounted in such a way that action occurs only while the upper portion of the switch is pressed.

The neon indicator is a single-purpose unit. When the indicator is lit, it is referred to as being on; when the indicator is not lit, it is referred to as being off. The neon switch/indicator is a dual-purpose unit. Pressing the switch once places it in the on position and causes the indicator to light; pressing the switch a second time places it in the off position and extinguishes the indicator. It is also turned off by pressing the associated CLEAR switch or by programmed reset from within the processor.

There are two types of toggle switches: two position and the momentary contact. In the case of the two position toggle switch, when the switch is placed in the up position it is on; when the switch is placed in the down position, it is off. In the case of the momentary-contact toggle switch, action occurs when the switch is operated to the up position.

The momentary-contact switch is a single-purpose unit. Pressing the switch causes action to occur; releasing the switch causes action to stop. The momentary-contact switch/indicator (ATTENTION) solicits a read command and lights the indicator; the indicator is extinguished when the processor acknowledges receipt.

The rotary selector switch is an eight-position switch used in conjunction with a row of 18 neon switch/indicators and a clear switch to manually set or indicate the state of the associated signal.

4.2. CONSOLE CONTROLS AND INDICATORS

Two main sections of control are available to the UNIVAC 9400 operator, one of which is the console. In the case of UNIVAC 9400 Systems with serial numbers from 205 up, the console includes a keyboard for entering information and seven controls and indicators as illustrated in Figure 4-1. In the case of UNIVAC 9400 Systems with serial numbers from 100 to 204, the console includes a keyboard for entering information and four controls and indicators as illustrated in Figure 4-2. The console controls and indicators are described in Table 4-1.

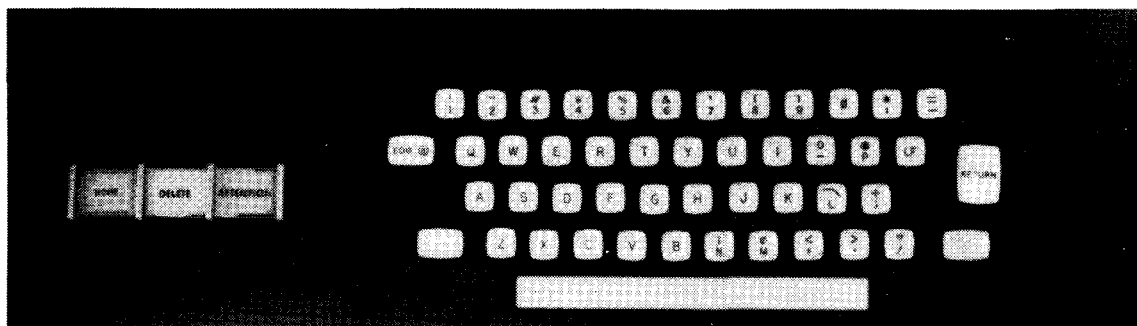


Figure 4-1. System Console (Processor Serial Numbers 205 and Above)

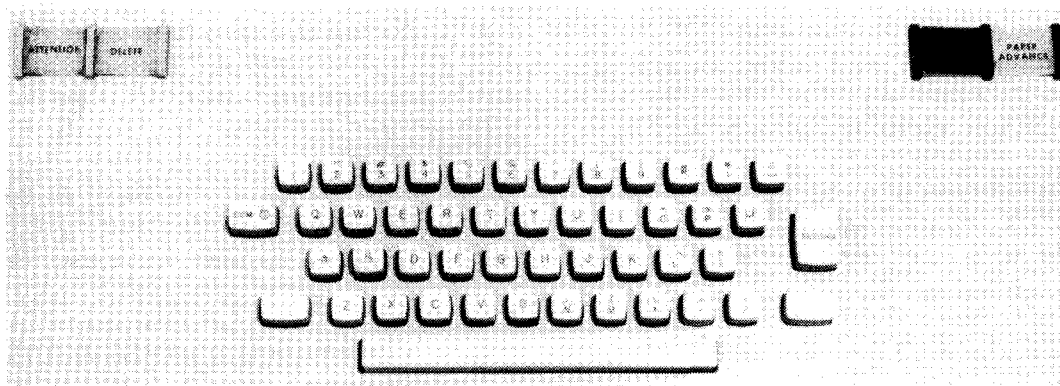


Figure 4-2. System Console (Processor Serial Numbers 100-204)

NAME	FUNCTION
INTERLOCK	This indicator (red) lights when the incremental printer case is opened.
PRINT CHECK	This indicator (red) lights when the printer actuator fuse is blown and the actuator is not operational.
PAPER CHECK	This indicator (red) lights when the paper supply for the incremental printer is depleted.
READ	This indicator (white) lights when the console is in the input mode.
PAPER ADVANCE	This momentary-contact switch activates the paper feed mechanism when pressed. Paper is fed continuously as long as the switch is pressed.
HOME	This momentary-contact switch (white) activates the paperfeed mechanism and advances paper to the next home position.
DELETE	This momentary-contact switch is used to terminate the input operation and signals the processor to ignore the previous ATTENTION command.
ATTENTION	This momentary-contact switch/indicator is used to solicit a read command. The indicator is extinguished when the attention status is received by the processor.

Table 4-1. Console Controls and Indicators

4.3. OPERATOR'S PANEL CONTROLS AND INDICATORS

Two main sections of control are available to the UNIVAC 9400 operator, one of which is the Operator's Panel. The Operator's Panel (the oblique panel below the Maintenance Panel) is located on the front of the processor cabinet. The Operator's Panel controls and indicators are illustrated in Figure 4-3 (processor serial numbers 205 and above) and Figure 4-4 (processor serial numbers 100-204) are described in Table 4-2.

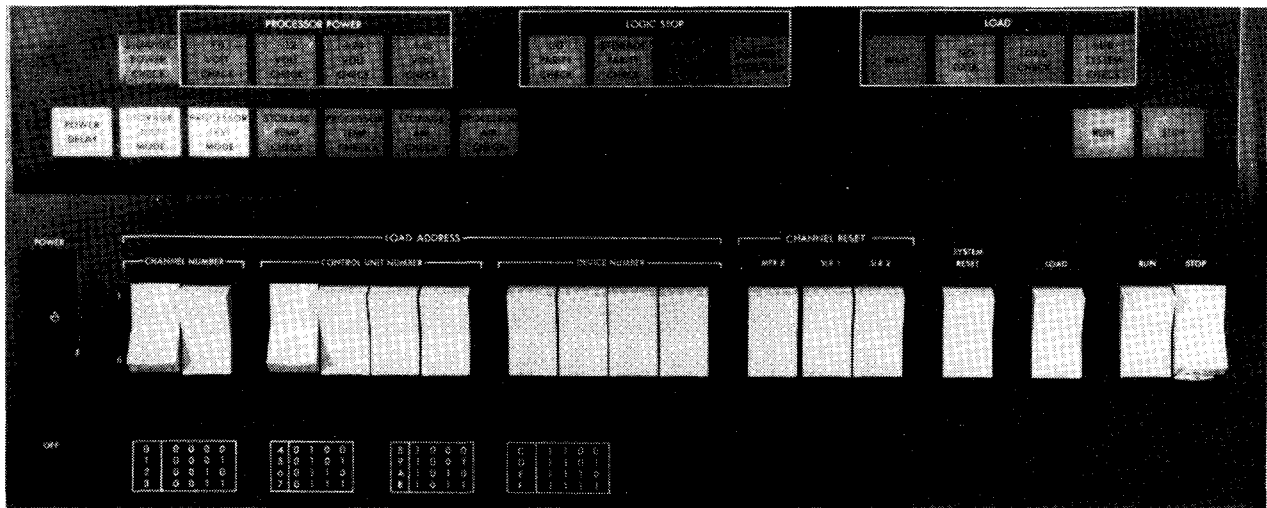


Figure 4-3. Operator's Panel (Processor Serial Numbers 205 and Above)

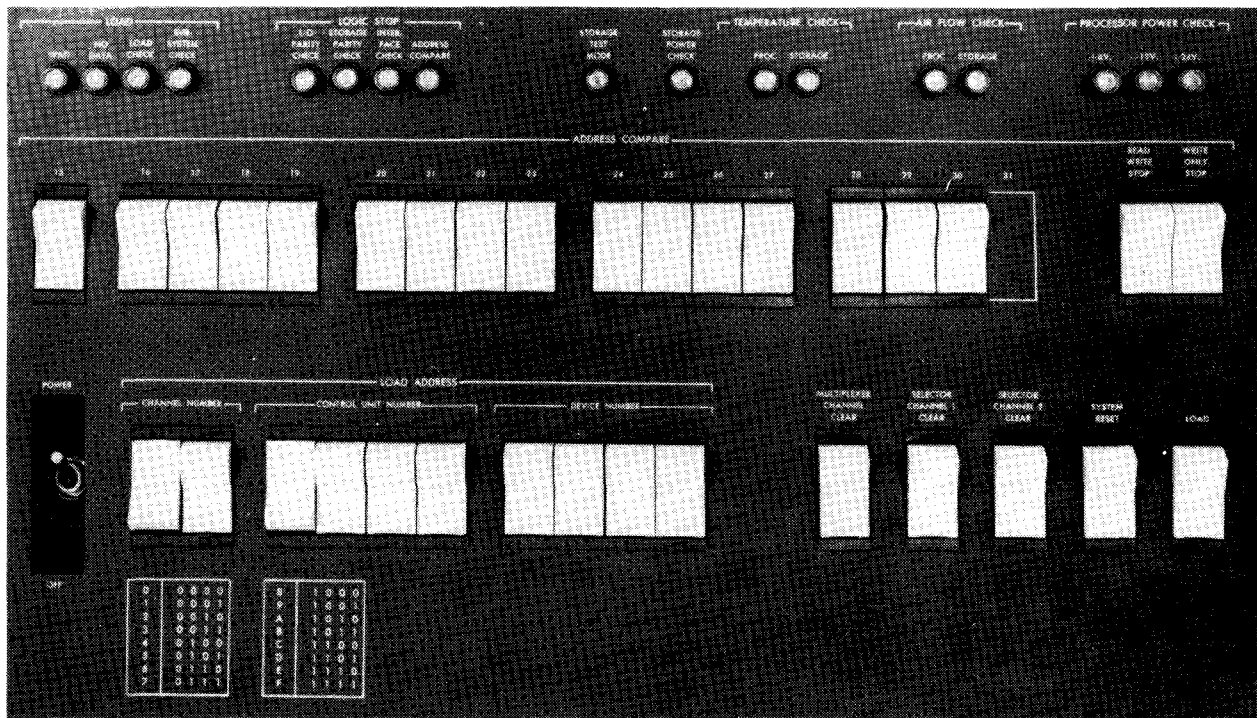


Figure 4-4. Operator's Panel (Processor Serial Numbers 100-204)

NAME	FUNCTION
LOAD	
WAIT	This indicator is lit by the initial load sequence. It indicates a pending Start I/O instruction and is extinguished when the starting status condition is returned.
NO DATA	This indicator lights during an initial load operation and is extinguished by a data transfer.
LOAD CHECK	This indicator is lit by the initial load sequence and is extinguished during the ending status condition for the load.
SUBSYSTEM CHECK	This indicator lights whenever an I/O interrupt is pending and remains on while the central processor is stopped or while the associated interrupt is inhibited by the program. It is cleared when the interrupt is accepted.
LOGIC STOP	
I/O PARITY CHECK	This indicator lights when a parity error is detected on a peripheral device.
STORAGE PARITY CHECK	This indicator lights when a parity error is detected during a read operation from storage.
INTERFACE CHECK	This indicator lights when an I/O channel has detected an illegal combination of active input control lines.
ADDRESS COMPARE	This indicator lights when an address compare occurs if the processor has been conditioned to stop on an address compare.
POWER DELAY (Processor Serial Numbers 205 and Above)	This indicator lights when power is initially applied to the system. It is extinguished only after full power has been applied.
PROCESSOR TEST MODE (Processor Serial Numbers 205 and Above)	This indicator lights when the processor is operating in the test mode (offline).
STORAGE TEST MODE	This indicator lights when one or more of the maintenance switches on the Storage Maintenance Panel (inside storage cabinet) is not in the normal position. These switches are: STACK INTERCHANGE, SIDE INTERCHANGE, BIT INTERCHANGE, PARITY CHECK BYPASS, and OFFLINE.
STORAGE POWER CHECK	This indicator lights when a power failure occurs in one of the storage cabinets.
TEMPERATURE CHECK	
PROC or PROCESSOR TEMP CHECK	This indicator lights when the high temperature thermostat in the processor is activated. An audible alarm is also activated.
STORAGE or STORAGE TEMP CHECK	This indicator lights when the high temperature thermostat in one of the storage cabinets is activated. An audible alarm is also activated.

Table 4-2. Operator's Panel Controls and Indicators (Part 1 of 3)

NAME	FUNCTION
AIR FLOW CHECK	
PROC or PROCESSOR AIR CHECK STORAGE or STORAGE AIR CHECK	This indicator lights when a blower is not operating properly in the processor cabinet. This indicator lights when a blower is not operating properly in a storage cabinet.
PROCESSOR POWER CHECK	
+6V -12V +24V or +6 -12 +24 +48 VOLT VOLT VOLT VOLT CHECK CHECK CHECK CHECK	One of these indicators lights if a power supply fails or if an undervoltage condition exists in one of the power supplies.
ADDRESS COMPARE (Processor Serial Numbers 100-204)	
15-30 READ WRITE STOP WRITE ONLY STOP	This group of two-position rocker switches may be used to manually generate an address selection. This selection is transmitted to the address compare logic in the processor. Switches placed in the on position generate 1's; switches placed in the off position generate 0's. This two-position rocker switch, when placed in the on position, stops the processor when address compare occurs on a READ command. An address compare occurs when the address selected by the ADDRESS COMPARE switches matches the address selected at the storage address selectors. This two-position rocker switch, when placed in the on position, stops the processor when the address compare occurs on a WRITE command. An address compare occurs when the address selected by the ADDRESS COMPARE switches matches the address selected at the storage address selectors.
POWER	This toggle switch, when placed in the up position, provides power to all the power supplies of the UNIVAC 9400 Central Processor.
LOAD ADDRESS	
CHANNEL NUMBER CONTROL UNIT NUMBER DEVICE NUMBER	A switch placed in the on position generates a 1; a switch placed in the off position generates a 0. These two, two-position rocker switches may be used to select the I/O channel as follows: 00 - Multiplexer Channel 01 - Selector Channel 1 10 - Selector Channel 2 A selection of 11, or a selection of a selector channel when it is not installed, is invalid and sets the condition code to 3. These four two-position rocker switches select up to eight control units. These four two-position rocker switches select from one to sixteen devices.

Table 4-2. Operator's Panel Controls and Indicators (Part 2 of 3)

NAME	FUNCTION
CHANNEL RESET	
MULTIPLEXER CHANNEL CLEAR (Processor Serial Numbers 100-204) or MPX0 (Processor Serial Numbers 205 and Above)	This momentary-contact rocker switch, when placed in the on position, clears the multiplexer channel logic of the processor and associated peripheral subsystems.
SELECTOR CHANNEL 1 CLEAR (Processor Serial Numbers 100-204) or SLR1 (Processor Serial Numbers 205 and Above)	This momentary-contact rocker switch, when placed in the on position, clears the logic unique to selector channel 1 and its associated peripheral subsystems.
SELECTOR CHANNEL 2 CLEAR (Processor Serial Numbers 100-204) or SLR2 (Processor Serial Numbers 205 and Above)	This momentary-contact rocker switch, when placed in the on position, clears the logic unique to selector channel 2 and its associated peripheral subsystems.
SYSTEM RESET	This momentary-contact rocker switch, when placed in the on position, clears the system and prepares it for initial loading. It includes all the functions performed by the MULTIPLEXER CHANNEL CLEAR, MPX0, SELECTOR CHANNEL 1 CLEAR, SLR1, SELECTOR CHANNEL 2 CLEAR, and SLR2 switches.
LOAD	This momentary-contact rocker switch, when placed in the on position, starts the initial load sequence from the peripheral unit selected by the LOAD ADDRESS switch selection. The SYSTEM RESET switch must be pressed prior to the initiation of the load sequence.
RUN (Processor Serial Numbers 205 and Above)	When this momentary-contact rocker switch is pressed, the processor starts.
STOP (Processor Serial Numbers 205 and Above)	When this momentary-contact rocker switch is pressed, the processor stops. Processing stops at the end of the current instruction, although I/O activity continues.

Table 4-2. Operator's Panel Controls and Indicators (Part 3 of 3)

4.4. MAINTENANCE PANEL CONTROLS AND INDICATORS

The Maintenance Panel, as shown in Figure 4-5 (processor serial numbers 205 and above) and Figure 4-6 (processor serial numbers 100-204), is on the front of the processor cabinet. It is divided into three portions: the upper portion, or Auxiliary Maintenance Panel; the center portion, or rotary selector switch section; and the lower portion, or control section.

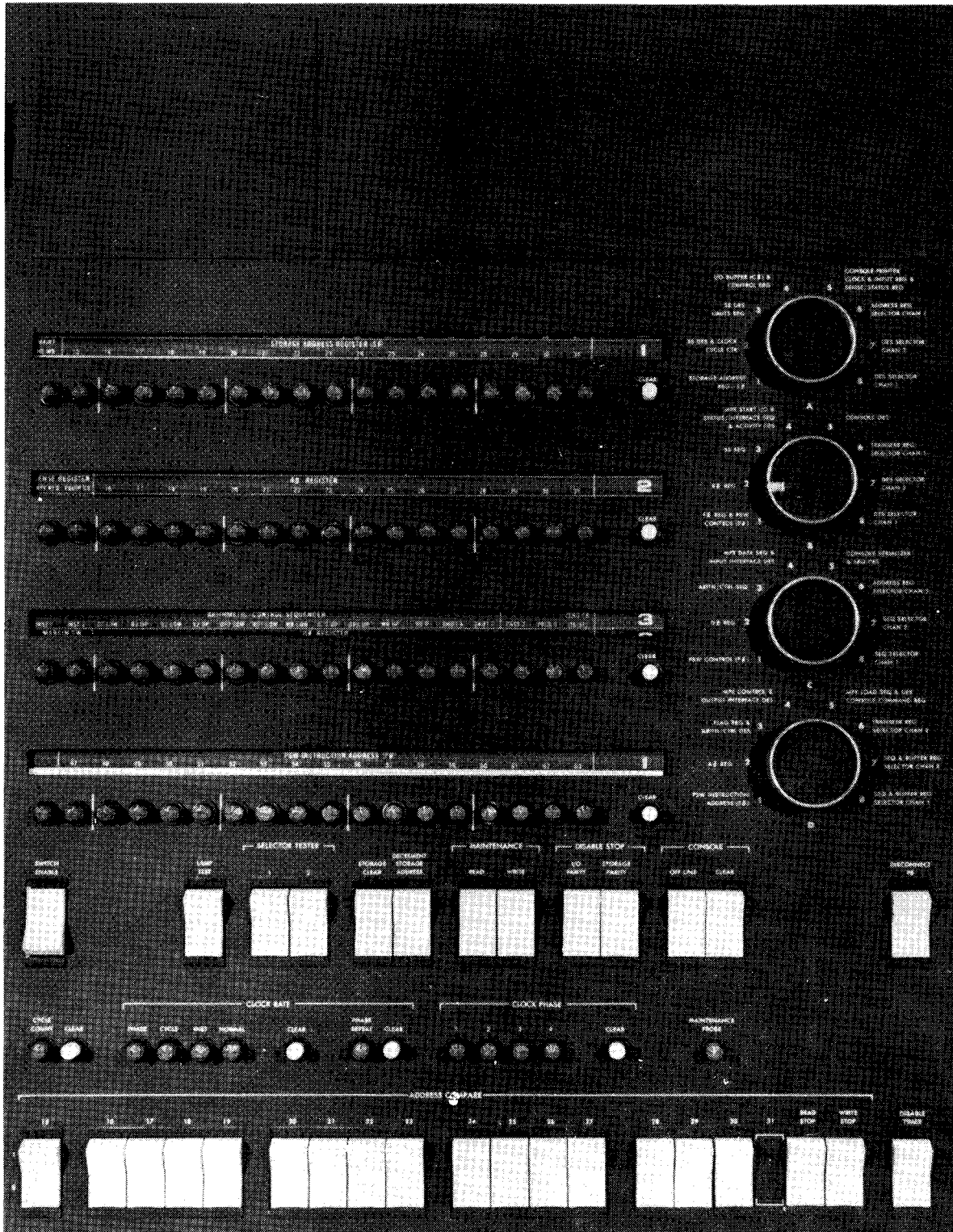


Figure 4-5. Maintenance Panel (Processor Serial Numbers 205 and Above)

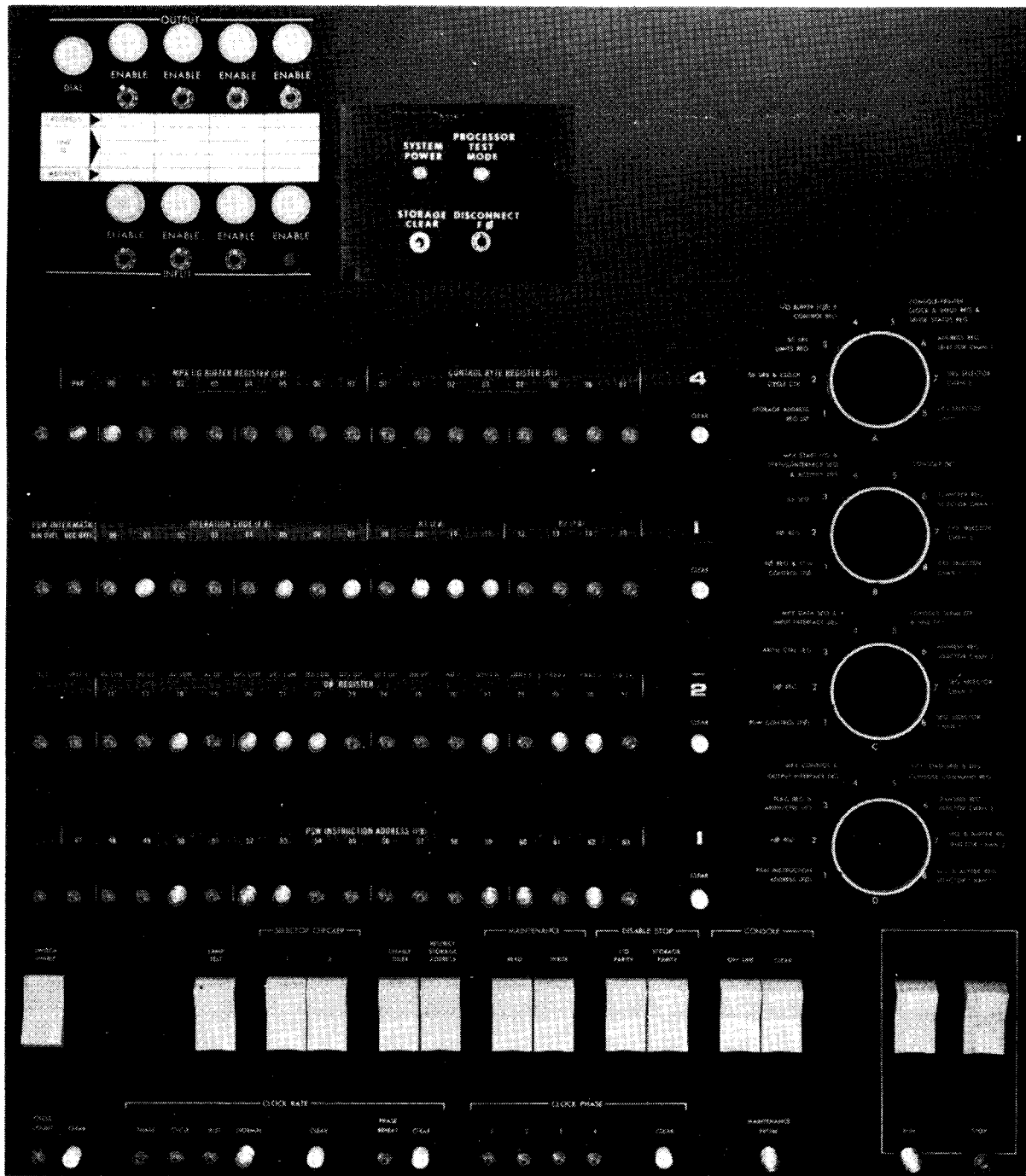


Figure 4-6. Maintenance Panel (Processor Serial Numbers 100-204)

4.4.1. AUXILIARY MAINTENANCE PANEL CONTROLS AND INDICATORS

The Auxiliary Maintenance Panel for UNIVAC 9400 Systems with serial numbers from 205 up, if data communications capability is present, may include the DCS-4 Operator's Control Panel. The Auxiliary Maintenance Panel for UNIVAC 9400 Systems with serial numbers from 100 to 204, may include two switches and two indicators and, if data communications capability is present, the DCS-4 Operator's Control Panel as shown in Figure 4-7. Auxiliary Maintenance Panel controls and indicators are described in Table 4-3.

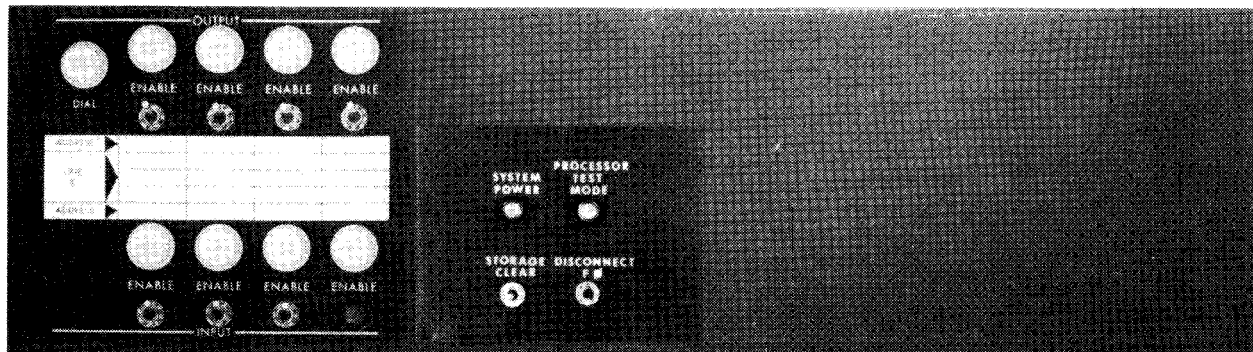


Figure 4-7. Auxiliary Maintenance Panel

NAME	FUNCTION
SYSTEM POWER	This indicator lights when power is initially applied to the system. It is extinguished only after power sequencing of all subsystems has been completed.
PROCESSOR TEST MODE	This indicator lights when the SWITCH ENABLE switch is on or when the PWR FAULT switch on the power control panel is in the INDICATE or OFF position.
STORAGE CLEAR	This momentary-contact toggle switch, when positioned up, clears the storage control logic.
DISCONNECT F0	This two-position toggle switch, when placed in the up position, disconnects the F0 and P0 registers. With the switch placed in the up position, an RR instruction placed in the F0 register can be repeated as often as desired and remain unchanged. Also, a storage address placed in the P0 register remains unchanged, thus allowing repeated reference to a desired storage location when used in conjunction with the MAINTENANCE READ and MAINTENANCE WRITE switches.
Activity Indicators (DCS-4 Operator's Control Panel)	These activity indicators, when lit, signify that the associated line terminal input or output logic is handling data. Each input/output pair of activity indicators corresponds to a line terminal. Line terminal priority proceeds from left to right with the leftmost line terminal having the lowest priority and the rightmost line terminal having the highest priority. Within the line terminal, the input logic has a higher priority than the output logic. For the half-duplex operation, only one activity indicator of the pair can be lit at any one time.
Inhibit Switches (DCS-4 Operator's Control Panel)	When one of these toggle switches is set to the ENABLE (up) position, the addressable input or output logic of the associated line terminal is active and it transfers data. Setting this switch to the down position inhibits the associated input or output logic. In this case, the logic is inactive, and it cannot transfer data. When a command byte is issued to it, the logic returns a status byte to the central processor with the UNIT EXCEPTION bit set. No inhibit is provided for the dialing adapter because it cannot function if its associated output logic (lowest priority output logic) is inactive.

Table 4-3. Auxiliary Maintenance Panel Controls and Indicators

4.4.2. ROTARY SELECTOR SWITCHES

The rotary selector switches, shown in Figure 4-8, are eight-position selector switches. There are four of these rotary selector switches, labeled A through D respectively; switch positions are numbered, clockwise, 1 through 8. Each rotary selector switch is used in conjunction with a row of 18 switch/indicators and a manual CLEAR switch.

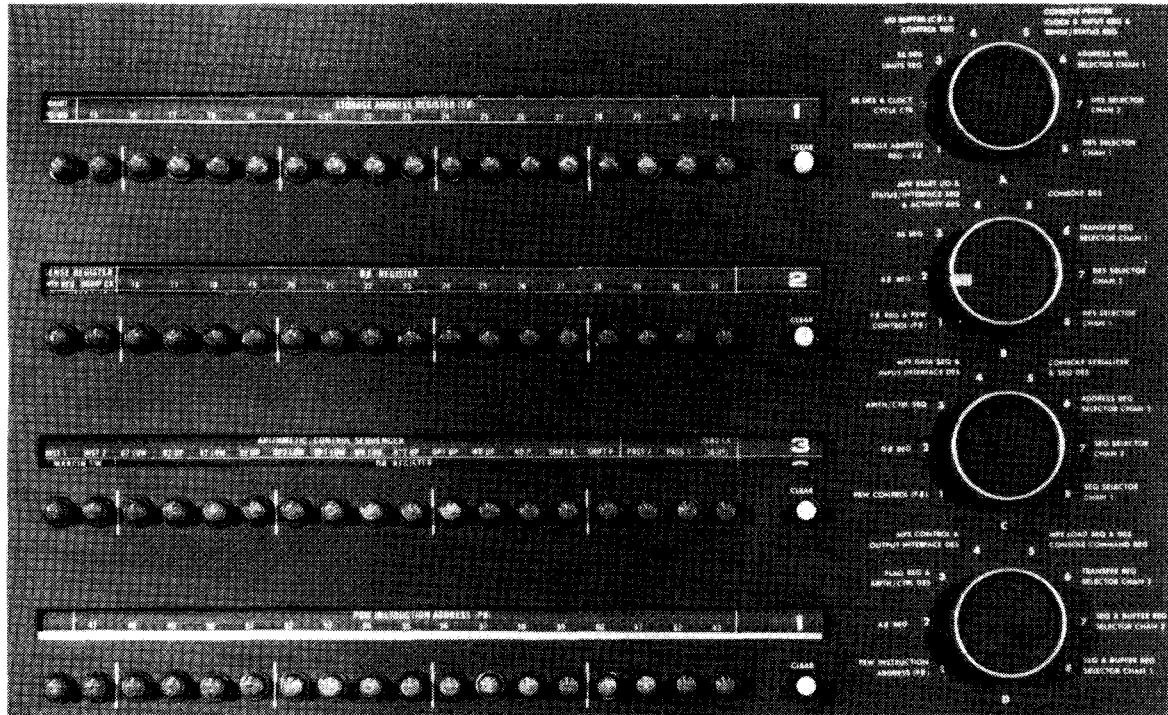


Figure 4-8. Rotary Selector Switches

Each rotary selector switch is geared to a roller, and, for each rotary switch position, a different sector of the roller is visible through the slot above the associated row of switch/indicators. Each sector of the roller has a set of names that correspond to the switch selection and pertains to the switch/indicators for that selection. Thus, the function of the switch/indicators is two-fold:

1. They can be used to set the associated signal manually.
2. When lit, they indicate the state of the associated signal.

When the SWITCH ENABLE switch is on, pressing a switch/indicator sets the associated signal to 1 and lights the indicator. Thus, when an indicator is on, it indicates a binary 1; when it is off, it indicates a binary 0. A CLEAR switch is located to the right of each row of switch/indicators. Pressing the CLEAR switch clears the entire row of switch/indicators and their associated circuits to 0. Appendix B describes the rotary selector switches, since they are used primarily by Univac customer engineering for maintenance purposes.

4.4.3. CONTROL SECTION CONTROLS AND INDICATORS

The Maintenance Panel Control Section is shown in Figure 4-9 (processor serial numbers 205 and above) and Figure 4-10 (processor serial numbers 100-204). The Control Section controls and indicators are described in Table 4-4.

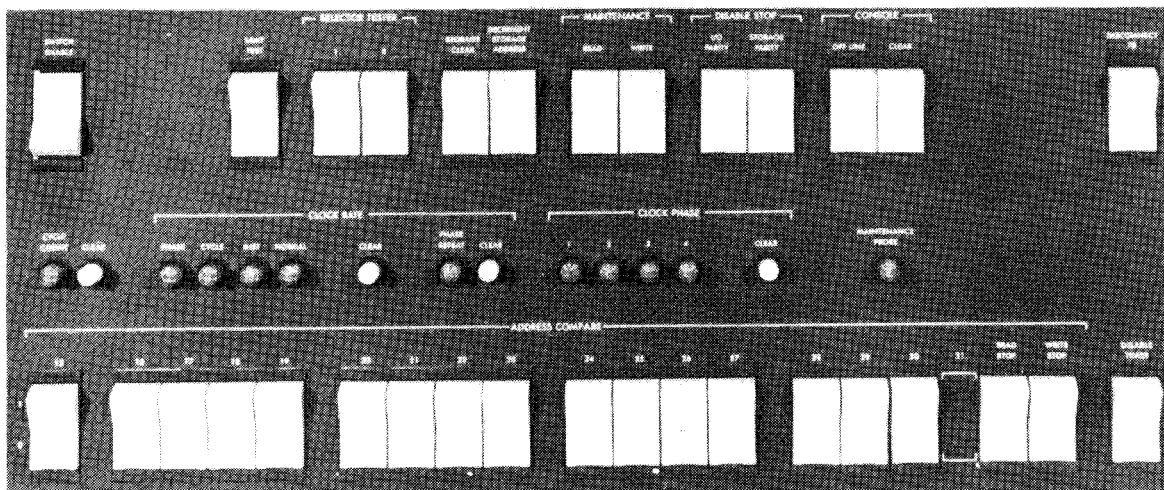


Figure 4-9. Maintenance Panel Control Section (Processor Serial Numbers 205 and Above)

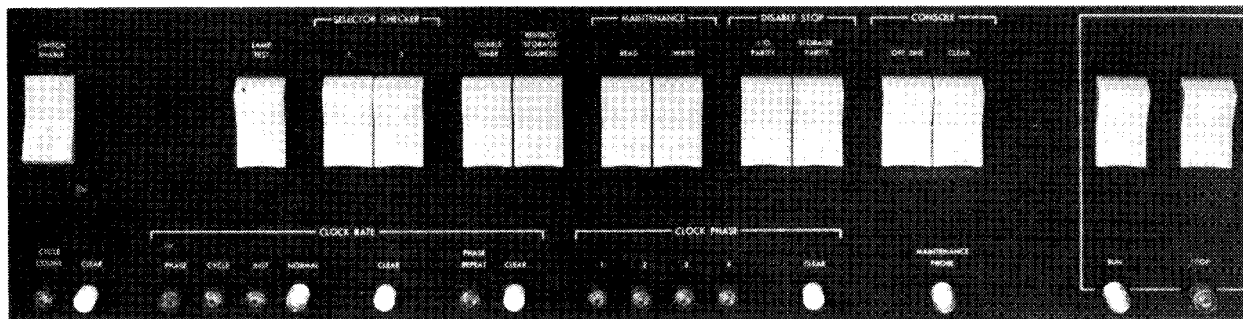


Figure 4-10. Maintenance Panel Control Section (Processor Serial Numbers 100-204)

NAME	FUNCTION
SWITCH ENABLE	<p>This two-position rocker switch, when positioned on, enables all the switches on the Maintenance Panel.</p> <p>When positioned off, this switch disables all the switches on the panel with the exception of the LAMP TEST switch.</p>
LAMP TEST	<p>When this momentary-contact rocker switch is pressed, it turns on all the indicators on the Operator's and Maintenance Panels. It provides a quick check of all the lamps and indicator driver circuits.</p>

Table 4-4. Maintenance Panel Control Section Controls and Indicators (Part 1 of 4)

NAME	FUNCTION
SELECTOR CHECKER (Processor Serial Numbers 100-204) SELECTOR TESTER (Processor Serial Numbers 205 and Above)	
1 2	These two-position rocker switches disable the normal input interface circuitry and activate the selector tester on the corresponding selector channel. The output interface circuitry is unaffected.
DISABLE TIMER (Processor Serial Numbers 100-204)	This two-position rocker switch, when positioned on, disables the timer updating process. (It is not necessary to disable the interval timer requests during an initial load operation, as this is done internally.)
STORAGE CLEAR (Processor Serial Numbers 205 and Above)	This indicator lights when the storage control logic has been cleared.
RESTRICT STORAGE ADDRESS or DECREMENT STORAGE ADDRESS	This two-position rocker switch, when positioned on, blocks the upper nine bits of any storage address. This reduces available storage to 256 addressable locations or 512 bytes.
MAINTENANCE	
READ	This two-position rocker switch, when positioned on, enables a manual read operation from storage when used in the following procedure: The address for the read operation is placed into the PO register (using switch selector D, position 1). The clock rate must be normal or instruction mode, as noted by the presence of the CLOCK RATE NORMAL or INST switch/indicator. The data is read from storage into the DO register (displayed using switch selector C, position 2) when the RUN switch is pressed.
WRITE	This two-position rocker switch, when positioned on, enables a manual write operation into storage when used in the following procedure: The storage address to be written into is placed in the PO register (using switch selector D, position 1). The data to be stored is placed into the DO register (using switch selector C, position 2). The clock rate must be in normal or instruction mode, as noted by the presence of the CLOCK RATE NORMAL or INST switch/indicator. The data is stored in the address selected when the RUN switch is pressed.
DISABLE STOP	
I/O PARITY	This two-position rocker switch, when positioned on, permits continuous processor operation regardless of I/O parity errors detected. When placed in the off position, the processor halts when a parity error is detected.
STORAGE PARITY	This two-position rocker switch, when positioned on, permits continuous processor operation regardless of storage parity errors detected. When placed in the off position, the processor halts when a parity error is detected in storage.
CONSOLE	
OFF LINE	This two-position rocker switch, when positioned on, removes control of the console from the processor and enables the console printer to be controlled entirely from the keyboard.
CLEAR	When this momentary-contact rocker switch is pressed, it clears the console logic circuitry.

Table 4-4. Maintenance Panel Control Section Controls and Indicators (Part 2 of 4)

NAME	FUNCTION
CONSOLE (continued)	
RUN (Processor Serial Numbers 100-204)	This momentary-contact rocker switch, when pressed, starts the processor. The indicator below the RUN switch remains illuminated during actual processor operation.
STOP (Processor Serial Numbers 100-204)	This momentary-contact rocker switch, when pressed, stops the processor. Processing stops at the end of the current instruction, although I/O activity continues. The indicator below the STOP switch is illuminated when the processor stops.
DISCONNECT F0 (Processor Serial Numbers 205 and Above)	This two-position rocker switch, when placed in the up position, prevents the P register from being incremented when the RUN switch is pressed.
CYCLE COUNT	This switch/indicator is used in conjunction with the CLOCK RATE CYCLE switch/indicator. A count not exceeding FF ₁₆ is entered in the clock cycle counter by using switch selector A, position 2. After pressing the RUN switch, clock cycles are generated equal to the number stored in the clock cycle counter; the clock then stops.
CLEAR	This switch clears the enabled CYCLE COUNT flip-flop.
CLOCK RATE	
PHASE	This switch/indicator selects the phase mode of operation. A single phase is generated each time the RUN switch is pressed. After the phase mode has been selected, the first phase issued is PHASE 4; the next one is PHASE 1.
CYCLE	This switch/indicator selects the cycle mode of operation. Four successive clock phases are generated at a normal rate each time the RUN switch is pressed. The first one issued is PHASE 4; the succeeding three phases are PHASE 1, PHASE 2, and PHASE 3, respectively. If the CYCLE COUNT switch/indicator is on, with a count in the clock cycle counter, the number of complete cycles generated equals the number in the counter.
INST	This switch/indicator selects the instruction mode of operation. A complete instruction is processed each time the RUN switch is pressed. Clock phases are generated at a normal rate in this mode.
NORMAL	This switch/indicator selects the normal mode of operation; clock phases are generated at a normal rate. Normal mode may be set by pressing NORMAL or SYSTEM RESET.
CLEAR	This switch clears the rate control flip-flops and the individual CLOCK RATE switch/indicators. Only one clock rate mode may be selected.
PHASE REPEAT	This switch/indicator is used to set the PHASE REPEAT flip-flop. When in the phase mode (PHASE indicator on) and when the desired phase to be generated is selected, enabling this switch generates the desired phase until cleared by the CLEAR switch.
CLEAR	This switch clears the PHASE REPEAT flip-flop.

Table 4-4. Maintenance Panel Control Section Controls and Indicators (Part 3 of 4)

NAME	FUNCTION
CLOCK PHASE	
1 2 3 4 CLEAR	<p>These four switch/indicators are used for setting and indicating the phase register flip-flops. After selecting phase or cycle mode, the PHASE 4 switch/indicator indicates that PHASE 4 is the first to be generated. These phases may be cleared manually if it is desired to select another phase to be generated in the phase mode. One of these switches must be selected, in addition to PHASE REPEAT.</p> <p>This switch clears the phase register in phase or cycle mode.</p>
MAINTENANCE PROBE	<p>This switch/indicator is used to detect voltage levels under +1.25 volts. Voltage levels under +1.25 volts illuminate the indicator.</p>
ADDRESS COMPARE (Processor Serial Numbers 205 and Above)	
15-30 READ STOP WRITE STOP DISABLE TIMER (Processor Serial Numbers 205 and Above)	<p>This group of two-position rocker switches may be used to generate an address selection manually. This selection is transmitted to the address compare logic in the processor. Switches placed in the on position generate 1's; switches placed in the off position generate 0's.</p> <p>This two-position rocker switch, when placed in the on position, stops the processor when address compare occurs on a READ command. An address compare occurs when the address selected by the ADDRESS COMPARE switches matches the address selected at the storage address selectors.</p> <p>This two-position rocker switch, when placed in the on position, stops the processor when the address compare occurs on a WRITE command. An address compare occurs when the address selected by the ADDRESS COMPARE switches matches the address selected at the storage address selectors.</p> <p>This two-position rocker switch, when positioned on, disables the timer updating process. (It is not necessary to disable the interval timer requests during an initial load operation, as this is done internally.)</p>

Table 4-4. Maintenance Panel Control Section Controls and Indicators (Part 4 of 4)

5. SYSTEM INITIALIZATION

5.1. GENERAL

The procedures for system initialization include initializing the maintenance panel, clearing main storage (optional), loading and altering the Supervisor, loading Data Management common code (optional), and specifying the time and date. Once the system is initialized, the Supervisor remains in low order storage until the processor either is turned off or has to be reinitialized after a software or hardware malfunction. If either of these conditions arises, the Supervisor must be reloaded and reinitialized.

5.1.1. INITIALIZING THE MAINTENANCE PANEL

To initialize the maintenance panel (Figure 4-4):

1. Press SWITCH ENABLE.
2. Press LAMP TEST (check that all indicators are lit).
3. Set rotary switches A, B, C, and D to 1, 1, 2, and 1, respectively.
4. Disable the timer.

5.1.2. CLEARING MAIN STORAGE

The Initial Program Load (IPL) procedure clears main storage automatically. However, clearing main storage is necessary after a storage parity error and may be cleared manually by executing the following procedures:

1. Press SYSTEM RESET.
2. Set WRITE switch to the on position.
3. Press CLOCK RATE CLEAR and NORMAL.
4. Press RUN.
5. Wait 5 seconds.
6. Press STOP.
7. Press SYSTEM RESET.
8. Set WRITE switch to off position.

5.2. LOADING THE TAPE SUPERVISOR

The procedure for accomplishing the IPL loading of the Tape Supervisor is as follows:

- Mount the desired system resident tape volume on the initial load unit (see 6.5).
- If the processor is not in stop mode, press STOP.
- Press SYSTEM RESET.
- Set the device address of the system resident device in the LOAD ADDRESS switches.
- Press LOAD.
- Enable the timer.

The following message is displayed on the system console after the Supervisor has been loaded:

```
*Dhh:mm 09 SV91 IPL=ij, VER=vv REV=rr. PROCEED? YES OR II,DDD (ID,DVC)
```

where:

hh:mm is the time of day (hours and minutes).

ii is the Supervisor identification code.

vv is the version number of the Supervisor.

rr is the revision level of the Supervisor.

If a different Tape Supervisor (or a combination Disc/Tape Supervisor located on tape) is desired, the identification code (ii) of the desired Supervisor and the device identification (did) of the tape unit on which the appropriate volume is mounted is keyed in as follows:

```
@ hh:mm 09R ii,did Ⓢ
```

If the different Supervisor is on the same tape, only the following is required:

```
@ hh:mm 09R ii Ⓢ
```

When the requested Supervisor is located on the tape, the following message is displayed on the system console:

```
Ihh:mm 09 SV93 ii LOCATED
```

The specified Supervisor is loaded and the SV91 message is redisplayed on the system console. The operator may request the loading of another Supervisor from tape or continue with the initialization procedure for the currently resident Supervisor. The operator accepts the currently resident Supervisor by replying to the SV91 message as follows:

@ hh:mm 09R Y Ⓢ

The system rewinds the tape and reads the first block to acquire the volume serial number. The following message is displayed on the system console:

hh:mm 09 SV96 VSN=volsn,DID=did

where:

volsn is the volume serial number of the system resident volume.

did is the device identification of the system resident device.

The system indicates a successful Supervisor load by displaying the following message on the system console.

hh:mm 09 SV01 UNIVAC 9400 SUPERVISOR READY(ID=ii,VER=vv,REV=rr)

where:

ii is the identification code of the current resident Supervisor.

vv is the version number of the current resident Supervisor.

rr is the revision number of the current resident Supervisor.

An example of the loading sequence for a Tape Supervisor is as follows:

```
*D00:00 09 SV91 IPL=P2, VER=11 REV=02. PROCEED? YES OR II,DDD (ID,DVC)
@ 00:00 09R P9 Ⓢ
  100:00 09 SV93 P9 LOCATED
```

```
*D00:00 09 SV91 IPL=P9, VER=11 REV=02. PROCEED? YES OR II,DDD (ID,DVC)
@ 00:00 09R Y Ⓢ
```

```
00:00 09 SV96 VSN=SYSRES,DID=G91
```

```
00:00 09 SV01 UNIVAC 9400 SUPERVISOR READY (ID=P9,VER=11,REV=02)
```

5.3. LOADING THE DISC SUPERVISOR

A combination Disc/Tape Supervisor is considered a Disc Supervisor when it is loaded from disc. The procedure for accomplishing the IPL loading of the Disc Supervisor is as follows:

- Mount the desired system resident volume on the system resident device (see 6.6).
- If the processor is not in the stop mode, press STOP.
- Press SYSTEM RESET.
- Set the device address of the system resident device in the LOAD ADDRESS switches.
- Press LOAD.
- Enable the timer.

The following message is displayed on the system console after the Supervisor has been loaded:

```
*Dhh:mm 09 SV91 IPL=ii, VER=vv REV=rr. PROCEED? YES OR II,DDD (ID,DVC)
```

where:

- ii is the Supervisor identification code.
- vv is the version number of the Supervisor.
- rr is the revision number of the Supervisor.

The operator must reply as follows:

```
@ hh:mm 09R YⓈ
```

The system then reads the volume serial number of the system resident disc and the following message is displayed on the system console.

```
hh:mm 09 SV96 VSN=volsn,DID=did
```

where:

- volsn is the volume serial number of the system resident volume.
- did is the device identification of the system resident device.

If the Data Management common code option was selected at systems generation time, the following message is displayed on the system console:

```
*Dhh:mm 09 SV80 DMCC PKG ? (A,B,.... OR NONE)
```

If Data Management common code is to be loaded, the operator must reply as follows:

```
@ hh:mm 09R x Ⓢ
```

where:

x is a character 0 through 9 or A through Z that identifies the common code module to be loaded.

If Data Management common code is not to be loaded, the operator must reply as follows:

```
@ hh:mm 09R NO Ⓢ
```

The system indicates a successful Supervisor load by displaying the following message on the system console.

```
hh:mm 09 SV01 UNIVAC 9400 SUPERVISOR READY(ID=ii,VER=vv,REV=rr)
```

where:

ii is the identification code of the current resident Supervisor.

vv is the version number of the current resident Supervisor.

rr is the revision number of the current resident Supervisor.

An example of the loading sequence for a Disc Supervisor is as follows:

```
*D00:00 09 SV91 IPL=56, VER=11 REV=02. PROCEED? YES OR 11,DDD (ID,DVC)
@ 00:00 09R Y Ⓢ
  00:00 09 SV96 VSN=SYSR60,DID=KA0
*D00:00 09 SV80 DMCC PKG ? (A,B,.... OR NONE)
@ 00:00 09R NO Ⓢ
  00:00 09 SV01 UNIVAC 9400 SUPERVISOR READY(ID=56,VER=11,REV=02)
@ 00:00 SE CL,17:40 Ⓢ
@ 17:40 SE DA,06/09/71,71158 Ⓢ
```

5.4. LOADING THE COMBINATION TAPE/DISC SUPERVISOR FROM TAPE

The procedure for accomplishing the IPL loading of the combination Tape/Disc Supervisor is as follows:

- Mount the desired system resident tape volume on the initial load unit (see 6.5).
- If selecting a Disc Supervisor, mount the desired system resident disc volume on the intended system resident disc drive.

- If the processor is not in the stop mode, press STOP.
- Press SYSTEM RESET.
- Set the device address of the system resident device in the LOAD ADDRESS switches.
- Press LOAD.
- Enable the timer.

The following message is displayed on the system console after the Supervisor has been loaded:

```
*Dhh:mm 09 SV91 IPL=ii, VER=vv REV=rr. PROCEED? YES OR II,DDD (ID,DVC)
```

where:

ii is the identification code of the current resident Supervisor.

vv is the version number of the Supervisor.

rr is the revision level of the Supervisor.

If a different Tape Supervisor (or a combination Disc/Tape Supervisor located on tape) is desired, the Supervisor identification code (ii) of the desired Supervisor and the device identification (did) of the unit on which the appropriate volume is mounted is typed in as follows:

```
@ hh:mm 09R ii,did Ⓢ
```

If the different Supervisor is on the same tape, only the following is required:

```
@ hh:mm 09R ii Ⓢ
```

When the requested Supervisor is located on the tape, the following message is displayed on the system console:

```
lhh:mm 09 SV93 ii LOCATED
```

The specified Supervisor is loaded and the SV91 message is redisplayed on the system console. The operator may request the loading of another Supervisor or continue with the initialization procedure for the currently resident Supervisor. The operator accepts the current resident Supervisor by replying to the SV91 message as follows:

```
@ hh:mm 09R Y Ⓢ
```

The system then displays the following message on the system console.

```
*Dhh:mm 09R SV97 REPLY- TAPE OR DISC/3-CHR-DVC-ID
```

If a Tape Supervisor is desired, the operator must respond as follows:

```
@ hh:mm 09R TAPE Ⓢ
```


If a Disc Supervisor is desired, the operator must respond as follows:

@ hh:mm 09R DISC/didⓈ

where did is the device identification of the desired system resident device.

The system rewinds the tape and reads the first block to acquire the volume serial number. The following message is displayed at the system console:

hh:mm 09 SV96 VSN=volsn,DID=did

where:

volsn is the volume serial number of the system resident volume (for TAPE selection) or
the volume serial number of the initial load volume (for DISC selection).

did is the device identification of the system resident device (for TAPE selection) or
the device identification of the initial load device (for DISC selection).

If a Disc Supervisor was selected, the volume serial number of the volume mounted on the device specified in the reply to the SV97 message is read. A second SV96 message is then displayed on the system console as follows:

hh:mm 09 SV96 VSN=volsn,DID=did

where:

volsn is the volume serial number of the volume mounted on the device specified in the reply to the SV97 message.

did is the device identification of the device specified in the reply to the SV97 message.

If a Disc Supervisor was selected and the Data Management common code option was selected at system generation time, the following message is displayed on the system console.

*Dhh:mm 09 SV80 DMCC PKG ? (A,B,.... OR NONE)

If Data Management common code is to be loaded at this time, the operator must reply as follows:

@ hh:mm 09R x Ⓢ

where:

x is a character 0 through 9 or A through Z that identifies common code module to be loaded.

If Data Management common code is not to be loaded, the operator must reply as follows:

@ hh:mm 09R NO Ⓢ

The system indicates a successful Supervisor load by displaying the following message on the system console.

hh:mm 09 SV01 UNIVAC 9400 SUPERVISOR READY(ID=ii,VER=vv,REV=rr)

where:

- ii is the identification code of the current resident Supervisor.
- vv is the version number of the current resident Supervisor.
- rr is the revision number of the current resident Supervisor.

An example of the loading sequence for a Combination Supervisor loaded as a Tape Supervisor is as follows:

```
*D00:00 09 SV91 IPL=P2, VER=11 REV=02. PROCEED? YES OR II,DDD (ID,DVC)
@ 00:00 09R 56Ⓢ
  100:00 09 SV93 56 LOCATED
*D00:00 09 SV91 IPL=56, VER=11 REV=02. PROCEED? YES OR II,DDD (ID,DVC)
@ 00:00 09R YⓈ
*D00:00 09 SV97 REPLY- TAPE OR DISC/3-CHR-DVC-ID
@ 00:00 09R TAPEⓈ
  00:00 09 SV96 VSN=SYSRES,DID=G90
  00:00 09 SV01 UNIVAC 9400 SUPERVISOR READY (ID=56,VER=11,REV=02)
@ 00:00 SE DA,06/09/71,71158Ⓢ
@ 00:00 SE CL,17:23Ⓢ
```

An example of the loading sequence for a Combination Supervisor loaded as a Disc Supervisor (DMCC option included) is as follows:

```
*D00:00 09 SV91 IPL=P2, VER=11 REV=02., PROCEED? YES OR II,DDD (ID,DVC)
@ 00:00 09R 56Ⓢ
  100:00 09 SV93 56 LOCATED
*D00:00 09 SV91 IPL=56, VER=11 REV=02. PROCEED? YES OR II,DDD (ID,DVC)
@ 00:00 09R YⓈ
*D00:00 09 SV97 REPLY- TAPE OR DISC/3-CHR-DVC-ID
@ 00:00 09R DISC/KA0Ⓢ
  00:00 09 SV96 VSN=SYSRES,DID=G90
  00:00 09 SV96 VSN=SYSR60,DID=KA0
*D00:00 09 SV80 DMCC PKG ? (A,B,... OR NONE)
@ 00:00 09R NOⓈ
  00:00 09 SV01 UNIVAC 9400 SUPERVISOR READY (ID=56,VER=11,REV=02)
@ 00:00 SE CL,17:28Ⓢ
@ 17:28 SE DA,06/09/71,71158Ⓢ
```

5.5. SUPERVISOR ALTERATIONS

The Supervisor ALTER command may be used to introduce main storage changes to the resident Supervisor. The procedure for altering the Supervisor is as follows:

1. Prepare the card reader for operation (see 6.2).
2. Place the ALTER cards in the reader. Positional parameter 4 of the final ALTER statement must be LAST or RESET to terminate the alter function. This final ALTER statement must be followed by at least one blank card.
3. If altering a Disc Supervisor, ensure that the system device specified as RDR is set to a card reader device.
4. Type in the following command (see 3.3.14):

```
@hh:mm AL „C Ⓢ
```

5. The main storage alterations are performed, and all changes are listed on the system console.

If a disc system, set the system device specified as RDR to the system resident disc by means of the SET operator command.

5.6. SETTING THE TIME OF DAY

The time of day must be entered into the system by means of the SET command after loading the Supervisor. The SET command, when used to set the time of day in the simulated day clock, has the format:

```
SET CLOCK,hh:mm
```

Positional Parameter 1

CLOCK — indicates that the simulated day clock will be set to the time specified by positional parameter 2.

Positional Parameter 2

hh:mm — hh specifies the hour (00–99) and mm specifies the minute (00–59).

5.7. SETTING THE DATE

The current date must be entered into the system by means of the SET command after loading the Supervisor. The SET command, when used to set the date field in the system information block, has the format:

```
SET DATE,xx/xx/xx[,yyddd] [,yyddd]
```

Positional Parameter 1

DATE — indicates that the following positional parameter(s) will be stored in the appropriate date fields within the system information block.

Positional Parameter 2

xx/xx/xx — specifies the month (01–12), the day (01–31), and the year (00–99) in any order.

Positional Parameter 3

yyddd — this date is stored in the form $\overline{b}yyddd$ (in EBCDIC) and is used by Data Management when checking tape file labels.

if blank — the appropriate field in the system information block remains unchanged.

Positional Parameter 4

yyddd — is stored in the form $\overline{b}ydd$ (discontinuous binary) and is used by Data Management to check disc file labels.

if blank — when positional parameter 4 is not specified and positional parameter 3 is specified, positional parameter 3 is converted to the form $\overline{b}ydd$. If, however, positional parameter 4 is specified, the date specified by that parameter is converted to the form $\overline{b}ydd$ and stored in the appropriate field of the system information block.

5.8. INITIALIZING THE UNIVAC 1004 SUBSYSTEM (ADAPTER)

The UNIVAC 1004 Subsystem may be connected to the UNIVAC 9400 System by means of a channel adapter. The 1004 Subsystem must be initialized and ready before any jobs using it are run on the UNIVAC 9400 System. See 6.9 for the procedures for initializing the 1004 Subsystem.

5.9. INITIALIZING THE UNIVAC 9200/9300 SUBSYSTEM (ADAPTER)

The UNIVAC 9200/9300 Subsystem may be connected to the UNIVAC 9400 System by means of a channel adapter. If the UNIVAC 9200/9300 Subsystem is to be used, it must be initialized and ready before any jobs can be run on the UNIVAC 9400 System. See 6.10 for the procedures for initializing the UNIVAC 9200/9300 Subsystem.

6. DEVICE PREPARATION AND ERROR RECOVERY PROCEDURES

6.1. GENERAL

A full line of peripheral subsystems is available for use with the UNIVAC 9400 System. Information from an input device such as a card reader passes through its control unit/synchronizer to a channel which passes the information to the central processor. Information to an output device, such as a card punch or printer, is sent from the central processor to a channel, which passes it to the desired control unit for writing on the output device. Some devices, such as magnetic tapes or discs, are used alternatively as input or output devices.

A three-character identifier is assigned to each peripheral device. This identifier is known as the device ID and can be physically posted on the front of each device for easy reference. The first character is selected by the user; the second two characters are a hexadecimal representation of the device address which are the subchannel and unit number to which the device is connected and by which it is addressed during the execution of programs. The device ID appears in all references from the console to peripheral devices. All messages between the operator and the operating system or problem programs printed at the console in regard to peripheral devices identify the particular device concerned (for example, an error message contains the ID of the device on which the error occurred).

6.2. CARD READER

The UNIVAC 0711 Card Reader Subsystem includes a self-contained control unit and synchronizer that regulates data flow and control signals between the reader mechanism and the central processor. The card reader operates at a rate of 600 cards per minute on a column-by-column basis. The input hopper capacity is 1200 cards; the stacker capacity is 1500 cards. For complete card reader operating instructions refer to *UNIVAC 9400 System Card Reader Subsystem Programmer/Operator Reference, UP-7715* (current version).

To prepare the card reader for use:

1. Press OFF LINE.
2. Set MAIN POWER circuit breaker, located on the power distribution panel, to ON (up position).
3. Press POWER ON (OFF LINE indicator and STOP switch/indicator light).
4. Place cards to be processed in reader hopper (face down, 9-edge leading).
5. Press CLEAR.
6. Press ON LINE.
7. Press RUN.

To clear the reader at the conclusion of processing:

1. Press OFF LINE.
2. Press CLEAR.
3. Press RUN OUT.

6.2.1. RECOVERY PROCEDURES

When an abnormal condition causes the card reader to stop, an indicator on the control panel lights, and an error message (see A.21) is printed at the system console. If any of the indicators listed in Table 6-1 light, the operator can restore operation by performing the appropriate recovery procedure and replying with the appropriate message as indicated in Appendix A.

INDICATOR	PROCEDURE
VALIDITY CHECK*	<p>When lit, indicates that more than one punch was detected in rows 1 through 7 of a card column. The card reader comes to an orderly stop; the STOP switch/indicator lights; and the RUN switch/indicator goes out. The card that caused the VALIDITY CHECK indicator to light is the last card in the stacker.</p> <ol style="list-style-type: none"> 1. Correct and replace the faulty card. 2. Remove cards from input hopper. 3. Press RUN OUT (card is fed into output stacker from ready station). 4. Insert the last two cards in the output stacker into the input hopper, followed by any remaining input cards. 5. Press CLEAR. 6. Press ON LINE. 7. Press RUN. 8. See A.21 for software recovery procedures.
READ CHECK*	<p>When lit, indicates that a data overrun or read error condition occurred due to a mispunched card, improper registration, or read head failure. The card reader comes to an orderly stop; the STOP switch/indicator lights; and the RUN switch/indicator goes out. The card that caused the READ CHECK indicator to light is the last card in the stacker.</p> <ol style="list-style-type: none"> 1. Correct and replace the faulty card. 2. Remove cards from input hopper. 3. Press RUN OUT (card is fed into output stacker from ready station). 4. Insert the last two cards in the output stacker into the input hopper, followed by any remaining input cards. 5. Press CLEAR. 6. Press ON LINE. 7. Press RUN. 8. See A.21 for software recovery procedures.

*Visible only when lit.

Table 6-1. Operator Recovery Procedures - Card Reader (Part 1 of 2)

INDICATOR	PROCEDURE
FEED CHECK*	<p>When lit, indicates that a misfeed or card jam condition occurred. The card reader comes to an orderly stop; the STOP switch/indicator lights; and the RUN switch/indicator goes out.</p> <ol style="list-style-type: none">1. Clear the card jam.2. Duplicate the card or cards that caused the jam and place them in the input hopper followed by any remaining cards.3. Press CLEAR.4. Press ON LINE.5. Press RUN.6. See A.21 for software recovery procedure.
INTERLOCK*	<p>When lit, indicates an opened interlock, an empty hopper, or a full stacker condition. The card reader comes to an orderly stop; the STOP switch/indicator lights; and the RUN switch/indicator goes out.</p> <ol style="list-style-type: none">1. Correct any of the following conditions:<ul style="list-style-type: none">■ interlock open■ hopper empty■ stacker full2. Press RUN.3. See A.21 for software recovery procedure.

* Visible only when lit.

Table 6-1. Operator Recovery Procedures - Card Reader (Part 2 of 2)

6.3. CARD PUNCH

The UNIVAC 0604 Card Punch Subsystem includes a self-contained control unit and synchronizer that regulates data flow and control signals between the punch mechanism and the central processor. The card punch operates at a rate of 250 cards per minute on a row by row basis. The input hopper capacity is 1000 cards; the stacker capacity is also 1000 cards, but cards can be directed to either the normal or the select stacker (each having a capacity of 1000 cards) under control of the program. For complete card punch operating instructions refer to *UNIVAC 9200/9200 II/9300/9300 II/9400 Systems Card Punch Subsystem Operators Reference, UP-7773* (current version).

To prepare the card punch for use:

1. Place blank cards in input hopper (face down, 9-edge leading).
2. Press MAN ON.
3. Press OFF LINE.
4. Press MAN FEED.
5. Press OFF LINE (places unit in online condition).
6. Press CLEAR.

6.3.1. RECOVERY PROCEDURES

When an abnormal condition causes the card punch to stop, an indicator on the control panel lights, and an error message (see A.21) is printed at the system console. If any of the indicators listed in Table 6-2 light, the operator can restore operation by performing the appropriate recovery procedure and replying with the appropriate message as indicated in Appendix A.

INDICATOR	PROCEDURE
HOPPER	When the HOPPER indicator is lit, it indicates that the hopper is empty. Place cards in hopper; indicator goes out. See A.21 for software recovery procedure.
CHIPS	When the CHIPS indicator is lit, it indicates that the chip box is full or not in place. Empty or adjust chip box; indicator goes out. See A.21 for software recovery procedures.
A JAM or B JAM	<p>A JAM — lights red to indicate a card jam in the prepunch feed section.</p> <p>B JAM — lights red to indicate a card jam in the postpunch feed section.</p> <p>In the event of either of the preceding cases:</p> <ol style="list-style-type: none"> 1. Clear the card jam and manually feed cards to ensure proper feed operation. 2. Place the device online and press CLEAR. 3. See A.21 for software recovery procedures.
STACKER FULL	When lit, indicates that one of the card stackers is filled. Empty stacker; indicator goes out. See A.21 for software recovery procedures.
STACKER JAM	<p>When lit, indicates a card feed jam in the stacker transport section.</p> <ol style="list-style-type: none"> 1. Clear the card jam and manually feed cards to ensure proper feed operation. 2. Place the device online and press CLEAR. 3. See A.21 for software recovery procedure.
CHECK	<p>When lit, indicates a card has not passed the hole count check.</p> <ol style="list-style-type: none"> 1. Press OFF LINE. 2. Press MAN ON. 3. Press CLEAR. 4. Press FEED. 5. See A.21 for software recovery procedure.

Table 6-2. Operator Recovery Procedures — Card Punch

6.4. PRINTER

The UNIVAC 0768 Printer Subsystem and its controlling and synchronizing circuitry, including the 132-character print buffer and print mechanisms, is housed within a single, freestanding cabinet. The printer is offered in two speed variations: the lower speed printer operating at speeds up to 1100 lines per minute, and the higher speed printer, operating at speeds up to 1600 lines per minute. A forms container within the base of the unit houses the supply of forms being fed into the printer. Controls are provided to allow manual adjustment of paper tension, form thickness, paper alignment, vertical and horizontal print positioning, and form advancement. For complete printer operating instructions refer to *UNIVAC 9200 11/9300 11/9400 Systems Printer Subsystem Programmer/Operator Reference, UP-7688* (current version).

To prepare the printer for use:

1. Press ON LINE/OFF LINE switch, located on the left control panel, to OFF LINE.
2. Set circuit breaker 1CB1, located on power control panel, to ON (up position).
3. Press POWER ON/POWER OFF switch to POWER ON. OFF LINE and STOP indicators light. (Allow 30 seconds for power-on clearing sequence.)
4. Perform lamp test by pressing STOP switch/indicator. If any indicator lamp does not light, notify Univac customer engineer.
5. Place correct paper-tape loop in printer (see 6.4.1).
6. Press CARRIAGE OUT (hold to dolly carriage out).
7. Press HOME PAPER twice.
8. Place paper on tractors, with approximately 5 holes disengaged above uppermost tractor.
9. Press CARRIAGE IN (hold to dolly carriage in).
10. Press HOME PAPER twice.
11. Press ON LINE/OFF LINE switch to ON LINE. OFF LINE indicator goes out.
12. Press CLEAR.
13. Press RUN switch/indicator. Printer is ready for use.

6.4.1. FORMS CONTROL

A punched paper forms control tape loop is used to control form advancement; the blank tape is selected as required for operation at six or eight lines per inch (6 lines per inch (LPI) tape – UNIVAC Part No. 3168457-00; 8 LPI tape – UNIVAC Part No. 3168457-01).

6.4.1.1. FORMS CONTROL TAPE PREPARATION

The length of the forms control tape is between 10 and 22 inches, and is equal to the form length or to a multiple of form length. Figure 6-1 illustrates sections of a 6 LPI and an 8 LPI forms control tape loop. Channel 1 is on the left side of the tape and channel 4 is on the right side. The evenly spaced perforations running vertically in the center of the tape are sprocket holes that ensure proper tape feeding and alignment. The arrow printed on the tape indicates the direction the tape travels when it is installed. Also, four columns of small circles are printed on the tape as an aid to perforation. The cross in the center of each of these circles assists in centering the perforations. The numbers (1, 2, 4, and 8) to the right of each track designate the channel code position to which each is related. The codes are listed in Table 6-3.

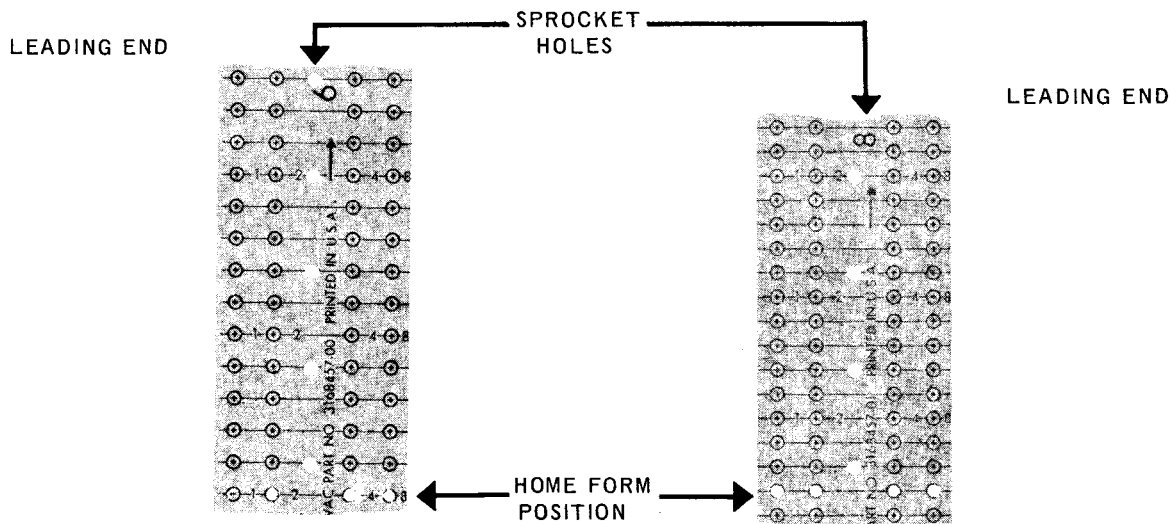


Figure 6-1. Forms Control Tapes

CHANNEL	DESIGNATION
4	—
1 and 4	—
2 and 4	—
1, 2, and 4	—
8	—
1 and 8	Form Overflow
2 and 8	—
1, 2, and 8	—
4 and 8	—
1, 4, and 8	—
2, 4, and 8	Home Form (6 LPI)
1, 2, 4, and 8	Home Form (8 LPI)

Table 6-3. Form Control Tape Code Designation

- To prepare either a 6 LPI or an 8 LPI tape, proceed as follows:
 - (1) Spread the form (or actual size facsimile) on a flat surface.
 - (2) Cut the leading end of the tape (Figure 6-1) so that the end is about 1/4 inch above a sprocket hole:
 - For a 6 LPI tape, the leading end is cut two line spaces above a sprocket hole.
 - For an 8 LPI tape, the leading end is cut three line spaces above a sprocket hole.
 - (3) Spread tape down full length of form; align first sprocket hole in leading end with top of form and mark trailing end horizontally through a sprocket hole to indicate the tape length that is required.
 - (4) Cut tape horizontally through first sprocket hole below mark made in step (3).
 - (5) Mark tape with circles for desired skip codes. All codes must be punched on the line corresponding to pertinent print line of associated form. When one tape is to accommodate several form lengths, all codes are usually duplicated in each section (corresponding to each form length) of the tape. (See Figure 6-2.)
 - (6) Hold tape punch (supplied by Univac) with die side up so that circles to be punched are visible in punch opening; insert tape and punch out each marked circle.
 - (7) Spread small quantity of cement between mark made in step (3) and trailing end of tape.
 - (8) Bring leading end of tape over so that its underside overlaps the splicing end and forms a loop, and sprocket holes at top and bottom of splice are aligned.
 - (9) Press entire splice, and allow cement to dry.
 - (10) Inspect splice to ensure that all punch codes and sprocket holes are through both layers. If they are not, punch through second layer, using holes in first layer as guide.

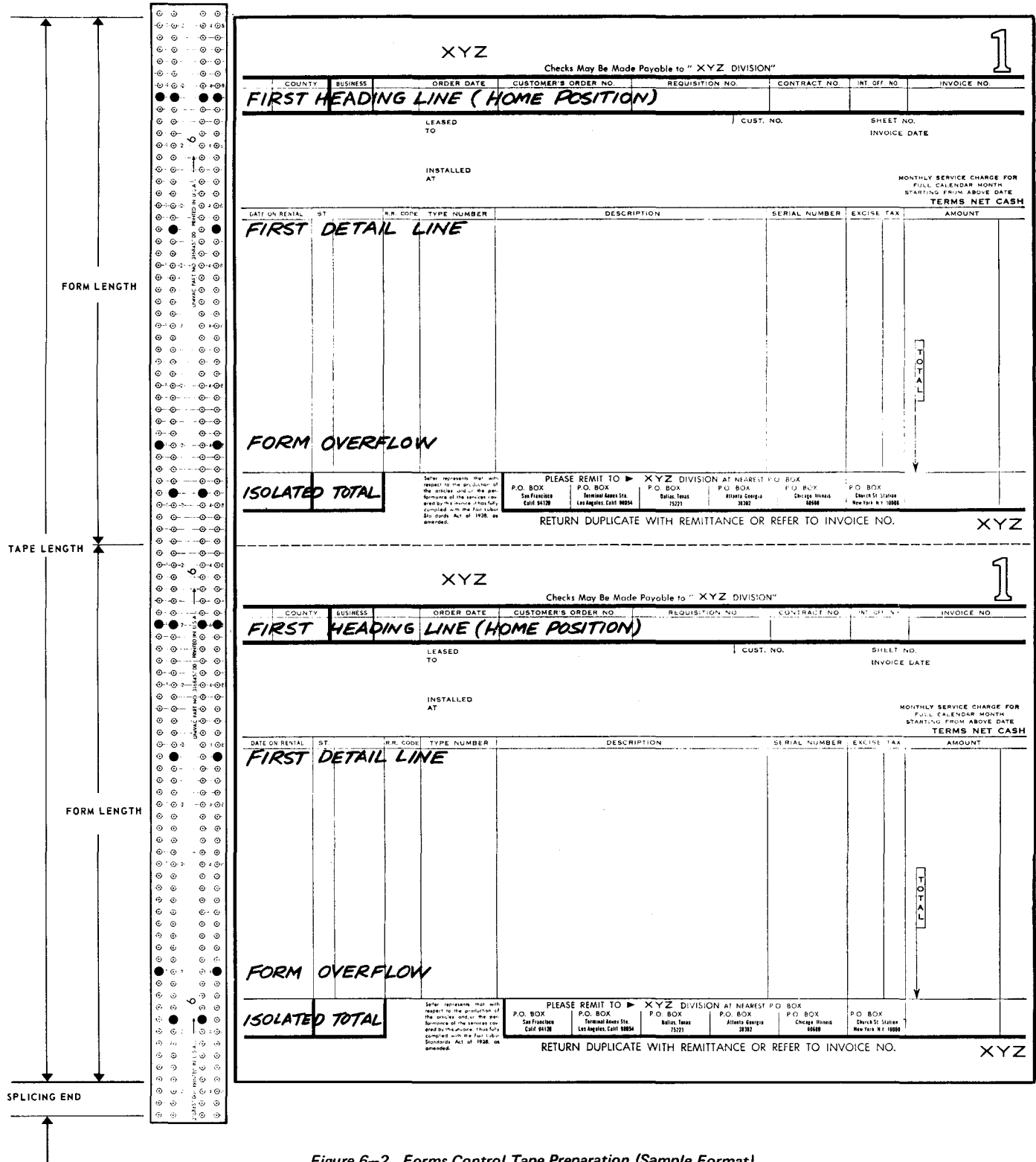


Figure 6-2. Forms Control Tape Preparation (Sample Format)

6.4.1.2. FORMS CONTROL TAPE REPLACEMENT

The forms control mechanism (Figure 6-3) consists primarily of a sprocket wheel, a tape retainer, a read head, a lamp, and a tape guide. The pins around the sprocket wheel engage sprocket holes in the tape, thereby synchronizing tape feeding with form feeding. The tape retainer holds the tape firmly against the sprocket wheel to ensure constant engagement. The lamp, located below the retainer, shines through the hole punch codes in the tape and onto photocells in the read heads. The tape guide holds long tape loops clear of the printer mechanism.

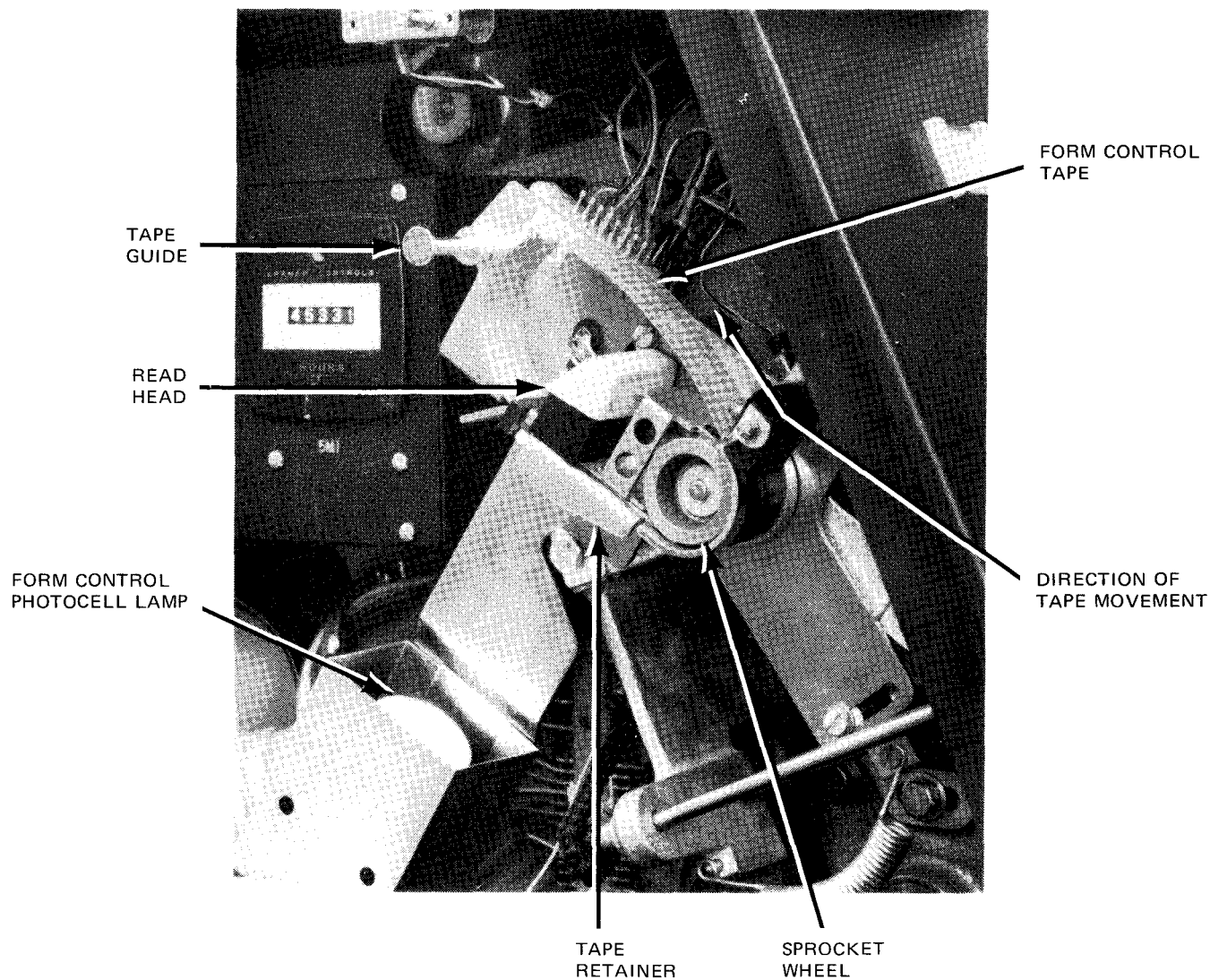


Figure 6-3. Forms Control Mechanism

- To remove a forms control tape, proceed as follows:
 - (1) Press STOP switch/indicator. The STOP switch/indicator lights and RUN switch/indicator goes out.
 - (2) Press ON LINE/OFF LINE switch, on left-hand control panel, to OFF LINE. The OFF LINE indicator lights.
 - (3) Open forms control tape loop access panel on left side of printer.
 - (4) Swing down the left end of tape retainer (Figure 6-3).
 - (5) Release tape from sprocket wheel pins, being careful not to damage tape sprocket holes.

NOTE: If tape sprocket holes are damaged, prepare new tape.

- (6) Lift out tape.

To install a forms control tape, proceed as follows:

- (1) Press STOP switch/indicator. The STOP switch/indicator lights and RUN switch/indicator goes out.
- (2) Press ON LINE/OFF LINE switch, on left-hand control panel, to OFF LINE. The OFF LINE indicator lights.
- (3) With tape retainer swung down, hold appropriate tape loop with arrows at top pointing left; edge of tape containing channel 8 will be toward the printer. No particular part of tape loop circumference need be related to any reference point in the printer.
- (4) Insert lower portion of tape in opening above tape retainer around sprocket wheel.
- (5) Engage sprocket holes of tape with pins of sprocket wheel.
- (6) Hold tape by left end so that holes are fully and properly engaged with pins around right half of sprocket wheel and carefully raise tape retainer into its locked position. Place left side of tape around tape guide only if there is too much slack.
- (7) Close forms control tape access panel.
- (8) Press HOME switch (on left-hand control panel) twice. This brings the tape and mechanism to top-of-form (home paper) position and sets LPI mode as determined by home paper code punched in the paper tape loop. The HOME indicator lights.

6.4.2. RECOVERY PROCEDURES

When an abnormal condition causes the printer to stop, an indicator on the right-hand control panel lights, and an error message (see A.21) is printed at the system console.

If any of the indicators listed in Table 6-4 light, the operator can restore operation by performing the appropriate recovery procedure and replying with the appropriate message as indicated in Appendix A.

INDICATOR	PROCEDURE
PRINT CHECK	<p>Lights when a print check fault is detected. Any of the following conditions can cause the PRINT CHECK indicator to light:</p> <ul style="list-style-type: none">■ Actuator driver circuit jammed because of noise or circuit malfunction■ Open actuator coil or connector■ High voltage circuit malfunction■ Blown fuse on print actuator card <p>Perform the following recovery procedure:</p> <ol style="list-style-type: none">1. Press ON LINE/OFF LINE switch to OFF LINE.2. Press CLEAR switch. If PRINT CHECK indicator goes out, press ON LINE/OFF LINE switch to ON LINE, then press RUN switch/indicator.3. See A.21 for software recovery procedure. If PRINT CHECK indicator does not go out, notify Univac customer engineer.
PARITY CHECK	<p>Lights when a parity error is detected in the code wheel signals. Incorrect parity does not cause the printer to stop unless it is detected for a command code. See A.21 for software recovery procedure. If the PARITY CHECK indicator goes on and off repeatedly, it indicates a parity error in either the code drum buffer or the print line buffer; notify Univac customer engineer.</p>
CARRIAGE CHECK	<p>Lights when the carriage moves outward, away from the paper.</p> <ol style="list-style-type: none">1. Press ON LINE/OFF LINE switch to OFF LINE.2. Press CARRIAGE IN/CARRIAGE OUT switch to CARRIAGE IN. Ensure that the carriage is fully engaged against form.3. Press CLEAR switch. If CARRIAGE CHECK indicator goes out, press ON LINE/OFF LINE switch to ON LINE, then press RUN switch/indicator.4. See A.21 for software recovery procedure. If CARRIAGE CHECK indicator does not go out, notify Univac customer engineer.
FORMS RUNAWAY	<p>Lights whenever form has advanced for two seconds or more without intervention.</p> <ol style="list-style-type: none">1. Press ON LINE/OFF LINE switch to OFF LINE.2. Press CLEAR switch. FORMS RUNAWAY indicator goes out.3. Open forms control tape access panel and inspect forms control tape for correct and undamaged code punch.4. Press ON LINE/OFF LINE switch to ON LINE.5. Press RUN switch/indicator.6. See A.21 for software recovery procedures.7. If FORMS RUNAWAY indicator relights, notify Univac customer engineer.

Table 6-4. Operator Recovery Procedures - Printer (Part 1 of 3)

INDICATOR	PROCEDURE
FORMS OUT	<p>Lights when the last 2.5 inches of paper is positioned below the print head, and the home paper code (1111 or 1110) punched in the forms control tape is detected.</p> <ol style="list-style-type: none"> 1. Press ON LINE/OFF LINE switch to OFF LINE. 2. Replenish form supply. 3. Press CLEAR switch. The FORMS OUT indicator is extinguished. 4. Press ON LINE/OFF LINE switch to ON LINE. 5. Press RUN switch/indicator. 6. See A.21 for software recovery procedure.
RIBBON CHECK	<p>This indicator lights only after the CHANGE RIBBON switch/indicator has been pressed and the ribbon is in position to be changed.</p> <ol style="list-style-type: none"> 1. Press CLEAR switch. 2. Press ON LINE switch. 3. Press RUN switch/indicator. 4. See A.21 for software recovery procedure.
POWER CHECK	<p>Lights when a dc circuit breaker trips or a dc supply fails.</p> <ol style="list-style-type: none"> 1. Press ON LINE/OFF LINE switch to OFF LINE. 2. Inspect circuit breakers located on the power control panel. If any circuit breaker has tripped, reset breaker and proceed as follows: <ol style="list-style-type: none"> a. Press CLEAR switch. The POWER CHECK indicator goes out. b. Press ON LINE/OFF LINE switch to ON LINE. c. Press RUN switch/indicator. d. See A.21 for software recovery procedures. <p>(If no indication of a tripped circuit breaker can be found, or if frequent tripping occurs, notify Univac customer engineer.)</p>
INTERLOCK	<p>Lights when either the left side panel, forms loop access panel, or ribbon access panel is opened.</p> <ol style="list-style-type: none"> 1. Press the opened panel to close the associated interlock. 2. Press CLEAR switch. The INTERLOCK indicator goes out. 3. Press ON LINE/OFF LINE switch to ON LINE. 4. Press RUN switch/indicator. 5. See A.21 for software recovery procedure. <p>If the INTERLOCK indicator does not go out, notify the Univac customer engineer.</p>

Table 6-4. Operator Recovery Procedures - Printer (Part 2 of 3)

INDICATOR	PROCEDURE
TEMP. CHECK	<p>Lights for any of the following conditions:</p> <ul style="list-style-type: none">■ Thermostat open■ Air flow deficient■ Early warning, temperature is excessive (over 110°) <p>Remove the cause of TEMP. CHECK indication (blocked ventilation openings or clogged air filter). After sufficient cooling time has elapsed, open rear of cabinet and press red reset switch above card library location. After pressing the red reset switch, press OFF LINE, press POWER ON (OFF LINE and STOP indicators light), and perform lamp test (press STOP).</p> <ol style="list-style-type: none">1. Press CLEAR switch.2. Press ON LINE/OFF LINE switch to ON LINE.3. Press RUN switch/indicator.4. See A.21 for software recovery procedure. <p>If the TEMP. CHECK indicator remains lighted, turn off the printer and notify the Univac customer engineer.</p>

Table 6-4. Operator Recovery Procedures - Printer (Part 3 of 3)

6.5. MAGNETIC TAPE

Two types of magnetic tape subsystems, the UNISERVO 12/16 Subsystem and the UNISERVO VI-C Subsystem, are available for use with the UNIVAC 9400 System. The UNISERVO 12/16 Subsystem includes a control unit and any combination of UNISERVO 12 and 16 magnetic tape units. For complete magnetic tape operating instructions refer to *UNIVAC 9400 System UNISERVO 12/16 Magnetic Tape Subsystem Programmer/Operator Reference, UP-7661* (current version), and *UNIVAC 9400 System UNISERVO VI-C Subsystem Programmer/Operator Reference, UP-7644* (current version).

To prepare a magnetic tape unit for use:

1. Check for write enable ring. If the tape is to be written on, the write enable ring must be inserted in the slot in back of the reel, otherwise the slot should be empty.
2. Open glass door.
3. Place core of reel on supply reel hub; press and lock in place.
4. Thread tape.
5. Engage tape securely on takeup reel.
6. Close the glass door.

7. Press ON and hold (for 2 seconds or more) until tape has been loaded into both vacuum columns and both reels have stopped.
8. Press LOAD POINT (moves tape to load point).

To rewind tape (UNISERVO VI-C Subsystems):

1. Press LOCAL.
2. Press REWIND (tape rewinds with interlock).
3. Press LOAD POINT (moves tape to load point).

To unload UNISERVO VI-C Subsystem tapes:

1. Ensure that the LOCAL indicator is lit (if not, press LOCAL).
2. Press and hold UNLOAD (if tape is positioned at or near load point) until trailing end of tape feeds off takeup reel. Otherwise, press REWIND, and when both reels have stopped, press and hold UNLOAD.
3. Open the glass door.
4. Rotate the supply reel counterclockwise to wind the leading edge of the tape onto the reel.
5. Press the supply reel hub to unlock the tape reel.
6. Remove the tape reel from its hub. (The tape unit is now ready to receive a new reel of tape.)
7. Remove write enable ring.

To rewind tape (UNISERVO 12 Subsystem):

1. Press STOP.
2. Press REWIND.
3. Press UNLOAD. (Hold until trailing end of tape feeds off takeup reel.)

To rewind tape (UNISERVO 16 Subsystem):

1. Press STOP.
2. Press REWIND. (Tape leader is accessible and the door is lowered automatically.)

To unload UNISERVO 12/16 Subsystem tapes:

1. For UNISERVO 12 tapes, open the glass door.
2. For UNISERVO 16 tapes, turn the tape clamp down by rotating it counterclockwise.
3. For UNISERVO 16 tapes, rotate the supply reel clockwise until there is sufficient slack in the tape between the supply reel and the leader clip.
4. For UNISERVO 16 tapes, remove the leader clip from the clip in the end of the tape of the supply reel.

5. Rotate the supply reel counterclockwise to wind the leading end of the tape onto that reel.
6. Press in on the supply reel hub to unlock the tape reel.
7. Remove the tape reel from the hub. (The tape unit is now ready to receive a new reel of tape.)
8. Remove write enable ring.

6.5.1. RECOVERY PROCEDURES

When an abnormal condition causes a magnetic tape unit to stop, an error message (see A.21) is printed at the system console. If an error condition arises during processing, correct the error by manual intervention if possible, then reply with the appropriate message as indicated in Appendix A.

6.6. DISC

The UNIVAC 8411/8414 Direct Access Subsystems, including one control unit with from one to eight disc drives, are available for use with the UNIVAC 9400 System.

The UNIVAC 8411 Direct Access Subsystem uses interchangeable disc packs having a storage capacity of 7.25 million eight-bit bytes. Each disc pack includes 6 discs, and data is read or recorded on their 10 inside surfaces by 10 read/write heads mounted on a single accessor mechanism. The accessor mechanism can assume one of 203 positions across the disc surface; this simultaneous head movement on the 10 disc surfaces creates 200 addressable data recording cylinders (3 cylinders being reserved for replacement tracks). Each cylinder contains 10 tracks numbered 0 through 9. The addressing of an individual track in a cylinder is by cylinder number (000-199) and by read/write head number (00-09).

The UNIVAC 8414 Direct Access Subsystem uses interchangeable disc packs having a storage capacity of 29.17 million eight-bit bytes. Each disc pack includes 11 discs, and data is read or recorded on their 20 inside surfaces simultaneously by 20 read/write heads mounted on a single accessor mechanism. The accessor mechanism can assume one of 203 positions across the disc surface; this simultaneous head movement on the 20 disc surfaces creates 200 addressable data recording cylinders (3 cylinders being reserved for replacement tracks). Each cylinder contains 20 tracks numbered 0 through 19. The addressing of an individual track in a cylinder is by cylinder number (00-199) and by read/write head number (00-19).

For complete disc operating instructions refer to *UNIVAC 8411/8414 Direct Access Subsystem Operators Reference, UP-7802* (current version).

To prepare a disc unit for use:

1. Ensure that the CH X and CH Y rocker switches, located on the control unit maintenance panel, are pressed to on (down) position.
2. Ensure that the LOCAL DC/REMOTE DC switch, located on the control unit power control panel, is in REMOTE DC position.
3. Check the operator control panel to ensure that the STOP indicator is lit on each disc unit and all other indicators are turned off.

Illumination of the READY indicator on the power control panel of the control unit signifies that ac power is present in the unit; illumination of the STOP indicator on the operator's control panel of the disc drive unit signifies that power is present in the unit.

4. Press the ON LINE/OFF LINE rocker switch on the operator's control panel to OFF LINE.
5. Open the spring-loaded, plexiglass unit cover by pressing the latch located on the front of the shroud; the cover springs up without manual assistance.
6. Ensure that the file protect rocker switch, located in the disc pack well, is in the ON position if a read-only operation is desired, or in the OFF position if a write or read/write operation is desired.
7. Remove the bottom cover of the disc pack and grasp the handle of the protective, plexiglass top cover of the pack; lower the pack gently onto the conical drive shaft in the center of the well.
8. With the disc pack seated firmly on the conical drive shaft, spin the pack clockwise until rotation stops.
9. The disc is firmly attached to the drive shaft when it can no longer be rotated clockwise. Lift the protective cover from the pack and close the unit cover.
10. Press the RUN switch/indicator; the top half of the indicator lights; the STOP indicator is extinguished.
11. The bottom half of the RUN indicator lights when read/write heads are positioned at cylinder 0 of the disc pack, indicating that the unit is fully operational and ready for reading or writing.

To stop a disc drive unit:

1. Press the STOP switch/indicator located on the disc drive unit operator's control panel (the RUN indicator turns off, and the STOP indicator lights.)
2. Wait for rotation to stop, then remove the disc pack.

To unload a disc pack:

1. Press STOP (if drive is on RUN) and wait for rotation to stop.
2. Open the plexiglass unit cover by pressing the latch on the front of the shroud; the cover springs open.
3. Seat plexiglass cover on the disc pack.
4. Grasp the handle of the disc pack cover and turn the pack counterclockwise until a click is heard; lift disc pack off of the conical shaft and out of the unit.
5. Replace the bottom cover of the disc pack.

6.6.1. RECOVERY PROCEDURES

When an abnormal condition causes a disc unit to stop, an error message (see A.21) is printed at the system console. Refer to Table 6-5 for operator action to be taken in the event of an indicated subsystem fault.

A fault condition, in either the disc drive unit or the control unit, causes the DEVICE CHECK indicator to light (indicating loss of ac power) and causes the disc drive unit to halt operation; fault detection automatically locks the unit out of the subsystem. If the indicator lights, notify the Univac customer engineer. After the fault has been corrected, the indicator is turned off by pressing the RUN switch indicator.

When the appropriate recovery procedure has been performed, the operator can restore operation by replying with the appropriate message as indicated in Appendix A.

INDICATION	CAUSE	PROCEDURE
READY lit	Power on in unit	None.
READY off	No power in unit	Raise and release START/ERROR RESET switch; ensure that all power switches and circuit breakers on control unit panels are positioned correctly (up or in); if all are positioned and READY remains off, notify Univac customer engineer.
Alarm bell ringing	Fault in subsystem	Raise and release ALARM OVERRIDE switch; FAULT indicator lights; notify Univac customer engineer.
EARLY WARNING lit Alarm bell ringing	Temperature rises to 130°F in unit; unit shuts down automatically at 160°F	Check for clogged air vents; notify Univac customer engineer if indicator remains lit.
CB01 +6V off CB02 -36V off CB03 +3V off CB04 -3V off CB05 -12V off	Overcurrent or overvoltage; unit shuts down automatically when any circuit breaker opens (to OFF position)	Reset circuit breaker; if breaker reopens, turn power off and notify Univac customer engineer.
24 VAC out	Overloaded relay	Reset circuit breaker; if breaker reopens, turn power off and notify Univac customer engineer.
7 VAC out	Current overload	Reset circuit breaker; if breaker reopens, turn power off and notify Univac customer engineer.

Table 6-5. Operator Recovery Procedures - Disc

6.7. PAPER TAPE SUBSYSTEM

The UNIVAC 0920 Paper Tape Subsystem is housed in a freestanding cabinet and includes a control unit, a tape reader and reader synchronizer, and/or a tape punch and punch synchronizer. The control unit provides the necessary synchronization and interface between the reader and punch synchronizers and the multiplexer channel. The synchronizer units regulate the transfer of data characters between the tape reader or tape punch and the control unit. The paper tape subsystem is a peripheral data processing device possessing the capability of punching data on paper tape and of reading data from paper tape; it reads perforated tape having five, six, seven, or eight channels at a rate of 300 characters per second and punches paper tape at a rate of 110 characters per second.

To prepare the paper tape subsystem for use:

1. Ensure that the ON LINE/OFF LINE switch is in the OFF LINE position.
2. Ensure that power has been turned on at the external power source.
3. Set the MAIN circuit breaker, located on the power control panel, to ON (up position).
4. Press the top of the POWER ON/POWER OFF switch to POWER ON. (The PUNCH STOP switch/indicator, READER STOP switch/indicator, OFF LINE indicator, and READER INTERLOCK indicator light.)
5. Press the CLEAR switch.

To perform a read operation without spoolers (strip read):

1. Ensure that the program connector is inserted properly.
2. Operate READY/LOAD switch lever to position LOAD (right).
3. Operate READY/LOAD switch lever to proper tape-width position (IN for 5/8-inch tape, MIDPOINT for 7/8-inch tape, and OUT for 1-inch tape).
4. Insert tape (channel 1 towards reader for tapes having six, seven, or eight levels, or channel 5 towards reader for five-level tapes).
5. Operate READY/LOAD switch lever to position READY (left).
6. Press the CLEAR switch.
7. Press the top of the ON LINE/OFF LINE switch to the ON LINE position.

NOTE: Pressing the ON LINE switch when processor is executing a program causes an interrupt and/or program halt to occur.

8. Press the READER RUN switch/indicator (indicator lights).

To perform a read operation with spoolers:

1. Ensure that the program connector is inserted properly.
2. Ensure that READER REWIND indicator is off. If indicator is lit, press READER REWIND switch/indicator.
3. Ensure that READER SPOOLER indicator is off. (If indicator is lit, press READER SPOOLER switch/indicator.)
4. Operate READY/LOAD switch lever to position LOAD (right).
5. Operate READY/LOAD switch lever to proper tape-width position (IN for 5/8-inch tape, MIDPOINT for 7/8-inch tape, and OUT for 1-inch tape).
6. Load tape reels (supply reel on right) and thread tape around spooler control arms. Tape leader (sprockets only) should be under the read station.
7. Operate READY/LOAD switch lever to position READY (left).
8. Press the CLEAR switch.
9. Press the top of the ON LINE/OFF LINE switch to the ON LINE position.

NOTE: Pressing the ON LINE switch when the processor is executing a program causes an interrupt and/or program halt to occur.

10. Press the READER RUN switch/indicator.
11. Press the READER SPOOLER switch/indicator. (READER SPOOLER switch/indicator lights).

To perform a punch operation:

1. Ensure that the program connector is inserted properly.
2. Ensure that the tape supply reel has sufficient tape for operation.
3. If takeup spooler is being used, wrap tape leader around control arm and onto takeup spooler.
4. Press the CLEAR switch.
5. Press the top of the ON LINE/OFF LINE switch to the ON LINE position.

NOTE: Pressing the ON LINE switch when the processor is executing a program causes an interrupt and/or program halt to occur.

6.7.1. RECOVERY PROCEDURES

When an abnormal condition causes the paper tape subsystem to stop, an indicator on the control panel lights and an error message (see A.21) is printed at the system console. If any of the indicators listed in Table 6-6 light, the operator can restore operation by performing the appropriate recovery procedure and replying with the appropriate message as indicated in Appendix A.

INDICATOR	PROCEDURE
PUNCH INTERLOCK	<p>When lit, this indicator signifies that the program connector has been improperly inserted. Correct the condition.</p> <ol style="list-style-type: none"> 1. Press CLEAR. 2. Press ON LINE. 3. See A.21 for software recovery procedures.
READER INTERLOCK	<p>When lit, this indicator signifies one of the following conditions:</p> <ul style="list-style-type: none"> ■ READY/LOAD switch is in LOAD position ■ Broken tape ■ Program connector not inserted ■ STOP ON ERROR switch set and error detected <p>Correct the condition.</p> <ol style="list-style-type: none"> 1. Press CLEAR. 2. Press ON LINE. 3. See A.21 for software recovery procedures.

Table 6-6. Operator Recovery Procedures - Paper Tape Subsystem (Part 1 of 2)

INDICATOR	PROCEDURE
READER DEVICE CHECK	When lit, this indicator signifies that an overshoot condition has occurred within the tape reader (reader stopped — paper moved).
STOP	<p>Check for one of the following:</p> <ul style="list-style-type: none">■ Punch takeup reel full■ Low tape on punch■ Broken read tape■ Normal EOT on reader <p>Correct the abnormal condition if necessary.</p> <ol style="list-style-type: none">1. Press CLEAR.2. Press ON LINE.3. See A.21 for software recovery procedures.

Table 6-6. Operator Recovery Procedures — Paper Tape Subsystem (Part 2 of 2)

6.8. OPTICAL DOCUMENT READER

The UNIVAC 2703 Optical Document Reader (ODR) is a freestanding, self-contained unit that provides an online input medium which uses optical scanning and electronic character recognition techniques to read data from source documents ranging in size from 2.75 by 3.00 inches to 4.25 by 8.75 inches. The basic document reading speed is 330 documents per minute for documents 4 inches in length.

To prepare the Optical Document Reader for use:

1. Raise the cover on the operator's control panel.
2. Press the ON LINE/OFF LINE switch to the desired position.
3. Press the POWER ON/POWER OFF switch to POWER ON.
4. Load documents (bottom edge down, data side toward ODR, last card blank).
5. The ODR is ready for operation.

6.8.1. RECOVERY PROCEDURES

When an abnormal condition causes the ODR to stop, an indicator on the control panel lights, and an error message (see A.21) is printed at the system console. If any of the indicators listed in Table 6-7 light, the operator can restore operation by performing the appropriate recovery procedure and replying with the appropriate message as indicated in Appendix A.

INDICATOR	PROCEDURE
FEED CHECK	<p>A document jam has occurred.</p> <ol style="list-style-type: none"> 1. Clear jam. 2. Press RUN. 3. See A.21 for software recovery procedures.
INTERLOCK	<ol style="list-style-type: none"> 1. Check document transport covers and lower panels, front and rear, to ensure that the interlock switches are properly seated and fully closed. 2. Press RUN. 3. See A.21 for software recovery procedure.
DEVICE CHECK	<ul style="list-style-type: none"> ■ Loss of cooling air <ol style="list-style-type: none"> 1. Open both front panels. 2. Check air filters at the bottom of each electronics rack by removing and examining the bottom side for accumulated dirt. 3. If dirty, tap filter frame gently on a container to dislodge dirt. 4. Replace filters and close casework panels. 5. Inspect operator's control panel to see if DEVICE CHECK indicator is off. If it is off, press the RUN switch/indicator. 6. See A.21 for software recovery procedures. 7. If DEVICE CHECK is still lit, proceed as follows: ■ High temperature <ol style="list-style-type: none"> 1. Allow the ODR to cool, then attempt to restart by pressing the RUN switch/indicator. 2. See A.21 for software recovery procedures. 3. If the DEVICE CHECK indicator is still lit, proceed as follows: ■ Tripped circuit breaker <ol style="list-style-type: none"> 1. Open rear panel (second from right when facing rear of unit). 2. Visually inspect circuit breakers on both the power control and power distribution panels. 3. If one of the circuit breakers is in the OFF position, place the MAIN PWR switch/circuit breaker in the OFF position, then reset tripped circuit breaker. 4. Place MAIN PWR switch/circuit breaker in the ON position. 5. Inspect operator's control panel to see if DEVICE CHECK indicator is lit. If it is not lit, press the RUN switch/indicator. 6. See A.21 for software recovery procedures. 7. If DEVICE CHECK is still lit and the circuit breaker retrips, notify the Univac customer engineer.

Table 6-7. Operator Recovery Procedures — Optical Document Reader (Part 1 of 2)

INDICATOR	PROCEDURE
STOP	<p>One of the following conditions is present:</p> <ul style="list-style-type: none">■ output stacker is full;■ input hopper is empty; or■ documents cannot be fed from input hopper. <p>This condition can also appear if there is a delay of 30 seconds in commands from the processor.</p> <ol style="list-style-type: none">1. Correct the condition.2. Press RUN.3. See A.21 for software recovery procedures.

Table 6-7. Operator Recovery Procedures - Optical Document Reader (Part 2 of 2)

6.9. UNIVAC 1004/1005 CARD PROCESSOR

The UNIVAC 1004/1005 Card Processor is a self-contained data processing system. The UNIVAC 1004 Subsystem consists of a card reader, a processor, a printer and, optionally, a card punch. The functions of card reading, data processing, printing, and punching are user programmed through the writing of a removable connection panel. The UNIVAC 1005 Subsystem consists of a card reader, a processor, and a printer, and can be expanded through the use of a wide variety of peripheral equipment. The system is capable of being both internally and externally programmed. UNIVAC 1004 connection panels are compatible with the UNIVAC 1005 Subsystem. The system contains an Electronic Program Module which can be installed on existing UNIVAC 1004 Subsystems. For complete 1004 operating instructions refer to *UNIVAC 1004 Card Processor Operating Instructions, UP-3845* (current version).

To prepare the UNIVAC 1004/1005 Card Processor for use:

1. Install the connection panel.
2. Install the forms control tape, and set the line spacing switch to the desired position.
3. Press the POWER ON switch on Control Panel 1. Wait for the INTLK indicator to light.
4. Press the HOME PAPER switch on Control Panel 2 to bring the forms control tape to its home position.
5. Install the paper form and set the print density and form thickness.
6. Set the MODE switch on Control Panel 2 to CONT.
7. Set the display panel to Display Mask 4.
8. Load the card reader input magazine. (This is required even though the card reader may not be used during a job.)

9. Prepare the punch for operation. (The card punch should be turned on even when not in use. When the punch is to be used, however, the punch check light must be turned off.)
10. Press the E/I switch to ON.
11. Press START.
12. Press CLEAR.
13. Press FEED.
14. Press RUN.

6.9.1. RECOVERY PROCEDURES

When an abnormal condition causes the UNIVAC 1004/1005 Card Processor to stop, an indicator on the central control panel lights, and an error message (see A.21) is printed at the system console. If any of the thirteen indicators in the top two rows of Display Mask 4 light (see Table 6-8), the operator can restore operation by performing the appropriate recovery procedure and replying with the appropriate message, as indicated in Appendix A.

NOTE: The CLEAR and STOP switches must not be pressed during error recovery procedures.

INDICATOR	PROCEDURE
HOPPER	<p>Input magazine is empty and the FEED indicator is lit. (During normal operation, these indicators light after the last card is read.)</p> <p>To resume operation:</p> <ol style="list-style-type: none"> 1. Place cards in the input magazine. 2. Press FEED. 3. Press RUN. 4. See A.21 for software recovery procedures.
FEED	<p>Card has failed to feed from the magazine.</p> <p>To resume operation:</p> <ol style="list-style-type: none"> 1. Remove cards from input magazine. 2. Examine cards on bottom of stack and correct the problem. 3. Replace cards. 4. Press FEED. 5. Press RUN. <p>If hopper is empty and additional cards are to be processed, place cards in magazine, and press FEED and RUN. See A.21 for software recovery procedures.</p>

Table 6-8. Operator Recovery Procedures - UNIVAC 1004/1005 Subsystem (Part 1 of 3)

INDICATOR	PROCEDURE
RD JAM	<p>A card from the wait station failed to feed to the read station.</p> <p>If the stoppage is due to a card jam before the read station, the jammed card was not read.</p> <p>To return the processor to operation:</p> <ol style="list-style-type: none"> 1. Remove all cards from magazine. 2. Press FEED. 3. Remake damaged cards, if necessary, and replace them in their proper sequence at the bottom of the stack in the magazine. 4. Press FEED. 5. Press RUN. 6. See A.21 for software recovery procedures. <p>If there is no card jam, the last card in the stacker has not been read.</p> <p>To return the processor to operation:</p> <ol style="list-style-type: none"> 1. Remove all cards from magazine. 2. Press FEED. 3. Place the last two cards in the stacker on the bottom of the magazine deck. 4. Press FEED. 5. Press RUN. 6. See A.21 for software recovery procedure. <p>If the problem recurs, notify supervisory personnel.</p>
TSP JAM	<p>Transport jam—card jam occurred as card was delivered to the stacker. Remove misfed card or cards.</p> <p>Press RUN.</p> <p>See A.21 for software recovery procedures.</p>
STACKR	<p>Full card stacker. Remove cards from stacker. Press RUN. See A.21 for software recovery procedures.</p>
FORM	<p>Supply of forms exhausted or break in the perforation between two forms. Replenish form supply or correct problem. Press RUN. See A.21 for software recovery procedure.</p>
ADV✓	<p>Forms runaway. Indicates error in punching of the form control tape or in the skip controls on the connection panel. Correct the problem. Reposition forms at home position. Press RUN. See A.21 for software recovery procedures.</p>

Table 6-8. Operator Recovery Procedures — UNIVAC 1004/1005 Subsystem (Part 2 of 3)

INDICATOR	PROCEDURE
PUNCH	<p>Abnormal condition in punch. The punch control panel indicates reason for stop. The abnormal condition could be any one of the following:</p> <ol style="list-style-type: none"> 1. Punch power card not connected. The AC and DC indicators are not lit. 2. Punch power switch not turned on. The AC and DC indicators are not lit. 3. Blown fuse. The AC and/or DC indicator are not lit. 4. Punch covers not in place. The INTLK indicator is lit. 5. Punching mechanism not locked in position. The INTLK indicator is lit. 6. Punch reading brushes unlocked or removed. The INTLK indicator is lit. 7. Punch input magazine empty. The HOPPER indicator is lit. 8. Punch stacker full. The STACKER FULL indicator is lit. 9. Punch card jam. The A JAM, B JAM, or STACKER JAM indicator is lit. 10. Punch chip drawer full. 11. Punch check set. Hole count does not agree. <p>Correct the problem. Press RUN. See A.21 for software recovery procedures.</p>
HALT	<p>Programmed stop. Operator should consult the operating routine for the application to determine what action is to be taken according to the indication display. One or more of the indicators (1-4) is usually used in conjunction with the HALT indicator.</p>
IND 1-4	<p>One or more of the indicators is usually wired with the HALT indicator to give a specific reason for the halt.</p>

Table 6-8. Operator Recovery Procedures - UNIVAC 1004/1005 Subsystem (Part 3 of 3)

6.9.2. SKIP CODE DIFFERENCES

For the forms control tape loop, the skip code differences between the UNIVAC 9400 System and the 1004 Subsystem are as follows:

UNIVAC 9400 System	UNIVAC 1004 Subsystem
<p>No Space Space 1 line Space 3 lines</p>	<p>No Space Space 1 line Space 3 lines</p>
<p>Skip 4 Skip 5 Skip 6 Skip 7 Skip 8 Skip 9 (Form Overflow) Skip 10 Skip 11 Skip 12 Skip 13 Skip 14 (Home Paper 6 LPI) Skip 15 (Home Paper 8 LPI)</p> <p style="text-align: center;">} </p> <p>Load Code</p>	<p>Skip 2 Skip 3 Skip 4 Skip 5 Skip 6 Skip 1 (Form Overflow) No form advance takes place with these skip options for either a WRITE or a CNTRL command. Skip 7 (Home Paper) Skip 7 (Home Paper)</p> <p>No Operation</p>

6.9.3. UNIVAC 1004 SUBSYSTEM PRINTING CHARACTERISTICS

Print character differences between the UNIVAC 9400 System and the 1004 Subsystem printers are as follows:

HEX	9400 CHARACTER	1004 CHARACTER
4A	¢ (cents sign)	Δ (delta)
4F	(absolute)	[(left bracket)
5F	⌋ (logical not)	≠ (not equal)
6D	— (underline)	▣ (lozenge)
7F	" (quote)] (right bracket)

6.10. UNIVAC 9200/9300 SUBSYSTEM

The UNIVAC 9200 or 9300 Subsystem is a freestanding, offline system and may include all peripheral units and hardware features available in the UNIVAC 9200 or 9300 System configurations. The UNIVAC 9200 or 9300 Subsystem can be operated offline or online with the UNIVAC 9400 System. It is connected to the UNIVAC 9400 System by means of a channel adapter attached to one of the eight subchannels provided in the standard multiplexer channel.

To prepare the UNIVAC 9200/9300 Subsystem for online processing with the UNIVAC 9400 System:

1. Set the switch on the adapter to the ON LINE position.
2. Initialize the UNIVAC 9200/9300 Subsystem reader, printer, punch.
3. Load the UNIVAC 9200/9300 online handler by means of the card load routine.
4. Clear and feed reader.
5. Set 01 on the DATA ENTRY switches.
6. Press LOAD switch; press RUN. Turn off LOAD switch and press RUN again.
7. After successfully loading the online handler (indicated by a $7FFF_{16}$ display), press RUN.

NOTE: THE UNIVAC 9200/9300 online handler must be loaded before the UNIVAC 9400 System issues any commands to it. Refer to *UNIVAC 9200/9200II/9300/9300II Systems Processor and Storage Operator Reference, UP-7781* (current version) for details.

6.10.1. RECOVERY PROCEDURES

When an abnormal condition causes the UNIVAC 9200/9300 Subsystem to stop, an error message (see A.21) is printed at the system console. If any of the indicators listed in Table 6-9 light, the operator can restore operation by performing the appropriate recovery procedure and replying with the appropriate message as indicated in Appendix A.

INDICATOR		PROCEDURE
{ PRINTER READER PUNCH	ABN condition indicator lit	Check DISPLAY SELECT condition indicators; if no abnormal condition is indicated, call Univac customer engineer.
I/O { A B C	{ PRINTER READER PUNCH OP condition indicator lit	Lights to indicate a unit is offline, an out of forms condition exists, a card hopper is empty, or a stacker is full. To resume condition: 1. Correct the condition. 2. Press CLEAR. 3. Press START.
I/O { A B C	{ PRINTER READER PUNCH ABN condition indicator lit	Lights to indicate a card jam or paper jam. 1. Correct the condition. 2. Press CLEAR. 3. Press START.
I/O { A B C	{ PRINTER READER PUNCH DEV condition indicator lit	Lights to indicate a print, read, or punch check error. To resume operation: 1. Correct condition. 2. Press CLEAR. 3. Press START.
I/O { A B C	{ PRINTER READER PUNCH MEM condition indicator lit	Lights to indicate a control or data parity error. Call Univac customer engineer. After correcting problem: 1. Press CLEAR. 2. Press START.

Table 6-9. Operator Recovery Procedures - UNIVAC 9200/9300 Subsystem

6.10.2. UNIVAC 9200/9300 SUBSYSTEM PRINTING CHARACTERISTICS

The print characteristics are the same for the UNIVAC 9400 System and the UNIVAC 9200/9300 Subsystem.

For the forms control tape loop, the skip code differences between the UNIVAC 9200 System and the UNIVAC 9200/9300 Subsystem are as follows:

UNIVAC 9400 SYSTEM	UNIVAC 9200/9300 SUBSYSTEM (Bar Printer)
No space	No space
Space 1 line	Space 1 line
Space 2 lines	Space 2 lines
Space 3 lines	Space 3 lines
Skip 4	Skip 2
Skip 5	Skip 3
Skip 6	Skip 4
Skip 7	Skip 5
Skip 8	Skip 6
Skip 9	Skip 1 (form overflow)
Skip 10	No form advance takes place with these skip options for either a WRITE or a CNTRL command.
Skip 11	
Skip 12	
Skip 13	
Skip 14 (home paper 6 lpi)	Skip 7 (home paper)
Skip 15 (home paper 8 lpi)	Skip 7 (home paper)

7. STORAGE DUMPS

7.1. GENERAL

There are three types of main storage dumps available to the UNIVAC 9400 System user: the transient SVC dump, the ABEND or CANCEL dump, and the resident dump. Explanations of each of these dumps are given in the following paragraphs, together with information on debugging and examples of each type of dump.

7.1.1. TRANSIENT SVC DUMP

The transient SVC dump routine can be initiated from within a program by executing the Supervisor DUMP or SNAP macro instruction. It can also be initiated from the operator's console by means of the DUMP operator command. When the DUMP macro instruction is executed or the DUMP operator command is entered at the system console, a normal end-of-job step is executed at the completion of the dump. Remaining job steps are executed normally. If an OPTION NODUMP statement is specified in the control stream, the dump or snap is not executed; but if the DUMP macro instruction is specified, normal end-of-job step processing is initiated immediately.

There are two ways to execute a system dump by means of the transient SVC dump routine: include an OPTION SYSDUMP statement in the control stream or initiate a DUMP SYSTEM operator command. If an OPTION SYSDUMP statement is included in the control stream, the transient SVC dump routine displays the entire contents of main storage. End-of-job step processing takes place at the completion of the dump, and remaining job steps are executed normally. If OPTION SYSDUMP is not specified in the control stream, a Supervisor DUMP macro instruction gives only the registers, extent table, JCB, and storage locations after the job preamble. If a DUMP SYSTEM operator command is initiated at the console, the transient SVC dump routine displays all of main storage, but no end-of-job step procedures are initiated, and the console does not accept any further operator commands until the system dump is completed.

7.1.2. ABEND (OR CANCEL) DUMP

The ABEND/CANCEL dump can be initiated from within a program by executing the Supervisor CANCEL macro instruction; it can be initiated from within the Supervisor when a job is aborted because of a program check, software check, or maximum time expiration; and it can be initiated from the operator's console by means of the CANCEL operator command. The ABEND/CANCEL dump displays main storage in hexadecimal, with all printable EBCDIC characters displayed in the rightmost column of the printout. If OPTION SYSDUMP is included in the control stream, the ABEND/CANCEL dump displays main storage from low-order storage to the end of the storage partition of the job being cancelled. The ABEND/CANCEL dump is not displayed if OPTION NODUMP is included in the control stream. In all cases the job is cancelled.

The CANCEL statement cancels a job without initiating an ABEND/CANCEL dump. If a CANCEL command is keyed in for a job while Job Control is active in behalf of that job, the job is cancelled, and no ABEND/CANCEL dump is displayed.

7.1.3. RESIDENT DUMP

The resident dump routine must be specified as part of the Supervisor at system generation (SYSGEN) time. This dump should be used only when it is not possible to get a system dump by means of the ABEND/CANCEL or transient SVC dump routine, because it has no direct interface with the Supervisor. This lack of direct interface with the Supervisor results in the possibility of having to reload the Supervisor and reconstruct the file if the resident dump routine is accessed. The starting address of the resident dump routine is represented by the label UB\$DMP in the Supervisor generation listing.

To invoke the resident dump, the operator must perform the following steps:

1. Press STOP.
2. Disable timer.
3. Press SYSTEM RESET.
4. Insert the address of the resident dump into the PSW switches.
5. Press RUN.

7.2. INTERPRETING STORAGE DUMPS

To interpret the control blocks and low-order storage information contained in storage dumps, refer to *UNIVAC 9400 System Supervisor Programmer Reference, UP-7689* (current version) for a detailed description of the following: error job preamble, Job Control blocks, physical unit blocks, system information block, and the command control block; refer to *UNIVAC 9400 System Assembler/Central Processor Unit Programmer Reference, UP-7600* (current version) for interpreting low-order storage; and refer to the current version of the STDEQU Proc to resolve label displacements and investigate the contents of the fields pointed to by the labels in each block.

Explanations of the labeled fields printed out with the ABEND dump are as follows:

- IP\$VSN — six-byte volume serial number in EBCDIC.
- IP\$ALC — two-byte binary field indicating the allocation of the device.
- IP\$MDE — two-byte binary field, where:
- Byte 1 = active mode.
 - Byte 2 = initial mode (set at system generation time).
- IP\$DC — four-byte device descriptor, where:
- Byte 1 = type code in binary.
 - Bytes 2, 3, and 4 = external device ID in EBCDIC.
- IP\$ALT — two-byte absolute address of the physical unit block for the alternate device.
- IP\$SF — two-byte binary device status flag.
- IP\$EC — two-byte binary error count.

- IP\$LNK** – six-byte binary address of the Job Control block and the command control block, where:
- Bytes 1 and 2 = the address of the Job Control block that issued the last I/O command to the device.
 - Bytes 3 through 6 = the address of the CCB for the last dispatched order.
- IP\$ISU** – five-byte binary field where:
- Byte 1 = the I/O channel issued for the last dispatched order.
 - Byte 2 = device address.
 - Byte 3 = cochannel indicator.
 - Byte 4 = primary channel indicator.
 - Byte 5 = cochannel and channel.
- SB\$CHR** – four-byte binary field showing system characteristics.
- SB\$SCR** – eleven-byte field used for system communication.
- SB\$SPI** – one-byte field used as a program switch indicator.
- SB\$PA** – four-byte binary address of the first byte of the problem program area.
- SB\$HA** – four-byte binary address of the last byte in the processor.
- SB\$FRE** – four-byte binary address of the first free element.
- SB\$LUT** – eight-byte binary field, where:
- Bytes 1 through 4 = the count of entries in the logical unit block.
 - Bytes 5 through 8 = the address of the logical unit table.
- JB\$SYN** – two-byte binary field used for job synchronization control.
- JB\$IOC** – two-byte binary count of outstanding I/O orders.
- JB\$LR** – two-byte binary field indicating the limits register setting.
- JB\$SVC** – two-byte binary field, where:
- Byte 1 = the transient request identification.
 - Byte 2 = FF indicating no request.
 - F0 indicating requested transient routine in progress.
 - 00 indicating request outstanding.
- JP\$IOQ** – 80-byte binary field supplying information on the multiplexer and selector channels.

- JP\$CCB – 40-byte binary field which is the systems shared command control block used for OPR, LOAD, FETCH, RDFCB, and GETCS service requests.
- JP\$SF – eight-byte binary error field.
- JP\$USR – 36-byte binary field containing user island code information.
- JP\$UBA – four-byte binary field containing information about the user interrupt buffer area.
- JP\$PAD – 16-byte binary field containing problem job main storage assignments.
- JP\$TME – eight-byte binary field containing job time accounting.
- JP\$DTD – 18-byte EBCDIC and binary field containing three distinct dates.

7.3. EXPLANATION OF ERROR CODES

The last half of the error PSW can be found by adding hexadecimal 18C to the starting address of the preamble. This is the location following the instruction which caused a program check error.

A two-byte error code can be found at the starting address of the preamble plus hexadecimal 1CC. The first byte of the error code indicates the routine name; the second byte of the error code indicates the type of error:

- A breakdown of the first byte (routine name) of the error code is as follows:

<u>ROUTINE NAME</u>	<u>CODE</u>
SVC processing routines (identified by one-byte even-numbered codes)	Refer to the SVC codes in the STDEQU tables.
Supervisor routines, other than those called by an SVC instruction, are identified by one-byte odd-numbered codes as follows:	
SVC Interrupt Handler (SVCINT)	01
Timer Services (TMRSRV)	03
Transient Scheduler	05
BAL Translator	07

- A breakdown of the second byte (type of error) of the error code is as follows:

<u>TYPE OF ERROR</u>	<u>CODE</u>
Invalid SVC	01
Expiration of estimated maximum run time	02
Block sequence error detected in tape load file	03
Attempted EXCP request referencing a command control block which does not have a traffic bit set to 1 (the result of queuing a command control block which currently exists in a queue)	04
Record format error detected in load file	05
Attempted EXCP referencing a physical input/output control block which contains an invalid physical unit block (PUB) address	06
Attempted EXCP referencing a physical unit block which is not allocated to the problem job	08
The request (GETCS, GIVE, TAKE, QUERY), which requires the Supervisor to return information to a storage address, attempted to reference main storage locations not within the main storage limits of the problem program; tape locate error	0A
Disc Locate Error:	0C

	Tape	Disc	
		Rel.	Abs.
(a) Module not found	X	X	X
(b) Load point or entry point not within limits of partition	X	X	
(c) Transfer record not found	X	X	
(d) Unrecoverable I/O error	X	X	X
(e) ASCII module with non-ASCII Supervisor	X	X	
(f) No prefix loader	X		

Illegal operation	10
Privileged operation	20
Write protection	40
Address exception	50
Specification exception	60
Write protect with address exception	70
Binary overflow	80
Decimal overflow	A0
Decimal divide exception	B0

7.4. SAMPLE DUMPS

■ Resident Dump

A

ADDRESS	C	4	8	C	10	14	16	1C	20	24	28	2C
000754	C0000040	00000040	7E02000C	40C01E5A								
000764	AC0064FE	00000000	FE030050	8000A612								
000774	C000602A	40001E06	7E000000	80006026								
000784	C0006038	00000716	7E000000	80006026								
000794	00000000	00000000	00000000	00000000								

⋮

000724	40404040	40404040	40404040	40404040	40404040							
000934	40404040	40404040	40404040	40404040	40404040							
000944	40404040	40404040	40404040	40404040	40404040							
000200	07680000	930022CC	00000040	00000000	40001E06	C0000788	00008C48	00000A20	00002978	00000000	00000AF4	00000000
000230	00000000	0000000A	00001B48	00000A80	8000269A	00008056	00000000	00000730	00000000	00000238	00000000	00000240
000240	00000000	00000000	00000250	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000

⋮

B

01FE50	00000000	00000000	00000000	000000F4	00000002	0A01B...	00000000	0000C800	141C7E92	20200100		
01FE80	00000000	00000000	00000000	00000000	00000000	00000000	00000000	01000000	00020000	00130000	00000000	00000000
01FE90	00000000	00000000	00000000	00000000	F1E2E8E2	09F6F000	00000000	00000001	00000000	00000000	00000000	00000000
01FEE0	00000000	00000000	00000000	00000000	00000000	000000A4	09067F00	00010100	00000000	04001300	00000000	00000000
01FFF0	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000

- A — This is the address column. The address for the low-order storage locations in this column are invalid. For example, the first address should be 000000; the second address should be 000010. See *UNIVAC 9400 System Assembler/Central Processor Unit Programmer Reference, UP-7600* (current version) for the layout of low-order storage.
- B — This area is laid out in obvious format with the addresses listed on the left pointing to the first byte of each 30-byte (hex) dumped area.

000160	00000000	00000000	00000000	00000000	04321884	00000000	00000000	00000000	00000000*
000180	00000000	00000000	00000000	00000000	00006674	00000000	00000000	00000000	00000000*
0001A0	06007040	0C000000	02009440	0C000132	40404040	40404040	40404040	40404040	40404040*
0001C0	40404040	40404040	40404040	40404040	40404040	40404040	40404040	40404040	40404040*
SERIES TRHO QUALIFY SAME AS ABOVE										
000200	07000000	93002200	00000000	00000000	40031E06	00000788	00008C48	00000820	00000000*
000220	00000000	00000000	00000000	00000000	00000000	00000000	00001B48	00000A80	00000000*

•
•
•

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000420	07FF50F0	4E3258E0	4E3A41E0	E05450E0	4E4250E0	4E3A4860	4E4B4A60	4D7445F0*
000440	4E1C45E0	4PC6406C	4E4B50F0	4E3207FF	92E227D3	92C727D5	92D127D8	45E02D8A*
000460	07FF0503	E0004E4E	47804DA2	45F04D7E	47F04C94	92FF4E57	92F04C39	92004C8F*
000480	47FC4022	92004C8F	92F04C93	92004F57	92004E56	47F04C06	D503E000	4E524770*
0004A0	400C41FF	4E584710	40F892FF	4E5645F0	405047F0	4C5692C8	270592E2	270392D1*
0004C0	270A45E0	2DBA47F0	4C0292C9	270592E2	270392D1	270845E0	2DBA47F0	400C91F0*
0004E0	4C934710	400C45F0	405F47F0	40B241E0	2D3850E0	4E3A50E0	4E4207FF	00000000*
000500	00000000	00000000	00000000	00000000	00000000	00000000	00000000	05C104C5NAME*
000520	0709LAC3	C505C440	00000000	F0000000	000007C7	00040000	41A04901	41A02020PROCED*
000540	186648E0	26425900	A0134100	ACC74110	A02A47F0	48BE12E0	476048BE	92F927490.....9.....*
000560	45E04038	47F04F36	SPECAD13	50E04F5E	58E0A00F	58E0A023	18EF50E0	4F4648E001.....6.....0.....6.....*
000580	A01E40E0	4FAC91E0	A00A4710	4C9C9580	A00A4780	48FC9590	A00A4780	48FC92F518.....5.....*
0005A0	274445E0	400041E0	490150E0	26489202	264841E0	028640E0	264E5080	A00F92FF6.....*
0005C0	A00017CC	41000000	41F0A008	02FF0001	A00B41F0	F10046C0	4C229200	A00092000.....K.....D.....01.....*
0005E0	A0059201	A0069200	A0099230	A00A4190	A00R1889	4A802642	50B04F4A	41B049016.....1E.....*

■ DUMP jobnumber,jobname

PROG	REGS												
		0000951E	00009488	40008E00	00009E00	4000AA02	00000008	0000AB98	0000AA20	0000AA08	0000AA7C	00008E20	000097E0
		0000951E	00009468	80009936	00000193								
JOB		00000786	TO	0000070F									
000780		F0F54000	000001F4	07886544	43AB909C	F0030052	40000046	010452F0	0000AC00	00000105	50440818	F3F44002	01000F9F
PRE		00008000	TO	00008000									
000800		078E3F44	449095CC	0000951E	00009488	40008E00	00009E00	4000AA02	00000008	0000AB98	0000AA20	0000AA08	0000AA7C
000800		00008020	000097F0	0000951E	00009488	80009936	00000193	00000000	0000AC30	00000000	00008C38	00000000	00008C40
000800		00000000	00008C48	00000000	00008C50	00000000	00008C58	00000000	00008C60	00000000	00008C48	00000000	00008C70
000800		00000000	00008C74	00008040	00008000	00002978	00000036	01000000	00000001	00000000	00000000	002000CC	00000004
000800		01448000	00640800	00001A00	139095CC	00000000	00000000	00000000	01000000	07008054	40000006	1A908CC8	40000006
000800		A900805A	40000000	00008C00	00000000	00008028	00000018	07008031	40000006	31008033	40000005	38008010	00000000
000800		00008038	00000000	00000000	00000000	64000000	07000004	00009060	00000433	00008031	4000000F	03008008	00000000
000800		00008000	00000013	00000000	07E2F0F0	F0F20000	00000000	40000000	00000000	00000000	40000000	00000000	00000000
000800		40000000	00000000	00000000	00000000	00008E00	00008E00	000089FF	000089FF	0A800000	00A00000	00000000	001A0013
000800		13070401	00000000	00000000	00000000	00254000	C4C107E2	40000000	00001500	01002000	F0F0A1F0	F9A1F7F1	40404040
000800		40000000	00000000	00000000	0000951E	00009488	0718E300	00000000	00000000	B2			
JOB		00008E00	TO	000089FF									
000800		02000000	2A000100	24CF9090	00000000	00000000	00836856	E858E207	F2F0F011	02000000	00000000	00836800	04000000
000800		01400001	00951812	12027315	00006050	00006290	00006968	585858F0	0000F0F0	F0F1F2F3	F4F5F6F7	F8F9C1C2	C3C4C5C6
000800		4870411E	42007012	020441E9	10030202	3000F018	47F0E006	00684600	07001811	47F0E004	E3F1C3F0	F08036A2	00000000
000800		E3F1F6F0	F08036A2	00000000	E3F1F6F0	F08036A2	00000000	E3F1F6F0	F08036A2	00000000	02176002	17610217	55021749
000800		02173802	1F04021F	00001740	00120207	03000000	30000000	04000006	94C21F04	00004000	1202AF21	00006000	04C00000
000800		80000000	00000000	01000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
000800		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000

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000800		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
000800		07000000	00000000	F0000000	00000000	000007C7	00040000	41804901	41A02020	186646E0	264259E0	A0134100	A0074110
000800		AC2A7F00	40001200	47804000	92F92749	45E0403F	47F04F38	51E0A013	50E04F5E	58E0A00F	58F0A023	18E050E0	4F4640E0
000800		A01F40E0	4F609100	A00A4710	4C9C9500	A00A4780	4BFC9590	A00A4700	4BFC92F5	274945E0	403041E0	490150E0	26404202
000800		264041E0	028040E0	264E5860	A00F92FF	A00817CC	41C0C006	41F0A008	02FF0011	A00841F0	F10046C0	4C229200	A0009200
000800		A0059201	A0069200	A0099230	A00A4190	A0081889	4AB02642	50E04F4A	41804901				

■ DUMP jobnumber,jobname with SYSDUMP Option

000000	03A5BAFC	0000951E	7E020006	40006972	900064FE	00009488	FE030050	8000A612	00005F8C	00007C00	7E000000	40006024
000030	00000718	00000788	FE030000	8000A34E	00007C00	00008C00	00000000	00000000	00000020	00000820	7E0000A0	80006024
000060	00000740	00007C00	7E020090	80006972	00006674	00000788	00000000	00000000	00006674	0000AA68	02000000	000001F4
000090	03A5B90B	00007E00	02000000	00005C44	00000000	00000C2A	02000000	000064AE	00000740	00000788	02000000	000014A6
0000C0	00000680	00000C00	02000000	00002F0C	00001F10	00000005	02000000	00001430	00005FF0	A0007E8E	02000000	0000144E
0000F0	00006442	40007F02	00000000	00000000	0C001878	80C26510	0000829C	00000100	0C80189C	00000000	00000000	00000000
000120	00000000	00000000	00000000	00000000	048218A4	00000000	00000000	00000000	00000000	00000000	00000000	00000000
000150	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	808218B4	00000000	00000000	00000000
000180	00000000	00000000	00000000	00000000	00006674	00000000	00000000	00000000	06007040	0C000000	020094A8	0C000080
0001B0	40404040	40404040	40404040	40404040	40404040	40404040	40404040	40404040	40404040	40404040	40404040	40404040
0001E0	40404040	40404040	40404040	40404040	40404040	40404040	40404040	40404040	07680000	930022CC	00000000	00000000
000210	40001E06	00000768	00008C48	00000820	00002978	00000000	00000AF8	00000000	00000000	0000000A	00001848	00000A80
000240	80002A7A	00000056	00000000	00000230	00000000	00000238	00000000	00000240	00000000	00000248		
000270	00000000	00000000	00000000	00000260	00000000	00000266			00000000			

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01F020	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
01F000	E50A03F1	E50A03F1	E2E8E2D9	FAF00000	0000020E	00000000	00404040	00000000	00000000	00000000	00000000	00000000
01F030	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
01F060	00000002	0AC18100	CA001300	3CC00100	00000000	141C7E92	2020010A	59191100	00000000	00000000	00000000	00000000
01F090	00000000	00000000	00000000	01000000	00020000	00130000	00000000	00000000	00000000	00000000	00000000	00000000
01F0C0	F1E2E8E2	09F6F000	00000000	00000001	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
01F0F0	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
01F120	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
01F150	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000

■ SNAP Dump

PROB REGS												
	00000000	80007C1C	0000767A	90007AF8	80007C18	00007F92	00007700	40007400	00008400	00007D00	00007A00	00007B20
	000076F5	40404040	500087FC	0000748E								
SNAP	0000A890	TO	0000AC00									
00A890	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
00ABF0	00000000	00000000	00000000	00000000	00							
SNAP	0000AD00	TO	0000AD10									
00AD00	00000000	00000000	00000000	00000000	00							

8. COMMUNICATIONS ENVIRONMENT

8.1. GENERAL

Communications oriented data processing is obtained through the use of the UNIVAC 9400 System with from one to four Data Communications Subsystems (DCS) and a communications adapter. Each Data Communications Subsystem (DCS-1, DCS-4, or DCS-16) can accommodate one, four, or sixteen duplex lines, depending on the type.

For complete DCS information refer to *UNIVAC 9000 Series Data Communications Subsystem (DCS) Programmer/Operator Reference, UP-7613* (current version), and *UNIVAC 9400 System Data Communications Subsystem (DCS) Supplementary Reference, UP-7622* (current version).

The Communications Control program is designed to handle a variety of communications applications. It is loaded into the system by the operator, along with the user message processing program, and provides for the control of all input/output data transfers over switched or nonswitched communication lines. Communications applications fall into two general categories: message control and message processing.

The message control program has the responsibility of initiating and controlling message flow, line procedures, buffering, translating, error handling, and operator communications. Message control applications involve switching input messages to various specified destinations and collecting data for further processing by a user-generated message processing program. In a message switching application, terminals transmit messages to the CPU, which relays the messages, with or without processing, to other terminals. During a data collection application, the input data is stored on a direct access storage device by the CPU. The data, which is in the form of messages, is stored there until called for by a user-generated message processing program, which processes incoming messages and generates any applicable response messages.

An inquiry application involves receiving messages from remote terminals (performed by the message control program), processing the data contained in the messages (performed by the user message processing program), and sending replies to the originating terminals (message control program).

The processing of collected data is the second part of a two-step application. The first step is the actual collection of the data by the message control program, which places the collected data on the direct access storage device. These messages may be retained on the storage device until it is convenient to process them. That is, they remain until a user message processing program issues GET macro instructions to obtain and process the messages. The user message processing program that processes the collected data can either:

- (1) Be operated concurrently with the collection of data by the message control program, or
- (2) Be loaded, suspended, and resumed at a later time (for example, to process data at the end of the day after all message traffic has ceased).

For complete communications control information, refer to *UNIVAC 9400 System Communications Control Program Programmer Reference, UP-7808*, (current version).

8.2. OPERATOR CONSOLE COMMUNICATION

Communication between the UNIVAC 9400 operator and the message control program is handled by means of a routine called MOPCOM, using the console keyboard as the input device. For control devices, operator functions are required for establishing and disconnecting private line communication.

After a telephone connection is established over a public switched network, the operator may enter information regarding line and terminal assignment used by the message control program. When the first entry is made at the keyboard, a console interrupt is activated and program control is transferred to the MOPCOM routine. The operator's message is then interrogated. If any information in the message is incorrect, a corresponding diagnostic message is displayed on the console, and the operator's message is rejected. However, the correct form of the message can be reentered by the operator immediately.

The messages that the operator can enter at the console concerning line terminal assignment and status information are as follows:

■ **jobnumber[Ⓢ], line-name,terminal-name,UP[Ⓢ]**

This message puts the specified terminal on the specified line in service. It is also used as the response to a CALL message if connection is made.

■ **jobnumber[Ⓢ], line-name,terminal-name,DOWN[Ⓢ]**

This message puts the specified terminal on the specified line out of service.

■ **jobname[Ⓢ], line-name,ALL,UP[Ⓢ]**

This message puts all terminals on the specified line in service.

■ **jobname[Ⓢ], line-name,ALL,DOWN[Ⓢ]**

This message puts all terminals on the specified line out of service.

■ **jobname[Ⓢ], line-name,terminal-name,NC[Ⓢ]**

This message indicates that the specified terminal on the specified line is busy. It is also used as the response to a CALL message if connection cannot be made.

■ **jobname[Ⓢ], line-name,terminal-name,IN[Ⓢ]**

This message indicates that the specified terminal on the specified line has called the CPU and connection has been made. The line name and terminal name must be four characters.

To establish connection from the UNIVAC 9400 System to a remote terminal device:

1. If there is a message available for output to a remote terminal and connection has not yet been established, console message MC16 (CALL telephone number) appears at the console, where telephone-number is the number of the remote device supplied by the user in the terminal table.
2. In response to the CALL message, the UNIVAC 9400 operator dials the number from his data set (TALK button pressed). If the remote terminal device is equipped with the unattended answer feature, the UNIVAC 9400 operator hears a loud audible signal in response to his call and immediately presses the DATA button on his data set. If the remote terminal device does not have this feature, the UNIVAC 9400 operator makes voice contact with the remote device operator, and then both operators switch to the data mode by pressing the DATA button on their data sets.



9. OPERATOR'S RUN BOOK

(This section to be supplied in a subsequent release.)



APPENDIX A. MESSAGE DISPLAYS

A.1. DISC SPACE MANAGEMENT MESSAGES

The following abbreviations apply to these messages:

nn = assigned job number
did = device identification
filename = name of the file as specified on the LFD statement
volsn = volume serial number

AL01 nn did filename volsn

EXPLANATION:

Invalid parameter.

1. For a new file, the file identifier already exists in the Volume Table of Contents (VTOC):
2. For an old file, the file identifier could not be found in the VTOC.
3. The file identifier in the File Control Block (FCB) was all binary zeros.
4. The extent request block number of entries was zero.
5. More than three extents were requested for an ISAM file.

The VTOC remains intact.

ACTION:

Print VTOC to examine directory of file identifiers. Ensure that control stream contains an LBL card with a file identifier. Check extent requests.

AL02 nn did filename volsn

EXPLANATION:

No room on VTOC.

1. There is not enough room in the VTOC to assign file labels to the user and to allow for expansion of the VTOC file labels.
2. For a new file, three VTOC blocks are needed.
3. For an old file, two VTOC blocks are needed.

The VTOC remains intact.

ACTION:

Scratch unused files. For future use, the size of the VTOC on the disc can be expanded by use of the Disc Prep program.

AL03 nn did filename volsn

EXPLANATION:

Input/output error. An unacceptable disc error has occurred while processing the VTOC. The VTOC has been compromised. It is impossible to continue using the disc in its present state.

ACTION:

The data records of the file could be intact and could be copied to another disc. The Disc Prep routine could be called to reprep and assign alternate tracks in the VTOC area only. The file labels could then be reinstated by requesting absolute allocation for required areas on the disc.

AL04 nn did filename volsn

EXPLANATION:

Invalid PUB or volume serial number.

1. No disc PUB has been found with the correct volume serial number.
2. The volume serial number in the Extent Request Block does not match the one in the Standard Volume Label.

The VTOC remains intact.

ACTION:

Check DVC statement for invalid logical unit number. Check control stream for errors in VOL statements. The proper volume serial number was not specified for the Disc Prep routine.

AL05 nn did filename volsn

EXPLANATION:

Cannot allocate absolute request. The area specified by an absolute extent request is not available as free space on the disc. The VTOC is not intact; the scratch routine is called to reinstate the VTOC.

ACTION:

Scratch the file using required area or alter request.

AL06 nn did filename volsn

EXPLANATION:

Contiguous request unable to be assigned. User-specified request cannot be satisfied by any contiguous free space on the disc. The VTOC is not intact; the scratch routine is called to reinstate the VTOC.

ACTION:

Ask for same request, specifying noncontiguous.

AL07 nn did filename volsn

EXPLANATION:

More than 16 extents. The maximum of 16 extents assigned to the file on this volume has been reached. The VTOC is not intact; scratch routine is called to reinstate the VTOC.

ACTION:

Reorganize the file if possible.

AL08 nn did filename volsn

EXPLANATION:

No space on disc. While attempting to satisfy a noncontiguous request, all available free space on the disc was exhausted. The VTOC is not intact; scratch routine is called to reinstate the VTOC.

ACTION:

The disc is full.

AL09 nn did filename volsn

EXPLANATION:

Invalid space request. The length field of an extent request was zero. The VTOC is not intact; scratch routine is called to reinstate the VTOC.

ACTION:

Correct the EXT statement.

(This page is intentionally blank)

A.2. LANGUAGE PROCESSOR MESSAGES

■ DISC ERROR CODES

Following are the disc error codes for the language processors and the Linkage Editor. If the error persists after following the recovery procedures outlined within this section, submit a Systems Software Field Report; include a VTOC listing and a disc print of the affected areas and investigate possible hardware malfunction.

<u>Bit</u>	<u>Error Code</u>	<u>Definition and Recovery Technique</u>
0	80	<p>File Discrepancy</p> <p>The file being opened is a type other than the type expected (for example, a Source library is accessed instead of a Proc library). Resubmit the job after ensuring that the correct file has been defined (correct LBL card). If this fails, recreate the Module Complex Library (MCL) file.</p> <p>For SYSPPOOL files (MCL and scratch files), ensure that the correct volumes are mounted, and resubmit the job after mapping the SYSPPOOL area by means of DACMAP.</p>
1	40	<p>File Overflow</p> <p>For SYSPPOOL files (MCL and scratch files), the disc space available is insufficient. Additional SYSPPOOL space must be provided before the job can be rerun. Refer to NEEDS 2 SYSPPOOLS message for additional information.</p> <p>For library files (Source, Copy, and Proc), if the module being processed is incomplete (no END statement), the module (or file) may have to be recreated.</p>
2	20	<p>Directory Overflow</p> <p>Insufficient directory space available. Remap the SYSPPOOL area by means of DACMAP and rerun; space for 200 MCL entries must be available.</p>
3	10	<p>File Control Block/File Not Found</p> <p>The logical file cannot be found. The LFD or LBL statement may be incorrect or missing. A hardware malfunction (SEEK failure) may have caused the format 1 label to be missed during the VTOC search. Resubmit the job after ensuring that the LFD and LBL statements are correct.</p> <p>A label check error was detected on the referenced file. Check the file ID, file serial number, and creation date to ensure they are correct, and resubmit the job.</p> <p>Ensure that the correct volume is mounted and that the volume serial number is valid in the disc VOL1 label and in the Physical Unit Block.</p>
4	08	<p>Parity Error</p> <p>A data check was encountered while reading the disc. If the error persists after changing disc drives, reprep the disc to acquire alternate track assignment. If the error persists, investigate possible hardware malfunction.</p>

<u>Bit</u>	<u>Error Code</u>	<u>Definition and Recovery Technique</u>
5	04	<p>Format Error</p> <p>The file being opened comprises an incorrect number of disc extents (PROC must equal 2 extents and all others must equal 1), or the extents are defined incorrectly. (A PROC must have 1 track extent and n cylinders for the other extent, where n can be 1 through 199. All other files must contain only 1 extent comprising n cylinders.) Reallocate files where applicable.</p> <p>Disc record was not found. A hardware malfunction (SEEK failure) may have caused this error. Print the affected disc area and/or re-try on an alternate disc drive. If error persists after confirming the presence of the applicable disc record, investigate possible hardware malfunction.</p>
6	02	<p>End of File</p> <p>An erroneous end of file condition has been encountered while reading the disc. Notify Software Support; include the applicable storage dumps and disc prints.</p>
7	01	<p>Unrecoverable Disc Error</p> <p>An unrecoverable hardware error was encountered while accessing the disc. Retry on an alternate disc drive. If error persists, investigate possible hardware malfunction.</p>

■ TRANSIENT ALLOCATION ROUTINE (TRALC) ERROR CODES

Following are the TRALC error codes for the Language Processor, Linkage Editor, and Job Control.

<u>Error Code</u>	<u>Definition and Recovery Technique</u>
02 } 03 } 06 } 07 }	<p>These error codes indicate probable software processing errors and should be the subject of a Software Systems Field Report.</p>
01	Space request was not satisfied. This indicates insufficient SYSPPOOL space. See SYSPPOOL considerations for further information.
04	Volume specified does not contain a SYSPPOOL file. Allocate a SYSPPOOL file and rerun the job.
05	The wrong volume is mounted on the specified device. Mount correct volume and rerun the job.
08	No unused obtain table entries available. The number of entries in the obtain table is not sufficient for the number of discs being used for SYSPPOOL. Recovery procedure requires reloading of the Supervisor.
10	I/O error occurred during input operation. Rerun job after volume has been reprepiped, remapped, and restored as required. If error persists, investigate possible hardware malfunction.
20	I/O error occurred during rewriting of SYSPPOOL table. Rerun job after volume has been reprepiped, remapped, and restored as required. If error persists, investigate possible hardware malfunction.
21	I/O error occurred during preformatting of space. Rerun job after volume has been reprepiped, remapped, and restored as required. If error persists, investigate possible hardware malfunction.
40	I/O error occurred during a format write operation. Rerun job after volume has been reprepiped, remapped, and restored as required. If error persists, investigate possible hardware malfunction.

■ SYSPPOOL CONSIDERATIONS

An error can occur when attempting to allocate space to the SYSPPOOL file for several different reasons:

1. A SYSPPOOL filename has not been allocated using standard control statements, that is, a sufficient number of extents (EXT statements) have not been allocated to the SYSPPOOL file.
2. The SYSPPOOL file was not mapped using DACMAP (Refer to *UNIVAC 9400 Disc Mapping Program Programmer Reference, UP-7833* (current version)).
3. The filename on the LFD statement was misspelled when initially allocated or when being used for processing by a program.
4. The device assignment statements were submitted in such a way that the intended number of volumes was not assigned (only one LFD statement for SYSPPOOL should appear in the control stream for a single job step).
5. Errors occurred when attempting to use SYSPPOOL (see TRALC error codes).
6. A job that was using SYSPPOOL for processing encountered an error and did not terminate completely (that is, the job did not terminate with a JT01 message). In this context, an abnormal termination constitutes an orderly, complete termination. If the Supervisor is reloaded after an incomplete termination under these circumstances, the space previously allocated to the terminated job remains allocated on each volume of SYSPPOOL being used. The appropriate recovery procedure is to execute a DACMAP program which reinitializes the SYSPPOOL space on each volume concerned, using the MAP control statement.
7. When multiprogramming, two or more programs are using a SYSPPOOL volume, and sufficient disc space does not exist for all of the programs. The amount of disc space used on a SYSPPOOL file for a given job can be limited by using the LIM control statement of the DACMAP program.

An error message that is produced by the Language Processors and the Linkage Editor when SYSPPOOL usage problems occur is as follows:

NEEDS 2 SYSPPOOLS

This message indicates that the program requesting space on volumes containing SYSPPOOL files could not acquire SYSPPOOL space on at least two volumes. Refer to SYSPPOOL Considerations for further explanation and action.

An error message that is produced by the Language Processors and the Linkage Editor when Transient Allocation Routine (TRALC) errors occur is as follows:

BAD GIVE did yy

A request for dynamic allocation of disc space on SYSPPOOL was rejected, where did is the device identification and yy is the TRALC status error code. Refer to TRALC error codes for further explanation and action.

■ TAPE ERROR CODES

Following are the tape error codes for the Language Processors. If the error persists after following the recovery procedure outlined within this section investigate possible hardware malfunction.

<u>Bit</u>	<u>Error Code</u>	<u>Definition and Recovery Technique</u>
0	80	End of File

An end of file condition has occurred during a tape read operation. This condition should be handled internally by the processors. Job should be rerun.

<u>Bit</u>	<u>Error Code</u>	<u>Definition and Recovery Technique</u>
1	40	Block Count Error An inconsistency between the block number on tape and the internal block number count has occurred. This indicates that a block has been missed or has been read twice with no detected hardware malfunction (the previous tape read was processed as a successful read). Job should be rerun using different tape drives. If error persists recreate the tape being read.
2	20	End of Reel An end of reel condition has occurred during a write operation. This indicates that the tape in question is not long enough to contain the required data. Job should be rerun after mounting a longer tape.
3	10	FCB not Found The logical file (File Control Block) can not be found. This indicates that a filename that is expected to be used by the program has not been properly defined in the control stream. Correct the DVC and LFD statements in the control stream and rerun the job.
4	08	Tape Parity Error A tape parity error has occurred during a read operation. Normal error recovery has been attempted by the Supervisor but was not successful. Job should be rerun using different tape drive and/or different physical tapes. This error will not normally occur when using the Language Processors because parity errors are handled by standard Supervisor error recovery procedures.
5	04	File Definition Error This error occurs when a file is accessed which is not opened, or when an attempt is made to write on an input file. Rerun the job. If error persists submit a Software Systems Field Report.
6	02	Label or Format Error On an input file, this error occurs when the file identification in the File Control Block does not match the file identification in the HDR1 record on tape; or if the creation date in the File Control Block does not match that in the HDR1 record. On an output file, this indicates that the tape expiration date has not yet been reached; therefore, this tape may not be written on. Rerun the job after resolving label and/or format errors. This may involve running the Tape Prep (UTPREP) utility routine to recreate the standard labels and/or correct the control stream (LBL statement) and ensuring that the correct date exists in the system by means of the SET DATE operator command or control statement.
7	01	I/O Error During Locate This indicates that an unrecoverable error has occurred on tape during a read or control operation while trying to locate a module on tape. Job should be rerun using different tape drive. If error persists, file should be reconstructed.

A.3. ASSEMBLER MESSAGES

The following abbreviations apply to these messages:

nn = phase number
did = device identification
cccc = cylinder number
hhhh = head number
rr = record number
volsn = volume serial number
yy = error code

I/O ERRORS n,ASSEMBLER TERMINATED

EXPLANATION:

Block count error encountered on tape. There was an indication that a block was either missing or read twice, but a hardware malfunction was not detected.

ACTION:

Rerun job using a different tape. If problem persists, display the tape to ensure that there are no missing or duplicate blocks, and investigate possible hardware malfunction.

I/O ERR n,did cccc hhhh rr/yy

EXPLANATION:

An I/O error was detected on the specified device, where yy is an error code.

ACTION:

See A.2 for explanation of disc error code.

SCRATCH ERROR volsn/yy/cccc hhhh rr

EXPLANATION:

An error occurred on the specified volume, where yy is an error code.

ACTION:

See A.2 for explanation of disc error code.

SORS/PROC ERROR volsn/yy/cccc hhhh rr

EXPLANATION:

An I/O error was detected in a Source or Proc library, where yy is an error code.

ACTION:

See A.2 for explanation of disc error code.

FILE OVERFLOW volsn/yy/cccc hhhh rr

EXPLANATION:

A file overflow condition has occurred, where yy is an error code.

ACTION:

See A.2 for explanation of disc error code.

FCB NOT FOUND --- filename

EXPLANATION:

The File Control Block (FCB) for the specified file (filename) could not be found:

1. No LFD statement was specified for the file.
2. The logical file name specified on the LFD statement is misspelled.

ACTION:

Correct the control stream and rerun the job.

TAPE FORMAT ERROR - filename

EXPLANATION:

The tape specified by filename is not in library tape format.

ACTION:

Mount the correct tape and rerun the job.

BLOCK COUNT ERROR - filename

EXPLANATION:

Block count error occurred on the tape specified by filename. There was an indication that a block was either missing or read twice, but a hardware malfunction was not detected. Check for one of the following:

1. Faulty tape
2. Faulty tape unit
3. Procs requested from a tape with no Proc library
4. Source code requested from a tape with no Source library

ACTION:

Correct abnormal condition and rerun the job.

DISMOUNT SOURCE TAPE IF IT IS TO BE SAVED

EXPLANATION:

Source code tape to be removed is the tape with the filename of SCR2. (SCR2 is specified on the LFD statement.)

ACTION:

Dismount source tape if it is to be saved and mount a scratch tape.

CANNOT PRODUCE OBJFIL TAPE – ERROR CODE n

EXPLANATION:

When the OUT=(T) parameter has been specified for the PARAM statement, errors may occur, where n has the following values:

- *A designates that there was a tape I/O error (missing block, or label processing error).
- *B designates that there was a disc I/O error (no record found).
- *C designates that there was a module format error. This may result if an unreported hardware failure occurs.
- *D designates that modules MCLOBJ00, MCLOBJ01, or \$Y\$LDR00 could not be loaded from the Load library.

ACTION:

- *A Examine label requirements and retry on another tape drive.
- *B Retry on another disc drive. If problem persists, reprep and remap the SYSPool volume and resubmit the job.
- *C Reassemble the module.
- *D Examine Load library for the presence of the modules, or retry on another disc drive to overcome disc I/O errors.

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A.4. ASCII GENERAL MESSAGES

AS01 PRINTER MODE ERROR - ASCII

EXPLANATION:

The logical file defined for the printer was erroneously defined as ASCII. This program requires an EBCDIC printer file.

ACTION:

Remove the ASCII declaration from the LFD Job Control statement defining the printer and rerun the job.

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A.5. COBOL MESSAGES

COBOL messages prefixed with CC indicate compilation time messages; all other message prefixes indicate execution time messages.

CA10 ACCEPT READY []

EXPLANATION:

This message is displayed when an operator entry or response is required by the program. Operator data entry is used to satisfy the ACCEPT statement in programs. It would usually be preceded by a CD10 (DISPLAY) message informing the operator of the nature of the request.

ACTION:

An operator response of one character (any character) is required to continue program execution after a STOP literal statement. Such statements result in a CD10 message to display the literal and a CA10 to request an operator response.

CC01 INSUFFICIENT CORE

EXPLANATION:

Insufficient storage has been provided for the minimum compiler environment to be satisfied. The compilation is aborted.

ACTION:

Allocate sufficient storage and rerun the job.

CC02 LOAD ERROR

EXPLANATION:

The compiler segment being sought could not be successfully loaded. Errors occurred during the load process, or the segment does not exist in the Load library. The compilation is aborted.

ACTION:

Check the Load library for the existence of all phases of the compilation. If all phases exist, rerun the job; if they do not exist, correct the library and rerun. If the library is intact, investigate possible hardware malfunction.

CC03 FILE IS NOT CLOSED

EXPLANATION:

The occurrence of this error should be reported. The compilation is aborted and a storage dump is provided.

ACTION:

Submit a Software Systems Field Report.

CC04 PATCH IN SEG ADDR IGNORED, SIZE INVALID

EXPLANATION:

The compiler contains an internal patching mechanism which is intended for Systems Programming use in maintaining the compiler. These patches are specified in the control stream, and this message indicates a card format error. The compilation is aborted.

ACTION:

Correct card format error and rerun the job.

CC05 PATCH IN SEG ADDR IGNORED, NO DELIMITER

EXPLANATION:

The compiler contains an internal patching mechanism which is intended for Systems Programming use in maintaining the compiler. These patches are specified in the control stream, and this message indicates a card format error. The compilation is aborted.

ACTION:

Correct the card format error and rerun the job.

CC06 REQUEST \$SNAP s aaaa IGNORED

EXPLANATION:

The compiler contains an internal snapshot mechanism which is intended for internal use in maintaining the compiler. These snaps are specified in the control stream and this message indicates a card format error, where:
s = the segment number
aaaa = the address where the snap occurs.
The compilation is aborted.

ACTION:

Correct the card format error and rerun the job.

CC07 NO SOURCE PROGRAM

EXPLANATION:

This message is displayed when a source program is designated as a card file and an end-of-file condition is encountered prior to the first source image. The compilation is aborted.

ACTION:

Correct the control stream and rerun the job.

CC08 PARAM CARD ERROR

EXPLANATION:

Errors detected in the PARAM card which specifies compiler options. The compilation is aborted.

ACTION:

Correct the PARAM card and rerun the job.

CC09 TAPE ERROR x filename

EXPLANATION:

This message is displayed if an uncorrectable I/O error is encountered during the initial opening/positioning of the compiler work files, where x is one of the following:

- A End-of-file. (See tape error code 80 in A.2.)
- B Block count error. (See tape error code 40 in A.2.)
- D End-of-reel. (See tape error code 20 in A.2.)
- H File Control Block (FCB) not found. (See tape error code 10 in A.2.)
- J Tape parity error on a read operation. (See tape error code 08 in A.2.)
- K File definition error. (See tape error code 04 in A.2.)
- M Label or format error during OPEN. (See tape error code 02 in A.2.)

The compilation is aborted.

ACTION:

Refer to A.2 for explanation and action.

CC10 SOURCE PROGRAM NOT FOUND

EXPLANATION:

A program designated as existing on a library file (tape or disc) cannot be found. The compilation is terminated.

ACTION:

Mount correct library file and rerun job.

CC11 SOURCE LIBRARY FILE NOT ALLOCATED (nn)

EXPLANATION:

This message is displayed when the COBOL compiler can not access the library file designated as containing the COBOL source program, where nn is an error code applicable only to disc library files:

- 01 Invalid volume serial number. Either the wrong volume was mounted, an invalid volume serial number (VSN) exists on the disc format 1 label, or the wrong volume was mounted or requested.
- 02 The requested file could not be found on the specified volume. Either the LBL statement is incorrect, the file is not defined on the volume (no format 1 label), or a disc hardware failure caused a no-record-found condition (usually seek failures).

- 10 File Control Block (FCB) not found. Either the LFD statement is in error or no LFD statement has been provided.
 - 20 Error encountered while searching for Module Complex Library (MCL). Either no MCL was found within SYSPool, or it could not be allocated successfully.
 - 30 LBL statement (or file ID field) was not provided.
 - 40 The file serial number on the LBL statement does not match the recorded file serial number in the format 1 label within the VTOC.
 - 50 The creation date on the LBL statement does not match the creation date recorded in the format 1 label within the VTOC.
- The compilation is terminated.

ACTION:

Correct volume mounting and/or control stream error and rerun the job.

CC12 I/O ERROR n ON filename**EXPLANATION:**

I/O ERROR, where filename is the LFD statement name assigned to the device on which the error occurred, and n is one of the following:

- B Block error. A Source or Copy library block has been read which does not conform to standard librarian block sizes. Consequently, the compiler cannot correctly retrieve card images from the block.
- D File discrepancy. The description of a disc library file (by means of Job Control and PARAM cards) as being a Source or Copy file is inconsistent with the actual file type.
- F Format error. Track overrun or no record found on a disc library file.
- I Tape I/O error. An unrecoverable error has occurred on a tape read or control operation.
- L Tape label or format error. During a library tape open, the file ID in the FCB does not match the file ID in the HDR1 record, or the creation date in the FCB does not match that in the HDR1 record.
- P Parity error. A parity error has occurred on a read operation.
- U Unrecoverable I/O errors.
- X Software malfunction. Unexplained error conditions have occurred (possibly caused entirely by software). Submit a Software Systems Field Report including the console sheet, dump, and source program.

In the preceding error conditions a dump is provided, and the compilation is terminated.

ACTION:

Rerun the job after taking appropriate action. For further description of I/O errors, refer to A.2.

CC13 COMPILER ERROR phase**EXPLANATION:**

A file positioning or compiler processing problem has occurred during the specified compiler phase, which necessitates the termination of the compilation.

ACTION:

Storage dump is provided. Submit a Software Systems Field Report.

CC14 COPY LIBRARY MODULE (library-name) NOT FOUND. CONTINUE? (Y or N)

EXPLANATION:

The source COBOL program has requested that a module be included from the Copy library, and the module cannot be found.

ACTION:

Respond with Y or N. If the response is Y, the compilation continues with the next line of the source COBOL program. If the response is N, the compilation is terminated.

CC15 COPY LIB. FILE (filename) NOT ALLOCATED (nn) CONTINUE? (Y or N)

EXPLANATION:

This message is displayed when the COBOL source program has requested that a module be included from the Copy library and the compiler cannot access the designated library file, where nn is an error code applicable to disc library files only:

- 01 Invalid volume serial number. Either the wrong volume was mounted, an invalid volume serial number (VSN) exists on the disc format 1 label, or the wrong volume was mounted or requested.
- 02 The requested file could not be found on the specified volume. Either the LBL statement is incorrect, the file is not defined on the volume (no format 1 label), or a disc hardware failure caused a no-record-found condition (usually seek failures).
- 10 File Control Block (FCB) not found. Either the LFD statement is in error or no LFD statement has been provided.
- 20 Error encountered while searching for the Module Complex Library (MCL). Either no MCL was found within SYSPool, or it could not be allocated successfully.
- 30 LBL statement (or file ID field) was not provided.
- 40 The file serial number on the LBL statement does not match the recorded file serial number in the format 1 label within the VTOC.
- 50 The creation date on the LBL statement does not match the creation date recorded in the format 1 label within the VTOC.

The compilation is terminated.

ACTION:

Respond with Y or N. If the response is Y, the compilation continues, and no further attempt is made to access modules from the Copy library. If the response is N, the compilation is terminated.

CC17 PRINTER NOT ASSIGNED

EXPLANATION:

Printer cannot be assigned due to improper or missing DVC or LFD statements for printer.

ACTION:

Correct the control stream and rerun the job.

CC27 DISC ERROR x filename

EXPLANATION:

Disc error occurred on the specified file, where x is one of the following:

- M File overflow (See disc error code 40 in A.2.)
- J FCB not found (See disc error code 10 in A.2.)
- A Unrecoverable error (See disc error code 01 in A.2.)
- B End-of-file condition (See disc error code 02 in A.2..)
- D Format error (See disc error code 04 in A.2.)
- H Parity error (See disc error code 08 in A.2.)
- K Directory overflow (See disc error code 20 in A.2.)
- Q File discrepancy (See disc error code 80 in A.2.)

ACTION:

See A.2 for explanation of disc error codes.

CC28 DISC ERROR x [ON did]

EXPLANATION:

Produced by the extended COBOL compiler when it initially opens its scratch and MCL files on SYSPPOOL, where x is a TRALC status error code and is one of the following:

- 0,1,2,3,6 Uncorrectable I/O error
- 4 Volume specified does not contain SYSPPOOL area.
- 5 Wrong volume is mounted on specified device.
- 7* No LFD statement defining SYSPPOOL
- 8* Insufficient volumes available for SYSPPOOL

* The [ON did] is not printed out with this error code.

ACTION:

Unrecoverable I/O errors may be corrected by remapping the SYSPPOOL area on the specified device.

CD10 message

EXPLANATION:

Used to DISPLAY data to the operator. If the text to be displayed exceeds 58 characters, it is displayed with multiple lines; all but the last will contain a hyphen at the end of the line.

ACTION:

Message indicates action if any.

CE00 UNALTERED GO TO EXECUTED

EXPLANATION:

Attempt made to execute a GO TO statement which has not been altered. Program is terminated. Investigate SOURCE program logic. Refer to *UNIVAC 9400 System COBOL Supplementary Reference, UP-7709* (current version) for explanation of ALTER.

ACTION:

Informational message. No operator action required.

CE01 DATA FOR ACCEPT NOT AVAILABLE

EXPLANATION:

The ACCEPT statement from the control stream was executed and no data is available. This condition can result from an incorrectly structured control stream.

ACTION:

Include data in control stream between /\$ and /* statements and rerun the job.

CE02 INSUFFICIENT DATA FOR ACCEPT

EXPLANATION:

End-of-data condition encountered during the process of accepting data from the control stream.

ACTION:

Insufficient data in control stream between /\$ and /* statements. Correct control stream and rerun the job.

CE03 END OF PROCEDURE DIVISION EXECUTED

EXPLANATION:

Program executed the last statement in the Procedure Division without transferring control to a point within the program. Program is terminated. See explanation of STOP RUN statement in *UNIVAC 9400 System COBOL Supplementary Reference, UP-7709* (current version).

ACTION:

Informational message. No operator action required.

CE04 INVALID EXECUTION OF ENTRY POINT

EXPLANATION:

Control is passed to a subprogram entry point in a manner other than a CALL. Program is terminated. See discussion of subprograms in *UNIVAC 9400 System COBOL Supplementary Reference, UP-7709* (current version).

ACTION:

Informational message. No operator action required.

CE05 ABSOLUTE VALUE EXPONENTIATED

EXPLANATION:

Negative value encountered during exponentiation to a noninteger exponent. The operation continues using the absolute value.

ACTION:

Informational message. No operator action required.

CE06 UNCORRECTABLE I/O ERROR

EXPLANATION:

An uncorrectable hardware error or a detectable logic error has occurred while processing the file whose DTF (and external-name) address is contained in register 1 (R1\$). Refer to *UNIVAC 9400 System Data Management System Programmer Reference, UP-7629* (current version) for a discussion of the ERRO/ERROR DTF keyword parameters. This message is produced only when there is no USE FOR ERROR PROCEDURE associated with the file in error. If a physical hardware error has occurred, all standard system error recovery action has been performed prior to the issuance of this message. Register 0 (R0\$) contains information concerning the origin and reason for the error:

1. Bytes 0 and 1 contain the first and second hardware sense bytes if the error is caused by hardware.
2. Byte 2 contains a hexadecimal F4 if the error was detected during OPEN, CLOSE, or any other transient function. A hexadecimal F1 denotes that the error was detected on a READ, WRITE, or any other processing type function.
3. Byte 3 contains a one-character EBCDIC value indicating the reason for the error. Refer to *UNIVAC 9400 System Data Management System Programmer Reference, UP-7629* (current version) for a description of the associated error codes.

If byte 3 contains a binary 0, the error was detected by the COBOL input/output routines for files with DIRECT, RELATIVE, or INDEXED ORGANIZATION. In this case, bytes 0 and 1 contain the contents of SYSERR, and byte 2 is a hexadecimal F1.

ACTION:

The program is aborted. Check the contents of register 0 (R0\$) for possible error code. The DTF address of the file in error can be found in register 1 (R1\$).

CE07 UNCORRECTABLE PARITY ERROR

EXPLANATION:

An unrecoverable parity error has occurred on a tape or sequential disc file. Register R1\$ contains the address of the block in error. The address of the DTF module is found at RD\$+24. Program is aborted.

ACTION:

Informational message. No operator action required.

CE08 END OF USE PROCEDURE EXECUTED

EXPLANATION:

USE for error declarative has been completely executed. Resumption of the program is not permitted. Program is terminated. See discussion of USE procedures in *UNIVAC 9400 System COBOL Supplementary Reference, UP-7709* (current version).

ACTION:

Informational message. No operator action required.

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A.6. CHECKPOINT MESSAGES

The following abbreviations apply to these messages.

- num = three-digit checkpoint number
- did = device identification
- filename = name of file as specified on the LFD statement
- volsn = volume serial number
- xxxxxxx = starting address of storage partition
- yyyyyyyy = number of bytes required to restart checkpointed program.

CK01 CHKPT NO. num ON UNIT did – FILE filename – VOL volsn
MEMORY PARTITION START ADDRESS xxxxxxxx
MINIMUM MEMORY REQUIREMENTS yyyyyyyy BYTES

EXPLANATION:

Checkpoint completed successfully.

ACTION:

Informational message. No operator action required.

CK02 CHKPT UNIT did NOT TAPE OR DISC – CHKPT IGNORED

EXPLANATION:

The specified checkpoint device (did) is not a tape or disc unit. Control is returned to the user-specified error routine with an error code of 2 in register 1 (R1). No checkpoint is taken. Program continues. Program should be recompiled so that the proper file DTF is specified for checkpoints.

ACTION:

Informational message. No operator action required.

CK03 CHKPT FILE DTF NOT OPEN – CHKPT IGNORED

EXPLANATION:

Specified checkpoint file has not been opened for output. Control is returned to user-specified error routine with an error code of 3 in register 1 (R1). No checkpoint is taken. Programs should be recompiled so that program logic opens the file on which the checkpoints are to be taken, before the checkpoint macro is issued.

ACTION:

Informational message. No operator action required.

CK04 PHYSICAL END OF TAPE ON CHKPT UNIT did – CHKPT IGNORED

EXPLANATION:

The end-of-reel condition has been encountered while writing checkpoint records on the specified CHKPT unit (did). The tape is repositioned to the same position as when the checkpoint was requested. Control is returned

to the user-specified error routine with an error code of 4 in register 1 (R1). No checkpoint is taken. Program continues.

ACTION:

Informational message. No operator action required.

CK05 UNRECOVERABLE ERROR ON CHKPT UNIT did – CHKPT IGNORED

EXPLANATION:

An unrecoverable I/O error has been encountered while writing checkpoint records on the specified device (did). An attempt is made to reposition the tape to the same position as when the checkpoint was requested. Control is returned to the user-specified error routine with an error code of 5 in register 1 (R1). No checkpoint is taken. User program I/O error handling procedures should be activated.

ACTION:

Informational message. No Operator action required.

CK06 CHKPT LINKAGE PARAMETER IN ERROR – CHKPT IGNORED

EXPLANATION:

The checkpoint routine has found an invalid parameter in the calling linkage (usually a negative value were an address or count is expected). Control is returned to the user-specified error routine with an error code of 6 in register 1 (R1). No checkpoint is taken. Program continues. Program should be recompiled after correcting the parameters in error.

ACTION:

Informational message. No operator action required.

CK07 CHKPT FROM IMPROPER ENVIRONMENT – CHKPT IGNORED

EXPLANATION:

Problem program is in a state such that the integrity of a checkpoint cannot be assured (such as when a sort routine is in progress). Control is returned to the user-specified error routine with an error code of 7 in register 1 (R1). No checkpoint is taken. Program continues. Program logic should be changed to place the checkpoint request in a more appropriate location in the problem program.

ACTION:

Informational message. No operator action required.

CK08 CHKPT FILE DTF NOT OPENED FOR OUTPUT – CHKPT IGNORED

EXPLANATION:

The checkpoint file has not been specified as an output file in the DTF macro instruction. Control is returned to the user-specified error routine with an error code of 8 in register 1 (R1). No checkpoint is taken. Program continues. Program should be recompiled to correct program logic.

ACTION:

Informational message. No operator action required.

CK09 MORE THAN ONE EXT SPEC FOR CHKPT DISC FILE – CHKPT IGNORED

EXPLANATION:

The disc file on which checkpoints are to be taken consists of more than one extent. Control is returned to the user-specified error routine with an error code of 9 in register 1 (R1). No checkpoint is taken. Program continues. When program is rerun, allocate disc file with a single extent.

ACTION:

Informational message. No operator action required.

CK10 CHKPT FILE DTF NOT SPEC DISC SEQUENTIAL – CHKPT IGNORED

EXPLANATION:

The disc file on which checkpoints are to be taken is not a sequential file. Control is returned to the user-specified error routine with an error code of 10 (X'0A') in register 1 (R1). No checkpoint is taken. Program continues. Recompile program to specify the checkpoint file DTF macro instruction as sequential disc (SAM).

ACTION:

Informational message. No operator action required.

CK11 CHKPT RECORD FORMAT NOT SPEC AS UNDEFINED – CHKPT IGNORED

EXPLANATION:

The disc file on which checkpoints are to be taken has a record format specification of other than UNDEFINED. Control is returned to the user-specified error routine with an error code of 11 (X'0B') in register 1 (R1). Program continues. Recompile program to correct the record size specification.

ACTION:

Informational message. No operator action required.

CK12 CHKPT DISC FILE TOO SMALL – CHKPT IGNORED

EXPLANATION:

The disc file on which checkpoints are to be taken is not large enough to contain a checkpoint. Control is returned to the user-specified error routine with an error code of 12 (X'0C') in register 1 (R1). No checkpoint is taken. Program continues. When program is rerun, allocate sufficient disc space to contain all checkpoint records.

ACTION:

Informational message. No operator action required.

CK13 CHKPT FILE DTF BLOCKSIZE TOO SMALL – CHKPT IGNORED

EXPLANATION:

The tape file on which the checkpoints are to be taken has been specified with a block size less than 20 bytes. Control is returned to the user-specified error routine with a code of 13 (X'0D') in register 1 (R1). No checkpoint is taken. Program continues. Recompile program specifying block size greater than 20 bytes in DTF generation for checkpoint file.

ACTION:

Informational message. No operator action required.

CK14 FILE IN CHKPT PARAM LIST NOT ASSIGNED – CHKPT IGNORED

EXPLANATION:

A file specified in the list of user files to the checkpoint routine has not been assigned by Job Control (no file control block has been generated). Control is returned to the user-specified error routine with an error code of 14(X'0E') in register 1 (R1). No checkpoint is taken. Program continues. When program is rerun, include DVC, VOL, and LFD Job Control statements as required for proper assignment of the user files.

ACTION:

Informational message. No operator action required.

A.7. DATA MANAGEMENT MESSAGES

The following messages are used to describe an error condition or an informational message. A standard prefix is typed out for all Data Management messages. This prefix can appear by itself or in combination with an informational type message. When the error code appears alone, it denotes the reason for the message. When the error code occurs as a message prefix for an informational type message, the error code position (e) is usually blank.

Standard message format is as follows:

DM4e did filename

where:

e represents a blank or an alphanumeric character that specifies the error that has occurred. When this character is blank, the error or other condition is specified in the message.

did is the device identification code, that is, EB0, G90, J80, KA0.

filename is the label assigned to the DTF macro instruction and the name on the LFD Job Control card for the device (did).

Messages are possible from all OPEN and CLOSE transient modules. There is no reply to the message when the prefix appears alone. The message allows the programmer to make the appropriate corrections. If the user program contains the keyword parameter ERROR=symbolic-address in the DTF macro instruction, control is passed to the program at the symbolic address; otherwise the job step is cancelled. Exceptions to this action are described.

Legend for access methods issuing messages:

DA – Direct Access Method (DAM)
SD – Sequential Access Method (SAM)
IS – Index Sequential Access Method (ISAM)
MT – Magnetic Tape
PR – Printer
CD – Card Devices (Reader and Punch)
PT – Paper Tape Devices (Reader and Punch)
OR – Optical Document Reader

These two-character abbreviations appear under *EXPLANATION* and *ACTION* to indicate the access methods or devices concerned.

DM4 did filename STATISTICS–P=xxxxxxxxxx,S=xxxxx

EXPLANATION:

IS CLOSE=(DISPLAY) and IOROUT=LOAD (or RELOAD) have been specified in the DTFIS macro instruction. P=xxxxxxxxxx specifies the total number of prime data records in the file and S=xxxxx specifies the number of bytes required to hold the entire cylinder index in main storage.

ACTION:

Informational message. No operator action required.

DM4 did filename STATISTICS-R=xxxxxxx,S=xxxxx,T=xxxxx

EXPLANATION:

IS CLOSE=(DISPLAY) and IOROUT=RETVE have been specified in the DTFIS macro instruction. R=xxxxxxx specifies the number of overflow records which were not first in chain; S=xxxxx specifies the number of bytes required to hold the entire cylinder index in main storage; T=xxxxx specifies the number of records tagged for deletion by the user program.

ACTION:

Informational message. No operator action required.

DM4 did filename STATISTICS-A=xxxxx,l=xxxxx,O=xxxxx

DM4 did filename STATISTICS-P=xxxxxxxxxx,S=xxxxx

EXPLANATION:

IS CLOSE=(DISPLAY) and IOROUT=ADD have been specified in the DTFIS macro instruction. A=xxxxx specifies the number of cylinders which have full overflow areas; l=xxxxx specifies the number of unfilled tracks in the independent overflow area; O=xxxxx specifies the total number of overflow records; P=xxxxxxxxxx specifies the total number of prime data records; S=xxxxx specifies the number of bytes required to hold the entire cylinder index in main storage.

ACTION:

Informational message. No operator action required.

DM4 did filename STATISTICS-A=xxxxx,l=xxxxx,O=xxxxx,T=xxxxx

DM4 did filename STATISTICS-P=xxxxxxxxxx,R=xxxxxxx,S=xxxxx

EXPLANATION:

IS CLOSE=(DISPLAY) and IOROUT=ADDRTR have been specified in the DTFIS macro instruction. A=xxxxx specifies the number of cylinders which have full cylinder overflow areas; l=xxxxx specifies the number of unfilled tracks in the independent overflow area; O=xxxxx specifies the total number of overflow records; T=xxxxx specifies the number of records tagged for deletion by the user program; P=xxxxxxxxxx specifies the total number of prime data records; R=xxxxxxx specifies the number of retrieved overflow records which were not first in the chain; S=xxxxx specifies the number of bytes required to hold the entire cylinder index in main storage.

ACTION:

Informational message. No operator action required.

DM4 did filename MNT VOL volsn

EXPLANATION:

MT Logical IOCS has closed volume n of a file and is preparing to OPEN volume n+1.

ACTION:

Mount the specified tape volume (volsn) on the specified device (did). No reply is necessary for an input tape. For an output tape, the operator should reply nnR R Ⓢ.

DM4 did filename LBRET x PARAM n

EXPLANATION:

MT The user's LBAD label processing routine has issued a LBRET macro instruction which has returned improper information to logical IOCS:

x = O if the error occurred during OPEN.

x = C if the error occurred during CLOSE.

n = 0 indicates register 0 should be loaded with either an F (to indicate end of file) or a V (to indicate end of volume). If it contains neither, F is assumed.

n = 1 indicates that register 1 did not contain a 1 (LBRET 1) or 2 (LBRET 2). LBRET 1 is assumed.

ACTION:

Programmer must rearrange program logic to issue the proper LBRET macro instruction and reassemble.

DM4 did filename FSN IS filesn

EXPLANATION:

MT The file was not assigned a serial number in the control stream. It is being assigned the indicated file serial number (filesn) by logical IOCS.

ACTION:

Informational message. No operator action required.

DM4 did filename MOUNT.NEXT VOLUME volsn

EXPLANATION:

SD Logical IOCS has reached the end of the current volume and has obtained the volume serial number (volsn) of the next volume from the volume serial number list block.

ACTION:

Operator must mount the next disc volume (volsn) if it is the proper one. Reply nnR R Ⓢ when unit (did) is ready. If the disc volume is unavailable or has the wrong volume serial number and the CANCEL or user ERROR routine is to be entered, reply nnR U Ⓢ. A DM41 message is issued. If the volume serial number is incorrect for sequential disc, the programmer must check the VOL statements of the file for errors.

DM4 did filename VOL1 ERR volsn

EXPLANATION:

SD The volume serial number of the volume currently mounted on device (did) does not match that specified in the control stream.

ACTION:

Operator must mount the correct volume (volsn) and reply: nnR R[Ⓢ]. If the correct volume is not available no recovery is possible. To cancel the job, or activate an error routine in the user program, reply: nnR U[Ⓢ]. If the reply is nnR R[Ⓢ] and the correct volume has not been mounted, this message will be repeated. If the message was displayed due to an error in the VOL statement for sequential disc, the programmer should correct the statement and re-try.

DM4 did filename LFD CHANGED MODE

EXPLANATION:

MT The mode of the file has been defined differently in the expansion of the DTFMT macro instruction than in the control stream. The control stream is considered to be correct, and the DTF is modified accordingly.

ACTION:

Informational message. No operator action required.

DM4 did filename WRITE ENABLE?

EXPLANATION:

MT The output tape on the specified device (did) does not have a write enable ring.

ACTION:

If the tape is not to be written on, reply with nnR U[Ⓢ].

If the tape is to be written on, insert the write enable ring and reply with nnR R[Ⓢ].

DM4 did filename NO HDWRE FOR STUB READ

EXPLANATION:

CD User has specified that data is to be read from stub cards (51 or 66 columns), but the input reader does not have the necessary hardware.

ACTION:

Informational message. No operator action required. The program should be reassembled with the correct specifications in the DTFCD macro instruction. If the program continues to execute with stub cards in the input stacker, the results are unpredictable.

DM4 did filename AUE=YES IGNORED - NECESSARY HDWRE MISSING

EXPLANATION:

CD User has specified that all data cards that fail the hardware validity check are to be ignored. (Validity check detects the presence of multiple punches in rows 1-7 of any given card columns.) The input reader does not have the necessary hardware.

ACTION:

Informational message. No operator action required. The program should be reassembled with the correct specification in the DTFC macro instruction. If the program continues to execute and a mispunched card is encountered, the card reader comes to an orderly stop and the job is terminated, or control is transferred to the user's error routine address, if specified.

DM4 did filename NO ASCII LFD - PROCESSING MODE NOW EBCDIC

EXPLANATION:

CD,PR User has specified ASCII=YES in the DTF macro instruction, but the associated LFD Job Control statement does not specify ASC in positional parameter 5.

ACTION:

Informational message. No operator action required. Program should be rerun with the correct parameters in the associated LFD Job Control statement. If the program continues to execute, the file is processed in EBCDIC.

DM40 did filename

EXPLANATION:

CD, DA, IS, MT, OR, PR, PT, SD
An OPEN macro instruction has been issued for a file that is already open.

ACTION:

CD, DA, IS, MT, OR, PR, PT, SD
Programmer must check user program logic for either redundant OPEN macro instructions or, if the special register form of the macro instruction is used, for improper loading of register 1. Reassemble or recompile the program.

DM41 did filename

EXPLANATION:

CD, IS, OR, PR, PT
A CLOSE macro instruction has been issued for a file that is already closed.

MT, SD
CLOSE or FEOV macro instruction has been issued for a file that is not open. This error occurs if either macro instruction is issued before the file is opened or after the file is closed.

ACTION:

CD, IS, OR, PR

Programmer must check and correct user program logic for a redundant CLOSE. Reassemble or recompile the program. (This is an informational message for ISAM files. The file is intact and no action is required.)

MT, SD

Programmer must check and correct program logic. Reassemble or recompile the program.

DM42 did filename

EXPLANATION:

DA Lockout system error. Lockout facility is not present in the Supervisor.

ACTION:

Programmer must include the lockout facility in the Supervisor at system generation time (refer to RECLCK Proc).

DM43 did filename

EXPLANATION:

CD, DA, IS, MT, OR, PT, SD

Unreadable or missing file control block. The file control block (identified by the label of the DTF macro instruction and the first parameter of the LFD statement) could not be read successfully because there was either a physical I/O error or a discrepancy between the DTF label and the LFD name.

ACTION:

CD, DA, IS, MT, OR, PT, SD

The programmer must ensure that the first parameter of the LFD statement for this file agrees with the label of the DTF macro instruction for this file (that is, with the filename specified in the message). Make the required change and rerun the job. If the discrepancy does not exist, the error may be the result of a hardware error. In this case, have the hardware checked and rerun the job. Inspect the sense bytes in register 0 for information concerning the nature of the error.

DM44 did filename

EXPLANATION:

CD If MODE=STD and BKSZ>80 or MODE=BINARY and BKSZ>160 the maximum block size as specified in the DTF macro instruction has been exceeded.

DA Error in specification of the BKSZ parameter of the DTFDA macro call:

1. BKSZ is less than the minimum allowable size (80 for an INPUT file with LBAD specified, otherwise 14).
2. BKSZ exceeds the maximum allowable size:
8411 file – 3633 if AFTER=YES is specified; otherwise 3625.
8414 file – 7302 if AFTER=YES is specified; otherwise 7294.

IS NRECDs=0; or RCSZ>usable track capacity; or NRECDs*RCSZ≤0; or KEYLEN+NRECDs*RCSZ>usable track capacity; or KEYLOC=0 if RCFM=FIXBLK; or KEYLOC+KEYLEN>(RCSZ+1). The device identification code is not significant; it will be either the device identification specified (did) or that of the last (or only) volume of the file.

- MT An error has been detected in the BKSZ specification for the file. Any of the following conditions will produce this message:
1. BKSZ=0
 2. BKSZ<18
 3. BKSZ>32767 (UNISERVO 12/16)
 4. BKSZ>4095 (UNISERVO VI C)
 5. RCFM=FIXUNB and RCSZ≠BKSZ
 6. RCFM=FIXBLK and BKSZ is not a multiple of RCSZ.
 7. RCFM=FIXBLK and RCSZ=0.
 8. BUFOFF is not between 0 and 99.
 9. RCFM=FIXED and BKSZ<RCSZ.
 10. RCFM=FIXED, RCSZ=0, ASCII was specified when defining either an INPUT or INOUT file (DTF), and the file control block was in ASCII when the input file was opened.
- OR Block size is zero or exceeds 256; EOF sentinel length is zero, exceeds block size, or is unspecified.
- PR BKSZ is specified and it exceeds the allowable maximum.
- PT
1. OBKS>4095
 2. OBKS<BKSZ
- SD BKSZ specified exceeds track capacity.

ACTION:

DA, IS, MT, OR, PT

Programmer must correct the DTF specification and reassemble or recompile the program.

- CD This is an informational message. The BKSZ specification is changed to the maximum value allowed for the MODE specified, and processing continues.
- IS If erroneous specifications were predicted on 8414 disc characteristics and file volumes were assigned to an 8411, change the control stream to ensure assignment of correct device type.
- PR This is an informational message. The incorrect BKSZ is changed to the maximum allowable value, and processing continues.
- OR Correct the block size or EOF sentinel specification and reassemble or recompile.

DM45 did filename

EXPLANATION:

DTF specification error.

- CD RCSZ or IORG has been specified in the DTFCD macro instruction with a register out of the range of 2-12.
- DA
1. The RCSZ parameter of the DTFDA macro instruction has been specified with a register outside the range of 2-12.
 2. Both RELATIVE=R and RELATIVE=T are specified as parameters to the DTFDA macro instruction.
- IS
1. The IORG parameter of the DTFIS macro instruction has been specified with a register out of the range of 2-12.
 2. The file has never been loaded successfully but DTFIS macro instruction specifies IOROUT=ADD (or ADDRTR or RETRVE).
 3. An error in the control stream or volume mounting has caused the wrong file to be accessed.
- SD,MT
1. No EOFA specification is made for an input file.
 2. IOA2 is specified without either IORG=(r) or WORK=YES.
 3. IORG=(r) is specified but r is outside the range of 2-12.
 4. Both IORG=(r) and WORK=YES are specified.
 5. LBA2 is specified but the address of the label processing routine is not present in the DTF.
 6. No record format specification (RCFM) is present in the DTF.
 7. RCFM=FIXBLK and neither WORK=YES nor IORG=(r) is specified.

8. RCFM=VARBLK and neither WORK=YES nor IORG=(r) is specified.
 9. RCFM=UNDEF for an output file and RCSZ=(r) is not specified.
 10. RCFM=VARBLK and VBLD is not specified as a register in the range 2-12, or is not specified at all (for output files).
 11. RCSZ=(r) is specified and r is not a register in the range 2-12.
 12. The device assigned to this filename is not a tape device.
 13. RCFM=FIXBLK and BKSZ is not a multiple of RCSZ.
- OR
1. WORK specified with IORG.
 2. IORG is not specified when undefined records and/or two I/O areas are specified.
 3. IORG or RCSZ not specified in the range of 2-12.
 4. MD10 specified without specifying OCR.
 5. CNTL specified without STSL.
 6. Mark sense specified without ROWS.
 7. ROWS specified with STSL.
- PR RCSZ=(r) or IORG=(r) is specified and r is not in the range 2-12.
- PT
1. BINARY=YES is specified when both RCFM=UNDEF and TYPE=INPUT are specified.
 2. IORG=(r) or RCSZ=(r) is specified and r is not a register in the range 2-12.
 3. Two I/O areas specified and no work area specified.
 4. RCSZ=(r) was not specified when TYPE=OUTPUT and RCFM=UNDEF.
- SD CNTRL=YES is specified and the address of the second CCB is 0.

ACTION:

- CD For RCSZ=(r) or IORG=(r), specify a register in the range of 2-12.
- DA
1. For RCSZ=(r), specify a register in the range of 2-12.
 2. Only one relative addressing method is permitted on a file. Specify RELATIVE=R or RELATIVE=T, but not both.
- IS
1. For IORG=(r), specify a register (r) in the range of 2-12.
 2. Load the file successfully before attempting to process it.
 3. Correct the control statements for the file or correct volume mounting. Device identification code is not significant.
- SD,MT
1. Specify the parameter EOFA, which is required for an input file.
 2. When IOA2 is specified, either IORG=(r) or WORK=YES must also be specified.
 3. For IORG=(r), specify a register in the range of 2-12.
 4. Specify only one of the parameters IORG=(r) and WORK=YES.
 5. Correct the LBAD=symbol parameter, where symbol is the symbolic address of the user label handling routine.
 6. Specify the required record format parameter.
 7. Either WORK=YES or IORG=(r) (but not both) must be specified with RCFM=FIXBLK.
 8. Either WORK=YES or IORG=(r) (but not both) must be specified with RCFM=VARBLK.
 9. RCSZ=(r) must be specified when RCFM=UNDEF for an output file.
 10. VBLD=(r) is required for output files for which RCFM=VARBLK is specified.
 11. For RCSZ=(r), specify a register (r) in the range 2-12.
 12. Check the control stream for an error in the DVC statement or for a duplicate or misplaced LFD statement.
 13. Change BKSZ to be a multiple of RCSZ and reassemble, or correct the DTFOR specification and reassemble or recompile the program.
- PR For IORG=(r) and RCSZ=(r), specify a register (r) in the range of 2-12.
- PT
1. When BINARY=YES is specified, RCFM=UNDEF and TYPE=INPUT are conflicting parameters. Specify only one.
 2. For IORG=(r) or RCSZ=(r), specify a register (r) in the range of 2-12.
- SD The DTF has been overwritten or an error has occurred in the Proc expansion of the DTFSD macro definition.

DM46 did filename

EXPLANATION:

Required Data Management module missing.

CD, DA, IS, MT, OR, PR, PT, SD

1. Program is linked to a common code which has not been loaded (either there is no code or the wrong one is loaded).
2. Common code index does not correspond to common code loaded.
The address of the module to be supplied by common code was not available in the common code index.

ACTION:

Ensure that the system with the required common code is loaded.

CD, DA, IS, MT, OR, PR, PT, SD

Check linker run for unsatisfied EXTRN's. Ensure that program is not writing in DTF area. Check the parameters submitted to Data Management common code to be certain that the required module is included. Check the system resident volume to be certain that it has the common code load module, and check the common code index for the letter typed in by the operator in reply to the message SV80 DMCC PKG? (A, B, ... OR NONE). Check the possibility that two common codes were generated without making the characteristic letter unique.

DM47 did filename

EXPLANATION:

DA, IS, SD

The extent table space allocated for the file is too small to accommodate the number of extents occupied by the file. (Specification of a sufficient number of main storage increments for the extent table in positional parameter 6 of the JOB statement does not eliminate the necessity of specifying a sufficiently large third parameter in the LFD statement.)

DA The second parameter of the LFD statement is not DA if absolute disc addressing is used, or DR if relative disc addressing is used (that is, RELATIVE=R or RELATIVE=T is specified as a parameter of the DTFDA macro instruction).

ACTION:

DA, IS, SD

Increase parameter 3 of the LFD statement to any number greater than or equal to the number of extents occupied by the disc file.

DA Specify parameter 2 of the LFD statement as DA if absolute disc addressing is used, or DR if relative disc addressing is used (that is, RELATIVE=R or RELATIVE=T is specified as a parameter of the DTFDA macro instruction.)

DM48 did filename

EXPLANATION:

No PUB has been allocated to the file specified by filename.

DA, IS, SD

Missing VOL statement or blank volume serial number field in VOL statement.

IS No volume is mounted on the assigned device.

CD, MT, PT, SD

Parameter 5 of the DVC statement specifies OP (optional device) and OPTION=YES is not specified as a parameter of the DTF macro instruction.

ALL No PUB has been allocated for the file.

ACTION:

DA, IS, SD

Programmer must correct or include in the control stream the incorrect or missing VOL statement.

CD, MT, PT, SD

1. If optional device assignment is desired, specify OPTION=YES as a parameter of the DTF macro instruction and check program logic of the end-of-file routine (EOFA) to ensure that the desired action will be taken when the optional device is unassigned.
2. To specify required rather than optional assignment of a device to a file, do not supply parameter 5 of the DVC statement for the file.

ALL Check the control stream for a missing DVC or incorrect LFD statement.

DM49 did filename

EXPLANATION:

VOL1 or EOF1 label missing, unreadable, or incorrect.

DA, IS, SD

1. A physical I/O error occurred during an attempt to read the VOL1 label from disc.
2. The label read was not a VOL1 label.

MT The file is specified as having standard labels (FLBL=STD) and no VOL1 label is present. If backward processing is specified (READ=BACK), the message indicates that no EOF1 label is present.

ACTION:

DA, IS, SD

1. Check the sense bytes in the high order bytes of register 0 for information concerning the nature of the hardware error.
2. Print the VTOC to check for the presence of a valid VOL1 label. If absent, save data on another volume and reinitialize the volume with the Disc Prep program.

MT If no volume serial number (first parameter of VOL statement) and no file serial number (second parameter of the LBL statement) is present in the control stream, the VOL1 label is optional. For all other cases it must be present. Check for the presence of the VOL1 label. If it is both required and present, it is possible that the tape is not positioned properly. To read forward, the tape should be at the load point. If READ=BACK is specified, the tape must be positioned between the two tape marks that follow all trailer labels.

DM49 did filename VOL1 ERR NO-FND

EXPLANATION:

MT OPEN input processing has failed to find the VOL1 label. The 48-byte I/O area is also printed out to assist the user in identifying the cause of the error.

ACTION:

If an incorrect tape is mounted or the tape is positioned incorrectly, mount the correct tape and position it at load point. Reply with nnR R ☉.

Otherwise, reply with nnR U ☉.

DM4A did filename

EXPLANATION:

Format 1 or HDR1 label not found or unreadable.

DA, IS, SD

1. I/O error or no-find in attempting to read the format 1 label of the file.
2. The label which was successfully read was not a format 1 label.

MT FLBL=STD is specified and no HDR1 label is present.

ACTION:

DA, IS, SD

1. Programmer must check the sense bytes in register 0 for information concerning the nature of a possible hardware error.
2. Check parameter 1 (file identifier) of the LBL statement. Print the VTOC to check for the presence of a valid format 1 label.

MT Ensure that the HDR1 label is on the tape. Other conditions that could produce this message are:

1. Block numbers are present on the tape, but BKNO=YES has not been specified in the DTFMT macro instruction and the first parameter of the VOL statement is not C.
2. Block numbers are not present on the tape, but BKNO=YES is specified in the DTFMT macro instruction, or the first parameter of the VOL statement is C.
3. Tape positioning has occurred.

DM4A did filename NO HDR1 LBL

EXPLANATION:

MT OPEN output processing fails to find the HDR1 label. The 48-byte I/O area is also printed out to assist the user in identifying the cause of the error.

ACTION:

If an incorrect tape is mounted, mount the correct tape and reply with nnR R ☉.

Otherwise, reply with nnR U ☉.

DM4A did filename TAPE EXPRD?

EXPLANATION:

MT The HDR1 label indicates that the file has not expired. The 48-byte I/O area is also printed out to assist the user in identifying the cause of the error.

ACTION:

If the expiration date recorded on the tape is to be overridden, reply with nnR I ☉. If Data Management is to respect the recorded expiration date, reply with nnR U ☉. If an incorrect tape is mounted, mount the correct tape, position it at load point, and reply with nnR R ☉.

DM4A did filename HDR1 ERR NO-FND

EXPLANATION:

MT OPEN input processing has failed to find the HDR1 label. The 48-byte I/O area is also printed out to assist the user in identifying the cause of the error.

ACTION:

Mount the correct tape and position it properly. Reply with nnR R ☺.

Otherwise, reply with nnR U ☺.

DM4B did filename

EXPLANATION:

- MT 1. An I/O error occurred during an attempt to read a tape label.
- 2. No EOF1 or EOVI label is present.
- 3. If READ=BACK, the tape mark following the trailer label is missing.
- 4. Tape positioning has occurred.
- SD 1. A format 1 label for the file indicates zero volume extents.
- 2. The last extent of the last (or only) volume of the file has only one track. BKSZ+overhead>track capacity.
- 3. An I/O error has occurred.

ACTION:

- MT Programmer must check the sense bytes in register 0 for information concerning the nature of a possible hardware error. Print the relevant tape section to check for the presence of a valid label or tape mark.
- SD 1. Print the VTOC to check the extent specifications in the format 1 label for the file volume on the specified device. Reinitialize the VTOC if necessary.
- 2. Allocate more than one track in the last extent of the last (or only) volume, and rerun the program.
- 3. Examine the sense bytes in register 0 for information concerning the nature of a possible hardware malfunction.

DM4B did filename MODE ERR

EXPLANATION:

MT The tape has been specified as ASCII, and the system labels have been translated from ASCII to EBCDIC for processing. A label contains the EBCDIC SUB character indicating that the labels are not proper ASCII characters.

ACTION:

Mount the correct tape and reply with nnR R ☺. Otherwise, reply with nnR U ☺.

DM4C did filename

EXPLANATION:

Format 2 or 3 label not found or unreadable.

DA, SD

1. An I/O error occurred while attempting to read a format 3 label.
2. The label which was successfully read was not a format 3 label.

IS 1. Physical I/O error occurred while attempting to read a format 2 label.

2. Format 2 pointer in the format 1 label was zero.
3. Format label pointed to by the format 1 label of the first volume was read, but its label-type indicator was not 2.

ACTION:

Operator should check device assignment and volume mounting to ensure that the first volume of the file is on the first device assigned.

DA,SD

1. Programmer should check the sense bytes in register 0 for information concerning the nature of the hardware error.
2. Print the VTOC and check for the presence of a valid format 3 label.

IS If the error occurred during OPEN: check the EXT statement for the first volume of the file. Unless the first extent was specified as 04 (parameter 2 of the EXT statement, index), and parameter 2 of the LFD statement was IS, Disc Space Management will not have allocated a format 2 label. Scratch and reallocate the first volume of the file. Check device assignments and volume mounting to ensure that the first volume of the file is on the first device assigned. Check the VTOC integrity. If the error occurred during CLOSE: Check device assignment and volume mounting to ensure that the first volume of the file is on the first device assigned. If the file is being loaded, extended or added to, it is no longer intact and must be re-created; otherwise it is intact except that filename R and filename T, if changed in processing, will not be updated in the disc format 2 label. Check VTOC integrity.

DM4D did filename

EXPLANATION:

Format 4 label not found or unreadable.

DA, IS, SD

1. Physical I/O error occurred in acquiring the format 4 label on the current volume as pointed to by the VOL1 label.
2. Format label pointed to by the VOL1 label was read, but its label type was not 4.

ACTION:

DA, IS, SD

1. Programmer should check the sense bytes in register 0 for information concerning the nature of a possible hardware error.
2. Print the VTOC and check the integrity of those labels associated with the file.

DM4E did filename

EXPLANATION:

Error occurred in reading (or writing) a user header or trailer label.

- DA 1. For an input file, LBAD=symbol was specified as a parameter of the DTFDA macro instruction, but there were no user header labels present in the file.
2. A subsystem hardware malfunction (other than end-of-file condition) occurred while reading a user header label.
- MT 1. An I/O error has occurred while attempting to read or write a user's header or trailer label.
2. If no labels are present (FLBL=NO specified as a parameter of DTFMT macro instruction), this message indicates that an I/O error occurred while positioning the tape.
- SD A physical I/O error occurred while attempting to read a header or trailer label.

ACTION:

DA Programmer should either cause user header labels to be written by opening the file as an output file (TYPE=OUTPUT specified for the DTFDA macro instruction) or remove the LBAD=symbol parameter from the DTFDA macro instruction and reassemble (or recompile) in order to prevent label checking for the input (TYP=INPUT) file.

DA, MT, SD

The two high order bytes of register 0 contain sense bytes 0 and 1 which may indicate the nature of the subsystem hardware malfunction.

DM4F did filename

EXPLANATION:

Missing file ID in file control block.

DA, IS, SD

The 1- to 44-byte file ID (first parameter of the LBL statement) is not present in the file control block, therefore it is impossible to search the VTOC for the format 1 label of the file.

ACTION:

DA, IS, SD

Programmer should check the control stream to ensure that an LBL statement was supplied for the file. If present, check that the first parameter of the LBL statement is the desired file ID.

DM4G did filename

EXPLANATION:

I/O error (hardware) when reading or writing data.

MT An I/O error occurred during an attempt to perform a rewind (OPRW, CLRW). This message is also used to indicate an I/O error detected for data read/write that is checked by the transient routine.

PR The OPEN transient routine cannot access the Data Management common code index because of an unrecoverable I/O error or a missing index.

PT An I/O error (hardware) occurred when reading or writing data during CLOSE.

SD It was necessary for CLOSE routine to process an I/O order for the file, and an error was detected.

ACTION:

MT, PR, PT, SD

The two high order bytes of register 0 contain sense bytes 0 and 1. Programmer should examine these sense bytes for information regarding the nature of the hardware malfunction.

PR Restore common code index.

SD Ensure that the last data block is intact.

DM4H did filename

EXPLANATION:

Attempted to access a file that was not opened.

DA,IS 1. The CLOSE macro instruction was issued for a file which has not been opened.
2. An attempt was made to CLOSE the file after control had been returned to the ERROR=symbol address.

IS A CLOSE or processing macro instruction was issued for a file which had been set down (no longer open) during processing, due to an unrecoverable device error.

ACTION:

DA,IS Programmer should arrange program logic to avoid trying to close a file which is unopened. Reassemble or recompile the program. (This is an informational message for DA files. No operator action required.)

IS Arrange program logic such that no processing or CLOSE macro instructions are issued for the file after bit 0 of filename C has been set. Test this bit after every ISAM macro instruction except OPEN and CLOSE.

DM4I did filename

EXPLANATION:

Volume serial number list block or extent specification error.

- IS
1. First extent of first volume mounted is not type 4 (index).
 2. There is only one extent assigned to the file (index).
 3. There is more than one prime data (PD) extent on a volume.
 4. An invalid extent type was encountered (not 4, 2, or 1).
 5. There is more than one independent overflow extent for the file.
 6. No PD extents have been assigned to the file.
 7. Either a PD or an independent overflow extent was found to be not an integral number of cylinders.

MT,SD

An unsuccessful attempt has been made to read the Volume Serial Number List Block (VSNLB).

SD The last volume allocated to the file has been filled.

ACTION:

Operator should check device assignments and volume mounting to ensure that all volumes are mounted and are in the correct sequence.

- IS
1. Programmer should check all EXT statements for the file to ensure that none of the above conditions was caused by erroneous extent requests. If there were errors, all or part of the file must be scratched and/or reallocated.
 2. If the EXT statements were not in error, check device assignments and volume mounting to ensure that all volumes are mounted and are in the correct sequence.

MT,SD

The two high order bytes of register 0 contain sense bytes 0 and 1. Check these bytes for information concerning the nature of the error.

SD Allocate more disc space to the file and either re-execute the program or, if possible, resume filling the file.

DM4J did filename

EXPLANATION:

- IS 1. The second parameter of the LFD statement for the file is not IS.
2. The control stream specifies more than one file with the same filename as the first parameter of the LFD statement. The file control block of an identically-named non-ISAM file was read during the OPEN routine.
- MT 1. Any of the invalid combinations of volume serial number (first parameter of the VOL statement) and file serial number (second parameter of the LBL statement) listed as follows cause the message:
For an input file –
a. VSN=b and FSN=fsn
b. VSN=SCRTCH and FSN=b
c. VSN=SCRTCH and FSN=fsn
d. VSN=volsn and FSN=VCHECK
For an output file –
a. VSN=b and FSN=VCHECK
b. VSN=b and FSN=fsn
c. VSN=SCRTCH and FSN=fsn
d. VSN=volsn and FSN≠volsn
2. This message is also used to indicate that logical IOCS is preparing to open volume n+1 of a file and only n volumes have been specified in the control stream.

ACTION:

- IS 1. Change the second parameter of the LFD statement for the file to IS and rerun the job.
2. Change the duplicate name in the LFD statement for the non-ISAM file. Also change the label of the corresponding DTFIS macro instruction, reassemble, and rerun the job.
- MT 1. Eliminate the invalid VSN/FSN combination in the control stream.
2. If logical IOCS is opening an extra volume, check for the following conditions:
a. If a user label processing routine (LBA) is specified, the volume must specify an F in register 0 when LBRET is issued, to inform logical IOCS that the file is ended.
b. On input files with standard labels, the trailer label group of the last volume must start with an EOF1 label instead of an EOVI label.
c. If the program issues an FEOV macro instruction, it is assumed that a subsequent volume exists.

DM4K did filename

EXPLANATION:

Error occurred in writing a system standard label block.

DA,SD

An I/O error occurred while attempting to rewrite (write and read-verify) the format 1 label in the VTOC.

- IS 1. During OPEN routine processing: An I/O error occurred while attempting to write and read-verify the format 1 label in the VTOC.
2. During CLOSE routine processing: An I/O error occurred in writing the format 2 label back to disc, or in read-verifying it.
- MT An I/O error occurred while attempting to write a HDR1 label.

ACTION:

DA, IS, MT, SD

Programmer should check the sense bytes in register 0 for information concerning the nature of the hardware error.

DA, SD

Print the VTOC to check for the presence of a proper format 1 label.

IS During OPEN routine processing: Print the VTOC to check for the presence of a proper format 1 label. During CLOSE routine processing: If the file is being loaded, extended, or added to, it is no longer intact and must be re-created; otherwise, it is intact except that filename R and filename T, if changed in processing, will not be updated in the disc format 2 label.

DM4L did filename

EXPLANATION:

An error was detected in the format or writing of a user label block.

DA, MT, SD

An I/O error occurred while attempting to write a user header label.

MT The first three bytes of the user's header label is not HDR or UHL.

ACTION:

DA, MT, SD

Programmer should examine the sense bytes in the high order bytes of register 0 for information concerning the nature of the hardware error.

MT Change the first three bytes of the header label to HDR or UHL as required by label conventions.

DM4N did filename

- VSN ERR volsn
- VOL1 ERR
- VOL1 ERR volsn WRONG VOLUME MOUNTED
- code ERR
- HDR1 ERR VISUAL
- NO VOL1 LBL

EXPLANATION:

Standard label field is incorrect as specified for checking by the control stream.

- DA 1. For output files (TYPE=OUTPUT) the second parameter (FSN) of the LBL statement does not match the first parameter (VSN) of the first VOL statement for the file.
- 2. For input files (TYPE=INPUT) at least one of the following parameters of the LBL statement for the file does not match information in the format 1 label of the file in the VTOC:
 - a. Second parameter (file serial number)
 - b. Third parameter (volume sequence number)
 - c. Fifth parameter (file creation date)
- IS 1. The file serial number (FSN) in the format 1 label differs from that in the file control block (FCB).
- 2. Volume sequence error.
- 3. The creation date specified as parameter 5 of the LBL statement differs from that in the format 1 label for the file.

- MT 1. VSN ERR volsn — the volume serial number specified in the control stream does not match the volume serial number on the tape. The first 48 bytes of the I/O area are also printed out. Character positions 4–10 of the I/O area should contain the volume serial number on tape, and volsn is the volume serial number specified in the control stream.
2. VOL1 ERR — a volume other than the first volume of a multivolume file was opened. The volume serial number on the tape differed from that specified in the VOL statement. The first 48 bytes of the VOL1 label are typed out on the console to allow the operator to verify the volume.
3. code ERR
where code may have one of the following values:
IDEN for File Identity
FSNO for File Serial Number
VSEQ for Volume Sequence Number
FSEQ for File Sequence Number
GENO for Generation Number
VERN for Version Number
CDTE for Creation Date
The field of the HDR1 label indicated by code has been specified in the LBL statement. The specification does not agree with the value in the HDR1 label (or if READ=BACK, the EOF1 label).
4. HDR1 ERR VISUAL
HDR1 label bytes 1–48
where HDR1 label bytes 1–48 are the first 48 bytes of the HDR1 label as they appear on the tape. This message is displayed to indicate the possibility of a HDR1 label error condition, because the information in the control stream was not adequate for unique file identification. The first 48 bytes of the HDR1 label are displayed so that the operator can confirm or deny the validity of the file.
5. NO VOL1 LBL — OPEN transient routine has failed to find the VOL1 label. The 48-byte I/O area is also printed out to assist the user in identifying the cause of the error. Any inconsistency in declaring block numbering can cause this error.
- SD 1. VOL1 ERR volsn WRONG VOLUME MOUNTED
The volume serial number of the volume mounted on the specified device does not match that in the VOL statement for the file.
2. A parameter specified in the LBL statement does not match information in the format 1 label.

ACTION:

- DA 1. Informational message. No operator action required. The actual file serial numbers (FSN) of all volumes of the file have been made identical to the volume serial number (VSN) of the first volume of the file encountered in the control stream (which differs from the file serial number specified as the second parameter of the LBL statement). When subsequently used as an input file, the second parameter of the LBL statement (FSN) for this file must match the first parameter of the VOL statement for the first volume of the file.
2. Check the LBL statement for erroneous parameters. Check the order of mounting of all volumes of the file. Ensure that all volumes mounted belong to the file.
- IS 1. For new output files, this is an informational message. The actual FSN of all volumes of the file has been made identical to the VSN of the first volume of the file encountered in the control stream (which differs from the FSN specified as the second parameter of the LBL statement). When subsequently used as an input file, the second parameter (FSN) of the LBL statement for this file must match the first parameter of the VOL statement for the first volume of the file. This is a fatal error for old output files. Check the second parameter of the LBL statement for errors.
2. Check parameter 3 of the LBL statement for the file. Check order of volume mounting.
3. Check parameter 5 of the LBL statement for errors.

- MT 1. VSN ERR volsn — The volume serial number specified in the control stream does not match the volume serial number on the tape. Mount the correct tape, position it to load point, and reply with nnR RⓈ.
2. VOL1 ERR — the volume serial number of the tape mounted on the specified device does not agree with the volume serial number specified in the VOL statement. The first 48 bytes of the VOL1 label are typed out to allow the operator to verify the volume. To accept the present volume reply with I (ignore). If the present volume is not correct, mount the correct volume, position at load point, and reply with R. If the correct tape is not available, reply with U.
3. code ERR — the indicated field of the HDR1 label has been specified in the LBL statement. The control stream specification does not agree with the value in the HDR1 label (if READ=BACK, the EOF1 label). To re-try the HDR1 label check, position the tape mounted on the specified device to load point and reply with R. To cancel the job or activate an error routine in the user program, reply with U. For tape input messages in which the tape is being read backwards, the same message appears except that EOF1 replaces HDR1 and there is no re-try capability.
This message is followed by transfer of control to the ERROR=symbol address (if specified) or CANCEL routine unless one of the following combinations is present in the control stream.
- | VSN (VOL statement) | FSN (LBL statement) |
|---------------------|---------------------|
| a. blank | and blank |
| b. blank | and VCHECK |
| c. SCRTCH | and VCHECK |
4. HDR1 ERR VISUAL — this error message is displayed to indicate the possibility of a HDR1 label error condition, because the information in the control stream was not adequate for unique file identification. The first 48 bytes of the HDR1 label are displayed so that the operator can confirm or deny the validity of the file. To accept the label and proceed, reply with I. To re-try the header label check, position the tape a load point and reply with R. To cancel the job or activate an error routine provided by the user program reply with U. For tape input messages in which the tape is being read backwards, the same message appears except that EOF1 replaces HDR1, and there is no retry capability.
5. NO VOL1 LBL — No VOL1 label was found during OPEN processing. If incorrect tape is mounted or tape is not at load point, mount correct tape, position it to load point, and reply with nnR RⓈ. Otherwise, reply with nnR UⓈ.
- SD 1. VOL1 ERR volsn WRONG VOLUME MOUNTED — Check the VOL statements for errors. Next, check the VSN of the volume mounted on the specified device. If the wrong volume is mounted, mount the correct volume, if available, and reply with R. If the wrong volume is mounted and the correct volume is unavailable, reply with U. A DM41 message is typed at the console, and control is transferred to the ERROR=symbol address (if specified) or to the CANCEL routine. If the control stream and volume mounting are both correct, print the VTOC to inspect the VOL1 label for validity.
2. Check all parameters specified in the LBL statement for errors.

DM40 did filename

EXPLANATION:

I/O limits-check failure.

CD,DA The IOA1 address is not greater than the lower limits register value or the IOA1 address + BKSZ is not less than the upper limits register value.

DA The IOLOC or ERRBYTE address is not within the range of the limits register.

IS Potential storage limits violation

1. The highest-address, user-assigned I/O area (IOAREAL, IOAREAR, or IOAREAS) has an address such that it is lower than the lower program storage limit for the program, or cannot be used for reading a format label (that is, address+95> upper program storage limit).

2. A user-assigned I/O area and the file parameters are such that one of the following potential storage limit violations exists:
 - a. Area address < lower program storage limit.
 - b. $(IOAREAR \text{ or } IOAREAS) + \text{MAX} [NRECDS * RCSZ, RCSZ + 10] - 1 >$ upper program storage limit.
 - c. $IOAREAL + 8 + KEYLEN + \text{MAX} [NRECDS * RCSZ, RCSZ + 10] - 1 >$ upper program storage limit.

MT,SD

All or part of the I/O area(s) specified in the DTF macro instruction does not fall within the program storage limits.

- PT** $IOA1$ (or $IOA2$) address < lower program storage limit or $IOA1$ (or $IOA2$) + $OBKS \geq$ upper program storage limit.

ACTION:

ALL The programmer should correct the relevant parameters of the DTF macro instruction and correct and reassemble the program element containing the I/O area definition(s).

DM4P did filename**EXPLANATION:**

- IS** The last macro instruction issued for the file did not terminate a processing sequence, that is, it was not one of the following:
ESETL, ENDFL, WAITF, OPEN.

ACTION:

- IS** Programmer should check program logic to ensure that one of the macro instructions listed above terminates a processing sequence. If logic is correct, check sense bytes in register 0 for information concerning the nature of the error. If the file is being loaded, extended, or added to, it is no longer intact and must be re-created; otherwise it is intact except that filename R and filename T, if changed in processing, will not be updated in the disc format 2 label.

DM4Q did filename**EXPLANATION:**

- DA** This is an informational message. No operator action required. A **CLOSE** macro instruction was issued while there was an outstanding I/O order, that is, a **READ** or **WRITE** macro instruction was issued but not its corresponding **WAITF** macro instruction.

ACTION:

- DA** Programmer should correct program logic to include the necessary **WAITF** macro instruction and reassemble.

DM4R did filename

EXPLANATION:

ALL Missing or inaccessible transient routine overlay or common code index.

ACTION:

ALL The requested transient routine (or common code index) may be absent from the transient routine file (SYSTRAN) either because it never was in the file, or because the transient routine file is no longer intact. If the requested transient routine is both present and intact, a disc hardware error should be suspected. Check the sense bytes in register 0 for information concerning the nature of the error. (This error is not specifically related to the common code mechanism.) If the user-program object module was incorrectly linked with the common code, relink correctly to produce a new load module.

DM4S did filename

EXPLANATION:

DA The size of the chain area generated is not sufficient for the options specified in the DTFDA macro instruction.

ACTION:

DA If the user has employed the DTFDA macro instruction and has not altered any of the fields generated, then this is a problem of the Direct Access Method. Programmer should ensure that the DTF area is not being unintentionally overwritten.

DM4T did filename

EXPLANATION:

DA The entry address of a user label- or extent-processing routine was specified by LBAD=symbol or XTNTXIT=symbol. The time limit for processing user labels or extents was exceeded and control was then returned to logical IOCS.

MT,SD

The user label processing routine at the address specified by LBAD=symbol exceeded the allowed label processing time, and control was then returned to logical IOCS.

MT If LBAD=symbol is not specified, logical IOCS searches for a tape mark after processing the HDR1 label (FLBL=STD). If the tape mark is not found after 20 seconds, this message results.

DA,MT,SD

1. The current Supervisor was generated without the Data Management Proc (DM), so that the instructions for handling the LBRET macro instruction are absent.
2. An illegal transient routine request has been made in the user LBAD routine. The transient routine request has not been honored and the job is cancelled.
3. The keyword parameter LBAD=symbol was included in the associated DTF macro instruction, but the Supervisor was not generated to interface properly with the LBRET macro instruction.

ACTION:

DA, MT, SD

The programmer should check for program looping in the label- or extent-processing routine.

MT Check for the presence of a tape mark after the HDR1 label.

DA, MT, SD

1. If necessary, regenerate the Supervisor with the Data Management Proc (DM) specified.
2. Remove all transient routine requests from the label- or extent-processing routine.
3. If incorrect, remove the LBAD=symbol specification or regenerate the Supervisor with the DM parameter included on the SYSTEM call line.

DM4U did filename

EXPLANATION:

- DA 1. Key length incorrectly specified (less than 3 or greater than 255).
2. READKEY=YES or WRITEKEY=YES has been specified in the DTFDA macro instruction but the KEYLEN specification was omitted.
- IS The device identification code is not significant; it will be either the specified device identification or that of the last (or only) volume of the file.
1. Key length incorrectly specified (less than 3 or greater than 255).
 2. The KEYLEN specification was omitted.

ACTION:

- DA,IS 1. Specify a key length greater than 2 but less than 256, and reassemble.
2. Include the KEYLEN specification in the DTF macro instruction and reassemble.

DM4W did filename

EXPLANATION:

- IS CYLOFL>8 for 8411, or CYLOFL>18 for 8414, creating the possibility of no room for data in loading a prime data cylinder.
- MT CKPT=YES is specified and checkpoint numbers do not match, indicating that a checkpoint record was unsuccessfully bypassed.

ACTION:

- IS Reassemble or patch the DTFIS macro instruction to indicate a valid number of cylinder overflow tracks. If CYLOFL was predicated on a different device than that assigned to the file, correct the device assignment and have file space allocated on the proper type device.
- MT Inspect the sense bytes in register 0 for information concerning the nature of a possible hardware malfunction. Check the checkpoint numbers in the checkpoint record header and trailer labels to ensure that they are identical.

DM4X did filename {
TAPK BKS number
CALC BKS number
[NO] POSTN OCCURD }

EXPLANATION:

MT Logical IOCS keeps track of the number of data blocks processed for a file. On output, this number is stored in the address specified by the EOF1/EOV1 label. On input the data blocks are recounted and the new value is compared with the value in the EOF1/EOV1 label. If the values do not agree, the above set of messages is typed out on the console. (For READ=BACK the EOF1/EOV1 value is accessed at OPEN time and should decrement to zero). The final message of the set indicates whether or not the program has issued a CNTRL macro instruction that would reposition (by means of the BSF or FSF parameters) the tape an indeterminate number of blocks.

ACTION:

MT Programmer should examine the sense bytes in register 0 for information concerning a possible hardware malfunction. Print the tape and check that the number of blocks present agrees with the number in the EOF1/EOV1 label. If those numbers are correct and consistent, either a block has erroneously skipped or processed more than once.

DM4Y did filename

EXPLANATION:

Invalid or inconsistent device assignment.

DA, IS, SD

1. A device assigned to the file is not a currently supported disc device.
2. Not all devices of a multivolume file are of the same type.

MT A device assigned to the file is not a magnetic tape device.

ACTION:

DA, IS, SD

Check the first parameter of the DVC statement for all devices assigned to the file to ensure that all logical unit numbers correspond to a currently supported disc of the same type.

MT Check the first parameter of the DVC statement for all devices assigned to the file to ensure that all logical unit numbers correspond to currently supported magnetic tape devices.

DM4Z did filename

EXPLANATION:

Resident cylinder index (CI) not supported.

- IS
1. Index size (INDSIZE) too small. The size of the resident CI area (label specified by INDAREA parameter) as specified by the INDSIZE parameter is too small to contain at least four resident CI entries; that is, $INDAREA < 4 * (KEYLEN + 6)$.
 2. Module missing from common code.

ACTION:

- IS 1. Programmer should reassemble the DTFIS macro instruction and the program element containing index area (INDAREA) to increase the size to at least 4 * (KEYLEN+6), or drop this option by deleting the INDAREA and INDSIZE specifications from the DTFIS macro instruction.
2. If the user program object module was linked with common code, ensure that the INDAREA parameter is submitted to the Data Management common code utility program (DMCC).

DM4 – did filename M=xx CC=xxxx H=xxxx

EXPLANATION:

- IS If track 0 on a prime data cylinder has been assigned an alternate track and IOROUT=ADD or IOROUT=ADDRTR have been specified for an ISAM file, the add function of ISAM cannot be performed on that particular cylinder (CC). Therefore, the OPEN transient routine checks for an alternate track 0 in the prime data extent area during initial loading of the file. The message is printed when this situation is detected. M, CC, and HH are the volume, cylinder, and head number, respectively, of the defective track 0, and x is a hexadecimal digit.

ACTION:

Informational message. No operator action required. If the add function is required, the file should be reallocated. If the add function is performed on the specified cylinder, the entire file is lost. If no add function is required, the message may be ignored.

{ DM4[did filename }
{ DM4¢ did filename }

EXPLANATION:

- IS 1. Expanded length of the I/O area (IOAREAL) is not large enough to contain one track of prime data records: $IOSIZE < MXDB * BDB$
2. Addresses of IOAREAL and IOSIZE are such that the upper storage limit for the user program will be violated.
- SD All volumes given by the VSNLB have been filled for an output file before the CLOSE macro instruction was issued. The last block given to logical IOCS has been written. Space exists for an EOF record.

ACTION:

- IS 1. If the size of the I/O area (IOSIZE) was predicated on a device with a smaller track capacity than that actually assigned, correct either the DTFIS macro instruction and IOAREAL size, or device assignment.
2. Correct the user program element containing the IOAREAL definition.
- SD If ERROR=symbol is specified, a CLOSE macro instruction can be issued in the error routine, which will write the EOF record and terminate normally.
- Check the VSNLB for missing VOL statements if not at the expected last volume. If all volumes have been exhausted, allocate more disc file space and either completely refill the file or, if the desired point of resumption is known, resume by filling the added file space.

A.7.1. ERROR ANALYSIS ROUTINE MESSAGES

DM01 SUPV. VER/REV=nn/nn JOB#/STEP#=nn/nn JOB NAME=jobname

EXPLANATION:

SUPV. VER/REV=nn/nn

identifies the version and revision of the Supervisor which was loaded at the last initial program load.

JOB#/STEP#=nn/nn

identifies the job number and the job step number (relative to 1) in which the error analysis routine (DMEAR) was invoked.

jobname

is the name of the active job which invoked the DMEAR transient.

ACTION:

Informational message. No operator action required.

DM02 PROG NAME=programname DATE=mm/dd/yy=qyyddd=0ydd TIME=hh:mm

EXPLANATION:

programname

is the name of the program which invoked the DMEAR transient. The program name (and job step number in DM01) allow the invoking user program to be uniquely identified in cases where the same program is executed in more than one job step.

DATE specifies the three forms of the calendar date in the preamble of the user job, where:

mm/dd/yy is the calendar date, specifying month, day, and year.

qyyddd is the tape Data Management date in EBCDIC. A blank field indicates that this date has not been established by a console type-in or a SET DATE statement.

0ydd is the disc Data Management date in discontinuous binary. A zero field indicates that this date has not been established by a console type-in or a SET DATE statement.

hh:mm is the console clock setting.

ACTION:

Informational message. No operator action required.

DM03 LFD=filename ERR=nn file-type DEV-ID/TYP=nnn/nn VSN=volsn

EXPLANATION:

filename

is the filename from the user's DTF macro instruction.

nn is the Data Management error code passed to DMEAR in the two low-order bytes of register 0. This code indicates the reason for the error. Refer to *UNIVAC 9400 Data Management System Programmers Reference, UP-7629* (current version) for explanation of error code.

file-type

identifies the type of peripheral device on which the Data Management file exists. For disc files, the access method is also indicated. An unrecognizable file-type code found in the user's DTF is indicated by DC\$DTF=nn in this field.

nnn/nn

identifies the device on which the Data Management file exists in addition to its device type code. If the DTF PUB pointer is zero, this field is blank.

volsn is the volume serial number of the device as contained in the PUB. If the DTF PUB pointer is zero, this field is blank.

ACTION:

Informational message. No operator action required.

DM04 FILE-ID='file-id' [BLOCK#=blockno]

EXPLANATION:

'file-id'

is the file-identifier taken from the file control block. The file ID is established by the LBL statement. An unsuccessful attempt by DMEAR to read the file control block is indicated by RDFCB ERR, TB=nnnn in this field.

blockno

is the tape block count taken from the file control block. This field is present for tape files only. It is not present if there is a RDFCB error in DMEAR.

ACTION:

Informational message. No operator action required.

DM05 CCB=first five command control block words

EXPLANATION:

The first 20 bytes of the command control block (CCB) referenced in I/O orders to the peripheral devices are printed on the console.

ACTION:

Informational message. No operator action required.

DM06 CCB=second five command control block words

EXPLANATION:

The second 20 bytes of the CCB referenced in I/O orders to the peripheral devices are printed on the console.

ACTION:

Informational message. No operator action required.

DM07 ERR CCW =word 1 word 2 ERR CCW ADDR=address CMD=nn

DM07 ERR BCW =word 1 word 2 ERR BCW ADDR=address CMD=nn

EXPLANATION:

word 1 word 2

is the channel command word (selector channel) or buffer control word (multiplexer channel) which caused the error.

address

is the absolute storage address of the CCW or BCW in error.

nn is the one-byte I/O order command code issued.

ACTION:

Informational message. No operator action required.

DM08 SNS BYTES=sense bytes ERROR COUNT=nnnn

EXPLANATION:

sense bytes

are the sense data bytes which describe unusual conditions detected in the last device operation and also the current status of the device. (Refer to the appropriate subsystem reference manual for an explanation of the sense bytes.)

nnnn is the number of successful error recovery attempts which have occurred on the device since the last initial program load.

ACTION:

Informational message. No operator action required.

Examples:

```
106:37 18 DM01 SUPV. VER/REV=08/06 JOB#/STEP#=18/01 JOB NAME=DU50B388
106:37 18 DM02 PROG NAME=DATA0800 DATE=05/08/72= 72129=480081 TIME=06:37
106:38 18 DM03 LFD=INPUT1 ERR=1G SAM-DISC DEV-ID/TYP=J83/60 VSN=DSP106
106:38 18 DM04 FILE-ID='CORLIB
106:38 18 DM05 CCB=00089060 0000A7A8 00002A60 0000A6DE 00000000
106:38 18 DM06 CCB=0E0C0001 00000000 00000000 000800C3 00009A74
106:38 18 DM07 ERR CCW=07000700 07000E08 ERR CCW ADDR=00002A58 CMD=07
106:38 18 DM08 SNS BYTES=000800C3 0000 ERROR COUNT=""=4
```

A.8. DISPLAY AND PUNCH SERVICES (DAPS) MESSAGES

DP20 CONTROL STREAM ERROR – ABORTING

EXPLANATION:

Check control stream for position of the /\$ and /* statements.

ACTION:

Correct control stream and rerun the job.

DP30 I/O TROUBLE – JOB ABORTING

EXPLANATION:

Block count error encountered on the LIBIN tape while running DAPS. There was an indication that a block was either missing or read twice, but a hardware malfunction was not detected.

ACTION:

Rerun job using a different device for the LIBIN tape. If the problem persists, display the tape to ensure that there are no missing or duplicate blocks, and investigate possible hardware malfunction.

DP40 PRINTER NOT ALLOCATED

EXPLANATION:

The required printer file was not allocated in the control stream, or PRNTR was misspelled.

ACTION:

Correct control stream and rerun the job.

DP50 DAPS ERRORS FOUND IN THIS JOB STEP

EXPLANATION:

Processing errors have occurred during the DAPS run. The DAPS routine terminates normally.

ACTION:

Informational message. No operator action required. Refer to output listing for explanation of error codes.

DP60 PUNCH NOT ALLOCATED

EXPLANATION:

The required punch file was not allocated in the control stream, or PUNCH was misspelled.

ACTION:

Correct the control stream and rerun the job.

A.9. FORTRAN MESSAGES

The following abbreviations apply to these messages:

nn = FORTRAN logical unit number
did = device identification
filename = name of the file as specified on the LFD statement
save = five-character field pointing to the last active register save area
valoc = address of the FORTRAN variable in question
(insert) = an insert subfield consisting of either a two-character FORTRAN logical unit number (nn), or a two-character FORTRAN logical unit number followed by a three-character device ID (did).

A.9.1. COMPILE TIME MESSAGES

FATAL COMPILER ERROR

EXPLANATION:

An internal table has been exceeded which will not allow processing to be completed. Compiler is aborted.

ACTION:

If more main storage is available, rerun the job with more space allowed.

filename FILE NOT FOUND

Refer to disc error code 10 in A.2 for explanation and action.

filename FILE, DIRECTORY OVFLW

Refer to disc error code 40 in A.2 for explanation and action.

filename UNRECOVERABLE I/O ERROR

EXPLANATION:

The file identified by filename has encountered an error from which it is impossible to recover and continue processing (disc FORTRAN only). Register 10 contains the address of the address of the DTF macro instruction of the file in error. The tenth byte of this macro instruction contains one of the following error codes:

80 – File Discrepancy (See disc error code 80 in A.2)
08 – Parity Error (See disc error code 08 in A.2)
04 – Format Error (See disc error code 04 in A.2)
02 – End of File (See disc error code 02 in A.2)
01 – Unrecoverable Disc Error (See disc error code 01 in A.2)

Further information may be obtained by checking the sense bytes in the associated CCB. The CCB address is the fifteenth word of the DTF macro instruction.

ACTION:

Refer to A.2 for explanation and action.

filename FILE NOT FOUND

Refer to tape error codes 10 and 01 in section A.2 for explanation and action.

filename UNRECOVERABLE I/O ERROR

EXPLANATION:

The file identified by filename has encountered an error from which it is impossible to recover and continue processing (tape FORTRAN only). Compiler is aborted. Register 10 contains the address of the address of the DTF macro instruction of the file in error. The twenty-eighth byte of this macro instruction contains an error code. See tape error codes in section A.2 for explanation and action.

ACTION:

Refer to section A.2 for explanation and action.

A.9.2. EXECUTION TIME MESSAGES

FT00 PAUSE: message

EXPLANATION:

Message is a Hollerith string made up of the FORTRAN character set which may vary in length from 1 to 255 characters.

ACTION:

The PAUSE message should refer to the action required, if any. A reply must be entered at the console to resume processing.

FT01 STOP: (number)

EXPLANATION:

Number refers to a one- to five-digit number (used with a STOP statement). The STOP statement has been encountered. Program has terminated normally.

ACTION:

Informational message. No operator action required.

FT02 STOP: END

EXPLANATION:

The END statement has been encountered and executed. Program has terminated normally.

ACTION:

Informational message. No operator action required.

FT03 nn did UNEXPIRED EXPIRATION DATE

EXPLANATION:

Attempted to write on a tape bearing an expiration date still in the future. Program has terminated normally.

ACTION:

Ensure that the proper date has been entered at system initialization time, or mount the correct tape and rerun the job.

FT04 nn did HEADER LABEL I/O

EXPLANATION:

The header label of the tape on FORTRAN logical unit nn could not be read. This is probably an I/O parity error. Program is terminated.

ACTION:

Ensure that the correct tape is mounted, if not, mount correct tape and rerun the job.

FT05 nn did MISSING VOL1/HDR1 LABEL

EXPLANATION:

Tape not prepared according to standard specifications. Program is terminated.

ACTION:

Ensure that the correct tape is mounted, if not, mount correct tape and rerun the job.

FT06 nn did HDR1 INVALID

EXPLANATION:

Invalid header label read on FORTRAN logical unit nn. Program is terminated.

ACTION:

Ensure that the correct tape is mounted, if not, mount correct tape and rerun the job.

FT07 nn did TRAILER LABEL I/O

EXPLANATION:

Trailer label of the tape on FORTRAN logical unit nn could not be processed by the FORTRAN I/O software. Possible I/O parity error. Program is terminated.

ACTION:

Rerun on different device. If error persists, investigate possible hardware malfunction.

FT08 nn did MISSING EOF1/EOV1 LABEL

EXPLANATION:

Tape on FORTRAN logical unit nn does not have an end-of-file or end-of-volume label. Program is terminated.

ACTION:

Informational message. No operator action required.

FT09 nn did MULTIVOLUME FILE PROCESSING NOT IMPLEMENTED

EXPLANATION:

No more than a single volume per file can be managed by FORTRAN I/O software. FORTRAN logical unit nn contains the illegal volume. Program is terminated.

ACTION:

Informational message. No operator action required.

FT10 nn did xxxxxx yyyyyy DATA BLOCK COUNT

EXPLANATION:

The FORTRAN-calculated block count for the tape on logical unit nn does not equal the count on the tape. Probable I/O error, where:

xxxxxx is a block count contained in an EOF1/EOV1 label.

yyyyyy is a block count calculated by FORTRAN I/O.

Program is terminated.

ACTION:

Rerun on a different device. If this fails, resolve reason for block numbering discrepancy and rerun the job.

FT11 nn I/O MODULE NOT AVAILABLE

EXPLANATION:

The I/O device handler for FORTRAN logical unit nn has not been included in the object module. Correct the I/O PARAM statement used in compiling the program and recompile.

ACTION:

Informational message. No operator action required.

FT20 save valoc ASSIGNED GOTO VAR NOT ASSIGNED

EXPLANATION:

The variable in an assigned GOTO statement does not appear in an ASSIGN statement. Program is terminated. Correct program logic and recompile.

ACTION:

Informational message. No operator action required.

FT21 save valoc COMP GOTO VAR GT # LABELS

EXPLANATION:

The value for the variable in a computed GOTO statement has exceeded the number of labels. (Employ a FORTRAN test to check that the value of the GOTO variable in question, does not exceed the number of labels.) Program is terminated. Correct program logic and recompile.

ACTION:

Informational message. No operator action required.

FT22 save NO UNFMTTED PRINT

EXPLANATION:

The printer cannot handle all possible character strings which might arise through the use of unformatted I/O in FORTRAN. Program is terminated.

ACTION:

Informational message. No operator action required.

FT23 save [valoc] ** ERR

EXPLANATION:

Illegal exponentiation attempted, or the result of an exponentiation has gone out of bounds. Program is terminated.

ACTION:

Informational message. No operator action required.

FT24 save [valoc]ARCSIN/ARCCOS ARG GT 1

EXPLANATION:

Alarm exit. ARCSIN (x) and ARCCOS (x) are not defined for real (x) (greater than 1). Program is terminated.

ACTION:

Informational message. No operator action required.

FT25 save TRIG FUNC PRECISION LOSS

EXPLANATION:

Range reduction in the sine or cosine function results in a meaningless argument. A zero value for the argument is used in functional evaluation.

ACTION:

Informational message. No operator action required.

FT26 save SUBSCRIPT ERR

EXPLANATION:

Subscript evaluation has either overflowed, in which case the last array element is selected, or has a negative final value, in which case the first array element is selected.

ACTION:

Informational message. No operator action required.

FT27 save valoc NO DATA FOR I/O LIST

EXPLANATION:

A null data record with a nonempty variable list was encountered by a FORTRAN I/O statement. Program is terminated.

ACTION:

Informational message. No operator action required.

FT28 save LOG UNIT # ERR

EXPLANATION:

The FORTRAN logical unit number in an I/O statement has been specified through a variable and found to have a nonpermissible value. Program is terminated.

ACTION:

Informational message. No operator action required.

FT29 save REREAD IN WRITE ST,AUX I/O,DIR ACCESS

EXPLANATION:

The reread FORTRAN logical unit number (29) has been referenced illegally in a WRITE, auxiliary I/O (REWIND), or direct access statement. Program is terminated.

ACTION:

Informational message. No operator action required.

FT30 save REREAD BUT NO DVC READ

EXPLANATION:

Reread FORTRAN logical unit number referenced before any device has been read for the first time. Program is terminated.

ACTION:

Informational message. No operator action required.

FT31 save (insert) OPT DVC NOT AVAIL

EXPLANATION:

The device, as referenced by the FORTRAN logical unit number and device ID in the insert field, is both optional and unavailable. Program is terminated.

ACTION:

An alternate device was assigned to the job but was either down or not available. Check the device ID. Rerun when device becomes available.

FT32 save (insert) LFD FILENAME

EXPLANATION:

Missing logical file definition in the control stream for the FORTRAN logical unit number occurring in the insert field. Program is terminated.

ACTION:

Correct the control stream and rerun the job.

FT33 save (insert) INVALID DVC ASSIGNED

EXPLANATION:

The FORTRAN logical unit number occurring in the insert field exceeds the maximum value of 41. Program is terminated.

ACTION:

Informational message. No operator action required.

FT34 save REREAD MULTIBLOCK REC.

EXPLANATION:

Reread on FORTRAN logical unit number given by the insert field has exceeded one input block. Program is terminated.

ACTION:

Informational message. No operator action required.

FT35 save (insert) UNFMPTED REREAD

EXPLANATION:

Unformatted mode reread on the FORTRAN logical unit number given by the insert field is illegal. Program is terminated.

ACTION:

Informational message. No operator action required.

FT36 save (insert) FMT READ OF UNFMPTED TAPE

EXPLANATION:

The FORTRAN logical unit number occurring in the insert field has an unformatted tape file which cannot be read in the formatted mode. Program is terminated.

ACTION:

Informational message. No operator action required.

FT37 save (insert) UNFMTTED READ BEYOND LOG REC

EXPLANATION:

I/O list in an unformatted READ statement has exceeded the established length of the unformatted logical record. Program is terminated.

ACTION:

Informational message. No operator action required.

FT38 save (insert) INPT DVC IN WRITE ST

EXPLANATION:

Illegal WRITE operation attempted on an input device. The logical unit number and device ID in question are both given in the insert field. Program is terminated.

ACTION:

Informational message. No operator action required.

FT39 save (insert) OTPT DVC IN READ ST

EXPLANATION:

Illegal READ operation attempted on an output device. The logical unit number and device ID in question are both given in the insert field. Program is terminated.

ACTION:

Informational message. No operator action required.

FT40 save (insert) AUX I/O ON WRONG DVC

EXPLANATION:

Illegal auxiliary I/O statement. Insert contains the referenced logical unit number and the device ID. Program is terminated.

ACTION:

Informational message. No operator action required.

FT41 save (insert) READ AFTER WRITE ENDFILE ST

EXPLANATION:

Attempted to read a FORTRAN tape after the end-of-file mark has been written on it. Insert contains the logical unit reference and the device ID of the READ statement. Program is terminated.

ACTION:

Informational message. No operator action required.

FT42 save (insert) MULTIFILE VOL PROCESSING UNIMPLEMENTED

EXPLANATION:

Only one file allowed per volume on tape or sequential disc. Insert refers to the logical unit number and device ID in question. Program is terminated.

ACTION:

Informational message. No operator action required.

FT43 save (insert) I/O ERR

EXPLANATION:

Data parity error. Logical unit number and device ID are given in the insert field. Program is terminated.

ACTION:

Rerun the program on a different device if possible. If the error persists, investigate possible hardware malfunction.

FT44 save valoc EXP(|ARG|) WONT FLOAT

EXPLANATION:

Underflow or overflow has occurred while attempting to evaluate e^x or 10^x where x is the variable in question. Program is terminated.

ACTION:

Informational message. No operator action required.

FT45 save valoc LOG ARG LE 0

EXPLANATION:

The logarithmic function is undefined for arguments less than or equal to zero. Program is terminated.

ACTION:

Informational message. No operator action required.

FT46 save NO FMT PAREN

EXPLANATION:

A FORMAT has missing initial left parenthesis. Program is terminated.

ACTION:

Informational message. No operator action required.

FT47 save FMT GROUP NEST ERR

EXPLANATION:

A format field descriptor group has been nested incorrectly or beyond the second level of parentheses not including the outer parentheses of the FORMAT itself. Program is terminated.

ACTION:

Informational message. No operator action required.

FT48 save BAD SCALE FACTOR

EXPLANATION:

A FORMAT has employed the scale factor feature incorrectly (n as in nP is such that n exceeds 255, or more than one P has been used prior to a single field descriptor.) Program is terminated.

ACTION:

Informational message. No operator action required.

FT49 save NO FMT DELIMITER

EXPLANATION:

Delimiters may only be omitted following either a Hollerith string ($nH_1h_2...h_n$), an nX descriptor, or a literal string ($l_1l_2...l_k$). Program is terminated.

ACTION:

Informational message. No operator action required.

FT50 save NO ANTCPTD FMT DESCRIPT

EXPLANATION:

Failure to find a field descriptor where one might reasonably be assumed to exist. Program is terminated.

ACTION:

Informational message. No operator action required.

FT51 save FMT NUM ERR

EXPLANATION:

Group repeat count, repeat count, or field width specification is either nonpositive or exceeds 255 (the same error applies to the length of a Hollerith string), or the fractional length specification is negative or exceeds the field width. Program is terminated.

ACTION:

Informational message. No operator action required.

FT52 save BAD T SPEC

EXPLANATION:

In a FORMAT statement a T specification points beyond the I/O buffer, or Tw has incorrect syntax. Program is terminated.

ACTION:

Informational message. No operator action required.

FT53 save valoc INSUFF FMT w

EXPLANATION:

When using the E, D, or G descriptors for output of a real approximation, the field width (w) must exceed the fractional length d by at least 7 positions. In the case of F type output, w-d should exceed 2. Program continues and the field is asterisk filled.

ACTION:

Informational message. No operator action required.

FT54 save valoc INPUT DATUM ERR

EXPLANATION:

The input data string associated with the variable which has appeared in an I/O list cannot be processed by the corresponding field descriptor in the referenced FORMAT. This normally indicates an incorrect character in the string.

ACTION:

Informational message. No operator action required.

FT55 save valoc LIST/FMT TOO LONG

EXPLANATION:

The length specifications between record terminators in a FORMAT statement have been accumulated and found to exceed the available buffer size. Program is terminated.

ACTION:

Informational message. No operator action required.

FT56 save (insert) SEQ I/O ON DIR ACCESS FILE

EXPLANATION:

A sequential-type I/O command has been attempted for a direct access file. Program is terminated.

ACTION:

Informational message. No operator action required.

FT57 save NO ARCTAN0/0

EXPLANATION:

The ARCTAN (arctangent) function has been called to return the $\tan^{-1}(x/y)$ where both x and $y = 0$. (Check before calling the ARCTAN function for this exceptional case.) Program is terminated.

ACTION:

Informational message. No operator action required.

FT58 save valoc COMP GOTO VAR LT 1

EXPLANATION:

The integer variable was not positive. Program is terminated.

ACTION:

Informational message. No operator action required.

FT59 save (insert) EOF ERR

EXPLANATION:

End-of-file condition on sequential disc, tape, or card reader with no FORTRAN end-of-file label specified in a READ statement. Program is terminated.

ACTION:

Informational message. No operator action required.

FT60 save valoc SQRT(N),N<0

EXPLANATION:

The square root function, SQRT, requires a positive or zero value. The numerical value of the variable is less than zero. Program is terminated.

ACTION:

Informational message. No operator action required.

FT61 save (insert) BLOCK NO ERR

EXPLANATION:

A tape (on the unit specified by the FORTRAN logical unit number and device ID code in the insert field) is positioned incorrectly for the next READ order. Program is terminated.

ACTION:

Rerun the job. If error persists switch to a different device and rerun the job.

FT62 save FORM PARAM ARRAY TOO LARGE

EXPLANATION:

Adjustable dimensions of an array have caused the array to exceed the 65,536 byte maximum allowed the array CSECT in the object module. Program is terminated.

ACTION:

Informational message. No operator action required.

FT63 save valoc K IN RETURN K GT 255 OR NO. OF *'S

EXPLANATION:

The value can never exceed 255 or the number of return labels passed to a subroutine as indicated by the number of asterisks in the SUBROUTINE statement. Program is terminated.

ACTION:

Informational message. No operator action required.

FT64 save OVERFLOW IND. ON

EXPLANATION:

STOP routine is ready to terminate but the arithmetic overflow indicator is on and untested. Processing continues.

ACTION:

Informational message. No operator action required.

FT65 save UNDERFLOW IND. ON

EXPLANATION:

STOP routine is ready to terminate normally but the arithmetic underflow indicator is on and untested. Processing continues.

ACTION:

Informational message. No operator action required.

FT66 save DIVIDE CHK IND. ON

EXPLANATION:

The STOP routine is ready to terminate normally but the divide check indicator is on and untested. Processing continues.

ACTION:

Informational message. No operator action required.

FT67 save ERR IND. ON

EXPLANATION:

The STOP routine is ready to terminate normally but has found the ERROR indicator on and untested. Processing continues.

ACTION:

Informational message. No operator action required.

FT68 save nn NO DEFINE FILE

EXPLANATION:

A direct access I/O statement has been used and bears a FORTRAN logical unit number which has not been defined through a DEFINE FILE statement. Program is terminated. Correct the DEFINE FILE statement and recompile.

ACTION:

Informational message. No operator action required.

FT69 save nn [rrrrrrrr] [eeee] DIR. ACCESS I/O ERR

EXPLANATION:

rrrrrrrr is the relative record number.
eeee is the address of a two-byte field which contains Data Management error codes.

ACTION:

Action, if required at all, depends on the significance of the specified error code (eeee). See A.7 for explanation of error code.

FT70 save NMLST VAR ERR

EXPLANATION:

A variable read by NAMELIST READ is either too long or fails to match any of the variables declared under its NAMELIST name.

ACTION:

Informational message. No operator action required.

FT71 save valoc NMLST VAR=DATUM NOT ON 1 REC

EXPLANATION:

A NAMELIST READ has encountered a string (not contained in a single record) representing the input form VARIABLE=DATUM. Program is terminated and a storage dump is provided.

ACTION:

Informational message. No operator action required.

FT72 save valoc NMLST DATA NOT 1 TO 1

EXPLANATION:

The number of constants read by a NAMELIST READ is not equal to the number of elements in an array specified by name.

ACTION:

Informational message. No operator action required.

FT73 save valoc NMLST SUBSCRIPT ERR

EXPLANATION:

Subscripts encountered by a NAMELIST READ are either not integer constants, or fail to agree in number with the dimensionality of the subscripted array.

ACTION:

Informational message. No operator action required.

FT74 save NO &NAME/&END IN NMLST INPUT REC

EXPLANATION:

The name specified by NAMELIST was not found in the second character position in the first input record of the set to be read, or the terminator (&END) was not found. Program is terminated and a storage dump is provided.

ACTION:

Informational message. No operator action required.

FT75 save valoc NMLST DATUM/VAR CONFLICT

EXPLANATION:

The data type in a NAMELIST READ conflicts with the type of its associated variable. Numerical type variables are returned with a zero value.

ACTION:

Informational message. No operator action required.

FT76 save valoc NO NMLST REPEAT CONST

EXPLANATION:

A NAMELIST READ has encountered an asterisk without a preceding integer constant, or more than one asterisk as a data repeat constant indicator.

ACTION:

Informational message. No operator action required.

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A.10. JOB CONTROL MESSAGES

The following abbreviations apply to these messages:

nn = assigned job number
 did = device identification
 filename = name of the file as specified on the LFD statement
 jobname = name of the job as specified on the RUN operator command
 volsn = volume serial number
 lun = logical unit number

JC01 nn p jobname MSxxxxxx MBxxxxxx

EXPLANATION:

This is a job assignment message and is displayed at job creation time. It specifies the job number, priority, job name, size of the job's storage partition, and base address (preamble) of the job storage partition, respectively.

ACTION:

Informational message. No operator action required.

```

    ①  ②  ③  ④          ④          ④
JC02 nn lun=did-volsn lun=did--SCRTCH lun=did--bbb
                ⑤          ⑥
JC02 nn lun=did-volsn lun=did--(volsn) ALT=did--
                ⑦          ⑧
JC02 nn lun=did-volsn ALT=NA-- lun=did-*volsn
                ⑨
JC02 nn lun=did--*(volsn)
                ⑩          ⑪          ⑫
JC02 nn SCR=did-volsn ???=did-volsn CHK=did--DEVICE
                ⑬
JC02 nn DID=NO--VOL1
  
```

EXPLANATION:

Allocate and mount message; this is displayed once each job step.

- ① Assigned job number.
- ② Logical unit number or name as used on DVC statement in control stream.
- ③ Device identification as specified at systems generation time for the device that was allocated to the logical unit number.
- ④ Volume serial number, 'SCRTCH', or blanks indicate what volume or type of volume is to be mounted on the allocated device.
- ⑤ () (parentheses) indicates the volume was premounted on this device. It will be checked at volume checking time if the volume has not been previously checked by Job Control. If the volume has been previously checked by Job Control, the parentheses are not displayed again with the volume serial number unless the device is respecified in a subsequent job step.
- ⑥ Indicates an alternate device was assigned for the previous logical unit number.
- ⑦ Indicates an alternate device request could not be fulfilled.
- ⑧ * (asterisk) indicates the volume should be mounted with write protect. If a tape volume, the ring should be out; if a disc volume, the file protect switch on the device should be on.
- ⑨ -*() (parentheses) indicates that a premounted volume was found, and the volume must be write protected.

- ⑩ Indicates the scratch volume that was mounted had a volume serial number. When the JC03 message is answered the next time, the volume serial number printed is compared to the volume serial number of the mounted volume. If the volume is still mounted, it is considered the scratch volume. If a different volume is mounted, the JC02 message is redisplayed.
- ⑪ Indicates that the volume found on this device did not match the request. The number displayed is the volume mounted. Mount the correct volume and continue.
- ⑫ Indicates that the device is not online. Correct condition and continue.
- ⑬ Indicates that the volume does not have a VOL1 header.

NOTE: ⑩, ⑪, ⑫, and ⑬ occur only when volume checking is performed. They may be displayed only after the JC03 message has been answered.

ACTION:

Informational message. No operator action required.

JC03 nn MT RDY?

EXPLANATION:

This message is repeated at 30-second intervals to allow the operator to fulfill the volume mounting requests of the JC02 message.

ACTION:

Mount volumes as specified and fulfill the requirements of the JC02 message. Respond with the READY command. If the requirements of the JC02 message cannot be fulfilled, the job must be cancelled at this point.

JC04 nn did filename volsn

EXPLANATION:

This message indicates that the disc space management routine was performed successfully on the specified file and volume. It is displayed when new extents are requested on a file by means of EXT statements.

ACTION:

Informational message. No operator action required.

JC05 nn RDY GO?

EXPLANATION:

Displayed on the first job step provided that GO was not specified on the operator RUN command.

ACTION:

Repeated at 30-second intervals until answered with a GO message.

JC06 nn jobname programname hrs:min:sec:mms

EXPLANATION:

Printed once each job step; specifies only the CPU time used by Job Control on the job step. It indicates that all Job Control functions are completed and that the job is now ready to begin or resume processing.

ACTION:

Informational message. No operator action required.

JC07 nn PAUSING

EXPLANATION:

Displayed at 30-second intervals once an operator PAUSE command becomes effective.

ACTION:

Remains in effect until a DUMP, STOP, CANCEL, or READY command is given in response.

JC08 nn PAUSE CANCELLED

EXPLANATION:

Displayed when a PAUSE command has been cancelled by a READY command.

ACTION:

Informational message. No operator action required.

JC09 nn jobname SUSPENDED

EXPLANATION:

Displayed when a job has been suspended by means of the STOP command.

ACTION:

Informational message. No operator action required.

JC10 nn OPTION { xxxxxxxx }
 { MCL-IGN }
 { NOWP-IGN }

EXPLANATION:

This message indicates an OPTION specification, where: xxxxxxxx is the option specified on the OPTION statement. MCL-IGN indicates that the MCL multiplicative factor was specified incorrectly and the previous setting is still effective. NOWP-IGN indicates that the NOWP option was not accepted because the WPROT option was specified at system generation time (SYSGEN). The job continues.

ACTION:

Informational message. No operator action required.

JC11 nn { JOBLOG=
 { JOBLOG=filename }

EXPLANATION:

Indicates that the JOBLOG file is named as specified. If blank, the system assigns a filename.

ACTION:

Informational message. No operator action required.

JC12 nn OPTION xxxxxxxx IGNORED

EXPLANATION:

Indicates that the specified option was not accepted because it was used out of context. Job continues.

ACTION:

Informational message. No operator action required.

JE01 nn jobname

EXPLANATION:

The job name specified on the RUN operator command cannot be found in the job file. Job is terminated.

ACTION:

Compare the job name on the RUN operator command or RUN control statement with the job name on the JOB statement for possible mismatch.

JE02 nn UNAV lun-xx

EXPLANATION:

Job is terminated. Requested device cannot be allocated, where xx is defined as follows:

- 00 – All devices of the requested type are assigned or down.
- 11 – The control block cannot be written because of SYSRES disc I/O problems.
- 12 – The control block cannot be written because of SYSRES disc I/O problems.
- 13 – The control block cannot be read because of SYSRES disc I/O problems.
- 20 – The capacity of the control block file has been exceeded.
- 21 – Positional parameter 2 of the DVC statement was specified as ASYM. The Cooperative feature was not selected at Supervisor SYSGEN time.
- 22 – Positional parameter 2 of the DVC statement was specified as SYM. The Cooperative feature was not selected at Supervisor SYSGEN time.
- 23 – The NEW or MISM parameters are incorrectly specified on the LFD statement.
- 30 – Respecified device with volume serial number mismatch on a shared volume.
- 31 – Device ID of originally assigned device does not match device ID of the respecified device.
- 32 – Device was marked down between the original assignment and respecification.
- 33 – Absolute cooperative respecification requested for a previously assigned peripheral device.
- 40 – Invalid logical unit name specified.
- 41 – Specified logical unit device is not initialized in this Supervisor.

- 42 – Specified logical unit device is not available.
- 43 – Specified logical unit device is down.
- 50 – File write protect incompatibility on shareable volumes.
- 60 – Invalid logical unit number specified in control stream.
- 70 – Device ID specified is nonexistent.
- 71 – Device ID is not of the type specified by the logical unit number.
- 72 – Absolute allocation cannot be satisfied because the device was previously assigned.
- 73 – Requested system device has wrong volume mounted.
- 80 – Duplicate disc volume serial numbers exist in the system other than SCRTCH. The three-character device identifier and the volume serial number are displayed with this JE02 error message. The job is terminated.

ACTION:

- 00 – Wait until the required device is available.
- 11 – Rerun the job. If problem persists, investigate possible hardware malfunctions.
- 12 – Rerun the job. If problem persists, investigate possible hardware malfunctions.
- 13 – Rerun the job. If problem persists, investigate possible hardware malfunctions.
- 20 – Segment job into smaller jobs linked with RUN statements.
- 21 – Correct control stream and rerun the job.
- 22 – Correct control stream and rerun the job.
- 23 – Correct control stream and rerun the job.
- 30 – Wait until the required device and volume is available and rerun the job.
- 31 – Recheck all references to the logical unit number in the JE02 message.
- 32 – Rerun the job when a device of the same type becomes available.
- 33 – Make original specification and respecification consistent.
- 40 – Correct the control stream.
- 41 – Set the appropriate device by means of the SET IO command.
- 42 – Wait until the requested device is available.
- 43 – Rerun the job when a device of the same type becomes available.
- 50 – Rerun the job when volume becomes available.
- 60 – Correct the control stream. Rerun.
- 70 – Correct the control stream. Rerun.
- 71 – Correlate the logical unit number and the device ID.
- 72 – Wait until the device is available.
- 73 – Rerun the job when the appropriate volume is available on the system device.
- 80 – 1. Clear all VSN's from dismounted disc devices by means of the MOUNT command.
2. Correct the control stream for possible duplicate volume specification errors.

JE03 nn ALT LOAD NA

EXPLANATION:

A load from an alternate device is specified by parameter 3 of the EXEC statement, and the alternate device was not allocated to the job step. Job is terminated.

ACTION:

Allocate the load device as specified in parameter 3 of the EXEC statement and rerun the job.

JE04 nn filename NO EXT

EXPLANATION:

A disc file declared NEW by the LFD statement does not have an extent request included in the allocation statements. Job is terminated.

ACTION:

Resolve file space allocation and rerun the job.

JE05 nn JBST ERR

EXPLANATION:

Job Control unable to read the control stream because of a probable hardware malfunction. Job is terminated.

ACTION:

Reintroduce the control stream and attempt to rerun. If problem persists, investigate possible hardware malfunction.

JE06 nn PRN CODE did

EXPLANATION:

Unable to successfully issue a load code command to the printer during device allocation process. Job is terminated.

ACTION:

If problem persists, investigate possible hardware malfunction.

JE07 nn MTC lun

EXPLANATION:

MTC statement specified for a device other than tape. Job is terminated.

ACTION:

Correct the control stream and rerun job.

JE08 nn MTC lun

EXPLANATION:

Device specified on the MTC statement was not allocated to the job. Job is terminated.

ACTION:

Correct the control stream by specifying the allocation of the device before specifying the MTC statement. Rerun the job.

JE09 nn EQU UNAV lun

EXPLANATION:

Device type specified for processing has been previously allocated. Job is terminated.

ACTION:

Correct the control stream and rerun job.

JE10 nn GVxx

EXPLANATION:

Error encountered in acquiring space for the control block file on SYSRES where xx is the error code returned from the Supervisor give function. Job is terminated.

ACTION:

Refer to A.2 for explanation and action for TRALC status error codes.

JE11 nn RES

EXPLANATION:

SYSRES device is not supported. Job is terminated.

ACTION:

Assign SYSRES as a supported device, that is, tape or disc, and rerun the job.

JE12 nn FCBW

EXPLANATION:

The control block file cannot be formatted due to SYSRES disc I/O errors. Job is terminated.

ACTION:

Rerun. If problem persists, investigate possible hardware malfunction. It may be necessary to rebuild SYSRES (including a full disc prep).

JE13 nn LUTW

EXPLANATION:

The job logical unit table cannot be written due to SYSRES disc I/O errors. Job is terminated.

ACTION:

Rerun the job. If problem persists, investigate possible hardware malfunction. It may be necessary to rebuild SYSRES.

JE14 nn jobname INSUFFICIENT MEMORY AVAIL

EXPLANATION:

Job limits processing has determined that there is an insufficient amount of main storage available to run the job. Job is terminated.

ACTION:

Check the storage requirements of the job. Rerun when sufficient storage becomes available.

JE16 nn jobname TAKExx

EXPLANATION:

Error encountered in releasing space for control block file on SYSRES where xx is the error code returned from the Supervisor TAKE function. Job is terminated.

ACTION:

Refer to A.2 for explanation and action for TRALC status error codes.

JE17 nn volsn file-id

EXPLANATION:

The load library specified on the EXEC statement cannot be located on the specified volume. Job is terminated.

ACTION:

Correct the control stream and rerun.

JE18 nn MTC ERR

EXPLANATION:

MTC function cannot be performed successfully. This may be due to I/O problems or improper specification, that is, backward space from load point. Job is terminated.

ACTION:

Check MTC statement for improper specification. If control stream is correct, refile and rerun the job. If the problem persists, investigate possible hardware malfunction.

JE19 nn ASCII EXEC NOT RESIDENT

EXPLANATION:

ASCII output has been requested, and a Supervisor supporting ASCII is not resident.

ACTION:

Generate a Supervisor that is capable of ASCII support, or remove the erroneous request for ASCII output.

JE70 RSTRT CARD PARAMETER ERROR

EXPLANATION:

Missing or incorrect parameter(s) on RSTRT statement; job cannot be restarted.

ACTION:

Correct the RSTRT statement and rerun the job.

JE71 RSTRT LOGICAL UNIT NO. GREATER THAN NO. OF LUT ENTRIES

EXPLANATION:

The logical unit number specified on the RSTRT statement is larger than the maximum allowed in the system logical unit table; program cannot be restarted.

ACTION:

Ensure that correct logical unit number is on the RSTRT statement and rerun the job.

JE72 RESTART DEVICE NOT TAPE OR DISC

EXPLANATION:

The device specified by the logical unit number is not tape or disc; program cannot be restarted.

ACTION:

Correct logical unit number on the RSTRT statement and rerun the job.

JE73 CHKPT FILE IN ERROR – CANNOT RESTART

EXPLANATION:

An incorrect record has been encountered in the checkpoint file; program cannot be restarted.

ACTION:

Attempt to restart at a different checkpoint.

JE74 JOBNAME NOT THE SAME AS CHECKPOINTED JOB – CANNOT RESTART

EXPLANATION:

The job name on the JOB statement for the restart job is not the same as that of the checkpointed job; program cannot be restarted.

ACTION:

Correct the JOB statement to agree with the checkpointed job name.

JE75 RSTRT SYS NOT SAME AS CHKPT SYS – CANNOT RESTART

EXPLANATION:

A different Supervisor has been booted into the system for the RESTART job than that in the system when the program was checkpointed; program cannot restart.

ACTION:

Ensure that the same system is booted in and rerun the job.

JE76 RSTRT MEMORY PART NOT SAME AS CHKPT – CANNOT RESTART

EXPLANATION:

Restarted job has not been assigned the same partition in main storage as when job was checkpointed, or partition size is smaller than when checkpointed.

ACTION:

Resubmit restart job with storage size and base parameters as specified in CK01 message when original job was checkpointed.

JE77 VOL SER NOS DO NOT MATCH FILE filename – CANNOT RESTART

EXPLANATION:

The same volume has not been mounted for the restart job for the specified file (filename) as was mounted when checkpoint was taken.

ACTION:

Mount correct volume for specified file and rerun the job.

JE78 LABEL ERROR FILE filename – CANNOT RESTART

EXPLANATION:

The file label for the specified file is not the same in the restart job as when checkpoint was taken.

ACTION:

Correct the LBL statement for the specified file and rerun the job.

JE79 FILE filename NOT ASSIGNED – CANNOT RESTART

EXPLANATION:

The specified file has not been assigned in the restart job but was included in the file list for the checkpoint job.

ACTION:

JE7A SPECIFIED IMAGE NOT IN CONTROL STREAM -- CANNOT RESTART

EXPLANATION:

The data card whose image was in the control stream buffer when checkpoint was requested is not in the restart job control stream.

ACTION:

Include data card in control stream and rerun the job.

JE7B CHECKPOINT FILE NOT ASSIGNED -- CANNOT RESTART

EXPLANATION:

The file on which checkpoints were taken is not assigned to the restart job.

ACTION:

Include file assignment control statements in control stream and rerun the job.

JE7C RSTRT FILE DEVICE NOT TAPE OR DISC -- CANNOT RESTART

EXPLANATION:

Incorrect device specified by logical unit number on the RSTRT statement.

ACTION:

Correct device assignment on the RSTRT statement for the file and rerun the job.

JE7D CHECKPOINT NOT FOUND ON SPECIFIED FILE -- CANNOT RESTART

EXPLANATION:

Checkpoint records for the checkpoint specified on the RSTRT statement not found on file.

ACTION:

Ensure validity of checkpoint number of the RSTRT statement or correct volume mounting for file. Rerun the job.

JE7E UNRECOVERABLE I/O ERROR ON CHKPT FILE -- CANNOT RESTART

EXPLANATION:

Hardware problems encountered while attempting to read checkpoint records for restart.

ACTION:

Mount checkpoint file on different device and rerun the job.

JE7F MODE ERROR FILE filename – CANNOT RESTART

EXPLANATION:

File (filename) has not been specified with the same mode (EBCDIC or ASCII) in RSTRT job that was specified in CHKPT job.

ACTION:

Resubmit RSTRT job and specify proper mode for the file.

JE88 nn NO – JOBLLOG

EXPLANATION:

The JOBLLOG parameter was specified on the JOB statement. It was not accepted because Cooperative/JOBLLOG feature was not selected at Supervisor system generation time (SYSGEN). Job continues.

ACTION:

Informational message. No operator action required.

JE89 nn did MODE IGNORED

EXPLANATION:

Tape files being created in this job step are created in the SYSGEN selected mode rather than in the mode selected in the control stream.

ACTION:

Informational message. No operator action required.

JE90 nn ELT NF

EXPLANATION:

Job Control element cannot be loaded by the Job Control controller. Job is terminated.

ACTION:

Rerun job. If the problem persists, display the system device to see if the element exists. If it does, a hardware malfunction is indicated.

JE91 nn did filename volsn

EXPLANATION:

Control block cannot be retrieved from the FCB file due to disc SYSRES I/O problems. Job is terminated.

ACTION:

Rerun job. If the problem persists, investigate possible hardware malfunction.

JE92 nn did filename volsn

EXPLANATION:

Deallocation (SCRATCH) of the requested extents cannot be initiated by Job Control because the VTOC is not intact. Job is terminated.

ACTION:

Resolve the VTOC problem using the previous allocation error message and rerun the job.

JE93 nn JLUT NF

EXPLANATION:

Job logical unit table cannot be retrieved by Job Control due to disc SYSRES I/O failures. Job is terminated.

ACTION:

Rerun job. If problem persists, investigate possible hardware malfunction.

JE94 nn JCL NF

EXPLANATION:

EOJ transient routine cannot successfully load Job Control. Job is terminated.

ACTION:

Rerun job. If the problem persists, display SYSTRAN to see if the element exists on disc; if tape, display the system tape by means of the DAPS program.

JE95 nn OBTAIN ERROR

EXPLANATION:

The library specified on the EXEC statement cannot be successfully located at EXEC statement processing time. Job is terminated.

ACTION:

1. Check the EXEC statement for library name (positional parameter 2).
2. Check the specified volume to see if the library name exists.
3. If library name is on the EXEC statement and the library name exists on the specified volume, a hardware problem may be present.

JE96 nn volsn LIBNF library-name

EXPLANATION:

During job limits processing an OBTAIN has been issued for a disc whose volume serial number (volsn) is displayed in the message. The library name cannot be located on the volume specified in the message. Job is terminated.

ACTION:

1. Check the EXEC statement for library name (positional parameter 2).
2. Check the specified volume to see if the library name exists.
3. If the library name is on the EXEC statement and the library name exists on the specified volume, a hardware problem may be present.

JE97 nn volsn PCMNF program-name

EXPLANATION:

During job limits processing the specified program name cannot be found on the disc whose volume serial number (volsn) is displayed in the message. Job is terminated.

ACTION:

1. Check the EXEC statement for program name (positional parameter 1).
2. Ensure that the program name exists in the library of the specified volume.

JE98 jobname NO MCL nn did xx did xx

EXPLANATION:

Job Control is unable to locate MCL for the job, where xx is the TRALC error code. Job is terminated.

ACTION:

Refer to A.2 for explanation and action for TRALC status error codes.

JE99 nn program-name I/O ERROR

EXPLANATION:

Displayed if an error occurs when trying to read phase header records of the specified program during job limits processing. Job is terminated.

ACTION:

Rerun job. If problem persists, investigate possible hardware malfunction.

JF01 FILE TERM,INVALID

EXPLANATION:

No JOB statements or three unrecognizable cards encountered in the input control stream.

ACTION:

Clear reader, correct control stream, and rerun the job.

JF02 FILE TERM,NO SPACE

EXPLANATION:

No more space available in SYSPPOOL to file any jobs. Job file processing is terminated.

ACTION:

1. Delete selected control streams,
2. Issue DELETE ALL, or
3. Remap job file area of SYSPPOOL if first two actions fail, and rerun the file function.

JF02 FILE TERM-TRALC ERR

EXPLANATION:

An error status other than an I/O error or no space error was returned while trying to allocate space in the system temporary pool area for the FILE function. The FILE process is terminated.

ACTION:

Refer to A.2 for explanation and action for TRALC status error codes.

JF02 FILE TERM-//FILE SQER

EXPLANATION:

A card having other than a Job Control statement was encountered as the first card in the control stream.

ACTION:

Clear reader, correct control stream, and rerun the job.

JF03 xx UNREC I/O ERR

EXPLANATION:

Unrecoverable I/O error on disc occurred when trying to file, where xx has the following values and is an error code used by Job Control to identify the overlay and function where the error occurred. FILE process is terminated.

<u>xx</u>	<u>Function</u>	<u>Element</u>
01	Load suballocation table index	File root
02	Load suballocation table	File root
03	GIVE	File root
04	Output of block	File root
05	Output of suballocation table	File root
06	Output of suballocation table index	File root
11	Load suballocation table index	File OVRLAY
12	Load suballocation table	File OVRLAY
13	TAKE error	File OVRLAY
15	Output of suballocation table	File OVRLAY
16	Output of suballocation table index	File OVRLAY
17	Output of file index	File OVRLAY
31	Load suballocation table index	Delete
32	Load suballocation table error	Delete
33	TAKE	Delete
35	Output of suballocation table	Delete
36	Output of suballocation table index	Delete
38	Output of blank index job	Delete
39	Output of blank index ALL	Delete

ACTION:

Rerun the job. If errors persist, remap the system temporary pool area. If the first two recovery actions fail, investigate possible hardware malfunction.

JF04 jobname ^① stmntm ^② S ^③ seqnum ^④ stmntm ^⑤ P ^⑥ seqnum stmntm C seqnum

JF04 jobname ^⑦ F ^⑧ ERR seqnum C ^⑨ ERR seqnum ST SQ ER seqnum

JF04 jobname ^⑩ BYPASS seqnum

EXPLANATION:

Control statement error.

D.O.S.

All statements are verified, and any error prevents entry of the control stream into the job file. If user sequence numbers are supplied (seqnum), they appear in the error message. If user sequence numbers are not supplied, Job Control supplies them.

T.O.S.

The first erroneous control statement terminates the job, that is, Job Control ignores the remaining control stream for that job. If user sequence numbers are supplied (seqnum), they appear in the error message. If user sequence numbers are not supplied, they do not appear.

- ① Assigned job name.
- ② Statement name.
- ③ Indicates that a statement is out of sequence.
- ④ Sequence number.
- ⑤ Statement parameter in error.
- ⑥ Indicates that continuation was attempted on a statement where continuation is not permitted, or previous statement contained a continuation mark — this statement should be a continuation statement.
- ⑦ F ERR indicates an unrecognizable control statement.
- ⑧ C ERR
A continuation statement was not preceded by a statement containing a continuation mark in column 72.
The number of the continuation statement is not between 1 and 9.
The continuation statements are out of sequence.
- ⑨ ST SQ ER
A /\$ statement is not followed by a /* statement.
Unrecognizable control card.
A PARAM or ALTER statement occurs before the EXEC statement.
- ⑩ Indicates that the problem program has not processed all control stream input for the previous job step (T.O.S. only). Job is not terminated.

ACTION:

Correct the control stream and reintroduce the job.

JF05 jobname VERIFIED

EXPLANATION:

Displayed when an entire control stream has been successfully verified at file time when running under DOS.

ACTION:

Informational message. No operator action required.

JF06 {jobname}
{ ALL } DELETED

EXPLANATION:

The specified job or all jobs have been deleted from the job file.

ACTION:

Informational message. No operator action required.

JF07 jobname INXNE — NO DELETE

EXPLANATION:

The job to be deleted was not found in the job file index.

ACTION:

Informational message. No operator action required.

JF08 jobname ALCERR NO-DELETE

EXPLANATION:

The job file suballocation table has been compromised.

ACTION:

1. Issue a DELETE ALL operator command.
2. Remap SYSPPOOL.
3. If either of these fail, investigate possible hardware malfunction.

JF09 jobname ACTIVE NOT-FILED

EXPLANATION:

Control stream file request was made on behalf of a currently active job.

ACTION:

Resolve job name conflict. Refile the job.

JF11 IPT UNAV

EXPLANATION:

System primary input device (IPT) is not available for use by the FILE function.

ACTION:

Allow all active jobs to terminate normally. Reload the Supervisor.

JF12 IPT NOVAL

EXPLANATION:

System primary input device (IPT) is other than card reader or tape device.

ACTION:

Issue a SET IO IPT command to a valid device, and restart the file function.

JF13 {DELETE} JOB ACTIVE
 {jobname}

EXPLANATION:

An attempt was made to delete a job currently active in the system, where jobname is the name of the job requested to be deleted; or a DELETE ALL was attempted when a job was active in the system.

ACTION:

Rerun the file function when the currently active job (or jobs) terminates or when the system is idle.

JF15 xxx JOBS FILED

EXPLANATION:

Indicates the number of jobs (xxx) filed (tape buffering only) on the output tape; if parameter 3 of the command is a number, the skipped streams indicated by that number are included in the total number of jobs filed as specified by this message.

ACTION:

Informational message. No operator action required.

JF16 PARAMETER ERROR

EXPLANATION:

Tape buffering only. Indicates a parameter error in the FILE operator command. The FILE function is terminated.

ACTION:

Reissue FILE operator command.

JF17 DVC NOT ALLOCATED

EXPLANATION:

1. MOUNT command was not issued.
2. Input device does not contain the required volume serial number.

ACTION:

Ensure that the tape mounted on the requested device contains standard labels. Mount the tape by means of the MOUNT operator command and rerun the job.

JF18 VOLSN ERROR

EXPLANATION:

Volume mounting error. The volume serial number on the tape does not agree with that specified for the RDR device.

ACTION:

Ensure that the tape contains standard labels and issue a MOUNT command.

JF19 TAPE NOT EXPIRED

EXPLANATION:

Julian date on the tape is greater than the date in the system.

ACTION:

Provide an expired tape for tape buffering and rerun the job.

JF20 IO ERROR

EXPLANATION:

Tape buffering only. An I/O error was encountered while processing a file. The file process is terminated.

ACTION:

Rerun the job.

JF21 FILE TERM, LST STRM BAD

EXPLANATION:

Tape buffering encountered three blank cards before a /& statement. Tape buffering process is terminated.

ACTION:

Correct control stream and rerun the job.

JF22 jobname nnn

EXPLANATION:

Indicates the position of the specified job on the tape, where jobname is a one- to eight-character alphanumeric name, and nnn is the physical position of the job on the tape.

ACTION:

Informational message. No operator action required.

JI01 CMD ERR

EXPLANATION:

Parameter error detected in the RUN, FILE, or DELETE operator command. Job is terminated.

ACTION:

Reissue operator command.

J102 JOB CONTROL NF

EXPLANATION:

Supervisor is unable to load Job Control.

ACTION:

Ensure that the Job Control root element (\$J\$R0000) is in the SYSTRAN area (D.O.S.) or on the system tape (T.O.S.). Rerun the job.

J103 SYSTEM FULL

EXPLANATION:

No space available in the system.

ACTION:

Wait until a job terminates; then rerun the job.

J104 JC ELT NO FIND

EXPLANATION:

Job Control is unable to load the Job Control controller.

ACTION:

Rerun the job. Check to see if all Job Control elements are on SYSCTRL area of SYSRES disc or on Load library area of SYSRES tape.

J105 INS MEM AVAIL

EXPLANATION:

1. Unable to satisfy needs of minimum job partition.
2. Unable to satisfy the requests of RUN statement or command.
3. Absolute address of the partition requested by a RUN statement or command is previously allocated.

ACTION:

Wait for job to terminate, then rerun the job.

JLnn control-statements

EXPLANATION:

Displayed when the LOG operator command is effective. Each Job Control statement is displayed as it is processed. Statements bypassed by an active SKIP statement or the ALTER, PARAM, /\$, and /* statements are not displayed.

ACTION:

Informational message. No operator action required.

JR00 jobname RESTARTED yyyy

EXPLANATION:

Specified jobname was successfully restarted at the specified checkpoint (yyyy).

ACTION:

Informational message. No operator action required.

JR01 MOUNT ALTERNATE VOLUME ON UNIT did

EXPLANATION:

The requested checkpoint has not been found on the present volume of a multivolume file. File is specified as having an alternate volume.

ACTION:

Mount alternate volume on indicated unit (did) and reply with RE nn ☉ .

JR02 MOUNT VOL volsn ON did

EXPLANATION:

User data file is to be repositioned on the volume (volsn) that is other than the first volume of a multivolume file. File specified as having an alternate volume.

ACTION:

Mount volume (volsn) on indicated unit (did) and reply with RE nn ☉ .

JT01 nn jobname hrs:min:sec:mms

EXPLANATION:

Displayed whenever a job is terminated. It gives the job number, name, and CPU time used in hours, minutes, seconds, and milliseconds. (Includes all time displayed in JC06 messages for the job. See *UNIVAC 9400 System Supervisor Programmer Reference, UP-7689* (current version) for job time accounting.)

ACTION:

Informational message. No operator action required.

JT02 nn DUMP

EXPLANATION:

Displayed when a DUMP function has been completed and the next job step is to be started.

ACTION:

Informational message. No operator action required.

JT03 nn CANCEL

EXPLANATION:

Job is cancelled by means of abnormal termination, the CANCEL statement, or the CANCEL command.

ACTION:

Informational message. No operator action required.

JT04 NO LIST DVC JP\$SF xxxx JP\$EW xxxxxxxx

EXPLANATION:

No device available to put out the abnormal termination dump, where:
xxxx = the error code (see 7.3) that caused the program interrupt.
xxxxxxx = the address of the next executable instruction after the error.

ACTION:

Informational message. No operator action required.

JT05 ABEND IN ABEND

EXPLANATION:

Indicates that an abnormal termination terminated abnormally.

ACTION:

If possible, allow all other jobs to terminate normally, then reload the Supervisor.

JT06 PRINT ERR

EXPLANATION:

Printer I/O error. Job is terminated without the completion of the ABEND/CANCEL dump.

ACTION:

Investigate possible hardware malfunction.

JT07 ABEND NODUMP JP\$SF xxxx JP\$EW xxxxxxxx

EXPLANATION

A cancel or abnormal termination occurred and OPTION NODUMP was specified in the control stream, where:
xxxx = the error code (see 7.3) that caused the program interrupt.
xxxxxxx = the address of the next executable instruction after the error.

ACTION:

Informational message. No operator action required.

A.11. TAPE LIBRARIAN (LIBS) MESSAGES

LB20 CONTROL STREAM ERROR – ABORTING

EXPLANATION:

Check control stream for position of the /\$ statement, librarian control statements, and the /* statements.

ACTION:

Correct control stream and rerun the job.

LB50 LIBS ERRORS FOUND IN THIS JOB STEP

EXPLANATION:

Errors have occurred during the library update. Tape Librarian terminates normally. Refer to output listing for explanation of error codes.

ACTION:

Informational message. No operator action required.

LB60 FCB BLOCKS OVERLAID – LIBS NEEDS SPACE

EXPLANATION:

This message occurs only when running under a Tape Operating System. Sufficient main storage was not available to run the Tape Librarian without overlaying the control block file (FCB's). This message indicates that the control block file has been overlaid and processing by LIBS continues normally. All previous file specifications have been destroyed and all files that are necessary for the execution of subsequent job steps must be allocated.

ACTION:

Informational message. No operator action required.

LB70 PRINTER FCB MISSING – ABORTING JOB

EXPLANATION:

The required printer file was not allocated in the control stream, or PRNTR was misspelled.

ACTION:

Check control stream and rerun the job.

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A.12. DISC LIBRARIAN MESSAGES

LBA0 PRINTER NOT ALLOCATED – JOB ABORTED

EXPLANATION:

The required printer file was not allocated in the control stream, or PRNTR was misspelled.

ACTION:

Correct control stream and rerun the job.

LBD1 ***ERROR DETECTED IN LIBRARY UPDATE***

EXPLANATION:

Error(s) encountered during librarian run. Output listing contains the detected error codes. Refer to *UNIVAC 9400 System Disc Librarian Programmer Reference, UP-7745* (current version) for error explanation and recovery procedures.

ACTION:

Informational message. No operator action required.

LBPO PARAM CARD ERROR

EXPLANATION:

Erroneous parameter encountered while processing the PARAM statement.

ACTION:

Check for misspelled or mispunched parameters on PARAM statement(s). Rerun the job with corrections made.

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A.13. LINKAGE EDITOR MESSAGES

LK01 RDFCB ERROR-PRNTR

EXPLANATION:

The required printer file was not allocated in the control stream, or PRNTR was misspelled. Linkage Editor aborted.

ACTION:

Correct control stream and rerun the job.

LKx0 yy LINKAGE EDITOR ABORTED

EXPLANATION:

The tape Linkage Editor aborted with an error message, where:
x represents the Linkage Editor phase in which the error occurred, and
yy represents the two-digit error code.
An error message also appears on the output listing in the form Kxyy.

ACTION:

Refer to section A.14 for complete explanation and action.

LKxx yy LINKAGE EDITOR ABORTED

EXPLANATION:

The disc Linkage Editor aborted with an error message, where:
xx represents the Linkage Editor phase in which the error occurred, and
yy represents the two-digit error code.
An error message also appears on the output listing in the form Kxxyy.

ACTION:

Refer to A.14 for complete explanation and action.

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A.14. LINKAGE EDITOR ERROR CODE DESCRIPTIONS

The following Linkage Editor diagnostic error codes are arranged in numerical order by phase number (x for tape and xx for disc) and error code (yy). The operator must be cognizant of whether he is operating in a tape or disc environment. In this section, the tape error codes (x yy) appear in the left column, and the disc error codes (xx yy) appear in the right column.

TAPE		DISC	
x	yy	xx	yy

0	02	01	02	EXPLANATION:
---	----	----	----	--------------

Linkage Editor control statement out of order. Linkage Editor aborted.

ACTION:

Correct control stream and rerun the job.

0	06	01	06	EXPLANATION:
---	----	----	----	--------------

Missing /\$ statement. Linkage Editor aborted.

ACTION:

Correct control stream and rerun the job.

0	07	01	07	EXPLANATION:
---	----	----	----	--------------

Unrecognizable Linkage Editor control statement. Linkage Editor aborted.

ACTION:

Correct control stream and rerun the job.

0	21	01	21	EXPLANATION:
---	----	----	----	--------------

PARAM statement in error. All PARAM statements are scanned for errors. However, no Linkage Editor control statements are processed. Linkage Editor aborted.

ACTION:

Correct PARAM statements and rerun the job.

0	31	01	31	See tape code 0 21 and disc code 01 21 for explanation and action.
---	----	----	----	--

TAPE		DISC	
x	yy	xx	yy

N.A. 02 04 EXPLANATION:

Editor table overflow. Linkage Editor aborted.

ACTION:

Increase main storage allocation before rerunning the job.

N.A. 02 05 EXPLANATION:

No Linkage Editor control statements are in the control stream, therefore, the default case is effective, which means the first object module in the module complex library (MCL) is to be included. An object module could not be found in the MCL. Linkage Editor aborted.

ACTION:

Correct control stream and/or ensure that the correct object module is in the MCL prior to executing the Linkage Editor.

N.A. 02 11 This error may indicate any one of several problems.

See output listing for error code in the form $K \text{ xx yy nn } \left\{ \begin{array}{l} \text{filename} \\ \text{SYSPool1} \\ \text{SYSPool2} \end{array} \right\}$,

where:

nn is an error code.

filename is the name of the file as specified on the LFD statement.

SYSPool1 is the first volume allocated to the SYSPool file.

SYSPool2 is the second volume allocated to the SYSPool file.

See section A.2 for explanation and action of the disc error codes.

N.A. 02 18 EXPLANATION:

The required tape file was not allocated in the control stream, there are missing LDMFIL or OBJFIL file definition statements. Linkage Editor aborted.

ACTION:

Correct control stream and rerun job.

1 00 03 00 EXPLANATION:

Specified object module or control section (specified on an INCLUDE Linkage Editor control statement) was not found in the input file. Linkage Editor aborted. Refer to output listing for additional information.

ACTION:

Correct control stream and/or ensure that the specified object module or control section exists on the file, and rerun the job.

TAPE		DISC		
x	yy	xx	yy	
1	01	03	01	EXPLANATION: Undefined record encountered in object module. Linkage Editor aborted. ACTION: Rerun the job. If unsuccessful, regenerate object module. If error persists submit a Software Systems Field Report.
1	02	03	02	EXPLANATION: Linkage Editor control statement out of order. Linkage Editor aborted. ACTION: Correct control stream and rerun the job.
1	03	03	03	EXPLANATION: Record sequence error encountered in an object module. Linkage Editor aborted. ACTION: Rerun the job. If unsuccessful, regenerate object module. If error persists submit a Software Systems Field Report.
1	04	03	04	EXPLANATION: Linkage Editor table overflow. Linkage Editor aborted. ACTION: Increase main storage allocation or decrease number of EXTRN and ENTRY symbols in object module before rerunning the job.
1	05	N.A		EXPLANATION: File missing, or tape positioning error. Linkage Editor aborted. Modules included from OBJFIL must be in the first file; modules included from SYSRES or a user library must be in the second file. ACTION: Ensure that tape is in correct format and rerun the job.
1	06	03	06	See tape code 0 06 and disc code 01 06 for explanation and action.
1	07	03	07	See tape code 0 07 and disc code 01 07 for explanation and action.

TAPE		DISC	
x	YY	xx	YY

1 08 03 08 EXPLANATION:

Object module name or filename in INCLUDE statement not recognizable. This indicates a blank object module name on an INCLUDE statement, or the filename on an INCLUDE statement does not agree with the filename on the LIN PARAM statement. Refer to the output listing for additional details. Linkage Editor aborted.

ACTION:

Correct Linkage Editor control statement and rerun the job.

1 09 03 09 EXPLANATION:

Invalid block size in object module. Linkage Editor aborted.

ACTION:

Rerun the job. If unsuccessful, regenerate object module.

1 10 03 10 EXPLANATION:

Invalid record length encountered in object module. Linkage Editor aborted.

ACTION:

Rerun the job. If unsuccessful, regenerate object module.

1 11 N.A. EXPLANATION:

Unrecoverable error detected during read from the OBJFIL tape, SYSRES, or library tape. Linkage Editor aborted.

ACTION:

Rerun the job using a different device. If the problem persists, investigate possible hardware malfunction.

N.A. 03 11 See disc code 02 11 for explanation and action.

1 12 N.A. EXPLANATION:

Unrecoverable write error detected on write to SCR1 tape. Linkage Editor aborted.

ACTION:

Rerun the job. If error persists, investigate possible hardware malfunction and use a different tape drive and/or physical tape when rerunning.

TAPE		DISC	
x	yy	xx	yy

1	13	03	13	EXPLANATION:
---	----	----	----	--------------

The number of permissible levels of nested Includes has been exceeded.

ACTION:

Decrease the number of levels of nested Includes. Rerun the job.

1	14	03	14	EXPLANATION:
---	----	----	----	--------------

More than 10 node points in a path or more than 100 phases in a load module. Reduce the number of node points in a path or decrease number of phases in the load module. Linkage Editor aborted.

ACTION:

Rerun the job after program has been corrected.

1	15	03	15	EXPLANATION:
---	----	----	----	--------------

LOADM control statement format error. Linkage Editor aborted.

ACTION:

Correct LOADM statement and rerun the job.

1	16	03	16	EXPLANATION:
---	----	----	----	--------------

Control section (CSECT) or ENTRY name defined more than 15 times. Define control section or entry name which caused the error on a common path. Linkage Editor aborted.

ACTION:

Rerun the job after program has been corrected.

1	17	03	17	EXPLANATION:
---	----	----	----	--------------

More than two RPG object modules were requested to be included. Maximum of two RPG modules can be included; combine two RPG modules into a single compilation. Linkage Editor aborted.

ACTION:

Rerun the job after program has been corrected.

TAPE	DISC
x yy	xx yy

N.A.	03	18	EXPLANATION:
------	----	----	--------------

An illegal external symbol identification (ESID) number has been detected in a text record.

ACTION:

Rerun the Linkage Editor to rule out the possibility of a hardware failure during data transfer. If problem repeats, regenerate the object module. If problem still persists, submit a Software Systems Field Report.

1	21	03	21	See tape code 0 07 and disc code 01 07 for explanation and action.
---	----	----	----	--

1	22	03	22	EXPLANATION:
---	----	----	----	--------------

Label of Linkage Editor EQU statement not properly formed, or operand field of EQU or ENTER statement contains a label that has not been previously defined. Statement is ignored. Refer to output listing for additional details.

ACTION:

Correct format of EQU statement, or change placement of EQU or ENTER statements in control stream so that the operand is defined before the EQU or ENTER statement is encountered, and rerun the job.

1	23	03	23	See tape code 0 07 and disc code 01 07 for explanation and action.
---	----	----	----	--

1	24	03	24	EXPLANATION:
---	----	----	----	--------------

Zero ESID number encountered. This indicates an incorrectly generated object module. Record ignored. Processing continues. Regenerate object module. If problem persists, submit a Software Systems Field Report.

ACTION:

Informational message. No operator action required.

TAPE		DISC	
x	yy	xx	yy

1	26	03	26	EXPLANATION:
---	----	----	----	--------------

Entry name same as labeled common name. Record ignored, processing continues. Program should be recompiled and relinked after labeling conflict is resolved.

ACTION:

Rerun the job after program has been corrected.

1	31	03	31	EXPLANATION:
---	----	----	----	--------------

Control statement format error. Warning. Statement processed. Refer to output listing for additional information. Format error is one of the following: 1) More than 3 parameters on a LINKOP statement. 2) No parameters found on a PARAM statement – default case assumed. 3) More than 2 operands on a MOD statement. 4) More than 1 operand on a RES statement.

ACTION:

Informational message. No operator action required.

2	01	04	01	See tape code 1 01 and disc code 03 01 for explanation and action.
---	----	----	----	--

2	03	04	03	See tape code 1 03 and disc code 03 03 for explanation and action.
---	----	----	----	--

2	04	04	04	See tape code 1 04 for explanation and action.
---	----	----	----	--

2	05	N.A.		See tape code 1 05 for explanation and action.
---	----	------	--	--

2	09	04	09	See tape code 1 09 for explanation and action.
---	----	----	----	--

2	10	04	10	See tape code 1 10 for explanation and action.
---	----	----	----	--

2	11	N.A.		EXPLANATION:
---	----	------	--	--------------

Unrecoverable error detected during read from SYSRES or user library tape, or no file definition for SYSRES or user library was in the control stream. Linkage Editor aborted.

ACTION:

Ensure that proper control stream statements required to define SYSRES and/or the user library file have been submitted, and rerun the job. If problem persists, investigate possible hardware malfunction and re-create library file before rerunning the job.

N.A.		04	11	See disc code 02 11 for explanation and action.
------	--	----	----	---

TAPE		DISC		
X	YY	XX	YY	
2	12	N.A.		See tape code 1 12 for explanation and action.
2	13	04	13	See tape code 1 13 for explanation and action.
2	16	04	16	See tape code 1 16 and disc code 03 16 for explanation and action.
2	17	04	17	EXPLANATION: An object module created by RPG cannot be automatically included. A Linkage Editor Include statement must be used to include an RPG generated module. ACTION: Correct control stream and rerun the job.
N.A.		04	18	See disc code 03 18 for explanation and action.
2	23	04	23	EXPLANATION: Nested control statements cannot be processed during automatic include processing. ACTION: Use an INCLUDE statement to include the module that contains the nested control statements. Rerun the job.
2	24	04	24	See tape code 1 24 and disc code 03 24 for explanation and action.
2	26	04	26	See tape code 1 26 and disc code 03 26 for explanation and action.
3	12	N.A.		See tape code 1 12 for explanation and action.
3	31	05	31	EXPLANATION: Load module address specified by LOADM statement is in error. Processing continues. Address is assumed to be 0. If 0 address is not desired, correct LOADM statement and rerun job. ACTION: Informational message. No operator action required.
4	01	06	01	See tape code 1 01 and disc code 03 01 for explanation and action.

TAPE		DISC	
x	yy	xx	yy

4 02 06 02

EXPLANATION:

Multiply defined symbol not found. Internal processing error. Linkage Editor aborted.

ACTION:

Rerun job. If problem persists, submit a Software Systems Field Report.

4 03 06 03

EXPLANATION:

Discrepancies in EXTENDED REF table – internal processing error. Linkage Editor aborted.

ACTION:

Rerun job. If problem persists, submit a Software Systems Field Report.

4 09 06 09

See tape code 1 09 and disc code 03 09 for explanation and action.

4 11 N.A.

EXPLANATION:

Unrecoverable error detected during read from SCR1 tape. Linkage Editor aborted.

ACTION:

Rerun the job. If problem persists, investigate possible hardware malfunction and use a different tape drive and/or physical tape when rerunning the job.

N.A. 06 11

See disc code 02 11 for explanation and action.

4 12 N.A.

EXPLANATION:

Stacked load module file (OBJFIL or LDMFIL) not properly positioned. Linkage Editor aborted.

ACTION:

Ensure that Linkage Editor output tape is positioned properly and rerun the job.

4 21 06 21

EXPLANATION:

Operand field of Linkage Editor EQU statement is in error. Statement is ignored. Processing continues. Refer to output listing for additional information.

ACTION:

Informational message. No operator action required.

TAPE		DISC	
x	yy	xx	yy

4	22	06	22	EXPLANATION:
---	----	----	----	--------------

Operand field of MOD statement in error. Statement is ignored. Processing continues. Refer to output listing for additional information.

ACTION:

Informational message. No operator action required.

4	23	06	23	EXPLANATION:
---	----	----	----	--------------

Operand field of RES statement in error. Statement is ignored. Processing continues.

ACTION:

Check for mispunch or format error in statement. Rerun the job.

4	32	06	32	EXPLANATION:
---	----	----	----	--------------

MOD statement is in error. Statement is processed. Make sure that the Linkage Editor interpreted the MOD statement as was intended and check for mispunch or format error in statement. Refer to output listing for additional information.

ACTION:

Informational message. No operator action required.

N.A.	07	11	See disc code 02 11 for explanation and action.
------	----	----	---

5	12	N.A.	EXPLANATION:
---	----	------	--------------

Unrecoverable error detected during write to a tape output file. Linkage Editor aborted.

ACTION:

Rerun the job. If error persists, investigate possible hardware malfunction and use a different tape drive and/or physical tape when rerunning the job.

5	13	N.A.	EXPLANATION:
---	----	------	--------------

LOAD INDEX error or LOAD ALTERNATE error. Ensure that all linker modules exist on the tape or disc Load library (module name \$Y\$LDRO0 also exists on the Load library). Linkage Editor aborted.

ACTION:

Correct Load library if necessary and rerun the job. If problem persists, investigate hardware malfunction.

TAPE		DISC	
x	yy	xx	yy

N.A. 08 00 EXPLANATION:

The PARAM option CNL=E has been specified. The load module contains errors that may render it unexecutable. Refer to output listing for additional information. Linkage Editor is aborted.

ACTION:

Rerun the job after program has been corrected.

7 01 08 01 EXPLANATION:

PASS 4 address and TABLE address value not equal. Internal processing error. Linkage Editor aborted.

ACTION:

Rerun the job. If problem persists, submit a Software Systems Field Report.

7 02 08 02 See tape code 4 02 and disc code 06 02 for explanation and action.

7 03 08 03 EXPLANATION:

Phase number not equal to internal table phase number. Internal processing error. Linkage Editor aborted.

ACTION:

Rerun the job. If problem persists, submit a Software Systems Field Report.

7 04 08 04 See tape code 1 26 and disc code 03 26 for explanation and action.

7 05 08 05 EXPLANATION:

No text records in phase. Module or control section may have been automatically deleted because module or control section was previously included on same path. Refer to output listing to resolve load module structure conflict and relink. Linkage Editor aborted.

ACTION:

Rerun the job after program has been corrected.

7 09 08 09 See tape code 1 09 and disc code 03 09 for explanation and action.

7 10 08 10 See tape code 1 10 and disc code 03 10 for explanation and action.

TAPE		DISC	
x	yy	xx	yy

7 11 N.A. See tape code 4 11 for explanation and action.

N.A. 08 11 See disc code 02 11 for explanation and action.

7 12 N.A. See tape code 5 12 for explanation and action.

N.A. 08 13 EXPLANATION:

Phase header update write error. Linkage Editor aborted.

ACTION:

Rerun the job.

N.A. 08 15 EXPLANATION:

Tape write error detected during tape output (OBJFIL or LDMFIL) for OPTION OUT=T. Linkage Editor aborted.

ACTION:

Rerun the job. If error persists investigate possible hardware failure and use a different tape drive and/or a different physical tape.

N.A. 08 16 EXPLANATION:

Disc error detected while reading from the module complex library (MCL) area on disc. Linkage Editor aborted.

ACTION:

Rerun the job. If error persists, investigate possible hardware failure and use a different disc size and/or a different disc pack when rerunning the job.

N.A. 08 17 EXPLANATION:

Phase header error detected during tape output for OPTION OUT=T. Linkage Editor aborted.

ACTION:

Rerun the job.

TAPE		DISC	
x	yy	xx	yy

N.A. 08 18 EXPLANATION:

Tape output routine cannot be loaded for PARAM statement option. Linkage Editor aborted. Ensure that MCLOBJ00, MCLOBJ01, and \$Y\$LDRO0 are in the Load library disc file. If not, add them to the appropriate Load library.

ACTION:

Rerun the job. If problem persists, investigate possible hardware malfunction.

7 21 08 21 EXPLANATION:

Linkage Editor ENTER statement is in error. First valid transfer address is accepted. Processing continues. Refer to output listing for additional information.

ACTION:

Informational message. No operator action required.

7 31 08 31 EXPLANATION:

Transfer address is not within path. First valid transfer address is accepted. Processing continues. Correct control stream, which may consist of providing the ENTER statement.

ACTION:

Informational message. No operator action required.

7 33 08 33 EXPLANATION:

Symbol definition is not in the path of a symbol reference, or a symbol is multiply-defined in the same path. If multiply-defined, error indicates that the first definition has been accepted. If reference is not defined within the path, object module should be regenerated. Processing continues. Refer to output listing for additional details.

ACTION:

Informational message. No operator action required.

7 34 08 34 EXPLANATION:

A control section (CSECT) with a length of zero has been included. The control section may be overlaid. This is a warning message. The address of the control section is the same as the address following the control section. Module or control section may have been automatically deleted because module or control section was previously included on same path. Check load module structure.

ACTION:

Informational message. No operator action required.

TAPE		DISC	
x	yy	xx	yy

N.A.	08	35	EXPLANATION:
------	----	----	--------------

Address constant at specified location in load module is improperly relocated. Incorrect value assigned. Regenerate corrected object module. The error was possibly caused by an undefined reference or an address constant of insufficient length (one or two bytes). Refer to output listing for additional information.

ACTION:

Informational message. No operator action required.

A.15. LANGUAGE PROCESSORS ASCII MESSAGES

LP01 ASCII EXEC NOT RESIDENT

EXPLANATION:

ASCII output has been requested and a Supervisor supporting ASCII is not resident.

ACTION:

Generate a Supervisor that is capable of ASCII support or remove the erroneous request for ASCII output.

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A.16. MESSAGE CONTROL PROGRAM MESSAGES (MCP)

Message MC16 is the only message which expects or requires a response from the console operator. This is a CALL message which instructs the operator to establish connection with a remote device in order to transmit an output message. Messages MC01, MC02, and MC09 may require the operator to check the Data Communications Subsystem (DCS) to ensure that power is on and that the lines are enabled. All other messages indicate line or terminal malfunctions. If these error messages appear frequently, investigate possible hardware malfunction.

MC00 [line-name line-number term-name] XMIT MSG BAD DISC

EXPLANATION:

TRANSMIT message was bad and the line has been disconnected.

ACTION:

Informational message. No operator action required.

MC01 [line-name line-number term-name] INOPERABLE

EXPLANATION:

Power on the DCS is turned off, or the line-enable switches are in the OFF position.

ACTION:

Turn on power or turn on line-enable switches and respond as follows:
nnⓈ, line-name,ALL,UP Ⓢ

MC02 [line-name line-number term-name] NO DEV INOP UE – INPUT

EXPLANATION:

Power on the DCS is turned off, the line-enable switches are in the OFF position, or the addressed line is nonexistent, as would be the case if the fifth line pair on a DCS-4 were addressed (input side of line).

ACTION:

Turn on power or turn on line-enable switches and respond as follows:
nnⓈ, line-name,ALL,UP Ⓢ

MC03 [line-name line-number term-name] INPUT ERR RETRIED

EXPLANATION:

An input error has occurred and the maximum number of re-tries have been executed.

ACTION:

Informational message. No operator action required.

MC04 [line-name line-number term-name] INPUT DATA PARITY

EXPLANATION:

Parity errors on input data. Maximum number of re-tries have been attempted by the system without success.

ACTION:

Informational message. No operator action required. Message in error has been passed on to the user program, which should pick up the error condition in error-handling macros in the Message Processing Procedure Specification (MPPS).

MC05 [line-name line-number term-name] INPUT OVERRUN

EXPLANATION:

Data entering CPU faster than channel can access storage. Possible loss of data. Hardware failure.

ACTION:

Informational message. No operator action required. The user program should pick up error condition in error handling macros in the MPPS.

MC06 [line-name line-number term-name] INPUT OTHER

EXPLANATION:

Possible loss of carrier and data.

ACTION:

Informational message. No operator action required. Message in error has been passed on to the user program, which should pick up the error condition in error-handling macros in the MPPS.

MC07 [line-name line-number term-name] TIMEOUT ERROR

EXPLANATION:

Remote device has failed to respond with any data (ACK/NACK) within prescribed time period. Possible hardware error, response time not large enough, or device address or poll characters incorrect in terminal table.

ACTION:

Informational message. No operator action required.

MC08 [line-name line-number term-name] LINE BUSY

EXPLANATION:

Line is busy with another command. Possible DCS error.

ACTION:

Informational message. No operator action required.

MC09 [line-name line-number term-name] NO DEV INOP UE — OUTPUT

EXPLANATION:

Power on the DCS is turned off, the line-enable switches are in the OFF position, or the addressed line is nonexistent as would be the case if the fifth line pair on a DCS-4 were addressed (output side of line).

ACTION:

Turn on power or turn on line-enable switches and respond as follows:
nn Ⓢ , line-name, ALL, UP Ⓢ

MC10 [line-name line-number term-name] OUT DATA PARITY

EXPLANATION:

Parity errors on output data. Maximum number of re-tries have been attempted by the system without success.

ACTION:

Informational message. No operator action required. Message in error has been passed on to the user program, which should pick up the error condition in the error-handling macros in the MPPS.

MC11 [line-name line-number term-name] OUT OVERRUN

EXPLANATION:

Data entering CPU faster than channel can write to storage. Possible loss of data. Hardware failure.

ACTION:

Informational message. No operator action required.

MC12 [line-name line-number term-name] OUTPUT OTHER

EXPLANATION:

Possible loss of carrier and data.

ACTION:

Informational message. No operator action required. Message in error has been passed on to the user program, which should pick up the error condition in error-handling macros in the MPPS.

MC13 [line-name line-number term-name] NACK — BAD OUTPUT

EXPLANATION:

Remote device has not acknowledged output after maximum number of attempts at retransmission.

ACTION:

Informational message. No operator action required. Message in error has been passed on to the user program, which should pick up the error condition in error-handling macros in the MPPS.

MC14 [line-name line-number term-name] OUTPUT UNRELIABLE

EXPLANATION:

Remote device has not responded with an acknowledge (ACK) or not acknowledge (NACK) message in reply to an output message.

ACTION:

Informational message. No operator action required. Message in error has been passed on to the user program, which should pick up the error condition in error handling macros in the MPPS.

MC15 [line-name line-number term-name] ILLEGAL CONTROLLER ID

EXPLANATION:

Remote identifier received from a UNISCOPE 300 which is either in error or not defined to the MCP in a LNEPKT macro instruction.

ACTION:

Informational message. No operator action required.

MC16 [line-name line-number term-name] CALL telephone number

EXPLANATION:

This message instructs the operator to establish connection with a remote device, that is, make telephone connection with the terminal for the purpose of establishing data connection between the UNIVAC 9400 System and a remote device.

ACTION:

Respond as follows if connection is established:

nn[Ⓢ], line-name, {term-name
ALL}, UP[Ⓢ]

Respond as follows if connection cannot be established:

nn[Ⓢ], line-name, {term-name
ALL}, NC[Ⓢ]

MC17 [line-name line-number term-name] GO DATA OR XMIT

EXPLANATION:

The MCP is ready to send or receive data on this line.

ACTION:

If data set is equipped with unattended answering, the set has automatically switched to the data mode, and the remote device should be able to detect the data condition. No operator action is required.

If data set is not equipped with unattended answering, console operator must manually place data set in data mode.

MC18 [line-name line-number term-name] INVALID RESPONSE

EXPLANATION:

The teletype handler checks the validity of answer-back codes when connection is made to a device. If the response is not valid, this message appears, the line is turned off, and disconnect procedures are executed.

ACTION:

Informational message. No operator action required.

MC19 [line-name line-number term-name] MAX ACR RETRIES

EXPLANATION:

Maximum number of attempts have been made to establish connection on an automatic dial line. Call has been abandoned.

ACTION:

Informational message. No operator action required.

MC20 [line-name line-number term-name] BAD DEST. ID - ML

EXPLANATION:

No message destination was specified in the input Message Processing Procedure Specification.

ACTION:

Informational message. No operator action required.

MC21 [line-name line-number term-name] U100 WILL NOT ACK

EXPLANATION:

UNISCOPE 100 will not return an acknowledgment (ACK). Possible hardware error, or improper address or poll characters in terminal table.

ACTION:

Informational message. No operator action required.

MC22 [line-name line-number term-name] UNIS TRM NOT RECG

EXPLANATION:

Response, received from a UNISCOPE 100 terminal, which is undefined to the program. Possible hardware problem, or incorrectly defined terminal address in the terminal table.

ACTION:

Informational message. No operator action required.

MC23 [line-name line-number term-name] DISC ERR QUE INOP

EXPLANATION:

Disc I/O error encountered when disc message queue was accessed. No more messages are placed on that disc queue. Processing continues (bypassing the queues that are not available).

ACTION:

Operator action must be specified by the system designer.

MC24 [line-name line-number term-name] DCT500 NOT READY

EXPLANATION:

DCT 500 not ready for use.

ACTION:

Prepare DCT 500 for operation.

MC26 [line-name line-number term-name] 1004 HALT.GO TALK

EXPLANATION:

The 1004 operator has stopped the 1004 and may require information.

ACTION:

Press the TALK button on the data set connected to the 1004.

MC50 [line-name line-number term-name] nnn DISC CYLINDERS ASSIGNED (PROCEED Y OR N)

EXPLANATION:

This message appears only if the number of cylinders assigned (nnn) is less than the number of cylinders requested.

ACTION:

Respond as follows:

nnR Y[Ⓢ] to proceed.

nnR N[Ⓢ] to terminate MCP.

MC51 [line-name line-number term-name] INVALID PARAMETER CARD (PROCEED Y OR N)

EXPLANATION:

Parameter card just read is invalid.

ACTION:

Correct the parameter card, insert it in the control stream, and respond with nnR Y[Ⓢ]. If the response is nnR N[Ⓢ], parameter card reading is bypassed, and the remaining portion of the initialization is executed.

MC52 [line-name line-number term-name] UNABLE TO SUCCESSFULLY READ FCB

EXPLANATION:

Errors have resulted in trying to read the disc control block file (FCB).

ACTION:

Correct control stream to ensure that a DVC, VOL, and LFD statement exists for the disc device, and rerun the job.

MC53 [line-name line-number term-name] INSUFFICIENT STORAGE TO CREATE DISC TABLE

EXPLANATION:

Disc space was requested which requires more main storage than is available to create the required table. MCP is terminated.

ACTION:

Allocate sufficient main storage for the job to contain the required table, and rerun the job.

MC54 [line-name line-number term-name] CONTROL STREAM READ ERROR (PROCEED Y OR N)

EXPLANATION:

An error has occurred in trying to read the parameter card.

ACTION:

A reply of nnR Y[Ⓢ] causes the MCP to try to reread the control stream. If the response is nnR N[Ⓢ], the parameter cards are bypassed and the remaining portion of the initialization procedure is executed.

MC55 [line-name line-number term-name] ERROR ON DISC SPACE REQUEST, REMAP SYSPPOOL
- RETRY

An error was encountered in the request and formatting of requested disc space. See TRALC error code description in A.2 for additional explanation.

MC56 LINES — AND — HAVE SAME DEVICE ADDRESSES

EXPLANATION:

Two LNEPKT macro instructions have specified the same DCS channel number. Program should be recompiled changing the MCP LNEPKT macro instruction.

ACTION:

Rerun the job after the program has been corrected.

MCxxxx

EXPLANATION:

Invalid line or terminal name (xxxx) was entered by the console operator.

ACTION:

Enter proper four-character name.

MCxx

EXPLANATION:

Invalid status code (xx) entered by console operator.

ACTION:

Enter proper status code: UP, DOWN, IN, or NC.

A.17. OVERLAY CONTROL MESSAGES

OC01 segment name

EXPLANATION:

The Overlay Control Program cannot locate the specified segment name (phase name from Linkage Editor). The program is aborted. Ensure that the specified phase exists on the device being used to load the phase. This message also appears when the loading sequence is incomplete due to I/O failures or when the phase length is prohibitively long.

ACTION:

After the appropriate correction is made, rerun the job. Use an alternate disc drive. If problem persists, confirm the presence of the phase and that phase length is not greater than storage allocation. If necessary, replace the applicable phase in the library.

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A.18. REPORT PROGRAM GENERATOR MESSAGES

The following abbreviations apply to these messages:

did = device identification.

filename = name of the file as specified on the LFD statement.

■ Compile Time Errors

PG01 RPG ABORTED – CANNOT LOAD phasename

EXPLANATION:

Unable to load the specified phase name. Ensure that all RPG modules exist on a Load library on tape or disc, or in the absolute execution area on disc.

ACTION:

Correct appropriate library and rerun the job. If problem persists, investigate hardware malfunction.

PG02 RPG ABORTED – PRNTR FILE NOT FOUND

EXPLANATION:

The required printer file was not allocated in the control stream, or PRNTR was misspelled.

ACTION:

Correct the control stream and rerun the job.

PG03 RPG ABORTED – FCB NOT FOUND FOR filename

EXPLANATION:

The required logical filename was not allocated in the control stream.

ACTION:

Correct the control stream and rerun the job.

PG04 RPG ABORTED – CANNOT OPEN filename

EXPLANATION:

One of the following errors has occurred on SCR1 (work file), SCR2 (work file), or OBJFIL (object module file) during OPEN processing:

1. No PUB was assigned to the file (disc or tape file).
2. The tape expiration date has not been reached.
3. Assigned device type is not tape.
4. Tape format error has been encountered on the OBJFIL tape. The sentinel block (ENDOBJ block) is missing.
5. The specified output tape did not contain a write enable ring, and an operator response of U was returned.
6. The first block on the specified tape file does not correspond to the standard block labeled VOL1 or BOOT and cannot be processed.

7. The volume serial number (VSN) in the VOL1 block does not match the VSN in the control stream. If the VSN is blank or unspecified, this check is not made.
8. The HDR1 block was not found during OPEN processing.
9. The file-ID or creation date was specified in the control stream and does not match that in the HDR1 block.

ACTION:

1. Ensure that the correct tape volume has been mounted.
 2. Check all Job Control specifications for the file (DVC, VOL, LBL, LFD).
 3. Check for the presence of the write enable ring, and check the operator's response to the console message if the ring was initially missing.
 4. Check for tape positioning error.
 5. Check tape labels.
- When problem is resolved, rerun the job.

PG05 RPG ABORTED — CANNOT OPEN SOURCE LIBRARY libname ON did

EXPLANATION:

Disc source file:

1. Read parity error or unrecoverable hardware error.
2. Invalid volume serial number.
3. File-ID of the source file was not found in the VTOC.
4. If present, the file serial number of creation date specified in the control stream does not match that in the disc format 1 label.

Tape source file:

1. Assigned device type is not tape.
2. The first block on the specified tape file does not conform to the standard block labeled VOL1 or BOOT.
3. The volume serial number (VSN) in the VOL1 block does not match the VSN specified in the control stream.
4. The HDR1 block was not found during OPEN processing.
5. The file-ID or creation date was specified in the control stream and does not match that in the HDR1 block.

ACTION:

Disc source file:

1. Check the control stream statements for the file.
2. Ensure that the disc volume is mounted on the correct drive.
3. Try disc on another drive if hardware errors were encountered.
4. Print the VTOC to ensure that the source file is present.

Tape source file:

1. Check all Job Control specifications for the file.
2. Ensure that the correct volume has been mounted.
3. Check tape labels.

When problem is resolved, rerun the job.

PG06 RPG ABORTED - CHECKSUM ERROR DETECTED ON filename ON did

EXPLANATION:

Checksum error detected on the specified file on the specified device. This indicates a successful read on the specified device, however the software CHECKSUM was incorrect.

ACTION:

Rerun the job. If error persists investigate possible hardware malfunction.

PG07 RPG ABORTED - CANNOT FIND SOURCE MODULE module ON filename

EXPLANATION:

Unable to locate the specified source module on the specified file.

ACTION:

Ensure that the specified source module is on the specified file, and rerun the job.

PG08 RPG ABORTED - INSUFFICIENT SYSPPOOL SCRATCH SPACE AVAILABLE

Refer to A.2 for explanation and action for SYSPPOOL space considerations.

PG09 RPG ABORTED - BAD TRALC STATUS ON did STATUS xx

Refer to A.2 for explanation and action for TRALC status error codes.

PG10 RPG ABORTED - DISC I/O ERROR ON filename ON did CODE xx

EXPLANATION:

Disc I/O error occurred on the specified file on the specified device, where xx is the I/O error code as follows:

- 80 File discrepancy (See disc error code 80 in A.2).
- 40 File overflow (See disc error code 40 in A.2).
- 20 Directory overflow (See disc error code 20 in A.2).
- 08 Parity error (See disc error code 08 in A.2).
- 04 Format error (See disc error code 04 in A.2).
- 01 Unrecoverable (See disc error code 01 in A.2).

ACTION:

Refer to disc error codes in A.2 for explanation and action.

PG11 RPG ABORTED – TAPE I/O ERROR ON filename ON did CODE xx

EXPLANATION:

Tape I/O error on the specified file on the specified device, where xx is the I/O error code as follows:

- 80 End of file (See tape error code 80 in A.2).
- 40 Block count error (See tape error code 40 in A.2)
- 20 End of reel (See tape error code 20 in A.2).
- 08 Parity error (See tape error code 08 in A.2).

ACTION:

Refer to tape error codes in A.2 for explanation and action of the error code specified by xx.

PG12 RPG ABORTED – CANNOT LOAD MCLOBJ00

EXPLANATION:

An OBJFIL tape has been requested by PARAM statement option. Tape cannot be created due to an I/O error while loading MCLOBJ00 from \$Y\$ABS.

ACTION:

Ensure that modules MCLOBJ00 and MCLOBJ01 have been mapped on disc in the absolute execution area (\$Y\$ABS). If modules are present, investigate possible hardware malfunction.

■ Execution Time Errors

H0 ON DUE TO condition FILE NAME filename

This message precedes the PG05 message (with REPLY) and has no prefix.

EXPLANATION:

The condition causing the halt indicator H0 to be set in the RPG object program is specified and occurred while processing the specified file.

ACTION:

Informational message. No operator action required.

PG05 HALT IND SET [REPLY C,D,E,I] Hn₁ Hn₂ Hn₃ ...

EXPLANATION:

The halt indicators specified have been set on in an RPG object program. For more information concerning the operation of RPG halt indicator processing, see Appendix E in *UNIVAC 9400 System Report Program Generator Programmer Reference, UP-7707* (current version).

ACTION:

If the REPLY portion of the message is present, one of the following is required:

$$\text{nnR } \left\{ \begin{array}{c} \text{C} \\ \text{E} \\ \text{D} \\ \text{I} \end{array} \right\} \text{S}$$

where nn is the job number

- C, or blank — normal processing (cancel job).
- E — end job step (EOJ).
- D — print halt analysis and cancel job.
(A print file must be defined in the control stream by DVC and LFD statements with a filename of PRNTR.
- I — turn off halt indicators and resume processing.

PG06 CANT GET LFD FOR PRNTR**EXPLANATION:**

A printer with the filename PRNTR has not been assigned to the RPG object program. A halt analysis should be printed at this time. At least one halt indicator is currently set in the RPG object program, and the user has set the corresponding byte in the communication region in the job preamble (COMREG) to D. If there is an S in the COMREG and the corresponding halt indicator is set, a program dump is printed on the system list device. Table output (if any) is then done, and all files are closed before the program is terminated. (See Appendix E in *UNIVAC 9400 System Report Program Generator Programmer Reference, UP-7707* (current version).

ACTION:

No operator action required. An LFD Job Control statement assigning the filename PRNTR to the printer should be included in the control stream before rerunning the job.

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A.19. COOPERATIVE MESSAGES

The following abbreviations apply to these messages:

nn = assigned job number
did = device identification
nnnnnn = file identification number used by the Cooperative
filename = name of the file as specified on the LFD statement
jobname = name of the job as specified on the RUN operator command
volsn = volume serial number
ss = assigned step number
iii = 1 to 3 digit assigned disc file initialization number for Cooperative output. This is displayed only when the Cooperative is generated with disc file support.

SC01 MOUNT WRITE ENABLED TAPE ON did. VOL=?

EXPLANATION:

This message is displayed whenever a tape volume is required for Cooperative output. The tape must be a standard labeled tape with an expired retention date.

ACTION:

Mount a prepared expired tape volume on the Cooperative output device (did) and reply with the volume serial number as follows: 05R volsn Ⓢ

SC02 VOL NOT EXPIRED

EXPLANATION:

The tape volume supplied for Cooperative output cannot be used because the retention date indicates that the volume must be preserved. The SC01 message is repeated.

ACTION:

Informational message. No operator action required.

SC03 INCORRECT VOL NUMBER

EXPLANATION:

The tape volume specified in the reply to the SC01 message is not mounted on the Cooperative output device. The SC01 message is repeated. Resolve the discrepancy and reply as necessary.

ACTION:

Informational message. No operator action required.

SC04 VOL EXPIRATION DATE = YYDDD

EXPLANATION:

The Cooperative is validating the tape volume supplied for output. The date on which the new Cooperative output can be destroyed must be supplied.

ACTION:

The expiration date must be supplied to the Cooperative as follows:

05R { yyddd }
 { SET }

where:

yyddd specifies the Julian expiration date.

SET specifies that today's system Julian date (PARAM 2 of the SET MODE command) is to be used. This implies no expiration date protection for this output. The SC04 message is repeated if any other reply is given.

SC05 JID nn,jobname,ss,filename: FID nnnnnn BEG volsn,[INIT iii]

EXPLANATION:

Displayed each time the Cooperative opens a new file.

ACTION:

Informational message. The displayed information must be retained and used when processing the Cooperative output with the Symbiont programs. No operator reply is required.

SC06 FILE ID nnnnnn ENDS ON VOL volsn

EXPLANATION:

This message is displayed whenever the Cooperative closes a file. The volume serial number displayed is the current Cooperative output volume.

ACTION:

Informational message. The displayed information must be retained and used when processing the Cooperative output with the Symbiont programs. No operator reply is required.

SC07 JID nn,jobname,ss DEFERRED

EXPLANATION:

The Cooperative is unable to open a file for an active job because it has already opened the maximum number of files it can handle. The job will not continue until a currently active file is closed.

ACTION:

Informational message. No operator action required.

SC08 SET DATE,mm/dd/yy,yyddd

EXPLANATION:

This message is displayed when the System dates are not initialized.

ACTION:

Set the System date by means of the SET DATE command and reply with 05R © The SC08 message is repeated if the reply is given without the dates being set.

SC09 VOL ERROR

EXPLANATION:

The current tape or disc volume on the Cooperative output device is not acceptable for Cooperative output because it is not a tape with standard labels, or it does not contain a SYSPool file. The SC17 message is displayed.

ACTION:

Information message. No operator action required.

SC10 VOL volsn IS CLOSED

EXPLANATION:

The Cooperative has closed the specified volume because of one of the following; (1) The end of a tape volume was reached. (2) There is no space remaining for Cooperative use in the SYSPool file. (3) The close of the current series of Cooperative output volumes was initiated by the following unsolicited keyin:

05 © ,CLOSE ©

This request was not completed until all active files were closed. If completing these files required additional volumes, a series of SC01 and SC10 messages is displayed.

ACTION:

Informational message. The displayed information must be retained and used when processing the Cooperative output with the Symbiont programs. No operator reply is required.

SC11 NO CYLINDERS AVAILABLE

EXPLANATION:

The Cooperative cannot use the current volume because there is no disc space available in the SYSPool file for Cooperative output. The SC17 message is displayed.

ACTION:

Information message. No operator action required.

SC12 INVALID LST DVC

EXPLANATION:

The current System Cooperative device is not a tape or disc. The SC17 message is displayed.

ACTION:

Informational message. No operator action required.

SC13 CAN COOP OUTPUT ON DISC BE RELEASED? Y OR N

EXPLANATION:

The disc volume just specified for Cooperative output already contains output from the Cooperative. The previous output must be released before this volume can be used for new output unless this is the first volume of Cooperative output, because the integrity of the file initialization numbers cannot be assured. Only the first volume of Cooperative output may have output added to it without releasing the previous data.

ACTION:

If the previous output must be released, reply as follows:

05R Y ☉

All previous data is released and the volume is used for new output. If the previous output must be retained, reply as follows:

05R N ☉

If this is not the first volume of Cooperative output, a request for a new volume is displayed.

SC14 JID nn,FID nnnnnn,LFD filename MISSING SKIP CODE

EXPLANATION:

A print and skip or a skip command was issued requesting positioning to an unspecified position on the forms loop for that file. The positioning command was processed as an advance of one line in determining forms overflow. Processing continues. Resolve the discrepancy between program logic and forms specification in the control stream. The spacing on the output listing may not be what was requested.

ACTION:

Informational message. No operator action required.

SC15 JID nn,jobname,ss PAPER LOOP ERROR

EXPLANATION:

The forms loop specification in the control stream (VOL statement) is not in a valid format. The job is cancelled.

ACTION:

Correct the control stream and rerun the job.

SC16 JID nn,jobname,ss LFD filename NO FCB; STD LOOP

EXPLANATION:

The forms loop specification cannot be determined because the file control block cannot be read. The standard forms loop specification was used. Investigate possible error in program logic or control stream.

ACTION:

Informational message. No operator action required.

SC17 SET IO,DVC,LST; TYPE IN 05R Ⓢ

EXPLANATION:

The Cooperative is idle or has closed the active volume but is preparing to initiate LST output. If the output device is to be changed, the change must be made at this point.

ACTION:

Set the LST device by means of the SET IO command and reply as follows:

05R Ⓢ

SC19 SET IO,DVC,PCH; TYPE IN 05R Ⓢ

EXPLANATION:

The Cooperative is idle or has closed the active volume but is preparing to initiate PCH output. If the output device is to be changed, the change must be made at this point.

ACTION:

Set the PCH device by means of the SET IO command and reply as follows:

05R Ⓢ

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A.20. DISC SPACE MANAGEMENT MESSAGES

The following abbreviations apply to these messages:

- nn = assigned job number
- did = device identification
- filename = name of the file as specified on the LFD statement
- volsn = volume serial number

SCJ1 nn did filename volsn

EXPLANATION:

Insufficient space in volume table of contents (VTOC). This error occurs when a partial SCRATCH is invoked. One VTOC block is needed for possible expansion of the VTOC blocks. The VTOC is intact. A complete SCRATCH could be done rather than a partial SCRATCH.

ACTION:

Resolve disc space problem on VTOC prior to rerunning the job. This may require restructuring of control stream.

SCJ2 nn did filename volsn

EXPLANATION:

Invalid file identification. The file identification could not be found in the VTOC. The VTOC may have been compromised. Investigate VTOC status and if valid investigate possible disc hardware malfunction.

ACTION:

Rerun the job after VTOC has been re-created or hardware has been corrected.

SCJ3 nn did filename volsn

EXPLANATION:

An unrecoverable disc error has occurred while processing the VTOC. The VTOC has been compromised. It is impossible to continue using the disc in its present state.

ACTION:

Disc must be prepped and files restored before rerunning the job.

SCJ4 nn did filename volsn

EXPLANATION:

The VTOC has been compromised or can not be processed due to possible hardware failure.

ACTION:

Rerun the job after VTOC has been re-created or hardware has been corrected.

SCJC nn did filename volsn

EXPLANATION:

Indicates that Job Control has called disc space management to deallocate (SCRATCH) the file, and the VTOC has been restored to its previous state.

ACTION:

Informational message. No operator action required.

A.21. SUPERVISOR PIOCS ERROR MESSAGES

When an abnormal condition causes a peripheral device to stop, an indicator on the device control panel lights, and a Supervisor PIOCS error message is printed on the system console. The format of all Supervisor PIOCS error messages is as follows:

xx SE nn did msg response—options command—code sense—bytes

SYSGEN OPTION

where:

xx = 00 error job number
 = 01 Job Control job number
 = 02 Supervisor functional routine job number
 = 04 1004 handler number
 = 05 Cooperative job number
 = 06 UNIVAC 9200/9300 handler number or the second 1004 handler number
 = 09 Supervisor initialization job number

nn = job number
 did = device identifier
 msg = message type

The response options required by the Supervisor for error recovery are as follows:

- R signifies an attempt to recover by reissue of the command associated with the device or channel in error.
- U permits the operator to let the problem program determine the course of action; that is, either cancel or continue processing. The associated command is marked unsuccessfully completed. The device physical status and the program logic determines the use of this option.
- I requests that the error be ignored and that the associated command be marked successfully completed.

Response options are given to allow the operator to determine the status of the device in error. If the error condition is recoverable by reissuing, R should be typed in (if the R option was given in the error message). If the error persists after re-trying, U should be typed in (if the U option was given in the error message). If the U option was not given, the operator must execute the cancel sequence. The U option is specified to give the problem program the option of accepting the error and continuing. If the program is not structured to accept the error, the error message is retyped. The cancel sequence must be executed at this point by typing in the CANCEL operator command followed by the response option I (to answer any outstanding error messages) whether or not I was given as an option.

After the operator submits a CANCEL command and a subsequent reply of I, there is a possibility that the error message will reappear. If this occurs, the operator must reply with I to all subsequent error messages belonging to the job until the cancel sequence is executed.

The format of the response message to all Supervisor PIOCS error messages is:

xx ©, did $\left\{ \begin{array}{c} R \\ U \\ I \end{array} \right\}$ ©

where:

- xx = 00 error job number
- = 01 Job Control job number
- = 02 Supervisor functional routine job number
- = 04 1004 handler number
- = 05 Cooperative job number
- = 06 UNIVAC 9200/9300 handler number or the second 1004 handler number
- = 09 Supervisor initialization job number

Each error message specifies the recommended response options; if the recommended responses are not followed, catastrophic errors may result. The operator should respond only once to a message and should never submit a response option (R, U, I) if an error message was not typed on the console. Response to message ATTN R is never required; it is a notice of device activation only.

SEnn did ATTN R

EXPLANATION:

Device has been activated and attention interrupt has been received.

ACTION:

Informational message. No operator action is required.

SEnn did BWLP U, I

EXPLANATION:

Backward operation attempted to or at load point.

ACTION:

Check the unit to determine whether or not the tape is at load point. If it is not at load point execute the cancel sequence, and investigate possible hardware malfunction. If the tape is at load point, type in the U option. For option I, refer to explanation of options.

SEnn did CJAM R, U, I

EXPLANATION:

Card jam has occurred on the device indicated.

ACTION:

Reader Press OFF LINE and clear the device. Duplicate the card or cards that caused the jam, and place them in the input hopper, followed by any remaining cards. Press CLEAR. Press ON LINE. Press RUN. To continue, respond with the R option; for option U or I refer to explanation of options.

Punch Turn power off and clear the device. Manually feed cards to ensure proper feed operation. Place the device on line and press CLEAR. To continue, respond with the R option; for option U or I refer to explanation of options.

SEnn did CREJ R

EXPLANATION:

Invalid command, parity error on command, or invalid seek address on disc.

ACTION:

Attempt re-try with the R option. If the problem program is unable to continue, execute the cancel sequence.

NOTE: Frequent occurrence of this error on a given device indicates that the control unit is malfunctioning. Continuous errors attributed to a specific problem program indicate an invalid command issued by that program.

SEnn did DCHK R, U

EXPLANATION:

Parity error on input data transfer detected by the specified control unit.

ACTION:

Tape Attempt re-try with the R option. If the re-try fails, and the error condition is repeated, type in the U option.

If the U option is not able to correct the problem, check the condition of the tape, and clean the read head. Re-try. If error persists, execute the cancel sequence.

Reader Press OFF LINE and clear the device. Insert the last two cards from the output stacker into the input hopper, followed by any remaining input cards. Press CLEAR. Press ON LINE. Press RUN. Attempt re-try with the R option. If this fails, check the condition of the problem card and duplicate it if necessary. Re-try. If error persists, investigate hardware malfunction.

Disc Attempt re-try with the R option; for option U, refer to explanation of options.

SEnn did DERR R

EXPLANATION:

Disc error has occurred. This indicates one of the following error conditions: 1) No home address, 2) Missing address marker, 3) Count area check.

ACTION:

Attempt re-try with the R option. If the error persists, execute the cancel sequence.

SEnn did DVAD R, U

EXPLANATION:

Associated control unit received an invalid address due to possible parity errors or wrong device address specification (Systems Generation Address).

ACTION:

Attempt re-try with the R option; for option U, refer to explanation of options.

SEnn did FILE R, U

EXPLANATION:

A WRITE command was accepted for a unit which has the file protect switch on.

ACTION:

Determine if the disc pack should be file protected. If the correct disc pack is mounted, press STOP, remove the disc pack, and place the file protect switch in the off position. Replace the disc pack and press READY. Attempt re-try with the R option; for option U, refer to explanation of options.

SEnn did INOP R, U

EXPLANATION:

Inoperative control unit or channel, nonexistent address, or device address, or device has been marked down by operator.

ACTION:

If the device is down, operator must make the device ready by means of a SET I/O command. Attempt re-try with the R option; for option U, refer to explanation of options.

SEnn did INTV R, U, I

EXPLANATION:

Operator intervention is required on the specified device.

ACTION:

Determine condition of device in error (see Section 6). Correct the problem if possible, and attempt re-try with the R option; for option U or I refer to explanation of options.

SEnn did LATE R, U

EXPLANATION:

Channel has failed to supply or accept data within the time limit imposed by device data rates and buffering.

ACTION:

Attempt re-try with the R option; for option U refer to explanation of options.

SEnn did MISM I

EXPLANATION:

Character received by the printer control unit is not contained in the current character code set. The character can not be printed due to this mismatch.

ACTION:

If printer mismatch is acceptable for this output, reply with the I option; otherwise, execute the cancel sequence.

SEnn did MISS R, U

EXPLANATION:

The sentinel preceding the tape block (phase encoded tapes) was not recognized.

ACTION:

Attempt re-try with the R option; for option U refer to explanation of options.

SEnn did MODE U

EXPLANATION:

The mode of the tape being read is incompatible with the mode setting in the PUB.

ACTION:

For the U option, refer to explanation of options.

NOTE: If the mode is incorrect, specify the correct mode by means of the VOL statement, or determine if the initial PUB setting specified at system generation time reflects the proper mode.

SEnn did NRDY R

EXPLANATION:

Specified unit is not ready.

ACTION:

Put the specified device in the ready state, and respond with the R option.

SEnn did OPER R

EXPLANATION:

Invalid response to last message.

ACTION:

Check the response to the last error message and type in the correct response.

SEnn did OVTM R

EXPLANATION:

An interrupt has not been received from the specified device within the required time.

ACTION:

Attempt re-try with the R option. If the specified device is the console, response is not required.

SEnn did PRTY R, U

EXPLANATION:

A parity error on output data transfer was detected by the specified control unit.

ACTION:

Attempt re-try with the R option. If unable to continue, type in the U option. If the U option is unable to cancel – initiate the cancel sequence. If parity errors persist on the specified device regardless of the job, investigate hardware malfunction.

SEnn did RCAL R

EXPLANATION:

Seek check or record not found. Internal disc error recovery was unable to do a successful disc recalibrate.

ACTION:

Re-try. If error persists, investigate possible hardware malfunction.

SEnn did RING R

EXPLANATION:

A write function was attempted on a tape not containing a write enable ring.

ACTION:

Verify the volume assignment. If the correct tape is mounted and at load point, dismount the tape, insert a write enable ring, and respond with the R option. If the tape is not at load point, execute the cancel sequence, dismount tape, insert write enable ring, and restart. If an incorrect tape is mounted, mount the correct tape and attempt re-try with the R option.

SEnn did SNSE R

EXPLANATION:

The last sense command issued by PIOCS was not completed successfully. This error can occur only when attempting to analyze another error.

ACTION:

Attempt re-try with the R option. If unable to continue, initiate the cancel sequence.

SEnn did TRUN R, U

EXPLANATION:

Data was not detected on a read function. This could be due to the absence of data on the tape, or the absence of a tape mark or end-of-file mark. If this error occurs on a write function, the read-back check failed.

ACTION:

Attempt re-try with the R option only under direction of the programmer; for option U refer to explanation of options.

SEnn did UNTP U

EXPLANATION:

During tape error recovery procedures, an error occurred while repositioning or erasing the tape. This is a catastrophic error and indicates that the tape position is not known. No software recovery is possible.

ACTION:

Respond with U option. If the problem program does not accept unrecoverable errors, the message is repeated. Then cancel the job and respond with I option.

SEnn did ABN R

EXPLANATION:

An I/O error was detected on a 1004 device.

ACTION:

1. Bring the 1004 to an orderly halt by typing in the following message:
nnⓈ ,STOPⓈ
2. The 1004 stops at step 3. The Mask Panel on the 1004 informs the operator of the problem.
3. Operator must initiate the standard 1004 error recovery procedures (see 6.9).
4. Operator must instruct the UNIVAC 9400 operating system (1004 Handler) to resume operations by typing in the following message:
nnⓈ ,didRⓈ

SE00 BAD DVC

EXPLANATION:

An interrupt was received by the system from a device not included within the PUB assignments.

ACTION:

Take a panel dump and attempt to determine the erroneous device address.

SEnn	1x0 (Reader)	{	DCHK	Stacker jam, controller parity error or photocell check error	}	R	
		{	INTV	Misfeed, not ready, hopper empty or stacker full			}
		{	RTND	Reader table end (unrecognizable error)			
	2x0 (Punch)	{	INTV	Stacker jam, interlock, punch entry, or exit check error	}		
		{	PCER	Punch check error			
		{	DCHK	Data parity, photocell check error, or controller parity error			
		{	INTV	Hopper empty or stacker full			
		{	PTND	Punch table end (unrecognizable error)			
	3x0 (Printer)	{	NRDY	Abnormal or not ready	}		
		{	PRUN	Paper runaway			
		{	OVLN	Storage overload			
		{	DCHK	Data parity or controller parity error			
		{	BARS	Bar switch error			
		{	FRMO	Form overflow			
		{	PLOW	Paper low			

EXPLANATION:

An I/O error was detected on a UNIVAC 9300 peripheral device, where x is a channel number.

ACTION:

After correcting the error condition on the UNIVAC 9300 subsystem, the operator must inform the UNIVAC 9400 System that the UNIVAC 9300 subsystem is ready, by typing in the following message:
nnⓈ ,didRⓈ

A.22. LOCATOR MESSAGES

SL01 TRLD nnnnnnnn

EXPLANATION:

Requested transient routine is not in proper format, or tape block count error was encountered when positioning for the transient routine request, where nnnnnnnn is an 8-character module name.

ACTION:

Rerun the job after ensuring transient routine exists in the tape Load library in the correct format. If problem persists investigate possible hardware malfunction.

SL02 NELM nnnnnnnn

EXPLANATION:

Load module or transient module requested does not exist in tape Load library, where nnnnnnnn is an 8-character element name.

ACTION:

Rerun the job after ensuring the module in question exists in the appropriate tape library and the module name and library name on EXEC statement is correct.

SL03 NOTR nnnnnnnn

EXPLANATION:

The transient routine represented by nnnnnnnn cannot be located on disc SYSRES.

ACTION:

Rerun the job after ensuring transient routine exists in the appropriate library. If problem persists investigate possible hardware malfunction.

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A.23. SORT/MERGE MESSAGES

The following abbreviations apply to these messages:

did = device identification
rrr = reel number
uu = two-character label code
ccc = sort cycle number

A.23.1. CONTROL MODULE MESSAGES

SM00 000F

EXPLANATION:

1. From MR\$ORT:
 - Invalid open call
 - Sort control module is not on SYSRES device
 - STOR parameter is missing in parameter table
 - STOR start address is missing
 - Minimum storage required by sort is not available
 - Absolute sort storage specified exceeds program storage bounds
 - Load error encountered when loading sort
2. From Control Module:
 - Invalid sort call

Program is cancelled. Program should be recompiled to correct program logic error or ensure that there are no hardware malfunctions.

ACTION:

Rerun job after program is corrected.

SM00 001

EXPLANATION:

The MR\$OPN sort executed prior to termination of a sort in progress. The call is accepted, the current sort is discontinued, and the MR\$OPN sort is established.

ACTION:

Informational message. No operator action required.

SM00 002F

EXPLANATION:

Sort capacity exceeded. Sort is cancelled. Program logic should be corrected to specify a large volume sort.

ACTION:

Rerun the job after program is corrected.

SM00 004

EXPLANATION:

End of DOA, DOM, or REDO sort.

ACTION:

Informational message. No operator action required.

SM00 004F

EXPLANATION:

During an attempt to load a Sort module, the module could not be located. Program is cancelled. Ensure that all Sort modules are in the appropriate system library (on the SYSRES tape for T.O.S. and in the absolute execution area for D.O.S.).

ACTION:

Rerun the job after library is corrected.

A.23.2. INITIALIZATION MESSAGES

SM01 001F

EXPLANATION:

Record size (RCSZ) value is missing or in error. Program is cancelled after completion of the initialization. Program should be corrected ensuring that $1 \leq RCSZ \leq 16383$.

ACTION:

Rerun the job after corrections have been made.

SM01 002F

EXPLANATION:

Variable length record bin size (BIN) is zero, less than the value of RCSZ, or less than the minimum bin size. Program is cancelled after completion of the initialization. Program should be corrected to ensure that $1 \leq BIN \leq RCSZ$ or minimum bin size \leq bin size (when record size and volume size are specified).

ACTION:

Rerun the job after corrections have been made.

SM01 003F

EXPLANATION:

Key field is not contained within the maximum record size (RCSZ), or for variable-length records, the key field is not contained within the bin size. Program is cancelled after completion of the initialization. Program should be corrected to ensure that these parameters are correct.

ACTION:

Rerun the job after corrections have been made.

SM01 004F

EXPLANATION:

The field length specification for a decimal key (PD or ZD) field exceeds 16 characters. Program is cancelled after completion of the initialization. Program should be corrected to use the proper FIELD parameter.

ACTION:

Rerun the job after program is corrected.

SM01 005F

EXPLANATION:

The key field form designation is invalid. Program is cancelled after completion of the initialization. Program should be corrected to use the proper FIELD parameter.

ACTION:

Rerun the job after program is corrected.

SM01 006F

EXPLANATION:

Key field descriptions are missing or are present and the order specification numbers are incorrect. Key field descriptions are processed by these numbers, that is, 1, 2, ..., n. Program is cancelled after completion of the initialization. Programmer should ensure that the order specification of the FIELD parameter is correct, if specified.

ACTION:

Rerun the job after the program is corrected.

SM01 007W

EXPLANATION:

Both user own code compare routine (RSOC) and key field descriptions are present. When RSOC is used, the FIELD descriptions are ignored.

ACTION:

Option to continue or cancel is given to the operator by message SM01 098W.

SM01 008W

EXPLANATION:

More than one large volume sort parameter is specified. First entry detected is processed (AUTO, DOA, DOM, or DOF).

ACTION:

Option to continue or cancel is given to the operator by message SM01 098W.

SM01 009W

EXPLANATION:

More than one RESUME and REDO keyword parameter is specified. First entry detected is processed.

ACTION:

Option to continue or cancel is given to the operator by message SM01 098W.

SM01 010F

EXPLANATION:

Invalid RESUME keyword parameter for a small volume sort. Only RESUME=(PASS, ...) is valid. Program is cancelled after completion of the initialization.

ACTION:

Rerun the job after corrections are made.

SM01 011F

EXPLANATION:

SHARE and RESERV keyword parameters do not specify unique files. Program is cancelled after completion of the initialization. Program should ensure that the SHARE and RESERV keyword parameters do not specify the same file.

ACTION:

Rerun the job after corrections are made.

SM01 012W

EXPLANATION:

Large volume sort is specified with SHARE and/or RESERV keyword parameters. The SHARE and RESERVE keyword parameters are ignored.

ACTION:

Option to continue or cancel is given to the operator by message SM01 098W.

SM01 013F

EXPLANATION:

Large volume sort parameter and the RESUME or REDO parameter type are inconsistent. For example, DOA and RESUME=(MERGE, ...) are invalid. Program is cancelled after completion of the initialization.

ACTION:

Rerun the job after corrections have been made.

SM01 014W

EXPLANATION:

DOEXT parameter is specified for AUTO or DOF type large volume sorts. The DOEXT parameter is ignored.

ACTION:

Option to continue or cancel is given to the operator by message SM01 098W.

SM01 015F

EXPLANATION:

A required IN, OUT, or FIN keyword parameter is missing for the type of sort specified. A small volume sort and AUTO sort requires all three parameters. A DOA sort requires an IN parameter. A DOF sort requires the OUT and FIN parameters. Program is cancelled after completion of the initialization.

ACTION:

Rerun the job after corrections are made.

SM01 016W

EXPLANATION:

Tape related parameters are specified; however, no TAPES parameter is specified.

ACTION:

Option to continue or cancel is given to the operator by message SM01 098W.

SM01 017did LABL ERR

EXPLANATION:

Tape standard labels are specified. Either a VOL1 label or HDR1 label is missing. The tape is positioned to load point.

ACTION:

This message requires one of the following operator responses:

- R Sort retries standard label processing. This response assumes that the operator has mounted a new scratch tape on the indicated device.
- I Sort ignores this tape and continues initialization processing.

SM01 018F

EXPLANATION:

A response to message SM01 017 was other than R. Program is cancelled after completion of the initialization.

ACTION:

Rerun the job ensuring scratch tapes are prepped with standard labels.

SM01 019 did LABL ERR

EXPLANATION:

Tape standard labels are specified. The tape HDR1 label has not expired; that is, the HDR1 date is greater than the operating system's current date.

ACTION:

This message requires one of the following operator responses:

- R Sort retries standard label processing. This response assumes the operator has mounted a new scratch tape on the indicated device.
- I Sort ignores the expiration date discrepancy and continues processing.

SM01 020F

EXPLANATION:

The file specified by a SHARE or RESERV keyword parameter or large volume output tape file is not assigned. Program is cancelled after completion of the initialization.

ACTION:

Rerun the job after corrections are made.

SM01 021F

EXPLANATION:

The number of tapes assigned or processed is less than three. Program is cancelled after completion of the initialization.

ACTION:

Rerun the job allocating three or more tapes to the job.

SM01 022F

EXPLANATION:

Seven-level tape mode specification assignment does not indicate 800 bpi, data convert on, translate off; mode assignment must be X'90'. Program is cancelled after completion of the initialization.

ACTION:

Rerun the job ensuring appropriate mode setting.

SM01 023W

EXPLANATION:

Number of tape files specified is greater than 14.

ACTION:

Option to continue or cancel is given to the operator by message SM01 098W.

SM01 024W

EXPLANATION:

The number of disc files specified is greater than 8.

ACTION:

Option to continue or cancel is given to the operator by message SM01 098W.

SM01 025W

EXPLANATION:

No disc storage is available. Use of the disc is ignored by the sort. This is caused by one of the following:

1. Disc sort file names (DM01, DM02,...) have not been assigned by means of the control stream.
2. SYSPPOOL disc space for the assigned disc units is not available, that is, it is either not mapped or the space is allocated to other jobs.
3. A hardware/software problem has occurred which prevents the Supervisor disc allocation function from processing a sort allocation request.

ACTION:

Option to continue or cancel is given to the operator by message SM01 098W.

SM01 026W

EXPLANATION:

The number of tapes specified in the DOA keyword parameter is incorrect. The specification is ignored. Program logic should ensure that the number of tapes specified is between 3 and 14.

ACTION:

Option to continue or cancel is given to the operator by message SM01 098W.

SM01 027F

EXPLANATION:

Internal main storage required for disc or tape acceptance processing modules is not available. Storage required for disc sorting is not available. Program is cancelled after completion of the initialization.

ACTION:

Rerun the job allocating sufficient main storage.

SM01 028F

EXPLANATION:

Sufficient internal storage for tape sorting is not available. Program is cancelled after completion of the initialization.

ACTION:

Rerun the job allocating sufficient main storage.

SM01 029F

EXPLANATION:

Sufficient internal storage for large volume sorting is not available. Program is cancelled after completion of the initialization.

ACTION:

Rerun the job allocating sufficient main storage.

SM01 030F

EXPLANATION:

Internal storage was exhausted when generating the comparison routine. Program is cancelled after completion of the initialization.

ACTION:

Rerun the job after allocating sufficient main storage.

SM01 031F

EXPLANATION:

A REDO or RESUME keyword parameter is specified for a disc-only sort. Program is cancelled after completion of the initialization.

ACTION:

Rerun the job after corrections are made.

SM01 032W

EXPLANATION:

Minimum disc storage required for sorting is not available. Disc is not used.

ACTION:

Option to continue or cancel is given to the operator by message SM01 098W.

SM01 033F SORT // PARAM

EXPLANATION:

This message requires an operator response which indicates the presence or absence of sort PARAM statements in the user control stream.

ACTION:

Response:

Y indicates sort PARAM statements are present in the control stream.

N indicates no sort PARAM control statements are present. (Response is any character other than Y).

SM01 034F

EXPLANATION:

The number of input files (in-labels) specified for a DOM run is less than two. Program is cancelled after completion of the initialization.

ACTION:

Rerun the job after corrections have been made.

SM01 035F

EXPLANATION:

The number of tapes assigned to the sort is less than the number of input files (in-labels) specified in a DOM or DOF sort. Program is cancelled after completion of the initialization.

ACTION:

Rerun the job ensuring that the proper number of tapes have been assigned to the job.

SM01 036W

EXPLANATION:

Mixed tape types have been assigned to the sort for a large volume AUTO, DOM, or DOF sort. Care must be exercised to ensure that intermediate sort files produced by the sort will not conflict with the tape types currently assigned to the sort.

ACTION:

Option to continue or cancel is given to the operator by message SM01 098W.

SM01 050F keyword

EXPLANATION:

Invalid keyword parameter in a PARAM statement. Program is cancelled after completion of the initialization. Control stream parameters should be examined for errors.

ACTION:

Correct control stream and rerun the job.

SM01 051F keyword

EXPLANATION:

A keyword parameter in a PARAM statement has too many characters or has no operands. Program is cancelled after completion of the initialization.

ACTION:

Correct control stream and rerun the job.

SM01 052F keyword

EXPLANATION:

Format error in a PARAM statement. Syntax of statement, as written, is incorrect. Program is cancelled after completion of the initialization.

ACTION:

Correct control stream and rerun the job.

SM01 053F keyword

EXPLANATION:

Internal main storage was exhausted in generating the sort parameter table from PARAM statements. Program is cancelled after completion of the initialization.

ACTION:

Rerun the job allocating sufficient main storage.

SM01 061F keyword

EXPLANATION:

A required value is missing from a parameter sublist in a PARAM statement. Job is cancelled.

ACTION:

Correct control stream and rerun the job.

SM01 062F keyword

EXPLANATION:

The first specification of a RESUME or REDO keyword parameter is incorrect. Program is cancelled.

ACTION:

Correct control stream and rerun the job.

SM01 063F keyword

EXPLANATION:

The Sort filename specified on an LFD statement is incorrect. Program is cancelled.

ACTION:

Correct control stream and rerun the job.

SM01 071F keyword

EXPLANATION:

A value field is too large or has too many characters, or a label format is incorrect in a PARAM statement. Program is cancelled.

ACTION:

Correct control stream and rerun the job.

SM01 072F keyword

EXPLANATION:

Cycle number is incorrect. Program is cancelled.

ACTION:

Correct control stream and rerun the job.

SM01 073F keyword

EXPLANATION:

Reel number is incorrect. Program is cancelled.

ACTION:

Correct control stream and rerun the job.

SM01 074F keyword

EXPLANATION:

Label code is incorrect (must be two characters), or PASS recovery number is incorrect. Program is cancelled.

ACTION:

Correct control stream and rerun the job.

SM01 075F keyword

EXPLANATION:

The device specified on the NOCKSM keyword parameter is incorrect (other than a tape or disc device).
Program is cancelled.

ACTION:

Correct control stream and rerun the job.

SM01 076F keyword

EXPLANATION:

Bin size or volume value is too high on PARAM statement. Program is cancelled.

ACTION:

Correct control stream and rerun the job.

SM01 077F keyword

EXPLANATION:

Invalid delimiter specified. Program is cancelled after completion of the initialization.

ACTION:

Correct control stream and rerun the job.

SM01 078 keyword

EXPLANATION:

The number of tape file names or the label type is incorrect. Program is cancelled.

ACTION:

Correct control stream and rerun the job.

SM01 079F keyword

EXPLANATION:

The number of in-labels exceeds the limit for the DOM or DOF keyword parameter. Program is cancelled.

ACTION:

Correct control stream and rerun the job.

SM01 098W

EXPLANATION:

This message indicates that warning errors have been issued and requests an operator decision as to the continuance of the sort.

ACTION:

Response:

- C indicates that the sort is to continue processing.
- E indicates that the sort is to cease processing. (Response is any character other than C). Program is cancelled after issuing message SM01 099F.

SM01 099F

EXPLANATION:

This message indicates that fatal errors have occurred during sort initialization processing. Program is cancelled. Programmer should check parameters for error.

ACTION:

Rerun the job after corrections are made.

SM01 111F

EXPLANATION:

Fatal keyword error has caused sort PARAM statement processing to be discontinued. All PARAM statements are ignored. Program is cancelled after completion of the initialization.

ACTION:

Correct PARAM statement in error and rerun the job.

A.23.3. DISC ACCEPT MESSAGES

SM02 001F

EXPLANATION:

Disc storage capacity used by the sort has been exceeded. Program is cancelled. More SYSPool space on disc must be made available to the sort.

ACTION:

Rerun the job after sufficient SYSPool space is available to the job.

SM02 006F

EXPLANATION:

Disc input/output error has occurred. Since the sort does not accept unrecoverable errors or data checks (these errors are handled by Supervisor error recovery). This indicates that a no find error has occurred which was probably caused by a head positioning problem on a disc device being used by the sort. Job is cancelled.

ACTION:

Rerun the job. If problem persists investigate possible hardware failure on disc.

A.23.4. TAPE ACCEPT MESSAGES

SM03 001F

EXPLANATION:

End-of-tape mark sensed. Tape capacity has been exceeded. Job is cancelled. Reduce the volume of data to be sorted or mount longer tapes before rerunning the job.

ACTION:

Rerun the job after appropriate correction is made.

SM03 002F

EXPLANATION:

Sort main storage capacity was exceeded for disc/tape sort. Job is cancelled.

ACTION:

Rerun the job allocating sufficient main storage.

A.23.5. INTERNAL SORT MESSAGES

SM04 005F

EXPLANATION:

The sort performs a sequence validation check on all records delivered from one sort phase to another. The check is performed to detect the following:

1. User Error — logic error which destroys sort main storage, or invalid packed or zoned decimal key fields which cause unpredictable results in compare logic if keys contain invalid numeric digits or invalid signs.
2. Sort Error — logic error in Sort processing modules.
3. Hardware Error — instruction execution failure or I/O transmission error.

ACTION:

Rerun the job after correcting the error.

SM04 006F

EXPLANATION:

Illogical condition occurred during the sort process. A Software Systems Field Report should be submitted. Job is cancelled.

ACTION:

Rerun the job.

SM04 007F

EXPLANATION:

User program has exceeded the capacity of an internal-only sort, that is, too many records have been released to the sort. Job is cancelled.

ACTION:

Rerun the job and allocate tape or disc storage for sort, or allocate sufficient main storage for an internal sort.

SM04 008F

EXPLANATION:

The size of a variable-length record released to the sort is larger than the maximum record length specified by means of RCSZ. Job is cancelled. Program logic should be corrected.

ACTION:

Rerun the job after correcting the program.

SM04 009F

EXPLANATION:

Error in restarting sort from a RESUME or REDO CYCLE restart point. Job is cancelled.

ACTION:

Rerun the job ensuring that correct data is being processed. If problem persists, take a dump and submit a Software Systems Field Report.

A.23.6. TAPE MERGE MESSAGES

SM05 001F

See message SM03 001F for explanation and action.

SM05 002F

EXPLANATION:

Checksum error has occurred on one of the tapes used by the sort. A software checksum error indicates that the data read from tape is not identical to the data written to the tape by the sort. This occurred with no indication of a hardware failure. The error is a result of a logical error in the sort, or a hardware failure. Job is cancelled.

ACTION:

Rerun the job. If error persists, investigate possible hardware malfunction and/or use different physical tapes and tape drives when rerunning the job.

SM05 003F

EXPLANATION:

Block count error has occurred on one of the tapes used by the sort. There was an indication that a physical block on tape was missing or read twice, but a hardware malfunction was not detected. This could have been caused by a faulty tape or device, or a logic error in sort processing. Job is cancelled.

ACTION:

Rerun the job. If error persists, investigate possible hardware error and change physical tape or tape devices when rerunning the job.

SM05 004F

EXPLANATION:

Main storage is not available for the minimum number of buffers required for merging. Job is cancelled.

ACTION:

Rerun the job allocating sufficient main storage.

SM05 010 did MOUNT SCRATCH

EXPLANATION:

Operator must mount a scratch tape on the specified device.

ACTION:

Mount scratch tape and reply with AP to indicate the action has been performed.

SM05 011 PASS nnn did

EXPLANATION:

This message is typed out at the beginning of each tape polyphase collation pass. A sort interrupted during the collation phase may be resumed from the most recent (last) PASS recovery point that appears on the console listing, that is, by submitting a RESUME=(PASS,nnn) keyword parameter to the sort where nnn is the most recent recovery number typed out.

ACTION:

Informational message. No operator action required.

SM05 012 RESUME: MOUNT PASS nnn, did ON TAPE did

EXPLANATION:

The sort is being resumed from the most recent PASS recovery point. The PASS nnn, did tape must be mounted on tape did. In some instances, did and did are different devices requiring a subsequent remounting at message SM05 014.

ACTION:

Mount tape and reply with AP to indicate that the action has been performed.

SM05 013F

EXPLANATION:

A RESUME=(PASS,...) error has occurred, caused by one of the following:

1. PASS recovery number (nnn) is invalid.
 2. Recovery tape is not assigned.
 3. Current facilities assigned to the sort are different than the original facilities assigned.
 4. A tape of the same type as that used during the RESUME=PASS is not available.
- Job is cancelled.

ACTION:

Correct operational or control stream problem and rerun the job.

SM05 014 MOUNT ALL PASS TAPES ON ORIGINAL DEVICES

EXPLANATION:

All sort tapes must be mounted on the devices assigned originally to the sort. If the devices specified by did are different in message SM05 012, the tapes are rewound with interlock, and this message is appended with the REMOUNT did message.

ACTION:

Remount the specified tape and respond with AP to indicate that the action has been performed.

SM05 015F

EXPLANATION:

A PASS recovery error has occurred in positioning PASS tapes, or the PASS recovery number is not the most recent recovery point. Program is cancelled.

ACTION:

Correct operational or control stream problem and rerun the job.

SM05 017 did LABL ERR

EXPLANATION:

Tape standard labels are specified. Either a VOL1 label or HDR1 label is missing. The tape is positioned to load point.

ACTION:

Reply as follows:

- R The sort re-tries standard label processing. This response assumes that the operator has mounted a new scratch tape on the indicated device.
- I Sort ignores this tape and continues initialization processing. (Response is any character other than R).

SM05 018F

EXPLANATION:

A response to message SM01 017 was other than R. Program is cancelled.

ACTION:

Scratch tapes should be prepped with standard labels. Rerun the job.

SM05 019 did LABL ERR

EXPLANATION:

Tape standard labels are specified. The tape HDR1 label has not expired; that is, the HDR1 date is greater than the operating system's current date.

ACTION:

Reply as follows:

- R Sort re-tries standard label processing. This response assumes the operator has mounted a new scratch tape on the indicated device.
- I Sort ignores the expiration date discrepancy and continues processing. (Response is any character other than R).

A.23.7. DISC MERGE MESSAGES

SM06 001F

EXPLANATION:

Disc storage capacity used by the sort has been exceeded. Job is cancelled.

ACTION:

Rerun the job allocating sufficient SYSPool disc space.

SM06 002F

EXPLANATION:

Checksum error has occurred on disc. A software checksum error indicates that the data read from disc is not identical to the data written to disc by the sort. This occurred with no indication of a hardware failure. This error is the result of a logical error in the sort or a hardware malfunction. Job is cancelled.

ACTION:

Rerun the job. If error persists, investigate possible hardware malfunction.

SM06 003F

EXPLANATION:

Block count error has occurred on one of the discs used by the sort. There was an indication that a physical record on disc was missing or read twice, but a hardware malfunction was not detected. This could have been caused by disc hardware errors or a logical error in the sort. Job is cancelled.

ACTION:

Rerun the job. If problem persists, investigate possible disc hardware malfunction.

SM06 004F

EXPLANATION:

Main storage was not available for the minimum number of buffers required for merging. Job is cancelled.

ACTION:

Rerun the job allocating sufficient main storage.

SM06 006F

See message SM02 006F for explanation and action.

A.23.8. USER OUT MESSAGES

SM07 000 records accepted, records deleted

EXPLANATION:

This message indicates the successful termination of the sort and indicates the number of records accepted and deleted.

ACTION:

Informational message. No operator action required.

SM07 001F

EXPLANATION:

Illogical sort error. Module did not receive one string, or the record input count does not equal the record output count. Job is cancelled.

ACTION:

Rerun the job. If error persists, submit a Software Systems Field Report.

SM07 010 did MOUNT USER RESERVE FILE

EXPLANATION:

User has specified a sort reserve file. The tape specified by did is rewound.

ACTION:

Mount user tape on device did and respond as follows:
AP indicates that the action was performed.

A.23.9. DISC FINAL MERGE MESSAGES

SM08 002F

See message SM06 002F for explanation and action.

SM08 003F

See message SM06 003F for explanation and action.

SM08 004F.

EXPLANATION:

Main storage was insufficient for the minimum number of buffers required for merging. Job is cancelled.

ACTION:

Rerun the job allocating sufficient main storage.

SM08 005F

See message SM04 005F for explanation and action.

SM08 006F

See message SM02 006F for explanation and action.

A.23.10. TAPE FINAL MERGE MESSAGES

SM09 002F

See message SM05 002F for explanation and action.

SM09 003F

See message SM05 003F for explanation and action.

SM09 004F

EXPLANATION:

Internal storage space available is not large enough to contain the minimum number of buffers for merging. Job is cancelled.

ACTION:

Rerun the job allocating sufficient main storage.

SM09 005F

See message SM04 005F for explanation and action.

SM09 009F

EXPLANATION:

Illogical sort problem. More than one string per tape has been detected. Job is cancelled.

ACTION:

Rerun the job. If error persists, submit a Software Systems Field Report.

A.23.11. MULTICYCLE ACCEPT MESSAGES

SM10 017 did LABEL ERR

EXPLANATION:

Tape standard labels are specified. Either a VOL1 label or HDR1 label is missing. The tape is positioned to load point.

ACTION:

Reply as follows:

R Sort re-tries standard label processing. This response assumes that the operator has mounted a new scratch tape on the indicated device.

I Sort ignores this and continues initialization processing. (Response is any character other than R).

SM10 018F

EXPLANATION:

A response to message SM10 017 is other than R. Job is cancelled.

ACTION:

Prep scratch tapes with standard labels and rerun the job.

SM10 019 did LABEL ERR

EXPLANATION:

Standard tape labels are specified. The tape HDR1 label has not expired; that is, the HDR1 date is greater than the operating system's current date.

ACTION:

Reply as follows:

R Sort re-tries standard label processing. This response assumes that the operator has mounted a new scratch tape on the indicated device.

I Sort ignores the expiration date discrepancy and continues processing. (Response is any character other than R).

SM10 020 did LABEL: REEL rrr OF uu/ccc

SM10 020 MOUNT BLANK ON did LABEL: REEL rrr OF uu/ccc

SM10 020 MOUNT BLANK ON did

EXPLANATION:

The SM10 020 messages direct the operator in the labeling of intermediate sort multicycle output files and the mounting of scratch tapes.

ACTION:

1. The first message has no response. The tape mounted on the specified unit (did) should be labeled as indicated by the message:
REEL rrr OF uu/ccc.
2. The second message required a response. This message requests that a scratch tape be mounted on the specified unit (did) and labeled as indicated by the message:
REEL rrr OF uu/ccc.
Reply with AP to indicate the action has been performed.
3. The third message requires a response. This message requests that a new scratch tape be mounted for the next sort multicycle phase to be initiated. Respond with AP to indicate that the action has been performed.

SM10 021 did DISMOUNT REEL rrr OF uu/ccc

EXPLANATION:

This message requests that the tape mounted on unit did, labeled REEL rrr OF uu/ccc, be dismantled.

ACTION:

Dismount tape from the specified unit (did) and reply with AP.

SM10 022 END CYCLE uu/ccc FROM first record number of cycle file TO last record number of cycle file

EXPLANATION:

This message indicates the end of multicycle phase. Information in the message is used in a RESUME or REDO CYCLE keyword parameter.

ACTION:

Informational message. No operator action required.

A.23.12. MULTICYCLE MERGE MESSAGES

SM11 003F

See message SM05 003F for explanation and action.

SM11 004F

EXPLANATION:

Internal storage space was not available for the minimum number of buffers required for merging. Job is cancelled.

ACTION:

Rerun the job allocating sufficient main storage.

SM11 017 did LABL ERR

EXPLANATION:

Tape standard labels are specified. Either a VOL1 label or HDR1 label is missing. The tape is positioned to load point.

ACTION:

This message requires one of the following operator responses:

- R The sort re-tries standard label processing. This response assumes that the operator has mounted a new scratch tape on the indicated device.
- I Sort ignores this tape and continues initialization processing. (Response is any character other than R).

SM11 018F

EXPLANATION:

A response to message SM11 017 is other than R. Job is cancelled.

ACTION:

Prep scratch tapes with standard labels and rerun the job.

SM11 019 did LABL ERR

EXPLANATION:

Tape standard labels are specified. The tape HDR1 label has not expired; that is, the HDR1 date is greater than the operating system's current date.

ACTION:

This message requires one of the following operator responses:

- R Sort re-tries standard label processing. This response assumes that the operator has mounted a new scratch tape on the indicated device.
- I Sort ignores the expiration date discrepancy and continues processing. (Response is any character other than R).

SM11 020 MOUNT BLANK ON did, LABEL REEL rrr OF uu/ccc

EXPLANATION:

Request the operator to mount a scratch tape on the specified unit (did) and label the tapes as indicated by REEL rrr OF uu/ccc.

ACTION:

Mount scratch tape on tape unit did and respond with AP to indicate that the requested action has been performed.

SM11 021 DISMOUNT did, REEL rrr OF uu/ccc

FROM first record of reel TO last record of reel

EXPLANATION:

This message requests the operator to dismount the output tape from the specified unit (did). Information specified is used in a RESUME or REDO MERGE keyword parameter.

ACTION:

Dismount tape from the requested device and reply with AP to indicate that the action has been performed.

SM11 022F

See message SM05 002F for explanation and action.

SM11 023 DISMOUNT did, REEL rrr OF uu/ccc

EXPLANATION:

This message directs the operator to dismount the input tape mounted on the specified unit (did), labeled REEL rrr OF uu/ccc.

ACTION:

Dismount the tape from the specified unit (did) and respond with AP to indicate the action has been performed.

SM11 024 MOUNT did, REEL rrr OF uu/ccc

SM11 024 MOUNT did, REEL rrr OF uu/ccc, RING

EXPLANATION:

The first message directs the operator to mount the intermediate input cycle file, labeled REEL rrr OF uu/ccc on the tape unit specified by did.

The second message indicates that the file should be mounted with a write enable ring inserted; that is, the reel is being used in a RESUME or REDO sort and will be re-created.

ACTION:

The specified tape should be mounted on unit did. A response of AP indicates that the requested action has been performed.

SM11 025 did SORT LABEL ERR

EXPLANATION:

The sort input file requested to be mounted on tape unit did is incorrect. The tape is rewound with interlock.

ACTION:

Respond with one of the following:

- R Sort reissues the MOUNT message, and on response to the MOUNT message, re-tries sort label processing.
- U Indicates that the error is unrecoverable. The program is cancelled after issuing message SM11 026F. (Response is any character other than R.)

SM11 026F

EXPLANATION:

A response other than R has been given to message SM11 025. The sort tape specified for a RESUME or REDO is not mounted correctly. Job is cancelled.

ACTION:

Rerun the job after error condition has been corrected.

SM11 027F

EXPLANATION:

The number of tapes required to RESUME or REDO a multicycle merge is incorrect. Not enough tapes have been assigned to the sort. Job is cancelled.

ACTION:

Rerun the job ensuring that a sufficient number of tapes are allocated.

A.23.13. MULTICYCLE FINAL MERGE MESSAGES

SM12 002F

See message SM05 002F for explanation and action.

SM12 003F

See message SM05 003F for explanation and action.

SM12 004F

EXPLANATION:

Internal storage space was not available for the minimum number of buffers required for merging. Job is cancelled.

ACTION:

Rerun the job allocating sufficient main storage.

SM11 005F

See message SM04 005F for explanation and action.

SM12 023 DISMOUNT did, REEL rrr OF uu/ccc

EXPLANATION:

This message requests the operator to dismount the tape labeled REEL rr of uu/ccc from the specified device (did).

ACTION:

Operator should dismount tape from device did and reply with AP to indicate the action has been performed.

SM12 024 MOUNT did, REEL rrr OF uu/ccc

EXPLANATION:

Directs the operator to mount the intermediate sort cycle file labeled REEL rrr OF uu/ccc on tape unit did.

ACTION:

Mount requested tape on device did and reply with AP to indicate the requested action has been performed.

SM12 025 did LABEL ERR

EXPLANATION:

The sort input file requested to be mounted on tape unit did is incorrect. The tape is rewound with interlock.

ACTION:

Respond with one of the following:

R Sort reissues the MOUNT message, and on response to the MOUNT message, re-tries sort label processing. This response assumes that the operator has mounted another input file.

X The program is cancelled after issuing message SM12 026F. (Response is other than R).

SM12 026F

EXPLANATION:

A response other than R has been given to message SM12 025. The sort tape specified for RESUME or REDO is not mounted correctly. Job is cancelled.

ACTION:

Rerun the job after error condition is corrected.

SM12 027F

EXPLANATION:

The number of tapes required to RESUME is incorrect. Not enough tapes have been assigned to the sort. Job is cancelled.

ACTION:

Rerun the job ensuring that a sufficient number of tapes are allocated.

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A.24. SYMBIONT MESSAGES

Following are unsolicited keyins the operator may issue to the Symbiont:

- To restart processing of the current volume, key in nn Ⓢ ,RS,volsn Ⓢ
- To terminate processing of the current file, key in nn Ⓢ ,SF,volsn Ⓢ . If other files on this volume are to be processed, processing continues.
- To resume processing after a volume mounting error, key in nn Ⓢ , SV,volsn Ⓢ . Volume checking is now performed.
- To terminate all processing of the current volume, key in nn Ⓢ ,SA,volsn. Ⓢ
- To terminate all Symbiont processing, key in nn Ⓢ ,SA Ⓢ .

The following abbreviations apply to these messages:

nn = assigned job number
 did = device identification
 nnnnnn = file identification number assigned by the Cooperative
 jobname = name of the job that generated the output
 volsn = volume serial number
 ss = assigned step number
 iii = 1 to 3 digit assigned disc file initialization number for Cooperative output. This is displayed only when the Cooperative is generated with disc file support.

SS00 WHAT FILES AND VSN TO PRINT?

EXPLANATION:

This message is displayed after the Symbiont is loaded and indicates that the Symbiont can now process Cooperative output. This message is repeated every 30 seconds until processing is initiated.

ACTION:

Initiate Symbiont processing with the following unsolicited keyin:

$$nn \text{ Ⓢ } , \left\{ \begin{array}{l} \text{AJ} \\ \text{Jnn} \\ \text{Jsn/Jen} \\ \text{Jnn/E} \\ \text{Jnnnnnn} \end{array} \right\} , volsn \left\{ \begin{array}{l} \text{N} \\ \text{blank} \end{array} \right\} \left[\left[\begin{array}{l} \text{iii} \\ \text{blank} \end{array} \right] \left[\begin{array}{l} \text{PR} \\ \text{R} \\ \text{blank} \end{array} \right] \right] \text{ Ⓢ}$$

Positional Parameter 1

- AJ — specifies that all files on the specified input volume are to be processed.
 Jnn — specifies that all files produced by job nn on the specified input volume are to be processed.
 Jsn/Jen — specifies that all files on the specified input volume produced by jobs sn through en inclusive are to be processed.
 Jnn/E — specifies that all files on the specified volume beginning with the output of job nn continuing for all output on the volume are to be processed.
 Jnnnnnn — specifies that the file identified by nnnnnn on the specified input volume is to be processed.

Positional Parameter 2

- volsn — specifies the volume serial number of the tape or disc volume that contains the files referenced in positional parameter 1.

Positional Parameter 3

- N — specifies that no heading is to be displayed on Symbiont output.
blank — specifies that heading information is to be displayed on Symbiont output.

Positional Parameter 4 (Disc Volume Only)

- iii — specifies a 1- to 3-character disc file initialization number that identifies the files referenced in positional parameter 1.
blank — the disc file initialization number is assumed to be 1.

Positional Parameter 5 (Disc Volumes Only)

- PR — specifies that the space used by the files identified by positional parameter 1 is to be released after the files are processed.
R — specifies that the space used by the files identified by positional parameter 1 is to be released without processing the files.
blank — specifies that the files identified by positional parameter 1 are to be processed, but the space used by the files is not to be released.

SS01 2ND PARAM ILLEGAL**EXPLANATION:**

The volume that was specified for processing in the previous request cannot be processed because all devices allocated to the Symbiont are in use, or the volume is already being processed.

ACTION:

Resubmit processing request after resolving volume status.

SS02 volsn,did MISM — STOP FILE? Y/N**EXPLANATION:**

The current printer output from the specified volume (volsn) cannot be displayed without printer mismatch errors. This message is repeated every 30 seconds until answered.

ACTION:

If printer mismatch errors are not acceptable for this output, reply with nnⓈ, Y,volsnⓈ. The file in error is terminated and processing continues. If printer mismatch errors are acceptable for this output, reply with nnⓈ, N,volsnⓈ. The Symbiont will ignore the current mismatch and all subsequent mismatches for this file only.

SS03 volsn, $\left\{ \begin{array}{l} \text{CURR} \\ \text{PREV} \end{array} \right\}$ VSN ERR-CONT? Y/N

EXPLANATION:

If CURR is displayed, the volume previously specified for processing (volsn) was not mounted on the device that was specified to contain it. If PREV is displayed, the volume previously specified for processing (volsn) is not one of the series of volumes currently being processed. This message is repeated every 30 seconds until answered.

ACTION:

If the volume serial number (VSN) check can be ignored, reply with nn Ⓢ, Y,volsn Ⓢ. The Symbiont will attempt to process the volume normally. If the VSN check cannot be ignored, reply with nn Ⓢ, N,volsn Ⓢ.

SS04 volsn,MT $\left\{ \begin{array}{l} \text{CARD} \\ \text{LOOP} \end{array} \right\}$ ON did ; REPLY

EXPLANATION:

If CARD is displayed, the card type identified by xxxxxx must be loaded into the specified punch (did). If LOOP is displayed the forms loop identified by xxxxxx must be mounted on the specified printer (did). This message is repeated every 30 seconds until answered.

ACTION:

Perform the required action and reply with nn Ⓢ, LM,volsnⓈ.

SS05 volsn,did RESUME PRINT WHERE?

EXPLANATION:

This message is displayed when the restart procedure has been initiated for the specified volume (volsn). The Symbiont has suspended processing on this volume and is requesting a restart point. This message is repeated every 30 seconds until answered.

ACTION:

Reinitiate Symbiont processing with the following unsolicited keyin:

nn Ⓢ $\left\{ \begin{array}{l} \text{Fx/Ln,volsn} \\ \text{Ax/Ln,volsn} \end{array} \right\}$ Ⓢ

Positional Parameter 1

- Fx — specifies a 1- to 7-digit form or card number on which processing is to be resumed. This number cannot be higher than the previous processing point unless the sequence checking option was not selected at Symbiont generation time.
- Ax — specifies a 1- to 7-digit form or card number on which processing is to be restarted.
- Ln — specifies a 1- to 3-digit line number on the form where processing is to be restarted. This number is zero for card output.

Positional Parameter 2

volsn — specifies the volume on which the file resides.

SS06 volsn1, $\left\{ \begin{array}{l} \text{TAPE} \\ \text{DISC} \end{array} \right\}$ FORMAT ERR — NEW VSN

EXPLANATION:

If TAPE is displayed, the volume specified cannot be processed because it is not prepared properly. It does not contain valid Cooperative output. If DISC is displayed, the volume specified cannot be processed because it does not contain valid Cooperative output. This message is displayed every 30 seconds until answered.

ACTION:

If the wrong volume was mounted, mount the correct volume and key in nn ⊗ , volsn1,volsn1 ⊗ . If an incorrect volume number was specified in the processing request key in nn ⊗ , volsn₂,volsn₁ ⊗ , where volsn 2 is the correct volume serial number. Otherwise, Symbiont processing must be terminated for this volume (refer to explanation of the formats for unsolicited keyins at the beginning of this section).

SS07 volsn,ALL FILE REQ ARE COMP

EXPLANATION:

The processing requested for the specified volume is complete. An unsolicited keyin to initiate additional Symbiont processing may be keyed in at any time.

ACTION:

See SS00 for action.

SS08 volsn,BAD BLOCK TYPE CONT? Y/N

EXPLANATION:

The Symbiont read an unrecognizable block. The volume being processed (volsn) does not contain valid Cooperative output. This message is repeated every 30 seconds until answered.

ACTION:

To ignore the unrecognizable block and continue processing the invalid file, replay with nn ⊗ , Y,volsn ⊗ . The file will be processed, but it may not be complete. To terminate the processing of the invalid file and continue the execution of the processing request, reply with nn ⊗ , N,volsn ⊗ . The remainder of the invalid file is skipped. To terminate all processing requested for this volume (volsn), reply with nn ⊗ , SA,volsn ⊗ . All processing on this volume is terminated.

SS09 volsn2,MT { NEXT } VOL did/did REP
 { PREV }

EXPLANATION:

If NEXT appears, the next tape or disc volume in this series of volumes should be mounted on one of the devices specified.
If PREV appears, the previous tape or disc volume that was processed in this series of volumes should be re-mounted on one of the devices specified. This message is repeated every 30 seconds until answered.

ACTION:

When the correct volume has been mounted, reply with nn ⊗ ,volsn1,volsn2, ⊗ where:
volsn1 = volume serial number of the volume just mounted.
volsn2 = volume serial number of the volume that was being processed.

SS10 volsn,1ST PARAM IN ERR

EXPLANATION:

The first parameter of the last unsolicited keyin was in error. The command was ignored.

ACTION:

Resubmit correct command.

SS11 SYMBIONT IDLE

EXPLANATION:

The Symbiont has completed all requested processing. This message is repeated every 5 minutes until answered. An unsolicited keyin to initiate additional Symbiont processing may be keyed in at any time.

ACTION:

See SS00 for explanation and action.

SS12 volsn,MT ON DVC ASSGN TO JOB

EXPLANATION:

The specified volume (volsn) was not identified on any device allocated to the Symbiont. This message is repeated every 30 seconds until answered.

ACTION:

Mount and identify the volume on a device allocated to the Symbiont by means of the SET I/O command. Refer to SS06 for additional information.

SS13 volsn,MSG NOT APPROPRIATE

EXPLANATION:

The last unsolicited keyin for the specified volume (volsn) was formatted properly but was inconsistent with the current processing. The keyin was ignored.

ACTION:

Informational message. No operator action required.

SS14 volsn,did - LAST Fnnnnnnn,Lnnn

EXPLANATION:

This message is displayed for reference when the restart procedure has been initiated for the specified volume (volsn). The last line or card processed is identified.

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A.25. SUPERVISOR MESSAGES

ST01 PARAMETER ERROR

EXPLANATION:

The previous operator command parameter is misspelled, incorrectly specified, or not recognized.

ACTION:

Repeat the command using correct parameters.

ST02 ERROR CHK JOB#

EXPLANATION:

The job number given in an operator command does not reference any job in the system.

ACTION:

Repeat the command using the correct job number.

ST03 SYSTEM IN USE

EXPLANATION:

The system resident device was respecified while there were jobs in the system. The command is rejected.

ACTION:

Repeat the command when all jobs have terminated.

ST04 NON-EXISTENT ID

EXPLANATION:

The device identifier given in a SET IO operator command does not reference any device in the system.

ACTION:

Repeat the command using valid device identification.

ST05 SHAREABILITY

EXPLANATION:

The operator attempted to set a device as shareable. The device was previously nonshared, and marked DOWN. The request for shareability was rejected.

ACTION:

Repeat the command after resolving device status.

ST06 ALLOCATE BITS

EXPLANATION:

A SET IO command to set a device nonshareable was typed in referencing a shareable device which is currently shared. The request is rejected.

ACTION:

Repeat the command when the device is not shared.

ST07 SET 8 CHAR DATE

EXPLANATION:

The DATE parameter of the SET DATE command was not specified correctly. The format must be xx/xx/xx.

ACTION:

Repeat the command using the correct DATE parameter format.

ST08 JOB NAME ERROR

EXPLANATION:

The job number and name of the job specified in the previous command do not reference the same job.

ACTION:

Repeat the command using the correct job number and name.

ST09 TIME FORM HH:MM

EXPLANATION:

The time parameter on the SET CLOCK command is not formatted correctly.

ACTION:

Repeat the command using valid format.

ST10 message

EXPLANATION:

Message indicates the standard output of the DISPLAY command. Following the prefix, 2 to 16 hexadecimal characters or 1 to 58 alphanumeric characters are displayed.

ACTION:

Informational message. No operator action required.

ST11 ADRS

EXPLANATION:

This message is displayed on the console for one of the following reasons: (1) The address specified on an ALTER statement, or the address specified with an ALTER or DISPLAY command is invalid. (2) Operand 1 (prefix) of the ALTER statement or command is invalid (A*, R*, P*). (3) Operand 1 (mnemonic specification) is misspelled (PM, RST, ORG). (4) The address following ORG is non-numeric (ALTER only).

ACTION:

Console Command:

Re-enter the request as a reply to the Supervisor functional routine (job number 02). It is not necessary to precede the parameters with ALTER or DISPLAY.

Examples:

(ALTER) 02R 15,R*1000,2F,LA Ⓢ

(DISPLAY) 02R A*5F4,XL4 Ⓢ

Cards (Response to the ALTER „CA command):

Determine the correct card content from the ST18 message and enter the corrected parameters to ALTER as a reply to the Supervisor functional routine. Follow the last parameter by CA as follows:

02R A*1334,13FE2C,CA Ⓢ

Control Stream (Control Stream Contains OPTION ALTER Statement):

Determine correct content of the ALTER statement from the last ST18 message and enter the correct parameters to ALTER as a reply to the job running with OPTION ALTER. The job number of this job is displayed in the error message before the ST prefix.

Example (for job number 52):

52R 52,R*5002,C'EA', $\left. \begin{array}{l} \text{LA} \\ \text{CA} \\ \text{RE} \end{array} \right\} \text{Ⓢ}$

ST12 JOB#

EXPLANATION:

The job number presented as the first parameter of an ALTER or DISPLAY command is invalid, the job is not in the system (if the first parameter is numeric, it is assumed to be a job number), or the command format is invalid (for example, A* is not present to denote an absolute address).

ACTION:

Determine the correct job number or command format, and re-enter the console command. Refer to ST11 (action) for re-entering the console command.

ST13 CHAR

EXPLANATION:

A parameter which requires a hexadecimal number contains a character that is not between 0 and F, or a parameter which requires a decimal number contains a character not between 0 and 9.

ACTION:

Refer to ST11 action.

ST14 TYPE

EXPLANATION:

The type and number specification in a DISPLAY command is invalid. Format must be CLn (where n = 1 through 58) or XLn (where n = 1 through 8). If n is too large for the format requested, the ST10 message is truncated with no error message.

ACTION:

Refer to ST11 action.

ST15 CARD

EXPLANATION:

The format of a statement read by the ALTER routine is invalid. ALTER statements must begin with // ALTER.

ACTION:

If the card is mispunched, enter the correct statement by means of the console. (See action for ST11 for cards or control stream.) If operand 3 of the last ALTER statement is not "LA" or "RE", the job must be rerun, since the extra statement read by ALTER will not be available for the function which follows.

ST16 BNDS

EXPLANATION:

The address specified in an ALTER or DISPLAY command or ALTER statement is not within the storage partition of the job, or the job number was not supplied or is incorrect.

ACTION:

Validate the job number and address for the statement entered, and perform the same actions as for message ST11.

ST17 CNST

EXPLANATION:

The change value or constant is not specified correctly to ALTER. The type specification is not correct (C'...', X'...'), the constant exceeds the allowable number of characters (a maximum of 8 bytes may be altered in hexadecimal) or a hexadecimal constant is not an even number of characters (integral number of bytes).

ACTION:

Refer to ST11 action.

ST18 message

EXPLANATION:

Message indicates the standard output of the ALTER routine when input is from cards or the control stream.

ACTION:

Informational message. No operator action required.

ST19 ENTR

EXPLANATION:

Enter the next alter request because the previous alter operation implied another to follow.

(1) The previous console statement did not contain an L or C as operand 3. (2) The last ALTER statement specified operand 3 as OP (requesting console input). (3) A job running in control stream alter mode (DOS only) had no alter cards at the current (next) statement position; therefore, the operator is given control. (4) A job may be in the alter mode invalidly if a control stream card has operand 3 (the 'R' parameter, RESET alter mode) missing.

ACTION:

1. If operand 3 (LA or CA) was omitted on the previous command, reply 02R,, $\left. \begin{array}{l} \{LA\} \\ \{CA\} \end{array} \right\} \textcircled{S}$. If another command is to follow, see ST11 action for console command.
2. If a job is in alter mode and the last ST18 message ends in ",OP", the program required additional alterations from the console. See action for ST11 for control stream.
3. If the job is in alter mode and no ST18 messages have been printed, the OPTION ALTER statement is in error, the ALTER statements are missing, or the user expects all alterations to be made from the console. See action for ST11 for control stream.
4. If it can be determined that a statement is missing from the RESET parameter, reply with nnR ,,RE. Recovery from conditions 3 and 4 is possible only in DOS. For conditions 2 and 3, the following may be entered if no console alterations are desired: nnR ,,LA or nnR ,,RE if no more alterations are to follow.

ST1A SET IO RDR

EXPLANATION:

An ALTER command has been processed which requests input from the card reader. The logical device SYSRDR is not a card reading device. Since ALTER reads from SYSRDR, the logical device must be redefined.

ACTION:

Enter the following operator commands:

```
SET IO,did-1,RDR
```

```
ALTER ,,CARD
```

```
SET IO,did-2,RDR
```

NOTES:

did-1 is the device identification of the card reader (example -- 090).

did-2 is the device identification of the previous reader device. In DOS, this is usually SYSRES also (example -- J81).

The ALTER ,,CARD option should be used only to modify the resident Supervisor or in unusual debugging circumstances. It should normally be used immediately after the initial Supervisor load procedure. If a job is to be modified, use OPTION ALTER.

ST20 DVC NOT TAPE

EXPLANATION:

An MTC command was specified for a device that is not a tape unit. The command was ignored.

ACTION:

Retype the command, making sure the specified device is a tape unit.

ST21 TAPE UNIT DOWN

EXPLANATION:

The specified tape unit is down. The MTC command cannot be executed on that device until it is set up by means of the SET IO command.

ACTION:

Retype command after resolving device status.

ST22 did ff nnnnn AP

EXPLANATION:

This message is displayed after successful completion of an MTC command or statement, where:

did is the three-character device ID.

ff is the two-character function that was performed, that is:

- FM Forward space volume a specified number of tape marks.
- FB Forward space volume a specified number of blocks.
- BM Backward space volume a specified number of tape marks.
- BB Backward space volume a specified number of blocks.
- RL Rewind volume to load point.
- RU Rewind volume and unload.
- WM Write specified number of tape marks.

nnnnn is the specified number of times the function was executed.

AP represents Action Performed.

ACTION:

Informational message. No operator action required.

ST23 UNREC OR UNIQUE

EXPLANATION:

Unrecoverable or unexpected unique error was encountered preventing the completion of the previously specified operator command. The requested function was not completed.

ACTION:

Retype command after resolving device status.

ST24 VSN did=volsn

EXPLANATION:

The previous SET IO operator command specified that a disc volume be mounted on a device when the volume was already mounted on another device. The device on which the volume is currently mounted is indicated by did.

ACTION:

Resolve volume serial number discrepancy and re-try command if required.

ST30 did READY

EXPLANATION:

The previous MOUNT command has been successfully completed, and the volume is mounted on the specified device (did).

ACTION:

Informational message. No operator action required.

ST31 COMMAND ERROR

EXPLANATION:

The previous MOUNT command was not formatted correctly. The command was ignored.

ACTION:

Re-enter the command correctly.

ST32 did PUB NOT FOUND

EXPLANATION:

The device (did) referenced by the previous MOUNT command does not exist in the system. Command is ignored.

ACTION:

Re-enter the command using the correct device ID.

ST33 did NOT TAPE OR DISC

EXPLANATION:

The device (did) referenced by the previous MOUNT command was not a tape or disc device. The command is ignored.

ACTION:

Re-enter the command after resolving discrepancy.

ST34 did NO VOL1 RECORD

EXPLANATION:

The volume on device (did) could not be identified as specified on the MOUNT command because it was not prepared correctly. No VOL1 or format 1 record could be found. Volumes cannot be processed by the MOUNT command unless they are prepped.

ACTION:

Prep tape or disc volume and resubmit the command.

ST35 did CHK DEVICE RTRY

EXPLANATION:

The volume on device (did) could not be identified as specified on the MOUNT command because of unrecoverable I/O errors.

ACTION:

Re-enter the command.

ST36 did volsn 1 – volsn 2

EXPLANATION:

The volume serial number specified on the previous MOUNT command for device (did) does not agree with the volume serial number on the volume, where:
volsn 1 is the specified volume serial number.
volsn 2 is the volume serial number found on the volume.

ACTION:

Resolve volume serial number conflict and rerun the job.

ST37 did ALLOCATED PRIOR

EXPLANATION:

The device identified by did is allocated to a job. The MOUNT operator command cannot be executed for a device that is allocated.

ACTION:

Wait until device is free, and resubmit the command.

ST38 did CLEAR

EXPLANATION:

The volume serial number stored in the physical unit block is cleared to blank in response to the previous MOUNT command for the did noted.

ACTION:

Informational message. No operator action required.

ST3A did DUPLICATE VOLSN

EXPLANATION:

A MOUNT command was issued specifying a disc volume serial number (vol sn) that has been identified as being on another disc device (did). Duplicate numbered disc volumes cannot be online at the same time.

ACTION:

Resolve volume serial number discrepancy. The duplicate volume serial number may be cleared from the unassigned device by the MOUNT command.

NOTE:

The following messages are displayed for processors operating in a TOS environment with minimum storage.

ST40 HDR1 NOT FOUND

EXPLANATION:

The format of the scratch tape on which the file control blocks are to be stored is incorrect. The second block of the scratch tape should contain an HDR1 label.

ACTION:

The scratch tape should be prepped to contain standard labels with block numbering.

ST42 MOUNT VOL volsn ON DVC did REPLY (R)

EXPLANATION:

This typeout tells the operator which volume to mount on a given device.

ACTION:

Mount the specified volume on the specified device. Reply (R) when the action is performed.

nnR RⓈ

ST45 FCB NOT FOUND

EXPLANATION:

The file control block cannot be found to be re-stored on the scratch tape. A tape mark follows the VOL1 and HDR1 labels.

ACTION:

Mount the proper scratch tape.

ST46 RDFCB ERR

EXPLANATION:

1. The symbolic name of the physical I/O control block of the scratch tape to be used to store the file control blocks has not been defined in the control stream.
2. The file control blocks have already been stored on a tape, and the preamble reflects the condition of zero file control blocks.

ACTION:

1. Correct the control stream and rerun the job.
2. Omit the second attempt to store the file control blocks already stored on tape.

ST47 VOL1 NOT FOUND

EXPLANATION:

The format of the scratch tape used to store the file control blocks is incorrect. The first block of the scratch tape should contain a VOL1 label.

ACTION:

The scratch tape should be prepped to contain standard labels with block numbering.

ST48 VSN NOT FOUND

EXPLANATION:

The requested volume serial number does not agree with the volume serial number of the mounted tape.

ACTION:

The volume serial number of the mounted tape should agree with that in the physical unit block for that device. The control stream may be in error.

ST49 FCB# RECORD NOT FOUND

EXPLANATION:

The first record following the VOL1 and HDR1 labels should contain the label FCB#.

ACTION:

The wrong tape may be mounted or a previous attempt to store the file control block was unsuccessful.

ST50 DVC?

EXPLANATION:

The system LST device is not available to receive output. Message is reissued every 30 seconds until the LST device becomes available.

ACTION:

Informational message. No operator action required.

NOTE:

The following messages are displayed only when the automatic volume recognition (AVR) feature is being used.

ST51	{	CANCEL CDIAG DMEAR DUMP SNAP	}	WAITING FOR LST
------	---	--	---	-----------------

EXPLANATION:

This message is displayed every 30 seconds until the system list (LST) device is available. When the current output is completed, the indicated routine will commence output.

ACTION:

Informational message. No operator action required.

ST54 did DOWN

EXPLANATION:

Automatic volume recognition was attempted on a device marked down.

ACTION:

Resolve device status.

ST55 did VOLSN# READY

EXPLANATION:

A prepped volume was mounted by means of the automatic volume recognition routine on an unassigned tape or disc device (did). The volume serial number has been read and entered in the physical unit block. Job Control assigns this device to any job requesting this volume, provided the normal control stream conventions and requirements are satisfied.

ACTION:

Informational message. No operator action required.

ST56 did NO VOL1 RECORD

EXPLANATION:

A volume was mounted by means of the automatic volume recognition routine on an unassigned tape or disc device (did). The volume is not prepared or the VOL1 label cannot be read successfully. If it is a tape unit, the initial mode of the device may not be consistent with the mode on this volume. The operator has selected the U option to a Supervisor PIOCS display during automatic volume recognition processing. The tape is rewound to load point.

ACTION:

Resolve volume discrepancy if a prepped volume was mounted. If a tape unit, resolve possible mode conflict. If VOL1 label and mode are correct, investigate possible hardware malfunction. This message is normal when mounting a blank or bulk-erased tape by means of the automatic volume recognition routine.

ST57 did CHK DEVICE RTRY

EXPLANATION:

Automatic volume recognition routine cannot access the device (did) due to an unrecoverable I/O error.

ACTION:

Reinitiate the function.

ST58 did ALLOCATED PRIOR

EXPLANATION:

A volume was mounted by means of the automatic volume recognition routine on a device (did) already allocated to a job, or a volume is being mounted on a system device.

ACTION:

If the volume is being mounted at the request of Job Control, message is informational and no operator action is required. Normal volume checking is performed subject to existing rules and conventions. Otherwise, this message indicates an operational error. Review correct device assignment and remount previous volumes as required.

ST59 did DUP DISC volsn

EXPLANATION:

Disc volume was mounted by means of the automatic volume recognition routine and the volume serial number (volsn) read exists on another disc device. Duplicate disc volume serial numbers are not permitted.

ACTION:

Resolve volume discrepancy. The volume serial number may be cleared from an unassigned device by means of the MOUNT command.

ST62 REQ IGNRD INVLD DVC TYPE

EXPLANATION:

A device type was specified which may not be assigned; that is, the device type was not tape, disc, console (LOG only), printer (LST only), or punch (PCH only). The command is ignored.

ACTION:

Select correct device and retype the message.

ST64 REQ IGNRD DVC PREV ALLOC

EXPLANATION:

A nonshareable tape or disc, which is allocated to a job, has been requested, or a shareable tape has been requested. The command is ignored.

ACTION:

Select a free device and reissue the request.

ST65 REQ IGNRD SYSRES DVC

EXPLANATION:

The requested device is a system resident tape, which may not be allocated as a cooperative device. The command is ignored.

ACTION:

Select another device, and retype the command.

ST67 REQ IGNRD DVC NON-MATCH LOG=did LST=did PCH=did

EXPLANATION:

This SET command cannot be executed because different tapes and/or discs cannot be set simultaneously to LST, LOG, and PCH; however, the same device can be set to any combination of the three.

ACTION:

Select the tape or disc already assigned to another Cooperative function and retype command.

ST68 FILE ERROR

EXPLANATION:

The automatic file routine cannot successfully read cards from the system input (IPT) device.

ACTION:

Retry. If unsuccessful, investigate possible hardware malfunction.

ST69 FILE-statement

EXPLANATION:

A FILE Job Control statement was read in the system card reader device by the automatic file routine. The file function has been initiated.

ACTION:

Informational message. No operator action required.

ST70 DEVICE NOT IN ERROR

EXPLANATION:

No outstanding error exists on the device specified in the previous ANALYZE command.

ACTION:

Retype command using correct device ID.

ST71 INVALID TYPE-IN

EXPLANATION:

Device referenced in the previous ANALYZE command does not exist in the system.

ACTION:

Retype command using correct device ID.

ST72 ANALYZE COMPLETE

EXPLANATION

Indicates successful completion of the error analysis routine.

ACTION:

Normal error recovery procedure may now be initiated.

ST80 jobname nn/ss pMB xxxxxx ME xxxxxx MS xxxxxx

EXPLANATION:

The job name, number, step number, priority, and main storage partition for all jobs in the system are listed.

ACTION:

Informational message. No operator action required.

ST81 NO JOBS { ACTIVE }
 { FILED }

EXPLANATION:

If displayed in response to a LIST JOBS command, no jobs are resident (active) in the system. If displayed in response to a LIST JBFLE command, the job file is empty.

ACTION:

Informational message. No operator action required.

ST81 NO ERROR MSG

EXPLANATION:

There are no error messages for any device.

ACTION:

Informational message. No operator action required.

ST82 MB xxxxxx ME xxxxxx MS xxxxxx

EXPLANATION:

The starting address (MB), ending address (ME), and size (MS) of each unassigned main storage partition in the system are listed.

ACTION:

Informational message. No operator action required.

ST83 NO FREE STORAGE

EXPLANATION:

No unassigned main storage is available.

ACTION:

Informational message. No operator action required.

ST84 did type {UP} {FREE} } [S] [VSN={voln}] [MO=active/reset] [ALT=did] EC=nnnn
 {DO} {ALL} }
 {nn}

EXPLANATION:

A summary of information contained in the physical unit block is displayed. This display lists the devices specified by the LIST IO command. The options are displayed only when significant for that type of device. The message is repeated for each device.

UP or DO Device status is up or down.
 FREE Device is unassigned.
 ALL Device is allocated to all jobs or system devices.
 nn Job number. Up to four job numbers may be given.
 S Device is shareable.
 VSN Tape/disc volume serial number.
 MO Tape mode, active or reset.
 ALT Alternate device assignment.
 EC Error count — number of successful error recoveries since last Supervisor load.

ACTION:

Informational message. No operator action required.

ST85 nn DA=xx/xx/xx yyddd yyddd MT=hhh:mm:ss UT=hhh:mm:ss
 ST85 nn UPSI=xxxxxxxx COMREG=xxxxxxxx xxxxxxxx xxxxxxxx
 ST85 nn MSP=xxxxxx xxxxxx xxxxxx xxxxxx LR=xxxxxx xxxxxx
 ST85 nn JCBF= { nnn/xxxxxx } JBFLE= { did }
 { ccchh/rr } { ccchh }

EXPLANATION:

A summary of job information is displayed.

DA Date settings
 MT Maximum processor time allowed for job execution
 UT Processor time used by the job
 UPSI Switch setting, bit values
 COMREG Contents in hexadecimal representation
 MSP Main storage partition pointers (JP\$PAD)
 LR Limits register settings
 JBF/JCBF Job file/job control block file
 Tape: number of blocks/starting address
 Disc: disc address (cylinder, head, and record)
 JBFLE Job file
 Tape: system reader (RDR) device identification
 Disc: disc address of control stream

ACTION:

Informational message. No operator action required.

ST86 SPV=ii vv/rr CHR=xxxxxxxx DA=xx/xx/xx yyddd yyddd
ST86 PA=xxxxxx HA=xxxxxx SVC=xxx UJB=d TA=d TLM=mmm
ST86 JBF=ccchh TRF=ccchh SYS=ccchh TS1=sss TS2=sss TS3=sss
ST86 IPT=did LOG=did LST=did PCH=did RDR=did RES=did

EXPLANATION:

A summary of system information is displayed.

CHR	Supervisor characteristics
DA	System dates
HA	Final address in main storage
IPT	Current system input device assignment
JBF	Job file index address (disc only)
LOG	Current system logging device assignment
LST	Current system listing device assignment
PA	Main storage problem program starting address
PCH	Current system card punch assignment
RDR	Current system reader device assignment
RES	Current system resident device assignment
SPV	Supervisor identification, version, and revision
SVC	Last SVC number in the SVC table
SYS	System control area index address (disc only)
TA	Number of transient areas
TLM	Maximum allowable processor time (default)
TRF	Transient area index address (disc only)
TS1	Time slice value (msec) – user level 1
TS2	Time slice value (msec) – user level 2
TS3	Time slice value (msec) – user level 3
UJB	Number of user jobs possible

ACTION:

Informational message. No operator action required.

ST87 jobname jobname jobname

EXPLANATION:

All job names in the disc job file are displayed. The message is repeated until all filed job names are listed.

ACTION:

Informational message. No operator action required.

ST89 LIST { JOBS
STOR }
 { IO
 SIB } IGNORED xx
 { nn }

EXPLANATION:

No valid information for the indicated function could be displayed, where xx is defined as follows:

- 01 - I/O error occurred on disc.
- 02 - RDR device was not a disc. Only disc job files may be listed.
- 03 - No error; storage management was in progress. The output of a LIST STOR or LIST JOBS command would be meaningless.
- 10 - Unimplemented feature.

ACTION:

- 01 - Repeat command. If error persists, investigate possible hardware malfunction.
- 02 - None
- 03 - Repeat command. Display should now be possible.
- 10 - None

- SV00 SYSPool FORMAT 1 BLOCK NOT FOUND
- SV00 SYSPool FORMAT 1 BLOCK UNREADABLE
- SV00 MASTER INDEX BLOCK FOR POOL TABLE NOT FOUND
- SV00 MASTER INDEX BLOCK FOR POOL TABLE UNREADABLE
- SV00 MASTER INDEX BLOCK FOR JOBFILE INDEX NOT FOUND
- SV00 MASTER INDEX BLOCK FOR JOBFILE INDEX UNREADABLE
- SV00 TRANSIENT SVC EXECUTION AREA FORMAT 1 BLOCK NOT FOUND
- SV00 TRANSIENT SVC EXECUTION AREA FORMAT 1 BLOCK UNREADABLE
- SV00 SYSTEM CONTROL EXECUTION AREA FORMAT 1 BLOCK NOT FOUND
- SV00 SYSTEM CONTROL EXECUTION AREA FORMAT 1 BLOCK UNREADABLE
- SV00 ABSOLUTE PROGM EXECUTION AREA FORMAT 1 BLOCK NOT FOUND
- SV00 ABSOLUTE PROGM EXECUTION AREA FORMAT 1 BLOCK UNREADABLE

EXPLANATION:

The SV00 messages appear during the initial Supervisor load procedure of the Supervisor and indicate that required system files do not exist on the SYSRES disc. The SYSRES volume must be generated with the required system files.

ACTION:

Reinitiate the initial Supervisor load procedure. Validate SYSGEN procedures. If problem persists investigate possible hardware malfunction.

SV01 UNIVAC 9400 SUPERVISOR READY (ID=xx, VER vv REV rr)

EXPLANATION:

Indicates that the Supervisor is successfully loaded and ready for execution, where:

xx is the Supervisor ID.
vv and rr specify a four-digit number. The first two digits are the version number (vv), the last two digits are revision number (rr).

ACTION:

Informational message. No operator action required.

SV03 LD ER

EXPLANATION:

The tape loader cannot successfully complete a load request because the module will not fit in the main storage partition specified, there was a missing or duplicate block encountered in the Load library, the format of the block read in the Load library was invalid, or the block could not be read successfully.

ACTION:

Rerun the job allocating sufficient main storage. If error persists, use a different device and/or re-create the tape on which the error occurred. Investigate possible hardware malfunction if this fails.

SV04 LD ERR C

EXPLANATION:

The requested module does not exist in the specified library file.

ACTION:

Ensure that the module requested resides in the specified library. If error persists investigate possible hardware malfunction.

SV51 { CANCEL
CDIAG
DMEAR } REQUIRED? ANS. Y OR N
{ DUMP
SNAP }

EXPLANATION:

Effective when the MAYIDUMP option is specified and the indicated transient routine has output for the system list (LST) device. The reply specifies whether the output is to be initiated or ignored. If CANCEL and N are specified, a JT07 message is displayed. If CANCEL and Y are specified, a cancel dump is printed.

ACTION:

Select the proper response and reply. Because all routines displaying this message are transient, a delayed reply could reduce system efficiency. For Supervisors generated with one transient area, all jobs could go inactive if waiting for a transient function. The system list (LST) device must not be respecified at this time; the output is routed to the current LST device.

SV80 DMCC PKG? (A,B,...OR NONE)

EXPLANATION:

This message appears after the SV96 message during the IPL procedure if the DMCC parameter was specified on the SYSTEM Proc at Supervisor generation time. It is used to allow the console operator to call for the loading of the proper Data Management common code module. See Section 5 for further explanation.

ACTION:

Responses:

1. 09R NONE ☺
This indicates that no Data Management common code is desired.
2. 09R x ☺
where x indicates the replacement character in a DMCC module name $\$Y\$MAx00$ (x is limited to the characters 0-9 and A-Z).

SV81 DMCC LOCATE ERROR

EXPLANATION:

This message appears if the DMCC module identified by $\$Y\$MAx00$ cannot be found.

ACTION:

This message is immediately followed by the SV80 message, thus allowing the operator another attempt at locating the module.

SV82 DMCC LOAD ERROR

EXPLANATION:

The desired DMCC module can be located but cannot be loaded successfully.

ACTION:

The message is immediately followed by the SV80 message, thus allowing the operator another attempt at loading the module.

SV83 DMCC I.D. ERROR

EXPLANATION:

The DMCC module is successfully located and loaded but is not properly identified internally by the name \$Y\$MAx00.

ACTION:

The message is immediately followed by the SV80 message, thus allowing the operator another attempt at loading the module.

SV89 SYSRES VTOC UNREADABLE

EXPLANATION:

Format 4 label block in Volume Table of Contents (VTOC) is unreadable or missing.

ACTION:

Re-try initial Supervisor load procedure on a different disc device. Validate SYSGEN procedures. If problem persists, investigate possible hardware malfunction.

SV90 SYSRES STANDARD VOLUME LABEL UNREADABLE

EXPLANATION:

SYSRES standard volume label is unreadable or is not present.

ACTION:

Re-try initial Supervisor load procedure on a different disc device. Validate SYSGEN procedures. If problem persists, investigate possible hardware malfunction.

SV91 IPL=ii, VER=vv REV=rr. PROCEED? YES OR II,DDD (ID/DVC)

EXPLANATION:

Indicates that the IPL Loader is in storage and is ready to load either the version (vv) of the Supervisor or the Supervisor ID as specified by the operator in his reply.

ACTION:

Refer to Section 5 for action.

SV92 INVALID DEVICE ID

EXPLANATION:

The device specified in response to the SV91 message does not exist in the system.

ACTION:

Retype reply to SV91 message.

SV93 ii LOCATED

EXPLANATION:

Indicates that the Supervisor identification (ii) specified by the operator in his reply to message SV91 has been found.

ACTION:

Informational message. No operator action required.

SV94 LOCATE ERROR

EXPLANATION:

The Supervisor version specified by the operator in response to the SV91 message cannot be located on the current SYSRES tape volume.

ACTION:

Check the response to the SV91 message to determine if the response is valid. Resubmit correct version number and rerun.

SV96 VSN=volsn,DID=did

EXPLANATION:

volsn is the volume serial number of the system resident volume (for tape selection) or the volume serial number of the initial load volume (for disc selection).

did is the device identification of the system resident device (for tape selection) or the device identification of the initial load device (for disc selection).

See 5.4 for further explanation of the SV96 message.

ACTION:

Informational message. No operator action required.

SV97 REPLY — TAPE OR DISC/3-CHR-DVC-ID

EXPLANATION:

This message appears after the response to the SV91 message and appears only in combination tape/disc systems when booting from tape. See Section 5 for system initialization procedures.

ACTION:

Refer to Section 5 for action.

SV98 INVALID REPLY

EXPLANATION:

The reply to the SV97 message was improperly specified.

ACTION:

Respond with correct reply to SV97 message.

SV99 VSN = ??????

EXPLANATION:

The VOL1 record cannot be read on SYSRES tape.

ACTION:

Informational message. No operator action required. The Supervisor has been successfully loaded; however, the VOL1 label is unreadable. Processing can continue.

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A.26. SOFTWARE UTILITY MESSAGES

UAM1 HDR1 ERROR. REPLY (R,I,U)

EXPLANATION:

Discrepancy between the information in the HDR1 (header) record and the LBL statement (for example, creation date, file name, file ID).

ACTION:

Reply with R to re-try. Reply with I to ignore the error and continue processing. A reply of U causes a message to be printed on the output listing. The program is aborted.

UAM2 UNEXPIRED FILE. REPLY (R,I,U)

EXPLANATION:

The expiration date on the output file has not expired, or the system date has not been properly entered in the system.

ACTION:

If the date was omitted, ensure that a SET DATE command has been completed prior to rerunning the job.

Reply with R to re-try. Reply with I to ignore the error and continue processing. A reply of U causes a message to be printed on the output listing. The program is aborted.

UAM3 NO RING IN OUTPUT TAPE did PLEASE INSERT (R,U)

EXPLANATION:

The specified output tape does not contain a write enable ring, or the tape drive which was accessed is not in the ready state.

ACTION:

Insert write enable ring or mount the tape and place the tape drive in a ready state. Reply with R to re-try. A reply of U causes a message to be printed on the output listing. The program is aborted.

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A.27. PATCH ROUTINE TERMINATING MESSAGES

UA02 UNDEFINED LFD

EXPLANATION:

One of the I/O devices required by the program has not been specified in the control stream. Program is aborted.

ACTION:

Correct the control stream and rerun the job.

UA03 BLCK NMBR ERR

EXPLANATION:

The sequence check of block numbers from the input tape has encountered a block number which is not one greater than the previous block number.

ACTION:

Resolve block number discrepancy on the input tape and rerun the job.

UA04 MODULE FRMT ERR

EXPLANATION:

The transfer record of a load or object module which is to be patched cannot be found. The module to be patched may not be in standard system format. The program is aborted.

ACTION:

Resolve the discrepancy in the module to be patched, and rerun the job.

UA05 NO TRNS LDRS

EXPLANATION:

Tape loader (\$Y\$LDR00), which is written on the tape before each load module, cannot be located. Ensure that the tape loader (module name (\$Y\$LDR00) exists on the tape or disc Load library. The program is aborted.

ACTION:

Correct the Load library, if necessary, and rerun the job. If the problem persists, investigate possible hardware malfunction.

UA06 BLCK LNGTH ERR

EXPLANATION:

The leading block number does not equal the trailing block number. The program is aborted.

ACTION:

Resolve block number discrepancy and rerun the job.

END REEL ALL OUT TAPES

EXPLANATION:

The end-of-tape marker has been sensed on all output tapes. Program is aborted.

ACTION:

Rerun the job with longer output tapes.

END REEL ONE OUT TAPE

EXPLANATION:

The end-of-tape marker has been sensed on an output tape when copying to more than one tape. The program continues to copy to the remaining output tapes, but it will not rewind the short tape, or tapes, when the job is completed.

ACTION:

Informational message. No operator action required.

A.28. TAPE TO DISC COPY UTILITY MESSAGES

UB01 NO FCB

EXPLANATION:

One of the I/O devices required by the program is not in the control stream. (Required file names are PRNTR, TAPEIN, and DISKOT.) Program is aborted.

ACTION:

Correct the control stream and rerun the job.

UB02 TRACK OVERRUN

EXPLANATION:

A complete disc record cannot be written within track boundaries due to a disc hardware malfunction. The last allocated file is incomplete.

ACTION:

Mount DISKOT on another disc drive and process the remaining files or rerun the entire job.

UB03 TAPE FORMAT ERROR: BLOCK # block-number

EXPLANATION:

An error exists on TAPEIN at or near the indicated decimal block number. If the last operation was a control function, block number = 0.

1. Unsuccessful attempt to open the TAPEIN file due to one of the following conditions:
(a) First record block read was not a VOL1 block. (b) The volume serial number in the VOL1 block does not match the volume serial number specified for TAPEIN in the control stream. (c) An LBL control statement is present for TAPEIN and the file-ID or creation date specified does not match that in the HDR1 block. (d) Device type specified for TAPEIN in the DVC control statement is not a tape drive.
2. A block serial number error has been detected on TAPEIN.
3. The data blocks on TAPEIN are not in the required sequence.

ACTION:

1. Check the DVC and VOL control statements for TAPEIN.
2. Remove or correct the LBL control statement.
3. Print the VOL1 and HDR1 blocks to verify their presence and content.
4. Print the TAPEIN blocks in the vicinity of the block number indicated. Check the block number field of these blocks (bytes 1 and 2 counting from 0). If the block numbers are correct, the tape drive may have skipped a block. Mount TAPEIN on another drive and rerun.

UB05 MOUNT NEXT TAPE (#n) ON did, REPLY nnR R®

EXPLANATION:

This message is printed on the console when the input is continued on a subsequent volume.

ACTION:

Mount the indicated volume (#n) on the device specified by did. Reply when the tape is mounted and processing can resume. The message is printed out a second time if the reply is not R. If the reply is not R on the second try, the file name is written on the output listing in addition to an incomplete-volume error code, and the job is aborted.

UB06 END OF JOB

EXPLANATION:

Normal job termination.

ACTION:

Informational message. No operator action required.

UB07 NO START/END DATA

EXPLANATION:

Either a /\$ or /* control card (or both) is missing following the EXEC UTTPDC control statement.

ACTION:

Insert the missing statement and rerun the job.

UB08 INPUT INCOMPLETE. JOB TERMINATED

EXPLANATION:

A block size error (UC09) occurred during the UTDCTP run which created TAPEIN. UTDCTP terminated at that point, and the information on tape is incomplete.

ACTION:

Rerun UTDCTP using a UNISERVO 12/16 tape for TAPEOT. Then rerun UTTPDC.

UB09 8414 REQUIRED

EXPLANATION:

Output device must be an 8414 disc device.

ACTION:

Correct the control stream to specify an 8414 disc device as the output disc (DISKOT) and rerun the job.

UB10 DISC ERR filename

EXPLANATION:

An unrecoverable disc error has occurred.

ACTION:

Mount DISKOT on another disc drive and rerun. If problem persists, re-prep at least that area of disc containing the indicated file, and rerun the job.

UB11 NO VOL1

EXPLANATION:

Volume 1 label could not be found on the output disc. The program is aborted.

ACTION:

Ensure that the disc has been properly prepped, and rerun the job.

UB12 VSN ERR

EXPLANATION:

The volume serial number (VSN) specified in the VOL control statement does not match the VSN in the PUB for DISKOT.

ACTION:

Resolve volume serial number discrepancy, and rerun the job.

UB13 ABN TERM

EXPLANATION:

An abnormal condition has caused the job to be cancelled.

ACTION:

Check the console sheet and output listing for further error indications before rerunning the job.

UB14 FILENAME + ALL SUBSEQUENT RELOCATABLE: filename

EXPLANATION:

If the first file(s) written indicated absolute allocation, the file name of the first file not indicating absolute allocation is displayed. All files following this file sequentially on the input file (TAPEIN) are considered relocatable (occurs only when using the COPY ALL option).

ACTION:

Informational message. No operator action required.

UB15 SELECTOR CHANNEL INPUT REQUIRED

EXPLANATION:

An input tape (TAPEIN) was created on a tape unit other than a UNISERVO VI-C and must be mounted on a selector channel tape unit for this UTPDC run.

ACTION:

Rerun the entire job with the input tape mounted on a selector channel tape unit.

UB17 UNFORMATTED TRACK IN VTOC

EXPLANATION:

A track which has not been preformatted was discovered in the VTOC of the output disc. This is a warning message and does not mean that the copy was not completed successfully.

ACTION:

Informational message. No operator action required.

A.29. DISC TO TAPE COPY UTILITY MESSAGES

UC01 FCB ERR

EXPLANATION:

One of the I/O devices required by the program has not been specified in the control stream, or the volume serial number of the output disc (DISKOT) in the control block file (FCB) differs from the volume serial number in the VOL1 label. Program is aborted.

ACTION:

Correct the control stream or resolve volume serial number discrepancy and rerun the job.

UC02 TAPE I/O ERR

EXPLANATION:

Unrecoverable tape error. Program is aborted.

ACTION:

Rerun the job after specifying a different tape drive for the tape input file. If problem persists, investigate possible hardware malfunction.

UC03 MOUNT NEXT TAPE (#n) ON did, REPLY nnR R[Ⓢ]

EXPLANATION:

This message is printed on the console when the input is continued on a second volume.

ACTION:

Mount the indicated volume (#n) on the device specified by did. Reply when the tape is mounted and processing can resume. The message is printed out a second time if the reply is not R. If the reply is not R on the second try, the file name is written on the output listing in addition to an incomplete-volume error code, and the job is aborted.

UC04 NO START/END DATA

EXPLANATION:

Either a /\$ or /* control card is missing from the control stream.

ACTION:

Correct the control stream and rerun the job.

UC05 TRACK MISSING R0 CC=c₁c₁ HH=h₁h₁

EXPLANATION:

A track is missing a track descriptor record, where c₁c₁ is the cylinder number and h₁h₁ is the head number of the track.

ACTION:

Rerun the job using an alternate disc drive. If the rerun is unsuccessful, the tape to disc copy can not be accomplished.

UC06 NO DISC VOL1

EXPLANATION:

Volume 1 label could not be found on the output disc. The program is aborted.

ACTION:

Ensure that the disc has been properly prepped, and rerun the job.

UC07 VTOC ERR

EXPLANATION:

An error detected in the VTOC has made it impossible to copy the disc.

ACTION:

Re-establish the VTOC and rerun the job.

UC08 FILE ERR filename

EXPLANATION:

Either the file name on the COPY statement could not be found on the input disc and processing proceeds to the next COPY statement; or an error in the file has caused the termination of the copying of that file.

ACTION:

Ensure that the indicated file is present on DISKIN by examining the VTOC print. If the file is on DISKIN, check the extent information in the format 1 label for errors. After resolving the discrepancy, rerun the job.

UC09 BLOCK SIZE ERR

EXPLANATION:

A record which exceeds decimal 4095 (total number of bytes in overhead plus the count, key, and data areas) has been encountered on DISKIN while using a UNISERVO VI-C Tape Unit for TAPEOT.

ACTION:

Rerun the job specifying a UNISERVO 12/16 Tape Unit in the control stream for the tape output file (TAPEOT).

UC10 LABEL TAPE(S): SELECTOR CHANNEL INPUT REQUIRED

EXPLANATION:

Indicates that the operator should label the output tape with an indication that it was created on a UNISERVO 12/16 and therefore must be mounted on a UNISERVO 12/16 Magnetic Tape Unit for the UTTPDC00 run when restoring the disc. Processing continues after operator replies nnR R ☺ .

ACTION:

Operator should ensure tape is labeled as suggested; then reply nnR R ☺ .

UC11 DATA CHECK CC=c'c' HH=h'h' TRACK NOT COPIED filename

EXPLANATION:

A data check was encountered at cylinder c'c' and head h'h' in the named file. The track was not copied.

ACTION:

Rerun the job specifying a different disc drive. If problem persists, investigate possible hardware malfunction.

UC12 VTOC DATA CHECK CC=c'c' HH=h'h'

EXPLANATION:

A data check has been encountered in the area of the VTOC at cylinder c'c' and head h'h'. Job is terminated.

ACTION:

Rerun the job specifying a different disc drive. If problem persists, investigate possible hardware malfunction.

UC13 MISSING ADDRESS MARKER CC=c₁c₁ HH=h₁h₁

EXPLANATION:

A missing address marker was encountered at cylinder c₁c₁ and head h₁h₁.

ACTION:

The job is cancelled if this condition was encountered while reading the VTOC. If this condition occurs while reading a file, the file processing is terminated and the file is scratched when UTTPDC00 is run.

UC14 UTDCTP00 COMPLETED

EXPLANATION:

Job has terminated under normal conditions.

ACTION:

Informational message. No operator action required.

UC15 UTDCTP00 CANCELLED

EXPLANATION:

Job has been cancelled by UTDCTP00 due to an error condition.

ACTION:

Inspect the output listing and console sheet for additional error messages and take the appropriate action.

UC16 UNEXPIRED TAPE

EXPLANATION:

The Data Management expiration date has not been reached on the output tape (TAPEOT). The tape cannot be written on.

ACTION:

Rerun the job when the expiration date conflict has been resolved.

UC17 UNFORMATTED TRACK IN VTOC

EXPLANATION:

A track which has not been preformatted is discovered in the VTOC of the input disc. This is a warning message and does not mean that the copy was not completed successfully.

ACTION:

Informational message. No operator action required.

UC18 NON-ABSOLUTE ISAM FILE

EXPLANATION:

A COPY filename utility control statement has been encountered, where filename specifies an ISAM file. Processing terminates at this time and the specified ISAM file is not copied onto the tape. All previous utility control statements have been processed successfully unless there is an indication to the contrary.

ACTION:

Utilize the incomplete tape or correct the statement to read COPY filename,ABS and rerun the job.

A.30. DISC TO PRINT UTILITY MESSAGES

UD01 TYPE (A,X,B), FIRST TRACK, LAST TRACK OR END

EXPLANATION:

Displayed on the console when the requested values are not specified on PARAM statements in the control stream:

TYPE (A,X,B)

requests the specification of the type of printer listing desired, where A = alphanumeric, X = hexadecimal, and B = alphanumeric and hexadecimal.

FIRST TRACK

requests the typein of the starting address of the disc print in hexadecimal absolute format.

LAST TRACK

requests the typein of the absolute, ending address of the disc print in hexadecimal.

END

specifies that if no information is desired to be printed, END may be typed in to indicate this or to terminate the job.

ACTION:

Operator types the following if information is to be printed:

$$\left\{ \begin{array}{l} A \\ X \\ B \end{array} \right\}, ccch, ccch \textcircled{S}$$

where:

ccc = cylinder number

hh = track number

If no more information is to be printed the operator types: nnR END \textcircled{S}

If job termination is desired while the program is running the operator types: nn s, END \textcircled{S}

UD02 RDFCB ERROR

EXPLANATION:

One of the I/O devices required by the program has not been specified in the control stream. Job is terminated.

ACTION:

Correct the control stream and rerun the job.

UD03 UNRECOGNIZABLE TYPEIN

EXPLANATION:

An unsolicited typein was made to the program which was not recognized by UTDIPR00. The typein was ignored.

ACTION:

Informational message. No operator action required.

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A.31. DISC SPACE MANAGEMENT UTILITY (UTDSM) MESSAGES

UE01 message

EXPLANATION:

Message indicates information for the operator from the Disc Space Management OPR control card.

ACTION:

Message indicates action if any.

UE02 REPLACE VOLUME volsn BY VOLUME volsn R,I

EXPLANATION:

Replace the first disc volume specified by the second disc volume specified.

ACTION:

The operator should mount the new volume and reply with R when the volume is mounted and ready. If the volume cannot be mounted, the operator must reply with I (in this case, the program is aborted).

UE03 BAD REPLY TO PREVIOUS MESSAGE? R,I

EXPLANATION:

The Disc Space Management Utility program does not recognize the reply to message UE02.

ACTION:

Reply with R or I.

UE99 DISC SPACE MANAGEMENT CANCELLED

EXPLANATION:

An error occurred during statement processing causing the program to be cancelled. Refer to output listing for additional information.

ACTION:

Informational message. No operator action required.

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A.32. DISC TO DISC COPY UTILITY MESSAGES

UF01 NO FCB

EXPLANATION:

One of the I/O devices required by the program (PRNTR, DISKIN, and DISKOT) has not been specified in the control stream. The job is terminated.

ACTION:

Correct the control stream and rerun the job.

UF02 TRACK OVERRUN

EXPLANATION:

The complete disc record cannot be written within track boundaries due to a hardware malfunction (DISKOT). Job is aborted and process the remaining files, or rerun the entire job.

ACTION:

The last allocated file is incomplete. Mount DISKOT on another disc drive and rerun the job.

UF03 INPUT/OUTPUT DISC NOT SAME TYPE

EXPLANATION:

DISKOT and DISKIN are not both 8411 or 8414 devices. DISKIN and DISKOT must be the same type.

ACTION:

Use the same discs for DISKIN and DISKOT. Correct DVC and VOL statements if necessary.

UF04 VTOC ERR

EXPLANATION:

A format 4 disc label was not found at the address on DISKOT specified in its VOL1 label.

ACTION:

Reprep the VTOC of DISKOT and rerun the job.

UF05 TRACK MISSING R0 CC=c₁c₁ HH=h₁h₁

EXPLANATION:

The track descriptor record (R0) is missing from the specified track of DISKIN. The job is cancelled. The specified track cannot be processed by UTDCDC.

ACTION:

Reprep the disc area containing the file with the missing track descriptor record. Recreate the file and rerun the job.

UF06 END OF JOB

EXPLANATION:

Normal job termination.

ACTION:

Informational message. No operator action required.

UF07 NO START/END DATA

EXPLANATION:

Either a /\$ or /* control card is missing from the control stream following the EXEC UTDCDC statement.

ACTION:

Correct the control stream and rerun the job.

UF08 FILE ERR filename

EXPLANATION:

An error was detected in the specified file. The file has been scratched from DISKOT.

ACTION:

Using the VTOC print of DISKIN, check the extent information in the format 1 label of the specified file for errors.

UF09 VTOC DATA CHECK CC=c₁c₁ HH=h₁h₁

EXPLANATION

A data check occurred while reading the VTOC on DISKIN at the specified disc address. Job is cancelled.

ACTION:

Mount DISKIN on another disc drive and rerun the job. If problem persists, recreate the VTOC.

UF10 DISC ERR { filename }
 { VOL1 }

EXPLANATION:

VOL1 indicates a data check or missing address marker was encountered while attempting to read the VOL1 label on DISKOT. Job is cancelled.

filename indicates an I/O error (other than track-overrun) has occurred while writing on DISKOT. Job is cancelled.

ACTION:

Mount DISKOT on another drive and rerun the job. If error persists, reprep DISKOT and rerun the job.

UF11 NO VOL1

EXPLANATION:

Volume 1 label (SVL) could not be found on DISKIN or DISKOT.

ACTION:

Print track 0 of cylinder 0 to see if the VOL1 label (SVL) is present. If not, the disc must be recreated. If the VOL1 label is present, rerun the job using a different disc drive.

UF12 VSN ERROR

EXPLANATION:

The volume serial number (VSN) in the PUB assigned to DISKOT does not match the VSN in the VOL1 disc label. Job is cancelled.

ACTION:

Ensure that the VSN in the VOL statement matches that in the VOL1 disc label on DISKOT. Print track 0 of cylinder 0 to inspect the VOL1 label if necessary. Rerun the job.

UF13 ABN TERM

EXPLANATION:

UTDCDC terminated abnormally due to an error elsewhere.

ACTION:

Check prior console messages and output listing for further information.

UF14 NON-ABSOLUTE ISAM FILE

EXPLANATION:

An ISAM file was encountered which had not been specified as a file to be copied absolutely.

ACTION:

Rerun the job specifying that all ISAM files are to be copied absolutely. Use the COPY ALL utility statement or the ABS parameter on the ADD filename or COPY filename utility statement.

UF15 MISSING ADDRESS CC=c₁c₁ HH=h₁h₁

EXPLANATION:

A missing address marker was encountered at cylinder c₁c₁ and head h₁h₁.

ACTION:

The job is cancelled if this condition was encountered while reading the VTOC. If the condition occurs while reading a file, file processing is terminated and the file is scratched from DISKOT. The remaining files are then processed.

UF16 DATA CHECK CC=c₁c₁ HH=h₁h₁ TRACK NOT COPIED filename

EXPLANATION:

A data check was encountered while reading the specified file at the specified disc address of DISKIN. The remainder of the specified track is not copied to DISKOT.

ACTION:

Mount DISKIN on another disc drive and rerun the job. If the problem persists, re-create the specified file on DISKIN and rerun the job.

UF17 UNFORMATTED TRACK IN VTOC

EXPLANATION:

A track which had not been preformatted was discovered in the VTOC of the input or output disc. This is a warning message and does not mean that the copy was not completed successfully.

ACTION:

Informational message. No operator action required.

UF18 DISKIN VSN=DISKOT VSN

EXPLANATION:

DISKIN and DISKOT have the same volume serial number.

ACTION:

Correct control stream and rerun the job.

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A.33. DISC MAPPING (DACMAP) MESSAGES

UM02 PARAM STMT MISSING/ERR

EXPLANATION:

PARAM statement specifying console and/or printer listing of output is missing or incorrect. DACMAP is aborted.

ACTION:

Correct the control stream and rerun the job.

UM03 PRNTR NOT ALLOCATED

EXPLANATION:

The printer has not been allocated in the control stream. If the user does not wish any printed output, he does not have to allocate the printer. If the user tries to use the printer, this message will abort his DACMAP run.

ACTION:

Informational message. No operator action required.

UM04 /\$ MISSING/ERR

EXPLANATION:

A required /\$ statement is missing. DACMAP is aborted.

ACTION:

Correct the control stream and rerun the job.

UM05 STMT OR /* NOT RECOG

EXPLANATION:

Required parameters are missing or are in the wrong format, or a /* statement has not been found. DACMAP is aborted.

ACTION:

Correct the parameter statement or /* statement, put it in the correct position in the deck, and rerun the job.

UM06 DACMAP COMPLETED

EXPLANATION:

Disc mapping operations completed.

ACTION:

Informational message. No operator action required.

UM07 ABOVE STMNT - ERR

EXPLANATION:

If the first parameter is not MAP, ADD, DEL, LIM or LST, or if any parameter is incorrectly specified, the statement is in error. Processing continues, refer to output listing for additional information.

ACTION:

Informational message. No operator action required.

UM08 DACMAP ABORTED

EXPLANATION:

Operations aborted due to unrecoverable problem. Job is terminated.

ACTION:

Rerun the job. If problem persists, investigate possible hardware malfunction.

UM09 ABOVE STMNT - ERR - ANP

EXPLANATION:

An incorrect parameter caused an operation not to be performed. Processing continues. Refer to output listing for additional information.

ACTION:

Informational message. No operator action required.

UM10 REQ STMNT MISSING/ERR - ANP

EXPLANATION:

Missing or incorrect ADD, MAP, DEL, LIM or LST specified in the statement. Processing continues. Refer to the output listing for additional information.

ACTION:

Informational Message. No operator action required.

UM11 MODULE NOT FOUND – ANP

EXPLANATION:

Module to be added or deleted has not been found. Action specified was not performed.

ACTION:

Ensure that the specified module is on LIBIN or ALTLIB device for next run before rerunning the job.

UM12 REQ FILE NOT ALLOC – ANP

EXPLANATION:

The file name was not specified by means of an LFD statement in the control stream; therefore, the file was not allocated.

ACTION:

Rerun the job after adding the appropriate LFD statement to the control stream.

UM13 TAPE UNREC ERR – ANP

EXPLANATION:

An unrecoverable tape error has prevented the operation from being performed.

ACTION:

Informational message. No operator action required.

UM14 TAPE BLK CNT ERR – ANP

EXPLANATION:

Incorrect block number prevents the operation from being performed.

ACTION:

Informational message. No operator action required.

UM15 TRANSFER RCD MISSING – ANP

EXPLANATION:

LIBIN or ALTLIB tape is not in standard system tape format (last record on a load or object module missing). This will probably require regenerating the module in question. Refer to output listing for additional information.

ACTION:

Rerun the job and ensure that modules are in the correct format.

UM18 BLK LENGTH ERR — ANP

EXPLANATION:

Incorrect block length on module being mapped from tape prevents the operation from being performed.

ACTION:

Rerun the job after appropriate correction made.

UM19 FILE SPACE NOT ALLOC — ANP

EXPLANATION:

Space was not allocated for a defined file in the job.

ACTION:

Rerun the job including the proper extent cards required for space allocation of the file in question.

UM20 VOL NOT MNTD — ANP

EXPLANATION:

LIBIN or ALTLIB volume is not mounted, or the VSN is missing after a file identifier on the LBL card.

ACTION:

Check LIBIN and ALTLIB for missing or incorrect VSN. Check all LBL cards for missing or invalid VSN. Correct problem and rerun the job.

UM21 DISC UNREC ERR — ANP

EXPLANATION:

Unrecoverable disc problem prevented the completion of the operation.

ACTION:

Reprep the disc and rerun the job.

UM22 DIR SPACE UNAVAIL — ANP

EXPLANATION:

Space allocated for file directory has been filled.

ACTION:

Scratch (using UTDSM) all previous allocations for the file and reallocate larger directory are on the first extent. Remap the entire file and rerun the job.

UM24 PREV VER REPLACED IN DIR

EXPLANATION:

This is a DACMAP response to an answer of YES to message UM29.

ACTION:

Informational message. No operator action required.

UM25 DISC SPACE INVLD - ANP

EXPLANATION:

The index does not end on the last track of the cylinder, or SYSPool does not begin or end on an integral cylinder boundary, or the index is larger than one cylinder.

ACTION:

Reprep the disc and rerun the job, or scratch (using UTDSM) all previous allocations for the file and reallocate the correct amount of index space on the first extent. Remap the file and rerun the job.

UM26 DISC SPACE INSUFF - ANP

EXPLANATION:

Mapping New Files:

An incorrect number of extents was allocated for the file or the amount of space for the module area specified in the second extent for the file is insufficient.

Mapping Old Files:

Area containing the modules has been filled when replacing modules or file is not large enough to accept new modules.

ACTION:

Mapping New Files:

Scratch (using UTDSM) all previous allocation for the file and reallocate with proper extents. Rerun the job.

Scratch (using UTDSM) the previous allocation for the module area of the file and then reallocate specifying a larger area on the second extent. Rerun the job.

Mapping Old Files:

Remap the entire file or scratch (using UTDSM) the previous allocation for the module area of the file and then reallocate specifying a larger area on the second extent and remap the file.

UM27 VOL UNREADABLE - ANP

EXPLANATION:

The volume was not prepped with standard labels, or the VTOC is not intact.

ACTION:

Reprep the disc with standard labels and rerun the job.

UM28 FMT 1 BLK WRITE ERROR

EXPLANATION:

An error was encountered when updating a format 1 block.

ACTION:

Remap the entire file in question.

UM29 REPLACE MODULE module OK? REPLY YES OR NO

EXPLANATION:

Request for the replacement of the specified module.

ACTION:

Response of YES results in message UM24; response of NO results in message UM31.

UM30 CONFIRM VOLUME MOUNTING FOR volsn

EXPLANATION:

Confirm volume mounting for the specified LIBIN or ALTLIB volume (volsn).

ACTION:

When volume mounting is confirmed, reply with YES.

UM31 PREV VER NOT REPLACED

EXPLANATION:

This is a DACMAP response to an answer of NO to message UM29.

ACTION:

Informational message. No operator action required.

UM32 LOAD PROBLEM

EXPLANATION:

DACMAP has encountered a LOAD error when attempting to load a phase. Ensure that all of the phases of DACMAP are present in the System Load library. DACMAP is aborted.

ACTION:

Correct the Load library if necessary and rerun the job. If the problem persists, investigate the possibility of a hardware malfunction.

UM33 TRAN EXCEEDS 1536 - ANP

EXPLANATION:

DACMAP has attempted to construct a Transient module from a Load module whose size exceeds the maximum allowable size of 1536 bytes for a Transient module. DACMAP processing continues. The Load module must be corrected so that its size is less than 1536 bytes before rerunning the job.

ACTION:

Informational message. No operator action required.

UM34 MISSING LFD SYSMAP

EXPLANATION:

A logical file definition of SYSMAP is required for the output disc and it has not been specified in the control stream. DACMAP is aborted.

ACTION:

Correct the control stream and rerun the job.

UM35 INVLD NO. OF EXTENTS FOR { SYSTRAN }
{ SYSPPOOL }
{ SYSCTRL }
{ SYSABS }

EXPLANATION:

The number of extents allocated to the specified file is incorrect.

ACTION:

The specified file must be scratched (via UTDSM) and reallocated correctly. Then the job can be rerun.

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A.34. TAPE PREP MESSAGES

UP01 DISMOUNT TAPES

EXPLANATION:

This message is typed after all mounted tapes have been written and rewound with interlock. Those tapes requiring labeling may now be labeled.

ACTION:

Informational message. No operator action required.

UP02 TAPEOT0n = VOL. SER. NO. volsn = yyyyyyyyyy

EXPLANATION:

This message causes a display of a list of the logical unit names (TAPEOT01...,TAPEOT09), volume serial number (volsn), and owner identification (yyyyyyyyyy) for each tape labeled.

ACTION:

The operator should label the tapes before mounting the next series of tapes.

UP03 MOUNT BLANK TAPES ON ALL AVAILABLE UNITS. REPLY (C) CONTINUE

EXPLANATION:

Blank tapes should be mounted on all units previously defined by LFD Job Control statements. If a reply other than C is typed in, UTPREP routine goes directly to end-of-job control.

ACTION:

Mount the necessary blank tapes; then reply nnR C Ⓢ to continue processing.

UP04 END OF JOB

EXPLANATION:

UTPREP00 routine has come to a normal completion, and control is released to the system.

ACTION:

Informational message. No operator action required.

UP10 PARAM CARD ERROR

EXPLANATION:

Error encountered on PARAM statement.

ACTION:

Correct control stream and rerun the job.

A.35. REPRODUCER MESSAGES

UR01 INCORRECT PARAMETER

EXPLANATION:

Error encountered on PARAM statement. Program is aborted.

ACTION:

Correct the control stream and rerun the job.

UR02 NO PARAMETER CARD

EXPLANATION:

The second parameter statement (*P) is missing or out of sequence. Program is aborted.

ACTION:

Correct the control stream and the rerun job.

UR03 NO START/END OF DATA

EXPLANATION:

Either the /\$ or /* statement is missing. Program is aborted.

ACTION:

Correct the control stream and rerun the job.

UR04 FCB NOT FOUND

EXPLANATION:

One of the I/O devices required by the program has not been specified in the control stream (punch and/or printer). Program is aborted.

ACTION:

Check control stream and rerun the job.

UR06 END OF JOB

EXPLANATION:

UTREPRO0 has come to a normal completion and control is released to the system.

ACTION:

Informational message. No operator action required.

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A.36. SYMBOLIC ANALYZER MESSAGES

US01 CONTROL STREAM ERROR

EXPLANATION:

Either a /\$ or /* statement is missing from the control stream, or the card preceding the /* statement has a nonblank in the continuation column.

ACTION:

Correct the control stream and rerun the job.

US02 RDFCB ERROR

EXPLANATION:

The required output device is not specified in the control stream. Program is aborted.

ACTION:

Correct the control stream and rerun the job.

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A.37. TAPE TO PRINT UTILITY MESSAGES

UT01 TYPEIN: TYPE(A,X,B), FIRST BLOCK, LAST BLOCK, N, S OR END

EXPLANATION:

Displayed when the requested values are not specified in PARAM cards in the control stream:

TYPE (A,X,B)

requests the specification of the type of printer listing desired, where A=alphanumeric, X=hexadecimal, B=alphanumeric and hexadecimal. One of these values is required.

FIRST BLOCK

requests the typein of the starting block number relative to the first block or the tape; if block 1 is a tape mark, the words "FILE MARK" are printed, and numbering begins with block 2.

LAST BLOCK

requests the typein of the ending block number of information to be printed.

N

when used in response, indicates that if the input tape is in standard format, the program is to attempt to read past two tape marks.

S

When used in response, indicates that the rewinding of the input tape is to be suppressed.

END

when used in response, indicates that if the input tape is in standard format, the program attempts to read past two tape marks.

ACTION:

Operator types the following if information is to be printed:

$$\left\{ \begin{array}{l} A \\ X \\ B \end{array} \right\} [,xxxxxx] [,yyyyyy] [,N][,S]$$

where:

xxxxxx = 1 to 6 decimal digits indicating the starting block number; if blank or zero, block 1 is assumed.

yyyyyy = 1 to 6 decimal digits indicating the ending block number; if blank, 9999 is assumed.

N = typed if the input tape format is non-standard; if blank, standard input is assumed.

S = typed if the input tape is not to be rewound; if blank, the tape is rewound.

If no more information is to be printed, the operator types:

nnR END Ⓢ

If job termination is desired while the program is running, the operator types:

nn Ⓢ ,END Ⓢ

UT02 RDFCB ERROR

EXPLANATION:

One of the I/O devices required by the program has not been specified in the control stream. Program is aborted.

ACTION:

Correct the control stream and rerun the job.

UT03 UNRECOGNIZABLE TYPIN

EXPLANATION:

An unsolicited typein was made to the program which was not recognized by UTTPR00. The typein was ignored.

ACTION:

Informational message. No operator action required.

A.38. UTILITY ROUTINE MESSAGES

Certain messages have information printed in addition to the message code. These are:

■ Statement Error

UUxy qqqq p OR UUxy p OR UUxy

where:

qqqq is the codeword in error
p is the number of the positional parameter in error.
xy is an error identifier.

■ Sequence Check Error

UU32 LAST aaaaaaaaa NEW ccccccccc

where:

aaaaaaaa is the sequence number of the previous card.
cccccccc is the sequence number of the current card.

■ Data Management Fatal Error

UUxS dm filename

where:

x is 3, 4, or 5.
dm is the Data Management error code.
filename is the name of the file in error as specified on the LFD statement.

Register 6 contains the reason for termination which was placed in register 0 by Data Management. See *UNIVAC 9400 System Data Management System Programmer Reference, UP-7629* (current version) for information regarding error codes and messages.

■ Error message displayed for DAM and ISAM

UUxy filename qqqq

where:

x is 3, 4, or 5.
y is F, G, H, K, L, or M.
filename is the name of the file in error as specified on the LFD statement.
qqqq is the DAM or ISAM contents of error byte in hexadecimal.

■ Compare routine error message

UU4y filename

where:

y is 2 or 3.
filename is the name of the file in error as specified on the LFD statement.

■ Job Termination Message

UU3E EOJ

where:

EOJ indicates a successful job termination.

A.38.1. FILE TRANSFER FUNCTION MESSAGES

Following are the error messages produced by the file transfer function of the Data Utility routine:

UU00 EXPLANATION:

Error on overlay load of DATA0100. Program is aborted.

ACTION:

Check Load library to verify that DATA0100 is in the library. Rerun the job. If error persists, investigate possible hardware malfunction.

UU10 EXPLANATION:

Error overlay load of DATA0200. Program is aborted.

ACTION:

Check Load library to verify that DATA0200 is in the library. Rerun the job. If error persists, investigate possible hardware malfunction.

UU12 EXPLANATION:

Unrecognizable code word. Program is aborted.

ACTION:

Correct control stream and rerun the job.

UU13 EXPLANATION:

No codeword defined. Program is aborted.

ACTION:

Correct control stream and rerun the job.

UU14 EXPLANATION:

Statement encountered was not a PARAM statement. Program is aborted.

ACTION:

Correct control stream and rerun the job.

UU15 EXPLANATION:

Duplicate codeword or redundant RBLCK, COPY, COMP, or CORR function specified. Program is aborted.

ACTION:

Correct control stream and rerun the job.

UU16 EXPLANATION:

Parameter missing. Program is aborted.

ACTION:

Correct control stream and rerun the job.

UU17 EXPLANATION

Required parameter missing. Program is aborted.

ACTION:

Correct control stream and rerun the job.

UU18 EXPLANATION:

Invalid or unrecognizable parameter encountered. Program is aborted.

ACTION:

Correct control stream and rerun the job.

UU19 EXPLANATION:

Parameter specification is too large (SEL, DEL, H1, H2, H3, ISEQ, or OSEQ). Program is aborted.

ACTION:

Correct control stream and rerun the job.

UU1A EXPLANATION:

Invalid punctuation encountered. Program is aborted.

ACTION:

Correct control stream and rerun the job.

UU1B EXPLANATION:

Nondecimal character encountered. Program is aborted.

ACTION:

Correct control stream and rerun the job.

UU1D EXPLANATION:

Job is cancelled. Check previous messages.

ACTION:

Informational message. No operator action required.

UU1E EXPLANATION:

Error occurred in control stream reader. Program is aborted.

ACTION:

Rerun the job. If error persists, investigate possible hardware malfunctions.

UU1F EXPLANATION:

Insufficient space available in main storage for the Field Select table. Refer to *UNIVAC 9400 System Data Utility Routine Programmer Reference, UP-7849* (current version), Appendix E.

ACTION:

Assign more main storage when it becomes available and rerun the job.

UU1G EXPLANATION:

Invalid parameter for specified device. Program is aborted.

ACTION:

Correct control stream and rerun the job.

UU1H EXPLANATION:

ASCII is specified in a PARAM statement but the ASCII Supervisor is not resident. Job is cancelled.

ACTION:

Rerun the job with an ASCII Supervisor.

UU1K EXPLANATION:

Parameter value is illegal-0. Program is aborted.

ACTION:

Correct control stream and rerun the job.

UU1Z EXPLANATION:

Insufficient main storage for next phase. Refer to *UNIVAC 9400 System Data Utility Routine Programmer Reference, UP-7849* (current version), Appendix E.

ACTION:

Assign more main storage when it becomes available and rerun the job.

UU20 EXPLANATION:

Error encountered on overlay load of DATA0300 or DATA0400. Program is aborted.

ACTION:

Check Load library to verify that DATA0300 or DATA0400 is in the library. Rerun the job. If error persists, investigate possible hardware malfunction.

UU21 EXPLANATION:

Record size not a multiple of block size (tape, disc). Program is aborted.

ACTION:

Correct input and output PARAM statements and rerun the job.

UU22 EXPLANATION:

Invalid record format (UNDEF specified with RBLCK or field select; variable records specified with DAM; or variable or undefined specified with ISAM). Program is aborted.

ACTION:

Correct control stream and rerun the job.

UU23 EXPLANATION:

Binary mode specified with print and punch. Program is aborted.

ACTION:

Correct control stream and rerun the job.

UU24 EXPLANATION:

Invalid block size. Program is aborted.

ACTION:

Check input and output statements and rerun the job.

UU25 EXPLANATION:

Card sequencing specified with binary mode. Program is aborted.

ACTION:

Correct control stream and rerun the job.

UU26 EXPLANATION:

Invalid column number for card sequencing (starting column plus length is greater than block size). Program is aborted.

ACTION:

Correct ISEQ and OSEQ statements and rerun the job.

UU27 EXPLANATION:

Card block size is not equal to record size. Program is aborted.

ACTION:

Correct input and output statements and rerun the job.

UU28 EXPLANATION:

Page numbering, header, or line spacing specified with first character forms control; INPUT1 device type is not equal to INPUT2 device type for comparison, input device type not equal to output device type for corrections. Program is aborted.

ACTION:

Correct control stream and rerun the job.

UU29 EXPLANATION:

Invalid output device; invalid device for comparison or correction; DAM specified with comparison or correction.

ACTION:

Check control stream and rerun the job.

UU2A EXPLANATION:

User label routine specified with ISAM. Program is aborted

ACTION:

Correct control stream and rerun the job.

UU2B EXPLANATION:

Illegal key length.

ACTION:

Correct control stream and rerun the job.

UU2C EXPLANATION:

Field select, select-delete, PRPUN, or first character forms control specified with display mode.

ACTION:

Correct control stream and rerun the job.

UU2D EXPLANATION:

Job is canceled. Check previous messages for additional information.

ACTION:

Informational message. No operator action required.

UU2E EXPLANATION:

Input record size is not equal to the output record size and field select is not specified; INPUT1 record size is not equal to INPUT2 record size for compare; input record size is not equal to output record size for correct routine. Program is aborted.

ACTION:

Correct control stream and rerun the job.

UU2F EXPLANATION:

Input block size is not equal to output block size and RBLCK or printer output is not specified; INPUT1 blocksize is not equal to INPUT2 block size for comparison; input blocksize is not equal to output block size for correction. Program is aborted.

ACTION:

Correct control stream and rerun the job.

UU2G EXPLANATION:

Keys are referenced but no key length is specified; INPUT1 key length is not equal to INPUT2 key length for comparison. Program is aborted.

ACTION:

Correct control stream and rerun the job.

UU2H EXPLANATION:

Field select statement requests hexadecimal conversion for other than printer output. Program is aborted.

ACTION:

Correct control stream and rerun the job.

UU2J EXPLANATION:

Invalid record size. Program is aborted.

ACTION:

Correct FS statement and rerun the job.

UU2K EXPLANATION:

Field select length invalid. Program is aborted.

ACTION:

Correct FS statement and rerun the job.

UU2L EXPLANATION:

Field select attempted in first four bytes of a variable-length record. Program is cancelled.

ACTION:

Correct FS statement and rerun the job.

UU2M EXPLANATION:

Keys are referenced in field select but no key length is given. Program is aborted.

ACTION:

Correct control stream and rerun the job.

UU2N EXPLANATION:

Field selected output record exceeds output record size or output block size. Program is aborted.

ACTION:

Correct FS statement and rerun the job.

UU2P EXPLANATION:

Record to be field selected exceeds input record size. Program is aborted.

ACTION:

Correct FS statement and rerun the job.

UU2Q EXPLANATION:

Invalid record format specified with copy variable. Program is aborted.

ACTION:

Correct COPY or RBLCK statement and rerun the job.

UU2R EXPLANATION:

Generated code will not fit in available main storage. Program is aborted.

ACTION:

Assign more main storage when available and rerun the job. Refer to *UNIVAC 9400 System Data Utility Routine Programmer Reference, UP-7849* (current version), Appendix E.

UU2S EXPLANATION:

Keys specified with an illegal device. Program is aborted.

ACTION:

Correct control stream and rerun the job.

UU2T EXPLANATION:

Sequence option specified for device other than reader or punch. Program is aborted.

ACTION:

Correct control stream and rerun the job.

UU2U EXPLANATION:

Reader option specified for device other than printer. Program is aborted.

ACTION:

Correct control stream and rerun the job.

UU2V EXPLANATION:

Key location error. Program is aborted.

ACTION:

Correct INPUT and OUTPUT statements and rerun the job.

UU2W EXPLANATION:

Cylinder overflow file error. Program is aborted.

ACTION:

Correct input and output statements and rerun the job.

UU2X EXPLANATION:

Invalid or missing option for specified device. Program is aborted.

ACTION:

Correct control stream and rerun the job.

UU2Y EXPLANATION:

COPY or RBLCK not specified or no PARAM statements specified. Program is aborted.

ACTION:

Correct control stream and rerun the job.

UU2Z EXPLANATION:

Next phase will not fit in main storage. Program is aborted.

ACTION:

Assign more main storage when available and rerun the job. Refer to *UNIVAC 9400 System Data Utility Routine Programmer Reference, UP-7849* (current version), Appendix E.

UU30 EXPLANATION:

Error on overlay load of file sets DATA0500 and up. Program is aborted.

ACTION:

Check Load library to verify that proper file set is in the library. Rerun the job. If error persists, investigate possible hardware malfunction.

UU31 EXPLANATION:

File set for requested device is not in the library. Program is aborted.

ACTION:

Ensure that the Load library for the requested file set exists. Rerun the job.

UU32 EXPLANATION:

Input sequence error.

ACTION:

Informational message.

UU33 EXPLANATION:

End-of-file mark reached before reaching requested first option record.

ACTION:

Correct positional parameter 2 in the COPY or RBLCK statement and rerun the job.

UU34 EXPLANATION:

Insufficient main storage assigned for necessary input/output areas. Program is aborted.

ACTION:

Assign more main storage when available and rerun the job. Refer to *UNIVAC 9400 System Data Utility Routine Programmer Reference, UP-7849* (current version), Appendix E.

UU35 EXPLANATION:

Input record will not fit in output file. Program is aborted.

ACTION:

Correct OUTPUT statement and rerun the job.

UU38 EXPLANATION:

Invalid option. Program is aborted.

ACTION:

Correct control stream and rerun the job.

UU3A EXPLANATION:

File set is not consistently defined as either ASCII or EBCDIC in the PARAM statement and the corresponding LFD statement. Job is cancelled.

ACTION:

Resolve inconsistency and rerun the job.

UU3D EXPLANATION:

Job is cancelled. Check previous messages for additional information.

ACTION:

Informational message. No operator action required.

UU3E EXPLANATION:

End of Job

ACTION:

Informational message. No operator action required.

UU3F EXPLANATION:

Write length record for DAM. If records are fixed length, check to see if key and data lengths differ from the key and data lengths on the disc. If records are undefined, check to see if the key length differs from the key length of the disc, and if the data size of the disc record is greater than the data size given on the INPUT statement.

ACTION:

Correct control stream and rerun the job.

UU3G EXPLANATION:

DAM data check. Program is aborted.

ACTION:

Rerun the job. If error persists, investigate possible hardware malfunction.

UU3H EXPLANATION:

Invalid identification; DAM output file does not contain enough tracks to hold the input data. Program is aborted.

ACTION:

Reallocate file space and rerun the job.

UU3K EXPLANATION:

Error encountered while processing an ISAM file. Program is aborted.

ACTION:

Refer to *UNIVAC 9400 System Data Management System Programmer Reference, UP-7629* (current version) for contents of errbyte (qqqq).

UU3L EXPLANATION:

No room found for data (DAM file).

ACTION:

Rerun the job. If problem persists, investigate possible hardware malfunction.

UU3M EXPLANATION:

Clear track error (DAM).

ACTION:

Rerun the job. If error persists, investigate possible hardware malfunction.

UU3S EXPLANATION:

Data Management fatal error.

ACTION:

Refer to *UNIVAC 9400 System Data Management System Programmer Reference, UP-7629* (current version) for error code (xx).

UU3Z EXPLANATION:

File sets will not fit into available main storage.

ACTION:

Assign more main storage when available, and rerun the job. Refer to *UNIVAC 9400 System Data Utility Routine Programmer Reference, UP-7849* (current version), Appendix E.

A.38.2. COMPARE FUNCTION MESSAGES

Following are the error messages produced by the compare function of the Data Utility routine:

UU42 EXPLANATION:

End-of-file mark detected on a comparison file before a specified number of records or blocks (see POS1 and POS2 Subfunction Statements) could be positioned. Normal termination occurs.

ACTION:

Informational message. No operator action required.

UU43 EXPLANATION:

End-of-file detected on one compared file but not on the other normal termination occurs.

ACTION:

Informational message. No operator action required.

UU46 EXPLANATION:

The specified number of disagreements occurred in succession during comparison.

ACTION:

Informational message. No operator action required.

UU48 EXPLANATION:

Invalid option. Program is aborted.

ACTION:

Correct control stream and rerun the job.

UU4D EXPLANATION:

Job is cancelled. Check previous messages for additional information.

ACTION:

Informational message. No operator action required.

UU4E EXPLANATION:

End of Job.

ACTION:

Informational message. No operator action required.

UU4K EXPLANATION:

Error encountered while processing an ISAM file. Program is aborted.

ACTION:

Refer to *UNIVAC 9400 System Data Management System Programmer Reference, UP-7629* (current version) for contents of errbyte (qqqq).

UU4S EXPLANATION:

Data Management fatal error. Program is aborted.

ACTION:

Refer to *UNIVAC 9400 System Data Management System Programmer Reference, UP-7629* (current version) for error code (xx).

UU55 EXPLANATION:

Input record will not fit in output record area. Program is aborted.

ACTION:

Correct output statement and rerun the job.

UU58 EXPLANATION:

Invalid option. Program is aborted.

ACTION:

Correct control stream and rerun the job.

UU5N EXPLANATION:

A control word is missing. Correction ID data is not on the same card as the ID word. All cards are ignored until the next ID control word.

ACTION:

Informational message. No operator action required.

UU5P EXPLANATION:

Incorrect separator on a control card. A comma is assumed and the program continues.

ACTION:

Informational message. No operator action required.

UU5Q EXPLANATION:

A decimal value is too large; an expected decimal value contains an alphabetic character; an expected value is missing. All cards are ignored until the next control word is encountered.

ACTION:

Informational message. No operator action required.

UU5R EXPLANATION:

Incorrect character used as a positional parameter, which should be C, X, or blank. The program continues, assuming the previous value.

ACTION:

Informational message. No operator action required.

UU5S EXPLANATION:

Data Management fatal error.

ACTION:

Refer to *UNIVAC 9400 System Data Management System Programmer Reference, UP-7629* (current version) for error code (xxx).

UU5T EXPLANATION:

Block or record number from control card is less than the current position of the file; the record number on the INS or REP card is larger than the number of records contained in the block. All cards are ignored until the next identification control word.

ACTION:

Informational message. No operator action required.

UU5V EXPLANATION:

A hexadecimal data card contains nonhexadecimal character. All cards are ignored until next identification control word.

ACTION:

Informational message. No operator action required.

UU5D EXPLANATION:

Job is cancelled. Check previous messages for additional information.

ACTION:

Informational message. No operator action required.

UU5E EXPLANATION:

End of Job

ACTION:

Informational message. No operator action required.

UU5K EXPLANATION:

Error encountered while processing an ISAM file. Program is aborted.

ACTION:

Refer to *UNIVAC 9400 System Data Management System Programmer Reference, UP-7629* (current version) for contents of errbyte (qqqq).

UU5W EXPLANATION:

The length of the correction record is larger than the record size or the block size. The record is truncated and processing continues.

ACTION:

Informational message. No operator action required.

UU5X EXPLANATION:

There are no data or control cards in the control stream. The program copies input to output without corrections.

ACTION:

Informational message. No operator action required.

UU5Y EXPLANATION:

Continuation error. All cards are ignored until the next identification control word.

ACTION:

Informational message. No operator action required.

A.39. DISC FILE CLEAR/PREFORMAT MESSAGES

UW00 PARAM ERROR

EXPLANATION:

Illegal key length specified on TYPE2 PARAM statement. Dump and terminate without altering file contents.

ACTION:

Correct key length specification and rerun the job.

UW01 PARAM ERROR

EXPLANATION:

Too many fields in a PARAM statement. Dump and terminate without altering file contents.

ACTION:

Check PARAM statement for conformity to format rules and correct format if necessary. Rerun the job.

UW02 PARAM ERROR

EXPLANATION:

No recognizable PARAM statements were retrieved from the control stream. Dump and terminate without altering file contents.

ACTION:

Check for presence of PARAM statements after EXEC statement. Ensure that PARAM starts in card column 4. Correct control stream and rerun the job.

UW03 PARAM ERROR

EXPLANATION:

Error on TYPE1 PARAM statement. Dump and terminate without altering file contents.

ACTION:

Check TYPE1 PARAM statement for conformity to format rules. Correct control stream and rerun the job.

UW04 PARAM ERROR

EXPLANATION:

TYPE2 PARAM statement found first in the control stream. Dump and terminate without altering file contents.

ACTION:

Place the proper TYPE1 PARAM statement before the TYPE2 PARAM statement in the control stream and rerun the job.

UW05 PARAM ERROR

EXPLANATION:

Required TYPE2 PARAM statement not found in control stream. Dump and terminate without altering file contents.

ACTION:

Place the proper TYPE2 PARAM statement behind the existing TYPE1 PARAM statement in the control stream and rerun the job.

UW06 PARAM ERROR

EXPLANATION:

Error detected in the TYPE2 PARAM statement. Dump and terminate without altering file contents.

ACTION:

Check information in TYPE2 PARAM statement for conformity to rules. Correct control stream and rerun the job.

UW07 ILLEGAL SEGMENT

EXPLANATION:

Illegal file segment delimiter found on the TYPE1 PARAM statement. The requested operations have been performed on that part, if any, of the segment within the file boundary. If the file segment delimiter contains unrecognizable characters, a relative track number of zero, or a start-track which exceeds the corresponding end-track, that segment is ignored. Any subsequent segments are then processed.

ACTION:

If this error was unintentional, correct the erroneous file segment delimiters and rerun the job. Legal segments need not be operated upon again.

UW08 FATAL DISC ERROR, SBxxxxxx

EXPLANATION:

A fatal disc error has been detected. The sense bytes (SB) are given in hexadecimal notation. A dump is initiated and the program is terminated. The clearing or preformatting of the disc file is discontinued at an unpredictable point. Register 10 in the resulting dump contains information concerning the cause of the error (see *UNIVAC 9400 System Data Management System Programmer Reference, UP-7629* (current version)).

ACTION:

Rerun the job. If problem persists, investigate possible hardware malfunction.

UW09 INSUFFICIENT MEMORY**EXPLANATION:**

Insufficient main storage has been allocated to the job for UCPDSK to expand its I/O area to the size of the user-specified preformat block.

ACTION:

Allocate additional main storage when available and rerun the job.

UW10 DISC ERROR TRK cchhr SB xxxxxx**EXPLANATION:**

A recoverable disc error has occurred at the specified absolute disc address cchhr (hexadecimal) when posting the six specified hexadecimal sense bytes (SB). The remainder of the track on which the error occurred is skipped, and processing continues on the next track of the file.

ACTION:

In general, the disc file is unusable if this error has occurred. Run UCPDSK again. If this error occurs again, consideration should be given to running the DISC PREP routine for at least those extents of the disc containing this file.

UW11 ILLEGAL BKSZ**EXPLANATION:**

A single preformat block of user-specified size exceeds the disc track capacity. Dump and terminate without altering the file contents.

ACTION:

Specify key and data lengths in the TYPE2 PARAM statement which constitute a legal block for the disc unit employed. Correct the control stream and rerun the job.

UW12 INCOMPLETELY SPECIFIED SEGMENT**EXPLANATION:**

"Start-track" or "end-track" of a file segment delimiter in the TYPE1 PARAM statement is unspecified (null or omitted). Dump and terminate without altering the tracks in the incompletely specified segment or any subsequent segments (to the right of the incompletely specified segment on the TYPE1 PARAM statement).

ACTION:

Correct the erroneous segment and run UCPDSK again. Segments to the left of the incompletely specified segment need not be operated upon again. Correct control stream and rerun the job.

UW13 FATAL LOGICAL ERROR

EXPLANATION:

A fatal logical error has been detected. A dump is initiated and the program is terminated. The state of the disc file is unpredictable.

Register 10 in the resulting dump contains information concerning the cause of the error. (See *UNIVAC 9400 System Data Management System Programmer Reference, UP-7629* (current version).

ACTION:

Rerun the job after corrective action has been taken.

APPENDIX B. ROTARY SELECTOR SWITCHES

NAME	FUNCTION
POSITION 1	
MAINT RD/WR	Indicates a maintenance read/write operation as set by Maintenance Panel switches.
STORAGE ADDRESS REGISTER (S0)	Displays the hexadecimal storage address being referenced.
POSITION 2	
SS DESIGNATORS (H2)	Displays storage-to-storage instruction (SS) sequences.
CARRY IN 27	Indicates a carry condition to the byte switch.
CLOCK CYCLE COUNTER (M0)	Contains clock cycle count. Any number up to FF ₁₆ can be inserted. Count decreases by 1 for each clock cycle until the count reaches 0 at which time the processor halts.
POSITION 3	
DEC DIV FAULT	Indicates divide overflow during arithmetic instruction operation.
DEC CARRY	Indicates end carry during decimal arithmetic instruction operation.
UPPER BOUND (H4)	Defines upper bounds of a storage area beyond first 512 bytes.
LOWER BOUND (H4)	Defines lower bounds of a storage area beyond first 512 bytes.
	NOTE: These switch/indicators define the storage area limits in which the program is permitted to write. When the write address is outside these limits, a write protect fault occurs.
POSITION 4	
MPX I/O BUFFER REGISTER (C0)	Displays temporary storage of device addresses, commands, data, or status information transmitted on I/O bus lines.
CONTROL BYTE REGISTER (A1)	Displays control byte (bits 00-07) of SCW during multiplexer channel nonshared operations.

Table B-1. Rotary Switch A Controls and Indicators (Part 1 of 2)

NAME	FUNCTION
POSITION 5	
PRINTER CLOCK MAN PHA MAN PHB INPUT REGISTER (XI) IMM END SENSE REGISTER CMD REJ BUS CK STATUS REGISTER ATTN BUSY DEV END UNIT CK UNIT EXC	Displays which CLOCK PHASE is active. Indicates a PHASE 1 pulse is active. Indicates a PHASE 2 pulse is active. Displays data byte. Immediate-end condition is in effect. Indicates illegal command. Indicates parity error on bus lines. Indicates status condition. ATTENTION switch active. Busy executing a command. End of data transmission. Parity error on data byte or other abnormal conditions. DELETE switch active during a read operation.
POSITION 6	
INTERFACE BLK ADDRESS REGISTER -SELECTOR CHANNEL 1 (C3)	Disables the input interface on selector channel 1. Displays device address of unit operating on selector channel 1.
POSITION 7 and POSITION 8	
RD DATA SRV IN ONE-SHOT CHAN PRI REQ CHAN PRI CHAN PRI LOCKOUT START I/O A START I/O B CHAN ACT BUSY INTERFACE - { SELECTOR CHANNEL 2 } { SELECTOR CHANNEL 1 } ADR OUT SEL OUT OPL IN ADR IN CMD OUT STA IN SRV OUT SRV IN SUP OUT	Activates storage reference. Triggers SRV IN control. The channel makes a priority request for storage. Channel has obtained storage. Clears parity and buffer register. Indicates channel priority request flip-flop is set. Indicates a read command/send status information operation. Channel is active. Channel is busy. Position 7. Position 8. Indicates ADR OUT signal is active. Indicates SEL OUT signal is active. Indicates OPL IN signal is active. Indicates ADR IN signal is active. Indicates CMD OUT signal is active. Indicates STA IN signal is active. Indicates SRV OUT signal is active. Indicates SRV IN signal is active. Indicates SUP OUT signal is active.

Table B-1. Rotary Switch A Controls and Indicators (Part 2 of 2)

NAME	FUNCTION
POSITION 1	
PSW INTER MASK BIN OVFL DEC OVFL OPERATION CODE (F0) R1 (F0)/R2 (F0) RR FORMAT: RX FORMAT: RS FORMAT: SI FORMAT:	Indicates setting of binary overflow interrupt mask bit of PSW. Indicates setting of decimal overflow interrupt mask bit of PSW. Displays the instruction operation code. Variable and dependent upon instruction format. R1 (08-11) holds operand 1 or mask; R2 (12-15) holds operand 2. R1 (08-11) holds operand 1 or mask; X2 (12-15) holds index. R1 (08-11) holds operand 1; R3 (12-15) holds operand 3. I2 (08-15) holds operand 2 (immediate operand). L1 (08-11) holds operand 1 length specification. L2 (12-15) holds operand 2 length specification. NOTE: With the four formats, the high-order bytes (beyond bit 15) can be seen in the A0 register (switch selector D, position 2).
POSITION 2	
B0 REGISTER	Displays the adder input register.
POSITION 3	
WR ADR SEQ: RD ADR SEQ: GENL SEQ: RD OP 2: RD OP 1: COUNT: WR OP 1: GENL SEQ: INCR ADR SEQ:	Set write, P0 → S0, D0 → B0. Storage → D0, D0 adder → A0, D0 adder → P0, P0 → S0. P0 → S0. (S0) + 1 → P0, storage → D0, A0 → S0, D0 → B0. Storage → D0, D0 → S0. (S0) - 1 → K0, A0 → S0, set write. (S0) + 1 → A0, P0 → S0. Set condition code. Storage → D0, change address in S0 depending upon instruction.
POSITION 4	
START I/O SEQ 1 2 3 LOAD DEV ADR SEQ LOAD I/O REG SEQ ACK SEQ FAST ACK SEQ STA TRANS WR DEV NUM SEQ LD COND CODE SEQ REQUEST DATA STATUS TIMER ARITH CHAN ACT ARITH FREE ARITH LOCKOUT STACK	Device number (A1) → R, R → C. Read command; set ADR OUT FF. Set SEL OUT FF. Indicates that the device number is going from Bus In → during start. Command → C. Sets CMD OUT or SRV OUT. Indicates that the device number is going from Bus In → C0 (other than Start I/O). Indicates status transfer. Indicates device number is being stored. Set condition code and clear wait FF. Indicates data sequence. Indicates status sequence. Indicates updating of real-time clock. Indicates arithmetic sequence. Channel is in active state. Channel requests arithmetic sequence. Channel has control of arithmetic sequence. Channel is stacking status information.

Table B-2. Rotary Switch B Controls and Indicators (Part 1 of 2)

NAME	FUNCTION
POSITION 5	
<p>INPUT HLD DES STATUS HLD DES</p> <p>INTERFACE TAGS AND CONTROLS OPL IN ADR IN STA IN SRV IN REQ IN</p> <p>CONSOLE SEQUENCE</p> <p>SEL OUT PASS SEL HOLD REQ START ADR START ON-LINE</p>	<p>Indicates that input hold FF is active. Indicates that status hold FF is active.</p> <p>OPL IN signal active. ADR IN signal active. STA IN signal active SRV IN signal active. REQ IN signal active.</p> <p>Indicates timing sequence of current operation. T1 and T2 (addressing sequence); T3 (command sequence); T4 (input sequence); T5 (output sequence); T6 (print and disconnect sequence).</p> <p>Indicates SEL OUT signal has been propagated. Indicates SEL OUT signal is blocked. Indicates control-unit-initiated selection sequence. Indicates channel-initiated selection sequence. Indicates online condition with system.</p>
POSITION 6	
<p>CHAIN FLAG TRANSFER REGISTER – SELECTOR CHANNEL 1 (C1)</p>	<p>Indicates chaining operation Displays transfer register data.</p>
POSITION 7 and POSITION 8	
<p>REQ IN SEL IN</p> <p>COMMAND DESIGNATORS – SEL 2 INPUT OUTPUT RD BWD</p> <p>TIC TEST I/O</p> <p>STATUS DESIGNATORS – SEL 2 ZERO: SKIP A: CHAN END: DEV END:</p> <p>PARITY ERROR INPUT OUTPUT</p> <p>I/O ADDER INC1 INC2 ADD</p> <p>INTERRUPT LOCKOUT REQ</p>	<p>Indicates REQ IN signal is active. Indicates SEL IN signal is active.</p> <p>Indicates an input operation. Indicates an output operation. Indicates data transfer from the device to storage. Bytes are stored in descending order. Indicates a transfer-in-channel (chaining) operation. Indicates testing is taking place.</p> <p>Indicates normal Start I/O status response (all zeros). Indicates a transfer register to address register transfer. Indicates the channel is disconnecting. Indicates the device is disconnecting.</p> <p>Indicates an input parity error. Indicates an output parity error.</p> <p>Indicates that 1 is added by the adder. Indicates that 2 is added by the adder. Indicates the adder is active.</p> <p>Indicates interrupts are locked out. Indicates an interrupt request to the channel.</p>

Table B-2. Rotary Switch B Controls and Indicators (Part 2 of 2)

NAME	FUNCTION
POSITION 1	
<p>PSW INTERRUPT MASK</p> <p>WR PROT TIMER SEL1 SEL2 MPX SH MPX NSH PRGM</p> <p>PSW INTERRUPT CODE (P0)</p> <p>ASCII CODE</p> <p>PROBLEM REG SET</p> <p>PROBLEM STATE</p>	<p>Holds interrupt mask.</p> <p>Write protection</p> <p>Selector channel 1 Selector Channel 2 Multiplexer channel shared Multiplexer channel nonshared Program</p> <p>NOTE: The preceding are mask bits.</p> <p>Indicates binary configuration (bits 24-27) of PSW interrupt:</p> <p>0001 - illegal operation exception 0010 - privileged operation exception 0100 - write protect exception 0101 - addressing exception 0110 - specification exception 1000 - binary overflow exception 1010 - decimal overflow exception 1011 - decimal divide exception</p> <p>NOTE: BIN OVFL and DEC OVFL are also indicated on position 1, switch selector B.</p> <p>If on, indicates ASCII zone code (0101₂) is in effect. If off, indicates EBCDIC code (1111₂) is in effect.</p> <p>If on, indicates problem program general register set is selected. If off, indicates Supervisor general register set is selected.</p> <p>Processor is operating in problem state.</p>
POSITION 2	
<p>D0 REGISTER</p>	<p>Displays the D0 register bits.</p>
POSITION 3	
<p>ARITHMETIC/CONTROL SEQUENCER</p> <p>INST 1 INST 2 B2 LOW B2 UP X2 LOW X2 UP OP2 LOW OP1 LOW WR LOW OP2 UP OP1 UP WR UP RD P SHIFT A SHIFT P PASS 2 PASS 3 ZERO CK (16-31)</p>	<p>P0 → S0, S0 Adder → P0 (+2). Clear carry in. Clear P0, S0 Adder → P0 (0). Clear S0, set S0_{30,31}. Storage → D, or P → D. Clear A0, D0 adder → A. Clear B0. Storage → D. Set zero flip-flop. Clear S0. Storage → D0 A0 → S0 or P0 → S0. Storage → D0 and D0 → P0. A0 is shifted. P0 is shifted. Pass 2 sequence set. Pass 3 sequence set. Zero check flip-flop set.</p>

Table B-3. Rotary Switch C Controls and Indicators (Part 1 of 3)

NAME	FUNCTION
POSITION 4	
RD BCW INDEX RD FLAGS RD ADR RD COUNT WR COUNT WR ADR DATA TRANS 1 DATA TRANS 2 DATA TRANS 3 UPDATE BCWI WR BCW INDEX WRITE FLAGS MPX INPUT INTERFACE TAGS AND CONTROLS REQ IN OPL IN ADR IN SRV IN STA IN SEL IN	Device number (R0) → S0; BCW index → D0. D0 → A0; flags → flag register. A0 → S0; data address → D0. D0 → A0; count → D0. Update count → BCW; A0 → D0. Update address → BCW. Read/write data; status (C0 → D0). If status, write device number (R0 → C0, C0 → D0). Branch control set; make decision. BCWI → D0; chaining or linking. Update BCWI → SCW. Flags → SCW. Indicates REQ IN signal is active. Indicates OPL IN signal is active. Indicates ADR IN signal is active. Indicates SRV IN signal is active. Indicates STA IN signal is active. Indicates SEL IN signal is active.
POSITION 5	
SERIALIZER REGISTER (X0) SERIALIZER SEQUENCE (X0) INIT SEL UP INIT SEL LOW DATA UP DES DATA LOW DES END UP DES	Holds data bits being serialized for printer. Time sequencing of serializer. Initial selection sequence is in effect. Initial selection sequence is in effect. Data FF (upper rank) set. Data FF (lower rank) set. END FF set (end condition).
POSITION 6	
INTERFACE BLK ADDRESS REGISTER – SELECTOR CHANNEL 2 (C7)	Disables the input interface on selector channel 2. Displays device address of unit operating on selector channel 2.
POSITION 7 and POSITION 8	
BYTE COUNT = 0 CMD ADR SEQ – SEL 2 SEL OUT SEQ RD CMD SEQ T812 SEQ T815 GEN NEXT CCW ADR WR NEXT CCW ADR	Indicates byte count is completed (zero). Command address selection sequence (LOCKOUT, RD UP, T802. Reads device address; sets channel active; clears interrupt status; set START I/O B; performs parity check; and sets ADR OUT. Sets SET OUT. Indicates storage buffer register transfer. CCW Sequence phase 4 timing reference. CCW Sequence phase 1 timing reference. I/O addr to transfer register. Enables writing into storage.

Table B-3. Rotary Switch C Controls and Indicators (Part 2 of 3)

NAME	FUNCTION
POSITION 7 and POSITION 8 (cont.)	
16-31 00-15	Indicates upper byte of a storage location. Indicates lower byte of a storage location.
RD BYTE COUNT STORAGE REF UPDATE	Byte count register is enabled. Enables storage.
ADR COUNT	Address to transfer register. Count to transfer register.
ADR IN	
1	Input bus to device number register.
2	Set CMD OUT and channel priority request.
SEL IN	
2	Set condition code, clear wait flip-flop, clear ADR OUT.

Table B-3. Rotary Switch C Controls and Indicators (Part 3 of 3)

NAME	FUNCTION
POSITION 1	
PSW INSTRUCTION ADDRESS (P0)	Displays address of next instruction prior to an interrupt.
POSITION 2	
A0 REGISTER	Displays A0 register bits.
POSITION 3	
I/O FLAG REGISTER (A1)	
TERM	Indicates I/O operation terminated.
PAR ERR	Indicates parity error detected in I/O channel.
PAR	Indicates byte parity check is being made.
ODD PAR	Indicates odd bit parity check is being made.
CB CK	Indicates control byte is equal to data byte (compare).
DECR ADR	Decreases data address by 1 with each data byte transferred, or by 4 for each status word transferred.
WRITE	Indicates I/O is conducting an output operation.
INTERRUPT SEQUENCE	
0	Constant → S0 or P0 → D0
1	P0 → D0
2	D0 addr → P0, storage → D0
3	D0 → P0
INTERRUPT REQ	
PRGM	Indicates program is requesting an interrupt.
TIMER	Indicates timer is requesting an interrupt.

Table B-4. Rotary Switch D Controls and Indicators (Part 1 of 3)

NAME	FUNCTION
POSITION 3 (Cont.)	
<p>STOR WR CTRL</p> <p>WR UP WR LOW</p> <p>NEG SIGN</p> <p>CARRY OUT</p> <p>CARRY IN</p>	<p>Indicates upper byte of data is being stored. Indicates lower byte of data is being stored.</p> <p>Arithmetic control designator: indicates negative operand.</p> <p>Arithmetic control designator: indicates no carry operation.</p> <p>Arithmetic control designator: indicates a carry operation.</p>
POSITION 4	
<p>FIRST PASS</p> <p>BCW OP CODE</p> <p>UP LOW</p> <p>65K CARRY</p> <p>DATA ADDR BCWI</p> <p>BIT 15</p> <p>COUNT=0</p> <p>INTER</p> <p>BC CB</p> <p>START I/O</p> <p>ZERO STA</p> <p>REJECT</p> <p>MPX OUTPUT INTERFACE DESIGNATORS</p> <p>SEL OUT ADR OUT SRV OUT CMD OUT SUP OUT</p>	<p>Indicates initial pass.</p> <p>Indicates BCW operation codes as follows:</p> <p>00 = stop 01 = chain 10 = link 11 = stop immediate</p> <p>Indicates data address (bit 15) should be toggled. Indicates BCWI should be toggled.</p> <p>Indicates bit 15 of either DATA ADR or BCWI is set.</p> <p>Indicates updated byte count equals zero.</p> <p>Indicates a buffer completion interrupt is pending. Indicates a control byte interrupt is pending.</p> <p>Indicates a Start I/O operation is in effect.</p> <p>Indicates status byte reported is all zeros.</p> <p>Indicates data/status request is rejected.</p> <p>Indicates SEL OUT signal is active. Indicates ADR OUT signal is active. Indicates SRV OUT signal is active. Indicates CMD OUT signal is active. Indicates SUP OUT signal is active.</p>
POSITION 5	
<p>INITIAL LOAD</p> <p>ALLOW: LOAD: WAIT:</p>	<p>Indicates initial load operation is enabled. Indicates initial load operation is in progress. Indicates Start I/O instruction.</p>

Table B-4. Rotary Switch D Controls and Indicators (Part 2 of 3)

NAME	FUNCTION
POSITION 5 (continued)	
INITIAL LOAD SEQUENCE 1 2 3 4 5 6 TEST I/O CMD SENSE CMD WRITE CMD DATA HLD CMD DATA HLD DES ATTN DES UNIT EXC DES DATA LOAD PRINT DES	Timing sequence of initial load. Indicators light in sequence. Load A with device number. A1 → R Store flags in SCW. Store BCWI in SCW. Store byte count in BCW. Store data address in BCW and set wait designator. Indicates test mode operation. Indicates sense byte on lines. Indicates an output operation. Indicates a READ command. Indicates data is held in the input register. Indicates ATTENTION switch is set; status information has not been accepted by channel. Indicates DELETE switch set; status information has not been accepted by channel. Indicates character has been entered by keyboard but not yet printed. Indicates printer sequence is enabled.
POSITION 6	
CHAIN FLAG TRANSFER REGISTER – SELECTOR CHANNEL 2 (C5)	Indicates chaining operation. Displays transfer register data.
POSITION 7 and POSITION 8	
STATUS SEQ 1 2 END STATUS SEQ 1 2 3 NO INTER STA SEQ 1 SEQ 2 START STA SEQ 1 2 BUFFER REGISTER SELECTOR CHANNEL 2 (V6)	Clear buffer. Clear interrupt lockout. Adder transfer register. Clear SEL OUT Clear transfer register and channel request. Set SUP OUT. Clear SEL OUT. Clear SEL OUT. Clear ADR OUT and set SRV OUT. Displays buffer register bits, including parity bit.

Table B-4. Rotary Switch D Controls and Indicators (Part 3 of 3)