IBM 3705-80 MACHINE INSTALLATION INSTRUCTIONS

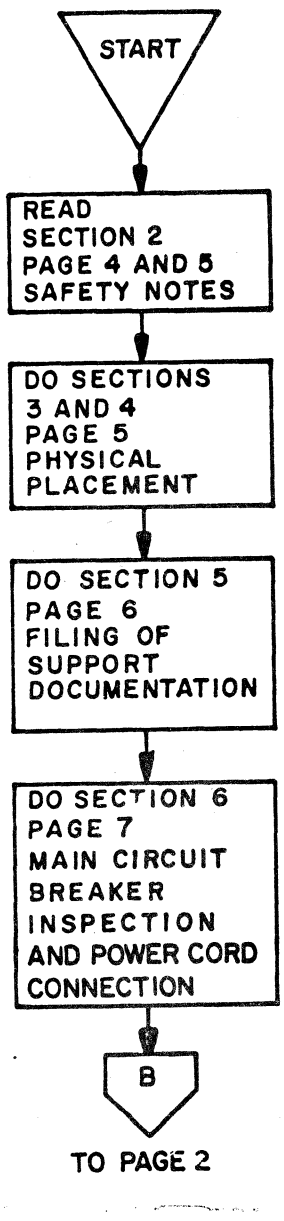
THE YZ800 PAGES PROVIDE INSTRUCTIONS FOR INSTALLING A 3705-80 SUBSYSTEM AND INCLUDE ONLY THOSE ITEMS WHICH ARE NOT PREINSTALLED BY THE FACTORY. PRIOR TO INSTALLATION OF THE 3705-80, THE SYSTEM/360 OR SYSTEM/370 SYSTEMS INSTALLATION INSTRUCTIONS ISSUED FOR THE PARTICULAR SYSTEM SHOULD BE CONSULTED. THE 3705-80 COMMUNICATIONS CONTROLLER THEORY-MAINTENANCE MANUAL, VOLUME I (FORM NUMBER SY27-0208), PROVIDES INFORMATION FOR CONFIGURING AND OPERATING THE 3705-80 DIAGNOSTIC PROGRAMS AND 3705-80 PROBLEM DETERMINATION MAPS. READ THE NOTES BELOW AND THEN PROCEED WITH THE INSTALLATION, PER THE FLOW CHART BELOW.

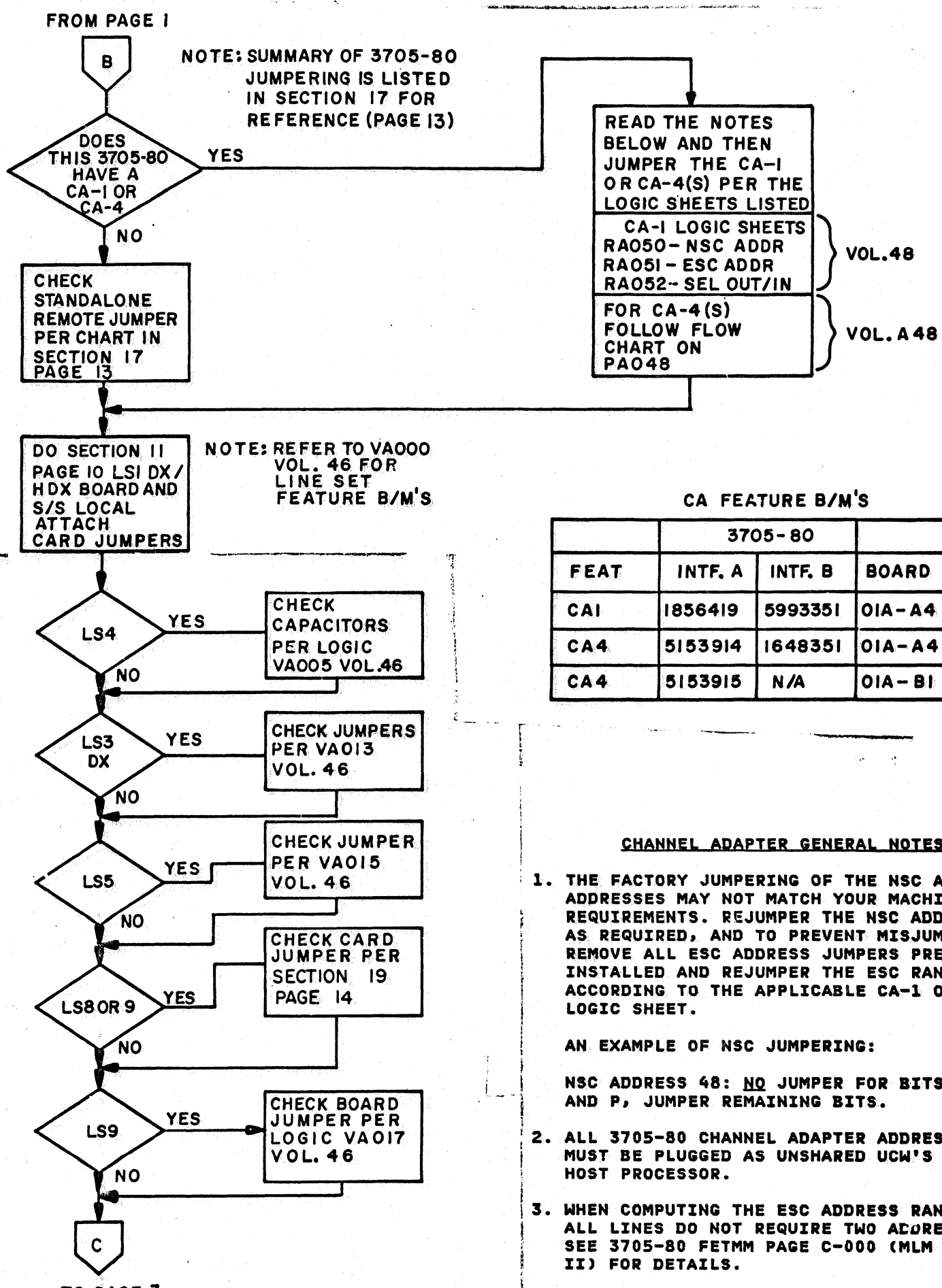
NOTE 1: FOR DOMESTIC AND EMEA COUNTRIES A PREPUNCHED CDS IS INCLUDED IN THE SHIPPING GROUP FOR A 3705-80 WITH A CA-1 OR CA-4. SOME ADDITIONAL INFORMATION MUST BE PUNCHED INTO THE DECK, PER THESE MACHINE INSTALLATION INSTRUCTIONS.

NOTE 2: THE DIAGNOSTICS MUST BE AT RELEASE LEVEL 12.2 OR HIGHER IF CA-1 FACTORY B/M 1856419 IS INSTALLED ON THIS 3705-80 OR RELEASE LEVEL 12.4 OR HIGHER IF CA-4 FACTORY FEATURE B/M 5153914 IS INSTALLED. A DIAGNOSTIC TAPE AND MLM VOL. I (SY27-0208) HAVE BEEN INCLUDED WITH THE SHIP GROUP, IF THE DIAGNOSTIC RELEASE LEVEL REQUIRED IS NOT YET AVAILABLE.

NOTE 3: A REFERENCE DRAWING FOR WORLD TRADE DELTA TO WYE FIELD VOLTAGE CONVERSIONS IS INCLUDED ON PAGE 15 AND FOR WYE TO DELTA CONVERSIONS ON PAGE 16.

1.0 INSTALLATION FLOW CHART:





CA FEATURE B/M'S

	3705-80		
FEAT	INTF. A	INTF. B	BOARD
CA1	1856419	5993351	01A-A4
CA4	5153914	1648351	01A-A4
CA4	5153915	N/A	01A-B1

CHANNEL ADAPTER GENERAL NOTES

1. THE FACTORY JUMPERING OF THE NSC AND ESC ADDRESSES MAY NOT MATCH YOUR MACHINE REQUIREMENTS. REJUMPER THE NSC ADDRESS, AS REQUIRED, AND TO PREVENT MISJUMPERING, REMOVE ALL ESC ADDRESS JUMPERS PRESENTLY INSTALLED AND REJUMPER THE ESC RANGE ACCORDING TO THE APPLICABLE CA-1 OR CA-4 LOGIC SHEET.

   AN EXAMPLE OF NSC JUMPERING:

   NSC ADDRESS 48: NO JUMPER FOR BITS 2, 4 AND P, JUMPER REMAINING BITS.

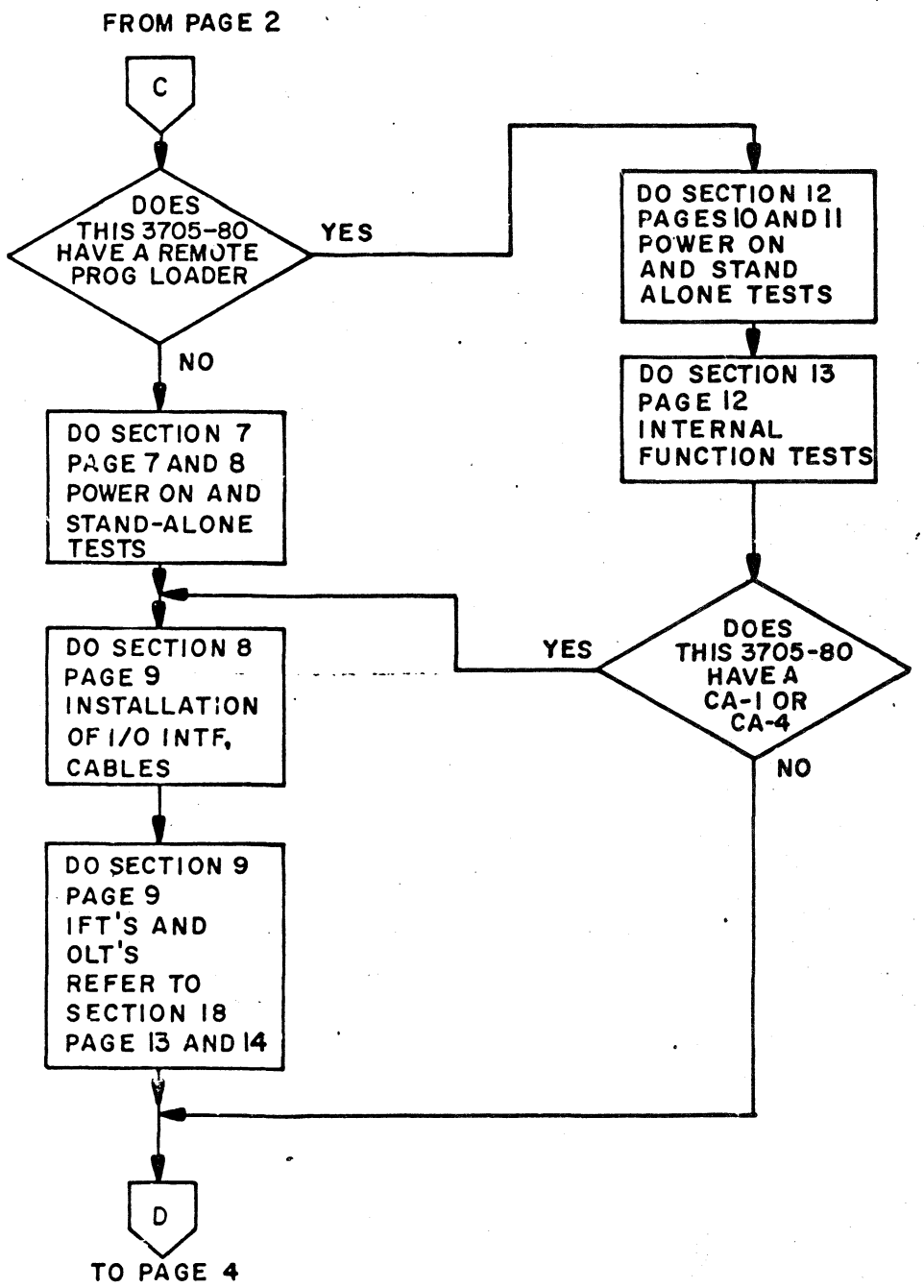
2. ALL 3705-80 CHANNEL ADAPTER ADDRESSES MUST BE PLUGGED AS UNSHARED UCW'S AT THE HOST PROCESSOR.

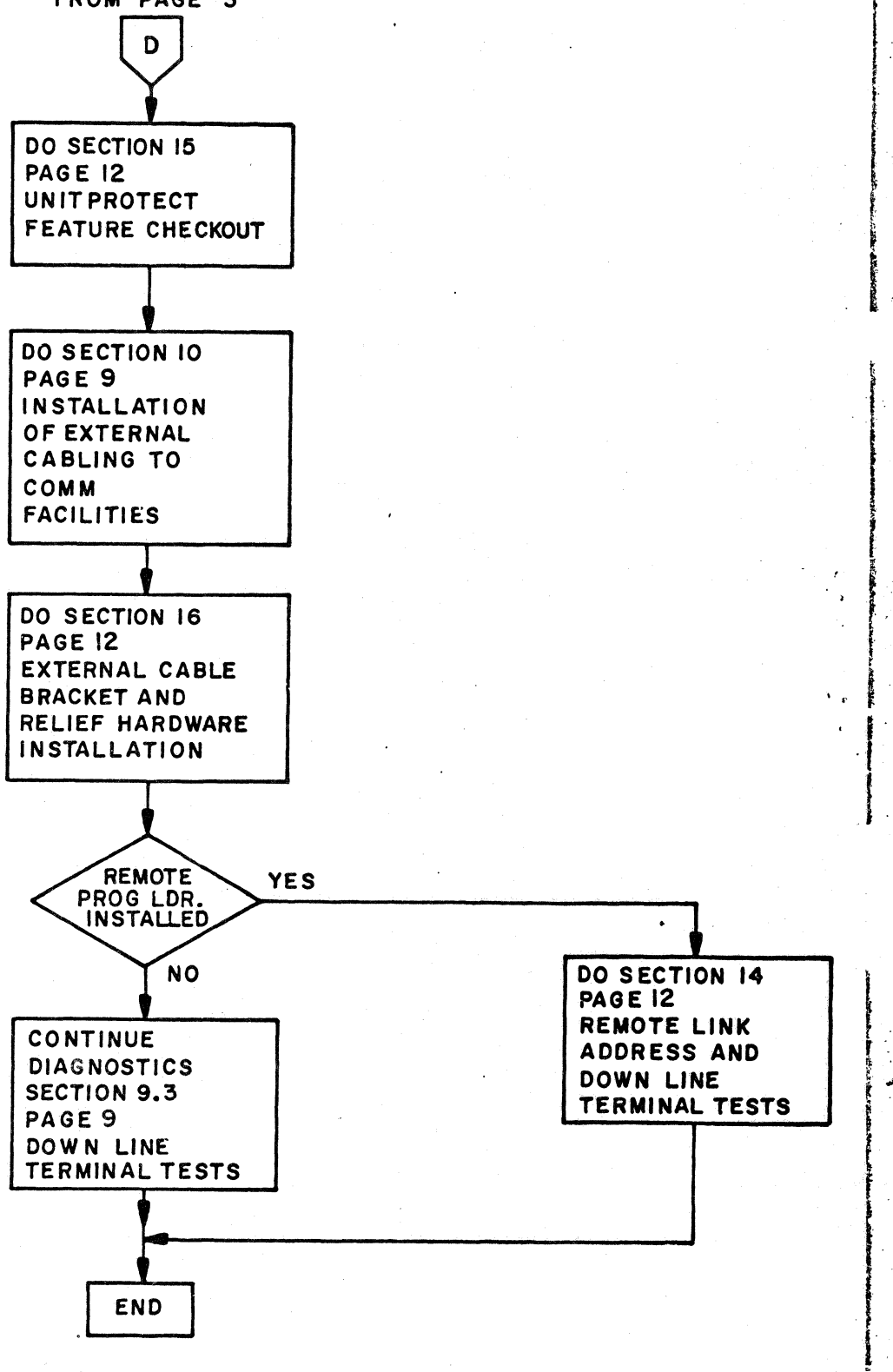
3. WHEN COMPUTING THE ESC ADDRESS RANGE, ALL LINES DO NOT REQUIRE TWO ADDRESSES. SEE 3705-80 FETMM PAGE C-000 (MLM VOL. II) FOR DETAILS.

4. IF NCP WILL BE THE ONLY 3705-80 PROGRAM (EP/PEP NOT BEING USED), JUMPER THE ESC ADDRESS RANGE AS FOLLOWS: LOW=HEX 'C0', HIGH=HEX '53'.

5. THE CA-1 OR CA-4 BOARD(S) ARE FACTORY WIRED TO TRAP ON SELECT-OUT. THE BOARD WIRING MUST BE CHANGED, IF TRAPPING ON SELECT-IN IS REQUIRED.

6. USE JUMPER STRIP, 5159491, AS REQUIRED.


FROM PAGE 2
C
DOES THIS 3705-80 HAVE A REMOTE PROG LOADER
YES
NO
DO SECTION 12 PAGES 10 AND 11 POWER ON AND STAND ALONE TESTS
DO SECTION 13 PAGE 12 INTERNAL FUNCTION TESTS
DOES THIS 3705-80 HAVE A CA-1 OR CA-4
YES
NO
DO SECTION 7 PAGE 7 AND 8 POWER ON AND STAND-ALONE TESTS
DO SECTION 8 PAGE 9 INSTALLATION OF I/O INTF, CABLES
DO SECTION 9 PAGE 9 IFT'S AND OLT'S REFER TO SECTION 18 PAGE 13 AND 14
D
TO PAGE 4



2.0 SAFETY NOTES:

ALL CE'S SHOULD BE THOROUGHLY FAMILIAR WITH THE SAFETY PRACTICES OUTLINED IN IBM FORMS 124-0002 AND 229-1264. THIS CHAPTER IS NOT INTENDED TO SUPERSEDE OR REPLACE PRACTICES OUTLINED IN THESE FORMS. IT IS INTENDED TO SERVE AS A REMINDER OF SOME OF THE GENERAL SAFETY PRACTICES AND ALSO TO POINT OUT SPECIFIC CONDITIONS ON THE 3705-80 MACHINE WHICH MAY CONSTITUTE A HAZARD TO MAINTENANCE PERSONNEL. A COPY OF 229-1264 IS SHOWN IN THE FRONT OF MLM VOL. II (FORM NUMBER SY27-0209).

2.1 GENERALLY, THE FOLLOWING SHOULD BE PRACTICED:

2.1.1 NO C.E. SHOULD WORK ALONE WHEN PERFORMING MAINTENANCE OR REPAIR WORK. AT LEAST TWO PEOPLE SHOULD BE IN THE ROOM WHENEVER ANY WORK IS BEING DONE ON THE MACHINE.

2.1.2 SAFETY GLASSES SHOULD BE WORN DURING ALL MAINTENANCE AND REPAIR WORK.

2.1.3 A CO-2 FIRE EXTINGUISHER SHOULD BE IMMEDIATELY AVAILABLE.

2.1.4 EXTREME CAUTION MUST BE EXERCISED IF IT IS NECESSARY TO WORK IN ANY AREA WHERE EXPOSED VOLTAGES ARE PRESENT.

CONTINUED ON PAGE 5

2.1.5 ALWAYS USE A RELIABLE VOLTMETER TO VERIFY POWER IS ACTUALLY OFF AFTER USING THE POWER-OFF SWITCH.

2.1.6 ALWAYS DISCHARGE CAPACITORS BEFORE WORKING ON EQUIPMENT.

2.1.7 ALWAYS WATCH FOR SUCH SAFETY HAZARDS SUCH AS NAILS ON CRATES, WOOD SPLINTERS, FLOOR HOLES, JACK UP EQUIPMENT, SLIPPERY FLOORS, ETC.

2.2 SPECIFICALLY FOR THE 3705-80, THE FOLLOWING SHOULD BE WATCHED:

MAKE SURE ALL EXTERNAL CABLES AND ALL POWER CABLES ARE NOT CONNECTED BEFORE STARTING INSTALLATION.

3.0 UNLOADING AND MOVEMENT:

THE SIZE OF THE 3705-80 COMMUNICATIONS CONTROLLER IS SUCH THAT THE UNIT WILL EASILY PASS THROUGH AN AVERAGE DOORWAY. THE BASIC UNIT IS SHIPPED WITH CASTERS MOUNTED FOR EASE OF MOVEMENT AFTER UNPACKING AT THE INSTALLATION. DURING REMOVAL OF THE UNIT FROM THE CARRIER OR PLACEMENT AT THE CUSTOMER'S OFFICE, TILTING IS PERMISSABLE BUT THE UNIT MUST NOT BE LAID ON ITS' END OR SIDE AND ANY SUDDEN SHIFTS, STOPS, OR DROPPING OF THE UNIT MUST BE AVOIDED.

4.0 PHYSICAL PLACEMENT:

4.1 CASTERS ARE INSTALLED ON THE UNIT AT SHIPMENT TO FACILITATE MOVING IT AFTER IT HAS BEEN UNPACKED. ONCE UNPACKED, THE UNIT CAN BE WHEELED TO THE INSTALLATION AREA IN THE CUSTOMER'S OFFICE. WHEN THE UNIT IS IN POSITION, INSTALL CASTER LOCKS, P/N 184886 (4), AT EACH CORNER OF THE UNIT. FIGURE 4.1 ILLUSTRATES THE APPROXIMATE POSITIONING OF THE CASTERS AND CASTER LOCKS.

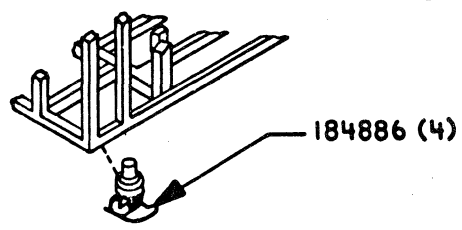


FIGURE 4.1
INSTALLATION OF CASTER LOCKS

4.2 THE DOORS SHOULD BE ALIGNED TO CLOSE PROPERLY SO THAT THE CATCHES RETAIN THE DOOR IN A CLOSED POSITION. CHECK THAT ELECTROSTATIC FINGER STOCK IS MAKING GOOD CONTACT WITH THE FRAME.

5.0 FILING OF SUPPORT DOCUMENTATION:

NOTE: IF THE FOLLOWING SUPPORT DOCUMENTATION HAS NOT YET BEEN INSERTED INTO THE VOLUMES INDICATED, FILE THAT DOCUMENTATION PER THE INSTRUCTIONS BELOW:

5.1 IF REMOTE PROGRAM LOADER FACTORY FEATURE B/M 1863323 IS INSTALLED ON THIS 3705-80, STORE THE INDIVIDUAL VERSION 081 LOGIC SHEETS, INCLUDED WITH REMOTE SHIP GROUP B/M 8496482, INTO THE VOLUMES INDICATED BELOW. REMOVE THE LOGIC SHEETS PRESENTLY IN THE AFFECTED VOLUMES.

LOGIC SHEET	VOLUME	VERSION 081 LOGIC SHEET P/N
AA005	42	5153976
AJ001	42	5153977
CU009	42	5153978
CU010	42	8550139
CU012	42	8550140
CU013	42	4499512
CU016	42	5153982
CW001	A42	5153929
CW002	A42	5153930
CW011	A42	5153979
CW013	A42	4499511
DW001	43	5153980
DZ002	43	5153981

5.2 INDIVIDUALLY INSERT THE THREE 3705-80 MLM TABS INTO THE THREE BINDERS INCLUDED WITH THE SHIP GROUP.

5.3 INSERT VOLUME I OF THE MAINTENANCE MANUAL (FORM NUMBER SY27-0208) INTO MLM VOLUME 1, SECTIONALIZING VOLUME I WITH THE DIVIDER TABS PROVIDED (FORM NUMBER SY27-0214). FORM NUMBER SY27-0214 IS SUPPLIED BY THE SHIP GROUP. FORM NUMBER SY27-0208 IS SUPPLIED WITH:

A. THE DIAGNOSTIC TAPE RECEIVED FROM PID OR
B. WAS INCLUDED WITH THE SHIP GROUP OR
C. REMOTE PROGRAM LOADER SHIP GROUP, IF A REMOTE PROGRAM LOADER IS INSTALLED.

NOTE: IF THIS 3705-80 HAS BOTH A CHANNEL AND A REMOTE PROGRAM LOADER INSTALLED, TWO OF FORM NUMBER SY27-0208 MAY HAVE BEEN RECEIVED. IF TWO OF THE MANUALS HAVE BEEN RECEIVED, CHECK THE LEVEL OF THE MANUALS AND RETAIN ONLY ONE OF THEM.

5.4 INSERT THE FOLLOWING DOCUMENTATION INTO THE VOLUME LISTED, REMOVING ANY STAPLES FROM VOLUMES II AND III OF THE MAINTENANCE MANUALS AND SECTIONALIZING THEM WITH THE DIVIDER TABS PROVIDED (FORM NUMBER SY27-0214):

VOLUME II OF THE MAINTENANCE MANUAL (FORM NUMBER SY27-0209) INTO MLM VOLUME 2.
VOLUME III OF THE MAINTENANCE MANUAL (FORM NUMBER SY27-0209) INTO MLM VOLUME 3.
PARTS CATALOG (FORM NUMBER S131-0077) INTO MLM VOLUME 3

5.5 OP PANEL GUIDE (FORM NUMBER GA27-0209) IS INCLUDED WITH THE SHIP GROUP FOR GENERAL REFERENCE.

5.6 FILE THE LOGICS INCLUDED WITH THIS 3705-80. THE LOGICS WILL BE REFERENCED DURING THE INSTALLATION.

6.0 MAIN CIRCUIT BREAKER CHECK AND POWER CORD CONNECTION:

6.1 THE 3705-80 MAIN CIRCUIT BREAKER (CB1) IS A 15 AMP CIRCUIT BREAKER FOR ALL INSTALLATIONS: CHECK THAT CB1 IS OFF.

6.2 FOR MAIN FRAME POWER CORD CONNECTION (THE CORD IS SHIPPED INSIDE THE FRAME UNCONNECTED), THE PRIME POWER BOX MUST BE OPENED AND THE WIRES CONNECTED TO THE MAIN LINE FILTER AS FOLLOWS.

208/230V 60HZ DOM/JAPAN OR 200V 60HZ JAPAN OR 200V/220V 50HZ JAPAN	
BK	(FL2-L1)
WHITE	(FL3-L1)
RED	(FL4-L1)
GN/YEL	(G -⏚)
SHIELD	(GND)

220/235V DELTA OR 380/408V 'Y' 3Φ 50HZ		
BLUE	(380/408V SYSTEMS ONLY)	FL1-L1
BROWN		FL2-L1
BROWN	(UNITED KINGDOM ONLY)	FL3-L1
BLACK	(W.T. EXCEPT U.K.)	FL3-L1
BROWN	(UNITED KINGDOM ONLY)	FL4-L1
BLACK	(W.T. EXCEPT U.K.)	FL4-L1
GN/YEL		G -⏚
SHIELD		GND

7.0 POWER ON AND STANDALONE TESTS:

NOTE 1: IN ORDER TO BRING POWER-ON INDEPENDENT OF THE CPU(S) EMERGENCY POWER-OFF (EPO) CABLE, A DUMMY EPO PLUG, P/N 5182923, MUST BE PLACED IN ANY ONE OF THE CPU EPO RECEPTACLES, J1 THRU J4 SHOWN IN FIGURE 7.0 BELOW, IN THE 3705-80. IT IS EXTREMELY IMPORTANT THAT THE EPO PLUG BE REMOVED WHEN LEFT UNATTTENDED AND WHEN THE CPU(S) EPO CABLE HAS BEEN ATTACHED.

NOTE 2: REMOVE THE UNIT PROTECT KEY FROM THE PACKING ENVELOPE TAPED TO THE 3705-80 PANEL, INSERT THE KEY AND TURN THE KEY TO THE PANEL ENABLE POSITION. THE KEY CANNOT BE REMOVED WHEN IN THIS POSITION.

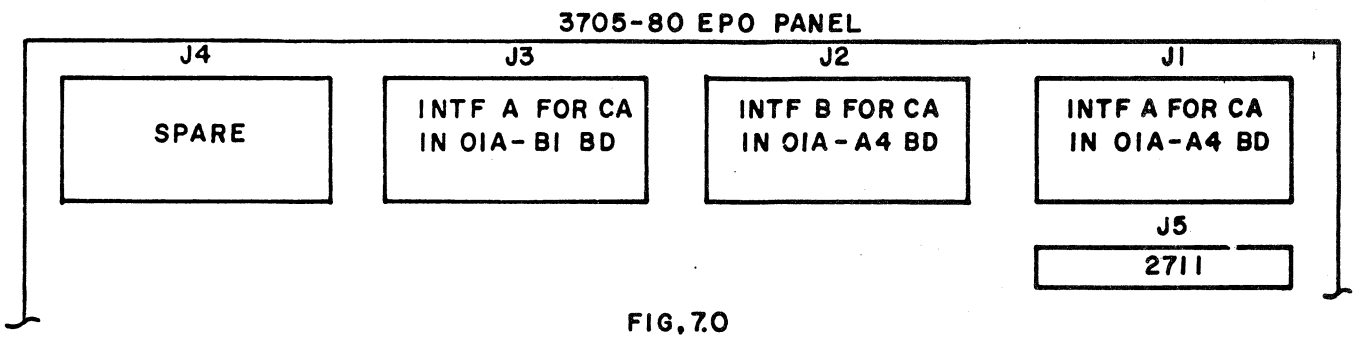


FIG. 7.0

7.1 POWER ON MEASUREMENTS

POWER SUPPLY MEASUREMENT (AND ADJUSTMENTS, IF NECESSARY) PROCEDURES SHOULD BE PERFORMED AS SPECIFIED IN THE 3705-80 FETMM (MLM VOL. III, SHEET D580, D.C. VOLTAGE MEASUREMENTS).

CONTINUED ON PAGE 8

7.2 STAND-ALONE HARDWARE CHECK-OUT

THIS TEST IS A VERY SIMPLE CHECKPOINT TO VERIFY THAT THE 3705-80 PROCESSING UNIT IS AT A FUNDAMENTAL OPERATING LEVEL BEFORE CONTINUING THE INSTALLATION OR GOING "ON-LINE" TO THE SYSTEM I/O CHANNEL.

NOTE: IF ANY OF THE SELF TESTS BELOW ARE UNSUCCESSFUL, REFER TO MLM VOL. I FOR SYSTEMATIC TROUBLESHOOTING PROCEDURES.

7.2.1 PLACE THE CHANNEL ENABLE/DISABLE SWITCH(ES) IN THE DISABLE POSITION, MODE SELECT SWITCH TO PROCESS, DISPLAY/FUNCTION SELECT SWITCH TO STATUS, AND THE DIAGNOSTIC CONTROL SWITCH TO THE PROCESS POSITION.

7.2.2 POWER ON OR DEPRESS CHECK RESET FOLLOWED BY LOAD IF ALREADY POWERED ON. THE PROCESSING UNIT WILL NOW PERFORM A SELF-TEST AFTER THE POWER CHECK INDICATOR GOES OFF.

7.2.3 IF THE SELF-TEST WAS SUCCESSFUL, THE FOLLOWING LIST WILL REPRESENT THE STATE OF KEY INDICATORS. THE NUMBER IN ( ) REPRESENTS THE NUMBER OF LIGHTS TO BE CHECKED.

INDICATOR	STATE	INDICATOR	STATE
POWER CHECK	OFF	CS CYCLE	OFF
CHAN 1 INTF A ENABLED OR		I CYCLE	ON
CHAN 1 ENABLED	OFF	CYCLE TIME (2)	ON
CHAN 1 INTF B ENABLED OR		IPL PHASE (2)	ON
CHAN 2 ENABLED	OFF	ADAPTER CHECK	OFF
CC CHECK	OFF	IN/OUT CHECK	OFF
PANEL ACTIVE	ON	ADDRESS EXCEPT	OFF
POWER ON	ON	PROTECT CHECK	OFF
HARD STOP	OFF	INVALID OP	OFF
TEST	OFF	PROGRAM LEVEL 1	ON
WAIT	OFF	PROGRAM LEVEL 2	OFF
PROGRAM STOP	OFF	PROGRAM LEVEL 3	OFF
LOAD	ON	PROGRAM LEVEL 4	OFF
CC CHECKS (9)	OFF		

7.2.4 DEPRESS STOP.

7.2.5 SET THE DIAGNOSTIC CONTROL SWITCH TO STORAGE TEST PATTERN.

7.2.6 SET THE FOUR STORAGE DATA SWITCHES TO HEX 'XAAAA'.

7.2.7 SET THE DISPLAY/FUNCTION SELECT SWITCH TO THE STORAGE ADDRESS POSITION AND DEPRESS START.

7.2.8 IF THE CC CHECK INDICATOR IS OFF, THE TEST WAS SUCCESSFUL.

7.2.9 DEPRESS RESET.

7.2.10 SET THE DIAGNOSTIC CONTROL SWITCH TO STORAGE SCAN.

7.2.11 DEPRESS START.

7.2.12 IF THE CC CHECK INDICATOR IS OFF, THE TEST IS SUCCESSFUL.

7.2.13 REPEAT 7.2.5 THRU 7.2.12, USING HEX 'X0000', 'XFFFF', 'X5555', 'X8001' AND 'XFFFE' IN STEP 7.2.6.

7.2.14 REDO 7.2.1 THRU 7.2.3.

8.0 INSTALLATION OF CHANNEL ADDRESS LABELS AND EXTERNAL CABLES:

INSTALL THE EXTERNAL I/O CHANNEL INTERFACE CABLES PER FIG 8.0 BELOW. STICK-ON HEX LABELS, P/N 1770838, ARE PROVIDED IN THE SHIPPING GROUP FOR THE CHANNEL ADDRESS(ES) TO BE PLACED NEAR THE APPROPRIATE CHANNEL ENABLE/DISABLE SWITCH(ES) ON THE FRONT PANEL, IF THE CUSTOMER DESIRES THAT THE ADDRESS(ES) BE INDICATED ON THE PANEL.

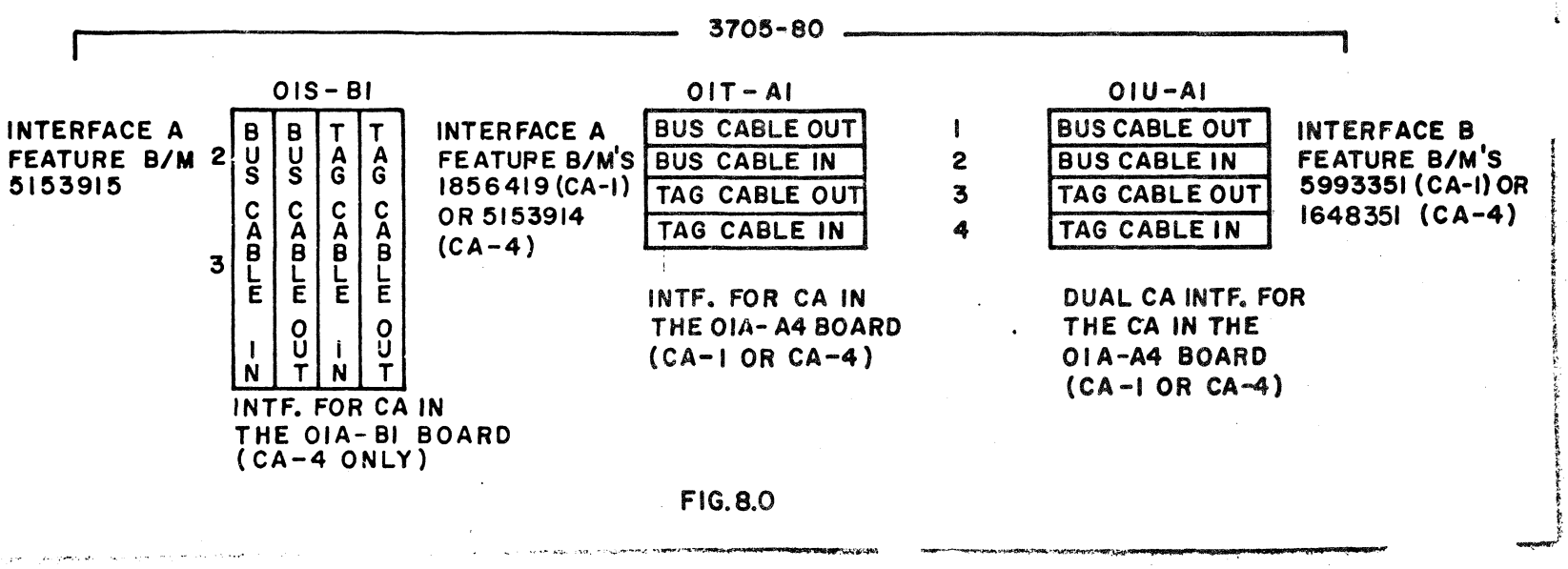


FIG. 8.0

9.0 IFT'S AND OLT'S:

NOTE: THE FOLLOWING HARDWARE HAS BEEN SUPPLIED FOR EXTERNALLY WRAPPING THE 3705-80 LINE INTERFACES:

P/N 6835406 (2)-EIA RS232C/V.24 WRAP BLOCKS.
P/N 1770812 (2)-WITH A 3705-80 MODEL 84 FOR WRAPPING THE LINE SET 8'S IN PARTITIONS 5, 6 AND 7 OR AN OPTIONAL LINE SET IN PARTITION 1.
P/N 1770812 (2)-WITH A 3705-80 MODEL 81 OR 82, IF AN OPTIONAL LINE SET 2 HDX, 3 HDX, 5 OR 8 IS INSTALLED IN PARTITION 1.
P/N 1770812 (1)-WITH A 3705-80 MODEL 81 OR 82, IF AN OPTIONAL LINE SET 2 DX, 3 DX OR 9 IS INSTALLED IN PARTITION 1.
P/N 1770810 (3)-Y JUMPER AND P/N 1770811 (10)-JUMPER.

9.1 IF IT IS POSSIBLE TO OBTAIN THE HOST PROCESSOR AT THIS POINT, THE FOLLOWING 3705-80 DIAGNOSTICS SHOULD BE CONFIGURED AND RUN BEFORE CONTINUING WITH THE HARDWARE INSTALLATION (SEE MLM VOL. I). ALSO SEE SECTION 18.1 FOR ADDITIONAL CDS INFORMATION THAT WILL HAVE TO BE ENTERED INTO THE CDS DECK BEFORE TESTING.

CHANNEL ADAPTER TYPE 1 OLT'S, T3705AA-AE, (IF APPLICABLE).
CHANNEL ADAPTER TYPE 4 OLT'S, T3705AA-AI, (IF APPLICABLE).
IFT LOADER T3705A, WITH INITIAL TEST AND WITH ALL INTERNAL FUNCTIONAL TESTS (IFT'S).

9.2 CONTINUE THE HARDWARE INSTALLATION BEFORE COMPLETING THE DIAGNOSTIC DOWN LINE TERMINAL TESTS.

9.3 RUN THE DOWN LINE TERMINAL TESTS.

10.0 INSTALLATION OF COMMUNICATION LINE EXTERNAL CABLING TO FACILITIES:

A CUSTOMIZED LINE SET CONFIGURATION CHART IS PROVIDED WITH EACH INITIAL 3705-80 SHIPMENT AND EACH FIELD FEATURE INSTALLATION INVOLVING INSTALLATION OF LINE SETS. THIS CHART KEYS ON LINE ADDRESSES (PHYSICAL) AND GIVES THE LINE SET TYPE INSTALLED, PHYSICAL PARTITION, AND OTHER PERTINENT INFORMATION. THIS CHART SHOULD BE FIRST CORRELATED WITH PHYSICAL CABLE PLANNING DATA (AT SITE) FOR CABLE CODE VERSUS LINE SET TYPE RELATIONSHIPS. USE THE APPLICABLE FIGURE IN MLM VOL. III SHEETS C140 AND C150, TO DETERMINE TAILGATE POSITIONS VERSUS LINE ADDRESSES WHILE INSTALLING THE EXTERNAL CABLES, NOTING THAT AN OPTIONAL LINE SET 2 DX, 3 DX OR 9 (USED IN DX MODE) WILL USE ADDRESSES 022/0844 INSTEAD OF 021/0842 INDICATED IN THE APPLICABLE FIGURE, EVEN THOUGH THE CONNECTOR IS PHYSICALLY INSTALLED AT 01S-A2R2/R3.

11.0 LINE SET 1 DUPLEX/HALF DUPLEX AND START/STOP LOCAL ATTACH JUMPERING:

11.1 THE RS232C/V.24 INTERFACES (LINE SET 1'S) ARE JUMPERED AT THE FACTORY FOR DUPLEX/HALF DUPLEX OPERATION ACCORDING TO THE CUSTOMER ORDER. A BOARD JUMPER MUST BE INSTALLED AT THE LINE INTERFACE CARD LOCATION THAT WILL BE LOGICALLY ATTACHED TO A DUPLEX DCE OR LOCAL ATTACH DEVICE. FOR HALF DUPLEX OPERATION THE BOARD JUMPER MUST NOT BE PRESENT. VERIFY THAT THE RS232C/V.24 INTERFACES MATCH THE MODE OF THE ATTACHED DCE'S OR LOCAL ATTACH DEVICES AND IF NOT, ADD OR REMOVE THE APPLICABLE JUMPER(S), USING THE CHART BELOW TO DETERMINE LINE ADDRESS VERSUS BOARD JUMPERING POSITIONS. FOR ANY HALF DUPLEX TO DUPLEX JUMPERING, USE JUMPER STRIP, P/N 5159491.

NOTE 1: IF ANY RS232C/V.24 INTERFACE IS TO BE CHANGED FROM HALF DUPLEX TO DUPLEX OR DUPLEX TO HALF DUPLEX, THE CDS MUST BE UPDATED PER SECTION 18.2 TO REFLECT THE MODE CHANGE.

NOTE 2: THE CHART BELOW SHOWS ALL POSSIBLE RS232C/V.24 SYSGEN ADDRESS POSITIONS ON THE 3705-80 SERIES OF MACHINES. DEPENDENT UPON YOUR 3705-80 MODEL, ALL OF THE ADDRESS POSITIONS LISTED MAY NOT BE PHYSICALLY INSTALLED. THE PHYSICALLY INSTALLED ADDRESSES ARE LISTED BELOW BY MODEL. HALF DUPLEX OPERATION USES ONLY THE EVEN ADDRESS.

MODEL 81-ADDRESSES 024/025, 026/027, 028/029, 02A/02B
MODEL 82-ADDRESSES 024/025, 026/027, 028/029, 02A/02B, 030/031
032/033, 034/035, 036/037, 038/039, 03A/03B
MODEL 83-ADDRESSES 020/021, 022/023, 024/025, 026/027, 028/029, 02A/02B,
02C/02D, 02E/02F, 030/031, 032/033, 034/035, 036/037,
038/039, 03A/03B, 03C/03D, 03E/03F
MODEL 84-ADDRESSES 024/025, 026/027, 028/029, 02A/02B

SYSGEN ADDRESS(ES)	BOARD	BOARD PINS	DESCRIPTION
020/021	01A-A2	B2P06 TO P08	LIB A LINE 0 PARTITION=1
022/023	01A-A2	C2P06 TO P08	LIB A LINE 1 PARTITION=1
024/025	01A-A2	D2P06 TO P08	LIB A LINE 2 PARTITION=2
026/027	01A-A2	E2P06 TO P08	LIB A LINE 3 PARTITION=2
028/029	01A-A2	H2P06 TO P08	LIB A LINE 4 PARTITION=3
02A/02B	01A-A2	J2P06 TO P08	LIB A LINE 5 PARTITION=3
02C/02D	01A-A2	K2P06 TO P08	LIB A LINE 6 PARTITION=4
02E/02F	01A-A2	L2P06 TO P08	LIB A LINE 7 PARTITION=4
030/031	01A-A1	B2P06 TO P08	LIB B LINE 0 PARTITION=5
032/033	01A-A1	C2P06 TO P08	LIB B LINE 1 PARTITION=5
034/035	01A-A1	D2P06 TO P08	LIB B LINE 2 PARTITION=6
036/037	01A-A1	E2P06 TO P08	LIB B LINE 3 PARTITION=6
038/039	01A-A1	H2P06 TO P08	LIB B LINE 4 PARTITION=7
03A/03B	01A-A1	J2P06 TO P08	LIB B LINE 5 PARTITION=7
03C/03D	01A-A1	K2P06 TO P08	LIB B LINE 6 PARTITION=8
03E/03F	01A-A1	L2P06 TO P08	LIB B LINE 7 PARTITION=8

11.2 IF A START/STOP LOCAL ATTACH DEVICE IS TO CONNECT TO THE 3705-80, THE LINE INTERFACE CARD LOGICALLY ATTACHED TO THAT DEVICE MUST BE REJUMPERED ACCORDING TO LOGIC SHEET VA004 (VOL. 46). IF APPLICABLE, USE THE CHART ABOVE TO DETERMINE THE CARD AFFECTED, WHICH IS DEPENDENT UPON THE SYSGEN ADDRESS(ES) OF THE START/STOP LOCAL ATTACH DEVICE.

12.0 POWER AND STANDALONE TESTS WITH A REMOTE PROGRAM LOADER FEATURE INSTALLED:

NOTE 1: IN ORDER TO BRING POWER-ON INDEPENDENT OF A CPU(S) EMERGENCY POWER-OFF (EPO) CABLE, A DUMMY EPO PLUG, P/N 5182923, MUST BE PLACED IN ANY ONE OF THE CPU EPO RECEPTACLES, J1 THRU J4 (SEE FIG 7.0, PAGE 7), IN THE 3705-80. IT IS EXTREMELY IMPORTANT THAT THE EPO PLUG BE REMOVED, WHEN LEFT UNATTENDED DURING INSTALLATION OR IF A CA-1 OR CA-4 IS INSTALLED IN THIS 3705-80 AND THE CPU(S) EPO CABLE HAS BEEN ATTACHED.

NOTE 2: REMOVE THE UNIT PROTECT KEY FROM THE PACKING ENVELOPE TAPED TO THE 3705-80 PANEL, INSERT THE KEY AND TURN THE KEY TO THE PANEL ENABLE POSITION. THE KEY CANNOT BE REMOVED WHEN IN THIS POSITION.

12.1 REMOVE A CONFIGURED DISKETTE WHICH IS STORED ON THE INSIDE OF THE RIGHT HAND SIDE COVER DOOR, REMOVE THE DISKETTE FROM THE CLEAR PLASTIC SHIPPING PACKAGE AND ENVELOPE, INSTALL THE DISKETTE IN THE 33FD FILE, ORIENTING THE DISKETTE SO THAT THE LABEL IS FACING THE INSTALLER (TO OPEN THE 33FD, PRESS THE LATCH WHICH IS LOCATED ON THE FRONT OF THE 33FD DRIVE UNIT). TWO IDENTICAL DISKETTES ARE PROVIDED IN CASE ONE IS DAMAGED.

CONTINUED ON PAGE 11

12.2 POWER ON MEASUREMENTS

POWER SUPPLY MEASUREMENT (AND ADJUSTMENTS, IF NECESSARY) PROCEDURES SHOULD BE PERFORMED AS SPECIFIED IN THE 3705-80 FETMM (MLM VOL. III, SHEET D580, D.C. VOLTAGE MEASUREMENTS).

12.3 REMOTE HARDWARE CHECKOUT

THIS TEST IS A CHECKPOINT TO VERIFY THAT THE REMOTE 3705-80 IS AT A FUNDAMENTAL OPERATING LEVEL BEFORE CONTINUING THE INSTALLATION OR INSTALLING THE COMMUNICATIONS FACILITIES.

NOTE: IF ANY OF THE SELF TESTS BELOW ARE UNSUCCESSFUL, REFER TO MLM VOL. I FOR SYSTEMATIC TROUBLESHOOTING PROCEDURES.

12.3.1 IF A CHANNEL ADAPTER ENABLE/DISABLE SWITCH IS PRESENT, PLACE THE SWITCH IN THE DISABLE POSITION.

12.3.2 PLACE THE PANEL MODE SELECT SWITCH TO PROCESS.

12.3.3 PLACE THE DISPLAY/FUNCTION SELECT SWITCH TO STATUS.

12.3.4 PLACE IN THE ROTARY ADDRESS/DATA SWITCHES A THROUGH E THE VALUE X'0DDDD'.

12.3.5 DEPRESS THE POWER ON BUTTON. AFTER THE POWER CHECK INDICATOR LIGHT GOES OFF, DEPRESS THE INTERRUPT PUSHBUTTON.

IF ALREADY POWERED ON, DEPRESS THE RESET PUSHBUTTON, FOLLOWED BY DEPRESSING THE LOAD AND THEN INTERRUPT PUSHBUTTONS.

THE PROCESSING UNIT WILL NOW PERFORM A SELF TEST. THIS TEST SHOULD LAST FOR APPROXIMATELY THIRTY SECONDS, IF SUCCESSFUL; OR IF NOT SUCCESSFUL, THE UNIT MAY POSSIBLY RUN FOR APPROXIMATELY THREE MINUTES BEFORE THE MACHINE HARD STOPS.

12.3.6 IF THE SELF TEST WAS SUCCESSFUL, THE FOLLOWING LIST WILL REPRESENT THE STATE OF KEY INDICATORS WITH THE DISPLAY/FUNCTION SELECT SWITCH IN THE STATUS POSITION. THE NUMBER IN ( ) REPRESENTS THE NUMBER OF LIGHTS TO BE CHECKED.

INDICATOR	STATE	INDICATOR	STATE
POWER CHECK	OFF	CS CYCLE	OFF
CHAN 1 INTF A ENABLED		I CYCLE	OFF
(IF PRESENT)	OFF	CYCLE TIME (2)	ON
CHAN 1 INTF B ENABLED		IPL PHASE (2)	OFF
(IF PRESENT)	OFF	ADAPTER CHECK	OFF
CC CHECK	OFF	IN/OUT CHECK	OFF
PANEL ACTIVE	ON	ADDRESS EXCEPT	OFF
POWER ON	ON	PROTECT CHECK	OFF
HARD STOP	ON	INVALID OP	OFF
TEST	ON	PROGRAM LEVEL 1	OFF
WAIT	ON	PROGRAM LEVEL 2	OFF
PROGRAM STOP	ON	PROGRAM LEVEL 3	OFF
LOAD	OFF	PROGRAM LEVEL 4	ON
CC CHECKS (9)	OFF	C LATCH	OFF
ADDRESS COMPARE	OFF	Z LATCH	ON

12.3.7 PLACE THE DISPLAY/FUNCTION SELECT SWITCH IN THE STORAGE ADDRESS POSITION: IF THE TEST WAS SUCCESSFUL, BYTE 0 AND BYTE 1 OF DISPLAY A AND B WILL CONTAIN HEX 'XFFFF'.

12.3.8 UPON SUCCESSFUL COMPLETION OF SECTIONS 12.3.1 THROUGH 12.3.7, PERFORM THE FOLLOWING STORAGE TEST PATTERN.

12.3.8.1 SET THE DIAGNOSTIC CONTROL SWITCH TO STORAGE TEST PATTERN.

12.3.8.2 SET THE FOUR STORAGE DATA SWITCHES TO HEX 'XAAAA'.

12.3.8.3 SET THE DISPLAY/FUNCTION SELECT SWITCH TO THE STORAGE ADDRESS POSITION AND DEPRESS START.

12.3.8.4 IF THE CC CHECK INDICATOR IS OFF, THE TEST WAS SUCCESSFUL.

12.3.8.5 DEPRESS RESET.

CONTINUED ON PAGE 12

12.3.8.6 SET THE DIAGNOSTIC CONTROL SWITCH TO STORAGE SCAN.

12.3.8.7 DEPRESS START.

12.3.8.8 IF THE CC CHECK INDICATOR IS OFF, THE TEST IS SUCCESSFUL.

12.3.8.9 REPEAT 12.3.8.1 THRU 12.3.8.8, USING HEX 'X0000', 'XFFFF', 'X5555', 'X8001 AND 'XFFFE' IN STEP 12.3.8.2.

13.0 INTERNAL FUNCTIONAL TESTS:

NOTE: THE FOLLOWING HARDWARE HAS BEEN SUPPLIED FOR EXTERNALLY WRAPPING THE 3705-80 LINE INTERFACES:

P/N 6835406 (2)-EIA RS232C/V.24 WRAP BLOCKS.
P/N 1770812 (2)-WITH A 3705-80 MODEL 84 FOR WRAPPING THE LINE SET 8'S IN PARTITIONS 5, 6 AND 7 OR AN OPTIONAL LINE SET IN PARTITION 1.
P/N 1770812 (2)-WITH A 3705-80 MODEL 81 OR 82, IF AN OPTIONAL LINE SET 2 HDX, 3 HDX, 5 OR 8 IS INSTALLED IN PARTITION 1.
P/N 1770812 (1)-WITH A 3705-80 MODEL 81 OR 82, IF AN OPTIONAL LINE SET 2 DX, 3 DX OR 9 IS INSTALLED IN PARTITION 1.
P/N 1770810 (3)-Y JUMPER.
P/N 1770811 (10)-JUMPER.

13.1 VERIFY THAT THE CONFIGURATION OF FEATURES AND LINE SETS ARE THE SAME AS THAT SHIPPED FROM THE MANUFACTURING PLANT. IF THE MACHINE CONFIGURATION HAS CHANGED, AN ALTERATION OF THE CONFIGURATION DATA SET (CDS) PREVIOUSLY WRITTEN ON THE DISKETTES AT THE PLANT IS REQUIRED. REFER TO MLM VOL. I (FORM NUMBER SY27-0208) FOR AN EXPLANATION OF THIS PROCEDURE. ALSO REFER TO SECTION 18.2, IF ANY EIA RS232C/V.24 LINE INTERFACES HAVE BEEN CHANGED FROM HALF DUPLEX TO DUPLEX OR DUPLEX TO HALF DUPLEX.

13.2 RUN THE IFT'S FOR THE REMOTE 3705-80 AS EXPLAINED IN MLM VOL. I.

14.0 DEFINE THE LINE ADDRESS FOR THE REMOTE LINK AND CONTINUE DOWN LINE TESTS:

14.1 BEFORE A COMMUNICATION LINK IS ESTABLISHED BETWEEN THE REMOTE 3705-80 AND A LOCAL 3704/5, THE LINE ADDRESS FOR THIS LINK MUST BE DEFINED AND CONFIGURED ON THE DISK. REFER TO MLM VOL. I, FOR AN EXPLANATION OF THIS PROCEDURE.

14.2 COMPLETE DIAGNOSTIC TESTING OF THE REMOTE 3705-80 BY RUNNING THE DOWN LINE TERMINAL TESTS.

15.0 CHECKOUT OF UNIT PROTECT FEATURE:

TURN THE UNIT PROTECT KEY IN THE DISABLE POSITION AND NOTE THAT AT THIS POINT THE PANEL ACTIVE INDICATOR WILL TURN OFF. WITH THE UNIT PROTECT KEY IN THE DISABLE POSITION, THE DEPRESSION OF ANY OTHER PANEL PUSHBUTTON OR SWITCH (EXCEPT POWER ON/OFF, CHANNEL ENABLE/DISABLE AND DISPLAY/FUNCTION SELECT) WILL NOT HAVE AN AFFECT ON MACHINE OPERATION. AFTER COMPLETING THE UNIT PROTECT CHECKOUT, TURN THE KEY TO THE PANEL ENABLE POSITION.

16.0 EXTERNAL CABLE RELIEF HARDWARE INSTALLATION:

16.1 INSTALL THE 3705-80 EXTERNAL CABLE RELIEF HARDWARE LISTED BELOW PER REFERENCE DRAWING P/N 1862319.

CABLE RELIEF P/N 1770764, USING SCREW P/N 186890 (2)
CABLE RELIEF P/N 1770785, USING SCREW P/N 19852 (2)
CABLE RELIEF P/N 1770765, USING SCREW P/N 3690 (2)
CABLE RELIEF P/N 5182943, USING SCREW P/N 3690 (2)

16.2 INSTALL EXTERNAL CABLE BRACKET, P/N 1770782, USING SCREW P/N 28413 (4), ONTO THE 01S GATE, PER REFERENCE DRAWING P/N 1862310.

17.0 3705-80 JUMPERING AND CARD REFERENCE INFORMATION:

	LOGIC REFERENCE			
FEATURE	BOARD JUMPERS	CARD JUMPERS [2]	TERMINATOR CARDS	SOCKET LISTING
CHANNEL ADAPTERS CA-1 CA-4	RA052 PA048	RA050-RA051 PA048	RA001 PA001	RA000 PA000
STANDALONE REMOTE (NO CA'S INSTALLED)	(SEE [1])			
COMMUNICATIONS SCANNER CS2			TA000	TA000
LIBS	VA00X X:REFER	VA00X TO SPECIFIC	VA001 LINESET TYPE	VA000
CCU	AJ001A			DZ001-DZ002
STORAGE				MM010
REMOTE PROGRAM LOADER				GE000
POWER CONTROL				YZ844

[1] JUMPER B4T2B11 TO B4T2D08 (SEE AJ001 – SIGNAL NAME "FORCE ALT")

[2] USE JUMPER STRIP P/N 5159491 AS REQUIRED.

	LOGIC REF
PRIME POWER JUMPERS	YZ824 YZ830

18.0 CDS REFERENCE:

18.1 FOR DOMESTIC AND EMEA COUNTRIES A PREPUNCHED CDS IS INCLUDED IN THE SHIPPING GROUP FOR 3705-80'S WITH A CA-1 OR CA-4. SOME ADDITIONAL INFORMATION MUST BE PUNCHED INTO THE DECK BEFORE IT CAN BE USED. THIS DECK SHOULD BE DUPLICATED FOR EACH CHANNEL INTERFACE THAT HAS A DIFFERENT NSC ADDRESS. THE FOLLOWING INFORMATION MUST BE ADDED TO THE DECK(S):

CARD	CARD COLUMN(S)	CONTENTS/DESCRIPTION
1	10-17	NATIVE SUBCHANNEL ADDRESS IN HEX RIGHT JUSTIFIED (EX. 0000010A)
1	20-21	= 20 IF THIS 3705-80 HAS A TYPE 4 CHANNEL INSTALLED; OTHERWISE 00.
1	31	= 4 IF A CA-1 OR CA-4 TWO CHANNEL SWITCH IS INSTALLED; OTHERWISE 0
1	36-39	ESC UNIT ADDRESS IN HEX OF LOWEST EMULATOR LINE ADDRESS (EX. 0010). LEAVE BLANK IF MACHINE USES NCP ONLY.
1	40-41	HEX NUMBER OF EMULATOR LINE ADDRESSES.
1	52-67	HEX REPRESENTATION OF THE SYMBOLIC NAME OF THE NCP. LEAVE BLANK IF NCP IS NOT USED.
3	36-37	NSC ADDRESS INTF A FOR THE FIRST CA. MAY BE CA-1 OR CA-4.
3	44-45	NSC ADDRESS FOR THE SECOND CA IF TWO CA-4'S ARE INSTALLED.

CONTINUED ON PAGE 14

18.2 IF ANY RS232C/V.24 LINE SET 1 INTERFACE(S) HAVE BEEN CHANGED FROM DUPLEX TO HALF DUPLEX OR FROM HALF DUPLEX TO DUPLEX, UPDATE THE CDS TO ACCURATELY REFLECT THE MODE JUMPERING OF THOSE INTERFACE(S), PER THE CHART BELOW:

CARD	CARD COLUMN	CARD PUNCH	CDS BYTE LOCATION	MODE	SYSGEN ADDRESS(ES)	DESCRIPTION
4	24-25	04	0F5A	HDX	020	LIB A LINE 0 PARTITION=1
4	24-25	08	0F5A	DX	020/021	LIB A LINE 0 PARTITION=1
4	26-27	04	0F5B	HDX	022	LIB A LINE 1 PARTITION=1
4	26-27	08	0F5B	DX	022/023	LIB A LINE 1 PARTITION=1
4	28-29	04	0F5C	HDX	024	LIB A LINE 2 PARTITION=2
4	28-29	08	0F5C	DX	024/025	LIB A LINE 2 PARTITION=2
4	30-31	04	0F5D	HDX	026	LIB A LINE 3 PARTITION=2
4	30-31	08	0F5D	DX	026/027	LIB A LINE 3 PARTITION=2
4	32-33	04	0F5E	HDX	028	LIB A LINE 4 PARTITION=3
4	32-33	08	0F5E	DX	028/029	LIB A LINE 4 PARTITION=3
4	34-35	04	0F5F	HDX	02A	LIB A LINE 5 PARTITION=3
4	34-35	08	0F5F	DX	02A/02B	LIB A LINE 5 PARTITION=3
4	36-37	04	0F60	HDX	02C	LIB A LINE 6 PARTITION=4
4	36-37	08	0F60	DX	02C/02D	LIB A LINE 6 PARTITION=4
4	38-39	04	0F61	HDX	02E	LIB A LINE 7 PARTITION=4
4	38-39	08	0F61	DX	02E/02F	LIB A LINE 7 PARTITION=4
4	40-41	04	0F62	HDX	030	LIB B LINE 0 PARTITION=5
4	40-41	08	0F62	DX	030/031	LIB B LINE 0 PARTITION=5
4	42-43	04	0F63	HDX	032	LIB B LINE 1 PARTITION=5
4	42-43	08	0F63	DX	032/033	LIB B LINE 1 PARTITION=5
4	44-45	04	0F64	HDX	034	LIB B LINE 2 PARTITION=6
4	44-45	08	0F64	DX	034/035	LIB B LINE 2 PARTITION=6
4	46-47	04	0F65	HDX	036	LIB B LINE 3 PARTITION=6
4	46-47	08	0F65	DX	036/037	LIB B LINE 3 PARTITION=6
4	48-49	04	0F66	HDX	038	LIB B LINE 4 PARTITION=7
4	48-49	08	0F66	DX	038/039	LIB B LINE 4 PARTITION=7
4	50-51	04	0F67	HDX	03A	LIB B LINE 5 PARTITION=7
4	50-51	08	0F67	DX	03A/03B	LIB B LINE 5 PARTITION=7
4	52-53	04	0F68	HDX	03C	LIB B LINE 6 PARTITION=8
4	52-53	08	0F68	DX	03C/03D	LIB B LINE 6 PARTITION=8
4	54-55	04	0F69	HDX	03E	LIB B LINE 7 PARTITION=8
4	54-55	08	0F69	DX	03E/03F	LIB B LINE 7 PARTITION=8

18.3 VERIFY THAT THE CONFIGURATION OF FEATURES AND LINE SETS ARE THE SAME AS THAT SHIPPED FROM THE MANUFACTURING PLANT. IF THE MACHINE CONFIGURATION HAS CHANGED, AN ALTERATION OF THE PREPUNCHED CONFIGURATION DATA SET IS REQUIRED. REFER TO MLM VOL. I (FORM NUMBER SY27-0208), FOR AN EXPLANATION OF THIS PROCEDURE.

19.0 LS 8 OR 9 SWITCHED/NON SWITCHED MODE JUMPERING:

ANY X.21 INTERFACES INSTALLED IN THIS 3705-80 WERE JUMPERED AT THE FACTORY FOR SWITCHED/NON SWITCHED OPERATION ACCORDING TO THE CUSTOMER ORDER. ENSURE THAT ANY X.21 LS-8 OR 9 INTERFACE AND CONTROL CARDS ARE JUMPERED COMPATIBLE WITH THE DCE THAT THEY WILL LOGICALLY BE ATTACHED TO (REFERENCE VA017, SHEET 2). THE CHART BELOW SHOWS THE POSSIBLE LS-8 OR 9 INTERFACES THAT MAY BE INSTALLED. LS-8 HDX OPERATION USES ONLY THE EVEN SYSGEN ADDRESS. LS-9 HDX OPERATION USES ONLY ADDRESS 20.

NOTE 1: NO CDS CHANGE IS REQUIRED IF AN X.21 SWITCHED TO NON SWITCHED OR NON SWITCHED TO SWITCHED MODE CHANGE IS REQUIRED.

NOTE 2: A DESCRIPTION FOR CHANGING THE MODE JUMPERING ON LS-8 OR 9 CARDS IS INCLUDED IN THE VA000A PAGES. AS REQUIRED, THE FOLLOWING SECTIONS OF THE VA000A PAGES CAN BE REFERRED TO:

SECTION 7.0 CHANGE THE MODE OF AN X.21 LS-9 INTERFACE FROM SWITCHED TO NON SWITCHED.
SECTION 8.0 CHANGE THE MODE OF AN X.21 LS-9 INTERFACE FROM NON SWITCHED TO SWITCHED.
SECTION 9.0 CHANGE THE MODE OF AN X.21 LS-8 INTERFACE FROM SWITCHED TO NON SWITCHED.
SECTION 10.0 CHANGE THE MODE OF AN X.21 LS-8 INTERFACE FROM NON SWITCHED TO SWITCHED.

SYSGEN ADDRESS(ES)	INTERFACE CARD	CONTROL CARD	DESCRIPTION
020/022	01A-A2B2	01A-A2M2	LIB A LINE 0 PARTITION=1 (OPTIONAL LS-9 INTERFACE)
020/021	01A-A2B2	01A-A2M2	LIB A LINE 0 PARTITION=1 (OPTIONAL LS-8 INTERFACE)
022/023	01A-A2C2	01A-A2M4	LIB A LINE 1 PARTITION=1 (OPTIONAL LS-8 INTERFACE)
030/031	01A-A1B2	01A-A1M2	LIB B LINE 0 PARTITION=5 (LS-8 INTERFACE-MOD 84 ONLY)
032/033	01A-A1C2	01A-A1M4	LIB B LINE 1 PARTITION=5 (LS-8 INTERFACE-MOD 84 ONLY)
034/035	01A-A1D2	01A-A1N2	LIB B LINE 2 PARTITION=6 (LS-8 INTERFACE-MOD 84 ONLY)
036/037	01A-A1E2	01A-A1N4	LIB B LINE 3 PARTITION=6 (LS-8 INTERFACE-MOD 84 ONLY)
038/039	01A-A1H2	01A-A1P2	LIB B LINE 4 PARTITION=7 (LS-8 INTERFACE-MOD 84 ONLY)
03A/03B	01A-A1J2	01A-A1P4	LIB B LINE 5 PARTITION=7 (LS-8 INTERFACE-MOD 84 ONLY)

ENG. CHANGE NO: 344268 344614 344828 344836
DATE OF CHANGE: NOV 80 MAR 81 JUN 81 DEC 81

20.0 CONVERT-DELTA (220/235V) TO WYE (380/408V) 50 HZ

REPLACE CBI WITH P/N SHOWN:

		3705-80
I FRAME	CBI	5182907

ACTION	DESCRIPTION	CABLE-JUMPER P/N	FROM	TO	380V	408V	LOGIC REFERENCE
REMOVE	PLATE	1770816	FL-1 POSITION	———	X	X	YZ886 (SH 13)
ADD	FL-1	1770797	———	FL-1 POSITION	X	X	YZ886 (SH 13)
ADD	WIRES #1 & 2	1770861	FL-1-T1	PPB-CB1-L4	X	X	YZ806
REPLACE	AC CORD	5182964	———	———	X	X	YZ806
RELOCATE	WIRE #3	1649102	PPB-TB3-7	PPB-TB3-12	X	X	YZ806
RELOCATE	JUMPER	1757911	PPB-TB3-7	PPB-TB3-12	X	X	YZ806
ADD	JUMPER	596458	PPB-TB3-11	PPB-TB3-12	X	X	YZ806
RELOCATE	WIRE #10	1649102	PPB-K2-L1	PPB-K2-2A	X	X	YZ808
ADD	JUMPER	1757910	PPB-TB1-4	T3-TB1-9		X	YZ808
ADD	JUMPER	1757910	PPB-TB1-4	T3-TB1-10	X		YZ808
[1] RELOCATE	WIRE #5	1643853	PPB-T2-TB4-5	PPB-T2-TB4-4	X		YZ824
[1] RELOCATE	WIRE #5	1643853	PPB-T2-TB4-4	PPB-T2-TB4-5		X	YZ824
MAIN TRANSFORMER T3-TB1:							
RELOCATE	JUMPER	———	4 & 5 OR 4 & 6	2 & 6	X		YZ830
RELOCATE	JUMPER	———	8 & 9 OR 8 & 10	6 & 10	X		YZ830
RELOCATE	JUMPER	———	4 & 5 OR 4 & 6	1 & 5		X	YZ830
RELOCATE	JUMPER	———	8 & 9 OR 8 & 10	5 & 9		X	YZ830
REMOVE	JUMPER	1757912	1 & 12 OR 2 & 12	———	X	X	YZ830
ADD	FEATURE CODE						

NOTE

[1] WIRE MAY BE ON TERMINAL SPECIFIED.

REFERENCE ONLY

ENG. CHANGE NO: 344268 344614 344828 344836
DATE OF CHANGE: NOV 80 MAR 81 JUN 81 DEC 81

21.0 CONVERT-WYE (380/408V) TO DELTA (220/235V) 50 HZ

REPLACE CB1 WITH P/N SHOWN:

	[3] [4]	3705-80
1 FRAME	CB1	5719454

ACTION	DESCRIPTION	CABLE-JMPR P/N	FROM	TO	220V	235V	LOGIC REFERENCE
REPLACE	AC CORD	5182961			X	X	YZ806
REMOVE	WIRES #1 & 2	1770861	FL-1-T1	PPB-CB1-L4	X	X	YZ806
REMOVE	WIRES # 1 & 2	1770861	FL-1-T1	PPB-TB3-10 & 11	X	X	YZ806
REMOVE	FL-1	1770797	FL-1 POSITION	———	X	X	YZ886(SH 13)
ADD	PLATE [1]	1770816	———	FL-1 POSITION	X	X	YZ886(SH 13)
RELOCATE	WIRE #3	1649102	PPB-TB3-12	PPB-TB3-7	X	X	YZ806
RELOCATE	JUMPER	1757911	PPB-TB3-12	PPB-TB3-7	X	X	YZ806
REMOVE	JUMPER	596458	PPB-TB3-11	PPB-TB3-12	X	X	YZ806
RELOCATE	WIRE #10	1649102	PPB-K2-2A	PPB-K2-L1	X	X	YZ808
REMOVE	JUMPER	1757910	PPB-TB1-4	T3-TB1-9 OR 10	X	X	YZ808
[2] RELOCATE	WIRE #5	1643853	PPB-T2-TB4-5	PPB-T2-TB4-4	X		YZ824
[2] RELOCATE	WIRE #5	1643853	PPB-T2-TB4-4	PPB-T2-TB4-5		X	YZ824
MAIN TRANSFORMER T3-TB1:							
RELOCATE	JUMPER	———	2 & 6 OR 1 & 5	4 & 6	X		YZ830
RELOCATE	JUMPER	———	6 & 10 OR 5 & 9	8 & 10	X		YZ830
RELOCATE	JUMPER	———	2 & 6 OR 1 & 5	4 & 5		X	YZ830
RELOCATE	JUMPER	———	6 & 10 OR 5 & 9	8 & 9		X	YZ830
ADD	JUMPER	1757912	———	2 & 12	X		YZ830
ADD	JUMPER	1757912	———	1 & 2		X	YZ830
ADD	FEATURE CODE						

NOTES:

[1] USE SCREW P/N 10170 (2) AND LOCK WASHER P/N 62031 (2) TO INSTALL PLATE.

[2] WIRE MAY BE ON THE TERMINAL SPECIFIED.

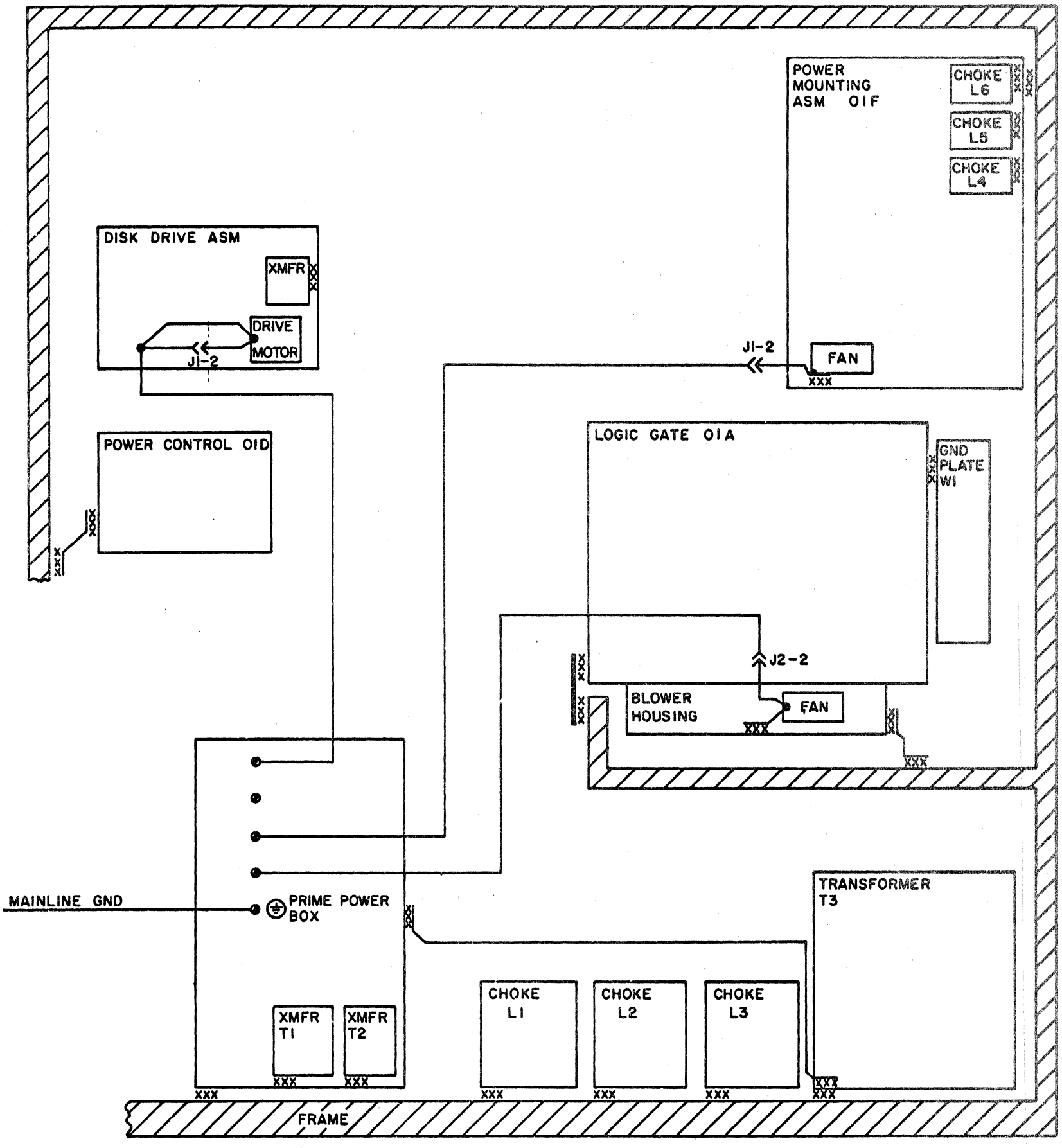
[3] CB1 IS MOUNTED USING BRACKET P/N 5171863 AND 2 SCREWS P/N 381002.

[4] ADD PATCH PANEL P/N 5182974 USING 2 SCREWS P/N 10170.

REFERENCE ONLY

2730493C

PART NO 2730493 | LOGIC PG NO YZ801



NOTES

1 SAFETY GROUND WIRING IS GREEN/YELLOW
2 EXTERNAL TOOTH STARWASHERS INSTALLED BETWEEN TERMINAL AND FRAME

LEGEND: XXX = EXTERNAL TOOTH STARWASHER

IBM										
NAME	GROUND SCHEMATIC				REL	MAR81	344614			
DESIGN	JJS	JAN81	SHT 1 OF 1							
DETAIL	RTS	JAN81								
CHECK	CDN	JAN81	CLASSIFICATION		MUST CONFORM TO ENG SPEC		DEVELOPMENT NO		LOGIC PG NO	
APPRO	MTL	JAN81	JJS	JAN81					YZ801	

2730493C

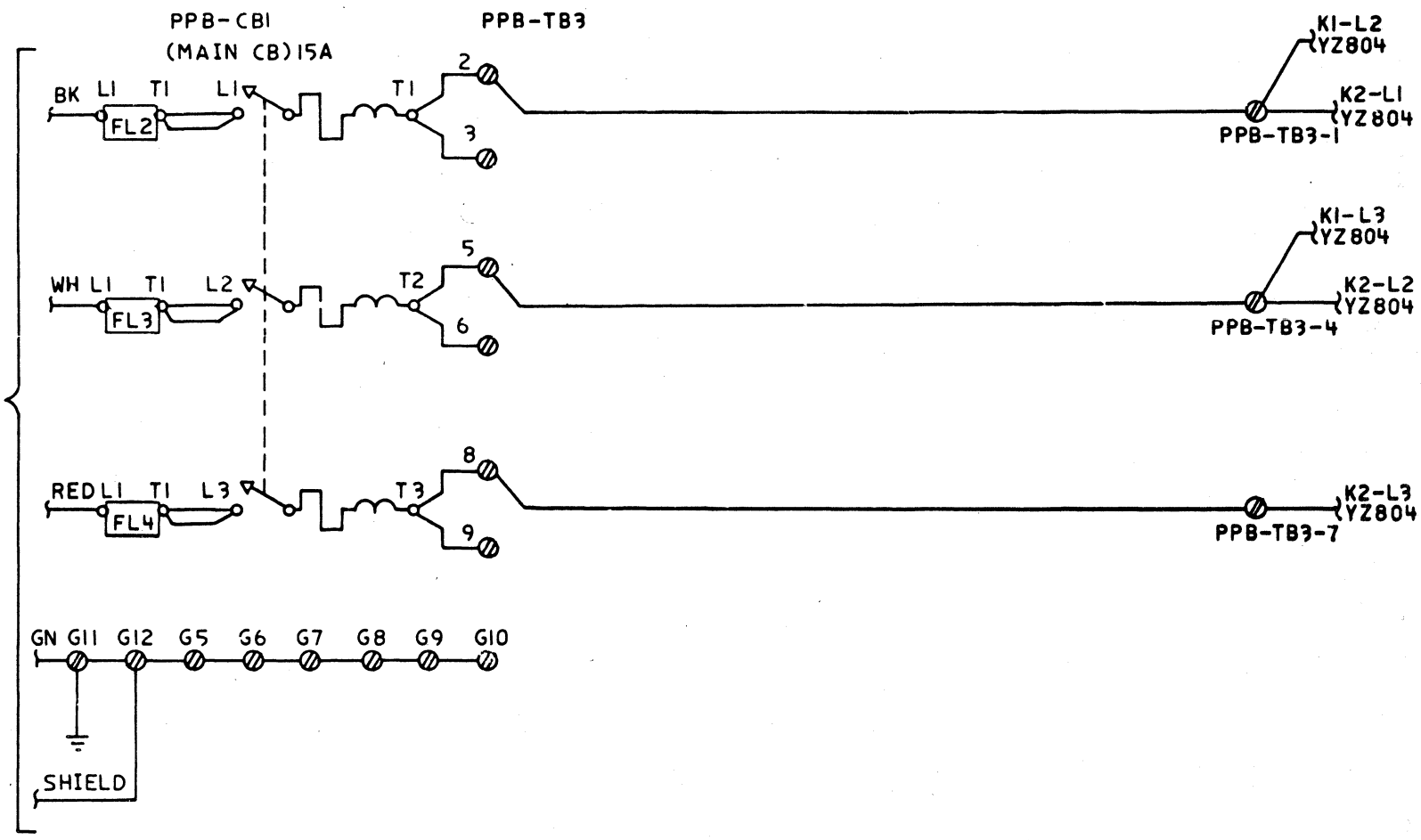
680-0134-1 MROS 7808228304 VERTICAL ELECTRICAL FORMAT ASTROCLOTH N650T

C

1762940

PART NO	LOGIC PG NO
1762940	YZ802

208/230 60HZ



IBM										
NAME	208/230 V 60 HZ (DOM)				DATE	CHANGE NO		DATE	CHANGE NO	1762940
					MAR 80	322328				
					MAY80	322331				
DESIGN	RD	DEC 79	SHT 1 OF 1		OCT 80	344268				
DETAIL	LK	DEC 79			MAR81	344614				
CHECK	RD	JAN80	CLASSIFICATION	MUST CONFORM TO ENG SPEC		DEVELOPMENT NO		LOGIC PG NO		C
APPRO	AAM	JAN80						YZ802		

C

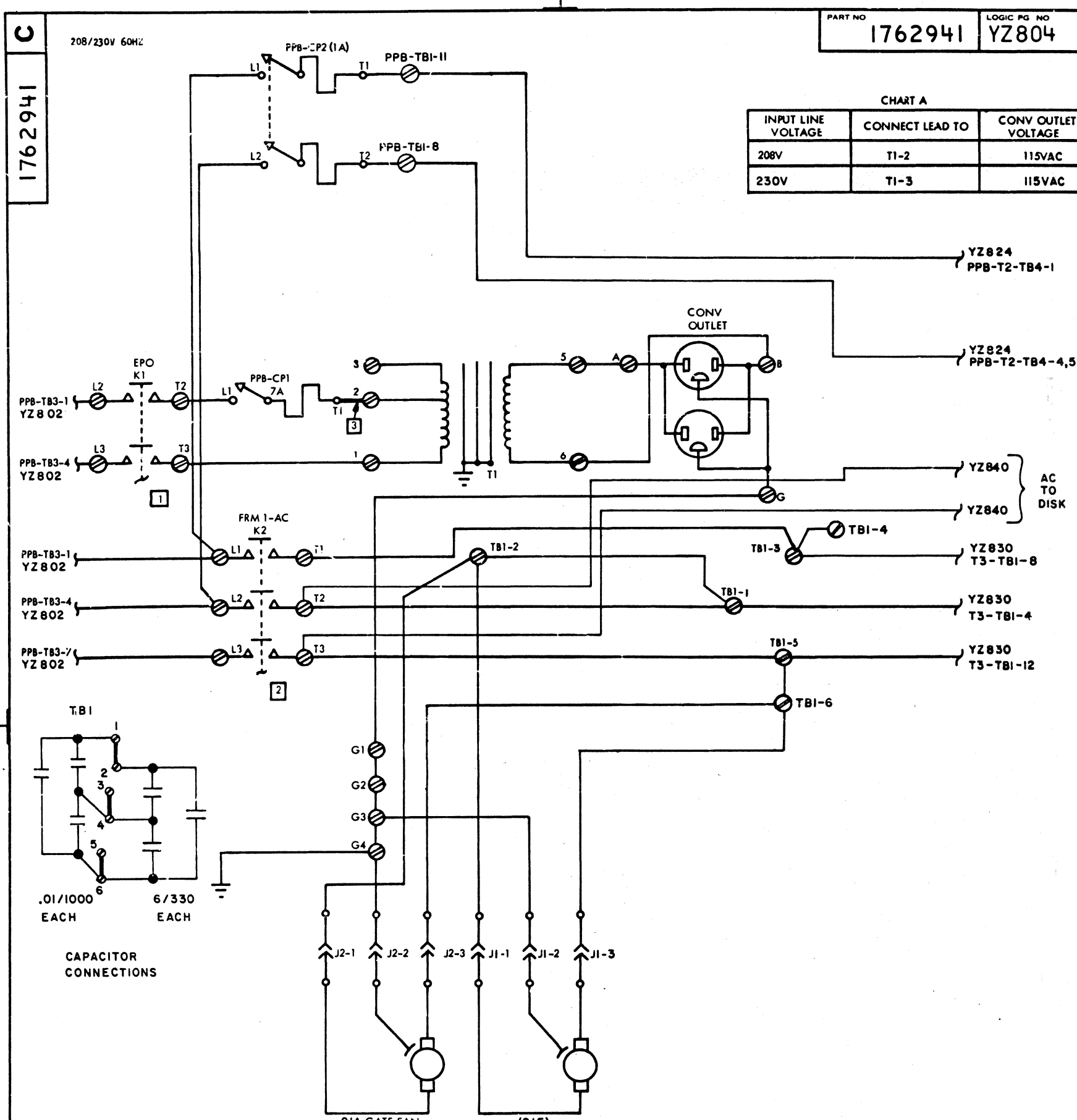
1762941

PART NO	LOGIC PG NO
1762941	YZ804

208/230V 60HZ

CHART A

INPUT LINE VOLTAGE	CONNECT LEAD TO	CONV OUTLET VOLTAGE
208V	T1-2	115VAC
230V	T1-3	115VAC



NOTES

1. K1 COIL SHOWN ON YZ822
2. K2 COIL SHOWN ON YZ822
3. CONNECT THIS LEAD PER CHART A

IBM					DATE	CHANGE NO		DATE	CHANGE NO
NAME	208/230V 60 HZ (DOM)				MAR 80	322328			
					OCT 80	344268			
DESIGN	RD	DEC 79	SHT 1 OF 1		MAR 81	344614			
DETAIL	LK	DEC 79			JUN81	344860			
CHECK	RD	JAN80	CLASSIFICATION	MUST CONFORM TO ENG SPEC		DEVELOPMENT NO		LOGIC PG NO	
APPRO	AAM	JAN80						YZ804	

1762941

C

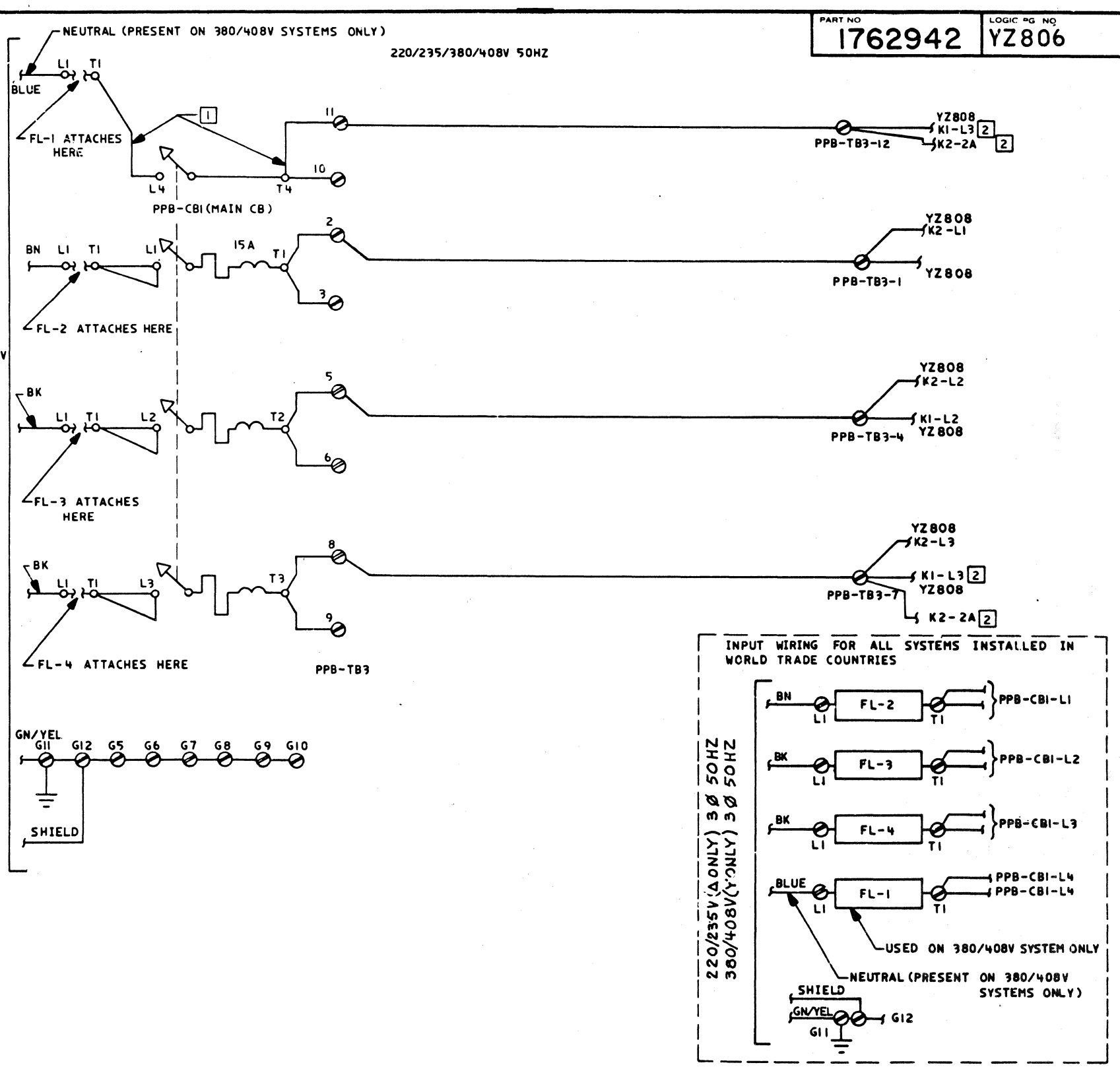
680-0184-1 MRQE 780848804 VERTICAL ELECTRICAL FORMAT ASTROCLOTH MOOT

K S F 2-12-80 01037

C

1762942

PART NO 1762942 | LOGIC PG NO YZ806



NOTES

1. FOR 380/408 V SYSTEMS A FOUR POLE CIRCUIT BREAKER IS USED TO INTERRUPT THE NEUTRAL
2. WIRE CONNECTS TO PPB-TB3-12 FOR ALL 380/408 V MACHINES OR TO PPB-TB3-7 FOR ALL 220/235V 'Δ' MACHINES

IBM									
NAME					DATE	CHANGE NO		DATE	CHANGE NO
220/235/380/408 V 50 HZ					MAR 80	322328			
DESIGN	RD	DEC 79	SHT 1 OF 1		OCT 80	344268			
DETAIL	LK	DEC 79			MAR 81	344614			
CHECK	RD	JAN 80	CLASSIFICATION	MUST CONFORM TO ENG SPEC		DEVELOPMENT NO		LOGIC PG NO	
APPRO	AAM	JAN 80						YZ806	

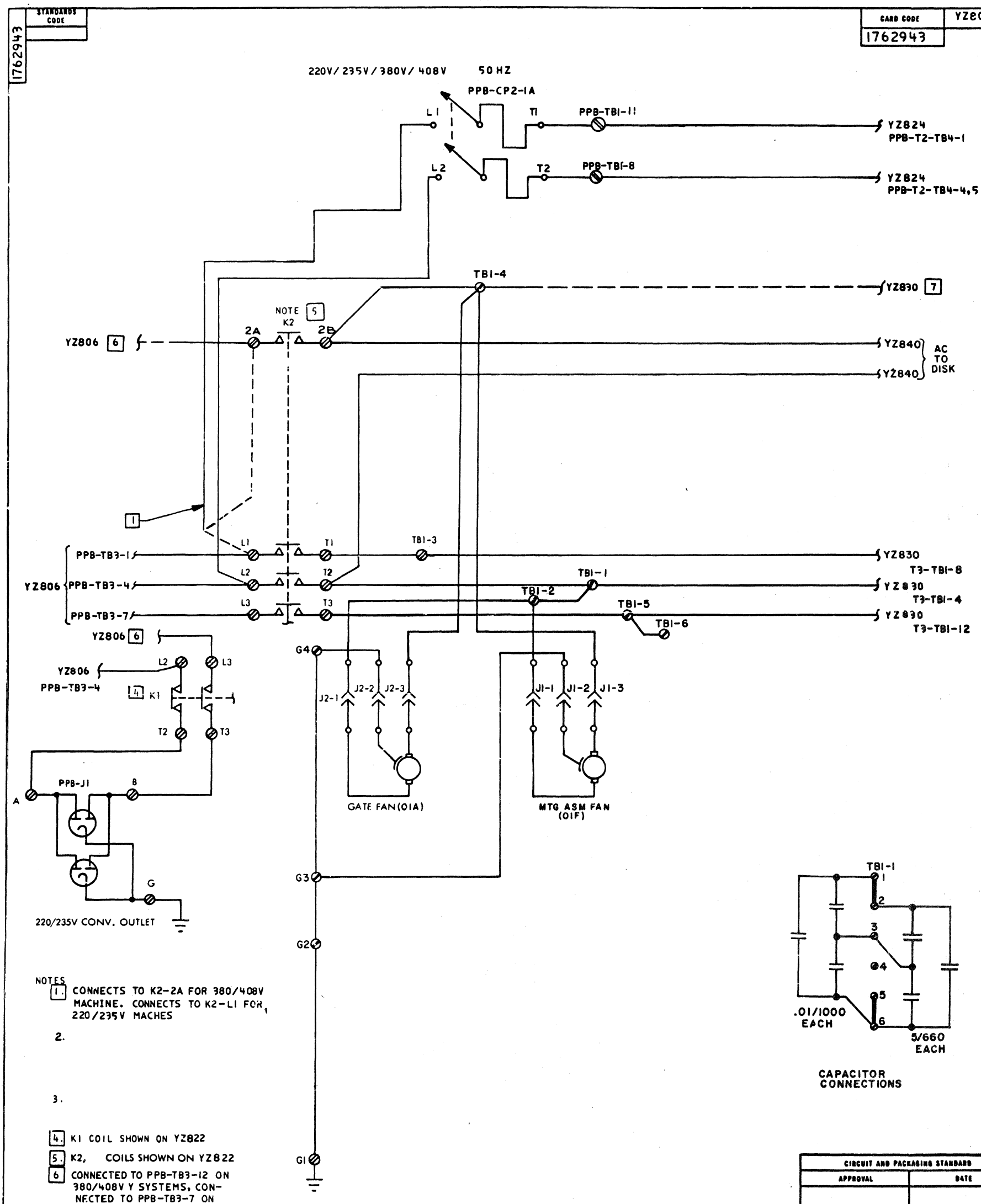
1762942 C

KSF 3-12-80 01037

STANDARDS CODE 1762943

CARD CODE YZ808 | 1762943

220V/235V/380V/408V 50HZ



NOTES

1. CONNECTS TO K2-2A FOR 380/408V MACHINE. CONNECTS TO K2-L1 FOR 220/235V MACHES

2.

3.

4. K1 COIL SHOWN ON YZ822

5. K2, COILS SHOWN ON YZ822

6. CONNECTED TO PPB-TB3-12 ON 380/408V Y SYSTEMS, CONNECTED TO PPB-TB3-7 ON 220/235V Δ SYSTEMS

7. THIS WIRE PRESENT ON 380/408V Y CONNECTED SYSTEMS ONLY. IT IS CONNECTED TO T3-TB1-10 ON 380V SYSTEM AND TO T3-TB1-9 ON 408V SYSTEMS

C

CIRCUIT AND PACKAGING STANDARD	
APPROVAL	DATE

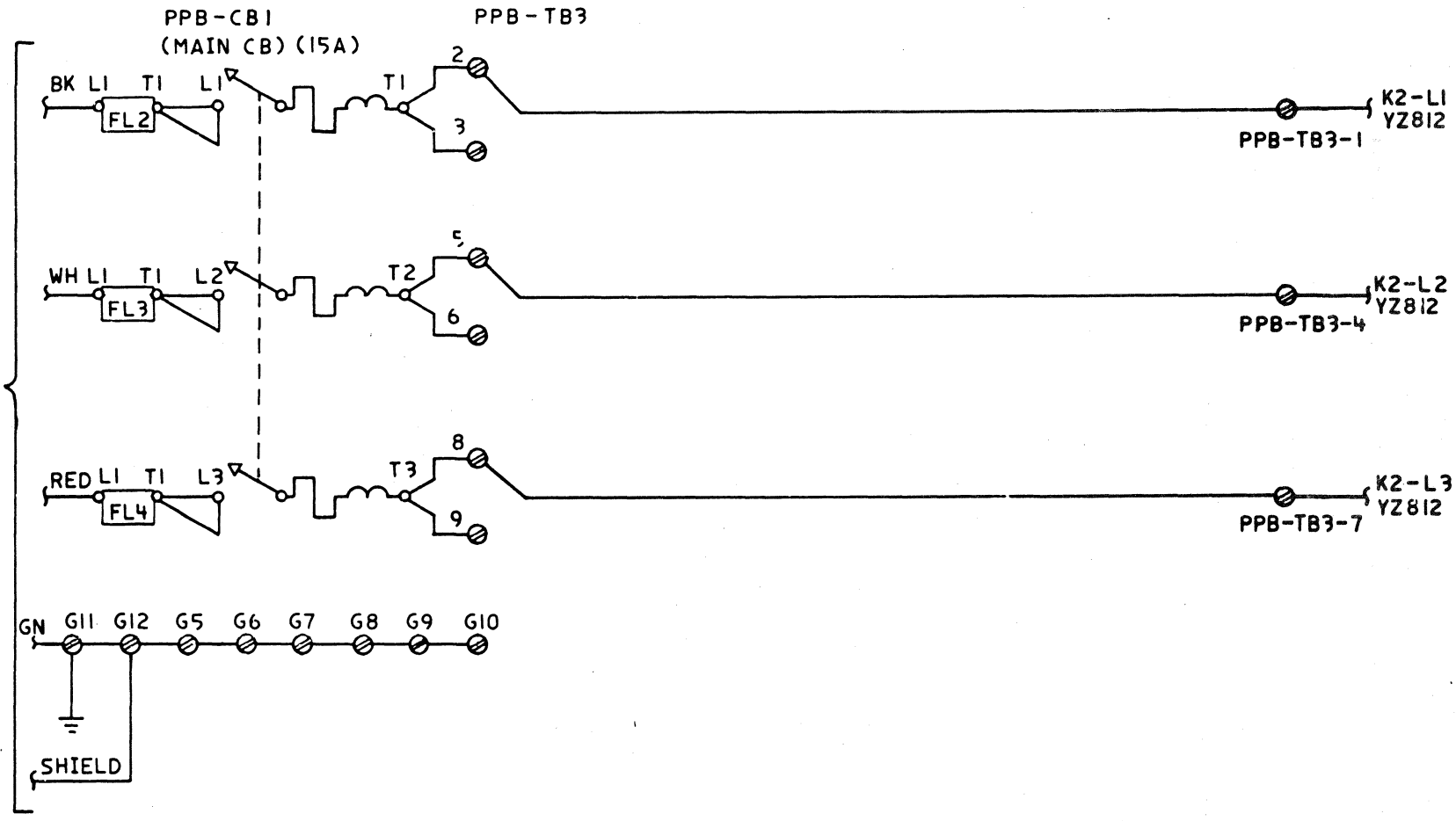
INTERNATIONAL BUSINESS MACHINES CORP.					DATE	CHANGE NO.	APPROVAL	DATE	CHANGE NO.	APPROVAL	DEVELOPMENT NO.	
NAME 220/235/380/408V 50HZ					MAR 80	322328						1762943
DESIGN	RD	DEC79	MODEL		MAY80	322331						
DETAIL	LK	DEC79	SCALE		DEC80	344268						
CHECK	RD	JAN80	DRAW		MAR81	344614					YZ808	
APPRO	AAM	JAN80	CHECK		JUN81	344860						

KSE 2-12-23 01837

PART NO	LOGIC PG NO
1762944	YZ810

C 1762944

200V 60HZ JAPAN
208/230V/60HZ WTC



IBM					DATE	CHANGE NO		DATE	CHANGE NO
NAME	200 V 60 HZ JAPAN, 208/230 V				MAR 80	322328			
60 HZ WTC					MAY80	322331			
DESIGN	RD	DEC79	SHT 1 OF 1		OCT80	344268			
DETAIL	LK	DEC79			MAR81	344614			
CHECK	RD	JAN 80	CLASSIFICATION	MUST CONFORM TO ENG SPEC		DEVELOPMENT NO		LOGIC PG NO	
APPRO	AAM	JAN80						YZ810	

1762944 C

680-0134-1 ORDR 7306882504 VERTICAL ELECTRICAL FORMAT ASTROCLOTH 16001

VSE 3-17-80 21837

1762945 STANDARDS CODE

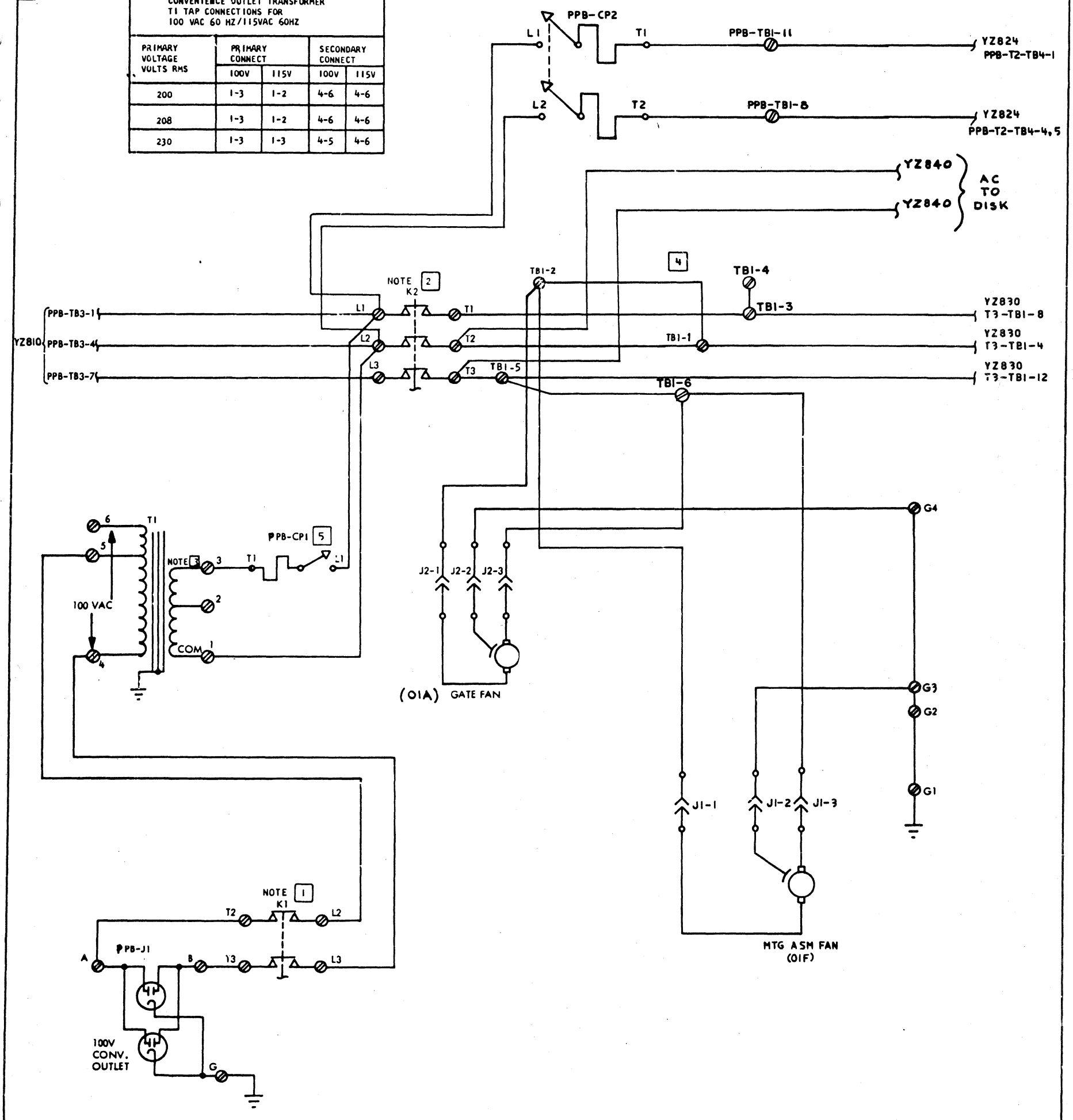
CARD CODE YZ812
1762945

200V 60HZ JAPAN
208/230V 60HZ W.T.C.

CHART A

CONVENIENCE OUTLET TRANSFORMER
T1 TAP CONNECTIONS FOR
100 VAC 60 HZ/115VAC 60HZ

PRIMARY VOLTAGE VOLTS RMS	PRIMARY CONNECT		SECONDARY CONNECT	
	100V	115V	100V	115V
200	1-3	1-2	4-6	4-6
208	1-3	1-2	4-6	4-6
230	1-3	1-3	4-5	4-6



NOTES:

1. K1 COIL SHOWN ON YZ822
2. K2 COIL SHOWN ON YZ822
3. REFER TO CHART A FOR TI TAP CONNECTIONS
4. SEE YZ804 FOR TBI CAPACITOR CONNECTIONS
5. 3A FOR 200V, 7A FOR 208/230V

C

CIRCUIT AND PACKAGING STANDARD	
APPROVAL	DATE

INTERNATIONAL BUSINESS MACHINES CORP.					DATE	CHANGE NO.	APPROVAL	DATE	CHANGE NO.	APPROVAL	DEVELOPMENT NO.
NAME	200 60HZ JAPAN, 208/230V 60HZ W.T.C.				MAR 80	322328					
DESIGN	RD	DEC79	MODEL		OCT 80	344268					
DETAIL	LK	DEC 80	SCALE		MAR 81	344614					
CHECK	RD	JAN 80	DRAW		JUN 81	344860					YZ812
APPRO	AAM	JAN 80	CHECK								

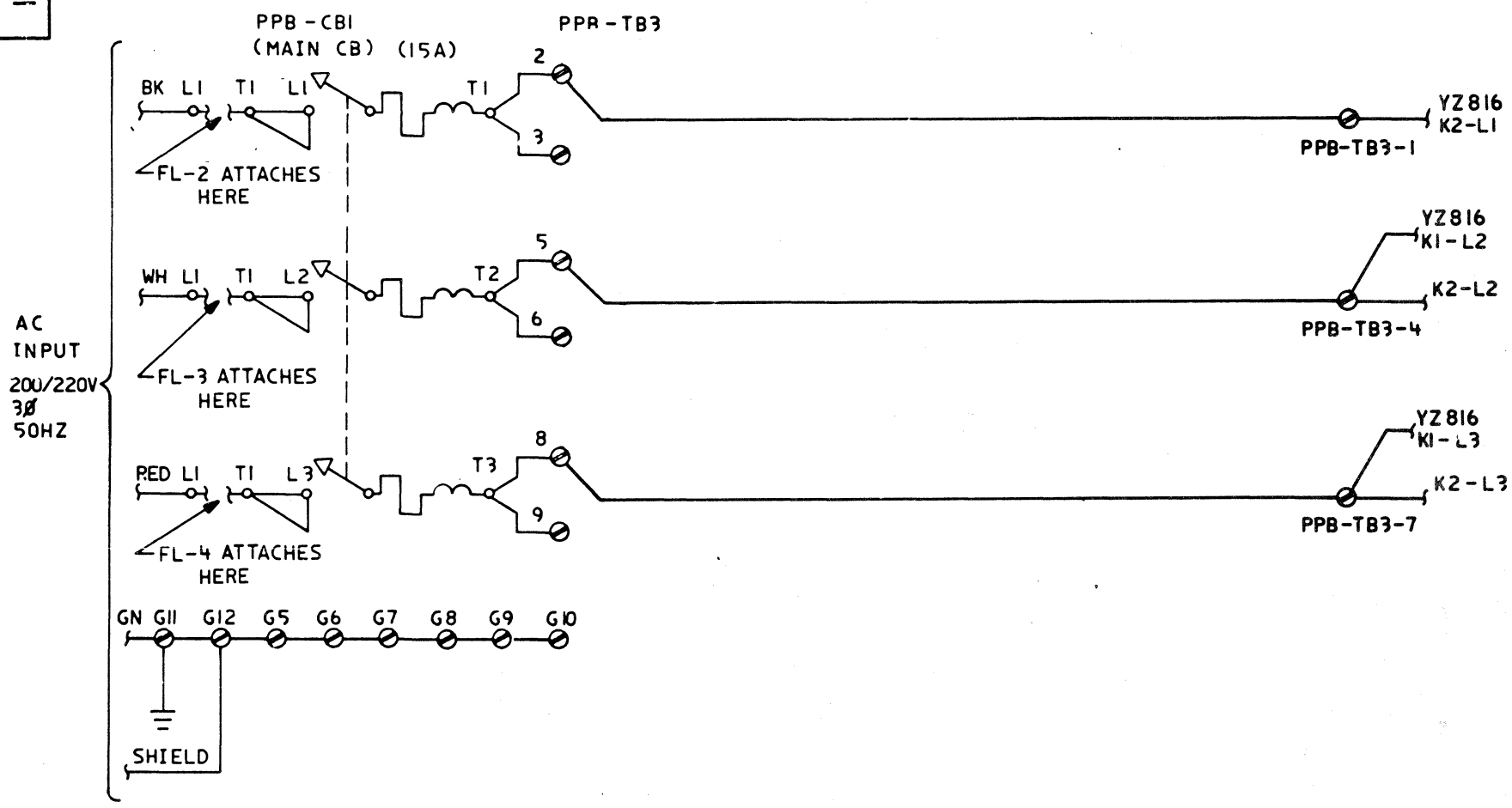
1762945

KSF 3-12 cr 21037

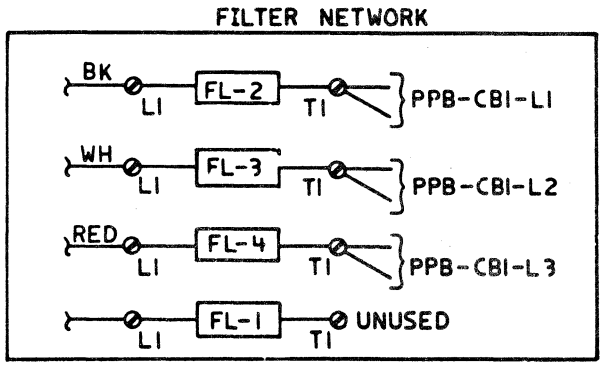
C 1762946

PART NO	LOGIC PG NO
1762946	YZ814

200/220V 50HZ JAPAN



FILTER NETWORK



IBM										
NAME	200/220V 50HZ JAPAN				DATE	CHANGE NO		DATE	CHANGE NO	1762946
					MAR 80	322328				
					OCT80	344268				
DESIGN	RD	DEC79	SHT 1 OF 1		MAR81	344614				
DETAIL	LK	DEC79								
CHECK	RD	JAN80	CLASSIFICATION	MUST CONFORM TO ENG SPEC		DEVELOPMENT NO		LOGIC PG NO		C
APPRO	AAM	JAN80						YZ814		

620 0134 1 MRO# 780822204 VERTICAL ELECTRICAL FORMAT ANTROCLOTH N680T

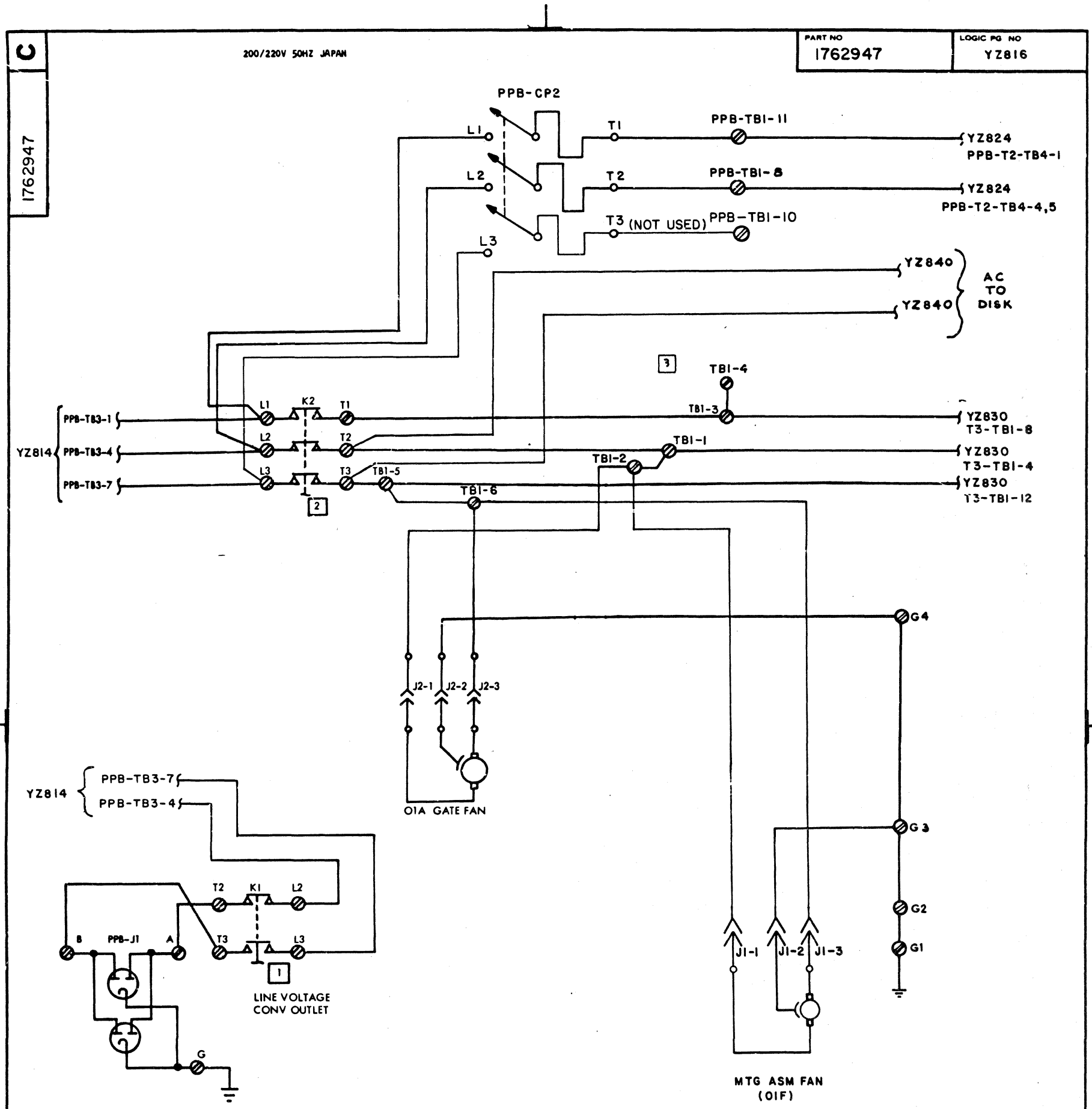
KSF 3-12-80 Ø1037

C

1762947

200/220V 50HZ JAPAN

PART NO	LOGIC PG NO
1762947	YZ816



NOTES

1. K1 COIL SHOWN ON YZ822
2. K2 COIL SHOWN ON YZ822
3. SEE YZ808 FOR TBI CAPACITOR CONNECTIONS

IBM					DATE	CHANGE NO		DATE	CHANGE NO
NAME	200/220V 50 HZ JAPAN				MAR 80	322328			
					OCT80	344268			
DESIGN	RD	DEC 79	SHT 1 OF 1		MAR81	344614			
DETAIL	LK	DEC 79			JUN81	344860			
CHECK	RD	JAN 80	CLASSIFICATION	MUST CONFORM TO ENG SPEC		DEVELOPMENT NO		LOGIC PG NO	
APPRO	AAM	JAN 80						YZ816	

1762947 C

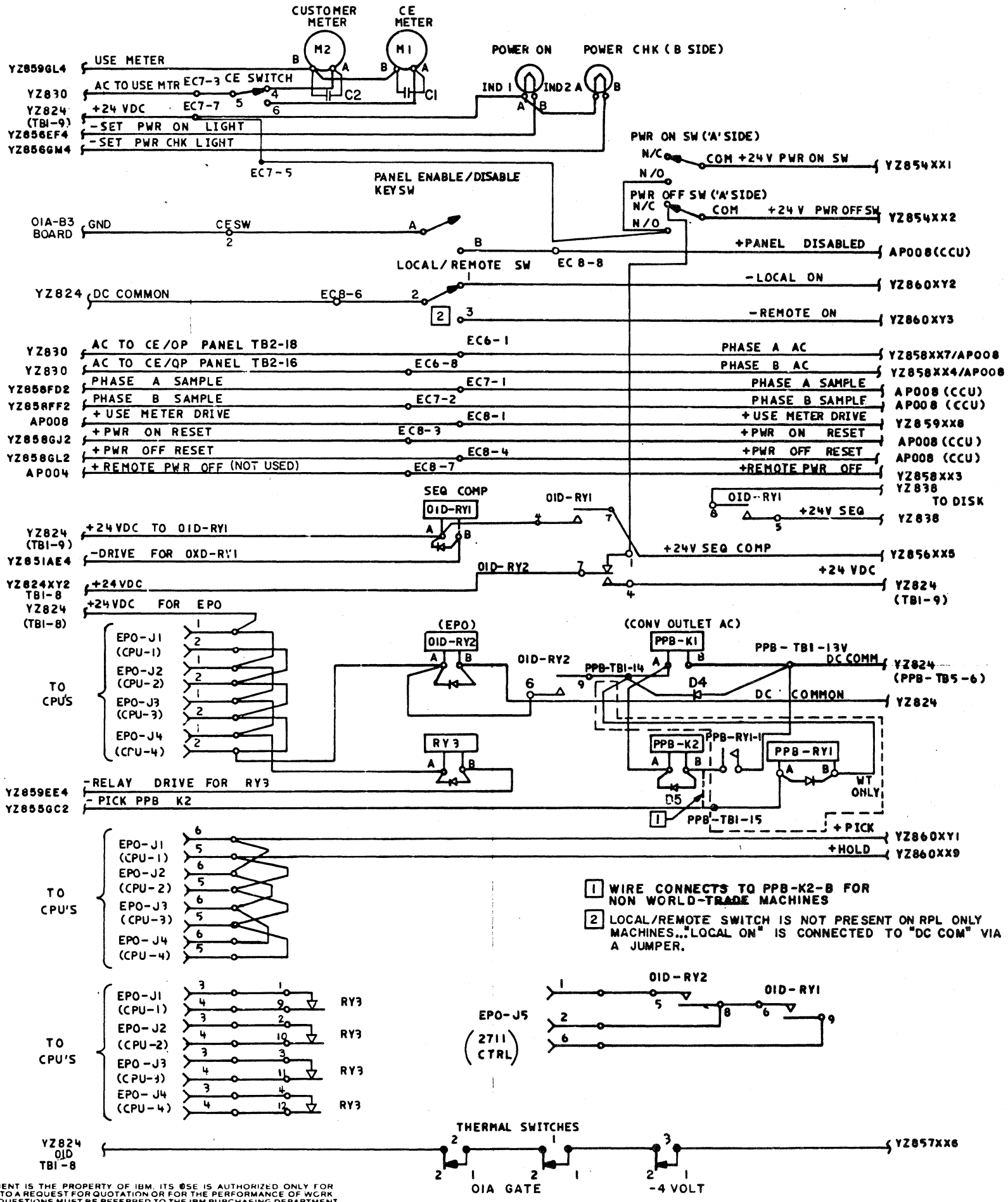
620-0134-1 MROF 7600332404 VERTICAL ELECTRICAL FORMAT ASTROCLOTH N6507

T KSF 3-12-80 #1037

1762948 C

PART NO 1762948 | LOGIC PG NO YZ822

CE/OP PANEL, METER, RELAYS AND EPO WIRING



[1] WIRE CONNECTS TO PPB-K2-B FOR NON WORLD-TRADE MACHINES

[2] LOCAL/REMOTE SWITCH IS NOT PRESENT ON RPL ONLY MACHINES.."LOCAL ON" IS CONNECTED TO "DC COM" VIA A JUMPER.

IBM								
NAME	CE/OP PANEL, METERS, RELAYS AND EPO WIRING				DATE	CHANGE NO		DATE	CHANGE NO
DESIGN	RD	DEC 79	SHT 1 OF 1		MAR80	322328		JUN81	344860
DETAIL	LK	DEC 79			MAY80	322331		JAN82	344836
CHECK	RD	JAN 80			OCT80	344268			
APPRO	AAM	JAN 80			MAR81	344614			

MUST CONFORM TO ENG SPEC	DEVELOPMENT NO	LOGIC PG NO
		YZ822

1762948 C

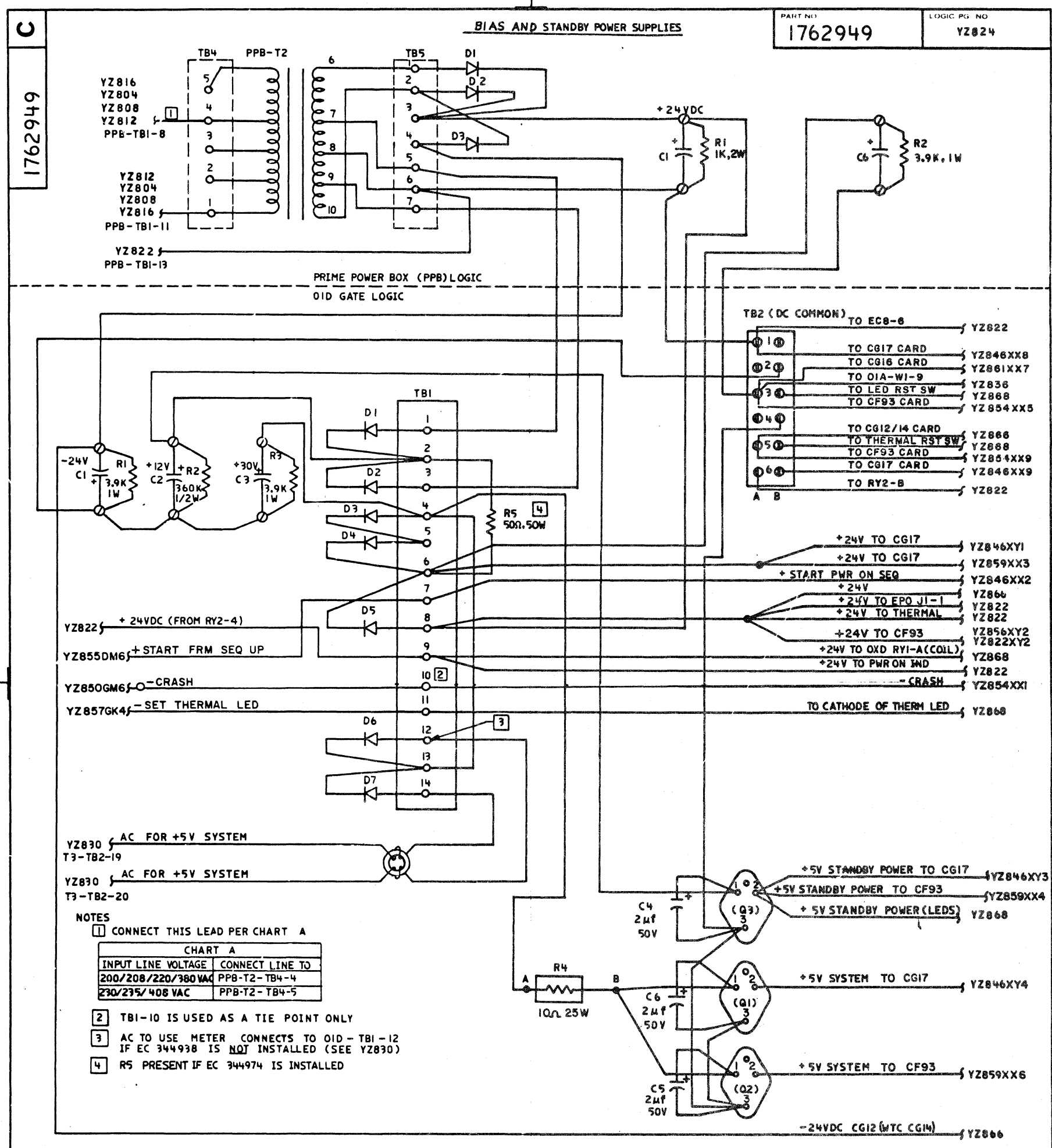
KSF 3-12-30 D1037

C

1762949

BIAS AND STANDBY POWER SUPPLIES

PART NO 1762949 | LOGIC PG NO YZ824



NOTES

[1] CONNECT THIS LEAD PER CHART A

CHART A	
INPUT LINE VOLTAGE	CONNECT LINE TO
200/208/220/380 VAC	PPB-T2-TB4-4
230/235/408 VAC	PPB-T2-TB4-5

[2] TBI-10 IS USED AS A TIE POINT ONLY

[3] AC TO USE METER CONNECTS TO OID-TBI-12 IF EC 344938 IS NOT INSTALLED (SEE YZ830)

[4] R5 PRESENT IF EC 344974 IS INSTALLED

IBM								
NAME	BIAS AND STANDBY POWER SUPPLIES				DATE	CHANGE NO		DATE	CHANGE NO
					MAR80	322328		JUL81	344860
					MAY80	322331		FEB82	344836
DESIGN	RD	DEC79	SHT 1 OF 1		OCT80	344268			
DETAIL	LK	DEC79			MAR81	344614			
CHECK	RD	JAN80		MUST CONFORM TO ENG SPEC		DEVELOPMENT NO		LOGIC PG NO	
APPRO	AAM	JAN80						YZ824	

1762949 C

N20 01 14 1 MNOC 7805222O4 VERTICAL ELECTRICAL FORMAT ANTRUCOTH N80OT

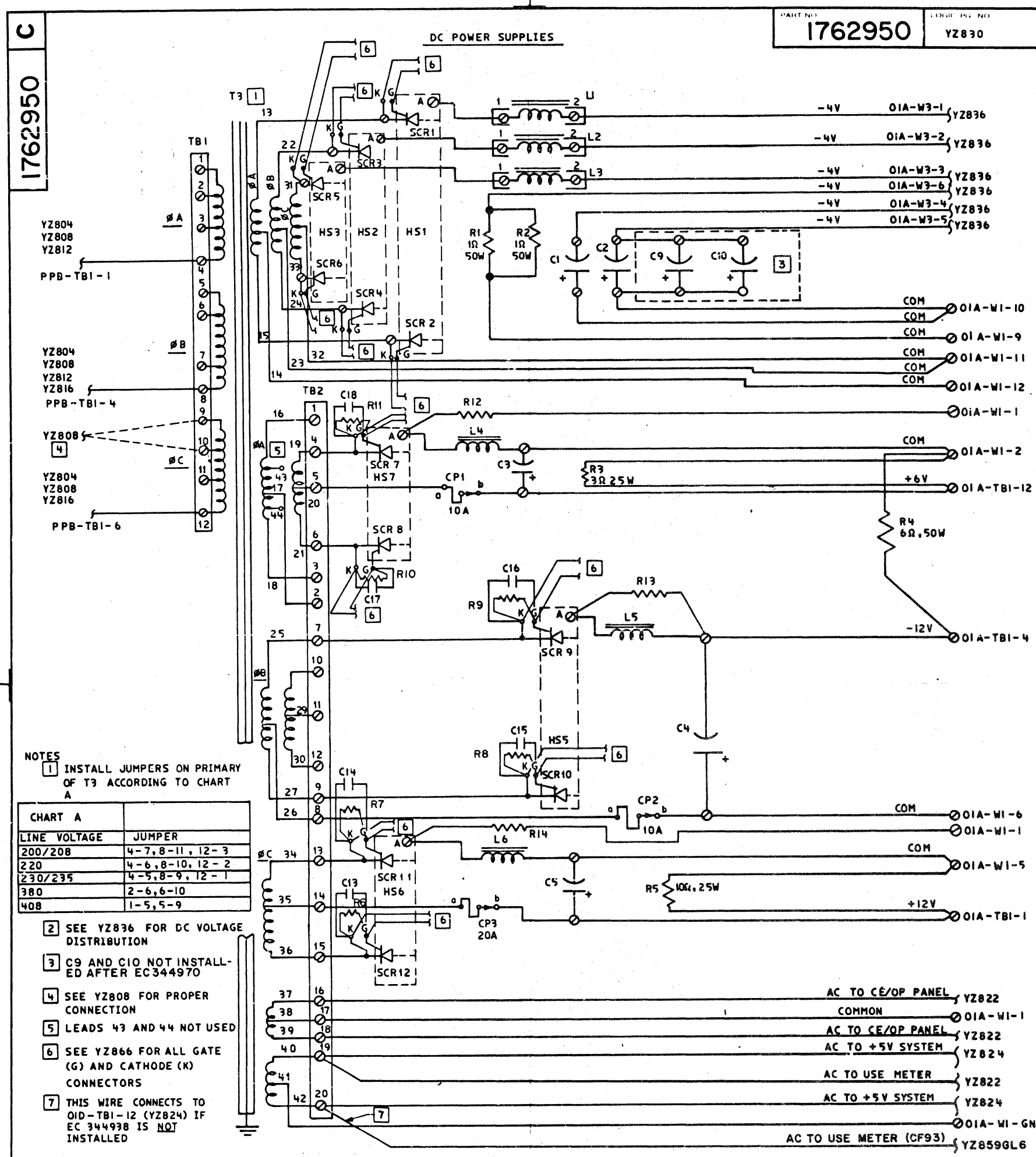
KSF 3-12-20 Ø1Ø37

C

1762950

PART NO 1762950 | LOGIC PG NO YZ830

DC POWER SUPPLIES



NOTES

1. INSTALL JUMPERS ON PRIMARY OF T3 ACCORDING TO CHART A

CHART A	
LINE VOLTAGE	JUMPER
200/208	4-7, 8-11, 12-3
220	4-6, 8-10, 12-2
230/235	4-5, 8-9, 12-1
380	2-6, 6-10
408	1-5, 5-9

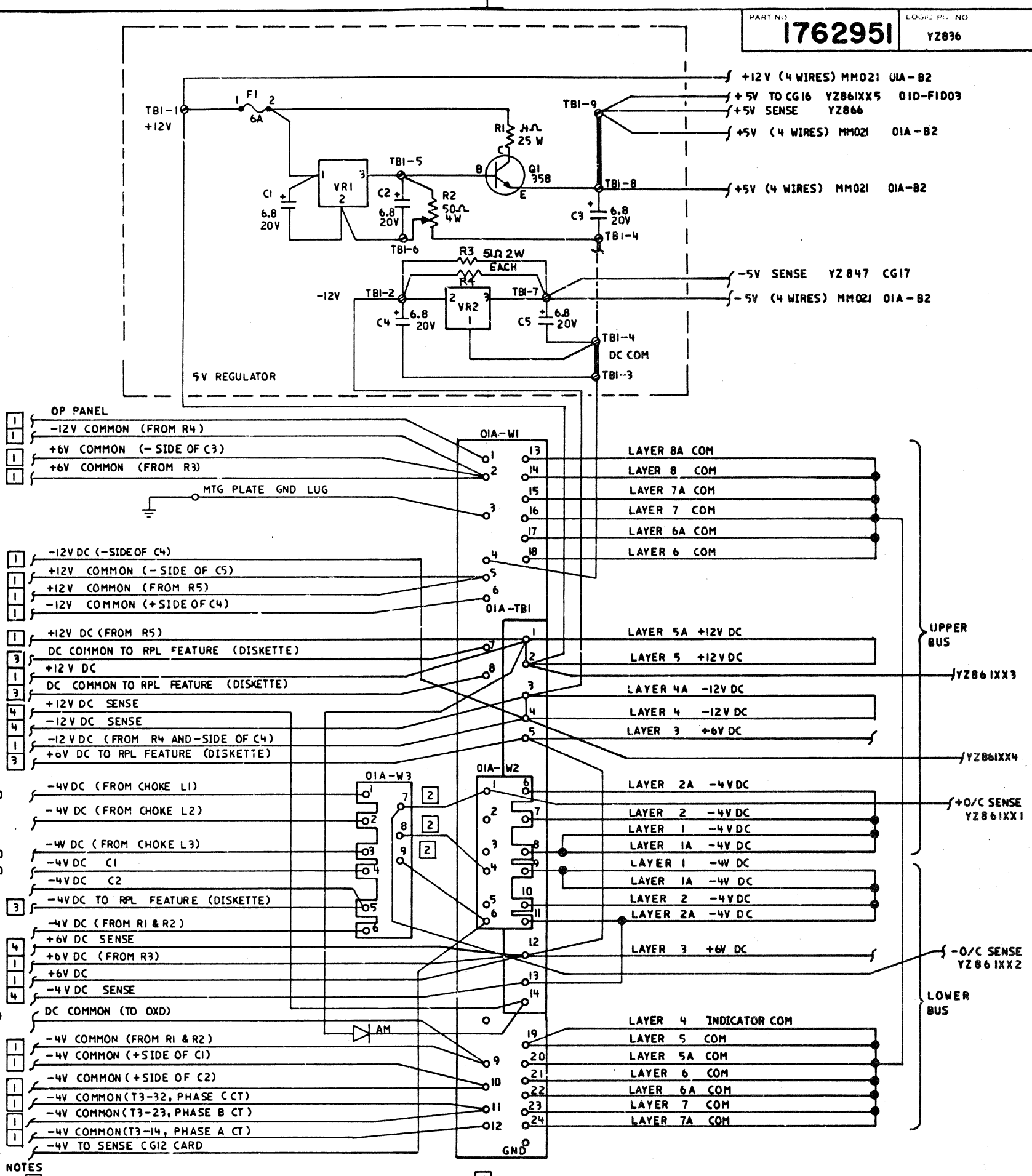
2. SEE YZ836 FOR DC VOLTAGE DISTRIBUTION
3. C9 AND C10 NOT INSTALLED AFTER EC344970
4. SEE YZ808 FOR PROPER CONNECTION
5. LEADS 43 AND 44 NOT USED
6. SEE YZ866 FOR ALL GATE (G) AND CATHODE (K) CONNECTORS
7. THIS WIRE CONNECTS TO OID-TBI-12 (YZ824) IF EC 344938 IS NOT INSTALLED

IBM								
NAME	DC POWER SUPPLIES:				DATE	CHANGE NO	DATE	CHANGE NO
-4, ±12, +6,					MAR 80	322328	JAN82	344836
DESIGN	RD	DEC 79	SHT 1 OF 1		OCT80	344268		
DETAIL	LK	DEC79			MAR81	344614		
CHECK	RD	JAN 80	CLASSIFICATION		JUL81	344860		
APPRO	AAM	JAN 80	TS	NOV79	MUST CONFORM TO ENG SPEC	DEVELOPMENT NO	LOGIC PG NO	
							YZ830	

1762950 C

620 0134 1 MROF 780822204 VERTICAL ELECTRICAL FORMAT ASTROCLOTH N880T

PART NO 1762951 | LOGIC PG NO YZ836



NOTES

1. THIS SIGNAL IS ONLY SHOWN HERE FOR REFERENCE PURPOSES. REFER TO PAGE YZ830 FOR THE DC SUPPLY SOURCE.
2. THESE CONDUCTORS FORM A CURRENT SHUNT

3. TO PAGE YZ838
4. TO PAGE YZ866

IBM					DATE	CHANGE NO		DATE	CHANGE NO
NAME	DC DISTRIBUTION				SEE EC HISTORY				
					JUN 81	344860			
DESIGN	RD	DEC 79	SHT 1 OF 1	RED	FEB 82	344836			
DETAIL	GT	FEB 82							
CHECK	RD	JAN 80	CLASSIFICATION	MUST CONFORM TO ENG SPEC		DEVELOPMENT NO	LOGIC PG NO		
APPRO	AAM	JAN 80	RD DEC 79				YZ836		

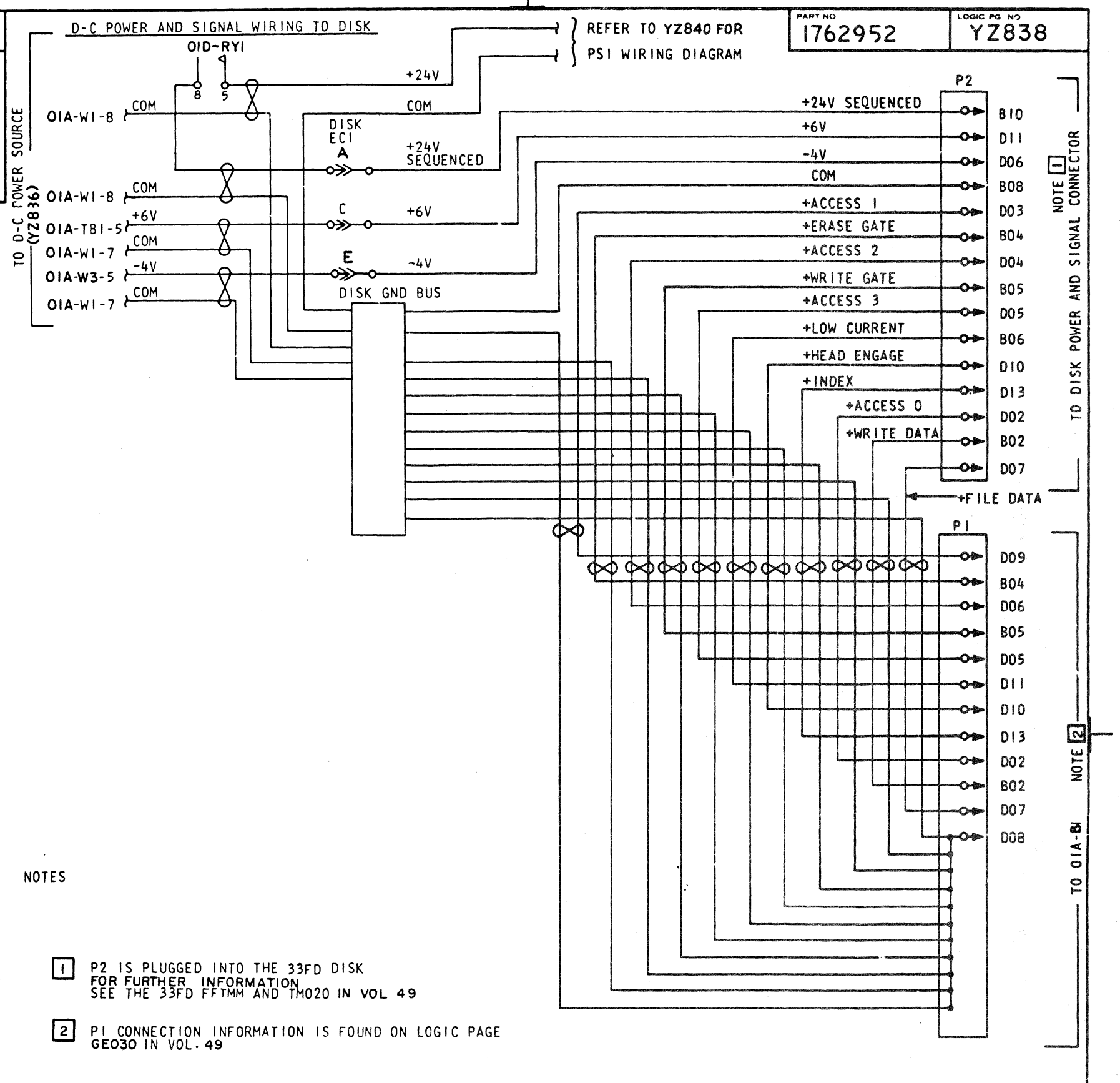
1762951 C

C

1762952

D-C POWER AND SIGNAL WIRING TO DISK

PART NO 1762952 | LOGIC PG NO YZ838



NOTES

1 P2 IS PLUGGED INTO THE 33FD DISK
FOR FURTHER INFORMATION
SEE THE 33FD FFTMM AND TM020 IN VOL 49

2 P1 CONNECTION INFORMATION IS FOUND ON LOGIC PAGE GE030 IN VOL. 49

IBM					DATE	CHANGE NO		DATE	CHANGE NO
NAME	D-C POWER AND SIGNAL				MAR 80	322328			
	WIRING TO DISK				OCT 80	344268			
DESIGN	RD	DEC 79	SHT 1 OF 1		MAR 81	344614			
DETAIL	LK	DEC 79			JUN 81	344860			
CHECK	RD	JAN 80	CLASSIFICATION	MUST CONFORM TO ENG SPEC	DEVELOPMENT NO		LOGIC PG NO		
APPRO	AAM	JAN 80					YZ838		

1762952 C

1820 0134-1 MROX 7[illegible]2204 VERTICAL ELECTRICAL FORMAT ASTROCLOTH N080T

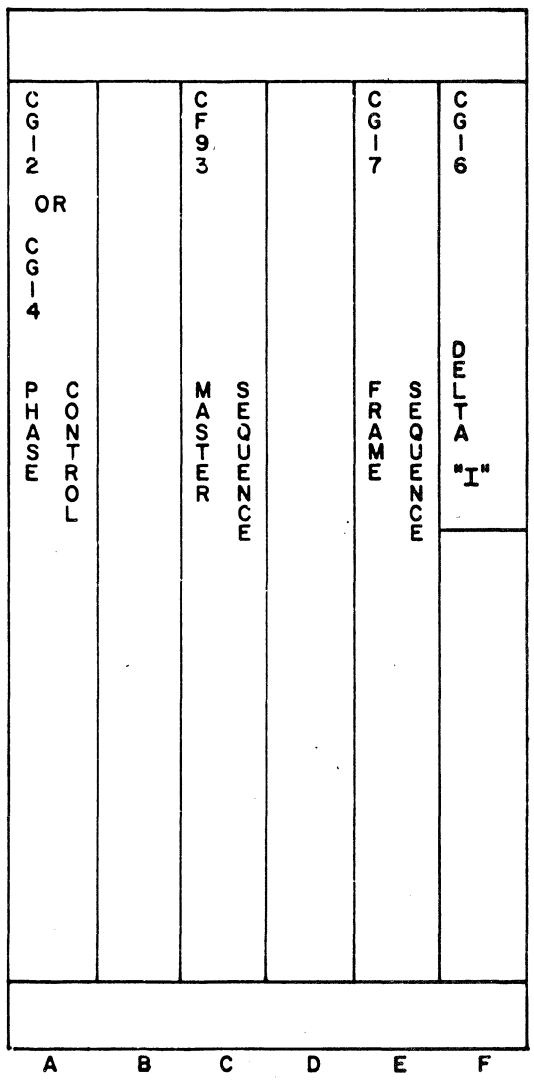
KSF 3-12-30 [illegible]37

C

1762953

PART NO 1762953 | LOGIC PG NO YZ844

TYPE	CARD P/N	SOCKET	LOGIC REFERENCE
CG12 60HZ	6173426	A1	YZ866
OR CG14 50HZ	6173425	A1	YZ866
CF93	8254648	C1 [1]	YZ854-YZ860
CG17	6173290	E1 [2]	YZ846-YZ853
CG16	8254653	F1	YZ861-YZ863



CAUTION

TURN OFF PPB-CBI BEFORE REPLACING CARDS IN THE OID GATE

NOTE

[1] P/N 6173592 AFTER EC 344958

[2] P/N 6173694 AFTER EC 344344

IBM					DATE	CHANGE NO		DATE	CHANGE NO
NAME	SOCKET LISTING FOR				MAR80	322328	JAN82	344836	
	OID GATE				OCT80	344268			
DESIGN	RD	DEC 79	SHT 1 OF 1		MAR81	344614			
DETAIL	LK	DEC 79			JUN81	344860			
CHECK	RD	JAN 80	CLASSIFICATION	MUST CONFORM TO ENG SPEC		DEVELOPMENT NO		LOGIC PG NO	
APPRO	AAM	JAN 80						YZ844	

1762953 C

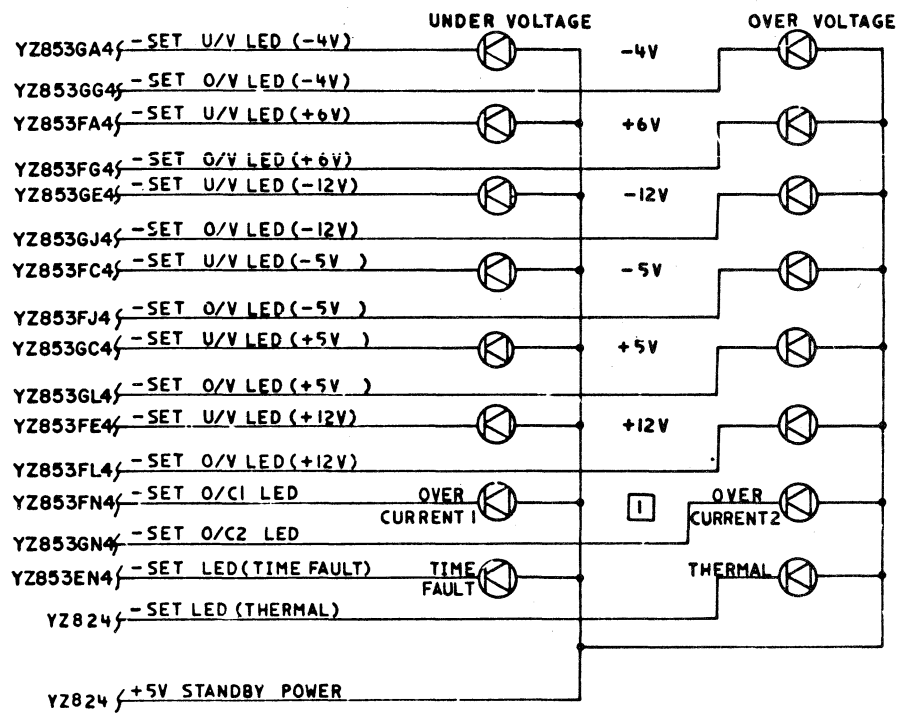
620 0114 1 MROX 7009222O4 VERTICAL ELECTRICAL FORMAT

C

1762954

PART NO	LOGIC PG NO
1762954	YZ868

OID PANEL LED'S AND SWITCHES



NOTE

[I] NOT USED

IBM									
NAME	OID PANEL LED LAMPS AND SWITCHES				DATE	CHANGE NO		DATE	CHANGE NO
					MAR 80	322328			
					OCT80	344268			
DESIGN	RD	DEC79	SHT 1 OF 1		MAR81	344614			
DETAIL	LK	DEC 79							
CHECK	RD	JAN 80		MUST CONFORM TO ENG SPEC *		DEVELOPMENT NO		LOGIC PG NO	
APPRO	AAM	JAN 80						YZ868	

1762954 C

KSF 3-12.80 Ø1Ø37

PART NO 1762955 | LOGIC PG NO YZ870

OID-GATE

DC VOLTAGE		SOURCE	SINKS
[1]	+24VDC	PPB-C1(+SIDE)	TB1-8, 01E-P1D, EP0-J1-1, RY2-1 N/O, RY3-A COIL, A1-S11
			D5 → TB1-6, C1-B03, E1-D02, PPB-C6(+SIDE)
[1]	+5V STANDBY	Q3 REGULATOR	E1-S02, C1-D03, C1-P03, PANEL LEDS
[2]	+5V SYSTEM	Q1 REGULATOR	E1-D03, E1-J03
[2]	+5V SYSTEM	Q2 REGULATOR	C1-J11
[1]	-24VDC	C1(-SIDE)	A1-U12
	DC COMMON	TB2-A1	RY2-B COIL, PPB-C1(-SIDE), PPB-T2-TB5-6, PPB-TB1-13, PPB-K1(B COIL), EC 8-6
		TB2-A2	A1-D08
		TB2-A3	PPB-C6(-SIDE)
		TB2-A4	C1-D08, C1-J08, C1-P08, C1-U08
		TB2-A5	UNUSED
		TB2-A6	E1-D08, E1-J08, E1-P08, C1-U08
		TB2-B1	
		TB2-B2	THERMAL RST SW COM
		TB2-B3	Q3 REG(CASE), Q2 REG(CASE), Q1 REG (CASE)
		TB2-B4	LED RST SW COM
		TB2-B5	C1(+SIDE), C2(-SIDE), C3(SIDE)
		TB2-B6	01A-W1-9
		-4V SENSE	
		A1S02	01A-W2-6
		E1G05	C1B04

LOC/REM SW COM

ENABLE/DISABLE SW COM

NOTES

[1] THIS VOLTAGE IS AVAILABLE ANYTIME THAT CB1 IS NOT TRIPPED. IT IS AVAILABLE EVEN WHEN THE 3705 IS POWERED DOWN.

[2] THIS VOLTAGE IS AVAILABLE ONLY AFTER THE POWER-ON PUSH BUTTON HAS BEEN DEPRESSED. IT IS NOT AVAILABLE WHEN THE 3705 IS NOT POWERED UP.

				DATE	CHANGE NO		DATE	CHANGE NO
NAME	OID GATE D.C.			MAR 80	322328			
	VOLTAGE NETS LIST			OCT80	344268			
DESIGN	RD	DEC 79						
DETAIL	L K	DEC 79						
CHECK	RD	JAN 80						
APPRO	AAM	JAN 80						

DEVELOPMENT NO

LOGIC PG NO YZ870

1762955 C

1762957 C

PART NO 1762957 | LOGIC PG NO YZ866

ANALOG TO DIGITAL CONVERTERS 1-8

3 AC INPUT ØA (FROM CATHODE OF SCR 1) S13
3 AC INPUT ØB (FROM CAT. OF SCR3) U13
3 AC INPUT ØC (FROM CAT. OF SCR 5) S12

PHASE A FILTER & FULL WAVE BRIDGE
PHASE B FILTER & FULL WAVE BRIDGE
PHASE C FILTER & FULL WAVE BRIDGE

40V
5V
TP, D04
TP, D03
TP, B04

-4V SENSE M08 (YZ847XX1 EIM08)
-4V DRIVE P04 (YZ851GF4)
-4V SENSE S02 (YZ836)
+U/V ON -4V PS P06 (YZ847EC4 EIP06)
-4V REGULATOR CONTROL
CHOKE CURRENT BALANCE

YZ824 -24VDC U12
-12VDC REGULATOR (CONTROL CARD BIAS ONLY)

+6V DRIVE M04 (YZ851GJ4)
+6V SENSE U03 (YZ836)
+6V SENSE P02 (YZ848XX3 EIP02)
+6V REGULATOR CONTROL

-12V DRIVE M13 (YZ851GH4)
-12V SENSE S03 (YZ836)
-12V SENSE P07 (YZ849XX6)
-12V REGULATOR CONTROL

+12V DRIVE P11 (YZ851GE4)
+12V SENSE S04 (YZ836)
+12V SENSE M03 (YZ848XX4 EIM03)
+12V REGULATOR CONTROL

+5V DRIVE M02 (YZ851GK4)
+5V SENSE U04 (YZ836)
+5V U/V M11 (YZ849)
+5V SENSE M06 (YZ849XX5)
+8.5V REGULATOR CONTROL [5]

-5V DRIVE M07 (YZ851GG4)
-5V SENSE U02 (YZ836)
-5V U/V P13 (YZ847)
-5V SENSE M05 (YZ847XX2)
+3.4V REGULATOR CONTROL [5]

YZ824 +24V S11 (OID-TB1-8)
DC COM P08 (OID-AIP08)
YZ824 DC COM D08 (OID-TB2-6)
+12VDC REGULATOR (CONTROL CARD ONLY)
RI

D1
POT P6 +6V
POT P2 -12V
POT P3 +12V
POT P4 (+8.5V)
POT P5 (+3.4V)
POT P1 (-4V)

[1] CG12-60HZ CG14-50HZ

1 (-4V PS) 2 (-4V PS) 3 (-4V PS) 4 (+6V PS) 5 (-12V PS) 6 (+12V PS) 7 (+8.5V PS) 8 (+3.4V PS)

GATE DRIVE CKT

TP, B09 TP, B07 TP, B11 TP, B05 TP, B10 TP, D06 TP, D12 TP, B12

G11	TO GATE (G)	SCR # 1
J11	TO CATHODE (K)	
J13	TO GATE (G)	SCR # 2
G13	TO CATHODE (K)	
G06	TO GATE (G)	SCR # 3
J06	TO CATHODE (K)	
G09	TO GATE (G)	SCR # 4
J09	TO CATHODE (K)	
J04	TO GATE (G)	SCR # 5
G04	TO CATHODE (K)	
J02	TO GATE (G)	SCR # 6
G02	TO CATHODE (K)	
G07	TO GATE (G)	SCR # 7
J07	TO CATHODE (K)	
J08	TO GATE (G)	SCR # 8
G08	TO CATHODE (K)	
G05	TO GATE (G)	SCR # 9
J05	TO CATHODE (K)	
G03	TO GATE (G)	SCR # 10
J03	TO CATHODE (K)	
G12	TO GATE (G)	SCR # 11
J12	TO CATHODE (K)	
J10	TO GATE (G)	SCR # 12
G10	TO CATHODE (K)	
U10	TO GATE (G)	SCR # 13 [5]
S10	TO CATHODE (K)	
U09	TO GATE (G)	SCR # 14 [5]
S09	TO CATHODE (K)	
U05	TO GATE (G)	SCR # 15 [5]
S05	TO CATHODE (K)	
U07	TO GATE (G)	SCR # 16 [5]
S07	TO CATHODE (K)	

[2]

-4V YZ830 | +6V YZ830 | -12V YZ830 | +12V YZ830

NOTES
[1] ALL LOGIC WITHIN DOTTED LINES IS ON THE CG12 OR CG14 CARD
[2] ALL SCR GATE AND CATHODE SIGNALS ARE CONNECTED TO THE SCR'S VIA CABLES. ALL SCR'S ARE SHOWN ON PAGE YZ830.
[3] THE INPUT COMES FROM T3 (YZ830). IT IS PICKED UP AT THE CATHODE OF A SCR.
[4] ALL FIXED RESISTORS ARE 200Ω.
[5] NOT USED IN THIS MODEL

IBM

NAME	PHASE CONTROL LOGIC, CARD OID AI AI				DATE	CHANGE NO		DATE	CHANGE NO
					MAR 80	322328		FEB 82	344836
					OCT 80	344268			
DESIGN	RD	DEC 79	SHT 1 OF 1		MAR 81	344614			
DETAIL	LK	DEC 79			JUN 81	344860			
CHECK	RD	JAN 80	[illegible]	MUST CONFORM TO ENG SPEC		DEVELOPMENT NO		LOGIC PG NO	
APPRO	AAM	JAN 80						YZ866	

1762957 C

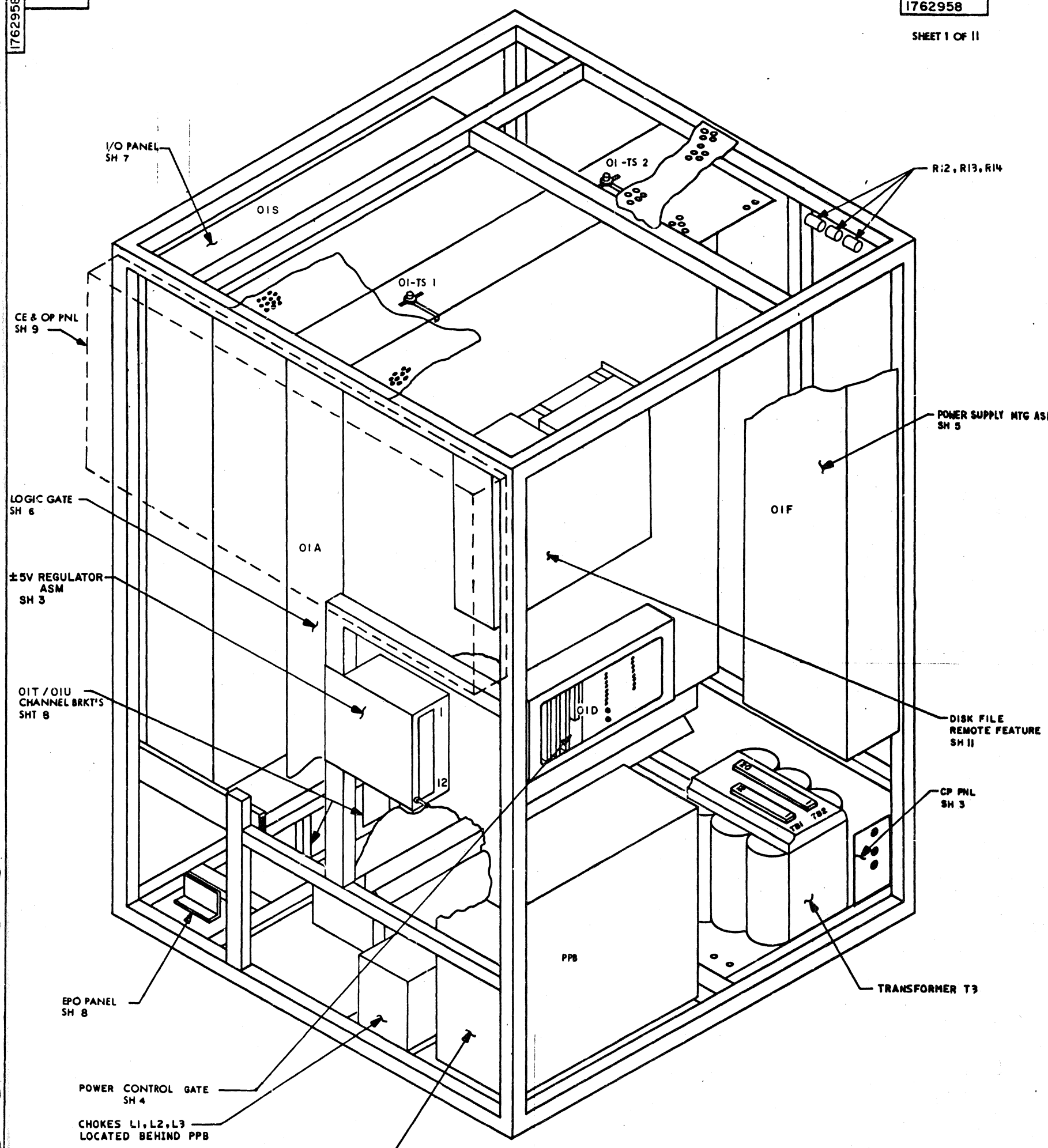
MROF 780822204 VERTICAL ELECTRICAL FORMAT

K-5-F 3-12-82 Ø1Ø37

STANDARD CODE 1762958

CARD CODE YZ886
1762958

SHEET 1 OF 11



CIRCUIT AND PACKAGING STANDARD	
APPROVAL	DATE

INTERNATIONAL BUSINESS MACHINES CORP.					DATE	CHANGE NO.	APPROVAL	DATE	CHANGE NO.	APPROVAL	DEVELOPMENT NO.
NAME	SYSTEM DIAGRAM				MAR80	322328		JAN82	344836		
	COMPONENT LOCATION				MAY80	322331					
DESIGN	AAM	JAN80	MODEL		OCT80	344268					
DETAIL	JVB	JAN80	SCALE	NONE	MAR81	344614					YZ886
CHECK	AAM	JAN80	DRAW		JUN81	344860					
APPRO	AAM	JAN80	CHECK								

1762958

C

1762958 STANDARDS CODE

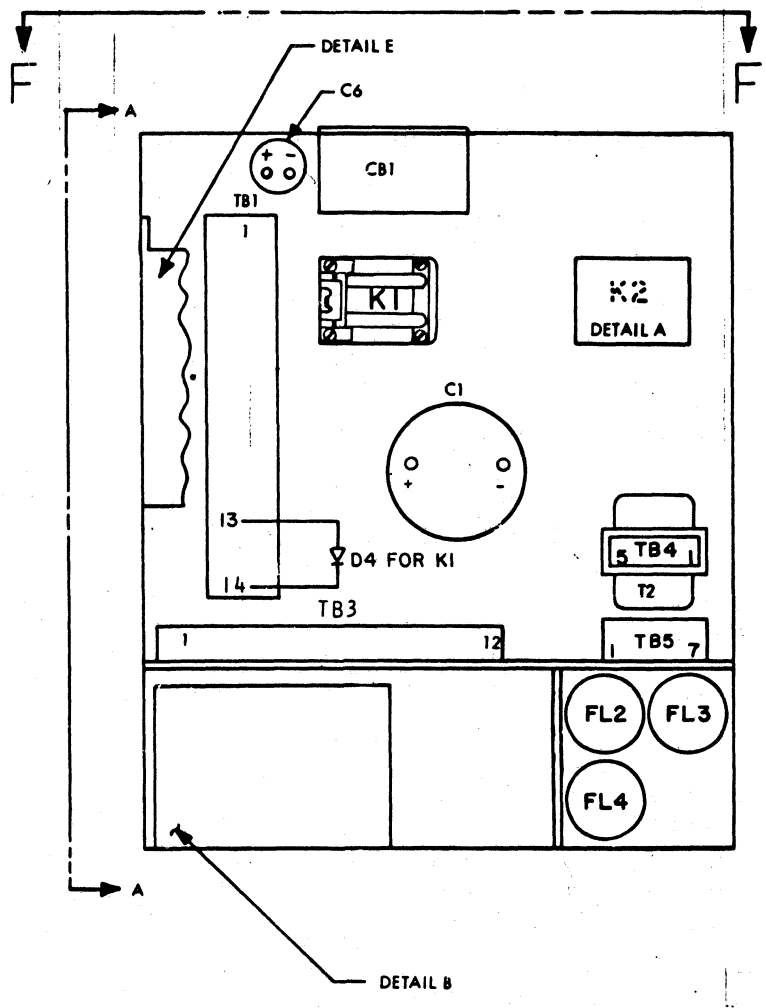
CARD CODE YZ886

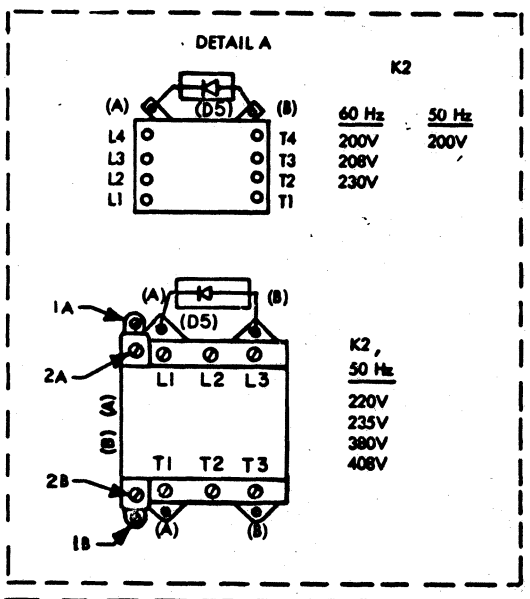
1762958

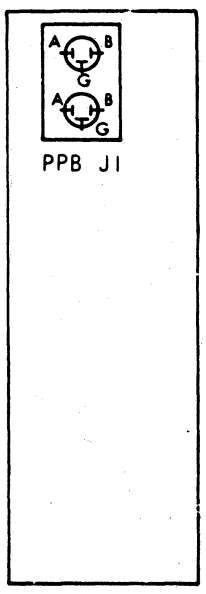
SHEET 2 OF 11

PRIME POWER BOX (PPB)

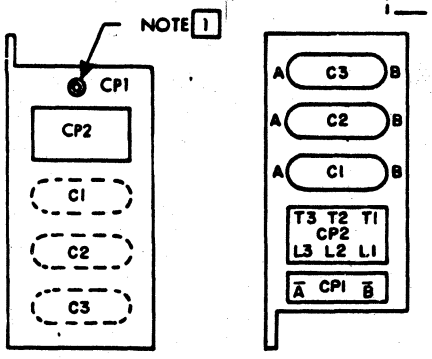
(DOMESTIC)







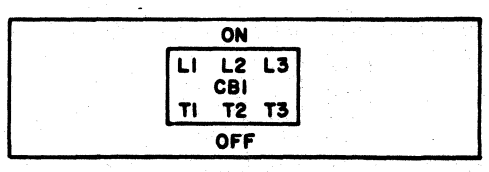
VIEW A-A



PANEL IN NORMAL POSITION

PANEL IN MAINTENANCE POSITION

DETAIL E



VIEW F-F

NOTES

1. PRESENT FOR 60 Hz 200V, 208V, 230V.

CIRCUIT AND PACKAGING STANDARD

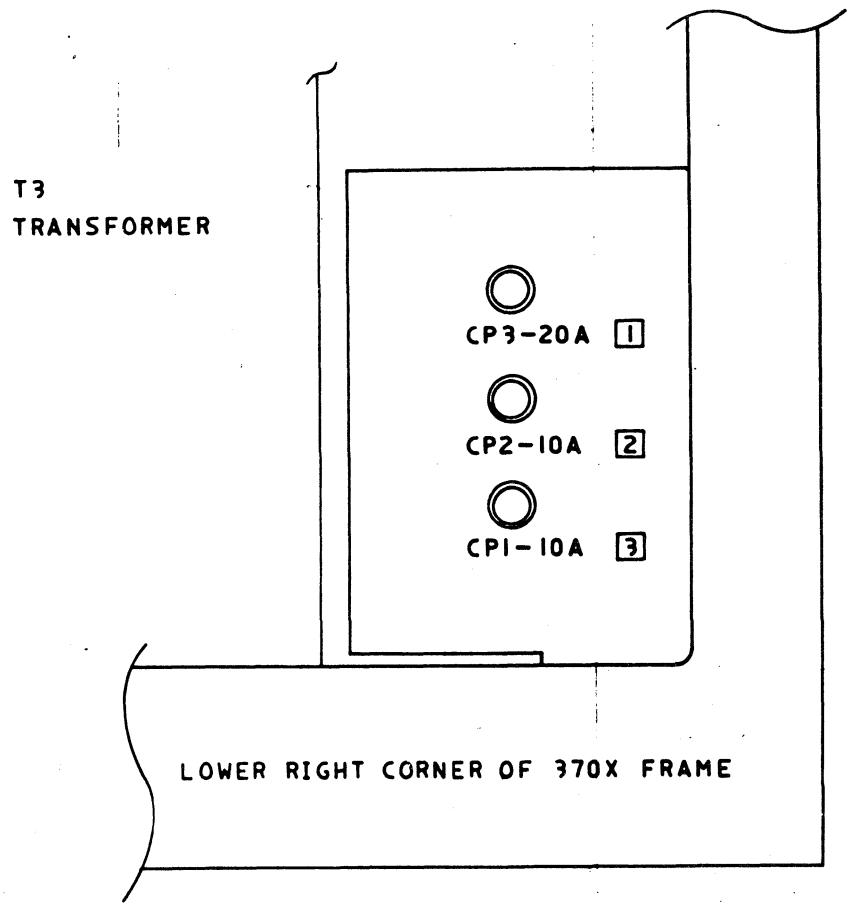
APPROVAL	DATE

INTERNATIONAL BUSINESS MACHINES CORP.					DATE	CHANGE NO.	APPROVAL	DATE	CHANGE NO.	APPROVAL	DEVELOPMENT NO.
NAME	SYSTEM DIAGRAM				MAR80	322328		JAN82	344836		
	COMPONENT LOCATION				MAY80	322331					
DESIGN	AAM	JAN80	MODEL		OCT80	344268					
DETAIL	JVB	JAN80	SCALE		MAR81	344614					YZ886
CHECK	AAM	JAN80	DRAW		JUN81	344860					
APPRO	AAM	JAN80	CHECK								

1762958

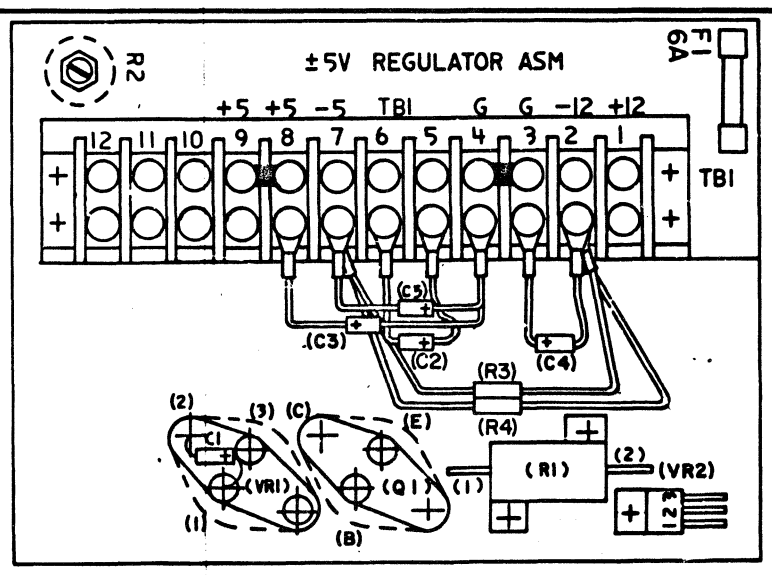
C

PART NO 1762958. LOGIC PG NO YZ886



NOTES

1. FOR + 12V PS
2. FOR - 12V PS
3. FOR + 6V PS

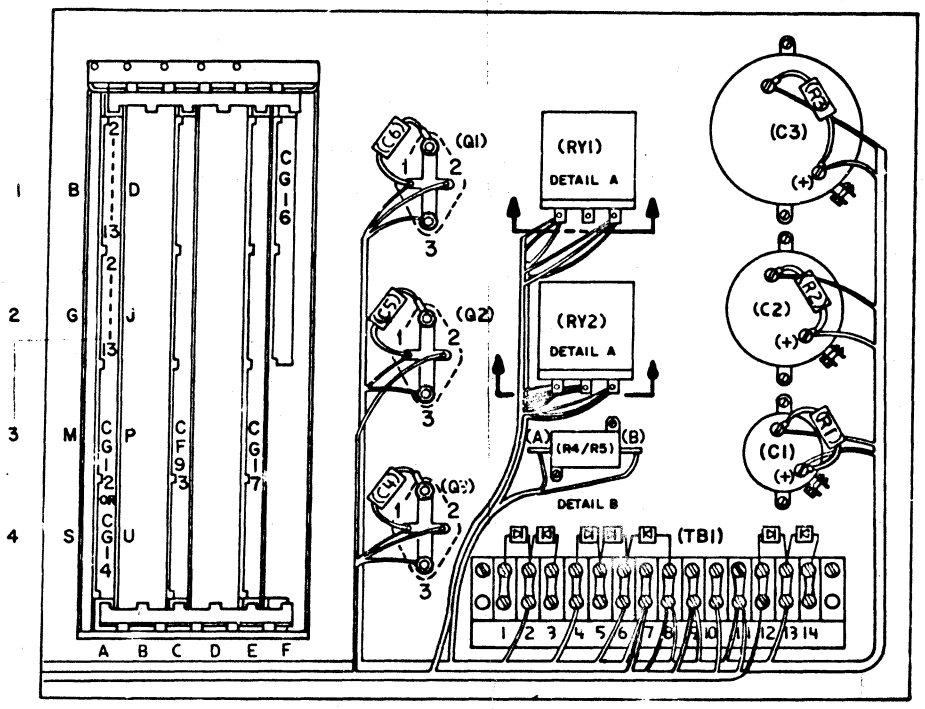


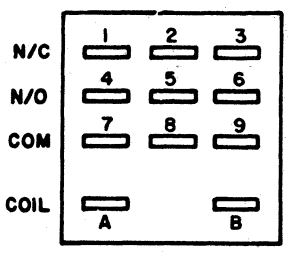
IBM					DATE	CHANGE NO		DATE	CHANGE NO
NAME	SYSTEM DIAGRAM				MAR80	322328		JUN81	344860
COMPONENT LOCATION					MAY80	322331		JAN82	344836
DESIGN	AAM	JAN80	SHT 3 OF 11		OCT80	344268			
DETAIL	JVB	JAN80			MAR81	344614			
CHECK	AAM	JAN80	CLASSIFICATION	MUST CONFORM TO ENG SPEC		DEVELOPMENT NO		LOGIC PG NO	
APPRO	AAM	JAN80						YZ886	

620 0134 1 MROF 780822204 VERTICAL ELECTRICAL FORMAT ASTRUCOUTH 06901

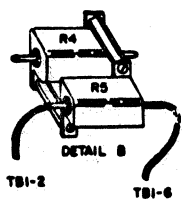
PART NO 1762958 | LOGIC PG NO YZ886

OID GATE
CARD SIDE

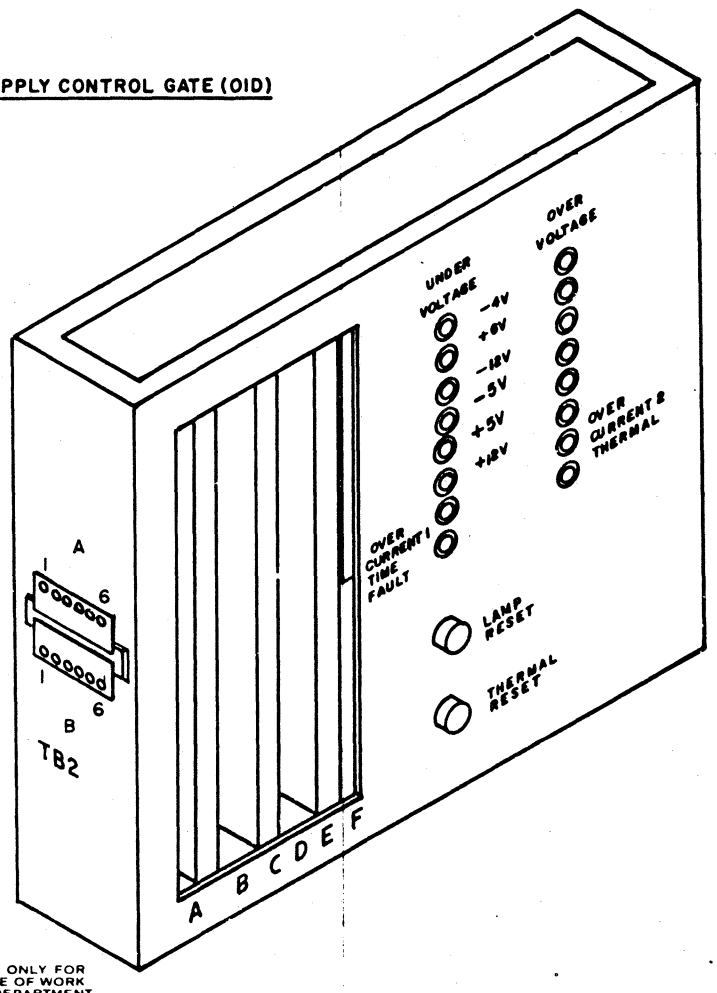




RYI/RY2
DETAIL A



POWER SUPPLY CONTROL GATE (OID)

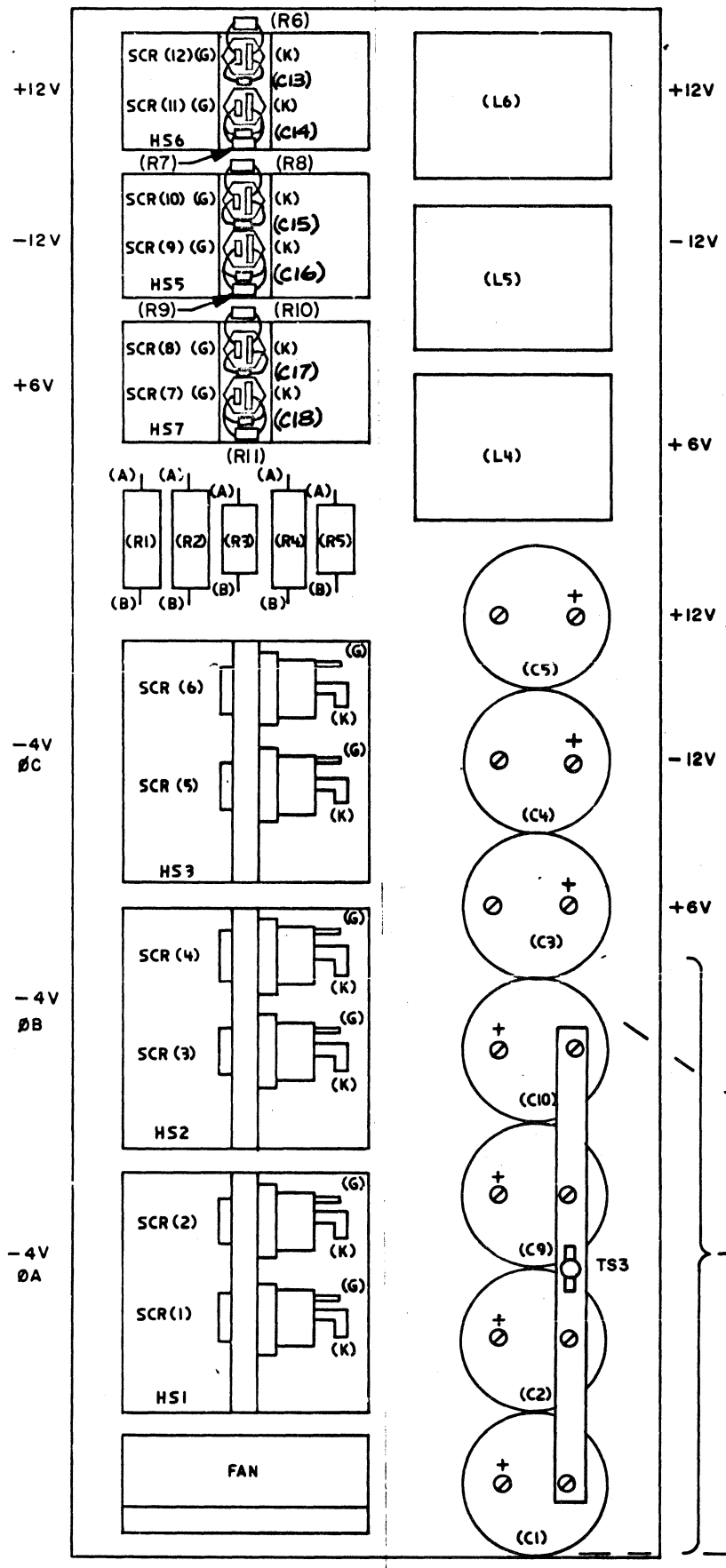


IBM					DATE	CHANGE NO		DATE	CHANGE NO
NAME	SYSTEM DIAGRAM COMPMENT				MAR80	322328		JUN81	344860
LOCATION					MAY80	322331		JAN82	344836
DESIGN	AAM	JAN80	SHT 4 OF 11		OCT80	344268			
DETAIL	JVB	JAN80			MAR81	344614			
CHECK	AAM	JAN80		MUST CONFORM TO ENG SPEC		DEVELOPMENT NO		LOGIC PG NO	
APPRO	AAM	JAN 80						YZ886	

1762958 C

PART NO 1762958 | LOGIC PG NO YZ886

POWER SUPPLY MTG ASSEMBLY (01F)



IBM									
NAME	SYSTEM DIAGRAM COMPONENT				DATE	CHANGE NO		DATE	CHANGE NO
LOCATION					MAR 80	322328		JUN 81	344860
DESIGN	AAM	JAN 80	SHT 5 OF 11		MAY 80	322331		JAN 82	344836
DETAIL	JVB	JAN 80			OCT 80	344268			
CHECK	AAM	JAN 80	CLASSIFICATION		MAR 81	344614			
APPRO	AAM	JAN 80			MUST CONFORM TO ENG SPEC		DEVELOPMENT NO		LOGIC PG NO YZ886

1762958 C

620 0134 1 MROF 760522204 VERTICAL ELECTRICAL FORMAT ASTROCLOTH N9307

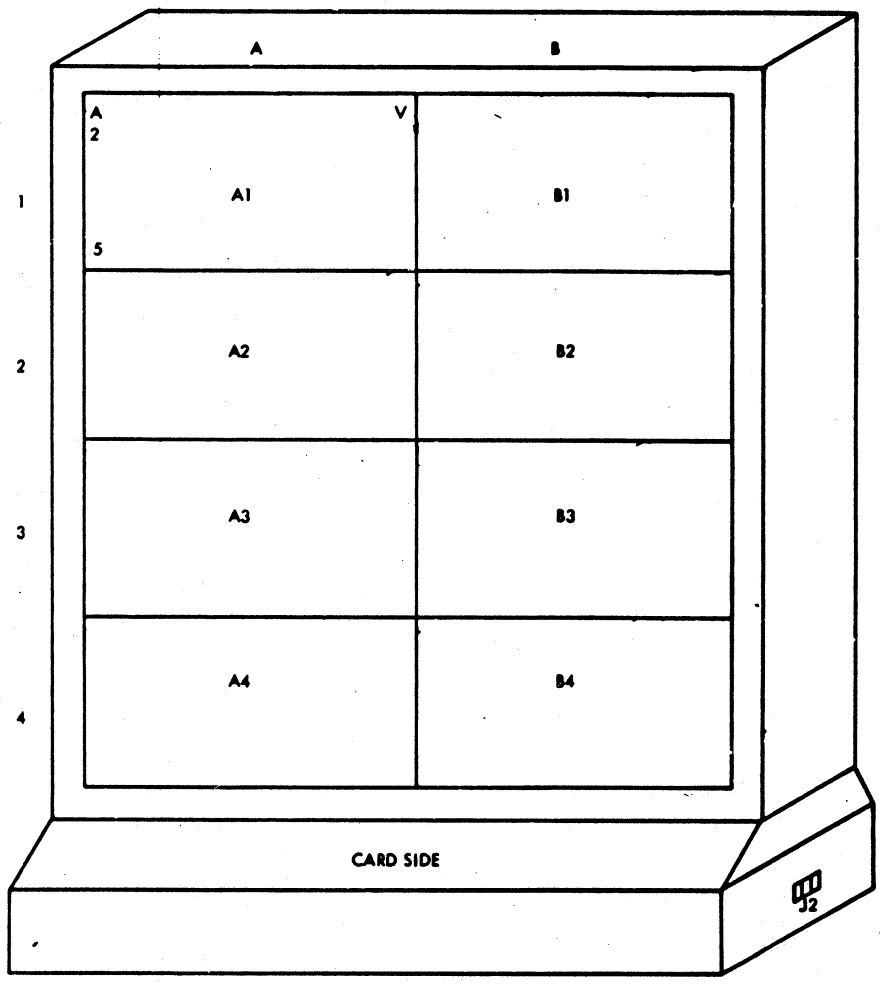
1762958

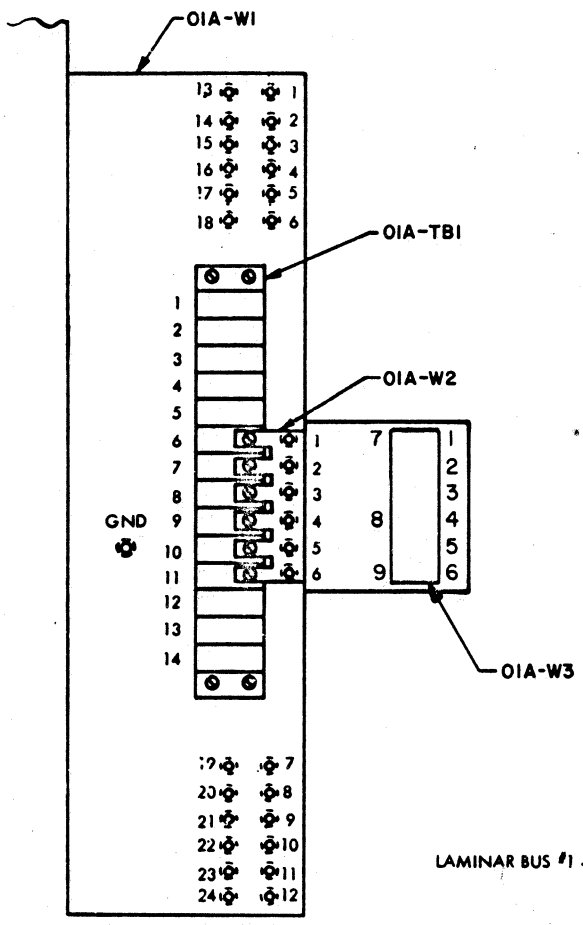
STANDARDS CODE

CARD CODE YZ886

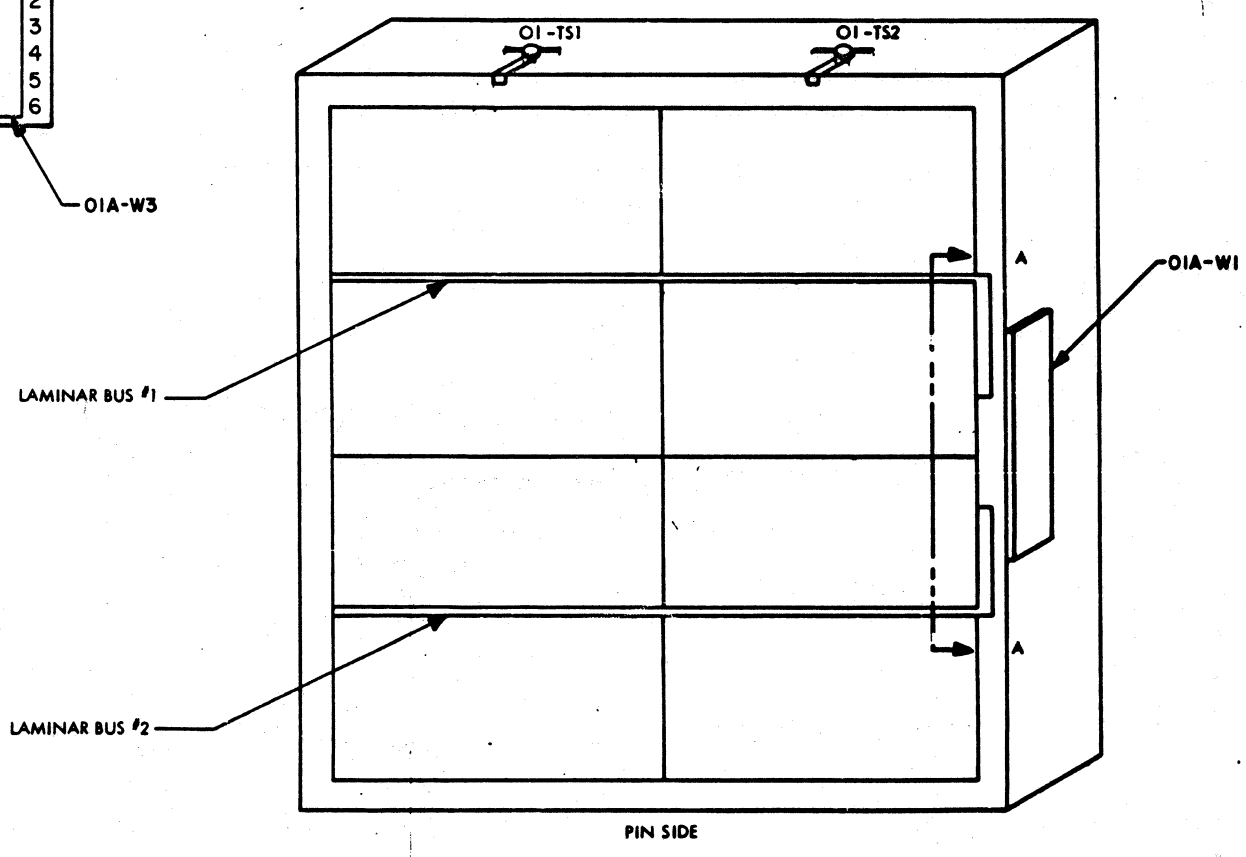
1762958

LOGIC GATE - 01A





VIEW A-A



PIN SIDE

CIRCUIT AND PACKAGING STANDARD	
APPROVAL	DATE

INTERNATIONAL BUSINESS MACHINES CORP.					DATE	CHANGE NO.	APPROVAL	DATE	CHANGE NO.	APPROVAL	DEVELOPMENT NO.
NAME	SYSTEM DIAGRAM COMPONENT LOCATION				MAR80	322328		JAN82	344836		
					MAY80	322331					
DESIGN	AAM	JAN80	MODEL		OCT80	344268					
DETAIL	JVB	JAN80	SCALE		MAR81	344614					YZ886
CHECK	AAM	JAN80	DRAW		JUN81	344860					
APPRO	AAM	JAN80	CHECK								

C

1762958

1762958

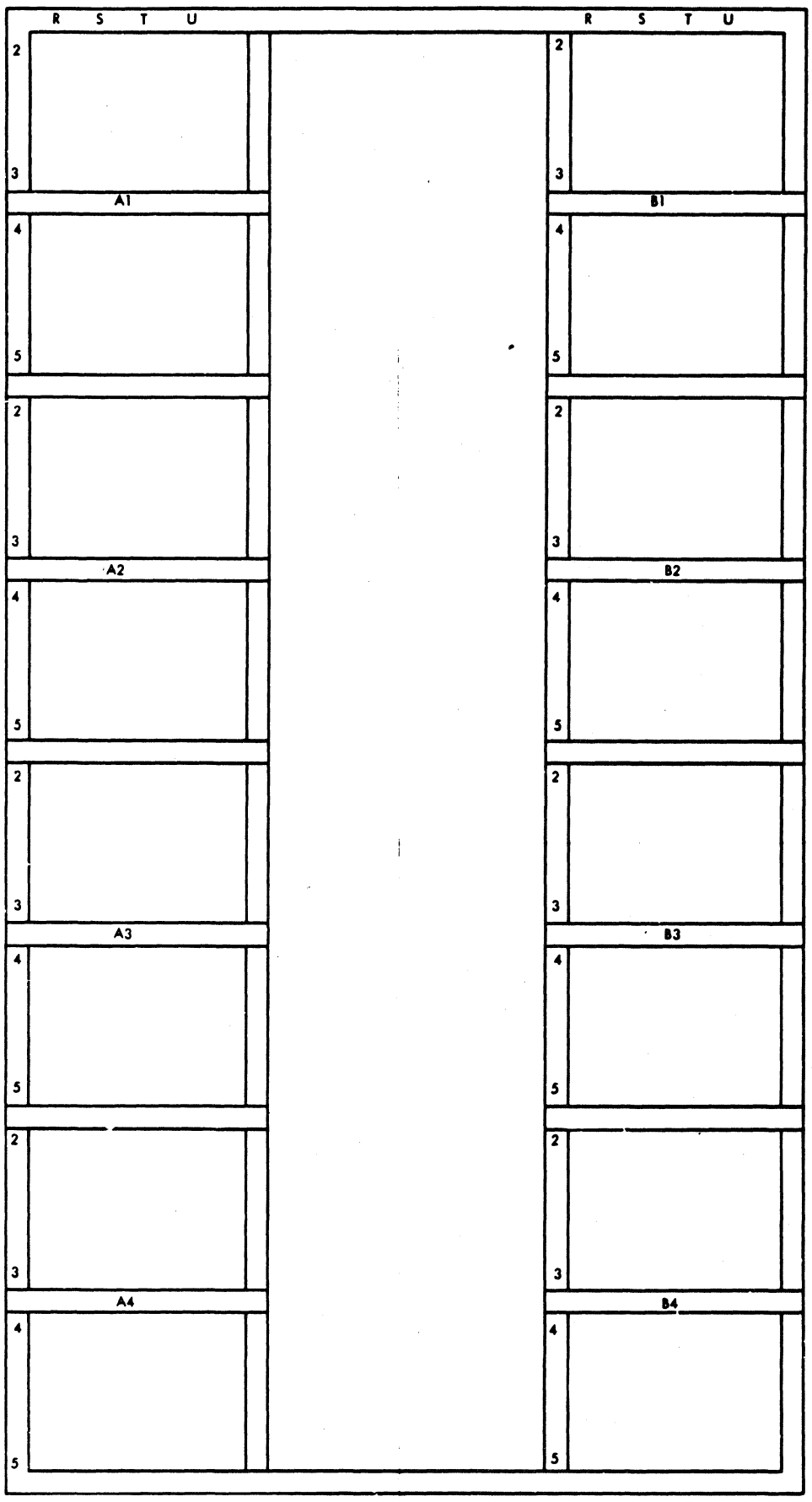
STANDARDS CODE

01S (I/O PANEL)

CARD CODE YZ886

1762958

SHEET 7 OF 11



VIEW FROM OUTSIDE MACHINE

CIRCUIT AND PACKAGING STANDARD

APPROVAL	DATE

INTERNATIONAL BUSINESS MACHINES CORP.

NAME SYSTEM DIAGRAM
COMPONENT LOCATION

DESIGN	AAM	JAN80	MODEL
DET.M.	JVB	JAN80	SCALE
CHECK	AAM	JAN80	DRAW
APPRO	AAM	JAN80	CHECK

DATE	CHANGE NO.	APPROVAL	DATE	CHANGE NO.	APPROVAL	DEVELOPMENT NO.
MAR80	322328		JAN82	344836		
MAY80	322331					
OCT80	344268					
MAR81	344614					YZ886
JUN81	344860					

1762958

C

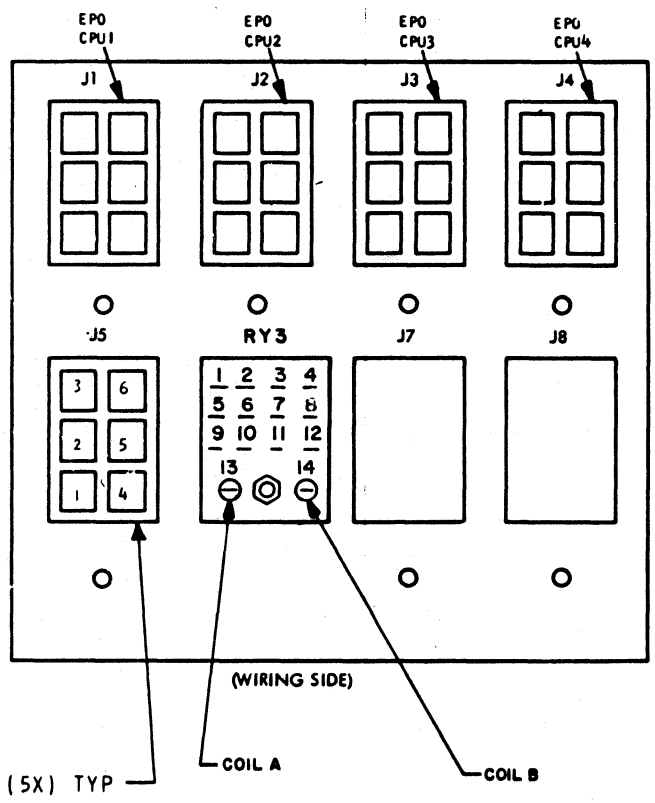
1762958

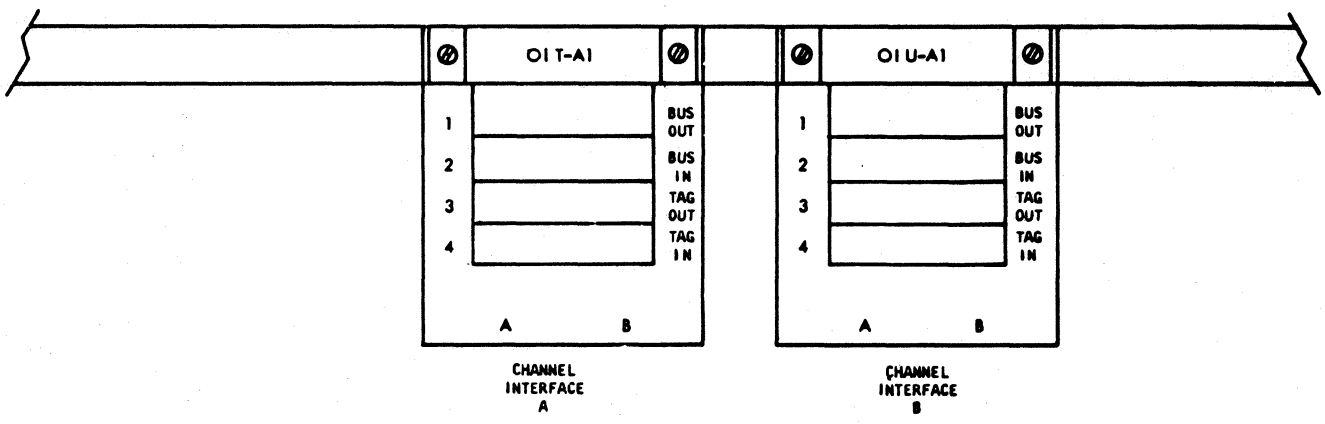
SYMBOLIC CODE

CARD CODE YZ886

1762958

EPO AND REMOTE ENABLE/DISABLE PANEL





C

CIRCUIT AND PACKAGING STANDARD	
APPROVAL	DATE

INTERNATIONAL BUSINESS MACHINES CORP.

NAME SYSTEM DIAGRAM
COMPONENT LOCATION

DESIGN	AAM	JAN80	MODEL
DETAIL	JVB	JAN80	SCALE
CHECK	AAM	JAN80	DRAW
APPRD	AAM	JAN80	CHECK

DATE	CHANGE NO.	APPROVAL	DATE	CHANGE NO.	APPROVAL	DEVELOPMENT NO.
MAR80	322328		JAN82	344836		
MAY80	322331					
OCT80	344268					
MAR81	344614					YZ886
JUN81	344860					

1762958

1762958

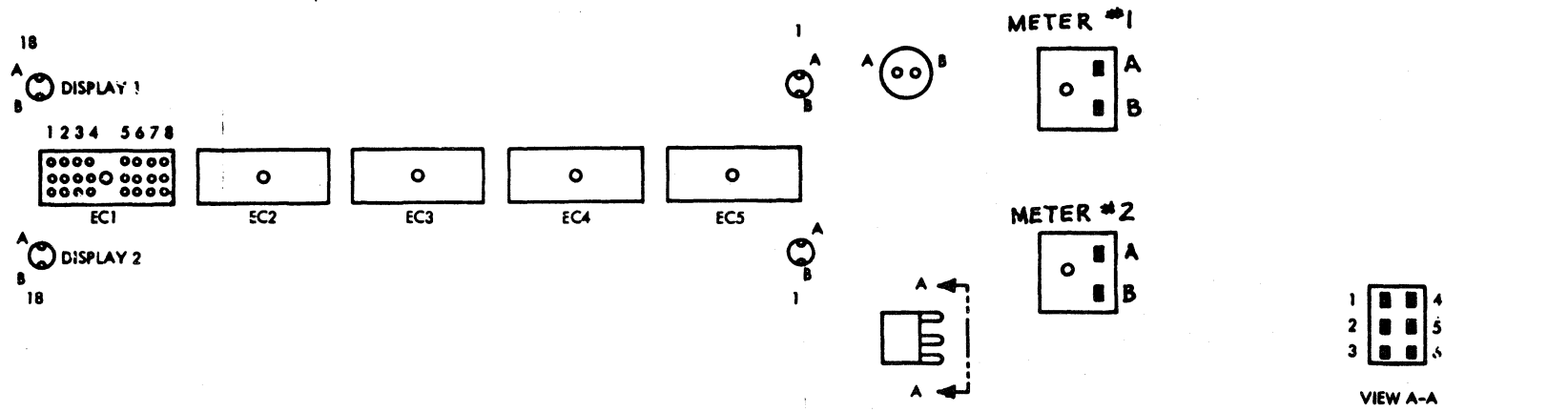
STANDARD CODE

CE AND OP PANEL - WIRING SIDE

CARD CODE YZ 886

1762958

SHEET 9 OF 11



CIRCUIT AND PACKAGING STANCARD	
APPROVAL	DATE

INTERNATIONAL BUSINESS MACHINES CORP.				DATE	CHANGE NO.	APPROVAL	DATE	CHANGE NO.	APPROVAL	DEVELOPMENT NO.
NAME	SYSTEM DIAGRAM			MAR80	322328		JAN82	344836		
	COMPONENT LOCATION			MAY80	322331					
DESIGN	AAM	JAN80	MODEL	OCT80	344268					
DETAIL	JVB	JAN80	SCALE	MAR81	344614					YZ 886
CHECK	AAM	JAN80	DRAW	JUN81	344860					
APPRO	AAM	JAN80	CHECK							

1762958

C

1762958 STANDARD CODE

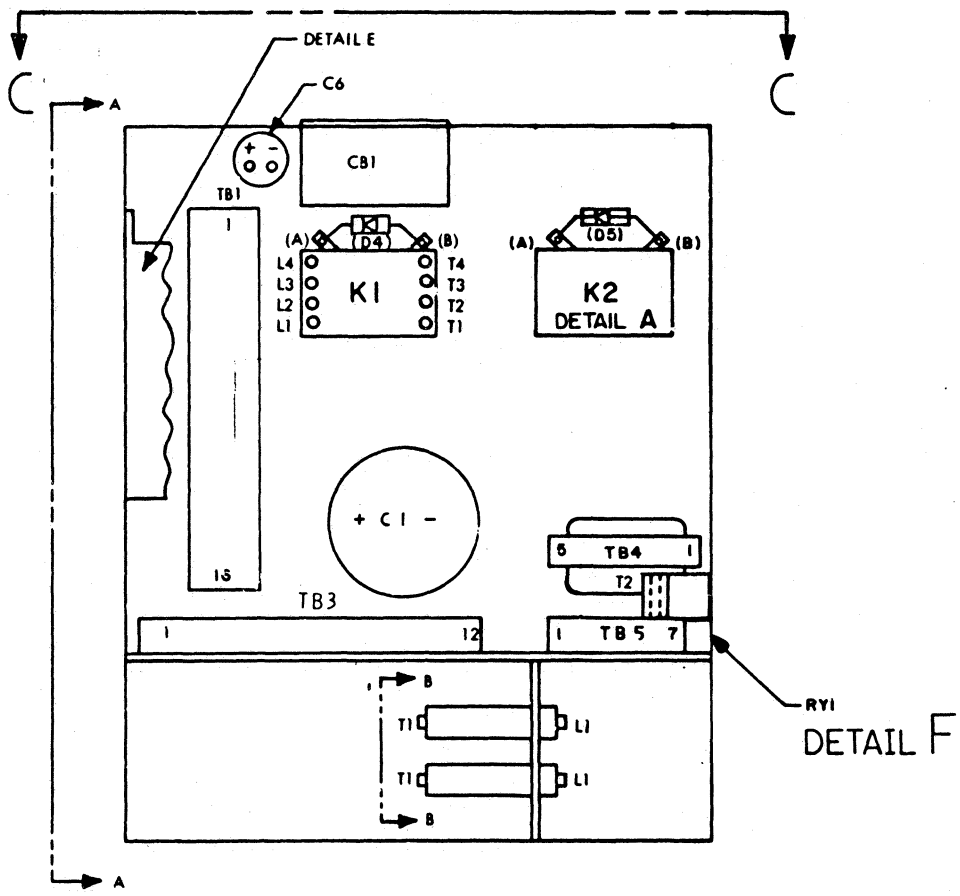
CAGE CODE YZ886

1762958

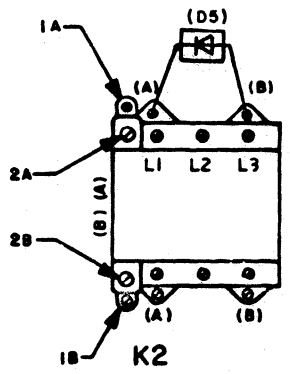
SHEET 10 OF 11

PRIME POWER BOX (PPB)

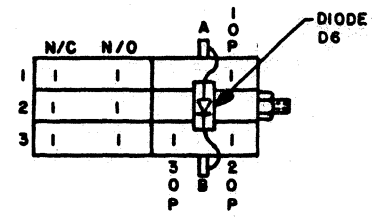
220/235V, 380/408V (50 HZ, WTC)



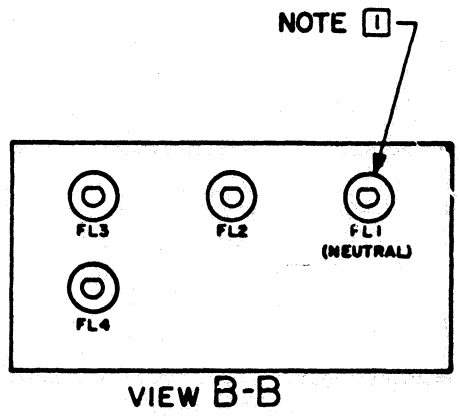
DETAIL F



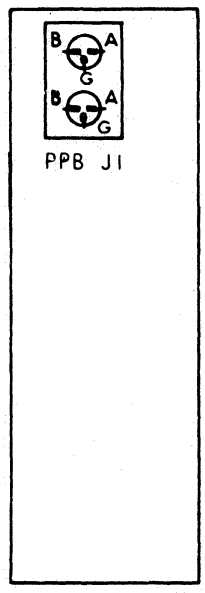
DETAIL A



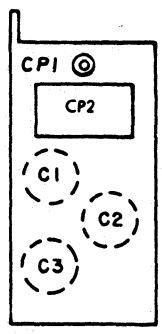
DETAIL F



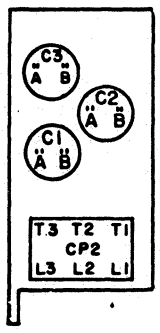
VIEW B-B



VIEW A-A

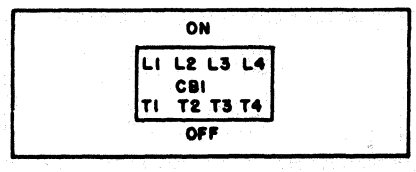


PANEL IN NORMAL POSITION



PANEL IN MAINTENANCE POSITION

DETAIL E



VIEW C-C

NOTES

[1] USED ONLY FOR 50 Hz 380V AND 408V.

CIRCUIT AND PACKAGING STANDARD	
APPROVAL	DATE

INTERNATIONAL BUSINESS MACHINES CORP.					DATE	CHANGE NO.	APPROVAL	DATE	CHANGE NO.	APPROVAL	DEVELOPMENT NO.	1762958
NAME SYSTEM DIAGRAM					MAR80	322328		JAN82	344836			
COMPONENT LOCATION					MAY80	322331						
DESIGN	AAM	JAN80	MODEL		OCT80	344268						
DETAIL	JVB	JAN80	SCALE		MAR81	344614					YZ886	
CHECK	AAM	JAN80	DRAW		JUN81	344860						
APPRO	AAM	JAN80	CHECK									

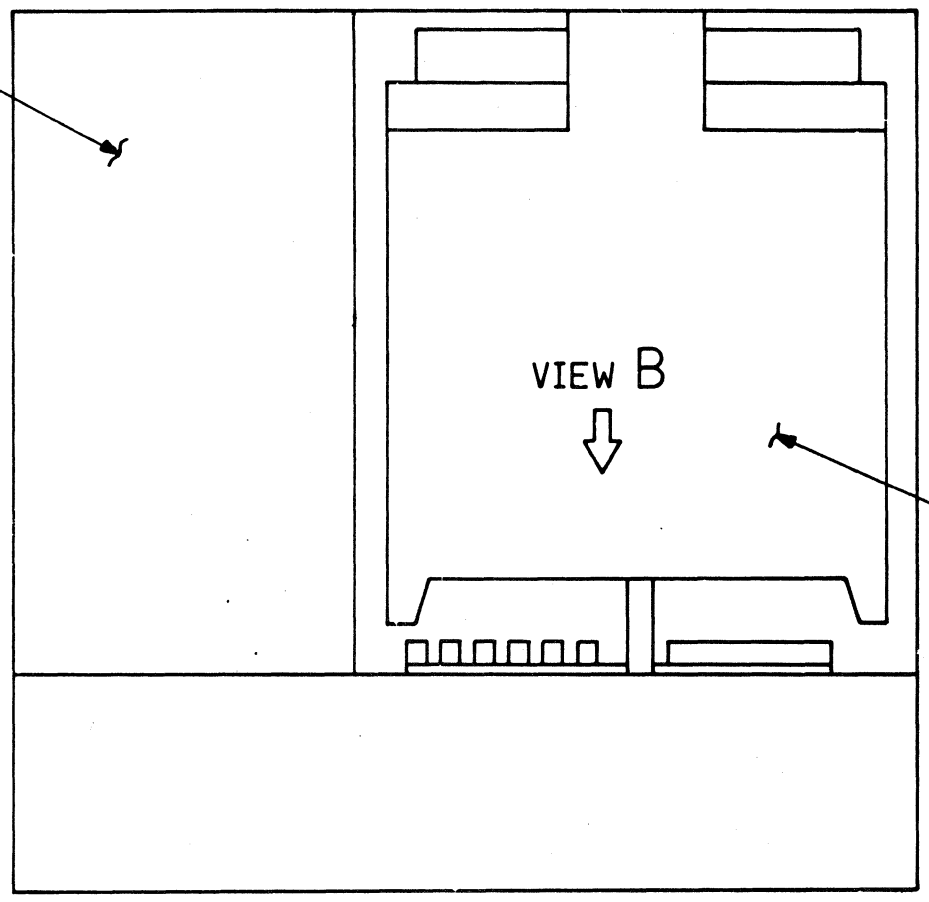
C

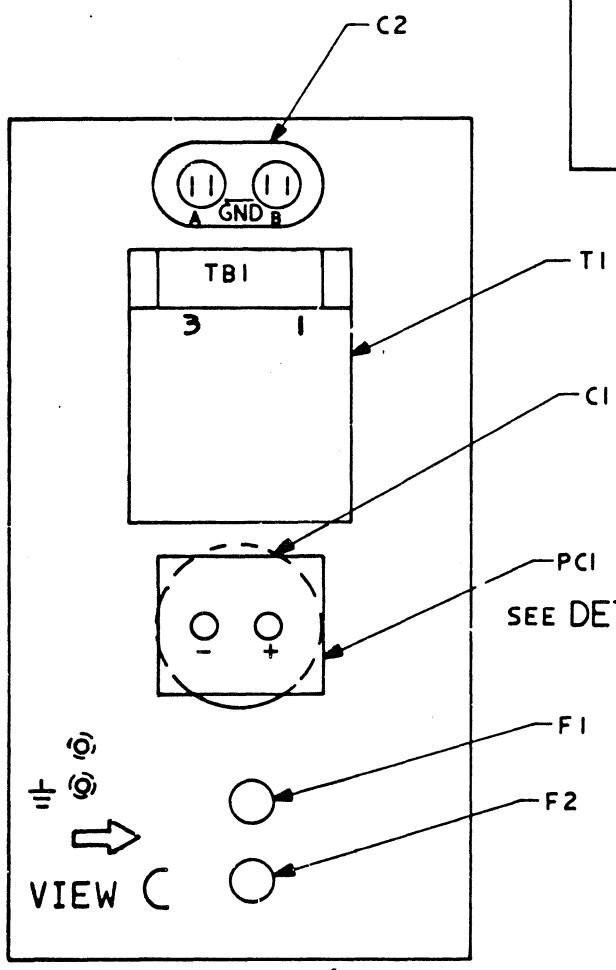
1762958 C

DISK FILE - 50/60HZ

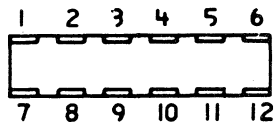
PART NO 1762958 | LOGIC PG NO YZ886

SHEET 11 OF 11

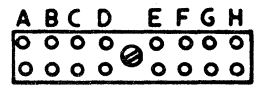




DETAIL A
PSI POWER SUPPLY

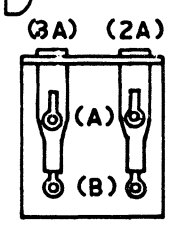


DISK GND BUS

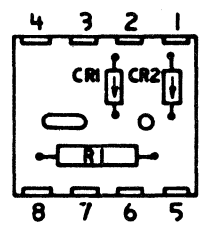


EC 1

VIEW B



VIEW C



PC1

DETAIL D

IBM					DATE	CHANGE NO		DATE	CHANGE NO
NAME	SYSTEM DIAGRAM				MAR80	322328		JUN81	344860
COMPONENT LOCATION					MAY80	322331		JAN82	344836
DESIGN	AAM	JAN80	SHT 11 OF 11		OCT80	344268			
DETAIL	JVB	JAN80			MAR81	344614			
CHECK	AAM	JAN80	CLASSIFICATION	MUST CONFORM TO ENG SPEC		DEVELOPMENT NO		LOGIC PG NO	
APPRO	AAM	JAN80						YZ8 86	

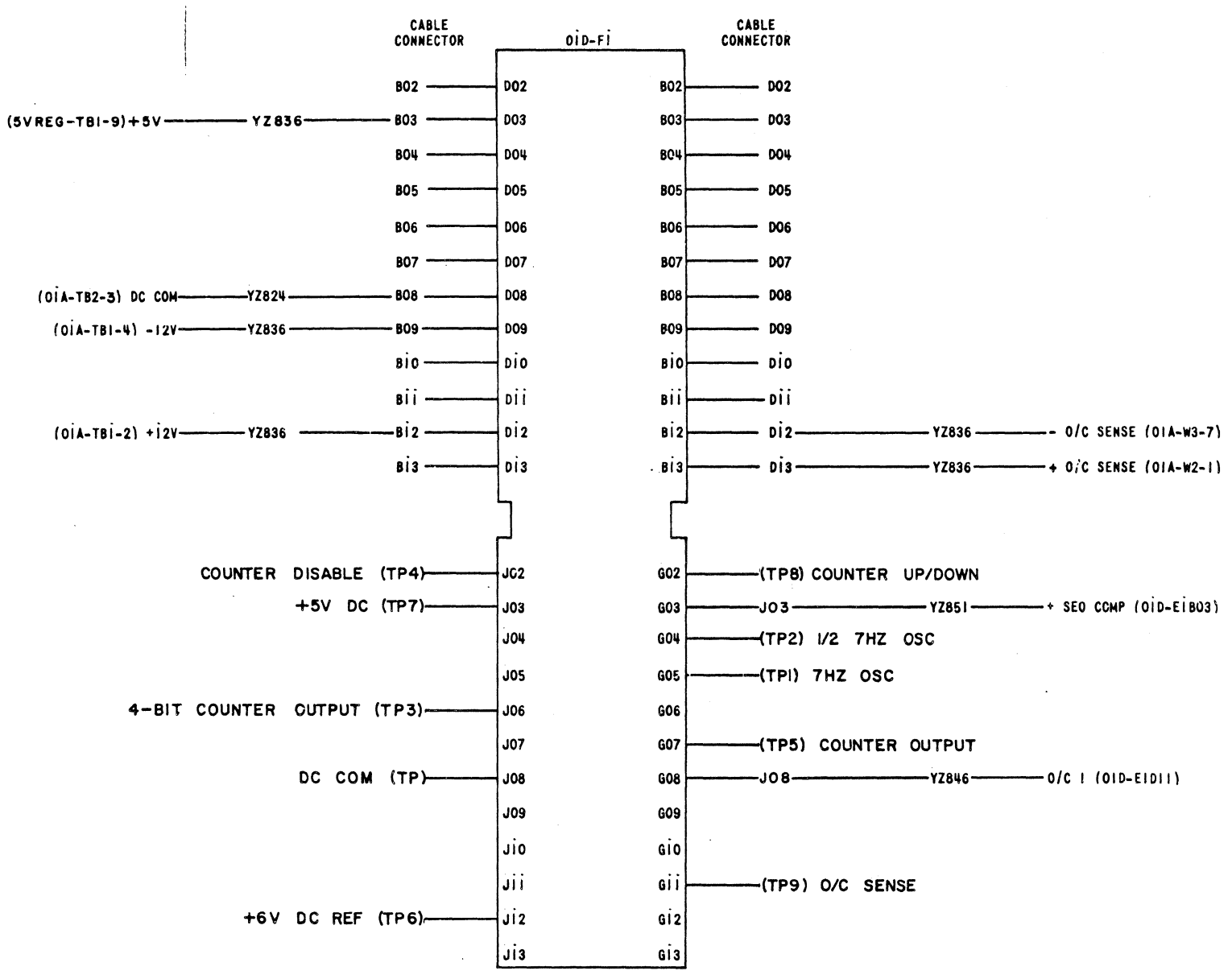
1762958 C

820-0134-1 MROR 7808222304 VERTICAL ELECTRICAL FORMAT ASTROCLOTH MADE

1762959 C

PART NO 1762959 | LOGIC PG NO YZ83i

CURRENT MONITOR CARD



CARD TYPE CGI6

IBM										
NAME	CURRENT MONITOR CARD					DATE	CHANGE NO		DATE	CHANGE NO
	AND CABLE CONNECTIONS					JAN81	344268			
DESIGN	JJS	JAN81	SHT I OF I			MAR81	344614			
DETAIL	TS	JAN81				JUN81	344860			
CHECK	CDN	JAN81	CLASSIFICATION			FEB82	344836			
APPRO	MTL	JAN81	JJS	JAN81	MUST CONFORM TO ENG SPEC		DEVELOPMENT NO		LOGIC PG NO	
									YZ83I	

1762959 C

620-0134-1 MRO# 780822204 VERTICAL ELECTRICAL FORMAT ASTROCLOTH N650T

1762960 C

PART NO 1762960 | LOGIC PG NO YZ829

MASTER SEQUENCE CARD

CABLE CONNECTOR			OID-CI		CABLE CONNECTOR		
		B02	D02	B02	D02	YZ854	+ CRASH DISABLE (OID-CI)
(OID-Q3) +5V STANDBY	YZ824	B03	D03	B03	D03	YZ824	+24V (OID-TBI-6)
		B04	D04	B04	D04		
		B05	D05	+5V B05	D05*		
		B06	D06	+5V B06	D06*		
		B07	D07	B07	D07		
(OID-TB2-3) DC COM	YZ824	B08	D08	B08	D08	YZ836	-4V (OIA-B2V5D02)
		B09	D09	B09	D09		
		BI0	DI0	-4V BI0	DI0*		
		BII	DII	BII	DII		
		BI2	DI2	BI2	DI2		
		BI3	DI3	+5V BI3	DI3*		
(PWR ON SW-COM) +24V	YZ822	G02	J02	G02	J02	YZ822	+24V (PWR OFF SW-COM)
		G03	J03	G03	J03	YZ824	- CRASH (OID-TBI-10)
(OID-TBI-8) +24V	YZ824	G04	J04	G04	J04	YZ822	+24V SEQ CPLT (OID-RYI-1)
(OID-SW-A-N/O) - THERMAL RST	YZ868	G05	J05	G05	J05	YZ822	+ HOLD (EPO J1-5)
		G06	J06	G06	J06	YZ822	+ REMOTE PWR OFF (EC8-7)
NOT USED		G07	J07	G07	J07	NOT USED	
		G08	J08	G08	J08	YZ822	- THERMAL FAULT (THERM SW-1)
(LOC/REM SW-N/O) - LOCAL ON	YZ822	G09	J09	G09	J09	YZ822	- REMOTE ON (LOC/REM SW-N/C)
		GI0	JI0	GI0	JI0	YZ822	- RELAY DRIVE (RY3-B)
(OID-Q2) +5V SYSTEM	YZ824	GII	JII	GII	JII		
		GI2	JI2	GI2	JI2	YZ822	+ PICK (EPO J1-6)
(EC7-1) - PHASE A SAMPLE	YZ822	GI3	JI3	GI3	JI3	YZ822	- PHASE B SAMPLE (EC7-2)
+24V PWR ON SW		P02	M02	+24V PWR OFF SW			
+5V STANDBY		P03	M03	+ POWER ON			
+24V		P04	M04	POWER ON			
+24V SEQ CPLT		P05	M05	+ SEQ CPLT			
+ REMOTE PWR OFF		P06	M06	NOT USED			
		P07	M07	+ POWER ON DELAY			
		P08	M08	+ START FRAME SEQ UP			
		P09	M09	- PICK PPB-K2			
		PI0	MI0				
		PII	MII	- PWR ON SEQ			
		PI2	MI2				
		PI3	MI3				
(PPB-K2-8) [1] - PICK	YZ822	S02	U02	S02	U02	NOT USED	
		S03	U03	S03	U03	YZ822	- SET PWR ON (IND 1)
(IND 2) - SET PWR CHK	YZ822	S04	U04	S04	U04	YZ824	- SET THERMAL (OID-PANEL)
(OID-TBI-7) + START FRAME SEQ UP	YZ824	S05	U05	S05	U05	YZ854	- REMOTE PWR OFF (OID-CI)
(EC8-4) + PWR OFF RESET	YZ822	S06	U06	S06	U06	YZ822	+ PWR ON RESET (EC8-3)
(EC6-8) PHASE B AC	YZ822	S07	U07	S07	U07	YZ822	PHASE A AC (EC6-1)
(OID-TB2-5) DC COM	YZ824	S08	U08	S08	U08	YZ856	+ SEQ CPLT (OID-CI)
(EC8-1) + USE METER DRIVE	YZ822	S09	U09	S09	U09	YZ854	+ PWR ON (OID-CI)
(OID-CI) - OFF	YZ858	SI0	UI0	SI0	UI0		
(OID-CI) + NO +5V STDBY	YZ054	SII	UII	SII	UII	YZ822	USE METER (M2-B)
		SI2	UI2	SI2	UI2	YZ830	AC TO USE METER (T3 - TB2 - 20)
		SI3	UI3	SI3	UI3		

TEST POINTS

TEST POINTS

CARD TYPE CF93

*DECOUPLING CAPACITOR (22 MFD) MOUNTED ON CABLE CONNECTOR

[1] GOES TO PPB-TBI-15 FOR WORLD TRADE.

IBM					DATE	CHANGE NO		DATE	CHANGE NO
NAME	MASTER SEQUENCE CARD				JAN81	344268			
	AND CABLE CONNECTIONS				MAR81	344614			
DESIGN	JJS	JAN81	SHT 1 OF 1		JUL81	344860			
DETAIL	TS	JAN81			FEB82	344836			
CHECK	CDN	JAN81	CLASSIFICATION		MUST CONFORM TO ENG SPEC		DEVELOPMENT NO		LOGIC PG NO
APPRO	MTL	JAN81	JJS	JAN81					YZ829

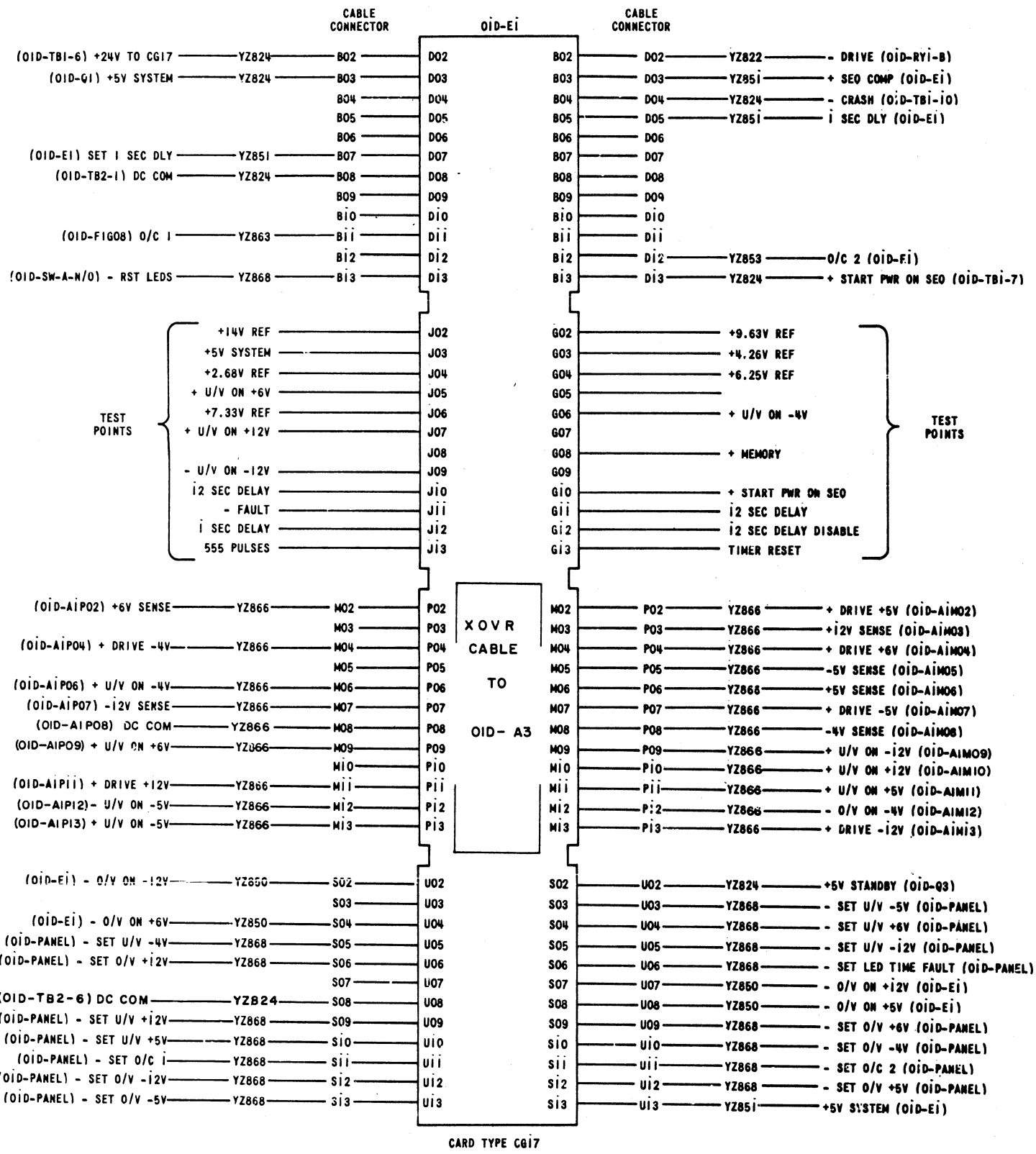
1762960 C

620 C134-1 MRO# 780822704 VERTICAL ELECTRICAL FORMAT ASTROCLOTH N6807

1762961 C

PART NO 1762961 | LOGIC PG NO YZ827

FRAME SEQUENCE CARD



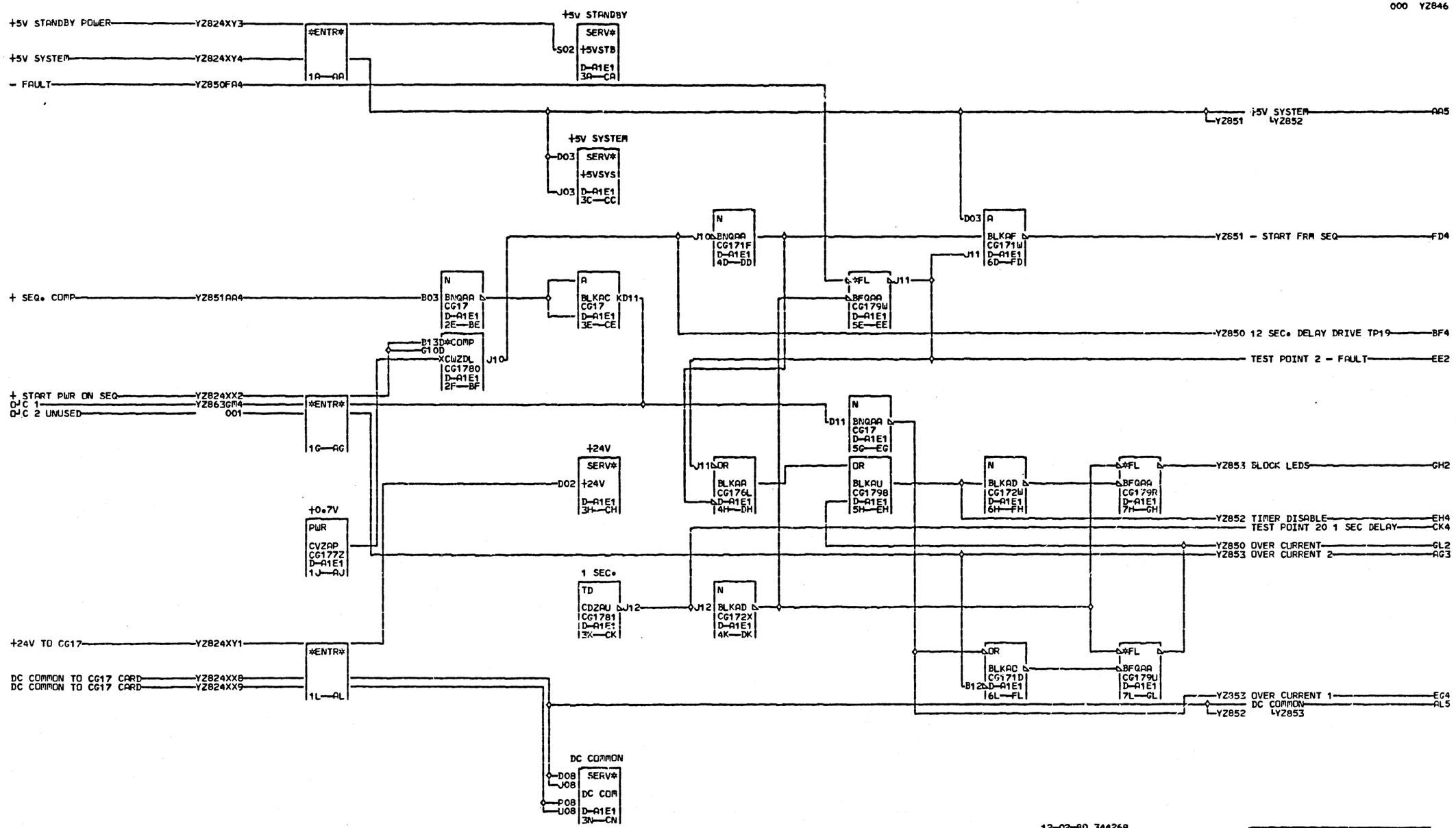
CARD TYPE CGI7

IBM						DATE	CHANGE NO		DATE	CHANGE NO
NAME	FRAME SEQUENCE CARD					JAN8I	344268			
	AND CABLE CONNECTIONS					JUN8I	344860			
DESIGN	JJS	JAN8I	CHT 1 OF 1			FEB82	344836			
DETAIL	TS	JAN8I								
CHECK	CDN	JAN8I	CLASSIFICATION		MUST CONFORM TO ENG SPEC		DEVELOPMENT NO		LOGIC PG NO	
APPRO	MTL	JAN8I	JJS	JAN8I					YZ827	

1762961 C

620-0134 1 MROZ 780822204 VERTICAL ELECTRICAL FORMAT ASTROCLOTH N650T

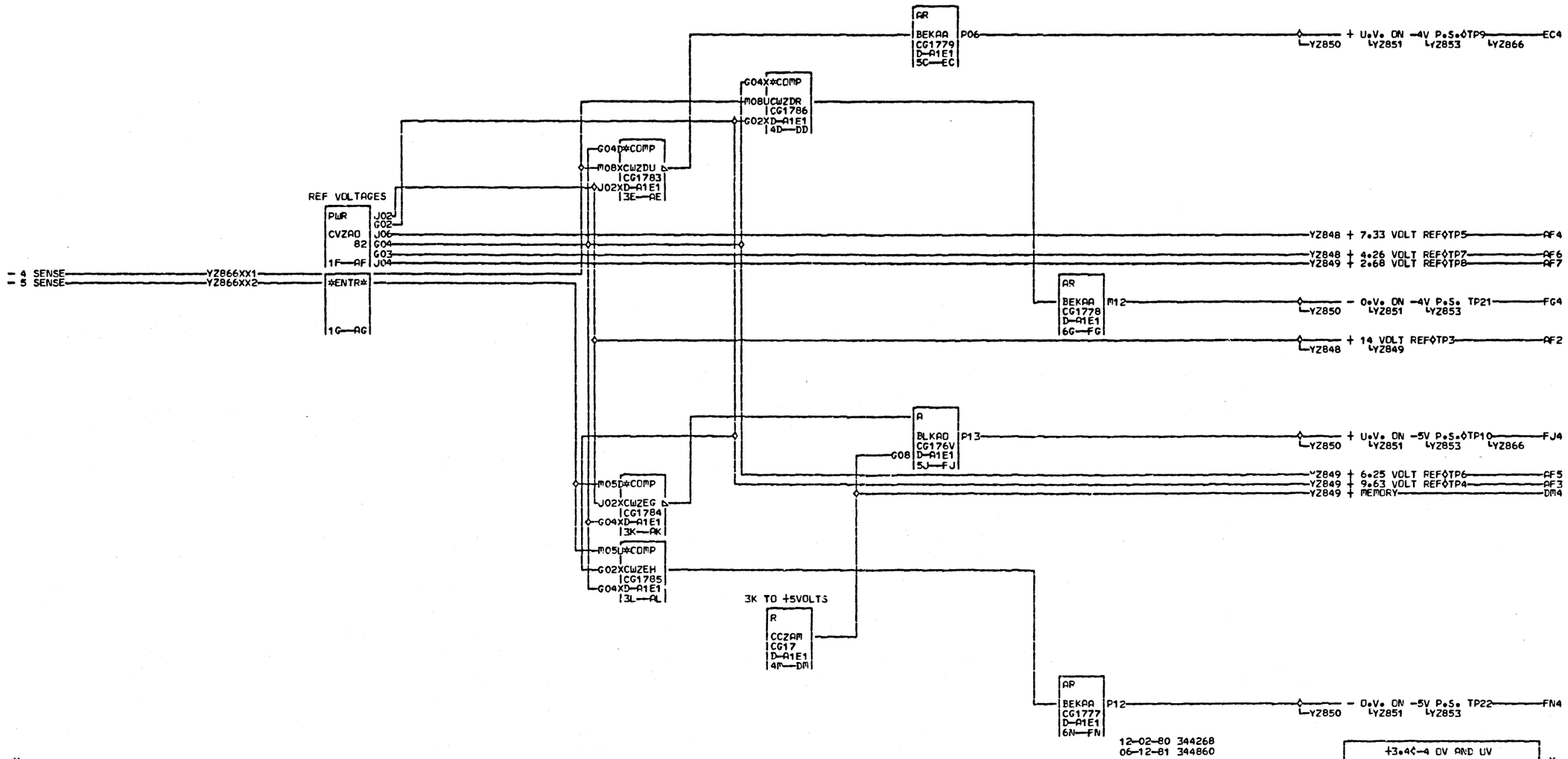
000 YZ846

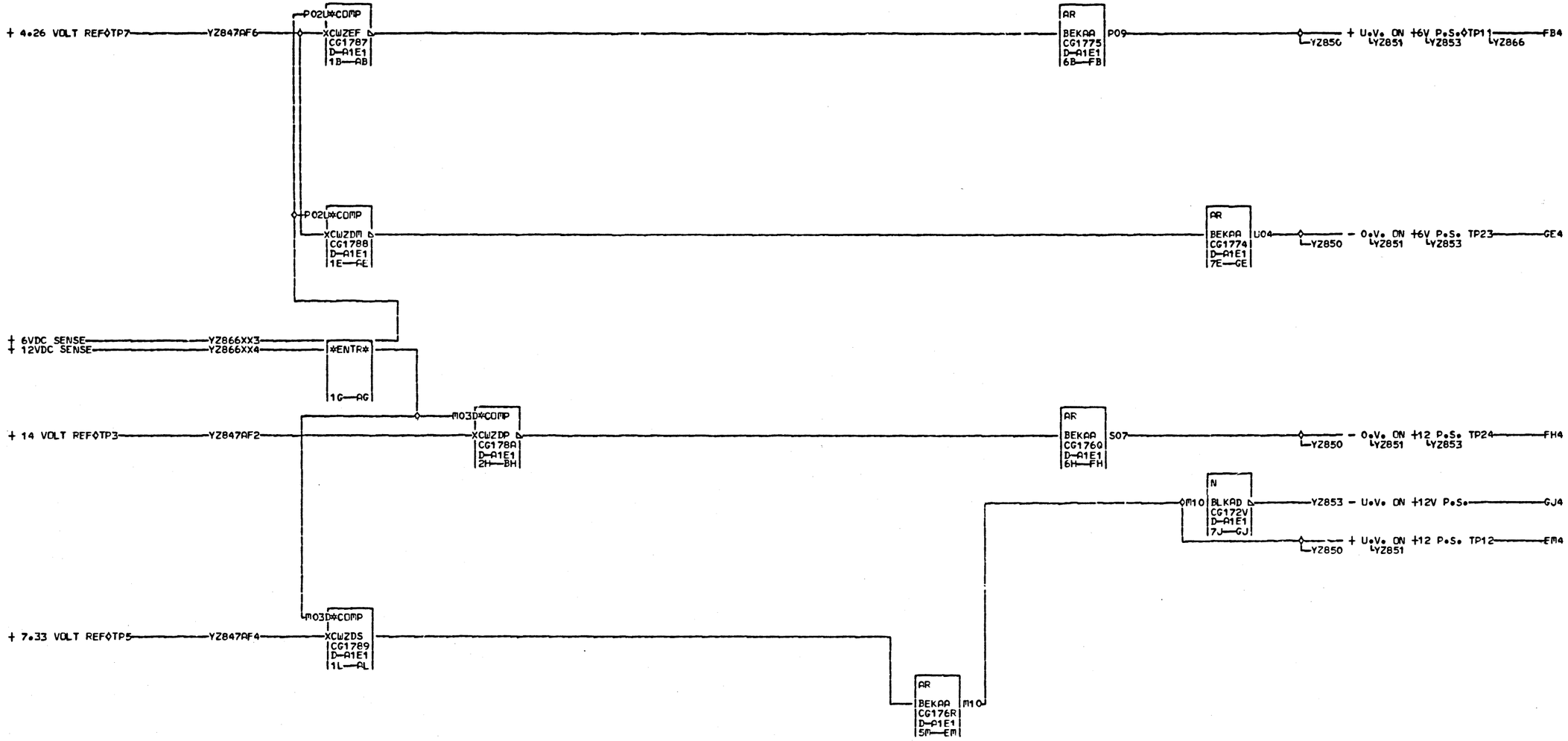


12-02-80 344268
03-31-80 344614
06-12-81 344860
02-15-82 344836

POWER ON AND OVER CURRENTS			YZ846 000
DATE 02-16-82	FACH. 3705		
LOG 448	FRAME	01	
	P.N. 1857280		
IBM CORP.	SCD BLK.	GP	

YZ846 000


AR
BEKAA
CG1779
D-A1E1
5C-EC
P06
+ U.V. ON -4V P.S.◊TP9 EC4
YZ850 YZ851 YZ853 YZ866
G04X*COMP
M08UCWZDR
CG1786
G02XD-A1E1
4D-DD
G04D*COMP
M08XCWZDU
CG1783
J02XD-A1E1
3E-AE
REF VOLTAGES
PWR
CVZA0
82
1F-AF
J02
G02
J06
G04
G03
J04
YZ848 + 7.33 VOLT REF◊TP5 AF4
YZ848 + 4.26 VOLT REF◊TP7 AF6
YZ849 + 2.68 VOLT REF◊TP8 AF7
- 4 SENSE YZ866XX1
- 5 SENSE YZ866XX2
ENTR
1G-AG
AR
BEKAA
CG1778
D-A1E1
6G-FG
M12
- 0.V. ON -4V P.S. TP21 FG4
YZ850 YZ851 YZ853
+ 14 VOLT REF◊TP3 AF2
YZ848 YZ849
A
BLKA0
CG176V
D-A1E1
5J-FJ
P13
G08
+ U.V. ON -5V P.S.◊TP10 FJ4
YZ850 YZ851 YZ853 YZ866
YZ849 + 6.25 VOLT REF◊TP6 AF5
YZ849 + 9.63 VOLT REF◊TP4 AF3
YZ849 + MEMORY DM4
M05D*COMP
J02XCWZEG
CG1784
G04XD-A1E1
3K-AK
M05L*COMP
G02XCWZEH
CG1785
G04XD-A1E1
3L-AL
3K TO +5VOLTS
R
CCZAM
CG17
D-A1E1
4M-DM
AR
BEKAA
CG1777
D-A1E1
6N-FN
P12
- 0.V. ON -5V P.S. TP22 FN4
YZ850 YZ851 YZ853
12-02-80 344268
06-12-81 344860
+3.4◊-4 OV AND UV
DATE 07-06-81 MACH. 3705
LOG 282 FRAME 01
P.N. 1857281
IBM CORP. SCD BLK. GP
YZ847 000

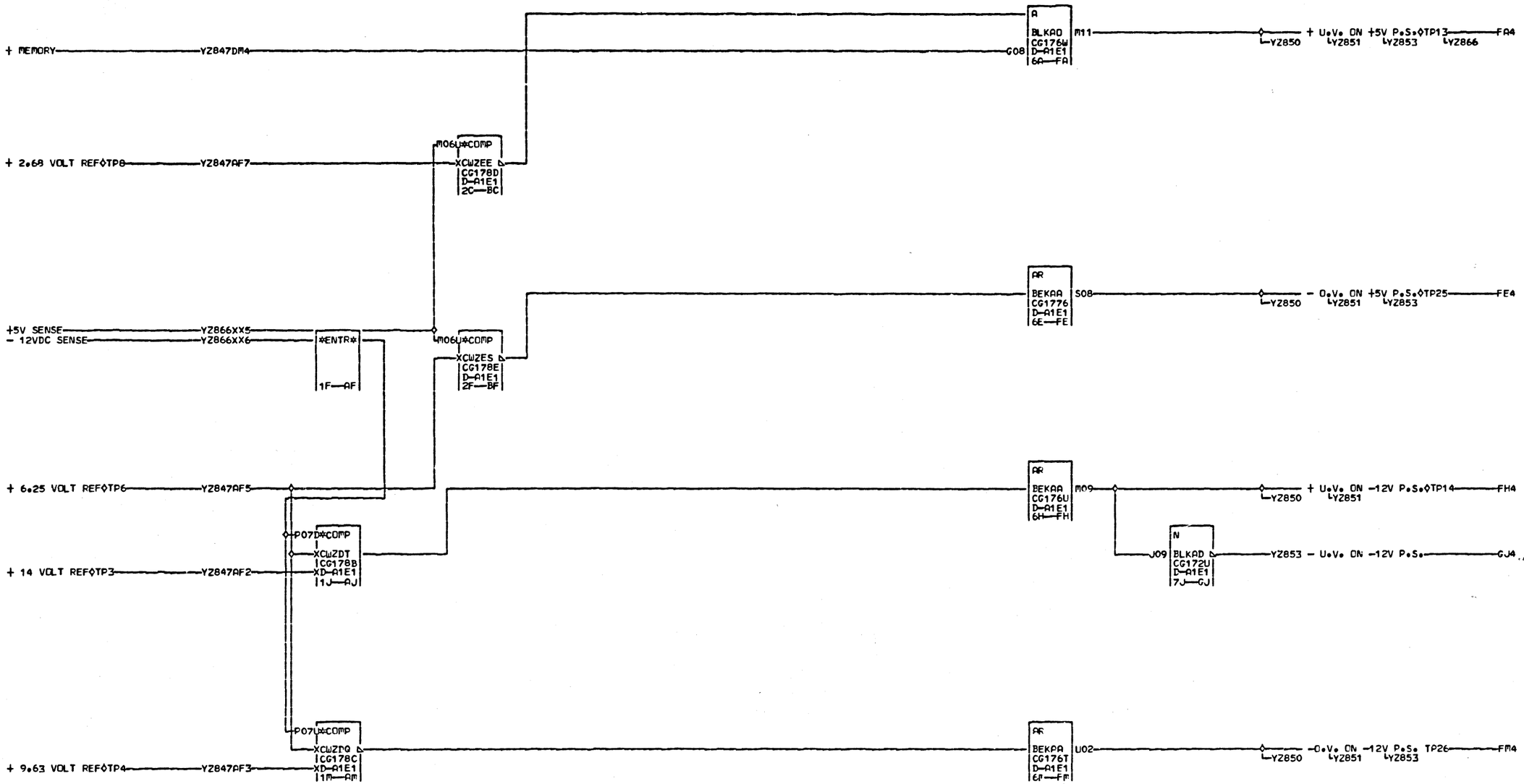


12-02-80 344268
06-12-81 344860

YZ848
000

+6◊+12 CV AND UV
DATE 07-06-81 MACH. 3705
LOG 282 FRAME 01
P.N. 1857282
IEM CORP. SCD BLK. GN

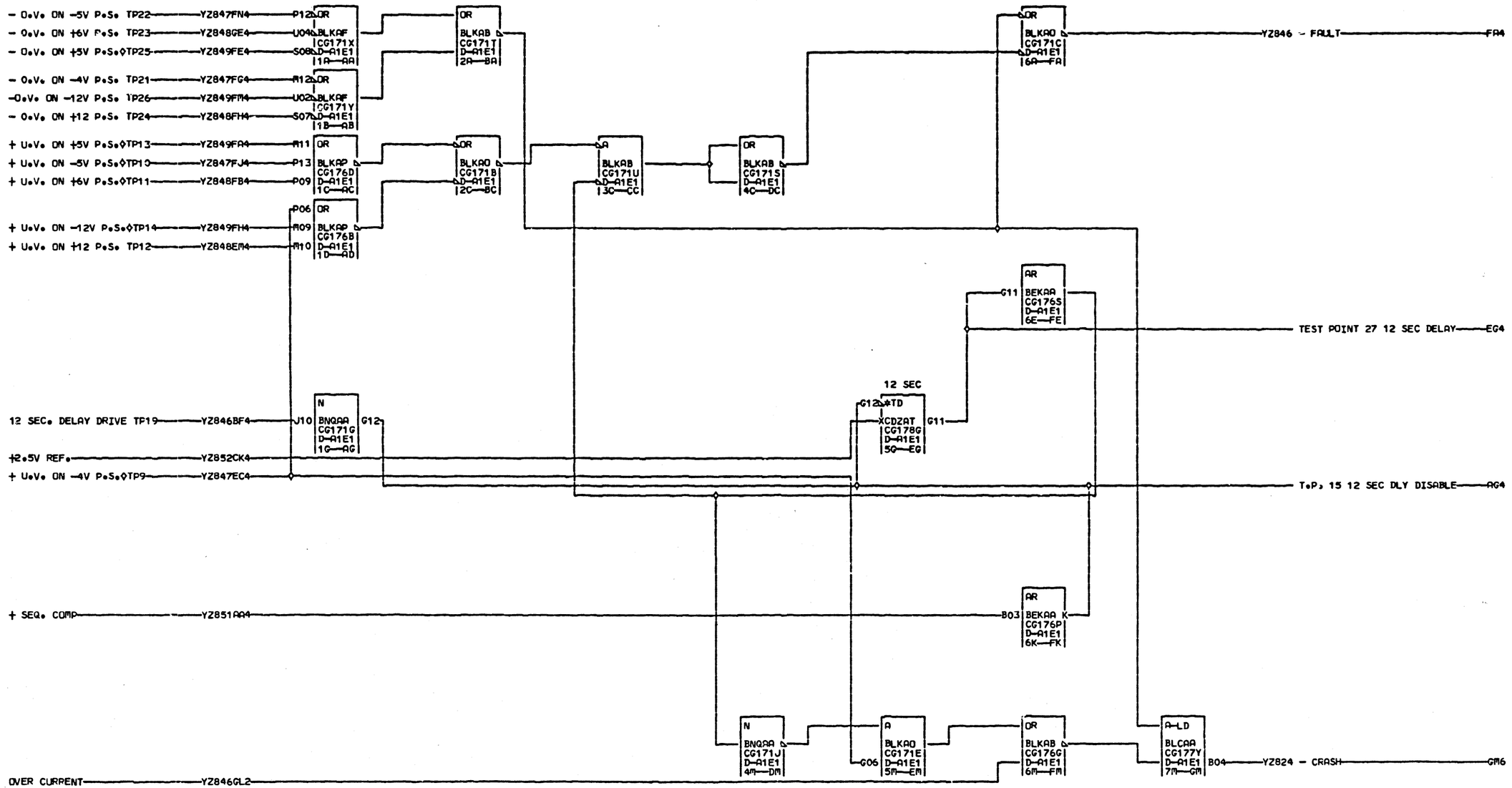
YZ848
000



12-02-80 344268
06-12-81 344860

-12<+8.5 CV AND LJV		
DATE 07-06-81 MACH. 3705		YZ849
LOC 282 FRAME 01		000
P.N. 1857283		
IBM CORP. SCD BLK. GP		

YZ849
000



12-02-80 344268
03-31-80 344614

YZ850 000

12 SECOND FAULT DISABLE

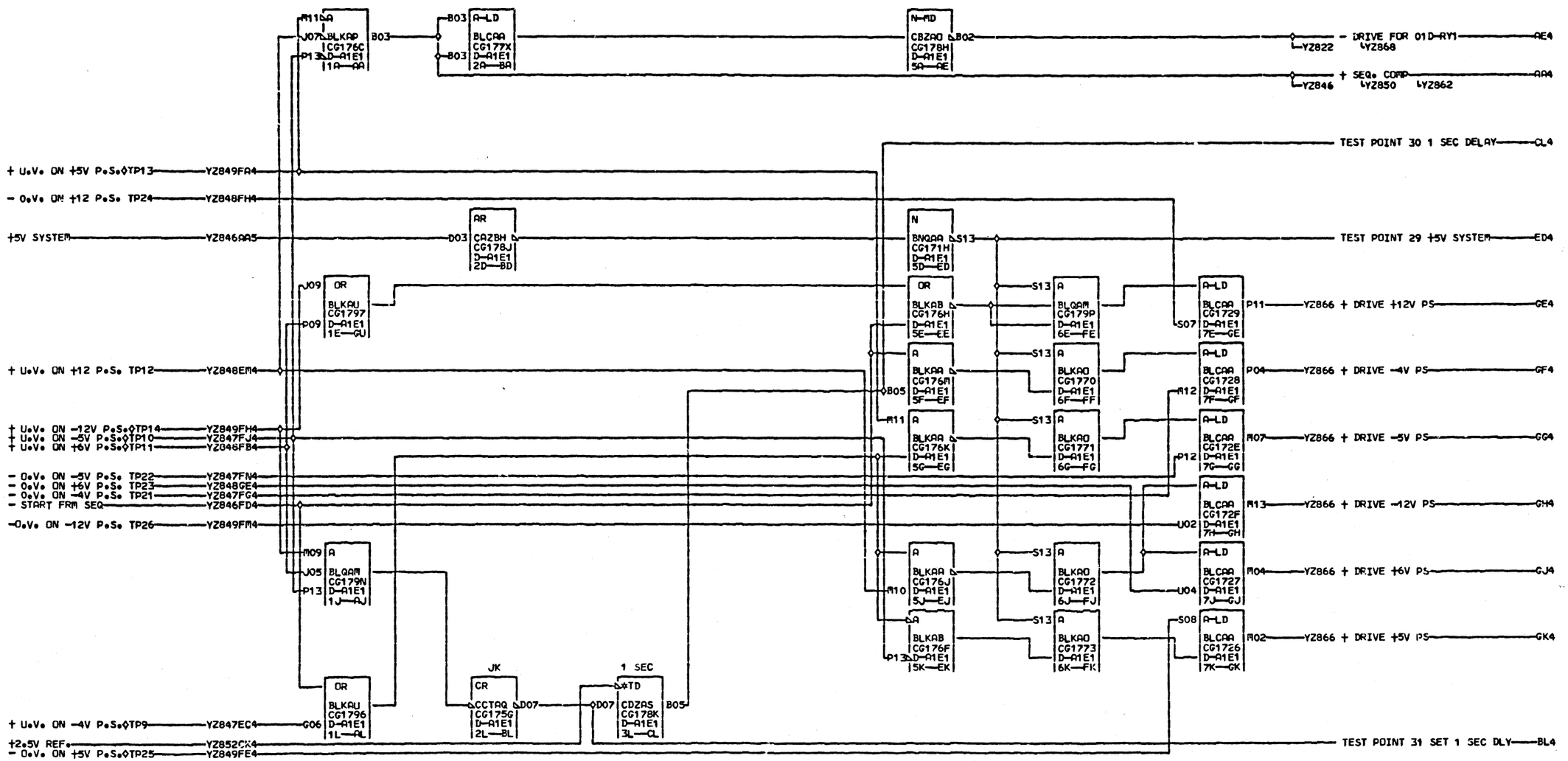
DATE 03-27-81 MACH. 3705

LOG 187 FRAME 01

P.N. 1857284

IBM CORP. SCD BLK. GN

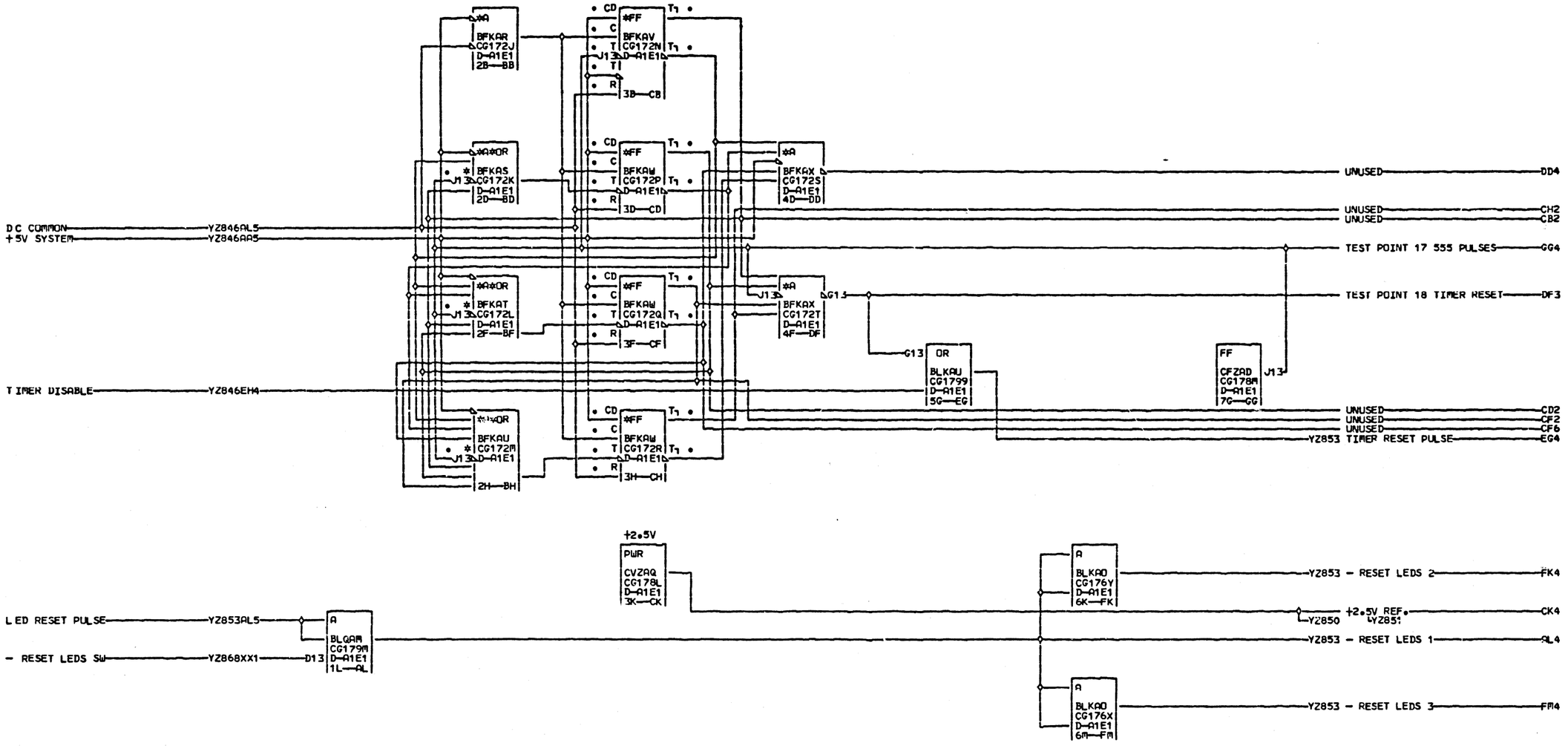
YZ850 000



12-02-80 344268
03-31-80 344614
02-15-82 344836

VOLTAGE DRIVE SIGNALS			
DATE 01-18-82	MACH. 3705		
LOG 407	FRAME	01	
	P.N. 1857285		
IBM CORP.	SCD BLK.	GV	

YZ851 000



12-02-80 344268
03-31-80 344614

YZ852 000

LED RESET SWITCH AND TIMER				YZ852 000
DATE 03-27-81	MACH. 3705			
LOG 187	FRAME 01			
	P.N. 1857286			
IBM CORP.	SCD BLK.	GN		

000 YZ853

+ U.V. ON -4V P.S.◊TP9 — YZ847EC4
+ U.V. ON +6V P.S.◊TP11 — YZ848FB4

DC COMMON — YZ846AL5 — D0B — *OR*FL — BFQAB CG179S D-A1E1 1B—AB

TRI-STATE OUT
• G1 — *AR — BTZAF CG177A D-A1E1 — 2C—BC — • G2

- O.V. ON +6V P.S. TP23 — YZ848GE4 — U04
- O.V. ON -4V P.S. TP21 — YZ847FG4 — M12
- U.V. ON -12V P.S. — YZ849GJ4 — U02
- O.V. ON -2V P.S. TP26 — YZ849FM4 — P12
- O.V. ON -5V P.S. TP22 — YZ847FN4
- U.V. ON +12V P.S. — YZ848GJ4

+ U.V. ON -5V P.S.◊TP10 — YZ847FJ4
- RESET LEDS 2 — YZ852FK4
+ U.V. ON +5V P.S.◊TP13 — YZ849FA4

BLOCK LEDS — YZ846GH2

- RESET LEDS 3 — YZ852FM4

- RESET LEDS 1 — YZ852AL4

TRI-STATE OUT
• G1 — *AR — BTZQF CG179Q D-A1E1 — 1L—AL — • G2

- O.V. ON +5V P.S.◊TP25 — YZ849FE4 — S08
OVER CURRENT 1 — YZ846EG4
OVER CURRENT 2 — YZ846AG3 — B12
TIMER RESET PULSE — YZ852EG4
- O.V. ON +12 P.S. TP24 — YZ848FH4 — S07

J05 — A — BLKAA CG177D D-A1E1 4A—DA
GC6 — A — BLKAA CG177B D-A1E1 4B—DB
P13 — A — BLKAA CG177C D-A1E1 4C—DC
M11 — A — BLKAA CG177E D-A1E1 4D—DD

*FL — BFQAA CG177F D-A1E1 5A—EA
*FL — BFQAA CG177H D-A1E1 5B—EB
*OR*FL — BFQAB CG177G D-A1E1 5C—EC
*FL — BFQAA CG177K D-A1E1 5D—ED
*FL — BFQAA CG177M D-A1E1 5E—EE
*OR*FL — BFQAB CG177J D-A1E1 5F—EF
*OR*FL — BFQAB CG177L D-A1E1 5G—EG
*OR*FL — BFQAB CG177N D-A1E1 5H—EH
*FL — BFQAA CG177R D-A1E1 5J—EJ
*FL — BFQAA CG177P D-A1E1 5K—EK

*OR*FL — BFQAB CG177S D-A1E1 4J—DJ
*OR*FL — BFQAB CG177Q D-A1E1 4K—DK
*OR*FL — BFQAB CG179X D-A1E1 4L—DL
*OR*FL — BFQAB CG179V D-A1E1 4M—DM
*FL — BFQAA CG179T D-A1E1 4N—DN

560 R CCZHY CG1735 D-A1E1 6A—FA — S04 — 560 R CCZHY CG1736 D-A1E1 7A—GA — U05 — YZ868 - SET U.V. LED -4V — GA4
YZ868 - SET U.V. LED +6V — FA4

560 R CCZHY CG1738 D-A1E1 6C—FC — S03 — 560 R CCZHY CG173P D-A1E1 7C—GC — U10 — YZ868 - SET U.V. LED +5V — GC4
YZ868 - SET U.V. LED -5V — FC4

560 R CCZHY CG173N D-A1E1 6E—FE — U09 — 560 R CCZHY CG1737 D-A1E1 7E—GE — S05 — YZ868 - SET U.V. LED -12V — GE4
YZ868 - SET U.V. LED +12V — FE4

560 R CCZHY CG173M D-A1E1 6G—FG — S09 — 560 R CCZHY CG173Q D-A1E1 7G—GG — S10 — YZ868 - SET O.V. LED -4V — GG4
YZ868 - SET O.V. LED +6V — FG4

560 R CCZHY CG173Y D-A1E1 6J—FJ — U13 — 560 R CCZHY CG173Z D-A1E1 7J—GJ — U12 — YZ868 - SET O.V. LED -12V — GJ4
YZ868 - SET O.V. LED -5V — FJ4

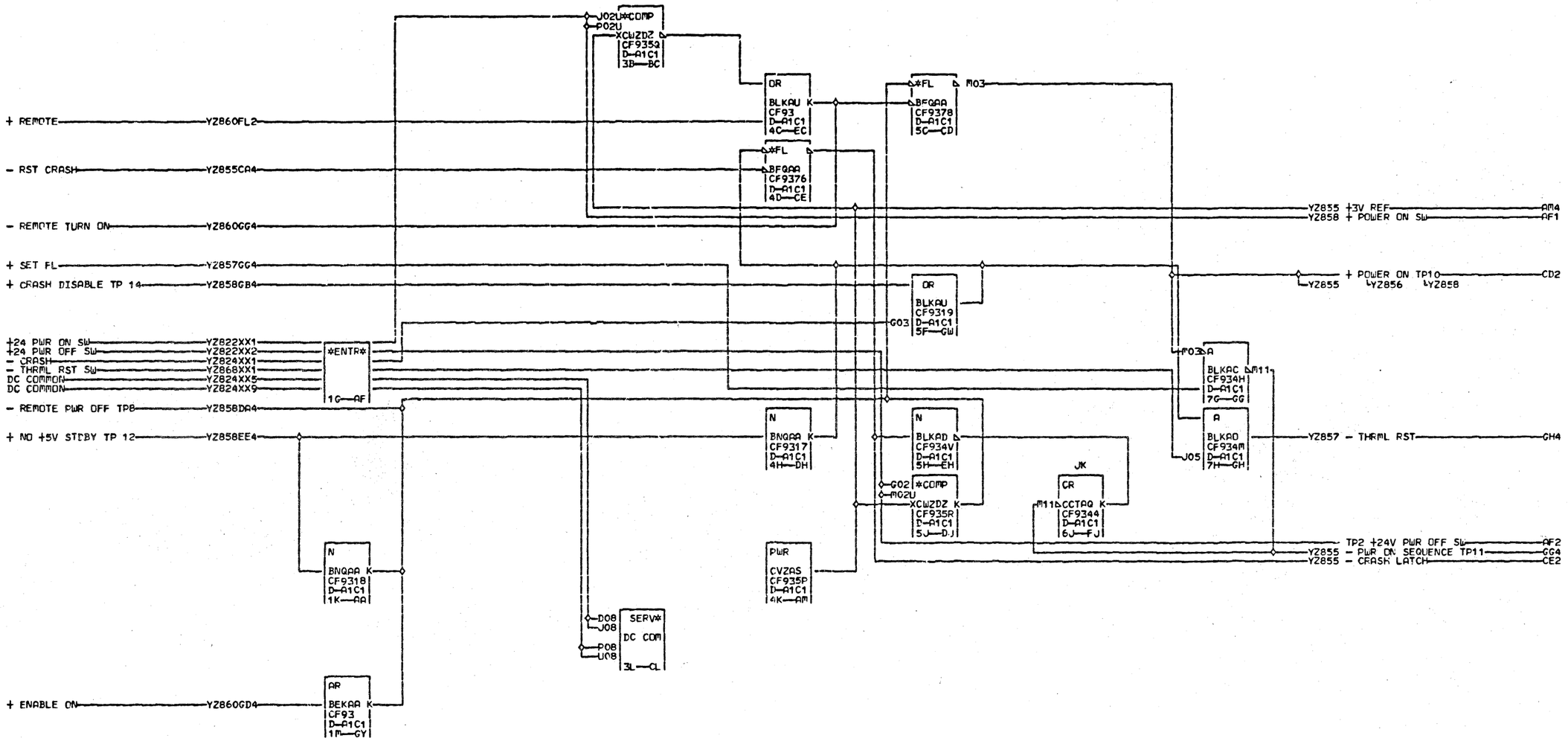
560 R CCZHY CG173X D-A1E1 6L—FL — U06 — 560 R CCZHY CG1740 D-A1E1 7L—GL — S12 — YZ868 - SET O.V. LED +5V — GL4
YZ868 - SET O.V.C. 1 LED — FN4
YZ868 - SET O.V. LED +12V — FL4
YZ868 - SET LED TIME FAULT — EN4
YZ852 LED RESET PULSE — AL5

560 R CCZHY CG174J D-A1E1 5N—EN — S06
560 R CCZHY CG174K D-A1E1 6N—FN — U11
560 R CCZHY CG174L D-A1E1 7N—GN — S11 — YZ868 - SET O.V.C. 2 LED — GN4

12-02-80 344268

YZ853 000

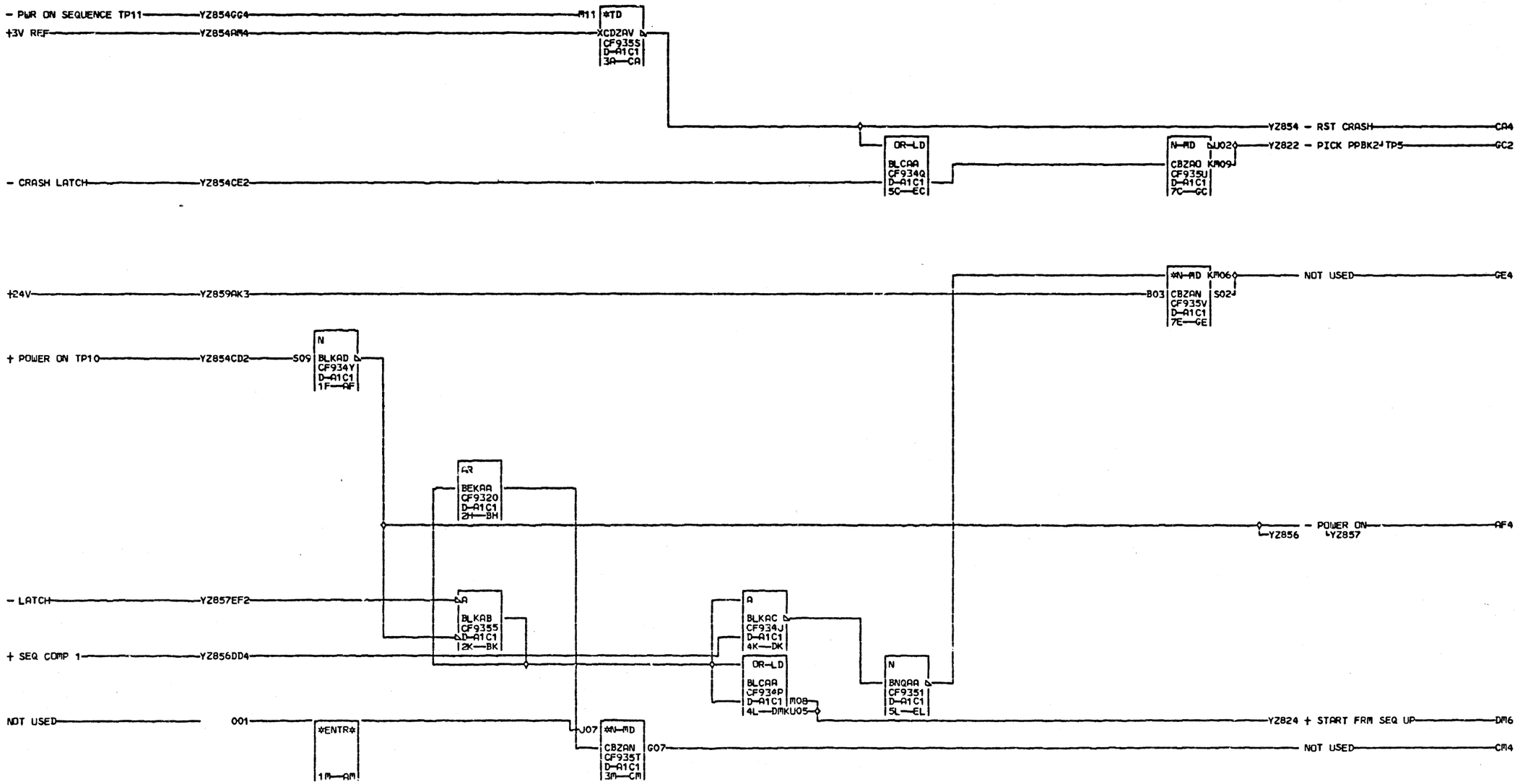
LED INDICATOR DRIVES				YZ853 000
DATE	01-16-81	MACH.	3705	
LOG	989	FRAME	01	
		P.N.	1857287	
IBM CORP.	SCD BLK.		GP	



12-02-80 344268
03-31-80 344614
06-12-81 344860

+24VOLTS DETECTION CIRCUIT	YZ854
DATE 07-06-81 MACH. 3705	
LOC 282 FRAME 01	
P.N. 1857288	
IBM CORP. SCD BLK. GZ	000

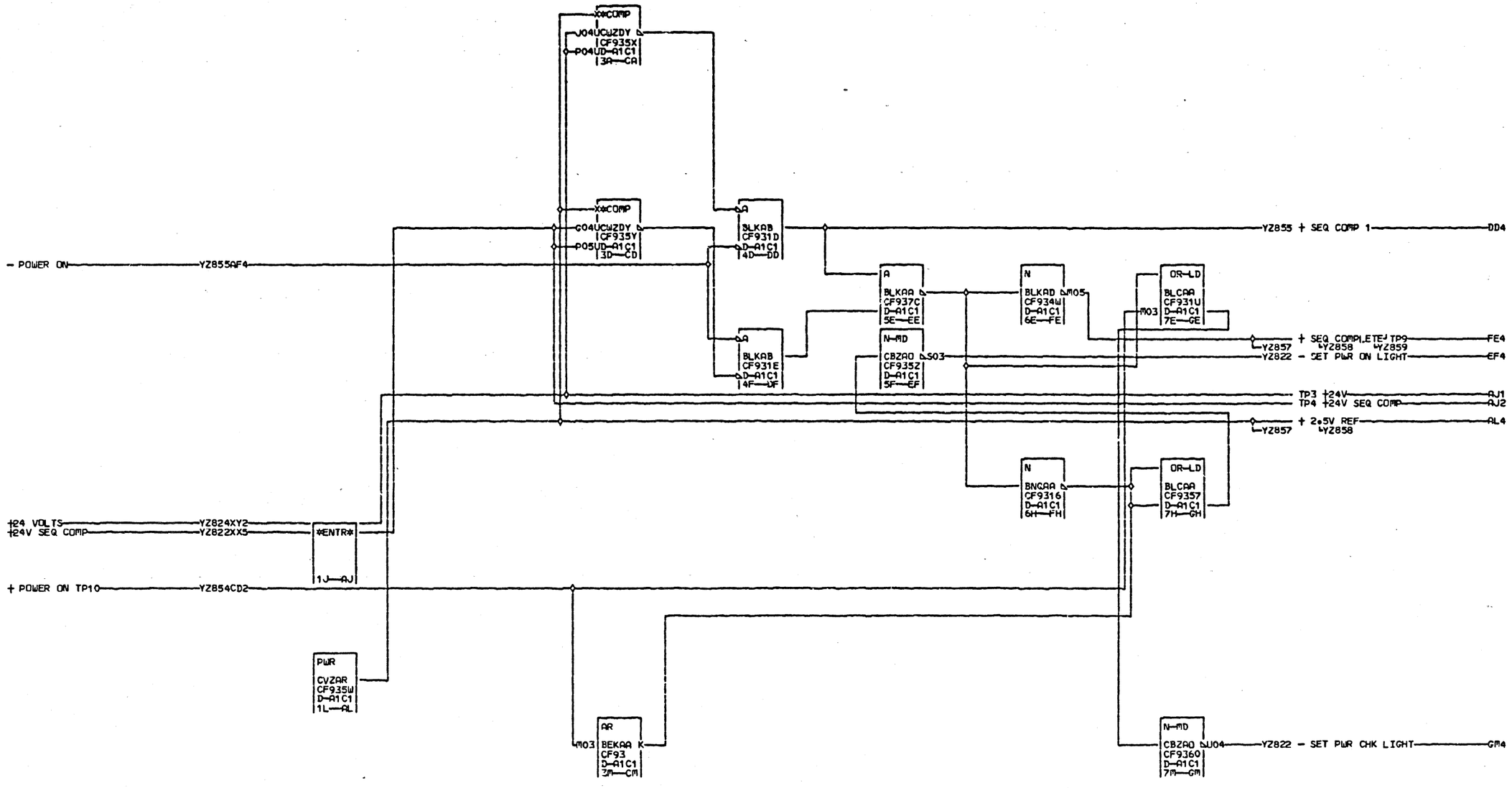
YZ854 000



12-02-80 344268
03-31-80 344614

PPBK2 CONTACTOR AND HD1 RELAY PICK CONTROL CIRCUITS
DATE 03-27-81 MACH. 3705
LOG 187 FRAME 01
P.N. 1857289
IBM CORP. SCD BLK. GP

YZ855 000

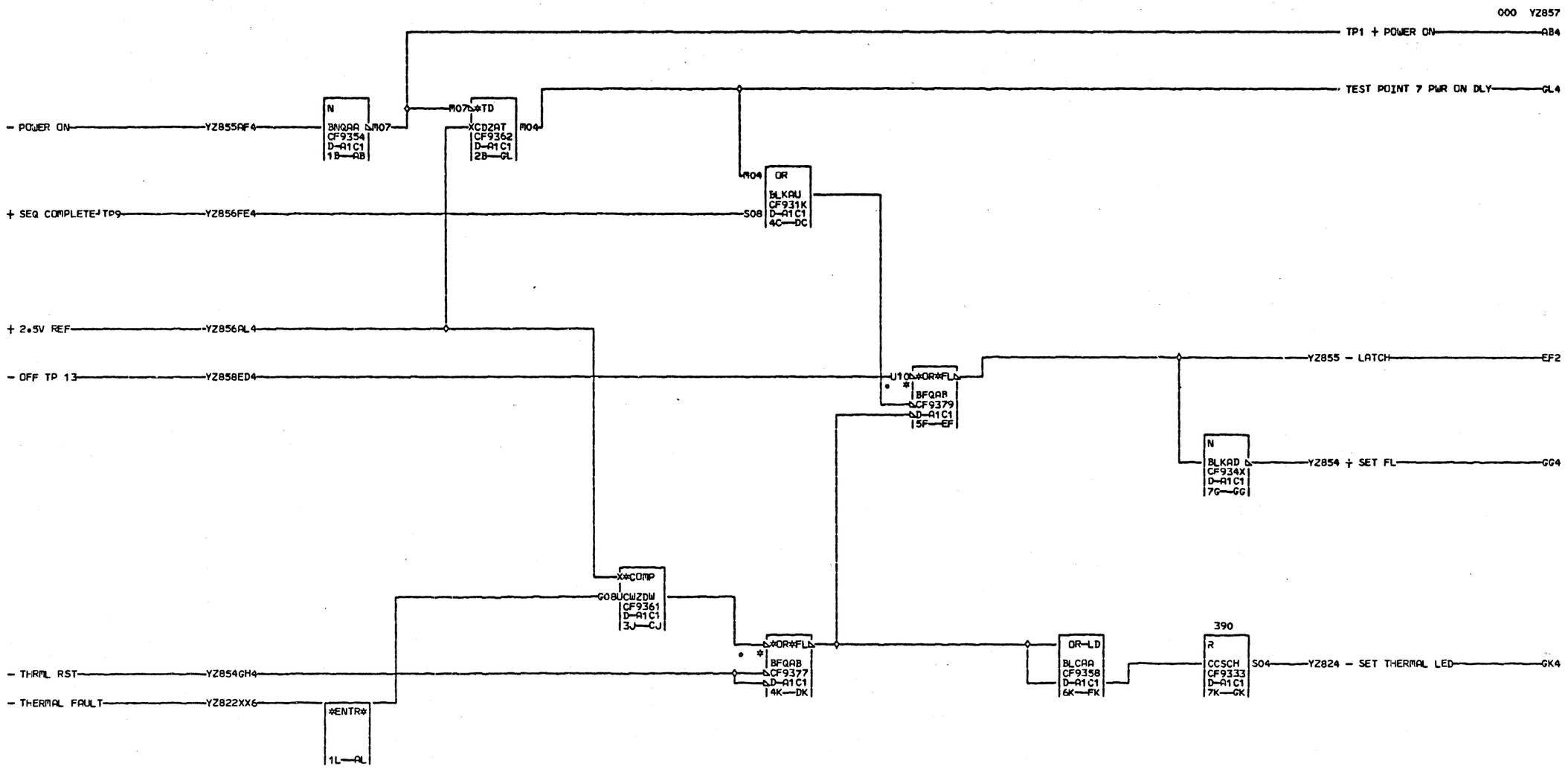


12-02-80 344268
03-31-80 344614

POWER ON AND POWER CHECK INDICATOR CIRCUITS	YZ856
DATE 03-27-81 MACH. 3705	
LOG 187 FRAME 01	
P.N. 1857290	000
IBM CORP. SCD BLK. GN	

YZ856
000

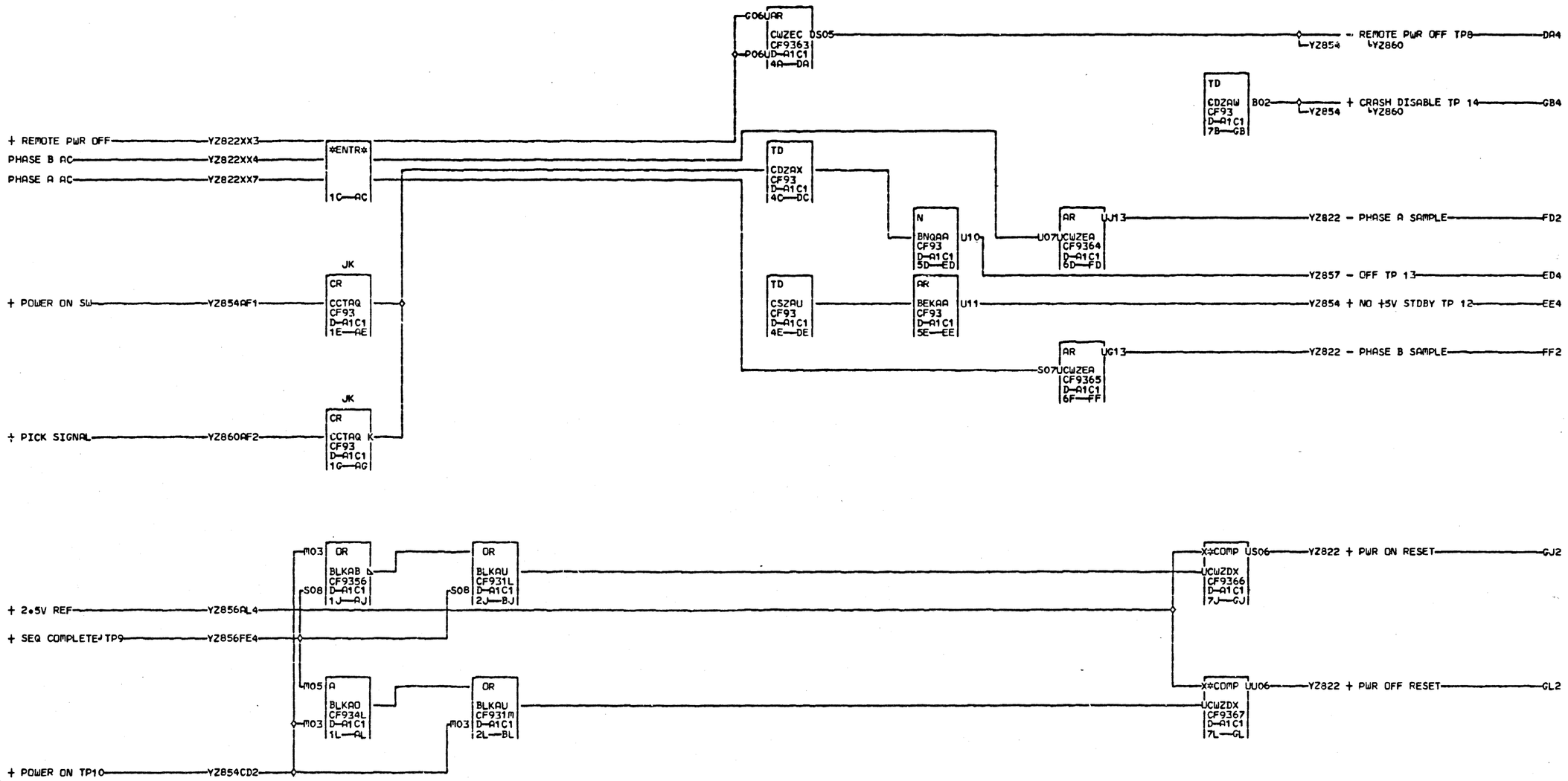
000 YZ857



12-02-80 344268
03-31-80 344614

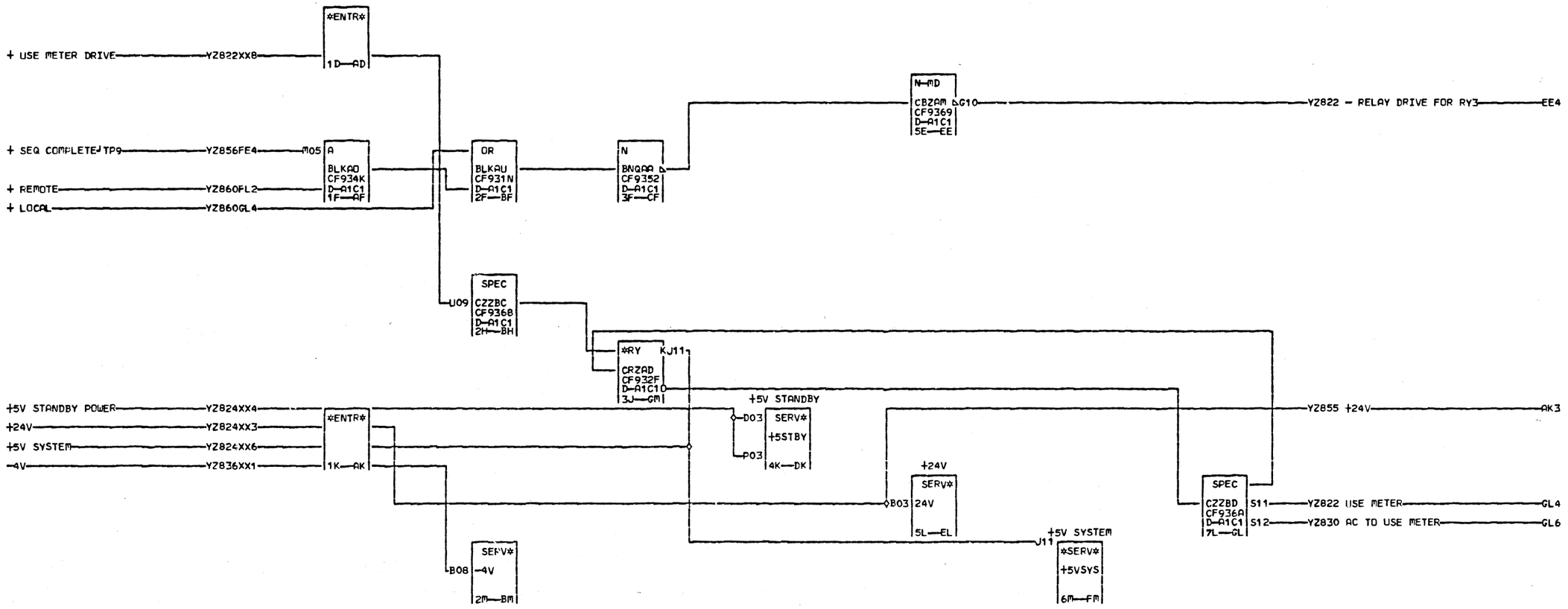
SEQUENCE UP AND THERMAL LED CIRCUITRY		YZ857
DATE 03-27-81 MACH. 3705		
LOG 187 FRAME 01		
P.N. 1857291		000
IBM CORP. SCD BLK. GM		

YZ857 000



12-02-80 344268

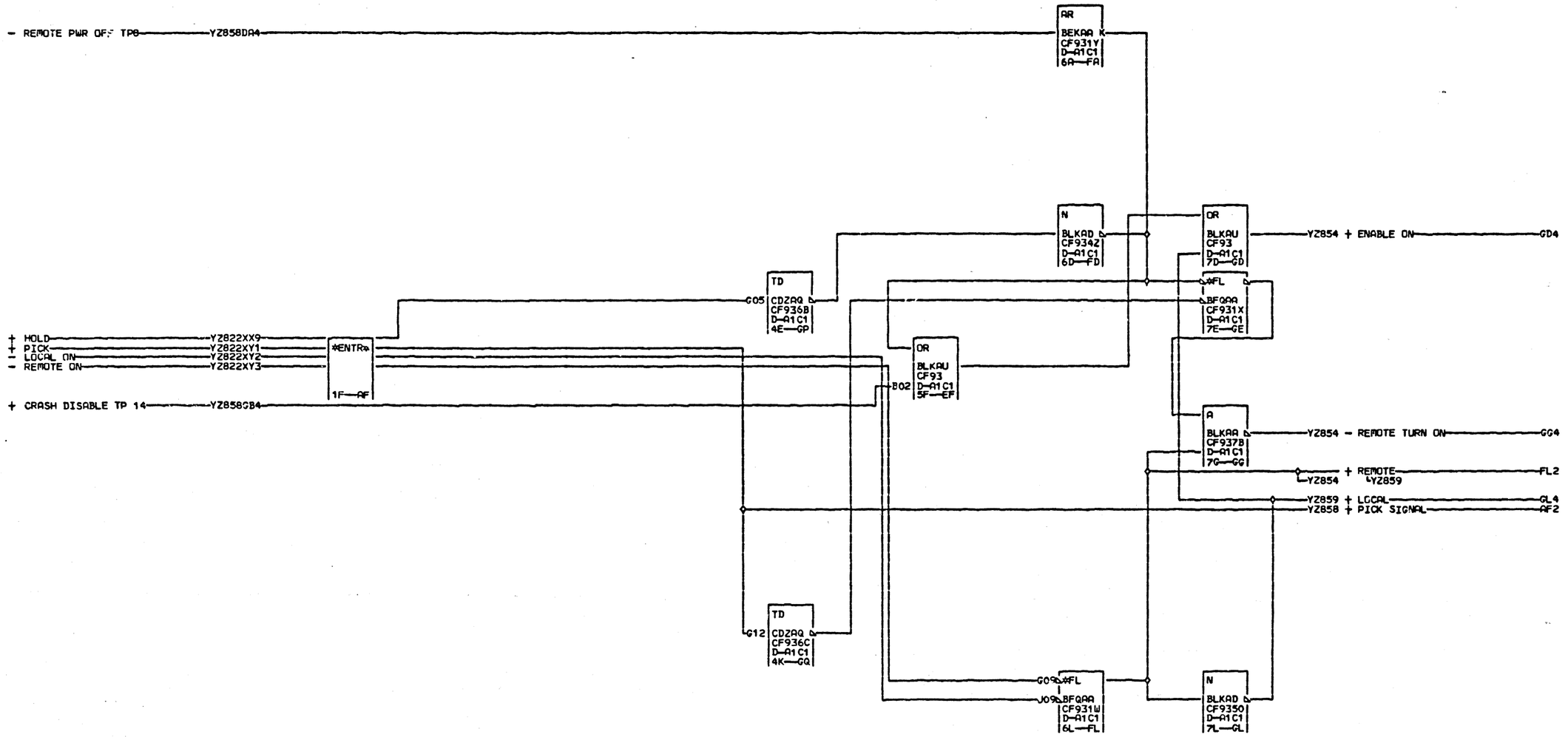
PHASE A/B SAMPLE CIRCUITRY AND PWR ON/OFF RESET CIRCUITRY	YZ858
DATE 01-16-81 MACH. 3705	
LOG 989 FRAME 01	
P.N. 1857292	
IBM CORP. SCD BLK. GP	000



12-02-80 344268
07-22-81 344860

USAGE METER AND EPO CTRL CIRCUITS	
DATE 07-22-81 MACH. 3705	
LOG 319 FRAME 01	
P.N. 1857293	
IBM CORP. SCD BLK. GN	

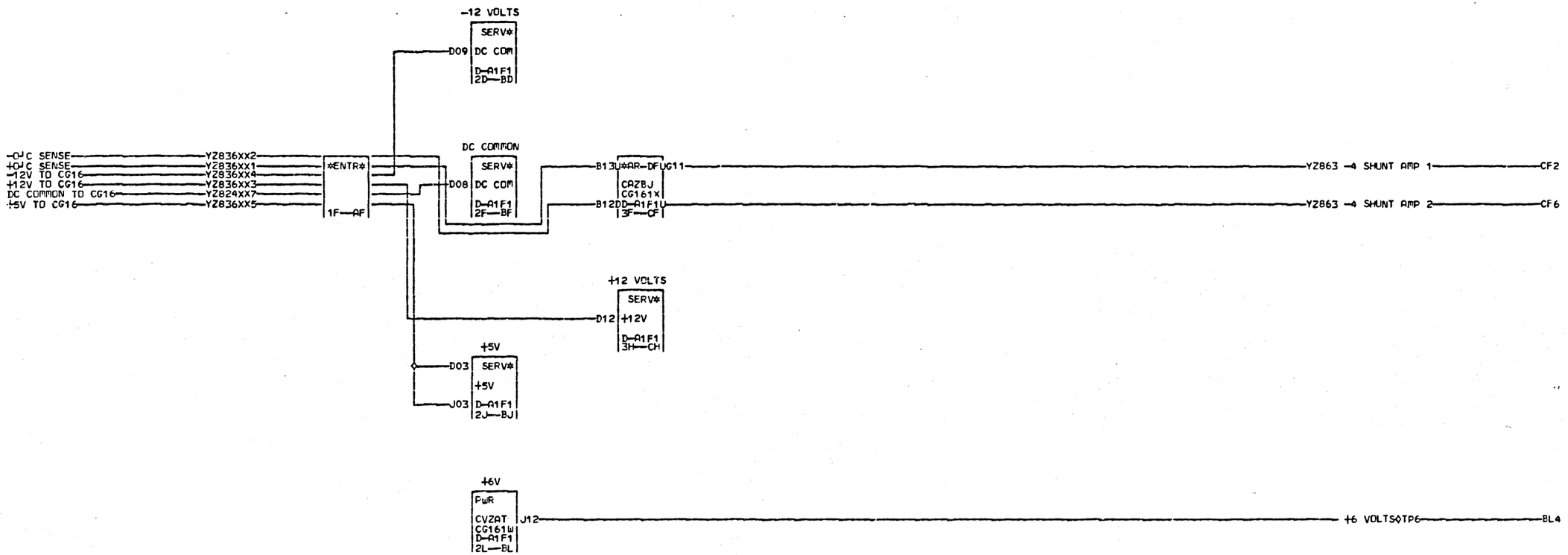
YZ859 000



12-02-80 344268
03-31-80 344614

LOCAL AND REMOTE POWER CTRL			YZ860
DATE 03-27-81	MACH. 3705		
LOG 187	FRAME	01	
	P.N. 1857294		000
IBM CORP.	SCD BLK.	GR	

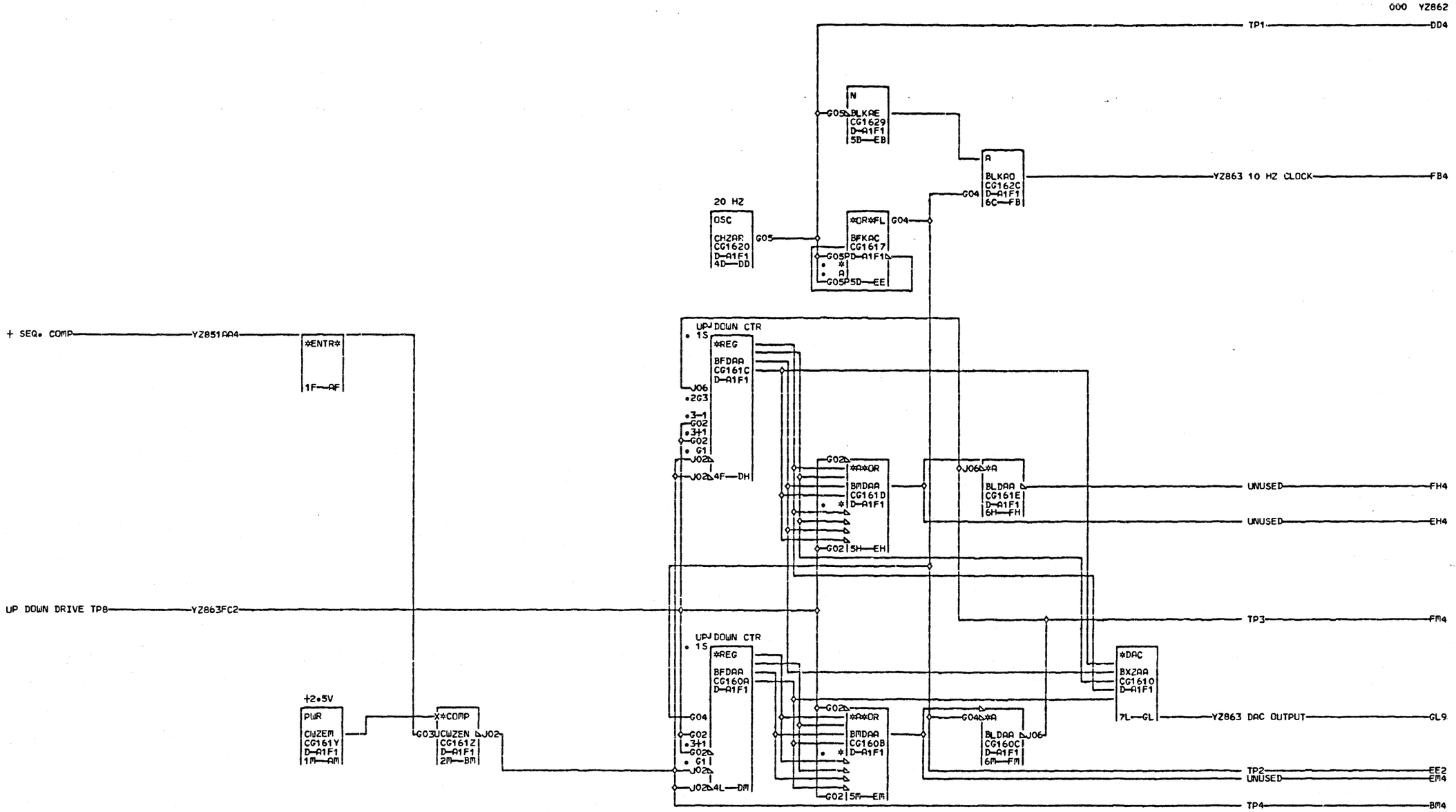
YZ860
000



12-02-80 344268
03-31-81 344614
06-12-81 344860

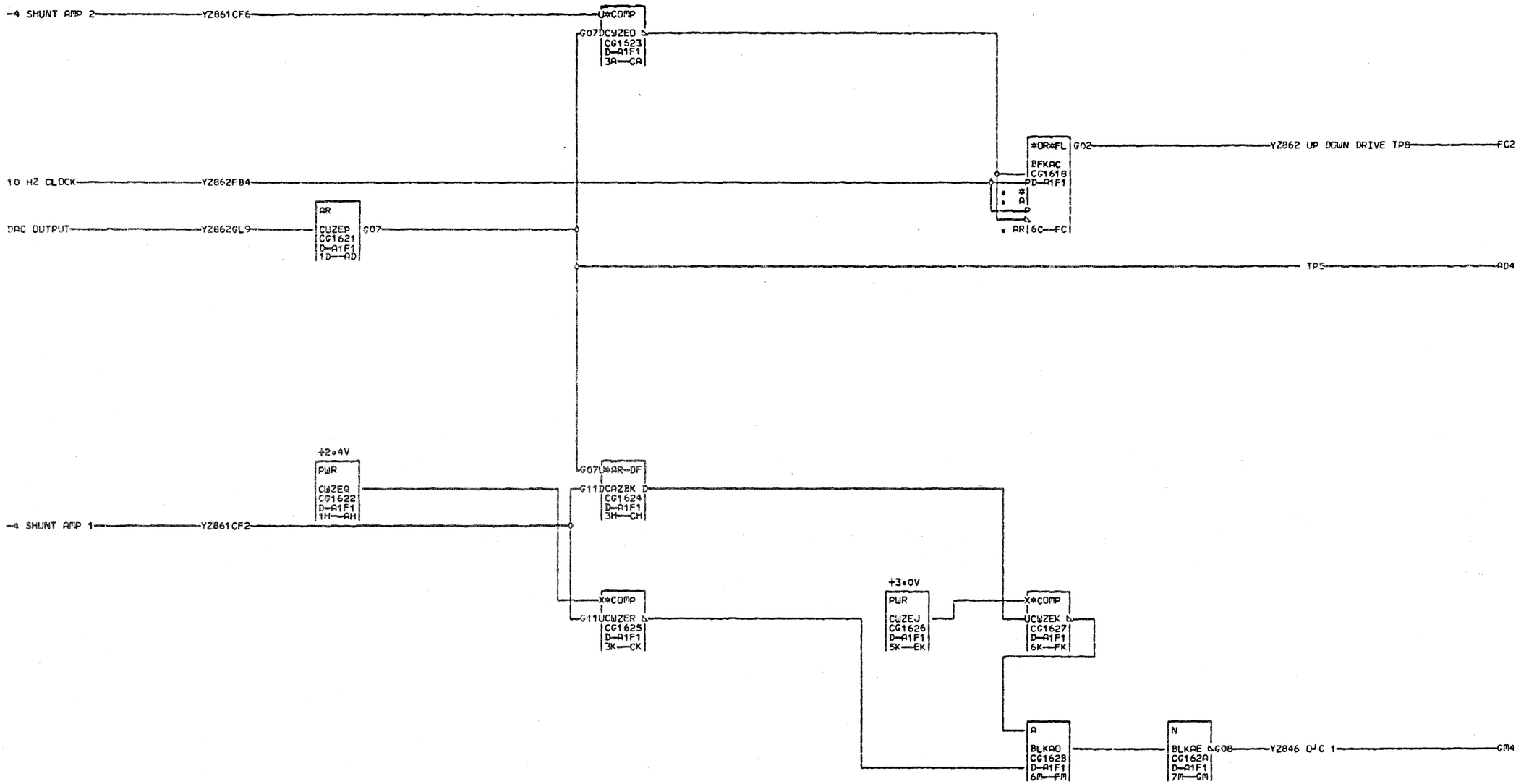
OVER CURRENT SENSING				
DATE 07-06-81	MACH. 3705			YZ861
LOG 282	FRAME	01		000
	P.N. 1857295			
IBF COPP.	SCD BLK.		GN	

YZ861
000



12-02-80 344268

YZ862 000	20HZ CLOCK AND DAC			YZ862 000
	DATE 01-16-81	MACH. 3705		
	LOG 991	FRAME	01	
		P.N. 1857296		
	IBM CORP.	BLK.	GM	



12-02-80 344268

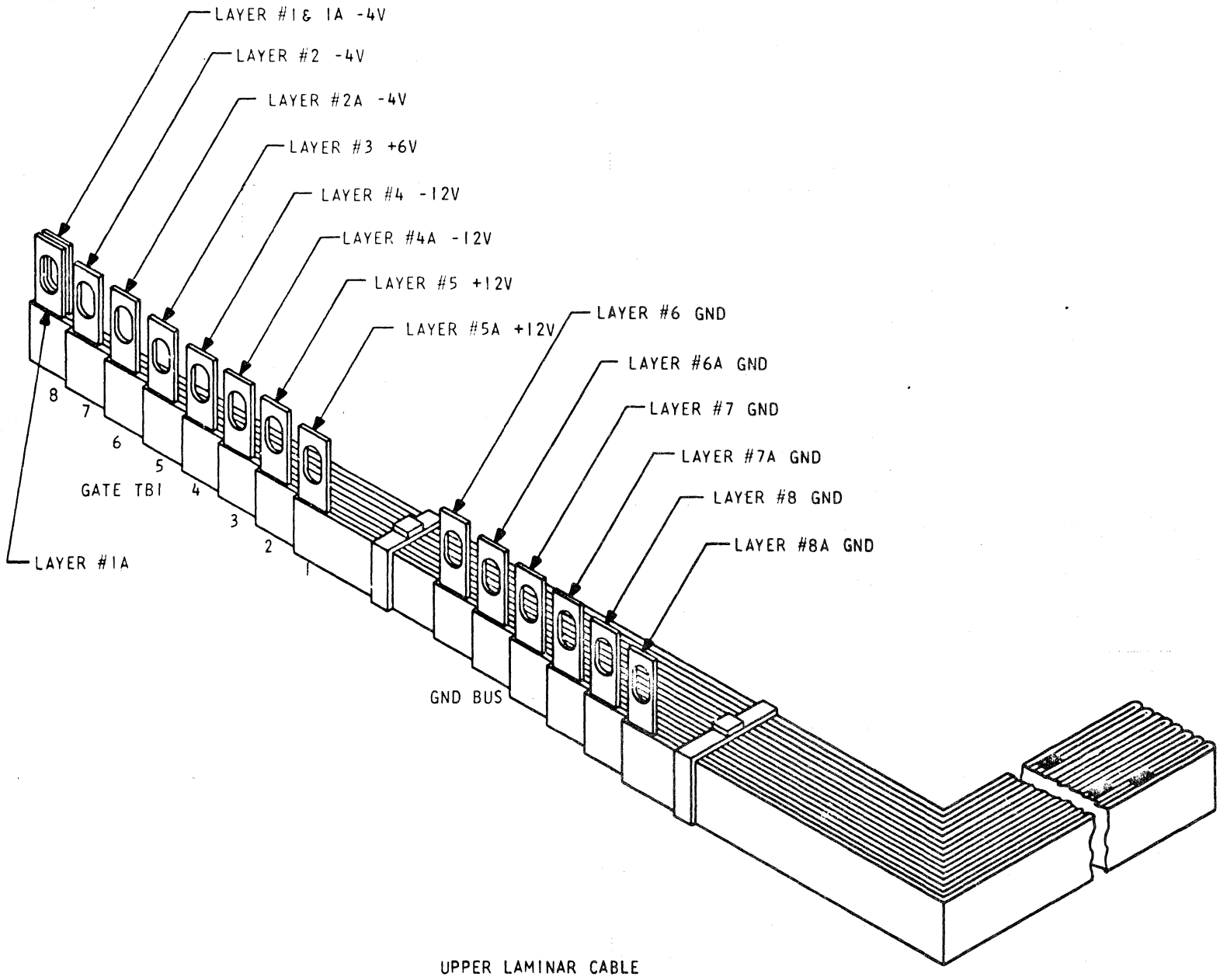
GROSS AND DELTA OVER CURRENT					
DATE	01-16-81	MACH.	3705		
LOG	989	FRAME	01		
		P.N.	1857297		
IBM CORP.	SCD BLK.		GN		

YZ863 000

C

1857596

PART NO	LOGIC PG NO
1857596	YZ 880



UPPER LAMINAR CABLE

IBM										
NAME	LAMINAR BUS CABLE				DATE	CHANGE NO		DATE	CHANGE NO	1857596
	3705-80				JAN82	344836				
DESIGN	JJS	AUG 81	SHT 1 OF 4							
DETAIL										
CHECK	CDN	AUG 81	CLASSIFICATION	MUST CONFORM TO ENG SPEC		DEVELOPMENT NO		LOGIC PG NO		C
APPRO	MTL	AUG 81						YZ 880		

C

1857596

PART NO 1857596 | LOGIC PG NO YZ 880

SHEET 3 OF 4

LAMINAR PLUG CHART

	LAYER NO.	TERM	WIRE NO'S	BD	PIN LOC	VOLTAGE	COLOR	JUMPER ASM
	6	25	25	A2	S1 C10	GND	BLACK	5182916
			25		S1 D13			
	2A	26	26	A1	S6 C05	-4	WHITE	5182920
			26		S6 D02			
	8A	27	27	A1	S6 C02	GND	BLACK	5182916
			27		S6 D05			
	1A	28	28	B2	D1 B13	-4	WHITE	5182920
			28		D1 C10			
	6A	29	29	B2	D1 B10	GND	BLACK	5182916
			29		D1 C13			
	2	30	30	B1	D6 B05	-4	WHITE	5182920
			30		D6 C02			
	8	31	31	B1	D6 B02	GND	BLACK	5182916
			31		D6 C05			
	1A	32	32	B2	G1 C13	-4	WHITE	5182920
			32		G1 D10			
	6A	33	33	B2	G1 C10	GND	BLACK	5182916
			33		G1 D13			
	2	34	34	B1	G6 C05	-4	WHITE	5182920
			34		G6 D02			
	8	35	35	B1	G6 C02	GND	BLACK	5182916
			35		G6 D05			
	1A	36	36	B2	K1 E13	-4	WHITE	5182920
			36		L1 A10			
	6A	37	37	B2	K1 E10	GND	BLACK	5182916
			37		L1 A13			
	2	38	38	B1	K6 E05	-4	WHITE	5182920
			38		L6 A02			
	8	39	39	B1	K6 E02	GND	BLACK	5182916
			39		L6 A05			
2 3	3	40	40	B1	L6 D04	+6	ORANGE	5182917
	3	40	40	B2	L1 D11			
	5	41	41	B2	M1 B11	+12	GRAY	5182919
			41		M1 C11			
1	5A	42	42	B1	M6 B04	+12	GRAY	5182919
			42		M6 C04			
	5	43	43	B2	M1 D11	+12	GRAY	5182919
			43		N1 A11			
1	5A	44	44	B1	M6 E04	+12	GRAY	5182919
			44		N6 A04			
	4	45	45	B2	N1 C11	-12	VIOLET	5182918
			45		N1 E11			
	8	46	46	B1	P6 B02	GND	BLACK	5182916
			46		P6 C05			
	1A	47	47	B2	P1 B13	-4	WHITE	5182920
			47		P1 C10			
1	4A	48	48	B1	N6 D04	-12	VIOLET	5182918
			48		N6 E04			

NOTES:

1. NOT USED FOR CA4 OR RPL FEATURE
2. FOR CA4 FEATURE WIRE NO. 40 TERMINATES AT PIN LOCATION 01A-B1T4B11
3. FOR RPL FEATURE IN 01A-B1 LOCATION WIRE # 40 TERMINATES AT PIN LOCATION 01A-B1U2B11 OR 01A-B1L6D04.

IBM

NAME	LAMINAR BUS CABLE		
	3705-80		
DESIGN	JJS	AUG 81	SHT 3 OF 4
DETAIL			
CHECK	C DN	AUG 81	CLASSIFICATION
APPRO	MTL	AUG 81	

	DATE	CHANGE NO		DATE	CHANGE NO
	JAN82	344836			

MUST CONFORM TO ENG SPEC | DEVELOPMENT NO | LOGIC PG NO: YZ 880

1857596 C

C

1857596

PART NO 1857596 | LOGIC PG NO YZ 880

SHEET 4 OF 4

LAMINAR PLUG CHART

	LAYER NO.	TERM	WIRE NO.'S	BD	PIN LOC	VOLTAGE	COLOR	JUMPER ASM
	2	49	49	B1	P6 B05	-4	WHITE	5182920
			49		P6 C02			
	6A	50	50	B2	P1 B10	GND	BLACK	5182916
			50		P1 C13			
	1A	51	51	B2	S1 C13	-4	WHITE	5182920
			51		S1 D10			
	6A	52	52	B2	S1 C10	GND	BLACK	5182916
			52		S1 D13			
	2	53	53	B1	S6 C05	-4	WHITE	5182920
			53		S6 D02			
	8	54	54	B1	S6 C02	GND	BLACK	5182916
			54		S6 D05			
	3	55	55	A1	L6 D02	+6	ORANGE	5182917
			55	A2	L1 D13			
1 2	3	56	56	B1	L6 D02	+6	ORANGE	5182917
	3	56	56	B2	L1 D13			

NOTES:

1 FOR CA4 FEATURE WIRE NO. 56 TERMINATES AT PIN LOCATION 01A-B1Q2B11

2 NOT USED FOR RPL FEATURE

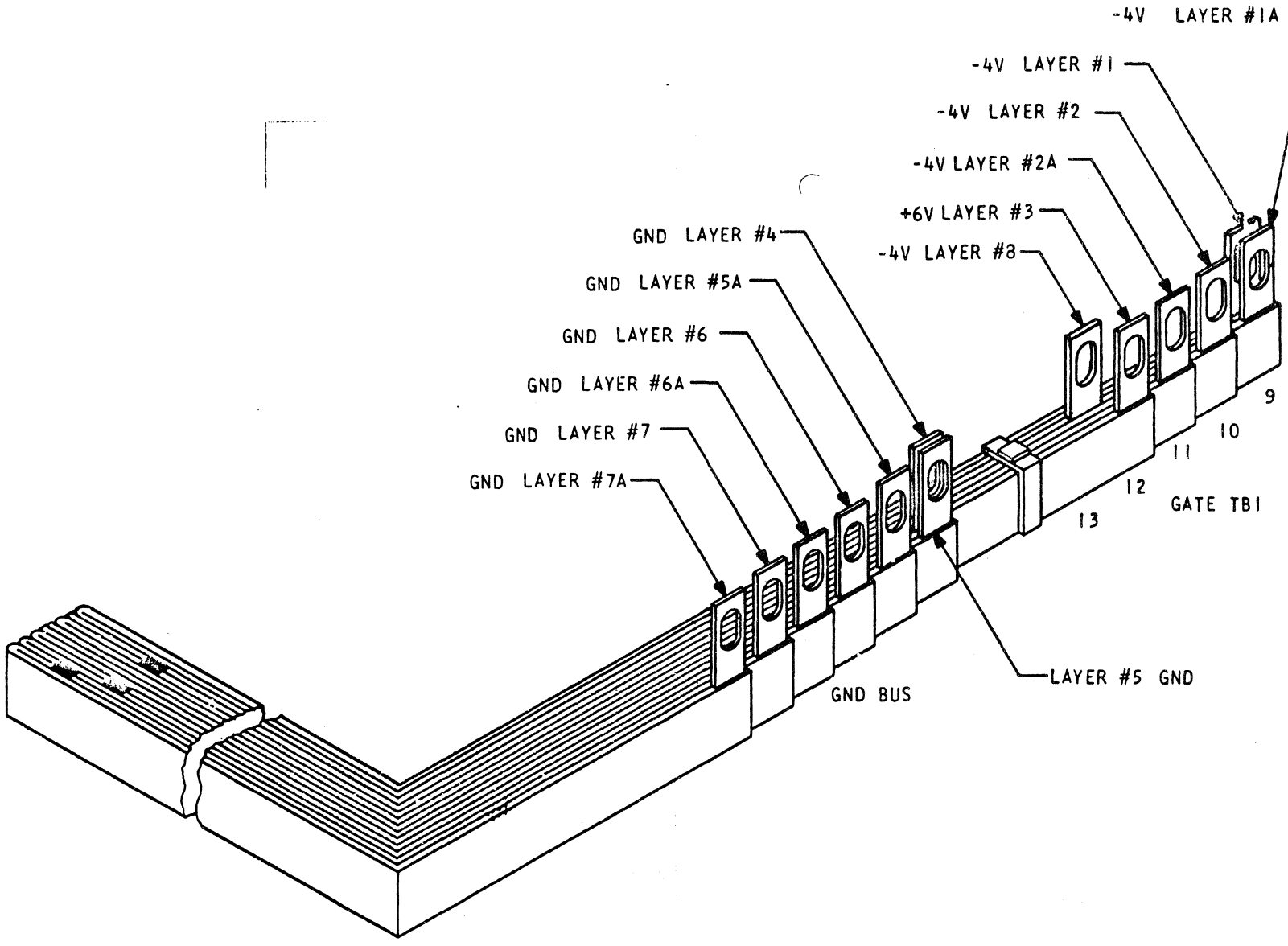
IBM					DATE	CHANGE NO		DATE	CHANGE NO
NAME	LAMINAR BUS CABLE				JAN82	344836			
	3705-80								
DESIGN	JJS	AUG 81	SHT 4 OF 4						
DETAIL									
CHECK	CDN	AUG 81	CLASSIFICATION	MUST CONFORM TO ENG SPEC	DEVELOPMENT NO	LOGIC PG NO			
APPRO	MTL	AUG 81				YZ 880			

1857596 C

C

1857597

PART NO	LOGIC PG NO
1857597	YZ 882



LOWER LAMINAR CABLE

IBM					DATE	CHANGE NO		DATE	CHANGE NO
NAME	LAMINAR BUS CABLE				JAN82	344836			
	3705-80								
DESIGN	JJS	AUG 81	SHT 1 OF 3						
DETAIL									
CHECK	CDN	AUG 81	CLASSIFICATION	MUST CONFORM TO ENG SPEC		DEVELOPMENT NO		LOGIC PG NO	
APPRO	MTL	AUG 81						YZ 882	

1857597

C

C

1857597

PART NO	LOGIC PG NO
1857597	YZ 882

LAMINAR PLUG CHART

LAYER NO.	TERM	WIRE NO.'S	BD	PIN LOC	VOLTAGE	COLOR	JUMPER ASM
7A	1	1	A4	D1 B10	GND	BLACK	5182916
		1		D1 C13			
2A	2	2	A4	D1 B13	-4	WHITE	5182920
		2		D1 C10			
5	3	3	A3	D6 B02	GND	BLACK	5182916
		3		D6 C05			
1	4	4	A3	D6 B05	-4	WHITE	5182920
		4		D6 C02			
7A	5	5	A4	G1 C10	GND	BLACK	5182916
		5		G1 D13			
2A	6	6	A4	G1 C13	-4	WHITE	5182920
		6		G1 D10			
5	7	7	A3	G6 C02	GND	BLACK	5182916
		7		G6 D05			
1	8	8	A3	G6 C05	-4	WHITE	5182920
		8		G6 D02			
7A	9	9	A4	K1 E10	GND	BLACK	5182916
		9		L1 A13			
2A	10	10	A4	K1 E13	-4	WHITE	5182920
		10		L1 A10			
5	11	11	A3	K6 E02	GND	BLACK	5182916
		11		L6 A05			
1	12	12	A3	K6 E05	-4	WHITE	5182920
		12		L6 A02			
7A	13	13	A4	P1 B10	GND	BLACK	5182916
		13		P1 C13			
2A	14	14	A4	P1 B13	-4	WHITE	5182920
		14		P1 C10			
5	15	15	A3	P6 B02	GND	BLACK	5182916
		15		P6 C05			
1	16	16	A3	P6 B05	-4	WHITE	5182920
		16		P6 C02			
7A	17	17	A4	S1 C10	GND	BLACK	5182916
		17		S1 D13			
3	18	18	A4	*	+6	ORANGE	1770761
		18					
5	19	19	A3	S6 C02	GND	BLACK	5182916
		19		S6 D05			
2A	20	20	A4	S1 C13	-4	WHITE	5182920
		20		S1 D10			
3	21	21	A4	*	+6	ORANGE	1770760
		21		*			
1	22	22	A3	S6 C05	-4	WHITE	5182920
		22		S6 D02			
7	23	23	B4	D1 B10	GND	BLACK	5182916
		23		D1 C13			
2	24	24	B4	D1 B13	-4	WHITE	5182920
		24		D1 C10			

* IF CA 1 OR CA 4

WIRE 18 TO Q2B11
WIRE 21 TO T4B11
WIRE 21 TO S2B11
RPL FEATURE IF IS IN 01A-A4 LOCATION

WIRE 21 TO U2B11
TIE BACK WIRE 18
TIE BACK WIRE 21

IBM									
NAME	LAMINAR BUS CABLE				DATE	CHANGE NO		DATE	CHANGE NO
	3705-80				JAN82	344836			
DESIGN	JJS	AUG 81	SHT 2 OF 3						
DETAIL									
CHECK	CDN	AUG 81	CLASSIFICATION	MUST CONFORM TO ENG SPEC	DEVELOPMENT NO	LOGIC PG NO			
APPRO	MTL	AUG 81				YZ 882			

1857597 C

C

1857597

PART NO 1857597 | LOGIC PG NO YZ 882

SHEET 3 OF 3

LAMINAR PLUG CHART

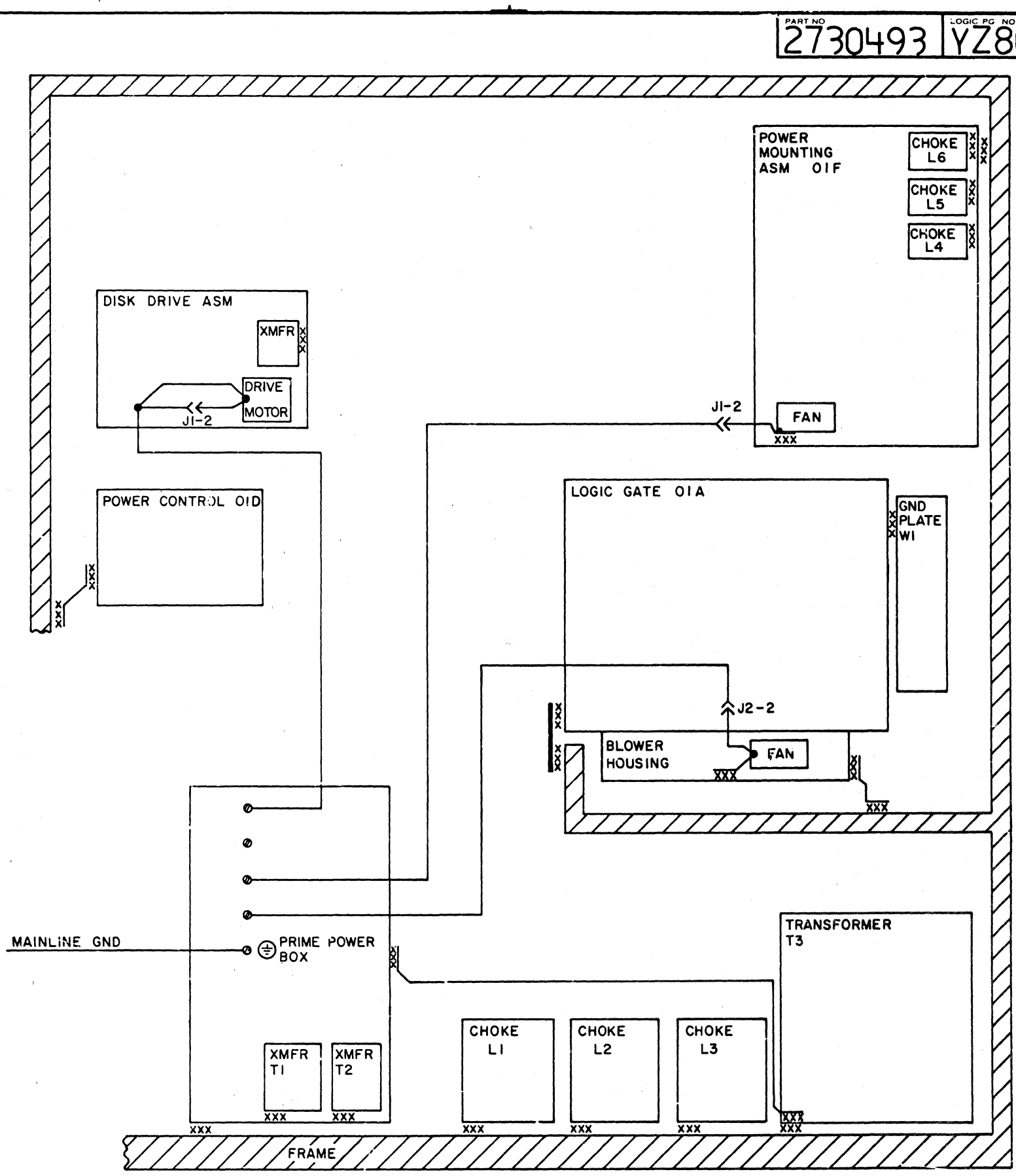
LAYER NO.	TERM	WIRE NO.'S	BD	PIN LOC	VOLTAGE	COLOR	JUMPER ASM
5A	25	25	B3	D6 B02	GND	BLACK	5182916
		25		D6 C05			
1A	26	26	B3	D6 B05	-4	WHITE	5182920
		26		D6 C02			
7	27	27	B4	G1 C10	GND	BLACK	5182916
		27		G1 D13			
2	28	28	B4	G1 C13	-4	WHITE	5182920
		28		G1 D10			
5A	29	29	B3	G6 C02	GND	BLACK	5182916
		29		G6 D05			
1A	30	30	B3	G6 C05	-4	WHITE	5182920
		30		G6 D02			
7	31	31	B4	K1 E10	GND	BLACK	5182916
		31		L1 A13			
2	32	32	B4	K1 E13	-4	WHITE	5182920
		32		L1 A10			
5A	33	33	B3	K6 E02	GND	BLACK	5182916
		33		L6 A05			
1A	34	34	B3	K6 E05	-4	WHITE	5182920
		34		L6 A02			
7	35	35	B4	P1 B10	GND	BLACK	5182916
		35		P1 C13			
	36	36	B4	P1 B13	-4	WHITE	5182920
		36		P1 C10			
5A	37	37	B3	P6 B02	GND	BLACK	5182916
		37		P6 C05			
1A	38	38	B3	P6 B05	-4	WHITE	5182920
		38		P6 C02			
7	39	39	B4	S1 C10	GND	BLACK	5182916
		39		S1 D13			
2	40	40	B4	S1 C13	-4	WHITE	5182920
		40		S1 D10			
5A	41	41	B3	S6 C02	GND	BLACK	5182916
		41		S6 D05			
1A	42	42	B3	S6 C05	-4	WHITE	5182920
		42		S6 D02			
4	43	43	B4	SPARE	GND	BLACK	5182926
		43		SPARE			
8	44	NONE	B4	NONE	-4	NONE	NONE
		NONE		NONE			
3	45	45	B4	U2 B12	+6	ORANGE	1770760
		45		U3 B12			
		45	B3	C5 B12			1750347

IBM					DATE	CHANGE NO		DATE	CHANGE NO
NAME	LAMINAR BUS CABLE				JAN82	344836			
	3705-80								
DESIGN	JJS	AUG 81	SHT 3 OF 3						
DETAIL									
CHECK	CDN	AUG 81	CLASSIFICATION	MUST CONFORM TO ENG SPEC	DEVELOPMENT NO	LOGIC PG NO			
APPRO	MTL	AUG 81				YZ 882			

1857597 C

2730493 C

PART NO 2730493 | LOGIC PG NO YZ801



NOTES

1 SAFETY GROUND WIRING IS GREEN/YELLOW
2 EXTERNAL TOOTH STARWASHERS INSTALLED BETWEEN TERMINAL AND FRAME

LEGEND: XXX = EXTERNAL TOOTH STARWASHER

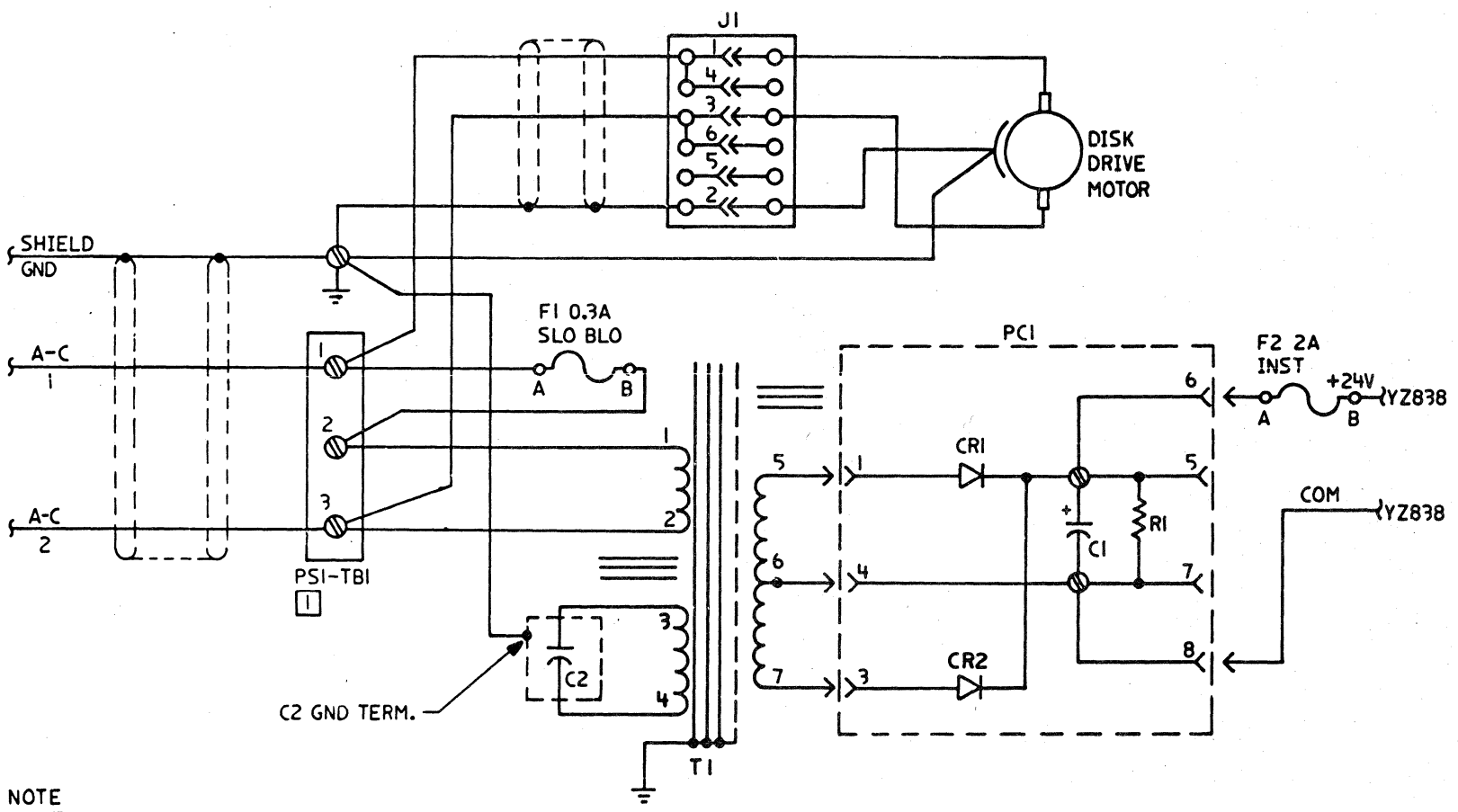
IBM											
NAME	GROUND SCHEMATIC				REL	DATE MAR81	CHANGE NO 344614		DATE	CHANGE NO	2730493 C
DESIGN	JJS	JAN81	SHT 1 OF 1								
DETAIL	RTS	JAN81									
CHECK	CDN	JAN81	CLASSIFICATION		MUST CONFORM TO ENG SPEC		DEVELOPMENT NO		LOGIC PG NO		
APPRO	MTL	JAN81	JJS	JAN81					YZ801		

870 0134-1 MNO# 780822204 VERTICAL ELECTRICAL FORMAT

PART NO	LOGIC PG NO
7838693	YZ840

C

7838693



NOTE

[1] PSI-TBI IS PART OF TRANSFORMER ASM (T1)

COMPONENT LIST		
C1	5214366	CAPACITOR, 24000 µF, 30V DC
C2	5252850	CAPACITOR, 2.0 µF, 660V AC-50 Hz
OR C2	5252837	CAPACITOR, 1.5 µF, 660V AC-60 Hz
CR1,CR2	1149212	RECTIFIER, 3A
F1	78998	FUSE, 0.3A SLO BLO 250V
F2	855231	FUSE, 2A INST 250V
J1	725557	CONNECTOR, 3 POSITION
PC1	1851948	PC BOARD ASSEMBLY
R1	303653	RESISTOR, 200 Ω ±5%, 10W
T1	1770778	FERRO ASM, 50 Hz, 24VA
OR T1	1770779	FERRO ASM, 60 Hz, 24VA

PRIMARY POWER BOX CONNECTION CHART			
DISK LOCATION	CONNECT A-C1 TO:	CONNECT A-C2 TO:	CONNECT GND AND SHIELD TO:
60 Hz MAIN FRAME (SEE YZ804)	K2 - T2	K2 - T3	FRAME GND (K2 MOUNTING BRKT)
50 Hz WT MAIN FRAME (SEE YZ808)	K2 - T2	K2 - 2B	FRAME GND (K2 MOUNTING BRKT)
200V 60 Hz JAPAN MAIN FRAME (SEE YZ812)	K2 - T2	K2 - T3	FRAME GND (K2 MOUNTING BRKT)
50 Hz JAPAN MAIN FRAME (SEE YZ816)	K2 - T2	K2 - T3	FRAME GND (K2 MOUNTING BRKT)

IBM

NAME	AC POWER TO DISK			
DESIGN	JJS	MAR81	SHT 1 OF 1	
DETAIL	TS	MAR81		
CHECK	CDN	MAR81	CLASSIFICATION	
APPRO.	MTL	MAR81	JJS	MAR81

	DATE	CHANGE NO		DATE	CHANGE NO
	MAR81	344614			
	JAN82	344836			

MUST CONFORM TO ENG SPEC	DEVELOPMENT NO	LOGIC PG NO
		YZ840

7838693 C

620 0134 1 MROF 780822204 VERTICAL ELECTRICAL FORMAT ASTROCLOTH N8507

CAPACITORS				
LOCATION	LOGIC PAGE	VALUE	P/N	NOTES
01D-C1	YZ824	500UF, 50V	2175473	
01D-C2	YZ824	3600UF, 20V	5475847	
01D-C3	YZ824	6000UF, 55V	2158757	
01D-C4	YZ824	2UF, 50V	1643863	
01D-C5	YZ824	2UF, 50V	1643863	
01D-C6	YZ824	2UF, 50V	1643863	
01F-C1	YZ830	120KUF, 15V	5796393	[1]
01F-C2	YZ830	120KUF, 15V	5796393	[1]
01F-C3	YZ830	150KUF, 10V	1864291	[2]
01F-C4	YZ830	120KUF, 15V	5796393	
01F-C5	YZ830	120KUF, 15V	5796393	
01F-C9	YZ830	120KUF, 15V	5796393	[3]
01F-C10	YZ830	120KUF, 15V	5796393	[3]
01F-C13	YZ830	.01UF, 100V	491228	ON ASM 1785390
01F-C14	YZ830	.01UF, 100V	491228	ON ASM 1785390
01F-C15	YZ830	.01UF, 100V	491228	ON ASM 1785390
01F-C16	YZ830	.01UF, 100V	491228	ON ASM 1785390
01F-C17	YZ830	.01UF, 100V	491228	ON ASM 1785390
01F-C18	YZ830	.01UF, 100V	491228	ON ASM 1785390
PPB-TB1	YZ804	.01UF, 1000V AC	1643861	ASM WITH 3 CAPS
PPB-CP-C1	YZ804	6UF, 330V AC	5252807	60HZ
PPB-CP-C2	YZ804	6UF, 330V AC	5252807	60HZ
PPB-CP-C3	YZ804	6UF, 330V AC	5252807	60HZ
PPB-CP-C1	YZ808	5UF, 660V AC	4120825	50HZ
PPB-CP-C2	YZ808	5UF, 660V AC	4120825	50HZ
PPB-CP-C3	YZ808	5UF, 660V AC	4120825	50HZ
PPB-C1	YZ824	18,000UF, 55V	5239119	
PPB-C6	YZ824	1500UF, 50V	2181753	
OP PNL-C1	YZ822	.22UF, 200V	2396888	ACROSS CE METER
OP PNL-C2	YZ822	.22UF, 200V	2396888	ACROSS CUST METER
5V PS-C1	YZ836	6.8UF, 20V	222088	PART OF ASM 1856417
5V PS-C2	YZ836	6.8UF, 20V	222088	ASM 1856424
5V PS-C3	YZ836	6.8UF, 20V	222088	ASM 1856424
5V PS-C4	YZ836	6.8UF, 20V	222088	ASM 1856424
5V PS-C5	YZ836	6.8UF, 20V	222088	ASM 1856424

RESISTORS				
LOCATION	LOGIC PAGE	VALUE	P/N	NOTES
01D-R1,R2	YZ824	3.9KΩ, 1W	1643856	
01D-R3	YZ824	360KΩ, 1/2W	1643857	
01D-R4	YZ824	10Ω, 25W	5261815	
01D-R5	YZ824	50Ω, 50W	5240461	ASM 1851853
01F-R1,R2	YZ830	1Ω, 50W	2195636	
01F-R3	YZ830	3Ω, 25W	5700287	
01F-R4	YZ830	6Ω, 50W	2410187	
01F-R5	YZ830	10Ω, 25W	5261815	
01F-R6 THRU R11	YZ830 (PART OF	200Ω, 1/4W ASM'S 1772396 OR	492615 1785390)	
01F-R12 THRU R14	YZ830 (PART OF	250Ω, 25W ASM'S 8566058 OR	2102582 8566072)	MOUNTED ON TOP SCREEN
PPB-R1	YZ824	1KΩ, 2W	1643872	
PPB-R2	YZ824	3.9KΩ, 1W	1643856	
5V PS-R1	YZ836	.4Ω, 25W	2449171	PART OF ASM 1856417
5V PS-R2	YZ836	50Ω, 4W, POT	8496449	
5V PS-R3	YZ836	51Ω, 2W	472580	} ASM 1757913
5V PS-R4	YZ836	51Ω, 2W	472580	

NOTES

[1] CHANGED TO 450K μF, 6.3V, P/N 5616823 AFTER EC 344970

[2] CHANGED TO 300K μF, 7.5V, P/N 16[illegible]S686, AFTER EC 344970

[3] NOT INSTALLED AFTER EC 344970

CIRCUIT BREAKERS 50HZ				
LOCATION	LOGIC PAGE	VALUE	P/N	NOTES
PPB-CB1		3 POLE, 15A	5719454	200/220V JAPAN 220/235 V & WT
PPB-CB1		4 POLE, 15A	5182907	380/408 V
PPB-CP2		1A	5998403	200/220V JAPAN
PPB-CP2		1A	4113264	WT EXCEPT JAPAN
CP ASM-CP1		10A	2218599	} ALL SYSTEMS
CP ASM-CP2		10A	2218599	
CP ASM-CP3		20A	5180400	

CIRCUIT BREAKERS 60HZ				
LOCATION	LOGIC PAGE	VALUE	P/N	NOTES
PPB-CB1	YZ802,810	3 POLE, 15A	5719454	
PPB-CP1	YZ804,812	7A	2229542	208/230V
PPB-CP1	YZ812	3A	2494128	200V
PPB-CP2	YZ804,812	1A	5998403	
CP ASM-CP1	YZ830	10A	2218599	
CP ASM-CP2	YZ830	10A	2218599	
CP ASM-CP3	YZ830	20A	5180400	

LINE FILTERS			
LOCATION	LOGIC PAGE	P/N	NOTES
PPB-FL1-4	YZ802,6,8,10,14	1770797	FL-4 IN 380/408V 50HZ ONLY
PPB-FL1-4	YZ808	4236662	W/RES P/N 5318934 IN FRANCE

MISC				
LOCATION	LOGIC PAGE	DESCRIPTION	P/N	
AC TO OXD	YZ824	TOROIDAL CORE	825468	
5V PS-F1	YZ836	FUSE 6A	303679	
GATE ASM	YZ822	THERMAL SW	5257518	(155°F)
-4V BUS	YZ822	THERMAL SW	5213442	(190°F)

IBM					DATE	CHANGE NO		DATE	CHANGE NO
NAME	COMPONENTS CROSS REFERENCE				JUN81	344860			
	3705-80				JAN82	344836			
DESIGN	JJS	JUN 81	SHT 1 OF 2						
DETAIL	TS	JUN 81							
CHECK	CDN	JUN 81	CLASSIFICATION		MUST CONFORM TO ENG SPEC	DEVELOPMENT NO		LOGIC PG NO	
APPRO	MTL	JUN 81						YZ890	

620 0134 1 MROF 780822204 VERTICAL ELECTRICAL FORMAT AS140CLOTH NF80T

VOLTAGE REGULATORS				
LOCATION	LOGIC PAGE	VALUE	P/N	NOTES
OID-Q1,Q3	YZ824	5V REG	2709759	
OID-Q2	YZ824	5V REG	2709759	
OIF-SCR1-6	YZ830	-4V	4429934	
OIF-SCR7-12	YZ830	+6V, -12V,+12V	595256	+12V
5V PS-VR1	YZ836	5V REG	2709759	
5V PS-VR2	YZ836	5V REG	8278911	PART OF ASM 1856417
5V PS-Q1	YZ836	T-358	2391346	
DIODES				
OID-D1 THRU D7	YZ824	RK	1643855	
PPB-D1 THRU D3	YZ824	RK	1643855	
PPB-D4,D5	YZ822	AM	5270652	
PPB-D6	YZ822	ACROSS RY1	2111232	WT ONLY
TRANSFORMERS				
PPB-T1	YZ804/12	200/208/230V WT	1R59339	
PPB-T1	YZ804	208/230V DOM	826102	
PPB-T2	YZ824	STANDBY POWER	1643911	
BASE-T3	YZ830	PRIMARY	1643926	
CHOKES				
BASE-L1 THRU L3	YZ830	-4V	1643924	
OIF-L4,L5 L6	YZ830	+6V, +12V,-12V	1643925	
CONTACTORS/RELAYS				
OID-RY1	YZ822	SEQ CMPLT	2278766	
OID-RY2	YZ822	EPO	2278766	
EPO PANEL RY3	YZ822	SEQ CMPLT TO CPU	2278519	
PPB-K1	YZ822	60HZ	1589254	
PPB-K1	YZ822	50HZ	5351162	
PPB-K2	YZ822	60HZ DOM, 50HZ JAPAN	5351162	
PPB-K2	YZ822	50HZ WT	5214578	
PPB-RY1	YZ822	ON ASM 8496447	2145046	WT ONLY

IBM									
NAME	COMPONENTS CROSS REFERENCE				DATE	CHANGE NO		DATE	CHANGE NO
3705-80					JUN 81	344860			
					JAN82	344836			
DESIGN	JJS	JUN 81	SHT 2 OF 2						
DETAIL	TS	JUN 81							
CHECK	CDN	JUN 81	CLASSIFICATION	MUST CONFORM TO ENG SPEC		DEVELOPMENT NO		LOGIC PG NO	
APPRO	MTL	JUN 81						YZ890	

7838744 C