



The SPERRY UTS 20 is a microprocessor-based communications terminal with a 12-inch diagonal CRT display which offers expanded UNISCOPE functionality plus many UTS 400 features at lower cost. It is designed to have a high degree of compatibility with currently installed SPERRY Uniscope 100, 200 and UTS 400 terminals, thus protecting the user's investment in his terminal network and allowing for the low-cost expansion of such networks. It can also be used for new networks and/or applications where extensive data editing capabilities without user programmability in the terminal are required.

Three basic versions of the UTS 20 are available—the single station UTS 20, the cluster workstation UTS 20W and the Direct Connect UTS 20L.

The "personality" of the UTS 20

single station is user-selectable by means of a program cartridge which plugs into the back of the unit. Available program cartridges include:

- UTS 400 Mode—uses the standard UNISCOPE protocol employed by UNISCOPE 100, 200, and UTS 400 terminals.
- Screen Bypass Mode—equivalent to UTS 400 Mode with the screen bypass capability added
- BSC mode—communicates using the Binary Synchronous Communications protocol
- Direct Connect Mode—Controls the UTS 20 over a coaxial cable using the Universal Data Link Control (UDLC). Screen bypass is supported.

Program cartridges offer several advantages to users of the UTS 20. Among these are:

- The ability to incorporate system updates by user insertion of a new cartridge
- The capability to take advantage of future terminal enhancements without having to upgrade to an entirely new terminal

As a single station, UTS 20 comes equipped with an RS232C/V24 communications interface allowing it to be connected to a host system from remote locations. Line sharing is achieved by multidropping or multiplexing via the Sperry Terminal Multiplexer.

Using UTS 400 compatible protocol, the UTS 20 single station transmits synchronously in ASCII code—the industry standard. It is capable of transmission speeds to 9600 bits per second.

A direct connect feature allows the user to bypass modems when the terminals are located at the host site.



As a local workstation, the UTS 20W is directly attachable to the UTS 4020 and the UTS 4040 cluster controllers. Up to 12 workstations can be attached to the UTS 4020 and up to 32 workstations to the UTS 4040. The UTS 20W cluster workstation does not require a program cartridge nor a modem interface. Its microcode is loaded at very high speed from the cluster controller. All other features are the same as the single station.

The UTS 20L provides a direct connect workstation for DCP/10, DCP/20 and DCP/40 systems. Data is transferred at the rate of 250,000 BPS using a single conductor coaxial cable; up to 16 multidropped UTS 20Ls can be supported on a single cable.

DCA defined communications procedures are used with line discipline maintained by Universal Data Link Control (UDLC).

The UTS 20L is supported by a user-installable program cartridge.

The user may select one of several pluggable keyboards. The typewriter keyboard (70 keys, ISO 3243) saves space. The expanded typewriter keyboard (94 keys) provides the typewriter layout (ISO 3243) plus function and numeric pads. A low profile version of the expanded typewriter keyboard is also available. It is 30 mm high at the home row. Lastly, a UTS 400 compatible keyboard with domestic USA keycaps is offered.

Underlying the design of the UTS 20 are extensive human engineering considerations derived from accumulated experience on similar and related terminals. As a result, the UTS 20 is designed for easy, straightforward operation. The optional tilt/rotate base minimizes the need for awkward head or body positions. The operator's field of view of the display is well within normal eye span; the keyboards are designed for comfortable touch-typing and

the terminal is virtually silent. All the control keys required to operate the terminal and initiate data transfer are located on the keyboard and are easily reached. Because the keyboard is similar to that of a typewriter, little additional training is required to operate the terminal system and use its many extra capabilities. If the operator desires, the terminal will generate an audible click for each character successfully entered from the keyboard.

The non-glare visual display consists of green characters on a dark background. The entire display is flicker-free and the characters are sharp and bright, resulting in excellent legibility and clarity of presentation. Character brightness is operator adjustable. The nearly vertical CRT provides a natural viewing angle. All of these features provide maximum viewing comfort for the operator.

Proven field control features provide basic data entry capabilities without the need for a user program. These include such things as right justification, alpha/numeric checking and automatic tabulation settings.

Field control is accomplished with the help of Field Control Characters (FCC's) which were first introduced on UTS 400 visual displays. There is no limitation to the number of FCC's which may be used within one display line.

The parameter setup capabilities of the UTS 20 offer users a great deal of flexibility to accommodate operator preferences or application requirements. These parameters can be set after inserting a supervisor key and include such features as:

- Field highlighting by reverse video or low intensity
- Destructive space bar
- Screen refresh rates and time-out values
- Audible keystroke feedback



Peripherals supported by the UTS 20 include the SPERRY Model 35 and 0797 impact printers, the Model 25 high quality printer, and the Magnetic Stripe Reader.

For more information on this advanced terminal system, contact your local Sperry representative.

## **SPERRY UTS 20**

### **FUNCTIONAL CHARACTERISTICS**

#### **Display Format Selections**

Any display format may be selected from 2 lines of 2 characters each to 24 lines of 80 characters each.

#### **View Area**

10 inches by 7 inches

#### **Display Size**

12-inch diagonal

#### **Character Generation**

7 by 11 dot matrix, refresh rate of 50 or 60 times per second

#### **Character Generator**

Standard 96 character set (128 including Katakana)

#### **Transmission Code**

7-level ASCII plus parity

#### **Transmission Mode**

Half duplex

#### **Transmission Facilities**

Voice grade telephone line (switched network or private line)

#### **Transmission Type**

Synchronous

#### **Transmission Rate**

Up to 9600 bits per second

#### **Communications Interface**

EIA RS-232-C/CCITT V.24

### Data Integrity Provisions (UTS 400 Mode)

- Minimum single bit error detection on communication line and peripheral transfers
- Automatic retry with communication line and peripheral transfers
- Internal parity checks

### Two Security Keylocks (std)

Operator  
Supervisor

### Selective Addressing

Host processor can select any terminal or peripheral device or both.

### Keyboards

- Typewriter
- Expanded typewriter
- Katakana/English
- UTS 400-format

**Language Selections** (typewriter and expanded typewriter keyboard only)

Danish/Norwegian  
French  
German  
Spanish  
Swedish/Finnish  
United Kingdom  
Italian

### Protected Format

Protection of specified data fields as defined by field control characters or UNISCOPE character-protect sequences

### Program Attention Keys

Keys that generate unique codes for use as requests or indicators to the host, extending operation and system control

### Editing and Other Function Keys

Cursor control  
Character, field, line, screen editing  
Peripheral control

### PHYSICAL CHARACTERISTICS

Width: 16.75 inches (42.5 cm)  
Height: 12.75 inches (32.5 cm)  
Depth: 17.00 inches (43.0 cm)  
Weight: 35 pounds (15 kg)

### POWER REQUIREMENTS

#### Nominal Voltage

100, 120, 220, or 240

#### Nominal Frequency 50 or 60 Hz

#### Phases and lines

Single phase, 3 wire

#### Input Power Required

48 volt-amperes

#### Heat Dissipation

137 BTU/hr.

#### Power Dissipation

144 kJ/hr.

### PERIPHERAL DEVICES

#### SPERRY

#### Magnetic Stripe Reader

#### FUNCTIONAL

#### CHARACTERISTICS

#### Code Formats

American Bankers Assoc. (ABA) up to 40 numeric characters.  
International Air Transport Assoc. (IATA) up to 79 alphanumeric characters.

#### Read Speed

Data is transferred to the UTS 20 a character at a time in 20 ms intervals.

#### PHYSICAL CHARACTERISTICS

Width: 1.64 inches (4.2 cm)  
Height: 1.37 inches (3.5 cm)  
Depth: 7.75 inches (19.7 cm)  
Weight: 1 pound (0.45 kg)

#### SPERRY 0797

#### 80-Column Matrix Printer

#### FUNCTIONAL

#### CHARACTERISTICS

#### Print Speed

80 CPS (10 C/I)

#### Character Sets

A selection of national sets available

#### Character Matrix

9 x 7 half space dot matrix

#### PHYSICAL CHARACTERISTICS

Width: 13.4 inches (34 cm)  
Height: 4.25 inches (10.8 cm)

Depth: 9.4 inches (24.5 cm)

Weight: 13.2 pounds (6 kg)

### POWER REQUIREMENTS

#### Nominal Primary Power

100 or 120 volts at 60 Hz  
100, 220 or 240 volts at 50 Hz

#### SPERRY Model 25 Printer High Quality Printer

#### FUNCTIONAL

#### CHARACTERISTICS

#### Print Speed

160 CPS (10 C/I)—9 x 7 Matrix  
40 CPS (10 C/I)—18 x 40 Matrix

#### Character Sets

A selection of national sets available

#### Character Matrix

9 x 7—draft quality printing  
18 x 40—high quality printing

#### PHYSICAL CHARACTERISTICS

Width: 19.33 inches (49.1 cm)  
Height: 6.22 inches (15.8 cm)  
Depth: 9.65 inches (24.5 cm)  
Weight: 16.5 pounds (7.5 kg)

### POWER REQUIREMENTS

#### Nominal Primary Power

120/220/240v 50/60 Hz.

#### SPERRY Model 35 Printer High Quality Printer

#### CHARACTER SETS

A selection of national sets is available.

#### FUNCTIONAL

#### CHARACTERISTICS

#### Print Speed

400 CPS (10 C/I)—9 x 7 matrix  
167 CPS (10 C/I)—18 x 40 matrix

#### PHYSICAL CHARACTERISTICS

Height: 9.4 inches (240 mm)  
Width: 28.8 inches (656 mm)  
Depth: 18.1 inches (461 mm)  
Weight: 70 pounds (32 kg)

### POWER REQUIREMENTS

#### Nominal Primary Power

100/120/220/240V 50/60 Hz.



*We understand how important it is to listen.*