43 TELEPRINTER 8-LEVEL BUFFERED SEND/RECEIVE (BSR) STATION

GENERAL DESCRIPTION

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1. GENERAL

1.01 This section provides a general description of the 43 Teleprinter 8-Level Buffered Send/Receive (BSR) Stations (refer to Fig. 1).

1.02 Whenever this section is reissued, the reason for reissue will be listed in this paragraph.

1.03 When ordering replaceable components, unless otherwise specified, prefix each partnumber with the letters "TP" (ie, TP410055).

2. DESCRIPTION

2.01 The 43 Buffered Send/Receive (BSR) Station consists of a keyboard, matrix printer and controller in a tabletop housing that can also be mounted on an optional pedestal.

2.02 The 43 BSR stations are available with friction feed or tractor feed paper hand-ling capabilities. See Fig. 1 for teleprinter identification.



Friction Feed

Fig. 1-43 Buffered S/R Stations

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2.03 The station, feature group, EIA cable and documents are ordered in combinations of USOC codes and the material is furnished in separate cartons. The 43 buffered station (factory furnished without a feature group that determines its operating characteristics) must be assembled according to Specification 51055S before the BSR station is installed.

2.04 The 43 BSR stations are furnished with a ribbon cartridge and the stations include a paper holder with mounting hardware (TF) or a paper supply assembly and a roll of paper (FF). An optional paper winder can be attached to friction feed printers and an optional copy holder can be attached to either version.

2.05 The buffers in these stations provide for off-line data preparation (message enter, enter, and store), batch transmission, and line speeds higher than the continuous printing rate.

2.06 Operating speeds are 110, 200, 300, 600, 1200 or 1800 baud using an 8-bit character structure in an asynchronous format with 33/35 ASCII protocol.

2.07 Printout is on a 10 character per inch matrix style printer. The 80-column friction feed teleprinter uses 8-1/2 inch wide singleply roll-type paper and the tractor feed teleprinter uses multicopy paper 3-1/2 to 12 inches wide with a maximum of 100 columns. See paragraph 2.10 for paper specifications.

2.08 A 7 by 9 dot matrix produces up-low character shapes for ASCII printing graphics and special symbols for 32 ASCII control codes.

2.09 The teleprinter interface is EIA-type RS-232-C and is intended for use with an

external full duplex data set for use on switched network or private lines.

2.10 Paper for the friction feed printer is the standard single-ply, 8-1/2 inches wide,
5 inch diameter roll paper. Paper for the tractor feed printer may range from 3-1/2 to 12 inches wide with standard sprocket hole size and spacing. It may be standard weight, single-ply or multicopy paper consisting of the original and up to two additional copies. Section 570-008-010 provides detailed specifications on the paper and ribbon.

2.11 Inking is provided by a readily replaceable cartridge with ribbon (430035), available from Teletype Corporation.

2.12 The buffered teleprinter operates on 115 Vac ±10 percent at 50 or 60 hertz. Power to the station is approximately 84 watts and is controlled by an on-off rocker switch located at the right rear of the housing.

2.13 The 43 teleprinter 8-level BSR station arrangement consists of a 43 BSR friction feed (USOC 4BF) or tractor feed (USOC 4BG) teleprinter, a feature group (USOC 4BQ), How To Operate Manual 999-300-135, Installation and Removal, Section 574-500-201, and Testing, Section 574-500-502, and one of the following EIA cables:

Description	USOC Assigned
430569 Cable Assembly — 3 ft 408065 Cable Assembly — 7 ft	WES (8J) WES (4U)
408066 Cable Assembly -12 ft	WES (87)
408067 Cable Assembly - 25 ft	WES (88)
408068 Cable Assembly -50 ft	WES (89)

2.14 The friction feed teleprinter weight is 32 pounds and the tractor feed teleprinter weight is 34 pounds.



Fig. 2-Interface Ports

3. KEYBOARD

3.01 The keytop arrangement is divided into three major groups according to function or purpose. They are the operational controls and status indicators, the basic keyboard and the numeric/ edit pad.

3.02 The operational controls and status indicators for the teleprinter are briefly described in Fig. 3.



Fig. 3-Operational Controls and Status Indicators

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3.03 The basic keyboard layout is shown in Fig. 4 along with brief descriptions on the keyboard printer operation of several special keys.

ESC 1 (CRTL1) — Sets horizontal tab stop at current printer column position.

- ESC 2 (CTRL 2) Clears all horizontal tab stops stored in the volatile memory.
- ESC 5 (CTRL 5) Sets vertical tab stop at current printer line position.
- ESC 6 (CTRL 6) Clears all vertical tab stops stored in the volatile memory.

ESC H - Prepares terminal to resend last message.

 Several escape sequence functions also can be performed by depressing ESC l (lower case L) (CRTL 7) — Sets left margin.

- ESC x (CTRL 9) -- Clears left margin. CTRL 9 also clears right margin.
- ESC y (CTRL 3) Restores terminal to the preset horizontal and vertical tab values.

Note: The escape sequence will be sent on-line or entered in the edit buffer when the control character (if shown in parentheses) is operated locally. Right margin set (CTRL 8) and right margin release (CTRL 0) are local functions only and are not entered in the edit buffer.



Fig. 4-Basic Keyboard Layout

3.04 The functions of the numeric/edit pad are briefly described in Fig. 5.

PRINT

EDBUF

~

RETRV

CHAR

DLETE

RETURN

RECALL

₩

5

HOME

2

0

PRT/W

CTRLS

3

SRCH

.

REPRT

REC

STOR

>

In the ENTER mode, depressing this key returns the Edit Pointer to the beginning of the current line and printer to carriage return. If at the beginning of the line, the Edit Pointer moves to the beginning of the previous line and the printer line feeds. In NUM PAD mode, this key generates numeral 8. In the OPTIONS PREP mode, this key signifies that the operator desires to re-edit the current line.

In the ENTER mode, depressing this key causes the contents of the Edit Buffer to be printed from the current location of Edit Pointer. A second depression will stop printing. In NUM PAD mode, this key generates the numeral 7. Printing stops at meage end obar or Stp Sn.

In the ENTER mode, depressing this key causes the printer carriage to move left one character position and decrements the Edit Pointer by one. Operation will not proceed beyond the carriage return, line feed, or other format effector. In the NUM PAD mode, this key generates the numeral 4.

In the ENTER mode, this key is depressed to execute a search in the send "wastebasket" for a string. The "found" message containing the string is appended to the end of the Edit Buffer, the line containing the string air due Edit Pointer will be positioned on the next character following the last character in the string. If the string is not found, the printer will print "CANNOT FIND" and the Edit Pointer remains at its original position. In the NUM PAD mode, this key generates the numeral 1.

In the ENTER mode, depressing this key causes the character at the current Edit Pointer position to be erased and the remaining contents of the Edit Buffer to be moved forward one position to fill the void created. The printer will overprint the existing character with a block and move one character to the right. In the NUM PAD mode, this key generates the character comma.

> In the ENTER mode, all the unsent or sent but unacknowledged contents of the Send Buffer are transferred back to the Edit Buffer (ie, the Edit Home is moved to the Send Home position). In the NUM PAD mode, this key generates the character sequence as optioned for the large return key in the user option memory.

In the ENTER mode, depressing this key causes the Edit Pointer to move to the beginning of the Edit Buffer and the printer to perform a carriage return, line feed. In the NUM PAD mode, this key generates the numeral 5.

> In the ENTER mode, depressing this key causes the entire contents of the Edit Buffer to be printed starting at the edit pointer with a unique graphic for each control character. In this mode, the format effectors will be ignored and all printing will be from left margin to right boundary. A second depression of key will stop printing or X-OFF. In NUM PAD, this key generates the numeral 9. Printing stops at mesg end char.

In the ENTER mode, depressing this key causes the printer carriage to move one character to the right, printing the character or performing the function at the current Edit Pointer location and incrementing the Edit Pointer position by one. This key is not line bounded. In the NUM PAD mode, this key generates the numeral 6.

In the ENTER mode, depression of this key will cause a search in the Edit Buffer from the Edit Pointer to the end of buffer for the string. When found, the line containing the string up through the last character in the string will be printed and the Edit Pointer will be positioned on the first character following the string. If the string is not found, the printer will print "CANNOT FIND" and pointer will remain at its original position. In the NUM PAD mode, this key generates the numeral 3.

In the TERM LOCAL mode with the KP in LOCAL, depressing this key will recall a message from the Receive Buffer to be reprinted. The receive message waiting lamp will come on. Printing will occur when the KP is in S/R mode. To stop printing, set KP to LOCAL. In the NUM PAD mode, this key generates the period or decimal.

In the ENTER mode, pressing this key causes the Edit Pointer to move to the character following the next line feed (ie, beginning of next line). The printer will perform a carriage return, line feed. In the NUM PAD mode, this key generates the numeral 2. In the options prep mode, this key signifies that editing of one line is complete.

This key functions only in the NUM PAD mode and generates the numeral 0 (zero).

In the ENTER mode, depressing this key causes the contents of the Edit Buffer from home to the first message ending character to be designated sent buffer, iee, Edit Home is moved to the character beyond the end of the first message in the Edit Buffer. In the NUM PAD mode, this key generates the minus sign.



4. REFERENCES

- 4.01 How To Operate Manual 999-300-135 includes information on 43 buffered send/receive teleprinter operation, ribbon and paper replacement.
- 4.02 Section 574-500 series provide all the necessary information for trained craft personnel to install, maintain, option, and, if necessary, service the 43 buffered teleprinter using recommended lists of maintenance spares.