

43 TELEPRINTER BASIC  
GENERAL DESCRIPTION

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1. GENERAL

1.01 This section provides a general description of the 43 Basic Teleprinter terminals and station arrangements.

1.02 This section is reissued to include a general description of variable tractor feed teleprinters and to update the USOC list.

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

2. DESCRIPTION

2.01 The 43 Keyboard Send Receive (KSR) or Receive Only (RO) teleprinter consists of a keyboard printer with a separately ordered and assembled interface unit. Refer to Fig. 1.

2.02 The 43 Teleprinter consists of the following: (Refer to Fig. 2)

- KSR with a Terminal Data Unit (TDU).
- KSR with Terminal Auxiliary Unit (TAU1) that has an EIA interface.
- KSR with no internal data unit that has a Transistor-Transistor Logic (TTL) voltage level interface.
- Receive Only (RO) terminals with either a TDU, TAU1, or TTL interface.

2.03 Terminals with EIA interface are normally connected to an external data set in either DATAPHONE\* service or private line service.

2.04 Terminals with no internal data unit are provided to allow addition of TAU1, TDU or other similar modules.

2.05 The 43 KSR and RO Teleprinters are available with friction feed or tractor feed paper handling capabilities. Early versions include sprocket (pin) feed.

2.06 The 43 Station arrangements consist of a modular 500 or 2500 telephone with the station connected directly to a switched telephone network by means of a modular (D4BU) cord or without a directly connected telephone.

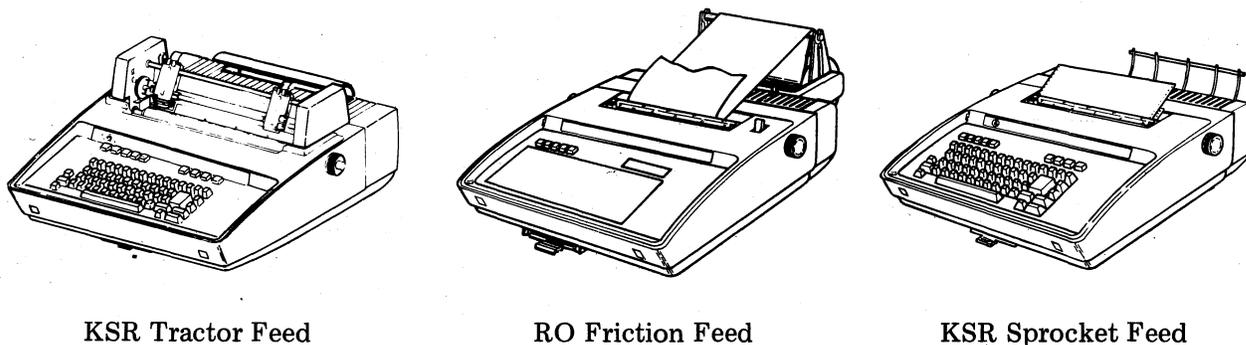
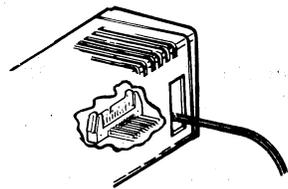
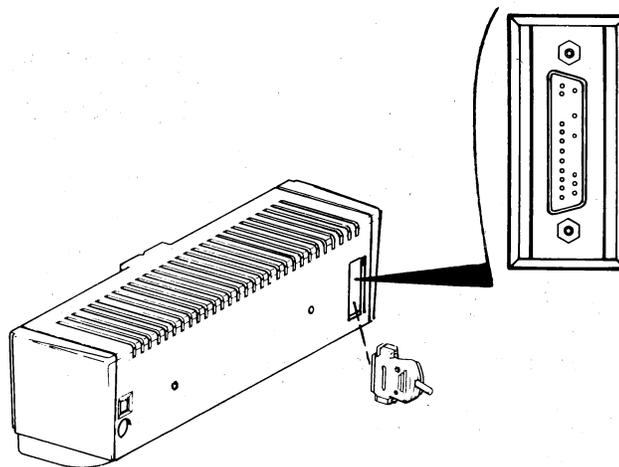


Fig. 1—43 Teleprinter

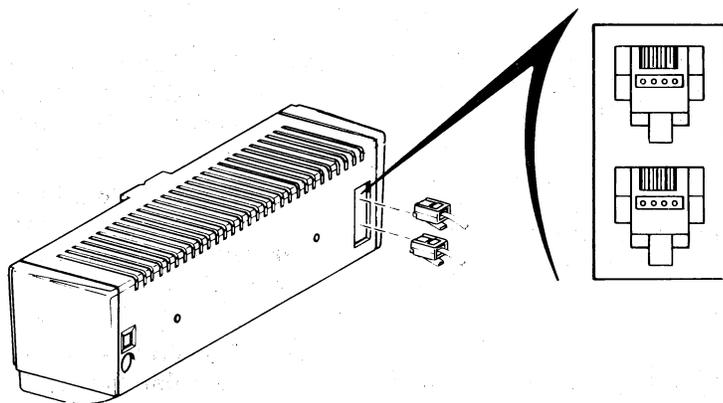
\*Registered Service Mark of AT&TCo.



TTL Interface



EIA Interface (TAU1)



Switched Network Interface (TDU)

Fig. 2—Interface Connectors

2.07 Data messages can be sent or received (or printed locally) a character-at-a-time at user selectable on-line speeds of 10 or 30 characters per second on KSR terminals. Receive only speeds of 10 or 30 characters per second are set by engineering options on RO terminals. The telephone is used to originate calls for data or talk and to answer calls in the talk mode in DATA-PHONE service.

2.08 Characters are formed by impact on a 7 by 9 dot matrix and are printed at approximately 13 to the inch on sprocket feed and 10 to the inch on friction or tractor feed. Line lengths of up to 132 characters (SF) or 80 characters (FF and T) can be printed with lines spaced at 6 to the inch.

2.09 Inking is provided by a readily replaceable cartridge with ribbon (430035). A package of six cartridges (430484) is available from Teletype Corporation.

2.10 Paper for the pin feed printer must be 12 inches wide with standard sprocket hole size and spacing. Tractor feed printer paper widths may be between 3-1/2 inches and 12 inches. Standard weight, single-ply or multicopy paper consisting of the original and up to two additional copies can be used. Only standard single-ply 8-1/2 inches wide (5 inches diameter) roll paper may be used on friction feed printers.

2.11 Basic 43 Teleprinters are intended for table top use. The paper can be fed from the supply box or from a paper holder that clips to the rear of the sprocket or tractor feed terminals. On friction feed terminals, the paper roll is held by a paper supply assembly that is mounted on the rear of the terminal.

2.12 The terminals operate on a 115 Vac,  $\pm 10$  percent 50-60 Hz source of power at 75 watts. Power is controlled by an on-off rocker type switch located at the right rear of the housing. A 10-foot power cord is included with the terminal.

2.13 The teleprinters weigh approximately 30 pounds and those with modular phone connectors can readily be moved and reconnected in another location by the user.

2.14 Each Uniform Service Order (USOC) arrangement is furnished with the teleprinter terminal (including a paper holder or paper supply assembly and new cartridge with ribbon) in addition to a box or roll of paper, (except paper for tractor feed terminals) a How to Operate Manual, and installation instructions. The modular telephone and one additional D4BU cord are needed to complete a station. TTL interface or a data set and EIA cord arrangements require a locally engineered connection to the data device. Following is a list of available arrangements according to Uniform Service Order Codes (USOC's).

<u>DESCRIPTION</u>	<u>USOC</u>	<u>COMPONENT</u>
43 Basic KSR (S) w/TDU	43AXS	4320 AAA Set + 153A1 Modem
43 Basic KSR (F) w/TDU	43AXF	4320 AAE Set + 153A1 Modem
43 Basic KSR (S) w/TAU1	43LXS	4320 AAA Set + 410755 Card, EIA
43 Basic KSR (F) w/TAU1	43LXF	4320 AAE Set + 410755 Card, EIA
43 Basic RO (S) w/TDU	43AYS	4310 AAA Set + 153A1 Modem
43 Basic RO (F) w/TDU	43AYF	4310 AAE Set + 153A1 Modem
43 Basic RO (S) w/TAU1	43LYS	4310 AAA Set + 410755 Card, EIA
43 Basic RO (F) w/TAU1	43LYF	4310 AAE Set + 410755 Card, EIA
Answer-Back Modification Kit	AA4	430900
Selective Calling Modification Kit	4SC	430910
43 KSR or RO Pedestal	4PD	430311

2.15 The operational controls and status indicators for the KSRs are briefly described in Fig. 3.

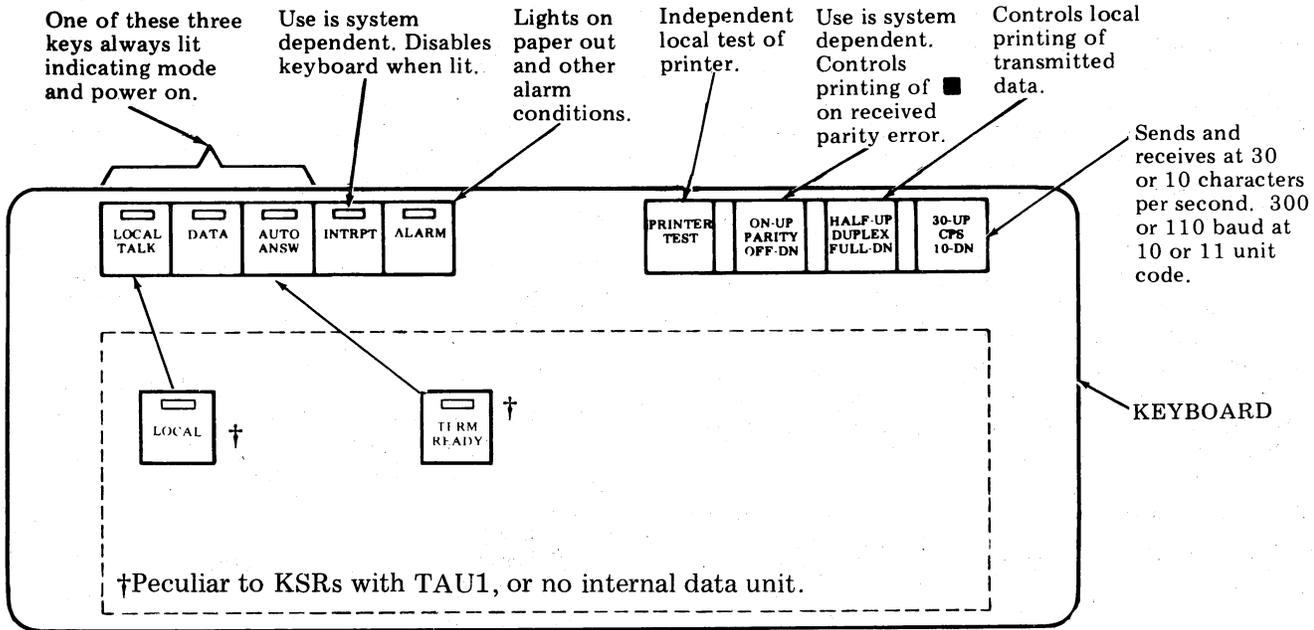


Fig. 3—KSR Operational Controls and Status Indicators

2.16 The keyboard layout for the KSRs is shown in Fig. 4, along with brief descriptions on the keyboard-printer operation of several special keys. Character transmission is 1968 ASCII, (American National Standard Code for Information Interchange) 8-level with the 8th bit used for even parity on all characters sent.

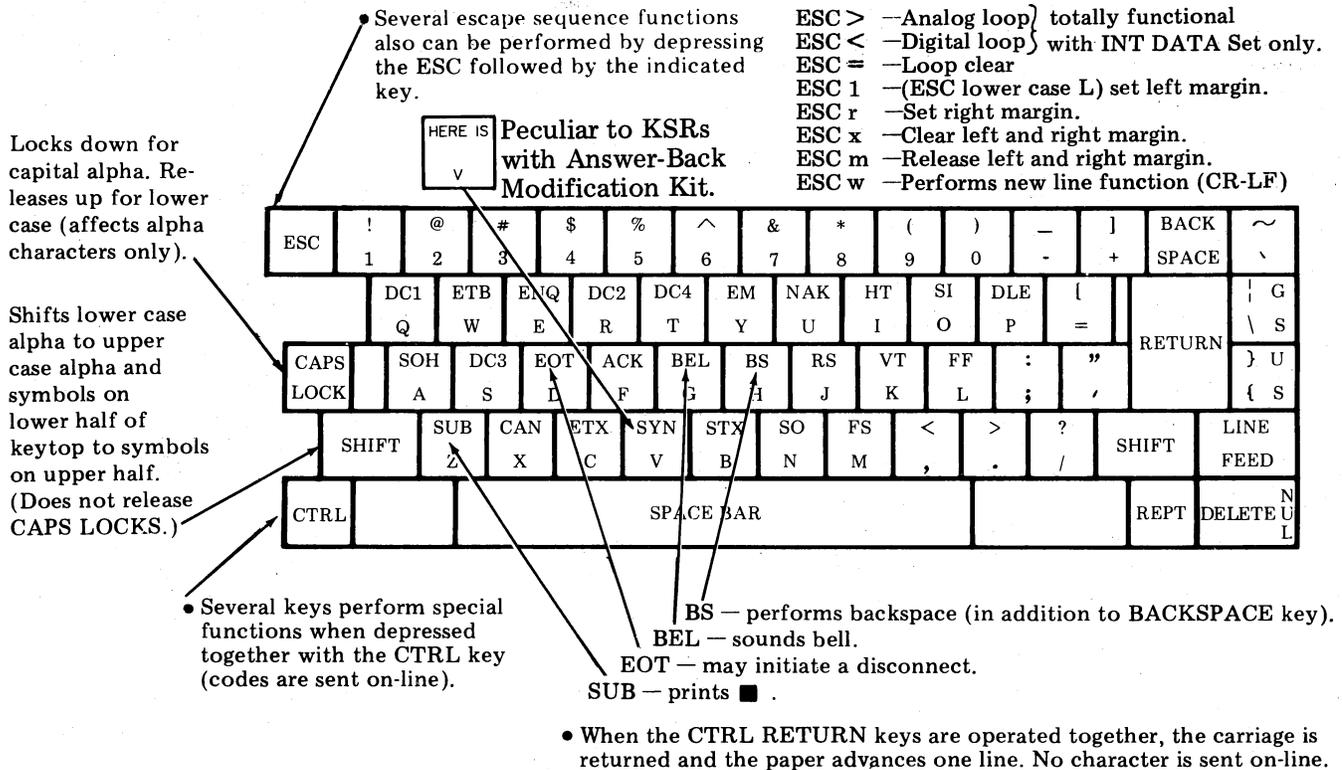


Fig. 4—KSR Keyboard Layout

2.17 The keyboard controls and status indicators for the RO are briefly described in Fig. 5.

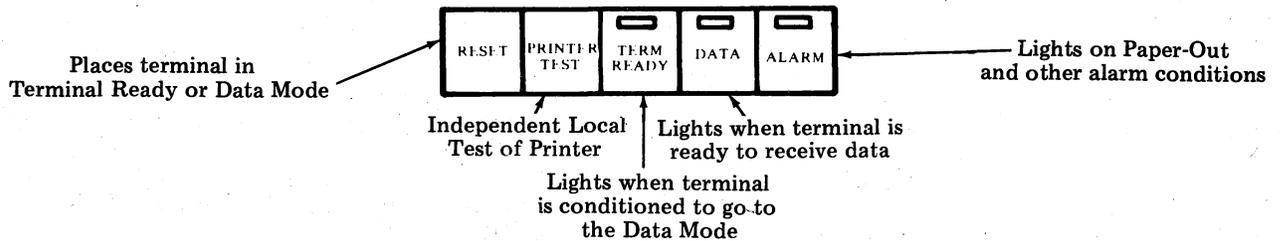


Fig. 5 — RO Operational Controls and Status Indicators

2.18 The following is a 20 percent reduction sample of the printed character set as it appears in the printer test message on sprocket feed printers. (Lines are limited to 80 characters on friction and tractor feed.)

```

■ !"#%&'()*+,-./0123456789;<=>?@ABCDEFGHIJKLMNopqrstuvwxyz[\]^_`abcdefghijklmnopqrstuvwxyz{|}~
■ !"#%&'()*+,-./0123456789;<=>?@ABCDEFGHIJKLMNopqrstuvwxyz[\]^_`abcdefghijklmnopqrstuvwxyz{|}~
    
```

3. ENGINEERING OPTIONS

3.01 Several variations are provided for field applications that may require engineering consideration. These variations (engineering options) can be enabled by crafts personnel without additional material (by means of switches) when so requested on a service order.

3.02 The titles and possible variations are listed as follows. Numbers with alpha suffixes are provided for ordering and record keeping purposes. In each case, the suffix a. indicates the factory furnishes condition except for 432.

431. Type Font Arrangement
a. Narrow numeric 0 and wide alpha O Standard ^ and underline _
b. Slash numeric 0 and wide alpha O ^ prints as ↑ and _ prints as ←.
c. Slash alpha 0 and wide numeric O ^ prints as ↑ and _ prints as ←.
d. Slash alpha 0 and wide numeric O Standard ^ and underline _

432. Line Length and Bell
a. 132 Characters Bell Enabled (Pin Feed Only)
b. 72 Characters — Printed line not centered — Bell Enabled (Friction and Tractor Feed)
c. 80 Characters Bell Enabled (Friction and Tractor Feed)
d. 72 Characters — Printed line centered — Bell Enabled (Friction Feed Only)
e. 132 Characters — Bell Inhibited (Pin Feed Only)

433. EOT Response
a. Disconnect or turn off TERM READY on received EOT.
b. Does not disconnect or turn off TERM READY on received EOT.

434. Character Parity Bit Sent (KSR only)
a. Even Parity
b. 8th Bit Mark

435. End-of-Line on Receive
a. Auto CR-LF performed
b. Bell & Print Inhibit at last char. position

436. Speed Control (RO only)
a. 30 Characters/Sec
b. 10 Characters/Sec

437. Print Substitute Character ■ on odd parity received.
a. Print Sub-Char ( ■ ) on odd parity received.
b. Ignore parity.

438. Answer-Back on HERE IS
a. Yes
b. No

439. Answer-Back on ANSWER
a. Yes
b. No

440. Answer-Back on ENQ
a. Yes
b. No

441. Type of Interface Unit
a. Terminal Data Unit (TDU)
b. TAU1, or no Interface Unit

442. Local Copy of Answer-Back
a. Yes
b. No

443. Character Parity Bit Sent from Answer-Back
a. Even Parity
b. 8th Bit Mark

444. Blinding of ENQ Recognition.
a. Auxiliary Sender Controls (AUX. Pin 4) (HDX Only)
b. Auxiliary Sender cannot blind.

4. REFERENCES

4.01 The 43 Teleprinter Section 574-500-150 provides additional descriptions of the station components, features, applications and interfacing. Specification 50944S provides information on the 430900 Answer-Back Modification Kit with PROM. Specification 50962S provides information on the 430910 Selective Calling Modification Kit.

4.02 The 999-300-134 How to Operate Manual provides information on the 43 Teleprinter KSR Station with internal data set in DATAPHONE Service and for the KSR DATAPHONE with external data set and private line. Manual 999-301-134 is for DATAPHONE and private line RO terminals.

4.03 The sections 574-500 series provide all the necessary information for trained crafts personnel to install, maintain, and, if necessary, service the 43 Teleprinter using recommended lists of maintenance spares.

4.04 Section 570-008-010 provides detailed specifications on the paper and ribbon.

*Note:* Single-ply 15 pound basic 12-inch sprocket feed paper may be obtained from the suppliers listed below or other suppliers.

Wallace Business Forms, Inc.  
444 W. Grand Avenue  
Chicago, Illinois 60610  
Cat No: E-6879

Duplex Products Company  
228 W. Page Street  
Sycamore, Illinois 60178  
Cat No: 1-1280-15P