43 BASIC KSR TELEPRINTER

TESTING

CONTENTS PAGE

1. GENERAL

1.01 This section provides testing information for the 43 Basic KSR Teleprinter.

1.02 This section is reissued to include testing of teleprinters equipped with an integrated Terminal Auxiliary Unit (TAU1 or TAU2) or an answer-back modification kit.

1.03 An installation checkout should be performed after installation to make sure the station is operable.

1.04 On trouble calls, an installation checkout should be performed after trouble correction to make sure the station is operable and a trouble verification test should be performed under the direction of the Test Center to isolate specific troubles not covered in the installation test. After correction of a trouble, the test may be confined to the specific area that was failing.

1.05 Following routine maintenance calls at a location, an installation checkout should be performed.

1.06 The checkout routines are presented in table form with test conditions arranged in a specific sequence. A response is given to verify the test condition has passed.

1.07 Always perform the tests in the order given. The test steps are based on satisfactory results of all previous steps.

1.08 If the indicated response is not obtained in any step of a test procedure, repeat the step to make sure that the procedure has been performed properly. If the results are still unsatisfactory, refer to the KSR Teleprinter Trouble-shooting Section 574-500-300.

1.09 Teleprinters without access to the switched network must be associated with locally developed external testing arrangements and procedures to perform actual On-Line Tests. If test station is remote, a copy of KSR On-Line Tests should be available at the test station.

Note: The local tests specified in this section simulate most on-line tests for these teleprinters.

1.10 On-Line Tests can be performed with Test Centers equipped with a 43 Teleprinter or equivalent using Section 668-130-500.

1.11 Before an On-Line Test can be performed, the remote testing station or Test Center must be provided with advance details about the teleprinter under test, such as, telephone number, type of terminal (friction or sprocket), option exceptions present, speed, etc.

PRELIMINARY CHECK

1.12 Before proceeding with the checkout procedure, check the following:

(a) Is the station connected to a properly grounded and polarized ac service?

(b) Are all cable connectors fully seated?

(c) Are printer paper and ribbon properly installed?

(d) Are any option exceptions present? Refer to the Engineering Options, Section 574-500-210 and reverse side of directory card.

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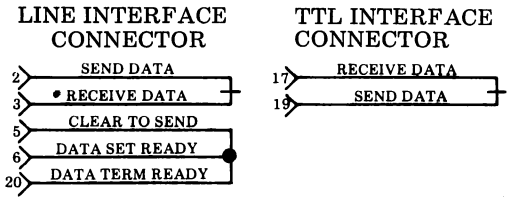
Procedures in Off-Line and On-Line Tests are based on standard factory furnished options being present. If option exceptions are present, the test response will be as shown in Engineering Options Section 574-500-210.

1.13 All references to columns are after a one-second delay, to allow the print head to index two character spaces to the right. The print head indicates the next character position to be printed.

2. TEST EQUIPMENT

2.01 For teleprinters without access to the switched network, Off-Line Test Procedures are provided to simulate On-Line Tests where external communication test devices are not available. To perform these tests, the connector terminals, shown as follows, should be strapped before proceeding with the tests. The remaining terminals should be connected or measured as specified during the test steps.

Note: Contact Teletype Corporation Custom Product Division for availability of a 43 Teleprinter Interface Test Box, CP10.002.001-1, which provides both arrangements shown as follows:



2.02 A volt-ohmmeter or equivalent means to measure +12 volts and +5 volts and perform continuity checks is required.

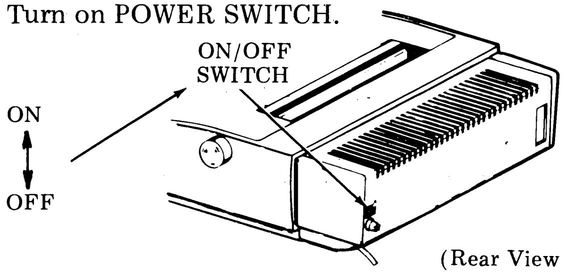
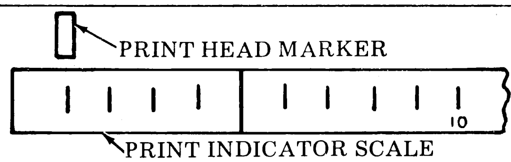
2.03 Steps 1 through 31 apply to all teleprinters. Steps 32 through 61 apply to all teleprinters unless otherwise indicated.

3. TESTING PROCEDURES

OFF-LINE TESTS (Installation and Trouble Call Checkout)

TABLE A

OFF-LINE TEST PROCEDURES

TEST	STEP	PROCEDURE	RESPONSE
Power On/Off	1.	Turn on POWER SWITCH. 	Print head returns to the left-hand margin. Paper feeds to next line. TERM READY (AUTO ANSW) turns on.
	2.		Print head marker points to first mark on indicator scale.
Printer Option 431.a. 432.a.	3.	Hold PRINTER TEST key depressed until approximately eight lines are printed.	ALARM and LOCAL (LOCAL-TALK) turn on. Characters printed as in Fig. 1. (Refer to Options 431 and 432.b. and c. for any exceptions.) Bell rings at end of each line (Right-Hand Margin and Test Message).

Note 1: First line may start with any character for sprocket or friction feed printers.

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

Sprocket Feed — Approximately 13 characters per inch

See Note 1.

Note 2: The lower case "o" does not print on 80 character line.

```
tuvwxyz{¦}~
■ !"#$%&'()*+,-./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmn
pqrstuvwxyz{¦}~
■ !"#$%&'()*+,-./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmn
pqrstuvwxyz{¦}~
■ !"#$%&'()*+,-./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmn
pqrstuvwxyz{¦}~
■ !"#$%&'()*+,-./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmn
pqrstuvwxyz{¦}~
```

Friction Feed — 10 Characters per inch

Fig. 1

TABLE A (Cont)

OFF-LINE TEST PROCEDURES

TEST	STEP	PROCEDURE	RESPONSE
Printer (Cont)	4.	Release PRINTER TEST key.	ALARM turns off. Character printing stops.
Operator Console	5.	Hold CTRL key depressed and depress RETURN key.	Print head is returned to left-hand margin and paper feeds to next line.
	6.	Place CAPS LOCK key in DOWN position. Starting with top row and moving from left to right, depress unshaded keys in Fig. 2.	Characters printed as in Fig. 3.

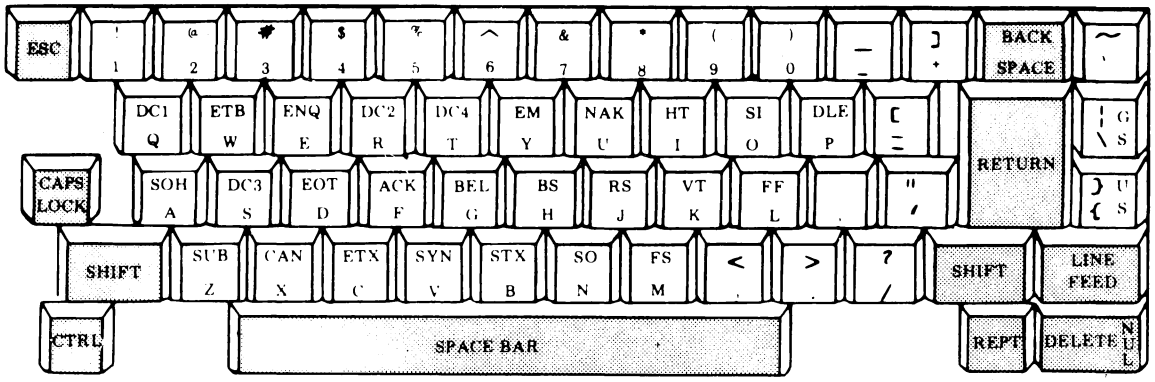


Fig. 2

1234567890-+^QWERTYUIOP=\ASDFGHJKL:"{ZXCVBNM,./

Fig. 3

1234567890-+^qwertyuiop=\asdfghjkl:"{zxcvbnm,./

Fig. 4

TABLE A (Cont)

OFF-LINE TEST PROCEDURES

TEST	STEP	PROCEDURE	RESPONSE
Operator Console (Cont)	7.	Depress RETURN and then LINE FEED key.	Print head is returned to left-hand margin and paper feeds to next line.
	8.	Depress and release CAPS LOCK key so it returns to UP position. Starting with top row and moving left to right, depress each unshaded key in Fig. 2.	Characters printed as in Fig. 4.
	9.	Depress RETURN and then LINE FEED key.	Print head returns to left-hand margin and paper feeds to next line.

TABLE A (Cont)

OFF-LINE TEST PROCEDURES

TEST	STEP	PROCEDURE	RESPONSE
Operator Console (Cont)	10.	Hold left SHIFT key depressed and starting with top row and moving from left to right, depress each unshaded key in Fig. 5. Hold right SHIFT key depressed and depress [? /] key.	Characters printed as in Fig. 6.

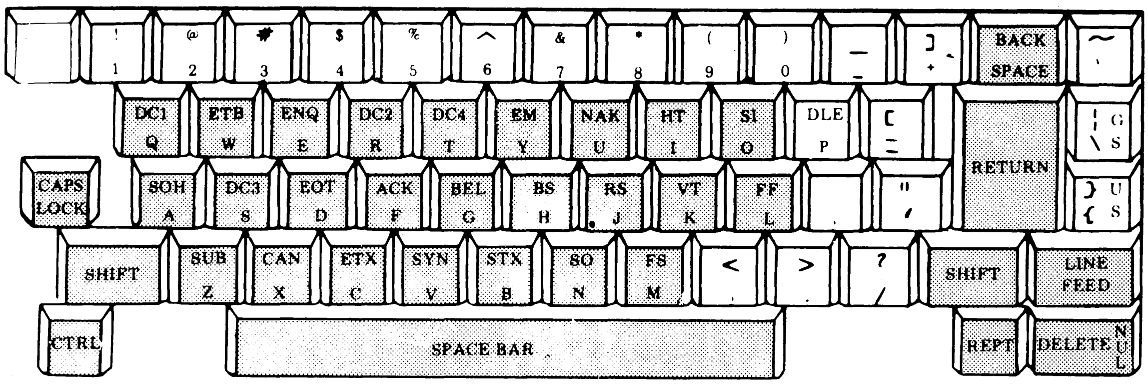


Fig. 5

!@#$%^&*()_]^P[|:"}<>??

Fig. 6

TABLE A (Cont)

OFF-LINE TEST PROCEDURES

TEST	STEP	PROCEDURE	RESPONSE
Operator Console (Cont)	11.	Depress RETURN and then LINE FEED key.	Print head returns to left-hand margin and paper feeds to next line.
	12.	Hold CTRL key depressed and depress [SUB Z] key.	SUB prints ■ .
	13.	Hold CTRL key depressed and depress [BEL G] key.	Signal bell rings.
	14.	Hold CTRL key depressed and depress [BS H] key.	Print head moves one character position to the left.
	15.	Depress SPACE BAR.	Print head moves one character position to the right.

TABLE A (Cont)

OFF-LINE TEST PROCEDURES

TEST	STEP	PROCEDURE	RESPONSE
Operator Console (Cont)	16.	Depress BACK SPACE key.	Print head moves one character position to the left.
	17.	Depress LINE FEED key. Depress and hold REPT and VT K keys.	Paper feeds to next line. The k is printed until end of line is reached. Signal bell rings at end of line.
Cover Interlock	18.	Depress TERM READY (AUTO ANSW) key. Raise cover.	TERM READY (AUTO ANSW) goes off. LOCAL (LOCAL-TALK) and ALARM turns on.
	19.	Close cover.	ALARM goes off.
Right Margin and Signal Bell	20.	Depress RETURN and the LINE FEED key.	Print head returns to left-hand margin and paper feeds to next line.
	21.	Space print head to column 125 (sprocket feed). Space print head to column 73 (friction feed). (See 1.13.) Depress STX B key.	Signal bell operates as character b is being printed.
	22.	Depress SPACE BAR six times.	Signal bell does not operate. Print head moves six character positions to the right.
	23.	Depress SPACE BAR two times.	Signal bell operates two times.
Margin Set and Clear	24.	Depress ESC and then ETB W key (ESC_W).	Print head returns to left-hand margin and paper feeds to next line.
(Remember Lower Case)	25.	Depress SPACE BAR nine times. Depress ESC and then FF L key. (ESC_L lower case.)	Print head moves to Column 10.

TABLE A (Cont)

OFF-LINE TEST PROCEDURES

TEST	STEP	PROCEDURE	RESPONSE
Margin Set and Clear (Cont)	26.	Space print head to Column 51. Depress ESC and then DC2 R key. (ESC_r) Depress RETURN key.	Print head returns to left margin (Column 10).
	27.	Depress BACK SPACE key.	Signal bell rings.
	28.	Space print head to Column 50. Depress SPACE BAR.	Signal bell operates. Print head indicates Column 51.
	29.	Depress SPACE BAR.	Signal bell rings. Print head remains at Column 51.
	30.	Depress ESC and then FS M key (ESC_m). Depress SPACE BAR four times.	Print head moves to Column 55.
	31.	Depress ESC and then CAN X key. (ESC_x)	Print head returns to left-hand margin and indicates beginning of line. Left and right margins are cleared.

On teleprinters without the Terminal Data Unit (TDU), turn off POWER switch and connect the test arrangement shown on Page 2 to the interface connector before proceeding to Step 32.

If the 43 Teleprinter Interface Test Box is available, connect the test box to the teleprinter interface connector (TTL, LINE, AUX-PORT). See instructions furnished with test box. Steps 32 through 61 may be omitted if on-line tests are performed instead.

Note: Not all tests performed in Steps 32 through 61 are checked in on-line tests.

TABLE A (Cont)

OFF-LINE TEST PROCEDURES
SIMULATED ON-LINE TESTS (LOOPBACK)

TEST	STEP	PROCEDURE	RESPONSE
Setup	32.	Place teleprinter in Loopback mode: Perform 32.a., b., or c.	
	32.a.	W/TDU — Depress ESC and then CAN X key (Esc_x).	Print head returns to left-hand margin (Column 1) and indicates beginning of line.

TABLE A (Cont)

OFF-LINE TEST PROCEDURES

TEST	STEP	PROCEDURE	RESPONSE
Setup (Cont) Options 439.a. 441.a. 442.a. 443.a.	32.a. (Cont)	Place DUPLEX key in UP position (HALF-DUPLEX). Depress TERM READY (AUTO ANSW) key. Wait 6 seconds then depress ESC key. Hold SHIFT key depressed and depress [>] key.	 TERM READY (AUTO ANSW) turns on. LOCAL (LOCAL-TALK) turns off. ALARM flashes. DATA turns on. Answer-Back message is printed (sets w/answer-back). (Refer to Options 439.b., 441.b., 442.b., and 443.b., for any exceptions).
	32.b.	W/TAU, TAU1 OR TAU2 — LINE INTERFACE: Connect Carrier Detect pin 8 to Data Term Ready pin 20. W/TAU2 — AUX PORT INTERFACE: Turn on Data Term Ready pin 20 (floating condition is On.) Turn on Teleprinter POWER switch.	Print head is returned to left-hand margin. Paper feeds to next line. DATA turns on. LINE INTERFACE CONNECTOR +12 V will be present on pin 4 (Issue 2A Logic Card, sets W/TAU, sets W/TAU1 or TAU2). Gnd will be present on pin 7. AUX PORT INTERFACE CONNECTOR +12 V will be present on pin 6 (sets W/TAU2). Gnd will be present on pin 7.
	32.c.	W/TTL INTERFACE — Connect Terminal Ready pin 5 to Data Ready pin 15. Measure continuity between pins 6 Request to Send and 9 Gnd on TTL Interface Connector. Turn on Teleprinter POWER switch.	 Meter should read 0 ohms (Issue 2A Logic Card). Print head is returned to left-hand margin. Paper feeds to next line. DATA turns on. INTERFACE CONNECTOR +5 V dc will be present on pin 7. -12 V dc will be present on pin 11. +12 V dc will be present on pin 13. Gnd will be present on pin 9.

TABLE A (Cont)

OFF-LINE TEST PROCEDURES

TEST	STEP	PROCEDURE	RESPONSE
Data Loopback Option 434.a.	33.	Place CPS key in UP position (30 CPS). Depress and release PARITY key to UP position (PARITY ON). Place DUPLEX key in UP position (HALF-DUPLEX). Place CAPS LOCK key in DOWN position. Type the following: ANALOG Depress SPACE BAR.	LINE INTERFACE CONNECTOR -12 V will be present on pin 23 (sets W/TAU). AUX PORT INTERFACE CONNECTOR -12 V will be present on pin 23 (sets W/TAU2). AANNAALLOOGG is printed. (Refer to Option 434.b. for any exceptions).
Printer on/off (Aux Port)	34.	W/TAU2 — AUX PORT INTERFACE: Connect Gnd pin 7 to Printer on/off pin 17. Type the following: ANALOG Depress SPACE BAR. Remove connection from pin 7 to 17.	ANALOG is printed.
	35.	Place DUPLEX key in DOWN position (FULL DUPLEX). Type the following: TEST	TEST is printed.
EOT Option 433.a.	36.	Watch TERM READY (AUTO ANSW) key, then hold CTRL key depressed and depress  key. 	DATA and TERM READY (AUTO ANSW) indicators flash as EOT key is depressed. (Refer to Option 433.b. for any exceptions.)
Intrpt	37.	Depress INTRPT key.	INTRPT turns on momentarily. Signal bell rings.
	38.	Hold CRTL key depressed and depress RETURN key.	Print head does not return.

TABLE A (Cont)

OFF-LINE TEST PROCEDURES

TEST	STEP	PROCEDURE	RESPONSE
CPS Option 435.a.	39.	Depress RETURN and then LINE FEED key. Depress REPT and K keys. Hold down until two lines of Ks are printed. (Check time to print line.)	Continuous Ks will be printed across entire new line. Bell rings at end of line and automatic return and line feed will be performed. One printed line plus return will occur in approximately: 4 seconds (sprocket feed) 2.5 seconds (friction feed). (Refer to Option 435.b. for any exceptions.)
	40.	Place CPS key in DOWN position (10 CPS). Depress REPT and K keys. Hold down until two lines of Ks are printed. (Check time to print line.)	LINE INTERFACE CONNECTOR +12 V will be present on pin 23 (sets W/TAU). AUX PORT INTERFACE CONNECTOR +12 V will be present on pin 23 (sets W/TAU2). Continuous Ks will be printed across entire line. Bell rings at end of line and automatic return and line feed will be performed. One printed line plus return will occur in approximately: 14 seconds (sprocket feed) 8.5 seconds (friction feed). First part of second line (approximately 18 characters) will be printed at a faster rate of speed. (Refer to Option 435.b. for any exceptions.)
Low paper (Friction Feed) Paper-Out (Sprocket Feed)	41.	Remove the paper — paper-out (sprocket feed). Lift paper roll from paper support — (friction feed).	Signal bell rings (sprocket feed only). ALARM remains on, ie, stops flashing (sets W/TDU). ALARM turns on (sets W/O TDU).

TABLE A (Cont)

OFF-LINE TEST PROCEDURES

TEST	STEP	PROCEDURE	RESPONSE
Low Paper (Friction Feed) Paper-Out (Sprocket Feed) (Cont)	42.	Watch DATA key and depress LINE FEED key eight times.	Sprocket Feed DATA turns off. LOCAL (LOCAL-TALK) turns on as 8th LINE FEED is received. Friction Feed DATA remains on. LOCAL (LOCAL-TALK) remains off.
	43.	Watch and depress TERM READY (AUTO ANSW) key.	Sprocket Feed DATA remains off. LOCAL (LOCAL-TALK) remains on. Friction Feed TERM READY (AUTO ANSW) flashes as key is depressed. LOCAL (LOCAL-TALK) turns on.
	44.	Replace the paper. Depress RESET button on paper roll support (friction feed only).	ALARM flashes (sets W/TDU). ALARM turns off (sets W/O TDU).
	45.	Depress DATA key.	DATA turns on. LOCAL (LOCAL-TALK) turns off.
Data Term Ready (Aux)	46.	W/TAU2 — AUX PORT INTERFACE: Connect Data Term Ready pin 20 to Receive Data Pin 3. Disconnect strap between pin 20 and pin 3.	DATA turns off. TERM READY (AUTO ANSW) turns on. DATA turns on. TERM READY (AUTO ANSW) turns off.
Answer-back on ENQ. Option 440.a. Option 443.a.	47.	W/ANSWER-BACK AND TAU, TAU1, TAU2, OR TTL INTERFACE — Depress ESC key. Hold SHIFT key depressed and depress  key.	ALARM flashes.

TABLE A (Cont)

OFF-LINE TEST PROCEDURES

TEST	STEP	PROCEDURE	RESPONSE
Answer-Back on ENQ Option 440.a. Option 443.a. (Cont)	47.a.	W/ANSWER-BACK — Place DUPLEX key in DOWN position (FULL DUPLEX). Hold CTRL key depressed and depress  key.	Answer-Back message does not print.
	47.b.	W/ANSWER-BACK — Place DUPLEX key in UP position (HALF-DUPLEX). Hold CTRL key depressed and depress  key.	Answer-Back message is printed. (Refer to Options 440.b. and 443.b. for any exceptions.)
	47.c.	W/ANSWER-BACK AND TAU2 — AUX PORT INTERFACE: Connect Clear to Send pin 5 to Request to Send pin 4. Hold CTRL key depressed and depress  key. Disconnect strap between pins 4 and 5.	Answer-Back message does not print.
Answer-Back on HERE-IS Option 438.a.	48.	W/ANSWER-BACK — Hold CTRL key depressed and depress  key.	Answer-Back message is printed. (Refer to Option 438.b. for exceptions.)
	49.	W/ANSWER-BACK AND TAU, TAU1, TAU2, or TTL — Depress ESC and then  key.	ALARM turns off.
Answer-Back Options 439.a. 441.a. 442.a.	50.a.	W/ANSWER-BACK AND TAU, TAU1 OR TAU2 — LINE INTERFACE: Remove strap from Send Data pin 2 to Rec Data pin 3. (Perform the following procedures within 6 seconds) Disconnect wire from Carrier Detect pin 8 and momentarily connect to Ring Indicator pin 22, then reconnect to pin 8. Reconnect strap from pin 2 to pin 3.	Answer-Back message is printed. (Refer to Options 439.b., 441.b., and 442.b. for any exceptions.)

TABLE A (Cont)

OFF-LINE TEST PROCEDURES

TEST	STEP	PROCEDURE	RESPONSE
Answer-Back Option 439.a. 441.a. 442.a. (Cont)	50.b.	W/ANSWER BACK AND TTL INTERFACE — Remove strap from Send Data pin 19 to Rec Data pin 17. (Perform the following procedures within 6 seconds) Disconnect wire from Term Ready pin 5 and connect to +5 pin 7. Connect strap between +12 V pin 3 and Ring Indicator pin 12. Immediately disconnect wire from pin 7 and reconnect to pin 5. Disconnect strap from pin 3 to pin 12. Reconnect strap from pin 19 to pin 17.	Answer-Back message is printed. (Refer to Options) 439.b., 441.b., and 442.b. for any exceptions.)
Interface Option 441.b.	51.a.	W/ANSWER BACK AND TAU OR TAU1 — Momentarily disconnect wire from Carrier Detect pin 8, then reconnect to pin 8.	Answer-Back message is not printed. (Refer to Option 441.a. for any exceptions.)
	51.b.	W/ANSWER BACK AND TTL INTERFACE — Momentarily disconnect wire from Term Ready pin 5, then reconnect to pin 5.	Answer-Back message is not printed. (Refer to Option 441.a. for any exceptions.)
Current Loop	52.a.	W/TAU1 OR TAU2 — LINE INTERFACE: Connect Data Term Ready pin 20 to Rec Data pin 3. Remove strap from Send Data pin 2 to Rec Data pin 3. Disconnect strap between pin 20 and pin 3. Reconnect strap from pin 2 to pin 3. Depress INTRPT key.	INTRPT turns on. Signal bell rings. INTRPT turns off.
	52.b.	W/TAU2 — AUX PORT INTERFACE: Connect Data Set Ready pin 6 to Trans Data pin 2. Disconnect strap between pin 6 and pin 2. Depress INTRPT key.	INTRPT turns on. INTRPT turns off.
Data Loopback Clear	53.a.	W/TDU — Depress ESC and then [=] key.	ALARM and DATA turn off. TERM READY (AUTO ANSW) turns on.

TABLE A (Cont)

OFF-LINE PROCEDURES

TEST	STEP	PROCEDURE	RESPONSE
Loopback Clear (Cont)	53.b.	W/TAU, TAU1, TAU2 — LINE INTERFACE: Disconnect strap between Data Term Ready pin 20 and Carrier Detect pin 8.	TERM READY (AUTO ANSW) turns on. DATA turns off. -12 V will be present on AUX Interface Connector pin 6 (sets W/TAU2).
	53.c.	W/TTL INTERFACE — Disconnect strap between Data Ready pin 15 and Terminal Ready pin 5.	
Analog Loop	54.	W/O TDU — Depress ESC key. Hold SHIFT key depressed and depress  key.	ALARM flashes. DATA turns on. TERM READY (AUTO ANSW) turns off (sets W/TAU or TAU1). +12 V will be present on Line Interface Connector pin 25, Analog Loop (sets W/TAU). 0 V will be present on TTL Interface Connector pin 3, Analog Loop. (sets W/TTL Interface).
	55.	W/O TDU — Depress ESC key and then  key.	ALARM turns off. DATA turns off. TERM READY (AUTO ANSW) turns on (sets W/ TAU or TAU1). -12 V will be present on Line Interface Connector pin 25, Analog Loop (sets W/TAU). +5 V dc will be present on TTL Interface Connector pin 3, Analog Loop (sets W/TTL Interface).
Digital Loop	56.	W/TTL INTERFACE — Depress ESC key. Hold SHIFT key depressed and depress  key.	0 V will be present on TTL Interface pin 1 (Digital Loop).
	57.	W/TTL INTERFACE — Depress ESC key and then  key.	+5 V dc will be present on TTL Interface pin 1 (Digital Loop).
Low Paper (Friction Feed) Paper-Out (Sprocket Feed)	58.	Sprocket Feed — Remove paper. Friction Feed — Lift paper roll from paper roll support.	Signal bell rings (sprocket feed only). TERM READY (AUTO ANSW) turns off. LOCAL (LOCAL-TALK) and ALARM turn on.

TABLE A (Cont)

OFF-LINE PROCEDURES

TEST	STEP	PROCEDURE	RESPONSE
Low Paper (Friction Feed) Paper-Out (Sprocket Feed) (Cont)	59.	Depress TERM READY (AUTO ANSW) key.	TERM READY (AUTO ANSW) remains off. LOCAL (LOCAL-TALK) and ALARM remain on.
	60.	Replace the paper.	ALARM turns off. +12 V will be present on AUX Interface Connector pin 6 (sets W/TAU2).
Data key	61.	Depress DATA key.	LOCAL (LOCAL-TALK) turns off. DATA flashes for approximately 20 seconds then turns off.
		Place CPS key in UP position (30 CPS). Place DUPLEX key in UP position (HALF-DUPLEX).	TERM READY (AUTO ANSW) turns on.

This completes the OFF-LINE test of the 43 KSR Teleprinter. Teleprinters with access to the switched network, proceed to the ON-LINE TESTS. Teleprinters without access to the switched network, use local procedures and arrangements for ON-LINE testing.

ON-LINE TESTS (Teleprinters With Access to the Switched Network — Installation Checkout)

TABLE B

ON-LINE TEST PROCEDURES

TEST	STEP	PROCEDURE	RESPONSE
Full Duplex Send & Receive Data (Originating Station)	1.	With power on and AUTO ANSW lit, depress LOCAL-TALK key and place DUPLEX key in DOWN position (FULL DUPLEX). Place CAPS LOCK key in DOWN position. Depress RETURN and LINE FEED keys.	LOCAL-TALK lights. Print head is returned to left-hand margin. Paper feeds to next line.
	2.	Call Data Test Center and request a 43 Teleprinter test. Provide Test Center with phone number of station and operating speed. Agree that Test Center will call back after disconnect.	
	3.	When instructed by Data Test Center operator, go to Data mode by depressing DATA key.	DATA turns on. LOCAL-TALK goes off.
	4.	Type the following message request on the operator console: SEND THE QUICK BROWN FOX TEST MESSAGE.	Test message request will be received by the Data Test Center.
	5.	Data Test Center will send 'The Quick Brown Fox' test message ending with EOT.	'The Quick Brown Fox' test message will be printed. Station will disconnect. DATA goes off. AUTO ANSW goes on.
Automatic Answer Option 439.a. 441.a. 442.a. 443.a.	6.	Depress and release DUPLEX key so it returns to upper position. (HALF-DUPLEX)	Data Test Center will call station. Phone rings once. DATA turns on. AUTO ANSW goes off. Answer-Back message is printed at station and Test Center (sets W/answer-back). Refer to Options 439.b., 441.b., 442.b. and 443.b. for any exceptions).

TABLE B (Cont)

ON-LINE TEST PROCEDURES

TEST	STEP	PROCEDURE	RESPONSE
ENQ Option 440.a.	7.	Data Test Center will send CTRL E (ENQ).	Answer-Back message is printed at station and Test Center (sets W/answer-back). Refer to Option 440.b. for any exceptions).
Aux Sender and Receiver (Full Duplex)	8.	W/AUX SENDER — Send the following message from aux sender: AUX SENDER MESSAGE FDX.	AUX SENDER MESSAGE FDX will be received by Data Test Center. Message will not be printed on printer.
	9.	W/AUX RECEIVER — Data Test Center will send: AUX RECEIVER MESSAGE FDX.	AUX RECEIVER MESSAGE FDX will be received by aux receiver and printed on printer.
Half-Duplex Send and Receive Data (Answering Station)	10.	Test Center will send the following test message: NOW IS THE TIME FOR ALL GOOD MEN	Test message will be printed.
	11.	Depress the SPACE bar. Send the following test message from the operator console: TO COME TO THE AID OF THEIR COUNTRY.	Printed copy at the station will be: NOW IS THE TIME FOR ALL GOOD MEN TO COME TO THE AID OF THEIR COUNTRY. Data Test Center will receive the test message sent from the operator console.
Digital Loop	12.	Test Center will send the following test message: ESC< DIGITAL LOOP ESC =	ALARM flashes. DIGITAL LOOP will be printed. ALARM turns off.
Parity Detect	13.	Depress and release PARITY key to UP position (PARITY ON). Test Center will send the following test message (8th Bit Marking): PARITY TEST	Printer will print: ■■ RIT ■ TE ■ T

TABLE B (Cont)

ON-LINE TEST PROCEDURES

TEST	STEP	PROCEDURE	RESPONSE
Parity Detect (Cont)	14.	Place PARITY key in DOWN position (PARITY OFF). Test Center will send the following test message (8th Bit Marking): PARITY	 Printer will print: PARITY
Aux Sender and Receiver (Half-Duplex)	15.	W/AUX SENDER — Send the following Message from aux sender: AUX SENDER MESSAGE HDX	AUX SENDER MESSAGE HDX will be received by aux receiver (if present) and Data Test Center and printed on printer.
	16.	W/AUX RECEIVER — Data Test Center will send: AUX RECEIVER MESSAGE HDX	AUX RECEIVER MESSAGE HDX will be received by aux receiver and printed on printer.
Intrpt	17.	Data Test Center will send INTRPT	INTRPT turns on. Signal bell rings.
	18.	Send RYRY from the keyboard.	Keyboard is blinded. RYRY will not be printed on printer or sent to Data Test Center.
	19.	Depress INTRPT key. Send RYRY from keyboard.	INTRPT turns off. RYRY will be printed and sent to Data Test Center.
	20.	Test Center will send TEST OK message if test was satisfactory and disconnect call. Test Center will send GO TO TALK message if test was unsatisfactory. Pick up handset, depress LOCAL-TALK key and evaluate results.	Station will disconnect. AUTO ANSW goes on. DATA goes off.

This completes the On-Line test of the 43 KSR Teleprinter.