

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

TESTING

CONTENTS	PAGE
1. GENERAL . . . . .	1
PRELIMINARY CHECK. . . . .	1
2. TEST EQUIPMENT . . . . .	2
3. TESTING PROCEDURES. . . . .	2
INSTALLATION CHECKOUT . . . . .	3
LOCAL TEST . . . . .	13
ON-LINE TEST USING 921A DATA TEST SET . . . . .	22
ON-LINE TEST USING THE 403378 JUMPER PLUG . . . . .	30
ON-LINE TEST USING A TEST CENTER . . . . .	33

1. GENERAL

- 1.01 This section provides testing information for the 43 Teleprinter 8-Level Buffered Send/Receive (BSR).
- 1.02 Whenever this section is reissued, the reason for reissue will be listed in this paragraph.
- 1.03 The installation checkout should be performed after installation to make sure the station is basically operable and that the installation was properly performed.
- 1.04 In case of trouble either during or after installation, do the more comprehensive local and on-line tests to isolate specific troubles not covered in the installation check. After correction of a trouble, the test may be confined to the specific area that was failing.
- 1.05 Following routine maintenance visits at a location, the installation checkout should be performed.

- 1.06 The checkout routines are presented in chart 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 Troubleshooting, Section 574-500-302.
- 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 the ADTS (Automatic Data Test System), — Generic 5 or higher, Data Test Centers equipped with a 43 Teleprinter (or equivalent) using Section 668-130-501 or they can be simulated using the test arrangements shown in 2. TEST EQUIPMENT. Whenever possible all testing should be performed with ADTS.

- 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 tractor), 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.

1.13 Procedures in local and on-line tests are based on options given in this section which may or may not be customer options. If option exceptions are present, the test response will be as shown in Engineering Options, Section 574-500-210.

1.14 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.

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

2. TEST EQUIPMENT

2.01 Testing should be performed on-line using ADTS or a Data Test Center in which case no local test equipment is required. If testing with ADTS or a Data Test Center is not possible, on-line test can be simulated using either a 921A Data Test Set, version 4 or higher or a 403378 jumper plug. The 403378 jumper plug can be purchased from Teletype Corporation or made locally (Fig. 1).

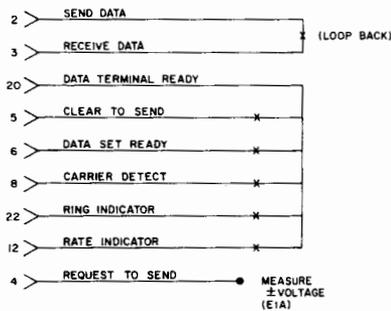


Fig. 1—Jumper Plug

3. TESTING PROCEDURES

3.01 For the more comprehensive local and on-line tests, temporarily enable the following user programmable options; otherwise you will

have to recognize when your 43 is varying from the test procedure due to your options. The 212AR Data Set should have factory options, except speed control YQ (switch 8-ON) must be used.

```

Speed=0300*      EBWrn=132*
StopU=1*         ABaa?=y*
LgKey=€*        MsEnd=€€*
SnKey=€*        StpSn=€*
LfBdy=000*      StrSn=€*
RtBdy=080*      NegRs=NO MES*
FmLgt=025*      Dscnt=€*
HTon?=y*        DLer?=n*
Vton?=y*        PrTyp=E*
PtNL?=n*        RcPar=y*
DbLF?=n*        DS212=y*
RBSze=00175*    HsStp=1*
RBufW=025*      Dup1x=f*
RBLow=030*      ABmsg=AB MESSAGE*
FlWrn=X0F*      NONE
RBnt1=y*
    
```

(Option RtBdy = 132\* for ADTS test using Chart 6)

- 3.02 To enter the option preparation mode, depress TERM LOCAL and KP ON-SR if not on.
- 3.03 Depress CONTROL - (minus). The TERM LOCAL lamp flashes. The Speed = 1200\* option should print.
- 3.04 To change this option to 300 bits per second, type in the new value:

Example: Speed = 1200\*0300

3.05 Step through the option list using the  key until the desired option and value is printed. The printer carriage will stop in a position ready to accept a new value for the option.

3.06 If a value on a previous option is to be changed, depress the  key and step through the list to the desired option. See Section 574-500-210 for all the options.

3.07 Depress CONTROL + (plus) key to store the changed options or TERM LOCAL key if no options are to be changed.

3.08 Do the INSTALLATION CHECKOUT, Chart 1, after telephone is installed.

## INSTALLATION CHECKOUT

CHART 1

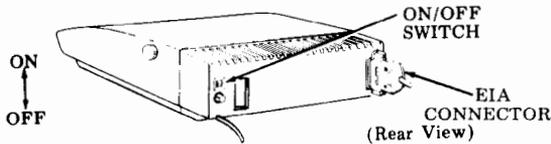
TEST	STEP	PROCEDURE	RESPONSE
Power On	1	<p>Turn power switch OFF. Wait for one second and then turn the power switch ON.</p> 	<p>Print head is indexed to the left boundary.</p> <p>Printer performs one (1) line feed TERM READY, FULL DUPLEX and KP keys light.</p>
Keyboard Check	2	<p>Depress TERM LOCAL key and KP key and depress space bar several times.</p>	<p>TERM LOCAL key lights and TERM READY and KP keys go out. Print head spaces several characters.</p>
		<p>Type the following: "Teleprinter is basically operable".</p>	<p>Characters print correctly.</p>
Customer Option Check	3	<p>Depress and hold CTRL key and depress  key. (Options Prep)</p> <p><i>Note:</i> Speed options must be 0300* if testing with ADTS (Automatic Data Test System).</p>	<p>KP key goes out, TERM LOCAL key flashes and Speed = 0300* is printed.</p>
		<p>Ensure customer options are installed, depress  to step through options.</p>	<p>Change if necessary.</p>
		<p>Depress and hold CTRL key and depress  key. (Options Load)</p>	<p>Print head returns to left boundary, TERM LOCAL key goes out, TERM READY and KP keys light.</p>
		<p>Turn off teleprinter power switch.</p>	<p>All lamps off.</p>
On-Line Check	—	<p>Do the installation checkout per Steps 4, 5 or 6 using the 921A Data Test Set, 403378 jumper plug or with the ADTS.</p>	<p>If access to ADTS equipped with Generic 5 or higher is available, test with ADTS; if not, choose testing using the 921A Data Test Set or the 403378 jumper plug.</p>

CHART 1 (Contd)

TEST	STEP	PROCEDURE	RESPONSE
Using 921A Data Test Set	4	Connect the 921A DTS as shown in paragraph 3.10.	—
		Turn on teleprinter power switch.	Print head is indexed to the left boundary.  Printer performs one (1) line feed; TERM READY, FULL DUPLEX and KP keys light.
		Connect Data Set Ready to Data Term Ready (6 to 20) on 921A DTE board.	No response
		Connect Carrier Detect to Data Term Ready (8 to 20).	TERM ON LINE key lights TERM READY key goes out.
		Connect Send Data to Receive Data (2 to 3).	No response
		Depress  key. (A)	Bell rings
		Connect Clear To Send to Data Term Ready (5 to 20).	No response
		Type the following: "Teleprinter is basically operable".	Prints correctly
		Hold CTRL key depressed and depress  key. (WRU)	AB MESSAGE is printed (if coded).
		This completes the installation checkout. Disconnect the test set, connect the teleprinter to its data set and tell the customer it is ready for his system test.	—
Using 403378 Jumper Plug	5	Disconnect the controller cable from the data set and plug in the 403378 jumper plug.	—
		Turn ON teleprinter power switch.	Print head is indexed to the left boundary.  Printer performs one (1) line feed; TERM ON-LINE, FULL DUPLEX and KP keys light.
		Type the following: "Teleprinter is basically operable".	Prints correctly
		Hold CTRL key depressed and depress  key (WRU).	AB MESSAGE is printed (if coded).

TEST	STEP	PROCEDURE	RESPONSE
Using 403378 Jumper Plug (Contd)	5 (Contd)	This completes the installation checkout. Disconnect the jumper plug and connect the data set. Tell the customer it is ready for its system test.	—
Using ADTS	6	Turn ON teleprinter power switch.	Print head is indexed to the left boundary.  Printer performs one (1) line feed; TERM READY, FULL DUPLEX and KP keys light.
ADTS Hand-Shaking	6.a.	Call the ADTS from a Touch-Tone† telephone (either from station under test or from another telephone). The ADTS will answer with a voice. All the following is entered via the Touch-Tone telephone pad.	ADTS voice answers with: <b>THIS IS THE AUTOMATIC DATA TEST SYSTEM. PLEASE ENTER THE PASSWORD.</b>  <i>Note:</i> Depressing # * on pad requests ADTS voice to repeat the last response.
	6.b.	Enter the 4-character password of the ADTS. All entries must be followed by a star.  Example: 1234*	ENTER THE FUNCTION YOU WISH TO PERFORM.
	6.c.	Enter 87*	TERMINAL TEST. IS THIS TEST SERVICE ORDER RELATED?
	6.d.	Enter 1* OR Enter 0* for "YES" for "NO"	WHAT IS THE TELEPHONE NUMBER?
	6.e.	Enter the teleprinters telephone number.  Example: xxx xxx xxxx*	YOU HAVE ENTERED xxx xxx xxxx. IS THAT CORRECT?
	6.f.	Enter 1* OR Enter 0* for "YES" for "NO"  A "NO" answer causes the ADTS to repeat the question in 6.d., "WHAT IS THE TELEPHONE NUMBER?".	ENTER THE TERMINAL ID?
	6.g.	Enter 43*	YOU HAVE ENTERED 43. IS THAT CORRECT?

†Registered Service Mark of AT&amp;TCo.

## SECTION 574-500-502

TEST	STEP	PROCEDURE	RESPONSE
ADTS Hand- Shaking (Contd)	6.h.	Enter 1* OR Enter 0* for "YES" for "NO"	THIS IS THE 43 TELEPRINTER KEYBOARD SEND-RECEIVE AND RECEIVE-ONLY TELEPRINTER TEST.  <i>Note:</i> If this is a repeat test, at this point the voice will skip to Step 6.o.  DOES THE STATION HAVE A KEYBOARD?
	6.i.	Enter 1* for "YES"	ENTER THE DATA SET ACCESS TYPE AS FOLLOWS: ZERO FOR BOTH ORIGINATE AND ANSWER, ONE FOR ANSWER ONLY, TWO FOR ORIGINATE ONLY.
	6.j.	Enter 0* for originate-answer.	DO YOU WANT TO SUPPRESS ANSWER-BACK CHECKING?
	6.k.	Enter 1* OR Enter 0* for "YES" for "NO"	DOES THE STATION SEND ANSWER-BACK ON CONNECTION?
			A "YES" answer causes the ADTS to ignore any answer-back sent by the 43 Terminal. No ENQ characters will be sent to the terminal and no answer-back failures will be reported regardless of how the terminal is optioned. A "NO" answer causes the questions in Steps 6.k. and 6.l. to be asked.
	6.l.	Enter 1* OR Enter 0* for "YES" for "NO"	DOES THE STATION SEND ANSWER-BACK ON ENQUIRY RECEIVED?
	6.m.	Enter 1* OR Enter 0* for "YES" for "NO"	DOES THE STATION SEND EVEN PARITY?
	6.n.	Enter 1* OR Enter 0* for "YES" for "NO"	DOES THE STATION DISCONNECT ON EOT?
6.o.	Enter 1* OR Enter 0* for "YES" for "NO"	ADTS will say the following summary. This is an example:  THE STATION HAS A KEYBOARD.  THE DATA SET ACCESS TYPE IS ORIGINATE-ANSWER.	

TEST	STEP	PROCEDURE	RESPONSE
ADTS Hand- Shaking (Contd)	6.o. (Contd)		<p>THE STATION SENDS ANSWER-BACK ON CONNECTION.</p> <p>THE STATION SENDS ANSWER-BACK ON ENQUIRY.</p> <p>THE STATION SENDS EVEN PARITY.</p> <p>THE STATION DISCONNECTS ON EOT.</p> <p>DO YOU WANT TO MAKE ANY CORRECTIONS?</p>
	6.p.	<p>Enter 1* OR Enter 0* for "YES" for "NO"</p> <p>A YES answer causes the ADTS to repeat starting at Step 6.f.</p>	DO YOU WANT TO TEST FOR DISCONNECT ON LONG-SPACE AND CARRIER-LOSS?
	6.q.	Enter 0* for "NO"	DO YOU WANT THE ADTS TO ORIGINATE FIRST TEST CALL?
	6.r.	Enter 1* for "YES"	IF THE ON-LINE MARGIN CONTROL TEST IS RUN, THE MARGINS WILL BE RESET. DO YOU WANT TO RUN THE ON-LINE MARGIN CONTROL TEST?
	6.s.	Enter 0* for "NO"	DO YOU WANT TO RUN THE KEYBOARD SEND TEST?
	6.t.	Enter 1* for "YES"	<p>THE TEST IS READY TO START.</p> <p>ARE YOU CALLING FROM THE DATA SET?</p>
	6.u.	<p>Enter 1* OR Enter 0* for "YES" for "NO"</p> <p>If YES, skip to Step 6.x.</p>	<p>Example: SET THE STATION FOR 30 CHARACTERS PER SECOND, PARITY ON, HALF-DUPLEX, LOCAL, AND AUTO-ANSWER. DO YOU WANT THESE INSTRUCTIONS REPEATED?</p>

## SECTION 574-500-502

TEST	STEP	PROCEDURE	RESPONSE
ADTS Hand- Shaking (Contd)	6.v.	Enter 0* for "NO"	ADTS WILL CALL THE STATION. LEAVE THIS TELEPHONE OFF- HOOK TO RECEIVE THE TEST RESULTS. DO YOU WANT THESE INSTRUCTIONS REPEATED?
	6.w.	Enter 0* for "NO". Leave teleprinter in TERM READY. Depress DUPLEX key. Leave parity option per customer selection.	LOCAL and DUPLEX lamps OFF. TERM READY lamp ON. Skip to Step 6.aa.
	6.x.	If Step 6.u. was YES.	SET THE STATION FOR 30 CHARACTERS PER SECOND, PARITY ON, HALF-DUPLEX, AND LOCAL. DO YOU WANT THESE INSTRUCTIONS REPEATED?
	6.y.	Enter 0* for "NO"  Leave teleprinter in TERM READY. Depress DUPLEX key. Leave parity option per customer selection.	LOCAL and DUPLEX lamps OFF. TERM READY lamp ON.  ADTS WILL CALL THE STATION. ON THE TONE, GO ON-HOOK AND DEPRESS THE AUTO-ANSWER. AFTER THE TEST CALL, DEPRESS THE LOCAL KEY AND ANSWER THE PHONE WHEN IT RINGS. DO YOU WANT THESE INSTRUCTIONS REPEATED?
	6.z.	Enter 0* for "NO"  Hang up phone when tone is heard.	ADTS will send a two second tone.
ADTS Calls for Test	6.aa.	ADTS calls teleprinter. Check Fig. 2 for correct copy.  <i>Note:</i> If station has keyboard, crafts- person must type in U*U*U*U*U*U*U*U* when requested before proceeding to Step 6.bb.	ON-LINE lamp lights. TERM READY lamp goes out. Teleprinter prints message (see Fig. 2).



TEST	STEP	PROCEDURE	RESPONSE
Results	6.bb	If craftsperson called from the teleprinter: When set disconnects, depress LOCAL key and when ADTS calls, pick up handset and listen for test results.  Enter 1*	LOCAL lamp lights. TERM READY lamp goes out.  TO RECEIVE THE TEST RESULTS ENTER 1.
		If craftsperson called from another phone line: When set disconnects, listen on the other Touch-Tone telephone.	
	6.cc.	If teleprinter passed:  Enter: #63 * to disconnect, hang up the phone.  <i>Note:</i> When an external data set is used instead of an internal one, the loopback test will fail. Ignore this failure when testing with an external data set.	Example:  THE TEST RESULTS ARE: THE RECEIVED LEVEL IS -20 Dbm. THE DIGITAL LOOPBACK TEST FAILED. THE TEST FAILED DO YOU WANT TO REPEAT THE TEST?
	6.dd.	If teleprinter failed: The ADTS responds with an abort message. (See Tables 1 and 2)  Enter: 1* to retest or # 63* to disconnect, hang up telephone.	Example:  THE TEST RESULTS ARE: THE CARRIER WAS NOT RECEIVED. TEST ABORTED. DO YOU WANT TO REPEAT THE TEST?
6.ee.	This completes the installation checkout. If speed option was changed, change back to customer speed. Tell the customer it is ready for their system test.	—	

3.09 If the installation checkout did not operate properly or if some troubles are suspected or reported, do the Local Test, (Chart 2), and one of the following on-line tests; ADTS (Chart 6 and 7), Data Test Center (Chart 5), 921A Data Test Set (Chart 3) or 403378 Jumper Plug (Chart 4) — in that order of preference. (The ADTS test is the most comprehensive and the jumper plug test is least comprehensive).

TABLE 1  
ADTS 43 TELEPRINTER  
TEST ABORT MESSAGES

MESSAGE	REMARKS
Test aborted.	General message.
The station did not disconnect after loss of carrier.	The station not responding as optioned.
The station did not disconnect after three seconds of space frequency.	The station not responding as optioned.
There has been an ADTS test equipment malfunction. Try again later.	ADTS hardware trouble detected.
Ringling was not detected.	ADTS did not receive ringling during access attempt.
Carrier was not received.	Connection and answer tone detected but carrier dropped.
The DDD connection was lost. Test aborted.	Test aborted due to loss of DDD connection.
The receive level is too low.	The received signal was not within limits.
The receive level is too high.	The received signal was not within limits.
The received level is (Neg. No.) Dbm.	Measured level of received signal.
The station disconnected after receiving EOT.	The station not responding as optioned.
The station did not disconnect after receiving EOT.	The station not responding as optioned.
Digital Loopback mode could not be enabled.	The station did not go into the Digital Loopback mode. This message should be ignored if the 43 Terminal has an external data set.
The Digital Loopback mode could not be disabled.	The station will not return to Data mode.

TABLE 2  
ADTS 43 TELEPRINTER  
TEST FAIL MESSAGES

MESSAGE	REMARKS
Answer-back on connection was received.	The station is not responding as optioned.
Answer-back on connection was not received.	The station is not responding as optioned. Station did not send its answer-back.
Answer-back on enquiry was received.	The station is not responding as optioned.
Answer-back on enquiry was not received.	The station is not responding as optioned. Station did not send its answer-back.
A parity error was detected in the answer-back.	The answer-back to the ADTS has a parity error.
A parity error was detected during the keyboard send test.	A parity error was detected during the keyboard send test.
The keyboard send test failed.	The ADTS did not receive the correct data from the station.
The station failed the test.	General message.
Incomplete test.	The test was not completed.

*Note:* The LOCAL TEST is necessary only in case of trouble and requires using the options stated in paragraph 3.01. The battery must be fully charged (power on 10 hours) to avoid losing the options when set power is turned off for up to 17 days.

CHART 2  
LOCAL TESTS

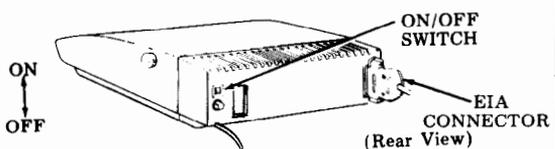
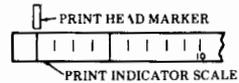
TEST	STEP	PROCEDURE	RESPONSE
Power on	1	<p>Turn power switch OFF. Wait for one second and then turn the power switch ON.</p> 	<p>Print head is indexed to the left boundary.</p> <p>Printer performs one (1) line feed; TERM READY, FULL DUPLEX and KP keys light.</p>
Indicator Scale	2		<p>Print head marker points to first mark on indicator scale.</p>
Local Return Line Feed	3	<p>Depress TERM LOCAL key and KP key and depress space bar several times.</p> <p>Hold CTRL key depressed and depress RETURN key.</p>	<p>TERM LOCAL key lights and TERM READY and KP keys go out. Print head spaces several characters.</p> <p>Print head is returned to left boundary and paper feeds to next line.</p>

CHART 2 (Contd)

LOCAL TESTS

TEST	STEP	PROCEDURE	RESPONSE
Caps Lock Upper Case	4	Place CAPS LOCK key in latched down position. Starting with top row and moving from left to right, depress unshaded keys in Fig. 3.	Characters are printed as in Fig. 4.

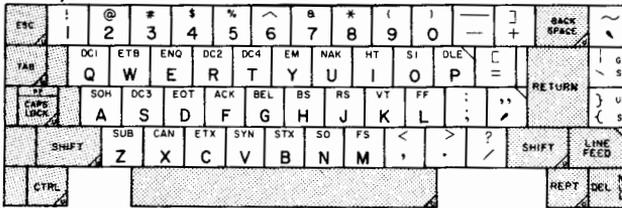


Fig. 3

1234567890-+`QWERTYUIOP=\ASDFGHJKL;`<ZXCVBNM,./

Fig. 4

1234567890-+`qwertyuiop=\asdfghjkl;`<zxcvbnm,./

Fig. 5

Caps Lock Lower Case	5	Depress RETURN and then LINE FEED key.  Depress and release CAPS LOCK key so it returns to the up position. Starting with top row and moving left to right, depress each unshaded key in Fig. 3.	Print head is returned to left boundary and paper feeds to next line.  Characters are printed as in Fig. 5.
----------------------	---	--	---

Shift Key	6	Depress RETURN and then LINE FEED key.  Hold left SHIFT key depressed and starting with top row and moving from left to right, depress each unshaded key in Fig. 6. Hold right SHIFT key depressed and depress  key.	Print head is returned to left boundary and paper feeds to next line.  Characters are printed as in Fig. 7.
-----------	---	---	---

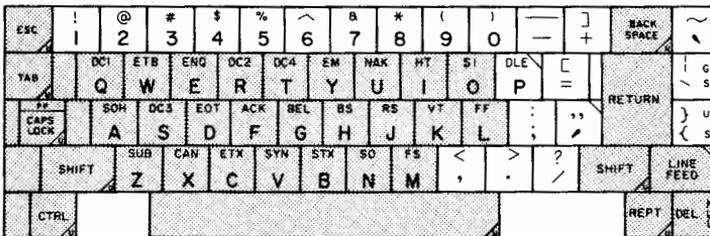


Fig. 6

!@#%&'\*()\_]"P[!:"><??

Fig. 7

## CHART 2 (Contd)

## LOCAL TESTS

TEST	STEP	PROCEDURE	RESPONSE				
Control Characters	7	Depress RETURN and then LINE FEED key.	Print head is returned to left boundary and paper feeds to next line.				
		Hold CTRL key depressed and depress <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="text-align: center; font-size: small;">SUB</td></tr><tr><td style="text-align: center; font-size: large;">Z</td></tr></table> key.	SUB	Z	SUB prints ■		
		SUB					
		Z					
Hold CTRL key depressed and depress <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="text-align: center; font-size: small;">BEL</td></tr><tr><td style="text-align: center; font-size: large;">G</td></tr></table> key.	BEL	G	Signal bell rings.				
BEL							
G							
Hold CTRL key depressed and depress <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="text-align: center; font-size: small;">BS</td></tr><tr><td style="text-align: center; font-size: large;">H</td></tr></table> key.	BS	H	Print head moves one character position to the left.				
BS							
H							
Space Bar	8	Depress SPACE BAR.	Print head moves one character position to the right.				
Back Space	9	Depress BACK SPACE key.	Print head moves one character position to the left.				
Rept Key	10	Depress CAPS LOCK key then depress and hold REPT and <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="text-align: center; font-size: small;">VT</td></tr><tr><td style="text-align: center; font-size: large;">K</td></tr></table> keys.	VT	K	The K is continuously printed until the end of line is reached. Signal bell rings at end of line.		
VT							
K							
Form Feed Vert Tab Set And Clear	11	Depress and hold CTRL key and depress <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="text-align: center; font-size: small;">FF</td></tr><tr><td style="text-align: center; font-size: large;">L</td></tr></table> key. (Form Feed)	FF	L	Paper feeds one or more lines and print head returns to left boundary. If paper did not feed first time, depress LINE FEED then CTRL and <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="text-align: center; font-size: small;">FF</td></tr><tr><td style="text-align: center; font-size: large;">L</td></tr></table> keys again. Paper should then feed out 25 lines.	FF	L
		FF					
		L					
		FF					
L							
Depress CTRL and <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="text-align: center; font-size: small;">FF</td></tr><tr><td style="text-align: center; font-size: large;">L</td></tr></table> keys again.	FF	L	Paper should not feed.				
FF							
L							
Depress LINE FEED key five times then depress and hold CTRL key and depress <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="text-align: center; font-size: small;">%</td></tr><tr><td style="text-align: center; font-size: large;">5</td></tr></table> key. (Vert. Tab Set)	%	5	Paper feeds five lines.				
%							
5							
Depress <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="text-align: center; font-size: small;">SOH</td></tr><tr><td style="text-align: center; font-size: large;">A</td></tr></table> key. (A)	SOH	A	Character A prints.				
SOH							
A							
		Depress and hold CTRL key and Depress <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="text-align: center; font-size: small;">FF</td></tr><tr><td style="text-align: center; font-size: large;">L</td></tr></table> key. (Form Feed)	FF	L	Paper feeds to next form feed stop (20 lines from character A).		
FF							
L							

## CHART 2 (Contd)

## LOCAL TESTS

TEST	STEP	PROCEDURE	RESPONSE
Form Feed Vert Tab Set And Clear (Contd)	11 (Contd)	Depress  key. (B)	Character B prints.
		Depress and hold CTRL key and depress  key. (Vert. Tab)	Paper feeds five lines from character B.
		Depress and hold CTRL key and depress  key. (Vert. Tab Clear)	No response
		Depress and hold CTRL key and depress  key. (Form Feed)	Paper feeds 20 lines to next form stop.
		Depress  key. (C)	The character C prints.
		Depress and hold CTRL key and depress  key. (Vert. Tab)	Paper feeds 25 lines from character C.
Horiz. Tab Set And Clear	12	Space the print head to column 10.	Print head spaces to column 10.
		Depress and hold CTRL key and depress  key. (H.T. Set)	No response
		Depress RETURN key.	Print head is returned to left boundary.
		Depress  key. (H. Tab)	Print head spaces to column 10.
		Depress and hold CTRL key and depress  key. (H.T. Clear)	No response
		Depress RETURN key.	Print head is returned to the left boundary.
		Depress  key. (Tab)	Print head spaces to the right boundary, returns to the left boundary and paper advances one line.

CHART 2 (Contd)

LOCAL TESTS

TEST	STEP	PROCEDURE	RESPONSE
Restore Preset Tabs	13	Space the print head to column 10.	Print head spaces to column 10.
		Depress and hold CTRL key and depress  key. (H.T. Set)	No response
		Depress  key.	KP key lights.
		Depress and hold CTRL key and depress  key. (Options Prep)	KP key goes out, TERM LOCAL key flashes and Speed = 0300* is printed.
		Depress and hold CTRL key and depress  key. (Options Load)	Print head returns to left boundary, TERM LOCAL key goes out, TERM READY and KP keys light.
		Depress  and  keys.	TERM LOCAL key lights, KP and TERM READY keys go out.
		Depress and hold CTRL key and depress  key. (H.T. Clear)	No response
		Depress  key.	Print head space to the right boundary, returns to the left boundary and paper advances one line.
		Depress and hold CTRL key and depress  key. (Restore Preset Tabs)	No response
		Depress  key.	Print head spaces to column 10.
		Hold CTRL key depressed and depress  key. (H.T. Clear)	No response

## CHART 2 (Contd)

## LOCAL TESTS

TEST	STEP	PROCEDURE	RESPONSE
Margins Set Release Clear	14	Space the print head to column 10.	Print head spaces to column 10.
		Hold the CTRL key depressed and depress the  key. (Set Left Margin)	No response
		Space the print head to column 21.	Print head spaces to column 21.
		Hold the CTRL key depressed and depress the  key. (Set Right Margin)	No response
		Depress the RETURN key.	Print head returns to column 10.
		Space the print head to column 20.	Print head spaces to column 20.
		Depress the  key. (A)	The character A prints and the Print head spaces to column 21.
		Depress the  key. (B)	Bell rings, B does not print.
		Hold the CTRL key depressed and depress the  key. (Release Right Margin)	No response
		Depress  key three times.	Character C prints three times.
Hold the CTRL key depressed and depress the  key. (Margin clear)	Print head returns to the left boundary.		
Numeric Pad Mode	15	Depress  key.	NUM PAD key lights.
		Starting with top row and moving from right to left depress the keys shown in Fig. 8.	Characters are printed as in Fig. 9. Print head returns to left boundary.
		Depress  key.	NUM PAD key goes out.

CHART 2 (Contd)

LOCAL TESTS

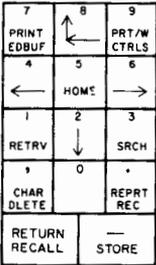
TEST	STEP	PROCEDURE	RESPONSE
Numeric Pad Mode (Contd)	15 (Contd)	<div style="text-align: center;">  <p>Fig. 8</p> <p>987654321.0,-</p> <p>Fig. 9</p> </div>	
Buffer Character Insert	16	Depress  key.	BUFFER ENTER key lights.
		Depress  then  keys. (A & C)	A C Prints.
		Depress  key once. (Buffer Backspace)	Print head backspaces once.
		Depress  key.	Insert key lights.
		Depress  key. (B)	B prints over C.
		Depress  key.	INSERT key goes out.
		Depress  key. (Buffer Home)	Print head returns to left boundary, paper feeds one line.
		Depress  key. (Print Edit Buffer)	ABC prints.

CHART 2 (Contd)  
LOCAL TESTS

TEST	STEP	PROCEDURE	RESPONSE
Buffer Character Delete	17	Depress  key. (Prev. Line)	Print head moves to left boundary.
		Manually advance paper one line (turn platen knob).	
		Depress  key. (Buffer Space)	A prints.
		Depress  key. (Character Delete)	■ prints.
		Depress  then  keys.	AC prints.
Clear Buffer	18	Depress  ,  then  keys.	Bell rings when  key is depressed.
Buffer Print With Control Characters	19	Type ABC Return, Line Feed DEF.	ABC DEF is printed.
		Depress  then  keys.	ABC ← ≡ DEF is printed.
Buffer Next Line Control	20	Depress  then  keys. (Buffer Next Line)	Print head returns to left boundary, paper feeds two lines.
		Depress  key.	DEF is printed.
Message Store And Recall	21	Depress  key. (Store)	 key lights. Print head is returned to left boundary and paper feeds one line.
		Depress  key. (Recall)	 key goes out. Paper feeds one line.
		Depress  key.	ABC DEF is printed.

## CHART 2 (Contd)

## LOCAL TESTS

TEST	STEP	PROCEDURE	RESPONSE
Buffer String Enter And Search	22	Depress  key.	Print head is returned to left boundary and paper feeds one line.
		Depress  key.	STRING ENTER key lights. Paper feeds one line.
		Depress  key. (E)	E prints.
		Depress  key. (Search)	DE is printed. STRING ENTER key goes out.
Alarm Conditions	23	Open the teleprinter cover.	ALARM key lights.
		Close cover.	ALARM key goes out.
		Depress  key on some sets.	
		Remove paper from the teleprinter.	ALARM key lights and bell rings.
		Replace paper and depress  key. On friction feed teleprinters it may be necessary to depress the reset button before depressing the ALARM key.	ALARM key goes out.
Analog Loop-back 212AR Data Set	24	Depress AL switch on data set (all other switches out.)	TM, MB, TR and MR lights on data set.  TERM ON LINE lights on 43.
		Type some miscellaneous characters.	Test message will print.
		Release AL switch.	TR and MC lights on data set, TERM READY lights on 43.

## CHART 2 (Contd)

## LOCAL TESTS

TEST	STEP	PROCEDURE	RESPONSE
Analog Loopback 202TL1A Data Set	25	Depress AL switch on data set (202TL1A must have YB options.)	All lamps light on data set, TERM ON LINE light on 43.
		Type miscellaneous characters.	Test message will print.
		Depress AL OUT.	ON and TR lights on data set, TERM READY lights on 43.
Analog Loopback 103JR Data Set	26	Depress AL switch on data set, 103JR must have ZF option.	All lamps light on data set, TERM ON LINE lights on 43.
		Type miscellaneous characters.	Characters will print.
		Depress AL OUT.	TR and MC lights on data set, TERM READY lights on 43.
This completes the LOCAL TEST of the 43 Teleprinter. Proceed to ON-LINE TEST.			

## ON-LINE TESTS

When trouble is suspected or reported, perform one of the following on-line tests: ADTS (paragraph 3.17), Data Test Center (paragraph 3.15), 921A Data Test Set (paragraph 3.10) or 403378 jumper plug (paragraph 3.13) — in that order of preference.

## USING THE 921A DATA TEST SET (Version 4 or Higher)

## 3.10 Arrange the 921A DTS interface wiring as follows:

- (a) Open all DTE slide switches on left side, except 1, 7, 15 and 17 which should be closed.
- (b) Insert EIA RS-449/232 C card module into the interface module port. All card switches should be toward the right (TERM).
- (c) Wire the jumpers in the jack field (DTE) as stated in each step.

*Caution: Do not close cover with jumper wires inserted in pin jacks.*

- (d) Disconnect the controller cable from the data set and connect it to the 921A Data Term (DTE) connector using the 25-pin to 37-pin cable adapter provided with the 921A DTS. See Fig. 10.

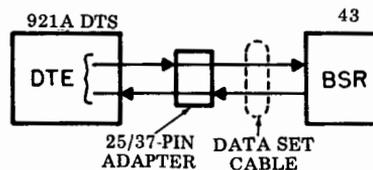


Fig. 10—921A — Connections

CHART 3

## ON-LINE TEST USING 921A DATA TEST SET

TEST	STEP	PROCEDURE	RESPONSE
Term On-Line Mode	1	Turn power switches on test set and 43 on.	Print head is indexed to the left boundary. Printer performs one (1) line feed TERM READY, FULL DUPLEX and KP keys light.
		Connect Data Set Ready to Data Term Ready (6 to 20) on 921A DTE board.	No response
Send and Receive Data	2	Connect Carrier Detect to Data Term Ready. (8 to 20)	TERM ON LINE key lights TERM READY key goes out.
		Connect Send Data to Receive Data. (2 to 3)	No response
		Depress  key. (A)	Bell rings
		Connect Clear To Send to Data Term Ready. (5 to 20) Depress A key.	A prints.
Answer-Back	3	Hold CTRL key depressed and depress  key. (WRU)	AB MESSAGE is printed.
		Hold CTRL key depressed and depress  key. (Here is)	AB MESSAGE is printed.
		Disconnect Data Set Ready from Data Term Ready. (6 to 20)	TERM ON LINE key goes out and TERM READY key lights.
		Connect Ring Indicator to Data Term Ready (22 to 20) then connect Data Set Ready to Data Term Ready. (6 to 20)	TERM ON LINE key lights. TERM READY key goes out and AB MESSAGE is printed.
		Remove Ring Indicator to Data Terminal Ready. (22 to 20)	No response
		Hold CTRL key depressed and depress  key. (StrSn)	No MES is printed.

CHART 3 (Contd)  
ON-LINE TEST USING 921A DATA TEST SET

TEST	STEP	PROCEDURE	RESPONSE
Disconnect Character	4	Connect Ring Indicator to Data Term Ready. (22 to 20)	No response
		Hold CTRL key depressed and depress  key. (Dscnt)	AB MESSAGE is printed (DTR momentarily turns on and ON LINE lamp momentarily off. Simulates auto answer AB).
		Disconnect Ring Indicator from Data Term Ready. (22 to 20)	No response
Full And Half-Duplex	5	Depress  key.	A is printed.
		Depress  key.	FULL DUPLEX key goes out.
		Depress  key.	AA is printed.
		Depress  key.	FULL DUPLEX key lights.
Interrupt	6	Depress  key.	Bell rings and INTRPT key lights. Operation of keyboard causes bell to ring.
		Depress  key.	INTRPT key goes out.
212AR DS High Speed	7	Disconnect Data Set Ready and Carrier Detect from Data Term Ready. (6-20) and (8-20)	TERM ON LINE key goes out and TERM READY key lights.
		Connect Rate Indicator, Data Set Ready and Carrier Detect to Data Term Ready in that order. (12-6-8 to 20)	TERM ON LINE key lights and TERM READY key goes out.
		Depress  key.	BUFFER ENTER key lights. KP key goes out. Printer will carriage returns and line feeds.
		Enter two full lines of the character M (Rept M) and end second line with CTRL  (MsEnd)	Two full lines of M's are printed.

## CHART 3 (Contd)

## ON-LINE TEST USING 921A DATA TEST SET

TEST	STEP	PROCEDURE	RESPONSE
212AR DS High Speed (Contd)	7 (Contd)	Depress  key. (Store)	 key lights. Print head returns to left boundary and paper feeds one line.
		Depress  key.	KP key lights and BUFFER ENTER key goes out.
		Read expected response then depress  key.	 key flashes and M's are printed. SND RDY key goes out before two lines of text are printed.
212AR DS Low Speed	8	Disconnect Data Set Ready and Rate Indicator from Data Term Ready. (6 to 20) (12 to 20)	TERM ON LINE key goes out and TERM READY key lights.
		Connect Data Set Ready to Data Term Ready. (6 to 20)	TERM ON LINE key lights and TERM READY key goes out.
		Depress  key.	BUFFER ENTER key lights and KP key goes out. Print head is returned to left boundary and paper feeds one line.
		Depress  key. (Recall)	Paper feeds one line.
		Depress  key. (Store)	 key lights. Paper feeds one line.
		Depress  key.	KP key lights and BUFFER ENTER key goes out.
		Read expected response then depress  key.	 key flashes and M's are printed. SND RDY key goes out at the same time M's finish printing.

**CHART 3 (Contd)**  
**ON-LINE TEST USING 921A DATA TEST SET**

TEST	STEP	PROCEDURE	RESPONSE
Reprint Received Message	9	Depress  key.	<b>TERM LOCAL</b> key lights and <b>TERM ON LINE</b> key goes out.
		Depress  key.	<b>KP</b> key goes out.
		Depress  key only once. (Reprint Receive)	 key lights.
		Depress  key.	Two lines of M's are printed. <b>REC MSG WTG</b> key goes out and <b>KP</b> key lights.
Full Receive Buffer Sends XOF Receive Buffer Not Low Sends Start Send	10	Depress  key.	<b>BUFFER ENTER</b> key lights, <b>KP</b> key goes out, print head is returned to left boundary and paper feeds one line.
		Enter three full lines of the character M (Rept M) ending with CTRL  key. (MsEnd)	Three full lines of M's are printed.
		Depress  key.	<b>SND RDY</b> key lights, print head is returned to the left boundary and paper feeds one line.
		Depress  key.	<b>BUFFER ENTER</b> key goes out.
		Depress  key.	<b>TERM ON LINE</b> key lights. <b>LOCAL</b> key goes out.
		Depress  key.	<b>SND RDY</b> key flashes then stays lit. Indicating Buffer full (X-OFF) was received. <b>REC MSG WTG</b> key lights.
		Depress  key.	<b>KP</b> key lights, <b>SND RDY</b> key starts flashing, indicating Buffer not low (StrSn) was received. Three lines of M's are printed, <b>REC MSG WTG</b> key goes out and <b>SND RDY</b> key goes out.

## CHART 3 (Contd)

## ON-LINE TEST USING 921A DATA TEST SET

TEST	STEP	PROCEDURE	RESPONSE
Retrieve Acknowledged Message	11	Depress  key.	BUFFER ENTER key lights KP key goes out, print head is returned to left boundary and paper feeds one line.
		Type ABCDEF followed by CTRL  key.	ABCDEF is printed.
		Depress  key.	 key lights, print head is returned to left boundary and paper feeds one line.
		Depress  key.	KP key lights and BUFFER ENTER key goes out.
		Depress  key.	ABCDEF is printed. SND RDY key goes out.
		Hold CTRL key depressed and depress  key.	NO MES is printed.
		Depress  key.	BUFFER ENTER key lights KP key goes out, print head is returned to left boundary and paper feeds one line.
		Depress  key.	STRING ENTER key lights and paper feeds one line.
		Type AB.	AB is printed.
		Depress  key.	STRING ENTER key goes out.
		Depress  key.	Print head is returned to left boundary, paper feeds one line and AB is printed.
		Depress  key.	Print head is returned to left boundary, paper feeds one line.
Depress  key.	ABCDEF is printed.		

3.11 Make the following connections on the 921A Data Term (DTE) connector as shown in Fig. 11.

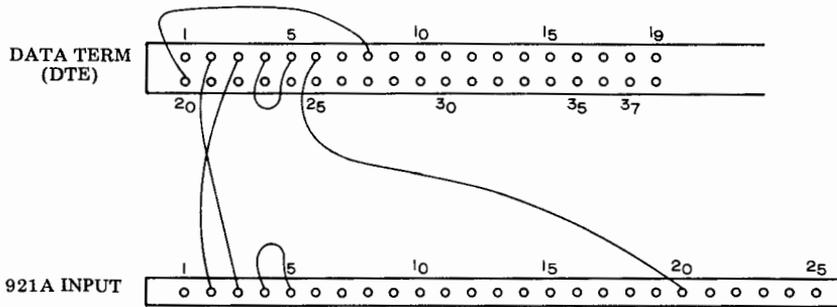


Fig. 11—921A Jumper Connections  
CHART 3 (Contd)

ON-LINE TEST USING 921A DATA TEST SET

TEST	STEP	PROCEDURE	RESPONSE
921A Setup	12	Depress RST and initialize the 921A DTS as shown in the flow chart on the right side of the inside cover of the test set or refer to Section 107-402-100, paragraph 4.01. Select a data set code and bit rate like those to be used by the station.  Sample: Depress RST, display reads "Data Set". Depress 36 GO (if 212 or no Data Set), display reads "Bit Rate". Depress 03 (if 300 baud).	None
ASCII Test	13	The 921A DTS display reads "TEST SEQ".	
		Depress 58 GO, display reads "CHANGE JACK FIELD IF LOCAL TEST" followed by "1 = PROGRAMMABLE 2 = STANDARD MSG".	
		Depress 2, display reads "STANDARD MSG NUMBER = ?? (01-17)".	
		Depress 07, display reads "ENTER A TO CONTINUE OR ← TO EDIT TRMT".	
		Depress A, display reads "SELECT 0000 TO 0020 TRAP CHARACTERS" followed by "???? TRAP CHARACTERS".	
		Depress 0000, display reads "NO TRAP CHARACTERS ENTERED" followed by "PRESS A TO START".	
		Depress A.	Display reads 4E CF A0 4D C5 53. 43 prints:  !"#\$%&'()*+,-./0123456789:;<=>? @ABCDEFGHIJKLMN0PQRSTUVWXYZ[\]^_ `abcdefghijklmnopqrstuvwxyz{ }~ AABBCC

## CHART 3 (Contd)

## ON-LINE TEST USING 921A DATA TEST SET

TEST	STEP	PROCEDURE	RESPONSE
Run Test	14	Depress GO, display reads "TEST SEQ".	
		Depress 52 GO, display reads "PARITY = ? (0 = EVEN, 1 = ODD)".	
		Depress 0, display reads "TRMT? (1 = MAN 2 = CONT)".	
		Depress 2, display reads "PRESS A TO START".	
		Depress A, sends FOX until GO is depressed.	43 prints Fox Test Message.
Parity Check	15	Display reads "TEST SEQ".	
		Depress 52 GO, display reads "PARITY = ? (0 = EVEN, 1 = ODD)".	
		Depress 1, display reads "TRMT? (1 = MAN 2 = CONT)".	
		Depress 1, display reads "PRESS A TO START".	
		Depress A, sends one line of parity errors.	43 prints a line of ■■■■ (parity errors).
ENQ Check	16	Depress GO, display reads "TEST SEQ".	
		Depress 58 GO, display reads "CHANGE JACK FIELD IF LOCAL TEST" followed by "1 = PROGRAMMABLE 2 = STANDARD MSG".	
		Depress 1, display reads "SELECT 0001 TO 0255 CHARACTERS" followed by "???? CHARACTERS IN MESSAGE".	
		Depress 0001, display reads "00:??".	
		Depress 05, display reads "A TO CONTINUE OR ← TO EDIT TRMT".	
		Depress A, display reads "SELECT 0000 TO 0020 TRAP CHARACTERS" followed by "???? TRAP CHARACTERS".	
		Depress 0000, display reads "NO TRAP CHARACTERS ARE ENTERED" followed by "PRESS A TO START".	
		Depress FULL DUPLEX key on 43 (half-duplex).	DUPLEX lamp out.
		Depress A.	Display reads 43 answer-back message in Hex, 43 prints its answer-back.

## CHART 3 (Contd)

## ON-LINE TEST USING 921A DATA TEST SET

TEST	STEP	PROCEDURE	RESPONSE
Receive Buffer Full Test	17	Depress KP key on 43 (lamp out). Do Step 13, display reads "4E CF A0 4D C5 53".	When A is depressed, REC MSG WTG lamp lights, nothing is printed.
		Do Step 13 again, display reads "4E CF A0 4D C5 53 93". The 93 is Hex for DC3 indicating the receive buffer is full.	43 TERM ON LINE lamp goes out.
		Depress REC MSG WTG key on 43.	43 prints a full ASCII message plus: ="!#\$%&'()*+,-. REC MSG WTG lamp goes out and KP lamp comes on.
Edit Buffer Test	18	Depress BUFFER ENTER on 43.	BUFFER ENTER lights.
		Type 111222333.	43 prints 111222333.
		Depress STORE.	SND RDY lights 43 carriage returns and line feeds.
		Depress KP.	KP lights, BUFFER ENTER goes off.
		Depress SND RDY SEND.	Display reads "00 : 4E CF A0 4D C5 53 93 B1 B1 B1" followed by "01 : B2 B2 B2 33 33".
		<i>Note:</i> To read 00 line on display depress C. To read 01 line depress F.	

3.12 This completes the test of the 43 Teleprinter BSR if Chart 3 operated properly. Disconnect the test set, connect the teleprinter to its data set, install customer options if changed and tell the customer it is ready for his system test.

#### Using the 403378 Jumper Plug

3.13 Disconnect the controller cable from the data set and plug in the 403378 jumper plug.

CHART 4

## ON-LINE TEST USING THE 403378 JUMPER PLUG

TEST	STEP	PROCEDURE	RESPONSE
Term On-Line Mode	1	Turn power switch on 43 on.	Print head is indexed to the left boundary. Printer performs one (1) line feed, TERM ON-LINE, FULL DUPLEX and KP keys light.
Send And Receive Data	2	Depress  key (A).	A prints
Answer-Back	3	Hold CTRL key depressed and depress  key (WRU).	AB MESSAGE is printed (if coded).
		Hold CTRL key depressed and depress  key (Here is).	AB MESSAGE is printed (if coded).
Negative Answer-Back	4	Hold CTRL key depressed and depress  key (StrSn).	NO MSG is printed.
Full And Half-Duplex	5	Depress  key.	A is printed.
		Depress  key.	FULL DUPLEX key goes out.
		Depress  key.	AA is printed.
		Depress  key.	FULL DUPLEX key lights.
Interrupt	6	Depress  key.	Bell rings and INTRPT lights. Operation of keyboard causes bell to ring.
		Depress  key.	Bell rings but A does not print.
		Depress  key.	INTRPT key goes out.

CHART 4 (Contd)  
ON-LINE TEST USING THE 403378 JUMPER PLUG

TEST	STEP	PROCEDURE	RESPONSE
Full Receive Buffer Sends XOF Receive Buffer Not Low Sends Start Send	7	Depress  key.	BUFFER ENTER key lights and KP key goes out. Print head is returned to left boundary and paper feeds one line.
		Enter three full lines of character M (Rept M) ending with CTRL  key. (Ms End)	Three full lines of M's are printed.
		Depress  key.	SND RDY key lights, print head is returned to the left boundary and paper feeds one line.
		Depress  key.	BUFFER ENTER key goes out.
		Depress  key.	SND RDY key flashes then stays lit. Indicating Buffer full (X-OFF) was received REC MSG WTG key lights.
		Depress  key.	KP key lights, SND RDY key starts flashing, indicating Buffer not low (StrSn) was received. Three lines of M's are printed, REC MSG WTG key goes out and SND RDY key goes out.
Retrieve Acknowledged Message	8	Depress  key.	BUFFER ENTER key lights, KP key goes out, print head is returned to left boundary and paper feeds one line.
		Depress  key (Recall).	Paper feeds one line.
		Depress  key.	 key lights, print head is returned to left boundary and paper feeds one line.
		Depress  key.	KP key lights and BUFFER ENTER key goes out.
		Depress  key.	Approximately one line of M's are printed. SND RDY key goes out.

3.14 This completes the test of the 43 BSR Teleprinter if Chart 4 operated properly. Remove the jumper plug, install customer option if changed, connect the teleprinter to its data set and tell the customer it is ready for his system test.

#### USING A TEST CENTER

3.15 Do the following checkout with the teleprinter accessed to the switched network. The test assumes using a 212AR Data Set. If a 103JR or 202TL1A Data Set is used, Options DS212 and HsStp do nothing and the 43 will only operate at one speed (at speed option). If access to ADTS equipped with Generic 5 or higher is available, test with the ADTS (using Chart 6 and 7). If testing with ADTS is not possible, use the Data Test Center (Chart 5). These charts assume the teleprinter is optioned per paragraph 3.01.

CHART 5  
ON-LINE TEST\*  
DATA TEST CENTER

TEST	STEP	PROCEDURE	RESPONSE
Power On	1	Turn power switch ON.	Print head is indexed to the left boundary. Printer performs one line feed. TERM READY, FULL DUPLEX and KP keys light. TR and MC lights on data set.
Full Duplex Send and Receive Data (Originating Station)	2	Call Data Test Center and request a 43 Teleprinter 8-level BSR test per Section 668-130-501. Provide Test Center with phone number station, operating speed and other options. Agree that Test Center will call back after disconnect.	
	3	When tone is heard from the Test Center, go to data mode by depressing DATA key.	TERM READY goes out and TERM ON-LINE comes on. On data set TR and MR light.
	4	Type the following: SEND THE QUICK BROWN FOX TEST MESSAGE — 5 LINES — END WITH EOT.	Test message request will be received by the Test Center.
	5	Data Test Center will send 5 lines of "The Quick Brown Fox" test message ending with EOT.	"The Quick Brown Fox" test message will be printed. Station will disconnect and DATA goes off.
Auto-matic Answer	6	Depress DUPLEX key (HALF-DUPLEX with lamp out).	Data Test Center will call station. Phone rings once. Data turns on. Answer-back message is printed at station and Test Center.

\*Over switched network.

CHART 5 (Contd)  
ON-LINE TEST  
DATA TEST CENTER

TEST	STEP	PROCEDURE	RESPONSE
ENQ	7	Test Center will send CTRL E (ENQ).	Answer-back message is printed at station and Test Center (sets with answer-back coded).
Half-Duplex Send and Receive Data (Answering Station)	8	Test Center will send 5 lines of the: "The Quick Brown Fox" test message.	Test message will be printed.
	9	Depress the SPACE bar. Send the following test message from the operator console: Send the options test.	Test Center will receive the test message sent from the operator console.
Parity Detect	10	Test Center should send options test.	43 will print: 5 NULLS 5 DELETES 5 CRS 5 BAD PARITY ■■■■■ 5 BELLS
Intrpt	11	Test Center will send INTRPT (Break).	INTRPT turns on. Signal bell rings.
	12	Send RYRY from the keyboard	Bell rings when key is depressed. Keyboard is blinded. RYRY will not be printed on printer or sent to Test Center.
	13	Depress INTRPT key. Send RYRY from keyboard.	INTRPT turns off. RYRY will be printed and sent to Data Test Center.
	14	Depress INTRPT key.	Data Test Center receives NULL. INTRPT light flashes.
EOT Disconnect	15	Disconnect call - - Data Test Center sends EOT.	Station disconnects.

CHART 5 (Contd)  
ON-LINE TEST  
DATA TEST CENTER

TEST	STEP	PROCEDURE	RESPONSE
212AR DS High Speed Orig. Test	16	Depress HS switch on data set. (Do the following test at standard speed if no 212AR DS.)	TR and MC lights on data set.
	17	Depress  key.  Type the following: "SEND THE FOX TEST MESSAGE — 5 LINES".	43 prints the message typed.
	18	Depress  key.	 key lights. Print head is returned to left boundary and paper feed one line.
	19	Depress  key.	KP key lights and BUFFER ENTER key goes out.
	20	Call Test Center, go into DATA when tone is heard.	TR, MR and HS light on 212AR DS.
	21	Depress  key.	43 sends at 1200 baud to Test Center which prints the message. 43 copies message at 300 baud.
	22	Depress  key.	BUFFER ENTER key lights and KP key goes out. Print head is returned to left boundary and paper feeds one line.
	23	Depress  key (Recall).	Paper feeds one line.
	24	Depress  key.	 key lights, print head is returned to left boundary and paper feeds one line.
	25	Depress  key.	KP key lights and BUFFER ENTER key goes out.
26	Test Center sends five lines of "FOX" message.	43 prints approximately 3-1/2 lines and disconnects the call (see Note on next page).	
212AR DS High Speed Answer Test	27	Depress HS on Data Set.	HS lamp out.
	28	Test Center calls 43 and 212AR DS answers call automatically.	43 answer-back prints on both sets.
	29	Test Center sends DC1.	43 responds "SEND THE FOX TEST MESSAGE — 5 LINES" and both receive correctly.

CHART 5 (Contd)  
ON-LINE TEST  
DATA TEST CENTER

TEST	STEP	PROCEDURE	RESPONSE
212AR DS High Speed Answer Test (Contd)	30	Test Center sends DC1.	43 responds "NO MES" and both receive correctly.
	31	Depress  key.	KP lamps goes out.
	32	Test Center sends 5-lines of "FOX" message	 key lights. and call disconnects (see note).
Finish Test	33	Depress  key.	KP lights and the 43 prints approximately 2-1/2 lines of "FOX".
	34	Test Center calls 43 and 212AR DS answers call automatically.	43 answer-back prints on both sets.
	35	Type the following: "TEST OK" (if everything worked) or "GO TO TALK" (if problems). Test Center will send "GO TO TALK" message if any part of the test was unsatisfactory. Pick up handset, depress TALK and evaluate results. If the test passed, the Test Center sends "TEST OK" and disconnects the call.	

*Note:* As buffer fills, the 43 responds with a DC3. Since the Test Center ignores the DC3 and keeps sending, when the buffer is full (125 characters) the 43 responds with a break and the call is disconnected.

3.16 This completes the test of the 43 Teleprinter BSR if Chart 5 operated properly. Install the customer options if changed and tell them it is ready for their system test.

USING ADTS (Generic 5 or Higher)

3.17 This is the preferred on-line test if access to an ADTS equipped with Generic 5 or higher is available. The test is presented on two charts. Chart 6 is to be used with the teleprinter accessed to the switched network using a 212AR Data Set at low speed or 103JR Data Set. Chart 7 is for use with a 212AR Data Set at high speed (1200 BPS).

## CHART 6

## ON-LINE TEST\*

## ADTS

TEST	STEP	PROCEDURE	RESPONSE
Using ADTS	1	Turn teleprinter power switch ON.	Print head is indexed to the left boundary.  Printer performs one (1) line feed TERM READY, FULL DUPLEX and KP keys light
Buffer Store	2	Depress  key.	BUFFER ENTER key lights.
	3	Depress  then   keys eight times.	U*U*U*U*U*U*U*U*
	4	Depress  key.	 lamp lights. Print head is returned to left boundary and paper feeds one line.
	5	Depress  key.	BUFFER lamp goes out and KP lamp lights.
ADTS Hand-Shaking	6	Call the ADTS from a Touch-Tone telephone (either from station under test or from another telephone). The ADTS will answer with a voice. All the following is entered via the Touch-Tone telephone pad.	<u>ADTS voice answers with:</u>  THIS IS THE AUTOMATIC DATA TEST SYSTEM. PLEASE ENTER THE PASSWORD.
	7	Enter the 4-character password. All entries must be followed by a star.  Example: 1234*	ENTER THE FUNCTION YOU WISH TO PERFORM.
	8	Enter 87* if this is the first call on this teleprinter. Enter 387* if this is a repeat call and none of the information has changed.	TERMINAL TEST (or if 387) FAST TERMINAL TEST. IS THIS TEST SERVICE ORDER RELATED?
	9	Enter 1* for "YES" OR Enter 0* for "NO"	WHAT IS THE TELEPHONE NUMBER?
	10	Enter the teleprinters telephone number, use area code only if required.  Example: XXX XXX XXXX*	YOU HAVE ENTERED XXX XXX XXXX IS THAT CORRECT?

\*Over switched network.

## CHART 6 (Contd)

## ON-LINE TEST

## ADTS

TEST	STEP	PROCEDURE	RESPONSE
ADTS Hand- Shaking (Contd)	11	Enter 1* for "YES"      OR      Enter 0* for "NO"  A "NO" answer causes the ADTS to repeat the question in 9, "WHAT IS THE TELEPHONE NUMBER?"	ENTER THE TERMINAL ID?
	12	Enter 43*	YOU HAVE ENTERED 43. IS THAT CORRECT?
	13	Enter 1* for "YES"      OR      Enter 0* for "NO"  A "YES" entry will cause the ADTS to repeat the command in Step 11.	THIS IS THE 43 TELEPRINTER KEYBOARD SEND-RECEIVE AND RECEIVE-ONLY TELEPRINTER TEST. <i>Note:</i> If this is a repeat 87* test, at this point the voice will skip to Step 20. If 387* was entered in Step 8, the voice will skip to Step 25.  DOES THE STATION HAVE A KEYBOARD?
	14	Enter 1* for "YES"	ENTER THE DATA SET ACCESS TYPE AS FOLLOWS: ZERO FOR BOTH ORIGINATE AND ANSWER, ONE FOR ANSWER ONLY, TWO FOR ORIGINATE ONLY.
	15	Enter 0* for originate- answer	DO YOU WANT TO SUPPRESS ANSWER-BACK CHECKING?
	16	Enter 0* for "NO"	DOES THE STATION SEND ANSWER-BACK ON CONNECTION?
	17	Enter 1* for "YES"	DOES THE STATION SEND ANSWER-BACK ON ENQUIRY RECEIVED?
	18	Enter 1* for "YES"	DOES THE STATION SEND EVEN PARITY?
	19	Enter 1* for "YES"	DOES THE STATION DISCONNECT ON EOT?

## CHART 6 (Contd)

## ON-LINE TEST

## ADTS

TEST	STEP	PROCEDURE	RESPONSE
ADTS Hand- Shaking (Contd)	20	Enter 1* for "YES"	THE STATION HAS A KEY- BOARD.  THE DATA SET ACCESS TYPE IS ORIGINATE-ANSWER.  THE STATION SENDS ANSWER- BACK ON CONNECTION.  THE STATION SENDS ANSWER- BACK ON ENQUIRY RECEIVED.  THE STATION SENDS EVEN PARITY.  THE STATION DISCONNECTS ON EOT.  DO YOU WANT TO MAKE ANY CORRECTIONS?
	21	Enter 1* for "YES" OR Enter 0* for "NO"  A yes answer causes the ADTS to repeat starting at Step 11.	DO YOU WANT TO TEST FOR DISCONNECT ON LONG- SPACE AND CARRIER- LOSS?
	22	Enter 1* for "YES"	DO YOU WANT THE ADTS TO ORIGINATE FIRST TEST CALL?
	23	Enter 0* for "NO"	IF THE ON-LINE MARGIN CONTROL TEST IS RUN, THE MARGINS WILL BE RESET.  DO YOU WANT TO RUN THE ON-LINE MARGIN CONTROL TEST?
	24	Enter 1* for "YES"	DO YOU WANT TO RUN THE KEYBOARD SEND TEST?
	25	Enter 1* for "YES"	THE TEST IS READY TO START.  ARE YOU CALLING FROM THE DATASET?

## CHART 6 (Contd)

## ON-LINE TEST

## ADTS

TEST	STEP	PROCEDURE	RESPONSE
ADTS Hand- Shaking (Contd)	26	Enter 1* for "YES" OR Enter 0* for "NO"	Example: SET THE STATION FOR 30 CHARACTERS PER SECOND, PARITY ON, HALF-DUPLEX AND LOCAL. DO YOU WANT THESE INSTRUCTIONS REPEATED?
	27	Enter 0* for "NO" Leave teleprinter in TERM READY. Depress DUPLEX key. Leave parity option per customer selection.	LOCAL and DUPLEX lamps OFF. TERM READY lamp ON.
	28	If 0 entered in Step 26, skip to the reply in Step 45.  If 1 entered, listen to this reply and do the following steps.	CALL THE ADTS DYNAMIC TEST PORTS AS FOLLOWS: TRANSMIT AND RECEIVE PORT. _____ TRANSMIT AND RECEIVE PORT. _____ WHEN THE ADTS ANSWERS, DEPRESS THE DATA KEY AND GO ON-HOOK. AFTER THE TEST CALL, DEPRESS THE LOCAL KEY AND ANSWER THE PHONE WHEN IT RINGS. DO YOU WANT THESE INSTRUCTIONS REPEATED?
	29	Enter 0* for "NO"	GO ON HOOK AND CALL THE ADTS.
Call ADTS for Test	30	Call ADTS using telephone number received in Step 28.	Use area code if necessary.
ADTS Test	31	When ADTS answers with tone, depress DATA key.  <i>Note:</i> Send U* from buffer, when requested, by depressing the SND RDY key.	ON-LINE lamp lights. TERM READY lamp goes OFF. Teleprinter prints message (See Fig. 12).
EOT Disconnect	32	Check Fig. 12 for correct printing. When printing stops and station disconnects because of EOT, depress the LOCAL key.	LOCAL lamp lights. ADTS calls station.

## CHART 6 (Contd)

## ON-LINE TEST

## ADTS

TEST	STEP	PROCEDURE	RESPONSE
EOT Discon- nect	33	When telephone rings, pick up handset and listen.	TO RECEIVE THE TEST RESULTS ENTER 1.
	34	Enter 1*	THE TEST RESULTS ARE: THE RECEIVED LEVEL IS -?? Dbm. THE DIGITAL LOOPBACK TEST COULD NOT BE ENABLED, THE ADTS WILL CALL THE STATION. ON THE TONE, GO ON HOOK AND DEPRESS THE AUTO ANSWER KEY. AFTER THE TEST CALL, DEPRESS THE LOCAL KEY AND ANSWER THE PHONE WHEN IT RINGS. DO YOU WANT THESE INSTRUC- TIONS REPEATED?
	35	Enter 0* Depress TERM READY key. Hang up telephone.	TERM READY lamp ON.  ADTS calls station.
Long Space Discon- nect	36	Station answers call.	43 prints: (Answer-back plus). ADTS will now perform a disconnect test: Long space sent — 43 should dis- connect.
	37	Depress LOCAL key after station disconnects.	INTRPT lamp lights for a few seconds. Station disconnects. ADTS calls station.
	38	When telephone rings, pick up handset and listen.	TO RECEIVE THE TEST RESULTS ENTER 1.
	39	Enter 1*	THE TEST RESULTS ARE: THE RECEIVED LEVEL IS -?? Dbm. THE DIGITAL LOOPBACK MODE COULD NOT BE ENABLED. THE ADTS WILL CALL THE STATION. ON THE TONE, GO ON HOOK AND DEPRESS THE AUTO ANSWER KEY. AFTER THE TEST CALL, DEPRESS THE LOCAL KEY AND ANSWER THE PHONE WHEN IT RINGS. DO YOU WANT THESE INSTRUCTIONS REPEATED?

## CHART 6 (Contd)

## ON-LINE TEST

## ADTS

TEST	STEP	PROCEDURE	RESPONSE
Loss Carrier Discon- nect	40	Enter 0* Depress TERM READY key. Hang up telephone.	TERM READY lamp ON.  ADTS calls station.
	41	Station answers call.	43 prints: (Answer-back plus). ADTS will now perform a disconnect test: Loss of carrier — 43 should dis- connect.
	42	Depress LOCAL key after station disconnects.	Station disconnects. LOCAL lamp lights. ADTS calls station.
	43	When telephone rings, pick up handset and listen.	TO RECEIVE THE TEST RESULTS ENTER 1.
Results	44	Enter 1* if teleprinter passed:  Enter: #63* to disconnect, hang up the telephone and skip to paragraph 3.18.  <i>Note:</i> When an external data set is used instead of an internal one, the loopback test will fail. Ignore this failure when testing with an external data set.	THE TEST RESULTS ARE: THE RECEIVED LEVEL IS -?? Dbm. THE DIGITAL LOOPBACK MODE COULD NOT BE ENABLED. THE STATION FAILED THE TEST. DO YOU WANT TO REPEAT THIS TEST?
		If teleprinter failed: The ADTS responds with an abort message. (See Tables 1 and 2)  Enter: 1* to retest or # 63* to disconnect, hang up telephone.	Example:  THE TEST RESULTS ARE: THE CARRIER WAS NOT RECEIVED. TEST ABORTED. DO YOU WANT TO REPEAT THIS TEST?

## CHART 6 (Contd)

## ON-LINE TEST

## ADTS

TEST	STEP	PROCEDURE	RESPONSE
ADTS Hand-Shaking	45	If calling ADTS from another telephone, (Step 26 had 0 entered).	CALL THE ADTS DYNAMIC TEST PORTS AS FOLLOWS: TRANSMIT AND RECEIVE PORT  TRANSMIT AND RECEIVE PORT  WHEN THE ADTS ANSWERS, DEPRESS THE DATA KEY AND GO ON-HOOK. LEAVE THIS TELEPHONE OFF-HOOK TO RECEIVE THE TEST RESULTS. DO YOU WANT THESE INSTRUCTIONS REPEATED?
	46	Enter 0* for "NO".	CALL THE ADTS.
Call ADTS For Test	47	Call ADTS from station handset using telephone number received in Step 45.	Use area code if necessary.
ADTS Test	48	When ADTS answers with tone, depress DATA key.  <i>Note:</i> Send U* from buffer when requested, by depressing the SND RDY key.	ON-LINE lamp lights. TERM READY lamp goes OFF. Teletypewriter prints message (See Fig. 12).
EOT Disconnect	49	Check Fig. 12 for correct printing.	When printing stops station disconnect on receipt of EOT.
	50	Listen on talk handset.	THE ADTS WILL CALL THE STATION. LEAVE THIS PHONE OFF HOOK TO RECEIVE THE TEST RESULTS.
Long Space Disconnect	51	ADTS calls station.	43 prints: (Answer-back plus). ADTS will now perform a disconnect test: Long space sent — 43 should disconnect.  INTRPT lamp lights for a few seconds. Station disconnects.

CHART 6 (Contd)

ON-LINE TEST

ADTS

TEST	STEP	PROCEDURE	RESPONSE
Results (Contd)	52	Listen on talk handset.	THE ADTS WILL CALL THE STATION. LEAVE THIS PHONE OFF HOOK TO RECEIVE THE TEST RESULTS.
Loss Carrier Disconnect	53	ADTS calls station.	43 prints: (Answer-back plus). ADTS will now perform a disconnect test: Loss of carrier -- 43 should disconnect.  The station disconnects.
Results	54	Listen on talk handset If teleprinter passed:  Enter: #63* to disconnect, hang up the telephone.  <i>Note:</i> When an external data set is used instead of an internal one, the loopback test will fail. Ignore this failure when testing with an external data set.	Example:  THE TEST RESULTS ARE: THE RECEIVED LEVEL IS --?? Dbm. THE DIGITAL LOOPBACK MODE COULD NOT BE ENABLED. THE STATION FAILED THE TEST. DO YOU WANT TO REPEAT THIS TEST?
		If teleprinter failed:  The ADTS responds with an abort message (see Tables 1 and 2).  Enter: 1* to retest or # 63* to disconnect, (hang up telephone).	Example:  THE TEST RESULTS ARE: THE CARRIER WAS NOT RECEIVED. TEST ABORTED.  DO YOU WANT TO REPEAT THIS TEST?

3.18 This completes the low speed test of the 43 BSR Teleprinter if chart operated properly. Do Chart 7 only if teleprinter operates at 1200 baud. Install customer options if changed and tell the customer it is ready for their system checkout.



## CHART 7

## ON-LINE TEST

## ADTS — 1200 BPS USING 212AR DATA SET

TEST	STEP	PROCEDURE	RESPONSE
ADTS Hand- Shaking	1	Call the ADTS from a Touch-Tone telephone (either from station under test or from another telephone). The ADTS will answer with a voice. All the following is entered via the Touch-Tone telephone pad.	ADTS voice answers with:  THIS IS THE AUTOMATIC DATA TEST SYSTEM. PLEASE ENTER THE PASSWORD.
	2	Enter the 4-character password. All entries must be followed by a star.  Example: 1234*	ENTER THE FUNCTION YOU WISH TO PERFORM.
	3	Enter 39*	FOX EXERCISER. IS THIS TEST SERVICE ORDER RELATED?
	4	Enter 1* for "YES" OR Enter 0* for "NO"	WHAT IS THE TELEPHONE NUMBER?
	5	Enter the teleprinter's telephone number; use area code only if required.  Example: XXX XXX XXXX*	YOU ENTERED XXX XXX XXXX. IS THAT CORRECT?
	6	Enter 1* for "YES" OR Enter 0* for "NO"  A "NO" answer causes the ADTS to repeat the question in 4, "WHAT IS THE TELEPHONE NUMBER?".	THIS IS THE ADTS FOX EXERCISE TEST.  ENTER: 0 for BAUDOT CODE 1 FOR ASCII CODE:
	7	Enter 1* for ASCII	ENTER UNIT CODE EQUAL TO 10 OR 11.
	8	Enter 10* for "10"	ENTER THE STATION SPEED AS 150 to 1200 BITS PER SECOND.
	9	Enter 1200*	IS THE DATA SET A 212 TYPE?
	10	Enter 1* for "YES"  Press in HS key on 212AR Data Set.	ENTER THE PARITY OPTION AS FOLLOWS, 0 FOR MARK OR NO PARITY CHECKED, 1 FOR EVEN OR 2 FOR ODD PARITY.
	11	Enter 0* for mark or no parity checked OR Enter 1* for even parity OR Enter 2* for odd parity	ENTER THE NUMBER OF CHARACTERS PER LINE 16, 72, 80, OR 132.

## CHART 7 (Contd)

## ON-LINE TEST

## ADTS — 1200 BPS USING 212AR DATA SET

TEST	STEP	PROCEDURE	RESPONSE
ADTS Hand- Shaking (Contd)	12	Enter 72* OR Enter 80* OR Enter 132* for "72" OR for "80" OR for "132"	ARE YOU CALLING FROM THE STATION TO BE TESTED?
	13	Enter 1* OR Enter 0* for "YES" OR for "NO"	DO YOU WANT TO MAKE ANY CORRECTIONS?
	14	Enter 0* for "NO"  Leave teleprinter in TERM READY. Leave parity option per customer selection.	LOCAL Lamp goes OFF. TERM READY lamp goes ON.
	15	If 0 was entered in Step 13, skip this reply and listen to the reply in Step 21.  If 1 was entered, listen to this reply.	CONDITION THE STATION TO RECEIVE DATA ON-LINE. ON THE TONE, HANG UP. THE ADTS WILL CALL THE STATION TO RUN THE TEST. AT THE COMPLETION OF THE TEST, THE ADTS WILL CALL TO REPORT THE TEST RESULTS. IF AUTO- ANSWER IS NOT PROVIDED, PREPARE TO ANSWER TEST CALL MANUALLY. WHEN READY, ENTER 1.
	16	Enter 1* and when tone is heard, hang up the telephone.	ADTS sends tone.
ADTS Test	17	ADTS calls teleprinter. Check for correct copy. Note that the set disconnects, but continues to print what was stored in the buffer.	ON-LINE lamp lights. TERM READY lamp goes OFF. Teleprinter prints message (see Fig. 13).
Results	18	After set disconnects and finishes printing out, depress LOCAL key and when ADTS calls, pick up handset and listen.	TO RECEIVE THE TEST RESULTS ENTER 1.
	19	Enter 1	Voice will state if troubles occurred or if no trouble, voice says: TEST HAS BEEN COMPLETED. ENTER THE FUNCTION YOU WISH TO PERFORM.
	20	Enter 39* if another test is desired or if test is OK, enter * # 63*, hang up the telephone and proceed to para- graph 3.19.	—

```

① ADTS FOX TEST.

1234567890123456789012345678901234567890123456789012345678901234567890 ②
THE QUICK BROWN FOX JUMPED OVER THE LAZY DOG'S BACK 0123456789
THE QUICK BROWN FOX JUMPED OVER THE LAZY DOG'S BACK 0123456789
THE QUICK BROWN FOX JUMPED OVER THE LAZY DOG'S BACK 0123456789
THE QUICK BROWN FOX JUMPED OVER THE LAZY DOG'S BACK 0123456789
@ABCDEFGHIJKLNMO
PQRSTUVWXYZ[\]^_
!"#$%&'()*+,-./
0123456789:;<=>?
@ABCDEFGHIJKLNMO
PQRSTUVWXYZ[\]^_
!"#$%&'()*+,-./
0123456789:;<=>?
`abcdefghijklmnopqrstuvwxyz{}`
`abcdefghijklmnopqrstuvwxyz{}`

```

- ① Answer-back is printed. If the answer-back is garbled into the "ADTS FOX TEST" line, do not count it as teleprinter problem.
- ② Sample is for 80 character line. The line would be 132 characters long if set is optioned for 132.

Fig. 13

## CHART 7 (Contd)

## ON-LINE TEST

## ADTS — 1200 BPS USING 212AR DATA SET

TEST	STEP	PROCEDURE	RESPONSE
ADTS Test	21	If calling from other than the station under test.	CONDITION THE STATION TO RECEIVE DATA ON-LINE. ADTS WILL CALL THE STATION. IF AUTO-ANSWER IS NOT PROVIDED, PREPARE TO ANSWER TEST CALL MANUALLY. WHEN READY, ENTER ONE.
	22	Enter 1*	ADTS calls station.
	23	Station answers call.	ON-LINE lamp lights. TERM READY lamp goes OFF. Teleprinter prints message (see Fig. 13).
	24	Check for correct copy.	THE RECEIVED LEVEL IS — ?? Dbm. (Pause, about 10 seconds.) DO YOU WANT TO RUN A SENDING TEST?
	25	Enter 1*	ONE LINE OF CHARACTERS SENT TO ADTS WILL BE ECHOED BACK TO THE STATION AS RECEIVED.  Teleprinter will print the following under the Fig. 13 message: SENDING TEST: ENTER UP TO ONE LINE, CR LF, AND SEND (paper will form out).
	26	Keyboard a one line message, ending with CR and LF.	The one line message is printed (if in half-duplex). PUT THE STATION IN THE RECEIVE MODE. WHEN READY ENTER 1.
	27	Enter 1*  Check for correct one line message.	ADTS echoed back the one line of data. DO YOU WANT TO RUN ANOTHER SENT TEST?
Results	28	Enter 0* if test is OK (or enter 1* if necessary to run another test).	Voice will state if troubles occurred or if no trouble, voice says: TEST HAS BEEN COMPLETED. DO YOU WANT TO RUN ANOTHER TEST?

CHART 7 (Contd)

ON-LINE TEST

ADTS — 1200 BPS USING 212AR DATA SET

TEST	STEP	PROCEDURE	RESPONSE
Results (Contd)	29	Enter 1* if another test is desired or if test is OK, enter * # 63* and hang up the telephone.	

3.19 This completes the test of the 43 BSR Teleprinter if chart operated properly. Install customer options if changed and tell the customer it is ready for their system checkout.