43 TELEPRINTER 5-LEVEL BUFFERED SELECTIVE CALLING (BSC) STATION

TESTING

CONTENTS PAGE

1. GENERAL

1.01 This section provides testing information for the 43 Teleprinter 5-Level Buffered Selective Calling (BSC) Station.

1.02 This section is reissued to provide comprehensive testing of the 43 5-Level BSC in addition to the installation testing.

Note: When ordering replaceable components unless otherwise specified, prefix each part number with letters "TP" (ie, TP430047).

1.03 The installation checkout should be performed after installation to make sure the station is basically operable and that the installation was performed properly.

1.04 On trouble calls, the more comprehensive local and on-line tests can be performed 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 calls 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 43 Teleprinter 5-Level Buffered Selective Calling (BSC) Station Trouble-shooting Section, 574-500-304.

1.09 On-line tests can be performed with Test Centers equipped with a 5-level baudot sending and receiving device such as a 28-type KSR or equivalent such as a 921A Data Test Set, list 4 or higher. On-line tests can also be simulated locally using a 921A Data Test Set.

1.10 Before an on-line test can be performed, the Test Center must be provided with advance details about the 43 5-Level BSC such as speed, primary address, start character sequence, and deselect sequence.

1.11 Throughout the testing procedures circled numbers (ie, (54)) are referenced. These circled numbers are map order numbers defining the location and description of an option within the option map. Refer to paragraph 4 for option map.

Prepared for American Telephone and Telegraph Company by Teletype Corporation

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?

2. TEST EQUIPMENT

2.01 To simulate on-line tests the 921A Data Test Set can be used instead of going to the Test Center.

3. TESTING PROCEDURES

3.01 For initial installation, perform A. Installation Checkout Off-Line. Then perform B. Installation Checkout On-Line.

3.02 If troubles are encountered on installation or if called out for a trouble call, perform C. Comprehensive Checkout Off-Line and D. Comprehensive Checkout On-Line.

3.03 The charts for on-line testing, both installation and comprehensive, are duplicated in the Test Center Section, 668-130-505, so that the test center technician and the installer or repair technician are aware of each other's test sequences. Both the testing Section, 574-500-504, and the Test Center Section, 668-130-505, show the test sequences and responses for the 43 5-Level BSC and for the test equipment.

3.04 Paragraph 4. OPTION MAP WORKSHEET is provided to fill in option values for the station under test, and is to be used as a quick reference for testing purposes. The option map worksheets can be locally reproduced if required.

A. Installation Checkout Off-Line

CHART 1

OFF-LINE INSTALLATION CHECKOUT

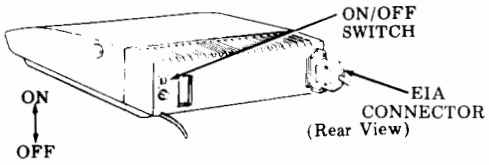
TEST	STEP	PROCEDURE	RESPONSE
Power On	1	Turn power switch OFF. Wait for one second and then turn the power switch ON.  	Print head is indexed to the left boundary. Printer performs one (1) line feed TERM ON-LINE and PRINT REC MSG keys light.
Keyboard Check	2	Depress TERM LOCAL key. Option 468a. must be installed.	TERM LOCAL key lights.
		Depress [PRINT REC MSG] key.	Lamp goes out.
		Type the following "TELEPRINTER IS BASICALLY OPERABLE".	Characters print correctly.
Customer Option Check	3	Depress [BUFFER ENTER] key.	Lamp lights.
		Depress [MSG CLEAR] key, several times until bell rings.	Bell rings.
		Depress [PRINT REC MSG] key.	Lamp lights and [BUFFER ENTER] goes out.
		Hold [CTRL] key depressed and depress [(] key.	OPTIONS IN EDIT BUFFER Prints on printer and [BUFFER ENTER] lamp lights.
		Depress [7 PRINT EDBUF] key.	Option list in hexadecimal values prints out.
		Compare the option list printed to customer desired option list. Retain this option list for B. Installation Checkout On-Line.	If required, correct option per Section 574-500-203.
		Depress and hold CTRL key and depress [)] key. (Options Load)	Print head returns to left boundary, and line feeds ON-LINE lamp lights.

CHART 1 (Contd)

OFF-LINE INSTALLATION CHECKOUT

TEST	STEP	PROCEDURE	RESPONSE
Customer Option Check	3 (Contd)	Depress 5 HOME and MSG CLEAR key several times until bell rings.	Bell rings.
		Depress PRINT REC MSG key.	Key lights. BUFFER ENTER goes out.
Transmitting To Aux Device if Present.	4	43 5-Level BSC Depress BUFFER ENTER key if not lit.	Key lights.
		Depress MSG CLEAR key several times if necessary until bell rings.	Bell rings.
		Type RYRYRYRY.	RYRYRYRY prints.
		Depress 5 HOME key.	Print head returns to left boundary and line feeds.
		If AUX REC key is lit, depress twice to turn off. Depress AUX WRITE key.	Key lights, RYs are printed or punched on aux device, AUX WRITE key turns off.
Reading From Aux 43 5-Level PT Unit if Present.	5	43 PT Unit Place tape with RYs punched from previous step in reader. Place reader control switch in ON position. 43 5-Level BSC If PRINT REC MSG key is lit, depress to turn off. Depress AUX READ key.	43 5-Level PT Unit transmits RYs to 43 5-Level BSC. RYs print out.

B. Installation Checkout On-Line

Using 921A Data Test Set Locally or With Test Center

If simulating on-line tests locally using a 921A Data Test Set, list 4 or higher, use the setup shown in Fig. 1.

If testing with a Test Center and the Test Center is using a 921A Data Test Set, the Test Center should use setup shown in Fig. 2.

Four options in the 43 5-Level BSC may have to be changed from customer options to test with a 921A Data Test Set. Option ① must be 1200 baud, 10 unit code (Hex 158D), Option ③ must be async (Hex 0C), Option ④ must be full duplex (Hex 6E), and Option ㊱ must be disabled (Hex 0000). Refer to the 43 5-Level BSC Installation Section, 574-500-203, for procedures to change options. Use option printout retained from Chart 1, Step 3 to reinstall customer options after installation checkout.

The following LEDs must be lit on the 43 5-Level BSC before on-line testing: TERM ON LINE, COPY SEND DATA and PRINT REC MSG.

Depress key to light.

If testing with a Test Center, establish data and talk lines and proceed to Chart 2. Otherwise just proceed to Chart 2.

Testing With Test Center Using 28-Type KSR or Equivalent

Inform Test Center of your baud rate, Option ①. If Test Center cannot test at that baud rate, establish a common baud rate and change Option ① . If necessary also change Option ③ . Option ④ must be full duplex (Hex 6E). Disable idle line time-out, Option ㊱ , by entering Hex 0000 for that option. Refer to 43 5-Level BSC Installation Section, 574-500-203, for procedures to change options. Use option printout retained from Chart 1 Step 3 to reinstall customer options after installation checkout. Establish data and talk lines with the Test Center and proceed to Chart 3.

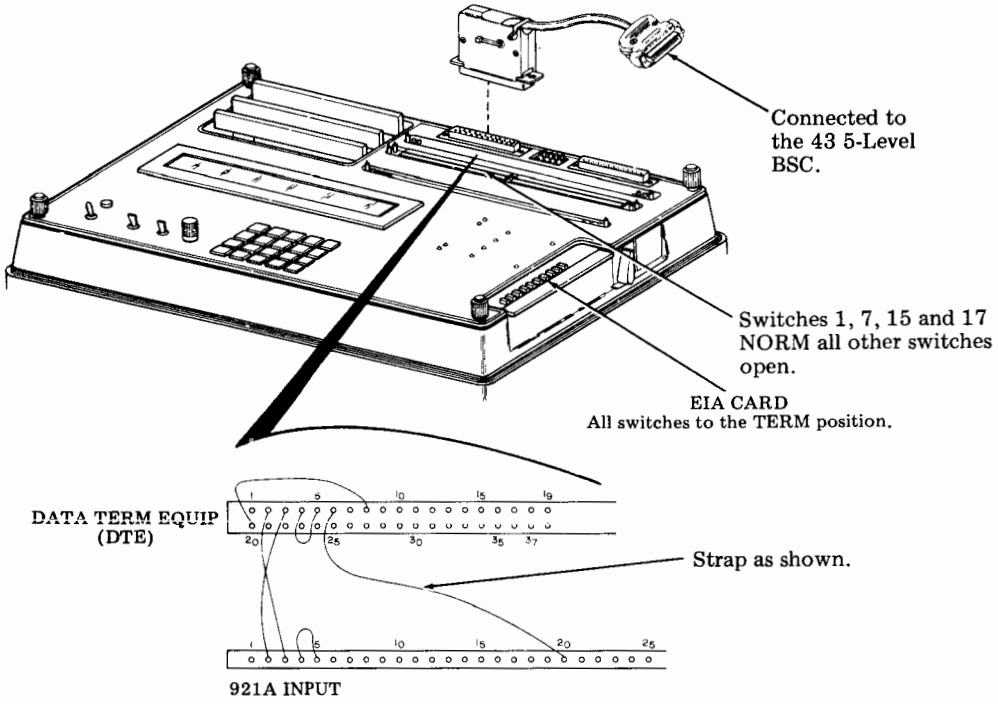


Fig. 1—921A Data Test Set Setup Transmitting Directly to 43 5-Level BSC

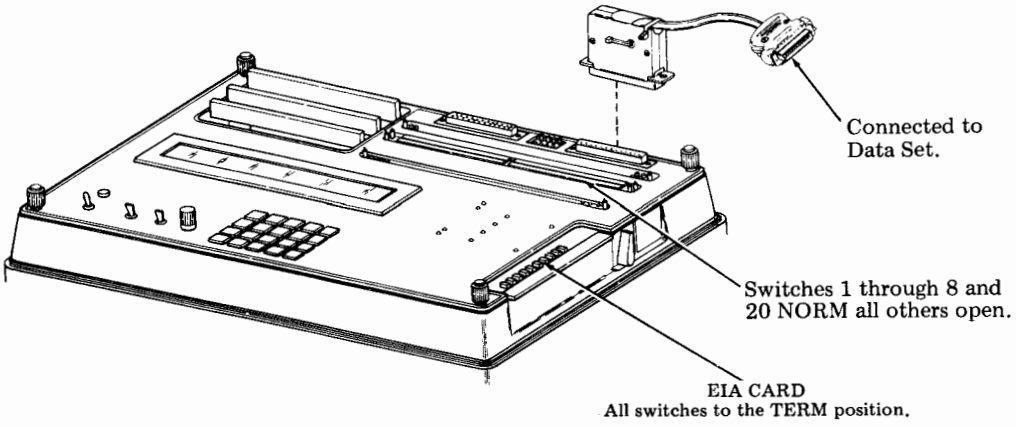


Fig. 2—921A Data Test Set Setup Transmitting Through A Data Set

TABLE

BAUDOT TO HEXADECIMAL NUMBER CONVERSION

BAUDOT CHARACTER LTRS MODE	CONVERSION TO HEX	BAUDOT CHARACTER FIGS MODE	CONVERSION TO HEX
A	E3	—	E3
B	F9	?	F9
C	EE	:	EE
D	E9	$	E9
E	E1	3	E1
F	ED	!	ED
G	FA	&	FA
H	F4	#	F4
I	E6	8	E6
J	EB	BELL*	EB*
K	EF	(	EF
L	F2	)	F2
M	FC	.	FC
N	EC	,	EC
O	F8	9	F8
P	F6	0	F6
Q	F7	1	F7
R	EA	4	EA
S	E5	,*	E5*
T	F0	5	F0
U	E7	7	E7
V	FE	;	FE
W	F3	2	F3
X	FD	/	FD
Y	F5	6	F5
Z	F1	"	F1
LTRS	FF	LTRS	FF
FIGS	FB	FIGS	FB
SPACE	E4	SPACE	E4
CR	E8	CR	E8
LF	E2	LF	E2
BLANK	E0	BLANK	E0

*Figs J and Figs S are reversed if BlFig J (25) = "n".

CHART 2

ON-LINE INSTALLATION CHECKOUT USING 921A DATA TEST SET EITHER LOCALLY OR FROM TEST CENTER

STEP	ACTION REQUIRED AT TEST CENTER	RESPONSE AT TEST CENTER	ACTION REQUIRED AT STATION (UUT)	RESPONSE AT STATION (UUT)
1 SELECT 43 5-Level BSC and send it a message.	921A Data Test Set Depress RST to initialize the 921A Data Test Set. Display reads "DATA SET". Depress 25 GO. Display reads "BIT RATE". Depress 12 (for 1200 baud) 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 00**(**=The sum of the number of characters (not Hex codes) for Option (54), (83), (57) plus 9 for test characters plus Option (54) again). Example: (54) = 3 Characters (83) = 2 Characters (57) = 2 Characters Text = 9 Characters (54) = 3 Characters Total = 19 Enter 0019 Display reads "00:??" etc. Refer to the Table and enter the Hex values in the following sequence for Options (54), (83), (57). Enter the following Hex values: FF, E3, F9, EE, E9, E1, ED, FA, F4. Enter the Hex value for Option (54). Display then reads "A TO CONTINUE OR← TO EDIT TRMT". Depress A. Display reads "SELECT 0000 TO 0020 TRAP CHAR" followed by "???? TRAP CHARACTERS". Depress 0000. Display reads "NO TRAP CHARACTERS ARE ENTERED" followed by "PRESS A TO START". Depress A.	921A Test Set Display reads Hex code for Option (71). See Table.		43 5-Level BSC LINE ACTIVE key lights for approximately 10 seconds. The characters ABCDEFGH print out.

CHART 2 (Contd)

ON-LINE INSTALLATION CHECKOUT USING 921A DATA TEST SET EITHER LOCALLY OR FROM TEST CENTER

STEP	ACTION REQUIRED AT TEST CENTER	RESPONSE AT TEST CENTER	ACTION REQUIRED AT STATION (UUT)	RESPONSE AT STATION (UUT)
2 POLL 43 5-Level BSC and receive a message from it.			43 5-Level BSC Depress BUFFER ENTER key.	Key lights. PRINT REC MSG light goes out.
			Depress MSG CLEAR key several times, if necessary, until bell rings.	Bell rings.
			Type ABCDEF then enter deselect sequence Option (52) . Depress the STORE key.	ABCDEF prints then SND RDY key lights.
			Depress PRINT REC MSG key if not lit.	Key lights. BUFFER ENTER goes out.
			Depress COPY SEND DATA key if not lit.	Key lights.
	921A Data Test Set Depress D twice. Display reads "1= PROGRAMMABLE 2=STANDARD MSG". Depress 1. Display reads "SELECT 0001 TO 0255 CHARACTERS" followed by "???? CHARACTERS IN MESSAGE". Depress 000* (*=The sum of the number of characters (not Hex codes) for Options (54) and (40)). Display reads "00:????" etc. Refer to the Table and enter the Hex values in the following sequence for Options (54) and (40) . Display reads "A TO CONTINUE OR← TO EDIT TRMT". Depress A. Display reads "SELECT 0000 TO 0020 TRAP CHAR" followed by "???? TRAP CHARACTERS". Depress 0000. Display reads "NO TRAP CHARACTERS ARE ENTERED" followed by "PRESS A TO START". Depress A.	921A Data Test Set Display reads "E3 F9 EE E9 E1 ED" plus Hex code for Option (52) . See Table. *Note:* May be preceded by characters from Option (62) and followed by characters from Option (44) .		43 5-Level BSC Prints ABCDEF. *Note:* May be preceded by characters from Option (62) and followed by characters from Option (44).

CHART 3

ON-LINE INSTALLATION CHECKOUT WITH TEST CENTER USING 28-TYPE KSR OR EQUIVALENT

STEP	ACTION REQUIRED AT TEST CENTER	RESPONSE AT TEST CENTER	ACTION REQUIRED AT STATION (UUT)	RESPONSE AT STATION (UUT)
1 SELECT 43 5-Level BSC and send it a message.	Test Center Send the appropriate characters for Options (54), (63), (57) followed by "ABCDEFGH" followed by Option (54).	Test Center Receives Option (71) characters.		43 5-Level BSC LINE ACTIVE key lights for approximately 10 seconds. The characters ABCDEFGH print out.
	Note: If terminal is optioned as an auxiliary terminal (Option (14) = Hex 79), the terminal requires no select code and will copy all text sent to it.			
2 POLL 43 5-Level BSC and receive a message from it.			43 5-Level BSC Depress BUFFER ENTER key.	Key lights. PRINT REC MSG light goes out.
			Depress MSG CLEAR key several times, if necessary, until bell rings.	Bell rings.
			Type ABCDEF then enter deselect sequence Option (52). Depress the STORE key.	ABCDEF prints then SND RDY key lights.
			Depress PRINT REC MSG key if not lit.	Key lights. BUFFER ENTER goes out.
			Depress COPY SEND DATA key if not lit.	Key lights.
Skip this step for sets optioned yes for Option (13) or (14).	Test Center Send the appropriate characters for Options (54) and (48).	Test Center Receives ABCDEF. *Note:* May be preceded by characters from Option (62) and followed by characters from Option (44).		43 5-Level BSC Prints ABCDEF. *Note:* May be preceded by characters from Option (62) and followed by characters from Option (44).

C. Comprehensive Checkout Off-Line

CHART 4

OFF-LINE COMPREHENSIVE CHECKOUT

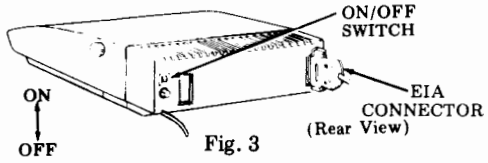
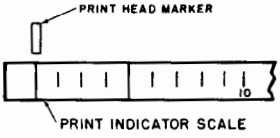
TEST	STEP	PROCEDURE	RESPONSE
Power On	1	Turn power switch OFF. Wait for one second and then turn the power switch ON.  Fig. 3	Print head is indexed to the left boundary. Printer performs one (1) line feed TERM ON-LINE and PRINT REC MSG keys light.
Indicator Scale	2	 Fig. 4	Print head marker points to first mark on indicator scale unless Option (26) is other than 1.
Local Return Line Feed	3	Depress TERM LOCAL key. Option 468a. must be installed.	TERM LOCAL key lights.
		Depress PRINT REC MSG key.	Lamp goes out.
		Depress space bar several times.	Print head spaces to the right several times.
		Hold CTRL key depressed and depress RETURN key.	Print head is returned to the left boundary and paper feeds to the next line.
Customer Option Check	4	Depress BUFFER ENTER key.	Lamp lights.
		Depress MSG CLEAR key, several times until bell rings.	Bell rings.
		Depress PRINT REC MSG key.	Lamp lights and BUFFER ENTER goes out.

CHART 4 (Contd)

OFF-LINE COMPREHENSIVE CHECKOUT

TEST	STEP	PROCEDURE	RESPONSE
Customer Option Check	4 (Contd)	Hold CTRL key depressed and depress (key.	OPTIONS IN EDIT BUFFER prints on printer and BUFFER ENTER lamp lights.
		Depress 7 PRINT EDBUF key.	Option list in hexadecimal values prints out.
		Compare the option list printed to customer desired option list. **Retain this option list for Comprehensive Checkout On-Line.**	If required, correct option per Section 574-500-203.
		Depress and hold CTRL key and depress) key (Options Load).	Print head returns to left boundary, and line feeds ON-LINE lamp lights.
		Depress 5 HOME and MSG CLEAR key several times until bell rings.	Bell rings.
		Depress BUFFER ENTER key.	BUFFER ENTER goes out.
Keyboard	5	Starting with the top row and moving from left to right, depress each unshaded key in Fig. 5.	Characters are printed as shown in Fig. 6.

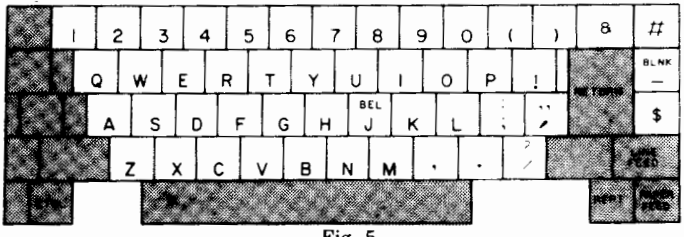


Fig. 5

1234567890()&#QWERTYUIOP!-ASDFGHJKL;'$ZXCVBNM,./

Fig. 6

Hold the CTRL key depressed and depress the following keys: : ; " ' ? /	The following characters print : " ?

CHART 4 (Contd)

OFF-LINE COMPREHENSIVE CHECKOUT

TEST	STEP	PROCEDURE	RESPONSE
Return Key	6	Depress the RETURN key. For the remainder of the testing, it is assumed the RETURN key provides only the return function.	Option (38) performs. If line feed is part of Option (38) and Option (20) equals yes, teleprinter will double line feed.
Line Feed Key	7	Depress the LINE FEED key. For the remainder of the testing, it is assumed the LINE FEED key provides only the line feed function.	Option (39) performs. If Option (39) is line feed and Option (20) equals yes, teleprinter will double line feed. If Option (39) is line feed and Option (19) equals yes, teleprinter will also carriage return.
Space Bar	8	Depress the SPACE BAR.	Print head moves one character position to the right.
Paper Feed	9	Depress the [PAPER FEED] key.	Teleprinter feeds one line and carriage returns to the left boundary.
REPT	10	Depress the [REPT] key and [M] key simultaneously.	M's are printed until the end of line is reached, then bell rings.
Line Length	11	Count the number of M's printed in Step 9.	Count equals right boundary Option (27) minus the left boundary Option (26) .
Form Out Perform only if Option (37) is greater than zero	12	Depress the key sequence for Option (42) .	Key sequence prints (if printable), paper feeds out, and print head returns to left boundary.
		Depress the key sequence for Option (42) .	Key sequence prints (if printable), paper feeds out the amount of line feeds specified in Option (37), and print head returns to left boundary.

CHART 4 (Contd)

OFF-LINE COMPREHENSIVE CHECKOUT

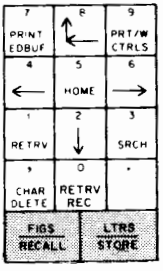
TEST	STEP	PROCEDURE	RESPONSE
Control Characters	13	Depress the [BUFFER ENTER] key.	BUFFER ENTER key lights.
		Hold down the CTRL key and depress [BEL J] or [BEL S] key, whichever is present.	Bell rings.
		Hold the CTRL key depressed and depress the following keys: [FIGS RECALL], [LTRS STORE], [BLNK —]. Release the CTRL key. Depress the [5 HOME] key and then depress the [9 PRT/W CTRLS] key.	B S S N L O I U prints.
NUM PAD Function	14	Depress the [NUM PAD] key.	NUM PAD key lights.
		Starting with the top row and moving from left to right, depress unshaded keys in Fig. 7.  Fig. 7	789456123, 0. prints.
Buffer Character Insert	15	Depress [5 HOME] key.	Printer carriage returns and line feeds.
		Depress [MSG CLEAR] key several times until bell rings.	Bell rings.
		Depress [A] then [C] key.	AC prints.

CHART 4 (Contd)

OFF-LINE COMPREHENSIVE CHECKOUT

TEST	STEP	PROCEDURE	RESPONSE
	15 (Contd)	Depress [4 ←] key once. (Buffer backspace).	Print head backspaces once.
		Depress [INSERT] key.	INSERT key lights.
		Depress [B] key.	B prints over C.
		Depress [INSERT] key.	INSERT key goes out.
		Depress [5 HOME] key.	Printer carriage returns and line feeds.
		Depress [7 PRINT EDBUF] key (Print Edit Buffer).	ABC prints.
Buffer Character Delete	16	Depress [8 ↑←] key (prev. Line).	Print head moves to left boundary.
		Manually advance paper one line (turn platen knob). Depress [6 →] key (Buffer Space).	A prints.
		Depress [9 CHAR DLETE] key (Character Delete).	■ prints.
		Depress [5 HOME] then [7 PRINT EDBUF] keys.	AC prints.
Clear Buffer	17	Depress [5 HOME] , [MSG CLEAR] then [7 PRINT EDBUF] keys.	Bell rings when [7 PRINT EDBUF] key is depressed.
Buffer Print With Control Characters	18	Type ABC Return, Line Feed DEF.	ABC DEF is printed.
		Depress [5 HOME] then [9 PRT/W CTRLS] keys.	ABC← ≡ DEF is printed.

CHART 4 (Contd)

OFF-LINE COMPREHENSIVE CHECKOUT

TEST	STEP	PROCEDURE	RESPONSE
Buffer Next Line	19	Depress [5 HOME] then [2 ↓] keys (Buffer Next Line).	Print head returns to left boundary, paper feeds two lines.
		Depress [7 PRINT EDBUF] key.	DEF is printed.
Message Store And Recall	20	Depress [LTRS STORE] key (Store).	[SND RDY] key lights. Print head is returned to left boundary and paper feeds one line.
		Depress [FIGS RECALL] key (Recall).	[SND RDY] key goes out. Paper feeds one line.
		Depress [7 PRINT EDBUF] key.	ABC DEF is printed.
Buffer String Enter And Search	21	Depress [5 HOME] key.	Print head is returned to left boundary and paper feeds one line.
		Depress [STRING ENTER] key.	STRING ENTER key lights. Paper feeds one line.
		Depress [E] key (E).	E prints.
		Depress [3 SRCH] key (Search).	DE is printed. STRING ENTER key goes out.
Alarm Conditions	22	Open the teleprinter cover.	ALARM key lights.
		Close cover.	ALARM key goes out.
		Remove paper from the teleprinter.	ALARM key lights and bell rings.
		Replace paper and depress [ALARM] key. On friction feed teleprinters it may be necessary to depress the reset button on the paper supply assembly before depressing the ALARM key.	ALARM key goes out.

CHART 4 (Contd)

OFF-LINE COMPREHENSIVE CHECKOUT

TEST	STEP	PROCEDURE	RESPONSE
Transmitting To Aux Device If Present.	23	Depress [BUFFER ENTER] key if not lit.	Key lights.
		Depress [MSG CLEAR] key several times if necessary until bell rings.	Bell rings.
		Type RYRYRYRY.	RYRYRYRY prints.
		Depress [5 HOME] key.	Print head returns to left boundary and line feeds.
		If [AUX REC] key is lit, depress twice to turn off. Depress [AUX WRITE] key.	Key lights, RYs are printed or punched on aux device, AUX WRITE key turns off.
Reading From Aux 43 5-Level PT Unit if present.	24	43 PT Unit Place tape with RYs punched from previous step in reader. Place reader control switch in ON position. 43 5-Level BSC If [PRINT REC MSG] key is lit, depress to turn off. Depress [AUX READ] key.	43 5-Level PT Unit transmits RYs to 43 5-Level BSC. RYs print out.

D. Comprehensive Checkout On-Line

Using 921A Data Test Set Locally or With Test Center

If simulating on-line tests locally using a 921A Data Test Set, list 4 or higher, use the setup shown in Fig. 1.

If testing with a Test Center and the Test Center is using a 921A Data Test Set, the Test Center should use setup shown in Fig. 2.

Four options in the 43 5-Level BSC may have to be changed from customer options to test with a 921A Data Test Set. Option ① must be 1200 baud, 10 unit code (Hex 158D), Option ③ must be async (Hex 0C), Option ④ must be full duplex (Hex 6E), and Option ㊱ must be disabled (Hex 0000). Refer to the 43 5-Level BSC Installation Section, 574-500-203, for procedures to change options. Use option printout retained from Chart 4, Step 4 to reinstall customer options after installation checkout.

The following LEDs must be lit on the 43 5-Level BSC before on-line testing: TERM ON LINE, COPY SEND DATA and PRINT REC MSG. Depress key to light.

If testing with a Test Center, establish data and talk lines and proceed to Chart 5. Otherwise just proceed to Chart 5.

Testing With Test Center Using 28-Type KSR or Equivalent

Inform Test Center of your baud rate, Option ①. If Test Center cannot test at that baud rate, establish a common baud rate and change Option ① . If necessary also change Option ③ . Option ④ must be full duplex (Hex 6E). Disable idle line time-out, Option ㊱ , by entering Hex 0000 for that option. Refer to 43 5-Level BSC Installation Section, 574-500-203, for procedures to change options. Use option printout retained from Chart 4 Step 4 to reinstall customer options after installation checkout. Establish data and talk lines with the Test Center and proceed to Chart 6.

CHART 5

COMPREHENSIVE ON-LINE CHECKOUT USING 921A DATA TEST SET EITHER LOCALLY OR FROM TEST CENTER

STEP	ACTION REQUIRED AT TEST CENTER	RESPONSE AT TEST CENTER	ACTION REQUIRED AT STATION (UUT)	RESPONSE AT STATION (UUT)
1 SELECT 43 5-Level BSC and send it a message.	921A Data Test Set Depress RST to initialize the 921 A Data Test Set. Display reads "DATA SET". Depress 25 GO. Display reads "BIT RATE". Depress 12 (for 1200 baud) 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 00**(**=The sum of the number of characters (not Hex codes) for Option (54), (63), (57) plus 9 for test characters plus Option (54) again). Example: (54) = 3 Characters (63) = 2 Characters (57) = 2 Characters Text = 9 Characters (54) = 3 Characters Total = 19 Enter 0019 Display reads "00:??" etc. Refer to the Table and enter the Hex values in the following sequence for Options (54), (63), (57). Enter the following Hex values: FF, E3, F9, EE, E9, E1, ED, FA, F4. Enter the Hex value for Option (54). Display then reads "A TO CONTINUE OR← TO EDIT TRMT". Depress A. Display reads "SELECT 0000 TO 0020 TRAP CHAR" followed by "???? TRAP CHARACTERS". Depress 0000. Display reads "NO TRAP CHARACTERS ARE ENTERED" followed by "PRESS A TO START". Depress A.	921A Data Test Set Display reads Hex code for Option (71). See Table.		43 5-Level BSC LINE ACTIVE key lights for approximately 10 seconds. The characters ABCDEFGH print out.

Note 1: If necessary to test primary addresses other than PAddr1, substitute the desired address Hex code for Option (63) above and perform above test.

Note 2: If terminal is optioned as an auxiliary terminal (Option (14) = Hex 79), the terminal requires no select code and will copy all text sent to it.

CHART 5 (Contd)

COMPREHENSIVE ON-LINE CHECKOUT USING 921A DATA TEST SET EITHER LOCALLY OR FROM TEST CENTER

STEP	ACTION REQUIRED AT TEST CENTER	RESPONSE AT TEST CENTER	ACTION REQUIRED AT STATION (UUT)	RESPONSE AT STATION (UUT)
2 POLL 43 5-Level BSC and receive a message from it.			43 5-Level BSC Depress BUFFER ENTER key.	Key lights. PRINT REC MSG light goes out.
			Depress MSG CLEAR key several times, if necessary, until bell rings.	Bell rings.
			Type ABCDEF then enter deselect sequence Option (52) . Depress the STORE key.	ABCDEF prints then SND RDY key lights.
Skip this step for sets Optioned yes for Option (13) or (14) .			Depress PRINT REC MSG key if not lit.	Key lights. BUFFER ENTER goes out.
			Depress COPY SEND DATA key if not lit.	Key lights.
	921A Data Test Set Depress D twice. Display reads "1= PROGRAMMABLE 2=STANDARD MSG". Depress 1. Display reads "SELECT 0001 TO 0255 CHARACTERS" followed by "???? CHARACTERS IN MESSAGE". Depress 000* (*=The sum of the number of characters (not Hex codes) for Options (54) and (40)). Display reads "00:????" etc. Refer to the Table and enter the Hex values in the following sequence for Options (54) and (40) . Display reads "A TO CONTINUE OR← TO EDIT TRMT". Depress A. Display reads "SELECT 0000 TO 0020 TRAP CHAR" followed by "???? TRAP CHARACTERS". Depress 0000. Display reads "NO TRAP CHARACTERS ARE ENTERED" followed by "PRESS A TO START". Depress A.	921A Data Test Set Display reads "E3 F9 EE E9 E1 ED" plus Hex code for Option (52) . See Table. *Note:* May be preceded by characters from Option (62) and followed by characters from Option (44) .		43 5-Level BSC Prints ABCDEF. *Note:* May be preceded by characters from Option (62) and followed by characters from Option (44) .

CHART 5 (Contd)

COMPREHENSIVE ON-LINE CHECKOUT USING 921A DATA TEST SET EITHER LOCALLY OR FROM TEST CENTER

STEP	ACTION REQUIRED AT TEST CENTER	RESPONSE AT TEST CENTER	ACTION REQUIRED AT STATION (UUT)	RESPONSE AT STATION (UUT)
3 SELECT Aux Device, if present, and send it a message.	921A Data Test Set Depress D twice. Display reads "1= PROGRAMMABLE 2=STANDARD MSG". Depress 1. Display reads "SELECT 0001 To 0255 CHARACTERS" followed by "???? CHARACTERS IN MESSAGE". Depress 00**(**=The sum of the number of characters (not Hex codes) for Option (54), (64), (57) plus 9 for test characters plus Option (54) again). Example: (54) = 3 Characters (64) = 2 Characters (57) = 2 Characters Text = 9 Characters (54) = 3 Characters Total = 19 Enter 0019 Display reads "00:??" etc. Refer to the Table and enter the Hex values in the following sequence for Options (54), (64), (57). Enter the following Hex values: EA, F5, EA, F5, EA, F5, EA, F5, EA. Enter the Hex value for Option (54). Display then reads "A TO CONTINUE OR← TO EDIT TRMT". Depress A. Display reads "SELECT 0000 TO 0020 TRAP CHAR" followed by "???? TRAP CHARACTERS". Depress 0000. Display reads "NO TRAP CHARACTERS ARE ENTERED" followed by "PRESS A TO START". Depress A.	921A Test Set Display reads Hex code for Option (72). See Table.	43 5-Level BSC Place Aux device in a ready to receive mode. Depress AUX REC key if not lit.	AUX REC Key lights. 43 5-Level BSC LINE ACTIVE key lights for approximately 10 seconds. Aux Device Prints or punches RYRYRYRYR.
	Note: If necessary to test auxiliary addresses other than AAddr1, substitute the desired address Hex code for Option (64) above and perform above test.			

CHART 6

COMPREHENSIVE ON-LINE CHECKOUT WITH TEST CENTER USING 28-TYPE KSR OR EQUIVALENT

STEP	ACTION REQUIRED AT TEST CENTER	RESPONSE AT TEST CENTER	ACTION REQUIRED AT STATION (UUT)	RESPONSE AT STATION (UUT)
1 SELECT 43 5-Level BSC and send it a message.	Send the appropriate characters for Options (54), (63), (57) followed by "ABCDEFGH" followed by Option (54).	Test Center Receives Option (71) characters.		43 5-Level BSC LINE ACTIVE key lights for approximately 10 seconds. The characters ABCDEFGH print out.
	Note 1: If necessary to test primary addresses other than PAddr1, substitute the desired address characters for Option (63) above and perform above test. *Note 2:* If terminal is optioned as an auxiliary terminal (Option (14) = Hex 79), the terminal requires no select code and will copy all text sent to it.			
2 POLL 43 5-Level BSC and receive a message from it.			43 5-Level BSC Depress BUFFER ENTER key.	Key lights. PRINT REC MSG light goes out.
			Depress MSG CLEAR key several times, if necessary, until bell rings.	Bell rings.
			Type ABCDEF then enter deselect sequence Option (52). Depress the STORE key.	ABCDEF prints then SND RDY key lights.
			Depress PRINT REC MSG key if not lit.	Key lights. BUFFER ENTER goes out.
			Depress COPY SEND DATA key if not lit.	Key lights.
Skip this step for sets Optioned yes for Option (13) or (14).				
	Send the appropriate characters for Options (54) and (49).	Test Center Receives ABCDEF. *Note:* May be preceded by characters from Option (62) and followed by characters from Option (44).		43 5-Level BSC Prints ABCDEF. *Note:* May be preceded by characters from Option (62) and followed by characters from Option (44).

CHART 6 (Contd)

COMPREHENSIVE ON-LINE CHECKOUT WITH TEST CENTER
USING 28-TYPE KSR OR EQUIVALENT

STEP	ACTION REQUIRED AT TEST CENTER	RESPONSE AT TEST CENTER	ACTION REQUIRED AT STATION (UUT)	RESPONSE AT STATION (UUT)
3 SELECT Aux Device, if present, and send it a message.			43 5-Level BSC Place Aux device in a ready to receive mode. Depress AUX REC key if not lit.	 Key lights.
	Send the appropriate characters for Options (54), (84), (57) followed by "RYRYRYRY" followed by Option (54).	Test Center Receives Option (72) characters.		43 5-Level BSC LINE ACTIVE key lights for approximately 10 seconds. Aux Device Prints or punches RYRYRYRY.
	Note: If necessary to test auxiliary addresses other than AAddr1, substitute the desired address characters for Option (84) above and perform above test.			

4. OPTION MAP WORKSHEET

When printed out in columns of 10 these are line numbers.

1	LinSpd 50 Baud (1)		AuxSpd (Nothing) (2)			Trans _ Async (3)			
2	System Yes (4)	P2Rply No (5)	P3Rply No (6)	P4Rply No (7)	A2Rply No (8)				
3	A3Rply No (9)	A4Rply No (10)	PChBfs No (11)	AChBfs No (12)	BROSta No (13)				
4	AuxTrm No (14)	AxApnd No (15)	Ax42RT No (16)	CpySnt No (17)	DelErr No (18)				
5	Ptr _ NL No (19)	Dbl _ LF No (20)	AudAlm No (21)	Conten No (22)	SndBrk No (23)				
6	CpyRes No (24)	BlFigJ Yes (25)	LfBdry Column 0 (26)	RtBdry Column 10 (27)	SumLgt 16 Positions (28)				
7	PRcvSz 1024 Positions (29)			ARcvSz 0 Positions (30)		PRcvLw 0 Positions			
8	PRcvLw 0 Positions (31)		ARcvLw 0 Positions (32)			EditLw 0 Positions (33)			
9	CTSDly 16 Milliseconds (34)			RTSDly 0 Seconds (35)		IdleLn 1 Second			
10	IdleLn 1 Second (36)		FormLg 0 Lines (37)			LrgKey Carriage Return (38)			

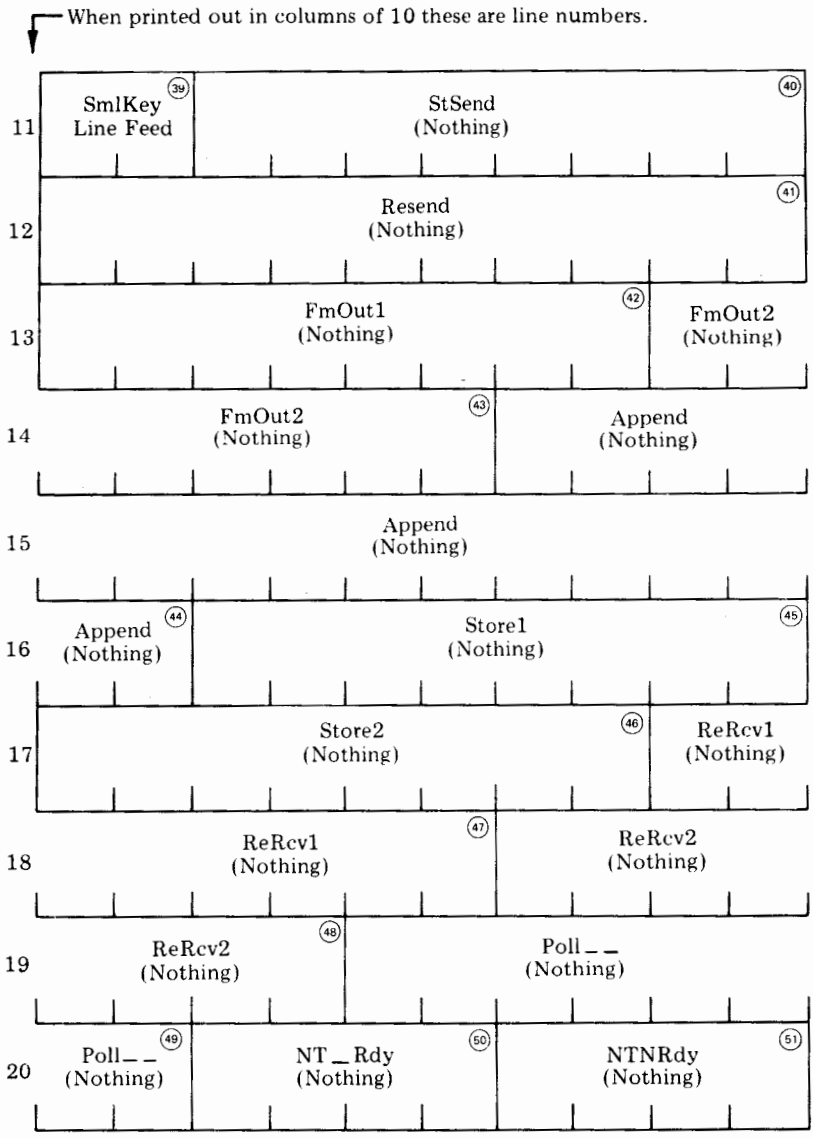
Legend

Option Name

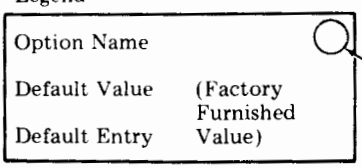
Default Value (Factory Furnished Value)

Default Entry

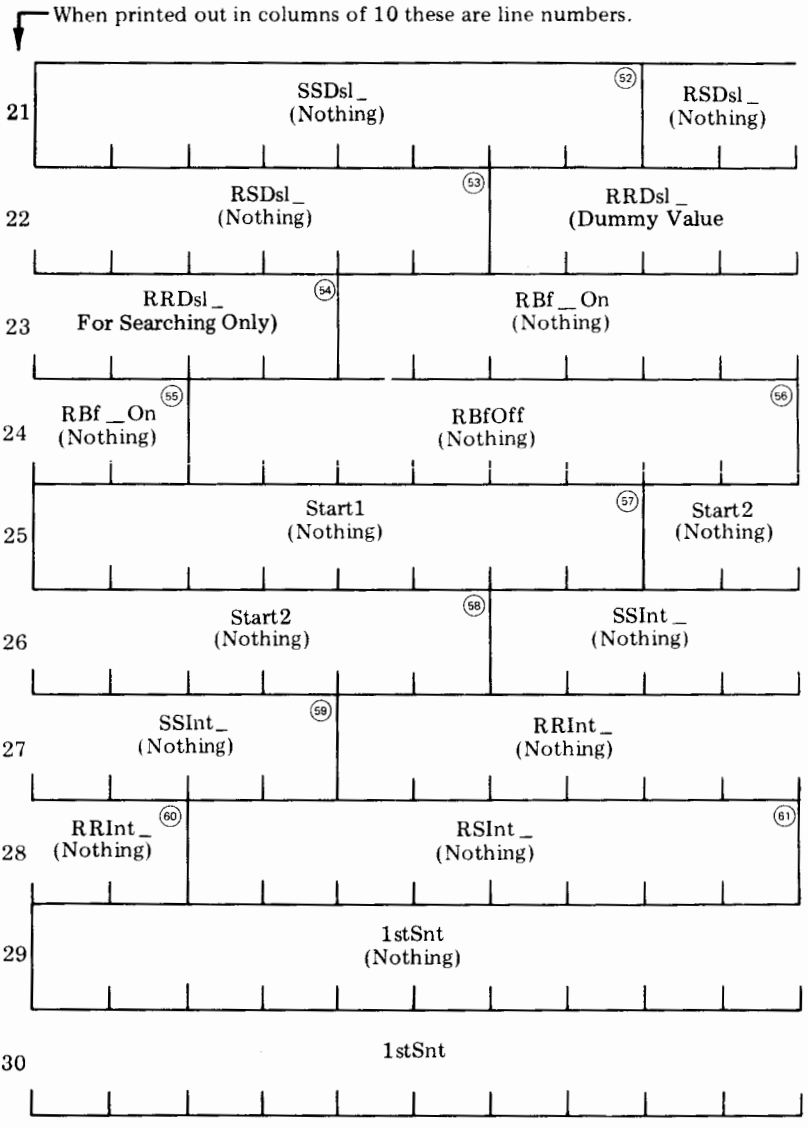
MAP ORDER NUMBER


When printed out in columns of 10 these are line numbers.
11
SmlKey Line Feed
39
StSend (Nothing)
40
12
Resend (Nothing)
41
13
FmOut1 (Nothing)
42
FmOut2 (Nothing)
14
FmOut2 (Nothing)
43
Append (Nothing)
15
Append (Nothing)
16
Append (Nothing)
44
Store1 (Nothing)
45
17
Store2 (Nothing)
46
ReRcv1 (Nothing)
18
ReRcv1 (Nothing)
47
ReRcv2 (Nothing)
19
ReRcv2 (Nothing)
48
Poll__ (Nothing)
20
Poll__ (Nothing)
49
NT_Rdy (Nothing)
50
NTNRdy (Nothing)
51

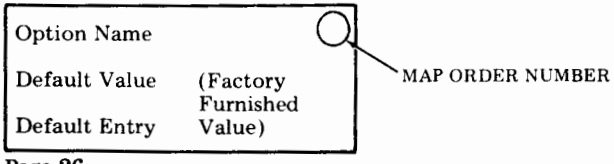
Legend


Option Name
Default Value (Factory Furnished Value)
Default Entry
MAP ORDER NUMBER

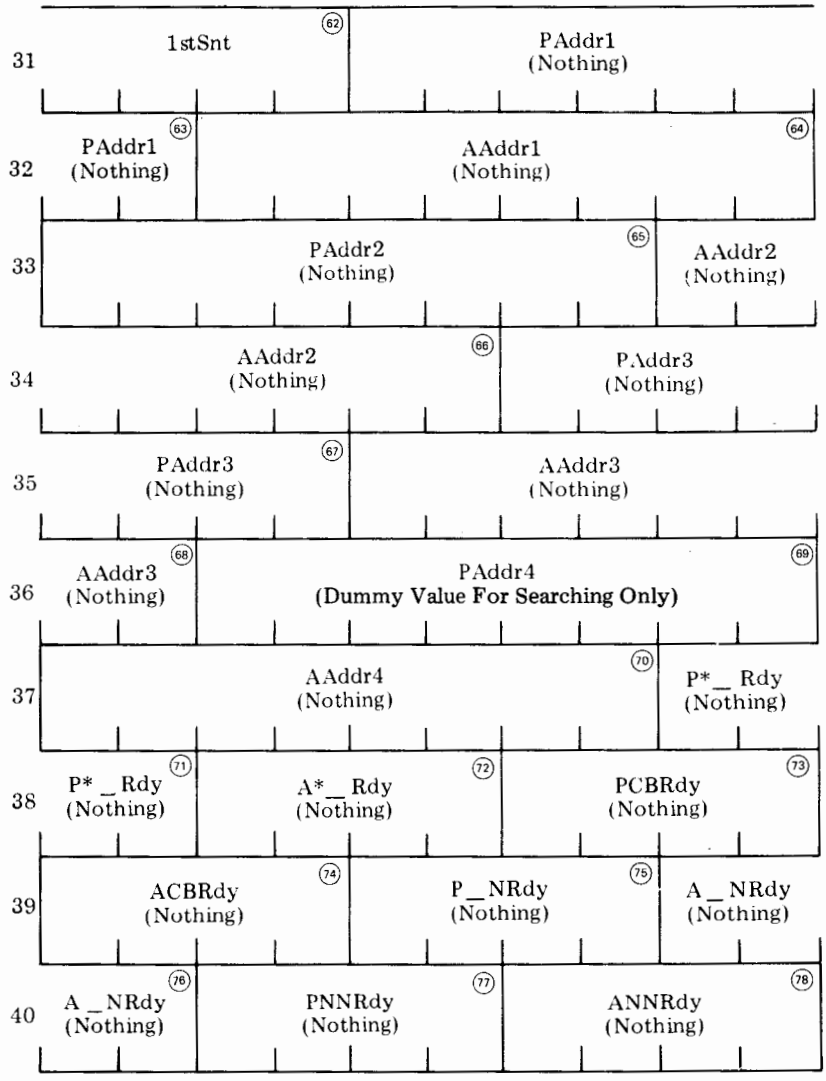
4. OPTION MAP WORKSHEET (Contd)



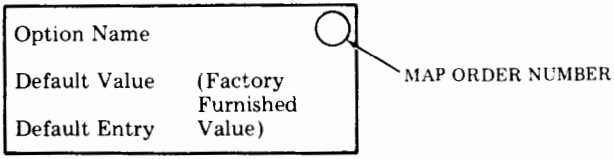
Legend



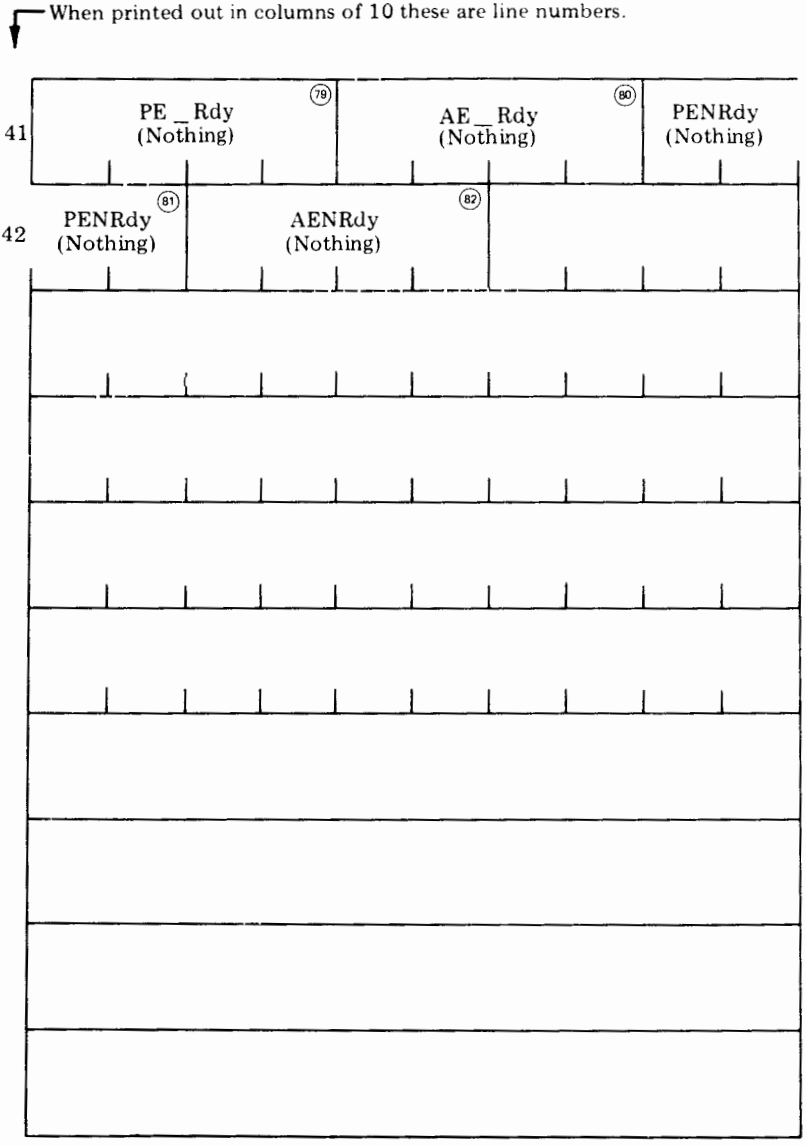
When printed out in columns of 10 these are line numbers.



Legend



4. OPTION MAP WORKSHEET (Contd)



Legend

Option Name

Default Value (Factory Furnished Value)

Default Entry

MAP ORDER NUMBER