DATA SETS 108H AND 108J

INSTALLATION AND CONNECTIONS

CONTENTS PAGE

1. GENERAL

1.01 This section contains information concerning the installation and connection of data sets (DSs) 108H and J (Fig. 1).

1.02 The reasons for reissuing this section are listed below. Revision arrows have been used to denote significant changes.

- Added Uniform Service Order Code (USOC) decision column in Table A.
- Added notes in Fig. 5.

1.03 The DS 108H and J should be installed in conformance with the general requirements of Section 590-010-200; entitled Data Installation and Connection Information.

1.04 For optimum appearance and utility, locate the data apparatus on a desk, table, stand, wall, or in a Bell System provided equipment cabinet. When required, or upon customer request, the adhesive pad shipped with the data set can be used to mount the data set. In addition, the data set may also be mounted by attaching the basepan to a suitable vertical surface using two No. 6 pan head tapping screws (comcode 841065717), shipped with the data set.

1.05 The DS 108H and J will operate over a temperature range of 40°F to 120°F with relative humidity of 20 to 95 percent (applies only if condensation does not accumulate on the circuit pack).

1.06 The data set should be located near the associated terminal equipment [either customer-provided equipment (CPE) or Bell System teletypewriter (TTY)].

2. OPTIONS

2.01 The DS 108H and J are provided with a number of options which are installed prior to placing the data set in service. All options are installed or removed with the switch (S1) shown in Fig. 2. Each option and associated switch setting is listed in Table A. Similar information is contained on the option label located inside the cover of the data set housing (Fig. 3). Additional option labels may be obtained by ordering Form E-10065.

2.02 The installer should verify that the options specified on the service order are installed.

2.03 ***Mark or Space Hold (Options U or V):*** On loss of carrier frequency this choice of options determines whether the receive current loop is held at a steady marking or spacing current.

2.04 ***Local Copy in Digital Loopback Test Mode:***

- ***Yes (Option G):*** Used when the data interchange code of the terminal equipment and of the testboard is the same, and when no restrictions exist on the use of the paper in the terminal equipment.
- ***No (Option F):*** Used when the terminal equipment uses a data interchange code different from the code used by the testboard, or when the terminal equipment uses special paper (such as numbered forms or airline ticket blanks).

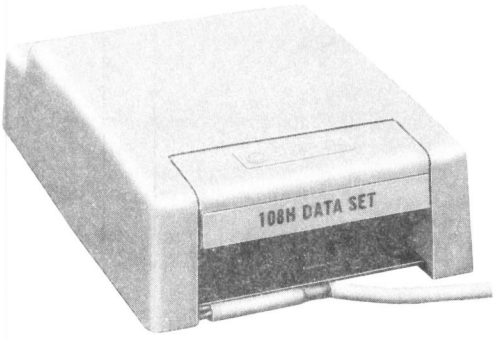


Fig. 1—Data Set 108H (Similar to Data Set 108J)

2.05 *20 mA Current Loop Interface Options:* The desired option is chosen to be compatible with the terminal equipment and to suit the customer's needs, refer to discussion of local copy options in paragraph 2.04:

- *2-Wire (Option X)*
- *3- or 4-Wire With Local Copy (Option Z)*
- *3- or 4-Wire Without Local Copy (Option Y).*

3. INSTALLATION

3.01 Prior to installing DS 108H or J ensure that:

- The correct private line data set is used. Refer to Table B for compatibility.
- The desired options are installed.

3.02 The data set requires a power source that provides 105 to 129 volts at 57 to 63 Hz. The customer must supply an outlet that will accept the 3-prong plug on the KS-21239-L4 or -L5 transformer provided with the data set.

> ***Caution: If the outlet has a metal cover, do not remove the center screw to mount the transformer. When this screw is removed, it is possible for the metal cover to fall across the prongs of the transformer.***

3.03 The data set must be connected to the KS-21239-L4 or -L5 transformer and telephone line using locally furnished wire. A D6AB mounting cord (modified) is recommended (Fig. 4).

A. DS 108H or J Transmit Level Setting

3.04 The DS 108H or J transmit level may be set for the output level specified in the CLRC according to Table C.

4. CONNECTIONS

4.01 Connect DS 108H or J to terminal equipment, telephone line, and KS-21239-L4 or -L5 transformer as shown in Fig. 5.

5. REFERENCES

5.01 The following Bell System Practices provide additional information on DS 108H and J:

SECTION	TITLE
591-043-100	Data Sets 108H and 108J— Description
591-043-500	Data Sets 108H and 108J—Test Procedures

5.02 The following schematic drawings (SDs) and circuit descriptions (CDs) contain information on DS 108H and J:

NUMBER	TITLE
SD- & CD-1D287-01	Data Set 108H
SD- & CD-1D284-01	Data Set 108J

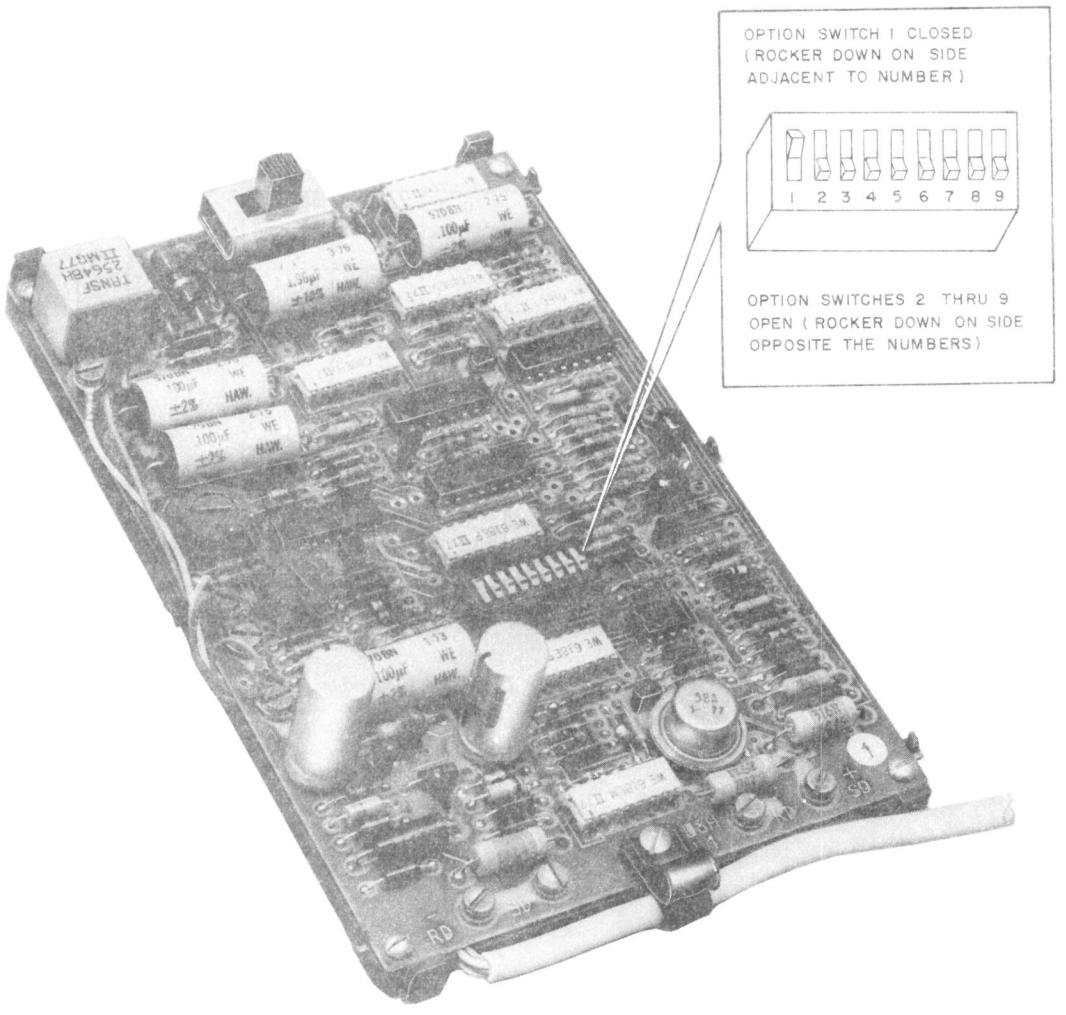


Fig. 2—Circuit Pack of DS 108H Showing Detail of Option Switch S1 (Similar to DS 108J)

TABLE A
DATA SET 108H OR J OPTIONS

FEATURE		OPTION	SWITCH SETTING S1 SWITCH ON CP1		USOC DECSN
			OPEN	CLOSED	
Mark or Space Hold	Mark	U*	--	3	B3
	Space	V	3	–	B4
Local Copy in Digital Loopback Test Mode	Yes	G	–	2	C5
	No	F*	2	–	C6
20 mA Current Loop Interface	2-Wire	X	1,4	5	F11
	3- or 4-Wire With Local Copy	Z*	5	1,4	F12
	3- or 4-Wire Without Local Copy	Y	4,5	1	

* Factory furnished option.

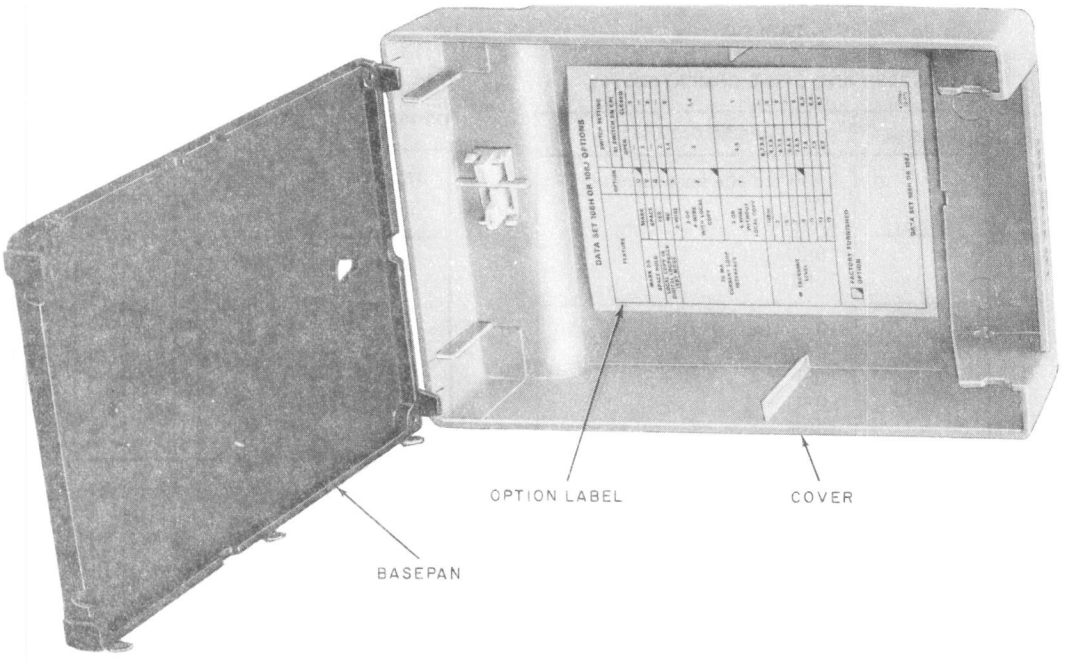


Fig. 3—DS 108H or J Housing With Option Label Installed

TABLE B

DS 108H AND J LINE COMPATIBILITY

DATA SET	FAR-END DATA SET
108H	103F (In the answer mode) 108A 108E 108G 108J
108J	103F (In the originate mode) 108B 108C 108D 108F 108H

TABLE C

DS 108H OR J TRANSMIT LEVEL SETTING

TRANSMIT LEVEL (In dBm)	SWITCH SETTING (S1-)	
	OPEN	CLOSED
−1	6, 7, 8, 9	—
−3	6, 7, 8	9
−5	6, 7, 9	8
−7	6, 8, 9	7
−9*	7, 8, 9	6
−11	7, 8	6,9
−13	7, 9	6,8
−15	8, 9	6,7

* Factory furnished.

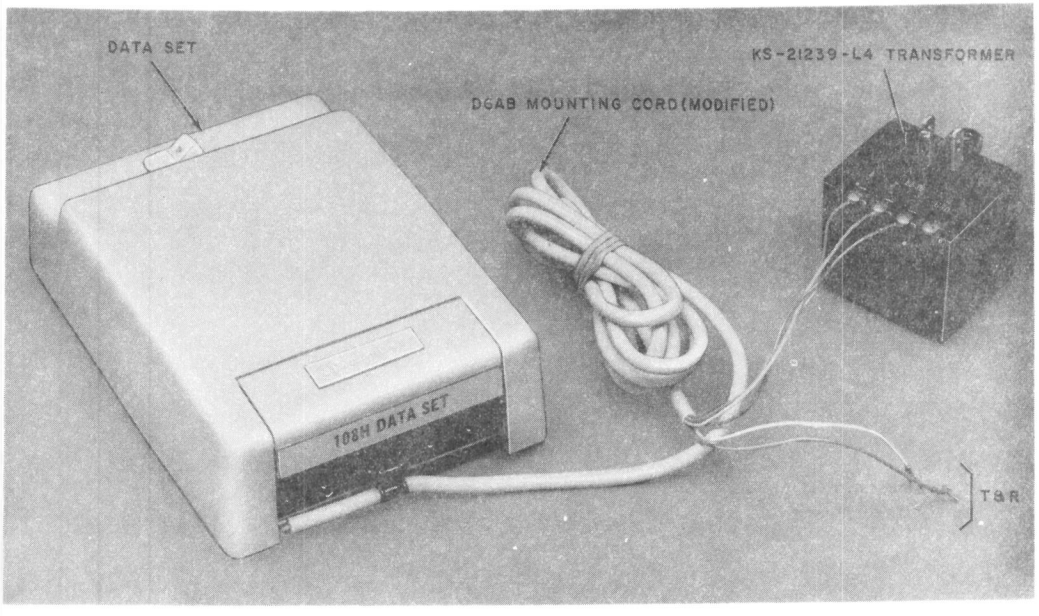
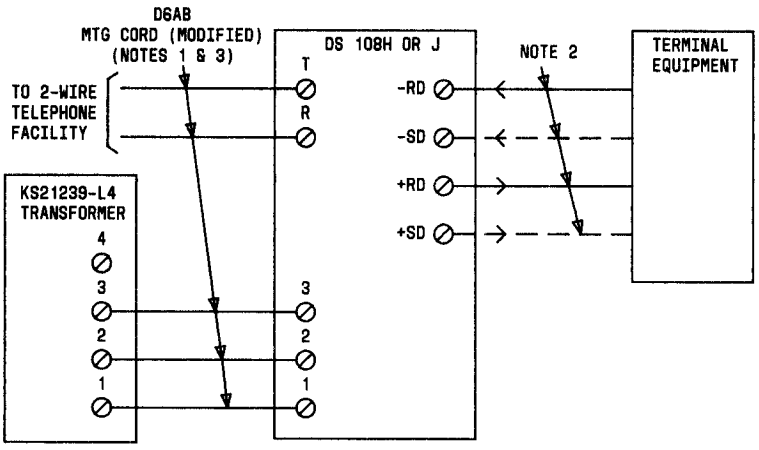


Fig. 4—DS 108H Shown Connected to KS-21239-L4 or -L5 Transformer



NOTES:

1. D6AB CORD (MODIFIED) IS RECOMMENDED. TO MODIFY, REMOVE STAY AND LENGTHEN LEADS TO 7.5 INCHES ON DATA SET END. IF LONGER LEADS ARE REQUIRED AT THE TRANSFORMER END (5 INCHES AT PRESENT), REMOVE STAY AND LENGTHEN LEADS BY REMOVING CORD SLEEVING.
2. CONNECT AS FOLLOWS:

TERMINATION	SEND LEAD (SD)	RECEIVE LEAD (RD)
2-WIRE CIRCUIT	+RD	-RD (COMMON)
3-WIRE CIRCUIT	+SD	+RD
	COMMON TO -RD	
4-WIRE CIRCUIT	+SD -SD	+RD -RD

3. INSIDE STATION WIRE MAY BE USED.

Fig. 5—DS 108H or J Connection Diagram