

DATA SET 401A

TRANSMITTER

MAINTENANCE

1. GENERAL

- 1.01** No routine maintenance of the data set is required.
- 1.02** This section is reissued to modify Fig. 2 and change the title from Data Set 401A List 2 Telephone Circuit to Data Set J1D401A List 2 Telephone Circuit, to include Fig. 3 which is the latest configuration of Data Set 401A1, and to update the nomenclature for the various Data Sets 401A-type. Since this reissue constitutes a general revision, arrows ordinarily used to indicate changes have been omitted.
- 1.03** For complete circuit information, refer to CD- and SD-1D001-01 for Data Set J1D401A L1, and to CD- and SD-1D016-01 for Data Set J1D401A L2 and Data Set 401A1 Series 2 and 3.
- 1.04** For information concerning maintenance of the telephone circuit, refer to practices covering maintenance of the 500-type telephone sets for Data Set J1D401A L1, and the 700-type telephone sets for Data Set J1D401A L2 and Data Set 401A1 Series 2 and 3. Figures 1, 2, and 3 show all of these telephone circuits.
- 1.05** When trouble is suspected in Data Set 401A-type, refer to the section entitled Data Set 401A, Transmitter, Test Procedures (594-010-500).
- 1.06** If the data set tests satisfactorily, proceed as follows:
- (a) Check for defects in the mounting cord, if provided.
 - (b) Check for intermittent trouble in the inside wiring, drop wire, protector, etc.
 - (c) Confirm that the customer's equipment has been checked.

- (d) Refer to the data test center for further analysis.

2. COVER REMOVAL AND REPLACEMENT

Data Set J1D401A L1

- 2.01** Loosen, but do not remove, the four screws around the lower edge of the data set, and carefully lift the cover from the data set. Figure 4 illustrates the data set with the cover removed and identifies the mounting cords, data transmitter, and data key.

- 2.02** To replace the cover, carefully place it in the mounting position, and secure it with four mounting screws.

Data Set J1D401A L2 and Data Set 401A1 Series 2 and 3

- 2.03** These sets are contained within a 2-part cover (front and rear). Remove the rear cover first; then remove the front cover.

- (a) To remove the rear cover, loosen, but do not remove, the four cover screws (Fig. 5), and carefully lift the rear cover from the data set.

- (b) To remove the front cover, loosen the screws and retaining plates at the lower front of the data set (Fig. 6), then carefully remove the cover.

- (c) When replacing the covers, replace the front cover first. Care must be taken to avoid damaging the data key contact springs (Fig. 6).

- (1) Position the front and side retaining plates parallel to the base pan (Fig. 6).

- (2) Hold the front cover, position the front-slotted cover brackets in the space between the

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base pan and the front cover retaining plates, and tighten the front and side cover screws (Fig. 5).

(3) Place the rear cover in position and secure with the two rear screws.

2.04 If the data key contact springs are accidentally bent, adjust them in accordance with the requirements in either Fig. 7 for Data Set J1D401A L2, or Fig. 8 for Data Set 401A1 Series 2 and 3.

2.05 To improve reliability, all Data Sets J1D401A L2 and Data Sets 401A1 Series 2 and 3 should contain the connections illustrated in Table A.

If it is determined during maintenance that the connections have not been incorporated, install them at this time.

TABLE A

LEAD DESIGNATION	LOCATION	FROM	TO
DT	Term. strip	2	8
O-W	Switch assembly	8	2
W-G	Mounting cord	8	*

* Tape and store.

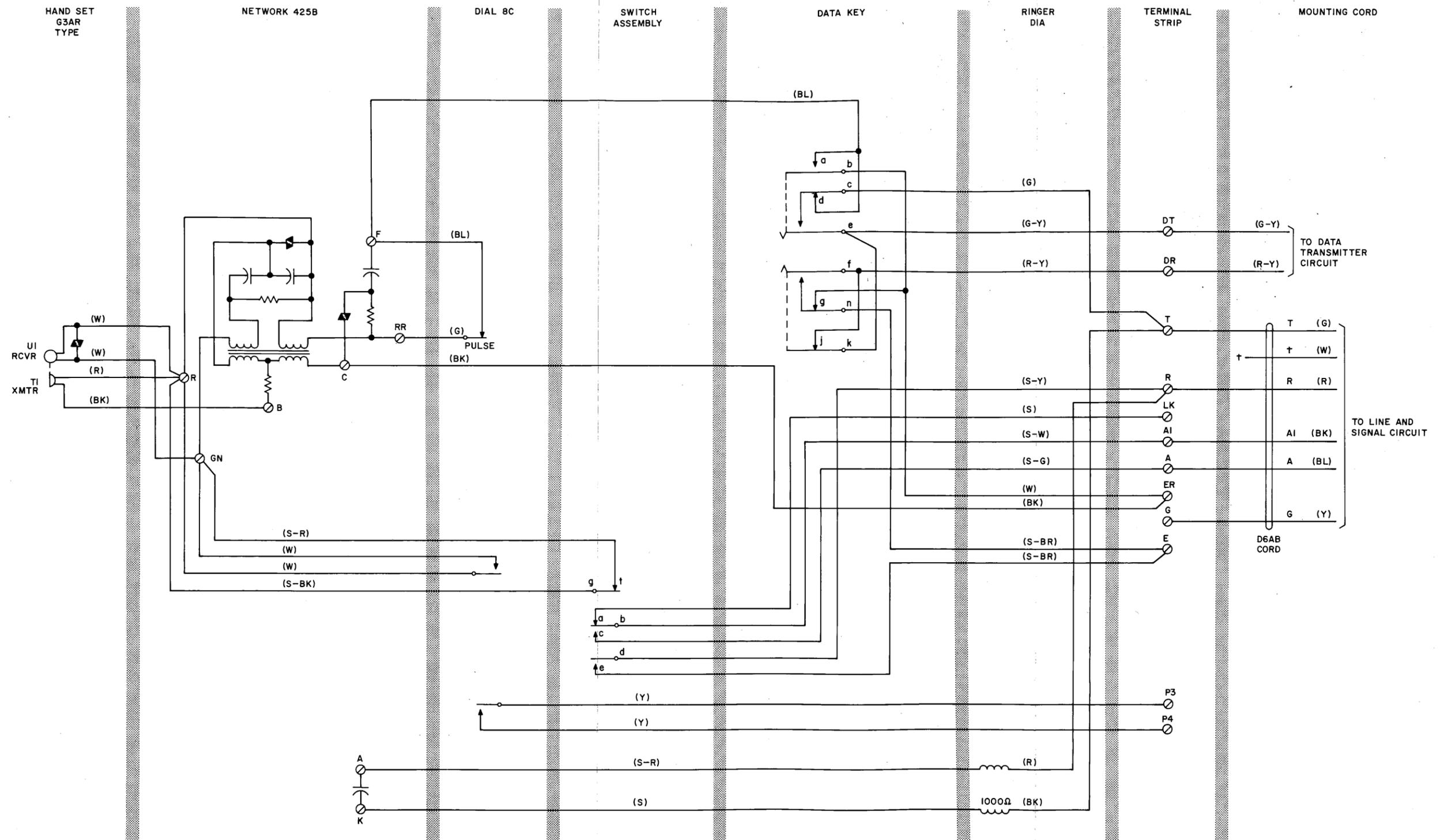


Fig. 1—Data Set J1D401A List 1 Telephone Circuit

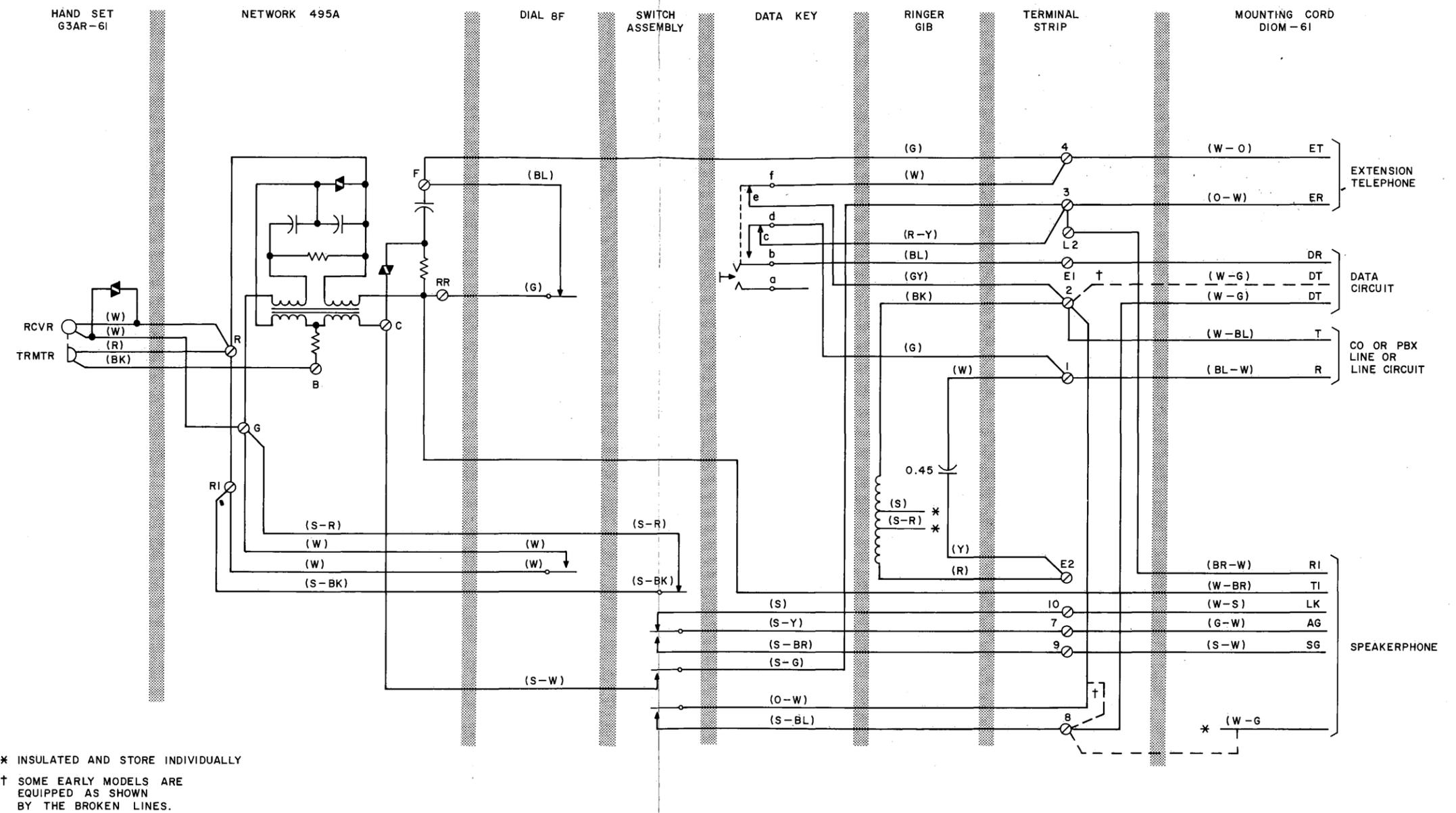
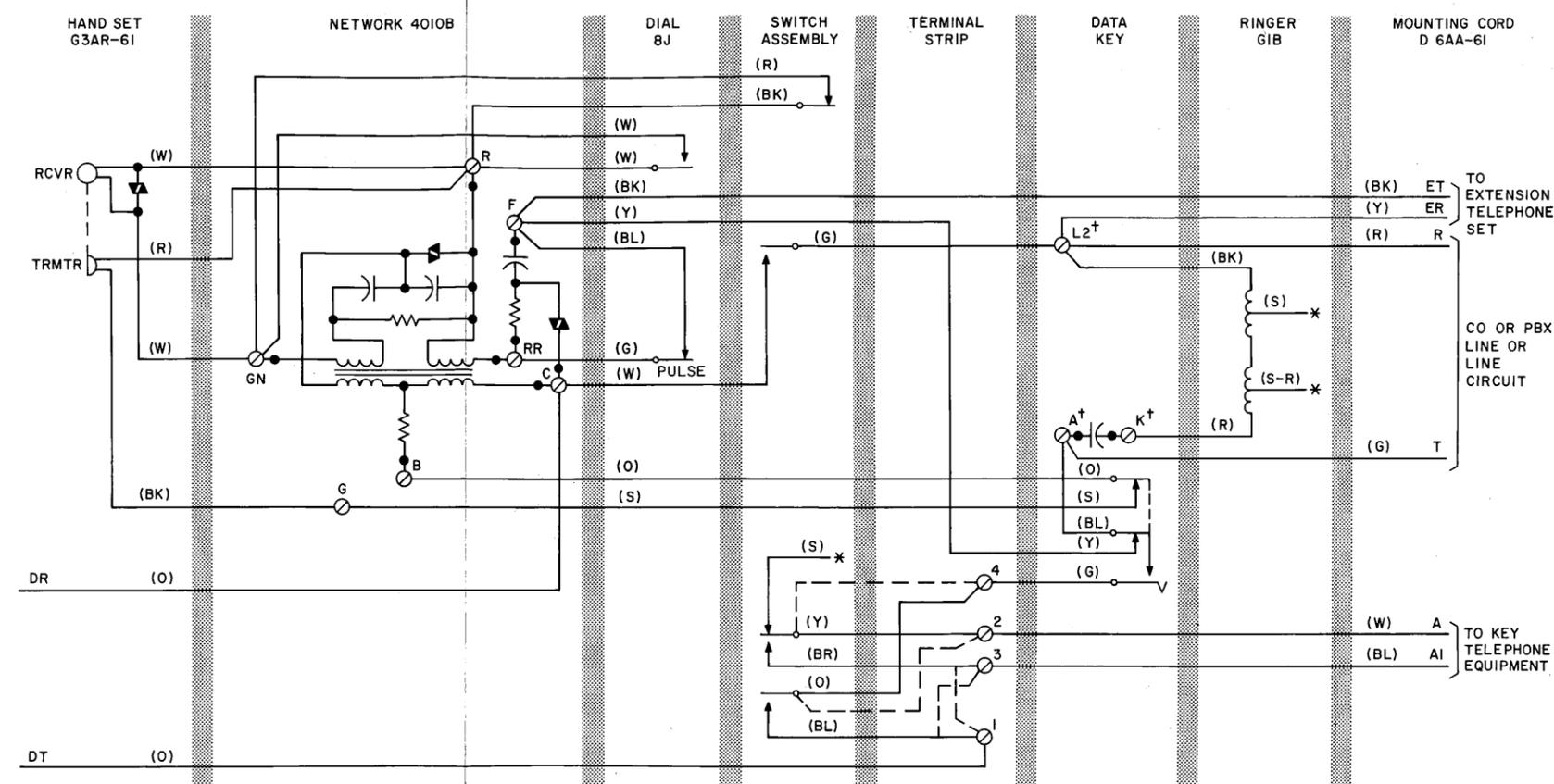


Fig. 2—Data Set J1D401A List 2 Telephone Circuit



* INSULATE AND STORE
 † TERMINALS ON 401OB NETWORK
 NOTE:
 SOME EARLY MODELS ARE EQUIPPED AS
 SHOWN BY BROKEN LINES.

Fig. 3—Data Set 401A1 Series 2 and 3 Telephone Circuit

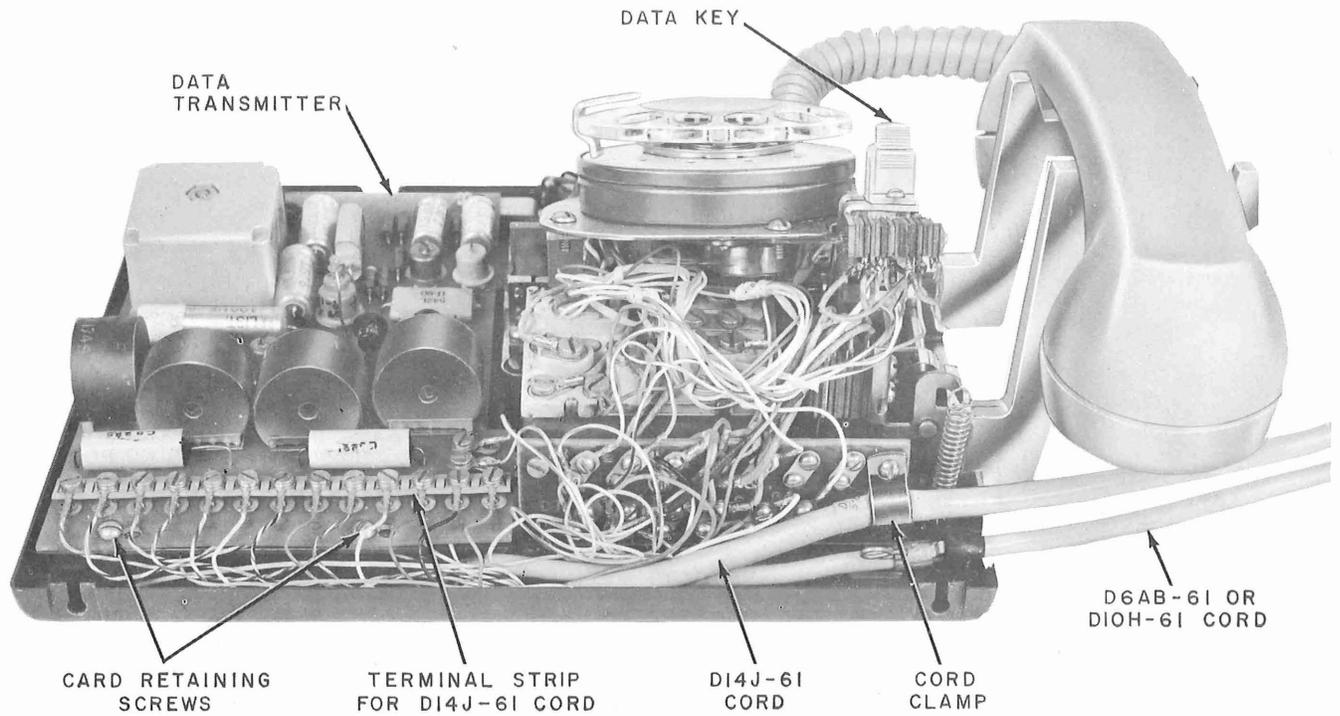


Fig. 4—Data Set J1D401A L1, Interior View

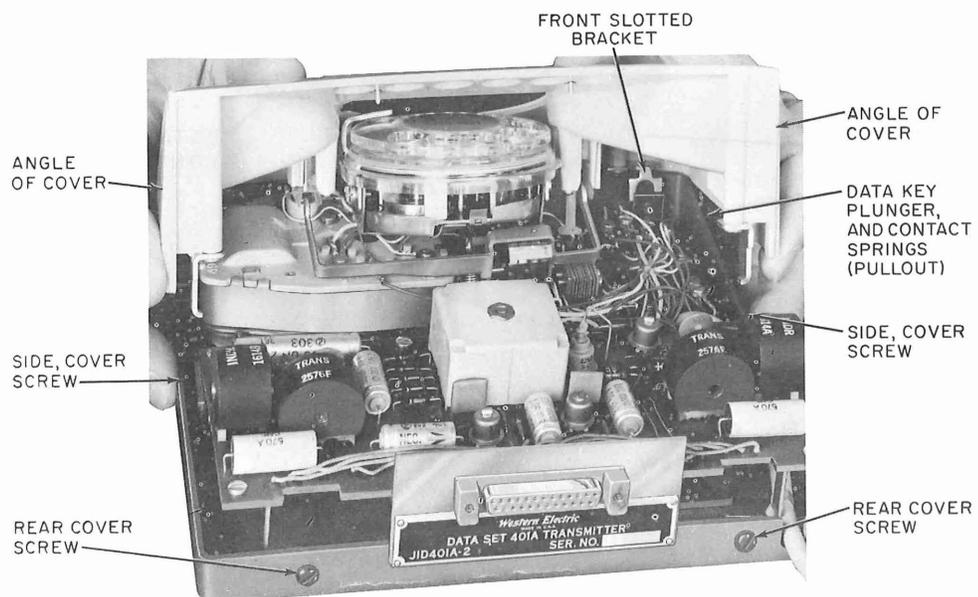


Fig. 5—Data Set J1D401A L2 and Data Set 401A1 Series 2 and 3—Angle of Case Replacement

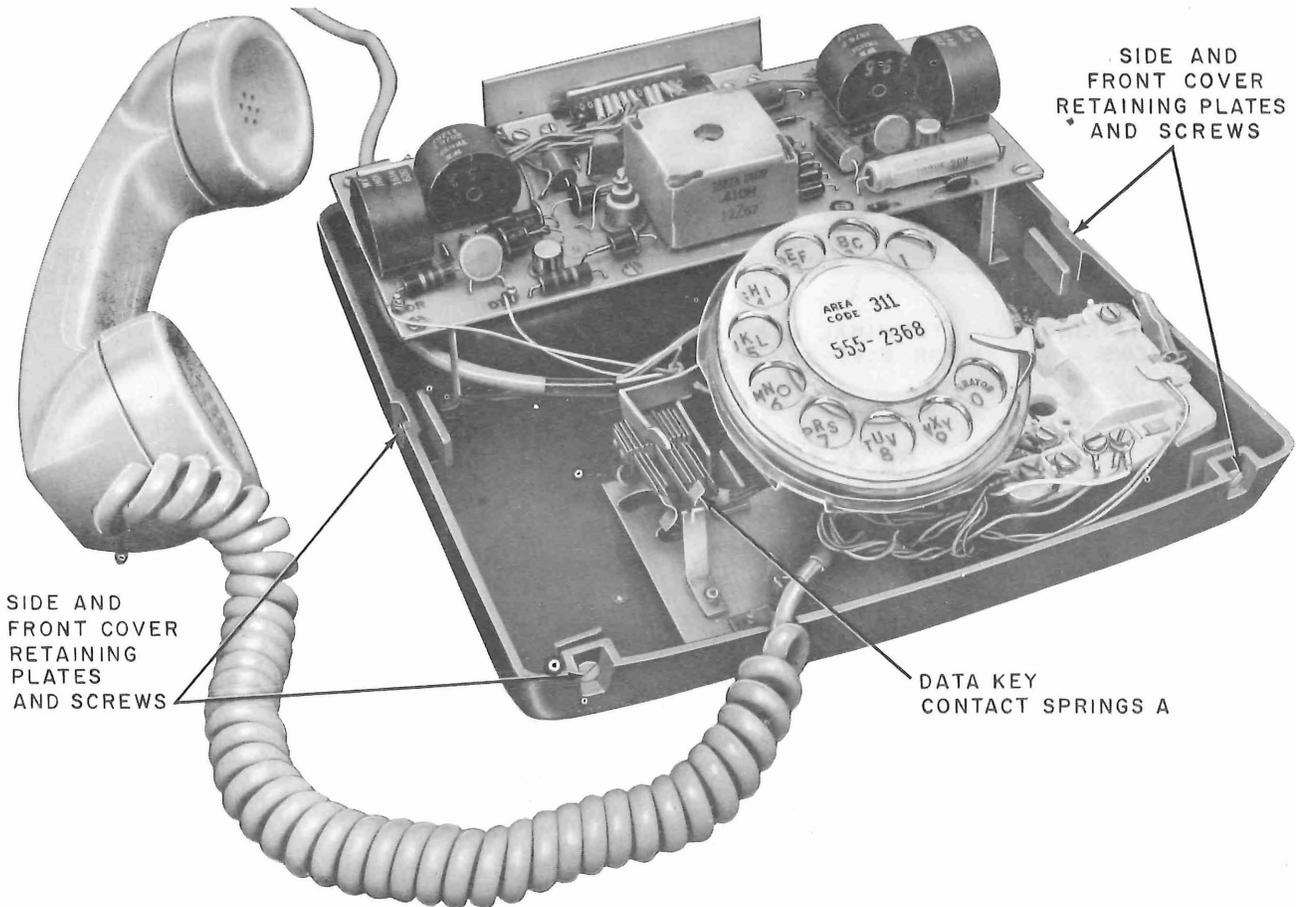
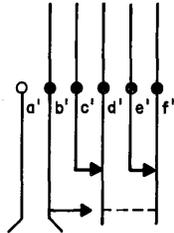


Fig. 6—Data Set 401A1 Series 2 and 3—Interior View



SCHEMATIC

REQUIREMENTS:

1. THE CONTACT OF THE SPRINGS SHALL HAVE PERCEPTIBLE FOLLOW.
2. CONTACT SEQUENCE SHALL BE AS FOLLOWS:
 - (a) WHEN SPREADING SPRING TO $\frac{7}{16}$ INCH, b' d' SHOULD MAKE BEFORE c' d' AND e' f' BREAK.
 - (b) WHEN RELEASING SPRING TO $\frac{17}{32}$ INCH, c' d' AND e' f' SHOULD MAKE BEFORE b' d' BREAK.

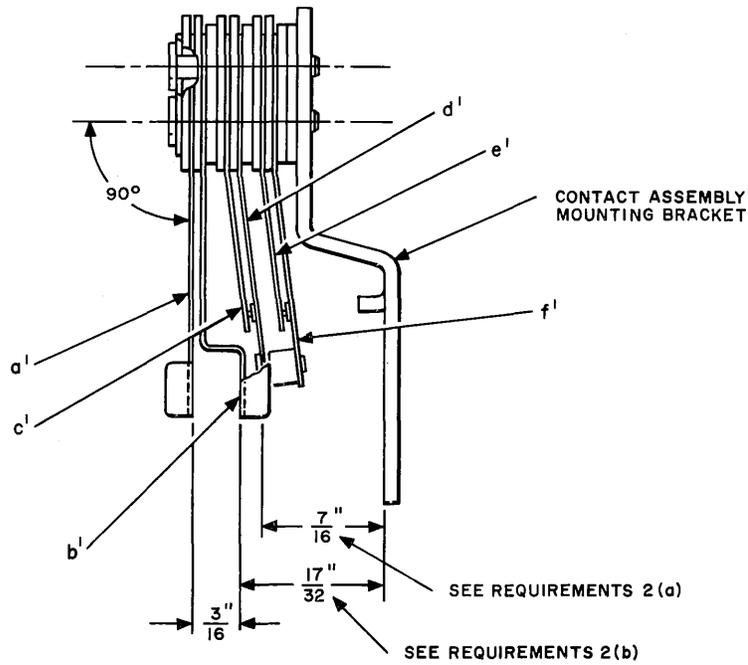


Fig. 7—Data Set J1D401A L2 Data Key Contact Adjustment

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1. WITH SPRINGS (D) IN NORMAL CONDITION (AS SHOWN):
 - A. THE PRESSURE BETWEEN EACH PAIR OF CONTACTS ON SPRINGS EF, AND GH SHALL NOT BE LESS THAN 15 GRAMS NOR MORE THAN 50 GRAMS MEASURED AS NEAR TO THE LINE OF CONTACT AS PRACTICABLE.
 - B. THERE SHALL BE A SEPARATION BETWEEN THE CONTACTS ON SPRINGS OF NOT LESS THAN 0.015 INCH.
2. WHEN THE ENDS OF THE SPRINGS, D ARE SPREAD TO 0.297 INCH.
 - A. THE PRESSURE BETWEEN THE CONTACTS ON SPRINGS DF SHALL NOT BE LESS THAN 15 GRAMS MEASURED AS NEAR TO THE LINE OF CONTACT AS PRACTICABLE.
 - B. THERE SHALL BE A SEPARATION BETWEEN THE CONTACTS ON SPRINGS EF AND GH OF NOT LESS THAN 0.015 INCH.
3. WITH SPRINGS B IN NORMAL CONDITION (AS SHOWN):
 - A. THE PRESSURE BETWEEN CONTACTS ON SPRINGS BC SHALL NOT BE LESS THAN 50 GRAMS MEASURED AS NEAR TO THE LINE OF CONTACT AS PRACTICABLE.
 - B. THERE SHALL BE A SEPARATION BETWEEN THE CONTACTS ON SPRINGS AB OF NOT LESS THAN 0.015 INCH.

REQUIREMENTS:

4. WHEN THE END OF SPRING, B IS SPREAD TO 0.603 INCH.
 - A. THE PRESSURE BETWEEN CONTACTS ON SPRINGS SHALL NOT BE LESS THAN 15 GRAMS MEASURED AS NEAR TO THE LINE OF CONTACT AS PRACTICABLE.
 - B. THERE SHALL BE A SEPARATION BETWEEN THE CONTACTS ON SPRINGS BC OF NOT LESS THAN 0.015 INCH.
5. THE INSULATION BETWEEN ALL METAL PARTS SHALL BE CAPABLE OF WITHSTANDING A 500 VOLT A.C. BREAKDOWN TEST PER SPECIFICATION X-38, SUPPLEMENT C.
6. THE DISTANCE BETWEEN SPRINGS DESIGNED NEVER TO MAKE CONTACT AND BETWEEN THE BRACKET AND A SPRING SHALL NOT BE LESS THAN 0.016 INCH.
7. CONTACT SEQUENCE SHALL BE AS FOLLOWS:
 - A. WHEN SPREADING SPRING, ITEM D, TO 0.297 INCH CONTACTS DF MAKE BEFORE BF AND GH BREAKS.
 - B. WHEN RELEASING SPRING, ITEM D TO NORMAL CONDITION CONTACTS EF AND GH MAKE BEFORE DF BREAKS.
 - C. WHEN SPREADING SPRINGS ITEM B, TO 0.603 INCH CONTACTS BC BREAK BEFORE AB MAKE.
 - D. WHEN RELEASING SPRING, ITEM B, TO NORMAL CONDITION CONTACTS AB BREAK BEFORE BC MAKE.

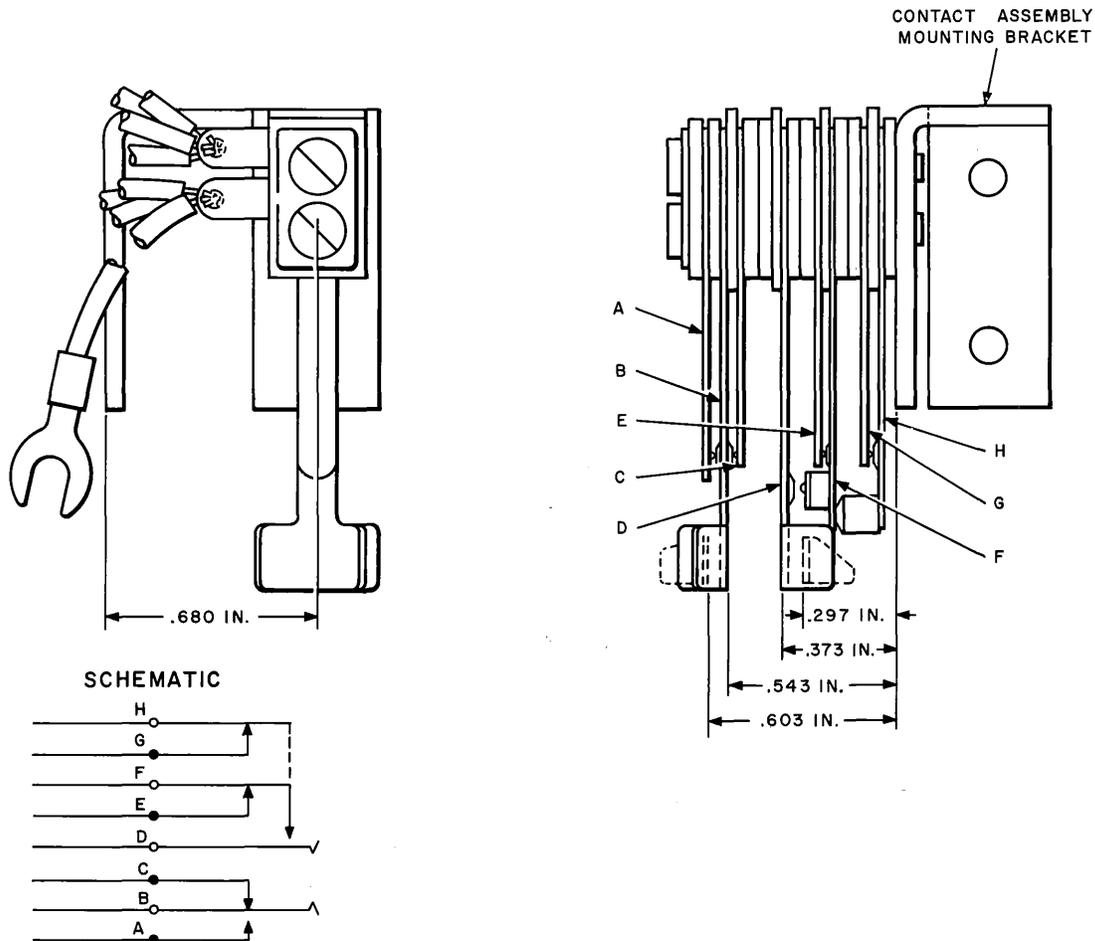


Fig. 8—Data Set 401A1 Series 2 and 3 Data Key Contact Adjustment