

## TELEPHONE SETS

### 930A, 930B, 2930A, 2930B AND 2931B

#### 1. GENERAL

1.01 This section provides identification, installation, and connection information for the 930A (MD) (Fig. 1), 2930A (MD) (Fig. 2) (*Elite I*); 930B, 2930B (Fig. 3) (*Elite II*); and 2931B (Fig. 4 and 5) (*Commerative*) DESIGN LINE\* telephone sets.

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1.02 This section is reissued to:

- Add information on the 930B, 2930B, and 2931B (modular) telephone sets
- Show the 930A and 2930A telephone sets MD.

**Warning:** Telephone apparatus or wiring shall not be installed in a location where minimum separation from other wiring as specified in Section 460-300-149 cannot be maintained.



Fig. 1—930A or B DESIGN LINE Telephone Set



Fig. 2—2930A DESIGN LINE Telephone Set

1.03 The customer's premises must be properly wired with an appropriate connecting block or jack in order to accept the D4BU-29 plug-ended mounting cord or 225A adapter furnished with each telephone set.

#### 2. IDENTIFICATION

2.01 The 930B (rotary dial), 2930B, and 2931B (TOUCH-TONE® dial) equipped telephone sets are new DESIGN LINE telephone sets being made available to the customer. The customer buys the housing and handset from the telephone company and the telephone company retains ownership of the transmission and signaling components.

*Ordering Guide (Refer to Table A)*

2.02 **Basic Telephone Set Ordering Information:**

Example: Set, Telephone, 930B30-105† is a dark green set with gold trim and is equipped

#### NOTICE

Not for use or disclosure outside the Bell System except under written agreement



Fig. 3—2930B DESIGN LINE Telephone Set



Fig. 4—2931B33 DESIGN LINE Telephone Set



Fig. 5—2931B35 DESIGN LINE Telephone Set

with a rotary dial and a green simulated leather vinyl applique.

† Refer to Table A for available color and applique information.

**2.03** These telephone sets are intended to be used as single line or two-party desk sets and are not recommended for use on four- and eight-party service.

**2.04** *Optional Component (order separately):*

- D-180503 Guard Assembly (polarity guard for A coded sets)
- 819040122 (P-90D012) Guard Assembly (polarity guard for B coded sets)

### 3. INSTALLATION AND CONNECTIONS

**3.01** These telephone sets are furnished from the factory fully assembled and wired for bridged ringing. The P1A ringer is shipped from the factory with the bias spring in the low bias position. To connect the telephone set, plug the mounting cord into a 625A jack or if the existing jack is a 548A or equivalent, use the 225A adapter furnished with each set.

**3.02** The internal connections for the 930-type, 2930-type, and 2931B telephone sets, for monkey system use, are shown in Fig. 14 and 15, respectively.

**3.03** Connections for 1A KTS do not require any set modifications are the same as Fig. 14 and 15.

**3.04** Connections for use with 1A1 or 1A2 KTS are shown in Fig. 16 for 930-type telephone set and Fig. 17 for 2930-type or 2931B telephone set. Table D includes necessary wiring modifications required for 1A1 and 1A2 key telephone system use.

**3.05** To gain access to the interior of these telephone sets for wiring changes, refer to appropriate paragraph in Part 4.

**3.06** The D-180503 polarity guard is used in the 2930A telephone set and the 819040122 (P-90D012) polarity guard is used in the 2930B and 2931B telephone sets. Refer to Table E for

◆ TABLE A ◆

## ORDERING GUIDE

TEL SET CODE	PLASTIC COLOR	APPLIQUE	TRIM COLOR	DIAL INSERT COLOR	DIAL	HANDSET CORD	MTG CORD
930B30-105	Dark Green	Green Vinyl	Gold	Gold	8HA-120 or 8HT-120	H4DU-105	D4BU-29
2930B30-105				None	35AH3D		
930B31-58	White	White Vinyl	Chrome	Chrome	8HA-119 or 8HT-119	H4DU-58	
2930B31-58				None	35AH3D		
2931B33-03	Black	Commemorative Medallion		None	35AW3D	H4DU-03	
2931B35-03		Commemorative Non-Medallion					
930A30-105*	Dark Green	Green Leather	Gold	Gold	8HA-120 or 8HT-120	H4DU-105	
2930A30-105*				None	35Y3D		
930A31-58*	White	Pigskin Leather	Chrome	Chrome	8HA-119 or 8HT-119	H4DU-58	
2930A31-58*				None	35Y3D		

\* MD

connections when installing the polarity guard according to local administrative practices or procedures for end-to-end signaling purposes where battery and ground reversals are encountered.◆

**3.07** To install the D-180503 polarity guard, proceed as follows:

(1) Assemble the 840361901 bracket to the 819040122 (P-90D012) guard assembly using 814450933 (P-44E095) screw.

(2) Fasten bracket to telephone set baseplate at threaded screw hole located directly in front of the right hand dial mounting bracket using No. 6 screw, furnished.

**Note:** Fork on 840361901 bracket straddles tab on telephone set baseplate at the left side of the mounting hole. Printed wiring board extends over ringer gong when assembly is completed.

**3.08** To install the 819040122 (P-90D012) guard assembly proceed as follows:

(1) Assemble the guard assembly to the telephone set base using the 814450953 (P-44E095) screw.

**Note:** Two posts located under the dial near the front of the lower housing support the printed wiring board.

**3.09 Line and Ringer Connections:**

- (1) For single line and two-party service, refer to Tables B and C.
- (2) For adjustments and ringer cutoff feature of the P1A ringer, refer to Section 501-259-101.

**4. REMOVAL OF TELEPHONE COMPANY-OWNED COMPONENTS**

**4.01** When it is desired to discontinue telephone service of the 930-type, 2930-type, and 2931B DESIGN LINE telephone sets, remove the telephone company-owned components that can be easily removed. Refer to Fig. 8 and 9 for identification of company-owned components and proceed as follows:

**(a) 930A and 2930A Sets:**

- (1) Remove handset and mounting cords from the bottom of the telephone set.
- (2) Remove the four bottom plate and lower housing mounting screws (Fig. 10).

**Caution:** *Bottom plate and lower housing are now loose and care should be taken not to drop them.*

- (3) Remove bottom plate and lower housing.
- (4) Remove handset cord jack and mounting cord jack from brackets by lifting off (Fig. 11).
- (5) Remove four upper housing mounting screws (Fig. 11) which secure upper housing and remove upper housing.
- (6) Turn handset mounting plate and telephone set base over and remove hair pin clip and connecting pin from switchhook linkage.
- (7) Remove four telephone set base mounting screws (Fig. 11) and remove base.
- (8) Reassemble upper housing to handset mounting plate (Fig. 11).
- (9) Reassemble lower housing and bottom plate to handset mounting plate (Fig. 10).

◆ TABLE B ◆

**LINE AND RINGER CONNECTIONS  
(930A AND 930B TELEPHONE SETS)†**

WIRE OR LEAD	COLOR	INDIVID. OR BRIDGED	RING PARTY	TIP PARTY		
				NO IDENT GROUND	IDENT GROUND	
					1000Ω	2650Ω
Inside Wire at Jack	R	R	R	R	R	R
	G	G	G	G	G	G
	Y	Y	Y	Y	Y	Y
	BK	B	B	B	B	B
623P4 Line Cord Jack Assy	R	A	A	L1	F	F
	G	L1	L1	A	L2	L2
	Y	G	G	G	G	G
	BK	L2	L2	L2	*	*
Ringer	R	K	K	K	K	K
	S-R	*	*	*	*	L1
	S	*	*	*	L1	*
	BK	L1	G	G	G	G
Line Switch	Y	A	A	A	L2	L2
	W	F	F	F	B	B

\*Insulate and store.

†For access to set wiring follow applicable steps in Part 4.

◆ TABLE C ◆

LINE AND RINGER CONNECTIONS  
(2930A, 2930B, AND 2931B TELEPHONE SETS)†

WIRE OR LEAD	COLOR	INDIVID. OR BRIDGED	RING PARTY	TIP PARTY		
				NO IDENT GROUND	IDENT GROUND	
					1000Ω	2650Ω
Inside Wire at Jack	R	R	R	R	R	R
	G	G	G	G	G	G
	Y	Y	Y	Y	Y	Y
	BK	B	B	B	B	B
623P4 Line Cord Jack Assy	R	A	A	L1	C	C
	G	L1	L1	A	S	S
	Y	G	G	G	G	G
	BK	S	S	S	*	*
Ringer	R	K	K	K	K	K
	S-R	*	*	*	*	L1
	S	*	*	*	L1	*
	BK	L1	G	G	G	G
Line Switch	Y	A	A	A	S	S
	W	F	F	C	B	B
	BR	C	C	F	F	F

\*Insulate and store.

†For access to set wiring follow applicable steps in Part 4.

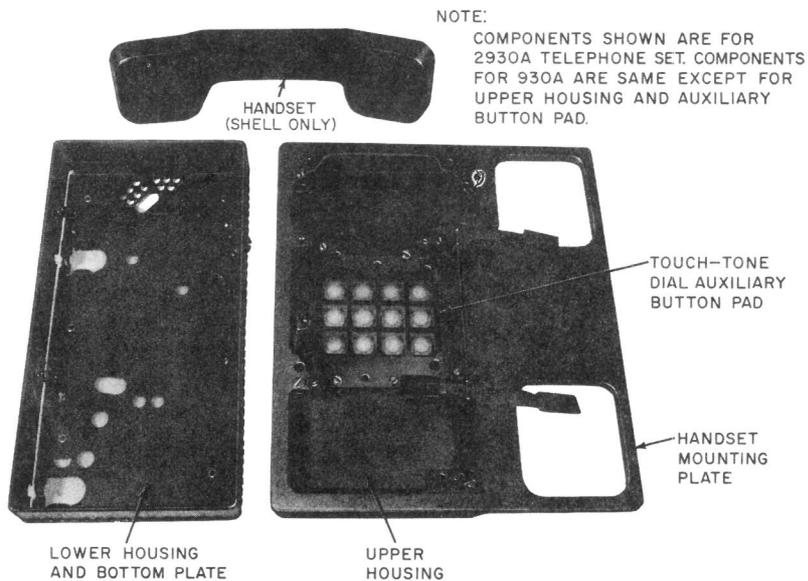


Fig. 6 — Customer-Owned Components of A Code Sets

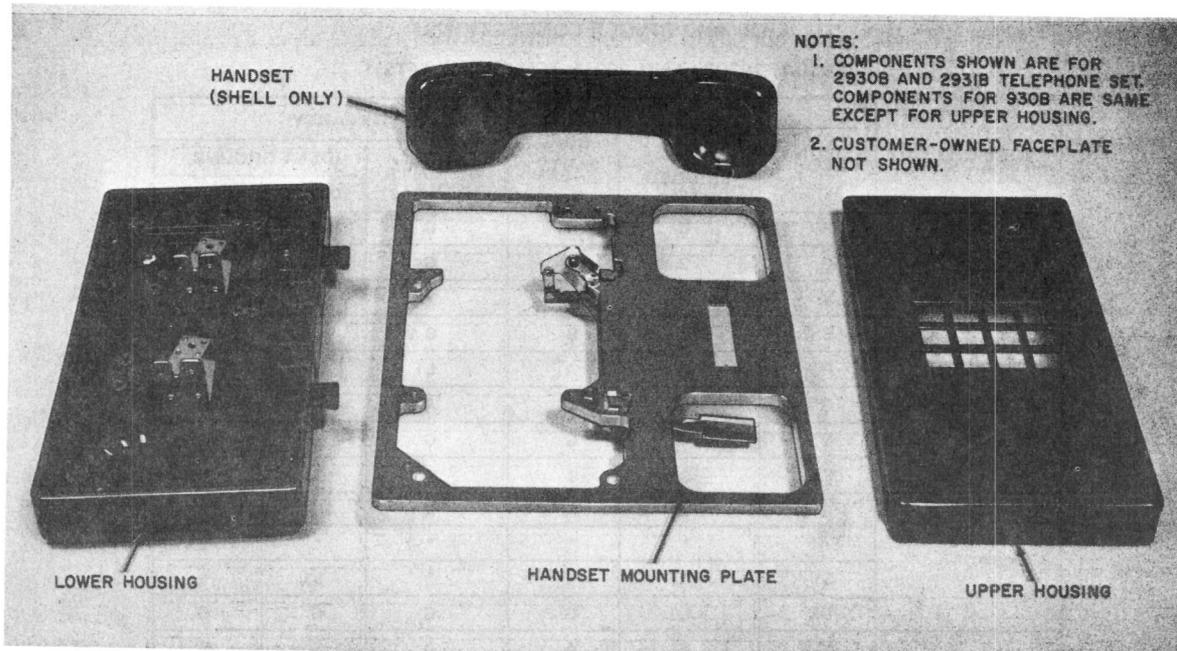


Fig. 7—Customer-Owned Components of B Code Sets

(b) *930B, 2930B, and 2931B Sets:*

- (1) Remove handset and mounting cords from the back of the telephone set.
- (2) Remove the four lower housing mounting screws (Fig. 12).

**Caution:** *Upper housing and handset mounting plate are now loose and care should be taken not to drop them.*

- (3) Remove upper housing and handset mounting plate (Fig. 7).
- (4) Remove handset cord jack and mounting cord jack by lifting out (Fig. 13).

- (5) Remove screws holding company-owned components to base and remove components.
- (6) Reassemble handset mounting plate and upper housing on lower housing.

**4.02** Follow local procedures for returning telephone company-owned components.

**4.03** When it is desired to return a set to Western Electric for repair, it should be packed using the D-180600 Kit of Parts which contains packing materials and instructions.

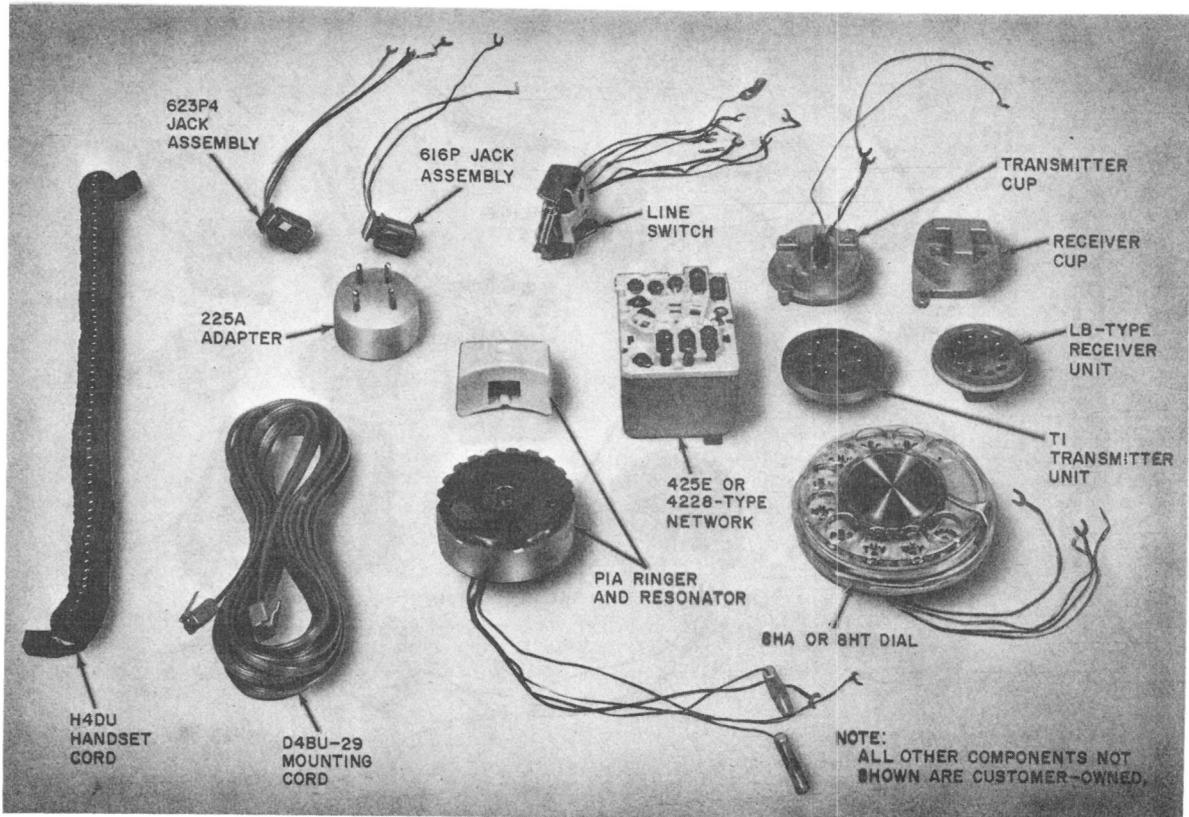


Fig. 8—Telephone Company-Owned Components (Set Equipped with a Rotary Dial)

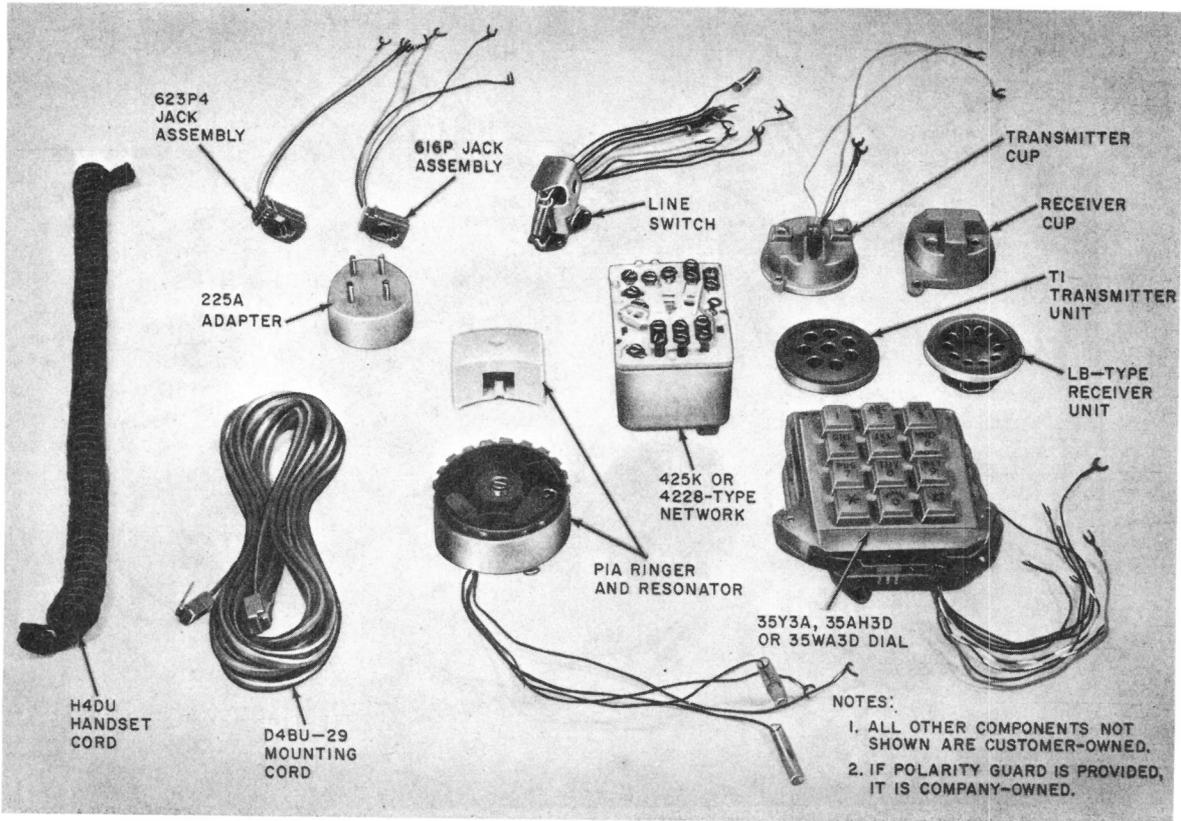


Fig. 9—Telephone Company-Owned Components (Set Equipped with a TOUCH-TONE Dial)

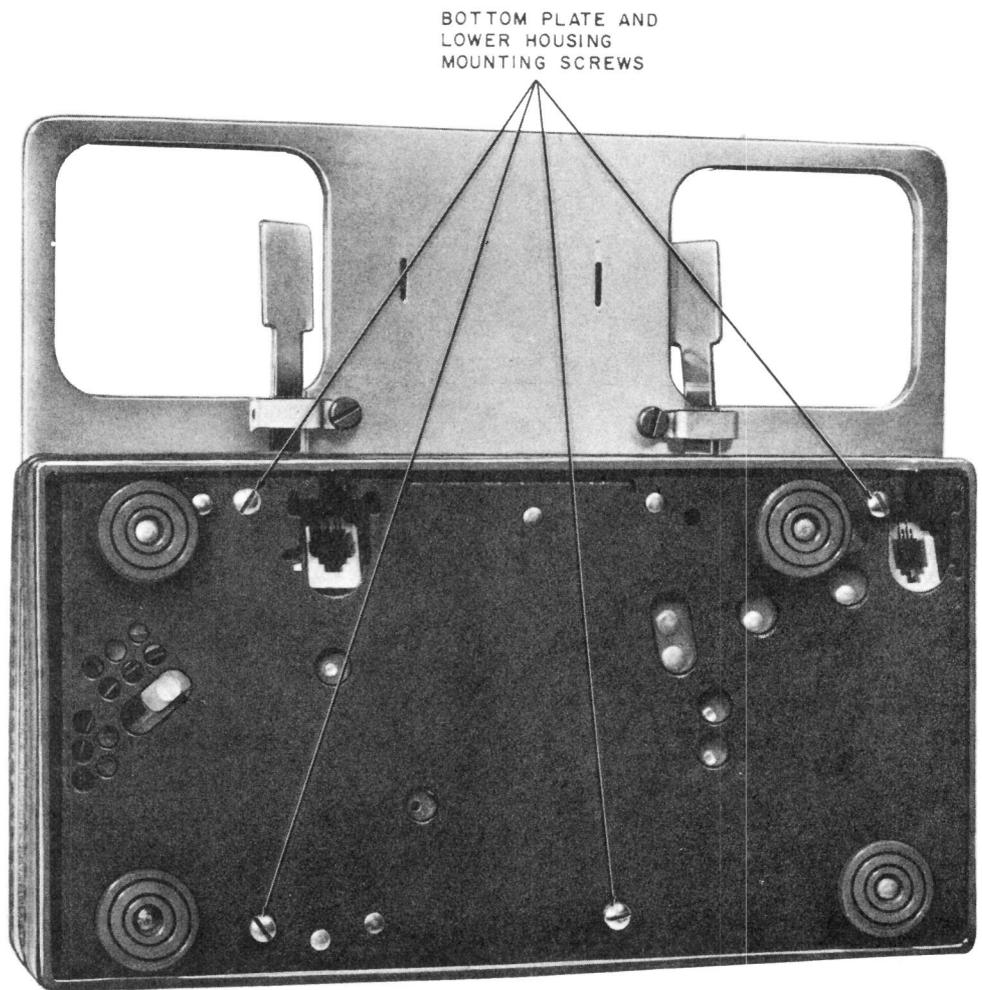


Fig. 10—930A or 2930A Telephone Set, Bottom View

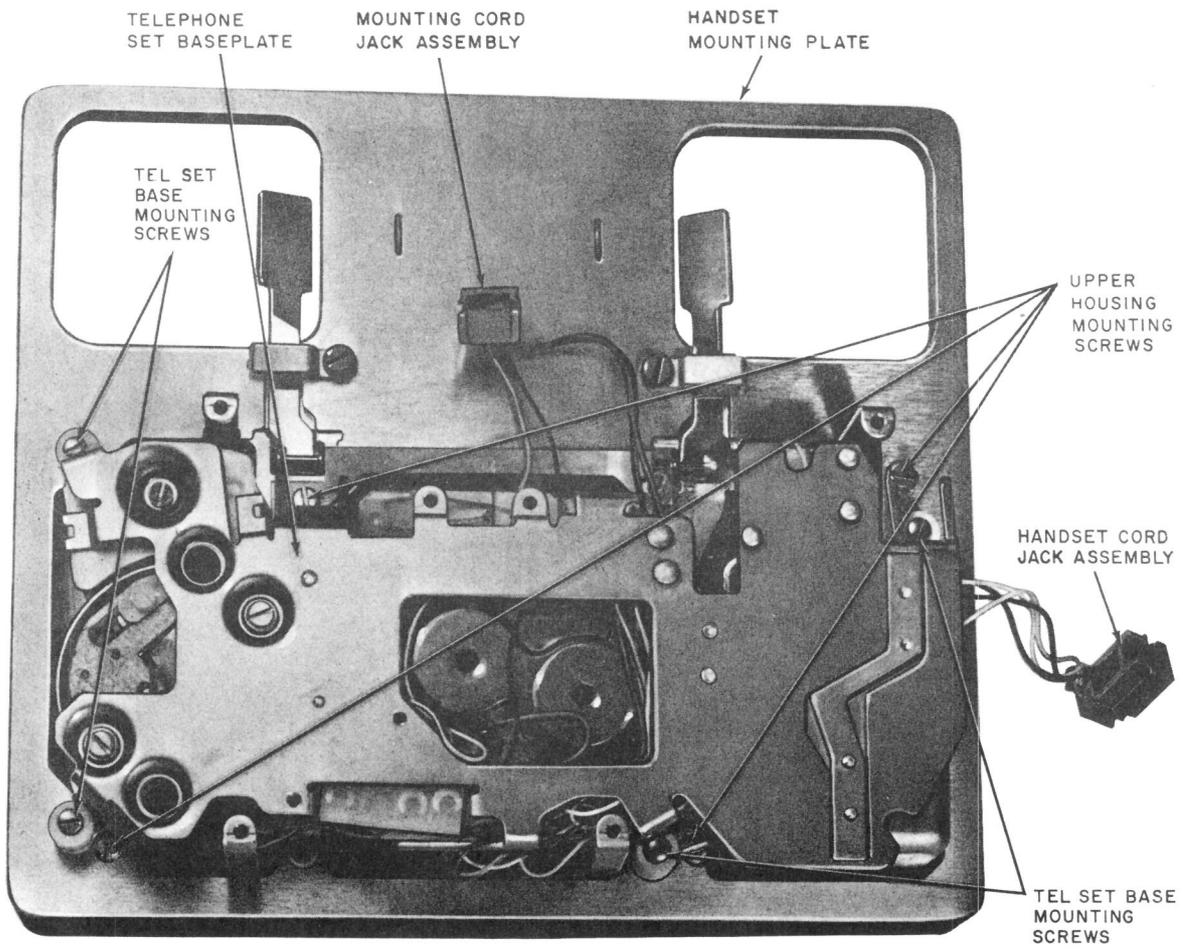
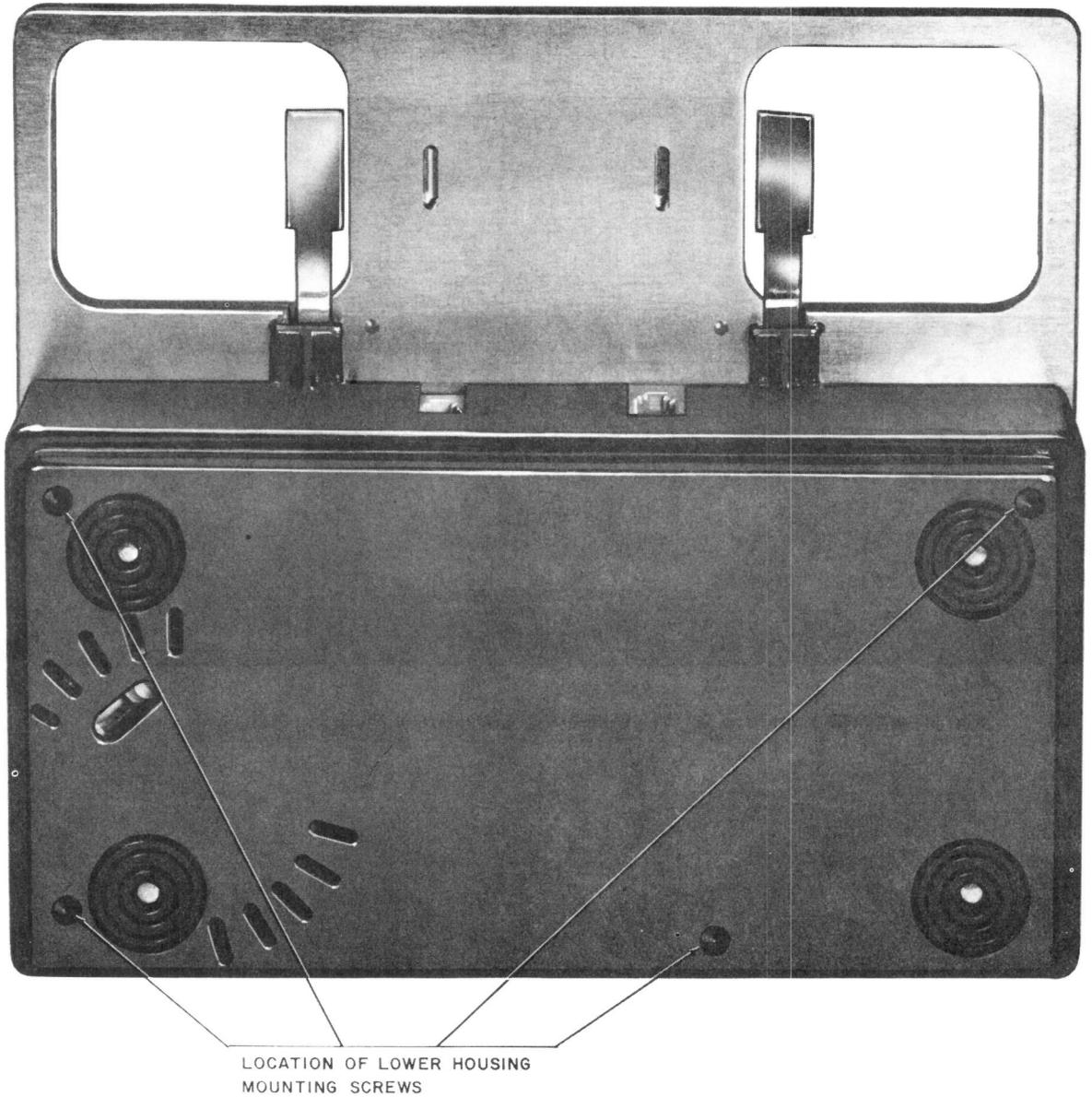


Fig. 11—2930A Telephone Set with Lower Housing Removed



LOCATION OF LOWER HOUSING  
MOUNTING SCREWS

Fig. 12—930B, 2930B, or 2931B Telephone Set, Bottom View

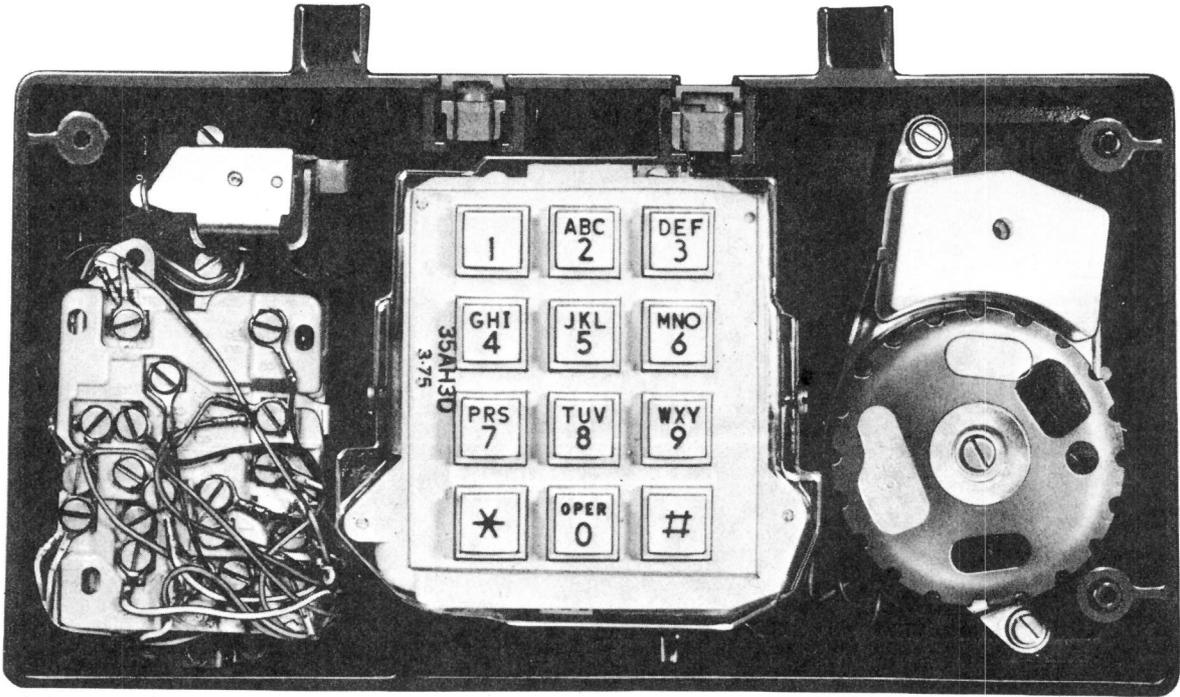


Fig. 13—2930B Telephone Set, Upper Housing, and Handset Mounting Plate Removed

TABLE D  
MODIFICATION FOR 1A1 AND 1A2 KTS\*

LEAD	COLOR	NET. TERMINAL		
		REMOVE FROM	930-TYPE TEL SET	2930-TYPE, 2931B TEL SET
			CONNECT TO	CONNECT TO
Line Switch	S	A	L2	S
	Y	A	L2	S
	BR	C	G	G
	G	L1	A	A
	W	F	C	C
623P4 Line Cord Jack Assy.	G	L1	F	F
Ringer	BK	L1	F	F

\* For access to set wiring follow applicable steps in Part 4.

TABLE E  
POLARITY GUARD CONNECTIONS\*

LEAD	COLOR	DISCONNECT FROM	CONNECT TO	
		NET.	NET.	POLARITY GUARD
Dial	BK	RR		T
Line Switch	BR ①	C		S
	W ②			
623P4 Line Cord Jack Assy.	R ③			
Polarity Guard	G W		RR C	

\* For access to set wiring follow applicable steps in Part 4.

- ① If wired for bridged service or ring party.
- ② If wired for tip party with no identification ground, 1A1 KTS, or 1A2 KTS.
- ③ If wired for tip party with identification ground.

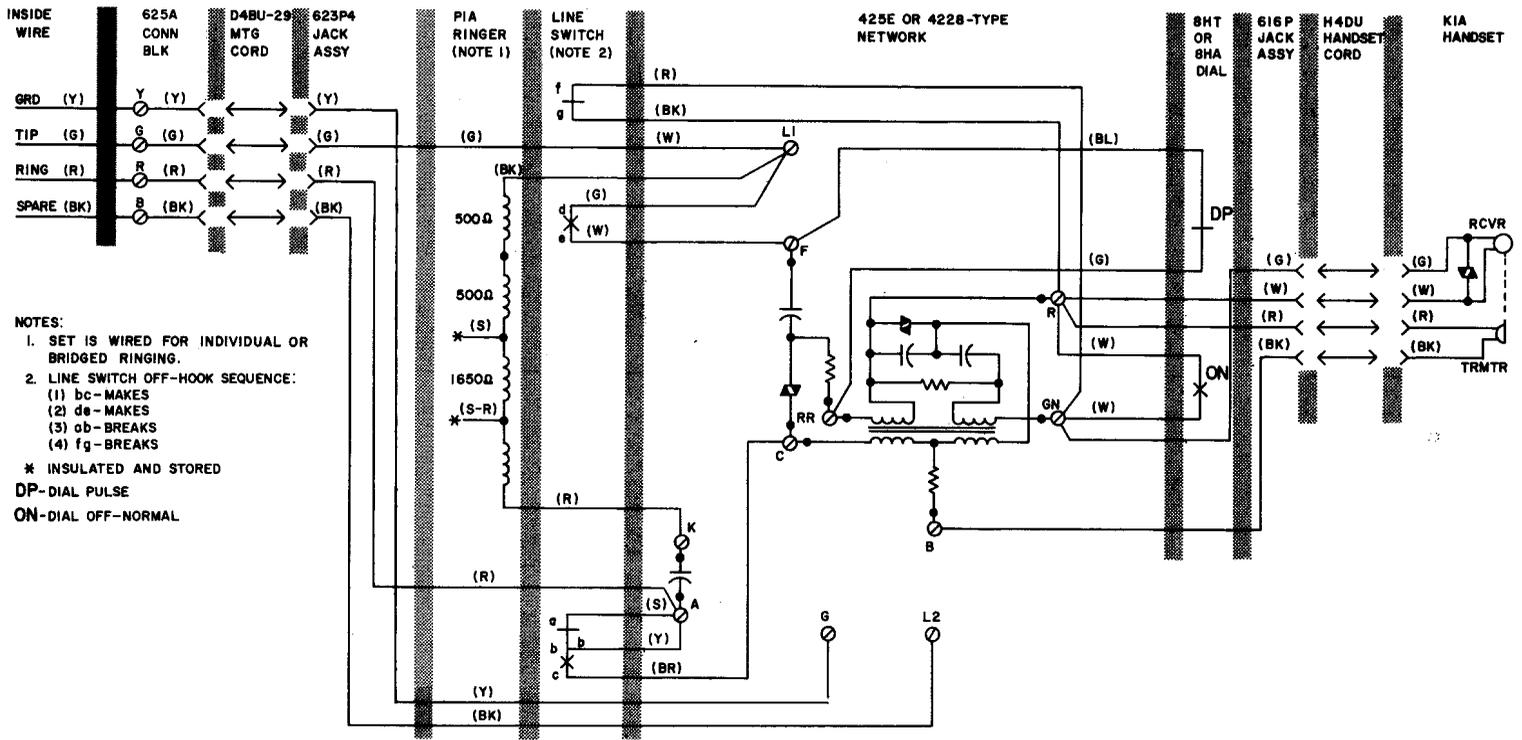
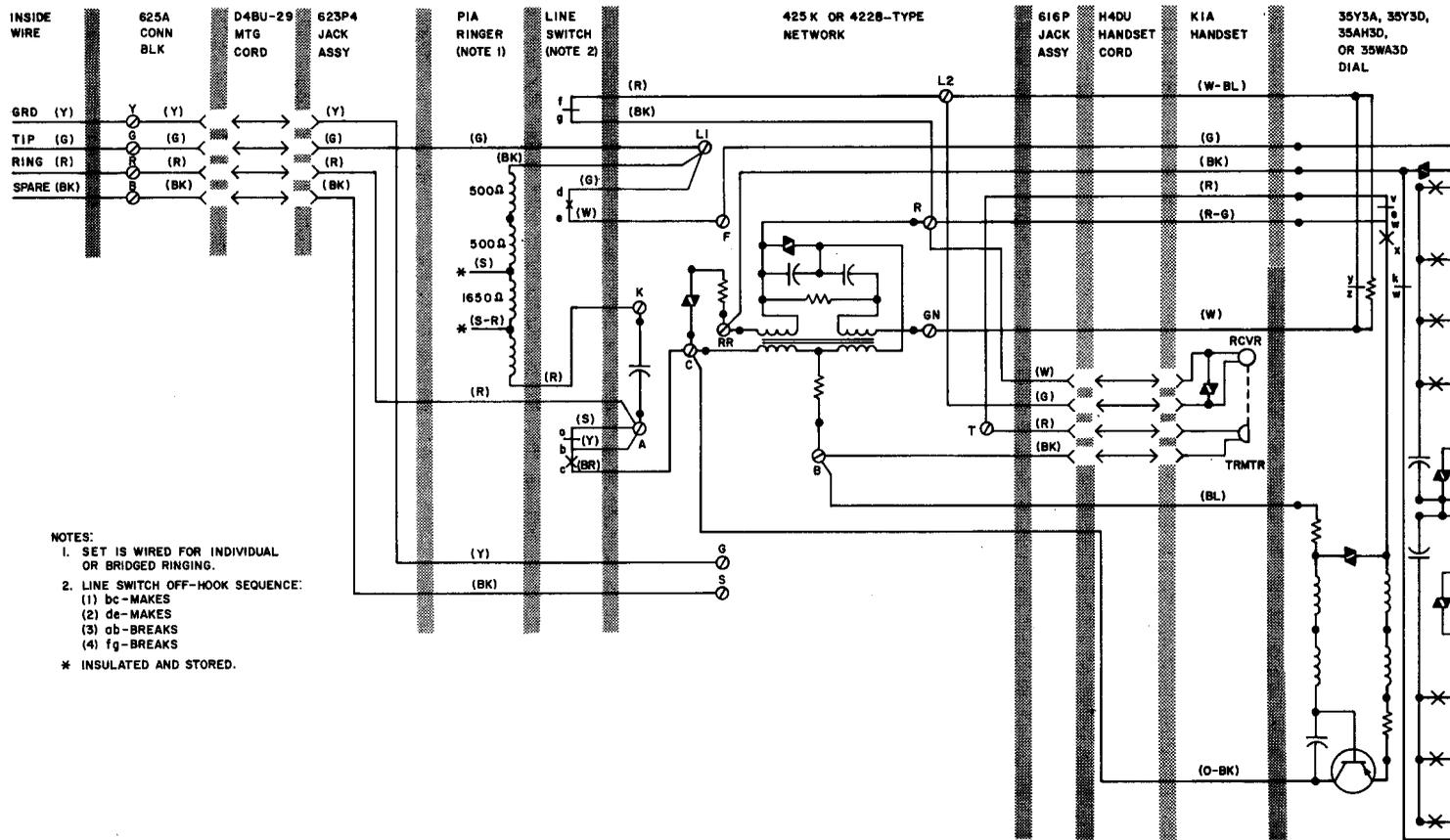


Fig. 14—930A or B Telephone Set, Connections



- NOTES:
- SET IS WIRED FOR INDIVIDUAL OR BRIDGED RINGING.
  - LINE SWITCH OFF-HOOK SEQUENCE:
    - bc-MAKES
    - de-MAKES
    - ab-BREAKS
    - fg-BREAKS
- \* INSULATED AND STORED.

Fig. 15—2930A, B or 2931B Telephone Set, Connections

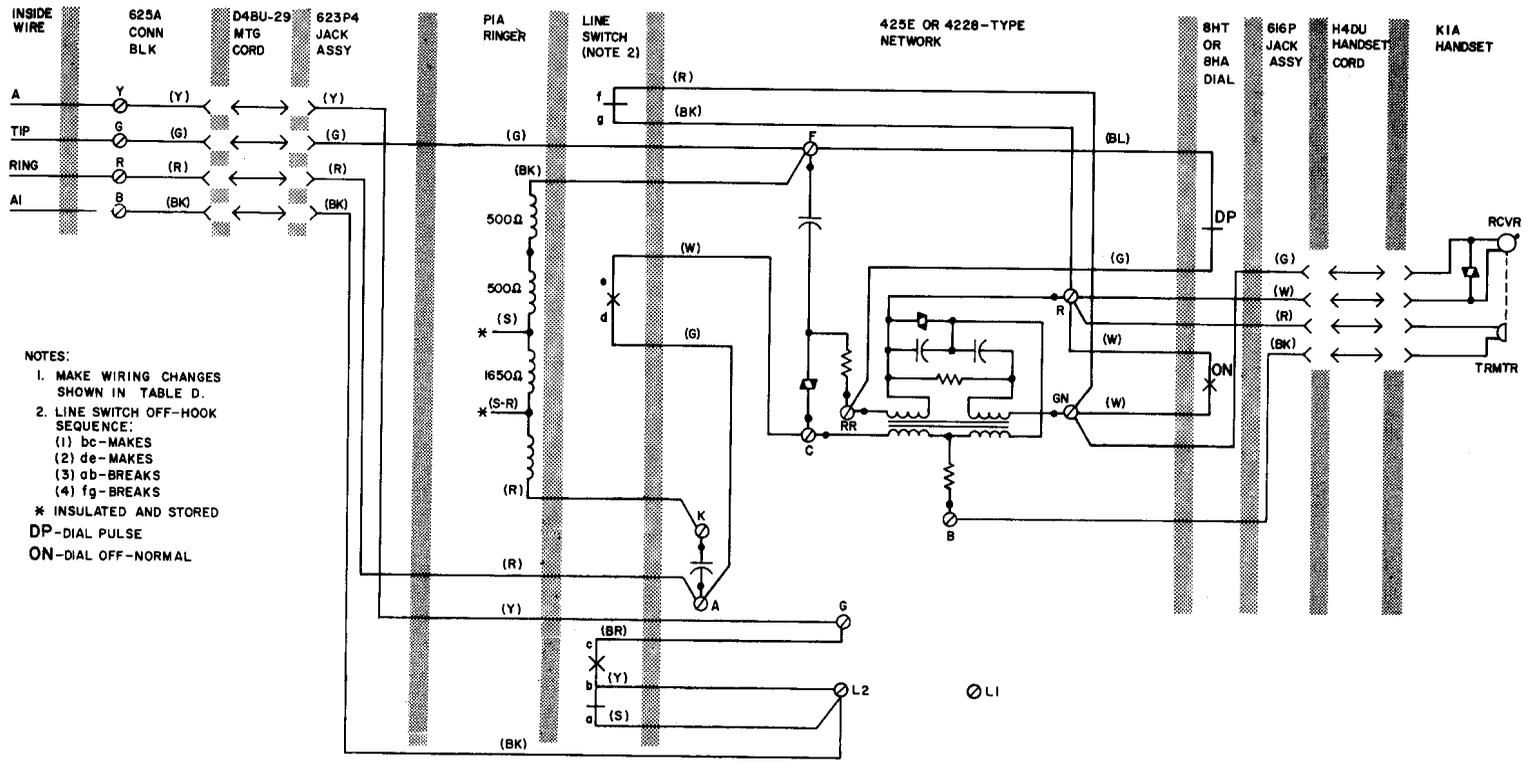
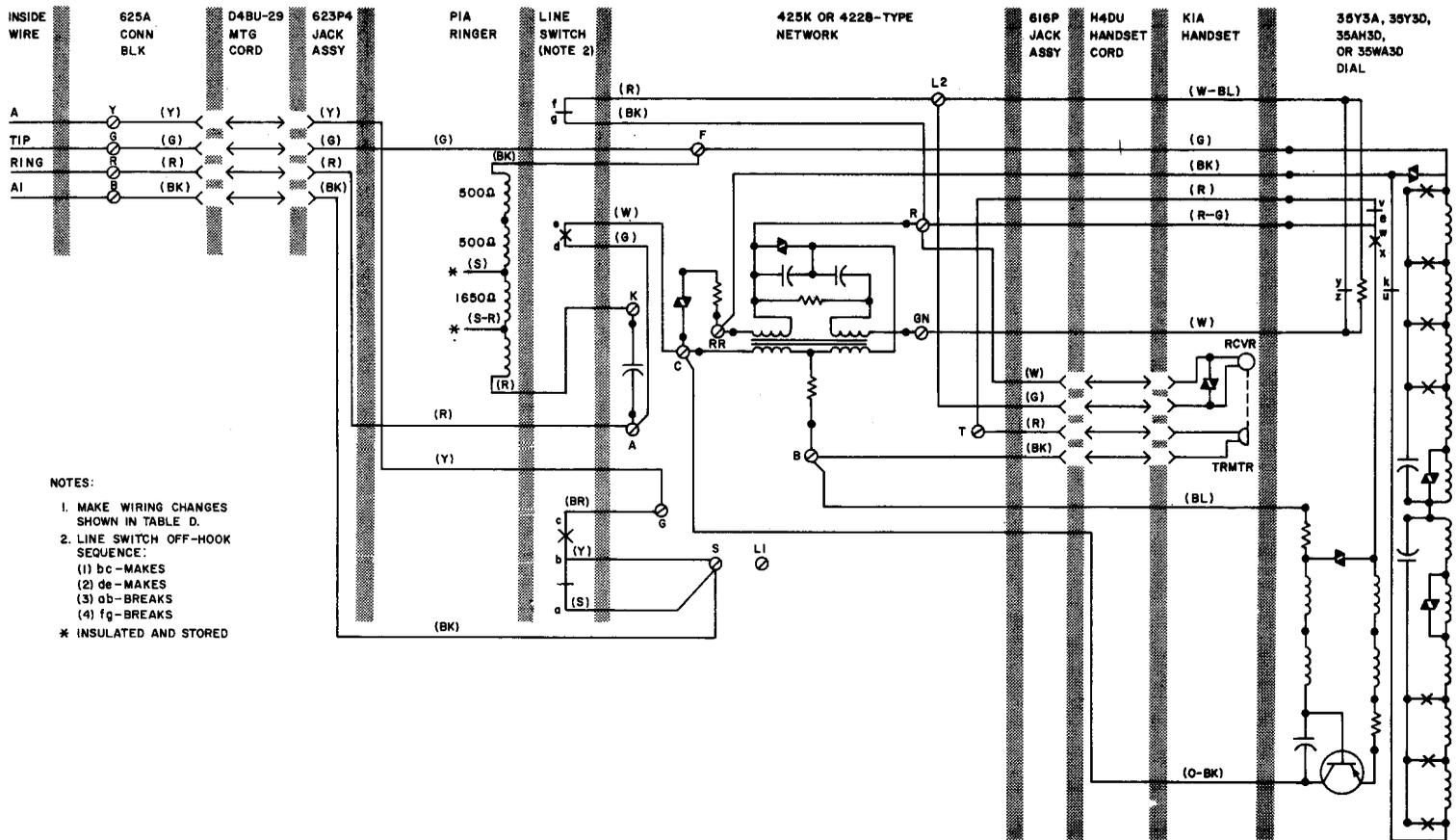


Fig. 16—930A or B Telephone Set Wired for 1A1 or 1A2 KTS4



- NOTES:
1. MAKE WIRING CHANGES SHOWN IN TABLE D.
  2. LINE SWITCH OFF-HOOK SEQUENCE:  
 (1) bc - MAKES  
 (2) de - MAKES  
 (3) ab - BREAKS  
 (4) fg - BREAKS
- \* INSULATED AND STORED

Fig. 17—2930A, B or 2931B Telephone Set Wired for 1A1 or 1A2 KTS4