

STATION DIALS

1035 AND F-56309 TYPES

IDENTIFICATION AND CONNECTIONS

1. GENERAL

1.01 These dials are intended for use with standard rotary dial telephone sets to provide for manual and automatic TOUCH-TONE® signaling.

1.02 This section is reissued to:

- Add D-180644 Kit of Parts for mounting 1035C3A dial to 554B, 555B, 556B, and 558B telephone sets
- Add connections for 554B, 555B, 556B, 558B, and 870A1M telephone sets
- Add comcode numbers for dial housing and polarity guard

2. IDENTIFICATION

ORDERING GUIDE

2.01 Order as follows:

Bracket, 109A (500-series telephone sets)

Dial, 1035B3-* (MD)

Dial, F-56309-* (MD)

Dial, 1035C3A-*

◆D-180644 Kit of Parts (554B, 555B, 556B, and 558B telephone sets)◆

Note: The 1035B3 (MD) and F-56309 (MD) dials are similar. Initial production dials were coded F-56309 and later models 1035B3. The 1035C3A dial differs in appearance only in the marking of the two special service buttons. An * and a # designation are used on the lower left and right buttons, respectively. For electrical differences, see design features.



Fig. 1—1035C3A Dial

2.02 Replaceable Components:

- Cord, mounting, D14M-87
- Dial, 35B3 [1035B3 (MD), F-56309 (MD)]
- Dial, 35C3A (1035C3A)
- Network, 185A†
- ◆Housing (Table A)◆
- ◆P-90D012 or 819040122 polarity guard (1035C3A)◆
- Polarity guard (four KS-15724L2 diodes) 1035B3 (MD) and F-56309 (MD)

*Add appropriate promoted color suffix.

†Order separately for 1035B3 (MD) and F-56309 (MD) dials, shipped loose with 1035C3A dial.

NOTICE

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

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♦TABLE A♦

HOUSING ORDERING GUIDE

HOUSING	COLOR CODE	P-NUMBER*	COM CODE†
Black	-03	P-83E703	818357030
Ivory	-50	P-83E750	818357501
Green	-51	P-83E751	818357519
Red	-53	P-83E753	818357535
Yellow	-56	P-83E756	818357568
White	-58	P-83E758	818357584
Lt. Beige	-60	P-83E760	818357600
Aqua Blue	-62	P-83E762	818357626

* Last two digits of P-number designates color code.

† Seventh and eighth digits of comcode number designates color code.

DESIGN FEATURES

2.03 The following features are provided:

- TOUCH-TONE dial
- Used with rotary set for end-to-end signaling
- Equipped with polarity guard to assure operation in case of line reversals
- Expanded common switch for speakerphone operation (1035C3A)
- 2- and 4-wire operation of the associated telephone set (1035C3A)

APPLICATION

2.04 For use in conjunction with a standard rotary dial telephone set.

♦INSTALLATION

2.05 Install 109A bracket (Fig. 2) on 500-type telephone sets as follows:

- (1) Snap the 1035C3A dial on the bracket as shown in Fig. 3.

Note: The bracket snaps on back of the telephone set as shown in Fig. 4.

- (2) Attach the 1035C3A dial to the telephone set as shown in Fig. 5.
- (3) Refer to appropriate connection figure to connect dial to telephone set.

2.06 Install D-180644 Kit of Parts (Fig. 6) on 554B, 555B, 556B, or 558B telephone set as follows:

- (1) Remove housing from 1035C3A dial by removing number card retainer, number card, and front and rear housing screws.

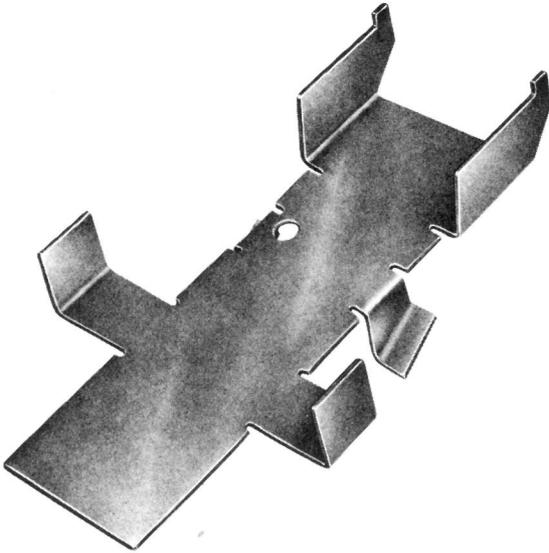


Fig. 2—109A Bracket

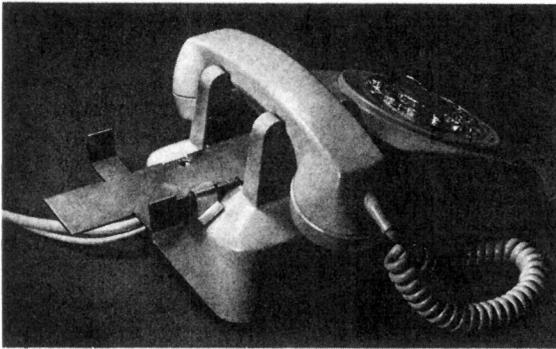


Fig. 3—109A Bracket Mounted on 500DR Telephone Set

- (2) Remove right dial mounting screw and discard. Loosen left dial mounting screw and lay dial aside.

Caution: Do not disconnect dial leads.

- (3) Dress D14M-87 mounting cord through cutout in base of dial as shown in Fig. 7.

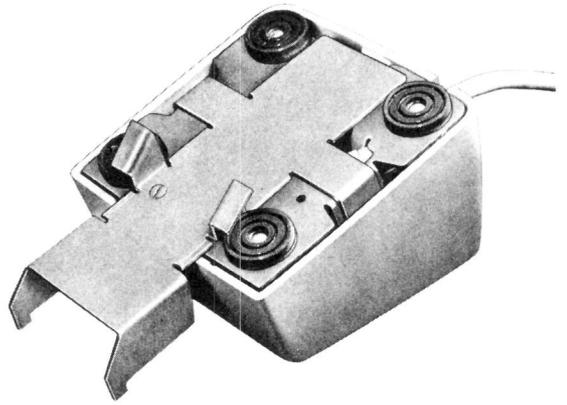


Fig. 4—1035C3A Dial Mounted on 109A Bracket

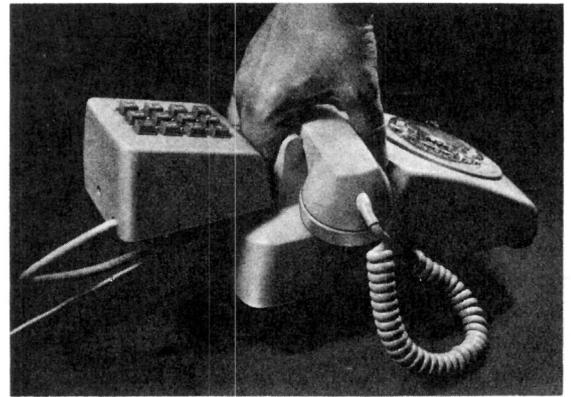


Fig. 5—1035C3A Dial Mounted on 500DR Telephone Set Using 109A Bracket

- (4) Place dial back on mounting brackets and tighten left mounting screw loosened in (2).
- (5) Remove housing from wall telephone set.
- (6) Loosen the two telephone set dial mounting screws and lay dial aside.

Caution: Do not disconnect dial leads.

- (7) Mount 840362727 bracket (with 840362792 leg assembly attached) to the right dial mounting bracket using P-338888 or 803388883

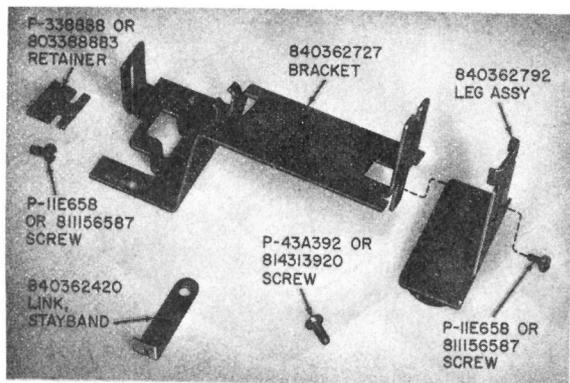


Fig. 6—D-180644 Kit of Parts

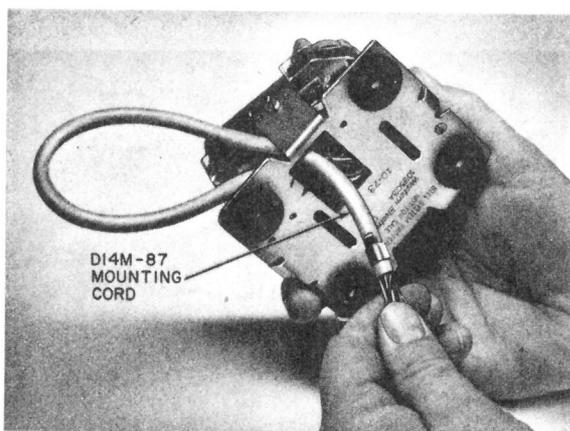


Fig. 7—Dressing D14M Mounting Cord Through Cutout in Base of Dial

retainer and P-11E658 or 811156587 screw (Fig. 6 and 8).

(8) Loosen left ringer mounting screw and install 840362420 link stayband between the rubber grommet and baseplate tab, tighten screw.

Caution: Be sure and dress stayband away from ringer gong.

(9) Dress mounting cord leads (Fig. 9) on left side of network. Refer to appropriate connection figure for connections.

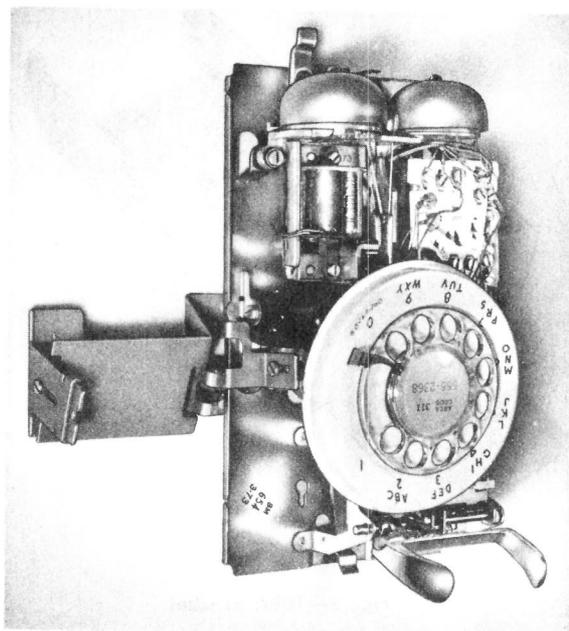


Fig. 8—D-180644 Kit of Parts Installed on Wall Telephone Set

- (10) Remount telephone set dial and tighten dial mounting screws.
- (11) Tilt 1035C3A dial toward the telephone set and dress the dial mounting cord into the slot on 840362727 bracket and engage the bracket mounting tabs to secure the dial.
- (12) Install P-43A392 or 814313920 screw (Fig. 9) in right 1035C3A dial mounting bracket and tighten.
- (13) Dress the dial mounting cord into housing cutout and replace housing on telephone set.
- (14) Replace 1035C3A dial housing in reverse order removed in (1).
- (15) Fig. 10 shows 1035C3A dial installed along side a wall telephone set. ▽

▽**Note:** There is no provision to mechanically attach an adjunct 1035C3A dial to a

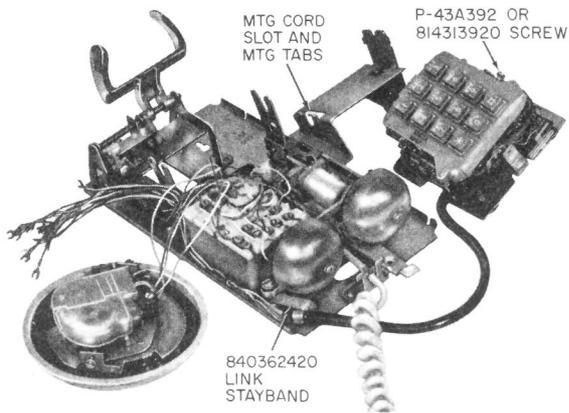


Fig. 9—Interior View of Wall Telephone Set with 1035C3A Dial Installed



Fig. 10—1035C3A Dial Installed Along Side Wall Telephone Set

TOUCH-A-MATIC[®] telephone set and customer satisfaction may result.♦

3. CONNECTIONS



If trouble is experienced with false signals being transmitted due to voice conversation pickup, use exclusion switch to provide for transmitter cutoff. Connect the transmitter circuit through a contact of the exclusion switch so that the circuit is open when the exclusion switch is operated. Refer to Section 501-230-101.

3.01 When the 1035B3 (MD) dial is connected to a telephone set using speakerphone, the TOUCH-TONE dial may be rendered inoperative after the called party answers due to the battery reversal of some central offices. In this case, the 1035C3A dial should be used.

3.02 Connection Index:

- Fig. 11—1035B3 (MD) Dial, Typical Connections to Nonkey Telephone Set
- Fig. 12—1035C3A Dial, Typical Connections to Nonkey Telephone Set
- Fig. 13—1035C3A Dial, Connections to 212L Hand Telephone Set
- Fig. 14—1035C3A Dial, Connections to 565HK 6-Button Key Telephone Set
- Fig. 15—1035C3A Dial, Connections to 630-Type CALL DIRECTOR Telephone Set
- Fig. 16—1035C3A Dial, Connections to 636- and 637-Type Telephone Set
- Fig. 17—1035C3A Dial, Connections to 660-Type Telephone Set
- Fig. 18—1035C3A Dial, Connections to 662-Type Telephone Set
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- Fig. 20—1035C3A Dial, Connections to 870A1M Telephone Set

Fig. 21—1035C3A Dial, Connections to 872A1M Telephone Set

Fig. 22—1035C3A Dial, Connections to 554B Telephone Set

Fig. 23—1035C3A Dial, Connections to 555B Telephone Set

Fig. 24—1035C3A Dial, Connections to 556B Telephone Set

Fig. 25—1035C3A Dial, Connections to 558B Telephone Set

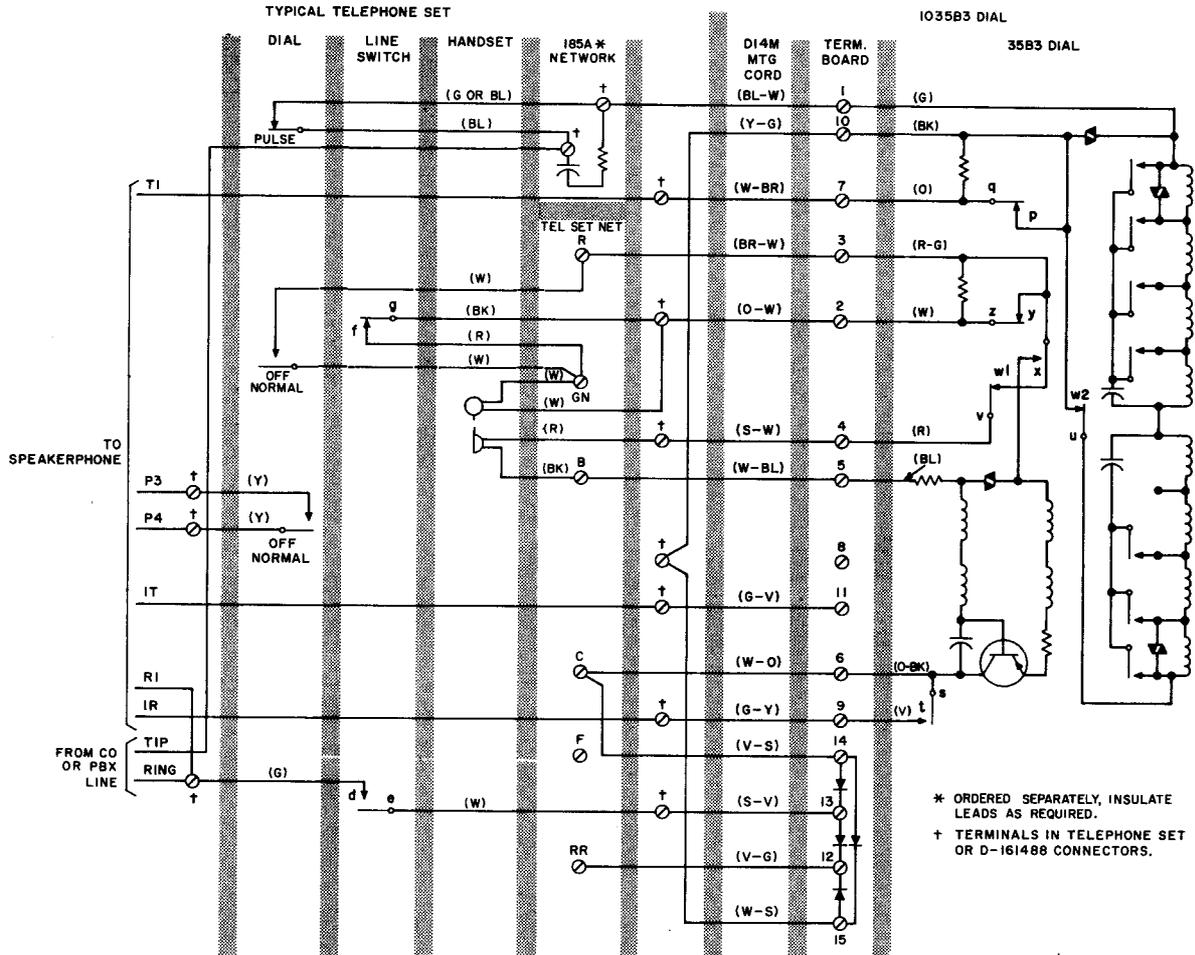
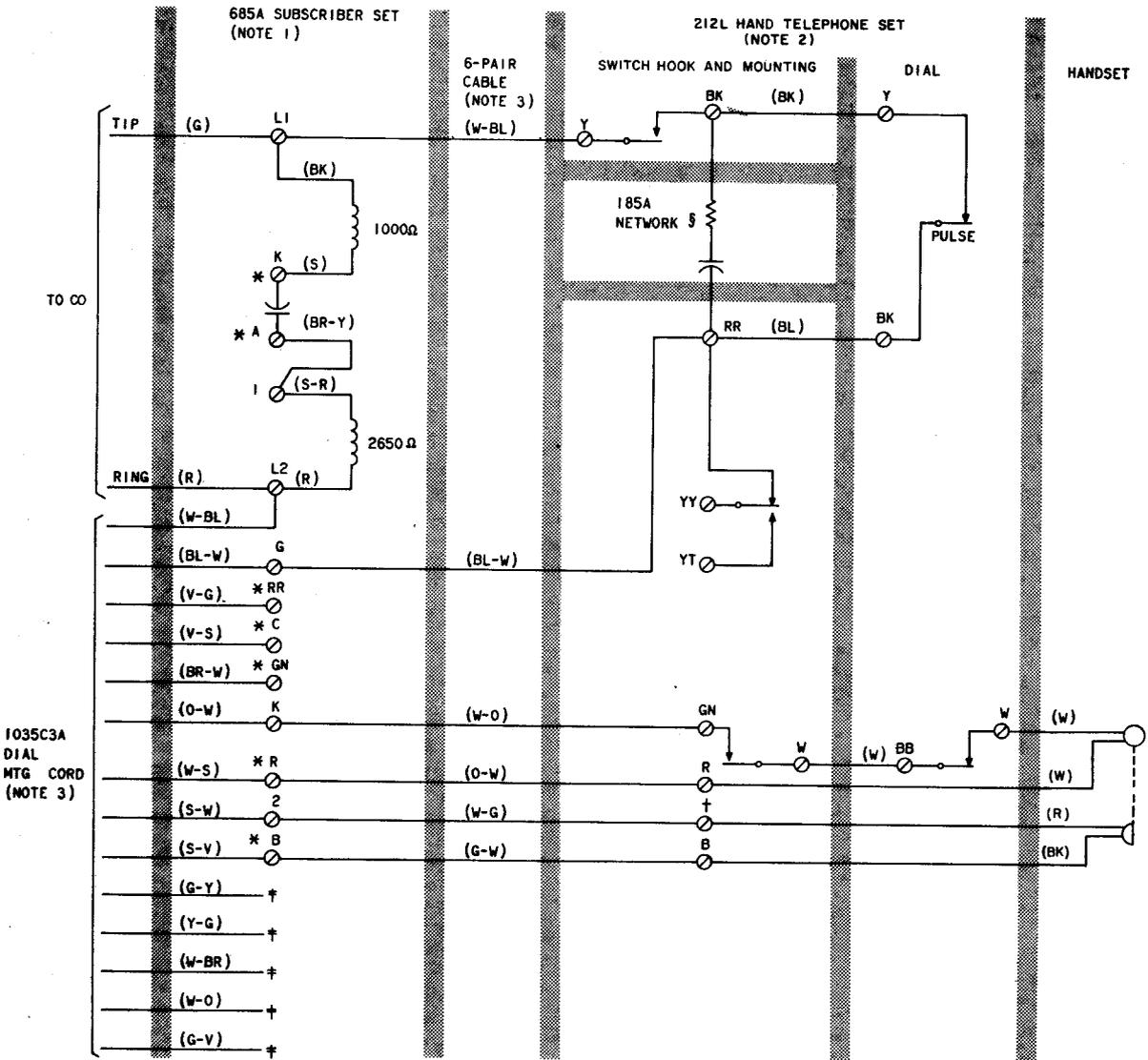


Fig. 11—1035B3 (MD) Dial, Typical Connections to Nonkey Telephone Set



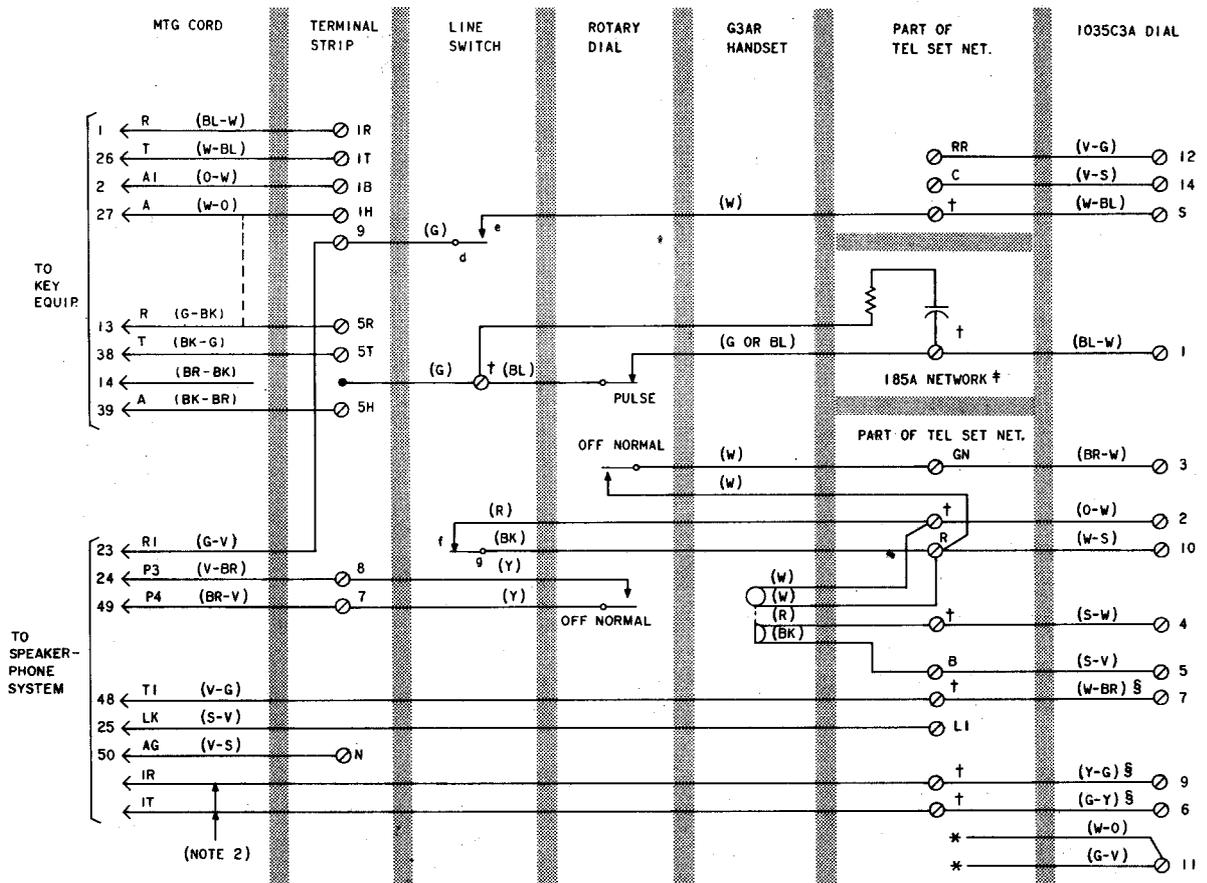
NOTES:

1. MODIFY 685A SUBSCRIBER SET AS FOLLOWS:
 - A. REMOVE (BL) LEAD FROM L1, INSULATE AND STORE
 - B. REMOVE (BK) RINGER LEAD FROM TERMINAL G AND CONNECT TO L1
 - C. REMOVE (BR) [S-BR] LEAD FROM TERMINAL 2, INSULATE AND STORE
2. MODIFY 212L HAND TELEPHONE SET AS FOLLOWS:
 - A. REMOVE (BL) DIAL LEAD FROM BL TERMINAL OF SWITCH HOOK AND MOUNTING AND CONNECT TO RR TERMINAL OF SWITCH HOOK AND MOUNTING
 - B. REMOVE (R) HANDSET LEAD FROM R TERMINAL OF SWITCH HOOK AND MOUNTING AND CONNECT TO SPARE TERMINAL OR D-161488 CONNECTOR
3. CONNECT MOUNTING CORD LEADS FROM 1035C3A DIAL AND 6-PAIR CABLE AS SHOWN.

- * NETWORK TERMINAL
- † SPARE TERMINAL OR D-161488 CONNECTOR
- ‡ INSULATE AND STORE
- § SHIPPED LOOSE WITH DIAL, INSULATE LEADS AS REQUIRED

Fig. 13—1035C3A Dial, Connections to 212L Hand Telephone Set

565HK TELEPHONE SET (NOTE 1)



NOTES:

1. MODIFY 565HK TELEPHONE SET AS FOLLOWS:
 - A. REMOVE (W) LINE SWITCH LEAD FROM C OF NETWORK AND CONNECT TO (W-BL) LEAD OF DIAL.
 - B. REMOVE (G) KEY LEAD AND (BL) ROTARY DIAL LEAD FROM F OF NETWORK, CONNECT THESE LEADS TOGETHER WITH ONE LEAD FROM 185A NETWORK.
 - C. REMOVE (G OR BL) ROTARY DIAL LEAD FROM RR OF NETWORK AND CONNECT TO (BL-W) DIAL LEAD AND OTHER LEAD FROM 185A NETWORK.
 - D. REMOVE (R) LINE SWITCH LEAD AND (W) HANDSET LEAD FROM GN OF NETWORK AND CONNECT TO (O-W) LEAD OF DIAL.
 - E. REMOVE (R) HANDSET LEAD FROM R OF NETWORK AND CONNECT TO (S-W) LEAD OF DIAL.

F. REMOVE (V-G) MTG CORD LEAD FROM RR OF NETWORK AND CONNECT TO (W-BR) LEAD OF DIAL.

G. CONNECT BALANCE OF 1035C3A DIAL LEADS AS SHOWN.

2. USE SPARE MOUNTING CORD CONDUCTORS, MUST BE PAIRED.

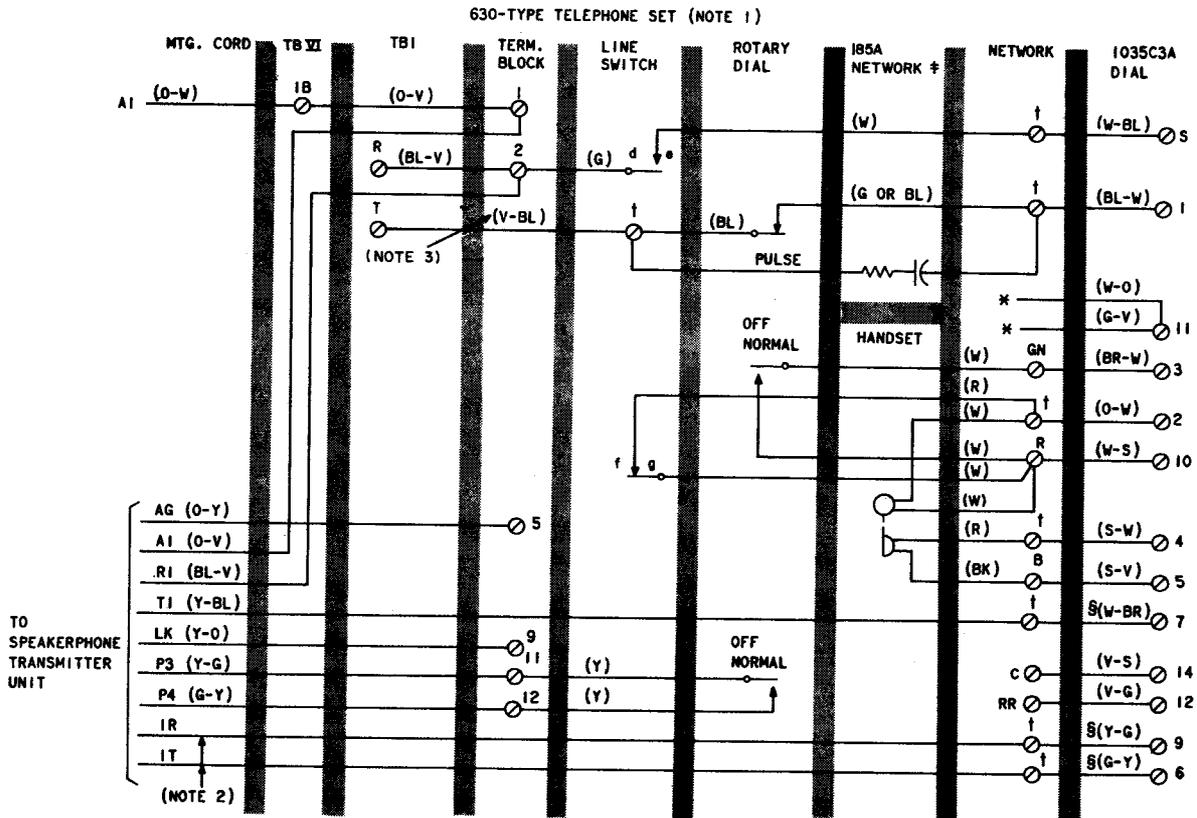
* INSULATED AND STORED

† SPARE TERMINALS OR D-161488 CONNECTOR

‡ SHIPPED LOOSE WITH DIAL, INSULATE LEADS AS REQUIRED

§ IF SPEAKERPHONE IS NOT PROVIDED, INSULATE AND STORE (W-BR), (Y-G), AND (G-Y) 1035C3A DIAL LEADS IN TELEPHONE SET.

Fig. 14—1035C3A Dial, Connections to 565HK Telephone Set



NOTES:

1. MODIFY 630-TYPE TELEPHONE SET AS FOLLOWS:
 - A. REMOVE (W) LINE SWITCH LEAD FROM C OF NETWORK AND CONNECT TO (W-BL) LEAD OF DIAL.
 - B. REMOVE ALL LEADS (SEE NOTE 3) FROM F OF NETWORK, CONNECT THESE LEADS TOGETHER WITH ONE LEAD FROM 185A NETWORK.
 - C. REMOVE (G OR BL) ROTARY DIAL LEAD FROM RR OF NETWORK AND CONNECT TO (BL-W) DIAL LEAD AND OTHER LEAD FROM 185A NETWORK.
 - D. REMOVE (R) LINE SWITCH LEAD AND (W) HANDSET LEAD FROM GN OF NETWORK AND CONNECT TO (O-W) LEAD OF DIAL.
 - E. REMOVE (R) HANDSET LEAD FROM R OF NETWORK AND CONNECT TO (S-W) OF DIAL.
 - F. MOVE (Y-BL) TRANSMITTER LEAD FROM RR OF NETWORK AND CONNECT TO (W-BR) LEAD OF DIAL.
 - G. CONNECT BALANCE OF 1035C3A DIAL LEADS AS SHOWN.
2. USE SPARE PAIRED MOUNTING CORD CONDUCTORS FROM 3RD OR 5TH MODULE.
3. THE (V-BL) LEAD SHOWN IS FOR EARLIER TYPE SETS. ON 630DA OR 631DA SETS THERE WILL BE TWO (G) LEADS, ONE FROM CONTACT STRIP AND ONE FROM CHAINING SWITCH INSTEAD OF (V-BL) LEAD.

* INSULATED AND STORED

† SPARE TERMINALS OR D-161488 CONNECTORS

‡ SHIPPED LOOSE WITH DIAL, INSULATE LEADS AS REQUIRED
§ IF SPEAKERPHONE IS NOT PROVIDED, INSULATE AND STORE (W-BR), (Y-G), AND (G-Y) 1035C3A DIAL LEADS IN TELEPHONE SET.

Fig. 15—1035C3A Dial, Connections to 630-Type Telephone Set

636- AND 637-TYPE TELEPHONE SET (SEE NOTE)

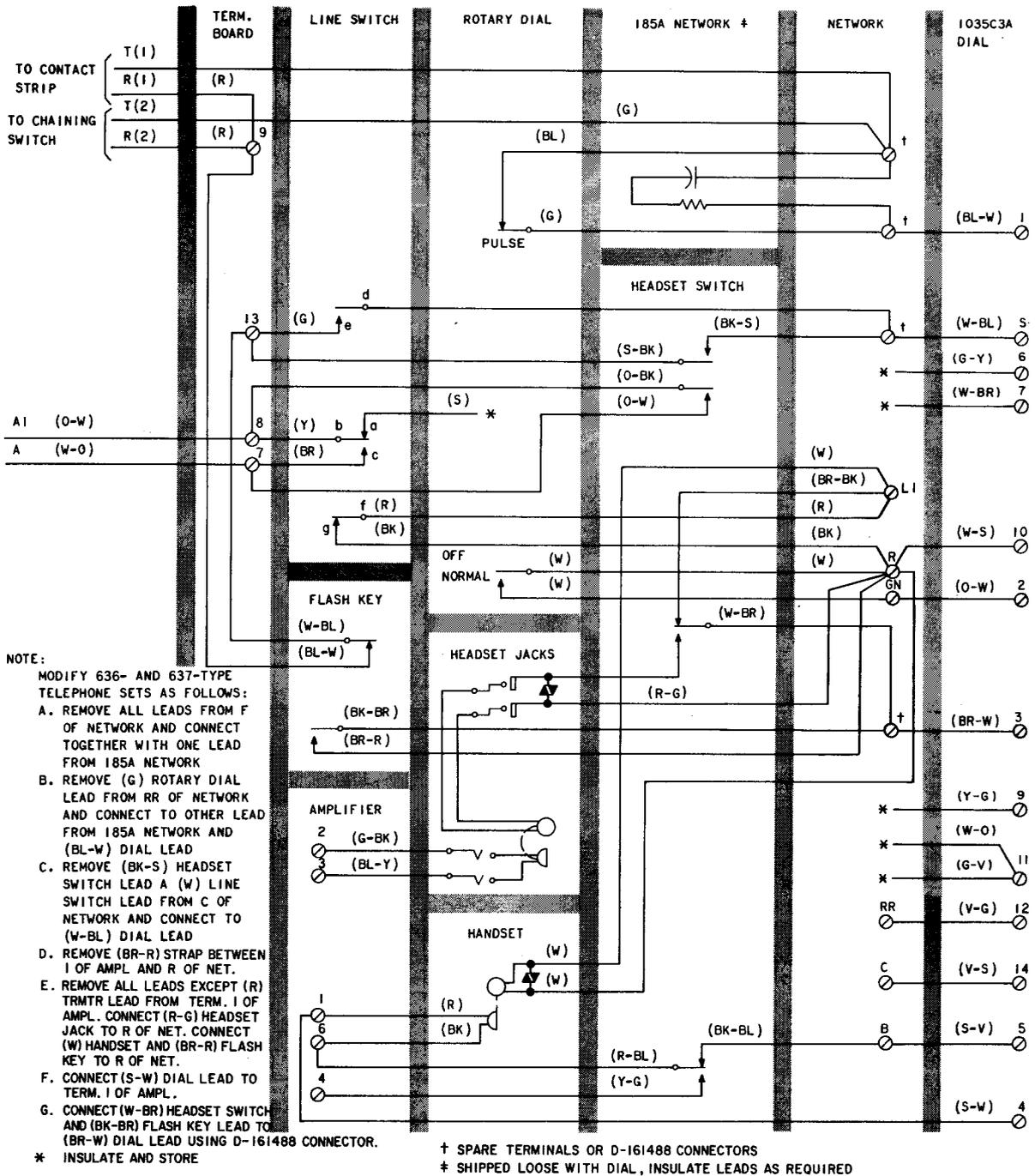
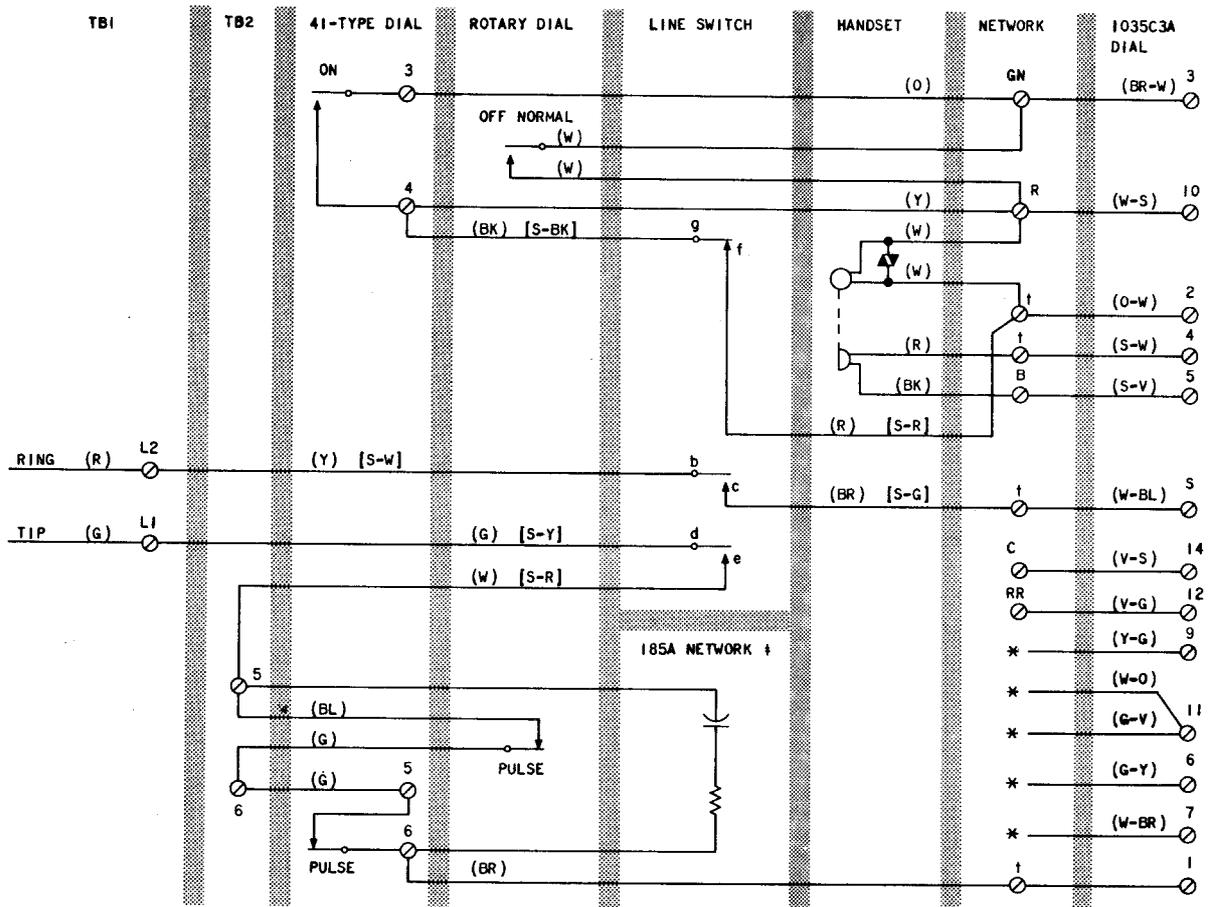


Fig. 16—1035C3A Dial, Connections to 636- and 637-Type Telephone Set

660-TYPE (CARD DIALER) TELEPHONE SET (NOTE 1)



NOTES:

1. MODIFY 660-TYPE SET AS FOLLOWS:

- A. REMOVE (BR) [S-G] LINE SWITCH LEAD FROM C OF NETWORK AND CONNECT TO (W-BL) DIAL LEAD.
- B. REMOVE (BL) LEAD BETWEEN F OF NETWORK AND TERMINAL 5 OF TB2.
- C. REMOVE (W) [S-R] LEAD FROM F OF NETWORK AND CONNECT TO TERMINAL 5 OF TB2.
- D. REMOVE (BR) LEAD FROM RR OF NETWORK AND CONNECT TO (BL-W) DIAL LEAD.
- E. CONNECT ONE LEAD OF 185A NETWORK TO 6 OF 41-TYPE DIAL AND CONNECT OTHER END TO 5 OF TB2.
- F. REMOVE (W) RECEIVER LEAD AND (R) [S-R] LINE SWITCH LEAD FROM GN OF NETWORK AND CONNECT TOGETHER WITH (O-W) DIAL LEAD.
- G. REMOVE (R) TRANSMITTER LEAD FROM 4 OF TB2 AND CONNECT TO (S-W) DIAL LEAD.
- H. CONNECT BALANCE OF 1035C3A DIAL LEADS AS SHOWN.

2. SPEAKERPHONE LEADS NOT SHOWN. SHORTAGE OF MOUNTING CORD CONDUCTORS PREVENTS USING BOTH 1035C3A DIAL AND SPEAKERPHONE.

* - INSULATE AND STORE

† - SPARE TERMINALS OR D-161488 CONNECTORS

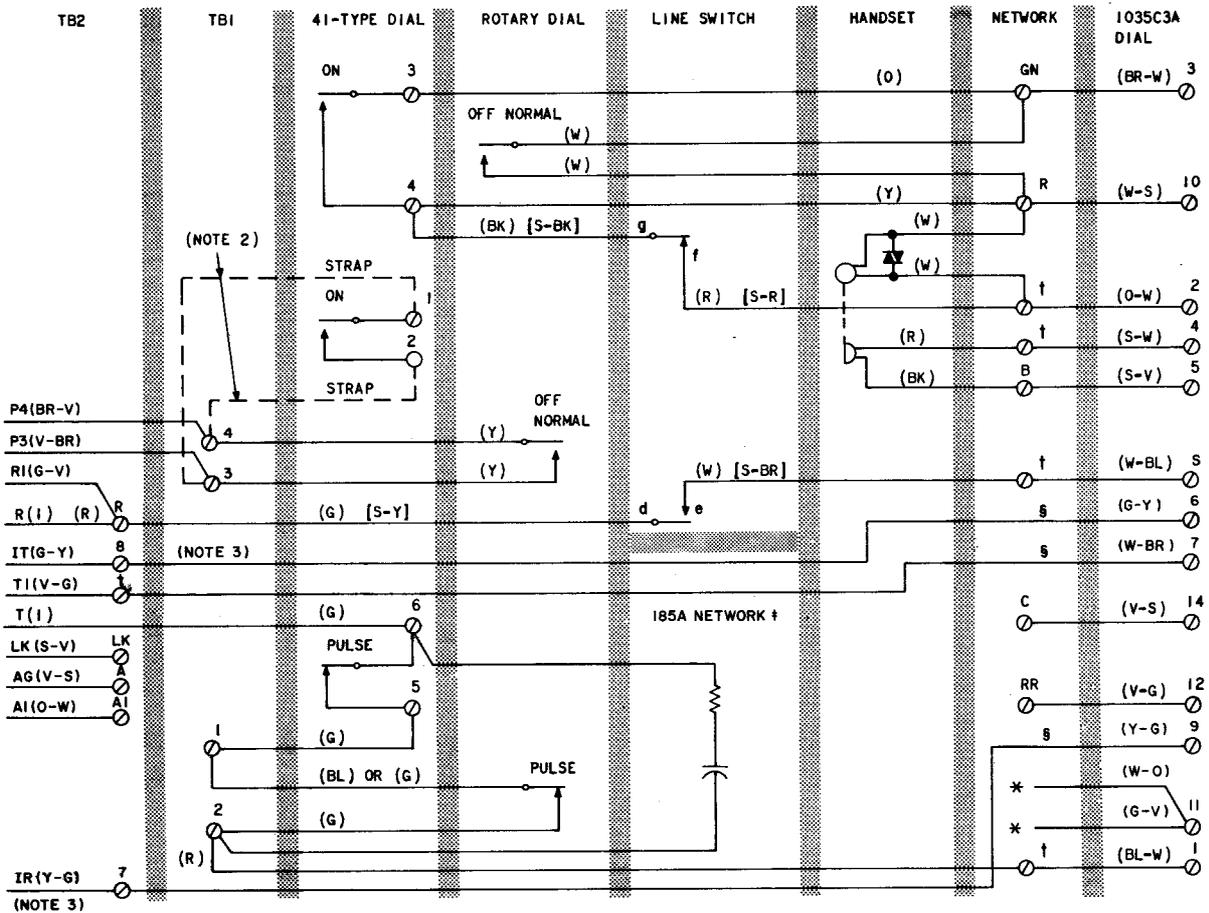
‡ - 185A NETWORK SHIPPED LOOSE WITH 1035C3A DIAL, INSULATE LEADS AS REQUIRED

() - CURRENT COLOR CODE

[] - MD COLOR CODE

Fig. 17—1035C3A Dial, Connections to 660-Type Telephone Set

662-TYPE (CARD DIALER) TELEPHONE SET (NOTE 1)



NOTES:

1. MODIFY 662-TYPE SET AS FOLLOWS:

- A. REMOVE (W) [S-BR] LINE SWITCH LEAD FROM C OF NETWORK AND CONNECT TO (W-BL) DIAL LEAD.
- B. REMOVE (BK) LEAD BETWEEN F OF NETWORK AND 6 OF 41-TYPE DIAL
- C. REMOVE (GN) LEAD FROM F OF NETWORK AND CONNECT TO 6 OF 41-TYPE DIAL
- D. REMOVE (R) LEAD FROM RR OF NETWORK AND CONNECT TO (BL-W) DIAL LEAD
- E. CONNECT ONE LEAD OF 185A NETWORK TO 6 OF 41-TYPE DIAL AND CONNECT OTHER END TO 2 OF TB1
- F. REMOVE (W) RECEIVER LEAD AND (R) [S-R] LINE SWITCH LEAD FROM GN OF NETWORK AND CONNECT TOGETHER WITH (O-W) DIAL LEAD
- G. REMOVE (R) TRANSMITTER LEAD FROM R OF NETWORK AND CONNECT TO (S-W) DIAL LEAD
- H. CONNECT BALANCE OF 1035C3A DIAL LEADS AS SHOWN

2. IF SPEAKERPHONE IS PROVIDED REPLACE 8R DIAL WITH AN 8C DIAL AND ADD STRAPS AS SHOWN

3. REMOVE (Y-G) AND (G-Y) 6TH LAMP LEADS FROM TB2-7 AND TB2-8 WHEN USING SPEAKERPHONE AND CONNECT (Y-G) AND (G-Y) 1035C3A DIAL LEADS

* INSULATE AND STORE

† SPARE TERMINALS OR D-161488 CONNECTORS

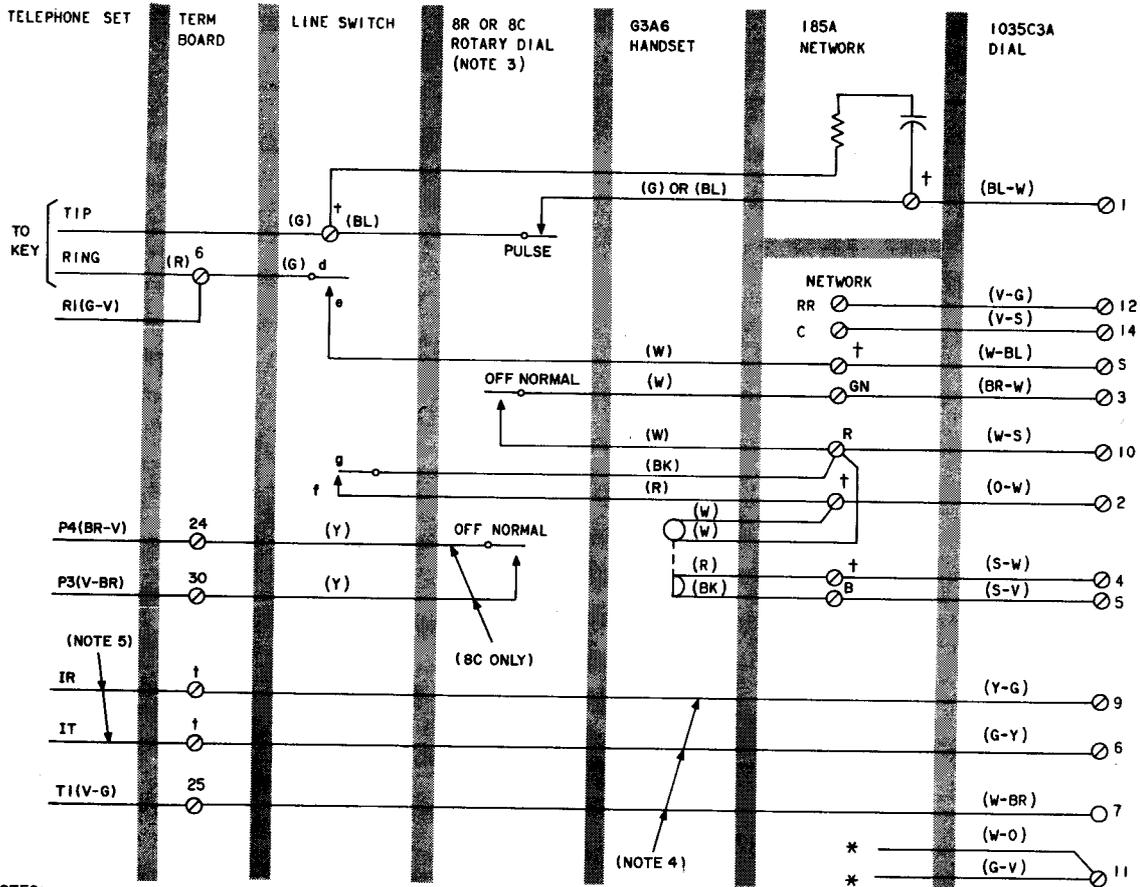
‡ 185A NETWORK SHIPPED LOOSE WITH 1035C3A DIAL, INSULATE LEADS AS REQUIRED

§ IF SPEAKERPHONE IS NOT PROVIDED, INSULATE AND STORE (W-BR), (G-Y), AND (Y-G) 1035C3A DIAL LEADS IN TELEPHONE SET

() CURRENT COLOR CODE

[] MD COLOR CODE

Fig. 18—1035C3A Dial, Connections to 662-Type Telephone Set



NOTES:

1. IF SPEAKERPHONE IS PROVIDED, MAKE SPEAKERPHONE CONNECTIONS BEFORE CONNECTING DIAL.
2. MODIFY 830- AND 831- TYPE TELEPHONE SETS AS FOLLOWS:
 - A. REMOVE (W) LINE SWITCH LEAD FROM C OF NETWORK AND CONNECT TO (W-BL) LEAD OF DIAL.
 - B. REMOVE (G) KEY LEAD (2 LEADS ON 831- TYPE) AND (BL) ROTARY DIAL LEAD FROM F OF NETWORK, CONNECT THESE LEADS TOGETHER WITH ONE LEAD FROM 185A NETWORK.
 - C. REMOVE (G OR BL) ROTARY DIAL LEAD FROM RR OF NETWORK AND CONNECT TO (BL-W) DIAL LEAD AND OTHER LEAD FROM 185A NETWORK.
 - D. REMOVE (R) LINE SWITCH LEAD AND (W) HANDSET LEAD FROM GN OF NETWORK AND CONNECT TO (O-W) LEAD OF DIAL.
 - E. REMOVE (R) HANDSET LEAD FROM R OF NETWORK AND CONNECT TO (S-W) LEAD OF DIAL.
 - F. CONNECT BALANCE OF 1035C3A DIAL LEADS AS SHOWN.
3. IF SPEAKER PHONE IS PROVIDED REPLACE 8R DIAL WITH AN 8C DIAL.
4. IF SPEAKER PHONE IS NOT PROVIDED, INSULATE, AND STORE (W-BR), (G-Y) AND (Y-G) 1035C3A DIAL LEADS IN TELEPHONE SET.

5. WHEN USED WITH 3B SPEAKERPHONE AN EXTERNAL PR OF WIRES MUST BE RUN BETWEEN CONTROL UNIT AND TELEPHONE SET FOR IR AND IT LEADS DUE TO LACK OF MOUNTING CORD LEADS.

* INSULATED AND STORED

† SPARE TERMINALS OR D-161488 CONNECTOR

‡ SHIPPED LOOSE WITH DIAL, INSULATE LEADS AS REQUIRED

Fig. 19—1035C3A Dial, Connections to 830- and 831-Type Telephone Set

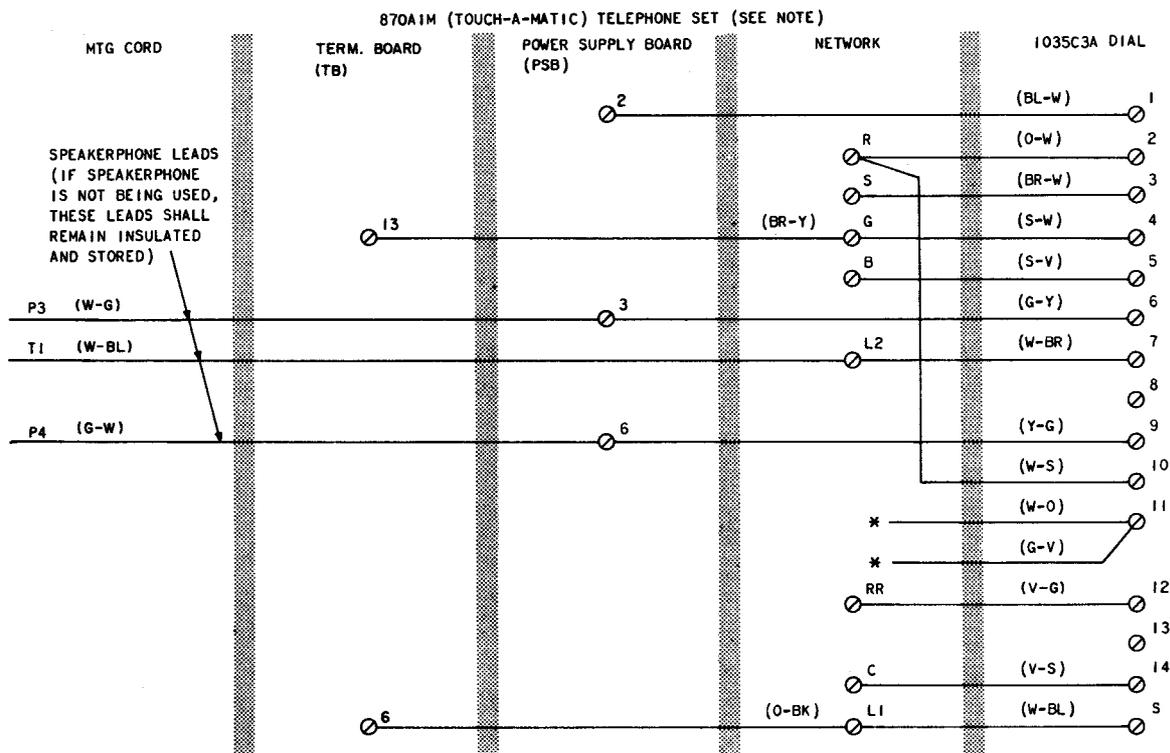
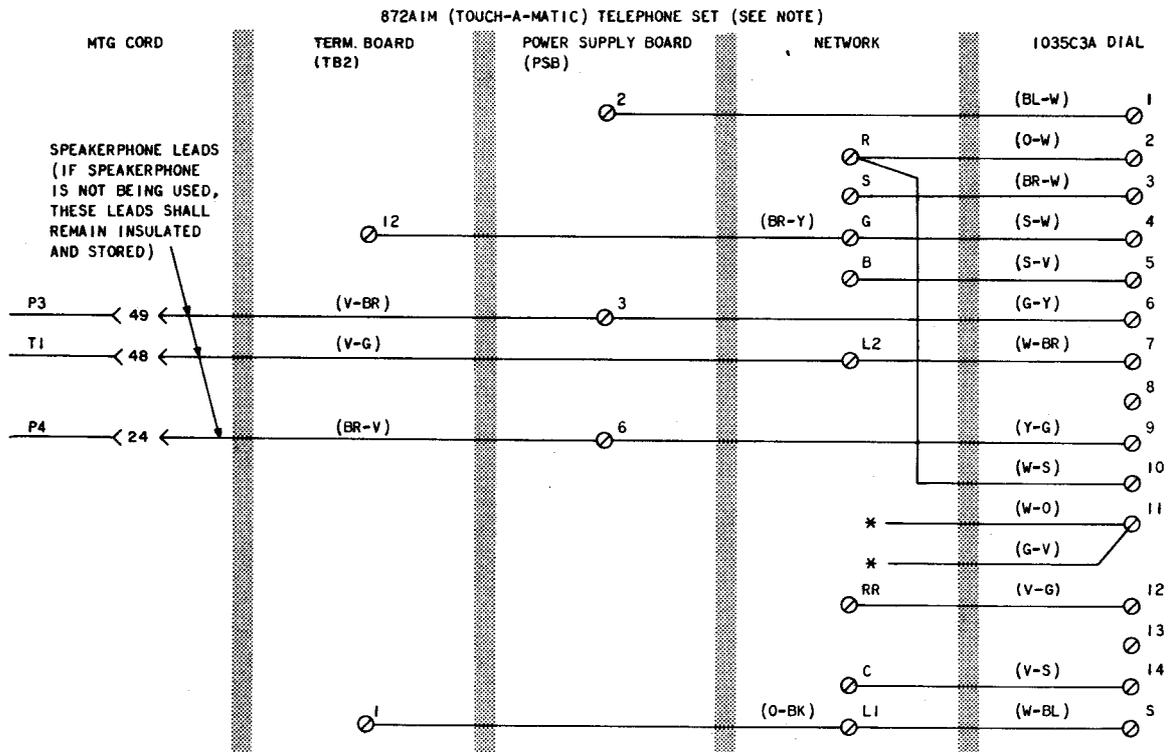


Fig. 20—1035C3A Dial, Connections to 870A1M (TOUCH-A-MATIC Service) Telephone Set



NOTE:

MODIFY 872A1M TELEPHONE SET AS FOLLOWS:

- A. REMOVE INSULATE AND STORE (R-G) LEAD FROM PSB-2.
- B. REMOVE (V-G) FROM PSB-2 AND CONNECT TO NETWORK L2.
- C. REMOVE (BR-Y) LEAD FROM NETWORK R AND CONNECT TO NETWORK G.
- D. REMOVE (BK) STRAP BETWEEN NETWORK R AND NETWORK S.
- E. REMOVE (O-BK) LEAD FROM NETWORK C AND CONNECT TO NETWORK L1.
- F. CONNECT LEADS FROM 1035C3A DIAL AS SHOWN.

* . INSULATED AND STORED.

Fig. 21—1035C3A Dial, Connections to 872A1M (TOUCH-A-MATIC Service) Telephone Set

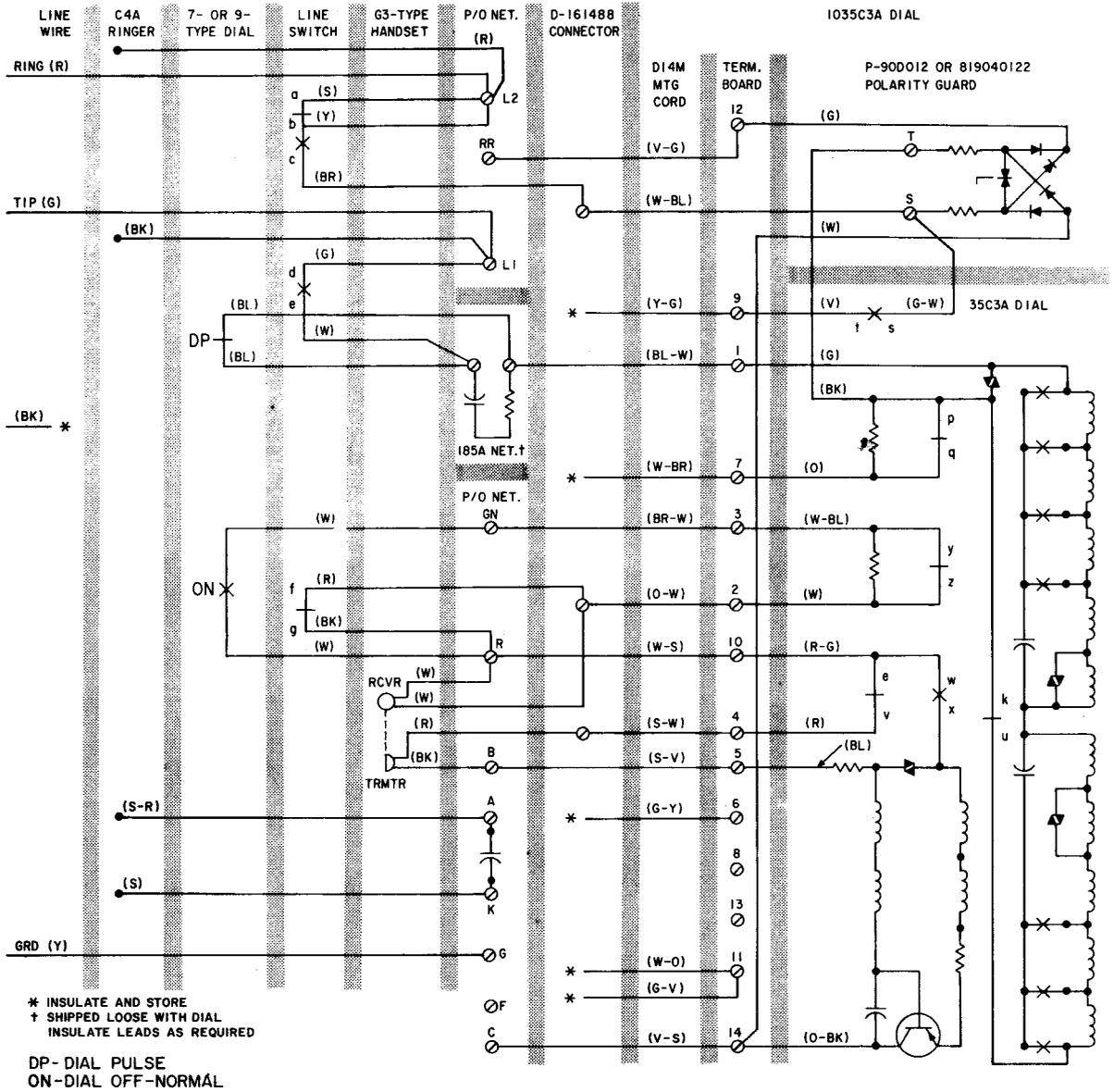


Fig. 22—1035C3A Dial, Connections to 554B Telephone Set

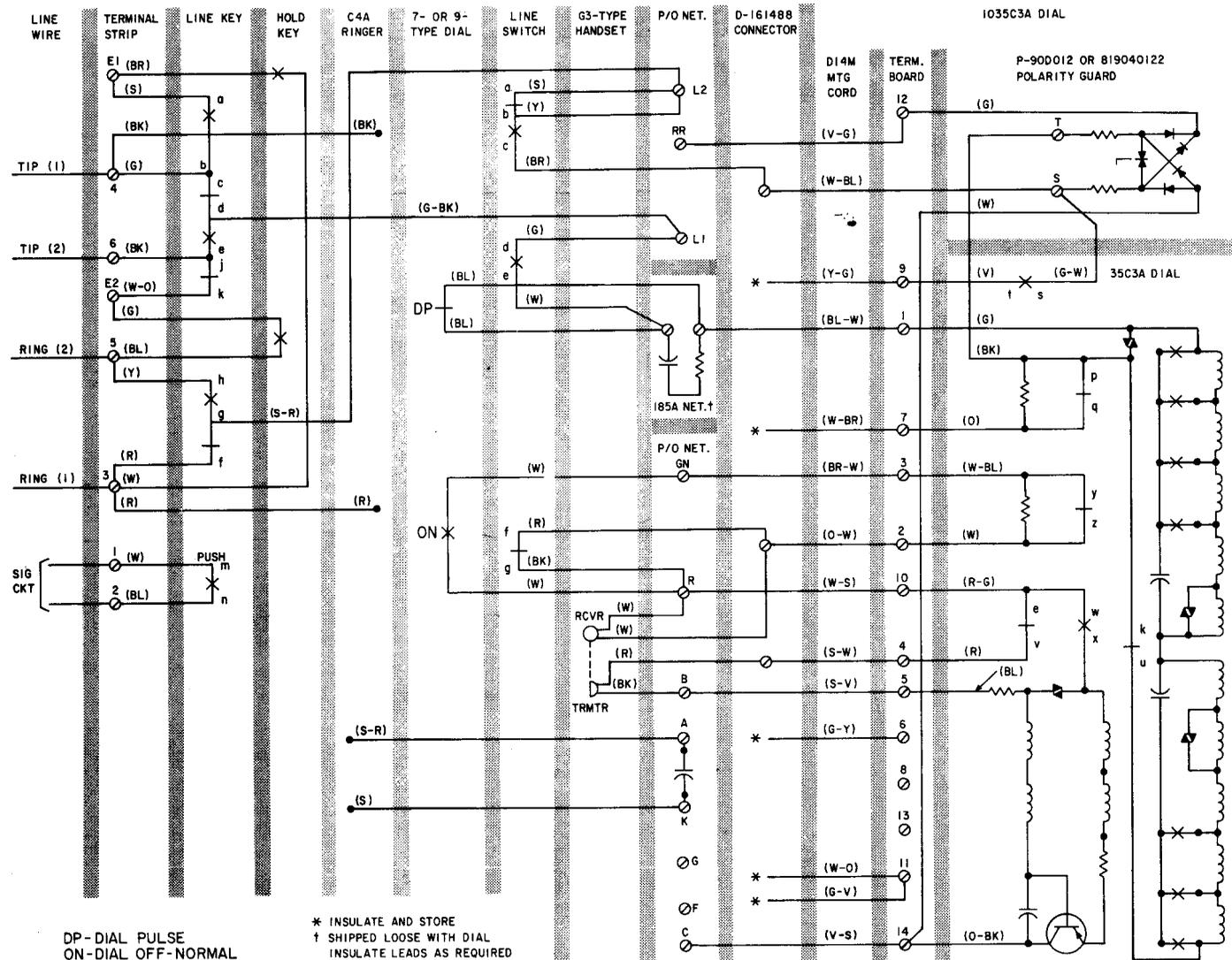


Fig. 23—1035C3A Dial, Connections to 555B Telephone Set

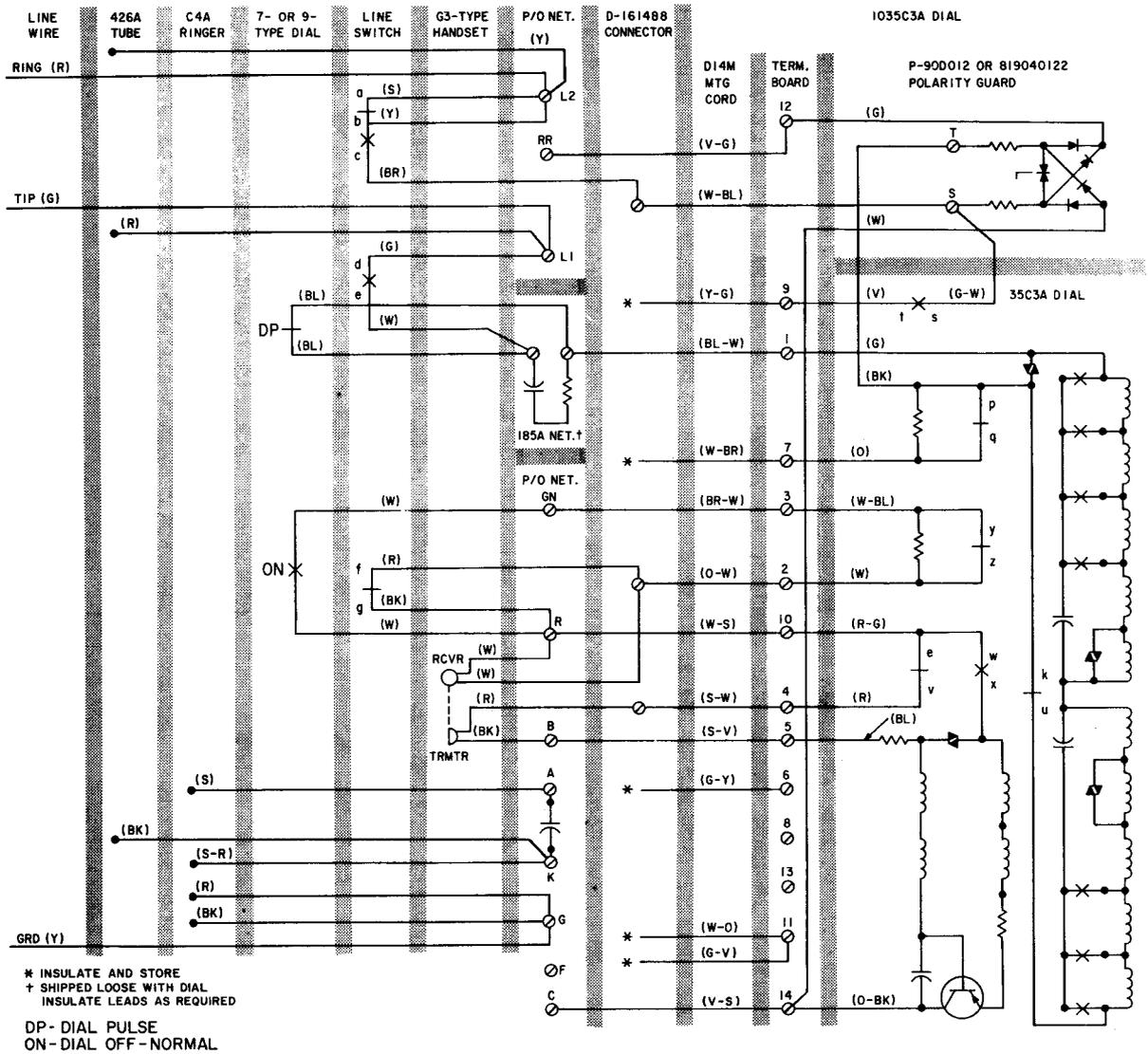


Fig. 24—1035C3A Dial, Connections to 556B Telephone Set

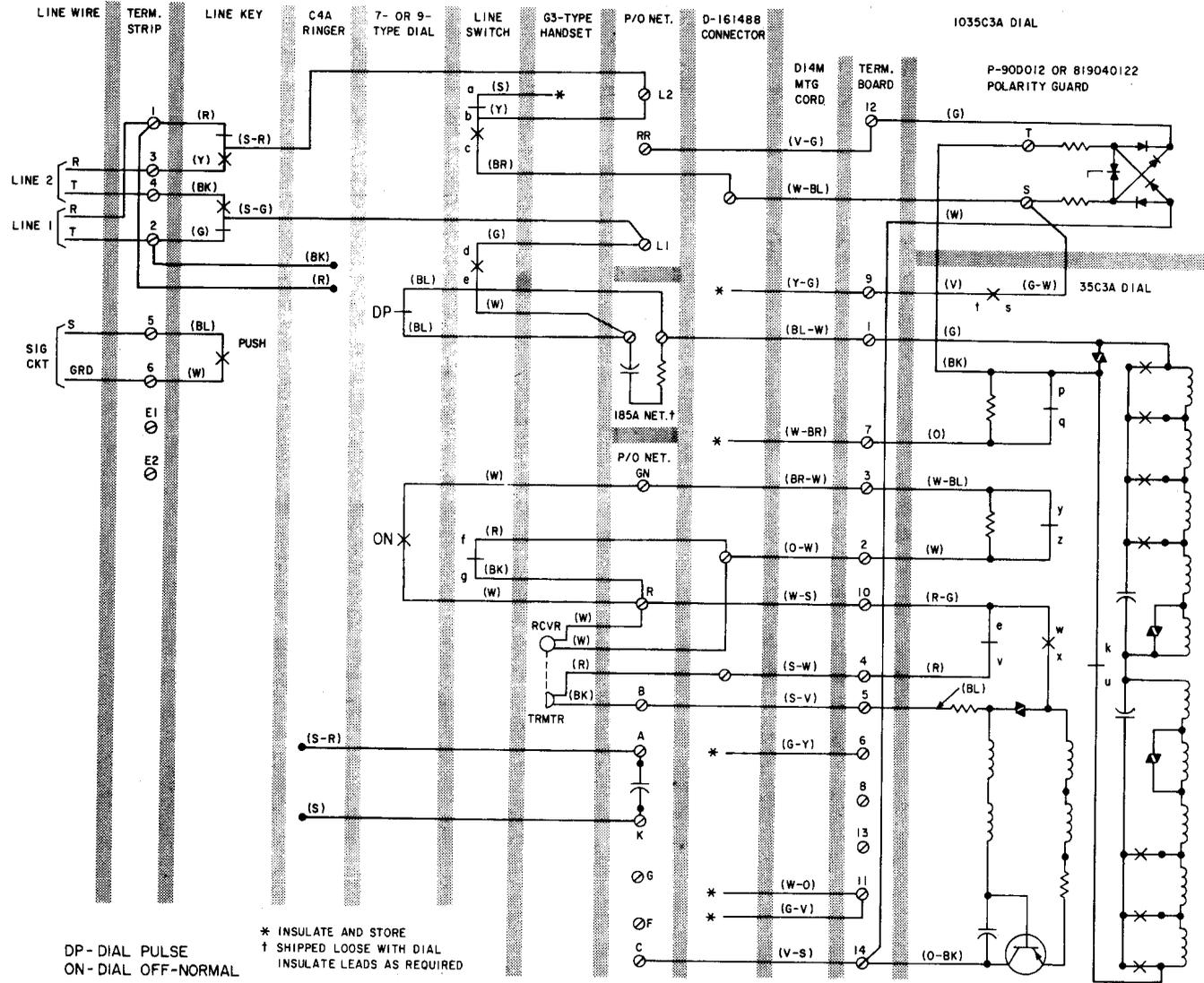


Fig. 25—1035C3A Dial, Connections to 558B Telephone Set