

950A- AND 2950A-TYPE TELEPHONE SETS

IDENTIFICATION, INSTALLATION, CONNECTIONS, AND MAINTENANCE

1. GENERAL

1.01 This section contains information for the 950A1, A2, A3, and 2950A1, A2, A3 (Fig. 1) DESIGN LINE* wall telephone (*Noteworthy**) sets.



Fig. 1—950A1 or 2950A1 Telephone Set Equipped With a Blackboard Front Panel

1.02 This section is reissued to:

- Revise Table A

* Trademark of American Telephone and Telegraph Company

- Revise Fig. 2
- Add D-180891 Kit of Parts
- Add 225A adapter
- Add 282B adapter
- Show 282A adapter MD
- Add Fig. 4.

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.

1.03 The customer's premises must be properly wired with an appropriate connecting block or jack to accept the D4BU-29 plug-ended mounting cord.

2. IDENTIFICATION

2.01 Refer to Table A for available codes and ordering information.

2.02 The 950A-type (Rotary dial) and 2950A-type (TOUCH-TONE® dial) equipped telephone sets are DESIGN LINE telephone sets. The customer buys the housing from the telephone company and the telephone company retains ownership of the transmission and signaling components which are screwmounted to a bracket located in the housing and in the hand telephone set.

2.03 The set consists of a rectangular housing that has a directory storage space and is designed to have the hand telephone set located on either side.

NOTICE

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

◆TABLE A◆

TELEPHONE SET AND ASSOCIATED COMPONENTS

TEL SET CODE	HOUSING		FRAME*		HAND TEL SET	HANDSET CORD	MTG CORD†	HANDSET JACK	MTG CORD JACK	RINGER
	CODE	COLOR	TYPE	COLOR						
950A1-124	950AS1-124	Rust	Half RD	Rust	841400781	H4DU-124	D4BU-29	616P	623P4	P1A
950A1-123	950AS1-123	Yellow	Half RD	Yellow	841400773	H4DU-123				
950A2-58	950AS2-58	White	Half RD	Light Oak	841400757	H4DU-58				
950A3-104	950AS3-104	Brown	Sculptured	Traditional Wood Finish	841400765	H4DU-104				
2950A1-124	2950AS1-124	Rust	Half RD	Rust	841399785	H4DU-124				
2950A1-123	2950AS1-123	Yellow	Half RD	Yellow	841399777	H4DU-123				
2950A2-58	2950AS2-58	White	Half RD	Light Oak	841399751	H4DU-58				
2950A3-104	2950AS3-104	Brown	Sculptured	Traditional Wood Finish	841399769	H4DU-104				

* All frames are equipped with a blackboard panel installed and an optional cork board panel is also provided for change out if desired.

† 14 feet long.

2.04 The set consists of a wall plate, housing, frame, two panels (blackboard or cork board), hand telephone set, handset cord, mounting cord, and other miscellaneous parts (Fig. 2).

2.05 These wall telephone sets are furnished from the factory wired for bridged ringing.

2.06 These sets are primarily used on single line and two-party service, however, they can be used on four- and eight-party service if a 28A ringer isolator is provided. For connection information on the ringer isolator, refer to Section 501-375-101.

3. INSTALLATION

3.01 To install wall plate and mounting cord.

Warning: Do not install the telephone set over a range, stove, or sink. Do not mount the set adjacent to a wall switch or directly above a wall outlet, avoid plumbing pipes in wall.

Warning: Do not fasten the telephone set to dry-wall material with any device except the four moly-bolts provided; to install the set on walls of other materials, obtain suitable

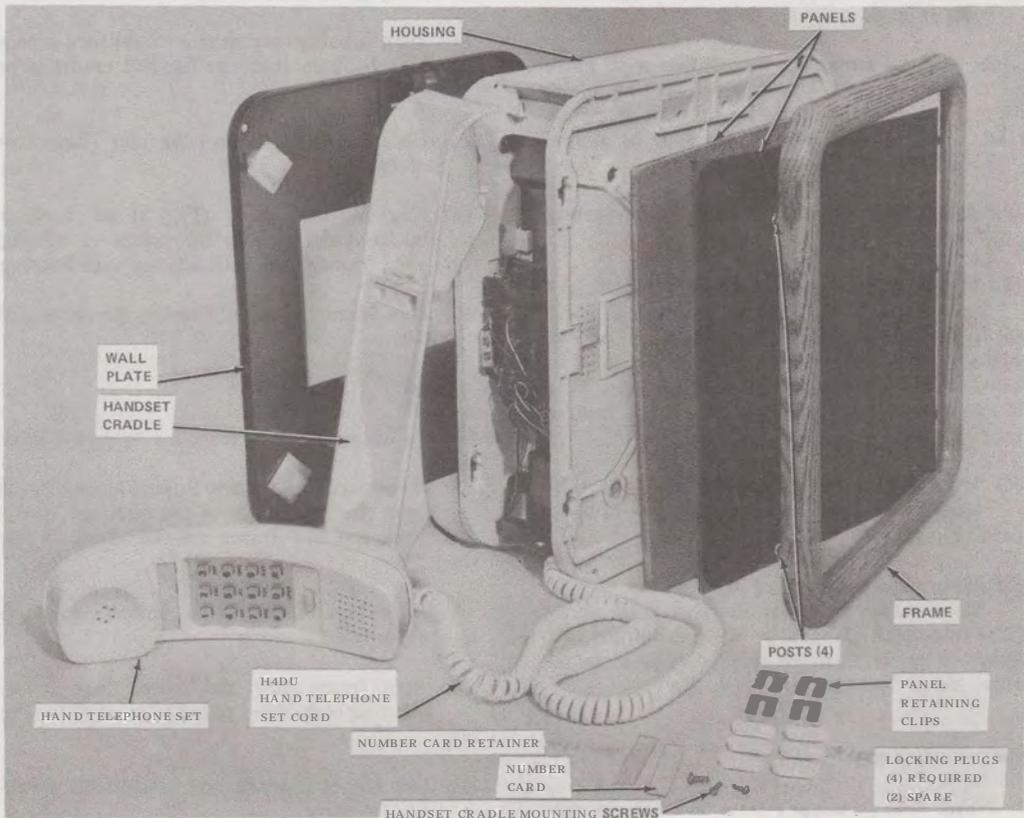


Fig. 2—950A- or 2950A-Type Telephone Set, Assembly

fasteners locally. Mount the set on a rigid, permanent wall only.

- (1) Mark wall plate mounting screw locations by using either method described in (a) or (b).
 - (a) If 630A4 connecting block is provided, place wall plate over the connecting block and mark the two upper and two lower mounting screw holes (Fig. 3).
 - (b) If a 625-type connecting block or 548A jack is provided, place wall plate against wall at a convenient height in the vicinity of the connecting block or jack and mark the two upper and two lower mounting screw holes (Fig. 3).



Make sure you install the wall plate close enough to the connecting block or jack for the mounting cord to reach with about one foot to spare. The cord is 14 feet long.

- (2) Attach wall plate to wall with appropriate fasteners.
- (3) Plug one end of mounting cord into 630A4 connecting block, 625-type connecting block, or 548A jack using #225A adapter or 1A converter. Run mounting cord up through the center notch at bottom of wall plate (Fig. 3) if a 625-type connecting block or a 548A jack is used.
- (4) Wind excess cord on plastic hooks on wall plate leaving approximately one foot of loose cord (Fig. 3).
- (5) Secure loose mounting cord end in one of the notches on lower edge of wall plate. (Use left notch if handset is to go on the left side and use right notch if handset is to go on right side.)

OPTIONAL FEATURES

Note: Set is shipped from the factory with the blackboard panel installed and arranged for the handset to be located on the left side. It is recommended that customer be advised of cork panel option and option to change

handset from left to right side prior to installation.

A. Handset Location

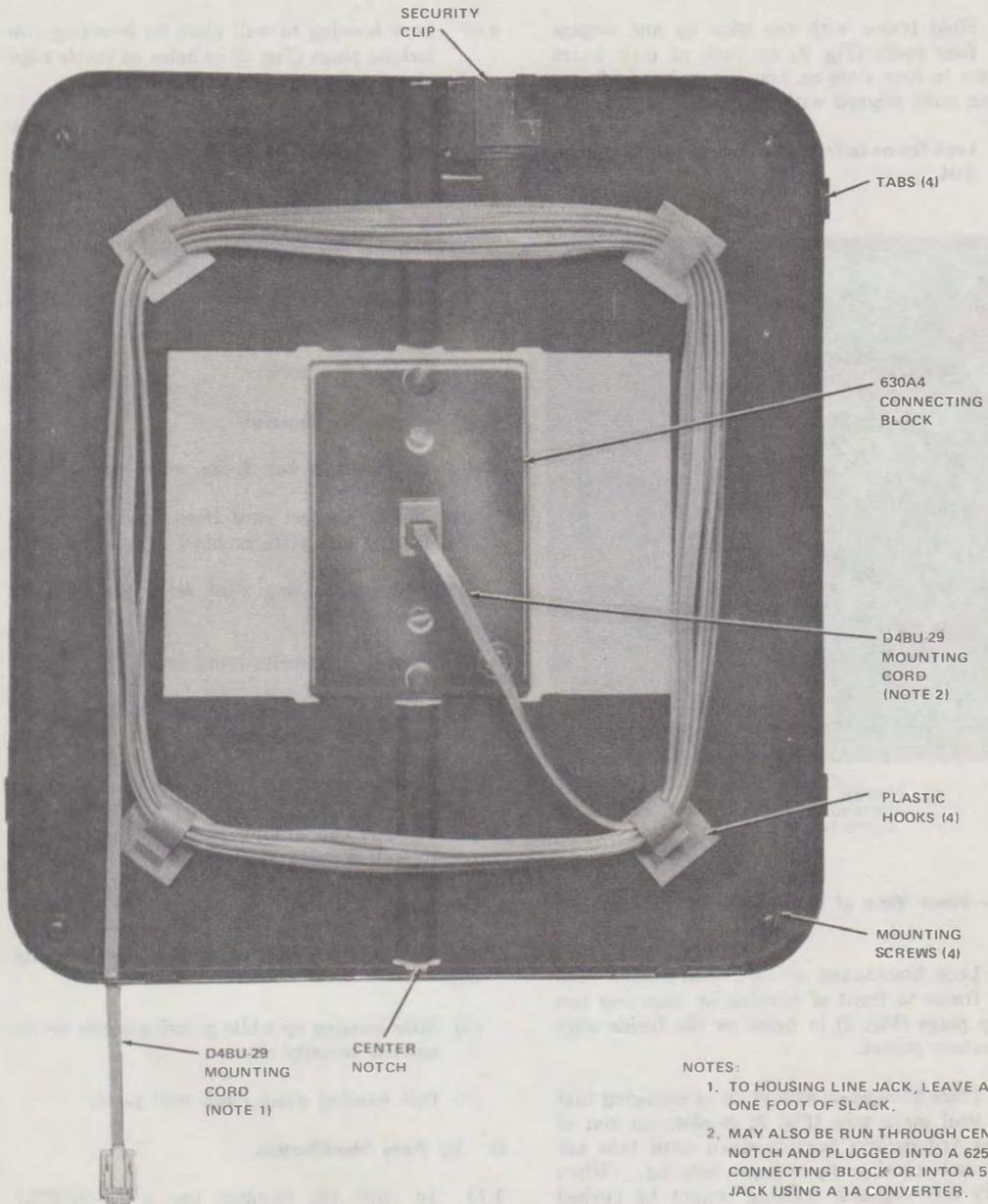
3.02 To change handset from left to right side.

- (1) If required, pry out two locking plugs (Fig. 2) from the inside edge of directory pocket which secure the frame to the front of the housing.
- (2) Place housing on a table with blackboard frame on top and handset cradle on left.
- (3) Slide the blackboard frame upward and pull away from the housing.
- (4) Turn housing over as you would turn a page in a book so that the handset cradle is on the right.
- (5) Hold frame with top edge up. (Rear side of frame is marked.)
- (6) Engage four posts (Fig. 2) on back of blackboard frame in four slots on housing and slide frame down until aligned with housing.
- (7) Lock frame to front of housing, see paragraph 3.04.

B. Panel

3.03 To change from blackboard to cork board.

- (1) If required, pry out two locking plugs (Fig. 2) from the inside edge of the directory pocket which secure the frame to the front of the housing.
- (2) Slide blackboard frame upward and pull away from housing.
- (3) Turn frame over and loosen four screws securing cork board panel retainer clips (Fig. 4).
- (4) Lift out cork board and blackboard panels.
- (5) Reverse panels.
- (6) Replace the four retainer clips and tighten four screws (Fig. 4).



NOTES:

1. TO HOUSING LINE JACK, LEAVE ABOUT ONE FOOT OF SLACK.
2. MAY ALSO BE RUN THROUGH CENTER NOTCH AND PLUGGED INTO A 625-TYPE CONNECTING BLOCK OR INTO A 548A JACK USING A 1A CONVERTER.

Fig. 3—950A- or 2950A-Type Telephone Set, Mounting Cord Arrangement

- (7) Hold frame with top edge up and engage four posts (Fig. 2) on back of cork board frame in four slots on housing and slide frame down until aligned with housing.
- (8) Lock frame to front of housing, see paragraph 3.04.



Fig. 4—Rear View of Frame With Panels Installed

- 3.04 Lock blackboard or cork board panel and frame to front of housing by inserting two locking plugs (Fig. 2) in holes on the inside edge of directory pocket.
- 3.05 Place housing on wall plate by engaging four wall plate tabs (Fig. 3) in slots on rim of housing and pulling housing down until tabs are seated and security clip engages housing. (When security clip engages, housing cannot be pushed up.)
- 3.06 Plug loose end of mounting cord into jack marked *line* in bottom of housing. Push excess cord through notch into wall plate.

3.07 Lock housing to wall plate by inserting two locking plugs (Fig. 2) in holes on inside edge of directory pocket.

3.08 Plug loose end of handset cord into jack marked *handset* in bottom of housing.

3.09 To adjust ringer volume.

- (1) Remove directories from directory pocket.
- (2) Slide knob inside directory pocket to adjust ringer volume.
- (3) Replace directories.

C. Telephone Set Removal

3.10 To remove set from wall plate:

- (1) Unplug handset cord from handset jack in housing and place handset and cord aside.
- (2) Unplug mounting cord from line jack in housing.
- (3) Remove directories from set.
- (4) Pry out two locking plugs holding panel and frame to housing.
- (5) Slide frame up and pull away from housing.
- (6) Pry out two locking plugs holding housing to wall plate.
- (7) Insert a screwdriver in the hole as shown in Fig. 5, and pass screwdriver through directory compartment to press against security clip.
- (8) Slide housing up while pressing screw driver against security clip.
- (9) Pull housing away from wall plate.

D. Tip Party Identification

3.11 To open the handset use a KS-21107L1 releaser or equivalent to remove the cover located above the dial. **Be careful not to insert the tip of the releaser too deep or mar the plastic deck. Under no circumstances should a screwdriver be**

used. Remove the two screws which are now exposed, and lift the shell off.

E. D-180825 Kit of Parts

3.12 Install 282A (MD) or 282B adapter (D-180825 Kit of Parts) in hand telephone set as follows.

- (1) Open handset by removing the shell from the handset (paragraph 3.11).
- (2) Install the 282A (MD) or 282B adapter onto the existing handset cord jack (Fig. 6).
- (3) Connect the (Y) and (BK) spade-tipped leads of the adapter to terminals A and 4, respectively, of the network (Fig. 6).
- (4) Reassemble shell to hand telephone set.

3.13 Install terminal board (D-180825 Kit of Parts) in housing as follows.

- (1) Remove two screws located under number card and one screw located at bottom of handset cradle and remove handset cradle from housing (Fig. 5) by lifting up and then out. Tabs at the top of the cradle must be disengaged.
- (2) Refer to Fig. 7 for mounting of terminal board and to Fig. 9 and Table B for connection information.
- (3) Reassemble handset cradle to housing.

F. D-180891 Kit of Parts

3.14 The D-180891 Kit of Parts consists of a 282A (MD) or 282B adapter and lead assembly. The kit of parts is used to prevent radio frequency interference in the on-hook mode when the TOUCH-TONE hand telephone set is provided.

Note: This kit is used for all types of service except for the tip party of a two-party line when automatic number identification is provided.

3.15 To install the D-180891 Kit of Parts in the 2950A-type telephone set, refer to the installation and connection information for the 2220C hand telephone set in Section 502-303-102. For additional wiring changes inside set housing,

refer to Section 500-150-100. Refer to paragraph 6.01(1) to gain access to the interior of these sets for wiring changes.

4. CONNECTIONS

4.01 These telephone sets are furnished from the factory wired for bridged ringing with the ringer bias spring in the low bias position. To connect the telephone set, plug the mounting cord into a 630A4 or 625-type connecting block or if a 548A jack is provided make connection by using the 225A adapter or 1A converter.

4.02 The internal connections for the 950A- and 2950A-type telephone sets, for nonkey system use, are shown in Fig. 8 and 9.

4.03 Connections for 1A KTS require no telephone set modifications and are wired same as Fig. 8 or 9.

4.04 If these telephone sets are to be used with 1A1 or 1A2 key telephone systems the set must be modified by moving the (BR) line switch lead from L2 to G on the housing terminal board.

4.05 If tip party with identification ground is required the D-180825 Kit of Parts must be installed as described in paragraphs 3.11, 3.12, and 3.13. Connection information is shown in Fig. 9 and Table B.

4.06 If D-180891 Kit of Parts is required to prevent radio frequency interference in the on-hook mode when the TOUCH-TONE hand telephone set is provided, refer to paragraph 3.14.

4.07 To gain access to the interior of these sets for wiring changes, refer to paragraph 6.01(1).

4.08 Line and ringer connections.

(1) Refer to Table B for single line and two-party service for the 950A- or 2950A-type telephone sets.

(2) For adjustments and ringer cutoff feature of the P1A ringer, refer to Section 501-259-101.

4.09 The TOUCH-TONE hand telephone set is equipped with a polarity guard.

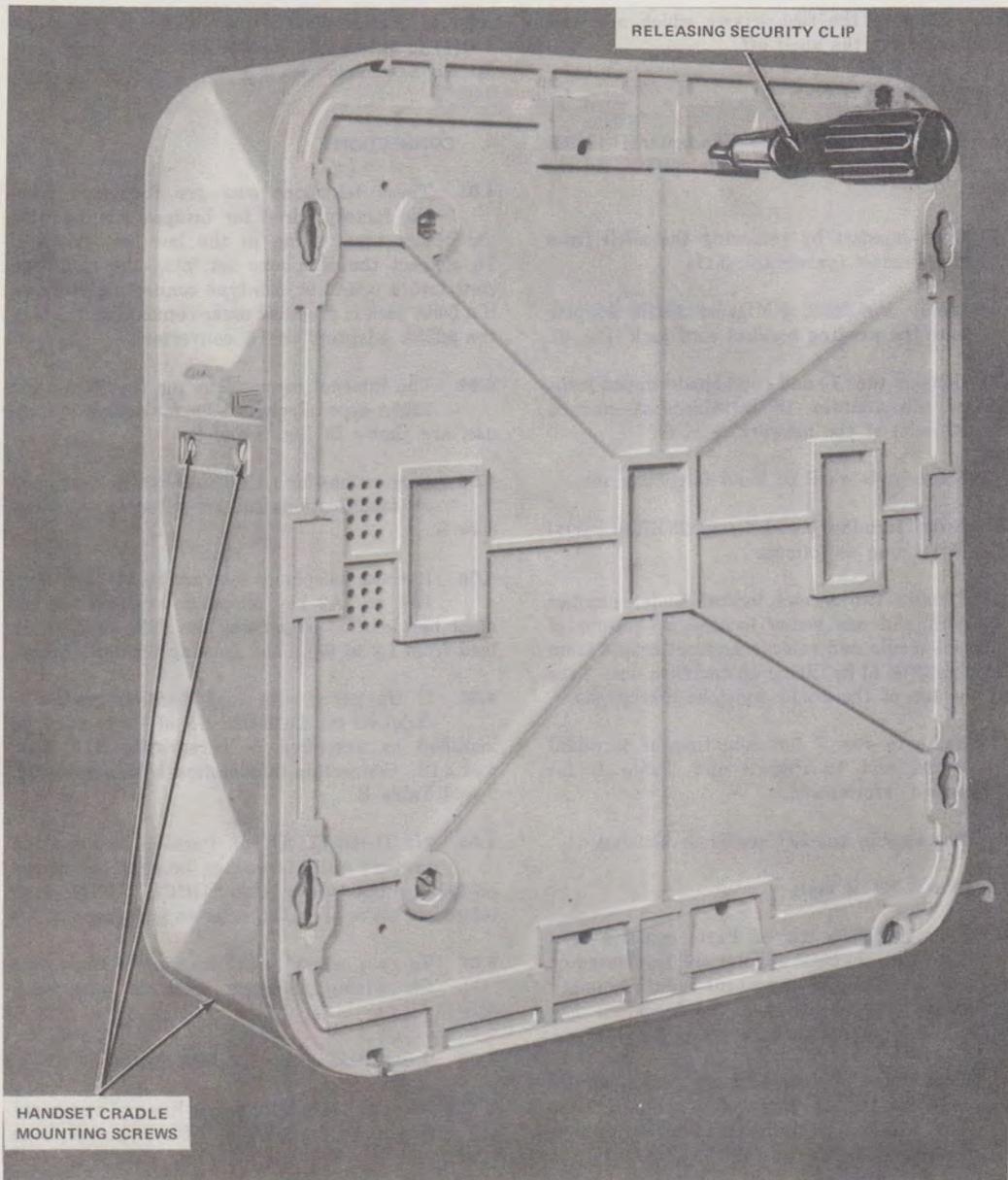


Fig. 5—950A- or 2950A-Type Telephone Set With Panel and Frame Removed

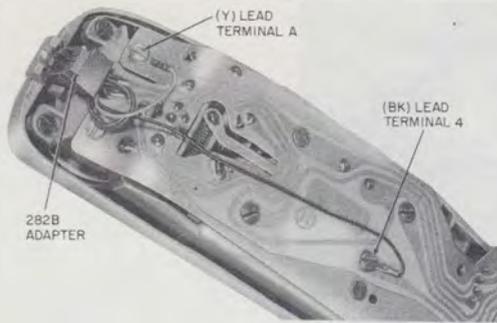


Fig. 6—282A (MD) or 282B Adapter (P/O D-180825 Kit of Parts) Installed in Hand Telephone Set

5. MAINTENANCE

- 5.01 Wash blackboard with clear water only.
- 5.02 Wipe housing with damp cloth and mild soap. **Do Not** use detergents to clean housing.

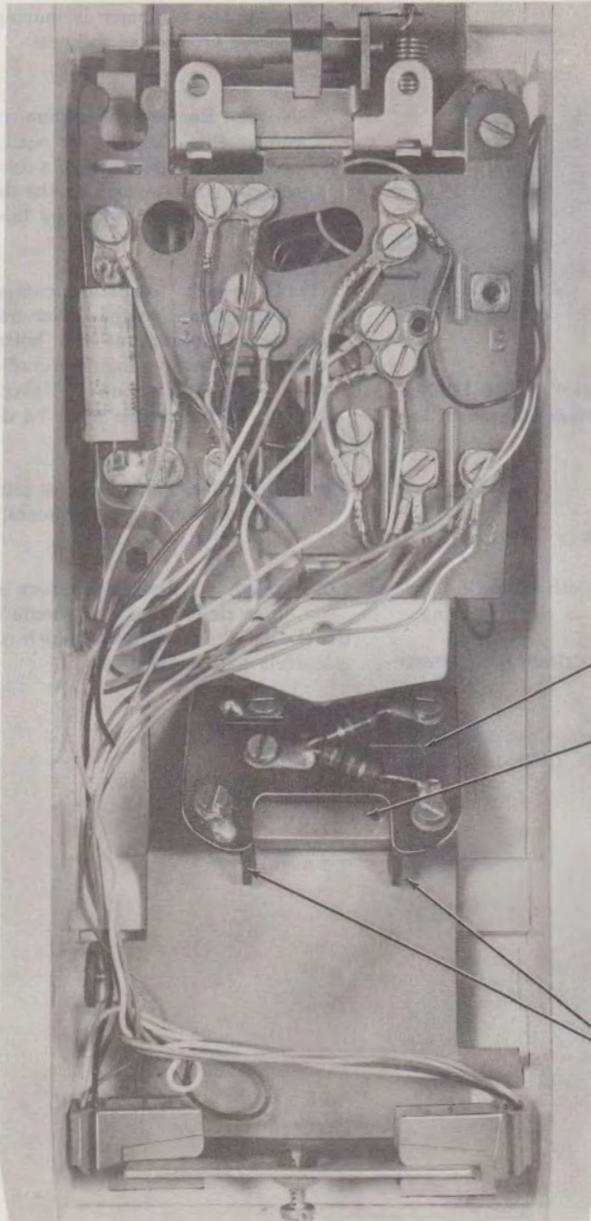
6. REMOVAL OF TELEPHONE COMPANY-OWNED COMPONENTS

- 6.01 When it is desired to discontinue telephone service of these DESIGN LINE telephone

sets and/or the customer is moving to a non-Bell served area, proceed as follows.

Note: Remove telephone company-owned components that can be easily removed. To provide the appearance of a complete telephone set, components such as the dial and handset cord will remain with the telephone set.

- (1) To access telephone components remove two screws located under number card and one screw located at the bottom of handset cradle and remove handset cradle from housing (Fig. 5) by lifting up and then out. Tabs at the top of the cradle must be disengaged.
- 6.02 Follow local procedures for returning telephone company-owned components.
 - 6.03 When it is desired to return a set to Western Electric for repair, it should be packed using the (D-180866) kit of parts which contains packing materials and instructions.



TERMINAL BOARD
(D-180825
KIT OF PARTS)

COMPONENT PLATE

RIBS ON TERMINAL
BOARD FIT INTO SLOTS
IN COMPONENT PLATE

Fig. 7—Terminal Board (P/O D-180825 Kit of Parts) Installed in Housing

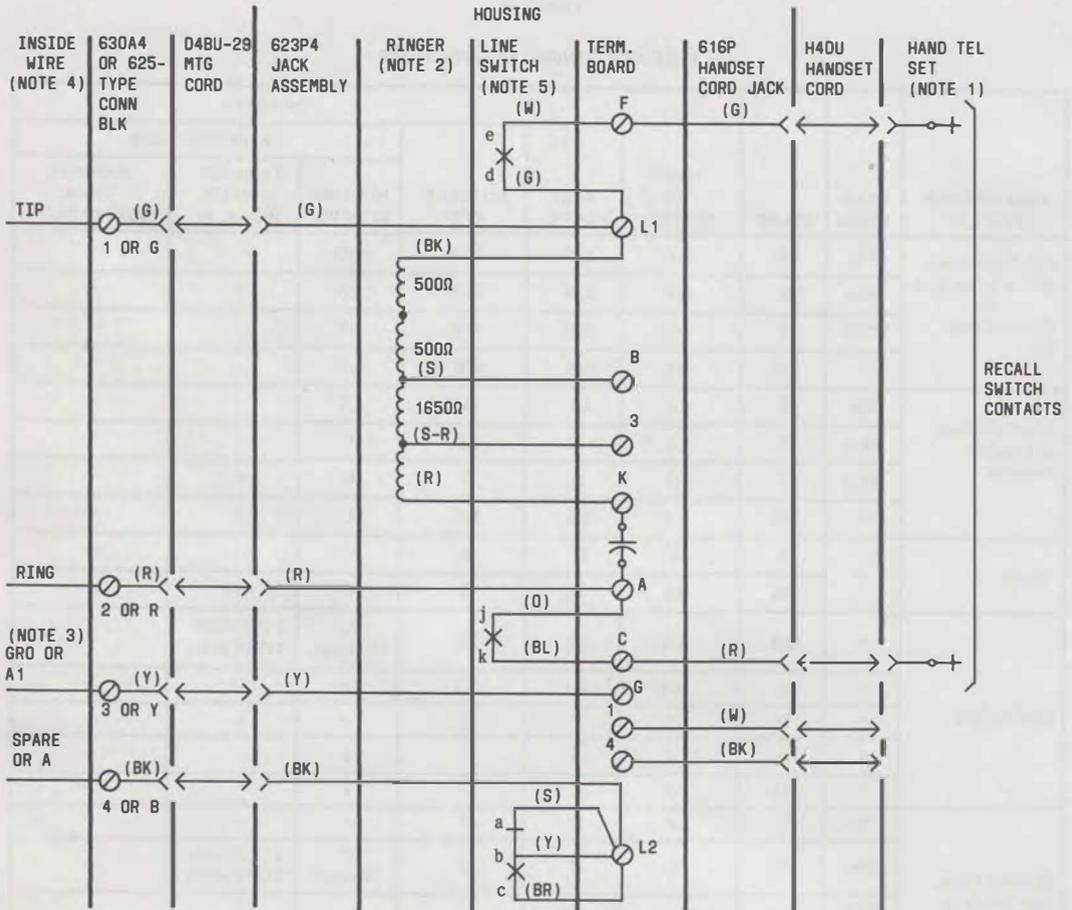
TABLE B
LINE AND RINGER CONNECTIONS

WIRE OR LEAD (NOTE 1)	LEAD DESIG	COLOR	INDIV OR BRIDGED	RING PARTY	TIP PARTY			
					NO IDENT GRD	WITH IDENT GRD		
						HOUSING TERM BD.	TERM. BD D-180825 (FIG. 7, 9)	HANDSET TERM. (NOTES 1 AND 2)
625-Type Conn Blk or 548A Jack or 630A4 Conn Blk	Tip	G	1/G	1/G	1/G	1/G	—	—
	Ring	R	2/R	2/R	2/R	2/R	—	—
	GRD	Y	3/Y	3/Y	3/Y	3/Y	—	—
	—	BK	4/B	4/B	4/B	4/B	—	—
Mtg Cord Jack or Leads in Housing	Tip	G	L1	L1	A	L2	—	—
	Ring	R	A	A	L1	F	—	—
	GRD	Y	G	G	G	G	—	—
	—	BK	L2	L2	L2	1	—	—
Ringer	—	S	B	B	B	—	L1	—
		BK	L1	G	G	G	—	—
Line Switch	—	BR	L2	L2	L2	C (Rotary)	1 (TOUCH- TONE Dial)	—
	—	S	L2	L2	L2	A	—	—
	—	W	F	F	F	—	3	—
	—	O	A	A	A	4	—	—
	—	BL	C	C	C	4	—	—
Handset Cord, Jack Leads in Housing	Tip	G	F	F	F	—	—	—
	Ring	R	C	C	C	C (Rotary)	2 (TOUCH- TONE Dial)	—
	PTY Ident	W	1	1	1	—	4	—
	PTY Ident	BK	4	4	4	—	5	—
Handset Cord Jack Leads in Handset (Note 1)	Tip	G	—	—	—	—	—	—
	Ring	R	—	—	—	—	—	—
	PTY Ident	Y	—	—	—	—	—	A
	PTY Ident	BK	—	—	—	—	—	4

Note 1: Hand telephone sets must be opened to wire for tip party with identifying ground.

Note 2: Leads for these connections are provided by the 282A (MD) or 282B adapter furnished as part of the D-180825 Kit of Parts.

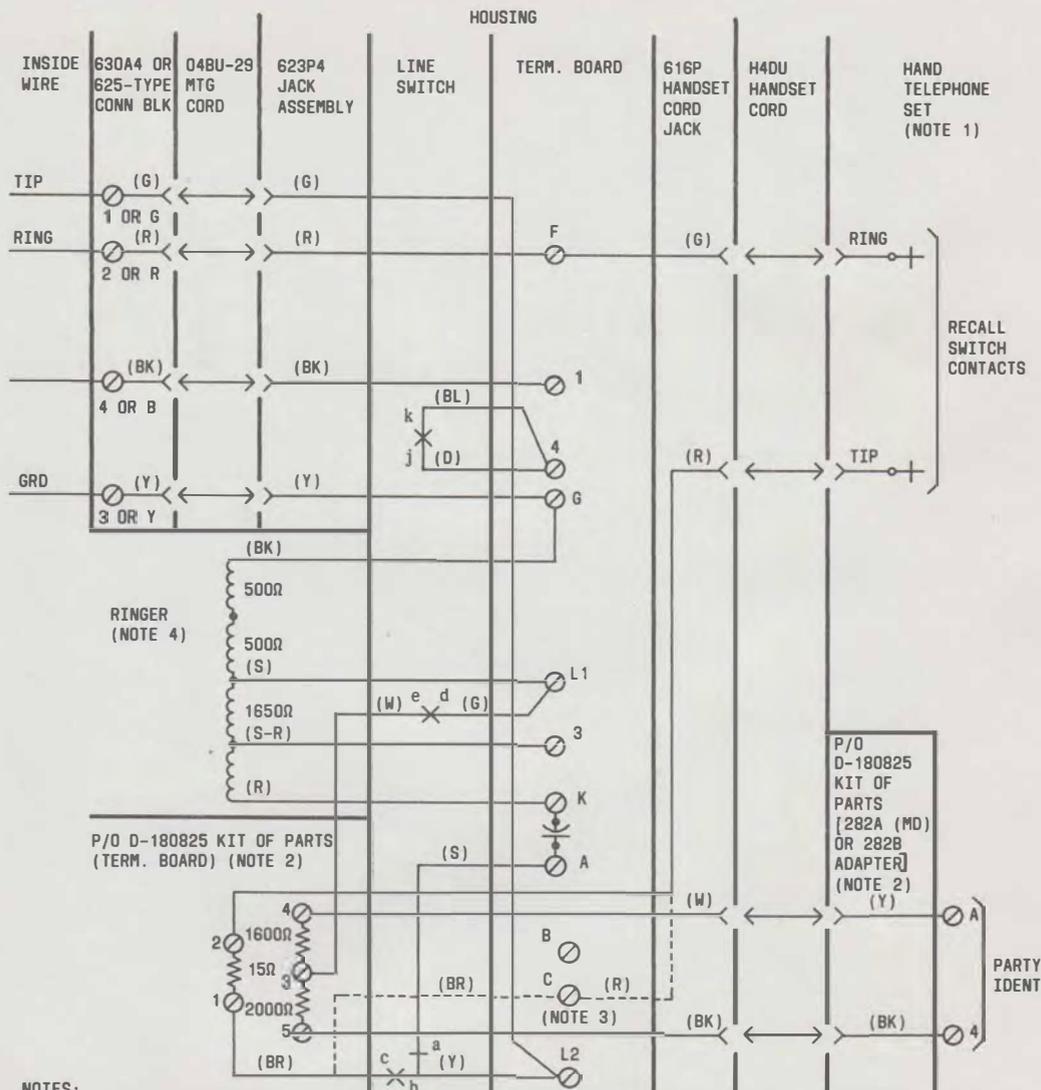
Caution: Do not store spade-tipped leads under terminal board mounting screw.



NOTES:

1. DIAL LIGHT TRNSF NOT REQUIRED. DIAL LIGHTING IS PROVIDED BY LIGHT EMITTING DIODES (LEO) IN THE HAND TEL SET WHICH IS POWERED BY CO BATTERY OVER THE INCOMING LINE.
2. WIRED FOR INDIVIDUAL OR BRIDGED RINGING. FOR ALL CLASSES OF SERVICE REFER TO TABLE B.
3. INSIDE WIRE CONDUCTOR SHALL BE CONNECTED TO THE GROUND TERMINAL AT THE PROTECTOR OR EQUIVALENT ONLY IF REQUIRED FOR SERVICE BEING INSTALLED.
4. WHEN USED WITH 1A1 OR 1A2 KTS THE (BK) AND (Y) LEADS BECOME A AND A1 AND THE (BR) LINE SWITCH LEAD MUST BE MOVED FROM L2 TO G ON THE HOUSING TERMINAL BOARD.
5. TO PREVENT FALSE HOLD CONDITION WHEN GOING ON-HOOK THE TIP AND RING CONTACTS OF THE LINE SWITCH MUST BREAK BEFORE A LEAD CONTACTS. FIELD ADJUSTMENT OF LINE SWITCH IS NOT RECOMMENDED.

Fig. 8—950A- or 2950A-Type Telephone Set Wired for Individual or Bridged Ringing



NOTES:

1. DIAL LIGHT TRANSFORMER NOT REQUIRED. DIAL LIGHTING IS PROVIDED BY LIGHT EMITTING DIODES (LED) IN THE HAND TELEPHONE SET WHICH IS POWERED BY C.O. BATTERY OVER THE INCOMING LINE.
2. REQUIRES OPENING HANDSET AND HOUSING AND ADDING D-180825 KIT OF PARTS. SEE PARAGRAPH 4.05.
3. DASHED LINES ARE CONNECTIONS FOR 950A-TYPE TELEPHONE SET.
4. FACTORY WIRED FOR INDIVIDUAL OR BRIDGED RINGING, FOR TIP PARTY WITH IDENTIFYING GROUND REFER TO TABLE B.

Fig. 9—950A- or 2950A-Type Telephone Set Connections Using D-180825 Kit of Parts (Tip Party Identification)