

TELEPHONE SETS

TRENDLINE (TRIM-LINE)
INSTALLATION AND CONNECTION

1. GENERAL

- 1.01 This practice covers the installation, assembly, disassembly, and connection procedures for the Kellogg Trendline (Trim-Line) telephone set.
- 1.02 This practice is being reissued to include superimposed ringing information shown in paragraph 5.01 d. and Table C. The circuit modification consists of an addition of a diode (180640).
- 1.03 The Trendline does not come assembled. The handset, base, and cord are not connected and the ringer is in a separate container.

2. ASSEMBLY

- 2.01 To assemble the base housing (desk or wall model), proceed as follows:
 - a. Position the housing carefully on the base, making sure that the housing seats properly on the ears of the base.
 - b. When positioning the housing on a wall set, avoid damaging the switch hook by holding the plunger up as shown in Figure 1.
 - c. Tighten the housing screws.

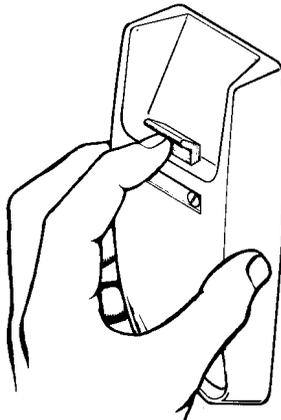


FIGURE 1. Switch Hook Plunger (up)

- 2.02 To install the name plate, hold the name plate by the outside edges near the center and insert one end in the housing recess. Bend the opposite end into place and release the center hold. See Figure 2.

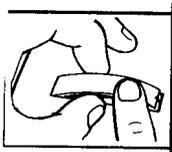


FIGURE 2.

- 2.03 To assemble the handset, proceed as follows:

- a. Hold the plugs of the handset cord side by side. Look at them from the end as shown in Figure 3.



FIGURE 3.

NOTE: Notice that the end of one plug is "T" shaped.

- b. Plug the "T" shaped plug into the handset and the rectangular plug into the base until the spring clip clicks into a locked position.
- 2.04 To assemble the desk stand cord, proceed as follows:
- a. Plug the cord in until the spring clip locks into place.
- b. Press the cord down into the channel and slide the cord retainer over until it snaps into its detent.

3. DISASSEMBLY

- 3.01 To remove the housing from the base, proceed as follows:

- a. Remove the card retainer (name plate) near the front of the housing by inserting the tip of the releaser tool into the small slotted hole at the edge of the card holder. Do not insert more than 1/8" into the card holder. See Figure 4.

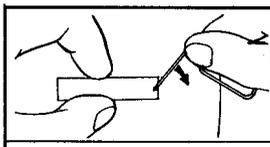


FIGURE 4.

- b. Apply slight pressure to the tool. This will bow the window upward so that the edges may be grasped with the free hand. Remove the number card if present.
 - c. Loosen the two housing screws so that the housing may be lifted free from the base.
- 3.02 To remove the handset cord, proceed as follows:
- a. Insert the releaser tool into the slot provided as shown in Figure 5a. Be sure that the tool is on top of the spring clip.
 - b. Press the spring clip down and grasp the tool and plug as shown in Figure 5b., and pull out.

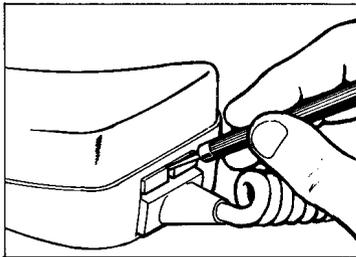


Figure 5A. Depress Spring Clip.

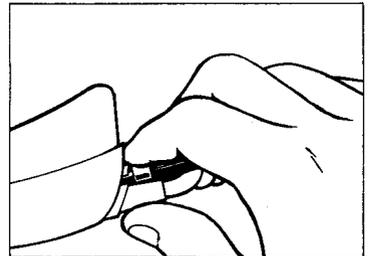


Figure 5B. Unplug Handset Cord.

FIGURE 5. Removal of Handset Cord.

NOTE: If the spring is difficult to depress, push in on the plug to relieve the tension.

- 3.03 To remove the desk stand cord, proceed as follows:
- a. Place the point of the releaser tool on the cord retainer as shown in Figure 6a. Press down lightly to free the retainer from its detent. Then move it to the left until the end clears the cord. Do not move the cord retainer farther than necessary.
 - b. Pull the cord up and out of its channel. Grasp the cord and wedge the second finger between it and the base. At the same time, use a releaser tool to release the spring clip as shown in Figure 6b.
 - c. Pull the plug out carefully as shown in Figure 6c.
- 3.04 To remove the ringer, proceed as follows:
- a. Disconnect the ringer leads as follows:
 - (1) BLACK lead from terminal "G" or "3" as applicable.
 - (2) RED lead from terminal "K".
 - (3) BLUE or SLATE lead from terminal "B" if connected. (For TIP party identification only.)

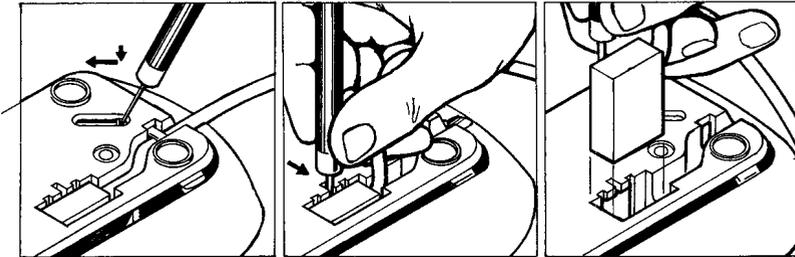


Figure 6A. Release the Cord Retainer. Figure 6B. Depress Spring Clip. Figure 6C. Pull Plug From Base. Grasp Cord.

FIGURE 6. Removal of Desk Stand Cord.

(4) BLUE, SLATE, and SLATE-RED leads are normally insulated and stored. Pull these from beneath the switchhook bracket and out of the slots in the terminal board.

- b. Remove the two terminal board mounting screws and pull the terminal board up.
- c. Remove the two ringer mounting screws and remove the ringer.

3.05 When removing the terminal board, observe how the wires are dressed. Remove the two mounting screws and pull the terminal board up carefully.

4. INSTALLATION PROCEDURES

4.01 Trendline telephones are equipped with a dial lamp. If this feature is to be used, a transformer is required—31 () 690 or equivalent. Inside wire (IW) is used to connect the transformer to the telephone or connecting block. The maximum IW allowed is 15 feet; therefore, the phone should be installed conveniently located near a 110 volt AC outlet.

4.02 Installation of the capacitor, terminal board, and ringer are as follows:

- a. Place the capacitor (if required) under the terminal board and pull the leads through the slots at "A" and "K". Connect to "A" and "K" terminals. Cut off excess wire length.

NOTE: Allow 1/4" slack in the capacitor leads to permit movement of the capacitor so that it does not interfere with terminal screws.

- b. Place the ringer on the mounting bases and secure it with the two screws included with each ringer.
- c. Install the terminal board by securing it with two screws. If the leads have been disconnected from the terminal screws, refer to the appropriate circuit table to connect the leads.
- d. Dress the ringer leads through a notch in the terminal board. Insulate and store all spare leads by dressing them through notches in the terminal board. On desk models, connect the RED ringer lead to "K" and the BLACK ringer lead to "G".

NOTE: Be sure that the leads do not interfere with operation of the switchhook or ringer.

- 4.03 When the set is to be used as a desk set, proceed as follows:
- Connect the desk stand cord as explained in paragraph 2.04. Refer to Figure 7 when installing the telephone.
 - Plug the handset cord into the *base* and *handset* as explained in paragraph 2.03.
- 4.04 When the set is to be used as a wall phone, the inside wire must be connected within the telephone. The inside wire will normally enter the instrument through the left-hand opening at the bottom of the base plate. Concealed wiring may enter through any suitable hole in the base plate but be sure that the wiring does not interfere with the ringer or switchhook. To install the set, proceed as follows:
- Remove the housing from the base assembly as explained in paragraph 3.01.
 - Position the base assembly on the wall and center mark the small end of the "keyhole" shaped holes in the base. Remove the base assembly and start the mounting screws. Install the base assembly on the screws and tighten the screws.
 - Connect the inside wire as shown in Figure 8.
 - Install the housing as explained in paragraph 2.01 and Figure 1.
 - Install the handset cord as explained in paragraph 2.03 and Figure 3.

5. WIRING CONNECTIONS

- 5.01 Wiring changes can be made to provide the following services:
- Use with 1A1, 1A2, and 6A KTS. See Table A.
 - Two party flat-rate service.
 - Tip party ANI identification.
 - Connections for 4 party full selective or 8 party semiselective ringing (using 180640 diode).

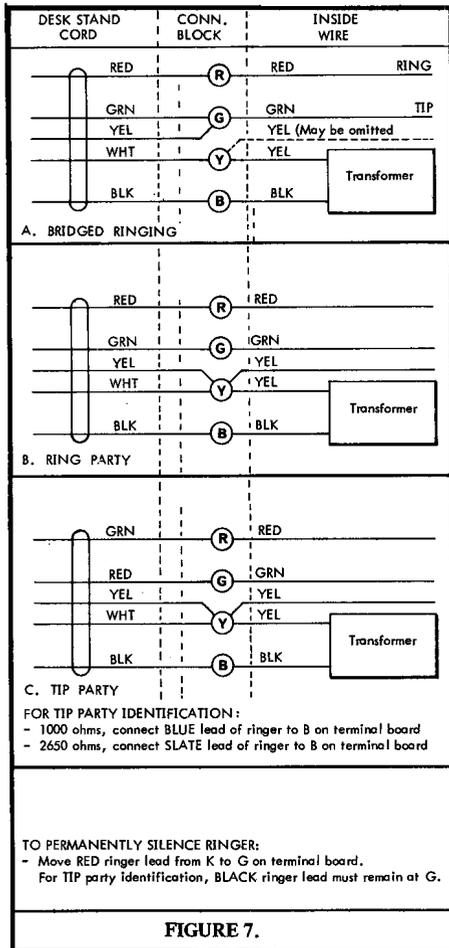
TABLE A. CONVERSION TO 1A1, 1A2, and 6A KTS MOVE LEADS AS FOLLOWS:			
LEAD AND COLOR		TERMINAL BOARD	
		From:	To:
LINE SWITCH	BR	C	G
	Y	L2	3
RINGER	AC1	BK	C
	AD1	BK	C
MTG CORD or IW	R	L2	C
CAPACITOR STRAP	BK	L2	L1 (Note 2)

Notes:

- Disconnect (Y) lead from B, insulate and store.
- Capacitor strap connects from A to L1.

5.02 See Figure 9 for a wiring diagram and circuit schematic of the desk type telephone, 220C.

5.03 See Figure 10 for a wiring diagram and circuit schematic of the wall type telephone, 220D.



CAUTION: When ringing or identification ground and dial lamp ground are common, there is a possibility of damage to the transformer. A good ground at the protector is essential or the protector ground should be bonded to the power ground.

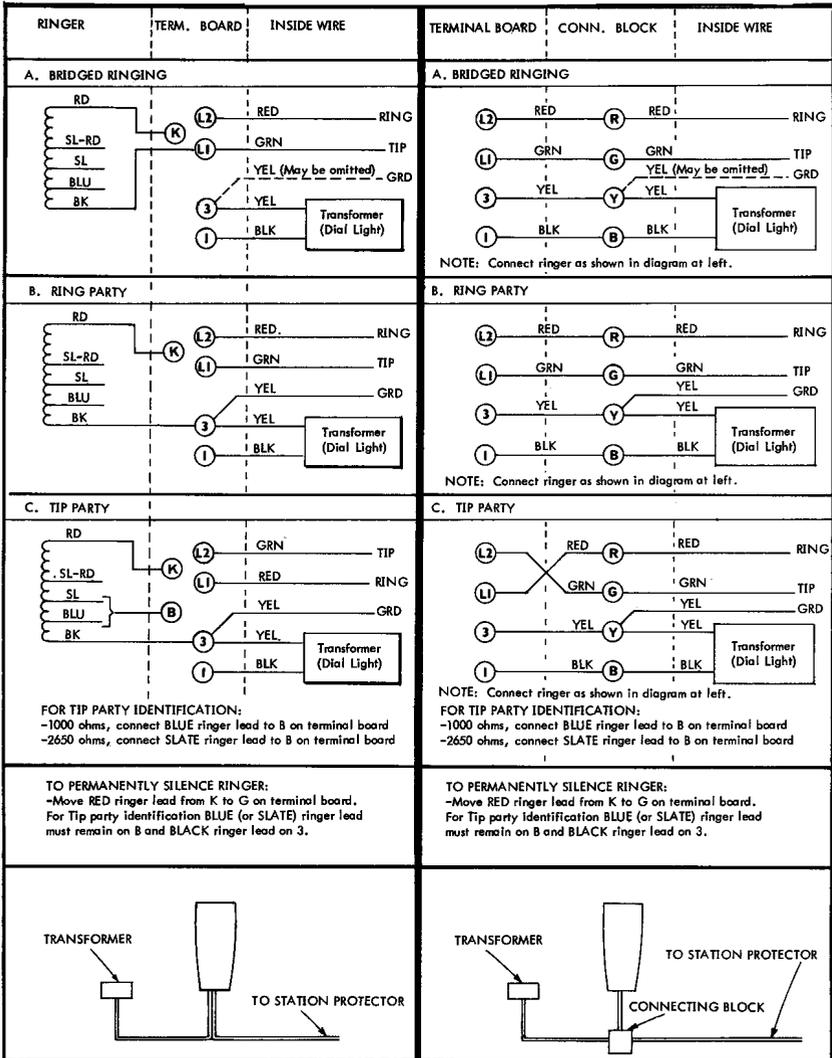


Figure 8A. Connections, wall Trendline telephone when not using a connecting block.

Figure 8B. Connections, wall Trendline telephone, using a connecting block as a common connecting point for inside wire and transformer leads.

FIGURE 8.

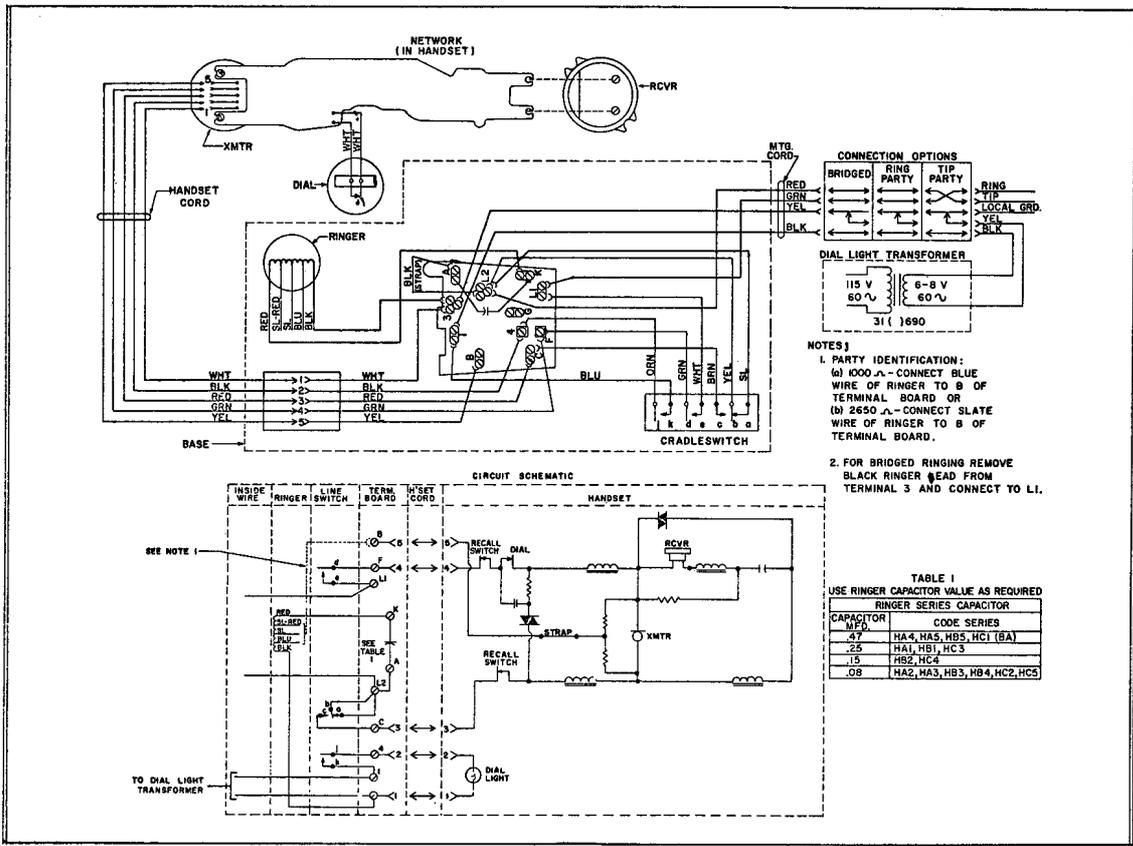


FIGURE 9. Desk Type.

6. ORDERING INFORMATION

6.01 When ordering a telephone set or cord, complete the code number by adding the appropriate number denoting the desired color. For example, 220D02 denotes a wall phone in red. See Table B.

TABLE B ORDERING INFORMATION	
CODE	DESCRIPTION
COMPLETE TELEPHONES	
220D**{ } 30M 220C**{ } 30M	Telephone, Desk; Dial-in-Handset (Trendline) Telephone, Wall; Dial-in-Handset (Trendline)
	Insert Ringer Code as follows: (BA) - Straight line biased ringer (type 153) (LR) - Less ringer Substitute Color Code as follows: 00 - Black 12 - Blue 02 - Red 13 - Beige 04 - Yellow 14 - Gray 05 - Green 15 - White 09 - Ivory 30 - Turquoise 11 - Pink
COMPONENTS	
220A**-30M AC1**{ } AD1**{ }	Handset (Substitute color code for asterisks) Wall Base Assembly Desk Base Assembly { } Insert ringer code above **Substitute color code above
HANDSET CORDS	
1027**-03 1027**-25 1027**-26	Handset Cord Assembly, 6-foot Handset Cord Assembly, 9-foot Handset Cord Assembly, 13-foot **Substitute Color Code
TRANSFORMER	
31 () 690	Transformer, for Dial Light Operation
DESK STAND (LINE) CORDS (Included with Desk Base)	
3060**013 3060**-25 3060**-26 3060**-24	Cord, Desk Stand, 68 Inches (Standard) Cord, Desk Stand, 9 feet Cord, Desk Stand, 13 feet Cord, Desk Stand, 25 feet
CIRCUIT LABELS	
180200 180201	Label, Circuit, Desk Trendline Telephone Label, Circuit, Wall Trendline Telephone

TABLE C
 CONNECTIONS FOR 4-PARTY FULL SELECTIVE OR 8-PARTY SEMISELECTIVE RINGING USING 180640 DIODE

PARTY		LEADS OR COLOR	-RING	-TIP	+RING	+TIP
LINE WIRE CONN AT CONN BLOCK	Ring	R	R	R	R	R
	Tip	G	G	G	G	G
	GRD	Y	Y	Y	Y	Y
180640 Diode			L2	L2	3	3
Mtg Cord at Conn Block		R	R	G	R	G
		G	G	R	G	R
		Y	Y	Y	Y	Y
		W	Y	Y	Y	Y
		BK	B	B	B	B
Mtg Cord or Inside Wire at Term. Board		R	L2	L2 L1*	L2	L2 L1*
		G	L1	L1 L2*	L1	L1 L2*
		Y	3	3	3	3
		W	3	3	3	3
		BK	1	1	1	1
Ringer Leads		BK	K	K	K	K
		R	3	3	L2	L2
		S	+	+	+	+
		S-R	G	G	G	G
		BL	B	B	B	B
Dial Light Transformer Lds		1	Y	Y	Y	Y
		2	B	B	B	B
Strap from A		BK	3	3	L2	L2
Line Switch		S	+	+	+	+

* Connections for K254 base (Wall)

† Insulate and store

● Denotes zener anode end