

SUBSCRIBER SET—698A (CODE-COM SET)

1. GENERAL

1.01 This section contains identification, installation/test, connections, and maintenance information for the 698A subscriber (CODE-COM) set (Fig. 1). This set provides a means of communicating over telephone lines for persons who are handicapped through loss of hearing, speech, or sight.

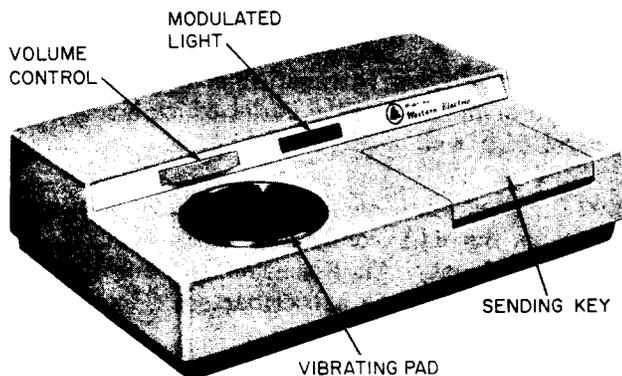


Fig. 1—698A Subscriber Set

1.02 This section is reissued to:

- Show set hard-wired, (Fig. 2)
- Show set wired for use with 500SM or 2500SM modular telephone sets, Fig. 3 and 4, respectively.
- Show set wired with telephone set, with and without KS-20614L1 or L2 relay switch, Fig. 5 and 6, respectively.

Since this reissue covers a general revision, arrows ordinarily used to indicate changes have been omitted.

2. IDENTIFICATION

Ordering Guide

- Set, Subscriber—698A-50 (available in ivory [-50] only)

Note: Subscriber Instruction Booklet SIB-2463 shipped with the subscriber set should be left with subscriber.

2.01 **Associated Apparatus** (ordered separately):

Hard-Wired Installation

- Transformer, 2012B or D (15-18 volt ac)
- KS-20614 Relay Switch (if required)
- Set, Telephone (use standard set equipped with 425-, 4010-, or 4228-type network).

Modular Installation Without KS-20614 Relay Switch

- Set, Telephone (500SM or 2500SM)
- Transformer, 2012B or D (15-18 volt ac)
- Adapter, 248A
- Adapter, 267A
- Block, Connecting, 625-type
- Cord, Mounting, D4BU-29 (appropriate length), two required.

Modular Installation With KS-20614 Relay Switch

- Set, Telephone (500SM or 2500SM)
- Transformer, 2012B or D (15-18 volt ac)
- Adapter, 267A

NOTICE

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

SECTION 502-201-105

- KS-20614L1 or L2 Relay Switch
- Block, Connecting, 74D
- Cord, Mounting, D4BU-29 (appropriate length), two required.

2.02 *Replaceable Components:*

- Cord, Mounting, D6AA-50
- Lamp, 51A
- Associated apparatus ordered separately.

Design Features

- Available in ivory (-50) only
- 6 inches long, 4 inches wide, and 1-1/2 inches high
- Provides visual or vibration type signals
- Sending key provided for sending Morse or other predetermined codes
- Used as adjunct to any telephone set equipped with 425-, 4010-, or 4228-type network.

Note: TRIMLINE® telephone sets cannot be used as an associated telephone set due to restricted network connections.

- May be used with an auxiliary signal control unit KS-20614 relay switch (when required)
- Volume control for visual and vibration pad signal.

Operating Features

2.03 Permits the deaf to receive code signals using the flashes of light or vibrations from the tactile transducer (vibrating pad). The deaf and blind would be required to use the vibrating pad. The telephone set transmitter is used for outgoing speech.

2.04 Permits the mute to send signals in a predetermined code using the sending key. Incoming speech is heard over the telephone set receiver.

2.05 Associated telephone set must be off-hook when using the CODE-COM set.

2.06 Permits recognition of busy signal, dial tone, ringing signal, and voice by the modulation patterns of the vibrating pad and flashing light.

2.07 Provided with volume control to regulate sensitivity of the tactile transducer and brilliance of the visual signal.

3. HARD WIRED INSTALLATION

3.01 Use a 44A connecting block as a common connection point for the CODE-COM set, the associated telephone set, and the power supply (Fig. 2).

3.02 The 2012B or D transformer must be plugged into an ac electrical outlet which is not under control of a wall switch.

3.03 Extension telephone sets should be terminated to the 44A connecting block used by the CODE-COM set. All extension stations must be connected behind the subscriber set (Fig. 2).

3.04 Install a KS-20614 relay switch to activate a light duty appliance such as a light or fan where a signal device different than a ringer must be used to attract the attention of a handicapped person. Connect the relay switch to provide the same ringing service as the associated telephone set. Refer to Section 463-110-100.

Modular Installation

3.05 The CODE-COM set can be installed and connected directly to either a 500SM or 2500SM modular telephone set. Modification to the telephone set wiring and connections for the CODE-COM set are shown in Fig. 3 for the 500SM set and Fig. 4 for the 2500SM set. After making the necessary CODE-COM set D6AA mounting cord connections, secure cord stayband hook to the telephone set terminal board mounting screw to provide strain relief for the mounting cord.

3.06 A typical installation of the 500SM or 2500SM telephone set and associated 698A subscriber set (CODE-COM) with a KS-20614 relay switch is shown in Fig. 5, and Fig. 6 shows sets connected without the relay switch.

3.07 In a modular CODE-COM installation the 500SM or 2500SM telephone set and associated CODE-COM set is placed across tip and ring in parallel with any other extension sets that might be on the same line. Therefore, in some installations the CODE-COM transmit circuit might be disabled when an extension other than the one associated with the CODE-COM set goes off-hook. In this case the person using the extension set will hear either the received signals or the clicking of the CODE-COM key and must hang up the extension for the CODE-COM set to function properly.

Test

3.08 After the subscriber set, associated telephone set, and extension stations have been installed and all connections are made, perform the following tests:

- (1) Remove the handset on the associated telephone set and turn CODE-COM set on by turning volume control to the right. Dial tone should be detected on the CODE-COM set as a steady light and a vibration should be felt on the black vibration pad.
- (2) Check to insure that the light can be extinguished and the vibrations will stop if the volume control is turned all the way to the left. Turn the volume control to the right to increase the brightness of the lamp and produce a stronger vibration on the pad.
- (3) Break dial tone by dialing one or more digits as prescribed by local instructions.
- (4) Check the CODE-COM oscillator circuit by ensuring volume control is turned on and depressing the sending key. The resulting tone should cause the CODE-COM lamp to light, and vibrations should be felt on the pad. Saying

“daa” or “dit” into the handset transmitter should also activate the vibrating pad and light.

- (5) If one or more extension telephone sets are installed, test for proper installation by breaking dial tone with the associated telephone set. After breaking dial tone remove the handset from all extension stations and repeat 3.08(4). The volume of the CODE-COM set should not be affected by the on-hook or off-hook condition of any or all extensions using the hard-wired method. There could be attenuation problems as stated in 3.07 in modular installed sets.

4. MAINTENANCE

4.01 Maintenance should be limited to replacing items listed as replaceable components in the ordering guide.

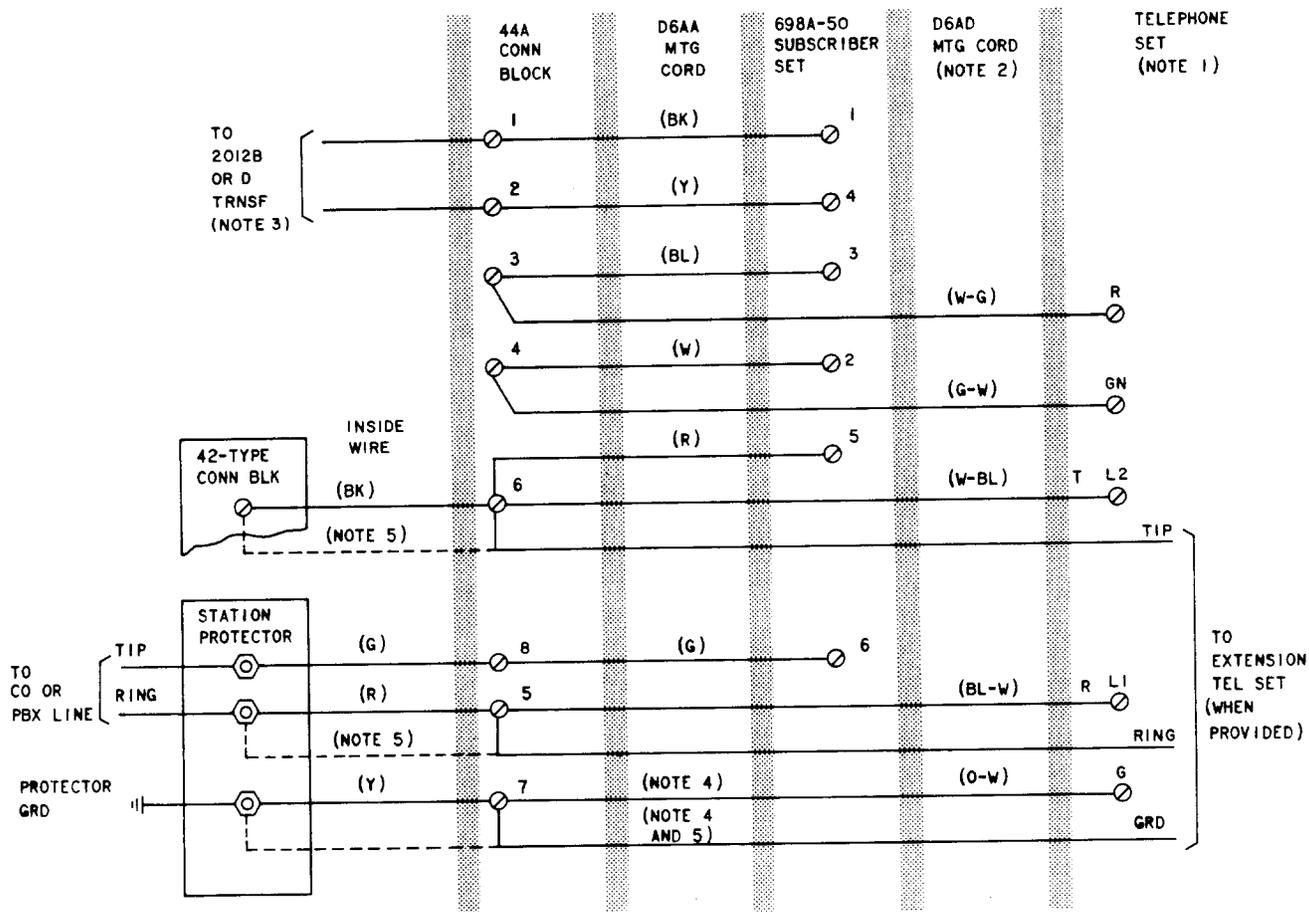
4.02 To replace the 51A lamp:

- (1) Remove three screws in bottom of base pan.
- (2) Remove housing.
- (3) Separate circuit board from housing (circuit board is not secured to housing).

Caution: *Avoid damage to the leads which connect the potentiometer (located in the housing) to the circuit board.*

- (4) Replace lamp and reverse procedure to reassemble.

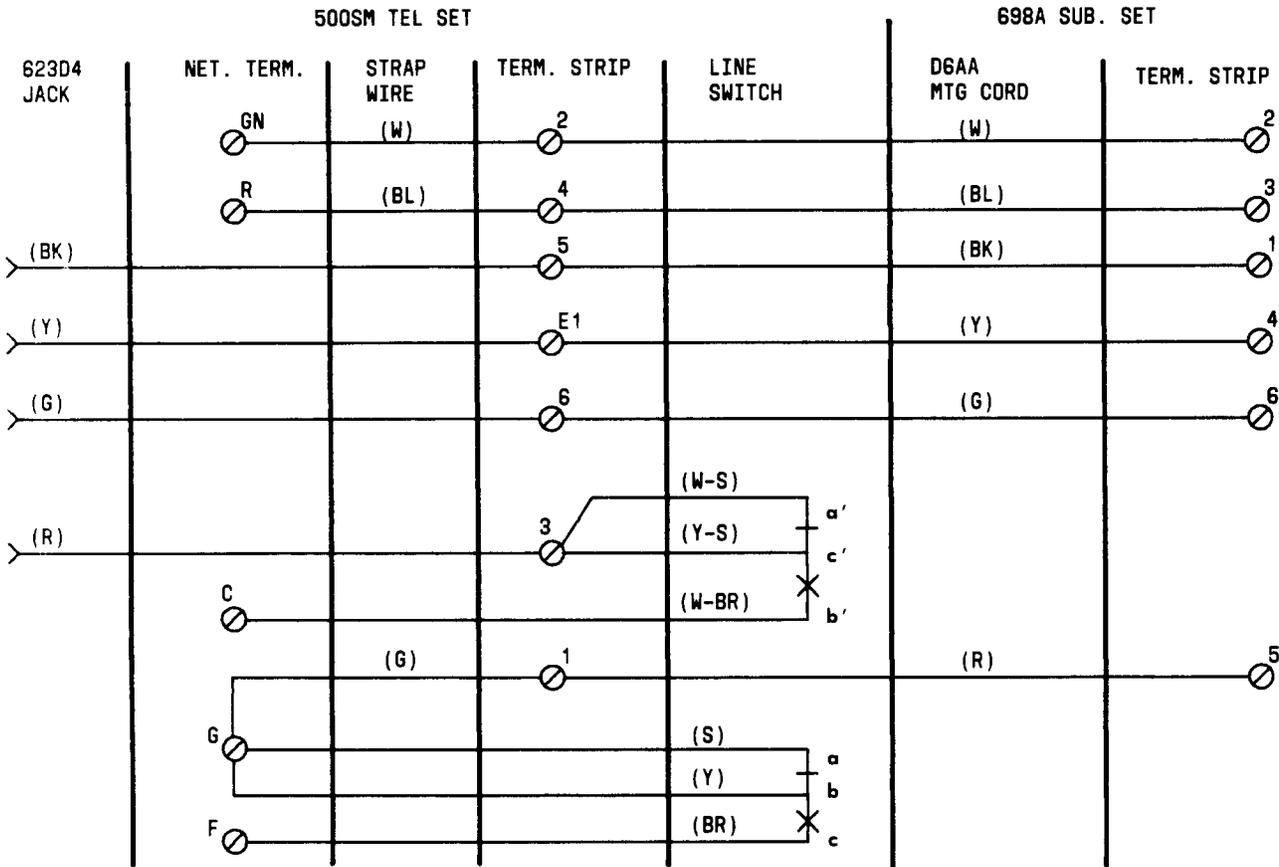
4.03 If the lamp is not bright or the vibratory pad is not vibrating strongly with the volume control fully advanced; check to assure that the proper transformer has been installed. Refer to ordering guide for proper transformers.



NOTES:

1. CONNECTIONS SHOWN ARE FOR 500 C/D OR 2500D TELEPHONE SETS. OTHER SETS MAY BE USED.
2. REPLACE TELEPHONE SET MOUNTING CORD WITH D6AD OR EQUIVALENT. INSULATE AND STORE SPARE LEADS.
3. THE 2012A OR C TRANSFORMER SHALL NOT BE USED BECAUSE OF ITS LOWER RATING.
4. GROUND MAY BE OMITTED IF NOT REQUIRED FOR RINGING OR TIP IDENTIFICATION GROUND
5. EXTENSION TELEPHONE(S) MAY BE CONNECTED TO THE PROTECTOR OR THE 44A CONNECTING BLOCK. (NOTE: THE TIP SIDE OF THE LINE FOR ALL EXTENSION STATIONS MUST FEED THROUGH THE 698A SUBSCRIBER SET)

Fig. 2—Typical Hard Wire Connections To 698A Subscriber Set

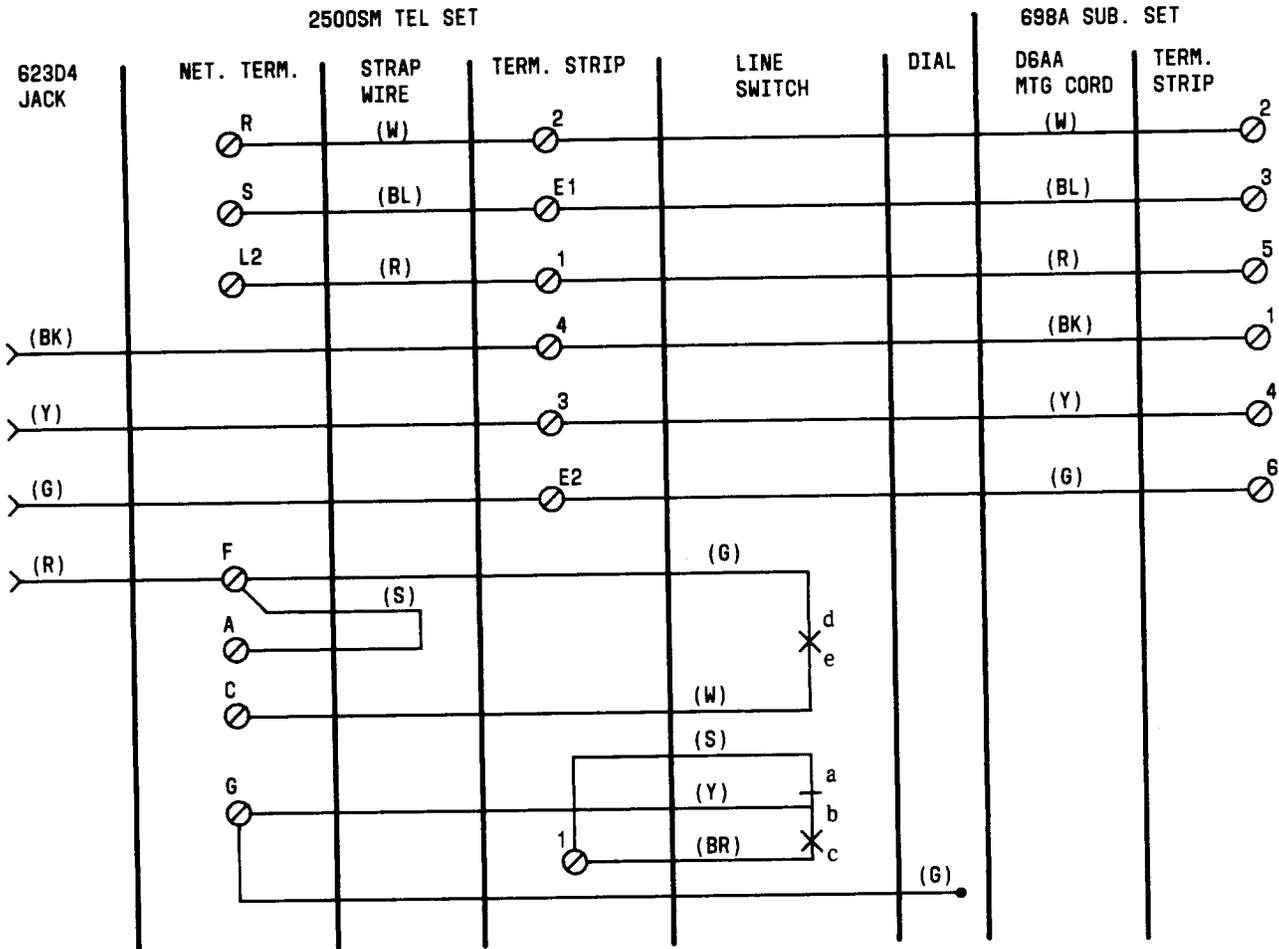


WIRING MODIFICATIONS, 500SM TEL SET TO PROVIDE DIRECT CONNECTIONS TO 698A SUB. SET

WIRE OR LEAD	COLOR	REMOVE FROM		CONNECT TO	
		NET.	TERM. STRIP	NET.	TERM. STRIP
623D4 JACK	(G)	G			6
LINE SWITCH	(W-S)		2		3
	(BR)		5	F	
	(Y)		E1	G	
	(S)		4	G	
STRAP	(G)	F			1
STRAP (SEE NOTE)	(BL)			R ← →	4
	(W)			GN ← →	2

NOTE: SHIPPED LOOSE WITH 698A SUB. SET.

Fig. 3—500SM Telephone Set, Connections to 698A Subscriber Set



WIRING MODIFICATIONS, 2500SM TEL SET
TO PROVIDE DIRECT CONNECTIONS TO 698A SUB. SET

WIRE OR LEAD	COLOR	CONNECT TO	
		REMOVE FROM TERM. STRIP	NET. TERM. STRIP
623D4 JACK	(R)	2	F
	(G)	1	E2
LINE SWITCH	(G)	2	F
	(Y)	3	G
	(BR)	4	1
	(S)	E1	1
DIAL	(G)	1	G
STRAP	(S)	2	F
STRAP (SEE NOTE)	(R)		L2 ← → 1
	(BL)		S ← → E1
	(W)		R ← → 2

NOTE: SHIPPED LOOSE WITH 698A SUB. SET.

Fig. 4—2500SM Telephone Set, Connections To 698A Subscriber Set

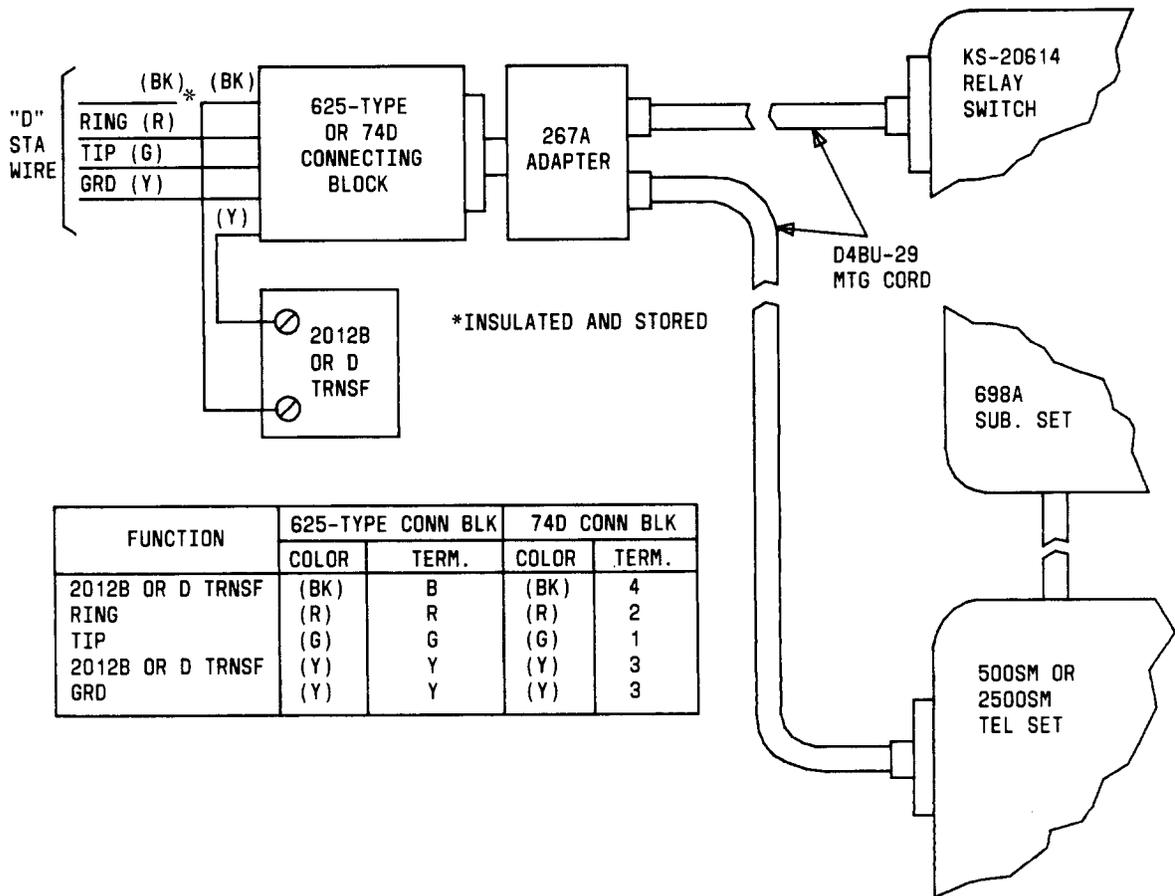


Fig. 5—Code-Com Set With KS-20614 Relay Switch

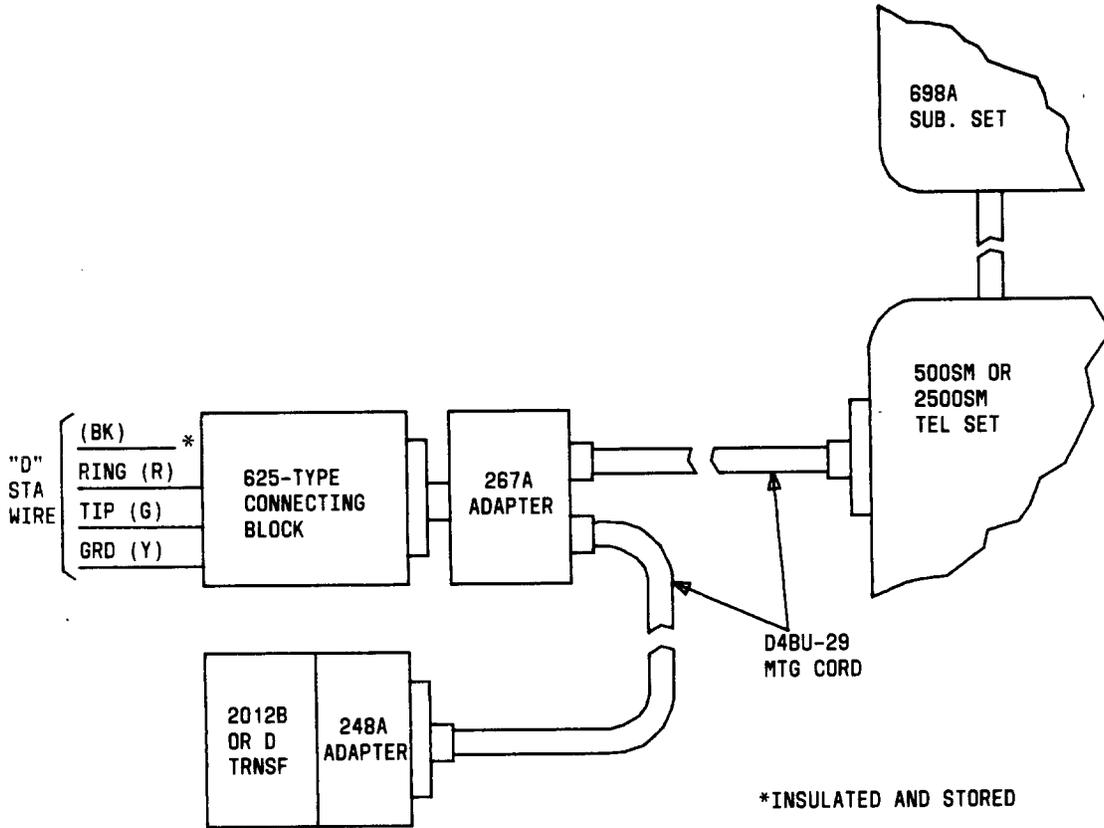


Fig. 6—Code-Com Set Without KS-20614 Relay Switch