

SERVICE

568HF AND 568HR TELEPHONE SETS

1. GENERAL

1.01 This section provides maintenance and connection information for the 568HF (MD) and 568HR (MD) telephone sets. Maintenance and connection information was formerly found in Sections 502-532-100 and 502-532-407, respectively. Section 502-532-407 will be canceled.

2. MAINTENANCE

2.01 These sets are maintained in accordance with standard procedures for key telephone sets.

2.02 See appropriate sections in Division 501 for maintenance of individual components such as handset, ringer, and dial.

3. CONNECTIONS

3.01 These sets are furnished wired for use with 2- and 4-wire common battery telephone lines and 1A1, 1A2, and 6A key telephone systems. As furnished, exclusion is provided for 2-wire service on line 1 (for exclusion on other lines or 4-wire service see Note 3, Fig. 1 or 2). Exclusion key can also be used to cut off a ringer or buzzer in set.

3.02 These sets are also wired for use with 3-type speakerphone. If speakerphone control unit is located near the telephone set, the leads can be extended to the control unit from the 66E connecting

block (or by use of a 148- or 149-type adapter when an A25B connector cable is used).



Cord tip insulators on the 148-type adapter must be removed to terminate conductors. Do not pull insulators off cord tips. Cut insulators off with electrician scissors or diagonal pliers to prevent breaking conductors or stripping off cord tips.

3.03 The 4-wire relay (Fig. 1 or 2) switches the receiver from 2- to 4-wire circuitry.

(a) On 2-wire lines, contacts on the unoperated relay connect the receiver to the network and allow the handset and network to function in the same manner as a common battery subscriber station circuit.

(b) On 4-wire lines, operated contacts of the relay disconnect the receiver from the network and connect it to the RR and RT leads. The transmitter and network function in the same manner as a common battery subscriber station transmitter circuit. The receiver RR and RT leads are connected to impedance-matching repeat coils in the associated line circuits.

3.04 The maximum connector cable resistance per conductor is:

- Lamp *L* leads—25 ohms.
- 4-wire relay leads—50 ohms.

SECTION 502-541-423

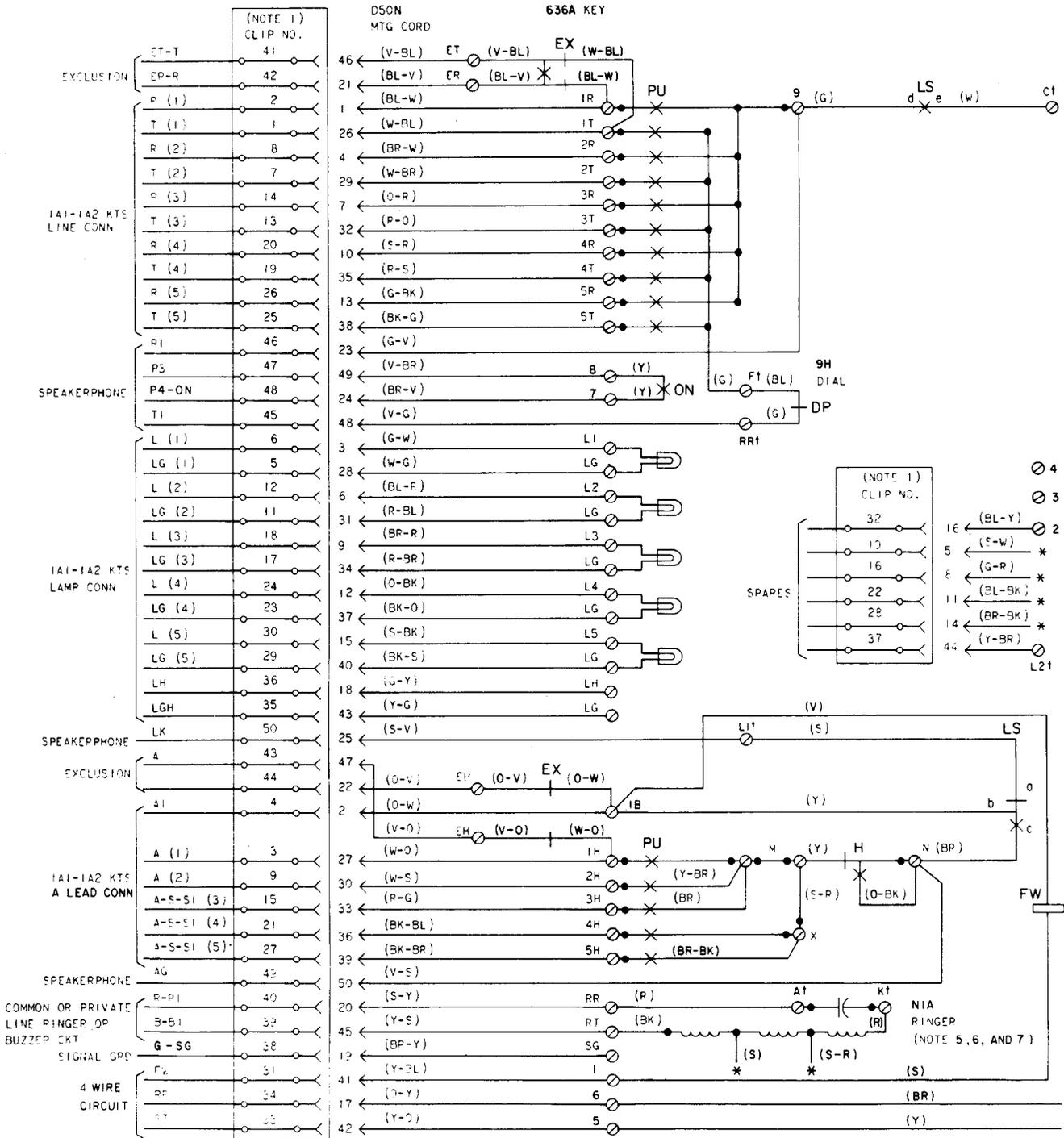


Fig. 1—568HR (MD) Telephone Set, Connections (Sheet 1 of 2)

NOTES:

1. 66E-TYPE CONNECTING BLOCK SHOWN. MOUNTING CORD MAY BE PLUGGED DIRECTLY INTO CONNECTOR CABLE. CORD AND PIN NUMBERS FOR CONNECTOR CABLE ARE SAME AS MOUNTING CORD.
2. AUXILIARY BUZZER MAY BE INSTALLED. USE SPARE LEADS AND TERMINALS (OR D-161488 CONNECTORS) TO CONNECT TO EQUIPMENT.
3. WHEN EXCLUSION IS PROVIDED ON A 4-WIRE LINE, DISCONNECT, INSULATE, AND STORE THE (BL-W), (W-BL), AND (W-O) EXCLUSION KEY LEADS. CONNECT ET AND ER LEADS FROM SET TO EXTERNAL PICKUP RELAY ASSOCIATED WITH CONTROL STATION. WHEN EXCLUSION IS PROVIDED ON A 2-WIRE LINE, CONNECT THE (BL-W), (W-BL), AND (W-O) EXCLUSION KEY LEADS TO R, T, AND H TERMINALS OF LINE INVOLVED. (SET IS FURNISHED WITH EXCLUSION KEY LEADS WIRED TO EXCLUDE LINE 1).
4. KEY POSITIONS 3, 4, AND 5 MAY BE CONVERTED FROM PICKUP (LOCKING) TO SIGNALING OR TO TRANSFER CIRCUIT CONTROL LEADS (NONLOCKING). NO WIRING CHANGES ARE NECESSARY WHEN CONVERTING TO TRANSFER OPTION. TO CONVERT A KEY POSITION REFER TO TABLE A, NOTES 1 AND 2.
5. FOR BRIDGED RINGER ON ANY LINE CONNECT (R) STRAP LEAD TO RING AND (BK) RINGER LEAD TO TIP OF LINE INVOLVED.
6. IF CAPACITOR IS NOT REQUIRED IN RINGER CIRCUIT, MOVE (R) RINGER LEAD TO K OF NETWORK.
7. TO SILENCE RINGER PERMANENTLY, REMOVE (R) STRAP FROM RR AND (BK) RINGER LEAD FROM RT AND CONNECT TO A OR K OF NETWORK.
8. LINE SWITCH SEQUENCE, HANDSET REMOVED:

- c b MAKES
- d e MAKES
- a b BREAKS
- f g BREAKS

- PU PICKUP KEY
- H HOLD KEY
- LS LINE SWITCH
- DP DIAL PULSE CONTACTS
- ON DIAL OFF-NORMAL CONTACTS
- FW 4-WIRE RELAY

- * LEADS ARE INDIVIDUALLY INSULATED AND STORED. NETWORK TERMINAL - UNDESIGNATED TERMINALS ARE ON KEY TERMINAL BOARD.
- † KEY TERMINAL BOARD.
- § TB2 TERMINAL

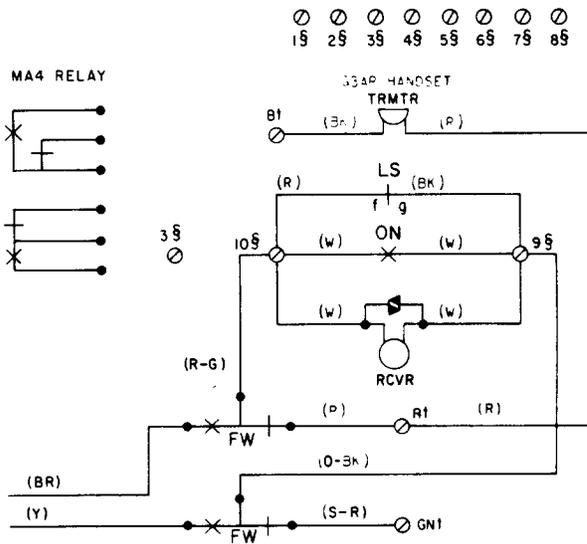
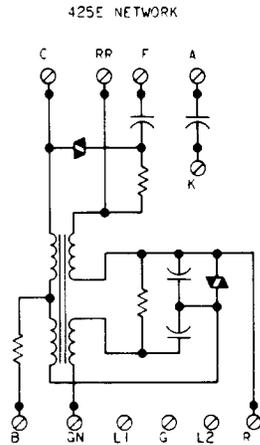
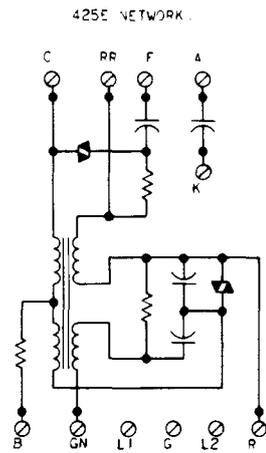


Fig. 1—568HR (MD) Telephone Set, Connections (Sheet 2 of 2)



NOTES:

1. 66E-TYPE CONNECTING BLOCK SHOWN. MOUNTING CORD MAY BE PLUGGED DIRECTLY INTO CONNECTOR CABLE. CORD AND PIN NUMBERS FOR CONNECTOR CABLE ARE SAME AS MOUNTING CORD.
2. AUXILIARY BUZZER MAY BE INSTALLED. USE LEADS AND TERMINALS (OR D-161488 CONNECTORS) TO CONNECT TO EQUIPMENT.
3. WHEN EXCLUSION IS PROVIDED ON A 4-WIRE LINE, DISCONNECT, INSULATE, AND STORE THE (BL-W), (W-BL), AND (W-O) EXCLUSION KEY LEADS. CONNECT ET AND ER LEADS FROM SET TO EXTERNAL PICKUP RELAY ASSOCIATED WITH CONTROL STATION. WHEN EXCLUSION IS PROVIDED ON A 2-WIRE LINE, CONNECT THE (BL-W), (W-BL), AND (W-O) EXCLUSION KEY LEADS TO R, T, AND H TERMINALS OF LINE INVOLVED. (SET IS FURNISHED WITH EXCLUSION KEY LEADS WIRED TO EXCLUDE LINE I).
4. KEY POSITIONS 3, 4, AND 5 MAY BE CONVERTED FROM PICKUP (LOCKING) TO SIGNALING OR TO TRANSFER CIRCUIT CONTROL LEADS (NONLOCKING). NO WIRING CHANGES ARE NECESSARY WHEN CONVERTING TO TRANSFER OPTION. TO CONVERT A KEY POSITION, REFER TO TABLE A, NOTES 1 AND 2.
5. FOR BRIDGED RINGER ON ANY LINE CONNECT (R) RINGER LEAD TO RING AND (BK) RINGER LEAD TO TIP OF LINE INVOLVED.
6. IF CAPACITOR IS NOT REQUIRED IN RINGER CIRCUIT, MOVE (S-R) RINGER LEAD TO K OF NETWORK.
7. TO SILENCE RINGER PERMANENTLY, CONNECT (R) RINGER LEAD TO A AND (BK) RINGER LEAD TO K OF NETWORK.
8. LINE SWITCH SEQUENCE, HANDSET REMOVED:

- b c MAKES
- d e MAKES
- a b BREAKS
- f g BREAKS

- PU PICKUP KEY
- H HOLD KEY
- LS LINE SWITCH
- DP DIAL PULSE CONTACTS
- ON DIAL OFF-NORMAL CONTACTS
- FW 4-WIRE RELAY
- * LEADS ARE INDIVIDUALLY INSULATED AND STORED.
- † NETWORK TERMINAL-UNDESIGNATED TERMINALS ARE ON KEY TERMINAL BOARD.
- § TB2 TERMINAL

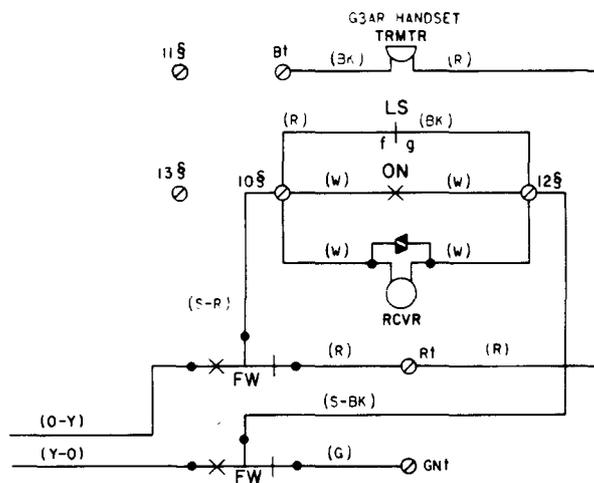


Fig. 2—568HF (MD) Telephone Set, Connections (Sheet 2 of 2)

TABLE A
PICKUP-SIGNAL KEY CONVERSION

CONVERTIBLE KEY OPTIONS	KEY LEADS			
	Y-BR	BR	S-R	BR-BK
HPPPPP	M	M	M	X
HPPPPS	M	M	M	SG
HPPPSS	M	M	SG	X
HPPSSS	M	X	SG	X
HPPPP*S*	M	M	5H	N
HPPP*P*S*	M	X	5H	N
HPP*P*P*S*	X	X	5H	N

* These arrangements use line switch controlled ground for common signal key used with private or intercommunicating lines. Common signal lead should be used to operate a common signal relay. Do not wire directly to buzzer.

Notes:

1. When converting key positions 3, 4, and 5 from pickup (locking) to transfer circuit control leads (nonlocking) no wiring changes are necessary. Conversion to signal circuits will require connection change per Table A.
2. All convertible key positions are arranged in the shop as pickup positions. To convert a key position from pickup (locking) to signaling (nonlocking), remove the P-12A892 screw detail from the plunger at the key position to be converted and make the necessary connection changes. To convert a key position from nonlocking to locking, reverse the above procedure. When using convertible keys for signaling, use S lead of key involved for signal circuit and G lead for common signal ground.