

SERVICE

568HT AND 1568HT TELEPHONE SETS

1. GENERAL

1.01 This section provides maintenance and connection information for the 568HT (MD) and 1568HT (MD) telephone sets. Maintenance information was formerly found in Section 502-532-100. Connection information was formerly found in Sections 502-532-400 and 502-532-430 which will be canceled.

2. MAINTENANCE

- 2.01** These sets are maintained in accordance with standard procedures for key telephone sets.
- 2.02** If dial is defective, replace telephone set.
- 2.03** See appropriate sections in Division 501 for maintenance of individual components such as handset and ringer.

3. CONNECTIONS

- 3.01** The key and telephone circuits are wired for use with 2- and 4-wire common battery lines. Sets are furnished wired for key telephone systems using *A* lead control. The 1568HT (MD) is also wired for speakerphone.
- 3.02** These sets do not provide connections for 4-wire local battery private lines or busy lamp feature.
- 3.03** A pushbutton dial is provided in the 568HT (MD) and 1568HT (MD) telephone sets to operate the associated central office equipment. This dial includes a transistor oscillator capable of generating two frequencies simultaneously. The oscillator is powered by line current from the common battery source.
- 3.04** With no dial buttons depressed, the tip side of the 2-wire line (or the transmitting tip of a 4-wire line) is connected through the dial to the network. This effectively introduces only a small resistance in series with the line. The ring

side of the line connects directly to the network, thus providing a satisfactory transmission path from line to network and transmitter.

3.05 When a dial button is depressed, two tuned circuits corresponding to the two frequencies required are selected (Fig. 1 and 2) and the dial circuit is closed to the ring side of the line. The two frequencies generated by the oscillator are transmitted over the line to the central office receiving equipment which registers the corresponding digit.

3.06 The P (priority) and SG (special grade) buttons may be used on 4-wire lines as a preliminary code to indicate a request for special handling of the call on a priority basis. It can also be used for special transmission consideration for data messages. The latter requires a simultaneous dc signal for station equipment which is provided by a set of contacts operated by the SG button. This results in a closure of the SP and P3 leads.

3.07 The FW relay switches receiver from 2- to 4-wire operation.

- (a) On 2-wire lines, the contacts on the nonoperated *FW* relay connect the receiver to the 425E network. The handset and network function in the same manner as a common battery subscriber station circuit.
- (b) On 4-wire lines, the *FW* relay will operate to 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 transmitter circuit. The receiver leads (RR and RT) are switched to impedance-matching repeat coils in the associated line circuits.

3.08 The FW relay operates on a 20- to 26-volt dc range. The minimum operating current is 20 milliamperes. The relay cover is hermetically

SECTION 502-542-406

sealed. Relay operation cannot be observed and contacts cannot be adjusted.

3.09 Test relay by making an operational test on both 2- and 4-wire lines while listening to telephone set receiver or receiver on a test set. Circuit requirements for the relay are covered in SD-69423-01 and SD-69425-01. If relay is defective, replace telephone set.

TABLE A
PICKUP-SIGNAL KEY CONVERSION

CONVERTIBLE-KEY OPTIONS	KEY LEADS		
	BR	S-BR	BK-BR OR BR-BK
HPPPPP	M	M	X
HPPPPS	M	M	SG
HPPPSS	M	SG	X
HPPSSS	X	SG	X
HPPPP*S*	M	5H	N
HPPP*P*S*	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 signal (non-locking), remove the screw detail (P-12A892) 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.

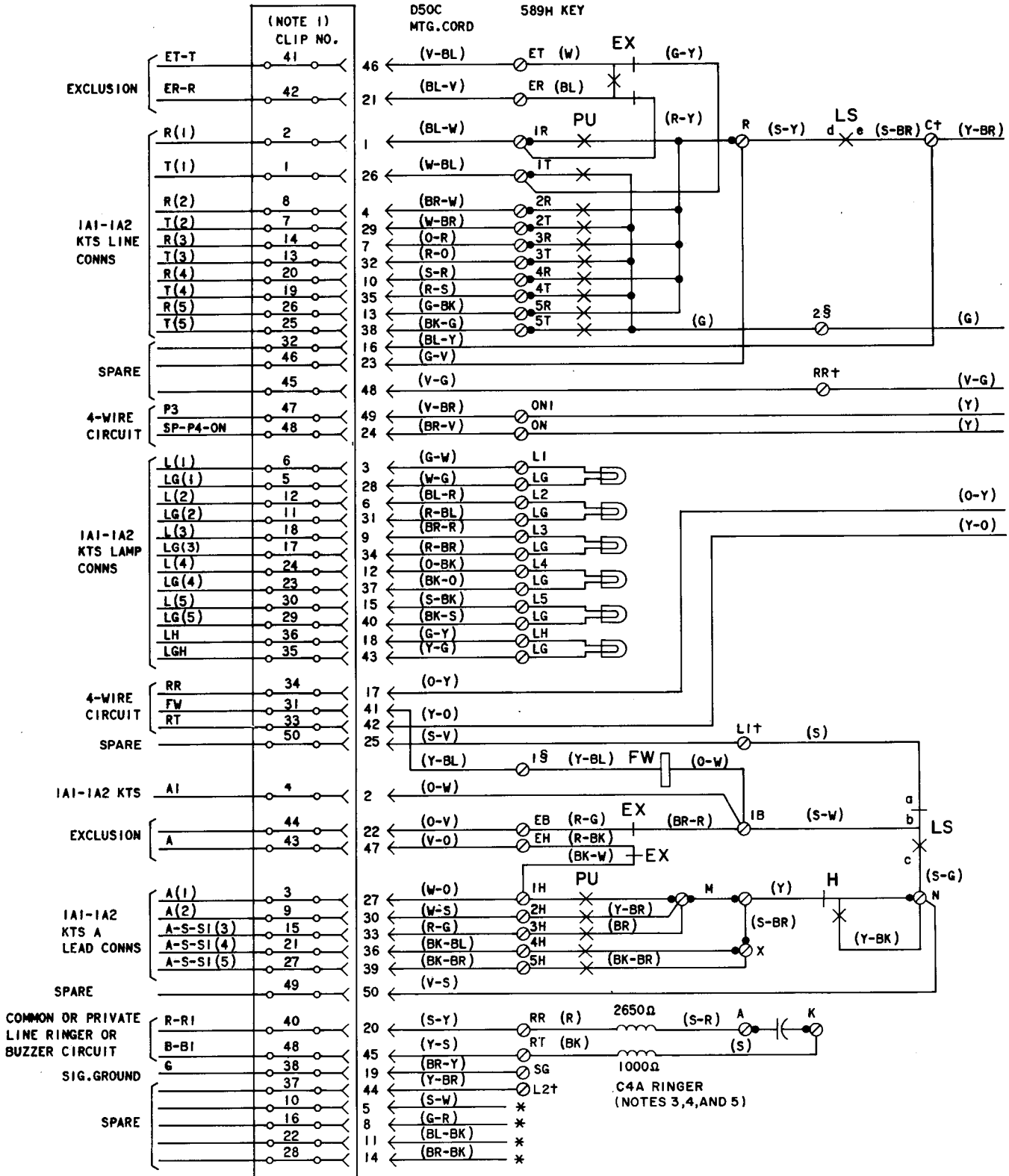
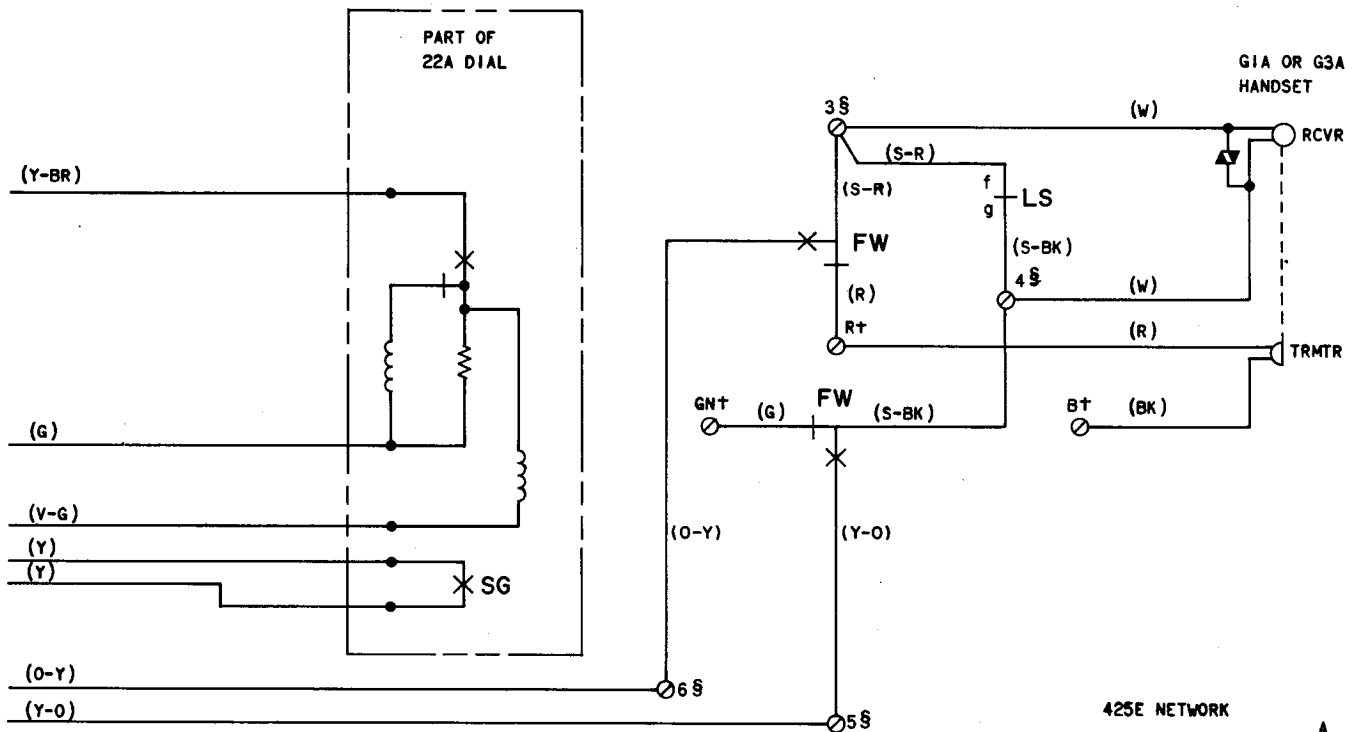
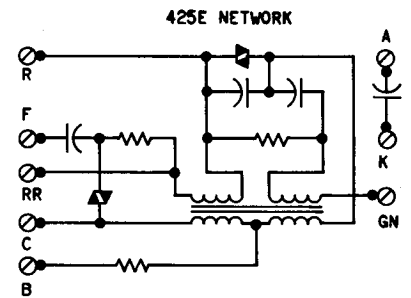


Fig. 1—568HT (MD) Telephone Set, Connections (Sheet 1 of 2)



NOTES:

1. 66E-TYPE CONNECTING BLOCK SHOWN. MOUNTING CORD MAY BE PLUGGED DIRECTLY INTO CONNECTOR CABLE. COLORS AND PIN NUMBERS FOR CONNECTOR CABLE ARE SAME AS MOUNTING CORD.
2. SET IS ARRANGED FOR BUT IS NOT EQUIPPED WITH A KS-8109L2 OR KS-20419L1 BUZZER.
3. FOR BRIDGED RINGER ON ANY LINE CONNECT (R) RINGER LEAD TO RING AND (BK) RINGER LEAD TO TIP OF LINE INVOLVED.
4. IF CAPACITOR IS NOT REQUIRED IN RINGER CIRCUIT MOVE (S) RINGER LEAD TO A OF NETWORK.
5. TO SILENCE RINGER PERMANENTLY, MOVE (R) RINGER LEAD TO A AND (BK) RINGER LEAD TO K OF NETWORK.
6. WHEN EXCLUSION IS PROVIDED ON A 4-WIRE LINE, DISCONNECT, INSULATE, AND STORE THE (R-Y), (G-Y), AND (BK-W) 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 (R-Y), (G-Y), AND (BK-W) EXCLUSION KEY LEADS TO R, T, AND H TERMINALS OF LINE INVOLVED. (SET IS FURNISHED WITH EXCLUSION KEY LEADS WIRED TO EXCLUDE LINE 1).
7. KEY POSITIONS 3, 4, AND 5 MAY BE CONVERTED FROM PICKUP (LOCKING) TO SIGNAL 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.
8. LINE SWITCH SEQUENCE, HANDSET REMOVED:
 bc- MAKES
 de- MAKES
 ab- BREAKS
 fg- BREAKS



LEGEND:

- FW - 4-WIRE RELAY
- H - HOLD KEY
- LS - LINE SWITCH
- SG - SPECIAL GRADE BUTTON CONTACTS
- * - INSULATED AND STORED UNDER TERMINAL STRIP
- † - NETWORK TERMINAL, UNDESIGNATED TERMINALS ARE ON KEY TERMINAL BOARD
- § - TERMINAL ON TERMINAL STRIP ASSEMBLY

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

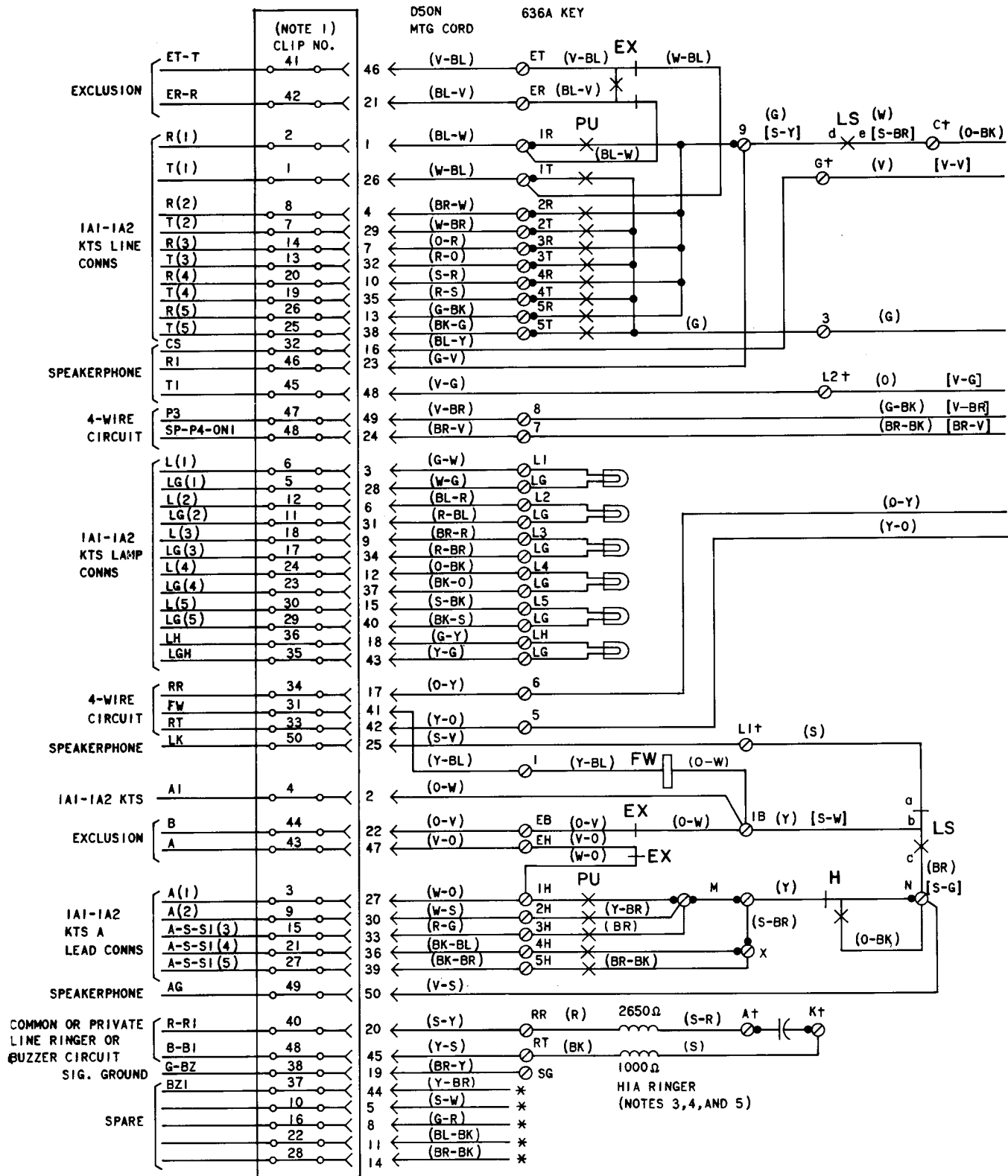


Fig. 2—1568HT (MD) Telephone Set, Connections (Sheet 1 of 2)

