## SERVICE

## 568HB TELEPHONE SET

## 1. GENERAL

1.01 This section provides maintenance and connection information for the 568 HB (MD) telephone set. Maintenance and connection information was formerly found in Sections 502-532-100 and 502-532-400, respectively.
1.02 For additional information refer to CD- and SD-69425-01.

## 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 The key and telephone circuits are wired for use with 2 - and 4 -wire common battery lines. The sets are furnished wired for key telephone systems using $\boldsymbol{A}$ lead control.
3.02 Maximum connector cable resistance per conductor:

- Lamp $\boldsymbol{L}$ leads- 25 ohms
- 4-wire relay $\boldsymbol{F W}$ lead- 50 ohms
3.03 The $\boldsymbol{F} \boldsymbol{W}$ relay (Fig. 1) switches the receiver from 2 - to 4 -wire circuitry.
(a) On 2-wire lines, the contacts on the nonoperated $\boldsymbol{F} \boldsymbol{W}$ relay connect the receiver to the 425 E network. The handset and network function in the same manner as a common battery subscriber station circuit.
(b) On 4-wire lines, the $\boldsymbol{F W}$ 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.


Fig. 1-568HB Telephone Set, Connections (Sheet 1 of 2)

NOTE:
I. 66E-TYPE CONNECTING BLOCK SHOWN. MOUNTING CORC 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, OISCONNECT, INSULATE, AND STORE THE (R-Y), (G-Y), AND (BK-W) EXCLUSION KEY LEADS. CONNECT ET ANO 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).
4. FOR MANUAL SERVICE TRANSFER (G) KEY LEAD FROM TERMINAL F TO RR OF NETWORK.
5. 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. TO CONVERT A KEY POSITION REFER TO NOTE 2, TABLE A.
6. FOR BRIDGED RINGER ON ANY LINE CONNECT (R) RINGER LEAD TO RING AND (BK) RINGER LEAD TO TIP OF LINE INVOLVED.
7. IF CAPACITOR IS NOT REQUIRED IN RINGER CIRCUIT, MOVE (S-R) RINGER LEAD TO K OF NETWORK.
8. TO SILENCE RINGER PERMANENTLY CONNECT (R) ANO (BK) RINGER LEAOS TO K OF NETWORK.
9. LINE SWITCH SEQUENCE, HANDSET REMOVED:
c b MAKES
de MAKES
ab breaks
f g BREAKS
SEQUENCE IS REVERSED WHEN HANOSET IS RESTORED
10. SETS may have this lead insulated and stored depending on MANUFACTURING DATE.
EX EXCLUSION KEY
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 insulateo and stored under TERMINAL STRIP.
NETWORK TERMINAL - UNDESIGNATED TERMINALS ARE ON KEY TERMINAL BOARD.
§ TERMINAL ON TERMINAL STRIP ASSEMBLY
( ) CURRENT COLOR CODE
[] MD COLOR COOE

Fig. 1-568HB Telephone Set, Connections (Sheet 2 of 2)

TABLE A
PICKUP-SIGNAL KEY CONVERSION

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

* These arrangements use line switch controlled ground for common signal key used with private or intercommunicating lines. Common signal 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 (nonlocking), remove the screw detail ( $\mathrm{P}-12 \mathrm{~A} 892$ ) and store the removed screw (or screws) in notches furnished on the edge of the 589 H key in the set for this purpose. 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.

