

SERVICE

1664-TYPE TELEPHONE SETS

1. GENERAL

1.01 These sets are supplied factory-wired as 1664A1 or 1664B1 (MD) sets only. For conversion to 1664A2, 1664A3, 1664B2, or 1664B3 (MD) code the appropriate key unit (Fig. 1 or 2) must be ordered and installed separately. To provide for headset operation, a 242B amplifier is supplied with each set. A 52- or 53-type headset must be ordered separately.

1.02 Connection information contained in this section was formerly found in Section 502-660-414 which will be canceled.

TABLE A

POLARITY GUARD CONNECTIONS
(P-90D095 GUARD ASSEMBLY 1664A-TYPE)
(P-90D012 GUARD ASSEMBLY 1664B-TYPE)

| LEAD | COLOR | REMOVE FROM | CONNECT TO | |
|----------------|----------------|-------------|----------------|------|
| | | NET. | POLARITY GUARD | NET. |
| Dial | (BK) | RR | T | |
| Line Switch | (W) [S-BK]* | C | S | |
| Headset Key | (V-S) | | | |
| Polarity Guard | (W) | | | C |
| | (G) | | | RR |

* MD color code 1664A type telephone set.

Note: For use when specified by local instructions for end-to-end signaling installations.

() Current color code.

[] MD color code.

SECTION 502-618-404

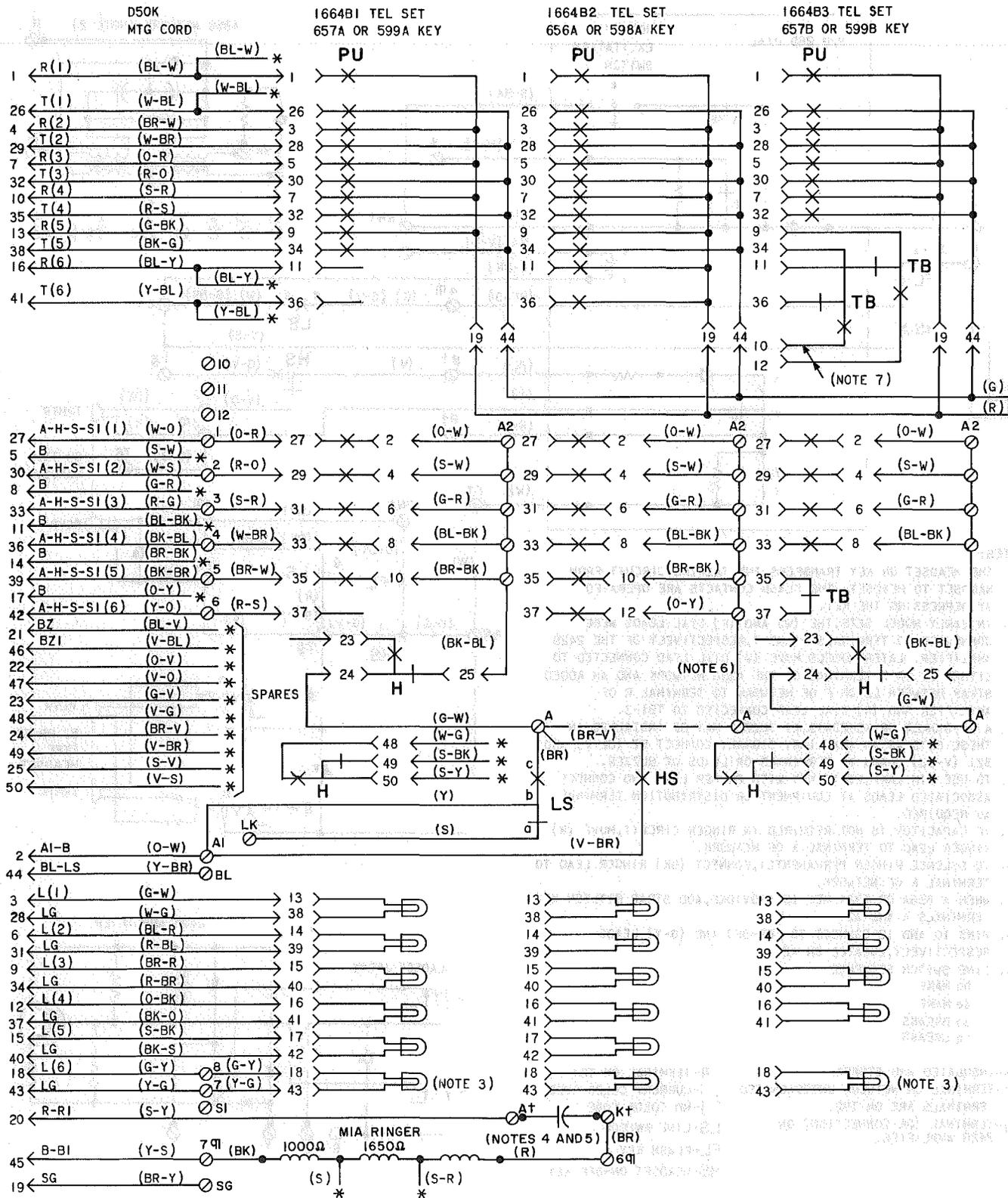
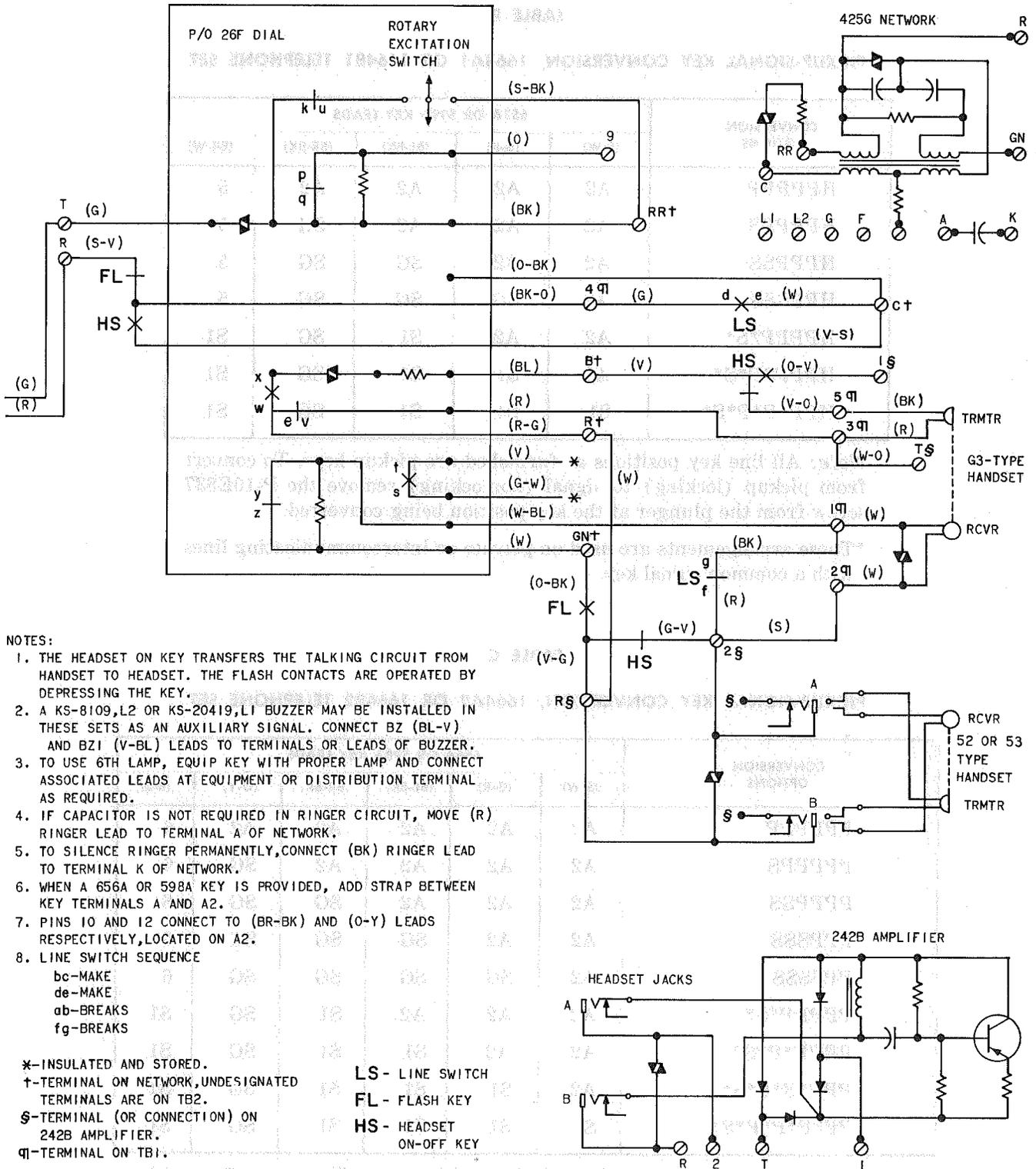


Fig. 2—1664B (MD) Telephone Set Connections (Sheet 1 of 2)



NOTES:

1. THE HEADSET ON KEY TRANSFERS THE TALKING CIRCUIT FROM HANDSET TO HEADSET. THE FLASH CONTACTS ARE OPERATED BY DEPRESSING THE KEY.
2. A KS-8109, L2 OR KS-20419, L1 BUZZER MAY BE INSTALLED IN THESE SETS AS AN AUXILIARY SIGNAL. CONNECT BZ (BL-V) AND BZ1 (V-BL) LEADS TO TERMINALS OR LEADS OF BUZZER.
3. TO USE 6TH LAMP, EQUIP KEY WITH PROPER LAMP AND CONNECT ASSOCIATED LEADS AT EQUIPMENT OR DISTRIBUTION TERMINAL AS REQUIRED.
4. IF CAPACITOR IS NOT REQUIRED IN RINGER CIRCUIT, MOVE (R) RINGER LEAD TO TERMINAL A OF NETWORK.
5. TO SILENCE RINGER PERMANENTLY, CONNECT (BK) RINGER LEAD TO TERMINAL K OF NETWORK.
6. WHEN A 656A OR 598A KEY IS PROVIDED, ADD STRAP BETWEEN KEY TERMINALS A AND A2.
7. PINS 10 AND 12 CONNECT TO (BR-BK) AND (O-Y) LEADS RESPECTIVELY, LOCATED ON A2.
8. LINE SWITCH SEQUENCE
 bc-MAKE
 de-MAKE
 ab-BREAKS
 fg-BREAKS

* - INSULATED AND STORED.
 † - TERMINAL ON NETWORK, UNDESIGNATED TERMINALS ARE ON TB2.
 § - TERMINAL (OR CONNECTION) ON 242B AMPLIFIER.
 ¶ - TERMINAL ON TB1.

LS - LINE SWITCH
 FL - FLASH KEY
 HS - HEADSET ON-OFF KEY

Fig. 2—1664B (MD) Telephone Set Connections (Sheet 2 of 2)

TABLE B

PICKUP-SIGNAL KEY CONVERSION, 1664A1 OR 1664B1 TELEPHONE SET

| CONVERSION OPTIONS | 657A OR 599A KEY LEADS | | | | |
|--------------------|------------------------|-------|---------|---------|--------|
| | (S-W) | (G-R) | (BL-BK) | (BR-BK) | (BR-W) |
| HPPPPP | A2 | A2 | A2 | A2 | 5 |
| HPPPPS | A2 | A2 | A2 | SG | 5 |
| HPPPSS | A2 | A2 | SG | SG | 5 |
| HPPSSS | A2 | SG | SG | SG | 5 |
| HPPPP*S* | A2 | A2 | S1 | SG | S1 |
| HPPP*P*S* | A2 | S1 | S1 | SG | S1 |
| HPP*P*P*S* | S1 | S1 | S1 | SG | S1 |

Note: All line key positions as furnished are pickup keys. To convert from pickup (locking) to signal (nonlocking) remove the P-10E837 screw from the plunger at the key position being converted.

*These arrangements are used on private or intercommunicating lines with a common signal key.

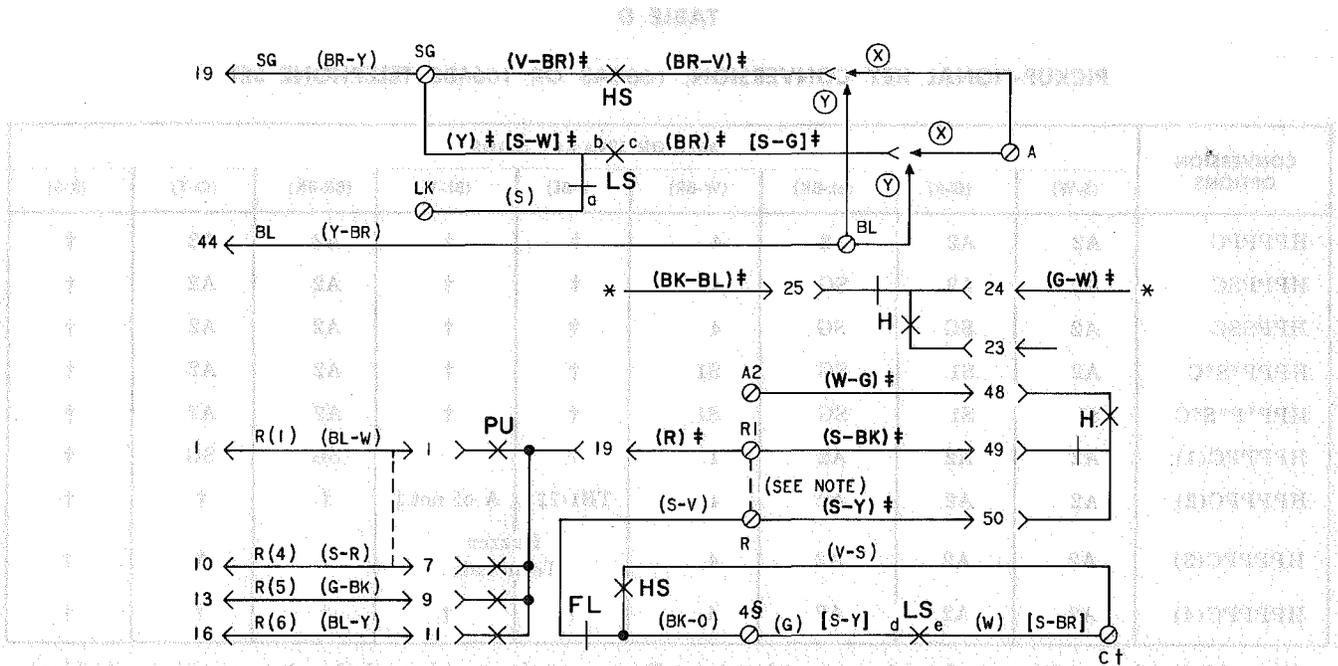
TABLE C

PICKUP-SIGNAL KEY CONVERSION, 1664A2 OR 1664B2 TELEPHONE SET

| CONVERSION OPTIONS | 656A OR 598A KEY LEADS | | | | | |
|--------------------|------------------------|-------|---------|---------|-------|-------|
| | (S-W) | (G-R) | (BL-BK) | (BR-BK) | (O-Y) | (R-S) |
| PPPPPP | A2 | A2 | A2 | A2 | A2 | 6 |
| PPPPPS | A2 | A2 | A2 | A2 | SG | 6 |
| PPPPSS | A2 | A2 | A2 | SG | SG | 6 |
| PPPSSS | A2 | A2 | SG | SG | SG | 6 |
| PPSSSS | A2 | SG | SG | SG | SG | 6 |
| PPPPPP*S* | A2 | A2 | A2 | S1 | SG | S1 |
| PPPP*P*S* | A2 | A2 | S1 | S1 | SG | S1 |
| PPP*P*P*S* | A2 | S1 | S1 | S1 | SG | S1 |
| PP*P*P*P*S* | S1 | S1 | S1 | S1 | SG | S1 |

Note: All line key positions as furnished are pickup keys. To convert from pickup (locking) to signal (nonlocking) remove the P-10E837 screw from the plunger at the key position being converted.

*These arrangements are used on private or intercommunicating lines with a common signal key.



NOTE:

IF 656A OR 598A KEY IS PROVIDED, ADD STRAP BETWEEN TERMINALS R AND RI.

- H - HOLD KEY
- FL - FLASH KEY
- HS - HEADSET ON-OFF KEY
- LS - LINE SWITCH
- ⊗ - WITHOUT BUSY LAMP
- ⊙ - WITH BUSY LAMP
- * - INSULATED AND STORED
- † - NETWORK TERMINAL, UNDESIGNATED TERMINALS ARE ON TB2
- ‡ - LEADS INVOLVED IN MODIFICATION
- § - TERMINAL ON TBI
- () - CURRENT COLOR CODE
- [] - MD COLOR CODE

Fig. 3—1664-Type Telephone Set Connections for 1A KTS—With or Without Station Busy Lamp

TABLE D
PICKUP-SIGNAL KEY CONVERSION, 1664A3 OR 1664B3 TELEPHONE SET

| CONVERSION OPTIONS | 657B OR 599B KEY LEADS | | | | | | | | |
|-----------------------|------------------------|-------|---------|--------|---------------------|------------|---------|-------|-------|
| | (S-W) | (G-R) | (BL-BK) | (W-BR) | (Y-BL) | (BL-Y) | (BR-BK) | (O-Y) | (R-S) |
| HPPPPC | A2 | A2 | A2 | 4 | † | † | A2 | A2 | † |
| HPPFSC | A2 | A2 | SG | 4 | † | † | A2 | A2 | † |
| HPPSSC | A2 | SG | SG | 4 | † | † | A2 | A2 | † |
| HPPP*S*C | A2 | S1 | SG | S1 | † | † | A2 | A2 | † |
| HPP*P*S*C | S1 | S1 | SG | S1 | † | † | A2 | A2 | † |
| HPPPPC(1) | A2 | A2 | A2 | 4 | † | † | SG | SG | † |
| HPPPPC(2) | A2 | A2 | A2 | 4 | TB1-7† | A of net.‡ | † | † | † |
| HPPPPC(3) | A2 | A2 | A2 | 4 | Buzzer Terminals | | † | † | † |
| HPPPPC(4) | A2 | A2 | A2 | 4 | † | † | † | † | † |

Note: All line key positions as furnished are pickup keys. To convert from pickup (locking) to signal (nonlocking) remove the P-10E837 screw from the plunger at the key position being converted.

*These arrangements are used on private or intercommunicating lines with a common signal key.

†Insulate and store.

‡Remove mounting cord (S-Y) (Y-S) leads, insulate and store.

Turnbutton used to:

- (1) Operate auxiliary relay [through 5th R and T (G-BK) (BK-G) pair].
- (2) Cutoff ringer in set.
- (3) Cutoff buzzer set.
- (4) Cutoff external audible signal [Connect 5th R and T (G-BK) (BK-G) pair to signal circuit; connect 6th R and T (Y-BL) (BL-Y) pair to external signal].

TABLE 3
CONNECTOR ASSIGNMENTS USING 1664-TYPE CONNECTOR BLOCK OR 4888 CONNECTOR CABLE

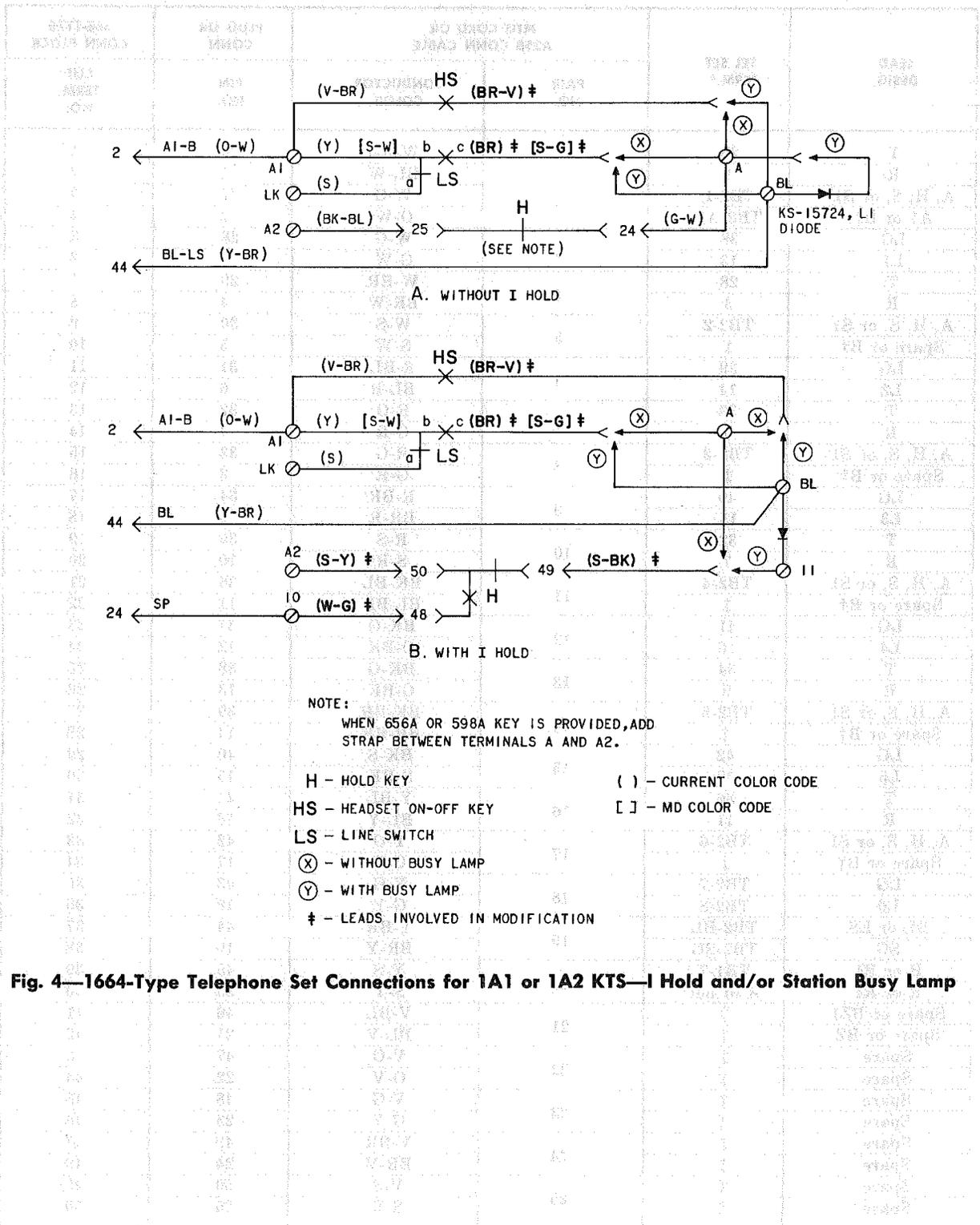


Fig. 4—1664-Type Telephone Set Connections for 1A1 or 1A2 KTS—I Hold and/or Station Busy Lamp

TABLE E

CONDUCTOR ASSIGNMENTS USING 66E-TYPE CONNECTOR BLOCK OR A25B CONNECTOR CABLE

| LEAD DESIG | TEL SET TERM.* | MTG CORD OR A25B CONN CABLE | | PLUG OR CONN | 66E-TYPE CONN BLOCK |
|----------------|-------------------|--------------------------------|--------------------|-----------------|------------------------|
| | | PAIR NO. | CONDUCTOR COLOR | PIN NO. | CLIP TERM. NO. |
| T | 26 | | W-BL | 26 | 1 |
| R | 1 | 1 | BL-W | 1 | 2 |
| A, H, S, or S1 | TB2-1 | | W-O | 27 | 3 |
| A1 or B† | TB2-A1 | 2 | O-W | 2 | 4 |
| LG | 38 | | W-G | 28 | 5 |
| L1 | 13 | 3 | G-W | 3 | 6 |
| T | 28 | | W-BR | 29 | 7 |
| R | 3 | 4 | BR-W | 4 | 8 |
| A, H, S, or S1 | TB2-2 | | W-S | 30 | 9 |
| Spare or B† | ‡ | 5 | S-W | 5 | 10 |
| LG | 39 | | R-BL | 31 | 11 |
| L2 | 14 | 6 | BL-R | 6 | 12 |
| T | 30 | | R-O | 32 | 13 |
| R | 5 | 7 | O-R | 7 | 14 |
| A, H, S, or S1 | TB2-3 | | R-G | 33 | 15 |
| Spare or B† | ‡ | 8 | G-R | 8 | 16 |
| LG | 40 | | R-BR | 34 | 17 |
| L3 | 15 | 9 | BR-R | 9 | 18 |
| T | 32 | | R-S | 35 | 19 |
| R | 7 | 10 | S-R | 10 | 20 |
| A, H, S, or S1 | TB2-4 | | BK-BL | 36 | 21 |
| Spare or B† | ‡ | 11 | BL-BK | 11 | 22 |
| LG | 41 | | BK-O | 37 | 23 |
| L4 | 16 | 12 | O-BK | 12 | 24 |
| T | 34 | | BK-G | 38 | 25 |
| R | 9 | 13 | G-BK | 13 | 26 |
| A, H, S, or S1 | TB2-5 | | BK-BR | 39 | 27 |
| Spare or B† | ‡ | 14 | BR-BK | 14 | 28 |
| LG | 42 | | BK-S | 40 | 29 |
| L5 | 17 | 15 | S-BK | 15 | 30 |
| T | 36 | | Y-BL | 41 | 31 |
| R | 11 | 16 | BL-Y | 16 | 32 |
| A, H, S, or S1 | TB2-6 | | Y-O | 42 | 33 |
| Spare or B† | ‡ | 17 | O-Y | 17 | 34 |
| LG | TB2-7 | | Y-G | 43 | 35 |
| L6 | TB2-8 | 18 | G-Y | 18 | 36 |
| BL or LS | TB2-BL | | Y-BR | 44 | 37 |
| SG | TB2-SG | 19 | BR-Y | 19 | 38 |
| B or B1 | TB1-7 | | Y-S | 45 | 39 |
| R or R1 | A of net | 20 | S-Y | 20 | 40 |
| Spare or BZ1 | ‡ | | V-BL | 46 | 41 |
| Spare or BZ | ‡ | 21 | BL-V | 21 | 42 |
| Spare | ‡ | | V-O | 47 | 43 |
| Spare | ‡ | 22 | O-V | 22 | 44 |
| Spare | ‡ | | V-G | 48 | 45 |
| Spare | ‡ | 23 | G-V | 23 | 46 |
| Spare | ‡ | | V-BR | 49 | 47 |
| Spare | ‡ | 24 | BR-V | 24 | 48 |
| Spare | ‡ | | V-S | 50 | 49 |
| Spare | ‡ | 25 | S-V | 25 | 50 |

*Contacts of key plug unless otherwise noted.

†When set is used in 1A key telephone system, these balance leads must not be used for other purposes.

‡Insulate and store.