

## SERVICE

### 2662-TYPE TELEPHONE SETS

#### 1. GENERAL

##### 1.01 Reissued to:

- Add KS-20419L1 buzzer
- Add M1B ringer
- Add 4228B network.

**1.02** These sets are supplied factory-wired as 2662A1 only. For conversion to 2662A2 or 2662A3 the appropriate key must be ordered and installed separately. Modification kits are available for field conversion to provide exclusion (2662A4, 2662A5, or 2662A6 codes). For ordering and installation information, refer to the appropriate Reference section in Division 502. Speakerphone connections are shown in Division 512.

**1.03** When a 2662-type telephone set is not used as a speakerphone set and is multiplied with any other set capable of furnishing speakerphone feature, speakerphone leads must be disconnected, insulated, and stored either at the telephone set or at the multiplying point. If not disconnected,

the speakerphone leads will provide a common connection between the circuits of the multiplied telephone sets.

**TABLE A**  
**P-90D012 POLARITY GUARD CONNECTIONS**

LEAD		REMOVE FROM	CONNECT TO	
		NET	NET	POLARITY GUARD
Dial	BK	RR		T
Line Switch	W	C		S
Polarity Guard	G		RR	
	W		C	

**Note:**

Polarity guard used when specified by local instruction for end-to-end signaling installation when battery and ground reversals may be encountered.

**TABLE B**  
**PICKUP-SIGNAL KEY CONVERSION, 2662A1 OR 2662A4 TELEPHONE SET**

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

\* 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 a buzzer. Fig. 2 and 3 show line switch lead terminations.

† For 1A KTS connect (BR-BK) key lead to BL terminal.

**Note:** 657A or 599A key as furnished in 2662A1 telephone set. To convert from pickup (locking) to signal (nonlocking) remove the P-10E837 screw from the plunger at the key position being converted.

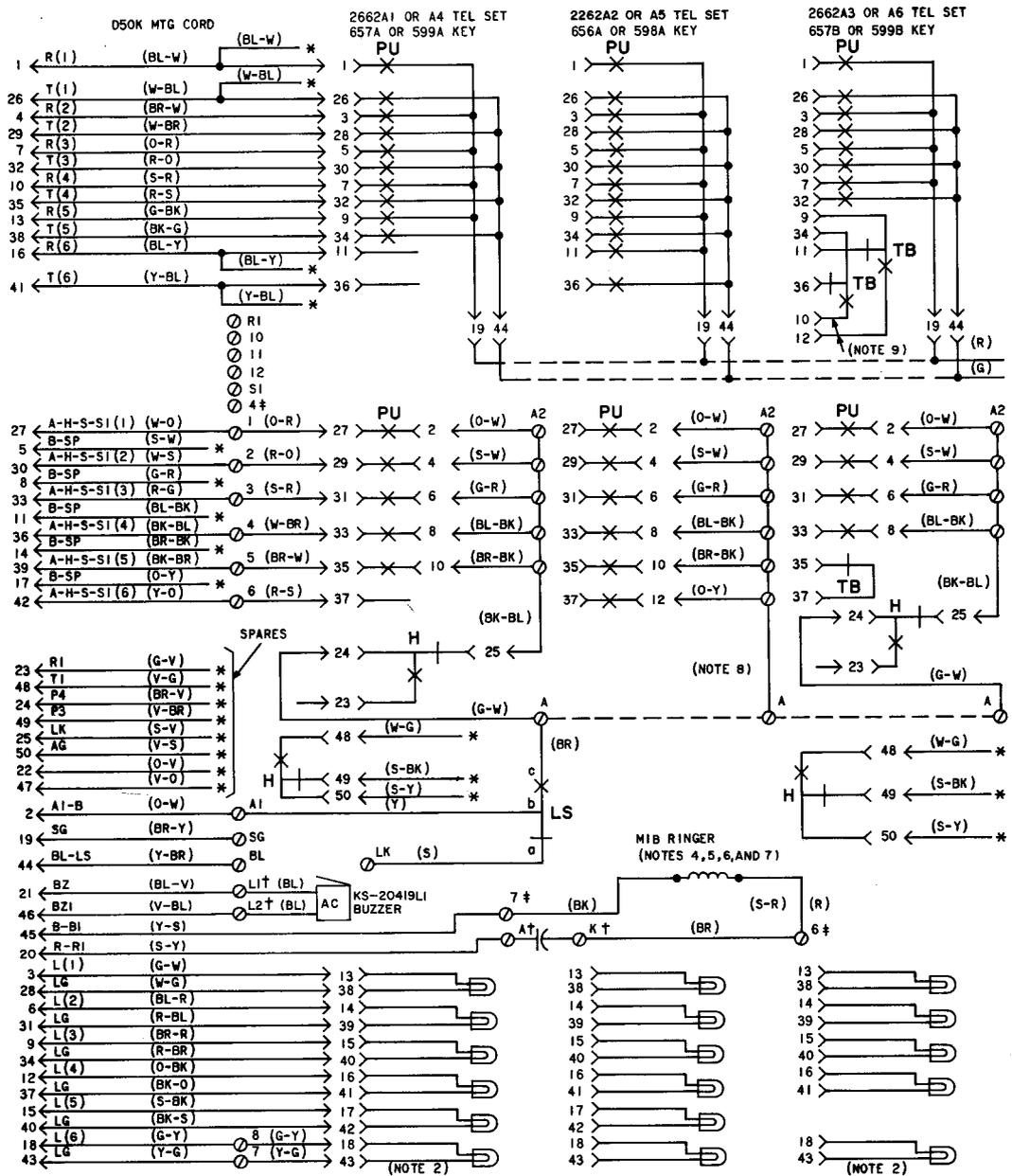
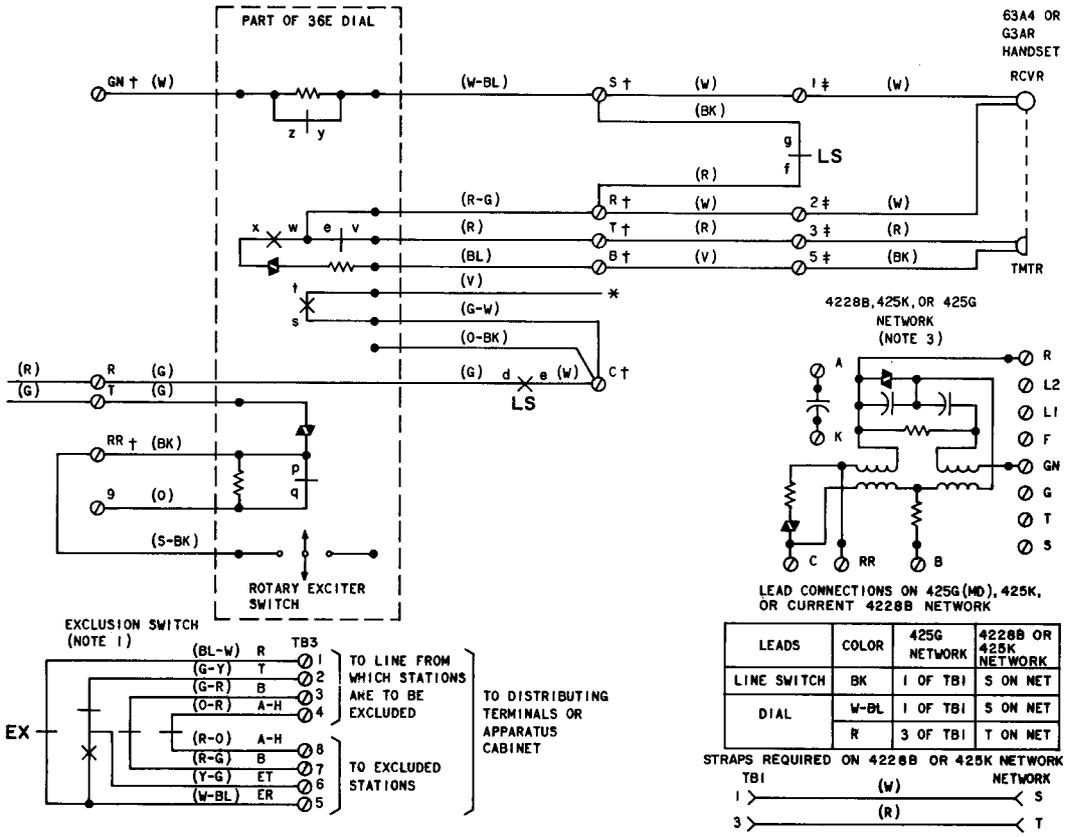


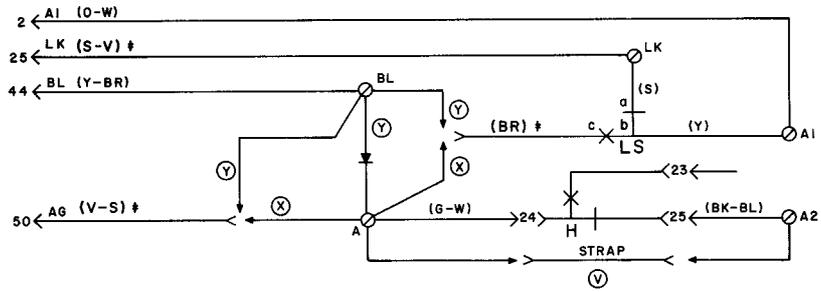
Fig. 1—2662-Type Telephone Set, Connections (Sheet 1 of 2)†



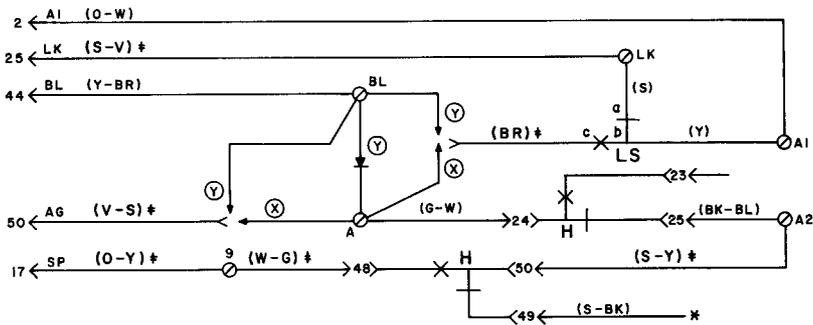
- NOTES:**
1. WHEN EXCLUSION FEATURE IS DESIRED, CONNECT EXCLUSION SWITCH TO STATIONS BY MEANS OF CORD CONDUCTORS NOT IN USE FOR OTHER FUNCTIONS. WHEN EXCLUSION SWITCH IS CONNECTED TO 1A KEY TELEPHONE SYSTEM, THE H AND B LEADS MUST BE PAIRED. WHEN CONNECTED TO 1A1 OR 1A2 KEY TELEPHONE SYSTEM, THE A LEADS MAY BE CONNECTED TO PAIRED OR NONPAIRED CONDUCTORS.
  2. TO USE 6TH LAMP, EQUIP KEY WITH THE PROPER LAMP AND CONNECT ASSOCIATED LEADS AT EQUIPMENT OR DISTRIBUTION TERMINAL AS REQUIRED.
  3. THE 4228B NETWORK IS ELECTRICALLY THE SAME AS THE 425K OR 425G (MD) NETWORK. THE 4228B OR 425K NETWORK PROVIDES S AND T TIE POINT TERMINALS.
  4. CONNECTIONS FOR MIB RINGER SHOWN. CONNECTIONS FOR MIA SAME AS MIB EXCEPT UNUSED RINGER LEADS ARE INSULATED AND STORED.
  5. IF CAPACITOR IS NOT REQUIRED IN RINGER CIRCUIT, MOVE (BR) STRAP FROM K TO A OF NETWORK.
  6. TO SILENCE RINGER PERMANENTLY, MOVE (BK) RINGER LEAD FROM TERMINAL 7 TO TERMINAL 6 OF TBI.
  7. EXCLUSION KEY MAY BE USED TO CUTOFF RINGER IN SET.
  8. WHEN 656A OR 598A KEY IS PROVIDED ADD STRAP BETWEEN KEY TERMINALS A AND A2.

9. THESE LEADS CONNECT TO (BR-BK) AND (O-Y) LEADS TERMINATED ON A2.
  10. LINE SWITCH SEQUENCE:
    - bc - MAKES
    - de - MAKES
    - ab - BREAKS
    - fg - BREAKS
- \* - INSULATED AND STORED  
 † - NETWORK TERMINAL, UNDESIGNATED TERMINALS ARE ON TB2  
 ‡ - TERMINAL ON TBI  
 EX - EXCLUSION SWITCH  
 H - HOLD KEY  
 LS - LINE SWITCH  
 TB - TURNBUTTON (CUTOFF)  
 PU - PICKUP KEY

Fig. 1—2662-Type Telephone Set, Connections (Sheet 2 of 2)



A. WITHOUT I HOLD



B. WITH I HOLD

- \* - INSULATED AND STORED
- ‡ - LEADS INVOLVED IN MODIFICATION
- H - HOLD KEY
- LS - LINE SWITCH
- (X) - WITHOUT BUSY LAMP
- (Y) - WITH BUSY LAMP, USE KS-15724, LI DIODE
- (V) - ADD STRAP WHEN 656A OR 598A KEY IS FURNISHED

Fig. 2—1A1 or 1A2 KTS—I Hold and/or Station Busy Lamp Modification

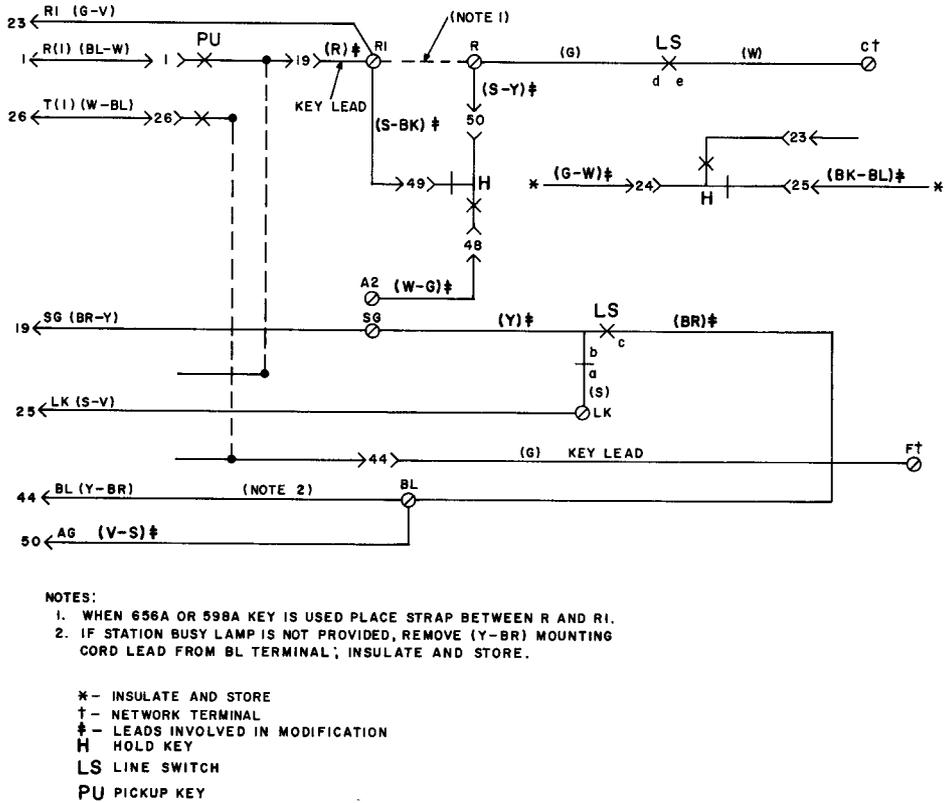


Fig. 3—2662-Type Telephone Set Converted for 1A KTS—With or Without Busy Lamp or Speakerphone

**TABLE C**  
**PICKUP-SIGNAL KEY CONVERSION, 2662A2 OR 2662A5 TELEPHONE SET**

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

\* 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 a buzzer. Fig. 2 and 3 show line switch lead terminations.

† For 1A KTS connect (O-Y) key lead to BL terminal.

Note: 656A or 598A key as furnished in 2662A2 telephone set. To convert from pickup (locking) to signal (nonlocking) remove the P-10E837 screw from the plunger at the key position being converted.

◆ TABLE D ◆

**PICKUP-SIGNAL KEY CONVERSION, 2662A3 OR 2662A6 TELEPHONE SET**

CONVERSION OPTIONS	657B OR 599B KEY LEADS								
	(O-W)	(S-W)	(G-R)	(BL-BK)	(W-BR)	(Y-BL)	(BL-Y)	(BR-BK)	(O-Y)
HPPPPC (Note)	A2	A2	A2	A2	4	†	†	A2	A2
HPPPSC	A2	A2	A2	SG	4	†	†	A2	A2
HPPSSC	A2	A2	SG	SG	4	†	†	A2	A2
HPPP*S*C	A2	A2	S1	A2‡	S1	†	†	A2	A2
HPP*P*S*C	A2	S1	S1	A2‡	S1	†	†	A2	A2
HPPPPC(1)	A2	A2	A2	A2	4	†	†	A2	A2
HPPPPC(2)	A2	A2	A2	A2	4	TB1-7†	A of Net.‡	†	†
HPPPPC(3)	A2	A2	A2	A2	4	L1 of Net.§	L2 of Net.§	†	†
HPPPPC(4)	A2	A2	A2	A2	4	†	†	†	†

\* These arrangements used line switch controlled ground for common signal key with private or intercommunicating lines. Common signal should be used to operate a common signal relay. Do not wire directly to a buzzer. Fig. 2 and 3 show line switch lead terminations.

† Insulated and stored.

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

§ For 1A KTS connect (BL-BK) key lead to BL terminal.

¶ Remove mounting cord (BL-V) (V-BL) leads; insulate and store.

Turn button may be used to

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

Note: 657B or 599B key wired as furnished in 2662A3 telephone set. To convert from pickup (locking) to signal (nonlocking) remove the P-10E837 screw from the plunger at key position being converted.

♦ 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	1	W-BL	26	1
R	1		BL-W	1	2
A,H,S, or S1	TB2-1	2	W-O	27	3
A1 or B†	TB2-A1		O-W	2	4
LG	38	3	W-G	28	5
L1	13		G-W	3	6
T	28	4	W-BR	29	7
R	3		BR-W	4	8
A,H,S, or S1	TB2-2	5	W-S	30	9
Spare or B†	‡		S-W	5	10
LG	39	6	R-BL	31	11
L2	14		BL-R	6	12
T	30	7	R-O	32	13
R	5		O-R	7	14
A,H,S, or S1	TB2-3	8	R-G	33	15
Spare or B†	‡		G-R	8	16
LG	40	9	R-BR	34	17
L3	15		BR-R	9	18
T	32	10	R-S	35	19
R	7		S-R	10	20
A, H, S, or S1	TB2-4	11	BK-BL	36	21
Spare or B†	‡		BL-BK	11	22
LG	41	12	BK-O	37	23
L4	16		O-BK	12	24
T	34	13	BK-G	38	25
R	9		G-BK	13	26
A,H,S, or S1	TB2-5	14	BK-BR	39	27
Spare or B†	‡		BR-BK	14	28
LG	42	15	BK-S	40	29
L5	17		S-BK	15	30
T	36	16	Y-BL	41	31
R	11		BL-Y	16	32
A,H,S, or S1	TB2-6	17	Y-O	42	33
Spare or B†	‡		O-Y	17	34
LG	TB2-7	18	Y-G	43	35
L6	TB2-8		G-Y	18	36
BL or LS	TB2-BL	19	Y-BR	44	37
SG	TB2-SG		BR-Y	19	38
B or B1	TB1-7	20	Y-S	45	39
R or R1	A of net.		S-Y	20	40
BZ1	L2 of Net.	21	V-BL	46	41
BZ	L1 of Net.		BL-V	21	42
Spare	‡	22	V-O	47	43
Spare	‡		O-V	22	44
Spare or T1	‡	23	V-G	48	45
Spare or R1	‡		G-V	23	46
Spare or IT	‡	24	V-BR	49	47
Spare or IR	‡		BR-V	24	48
Spare or AG	‡	25	V-S	50	49
Spare or LK	‡		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.