

## SERVICE

### 2565HK AND 2565HKM TELEPHONE SETS

#### 1. GENERAL

1.01 This section provides connection information for the 2565HK (MD) and 2565HKM telephone sets (Fig. 1).

1.02 Reissued to:

- Show 2565HK telephone set MD
- Change 2.06 to include lead designation and colors.

1.03 ♦The 2565HKM modular set is similar to the 2565HK except the modular G15A handset with its associated H4DU handset cord and 616D jack assembly is used in place of the hard-wired G3A-type handset and cord.♦

#### 2. CONNECTIONS

2.01 These sets are factory-wired for use with 1A1 or 1A2 key telephone systems (KTS), 3-type or 4A speakerphone, and individual or common line ringer. They can be used with 1A KTS by modifying as shown in Fig. 2 and 3.

2.02 Mounting cord leads are provided for illuminating the hold key position but 51A lamp is not furnished with set and must be ordered separately.

2.03 These sets are factory-equipped with a KS-20419L1 (10 volt ac only) buzzer.

2.04 The H1B ringer leads are factory-wired to terminals RR and RT. When power failure feature is provided in the KTS, common audible signal must be wired with capacitor in series.

2.05 If speakerphone (3-type) control unit is located near telephone set, the necessary mounting cord conductors can be extended to the control unit using a 149-type adapter or 66E-type

connecting block. If control unit is located at key equipment, extend leads through A25B connector cable or inside wiring cable. Speakerphone connections for the 2565-type telephone sets are shown in Division 512.

2.06 ♦When a 2565HK or 2565HKM telephone set is not used as a speakerphone set and is multiplied with any other set 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 lead will provide a common path between the circuits of the multiplied telephone sets. The leads to be removed are as follows: T1 (V-G), R1 (G-V), IT (V-BR), IR (BR-V), AG (V-S), and LK (S-V). Speakerphone, connections are shown in Division 512.♦

2.07 Exclusion can be added to these sets by installing a D-179935 Kit of Parts which must be ordered separately. Connect as shown in Table A. Exclusion key can also be used to cut off a ringer or buzzer in set.

2.08 When polarity guard is required in these sets, install 819040528 (P-90D052) guard assembly. Connect as shown in Table C.

2.09 Additional terminating points can be gained when required for auxiliary services such as buzzers, lamps, etc. by installing 812559623 (P-25E962) terminal strip assembly.

2.10 Installation of exclusion switch, polarity guard, and auxiliary terminal strip is covered in Section 502-500-120.

2.11 All convertible key positions are supplied as pickup keys. To convert from pickup (locking) to signaling (nonlocking), remove the 811218924 (P-12A892) screw detail from key position involved. Make necessary wiring changes as shown in Table B.

#### NOTICE

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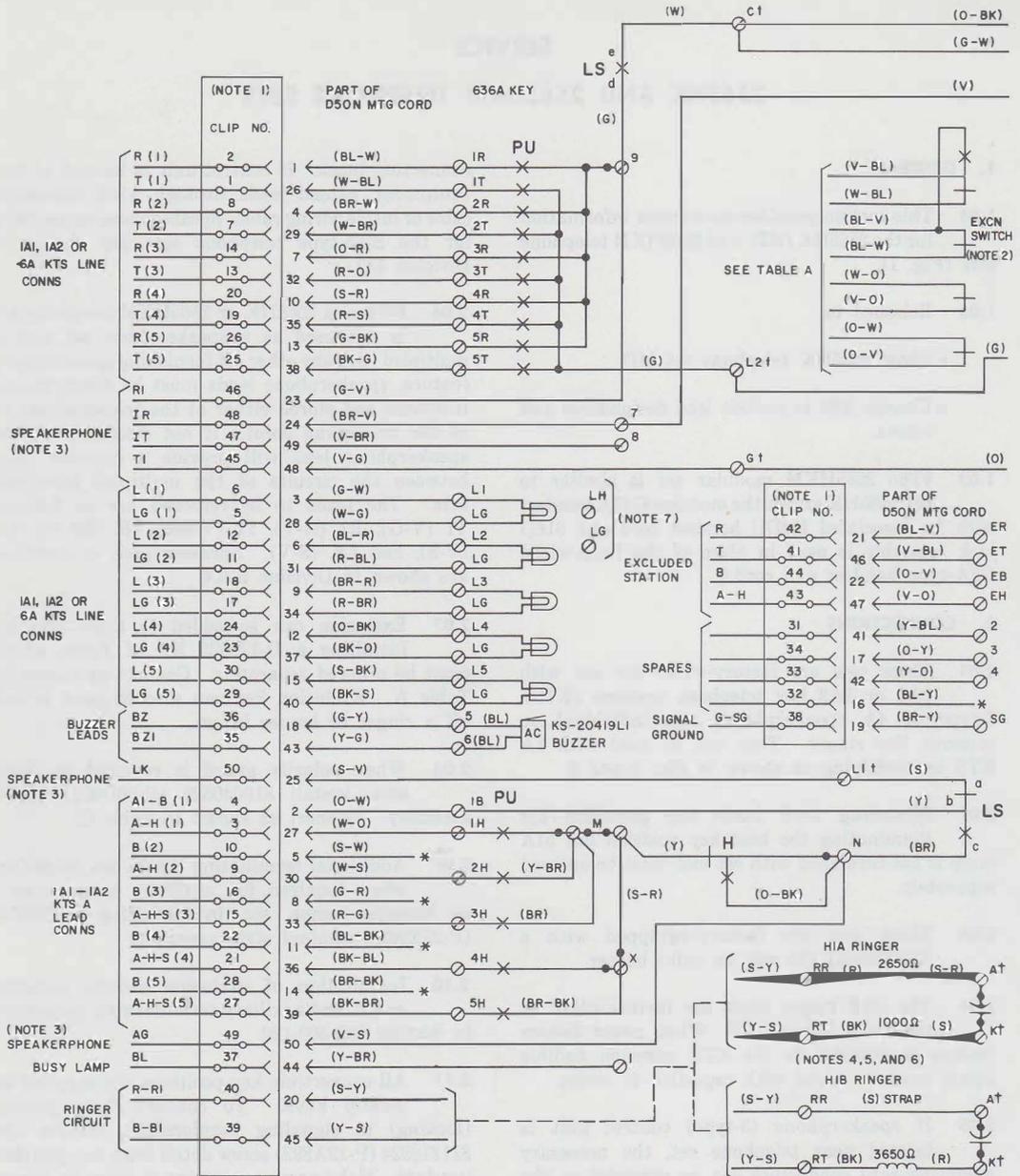


Fig. 1—2565HK (MD) or 2565HKM Telephone Set, Connections (Sheet 1 of 3)

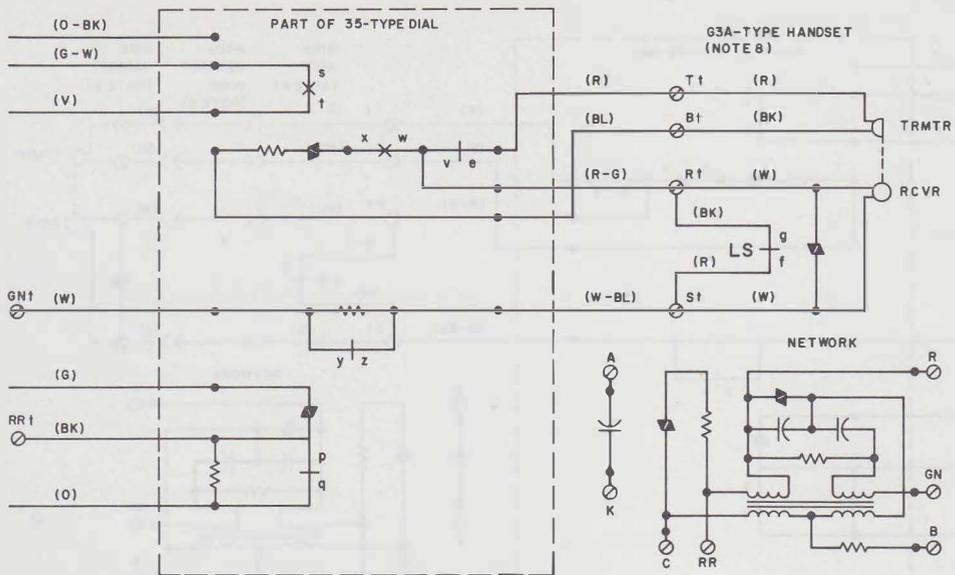
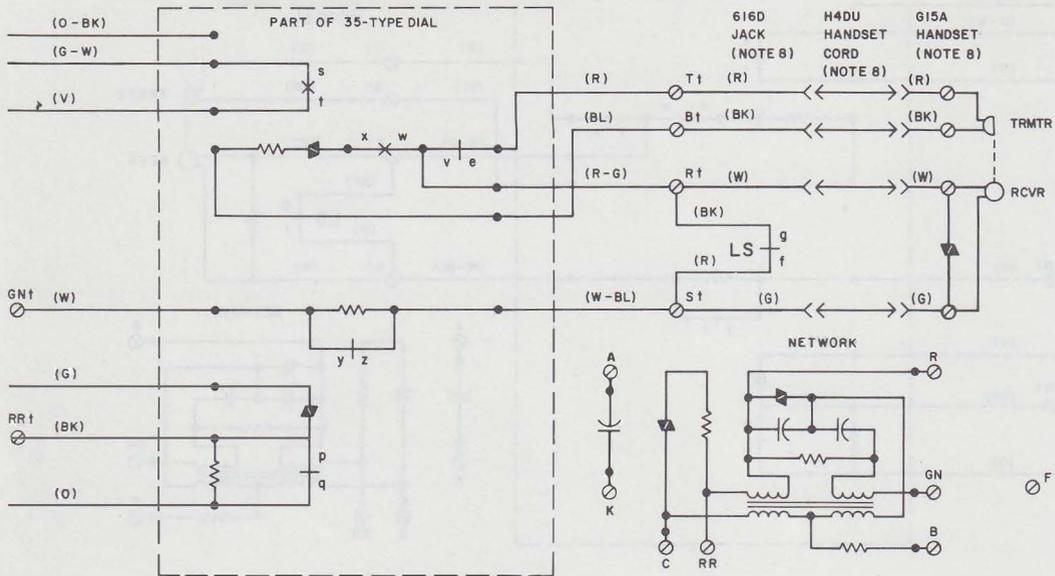


Fig. 1—2565HK (MD) or 2565HKM Telephone Set, Connections (Sheet 2 of 3)



## 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. IF EXCLUSION FEATURE IS ADDED, CONNECT SWITCH LEADS PER TABLE A.
3. DISCONNECT TI(V-G), RI(G-V), IT(V-BR), IR(BR-V), AG(V-S), AND LK(S-V) LEADS WHEN SETS NOT EQUIPPED WITH SPEAKERPHONE ARE MULTIPLIED. DISCONNECT EITHER AT SET OR MULTIPLYING POINT.
4. FOR BRIDGED RINGER ON ANY LINE USING HIA RINGER, CONNECT (R) RINGER LEAD TO RING AND (BK) RINGER LEAD TO TIP OF LINE INVOLVED. FOR BRIDGED RINGER ON ANY LINE USING HIB RINGER, REMOVE (S) STRAP LEAD FROM RR (KEY TERMINAL BOARD) AND CONNECT TO RING AND (BK) RINGER LEAD TO TIP OF LINE INVOLVED.
5. IF CAPACITOR IS NOT REQUIRED IN RINGER CIRCUIT, MOVE (S) RINGER LEAD TO A OF NETWORK FOR HIA RINGER AND (R) RINGER LEAD TO A OF NETWORK FOR HIB RINGER.
6. TO SILENCE RINGER PERMANENTLY INSULATE AND STORE (BK) AND (R) RINGER LEADS.
7. IF HOLD POSITION LAMP IS REQUIRED, USE SPARE PAIR AND TERMINATE ON LH AND LG TERMINALS.
8. 2565HK SETS ARE FURNISHED EQUIPPED WITH Q3-TYPE HANDSET AND CORD. 2565HKM SETS ARE FURNISHED EQUIPPED WITH G15A HANDSET, H4DU HANDSET CORD, AND 616D JACK ASSEMBLY.

PU - PICKUP KEY

H - HOLD KEY

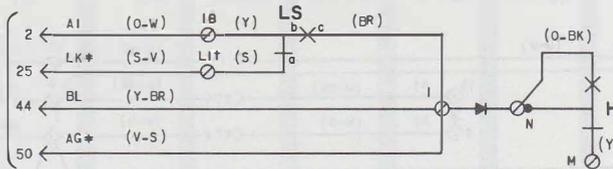
LS - LINE SWITCH

\* - INSULATED AND STORED

† - NETWORK TERMINAL - UNDESIGNATED TERMINALS ARE ON KEY TERMINAL BOARD.

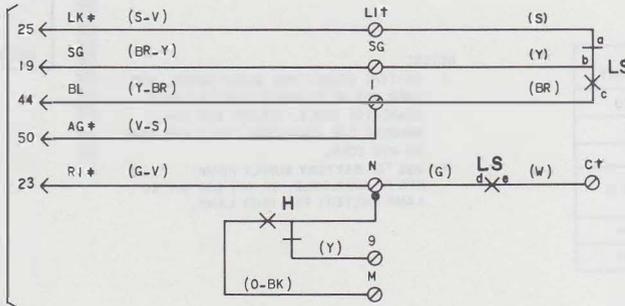
Fig. 1—2565HK (MD) or 2565HKM Telephone Set, Connections (Sheet 3 of 3)

IA1 OR  
IA2 KTS  
WITH  
BUSY LAMP  
(NOTE 3)



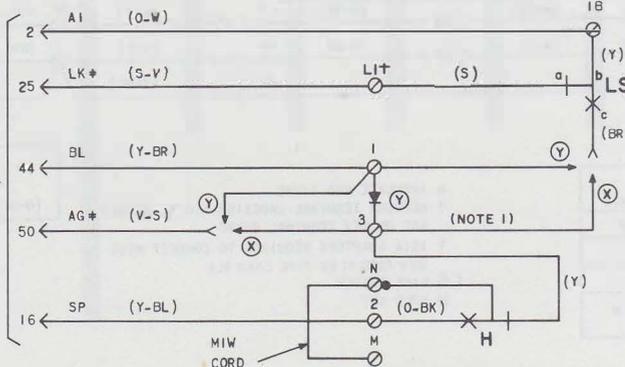
MODIFICATION IA1-IA2 KTS		
LEAD	FROM	TO
(BR)	N	I
(V-S)	N	I
KS-15724LI DIODE		I TO N

IA KTS  
WITH  
BUSY LAMP  
(NOTE 2)



MODIFICATION IA KTS		
LEAD	FROM	TO
(Y)	IB	SG
(BR)	N	I
(V-S)	N	I
(Y)	M	9
(O-BK)	N	M
(G)	9	N
(G-V)	9	N

IA1 OR IA2  
KTS WITH  
I HOLD  
WITH/WITHOUT  
BUSY LAMP  
(NOTE 3)



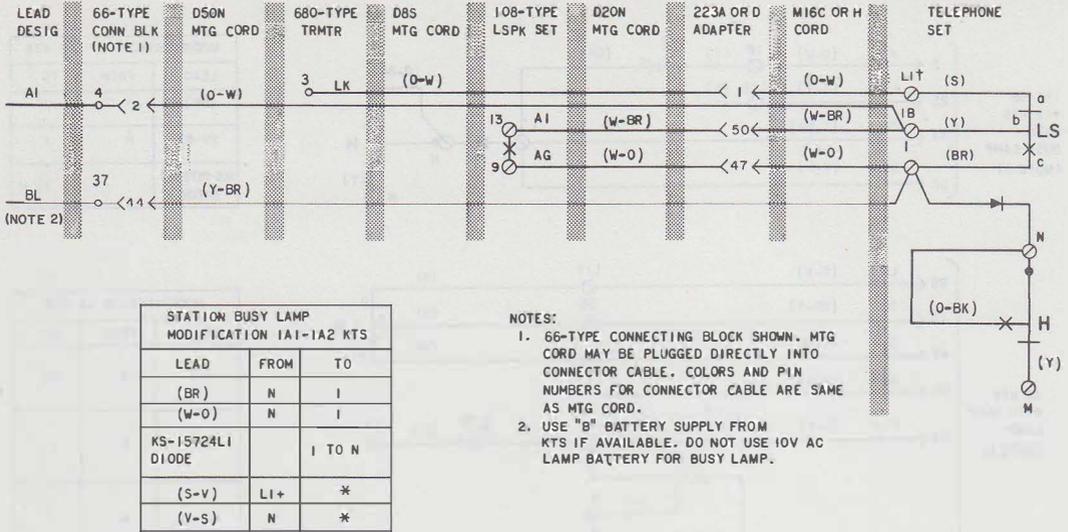
NOTES:

- REMOVE (0-Y) LEAD FROM KEY TERMINAL 3. INSULATE AND STORE.
- FOR IA KTS WITHOUT BUSY LAMP, INSULATE AND STORE (Y-BR) D50N MTG CORD LEAD.
- USE "B" BATTERY SUPPLY FROM KTS IF AVAILABLE. DO NOT USE 10V AC LAMP BATTERY FOR BUSY LAMP.

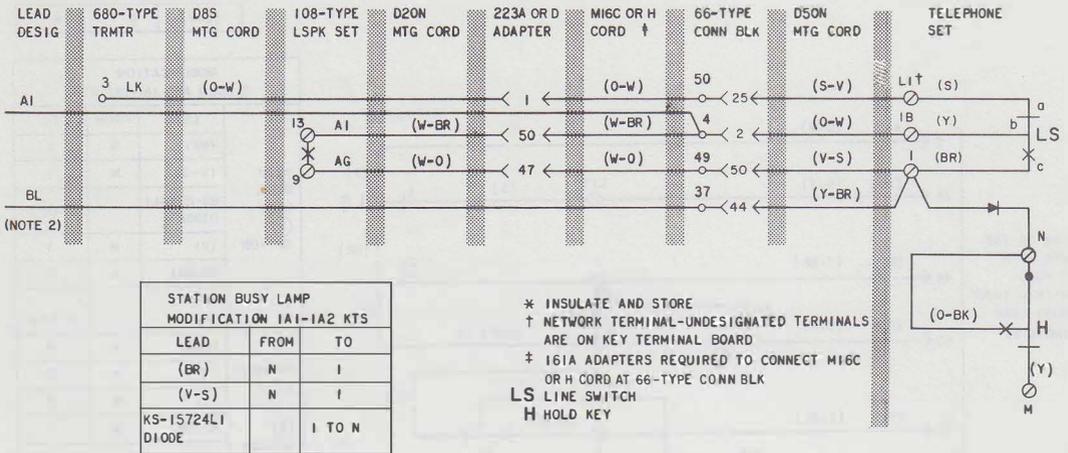
- † NETWORK TERMINALS. UNDESIGNATED TERMINALS ARE ON KEY TERMINAL BOARD
- \* 3-TYPE SPEAKERPHONE LEAD
- LS - LINE SWITCH
- H - HOLD KEY

MODIFICATION I HOLD AND IA1-IA2 KTS			
	LEAD	FROM	TO
WITH BUSY LAMP ⊙ OPTION	(BR)	N	I
	(V-S)	N	I
	KS-15724LI DIODE		I TO 3
	(Y)	M	3
	(O-BK)	N	2
WITHOUT BUSY LAMP ⊗ OPTION	MIW CORD		N TO M
	(BR)	N	3
	(V-S)	N	3
	(Y)	M	3
	(O-BK)	N	2
MIW CORD		N TO M	

Fig. 2—Optional Features with 3-Type Speakerphone

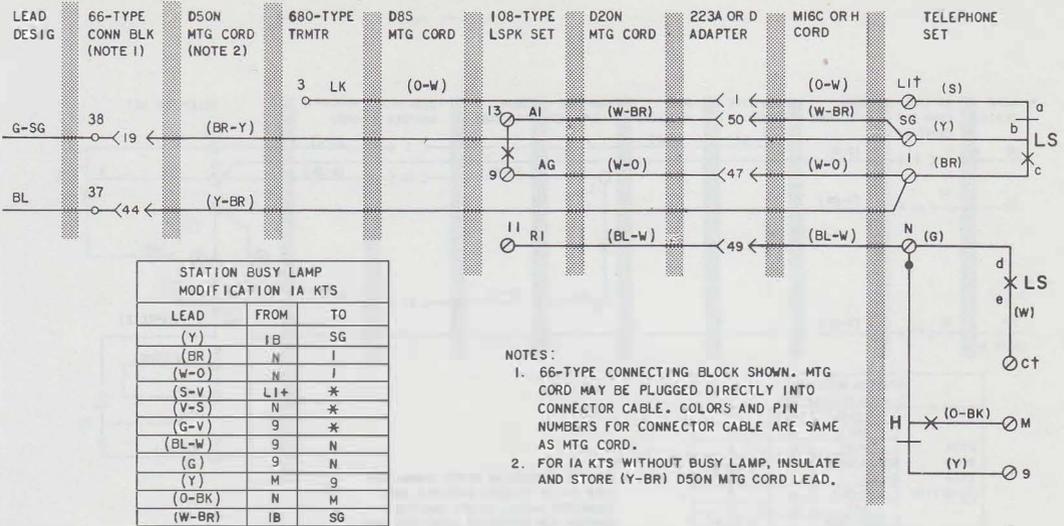


A. IA1-IA2 KTS WIRED FOR BUSY LAMP WITH M16C OR H CORD TERMINATED IN TEL SET

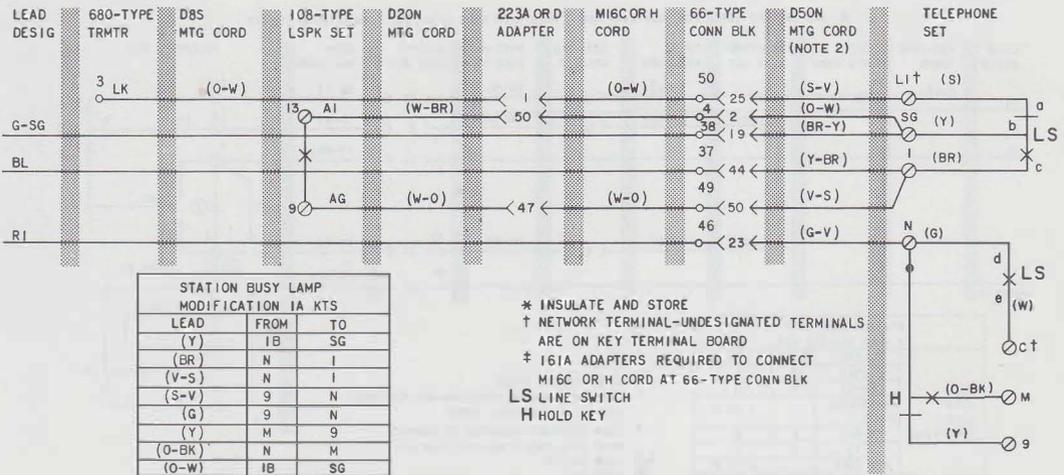


B. IA1-IA2 KTS WIRED FOR BUSY LAMP WITH M16C OR H CORD TERMINATED AT 66-TYPE CONN BLK

Fig. 3—Optional Features with 4A Speakerphone (Sheet 1 of 3)

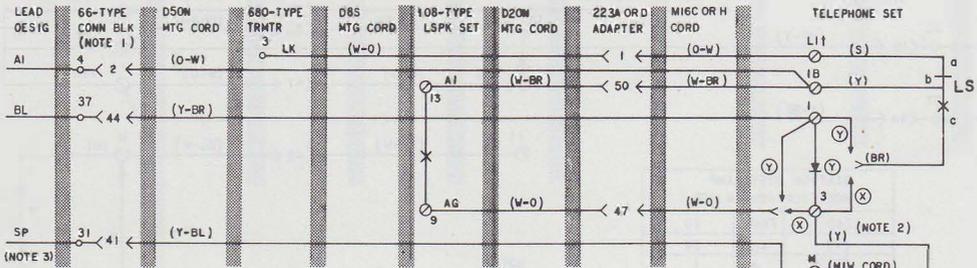


A. IA KTS WIRED FOR BUSY LAMP WITH M16C OR H CORD TERMINATED IN TEL SET



B. IA KTS WIRED FOR BUSY LAMP WITH M16C OR H CORD TERMINATED AT 66-TYPE CONN BLK

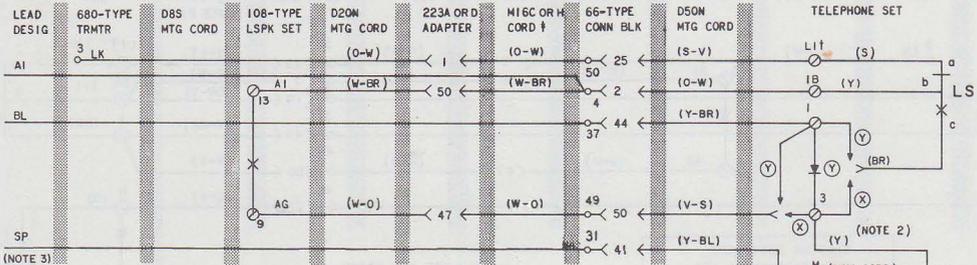
Fig. 3—Optional Features with 4A Speakerphone (Sheet 2 of 3)



STATION BUSY LAMP I HOLD IA1-IA2 KTS			
WITH BUSY LAMP (Y) OPTION	LEAD	FROM	TO
	WITH BUSY LAMP (Y) OPTION	(BR)	N
(W-0)		N	1
KS-15724LI DIODE			1 TO 3
(0-BK)		N	2
WITHOUT BUSY LAMP (X) OPTION	(Y)	M	3
	M1W CORD		N TO M
	(BR)	N	3
	(W-0)	N	3
WITH OR WITHOUT BUSY LAMP	(0-BK)	N	2
	(Y)	M	3
	M1W CORD		N TO M
	(S-V)	LI†	*
	(V-S)	N	*

- NOTES:
- 66-TYPE CONNECTING BLOCK SHOWN. MTG CORD MAY BE PLUGGED DIRECTLY INTO CONNECTOR CABLE. COLORS AND PIN NUMBERS FOR CONNECTOR CABLE ARE SAME AS MTG CORD.
  - REMOVE (0-Y) LEAD FROM KEY TERM. 3 INSULATE AND STORE.
  - USE "B" BATTERY SUPPLY FROM KTS IF AVAILABLE. DO NOT USE 10V AC LAMP BATTERY FOR BUSY LAMP.

A. IA1-IA2 KTS WIRED FOR BUSY LAMP AND I HOLD WITH M16C OR H CORD TERMINATED IN TEL SET



STATION BUSY LAMP I HOLD IA1-IA2 KTS			
WITH BUSY LAMP (Y) OPTION	LEAD	FROM	TO
	WITH BUSY LAMP (Y) OPTION	(BR)	N
(V-S)		N	1
KS-15724LI DIODE			1 TO 3
(0-BK)		N	2
WITHOUT BUSY LAMP (X) OPTION	(Y)	M	3
	M1W CORD		N TO M
	(BR)	N	3
	(V-S)	N	3
WITH OR WITHOUT BUSY LAMP	(0-BK)	N	2
	(Y)	M	3
	M1W CORD		N TO M
	(S-V)	LI†	*
	(V-S)	N	*

- \* INSULATE AND STORE  
 † NETWORK TERMINAL-UNDESIGNATED TERMINALS ARE ON KEY TERMINAL BOARD  
 ‡ 161A ADAPTERS REQUIRED TO CONNECT M16C OR H CORD AT 66-TYPE CONN BLK  
 LS LINE SWITCH  
 H HOLD KEY

B. IA1-IA2 KTS WIRED FOR BUSY LAMP AND I HOLD WITH M16C OR H CORD TERMINATED AT 66-TYPE CONN BLK

Fig. 3—Optional Features with 4A Speakerphone (Sheet 3 of 3)

**TABLE A**  
**EXCLUSION SWITCH CONNECTIONS**

EXCLUSION	KEY TEL SYS	EXCLUSION SWITCH LEADS							
		BL-W	W-BL	O-W	W-O	BL-V	V-BL	O-V	V-O
On any line	1A	R*	T*	1B†	H*	ER	ET	EB	EH
	1A1 or 1A2	R*	T*	EB	H*	ER	ET	EB	EH

\*Terminal of line to be excluded.

† When other than line 1 is excluded on 1A KTS, disconnect, insulate, and store O-W mounting cord conductor from terminal 1B; connect balance lead conductor from line involved to 1B.

**TABLE B**  
**PICKUP-SIGNAL KEY CONVERSION**

KEY TEL SET	CONVERSION OPTIONS	636A KEY LEADS			
		Y-BR	BR	S-R	BR-BK
2565HK or 2565HKM	HPPPPP (Note)	M	M	M	X
	HPPPPS	M	M	M	SG
	HPPSSS	M	M	SG	X
	HPPSSS	M	X	SG	X
	HPPPP*S*	M	M	5H	†
	HPPP*P*S*	M	X	5H	†
	HPP*P*P*S*	X	X	5H	†

\* 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.

† Connect to the same terminals as (BR) line switch lead depending on option and KTS required.

**Note:** To convert from pickup (locking) to signaling (nonlocking) remove the 811218924 or P-12A892 screw detail at the key position being converted.

**TABLE C**  
**POLARITY GUARD CONNECTIONS**  
**[819040528 (P-90D052) GUARD ASSEMBLY]**

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