SERVICE

1565LK TELEPHONE SETS

1. GENERAL

1.01 This section provides maintenance and connection information for the 1565LK (MD) telephone sets. Maintenance information was formerly found in Section 502-525-200. Connection information was formerly found in Section 502-525-427 which is hereby canceled.

2. MAINTENANCE

Replaceable Components

2.01 Field replaceable items are listed under Ordering Guide in the appropriate Reference section in Division 502.

Loose Card Retainers

2.02 The P-25E803 and P-269561 are nonadjustable card retainers. The P-25E785 (MD) card retainer is replaced by P-25E803.

2.03 If P-25E785 (MD) card retainer becomes so loose on the faceplate that the number card or designation strip slips, they can be tightened as follows:

(1) Remove faceplate from set.

(2) Remove card retainer from faceplate.

(3) Bend the four arms of the retainer so that more pressure will be applied to the number card and designation strip. The bends should be made approximately 1/2-inch in from the tabs on the ends of the arms and in the opposite direction from the factory bent tabs.

(4) Install the card retainer on the faceplate and insert the number card and designation strip.

(5) Install faceplate on telephone set.

Note: If adjusting the arms of the retainer does not result in sufficient holding power, replace the card retainer.

Housing

2.04 When removing or replacing housing, guide lower front of housing over pushbuttons. On sets equipped with exclusion, pull exclusion plunger up to its operated position before removing housing. Plunger should also be in upper position when replacing housing. With housing in place, operate plunger several times to insure proper operation.

Lamps and Pushbuttons

2.05 Replace cracked pushbuttons or collar assemblies. Plastic parts may be cleaned with a water dampened cloth. ***DO NOT USE SOLVENTS.*** Lamps should be near associated pushbutton with contact surfaces aligned for maximum illumination.

2.06 To replace defective lamp:

(1) Remove button and collar assembly.

(2) Gently pry lamp from socket with KS-6320 orange stick.

(3) Replace lamp, making sure that contact surface on lamp and socket meet.

(4) Replace button and collar assembly.

Keys—589-Type

2.07 Key contacts may be cleaned using a 265C tool, or adjusted using a 363 tool. When adjusting springs:

(a) There should be a minimum clearance of 1/64-inch between contact springs and those parts of the key which do not make contact.

(b) Normally open contacts should make with perceptible follow on locking keys before key plunger reaches locked position.

2.08 Replace key if the following requirements cannot be met:

(a) Any locking plunger, when depressed, should on its downstroke release any previously locked plunger.

(b) A locking key plunger should not release during downstroke of hold button but should release on the upstroke of the hold button.

(c) When any nonlocking or converted locking plunger is released from its operated position, it should return with a snap to the unoperated position.

(d) A turnbutton operated plunger, when rotated 90 degrees clockwise, should remain operated. When rotated back counterclockwise, it should be self-restoring the last 30 degrees of rotation to its unoperated position.

Dial

2.09 The 25Y3 (MD) or 25B3 (MD) dial will function only when the green lead is positive (+) and the orange-black lead is negative (−). If no tones are heard when a dial button is depressed, check line polarity.

2.10 Certain switching functions may require installation of a polarity guard to ensure proper battery polarity to the dial. Install guard as outlined in Reference section in Division 502.

Do not attempt repair of TOUCH-TONE® dials in the field.

Handsets

2.11 Where conditions warrant, the G3AR handset supplied with these sets can be replaced with other types as follows:

- For impaired hearing—G6-type
- For weak speech—G7A
- For noisy location—G8-type

Refer to section in Division 501 for connections of these handsets.

Faceplates

2.12 Releasing the faceplate clip permits removal of the faceplate. A P-29E574 charcoal faceplate was originally furnished with these sets. Later manufactured sets are equipped with a P-84G300 color-coordinated faceplate. Sets equipped with a 25Y3 (MD) dial can be converted from 10- to 12-button TOUCH-TONE operation by converting the dial and installing a P-86D700 color-coordinated, 12-opening faceplate. See 2.13 for dial conversion information. The P-84G300 and P-86D700 faceplates require the last two digits of the P-number to be changed to the coordinated color suffix.

10- to 12-Button Dial Conversion

2.13 A kit of parts consisting of two buttons, two collars, and two compression springs is necessary to convert the 25Y3 (MD) 10-button TOUCH-TONE dial to a 12-button dial. D-180115 Kit of Parts is used for nonilluminated dials.

2.14 Install special service buttons as follows:

(1) Remove adhesive plates covering the two special service button openings in the dial face.

(2) Assemble a button and collar by slipping the collar over the gray end of the button so that the tangs of the collar face the white end of the button. The collar and button must be assembled so that tangs on collar match slots in dial opening. The tab on the button should be on the right side when looking at the face of the button.

(3) Insert spring into hole in back of button.

Exercise care in handling button, collar, and spring assembly to prevent losing spring.

(4) Hold the button, collar, and spring assembly between the thumb and forefinger and insert the assembly, spring first, straight into the dial coverplate cavity making sure the two tabs

extending from the collar fit into the two recesses at the top and left sides of the cavity. The assembly must be inserted far enough so that the tangs on the collar snap and lock around the projections in the sides of the dial coverplate cavities to hold the button assembly firmly.

(5) The "*" button should be installed on the left side of the dial and the "#" button on the right side of the dial.

2.15 Remove special service buttons by inserting a KS-16750L2 releaser between the two tangs located on each side of the button assembly, starting on the side toward the "0" button first. Pry the assembly gently upwards exercising caution to prevent the compression spring from causing the button and collar to fly outward when released. Do not reuse the collar.

3. CONNECTIONS

3.01 These sets are factory-wired for 1A1 or 1A2 key telephone system (KTS) and 3-type speakerphone. They are equipped with hold and cutoff key. The hold key position can be illuminated, but lamp is not provided with set.

3.02 For use with 1A KTS, modify set as shown in Fig. 3.

3.03 If speakerphone control unit is located near the telephone set, the mounting cord conductors can be extended to the control unit by using a 148- or 149-type adapter or 66E-type connecting block. If control unit is located at the key equipment extend leads through an A25B connector cable or inside wiring cable.

3.04 When a 1565LK (MD) telephone set is not used as a speakerphone set and is multipled with any other set capable of furnishing speakerphone feature, speakerphone leads must be disconnected, insulated, and stored, either at the telephone set (Note 4, Fig. 1), or at the multipling point. If not disconnected, the speakerphone leads will provide a common connection between the circuits of the multipled telephone sets.

3.05 Exclusion can be provided with these sets by the addition of a D-179935 Kit of Parts which must be ordered separately. Exclusion key can also be used as a cutoff of the ringer in the set. Connect as shown in Table A.

3.06 Cutoff of extension stations, ringer, or buzzer can also be made using the cutoff key on the 589AJ key.

3.07 A polarity guard is used only when specified by local instructions for end-to-end signaling installation when battery and ground reversals may be encountered.

3.08 When polarity guard is required with these sets, install a P-90D052 guard assembly. Polarity guard cannot be used with sets having 25B3 (MD) dial if speakerphone is furnished. Connect as shown in Table B.

3.09 When additional terminating points are required for auxiliary services such as buzzers, lamps, etc., a P-13E313 terminal strip assembly is available. Order separately and install as shown in Reference section in Division 502.

3.10 Sets are factory-wired with ringer leads connected to terminals RR and RT. Provision is made for ringer, buzzer, or both. If both ringer and buzzer are required use spare leads or exclusion leads if this feature is not provided. When power failure feature is provided in the KTS, ringer must be wired with capacitor in circuit.

3.11 The 4th key position is convertible from line pickup (locking) to signaling (nonlocking) by removal of the P-12A892 screw detail. Arrange wiring as shown in Table C.

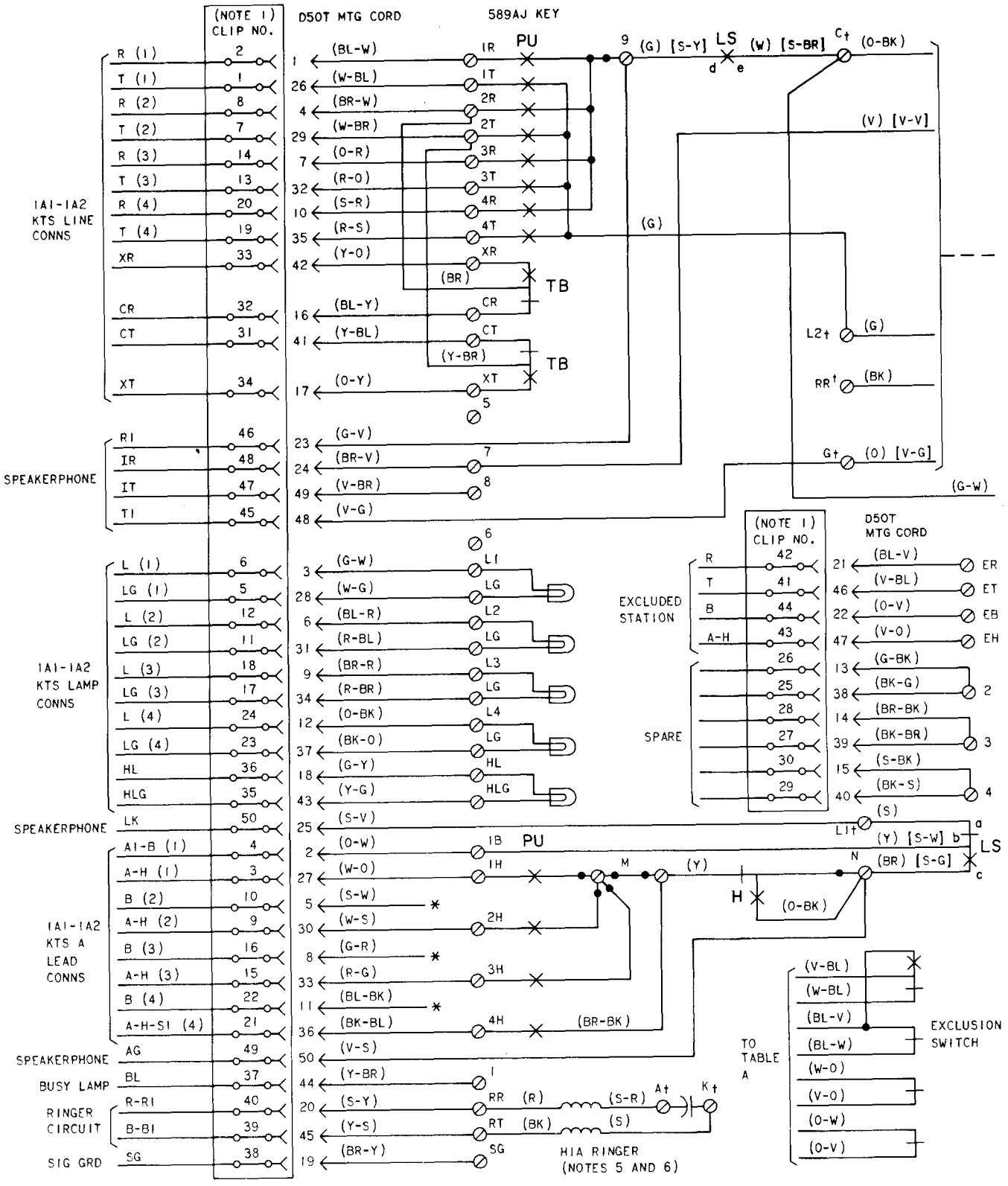
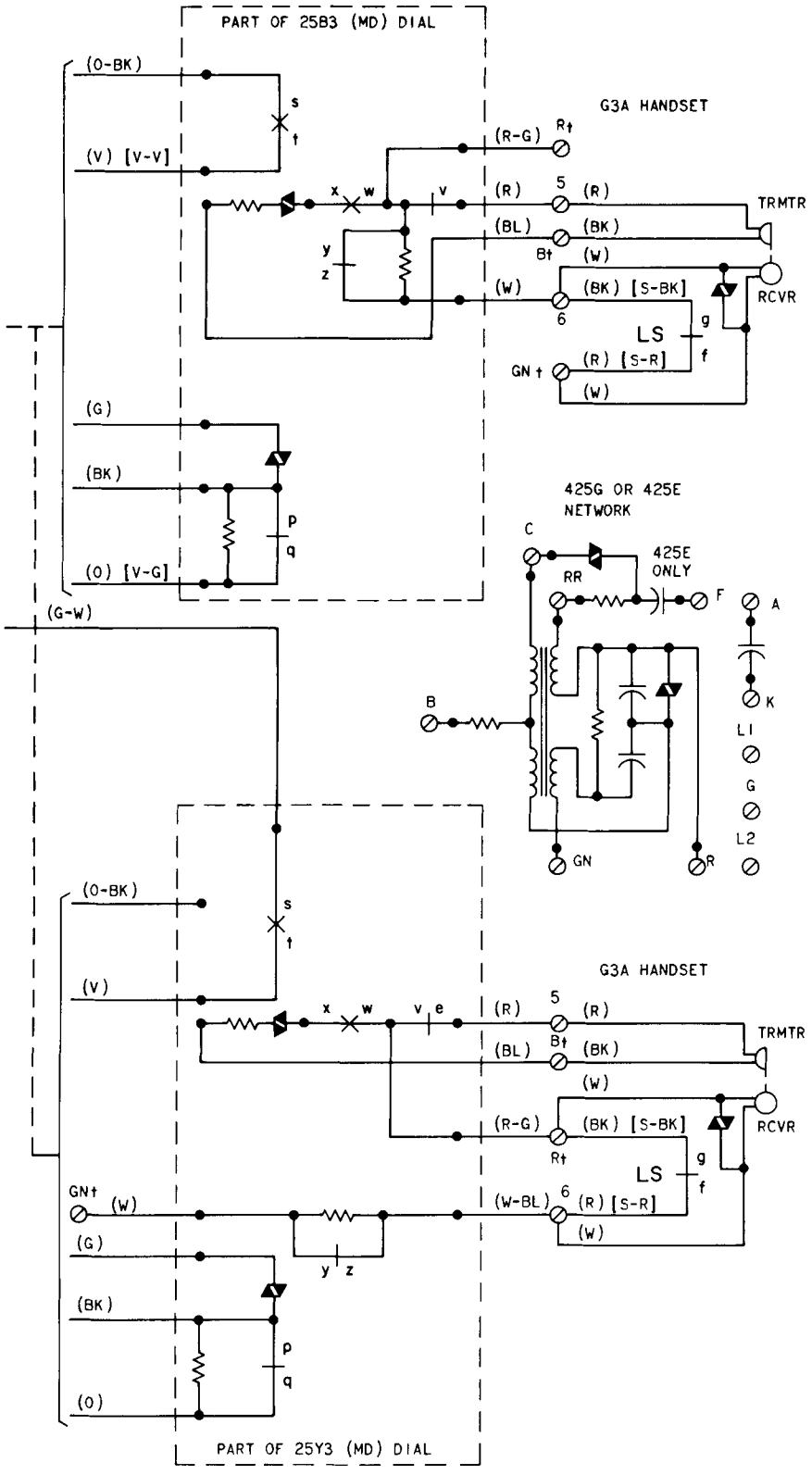


Fig. 1—1565LK (MD) Telephone Set, Factory-Wired for 1A1 or 1A2 KTS and 3-Type Speakerphone, Connections (Sheet 1 of 2)



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. AUXILIARY BUZZER MAY BE INSTALLED. USE SPARE LEADS AND TERMINALS TO CONNECT TO EQUIPMENT.
3. IF EXCLUSION FEATURE IS ADDED, CONNECT SWITCH LEADS PER TABLE A.
4. DISCONNECT TI, RI, IT, IR, AG, AND LK LEADS WHEN SETS NOT EQUIPPED WITH SPEAKERPHONE ARE MULTIPLED. DISCONNECT EITHER AT THE SET OR MULTIPLING POINT.
5. FOR BRIDGED RINGER ON ANY LINE CONNECT (R) RINGER LEAD TO RING AND (BK) RINGER LEAD TO TIP OF LINE INVOLVED. CONNECT (S) RINGER LEAD TO K AND (S-R) RINGER LEAD TO A OF NETWORK.
6. IF CAPACITOR IS NOT REQUIRED IN RINGER CIRCUIT, MOVE (S) RINGER LEAD TO A OF NETWORK.
7. TO SILENCE RINGER PERMANENTLY. CONNECT (R) AND (S-R) RINGER LEADS TO A OF NETWORK AND (BK) AND (S) RINGER LEADS TO K OF NETWORK.
8. LINE SWITCH SEQUENCE:
   - bc MAKES FIRST
   - bc MAKES BEFORE ab BREAKS
   - de MAKES SECOND
   - fg BREAKS LAST
9. TURNBUTTON SHOWN WIRED AS CUTOFF OF LINE 2. CAN BE REWIRED AS CUTOFF OF OTHER LINES, EXT RINGER, RINGER IN SET, ETC. CONNECT AS REQUIRED.

TB - TURNBUTTON (CUTOFF)
PU - PICKUP KEY
H - HOLD KEY
LS - LINE SWITCH
* - INSULATED AND STORED
† - NETWORK TERMINAL-UNDESIGNATED TERMINALS ARE ON KEY TERMINAL BOARD.

Fig. 1—1565LK (MD) Telephone Set, Factory-Wired for 1A1 or 1A2 KTS and 3-Type Speakerphone, Connections (Sheet 2 of 2)

TABLE A

EXCLUSION KEY CONNECTIONS

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

* Terminal of line involved.

† 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

POLARITY GUARD CONNECTIONS (SEE NOTES)
(P-90D052 GUARD ASSEMBLY)

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

* Sets with 25Y3 (MD) dial only.
( ) Current color code.
[ ] MD color code.

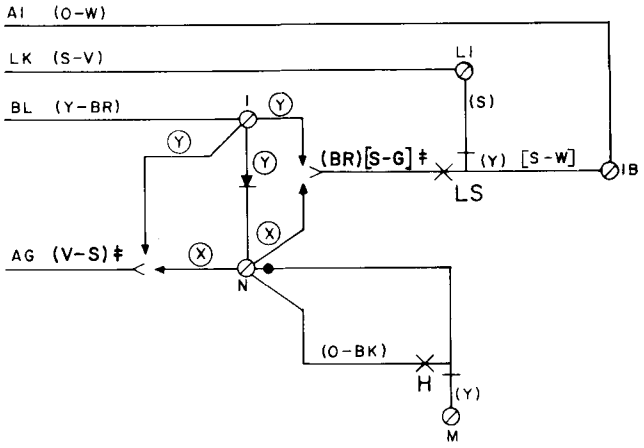
Notes 1: Polarity guard cannot be added to sets having 25B3 (MD) dial and connected for speakerphone.

2: Polarity guard mounts on right side of dial mounting bracket using the dial mounting screw.

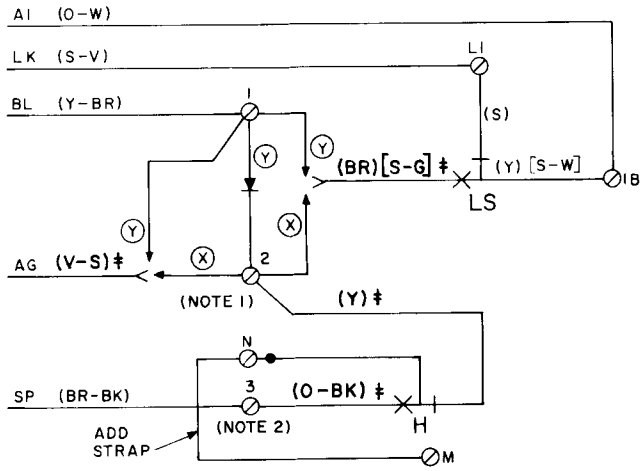
TABLE C

PICKUP-SIGNALING KEY CONVERSION

KEY OPTIONS	BR-BK KEY LEAD
HPPPPC	M
HPPPSC	SG



(A) WITHOUT I HOLD

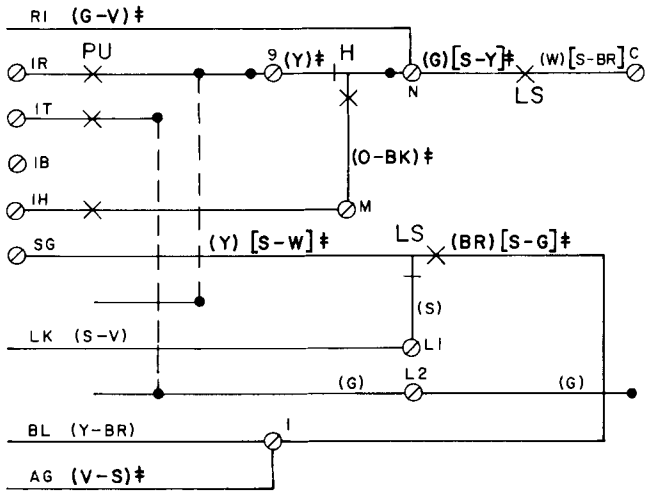


(B) WITH I HOLD

NOTES:
1. REMOVE (G-BK) AND (BK-G) LEADS FROM KEY TERMINAL 2, INSULATE AND STORE.
2. REMOVE (BK-BR) LEAD FROM KEY TERMINAL 3, INSULATE AND STORE.

LS-LINE SWITCH
H-HOLD KEY
(X) WITHOUT BUSY LAMP
(Y) WITH BUSY LAMP
( ) CURRENT COLOR CODE
[ ] MD COLOR CODE
‡ LEADS INVOLVED IN MODIFICATION

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



LS- LINE SWITCH
H - HOLD KEY
( ) CURRENT COLOR CODE
[ ] MD COLOR CODE
‡ LEADS INVOLVED IN MODIFICATION

Fig. 3—1565LK (MD) Telephone Set Converted for 1A KTS—With or Without Busy Lamp or Speakerphone