

832- AND 2832-TYPE TELEPHONE SETS

1. GENERAL

1.01 This section contains identification, installation, connection, and maintenance information for the 832- and 2832-type telephone sets. The 832- (rotary) and 2832- (TOUCH-TONE® dial) type telephone sets are special plug-ended, 10-, 11-, or 13-button key telephone sets initially designed for use with the 7A Communication System (COM KEY* 718). Refer to Section 518-450-100 for information on the 7A Communication System.

*Trademark

2. IDENTIFICATION

2.01 The 832A (A&M Only) (Fig. 1) and 2832A (A&M Only) are 10-button telephone sets equipped with a 647G5 key consisting of a Hold button, seven line buttons, and two intercom buttons. There is an apparatus blank to the right of the dial which may be removed to mount a 651C key for NIGHT TRANSFER, a 651D key for Privacy Release (PRIV RLS) or a 651F key for RECALL. If required the privacy circuit board can be installed.

2.02 The 832B and 2832B telephone sets are 11-button sets similar to the 832A and 2832A sets, respectively, except that the eleventh button, to the right and below the key assembly is equipped in the factory for RECALL. THIS KEY TAKES THE AMBER KEY CAP PROVIDED. PRIV RLS and NIGHT TRANSFER features *cannot* be provided in the 832B and 2832B telephone sets. If required the privacy circuit can be field installed.

2.03 The 832C and 2832C (Fig. 2) are 13-button telephone sets equipped with the 647G5 key and also a 647S5 key with buttons for RECALL, PRIV RLS, and NIGHT TRANSFER. The remainder of the top key space is blocked off by a collar assembly. These sets are also equipped and factory wired with the privacy circuit.

2.04 All of the 832- and 2832-type sets provide the same basic services such as pickup, hold and illumination, and intercom. They are equipped with a loudspeaker to provide tone and voice

signaling. The level of the tone is adjusted by a volume control knob located under the right side of housing. Two or more CO/PBX lines may be conferenced by simultaneously depressing the buttons associated with the lines to be conferenced. The two intercom lines may also be conferenced. Intercom and CO/PBX lines cannot be conferenced. Automatic button restoration restores all depressed buttons to the unoperated position when the handset is replaced.

2.06 The 832- and 2832-type telephone sets may be used with either the 3- or 4-type speakerphone system.



The limited number of mounting cord conductors places a restriction on the location of speakerphone components unless it is desired to give up one pickup line. Refer to Section 512-620-487 or 512-740-471 for connection information for the 3- or 4-type speakerphone system, respectively.

2.07 Current 832- and 2832-type telephone sets are available in ivory (-50) only. The 832- and 2832-type sets will be shipped with a disposable faceplate, so it will be necessary to order the proper faceplate separately.

2.08 Any station set may be optionally wired to ring on *one* CO/PBX line only, or for common audible ringing provided no one station is wired for both. In addition the ringing source (455A KTU) of the 570A KSU must not see more than 18 loads—one load being a station set wired for common audible ringing or a station set wired for ringing on one CO/PBX line. Refer to Section 518-450-100.



When common audible ringing is wired to a station other than the attendant station (Code 0), that station cannot have the night transfer option.



Fig. 1—832A Telephone Set

Ordering Guide

2.09 For telephone set and replaceable component ordering guide, refer to Table A. See Table B and C for color and faceplate ordering information.

2.10 The following optional apparatus may be associated with the 832- or 2832-type sets (order as required):

- Diode, 446F (order one for each rotary dial station to be restricted)
- 3-Type Speakerphone (order one each of the following for each station to be equipped with speakerphone)

Cord, D10R-87 (specify length, 7, 14, or 25 feet)

Loudspeaker, 760A-*

Transformer, 2012B

Transmitter, 666B-*

Unit, Control, 55B

- 4-Type Speakerphone (order one each of the following for each station to be equipped with speakerphone)



Fig. 2—2832C Telephone Set

Loudspeaker, 108A-* or 108AR-* (includes 7-foot D20N mounting cord)

Transmitter, 680A-* or 680AR-* (includes 7-foot D8S mounting cord)

Adapter, 223A-49 (includes 7-foot M16C and 25-foot M2FG cords)

Unit, Power, 85B1-49

- Ringer, E1C (for power failure transfer).

*Add color suffix.

2.11 The following optional apparatus will only be used with the 832A or 2832A telephone sets (except as noted).

- D-180487 Kit of Parts (NIGHT TRANSFER) order one only per system if the attendant station is to be equipped for night transfer.
- D-180488 Kit of Parts (PRIV RLS) order one for each station to be equipped for privacy release.
- D-180591 Kit of Parts (RECALL) order one for each station to be equipped for recall.

Note: Only one feature can be provided.

- D-180486 Kit of Parts (Privacy Circuit Board), order one for each station to be locked out. Can be added to the 832A, 832B, 2832A, or 2832B telephone set.

3. INSTALLATION AND CONNECTIONS

3.01 Install telephone sets at desired locations, making sure that any options are installed before telephone set is connected. See Fig. 5 through 10 for schematics of 832A, 2832A, 832B, 2832B, 832C, or 2832C telephone sets, respectively.

3.02 To install telephone set options, the faceplate and housing must be removed and the dial lifted from its mounting brackets. Use a KS-16750 type releaser or equivalent to release the faceplate catch.

Caution: The ten button key in this set is equipped with special low-friction plastic parts. Special care is required when removing or replacing these keys to avoid cracking or breaking the plastic hooked end of the latchbar projecting from the end of the key. When removing a key, avoid twisting or distorting the hook. When installing a key, make sure the hook is properly engaged over the edge of the pivot arm before tightening the mounting screws of the key.

Caution: When making wiring changes in this set involving adding or moving spade-tipped leads on the terminal board (e.g., privacy option), extreme care must be taken to prevent shorting between terminal positions. Check for clearance before reinstalling the dial.

3.03 Options are installed as follows:

(a) **Station Restriction (832-type telephone set):**

- (1) Install 446F diode between network terminals RR and F. Terminate negative lead of diode on terminal F, with positive lead on terminal RR.
- (2) On telephone set terminal board, move (G) lead from terminal 22 to 4, and move (R) lead from terminal 4 to 22.

(b) **Station Restriction (2832-type telephone set):** On telephone set terminal board, move (G) lead from terminal 22 to 4, and move (R) lead from terminal 4 to 22.

(c) **Privacy Circuit (D-180486 Kit of Parts) 832A, 832B, 2832A, or 2832B telephone set:**

- (1) Mount privacy circuit board on the two standoffs located at left front of the telephone set base (Fig. 4).
- (2) Fasten circuit board to standoffs using mounting screws furnished with the telephone set.
- (3) Connect leads according to Table E.
- (4) Refer to 3.04 for testing the privacy release key.

(d) **Privacy Circuit (D-180486 Kit of Parts) disabling 832-type telephone sets:** Move (0) lead of Privacy Circuit from telephone set terminal 8 to 13.

(e) **PRIV RLS (D-180488 Kit of Parts) 832A or 2832A sets only:**

- (1) Pry apparatus blank off locating pins (Fig. 3).
- (2) Press PRIV RLS key on locating pins.
- (3) Connect leads according to Table F.
- (4) Refer to 3.04 for testing the privacy release key.

Note: When PRIV RLS is used, Night Transfer or Recall feature cannot be used.

(f) **PRIV RLS (D-180488 Kit of Parts) disabling 832A, 832C, 2832A, and 2832C telephone sets:** Move (O-BK) lead of privacy release key from telephone set terminal 10 to 15.

(g) **NIGHT TRANSFER (D-180487 Kit of Parts) 832A or 2832A telephone sets attendant station (Code 0) only:**

- (1) Pry apparatus blank off locating pins (Fig. 3).

- (2) Press night transfer key on locating pins.
- (3) Connect leads according to Tables J and K.
- (4) Refer to Section 518-450-100 for KSU strap addition.

Note: When Night Transfer is used, Privacy Release or Recall cannot be used.

(h) **NIGHT TRANSFER 832C and 2832C telephone set:**

- (1) Connect leads per Table K.
- (2) Refer to Section 518-450-100 for KSU strap addition.

(k) **RECALL (D-180591 Kit of Parts) 832A or 2832A telephone sets only:**

- (1) Pry apparatus blank off locating pins (Fig. 3).
- (2) Press recall key on locating pins.
- (3) Connect leads according to Table D.

Note: When RECALL is used, PRIV RLS or NIGHT TRANSFER cannot be used.

3.04 Privacy Circuit/Privacy Release Test:

- (a) Busy out a line using another station (Station X). At the set with the privacy circuit to be tested (Station Y), go off-hook on that line. Station Y should be locked out. Hang up Station Y.
- (b) If Station X has a privacy release key, depress it. The lamp under the busy line will indicate it is on-hold. Station Y should now be able to pick up the line on hold. Release the privacy release key, Station X and Y should now be bridged. Hang up Station Y.
- (c) If Station X does not have a privacy release key, or a privacy circuit, he can allow Station Y in on the line by just placing the line on-hold by depressing the Hold button (this also releases the line button). Station Y should now be able to pickup the line on hold. Now depress the

same button at Station X, the stations should be bridged. Hang up Station Y.

(d) If Station X does not have a privacy release key but does have a privacy circuit, he cannot allow Station Y to bridge onto the call without excluding himself.

(e) With the line still busied out by Station X and Station Y not bridged, depress a different line on Station Y and go off-hook. While holding that line button depressed bridge onto the line that was busied out by Station X. Station Y should be locked out of both lines.

3.05 When installing faceplate, insure that the collar is in place on the key. Place the tabs into slots in front of the faceplate opening in the housing and lower slowly over the dial and key collar until almost in place. Use a KS-16750 type releaser or equivalent to release the faceplate catch and seat the faceplate.

3.06 The 647G5 key uses key designation tabs form E-5837, and the 647S5 key uses key designation tabs form E-6406. To install, squeeze sides of the cap and remove from key. Insert designation tabs and replace cap with locking tabs along the horizontal axis of the key.

3.07 For telephone set number designation, use form E-4203-G or E-4204-G for rotary sets and form E-5002-A or E-5002-B for station number card for TOUCH-TONE sets.

3.08 Refer to Fig. 5 through 10 for telephone set schematics.

3.09 Refer to Table L or M and Section 512-620-487 or 512-740-471 for connections to 3- or 4-type speakerphone systems, respectively.

3.10 Early version of 832- and 2832-type telephone sets were equipped with a D50AL mounting cord which require contact strips to be installed in the back of the keys. Current production 832- and 2832-type telephone sets are equipped with a D50AP mounting cord. The D50AP mounting cord is a direct replacement for the D50AL mounting cord but does not require that contact strips be installed in the back of the keys.



Fig. 3—832A Telephone Set (Housing Removed)



Do not install contact strips in the back of the key when telephone sets are equipped with a D50AP mounting cord. Leads are factory provided in this cord from the key terminal plugs to the set terminal board. Use of contact strips may damage terminal plugs.

for loose or broken connections and replacement of items listed under Ordering Guide table as replaceable components.



Telephone set should not be carried by the switchhook since this applies excessive strain to the line switch and could cause a trouble condition.

3.11 If Power Failure Transfer feature is to be provided, use an external ringer (E1C) and connect as shown in Table I.

4. MAINTENANCE

4.01 Maintenance of the 832- and 2832-type telephone sets should be limited to checking

4.02 The current production 647-type key has been modified for easy lamp replacement by merely removing the lamp cap and inserting a 553-type tool through the hole in the top of the button. In early production keys, it was necessary to remove faceplate, key collar, and button for lamp replacement.

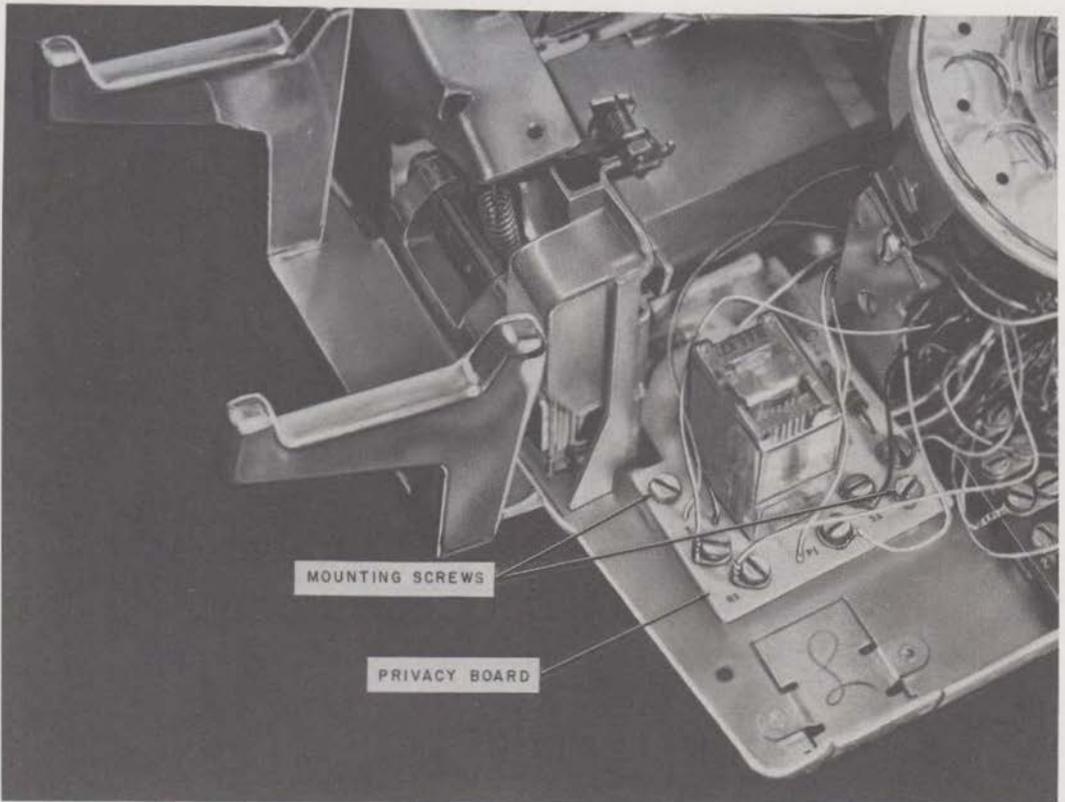


Fig. 4—Privacy Circuit Board Mounted on Telephone Set

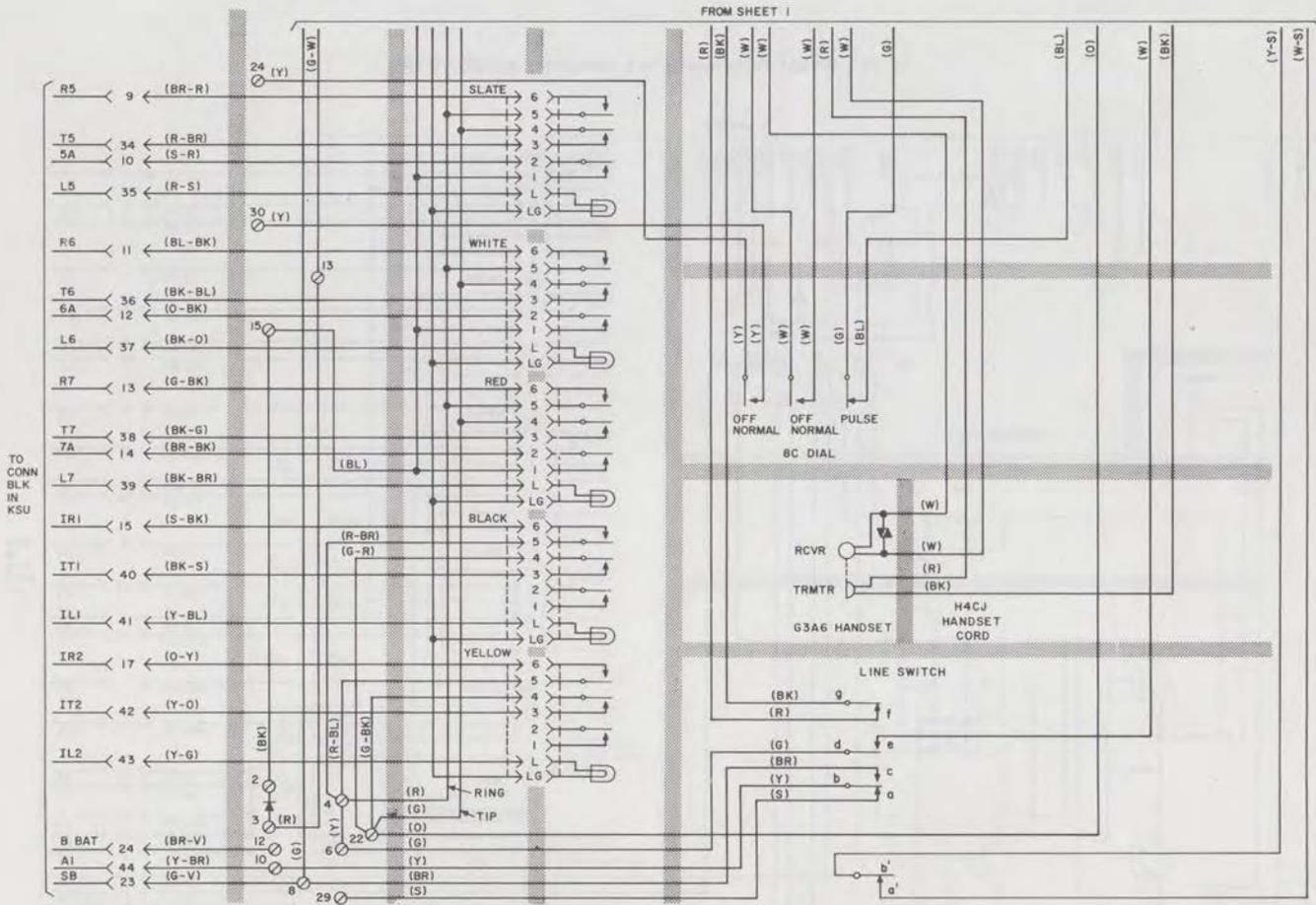


Fig. 5—832A Telephone Set, Connections (Sheet 2 of 2)

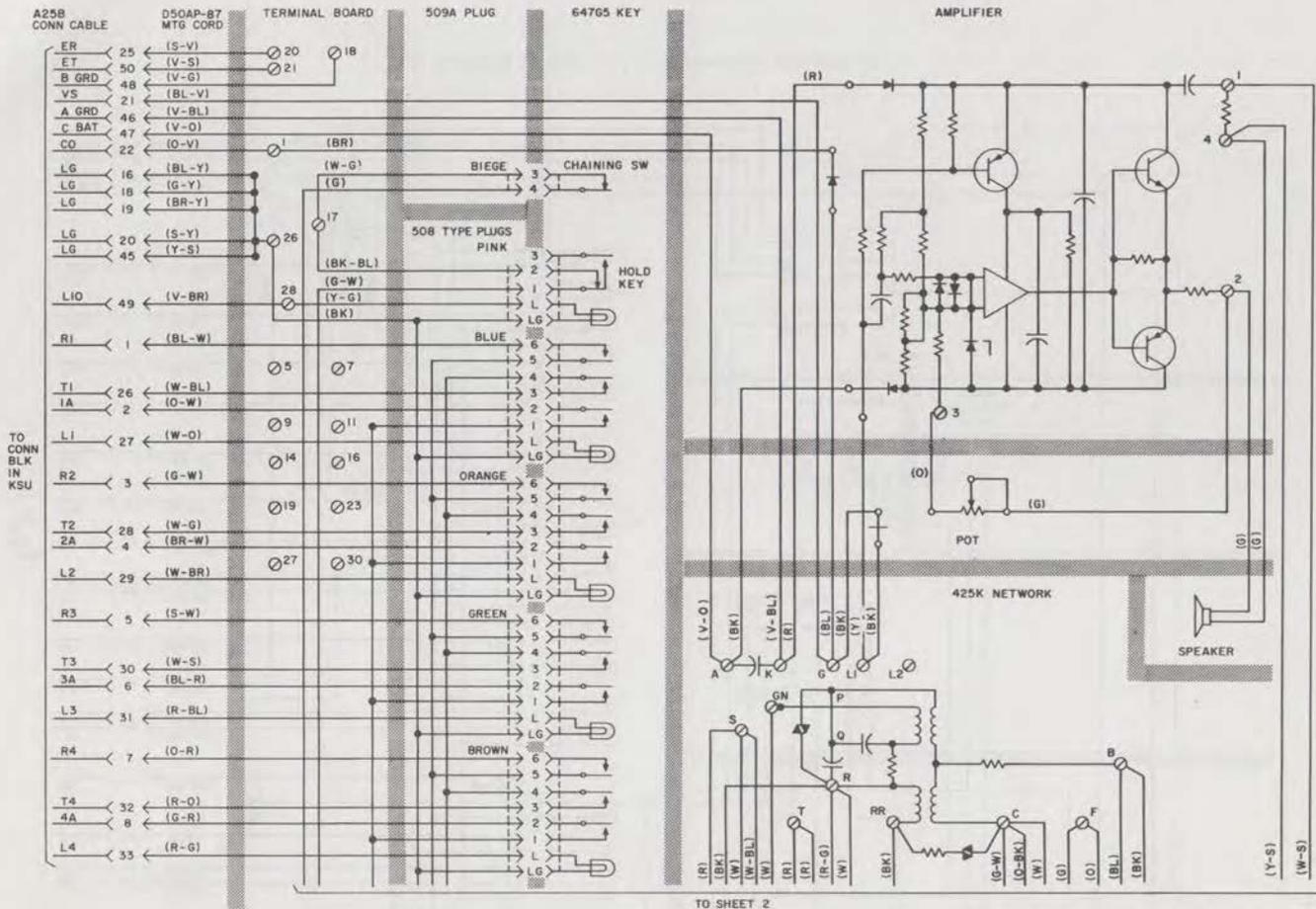


Fig. 6—2832A Telephone Set, Connections (Sheet 1 of 2)

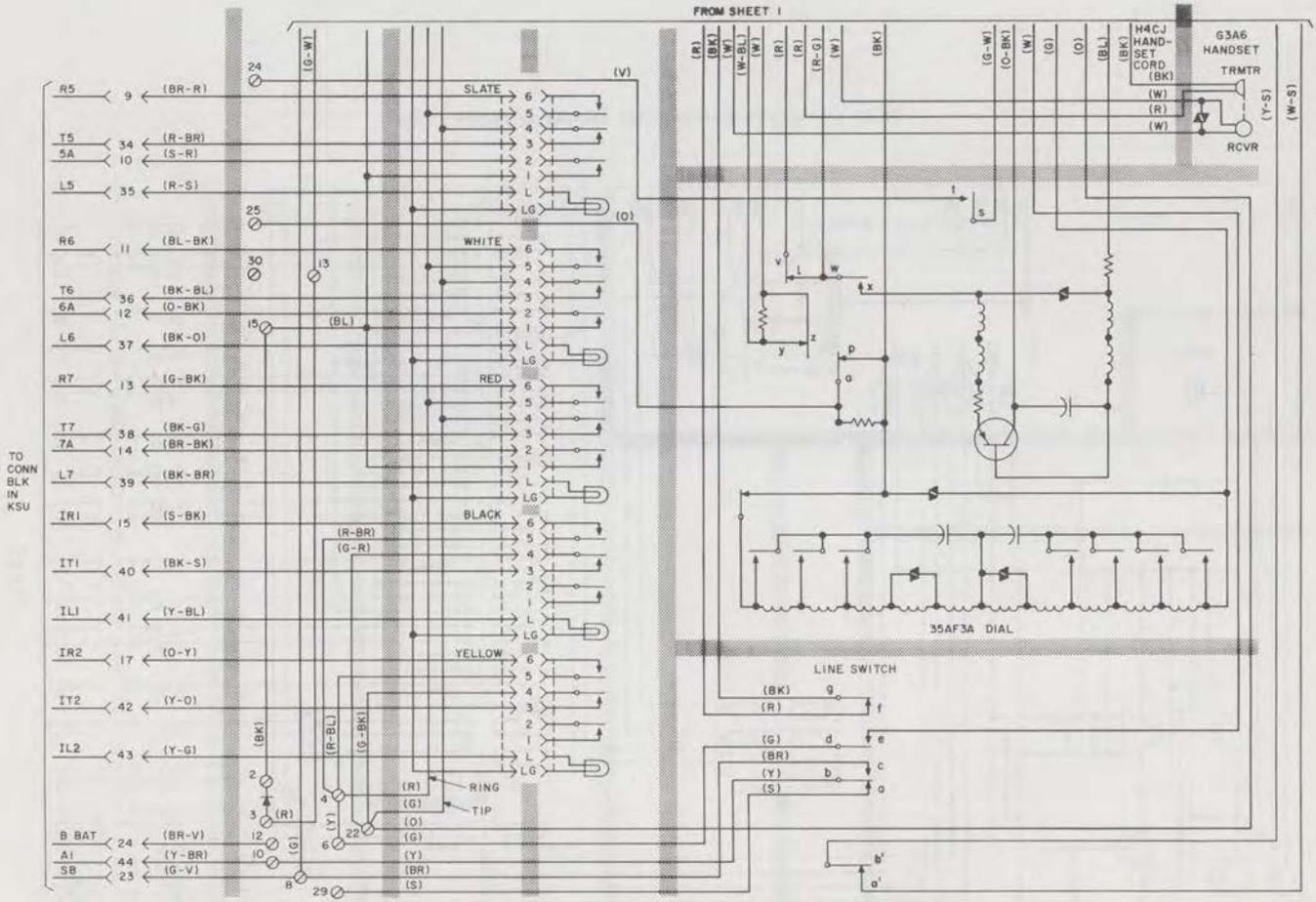


Fig. 6—2832A Telephone Set, Connections (Sheet 2 of 2)

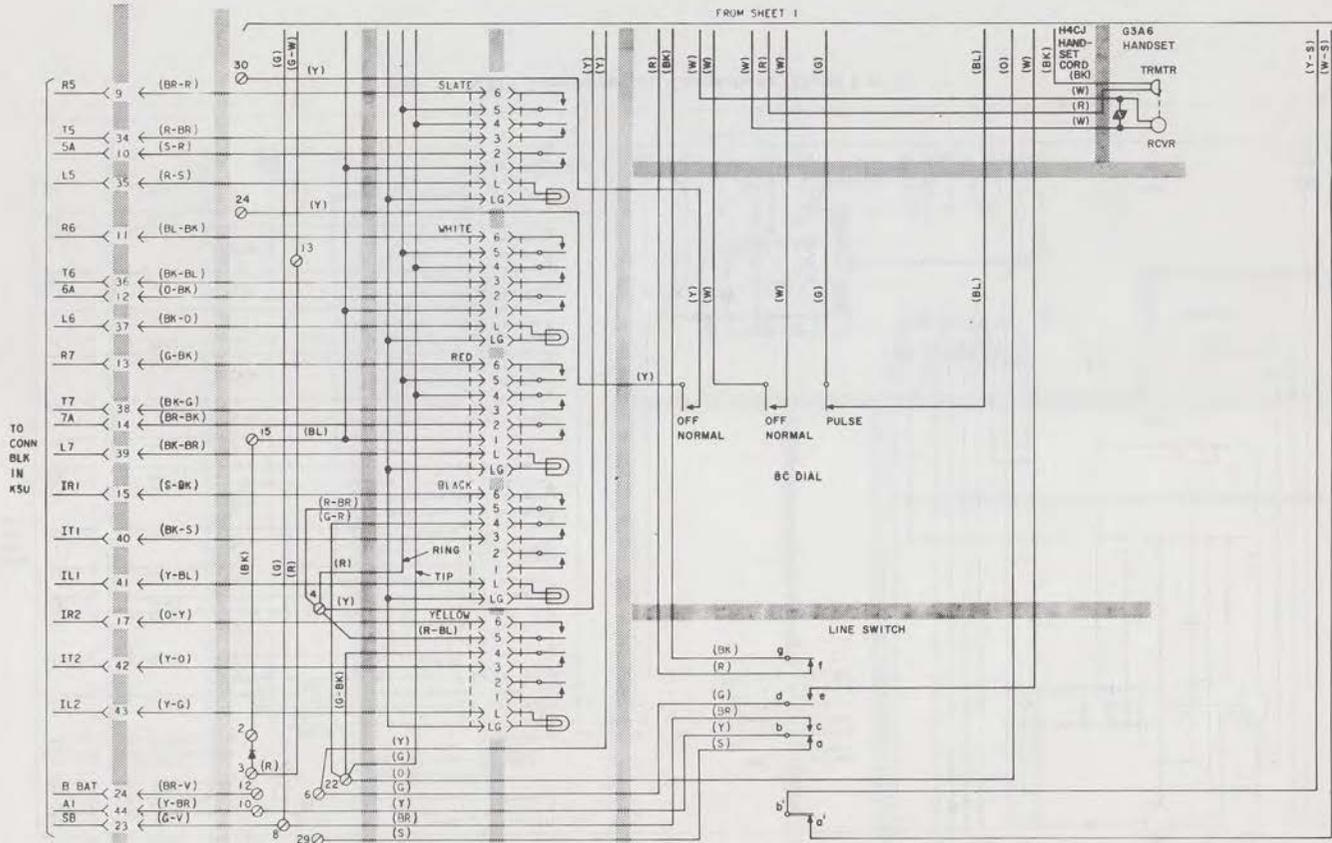


Fig. 7—832B Telephone Set, Connections (Sheet 2 of 2)

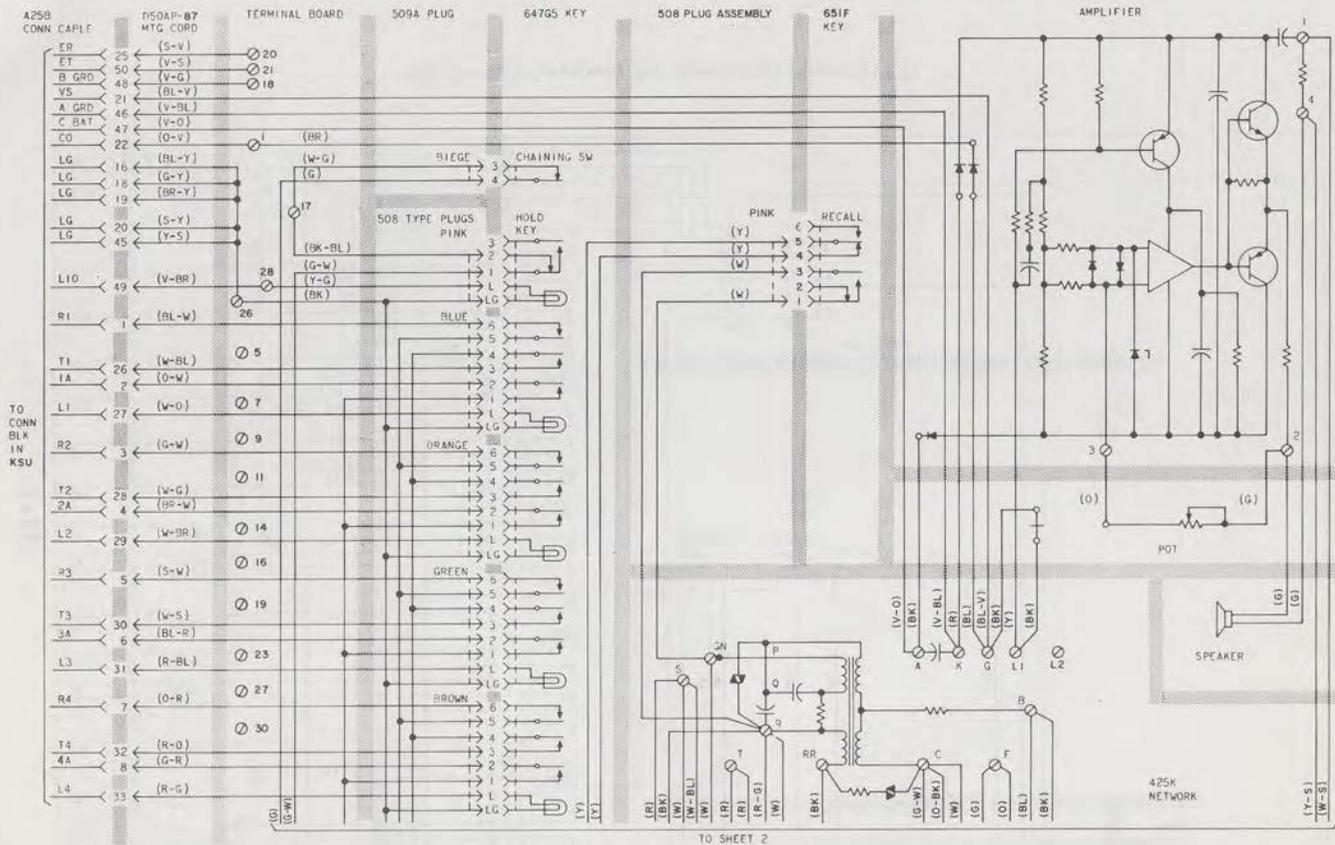


Fig. 8—2832B Telephone Set, Connections (Sheet 1 of 2)

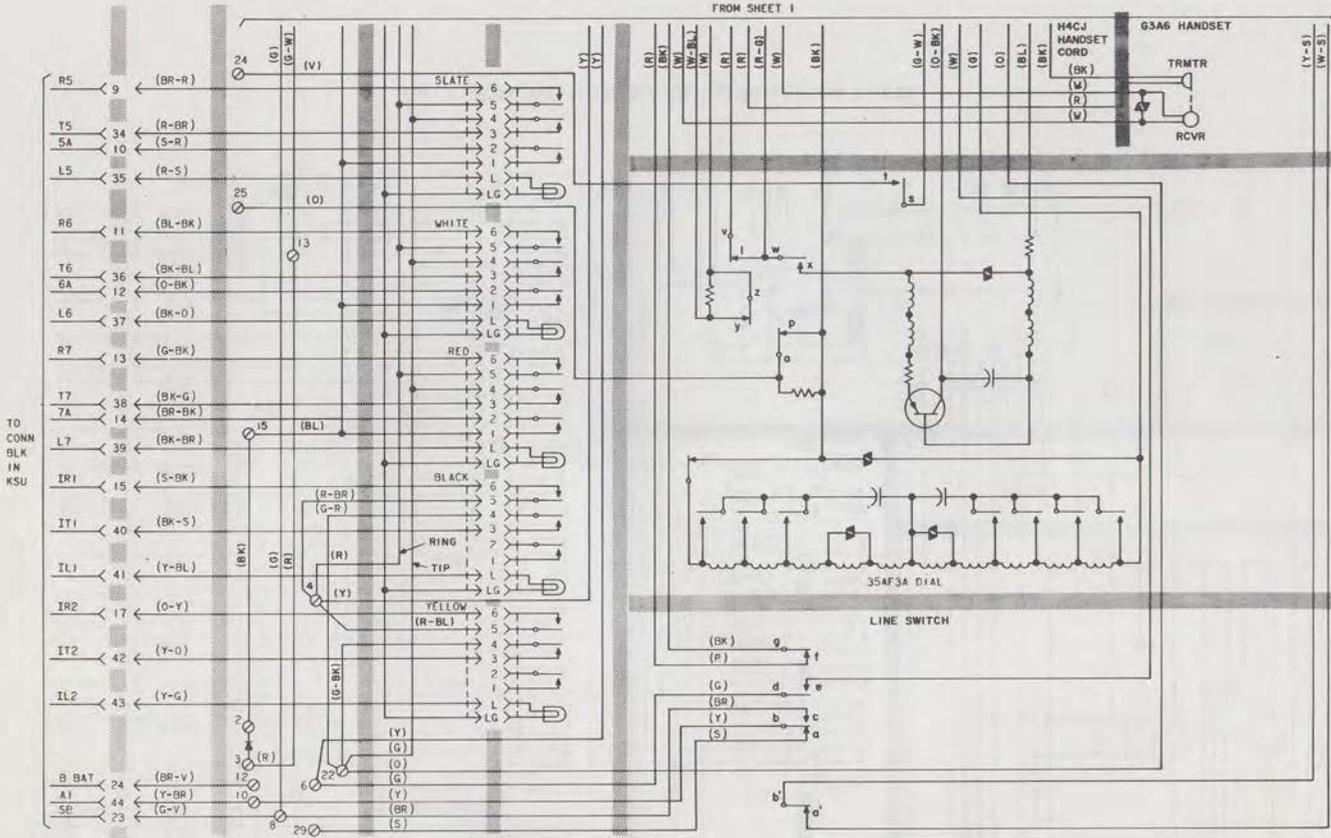


Fig. 8—2832B Telephone Set, Connections (Sheet 2 of 2)

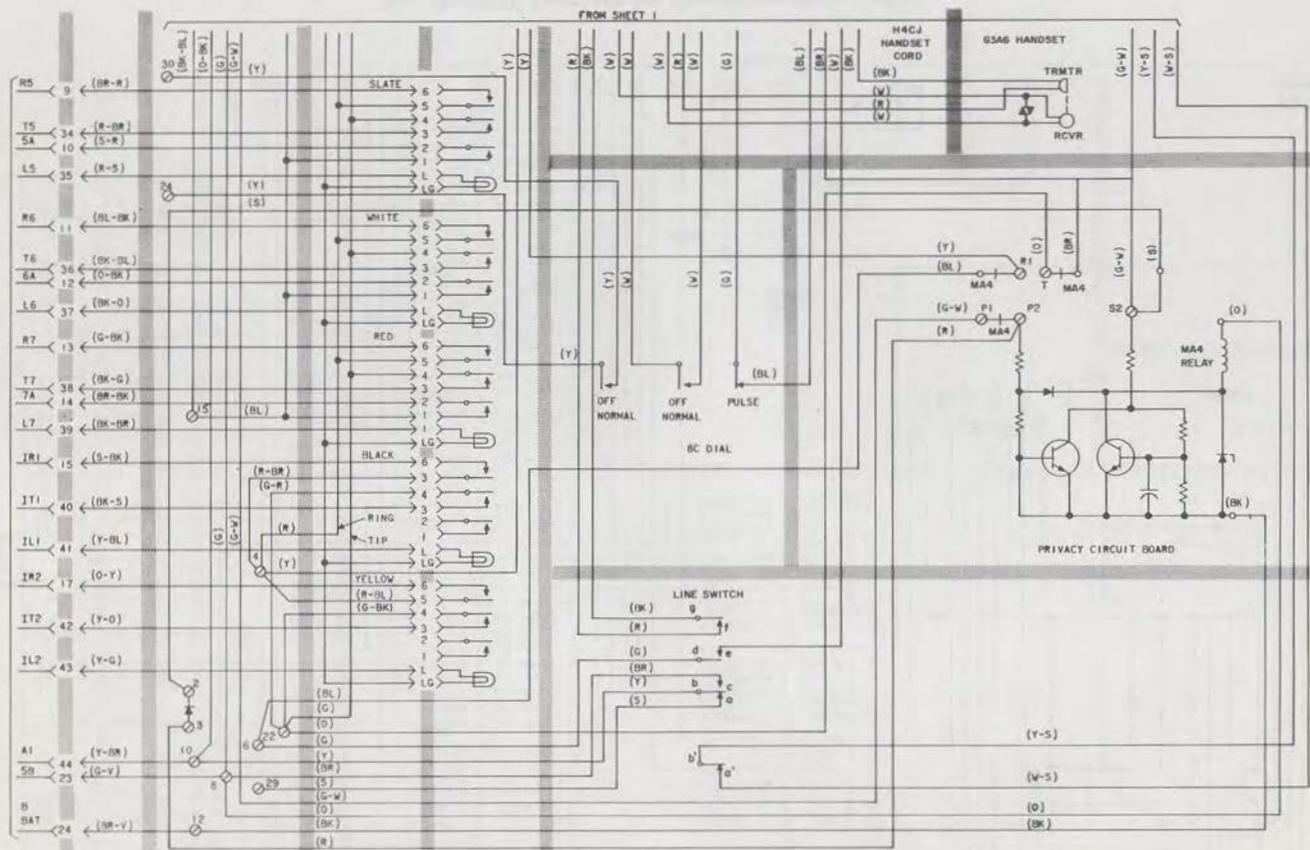


Fig. 9—832C Telephone Set, Connections (Sheet 2 of 2)

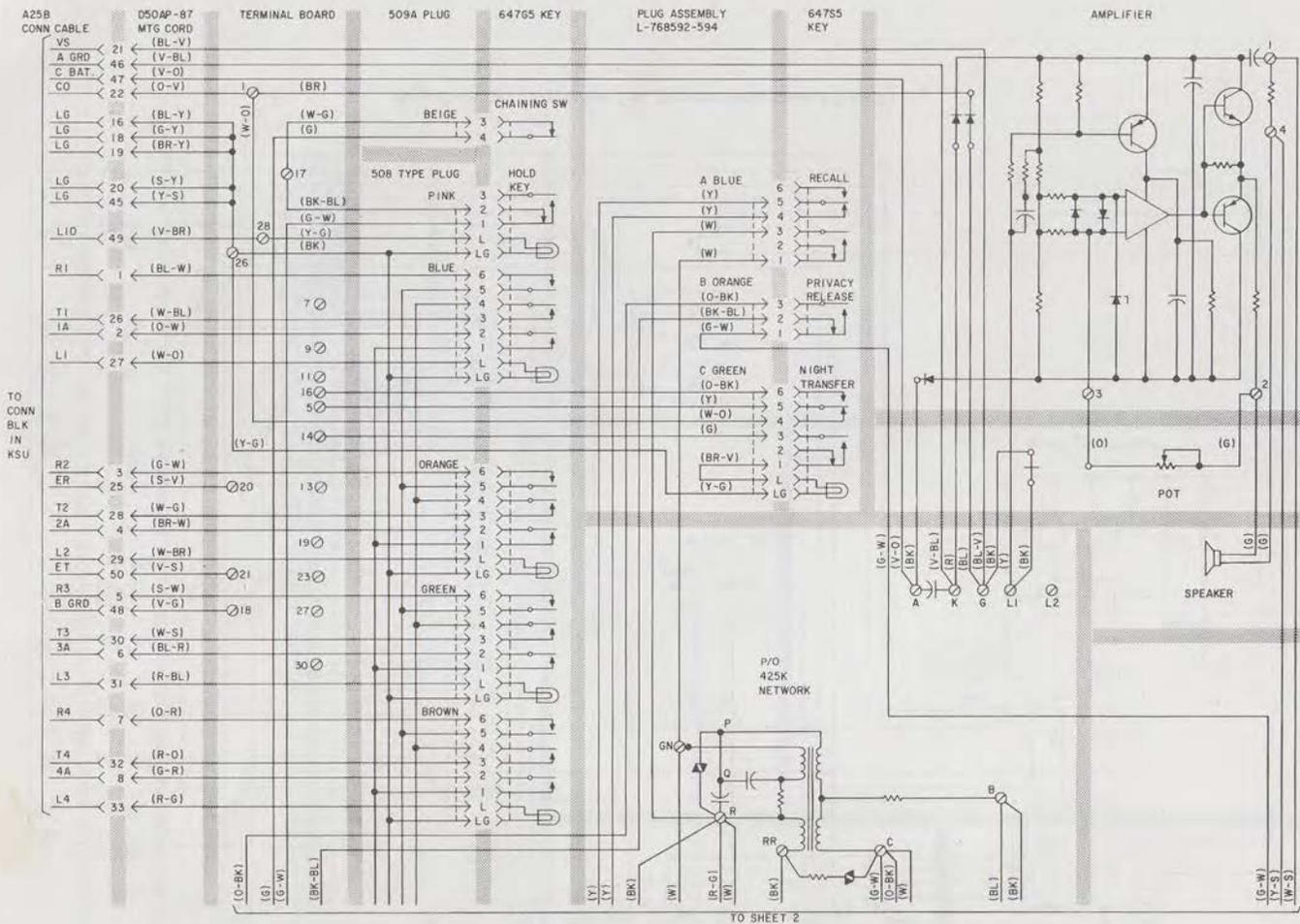


Fig. 10—2832C Telephone Set, Connections (Sheet 1 of 2)

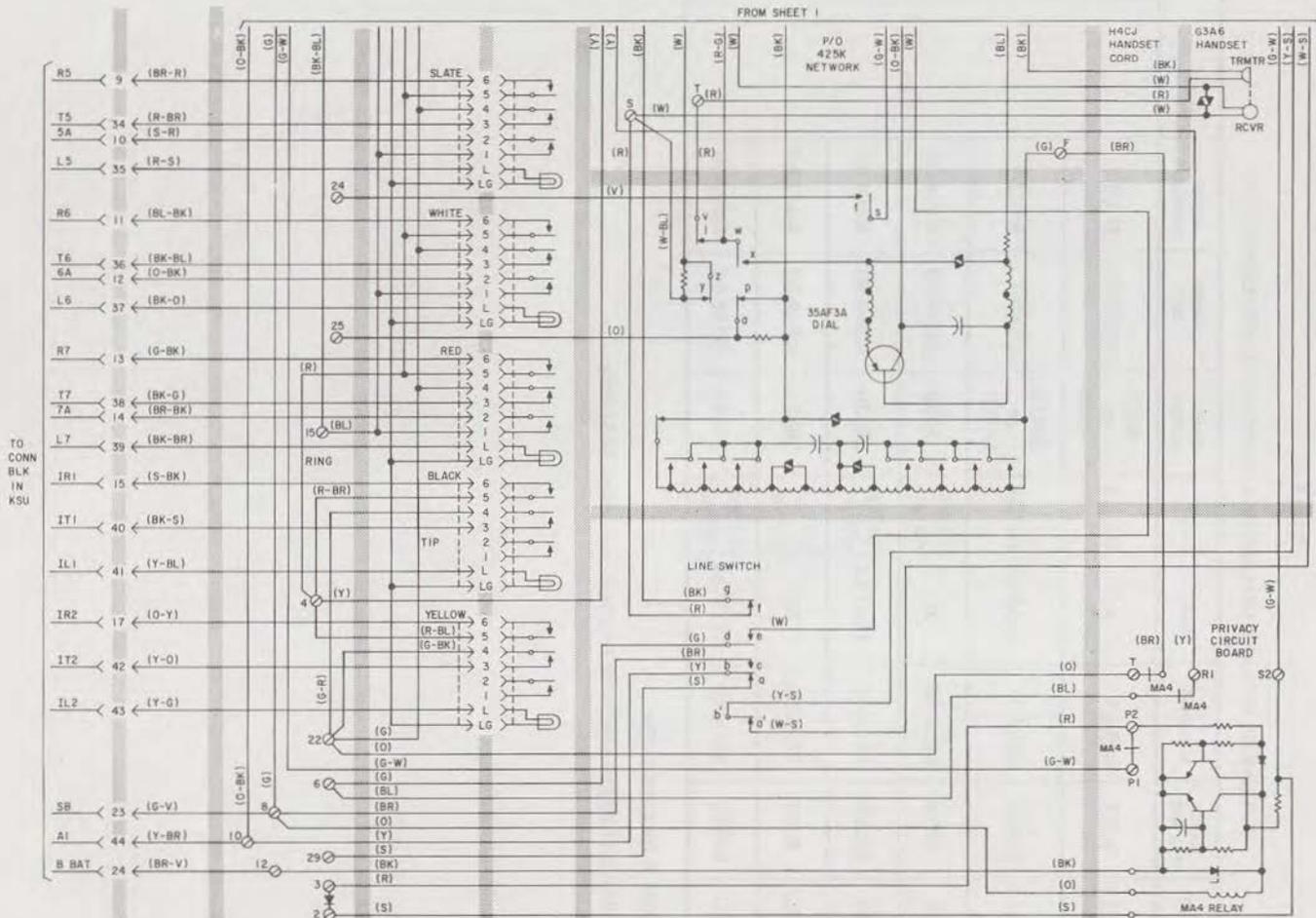


Fig. 10—2832C Telephone Set, Connections (Sheet 2 of 2)

TABLE A

TELEPHONE SETS AND REPLACEABLE COMPONENTS—ORDERING GUIDE

TEL SET	BASE, TEL SET	HOUSING	DIAL	KEY	FACE- PLATE*	HAND- SET	CORD, HANDSET	LAMP
832A†	832A	832A.*	8C	647G5	832A- or 832B-	G3A6-*	H4CJ.*	51A
2832A†	2832A	832A.*	35AF3A	647G5	2832A- or 2832B-	G3A6-*	H4CJ.*	
832B	832B	832A-50	8C	647G5 651F	832B-	G3A6-50	H4CJ-50	
2832B	2832B	832A-50	35AF3A	647G5 651F	2832B-	G3A6-50	H4CJ-50	
832C	832C	832A-50	8C	647G5 647S5	833A-	G3A6-50	H4CJ-50	
2832C	2832C	832A-50	35AF3A	647G5 647S5	2833A-	G3A6-50	H4CJ-50	

*See Table B for color suffix.

† The 832A and 2832A telephone sets have been rated A&M Only.

TABLE B
 COLOR ORDERING GUIDE (EARLY VERSIONS)

TEL SET*	HOUSINGS, HANDSETS, AND HANDSET CORDS		FACEPLATES	
	SUFFIX	COLOR	SUFFIX	COLOR
832A, 2832A	-03	Black	-70	Charcoal
	-50	Ivory	-80	Muted Ivory
	-51	Green	-71	Lt. Green
	-53	Red	-69	Muted Red
	-56	Yellow	-72	Lt. Yellow
	-58	White	-73	Lt. Gray
	-60	Lt. Beige	-75	Muted Beige
	-62	Aqua Blue	-76	Muted Blue

* These sets and their faceplates have been rated A&M Only.

TABLE C

COLOR ORDERING GUIDE (CURRENT VERSIONS)

TEL SET	HOUSINGS, HANDSETS, AND HANDSET CORDS		FACEPLATES†	
	SUFFIX	COLOR	SUFFIX	COLOR
832A,* 2832A,* 832B, 2832B, 832C, 2832C,	-50	Ivory	-100	Avocado
			-108	Teak
			-109	Walnut
			-111	Gold
			-112	Orange
			-113	Brown
			-114	Red
			-115	Blue
			-118	Black

* These sets and their faceplates have been rated A&M Only.

† Faceplates must be ordered separately.

TABLE D

832A AND 2832A TELEPHONE SET
CONNECTIONS FOR RECALL

651F KEY LEADS	CONNECT TO	
	NET TERM.	TEL SET TERM. BOARD
W	GN	
W	R	
Y		4
Y		6

NOTES:

1. Remove (Y) strap from terminals 4 and 6 of telephone terminal board.
2. At telephone sets to be used at attendant station (Code 0) without night transfer, remove (V-BR) lead from telephone set terminal 28; insulate and store. Otherwise the lamp under the hold key will be lighted at all times.

TABLE E

832A, 832B, 2832A, AND 2832B TELEPHONE SET CONNECTIONS
FOR PRIVACY CIRCUIT (D-180486 KIT OF PARTS)

TEL SET LEADS	PRIVACY BOARD LEADS	CONNECT TO TEL SET TERM.	MOVE LEAD	
			FROM TEL SET TERM.	TO PRIVACY BOARD TERM.
	O	8		
	BR	F on net.		
	S*	15		
	BK	12		
	BL	6		
R			13	P2
G-W			13	P1
Y			6	R1
O			F on net.	T

* In the 832A and 2832A telephone sets only, store (S) lead under screw terminal S2 on privacy board when privacy release is provided.

TABLE F

832A AND 2832A TELEPHONE SET CONNECTIONS
FOR PRIVACY RELEASE KEY (D-180488 KIT OF PARTS)

TEL SET LEAD	PRIVACY BOARD LEADS	PRIVACY RELEASE KEY LEADS	CONNECT TO TEL SET TERM.	MOVE LEADS	
				FROM TEL SET TERM.	TO PRIVACY BOARD TERM.
		O-BK	10		
		BK-BL	15		
		G-Y	27		
		Y-G	27		
		G-W	2*		S2
BK			2*	15	S2
	S†			15	S2

* If telephone set does not have privacy circuit.

† If telephone set has privacy circuit and privacy release is now being added.

TABLE G

832B, 832C, 2832B AND 2832C TELEPHONE SET
CONNECTIONS TO DISABLE PRIVACY CIRCUIT

COLOR	MOVE LEAD IN TEL SET	
	FROM TERM.	TO TERM.
O	8	13

TABLE H

832C AND 2832C TELEPHONE SET CONNECTIONS
TO DISABLE PRIVACY RELEASE KEY

COLOR	MOVE LEAD IN TEL SET	
	FROM TERM.	TO TERM.
O-BK	10	15

TABLE I

RINGER (E1C) CONNECTIONS FOR POWER FAILURE
TRANSFER FEATURE

CONNECT LEADS*	
FROM TEL SET TERM.	TO RINGER TERM.
20	5
21	6

* Use inside wire.

TABLE J

832A OR 2832A TELEPHONE SET CONNECTIONS
FOR NIGHT TRANSFER (D-180487 KIT OF PARTS)

NIGHT TRANSFER KEY LEADS	TEL SET TERM. BOARD		
	COLOR	REMOVE LEAD FROM	CONNECT LEAD TO
G			14
V-BR			27
O-BK			16
W-O			1
Y			5
Y-G			26
BR-V			9
G-Y			
	O-V	1	5
	V-BR	28	14
	G-V	8	16

TABLE K

832C OR 2832C TELEPHONE SET CONNECTIONS
FOR NIGHT TRANSFER

TEL SET TERM. BOARD		
COLOR	REMOVE LEAD FROM	CONNECT LEAD TO
O-V	1	5
V-BR	28	14
G-V	8	16

TABLE L

3-TYPE SPEAKERPHONE CONNECTIONS

LEAD DESIG	CORD COLORS			CONNECT LEADS FROM				CONNECT LEADS TO 55B CONTROL UNIT TERM. ‡
	DIOR	T7A	R2FK	TEL SET TERM.	TRMTR TERM.	LPSK TERM.	TRNSF TERM.	
P4 ¶ ¶	W-S			24				13
IR †								
P3 ¶ ¶	S-W			30				4
IT †								
T1	W-BL			25 †				1
				RR § ¶ ¶				
R1	BL-W			6				10
LK	W-BR			29				35
AG	BR-W			8				11
A1	W-G			10				2
	O-W			19 ¶				32
	W-O			**				23
LK	W-G*	BK-O			8			35
F1		G-Y			7			17
S		O-BK			5			18
A1		Y-O			6			19
M2		BK-S			3			16
P1		BL-R			2			8
M1		S-BK			1			7
SP2			G			††		20
SP1			R			††		29 § §

TABLE L (Cont)

3-TYPE SPEAKERPHONE CONNECTIONS

LEAD DESIG	CORD COLORS			CONNECT LEADS FROM				CONNECT LEADS TO 55B CONTROL UNIT TERM. ‡
	DIOR	T7A	R2FK	TEL SET TERM.	TRMTR TERM.	LPSK TERM.	TRNSF TERM.	
TF1							‡‡	27
TF2							‡‡	36

* Insulate and store W-G lead.

† For TOUCH-TONE telephone set.

‡ Strap terminals 4 and 5 on control unit when used with TOUCH-TONE telephone sets.

§ Located on network.

¶ Also remove W-S lead from telephone set amplifier terminal 1 and connect it to terminal 19. (If telephone set is equipped with D50AL-87 cord, use D-161488 connector instead of terminal 19.)

** Connect W-O lead to terminal 1 on telephone set amplifier.

†† Loudspeaker terminals are not designated.

‡‡ Use inside wire. Transformer terminals are not designated.

§§ Connect lead to terminal 30 if a reduction in volume is desired.

¶¶ For rotary dial telephone set.

TABLE M

4-TYPE SPEAKERPHONE CONNECTIONS

M16C CORD		TEL SET LEAD	REMOVE FROM AMPLIFIER TERM.	CONNECT TO	
LEAD DESIG	LEAD COLOR			TEL SET TERM.	AMPLIFIER TERM.
A1	W-BR			10	
AG	W-O			8	
R1	BL-W			6	
T1	W-BL			25*	
				RR† (on net.)	
IR*	G-W			24	
P4†					
IT*	W-G			30	
P3†					
LK	O-W			29	
		W-S	1	19‡	
	S-W			19‡	
	BL-R				1

* TOUCH-TONE telephone sets.

† Rotary telephone sets.

‡ In sets equipped with the D50AL mounting cord terminal 19 is not a spare terminal, use a D-161488 connector.