

DWG ISSUE	CD ISSUE	DATE ISSUED	Drawn BY	APPROV BY
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SHEET INDEX NOTES

- WHEN CHANGES ARE MADE IN THIS DRAWING, ONLY THOSE SHEETS AFFECTED WILL BE REISSUED.
- THIS SHEET INDEX WILL BE REISSUED AND BROUGHT UP TO DATE EACH TIME ANY SHEET OF THE DRAWING IS REISSUED, OR A NEW SHEET IS ADDED.
- THE ISSUE NUMBER ASSIGNED TO A CHANGED OR NEW SHEET WILL BE THE SAME ISSUE NUMBER AS THAT OF THE SHEET INDEX.
- SHEETS THAT ARE NOT CHANGED WILL RETAIN THEIR EXISTING ISSUE NUMBER.
- THE LAST ISSUE NUMBER OF THE SHEET INDEX IS RECOGNIZED AS THE LATEST ISSUE NUMBER OF THE DRAWING AS A WHOLE.

SUPPORTING INFORMATION

CATEGORY	NO.

REPLACES SD-69495-01

SD-69637-01 1K03

STATION SYSTEMS

KEY TELEPHONE SYSTEMS NO. 1A, 1A1, 1A2 AND 6A

630DA, 631DA, 2630DA, 2631DA

TELEPHONE SET CIRCUIT

18 - AND 30 - BUTTON CAPACITY

FOR USE WITH 2-WIRE LINES ARRANGED FOR DIAL PULSE OR TOUCH TONE (P) CALLING AND HANDSET OR SPEAKERPHONE OPERATION.

BELL TELEPHONE LABORATORIES INCORPORATED

AT&TCO STANDARD

SD-69637-01-A1

15 SHEETS

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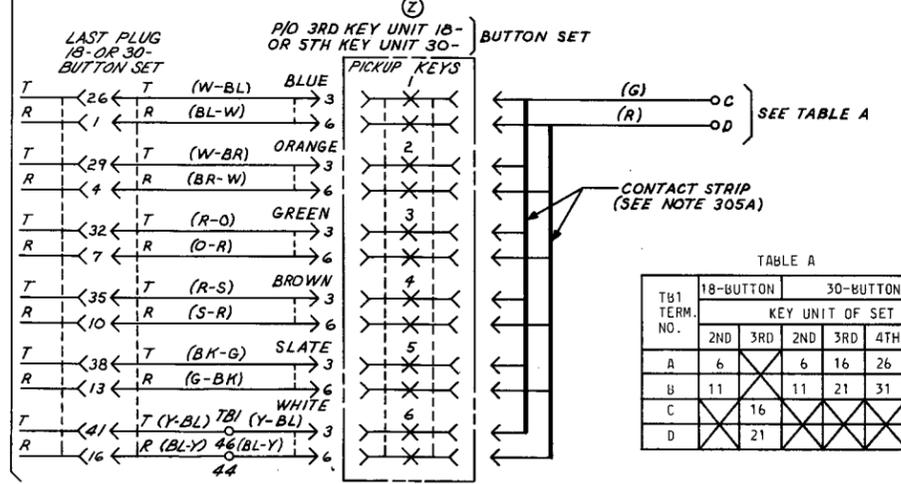
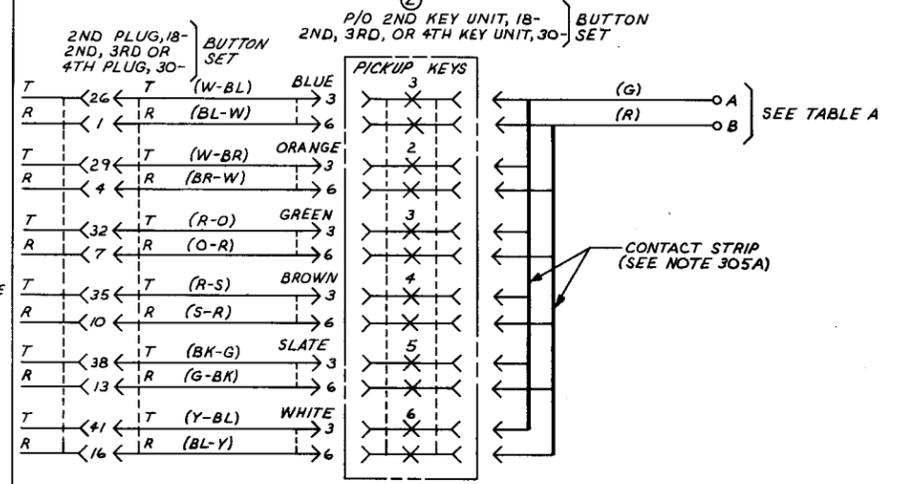
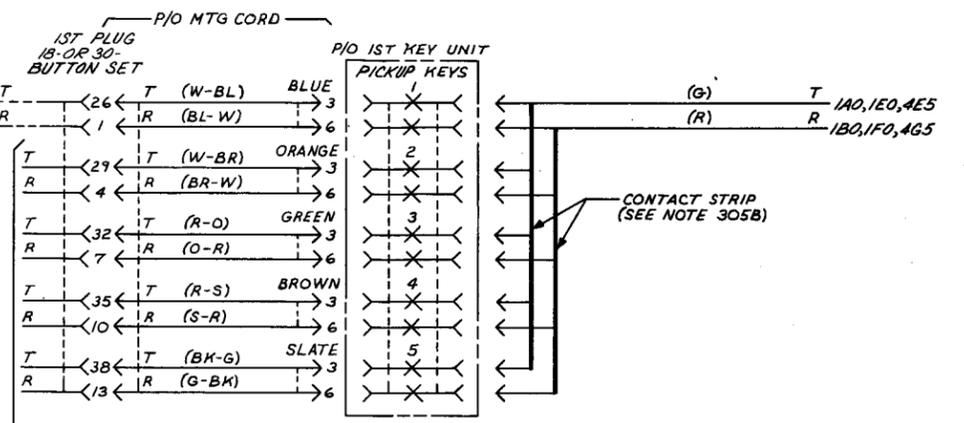
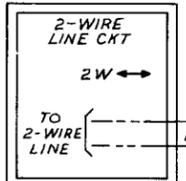
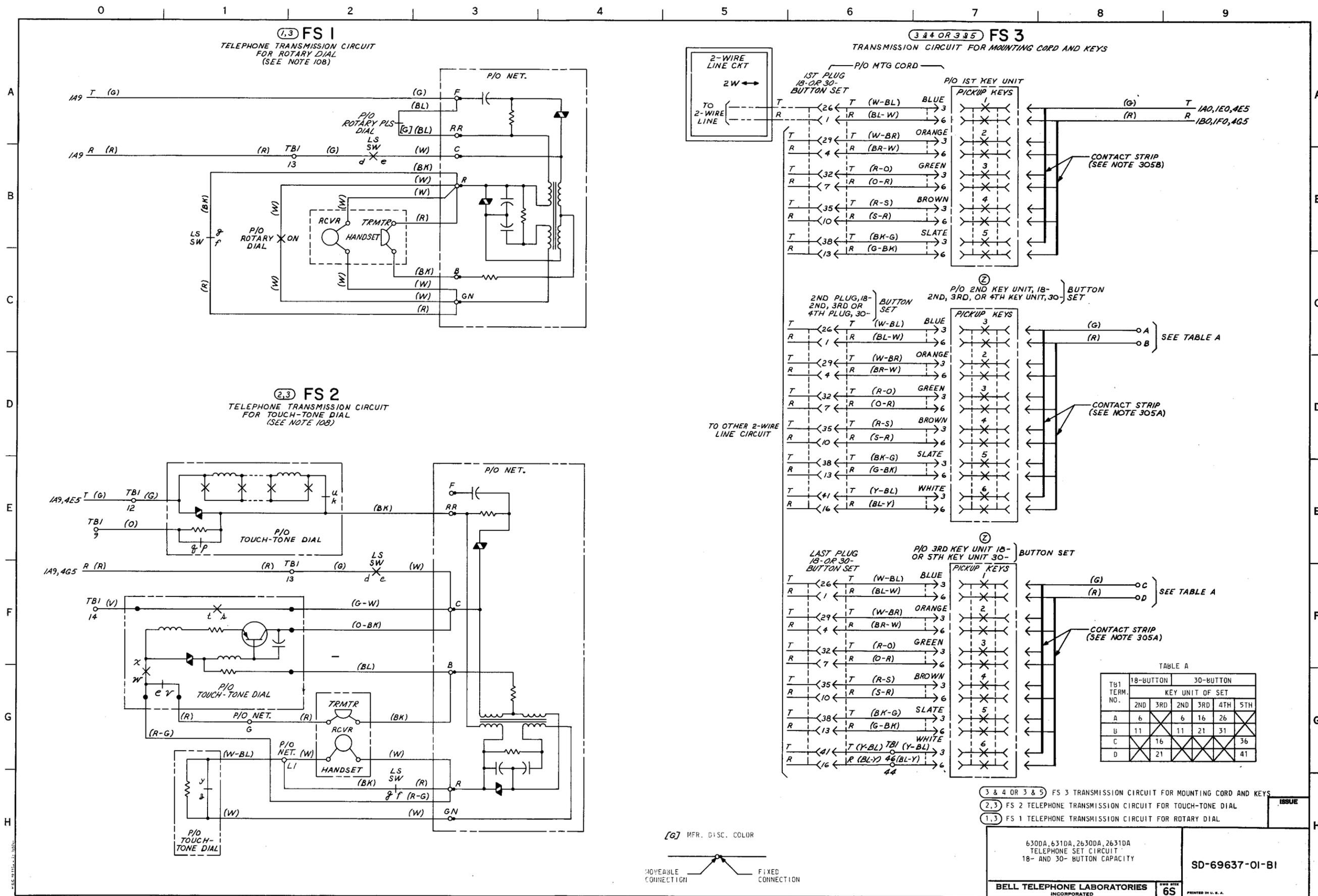


TABLE A

TB1 TERM. NO.	KEY UNIT OF SET					
	2ND	3RD	2ND	3RD	4TH	5TH
A	6	X	6	16	26	X
B	11	X	11	21	31	X
C	X	16	X	26	X	36
D	X	21	X	31	X	41

3 & 4 OR 3 & 5 FS 3 TRANSMISSION CIRCUIT FOR MOUNTING CORD AND KEYS
 2,3 FS 2 TELEPHONE TRANSMISSION CIRCUIT FOR TOUCH-TONE DIAL
 1,3 FS 1 TELEPHONE TRANSMISSION CIRCUIT FOR ROTARY DIAL

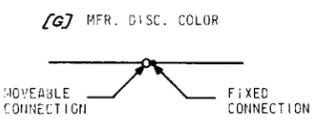
630DA, 631DA, 2630DA, 2631DA
 TELEPHONE SET CIRCUIT
 18- AND 30- BUTTON CAPACITY

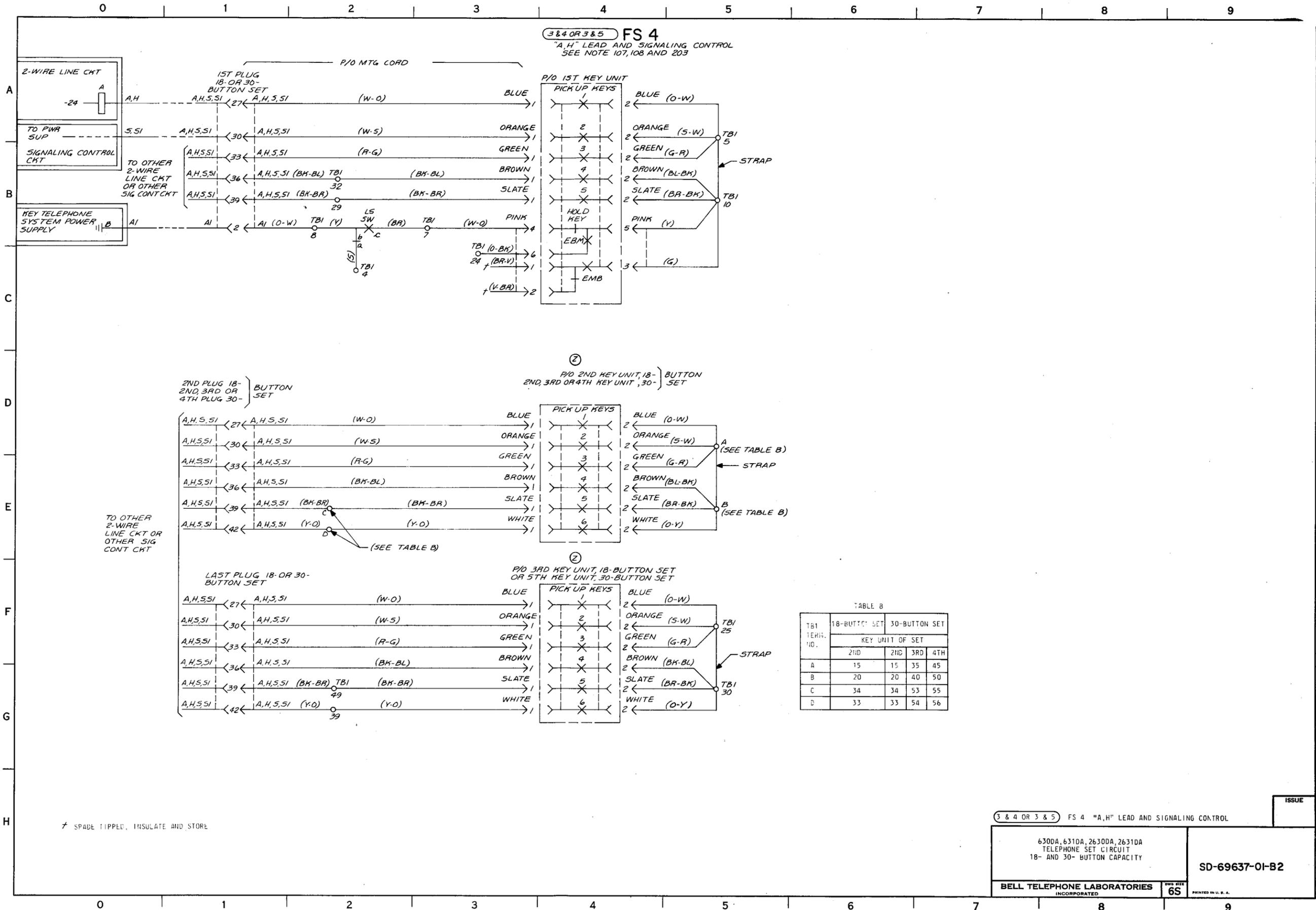
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3 & 4 OR 3 & 5 FS 4
 "A,H" LEAD AND SIGNALING CONTROL
 SEE NOTE 107, 108 AND 203

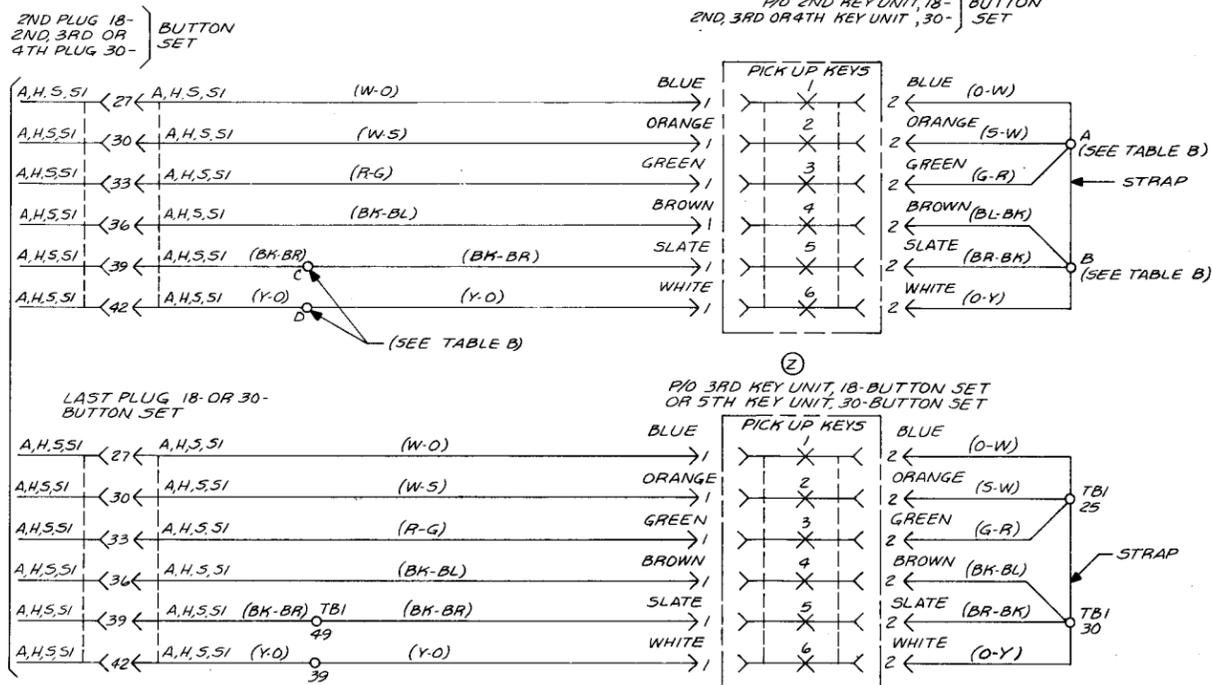


TABLE B

TBI TERM. NO.	KEY UNIT OF SET			
	2ND	2ND	3RD	4TH
A	15	15	35	45
B	20	20	40	50
C	34	34	53	55
D	33	33	54	56

† SPADE TIPPED, INSULATE AND STORE

3 & 4 OR 3 & 5 FS 4 "A,H" LEAD AND SIGNALING CONTROL

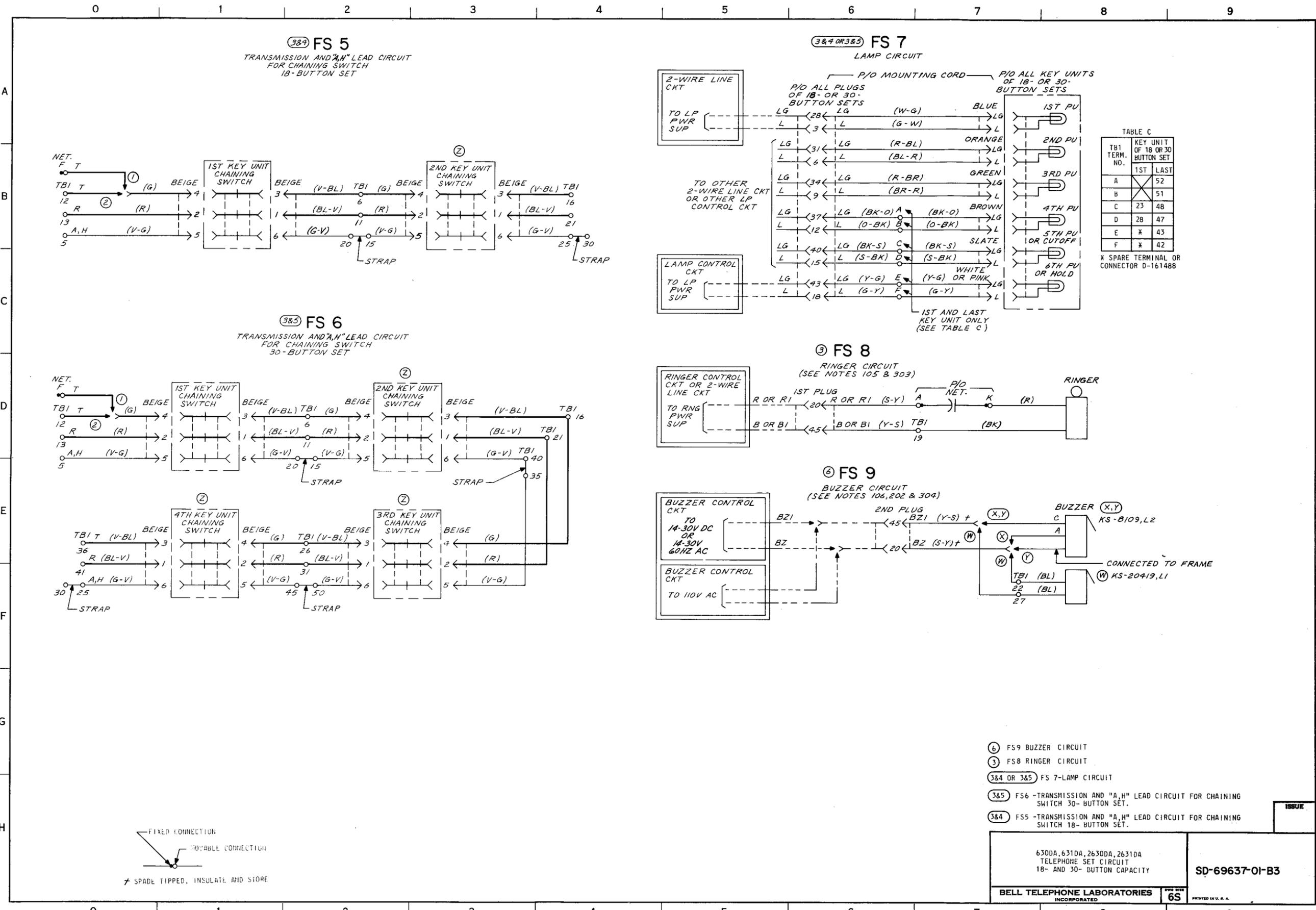
630DA, 6310A, 2630DA, 2631DA
 TELEPHONE SET CIRCUIT
 18- AND 30- BUTTON CAPACITY

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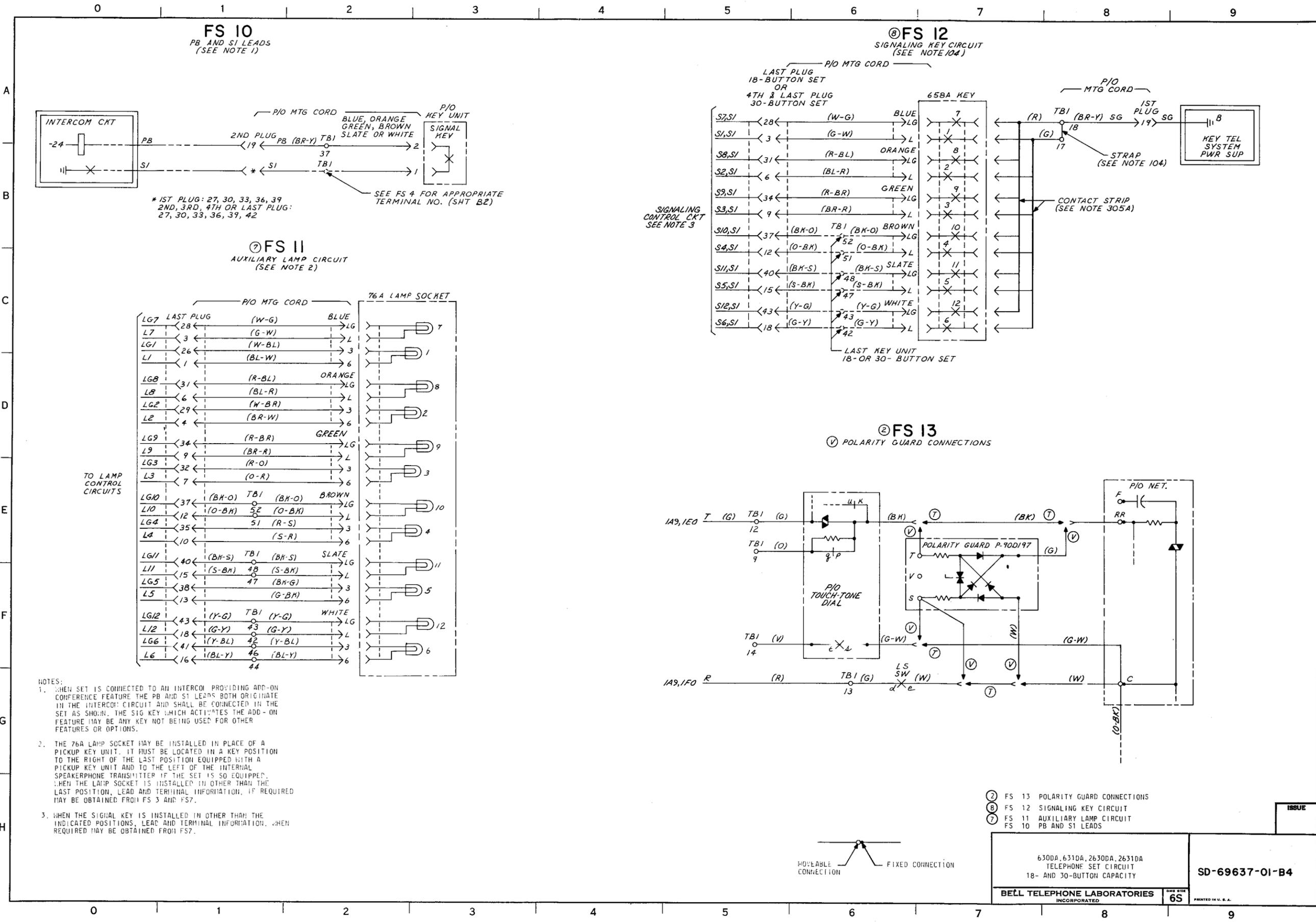
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- 6 FS9 BUZZER CIRCUIT
- 3 FS8 RINGER CIRCUIT
- 3&4 OR 3&5 FS 7-LAMP CIRCUIT
- 3&5 FS 6-TRANSMISSION AND "A,H" LEAD CIRCUIT FOR CHAINING SWITCH 30- BUTTON SET.
- 3&4 FS 5-TRANSMISSION AND "A,H" LEAD CIRCUIT FOR CHAINING SWITCH 18- BUTTON SET.

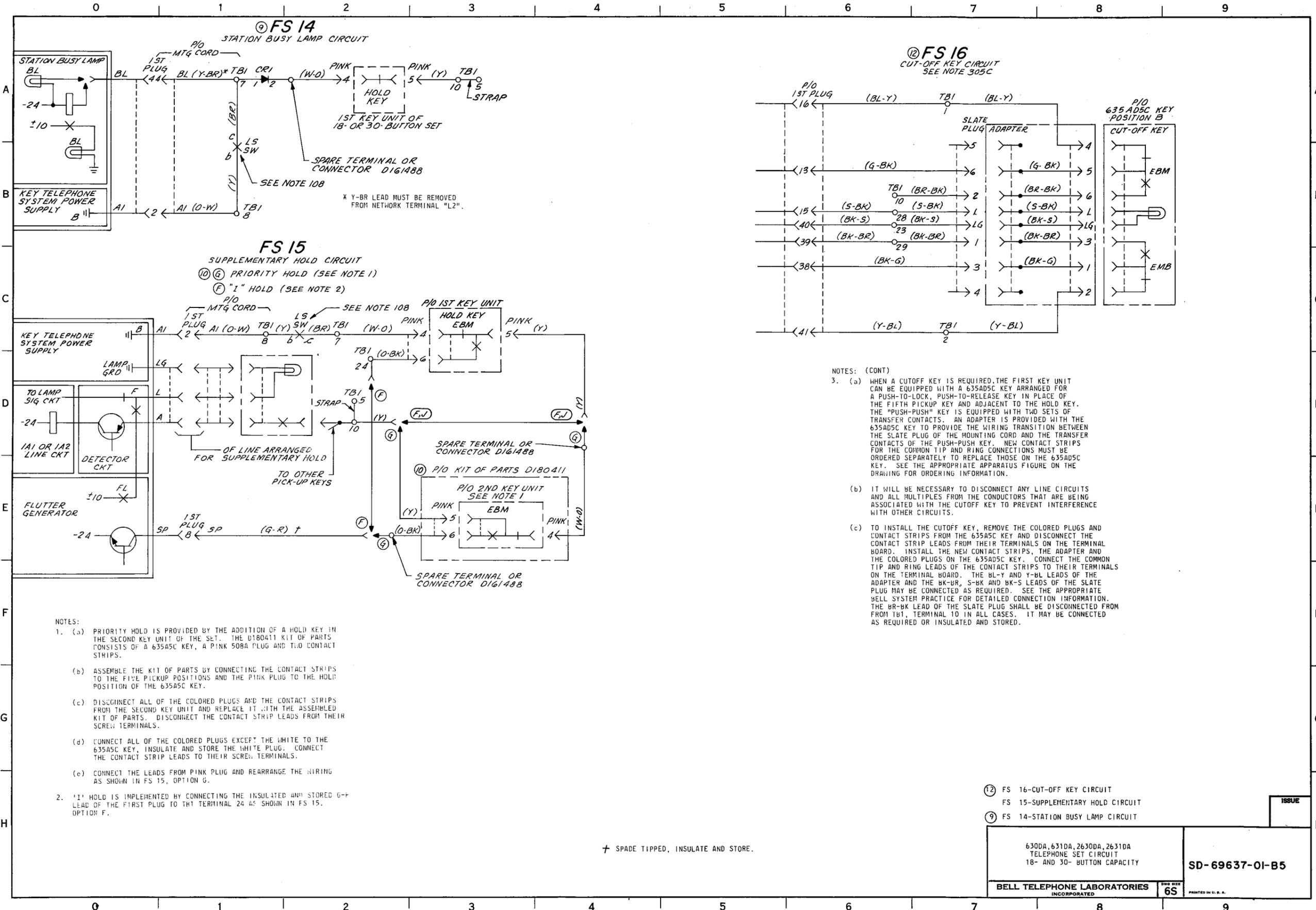


- ② FS 13 POLARITY GUARD CONNECTIONS
- ⑧ FS 12 SIGNALLING KEY CIRCUIT
- ⑦ FS 11 AUXILIARY LAMP CIRCUIT
- ⑩ FS 10 PB AND S1 LEADS

630DA, 631DA, 2630DA, 2631DA TELEPHONE SET CIRCUIT 18- AND 30-BUTTON CAPACITY		SD-69637-01-B4
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NOTES: (CONT)

3. (a) WHEN A CUTOFF KEY IS REQUIRED, THE FIRST KEY UNIT CAN BE EQUIPPED WITH A 635AD5C KEY ARRANGED FOR A PUSH-TO-LOCK, PUSH-TO-RELEASE KEY IN PLACE OF THE FIFTH PICKUP KEY AND ADJACENT TO THE HOLD KEY. THE "PUSH-PUSH" KEY IS EQUIPPED WITH TWO SETS OF TRANSFER CONTACTS. AN ADAPTER IS PROVIDED WITH THE 635AD5C KEY TO PROVIDE THE WIRING TRANSITION BETWEEN THE SLATE PLUG OF THE MOUNTING CORD AND THE TRANSFER CONTACTS OF THE PUSH-PUSH KEY. NEW CONTACT STRIPS FOR THE COMMON TIP AND RING CONNECTIONS MUST BE ORDERED SEPARATELY TO REPLACE THOSE ON THE 635AD5C KEY. SEE THE APPROPRIATE APPARATUS FIGURE ON THE DRAWING FOR ORDERING INFORMATION.

(b) IT WILL BE NECESSARY TO DISCONNECT ANY LINE CIRCUITS AND ALL MULTIPLES FROM THE CONDUCTORS THAT ARE BEING ASSOCIATED WITH THE CUTOFF KEY TO PREVENT INTERFERENCE WITH OTHER CIRCUITS.

(c) TO INSTALL THE CUTOFF KEY, REMOVE THE COLORED PLUGS AND CONTACT STRIPS FROM THE 635AD5C KEY AND DISCONNECT THE CONTACT STRIP LEADS FROM THEIR TERMINALS ON THE TERMINAL BOARD. INSTALL THE NEW CONTACT STRIPS, THE ADAPTER AND THE COLORED PLUGS ON THE 635AD5C KEY. CONNECT THE COMMON TIP AND RING LEADS OF THE CONTACT STRIPS TO THEIR TERMINALS ON THE TERMINAL BOARD. THE BL-Y AND Y-BL LEADS OF THE ADAPTER AND THE BK-BR, S-BK AND BK-S LEADS OF THE SLATE PLUG MAY BE CONNECTED AS REQUIRED. SEE THE APPROPRIATE BELL SYSTEM PRACTICE FOR DETAILED CONNECTION INFORMATION. THE BR-BK LEAD OF THE SLATE PLUG SHALL BE DISCONNECTED FROM FROM TB1, TERMINAL 10 IN ALL CASES. IT MAY BE CONNECTED AS REQUIRED OR INSULATED AND STORED.

NOTES:

1. (a) PRIORITY HOLD IS PROVIDED BY THE ADDITION OF A HOLD KEY IN THE SECOND KEY UNIT OF THE SET. THE D180411 KIT OF PARTS CONSISTS OF A 635AD5C KEY, A PINK 508A PLUG AND T.O. CONTACT STRIPS.

(b) ASSEMBLE THE KIT OF PARTS BY CONNECTING THE CONTACT STRIPS TO THE FIVE PICKUP POSITIONS AND THE PINK PLUG TO THE HOLD POSITION OF THE 635AD5C KEY.

(c) DISCONNECT ALL OF THE COLORED PLUGS AND THE CONTACT STRIPS FROM THE SECOND KEY UNIT AND REPLACE IT WITH THE ASSEMBLED KIT OF PARTS. DISCONNECT THE CONTACT STRIP LEADS FROM THEIR SCREEN TERMINALS.

(d) CONNECT ALL OF THE COLORED PLUGS EXCEPT THE WHITE TO THE 635AD5C KEY, INSULATE AND STORE THE WHITE PLUG. CONNECT THE CONTACT STRIP LEADS TO THEIR SCREEN TERMINALS.

(e) CONNECT THE LEADS FROM PINK PLUG AND REARRANGE THE WIRING AS SHOWN IN FS 15, OPTION G.

2. 'I' HOLD IS IMPLEMENTED BY CONNECTING THE INSULATED AND STORED G+ LEAD OF THE FIRST PLUG TO TB1 TERMINAL 24 AS SHOWN IN FS 15, OPTION F.

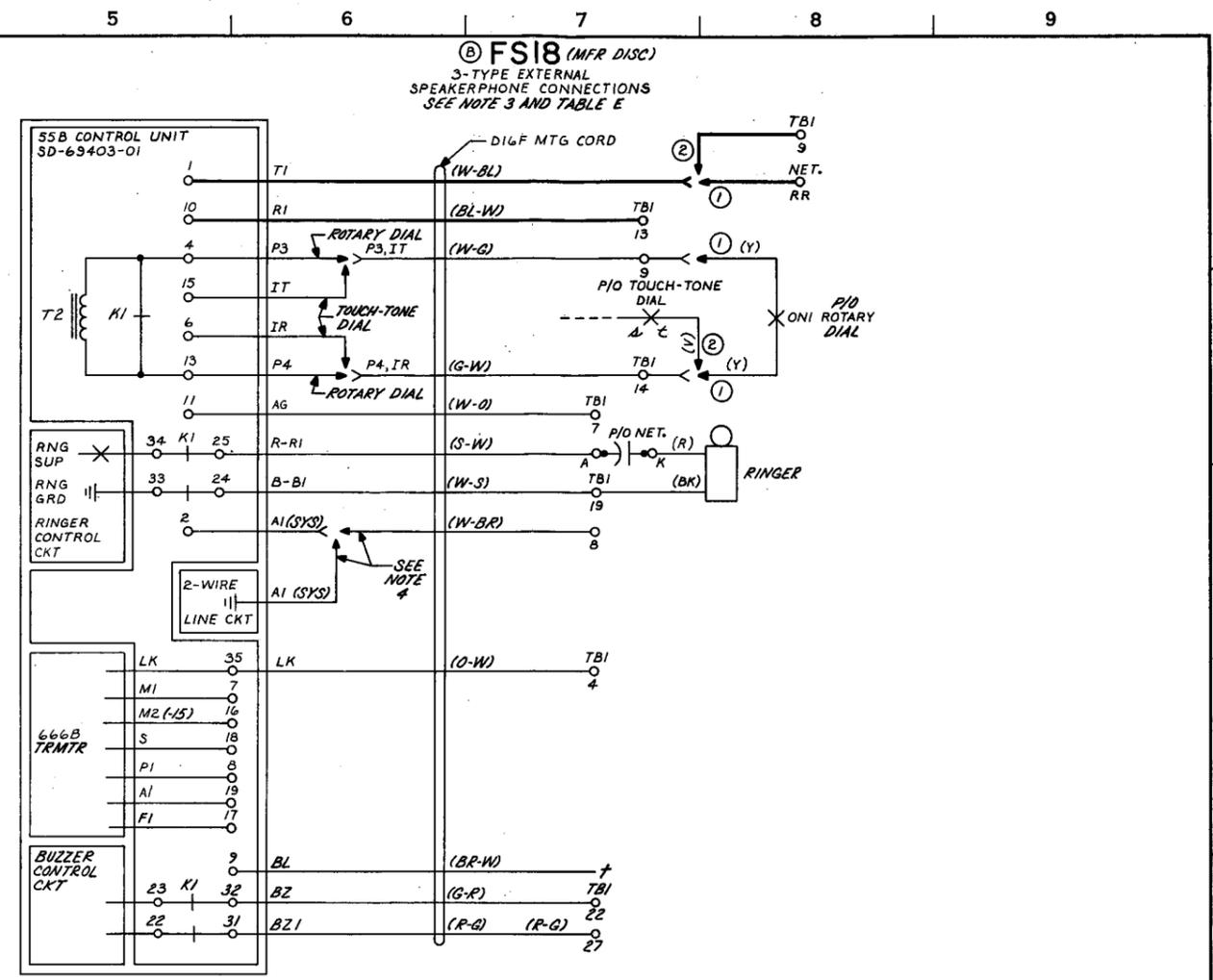
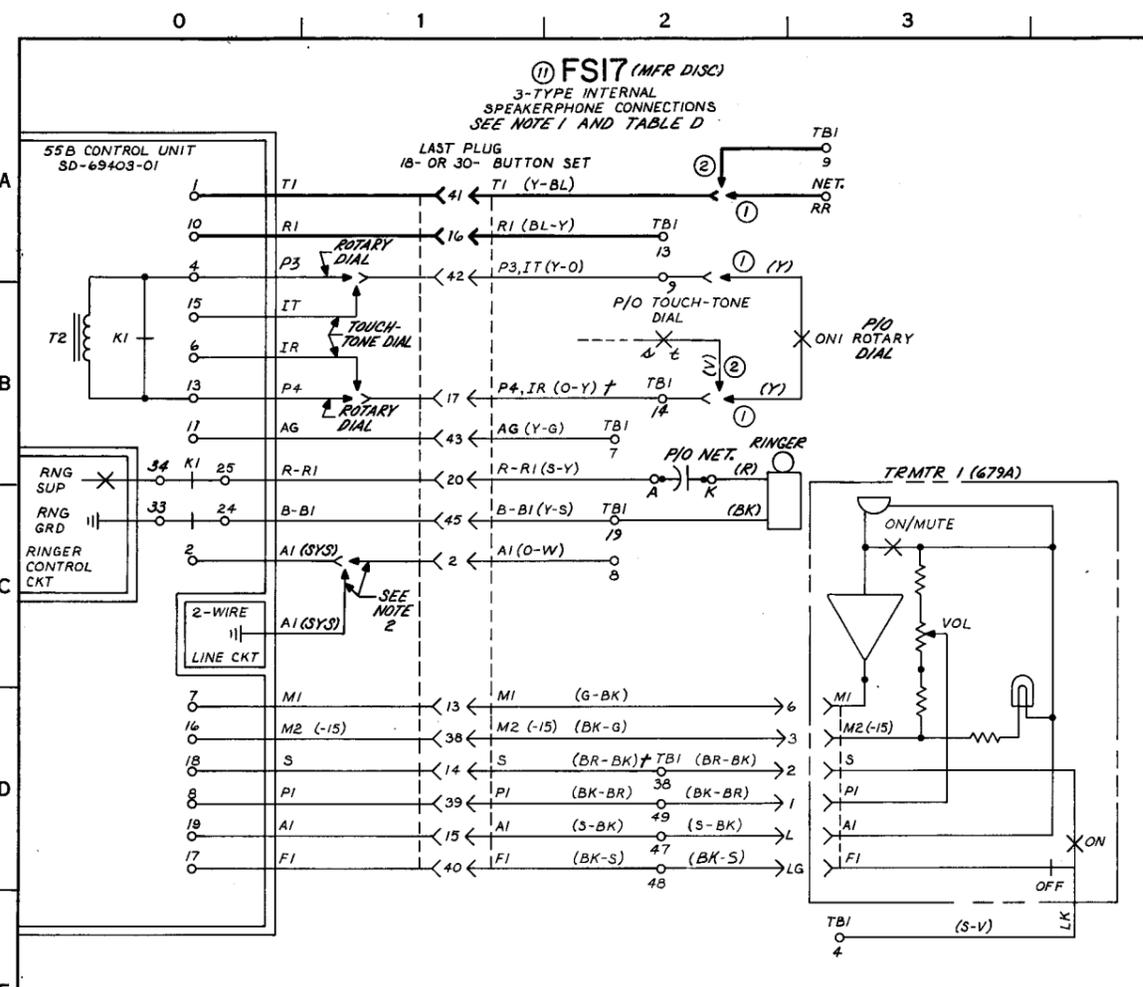
† SPADE TIPPED, INSULATE AND STORE.

- ⑫ FS 16-CUT-OFF KEY CIRCUIT
- FS 15-SUPPLEMENTARY HOLD CIRCUIT
- ⑨ FS 14-STATION BUSY LAMP CIRCUIT

630DA, 6310A, 2630DA, 26310A TELEPHONE SET CIRCUIT 18- AND 30- BUTTON CAPACITY		SD-69637-01-B5
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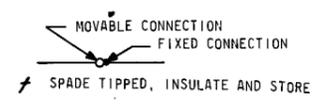
- NOTES:
1. WHEN USING TRANSMITTER 679A, REMOVE SLATE PLUG FROM LAST KEY UNIT OR APPARATUS BLANK AND CONNECT IT TO THE TRANSMITTER. REMOVE ALL OTHER PLUGS FROM THE LAST KEY UNIT. INSULATE AND STORE. CONNECT THE SPADE TIPPED S-V LEAD TO TB1, TERMINAL 4. FOR ROTARY DIAL SETS THE Y-O AND O-Y LEADS OF THE LAST PLUG ARE CONNECTED TO TB1, TERMINALS 9 AND 14 RESPECTIVELY. FOR TOUCH-TONE DIAL SETS THE Y-O LEAD IS INSULATED AND STORED, THE O-Y LEAD IS CONNECTED TO TB1, TERMINAL 14.
 2. LEAD A1 MAY BE CONNECTED FROM TB1, TERMINAL 8 THRU LAST PLUG, PIN 2 TO TERMINAL 2, 55B CONTROL UNIT OR CONNECTED FROM 2-WIRE LINE CIRCUIT TO TERMINAL 2, 55B CONTROL UNIT.
 3. FOR ROTARY DIAL SETS THE W-G AND G-W LEADS OF THE MOUNTING CORD ARE CONNECTED TO TB1, TERMINALS 9 & 14 RESPECTIVELY. FOR TOUCH-TONE DIAL SETS THE W-G LEAD IS INSULATED AND STORED, THE G-W LEAD IS CONNECTED TO TB1, TERMINAL 14.
 4. LEAD A1 MAY BE CONNECTED FROM TB1, TERMINAL 8, THRU MOUNTING CORD TO TERMINAL 2, 55B CONTROL UNIT OR CONNECTED FROM 2-WIRE LINE CIRCUIT TO TERMINAL 2, 55B CONTROL UNIT.

TABLE D
CONNECTORS FOR 679A TRANSMITTER

LEAD DESIG	COLOR	LAST PLUG PIN NO.	REMOVE FROM	CONNECT TO ROTARY DIAL	CONNECT TO T-T DIAL	REMARKS
T1	Y-BL	41	TB1-46	NET.-RR	TB1-9	NOTE 1
R1	BL-Y	16	TB1-44	TB1-13	TB1-13	NOTE 1
P3/IT	Y-O	42	TB1-39	TB1-9	†	
P4/IR	O-Y	17	†	TB1-14	TB1-14	
AG	Y-G	43	TB1-43	TB1-7	TB1-7	
B-B1	Y-S	45	†	TB1-19	TB1-19	
R-R1	S-Y	20	†	NET.-A	NET.-A	
A1(SYS)	O-W	2	†	TB1-8	TB1-8	NOTE 2
M1	G-BK	13				
M2	BK-G	38				
S	BR-BK	14	†	TB1-38	TB1-38	
	BR-BK	PIN 2 OF SLATE PLUG	TB1-30	TB1-38	TB1-38	SEE NOTE 1
P1	BK-BR	39				
A1	S-BK	15				
F1	BK-S	40				
LK	S-V			TB1-4	TB1-4	P/O TRMTR

TABLE E
D16F MTG CORD CONNECTIONS FOR 666B TRANSMITTER

LEAD DESIG	COLOR	CONNECT TO		REMARKS
		ROTARY DIAL	T-T DIAL	
T1	W-BL	NET.-RR	TB1-9	NOTE 3
R1	BL-W	TB1-13	TB1-13	NOTE 3
P3/IT	W-G	TB1-9	†	
P4/IR	G-W	TB1-14	TB1-14	
AG	W-O	TB1-7	TB1-7	
LK	O-W	TB1-4	TB1-4	
B-B1	W-S	TB1-19	TB1-19	
R-R1	S-W	NET.-A	NET.-A	
A1(SYS)	W-BR	TB1-8	TB1-8	NOTE 4
BL	BR-W	†	†	
BZ	G-R	TB1-22	TB1-22	
BZ1	R-G	TB1-27	TB1-27	



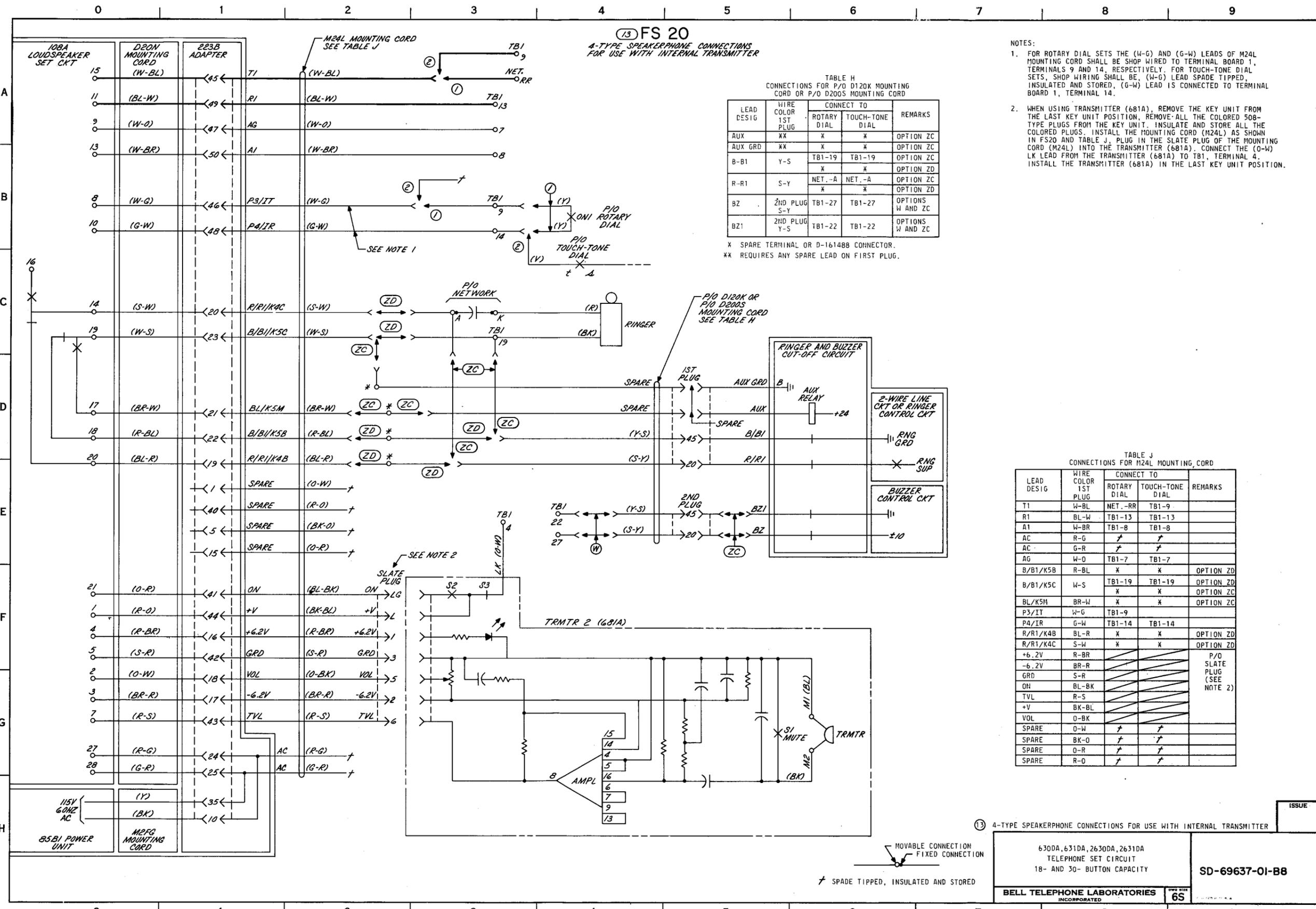
- ⑥ FS 18(MD) 3-TYPE EXTERNAL SPEAKERPHONE CONNECTIONS
- ① FS 17(MD) 3-TYPE INTERNAL SPEAKERPHONE CONNECTIONS

630DA, 631DA, 2630DA, 2631DA
TELEPHONE SET CIRCUIT
18- AND 30- BUTTON CAPACITY

SD-69637-01-B6

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FS 20
4-TYPE SPEAKERPHONE CONNECTIONS
FOR USE WITH INTERNAL TRANSMITTER

TABLE H
CONNECTIONS FOR P/O D120K MOUNTING CORD OR P/O D200S MOUNTING CORD

LEAD DESIG	WIRE COLOR	CONNECT TO	REMARKS	
		ROTARY DIAL	TOUCH-TONE DIAL	
AUX	XX	X	X	OPTION ZC
AUX GRD	XX	X	X	OPTION ZC
B-B1	Y-S	TB1-19	TB1-19	OPTION ZC
R-R1	S-Y	NET.-A	NET.-A	OPTION ZC
BZ	2ND PLUG S-Y	TB1-27	TB1-27	OPTIONS W AND ZC
BZ1	2ND PLUG Y-S	TB1-22	TB1-22	OPTIONS W AND ZC

X SPARE TERMINAL OR D-161488 CONNECTOR.
XX REQUIRES ANY SPARE LEAD ON FIRST PLUG.

- NOTES:
- FOR ROTARY DIAL SETS THE (W-G) AND (G-W) LEADS OF M24L MOUNTING CORD SHALL BE SHOP WIRED TO TERMINAL BOARD 1, TERMINALS 9 AND 14, RESPECTIVELY. FOR TOUCH-TONE DIAL SETS, SHOP WIRING SHALL BE: (W-G) LEAD SPADE TIPPED, INSULATED AND STORED; (G-W) LEAD IS CONNECTED TO TERMINAL BOARD 1, TERMINAL 14.
 - WHEN USING TRANSMITTER (681A), REMOVE THE KEY UNIT FROM THE LAST KEY UNIT POSITION. REMOVE ALL THE COLORED 508-TYPE PLUGS FROM THE KEY UNIT. INSULATE AND STORE ALL THE COLORED PLUGS. INSTALL THE MOUNTING CORD (M24L) AS SHOWN IN FS20 AND TABLE J. PLUG IN THE SLATE PLUG OF THE MOUNTING CORD (M24L) INTO THE TRANSMITTER (681A). CONNECT THE (O-W) LK LEAD FROM THE TRANSMITTER (681A) TO TB1, TERMINAL 4. INSTALL THE TRANSMITTER (681A) IN THE LAST KEY UNIT POSITION.

TABLE J
CONNECTIONS FOR M24L MOUNTING CORD

LEAD DESIG	WIRE COLOR	CONNECT TO	REMARKS	
		ROTARY DIAL	TOUCH-TONE DIAL	
T1	W-BL	NET.-RR	TB1-9	
R1	BL-W	TB1-13	TB1-13	
A1	W-BR	TB1-8	TB1-8	
AC	R-G	†	†	
AC	G-R	†	†	
AG	W-O	TB1-7	TB1-7	
B/B1/K5B	R-BL	X	X	OPTION ZD
B/B1/K5C	W-S	TB1-19	TB1-19	OPTION ZD
BL/K5M	BR-W	X	X	OPTION ZC
P3/IT	W-G	TB1-9		
P4/IR	G-W	TB1-14	TB1-14	
R/R1/K4B	BL-R	X	X	OPTION ZD
R/R1/K4C	S-W	X	X	OPTION ZD
+6.2V	R-BR			P/O SLATE PLUG (SEE NOTE 2)
-6.2V	BR-R			
GRD	S-R			
OH	BL-BK			
TVL	R-S			
+V	BK-BL			
VOL	O-BK			
SPARE	O-W	†	†	
SPARE	BK-O	†	†	
SPARE	O-R	†	†	
SPARE	R-O	†	†	

4-TYPE SPEAKERPHONE CONNECTIONS FOR USE WITH INTERNAL TRANSMITTER

630DA, 631DA, 2630DA, 2631DA
TELEPHONE SET CIRCUIT
18- AND 30- BUTTON CAPACITY
SD-69637-01-B8

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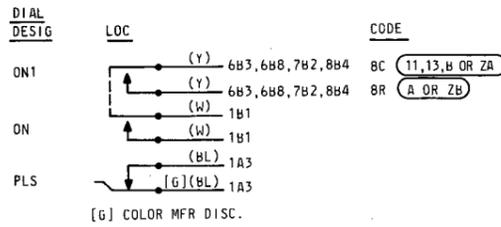
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† SPADE TIPPED, INSULATED AND STORED

MOVABLE CONNECTION
FIXED CONNECTION

ISSUE

APP FIG. 1



APP FIG. 2

DIAL DESIGN

DESIG	LOC	CODE
BK	1E2, 4E6, 4E7, 1F2	35C3A
BL	1E0, 4E5	
G	1F2, 4F8, 4F6	
G-W	1E0, 4E5	
O	1F2	
O-BK	1G1	
R	1G0	
R-G	1F0, 4F5, 6B2, 6B7, 7C2, 8B4	
V	1H1	
W	1G1	
W-W		

POLARITY GUARD

DESIG	LOC	CODE
V	4E7	P-900197

CONNECTOR - PLUG

CODE
 * P-269720 PLUG ASSEMBLY (LIGHT BEIGE) FOR CHAINING SWITCH
 [2] MAXIMUM REQUIRED 18-BUTTON SET
 [4] MAXIMUM REQUIRED 30-BUTTON SET

PIN NO.	WIRE COLOR	LOCATION							
		18-BUTTON SET				30-BUTTON SET			
		KEY UNIT OF SET							
		1ST	2ND	3RD	4TH	1ST	2ND	3RD	4TH
1	BL-V	3B1	3B3	3D1	3D3	3E2	3E1		
2	R	3B1	3B3	3D1	3D2	3E3	3E1		
3	V-BL	3B1	3B3	3D1	3D3	3E2	3E1		
4	G	3B1	3B3	3D1	3D2	3E3	3E1		
5	V-G	3B1	3B3	3D1	3D2	3E3	3E1		
6	G-V	3B1	3B3	3D1	3D3	3E2	3E1		

* LIGHT BEIGE PLUG ASSEMBLY NOT REQUIRED FOR LAST KEY UNIT.
 WHEN LESS THAN FULL COMPLEMENT OF KEY UNITS ARE REQUIRED THE LAST KEY UNIT USED DOES NOT REQUIRE A LIGHT BEIGE PLUG ASSEMBLY.

CODE
 840151161 PLUG ASSEMBLY (PINK) FOR HOLD KEY

1ST KEY UNIT OF 18- OR 30-BUTTON SET

PIN NO.	WIRE COLOR	LOC
1	HR-V	2C3
2	V-BK	2C3
3	G	2C4
4	W-O	2B3, 5A2, 5C3
5	Y	2B4, 5A2, 5C3
6	O-BK	2C3, 5D3
L	G-Y	3C7
LG	Y-G	3C7

CONTRACT STRIP (SEE NOTE 305)

DESIG	LOC	CODE
-	1B8	840151120(R) 840151138(G)
②	1D8, 1F8	P-21F800(G) P-21F801(R)

APP FIG. 3

HANDSET

DESIG	LOC	CODE
RCVR	1B2, 1G2	G3A4
TRMTR	1B2, 1G2	

KEY

DESIG	LOC	CODE
1A7, 2A4, 3B1, 3D1, 3A7		635A5C

②

DESIG	LOC	CODE
1C7, 1E7, 2D4, 2F4, 3B3, 3D2, 3E1, 3E2, 3A7		635G5C [2] MAX. REQD 18-BUTTON SET [4] MAX. REQD 30-BUTTON SET

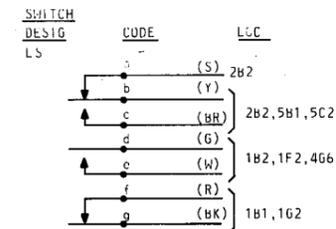
NETWORK NET.

DESIG	LOC	CODE
NET.		40T0B

TERM. NO.	LOC
A	3D7, 6C2, 6C7, 7C2, 8C3
B	1C3, 1F3
C	1B3, 1F3, 4G8
F	1A3, 1E3, 3B0, 3D0, 4E8
G	1G1
GN	1C3, 1H3
K	3D7, 6C2, 6C7, 7C3, 8C3
L1	1G2
L2	-
R	1U3, 1H3
RR	1A3, 1E3, 4E8, 6A3, 6A8, 7A2, 8A3

RINGER

DESIG	LOC	CODE
-	3B8, 6B2, 6C8, 7C4, 8C4	11A



TERMINAL BOARD

CODE

DESIG	LOCATION	TERM. NO.	LOCATION
1	5A7	29	2B2, 5C6
2	5C7	30	2G5, 3B4, 3F0
3		31	1C8, 3F2
4	2C2, 6E3, 6D7, 7F1, 8E3	32	2B2
5	2A5, 3B0, 3D0, 5A3, 5D2	33	2E2
6	1C8, 3B2, 3D2	34	2E2
7	2B3, 5A1, 5C2, 6B2, 6B7, 7B2, 8A3	35	2D5, 3E3
8	2B2, 5B1, 5C1, 6C2, 6C7, 7B2, 8B3	36	1F8, 3E0
9	1E0, 4E5, 6A3, 6A8, 6B2, 6B7, 7A2, 7B2, 8A3, 8B3	37	4B2
10	2B5, 5A3, 5D2, 5B6	38	6D2
11	1C8, 3B2, 3D2	39	2G2
12	1E0, 3B0, 3D0, 4E5	40	2E5, 3D3
13	1B2, 1F2, 3B0, 3D0, 4G6, 6A2, 6A7, 7B2, 8A3	41	1F8, 3F0
14	1F0, 4F5, 6B2, 6B7, 7C2, 8B3	42	3C6, 4C6, 4F1
15	2D5, 3B2, 3D2	43	3C6, 4C6, 4F1
16	1C8, 1F8, 3B4, 3D4	44	1G6, 4F1
17	4A8	45	2D5, 3F2
18	4A8	46	1G6, 4F1
19	3D7, 6C2, 6C7, 7D2, 8C3	47	3C6, 4C6, 4F1, 6D2
20	2E5, 3B2, 3D2	48	3C6, 4C6, 4F1, 6D2
21	1C8, 1F8, 3B4, 3D4	49	2G2, 6D2
22	3F7, 6E7, 7E3, 8E4	50	2E5, 3F2
23	3B6, 5B6	51	3B6, 4C6, 4E1
24	2C3, 5D2	52	3B6, 4B6, 4E1
25	2F5, 3B4, 3F0	53	2E2
26	1C8, 3E2	54	2E2
27	3F7, 6E7, 7E3, 8E4	55	2E2
28	3C6, 5B6	56	2E2

APP FIG. 1, 2 AND 3

630DA, 631DA, 2630DA, 2631DA TELEPHONE SET CIRCUIT 18- AND 30- BUTTON CAPACITY	ISSUE /
BELL TELEPHONE LABORATORIES INCORPORATED	SD-69637-01-C1
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APP FIG. 4
18-BUTTON SET CODE D120X

APP FIG. 5
30-BUTTON SET CODE D200S

COPDS, MOUNTING

PIV NO.	WIRE COLOR	LOC	PLUG 1 TERMINATION			PLUG 2 TERMINATION			LAST PLUG TERMINATION			PLUG 3 TERMINATION			PLUG 4 TERMINATION													
			SET TERMINAL		KEY PLUG	SET TERMINAL		KEY PLUG	SET TERMINAL		KEY PLUG	SET TERMINAL		KEY PLUG	SET TERMINAL		KEY PLUG											
			TERMI. BLOCK	TERMI. LOC	LOC	PLUG COLOR	PIV	LOC	TERMI. BLOCK	TERMI. LOC	LOC	PLUG COLOR	PIV	LOC	TERMI. BLOCK	TERMI. LOC	LOC	PLUG COLOR	PIV	LOC	TERMI. BLOCK	TERMI. LOC	LOC	PLUG COLOR	PIV	LOC		
26	J-BL	1A6-F6			BLUE	3	1A7			BLUE	3	1C7			BLUE	3	1F7			BLUE	3	1C7			BLUE	3	1C7	
1	BL-W	1A6-F6			BLUE	6	1A7			BLUE	6	1C7			BLUE	6	1F7			BLUE	6	1C7			BLUE	6	1C7	
27	J-O	2A1-F1			BLUE	1	2A3			BLUE	1	2D3			BLUE	1	2F3			BLUE	1	2D3			BLUE	1	2D3	
2	O-W	2B1	TB1	5	2A5			TB1	15	2D5			TB1	25	2F5			TB1	35	2D5			TB1	45	2D5	BLUE	2	2D4
28	J-G	3A6			BLUE	LG	3A7			BLUE	LG	3A7			BLUE	LG	3A7			BLUE	LG	3A7			BLUE	LG	3A7	
3	G-W	3A6			BLUE	L	3A7			BLUE	L	3A7			BLUE	L	3A7			BLUE	L	3A7			BLUE	L	3A7	
29	J-DR	1A6-F6			ORANGE	3	1A7			ORANGE	3	1D7			ORANGE	3	1F7			ORANGE	3	1D7			ORANGE	3	1D7	
4	BR-W	1B6-F6			ORANGE	6	1B7			ORANGE	6	1D7			ORANGE	6	1F7			ORANGE	6	1D7			ORANGE	6	1D7	
30	J-S	2A1-F1			ORANGE	1	2A3			ORANGE	1	2D3			ORANGE	1	2F3			ORANGE	1	2D3			ORANGE	1	2D3	
5	S-W		TB1	5	2A5			TB1	15	2D5			TB1	25	2F5			TB1	35	2D5			TB1	45	2D5	ORANGE	2	2D4
31	R-DL	3B6			ORANGE	LG	3B7			ORANGE	LG	3B7			ORANGE	LG	3B7			ORANGE	LG	3B7			ORANGE	LG	3B7	
6	BL-R	3B6			ORANGE	L	3B7			ORANGE	L	3B7			ORANGE	L	3B7			ORANGE	L	3B7			ORANGE	L	3B7	
32	R-O	1B6-F6			GREEN	3	1B7			GREEN	3	1D7			GREEN	3	1F7			GREEN	3	1D7			GREEN	3	1D7	
7	O-R	1B6-F6			GREEN	6	1B7			GREEN	6	1D7			GREEN	6	1F7			GREEN	6	1D7			GREEN	6	1D7	
33	R-G	2B1-F1			GREEN	1	2B3			GREEN	1	2E3			GREEN	1	2F3			GREEN	1	2E3			GREEN	1	2E3	
8	G-R		TB1	5	2A5			TB1	15	2D5			TB1	25	2F5			TB1	35	2D5			TB1	45	2D5	GREEN	2	2E4
34	R-DR	3B6			GREEN	LG	3B7			GREEN	LG	3B7			GREEN	LG	3B7			GREEN	LG	3B7			GREEN	LG	3B7	
9	BR-R	3B6			GREEN	L	3B7			GREEN	L	3B7			GREEN	L	3B7			GREEN	L	3B7			GREEN	L	3B7	
35	R-S	1B6-106			BROWN	3	1B7			BROWN	3	1D7			BROWN	3	1F7			BROWN	3	1D7			BROWN	3	1D7	
10	S-P	1B6-106			BROWN	6	1B7			BROWN	6	1D7			BROWN	6	1F7			BROWN	6	1D7			BROWN	6	1D7	
36	BK-GL	2B1-F1			BROWN	1	2B3			BROWN	1	2E3			BROWN	1	2F3			BROWN	1	2E3			BROWN	1	2E3	
11	BL-BK		TB1	10	2B5			TB1	20	2E5			TB1	30	2G5			TB1	40	2E5			TB1	50	2E5	BROWN	2	2E4
37	BK-O	3B6			BROWN	LG	3B7			BROWN	LG	3B7			BROWN	LG	3B7			BROWN	LG	3B7			BROWN	LG	3B7	
12	O-DR	3B6			BROWN	L	3B7			BROWN	L	3B7			BROWN	L	3B7			BROWN	L	3B7			BROWN	L	3B7	
38	RK-G	1B6-06			SLATE	3	1B7			SLATE	3	1D7			SLATE	3	1F7			SLATE	3	1D7			SLATE	3	1D7	
13	C-DR	1C6-06			SLATE	6	1C7			SLATE	6	1D7			SLATE	6	1F7			SLATE	6	1D7			SLATE	6	1D7	
39	BK-DR	2B1-G1			SLATE	1	2B3			SLATE	1	2E3			SLATE	1	2F3			SLATE	1	2E3			SLATE	1	2E3	
14	BR-DR		TB1	10	2B5			TB1	20	2E5			TB1	30	2G5			TB1	40	2E5			TB1	50	2E5	SLATE	2	2E4
40	BR-S	3C6			SLATE	LG	3C7			SLATE	LG	3C7			SLATE	LG	3C7			SLATE	LG	3C7			SLATE	LG	3C7	
15	S-DR	3C6			SLATE	L	3C7			SLATE	L	3C7			SLATE	L	3C7			SLATE	L	3C7			SLATE	L	3C7	
41	B-DL	1E6, 106			WHITE	3	1E7			WHITE	3	1D7			WHITE	3	1F7			WHITE	3	1D7			WHITE	3	1D7	
16	BL-Y	1E6, 106			WHITE	6	1E7			WHITE	6	1D7			WHITE	6	1F7			WHITE	6	1D7			WHITE	6	1D7	
42	Y-G	2E1, 2G1			WHITE	1	2E3			WHITE	1	2E3			WHITE	1	2F3			WHITE	1	2E3			WHITE	1	2E3	
17	O-Y		TB1	3				TB1	33	2E2			TB1	39	2G2			TB1	54	2E2			TB1	56	2E2	WHITE	2	2E4
43	Y-O	3C6			WHITE	LG	3C7			WHITE	LG	3C7			WHITE	LG	3C7			WHITE	LG	3C7			WHITE	LG	3C7	
18	G-Y	3C6			WHITE	L	3C7			WHITE	L	3C7			WHITE	L	3C7			WHITE	L	3C7			WHITE	L	3C7	
44	Y-BR		NET.	L2																								
19	BR-Y	4A1, 4A8			NET.	18	4A8			NET.	37	4A2			NET.	44	4A2			NET.	51	4A2			NET.	58	4A2	
45	Y-S	3D6			NET.	19	3D7			NET.	27	3F7			NET.	34	3F7			NET.	41	3F7			NET.	48	3F7	
20	S-Y	3D6			NET.	8	3D7			NET.	22	3F7			NET.	29	3F7			NET.	36	3F7			NET.	43	3F7	

† SPADE TIPPED, INSULATE AND STORE
* SPARE TERMINAL OR D-161488 CONNECTOR

ISSUE

APP FIG. 4, 5

630DA, 631DA, 2630DA, 2631DA
TELEPHONE SET CIRCUIT
18- AND 30- BUTTON CAPACITY

SD-69637-01-C2

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APP FIG. 6

BUZZER		
DESIG	LOC	CODE
(X,Y) -	3E8	KS-8109,L2
(W) -	3F8	KS-20419,L1

APP FIG. 13

TRANSMITTER, 4-TYPE SPEAKERPHONE		
DESIG	LOC	CODE
TRMTR2	8F4	681A

APP FIG. 7

LAMP SOCKET		
DESIG	LOC	CODE
-	4C2	76A

APP FIG. 8

KEYS		
DESIG	LOC	CODE
-	4A7	658A

APP FIG. 9

DIODE		
DESIG	LOC	CODE
CR1	5A1	KS-15724,L1

APP FIG. 10

KIT OF PARTS		
DESIG	LOC	CODE
(G) -	5E3	D180411

APP FIG. 11

(MFR DISC.) TRANSMITTER, 3-TYPE SPEAKERPHONE		
DESIG	LOC	CODE
TRMTR1	6B3	679A

APP FIG. 12

CONTACT STRIP (NOT SHOWN, SEE NOTE 305C)		
DESIG	LOC	CODE
-	-	840151039(R)
-	-	840151047(G)

KEY		
DESIG	LOC	CODE
-	5A8	635AD5C (INCLUDES P-269699 ADAPTER)

APP FIG. 6-13

630DA, 631DA, 2630DA, 2631DA
TELEPHONE SET CIRCUIT
18- AND 30- BUTTON CAPACITY

SD-69637-01-C3

BELL TELEPHONE LABORATORIES
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CIRCUIT NOTES:

101.

DESIG	FUSE AMP	POTENTIAL	ONE PER

102.

FEATURE OR OPTION	PROVIDE			FS	
	APP FIG	APP OR ORG	QTY		
TELEPHONE TRANSMISSION CIRCUIT	ROTTARY DIAL	1	1	1	
	TOUCH-TONE DIAL	2	1	2	
KEYS	HOLD AND 5 PICKUPS	3	1	3, 4, 5, 6, 7	
	6 PICKUPS	Z	AS REQD		
	18-BUTTON SET	4	1		
CORDS	18-BUTTON SET	4	1		
	30-BUTTON SET	5	1		
RINGER CIRCUIT		3	1	8	
BUZZER CIRCUIT	KS-R109, L2 (14-30 VOLTS)	DC OPERATION	Y	AS REQD	9
	KS-20419, L1 (6-10 VOLTS)	60 HZ OPERATION ONLY	X		
AUXILIARY LAMP CIRCUIT		7		AS REQD	11
SIGNALING KEY CIRCUIT		8		AS REQD	12
POLARITY GUARD	PROVIDED	2	V	1	13
	NOT PROVIDED		T		
STATION BUSY LAMP CIRCUIT		9		1	14
SUPPLEMENTARY HOLD CIRCUIT	NOT PROVIDED		J		
	PROVIDED	PRIORITY	10	G	AS REQD
CUT OFF KEY CIRCUIT			I	F	
					1
3-TYPE SPEAKER PHONE CIRCUIT	PROVIDED	INTERNAL TRANSMITTER	11	1	17
	NOT PROVIDED	EXTERNAL TRANSMITTER	U	1	18
4-TYPE SPEAKER PHONE CIRCUIT	NOT PROVIDED		ZB		
	PROVIDED	EXTERNAL TRANSMITTER	ZA	1	19
		INTERNAL TRANSMITTER	13	1	20
		RINGER AND BUZZER CUTOFF BY AUXILIARY RELAY	ZC	1	19, 20
	RINGER CUTOFF BY LOUDSPEAKER SET	ZD	1	19, 20	

103.

CHANGED ON ISS	IF JOB RECORDS DO NOT SPECIFY	THIS OPTION WAS FURN	SEE NOTE	USE IN CIRCUIT		
				STD	A&M	IND

CIRCUIT NOTES (CONT)

104. WHEN THE 650A KEY IS REQUIRED AS A DUAL PURPOSE KEY, STRAP BETWEEN TERMINALS 7 & 18 SHALL BE REMOVED. USE HW CORD OR EQUIVALENT TO CONNECT TERMINAL 17 TO A SEPARATE GROUND OR A NON GROUNDED CIRCUIT COMMON.

105. THE RINGER MAY BE CONNECTED WITH OR WITHOUT CAPACITOR FOR PRIVATE LINE, COMMON OR INTERCOM LINE SIGNAL AS REQUIRED. THE RINGER SHALL BE CONNECTED WITH CAPACITOR WHEN USED AS A BRIDGED RINGER ON A CENTRAL OFFICE OR PBX LINE AND WHEN POWER FAILURE FEATURE IS PROVIDED.

106. BUZZER (KS-R109, L2) MAY BE OPERATED FROM A 14-30 VOLT DC SUPPLY USING WIRING OPTION Y OR FROM A 14-30 VOLT, 60 Hz AC SUPPLY USING WIRING OPTION X. BUZZER (KS-20419, L1) OPTION L1 SHALL BE OPERATED FROM A 10 VOLT 60 Hz AC SUPPLY, ONLY. S-Y AND Y-S LEADS IN ORANGE-WHITE BINDER ARE DEDICATED FOR BUZZER USE. WHEN MORE THAN ONE BUZZER IS REQUIRED SPARE PAIRS SHALL BE USED.

107. ALL KEYS EXCEPT THE HOLD KEY MAY BE CONVERTED FROM PICKUP TO SIGNALING OR VICEVERSA. TRANSFER AND LOOPBACK FUNCTIONS MAY BE ASSIGNED TO THESE KEYS WHEN SUCH CIRCUITS ARE FURNISHED. THE CIRCUIT IS REARRANGED FOR SIGNALING BY MOVING ONE OR MORE SPADE-TIPPED LEADS ON THE TERMINAL BOARDS. WHEN KEYS ARE USED FOR SIGNALING, THE KEY CONTRACTS AND CORD CONDUCTORS NORMALLY USED FOR "M" LEAD FUNCTIONS ARE USED FOR SIGNALING FUNCTIONS AND ARE DESIGNATED "S" OR "SI".

108. LINE SWITCH SEQUENCE
 REMOVING HANDSET RESTORING HANDSET
 1. bc MAKES 1. fa MAKES
 2. dc MAKES 2. ab MAKES
 3. ab BREAKS 3. dc BREAKS
 4. fa BREAKS 4. bc BREAKS

1A AND 1A1 OR 1A2 CONVERSION - 630DA AND 2630DA TELEPHONE SETS

KEY UNIT ARRANGEMENT	LEADS												LINE SH.
	HOLD KEY (PINK PLUG)				CHAMBER SWITCH (BEIGE PLUG)				CONTACT STRIP				
	(Y)	(G)	(BR-Y)	(Y-BR)	(Y-G) 1ST UNIT	(Y-G) 2ND UNIT	(R) 1ST UNIT	(R) 2ND UNIT	(R) 1ST UNIT	(R) 2ND UNIT	(R) 3RD UNIT	(R) 3RD UNIT	
1A1 OR 1A2 ONLY	10	10	/	/	5	15	13	11	13	11	21	8	
1A1 OR 1A2 1ST AND 2ND UNIT 1A-3RD UNIT	10	SEE NOTE 111	21	SEE NOTE 112	5	SEE NOTE 111	13	11	13	11	SEE NOTE 112	8	
1A1 OR 1A2 1ST UNIT 1A-2ND AND 3RD UNIT	10	SEE NOTE 111	11	SEE NOTE 112	SEE NOTE 111	15	13	SEE NOTE 112	13	SEE NOTE 112	21	8	
1A ONLY	/	10	13	SEE NOTE 113	5	15	SEE NOTE 113	11	SEE NOTE 113	11	21	18	

1A AND 1A1 OR 1A2 CONVERSION - 631DA AND 2631DA TELEPHONE SETS

KEY UNIT ARRANGEMENT	LEADS															LINE SH.		
	HOLD KEY (PINK PLUG)				CHAMBER SWITCH (BEIGE PLUG)					CONTACT STRIP								
	(Y)	(G)	(BR-Y)	(Y-BR)	(Y-G) 1ST UNIT	(Y-G) 2ND UNIT	(Y-G) 3RD UNIT	(Y-G) 4TH UNIT	(R) 1ST UNIT	(R) 2ND UNIT	(R) 3RD UNIT	(R) 4TH UNIT	(R) 1ST UNIT	(R) 2ND UNIT	(R) 3RD UNIT		(R) 4TH UNIT	(R) 5TH UNIT
1A1 OR 1A2 ONLY	10	10	/	/	5	15	35	45	13	11	21	31	13	11	21	31	41	8
1A1 OR 1A2 1ST, 2ND, 3RD AND 4TH UNIT 1A-5TH UNIT	10	SEE NOTE 111	41	SEE NOTE 112	5	15	35	SEE NOTE 111	13	11	21	31	13	11	21	31	SEE NOTE 112	8
1A1 OR 1A2 1ST, 2ND AND 3RD UNIT 1A-4TH AND 5TH UNIT	10	SEE NOTE 111	31	SEE NOTE 112	5	15	SEE NOTE 111	45	13	11	21	SEE NOTE 112	13	11	21	SEE NOTE 112	41	8
1A1 OR 1A2 1ST AND 2ND UNIT 1A-3RD, 4TH AND 5TH UNIT	10	SEE NOTE 111	21	SEE NOTE 112	5	SEE NOTE 111	35	45	13	11	SEE NOTE 112	31	13	11	SEE NOTE 112	31	41	8
1A1 OR 1A2 1ST UNIT 1A-2ND, 3RD, 4TH AND 5TH UNIT	10	SEE NOTE 111	11	SEE NOTE 112	SEE NOTE 111	15	35	45	13	SEE NOTE 112	21	31	13	SEE NOTE 112	21	31	41	8
1A ONLY	/	10	13	SEE NOTE 113	5	15	35	45	SEE NOTE 113	11	21	31	SEE NOTE 113	11	21	31	41	18

/ INDICATES LEAD ARE SPADE TIPPED, INSULATED AND STORED.

CIRCUIT NOTES (CONT)

111. THESE LEADS ARE TO BE CONNECTED TOGETHER ON A SPARE TERMINAL OR D-161488 CONNECTOR FOR THE PARTICULAR ARRANGEMENT DESIRED.

112. THESE LEADS ARE TO BE CONNECTED TOGETHER ON A SPARE TERMINAL OR D-161488 CONNECTOR FOR THE PARTICULAR ARRANGEMENT DESIRED.

113. THESE LEADS ARE TO BE CONNECTED TOGETHER ON A SPARE TERMINAL OR D-161488 CONNECTOR.

CIRCUIT NOTES

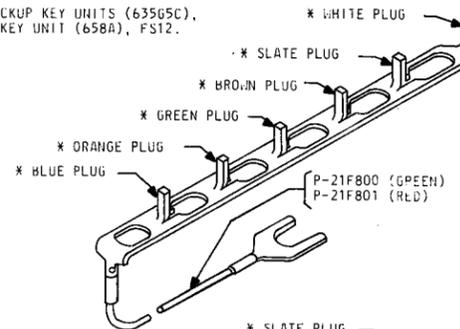
630DA, 631DA, 2630DA, 2631DA TELEPHONE SET CIRCUIT 18- AND 30- BUTTON CAPACITY	ISSUE
SD-69637-01-D1	
BELL TELEPHONE LABORATORIES INCORPORATED	DWG SIZE 6S PRINTED IN U.S.A.

EQUIPMENT NOTES:

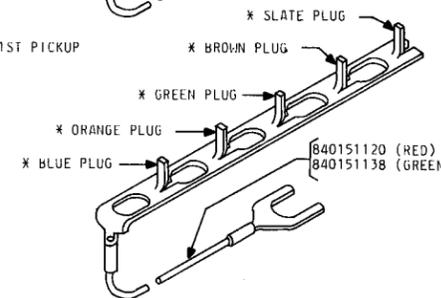
- 201. WHEN A SET IS EQUIPPED WITH LESS THAN A FULL COMPLEMENT OF KEYS ALL SPARE PLUGS SHALL BE INSTALLED ON THE APPARATUS BLANKS.
- 202. A MOUNTING BRACKET FOR BUZZERS IS PROVIDED INSIDE THE SET. IT IS ARRANGED TO MOUNT ONE OR TWO KS-8109,L2 BUZZERS, OPTIONS X OR Y, OR KS-20419,L1 BUZZERS, OPTION W, OR COMBINATIONS THEREOF. THE KS-20419,L1 BUZZER MAY BE MOUNTED UNDER ANY CONVENIENT SCREEN HEAD THAT DOES NOT CAUSE ELECTRICAL OR MECHANICAL INTERFERENCE WITH OTHER APPARATUS. THE KS-8109,L2 BUZZER SHALL ALWAYS BE MOUNTED SO THAT ITS FRAME IS INSULATED FROM THE BASE OF THE SET. THIS IS BEST ACCOMPLISHED BY LIMITING THE MOUNTING OF THE KS-8109,L2 BUZZER TO THE MOUNTING BRACKET. SET MANUFACTURED AFTER DEC. 31, 1972 WILL BE FACTORY EQUIPPED WITH THE KS-20419,L1 BUZZER, OPTION W.
- 203. TO CONVERT A KEY POSITION FROM PICKUP (LOCKING) TO SIGNALING (NON-LOCKING) REMOVE THE THREADED PIN FROM THE PLUNGER.

INFORMATION NOTES:

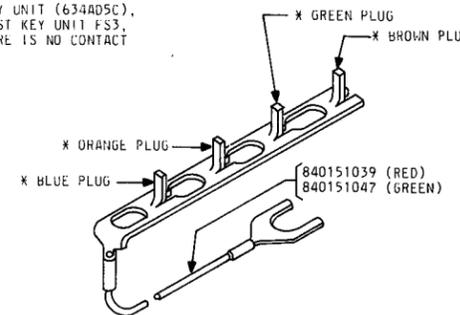
- 301. UNLESS OTHERWISE SPECIFIED: RESISTANCE VALUES ARE IN OHMS, CAPACITANCE VALUES ARE IN MICROFARADS, VALUES PRECEDED BY THE SYMBOL + (PLUS) OR - (MINUS) ARE IN VOLTS.
- 302. \perp GROUND RETURN.
- 303. RINGER CONNECTIONS MAY BE MADE BY CONNECTING THE CABLE CONDUCTORS ASSOCIATED WITH LEADS R OR R1 (S-Y) AND B OR B1 (Y-S) AT THE TERMINAL FIELD AS REQUIRED.
- 304. BUZZER LEADS BZ AND BZ1 (S-Y AND Y-S, RESPECTIVELY, 2ND PLUG) MAY BE CONNECTED TO THE R,R1 OR BZ AND B, B1 OR BZ1 TERMINALS, RESPECTIVELY, AT THE TERMINAL FIELD TO PROVIDE THE REQUIRED TYPE OF BUZZER OPERATION.
- 305. A. TO BE USED, AS SHOWN, WITH PICKUP KEY UNITS (635G5C), OPTION Z, FS3, AND SIGNALING KEY UNIT (658A), FS12.



B. TO BE USED, AS SHOWN, WITH 1ST PICKUP KEY UNIT (635A5C) FS3.



C. TO BE USED WITH CUT-OFF KEY UNIT (634A05C), FS16. USE SCHEMATIC FOR 1ST KEY UNIT FS3, WIRING THE SAME EXCEPT THERE IS NO CONTACT FOR THE SLATE PLUG AREA.



* ASSOCIATED WITH INDICATED (COLOR) PLUG. (SEE CD PARAGRAPH 2.02).

DRAWING NOT TO SCALE.

A
B
C
D
E
F
G
H

A
B
C
D
E
F
G
H

EQUIPMENT NOTES
INFORMATION NOTES

630DA, 631DA, 2630DA, 2631DA
TELEPHONE SET CIRCUIT
18- AND 30- BUTTON CAPACITY

SD-69637-01-D2

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