

DWG ISSUE	CD ISSUE	DATE ISSUED	DRW	APPR
1	1	8/17/74	GDI	SES
			CAF	AFR

SHEET INDEX

CONTENTS	SHEET NO.	ISSUE NO.																								
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SHEET INDEX SHEET INDEX NOTES SUPPORTING INFORMATION	A1	1																								
APPARATUS INDEX LEAD INDEX OPTION INDEX	A2	1																								
FS 1 - TELEPHONE TRANSMISSION CIRCUIT FOR ROTARY DIAL SETS FS 2 - TELEPHONE TRANSMISSION CIRCUIT FOR TOUCH-TONE DIAL SETS	B1	1																								
FS 3 - TRANSMISSION CIRCUIT FOR CORD AND KEYS FS 4 - "A,H" LEAD AND SIGNALING CONTROL	B2	1																								
FS 5 - TRANSMISSION AND "A,H" LEAD CIRCUIT FOR CHAINING SWITCH 18-BUTTON SET FS 6 - TRANSMISSION AND "A,H" LEAD CIRCUIT FOR CHAINING SWITCH 30-BUTTON SET FS 7 - LAMP CIRCUIT FS 8 - RINGER CIRCUIT FS 9 - BUZZER CIRCUIT	B3	1																								
FS 10 - PB AND S1 LEADS FS 11 - AUXILIARY LAMP CIRCUIT FS 12 - SIGNALING KEY CIRCUIT FS 13 - POLARITY GUARD CONNECTIONS	B4	1																								
FS 14 - STATION BUSY LAMP CIRCUIT FS 15 - SUPPLEMENTARY HOLD CIRCUIT	B5	1																								
FS 16 - CUT-OFF KEY CIRCUIT	B6	1																								
APP FIG. 1,2 AND 3	C1	1																								
APP FIG. 4 AND 5	C2	1																								
APP FIG. 6,7,8,9,10 AND 11	C3	1																								
CIRCUIT NOTES	D1	1																								
EQUIPMENT NOTES INFORMATION NOTES	D2	1																								

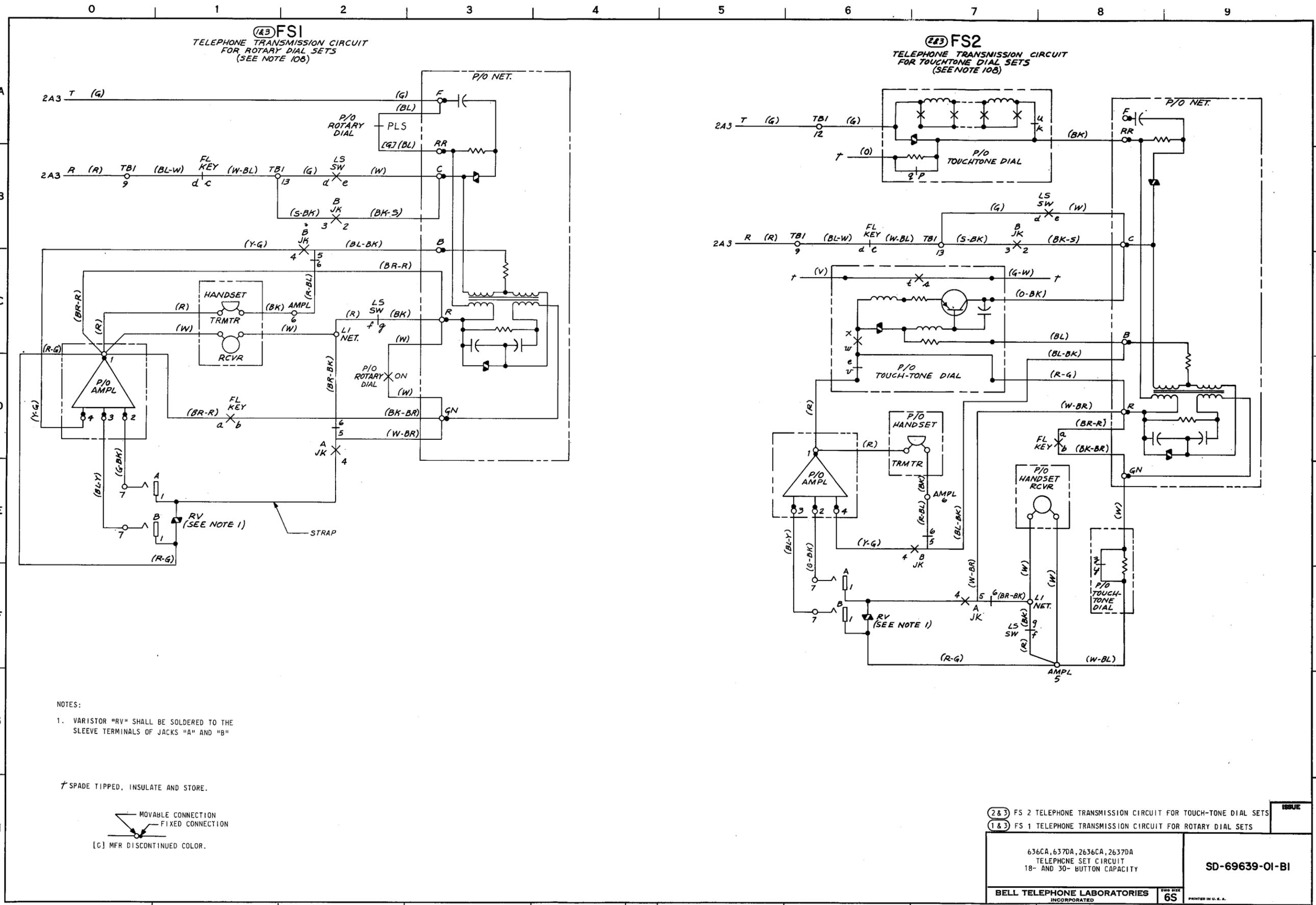
CONTENTS	SHEET NO.	ISSUE NO.																								
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25

- SHEET INDEX NOTES**
1. WHEN CHANGES ARE MADE IN THIS DRAWING, ONLY THOSE SHEETS AFFECTED WILL BE REISSUED.
 2. 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.
 3. THE ISSUE NUMBER ASSIGNED TO A CHANGED OR NEW SHEET WILL BE THE SAME ISSUE NUMBER AS THAT OF THE SHEET INDEX.
 4. SHEETS THAT ARE NOT CHANGED WILL RETAIN THEIR EXISTING ISSUE NUMBER.
 5. 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.

SD-69639-01 1K03
STATION SYSTEMS
KEY TELEPHONE SYSTEMS NO. 1A,1A1,1A2 AND 6A
636CA, 637DA, 2636CA, 2637DA
TELEPHONE SET CIRCUIT
18- AND 30- BUTTON CAPACITY
FOR USE WITH 2-WIRE LINES ARRANGED FOR
HANDSET OR HEADSET OPERATION AND DIAL PULSF
OR TOUCH-TONE (R) CALLING

AT&TCO
STANDARD
SD-69639-01-A1
13 SHEETS
BELL TELEPHONE LABORATORIES
INCORPORATED
6S
PRINTED IN U.S.A.



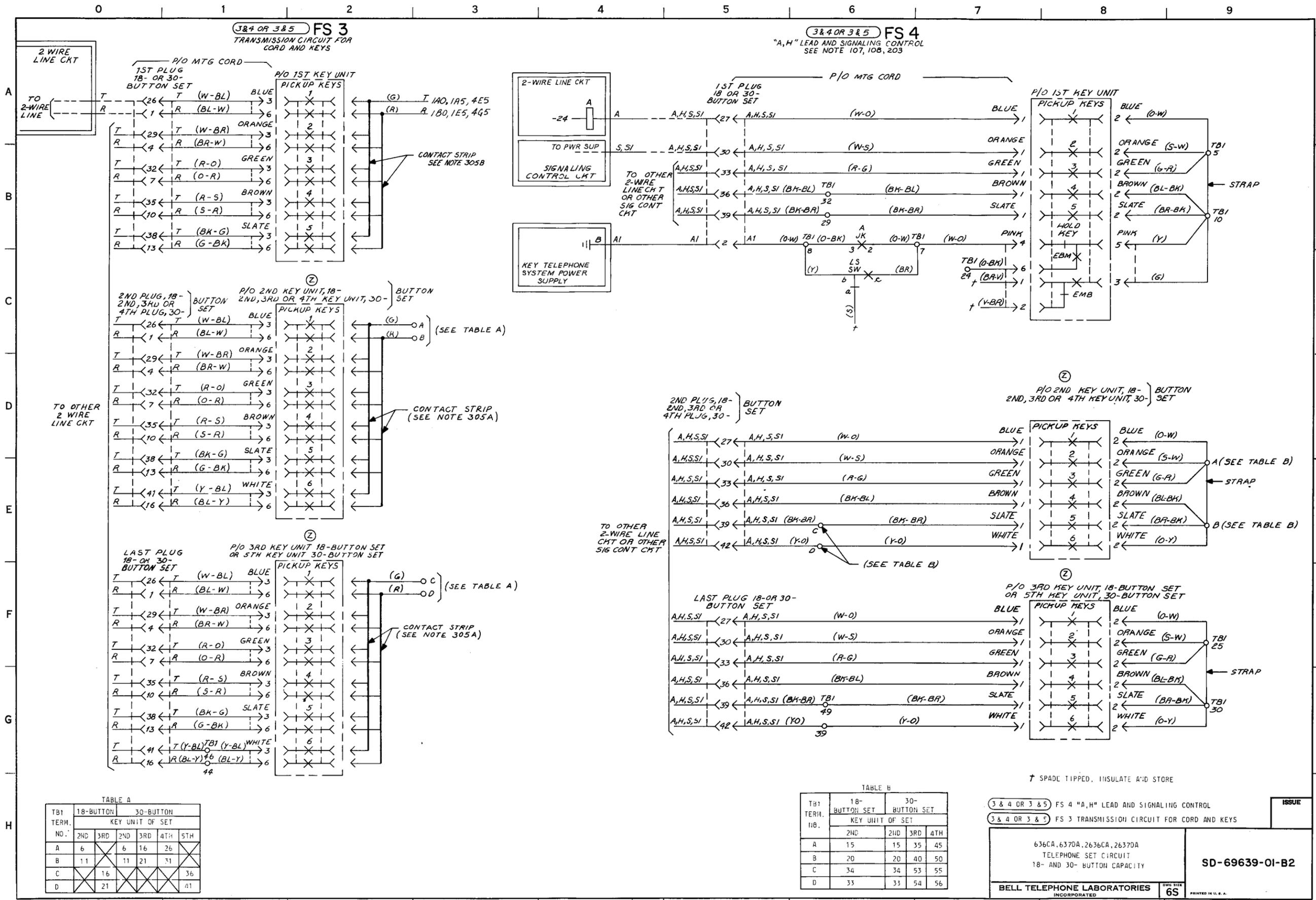


TABLE A

TBI TERM. NO.	18-BUTTON KEY UNIT OF SET		30-BUTTON KEY UNIT OF SET		
	2ND	3RD	2ND	3RD	4TH
A	6		6	16	26
B	11		11	21	31
C		16			36
D		21			41

TABLE B

TBI TERM. NO.	18-BUTTON KEY UNIT OF SET		30-BUTTON 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

3 & 4 OR 3 & 5 FS 3 TRANSMISSION CIRCUIT FOR CORD AND KEYS

636CA, 637DA, 2636CA, 2637DA
TELEPHONE SET CIRCUIT
18- AND 30- BUTTON CAPACITY

SD-69639-01-B2

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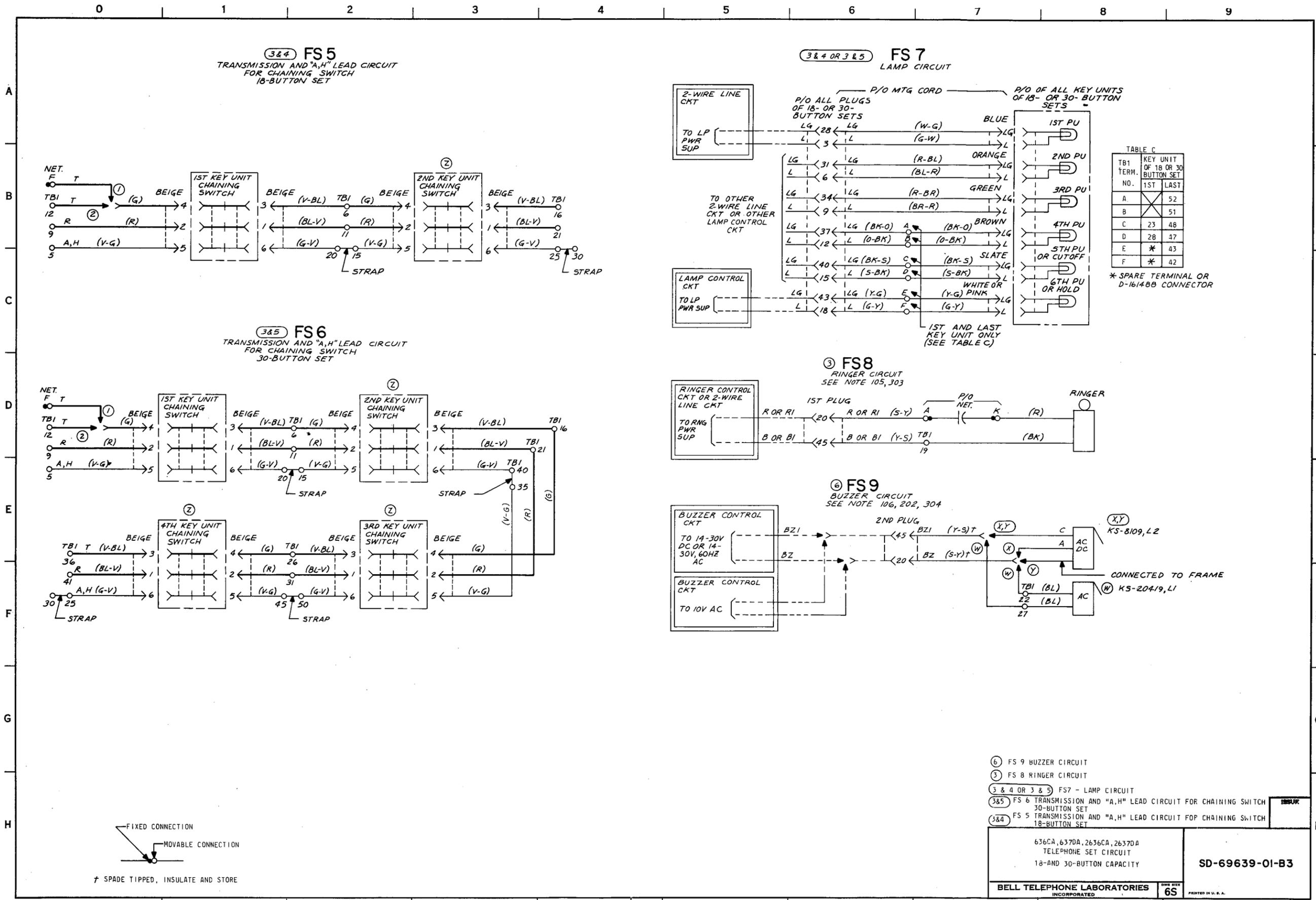
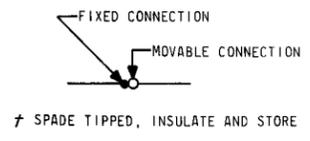


TABLE C
KEY UNIT OF 18 OR 30 BUTTON SET

TB1 TERM. NO.	KEY UNIT	
	1ST	LAST
A	X	52
B	X	51
C		23 48
D		28 47
E	*	43
F	*	42

* SPARE TERMINAL OR D-161488 CONNECTOR

- ⑥ FS 9 BUZZER CIRCUIT
- ③ FS 8 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

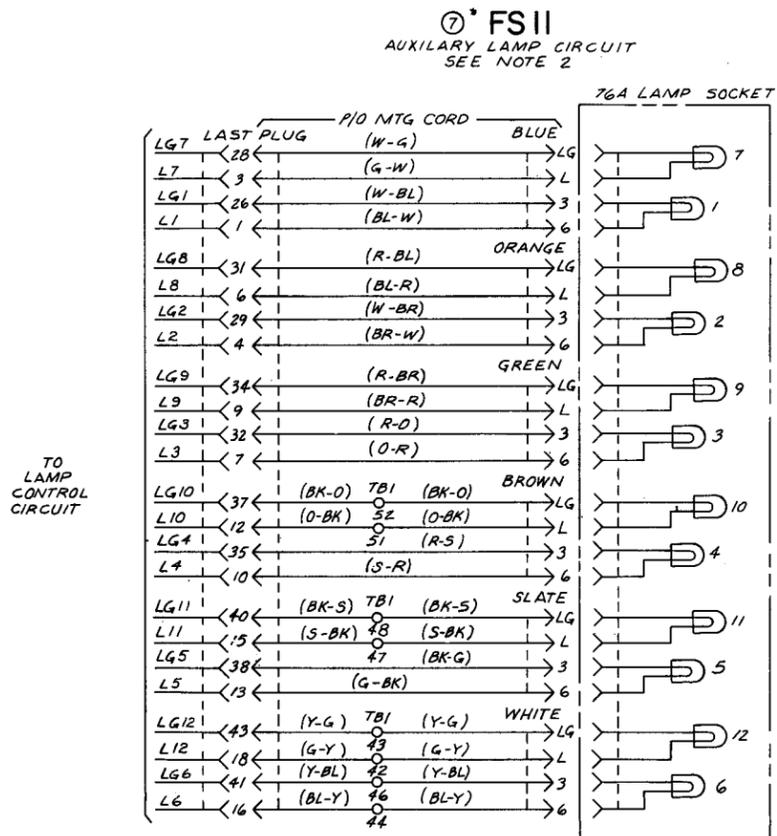
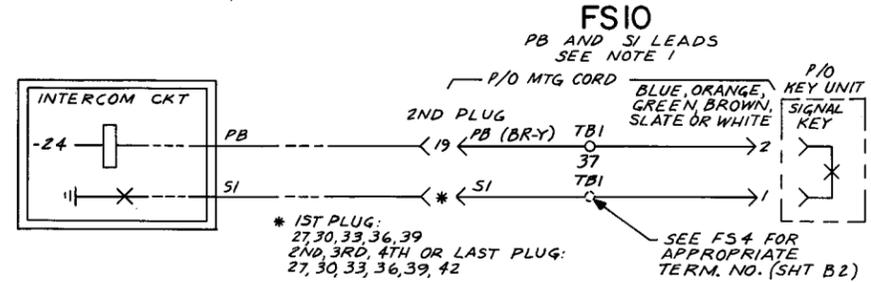
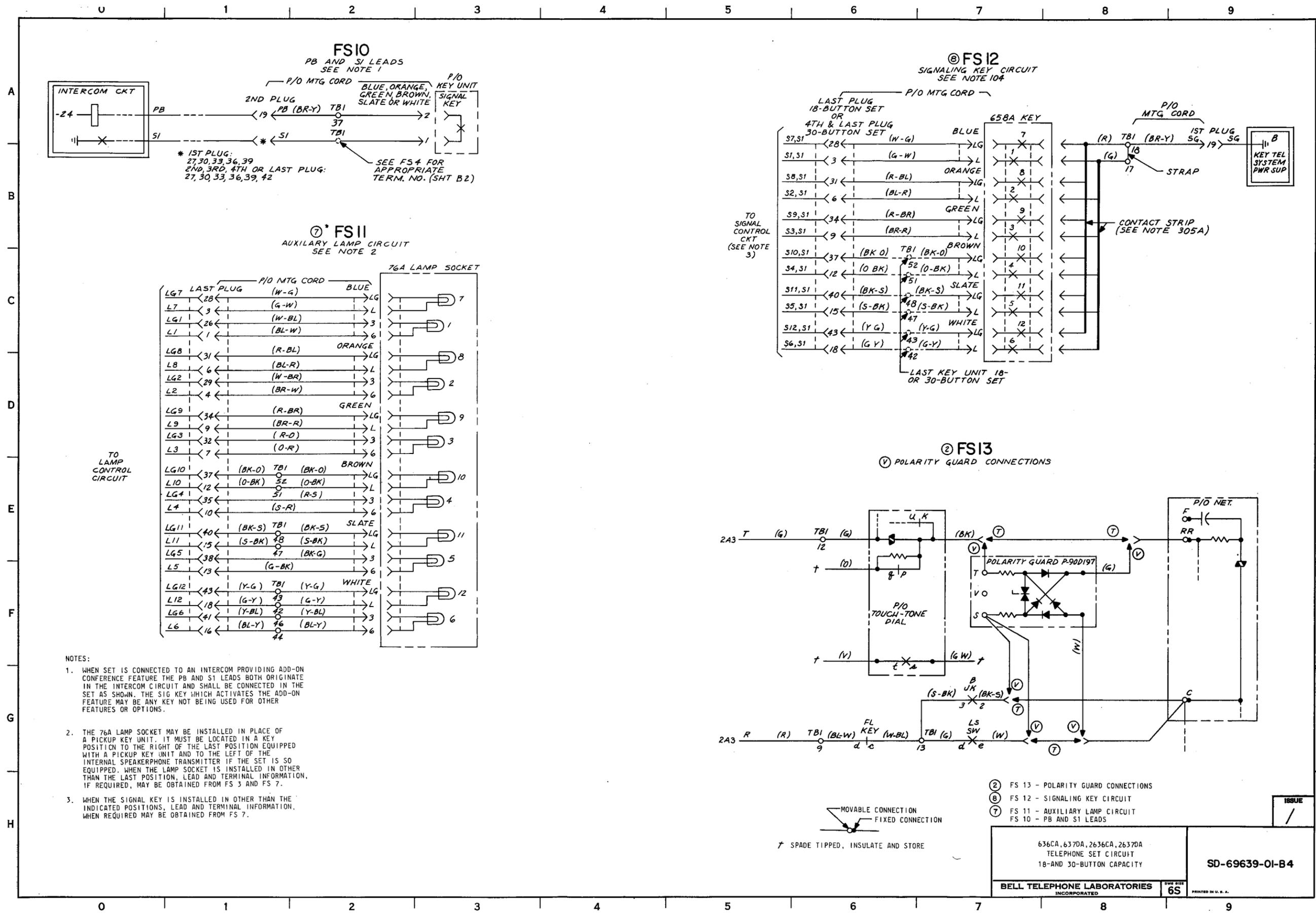


636CA, 637DA, 2636CA, 2637DA
TELEPHONE SET CIRCUIT
18-AND 30-BUTTON CAPACITY

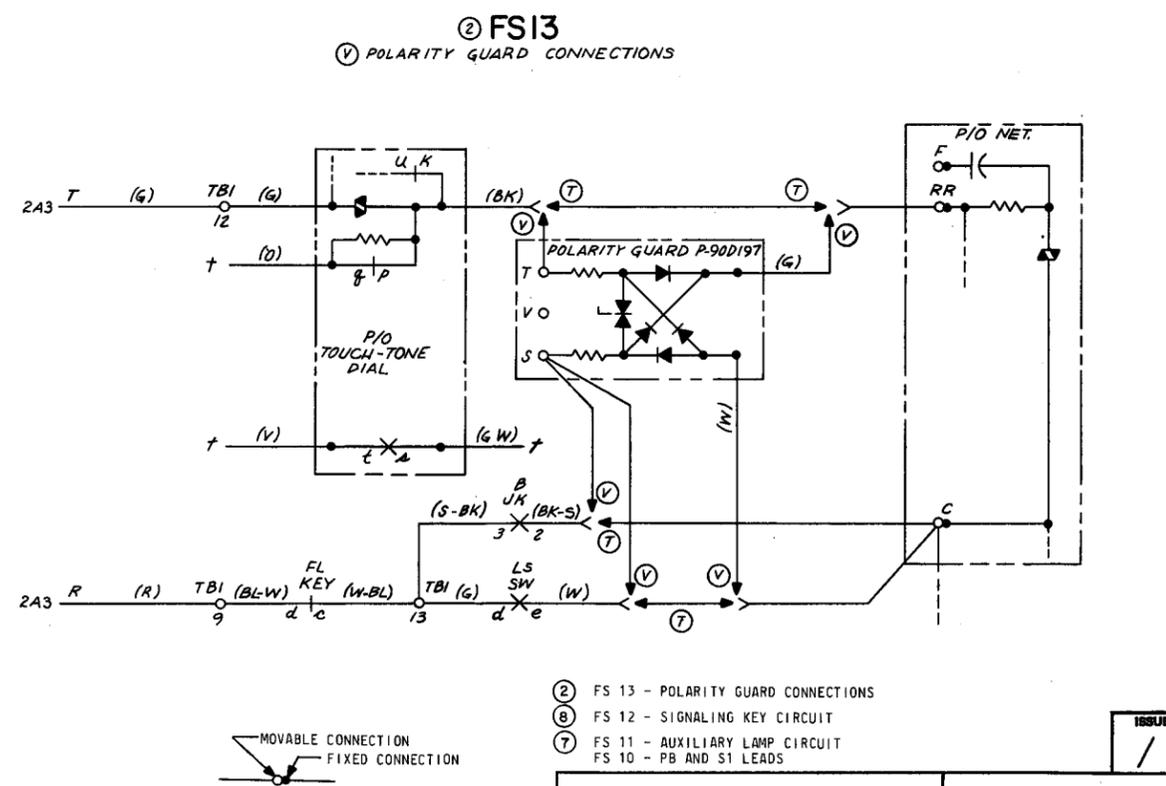
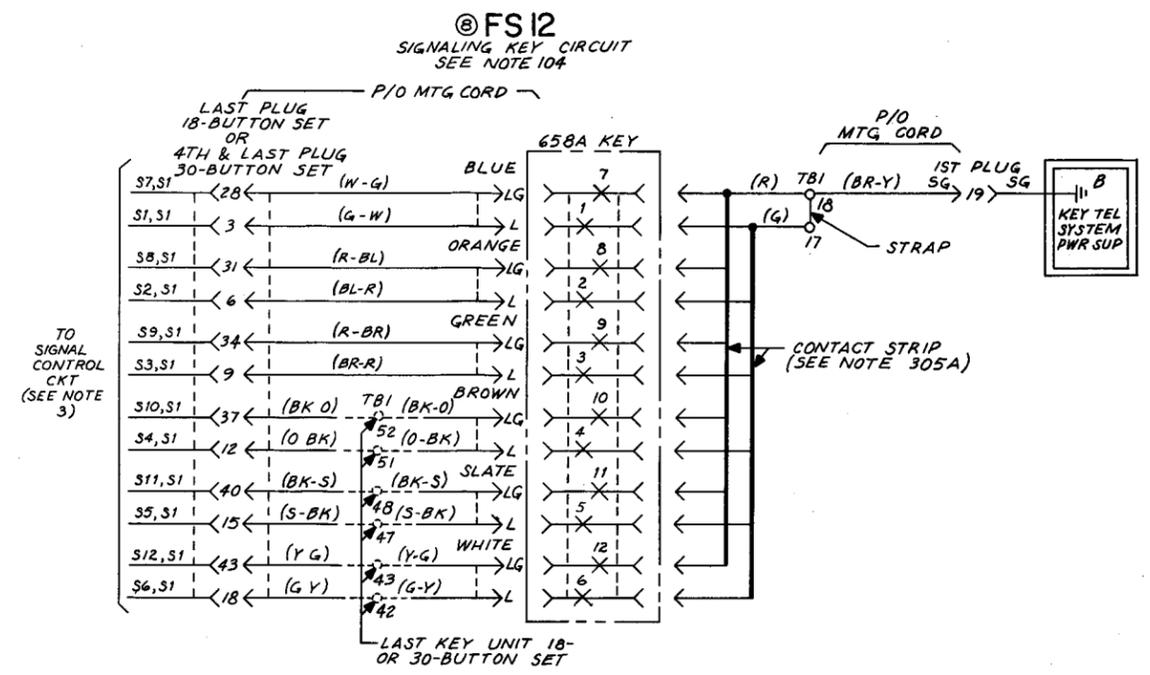
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- NOTES:
1. WHEN SET IS CONNECTED TO AN INTERCOM PROVIDING ADD-ON CONFERENCE FEATURE THE PB AND S1 LEADS BOTH ORIGINATE IN THE INTERCOM CIRCUIT AND SHALL BE CONNECTED IN THE SET AS SHOWN. THE SIG KEY WHICH ACTIVATES THE ADD-ON FEATURE MAY BE ANY KEY NOT BEING USED FOR OTHER FEATURES OR OPTIONS.
 2. THE 76A LAMP SOCKET MAY BE INSTALLED IN PLACE OF A PICKUP KEY UNIT. IT MUST BE LOCATED IN A KEY POSITION TO THE RIGHT OF THE LAST POSITION EQUIPPED WITH A PICKUP KEY UNIT AND TO THE LEFT OF THE INTERNAL SPEAKERPHONE TRANSMITTER IF THE SET IS SO EQUIPPED. WHEN THE LAMP SOCKET IS INSTALLED IN OTHER THAN THE LAST POSITION, LEAD AND TERMINAL INFORMATION, IF REQUIRED, MAY BE OBTAINED FROM FS 3 AND FS 7.
 3. WHEN THE SIGNAL KEY IS INSTALLED IN OTHER THAN THE INDICATED POSITIONS, LEAD AND TERMINAL INFORMATION, WHEN REQUIRED MAY BE OBTAINED FROM FS 7.



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

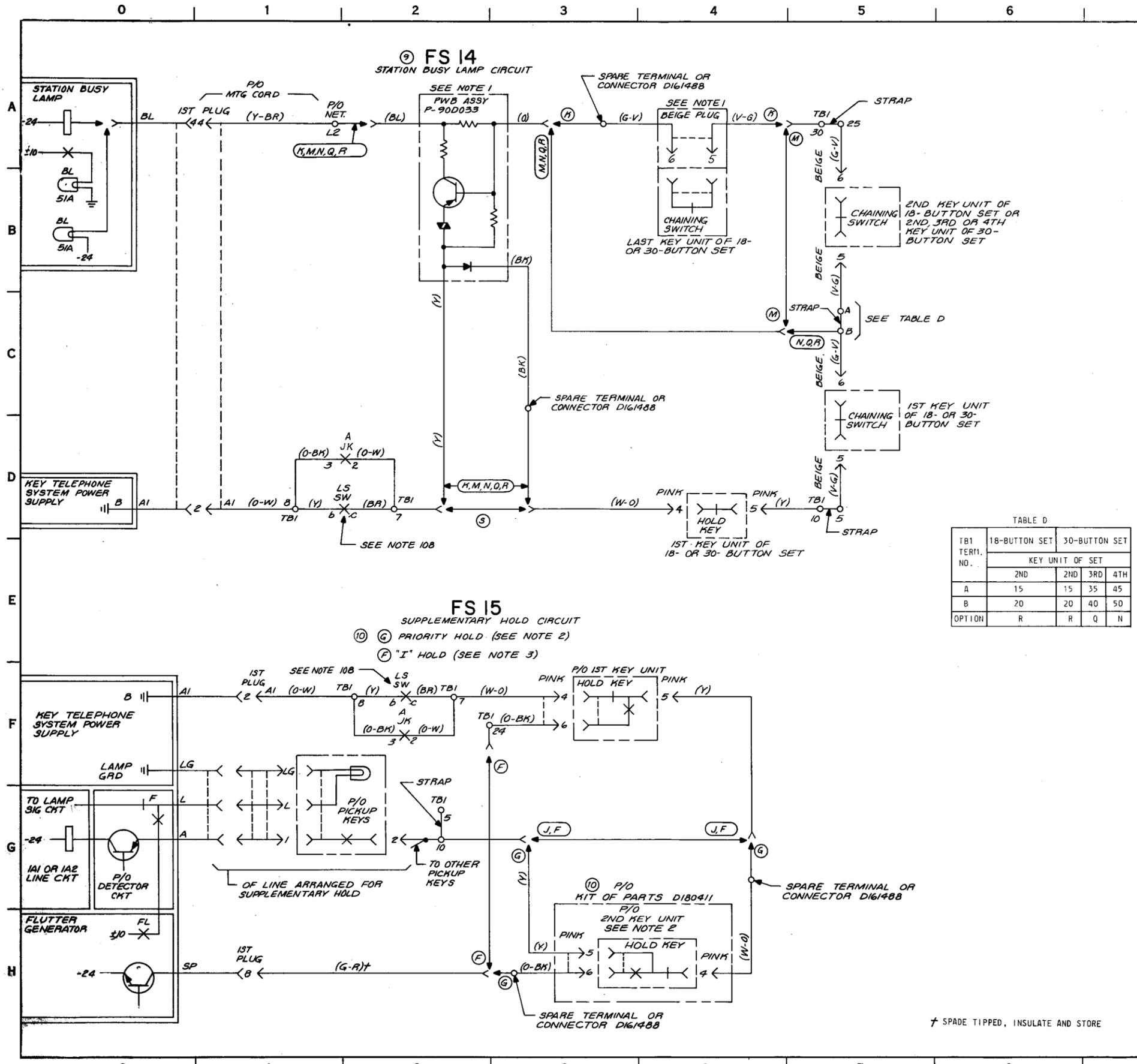
636CA, 637DA, 2636CA, 2637DA
 TELEPHONE SET CIRCUIT
 18- AND 30-BUTTON CAPACITY

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- NOTES:
- THE KIT OF PARTS (D180463) CONSISTS OF PRINTED WIRING BOARD (P90D033) AND A LIGHT BEIGE PLUG (509A) HAVING A G-V LEAD CONNECTED TO PIN 6 AND A V-G LEAD CONNECTED TO PIN 5.
 - WHEN STATION BUSY LAMP IS REQUIRED AND ALL POSITIONS ARE EQUIPPED WITH PICKUP KEYS USE THE KIT OF PARTS (D180463) AND CONNECT AS SHOWN IN FS 14, OPTION K.
 - WHEN ALL POSITIONS ARE NOT EQUIPPED WITH PICKUP KEYS USE THE PRINTED WIRING BOARD (P90D033) ONLY. CONNECT THE ORANGE LEAD OF THE LAST APPROPRIATE TERMINAL (B) OR (30) WHERE THE G-V LEAD OF THE LAST EQUIPPED KEY CHAINING SWITCH TERMINATES, FS 14, OPTION M,N,Q OR R.
 - 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 635A5C KEY, A PINK 508A PLUG AND TWO CONTACT STRIPS.
 - 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 635A5C KEY.
 - 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 SCREW TERMINALS.
 - CONNECT ALL OF THE COLORED PLUGS EXCEPT THE WHITE TO THE 635A5C KEY. INSULATE AND STORE THE WHITE PLUG. CONNECT THE CONTACT STRIP LEADS TO THEIR SCREW TERMINALS.
 - CONNECT THE LEADS FROM THE PINK PLUG AND REARRANGE THE WIRING AS SHOWN IN FS 15, OPTION G.
 - 'I' HOLD IS IMPLEMENTED BY CONNECTING THE INSULATED AND STORED G-R LEAD OF THE FIRST PLUG TO TB1 TERMINAL 24 AS SHOWN IN FS 15, OPTION F.

TABLE D

TB1 TERM. NO.	KEY UNIT OF SET			
	2ND	2ND	3RD	4TH
A	15	15	35	45
B	20	20	40	50
OPTION	R	R	Q	N

ISSUE

FS 15 SUPPLEMENTARY HOLD CIRCUIT
 FS 14 STATION BUSY LAMP CIRCUIT

636CA, 6370A, 2636CA, 26370A
 TELEPHONE SET CIRCUIT
 18- AND 30- BUTTON CAPACITY

SD-69639-01-B5

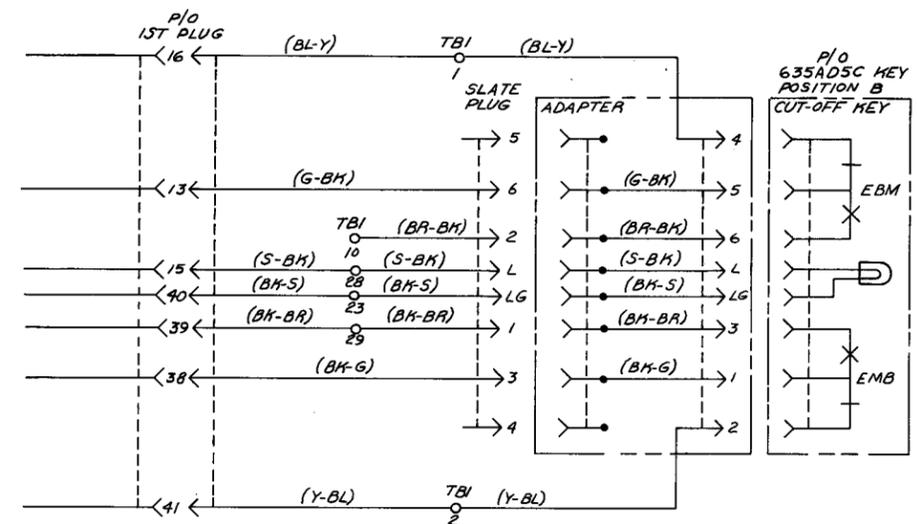
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* SPADE TIPPED, INSULATE AND STORE

A
B
C
D
E
F
G
H

① FS16
CUT-OFF KEY CIRCUIT
SEE NOTE 305C



- NOTES:
1. (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 635A5C 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 635A5C 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 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 TB1, TERMINAL 10 IN ALL CASES. IT MAY BE CONNECTED AS REQUIRED OR INSULATED AND STORED.

① FS 16 CUT-OFF KEY CIRCUIT

636CA, 637DA, 2636CA, 637DA
TELEPHONE SET CIRCUIT
18- AND 30- BUTTON CAPACITY

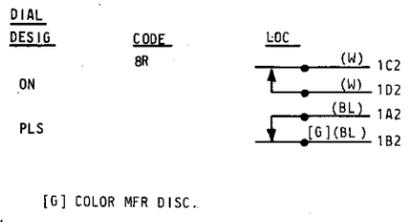
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APP FIG. 1



APP FIG. 2

DIAL
DESIG CODE LOC

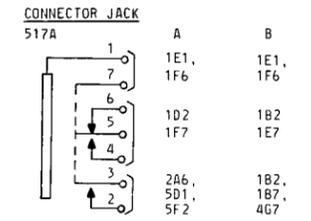
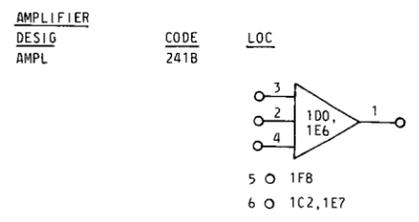
35C3A

LEAD COLOR	LOC
BK	1A8 4E7
BL	1C8
G	1A6 4E6
G-W	1C7 4F7
O	1B6 4F6
O-BK	1C7
R	1D6
R-G	1D8
V	1C6 4F6
W	1E8
W-BL	1F8

(V) POLARITY GUARD

DESIG	LOC	CODE
-	4E7	P-90D197

APP FIG. 3



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	1ST	2ND	3RD	4TH
1	BL-V	3B2	3B3	3D1	3D3	3F2	3F0
2	R	3B0	3B2	3D0	3D2	3F3	3F1
3	V-BL	3B2	3B3	3D1	3D3	3E2	3E0
4	G	3B0	3B2	3D0	3D2	3E3	3E1
5	V-G	3B0	3B2	3E0	3E2	3F3	3F1
6	G-V	3B2	3B3	3E1	3E3	3F2	3F0

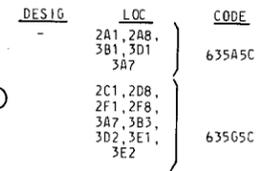
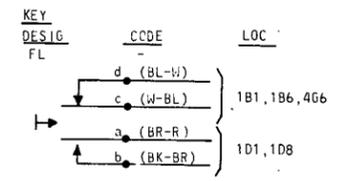
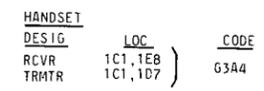
* LIGHT BEIGE PLUG ASSEMBLY NOT REQUIRED FOR LAST KEY UNIT, EXCEPT FOR STATION BUSY LAMP CIRCUIT. WHEN LESS THAN FULL COMPLEMENT OF KEY UNITS ARE REQUIRED THE LAST KEY UNIT USED DOES NOT REQUIRE A LIGHT BEIGE PLUG ASSEMBLY.

CODE
840151161 PLUG ASSEMBLY (PINK) FOR HOLD KEY

PIN NO.	WIRE COLOR	LOC
1	BR-V	2C7
2	V-BR	2C7
3	G	2C8
4	W-O	2B7
5	Y	2B8
6	O-BK	2C7
L	G-Y	3C7
LG	Y-G	3C7

CONTACT STRIP (SEE NOTE 305)

DESIG	LOC	CODE
-	2B2	840151120(R) 840151138(G)
(Z)	2D2, 2E2	P-21F800(G) P-21F801(R)



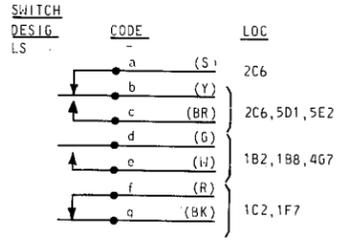
NETWORK
DESIG CODE

NET. 4010B

TERM. NO.	LOC
A	3D7
B	1B3, 1C8
C	1A3, 1A8, 3B0, 3D0, 4E9
F	1D3, 1E8
GN	3D7
K	1C2, 1F8
L1	5A1
L2	1C3, 1D8
R	
RR	1A8, 1B3, 4E9

RINGER
DESIG LOC CODE

- 3D8 T1A



TERMINAL BOARD
CODE

DESIG	T81	
TERM. NO.	LOCATION	TERM. NO. LOCATION
1	6B2	29 2B6, 4A2, 6C1
2	6D2	30 2G9, 3C4, 3F0, 5A5
3		31 2C3, 3F2
4		32 2B6, 4A2
5	2B9, 3B0, 3E0, 5D5, 5G2	33 2E6, 4A2
6	2C3, 3B2, 3D2	34 2E6, 4A2
7	2B7, 5D2, 5F2	35 2E9, 3E3, 5C5
8	2B6, 5D1, 5F2	36 2F3, 3E0
9	1B0, 1B6, 3B0, 3D0, 4G6	37 4A2
10	2B9, 5D5, 5G2, 6B1	38
11	2C3, 3B2, 3D2	39 2G6, 4A2
12	1A6, 3B0, 3D0, 4E6	40 2E9, 3E3, 5C5
13	1B1, 1B7, 4G7	41 2F3, 3F0
14		42 3C6, 4F1, 4C6
15	2E9, 3C2, 3E2, 5C5	43 3C6, 4F1, 4C6
16	2C3, 2F3, 3B4, 3D4	44 2G1, 4F1
17	4B8	45 2E9, 3F1, 5C5
18	4B8	46 2G1, 4F1
19	3D7	47 3C6, 4E1, 4C6
20	2E9, 3C2, 3E1, 5C5	48 3C6, 4E1, 4C6
21	2C3, 2F3, 3B4, 3D4	49 2G6, 4A2
22	3F7	50 2E9, 3F2, 5C5
23	3C6, 6C1	51 3B6, 4E1, 4C6
24	2C7, 5F2	52 3B6, 4E1, 4C6
25	2F9, 3C4, 3F0, 5A5	53 2E6, 4A2
26	2C3, 3E2	54 2E6, 4A2
27	3F7	55 2E6, 4A2
28	3C6, 6C1	56 2E6, 4A2

VARISTOR
DESIG LOC CODE

RV 1E1, 1F6 104A

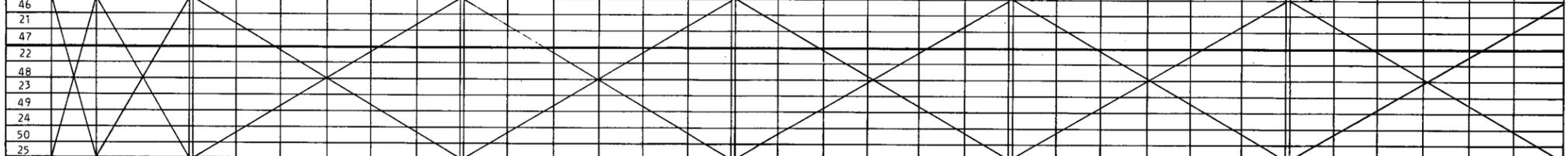
APP FIG. 4
18-BUTTON SET CODE D120K

APP FIG. 5
30-BUTTON SET CODE D200S

CORDS, MOUNTING

CONDUCTOR	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				
	PIN NO.	WIRE COLOR	LOC	TERM. BLOCK	TERM.	LOC	PLUG COLOR	PIN	LOC	TERM. BLOCK	TERM.	LOC	PLUG COLOR	PIN	LOC	TERM. BLOCK	TERM.	LOC	PLUG COLOR	PIN	LOC	TERM. BLOCK	TERM.	LOC	PLUG COLOR	PIN	LOC	TERM. BLOCK	TERM.	LOC	PLUG COLOR	PIN
26	W-BL	2A0-F0				BLUE	3	2A1				BLUE	3	2C1				BLUE	3	2F1				BLUE	3	2C1				BLUE	3	2C1
1	BL-W	2A0-F0			*	BLUE	6	2A1				BLUE	6	2C1				BLUE	6	2F1				BLUE	6	2C1				BLUE	6	2C1
27	W-D	2A5-F5				BLUE	1	2A7				BLUE	1	2D7				BLUE	1	2F7				BLUE	1	2D7				BLUE	1	2D7
2	O-W		TB1	5	2B9	BLUE	2	2A8	TB1	15	2E9	BLUE	2	2D8	TB1	25	2F9	BLUE	2	2F8	TB1	35	2E9	BLUE	2	2D8	TB1	45	2E9	BLUE	2	2D8
28	W-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	W-BR	2A0-F0				ORANGE	3	2A1				ORANGE	3	2D1				ORANGE	3	2F1				ORANGE	3	2D1				ORANGE	3	2D1
4	BR-W	2B0-F0				ORANGE	6	2B1				ORANGE	6	2D1				ORANGE	6	2F1				ORANGE	6	2D1				ORANGE	6	2D1
30	W-S	2B5-F5				ORANGE	1	2B7				ORANGE	1	2E7				ORANGE	1	2F7				ORANGE	1	2E7				ORANGE	1	2E7
5	S-W		TB1	5	2B9	ORANGE	2	2B8	TB1	15	2E9	ORANGE	2	2E8	TB1	25	2F9	ORANGE	2	2F8	TB1	35	2E9	ORANGE	2	2E8	TB1	45	2E9	ORANGE	2	2E8
31	R-BL	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	2B0-F0				GREEN	3	2B1				GREEN	3	2D1				GREEN	3	2F1				GREEN	3	2D1				GREEN	3	2D1
7	O-R	2B0-F0				GREEN	6	2B1				GREEN	6	2D1				GREEN	6	2F1				GREEN	6	2D1				GREEN	6	2D1
33	R-G	2B5-F5				GREEN	1	2B7				GREEN	1	2E7				GREEN	1	2F7				GREEN	1	2E7				GREEN	1	2E7
8	G-R		TB1	5	2B9	GREEN	2	2B8	TB1	15	2E9	GREEN	2	2E8	TB1	25	2F9	GREEN	2	2F8	TB1	35	2E9	GREEN	2	2E8	TB1	45	2E9	GREEN	2	2E8
34	R-BR	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	2B0-G0				BROWN	3	2B1				BROWN	3	2D1				BROWN	3	2G1				BROWN	3	2D1				BROWN	3	2D1
10	S-R	2B0-G0				BROWN	6	2B1				BROWN	6	2D1				BROWN	6	2G1				BROWN	6	2D1				BROWN	6	2D1
36	BK-BL	2B5-G5	TB1	32	2B6	BROWN	1	2B7				BROWN	1	2E7				BROWN	1	2G7				BROWN	1	2E7				BROWN	1	2E7
11	BL-BK		TB1	10	2B9	BROWN	2	2B8	TB1	20	2E9	BROWN	2	2E8	TB1	30	2G9	BROWN	2	2G8	TB1	40	2E9	BROWN	2	2E8	TB1	50	2E9	BROWN	2	2E8
37	BK-O	3B6				BROWN	LG	3B7				BROWN	LG	3B7	TB1	52	3B6	BROWN	LG	3B7				BROWN	LG	3B7				BROWN	LG	3B7
12	O-BK	3B6				BROWN	L	3B7				BROWN	L	3B7	TB1	51	3B6	BROWN	L	3B7				BROWN	L	3B7				BROWN	L	3B7
38	BK-G	2B0-G0				SLATE	3	2B1				SLATE	3	2E1				SLATE	3	2G1				SLATE	3	2E1				SLATE	3	2E1
13	G-BK	2B0-G0				SLATE	6	2B1				SLATE	6	2E1				SLATE	6	2G1				SLATE	6	2E1				SLATE	6	2E1
39	BK-BR	2B5-G5	TB1	29	2B6	SLATE	1	2B7	TB1	34	2E6	SLATE	1	2E7	TB1	49	2G6	SLATE	1	2G7	TB1	53	2E6	SLATE	1	2E7	TB1	55	2E6	SLATE	1	2E7
14	BR-BK		TB1	10	2B9	SLATE	2	2B8	TB1	20	2E9	SLATE	2	2E8	TB1	30	2G9	SLATE	2	2G8	TB1	40	2E9	SLATE	2	2E8	TB1	50	2E9	SLATE	2	2E8
40	BK-S	3C6	TB1	23	3C6	SLATE	LG	3C7				SLATE	LG	3C7	TB1	48	3C6	SLATE	LG	3C7				SLATE	LG	3C7				SLATE	LG	3C7
15	S-BK	3C6	TB1	28	3C6	SLATE	L	3C7				SLATE	L	3C7	TB1	47	3C6	SLATE	L	3C7				SLATE	L	3C7				SLATE	L	3C7
41	Y-BL	2E0-G0	TB1	2	6D2							WHITE	3	2E1	TB1	46	2G1	WHITE	3	2G1				WHITE	3	2E1				WHITE	3	2E1
16	BL-Y	3E0-G0	TB1	1	6B2							WHITE	6	2E1	TB1	44	2G1	WHITE	6	2G1				WHITE	6	2E1				WHITE	6	2E1
42	Y-O	2E5-G5	TB1	3					TB1	33	2E6	WHITE	1	2E7	TB1	39	2G6	WHITE	1	2G7	TB1	54	2E6	WHITE	1	2E7	TB1	56	2E6	WHITE	1	2E7
17	O-Y								TB1	20	2E9	WHITE	2	2E8	TB1	30	2G9	WHITE	2	2G8	TB1	40	2E9	WHITE	2	2E8	TB1	50	2E9	WHITE	2	2E8
43	Y-G	3C6				PINK	LG	3C7				WHITE	LG	3C7	TB1	43	3C6	WHITE	LG	3C7				WHITE	LG	3C7				WHITE	LG	3C7
18	G-Y	3C6				PINK	L	3C7				WHITE	L	3C7	TB1	42	3C6	WHITE	L	3C7				WHITE	L	3C7				WHITE	L	3C7
44	Y-BR	5A1	NET.	L2	5A1																											
19	BR-Y		TB1	18					TB1	37	4A2																					
45	Y-S	3D6	TB1	19	3D7				TB1	27	3F7																					
20	S-Y	3D6	NET.	A	3D7				TB1	22	3F7																					

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



APP FIG. 6

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

APP FIG. 7

LAMP SOCKET		
DESIG	LOC	CODE
-	4C2	76A

APP FIG. 8

KEYS		
DESIG	LOC	CODE
-	4A7	656A

APP FIG. 9

KIT OF PARTS		
DESIG	LOC	CODE
(K)	5A8	D180463

PRINTED WIRING BOARD		
DESIG	LOC	CODE
(M,N,Q,R)	5A3	P900033

APP FIG. 10

KIT OF PARTS		
DESIG	LOC	CODE
(G)	5G3	D180411

APP FIG. 11

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

KEY		
DESIG	LOC	CODE
-	6B3	635A05C (INCLUDES P269699 ADAPTER)

APP FIG. 6-11

636CA, 637DA, 2636CA, 2637DA
TELEPHONE SET CIRCUIT
18-AND 30-BUTTON CAPACITY

SD-69639-01-C3

BELL TELEPHONE LABORATORIES
INCORPORATED

DWG SIZE
65

PRINTED IN U. S. A.

CIRCUIT NOTES:

101.	DESIG	FUSE AMP	POTENTIAL	ONE PER
102.	FEATURE OR OPTION		PROVIDE	FS
	TELEPHONE TRANSMISSION CIRCUIT	ROTARY DIAL	1	1
		TOUCH-TONE DIAL	2	2
	KEYS	HOLD AND 5 PICKUPS	3	3, 4, 5, 6, 7
		6 PICKUPS	3	Z AS REQD
	CORDS	18-BUTTON SET	4	1
		30-BUTTON SET	5	1
	RINGER CIRCUIT		3	1
	BUZZER CIRCUIT	KS-8109,L2 (14-30 VOLTS)	DC OPERATION	Y
			60 HZ OPERATION	X
		KS-20419,L1 (6-10 VOLTS)	60 HZ OPERATION ONLY	W
	AUXILIARY LAMP CIRCUIT		7	AS REQD
	SIGNALING KEY CIRCUIT		8	AS REQD
	POLARITY GUARD	PROVIDED	2	1
		NOT PROVIDED	2	T
	STATION BUSY LAMP CIRCUIT	PROVIDED	9	R, Q, N, M, K
		NOT PROVIDED	9	S
	SUPPLEMENTARY HOLD CIRCUIT	NOT PROVIDED	J	
		PROVIDED	PRIORITY	10
		'I'		F
	CUT-OFF KEY CIRCUIT		11	1

CIRCUIT NOTES:(CONT)

104. WHEN THE 658A KEY IS REQUIRED AS A DUAL PURPOSE KEY, STRAP BETWEEN TERMINALS 17 & 18 SHALL BE REMOVED. USE MIN 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-8109,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 W, 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 CONTACTS AND CORD CONDUCTORS NORMALLY USED FOR "A" LEAD FUNCTIONS ARE USED FOR SIGNALING FUNCTIONS AND ARE DESIGNATED "S" OR "S1".
108. LINE SWITCH SEQUENCE
 REMOVING HANDSET
 1. fa MAKES
 2. ab MAKES
 3. ab BREAKS
 4. fa BREAKS
 RESTORING HANDSET
 1. fa MAKES
 2. ab MAKES
 3. ab BREAKS
 4. fa BREAKS
- FLASH SWITCH SEQUENCE
 OPERATING
 1. ab MAKES
 2. ab BREAKS

CIRCUIT NOTES (CONT) 1A AND 1A1 OR 1A2 CONVERSION - 637DA AND 2637DA TELEPHONE SETS

KEY UNIT ARRANGEMENT	LEADS															LINE SW (Y)		
	HOLD KEY (PINK PLUG)				CHAINING SWITCH (BEIGE PLUG)					CONTACT STRIP								
	(Y)	(G)	(BR-V)	(V-BR)	(V-G) 1ST UNIT	(V-G) 2ND UNIT	(V-G) 3RD UNIT	(V-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	9	11	21	31	9	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	9	11	21	31	9	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	9	11	21	SEE NOTE 112	9	11	21	SEE NOTE 112	41	8
1A1 OR 1A2 1ST, 2ND, 3RD, 4TH AND 5TH UNIT	10	SEE NOTE 111	21	SEE NOTE 112	5	SEE NOTE 111	35	45	9	11	SEE NOTE 112	31	9	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	9	SEE NOTE 112	21	31	9	SEE NOTE 112	21	31	41	8
1A ONLY	+	10	SEE NOTE 113	9	5	15	35	45	SEE NOTE 113	11	21	31	SEE NOTE 113	11	21	31	41	18

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.

1A AND 1A1 OR 1A2 CONVERSION - 636DA AND 2636DA TELEPHONE SETS

KEY UNIT ARRANGEMENT	LEADS															LINE SW (Y)
	HOLD KEY (PINK PLUG)				CHAINING SWITCH (BEIGE PLUG)					CONTACT STRIP						
	(Y)	(G)	(BR-V)	(V-BR)	(V-G) 1ST UNIT	(V-G) 2ND UNIT	(R) 1ST UNIT	(R) 2ND UNIT	(R) 3RD UNIT	(R) 4TH UNIT	(R) 5TH UNIT	(R) 1ST UNIT	(R) 2ND UNIT	(R) 3RD UNIT	(R) 4TH UNIT	
1A1 OR 1A2 ONLY	10	10	+	+	5	15	9	11	9	11	21	9	11	21	31	8
1A1 OR 1A2 1ST AND 2ND UNIT 1A-3RD UNIT	10	SEE NOTE 111	21	SEE NOTE 112	5	SEE NOTE 111	9	11	9	11	SEE NOTE 112	9	11	21	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	9	SEE NOTE 112	9	SEE NOTE 112	21	9	SEE NOTE 112	21	31	8
1A ONLY	+	10	SEE NOTE 113	9	5	15	SEE NOTE 113	11	SEE NOTE 113	11	21	SEE NOTE 113	11	21	31	18

+ INDICATES LEAD ARE SPADE TIPPED, INSULATED AND STORED.

RECORD OF FIGURES, WIRING AND APPARATUS CHANGES						
CHANGED ON ISS	IF JOB RECORDS DO NOT SPECIFY	THIS OPTION WAS FURN	SEE NOTE	USE IN CIRCUIT		
				STD	Alt	IMP

EQUIPMENT NOTES:

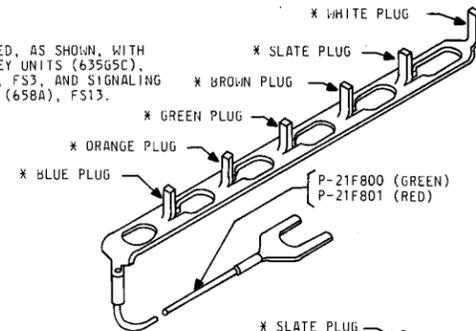
201. WHEN A SET IS EQUIPPED WITH LESS THAN A FULL COMPLEMENT OF KEYS ALL SPARE PLUGS SHALL BE INSTALLED ON THE APPARATUS BLANKS.
202. A MOUNTING BRACKET FOR BUZZERS IS PROVIDED INSIDE THE SET. IT IS ARRANGED TO MOUNT ONE OR TWO KS-8109, L2 BUZZERS. OPTIONS X OR Y, OR KS-20419, L1 BUZZERS. OPTION W, OR COMBINATIONS THEREOF. THE KS-20419, L1 BUZZER MAY BE MOUNTED UNDER ANY CONVENIENT SCREW 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. SETS 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:

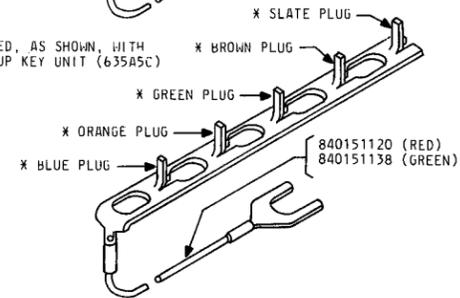
301. UNLESS OTHERWISE SPECIFIED: RESISTANCE VALUES ARE IN OHMS, CAPACITANCE VALUES ARE IN MICROFARADS, VALUES PRECEDED BY THE SYMBOL + (PLUS) OR - (MINUS) ARE IN VOLTS.
302. \perp GROUND RETURN.
303. RINGER CONNECTIONS MAY BE MADE BY CONNECTING THE CABLE CONDUCTORS ASSOCIATED WITH LEADS R OR R1 (S-Y) 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.

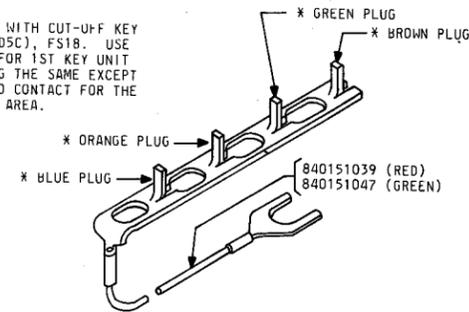
- A. TO BE USED, AS SHOWN, WITH PICKUP KEY UNITS (635G5C), OPTION Z, FS3, AND SIGNALING KEY UNIT (658A), FS13.



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



- C. TO BE USED WITH CUT-OFF KEY UNIT (634AD5C), FS18. 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.

EQUIPMENT NOTES
INFORMATION NOTES

636CA, 637DA, 2636CA, 2637DA
TELEPHONE SET CIRCUIT
18- AND 30- BUTTON CAPACITY

SD-69639-01-D2

BELL TELEPHONE LABORATORIES
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