

EXTERNAL PUSH BUTTONS TERMINATIONS AT STATIONS

1. GENERAL

- 1.01 This section covers connections at the station for external signaling keys of the 549- and 551-types. It includes connections between 549-type keys and connecting blocks, key cable connections to connecting blocks for 549-type keys, and key cable connections to 551-type keys.
- 1.02 External signaling keys may be used for push-button and buzzer circuits and/or for signaling distant terminals of ringdown tie and/or station lines.
- 1.03 A schematic diagram of a typical selective and/or code signaling buzzer system is shown in Section C66.214.
- 1.04 An index listing the connection tables for 549- and 551-type keys is shown below.

INDEX

CABLE ARRANGED TO PERMIT AMPLIFIED TALKING CIRCUITS TO BE RUN THROUGH SAME CABLE	NO. OF BUTTONS REQUIRED	SIGNALING KEYS		TABLE NO.	PAGE NO.
		TYPE OF KEY	CIRCUIT CAPACITY		
NO	1 to 4	549A	4	20.01	1
	1 to 12	551A	1	20.02	2
	5 to 8	549C	8	20.03	3
	9 to 12	549A and 549C	12	20.04	3
YES	1 to 12	551A	1	20.05	4
	1 to 4	549A	4	20.06	5
	5 to 8	549C	8	20.07	5
	9 to 12	549A and 549C	12	20.08	6

KEY CABLE CONNECTIONS TO EXTERNAL PUSH BUTTONS— 549A KEYS—CABLE NOT ARRANGED TO PERMIT AMPLIFIED TALKING CIRCUITS TO BE RUN THROUGH SAME CABLE

TABLE 20.01

Make Connections as Shown Below:

EXTERNAL SIG. KEY LEAD NO.	LEAD DESIG.	KEY CABLE			1ST 44A CONN. BLOCK	CORD COND. COLOR	KEY TERM.
		PAIR NO.	"C" INSIDE WIRING	"D" INSIDE WIRING			
			CONDUCTOR COLOR			TERM.	
— 1	G S	22	O R	O V	9 1	Y R	GRD A
2 3	S S	23	G R	G V	2 3	G BL	B C
4	S	24	BR(R)	BR(V)	4	W	D

TABLE 20.02

**KEY CABLE CONNECTIONS TO EXTERNAL PUSH BUTTONS—
551A KEYS—CABLE NOT ARRANGED TO PERMIT AMPLIFIED
TALKING CIRCUITS TO BE RUN THROUGH SAME CABLE**

Make Connections as Shown Below:

EXTERNAL SIG. KEY LEAD NO.	LEAD DESIG.	KEY CABLE			551A KEY NO.	KEY TERM. ★
		PAIR NO.	"C" INSIDE WIRING	"D" INSIDE WIRING		
			CONDUCTOR COLOR			
1	G S	22	O R	O V	1	GRD S
2	G S	— 23	— G(R)	— G(V)	2	GRD S
3	G S	— 23	— R(G)	— V(G)	3	GRD S
4	G S	— 24	— BR(R)	— BR(V)	4	GRD S
5	G S	— 24	— R(BR)	— V(BR)	5	GRD S
6	G S	— 25	— S(R)	— S(V)	6	GRD S
7	G S	— 25	— R(S)	— V(S)	7	GRD S
8	G S	— 26	— BL-W(R)	— BL-W(W)	8	GRD S
9	G S	— 26	— R(BL-W)	— W(BL-W)	9	GRD S
10	G S	— 27	— BL-O(R)	— O-W(W)	10	GRD S
11	G S	— 27	— R(BL-O)	— W(O-W)	11	GRD S
12	G S	— 28	— BL-G(R)	— G-W(W)	12	GRD S

Note: ★ Connect "S" conductor to one terminal of 551A key as shown above. Connect "GRD" conductor to other terminal of first 551A key; strap to other terminals of second 551A key through twelfth key.

**KEY CABLE CONNECTIONS TO EXTERNAL PUSH BUTTONS—
549C KEYS—CABLE NOT ARRANGED TO PERMIT AMPLIFIED
TALKING CIRCUITS TO BE RUN THROUGH SAME CABLE**

TABLE 20.03

Make Connections as Shown Below:

EXTERNAL SIG. KEY LEAD NO.	LEAD DESIG.	KEY CABLE			1ST 44A CONN. BLOCK	CORD COND. COLOR	KEY TERM.
		PAIR NO.	"C" INSIDE WIRING	"D" INSIDE WIRING			
			CONDUCTOR COLOR			TERM.	
— 1	G S	22	O R	O V	9 1	BK R	GRD A
2 3	S S	23	G R	G V	2 3	G RR	B C
4 5	S S	24	BR R	BR V	4 5	BL Y	D E
6 7	S S	25	S R	S V	6 7	YY WW	F G
8	S	26	BL-W(R)	BL-W(W)	8	W	H

**KEY CABLE CONNECTIONS TO EXTERNAL PUSH BUTTONS—
TWELVE BUTTONS USING ONE 549A KEY AND ONE 549C
KEY—CABLE NOT ARRANGED TO PERMIT AMPLIFIED TALK-
ING CIRCUITS TO BE RUN THROUGH SAME CABLE**

TABLE 20.04

Make Connections as Shown Below:

EXTERNAL SIG. KEY LEAD NO.	LEAD DESIG.	KEY CABLE				1ST 44A CONN. BLOCK	2ND 44A CONN. BLOCK	549C KEY ★		549A KEY ★	
		PAIR NO.	"C" INSIDE WIRING	"D" INSIDE WIRING	COND. COLOR			KEY TERM.	COND. COLOR	KEY TERM.	
			CONDUCTOR COLOR			TERM.	TERM.				
— 1	G S	22	O R	O V	9* 1	9* —	BK R	GRD A	Y —	GRD —	
2 3	S S	23	G R	G V	2 3	— —	G RR	B C	— —	— —	
4 5	S S	24	BR R	BR V	4 5	— —	BL Y	D E	— —	— —	
6 7	S S	25	S R	S V	6 7	— —	YY WW	F G	— —	— —	
8 9	S S	26	BL-W R	BL-W W	8 —	— 1	W —	H —	— R	— A	
10 11	S S	27	BL-O R	O-W W	— —	2 3	— —	— —	G BL	B C	
12	S	28	BL-G(R)	G-W(W)	—	4	—	—	W	D	

Notes: ★ Cord from 549C key connected to first 44A block. Cord from 549A key connected to second 44A block.
* Strap terminal 9 of first 44A block to terminal 9 of second 44A block.

TABLE 20.05

**KEY CABLE CONNECTIONS TO EXTERNAL PUSH BUTTONS—
551A KEYS—CABLE ARRANGED TO PERMIT AMPLIFIED TALK-
ING CIRCUITS TO BE RUN THROUGH SAME CABLE**

Make Connections as Shown Below:

EXTERNAL SIG. KEY LEAD NO.	LEAD DESIG.	KEY CABLE			551A KEY NO.	KEY TERM. ★
		PAIR NO.	"C" INSIDE WIRING	"D" INSIDE WIRING		
			CONDUCTOR COLOR			
1	G S	22	O R	O V	1	G S
2	G S	23	G R	G V	2	G S
3	G S	24	BR R	BR V	3	G S
4	G S	25	S R	S V	4	G S
5	G S	26	BL-W R	BL-W W	5	G S
6	G S	27	BL-O R	O-W W	6	G S
7	G S	28	BL-G R	G-W W	7	G S
8	G S	29	BL-BR R	BR-W W	8	G S
9	G S	30	BL-S R	S-W W	9	G S
10	G S	31	O-W R	BL-W R	10	G S
11	G S	32	O-G R	O-W R	11	G S
12	G S	33	O-BR R	G-W R	12	G S

Note: ★ Connect "G" conductor to one terminal of 551 A key. Connect "S" conductor to other terminal of 551A key.

**KEY CABLE CONNECTIONS TO EXTERNAL PUSH BUTTONS—
549A KEYS—CABLE ARRANGED TO PERMIT AMPLIFIED TALK-
ING CIRCUITS TO BE RUN THROUGH SAME CABLE**

TABLE 20.06

Make Connections as Shown Below:

EXTERNAL SIG. KEY LEAD NO.	LEAD DESIG.	KEY CABLE			1ST 44A CONN. BLOCK	CORD		KEY TERM.
		PAIR NO.	"C" INSIDE WIRING	"D" INSIDE WIRING		COND. COLOR	KEY TERM.	
			CONDUCTOR COLOR		TERM.			
1	G S	22	O R	O V	5* 1	Y R	G A	
2	G S	23	G R	G V	6* 2	— G	— B	
3	G S	24	BR R	BR V	6* 3	— BL	— C	
4	G S	25	S R	S V	7* 4	— W	— D	

Note: * Strap terminals 5, 6, and 7 of first block together.

**KEY CABLE CONNECTIONS TO EXTERNAL PUSH BUTTONS—
549C KEYS—CABLE ARRANGED TO PERMIT AMPLIFIED TALK-
ING CIRCUITS TO BE RUN THROUGH SAME CABLE**

TABLE 20.07

Make Connections as Shown Below:

EXTERNAL SIG. KEY LEAD NO.	LEAD DESIG.	KEY CABLE			1ST 44A CONN. BLOCK	2ND 44A CONN. BLOCK	CORD		KEY TERM.
		PAIR NO.	"C" INSIDE WIRING	"D" INSIDE WIRING			COND. COLOR	KEY TERM.	
			CONDUCTOR COLOR		TERM.	TERM.			
1	G S	22	O R	O V	9* 1	— —	BK R	GRD A	
2	G S	23	G R	G V	10* 2	— —	— G	— B	
3	G S	24	BR R	BR V	10* 3	— —	— RR	— C	
4	G S	25	S R	S V	— 4	1* —	— BL	— D	
5	G S	26	BL-W R	BL-W W	— 5	1* —	— Y	— E	
6	G S	27	BL-O R	O-W W	— 6	2* —	— YY	— F	
7	G S	28	BL-G R	G-W W	— 7	2* —	— WW	— G	
8	G S	29	BL-BR R	BR-W W	— 8	3* —	— W	— H	

Note: * Strap terminals 9 and 10 on first block to terminals 1, 2, and 3 on second block.

TABLE 20.08

**KEY CABLE CONNECTIONS TO EXTERNAL PUSH BUTTONS—
TWELVE BUTTONS USING ONE 549A KEY AND ONE 549C
KEY—CABLE ARRANGED TO PERMIT AMPLIFIED TALKING
CIRCUITS TO BE RUN THROUGH SAME CABLE**

Make Connections as Shown Below:

EXTERNAL SIG. KEY LEAD NO.	LEAD DESIG.	KEY CABLE			1ST 44A CONN. BLOCK	2ND 44A CONN. BLOCK	549C KEY		549A KEY	
		PAIR NO.	"C" INSIDE WIRING	"D" INSIDE WIRING			COND. COLOR	KEY TERM.	COND. COLOR	KEY TERM.
			CONDUCTOR COLOR		TERM.	TERM.				
1	G S	22	O R	O V	9* 1	— —	BK R	GRD A	—	—
2	G S	23	G R	G V	10* 2	— —	— G	— B	—	—
3	G S	24	BR R	BR V	10* 3	— —	— RR	— C	—	—
4	G S	25	S R	S V	— 4	1* —	— BL	— D	—	—
5	G S	26	BL-W R	BL-W W	— 5	1* —	— Y	— E	—	—
6	G S	27	BL-O R	O-W W	— 6	2* —	— YY	— F	—	—
7	G S	28	BL-G R	G-W W	— 7	2* —	— WW	— G	—	—
8	G S	29	BL-BR R	BR-W W	— 8	3* —	— W	— H	—	—
9	G S	30	BL-S R	S-W W	— —	4* 7	—	—	Y R	GRD A
10	G S	31	O-W R	BL-W R	— —	5* 8	—	—	— G	— B
11	G S	32	O-G R	O-W R	— —	5* 9	—	—	— BL	— C
12	G S	33	O-BR R	G-W R	— —	6* 10	—	—	— W	— D

Note: ★ Strap terminals 9 and 10 on first block to terminals 1 through 6 on second block.