SEPARATELY MOUNTED KEYS

6021DN, 6027DA, 6027DB, AND 6028DA

TERMINATIONS AT STATIONS

1. GENERAL

1.01 This section covers connection information for those external switching keys which may be used in the 1A1 Key Telephone System. This includes key cable terminations on such keys and their associated subscriber sets, handsets, and buzzers. Strapping information to interconnect the various pieces of apparatus is shown also.

1.02 The keys listed in this section are the only keys which can be used in the 1A1 Key Telephone System. However, wiring changes shown in Tables 22.10 through 22.13 must be made before the keys are connected.

1.03 An index listing the various features, types of equipment, and table numbers is shown below and on page 2 of this section.

2. KEY CABLE

2.01 Specific key cable pairs always should be associated with specific features, as specified in the connection tables of this section. If a certain feature is not furnished, the pair associated with that feature should be left vacant.

2.02 Pair 12 is assigned for ringers which are mounted in the same subscriber sets as the talking circuits. Pair 21 is assigned for separately mounted ringers. Pairs 12 or 21 may be used for buzzers.

2.03 These assignments conform with those made for ringers and buzzers installed, either internal or external, at key telephone set locations.

3. WIRING

3.01 Station wire may be used for local wiring between key and subscriber set, between subscriber set and hand telephone set, and for strapping terminals on keys.

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Dial Selective Intercom Line Sta. Signal (Bell or Buzzer)			22.04	4
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External Switching Keys	STA. CONTROL KEY ARRANGEMENT	TYPE OF KEY		
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TABLE 22.01 CONNECTIONS BETWEEN KEY CABLE AND KEY AND BETWEEN KEY AND SUBSCRIBER SET — FOR CUTTING OFF EXTENSION RINGER OR STATION AND TRANSFERRING SIGNAL CIRCUIT TO LOCAL RINGER USING THE CUT-OFF BUTTON IN 6028DA KEY

Run Straps and Make Connections as Shown Below:

TYPE OF SUB. SET AT LOCAL STA.	TO OTHER STA. OR RINGER	KEY CABLE			6028DA KEY TERM.	SUB. SET TERM.	RINGER LEADS	COND. LEADS
	LEAD DESIG.	PAIR NO.	"C" INSIDE WIRING	"D" INSIDE WIRING			COLOR	
			CONDUCTOR COLOR					
634CF	R T	15	G-W W	S BK	CR CT ◆LR - H□ ◆LT - T□ X	 E GRD K K	 BK RED	 Y S
531A OR EQUIV.	R T	15	G-W W	S BK	CR CT ◆LR - H□ ◆LT - T□ X	 L1 L2 K K	 RED BK	 Y S

Notes: ◆ Run straps between terminals as shown.

□ Terminals are designated "1H and 1T" for first line, "2H and 2T" for second line, etc.

Reference: SD-69207-01

CONNECTIONS FOR LAMPS IN INDICATORS — KEY CABLE TO INDICATORS

TABLE 22.02

Make Connections as Shown Below:

LEAD DESIG.	KEY CABLE PAIR NO.	KEY CABLE "C" INSIDE WIRING CONDUCTOR COLOR	KEY CABLE "D" INSIDE WIRING CONDUCTOR COLOR	INDICATOR
				18 B-3 TERM.
L LG	16	G-BR W	BL Y	1L G
L LG	17	G-S W	O Y	2L G
L LG	18	BR-W W	G Y	3L G
				17 C-3 TERM.
L LG	19	BR-S W	BR Y	1L G
L LG	20	S-W W	S Y	2L G

CONNECTIONS FOR INDIVIDUAL LINE RINGER CONNECTED ON TIP AND RING OF ANY LINE EXCEPT PRIVATE LINES★

TABLE 22.03

Run Straps and Make Connections as Shown Below:

TYPE OF SUB. SET	KEY TERM.	SUB. SET TERM.	RINGER LEADS COLOR	COND. LEADS COLOR
634CF	H✠ T✠	E GRD K K	 BK RED 	Y SL
531A OR EQUIV.	H✠ T✠	L1 L2 K K	RED BK	 Y SL

Notes: ★ The term "Private Lines" as used herein is defined as intercommunicating, dial selective intercommunicating, tie, and station lines.

✠ Terminals are designated "1H and 1T" for first line, "2H and 2T" for second line, etc.

Reference: SD-69207-01

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TABLE 22.04 CONNECTIONS FOR COMMON AUDIBLE SIGNAL, DIAL SELECTIVE INTERCOMMUNICATING LINE STATION SIGNAL, OR PUSH-BUTTON AND BUZZER SYSTEM SIGNAL

Make Connections as Shown Below:

TYPE OF SUB. SET OR BUZZER	LEAD DESIG.	KEY CABLE			SUB. SET TERM.	RINGER LEADS	BUZZER TERM.
		PAIR NO.	"C" INSIDE WIRING	"D" INSIDE WIRING		COLOR	
			CONDUCTOR COLOR				
634CF OR 684BA	R1 B1	12	O-G W	O BK	K GRD	RED BK	
531A OR EQUIV.	R1 B1	21	BL R	BL V	L1 K	RED BK	
7-TYPE BUZZER	R1 B1	12★	O-G★ W★	O★ BK★			A or D✠ C

Notes: ★ Pair 12 or 21 may be used.

✠ If buzzer power source is ac, use terminal "A".
If buzzer power source is dc, use terminal "D".

Reference: SD-69207-01

TABLE 22.05 CONNECTIONS BETWEEN SUBSCRIBER SET AND KEY — FOR CUT-OFF OF INDIVIDUAL LINE RINGER ON TIP AND RING OF ANY LINE EXCEPT PRIVATE LINES★

Run Straps and Make Connections as Shown Below:

TYPE OF SUB. SET	KEY		SUB. SET TERM.	RINGER LEADS	COND. LEADS
	TERM.	TERM.		COLOR	
634CF	H✠ T✠	LR LT CR CT	E GRD K K	BK RED	Y SL
531A OR EQUIV.	H✠ T✠	LR LT CR CT	L1 L2 K K	RED BK	Y SL

Notes: ★ The term "Private Lines" as used herein is defined as intercommunicating, dial selective intercommunicating, tie, and station lines.

✠ Terminals are designated "1H and 1T" for first line, "2H and 2T" for second line, etc.

Reference: SD-69207-01

CONNECTIONS BETWEEN KEY CABLE AND KEY AND BETWEEN KEY AND SUBSCRIBER SET, OR BUZZER — FOR CUT-OFF OF COMMON AUDIBLE SIGNAL OR DIAL SELECTIVE INTERCOMMUNICATING LINE STATION SIGNAL USING THE CUT-OFF BUTTON IN 6028DA KEY

TABLE 22.06

Make Connections as Shown Below:

TYPE OF SUB. SET OR BUZZER	LEAD DESIG.	KEY CABLE			6028DA KEY TERM.	SUB. SET TERM.	RINGER LEADS	BUZZER TERM.
		PAIR NO.	"C" INSIDE WIRING	"D" INSIDE WIRING			COLOR	
			CONDUCTOR COLOR					
634CF OR 684BA	R1 B1	12	O-G W	O BK	LR LT CR CT	K GRD	RED BK	
531A OR EQUIV.	R1 B1	21	BL R	BL V	LR LT CR CT	L1 K	RED BK	
7-TYPE BUZZER	R1 B1	12★	O-G★ W★	O★ BK★	LR LT CR◆ CT◆			A or D✠ C

Notes: ★ Pair 12 or 21 may be used.

◆ Connect terminal "CR" on key to terminal "A" or "D" on buzzer.
Connect terminal "CT" on key to terminal "C" on buzzer.

✠ If buzzer power source is ac, use terminal "A".
If buzzer power source is dc, use terminal "D".

Reference: SD-69207-01

CONNECTIONS BETWEEN KEY CABLE AND KEY — FOR CUT-OFF OF EXTENSION STATION OR RINGER USING THE CUT-OFF BUTTON IN A 6028DA KEY

TABLE 22.07

Run Straps and Make Connections as Shown Below:

TO CUT OFF TEL. SET OR RINGER	KEY CABLE			KEY	
LEAD DESIG.	PAIR NO.	"C" INSIDE WIRING	"D" INSIDE WIRING	TERM.	TERM.
		CONDUCTOR COLOR			
R T	15	G-W W	S BK	CR CT LR LT	 H◆ T◆

Note: ◆ Terminals are designated "1H and 1T" for first line, "2H and 2T" for second line, etc.

Reference: SD-69207-01

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TABLE 22.08 CONNECTIONS BETWEEN KEY CABLE AND KEY AND BETWEEN KEY AND SUBSCRIBER SET OR BUZZER—FOR TRANSFER OF COMMON RINGER, OR BUZZER, FROM ANOTHER STATION TO LOCAL STATION USING THE CUT-OFF BUTTON IN 6028DA KEY

Make Connections as Shown Below:

TYPE OF SUB. SET OR BUZZER AT LOCAL STA.	LEAD DESIG.	KEY CABLE PAIR NO.	KEY CABLE "C" INSIDE WIRING CONDUCTOR COLOR	KEY CABLE "D" INSIDE WIRING CONDUCTOR COLOR	6028DA KEY TERM.	SUB. SET TERM.	RINGER LEADS COLOR	BUZZER TERM.
634CF OR 684BA	★R1	12	O-G	O	LR	K	RED	
	B1		W	BK	LT			
					X	GRD	BK	
	✠R1	15	G-W	S	CR			
	B1		W	BK	CT			
531A OR EQUIV.	★R1	21	BL	BL	LR	L1	RED	
	B1		R	V	LT			
					X	K	BK	
	✠R1	15	G-W	S	CR			
	B1		W	BK	CT			
7-TYPE BUZZER	★R1	12◆	O-G◆	O◆	LR■			A or D□■
	B1		W◆	BK	LT			
					X■			C■
	✠R1	15	G-W	S	CR			
	B1		W	BK	CT			

Notes: ★ Incoming common audible signal leads from equipment cabinet.

✠ Common audible signal leads to other station.

◆ Pair 12 or 21 may be used.

□ If buzzer power source is ac, use terminal "A". If buzzer power source is dc, use terminal "D".

■ Strap terminal "LR" on key to terminal "A" or "D" on buzzer.
Strap terminal "X" on key to terminal "C" on buzzer.

Reference: SD-69207-01

TABLE 22.09 CONNECTIONS BETWEEN KEY CABLE AND KEY AND BETWEEN KEY AND SUBSCRIBER SET — FOR CUT-OFF OF LISTENING-IN RECEIVER USING THE CUT-OFF BUTTON IN 6028DA KEY

Run Straps and Make Connections as Shown Below:

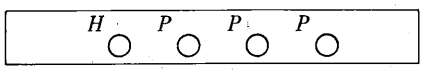
TO LISTENING-IN RECEIVER LEAD DESIG	KEY CABLE PAIR NO.	KEY CABLE "C" INSIDE WIRING CONDUCTOR COLOR	KEY CABLE "D" INSIDE WIRING CONDUCTOR COLOR	6028DA KEY TERM.	SUB. SET TERM.
R	15	G-W	S	CR	
GN		W	BK	CT	
				LR	R
				LT	GN

Reference: SD-69207-01

KEY CABLE CONNECTIONS TO KEY, AND CONNECTIONS BETWEEN KEY, SUBSCRIBER SET, AND HANDSET

TABLE 22.10

6021DN KEY



Make Connections Between 6021DN Key, 213-Type Handset, and 634CF or 684BA Subscriber Set, and Terminate Key Cable as Shown Below:

LEAD DESIG.	KEY CABLE PAIR NO.	KEY CABLE "C" INSIDE WIRING CONDUCTOR COLOR	KEY CABLE "D" INSIDE WIRING CONDUCTOR COLOR	6021DN KEY TERM.★	634CF OR 684BA SUB. SET TERM.	213-TYPE HANDSET TERM.
R T	1	BL W	BL W	1H 1T		
A1 A	2	O W	O W	✠ 1A		RR✠ □
R T	3	G W	G W	2H 2T		
A1 A	4	BR W	BR W	◆ 2A		
R T	5	S W	S W	3H 3T		
A1 A	6	BL-W W	BL R	◆ 3A		
				H T A	L1 L2 R BK GN	Y □ BL □ R BK ■ GN□

Notes: ★ Cut and remove lead, soldered between "H" terminal and plunger spring of hold key, as furnished, before using key in 1A1 Key Telephone System. This lead should be red. However, the lead terminations should be checked before cutting, since a number of keys with the red lead, erroneously used for another purpose, were manufactured.

✠ This lead terminated on terminal on hand telephone set instead of terminal on key.

□ Set terminal on either manual or dial sets.

◆ This lead not terminated.

■ "BK" terminal on manual sets, or "B" terminal on dial sets.

Reference: SD-69207-01

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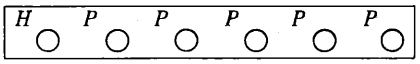
TABLE 22.11 **KEY CABLE CONNECTIONS TO KEY, AND CONNECTIONS BETWEEN KEY, SUBSCRIBER SET, AND HANDSET**

6027DA KEY



Make Connections Between 6027DA Key, 213-Type Handset, and 634CF or 684BA Subscriber Set, and Terminate Key Cable as Shown Below:

LEAD DESIG.	KEY CABLE PAIR NO.	KEY CABLE "C" INSIDE WIRING CONDUCTOR COLOR	KEY CABLE "D" INSIDE WIRING CONDUCTOR COLOR	6027DA KEY TERM.★	634CF OR 684BA SUB. SET TERM.	213-TYPE HANDSET TERM.
R T	1	BL W	BL W	1H 1T		
A1 A	2	O W	O W	✠ 1A		RR✠□
R T	3	G W	G W	2H 2T		
A1 A	4	BR W	BR W	◆ 2A		
R T	5	S W	S W	3H 3T		
A1 A	6	BL-W W	BL R	◆ 3A		
R T	7	BL-O W	O R	4H 4T		
A1 A	8	BL-G W	G R	◆ 4A		
R T	9	BL-BR W	BR R	5H 5T		
A1 A	10	BL-S W	S R	◆ 5A		
				H T A	L1 L2 R BK GN	Y □ BL □ R BK ■ GN□

Notes: ★ Cut and remove lead, soldered between "H" terminal and plunger spring of hold key, as furnished, before using key in 1A1 Key Telephone System. This lead should be red. However, the lead terminations should be checked before cutting, since a number of keys with the red lead, erroneously used for another purpose, were manufactured.

✠ This lead terminated on terminal on hand telephone set instead of terminal on key.

□ Set terminal on either manual or dial sets.

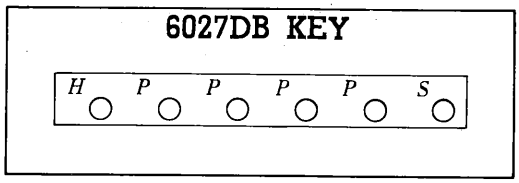
◆ This lead not terminated.

■ "BK" terminal on manual sets, or "B" terminal on dial sets.

Reference: SD-69207-01

KEY CABLE CONNECTIONS TO KEY, AND CONNECTIONS BETWEEN KEY, SUBSCRIBER SET, AND HANDSET

TABLE 22.12



Make Connections Between 6027DB Key, 213-Type Handset, and 634CF or 684BA Subscriber Set, and Terminate Key Cable as Shown Below:

LEAD DESIG.	KEY CABLE PAIR NO.	KEY CABLE "C" INSIDE WIRING CONDUCTOR COLOR	KEY CABLE "D" INSIDE WIRING CONDUCTOR COLOR	6027DB KEY TERM.★	634CF OR 684BA SUB. SET TERM.	213-TYPE HANDSET TERM.
R T	1	BL W	BL W	1H 1T		
A1 A	2	O W	O W	✠ 1A		RR✠ □
R T	3	G W	G W	2H 2T		
A1 A	4	BR W	BR W	◆ 2A		
R T	5	S W	S W	3H 3T		
A1 A	6	BL-W W	BL R	◆ 3A		
R T	7	BL-O W	O R	4H 4T		
A1 A	8	BL-G W	G R	◆ 4A		
S	10	W(BL-S)	R(S)	S		
G	11	O-W(W)	BL(BK)	G		
				H T A	L1 L2 R BK GN	 Y □ BL □ R BK ■ GN□

Notes: ★ Cut and remove lead, soldered between "H" terminal and plunger spring of hold key, as furnished, before using key in 1A1 Key Telephone System. This lead should be red. However, the lead terminations should be checked before cutting, since a number of keys with the red lead, erroneously used for another purpose, were manufactured.

✠ This lead terminated on terminal on hand telephone set instead of terminal on key.

□ Set terminal on either manual or dial sets.

◆ This lead not terminated.

■ "BK" terminal on manual sets, or "B" terminal on dial sets.

Reference: SD-69207-01

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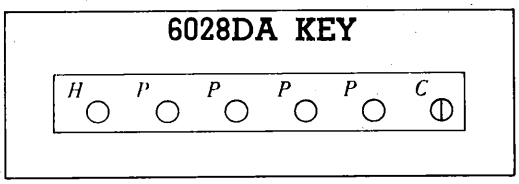
TABLE 22.13 KEY CABLE CONNECTIONS TO KEY, AND CONNECTIONS BETWEEN KEY, SUBSCRIBER SET, AND HANDSET



Make Connections Between 6028DA Key, 213-Type Handset, 634CF or 684BA Subscriber Set, and Terminate Key Cable as Shown Below:

LEAD DESIG.	PAIR NO.	KEY CABLE "C" INSIDE WIRING CONDUCTOR COLOR	KEY CABLE "D" INSIDE WIRING CONDUCTOR COLOR	6028DA KEY TERM.★	634CF OR 684BA SUB. SET TERM.	213-TYPE HAND SET TERM.
R T	1	BL W	BL W	1H 1T		
A1 A	2	O W	O W	✠ 1A		RR✠□
R T	3	G W	G W	2H 2T		
A1 A	4	BR W	BR W	◆ 2A		
R T	5	S W	S W	3H 3T		
A1 A	6	BL-W W	BL R	◆ 3A		
R T	7	BL-O W	O R	4H 4T		
A1 A	8	BL-G W	G R	◆ 4A		
CR CT	15	G-W W	S BK	CR** CT**		
				H T A	L1 L2 R BK GN	 Y □ BL □ R BK ■ GN□

Notes: ★ Cut and remove lead, soldered between "H" terminal and plunger spring of hold key, as furnished, before using key in 1A1 Key Telephone System. This lead should be red. However, the lead terminations should be checked before cutting, since a number of keys with the red lead, erroneously used for another purpose, were manufactured.

✠ This lead terminated on terminal on hand telephone set instead of terminal on key.

□ Set terminal on either manual or dial sets.

◆ This lead not terminated.

** For cut-off connections see Tables 22.04 through 22.09.

■ "BK" terminal on manual sets, or "B" terminal on dial sets.

Reference: SD-69207-01