

CENTRAL OFFICE OR PRIVATE BRANCH EXCHANGE LINES
209A AND 202B KEY TELEPHONE UNITS
TERMINATIONS IN APPARATUS CABINET

1. GENERAL

1.01 This section covers the connections required on 209A and 202B key telephone units. It also provides information for adding 202A key telephone units to existing installations made up of 209A and 202B key telephone units. This includes strapping between key telephone units, terminating of wires from power source, terminating of lines from central office or private branch exchange, and terminating of key or running cables from key telephone stations.

1.02 The data shown in this section at the time of its issuance reflected the latest wiring connection arrangements. In some cases these arrangements are not consistent with those shown on existing drawings. It is planned to include these changes in future revisions of such drawings.

1.03 An index listing the various features, power sources, types of associated equipment, and table numbers is shown below and on pages 2 and 3 of this section:

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WIRING BETWEEN KEY TELEPHONE UNITS

TYPE OF INSTALLATION	FEATURE OR OPTION	TYPE OF K.T.U. USED	TABLE NO.	PAGE NO.
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	Add Lines (Wink Ckt. May or May Not Be Provided)	202B	3.01	4
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INDEX (Continued)**CABLE CONNECTIONS TO CO OR PBX LINE UNIT (202B)**

LINES TO	TYPE OF CKT.		TYPE OF KEY TEL. SET USED	TABLE NO.	PAGE NO.
CO or PBX— Incoming or Running Cable	Feed		—	3.11	20
Stations— Key Cable	Line, Lamp, and Control		All 1A1 Sys. Sets Except 565A	3.12	21
			565A	3.13	22
	Common Aud. Sig.	First Ckt.	—	3.14	24
		Second Ckt.			
Stations— Running Cable	Line, Lamp, and Control		All 1A1 Sys. Sets	3.12	21
			Sys. Consists of 565A Sets Only	3.13	22
	Common Aud. Sig.	First Ckt.	—	3.14	24
		Second Ckt.			

POWER WIRING

POWER				TYPE OF K.T.U. USED	TABLE NO. ■	PAGE NO. **
FURNISHED	TYPE ★	SOURCE	CONNECTED FROM			
Through Fuse and Ringing Lamp Units	Battery	101G Power Plant or Transformer	Incoming Power to Fuse and Ringing Lamp Units	Fuse Unit 201A	2.05	15
		CO, PBX, Bldg, or Local Battery			2.06	17
	Generator	CO or PBX Ringing Supply		Ringling Lamp Unit 211A or 11A	2.08	19
	Battery	—	Fuse Unit To Noise Suppression Unit	Noise Suppression Unit ✱ 211A or 23A	2.09	20
		—	Fuse Unit To CO or PBX Line Unit	CO or PBX Line Unit 202B	3.05	14
	Generator	—	Ringling Lamp Unit to CO or PBX Line Unit		3.06	14
	Battery or Generator	—	Fuse Unit or Ringing Lamp Unit to Aud. Sig. Control Unit	Aud. Sig. Control Unit 211A or 16A	2.11	21

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POWER WIRING (Continued)

POWER				TYPE OF K.T.U. USED	TABLE NO. ■	PAGE NO. **	
FURNISHED	TYPE★	SOURCE	CONNECTED FROM				
Direct to Line or Control Units	Battery and Generator	101G Power Plant, Transformer, or Static Ringing Generator	Incoming Power To CO or PBX Line Unit	CO or PBX Line Unit 202B	3.07	15	
	Battery	CO, PBX, Bldg, or Local Battery					Noise Suppression Unit to CO or PBX Line Unit
		—	3.09	19			
	Battery and Generator	101G Power Plant, Transformer, or Static Ringing Generator ◆			Incoming Power to Aud. Sig. Control Unit	Common Aud. Sig. Control Unit	211A
	Battery	CO, PBX, Bldg, or Local Battery ◆	2.16	28			
	Battery and Generator	101G Power Plant, Transformer, or Static Ringing Generator ◆					16A
	Battery	CO, PBX, Bldg, or Local Battery ◆	2.18	31			
	Battery or Generator	All □					211A or 16A

Notes: ★ The term "Battery" as used in this column denotes low voltage ac or dc.

■ Table numbers beginning with the numeral 2 are filed in Section C66.202.

** Page numbers corresponding to table numbers beginning with the numeral 2 refer to numbering within Section C66.202.

✕ Provide only when same source of power is used for talking circuit and for operation of audible signals.

◆ Select when the type of power or voltage used for the audible signal control unit is different from that which is used for the common ringer operated directly by the CO or PBX line unit.

□ Select when the same type of power and voltage is used for the audible signal control unit and the common ringer operated directly by the CO or PBX line unit.

TABLE 3.01

CONNECTIONS BETWEEN SYSTEM FLASHING AND TIMING-OUT CIRCUIT UNIT (209A) AND CENTRAL OFFICE OR PRIVATE BRANCH EXCHANGE LINE UNIT (202B) AND BETWEEN FIRST 202B UNIT AND ALL SUCCEEDING 202B UNITS; BETWEEN 209A AND WINK CIRCUIT UNIT (210A); BETWEEN 202B AND AUDIBLE SIGNAL CONTROL UNIT (211A OR 16A)—NEW INSTALLATIONS USING 209A AND 202B UNITS

Select Subtable for Features Provided as Shown in the Index Immediately Below:

TYPE OF STRAPPING	FEATURES PROVIDED		TYPE OF K.T.U. USED AS AUD. SIG. CONTROL UNIT	CONNECTIONS SHOWN ON SUBTABLE
	WINK	AUD. SIG. CONTROL		
COMMON			—	α, b, and c
	√		—	α, c, and d
		√	211A	α, b, and e
			16A	α, b, and f
	√	√	211A	α, d, and e
		16A	α, d, and f	
INDIVIDUAL LINE			—	g
		√	—	g
	√		—	g and h
	√	√	—	g and h

3.01α

Run Straps as Shown Below:

LEAD DESIG.	K.T.U. USED	K.T.U. USED AS CO OR PBX LINE UNIT
TO CO HA LK	209A K.T.U. TERM. STRIP "A"	ALL 202B K.T.U. TERM. *
	TERM.	TERM.
	4	27
	3	28
	2	37
	1	38
LAMP GRD LAMP POWER B1 COM RING POWER "B" BAT "B" GRD	1st 202B K.T.U.	ALL SUCCEEDING 202B K.T.U.
	TERM.	TERM. *
	40	40
	39	39
	8	8
	19	19
	29	29
	30	30

3.01b

Run Straps on 209A and on Each 202B K.T.U. Between Terminals as Shown Below:

LEAD DESIG.	K.T.U. USED	
"Z" WIRING	209A K.T.U. TERM. STRIP "A"	
	TERM.	TERM.
	14	15
"Z" WIRING	202B K.T.U.	
	TERM.	TERM.
	9	10

(Continued on Next Page)

TABLE 3.01 (Continued)

3.01c

Run Strap on Each 202B K.T.U. Between Terminals as Shown Below:

LEAD DESIG.	TERM.	202B K.T.U.	TERM.
"S" WIRING	26	—————	36

3.01d

Run Straps as Shown Below:

LEAD DESIG.	209A K.T.U. TERM. STRIP "A" TERM.	210A K.T.U. TERM.
W	18	11
S	17	12
F	15	13
TO	14	14
HA	16	16

3.01e

Run Straps as Shown Below:

LEAD DESIG.	ALL 202B K.T.U. TERM.	211A K.T.U. TERM.
ST ✕	36	1
"B" GRD □	30	37

3.01f

Run Straps as Shown Below:

LEAD DESIG.	ALL 202B K.T.U. TERM.	16A K.T.U. TERM.
ST ♦	36	4
"B" GRD □	30	1

3.01g

Run Straps as Shown Below:

LINE NO. IN SYS.	LEAD DESIG.	209A K.T.U. TERM. STRIP "A" TERM.	202B K.T.U. 1st 202B K.T.U. TERM.
1	R	34	32
	T	33	31
	R1	36	34
	T1	35	33
	LF	21	17
	LB	22	18
		TERM. STRIP "B" TERM.	
	"B" BAT	18	29
	"B" GRD	20	30

(Continued on Next Page)

TABLE 3.01 (Continued)

3.01g (Continued)

Run Straps as Shown Below:

LINE NO. IN SYS.	LEAD DESIG.	209A K.T.U.	202B K.T.U.
2	R T R1 T1 LF LB	TERM. STRIP "A"	2nd 202B K.T.U.
		TERM.	TERM.
		38	32
		37	31
		40	34
		39	33
23	17		
24	18		
3	R T R1 T1 LF LB	TERM. STRIP "B"	3rd 202B K.T.U.
		TERM.	TERM.
		2	32
		1	31
		4	34
		3	33
TERM. STRIP "A"			
TERM.			
25	17		
26	18		
4	R T R1 T1 LF LB	TERM. STRIP "B"	4th 202B K.T.U.
		TERM.	TERM.
		6	32
		5	31
		8	34
		7	33
TERM. STRIP "A"			
TERM.			
27	17		
28	18		
5	R T R1 T1 LF LB	TERM. STRIP "B"	5th 202B K.T.U.
		TERM.	TERM.
		10	32
		9	31
		12	34
		11	33
TERM. STRIP "A"			
TERM.			
29	17		
30	18		
6	R T R1 T1 LF LB	TERM. STRIP "B"	6th 202B K.T.U.
		TERM.	TERM.
		14	32
		13	31
		16	34
		15	33
TERM. STRIP "A"			
TERM.			
19	17		
20	18		

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TABLE 3.01
(Continued)

3.01h

Run Straps as Shown Below:

LINE NO. IN SYS.	LEAD DESIG.	202B K.T.U.	210A K.T.U. TERM.
1	LW LB "B" BAT "B" GRD	1st 202B K.T.U. TERM. 10 9 29 30	1 2 18 20
2	LW LB	2nd 202B K.T.U. TERM. 10 9	3 4
3	LW LB	3rd 202B K.T.U. TERM. 10 9	5 6
4	LW LB	4th 202B K.T.U. TERM. 10 9	7 8
5	LW LB	5th 202B K.T.U. TERM. 10 9	9 10
6	WINK CKT. FOR 6th LINE CANNOT BE PROVIDED UNLESS A 2nd 210A AND 209A OR 212A K.T.U. IS USED		

- Notes: ★ Loop straps between each 202B K.T.U.
 ✕ Loop straps between each 202B and from last 202B to the 211A K.T.U.
 ◆ Loop strap between each 202B and from last 202B to the 16A K.T.U.
 □ Connect from 211A or 16A K.T.U. to first 202B K.T.U. only.

Reference: SD-69203-0107, Fig. 24
 SD-69203-0121, Fig. 55

SD-69203-0122, Fig. 56
 SD-69203-0123, Fig. 57

SD-69203-01, Fig. 68

TABLE 3.02

CONNECTIONS BETWEEN CENTRAL OFFICE OR PRIVATE BRANCH EXCHANGE LINE UNIT (202B) AND CENTRAL OFFICE OR PRIVATE BRANCH EXCHANGE LINE UNIT (202A); BETWEEN SYSTEM FLASHING AND TIMING-OUT CIRCUIT UNIT (209A) AND 202A UNITS; AND BETWEEN 202A UNIT AND WINK CIRCUIT UNIT (210A)—EXISTING INSTALLATIONS—ADDITION OF LINE USING 202A KEY TELEPHONE UNIT WHERE OTHER UNITS ARE 202B TYPE

Select Subtable for Features Provided as Shown in the Index Immediately Below:

TYPE OF STRAPPING	FEATURES PROVIDED		CONNECTIONS SHOWN ON SUBTABLE
	WINK	AUD. SIG. CONTROL	
COMMON			α, b, and c
	√		α and c
		√	α and b
	√	√	α
INDIVIDUAL LINE			d
		√	d
	√		d and e
	√	√	d and e

3.02α

Run Straps as Shown Below:

LEAD DESIG.	LAST 202B K.T.U. TERM.	202A K.T.U. TERM.
TO	27	21
CO	28	22
HA	37	23
LK	38	24
LAMP GRD	40	30
LAMP POWER	39	31
BI	8	33
COMMON RING POWER	19	36
"B" BAT	29	38
ST*	36	39
"B" GRD	30	40

3.02b

WIRING OPTION	TERM.	202A K.T.U. TERM.
"Z" WIRING	26	27

3.02c

WIRING OPTION	TERM.	202A K.T.U. TERM.
"S" WIRING	39	40

(Continued on Next Page)

TABLE 3.02 (Continued)

3.02d Run Straps as Shown Below:

LINE NO. IN SYS.	LEAD DESIG.	209A K.T.U.	202A K.T.U. TERM.
2	R T R1 T1 LF LB	TERM. STRIP "A"	
		TERM.	
		38	2
		37	1
		40	4
3	R T R1 T1 LF LB	TERM. STRIP "B"	
		TERM.	
		2	2
		1	1
		4	4
4	R T R1 T1 LF LB	TERM. STRIP "A"	
		TERM.	
		3	3
		25	25
		26	26
5	R T R1 T1 LF LB	TERM. STRIP "B"	
		TERM.	
		6	2
		5	1
		8	4
6	R T R1 T1 LF LB	TERM. STRIP "A"	
		TERM.	
		7	3
		27	25
		28	26
5	R T R1 T1 LF LB	TERM. STRIP "B"	
		TERM.	
		10	2
		9	1
		12	4
6	R T R1 T1 LF LB	TERM. STRIP "A"	
		TERM.	
		11	3
		29	25
		30	26
6	R T R1 T1 LF LB	TERM. STRIP "B"	
		TERM.	
		14	2
		13	1
		16	4
6	R T R1 T1 LF LB	TERM. STRIP "A"	
		TERM.	
		15	3
		19	25
		20	26

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**TABLE 3.02
(Continued)**

3.02e

Run Straps as Shown Below:

LINE NO. IN SYS.	LEAD DESIG.	202A K.T.U. TERM.	210A K.T.U. TERM.
2	LW LB	27 26	3 4
3	LW LB	27 26	5 6
4	LW LB	27 26	7 8
5	LW LB	27 26	9 10
6	WINK CKT. FOR 6th LINE CANNOT BE PROVIDED UNLESS A 2nd 210A AND 209A OR 212A K.T.U. IS USED		

Note: ★ Run this strap only to those key telephone units where audible signal control circuit is provided.

Reference: SD-69203-0117, Fig. 51
SD-69203-0122, Fig. 56
SD-69203-0123, Fig. 57
SD-69203-01, Fig. 68

CONNECTIONS BETWEEN SYSTEM FLASHING AND TIMING-OUT CIRCUIT UNIT (209A) AND WINK CIRCUIT UNIT (210A); BETWEEN CENTRAL OFFICE OR PRIVATE BRANCH EXCHANGE LINE UNIT (202B) AND AUDIBLE SIGNAL CONTROL UNIT (211A OR 16A); BETWEEN 202B UNIT AND 210A UNIT—ADD WINK AND/OR AUDIBLE SIGNAL CONTROL CIRCUIT TO EXISTING INSTALLATION

Select Subtable for Features Being Added as Shown in the Index Immediately Below:

TYPE OF STRAPPING	FEATURES BEING ADDED		TYPE OF K.T.U. USED FOR AUD. SIG. CONTROL CKT.	CONNECTIONS SHOWN ON SUBTABLE
	WINK	AUD. SIG. CONTROL		
COMMON	✓		—	α
		✓	211A	b
			16A	c
	✓	✓	211A	α and b
		16A	α and c	
INDIVIDUAL LINE			—	NONE REQUIRED
		✓	—	NONE REQUIRED
	✓		—	d
	✓	✓	—	d

3.03α

Remove Straps on 209A and Each 202B K.T.U. Between Terminals as Shown Below:

LEAD DESIG.	K.T.U. USED	
"Z" WIRING	209A K.T.U. TERM. STRIP "A"	
	TERM. 14	TERM. 15
"Z" WIRING	202B K.T.U.	
	TERM. 9	TERM. 10

Run Straps as Shown Below:

LEAD DESIG.	209A K.T.U. TERM. STRIP "A" TERM.	210A K.T.U. TERM.
W	18	11
S	17	12
F	15	13
TO	14	14
HA	16	16

3.03b

Remove Strap on Each 202B K.T.U. Between Terminals as Shown Below:

LEAD DESIG.	202B K.T.U.	
"S" WIRING	TERM. 26	TERM. 36

Run Straps as Shown Below:

LEAD DESIG.	ALL 202B K.T.U. TERM.	211A K.T.U. TERM.
ST*	36	1
"B" GRD *	30	37

(Continued on Next Page)

TABLE 3.03 (Continued)

3.03c

Remove Strap on Each 202B K.T.U. Between Terminals as Shown Below:

LEAD DESIG.	TERM.	202B K.T.U.	TERM.
"S" WIRING	26	—————	36

Run Straps as Shown Below:

LEAD DESIG.	ALL 202B K.T.U. TERM.	16A K.T.U. TERM.
ST*	36	4
"B" GRD ✱	30	1

3.03d

Run Straps as Shown Below:

LINE NO. IN SYS.	LEAD DESIG.	202B K.T.U.	210A K.T.U. TERM.
1	LW LB "B" BAT "B" GRD	1st 202B K.T.U. TERM.	
		10	1
		9	2
		38	18
2	LW LB	2nd 202B K.T.U. TERM.	
		10	3
		9	4
3	LW LB	3rd 202B K.T.U. TERM.	
		10	5
		9	6
4	LW LB	4th 202B K.T.U. TERM.	
		10	7
		9	8
5	LW LB	5th 202B K.T.U. TERM.	
		10	9
		9	10

Notes: ★ Where 202A K.T.U. are also provided, extend ST lead to terminal 39 on 202A K.T.U.

✱ Connect from 211A or 16A K.T.U. to first 202B K.T.U. only.

Reference: SD-69203-0107, Fig. 24
SD-69203-0121, Fig. 55SD-69203-0122, Fig. 56
SD-69203-0123, Fig. 57

SD-69203-01, Fig. 68

CONNECTIONS BETWEEN CENTRAL OFFICE OR PRIVATE BRANCH EXCHANGE LINE UNIT (202A) AND CENTRAL OFFICE OR PRIVATE BRANCH EXCHANGE LINE UNIT (202B); BETWEEN 202A UNIT AND WINK CIRCUIT UNIT (210A)—ADDITION OF WINK CIRCUIT AND/OR AUDIBLE SIGNAL CONTROL CIRCUITS—SYSTEM CONSISTS PRIMARILY OF 202B UNIT BUT HAS ONE OR MORE 202A KEY TELEPHONE UNITS

TABLE 3.04

Select Subtable for Features Being Added as Shown in the Index Immediately Below:

TYPE OF STRAPPING	FEATURES BEING ADDED		CONNECTIONS SHOWN ON SUBTABLE
	WINK	AUD. SIG. CONTROL	
COMMON	✓		a
		✓	b
	✓	✓	a and b
INDIVIDUAL LINE			NONE REQUIRED
		✓	NONE REQUIRED
	✓		c
	✓	✓	c

3.04a

Remove Strap on Each 202A K.T.U. Between Terminals as Shown Below:

LEAD DESIG.	TERM.	202A K.T.U.	TERM.
"Z" WIRING	26	_____	27

3.04b

Remove Strap on Each 202A K.T.U. Between Terminals as Shown Below:

LEAD DESIG.	TERM.	202A K.T.U.	TERM.
"S" WIRING	39	_____	40

Run Strap as Shown Below:

LEAD DESIG.	LAST 202B K.T.U. TERM.	202A K.T.U. TERM.
ST	36	39

3.04c

Run Straps as Shown Below:

LINE NO. IN SYS.	LEAD DESIG.	202A K.T.U. TERM.	210A K.T.U. TERM.
2	LW	27	3
	LB	26	4
3	LW	27	5
	LB	26	6
4	LW	27	7
	LB	26	8
5	LW	27	9
	LB	26	10

Reference: SD-69203-0117, Fig. 51
 SD-69203-0123, Fig. 57
 SD-69203-01, Fig. 68

TABLE 3.05

**CONNECTIONS BETWEEN CENTRAL OFFICE OR PRIVATE
BRANCH EXCHANGE LINE UNIT (202B) AND CIRCUIT FUSE
UNIT (201A)**

Select Only Subtables Applicable to Installation and Run Straps as Shown Below:

SUB-TABLE	TYPE OF POWER AND USE		LEAD DESIG.	202B K.T.U.	CKT. FUSE 201A K.T.U. TERM.
α	LOW VOLTAGE AC or DC USED for COMMON BUZZER		SIG POWER SIG GRD	1st 202B K.T.U. TERM. 19 20	10 19
b	LOW VOLTAGE AC or DC USED for LAMPS (Not Over 36 Lamps Used in 1A1 Sys.)		LAMP POWER LAMP GRD	39 40	12 20
c	LOW VOLTAGE AC or DC USED for LAMPS (Over 36 Lamps Used in 1A1 Sys.)	LINE NO. 1, 2, 3	LAMP POWER LAMP GRD	39 40	12 20
		LINE NO. 4, 5, 6	LAMP POWER LAMP GRD	4th 202B K.T.U. TERM. 39 40	14 20
d	18-24V DC USED for RELAY SUPPLY		BAT GRD	1st 202B K.T.U. TERM. 29 30	4 16

Reference: SD-69203-0125, Fig. 66
SD-69203-01, Fig. 68

TABLE 3.06

**CONNECTIONS BETWEEN CENTRAL OFFICE OR PRIVATE
BRANCH EXCHANGE LINE UNIT (202B) AND RINGING LAMP
UNIT (211A OR 11A)**

Select the One Subtable Applicable to Installation and Run Straps as Shown Below:

SUB-TABLE	LEAD DESIG.	1st 202B K.T.U. TERM.	K.T.U. USED AS RINGING LAMP UNIT
α	105V ± RING GRD	19 20	211A K.T.U. TERM. 14 16
b	105V ± RING GRD	19 20	11A K.T.U. TERM. 4 1

Reference: SD-69203-0106, Fig. 22 SD-69203-0121, Fig. 55 SD-69203-01, Fig. 68

CONNECTIONS BETWEEN 101G POWER PLANT AND/OR TRANSFORMERS AND/OR STATIC RINGING GENERATOR AND CENTRAL OFFICE OR PRIVATE BRANCH EXCHANGE LINE UNIT (202B)

SECTION C66.203
TABLE 3.07

Select Only Subtables Applicable to Installation and Make Connections as Shown Below:
3.07a LOCAL WIRING OR INCOMING CABLE (16 PR) FROM 101G POWER PLANT *

SUB-TABLE NO.	TYPE OF POWER AND USE	LEAD DESIG.	101G POWER PLANT TERM.	INCOMING CABLE		1st 202B K.T.U. TERM.	
				PAIR NO.	"C" INSIDE WIRING		"D" INSIDE WIRING
					CONDUCTOR COLOR		
1	GENERATOR USED for COMMON RINGER	105V ±	105V ±	16	R	R	19
		RING GRD	RING GRD		W	W	20
2	18V AC USED for COMMON BUZZER	18V ±	18V ±	15	G-W	S	19
		GRD	GRD		W	BK	20
3	10V AC USED for LAMPS (Not Over 36 Lamps Used in 1A1 Sys.)	10V ±	10V ±	11	O-W(W)	BL(BK)	39
				12	O-G(W)	O(BK)	
				13	O-BR(W)	G(BK)	
				14	O-S(W)	BR(BK)	
		GRD	GRD	11	W(O-W)	BK(BL)	40
				12	W(O-G)	BK(O)	
				13	W(O-BR)	BK(G)	
				14	W(O-S)	BK(BR)	
4	20V DC USED for RELAY SUPPLY	BAT	20V DC TALK	7	BL-O(W)	O(R)	29
				8	BL-G(W)	G(R)	
		GRD	GRD	7	W(BL-O)	R(O)	30
				8	W(BL-G)	R(G)	

3.07b RUNNING CABLE FROM 101G POWER PLANT

SUB-TABLE NO.	TYPE OF POWER AND USE	LEAD DESIG.	101G POWER PLANT TERM.	RUNNING CABLE		1st 202B K.T.U. TERM.	
				PAIR NO.	"C" INSIDE WIRING		"D" INSIDE WIRING
					CONDUCTOR COLOR		
1	GENERATOR USED for COMMON RINGER	105V ±	105V ±	45	S	S-W	19
		RING GRD	RING GRD		BK	Y	20
2	18V AC USED for COMMON BUZZER	18V ±	18V ±	44	BR	BR-W	19
		GRD	GRD		BK	Y	20
3	10V AC USED for LAMPS (Not Over 36 Lamps Used in 1A1 Sys.)	10V ±	10V ±	40	S-W(R)	S-W(BK)	39
				41	BL(BK)	BL-W(Y)	
				42	O(BK)	O-W(Y)	
				43	G(BK)	G-W(Y)	
		GRD	GRD	40	R(S-W)	BK(S-W)	40
				41	BK(BL)	Y(BL-W)	
				42	BK(O)	Y(O-W)	
				43	BK(G)	Y(G-W)	
4	20V DC USED for RELAY SUPPLY	BAT	BAT	36	G-BR(R)	BL-W(BK)	29
				37	G-S(R)	O-W(BK)	
		GRD	GRD	36	R(G-BR)	BK(BL-W)	30
				37	R(G-S)	BK(O-W)	

(Continued on Next Page)

**TABLE 3.07
(Continued)****3.07c LOCAL WIRING OR INCOMING CABLE FROM TRANSFORMER—LAMP SUPPLY ✕**

TYPE OF POWER AND USE	LEAD DESIG.	393A TRANSFORMER TERM.	INCOMING CABLE			1st 202B K.T.U. TERM.
			PAIR NO.	"C" INSIDE WIRING	"D" INSIDE WIRING	
				CONDUCTOR COLOR		
10V AC USED for LAMPS (Not Over 36 Lamps Used in 1A1 Sys.)	10V ±	10V ±	11	O-W(W)	BL(BK)	39
			12	O-G(W)	O(BK)	
			13	O-BR(W)	G(BK)	
			14	O-S(W)	BR(BK)	
	GRD	GRD	11	W(O-W)	BK(BL)	40
			12	W(O-G)	BK(O)	
			13	W(O-BR)	BK(G)	
			14	W(O-S)	BK(BR)	

3.07d RUNNING CABLE FROM TRANSFORMER—LAMP SUPPLY

TYPE OF POWER AND USE	LEAD DESIG.	393A TRANSFORMER TERM.	RUNNING CABLE			1st 202B K.T.U. TERM.
			PAIR NO.	"C" INSIDE WIRING	"D" INSIDE WIRING	
				CONDUCTOR COLOR		
10V AC USED for LAMPS (Not Over 36 Lamps Used in 1A1 Sys.)	10V ±	10V ±	40	S-W(R)	S-W(BK)	39
			41	BL(BK)	BL-W(Y)	
			42	O(BK)	O-W(Y)	
			43	G(BK)	G-W(Y)	
	GRD	GRD	40	R(S-W)	BK(S-W)	40
			41	BK(BL)	Y(BL-W)	
			42	BK(O)	Y(O-W)	
			43	BK(G)	Y(G-W)	

3.07e LOCAL WIRING OR INCOMING CABLE FROM TRANSFORMER—BUZZER SUPPLY ✕

TYPE OF POWER AND USE	LEAD DESIG.	KS-5714,L3 TRANSFORMER TERM.	INCOMING CABLE			1st 202B K.T.U. TERM.
			PAIR NO.	"C" INSIDE WIRING	"D" INSIDE WIRING	
				CONDUCTOR COLOR		
18V AC USED for COMMON BUZZER	18V ±	18V ±	15	G-W	S	19
	GRD	GRD		W	BK	20

(Continued on Next Page)

**TABLE 3.07
(Continued)****3.07f RUNNING CABLE FROM TRANSFORMER—BUZZER SUPPLY**

TYPE OF POWER AND USE	LEAD DESIG.	KS-5714.L3 TRANSFORMER TERM.	RUNNING CABLE			1st 202B K.T.U. TERM.
			PAIR NO.	"C" INSIDE WIRING	"D" INSIDE WIRING	
				CONDUCTOR COLOR		
18V AC USED for COMMON BUZZER	18V ±	18V ±	44	BR	BR-W	19
	GRD	GRD		BK	Y	20

3.07g LOCAL WIRING OR INCOMING CABLE (16 PR) FROM STATIC RINGING GENERATOR ♦

TYPE OF POWER AND USE	LEAD DESIG.	STATIC RINGING GENERATOR TERM.	INCOMING CABLE			1st 202B K.T.U. TERM.
			PAIR NO.	"C" INSIDE WIRING	"D" INSIDE WIRING	
				CONDUCTOR COLOR		
GENERATOR USED for COMMON BUZZER	105V ±	105V ±	16	R	R	19
	RING GRD	RING GRD		W	W	20

3.07h RUNNING CABLE FROM STATIC RINGING GENERATOR

TYPE OF POWER AND USE	LEAD DESIG.	STATIC RINGING GENERATOR TERM.	RUNNING CABLE			1st 202B K.T.U. TERM.
			PAIR NO.	"C" INSIDE WIRING	"D" INSIDE WIRING	
				CONDUCTOR COLOR		
GENERATOR USED for COMMON BUZZER	105V ±	105V ±	45	S	S-W	19
	RING GRD	RING GRD		BK	Y	20

- Notes: ★ When local wiring is used, connect terminals on 101G power plant to terminals on CO or PBX line unit (202B) with 20-gauge copper wire.
- ✕ When local wiring is used, connect terminals on transformer to terminals on CO or PBX line unit (202B) with 20-gauge copper wire.
- ♦ When local wiring is used, connect terminals on static ringing generator to CO or PBX line unit (202B) with 20-gauge copper wire.

Reference: SD-69203-01, Fig. 68

TABLE 3.08

**CONNECTIONS BETWEEN CENTRAL OFFICE, PRIVATE
BRANCH EXCHANGE, BUILDING, OR LOCAL BATTERY SUP-
PLY AND CENTRAL OFFICE OR PRIVATE BRANCH EXCHANGE
UNIT (202B)**

Select Only Subtables Applicable to Installation and Make Connections as Shown Below:

3.08a INCOMING CABLE FROM CO, PBX, BLDG, OR LOCAL BATTERY

SUB- TABLE NO.	TYPE OF POWER AND USE	LEAD DESIG.	DIST. OR HOUSE CABLE TERM. PAIR	INCOMING CABLE			1st 202B K.T.U. TERM.
				PAIR NO.	"C" INSIDE WIRING	"D" INSIDE WIRING	
					CONDUCTOR COLOR		
1	14-26V DC USED for COMMON BUZZER	BAT	PAIR ASSIGNED for BATTERY	15	G-W	S	19
		GRD			W	BK	20
2	14-26V DC USED for LAMPS (Not Over 36 Lamps Used in 1A1 Sys.)	BAT	PAIR(S) ASSIGNED for LAMP BATTERY	11	O-W(W)	BL(BK)	39
				12	O-G(W)	O(BK)	
		13		O-BR(W)	G(BK)		
		14		O-S(W)	BR(BK)		
3	14-26V DC USED for RELAY SUPPLY	BAT	PAIR(S) ASSIGNED for BATTERY	7	BL-O(W)	O(R)	29
				8	BL-G(W)	G(R)	
		GRD		7	W(BL-O)	R(O)	30
				8	W(BL-G)	R(G)	

3.08b RUNNING CABLE FROM CO, PBX, BLDG, OR LOCAL BATTERY

SUB- TABLE NO.	TYPE OF POWER AND USE	LEAD DESIG.	DIST. OR HOUSE CABLE TERM. PAIR	RUNNING CABLE			1st 202B K.T.U. TERM.
				PAIR NO.	"C" INSIDE WIRING	"D" INSIDE WIRING	
					CONDUCTOR COLOR		
1	14-26V DC USED for COMMON BUZZER	BAT	PAIR ASSIGNED for BATTERY	44	BR	BR-W	19
		GRD			BK	Y	20
2	14-26V DC USED for LAMPS (Not Over 36 Lamps Used in 1A1 Sys.)	BAT	PAIR(S) ASSIGNED for LAMP BATTERY	40	S-W(R)	S-W(BK)	39
				41	BL(BK)	BL-W(Y)	
		42		O(BK)	O-W(Y)		
		43		G(BK)	G-W(Y)		
3	14-26V DC USED for RELAY SUPPLY	BAT	PAIR(S) ASSIGNED for BATTERY	40	R(S-W)	BK(S-W)	40
				41	BK(BL)	Y(BL-W)	
		GRD		42	BK(O)	Y(O-W)	30
				43	BK(G)	Y(G-W)	

Reference: SD-69203-01, Fig. 68

**CONNECTIONS BETWEEN CENTRAL OFFICE OR PRIVATE
BRANCH EXCHANGE LINE UNIT (202B) AND NOISE SUPPRES-
SION UNIT (211A OR 23A)**

TABLE 3.09

Select the One Subtable Applicable to Installation and Run Straps as Shown Below:

SUB-TABLE	LEAD DESIG.	1st 202B K.T.U. TERM.	K.T.U. USED AS NOISE SUPPRESSION UNIT
α	BAT GRD	29	211A K.T.U. TERM.
		30	40 38
b	BAT GRD	29	23A K.T.U. TERM.
		30	3 1

Reference: SD-69203-0106, Fig. 23
SD-69203-0121, Fig. 55
SD-69203-01, Fig. 68

**CONNECTIONS BETWEEN CENTRAL OFFICE OR PRIVATE
BRANCH EXCHANGE LINE UNIT (202B) AND COMMON AUDI-
BLE SIGNAL CONTROL UNIT (211A OR 16A) WHEN SAME
TYPE OF POWER AND VOLTAGE IS USED FOR BOTH UNITS**

TABLE 3.10

Select the One Subtable Applicable to Installation and Run Straps as Shown Below:

SUB-TABLE	LEAD DESIG.	1st 202B K.T.U. TERM.	K.T.U. USED AS COMMON AUD. SIG. CONTROL UNIT
α	COM RING POWER COM RING GRD	19	211A K.T.U. TERM.
		20	11 10
b	COM RING POWER COM RING GRD	19	16A K.T.U. TERM.
		20	7 3

Reference: SD-69203-0107, Fig. 24
SD-69203-0121, Fig. 55
SD-69203-01, Fig. 68

TABLE 3.11

**INCOMING LINES FROM CENTRAL OFFICE OR PRIVATE
BRANCH EXCHANGE**

If Lines from CO or PBX Are Brought in Through Incoming Cable, Use Columns 1, 2, and 3 Below:

If Lines from CO or PBX Are Brought in Through Running Cable, Use Columns 1, 3, and 4 Below:

Make Connections as Shown Below:

COL. 1	COL. 2		COL. 3		COL. 4			
LEAD DESIG.	INCOMING CABLE		K.T.U. AND LINE NO. IN SYS.		RUNNING CABLE			
	PAIR NO.	"C" INSIDE WIRING			"D" INSIDE WIRING	PAIR NO.	"C" INSIDE WIRING	"D" INSIDE WIRING
		CONDUCTOR COLOR			CONDUCTOR COLOR			
R T	1	BL W	BL W	1	1st 202B K.T.U. TERM. 32 31	46	BL-W BK	BL-W V
R T	2	O W	O W	2	2nd 202B K.T.U. TERM. 32 31	47	BL-O BK	O-W V
R T	3	G W	G W	3	3rd 202B K.T.U. TERM. 32 31	48	BL-G BK	G-W V
R T	4	BR W	BR W	4	4th 202B K.T.U. TERM. 32 31	49	BL-BR BK	BR-W V
R T	5	S W	S W	5	5th 202B K.T.U. TERM. 32 31	50	BL-S BK	S-W V
R T	6	BL-W W	BL R	6	6th 202B K.T.U. TERM. 32 31	51	O-W BK	BL-R W

Reference: SD-69203-01, Fig. 68

**KEY OR RUNNING CABLE TO KEY TELEPHONE UNITS FOR
USE WITH ALL 1A1 SYSTEM KEY TELEPHONE SETS EXCEPT
565A SETS**

TABLE 3.12

Connect Key or Running Cable Pairs to Key Telephone Units as Shown Below:

LINE NO. IN SYS.	LEAD DESIG.	KEY OR RUNNING CABLE			202B K.T.U.
		PAIR NO.	"C" INSIDE WIRING	"D" INSIDE WIRING	
			CONDUCTOR COLOR		
1	R T	1	BL W	BL W	1st 202B K.T.U. TERM. 2, 12, or 22 1, 11, or 21
	Al A	2	O W	O W	6, 16, or 26 3, 13, or 23
	L LG	16	G-BR W	BL Y	4, 14, or 24 5, 15, or 25
2	R T	3	G W	G W	2nd 202B K.T.U. TERM. 2, 12, or 22 1, 11, or 21
	Al A	4	BR W	BR W	6, 16, or 26 3, 13, or 23
	L LG	17	G-S W	O Y	4, 14, or 24 5, 15, or 25
3	R T	5	S W	S W	3rd 202B K.T.U. TERM. 2, 12, or 22 1, 11, or 21
	Al A	6	BL-W W	BL R	6, 16, or 26 3, 13, or 23
	L LG	18	BR-W W	G Y	4, 14, or 24 5, 15, or 25
4	R T	7	BL-O W	O R	4th 202B K.T.U. TERM. 2, 12, or 22 1, 11, or 21
	Al A	8	BL-G W	G R	6, 16, or 26 3, 13, or 23
	L LG	19	BR-S W	BR Y	4, 14, or 24 5, 15, or 25
5	R T	9	BL-BR W	BR R	5th 202B K.T.U. TERM. 2, 12, or 22 1, 11, or 21
	Al A	10	BL-S W	S R	6, 16, or 26 3, 13, or 23
	L LG	20	S-W W	S Y	4, 14, or 24 5, 15, or 25

(Continued on Next Page)

TABLE 3.12
(Continued)

LINE NO. IN SYS.	LEAD DESIG.	KEY OR RUNNING CABLE			202B K.T.U.
		PAIR NO.	"C" INSIDE WIRING	"D" INSIDE WIRING	
			CONDUCTOR COLOR		
6 ✖	R T	22	O R	O V	6th 202B K.T.U. TERM. 2, 12, or 22 1, 11, or 21
	A1 A	23	G R	G V	6, 16, or 26 3, 13, or 23
	L LG	24	BR R	BR V	4, 14, or 24 5, 15, or 25

Note: ✖ Running cable only.

Reference: SD-69203-01, Fig. 68

TABLE 3.13 KEY OR RUNNING CABLE TO KEY TELEPHONE UNITS FOR
USE WITH 565A KEY TELEPHONE SETS ONLY

Connect Key or Running Cable Pairs to Key Telephone Units as Shown Below:

LINE NO. IN SYS.	LEAD DESIG.	KEY OR RUNNING CABLE			202B K.T.U.
		PAIR NO.	"C" INSIDE WIRING	"D" INSIDE WIRING	
			CONDUCTOR COLOR		
1	R T	1	BL W	BL W	1st 202B K.T.U. TERM. 2, 12, or 22 1, 11, or 21
	A1 A	7	BL-O W	O R	6, 16, or 26 3, 13, or 23
	L LG	16	G-BR W	BL Y	4, 14, or 24 5, 15, or 25
2	R T	2	O W	O W	2nd 202B K.T.U. TERM. 2, 12, or 22 1, 11, or 21
	A1 A	8	— BL-G (W)	— G (R)	6, 16, or 26 3, 13, or 23
	L LG	17	G-S W	O Y	4, 14, or 24 5, 15, or 25

(Continued on Next Page)

TABLE 3.13
(Continued)

LINE NO. IN SYS.	LEAD DESIG.	KEY OR RUNNING CABLE			202B K.T.U.
		PAIR NO.	"C" INSIDE WIRING	"D" INSIDE WIRING	
			CONDUCTOR COLOR		
3	R T	3	G W	G W	3rd 202B K.T.U. TERM. 2, 12, or 22 1, 11, or 21
	A1 A	— 8	— W (BL-G)	— R (G)	6, 16, or 26 3, 13, or 23
	L LG	18	BR-W W	G Y	4, 14, or 24 5, 15, or 25
4	R T	4	BR W	BR W	4th 202B K.T.U. TERM. 2, 12, or 22 1, 11, or 21
	A1 A	— 9	— BL-BR (W)	— BR (R)	6, 16, or 26 3, 13, or 23
	L LG	19	BR-S W	BR Y	4, 14, or 24 5, 15, or 25
5	R T	5	S W	S W	5th 202B K.T.U. TERM. 2, 12, or 22 1, 11, or 21
	A1 A	— 9	— W (BL-BR)	— R (BR)	6, 16, or 26 3, 13, or 23
	L LG	20	S-W W	S Y	4, 14, or 24 5, 15, or 25
6	R T	6	BL-W W	BL R	6th 202B K.T.U. TERM. 2, 12, or 22 1, 11, or 21
	A1 A	— 10	— BL-S (W)	— S (R)	6, 16, or 26 3, 13, or 23
	L LG	15	G-W W	S BK	4, 14, or 24 5, 15, or 25

Reference: SD-69203-01, Fig. 68

KEY OR RUNNING CABLE TO KEY TELEPHONE UNITS FOR ALL 1A1 SYSTEM KEY TELEPHONE SETS

Select Subtable for Common Audible Signal Connections as Shown in the Index Immediately Below and Make Necessary Connections:

NO. OF COMMON AUD. SIG. CKT. PROVIDED	TYPE OF CABLE	RINGER LOCATION	TYPE OF K.T.U. USED		
			SEE SUBTABLES a1,a2	16A	211A
1	KEY	IN KEY TEL. SET	CONTINUOUS RINGING α1	INTERRUPTED RINGING b1	c1
		OUTSIDE KEY TEL. SET	α2	b2	c2
	RUNNING	ALL	α1	b2	c2
2	KEY	IN KEY TEL. SET	FIRST AUD. SIG. CONTROL CKT. α1	SECOND AUD. SIG. CONTROL CKT. b1	c1
		OUTSIDE KEY TEL. SET	α2	b2	c2
	RUNNING	ALL	α1	b2	c2

3.14α CONTINUOUS RINGING AND FIRST AUDIBLE SIGNAL CONTROL CIRCUIT

SUBTABLE NO.	LEAD DESIG.	KEY OR RUNNING CABLE			1st 202B K.T.U. TERM.
		PAIR NO.	"C" INSIDE WIRING	"D" INSIDE WIRING	
α1	R1	12	O-G	O	7*
	B1		W	BK	8
α2	R1	21	BL	BL	7*
	B1		R	V	8

3.14b INTERRUPTED RINGING AND SECOND AUDIBLE SIGNAL CONTROL CIRCUIT

SUBTABLE NO.	LEAD DESIG.	KEY OR RUNNING CABLE			16A K.T.U. TERM.
		PAIR NO.	"C" INSIDE WIRING	"D" INSIDE WIRING	
b1	R1	12	O-G	O	9
	B1		W	BK	3
b2	R1	21	BL	BL	9
	B1		R	V	3

3.14c INTERRUPTED RINGING AND SECOND AUDIBLE SIGNAL CONTROL CIRCUIT

SUBTABLE NO.	LEAD DESIG.	KEY OR RUNNING CABLE			211A K.T.U. TERM.
		PAIR NO.	"C" INSIDE WIRING	"D" INSIDE WIRING	
c1	R1	12	O-G	O	8
	B1		W	BK	9
c2	R1	21	BL	BL	8
	B1		R	V	9

Note: * Loop strap terminal 7 of all 202B K.T.U. and to terminal 32 of all 202A K.T.U. associated with this feature.

Reference: SD-69203-0107, Fig. 24
SD-69203-0117, Fig. 51

SD-69203-0121, Fig. 55
SD-69203-01, Fig. 68