

**INTERCOMMUNICATING LINES**  
**31A KEY TELEPHONE UNITS**  
**TERMINATIONS IN APPARATUS CABINET**

**1. GENERAL**

- 1.01 This section covers the connections required on 31A key telephone units. This includes strapping between key telephone units, terminating of wires from power source, and terminating of key or running cables from key telephone stations.
- 1.02 An index listing the various types of wiring, together with the table number, which outlines these connections in detail, is shown below. Connections are shown on individual tables numbered 7.01 through 7.05.

**INDEX**

**WIRING BETWEEN KEY TELEPHONE UNITS**

CONNECTIONS	TABLE NO.	PAGE NO.
All	<b>7.01</b>	<b>2</b>

**POWER WIRING**

SYSTEM FUSING	TABLE NO.	PAGE NO.
Fuse Units Provided—Leads Run to Fuse Unit	<b>7.02</b>	<b>2</b>
Fuse Units Not Provided—Leads Strapped to Central Office or PBX Line Units	<b>7.03</b>	<b>3</b>

**STATION CABLE CONNECTIONS**

TYPE OF CKT.	TYPE OF CABLE	TYPE OF KEY TEL. SET USED	TABLE NO.	PAGE NO.
Line and Lamp	Key	All 1A1 System Sets Except 565A	<b>7.04</b>	<b>4</b>
		565A	<b>7.05</b>	<b>5</b>
	Running	All 1A1 System Sets	<b>7.04</b>	<b>4</b>
		System Consists of Only 565A Sets	<b>7.05</b>	<b>5</b>

TABLE 7.01

**CONNECTIONS BETWEEN INTERCOMMUNICATING LINE  
UNIT (31A) AND SYSTEM LAMP FLASHING AND INCOMING  
SIGNAL TIME-OUT UNIT (209A OR 212A)**

Run Straps As Shown Below:

LEAD DESIG.	K.T.U. USED AS SYS. FLASHING AND TIME-OUT UNIT	K.T.U. USED AS INTERCOM LINE UNIT
CO	<b>209A K.T.U. TERM. STRIP "A" TERM.  12</b>	<b>ALL 31A K.T.U. TERM.  6</b>
CO	<b>212A K.T.U. TERM. STRIP "A" TERM.  28</b>	<b>6</b>

Reference: SD-69203-0103, Fig. 21  
SD-69203-0122, Fig. 56  
SD-69203-01, Fig. 67

TABLE 7.02

**POWER CONNECTIONS BETWEEN INTERCOMMUNICATING  
LINE UNIT (31A) AND FUSE UNIT (201A)**

Run Straps As Shown Below:

LEAD DESIG.	CKT. 201A K.T.U. TERM.	31A K.T.U. TERM.
<b>LAMP POWER</b>	<b>14</b>	<b>7</b>
<b>LAMP GRD</b>	<b>20</b>	<b>5</b>
<b>"A" BAT</b>	<b>2</b>	<b>3</b>
<b>"A" GRD</b>	<b>15</b>	<b>1</b>
<b>"B" GRD</b>	<b>16</b>	<b>12</b>

Reference: SD-69203-0103, Fig. 21  
SD-69203-0125, Fig. 66

**POWER CONNECTIONS BETWEEN INTERCOMMUNICATING  
LINE UNIT (31A) AND CENTRAL OFFICE OR PBX LINE UNITS  
(202A, 202B, OR 212A) (FUSE UNITS NOT PROVIDED)**

**TABLE 7.03**

Run Straps As Shown Below:

K.T.U. USED AS SYS. FLASHING AND TIME-OUT UNIT	LINE NO.	LEAD DESIG.	K.T.U. USED AS C O OR PBX LINE UNIT	31A K.T.U. TERM.
209A K.T.U.	ALL	LAMP POWER LAMP GRD "A" BAT "A" GRD "B" GRD	2nd 202A K.T.U. TERM.	
			31	7
		30	5	
		38	3	
			40	1
			40	12
209A K.T.U.	ALL	LAMP POWER LAMP GRD "A" BAT "A" GRD "B" GRD	2nd 202B K.T.U. TERM.	
			39	7
		40	5	
		29	3	
			30	1
			30	12
212A K.T.U.	1,2,3	LAMP POWER LAMP GRD "A" BAT "A" GRD "B" GRD	212A K.T.U. TERM. STRIP "A" TERM.	
			39	7
		40	5	
		29	3	
			30	1
			30	12
212A K.T.U.	4,5,6	LAMP POWER LAMP GRD "A" BAT "A" GRD "B" GRD	1st 202A K.T.U. TERM.	
			31	7
		30	5	
		38	3	
			40	1
			40	12
212A K.T.U.	4,5,6	LAMP POWER LAMP GRD "A" BAT "A" GRD "B" GRD	1st 202B K.T.U. TERM.	
			39	7
		40	5	
		29	3	
			30	1
			30	12

Reference: SD-69203-0103, Fig. 21  
SD-69203-0117, Fig. 51  
SD-69203-01, Fig. 67

TABLE 7.04

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

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

LINE NO. IN SYS.	LEAD DESIG.	KEY OR RUNNING CABLE			31A K.T.U. TERM.
		PAIR NO.	"C" INSIDE WIRING	"D" INSIDE WIRING	
			CONDUCTOR COLOR		
FIRST	R T	1	BL W	BL W	9 8
	SPARE SPARE	2	O W	O W	— —
	L LG	16	G-BR W	BL Y	4 5
SECOND	R T	3	G W	G W	9 8
	SPARE SPARE	4	BR W	BR W	— —
	L LG	17	G-S W	O Y	4 5
THIRD	R T	5	S W	S W	9 8
	SPARE SPARE	6	BL-W W	BL R	— —
	L LG	18	BR-W W	G Y	4 5
FOURTH	R T	7	BL-O W	O R	9 8
	SPARE SPARE	8	BL-G W	G R	— —
	L LG	19	BR-S W	BR Y	4 5
FIFTH	R T	9	BL-BR W	BR R	9 8
	SPARE SPARE	10	BL-S W	S R	— —
	L LG	20	S-W W	S Y	4 5
SIXTH	R T	22	O R	O V	9 8
	SPARE SPARE	—	— —	— —	— —
	L LG	24	BR R	BR V	4 5

Reference: SD-69203-0103, Fig. 21

**KEY OR RUNNING CABLE TO KEY TELEPHONE UNITS FOR  
USE WITH 565A KEY TELEPHONE SETS**
**TABLE 7.05**
**Connect Key or Running Cable Pairs to Key Telephone Units as Shown Below:**

LINE NO. IN SYS.	LEAD DESIG.	KEY OR RUNNING CABLE			31A K.T.U. TERM.
		PAIR NO.	"C" INSIDE WIRING	"D" INSIDE WIRING	
			CONDUCTOR COLOR		
<b>FIRST</b>	<b>R T</b>	<b>1</b>	<b>BL W</b>	<b>BL W</b>	<b>9 8</b>
	<b>SPARE SPARE</b>	<b>—</b>	<b>— —</b>	<b>— —</b>	<b>— —</b>
	<b>L LG</b>	<b>16</b>	<b>G-BR W</b>	<b>BL Y</b>	<b>4 5</b>
<b>SECOND</b>	<b>R T</b>	<b>2</b>	<b>O W</b>	<b>O W</b>	<b>9 8</b>
	<b>SPARE SPARE</b>	<b>—</b>	<b>— —</b>	<b>— —</b>	<b>— —</b>
	<b>L LG</b>	<b>17</b>	<b>G-S W</b>	<b>O Y</b>	<b>4 5</b>
<b>THIRD</b>	<b>R T</b>	<b>3</b>	<b>G W</b>	<b>G W</b>	<b>9 8</b>
	<b>SPARE SPARE</b>	<b>—</b>	<b>— —</b>	<b>— —</b>	<b>— —</b>
	<b>L LG</b>	<b>18</b>	<b>BR-W W</b>	<b>G Y</b>	<b>4 5</b>
<b>FOURTH</b>	<b>R T</b>	<b>4</b>	<b>BR W</b>	<b>BR W</b>	<b>9 8</b>
	<b>SPARE SPARE</b>	<b>—</b>	<b>— —</b>	<b>— —</b>	<b>— —</b>
	<b>L LG</b>	<b>19</b>	<b>BR-S W</b>	<b>BR Y</b>	<b>4 5</b>
<b>FIFTH</b>	<b>R T</b>	<b>5</b>	<b>S W</b>	<b>S W</b>	<b>9 8</b>
	<b>SPARE SPARE</b>	<b>—</b>	<b>— —</b>	<b>— —</b>	<b>— —</b>
	<b>L G</b>	<b>20</b>	<b>S-W W</b>	<b>S Y</b>	<b>4 5</b>
<b>SIXTH</b>	<b>R T</b>	<b>6</b>	<b>BL-W W</b>	<b>BL R</b>	<b>9 8</b>
	<b>SPARE SPARE</b>	<b>—</b>	<b>— —</b>	<b>— —</b>	<b>— —</b>
	<b>L LG</b>	<b>15</b>	<b>G-W W</b>	<b>S BK</b>	<b>4 5</b>

Reference: SD-69203-0103, Fig. 21