

TELEPHONE SETS—701B

CONNECTIONS

1.00 GENERAL

1.01 This section is reissued to:

- Add schematics for 4- and 8-party semi-selective service.
- Add "Read" note to Fig. 7.
- Add reference to 1635A inductor.
- Add long line circuit connections to Table B.

1.02 Due to extensive changes, marginal arrows have been omitted.

1.03 The following figures and tables give the connection information for the 701B telephone set for the conditions shown.

	Fig.	Table
• Without Ringer, or Portable	1	A
	2	
• With E-Type Ringer	3	B
• 4-Party Selective and 8-Party Semiselective Service (With 426A cold cathode tube)	4	C
• Severe Induction (425A cold cathode tube)	5	D
• With F1A Ringer		E
• Wired for 1A1 Key Telephone System	6	
• Wired for 3A Speakerphone	7	F

1.04 To determine which type of identifying ground is required on 2-party tip stations, refer to section entitled Station Sets, Common Battery Selection for General Use.

1.05 For tip-party identification when no ringer is used, a 1610A or 1635A inductor is installed in the telephone set. For information on installation of the inductor see section entitled Telephone Sets 701 and 711, Installation.

1.06 To convert the 701B telephone set from dial to manual, move two spade-tipped leads as follows:

- S-W from terminal F of network to terminal RR.
- W dial lead from terminal GN of network to terminal R1.

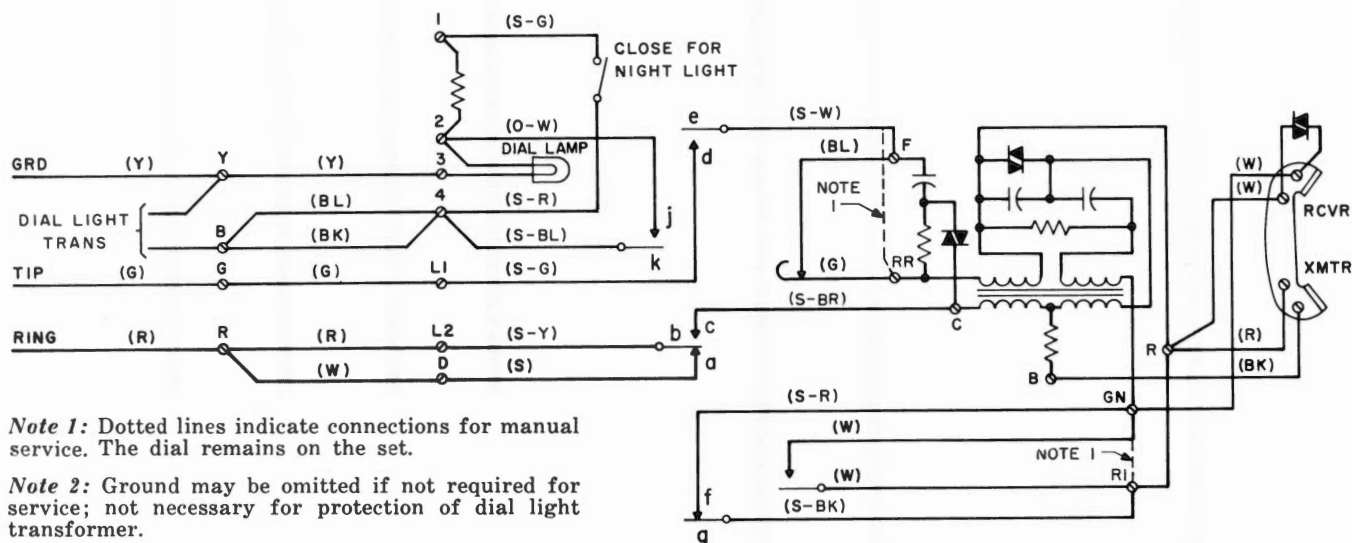
The dial remains on the set.



The dial light transformer can be damaged by lightning if a sufficient difference in ground potential occurs between the telephone plant and the power system. Be sure that the telephone and power grounds are bonded in accordance with the section entitled Protector and Signaling Grounds.

SECTION C38.670.40

INSIDE WIRING CONN BLOCK OR JACK MTG CORD* TERM. STRIPS SWITCH ASSEMBLY DIAL 8A NETWORK 495A HAND SET G3AR



Note 1: Dotted lines indicate connections for manual service. The dial remains on the set.

Note 2: Ground may be omitted if not required for service; not necessary for protection of dial light transformer.

* For portable installations use D4BA or D4BE cord, omitting BL and W conductors.

Fig. 1 - 701B Telephone Set without Ringer, or Portable

TABLE A

CONNECTIONS FOR TELEPHONE SET WITHOUT RINGER

Wire or Lead		Individual or Bridged	Ring Party	Tip Party	Tip Party with Ident Grd	
					1000Ω	2500Ω
Line Wire at Conn Block	Ring	R	R	R	R	R
	Tip	G	G	G	G	G
	Grd	Y	Y	Y	Y	Y
Transformer Leads at Conn Block	1	Y	Y	Y	Y	Y
	2	B	B	B	B	B
Mounting Cord at Conn Block	R	R	R	R	G	G
	G	G	G	G	R	R
	Y	Y	Y	Y	Y	Y
	BL	B	B	B	B	B
	W	R	R	R	G	G
	BK	B	B	B	B	B
Mounting Cord at Set	R	L2	L2	L2	L2	L2
	G	L1	L1	L1	L1	L1
	Y	3	3	3	3	3
	BL	4	4	4	4	4
	W	D	D	D	D	D
	BK	4	4	4	4	4
Inductor Leads at Set	BK				3	3
	R				B	TAPE
	S				B	B

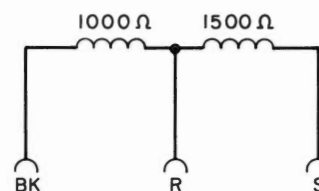
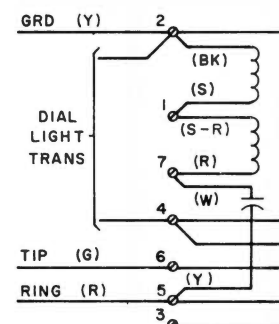
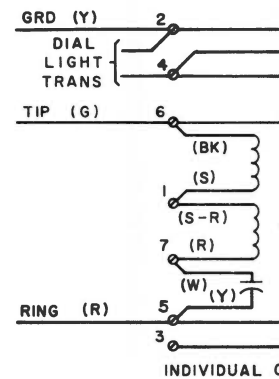


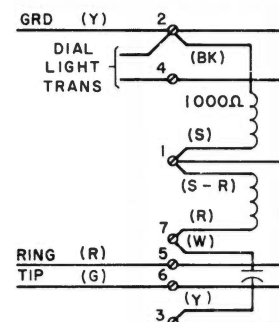
Fig. 2 - Schematic for 1610A or 1635A Inductor

INSIDE
WIRING

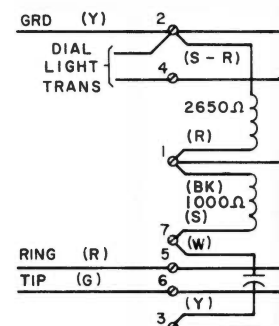
EIA
RINGER



TIP OR RING PARTY (SEE TABI



TIP PARTY WITH 1000-



Note 3: Ground may be omitted if not required for service not necessary for protection of dial light transformer.

CLOSE FOR NIGHT LIGHT

DIAL LAMP

(Y) (BL) (BK)

(G) LI (S-G)

(R) L2 (S-Y)

(W) D (S)

R BRIDGED

(Y) 3

(BL) 4

(BK) 4

(G) LI (S-G)

(R) L2 (S-Y)

(W) D (S)

E B)

(Y) 3

(BK) 4

SEE NOTE I

(BL) B (NETWORK)

(G) LI (S-G)

(R) L2 (S-Y)

(W) D (S)

OHM IDENT GRD

(Y) 3

(BK) 4

SEE NOTE I

(BL) B (NETWORK)

(G) LI (S-G)

(R) L2 (S-Y)

(W) D (S)

e (S-W)

d (S-G)

f (S-BK)

c (S-BR)

b (S)

a

(BL) F

(G) C

B

NOTE 2

GN

NOTE 2 R1

(W)

(W)

(R)

(BK)

(W)

(W)

LINE AND RINGER CO

Wire or Lead		Individual or Bridged	Ring Party
Line at Ringer	Ring	R	5
	Tip	G	6
	Grd	Y	2
Ringer		R	7
		S-R	1
		BK	2
		S	1
Capacitor in Ringer		W	7
		Y	5
Transformer Leads		1	2
		2	4
Mounting Cord at Ringer		R	5
		G	6
		Y	2
		BL	4
		W	3
		BK	4
Mounting Cord at Set*		R	L2
		G	L1
		Y	3
		BL	4
		W	D
		BK	4

Note: Use normal connections on tin-plated wires.

Wire or Lead			Individual or Bridged	Ring Party	Tip Party	Tip Party with Ident Grd			
						Normal Connections		Ringer Reversal When Connected to Long Line Ckt	
Line at Ringer	Ring	R	5	5	5	5	5	5	
	Tip	G	6	6	6	6	6	6	
	Grd	Y	2	2	2	2	2	2	
Ringer		R	7	7	7	1	1	2	
		S-R	1	1	1	2	7	1	
		BK	6	2	2	1	1	7	
		S	1	1	1	7	2	1	
Capacitor in Ringer		W	7	7	7	7	7	7	
		Y	5	5	6	3	3	3	
Transformer Leads		1	2	2	2	2	2	2	
		2	4	4	4	4	4	4	
Mounting Cord at Ringer		R	5	5	6	6	6	6	
		G	6	6	5	5	5	5	
		Y	2	2	2	2	2	2	
		BL	4	4	4	1	1	1	
		W	3	3	3	3	3	3	
Mounting Cord at Set*		BK	4	4	4	4	4	4	
		R	L2	L2	L2	L2	L2	L2	
		G	L1	L1	L1	L1	L1	L1	
		Y	3	3	3	3	3	3	
		BL	4	4	4	B	B	B	
		W	D	D	D	D	D	D	
		BK	4	4	4	4	4	4	

* Set wired at factory for individual or bridged, ring-, and tip-party service.

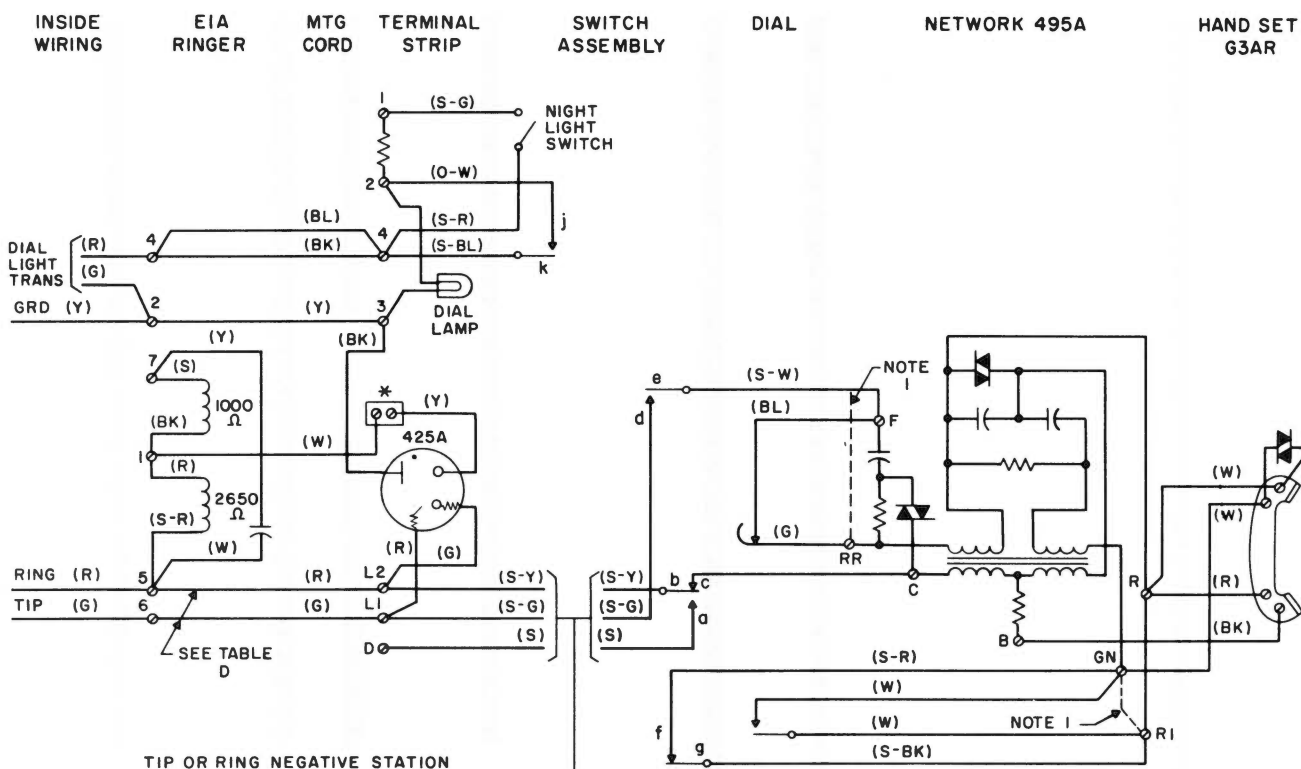


TABLE D
4-PARTY AND 8-PARTY
SEMISELECTIVE SERVICE

Location	Wire or Lead	Negative Stations		Positive Stations	
		1 and 5	2 and 6	3 and 7	4 and 8
Terminals on EIA Ringers	Line	Ring R	5	5	5
		Tip G	6	6	6
		Grd Y	2	2	2
	Ringer Coil Leads	R	1	1	1
		S-R	5	6	2
		S	7	7	7
		BK	1	1	1
	Capacitor Leads	Y	7	7	7
		W	5	6	2
	Mounting Cord	R	5	6	5
		G	6	5	6
		W	1	1	1
		Y	2	2	2
		BL	4	4	4
		BK	4	4	4
	2012A or KS-16184 Trans	G	2	2	2
		R	4	4	4
Terminals in 701B Telephone Set	Mounting Cord	R	L2	L2	L2
		G	L1	L1	L1
		W	*	*	*
		Y	3	3	3
		BL	4	4	4
		BK	4	4	4
	425A Tube Leads	BK	3	3	L2
		R	L1	L1	L2
		Y	*	*	*
		G	L2	L2	L1

Note: Dotted lines indicate connections for manual service. Dial remains in set.

* Remove W lead from D punching in set and connect to BK tube lead using D-161488 connector.

Fig. 5 — 701B Telephone Set with 425A Cold Cathode Tube (Severe Inductive Noise)

* Remove W lead from D punching in set and connect to BK tube lead using D-161488 connector.

TABLE E
CONNECTIONS WITH F1A RINGER

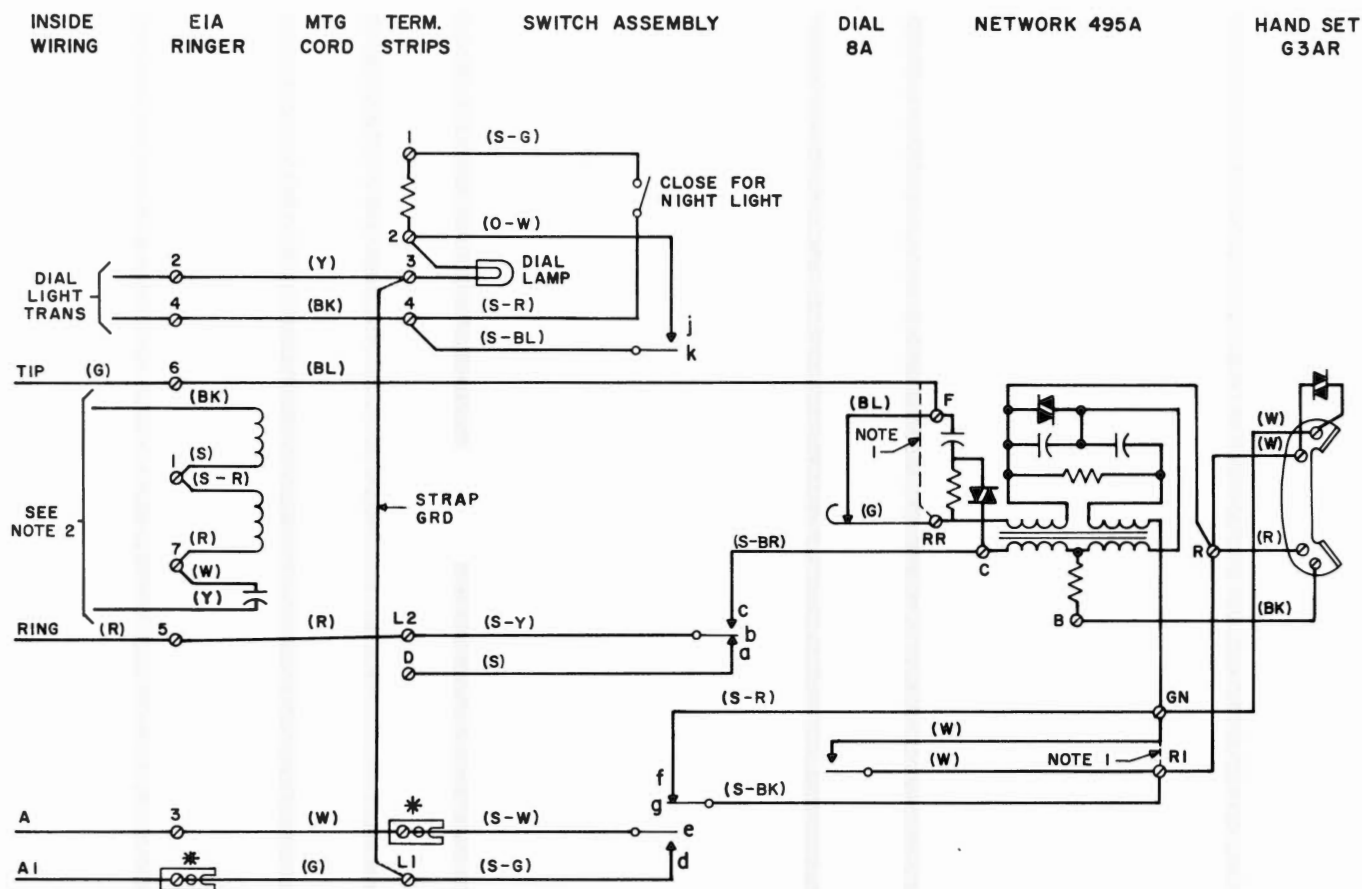
Location	Wire or Lead			Individual or Bridged	Ring Party	Tip Party	Tip Party with Identifying Ground			
							Normal Connections		Ringer Reversal When Connected to Long Line Circuit	
							1000Ω	2650Ω	1000Ω	2650Ω
F1A Ringer Term.	Line	Ring	R	6	6	1	1	1	1	1
		Tip	G	4	1	6	5	5	5	5
		Grd	Y	1	4	4	4	4	4	4
	Ringer Coil		R	7	7	7	7	2	2	4
			S-R	2	2	2	2	4	7	2
			BK	4	4	4	4	2	2	7
			S	2	2	2	2	7	4	2
	Network Straps	G	BL	4	4	4	4	4	4	4
		A	R	7	7	7	7	7	7	7
		B	G	6	6	6	6	6	6	6
	Dial Light Trans		1	1	4	4	4	4	4	4
			2	3	3	3	3	3	3	3
	Mounting Cord		R	6	6	1	5	5	5	5
			G	4	1	6	1	1	1	1
			Y	1	4	4	4	4	4	4
			BL	3	3	3	2	2	2	2
			W	5	5	5	6	6	6	6
			BK	3	3	3	3	3	3	3
Set Term.	Mounting Cord*		R	L2	L2	L2	L2	L2	L2	L2
			G	L1	L1	L1	L1	L1	L1	L1
			Y	3	3	3	3	3	3	3
			BL	4	4	4	B	B	B	B
			W	D	D	D	D	D	D	D
			BK	4	4	4	4	4	4	4



The F1A ringer is not intended to be used with 4-party selective or 8-party semiselective service, or any other service where code ringing would not be distinguishable in CHIME position. For schematic drawing and maintenance information on F1A ringer, see C Section entitled F1A Ringer.

Note: Use normal connections on tip-party ground stations. If bell taps on stations connected to long line circuit, use ringer reversal column in Table B to retain tip-party ground identification.

* Wired at factory for individual or bridged, ring-, and tip-party service.



To prevent false holding condition when handset is restored, switch contacts cb must break before de breaks.

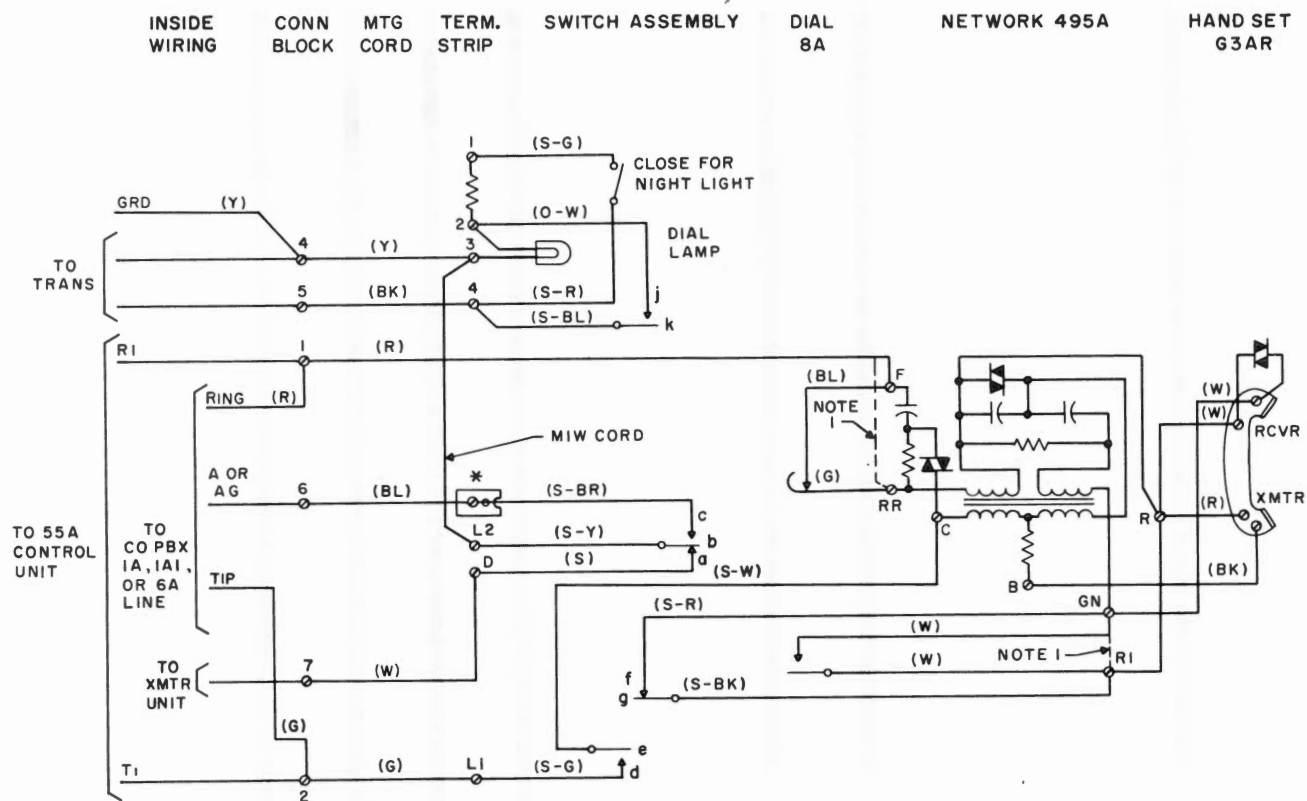
Note 1: Dotted lines indicate connections for manual service. The dial remains on the set.

Note 2: For individual line ringer, connect BK to tip (6) and Y capacitor lead to ring (5). For common audible ringer, connect to signal leads from equipment cabinet using D-161488 connectors.

Note 3: Ground may be omitted if not required for service; not necessary for protection of dial light transformer.

* Connect with D-161488 connector.

Fig. 6 — 701B Telephone Set Wired for 1A1 Key Telephone System



To prevent false holding condition when handset is restored, switch contacts cb must break before de breaks.

Note 1: Dotted lines indicate connections for manual service. The dial remains on the set.

Note 2: Ground may be omitted if not required for service; not necessary for protection of dial light transformer.

* Connect with D-161488 connector.

Fig. 7 — 701B Telephone Set Wired for 3A Speakerphone

TABLE F
701B MODIFICATION TELEPHONE SET
FOR 3A SPEAKERPHONE

Lead	From	To
BL Mtg Cd	4	D Conn (S-BR)
(S-BR) Swhk	C	BL Mtg Cd D Conn
R Mtg Cd	L2	F
(S-W)	F	C

Note: Strap 3 to L2 term. strip.