

TABLE E			
FIG	SPECIFY	CONNECTING TO	REMARKS
3, 4, 5, 6 & 15 OR 7	24 PER PANEL	CARR GRP ALM PANEL; DIST FRAME & D1 CHANNEL BANK BAY.	PROVIDE FIG 7 ONLY, UNLESS OTHERWISE SPECIFIED. (SEE NOTES 55, 61 & 62)
10	24 PER PANEL	CARR GRP ALM PANEL AND DIST FRAME.	USE THIS FIG WHEN A DIST FRAME CONN IS REQ'D BETWEEN THE CARR GRP ALM PANEL & D1 CHAN BANK BAY (SEE NOTE 55).
11	24 PER PANEL	D1 CHAN BANK BAY; CARR GRP ALM PANEL & DIST FRAME.	
9	1 PER UNIT	CARR GRP ALM PANEL	DIST FRAME CONN FOR FIRST E & M LEAD TYPE CHANNEL UNIT (SEE NOTES 55, 61 & 62)
12	1 PER UNIT	D1 CHAN BANK BAY; NO. 1 ESS APPLIQUE CKT; 48V SUP & SIG GRD.	
8	24 PER UNIT		DO NOT SPECIFY FOR CIRCUIT EQUIPPED FOR SERVICE RESTORAL.
1, 2	1 PER UNIT		PANEL WRG
13	1 PER UNIT	CARR GRP ALM PANEL	48V PWR SUP & SIG GRD.
14-28	24 PER PANEL	D1 CHAN BANK BAY AND DIST FRAME.	IF 1 OR 2 BANKS ON J98711A AND J98711C OR 1 BANK ON J98711B ARE NOT EQUIPPED, SPECIFY THE BANK TO WHICH THE CONNECTION IS MADE. (SEE NOTES 54 & 55).
16 THRU 26	INFORMATION ONLY		JUMPER INFORMATION ON CROSS CONNECTIONS FOR FIG 7 OR FIG 3, 4 AND 15.
27	12 PER UNIT		PANEL WRG

TABLE G				
DETAILS OF PIGTAIL COMPONENTS				
DESIG	TYPE	VALUE	LOC	SHEET
C2	KS-16390, L5 CAP	40UF	55	B2
C3	KS-16390, L2 CAP	8UF	52	B2
C4	KS-16390, L2 CAP	8UF	50	B2
CR6	458A DIODE		55	B2
Z1	185A NET		28	B3
Z2	185A NET		22	B3
Z3	185A NET		11	B3
Z4	185A NET		18	B3
Z5	185A NET		14	B3
R14	KS-13490, L1 RES	8200Ω	59	B2

TABLE F							
FEATURE OR OPTION			PROVIDE				REMARKS
SUPV	TYPE	CH	T-CHG FIG	WRG	APP (SCREW CONN)	LEADS TL1 TL2	
E & M INTER OFFICE	2 WAY OR 1 WAY OUTGOING			J, K	T, Y, Z	E	SEE NOTE 61
	NO. 1 ESS	1-24	1 & 2	J, K	Y, Z	E	
	1 WAY INCOMING			J, K	Y, Z	E	
FX TRK	DIAL LONG LINES			J, K	S, Y, Z	E	
LOOP 1 WAY OUTGOING OR SELECTOR UNIT	SXS			J, K	V, X, Y	S S	J98711J-()
	NO. 1 ESS			J, K	Y, Z		
	PANEL NO. 1 CROSSBAR OR CROSSBAR TANDEM	1-24	1 & 2	J, K	S, Y	S, S1	J98711G-()
	NO. 5 CROSSBAR			J, K	W, Y	B1 B2	J98711J-()
REVERSE BATTERY 1 WAY INCOMING PROX OR SELECTOR	BATTERY ON TIP FOR OFF-HOOK SUPERVISION	1-24	1 & 2	J, K	Y		J98711K-()
	BATTERY ON TIP FOR ON-HOOK SUPERVISION			J, K	Y		J98711H-()
SPECIAL SERVICES FOREIGN EXCHANGE TRUNK	SUBSCRIBER END LOOP OR GROUND START	1-24	2	J, K			J98711S-()
	OFFICE END LOOP OR GROUND START			J, K			J98711U-()

OFC END MUST Z-Y
J98711-AF11
J98711-AE1-1

ENGINEERING NOTES (CONTINUATION)

63- LARGER GAUGE WIRE THAN THAT INDICATED IN THE CABLING FIGURES MAY BE SPECIFIED ON A JOB BASIS WHEN REQUIRED TO MEET OPERATING REQUIREMENTS OF ASSOCIATED SWITCHING SYSTEM.

76- MODIFICATION OF SD-97093-01 FS1 CONSISTS OF REMOVING NUMBER 1 AT MULT POINT BETWEEN 56 OF (C) REL, 12 OF (D) REL & TERM 2 OF (CPS2), AND OF FS2 CONSISTS OF ADDING (R15) RESISTOR.

- ENGINEERING NOTES
- 51- SEE SHEET INDEX FOR DRAWING FROM WHICH THIS DRAWING IS MADE.
- 52- CONNECTING DRAWINGS-
 D1 CHAN BK INTERCONN CKT NO. 1 ESS REMOTE MASTER SCANNER APPLIQUE CKT
 1-97060-40
 1-97060-36
 UNAVAILABLE
- 53- EQUIPMENT ARRANGEMENT- J98711P-3
- 54- THE J98711P CARRIER GROUP ALARM PANEL IS USED IN CONJUNCTION WITH THE J98711A, J98711B AND J98711C D1 CHANNEL BANK BAYS. IT IS RECOMMENDED THAT THE BAYS BE CABLED FOR THE ULTIMATE CONDITION EVEN IF THEY ARE NOT INITIALLY FULLY EQUIPPED. ONE J98711P PANEL IS REQUIRED PER D1 CHANNEL BANK AND IF ALL OF THE BANKS ARE NOT EQUIPPED THE ALARM PANEL IS NOT REQUIRED FOR THE UNEQUIPPED BANKS. HOWEVER, A SPACE SHOULD BE ASSIGNED FOR THESE PANELS AND THE UNUSED LEADS IN THE CABLE SHOULD BE STORED IN THIS ASSIGNED SPACE UNTIL THE D1 BANK IS EQUIPPED AND THE ALARM PANEL ADDED. ALL CABLES SHOWN ON THIS DRAWING ARE THOSE NEEDED FOR THE ULTIMATE CONDITION AND WILL ACCOMMODATE EITHER TWO OR THREE J98711P PANELS.
- 55- TERMINAL STRIPS ASSOCIATED WITH FIGURES 3, 4, 5, 6, 7, 9, 10 SHOULD BE LOCATED ADJACENT TO EACH OTHER ON THE SAME DIST FRAME. IF ALL OF THE FIGURES ARE NOT INITIALLY USED IT IS RECOMMENDED THAT THE ADJACENT TERMINAL STRIPS BE RESERVED FOR USE AT A LATER DATE.
- 56- FOR 355A SXS SWITCHING OFFICES WHERE SELECTOR BANK MULTIPLE IS WIRED DIRECTLY TO OUTGOING DIAL PULSE REPEATER THROUGH AUXILIARY TERMINAL STRIP AT SELECTOR SHELF, PROVIDE ADDITIONAL TERMINAL STRIP AT SELECTOR SHELF AND INSTALL CABLE TO TOP FOR CROSS CONNECTION PURPOSE.
- 57- *M*, *N*, *P*, *R*, *S*, *T*, *U*, *V*, *W*, *X*, *Y* AND *Z* ARE SCREW TYPE OPTIONS AND OFFICE WIRING LIST RECORDS NEED NOT BE MAINTAINED. THE ADJUSTING OF THE OPTION SCREENS SHOULD BE DONE PER TABLE F. WIRING OPTIONS *N* AND *K* ARE SHOP WIRED AT (A) TERMINAL STRIP.
- 58- FIGURE 7 SHOULD BE USED WHEN A UNIVERSAL WIRING ARRANGEMENT IS DESIRED AT THE DIST FRAME.
- 59- FIGURE 10 SHOULD BE USED WHEN A DIST FRAME CONNECTION IS DESIRED BETWEEN THE CARRIER GROUP ALARM PANEL AND THE D1 CHANNEL BANK BAY.
- 60- FIGURES 16 THRU 26 ARE FOR INFORMATION ONLY TO SHOW JUMPER ARRANGEMENT FOR VARIOUS TYPES OF CROSS CONNECTIONS.
- 61- IN CHANNEL ASSOCIATED WITH E AND M SIGNAL LEAD CHANNEL UNIT ASSIGNED TO SERVICE RESTORAL CIRCUIT, ALWAYS USE *M* OPTION IN ADDITION TO OPTIONS MENTIONED. (SEE NOTE 62).
- 62- FOR T1 CARRIER, CONDUCT THE FIRST E AND M SIGNALING LEAD CHANNEL UNIT OF EACH SYSTEM ASSIGNED TO A 2-WAY TRUNK TO THE SERVICE RESTORAL CIRCUIT PER FIGURE 9. SPECIAL SERVICE, PRIVATE LINE AND OTHER NONATTACHED CIRCUITS MUST NOT BE USED FOR SERVICE RESTORAL CIRCUITS.

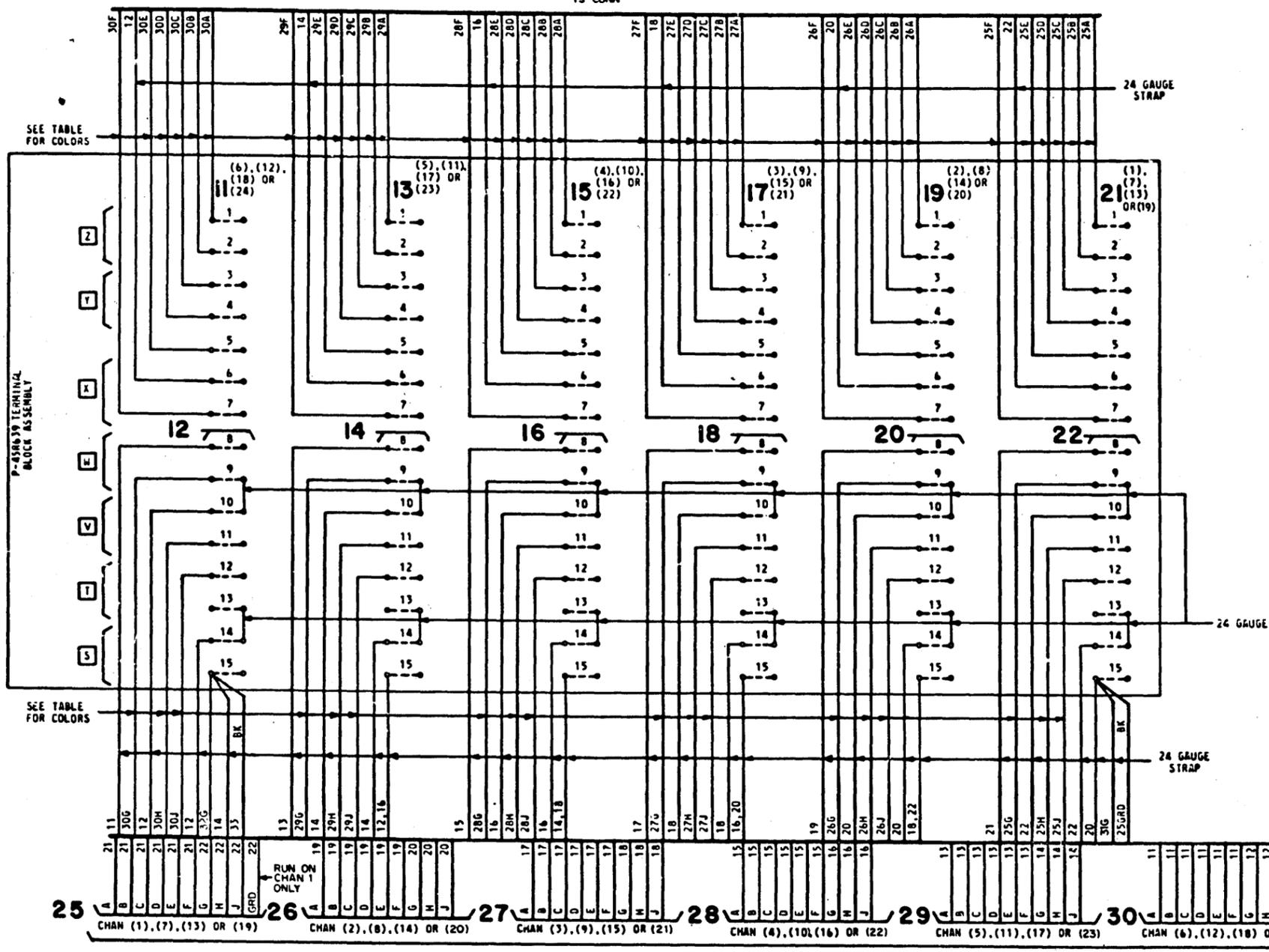
- MANUFACTURING NOTES CONVENTIONS
- CABLE.
- CONNECTION FURNISHED AS PART OF COMPONENT.
- 1- WIRES NOT OTHERWISE SPECIFIED TO BE 24BU.
- 2- P - PAIR.
- 3- B1 - TERMINAL NEAREST PANEL.
- 4- 1W, 2W, 3W OR 4W - CONDUCTOR JUMPER WIRE.
- 5- K1 - TOP OR LEFT TERMINAL ON STRIP.
- 6- PT - LEADS FURNISHED WITH COMPONENT.
- 7- LEADS SHOWN TERMINATED IN COMPONENTS WITHOUT TERMINALS ARE FURNISHED WITH COMPONENTS.
- 8- SHOP TO EXTEND WIRE 12 INCHES PAST LEFT END OF MOUNTING PLATE, LOOKING AT REAR FOR CONNECTION TO NO. 6 BAY GROUND WIRE AS FOLLOWS:
 A) BY THE SHOP WHEN UNIT IS SHOP MOUNTED.
 B) BY THE INSTALLER WHEN UNIT IS FIELD MOUNTED.
- 9- UNLESS OTHERWISE SHOWN, PIGTAIL LEADS OF RELAY WINDING NETWORKS SHALL CONNECT TO *N* & *M* RELAY WINDING TERMINALS.
- 10- ALL WIRES IN FIGURES 3 THRU 26, 28 AND LEADS 6 IN FIGURES 1 AND 2 ARE TO BE RUN BY THE INSTALLER.
- 11- INSTALLER SHALL ADJUST OPTION SCREENS S, T, V, W, X, Y & Z AS SPECIFIED BY THE TELEPHONE COMPANY.
- 12- B - TERMINAL NEAREST BASE OF TERMINAL STRIP.
- 13- TO INCREASE A TYPING CYCLE FROM 8 TO 15 SECONDS, A RESISTOR OF EITHER 820Ω OR 100Ω SHALL BE ADDED TO THE WIRING AND A 0.01μF CAPACITOR SHALL BE ADDED TO THE WIRING IF THE PULSED CURRENT IS IN EXCESS OF 15 SECONDS.

(CONTINUED)

T-97093-31
 SHEET
 A2

CARRIER GROUP ALARM CIRCUIT	T-97093-31	SHEET A2
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FIG 1
TS CONT



TABLE

CHAN	TERMINALS ON BLOCK ASSEMBLY											
	1	2	3	4	5	7	9	11	12	13	14	15
(1)	G	O	S	BR	W	BL	G	O	S			
(2)	O	S	BR	W	BL	O1Y	O	S	BR			
(3)	S	BR	W	BL	O1Y	S1Y	S	BR	W			
(4)	BR	W	BL	O1Y	S1Y	BL1Y	BR	W	BL			
(5)	W	BL	O1Y	S1Y	BL1Y	R1W	W	BL	O1Y			
(6)	BL	O1Y	S1Y	BL1Y	R1W	W1BK	BL	O1Y	BL1Y			
(7)	O1Y	S1Y	BL1Y	R1W	W1BK	R1BK	O1Y	BL1Y	R1W			
(8)	S1Y	BL1Y	R1W	W1BK	R1BK	G	BL1Y	R1W	W1BK			
(9)	BL1Y	R1W	W1BK	R1BK	G	O	R1W	W1BK	S1Y			
(10)	R1W	W1BK	R1BK	G	O	S	W1BK	S1Y	R1BK			
(11)	W1BK	R1BK	G	O	S	W1Y	S1Y	R1BK	G			
(12)	R1BK	G	O	S	BR	W	R1BK	G	O			
(13)	G	O	S	BR	BL	O1Y	G	O	S			
(14)	O	S	BR	BL	O1Y	S1Y	O	S	BR			
(15)	S	BR	BL	O1Y	S1Y	BL1Y	S	BR	W			
(16)	BR	W	BL	O1Y	S1Y	BL1Y	R1W	BR	W	BL		
(17)	W	BL	S1Y	BL1Y	R1W	R1BK	W	BL	O1Y			
(18)	BL	O1Y	BL1Y	R1W	W1BK	R1BK	BL	O1Y	S1Y			
(19)	O1Y	S1Y	R1W	W1BK	R1BK	W1Y	O1Y	S1Y	BL1Y			
(20)	S1Y	BL1Y	W1BK	R1BK	G	O	S1Y	BL1Y	R1W			
(21)	BL1Y	R1W	R1BK	O	S	BL1Y	R1W	W1BK				
(22)	R1W	W1BK	W1Y	O	S	W	R1W	W1BK	R1BK			
(23)	W1BK	R1BK	O	S	W	BR	W1BK	R1BK	G			
(24)	R1BK	G	O	W	BR	BL	R1BK	G	O			

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SHEET
B1

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SHEET
B1

3

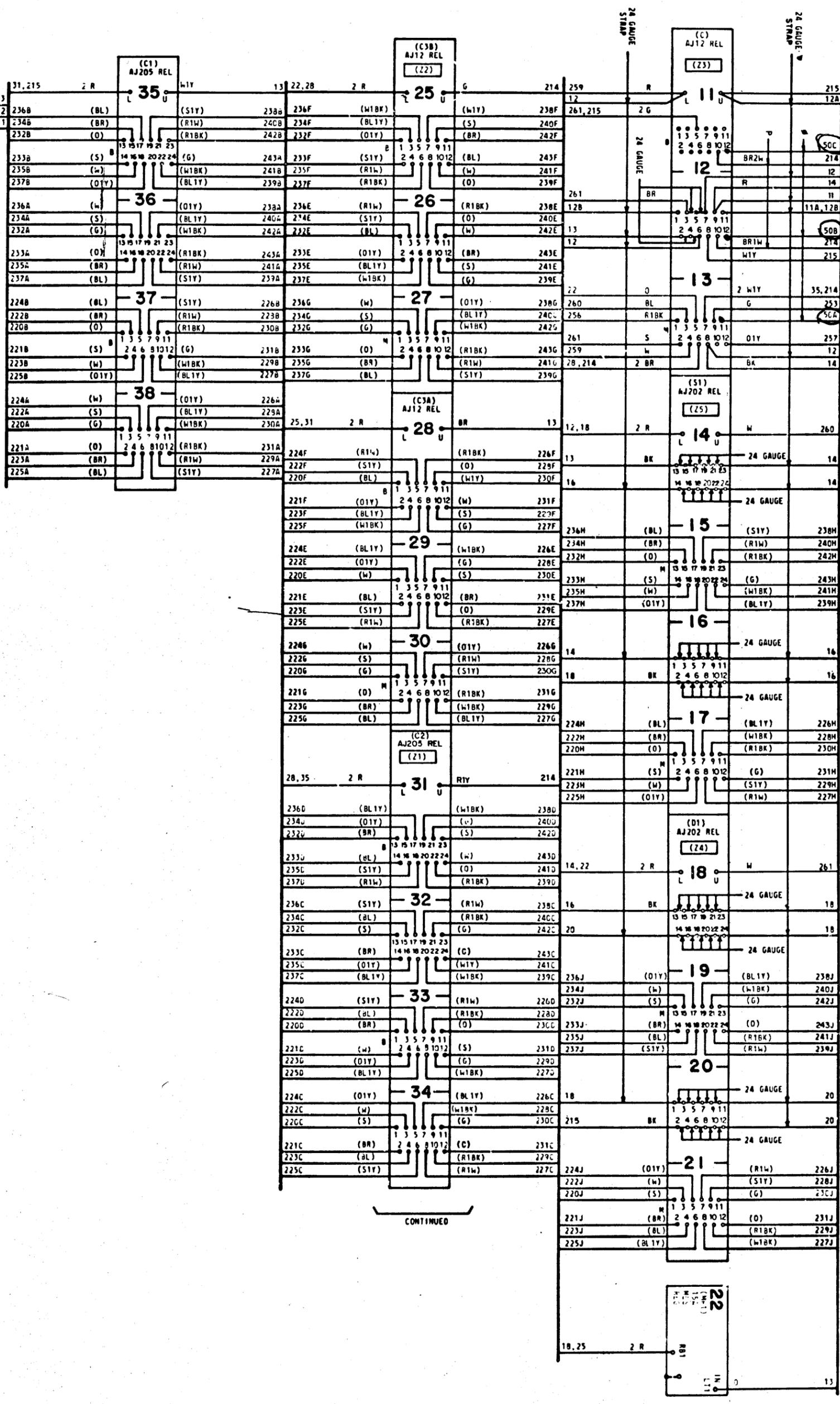


FIG 2 CONTINUATION
PANEL WIRING

CONTINUED

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 ALARM CIRCUIT
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3

FIG 3
CROSS CONN

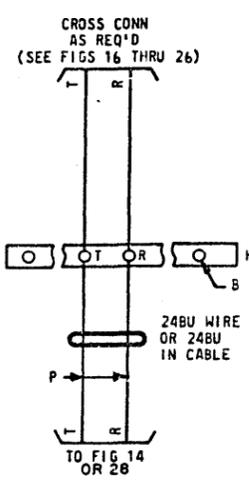


FIG 4
CROSS CONN

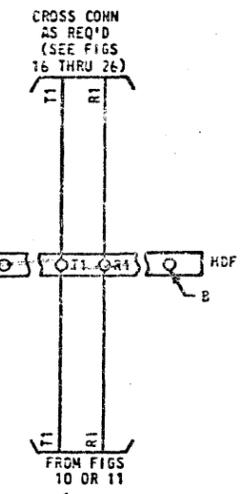


FIG 5
CROSS CONN

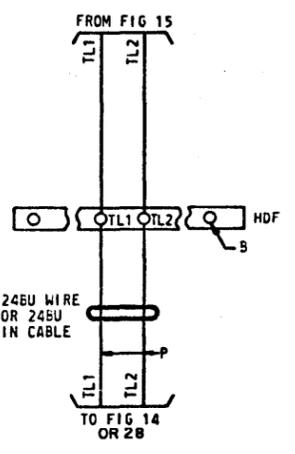


FIG 6
CROSS CONN

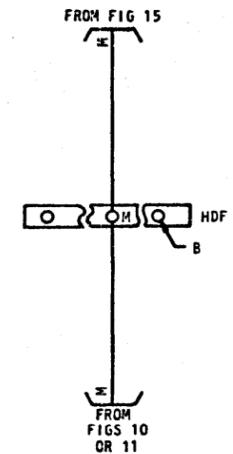


FIG 7
CROSS CONN

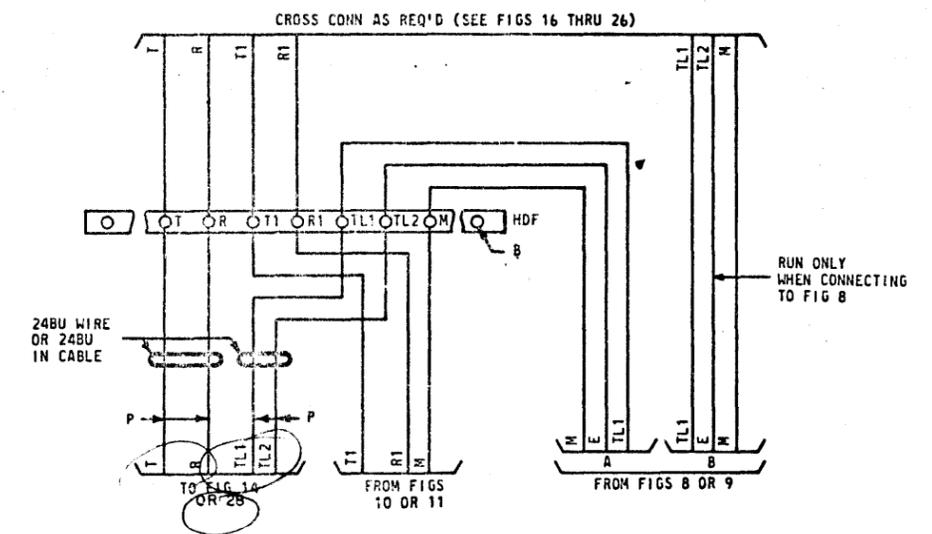


FIG 8
CROSS CONN

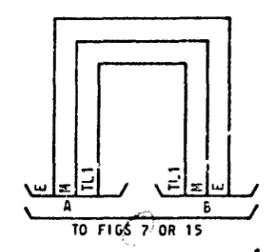


FIG 9
CROSS CONN

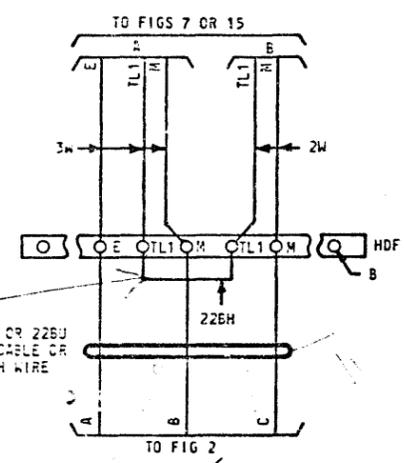


FIG 10
CROSS CONN

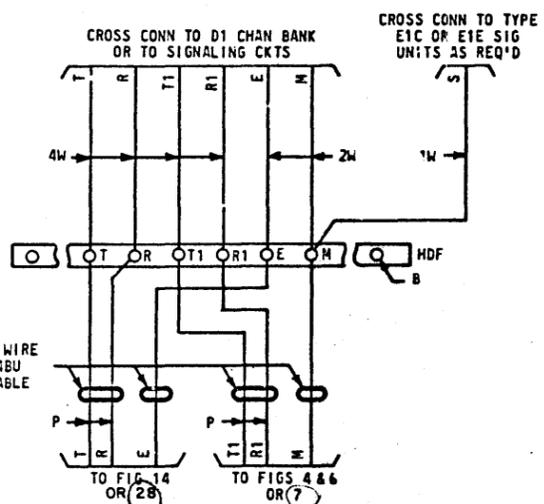


FIG 11
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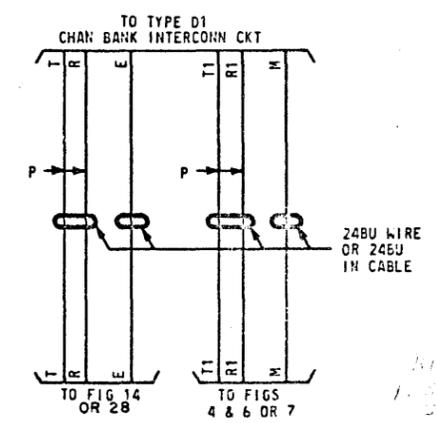


FIG 12
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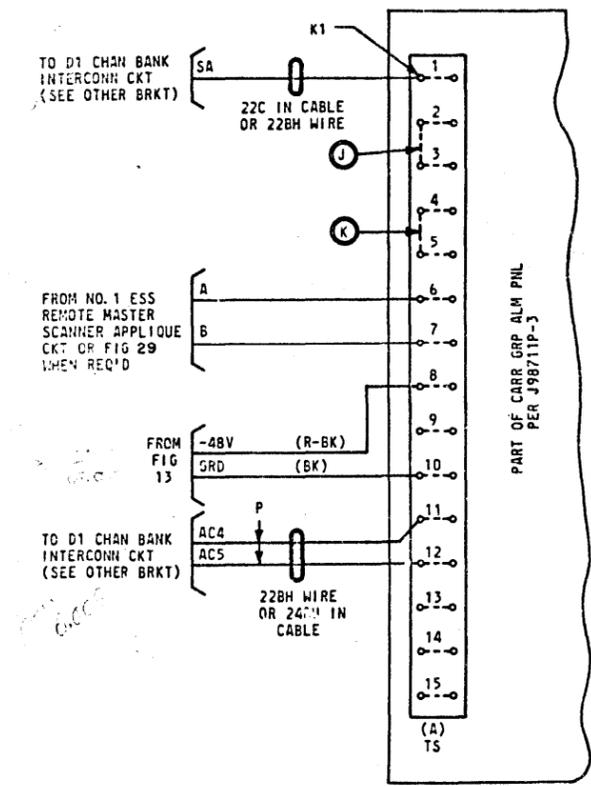


FIG 13
48V PWR SUP & SIG GRD

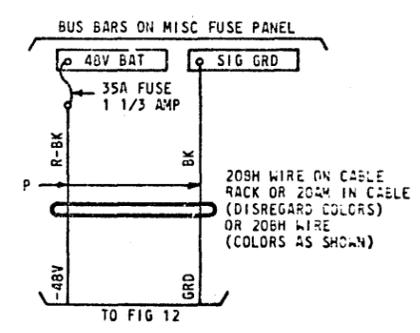


FIG 15
CROSS CONN

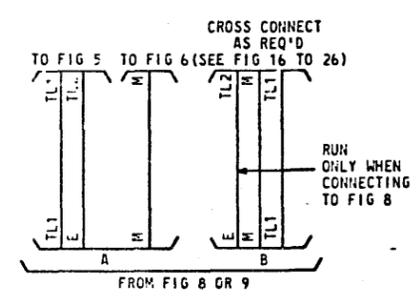
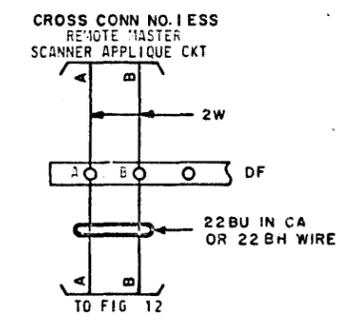


FIG 29
CROSS CONN



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FIG 16
CROSS CONN

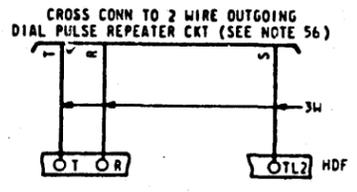


FIG 17
CROSS CONN

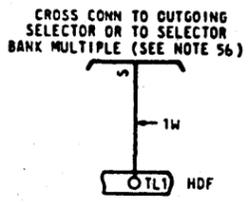


FIG 18
CROSS CONN

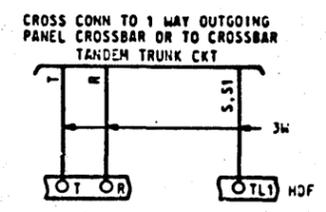


FIG 19
CROSS CONN

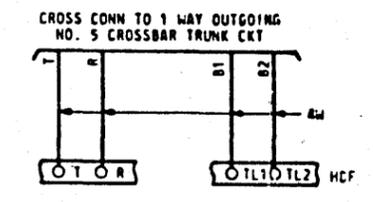


FIG 20
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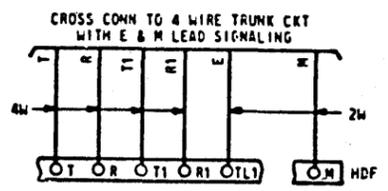


FIG 21
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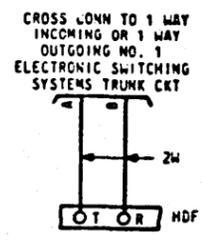


FIG 22
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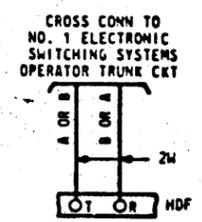


FIG 23
CROSS CONN

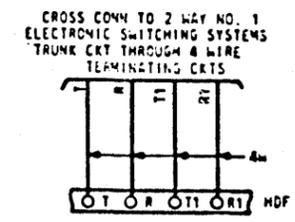


FIG 24
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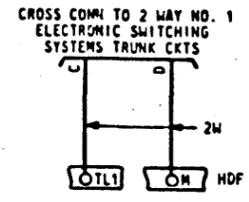


FIG 25
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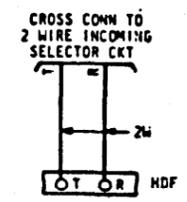


FIG 26
CROSS CONN

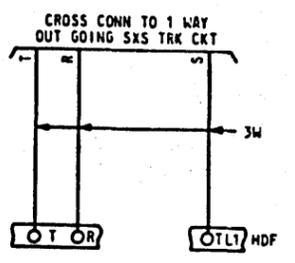


FIG 14 (MFR DISC)
CROSS CONN

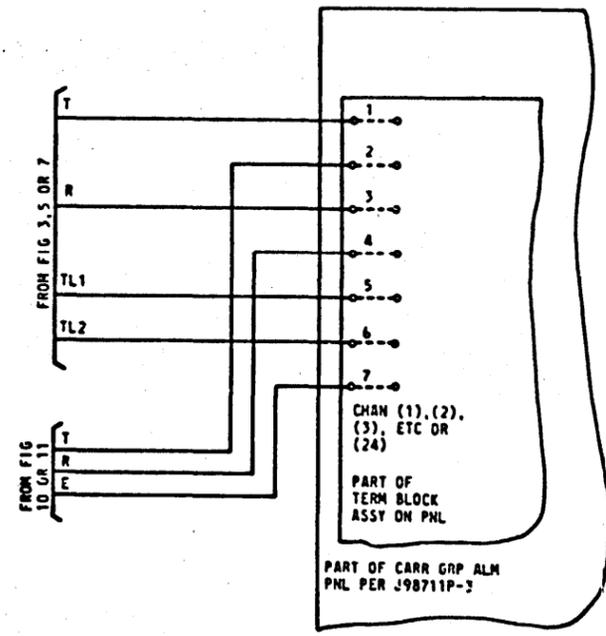
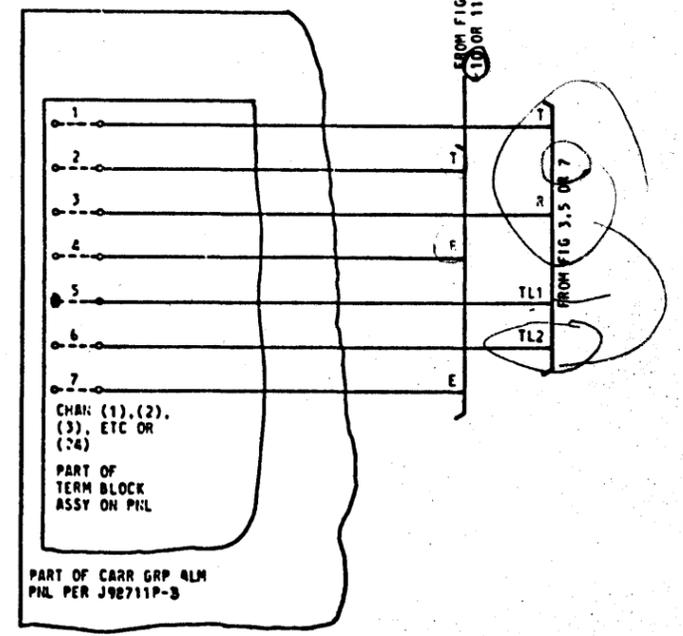


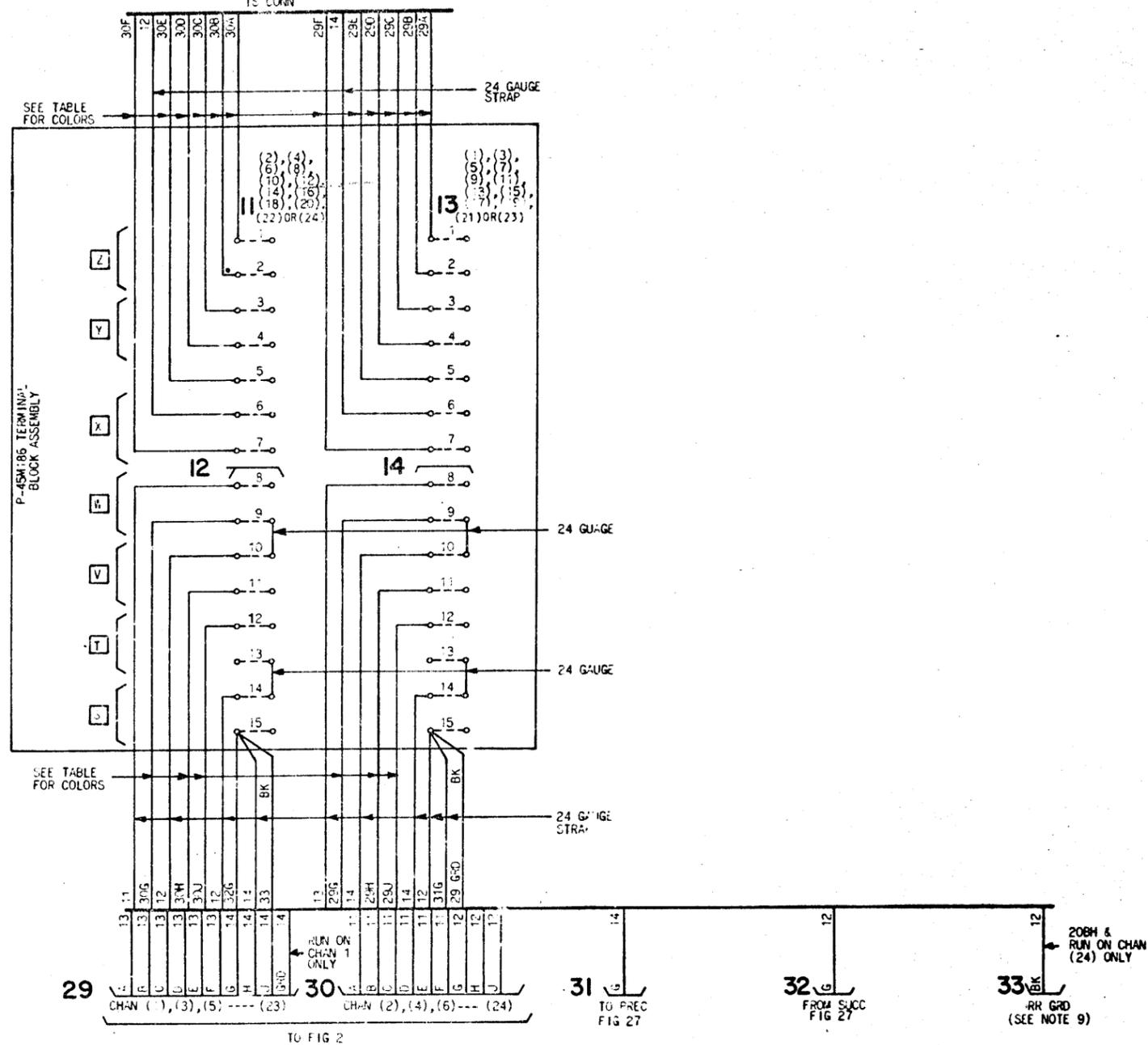
FIG 28
CROSS CONN



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SHEET B5

FIG 27



TABLE

CHAN	TERMINALS ON BLOCK ASSEMBLY											
	1	2	3	4	5	7	9	11	12			
(1)	G	O	S	BR	W	BL	G	O	S			
(2)	O	S	BR	W	BL	O1Y	O	S	BR			
(3)	S	BR	W	BL	O1Y	S1Y	S	BR	W			
(4)	BR	W	BL	O1Y	S1Y	BL1Y	BR	W	BL			
(5)	W	BL	O1Y	S1Y	BL1Y	R1W	W	BL	O1Y			
(6)	BL	O1Y	S1Y	BL1Y	R1W	W1BK	BL	O1Y	BL1Y			
(7)	O1Y	S1Y	BL1Y	R1W	W1BK	R1BK	O1Y	BL1Y	R1W			
(8)	S1Y	BL1Y	R1W	W1BK	R1BK	G	BL1Y	R1W	W1BK			
(9)	BL1Y	R1W	W1BK	R1BK	G	O	R1W	W1BK	S1Y			
(10)	R1W	W1BK	R1BK	G	O	S	W1BK	S1Y	R1BK			
(11)	W1BK	R1BK	G	O	S	W16	S1Y	R1BK	G			
(12)	R1BK	G	O	S	BR	W	R1BK	G	O			
(13)	G	O	S	BR	BI	O1Y	G	O	S			
(14)	O	S	BR	BL	O1Y	S1Y	O	S	BR			
(15)	S	BR	BL	O1Y	S1Y	BL1Y	S	BR	W			
(16)	BR	W	O1Y	S1Y	BL1Y	R1W	BR	W	BL			
(17)	W	BL	S1Y	BL1Y	R1W	W1BK	W	BL	O1Y			
(18)	BL	O1Y	BL1Y	R1W	W1BK	R1BK	BL	O1Y	S1Y			
(19)	O1Y	S1Y	R1W	W1BK	R1BK	W1Y	O1Y	S1Y	BL1Y			
(20)	S1Y	BL1Y	W1BK	R1BK	G	C	S1Y	BL1Y	R1W			
(21)	BL1Y	R1W	R1BK	G	C	S	BL1Y	R1W	W1BK			
(22)	R1W	W1BK	W1Y	O	S	W	R1W	W1BK	R1BK			
(23)	W1BK	R1BK	O	S	W	BR	W1BK	R1BK	O			
(24)	R1BK	O	S	W	BR	BL	R1BK	O	O			

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② 17

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SHEET 96

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