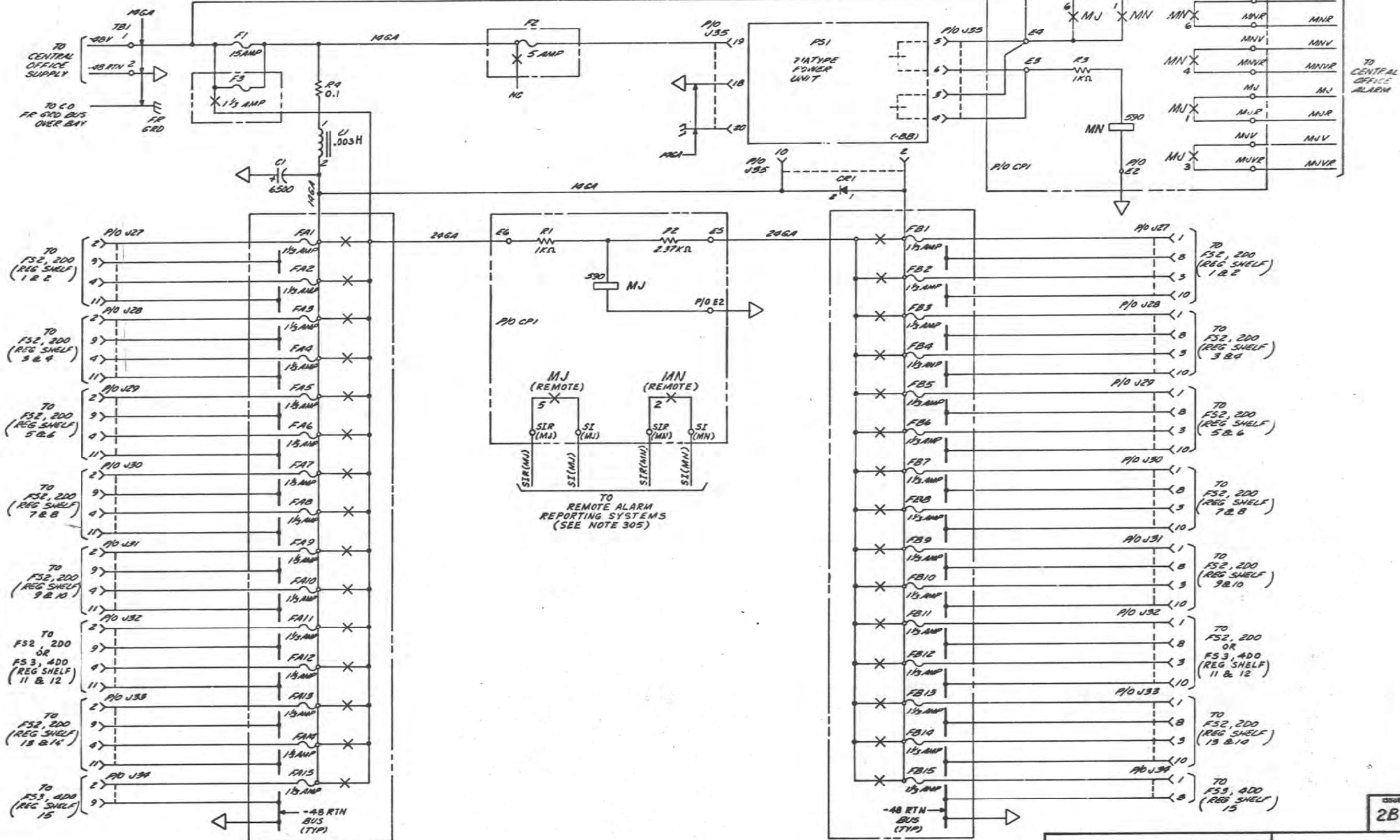
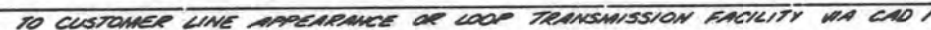


FS1 POWER, FUSE AND ALARM CIRCUIT



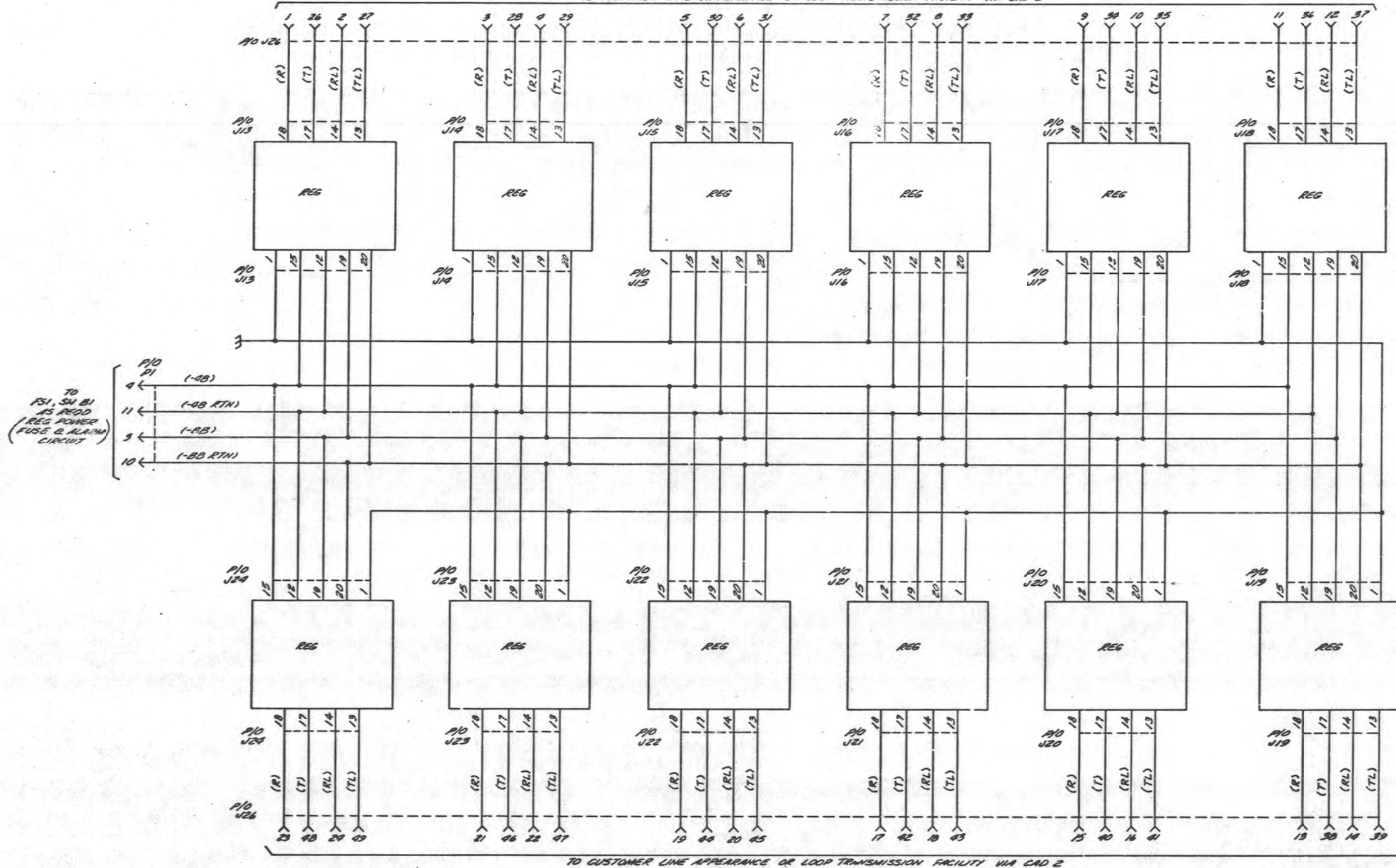
TO CUSTOMER LINE APPEARANCE OR LOAD TRANSMISSION FACILITY VIA CAD 1



69

PART OF FS 2 REG SHELF DUAL ARRANGEMENT

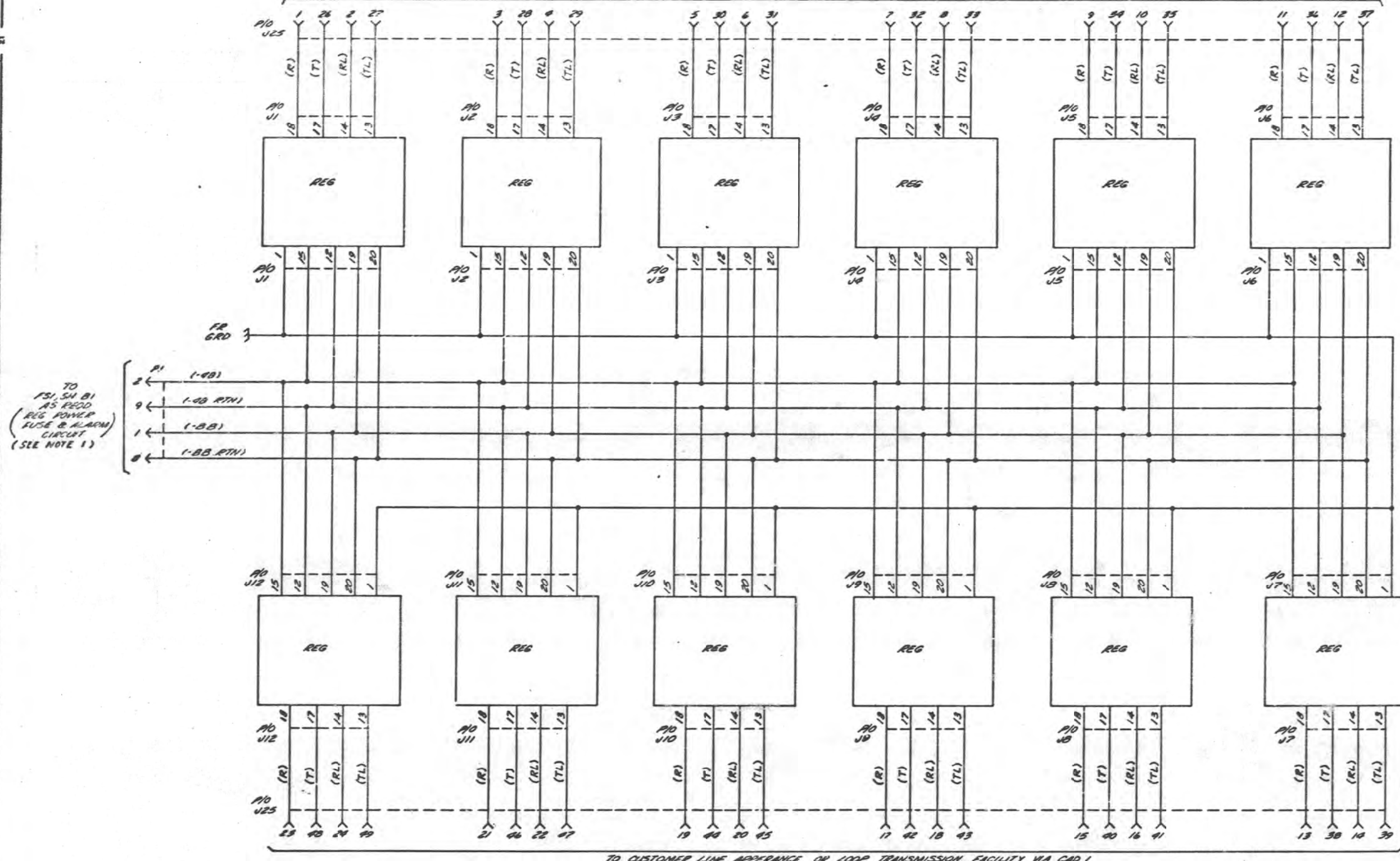
TO CUSTOMER LINE APPEARANCE OR LOOP TRANSMISSION FACILITY VIA CAD 2



ISSUE
2B

FS3 REG SHELF SINGLE ARRANGEMENT

TO CUSTOMER LINE APPEARANCE OR LOOP TRANSMISSION FACILITY VIA CAD 1



TO
FS1, SH B1
AS REGD
REG POWER
FUSE & ALARM
CIRCUIT
(SEE NOTE 1)

- NOTES:
1. FOR MISCELLANEOUS INSTALLATION OF J98625L SHELF, SEE CAD 1.

ISSUE
2B

RANGE EXTENDER WITH GAIN (REG) BAY WIRING AND APPLICATION SCHEMATIC		SD-97722-02-B4
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APP FIG 1 POWER, FUSE AND ALARM PANEL

CIRCUIT PACK

DESIG LOC CODE
CP1 1B7.1C4 ED-97869-30

RELAY

DESIG	MJ	MM
CODE	BF15.	BF15
OPTION		
	CONT	LOC
6	M	1A7
5	M	1A4
4	M	1A8
3	M	1A8
2	M	1A4
1	M	1A8
COIL	1C4	1B7

RESISTOR

DESIG LOC CODE
R1 1C4 KS-20289 L6C, 1KΩ
R2 1C5 KS-20289 L6C, 2.37KΩ
R3 1B7 KS-20289 L6C, 1KΩ

CAPACITOR

DESIG LOC CODE
C1 1C2 KS-19262 L1, 6500

LAMP

DESIG LOC CODE
DS1 1A7 M1
DS2 1A8 M1

DIODE

DESIG LOC CODE
CR1 1C6 4B5A

FUSE

DESIG LOC CODE
F1 1A2 74E
F2 1A4 70D
F3 1B2 70A
[15] FA1-FA15 1C2 70A
[15] FB1-FB15 1C6 70A

INDUCTOR

DESIG LOC CODE
L1 1B2 10B3A, .003H

RESISTOR

DESIG LOC CODE
R4 1B2 KS-20344, L2A, 0.1

CONNECTOR

DESIG	J27	J28	J29	J30	J31	J32	J33	J34	J35	
CODE	AMPCHAMP 552308-1 SKT	AMPCHAMP 552308-1 SKT	AMPCHAMP 552308-1 SKT	AMPCHAMP 552308-1 SKT	AMPCHAMP 552308-1 SKT	AMPCHAMP 552308-1 SKT	AMPCHAMP 552308-1 SKT	AMPCHAMP 552308-1 SKT	928E SKT	
OPTION										
TERM.	LOC	LOC	LOC	LOC	LOC	LOC	LOC	LOC	LOC	LOC
20									1B5	
19									1B5	
18									1B5	
17										
16										
15										
14										
13										
12										
11	1C1	1D1	1E1	1E1	1F1	1G1	1G1			
10	1C8	1D8	1D8	1D8	1F8	1G8	1G8		1C5	
9	1C1	1D1	1E1	1E1	1F1	1G1	1G1	1H1		
8	1C8	1D8	1D8	1D8	1F8	1G8	1G8	1H8		
7										
6									1B6	
5									1B6	
4	1C1	1D1	1E1	1E1	1F1	1G1	1G1		1B6	
3	1C8	1D8	1D8	1D8	1F8	1G8	1G8		1B6	
2	1C1	1D1	1E1	1E1	1F1	1G1	1G1	1H1	1C6	
1	1C8	1D8	1D8	1D8	1F8	1G8	1G8	1H8		

ISSUE
2B

RANGE EXTENDER WITH GAIN (REG)
BAY WIRING AND
APPLICATION SCHEMATIC

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APP FIG 2
REG SHELF
(DUAL ARRANGEMENT)

CONNECTOR

DESIG	[12]J1-J12	[12]J13-J24	J25	J26	P1
CODE	92BE SKT	92BE SKT	AMPCHAMP 229941-1 SKT	AMPCHAMP 229941-1 SKT	AMPCHAMP 552134-1 PLUG
OPTION					
TERM.	LOC	LOC	LOC	LOC	LOC
50					
49			2H2	3G2	
48			2H1	3G2	
47			2H3	3G3	
46			2H3	3G3	
45			2H4	3G5	
44			2H4	3G4	
43			2H6	3G6	
42			2H5	3G6	
41			2H7	3G7	
40			2H6	3G7	
39			2H8	3G9	
38			2H8	3G8	
37			2A8	3A8	
36			2A8	3A8	
35			2A7	3A7	
34			2A6	3A7	
33			2A6	3A6	
32			2A5	3A6	
31			2A4	3A5	
30			2A4	3A4	
29			2A3	3A3	
28			2A3	3A3	
27			2A2	3A2	
26			2A1	3A2	
25					
24			2H2	3G2	
23			2H1	3G2	
22			2H3	3G3	
21			2H3	3G3	
20	SH B2	SH B3	2H4	3G4	
19	SH B2	SH B3	2H4	3G4	
18	SH B2	SH B3	2H5	3G6	
17	SH B2	SH B3	2H5	3G5	
16			2H7	3G7	
15	SH B2	SH B3	2H6	3G7	
14	SH B2	SH B3	2H8	3G8	
13	SH B2	SH B3	2H8	3G8	
12	SH B2	SH B3	2A8	3A8	
11			2A8	3A8	3D1
10			2A7	3A7	3D1
9			2A6	3A7	2D0
8			2A5	3A6	2D0
7			2A5	3A5	
6			2A4	3A4	
5			2A4	3A4	
4			2A3	3A3	3D1
3			2A3	3A3	3D1
2			2A2	3A2	2D0
1	SH B2	SH B3	2A1	3A2	2D0

APP FIG 3
REG SHELF
(SINGLE ARRANGEMENT)

CONNECTOR

DESIG	[12]J1-J12	J25	P1
CODE	92BE SKT	AMPCHAMP 229941 SKT	AMPCHAMP 552134-1 PLUG
OPTION			
TERM.	LOC	LOC	LOC
50			
49		4G2	
48		4G1	
47		4G3	
46		4G3	
45		4G4	
44		4G4	
43		4G6	
42		4G5	
41		4G7	
40		4G7	
39		4G8	
38		4G8	
37		4A8	
36		4A8	
35		4A7	
34		4A6	
33		4A5	
32		4A5	
31		4A4	
30		4A4	
29		4A3	
28		4A3	
27		4A2	
26		4A1	
25			
24		4G4	
23		4G4	
22		4G4	
21		4G4	
20	SH B4	4G4	
19	SH B4	4G4	
18	SH B4	4G5	
17	SH B4	4G5	
16		4G7	
15	SH B4	4G6	
14	SH B4	4G6	
13	SH B4	4G8	
12	SH B4	4A8	
11		4A8	
10		4A7	
9		4A7	4D0
8		4A5	4D0
7		4A5	
6		4A4	
5		4A4	
4		4A3	
3		4A3	
2		4A2	4D0
1	SH B4	4A1	4D0

APP FIG 4
POWER, FUSE, AND ALARM PANEL
(SEE NOTE 1)

POWER UNIT

DESIG	LOC	CODE
PS1	1B6	71A TYPE

APP FIG 5
REG SHELF
(SEE NOTE 2)

RANGE EXTENDER (REG PLUG-IN UNIT)

DESIG	LOC	CODE
REG	SH B2 & B3	5A

NOTES:

1. OLDER VERSION - 71A(MD), 71A1(MD) OR 71A2(A & W ONLY) - POWER UNITS MAY BE USED BY ADHERING TO REQUIREMENTS AS SPECIFIED IN BSP801-407-155. THE NEW DESIGN 71A3 POWER UNIT CAN BE USED IN PLACE OF ANY OF THE PREVIOUS 71A - TYPE POWER UNITS.
2. OLDER VERSION OF J98625AA-1, LIST 1 (MD), LIST 2 (MD) OR LIST 3 (MD) RANGE EXTENDER UNITS MAY BE USED BY ADHERING TO REQUIREMENTS AS SPECIFIED IN BSP 801-407-155.

RANGE EXTENDER WITH GAIN (REG)
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CIRCUIT NOTES:

DESIG	FUSE AMP	POTENTIAL	QUANTITY
F1	10	-48	1 PER ED-97733-31
F2	5	-48	1 PER ED-97733-31
F3	1-1/3	-48	1 PER ED-97733-31
FA	1-1/3	-48	1 PER ED-97858-30, GRP 2
FA	1-1/3	-48	2 PER ED-97858-30, GRP 1
FB	1-1/3	-88	1 PER ED-97858-30, GRP 2
FB	1-1/3	-88	2 PER ED-97858-30, GRP 1

BATTERY SYMBOL	VOLTAGE RANGE
----------------	---------------

FEATURE OR OPTION	PROVIDE		
	APP FIG.	APP OR WRG	QUANTITY (MAXIMUM)
11'-6" HIGH BAY J98625G	DUAL BACKPLANE ED-97858-30, GRP 1	2	7 PER BAY
	SINGLE BACKPLANE ED-97858-30, GRP 2	3	1 PER BAY
	PFA PANEL ED-97733-31	1	1 PER BAY
	POWER UNIT 71 TYPE	4	1 PER BAY
	RANGE EXTENDER REG 5A	5	180 PER BAY
9'-0" HIGH BAY J98625H	DUAL BACKPLANE ED-97858-30, GRP 1	2	5 PER BAY
	SINGLE BACKPLANE ED-97858-30, GRP 2	3	1 PER BAY
	PFA PANEL ED-97733-31	1	1 PER BAY
	POWER UNIT 71 TYPE	4	1 PER BAY
	RANGE EXTENDER REG 5A	5	132 PER BAY
7'-0" HIGH BAY J98625J	DUAL BACKPLANE ED-97858-31, GRP 1	2	4 PER BAY
	PFA PANEL ED-97733-31	1	1 PER BAY
	POWER UNIT 71 TYPE	4	1 PER BAY
	RANGE EXTENDER REG 5A	5	96 PER BAY

RECORD OF APP FIGURES, WIRING AND APPARATUS CHANGES						
CHANGED ON ISS	IF JOB RECORDS DO NOT SPECIFY	THIS OPTION WAS FURN	SEE NOTE	USE IN CIRCUIT		
				STD	A&M	MD

CIRCUIT NOTES (CONT):

104. CURRENT DRAIN TABLE:

FUSE	CURRENT DRAIN
F1	10.5 AMP MAX FOR J98625J BAY (-48V)
	12.1 AMP MAX FOR J98625H BAY (-48V)
	14.8 AMP MAX FOR J98625G BAY (-48V)
F2	2.0 AMP MAX (-48V)
FA	.6 AMP MAX (-48V)
FB	.5 AMP MAX (BOOSTED BATTERY)

EQUIPMENT NOTES:

201. IT IS POSSIBLE TO PLUG THE 71 TYPE POWER UNIT INTO A REG CKT CONNECTOR. IF THIS IS DONE IN A WORKING BAY, THE SUBSCRIBER LINE ASSOCIATED WITH THAT REG CKT WILL BE WITHOUT SERVICE. OPERATING CONDITIONS WILL EXIST THAT INDICATE AN UNPLUGGED POWER UNIT. THE POWER UNIT WILL NOT BE DAMAGED.

202. IT IS POSSIBLE TO PLUG A REG CKT INTO THE POWER UNIT CONNECTOR. IF THIS IS DONE IN A WORKING BAY THE REG CKT WILL NOT BE DAMAGED. OPERATING CONDITIONS WILL EXIST THAT INDICATE AN UNPLUGGED POWER UNIT.

INFORMATION NOTES:

301. UNLESS OTHERWISE SPECIFIED: RESISTANCE VALUES ARE IN OHMS, CAPACITANCE VALUES ARE IN MICROFARADS, VALUES PRECEDED BY THE SYMBOL + (PLUS) OR - (MINUS) ARE IN VOLTS.

302. THE POWER FUSE AND ALARM PANEL (ED-97733-31) FUSES AND DISTRIBUTES -48 VOLTS AND BOOSTED BATTERY TO THE REG SHELVES, (ED-97858-30, GRP 1) AND (ED-97858-30, GRP 2). THIS PANEL ALSO CONTAINS MAJOR AND MINOR ALARM CIRCUITS AND PROVIDES RELAY CLOSURE FOR THE ALARM FUNCTION TO THE CENTRAL OFFICE.

303. TYPICAL ALARM CKT CONNECTIONS

(MINOR ALARMS)

C.O. ALARMS CKTS	CPI			
	MN	MNR	MNV	MNVR
CROSSBAR NO. 5 ALARM CKT SD-25671-01, FIG. 1, FIG. 22, 20 OPTION	MN	MNR	NC	NC
SXS 355A MISC ALARM CKT SD-32192-01, FIG. 1, FIG. 12 & TABLE B	MN	MNG	NC	NC
SXS NO. 1 COMMON AUD & VIS ALM CKT SD-96188-01 FIG. 27, 83 & 78 OR 64	MN	MNR	MNV	MNVR
ESS NO. 1 & NO. 2 REMOTE SCANNER APPLIQUE CKT SD-1A210-01, FIG. 1	A OR T	B OR R	NC	NC

(MAJOR ALARMS)

C.O. ALARM CKTS	CPI			
	MJ	MJR	MJV	MJVR
CROSSBAR NO. 5 ALARM CKT SD-25671-01, FIG. 1 FIG. 22, 20 OPTION	MJ	MJR	NC	NC
SXS 355A MISC ALARM CKT SD-32192-01, FIG. 1 FIG. 12 & TABLE B	MJ	MJG	NC	NC
SXS NO. 1 COMMON AUD & VIS ALM CKT SD-96188-01, FIG. 27, 83 & 78 OR 64	MJ	MJR	MJV	MJVR
ESS NO. 1 & NO. 2 REMOTE SCANNER APPLIQUE CKT SD-1A210-01, FIG. 1	A OR T	B OR R	NC	NC

304. THE BOOSTED BATTERY VOLTAGE PROVIDED BY THE POWER UNIT IS REFERRED TO AS "88".

305. FUNCTIONS FOR REMOTE ALARM REPORTING SYSTEMS HAVE BEEN ADDED IN ISSUE 2B. RELAY CLOSURES ARE PROVIDED FOR BOTH MAJOR AND MINOR ALARMS. IN MOST INSTALLATIONS GROUND RETURN IS SUPPLIED BY THE REMOTE REPORTING SYSTEM. IN THOSE CASES WHERE THE RETURN IS REQUIRED AT THE REG BAY A STRAP CAN BE WRAPPED BETWEEN E2(CP1) AND THE APPROPRIATE ALARM FUNCTION PUNCHING (MNR,MJR).

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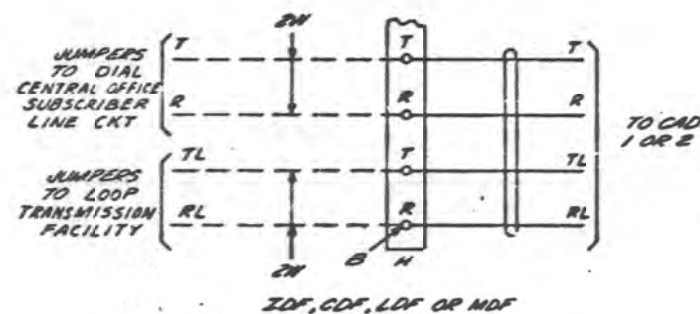
CAD 1 REG SHELF (SINGLE & DUAL)



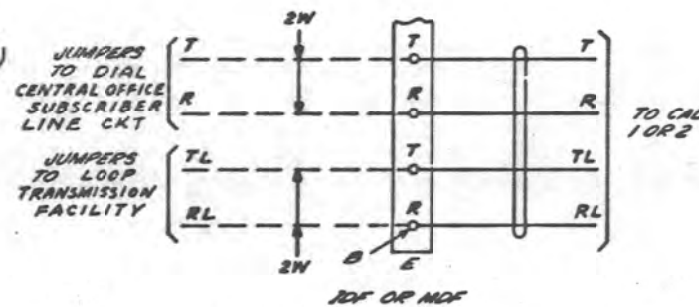
CAD 2 REG SHELF (DUAL)



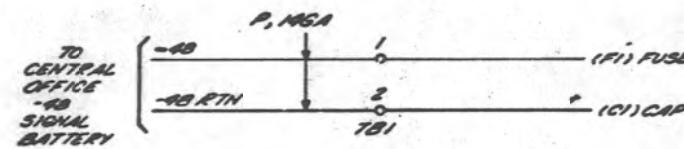
CAD 3 LOOP AND OFFICE CONNECTIONS 5x5, CROSSBAR NO 1 & 5



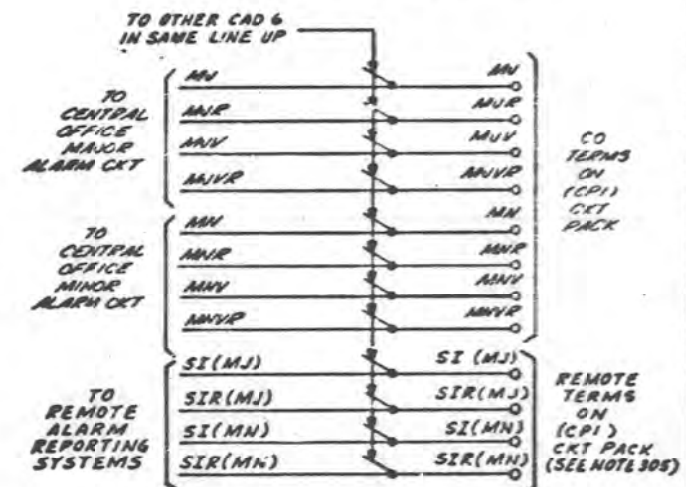
CAD 4 LOOP AND OFFICE CONNECTIONS ESS NO 1 & 2



CAD 5 POWER, FUSE & ALARM PANEL



CAD 6 POWER, FUSE & ALARM PANEL



CAD 7 MISCELLANEOUS INSTALLATION FOR J98635L SHELF

