#2

DIMENSION® PBX
30A8 SYSTEM STATUS INDICATOR
CROSS CONNECTION

CONTENTS

1. GENERAL

1.1 This section provides the installation of 30A8 SSI for the DIMENSION 400 and 2000 PBX.

2. DOCUMENTATION

2.1 COD - Customer Order Document
SD-1E446-01
SD-1E442-01
SD-1E480-01
SD-1E493-01

3. REQUIREMENTS

3.1 For DIMENSION 400 PBX:

QTY	ITEM	DESCRIPTION
Note 1	LC15	Contact Interface B
Note 5	30A8	System Status Indicator
2	17B	Key Telephone Unit
2	2370 Ohms	KS-20289, L6C (Note 2) per one 17B KTU
1	185A	Network per one 17B KTU
1	334A	Interface Surge Protection Network Per one 30A8 SSI (Note 3)
2	511 Ohms	KS-19152, L1

For DIMENSION 2000 PBX:

QTY	ITEM	DESCRIPTION
Note 4	30A8	System Status Indicator
2	17B	Key Telephone Unit per one 30A8 SSI
2	2370 Ohms	KS-20289, L6C per one 17B KTU (Note 2)
1	185A	Network per one 17B KTU
1	334A	Interface Surge Protection Network per one 30A8 SSI (Note 3)
2	511 ohms	KS-191523L1

NOTES:

1 - Refer to COD for the assigned slot in the carrier. See Note A in step 4.1.1.

2 - These resistors are locally supplied. The resistors should be KS-20289, L6C or have the following specifications:
   a) Power dissipation of 3 watt or greater
   b) Flame proof
   c) Tolerance of ± 5%
   d) Additional END-OF-LIFE tolerance of ± 10%

3 - There are eight 511 ohms resistors on the 334A (can be ordered by J58879BA-L15 for 201S and J58879BA-L25 for 201L)

4 - For DIMENSION 2000 PBX, there can be maximum of 35 30A8 SSI, because maximum of 35 LC15's circuit packs is available. Refer to COD for the assigned slot in the carrier for LC15's.

→ 5 - One 30A8 SSI for each LC15.

4. PROCEDURE

4.1 For DIMENSION 400 PBX:

4.1.1 Make sure that all Contact Interface B (LC15) are in their appropriate slots in the Trunk Carrier. Refer to COD for actual slots assignment.

→ NOTE A: The wiring to slots that can accept LC15 in the Trunk carrier (J58879BA) comes out on Connectors TX01 through TX03 (See Fig. 11). The wiring to slots that can accept LC15 in the Module Control and Trunk Port Carrier (J58882BA) comes out on connectors MX01 through MX03 (See Fig. 10). The wiring to slots that can accept LC15 in the Control/Trunk carrier (J58879CC) comes out on connectors TCX01 through TCX03 (See Fig. 12).

4.1.2 Make sure that Alarm Control (LC18C) is in slot 28 in control carrier. The wiring required for the connection of 30A8 SSI on the CX01 is shown in Table B and Fig. 1 or 4.

TABLE B

PIN. NO.	LEAD COLOR	LEAD DESIGN	CONN. BLK TERMINAL
40	BK-S	-48C8	29
21	BL-V	-48PX	42
48	V-GR	MJ	45
49	V-BR	MN	47
24	BR-V	MJR	48
25	S-V	MNR	50
16	BL-Y	GRD-48	32
17	OR-Y	GRD-48	34
18	GR-Y	GRD-48	36
19	BR-Y	GRD-4	38
20	S-Y	GRD-48	40

Note 7

Note 7: Use any one of unassigned ground lead (GRD-48).

4.1.3 If Interface Surge Protection Network is required (Fig. 1), do steps 4.1.4 through 4.1.13. Otherwise, do steps 4.1.14 through 4.1.19.

4.1.4 Cut down (if not yet) an A25D connector cable on purple cross-connect field as required from LC15 per Fig. 1 and 10-12.

4.1.5 Cut down (if not yet) cable from terminal CX01 on the purple cross-connect field per Table B in step 4.1.2 and Fig. 1.

4.1.6 Connect the -48C8 lead to all CID leads per Fig. 1 and 10-12.

4.1.7 Cross-connect all the CIG leads from TX0- terminal block on purple cross-connect field to yellow cross-connect field per Fig. 1 and 10-12.

4.1.8 Mount the Interface Surge Protection Network (J58879BA-L15) on the yellow cross-connect field per Fig. 1.

4.1.9 Run an A25B connector cable to the location of 30A8 SSI from yellow cross-connect field per Fig. 1, and connect to KS-connector of 30A8.

4.1.10 Run ground wire (wire gauge is determined by local practice) from terminal 2 on yellow cross-connect field to PBX Single Point Ground bar per Fig. 1.

4.1.11 Make connection between CX01 from purple cross-connect field to yellow cross-connect field per Fig. 2.

NOTE B: Option A is to supply multiple alarm to 30A8 SSI and Central Office using 17B KTU. (Note 8).
Option B is to supply alarm to Central Office only. (Note 8)
Option C is to supply alarm to 30A8 SSI only.

NOTE 8: If cabling from cross-connect field to 30A8 SSI is exposed, add KS-19152, L1, 511 ohms resistors on green backboard (Fig. 3 or 5 or 8).

4.1.12 This ends the installation.

4.1.13 Cut down (if not yet) an A25D connector cable on purple cross-connect field as required from LC15 per Fig. 4 and 10-12.

4.1.14 Cut down (if not yet) cable from terminal CX01 on the purple cross-connect field per Table B in step 4.1.2 and Fig. 4.

4.1.15 Connect the -48C8 lead to all CID leads per Fig. 4 and 10-12.

4.1.16 Cross-connect all the CIG leads from TX0- terminal block on purple cross-connect field to yellow cross connect field per Fig. 4 and 10-12.

4.1.17 Run an A25B connector cable to the location of 30A8 SSI from yellow cross-connect field per Fig. 4, and connect to KS-connector of 30A8.

4.1.18 Cross-connect from terminal 2 on yellow cross-connect field to GRD-48 terminal on purple cross-connect field per Fig. 4.

4.1.19 Do steps 4.1.11 and 4.1.12.

4.2 For DIMENSION 2000 PBX:

4.2.1 Make sure that the Alarm circuit (LC147) is in slot 19 of Basic Control Carrier. The wiring for this carrier comes out on AP7, Table C. Cut down (if not yet) cable from terminal AP7 on the purple cross-connect field per Fig. 7 and Table C.

TABLE C

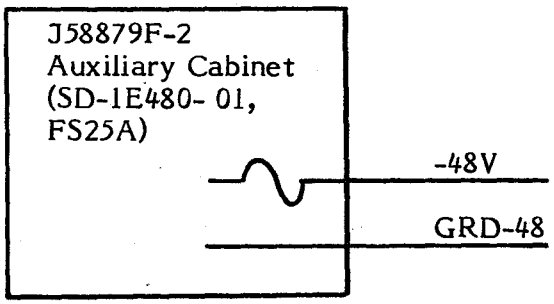
A25D Connection Cable From Control and Alarm Panel Connector		To purple Backboard	
AP 7		Cut Leads	Down On
Lead Design	Pin No.	Lead Color	Conn. Blk Terminals
MJR	26	W-BL	1
MJ	1	BL-W	2
MNR	27	W-O	3
MN	2	O-W	4

4.2.2 If Interface Surge Protection Network is required for this job (Fig. 7), do steps 4.2.3 through 4.2.10; otherwise, 4.2.11 through 4.2.17.

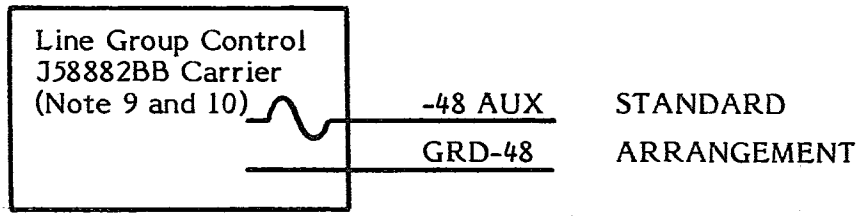
4.2.3 Cut down (if not yet) an A25D connector cable on purple cross-connect field as required from LC15 per Fig. 7 and 10-12.

4.2.4 The -48V and ground (GRD-48) source for powering the 30A8 should be provided by one of the following ways:

→ a) Use -48V power from Auxiliary Cabinet



b) Use -48V Auxiliary Fuse located on Line Group Control Carrier in the Module Control Carrier.



NOTES:

9. When circuit pack LC11 is used in TANDEM mode, a maximum of forty LC11s may be placed in any one Module Control Cabinet. However, if other circuits which require -48 volt power are supplied from the same cabinet, the entire power load must meet the following limitation:

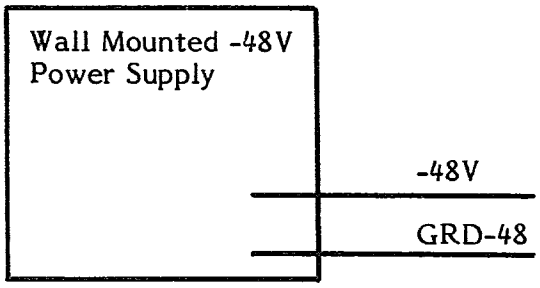
Number of LC11s plus number of LC09s divided by three plus number of LC02s divided by four plus number of SSIs divided by two plus number of consoles divided by two plus number of "Beehive" lamps (if provided) divided by six plus number of Key Telephone Units (17B) divided by seventeen must be less than forty-one.

$$\text{No. LC11} + \frac{\text{No. LC09}}{3} + \frac{\text{No. LC02}}{4} + \frac{\text{No. 30A8}}{2} +$$

$$\frac{\text{No. Consoles}}{2} + \frac{\text{No. "Beehive"}}{6} + \frac{\text{No. 17B}}{17} \text{ less than } 41$$

→ 10. There is an unused (SPARE, in SD-1E480-01, FS1H) fuse on the fuse panel if the limitation mentioned in note 9 is met, then -48 Aux. and GRD-48 can be picked up from Line Group Control Carrier in the Module Control Cabinet.

c) Use wall mounted -48V supply (284B1 power unit) which has the AC input connected to the system Single Point Ground.



4.2.5 Cross-connect all the CIG leads from purple cross-connect field to yellow cross-connect field per Fig. 7 and 10-12.

→ 4.2.6 Mount the Interface Sure Protection Network (J58879BA-L25) on the yellow cross-connect field per Fig. 7.

4.2.7 Run an A25B connector cable to the location(s) of 30A8(s) from yellow cross-connect field per Fig. 7 and connect to KS-connector of 30A8.

4.2.8 Strap ground (GRD-WDW) together on yellow cross-connect field per Fig. 7.

4.2.9 Terminate GRD-WDW per Fig. 7.

4.2.10 Make connection between AP-7 from purple cross-connect field to yellow cross-connect field per Fig. 2. See notes in step 4.1.11. This ends the instalation.

4.2.11 Cut down (if not yet) an A25D connector cable on purple cross-connect field as required from LC15 per Fig. 9 and 10-12.

4.2.12 Do step 4.2.4 only and then go to step 4.2.13.

4.2.13 Cross-connect all the CIG leads from purple cross-connect field to yellow cross-connect field per Fig. 9 - 12.

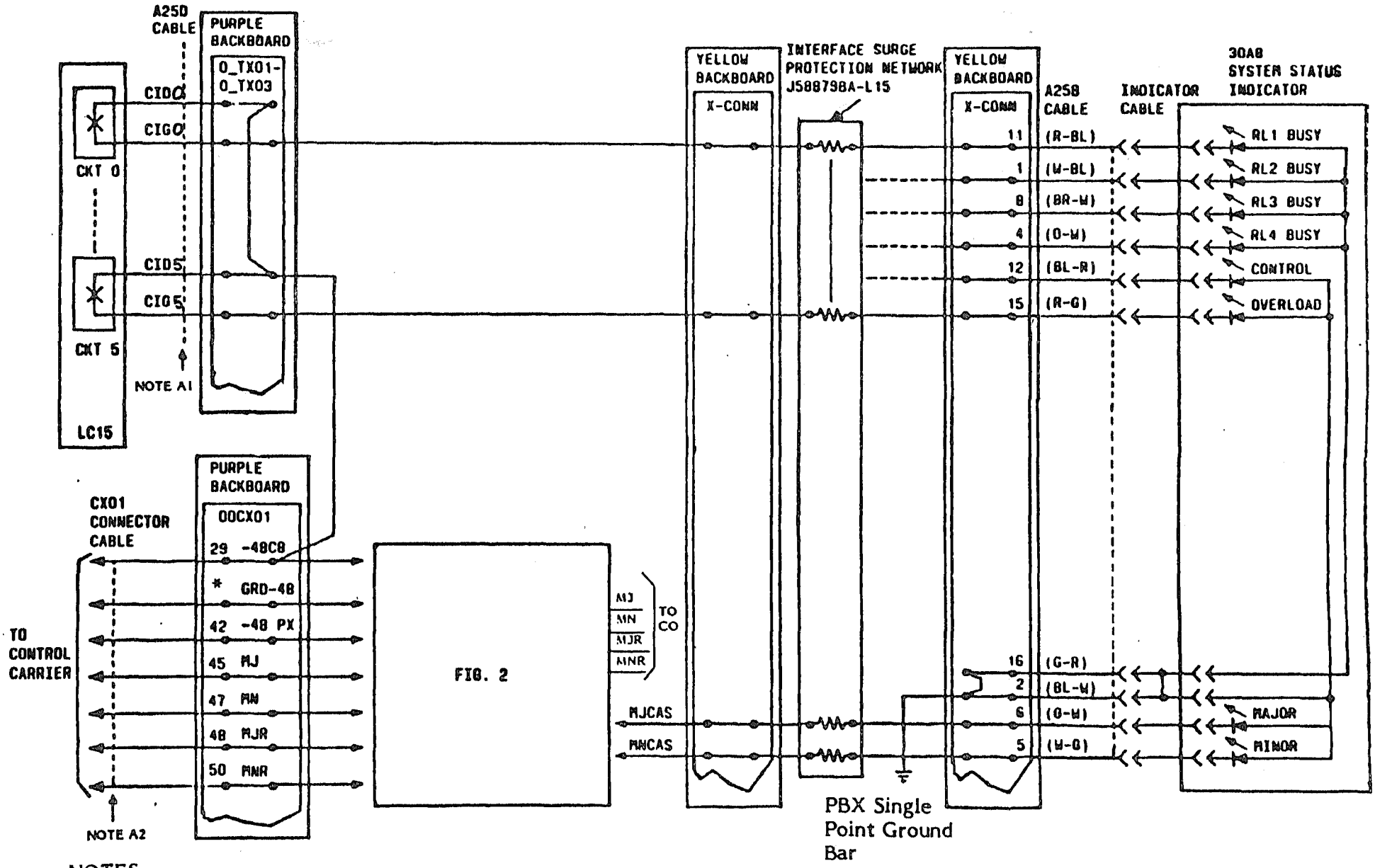
4.2.14 Run an A25B connector cable to the location(s) of 30A8(s) from yellow cross-connect field per Fig. 9 and connect to KS-connector of 30A8.

→ 4.2.15 If more than one 30A8 is being installed in one location, then connect MAJOR and MINOR alarms to only one of the 30A8's and connect two more RLT's (CID6, CIG6 - CID7, CIG7 (option XL for 201L) see Fig. 10 -12) to the remaining 30A8's.

4.2.16 Strap ground (GRD-WDW) together on yellow cross-connect field per Fig. 7.

4.2.17 Terminate GRD-WDW per Fig. 9.

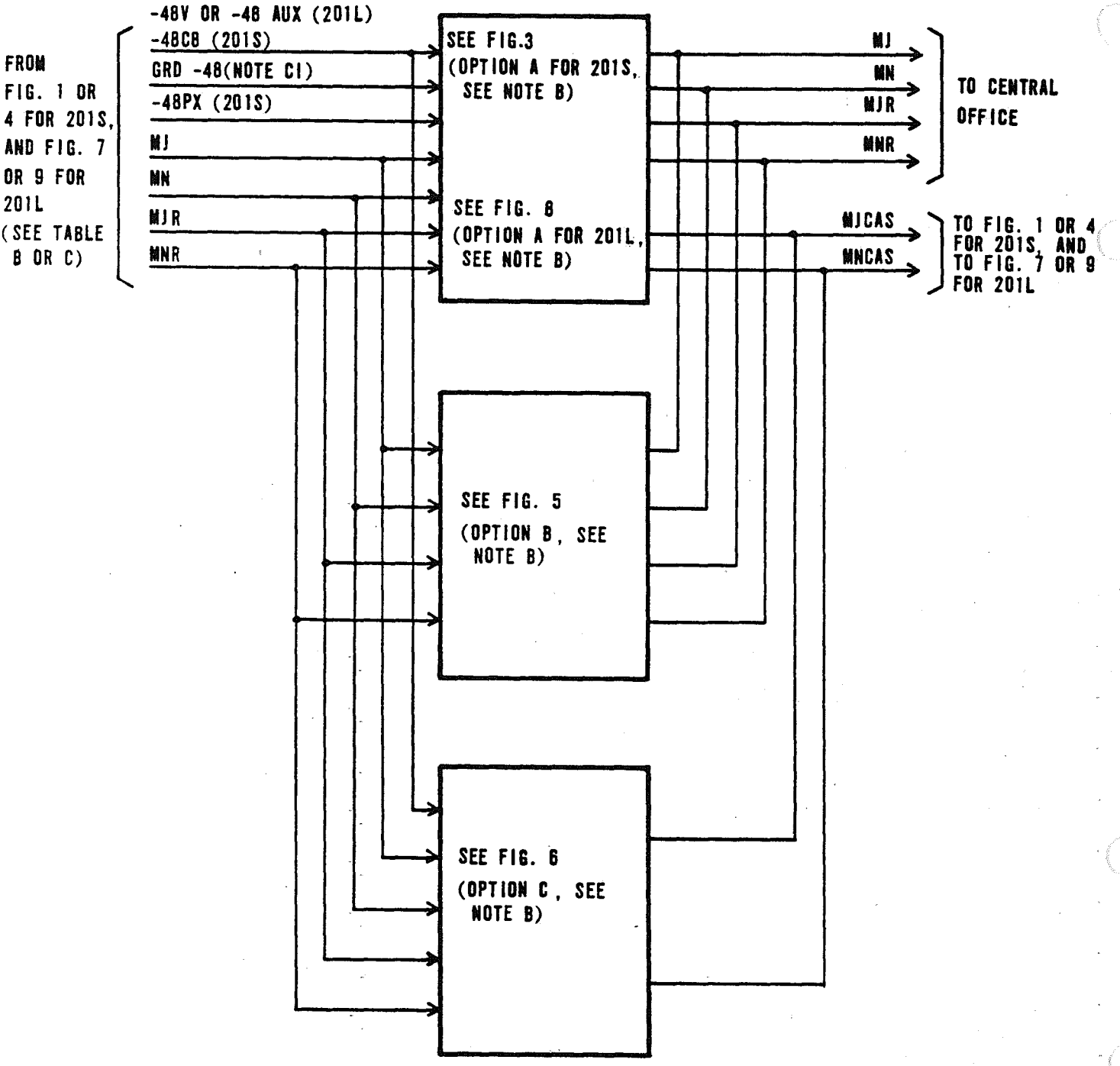
4.2.18 Do step 4.2.10. This ends the installation.



NOTES:

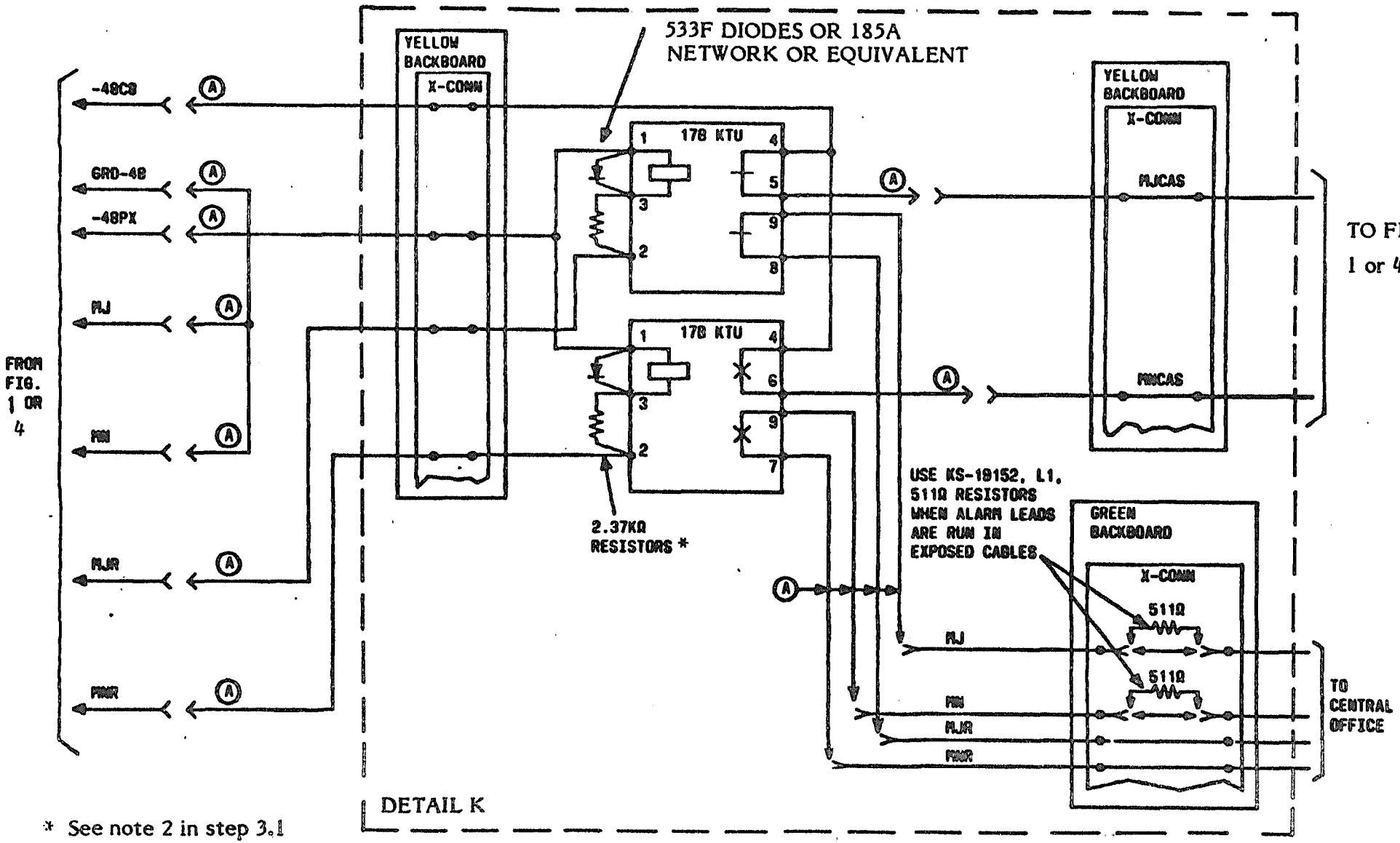
A1 - See Fig. 11
A2 - See Table B in step 4.1.2
* - See Note 7 in step 4.1.2

→ FIG. 1 - CONNECTION FOR 30A8 WITH PROTECTION INTERFACE FOR DIMENSION® 400 PBX.



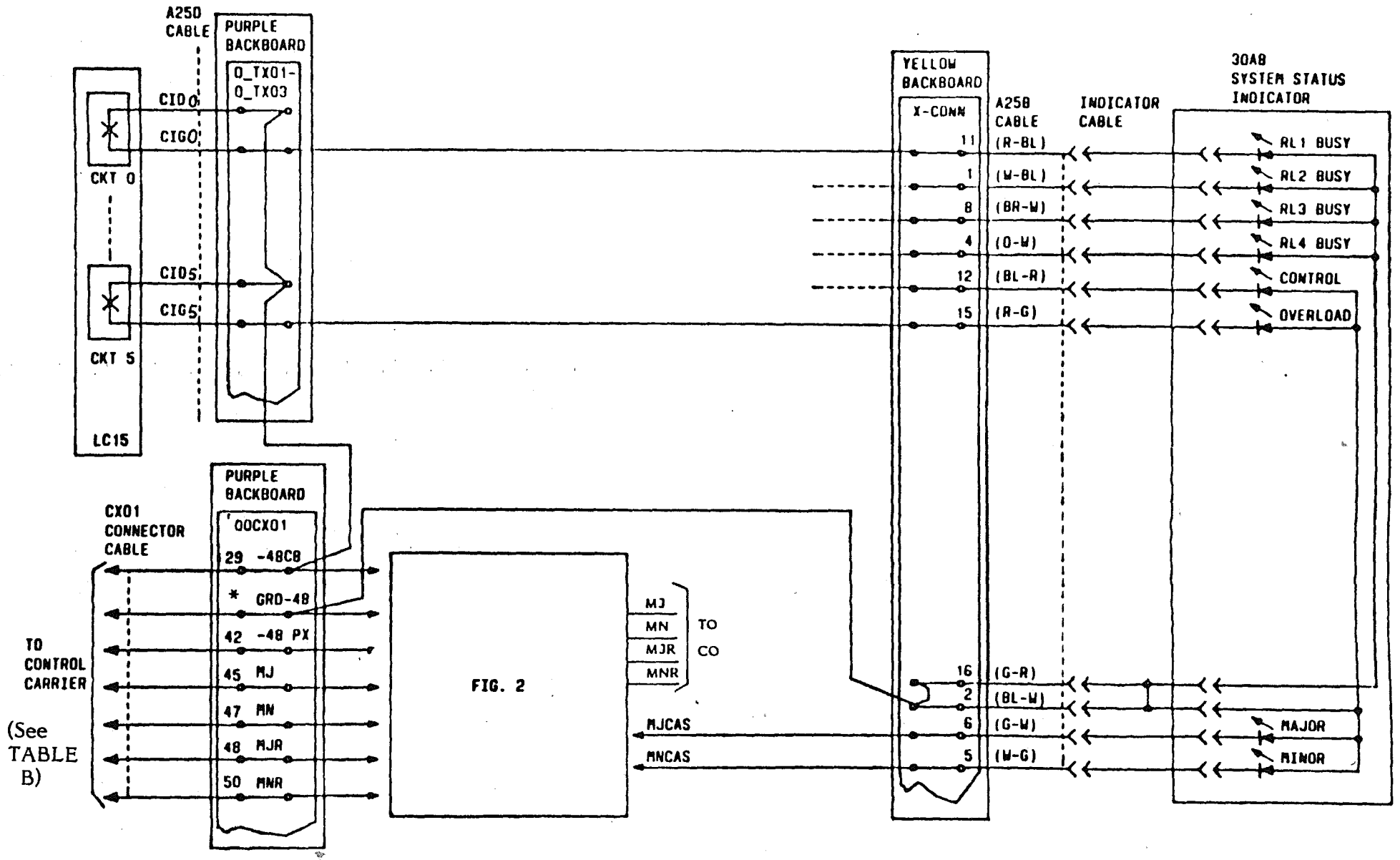
NOTE C1 - THIS LEAD IS COMMON BETWEEN 201S AND 201L; SEE STEP 4.2.4 FOR 201L.

→ FIG. 2 - AVAILABLE OPTIONS FOR INSTALLATION OF 30A8 SSI



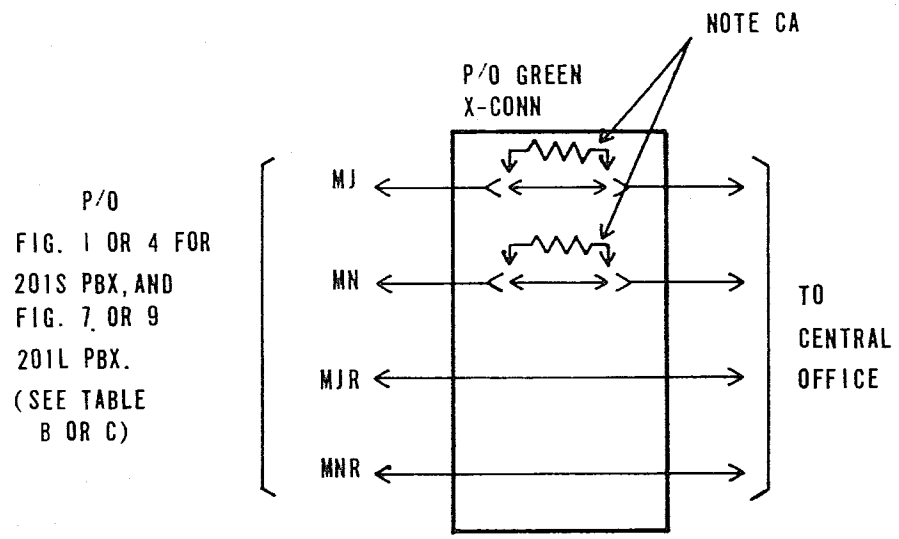
* See note 2 in step 3.1

FIG. 3 - CONNECTION FOR MAJOR AND MINOR ALARMS TO 30A8 AND CENTRAL OFFICE USING 17B KTU FOR 201L OR 201S



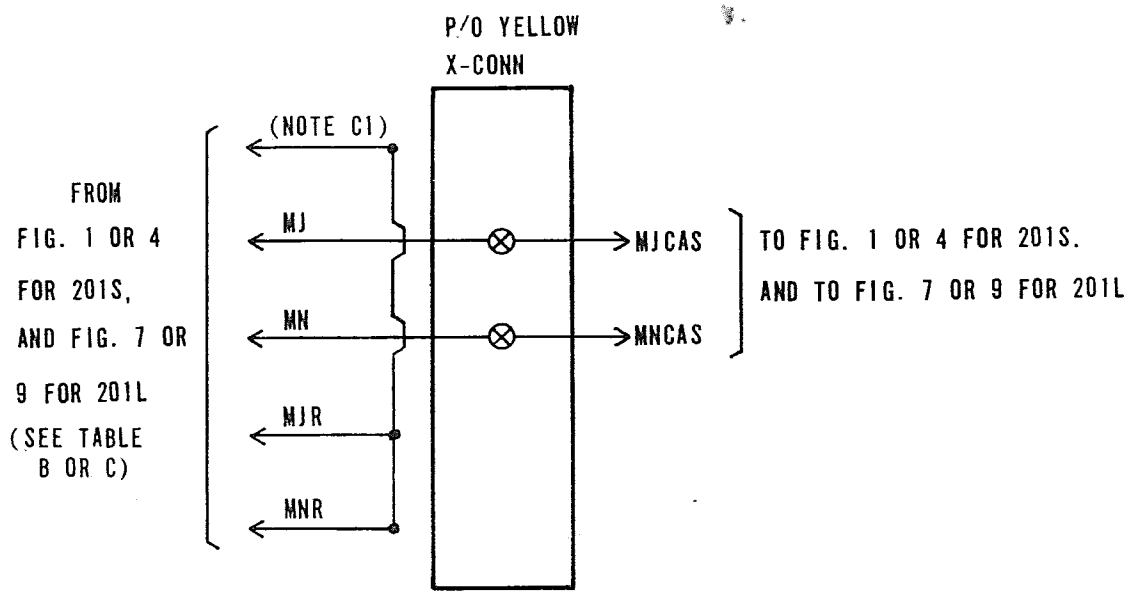
* See note 7 in paragraph 4.1.2

→ FIG. 4 - CONNECTIONS FOR 30A8 SYSTEM STATUS INDICATOR WITHOUT PROTECTION INTERFACE



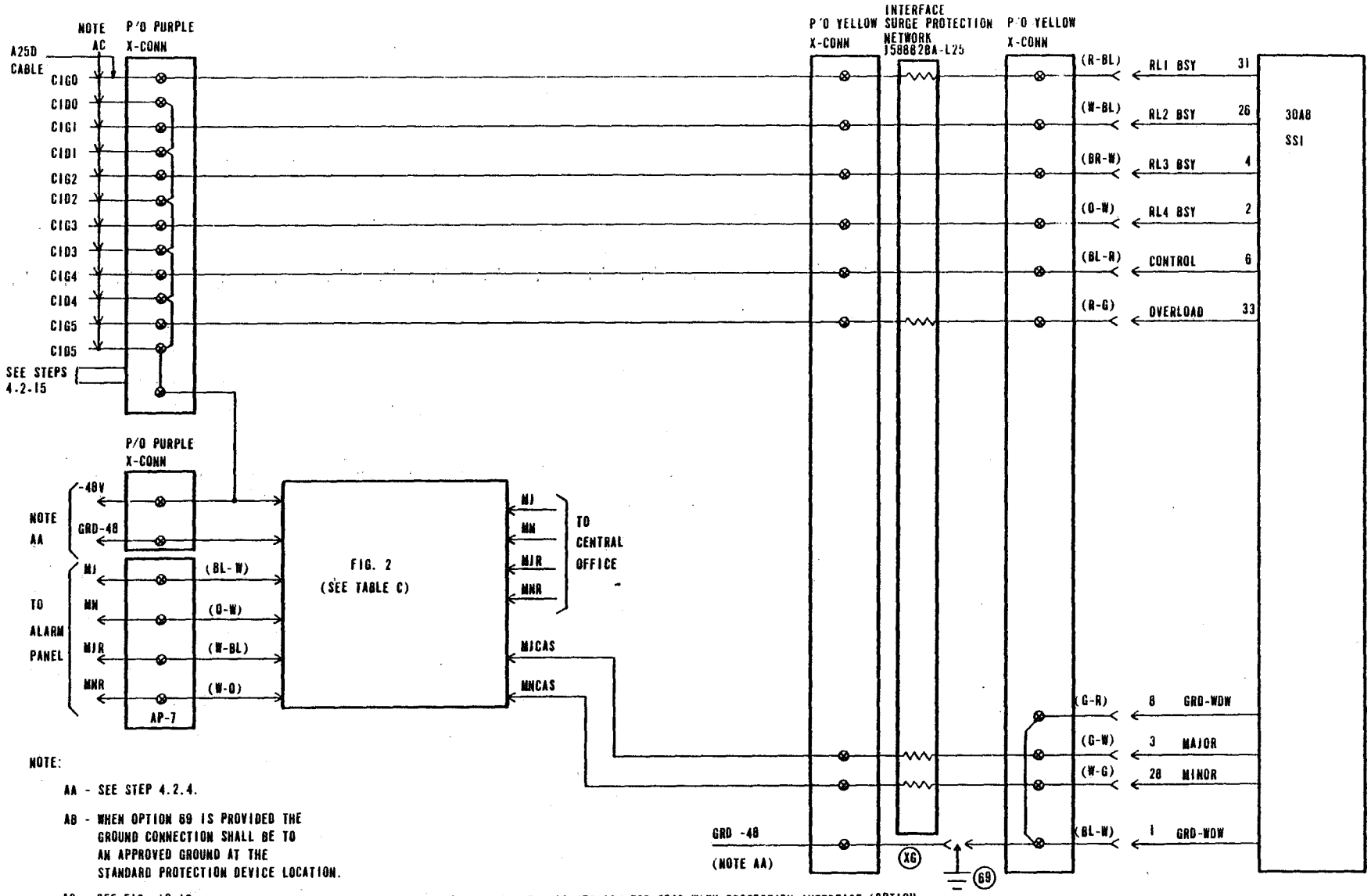
NOTE CA - SEE NOTE BA IN FIG. 8

→ FIG. 5 - ALARM TO CENTRAL OFFICE ONLY (OPTION XL FOR 201L)



NOTE C1 - THIS LEAD IS -48V OR -48 AUX FOR 201L, ALSO SEE PARAGRAPH 4.2.4. FOR 201S IT REPRESENTS -48C8 LEAD.

→ FIG. 6 - ALARM TO 30A8 ONLY (OPTION XI FOR 201L)



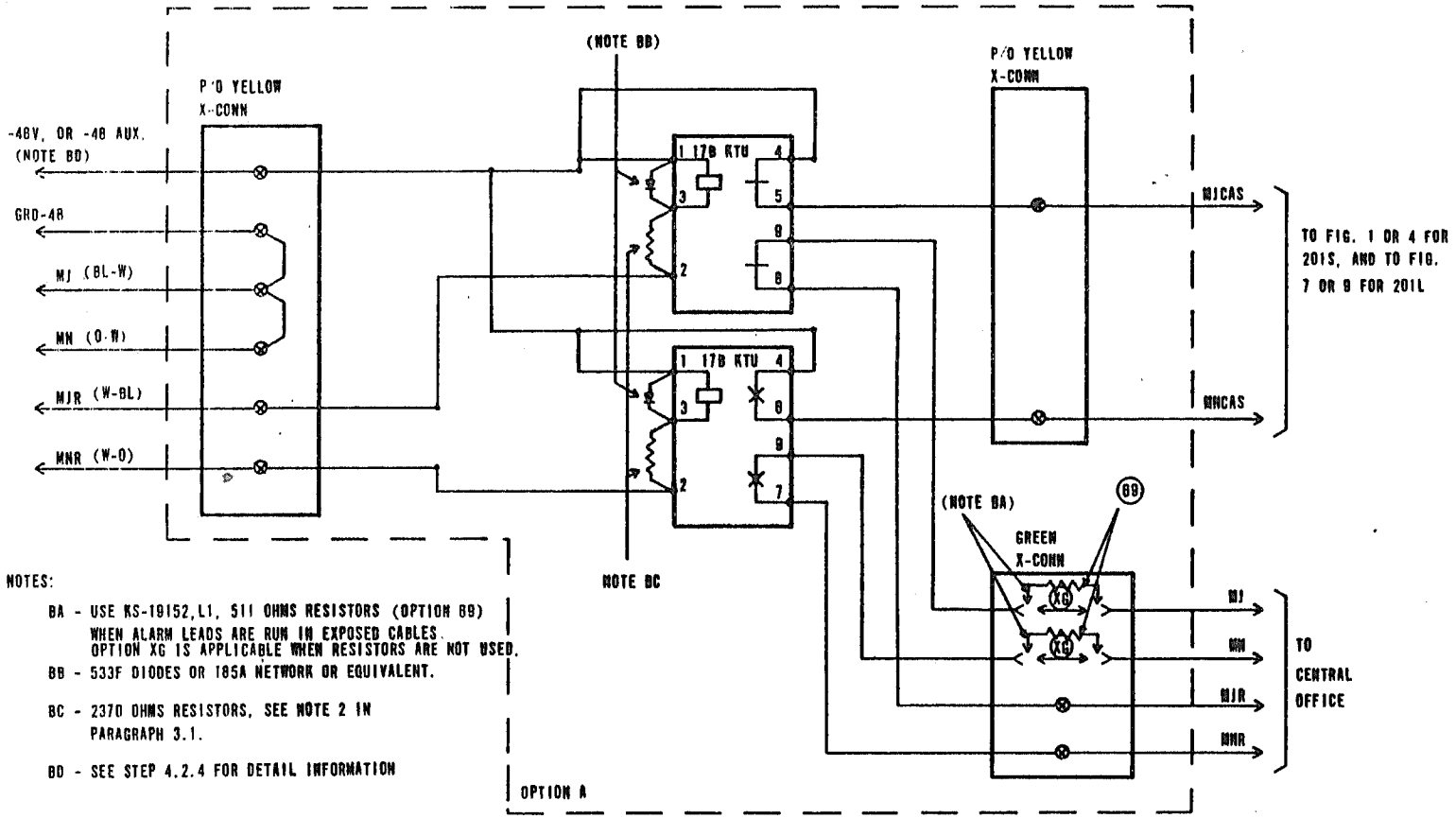
NOTE:

AA - SEE STEP 4.2.4.

AB - WHEN OPTION 69 IS PROVIDED THE GROUND CONNECTION SHALL BE TO AN APPROVED GROUND AT THE STANDARD PROTECTION DEVICE LOCATION.

AC - SEE FIG. 10-12

→ FIG. 7 - CONNECTION FOR 30A8 WITH PROTECTION INTERFACE (OPTION 69) FOR DIMENSION® 2000 PBX.



NOTES:

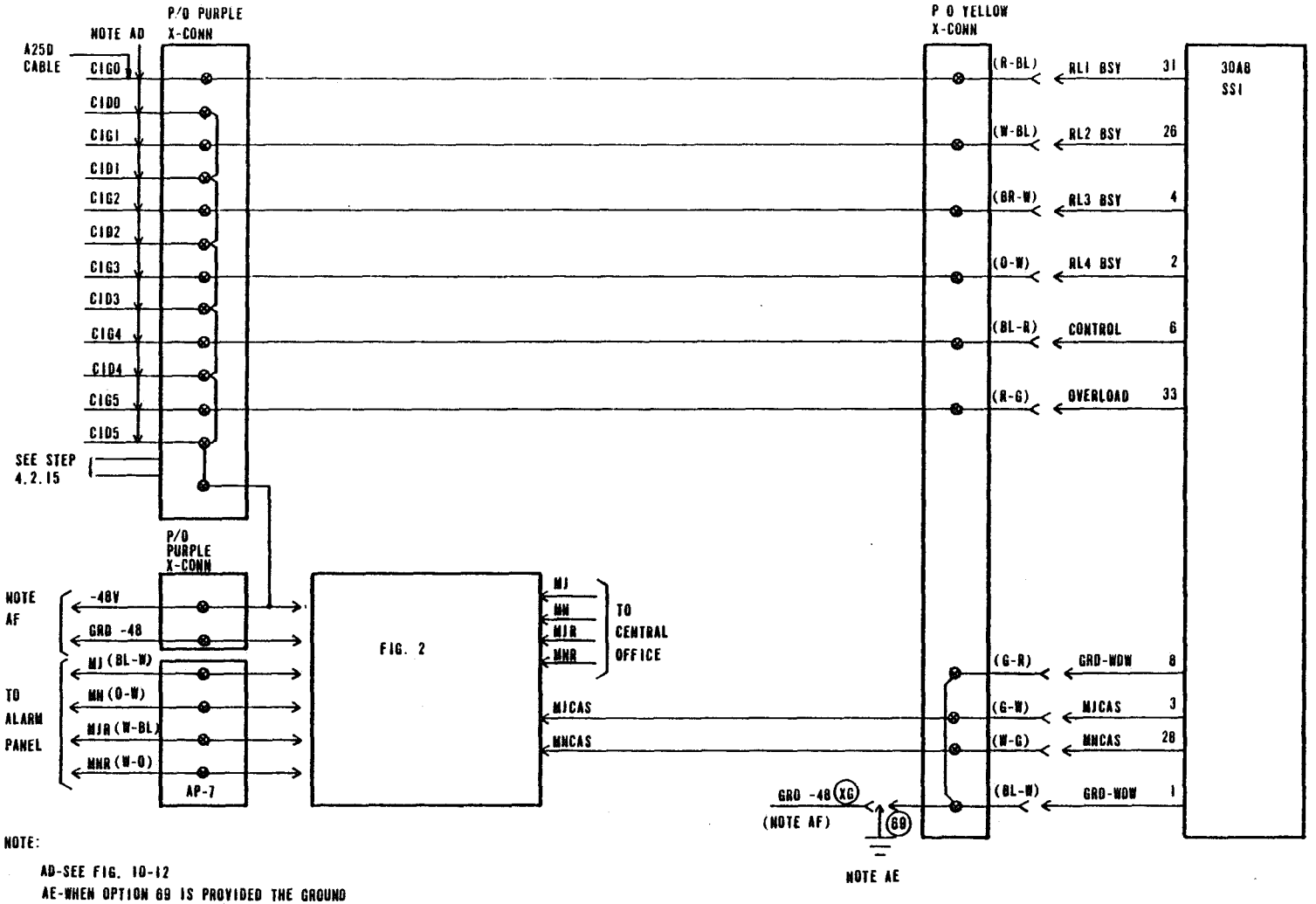
BA - USE KS-19152,L1, 511 OHMS RESISTORS (OPTION 89) WHEN ALARM LEADS ARE RUN IN EXPOSED CABLES. OPTION XG IS APPLICABLE WHEN RESISTORS ARE NOT USED.

BB - 533F DIODES OR 185A NETWORK OR EQUIVALENT.

BC - 2370 OHMS RESISTORS, SEE NOTE 2 IN PARAGRAPH 3.1.

BD - SEE STEP 4.2.4 FOR DETAIL INFORMATION

→ FIG. 8 - CONNECTION FOR MAJOR AND MINOR ALARMS TO 30A8 AND CENTRAL OFFICE USING 17B KTU (OPTION XJ) FOR DIMENSION® 2000 PBX



NOTE:

AD-SEE FIG. 10-12

AE-WHEN OPTION 69 IS PROVIDED THE GROUND CONNECTION SHALL BE TO AN APPROVED GROUND AT THE STANDARD PROTECTION DEVICE LOCATION.

AF-SEE STEP 4.2.4

FIG. 9 - CONNECTIONS FOR 30A8 WITHOUT PROTECTION INTERFACE (OPTION XG) FOR DIMENSION® 2000 PBX

+ * MX0_	TO PURPLE BACKBOARD		SLOTS
	CUT LEADS DOWN ON		
LC15	LEAD COLOR	COMN BLK TERMINALS	
CID-0	W-BL	1	06,10,17
CIG-0	BL-W	2	
CID-1	W-OR	3	
CIG-1	OR-W	4	
CID-2	W-GR	5	
CIG-2	GR-W	6	
CID-3	W-BR	7	
CIG-3	BR-W	8	
CID-4	W-S	9	
CIG-4	S-W	10	
CID-5	R-BL	11	
CIG-5	BL-R	12	
CID-6	R-OR	13	
CIG-6	OR-R	14	
CID-7	R-GR	15	
CIG-7	GR-R	16	
CID-0	R-BR	17	07,12,19
CIG-0	BR-R	18	
CID-1	R-S	19	
CIG-1	S-R	20	
CID-2	BK-BL	21	
CIG-2	BL-BK	22	
CID-3	BK-OR	23	
CIG-3	OR-BK	24	
CID-4	BK-GR	25	
CIG-4	GR-BK	26	
CID-5	BK-BR	27	
CIG-5	BR-BK	28	
CID-6	BK-S	29	
CIG-6	S-BK	30	
CID-7	Y-BL	31	
CIG-7	BL-Y	32	
CID-0	Y-O	33	08,15
CIG-0	O-Y	34	
CID-1	Y-G	35	
CIG-1	G-Y	36	
CID-2	Y-BR	37	
CIG-2	BR-Y	38	
CID-3	Y-S	39	
CIG-3	S-Y	40	
CID-4	V-BL	41	
CIG-4	BL-V	42	
CID-5	V-OR	43	
CIG-5	OR-V	44	
CID-6	V-GR	45	
CIG-6	GR-V	46	
CID-7	V-BR	47	
CIG-7	BR-V	48	
	V-S	49	
	S-V	50	

*leads not designated are cut down on connecting blocks, but not used for cross-connections.

+Connector MX01 serves carrier slots 06,07, and 08. Connector MX02 serves carrier slots 10, 12, and 15. Connector MX03 serves carrier slots 17, and 19.

→ FIG. 10 - Module Control and Trunk Port Carrier (J58882BA) Cross-Connections

TX0_ *,+ LC15	TO PURPLE BACKBOARD		SLOTS
	CUT LEADS DOWN ON		
	LEAD COLOR	CONN BLK TERMINALS	
CID-0	W-BL	1	02;05,08
CIG-0	BL-W	2	
CID-1	W-OR	3	
CIG-1	OR-W	4	
CID-2	W-GR	5	
CIG-2	GR-W	6	
CID-3	W-BR	7	
CIG-3	BR-W	8	
CID-4	W-S	9	
CIG-4	S-W	10	
CID-5	R-BL	11	
CIG-5	BL-R	12	
CID-6	R-OR	13	
CIG-6	OR-R	14	
CID-7	R-GR	15	
CIG-7	GR-R	16	
CID-0	R-GR	17	03,06,09
CIG-0	BR-R	18	
CID-1	R-S	19	
CIG-1	S-R	20	
CID-2	BK-BL	21	
CIG-2	BL-BK	22	
CID-3	BK-OR	23	
CIG-3	OR-BK	24	
CID-4	BK-GR	25	
CIG-4	GR-BK	26	
CID-5	BK-BR	27	
CIG-5	BR-BK	28	
CID-6	BK-S	29	
CIG-6	S-BK	30	
CID-7	Y-BL	31	
CIG-7	BL-Y	32	
CID-0	Y-O	33	04,07
CIG-0	O-Y	34	
CID-1	Y-G	35	
CIG-1	G-Y	36	
CID-2	Y-BR	37	
CIG-2	BR-Y	38	
CID-3	Y-S	39	
CIG-3	S-Y	40	
CID-4	V-BL	41	
CIG-4	BL-V	42	
CID-5	V-OR	43	
CIG-5	OR-V	44	
CID-6	V-GR	45	
CIG-6	GR-V	46	
CID-7	V-BR	47	
CIG-7	BR-V	48	
	V-S	49	
	S-V	50	

* Leads not designated are cut down on connecting blocks, but not used for cross-connections.

\+ TX01 serves carrier slots 02,03, and 04. TX02 serves carrier slots 05, 06 and 07. TX03 serves carrier slots 08, and 09.

→ FIG. 11 - Trunk Port Carrier (J58879BA) Cross-Connections

* + TCX0_	TO PURPLE BACKBOARD		SLOTS
LC15	CUT LEADS DOWN ON		
	LEAD COLOR	CONN BLK TERMINALS	
CID-0	W-BL	1	02, 05, 08
CIG-0	BL-W	2	
CID-1	W-OR	3	
CIG-1	OR-W	4	
CID-2	W-GR	5	
CIG-2	GR-W	6	
CID-3	W-BR	7	
CIG-3	BR-W	8	
CID-4	W-S	9	
CIG-4	S-W	10	
CID-5	R-BL	11	
CIG-5	BL-R	12	
CID-6	R-OR	13	
CIG-6	OR-R	14	
CID-7	R-GR	15	
CIG-7	GR-R	16	
CID-0	R-BR	17	03, 06
CIG-0	BR-R	18	
CID-1	R-S	19	
CIG-1	S-R	20	
CID-2	BK-BL	21	
CIG-2	BL-BK	22	
CID-3	BK-OR	23	
CIG-3	OR-BK	24	
CID-4	BK-GR	25	
CIG-4	GR-BK	26	
CID-5	BK-BR	27	
CIG-5	BR-BK	28	
CID-6	BK-S	29	
CIG-6	S-BK	30	
CID-7	Y-BL	31	
CIG-7	BL-Y	32	
CID-0	Y-O	33	04, 07
CIG-0	O-Y	34	
CID-1	Y-G	35	
CIG-1	G-Y	36	
CID-2	Y-BR	37	
CIG-2	BR-Y	38	
CID-3	Y-S	39	
CIG-3	S-Y	40	
CID-4	V-BL	41	
CIG-4	BL-V	42	
CID-5	V-OR	43	
CIG-5	OR-V	44	
CID-6	V-GR	45	
CIG-6	GR-V	46	
CID-7	V-BR	47	
CIG-7	BR-V	48	
	V-S	49	
	S-V	50	

* Leads not designated are cut down on connecting blocks but not used for cross-connections.

+ TCX01 serves carrier slots 02 and 03. TCX02 serves carrier slots 04, 05, and 06. TCX03 serves carrier slots 07 and 08.

→ FIG. 12 - Control/Trunk Carrier (J58879CC) Cross-Connections

→ Arrows show changes and correction

Reason for issue:
Revision

Manager, Denver PBX PECC