"PULSE* 120" – SG-1A

ELECTRONIC PRIVATE AUTOMATIC BRANCH EXCHANGE

BUSY LAMP FIELD FAULT-CLEARING PROCEDURE

1. GENERAL

1.01 This section describes the procedure for clearing busy lamp field faults in the PULSE 120 Electronic Private Automatic Branch Exchange (EPABX). ***Tone, ringing and dialing faults must be cleared before attempting to correct busy lamp faults*** (see Section 553-5011-503).

2. CIRCUIT DESCRIPTION

2.01 The busy lamp field panel (Fig. 1) contains 5 horizontal rows of 25 lamps (QCN102A console). When a station line is engaged, the associated busy lamp lights.

2.02 The +12 V power supply from power shelf no. 1 energizes the NE-51A lamps used in the busy lamp field assembly.

2.03 Fuse F4 on power shelf no. 1 protects the +12 V power supply against circuit overload through the distribution fuses. The +12 V test point on power shelf no. 2 is connected in parallel with the field side of fuse F4. Distribution fuse F8 on power shelf no. 2 serves the +12 V busy lamp field power supply to the console.

2.04 The busy lamp circuit is completed when ground is applied to the appropriate busy lamp lead through the QPJ83-type circuit pack as shown in Fig. 2.

2.05 The QPJ83-type circuit packs are contained in connector locations 1, 2, and 3 of the option shelf. The circuit pack in connector location 1 serves the busy lamps for station line numbers (2) 10 through (2) 49, the circuit pack in connector location 2 serves the busy lamps for station line numbers (2) 50 through (2) 89, and the circuit pack in connector location 3 serves the busy lamps for station line numbers 310 through 349.

2.06 The busy lamp leads for station lines 2(10) through (2) 49 are terminated in P040 on the connector panel in the base of the EPABX cabinet and appear at plug no. 4 of the attendant console mounting cord. The busy lamp leads for station lines (2) 50 through (2) 89 terminate in P050 on the connector panel and appear at plug no. 5 of the attendant console mounting cord. The busy lamp leads for station lines 310 through 349 are terminated in P060 on the connector panel at the base of the EPABX cabinet and appear at plug no. 6 of the attendant console mounting cord. The connector cable pair and pin numbers and the color code for each of the busy lamp leads are listed in Tables A, B, and C. The last five pairs of each 25-pair binders are used for the +12 V power supply to the busy lamp field assembly.

3. FAULT-CLEARING PROCEDURE

3.01 When the substitution of a circuit pack is required during the fault-clearing procedure, the contacts on the new circuit pack must be cleaned (see Section 553-5011-500) before inserting the circuit pack into the connector.

Note: The asterisk (*) after the circuit pack code replaces the suffix letter.

3.02 If a fault is cleared by circuit pack substitution and ***the original circuit pack,***

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has not caused a fuse to blow and/or there is no visual evidence of burnt or damaged components, the contacts on this circuit pack and its associated connector must be cleaned. The original circuit pack is then inserted in the connector and if the fault reappears the fault-free circuit pack is reinserted.

3.03 If different or additional faults or both are created in the system when substituting a circuit pack, tag and return the replacement as a defective unit.

3.04 If the fault is not cleared by the substitution of a circuit pack, the original circuit pack must be reinserted in the connector.

3.05 See Section 553-5011-202 for shelf substitution instructions.

3.06 When the fault-clearing procedure is complete, a visual check must be made to ensure that all circuit packs are well seated in their connectors and the screws in the connector plugs and jacks are tight. See Section 553-5011-501 for the EPABX internal cabling arrangement.

3.07 The following flowchart instructions will correct busy lamp field faults.

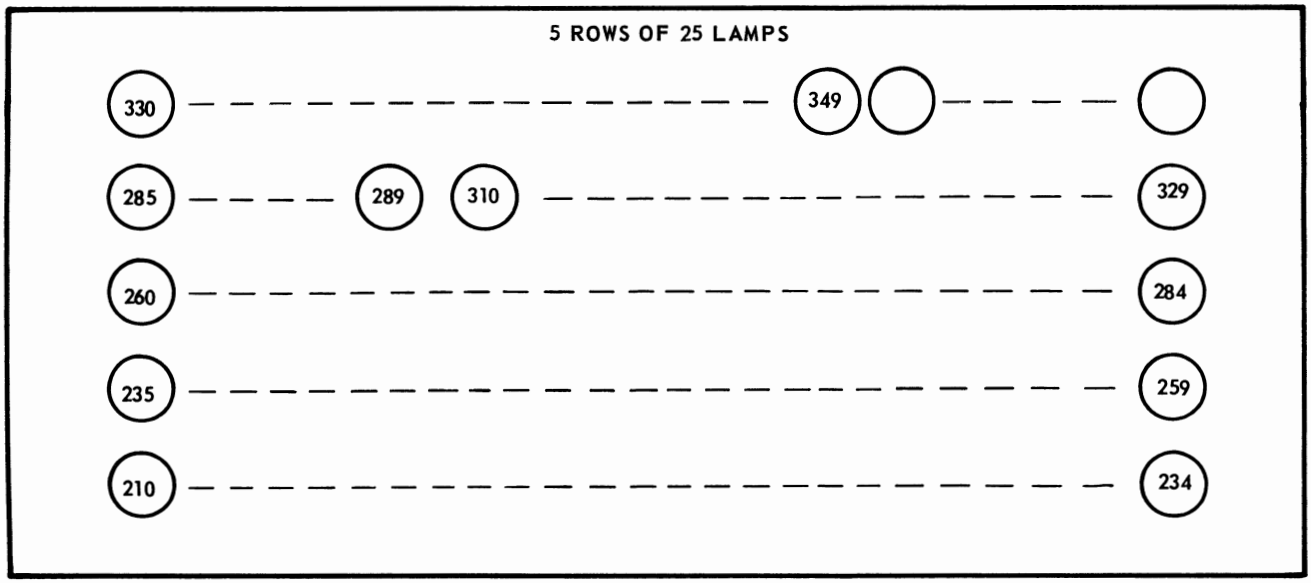


Fig. 1 – Busy Lamp Field (QCN102A Console)

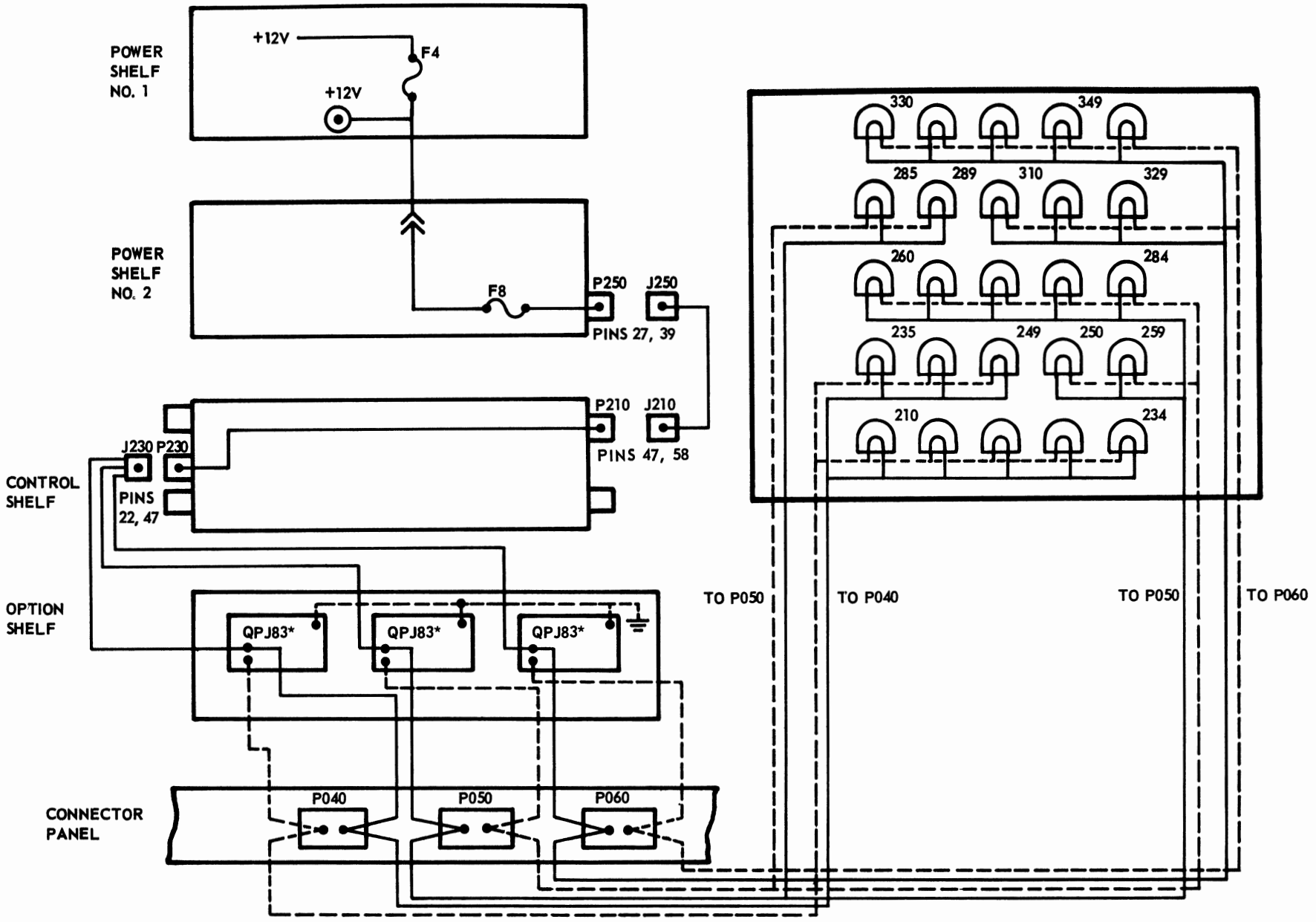


Fig. 2 – Power Supply to Busy Lamp Field (QCN102A Console)

TABLE A
BUSY LAMP DISTRIBUTION FOR STATION LINES 210 THROUGH 249 SERVED BY QPJ83* IN CONNECTOR LOCATION 1 (QCN102A CONSOLE)

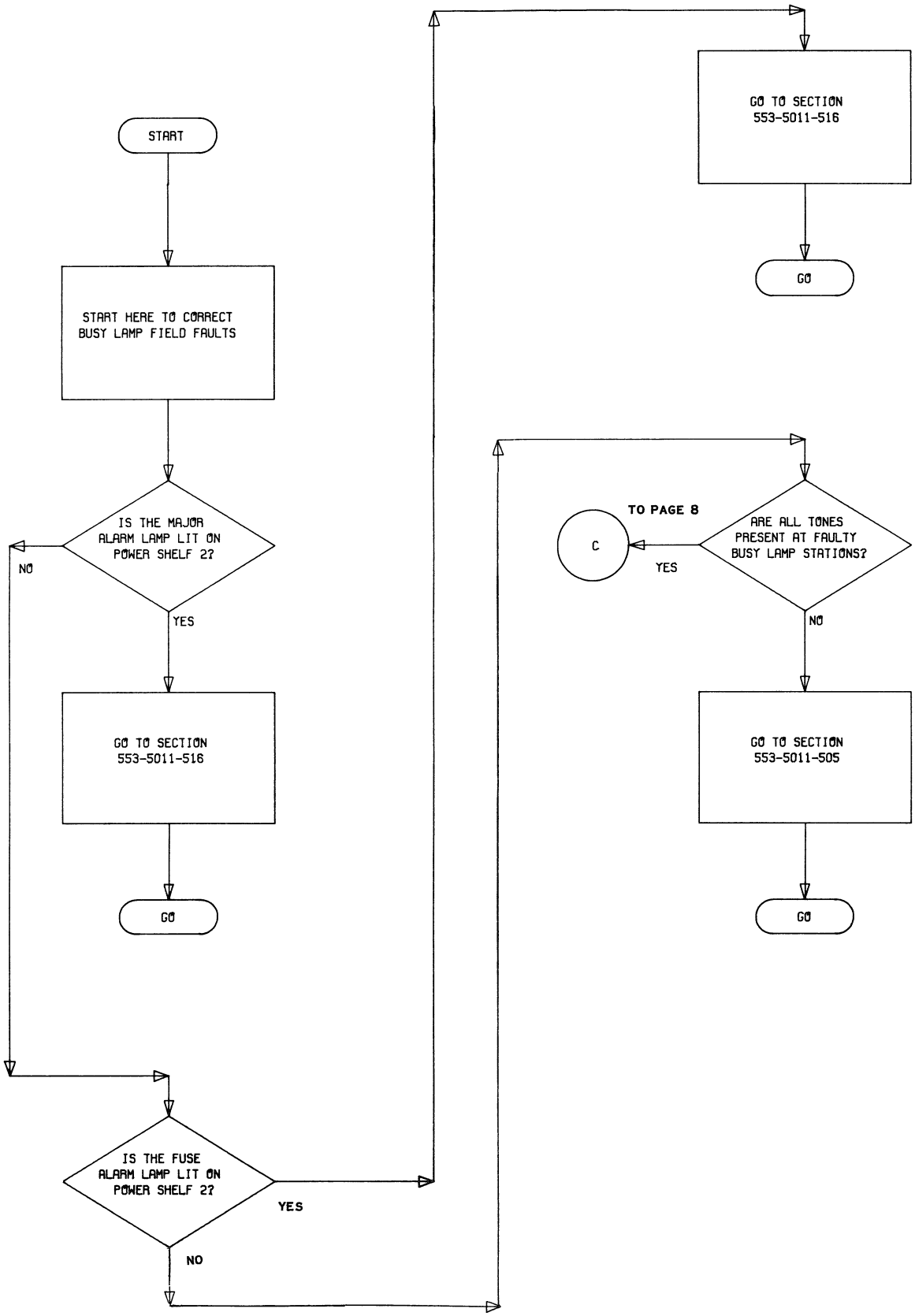
STATION BUSY LAMP NUMBER	CABLE COLOR CODE	PAIR	PIN NO. IN P040
L(2)10	W-BL	1	26
L(2)11	BL-W		1
L(2)12	W-O	2	27
L(2)13	O-W		2
L(2)14	W-G	3	28
L(2)15	G-W		3
L(2)16	W-BR	4	29
L(2)17	BR-W		4
L(2)18	W-S	5	30
L(2)19	S-W		5
L(2)20	R-BL	6	31
L(2)21	BL-R		6
L(2)22	R-O	7	32
L(2)23	O-R		7
L(2)24	R-G	8	33
L(2)25	G-R		8
L(2)26	R-BR	9	34
L(2)27	BR-R		9
L(2)28	R-S	10	35
L(2)29	S-R		10
L(2)30	BK-BL	11	36
L(2)31	BL-BK		11
L(2)32	BK-O	12	37
L(2)33	O-BK		12
L(2)34	BK-G	13	38
L(2)35	G-BK		13
L(2)36	BK-BR	14	39
L(2)37	BR-BK		14
L(2)38	BK-S	15	40
L(2)39	S-BK		15
L(2)40	Y-BL	16	41
L(2)41	BL-Y		16
L(2)42	Y-O	17	42
L(2)43	O-Y		17
L(2)44	Y-G	18	43
L(2)45	G-Y		18
L(2)46	Y-BR	19	44
L(2)47	BR-Y		19
L(2)48	Y-S	20	45
L(2)49	S-Y		20
+12V	V-BL	21	46
+12V	BL-V		21
+12V	V-O	22	47
+12V	O-V		22
+12V	V-G	23	48
+12V	G-V		23
+12V	V-BR	24	49
+12V	BR-V		24
+12V	V-S	25	50
+12V	S-V		25

TABLE B
BUSY LAMP DISTRIBUTION FOR STATION LINES 250 THROUGH 289 SERVED BY QPJ83* IN CONNECTOR LOCATION 2 (QCN102A CONSOLE)

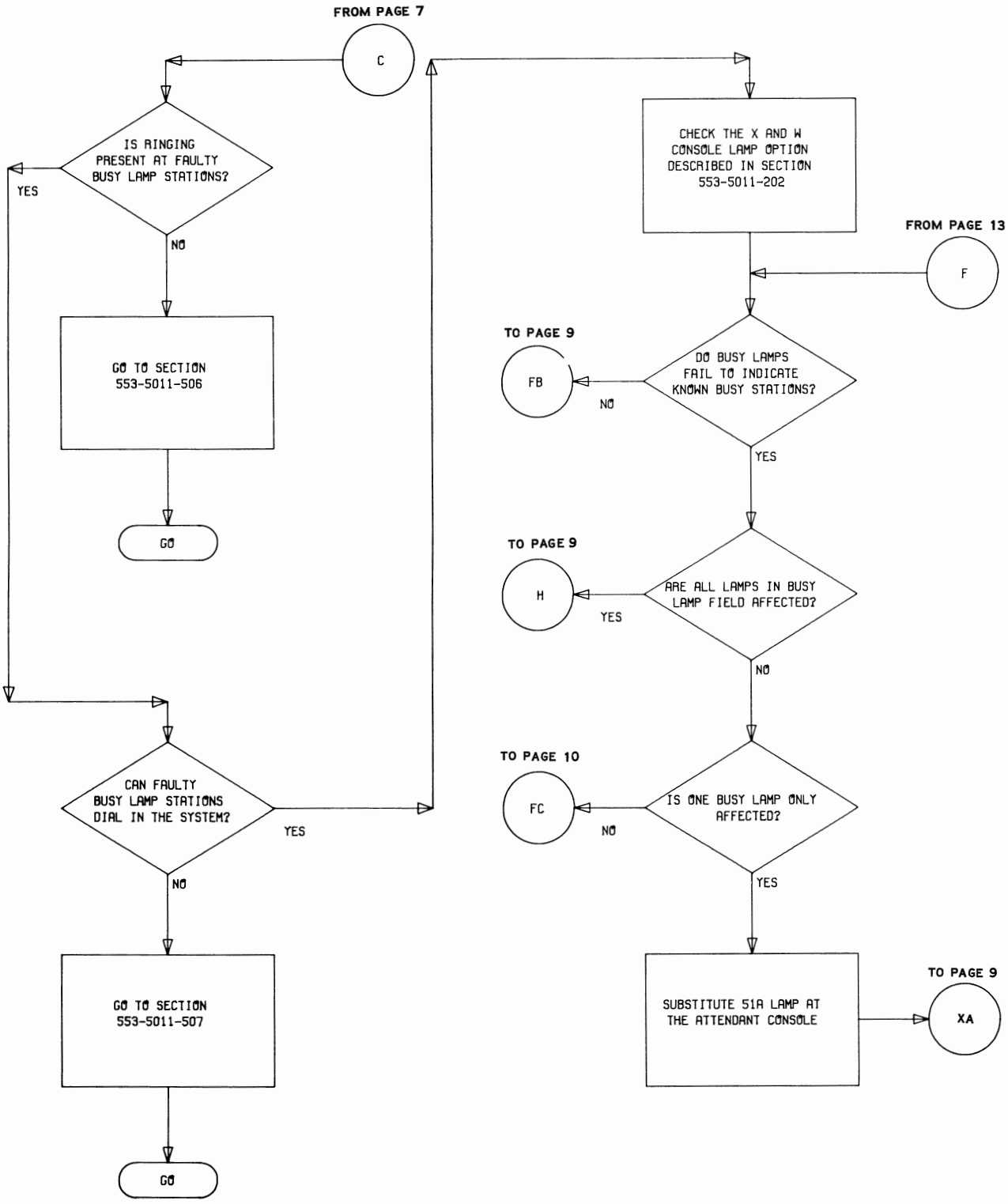
STATION BUSY LAMP NUMBER	CABLE COLOR CODE	PAIR	PIN NO. IN P050
L(2)50	W-BL	1	26
L(2)51	BL-W		1
L(2)52	W-O	2	27
L(2)53	O-W		2
L(2)54	W-G	3	28
L(2)55	G-W		3
L(2)56	W-BR	4	29
L(2)57	BR-W		4
L(2)58	W-S	5	30
L(2)59	S-W		5
L(2)60	R-BL	6	31
L(2)61	BL-R		6
L(2)62	R-O	7	32
L(2)63	O-R		7
L(2)64	R-G	8	33
L(2)65	G-R		8
L(2)66	R-BR	9	34
L(2)67	BR-R		9
L(2)68	R-S	10	35
L(2)69	S-R		10
L(2)70	BK-BL	11	36
L(2)71	BL-BK		11
L(2)72	BK-O	12	37
L(2)73	O-BK		12
L(2)74	BK-G	13	38
L(2)75	G-BK		13
L(2)76	BK-BR	14	39
L(2)77	BR-BK		14
L(2)78	BK-S	15	40
L(2)79	S-BK		15
L(2)80	Y-BL	16	41
L(2)81	BL-Y		16
L(2)82	Y-O	17	42
L(2)83	O-Y		17
L(2)84	Y-G	18	43
L(2)85	G-Y		18
L(2)86	Y-BR	19	44
L(2)87	BR-Y		19
L(2)88	Y-S	20	45
L(2)89	S-Y		20
+12V	V-BL	21	46
+12V	BL-V		21
+12V	V-O	22	47
+12V	O-V		22
+12V	V-G	23	48
+12V	G-V		23
+12V	V-BR	24	49
+12V	BR-V		24
+12V	V-S	25	50
+ 12V	S-V		25

TABLE C
BUSY LAMP DISTRIBUTION FOR STATION LINES 310 THROUGH 349 SERVED BY QPJ83* IN CONNECTOR LOCATION 3 (QCN102A CONSOLE)

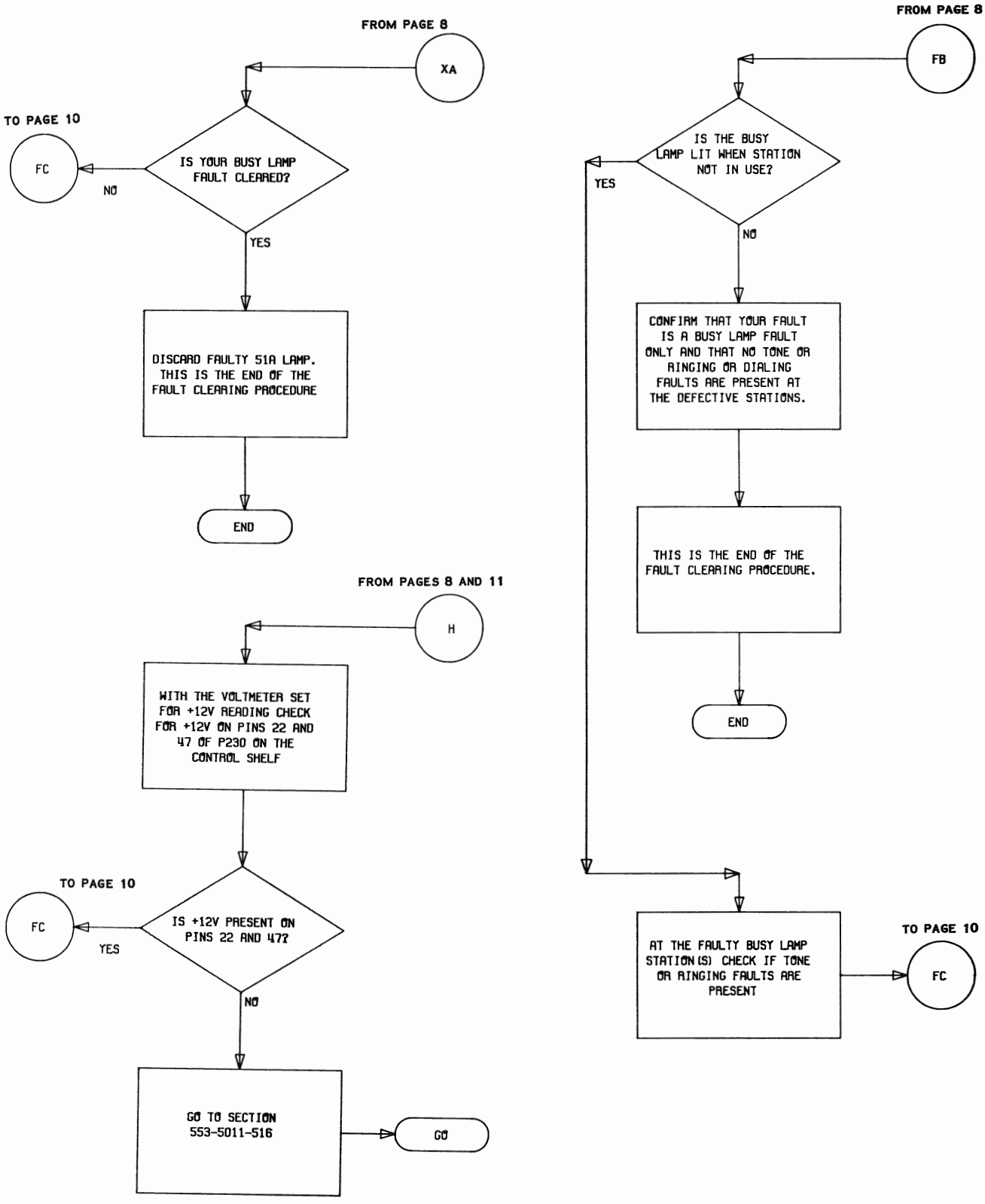
STATION BUSY LAMP NUMBER	CABLE COLOR CODE	PAIR	PIN NO. IN P060
L310	W-BL	1	26
L311	BL-W		1
L312	W-O	2	27
L313	O-W		2
L314	W-G	3	28
L315	G-W		3
L316	W-BR	4	29
L317	BR-W		4
L318	W-S	5	30
L319	S-W		5
L320	R-BL	6	31
L321	BL-R		6
L322	R-O	7	32
L323	O-R		7
L324	R-G	8	33
L325	G-R		8
L326	R-BR	9	34
L327	BR-R		9
L328	R-S	10	35
L329	S-R		10
L330	BK-BL	11	36
L331	BL-BK		11
L332	BK-O	12	37
L333	O-BK		12
L334	BK-G	13	38
L335	G-BK		13
L336	BK-BR	14	39
L337	BR-BK		14
L338	BK-S	15	40
L339	S-BK		15
L340	Y-BL	16	41
L341	BL-Y		16
L342	Y-O	17	42
L343	O-Y		17
L344	Y-G	18	43
L345	G-Y		18
L346	Y-BR	19	44
L347	BR-Y		19
L348	Y-S	20	45
L349	S-Y		20
+12V	V-BL	21	46
+12V	BL-V		21
+12V	V-O	22	47
+12V	O-V		22
+12V	V-G	23	48
+12V	G-V		23
+12V	V-BR	24	49
+12V	BR-V		24
+12V	V-S	25	50
+12V	S-V		25



Flowchart 1 – Busy Lamp Field Faults



Flowchart 1 (Cont)



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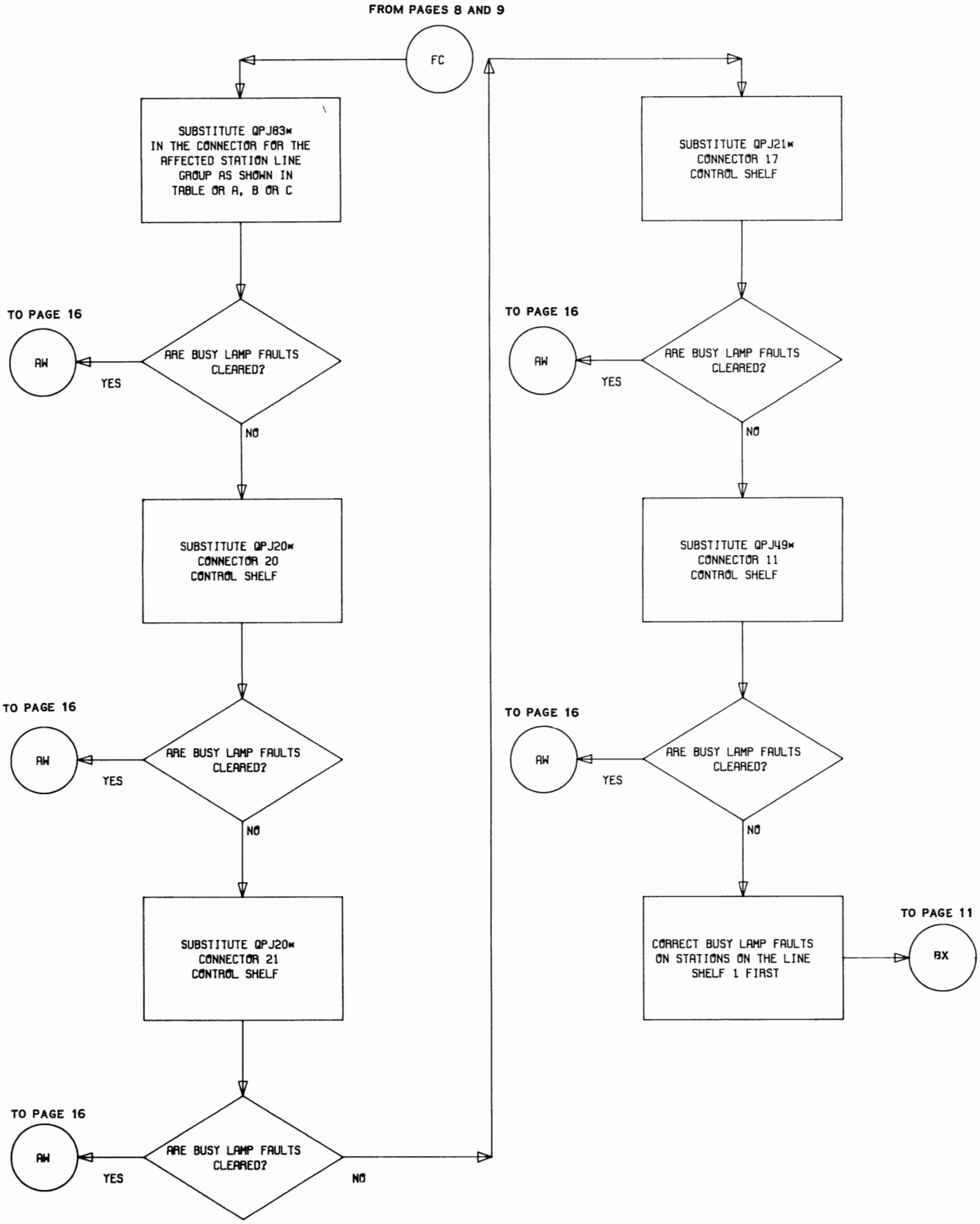

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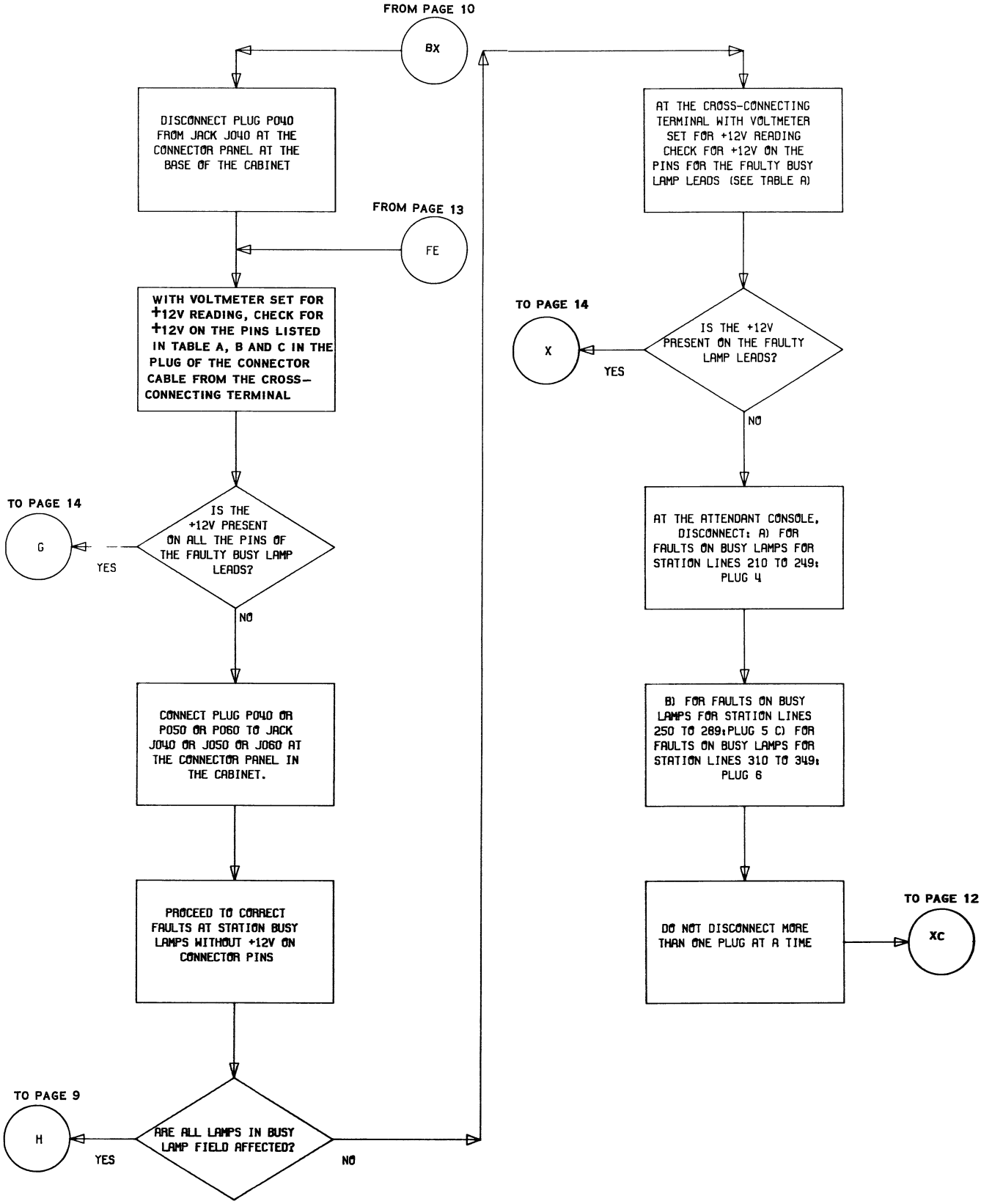

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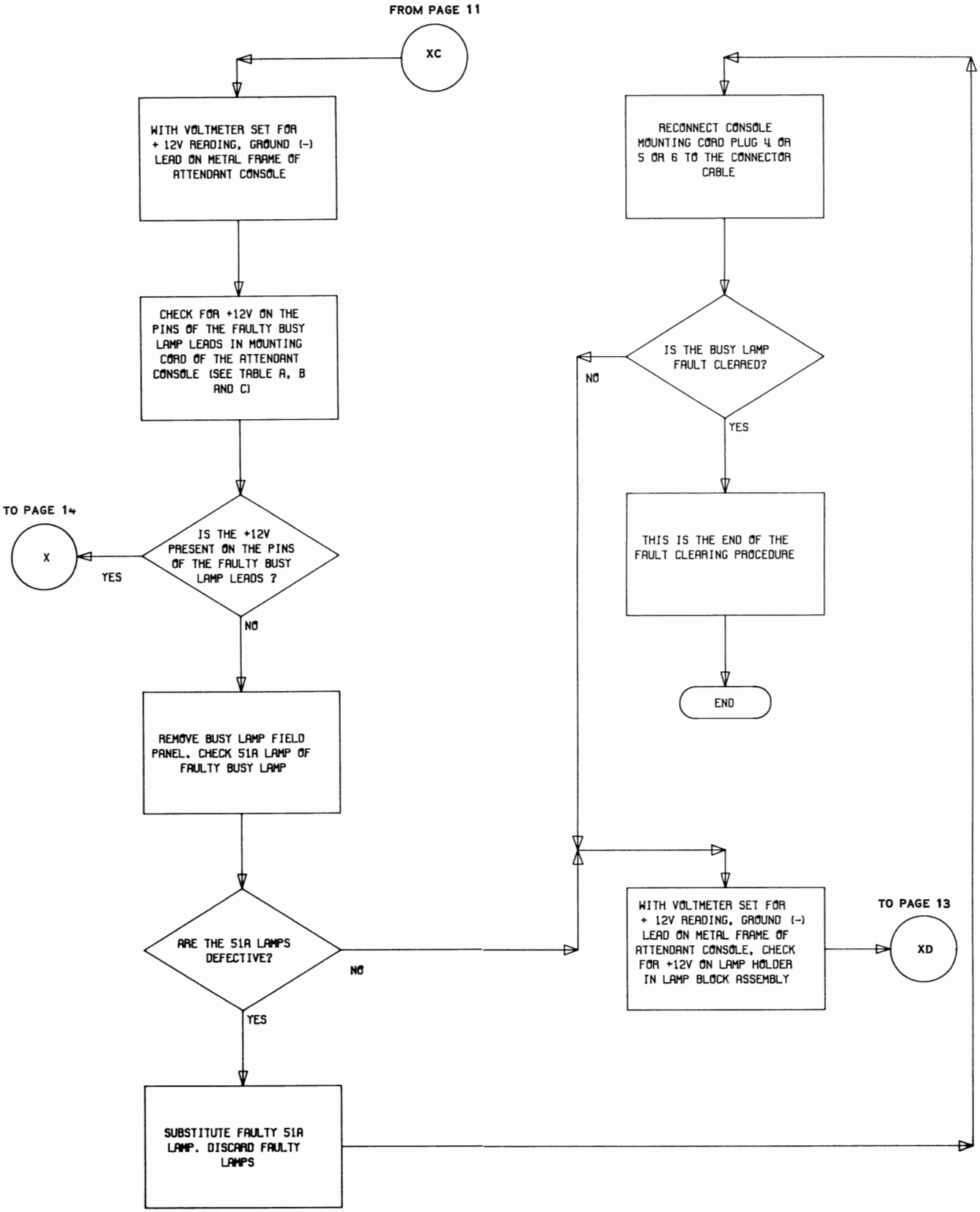

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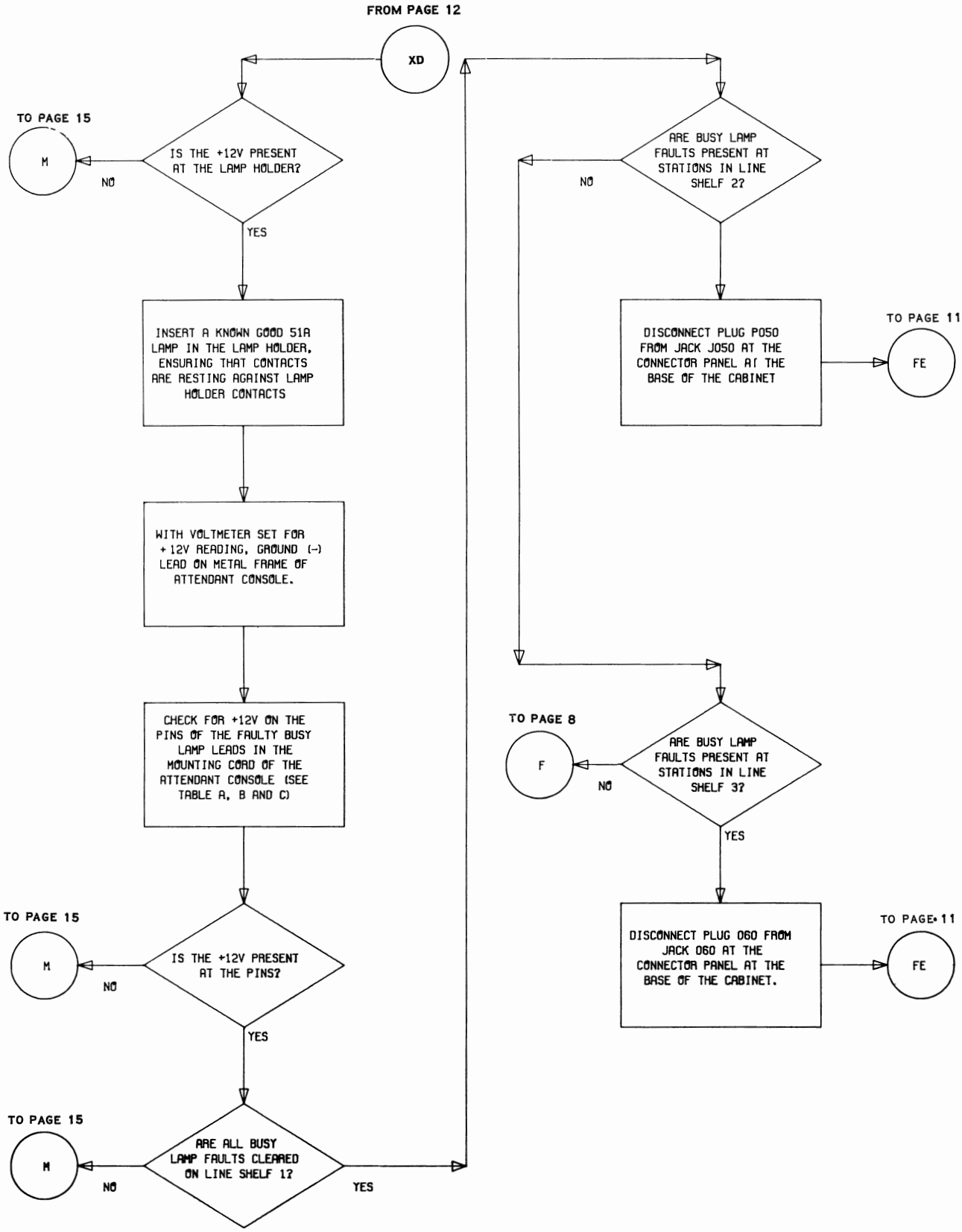

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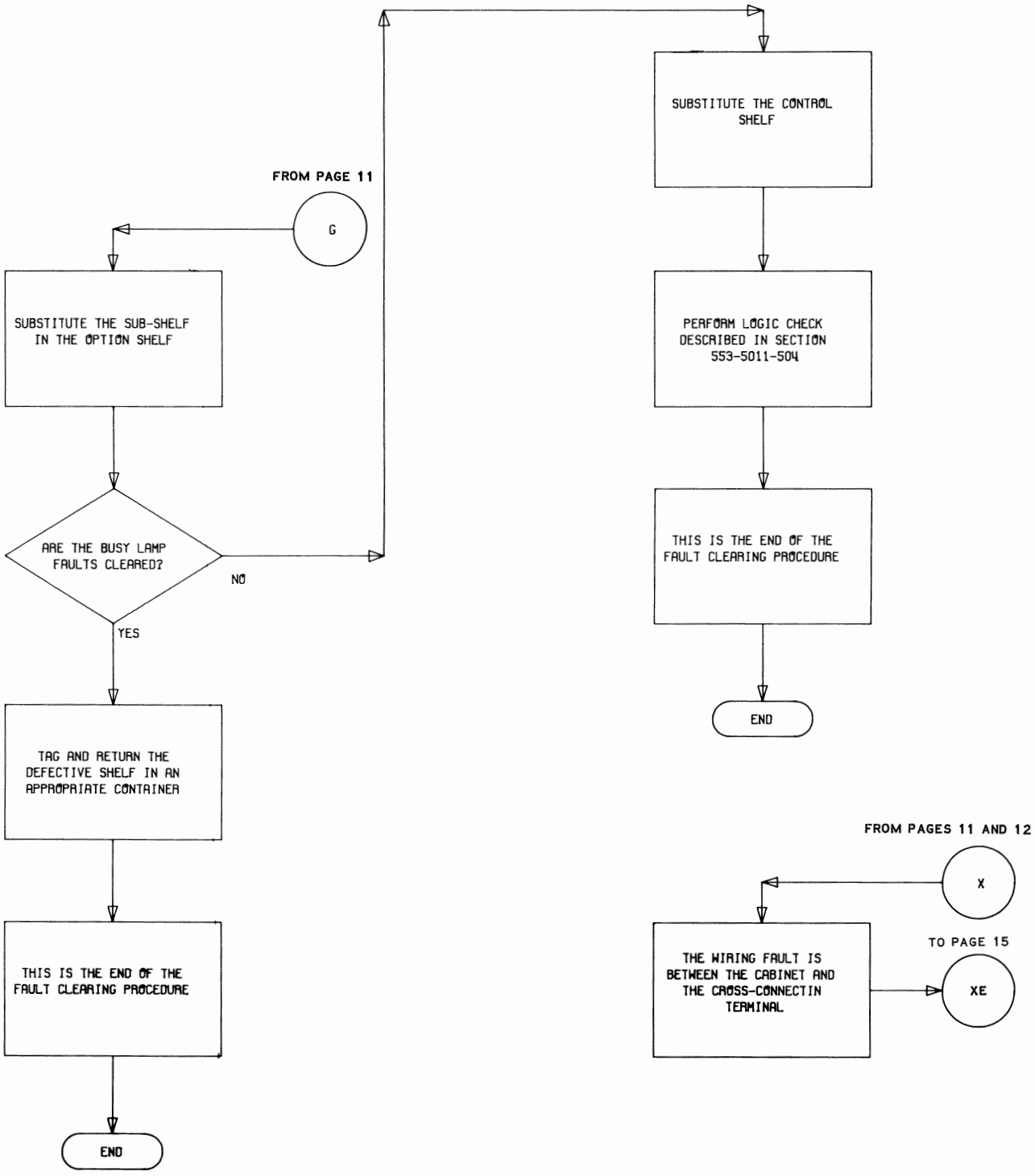

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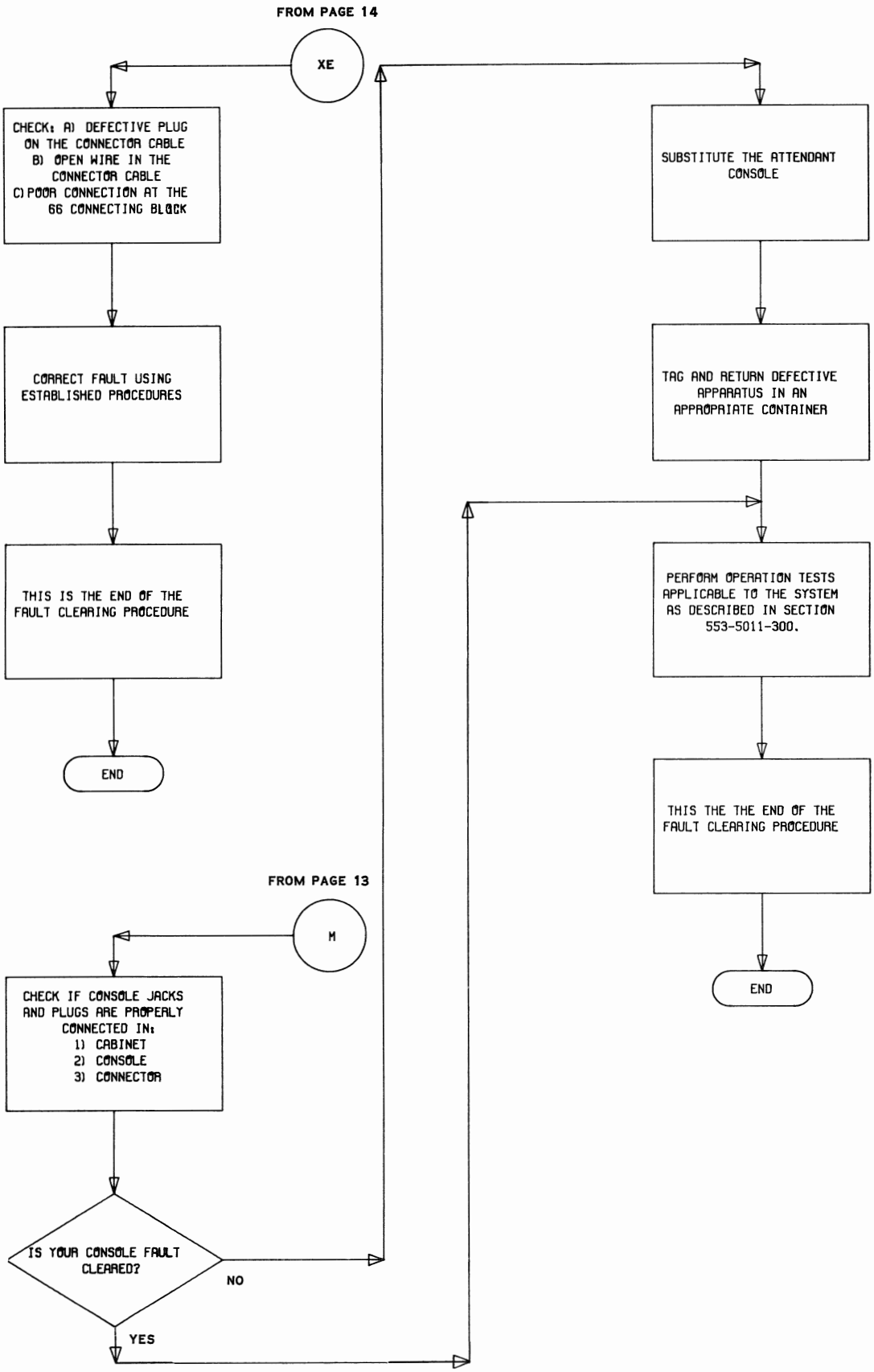

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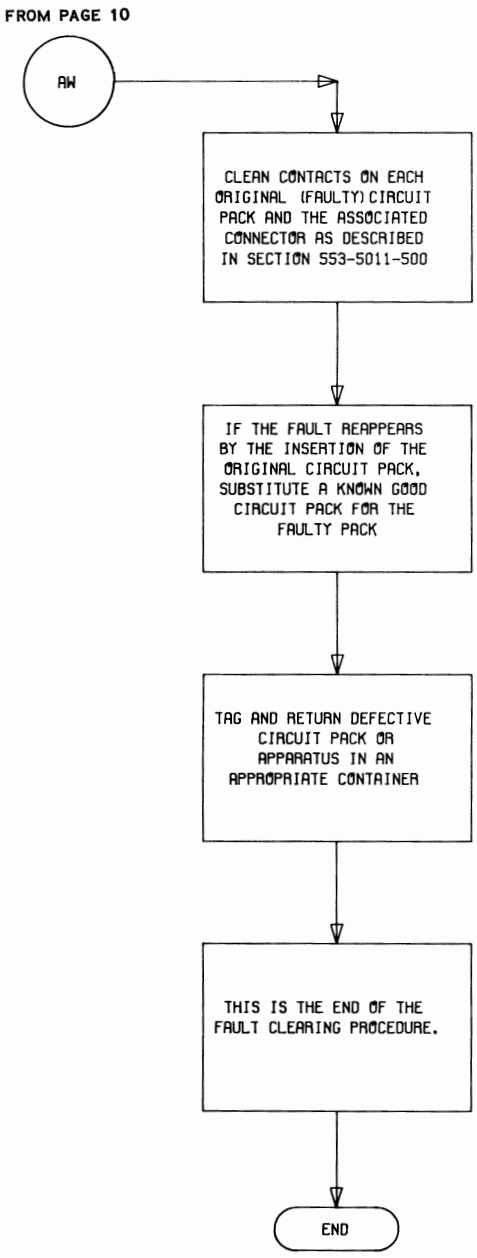

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