

## “PULSE\*120” – SG-1A

### ELECTRONIC PRIVATE AUTOMATIC BRANCH EXCHANGE

### OUTGOING-TRUNK SELECTION FAULT-CLEARING PROCEDURE

#### 1. GENERAL

1.01 This section describes the procedure for clearing outgoing-trunk selection faults. The procedure is applicable to trunks accessed by dialing 9, or miscellaneous trunk access codes 1 through 7 or 81 through 87 depending upon numbering plan. For hotel/motel service, dialing 8 gives access to code 87, the long distance operator.

#### 2. CIRCUIT DESCRIPTION

2.01 The trunk circuit packs provide an interface between the PULSE 120 Electronic Private Automatic Branch Exchange (EPABX) and the exchange message network, making possible the transmission of dialing and supervisory signals and the establishment of talking connections. Trunks accessed by dial 9 are located on either trunk shelf in any connector. The locations of the trunks accessed by miscellaneous access codes are restricted to connectors 5 through 9 on both trunk shelves. All trunk circuit packs have a Busy-Light Emitting Diode (BSY LED) mounted on the component side of the circuit board. When lit, the BSY LED indicates that the trunk is seized and in use for a call connection.

#### 3. FAULT-CLEARING PROCEDURE

3.01 Outgoing-trunk selection faults are localized with the maintenance test unit QPJ97 type circuit pack in connector 2 on the control shelf. The maintenance test unit is used during the fault-clearing procedure, as shown in Test E and the flowcharts.

3.02 When the substitution of a circuit pack is required during the fault-clearing procedure, the contacts on the new circuit pack must be

cleaned as described in Section 553-5011-500 before the circuit pack is inserted into the connector.

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

3.03 If a fault is cleared by circuit pack substitution and *the original circuit pack 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 new circuit pack is reinserted.

3.04 If different and/or additional faults are created in the system by substituting a circuit pack, tag and return the replacement as a defective unit.

3.05 The original circuit pack must be inserted in the connector when the fault is not cleared by substitution.

3.06 The instructions for substituting a shelf are detailed in Section 553-5011-202.

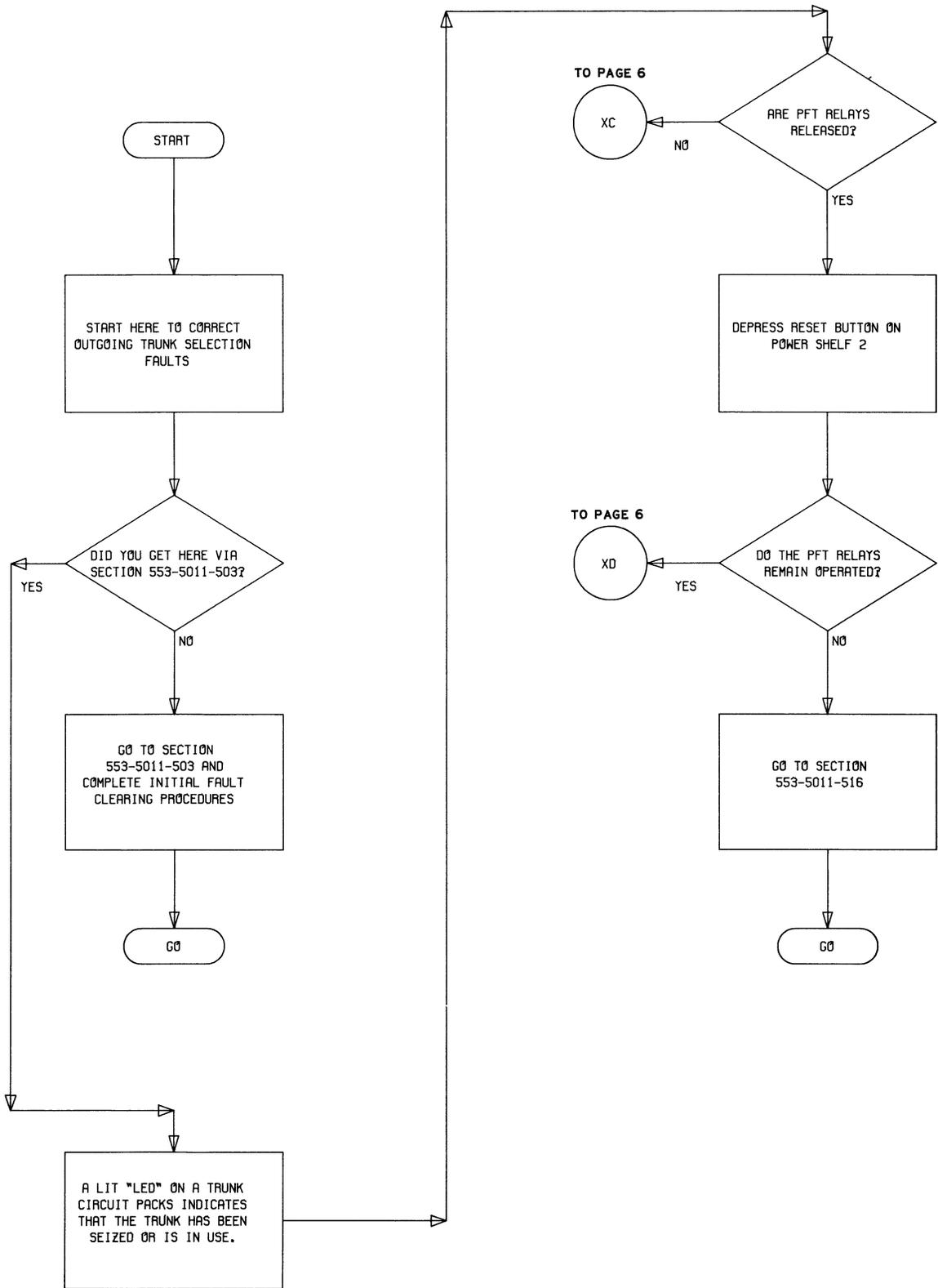
3.07 When the fault-clearing procedure is completed, a visual check is made to ensure that all circuit packs are well seated in their connectors and that the screws in the connector plugs and jacks are tight. The EPABX internal cabling arrangements are given in Section 553-5011-501.

\* Trademark of Northern Telecom Limited

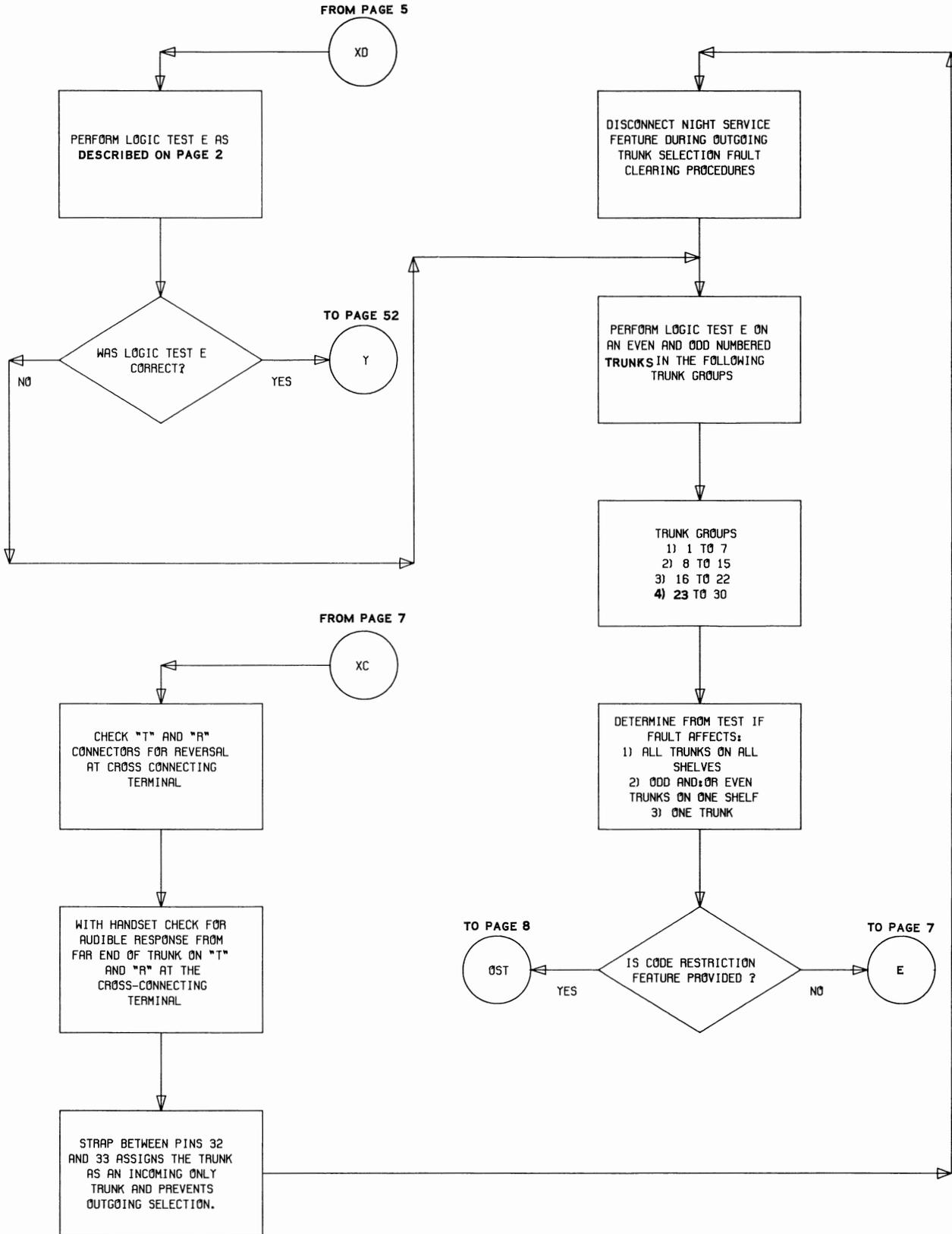
TEST E – TRUNK TRANSMISSION LOGIC TEST												
This test is performed from the station line (2)39 test points on the end panel of line shell no. 1. The trunks are selected by dialing special access code given during the test.												
Apparatus required to perform test												
<ul style="list-style-type: none"> <li>• QPJ97* circuit pack inserted in connector 2 in the control shell</li> <li>• QSE4-type handset or equivalent</li> <li>• QPJ37* circuit pack inserted in connector 11 in line shell no. 1</li> <li>• QPJ36* circuit pack inserted in connector 19 in line shell no. 1</li> <li>• Circuit pack in the trunk connector under test</li> </ul>												
STEP	PROCEDURE	INDICATIONS ON QPJ97*									REMARKS	
		HEART	ACTIVATE	DT/BSY/OVFL	ORIG	RING	TALK	DISC	TERM	TKNT		EMERG
1	Inform station user at stations (2)39 or (3)46 that this line will be used for testing. Station user to ignore I/C calls during tests. Refer to START of Flowchart 1 on Page 5 if fault encountered during test.	⊙										QPJ37* must be present in connector location 11 on line shelf no. 1.  T and R test points provide speech facility when QPJ37* present in connector location 11.
2	With handset switch in monitor mode, connect leads to (2)39 T and R test points on front end of line shelf no. 1.	⊙										
3	Set QPJ97* switches to idle position.	⊙										
4	Ensure that LINE/TRK switch is in upper position for trunks selection.	⊙										
5	Operate LAMP TEST/ACTIVATE switch to lower position.	○	○	○	○	○	○	○	○	○		
6	Operate LAMP TEST/ACTIVATE switch to upper ACTIVATE position. One of two indications will be apparent: (a) Test station lines (2)39 and/or (3)46 are in busy condition. The condition of the ORIG and TERM lamps depends on the status of the test station lines. (b) Test station lines (2)39 and (3)46 are in idle condition and can be used for testing.	⊙			○			○				
		⊙	○									



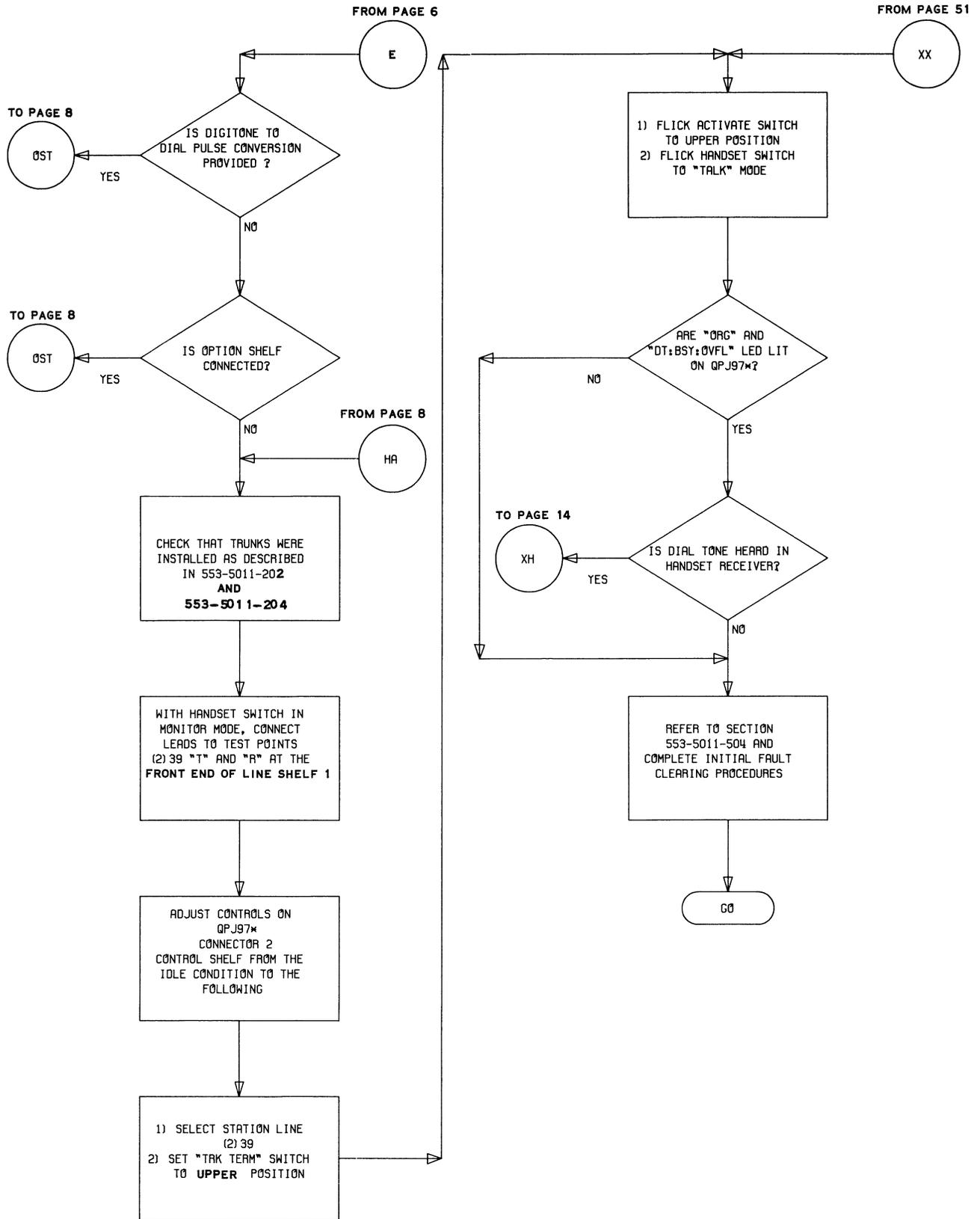


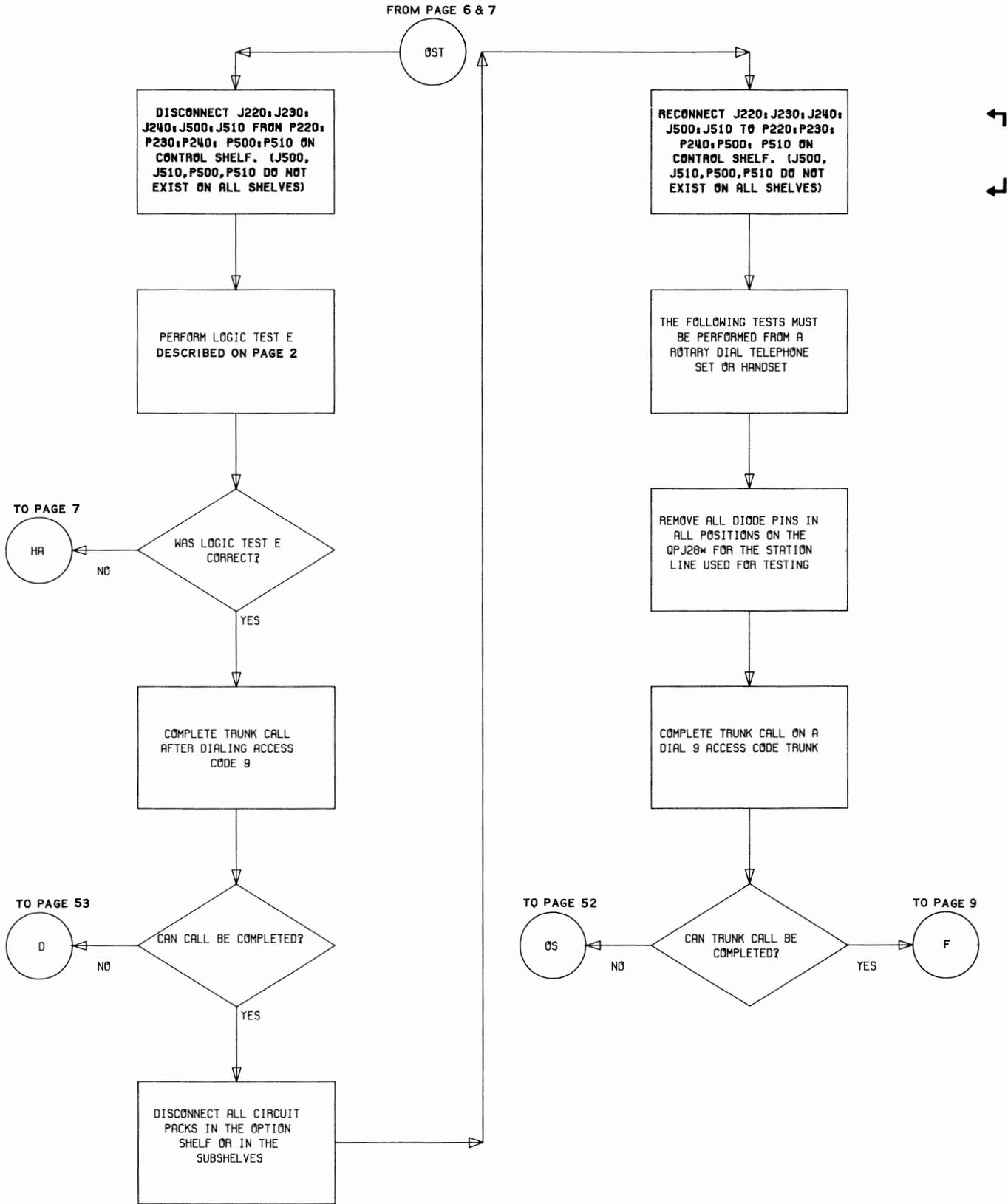


Flowchart 1 – Outgoing Trunk Selection Faults

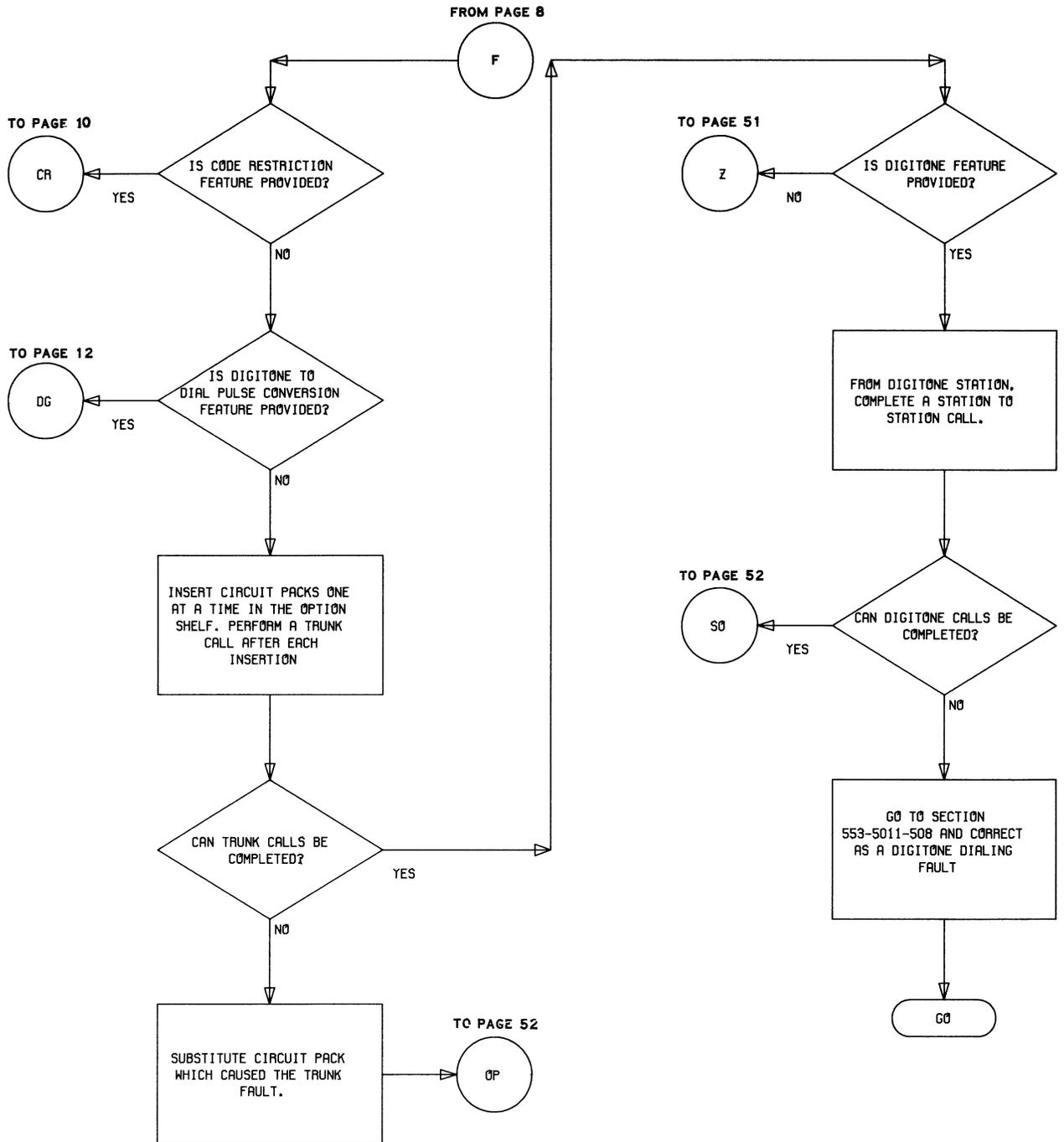


Flowchart 1 (Cont)

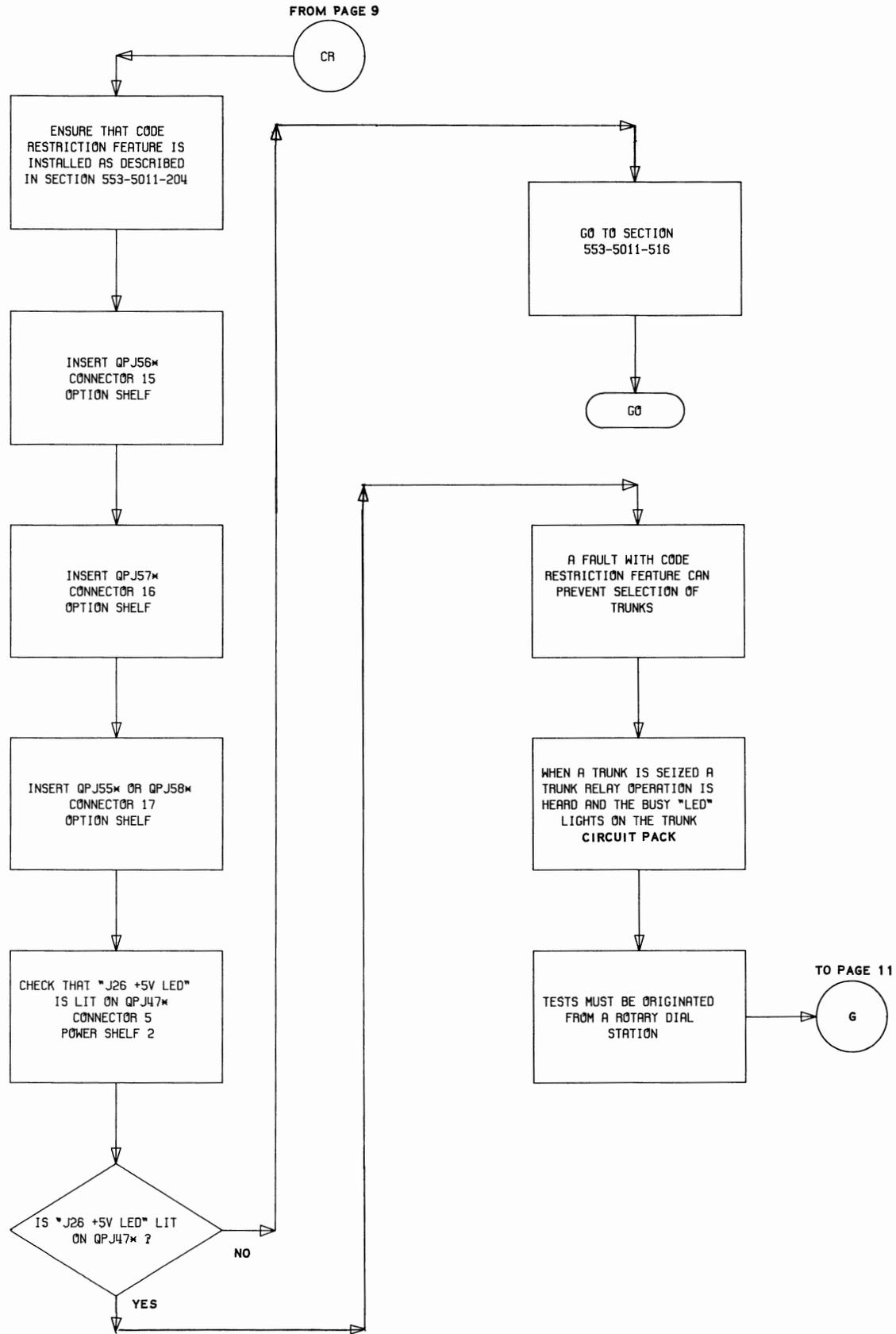




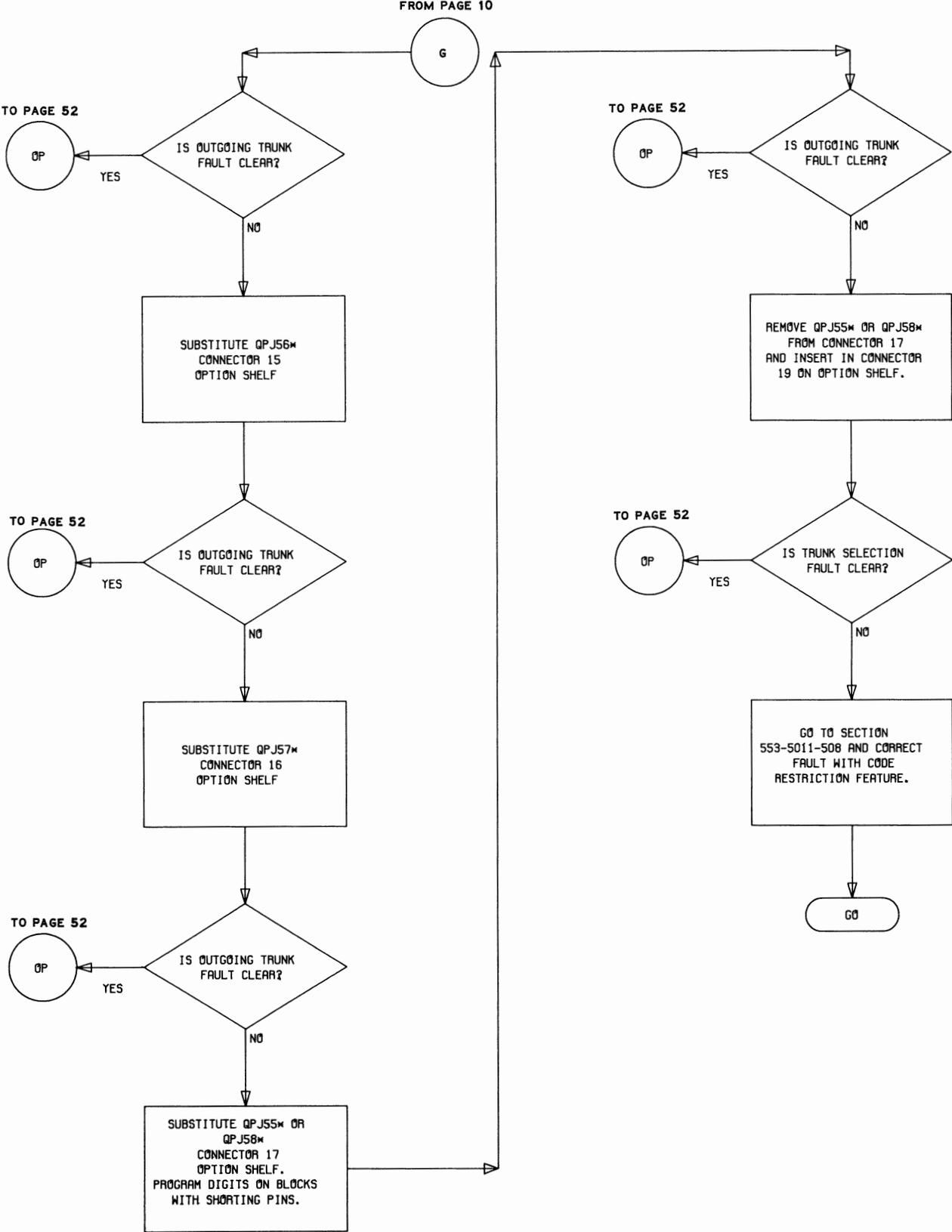
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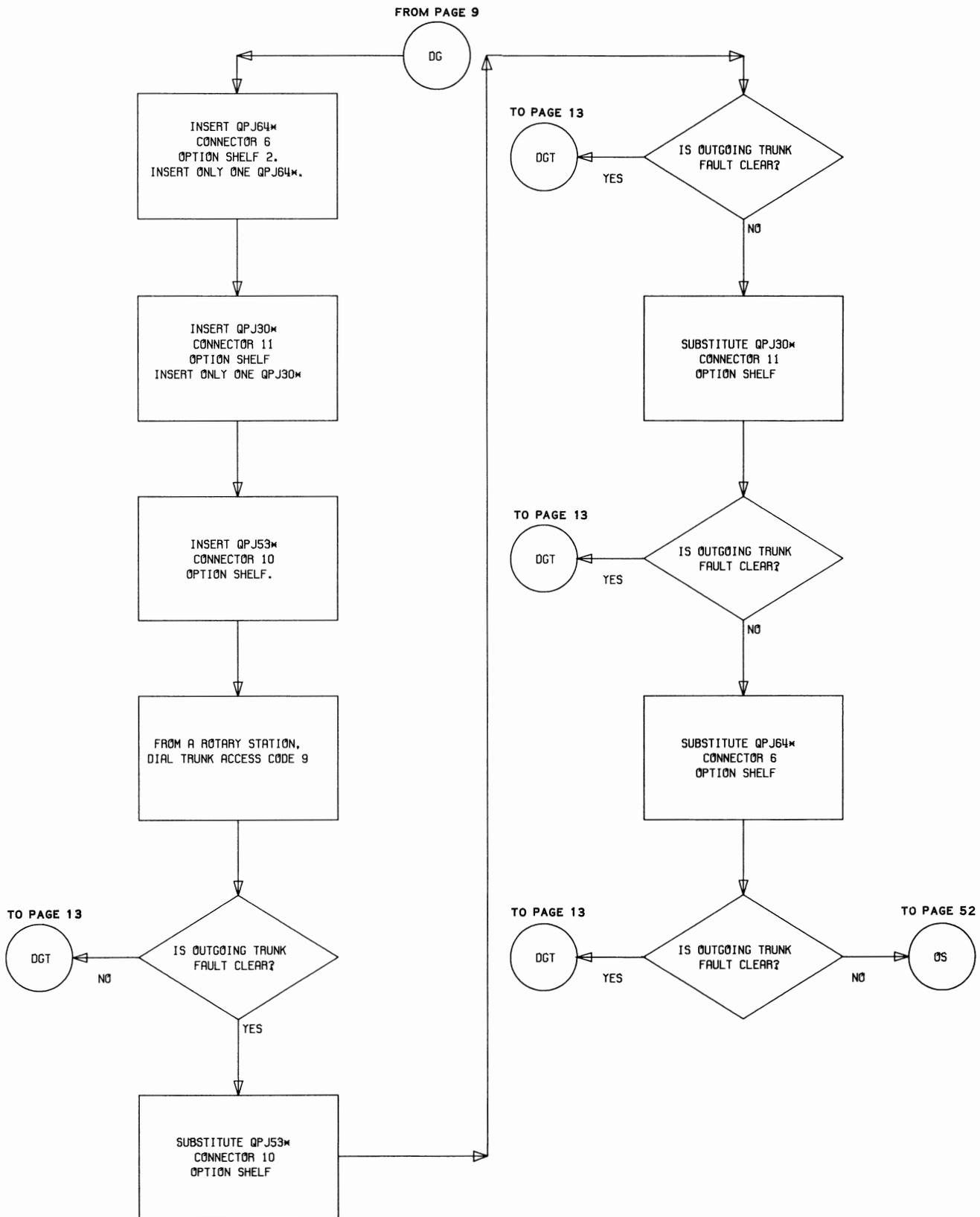
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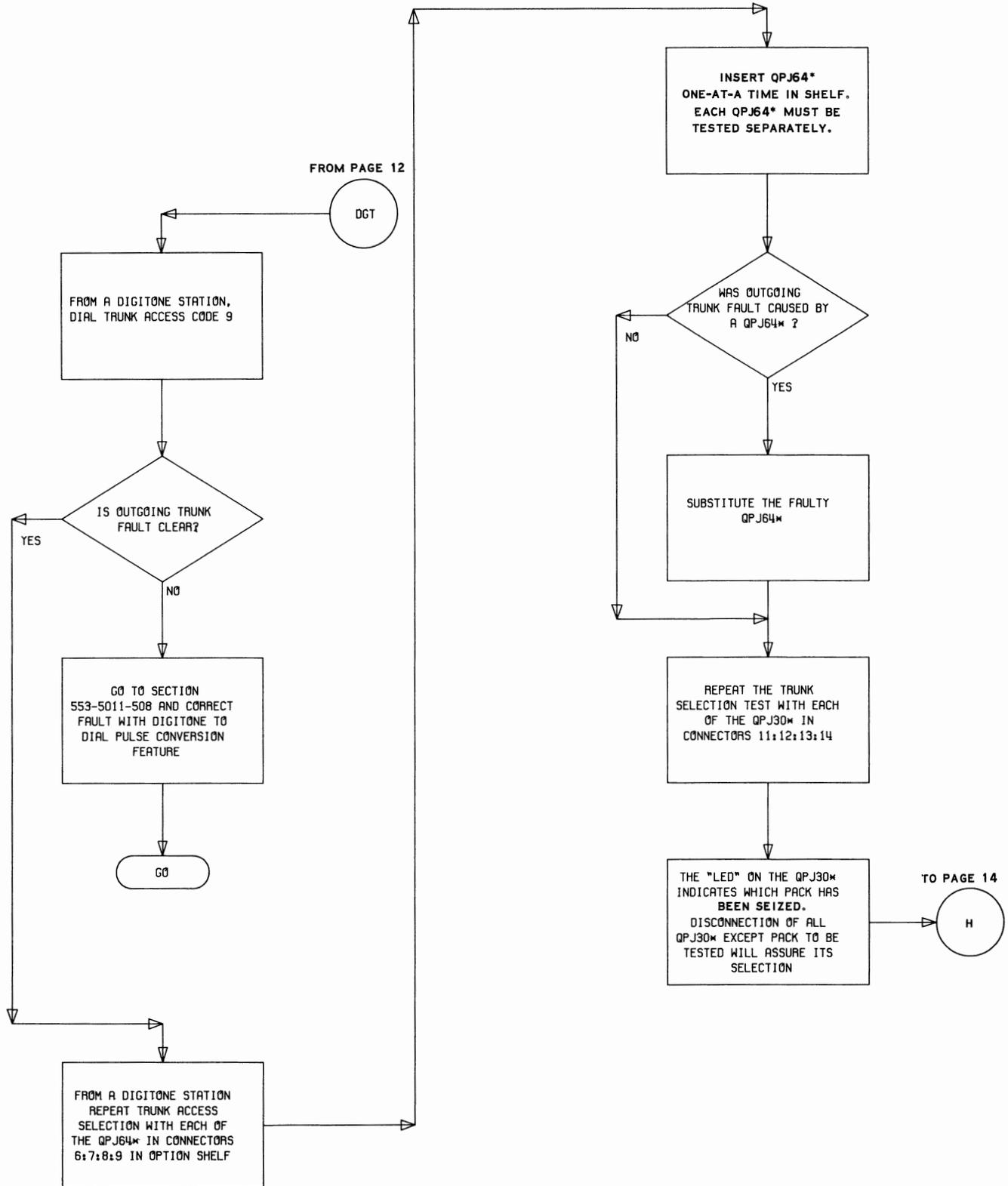
Flowchart 1 (Cont)



Flowchart 1 (Cont)

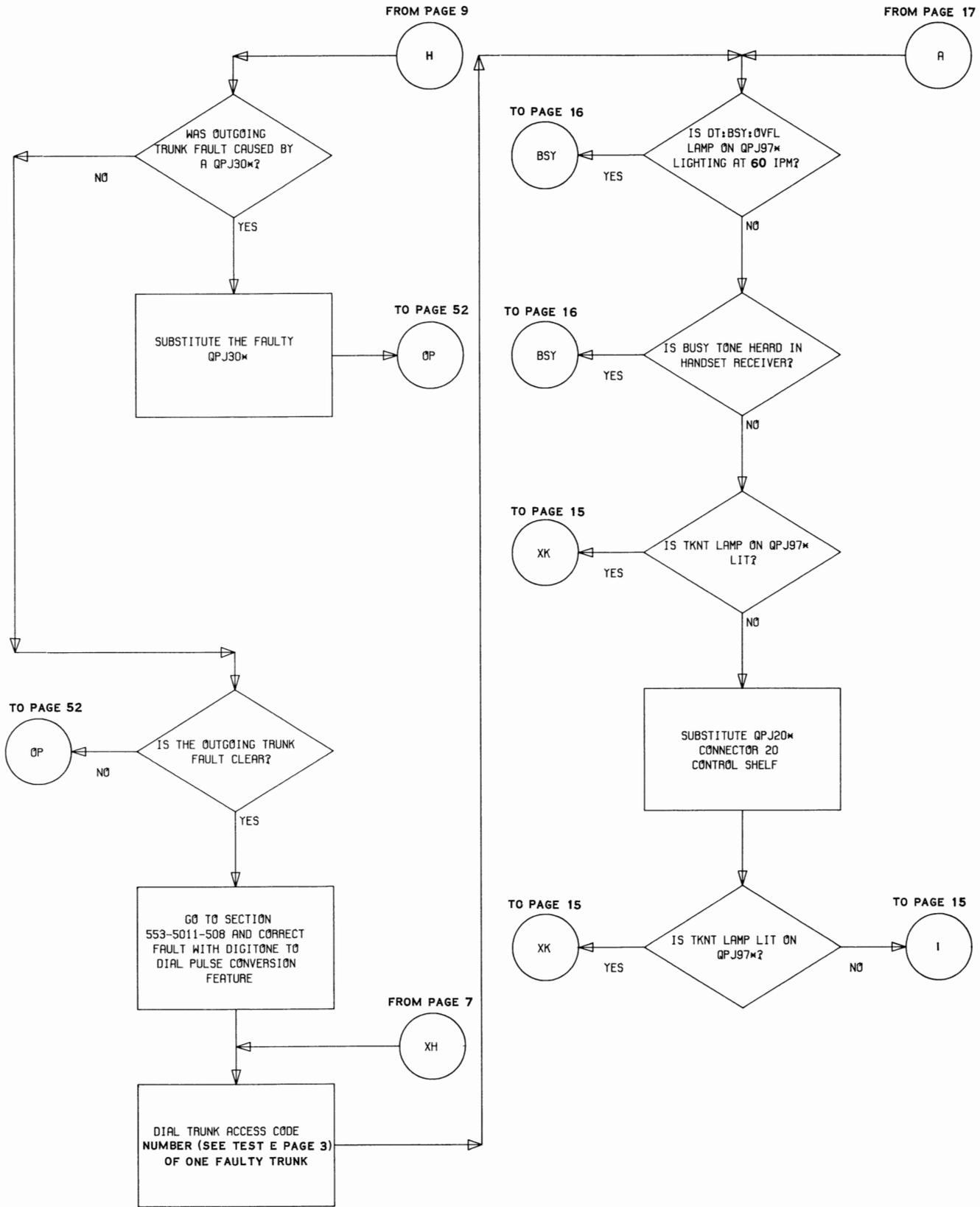


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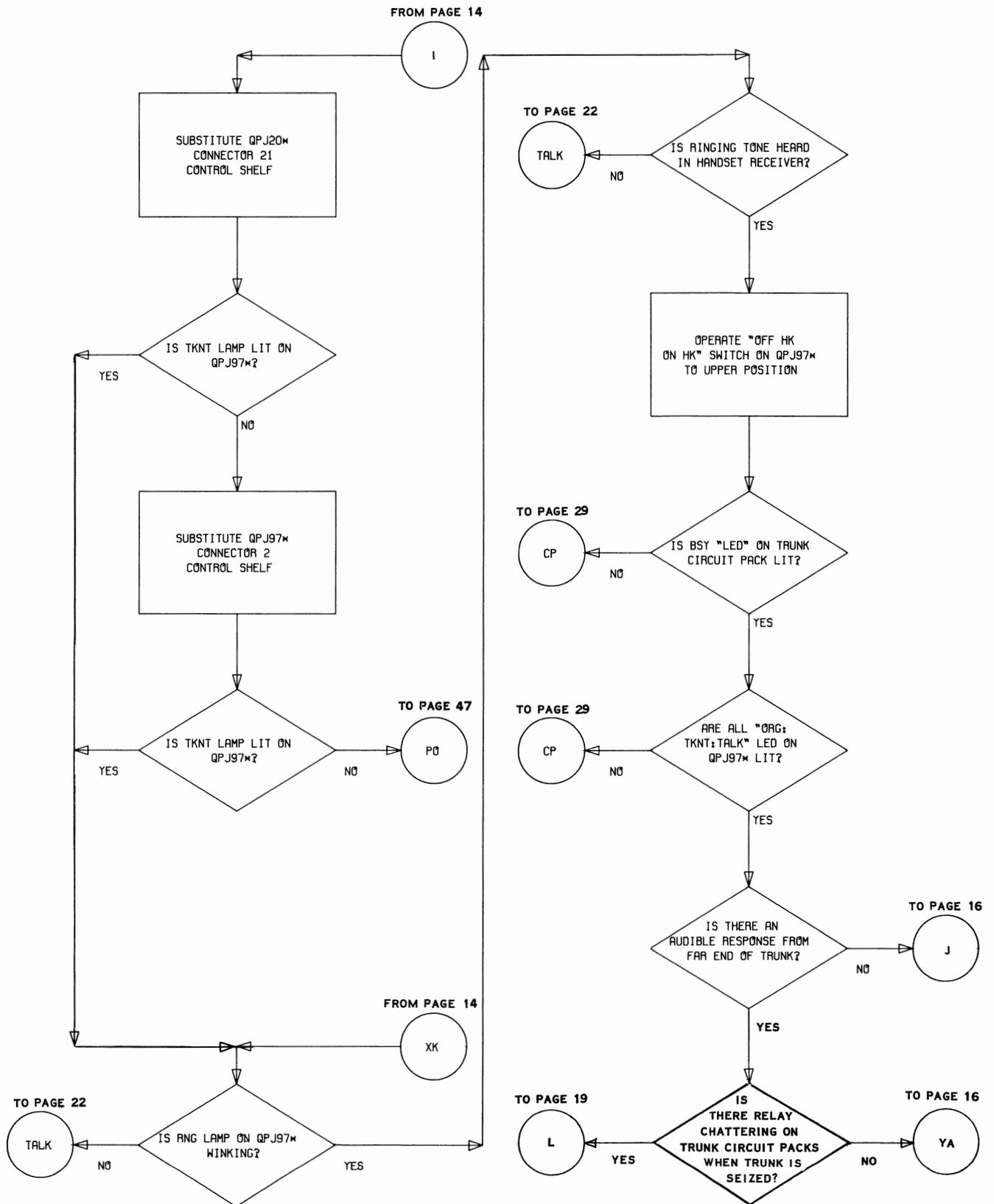


NOTE: FOR HOTEL/MOTEL SERVICE, THERE IS NO QPJ64\* IN CONNECTOR 9.

Flowchart 1 (Cont)



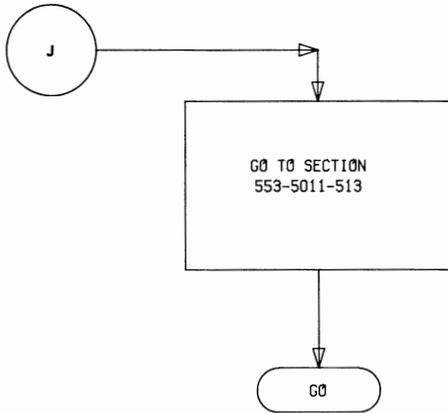
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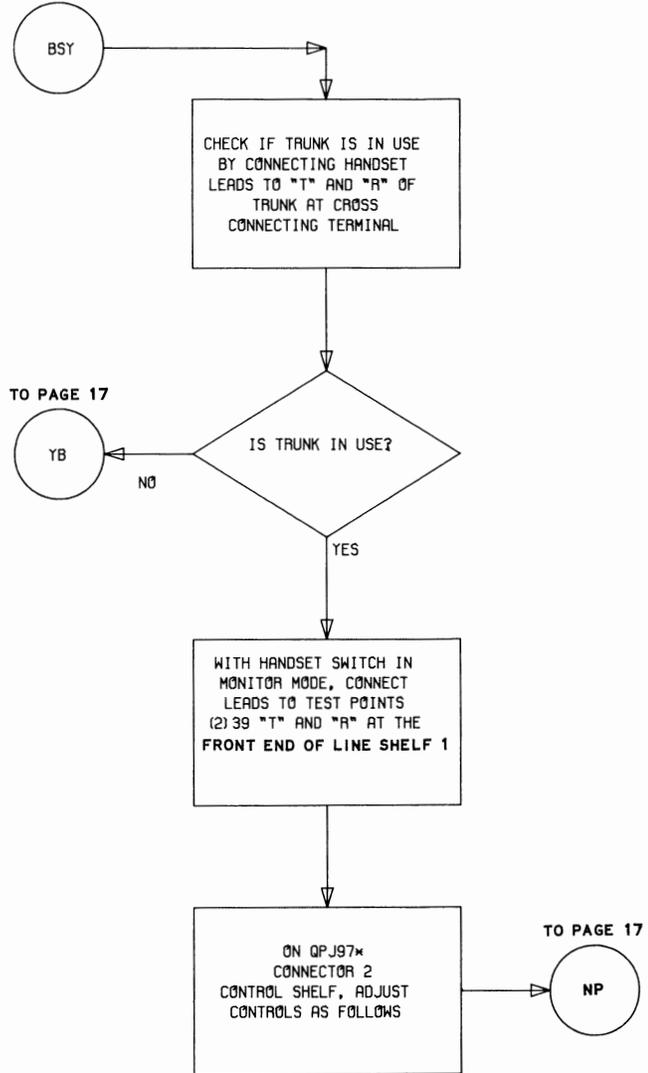
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SECTION 553-5011-512

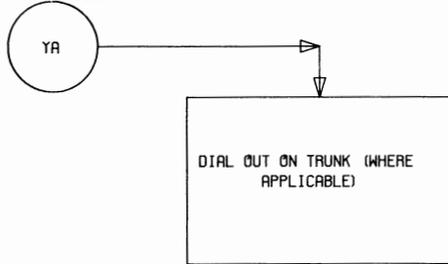
FROM PAGE 15



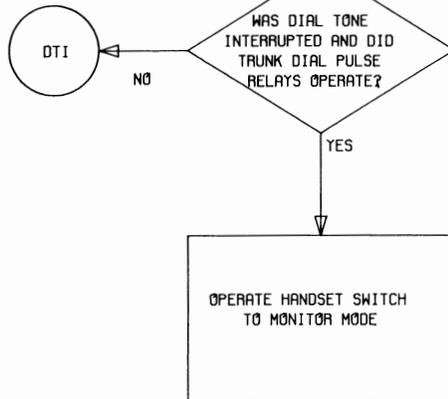
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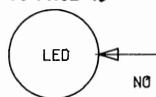
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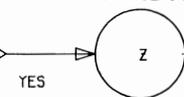
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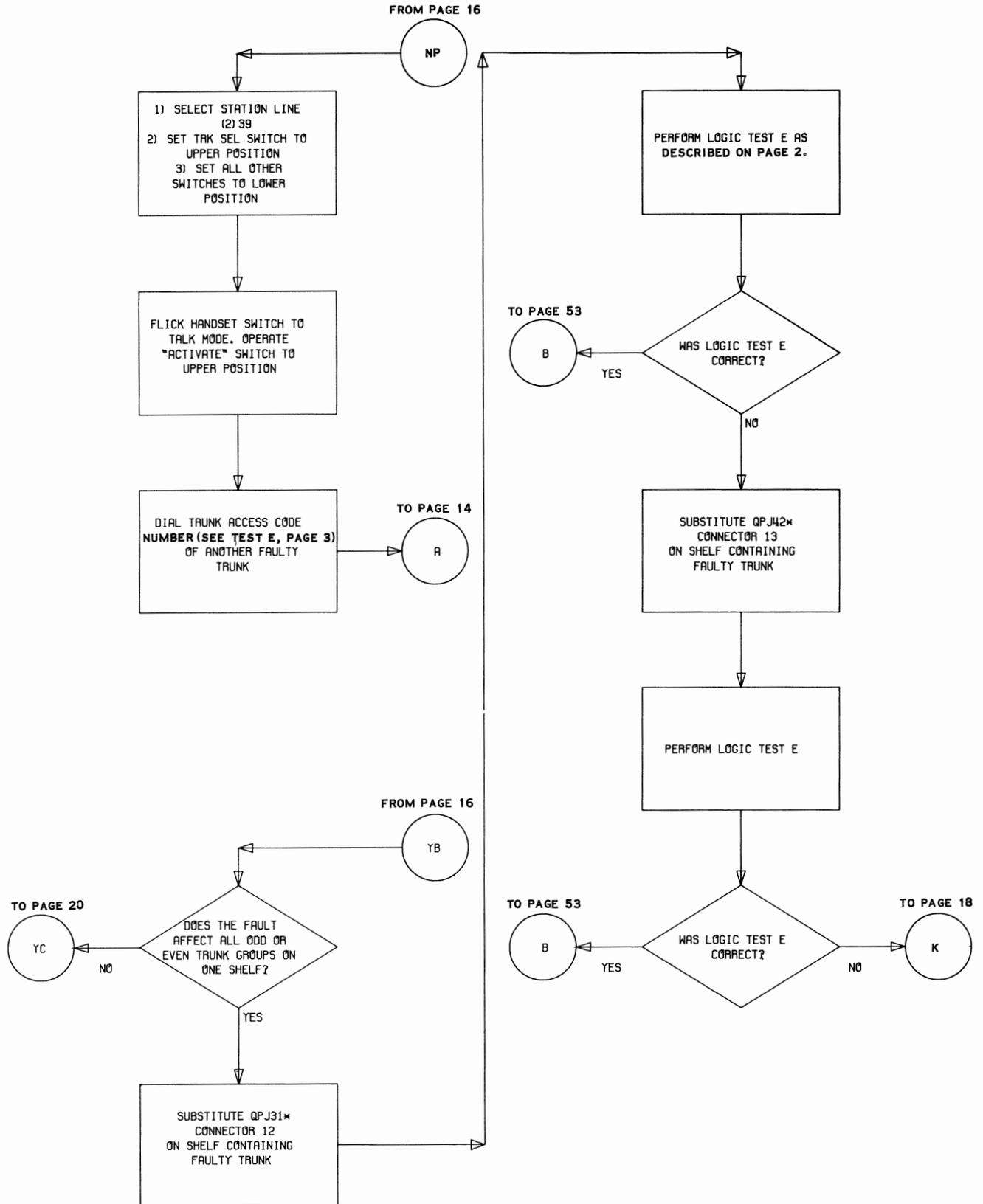
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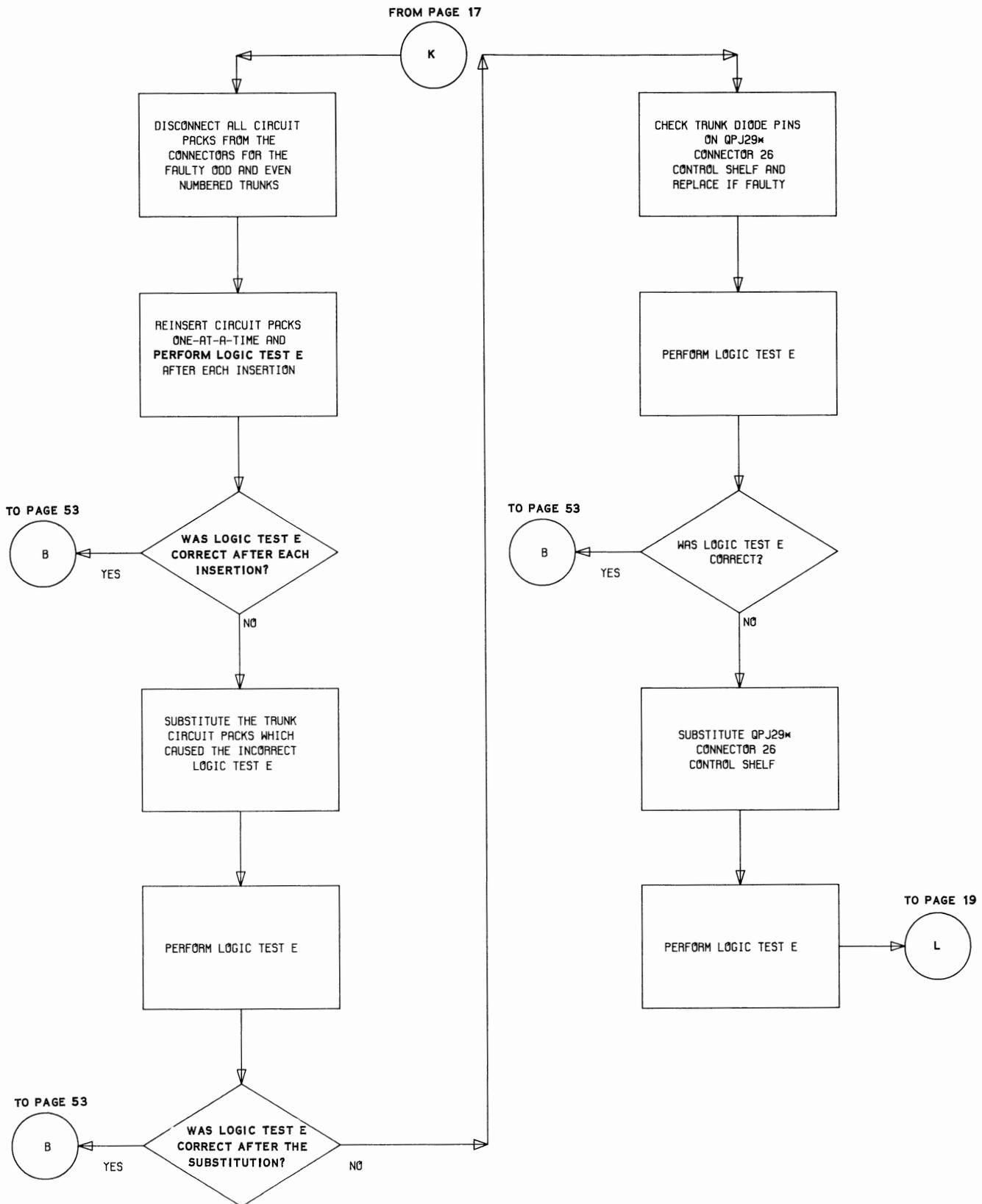
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Flowchart 1 (Cont)

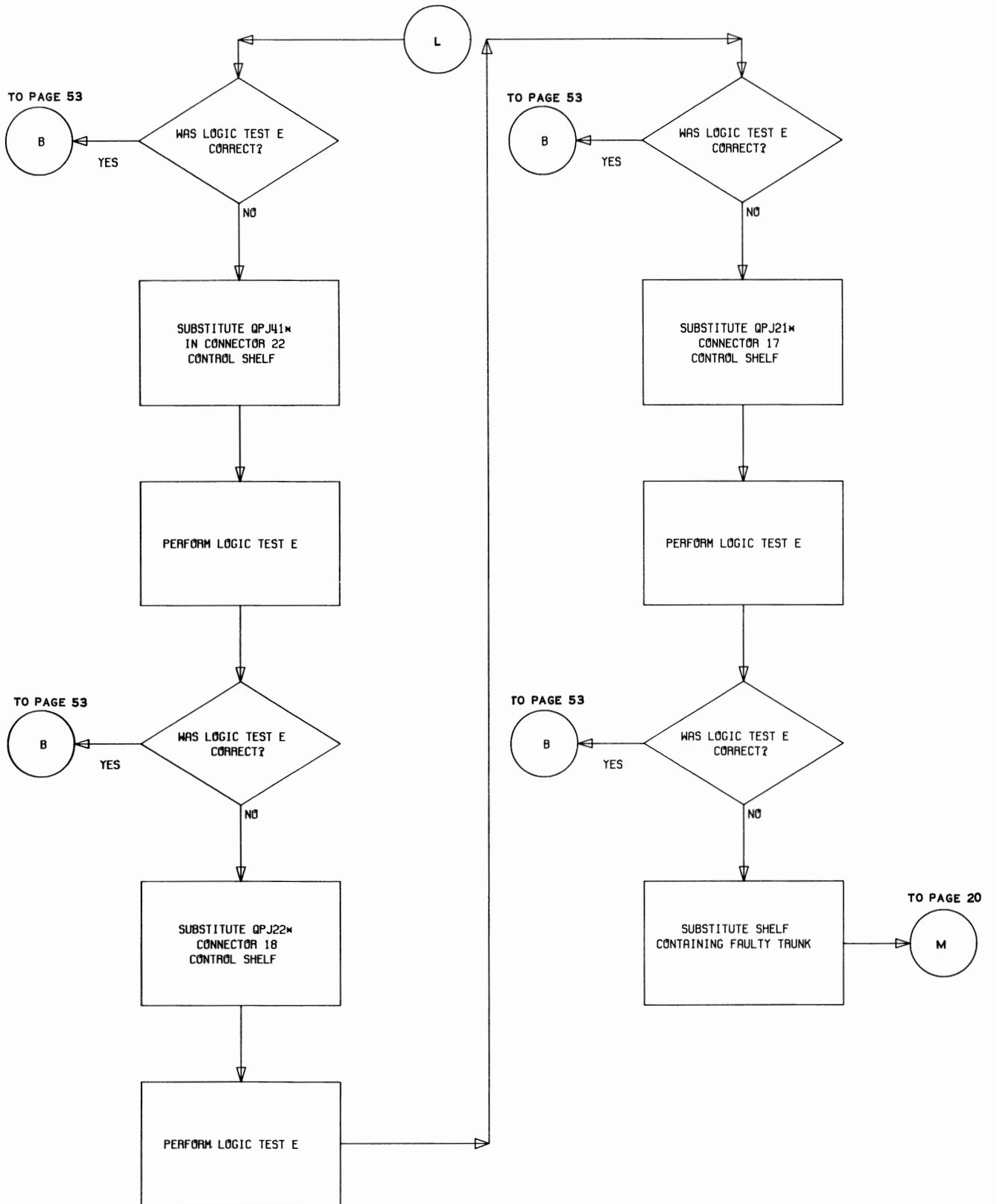


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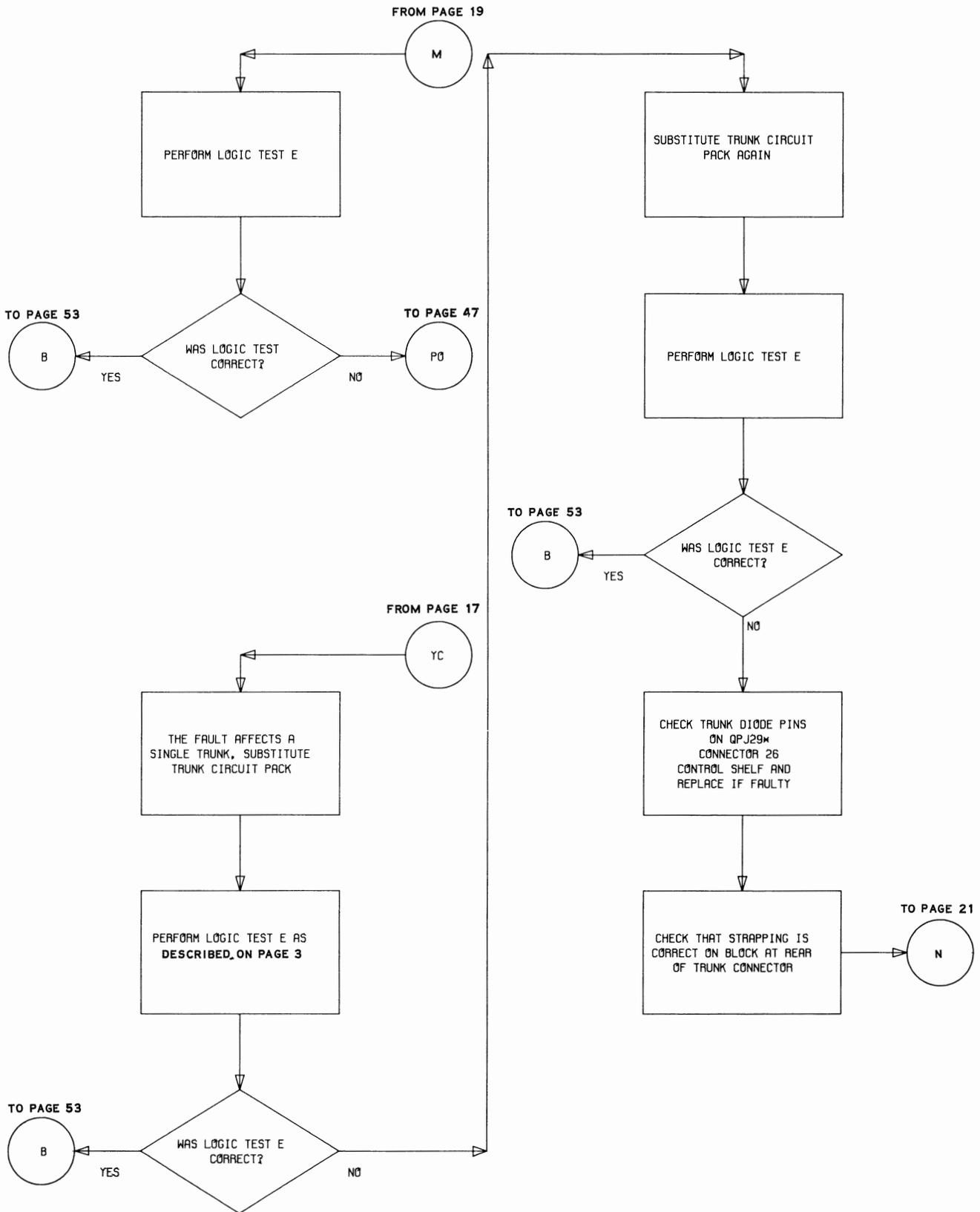


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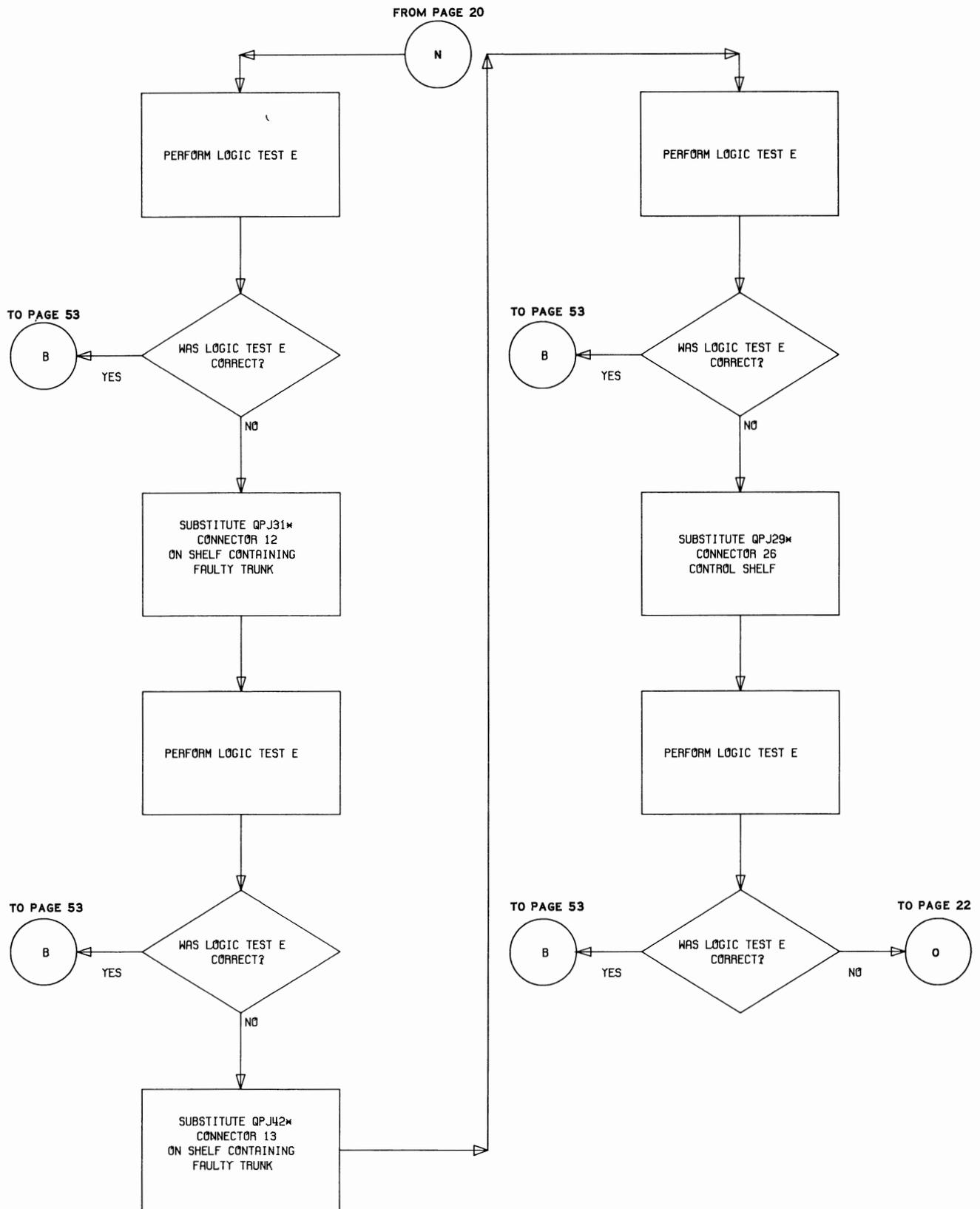
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Flowchart 1 (Cont)

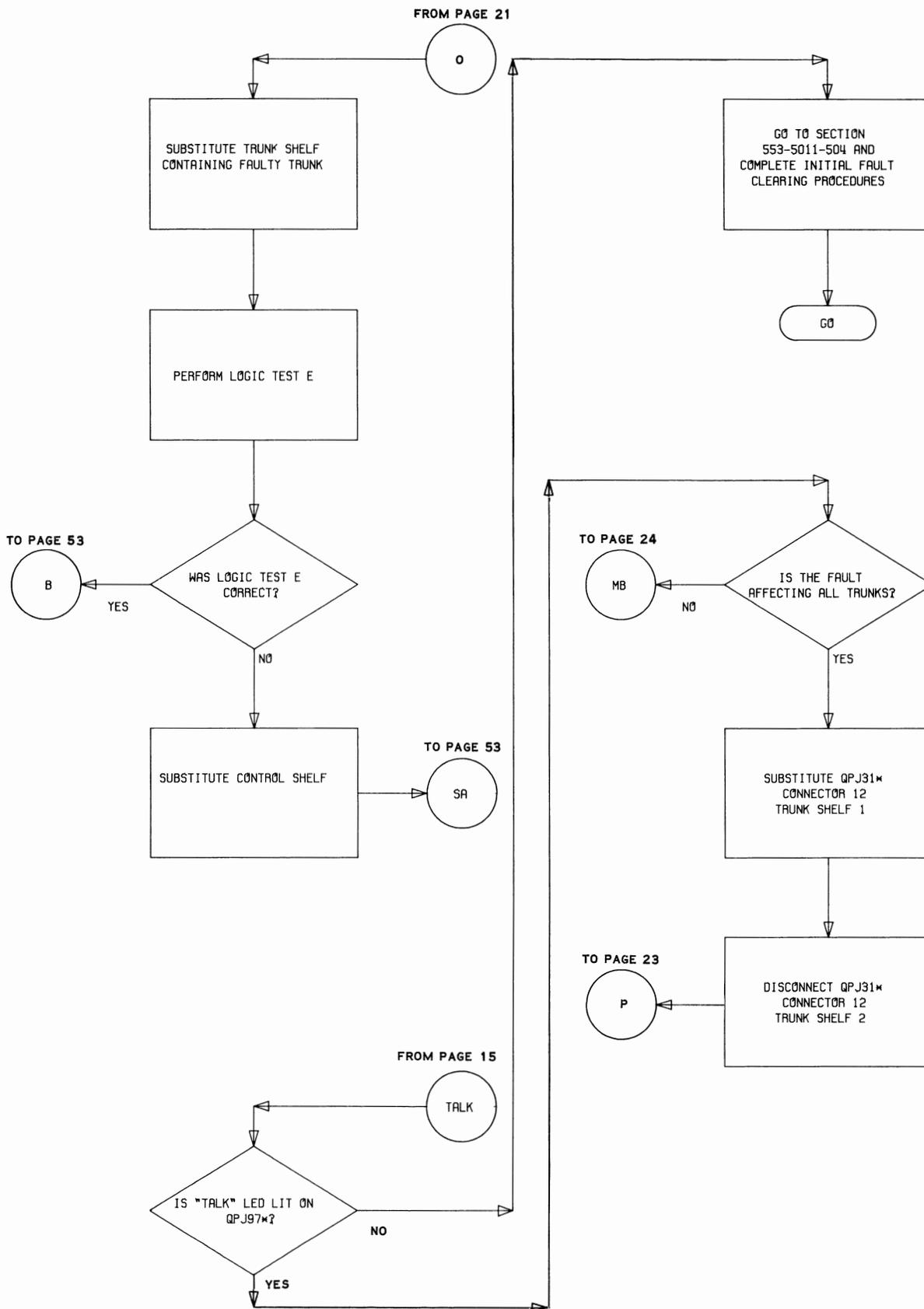


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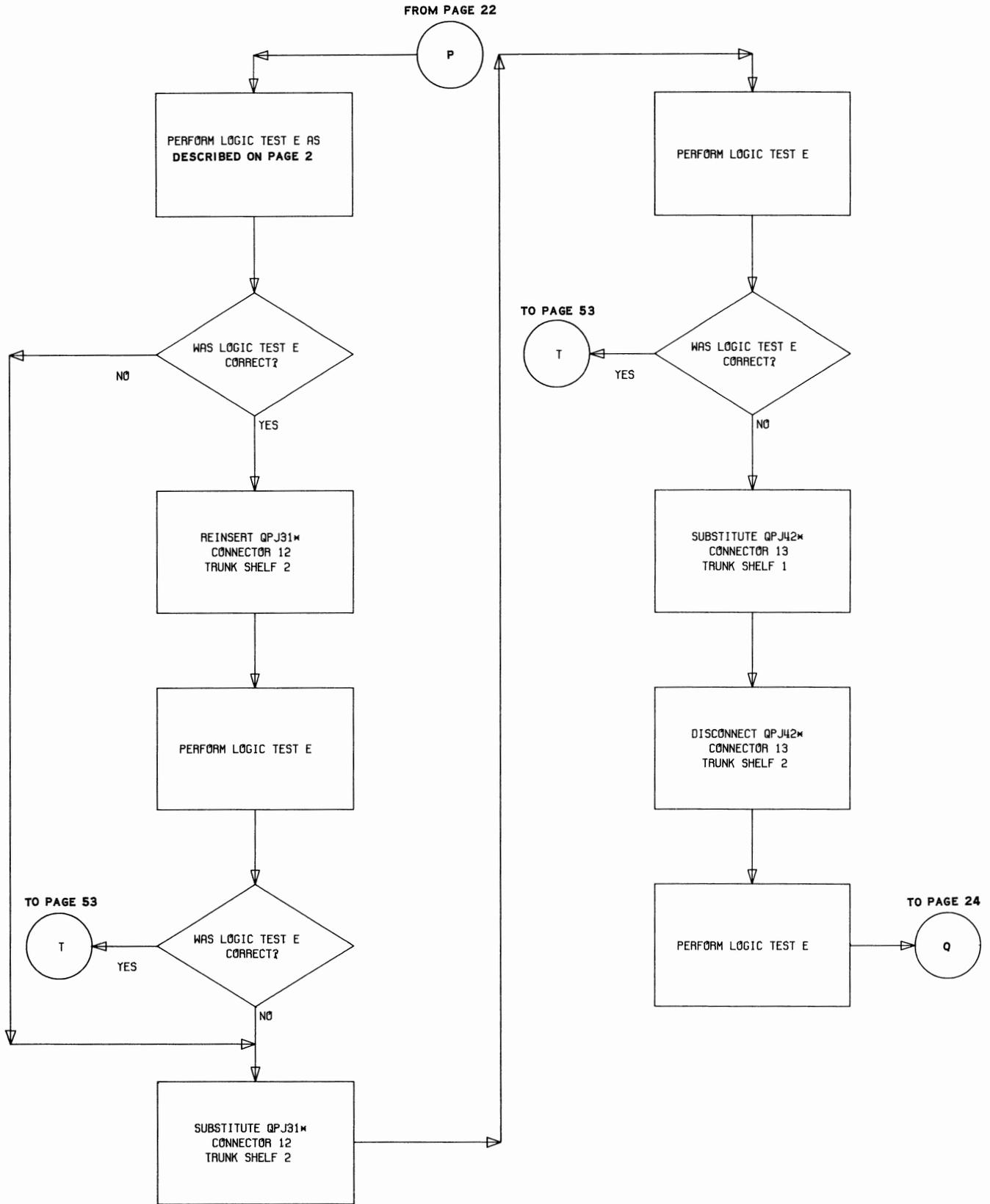


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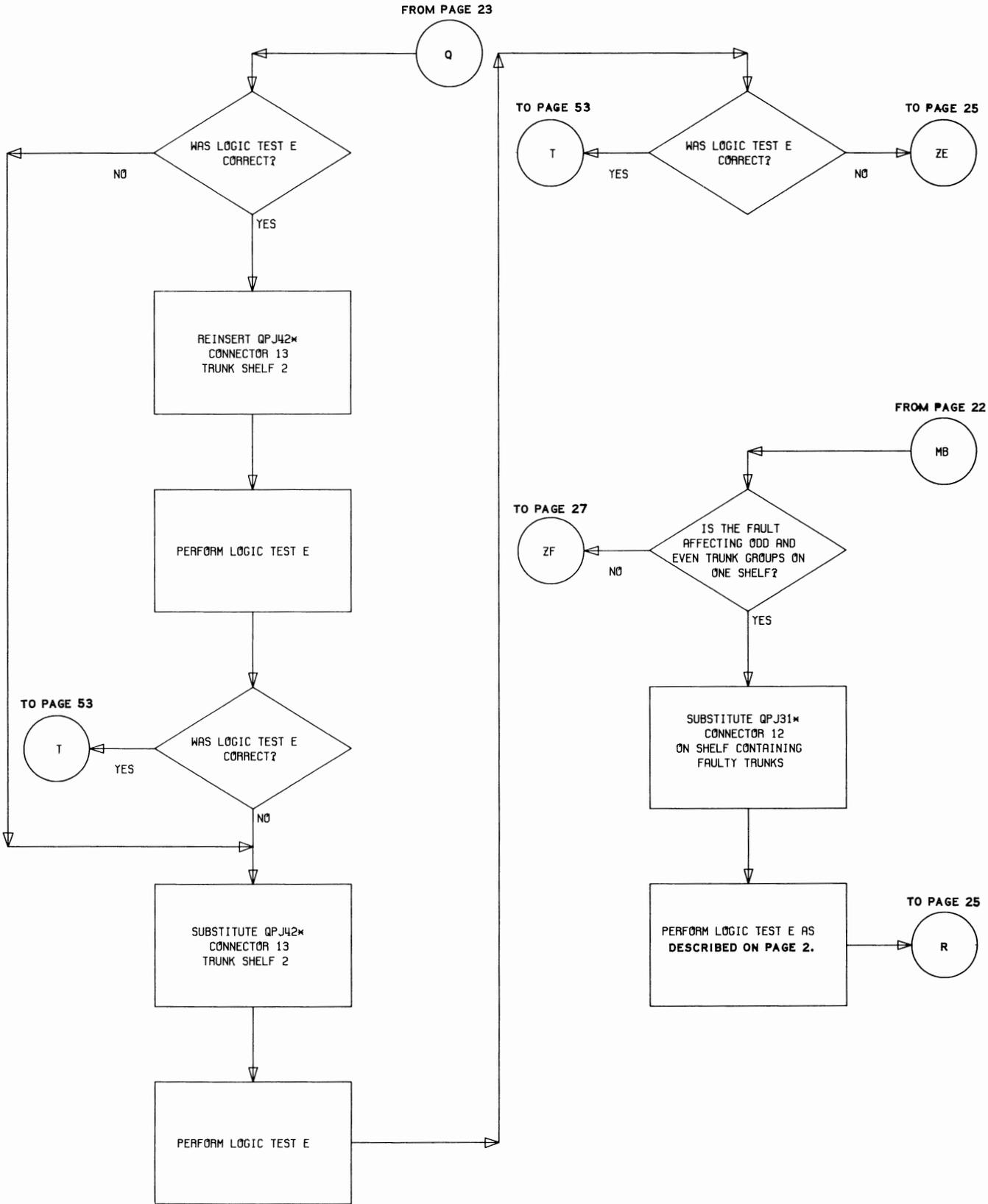
SECTION 553-5011-512



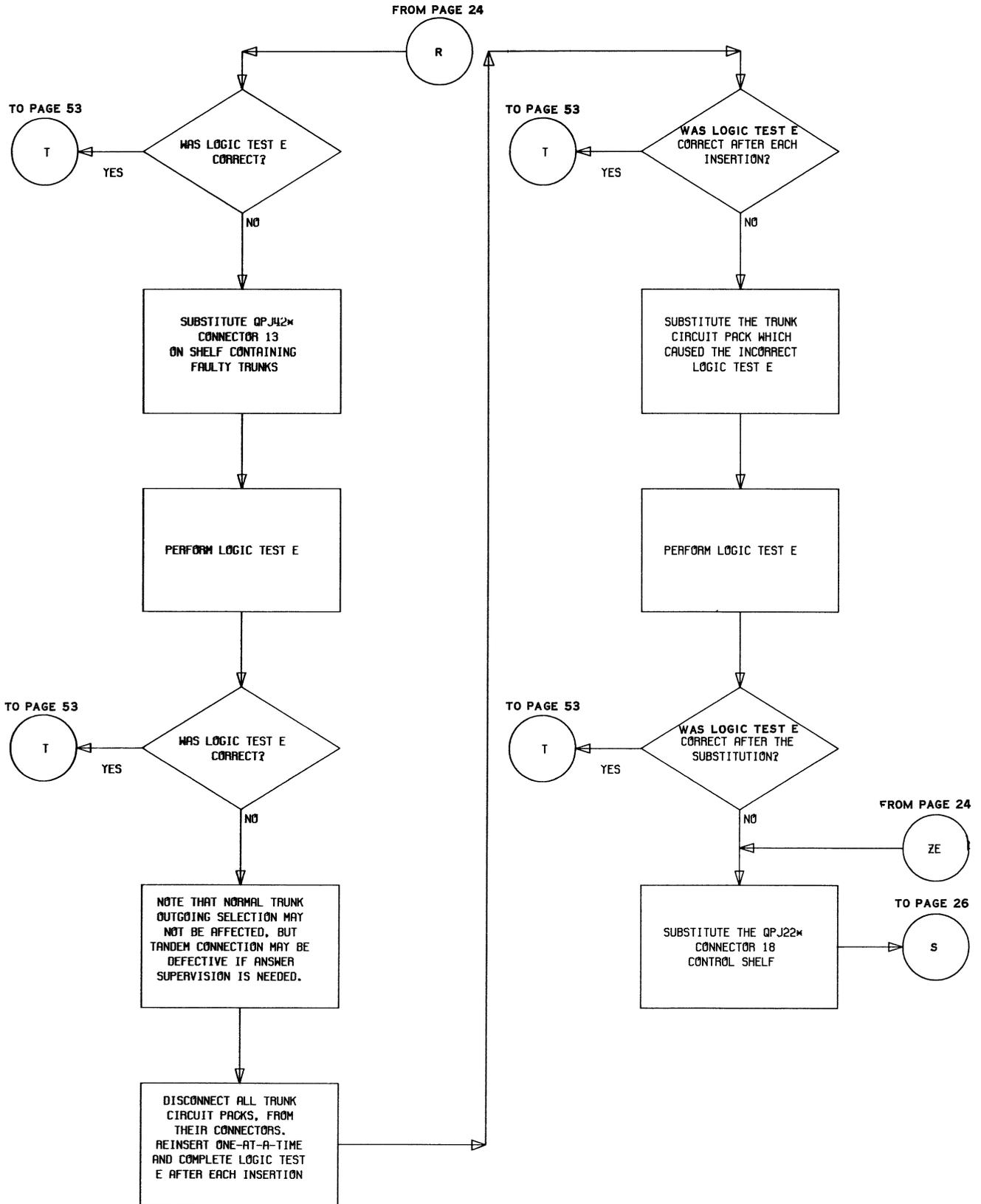
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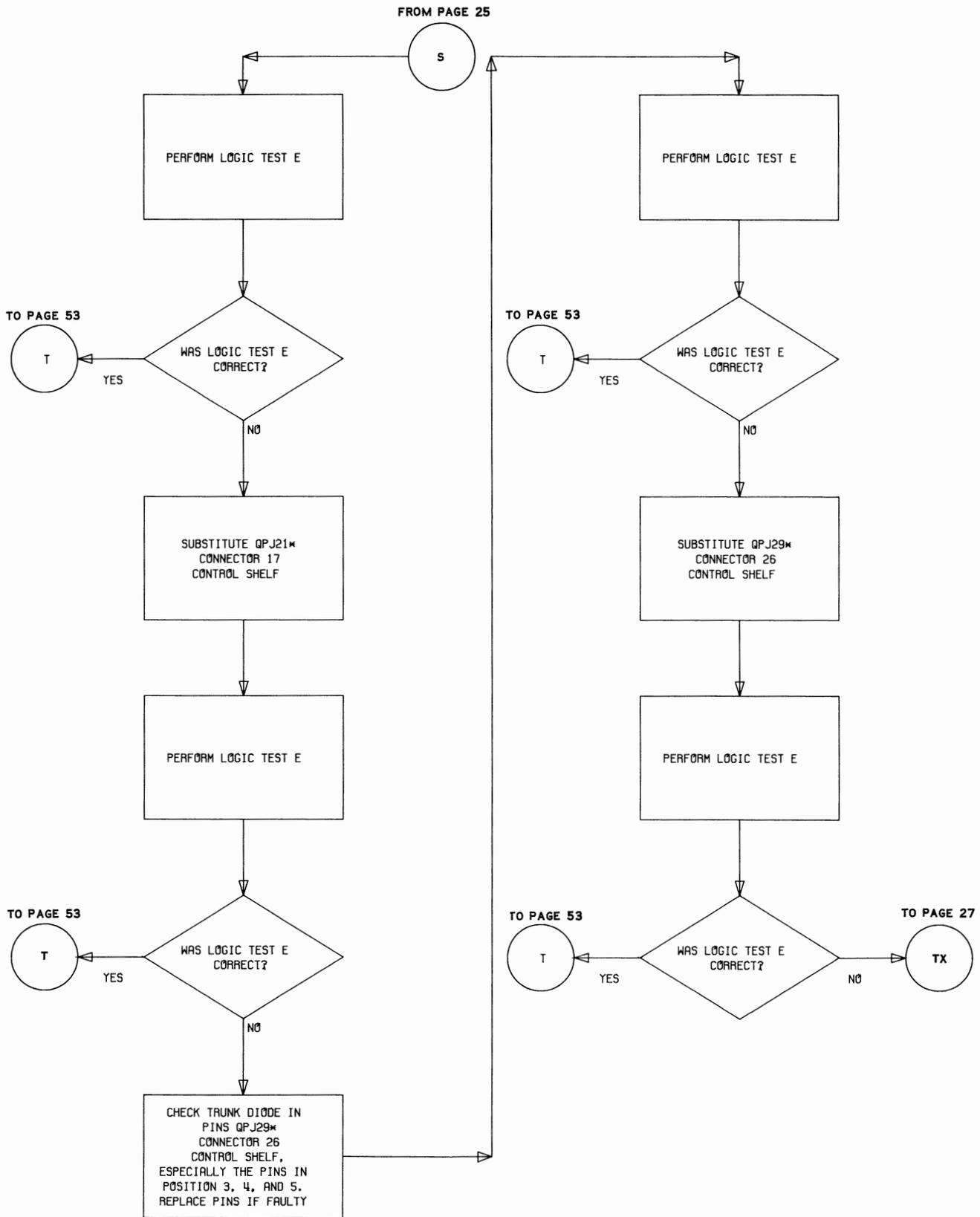
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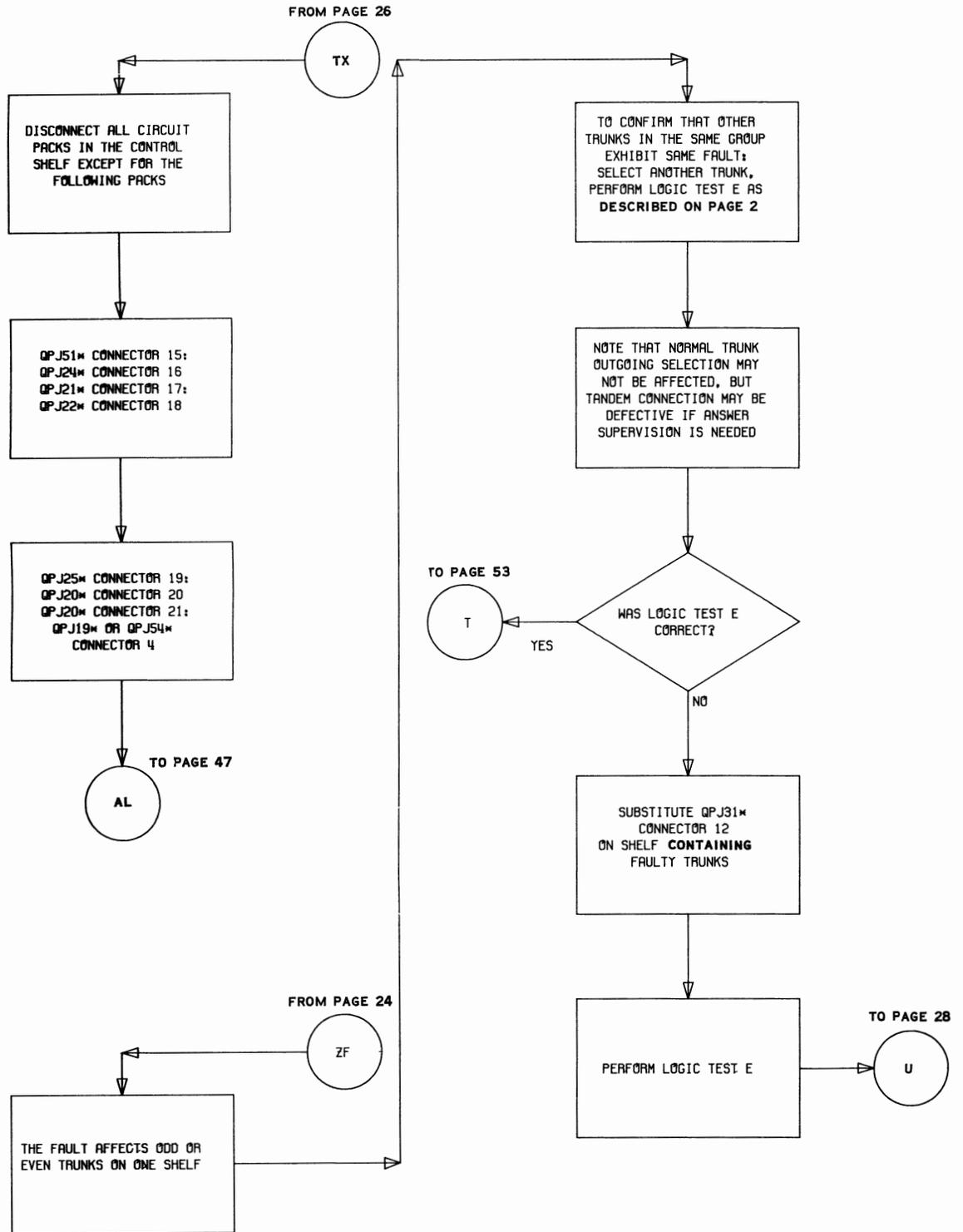
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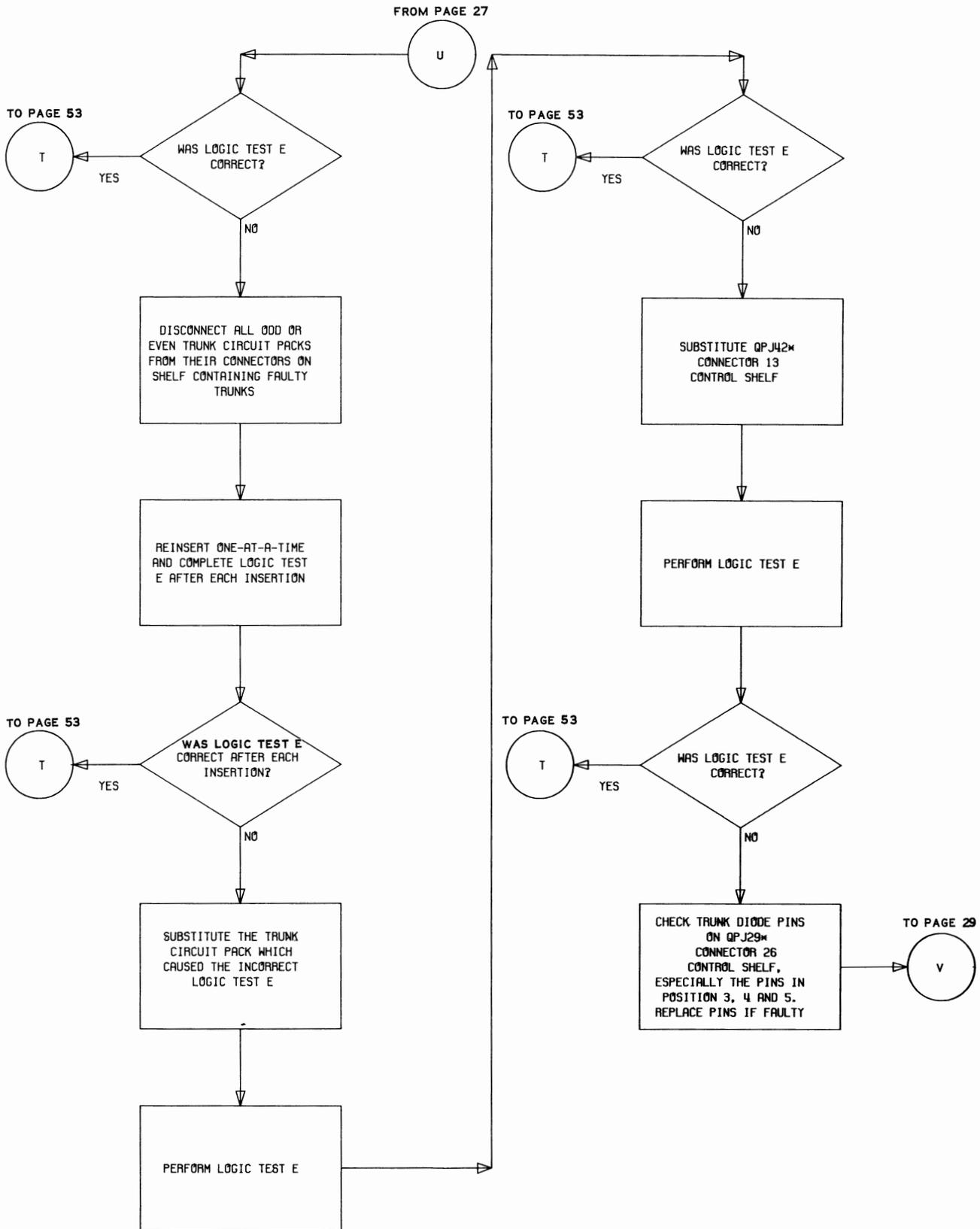
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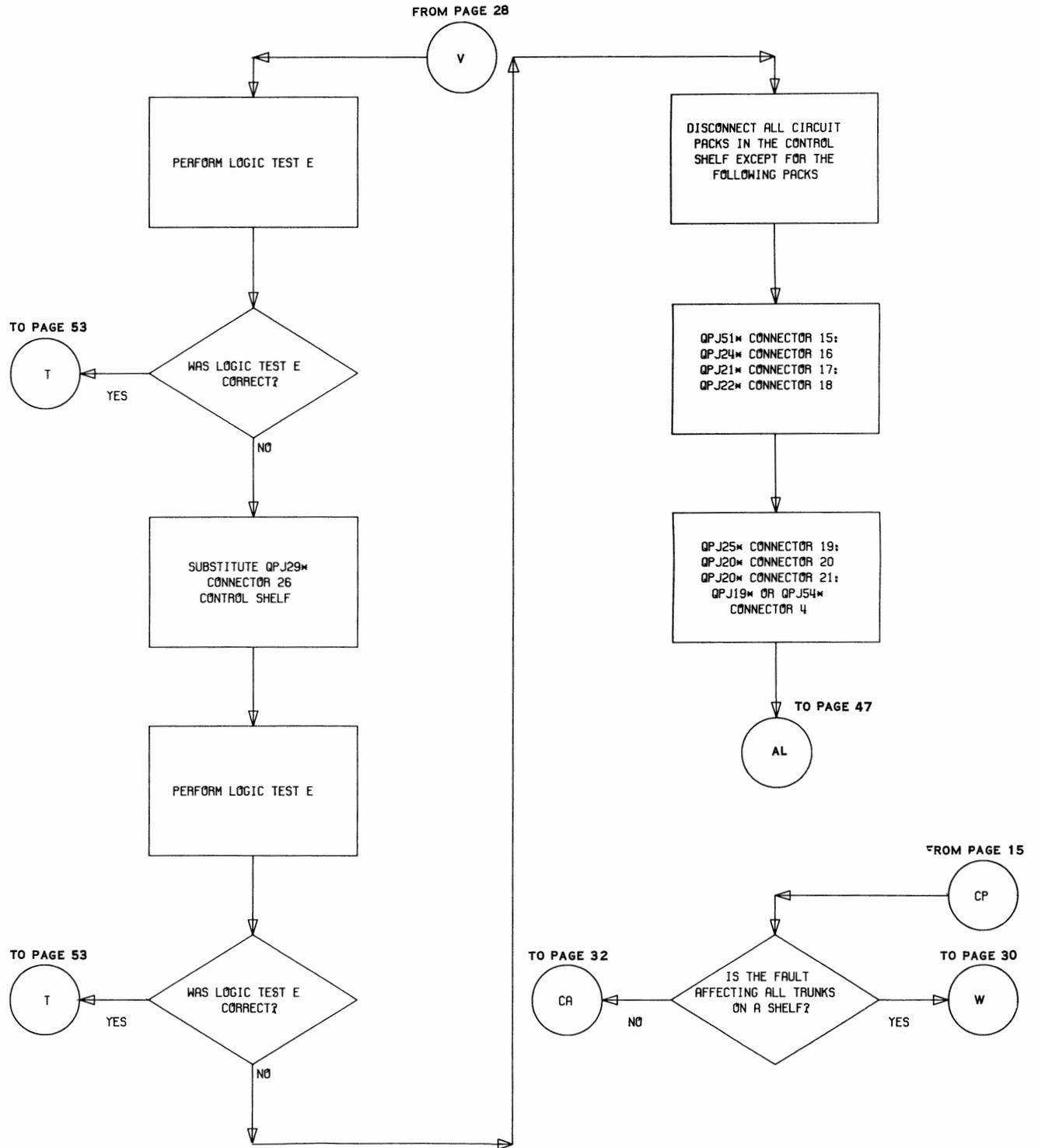
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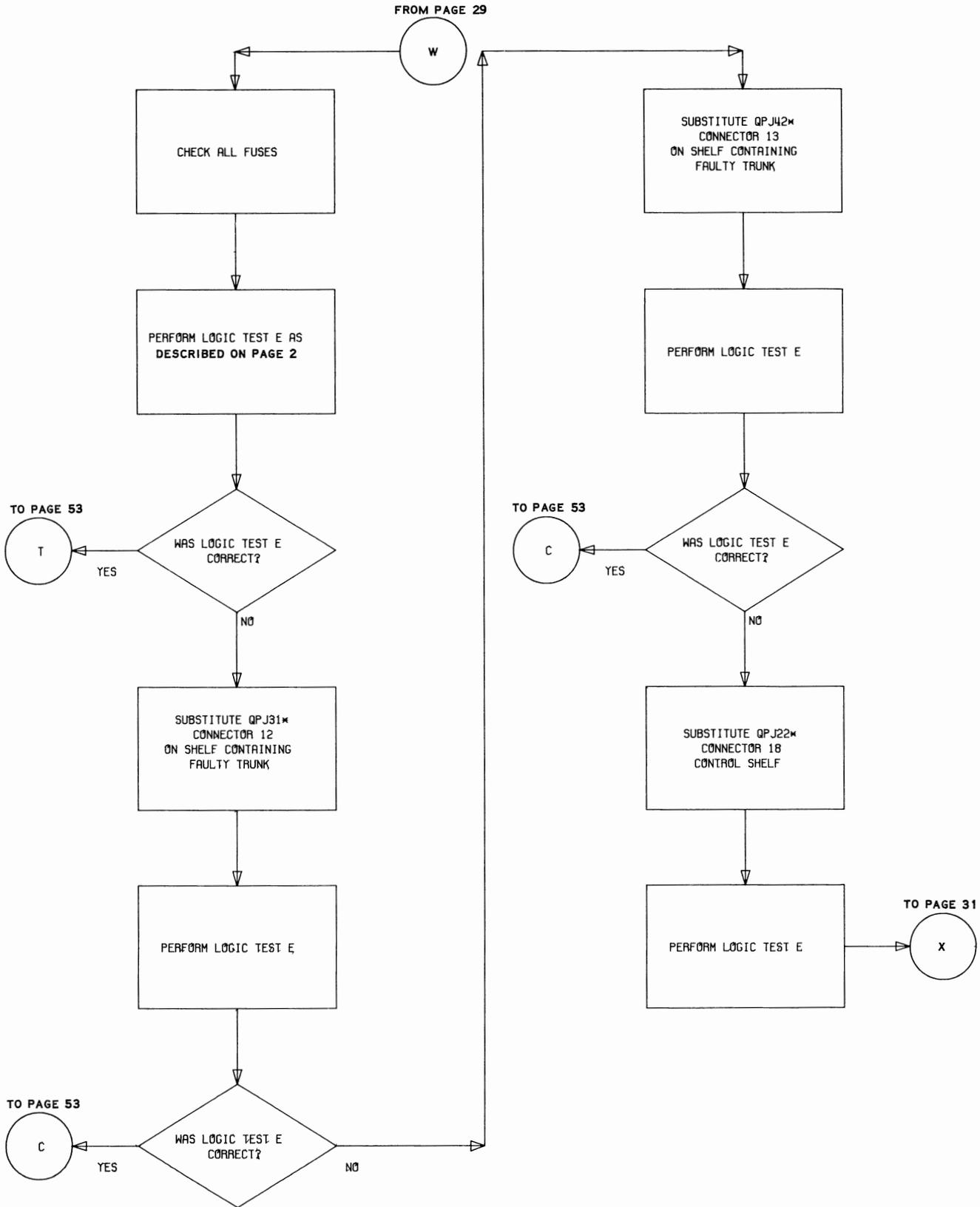
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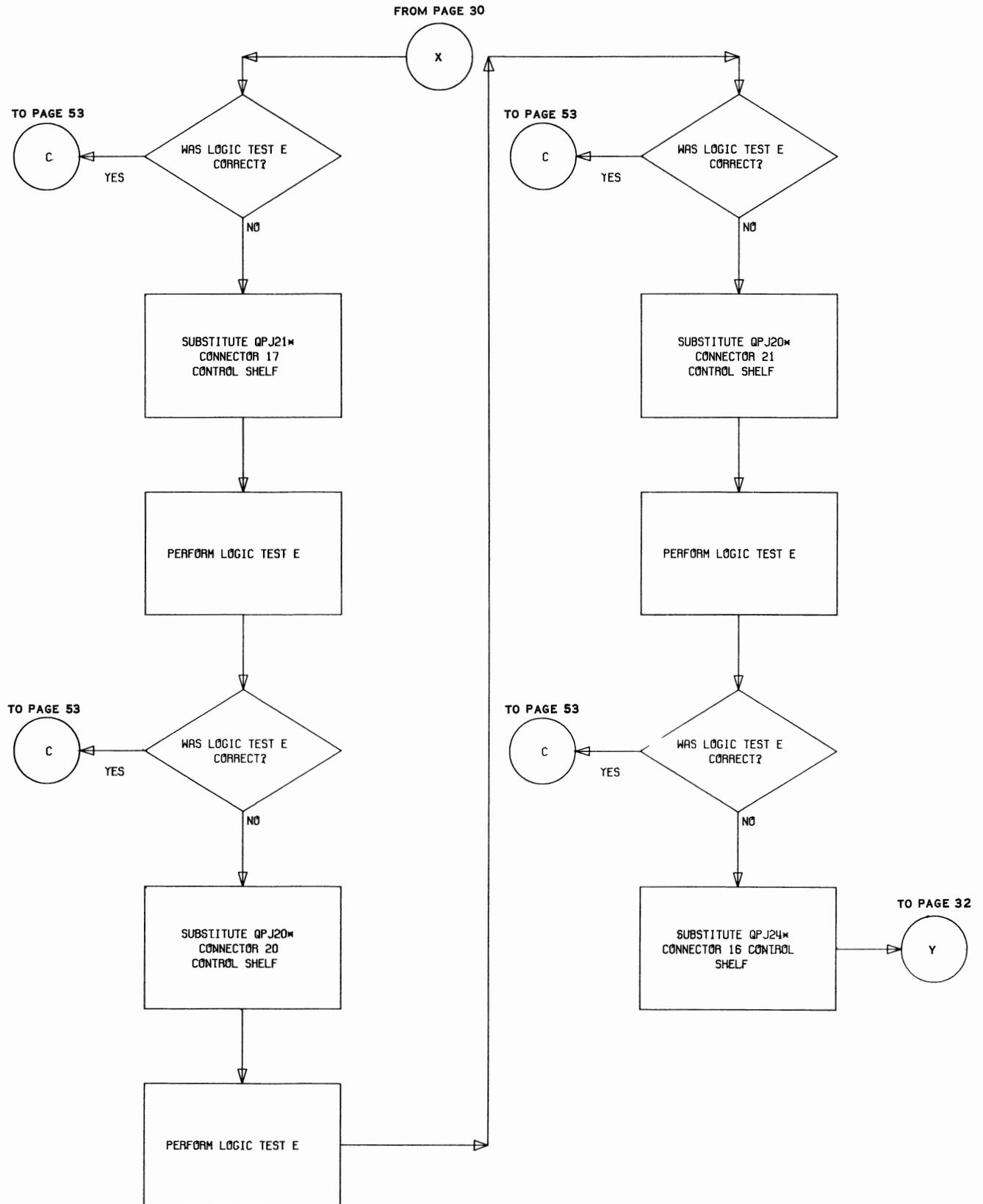
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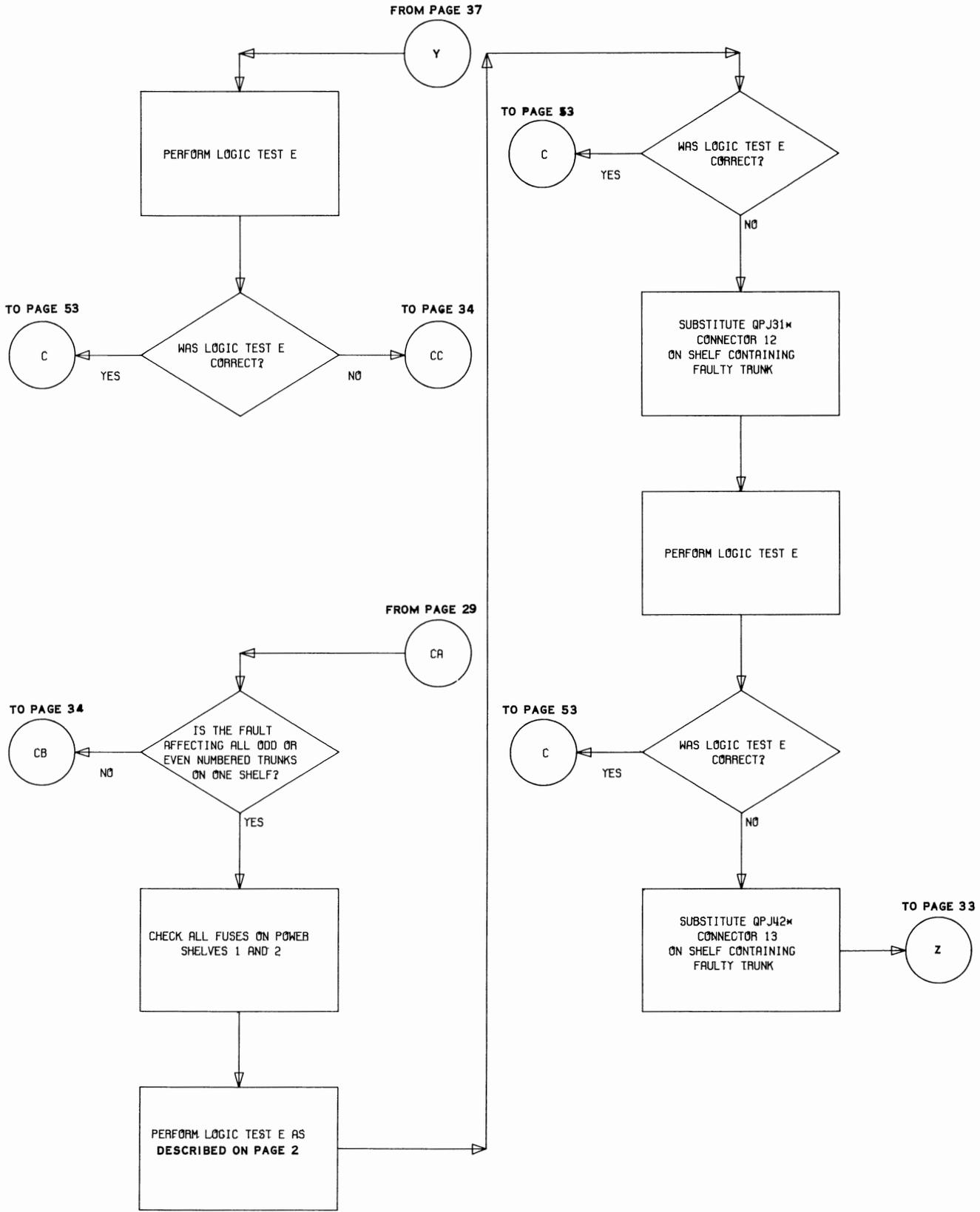
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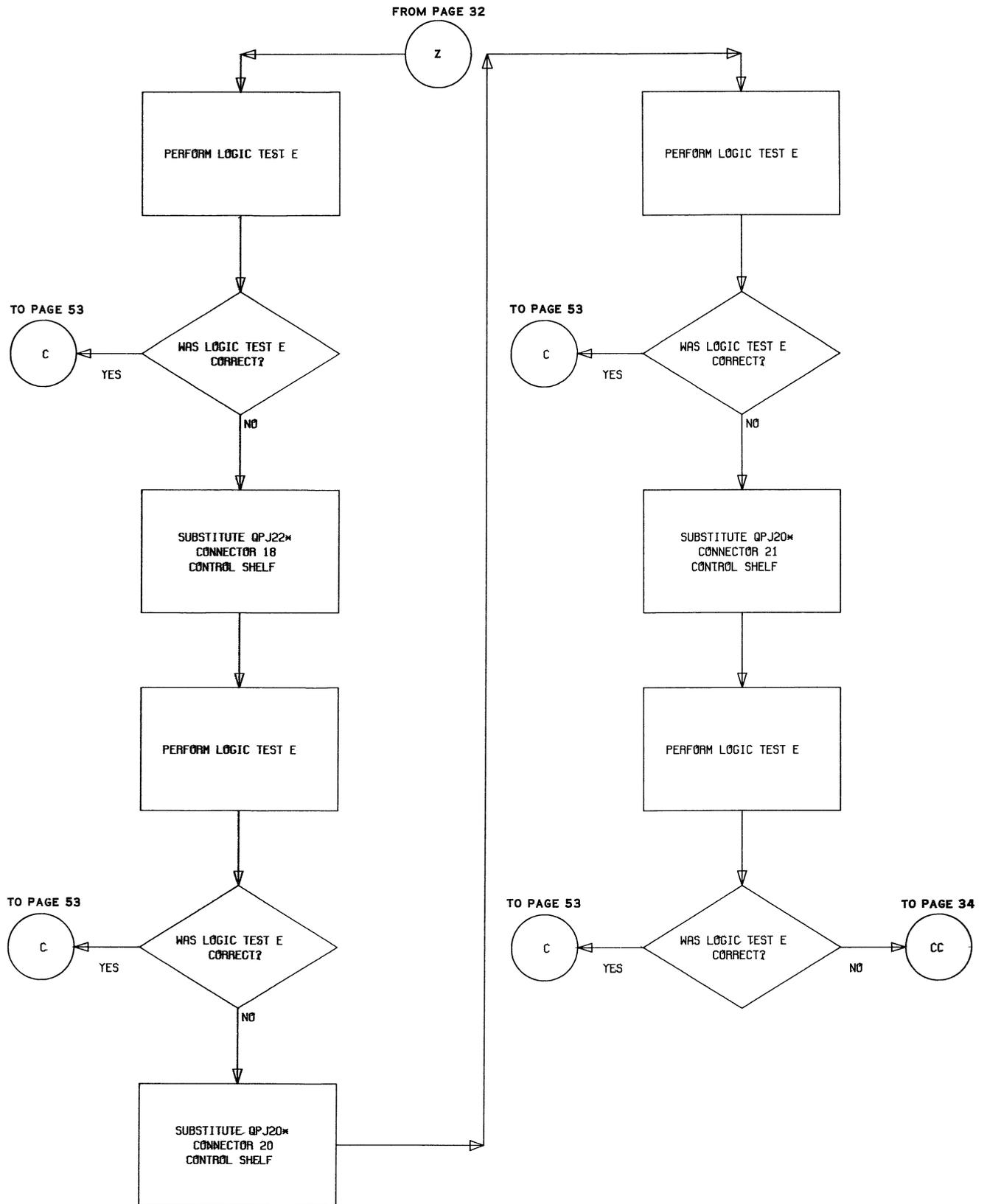
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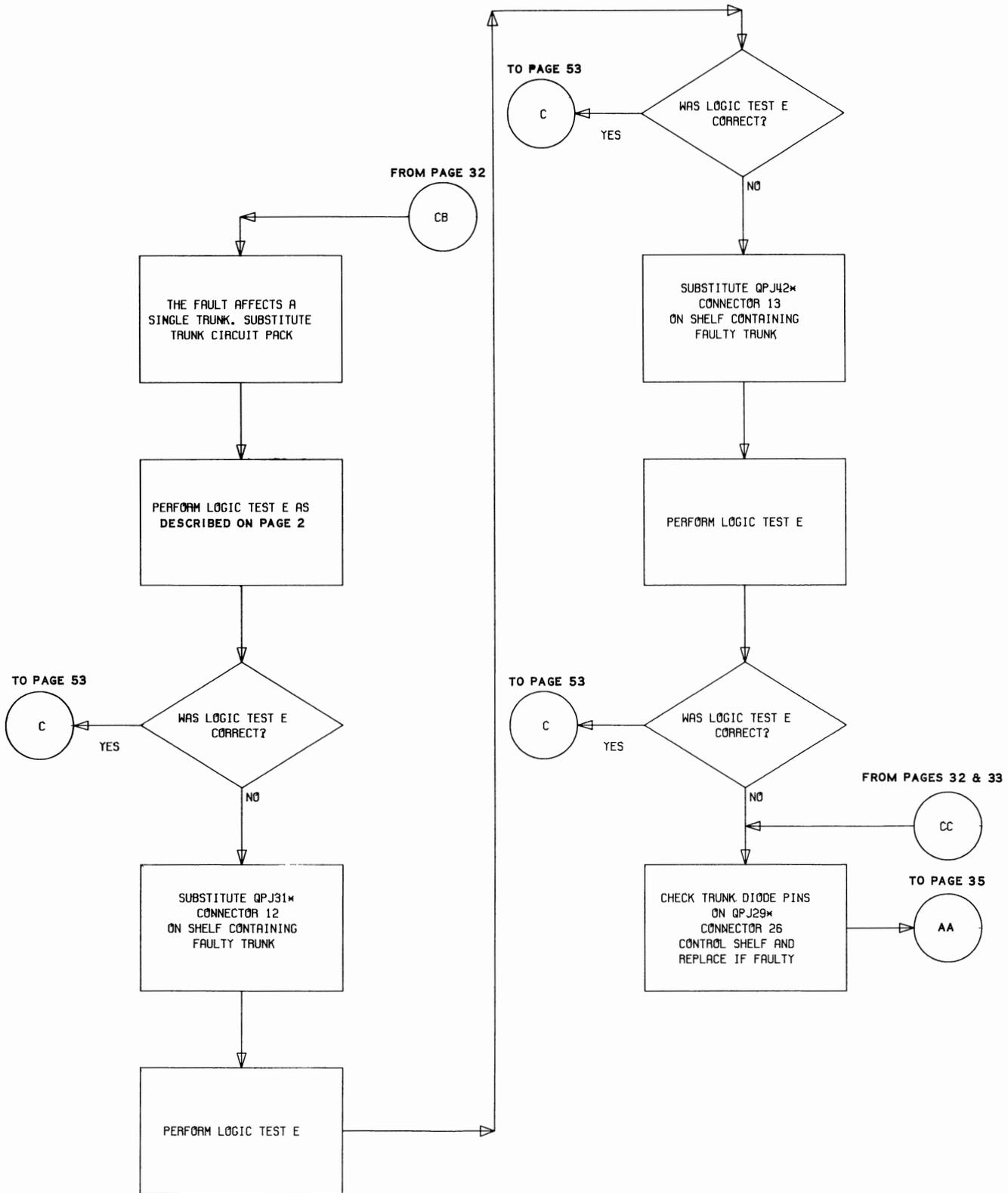
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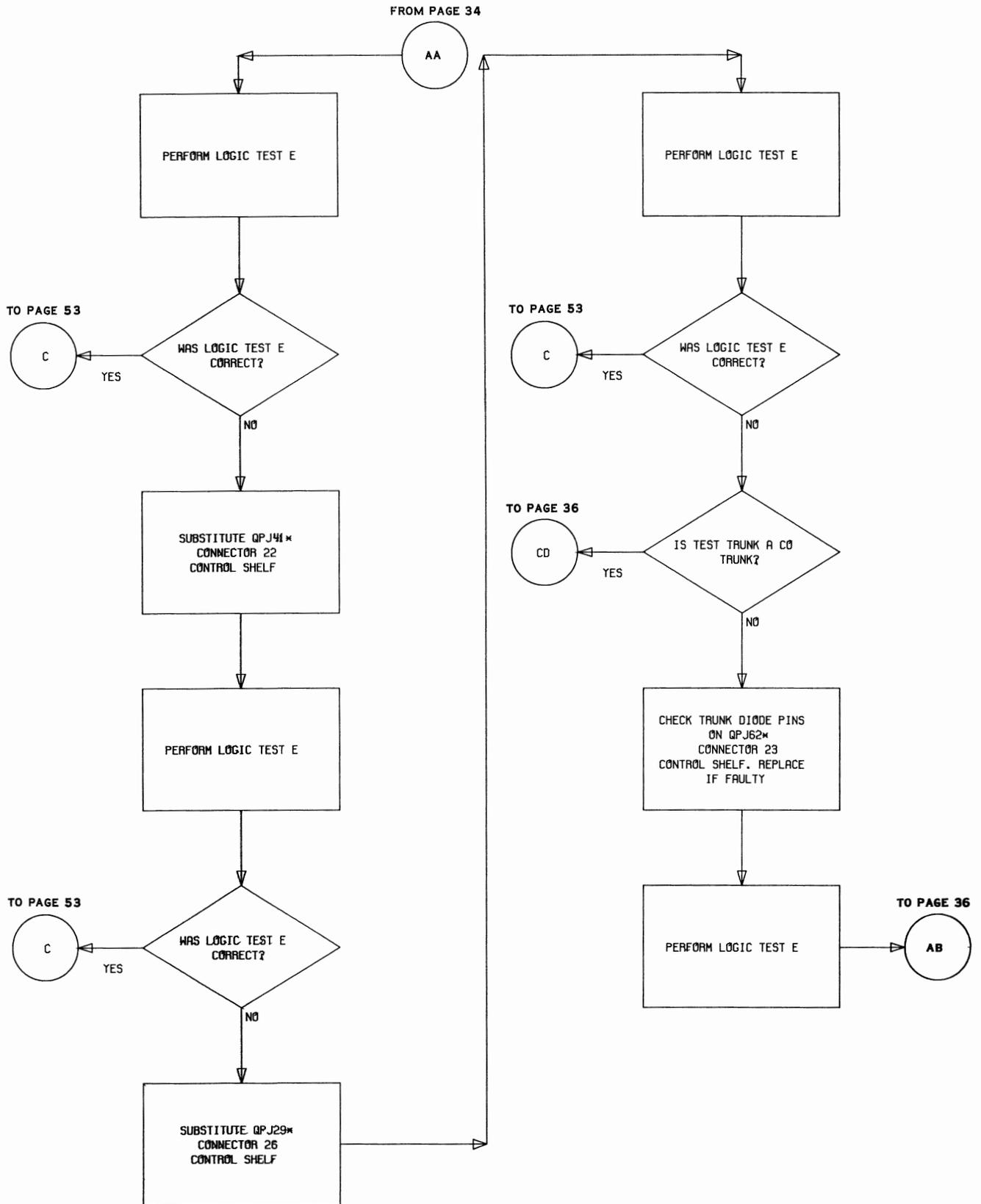
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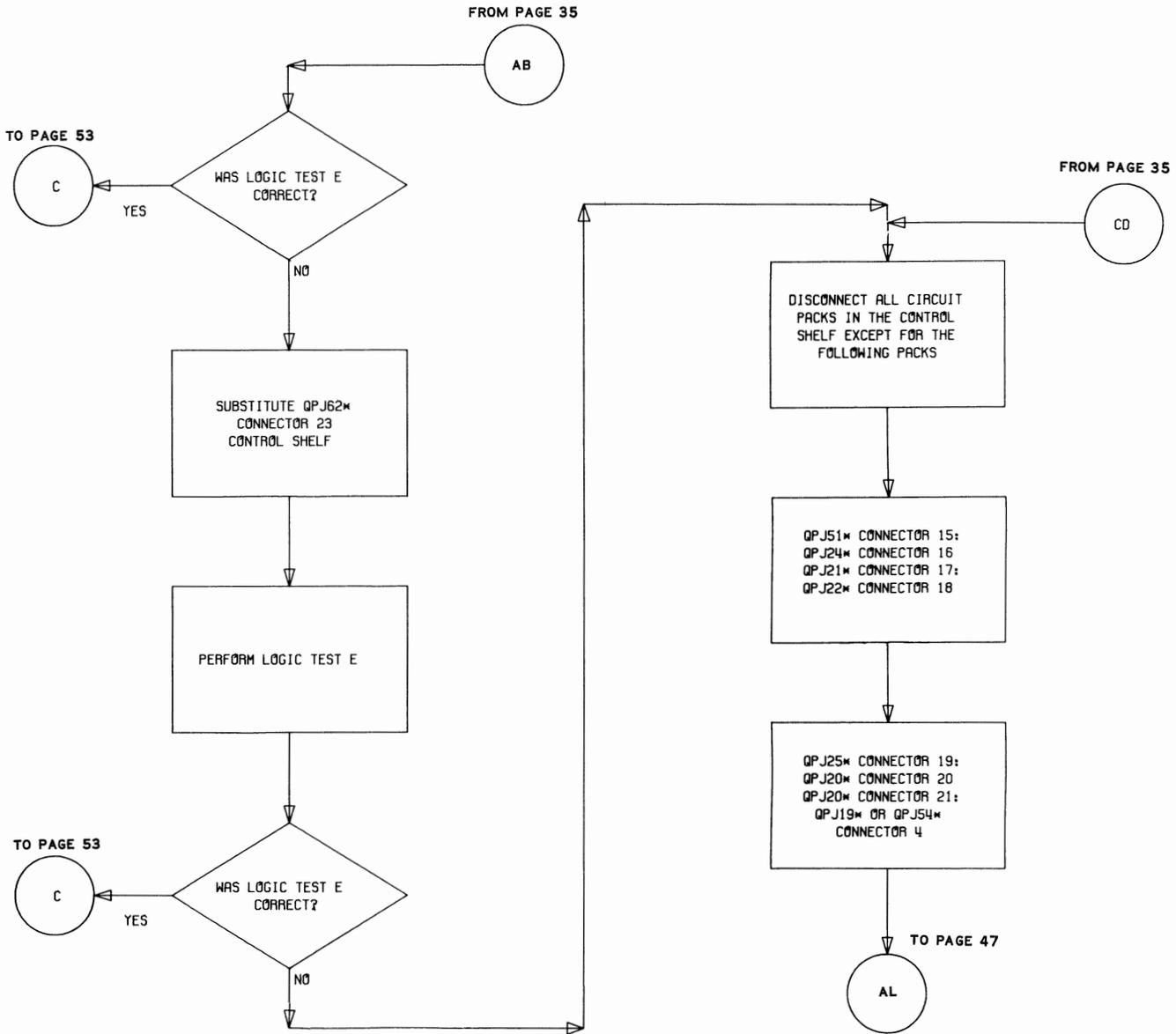
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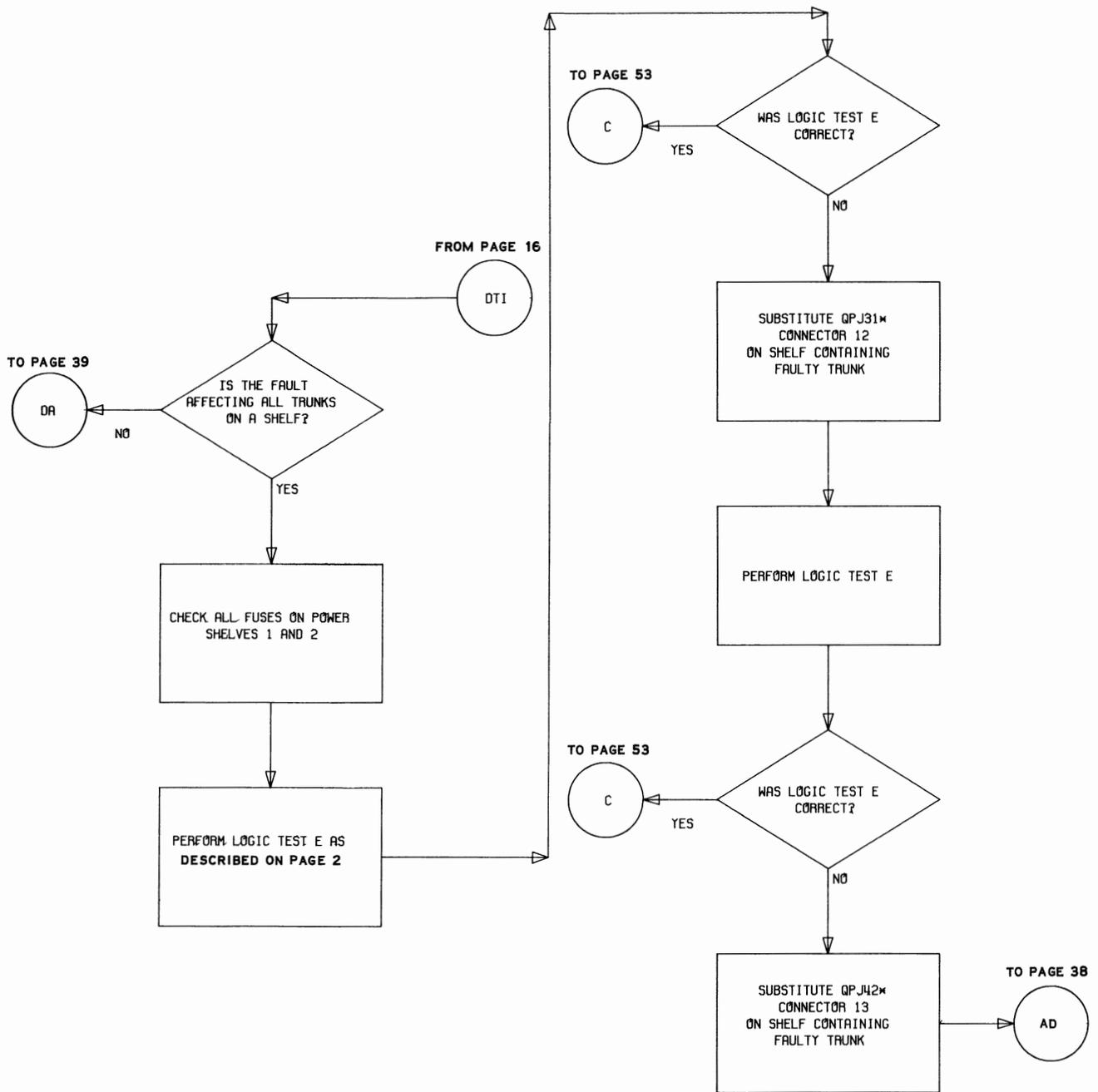
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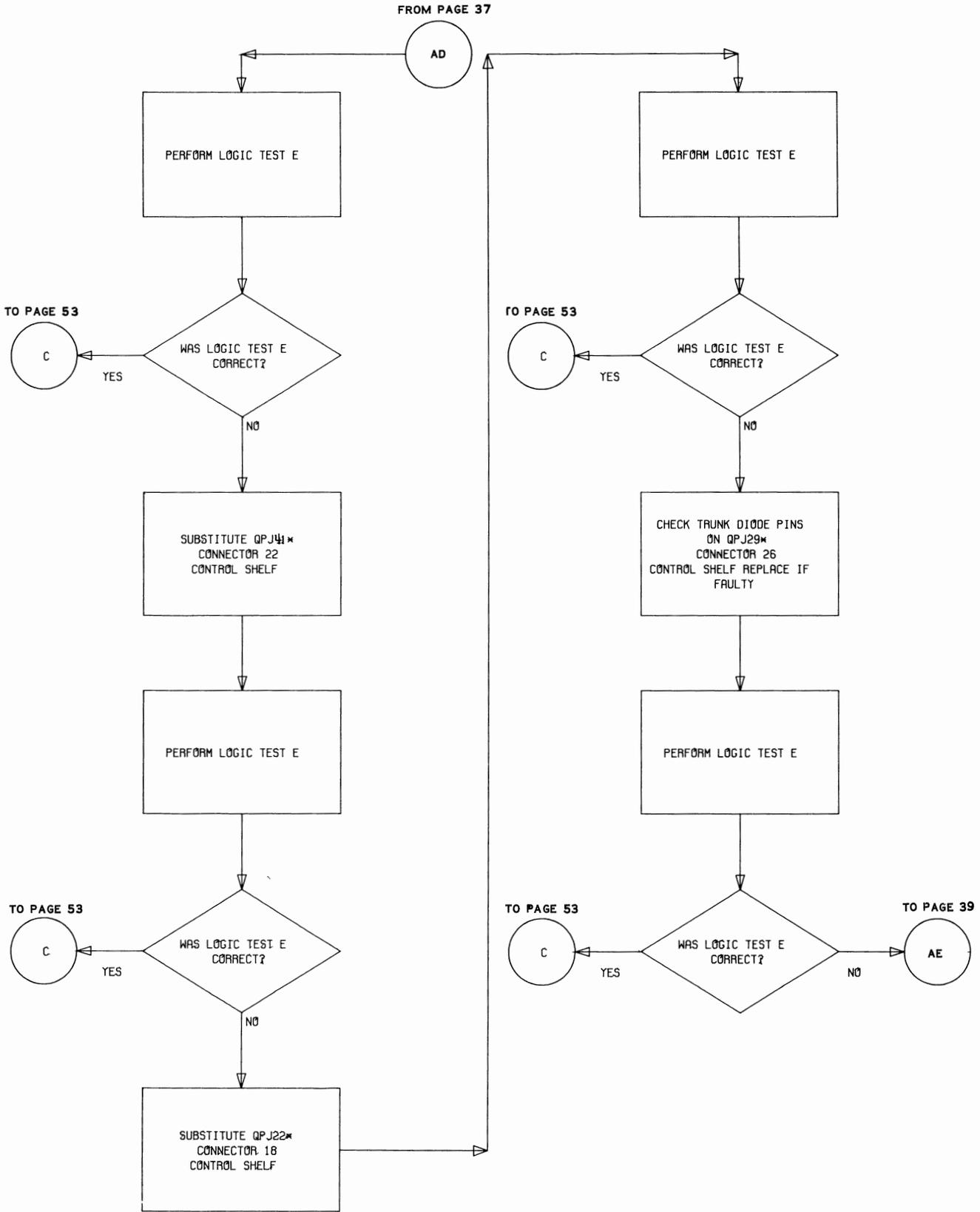
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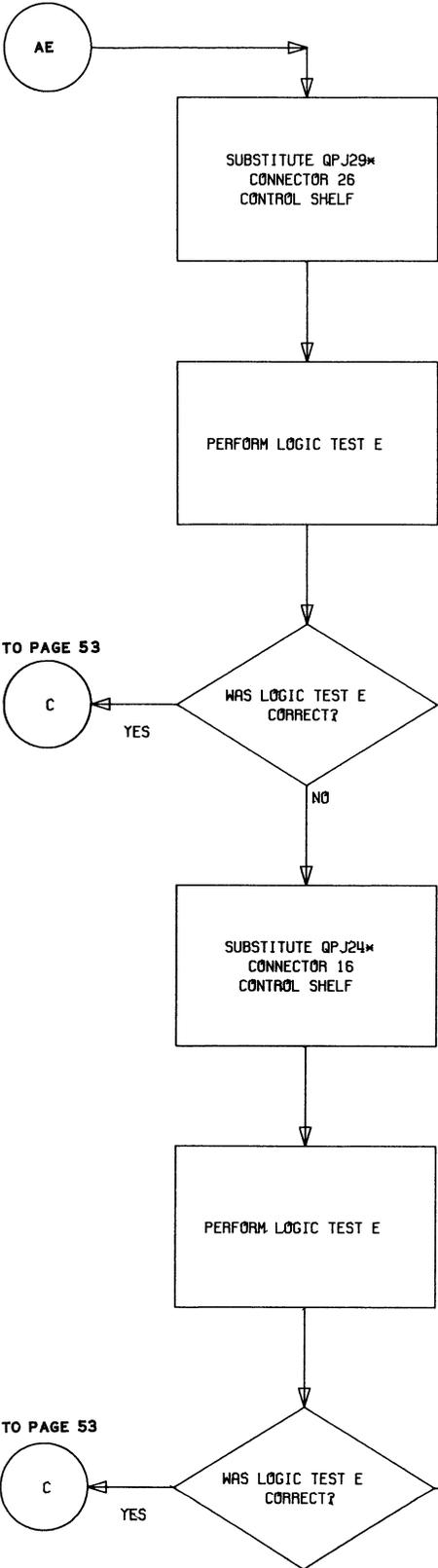
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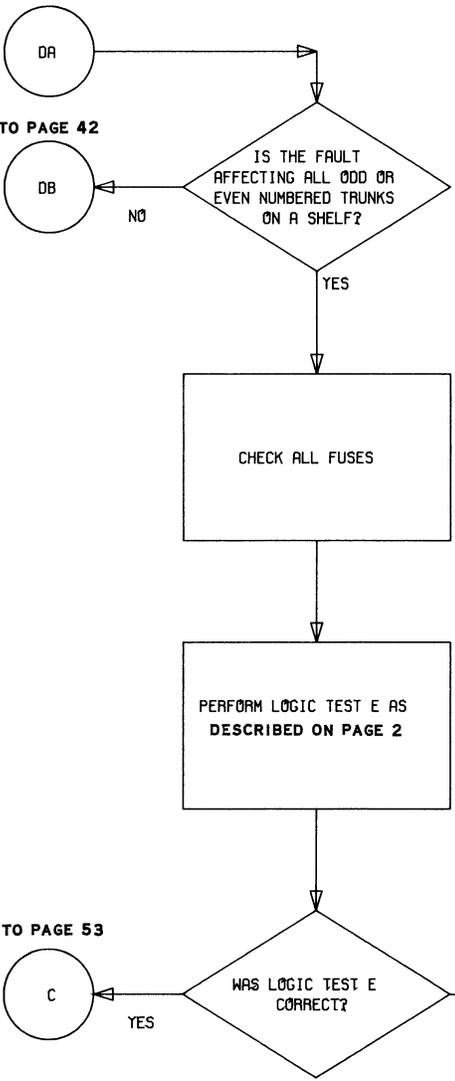
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FROM PAGE 38



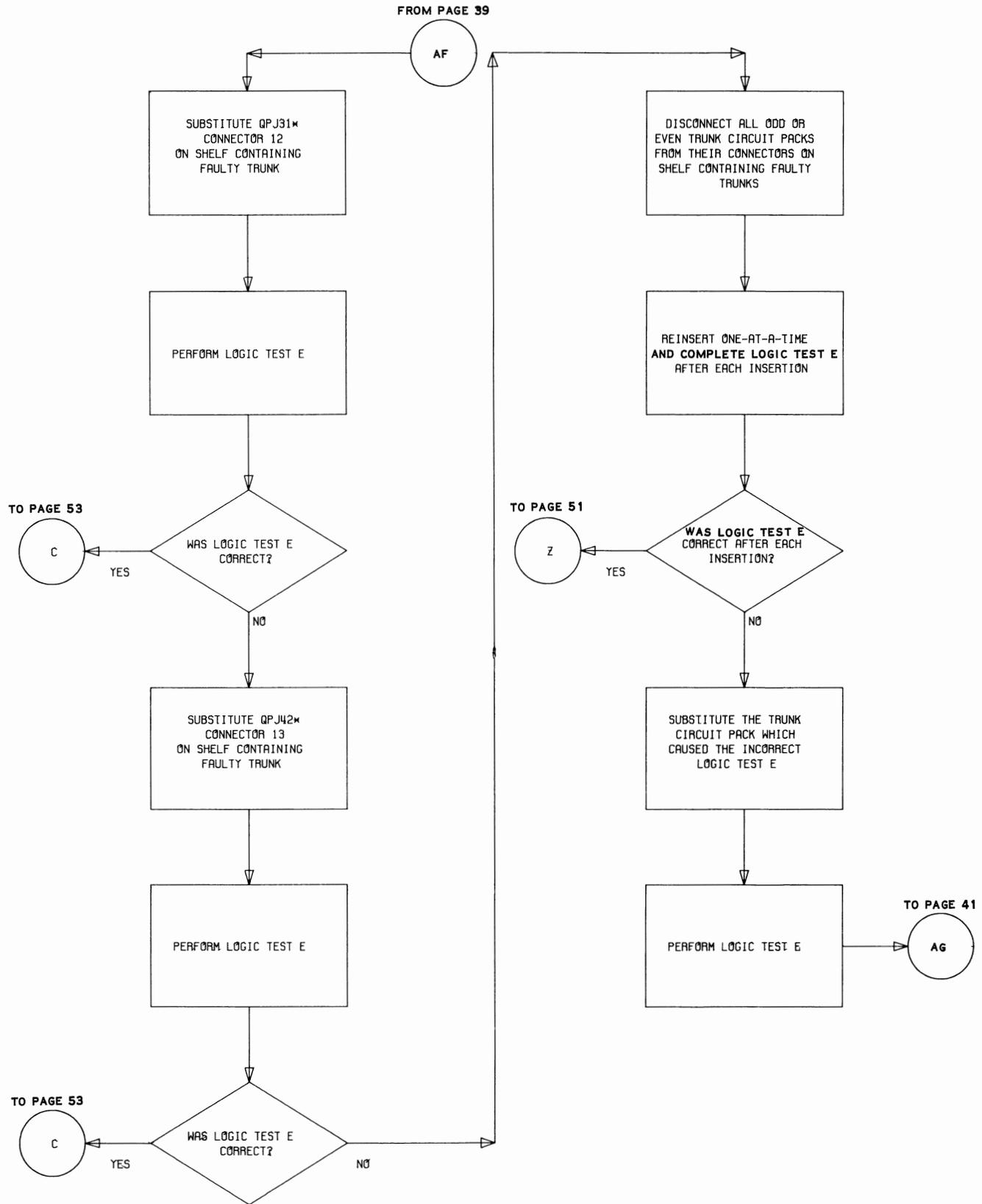
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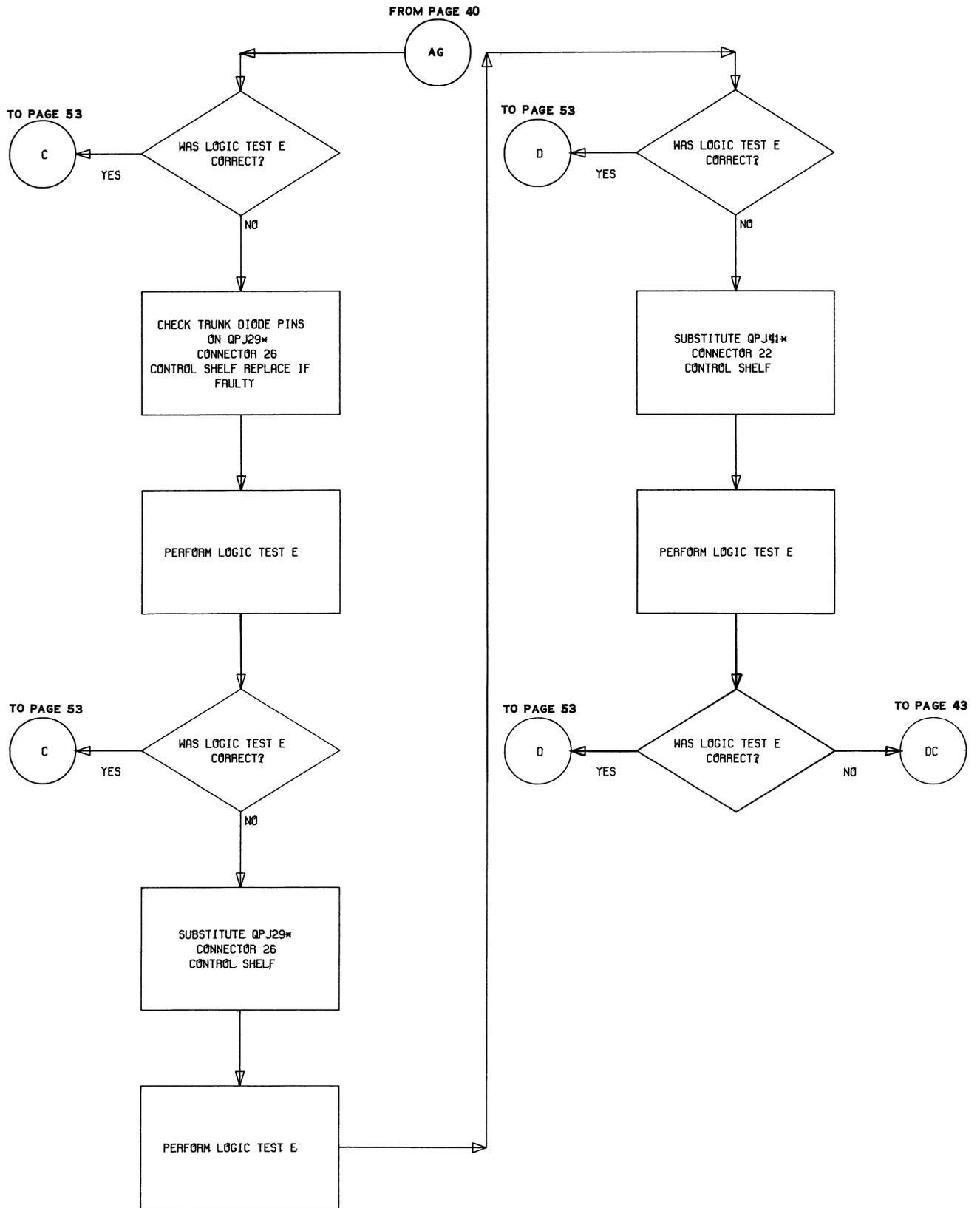
TO PAGE 42

TO PAGE 53

TO PAGE 40

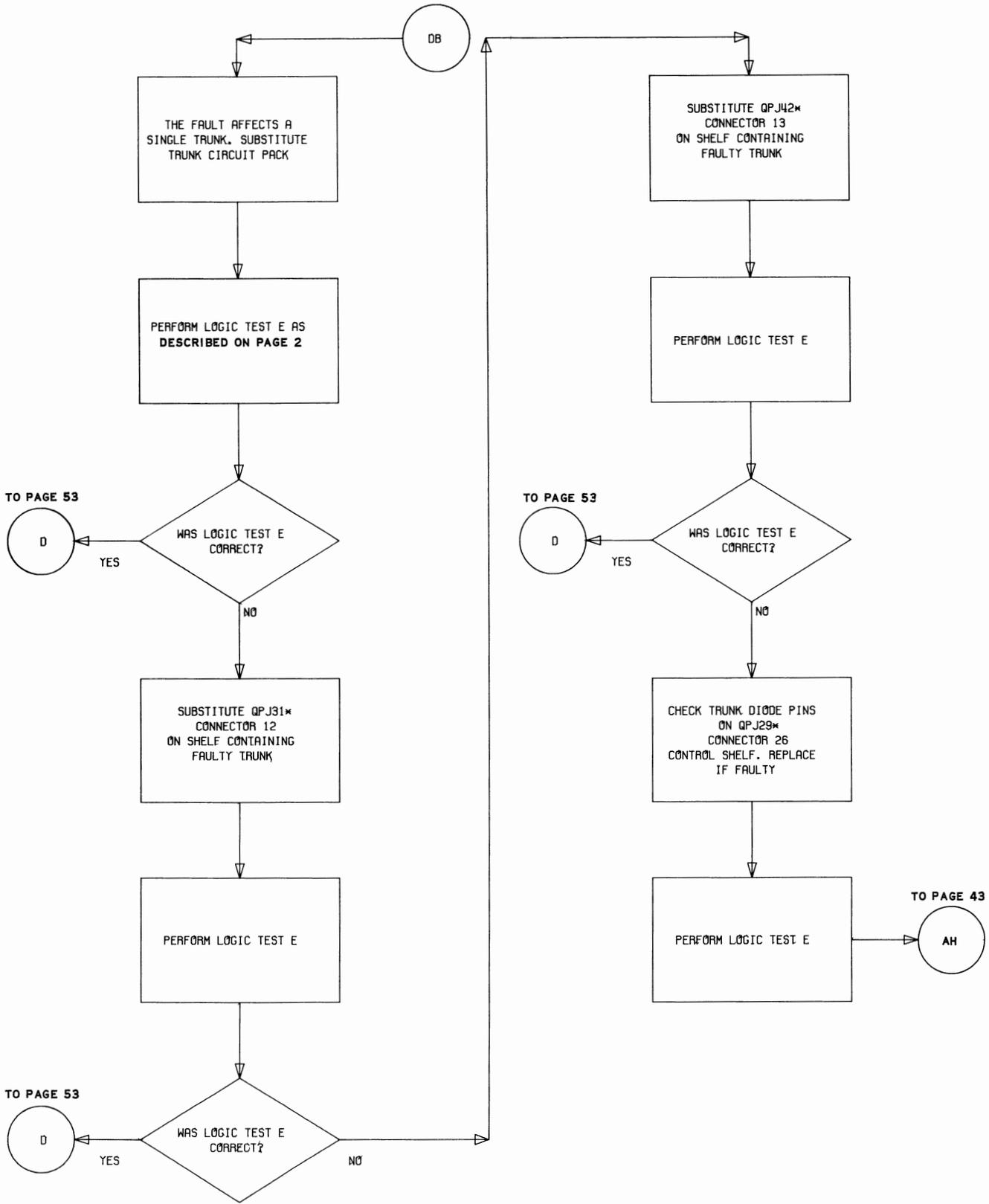


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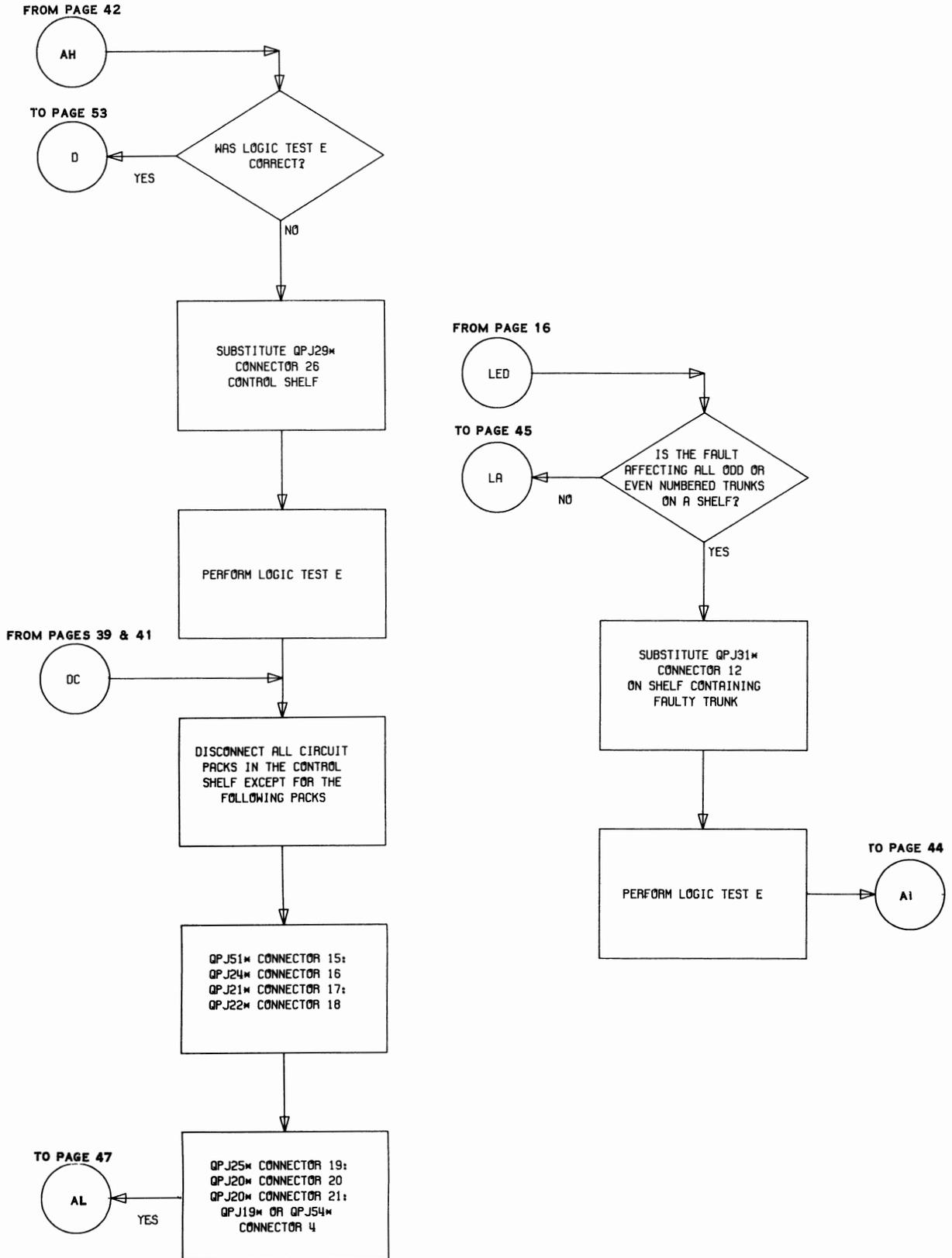


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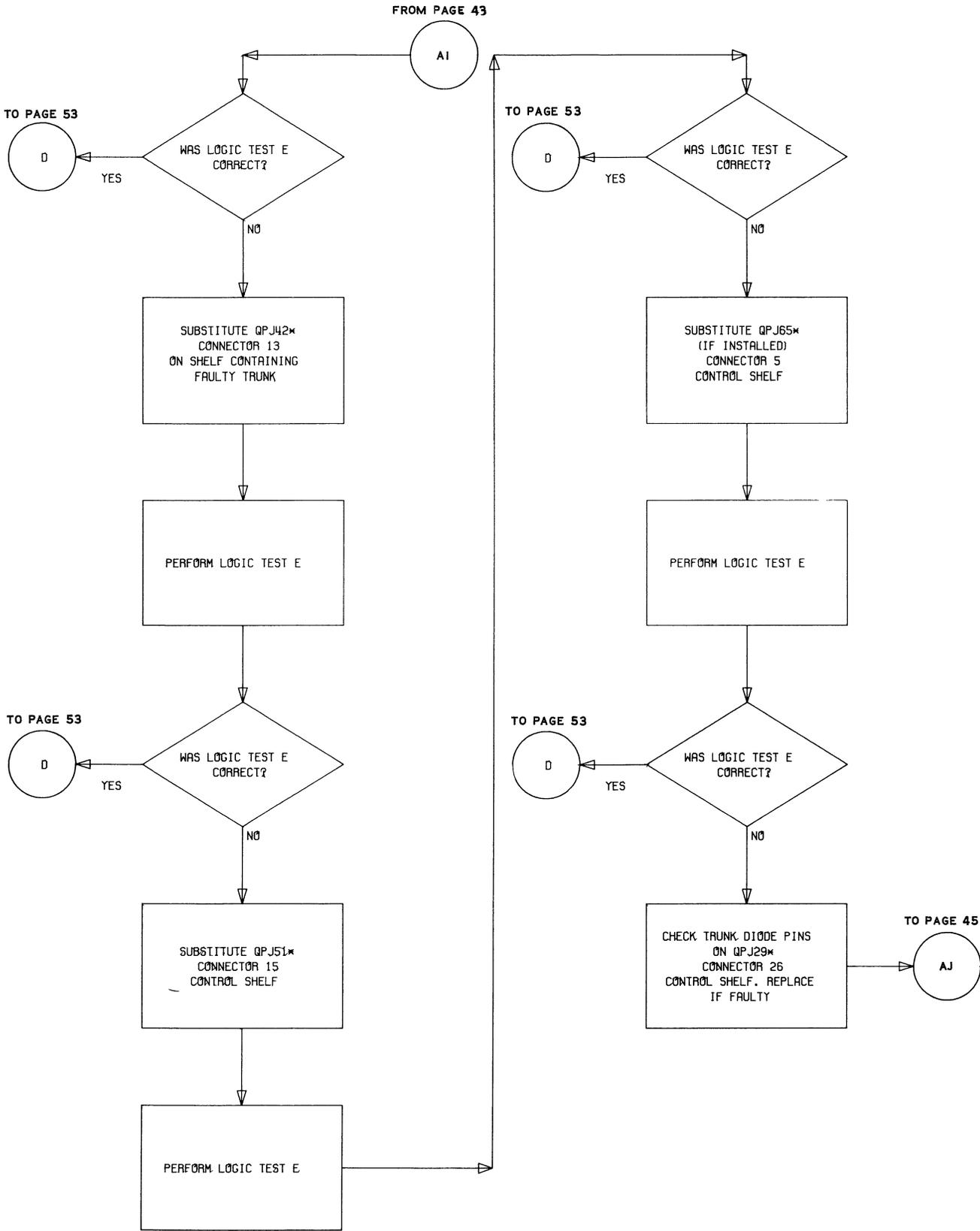
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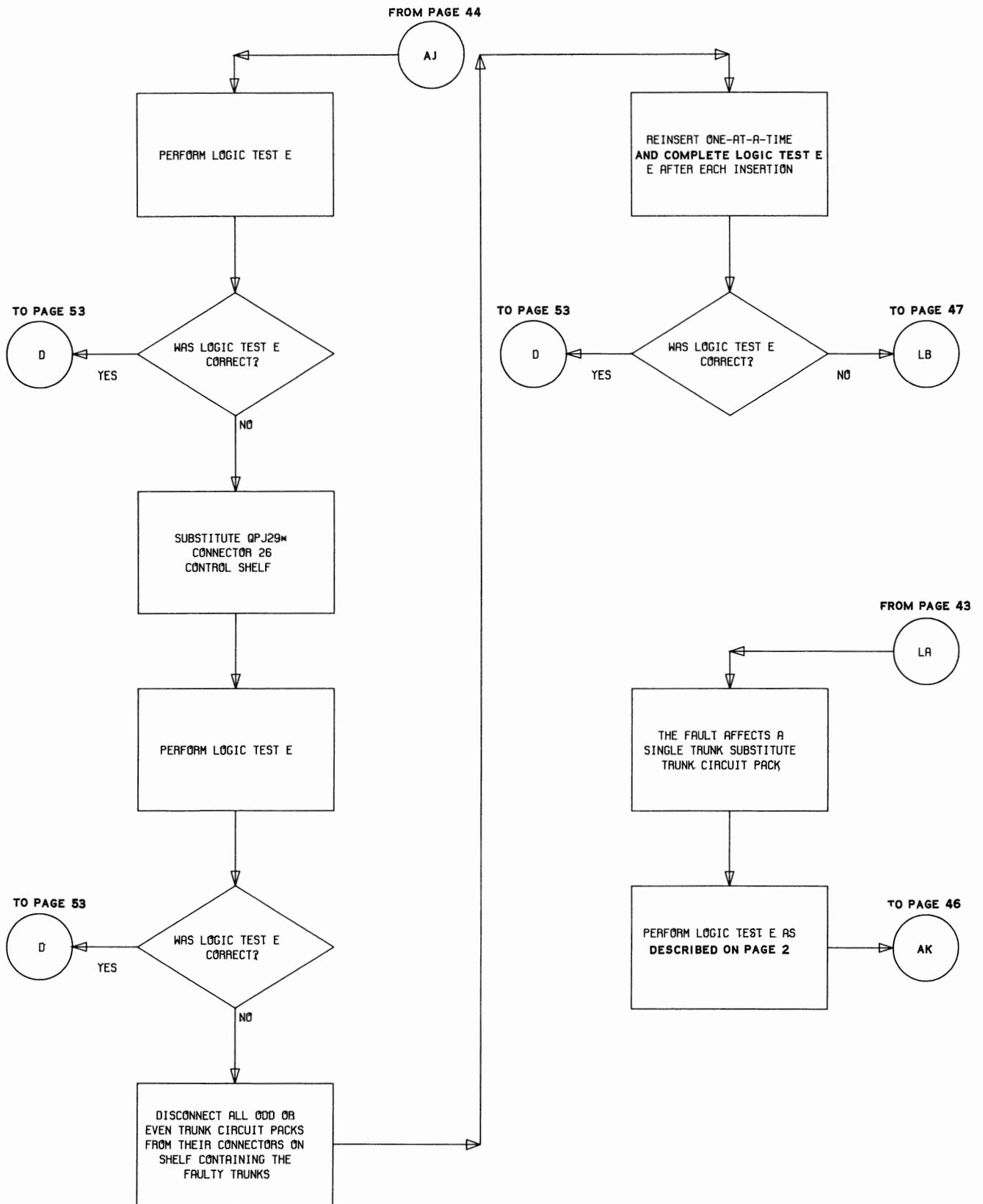
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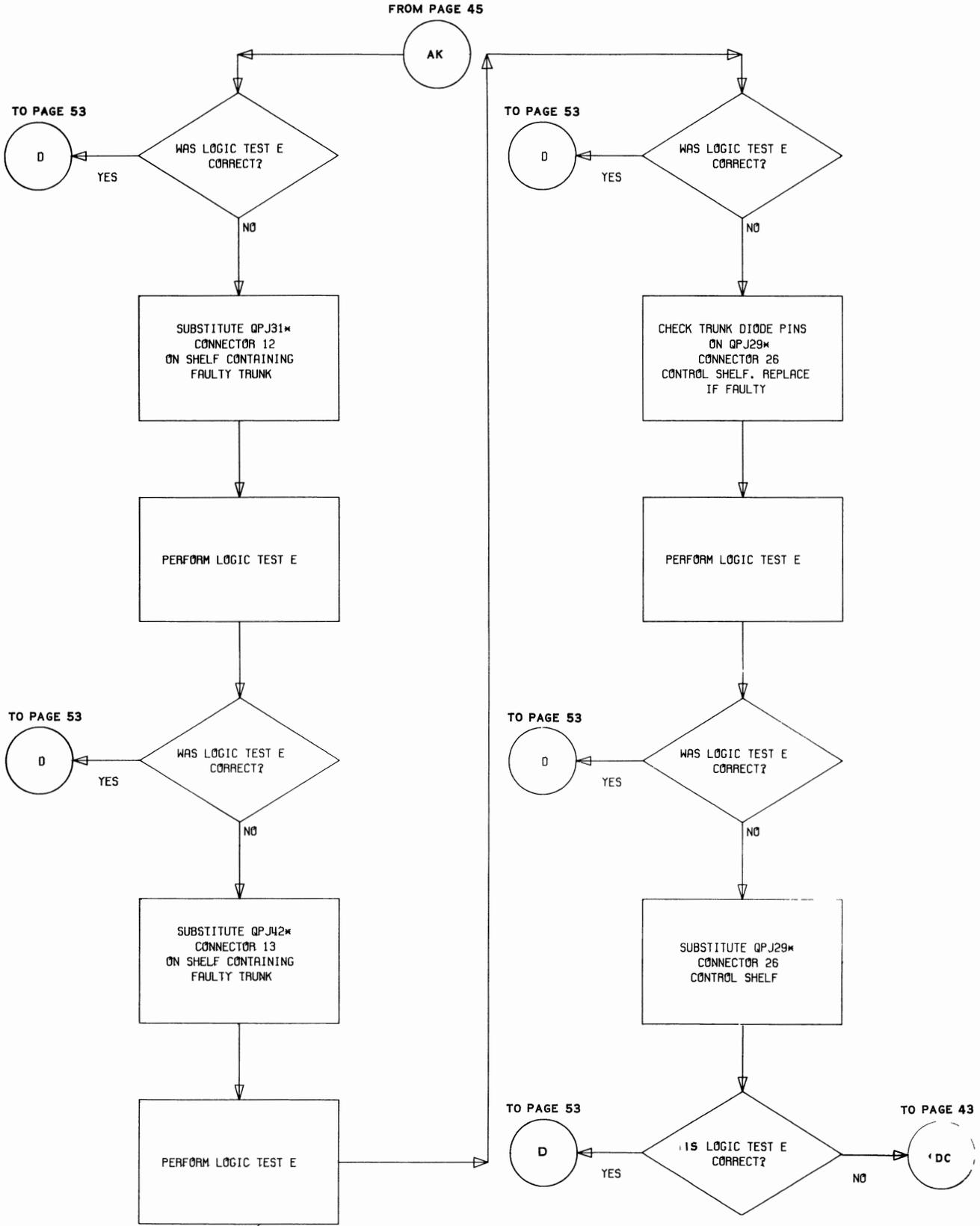
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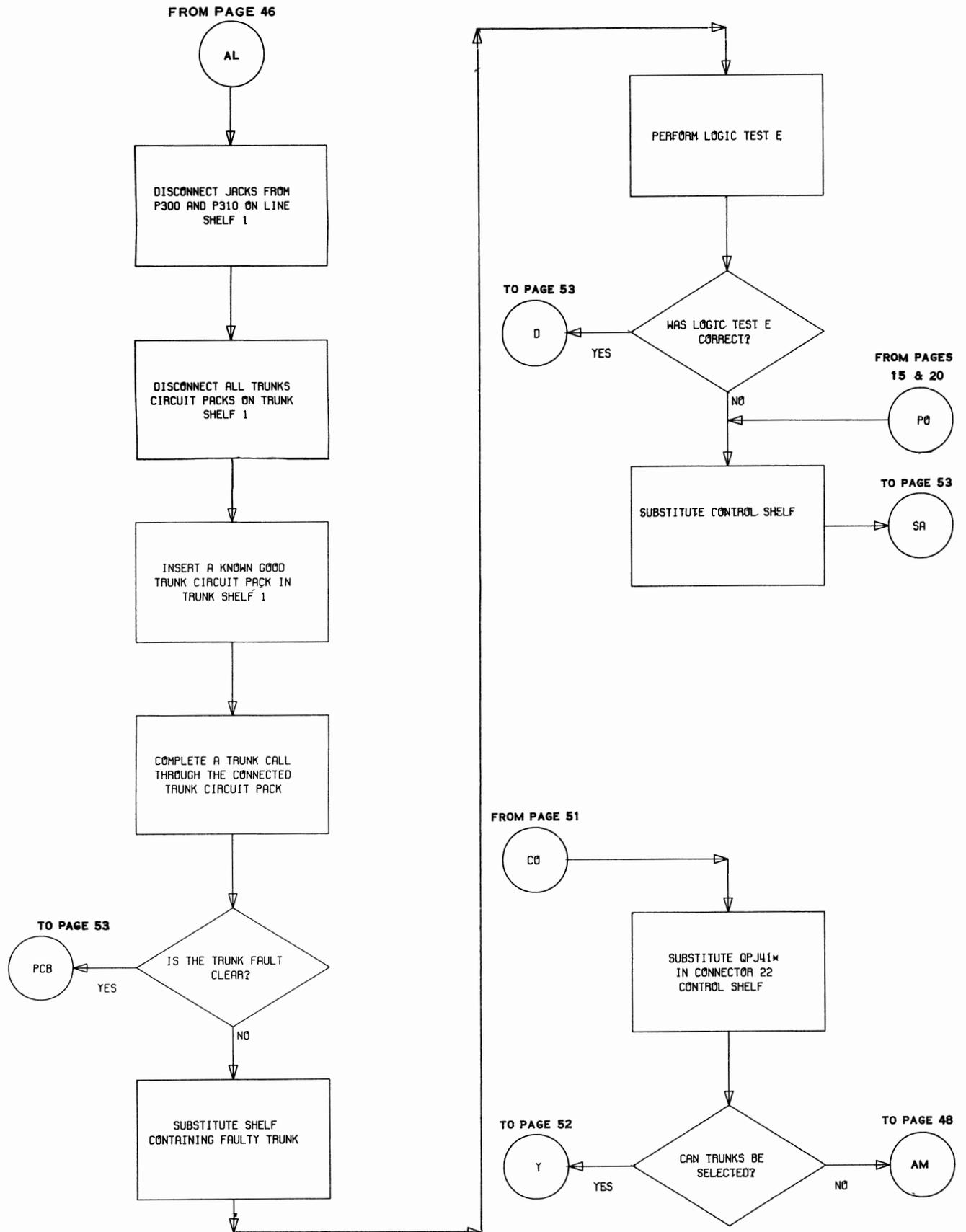
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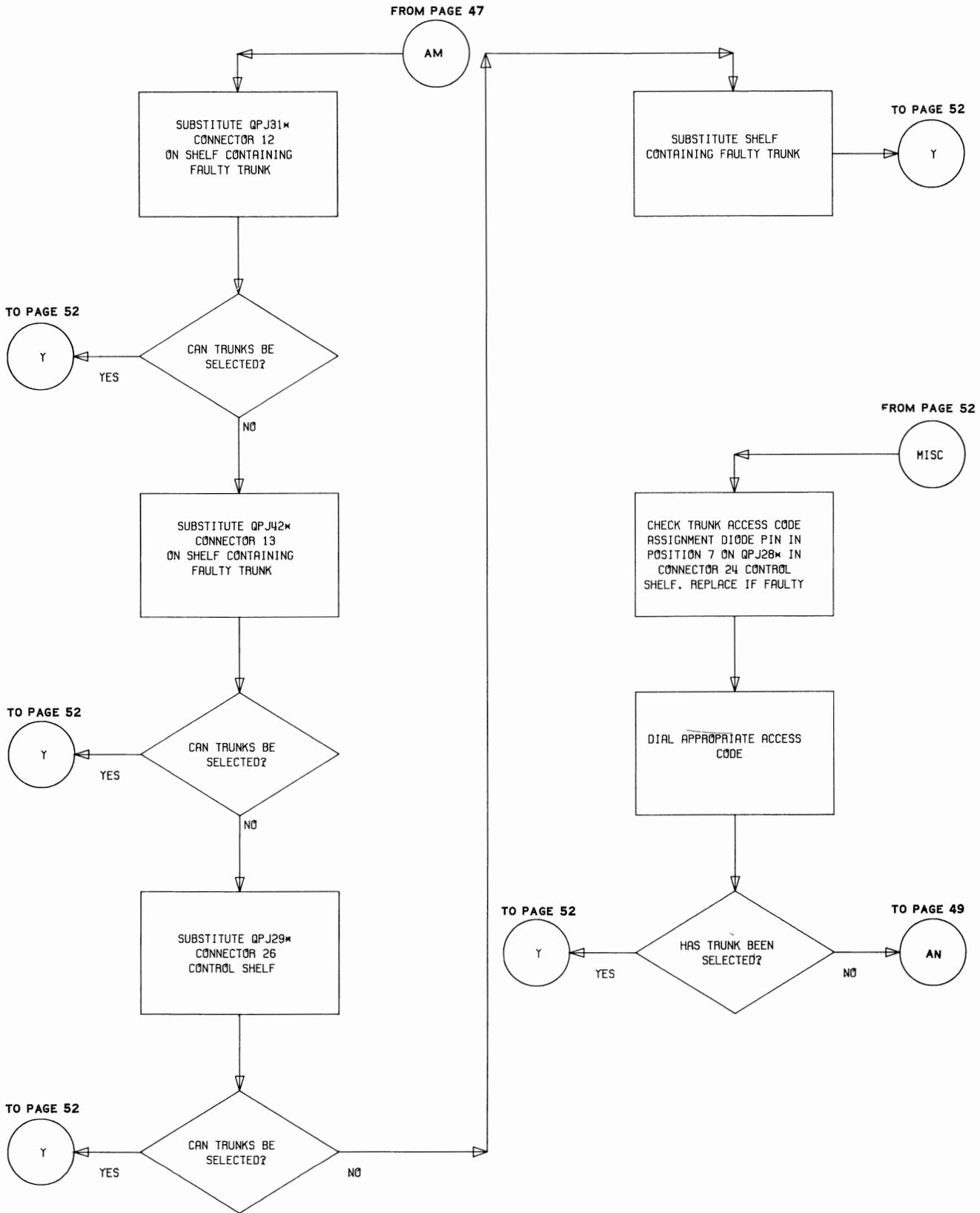
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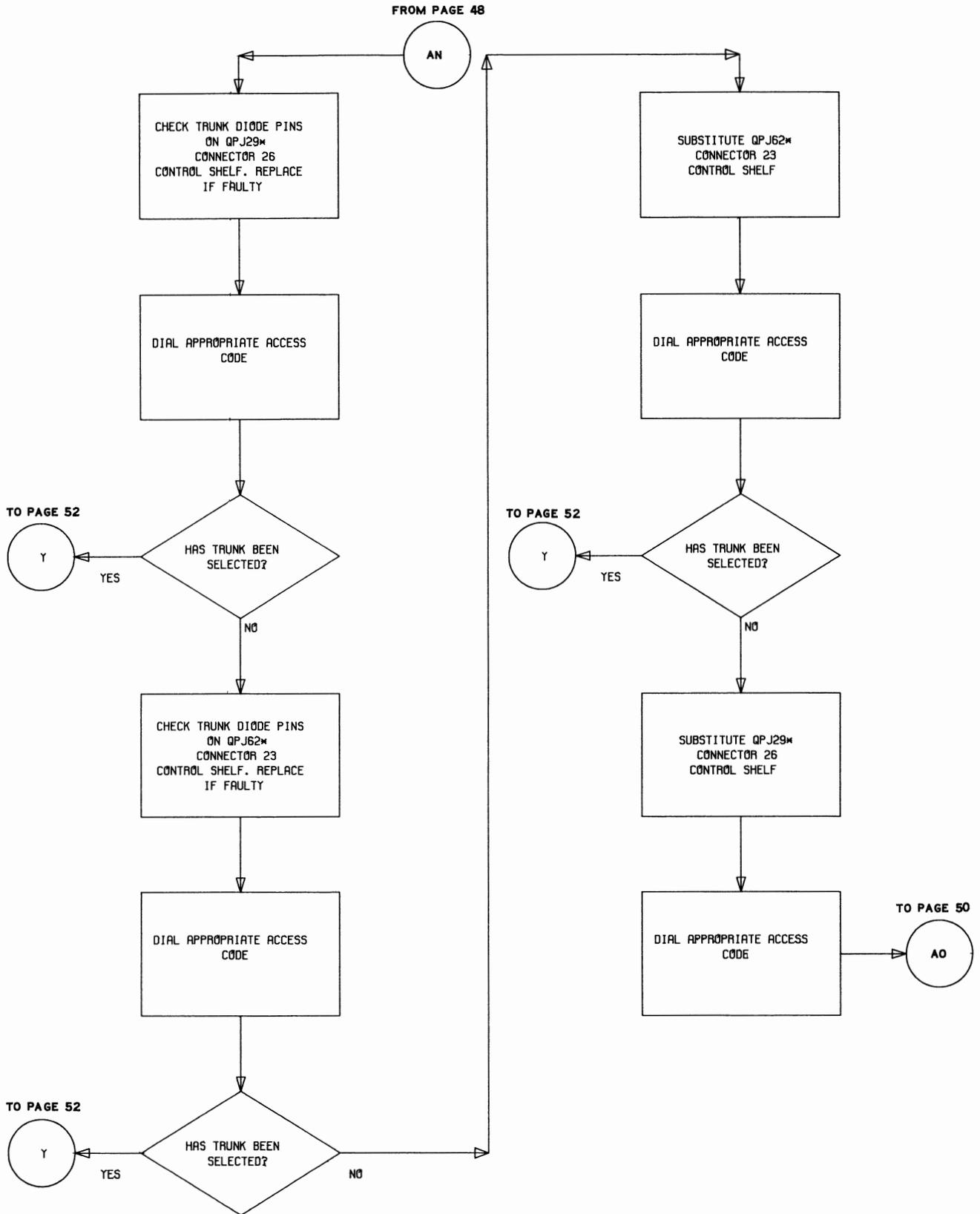
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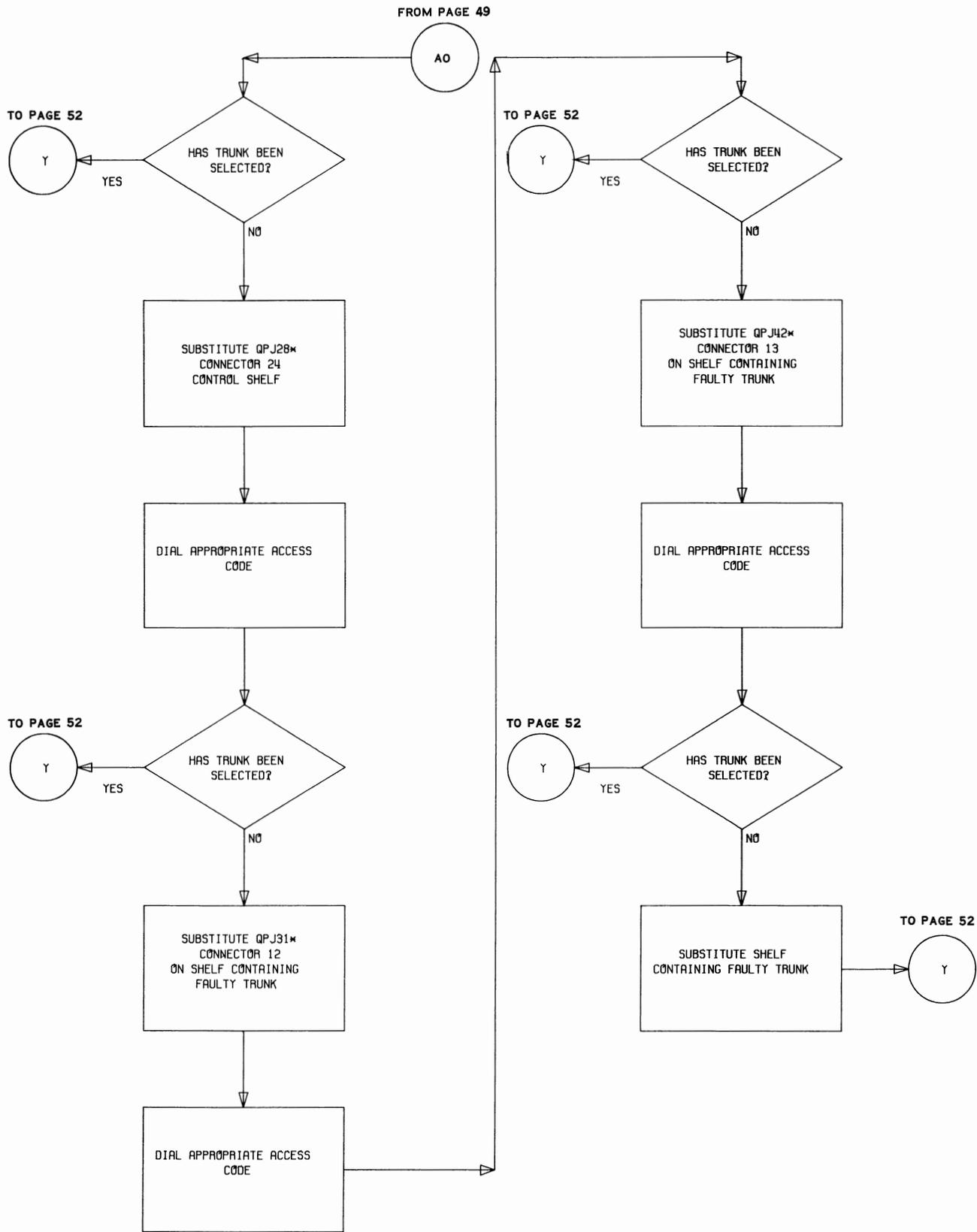
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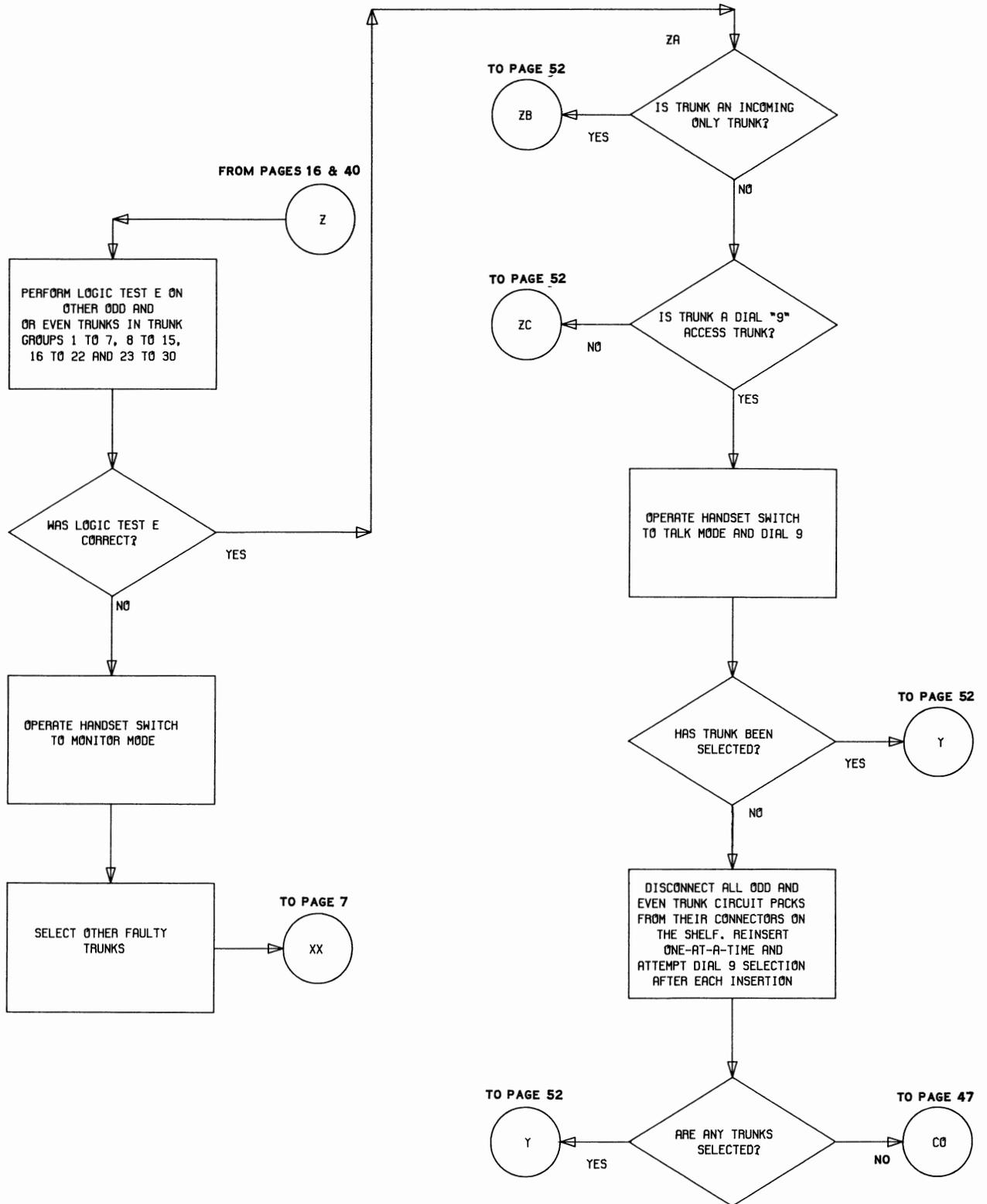
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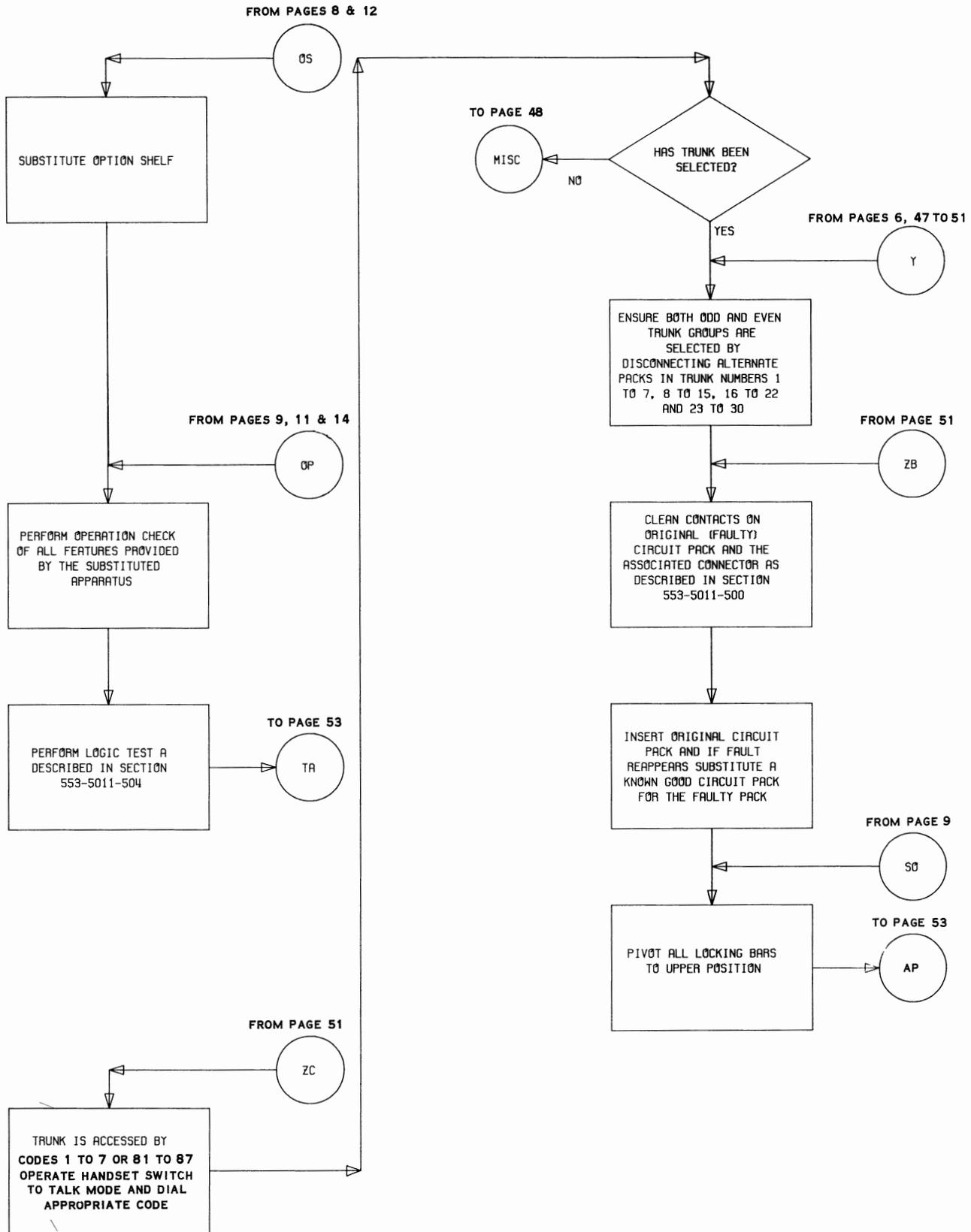
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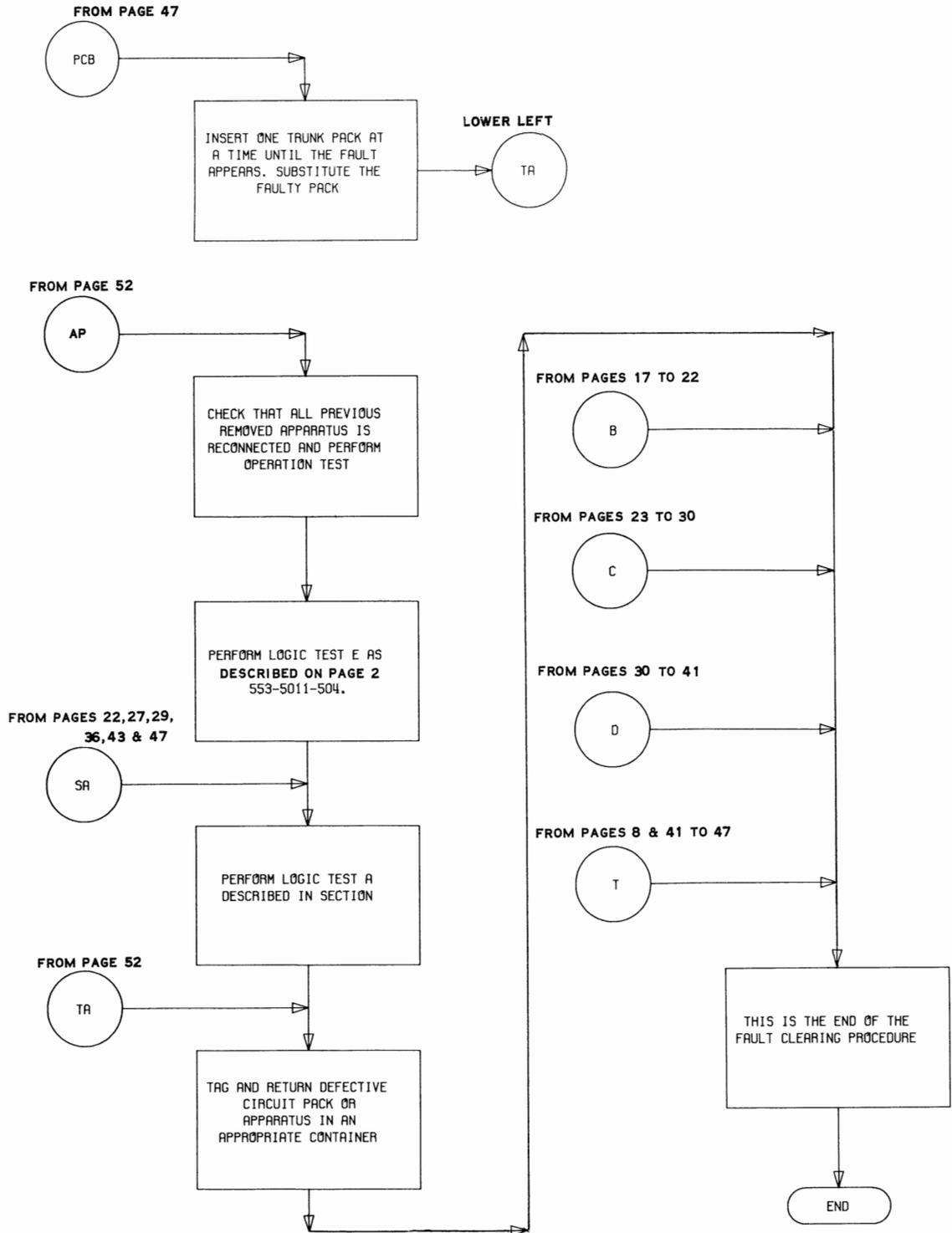
Flowchart 1 (Cont)



Flowchart 1 (Cont)



Flowchart 1 (Cont)



Flowchart 1 (Cont)