

TABLE OF CONTENTS

TABLE OF CONTENTS.....	1
1- SCA FRONT PANEL DISPLAY	2
2- TROUBLESHOOTING FLOWCHART	4
REVISION HISTORY.....	19

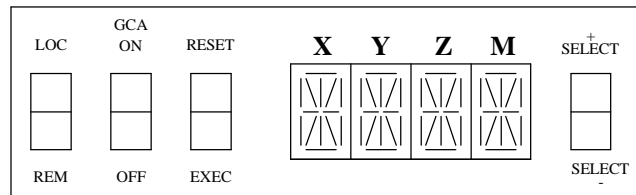
SGD BASE CABINET TROUBLESHOOTING FLOWCHART

1- SCA FRONT PANEL DISPLAY

The System Control Assembly (SCA) front panel is shown below. It consists of four alphanumeric displays and four switches. In addition, there is a green LED to the right of the display which indicates the presence of +5V logic power for the display.

Section 2 is a troubleshooting flowchart based on error conditions displayed on the alphanumeric display. The flowchart can be used to isolate a failure to the FRU 1 level.

SCA Display



Front panel switches

The SCA front panel switch functions are described below.

LOCAL or REMOte When in remote, the system will respond to the control interface only, the other front panel switches remaining inactive. However the display will annunciate the status of the amplifiers. In local mode, all switches are active.

GCA ON or OFF ON - Momentary activation turns the amplifiers and high voltage ON *if no error condition exists*. Compensation will be set according to the configuration menu.

OFF - Momentary activation turns the amplifiers and high voltage OFF.

RESET or EXECute The execute switch is active when one of the following types of displays are active:

- Status display. Pushing EXEC will cause the display to enter the *menu* mode.
- Sub-menu title. Pushing EXEC button will enter the sub-menu and display it's first option.
- Menu option with a programmable value. The setting of the value may be changed with the SELECT switch. Pushing EXEC button will store *all of the new settings on the active menu* and put them in effect.
- Momentary action item. Pushing the EXEC button while such an item is displayed will execute the function.

1- SCA FRONT PANEL DISPLAY (continued)

RESET or EXECute (continued)

The RESET switch has multiple function:

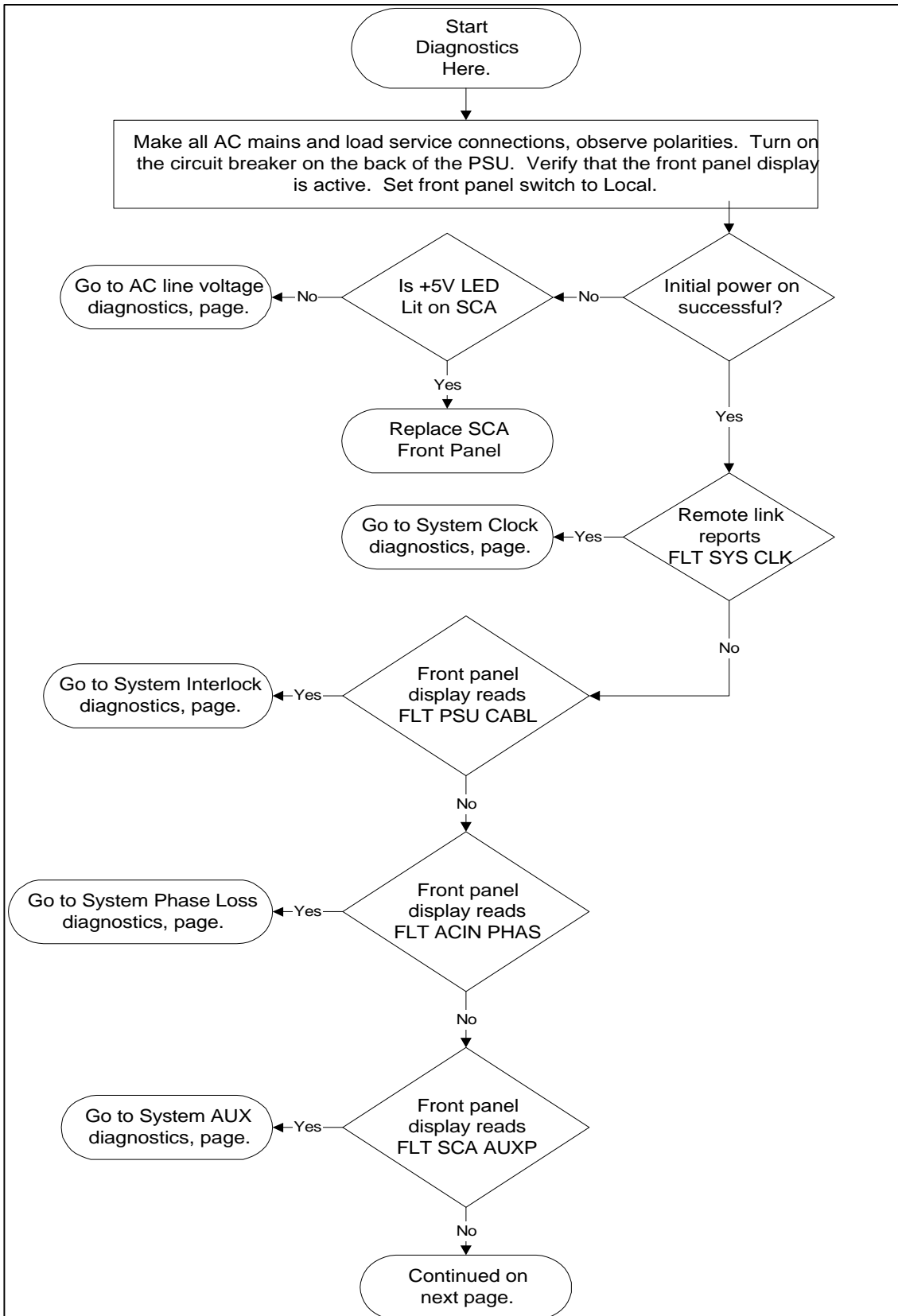
- When the display is in status mode, RESET acts as “Error Reset”. The SCA will attempt to reset the error condition, if present, on the PSU and MDS link, then an “Error Reset” command will be issued to the amplifiers.
- When in menu mode, *and a function, such as internal waveform generation, is active*, pushing RESET deactivates the function (for example, stops the internal waveform generator, when running).
- When in menu mode, *and some parameters have been changed, but not yet stored*, RESET will reset the previous settings.
- When in menu mode and none of the last two conditions are true, pushing RESET button exits the menu mode.

+SELECT or -SELECT

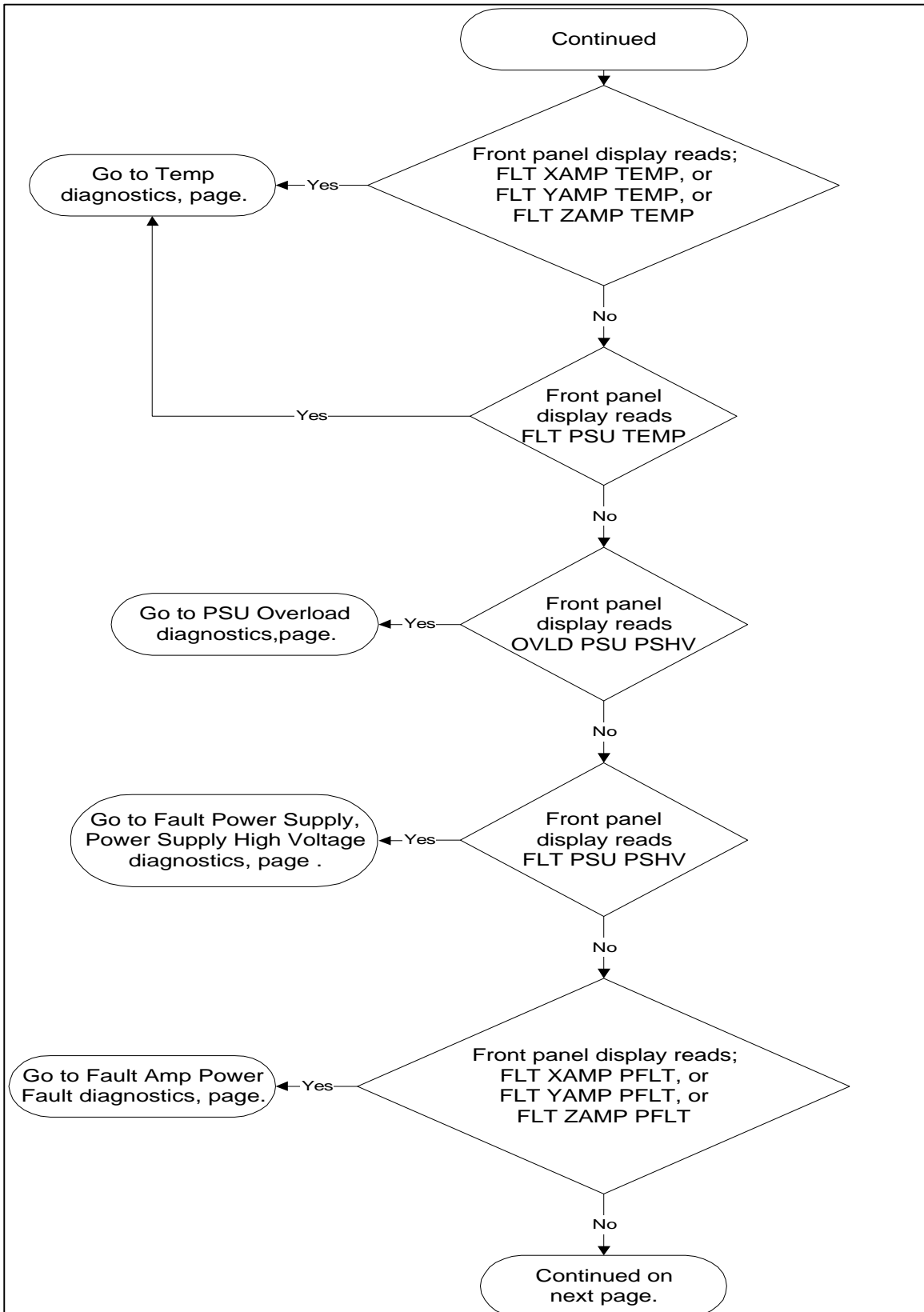
When in menu mode, this switch causes the display to scroll through a list of selections within the current level of the menus. Scrolling forwards or backwards is controlled by the direction of the switch.

Certain menu items have a parameter. When the given item is selected, the display indicates the current setting of the parameter. For such items, a *static* display indicates that the value displayed is the currently effective setting. Using the switch + or – will cause the displayed value to increase or decrease, and the display to start *blinking*. Then, pushing the EXEC switch will store and enable the selected parameter. Pushing the RESET switch restores the original value.

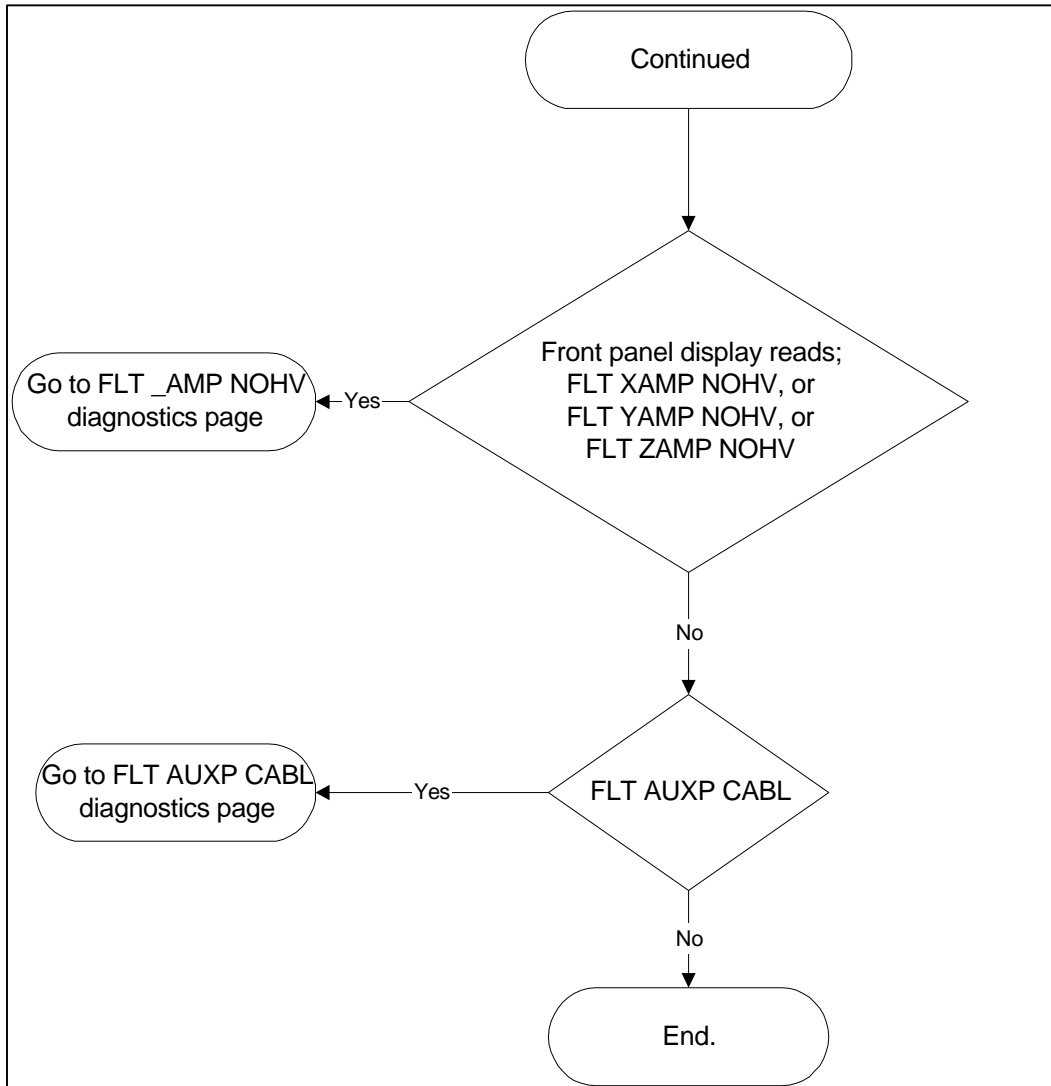
2- TROUBLESHOOTING FLOWCHART



2- TROUBLESHOOTING FLOWCHART (continued)

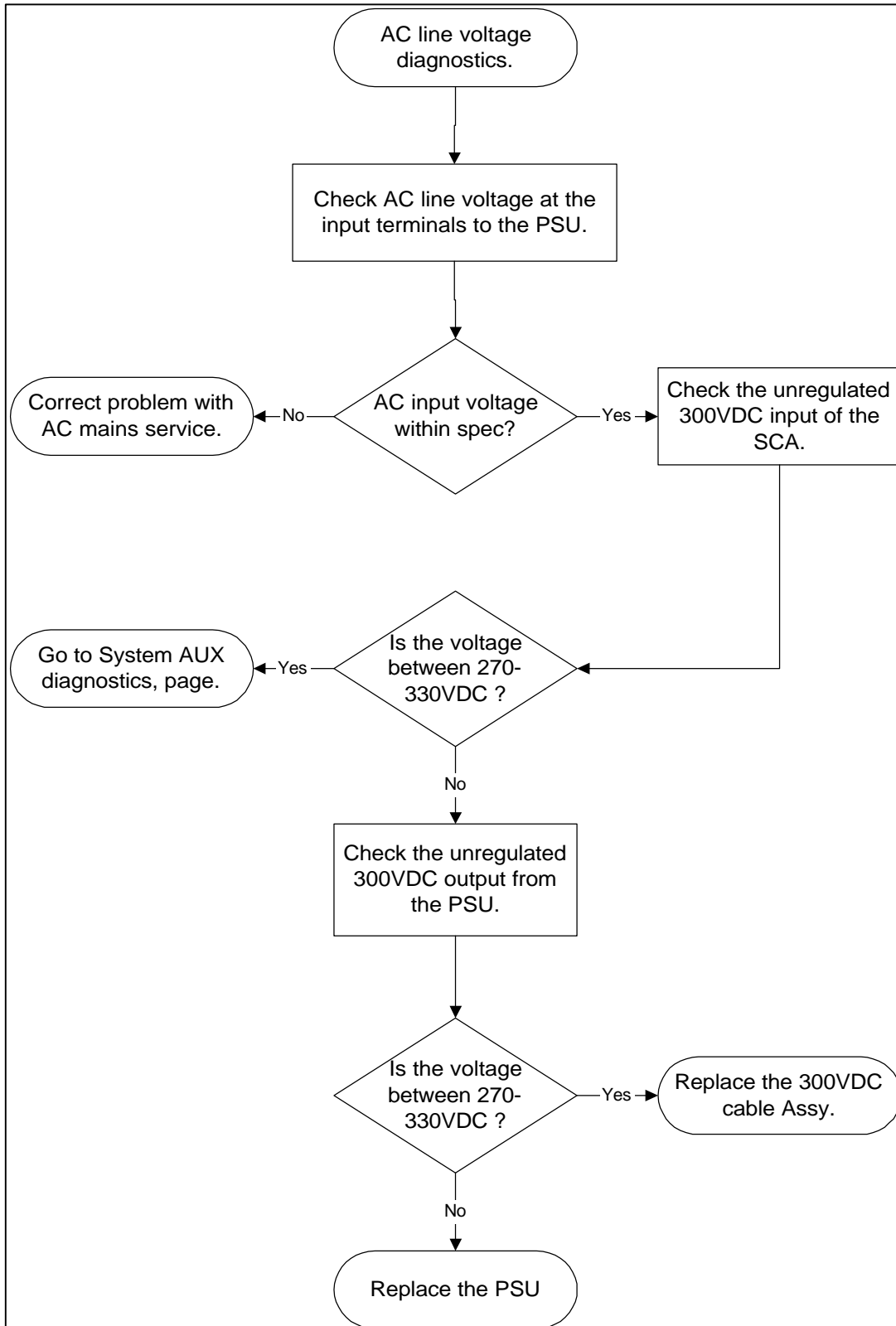


2- TROUBLESHOOTING FLOWCHART (continued)



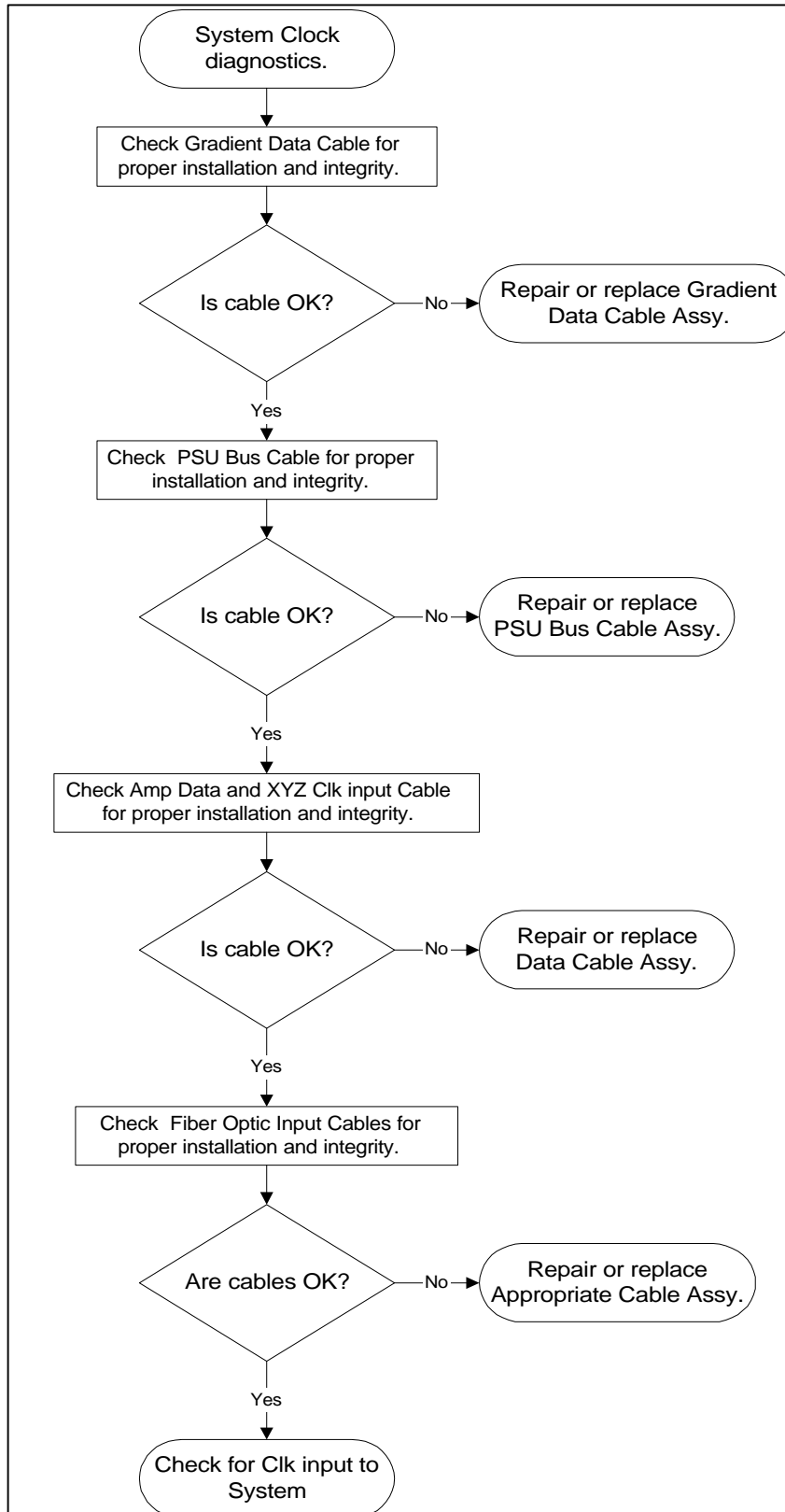
2- TROUBLESHOOTING FLOWCHART (continued)

AC Line Voltage Diagnostics



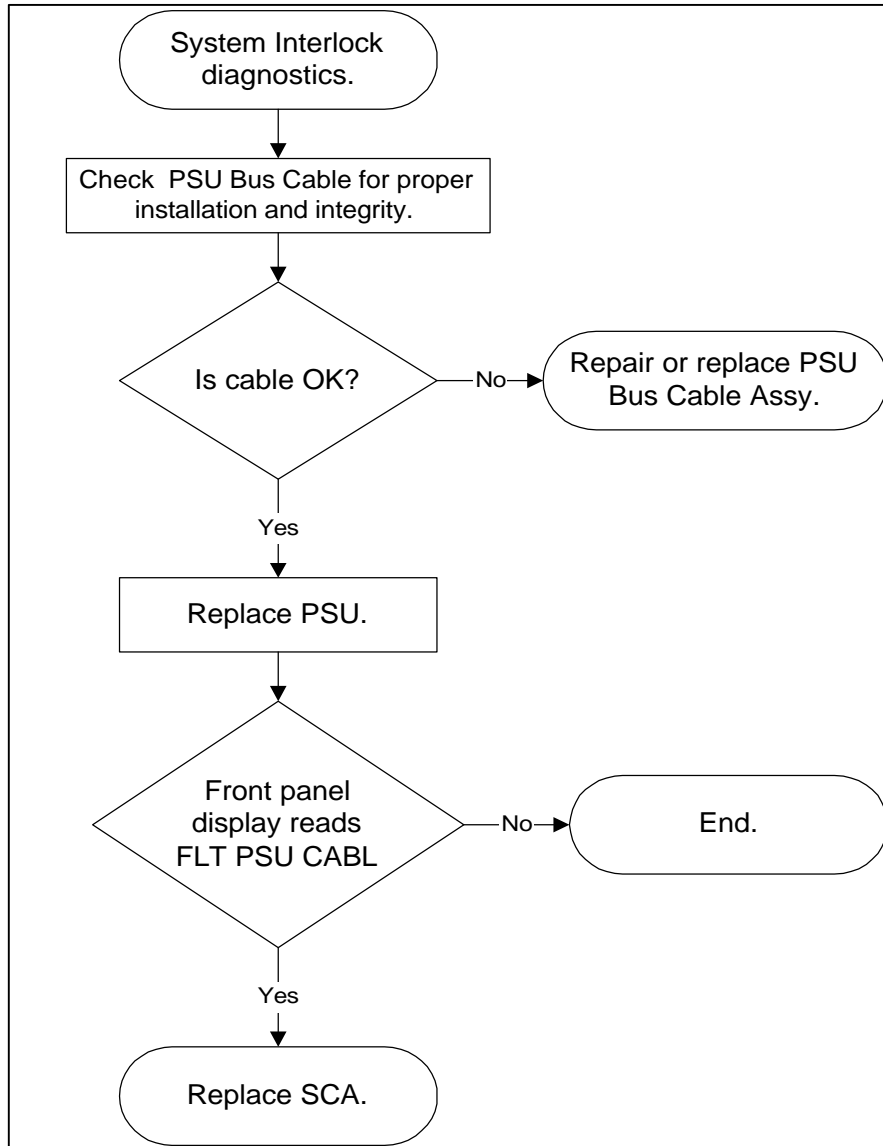
2- TROUBLESHOOTING FLOWCHART (continued)

System Clock Diagnostics



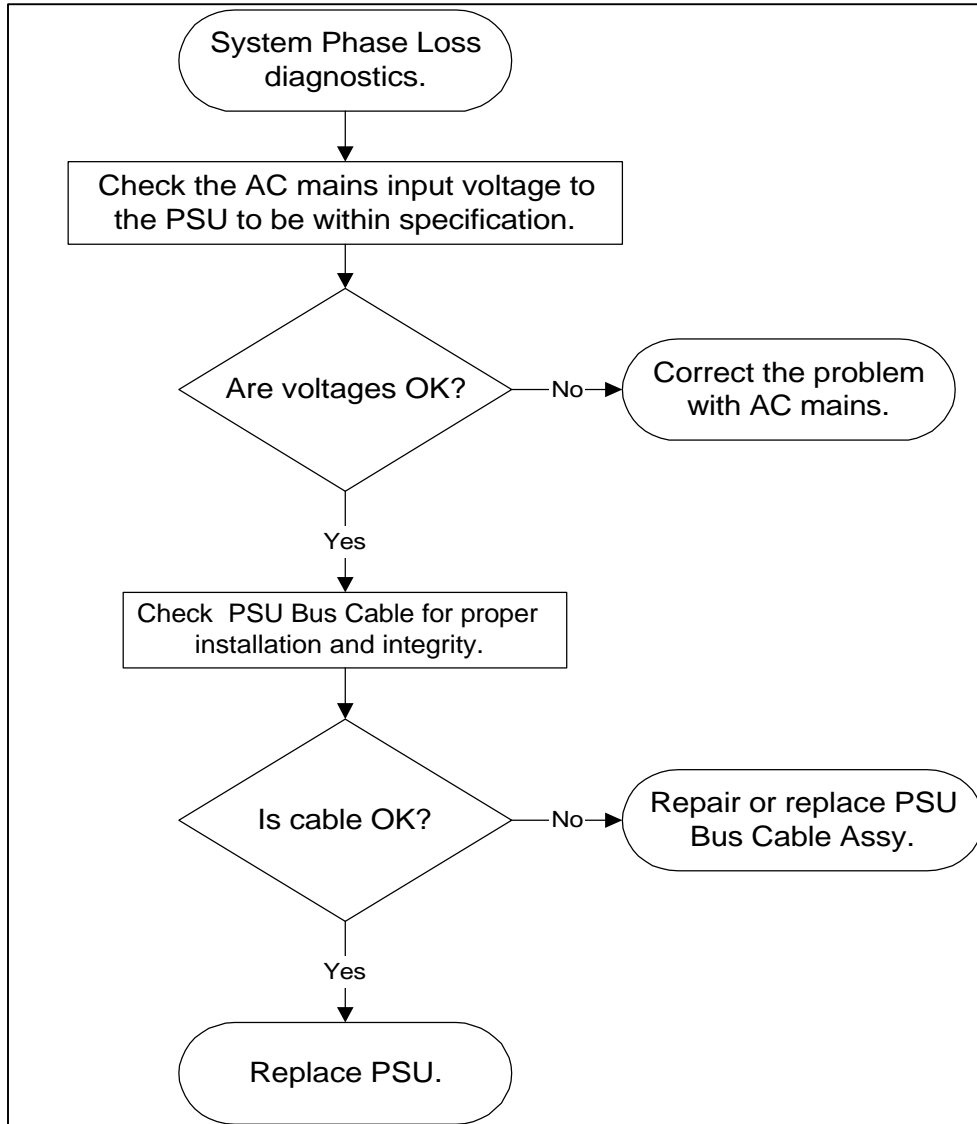
2- TROUBLESHOOTING FLOWCHART (continued)

System Interlock Diagnostics

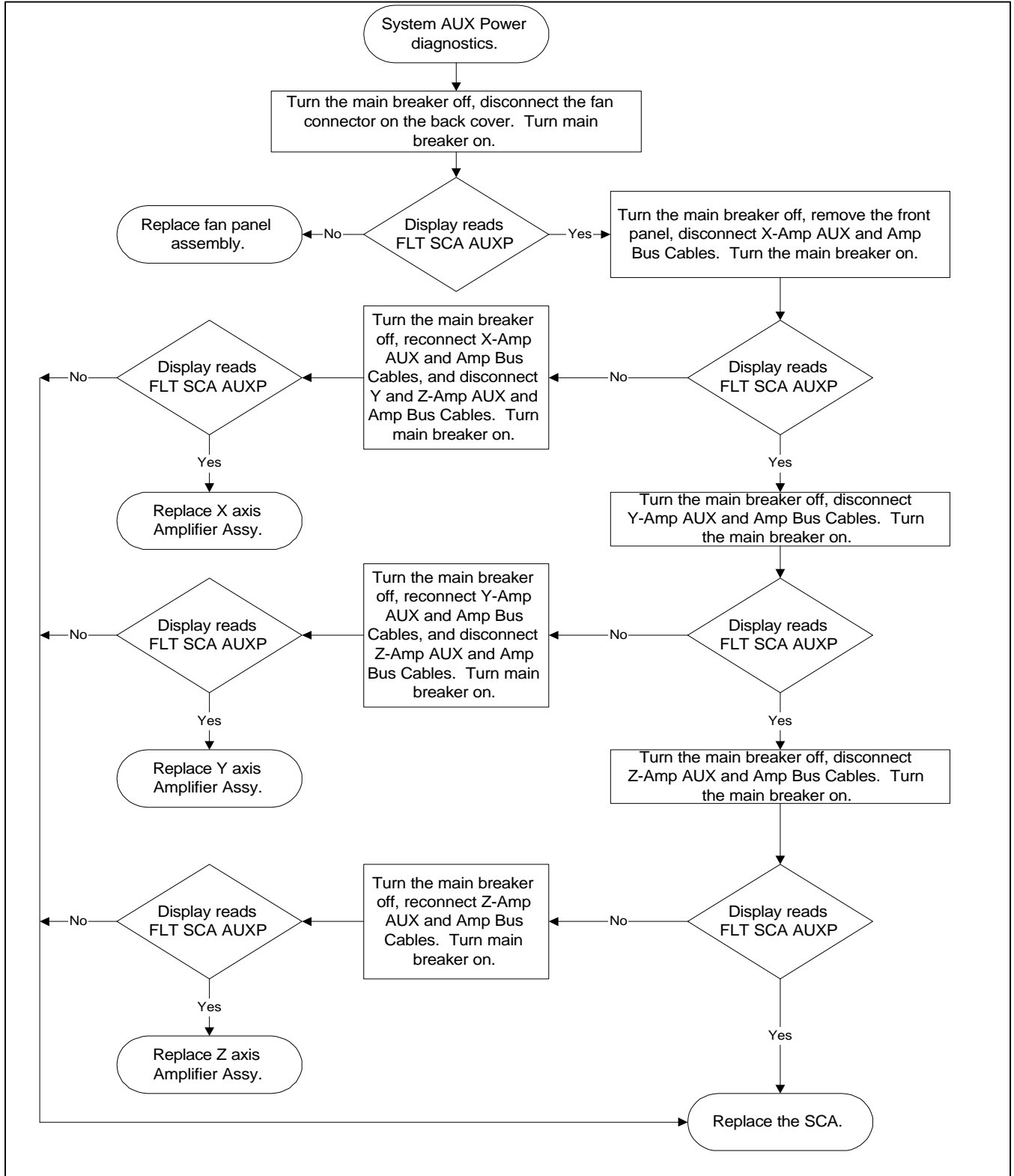


2- TROUBLESHOOTING FLOWCHART (continued)

System Phase Loss Diagnostics

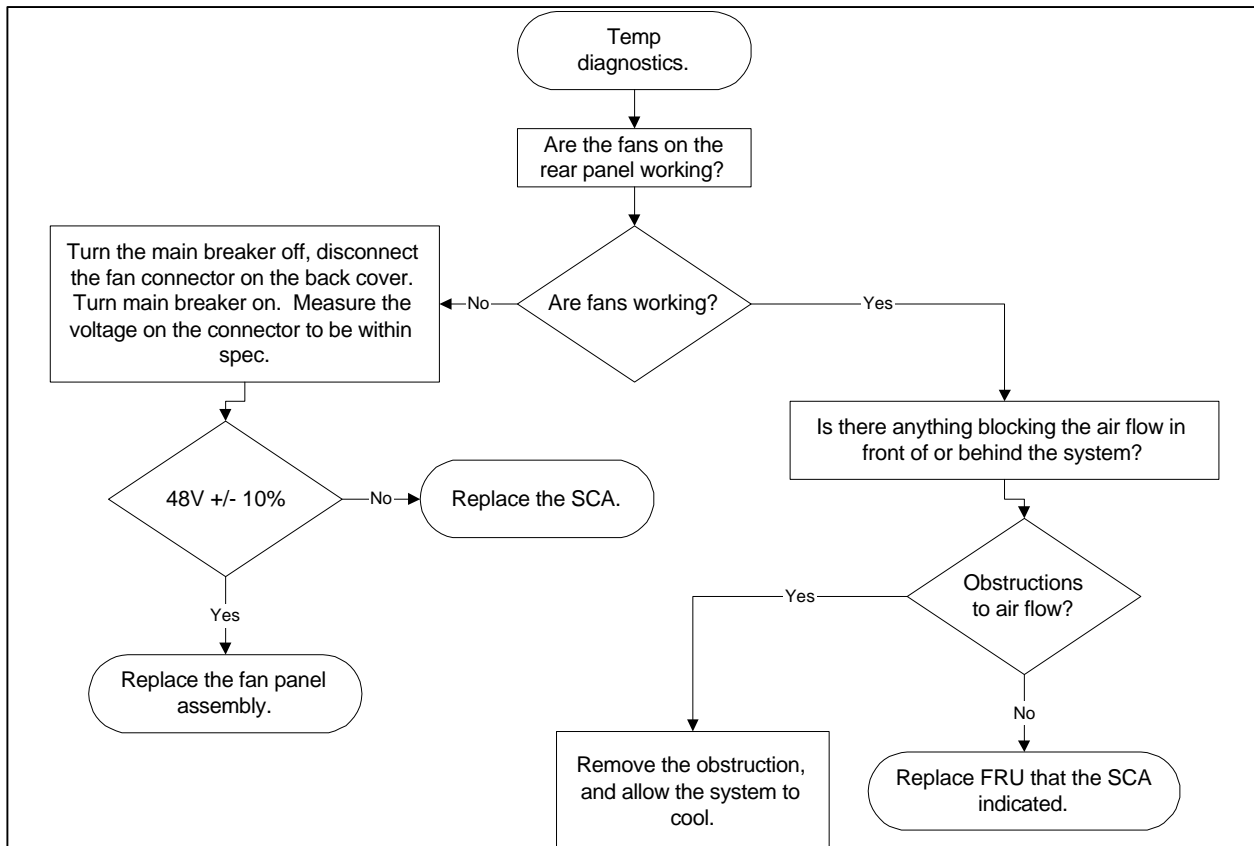


2- TROUBLESHOOTING FLOWCHART (continued)
System Aux Power Supply Diagnostics

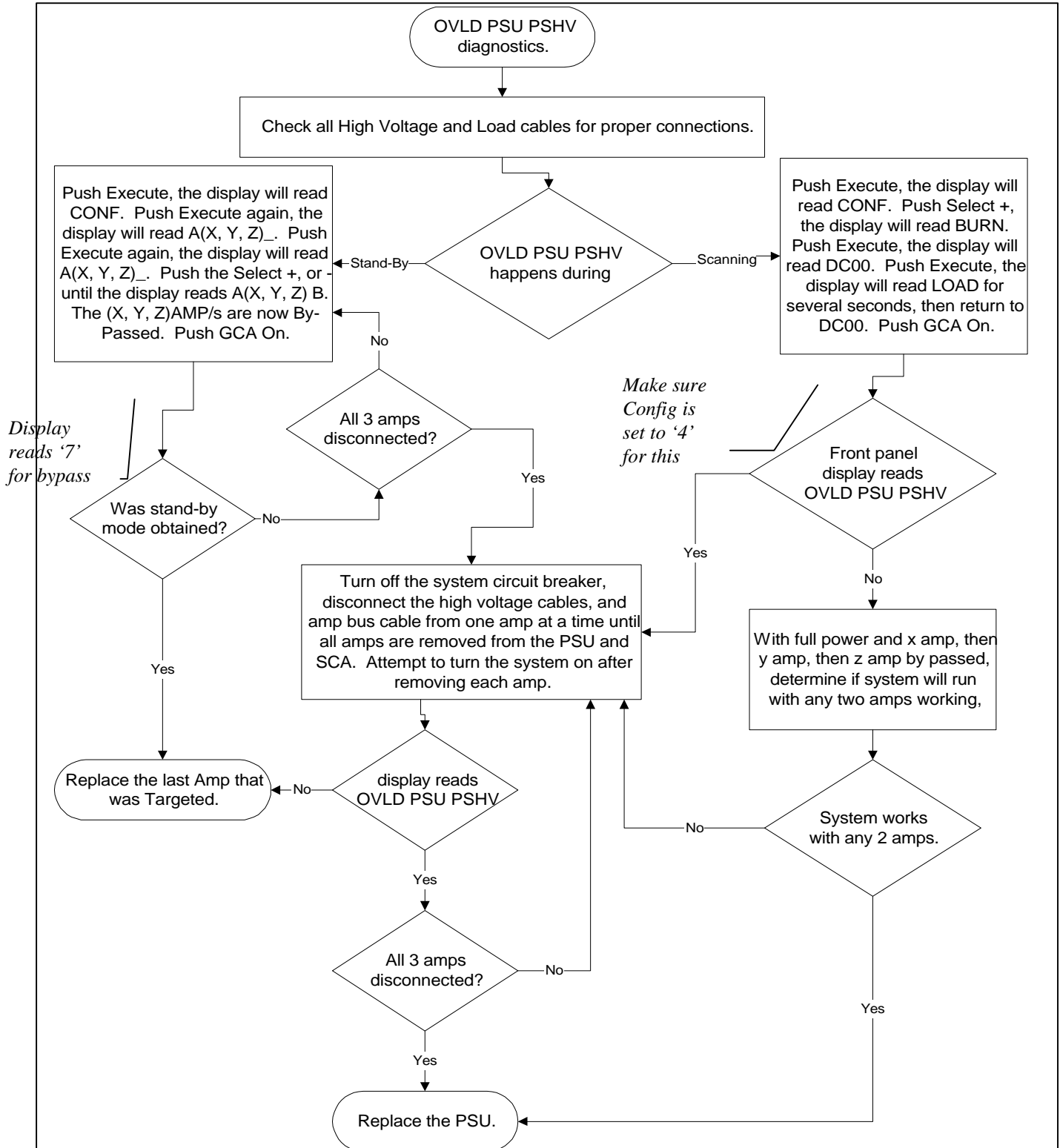


2- TROUBLESHOOTING FLOWCHART (continued)

Temperature Diagnostics

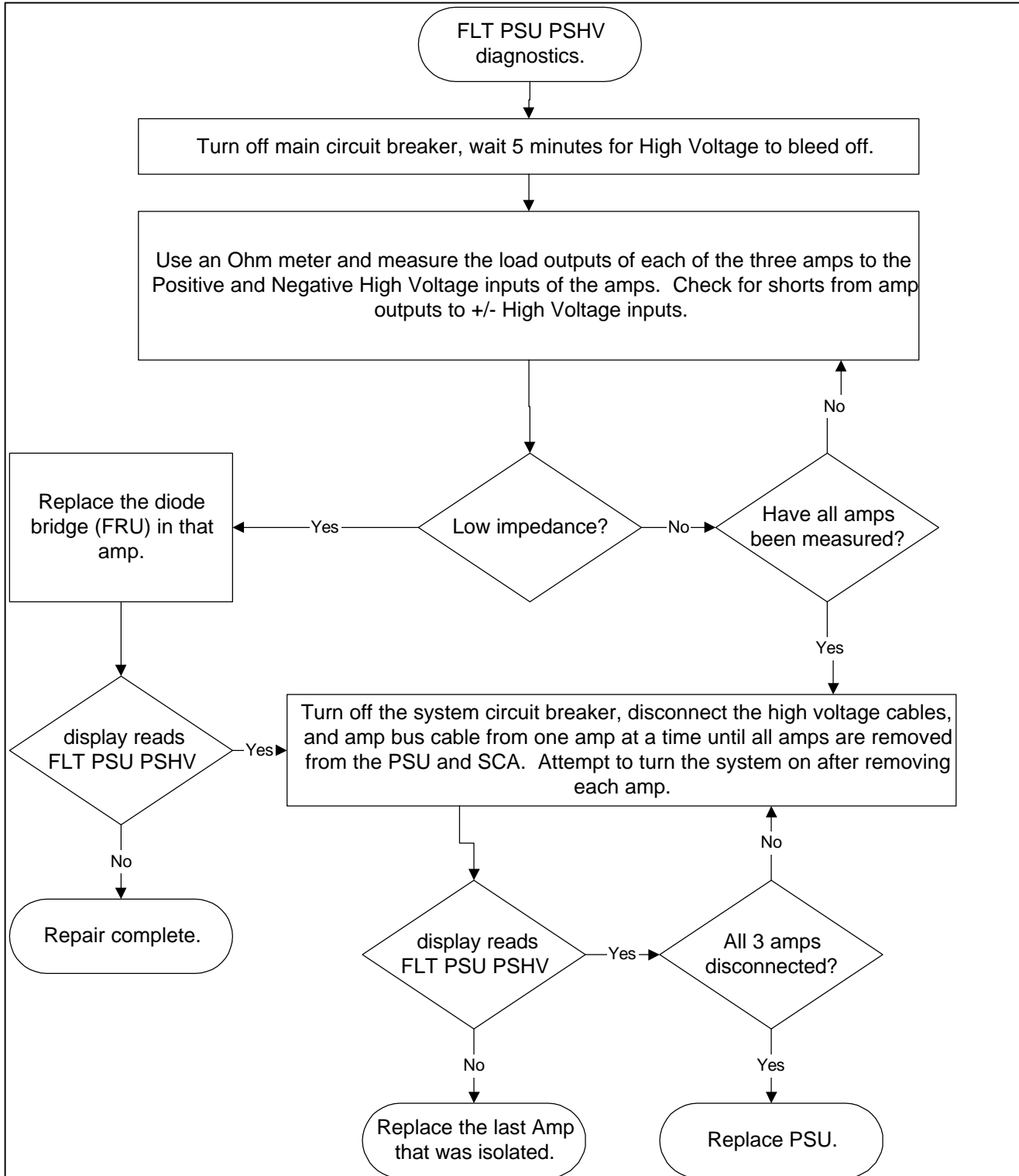


2- TROUBLESHOOTING FLOWCHART (continued)
Overload Power supply, Power supply Hi Voltage



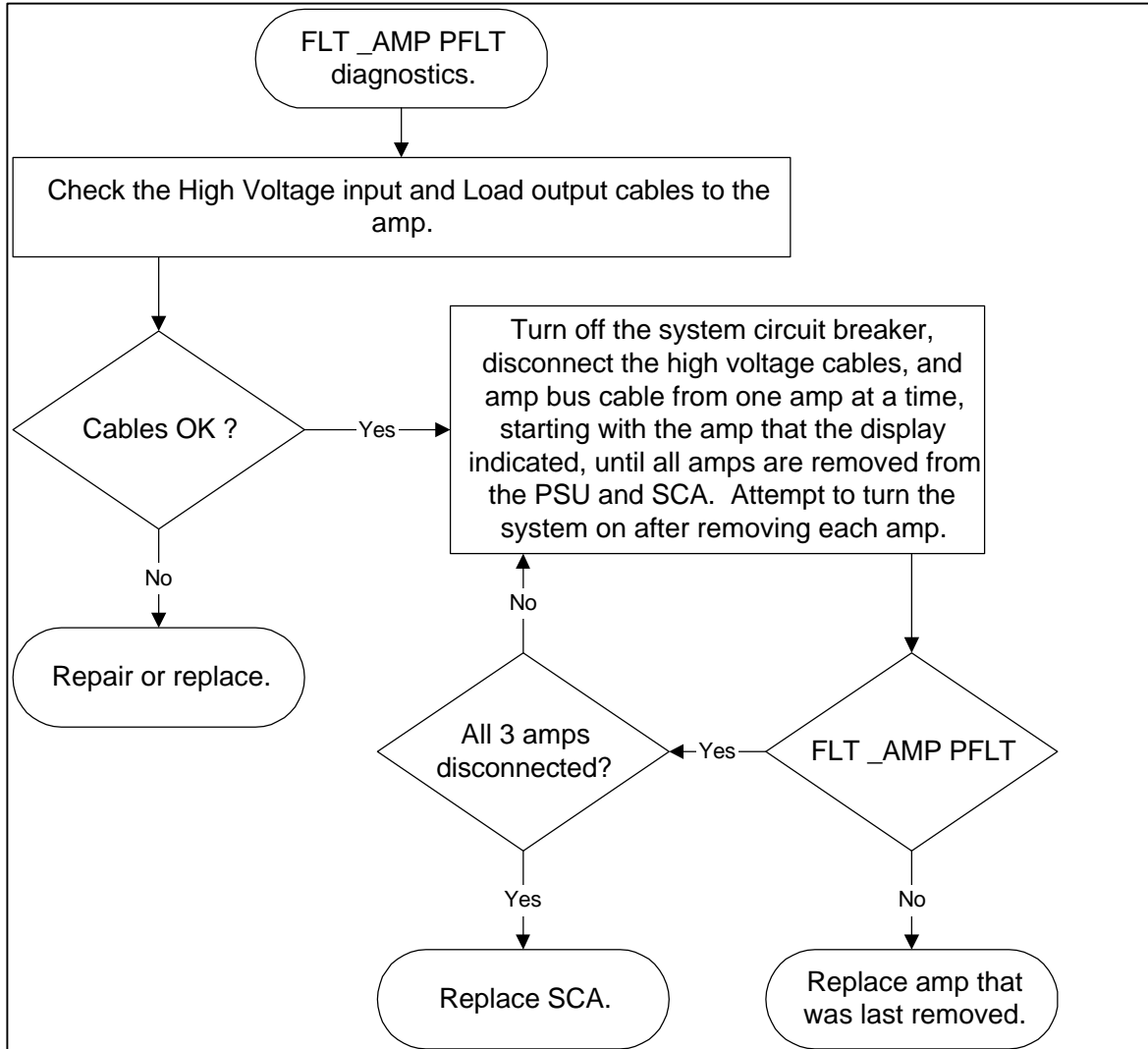
2- TROUBLESHOOTING FLOWCHART (continued)

Fault Power Supply, Power Supply High Voltage Diagnostics



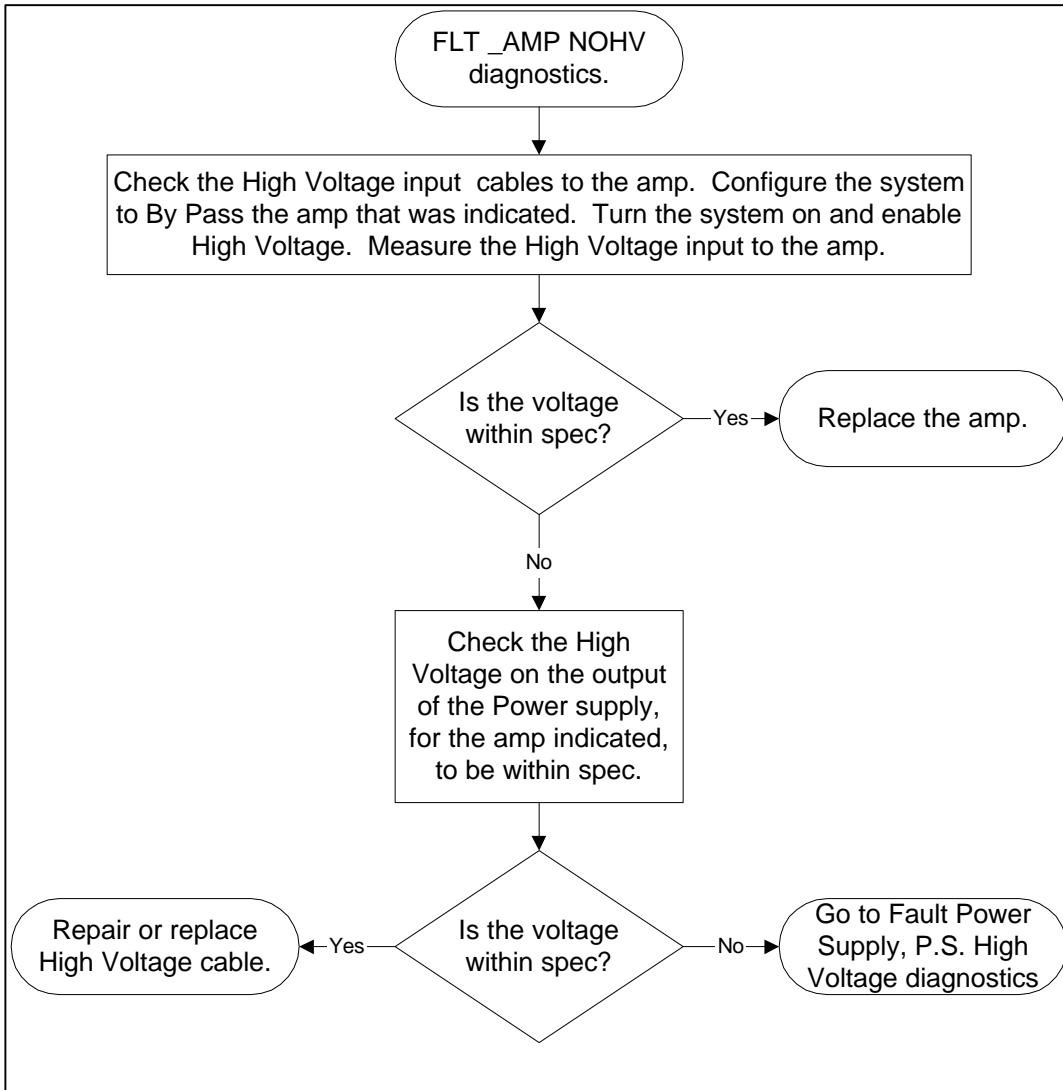
2- TROUBLESHOOTING FLOWCHART (continued)

Fault Amplifier Power Fault



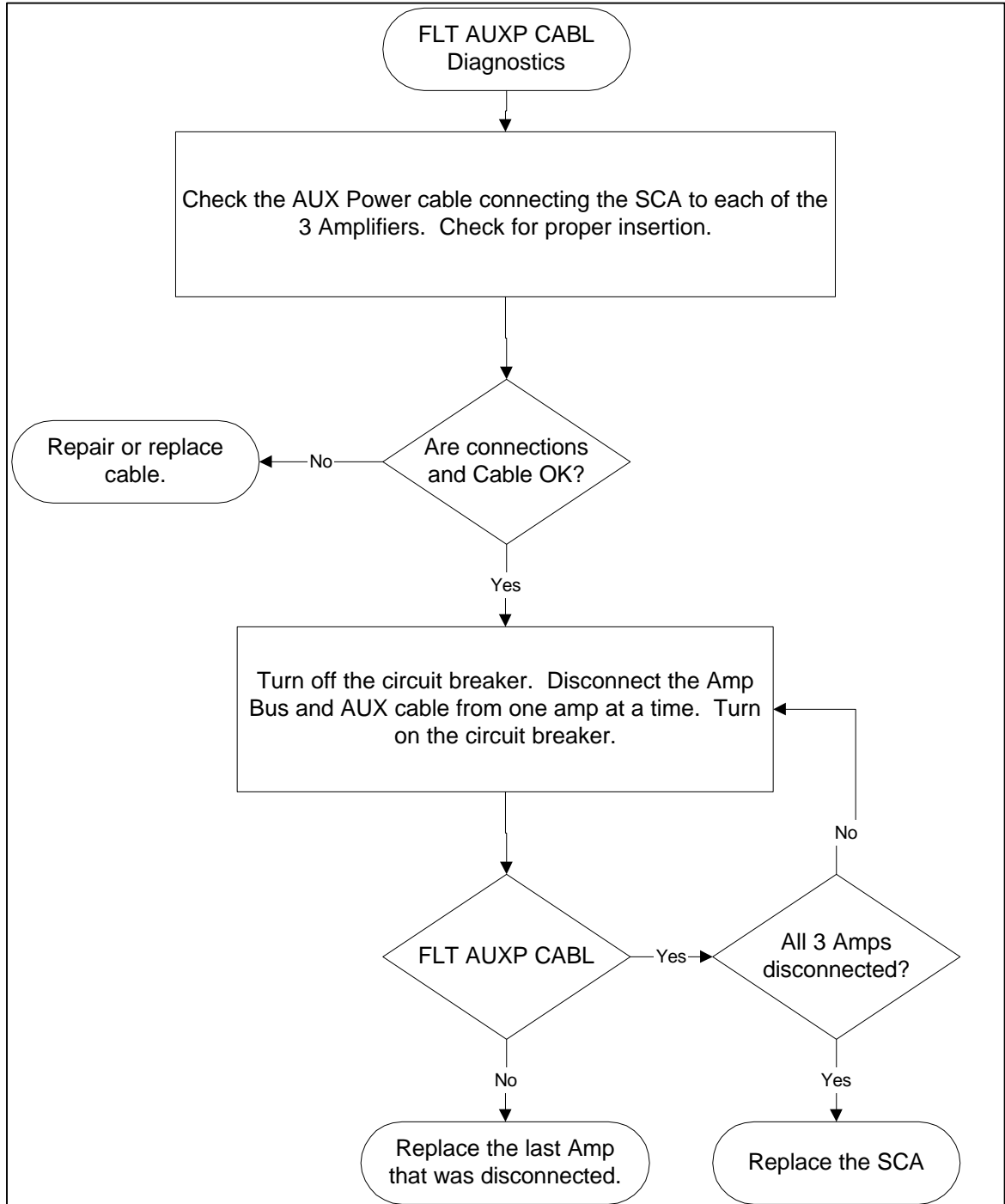
2- TROUBLESHOOTING FLOWCHART (continued)

Fault Amp, No High Voltage Diagnostics



2- TROUBLESHOOTING FLOWCHART (continued)

Fault AUX Power Cable Diagnostics



REVISION HISTORY

REV	DATE	AUTHOR	PRIMARY REASONS FOR CHANGE
0	Oct 6, 1997	Analogic/ J. Wolak	Initial version released for SGD production. This information was taken from Analogic's document A1-37885, Rev 2.