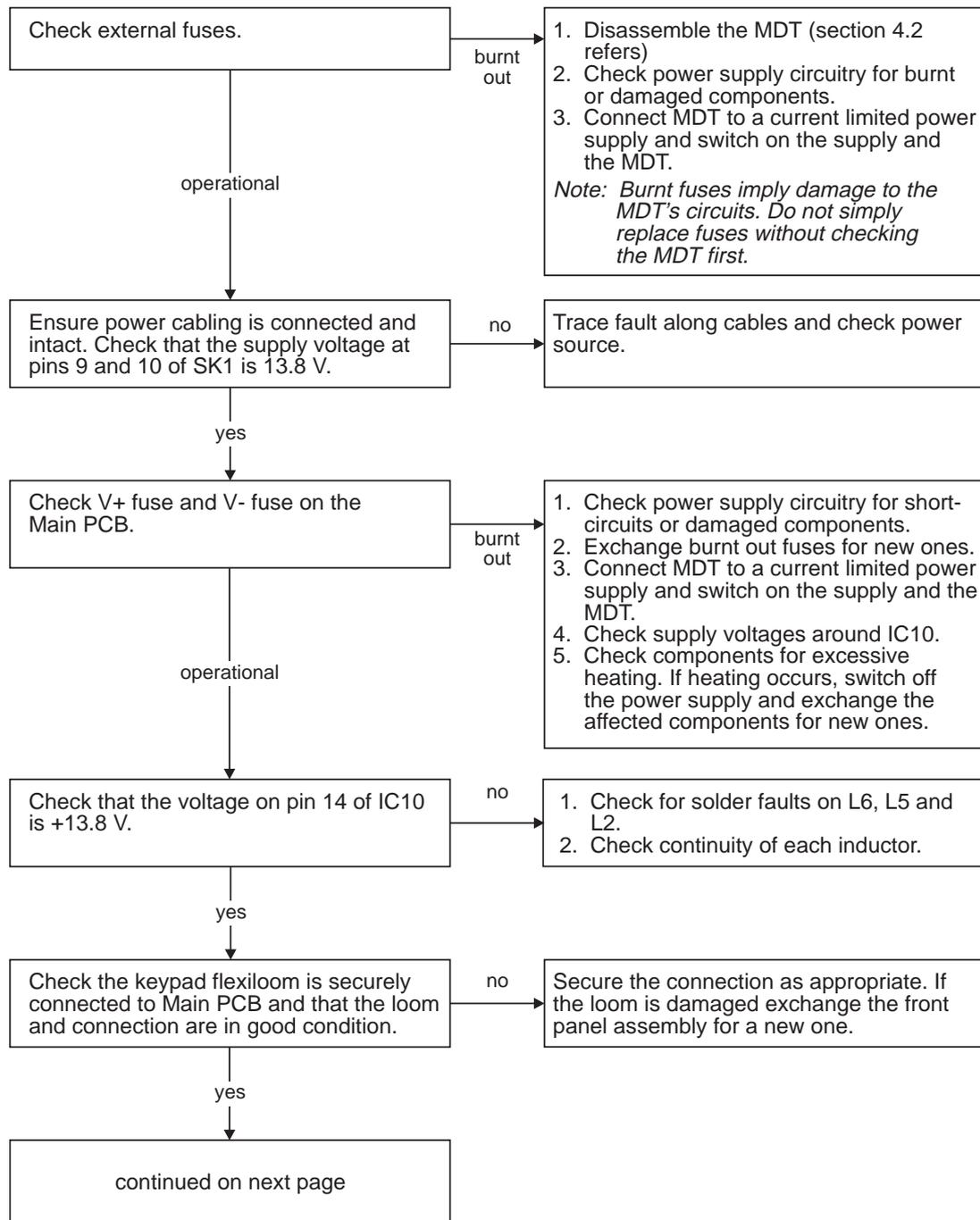
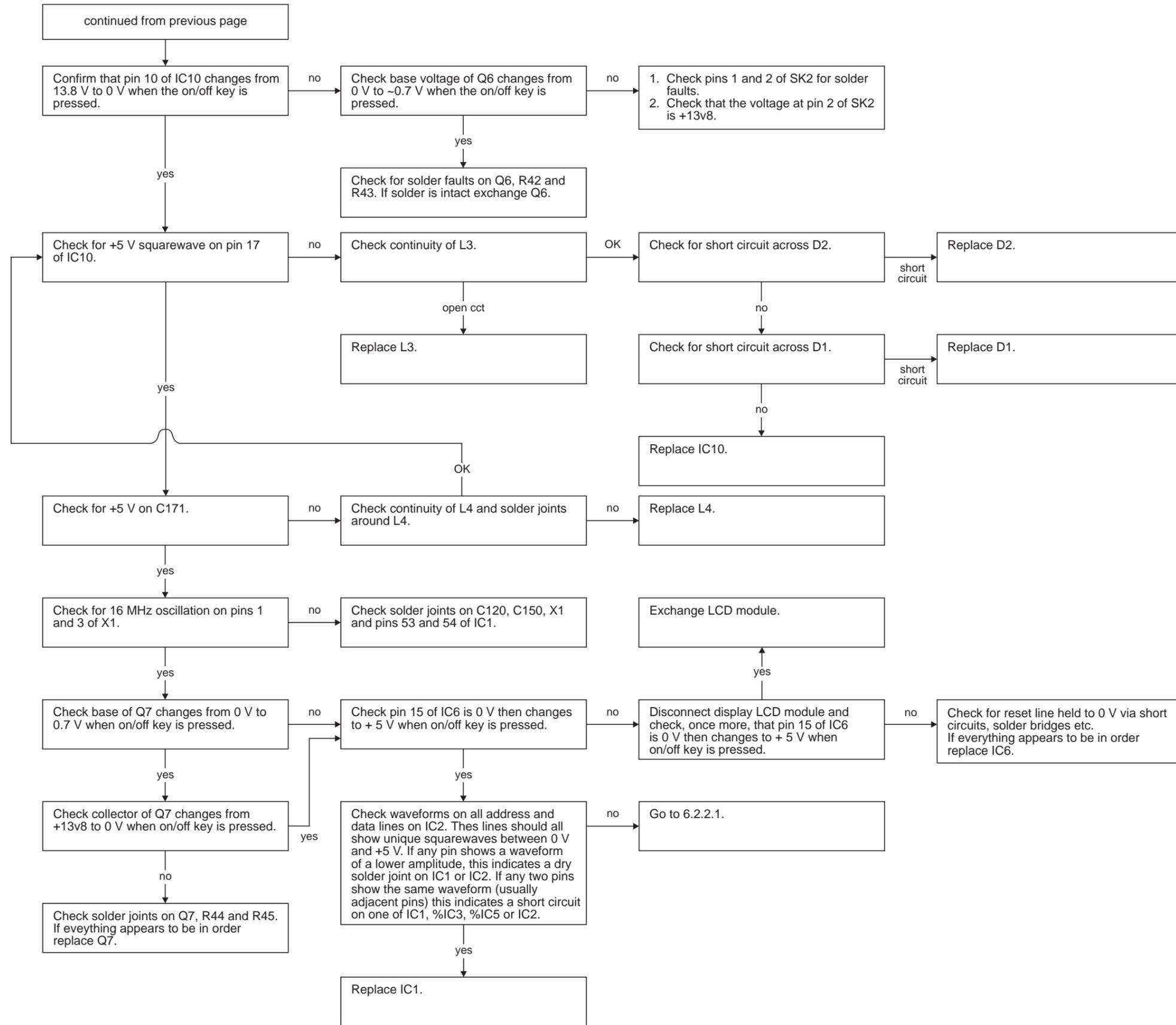


## **6**      **Fault Finding**

The fault-finding charts and checklists included in this chapter are intended for use in conjunction with the circuit diagrams and other PCB information provided in Chapter 7, and the circuit description and block diagram provided in Chapter 3.

## 6.1 MDT Won't Power Up





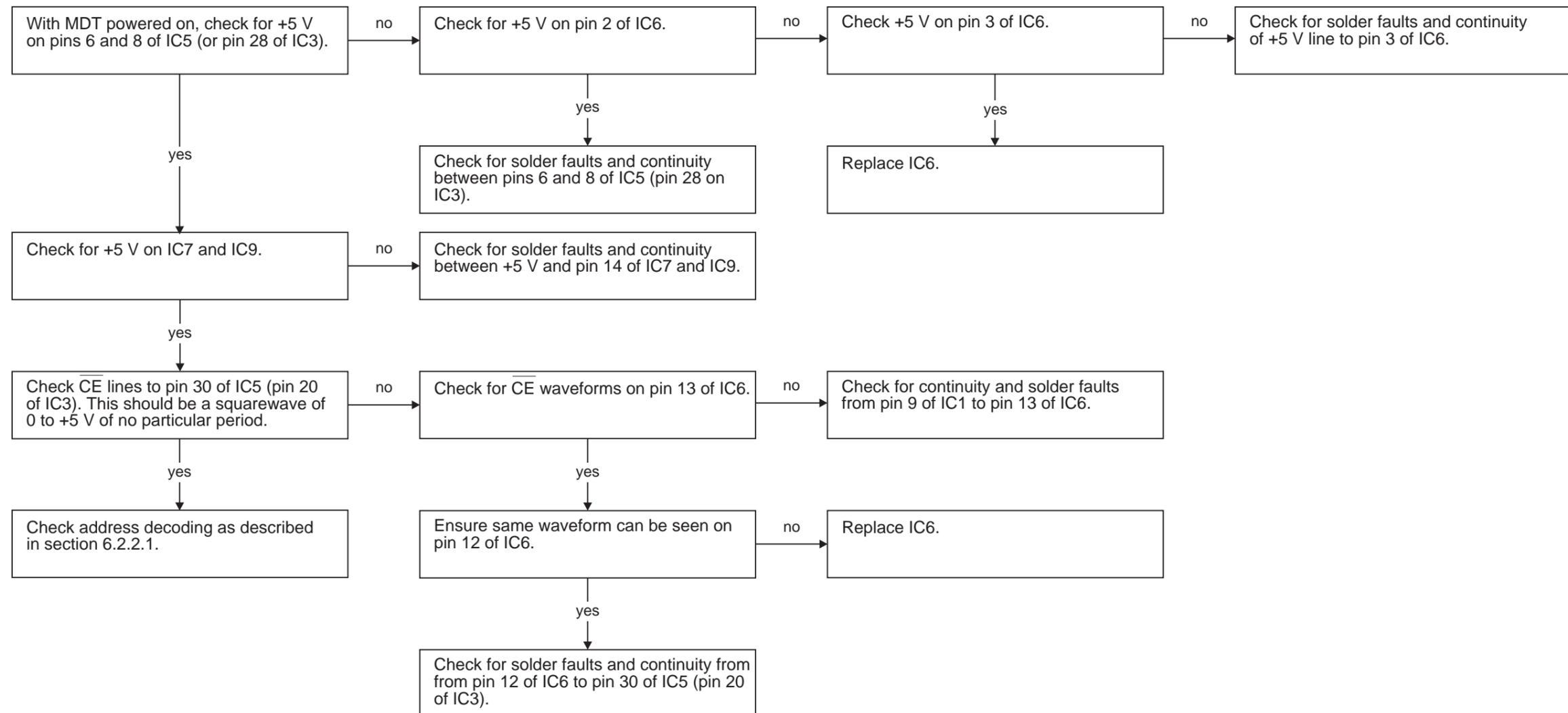
## 6.2 Start-up Self Test Failures

### 6.2.1 LCD Module Test Failure

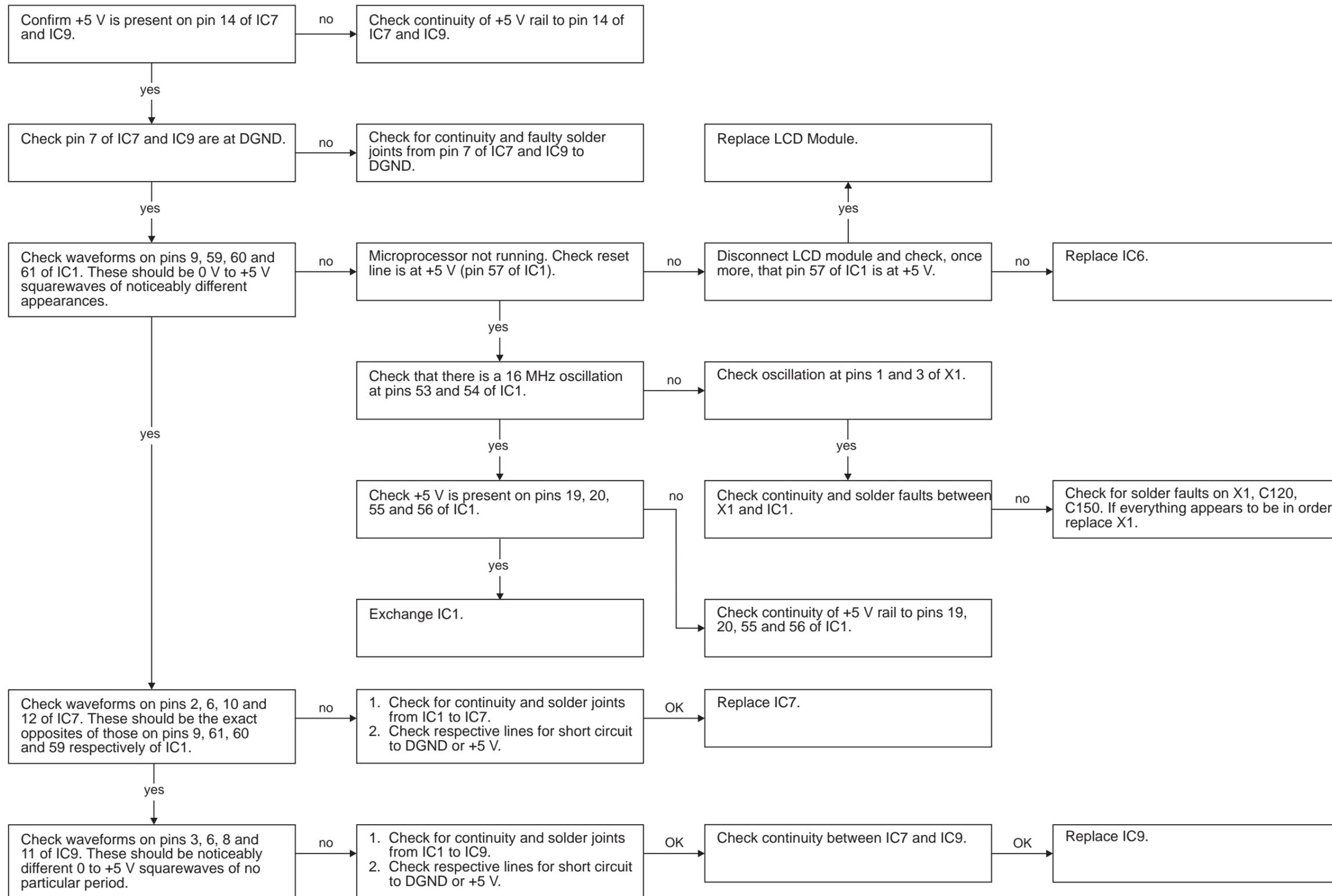
If the LCD Module test fails:

- 1 Check that the LCD to Main PCB ribbon cable is connected, and retest the unit.
- 2 Proceed to section 6.2.2.1.

### 6.2.2 RAM Operation Test Failure

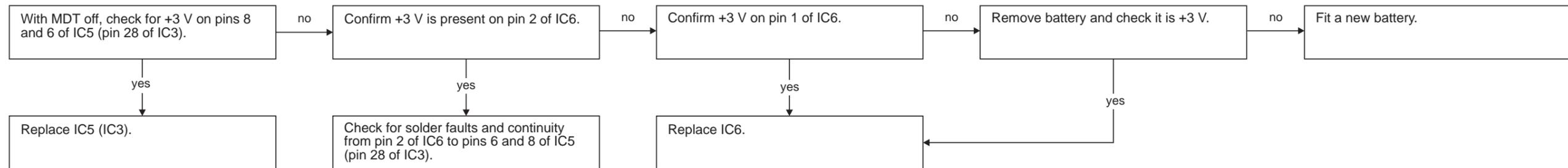


### 6.2.2.1 Address Decoding



### 6.2.3 RAM Integrity Test Failure

If the RAM integrity test fails:



## 6.3 Test Mode Failures

The sub-sections that follow describe how to rectify failures that are identified when the MDT is in Test Mode (sub-section 5.2.3 refers).

### 6.3.1 Port 1 and/or Port 2 Test Failure

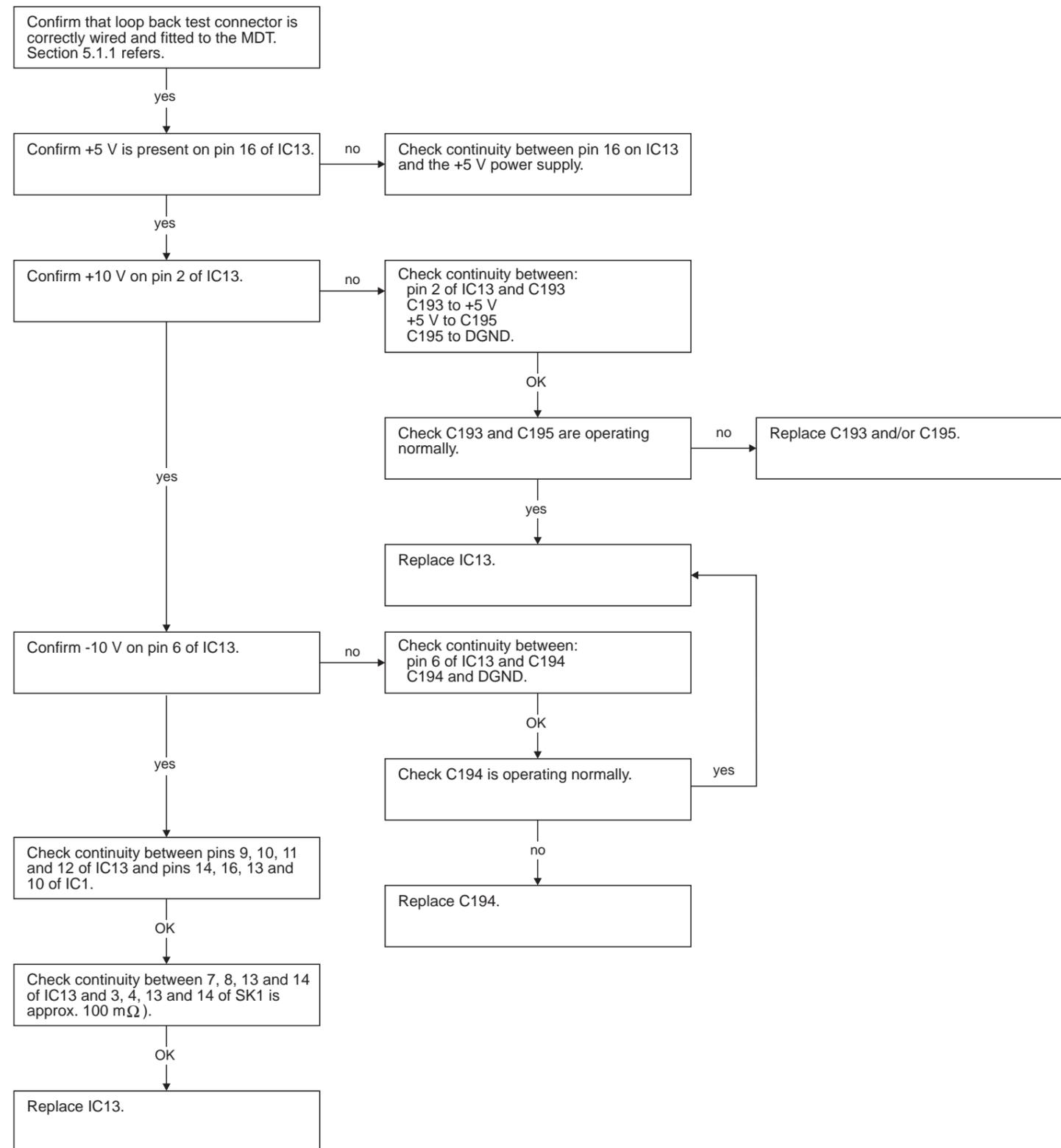
*Note:* The correlation between the serial connections shown on the Test Mode display and the physical connections on the Main PCB is summarized in Table 6.1.

*Table 6.1 Serial Communications*

Test Mode Display	Circuit Diagram		
	Microprocessor		Serial Connector
	Port	Pin	
Port 1	0	10 RXD0 13 TXD0	13 MAP27-RXD 14 MAP27-TXD
Port 2	1	14 RXD1 16 TXD1	4 RXD 3 TXD

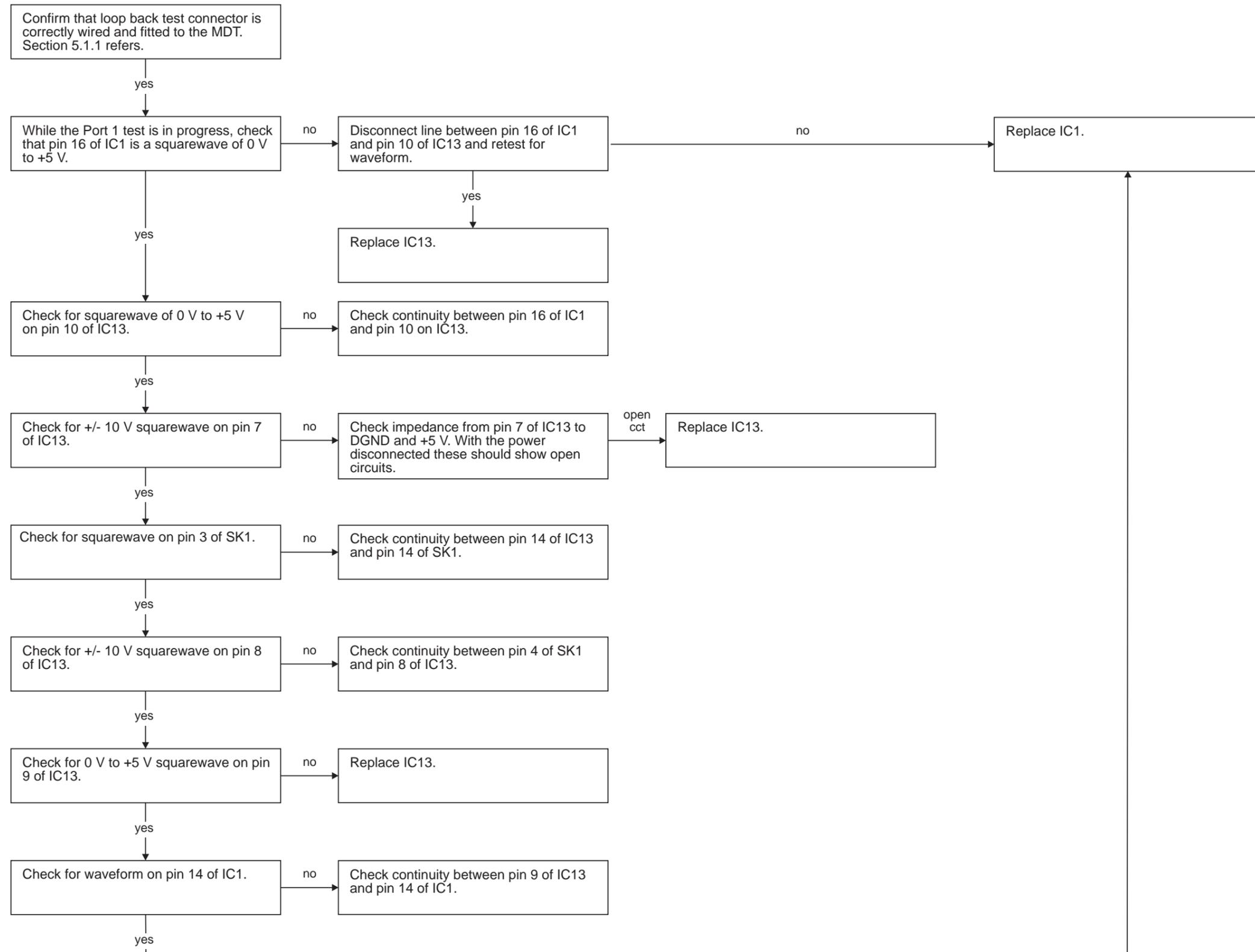
### 6.3.1.1 Port 1 and Port 2 Tests Fail

If the Port 1 and Port 2 tests fail, locate/rectify the cause of the failure as follows:



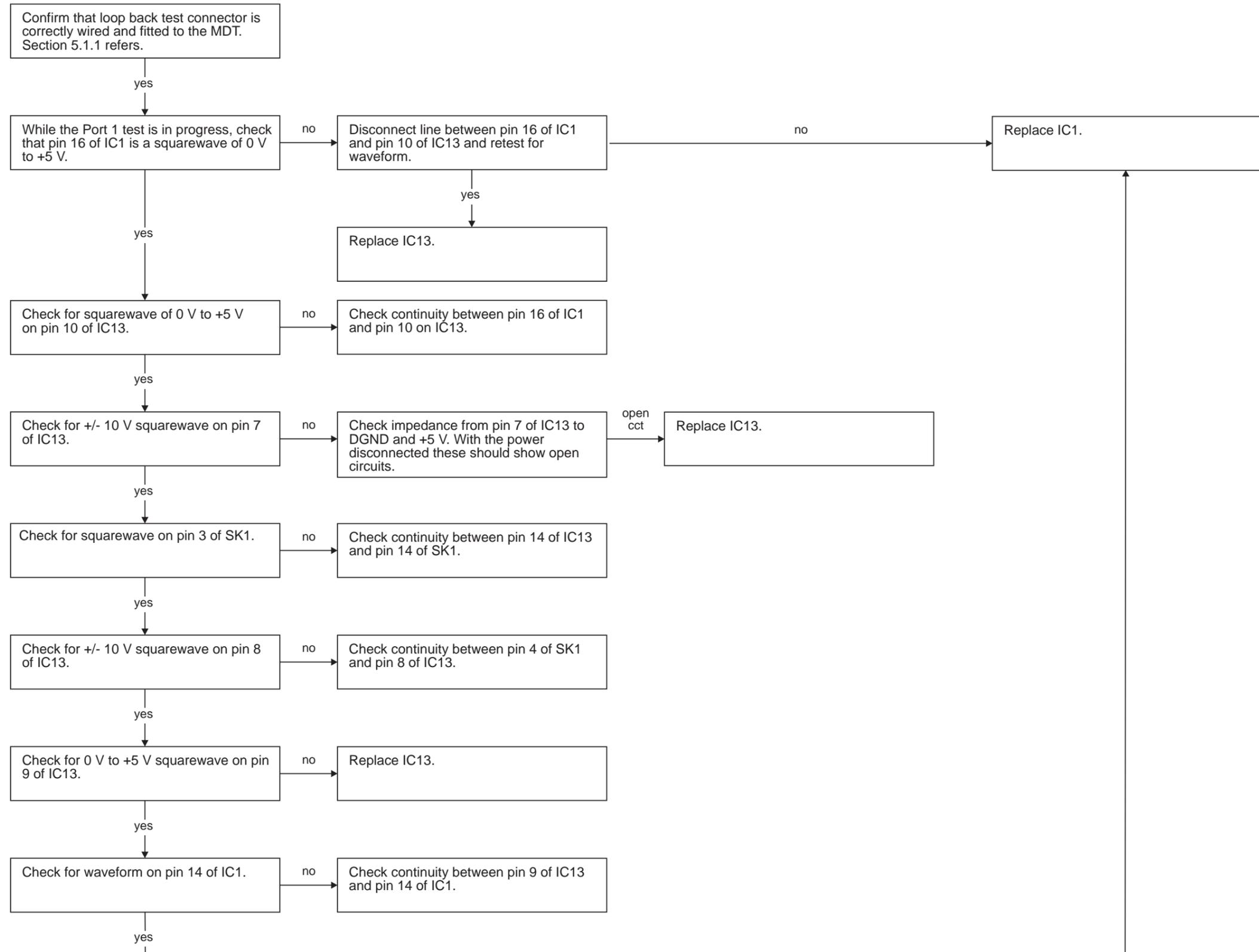
### 6.3.1.2 Port 1 Test Fails

If the Port 1 test fails, locate/rectify the cause of the failure as follows:



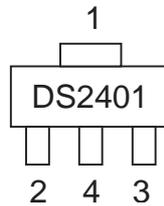
**6.3.1.3 Port 2 Test Fails**

If the Port 2 test fails, locate/rectify the cause of the failure as follows:



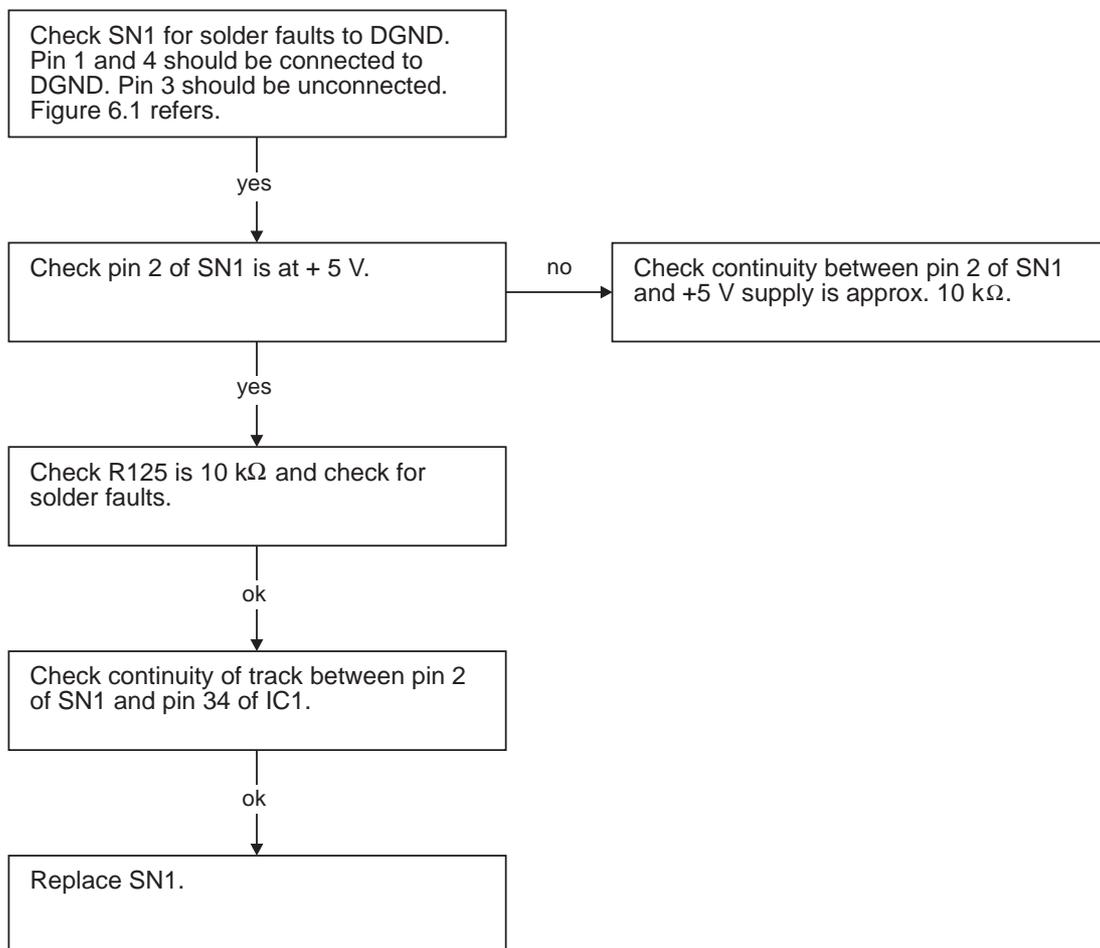
## 6.3.2 Serial # Test Failure

Refer to Figure 6.1.



**Figure 6.1** SN1 Pin Configuration

If the Serial # test fails, locate/rectify the cause of the failure as follows.



### 6.3.3 Flash ROM Test Failure

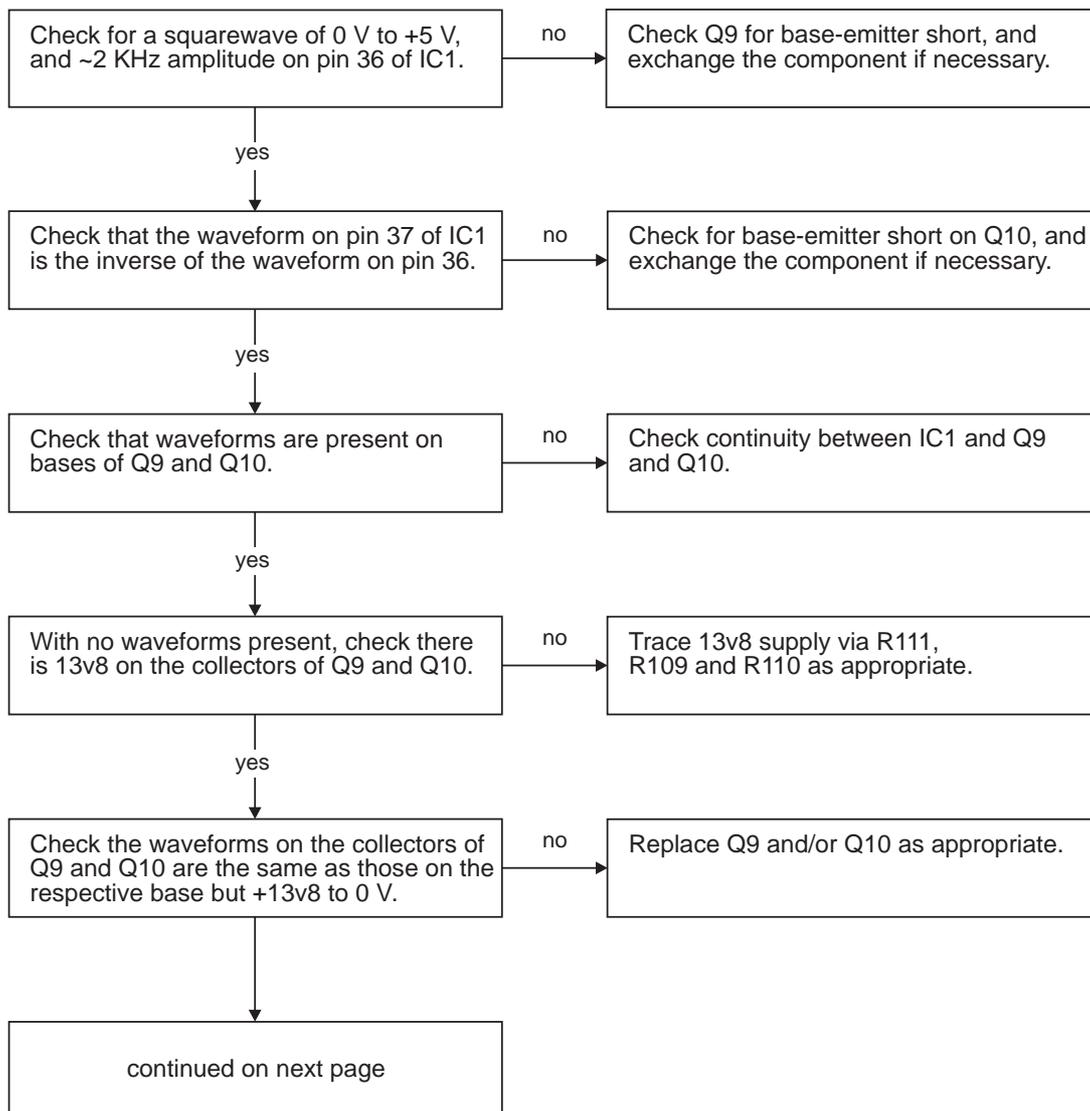
**Note:** Some MDTs are fitted with OTP memory instead of Flash ROM and, even though the Flash ROM test fails, the MDT is fully operational.

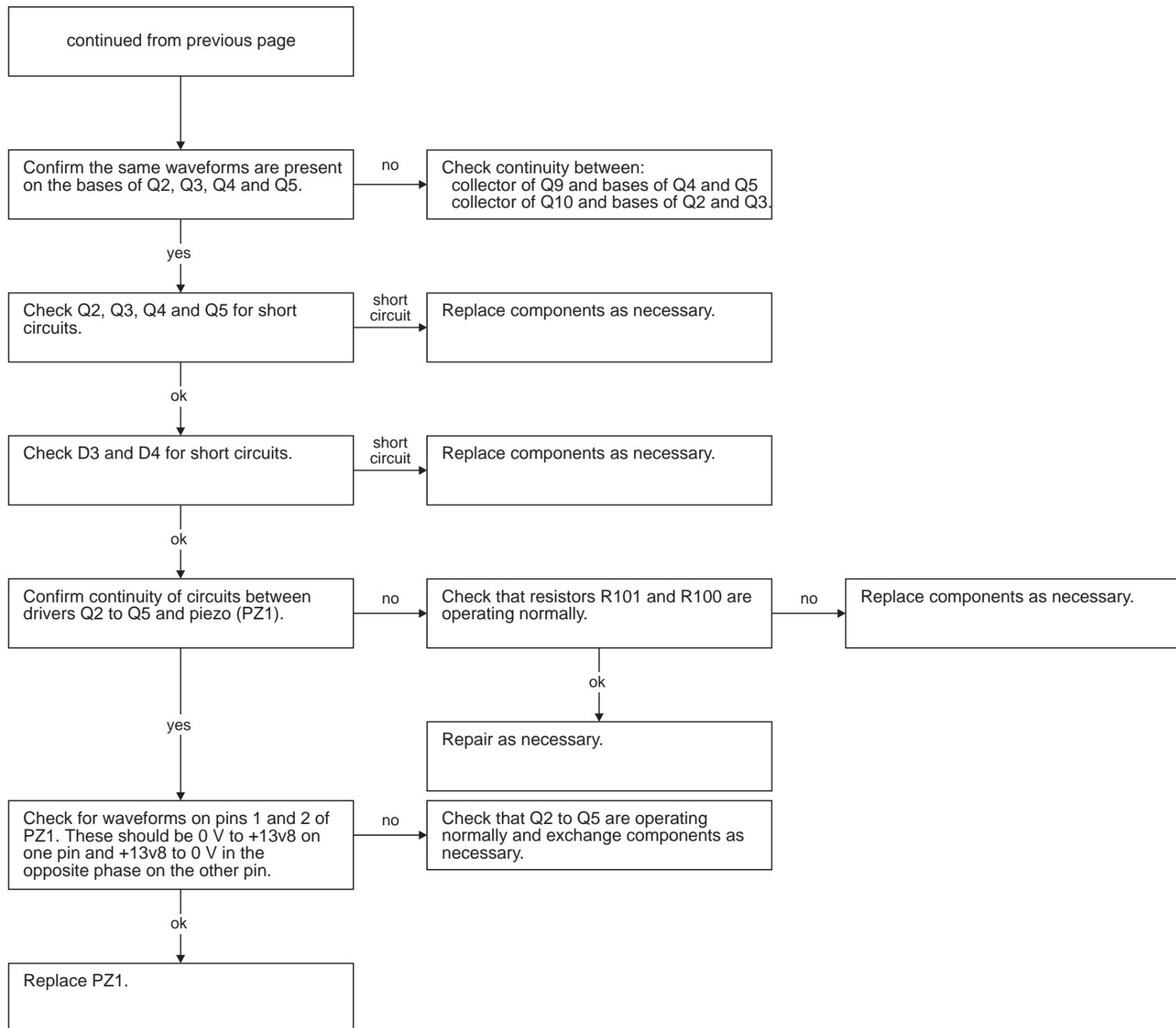
If the Flash ROM test fails, locate/rectify the cause of the failure as follows:

- 1 Check that Flash ROM (IC2) is present in the MDT, i.e. the device is labelled AM29F010 or AM29F040. If the device is labelled 27CXXX (where XXX is an alphanumeric string) the MDT is fitted with OTP.
- 2 Replace IC2.

### 6.3.4 Piezo Test Failure

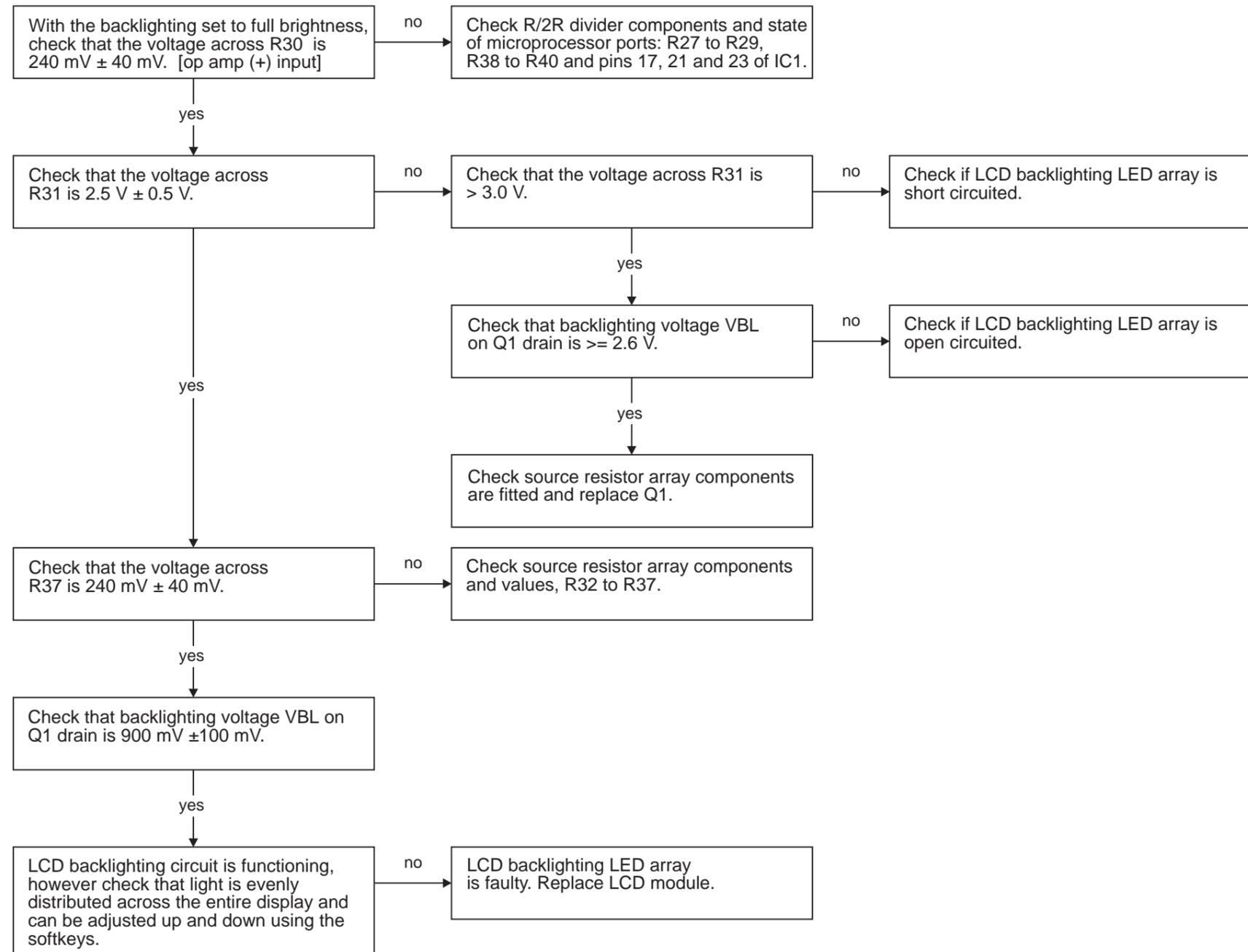
If the Piezo test fails, locate/rectify the cause of the failure as follows:





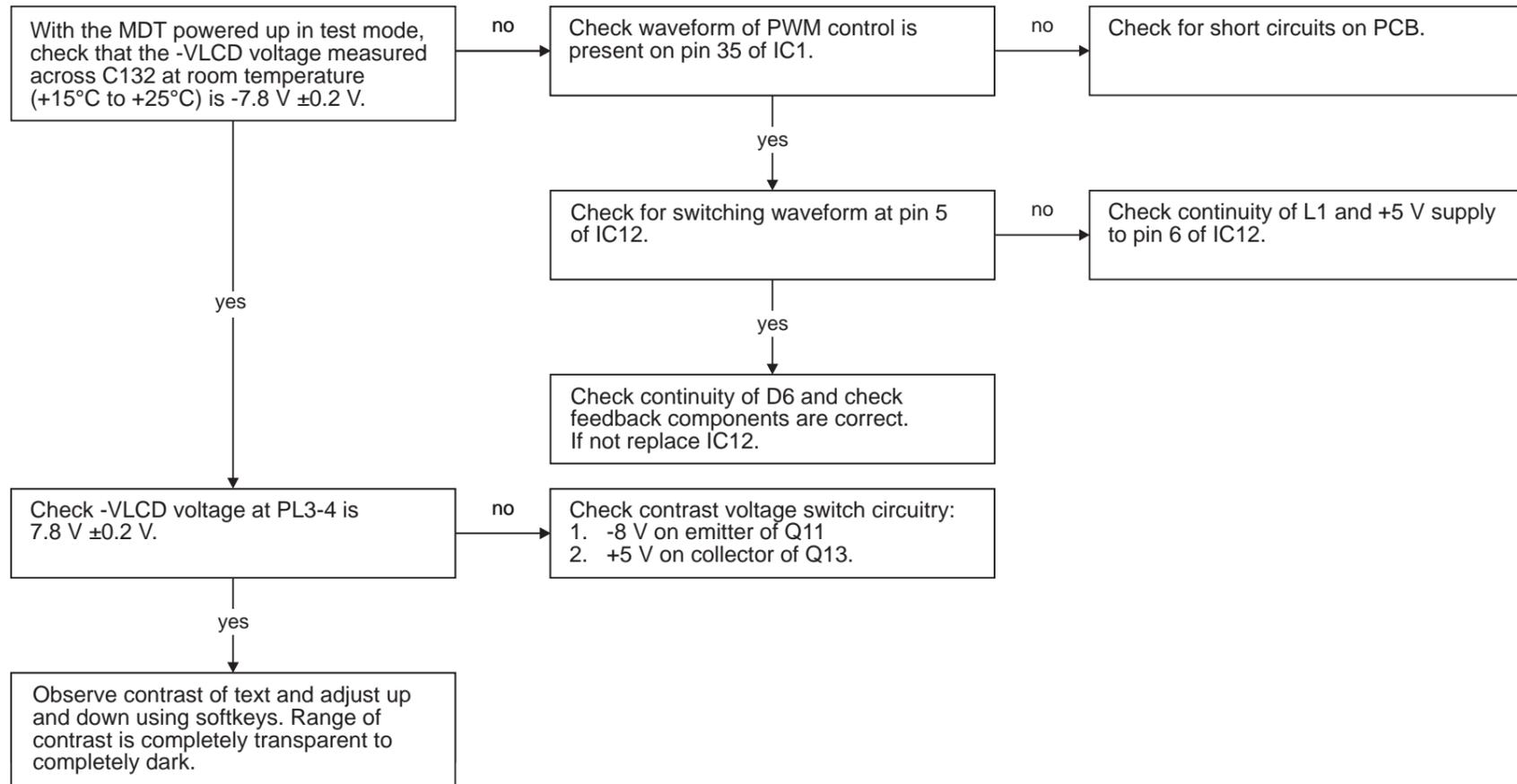
### 6.3.5 Backlight Test Failure

If the Backlight test fails, locate/rectify the cause of the failure as follows:



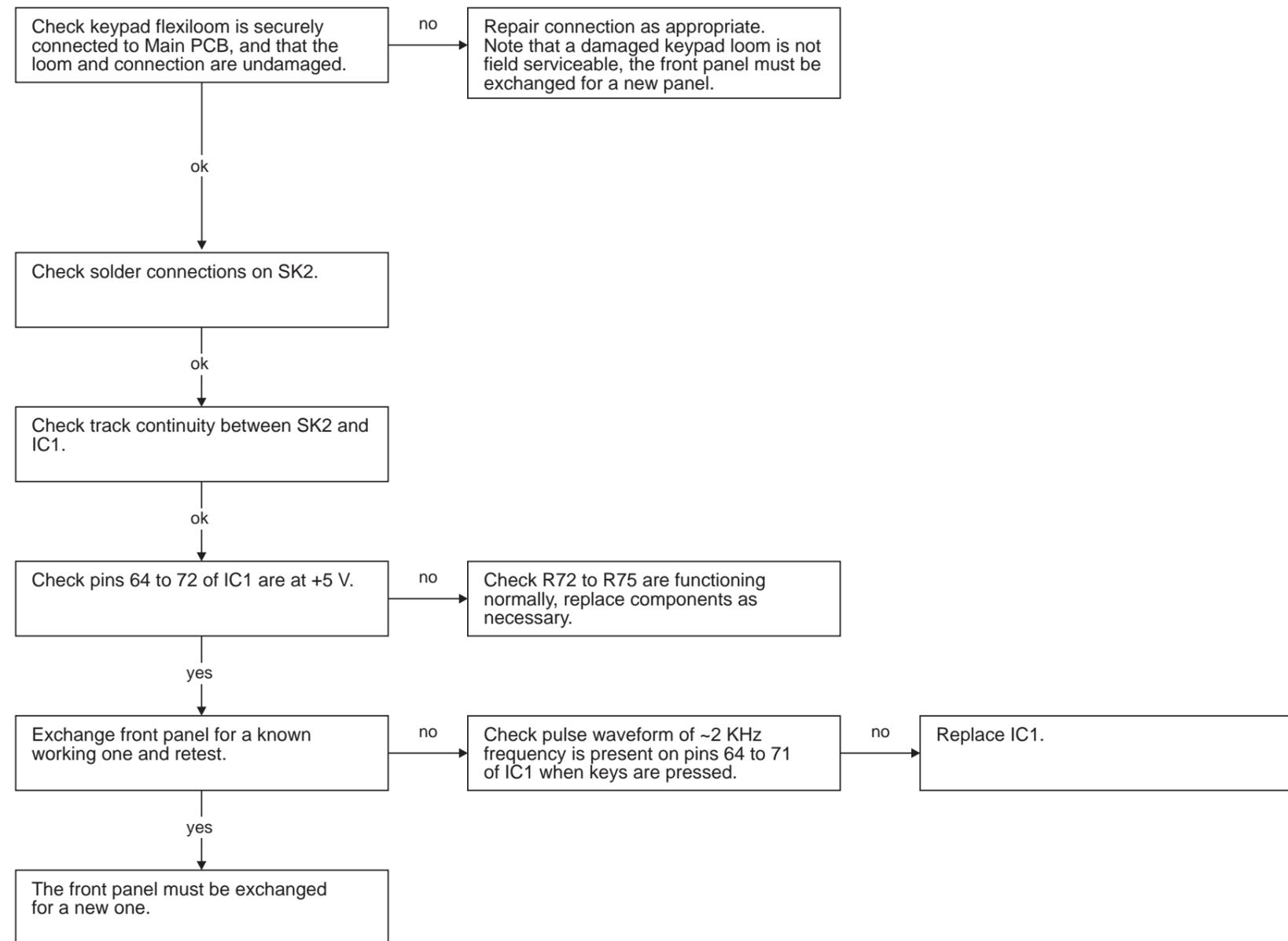
### 6.3.6 Contrast Test Failure

If the Contrast test fails, locate/rectify the cause of the failure as follows:



### 6.3.7 Key Test Failure

If the Key test fails, locate/rectify the cause of the failure as follows:



END OF CHAPTER 6