Section 7-2 Power On Diagnostics

The power on diagnostics or self tests are run every time the system is booted. This self tests include testing the validity of the system software through EPROM checksum test and testing the system RAM. It checks whether the keyboard and the trackball are properly interfaced to the system. It also initiates the self test of analog subsystem. The two LED's on the keyboard (Freeze & Ext. Video) and the beeper are used to indicate error conditions.

Note: *Power on Diagnostics works only when the system is in application (imaging) mode and not while on service diagnostics.*
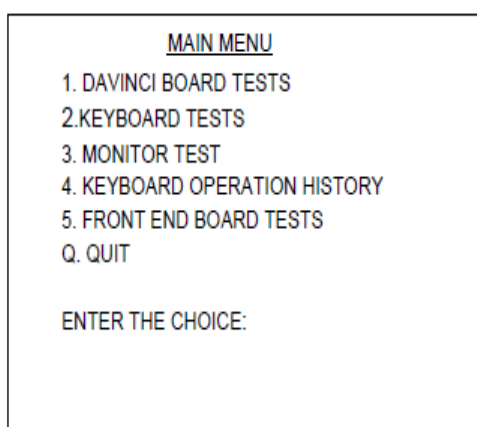
Service Diagnostics

Check the S/W Version of your System prior to start of the service diagnostics. The S/W version can be known during the power up Sequence.

Press (CTRL +! + S + Enter)   keys on the keyboard to enter the service diagnostics. In response, a pop-up menu appears as shown in Table 7-1

```
              MAIN MENU

      1. DAVINCI BOARD TESTS
      2.KEYBOARD TESTS
      3. MONITOR TEST
      4. KEYBOARD OPERATION HISTORY
      5. FRONT END BOARD TESTS
      Q. QUIT


      ENTER THE CHOICE:
```
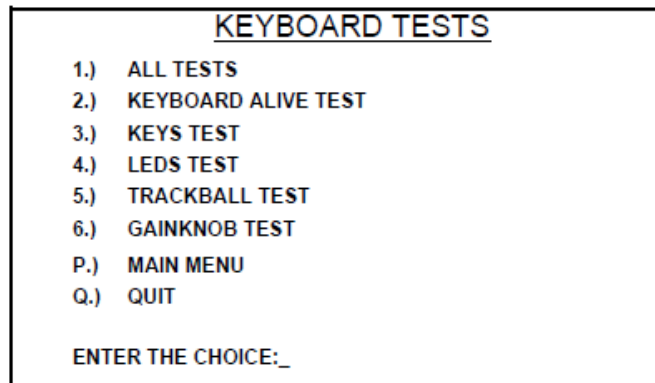
Figure 7-1 Main Menu For LOGIQ™ 100 PRO

Note: *Option Q (Quit) can be used to come out of the diagnostic and enter the application mode.*

7-2-3　Keyboard Tests

When this Option is selected following Menu appears

```
                    KEYBOARD TESTS
        1.)   ALL TESTS
        2.)   KEYBOARD ALIVE TEST
        3.)   KEYS TEST
        4.)   LEDS TEST
        5.)   TRACKBALL TEST
        6.)   GAINKNOB TEST
        P.)   MAIN MENU
        Q.)   QUIT

        ENTER THE CHOICE:_
```

Figure 7-6 Keyboard Tests

All Tests

This option is used to run all tests in the menu.

Keyboard Alive Test

In this test, keyboard alive condition is tested by interacting with the keyboard firmware directly.This test is done to check the communication with the Davinci.

Keys Test

In this test, all the keys in the keyboard can be tested. The user is prompted to press the keys on the keyboard and the pressed keys are highlighted on the screen. (This is a toggle operation).

Note:　　　　*During Keys Test Press "Ext. Video" at the last. Pressing "Ext. Video" key interrupts the test and return to main keyboard Tests Menu.*

LEDS Test

During this test *FREEZE* field and *EXTERNAL VIDEO* field will be displayed on the monitor. The *FREEZE* and　*EXTERNAL VIDEO* LEDs blink for a while sequentially and the corresponding field gets highlighted.

Trackball Test

A cursor is displayed on the monitor and the user can move the trackball and move the cursor over the screen.

Gain Knob Test

In this test, the user can check for the operation of the gain knob. The current gain value is displayed on the screen.

Main Menu

This option is used to return to the main menu.

Quit

This option is used to come out of the diagnostic and enter the application mode.