

EXERCISE 3.1

BOARD TEST - TUTORIAL BOARD

- * Select the Tutorial Board to Test
- * Select Auto Functional Mode
- * Enter Serial Number
- * Select to Search for Previous Test Results
- * Search through Previous Test Results for Board Serial Number 1234
- * Follow Operator Instructions for Testing Board
- * Introduce selected faults from selection listed below

The switch setting of SW1 can simulate the following failures:

Position 1 ON

Turns on the Oscillator to U1 pin 13. This will result in a functional Failure on U1

Position 2 ON

Connects a short to GND on pin 2 of U1

Position 3 ON

Introduces Leakage to 2 places when testing U1

- i) Input Leakage on pin 4 of U1. This will fail the Voltage Test on pin 4.
- ii) Input Leakage on pin 9 of U2.

Press continue after failure i) above to continue the test sequence and a Functional Failure will occur on pin 6 of U1.

The indication will be Expected High but Received T. i.e. pin 6 is being "loaded" by the leakage on pin 9 of U2.

Position 4 ON

Introduces a short between pins 1 and 6 of device U2

Position 5 OFF

Introduces an Open Circuit track between pin 8 (output) and U8 pin 19.

This will be detected when testing U8.

Position 6 OFF

Introduces an Open Circuit track on a Data Bus between U9 pin 18 and U8 pin 2.

This will NOT be detected by the usual Opens test during the Functional sequence but will be detected by TrakTest. This shows the advantage of TrakTest in bus related systems.

- * Continue to complete Opens Board TrakTest (ensure Switch SW1 / 6 is open)
- * View Test Results at end of Test
- * Store Results for Future Reference
- * Exit from TestBoard