

# Service Note

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<u>11-005</u> 23 August, 2012

## TROUBLESHOOTING A T SERIES DISPLAY

## I. <u>PURPOSE</u>:

To instruct how to troubleshoot problems with a T series display.

## II. TOOLS:

N/A



The electronics used in T-API analyzers are sensitive to Electrostatic Discharge (ESD). When working on any T-API device, please ensure that you are properly grounded prior to handling or touching any electronic circuitry in the analyzers! For more information on how to protect sensitive components from ESD during handling, please contact T-API customer service and ask for the ESD Service note number 03-022A.

# III. <u>REFERENCE:</u>

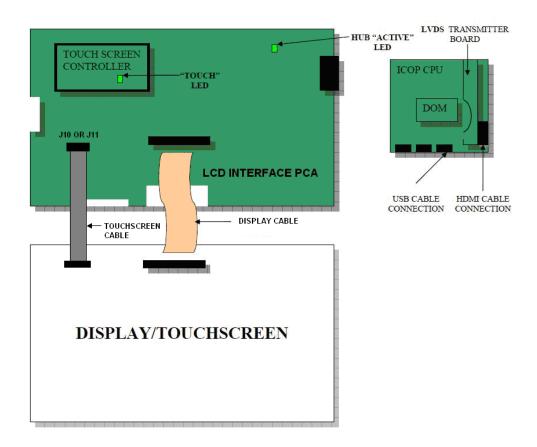
Service Note 10-021A - T SERIES TOUCH PANEL CALIBRATION

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# IV. <u>PROCEDURE:</u>



## **TOUCH SCREEN IS ERRATIC OR NOT CALIBRATED**

## Symptoms:

Buttons are unreliable.

Buttons may not respond when pressing on top of the actual button, but will respond when pressing off to one side of the actual button.

#### Actions:

- 1) Recalibrate the touch screen. (See reference section on page 1)
- 2) Replace the touch screen controller.

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#### TOUCH SCREEN NOT RESPONDING

#### **Symptoms**:

A. Pointer may stay on.

During boot up you will notice a pointer on the display. Is on when you press a button on the touch screen.

B. "Touch" LED on touch screen controller never lights.

The "Touch" LED should blink anytime the front panel is pressed.

#### Actions:

- 1) If both the "Touch" LED and the "Hub Active" LED are OFF then with the power ON, check the USB cable (J9 of the LCD interface) to the CPU (see CPU connection above) and disconnect and reconnect the cable in either locations in attempt to reinitialize the hub. If this works you will hear two beeps, and see two flashes of the "Touch" LED on the touch screen controller.
- 2) If the "Touch" LED is inactive when touched (turns on when any area is pressed on front panel) but the "Hub Active" LED on the LCD INTERFACE PCA is ON then replace the Touch Screen. Controller.

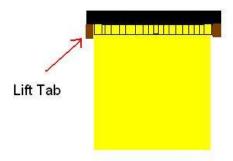
#### DISPLAY IS GREEN OR RAINBOW

#### Symptoms:

Display is green or rainbow colored

#### Actions:

- 1) Power OFF instrument, verify that the ribbon cable from the display to the LCD INTERFACE BOARD is seated properly by gently lifting the brown tab (**be careful as this connector is delicate**), inspecting the connector, and then carefully re-inserting the cable pushing the cable into the socket and lowering the tab back into place. (J2 see below). Re-seat HDMI cable at the LCD INTERFACE PCA and at the CPU, and re-seat LVDS transmitter board on the CPU itself.
- 2) Reseat cable and turn ON instrument. Verify if display is working. If not working then problem could be related to an I2C problem elsewhere in the instrument.



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