

S E R V I C E N O T E

SUPERSEDES: None

16702A Logic Analysis System Mainframe with Display

Serial Numbers:0000A00000 / 9999Z99999

Support Strategy for the 16702A Mainframe Front Panel

To Be Performed By: Agilent-Qualified Personnel

Situation:

The original support strategy for the front panel assembly (part number 16702-68701) was replacement of the entire assembly on failure of either the keypad or display. To minimize customer cost of ownership, this strategy has changed to replacement of individual parts in the front panel assembly. This new support strategy is not fully represented in the current version of the 16700A/16702A service manual.

Solution / Action:

This service note will provide both a list of subassemblies for the front panel assembly and troubleshooting hints. This information will be included in the next revision of the 16700A/16702A service manual.

Continued

DATE: January 1999

ADMINISTRATIVE INFORMATION

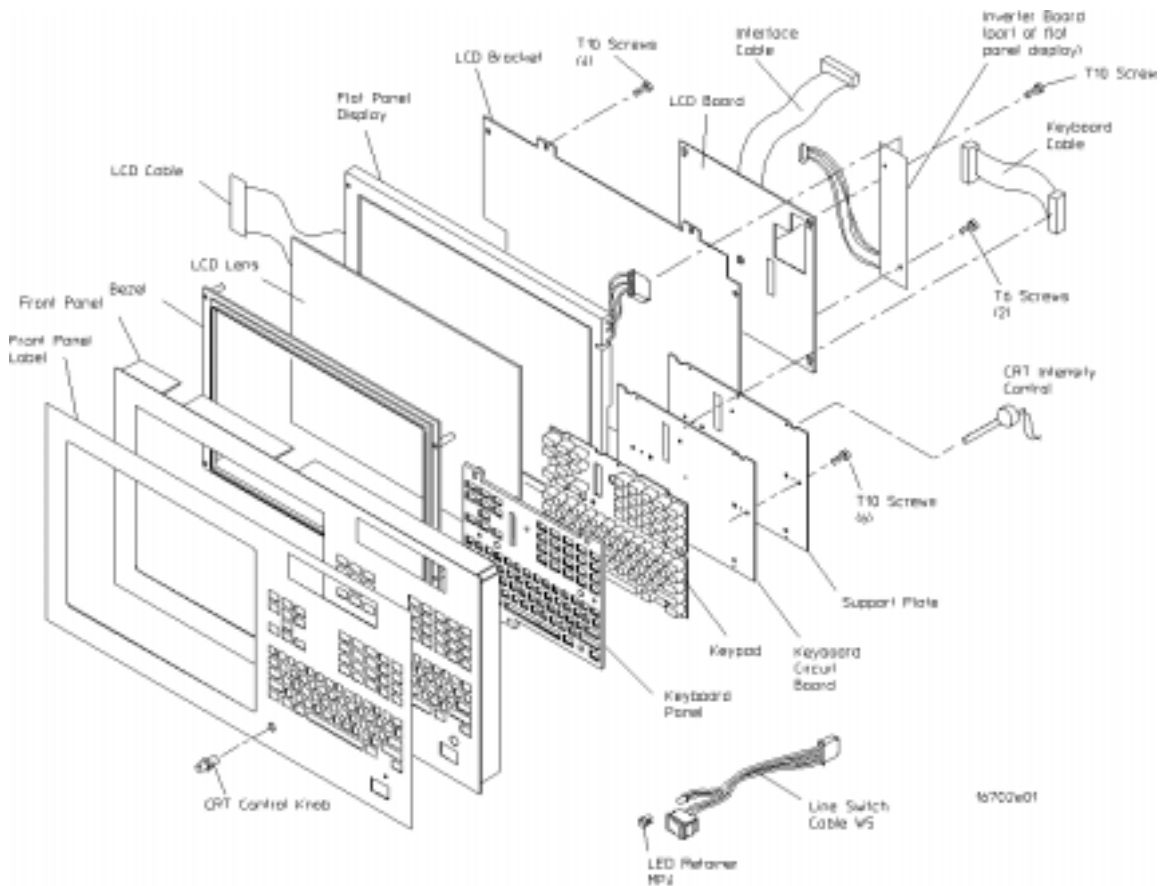
SERVICE NOTE CLASSIFICATION:		
INFORMATION ONLY		
AUTHOR:	ENTITY:	ADDITIONAL INFORMATION:
RB	0800	167000,01A,02A Service Manual 16700-97007

The main electrical component of the front panel assembly is:

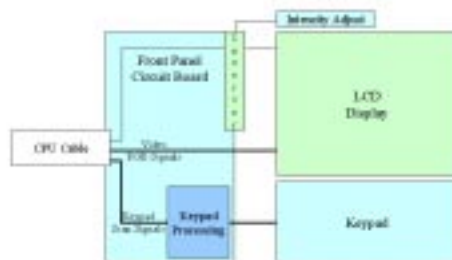
Part Number	Description
16702-66501	LCD Board

The other components of the front panel assembly are:

Part Number	Description
16500-47401	CRT Control Knob
16702-00201	Front Panel
16702-01202	LCD Bracket
16702-24101	Support Plate
16702-24701	CRT Control Spacer
16702-40501	Keyboard Panel
16702-41901	Keypad
16702-42201	Bezel
16702-61601	Keyboard Cable (24 POS)
16702-61602	LCD Cable (41 POS)
16702-61603	Interface Cable(50 POS)
16702-61604	Inverter
16702-61605	CRT Intensity Control Cable
6702-66502	Keyboard Circuit Board
16702-87101	Round Gasket (Qty 2)
16702-88001	LCD Lens
2090-0364	Flat Panel Display



The following information is provided to assist troubleshooting failures of either the keypad or the display. The following is a block diagram of the front panel assembly:



Some troubleshooting hints:

- On failure of the keypad, replace the LCD board.
- If the keypad behaves erratically, remove the Keyboard Circuit Board and clean the board using an approved cleaner. Do not touch the back of the keypad itself.
- If the display does not illuminate, follow troubleshooting flowchart 2C on page 5-6 in the 16700A/16702A service manual (part number 16700-97007) to connect an external monitor. If the external monitor does not illuminate, replace the CPU board. If the external monitor illuminates, then follow these steps to reconfigure the main-frame to drive the LCD display:
 - a) Remove power from the instrument, connect a compatible PS2 keyboard to the keyboard port on the rear of the instrument, then reapply power.
 - b) Immediately interrupt the powerup routine by repeatedly pressing the [Esc] button on the external keyboard.
 - c) At the "Main Menu: Enter Command " prompt, enter the command

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and press [Enter]. The LCD display should illuminate (the external monitor should now be unreadable).

- d) At the "Main Menu: Enter Command >" prompt, type the "Boot" command, then answer "n" at the ISL query to finish booting.
- e) Remove power from the instrument and disconnect both the keyboard and external monitor. Unlike an external monitor, the LCD display will not light up at all unless the correct resolution and refresh rate are configured. The correct resolution and refresh rate are configured when monitor mode "21" is entered.

If the display did not illuminate following the above procedure, then there is a problem with either the cabling or display. Remove the front panel and ensure all cables are properly seated. If the cables are properly seated, then suspect the display.

NOTE: When replacing the display, the inverter board attached to the LCD board is replaced, too.