



Bulletin 1370AR/NR

Digital LCD Test Meter

Description

The digital LCD (Liquid Crystal Display) Test Meter provides a convenient means of measuring various test point voltages on the Bulletin 1370AR/NR. The meter is used in conjunction with the 16 position Test Selector Switch located on the Control Board. The 3 1/2 digit display plugs directly into a socket on the Custom Application Board and has a dual range of 199.9 or 19.99 Volts DC.

The LCD Test Meter consists of the following components:

- (1) LCD Meter Assembly (40 pin)
- (1) Driver IC (40 pin)

Installation



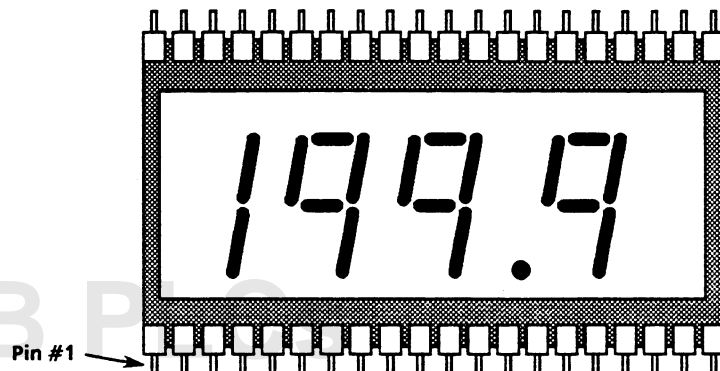
WARNING: Only personnel familiar with the Drive and its associated machinery should plan or implement the installation and calibration of this kit. Failure to comply may result in personal injury and/or equipment damage.

To guard against personal injury, always remove power to the Drive at the disconnect device.



CAUTION: Static control precautions are required when installing, calibrating and using this assembly. Component damage may result if ESD control procedures are not followed. If you are not familiar with static control procedures, reference U.S. Department of Defense, DOD-HDBK-263, Electrostatic Discharge Control Handbook for Protection of Electronic Parts, Assemblies and Equipment or any other applicable ESD Protection Handbook.

- 1. Ensure that all sources of power to the Drive are removed.
- 2. Carefully remove the LCD Meter Assembly from its protective packaging. Use care when handling the assembly to guard against bending or damaging the pins.
- 3. Locate the 40 pin socket (U1) on the Custom Application Board where the assembly is to be installed.
- 4. Carefully align the pins of the assembly with the socket (U1), ensuring that pin 1 of the assembly (see Figure) aligns with pin 1 of the socket.



Installation
(Continued)

- 5. Slowly and carefully insert the assembly into the socket, checking pin alignment continuously.
- 6. Using Steps 2 through 5 as a guide, locate the Driver IC and insert it into socket U2 on the Custom Application Board.

Operation

The Test Meter has two voltage measurement ranges determined by the position of switch SW2. This two position switch is located along the right hand side of the Custom Application Board. Positioning the switch to the "LO" position selects a maximum range of 19.99V DC, while placing the switch to "HI" selects a maximum range of 199.9V DC.

Calibration

Calibrate the meter using the following procedure.

- 1. Apply Drive power.
- 2. Connect the leads of a digital voltmeter with two decimal place accuracy (xx.xx) across C13 on the Firing Board. Adjust R9 on the Firing Board until a reading of 15.00V DC is achieved.
- 3. Remove the meter leads from the Firing Board and connect to the Test Selector terminals located on the Control Board.
- 4. Select position #2 on the Test Selector Switch and adjust R16 on the Custom Application Board until the LCD Meter reading corresponds with the digital voltmeter.
- 5. Installation and calibration are now complete.



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