

Technical Bulletin # 22

To: Coulometrics Support Personnel
From: Engineering Dept.
Date: REV : 8-16-04
Subject: Installation of a Calibrated set of Circuit Boards

Purpose:

The purpose of this Bulletin is to provide a step by step procedure for the installation of a calibrated set of circuit boards. This consists of a CM110-020 Carbon Front End PCB, and a CM110-019 Main Coulometer Board with a CM110-048 V/F Module installed on the board. This procedure requires these boards have been calibrated as a set prior to installation.

I. Install the CM110-020 Carbon Front End Board:

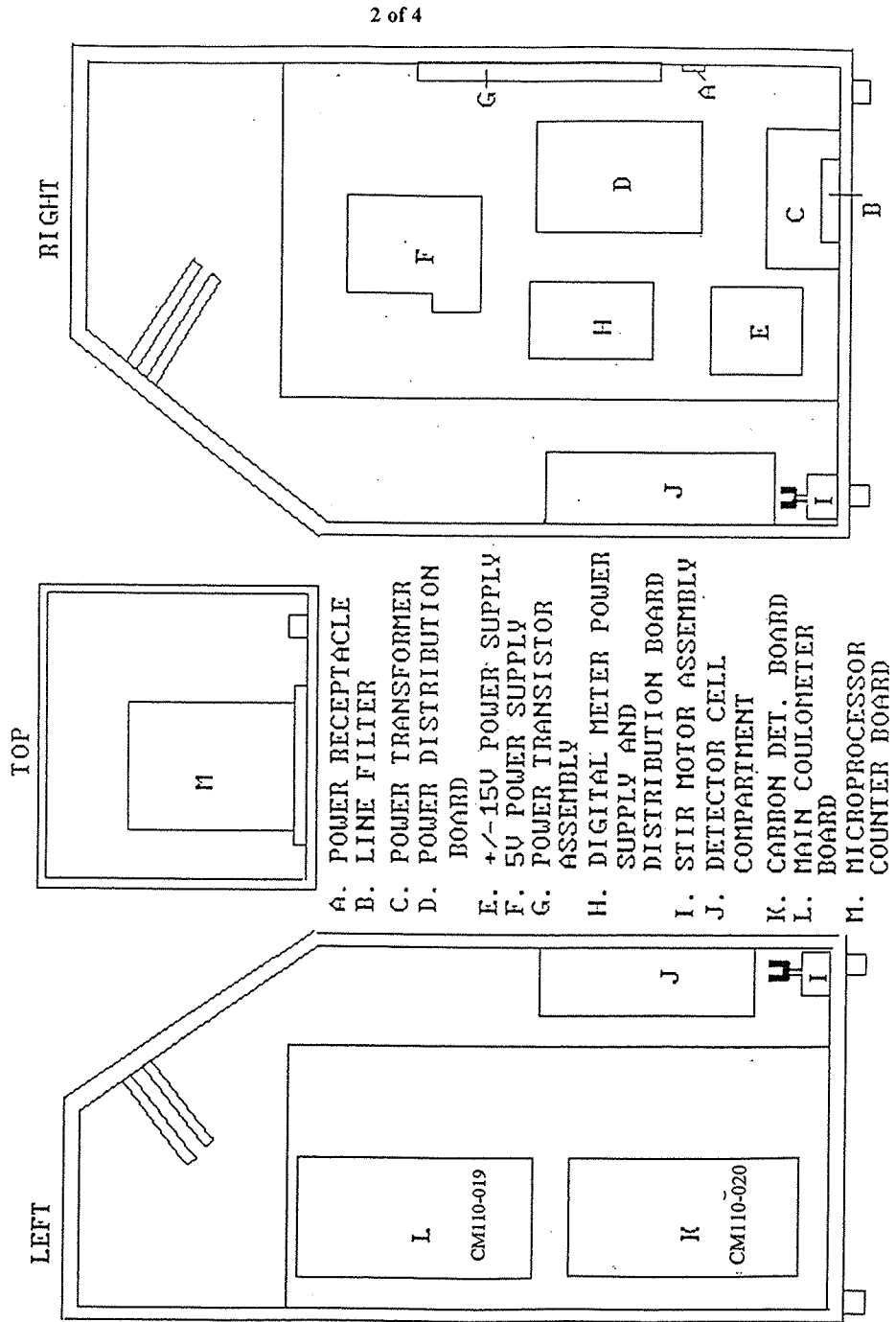
1. Turn the Coulometer off and unplug the power cord from the instrument.
2. Remove the 6 Phillips head screws holding on the left side panel if a CM5012 or open the left side panel of the CM5011 instrument and locate the CM110-020 Carbon front end board. It is Item K on the attached figure 9.1.
3. Open the two locking arms of connector P1 and unplug it from the board. See pictorial of CM110-020.
4. Unplug P6 AC power connector, P4 Lamp connector, P3 Photo diode connector and P2 % T Assembly connector from the board.
5. Using a 1/4" nut driver, remove the four hex head nuts holding the CM110-020 PCB mounted in the instrument and remove the old board.
6. Install new CM110-020 PCB and reinstall 4 hex nuts. Tighten in place.
7. Plug the P1 Ribbon cable back into the board and lock in place.
8. Re install P6 AC power connector, P4 Lamp connector, P3 Photo diode connector and P2 % T Assembly connector back on the board. See pictorial of CM110-020. Note: the connectors are keyed and can only be put on one way except for the P4 Lamp connector.

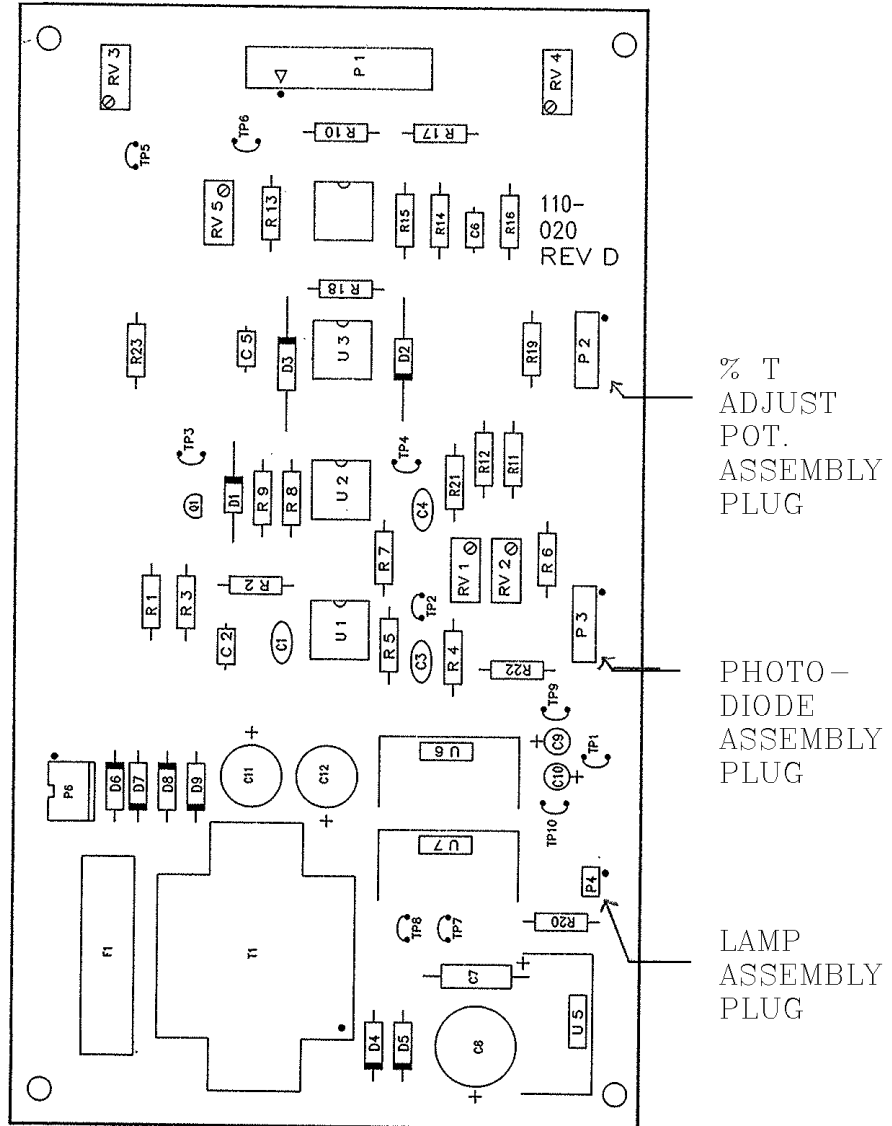
II. Install the CM110-019 Main Coulometer Board:

1. The Coulometer should be off and unplugged from the AC power source.
2. Locate the Main Coulometer PCB on the left side of the instrument. It is item L on Figure A.
3. Open the two locking arm of connector P1 and unplug it from the board. Use the CM110-019 Pictorial as a reference to the connector locations.
4. Open the two locking arm of connector P2 and unplug it from the board.
5. Open the two locking arm of connector P3 and unplug it from the board.
6. Using a 1/4" nut driver, remove the four hex head screws holding the CM110-019 PCB with attached V/F module. Remove the boards from the instrument.
7. Install new CM110-019 PCB with attached V/F in the instrument and reinstall 4 hex nut screws. Tighten in place.
8. Plug the P1 Ribbon cable back into the board and lock in place. Plug the P2 Ribbon cable back into the board and lock in place. Plug the P3 Ribbon cable back into the board and lock in place.

F.D.

FIGURE 9.1
ELECTRICAL SUBASSEMBLIES





CM110-019 MAIN PCB

