

## Technical Bulletin #20

**To:** Coulometrics Support Personnel  
**From:** Engineering Dept.  
**Date:** REV 8-16-04  
**Subject:** Electronic Evaluation of a CM5011/ CM5012 Power supplies

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### Procedure for checking out the CM150-001 + 5 Volt Logic Power Supply

The following is a procedure to evaluate the operation of the power supply electronics of a Carbon Coulometer. It requires the unit to be plugged in and turned on. The Coulometer should be on for at least 10 minutes prior to testing to allow the electronics to stabilize.

#### Locate the 5 Volt Power supply. It is Item F on figure A

With a digital voltage meter set to DC volts measure the output voltage. The **RED** test lead should go on the **OUT +** terminal and the **BLACK** lead should go to the **OUT-** terminal.

The specification is 5.00 VDC +/- .01 volts. If incorrect, it can be adjusted using R6 on the power supply. If there is additional problems replace the power supply. It is item CM150-001.

### Procedure for checking out the CM115-001 +15/-15 Volt DC Power Supply

#### Locate the Main Coulometer Board. It is item L on figure A.

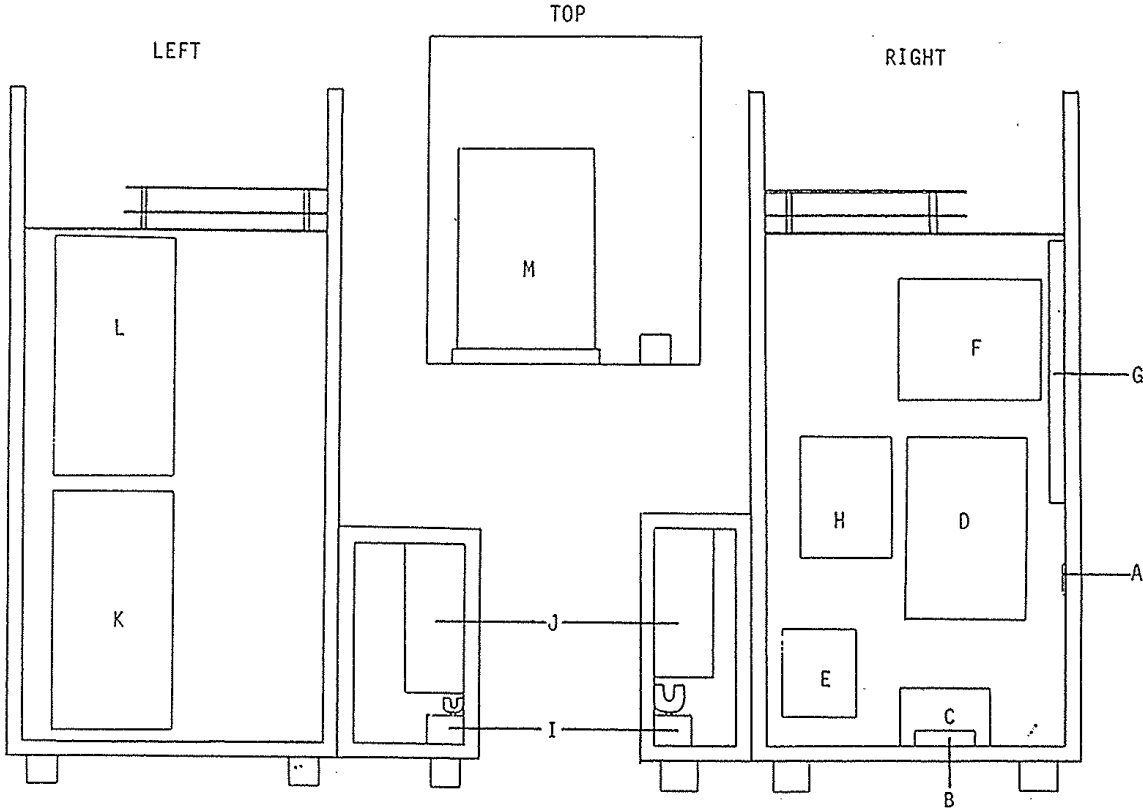
Use the test points that follow to measure the output of the +15/-15 Volt power supply.

Attach the **BLACK** lead of the digital Multimeter to the TEST POINT marked **TP1** on diagram CM110-019. Attach the **RED** Lead to the TEST POINT marked **TP9** on CM110-019. The voltage should read **+15 VDC +/- .5 volts**.

Attach the **BLACK** lead of the digital Multimeter to the TEST POINT marked **TP1** on diagram CM110-019. Attach the **RED** Lead to the TEST POINT marked **TP11** on CM110-019. The voltage should read **-15 VDC +/- .5 volts**.

If these voltages are not to specification it indicates that the power supply, item E on figure A is defective. The power supply UIC part number CM115-001 should be replaced.

FIGURE A  
COULOMETER  
ELECTRICAL SUB-ASSEMBLIES



# CM110-019 MAIN PCB

