# Mooshimeter Cheat Sheet

Version 0 Jan. 29 2015 James Whong

# Measurement Overview



Modes: Ranges:

• DC

• ±1.2V

AC

• ±60V

• ±600V

 $10M\Omega$  input impedance

± 1.2V range is floating

### **Aux. Input:**

Modes:

DC Voltage

AC Voltage

Resistance

Diode Drop

#### V Ranges:

- ±100mV
- ±250mV
- ±1.2V

#### $\Omega$ Ranges:

- 1kΩ
- 2.5kΩ
- 10kΩ
- 1ΜΩ
- 2.5MΩ
- $10M\Omega$

### **Current Input:**

Modes: Ranges:

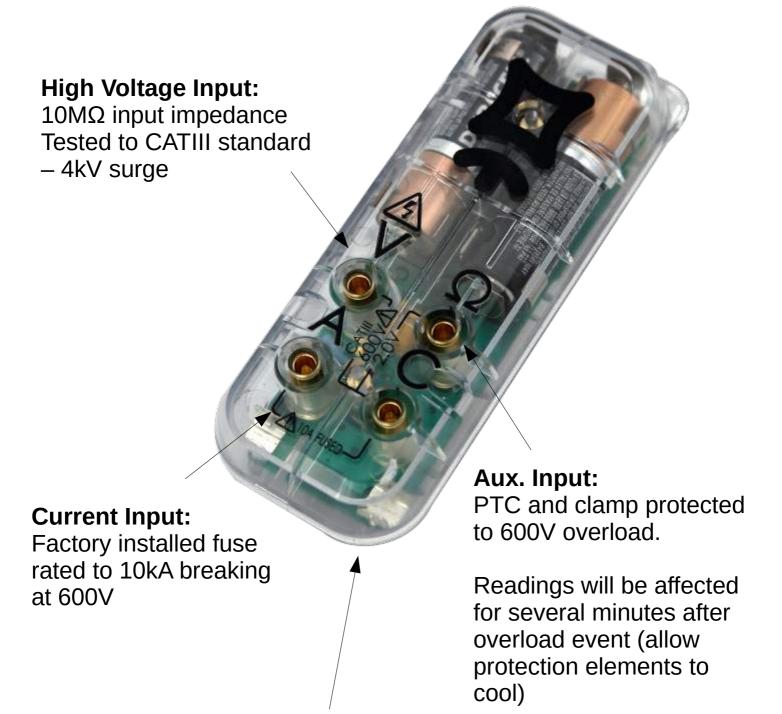
- DC
- ±1A
- AC
- ±2.5A
- ±10A

Connected to C (Common) input by current sense resistor and fuse.

### **Common Input:**

All other measurements are relative to this terminal

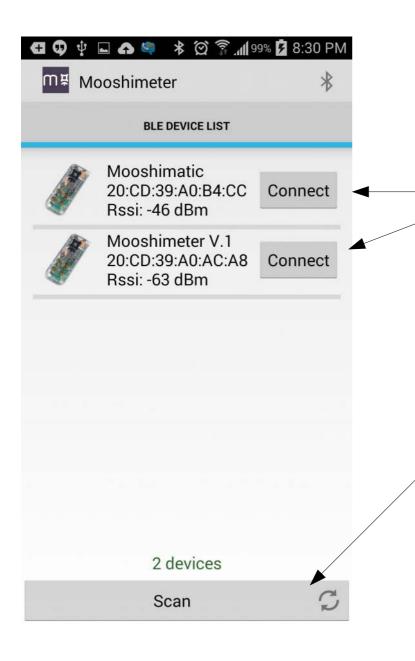
# Protection Overview



**Polycarbonate Case:** 

Tested to 4kV sustained from any terminal.

## Scan Page



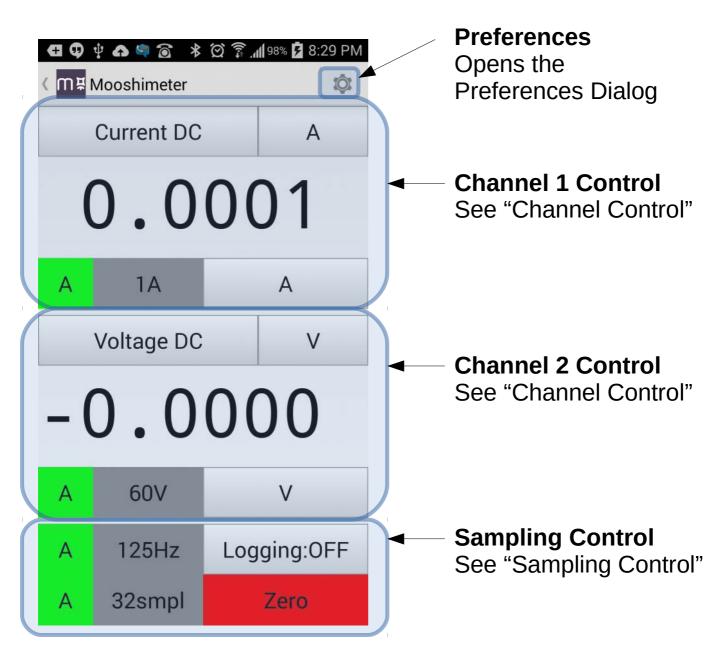
#### Scan results:

These are meters that were detected in the scan.
Tap one to connect to it.
If the connection is successful, you will be taken to the Meter View Page.

#### Scan button:

Scan for Mooshimeters within range. Results will appear in the list as they are detected. Scan ends after 10 seconds.

# Meter View Page





Rotate to Landscape Will enter Graph View

### **Channel Control**

#### **Measurement Type**

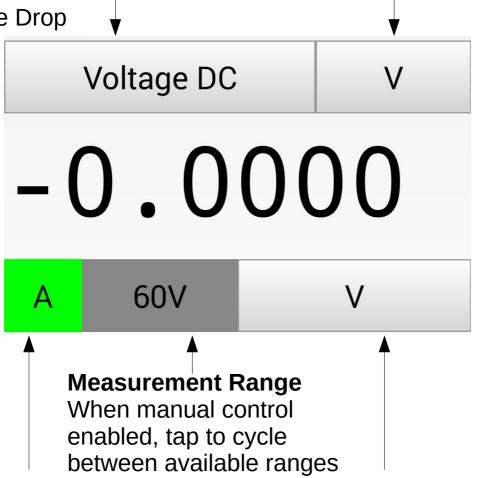
On the V and A inputs, tap to cycle between DC and AC.

### On the $\Omega$ input cycles between:

- between.
- DC Volts
- AC Volts
- Resistance
- Diode Drop

#### **Input Select**

Tap to change which input port is being used. This label corresponds to the marking on the case.



### **Auto-Range Enable**

Tap to toggle
"A" means auto ranging
"M" means manual ranging

#### **Units**

Displays the units of the reading. Tap to cycle:

- Natural Units
- Raw Hex Codes

# Sampling Control

### **Sampling Rate**

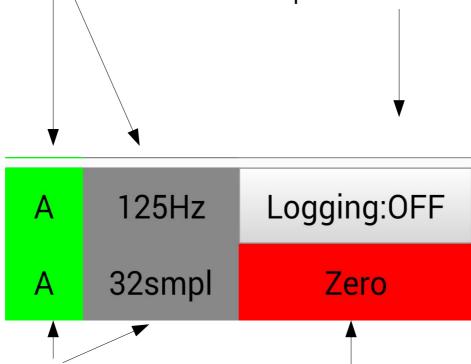
The frequency at which the ADC pulls samples.

The green button enables manual control.

#### **Logging Enable**

Tap to enable logging.

With logging enabled, if an SD card is installed, samples will be saved to it when the phone is disconnected.



### **Sample Buffer Depth**

The number of samples the meter takes to perform DC and AC calculations

The green button enables manual control.

Note that AC calculations are inaccurate at buffer depths below 128.

#### Re-zero

Stores the present reading of both channels and subtracts them from subsequent readings. Useful for seeing changes from a baseline.

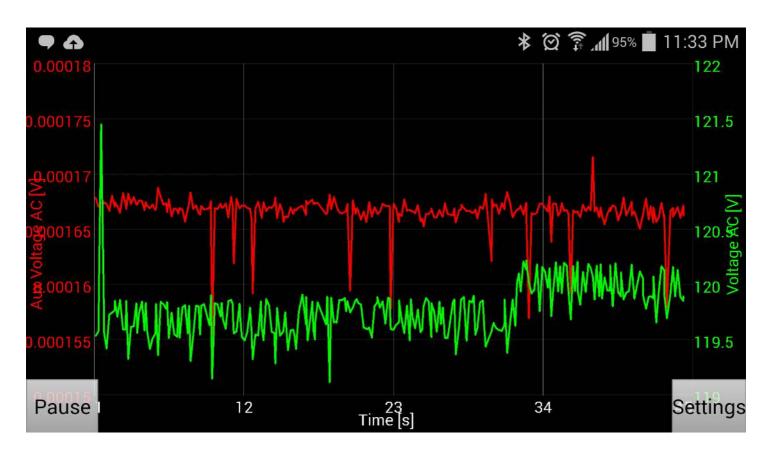
Does not affect AC measurements.

# Graph View – Trend Mode

### All settings from the Meter View are carried over to Graph View

Auto-ranging is disabled in Graph View. To change settings, switch back to Meter View by turning the phone to portait orientation.

Channel 1: Red Channel 2: Green



### Pause/Play Button Starts and stops data flow to the chart.

In iOS version this is done by tapping the background.

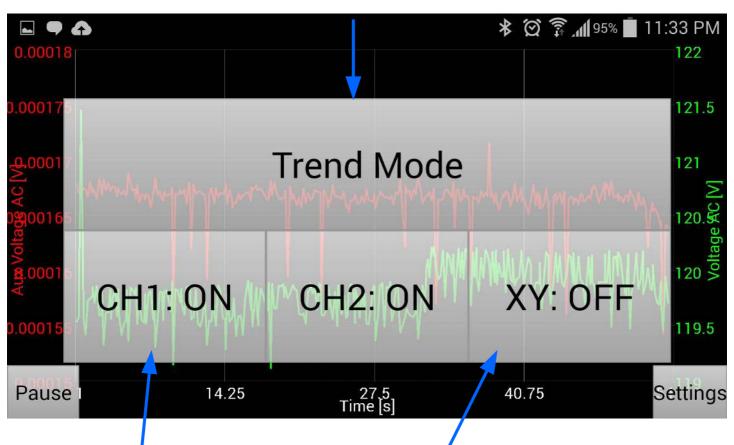
**Graph Settings Button**Brings up Graph Control

# Graph Control

#### **Trend to Buffer Mode Toggle**

Trend Mode displays data aggregated slowly over time

Buffer view grabs a single sample buffer from the meter for closer analysis (useful for AC)



### **Channel Toggles**

Toggles the display of Channel 1 and 2.

#### **XY Mode**

Instead of Time being plotted on the X axis, Channel 1 is plotted on the X axis and Channel 2 on the Y

# Graph View – Buffer Mode



# **Refresh**Samples and download a new buffer from the meter