Battery Pack Measurement Tools
(5/4/2016)

This explains how to make a battery pack current measurement test probe tool, without cutting into the wires of the circuit.

Use some thin galvanized sheet metal approximately .013” thick. This was cut open and straightened out from one of the typical 4” sheet metal stove air vent tubes.

Clear plastic sheeting approximately .007” was used. This was cut from part of a typical plastic package that one receives some types of purchased items in. This being the plastic that the purchase came in that is typical tossed in the trash once one gets the item out of it.

The following shows how to hook it up so that the voltage that runs the device is being measure. If the battery voltage is need then hook the second terminal of the volt meter to the other side of the amp meter. See the next picture for how this is done.
The meter on the left is measuring battery voltage and the one on the right is measuring current. The test probe is inserted between the cells positive terminal and the battery holder case. This interrupts the circuit and forces the current flow though the external meter so it can be measured. The negative sided of the volt meter is in this case attached to the negative side of the battery. If this is not an open case then slide a thin strip of sheet metal between the last negative battery and the spring that is part of the battery holder. And then clip the negative terminal of the volt meter onto this. See the following picture and circuit diagram for details.