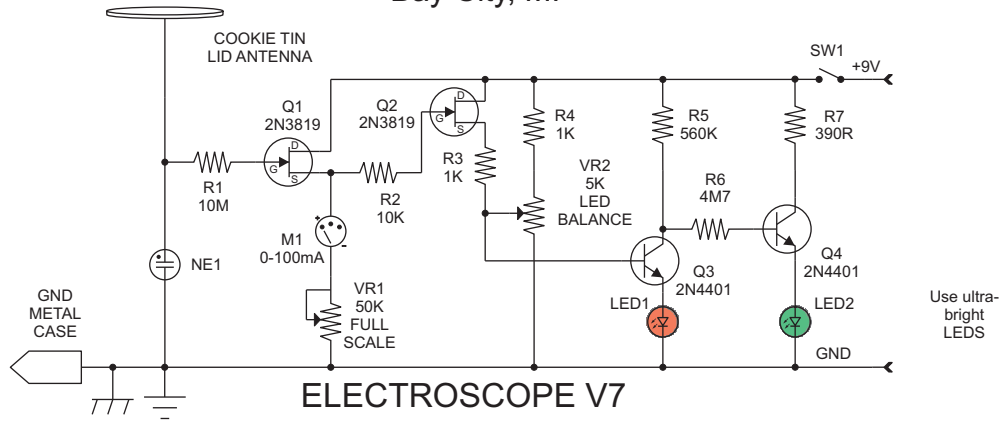


PORTABLE ATMOSPHERIC CHARGE DETECTOR

Lennie Zink
Bay City, MI



If you experiment with this circuit, be sure to ground it to earth for maximum sensitivity. I was surprised to learn that enclosing the project in a small all metal case, earth grounding did not increase sensitivity. Try holding the unit under a flag or near a flag pole on a breezy day and watch the reaction. Plastic objects brushed slightly will make maximum swings of the needle when brought near the antenna.

ADJUSTMENTS:

Once adjusted, trimmer pots will likely not need adjusting again.

FULL SCALE: Disconnect antenna. Connect a jumper wire from antenna input to the positive terminal of the battery. Turn on unit. Adjust VR1 to read full scale. Remove jumper.

BALANCE LEDS: With antenna disconnected and unit is powered, adjust VR2 until both LEDs are out or very dim. This will take patience.

Redo both procedures unit further adjustments are not necessary (Once maybe?).

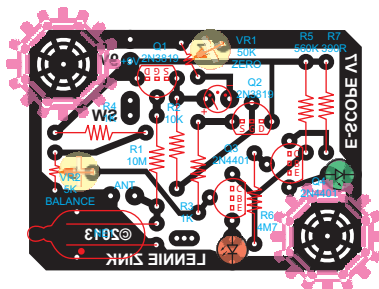
ZERO or CENTER ZERO will be where needle rests when the antenna is disconnected.

READINGS:

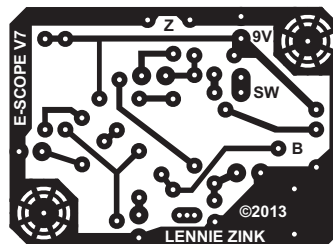
Of course, negative is to the right of ZERO and positive is to the left.

If an alternating charge is present, both LED's will light and meter will read on or near ZERO.

DO NOT USE OUTDOORS IN OR NEAR THUNDER STORMS



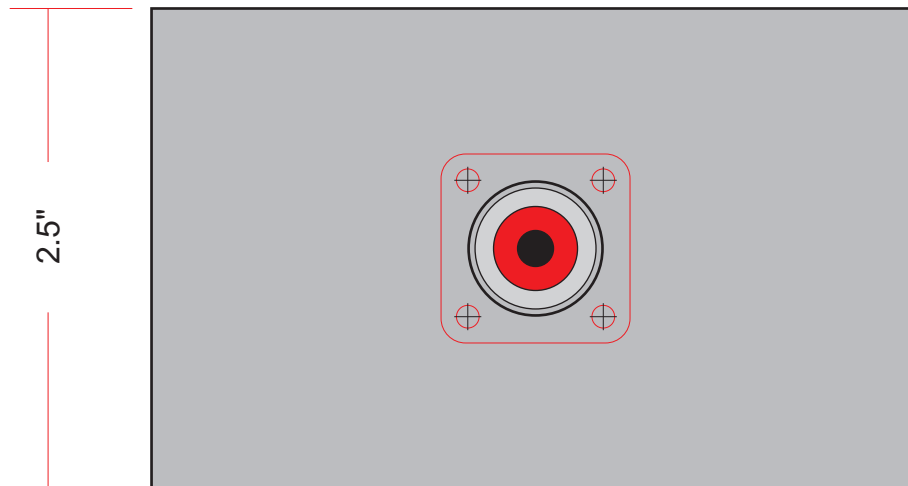
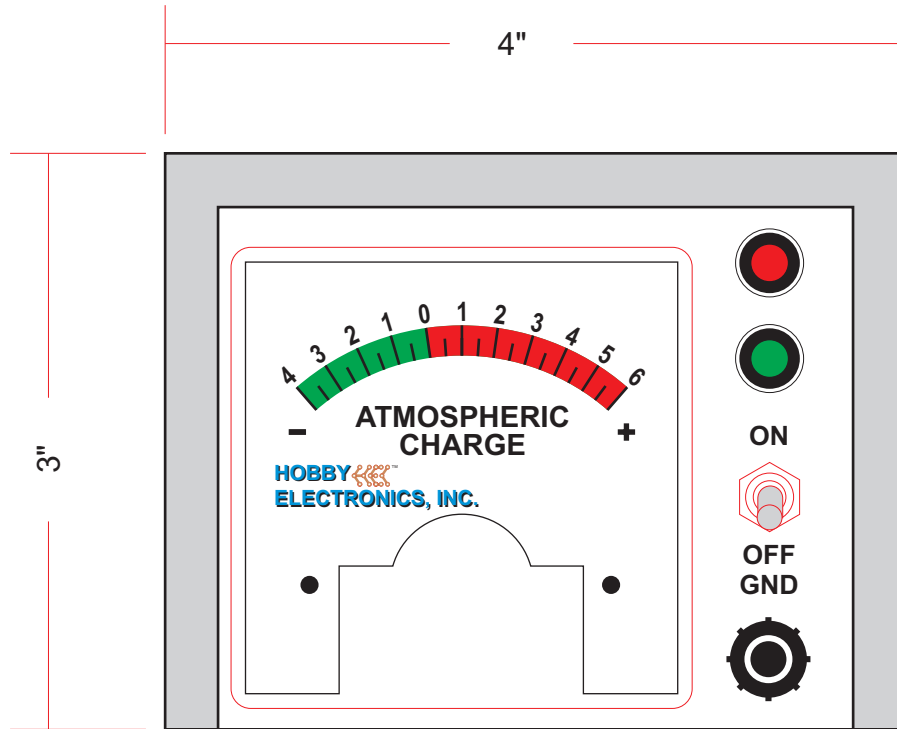
ELECTROSCOPE V7
PARTS LAYOUT



ELECTROSCOPE V7
BOTTOM VIEW

PORTABLE ATMOSPHERIC CHARGE DETECTOR

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TOP

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The completed detector



The detector and antenna parts. The connector is made by filing down a long screw to fit into the jack and soldering it. Fill the jack with epoxy up to the top. In this case a nut was added as a stop for the hex stand-off which is screwed to the cookie tin lid.

