DANGER Do not use this unit unless you fully understand high voltage and its hazards.

DANGER A SERIOUS DEADLY SHOCK HAZARD EXISTS WHEN USING WITH HIGH ENERGY CAPACITORS ABOVE 50 JOULES.

Calculate JOULES by squaring the charge voltage, then multiplying by \( \frac{1}{2} \) the capacitance in microfarads and dividing by 1 million. If over 50 JOULES use extreme caution as improper contact can electrocute or cause serious burns.

Handy electronic circuit charges up electrolytic capacitors from 100 to 800 volts. Recommended capacities are between 100 to 5,000 mfd. This equates out to over 3000 joules! (Note that the kinetic energy of a .30-06 is 750 joules.) Units are manually voltage controlled by an internal adjustment that presets a charge indicator lamp when the required voltage is reached. This feature helps prevents over charging and potentially dangerous explosions. Charging is current controlled by our unique circuitry. Input power can be C or D cell batteries or 12 vdc adapter for direct 115 vac power. Charging rate is over 40 (watt-sec) joules. Size is 5 x 4 x 2".

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OPERATION STEPS

1. Select capacitor and use above formula to calculate the joules for determining if hazardous. Always verify that the capacitor is discharged. You can use an insulated screwdriver for small electrolytic or a discharge resistor shorting wand. Larger capacitors will usually have a shorting wire across terminals.

2. Connect leads cross capacitor and observe polarity if any. Electrolytics are polarized.

3. Connect a proper range voltmeter across capacitor to monitor charging voltage.

4. Connect in a 12volt .3 amp adapter or 12 vdc battery pack into DC jack.

5. Push and hold button and note voltage building up on capacitor. Do not allow to charge beyond the capacitor volt rating as indicated by the range voltmeter. Obviously larger values take longer charging time.

6. You may now set the neon lamp trip point by adjustment of the orange trim pot inside the unit. This adjustment provides an indication of charge voltage and is set to meter. This feature is handy only if you are charging to a certain voltage multiple times such as an amount of 450 volt electrolytics. If you wanted to now charge a photoflash capacitor to 360 volts you must readjust or use the meter.

7. There is no more data as to the handling and application the charged capacitor is to be used for. You are on your own and assumed to understand the hazards as stated above.

DANGER A SERIOUS DEADLY SHOCK HAZARD WILL EXIST WHEN USING WITH HIGH ENERGY CAPACITORS ABOVE 50 JOULES.