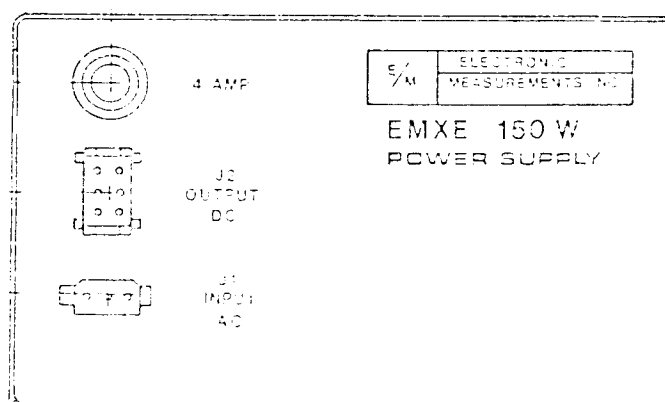
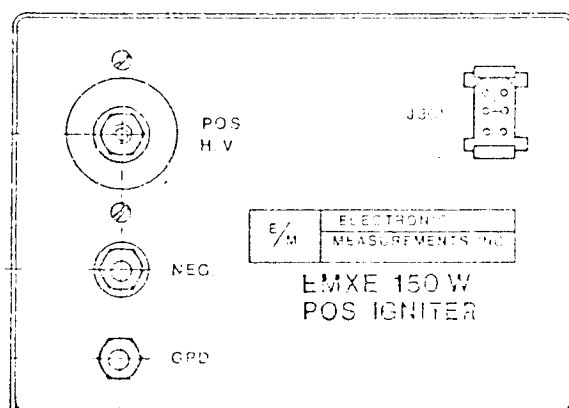


SPECIFICATIONS & OPERATING INSTRUCTIONS



EMXE 150W POWER SUPPLY

This switching regulator and single pulse unit will ignite and operate xenon arc lamps rated at 150 WDC. The supply regulates the power supplied to the lamp by sampling the voltage across the lamp and the current through the lamp, and adjusting the current so that the product is exxentially constant. Other EMXE power supplies are available in power ratings of 500W and 1000W.

SPECIFICATIONS:

AC Input - 100-130VAC 1Ø 50/60Hz 2.5A RMS
200-260VAC 1Ø 50/60Hz 1.3A RMS

DC Output - to 13A RMS C.C. or C.P.

Lamp Output- Boost voltage - 150VDC (nominal) stored in 820MFD through 5 ohm resistor. Additional boost at 35VDC stored in 1000MFD.

Ignition - 35KV peak 0.5US at half amplitude 0.1US risetime.

Operating Power - 17V to 22VDC at 8.8 to 6.8A (150 watts).

Regulation - 100-130VAC input, power output will not vary more than 0.3%.

Ripple - Below 20Hz, 0.1% RMS maximum.

Efficiency - greater than 75%.

SIZE - Power Unit - 5.9W x 3.5H x 8.0D

Igniter Unit - 5.12W x 3.5H x 6.25D

WEIGHT - Power Unit - 4.9 pounds

Igniter Unit - 3.9 pounds

OPERATING TEMPERATURE - 0 to 40°C ambient

GENERAL:

The supply is packaged as two components, a power unit and an igniter unit. The power unit contains the regulation circuitry necessary to produce the DC operating power for the lamp. The igniter unit contains the open circuit boost supply, a blocking diode to protect the power unit and the high voltage ignition circuitry. The interconnection between units carries the DC lamp current and its return and AC voltage to operate the igniter. The power unit is factory adjusted to provide 150 watts to the lamp when operated in conjunction with the igniter unit. No field adjustments are required.

OPERATING INSTRUCTIONS:

1. Position igniter unit within three feet of the lamp. Position power unit with respect to igniter so that supplied cable will interconnect units (about 2 feet). If necessary, cable can be changed so that greater separation is possible.
2. Connect positive high voltage output of igniter unit to anode of lamp using cable suitable for carrying 7.5 amps and insulation capable of withstanding 35KV pulse voltages.
3. Connect negative terminal of igniter to cathode of lamp using cable suitable for carrying 7.5 amps.
4. If desired, connect negative of igniter unit to chassis.
5. Connect J2 of power unit to J3 of igniter using cable provided.
6. Connect source of AC power to J1 of power unit.

Terminal 1 (left) AC high.

Terminal 2 (center) AC return.

Terminal 3 (right) chassis ground.

7. Energize source of AC power within a few seconds lamp should flash, ignite and operate. Automatic circuitry defeats ignition after lamp starts.
8. If the lamp fails to start on the first attempt, the system will continue to flash every few seconds until lamp ignition takes place.
9. Occasionally, a lamp will require a "trigger" wire for successful ignition. This is evidenced by the failure of the lamp to flash even with the 35KV or greater applied voltage. To attach a trigger wire, loop one end of a 30ga wire around the lamp just at the top of the bulge of the arc envelope. Run it around the bulge in a vertical direction (down) and connect it to the cathode. Position it to the side of the optical path. Keep it away from the anode metal on connector or a flash over to the trigger wire may occur.

