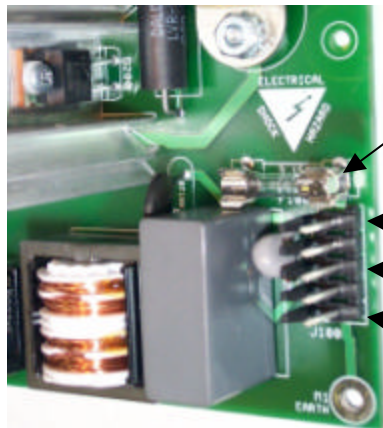




Technical Information File for CE100AXE

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AC Line Input Connections

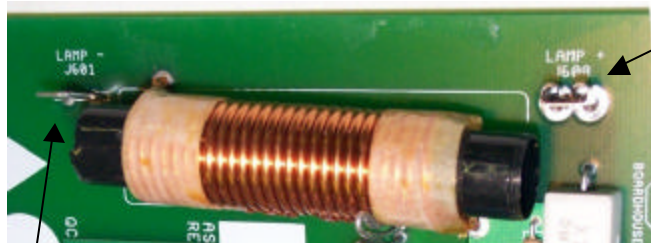


Replace only with same type and rating of fuse.
 250V, 3.15A Fast blow

Pin	Name	Wire Color	
		US	Europe
1	AC Hot	Black	Blue
2	No connect		
3	AC Neutral	White	Brown
4	No Connect		
5	Earth Ground	Green	Green

The AC input is made using three pins of a five-pin Molex™ 0.156" connector as illustrated above. Although an earth ground connection path is provided to the chassis thru mounting hole M1, for safety reasons it is recommended that a separate, short, direct connection be made to insure proper chassis grounding. This may also help to reduce EMI noise in the finished system.

Lamp Connections



Lamp Positive Connection
 Warning, this point is at the positive B+ rail (+180V at 120vac in) relative to circuit ground
 Connection is made using a male .25" Faston

High voltage negative lamp connection. Warning, this is the 25KV ignition source.
 Connection is made using a female .25" Faston connector.
 Use appropriate silicone high voltage wire.

Fan Connection



R206 is hidden back here

Current Adjustment Pot

Fan Connector J400 is a 2 pin, 0.1" Molex™ connector. Pin 1 is +12volts relative to Pin2.

There are also 2 test point connections where the fan wires may be directly soldered into the board.
TP45 FAN+ is +12voltes relative to TP46 FAN-

Current Adjustment

The current was set at Carsan Engineering and shouldn't require any further adjustment. However, here is a short procedure should the need arise.

Connect a voltmeter across the current sense resistor (R206) Located between the main inductor and one of the heat sinks near the AC input connector.

Once the lamp is lit, adjust R305 until the voltmeter reads 140mVdc. This is equal to 7A due to the resistance being $.02\Omega(V/R=I)$.

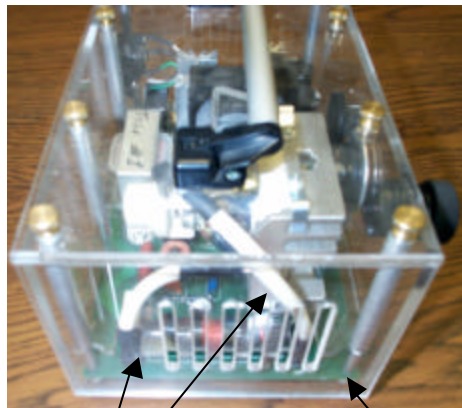
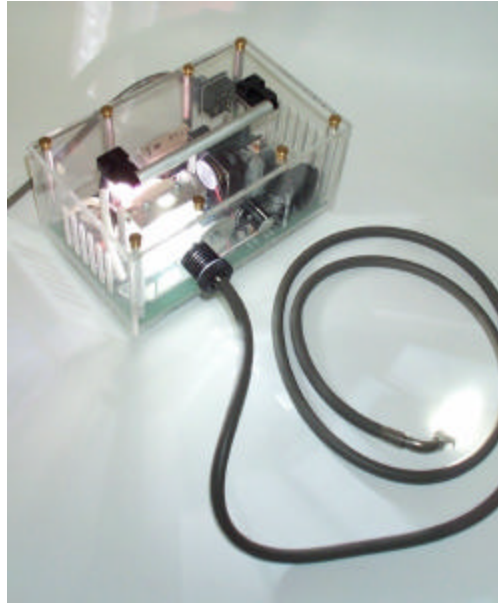
Application Example

An application example unit was built at Carsan Engineering to demonstrate one possible idea of how a relatively small light source could be built around the CE100AXE power supply. Clear plastic was used instead of sheet metal so the internal construction can be seen.

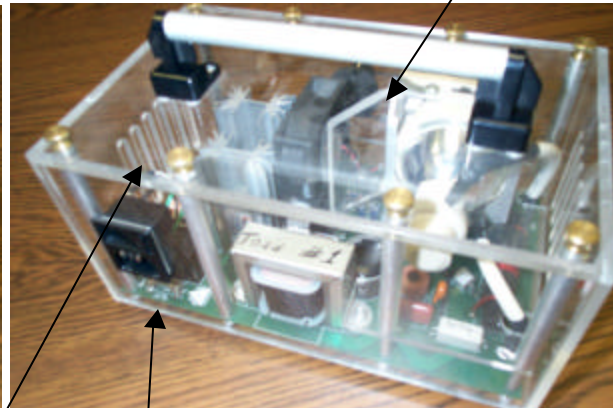
In this photo, the unit is turned on.
For this example, we used an Osram XBO 100 watt Xenon lamp. Lamp leads are kept short by mounting the lamp directly above the ignitor.

The cooling fan is mounted near the center of the unit, and with the addition of a simple air baffle, it is sufficient to provide cooling for both the lamp and the supply. Intake air flows from the right side, across the power components, thru the fan, then across the lamp to exit on the left.

Although this unit was built using an early prototype of the CE100AXE supply, it has performed admirably well, and all the concepts shown here apply to production supplies.



Short lamp leads



Flow thru ventilation

AC input with Switch

Air Baffle

The CE100AXE is one of the simplest in Carsan Engineering's broad line of arc-lamp power supplies.

If you would like more information, or assistance in applying the CE100AXE or any other Carsan Engineering supply in your application, please contact us.

Specification subject to change without notice