



## Garage / Pit Power Supply - Data Sheet

**Overview:** The garage / pit power supply has been designed specifically to support the DW12 IndyCar electronics system. The supply is a compact, cost effective, and powerful device that will ensure the car battery remains fully charged. The supply can be used as a stand-alone unit or placed inside the Garage / Pit Power Breakout box; P/N: DSE-LB-PB-001. The supply can be used in the timing stand, garage, or anywhere else reliable power is required.

**Functionality:** The supply comes from DSE with the ideal voltage level and current limit settings. The settings are labeled on the back panel. Standard settings are 15.0V and 20A current limit. It is possible with some looms or blanking plugs the supply output will have an offset due to the voltage sense feature. This is caused by variances in loom resistance. It is recommended to always check the voltage at the terminals with a new loom / blanking plug combination.



Three LEDs on the front of the enclosure indicate (from left to right) Power On, Voltage Sense Enabled, and Voltage within the acceptable tolerance. Under normal operation all 3 LEDs should be illuminated. With a blanking plug (operation without voltage sense), the center LED will not be on.



The supply is designed to be used with the voltage sense feature. Voltage sense is automatically activated when an appropriate loom is plugged into the sense connector. When there is no connection to the sense connector of the power supply it will be disabled and there will be no voltage output. To use the supply without voltage sense, a blanking plug must be used on the sense connector. See connector interface section for details.

Proper airflow must be maintained at all times. The two fans on the rear of the supply provide cooling. Each fan has a filter to prevent dust and other contaminants from entering the supply. These must be inspected and replaced periodically. The supply is not meant to be exposed to rain water and should therefore be protected accordingly.

If the supply is exposed to an overvoltage condition it will shut down to prevent damage to the car, loom, and supply. This condition will cause all 3 lights on the front of the supply to turn off. If this happens, check all connections and cycle the AC power, letting the supply shut down for 10 seconds. If this does not solve the issue, remove the power terminal connections and repeat. This should not happen under normal operating conditions.

Due to the large current requirements of the DW12, the power supply requires up to 8 amps from the AC power source. Manage breakers and wiring accordingly. Some GFCI outlets may be too sensitive to support the power supply. In this case use a ground eliminator plug, making sure to connect the third prong to ground (such as the pit lane grounding cable.)

### Electrical Specifications:

- Voltage Input: 90-265 VAC ; 49-420 Hz
- Current Input: 8 A
- Voltage Output Set Point: 15.0V (variable as required),
- Voltage Sense Correction: Up to 20V, or a 5V loss to the car.
- Current Output: 20A (electronically limited)



**Mechanical Specifications:**

- Size: 6.34" x 10.1" x 1.7"
- Enclosure Material: Aluminum; powder coat finish
- Mounting: 6-32 mounting holes, bottom and side.
- Operating Temperature: -40 to +70 C
- Power Connector Interface: 2 x 10-32 Lugs for use with ring terminal connectors

**Part Number And Ordering Information:** P/N: DSE-LB-PS-001

**Connector Interface:**

Power Supply V Sense Connector:

ASL006-05-SN-HE

Pin 1: Sense LED+

Pin 2: Sense +

Pin 3: Supply +

Pin 4: Sense –

Pin 5: Enable

Blanking Plug for Operation without V Sense:

ASL606-05-PN-HE

Pin 1: N/C

Pin 2: Pin 3

Pin 3: Pin 2

Pin 4: Pin 5

Pin 5: Pin 4 >> Pin 4 and 5 Should Have A #10 Ring Terminal Connected to the Ground Lug