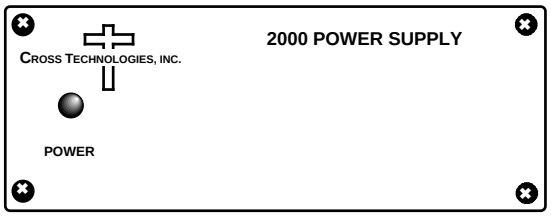
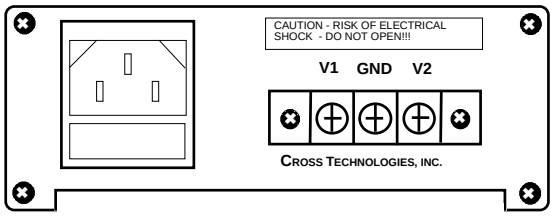
Instruction Manual

Model 2000-02
Power Supply

January 2010, Rev. C





When ordering parts from Cross Technologies, Inc., be sure to include the equipment model number, equipment serial number, and a description of the part.

CROSS TECHNOLOGIES, INC.

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INSTRUCTION MANUAL

MODEL 2000-02 Power Supply

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MODEL 2000-02 Power Supply

1.0 General

1.1 Equipment Description

The 2000-02 Power Supply is a switching power supply which provides regulated +18 VDC a **1.0** amps with a 100-240 ± 10% VAC, 47 to 63 Hz input and can be used with Cross products requiring +18 VDC. The input AC connector is IEC 320 C13 and the DC outputs are on a barrier strip. The 2000-02 can be mounted on an 1 3/4" X 19" rack mount panel (option **-R**).

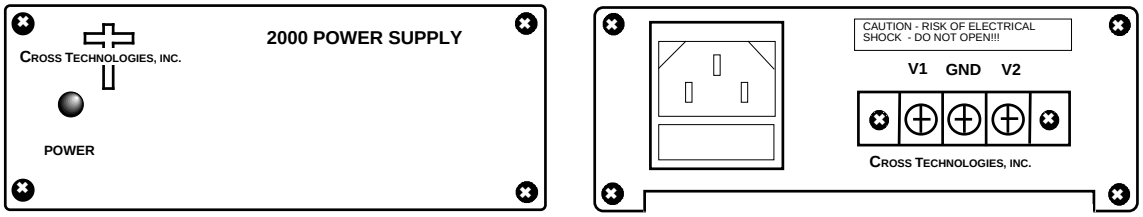


FIGURE 1.1 Model 2000-02 Front and Rear Views

1.2 Technical Characteristics

TABLE 1.1 2000-02 Power Supply Specifications*

AC Input Characteristics	
Voltage	100-240 ± 10% VAC
Frequency	47-63 Hz
Power, maximum	20 Watts
DC Output Characteristics	
Voltage	+18 VDC
Current	**1.0** amps
Load Regulation, max.	± 5%
Power Supply type	Switcher
Switching Frequency	50 kHz, typical
Indicators	
DC Power	Green LED
Other	
AC Input Connector	IEC 320 C13
DC Output Connector	Barrier Strip
Size (Bench Top)	4.7" wide X 1.75" high X 8.5" deep
Size (Rack Mount, -R)	19 inch, 1RU standard chassis 1.75"high X 9.0" deep

*+10˚C to +40˚C; Specifications subject to change without notice

2.0 Installation

2.1 Mechanical - The 2000-02 is packaged in an aluminum extrusion. The -R option is mounted on a 1 3/4" X 19" panel that can be mounted to a rack using the 4 holes at the ends. See Figure 2.1.

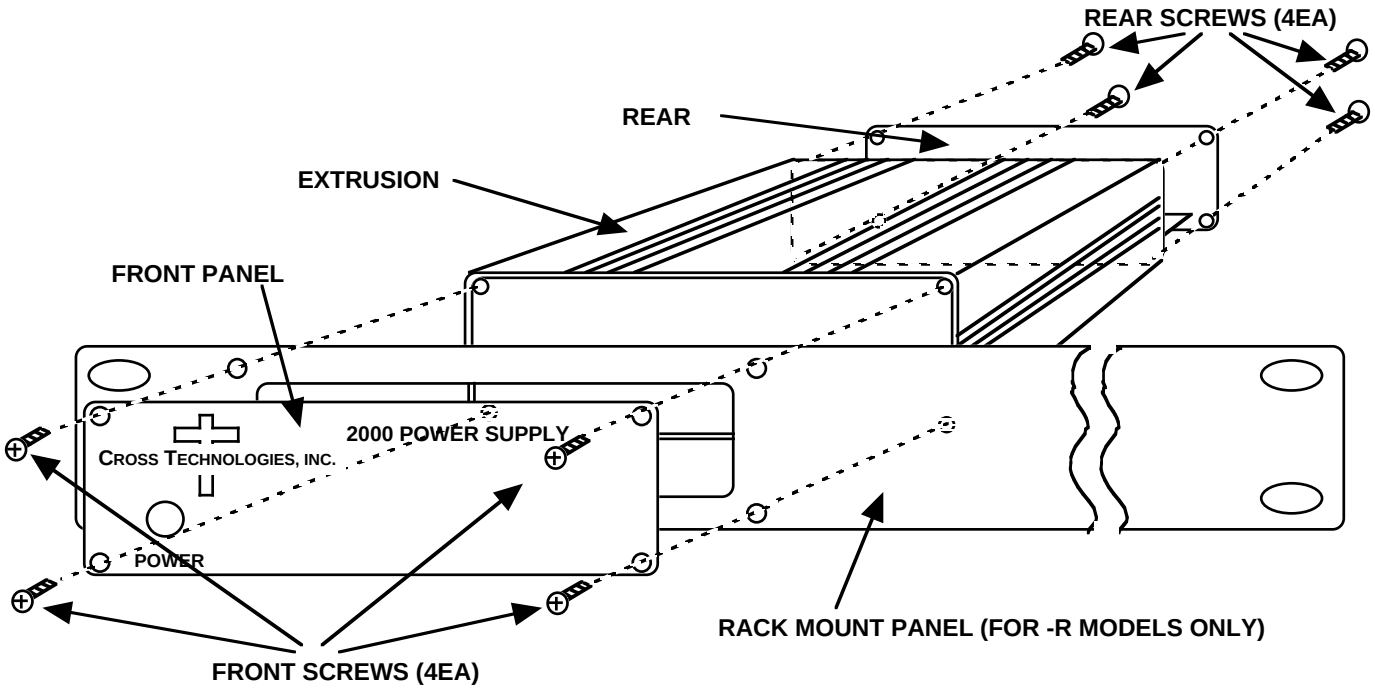


FIGURE 2.1 2000-02 Mechanical Assembly

2.2 Controls and Indicators - Figure 2.2 shows the indicator on the front panel.

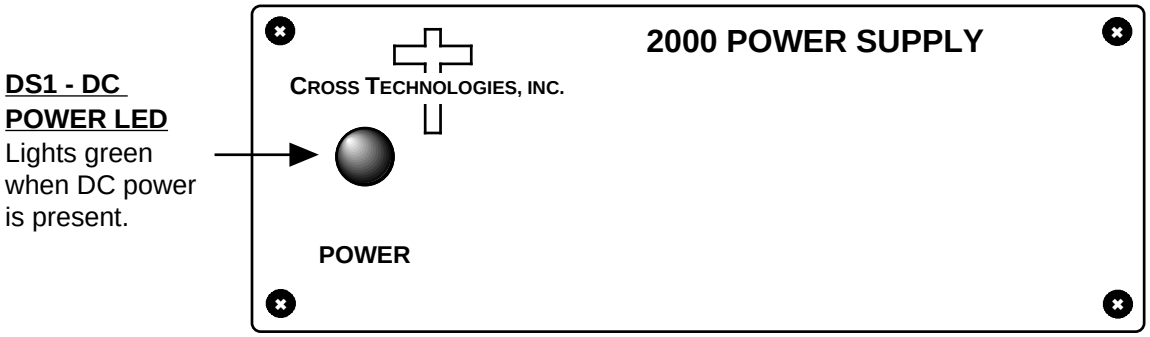


FIGURE 2.2 2000-02 Front Panel Indicator

2.3 Input and Output Signals - The following are the rear panel inputs and outputs.

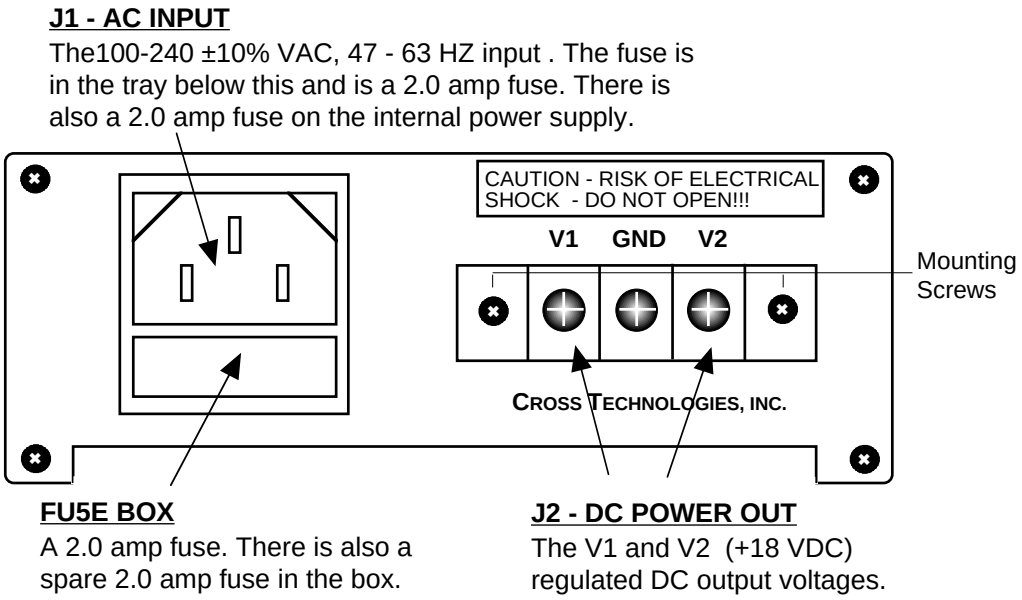


FIGURE 2.3 2000-02 Rear Panel Inputs and Outputs

2.4 Changing the On-Card Fuse

The **primary fuse** is in the AC connector fuse box (Figures 2.3 and 2.5). Figure 2.4 shows the **secondary fuse** on the power supply.

To remove the power supply from the extrusion for access to the secondary fuse:

1. Remove four (4) rear panel screws (see Figure 2.1).
2. Gently pull the power supply assembly completely out of the extrusion.
3. With AC Power disconnected, replace fuse with a 2.0 amp fuse (Figure 2.4).
4. Gently push the power supply assembly completely in to the extrusion.
5. Install four (4) rear panel screws.

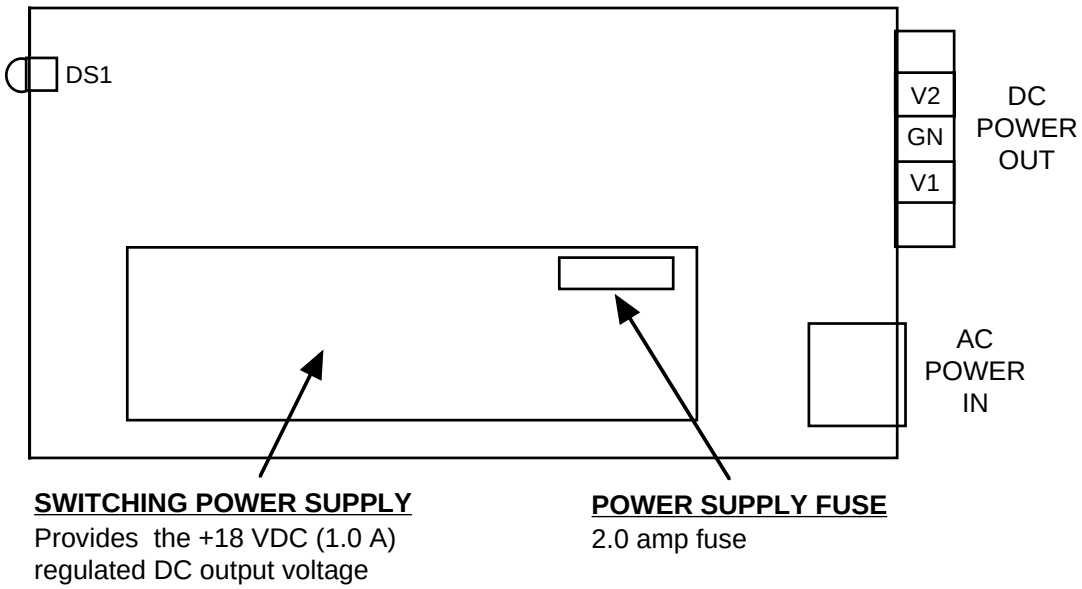


FIGURE 2.4 2000-02 On-Card AC Power Supply Fuse

2.5 Operation

2.5.1 Operating the 2000-02 Power Supply

1. Connect the DC power output to the Series 2000 unit (or other unit) (Figure 2.3).
2. Connect the 2000-02 to 100-240 ± 10% VAC, 47-63 Hz AC power.
3. Be sure DS1 (green, DC POWER) is on (Figure 2.2).
4. **AC Fuse -** The fuse is a 5 mm X 20 mm, 2 amp slow blow (Type T) and is inserted in the far slot in the drawer below the AC input as shown in Figure 2.4. There is a spare fuse in the near slot. If a fuse continues to open, the power supply is most likely defective.

2.5.2 Replacing the Fuse in the Rear Panel Fuse Box

1. Remove the 100-240 ± 10% VAC, 47-63 Hz AC power from the 2000-02.
2. Pull out the fuse box below the AC Input connector (Figure 2.3).
3. Pry out the fuse in the back slot and measure it to see if it is open.
4. If the fuse is open, determine the cause of the blown fuse and repair this.
5. After the cause of the blown fuse is corrected, replace the open fuse with the **2.0 amp** fuse in the front section.
6. Apply 100-240 ± 10% VAC, 47-63 Hz AC power to the 2000-02 and be sure DS1 (green, DC POWER) is on (Figure 2.2).

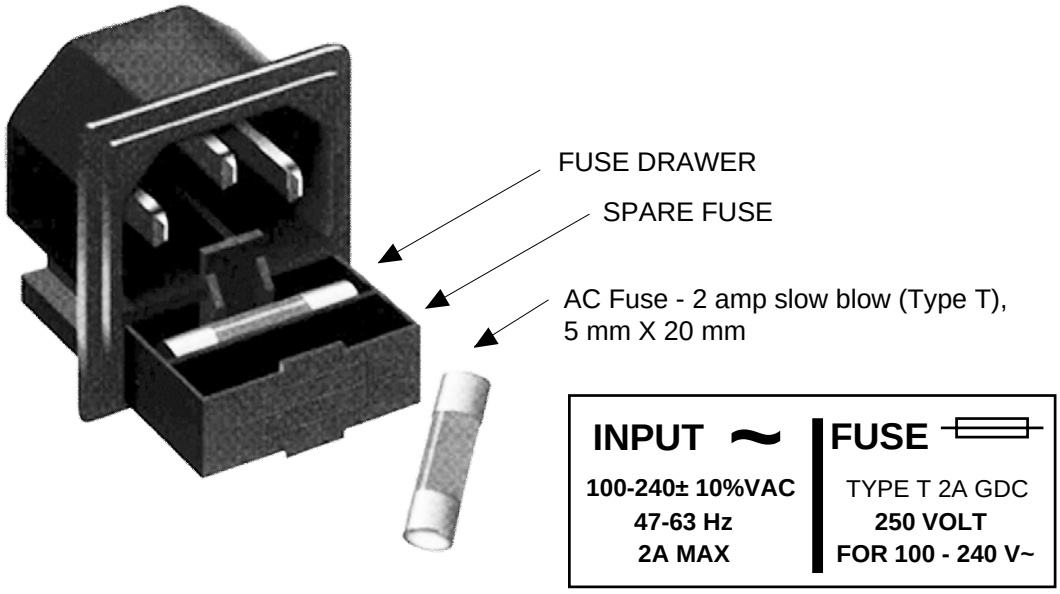


FIGURE 2.5 Fuse Location and Spare Fuse

2.6 Use Information

A. **Elevated operating ambient temperature** - if installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack may be greater than room ambient temperature. Therefore, consideration should be given to Tmra.

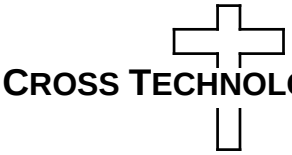
B. **Reduced air flow** - Installation of the equipment in a rack should be such that the amount of air flow required for safe operation of the equipment is not compromised. Additional space between units may be required.

C. **Mechanical loading** - Mounting of equipment in a rack should be such that a hazardous condition does not exist due to uneven weight distribution.

D. **Circuit Overloading** - Consideration should be given to the connection of the equipment to the supply circuit and the effect that overloading of circuits could have on over current protection and supply wiring. Appropriate consideration of equipment name plate rating should be used, when addressing this concern.

E. **Reliable Earthing** - Reliable earthing of rack-mounted equipment should be maintained. Particular attention should be given to supply connections other than direct connection to the Branch (use of power strips).

F. **Top Cover** - There are no servicable parts inside the product so, the Top Cover should not be removed. If the Top Cover is removed the ground strap and associated screw MUST BE RE-INSTALLED prior to Top Cover screw replacement. FAILURE TO DO this may cause INGRESS and/or EGRESS emission problems.



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