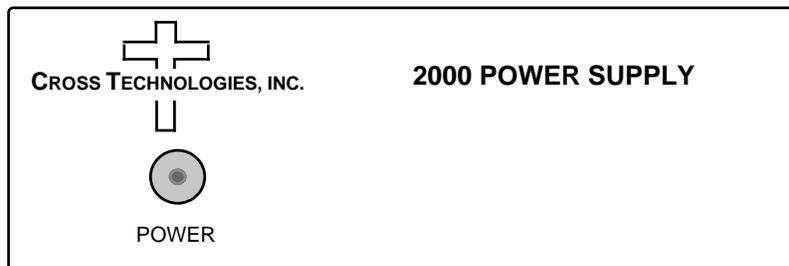


Instruction Manual

Model 2000-318 2000-324 SSPB Power Supply

November 2009 Rev 0



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INSTRUCTION MANUAL

MODEL 2000-318/324 SSPB Power Supply

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MODEL 2000-318/324 SSPB Power Supply

1.0 General

1.1 Equipment Description

The 2000-318/324 SSPB Power Supply is a switching power supply which provides regulated +18 VDC (-318) **OR** +24 VDC (-324) at 2.5 amps through RF connectors for insertion on an RF line. Also provided is a BNC connector for insertion of a 10 MHz reference signal on the RF line. The input AC connector is IEC 320 C13. The 2000-318/324 can be mounted on an optional 1 3/4" X 19" rack mount panel (**option -R**).

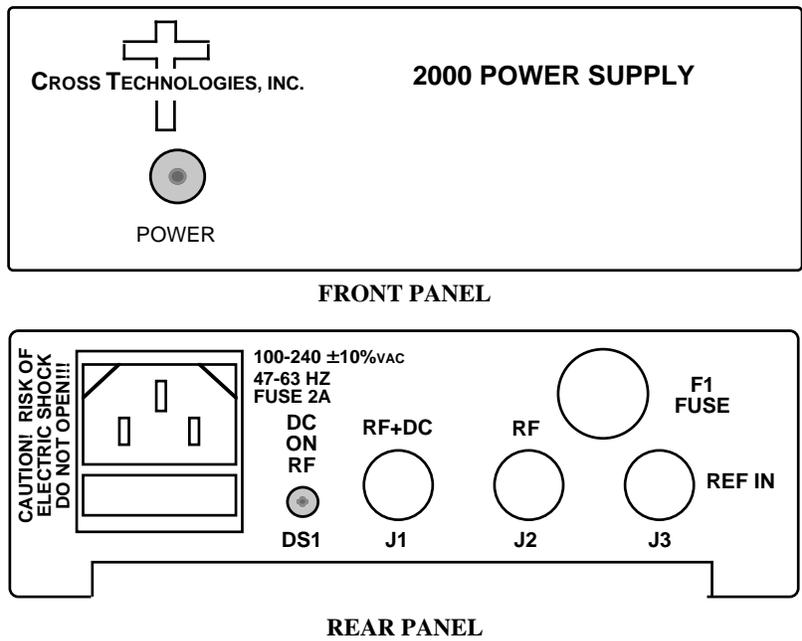


FIGURE 1.1 Front and Rear Panels

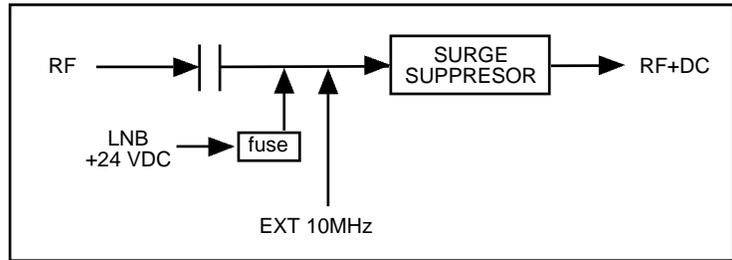


FIGURE 1.2 Block Diagram

1.2 Technical Characteristics

TABLE 1.0 2000-318/324 SSPB Power Supply Specifications*

RF Input/Output Characteristics

Impedance/Return Loss	75 Ω /14 dB
Frequency	950 - 2150 MHz
Insertion Loss	1 \pm 0.5 dB
Frequency Response	\pm 1.0 dB

AC Input Characteristics

Voltage	100-240 \pm 10% VAC
Frequency	47 - 63 Hz
Power, maximum	65 watts

DC Output Characteristics

Voltage / Current	+18 VDC/ 2.5 amps (Model 2000-318) +24 VDC/ 2.5 amps (Model 2000-324)
Load Regulation, max.	\pm 5%
Power Supply type	Switcher
Switching Frequency	50 kHz, typical

Indicators

DC Power (front)	Green LED
DC Power Insertion (rear)	Yellow LED

Other

AC Input Connector	IEC 320 C13
RF Connectors	Type F (female)
10MHz REF Connector	BNC (female), 50 Ω /75 Ω
Size, Bench Top	4.7" wide X 1.75" high X 8.5" deep
Size, Rack Mount	19 inch standard chassis 1.75"high X 9.0" deep (option R)

Options

R, R2, R3	Rack Mount Panel (1, 2, or 3 position)
B	75 Ω BNC (RF)
D	50 Ω BNC (RF)

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

2.0 Installation

2.1 Mechanical

The 2000-318/324 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.

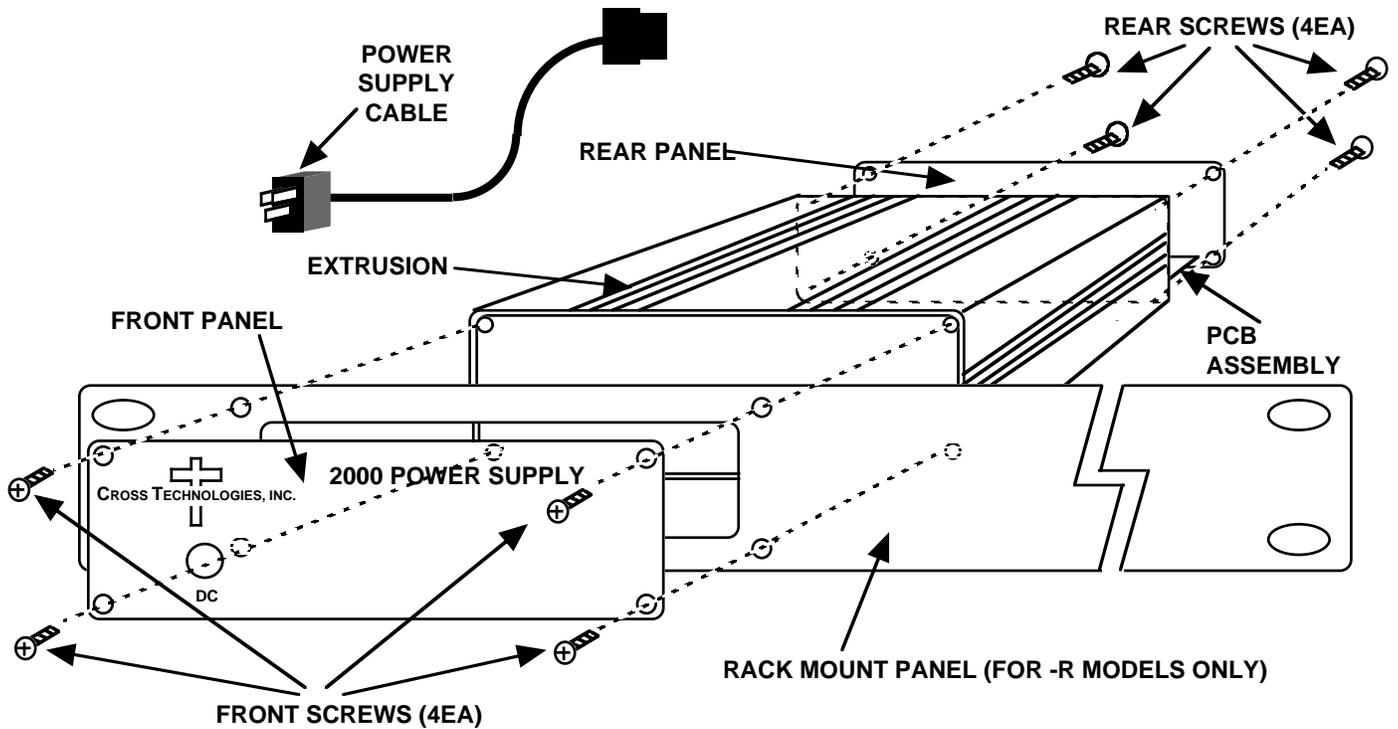


FIGURE 2.1 Mechanical Assembly (Rack Mounting)

2.2 Rear Panel Input/Output Signals - Figure 2.2 shows the input and output connectors on the rear panel.

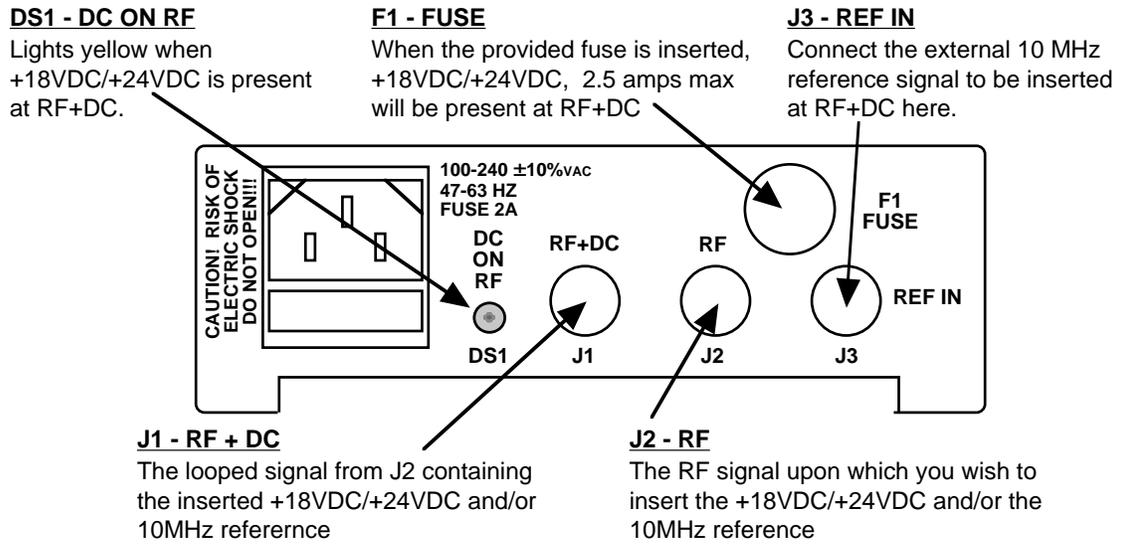


FIGURE 2.2 Rear Panel I/Os

TABLE 2.1 Connector Options	
Option	RF
STD	Type F, 75Ω
-B	BNC, 75Ω
-D	BNC, 50Ω

2.3 Front Panel Indicators - The following are the front panel indicators.

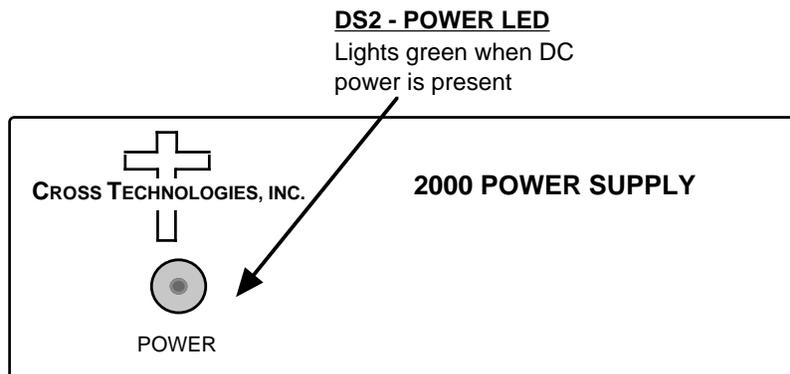


FIGURE 2.3 Front Panel Indicators

2.4 Operation

2.4.1 Installing and Operating the 2000-318/324 SSPB Power Supply

1. Connect an RF signal to RF connector, J2 (Figure 2.2).
2. Connect RF+DC connector, J1, to the external equipment (Figure 2.2).
3. To insert +18 VDC/+24 VDC on the RF signal insert a 1 amp fuse (provided) in fuse holder, F1 (Figure 2.2).
4. To insert a 10MHz reference signal on the RF signal connect a 10MHz source to the REF IN, J3 (Figure 2.2).
5. Connect 100-240 \pm 10% VAC, 47 - 63 Hz to AC on the back panel (Figure 2.2).
6. Be sure DS2 (green, DC Power) is on (Figure 2.3).
7. If fuse, F1, is inserted check that SSPB Power LED, DS1, is on (Figure 2.2)
8. AC FUSE - The AC 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.

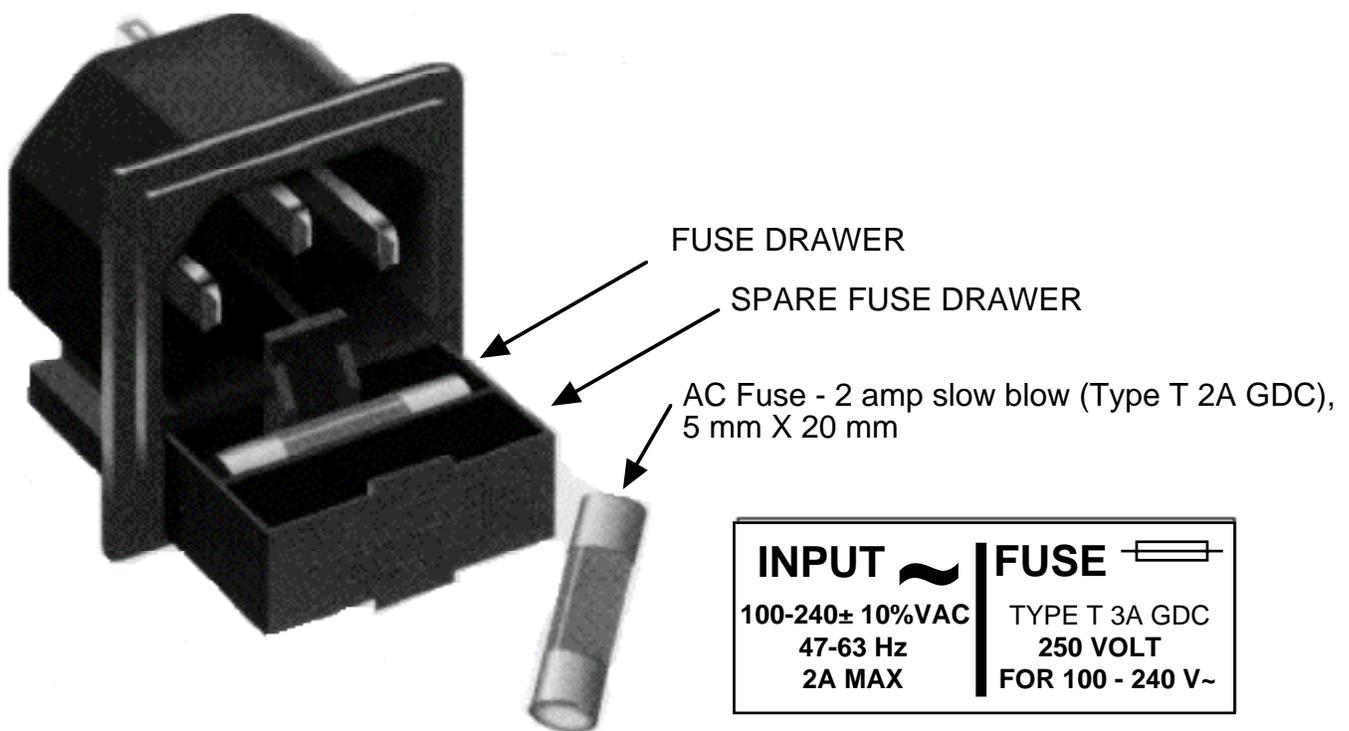


FIGURE 2.4 Fuse Location and Spare Fuse

2.5 Environmental Use Information

- A. **Rack-Mounting** - To mount this equipment in a rack, please refer to the installation instructions located in the user manual furnished by the manufacturer of your equipment rack.
- B. **Mechanical loading** - Mounting of equipment in a rack should be such that a hazardous condition does not exist due to uneven weight distribution.
- C. **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.
- D. **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 unit may be required.
- E. **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.
- F. **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).
- G. **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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