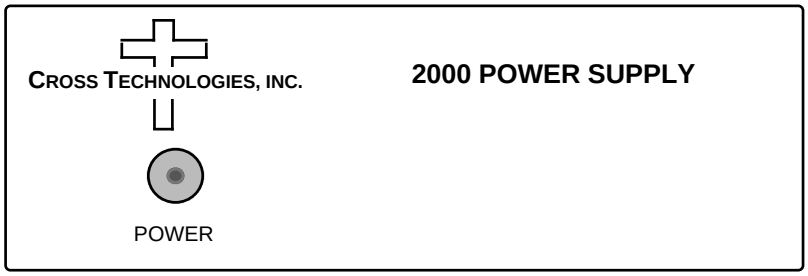
Instruction Manual

Model 2000-2XX LNB
Power Supply

MODELS: 2000-212 +12V, 1A • 2000-215 +15V, 1A, • 2000-218 +18V, 0.5A • 2000-224 +24V, 1A

May 2013, Rev D.



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.

6170 Shiloh Road
Alpharetta, Georgia 30005

(770) 886-8005
FAX (770) 886-7964
Toll Free 888-900-5588

WEB www.crosstechnologies.com
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INSTRUCTION MANUAL

MODEL 2000-2XX LNB Power Supply

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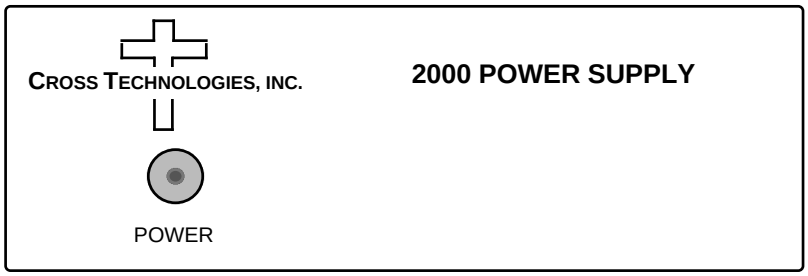
MODEL 2000-2XX LNB Power Supply

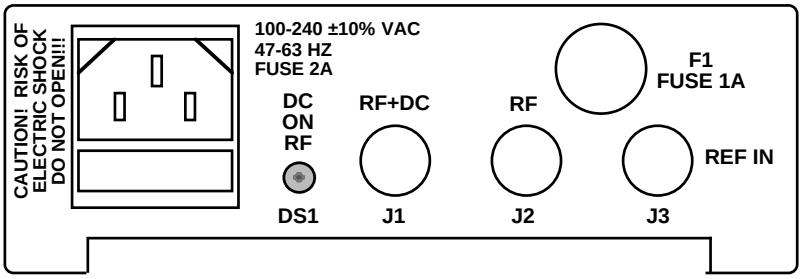
1.0 General

1.1 Equipment Description

The 2000-2XX LNB Power Supply is a switching power supply which provides either regulated +12 VDC (-212) at 1 amp, +15 VDC (-215) at 1 amp, +18 VDC (-218) at 0.5 amps *OR* +24 VDC (-224) at 1 amp 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 2000-2XX is powered by a 100-240 ± 10% VAC power supply and can be mounted on an optional 1 3/4" x 19" rack mount panel (option R, R2, or R3).



FRONT PANEL



REAR PANEL

FIGURE 1.1 Front and Rear Panels

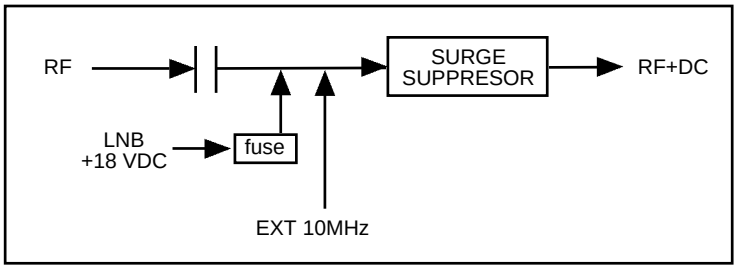


FIGURE 1.2 Block Diagram

1.2 Technical Characteristics

TABLE 1.0 2000-2XX LNB Power Supply Specifications*

RF Input/Output Characteristics

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

AC Input Characteristics

Voltage	100- 240 ±10% VAC
Frequency	47 - 63 Hz
Power, maximum	20 watts

DC Output Characteristics

Voltage / Current	+12 VDC/ 1 amp -	(Model 2000-212)
	+15 VDC/ 1 amp -	(Model 2000-215)
	+18 VDC/ 0.5 amps -	(Model 2000-218)
	+24 VDC/ 1 amp -	(Model 2000-224)
Load Regulation, max.	± 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), 75Ω works with 50 or 75 ohms
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-	Rack Mount Panel (1 position)
R2-	Rack Mount Panel (2 position)
R3-	Rack Mount Panel (3 position)
Connectors/Impedance	See Table 2.2

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

2.0 Installation

2.1 Mechanical

The 2000-2XX 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 t he 4 holes at the ends.

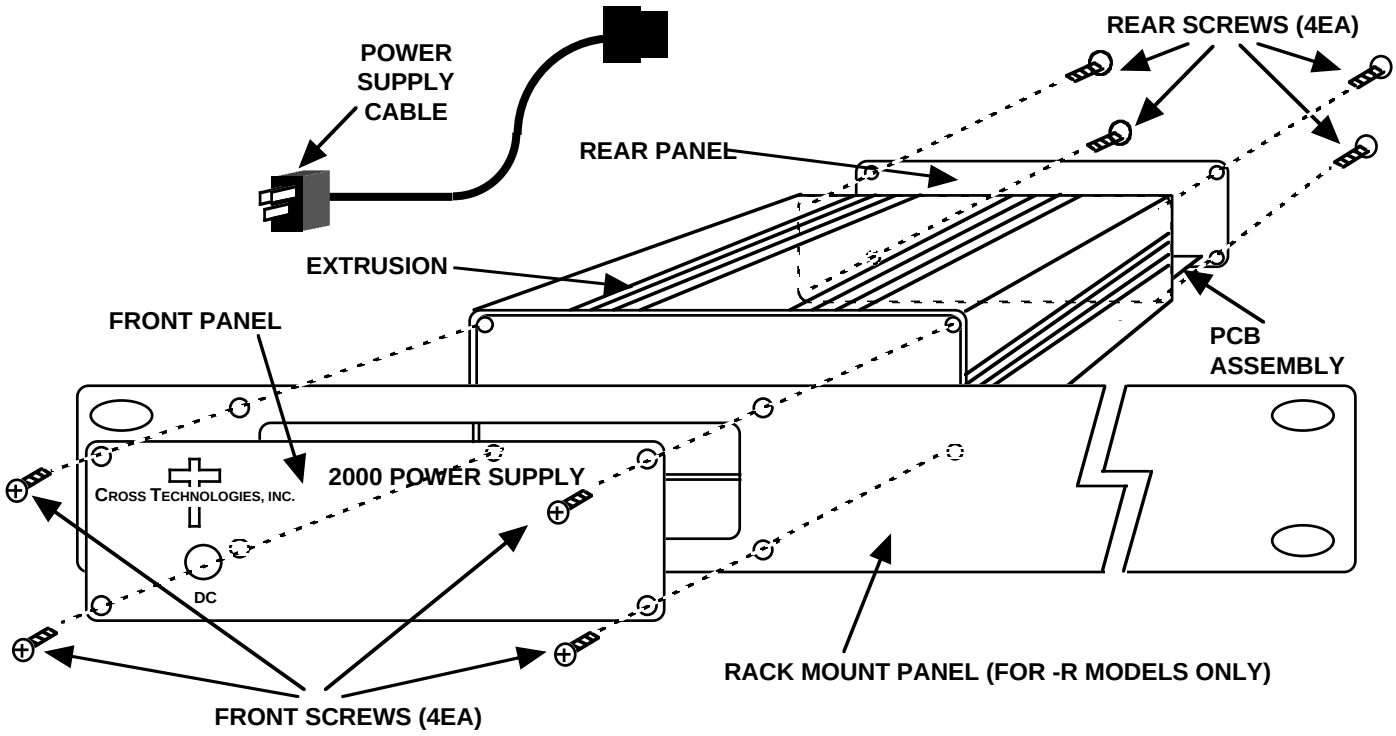


FIGURE 2.1 Mechanical Assembly (Rack Mounting)

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

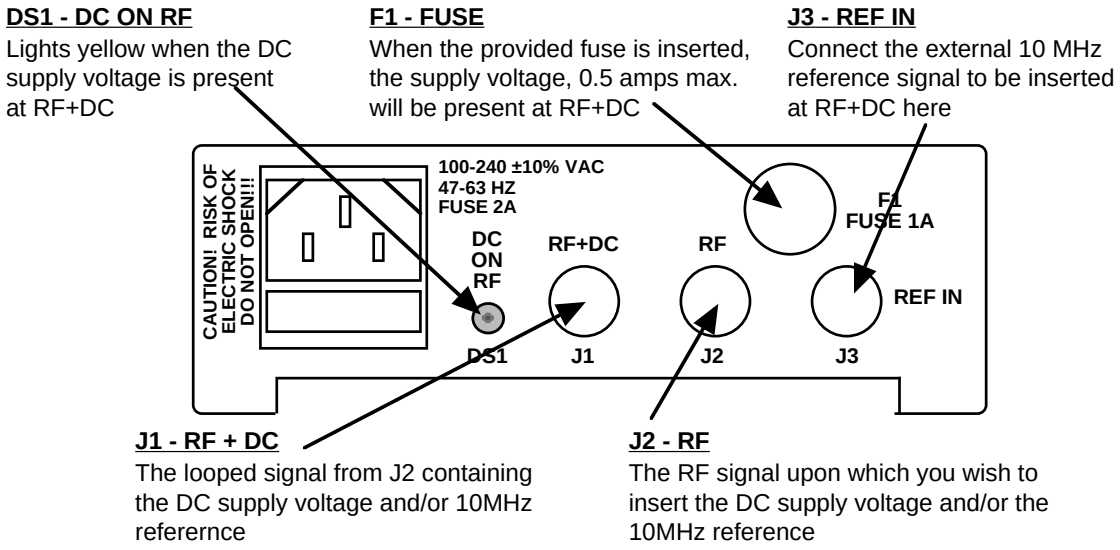


FIGURE 2.2 Rear Panel I/Os

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.

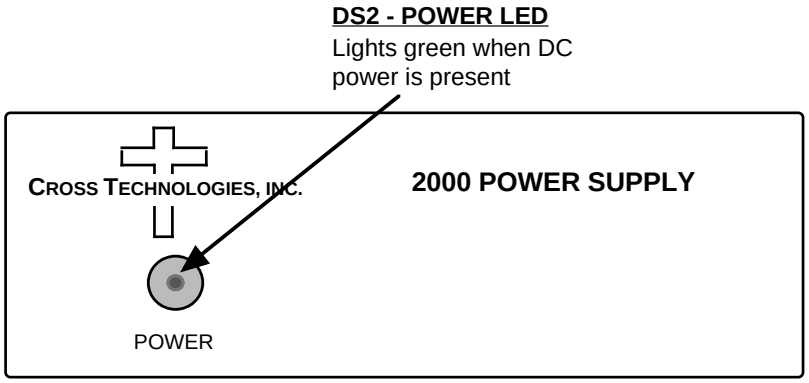


FIGURE 2.3 Front Panel Indicators

2.4 Operation

2.4.1 Installing and Operating the 2000-2XX LNB 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 +12VDC, +15VDC, +18VDC or +24VDC 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 ±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 LNB 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.

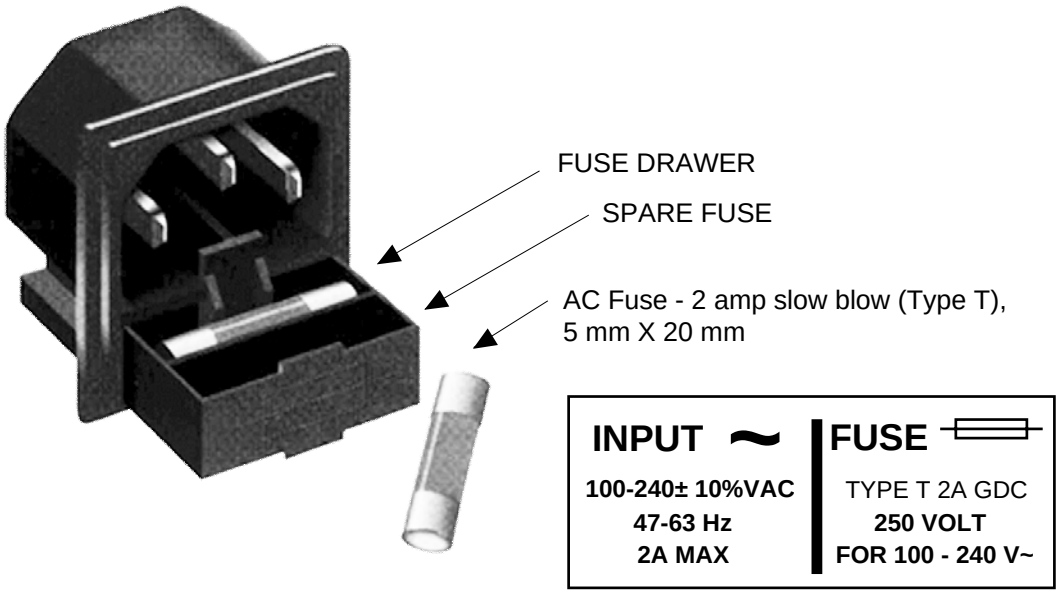


FIGURE 2.4 Fuse Location and Spare Fuse

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