GigaXtend™

RF Amplifier Mains Power Pack Kit

INSTALLATION INSTRUCTIONS

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OVERVIEW

1. Overview

These installation instructions are intended for cable system operators and installers who need to install a GigaXtend RF Amplifier Mains Power Pack Kit.

1.1 Introduction

The GigaXtend RF Amplifier Mains Power Pack Kit allows a GigaXtend RF Amplifier to operate from local utility power, 100-240 VAC. It is intended for indoor applications where the use of local utility power is required or preferred. The source of AC power can be a nearby utility outlet or an uninterrupted power supply (UPS).

These installation instructions explain how to install the GigaXtend RF Amplifier Mains Power Pack Kit.

Note: *The following instructions apply to standard GigaXtend RF Amplifiers, or any Optical Node.*

1.2 Qualified Personnel

Only appropriately qualified and skilled service personnel should attempt to install, operate, maintain, and service this product.

WARNING: *Allow only qualified and skilled personnel to install, operate, maintain, and service this product. Otherwise, personal injury or equipment damage may occur.*

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IMPORTANT SAFETY INSTRUCTIONS

2. Important Safety Instructions

The installation and operation guide for the RF amplifier contains important safety information. Please read and become familiar with this information before performing the procedures described in this document.

2.1 General Servicing Precautions

WARNING: *Avoid electric shock! Opening or removing this equipment's cover may expose you to dangerous voltages.*

CAUTION: *These servicing precautions are for the guidance of qualified service personnel only.*

To reduce the risk of electric shock, do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so. Refer all servicing to qualified service personnel.

Be aware of the following general precautions and guidelines:

- Servicing - Servicing is required when this equipment has been damaged in any way, such as power supply cord or plug is damaged, liquid has been spilled or objects have fallen into this equipment, this equipment has been exposed to rain or moisture, does not operate normally, or has been dropped.
- Wristwatch and Jewelry - For personal safety and to avoid damage of this equipment during service and repair, do not wear electrically conducting objects such as a wristwatch or jewelry.
- Lightning - Do not work on this equipment, or connect or disconnect cables, during periods of lightning.
- Labels - Do not remove any warning labels. Replace damaged or illegible warning labels with new ones.
- Covers - Do not open the cover of this equipment and attempt service unless instructed to do so in the instructions. Refer all servicing to qualified service personnel only.
- Moisture - Do not allow moisture to enter this equipment.
- Cleaning - Use a damp cloth for cleaning.
- Safety Checks - After service, assemble this equipment and perform safety checks to ensure it is safe to use before putting it back into operation.

The following documents are available for RF amplifiers that can be adapted for AC utility power using the GigaXtend RF Amplifier Mains Power Pack Kit.

- *GMC Series 1.2 GHz System Amplifiers: INSTALLATION & OPERATION MANUAL, Document ANW1473*
- *1.2 GHz GM Compatible Line Extender INSTALLATION & OPERATION MANUAL, Document ANW1490*

WARNING: *There is an electric shock hazard if protective earth (PE) ground is removed while plant coax or power is connected. Always keep PE ground connected to this equipment.*

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EQUIPMENT AND TOOLS NEEDED

3. Equipment and Tools Needed

The GigaXtend RF Amplifier Mains Power Pack Kit, part number GAGMLE-PWRKIT-1.2G includes an external AC-to-DC power supply, a power inserter/filter, a bracket for mounting the RF amplifier to a wall or 19-inch rack, and interconnecting hardware.

The following table lists the complete contents of the kit.

Description	Part Number	Quantity
GigaXtend RF Amplifier Wall Mount Bracket	70-10032-01	1
External Power Supply	69-10005-001	1
External Power Supply Bracket	70-10033-01	1
Power Inserter/Filter, 48VDC RF Combiner	69-10004-001	1
Connector, RF, F-Type, Male to Male	15-02-10012	2

Before you begin, confirm that the kit contains all of the parts listed above.

3.1 Power Supply Specifications

Specification	Units	Value
Electrical		
AC input voltage range	VAC	100 - 240
AC input line rate	Hz	50 - 60
Input current @ 115 V AC	Amps	2.0
Input current @ 230 V AC	Amps	0.9
Output voltage +/- 5%	VDC	48
Output load range	Amps	0 - 3.2

3.2 Tools Required

Before you begin, make sure that you have the following tools:

- 3/4-inch open end wrench
- 7/16-inch open end wrench, or an F-connector tool
- 1/2-inch nut driver

3.2.1 Additional Equipment Needed

In addition to the parts supplied with the kit, you will need to obtain the following:

- Appropriate size #8 mounting hardware for the RF amplifier housing and power inserter/filter module
- For installations not in North America, an IEC power cord for the region of use
- Grounding wires as needed for the RF Amplifier and power inserter/filter module housings
- Housing Input Connector (KS Male to F Female Adapter) for CATV Broadband Hardline Cable Distribution

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TO INSTALL THE HOUSING INPUT CONNECTOR

4. To Install the Housing Input Connector

Complete the following steps to install the housing input connector in the GigaXtend RF Amplifier housing.

1. Open the RF Amplifier housing.
2. Remove the RF module.
3. Loosen the seizure.
4. Install the housing input connector.
5. Tighten the housing input connector from 5 ft-lb to 8 ft-lb (6.8 Nm to 10.8 Nm).
6. Re-tighten the seizures from 2 ft-lb to 5 ft-lb (2.7 Nm to 6.8 Nm).

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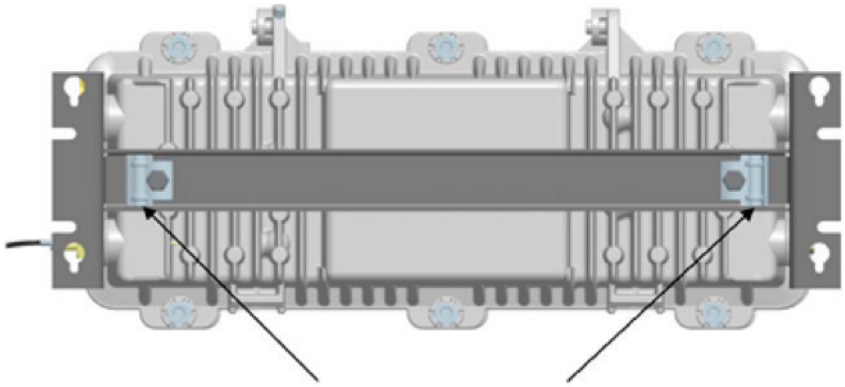
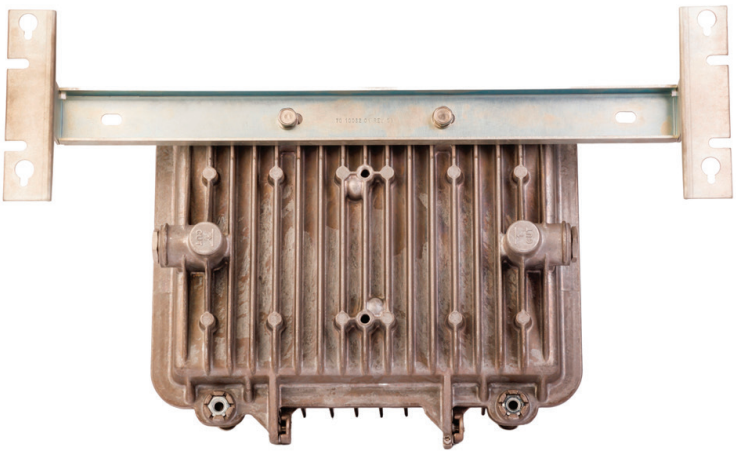
TO INSTALL THE RF AMPLIFIER WALL MOUNT BRACKET

5. To Install the RF Amplifier Wall Mount Bracket

Complete the following steps to install the mounting bracket to the GigaXtend RF amplifier housing.

1. Remove the strand clamp bolts from the strand clamps. Set the bolts and strand clamps aside.
2. Align the RF amplifier wall mount bracket with the RF amplifier housing as shown in the following illustration.





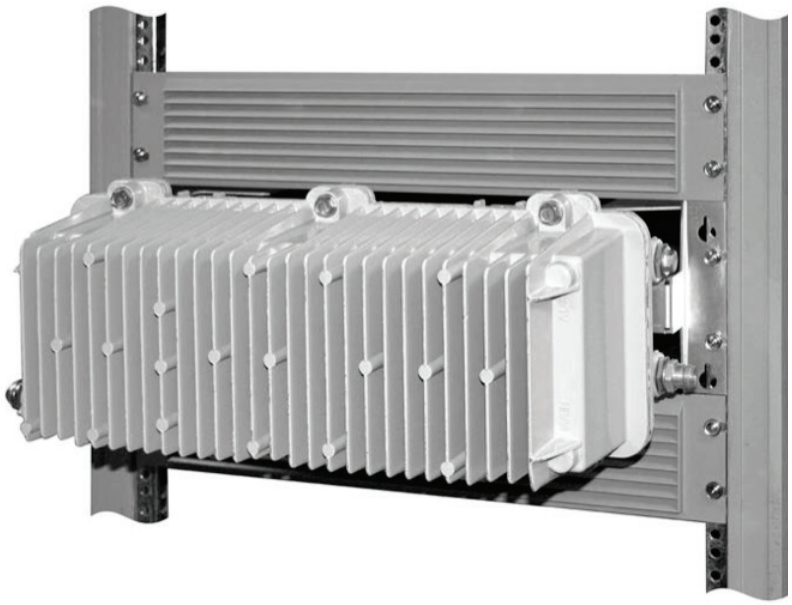
3. Secure the bracket to the housing using the bolts removed in step 1. Use the strand clamps as spacers.
4. Insert the bare end of a protective earth (PE) ground wire, AWG 18 or larger, under one strand clamp before tightening the bolts.

Note:

- If the PE ground wire is insulated, the insulation must be color-coded green with a yellow stripe.
- The RF amplifier must be directly and reliably attached to PE ground. Do not rely on the ground connection to the plant coax or power inserter/filter module.

5. Torque the bolts holding the bracket in place from 5 ft-lbs to 8 ft-lbs (6.8 Nm to 10.8 Nm).
6. Secure the RF amplifier with bracket attached to the mounting surface or a 19-inch rack using either the four keyed or the four circular mounting holes in the bracket.

The following illustration shows the RF amplifier mounted in a 19-inch rack.

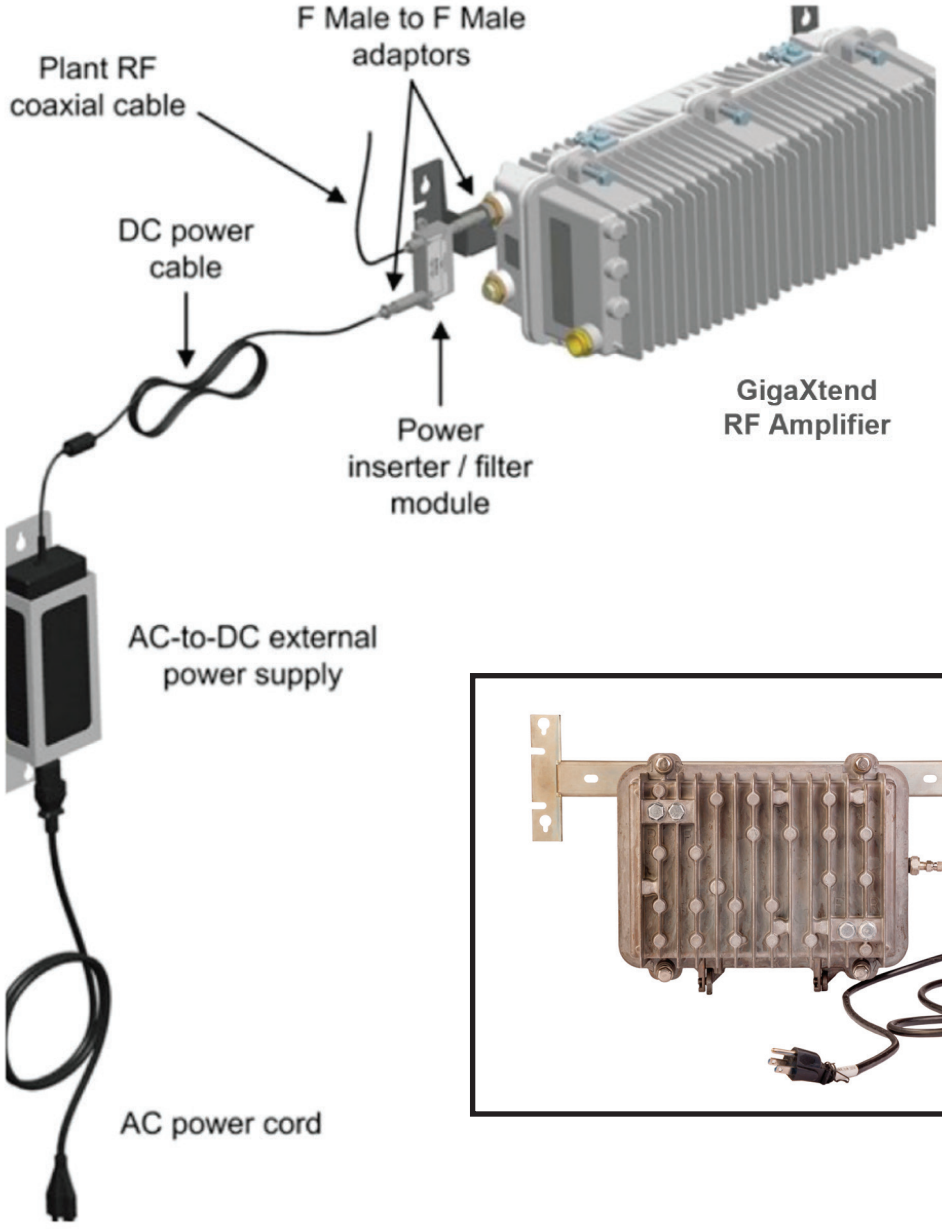


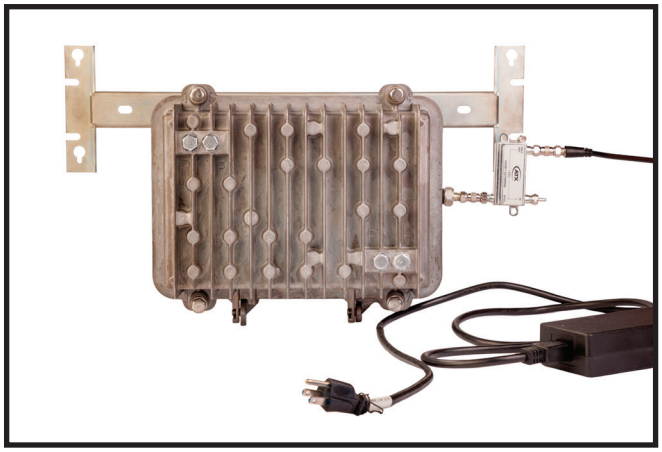
TO INSTALL THE MAINS POWER PACK KIT

6. To Install the Mains Power Pack Kit

Complete the following steps to install the mains power pack kit.

1. Attach the RF amplifier housing to the mounting surface using the mounting bracket installed previously. Use appropriate size #8 mounting hardware *(not supplied)*.





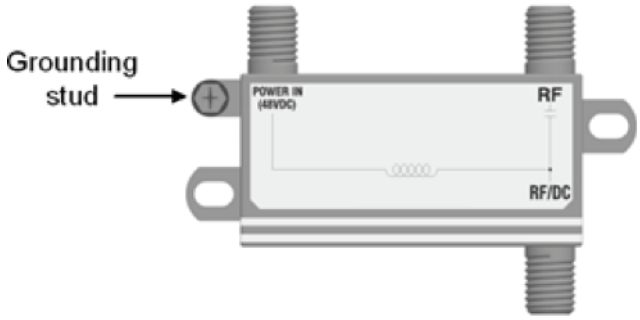
Note: *The RF amplifier can be mounted horizontally or vertically.*

2. Install the power inserter/filter module as follows:

a. Connect one end of an F Male to F Male adaptor to the connector labeled RF/DC on the power inserter/filter module.

b. Connect the other end of the F Male to F Male adaptor to the RF input port on the RF amplifier.

c. Attach the plant RF coaxial cable to the connector labeled RF on the power inserter/filter module.



d. Attach a ground wire to the grounding stud on the power inserter/filter module housing. Insert the bare end of a protective earth (PE) ground wire, AWG 18 or larger, under the grounding screw on the unit, and then tighten the screw from 18 in-lb to 20 in-lb (2.0 Nm to 2.3 Nm).

Note: *If an insulated PE ground wire is used, the insulation must be color- coded green with a yellow stripe.*

3. Connect one end of the remaining F Male to F Male adaptor to the free end of the DC power connector on the external power supply.
4. Choose a mounting location for the external power supply that will allow its cables to reach both an AC power outlet and the POWER IN (48 VDC) connector on the power inserter/filter module.
5. Mount the bracket for the external power supply to the mounting surface. Attach the bracket to the mounting surface using appropriate size #8 hardware (not supplied).
6. Slide the external power supply unit into the power supply bracket.
7. Connect the DC power cable (with F Male to F Male adaptor attached) to the POWER IN (48 VDC) connector on the power inserter/filter module.
8. Attach the AC power cord to the power supply, and then plug the AC power cord into a suitable nearby AC power outlet.
9. Use cable ties as needed to dress all cables neatly.
10. Complete the installation process as described in the RF amplifier documentation.

SERVICE & SUPPORT

7. Service & Support

7.1 For Information

If you have technical questions, call ATX Networks Services for assistance. Follow the menu options to speak with a service engineer.

7.2 Contact ATX Networks

Please contact ATX Technical Support for assistance with any ATX products.

TECHNICAL SUPPORT

Tel: 289.204.7800 – press 1
Toll-Free: 866.YOUR.ATX (866.968.7289) USA & Canada only
Email: support@atx.com

SALES ASSISTANCE

Tel: 289.204.7800 – press 2
Toll-Free: 866.YOUR.ATX (866.968.7289) USA & Canada only
Email: insidesales@atx.com

FOR HELP WITH AN EXISTING ORDER

Tel: 289.204.7800 – press 3
Toll-Free: 866.YOUR.ATX (866.968.7289) USA & Canada only
Email: orders@atx.com
Web: www.atx.com

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ATX Networks
Tel: 289.204.7800 | Toll-Free: 866.YOUR.ATX (866.968.7289) | support@atx.com