

Multimode Power Distribution Unit EPD3603-DC & D54 Series



INTRODUCTION

The Power Distribution Unit (PDU) provides DC power to up to six Tower Mounted Amplifiers (TMA) via Bias Tees. The PDU also monitors the operation of each TMA and forwards alarm information to the base station External Alarm Interface (EAI).

The PDU is housed in a 1 HU, 19" EIA rack-mountable enclosure, designed for indoor installation. Connections and indicators are located on the front panel.

The PDU is normally delivered with a set of accessories. Specifications vary by model and can include:

- Power Cable
- Alarm Cable
- Bias Tee Harness
- Rack Extender

DOCUMENTATION

This Installation Instruction provides the basic steps of a typical installation performed by a skilled technician.

For additional information, please refer to the following documents, which can be obtained at www.andrew.com or from your local Andrew Sales Representative:

- PA-102050-EN *Product Specifications*
- II-102051-EN *Installation and Operation User Guide*

TECHNICAL SUPPORT

Andrew's Customer Technical Support center is available 24 hours/day, 7 days/week by calling:

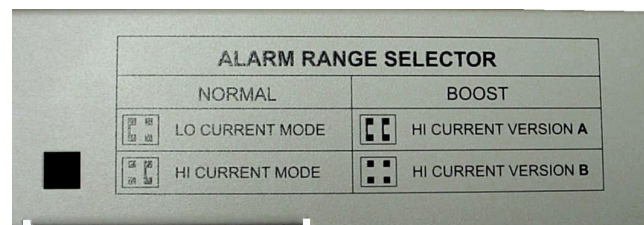
- (800) 279-8185 (North America)
- +1 (703) 726-5556 (International)

1 Select Alarm Range. Determine the applicable alarm current NORMAL range based on the type of TMA:

- LO: 23-158 mA normal; >168 mA alarm
- HI: 180-301 mA normal; <170 mA alarm

Position the shunting block in the Alarm Range Selector on the rear panel of the PDU using needle-nose pliers.

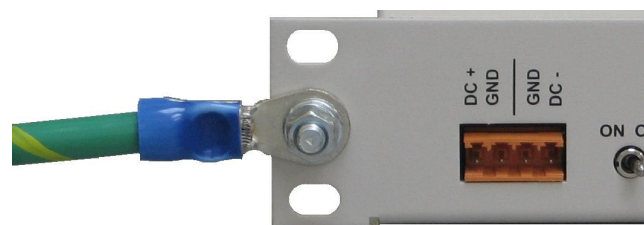
(For BOOST ranges usage, refer to the User Guide.)



2 Install PDU. If installing in a 23" rack, first attach the Rack Extender to either side of the PDU using the included hardware. Mount the PDU in the rack using four suitable rack screws (not included). Tighten fasteners securely.

3 Attach Ground Cable. Attach an AWG 5-10 (5-16 mm²) ground cable to the ground stud. Tighten the nut to 6 Nm (4.5 ft-lbs) torque using a 10 mm wrench.

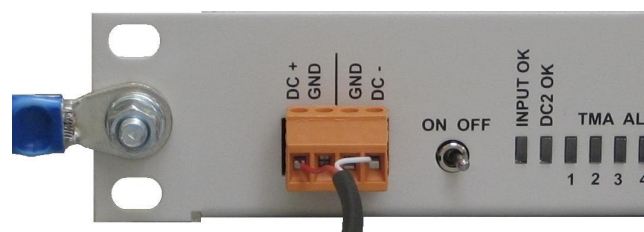
Avoiding sharp bends, route the ground cable to the common frame or ground bar. Trim, and attach with suitable terminal and hardware.



4 Connect Power Cable. Make sure that the On/Off switch on the PDU is in the OFF position. Connect the Power Cable to the Power Input connector. Terminate other end at the BTS power panel. Observe color or number polarity markings on the two wires:

- Red wire (or marked 1): positive (+)
- White wire (or marked 2): negative (-)

Install a 1-5 A fuse or circuit breaker (not included).



5 Connect Alarm Cable. Connect the Alarm Cable to the Alarm Interface connector and tighten the jackscrews. Terminate the other end at the EAI using the NO or NC wires as desired.

- NO: Blue and White. Open in PDU Alarm state
- NC: Brown and White. Closed in PDU Alarm state



6 Connect Bias Tee Harness. Connect the Bias Tee Harness to the DC Output connector and tighten the jackscrews. Attach the SMA connectors to the Bias Tees and tighten to 0.8-1.1 Nm (7-10 in-lbs) torque using an 8 mm (5/16") wrench. Note color coding of the cables:

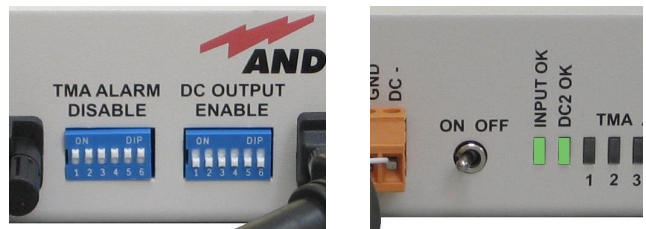
- 1: Black
- 2: Gray or Yellow
- 3: White
- 4: Red
- 5: Green
- 6: Blue

Weather-seal SMA connectors if Bias Tees are outdoors.



7 Reset DIP Switches. Disable all outputs and alarms using the DIP switches as shown.

8 Turn on PDU. Turn the On/Off switch to ON. Verify that the INPUT OK and DC2 OK LEDs turn green. All other LEDs should be dark.



9 Set DIP Switches. Enable each output that is connected to a TMA using the DC OUTPUT DIP switches. The LED at each enabled output should turn green. Leave unused outputs disabled.

Enable alarms for each enabled output using the TMA ALARM DIP switches. The LED at each output should stay green. Leave alarms disabled for unused outputs.



10 Check and Finish. Check all connections and settings to ensure they are correct and secure. Dress and tie the cables making sure they are not exposed to excess strain, crush, abrasion, heat, or accidental damage.



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