

**T400 U-RPM III
U-REPEATER III POWERING MODULE
INSTALLATION/MAINTENANCE**

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1. GENERAL

The ADTRAN Type 400 U-Repeater Powering Module III (T400 U-RPM III) is a T400 card used to power an ADTRAN ISDN U-Repeater II, U-Repeater III, or the ADTRAN I-NIU. Figure 1 is an illustration of the unit. It can be deployed in any standard T400 single or multiple housing, and is physically located between the U-Repeater or I-NIU and the ISDN interface, such as an ISDN switch or U-BRITE, as shown in Figure 2. The U-RPM III can also be deployed in a Metallic Facilities Termination (MFT) mounting when used with an appropriately wired T400/MFT Adapter.

Revision History

Issue 3 has been revised to incorporate the ADTRAN I-NIU functionality.

Features

The T400 U-RPM III, part number 1213017L1, features:

- Class A3 (-120 V) output voltage operation
- Battery return or earth ground option
- Front Panel LED indicating loop fault
- Passive transmission of data between U-LT and U-Repeater
- Loop resistance monitoring from power module to U-Repeater
- Factory replaceable fuse on input voltage line to isolate from shelf

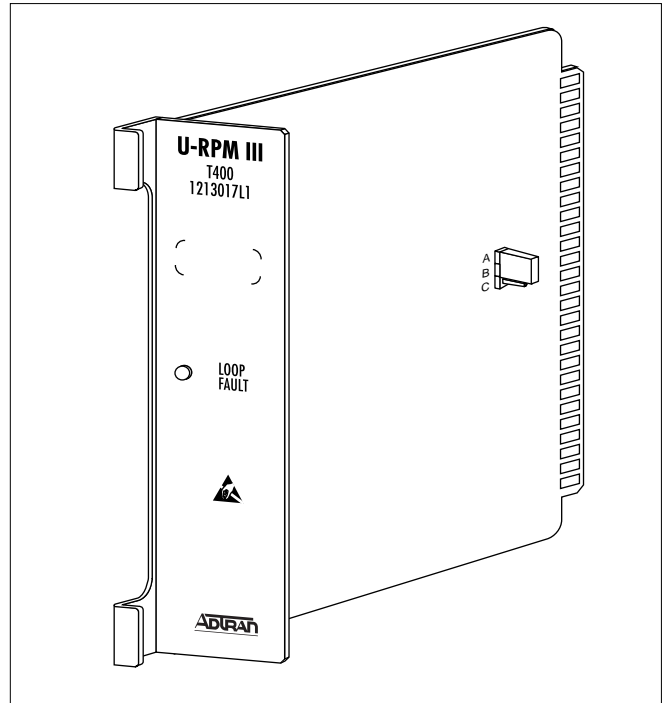


Figure 1. T400 U-RPM III

Sealing Current Generation

The T400 U-RPM III converts -48 or -72 VDC input voltage to provide an output voltage of up to -120 VDC, and up to 43 mA of sealing current. When used with the ADTRAN ISDN U-Repeater II and III, the U-RPM III operates in a constant current mode, allowing the output voltage to change depending on the loop resistance between the U-RPM and the U-Repeater. In this mode, the U-RPM III provides the required constant 43 mA sealing current, with output voltages ranging from -28 VDC to -120 VDC. When used with the ADTRAN I-NIU, the U-RPM III operates in a constant voltage mode, providing a constant -120 VDC. The output current will be between 10 and 30 mA, dependant on loop resistance between the I-NIU and the U-RPM III. The U-RPM III automatically determines the correct mode of operation, and does not require option selections.

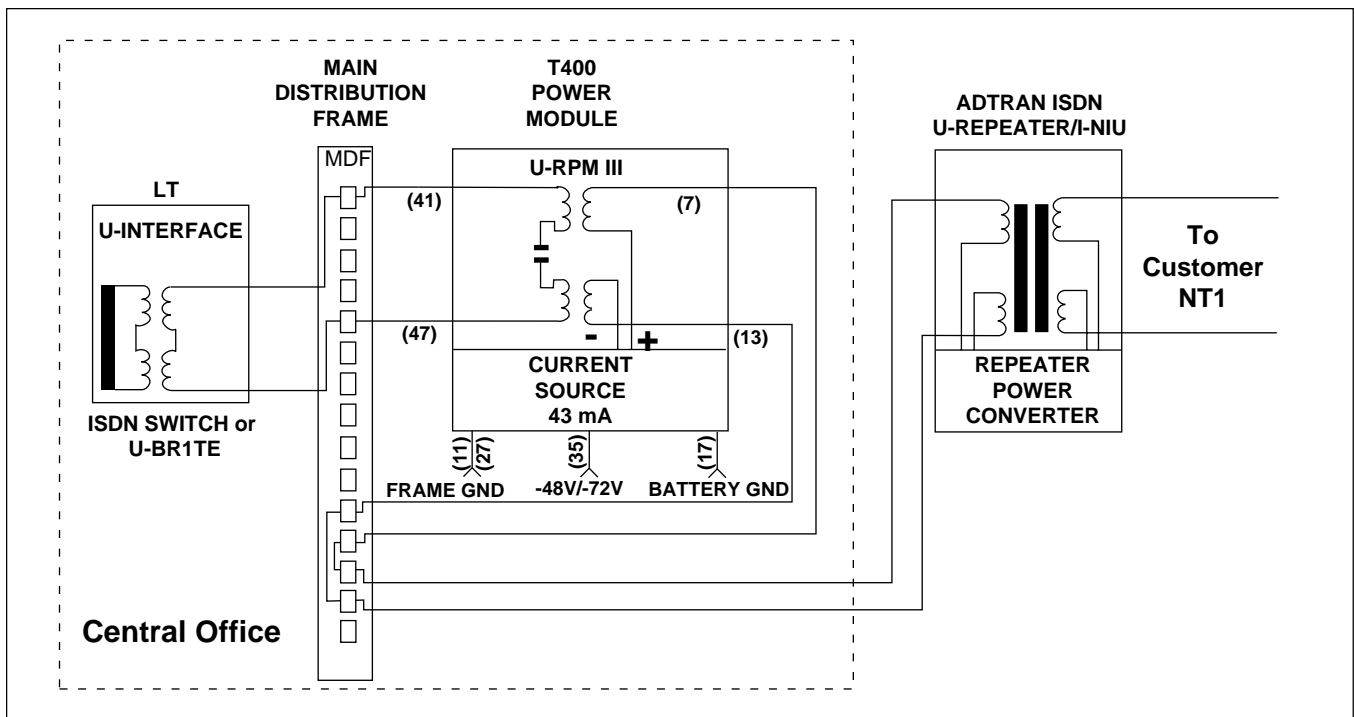


Figure 2. T400 U-RPM III Application

2. INSTALLATION

After unpacking the unit, immediately inspect it for possible shipping damage. If damage is discovered, file a claim immediately with the carrier, then contact ADTRAN Customer Service (see section 3, *Warranty and Customer Service*).

Select the appropriate grounding option for the U-RPM III's faceplate using Jumper J1. The faceplate can be grounded to either the -48V return (A and B) or frame ground (B and C). When frame ground is selected, backplane connector pins 11 or 27 must be connected to Frame /Chassis ground of the housing.

Grasp the T400 U-RPM III by the faceplate and insert it into a shelf slot. Push the T400 U-RPM III into the backplane connector until firmly seated.

CAUTION Voltages to -120 VDC may be present on output to repeater when the unit is powered.

After installing the U-RPM III and the U-Repeater or I-NIU, refer to the *appropriate ADTRAN U-Repeater Installation/Maintenance* practice for installation verification.

Figure 3 shows the connector pin assignments. All connections to the unit are made through the T400-compatible backplane. No additional backplane wiring is necessary for normal operation.

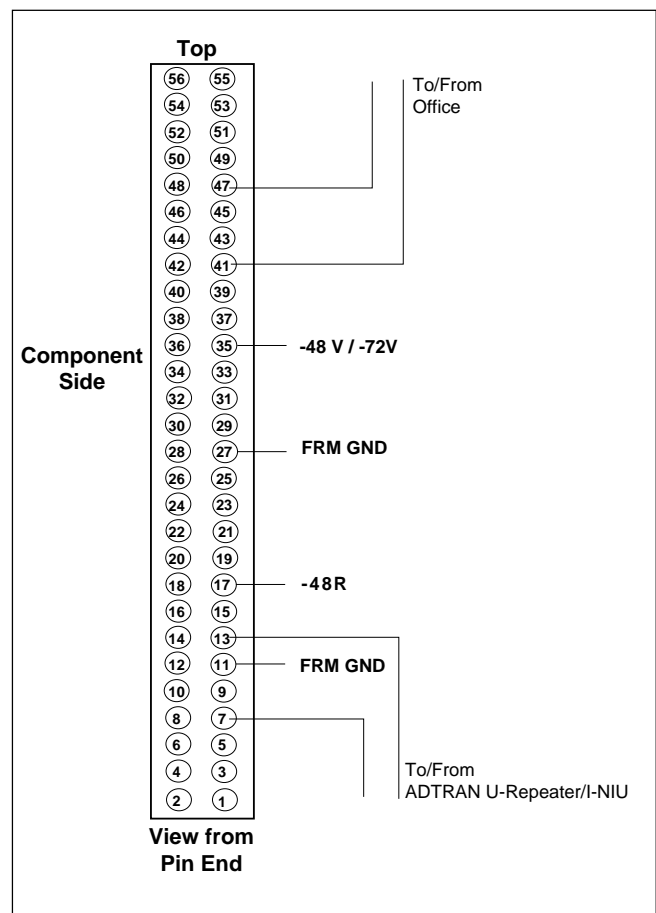


Figure 3. Connector Pin Assignments



If using Frame ground option, backplane connector pins 11 or 27 must be connected to earth ground.

The T400 U-RPM III can be installed in Western Electric Metallic Facilities Termination (MFT) mounting shelves. The use of a T400/MFT adapter provides the mechanical and electrical interfaces required for proper operation of the U-RPM III in the MFT mounting. T400/MFT Adapters are available in either a custom wired or an unwired model from multiple suppliers. The unwired versions require wire-wrapping to interconnect the T400 56-pin connectors to the MFT 40-connector.

LOOP FAULT

A faceplate-mounted LED labeled *LOOP FAULT* illuminates when the loop is open to the repeater. When installed, the module dissipates approximately 2 watts.

3. WARRANTY AND CUSTOMER SERVICE

ADTRAN will replace or repair this product within ten years from the date of shipment, if the product does not meet its published specifications or if it fails while in service. For detailed warranty, repair, and return information, refer to the ADTRAN Equipment Warranty and Return Policy and Procedure.

Return Material Authorization (RMA) is required prior to returning equipment to ADTRAN. ADTRAN does not recommend that repairs be performed in the field.

For service, RMA requests, or further information, contact one of the following numbers:

ADTRAN Customer Service:
Applications Engineering (800) 615-1176
(Pre-Sales Support and Inquiries)
Technical Support (Post-Sales) (800) 726-8663
(Have unit serial number available.)
Sales (800) 827-0807
RMA (Repair Service) (205) 971-8722

Repair and Return Address:
ADTRAN, Inc.
Customer Service Department
901 Explorer Boulevard
Huntsville, Alabama 35806-2807