

T400 U-RPM II U-REPEATER II POWERING MODULE INSTALLATION/MAINTENANCE

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Figure 1. ADTRAN T400 U-RPM II

1. GENERAL

1.1 This section provides installation information for the ADTRAN Type 400 U-Repeater Powering Module II (T400 U-RPM II). **Figure 1** is a three-dimensional view of a unit. The part number and basic features of the T400 U-RPM II are listed in **Table A**.

Note: This module is to be used with ADTRAN U-Repeater II or U-Repeater III only.

Table A. Basic Features

Unit	Part Number	Features
Type 400 U-Repeater II Powering Module (T400 U-RPM II)	1212017L1	Repeater Powering Module for ADTRAN ISDN second and third generation U-Repeater Class A2 or A3 output voltage operation Battery return or earth ground option
	1212017L2	-72 V input voltage

1.2 Issue 3 of this practice reflected text correction and changes to Figure 2. Issue 4 removed references to mid-point. Issue 5 added the List 2 unit. Issue 6 updates the List 1 CLEI code.

1.3 The T400 U-RPM is a T400-size plug-in used to power an ADTRAN ISDN U-Repeater. The T400 U-RPM II sends sealing current power down the local loop on the signal pair.

1.4 The Type 400 U-Repeater II Powering Module (T400 U-RPM II) is housed in a T400-type shelf between the U-Repeater and the Digital Subscriber Loop U-LT as shown in **Figure 2**. The T400 U-RPM II provides for the following functions for the ADTRAN ISDN loop repeater.

Sealing Current Generation: The T400 U-RPM II generates a constant 43 mA of sealing current independent of loop resistance or wire gauge from -48 or -72 VDC input voltage. The sealing current is sent down the local 2-wire loop through pins 7 and 13 to the U-Repeater.

Passive Flow Through: The T400 U-RPM II passively passes data from the U-LT to the U-Repeater and from the U-Repeater to the U-LT.

Loop Continuity Monitoring: Monitors line resistance from power module to the U-Repeater.

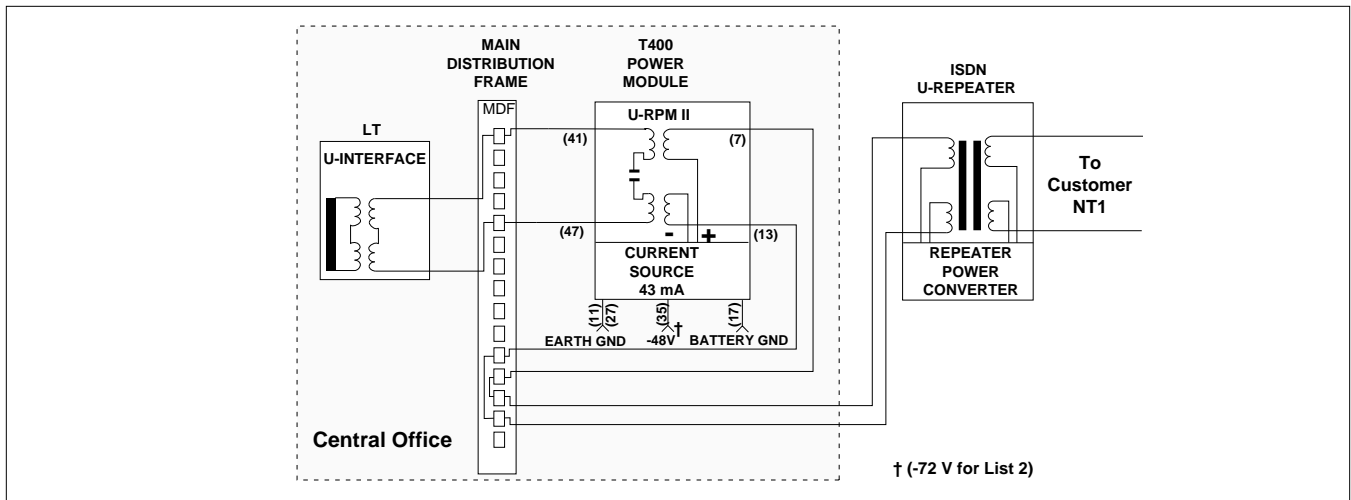


Figure 2. T400 U-RPM II Application

2. INSTALLATION

2.1 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 **subsection 5.2**).

2.2 The T400 U-RPM II has a jumper selectable ground for the faceplate and shield to select between earth ground or battery ground as shown in **Figure 3**. The grounded metal faceplate and shield attaches to the printed circuit board. A faceplate-mounted LED labeled **LOOP RESISTANCE FAULT** turns *On* when loop resistance is excessive or the loop is open to the repeater.

2.3 The electronic components of the T400 U-RPM II are mounted on an epoxy printed circuit board. The board has gold plated edge fingers which plug into and mate with a dual (56 pin, position 28) connector on the back panel (see **Figure 4**).

The T400 U-RPM II contains options for Class A2 output (up to ± 60 V) or Class A3 (-50 V to -100 V or -120 V) operation. See **Figure 3** for option locations and settings.

Note: When installed, the module dissipates approximately 2W.

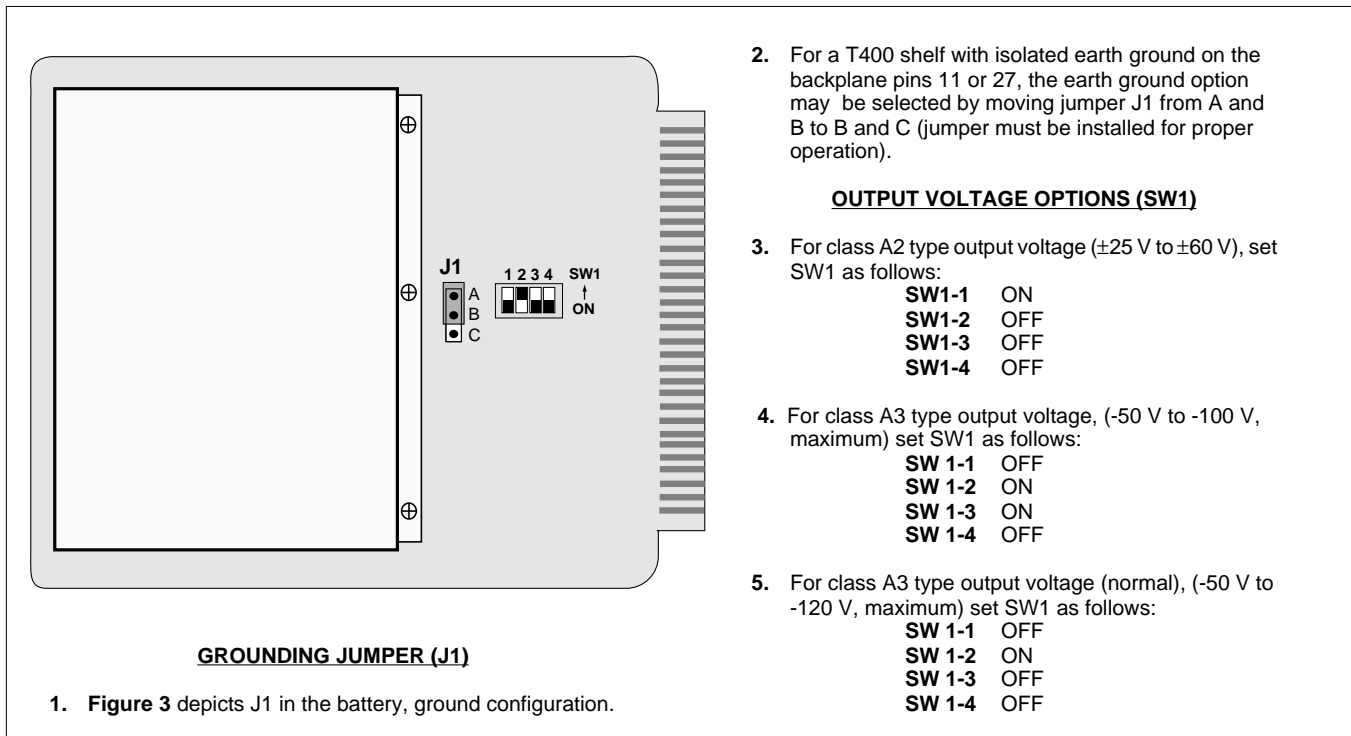


Figure 3. T400 U-RPM II Option Locations

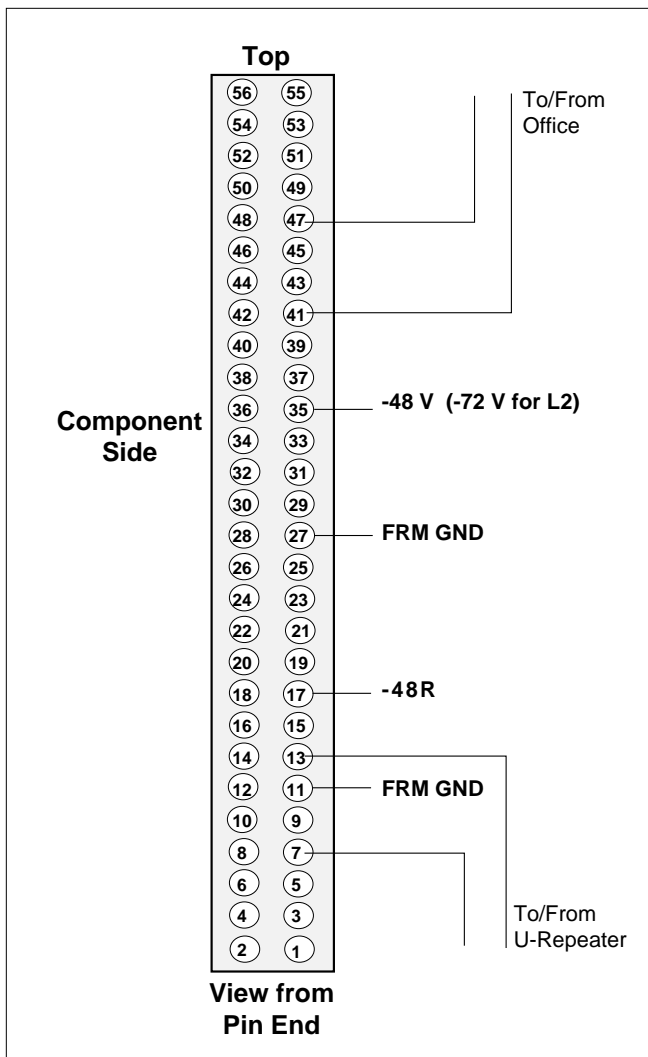


Figure 4. Connector Pin Assignments

2.4 The T400 U-RPM II contains a factory replaceable fuse on the input voltage line to isolate the bank in the event of unit failure.

2.5 After installing the the U-Repeater system, refer to the ADTRAN U-Repeater Installation/Maintenance practice for installation verification.

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

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

3. CONNECTIONS

3.1 **Figure 4** shows the connector pin assignments of the T400 U-RPM II. All connections to the unit are made through the T400-compatible backplane. No additional backplane wiring is necessary for normal operation of the T400 U-RPM II.

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

4. MAINTENANCE

4.1 The T400 U-RPM II requires no routine maintenance to operate. ADTRAN recommends that the unit not be repaired in the field. Repair services may be obtained by contacting ADTRAN Customer Service (see **subsection 5.2**).

5. WARRANTY AND CUSTOMER SERVICE

ADTRAN will replace or repair this product within five 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 Repair and Return Policy Procedure.

5.1 Return Material Authorization (RMA) is required prior to returning equipment to ADTRAN.

5.2 ADTRAN Customer Service:

RMA	(205) 971-8722
Technical Support	(800) 726-8663
Applications Engineering	(800) 615-1176
Sales	(800) 827-0807

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

