3192 4-Pair Line Power Unit

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3192
4-Pair LPU

P/N: 1181501L2
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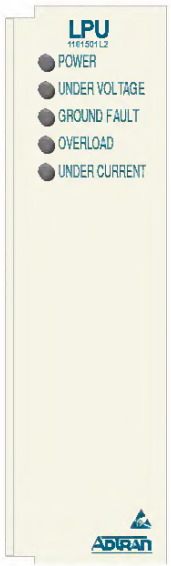


CAUTION!
SUBJECT TO ELECTROSTATIC DAMAGE OR DECREASE IN RELIABILITY.
HANDLING PRECAUTIONS REQUIRED.

GENERAL

This job aid provides information for the installation, function, and operational use of the ADTRAN® 3192 Line Power Unit (LPU). The LPU (P/N 1181501L2) is designed to provide power for the Total Access® 1124/1148 Line Powered Digital Subscriber Line Access Multiplexer (DSLAM).

DESCRIPTION

Each ADTRAN LPU provides up to 100 watts of power to an associated DSLAM on a one-to-one basis. The LPU can reside either in a Central Office (CO) or be installed in a remote facility in close proximity to the associated DSLAM. The LPU provides ±145 VDC power and can span distances up to 60 kft (approximately 11 miles).

Each LPU occupies any two adjacent slots in a 3192 shelf. Slots not occupied by an LPU can house standard channel cards. Total slot population is limited by the maximum input current of the 3192 shelf.

The LPU receives –48 VDC at a maximum of 2.6 amps from the chassis backplane and outputs to four Tip and Ring power pairs. Voltage potential per pair is Tip +145 VDC and Ring –145 VDC (290 VDC combined).

The total power wiring pair requirement is based on transmission distance to the remote location.

FUSES

Power input to the LPU is fused at 4.0 amps; Tip and Ring power output is fused at 1.5 amps each. Fuses are not replaceable.

LED INDICATION

Five front panel LEDs provide status for the LPU. The **POWER** LED is green; its normal condition is on. All other LEDs are red; their normal condition is off. LEDs are as follows:

LED	Status	Description
POWER	On	LPU receiving –48 VDC
	Off	LPU not receiving power or supply fuse failed
UNDER VOLTAGE	On	< 115 VDC per T or R (< 230 VDC per T/R pair)
	Off	Voltage normal: ±145 V per T/R (± 5%)
GROUND FAULT	On	Ground fault detected
	Off	No ground fault
OVERLOAD	On	> 0.4 amps at 290 VDC
	Off	No overload
UNDER CURRENT	On	< 0.04 amps
	Off	Current normal

INSTALLATION

After unpacking the unit, inspect it for damage. If damage is noted, file a claim with the carrier, and then contact ADTRAN. For more information, refer to the warranty.

The LPU installs in any two adjacent slots in a 3192 shelf.

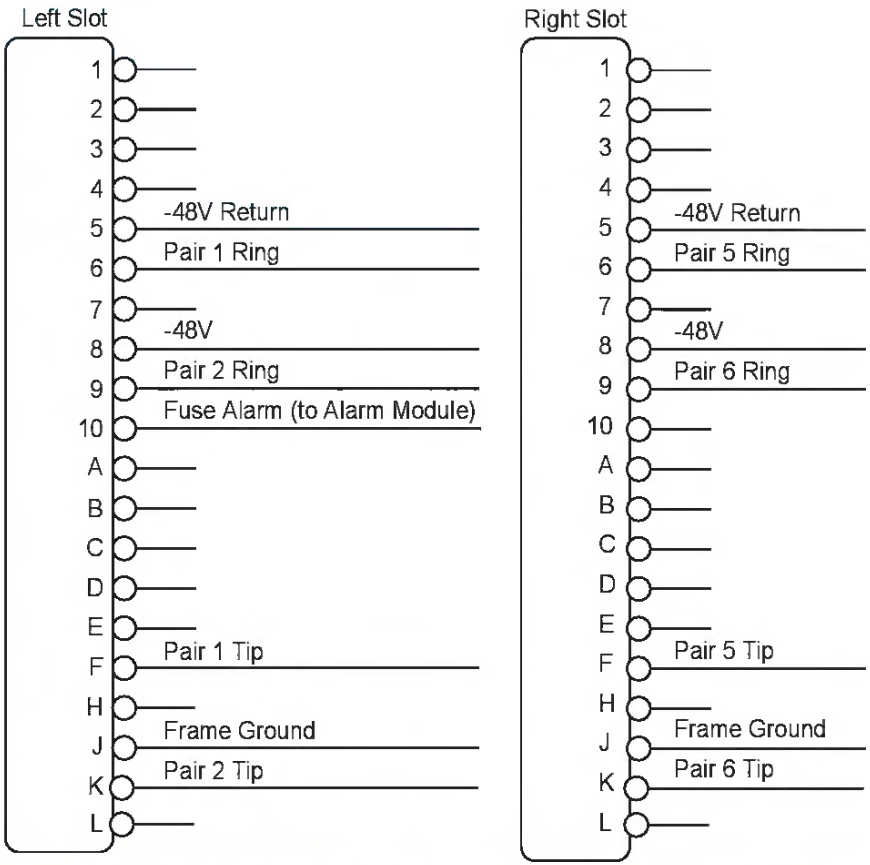
WARNING: Adhere to static discharge precautions when handling circuit cards.

To insert the LPU, perform the following steps:

1. If present, remove the blank panel from the appropriate module slot of the chassis.
2. Pull the ejector latch, located on the lower right-hand side of the LPU front panel, from its closed position.
3. Hold the LPU by the front panel while supporting the bottom edge of the module with the ejector latch opened to engage the chassis edge.
4. Align the LPU card edges to fit in the lower and upper guide grooves for the access module slot.
5. Slide the LPU into the module slot. Simultaneous thumb pressure at the top (above the **POWER** LED) and at the bottom (below the electrostatic caution symbol) of the front panel ensures that the LPU is firmly positioned against the backplane of the chassis.
6. Secure the LPU in place by pushing in on the ejector latch.

Upon installation, the LPU initiates a self-test. Once the power up self-test is completed, the front panel LEDs reflect the true state of the hardware.

3192 LPU EDGE CONNECTOR WIRING



NOTE: Connect only those output pairs required to meet power requirements of the Total Access 1124 DSLAM based on the transmission distance.

COMPLIANCE

WARNING: Risk of electric shock. Max voltages of ±145 VDC with respect to ground, and 290 VDC across the loops may be present on telecommunications wiring. Ensure chassis ground is properly connected.

This product is intended for installation in restricted access locations only and in equipment with a type "B" or "E" enclosure.

Code	Input	Output
Power Code	F	C
Telecommunication Code (TC)	–	X
Installation Code (IC)	A	–

This product provides span powering voltage (±145 VDC nominal, GFI protection < 0.005 amps). This product is NRTL Listed to the applicable UL standards.

MAINTENANCE

The LPU does not require maintenance for normal operation. ADTRAN does not recommend that repairs be attempted in the field. Repair services are obtained by returning the defective unit to ADTRAN. Refer to Warranty section for further information.

SPECIFICATIONS

The following table lists the LPU specifications:

Specification	Description
Physical	
Dimensions:	Height: 4.75 inches Width: 1.375 inches Depth: 10.0 inches
Weight:	11 ounces
Environmental	
Max operating temperature:	–40°C to +70°C
Max storage temperature:	–40°C to +85°C
Relative humidity:	95% non condensing
Electrical	
Input power:	100 watts max
Operating voltage:	–42 to –56 VDC
Output voltage:	±145 VDC per T/R pair (290 VDC total)
Maximum output current:	Rated: 0.345 amps Maximum: 0.4 amps (total across all output pairs)