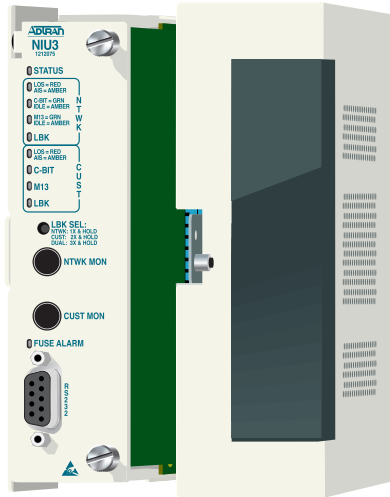


NIU3 STANDALONE HOUSING

CLEI: NCM57WVD__



GENERAL

This job aid is used in association with the NIU3 circuit card job aid, P/N 61212075Lx-22.

INSTALLATION AND LOCATION

After unpacking the unit, inspect it for damage. If damage is noted, file a claim with the carrier, then notify ADTRAN. See *WARRANTY*.

The standalone housing is designed to mount to a plywood backboard. The body has four mounting screw holes on raised extrusions, which provide clearance from the backboard. The housing interior holds a host circuit board designed to accept the NIU3 unit. Card guides direct the NIU3 for correct insertion and also prevent vertical movement. When properly inserted, thumbscrews on the NIU3 front panel align and fasten to threaded holes on the standalone body, providing a secure assembly.

The rear panel has portals for power and ground wires, plus four BNC connectors:

- Two for Network Transmit/Receive
- Two for Customer Transmit/Receive

All front and rear panel items are clearly labeled. A wire-tie anchor point is also on the rear panel.



IN Indicates Receive from Network or Customer.
OUT Indicates Transmit to Network or Customer.

Mounting

NOTE: Install the unit per NEC NFPA 70 requirements.

The NIU3 standalone housing can mount at any convenient location adjacent to the customer:

1. Position the housing at the designated location.
- NOTE:** The NIU3 can pass both network and customer signals up to 900 feet. However, if either distance exceeds 450 feet, the respective front panel monitoring signal begins to degrade. Also, during NIU3 bypass operations, if total transmission distance exceeds 900 feet, signal quality may degrade. Refer to circuit diagram in Operation section on reverse.
2. Ensure the housing is plumb, then mark the four mounting holes for pilot hole location.
3. Using an appropriate sized bit, drill the four pilot holes.
4. Align the housing to the pilot holes and fasten to the backboard with the supplied screws.
5. Align the NIU3 to the card guides and insert into the housing until firmly seated into the edge connector, then secure with the front panel thumbscrews.

Wiring

Wiring consists of two elements: power and data.

NOTE: Use suitably sized copper conductors only.

Power

During normal NIU3 operation maximum power is 125 mA @ -48 VDC. Local DC power is fed through the power portal on the rear panel terminating at TB1, which has spade lug terminals for 48V(-), 48V(+)/GND, and Frame Ground. See NOTE in *COMPLIANCE* section for requirements.

Optional power is from a standard 120 VAC grounded wall outlet via a separately purchased AC/DC transformer (P/N 1212074L1) rated at 48 VDC @ 200 mA (125 mA minimum).

WARNING: Ensure power is off before making wiring connections.

1. From a local power source, feed the wire through the Power portal on the housing rear panel.
2. Make wiring connections to TB1 as shown.

Ground

CAUTION: Terminate grounds to an approved ground location. Check metal to metal contact on all ground connections, ensure ground circuit continuity.

Standard ground is through the ground wire terminal on TB1.

An optional ground is via the ground wire portal on the rear panel terminating at the host circuit board ground lug (J1). J1 is electrically connected to TB1.

NOTE: J1 is a screw compression terminal requiring copper wire.

The optional AC/DC transformer ground is via the green wire terminating at the ground terminal on TB1.

After all wiring connections are made, dress and lace wire runs to workmanship standards.

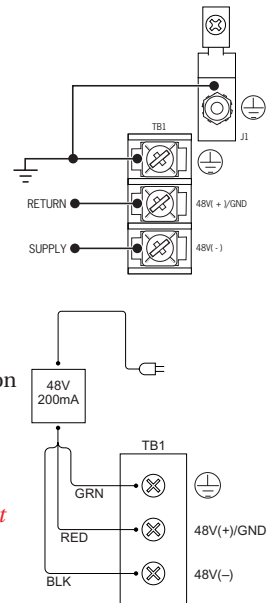
Data

Connect the cables to the four BNC connectors on the rear panel:

- Two (IN/OUT) for Customer Receive/Transmit
- Two (IN/OUT) for Network Receive/Transmit.
- If not already accomplished, connect the opposite ends to their designated connectors.

Fuse

The -48 VDC is fused on the NIU3 card.



OPTIONS

Aside from power source and ground terminations, there are no option selections associated with the NIU3 standalone housing.

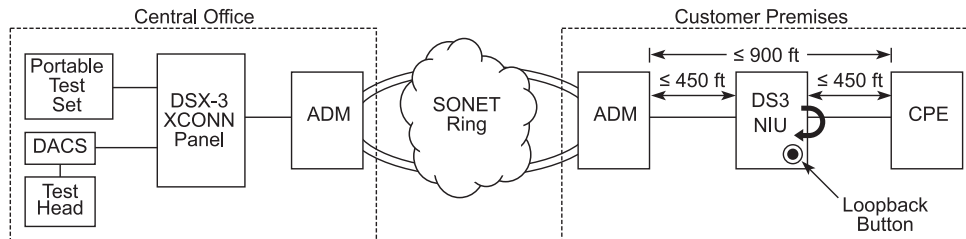
TURN-UP

When power is applied, the NIU3 STATUS LED turns ON red while the unit performs a self test during which the other LEDs go through an ON/OFF sequence. If the test passes, the STATUS LED turns ON green indicating the NIU3 is online. If the test fails, the STATUS LED remains red and the host circuit board bypass relays (patent pending) maintain data flow around the NIU3.

OPERATION

The NIU3 standalone host circuit board exchanges data to and from the network loop and customer loop via the BNC connectors. During operation the NIU3 is transparent to data flow. If the NIU3 fails or is removed from the circuit, relays on the standalone host circuit board provide passthrough transmission so data flow can resume.

In the event of circuit trouble, test equipment at the central office can monitor the loop. When a loopback is initiated, the transmit/receive paths can be tested to the customer interface. NIU3 troubleshooting tests are intrusive to data transmission.



LED Indication

There are no LEDs on the standalone housing. However, NIU3 LEDs provide indication for NIU3 and standalone housing configuration and status.

MAINTENANCE

The NIU3 standalone housing does not require maintenance for normal operation.

COMPLIANCE

NEBS Level 3
 ANSI T1.404
 UL 1950

UL 1950 Configuration Codes:

Code	Input	Output
Power Code (PC)	F	C
Telecommunication Code (TC)	-	-
Installation Code (IC)	E	-

NOTE: Use one of the following requirements for powering the unit locally:

- Connect to a grounded -48 VDC source, electrically isolated from the AC source. Provide branch circuit overcurrent protection with a fuse or circuit breaker, minimum 48 VDC, maximum 15 A. Provide an easily accessed approved and rated disconnect device in the field wiring.
- Connect to an approved Class 2 Type (LPS) power supply rated 48 VDC, maximum 240 VA.

CAUTION: Per GR-1089-CORE, October 2002, Section 9, this system is designed and intended for installation in a DC-C (common) bonding and grounding system only. It is not intended or designed for installation in a DC-I (isolated) bonding and grounding system.

PART NUMBERS & CLEI CODES

Standalone Housing:	1212070L2
NIU3:	1212075L2
AC/DC Transformer:	1212074L1 (separately purchased)
CLEI, NIU3:	NCD3EG0A __
CLEI, S/A Housing:	NCM57WVD __

WARRANTY

ADTRAN will replace or repair this product within the warranty period if it does not meet its published specifications or fails while in service. Warranty information can be found at www.adtran.com/warranty. U.S. and Canada customer Faxback: 877-457-5007, Document 414.