Total Access 3000/T1-OR/NIU

JOBAID
61181310L2-22B
0408

Total Access 3000
T1-OR/NIU
CLEI: M3CUTY0B_ _

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

STATUS LEDS

PWR	○ Off	No power to module
	● Green	Module in service
	✸ Green Flashing	Module in service and being accessed from SCU front panel craft interface port
	● Yellow	Module out of service and being accessed from SCU front panel craft interface port
	✸ Yellow Flashing	Host shelf
DSX	○ Off	DSX interface loss of sync
	● Green	Normal
DS1	○ Off	DS1 interface loss of sync
	● Green	Normal
TST	○ Off	Loopback not active
	● Yellow	Loopback active
	✸ Yellow Flashing	Loopback arming
ALM	○ Off	No alarm condition detected
	● Red	Local alarm condition detected

LBK PUSHBUTTON

The **LBK** pushbutton initiates a loopback to the network and sends a signal to the customer.

Depress the **LBK** pushbutton for two seconds, at which time the loopback initiates and the **TST** LED turns on. Release the pushbutton. Depressing the pushbutton a second time releases the loopback.

BANTAM JACKS

Bantam **EQ** and **MON** test jacks provide two monitoring functions depending on whether the unit is optioned as an Office Repeater unit (OR), or as a Network Interface Unit (NIU). **MON** tests are nonintrusive, **EQ** tests are intrusive.

DSX EQ OR Mode	DSX MON OR Mode
Tx to customer	Tx to customer
Rx from customer	Rx from customer
OR	
Tx to network	
Rx from network	

***NOTE:** Direction of EQ jacks can be changed in the Loopback and Test menu.*

***NOTE:** EQ jacks work towards the customer when optioned for DSX network service.*

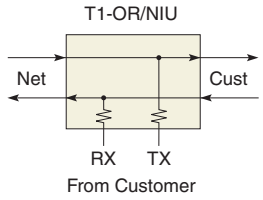
TEST POINTS

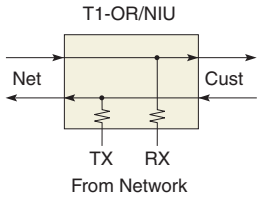
Provides a method to measure span current and voltage. The following can be measured:

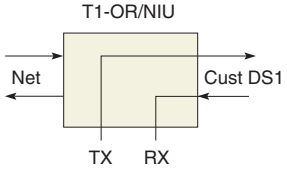
±0.6 Volts Test Jacks

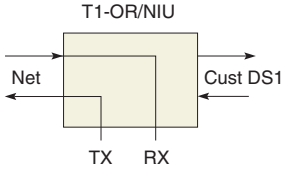
1. +Tx / –Tx measures the transmit span current
2. +Rx / –Rx measures the receive span current
3. +Tx / –Rx measures the span voltage
4. –Tx / +Rx measures the span voltage

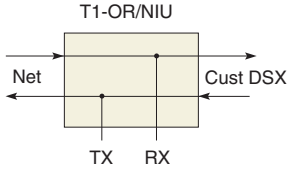
Bantam Test Block Diagrams





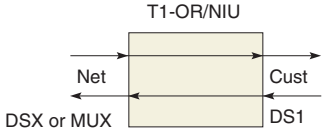


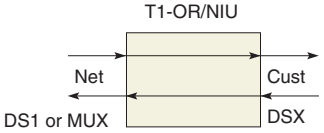




CAUTION: Do not use EQ bantam jacks if there is DSX activity on the Total Access 3000 backplane.

Operational Modes





For more information, refer to the Installation and Maintenance Practice (P/N 61181310L2-5) available online at www.adtran.com.

COMPLIANCE

The T1-OR/NIU complies with the requirements covered under UL 1950 and is intended to be installed in Restricted Access Areas only and in equipment with a Type "B" or "E" enclosure. The T1-OR/NIU is NRTL listed to the applicable UL standards.

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

INSTALLATION AND TURNUP

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

The T1-OR/NIU plugs directly into any number of the access slots, labeled **1**–**28**, of the Total Access 3000 chassis. No installation wiring is required. This unit can be either DSX or MUX fed. If the unit is MUX fed, a BNC Adaptor Module (P/N 1181004L1) will be necessary for the MUX module to interface with the network.

In a protection configuration, the main unit must occupy an odd-numbered slot and the auxiliary unit must occupy the adjacent, right-hand, even-numbered slot.

Insert the T1-OR/NIU module into the designated slot. Simultaneous thumb pressure at the top (above the **POWER** LED) and bottom (below the **MON** bantam jack) of the unit to ensure a good seat of the T1-OR/NIU pins into the backplane connector. Push the ejector tab up and closed against the T1-OR/NIU front panel.

Upon installation, the unit will reflect the provisioning as being set at factory defaults. See the Provisioning table to the right for default settings and provisioning information.

Pins B1 and B2 on the card-edge are designated for frame ground.

See the table below for Network Source provisioning information.

Network Source	Description
DSX	Unit interfaces through the MUX in Slot A
MUX A	Unit Interfaces through the MUX in Slot A
MUX B	Unit interfaces through the MUX in Slot B
Auto MUX	Unit interfaces through either MUX A or MUX B, depending on which one is currently online. Will automatically switch to online MUX

ACCESSING THE T1-OR/NIU

The T1-OR/NIU can be provisioned and tested only through the SCU craft interface. To access the Provisioning menu, connect a terminal emulator via the RS-232 (DB-9) connector on the faceplate of the SCU. The terminal must be VT100 or compatible and set for 9.6 kbps, 8 data bits, no parity, 1 stop bit. At the Logon screen, enter the system password. The default is "PASSWORD" and can be changed upon successful login. Select Access Modules from the Total Access 3000 Main menu and then Module Menus from the Access Modules menu. Access the desired T1-OR/NIU by selecting the corresponding slot number.

PROVISIONING THE T1-OR/NIU MODULE

1. From the T1-OR/NIU Main Menu select Provisioning, and press ENTER.

Span Power Option

2. Two board-mounted jumper straps (**P4**) select this span power option.
3. With the straps positioned in the 1-3 and 2-4 configuration (factory setting), span power is software controlled.
4. With the straps positioned in the 3-5 and 4-6 configuration, span power is always disabled and software selection is ignored regardless of screen indication.

WARNING: Jumper P4 should be changed to 4-6 and 3-5 if the card is provisioned as a T1-NIU. Failing to do so will prevent the span power from looping back properly through the unit and the line powered devices will not receive power. P4 should be set to 1-3 and 2-4 if it is deployed as a T1-OR (the default setting).

Options	Settings	Default
DSX-1 Line Buildout	0-133, 133-266, 266-399, 399-533, 533-655	1–333 feet
DSX-1/DS1 Line Code	AMI, B8ZS	B8ZS
DSX-1/DS1 Framing	SF, ESF, Unframed	ESF
Loopback Timeout	None, 20 Min, 60 Min, 120 Min	120 min.
DS1 TX Level	0 Db, -7.5 dB, -15 dB, -22.5 dB	0 dB
Network Source	DSX/DS1, Mux A, Mux B, Auto Mux	DSX/DS1
Service State	In Service, OOS Maintenance, OOS Unassigned	OOS Unassigned
Span Power	Disabled, –130V, ±130V	–130V
External Alarms	Enabled, Disabled	Disabled
Card Configuration	T1-OR, T1-NIU	T1-OR

WIRING INSTRUCTIONS

The T1-OR utilizes amphenol connectors Pair 7 and Pair 8 to connect to the DSX-1 panel. Pair 7 carries T and R (**IN**) from the DSX-1 panel while Pair 8 carries T and R (**OUT**) to the DSX-1 panel. Pair 1 and Pair 2 are used for the DS1 interface.