PRACTICES

TM400
TEST ACCESS CARD
INSTALLATION/MAINTENANCE

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1. GENERAL

The ADTRAN TM400 (ADTRAN part number 1245065L1) is used for installing and troubleshooting circuits with T400 mechanics. The TM400 accesses the four pairs that connect the card-edge socket for metallic and functional testing of the pairs.

The basic features of the TM400 are described below.

- Plugs into ADTRAN T400 housings 1150087L1 and 1150043L1 and L2
- Provides complete testing of wire pairs
- Easy access of pairs

The four-position switch on the card provides a means for the following:

- Looping back the Central Office (CO) pairs and the Customer pairs
- Bridging across pairs
- Shorting loop 1 and loop 2
- Opening loop 1 and loop 2

Revision History

The is the first issue of this practice. In subsequent issues, revisions will be summarized in this paragraph.

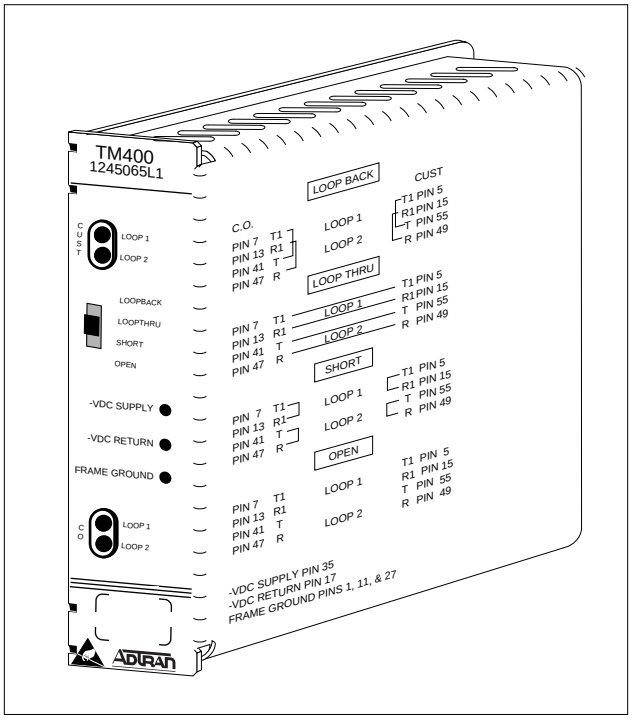

Figure 1. ADTRAN TM400

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.

CAUTION

This equipment contains static-sensitive components. Be sure to use proper electrostatic discharge procedures before handling or installing the equipment.

3. APPLICATIONS

The ADTRAN TM400 enables the Telco craft personnel to test the wire pairs from the repeater location. Testing of the circuit is accomplished by removing the repeater, inserting the TM400, and then choosing the appropriate switch setting (LOOPBACK, LOOPTHRU, SHORT, or OPEN).

The TM400 provides Bantam jack access to both the CO and customer sides of the repeater under powered conditions. This feature permits access to the loops for test and monitoring functions.

The TM400 also provides access to -48 VDC supply and return, as well as frame ground reference via faceplate monitor points.

4. FUNCTIONAL DESCRIPTION

The ADTRAN TM400 may be used in the single T400 housing (ADTRAN part number 1150087L1) or the four-slot T400 housing (ADTRAN part number 1150043L1 or L2). The eight connectors, labelled LOOP 1, T1, R1, T, and R (C.O.), and T1, R1, T, and R (CUST), provide direct access to the wire pair.

The LOOP 1 and LOOP 2 access points labelled T1, R1, T and R (C.O.) connect to the wire pairs toward the central office and access points labelled T1, R1, T and R (CUST) connect to the wire pairs toward the customer.

The faceplate switch, illustrated in Figure 1, selects the four functionsfor the four states of LOOPBACK, LOOPTHRU, SHORT, and OPEN.

5. TEST SETUPS

When using the TM400 to test pairs, consideration must be given to the configuration setup for the type of test being performed in order to ensure a valid test. Available access is detailed in Table A.

Table A. Available Access

Label	Description
PIN 7	LOOP1 Transmit towards CO
PIN 13	LOOP1 Receive towards CO
PIN 5	LOOP1 Transmit towards CUST
PIN 15	LOOP1 Receive towards CUST
PIN 41	LOOP2 Transmit towards CO
PIN 47	LOOP2 Receive towards CO
PIN 55	LOOP2 Transmit towards CUST
PIN 49	LOOP2 Receive towards CUST
PIN 17	-48 VDC Return
PIN 1	Frame Ground
PIN 11	Frame Ground
PIN 27	Frame Ground
PIN 35	-48 VDC Supply

For test access using the TM400, insert the TM400 into the repeater housing. For the single slot housing, the print on the TM400 should face away from the pole or wall. For the four-slot housing, the print on the TM400 should face the label of the position you are testing.

Testing the CO Pairs

To loopback the circuit, put the switch in the LOOPBACK position. This loops the circuit back to the CO and to the customer.

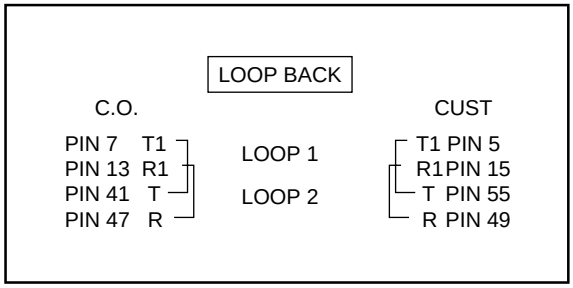

Figure 2. Loopback Configuration

To loopthru the CO pairs to the Customer pairs, put the switch in the LOOPTHRU position. This bridges the circuit pairs.

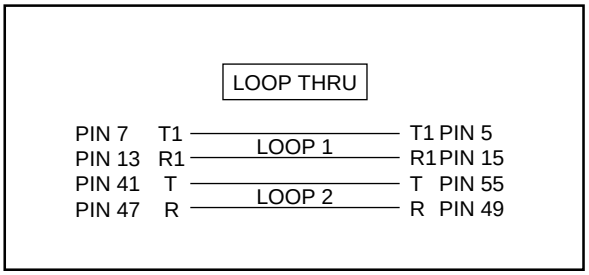

Figure 3. Loopthru Configuration

To short the CO pairs, put the switch in the SHORT position. This connects transmit to receive on each loop.

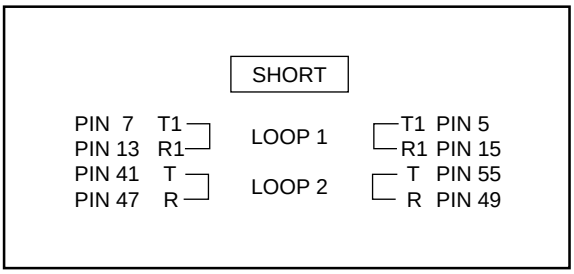

Figure 4. Short Configuration

To open the circuit, put the switch in the OPEN position. This allows for a voltage measurement across pairs.

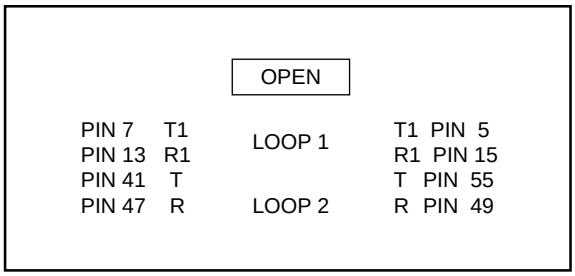

Figure 5. Open Configuration

6. MAINTENANCE

The ADTRAN TM400 requires no routine maintenance. ADTRAN does not recommend that repairs be performed in the field. Repair services may be obtained by returning the defective unit to ADTRAN.

7. WARRANTY AND CUSTOMER SERVICE

ADTRAN will replace or repair this product within five years from the date of shipment if it does not meet its published specifications or fails while in service.

For detailed warranty, repair, and return information refer to the ADTRAN Equipment Warranty, Repair, and Return Policy and Procedure.

Return Material Authorization is required prior to returning equipment to ADTRAN.

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

ADTRAN Customer Service

ADTRAN Telco Technical Support .... (800) 726-8663
Standard support hours ..... Monday-Friday
7 a.m. - 7 p.m. CST
Emergency support ..... 7 days/week, 24 hours/day
Sales ..... (800) 827-0807
Customer and Product Support
(CAPS) ..... (256) 963-8722

Repair and Return Address

ADTRAN, Inc.
Customer and Product Support (CAPS)
901 Explorer Boulevard
Huntsville, Alabama 35806-2807