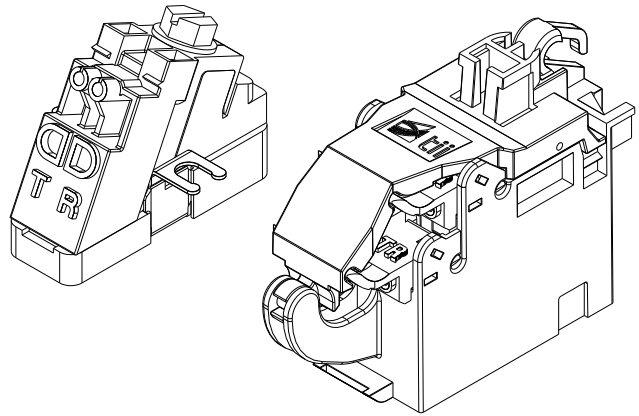


Warranty: If this unit fails during the warranty period, contact tii customer service to authorize return. Unit may be returned prepaid.



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Model tii 91 Series
Expansion Modules



Installation Note

Description

1. The tii 91 Series Expansion Modules consist of a single station protector and a customer bridge module required to upgrade or expand subscriber lines within a tii Network Interface Device (NID). They are available with either traditional binding post terminations or gel-sealed IDC terminations.

Features

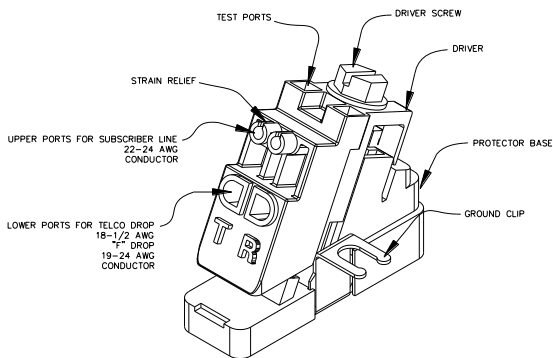


Figure 1

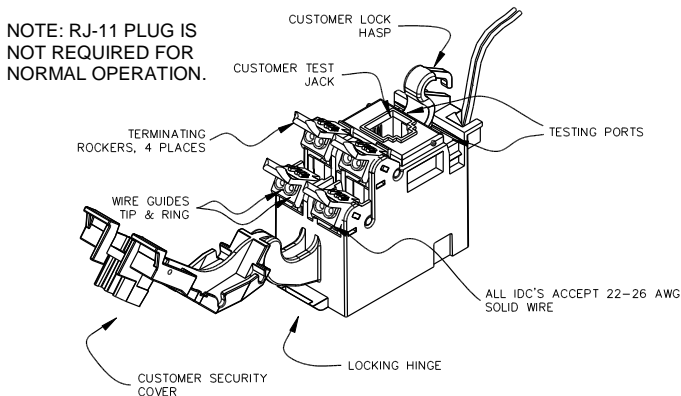


Figure 2

Installation

Installing the Protector

1. The Angle Driver (Sealed IDC Protector) is delivered with a universal grounding and mounting tab (See Figure 1). If installing a new module into a NID, break away the unwanted ground tab from the module using a pair of pliers and discard (See Figure 3). Binding post protectors do not require this step. Simply Install the module on desired NID ground post and secure with washer and nut.

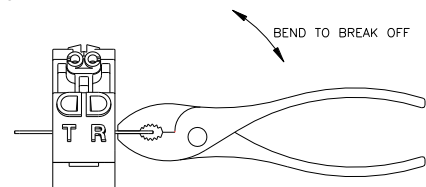


Figure 3

Wiring

Angle Driver Sealed IDC Protector

1. The two upper ports of the Angle Driver are intended to terminate subscriber (customer) wires. Telco drop (feeder) wires must be terminated in the two lower ports of the Angle Driver.

2. Upper Port Subscriber Connections (See Figure 4)

Subscriber terminations are already made in the factory. If it is necessary to re-terminate a subscriber wire, do so as follows:

- 2a. Do not strip wire insulation. Make certain wire ends are cut flush with insulation.

- 2b. Unscrew Angle Driver screw to the full upright position.
- 2c. Fully insert the two subscriber wires into their respective tip and ring (color-coded) ports.
- 2d. Dress the wires through the strain relief slots to hold them in place (See Figure 4).

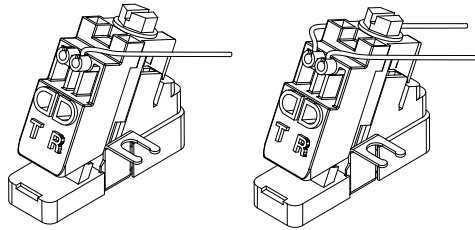


Figure 4

3. Lower Port Telco Connections (See Figure 5)

- 3a. Do not strip wire insulation. Make certain wire ends are cut flush with insulation.
- 3b. Unscrew Angle Driver screw to full upright position.
- 3c. Fully insert the two feeder (telco) wires into their respective tip and ring (color-coded) ports.
- 3d. While holding the two telco wires in place tighten Drive Screw to full down position.

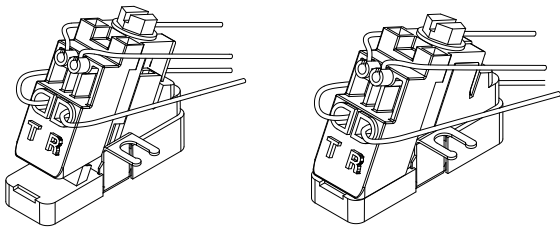


Figure 5

4. Binding Post Protector Wiring

- 4a. Strip the insulation from service drop wire Tip (Green) approx. 1/2 inch. Loosen the lower nut of one of the binding posts and wrap the exposed conductor around the stud. Wire should be between the two washers of the lower nut. Tighten the nut to secure the connection and repeat for the Ring (Red) wire.
- 4b. Wiring to the customer bridge modules (from protector) is accomplished in the same manner with the exception that the connections are made between the two washers of the upper nut for the station protector.

2. Insert the CBM module locking hinge into the Network Interface Device (NID) locking tab (See Figure 7).
3. Pull back NID retainer (See Figure 7) and slip CBM front locating fingers (See Figure 6) into NID locating slot.

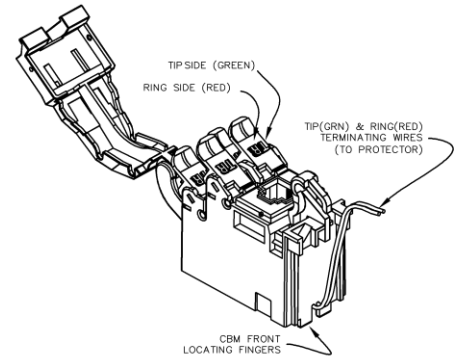


Figure 6

Wiring

CBM Wiring (Sealed IDC Connections)

1. Four independent telephone pairs can be connected to a single CBM module. Customer has the option of installing a #10 Master lock in the customer lock hasp (See Figure 2).
2. When terminating the first pair to an IDC connection, always begin with the bottom terminating rockers (See Figure 2).
3. When terminating to an IDC connection, do not strip wire insulation from wires.



CAUTION: TO REDUCE THE RISK OF PERSONAL INJURY, INSERT A RJ-11 PLUG INTO THE CUSTOMER TEST JACK PRIOR TO MAKING ANY WIRING CONNECTIONS.

4. Dress terminating wires (to protector) over NID divider (See Figure 7).
5. Insert and terminate TIP (GRN) & RING (RED) wires into sealed IDC station protector (See protector installation note for further details).
6. Open customer security cover on CBM module.
7. Lift all CBM rockers to the open position as shown (See Figure 2).
8. Dress wires around customer security cover.
9. Hold the customer telephone wires between thumb and index finger (approx. 1/8" separation between wires).

NOTE: Wires should be aligned to the corresponding holes. Green wire to the "T" (GRN) labeled wire guide and the Red wire to the "R" (RED) labeled wire guide.

10. Insert wires into wire guides at the same time until they bottom out.
11. While holding wires in wire guides, terminate rocker with thumb (lower rocker all the way).

Installation

Installing the Customer Bridge Module

1. Hold the CBM module with the locking hinge facing you. (See Figure 2)

12. Terminate additional pairs to rockers as required.
13. Assure all rockers are in the down position and close customer security cover.

CBM Wiring (Screw Terminal Connections)

1. For binding post terminations, strip customer wire ½ inch and terminate to the corresponding Tip (green) and Ring (red) screw terminals.

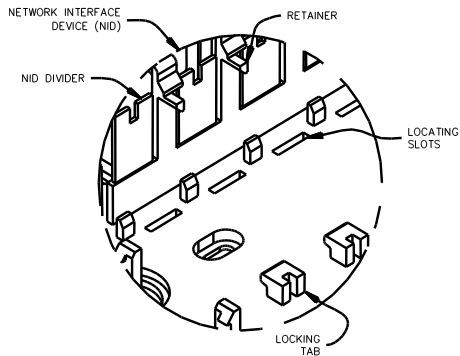


Figure 7

Central Office Signal Testing

Sealed CBM

1. Open customer security cover.
2. Insert RJ-11 plug into customer test jack to isolate telco and customer wiring.
3. Using an ohmmeter, insert test clips into test ports as shown (See Figure 8).
4. If continuity is measured, a “short” may exist in the customer premise.
5. Wires are ok if meter shows a reading.

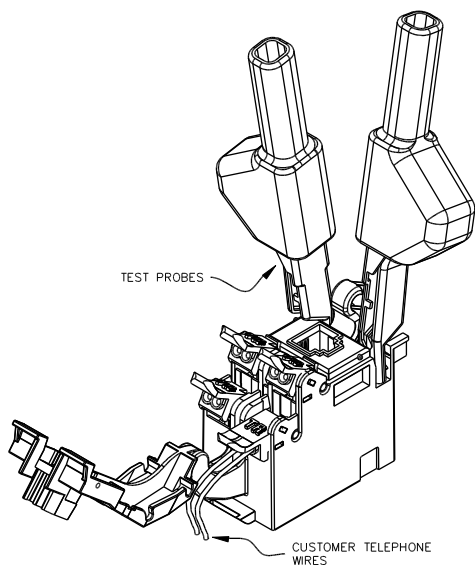


Figure 8

Screw Terminal Connections

1. Open customer security cover.
2. Insert RJ-11 plug into customer test jack to isolate telco and customer wiring.
3. Using an ohmmeter, check for continuity between the conductive heads of the tip (green) and ring (red) screws.
4. If continuity is measured, a “short” may exist in the customer premise.
5. Wires are ok if meter shows a reading.
6. Close customer security cover and inform customer.

Customer Telephone Wire Integrity Testing

1. Open customer security cover.
2. Using a working telephone, insert the telephone RJ-11 plug into the customer test jack (See Figure 9).
3. Wait a few seconds, lift receiver, and listen for tone.
4. If dial tone is not present, then contact central office service provider.
5. If dial tone is present, then a problem exists in the customer telephone wires.

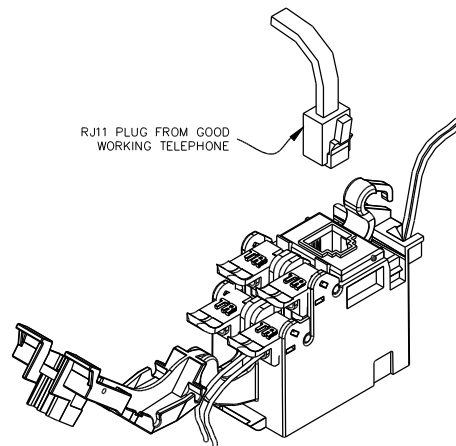


Figure 9