

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



tii technologies

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MODULAR INDOOR BET
IM Series - IM025, IM050, IM0100

Installation Note

NOTE:

To ensure the proper fusing integrity to maintain the UL Listing, only use No 22 or 24 AWG incoming wire.

Description

1. Tii's IM-Series Modular Indoor BETs and BET/NIDs serve as network demarcation and distribution points to protect and distribute central office cable pairs at the subscribers' premises. The customer demarcation point in BET/NIDs is implemented using the Tii Auto-Jack®. When engaged, the Auto-Jack® connects the RJ11 test plug contacts to the Central Office (CO) for dial tone validation, while disconnecting the customer from the circuit.

A wide variety of splice methods are available for central office cable. The protection field can be populated with solid state or gas tube protectors and is sealed to protect from moisture and corrosion. The units are available with or without factory installed & tested solid state or gas tube protectors.

- BETs are supplied with 6 AWG ground strap and 2 ground blocks.
- BETs are fabricated from powder coated steel.
- BETs are surface mountable. Multiple units can be stacked one above the other and wired from the same OSP cable.

2. Kit Components

One standard Indoor Modular BET contains:

- **Installation Instructions**
- **Tooless IDC Test Probe**
- **Mounting Template**
- **Exterior hanging bracket**
- **Wood screws for mounting**
- **Cable ties for fastening incoming cable in splice chamber**

3. Cautions and Warnings

- Use all applicable safety equipment and practices for installation and operation, including company, local NEC and ANSI/NFPA 70.
- For proper operation, the unit must be grounded using a minimum 6 AWG wire.
- A minimum of 2 feet of 26 AWG input wire must be maintained to the 5 pin protector block as a fuse link. The central office cable must be physically larger than 24 AWG.
- All wires must be solid conductor, no stranded wire, and the customer equipment wire must be 22 and 24 AWG.
- To reduce the risk of shock do not install product during lightning storms. Do not contact exposed wires of termination points.
- The BET will accept five pin protector modules. Protector modules must be listed for primary protection per UL497 in order to maintain the UL listing of the BET. The BET and Protector Modules shall be installed and connected to earth ground in accordance with the instructions contained herein and the applicable requirements of the National Electric Code, ANSI/NFPA-70, Article 800 and any applicable local codes.
- Recommended tightening torque for all grounding hardware is 40 inch-pounds.
- A front cover is required when the product is not installed in a telecom closet.

4. Additional Required Materials

- **216 tool**
- **Screwdriver that matches the mounting hardware**
- **Bond Clamp**
- **#6 ground wire**
- **Listed 5 pin protector (unless factory installed)**
- **Level (for mounting)**

5. Installation

5.1 Mounting

1. Measure and mark locations for the top two mounting screws at desired height on wall.
2. Install 2 mounting screws for top holes on BET.
3. Mount BET using top holes, tighten top two screws.
4. Secure BET by installing 2 screws through bottom holes.

5.2 Grounding

1. Ground the terminal using approved practices by attaching a minimum #6 AWG ground wire, (not supplied), to any of the supplied grounding points.
2. Connect ground to Telco approved ground/shield.
3. For stacking, use #6 AWG ground wire to attach ground bars from adjacent units.
4. All ground wire runs should be made as short and straight as possible.

5.3 Central Office Connections

1. Cut entrance grommet to approximately fit the cable so that the cable diameter is slightly larger than the cut-out. Pull cable through grommet.
2. Bond cable to supplied ground wire.
3. Splice CO cable using locally approved splice methods.
4. Slide grommet into enclosure cut-out.
5. Use provided cable ties to secure cable into strain relief tabs in splice chamber.
6. Close splice chamber cover.

5.4 Expansion Panel Installation

Modular BETs are equipped to accept expansion panels to expand the capacity within a unit. Expansion panels may be installed at any time, provided the terminal has not reached full capacity.

Kit Contents:

- Expansion panel with wiring harness
- Pass-through grommet
- 4 Self-tapping screws

Preparation

1. Verify there is an empty position to accommodate the expansion panel.
2. In anticipation of expansion, the central office cable may be large enough to accommodate the full capacity of the terminal. If not, add additional cable per practices described in this installation instruction.
3. Ensure that any splice methods already existing inside the splice chamber are compatible with the splice methods on the plate.

Installation

1. Orient expansion panel with ground wire and cable to the left.
2. Feed cable and ground wire into slot where expansion panel is to be installed.
3. Insert tab on expansion panel into slot on splice chamber wall.
4. Secure right side with supplied screws.
5. Attach expansion panel ground wire to ground bar.
6. Make connections to OSP cable.

5.5 Toolless IDC Connectors

Termination

1. Straighten the last 1-2 inches of wire. Trim tips evenly.
2. Pinch, then pull back the appropriate IDC Rocker.
3. Insert wire into ports. Note ports are identified "T" (for Tip) and "R" (for Ring). Wire should insert approximately 3/8" before bottoming out.
4. Holding wire into IDC Rocker, push down rocker until locking mechanism "locks" into place.
5. Tug gently on each individual wire to verify connection. If connection was not made, remove wire pair, straighten, trim evenly, and reconnect.

Disconnection

1. Pinch then pull back the appropriate IDC Rocker.
2. Remove wire from IDC Rocker.

(Note: Scored area of wire must be trimmed away prior to being reconnected.)

Testing

1. Place the test clip over a IDC Rocker so that the alignment tab slides along the hinge side of the IDC Rocker. Push test clip onto the IDC Rocker until it locks into place.
2. Attach test equipment leads to test clip leads and perform test.
3. When testing is completed, remove the test clip from the IDC Rocker by firmly tugging the test clip until it unsnaps.

Replace IDC Rockers

In the unlikely event an IDC Rocker is damaged, replacement is accomplished as follows:

1. Open damaged IDC Rocker to normal open position.

Note: IDC Rocker replacement of inboard rockers is most easily accomplished if the corresponding IDC Rocker below the damaged one is also opened.

2. Push IDC Rocker out of its block cell by pushing it past its normal open position. This will cause it to break free of the holding mechanism without damaging the block.
3. Once free, remove IDC Rocker from block and discard.
4. Insert new IDC Rocker.
5. Make sure the IDC Rocker axle is mated with the bearing surface in the block.
6. Snap IDC Rocker into place.
7. Close any corresponding opened rockers.