

Figure 1

1. INTRODUCTION

This instruction sheet provides installation procedures for ZCTC Ceiling Enclosures 1479040-1 and 1479041-1, shown in Figure 1.

The cabinet is a passive termination/consolidation point designed for low-voltage applications.



All numerical values are in metric units [with U.S. customary units in brackets]. Figures are not drawn to scale.

2. DESCRIPTION

The ceiling tile grid system must be installed prior to the installation of this cabinet. The cabinet is designed to be hung from four 9.52 mm [3/8-in.] diameter threaded rods attached to the building structure, or standard construction grade suspension wire and hardware, in accordance with local codes and regulations.

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3. INSTALLATION PROCEDURES

3.1. Unpacking Enclosure

Prepare a location for the enclosure to be positioned for inspection.



The access door should be latched closed. Make sure the knobs are in the closed position before lifting the cabinet out of the box to ensure that the door does not swing open.

Remove the enclosure from the shipping container and place it on its side. This will protect the ceiling tile receiving rails from damage.



The rails around the equipment access door are designed to hold the ceiling tile in place. After the enclosure is installed, the outside surfaces of these rails will be exposed to the workspace below the ceiling tile. For appearance purposes, the outside surfaces of these rails should be protected from denting and scratching.

Check that the following components are included:

- 1. One ZCTC (Zone Cabling Termination Cabinet)
- 2. Two knob assemblies (factory installed on access door)
- 3. One equipment mounting plate (factory installed on the access door)
- 4. One 2U-DM-HR equipment mounting assembly (for mounting patch/punch down panels cabinet 1479040-1 only).
- 5. Two FP-B33-25 plenum rated foam kits
- 6. Installation instructions



Items 3 through 6 are located inside the cabinet.

The following tools and supplies (installer provided) will be needed for installation:

- 1. Plum bob
- 2. Adjustable wrenches
- 3. Screw drivers
- 4. Drill with assorted bits
- 5. Utility knife
- 6. Straight edge
- 7. Four 9.52 mm [3/8 in.] diameter threaded rods or hanging wire as approved by local codes
- 8. Eight No. 6 X 1/2 inch sheet metal screws
- 9. Miscellaneous hardware as required by specific location requirements

3.2. Equipment Mounting Plate Removal

With the enclosure on its' side (hinged side down), turn both knobs to allow the access door to open.

The equipment mounting plate is located on the access door. Remove the nuts at the top of the equipment mounting plate and lift the top of the plate to clear the plate retention screws. Remove the plate from the access door. Set aside until Paragraph 3.5.

3.3. Cutting and Installing Ceiling Tile on Access Door

- 1. Remove knob/latch assemblies and the tile retention rail from the outside of the access door.
- 2. Mark and cut the access door portion of the ceiling tile so it will fit within the retention rail along all sides of the door.
- 3. Carefully re-attach retention rail and knob/latch assemblies to access door. The retention rail will fit snug against the ceiling tile if the tile was cut correctly.

3.4. Installing Cabinet Without Equipment Mounting Plate/Assembly Attached

- 1. Install four threaded rods, or hanging support wires, to the building structure in accordance with standard practices and local codes.
- 2. Level the cabinet, with the rods or support wire, so that the weight of the cabinet is not born by the ceiling tile grid system.



Allow approximately .79 mm [.031 in.] space between the grid system and the surface of the ceiling tile mounted on the cabinet.

3.5. Installing Equipment on Equipment Mounting Plate



Total weight of apparatus mounted on door is not to exceed 9.07 kg [20 lbs].

- 1. Place the equipment mounting plate on a flat surface.
- 2. Using sheet metal screws, mount connectivity/ hardware on equipment mounting plate as specified by contractor/engineer.

3.6. Installing Cable



Total weight of cable and apparatus inside cabinet is not to exceed 31.7 kg [70 lbs]. The maximum number of cables should not exceed 96 (4-pair), 16 (25-pair copper), or 96 (4-fiber) cables.

- 1. With the cabinet in place and supported, install the cables. Install the cables against the back wall and secure cables with plastic cable ties or Velcro[†] cable straps.
- 2. Place the equipment mounting plate, equipped with installed termination apparatus, on a flat work surface directly below the cabinet. Prepare all cable ends and terminate according to equipment manufacturing specifications.

Rev A 2 of 3

[†]Trademark of Velcro Industries B.V.



3.7. Installing Equipment Mounting Plate to the Access Door

- 1. Store the cable slack inside the cabinet by forming a "Figure 8" and using the cable retention brackets as a pattern. Secure cables in place by using plastic ties or Velcro cable straps. The slack cable may also be stored in the ceiling, if allowed by local codes.
- 2. Re-install the equipment mounting plate to the access door. Ensure the lip of the mounting plate firmly seats into the plate retention groove and the two holes at the top of the plate are firmly seated over and onto the plate retention screws. Re-install the two previously removed mounting plate retention lock nuts. Do NOT over-tighten lock nuts.

3.8. Inspection

- 1. Ensure that the cabinet is hung from the building structure using approved threaded rods or approved hanging wires and is installed according to local code and regulations.
- 2. Ensure that the facing of the cabinet does not bare its weight directly onto the ceiling tiles grid system.
- 3. Ensure that the cuts and holes on the ceiling tiles are clean and smooth.
- 4. Ensure that the access door opens and closes without binding or pinching cables.
- 5. Ensure that the cable bending radius is within manufacturer specifications.
- 6. Ensure that the equipment mounting plate is properly seated and secured to the access door.

4. FIRE PENETRATION KITS (Installation Instructions)

These kits are used to seal the unit with fire penetration foam around installed access cables.

- 1. Remove the top plate from the first penetration to be cabled.
- 2. Sort and comb cables for smooth and straight access through the penetration. See Figure 2.
- 3. Lift the cables and place two layers of foam underneath the cables.

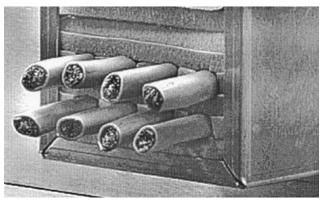


Figure 2

- 4. Place cables and space them so strips of foam can be firmly inserted between them to create a seal. Cut foam strips, at least 9.52 mm [.375 in.] wide, to be placed between the cables.
- 5. Put down a layer of foam and repeat the process until all cables are beaded between layers of foam.
- 6. Take the remainder of the foam and fill the void to the top of the penetration and compress down with the top plate. Be careful not to bind cables in excess of cable manufacturers specifications.



It is suggested that the cables be staggered in their layers to give a better seal. Example: First row four cables; second row - five cables; third row - six cables; fourth row - 5 cables; fifth row - six cables, and so on.

5. REVISION SUMMARY

Since the previous version of this document, the following changes were made:

Updated document to corporate requirements.

Rev **A** 3 of 3