

## XM2 / XM3 Power over Ethernet (PoE) Injector Kit installation instructions



### **WARNING! GENERAL HAZARD**

This equipment must only be installed and serviced by qualified personnel.

These instructions apply only to systems configured with a DM3.0 Series Transponder. The installation consists of five basic procedures which cover the connection of a service power supply, installing the PoE Injector kit, connecting the kit to the power supply, removing the service power supply and returning the system to service.

### **Supplementary Documentation:**

In cases where the use of a Service Power Supply is required, refer to Alpha Technologies' *APP9015S/APP9022S Service Power Supply Installation and Operation Manual* (p/n 016-537-B0)

Alpha Technologies' *AlphaNet™ DM3.0 Series DOCSIS® Status Monitor Quick Start Guide for XM3* (p/n 704-939-B1)

### **Tools and Equipment Required:**

#### **Assorted hand tools including:**

- Adjustable wrenches
- Punch and hammer
- Protective eyewear
- Hardhat

### **PoE Kit Components (Alpha p/n 746-598-20)**

<b>Item</b>	<b>Quantity</b>
PoE Injector and Mounting Bracket assembly	1 ea.
Spacer bumpers (for XM2 systems)	2 ea.
Power/Control harness	1 ea.
Ethernet-to-DM3.0 harness	1 ea.
Bulkhead grommet (enclosure pass through)	1 ea.

## Installation Procedure

1. Use the hammer and punch to remove the 0.875" diameter knockout from the rear of the enclosure and attach the included through-enclosure weather-resistant grommet (see Fig. 1). Tighten with adjustable wrenches.

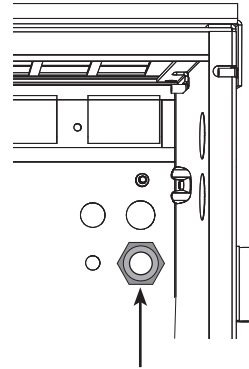


Fig. 1, Knockout location

**NOTE:**

Installation of the PoE Injector bracket with XM2 Power Supplies requires the use of the included spacer bumpers for proper fit.

2. If the bracket is being installed in an XM2 system, install the included spacer bumpers within the shaded area in Figure 2.

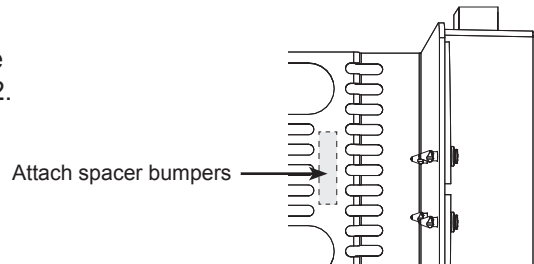


Fig. 2, Top view of bracket showing mounting area for XM2 spacer bumpers

3. Connect the power/control harness to the 5-pin receptacle on the Injector at this time (see Fig. 3). Place the PoE Injector bracket under the power supply and center the bracket. Route the power/control harness either above or below the Injector.

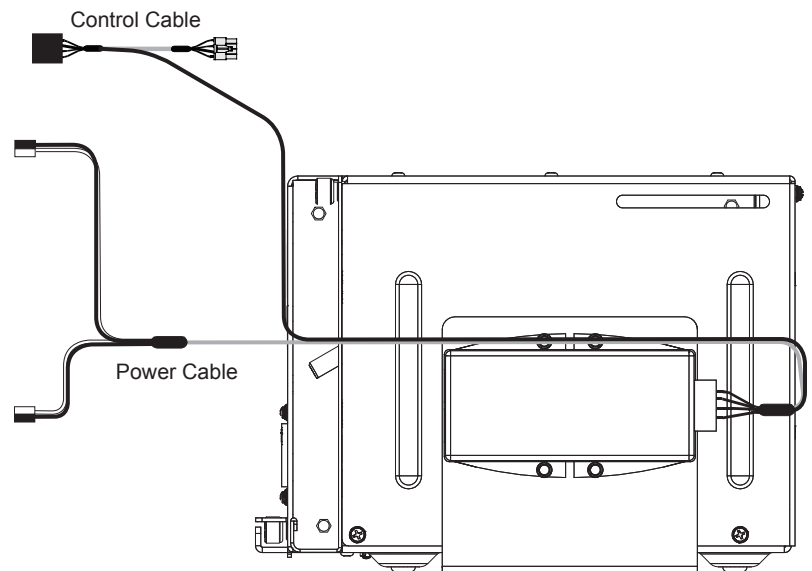


Fig. 3, Side view, Installed PoE Injector, mounting bracket and power/control harness

## Connecting the Components

- 1 Via a customer-supplied Ethernet cable (CMX-Outdoor and Cat 5e/Cat 6 recommended), connect to the Data + PoE OUT Ethernet connector to a customer-supplied device located outside the enclosure.
- 2 Connect one of the output connectors of the Power Cable harness to an output connector of the UPS. The other Power Cable harness connector may be connected to the SPI if the SPI-to-UPS output connection must be removed.
- 3 Attach the 5-pin connector on the power/control harness to the 5-pin receptacle on the Injector.
- 4 Connect the mating 10-pin connector to the ENV connector on the Comm Module. The opposite end allows further ENV connections to be made as necessary.
- 5 Plug the included Ethernet cable into the ETH port on the transponder and into the “IN” Ethernet port on the PoE Injector.

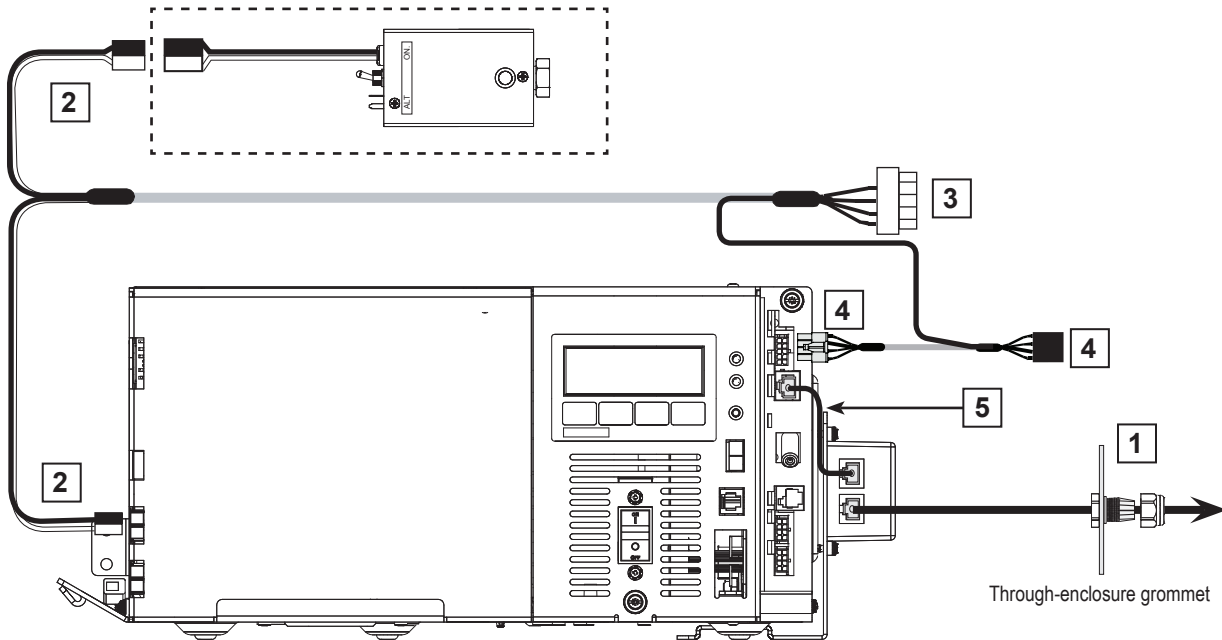


Fig. 4, Power/Control harness connections between the PoE Injector, power supply and external device

## Returning the System to Service

1. Reconnect the battery cable to the Inverter Module.
2. Reconnect the line cord to the convenience outlet.
3. Close the battery breaker on the Inverter Module.
4. Toggle the SPI's ALT/ON switch to ON. AC power is supplied to the PoE Injector at this time.
5. Verify the LED is Red, indicating power is applied to the Injector.
6. If the Injector is providing power to an external device (camera or Wi-Fi radio), the LED will change from Red to Green.
7. Verify the UPS is not in an active alarm state.
8. Close the door and secure the enclosure.
9. Validate successful installation of the Injector by verifying connection to the IP address of any connected device(s).
10. The status and power control of the PoE port is managed via the **atilODeviceControl** MIB (OID: 1.3.6.1.4.1.926.1.3.2.8.5.2.0). This parameter defines the current state of the co-located device, and allows the state to be changed.

Manageable Power States include:

- 1: deviceOff(1)
- 2: deviceOn(2)
- 3: deviceOffThenOn(3)
- 4: deviceOnThenOff(4)



### **NOTE:**

Contact Alpha Technical Services (1-800-863-3364) or visit <http://techsupportalpha.com> to obtain a copy of the MIB.

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