TH8 & NH16K 48 V POE Injector Quick Installation Guide

About

This guide covers installation procedures for connecting a POE (Power Over Ethernet) injector kit to a TH8 or NH16K recorder.

A POE injector kit enables connection of an IP camera to the recorder's rear expansion port. A maximum of 2 cameras can be connected in this manner. Connecting a second IP camera requires a second POE injector kit.

Pre-requisites

Before proceeding with these procedures, you must have a **TH8 or NH16K recorder with FW 2.0** or higher installed and functioning in a vehicle. Do not proceed with this document if you haven't installed the recorder. The TH8 and NH16K installation documentation is available on the Safe Fleet Community (https://community. safefleet.net).

Note: You will need login credentials to access the documentation. Please contact tech support if you do not have access to the Community.

Kit Contents (1 kit required per camera added)

48 V POE Injector Kit (Part #: TH8POEKIT48):

- POE Injector (Part #: 085-1106) - Qty 1
- Y-Power Harness (Part #: 060-1163)* - Qty 1
- 6 ft Microfit Ctrl Cable (Part #: 060-0656)* - Qty 1
- 1.5 ft CAT5e Cable (Part #: 085-0065)* - Qty 1
- 1" Stainless Steel Philips Rounded Head Drilling Screw (Part #: 600-1022) - Qty 1

**LSZH (Low Smoke Zero Halogen) equivalent parts may be substituted, based on the kit ordered.*

Specifications

48 V POE Injector	
Input	12VDC/1.5A to 16VDC/1.1A.
Output	48 VDC, up to 15.4 W max. IEEE 802.3af compliant. Short circuit protection.
Ethernet	Connectivity: RJ45, auto-crossover. Wire type: 4-pair CAT5e.
	Distance: up to 100 m. Speed: 10/100BaseT, half/full duplex, auto negotiation.
Indicators (LED)	Red LED: Port status.
	Yellow & Green LED (by RJ45 jack): IP Link status, 10/100Base-T/active.
Agency Listings	UL/cUL: UL60950-1 (Information Technology Equipment).
	CE European Conformity.
Dimensions (W x L x H)	2.5" x 3.8" x 1" (63.5 mm x 96.52 mm x 25.4 mm).
Weight (approx.)	Product Weight: 0.2 lbs. (0.1 kg). Shipping Weight: 0.25 lbs. (0.11 kg).
Temperature	Operating: 0º C to 40º C (32º F to 104º F).
	Storage: -40º C to 70º C (-40º to 158º F).
Relative Humidity	85% +/-5%.
Operating Altitude:	-304.8 to 3,048 m (-1000 to 10,000 ft.).

Service & Support

If your PoE device is to be returned for service, please contact the Safe Fleet technical support team, provide the part and/or serial # of your unit, and ask for a **Return Merchandise Authorization (RMA)** number. An **RMA #** allows the support team to better track your product when it comes in for service. Please show the RMA # on the **outside** of the package.

ANY PRODUCT SENT WITHOUT AN RMA # MAY BE REFUSED!

Documentation and Warranty

Information is subject to change without notice. For the latest product details, please visit the Safe Fleet Community. Additional copies of this guide along with other documentation and product warranty can also be found on the Safe Fleet Community.

Safe Fleet Community Web site: https://community.safefleet.net

Technical Support

Phone: 1.844.899.7366   **Email**: PTsupport@safefleet.net

Installing the 48 V POE Kit

(Refer to the diagram on page 3)

> **❗ WARNING: Ensure Recorder is Powered Down**
>
> Do not proceed unless the recorder is shut down.

1. Connect the **Y-Power Harness** to the recorder's **ACC PWR** output
2. Connect the other end of the **Y-Power Harness** to one end of the **Microfit Control Cable (MCC)**
3. Cut off the other end of the **MCC** and strip the **red** and **black** wires
4. Connect the MCC red wire to the POE Injector's **VDC Input (+),** and the black wire to the **VDC Input (−)**
5. Connect an Ethernet cable from the recorder's **HD CAM EXPANSION port** to the POE Injector's **IN** port
6. Connect an Ethernet cable from the POE Injector's **OUT** port to the camera. For the 48 V POE kit, you can only connect the following camera models:
   - C3 series
   - C8 series
   - C12 series
7. Secure the casing of the PoE Injector to the vehicle using the provided screw.
8. If installing a second POE Injector, repeat steps 3-7 (you can discard the spare Y-Power Harness).

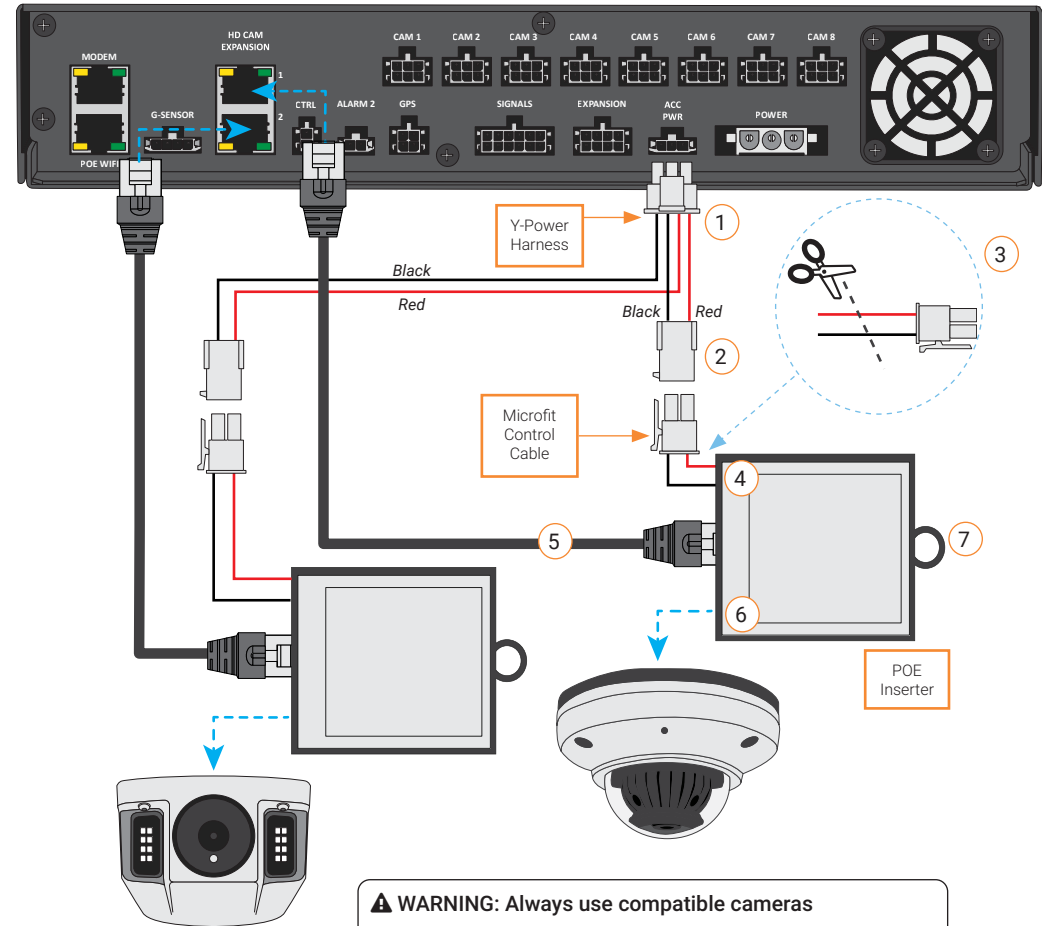## Configuring the Recorder to work with C3 Series Cameras

After connecting C3 series cameras, you'll need to configure the recorder in order for the cameras to work:

1. Configure port(s): the procedure differs depending on the recorder's firmware version:

   For firmware v3.1 or newer:
   - Navigate to the **Network Settings**, choose **Port Functions**, and select **IP Camera** for the ports connected to a 48 V PoE injector.

   For firmware older than v3.1:
   - Navigate to the **Recording Settings**, choose **HD Cam Expansion 1** or **HD Cam Expansion 2** and select **IP Camera**.
2. Click **Camera**, select the **IPC1** or **IPC2** tab depending on the port used, and choose the appropriate camera model from the **Type** dropdown menu.
3. Select **C3W9PD or C3Q9PD** from the dropdown menu.

Configuring the Recorder to work with C8 and C12 Series Cameras

1. Perform Step 1 in "Configuring the Recorder to work with C3 Cameras", immediately above.
2. In the *RTSP Connection Information* card (part #700-1237) included with your camera:
   - Jump to Step 3, "Configure Recorder Camera Settings", and perform Step 3 and Step 4.

48 V POE Kit Installation Diagram

> **⚠ WARNING: Always use compatible cameras**
>
> Adding an incompatible camera to a 48 V POE Injector can damage the camera and void your warranty. Always ensure that you're connecting a compatible camera!