

Installation Guide**NetWay1 - Single Port PoE Injector
for Standard Network Infrastructure****Overview:**

Altronix NetWay1 is a single port midspan PoE compliant power injector which provides power and passes data (e.g. video) for PoE compliant devices. Devices may be located up to 100m (328 ft.) from NetWay1. A NetWayXT repeater module can be utilized to extend the distance an additional 100m (328 ft.) for a total range of up to 200m (656 ft.). A maximum range of 600m (1968 ft.) is possible using multiple repeaters, based on device port requirement. NetWay1 is capable of supporting non-PoE compliant fixed IP cameras by utilizing NetWay1512 adapter.

Features:**Agency Listings:**

- UL/CUL Listed for Information Technology Equipment (UL 60950-1).
- UL Listed for Access Control Systems (UL294). Power over Ethernet (PoE) for Access Control (UL294B).
CUL Listed - CSA Standard C22.2 No.205-M1983, Signal Equipment.
- CE approved.

Input:

- 24VAC @ 1.2 amp or 24VDC @ 1.2 amp.

Data:

- One (1) PoE port provides power and passes data over ethernet (CAT5) cable up to 100m (328 ft.).
- Data rate: 10/100 BASE-T compliant.

Output Power:

- Port provides up to 15.4W max.
- IEEE 802.3af compliant.

**Output Power (cont'd):**

- 48VDC.
- Short circuit protection.

Functions:

- Port status LED.
- PoE manual shutdown (For UL 60950-1 applications only) (*see Technical Specifications table pg. 4*).
- Auto detection and protection of legacy non-PoE cameras/devices.
- Compact insulated housing.
- Spring terminals (input and PoE shutdown).

Accessories:**NetWay1512:**

- 13W adapter for non-PoE compliant IP cameras. (For UL 60950-1 applications only).

NetWayXT:

- PoE repeater module extends range 100m (328 ft.). (For UL 60950-1 applications only).

Installation Instructions:

Wiring methods shall be in accordance with the National Electrical Code/NFPA 70/ANSI, and with all local codes and authorities having jurisdiction. Wiring should be UL Listed and/or Recognized wire suitable for the application. Unit is intended to be used with a UL Listed Class 2 or LPS (limited power supply). NetWay1 is not intended to be connected to outside plant leads and should be installed indoors within the protected premises.

NetWay1 is intended for indoor use only.

1. Mount NetWay1 in desired location utilizing the mounting hole (*Fig. 1a, pg. 2*). Use a proper fastener and/or wall anchor when securing NetWay1 with screw through its mounting hole to the wall.
2. Connect 24VAC/24VDC to terminals marked [24VAC/VDC Input], (*Fig. 1b, pg. 2*). Use 22AWG-16AWG wire for this connection. Input power should be a UL Listed Access Control power limited power supply (for UL294 applications) or Class 2 rated transformer/power supply (for UL60950-1 applications).
3. Connect structured cable from port marked [IN] on NetWay1 to the corresponding input of an UL Listed ethernet switch or video server (*Fig. 1b, pg. 2*).
4. Connect structured cable from port marked [OUT] on the NetWay1 to PoE device (*Fig. 1b, pg. 2*).
All interconnected devices must be UL Listed.
5. Port status LED will illuminate indicating normal operation (*Fig. 1c, pg. 2*).
6. To initiate PoE shutdown connect 12VAC to 24VAC or 5VDC to 24VDC to the input terminals marked [PoE Shutdown] on the NetWay1 (*Fig. 1b, pg. 2*). The PoE output voltage may be shutdown by manually applying voltage in the rated range (*PoE Shutdown Voltage Range in Specifications*). Upon applying voltage the output will drop to zero volts. Removal of voltage from the shutdown terminals or applying zero volts to the shutdown terminals will allow the PoE output to operate normally to supply power to PoE compliant devices.

Note: Return to normal operation from shutdown can take about 4 seconds. Although there is no output voltage to power PoE devices during shutdown, data signals may still be present on the data pair lines of the CAT5 cable.

Fig. 1

Fig. 1a



Fig. 1b

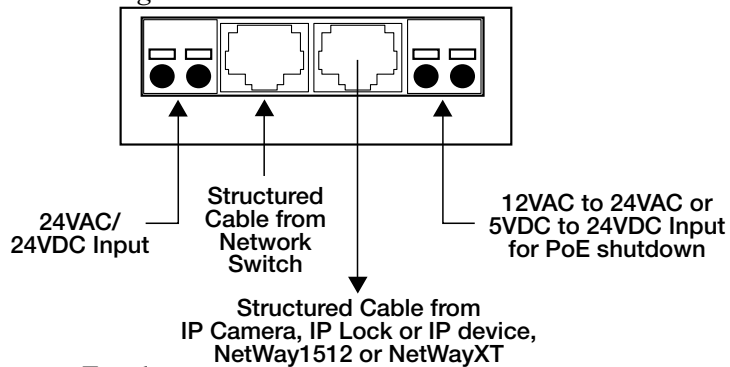
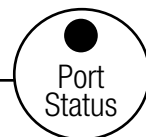


Fig. 1c



Installing a NetWay1512 adapter for 12VDC IP cameras up to 13W:

1. Mount NetWay1512 in proximity of IP camera (Fig. 3, pg. 3). Use velcro (supplied).
2. Connect structured cable from port marked [IN] on NetWay1512 to port marked [OUT] of NetWay1 (Fig. 3, pg. 3, Fig. 1b pg. 2).
3. Connect structured cable from port marked [OUT] on NetWay1512 to the IP camera/device (Fig. 3, pg. 3, Fig. 1b pg. 2).
4. Connect 12VDC output from NetWay1512 terminals marked [+ 12VDC -] to the power input of the IP camera (Fig. 3, pg. 3). Polarity must be observed.
5. Power LED indicator will illuminate on NetWay1512 under normal conditions (Fig. 3, pg. 3).

NetWay1 Port Status and LED Flash Codes

Port Status	Flash Code	Flash Pattern
Non-Powered Device $0\Omega < R_{PORT} < 200\Omega$	OFF	LED OFF
Port Open $R_{PORT} > 1M\Omega$	OFF	LED OFF
Port On 25k Ω	ON	LED ON
Low Signature Resistance $300\Omega < R_{PORT} < 15k\Omega$	1 Flash	☀ ● ● ● ☀ ● ● ● ☀ ● ● ●
High Signature Resistance $33K\Omega < R_{PORT} < 500k\Omega$	2 Flashes	☀ ☀ ● ● ☀ ☀ ● ● ☀ ☀ ● ●
Port Overload Fault	5 Flashes	● ● ● ● ☀ ☀ ☀ ☀ ☀ ● ● ● ●

Installing NetWayXT repeater module:

1. Mount NetWayXT in desired location utilizing the mounting hole (Fig. 4, pg. 3). Use a proper fastener and/or wall anchor when securing NetWayXT to the wall.
2. Connect structured cable from port marked [OUT] on NetWay1 to port marked [IN] on the NetWayXT (Fig. 4, pg. 3, Fig. 1b pg. 2).
3. Connect structured cable from port marked [OUT] on NetWayXT to the PoE camera/device or next NetWayXT repeater (Fig. 4, pg. 3).
4. Port status LEDs will illuminate on NetWayXT indicating the port is operational (Fig. 4, pg. 3, refer to Port LED definitions on pg. 2).

Port LED definitions for NetWayXT repeater:

Status	Green LED	Yellow LED
OFF	Indicates it is connected as 10Base-T or no link.	Indicates no link.
ON	Indicates it is connected as 100Base-T.	Indicates a link.
Blinking	—	Indicates activity.

Fig. 3

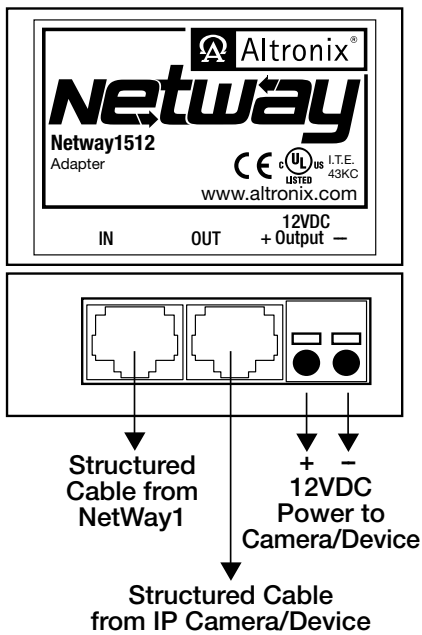
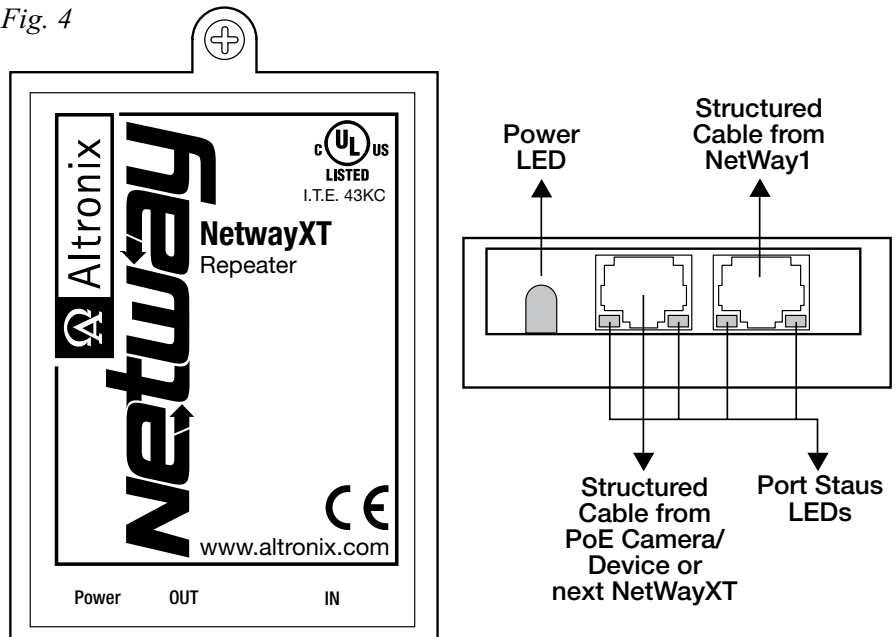


Fig. 4



Typical Applications:

Fig. 5a - Typical UL294 application

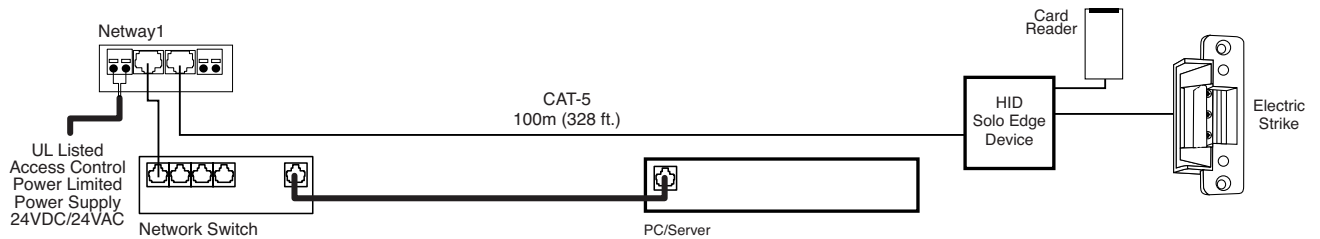


Fig. 5b

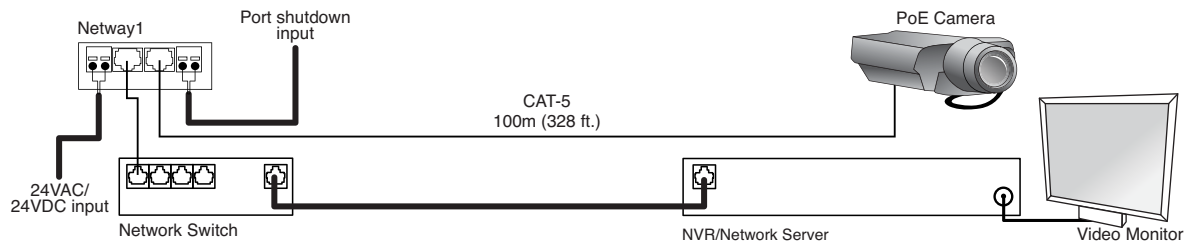


Fig. 6

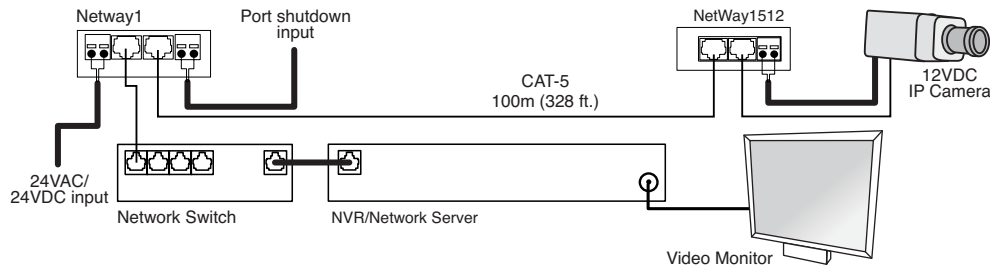
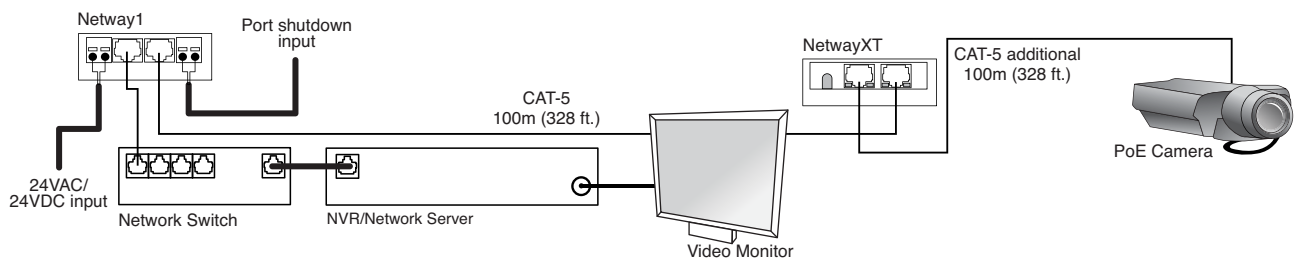


Fig. 7



Maintenance:

Unit should be tested at least once a year for the proper operation as follows:

While the NetWay1 is powered and the output is connected to a suitable UL Listed PoE device.


The NetWay1 should be tested for PoE shutdown operation (For UL 60950-1 applications only).

For UL294 applications, the NetWay1 is to be tested as part of a complete Access Control System and in accordance with listed Access Control Devices.

Troubleshooting:

Refer to *NetWay1 Port Status and LED Flash Codes* pg. 2.

Technical Specifications:

Parameter	Description
No. of Ports	One (1)
Input power requirements	24VAC @ 1.2 amp (min. 30VA transformer, For UL 60950-1 applications only) or 24VDC @ 1.2 amp.
Indicators	Port Status LED
PoE Shutdown Voltage and Current Range	5VDC to 24VDC or 12VAC to 24VAC Maximum current: 2mA for 5VDC Maximum current for higher voltages: 10mA
Environmental Conditions	Operating Ambient Temperature: UL60950-1 - 32°F to 104°F (0°C to 40°C). UL294 - 32°F to 120.2°F (0°C to 49°C). Relative humidity: 85%, +/- 5% Storage Temperature: -4° to 158°F (-20° to 70°C) Storage Operating Altitude: -1000 to 10,000 ft. (-304.8 to 3048m).
Regulatory Compliance	 UL/CUL Listed for Information Technology Equipment (UL 60950-1). UL Listed for Access Control Systems (UL294). Power over Ethernet (PoE) for Access Control (UL294B). CUL Listed - CSA Standard C22.2 No.205-M1983, Signal Equipment. CE approved

Altronix is not responsible for any typographical errors.

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