



Power over the Ethernet

NetWay Series

PoE Solution for

Standard Network Infrastructure

Models Include:

NetWay8

- Eight (8) Port PoE Midspan Injector

NetWay16

- Sixteen (16) Port PoE Midspan Injector

Installation Guide

SECURITY



DOC#: NET Rev. 052110

More than just power.™

Installing Company: _____ Service Rep. Name: _____

Address: _____ Phone #: _____

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Overview:

Altronix NetWay8 and NetWay16 Midspans provide power and pass data for PoE and PoE+ compliant cameras/edge devices. Cameras/edge devices may be located up to 100m from the NetWay unit. A NetWayXT (PoE) or NetWayXTX (PoE+) repeater module can be utilized to extend the distance an additional 100m for a total range of up to 200m. A maximum range of 600m is possible using multiple repeaters, based on camera/device port requirement. NetWay Midspans are capable of supporting non-PoE compliant fixed and PTZ IP cameras utilizing NetWay1512 or NetWay3012 adapters.

NetWay Specifications:

NetWay8:

- Eight (8) ports of cameras/edge devices over ethernet (CAT5) cable up to a distance of 100m per port.

NetWay16:

- Sixteen (16) ports of cameras/edge devices over ethernet (CAT5) cable up to a distance of 100m per port.

Common Specifications:

Agency Listings:

- **UL 60950-1** Information Technology Equipment.
- **CE** European Conformity.

Power:

- Unit supplies PoE output voltage (55V), and up to 30W max. full power per port.
Total power: NetWay8 - 150W, NetWay16 - 300W.
- IEEE 802.3af (PoE) and IEEE 802.3at (PoE+) compliant.
- All output circuits are power-limited.
- Short circuit protection.

Functions:

- Auto detection and protection of legacy non-PoE cameras/edge devices.

Features:

- Illuminated master power disconnect circuit breaker with manual reset (switch).
- Individual port status LEDs.

Features (cont'd):

- IEC 320 - 3-wire grounded line cord (detachable).
- Unit can be rack or shelf mounted.
- 1U rack mount chassis for use in standard EIA 19" rack.

Accessories:

NetWay1512:

- 15W adapter for non-PoE compliant IP cameras. (For UL 60950-1 applications only).

NetWay3012:

- 25W adapter for non-PoE compliant IP fixed or PTZ cameras. (For UL 60950-1 applications only).

NetWayXT:

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

NetWayXTX:

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

Installation Instructions:

Wiring methods shall be in accordance with the National Electrical Code (ANSI/NFPA70), local codes, and the authorities having jurisdiction. These products are for indoor use only and must be installed within the protected premises. NetWay units should be serviced by authorized personnel.

Replace all fuses with same type and rating (4A/250V).

Elevated Operating Ambient - If installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than room ambient. Therefore, consideration should be given to installing the equipment in an environment compatible with the maximum ambient temperature (Tma) specified by the manufacturer.

Reduced Air Flow - Installation of the equipment in a rack should be such that the amount of air flow required for safe operation of the equipment is not compromised

Mechanical Loading - Mounting of the equipment in the rack should be such that a hazardous condition is not achieved due to uneven mechanical loading.

Circuit Overloading - Consideration should be given to the connection of the equipment to supply circuit and the effect that overloading of the circuits might have on overcurrent protection and supply wiring. Appropriate consideration of equipment nameplate rating should be used when addressing this concern.

Reliable Earthing - Reliable earthing of rack-mounted equipment should be maintained. Particular attention should be given to supply connections other than direct connections to the branch circuit (e.g. use of power strips). NetWay is not intended to be connected to outside plant leads.

1. Attach mounting brackets to NetWay unit for rack installation (*Fig. 7, pg. 10*).
Affix rubber pads to NetWay for shelf installation (*Fig. 8, pg. 10*).
2. Secure the unit in a rack or place unit on a shelf as desired.
Note: The following factors should be taken into consideration when installing these rack mount units:
 - a. The unit is to be installed in a space where the maximum ambient temperature does not exceed 104°F (40°C).
 - b. Take care to ensure that there is sufficient air flow around the unit and that obstructions do not impede it.
 - c. When mounting units in rack, take care to avoid uneven loading which can cause a hazardous condition.
3. Set illuminated master power disconnect circuit breaker to the (OFF) position (*Fig. 1d, pg. 5*).
4. Plug the grounded AC line cord (included) into the IEC 320 connector of the NetWay unit (*Fig. 1e, pg. 5*).
Plug unit into a reliable earth grounded socket. When using multiple units the sum of the individual name plate ratings should not exceed the supply circuit rating. Do not connect to a receptacle controlled by a switch.
5. Connect structured cables from port marked [IN] on NetWay to the corresponding inputs of an ethernet switch or video server (*Fig. 1b, pg. 5, Fig. 5, pg. 6*).
Note: All cabling and wire must be UL Listed and/or Recognized wire suitable for their application.
6. Connect structured cables from port marked [OUT] on NetWay to PoE compliant camera/edge devices (*Fig. 1a, pg. 5, Fig. 5, pg. 6*).
Note: For UL294 applications, the products are to be tested as part of a complete Access Control System and in accordance with UL Listed Access Control Devices.
Note: All interconnected devices must be UL Listed.
7. Upon completion of wiring set illuminated master power disconnect circuit breaker to the RESET (ON) position (*Fig. 1d, pg. 5*).
8. Port status LEDs on the NetWay will initialize when PoE devices are connected as follows:
 - LED will illuminate when devices are IEEE 802.3af compliant.
 - LED will blink once and illuminate when devices are IEEE 802.3at compliant (PoE+).

Port Status and LED Flash Codes:

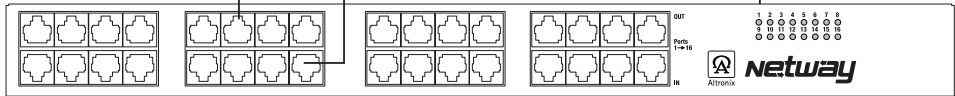
| Port Status | Flash Codes | Description |
|-------------------------|--------------------------|----------------------------------------------------------------------------------------------------|
| All Ports Off | Sequential LED Port Scan | No devices connected |
| Port Off | OFF | LED OFF |
| Port On | ON | LED ON |
| Class 4 detection Port | Blinks 2 times | Enables power to PoE devices. |
| Non-compliant Device | 2Hz | Will prevent port from turning on. |
| Port Overload Fault | 5Hz | Will prevent port from turning on. |
| 4 Port Overload Grouped | 5Hz | 4 LEDs Will prevent ports from turning on. |
| 8 Port Overload Grouped | 5Hz | LED's 1-8 Power Supply Overload for ports 1-8. LED's 9-16 Power Supply Overload for ports 9-16. |

Fig. 1 - NetWay8/NetWay16 Configuration

NetWay8 - Front Panel



NetWay16 - Front Panel




NetWay8 & NetWay16 - Rear Panel



- 1d 1e
- 1a OUT 1-8 (NetWay8), OUT 1-16 (NetWay16): Structured cable to PoE compliant cameras/edge devices.
- 1b IN 1-8 (NetWay8), IN 1-16 (NetWay16): Structured cable to ethernet switch or video server.
- 1c LED(s) 1-8 (NetWay8), 1-16 (NetWay16): Port status LEDs.
- 1d Illuminated master power disconnect circuit breaker (switch):
- OFF position Circuit breaker tripped Switch not illuminated.
 - RESET (ON) position Switch illuminated.
- 1e IEC 320 Connector: 115VAC 60Hz (grounded line cord included).

Technical Specifications:

| Parameter | Description |
|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| No. of Ports | NetWay8 - Eight (8) Ports. NetWay16 - Sixteen (16) Ports. |
| Input Power Requirements | NetWay8: 115VAC 60Hz, 3A. NetWay16: 115VAC 60Hz, 4.9A. Fuse: 4A/125V (NetWay16 has 2 fuses). Note: To reduce the risk of fire, replace only with same type and rating of fuse. |
| Indicators | Port Status LED |
| Environmental Conditions | Operating Ambient Temperature (UL60950-1): - 20°C to 40°C (- 4°F to 104°F). Relative humidity: 85%, +/- 5%. Storage Temperature: - 20° to 70°C (- 4° to 158°F). Operating Altitude: - 304.8 to 3,048m. |
| Regulatory Compliance |  UL/cUL Listed for Information Technology Equipment (UL 60950-1). CE European Conformity |

Installing a NetWay1512 Adapter for 12VDC IP Cameras up to 13W:

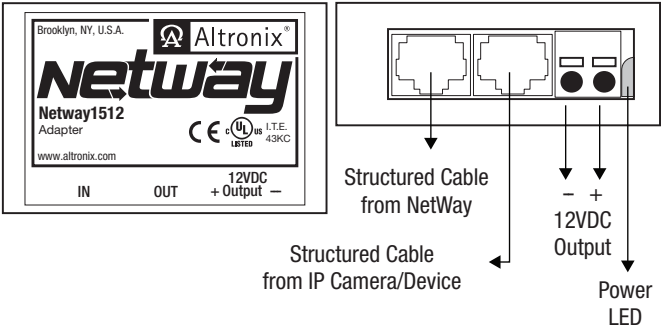


Fig. 2 - NetWay1512

1. Mount NetWay1512 in proximity to IP camera (Fig. 2, pg. 6). Affix one side of velcro (supplied) to NetWay1512 and the place the second side of the velcro in the desired location.
2. Connect structured cable from port marked [IN] on NetWay1512 to any ports marked [OUT] of NetWay8/NetWay16 (Fig. 2, pg. 6, Fig. 1a, pg. 5).
3. Connect structured cable from port marked [OUT] on NetWay1512 to the IP camera (Fig. 2, pg. 6).
4. Connect 12VDC output from NetWay1512 terminals marked [- 12VDC +] to the power input of the IP camera (Fig. 2, pg. 6). Polarity must be observed.
5. Power LED indicator will illuminate on NetWay1512 under normal conditions (Fig. 2, pg. 6).

Installing a NetWay3012 Adapter for 12VDC IP PTZ up to 25W:

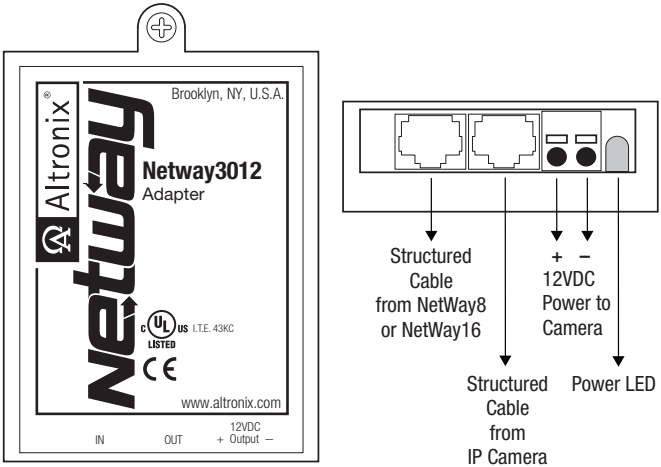


Fig. 3 - NetWay3012

1. Mount NetWay3012 in proximity to IP camera utilizing mounting hole (Fig. 3, pg. 6). Use a proper fastener and/or wall anchor when securing NetWay3012 to the wall.
2. Connect structured cable from port marked [IN] on NetWay3012 to ports marked [OUT] of NetWay8/NetWay16 (Fig. 3, pg. 6, Fig. 1a, pg. 5).
3. Connect structured cable from port marked [OUT] on NetWay3012 to the IP fixed or PTZ camera (Fig. 3, pg. 6).
4. Connect 12VDC output from NetWay3012 terminals marked [+ 12VDC -] to the power input of the IP camera (Fig. 3, pg. 6). Polarity must be observed.
5. Power LED indicator will illuminate on NetWay3012 under normal conditions (Fig. 3, pg. 6).

Installing a NetWayXT/NetWayXTX Repeater Module:

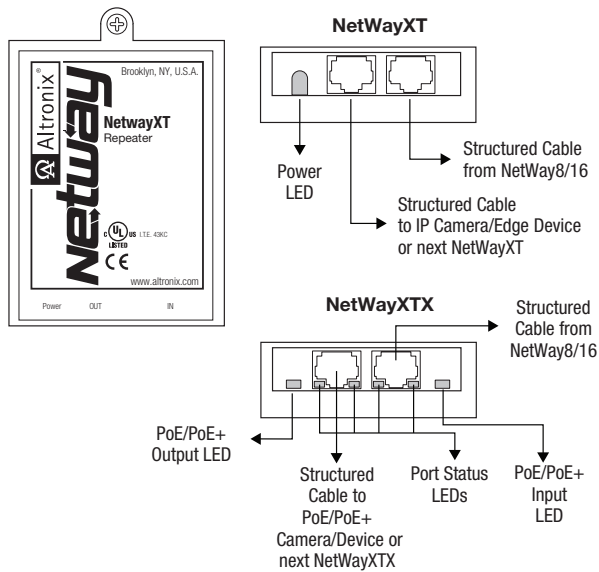


Fig. 4 - NetWayXT/NetWayXTX

NetWayXT will work only with PoE devices. NetWayXTX will work with PoE/PoE+ devices.

1. Mount NetWayXT/NetWayXTX in desired location utilizing the mounting hole (Fig. 4, pg. 7). Use a proper fastener and/or wall anchor when securing NetWayXT/NetWayXTX to the wall.
2. Connect structured cable from port marked [OUT] on NetWay to port marked [IN] on the NetWayXT/NetWayXTX (Fig. 4, pg. 7, Fig. 1a, pg. 5).
3. Connect structured cable from port marked [OUT] on NetWayXT/NetWayXTX to the PoE/PoE+ camera/edge device or next NetWayXT/NetWayXTX repeater (Fig. 4, pg. 7).
4. Port status LEDs will illuminate on NetWayXT/NetWayXTX indicating the port is operational (refer to LED Definitions).
5. Power LED will illuminate indicating 12VDC output.

Port LED Definitions for NetWayXT Repeater:

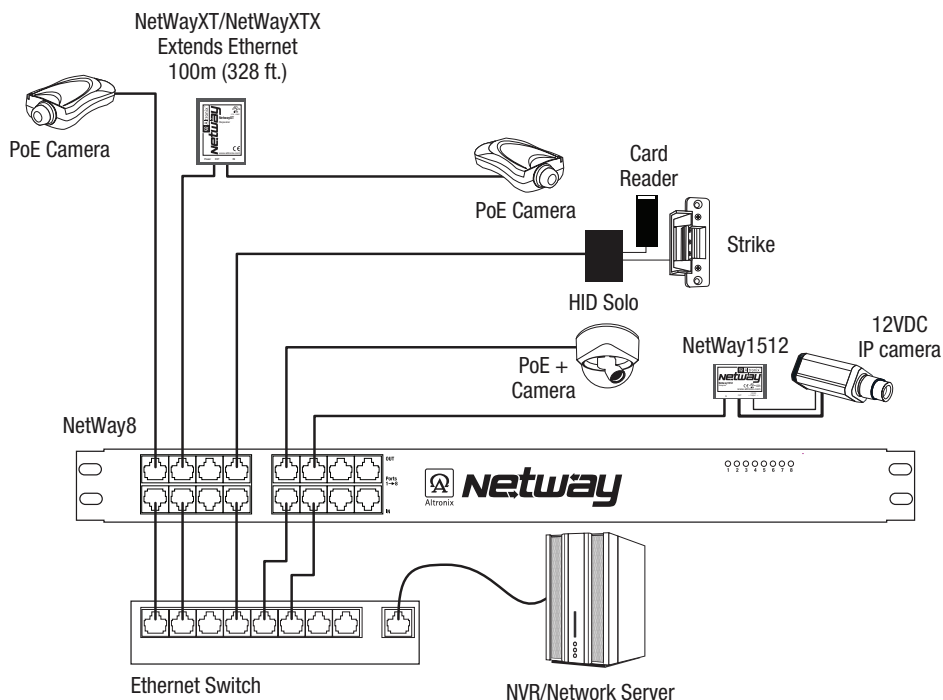
| Status | Green LED | Yellow LED |
|----------|---------------------------------------------------|---------------------|
| OFF | Indicates it is connected as 10Base-T or no link. | Indicates no link. |
| ON | Indicates it is connected as 100Base-TX. | Indicates a link. |
| Blinking | — | Indicates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

Port LED Definitions for NetWayXTX Repeater:

| Status | PoE/PoE+ Output LED | PoE/PoE+ Input LED | Yellow LED |
|----------|------------------------|--------------------|---------------------|
| OFF | No PoE/PoE+ Output | No PoE/PoE+ Input | Indicates no link. |
| ON | Normal PoE/PoE+ Output | PoE/PoE+ Input | Indicates a link. |
| Blinking | — | — | Indicates activity. |

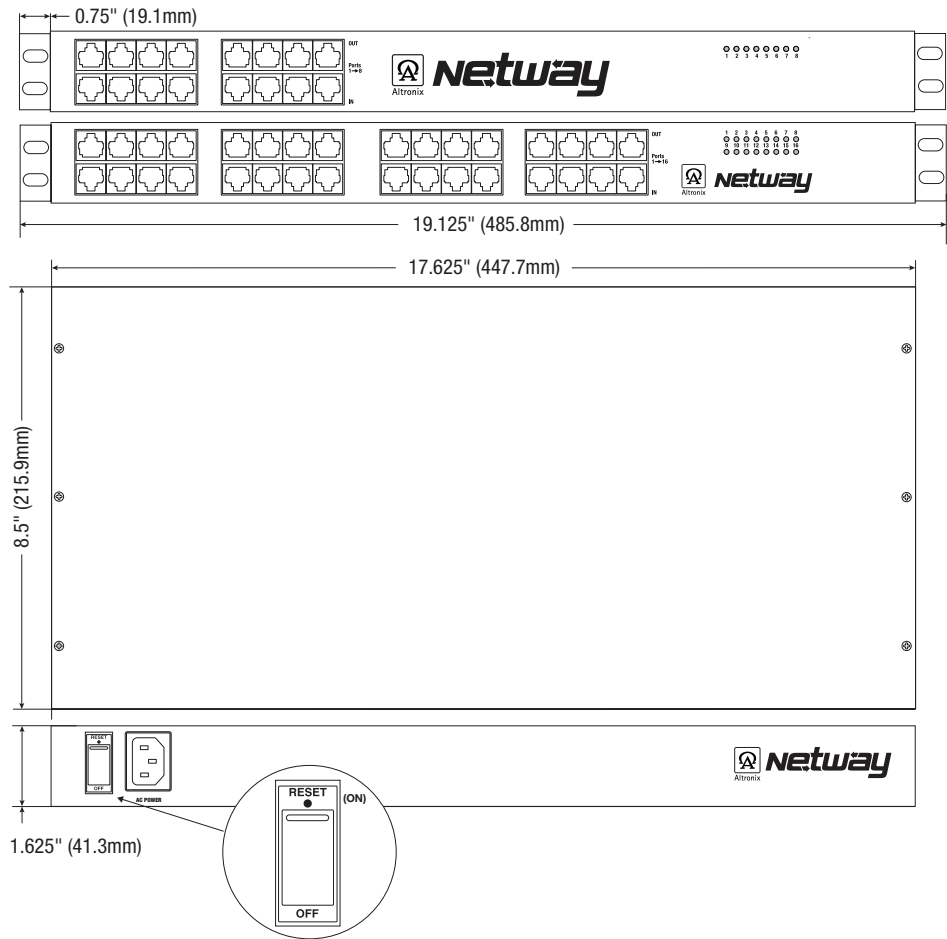
NetWay8/NetWay16 Typical Application:


Fig. 5




NetWay8/NetWay16 Rack Mount Chassis **Mechanical Drawing and Dimensions:**

Fig. 6






The lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of an insulated DANGEROUS VOLTAGE within the product's enclosure that may be of sufficient magnitude to constitute an electric shock.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.


CAUTION: To reduce the risk of electric shock do not open enclosure. There are no user serviceable parts inside. Refer servicing to qualified service personnel.



CAUTION

RISK OF ELECTRIC SHOCK

DO NOT OPEN



Mounting Options:

Rack Mount Installation

1. Remove and discard factory installed screws from both sides of rack chassis (Fig. 7a).
2. Install mounting brackets (A) on the left and right side of rack chassis using the four (4) flat head screws (B) (included) (Fig. 7b).
3. Place unit into desired EIA 19" rack position and secure with mounting screws (not included) (Fig. 7c).

Fig. 7

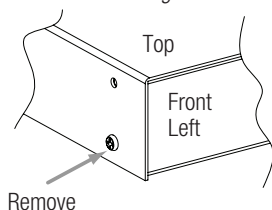


Fig. 7a

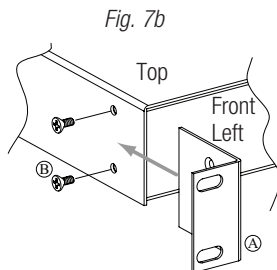


Fig. 7b

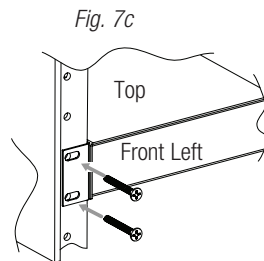


Fig. 7c

Wall Mount Installation

1. Install mounting brackets (A) on the left and right side of rack chassis using four (4) flat head screws (B) (included) (Fig. 8a).
2. Place unit at desired location and secure with #6 size screws or larger (not included) (Fig. 8b).

Caution: It is necessary to make sure mounting screws are securely fastened to a beam when installing the unit vertically.

Fig. 8

Fig. 8a

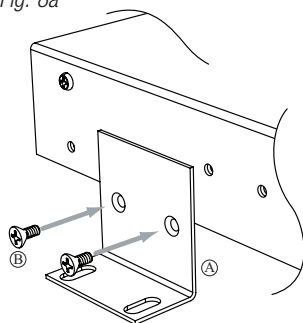
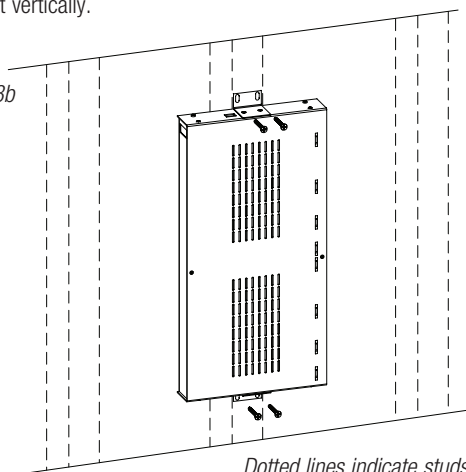


Fig. 8b

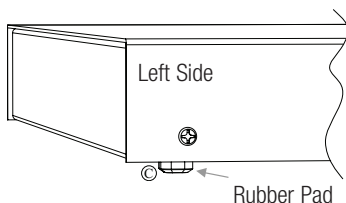


Dotted lines indicate studs behind sheetrock.

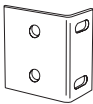



Shelf Installation

1. Position and affix rubber pads (C) (included) at each corner on the bottom of the unit (Fig. 9).
2. Place unit in desired location.

Fig. 9



Mounting Hardware (Included):

-  (A) Two (2) mounting brackets
-   (B) Six (6) flat head screws for mounting brackets.
-  (C) Four (4) rubber pads.

Notes:

Notes:

Altronix is not responsible for any typographical errors.

140 58th Street, Brooklyn, New York 11220 USA | 718-567-8181 | fax: 718-567-9056
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