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Fiber Solution

NetWaySP4BT3 Series

4-port Hardened 360W 802.3bt

4PPoE Switches (Layer 2)

Models Include:

NetWaySP4BTWP3

- 4-port Hardened 802.3bt 4PPoE Switch and Power Supply/Charger
- 115VAC/230VAC input
- NEMA4/4X, IP66 rated Outdoor enclosure.

NetWaySP4BTWPX3

- 4-port Hardened 802.3bt 4PPoE Switch and Power Supply/Charger
- 115VAC/230VAC input
- NEMA4/4X, IP66 rated Outdoor enclosure.
- Includes Vent2
- Accommodates up to four (4) 12VDC/4AH batteries.

NetWaySP4BTWPX7

- 4-port Hardened 802.3bt 4PPoE Switch and Power Supply/Charger
- 277VAC input
- NEMA4/4X, IP66 rated Outdoor enclosure.
- Includes Vent2
- Accommodates up to four (4) 12VDC/4AH batteries.

NetWaySP4BTX3

- 4-port Hardened 802.3bt 4PPoE Switch and Power Supply/Charger
- 115VAC/230VAC input
- NEMA1 rated Indoor enclosure.

NetWaySP4BTPL3

- 4-port Hardened 802.3bt 4PPoE Switch and Power Supply/Charger
- 115VAC/230VAC input
- Backplane version.

Installation Guide



DOC#: NetWaySP4BT3 Rev. 021324

More than just power.™

Installing Company: _____ Service Rep. Name: _____

Address: _____ Phone #: _____

Overview:

Altronix NetWaySP4BT3 Series Hardened 802.3bt 4PPoE Layer 2 Switches are equipped with two (2) 1Gb SFP ports and four (4) 802.3bt compliant Ethernet ports rated at 90W each, with 360W total power. Embedded LINQ Technology enables monitoring, control, and reporting from anywhere over the network.

For unmanaged switches, refer to NetWaySP41BT3 Series.

Features:

Agency Listings:

- CE European Conformity.

Input

POE360 (NetWaySP4BTWP3, NetWaySP4BTWPX3, NetWaySP4BTX3, NetWaySP4BTPL3)

- 115VAC, 60Hz, 3.5A or 230VAC, 50/60Hz, 2A.

POE367 (NetWaySP4BTWPX7)

- 277VAC, 50/60Hz, 1.75A.

Output

- Four (4) 10/100/1000 Mbps Ethernet ports rated at 90W each (360W total power).
- IEEE 802.3af, 802.3at, 802.3bt compliant.

SFP Ports:

- Two (2) Gigabit SFP ports.

Ethernet Ports:

- Four (4) 10/100/1000 Mbps ports.
- Connectivity: RJ45, auto-crossover.
- Wire type: 4-pair CAT5e or higher structured cable.
- Speed: 10/100/1000 Mbps, half/full duplex, auto negotiation.

VLAN:

- Multiple management VLAN assignment.
- 802.1Q Tagged VLAN.
- Up to 10 VLAN groups. ID Range 2-4095.

Battery Backup:

- 48VDC charging circuit charges sealed lead acid* or gel type* batteries.
- Automatic switch over to stand-by battery when AC fails.

Indicators (LED)

- Individual PoE On LEDs for each port.
- Individual IP Link status, 10/100/1000 Base-T/active LEDs for each port.

Indicators (LED) (cont'd)

- ALOS LED indicates fiber connection for SFP port.
- Heartbeat LED indicates proper operation of the unit.

LINQ Technology:

- Remote network management allows for camera/device reset and diagnostic monitoring.
- Provides local and/or remote access to critical information via LAN/WAN.
- Email and Windows Dashboard Alert notifications report real-time events.
- Event log tracks history.

Mechanical:

NetWaySP4BTPL3:

- Dimensions (H x W x D approx.): 10.75" x 8.875" x 2.375 (273.1mm x 225.4mm x 60.3mm).

NetWaySP4BTWP3:

- NEMA4/4X, IP66 Rated enclosure for outdoor use.
- Dimensions (H x W x D approx.): 13.31" x 11.31" x 5.59" (338.1mm x 287.3mm x 142mm).

NetWaySP4BTWPX3, NetWaySP4BTWPX7:

- NEMA4/4X, IP66 Rated enclosure for outdoor use.
- Accommodates sealed lead acid or gel type 12VDC batteries.
- Dimensions (H x W x D approx.): 17.53" x 15.3" x 6.67" (445.3mm x 388.6mm x 169.4mm).

NetWaySP4BTX3:

- NEMA1 rated indoor enclosure
- Dimensions (H x W x D approx.): 13.5" x 13" x 3.25" (342.9mm x 330.2mm x 83mm).

***CAUTION:** When using lead acid or gel type batteries, enclosure must be properly ventilated.

Battery operational temperature should be derated 10-15°C lower than manufacture's rated high temperature.

Recommended Altronix SFP Modules:

Altronix P1MM, P1SM10, P1AB2K and P1GCE are hot-pluggable SFP fiber transceiver modules and are readily usable with all Altronix Spectrum fiber optic equipment for 1Gb transmission rates.

P1MM For use with Multi-Mode Fiber for distances up to 550m.

P1SM10 For use with Single-Mode Fiber for distances up to 10km.

P1AB2K For use with Single Strand Single-Mode Fiber for distances up to 2km.

P1GCE For use with CAT5e or better for distances up to 100m.

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. All units should be installed by a trained service personnel.

Mounting Instructions:

NetWaySP4BTPL3:

1. Mount backplane in the desired location/enclosure with hardware supplied.

NetWaySP4BTWP3/NetWaySP4BTWPX3/NetWaySP4BTWPX7:

1. Remove backplane from enclosure prior to drilling. Do not discard hardware.

Note: Make sure that hardware will not interfere with components of the circuit board.

2. For installing Vent2 on NetWaySP4BTWPX3/NetWaySP4BTWPX7 refer to page 9.
3. Mark and drill desired inlets on the enclosure to facilitate wiring. Maximum NEMA type 4X rated fittings to be used are 0.5". Follow manufacturer's specifications for the appropriate size opening.

Note: Inlets for conduit fittings should only be made on the bottom of the enclosure.

To facilitate wire entry utilize weather-tight NEMA rated connectors (*supplied*), bushings, and cable.

4. Clean out the inside of enclosure before remounting circuit boards/backplane.
5. Mounting NEMA4/4X rated enclosure (*Enclosure Dimensions, pg. 9, 10*):

Wall mount: Mount unit in desired location. Mark and drill holes to line up with the top and bottom hole of the enclosure flange. Secure enclosure with appropriate fasteners (e. g. screws and anchors; bolts and locking nuts, etc.) that are compatible with mounting surface and are of sufficient length/construction to ensure a secure mount (*Fig. 4, pg. 8*).

Pole Mount: Refer to *Fig. 5 - 9 pg. 8*.

6. Mount backplane in enclosure with hardware.

NetWaySP4BTX3:

1. Mount unit in the desired location. Mark and predrill holes in the wall to line up with the top two keyholes in the enclosure. Install two (2) upper fasteners and screws in the wall with the screw heads protruding. Place the enclosure's upper keyholes over the two (2) upper screws; level and secure. Mark the position of the lower two (2) holes. Remove the enclosure. Drill the lower holes and install two fasteners. Place the enclosure's upper keyholes over the two (2) upper screws. Install the two (2) lower screws and make sure to tighten all screws (*Enclosure Dimensions, pg. 11*). Secure enclosure to earth ground.

Power Connection:

1. Secure cabinet to earth ground. Connect AC power from overcurrent protective device circuit breaker (20A @ 115VAC, 60Hz, 16A @ 230VAC, 50/60Hz) to the terminals marked [L, N] on power supply board (*Fig. 3, pg. 7*). Use 14AWG or larger for all power connections (Battery, DC output, AC input). Connect ground lug (⊕) to earth or green branch wire (12AWG min.).

Keep power-limited wiring separate from non power-limited wiring by utilizing separate knockouts/inlets. Minimum 0.25" spacing must be provided.

CAUTION: Do not touch exposed metal parts. Shut branch circuit power before installing or servicing equipment. There are no user serviceable parts inside. Refer installation and servicing to qualified service personnel.

Input/Data Connections:

1. Connect structured cables from port marked [Port 1] to [Port 4] on NetWay unit to PoE compliant cameras/edge devices (*Fig. 2, pg. 5*).
2. Insert SFP module into port(s) marked [SFP], then connect cable to the SFP module on NetWaySP4BTB to the corresponding input of an SFP switch (*Fig. 2, pg. 5*).

Battery Backup:

1. Connect four (4) 12V batteries or two (2) 24V batteries wired in series to terminals marked [BAT – BAT +] (*Fig. 2, pg. 5*), carefully observing polarity. When use of stand-by batteries is desired, they must be lead acid or gel type. If batteries are housed in a weather-proof enclosure (NetWaySP4BTWP3, NetWaySP4BTWPX3), it must be properly ventilated. Use Altronix Vent2 kit (*Fig. 1, pg. 4*).

Note: When batteries are not used, a loss of AC will result in the loss of output voltage.

For outdoor battery backup, battery enclosure must have sufficient ventilation. Use Altronix Vent2 kit.

Security:

Please ensure that the cover is secured with key lock and screws for **NetWaySP4BTX3**, latches and optional Altronix Lock1WP for **NetWaySP4BTWP3, NetWaySP4BTWPX3 and NetWaySP4BTWPX7**.

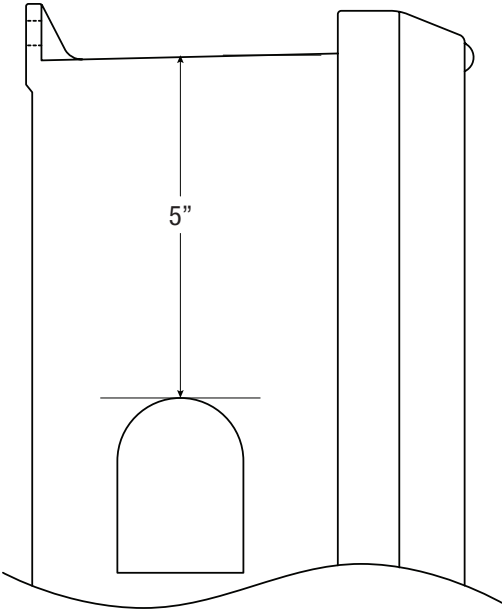
Technical Specifications:

Parameter	Description		
Number of Ports	Four (4) 10/100/1000 Mbps Ethernet ports rated at 90W each. IEEE 802.3af, 802.3at, 802.3bt compliant. Two (2) Gigabit SFP Ports.		
Input Power Requirements	NetWaySP4BTWP3, NetWaySP4BTWPX3, NetWaySP4BTX3, NetWaySP4BTPL3 115VAC, 60Hz, 3.5A or 230VAC, 50/60Hz, 2A.		
	NetWaySP4BTWPX7 277VAC, 50/60Hz, 1.75A.		
Environmental Conditions	Operating Ambient Temperature		
	360W: – 30°C to 65°C (– 22°F to 149°F)		
	240W: – 30°C to 70°C (– 22°F to 158°F)		
	Storage Temperature – 30°C to 85°C (– 22°F to 185°F)		
	Relative Humidity 85%, +/- 5%		
	Operating Altitude – 304.8 to 2,000m		
Weights (approx.)	Model	Product Weight	Shipping Weight
	NetWaySP4BTWP3	10.5 lb. (4.76 kg)	11.9 lb. (5.4 kg)
	NetWaySP4BTWPX3 NetWaySP4BTWPX7	15 lb. (6.8 kg)	17.5 lb. (7.9kg)
	NetWaySP4BTX3	6.85 lb. (3.11 kg)	7.75 lb. (3.51 kg)
	NetWaySP4BTPL3	2.6 lb. (1.18 kg)	4.0 lb. (1.81kg)

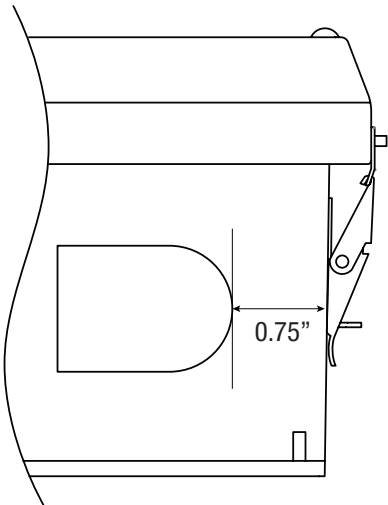
Installing Vent2 on NetWaySP4BTWPX3/NetWaySP4BTWPX7:

Fig. 1

Left Side of Enclosure



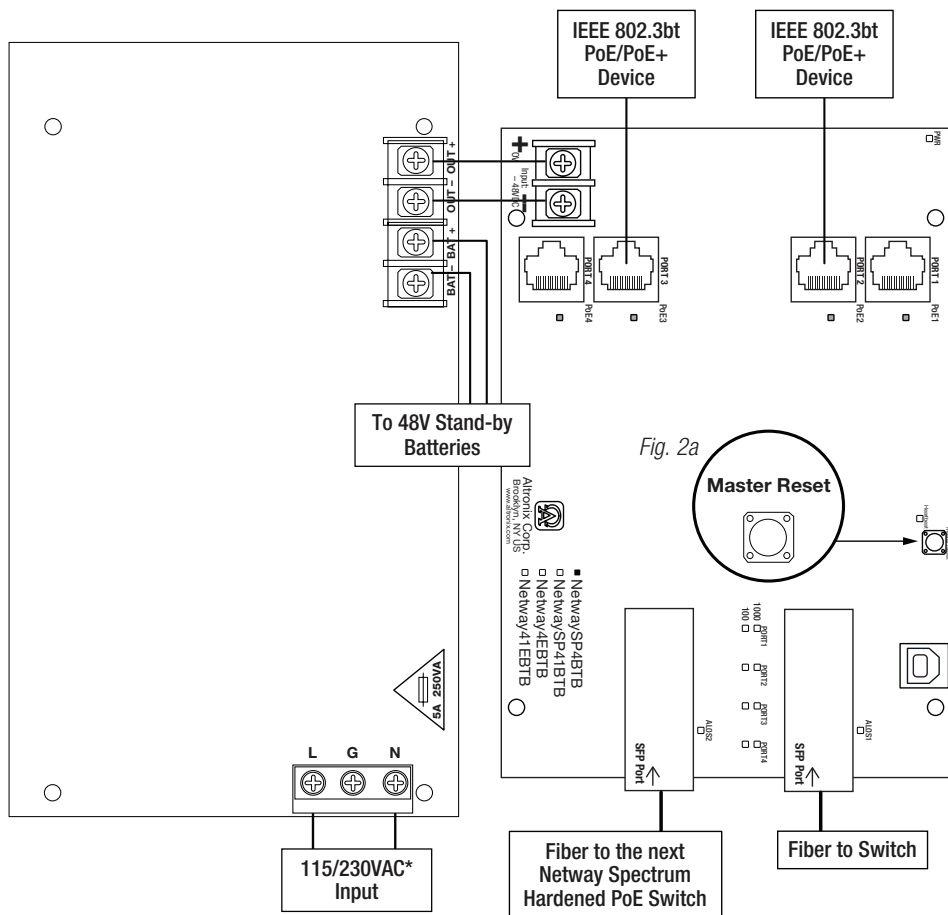
Bottom of Enclosure



1. Using the template from the Vent2 bag. Install the vents in the positions shown above.

Typical Applications:

Fig. 2



*277VAC, 50/60Hz, 1.75A for NetWaySP4BTWPX7

Configuring Unit for Browser-Based Connectivity:

Point your browser to IP address of your unit.

If the IP address is not known, you can use the USB Tool to discover the IP address.

Visit altronix.com for the latest firmware and installation instructions

VLans

VLans (Virtual Local Area Networks) are a subnetwork that allow for the grouping together of devices for improved network traffic as well as providing higher security by allowing greater control over which devices have access to each other. It is important to plan how you will setup your devices for each vLan.

Configuring vLan on the Altronix NetwaySP4BT3 Series Layer 2 Switch:

1. Ensure Laptop or PC being used to program the vLan settings is on a port that will be assigned to your first vLan configuration. By default the management portion of the software is assigned to vLan-1,
CAUTION: Changing VID=1, the industry standard VLAN HOST address to any other VID address should be done with caution and performed only locally, since the change will drop the original HOST connection. Local access then facilitates a physical reconnection to respective port.
Note: Only this vLan network allows access to IP management.
 2. In Network Section click on vLan Tab.
 3. Click Add vLan.
 4. Enter a name for the vLan.
 5. Enter a vLan ID, i.e. 10, 20, etc. Ensure this vLan ID is associated with a vLan setup on the main switch and that your Laptop or PC being used for programming is on this same ID.
Note: vLan ID could be any value 2-4094.
 6. Assign vLan QOS (Quality of Service) priority. 0 = Lowest and 7 = Highest
 7. Pick a Trunk port (Tagged Ports). Trunk ports are typically the main connection for network traffic for each group. They are usually connected to a network switch, WAPs, etc.
 8. Pick the Access port(s) (Untagged Ports) associated with the vLan. Access Ports are typically used for Cameras, etc. If programming locally, ensure your laptop or PC is connected to one of these ports.
 9. Save Configuration.
 10. Repeat steps 2 - 9 to add another vLan.
- If unit is accidentally programmed incorrectly and you cannot get into the NetwaySP4BT series programming, physically moving ports of your PC connected to the main switch to a correct port (when being programmed remotely), or, as a last resort, completing a factory reset locally and reprogramming the unit.
- 11. Advanced Port Settings:**
Unknown VID Packet Forwarding Configuration:
On ingress unknown VID, Forward to a fixed set of ports. By default no forwarding is set.
Configuration on Ingress Untagged Traffic:
Trunk Port action for ingress UNTAGGED packets. By default do not drop packets.
Keep Tag on Egress:
Select if you want ACCESS Port to keep the vLan tag when sending egress packets.
By default tags are stripped.
Preferred VLAN Forwarding:
For ACCESS Ports that belong to more than one vLan. Select preferred vLan to forward UNTAGGED ingress packets. By default preferred vLan is the last vLan created.

Factory Reset Option:

1. Power the unit down. Allow approximately 30 seconds for the unit to power down completely.
2. Depress Factory Reset button on NetWaySP4BTB while reapplying power to the unit (Fig. 2a, pg. 5; Fig. 3, pg. 6). Continue holding the button until the LEDs on board go through the start up cycle, then release the button.
3. The unit returns to the original factory settings.

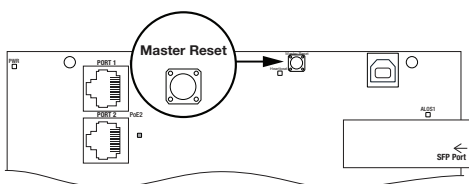
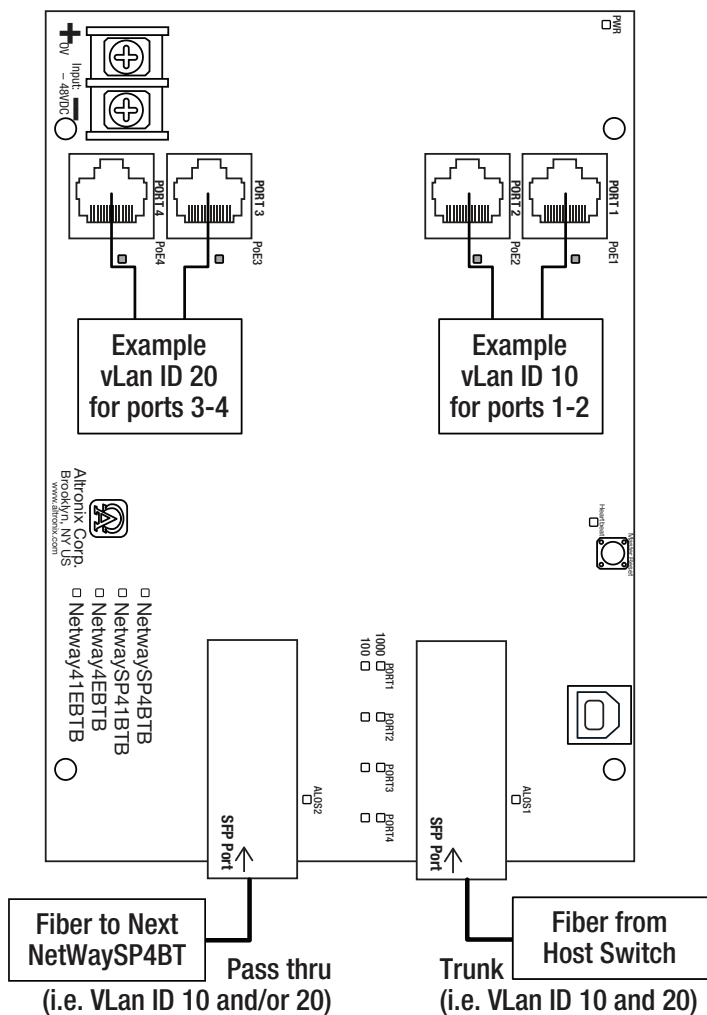


Fig. 3

Typical VLAN Setup:

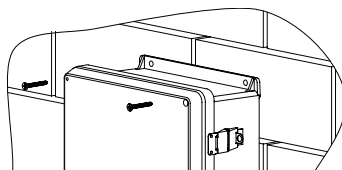
Fig. 4



Wall Mount Installation:

- 1- Place unit at desired location and secure with mounting screws (not included) (Fig. 5, pg. 8).

Fig. 5



Pole Mounting Using Optional Pole Mount Kit

PMK1 (NetWaySP4BTWP3) or PMK2 (NetWaySP4BTWPX3, NetWaySP4BTWPX7):

This installation should be made by qualified service personnel. This product contains no serviceable parts. PMK1 and PMK2 outdoor pole mount kits are designed to simplify the installation of Altronix outdoor rated power supplies and accessories housed in models WP2, WP3 and WP4 NEMA rated enclosures. PMK1 and PMK2 can be mounted on 2" to 8" (50.8mm to 203.2mm) diameter round or 5" (127mm) square poles. Brackets are designed for use with the Wormgear Quick Release Straps (two included).

1. Thread one (1) wormgear quick release strap through the slots on the back of a mounting bracket (Fig. 6, pg. 8).
2. Once the desired height of the top Pole Mount bracket is achieved, tighten the straps down by sliding open end of the strap through the locking mechanism on the strap, then tighten the screw with flat head screwdriver or 5/16" hex socket driver (Fig. 7, pg. 8 and Fig. 9, pg. 8).

Fig. 6

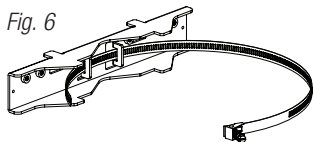


Fig. 7

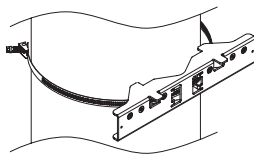
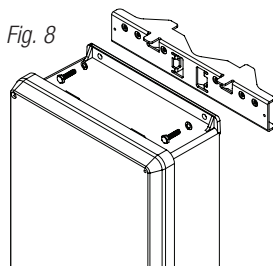


Fig. 8



3. Attach the bottom bracket to the enclosure by inserting bolts through the flange of the enclosure and into the bracket, tightening bolts with a 7/16" hex socket (Fig. 7, pg. 8).
4. Thread the second wormgear quick release strap through the slots on the back of the bottom mounting bracket (Fig. 9, pg. 8).
5. Mount enclosure onto the top bracket by inserting bolts through flange of the enclosure and into the bracket, tightening bolts with a 7/16" hex socket (Fig. 8, pg. 8).
6. Tighten the straps of the bottom bracket down by sliding the open end of the strap through the locking mechanism on the strap, then tighten screw with flat head screwdriver or 5/16" hex socket driver (Fig. 10, pg. 8).
7. Clip excess straps.

Fig. 9

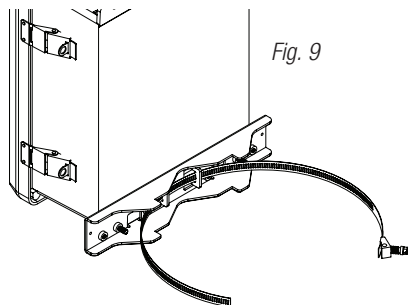


Fig. 10
2" to 8" (50.8mm to 203.2mm)
diameter round pole

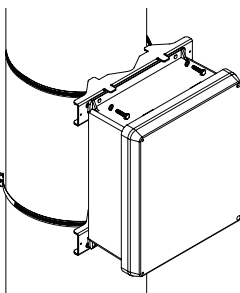
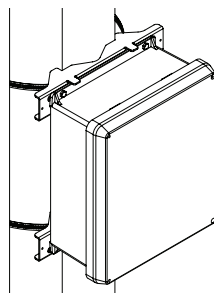
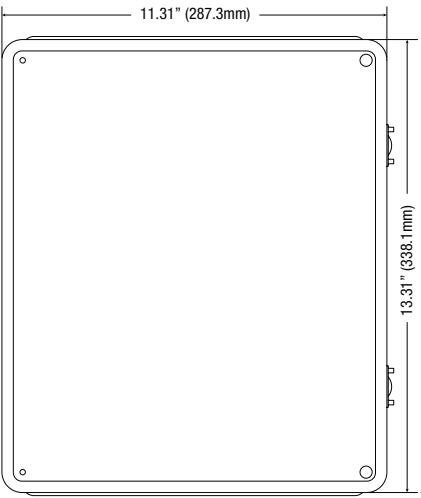


Fig. 10a
5" (127mm) square pole

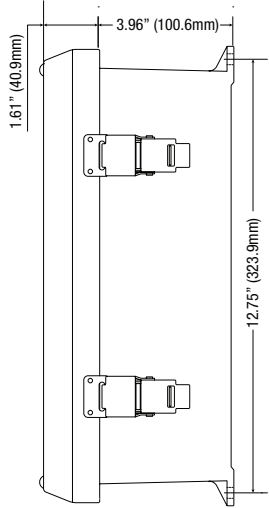


NetWaySP4BTWP3
Mechanical Drawing and Dimensions (H x W x D approx.):
13.31" x 11.31" x 5.59" (338.1mm x 287.3mm x 142mm)

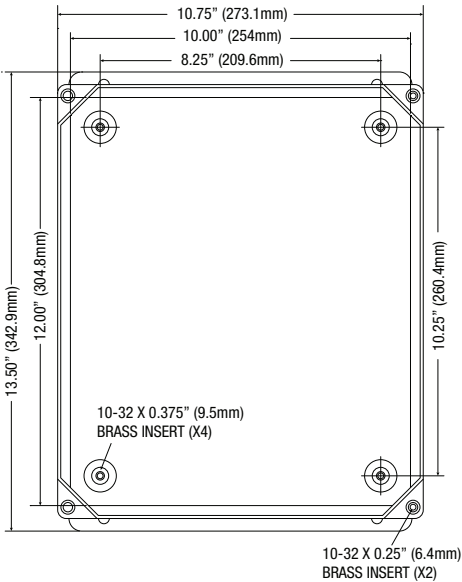
FRONT VIEW



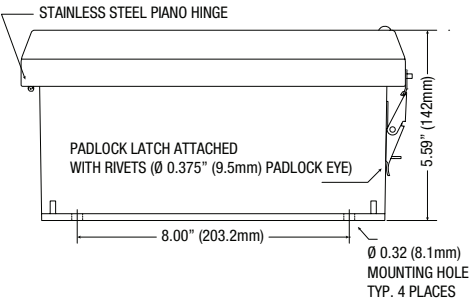
RIGHT SIDE VIEW



FRONT VIEW COVER REMOVED



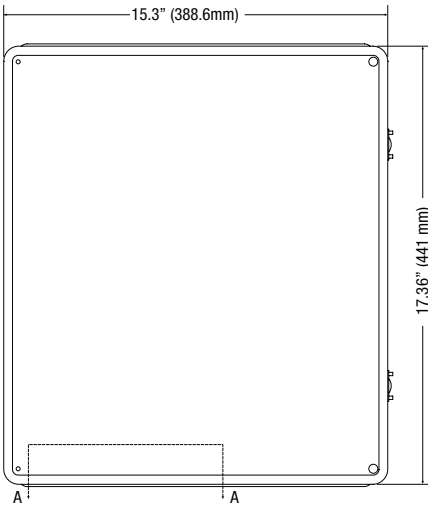
END VIEW



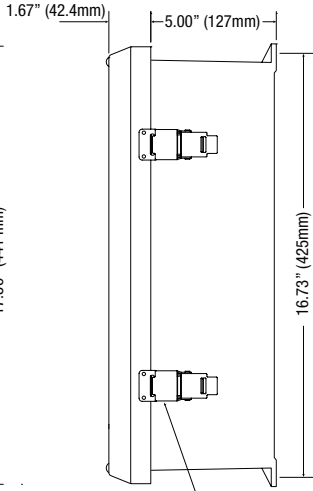
NetWaySP4BTWPX3, NetWaySP4BTWPX7 Mechanical Drawing and Dimensions (H x W x D approx.):

17.53" x 15.3" x 6.67" (445.3mm x 388.6mm x 169.4mm)

FRONT VIEW

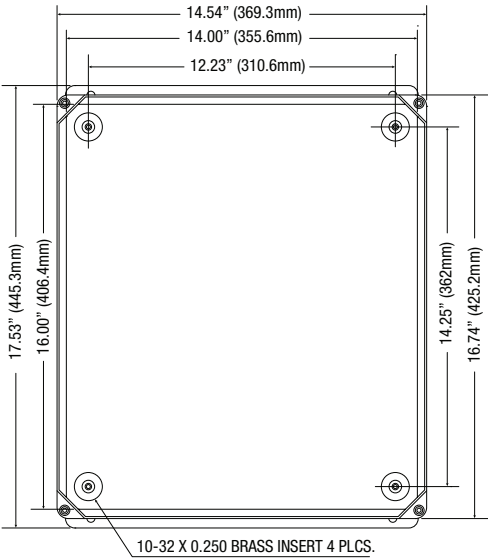


RIGHT SIDE VIEW



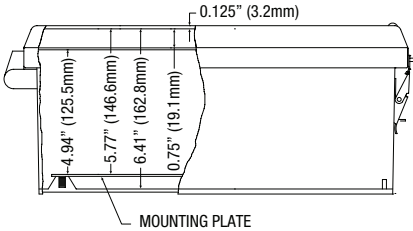
316 STAINLESS STEEL PADLOCK LATCH
ATTACHED WITH RIVETS. Ø 0.375 PADLOCK EYE

FRONT VIEW COVER REMOVED

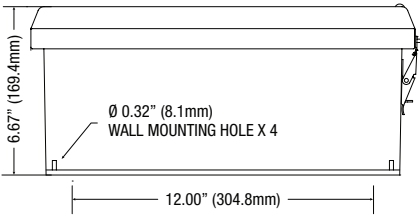


10-32 X 0.250 BRASS INSERT 4 PLCS.

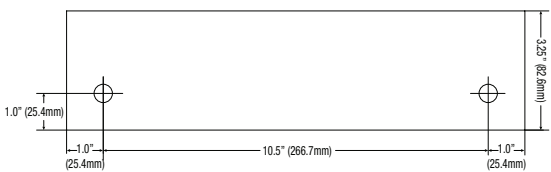
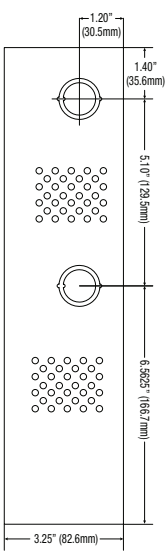
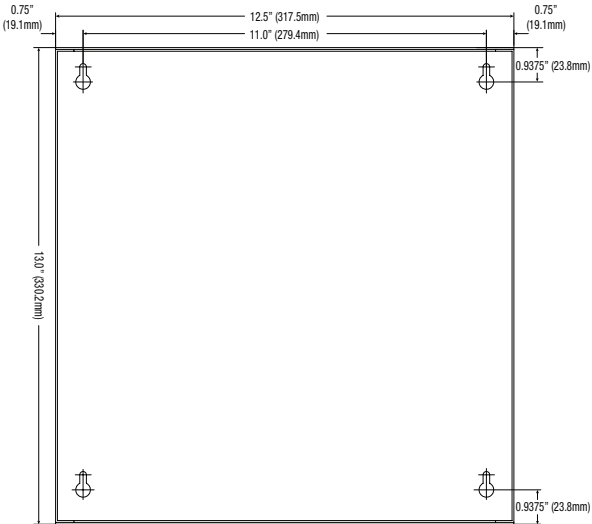
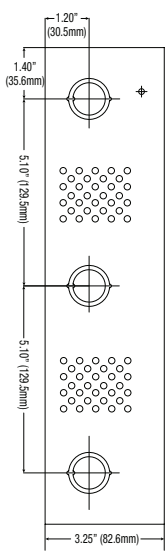
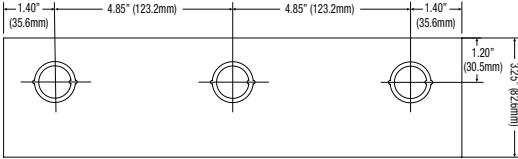
SECTION A-A



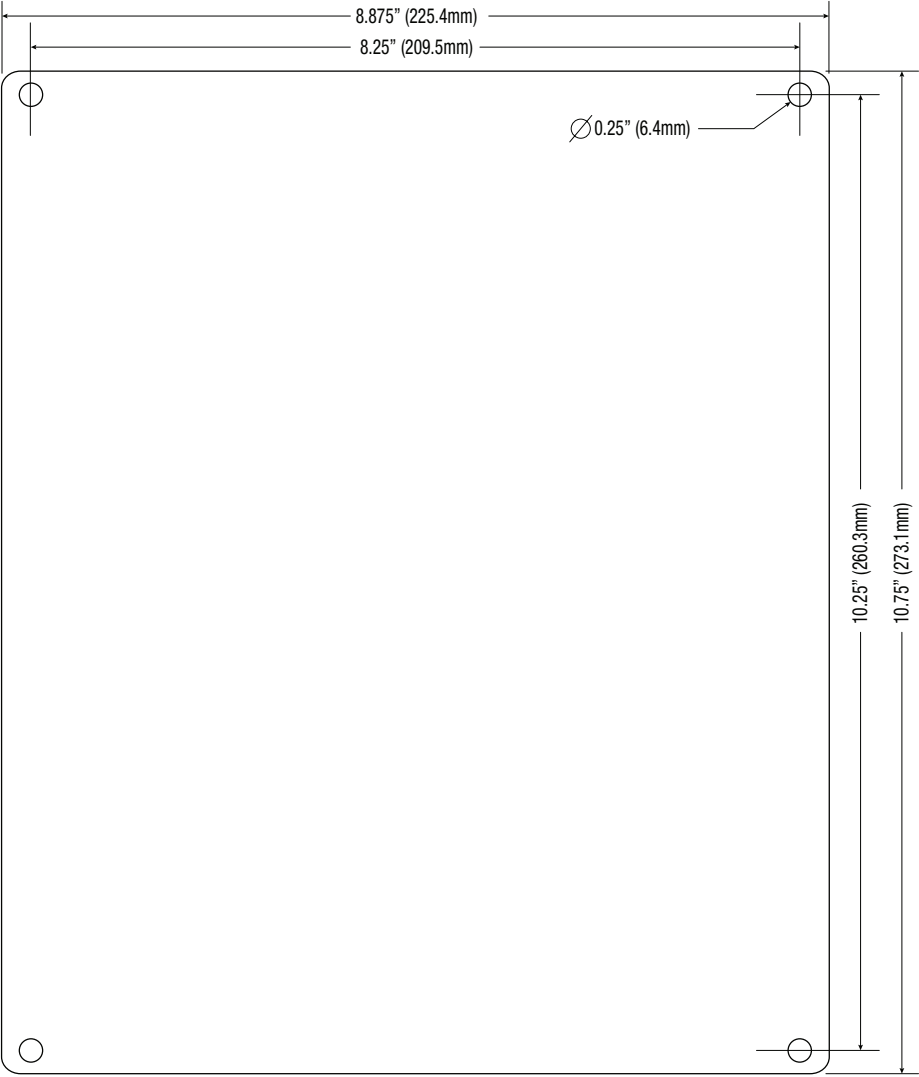
END VIEW



NetWaySP4BTX3
Mechanical Drawing and Dimensions (H x W x D approx.):
13.5" x 13" x 3.25" (342.9mm x 330.2mm x 82.6mm)



NetWaySP4BTPL
Mechanical Drawing and Dimensions (H x W x D approx.):
10.75" x 8.875" x 2.375" (273.1mm x 225.4mm x 60.3mm)



Altronix is not responsible for any typographical errors.

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website: www.altronix.com | e-mail: info@altronix.com | Lifetime Warranty
NetWaySP4BT3 Series F09Z

