

Video • Data

HubWay[®]LDH[™]



Active UTP Transceiver Hub

Installation Guide

Models Include:

HubWayLDH8

- Eight (8) Camera Channels

HubWayLDH16

- Sixteen (16) Camera Channels

Overview:

Altronix HubWayLDH8/16 Active UTP Transceiver Hub transmits UTP video, RS422/RS485 data and power over a single CAT-5 or higher structured cable. Unit provides 8 or 16 camera channels in a space saving 1U EIA 19" rack mount chassis which may be rack, wall or shelf mounted. Video transmission range is up to 3000 ft. max. per channel. Units are compatible with fixed or PTZ cameras. An optional HubSat4/4D Passive UTP Transceiver Hub with Integral Camera Power can be used as an accessory module to transmit video from up to 4 cameras over a single CAT-5 or higher structured cable back to the HubWayLDH8/LDH16. In addition, the HubSat4/4D provides power to these cameras locally to eliminate the possibility of voltage drop associated with long cable runs.

HubWayLDH Specifications:

HubWayLDH8

Input:

- 115VAC 50/60Hz, 2 amp or 230VAC 50/60Hz, 1.25 amp.
- Primary fuse is rated at 5 amp/250V.

Video:

- Eight (8) channels of video over twisted pair up to a distance of 3000 ft. per channel.
- Eight (8) 75 ohm video outputs.

HubWayLDH16

Input:

- 115VAC 50/60Hz, 4 amp or 230VAC 50/60Hz, 2.5 amp.
- Primary fuse is rated at 5 amp/250V.

Video:

- Sixteen (16) channels of video over twisted pair up to a distance of 3000 ft. per channel.
- Sixteen (16) 75 ohm video outputs.

Common Specifications:

Data:

- RS422/RS485 data inputs.

Visual Indicators:

- AC input power indicator.
- Video signal and power LED indicators.

Features:

- Picture and Gain control.
- Illuminated master power disconnect circuit breaker with manual reset.

Features (cont'd):

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

Accessories:

- Optional HubSat4/4D allows transmission of up to four (4) video signals over a single CAT-5 or higher structured cable.

Installation Instructions:

1. Set the input voltage selector switch located on the left side of the HubWayLDH8/LDH16 unit (facing front panel) for 115VAC or 230VAC operation (*Fig. 1j, pg. 4*).
2. Attach mounting brackets to HubWayLDH unit for rack or wall mount installation (*Figs. 5-6, pg. 8*). Affix rubber pads to HubWayLDH for shelf installation (*Fig. 7, pg. 8*).
3. Secure the unit in a rack, mount unit to a wall or place unit on a shelf as desired (unit should be spaced at least 3" from any video monitors).
4. Set illuminated master power disconnect circuit breaker to the (OFF) position (*Fig. 4, pg. 7*).
5. Plug the grounded AC line cord (included) into the IEC 320 connector of the HubWayLDH8/HubWayLDH16 unit (*Fig. 1i, pg. 4*). Insert the plug end of the line cord into a grounded AC receptacle.
6. Connect the BNC video outputs for HubWayLDH8/LDH16 Channels 1 - 8 (Channels 1-16) to the corresponding video inputs on the head end equipment (DVR) (*Fig. 1e, pg. 4*).
7. Connect the RS422/RS485 output of the head end equipment (DVR) to the one (1) or both data input terminal blocks of the HubWayLDH8 or HubWayLDH16 unit (polarity must be observed) (*Fig. 1d, pg. 4*).
Note: The Data input terminals of the HubWayLDH8 or HubWayLDH16 must be wired in parallel for proper operation. When using fixed cameras disregard this step.
8. Connect Video Balun/Combiner at camera 1 to the HubWayLDH8 or HubWayLDH16 unit utilizing CAT-5 or higher structured cable. Plug the RJ45 connector at one end of the structured cable into the RJ45 jack marked [Channel 1] of the HubWayLDH8/LDH16 (*Fig. 1a, pg. 4*). Plug the RJ45 connector at the opposite end of the structured cable into the RJ45 jack of the Video Balun/Combiner located at camera 1.
Repeat steps 6-9 for each additional camera (Channels 2-8 or Channels 2-16).
Note: An external power source is required to power the cameras (*Figs. 2-3, pgs. 5-6*). Optionally, an Altronix HubSat4/4D Passive UTP Transceiver Hub with Integral Camera Power may be utilized (*Fig. 2a, pg. 5*). The combined total cable distance must not exceed 3000 ft. for video transmission between the HubWayLDH8/LDH16 and each camera routed through the HubSat4/4D.

9. Upon completion of wiring set illuminated master power disconnect circuit breaker to the RESET (ON) position (*Fig. 4, pg. 7*).
10. The video signal indicator LEDs (Red) for Channels 1-8 of the HubWayLDH8 or 1-16 of the HubWayLDH16 will illuminate when video signal is present (*Fig. 1h, pg. 4*). If any of these LEDs are not illuminated, there is no video signal for that corresponding channel.
11. Optimize the picture quality for Channels 1-8 (Channels 1-16) by adjusting the corresponding potentiometer marked [Picture] (*Fig. 1f, pg. 4*).
12. Set gain for Channels 1-8 or Channels 1-16 by adjusting the corresponding potentiometer marked [Gain] (*Fig. 1g, pg. 4*).

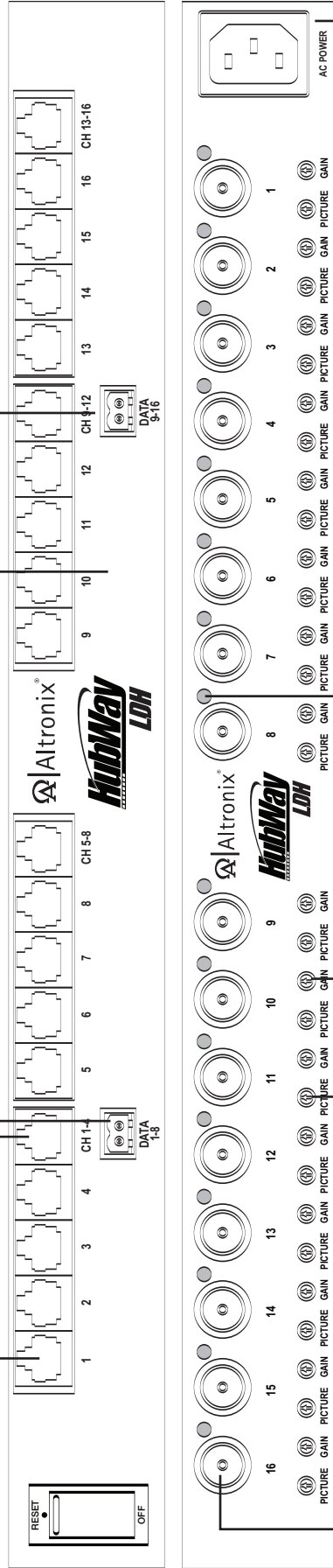
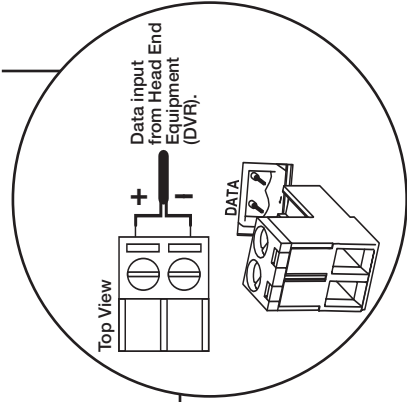
Fig. 1

Id - Data: Removable terminal blocks for RS422/RS485 input from head end equipment (DVR) for PTZ control.

1b - Channels 1-4, Channels 5-8, Channels 9-12 & Channels 13-16: CAT-5 or higher structured cable from optional HubSat4S enables video transmission from up to four (4) cameras.

1a - Channels 1-8 (HubWayLD8) or Channels 1-16 (HubWayLD16): CAT-5 or higher structured cable to Video/Balun Combiners at cameras 1-8 or 1-16. When using the optional HubSat4S any of the outputs can be utilized for the data transmission from the HubSat4S.

1c - Output voltage switches: Selects 24VAC/28VAC/OFF for each output.



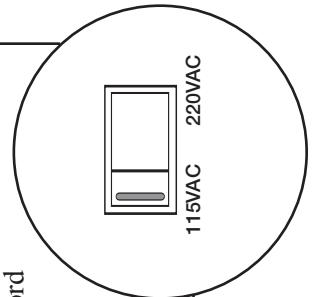
1e - BNC Connector: Video outputs to head end equipment (DVR).

1f - Picture: Adjusts video quality.

1g - Gain: Regulates the output video and sync levels.

1h - LED(s) 1-16: Video signal indicators.

1i - IEC 320 Connector: 115VAC/230VAC 50/60Hz (grounded line cord included).



1j - Input Voltage Switch: Selects 115VAC/230VAC 50/60Hz (switch is located on the left side of the unit).

Typical Applications:

Fig. 2

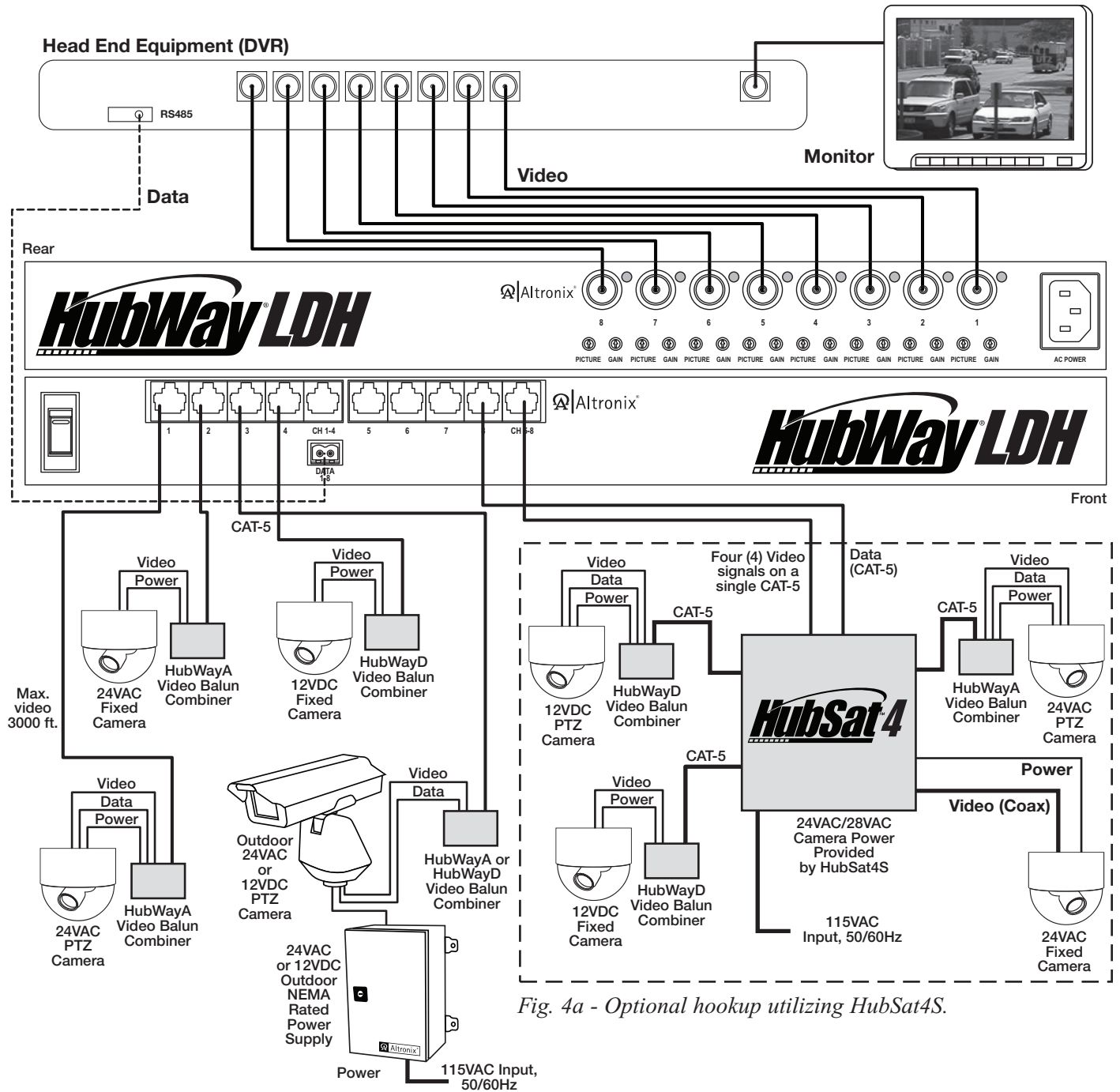
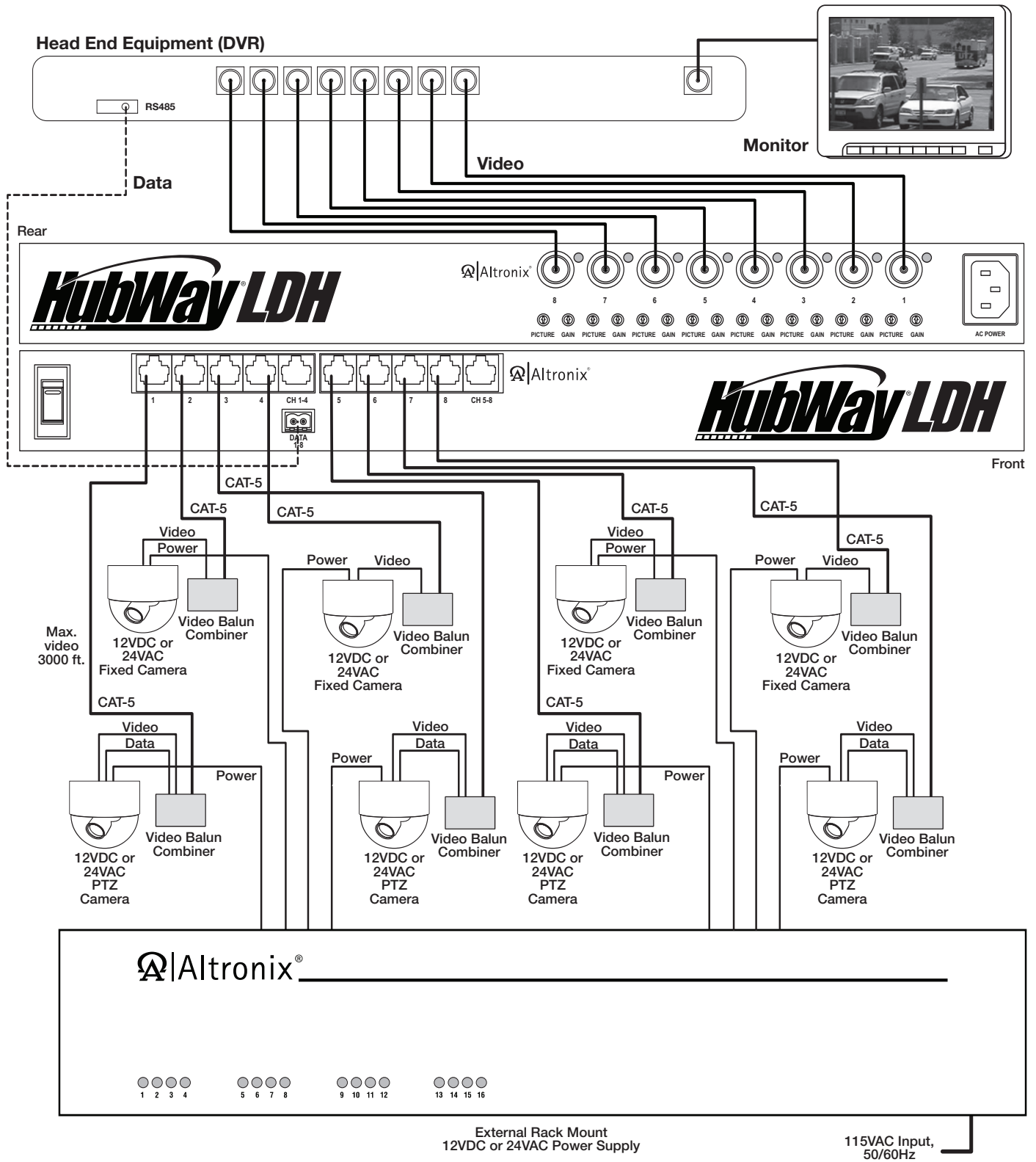


Fig. 4a - Optional hookup utilizing HubSat4S.

Typical Applications:

Fig. 3



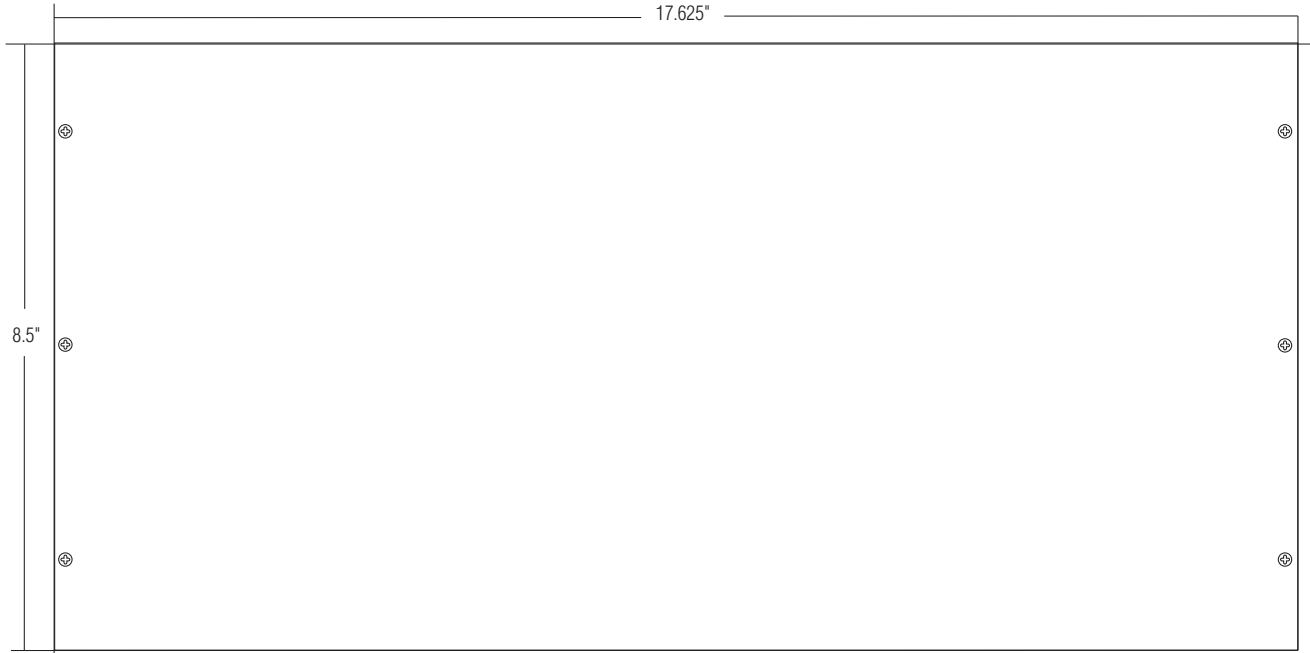
1U EIA 19" Rack Mount Chassis Mechanical Drawing & Dimensions:

1.625"H x 19.125"W x 8.5"D

REAR



TOP & BOTTOM



FRONT

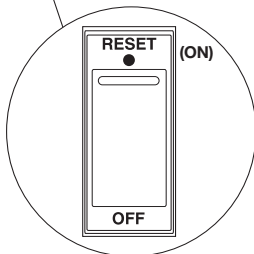
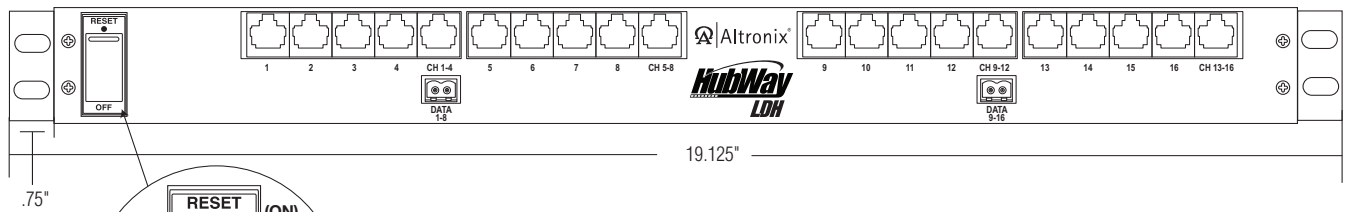


Fig. 4

Illuminated master power disconnect circuit breaker:

- OFF position Circuit breaker tripped – Switch not illuminated.
- RESET (ON) position – Switch illuminated.



The lightning flash with arrow head symbol within an equilateral triangle is intended to alert the user to the presence of an insulated "DANGEROUS VOLTAGE" within the products 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
RISK OF ELECTRIC SHOCK
DO NOT OPEN



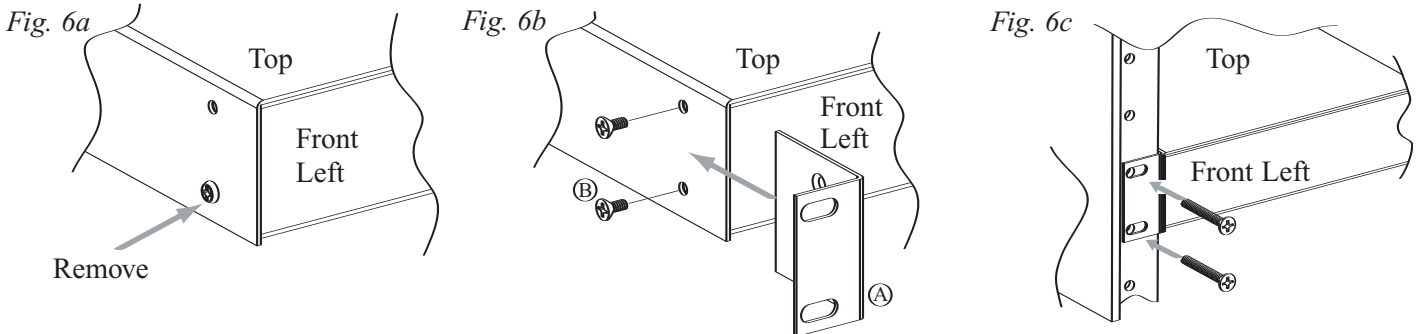
CAUTION: To reduce the risk of electric shock do not open enclosure. There are no user serviceable parts inside. Refer servicing to qualified service personnel.

Mounting Options:

Rack Mount Installation

- 1- Remove and discard factory installed screws from both sides of rack chassis (Fig. 6a).
- 2- Install mounting brackets (A) on the left and right side of rack chassis using the four (4) flat head screws (B) (included) (Fig. 6b).
- 3- Place unit into desired EIA 19" rack position and secure with mounting screws (not included) (Fig. 6c).

Fig. 6



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. 7a).
- 2- Place unit at desired location and secure with mounting screws (not included) (Fig. 7b).

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

Fig. 7

Fig. 7a

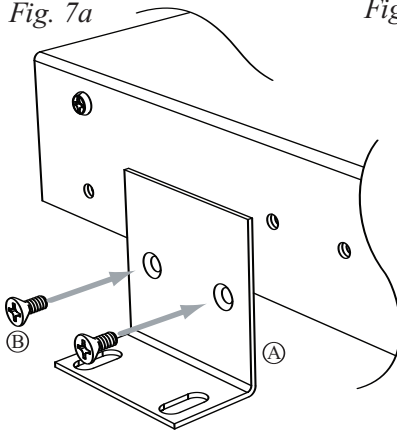
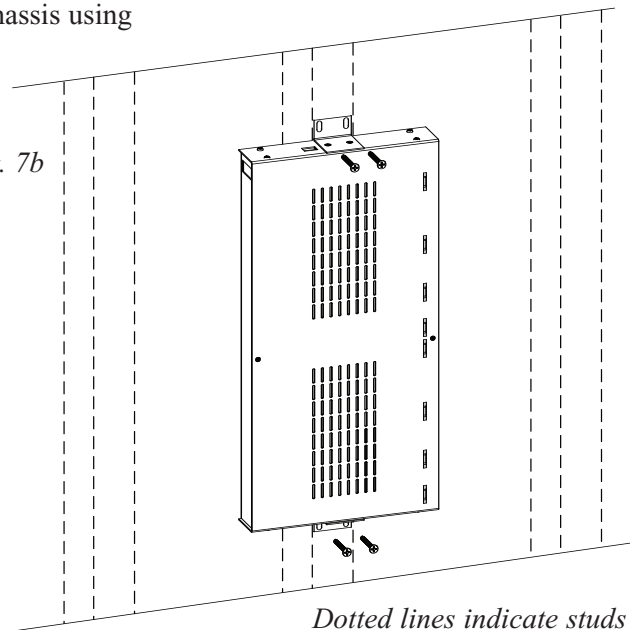


Fig. 7b

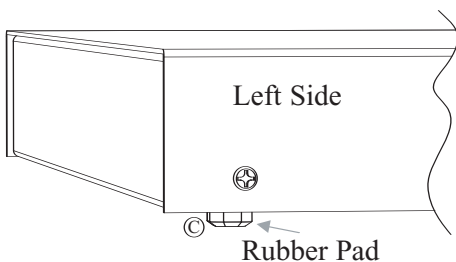


Dotted lines indicate studs behind sheetrock.

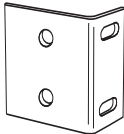


Shelf Installation

- 1- Position and affix rubber pads (C) (included) at each corner on the bottom of the unit (Fig. 8).
- 2- Place unit in desired location.

Fig. 8



Mounting Hardware (Included):

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

Altronix is not responsible for any typographical errors.