VERTILINE

VertiLine563V

Rack Mount Power Supply/Charger

Installation Guide

Z1409

Altronix®

Rev. 041414

More than just power.™

Installing Company: _____ Service Rep. Name: _____

Address: _____ Phone #: _____

Overview:

Altronix VertiLine563V is a EIA 19” 1U rack mountable dual independent power supply with optional battery backup that provides 56VDC. It is intended primarily to be used in conjunction with respective Altronix current and future products that require 56VDC input such as: eBridge4PCRX, eBridge16PCRX and eBridge1PCRX multi-port and single port IP/PoE over coax adapters. However, it can also be employed wherever 56VDC level power sources are needed.

There are applications which may require delivering power in a range of 48VDC to 57VDC over CAT5 cable for distances up to 100m. For these applications transmission at the higher voltage is more efficient, as it reduces cable losses when compared to the lower voltage.

Specifications:

Agency Listings:

- **CE** European Conformity.
- **C-Tick** C-Tick Compliant.

Input:

- Input 220VAC, 50/60Hz, 3A.

Output:

- 56VDC @ 3A each output.
  (When using battery backup, output rating is 56V/2.7A for respective outputs).

Battery Backup:

- Built-in charger for sealed lead acid or gel type batteries.*
  *External batteries are optional.
- Automatic switch over to stand-by battery when AC fails.
- Maximum charge current 0.3A.

Additional Features:

- Two (2) AC LED indicators.
- IEC 320 - 3-wire grounded line cord (detachable).
- Unit can be rack or shelf mounted.

Rack Dimensions (H x W x D approx.):

- 1U rack mount chassis for use in standard EIA 19” rack.
  1.625” x 19.125” x 8.5”
  (41.3mm x 486mm x 216mm)

Accessories:

RE2 - Rack Mount Battery Enclosure:

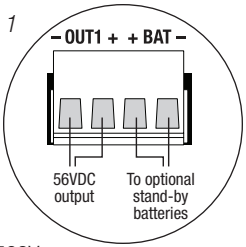
- Fits up to four (4) 12VDC/7AH batteries.
- 2U rack mount chassis for use in standard EIA 19” rack.

Installation Instructions:

1. Suitable for rack, wall or shelf mounting *(refer to page 4).*
   a. 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.
   b. Installation of the equipment in a rack should be such that the amount of airflow required for safe operation of the equipment is not compromised.
   c. Mounting of the equipment in the rack should be such that a hazardous condition is not achieved due to uneven mechanical loading.
   d. Consideration should be given to the connection of the equipment to the supply circuit and the effect that overloading of the circuits might have on overcurrent protection and supply wiring.
   Appropriate consideration of equipment nameplate ratings should be used when addressing this concern.
   e. 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).
2. Insert terminal blocks included with unit in sockets in the rear of unit *(Fig. 2, pg. 4)*.
3. Plug power cord into grounded 220VAC, 50/60Hz receptacle to energize unit *(Fig. 2a, pg. 4).*
4. Measure output voltage on both output terminal blocks marked [– OUT1] + and [– OUT2 +] before connecting devices. Output voltage should be nominally 56VDC.
5. Unplug power cord from grounded 220VAC, 50/60Hz receptacle to de-energize unit *(Fig. 2a, pg. 4).*

6. **Typical 56VDC device hookup:**
   Connect either one (1) or two (2) devices to VertiLine563V.
   Connect first 56VDC device Input to VertiLine563V terminals marked [– OUT1 +].
   If applicable, connect second 56VDC device Input to VertiLine563V terminals marked [– OUT2 +]
   (Fig. 1, pg. 3, Fig. 3, pg. 4), carefully observing polarity.
   CAUTION: Outputs 1 and 2 should not be connected in parallel.

Fig. 1



7. **For application hookup to Altronix eBridge IP/PoE over coax products:**
   a. eBridge4PCRX - Connect either one (1) or two (2) eBridge4PCRX to VertiLine563V.
   Connect first eBridge4PCRX Input to VertiLine563V terminals marked [– OUT1 +].
   If applicable, connect the second eBridge4PCRX Input to VertiLine563V terminals marked [– OUT2 +]
   (Fig. 1, pg. 2, Fig. 4, pg. 5), carefully observing polarity.
   b. eBridge16PCRX - Connect eBridge16PCRX Input 1 to VertiLine563V terminals marked [– OUT1 +], connect eBridge16PCRX Input 2 to VertiLine563V terminals marked [– OUT2 +]
   (Fig. 1, pg. 2, Fig. 5, pg. 6), carefully observing polarity.
8. When batteries are not used, a loss of AC will result in the loss of output voltage. When the use of stand-by batteries is desired, they must be lead acid or gel type. Connect four (4) 12VDC batteries wired in series to terminals marked [+ BAT –] *(Fig. 1, pg. 3)*, carefully observing polarity.
9. Plug power cord into grounded 220VAC, 50/60Hz receptacle to energize unit *(Fig. 2a, pg. 4).*

WARNING: To reduce the risk of fire or electric shock, do not expose the unit to rain or moisture. This installation should be made by qualified service personnel and should conform to the National Electrical Code and all local codes.

Technical Specifications:

Parameter	Description
No. of Outputs	Two (2) outputs. Each output rated @ 150W each. Current per output = 2.7A.
Input Power Requirements	220VAC, 50/60Hz, 3A
Indicators	AC LEDs, one (1) per power supply.
Battery Backup	Battery stack is 4x 12VDC lead acid gel cells connected in series. Battery backup one (1) per power supply.
Environmental Conditions	Operating ambient temperature: 0ºC to 40ºC (32ºF to 104ºF). Relative humidity: 85%, +/– 5% Storage temperature: – 20º to 70ºC (– 4º to 158ºF). Operating altitude: –304.8 to 3,048m.
Regulatory Compliance	Z1409 CE European Conformity, C-Tick compliant.

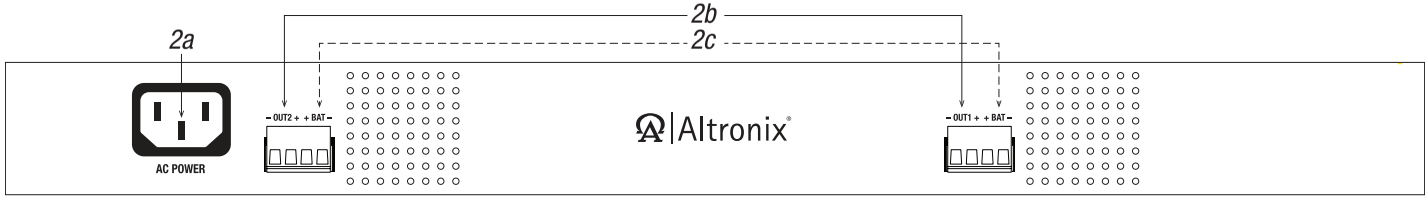
The lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of an insulated DANGEROUS VOLTAGE within the product's enclosure that may be of sufficient magnitude to constitute an electric shock.

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
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.

Fig. 2 - **VertiLine563V rear callout**



2a. IEC 320 - 3-wire grounded line cord (detachable).
2b. 56VDC @ 3A per output.
2c. Stand-by battery connections. Maximum charge current 0.3A.

Fig. 3 - **VertiLine563V configured with two (2) 56VDC devices and four (4) 12VDC stand-by batteries**

Fig. 4 - **VertiLine563V configured with two (2) eBridge4PCRX and four (4) 12VDC stand-by batteries wired in series** (optional)

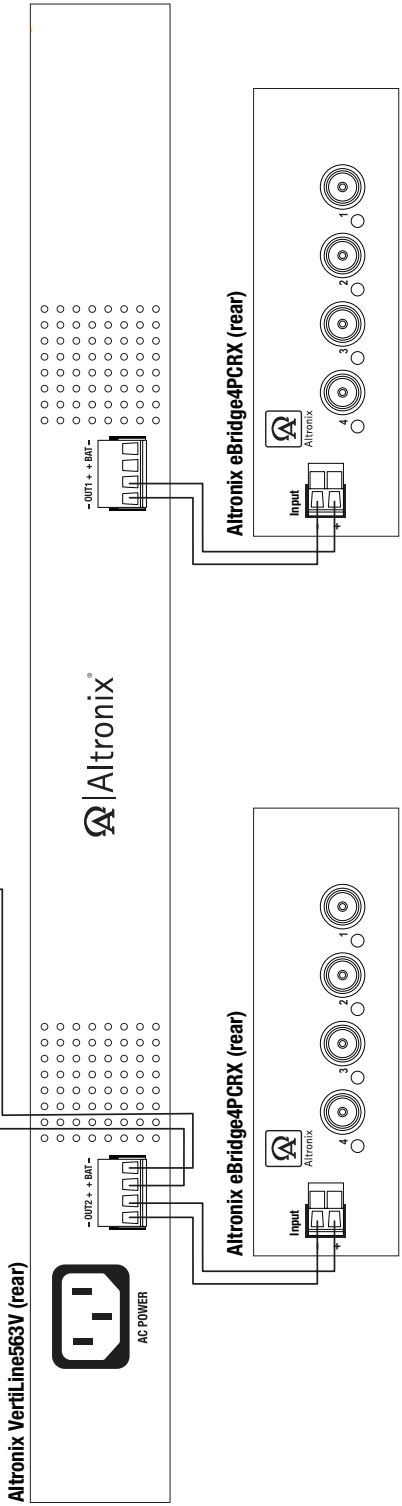
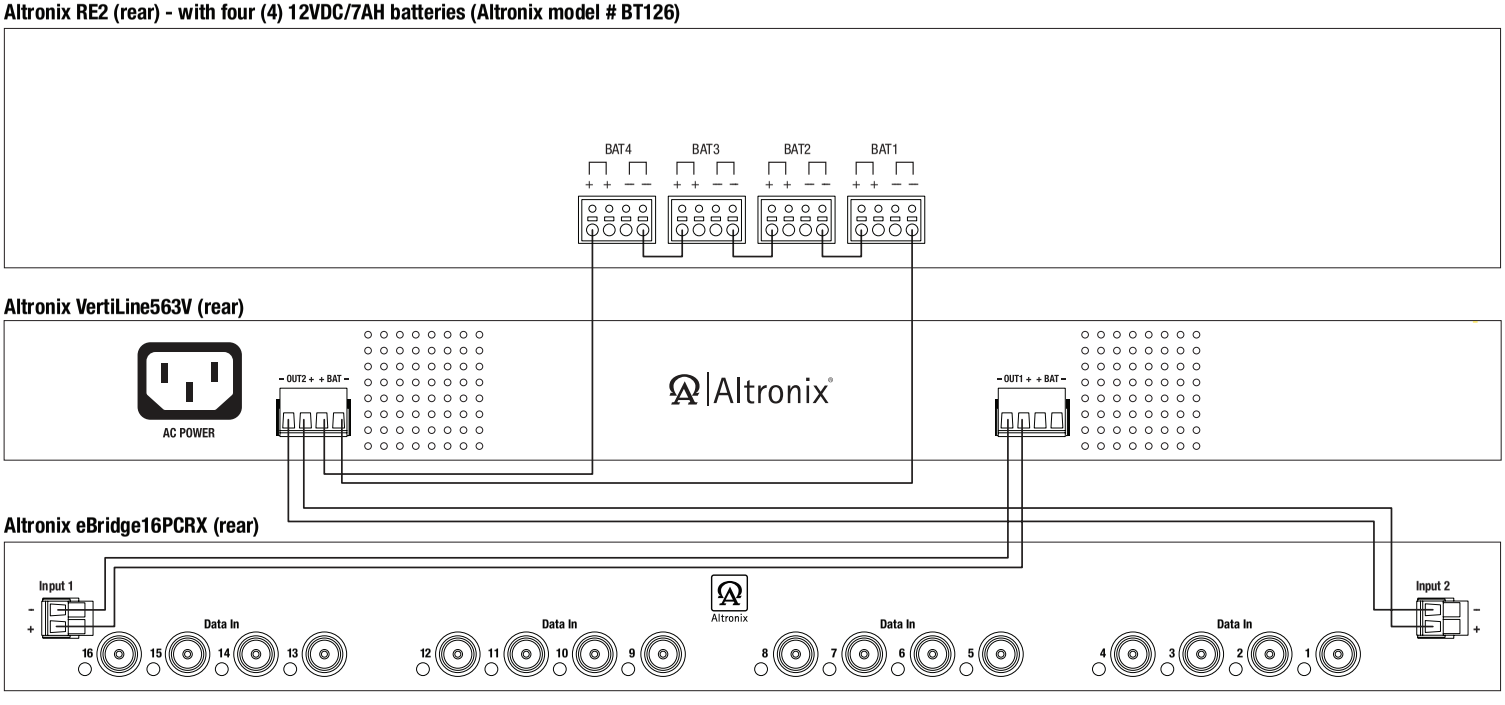


Fig. 5 - **VertiLine563V configured with eBridge16PCRX and RE2 Rack Battery Enclosure** (optional).



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)*. (Space unit at least 3" from any video monitors). Do not obstruct side air vents.

Fig. 6

Fig. 6a

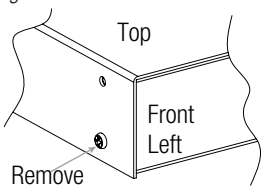


Fig. 6b

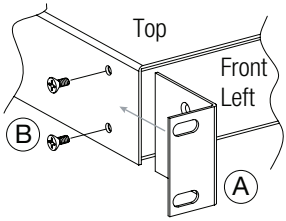
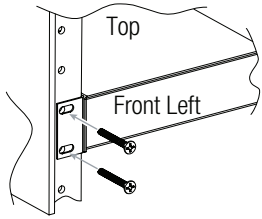


Fig. 6c



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

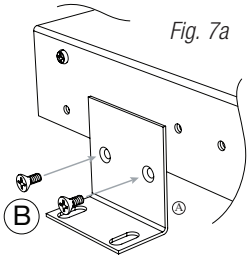
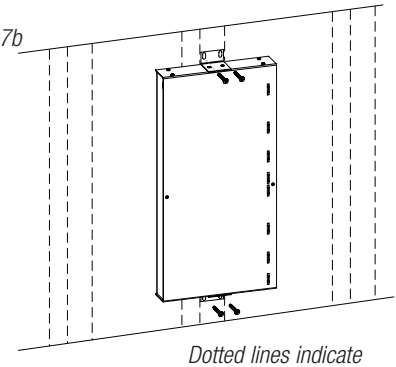


Fig. 7b

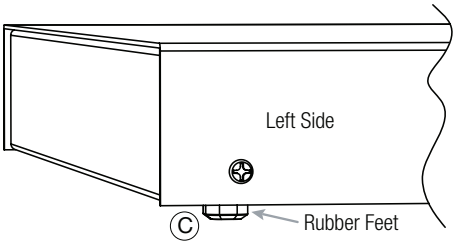


Dotted lines indicate studs behind sheetrock.

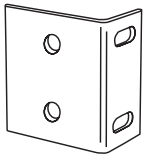
Shelf Installation

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):



Ⓐ Two (2) mounting brackets

Ⓑ Six (6) flat head screws for mounting brackets.

Ⓒ Four (4) rubber pads.

Rack Mechanical Drawing and Dimensions (H x W x D approx.)**:**

1.625”x 19.125”x 8.5” (41.3mm x 485.8mm x 216mm)

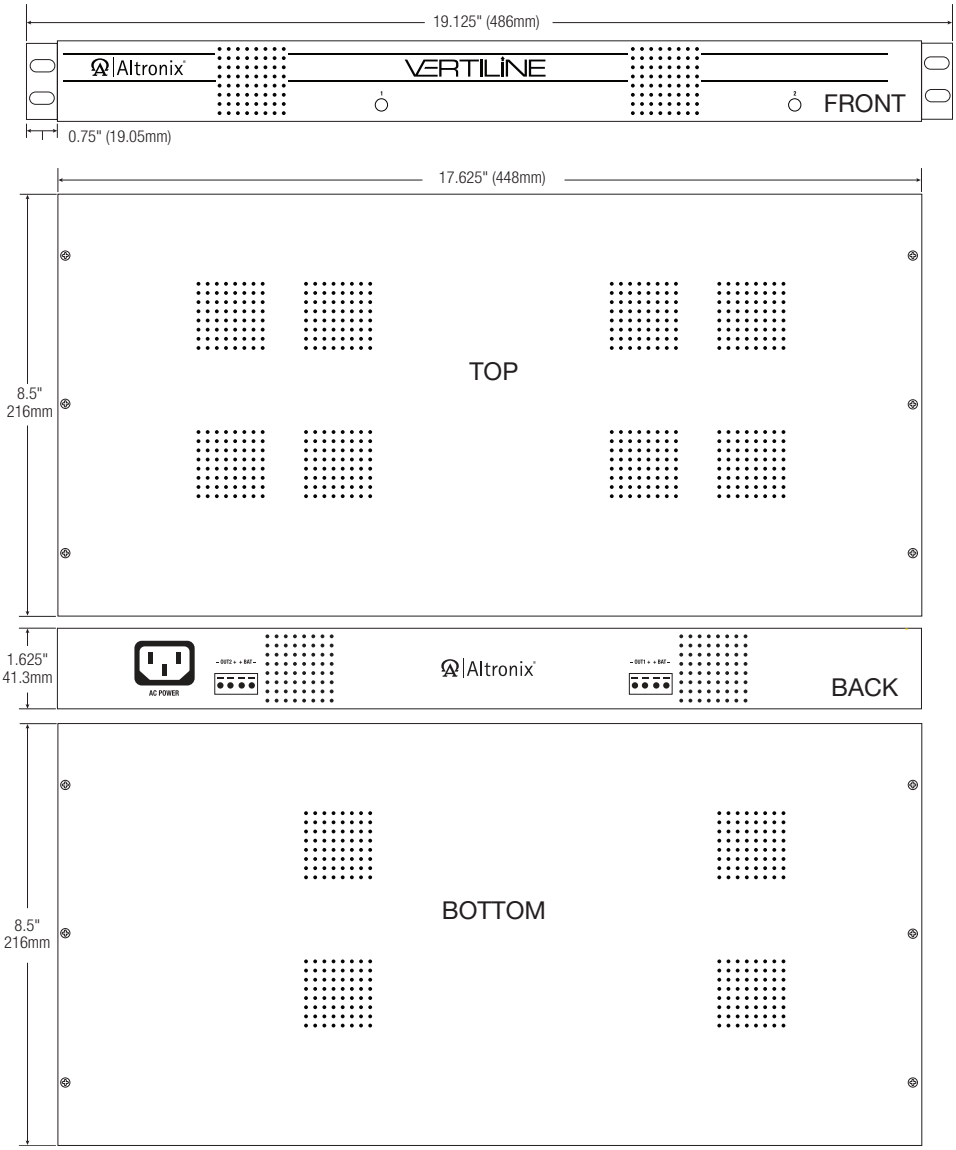



Fig. 9