HARTMANN
ACCESS CONTROL SYSTEMS
Access & Power Integration

Trove1HC1R

- Trove1R rack enclosure with Altronix/Hartmann backplane (THC1R)

Installation Guide

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CE

Rev. 072522

Installing Company: _____ Service Rep. Name: _____

Address: _____ Phone #: _____

Overview:

Altronix Trove1HC1R rack mount access & power integration solution accommodates various combinations of Hartmann boards with or without Altronix power supplies and accessories for access systems.

Specifications:

Agency Listings:

- CE European Conformity.

Trove1HC1R

Trove1R rack mount enclosure with THC1R Altronix/Hartmann backplane.

- 16 Gauge black enclosure with ample knockouts for convenient access.
- Modular 2U standard EIA 19" drawer with extendable slides up to 48".
- Dimensions (H x W x D): 3.25" x 19.0" x 26.5" (82.6mm x 482.6mm x 673.1mm).
- Includes tamper switch (Altronix Model TS112 or equivalent) and cam lock.

THC1R

Altronix/Hartmann backplane.

- 16 Gauge backplane.
- Dimensions (H x W x D): 18.5" x 15.25" x 0.3125" (469.9mm x 387.4mm x 7.9mm).

Optional Accessories:

- **RE2:** Rack Mount Battery Enclosure accommodates up to four (4) 12VDC/7AH batteries
- **WM5, WM25, WM100:** Magnetic Cable Tie Mounts (5, 25, 100 counts).
- **LC3:** 6 ft. three-wire line cord.

Backplane Accommodates a Combination of the Following:

Altronix:

- One (1) eFlow4NB, eFlow6NB, eFlow102NB, eFlow104NB, AL400ULXB2, AL600ULXB, AL1012ULXB, AL1024ULXB2, ACMS8(CB) or ACM8(CB).
- Up to two (2) ACM4(CB), MOM5, PD4UL(CB), PD8UL(CB), PDS8(CB), or VR6.
- One (1) DP4(CB)

Hartmann:

- One (1) PRS_MASTER.
- Up to four (4) PRS_TDM or PRS_IO8.

Hardware and Accessories:

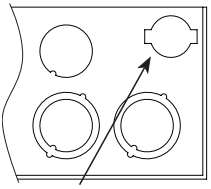
Installing Trove1R into Rack Tower:

Wiring methods shall be in accordance with the National Electrical Code/NFPA 70/ANSI, and with all local codes and authorities having jurisdiction. These products are for indoor use only and must be installed within the protected premises.

Note: First assemble and Install Z Bracket Wire Management Accesory *(refer to Z Bracket Installation pg. 4)*

1. Remove backplane from enclosure prior to installing into rack cabinet (do not discard hardware).
2. In order to mount included UL Listed tamper switch (Altronix Model TS112 or equivalent) turn the enclosure upside down. Punch out the knockout in designated location, on the back of the unit, from outside of the drawer *(Fig. 1, pg. 3)*. Insert the tamper switch into the knockout from outside of the drawer with the button facing outwards and spaded connectors inside the drawer. Connect tamper switch wiring to the Access Control Panel input or the appropriate UL Listed reporting device.
   To activate alarm signal open the rack drawer.
3. Slide the rack enclosure into an open 2U location in the four post rack cabinet.
4. Utilizing proper fasteners attach front ears to the rack rails.
5. Attach the rear of the adjustable slides to the rear rails of the rack cabinet with the proper fasteners.
6. Secure the rack cover *(Fig. 2a, pg. 3)* and rack drawer to earth ground *(Fig. 2b, pg. 3)*.

Fig. 1
Back of the drawer, viewed from outside.



Tamper Switch mounting location

Fig. 2

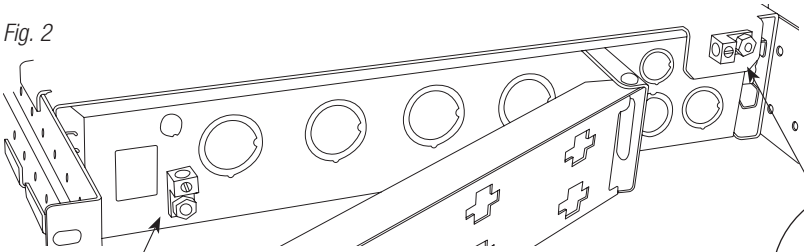


Fig. 2a

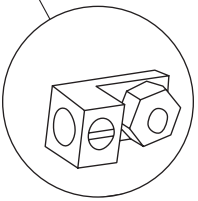
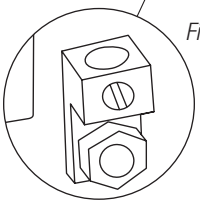


Fig. 2b



7. Make sure that all internal configurations (wiring, voltage selection, switch settings, etc.) are complete before mounting backplane back into enclosure.
8. After all components are mounted on the backplane, attach it to the enclosure using included hardware.

Assembling and Attaching
Z Bracket Wire Management Accessory (included):

Altronix Trove Rack enclosures include Z Bracket, a convenient and reliable wire management accessory.

Hardware (included)**:**

Ten (10) bolts and eight (8) lock nuts.

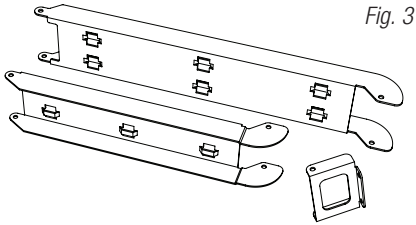


Fig. 3

Two (2)

1. Carefully unpack Z Bracket. Do not discard hardware (included) *(Fig. 3, pg. 4)*.
2. Attach arms to each other using bolts and lock nuts *(Fig. 3a, pg. 4)*.
3. Attach the hinge brackets to the ends of arms using bolts and nuts positioning them as shown on *(Fig. 3b, pg. 4)*.
4. Make sure that all nuts are tightened.

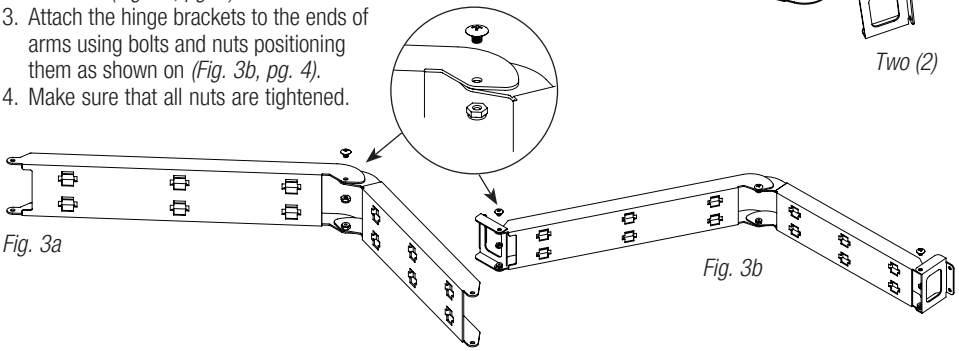


Fig. 3a

Fig. 3b

5. Attach the hinge bracket on the longer side of Z Bracket to the adjustable slide using bolts and lock nuts (included) *(Fig. 4, 4a, pg. 4)*.
6. Attach the hinge bracket on the shorter side of Z Bracket to the rear of the rack enclosure using bolts (included).

Fig. 4

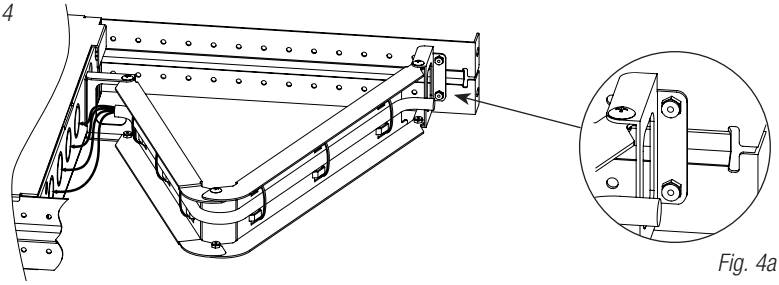


Fig. 4a

THC1R:

Configuration of Altronix Power Supply and/or Sub-Assembly Boards

1. Fasten spacers onto metal pems configuration (A), (B) (C) of backplane depending on the board *(Fig. 5, pg. 5)*.
2. Position access controller module over corresponding spacers and fasten screws into spacers *(Fig. 5a, pg. 5)*.

Position Chart for the Following Altronix Models:

Altronix Power Supply/Charger or Sub-Assembly	Pem Mounting
eFlow4NB, eFlow6NB, eFlow102NB, eFlow104NB, AL400ULXB2, AL600ULXB, AL1012ULXB, AL1024ULXB2, ACMS8(CB) or ACM8(CB)	Ⓐ
ACM4(CB), MOM5, PD4UL(CB), PD8UL(CB), PDS8(CB), PD16W(CB) or VR6	Ⓑ
DP4(CB)	Ⓒ

Configuration of Hartmann Boards:

1. Align the Hartmann Controls boards on the backplane to match the boards' mounting holes with corresponding pems.
2. Fasten spacers (provided) to pems that match the hole pattern for Hartmann Control boards *(Fig. 5, 5a, pg. 5)*. **Note:** Hartmann Controls boards must be properly grounded. Please use provided metal spacers for the lower right mounting holes *(Fig. 5, pg. 5)*.
3. Mount Hartmann Controls boards to spacers utilizing provided 5/16" pan head screws *(Fig. 5a, pg. 5*.
4. Fasten backplane to Trove1 enclosure utilizing lock nuts (provided).

Fig. 5

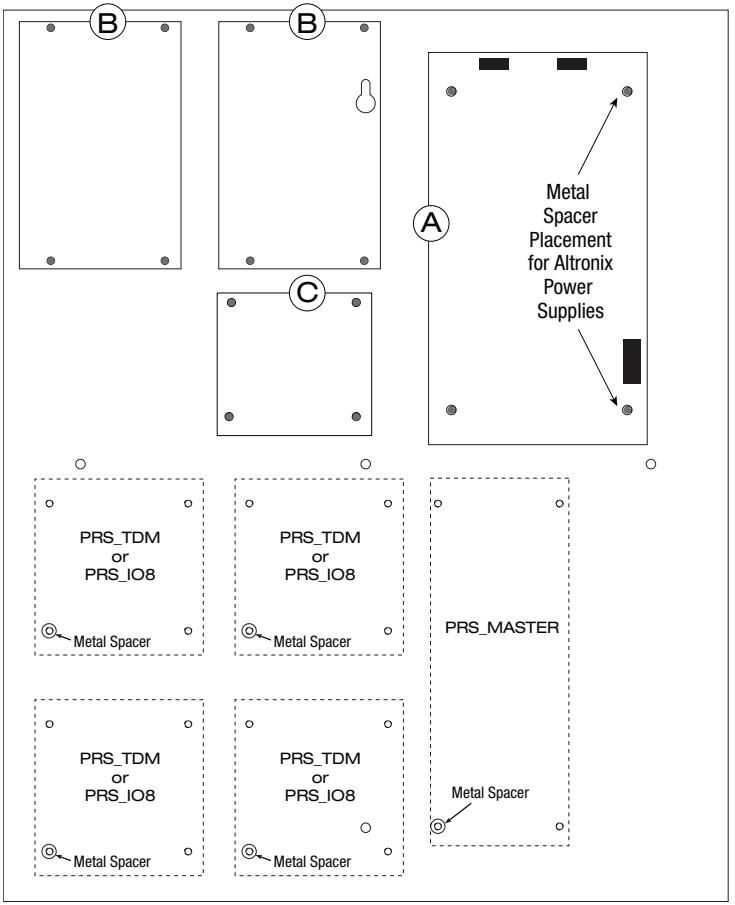
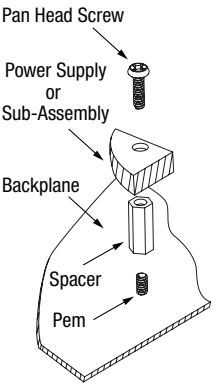
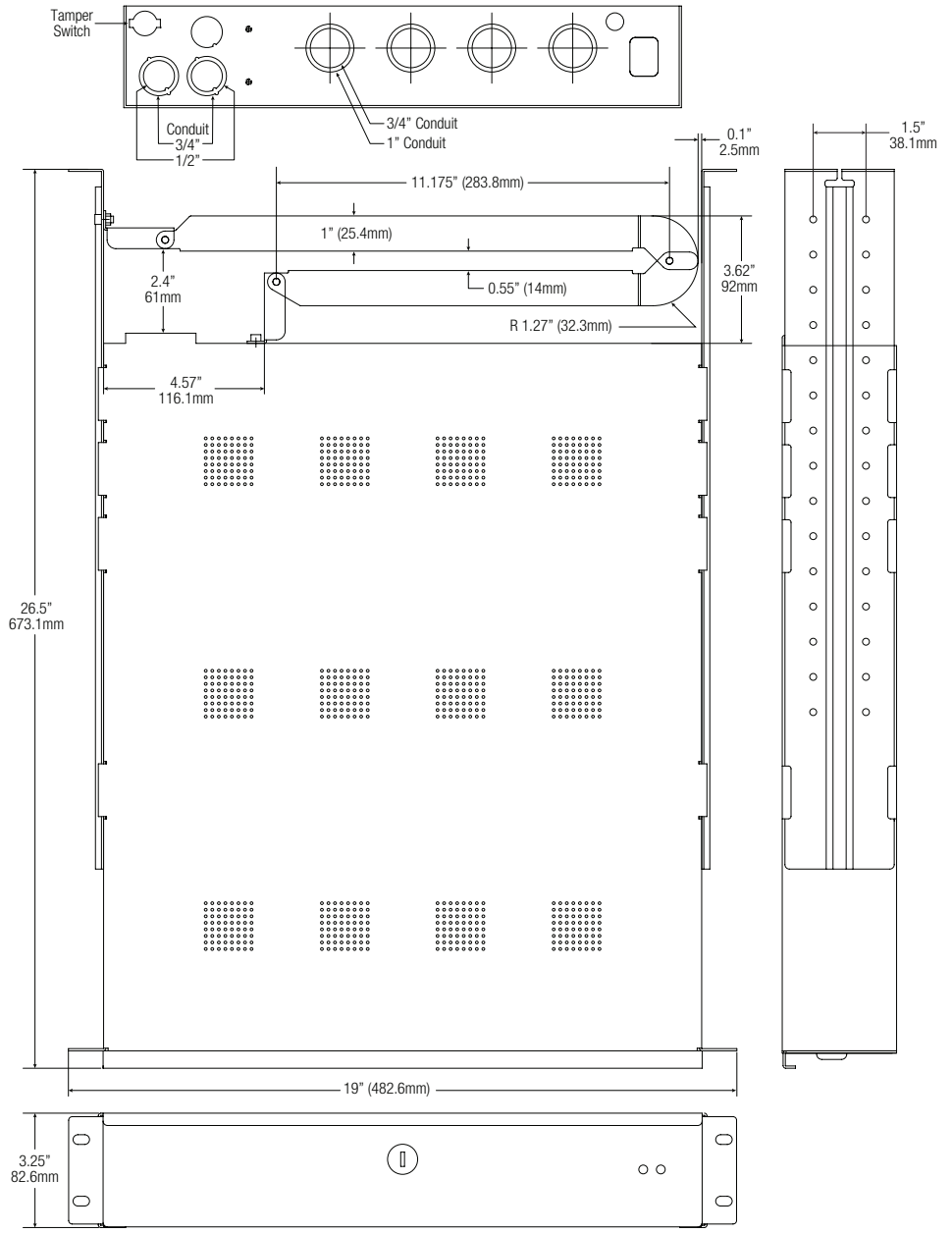


Fig. 5a



Notes:

Notes:

Trove1R Enclosure Dimensions:

3.25” x 19.0” x 26.5” (82.6mm x 482.6mm x 673.1mm). Shown with Z Bracket attached.