HARTMANN
ACCESS CONTROL SYSTEMS

Access & Power Integration

Altronix/Hartmann Controls Kits

Models Include:

T2HCK5F

Up to 16 Door Kit

Fully assembled kit includes:

- Trove2 enclosure with THC2 Altronix/Hartmann Controls backplane
- One (1) eFlow102NB - Power Supply/Charger

T2HCK75F

Up to 16 Door Kit

Fully assembled kit includes:

- Trove2 enclosure with THC2 Altronix/Hartmann Controls backplane
- One (1) eFlow104NB - Power Supply/Charger
- One (1) eFlow102NB - Power Supply/Charger

T2HCK7F8

Up to 8 Door Kit with Fused Outputs

Fully assembled kit includes:

- Trove2 enclosure with THC2 Altronix/Hartmann Controls backplane
- One (1) eFlow104NB - Power Supply/Charger
- One (1) ACMS8 - Dual Input Fused Access Power Controller
- One (1) VR6 - Voltage Regulator
- One (1) PDS8 - Dual Input Fused Power Distribution Module

T2HCK7F8D

Up to 8 Door Kit with PTC Outputs

Fully assembled kit includes:

- Trove2 enclosure with THC2 Altronix/Hartmann Controls backplane
- One (1) eFlow104NB - Power Supply/Charger
- One (1) ACMS8CB - Dual Input PTC Access Power Controller
- One (1) VR6 - Voltage Regulator
- One (1) PDS8CB - Dual Input PTC Power Distribution Module

T2HCK75F16

Up to 16 Door Kit with Fused Outputs

Fully assembled kit includes:

- Trove2 enclosure with THC2 Altronix/Hartmann Controls backplane
- One (1) eFlow104NB - Power Supply/Charger
- One (1) eFlow102NB - Power Supply/Charger
- Two (2) ACMS8 - Dual Input Fused Access Power Controllers

T2HCK75F16D

Up to 16 Door Kit with PTC Outputs

Fully assembled kit includes:

- Trove2 enclosure with THC2 Altronix/Hartmann Controls backplane
- One (1) eFlow104NB - Power Supply/Charger
- One (1) eFlow102NB - Power Supply/Charger
- Two (2) ACMS8CB - Dual Input PTC Access Power Controllers

All components of these Trove kits are UL Listed sub-assemblies.
Please refer to the included corresponding Sub-Assembly Installation Guides for further information.

Installation Guide

CE

All registered trademarks are property of their respective owners.

Rev. T2HC082423

Installing Company: _____ Service Rep. Name: _____

Address: _____ Phone #: _____

Overview:

Altronix Trove Hartmann Controls kits are pre-assembled and consist of Trove enclosure with factory installed Altronix power supply/chargers and sub-assemblies. Each kit also accommodates up to two (2) Hartmann Controls PRS_Master boards and up to eight (8) PRS_TDM or PRS_IO8 boards.

Configuration Chart:

Altronix Model Number	120VAC 60Hz Input Current (A)	Power Supply Board Input Fuse Rating	Power Supply Board Battery Fuse Rating	Nominal DC Output Voltage Options								Maximum Supply Current for Main and Aux. Outputs on Power Supply board and ACMS8(CB) Access Power Controller's outputs (A)	Fail-Safe/Fail-Secure or Dry Form "C" Outputs	Current Per ACMS8(CB) Output (A)	ACMS8(CB) Board Input Fuse (PTC) Rating	ACMS8(CB) Board Output Fuse (PTC) Rating	PDS8(CB) Board Input Fuse (PTC) Rating	PDS8(CB) Board Output Fuse (PTC) Rating
				Power Supply 1				Power Supply 2										
				[DC]		[AUX]		[DC]		[AUX]								
				12VDC Output Range (V)	24VDC Output Range (V)	12VDC Output Range (V)	24VDC Output Range (V)	12VDC Output Range (V)	24VDC Output Range (V)	12VDC Output Range (V)	24VDC Output Range (V)							
T2HCK5F	3.5	5A/250V	15A/32V	eFlow102NB				N/A				12VDC @ 10A	–	–	–	–	–	–
				10.0-13.2	–	10.03-13.2	–	–										
T2HCK7F8	3.5	5A/250V	15A/32V	eFlow102NB				N/A				12VDC @ 9.4A	8	2.5	15A/32V	3A/32V	10A/32V	3A/32V
T2HCK7F8D				10.0-13.2	–	10.03-13.2	–	–						2.0	9A	2.5A	9A	2.5A
T2HCK75F	8.0	6.3A/250V (eFlow104NB)	15A/32V	eFlow104NB				eFlow102NB				–	–	–	–	–	–	–
		5A/250V (eFlow102NB)		–	20.19-26.4	–	20.19-26.4	10.0-13.2	–	10.03-13.2	–							
T2HCK75F16	8.0	6.3A/250V (eFlow104NB)	15A/32V	eFlow104NB				eFlow102NB				24VDC @ 9.2A	16	2.5	15A/32V	3A/32V	–	–
T2HCK75F16D		5A/250V (eFlow102NB)		–	20.19-26.4	–	20.19-26.4	10.0-13.2	–	10.03-13.2	–			2.0	9A	2.5A	–	–

Hardware and Accessories:

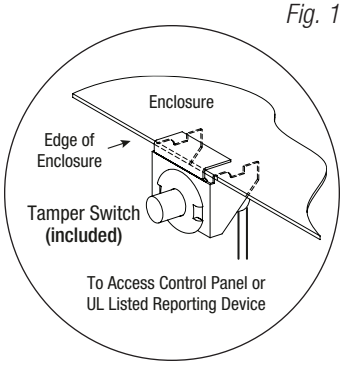
Nylon or Metal Spacer | 5/16" Pan Head Screw | Lock Nut

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. Product is intended for indoor use only.

1. Remove backplane from enclosure. Do not discard hardware.
2. Mark and predrill holes in the wall to line up with the top three keyholes in the enclosure. Install three upper fasteners and screws in the wall with the screw heads protruding. Place the enclosure's upper keyholes over the three upper screws, level and secure. Mark the position of the lower three holes. Remove the enclosure. Drill the lower holes and install the three fasteners. Place the enclosure's upper keyholes over the three upper screws. Install the three lower screws and make sure to tighten all screws.
3. Mount included UL Listed tamper switch (Altronix Model TS112 or equivalent) in desired location, opposite hinge. Slide the tamper switch bracket onto the edge of the enclosure approximately 2" from the right side *(Fig. 1, pg. 2)*. Connect tamper switch wiring to the Access Control Panel input or the appropriate UL Listed reporting device. To activate alarm signal open the door of the enclosure.
4. Connect unswitched AC power (120VAC 60Hz) to terminals marked [L, N]. Use 14 AWG or larger for all power connections. Secure green wire lead to earth ground. Green "AC" LED on power supply board will turn on. This light can be seen through the LED lens on the door of the enclosure.
   Keep power-limited wiring separate from non power-limited wiring (120VAC 60Hz Input, Battery Wires). 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.
5. Measure voltage before connecting devices. This helps avoiding potential damage.
6. Mount Hartmann Controls boards to backplane, *refer to pages 3-6.*
7. Refer to the *eFlow Power Supply/Charger Installation Guide* for eFlow104NB and eFlow102NB and corresponding *Sub-Assembly Installation Guides* for the following models: ACMS8(CB), PDS8(CB) and VR6 for further installation instructions.

Fig. 1



T2HCK5F: Configuration of Hartmann Controls 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. 2, 2a, pg. 3)*.
   Note: Hartmann Controls boards must be properly grounded.
   Please use provided metal spacers for the lower right mounting holes *(Fig. 2, pg. 3)*.
3. Mount Hartmann Controls boards to spacers utilizing provided 5/16" pan head screws *(Fig. 2a, pg. 3)*.
4. Fasten backplane to Trove2 enclosure utilizing lock nuts (provided).

Fig. 2 - **T2HCK5F Configuration**

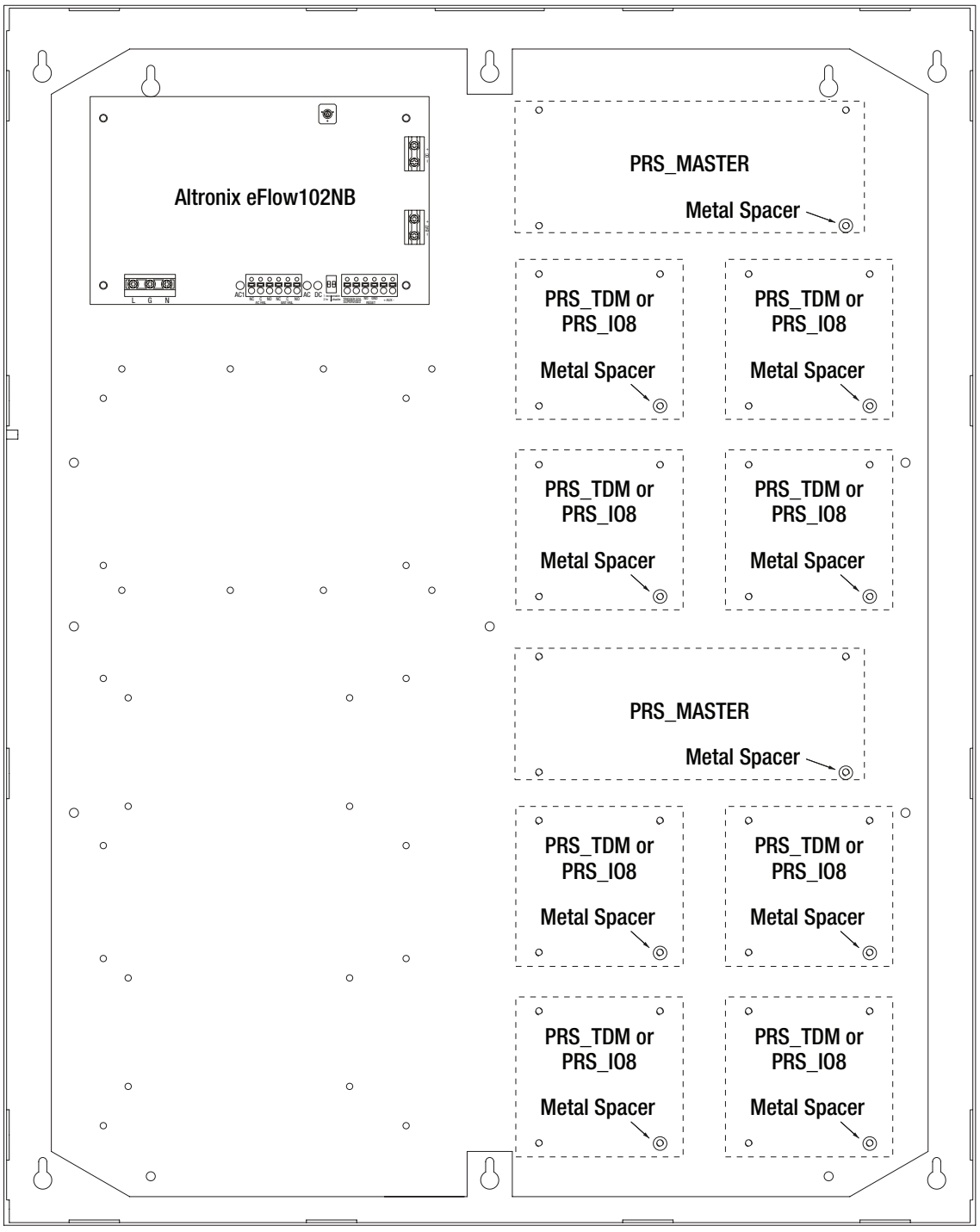
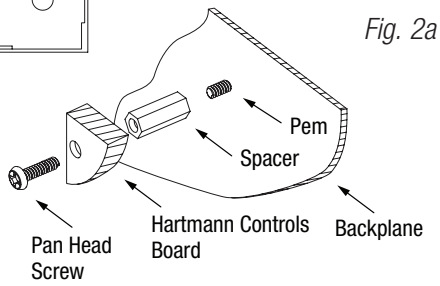


Fig. 2a



T2HCK7F8(D): Configuration of Hartmann Controls 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. 3, 3a, pg. 4)*.
   Note: Hartmann Controls boards must be properly grounded.
   Please use provided metal spacers for the lower right mounting holes *(Fig. 3, pg. 4)*.
3. Mount Hartmann Controls boards to spacers utilizing provided 5/16" pan head screws *(Fig. 3a, pg. 4)*.
4. Fasten backplane to Trove2 enclosure utilizing lock nuts (provided).

Fig. 2 - **T2HCK7F8(D) Configuration**

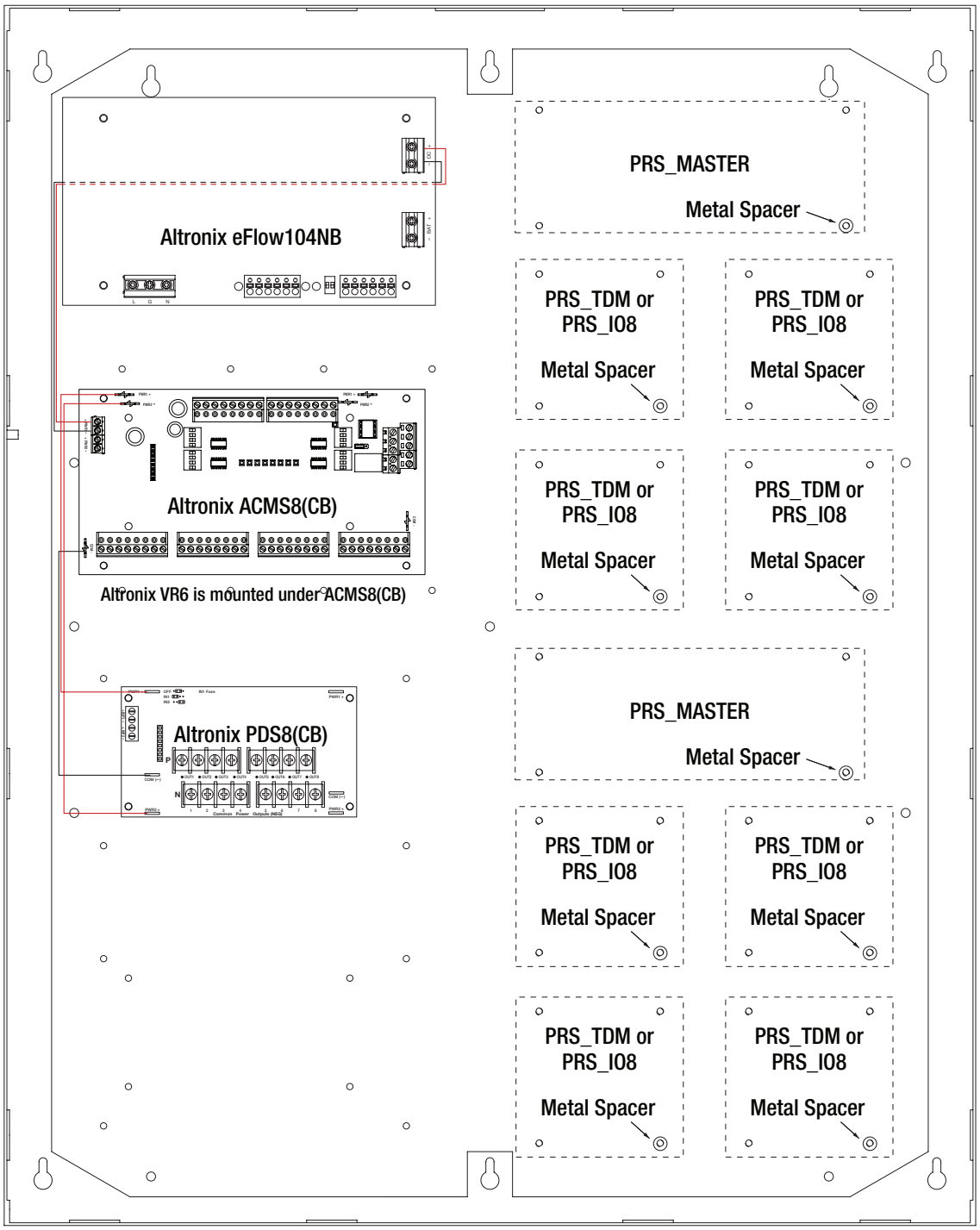
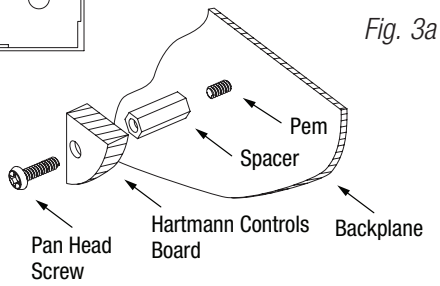


Fig. 3a



T2HCK75F: Configuration of Hartmann Controls 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. 4, 4a, pg. 5)*.
   Note: Hartmann Controls boards must be properly grounded.
   Please use provided metal spacers for the lower right mounting holes *(Fig. 4, pg. 5)*.
3. Mount Hartmann Controls boards to spacers utilizing provided 5/16" pan head screws *(Fig. 4a, pg. 5)*.
4. Fasten backplane to Trove2 enclosure utilizing lock nuts (provided).

Fig. 4 - **T2HCK75F Configuration**

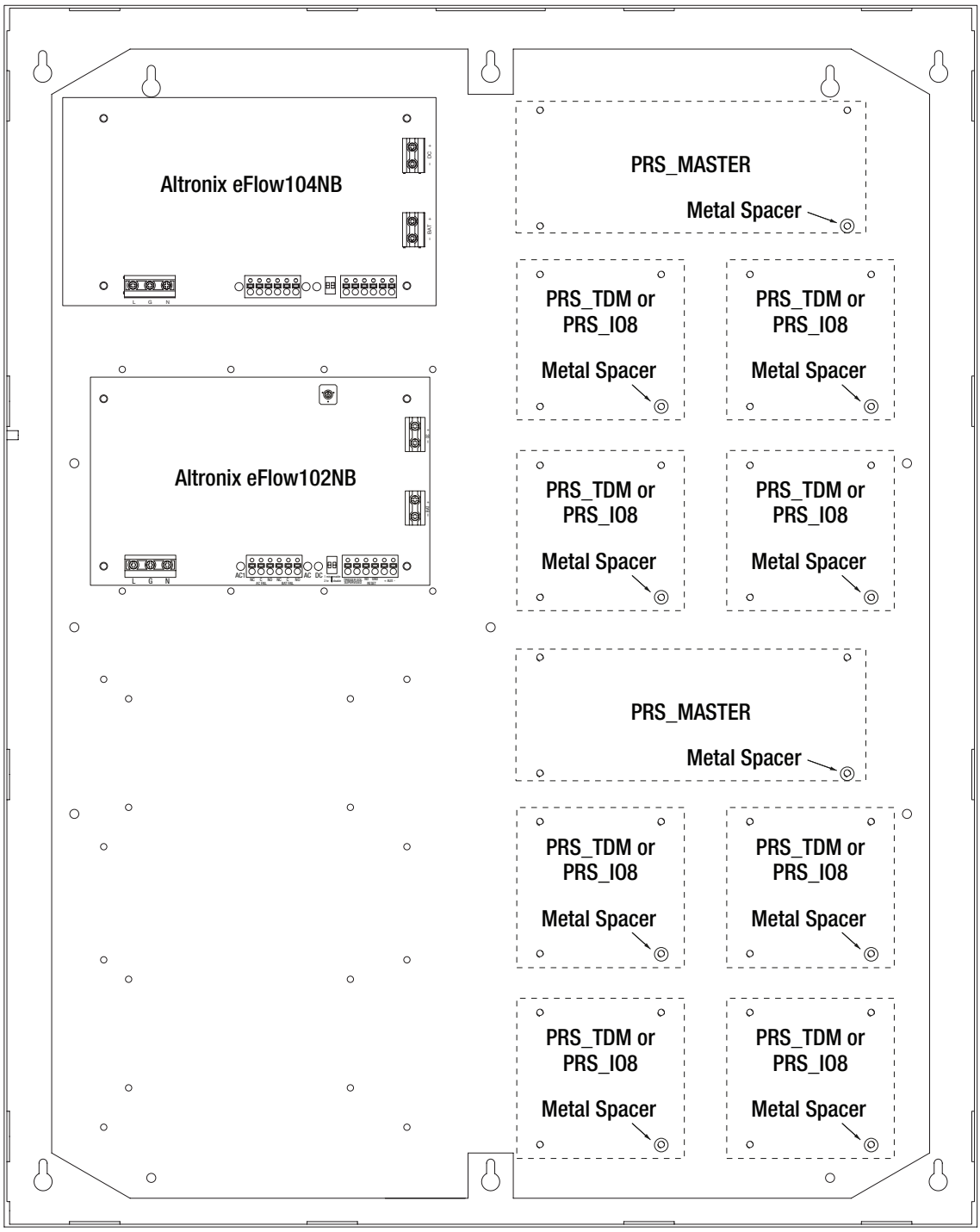
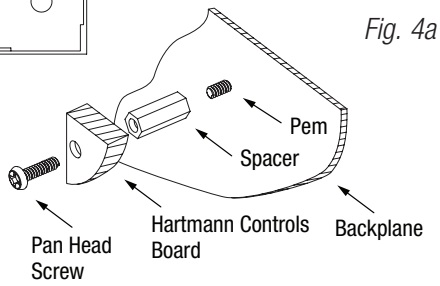


Fig. 4a



T2HCK75F16(D): Configuration of Hartmann Controls 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. 6)*.
   Note: Hartmann Controls boards must be properly grounded.
   Please use provided metal spacers for the lower right mounting holes *(Fig. 5, pg. 6)*.
3. Mount Hartmann Controls boards to spacers utilizing provided 5/16" pan head screws *(Fig. 5a, pg. 6)*.
4. Fasten backplane to Trove2 enclosure utilizing lock nuts (provided).

Fig. 5 - **T2HCK75F16(D) Configuration**

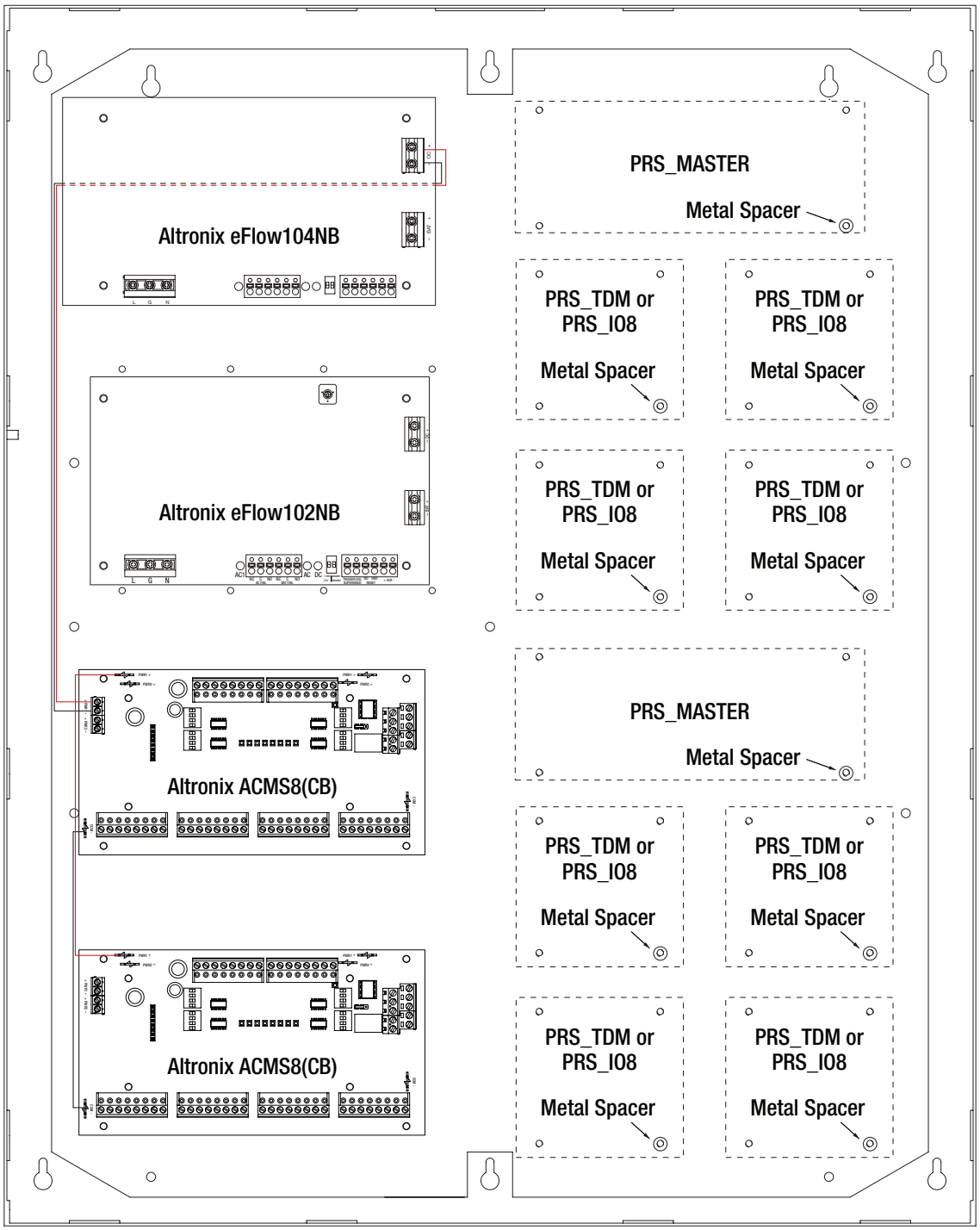
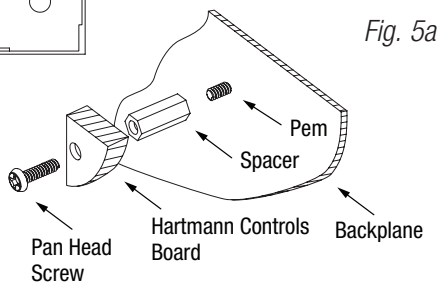
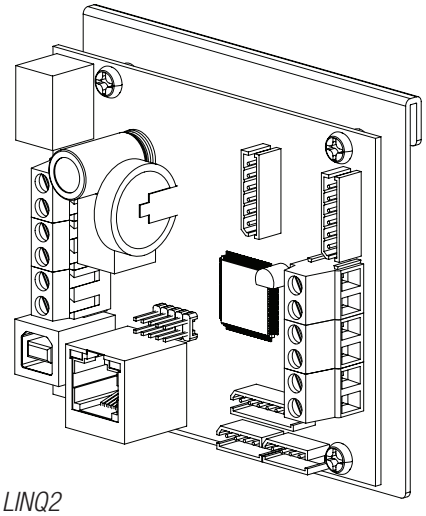


Fig. 5a



eFlow Power Supply/Chargers can be Controlled and Monitored while Reporting Power/Diagnostics from Anywhere over the Network...



LINQ2

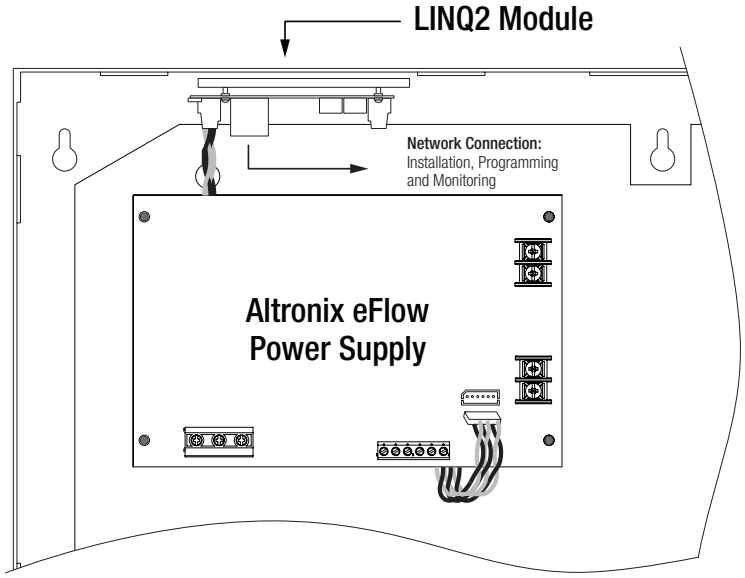
LINQ2 - Network Communication Module

LINQ2 provides remote IP access to real-time data from eFlow power supply/chargers to help keep systems up and running at optimal levels. It facilitates fast and easy installation and set-up, minimizes system downtime, and eliminates unnecessary service calls, which helps reduce Total Cost of Ownership (TCO) - as well as creating a new source of Recurring Monthly Revenue (RMR).

Features:

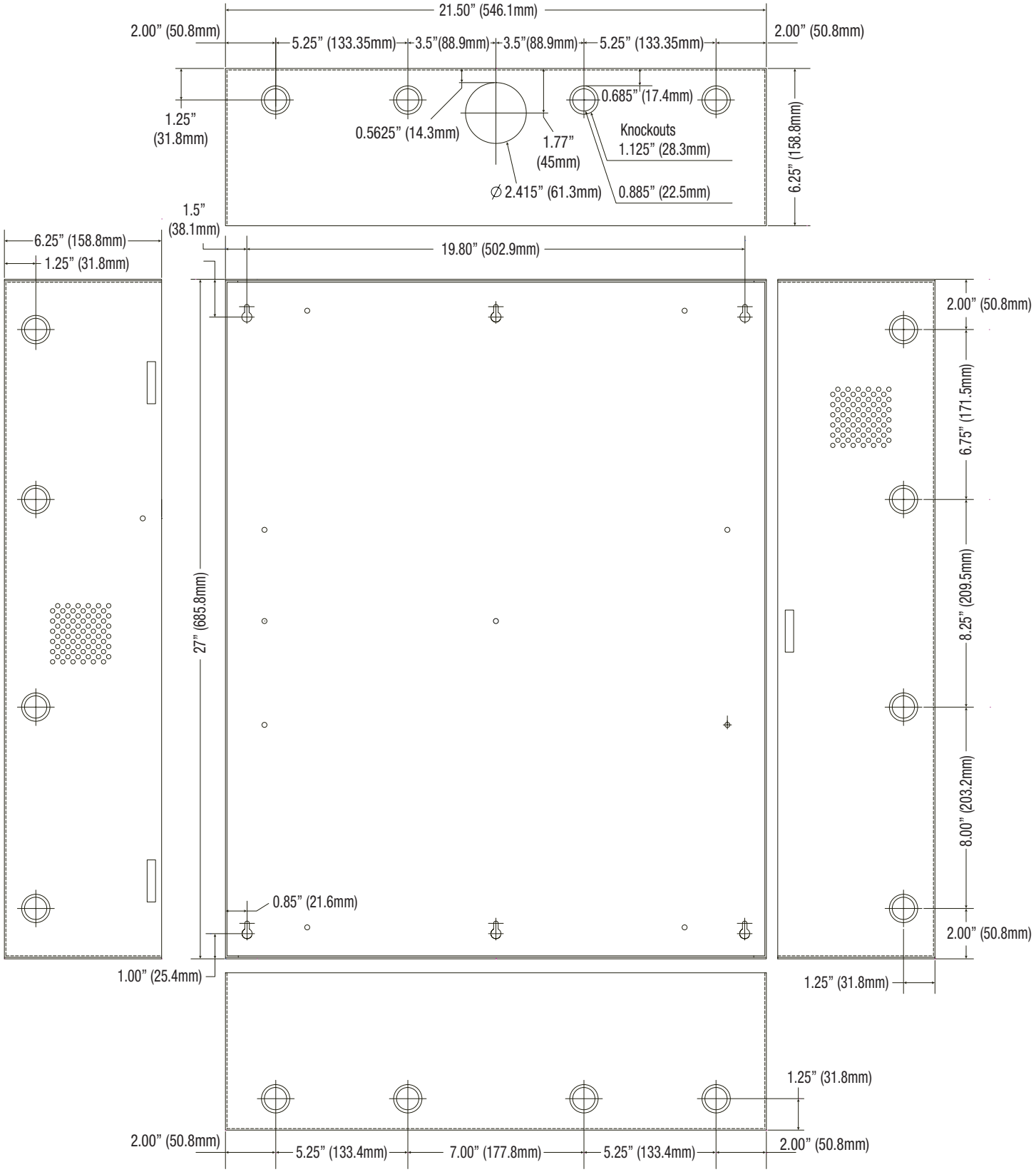
- UL Listed in the U.S. and Canada.
- Local or remote control of up to (2) two Altronix eFlow power output(s) via LAN and/or WAN.
- Monitor real time diagnostics: DC output voltage, output current, AC & battery status/service, input trigger state change, output state change and unit temperature.
- Access control and user managment: Restrict read/write, Restrict users to specific resources
- Two (2) integral network controlled Form “C” Relays.
- Three (3) programmable input triggers: Control relays and power supplies via external hardware sources.
- Email and Windows Dashboard notifications
- Event log tracks history.
- Secure Socket Layer (SSL).
- Programmable via USB or web browser - includes operating software and 6 ft. USB cable.

LINQ2 Mounts Inside any Trove Enclosure



Enclosure Dimensions (H x W x D approximate)**:**

27.25” x 21.5” x 6.5” (692.2mm x 552.5mm x 165.1mm)



Hartmann Controls is not responsible for any typographical errors.

10 Lockhart Rd, Barrie, ON L4N 9G8, Canada | phone: 1-877-411-0101
web site: www.hartmann-controls.com | e-mail: sales@hartmann-controls.com