TROVE™

Access & Power Integration

Altronix HID Aero Kits

Models Include:

T1VK3F4
4 Door Kit with Fused Outputs

Fully assembled kit includes:
- Trove1 enclosure with TV1 Altronix/HID Aero backplane
- One (1) eFlow6NB - Power Supply/Charger
- One (1) ACM4 - Fused Access Power Controller
- One (1) VR6 - Voltage Regulator
- One (1) PDS8 - Dual Input Fused Power Distribution Module

T2VK7F8
8 Door Kit with Fused Outputs

Fully assembled kit includes:
- Trove2 enclosure with TV2 Altronix/HID Aero backplane
- One (1) eFlow104NB - Power Supply/Charger
- One (1) ACM8 - Fused Access Power Controller
- One (1) VR6 - Voltage Regulator
- One (1) PDS8 - Dual Input Fused Power Distribution Module

T2VK75F16
16 Door Kit with Fused Outputs

Fully assembled kit includes:
- Trove2 enclosure with TV2 Altronix/HID Aero backplane and TMV2 Altronix/HID Aero door backplane
- One (1) eFlow104NB - Power Supply/Charger
- One (1) eFlow102NB - Power Supply/Charger
- Two (2) ACM8 - Fused Access Power Controllers
- One (1) PD16W - Fused Power Distribution Module

T3VK75F20
20 Door Kit with Fused Outputs

Fully assembled kit includes:
- Trove3 enclosure with TV3 Altronix/HID Aero backplane
- One (1) eFlow104NB - Power Supply/Charger
- One (1) eFlow102NB - Power Supply/Charger
- Two (2) ACM8 - Fused Access Power Controllers
- One (1) ACM4 - Fused Access Power Controller
- One (1) PD8UL - Fused Power Distribution Module
- One (1) RSB2 - Rocker Switch Bracket with Two (2) Switches (Not evaluated by UL)

T1VK3F4D
4 Door Kit with PTC Outputs

Fully assembled kit includes:
- Trove1 enclosure with TV1 Altronix/HID Aero backplane
- One (1) eFlow6NB - Power Supply/Charger
- One (1) ACM4CB - PTC Access Power Controller
- One (1) VR6 - Voltage Regulator
- One (1) PDS8CB - Dual Input PTC Power Distribution Module

T2VK7F8D
8 Door Kit with PTC Outputs

Fully assembled kit includes:
- Trove2 enclosure with TV2 Altronix/HID Aero backplane
- One (1) eFlow104NB - Power Supply/Charger
- One (1) ACM8CB - PTC Access Power Controller
- One (1) VR6 - Voltage Regulator
- One (1) PDS8CB - Dual Input PTC Power Distribution Module

T2VK75F16D
16 Door Kit with PTC Outputs

Fully assembled kit includes:
- Trove2 enclosure with TV2 Altronix/HID Aero backplane and TMV2 Altronix/HID Aero door backplane
- One (1) eFlow104NB - Power Supply/Charger
- One (1) eFlow102NB - Power Supply/Charger
- Two (2) ACM8CB - PTC Access Power Controllers
- One (1) PD16WCB - PTC Power Distribution Module

T3VK75F20D
20 Door Kit with PTC Outputs

Fully assembled kit includes:
- Trove3 enclosure with TV3 Altronix/HID Aero backplane
- One (1) eFlow104NB - Power Supply/Charger
- One (1) eFlow102NB - Power Supply/Charger
- Two (2) ACM8CB - PTC Access Power Controllers
- One (1) ACM4CB - PTC Access Power Controller
- One (1) PD8ULCB - PTC Power Distribution Module
- One (1) RSB2 - Rocker Switch Bracket with Two (2) Switches (Not evaluated by UL)

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

Altronix®
More than just power.™

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Rev. TVK_060524

Installing Company: _____ Service Rep. Name: _____

Address: _____ Phone #: _____

Overview:

Altronix Trove HID Aero kits are pre-assembled and consist of Trove enclosures/backplanes with factory installed Altronix power supply/chargers and sub-assemblies. All kits accommodate a variety of HID Aero modules for up to four (T1VK3F4), eight (T2VK7F8) or twenty (T3VK75F20) doors in a single enclosure.

Configuration Chart:

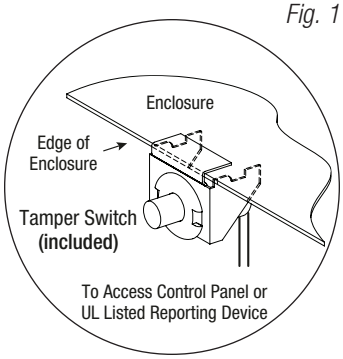
Altronix Model Number	120VAC 60Hz Input Current (A)	Power Supply Board Input Fuse Rating	Power Supply Board Battery Fuse Rating	Maximum Supply Current for Main and Aux. Outputs on Power Supply board and ACM4(CB)/ACM8(CB) Access Power Controllers' outputs	Nominal DC Output Voltage [DC] Output Range (VDC)	Nominal DC Output Voltage [Aux] Output Range (VDC)	Fail-Safe/Fail-Secure Outputs	Additional Fused (PTC) Outputs	ACM4(CB)/ACM8(CB) Board Input Fuse (PTC) Rating	ACM4(CB)/ACM8(CB) Board Output Fuse (PTC) Rating	PDS8(CB) Board Input Fuse (PTC) Rating	PDS8(CB) Board Output Fuse (PTC) Rating	PD8UL(CB)/PD16W(CB) Board Output Fuse (PTC) Rating
T1VK3F4	3.5	5A/ 250V	15A/ 32V	24VDC @ 5.7A	20.17-26.4	20.28-26.4	4	8	10A/ 32V	3A/ 32V	10A/ 32V	3A/ 32V	–
T1VK3F4D									9A	2.5A	9A	2.5A	
T2VK7F8	4.5	6.3A/250V	15A/ 32V	24VDC @ 9.7A	20.17-26.4	20.28-26.4	8	8	10A/ 250V	3.5A/ 250V	10A/ 32V	3A/ 32V	–
T2VK7F8D										2.5A	9A	2.5A	
T2VK75F16	7.5	eFlow104NB 6.3A/ 250V	15A/ 32V	24VDC @ 9.1A	20.17-26.4	20.28-26.4	16	16	10A/ 250V	3.5A/ 250V	–	–	3.5A/ 250V
		eFlow102NB 5A/ 250V		12VDC @ 10A	9.7-13.2	10.03-13.2							
T2VK75F16D		eFlow104NB 6.3A/ 250V		24VDC @ 9.1A	20.17-26.4	20.28-26.4			10A/ 250V	2.5A	–	–	2.5A
		eFlow102NB 5A/ 250V		12VDC @ 10A	9.7-13.2	10.03-13.2							
T3VK75F20	7.5	eFlow104NB 6.3A/ 250V	15A/ 32V	24VDC @ 9.1A	20.17-26.4	20.28-26.4	20	8	10A/ 32V	3.5A/ 250V	–	–	3.5A/ 250V
		eFlow102NB 5A/ 250V		12VDC @ 10A	9.7-13.2	10.03-13.2							
T3VK75F20D		eFlow104NB 6.3A/ 250V		24VDC @ 9.1A	20.17-26.4	20.28-26.4			9A	2.5A	–	–	2.5A
		eFlow102NB 5A/ 250V		12VDC @ 10A	9.7-13.2	10.03-13.2							

Installation Instructions for Trove1, Trove2, Trove3:

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 two/three keyholes in the enclosure. Install two/three upper fasteners and screws in the wall with the screw heads protruding. Place the enclosure's upper keyholes over the two/three upper screws, level and secure. Mark the position of the lower two/three holes. Remove the enclosure. Drill the lower holes and install the two/three fasteners. Place the enclosure's upper keyholes over the upper screws. Install the two/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 HID Aero modules to backplane(s), refer to *pages 3, 4, 5, 6, 7*.
7. Refer to the *eFlow Power Supply/Charger Installation Guide* for eFlow6NB, eFlow104NB, eFlow102NB and corresponding *Sub-Assembly Installation Guides* for ACM4(CB), ACM8(CB), PDS8(CB), VR6,PD8UL(CB) and PD16W(CB) for further installation instructions.

Fig. 1



Hardware: Nylon Spacer | 5/8" Pan Head Screw | Lock Nut

T1VK3F4 and T1VK3F4D: Installation Instructions for HID Aero Access Controllers

1. Fasten spacers (provided) onto metal pems configuration (A) of backplane *(Fig. 2, pg. 3)*.
2. Mount HID Aero modules to spacers utilizing 7/8" pan head screws (provided) *(Fig. 2a, pg. 3)*.
3. Fasten backplane to Trove1 enclosure utilizing hardware (provided).

HID Aero Access Controller Position Chart for the Following Models:

Sub-Assembly	Pem Mounting
X100, X200, X300, X1000, X2000	(A)

Fig. 2

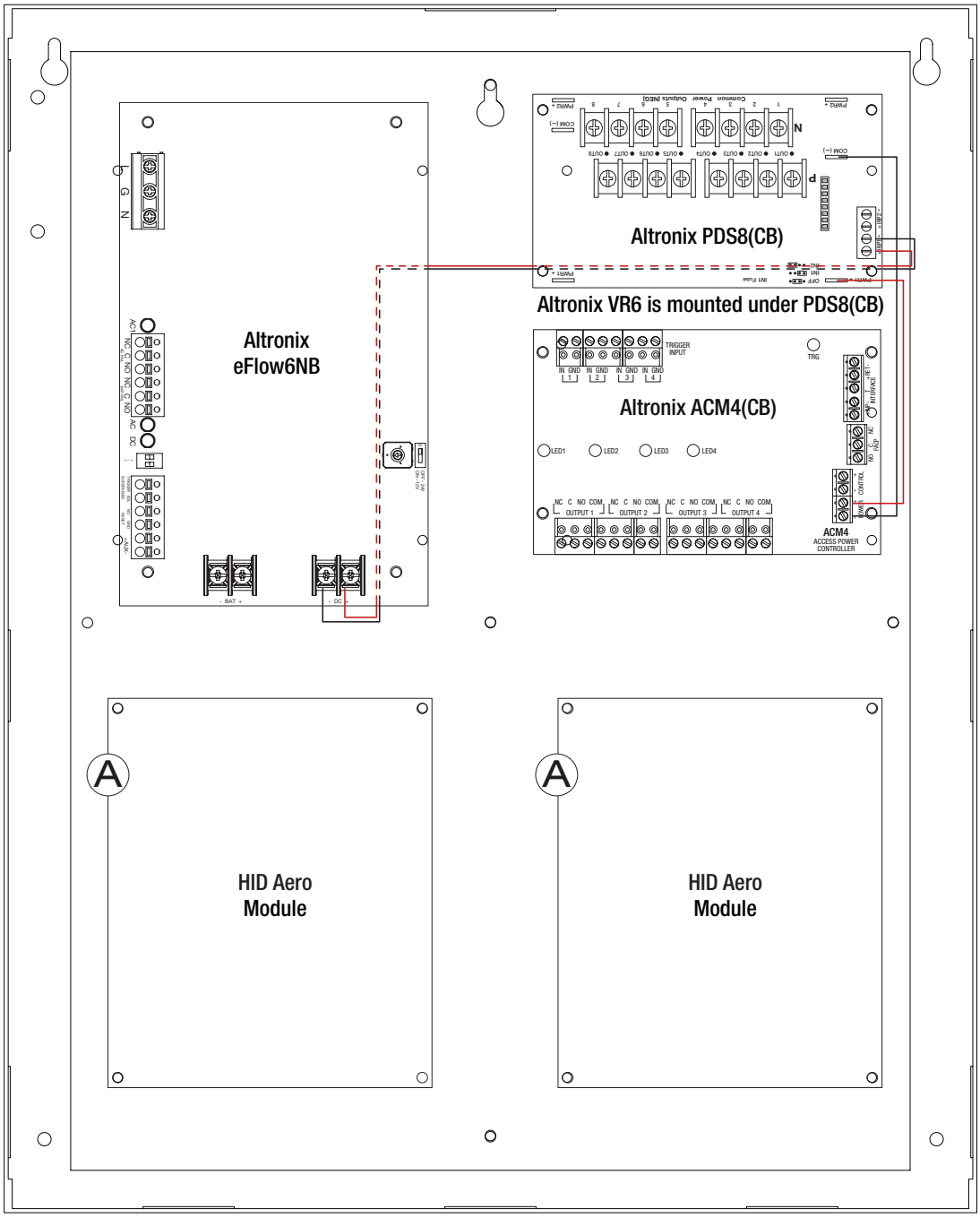
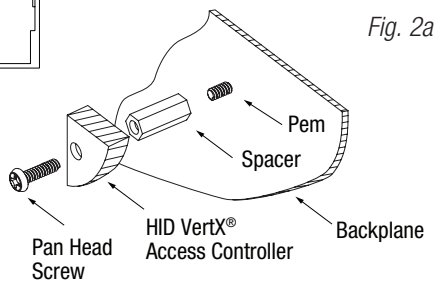


Fig. 2a



T2VK7F8 and T2VK7F8D: Installation Instructions for HID Aero Access Controllers

1. Fasten spacers (provided) onto metal pems configuration (A) of backplane *(Fig. 3, pg. 4)*.
2. Mount HID Aero modules to spacers utilizing 7/8" pan head screws (provided) *(Fig. 3a, pg. 4)*.
3. Fasten backplane to Trove2 enclosure utilizing hardware (provided).

HID Aero Access Controller Position Chart for the Following Models:

Sub-Assembly	Pem Mounting
X100, X200, X300, X1000, X2000	(A)

Fig. 3

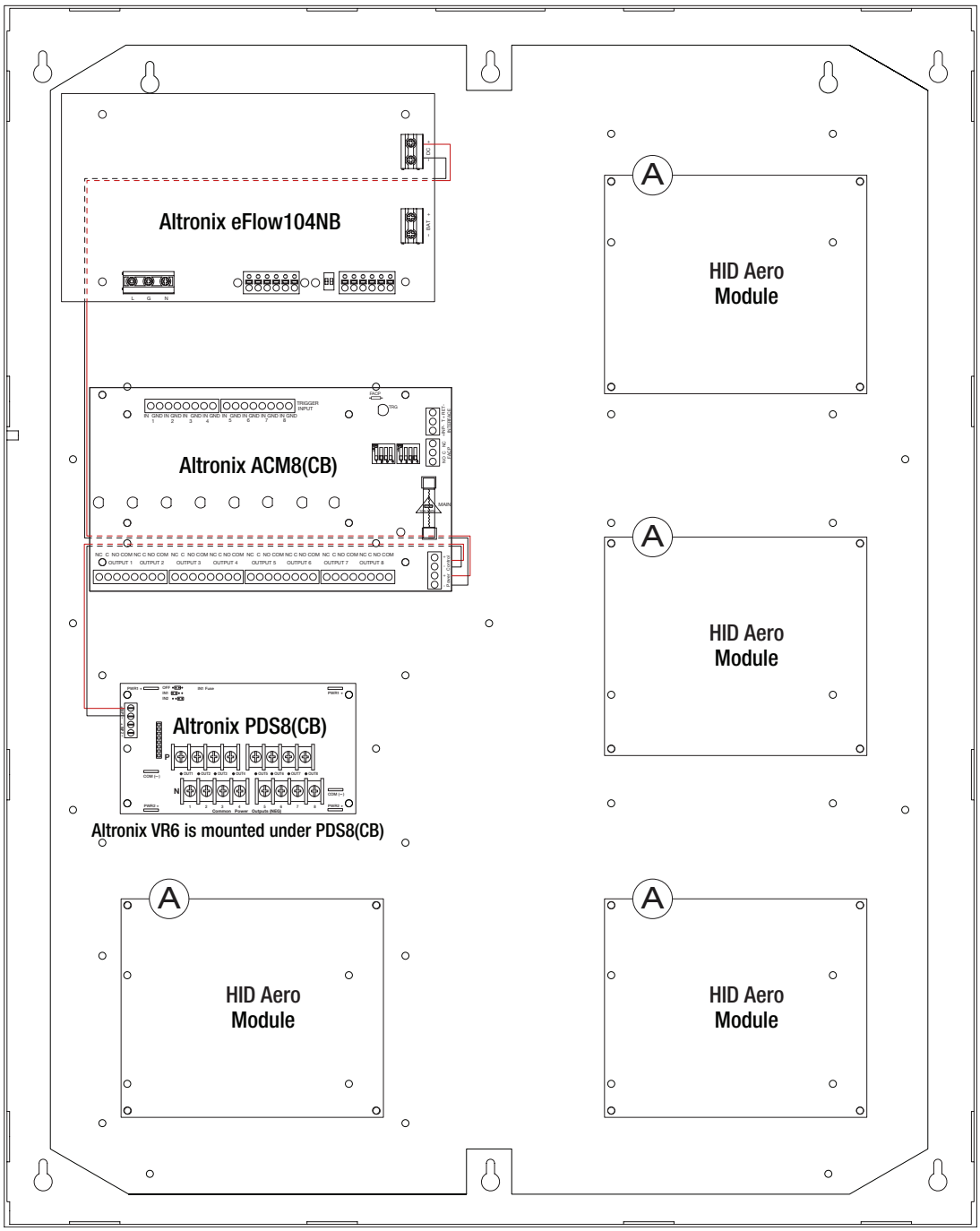
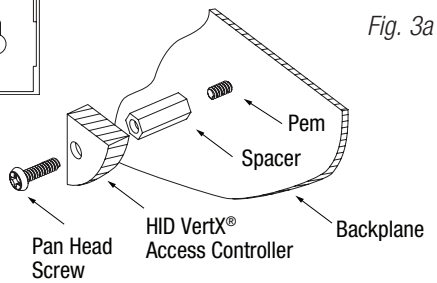


Fig. 3a



T2VK75F16 and T2VK75F16D: Installation Instructions for HID Aero Access Controllers

1. Fasten spacers (provided) onto metal pems configuration (A) of backplane *(Fig. 4, pg. 5)*.
2. Mount HID Aero modules to spacers utilizing 7/8" pan head screws (provided) *(Fig. 4a, pg. 5)*.
3. Fasten backplane to Trove2 enclosure utilizing hardware (provided).

HID Aero Access Controller Position Chart for the Following Models:

Sub-Assembly	Pem Mounting
X100, X200, X300, X1000, X2000	(A)

Fig. 4

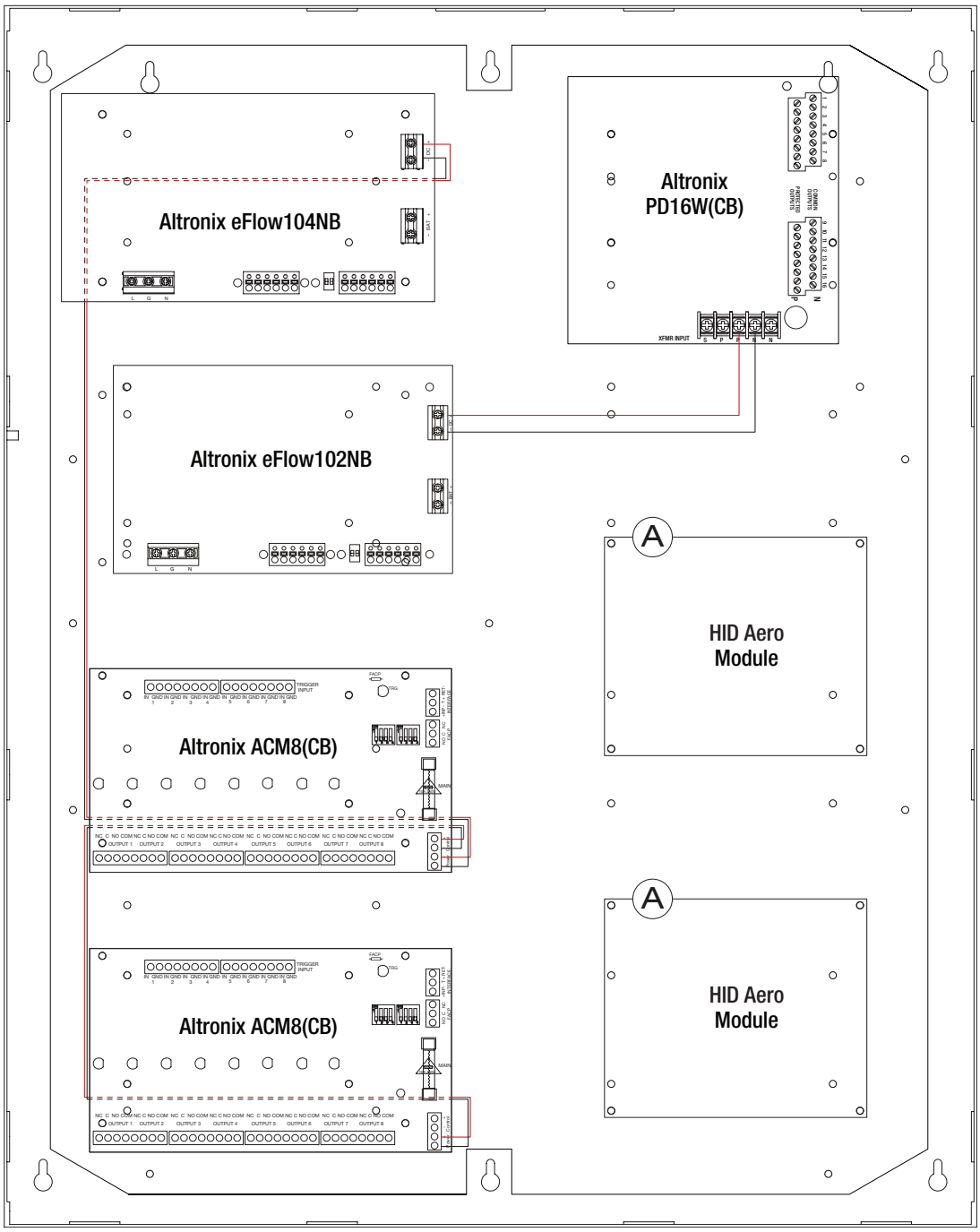
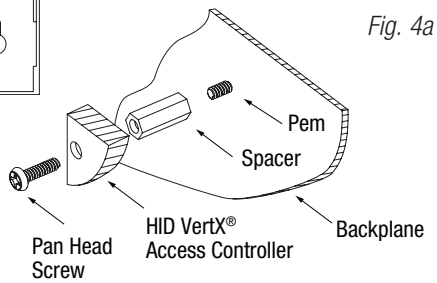


Fig. 4a



T2VK75F16 and T2VK75F16D:
Installation Instructions for HID Aero Access Controllers and/or Altronix Boards on TMV2

HID Aero Access Controllers:

1. Fasten spacers (provided) to pems which match the hole pattern for HID Aero X100, X200, X300, X1000, X2000 boards *(Fig. 5, pg. 6)*.
2. Mount boards to spacers *(Fig. 5, pg. 6)* utilizing 7/8" pan head screws (provided).
3. Fasten backplane to Trove2 enclosure door utilizing lock nuts (provided).

Altronix Sub-Assemblies and/or Adapters:

1. Fasten nylon / snap on spacers to pems which match the hole pattern for Altronix Sub-Assemblies *(Fig. 5a, pg. 6)*.
2. Mount boards to spacers utilizing pan head screws provided with the product or by depressing board onto snap on spacer *(Fig. 5, pg. 6)*.
   Note: For GB1 please use spacers supplied with the adapter.

Access Controller Position Chart for the Following Models:

HID Aero	
Access Controller	**Pem Mounting**
X100, X200, X300, X1000, X2000	(A)
Altronix	
Sub-Assembly or Adapter	**Pem Mounting**
ACM4(CB), MOM5, PD4UL(CB), PD8UL(CB), PDS8(CB), VR6, GB1 (Genetec Synergis Cloud Link adapter plate)	(B)

Fig. 5

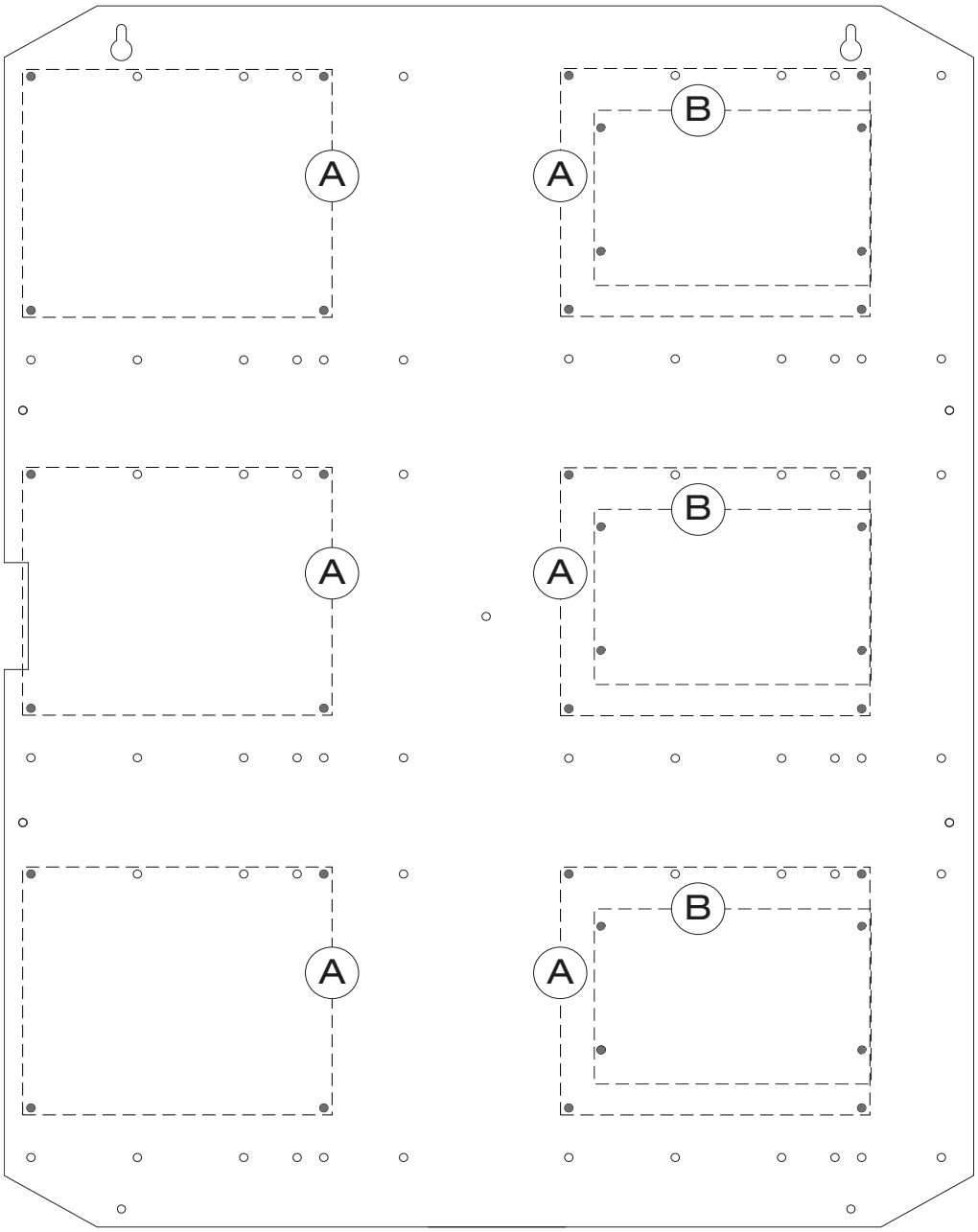
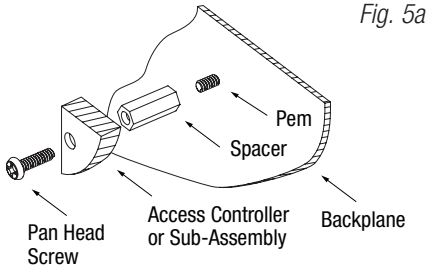


Fig. 5a



T3VK75F20 and T3VK75F20D: Installation Instructions for HID Aero Access Controllers

1. Fasten spacers (provided) onto metal pems configuration (A) of backplane *(Fig. 6, pg. 7)*.
2. Mount HID Aero modules to spacers utilizing 7/8" pan head screws (provided) *(Fig. 6a, pg. 7)*.
3. Fasten backplane to Trove3 enclosure utilizing hardware (provided).

HID Aero Access Controller Position Chart for the Following Models:

Sub-Assembly	Pem Mounting
X100, X200, X300, X1000, X2000	(A)

Fig. 6

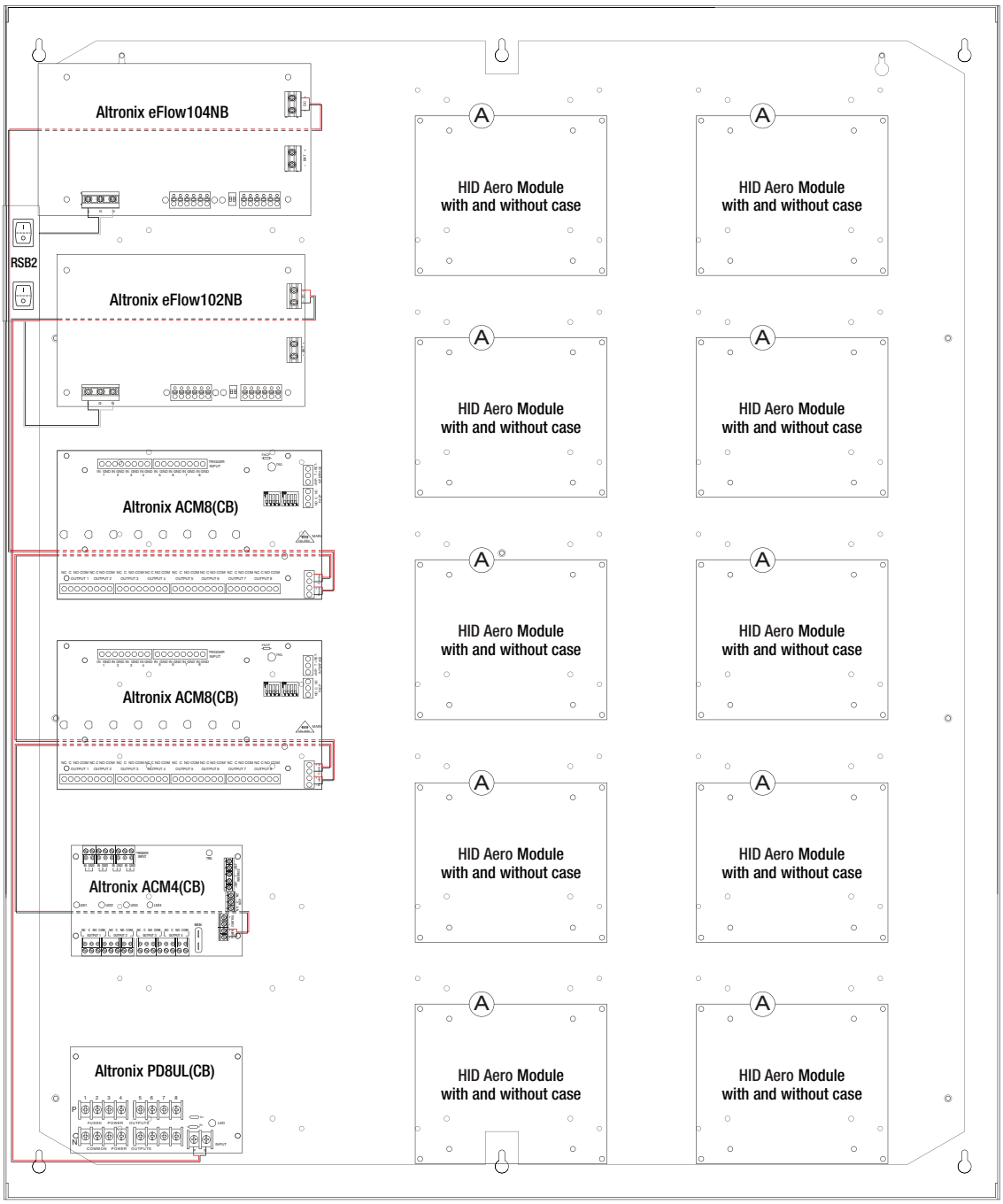
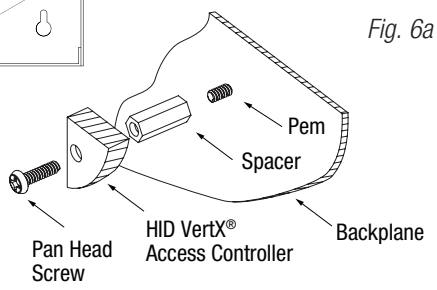
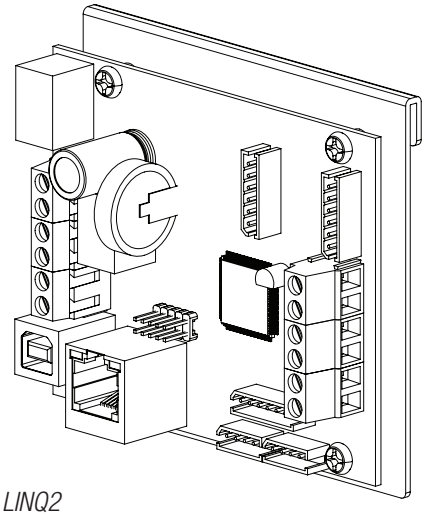


Fig. 6a



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



LINQ2

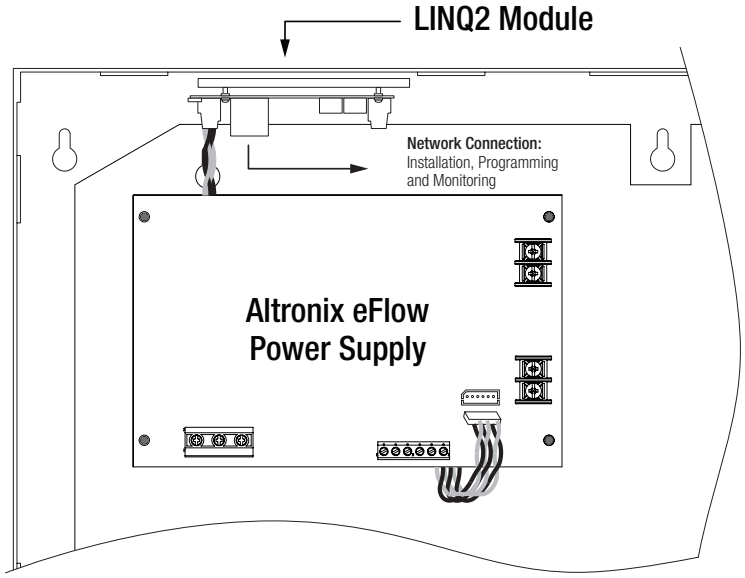
LINQ2 - Network Communication Module

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.

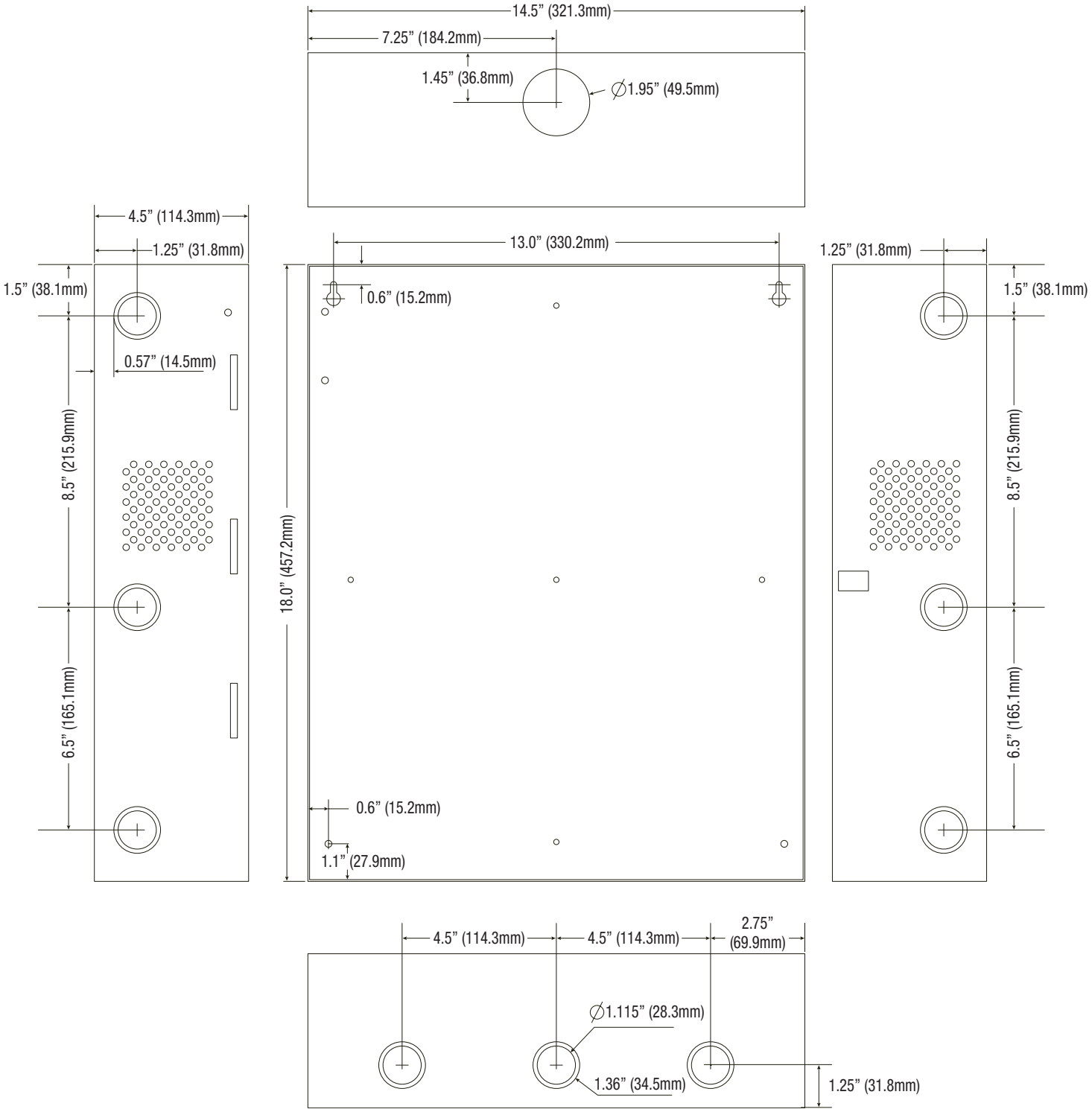
LINQ2 Mounts Inside any Trove Enclosure



Notes:

T1VK3F4 and T1VK3F4D (Trove1) Enclosure Dimensions (H x W x D approximate)**:**

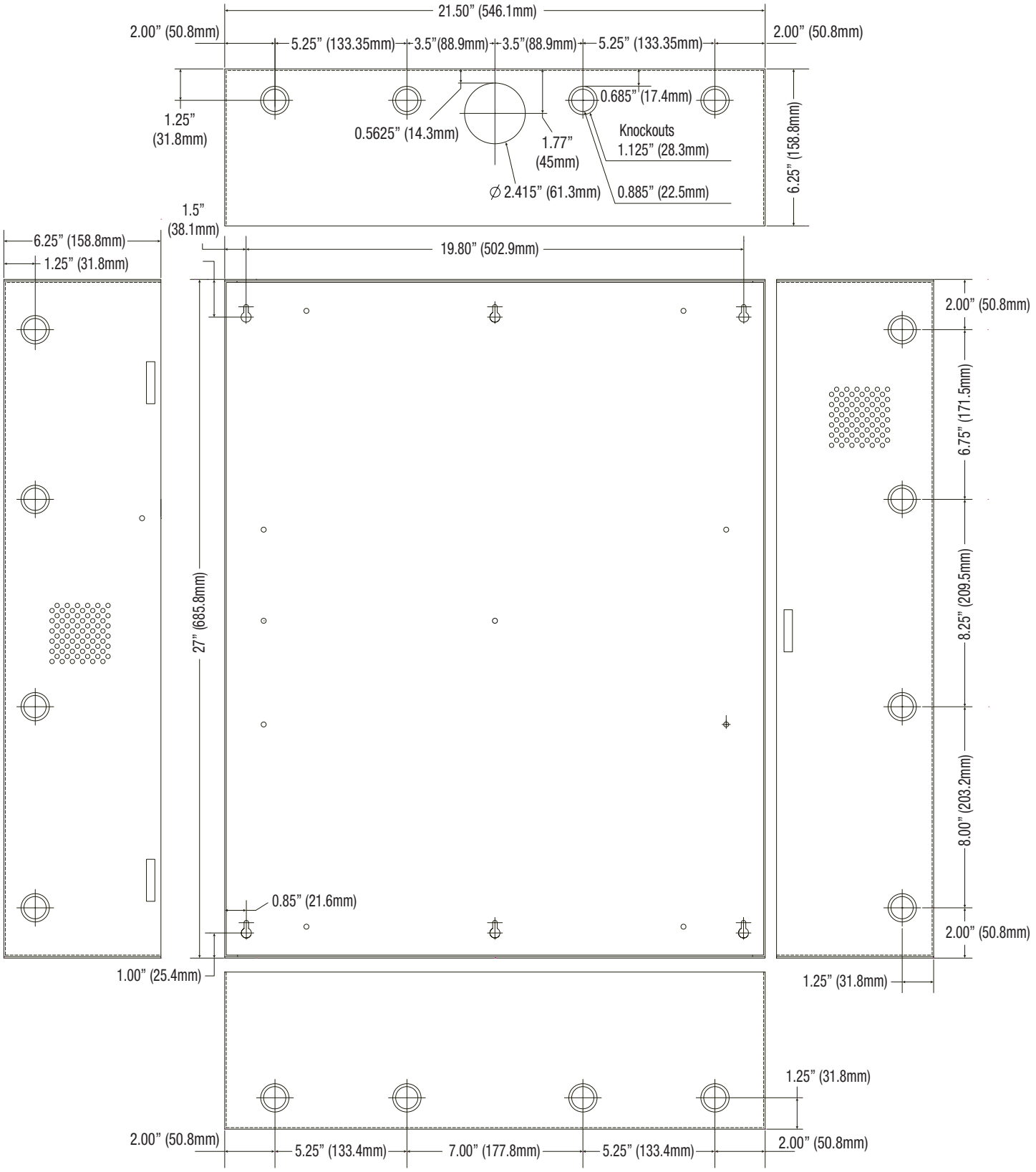
18” x 14.5” x 4.625” (457mm x 368mm x 118mm)

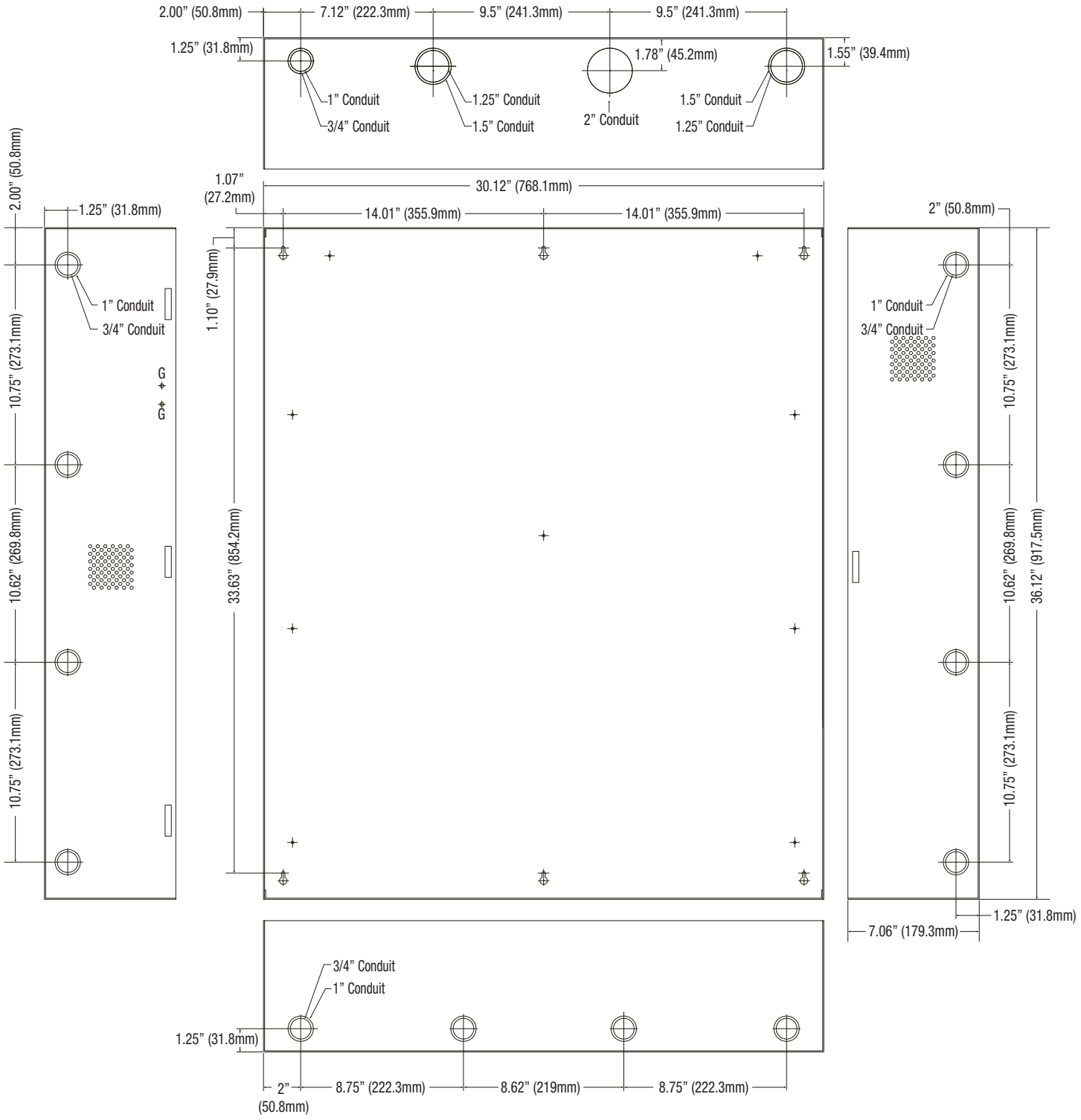


T2VK7F8, T2VK7F8D, T2VK75F16 and T2VK75F16D (Trove2)

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

27.25” x 21.75” x 6.5” (692.15mm x 546.1mm x 165.1mm)



T3VK75F20 and T3VK75F20D (Trove3) Enclosure Dimensions (H x W x D approximate)**:**

36.12” x 30.125” x 7.06” (917.5mm x 768.1mm x 179.3mm)