TROVE™
Access & Power Integration

Trove1AA1
- Trove1 enclosure with Altronix/Azure backplane (TAA1)

TAA1
- Altronix/Axure backplane only

Trove2AA2
- Trove2 enclosure with Altronix/Azure backplane (TAA2)

TAA2
- Altronix/Azure backplane only

Trove3AA3
- Trove3 enclosure with Altronix/Azure backplane (TM3)

Installation Guide

SECURITY · SECURITY · SIGNALING

UL LISTED · c UL LISTED · UL LISTED · CE

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Altronix®
More than just power.™

Installing Company: _____ Service Rep. Name: _____

Address: _____ Phone #: _____

Overview:

Trove1AA1, Trove2AA2 and Trove3AA3 accommodate various combinations of Azure boards with or without Altronix power supplies and accessories for access control systems.

Specifications:

- 16 Gauge backplane and enclosure with ample knockouts for convenient access.

Trove1AA1
Trove1 enclosure with
TAA1 Altronix/Azure backplane
- Includes: tamper switch, cam lock, and mounting hardware.
  Enclosure Dimensions (H x W x D):
  18" x 14.5" x 4.625"
  (457mm x 368mm x 118mm).

TAA1
Altronix/Azure backplane only
- Includes mounting hardware.
  Dimensions (H x W x D):
  16.625" x 12.5" x 0.3125"
  (422.3mm x 317.5mm x 7.9mm).

TAA1 accommodates a combination
of the following:
Altronix Modules:
- One (1) AL400ULXB2, AL600ULXB, AL1012ULXB, AL1024ULXB2, eFlow4NB, eFlow6NB, eFlow102NB or eFlow104NB.
- Two (2) ACM4(CB), MOM5, PD4UL(CB), PD8UL(CB), PDS8(CB), VR6.

Azure Modules:
- One (1) IC4 or IC2 or two (2) RI2M.

Trove2AA2
Trove2 enclosure with
TAA2 Altronix/Azure backplane
- Includes: tamper switch, cam lock, and mounting hardware.
  Enclosure Dimensions (H x W x D):
  27.25" x 21.75" x 6.5"
  (692.15mm x 552.5mm x 165.1mm).

TAA2
Altronix/Azure backplane only
- Includes mounting hardware.
  Dimensions (H x W x D):
  25.375" x 19.375" x 0.3125"
  (644.5mm x 482.6mm x 7.9mm).

TAA2 accommodates a combination
of the following:
Altronix Modules:
- Two (2) AL400ULXB2, AL600ULXB, AL1012ULXB, AL1024ULXB2, eFlow4NB, eFlow6NB, eFlow102NB or eFlow104NB.
- Two (1) ACM8(CB), or two (2) MOM5, PD4UL(CB), PD8UL(CB), PDS8(CB), VR6.

Azure Modules:
- One (1) IC4 or two (2) IC2 or six (6) RI2M.

Trove3AA3
Trove3 enclosure with
TM3 Altronix/Azure backplane
- Includes: two (2) tamper switches, cam lock, and mounting hardware.
  Enclosure Dimensions (H x W x D):
  36.12" x 30.125" x 7.06"
  (917.5mm x 768.1mm x 179.3mm).

TM3 accommodates a combination
of the following:
Altronix Modules:
- Up to four (4) AL400ULXB2, AL600ULXB, AL1012ULXB, AL1024ULXB2, eFlow4NB, eFlow6NB, eFlow102NB or eFlow104NB.
- Up to four (4) ACM8(CB), MOM5, PD4UL(CB), PD8UL(CB), PDS8(CB), VR6.

Azure Modules:
- One (1) IC2 and up to twelve (12) RI2M.

Agency Listings:

- UL 294 - 6th edition: Line Security I, Destructive Attack I, Endurance IV, Stand-by Power II*.
  * Stand-by Power Level I if no battery is supplied.
- This Class B digital apparatus complies with Canadian ICES-003.
  Cet appareil numérique de la classe B est conforme á la norme NMB-003 du Canada.
- CE European Conformity.

Installation Instructions for Trove1, Trove2, Trove3:

1. Remove backplane from enclosure prior to mounting (do not discard hardware).
2. **Trove1AA1** *(Pg. 8)***:**
   Mark and predrill holes on the wall to line up with the top two keyholes in the enclosure. Install two upper fasteners and screws in the wall with the screw heads protruding. Place the enclosure's upper keyholes over the two upper screws; level and secure. Mark the position of the lower two holes. Remove the enclosure. Drill the lower holes and install the two fasteners. Place the enclosure's upper keyholes over the two upper screws. Install the two lower screws and make sure to tighten all screws.
   Trove2AA2 and Trove3AA3 *(Pg. 10 and Pg. 12)***:**
   Mark and predrill holes on 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(es) (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. Mount Altronix/Azure modules to TAA1, TAA2 or TM3 backplane, refer to *pages 3, 4, 5.*

Fig. 1

Edge of Enclosure

Enclosure

Tamper Switch
(included)

To Access Control Panel or
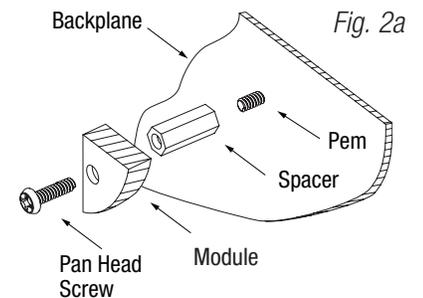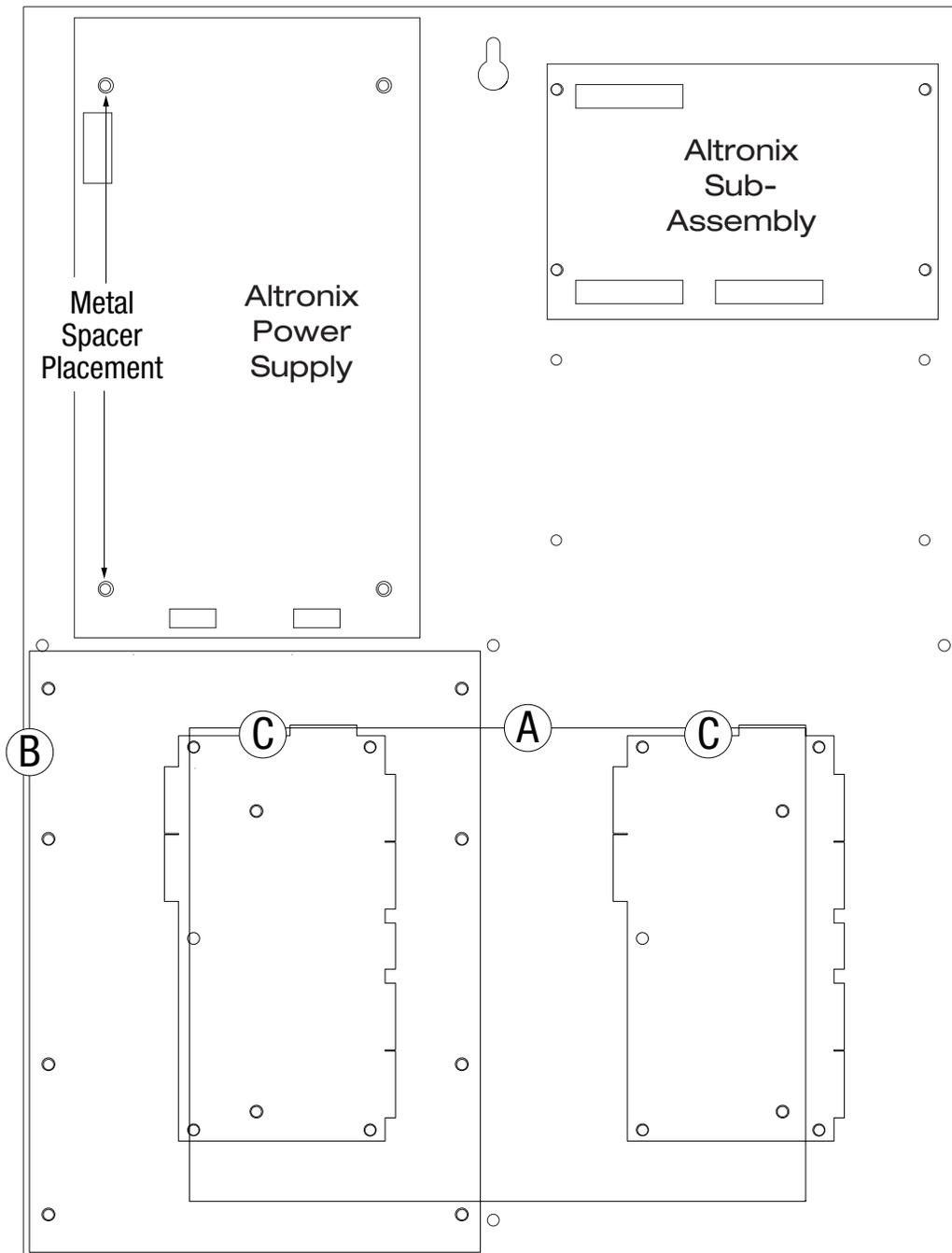UL Listed Reporting Device
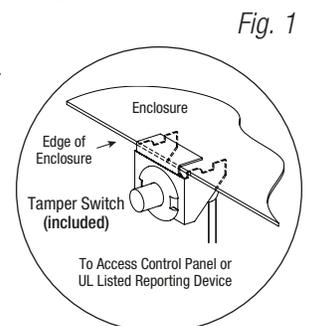
TAA1: Configuration of Altronix Power Supply and/or Sub-Assembly Boards and Azure Modules

1. Fasten spacers (provided) to pems that match the hole pattern for Altronix Power Supply/Chargers, Altronix Sub-Assembly boards and Azure boards *(Fig. 2, pg. 3)*. Fasten metal spacers in the correct locations to provide proper grounding, see below *(Fig. 2, pg. 3)*.
2. Mount boards to spacers utilizing 5/16" pan head screws (provided) *(Fig. 2a, pg. 3)*.
3. Fasten TAA1 backplane to Trove1 enclosure utilizing hardware (provided).

Azure Access Controller Position Chart for the Following Models:

Altronix/Azure	Pem Mounting
IC4	Ⓐ
IC2	Ⓑ
RI2M	Ⓒ

Fig. 2 - **Trove1AA1/TAA1 Configuration**

Fig. 2a

TAA2: Configuration of Altronix Power Supply
and/or Sub-Assembly Boards and Azure Modules

1. Fasten spacers (provided) to pems that match the hole pattern for Altronix Power Supply/Chargers, Altronix Sub-Assembly boards and Azure boards *(Fig. 3, pg. 4)*. Fasten metal spacers in the correct locations to provide proper grounding, see below *(Fig. 3, pg. 4)*.
2. Mount boards to spacers utilizing 5/16" pan head screws (provided) *(Fig. 3a, pg. 4)*.
3. Fasten TAA2 backplane to Trove2 enclosure utilizing utilizing hardware (provided).

Azure Access Controller Position Chart for the Following Models:

Altronix/Azure	Pem Mounting
IC4	Ⓐ
IC2	Ⓑ
RI2M	Ⓒ

Fig. 2 - **Trove2AA2/TAA2 Configuration**

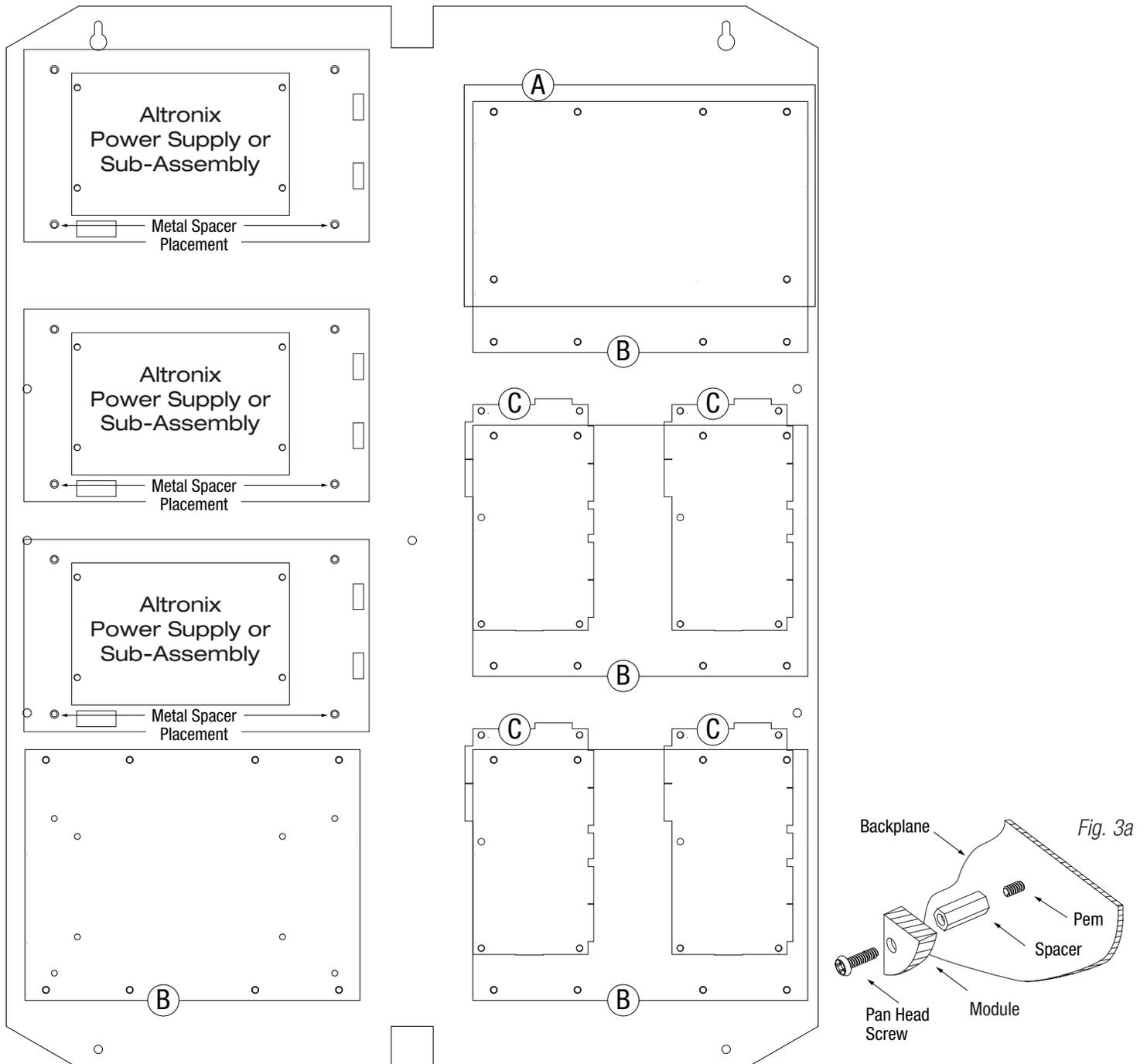Backplane   *Fig. 3a*

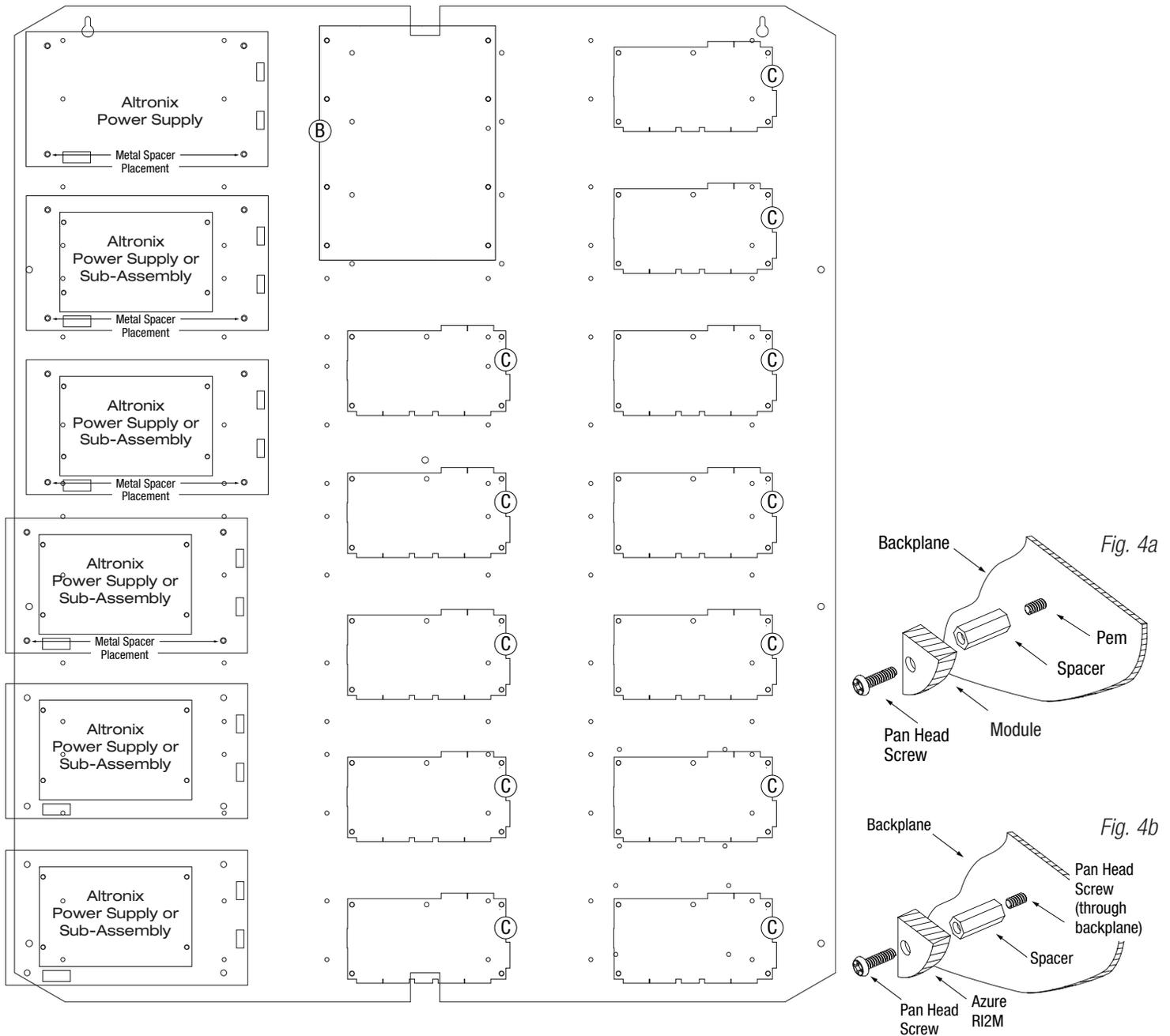Pem

Spacer

Pan Head Screw   Module

TM3: Configuration of Altronix Power Supply and/or Sub-Assembly Boards and Azure Modules

1. Fasten spacers (provided) to pems that match the hole pattern for Altronix Power Supply/Chargers, Altronix Sub-Assembly boards and Azure IC2 board *(Fig. 4, pg. 5)*. Fasten metal spacers in the correct locations to provide proper grounding, see below *(Fig. 4, pg. 5)*. In order to mount Azure RI2M, insert screw (provided) into hole configuration (C) from the backside of backplane *(Fig. 4b, pg. 5)*. Screw spacer onto screw, repeat for additional three (3) board mounting holes.
2. Mount boards to spacers utilizing 5/16" pan head screws (provided) *(Fig. 4a, pg. 5)*.
3. Fasten TM3 backplane to Trove3 enclosure utilizing utilizing hardware (provided).

Azure Access Controller Position Chart for the Following Models:

Altronix/Azure	Pem Mounting
IC2	Ⓑ
RI2M	Ⓒ

Fig. 4 - **Trove3AA3 Configuration**

Fig. 4a

Fig. 4b

Notes:

TAA1 Dimensions

16.625" x 12.5" x 0.3125" (422.3mm x 317.5mm x 7.9mm)

12.5" (317.5mm)

0.5" (12.7mm)

8.15" (207mm)

15.65" (397.5mm)

16.625" (422.3mm)

0.5" (12.7mm)

6.25" (158.75mm)
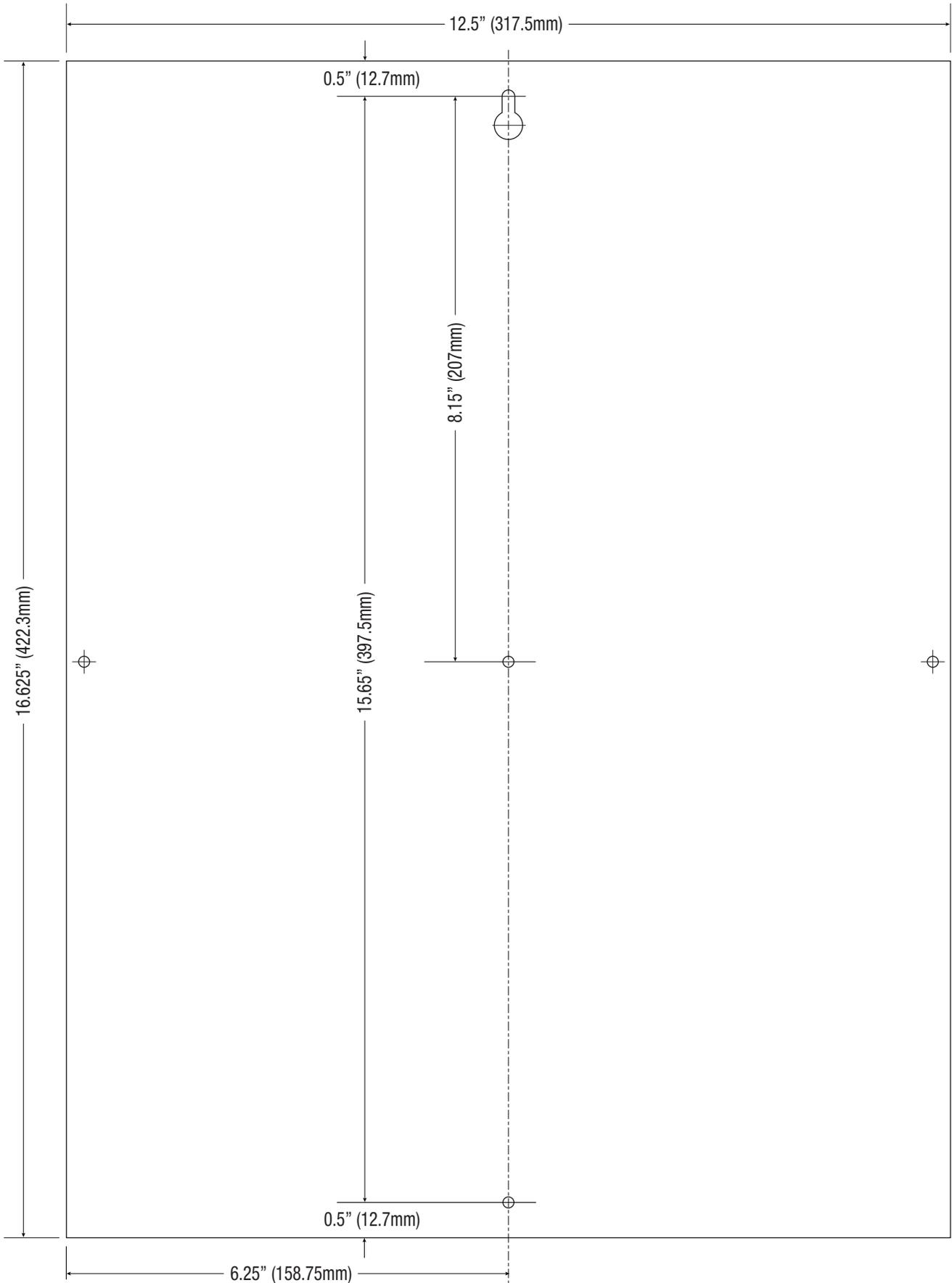
Trove1AA1 Enclosure Dimensions (H x W x D):

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

14.5" (321.3mm)

7.25" (184.2mm)

1.45" (36.8mm)

$\varnothing$1.95" (49.5mm)

4.5" (114.3mm)

1.25" (31.8mm)

1.5" (38.1mm)

0.57" (14.5mm)

8.5" (215.9mm)

6.5" (165.1mm)

13.0" (330.2mm)

0.6" (15.2mm)

18.0" (457.2mm)

0.6" (15.2mm)

1.1" (27.9mm)

1.25" (31.8mm)

1.5" (38.1mm)

8.5" (215.9mm)

6.5" (165.1mm)

4.5" (114.3mm)

4.5" (114.3mm)

2.75" (69.9mm)

$\varnothing$1.115" (28.3mm)

1.36" (34.5mm)

1.25" (31.8mm)
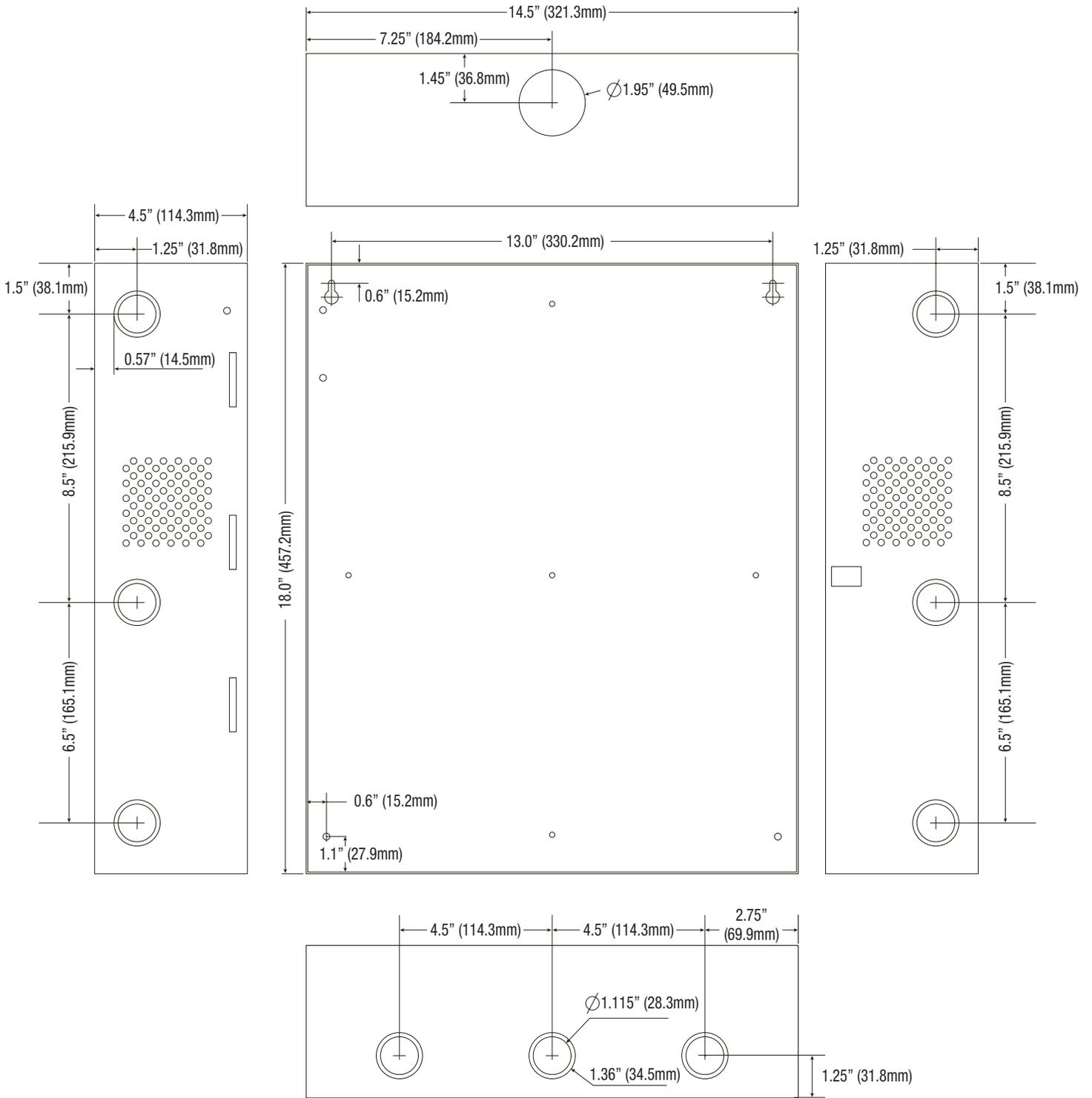
TAA2 Dimensions

25.375" x 19.375" x 0.3125" (644.5mm x 482.6mm x 7.9mm).

19.375" (492.1mm)

2.2" (55.9mm)

2.2" (55.9mm)

0.45" (11.4mm)

25.375" (644.6mm)

⌀ 0.156"
(⌀ 3.96mm)

16.25" (412.8mm)

12.625" (320.7mm)

8.5" (215.9mm)

0.45" (11.4mm)

1.0" (25.4mm)

1.0" (25.4mm)

7.5" (190.5mm)

7.5" (190.5mm)

9.2" (233.7mm)

9.2" (233.7mm)
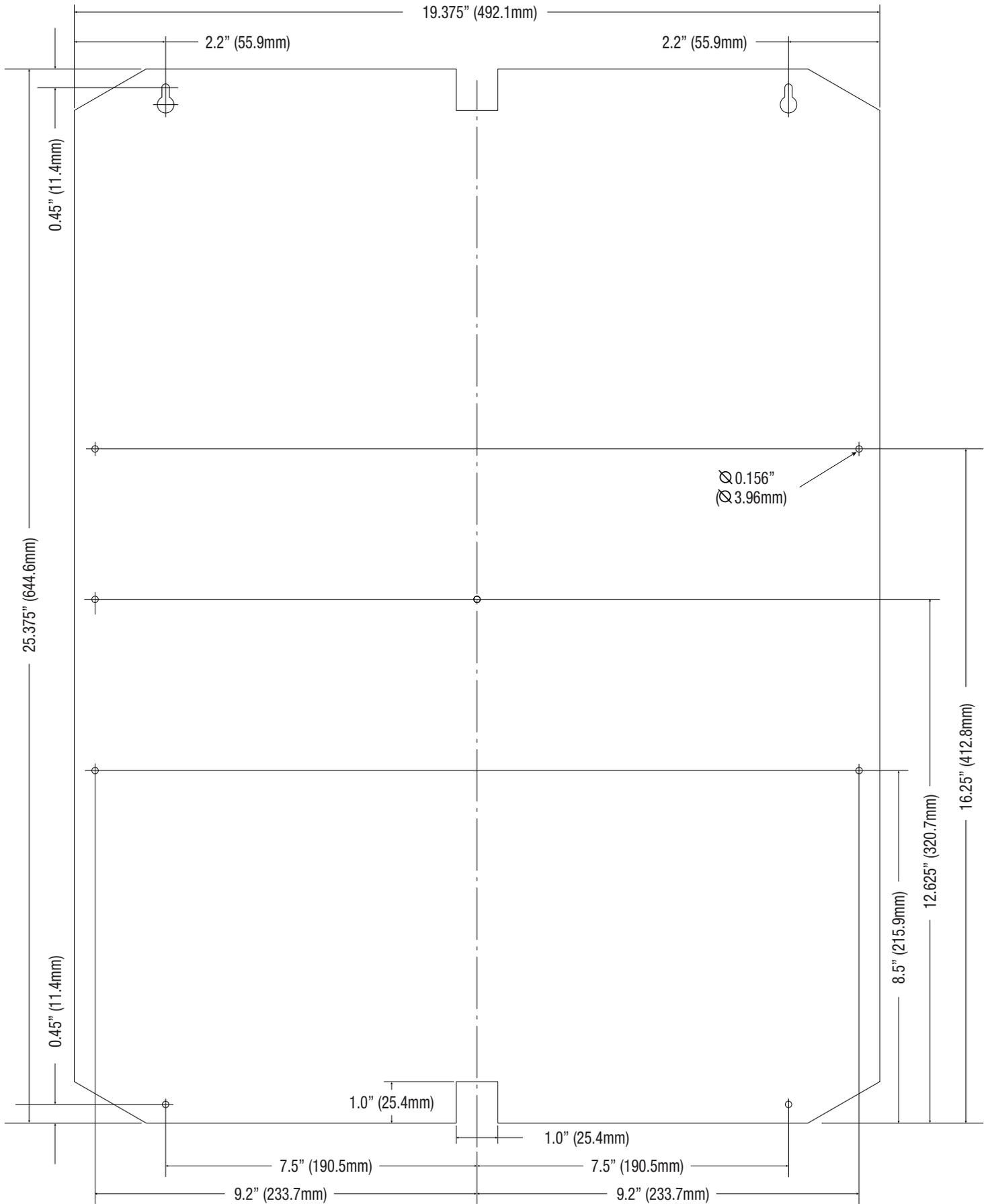
Trove2AA2 Enclosure Dimensions (H x W x D):
27.25" x 21.75" x 6.5" (692.15mm x 552.5mm x 165.1mm)

21.50" (546.1mm)

2.00" (50.8mm)   5.25" (133.35mm)   3.5"(88.9mm)   3.5"(88.9mm)   5.25" (133.35mm)   2.00" (50.8mm)

1.25" (31.8mm)

0.685" (17.4mm)

0.5625" (14.3mm)

1.77" (45mm)

Knockouts
1.125" (28.3mm)

6.25" (158.8mm)

⌀ 2.415" (61.3mm)   0.885" (22.5mm)

1.5" (38.1mm)

6.25" (158.8mm)

1.25" (31.8mm)

19.80" (502.9mm)

2.00" (50.8mm)

6.75" (171.5mm)

27" (685.8mm)

8.25" (209.5mm)

8.00" (203.2mm)

0.85" (21.6mm)

2.00" (50.8mm)

1.00" (25.4mm)

1.25" (31.8mm)

1.25" (31.8mm)

2.00" (50.8mm)   5.25" (133.4mm)   7.00" (177.8mm)   5.25" (133.4mm)   2.00" (50.8mm)
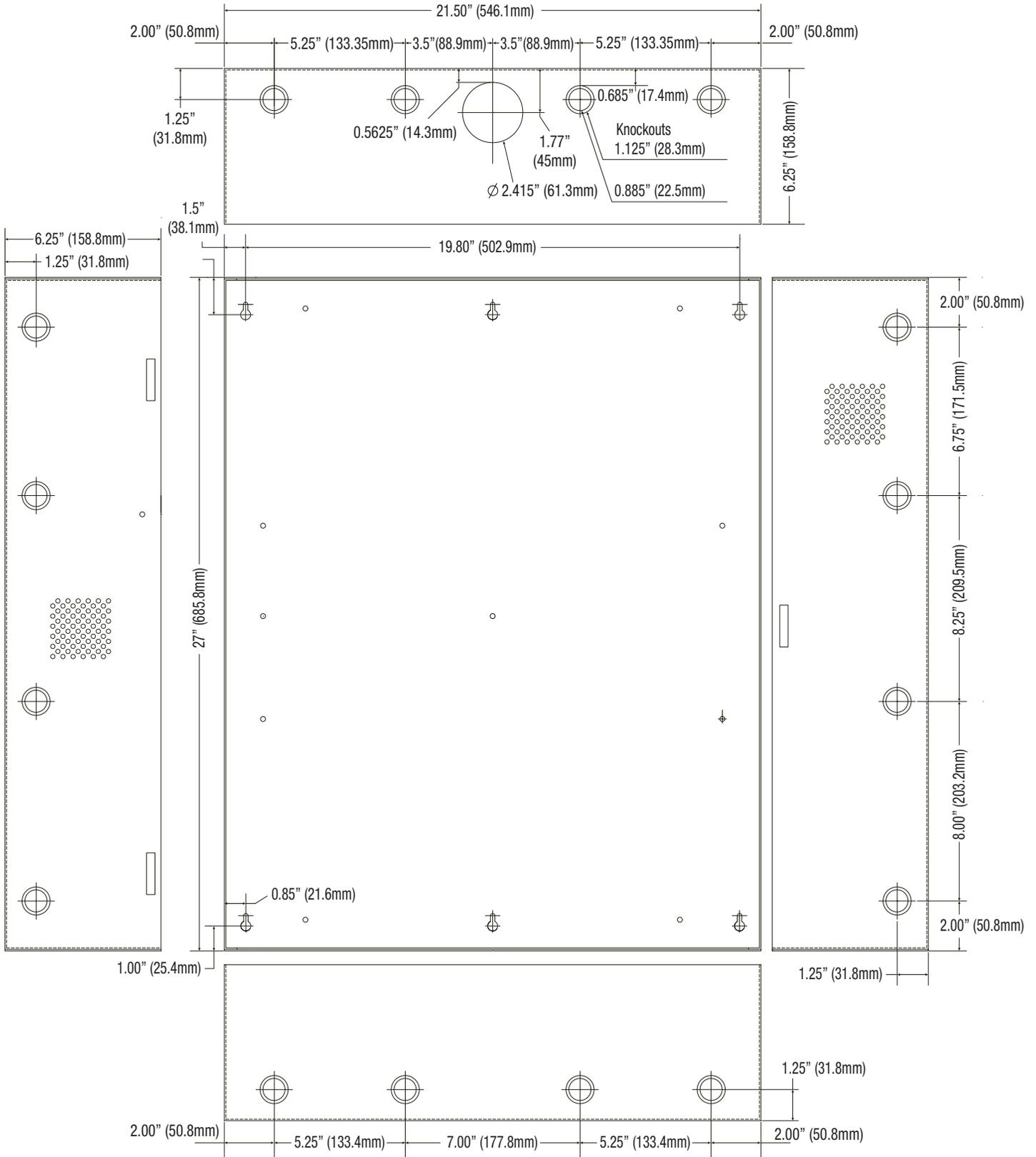
TM3 Dimensions
34" x 28" x 0.3125" (863.6mm x 711.2mm x 7.9mm)

28" (711.2mm)

2.5" (63.5mm)

0.45" (11.4mm)

⌀ 0.156"
(⌀ 3.96mm)

34" (863.6mm)

25" (635mm)

13.5" (342.9mm)

2" (50.8mm)

1.0" (25.4mm)

1.0" (25.4mm)

13.5"
(342.9mm)

13.5"
(342.9mm)
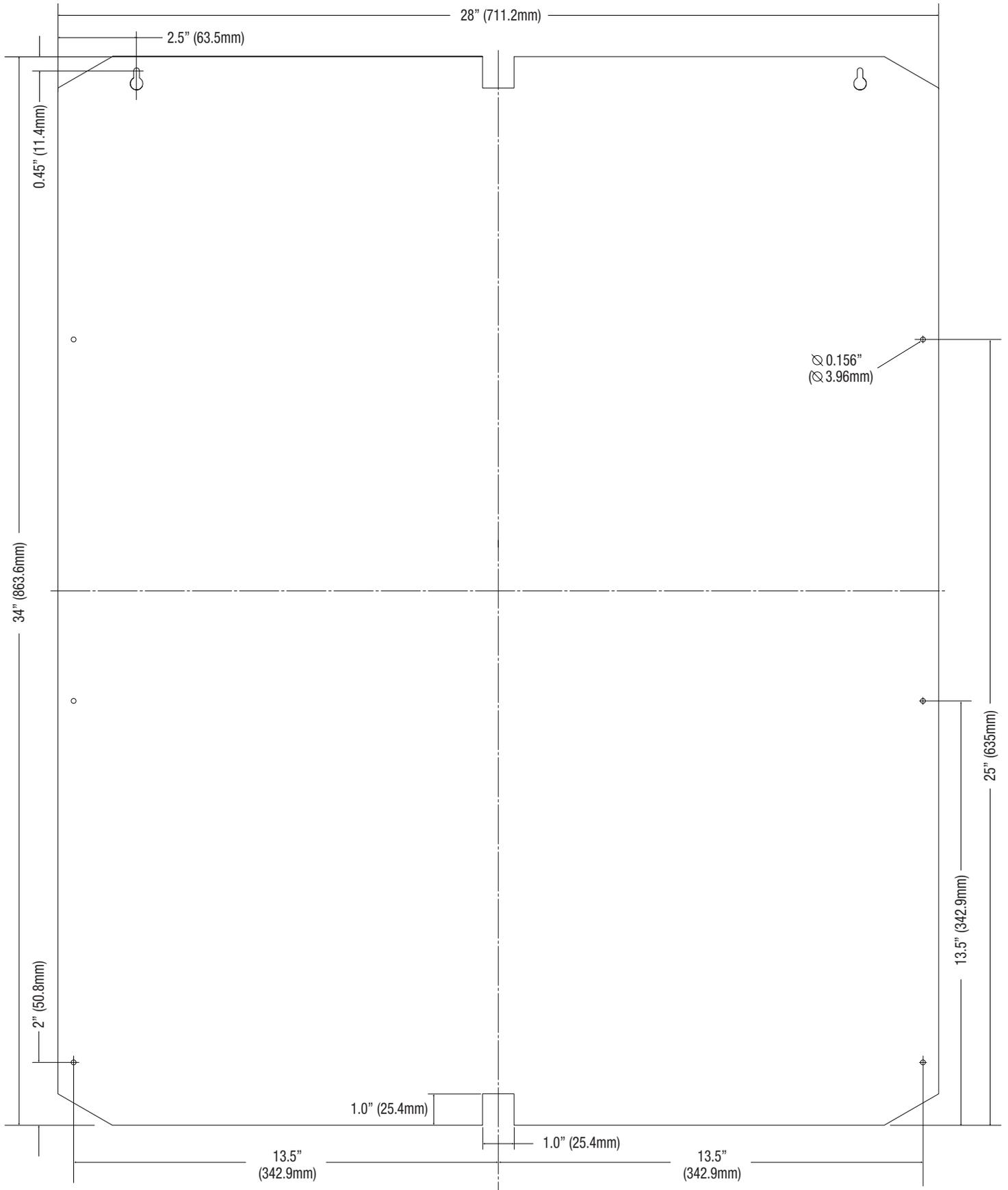
Trove3AA3 Enclosure Dimensions (H x W x D approximate):
36.12" x 30.125" x 7.06" (917.5mm x 768.1mm x 179.3mm)

2.00" (50.8mm)   7.12" (222.3mm)   9.5" (241.3mm)   9.5" (241.3mm)

1.25" (31.8mm)   1.78" (45.2mm)   1.55" (39.4mm)

1" Conduit   1.25" Conduit   2" Conduit   1.5" Conduit
3/4" Conduit   1.5" Conduit   1.25" Conduit

2.00" (50.8mm)

1.07" (27.2mm)   30.12" (768.1mm)

1.25" (31.8mm)   14.01" (355.9mm)   14.01" (355.9mm)   2" (50.8mm)

1" Conduit   1" Conduit
3/4" Conduit   3/4" Conduit

1.10" (27.9mm)

10.75" (273.1mm)   G   G   10.75" (273.1mm)

33.63" (854.2mm)

10.62" (269.8mm)   10.62" (269.8mm)   36.12" (917.5mm)

10.75" (273.1mm)   10.75" (273.1mm)

1.25" (31.8mm)

7.06" (179.3mm)

3/4" Conduit
1" Conduit

1.25" (31.8mm)

2"   8.75" (222.3mm)   8.62" (219mm)   8.75" (222.3mm)
(50.8mm)

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