OCA-P181610

Outdoor Cabinet Assembly

18 x 16 x 10" Polycarbonate Enclosure for Outdoor Switches

Install Guide

Contents

Transition Networks' Outdoor Cabinet Assembly is a high impact resistant polycarbonate enclosure with a hinged cover that permits a 225° door swing and allows for easy door removal during installation or maintenance. The door is secured by two stainless steel latches that are bolted in place (providing more security than pop rivets or slide-on latches) and can be further secured with pad locks (not included). The 18" x 16" x 10" cabinet is deep enough to protect the bend radius of fiber cables connected to nearly any Transition Networks temperature hardened switch when mounted in the enclosure. A liquid tight vent is included to prevent condensation inside the enclosure.

Inside the cabinet, the OCA-P181610 includes two 15" DIN rails for easily mounting switches, media converters, power supplies and other communications equipment (sold separately). One entry port for routing power wires (a receptacle can be added) and 10 data cable entry ports with cord grips (each data cord grip accommodates two cables) are pre-installed in the cabinet. The enclosure also includes a ground terminal block with four push-in connections on each DIN rail to protect against lightning or other surges in power to the enclosure. Red and black feed-through terminal blocks are provided for terminating low voltage DC positive and negative wires within the enclosure. Blue and white feed-through terminal blocks are provided for AC mains line and neutral/line connections. End caps are also included for added safety.

The enclosure includes mounting feet for mounting on a wall or side of a building. Optional brackets are available for mounting on 2-6" diameter poles. The optional EDCA-DIO-01 mounts easily on the DIN rails or to the side of the cabinet with optional wall mount brackets. Optional fiber management trays (SESPM-4P-FMT) are available for managing fiber cable, if needed.

Features
- Light weight, high impact resistant polycarbonate cabinet
- Wide swing or removable hinge for easy access
- Bolted latches
- Vent to prevent condensation inside the enclosure
- Wall or pole mount (optional)
- Enclosure door contact alarm (optional)
- Fiber management trays (optional)
- Wide operating temperature range
- Made in USA

Specifications

Dimensions	Width: 16.91" x Depth: 11.5" x Height: 19.69" Width: 429.51 mm x Depth: 292.1 mm x Height: 500.13 mm
Weight	15.15 lbs. [6.87 kg]
DIN Rails	(2) 1.39" x 15" [35 mm]
Instrumented Dart Impact @ 73°F	565 in lb
Deflection Temperature @ 264 psi	270°F
Modulus of Elasticity	34 ksi
Tensile Strength Temp. Range	-40 to 265°F
Environment Operating Temp.	-40° to +70°C (inside enclosure)
External Operating Temp.	-40°C to +50°C
Flame Rating – UL	94 5VA
Outdoor UV Exposure – UL	F1
Compliance	Consists of UL compliant components. Cabinet UL 50/cUL listed File E229365/E207562; NEMA 4X/IP66. Vent plug UL/cUL recognized File E330194; approved for use in IP65/67/68 applications. Wire glands UL/cUL recognized File E51579; approved for NEMA 4, 4X, 6 and 6P applications. Ground terminal blocks UL/cUL recognized File E 60425.

Regulatory Agency Compliance

Base Cabinet Compliance
Standard(s) for Safety: Standard for Enclosures for Electrical Equipment, UL 50
UL 50E ENCLOSURES FOR ELECTRICAL EQUIPMENT
CSA C22.2 NO. 94.1.07 ENCLOSURES FOR ELECTRICAL EQUIPMENT, NON-ENVIRONMENTAL CONSIDERATIONS
CSA C22.2 NO. 94.2-07 ENCLOSURES FOR ELECTRICAL EQUIPMENT, ENVIRONMENTAL CONSIDERATIONS

RoHS, WEEE, Environmental Programs: See https://www.transition.com/rohs-weee-environmental-programs/.

Ordering Information

SKU	Description
OCA-P181610	18"x16"x10" Outdoor cabinet with vent, (2) DIN rails, (2) ground terminal blocks and (1) each low voltage DC positive and negative and AC mains line and neutral/line terminal block, plus (1) power, (10) data wire glands, and magnetic door contact switch.
Optional Accessories (sold separately)	
OCA-PMK-26	Universal Pole Mount Kit for 2-6" diameter poles
Complimentary Products (sold separately)	
SISPM1040-384-LRT-C	Managed Hardened Gigabit Ethernet PoE+ Switch with (8) 10/100/1000Base-T PoE+ Ports + (4) 100/1000Base-X SFP Slots
SISPM1040-582-LRT	Managed Hardened Gigabit Ethernet PoE++ Switch with (8) 10/100/1000Base-T PoE++ Ports + (2) 100/1000Base-X SFP Slots
SISPM1040-362-LRT	Managed Hardened Gigabit Ethernet PoE+ Switch (4) 10/100/1000Base-T PoE+ Ports + (2) 10/100/1000Base-T RJ-45 + (2) 100/1000Base-X SFP Slots
PS-DC-DUAL-5624T	345W Dual Industrial Power Supply, 24VDC + 56VDC
25104	Industrial DIN Rail Mounted Power Supply; Input: 85-264 VAC, 124-370 VDC; Output: 48~55 VDC, 5.0A, 240 Watts
25105	Industrial DIN Rail Mounted Power Supply; Output Voltage 48VDC, 2.5A, 120 Watts. Power Input: Voltage Range Switch Selectable: 88~264VAC / 124~370VDC
25160	Hardened DIN Rail Mounted Power Supply; Input 90-264 VAC, 127-370 VDC, Output: 48 ~ 55 VDC, 10A, 480 Watts
EDCA-DIO-01	Enclosure Door Contact Alarm, DIN Rail Mount
WMB-EDCA	Enclosure Door Contact Alarm Wall Mount Bracket
SESPM-4P-FMKIT	Fiber Management Tray, accommodates (2) splices

Related Manuals

- SISPM1040-384-LRT-C and SISPM1040-362-LRT Quick Start Guide, Install Guide, Web User Guide, and CLI Reference (33726 – 33729)
- SISPM1040-582-LRT Quick Start Guide, Install Guide, Web User Guide, and CLI Reference (33754 - 33757)
- PS-DC-DUAL-5624T Power Supply QSG (33792) and PS-DC-DUAL-5624T Power Supply Install Guide (33788)
- EDCA-DIO-01 Quick Start Guide (33796) and EDCA-DIO-01 Install Guide (33790)
- OCA-PMK-26 Quick Install Guide, 33820
- WMB-EDCA: see the EDCA-DIO-01 Install Guide (33790)
- SESPM-4P-FMKIT Option Install Guide (33775)
- Power Supplies: 25104, 25105, 25160 and PS-DC-DUAL-56xxT

Components

Check the package contents to make sure you have received the following items. Contact your sales representative if any item is damaged or missing. Please save the packaging for possible future use.

- One 18x16x10" NEMA 4X/IP66 polycarbonate cabinet
- Two DIN Rails (installed)
- Two Ground Terminal Blocks for 12-26 AWG wire, 8kV rated surge protection (installed)
- One each Red and Black Terminal Blocks for 12-26 AWG wire, 8kV rated surge protection for DC +/- Wires (installed)
- One each Blue and White Terminal Blocks for 12-26 AWG wire, 8kV rated surge protection for AC Mains Line and Neutral/Line Connections (installed)
- One Power Wire Gland (installed) *
- Ten Data Wire Glands (accommodate 2 Cables each) (installed) *
- One 22365 Magnetic Door Contact Switch (installed)
- Nine 22339 Hole Plugs *
- Nine 22338 Hole Plugs *
- Six Terminal Block 22381 End Caps (3 installed, 3 extras provided to be inserted for safety if terminal blocks are separated from initial configuration)

* **Note** : Not filling unused wire glands with hole plugs provided or improper tightening of nuts can affect NEMA/IP rating and void cabinet warranty. After installing cabling, ensure all nuts are properly tightened:

- Power Wire Gland (x1): Using Torque Wrench, tighten nut to 75-80 in. lbs.
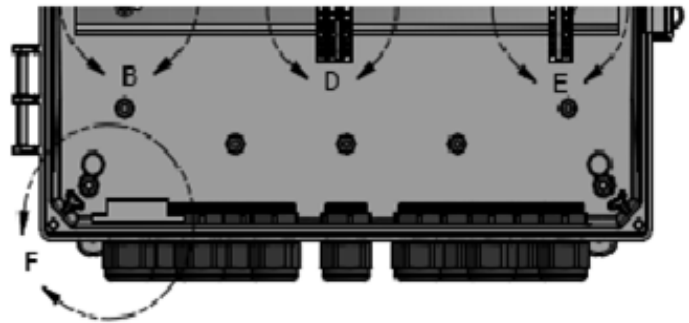- Data Wire Glands (x10): Using Torque Wrench, tighten nuts to 75-80 in. lbs.

Dimensions

Product Views

Magnetic Switch Alarm
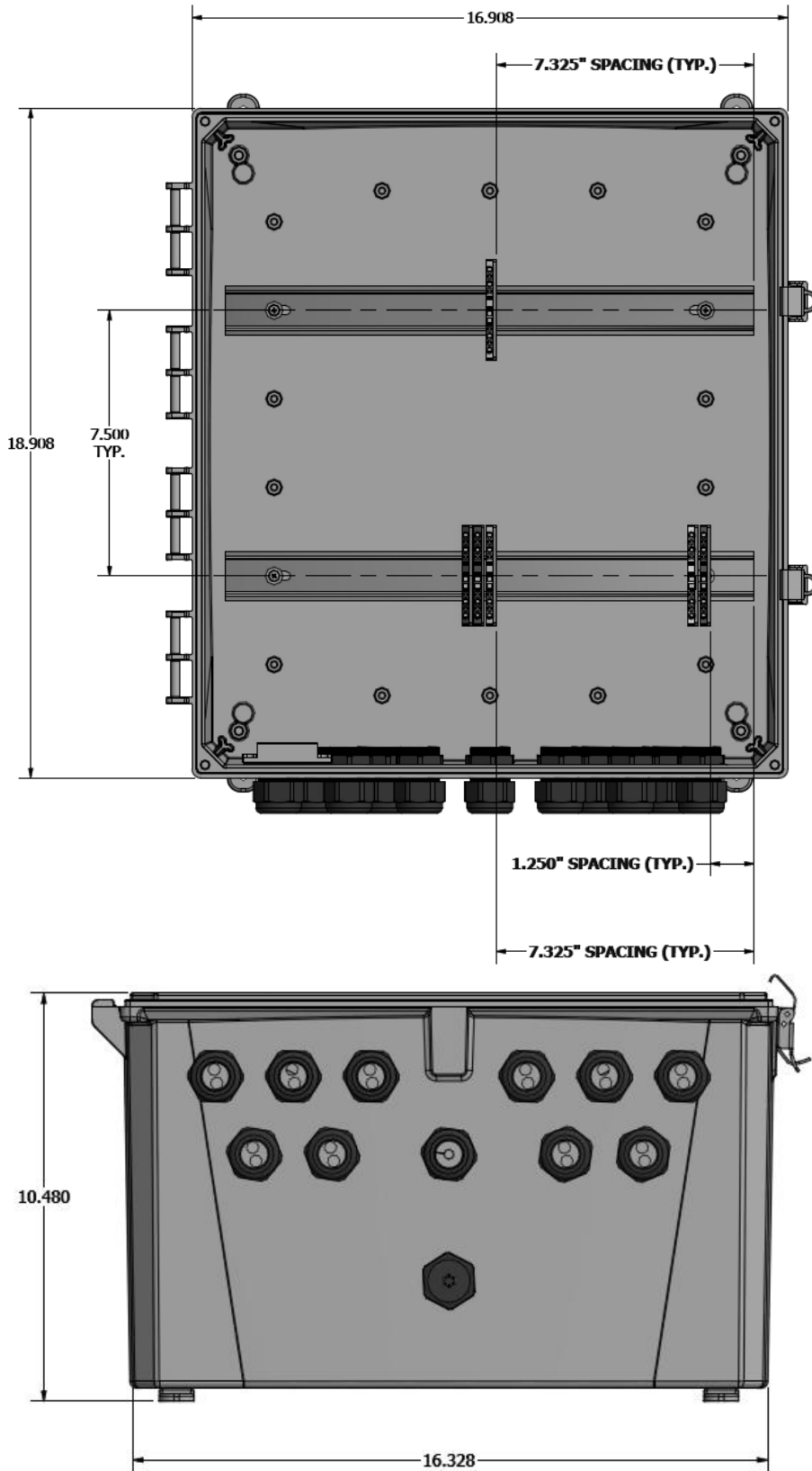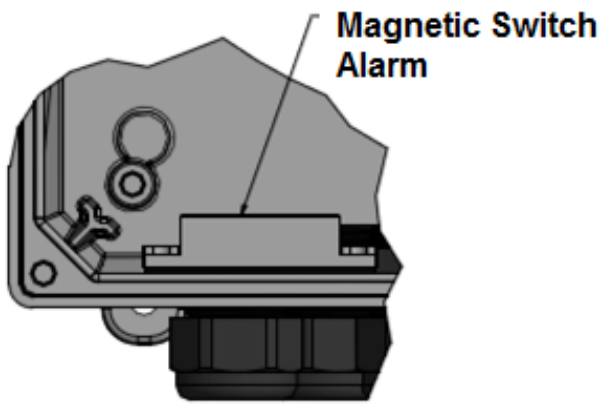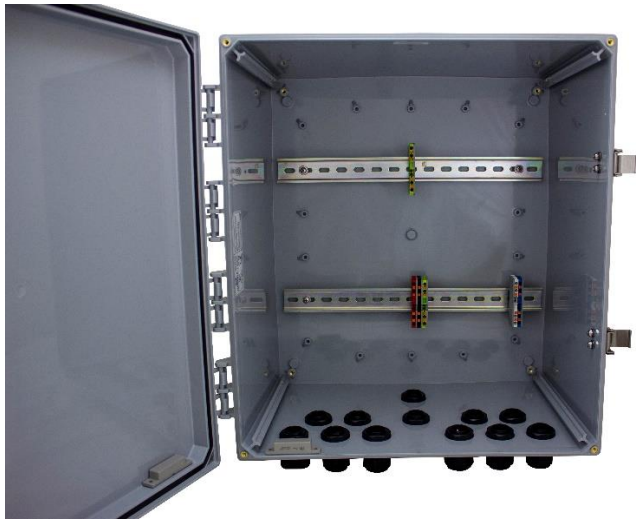
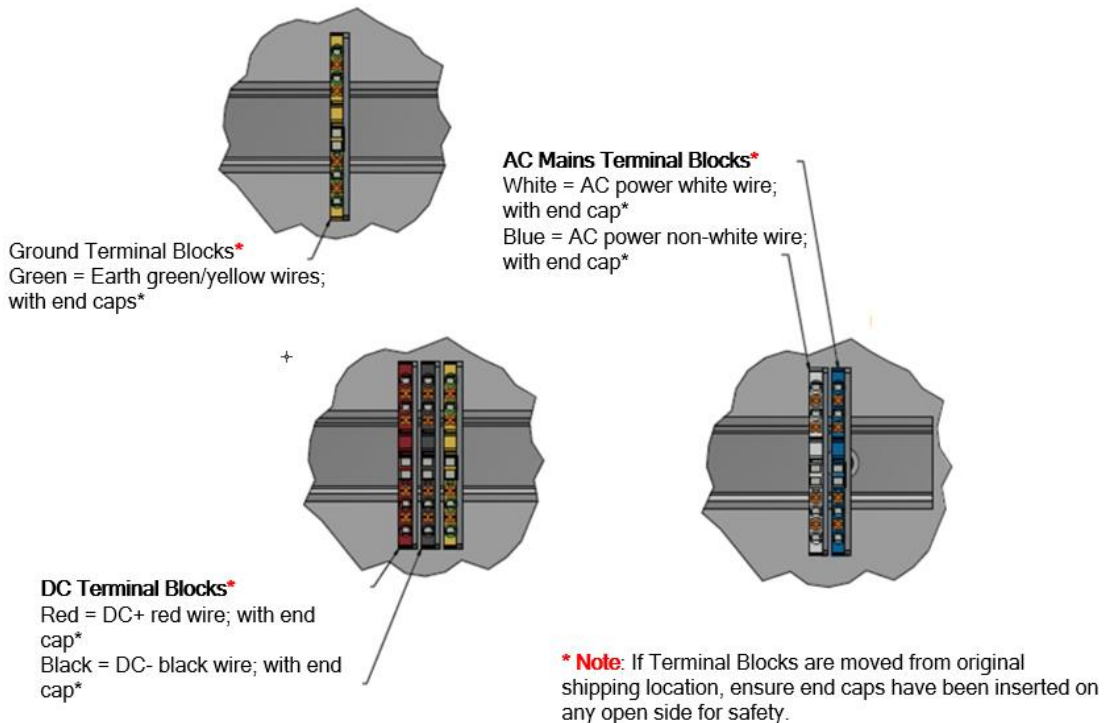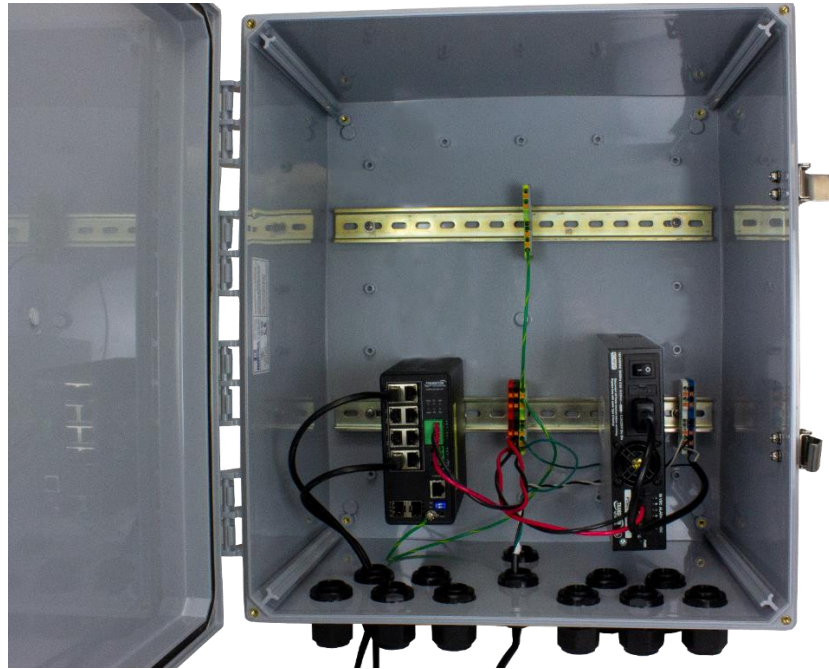DETAIL F

Install Procedures

Ground Terminal Blocks Together

Ground terminal blocks are provided on both the upper and lower DIN rails. For added safety, it is recommended that these ground terminal blocks be tied together. *Note: If terminal blocks are moved from original shipping location, ensure end caps have been inserted on any open side for safety. **Note**: Switch and power supply shown for illustration purposes only (sold separately).

Ground Terminal Blocks*
Green = Earth green/yellow wires;
with end caps*

AC Mains Terminal Blocks*
White = AC power white wire;
with end cap*
Blue = AC power non-white wire;
with end cap*

DC Terminal Blocks*
Red = DC+ red wire; with end cap*
Black = DC- black wire; with end cap*

* Note: If Terminal Blocks are moved from original shipping location, ensure end caps have been inserted on any open side for safety.

Terminal Block Details

Cabinet Mounting

Determine if cabinet will be mounted to a wall or other flat surface or to a pole.

If mounting to a flat surface, attach the four mounting feet (provided) to the back of cabinet with screws provided. Mount to wall or other flat surface with appropriate screws for the desired mounting surface.

If mounting to a pole, see Installing the OCA-PMK-26 Option on page 11 for pole mount instructions.

If Using an AC Power Source

If using an AC power source, you must either cut off the plug and terminate the wires as you would a DC power source or add a receptacle (not provided). If adding a receptacle, the vent and power gland can be swapped to better accommodate a receptacle. If relocating the power cable entry port to a different location, be sure to move the power cord wire gland insert (single hole) to the new entry port to ensure proper fit and maintain IP rating.

If using molded power cords, the IEC C1x type equipment connector will not pass through the wire glands provided with the enclosure. The connector can be cut from the cord per the below instructions; push-on terminal blocks are provided to reconnect the wires from the cord. There are typically three insulated wires:

- green for earth (chassis) ground connection
- white for neutral in 110VAC systems (or second leg in 220VAC systems)
- non-white (black/blue/red) for the line (hot) in 110VAC (or first leg in 220VAC systems)

Cutting and Reconnecting AC Power Cord within Enclosure

1. Determine the length of stub connection needed to reach from the IEC C1x connector attached to the equipment to the green, white and blue terminal blocks. Make sure to allow enough extra length to provide a drip loop in the event that any moisture that potentially entered the enclosure while servicing the equipment during inclement weather with the enclosure door open will not allow for water droplets to run down the power cord wires and into the terminal blocks.
2. Cut the power cord to the desired length.
3. Pass the cut end of the AC mains wire from the outside of the enclosure through the strain relief/wire gland to the inside of the enclosure.
4. Strip the outer sheath of both ends of the power cord to expose enough individual wire length for connecting to the terminal blocks and allowing extra length for drip loops.
5. Strip the insulation on each wire back approximately 0.25" (6mm). After stripping the insulation, twist the stranded wire ends to facilitate insertion of the wire into the terminal block.
6. Attach the green wires on both cut ends of the power cord to the green earth (chassis) ground terminal block: push and hold the orange wire release button while inserting wire, then release to secure connection.
7. Attach the white wires on both cut ends of the power cord to the white terminal block.
8. Attach the non-white wires on both cut ends of the power cord to the blue terminal block.

Connecting DC Power within the Enclosure

1. Strip the insulation on each wire back approximately 0.25" (6mm).
2. Twist the stranded wire ends to facilitate insertion of the wire into the terminal block.
3. Insert ground (green) wire into green terminal block. Push and hold the orange wire release button while inserting wire, then release to secure connection.
4. Insert DC positive (red) wire into red terminal block.
5. Insert DC negative (black) wire into black terminal block.

After Installing Cabling

Ensure all nuts are properly tightened and any unused openings are filled with hole plugs provided.

Power Wire Gland (x1): Using Torque Wrench, tighten nut to 75-80 in. lbs.

Data Wire Glands (x10): Using Torque Wrench, tighten nuts to 75-80 in. lbs

Improperly tightened nuts or unfilled wire inserts can affect NEMA/IP rating and void cabinet warranty.

Connecting the Magnetic Door Contact Switch

A magnetic door contact switch is included in the cabinet. Use of the door contact switch typically requires a 12-24VDC power source. The Transition Networks PS-DC-DUAL-5624T Dual Industrial Power Supply or the EDCA-DIO-01 Enclosure Door Contact Alarm can provide the required power for the door contact switch. Follow the instructions in your Ethernet Switch manual (if Ethernet Switch includes alarm input/outputs) or the optional Enclosure Door Contact Alarm manual for connecting alarm input/outputs to the door contact switch.
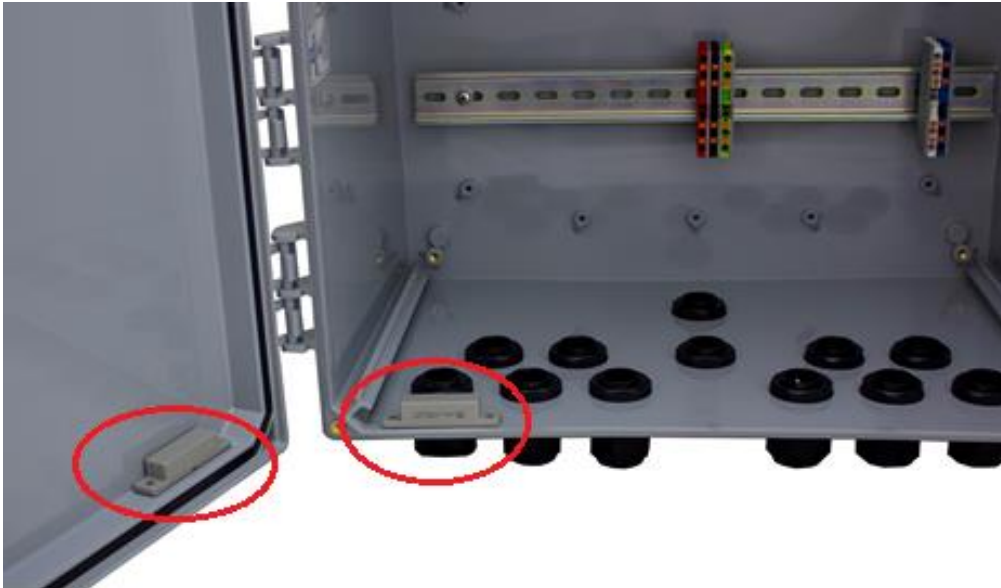
Note: If making further modifications to this cabinet, please note the following Cautions and Warnings.

Cautions and Warnings

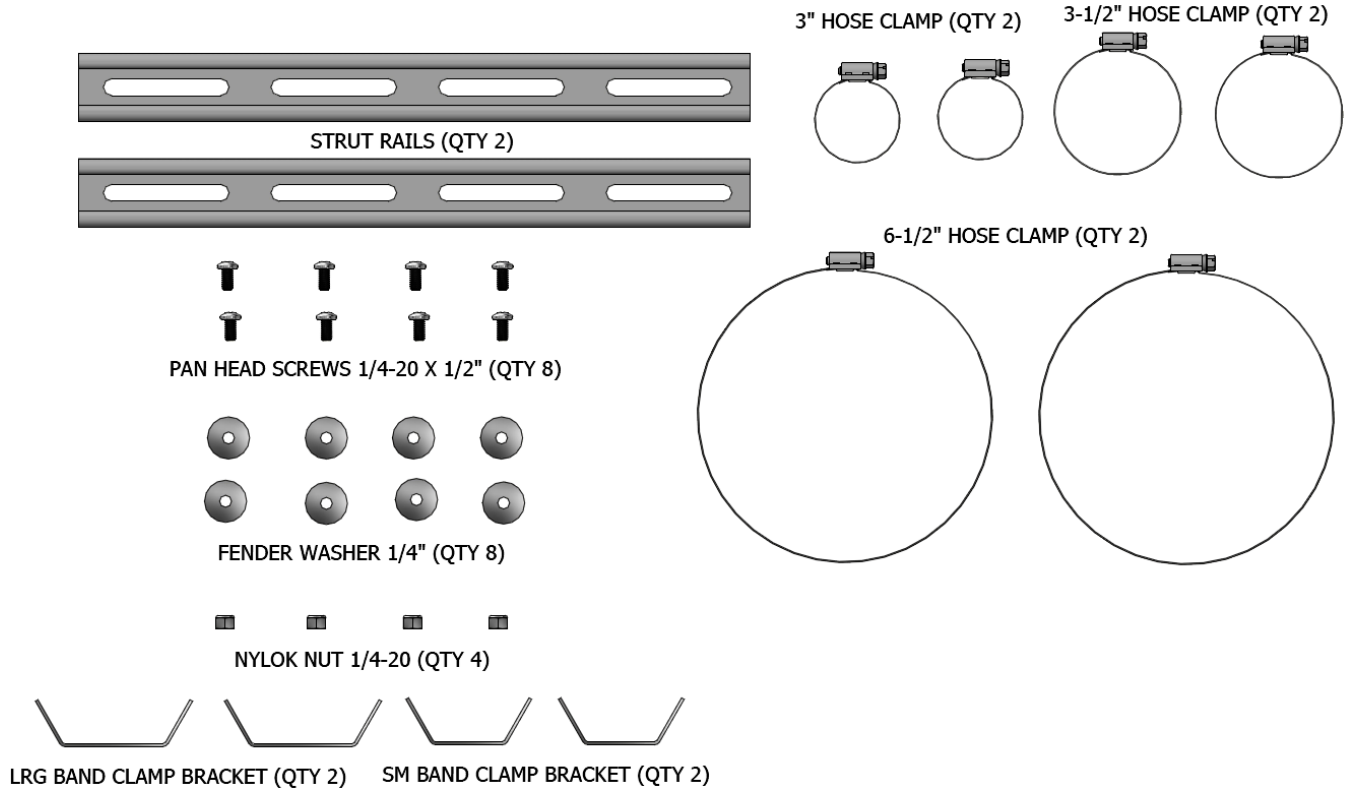⚠️ Warning: Cancer and Reproductive Harm. See https://www.p65warnings.ca.gov/.

Use Listed Conduit Hubs or connectors with environmental rating appropriate for the end-use.

Bonding between connections is not automatic and must be provided as a part of the installation.
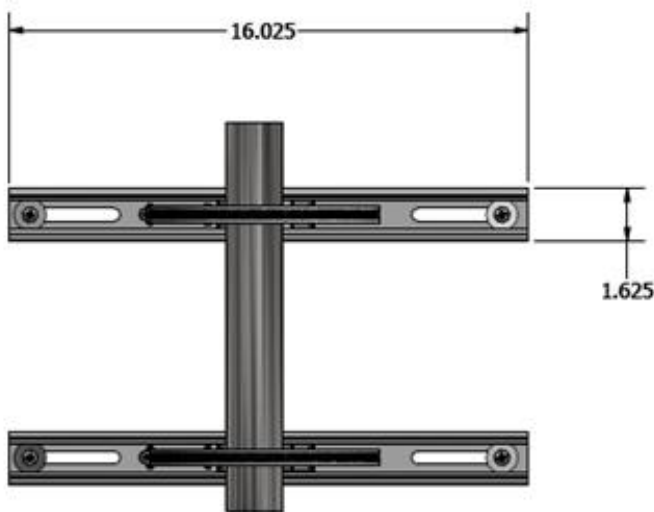
Installing the OCA-PMK-26 Option

The OCA-PMK-26 is an optional Universal Pole Mount Kit for mounting the OCA-P181610 onto 2-6" diameter poles. The kit is ordered and packaged separately.
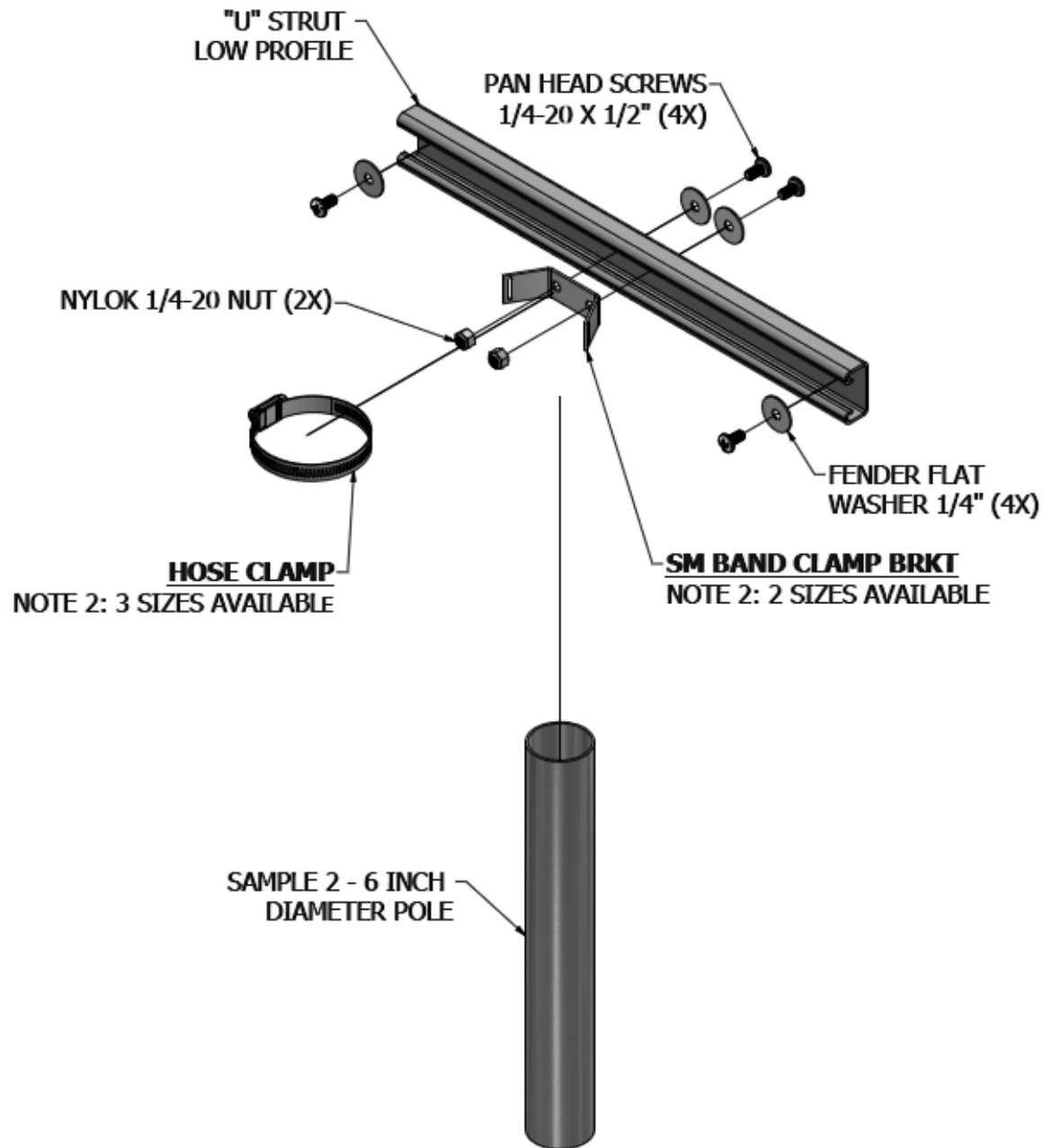
OCA-PMK-26 Option Part List

3" HOSE CLAMP (QTY 2) 3-1/2" HOSE CLAMP (QTY 2)

STRUT RAILS (QTY 2)

6-1/2" HOSE CLAMP (QTY 2)

PAN HEAD SCREWS 1/4-20 X 1/2" (QTY 8)

FENDER WASHER 1/4" (QTY 8)

NYLOK NUT 1/4-20 (QTY 4)

LRG BAND CLAMP BRACKET (QTY 2)   SM BAND CLAMP BRACKET (QTY 2)

OCA-PMK-26 Option Dimensions

16.025

1.625

OCA-PMK-26 Option Assembly

Note: Only one of two Struts shown:

"U" STRUT LOW PROFILE

PAN HEAD SCREWS 1/4-20 X 1/2" (4X)

NYLOK 1/4-20 NUT (2X)

FENDER FLAT WASHER 1/4" (4X)

HOSE CLAMP NOTE 2: 3 SIZES AVAILABLE

SM BAND CLAMP BRKT NOTE 2: 2 SIZES AVAILABLE

SAMPLE 2 - 6 INCH DIAMETER POLE

OCA-PMK-26 Option Part List

Item	Qty	Description
A	2	Strut Rails
B	8	Fender Washer, 1/4"
C	8	Pan Head Screws,1/4-20 X 1/2" Long
D	4	Nylok Nut, 1/4-20
E	2	Band Clamp Bracket Large
F	2	Band Clamp Bracket Small
G	2	Hose Clamp 3-1/2"
H	2	Hose Clamp 6-1/2"
I	2	Hose Clamp 3"
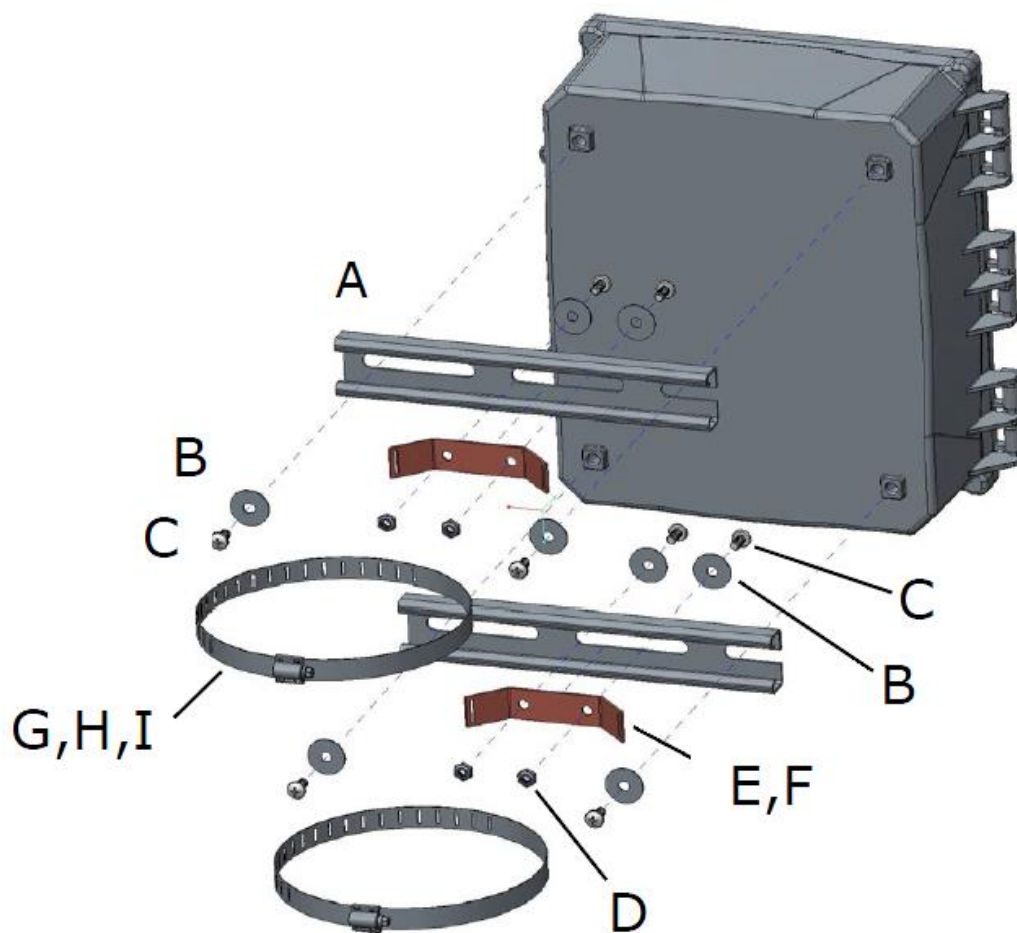
OCA-PMK-26 Option Install Procedure
1. Attach Band Clamp Brackets (E) or (F) (x2) to inside of Strut Rails (A) (x2) and secure with Pan Head Screws x ½" Long (D), Fender Washers (C), & Nylok Nuts (E) (x4). Torque to 32 in-lbs Max.
2. Attach Strut Rails to the Enclosure mounting bosses and secure with Pan Head Screws x ½" Long (D), and Fender Washers (C) (x4). Torque to 32 in-lbs Max.
3. Feed Hose Clamp (G) or (H) or (I) (x2) through slots in Band Clamp (E) or (F) (x2), typical.

OCA-PMK-26 Option Installed Views

OCA-PMK-26   OCA-P181610
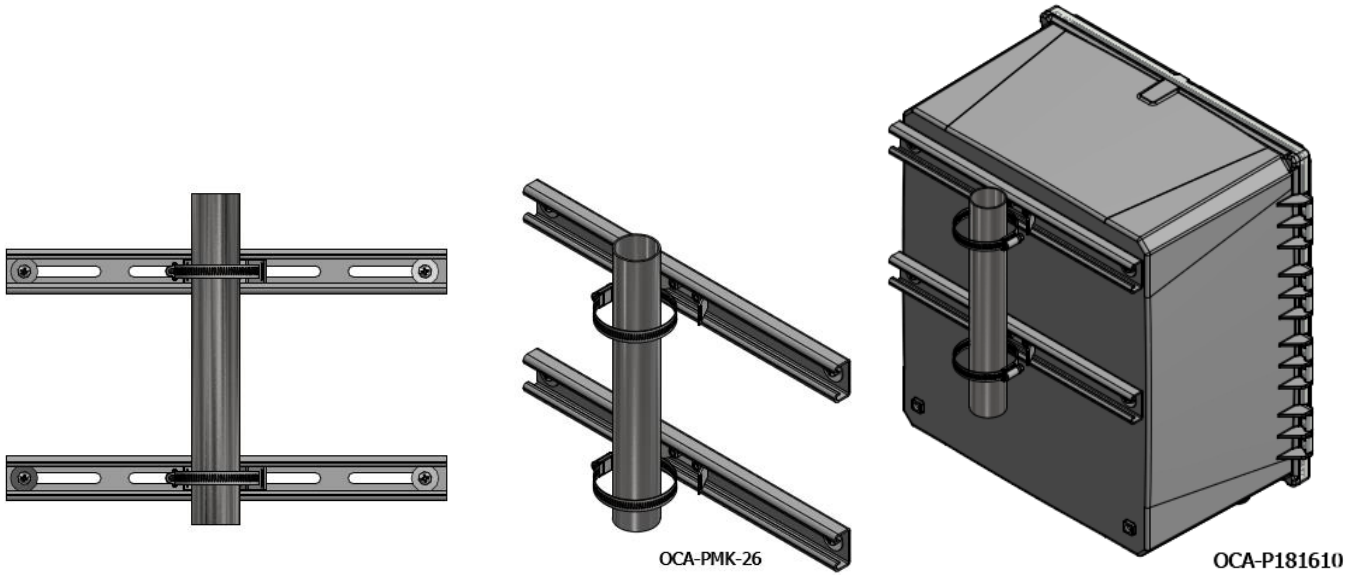
Record of Revisions

Rev	Date	Description
A	4/30/20	Initial release.
B	8/19/20	Update installation information.
C	10/1/20	Update component and mounting information.

Contact Us

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