

Included components

- Anchor template, 8ft/16ft shelter
- Hardware pack #66597 (dowels)

Tools Required

- hammer/mallet for installing dowels
- Tape measure
- Chalk line
- Ø9/16" masonry drill bit / drill

INSTALLATION:

Note: Components for 8ft shelter template can be used for a single 8ft shelter or a 16ft shelter. Template is used to mark hole locations, and should not be used as a drilling template or for setting anchors.

1. Layout template pieces as shown in Fig. A2. Install dowels.
2. Set template in position and mark hole locations. For 16ft shelters, use anchor holes labeled "2" on the outer corners, and holes labeled "1" for the intermediate posts. Mark holes for front/back glass, if required.
3. Shift the template assembly to mark the second half of the anchor holes, see Fig. A3.
4. Check for square across multiple corners.
5. Drill Ø9/16" holes to 3" depth.
6. Follow adhesive manufacturer's instructions for clearing holes of debris.

Note: Conduit with line-in voltage is required in two locations for the 16ft shelter – at the right rear vertical post and at the rear T vertical post. Each 8ft bay is independently wired.

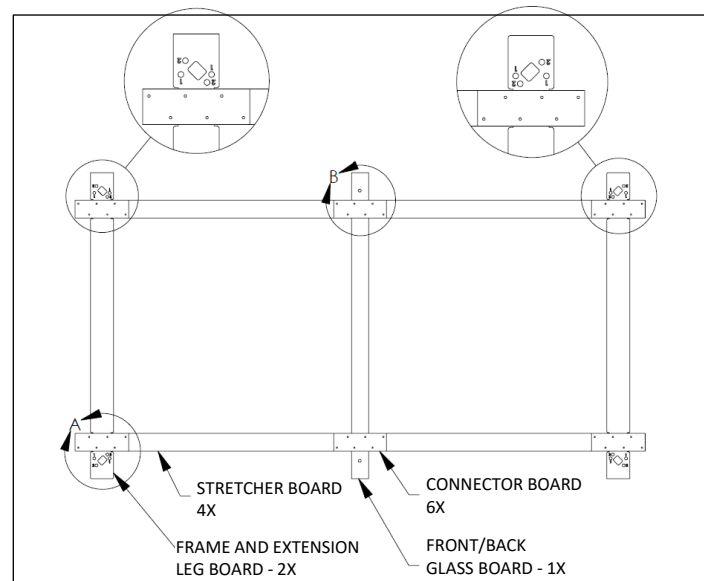


FIG A2 – TEMPLATE COMPONENTS

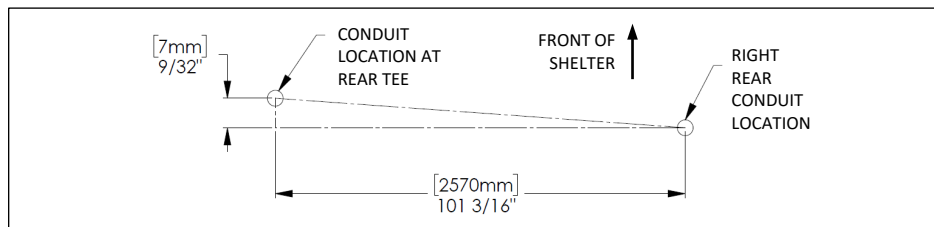


FIG. A1 – PLAN VIEW OF CONDUIT LOCATIONS

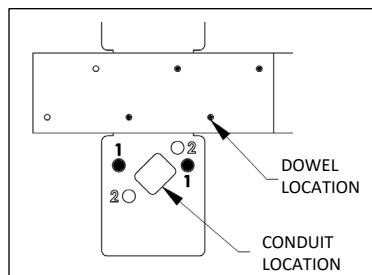


FIG. A – FRAME ANCHOR LOCATIONS

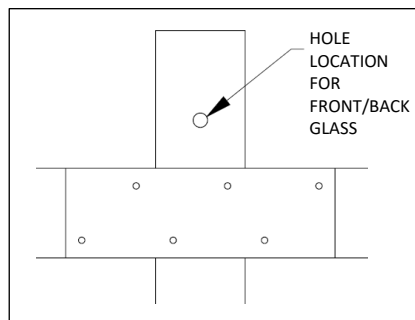


FIG. B – FRONT / BACK GLASS ANCHOR LOCATION

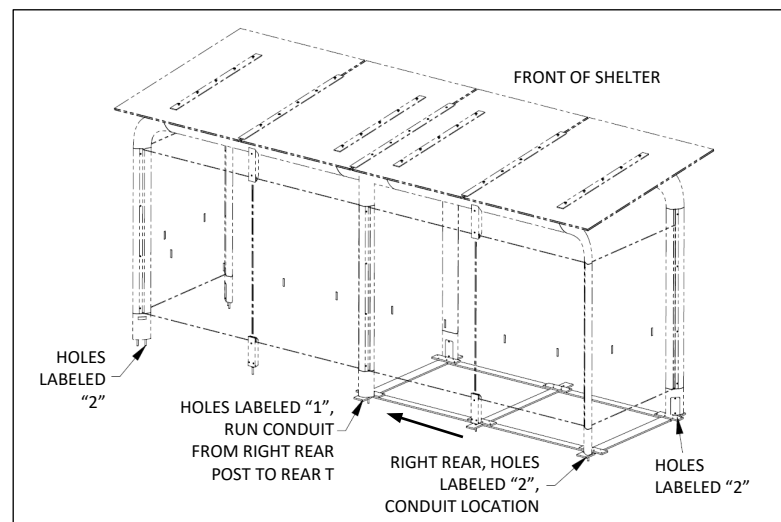
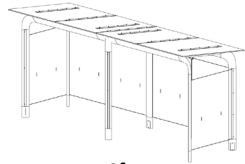
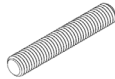


FIG. A3 – TEMPLATE LOCATION FOR 24FT SHELTER



16ft

Included hardware



18X – 1/2-13 x 8"
Threaded rod



36X – 1/2-13
hex nut



36X – 1/2"
washer

- (1) anchor template

Order of operations:

1. Anchor kit installation
2. Frame assembly
3. Wiring connections
4. Roof assembly
5. Wall glass assembly

Landscape Forms is not responsible for site preparation and footings. Minimum 6" thick 4000 psi concrete slab is recommended. Threaded anchors allow for 2-3/8" of adjustability for slope.

WARNING! SHELTER MUST BE SECURELY ANCHORED.

Tools Required

- Safety glasses
- Ø9/16" masonry drill bit and drill
- 3/4" wrench
- Epoxy anchoring system for concrete, adhesive anchor HIT-HY 200 or equivalent recommended.
- Wire brush and compressed air for clearing holes of debris

INSTALLATION:

1. Fill holes with epoxy according to adhesive manufacturer's recommendations.
2. Set anchor rods in place. Remove excess epoxy before it cures.
3. After epoxy has cured, install one hex nut and washer on each threaded rod.
4. Adjust level across all hex nuts.

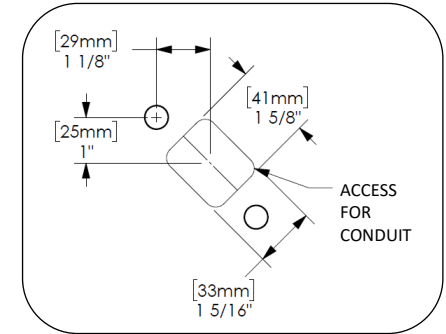


Fig. B1 – conduit access

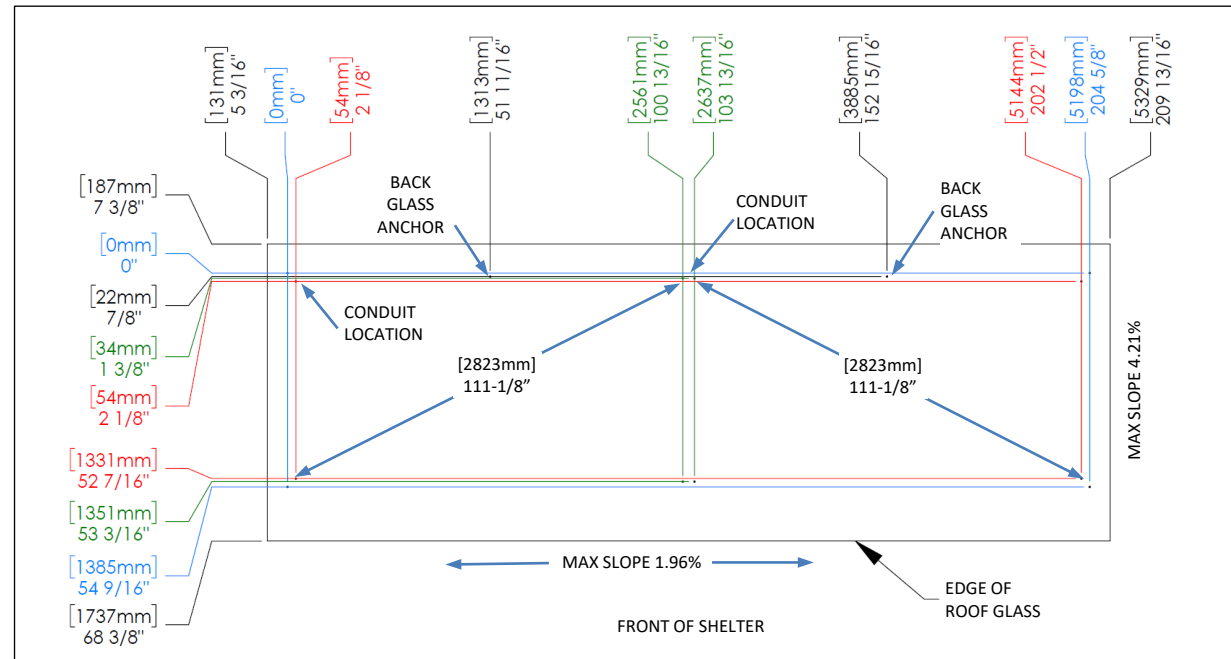
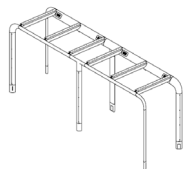


Fig. B2 – anchor locations for 16ft shelter



16ft

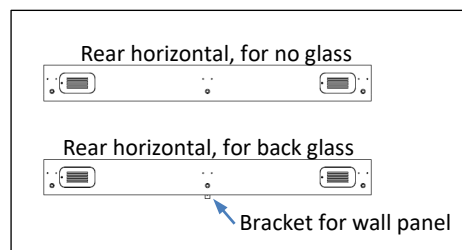
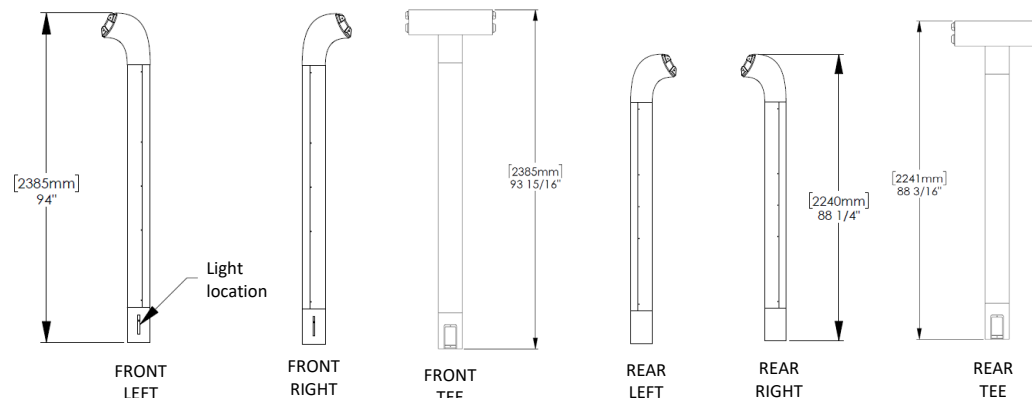
Order of operations:

1. Anchor kit installation
2. Frame assembly
3. Wiring connections
4. Roof assembly
5. Wall glass assembly

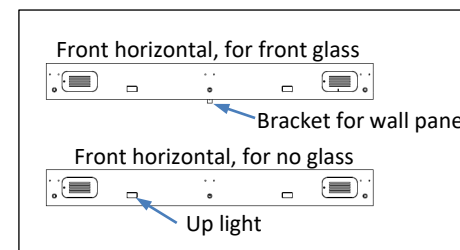
Tools Required

- Safety glasses
- protective padding
- 9/16" socket wrench
- 3/4" open end/12 pt box end wrenches
- 3/16" hex key
- 3/32" hex key
- 4ft level
- ladder
- proper personnel for lifting assembled frame components

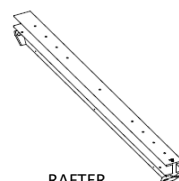
Included components:



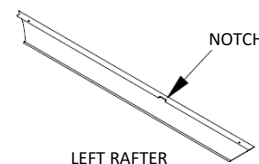
Rear horizontal, 16ft: 2 included



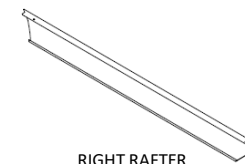
Front horizontal, 16ft: 2 included



RAFTER
- 6X



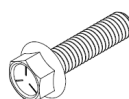
LEFT RAFTER
COVER
- 6X



RIGHT RAFTER
COVER
- 6X



FOOT COVER PLATE
- 6X



3/8-16 x 1-1/2"
FLANGED HD -
16X
(horizontals)



3/8-16 x 1" HEX HD
- 24X
(rafters)



3/8 WASHER
- 24X
(rafters)



1/4-20 x 3/4"
SHCS - 24X
(rafter covers)



1/4-20 x 1/2"
SHCS - 36X
(vertical fillers)



#8-32 x 5/16"
SBHCS - 36X
(rafter lights)

Landscape Forms is not responsible for site preparation and footings.

Minimum 6" thick 4000 psi concrete slab is recommended. Threaded anchors allow for 2-3/8" of adjustability for slope.

WARNING! SHELTER MUST BE SECURELY ANCHORED.

INSTALLATION: Note: front horizontal beam has uprights installed. Front verticals have pockets for LED lights near the base and are taller than the rear verticals. Shelters with back and/or front glass will have brackets welded to the horizontal beams.

1. Set front Tee vertical in position over anchors. Install washers and nuts, see Fig. C2. Do not overtighten. Access hole for cover plate should be facing toward the inside of the shelter.
2. On protective padding, set front vertical in approximate position. Place front horizontal in position. Remove access covers from horizontal beam.
3. Using flange head screws, attach horizontal beam to vertical. See Fig. C1. Do not overtighten.
4. Lift front frame assembly into position over anchors. Using flange head screws, attach to front Tee vertical.
5. Install washers and nuts, see Fig. C2. Do not overtighten.
6. Check level of vertical posts on front and side faces. Adjust leveling nuts as necessary.
7. Repeat for remaining front and rear verticals and horizontal assembly. Access hole for cover plate should be facing toward the inside of the shelter, see Fig. C3.
8. Install rafters using 3/8" washers and hex head screws, see Fig. C3. Front of rafter is indicated on part, see Fig. C3. Hand tighten.
9. Once all rafters are installed and unit is leveled and checked for square, see Fig. C4, fully tighten all hardware.
10. If shelter does not have any wall panels, the vertical filler strips should be installed. The front filler strips are taller than the rear strips. Install each one with (3) 1/4-20 x 1/2" socket head cap screws, see Fig. C3.
11. Rafter covers and foot cover plates will be installed after wiring connections have been completed.

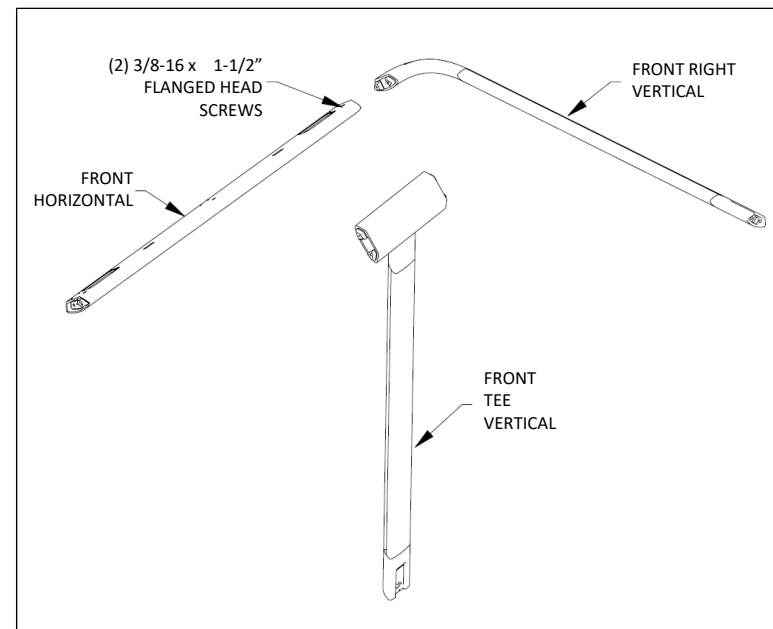


Fig. C1 – frame assembly, set first vertical

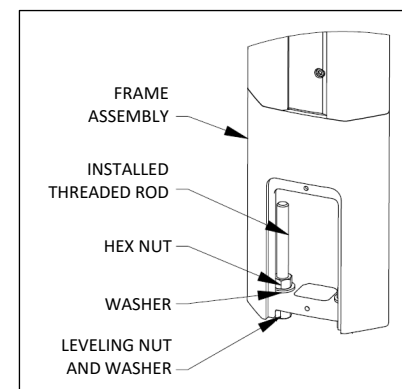


Fig. C2 – Install frame over anchors

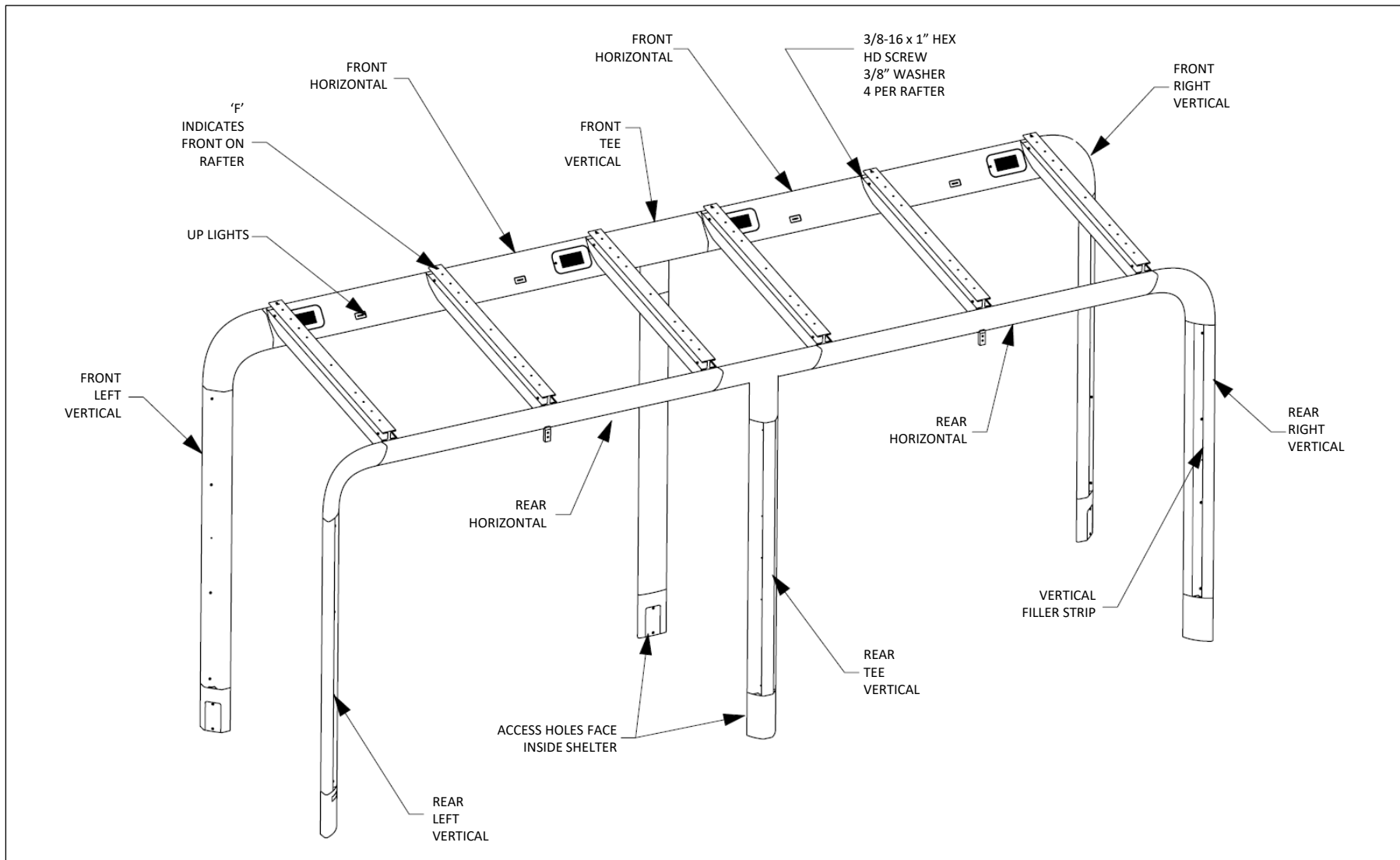


Fig. C3 – frame and rafter assembly

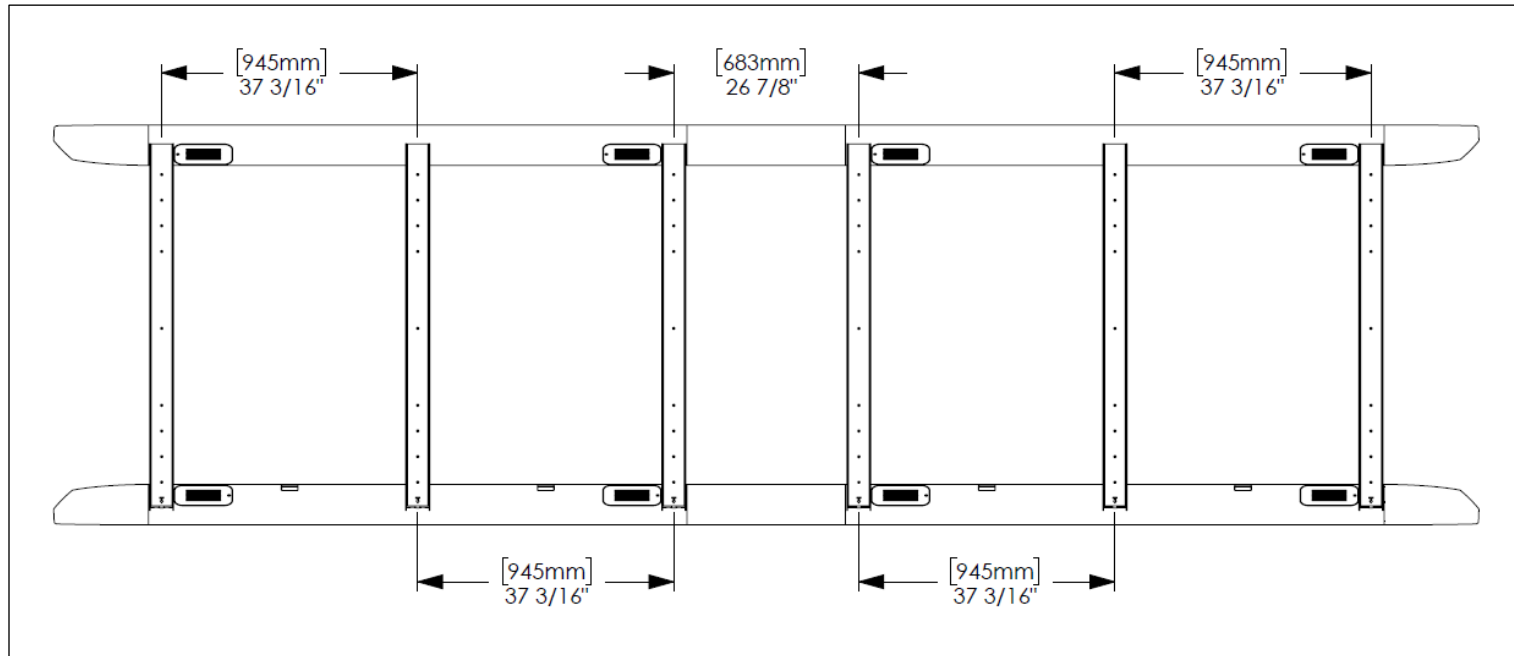


Fig. C4 – rafter spacing

Order of operations:

1. Anchor kit installation
2. Frame assembly
3. Wiring connections
4. Roof assembly
5. Wall glass assembly

Included components:

- Uplights, with wiring harnesses, pre-installed in front horizontal beam
- Down lights, with wiring harness and connectors, one per rafter
- Wayfinding lights, with wiring harness, two per unit
- SJOOW cord, black outer insulation, 16 gauge, 3 wire, 150in length – X2

WARNING!: LED cartridge and driver are not rated for connection or disconnection while energized. Doing so may damage LEDs and will void the warranty. Disconnect incoming power before making or breaking any electrical connections.

Tools Required

- wiring tools
- 3/32" hex key
- 3/16" hex key
- 5/16" Socket wrench
- Flat head screwdriver or 1/4" socket wrench

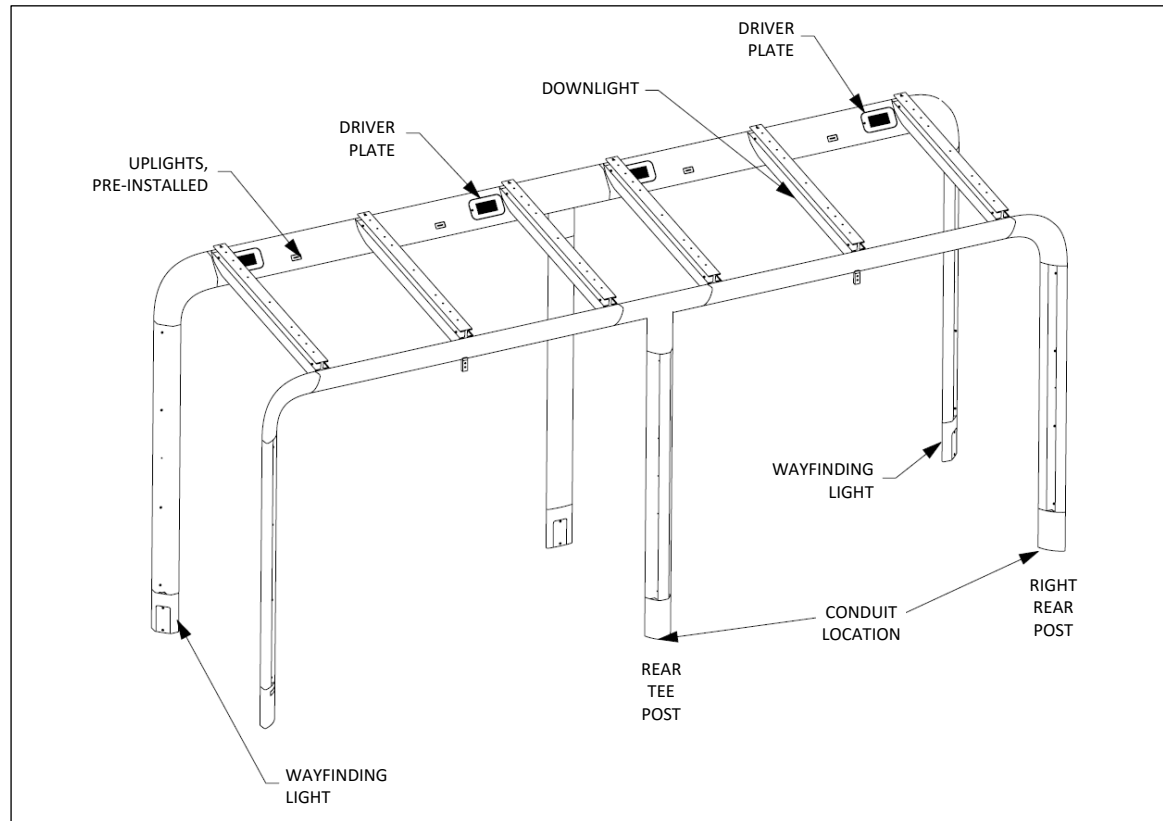


Fig. D1 – lighting component locations

INSTALLATION:

1. Run 3-wire 16 gauge cord from rear right upper corner, through grommet and into access hole, down the right vertical post to line-in voltage wiring. Do not connect to line-in voltage. See Figs. D2 and D3.
2. First rafter downlight: make connection at front horizontal to quick disconnect. Run 16 gauge jacketed cord from rear right upper corner along bottom of rafter. Push cord through grommet, along with rafter light connection. See Fig. D4. Using a 3/32" hex key, attach downlight to rafter using (6) #8-32 x 5/16 socket button head cap screws, located in hardware pack #62599. Do not overtighten screws.
3. Install remaining rafter downlights: make connection to quick disconnects. Push connection through nearest grommet on front horizontal beam. Attach downlight to rafter, see Fig. D4.
4. Unused grommets on rear horizontal beam can be sealed with clear or black silicone (supplied by others).
5. Install left and right side rafter skins, with the sharper angle of the skin toward the front of the rafter. See Fig. D5. Rafter skins have a boss on the bottom flange that hooks into the downlight, see Fig. D5. Hook the bottom of the skin into position and then rotate the top of skin up to the rafter beam. Using a 3/16" hex key, install (2) 1/4-20 x 3/4" socket head cap screws, located in hardware pack #62599 at the top. Tighten until gap between light and rafter skin is gone and rafter skin does not rattle. Do not overtighten screws.
6. Wayfinding lights: Run wiring harness up through front vertical post. On the front left side of the unit, remove the access cover on the front horizontal beam. Make connection from the wiring harness to the quick disconnect located in the beam. Secure LED to front vertical post, using (4) 8-32 x 1/2" hex head machine screws with external tooth lock washer, located in hardware pack #62810, see Fig. D6. Before final tightening of screws, ensure only the lens from the light is showing through the front opening. Repeat for opposite side. Install cover plates, using (2) 1/4-20 x 1/2" socket head cap screws, located in hardware pack #62607, see Fig. D7.
7. Driver plate assembly: Attach driver plate to front horizontal beam, in the front right access location, see Fig. D8.
8. Make connections to PDM as labeled: Uplight, Wayfinding (x2), Downlight, see Figs D9 and D10. Make connections to terminal block from the 16 gauge jacketed cord. Attach grounding pigtail to front horizontal beam, see Fig. D8. Tighten cord grip. Replace access cover.
9. Connect 3-wire 16 gauge cord to line-in voltage wiring and install cover.
10. Repeat steps for 2nd bay of shelter, utilizing the rear tee post for line-in voltage wiring. Line-in voltage wiring will need to be connected to rear tee post through conduit, either from connections to the right rear incoming wiring or separate line-in wiring.

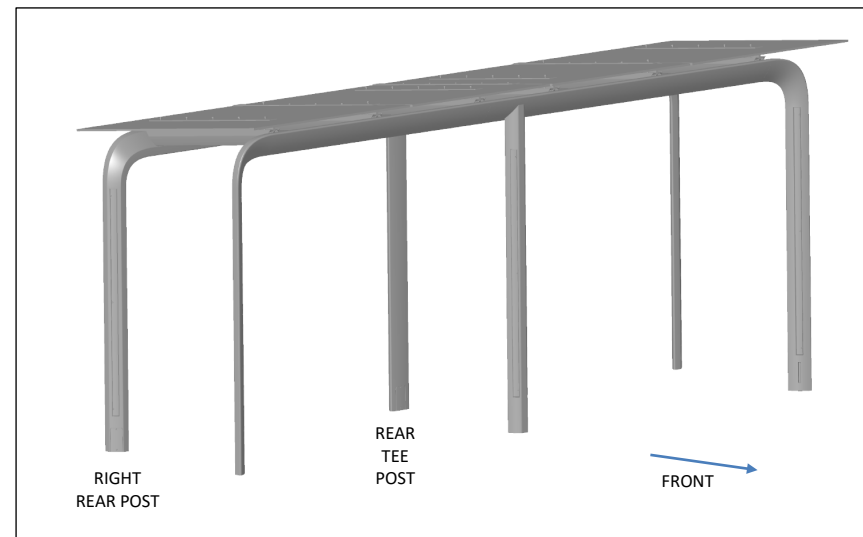


Fig. D2 – install 16 gauge jacketed cord

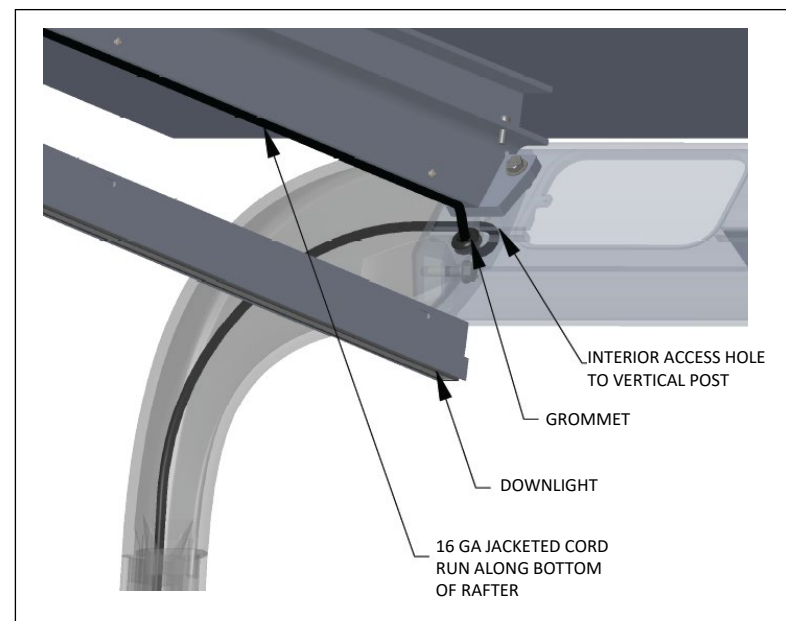


Fig. D3 – jacketed cord install detail, rear right post

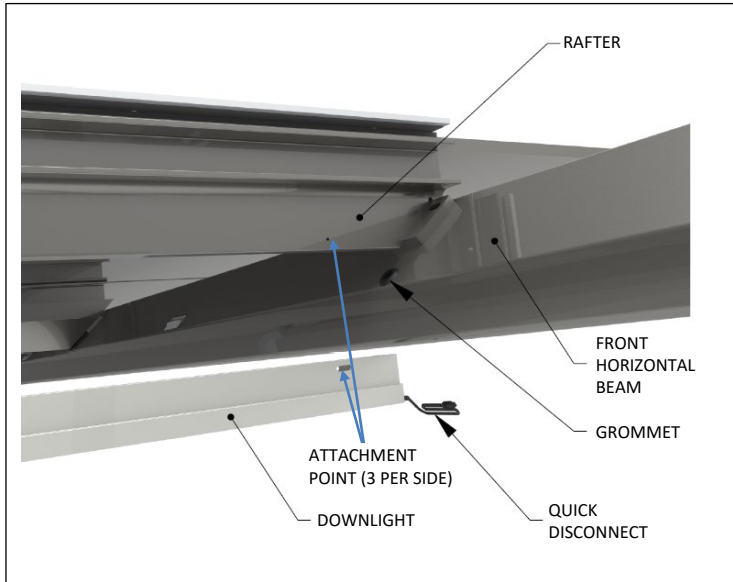


Fig. D4 – install rafter light

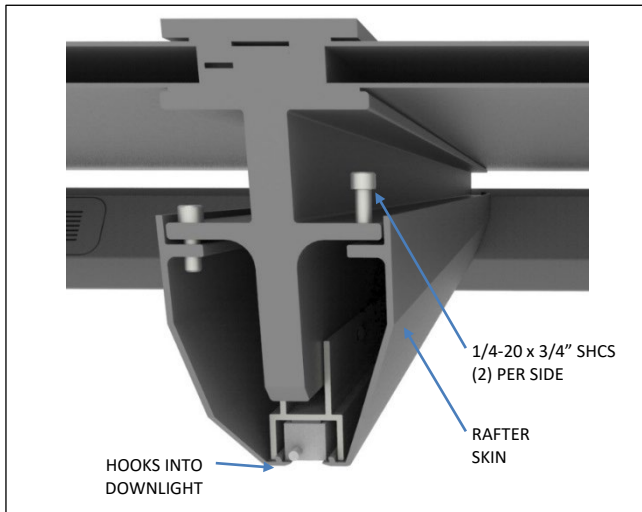


Fig. D5 – install rafter skins

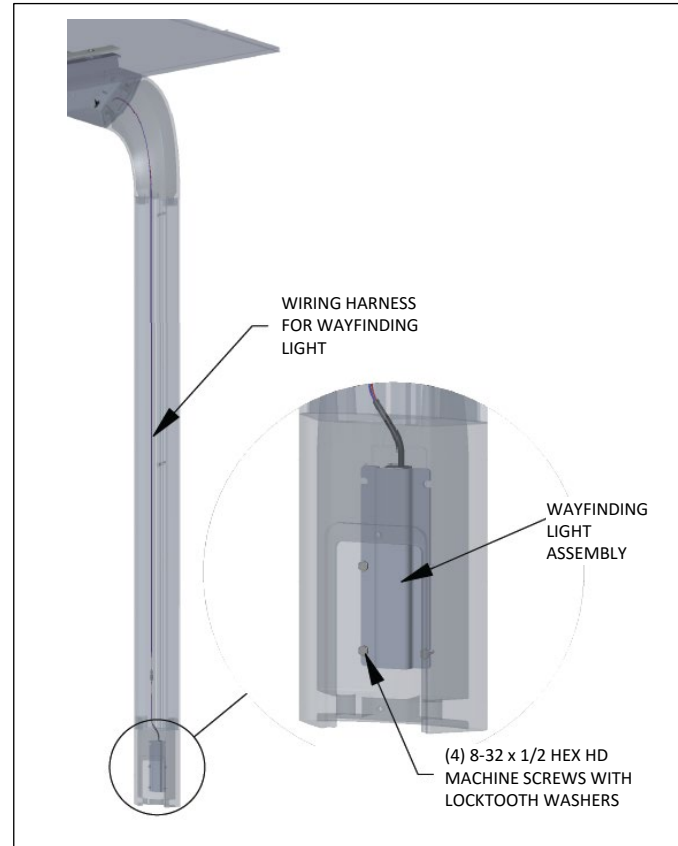


Fig. D6 – Install wayfinding lights

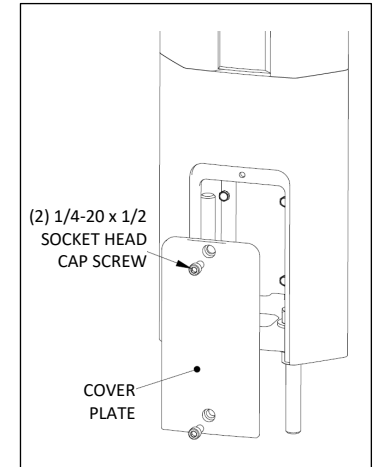


Fig. D7 – Install wayfinding light cover plate

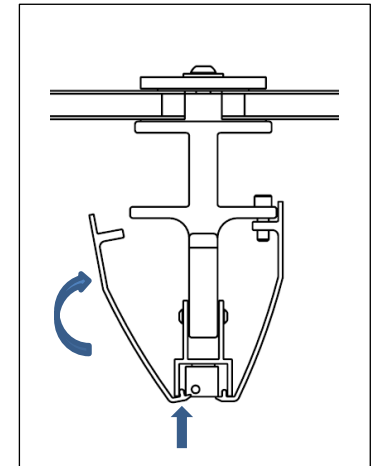


Fig. D5a – Install rafter skin

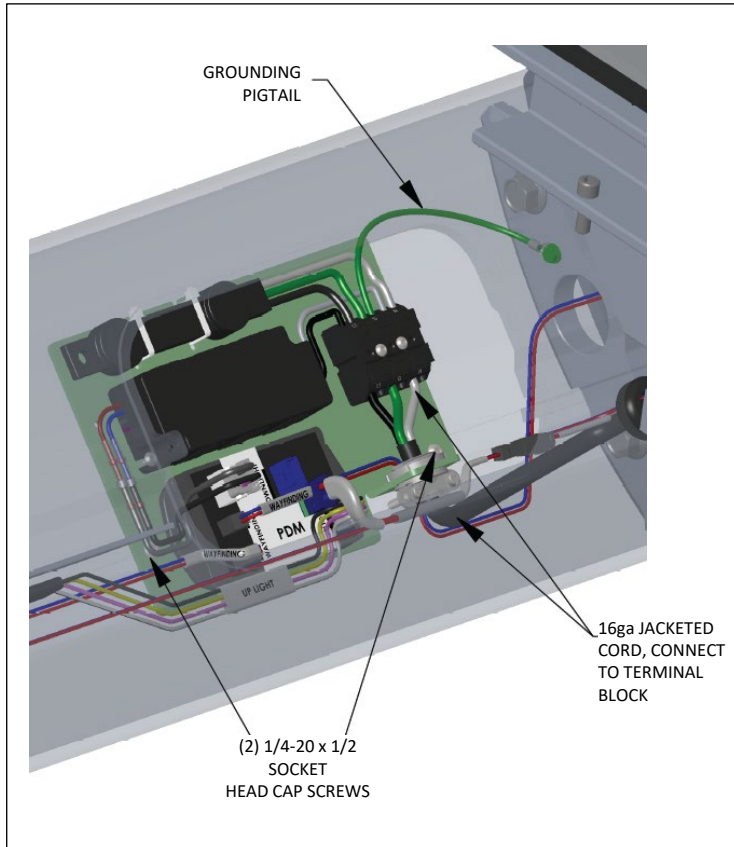


Fig. D8 – Install driver plate assembly, front right access hole

WARNING! LED cartridge and driver are not rated for connection or disconnection while energized. Doing so may damage LEDs and will void the warranty. Disconnect incoming power before making or breaking any electrical connections.

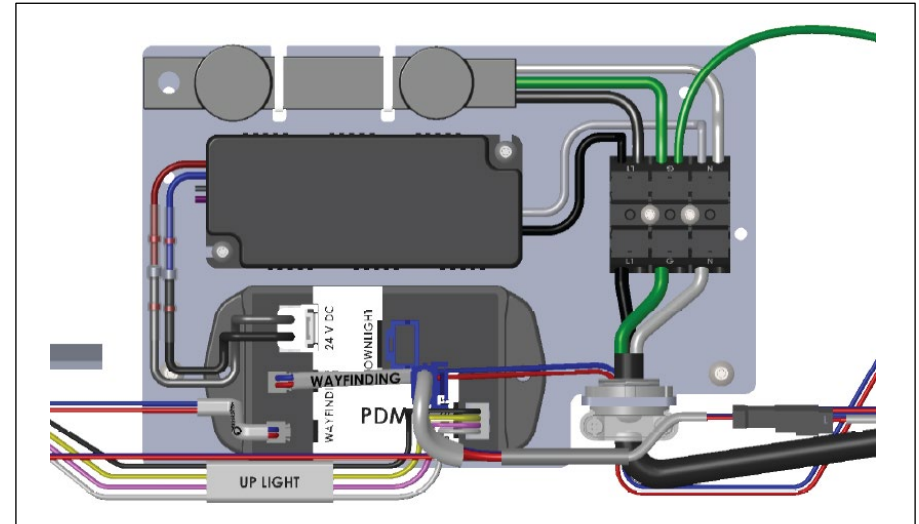


Fig. D9 – wiring connections

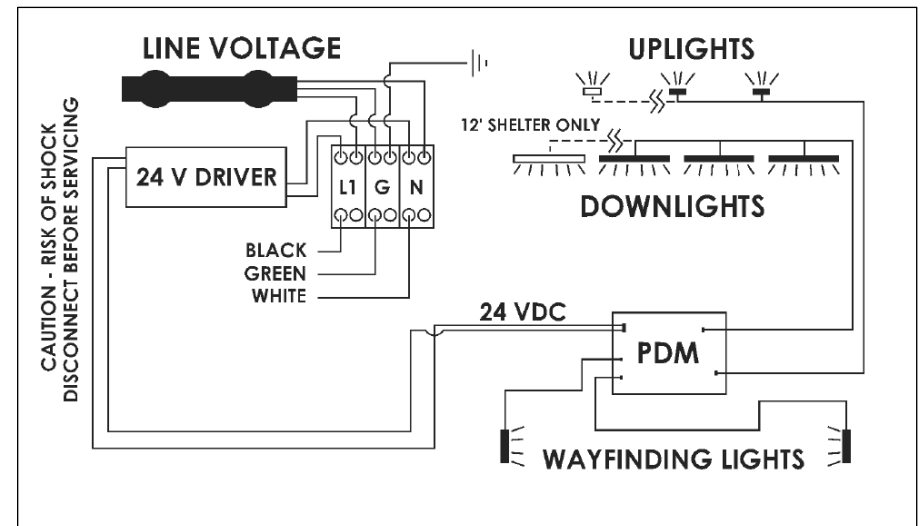
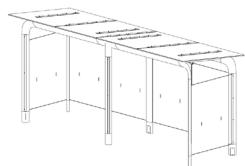


Fig. D10 – wiring diagram

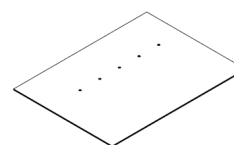


16ft

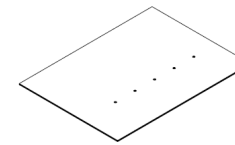
Order of operations:

1. Anchor kit installation
2. Frame assembly
3. Wiring connections
4. Roof assembly
5. Wall glass assembly

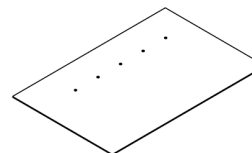
Included components:



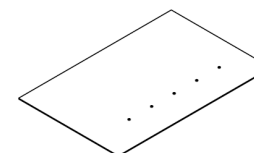
RIGHT END ROOF
PANEL – 1X
P/N 61950



LEFT END ROOF
PANEL – 1X
P/N 61951



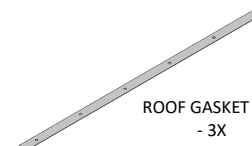
RIGHT
INTERMEDIATE
ROOF PANEL – 1X
P/N 65447



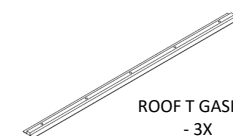
LEFT
INTERMEDIATE
ROOF PANEL – 1X
P/N 65446



ROOF GASKET
- 8X



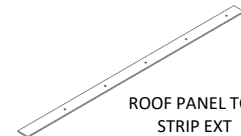
ROOF GASKET EXT
- 3X



ROOF T GASKET
- 3X



ROOF PANEL
TOP STRIP
- 4X



ROOF PANEL TOP
STRIP EXT
- 3X



5/16-18 x 2" BHCS
- 35X



5/16 WASHER
- 35X

Tools Required

- Safety glasses
- protective padding
- 3/16" hex driver with torque settings
- ladder
- proper personnel for lifting panels (215lbs)
- glass handling equipment
- soapy water

GLASS STORAGE & HANDLING! The glass will arrive to the job site on separate pallets from the metal components. Handling of the glass panels is potentially hazardous and proper procedures should be followed.

INSTALLATION: Note: Glass roof panels should be installed with the frosted side down.

1. Place gaskets on rafters. T-gaskets are installed in intermediate/center locations, See Fig. E1.
2. Lubricate gaskets with soapy water. Place roof panels in position. See Fig. E1 for orientation of panels.
3. Place gaskets on top of roof panels. See Fig. E1 for location of extended roof gaskets.
4. Place metal top strips in position on top of gaskets. See Fig. E1 for location of extended metal top strips.
5. Secure to rafters using washers and screws. Check alignment of front of roof panels, adjust accordingly. Hand-tighten all screws to max 50 in-lbs.

ASSEMBLE WITH CARE! Pangard II® Polyester Powdercoat is a strong, long-lasting finish. To protect this finish during assembly, place unwrapped powdercoated parts on packaging foam or other non-marring surface. Do not place or slide powdercoated parts on concrete or other hard or textured surface – this will damage the finish causing rust to occur. Use touch-up paint on any gouges in the finish caused by assembly tools.

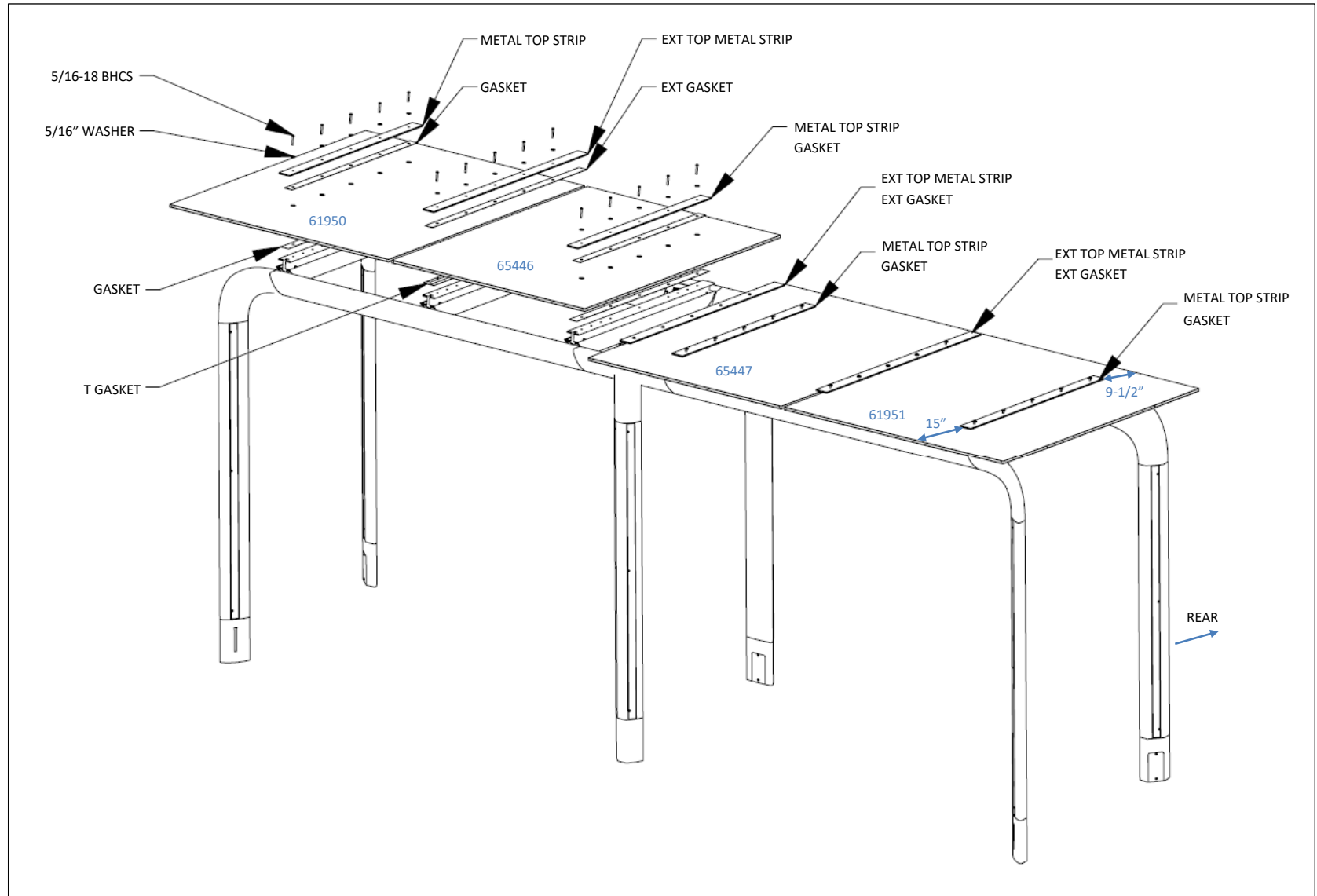
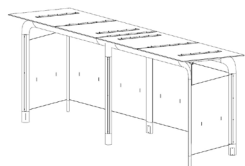


Fig. E1 – Glass roof installation



16ft

Order of operations:

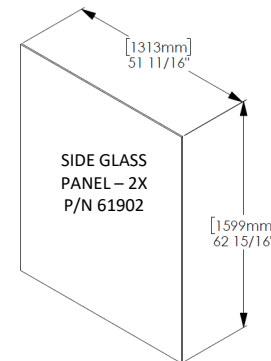
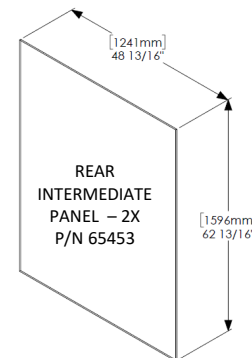
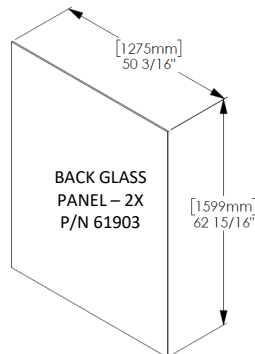
1. Anchor kit installation
2. Frame assembly
3. Wiring connections
4. Roof assembly
5. Wall glass assembly

Tools Required

- Safety glasses
- protective padding
- 3/16" hex driver with torque settings
- 3/4" open end wrenches (2)
- ladder
- proper personnel for lifting panels (110lbs)
- glass handling equipment
- soapy water
- structural grout
- small trowel

GLASS STORAGE & HANDLING! The glass will arrive to the job site on separate pallets from the metal components. Handling of the glass panels is potentially hazardous and proper procedures should be followed. The crate for the glass panels should be slightly elevated on the front side to prevent the glass panels from falling forward when the front is removed from the crate.

ASSEMBLE WITH CARE! Pangard II® Polyester Powdercoat is a strong, long-lasting finish. To protect this finish during assembly, place unwrapped powdercoated parts on packaging foam or other non-marring surface. Do not place or slide powdercoated parts on concrete or other hard or textured surface – this will damage the finish causing rust to occur. Use touch-up paint on any gouges in the finish caused by assembly tools.



VERTICAL FILLER
(FOR UNITS W/ SIDE/BACK GLASS): FRONT – 69-1/16" L – 4X

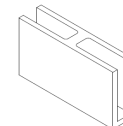
(FOR UNITS W/ NO GLASS):
FRONT – 69-1/16" L – 6X
BACK – 63-3/8" L – 6X



GLASS RETAINER
FRONT – 69-1/16" L – 2X
BACK – 63-3/8" L – 6X



5/16-18 x 3/4" BHCS - 12X
IN HDWE PKS
62597/65632



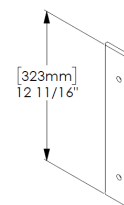
GLASS SPACER GASKET
H-PROFILE – 4X



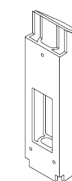
1/4-20 x 3/4" SHCS - 62X
IN HDWE PKS
62597/65632



LOWER POST
COVER PLATE
- 2X



UPPER POST
COVER PLATE
- 2X



LOWER POST
- 2X



UPPER REAR
POST - 2X

Included components:

- gasket pack #62598 and #65634 includes:
 - (6) #63061 rear vertical gasket pack. Each pack contains:
 - (1) 1" wide x 62-15/16" long glazing tape, one-sided adhesive backing
 - (2) 3/8" wide x 62-15/16" long glazing tape, one-sided adhesive backing
 - (1) 3/8" wide x 1-1/4" long angled end cut glazing tape, one-sided adhesive backing
 - (3) #63062 front vertical gasket pack. Each pack contains:
 - (1) 1" wide x 68-5/8" long glazing tape, one-sided adhesive backing
 - (2) 3/8" wide x 68-5/8" long glazing tape, one-sided adhesive backing
 - (1) 3/8" wide x 1-1/4" long angled end cut glazing tape, one-sided adhesive backing
- glass safety decals

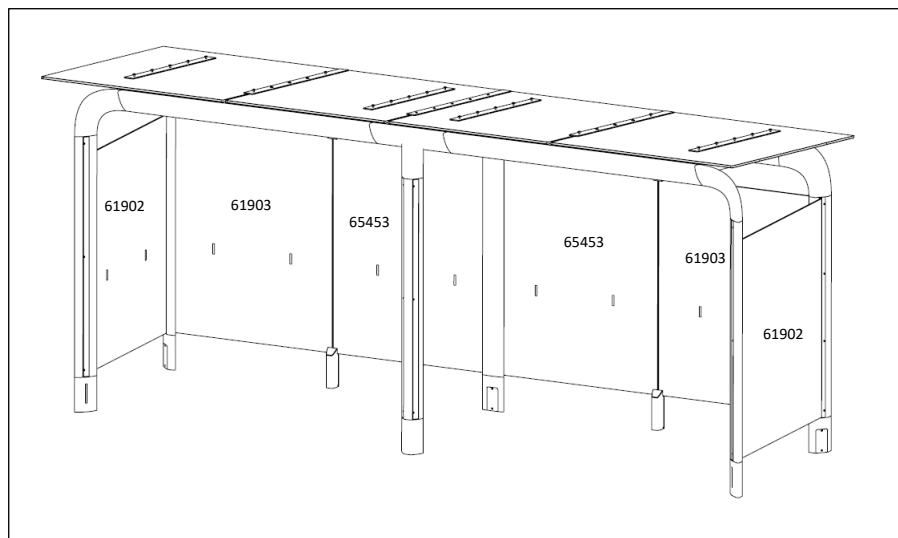


Fig. F1 – glass wall panel locations

INSTALLATION:

Note: 1/2-13 threaded rods for back posts should have been installed at the same time as the frame anchors. The safety etching on each glass panel should be installed at the bottom.

1. Set lower posts in position – note orientation of access hole. See Figs. F2 and F3. Secure with 1/2-13 nut and washer, included in hardware pack #62600. Do not fully tighten.
2. Attach upper posts to horizontal beams and check for level – note orientation, see Figs. F3 and F4. Securely tighten.
3. Install gaskets in verticals at locations that require glass panels. See Fig. F5 for orientation of gaskets. Remove paper backing to expose adhesive before attaching to vertical.
4. Install spacer gaskets in lower posts, see Fig. F6 for orientation.
5. Attach gasket to glass retainer bar as shown in Fig. F7.
6. Lift glass panel into position. For side glass, slide panel in from one side, move into position on the opposite side, then slide panel over to center it on the verticals. See Fig. F8.
7. Attach glass retainer bar to the vertical beam, using 1/4-20 x 3/4" socket head cap screws. See Fig. F9. Do not fully tighten.
8. For back glass, place spacer gasket in position at top of glass before lifting panel into position. See Fig. F10.
9. Install post cover plates, see Fig. F11. Do not fully tighten.
10. Once all wall panels have been installed, check for even gaps in back glass and alignment of top of wall panels. Adjust lower posts as necessary to level. Hand-tighten all screws that are used to secure glass panels to max 50 in-lbs. Fully tighten remaining hardware.
11. Clean areas on glass panels to receive glass safety decals and apply. See Fig. F12 for recommended locations.
12. Install vertical fillers in remaining locations that did not receive glass panels.
13. Apply structural grout according to manufacturer's recommendations under lower glass post locations.

ASSEMBLE WITH CARE! Pangard II® Polyester Powdercoat is a strong, long-lasting finish. To protect this finish during assembly, place unwrapped powdercoated parts on packaging foam or other non-marring surface. Do not place or slide powdercoated parts on concrete or other hard or textured surface – this will damage the finish causing rust to occur. Use touch-up paint on any gouges in the finish caused by assembly tools.

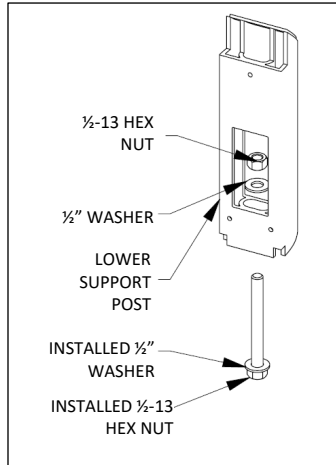


Fig. F2 – lower post install

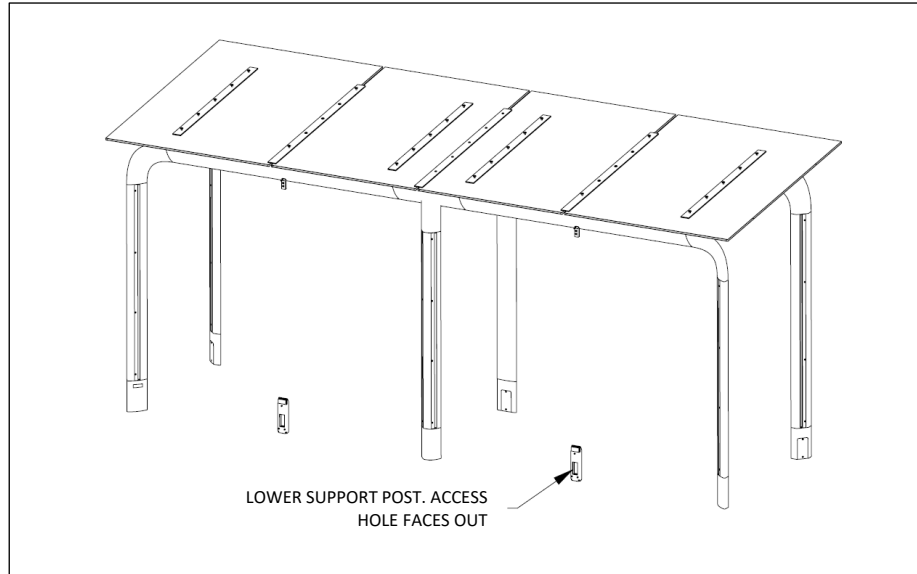


Fig. F3 – lower posts for glass walls

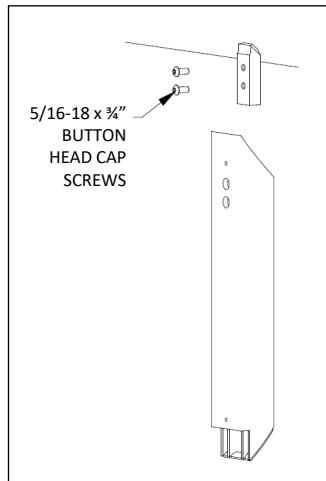


Fig. F4 – upper glass post

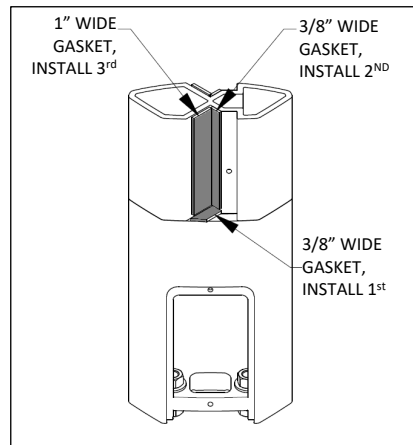


Fig. F5 – Gasket install on verticals

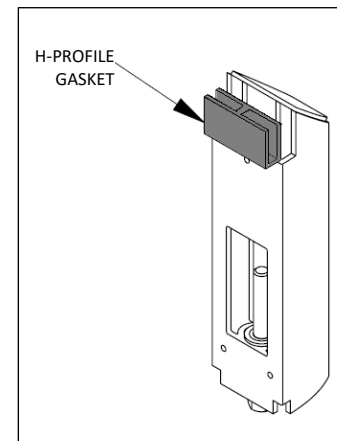


Fig. F6 – Rear glass spacer gasket

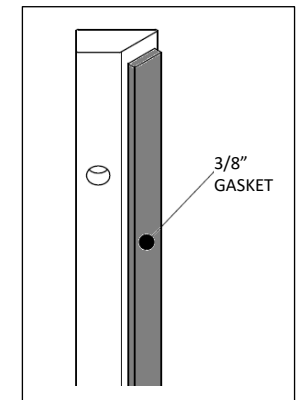


Fig. F8 – Gasket install on glass retainer



Fig. F9 – Side glass panel install (shown on 8ft shelter)

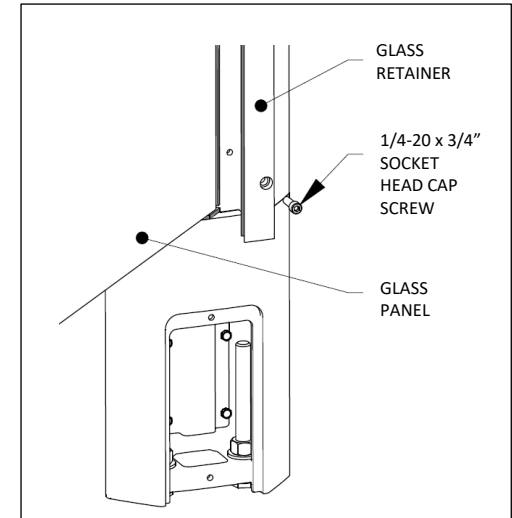


Fig. F10 – Glass retainer strip install

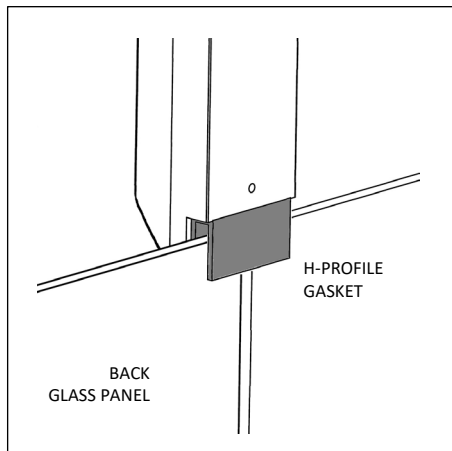


Fig. F10 – Top spacer gasket install

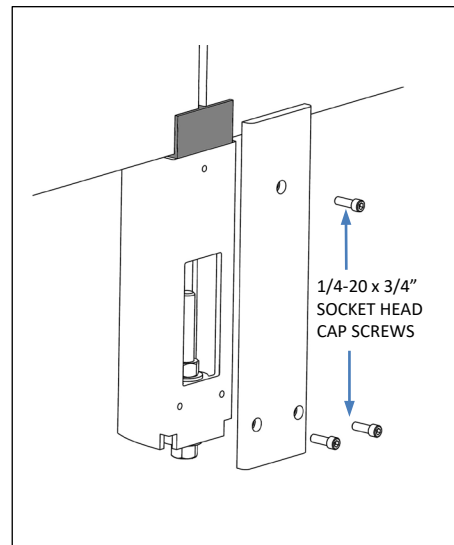


Fig. F11 – Install post cover plates

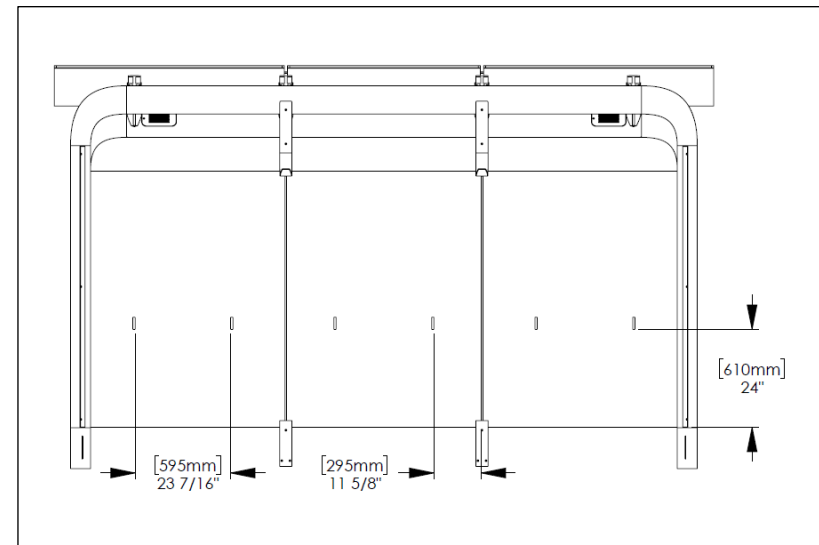


Fig. F12 – Install glass safety decals