

Installation Instructions

Order # Master



1 General

The installation package will contain a plan view showing the layout of the panels. The edge of each panel will be labeled with a number that corresponds with the plan view. Floor panels will begin with an F, wall panels will be labeled W, and ceiling panels will be labeled C. The arrow on the wall panels points down. Note that the cam lock holes are on the inside. A cam lock wrench is included in the installation package.

2 Install Base C-channel

Place the 2" X 4" C-channel around the planned perimeter of the building. Note - it is important that the C-channel is laid out squarely, and within the measurements shown on plan view drawings. Apply a generous bead of urethane caulking to the underside of C-channel before anchoring. Using the provided 4" masonry anchor bolts, anchor the C-channel using the pre-drilled holes in channel as a spacing guide.

2 Assemble Frame

The frame is a two piece bolt together design. Position it as desired, and bolt it together. Attach the lifting eyes (if desired) using the bolts provided (the nuts for the lifting eyes are welded to the inside of the frame. Sheet A.2 of the engineered drawing shows detail on how to attach the frame to the ground (as well as attach the floor to the frame).

3 Install Floor Panels

Lay out the floor panels as shown on plan view drawing. Panels are constructed with tongue and groove edges and are fastened together by inserting the cam wrench in the cam lock hole and turning clockwise to the stop. DO NOT TORQUE! Make sure the edges are evenly aligned and the floor is centered on the prepared surface.

4 Fasten Floor to Prepared Concrete Surface

Starting at one corner of the floor, drill out a 3/4" plug of foam in the outer edge of the female route and drill a 3/8" hole with a masonry bit, down through the plywood and 4" into the concrete. Insert 3/8" x 4" expansion bolt. Tighten. Repeat this procedure at 24" on center around the perimeter.

4 Fasten Floor to Prepared Steel Surface

Starting at one corner of the floor, drill out a 1" plug of foam in the outer edge of the female route and drill a 7/16" hole down through the plywood and steel surface. Insert 3/8" x 2 1/2" hex head bolt with flat washer through the drilled hole and install lock washer and nut from the underneath side. Tighten. Repeat this procedure at 24" on center around the perimeter.

Base C-Channel Hardware Kit

Qty 34 bolt - sleeve anchor 3/8" X 4"

Qty 140 #12 X 2 self drilling screws

Qty tube caulk

Floor to Concrete Anchoring Kit

Qty _____ 3/8" x 4" expansion bolt

Floor to Frame Anchoring Kit

Qty _____ 3/8" x 2 1/2" hex head bolt

Qty _____ flat washer

Qty _____ lock washer

Qty _____ nut

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Install Wall Panels

Place the W1 panel and the adjacent corner panel on the floor to form the corner and lock cam locks on the wall panels only – do not lock wall panels to floor panels until all walls are up. Install the remaining wall panels in sequence as per the labeled drawing, beginning with W2; however, the fourth corner should be the last panel installed. Note – it is important that the top edges of all wall panels are aligned evenly. Do not lock walls to floor panels yet.

Install Steel Support Members (Where applicable)

Install Ceiling Panels

Install ceiling panels according to layout drawing starting with C1. Make sure outside edges are flush and even. Lock into place.

Lock Wall Panels to Floor

Adjust the outside edges of the wall and floor panels, and then lock the panels together.

Install Cam Hole Plugs

The install pack includes a generous supply of plugs that are to be inserted in the cam holes

Install Cable Tray

Cable tray must be installed prior to rain roof installation. Determine location of cable tray and mark bolt locations for suspension kits on the ceiling panel. For every 10' length of cable tray, there will be 8 suspension assemblies. Drill a ½" hole through the ceiling panel at each mark and insert a ½" X 5" carriage bolt with a 5/8" flat washer from exterior of ceiling. Install ½" flat washer and coupling nut on the interior. Cut all thread to desired length and fasten to coupling nut. Install (1) bracket nut 2" from bottom of all thread to prevent bracket movement. Install brackets on cable tray in corresponding locations and slide assembly on to all thread. Secure with bracket washer & second nut. From the roof, apply silicone caulking around each carriage bolt.

Install Wind Shears or Anchor Straps to Steel Structure Applications

Attach 4" wind shears to the exterior of the building as per drawing. Place wind shear against building (wind shear is manufactured with 90° bend on top and should overlap 2" flat onto roof). Mark the location to attach the ¼" galvanized bent plate bracket to the base of the wind shear and mark the hole locations on the I-beam base. Pre-drill 5/16" holes at pre-punched locations along the wind shear, including the roof overlap. Remove the wind shear and drill marked 3/8" holes on the I-beam. Install the base bracket on the wind shear and attach wind shear to the wall using 3/8" x 1 ½" hex head thread cutting screws provided. Fasten bracket at base to I-beam using 3/8" X 1 ½" machine bolts provided.

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Install Rain Roof

Roll out the membrane onto the roof surface. Make sure the material is square with the building, with a minimum 6" overlap on all sides. Fold back membrane to expose the fastening flap along the underside of the intermediate seam. The size of the building will determine the number of seams. Fasten the flap to the roof using 2" steel plates and #2 X 1" round head screws, 12" on center. Stretch the roof smooth and flat to the next seam and repeat until all seams are securely fastened. Insert a round protective patch on each corner of the building, under the membrane. Install the smooth pre-painted 6" termination bar 1/4" below the roofline with the kick out edge on the bottom. Fasten with the #12 X 1 1/4" pre-painted self drilling hex head screws, in two rows staggered 12" on center. Note that excess membrane material at the corners should be folded over neatly. Once all termination bars are completed, install corner pieces and run a bead of caulk along the top of the termination bar. Using a suitable cutting tool, trim away any excess membrane that extends below the bottom edge of the termin

Install Floor Tile

Install the floor tile using the adhesive provided (1 gallon). When reaching the end of the shelter, some of the tiles will need to be trimmed. Measure the walls, and cut the cove base (4" gray) to the appropriate length. Apply the cove base adhesive (1 quart) to the back of the cove base, and press into place.

9 Install Loose-Shipped Door and Frame

The door provided will be a split jamb prehung door. Remove inside trim, and place door in opening provided. Use screws provided in door package to anchor the door in place while ensuring door reveal is square and plumb and the lockset properly (pre-mounted at factory) engages the factory-mounted latch in door frame. After ensuring door opens and closes properly, re-install inside trim. Screw the inside trim to the outside frame with the provided #10X1" self tapping screws. install drip edge and caulk the frame to building joint.

Install Air Conditioner(s)

Openings for air conditioning unit(s) have been pre-cut and trimmed. Drill a 3/4" hole in the panels at the desired location of power and thermostat connections to the air conditioner(s). Create the wiring conduit by inserting the nipples and securing in place with the bushings and locknuts provided. Mount air conditioner to existing openings and secure to wall with 5/16" x 1 1/2" lag bolts. Install drip cap above air conditioner with screws provided.

Rain Roof Kit

Qty 1 membrane
Qty 4 round protective patches
Qty (as needed) tube, caulk
Qty (as needed) 2" fastening steel plates
Qty (as needed) #2 x 1" round head screws
Qty (as needed) #12 x 1 1/4" pre-painted self drilling hex head screws
Qty (as needed) pre-painted 6" termination bar with kick out edge
Qty 4 pre-painted termination bar corner pieces

Door Hardware Kit

4070 Split-Jamb door and frame
Qty 1 drip cap

Air Conditioner Hardware Kit

Included for each air conditioner, for mounting:
Qty 16 bolt - lag 5/16" x 1 1/2"
Qty 16 washer 5/16" flat
Included for each air conditioner, for wiring conduit:
Qty 4 bushing 1/2" plastic
Qty 4 locknut 1/2"
Qty 2 nipple 1/2" x 5
Included for each air conditioner:
Qty 1 drip cap
Qty 5 #10 x 3/4" self drilling screws

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Touch Up

If any of the panels have been scratched during handling or assembly, use the touch up paint provided, as required.

Install Electrical Components

Install all ship loose electrical components in desired locations. Have licensed electrician provide and install all wiring, conduit, and miscellaneous connectors.