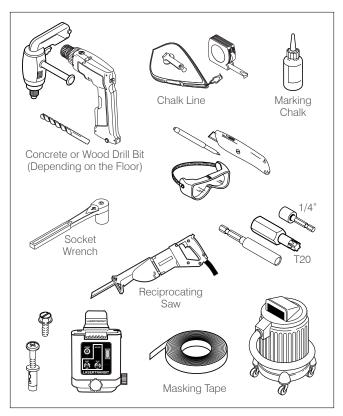
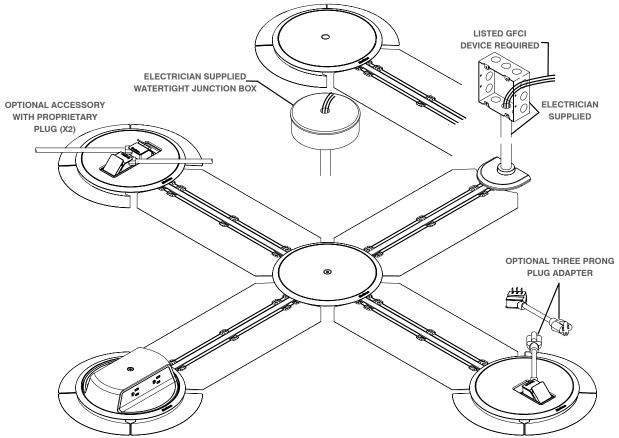




#### **CONTENTS**

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Connector Cover 19







# WARNING



#### **RISK OF FIRE OR ELECTRIC SHOCK**

READ ALL OF THESE ASSEMBLY DIRECTIONS BEFORE BEGINNING INSTALLATION.

THIS SYSTEM MUST BE INSTALLED BY QUALIFIED PERSONNEL IN ACCORDANCE WITH LOCAL CODES.



Before drilling holes to anchor Thread to building floor, verify floor does NOT contain hidden electrical wiring, structural cabling, radiant heat systems, or other obstructions. Consult with the building's architect or Engineer of Record to plan accordingly.

Only connect Single Circuit system to a dedicated 120-127 V~ 60Hz 20A (L+N+PE) single phase GFCI protected building power circuit (bare copper or green wire is ground, white wire is neutral, and black wire is hot).

The building electrical supply connection must be performed by a licensed electrician.

Only connect Two Circuit system to a dedicated 120-127 V~ 60Hz 20A (2W+N+PE) Two Pole single phase GFCI protected building power circuit (bare copper or green wire is ground, white wire is neutral, and black and red wires are hot).



- Inspect all parts of system before installation to ensure there is no damage to any of the parts. Do not use the Power Track Infeed or Power Track if they are damaged during handling or are damaged in the installed position. All damaged parts must be replaced before installation.
- Only install and use this system on sub-floors made of concrete or wood that are prepared as follows:
- Remove all high points or bumps taller than 1/8 inch in the sub-floor along the installation path.
  - Abrupt height changes greater than 1/8 inch must be filled in and gradually ramped over a distance of 12 inches.
  - Within 9 inches from the center of a connector, the sub floor must be flat within 1/16 inch. Holes equal to or greater than 1 inch across must be filled with floor patch and sanded down to the main floor surface.
  - Ensure all debris is removed from the installation path.
  - (For floor infeed) Flush mounted box must be within 1/16 inch of flush to adjacent floor.



- Only install and use this system indoors in dry locations.
- To prevent liquids from entering product, connect or cap each receptacle opening per these Assembly Directions.
- To prevent liquids from entering product, assemble the floor infeed per these Assembly Directions.

# WARNING

#### RISK OF FIRE OR ELECTRIC SHOCK



- Do not install this modular system across building floor expansion joints.
- Do not install this system on raised flooring.
- Do not install this system in an area where it will be subjected to constant or rolling loads heavier than people.
- Ensure that panel systems, wall systems (V.I.A. or Privacy Wall) or systems furniture is not installed on top of the Power Track Infeed, Power Track, or Connectors.
- All hinged cover doors must be free from obstructions and allowed to close fully after installation.
- Disconnect unit from power before assembly or disassembly.
- Do not modify parts. No user serviceable parts inside the system.

# CAUTION



# TRIP AND FALL HAZARD

- NEMA Monument height can cause tripping, do not install in circulation paths. Review layout with architect or designer to verify circulation paths.
- Carpet plus pad thickness must be between 0.225 and 0.450 inches to minimize risk of trip and fall especially at Blank, One Door, and Two Door Low Profile Connectors. Luxury vinyl tile must be between 0.100 and 0.250 inches and must use a 6mm inflexible
- Do NOT use finished flooring other than carpet squares, rolled carpet, luxury vinyl tile, or other conformable type flooring.

# **NOTICE**

- Not Approved for use in Hospital Patient Care Areas or other spaces where Hospital Grade receptacles are required.
- The Blank, One Door, and Two Door Low Profile Connectors can be located in circulation paths and meet accessibility requirements as long as the carpet plus pad thickness is between 0.225 and 0.450 inches or luxury vinyl tile flooring is between 0.100 and 0.250 inches plus underlayment.
- Do not exceed maximum 70 ft in overall length per circuit.



#### THREAD ASSEMBLY CHECKLIST

- Read and Understand Assembly Directions (Pay extra attention to Warnings, Cautions, and Notices).
- All disciplines have been contacted and have reviewed assembly directions (Electrician, Dealer/Installer, Carpet Installer, Dry Wall Repair/Paint (in-wall installation only).
- Pre-job Briefing Conducted by Person Responsible for Installation (Page 5).
- Before drilling, verify no hidden hazards in floor conflicting with layout of anchoring holes (Page 2).
- Verify the floor is flat according to Warnings section (Page 2).
- For in-wall installation only: Cut the wall floor plate and reattach adjacent floor plate sections to floor to allow the infeed to sit flat.
- Electrician to connect infeed to the appropriate junction box without making final building connection (Page 7-13). NOTE: The Thread power system must be on a GFCI protected circuit.
- Attach sections of track together, according to the designer layout, utilizing 2 screws to attach each track.
- Cover the remaining receptacles with fillers, according to the designer layout, utilizing 2 screws to attach each filler (NEMA filler must have provided dust cover or tape to cover receptacle).
- Anchor tracks and fillers to floor (vacuum all drilled locations prior to assembling concrete fasteners) (Page 17-19).
  - 1 screw per filler
  - 1 screw at each end of track
  - 1 screw at least every four feet along track
  - 3 screws for floor infeed cover, avoiding the junction box
- Assemble the ramps and fillers to the tracks (Page 19).
- Verify proper carpet/conformable floor covering thickness (Page 3).
- Cut holes in floor covering to provide access to connector and infeed locations.
- Roll carpet adhesive or carpet tape over raceway and ramps, avoiding the connectors.
- Place floor covering in final position.
- Remove provided dust cover or tape from covered NEMA receptacles.
- Assemble the connector covers.
- Ensure all required electrical inspections are completed.
- Electrician to turn on power to the Thread circuit.
- Connect all required Power Hubs, Adapters, and other attached electrical equipment.



#### **LAYOUT**

#### Step 1

The person in charge of the installation must conduct a pre-job briefing with the employees involved before they start each job, covering:

- Hazards associated with the job,
- Work procedures involved,
- Special precautions,
- Energy-source controls, and
- Personal protective equipment requirements (see OSHA 29 CFR 1926.952 and NFPA 70e for detail).

#### Step 2

Locate the design layout of the system to be built (See example to the below).

- The design layout should have the following elements identified at all places in the system:
- Raceway type (Power Track or Power Track Infeed)
- Power Track Infeed Position (Inside of wall, outside of wall
- Power Track length (2 feet, 3 feet, up to 12 feet)
- Type of connector (Blank, One Door, Two Door, NFMA Monument)
- Connector orientation, ie, Orientation of the Doors or NEMA Monument.

**NOTE:** Thread conductor sizing L+N+PE (12Awg) 2W(12Awg)+N(10Awg)+PE(12Awg)

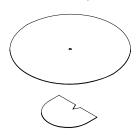
# Step 3

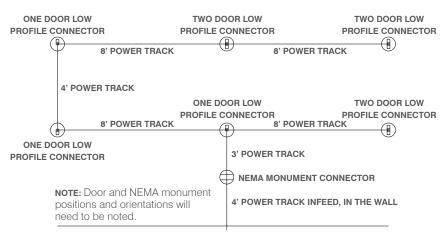
Limit length of Thread electrical run to 70 ft. max from building power connection to farthest user connection (NEMA Monument or Low Profile Connector) for proper function.

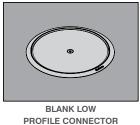
#### Step 4

Locate the provided items:

- Round Cardstock Template (Connector or Floor Infeed)
- Horseshoe Cardstock Template (Power Track Infeed - Outside of Wall)















NEMA MONUMENT CONNECTOR

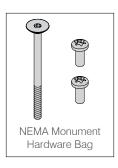


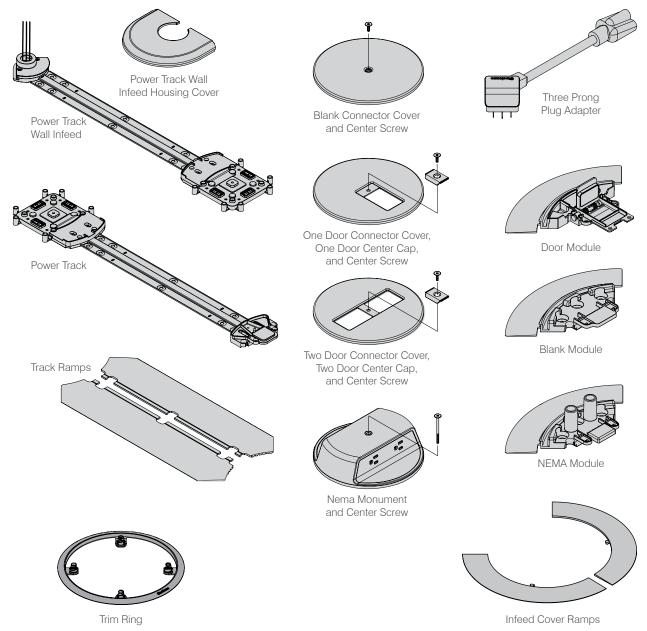
#### PART IDENTIFICATION











#### POWER TRACK INFEED INSTALLATION

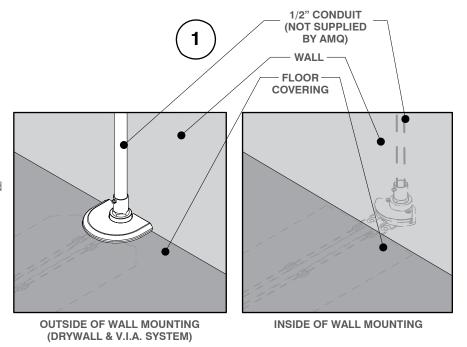
## Step 1

Determine if the power track infeed housing will be placed outside of the wall, inside of the wall, or in the floor above a flush mounted junction box.

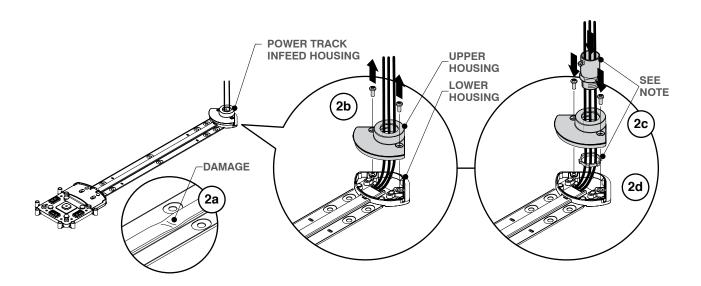
# (FOR INSIDE WALL OR OUTSIDE WALL MOUNTING)

#### Step 2

Inspect the power track infeed housing for damage. If it is damaged, the power track infeed must be replaced (2a). The electrician removes the two (2) T20 torx drive screws holding the upper housing to the lower housing (2b). Select a standard fitting (not supplied by AMQ) that best suits how the incoming power is fed into the system (2c).



**NOTE:** For this example, a standard conduit fitting has been installed in the upper housing hole. The nut that comes with the conduit fitting is tightened to secure it to the upper housing. Reinstall the upper housing to the lower housing with the two (2) T20 torx drive screws that were removed in step 2b (2d).





#### POWER TRACK INFEED INSTALLATION

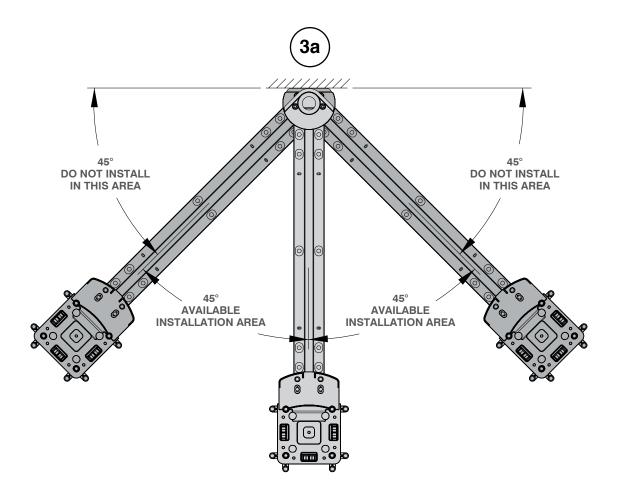
# **Step 3A (For Outside Wall Mounting)**

The infeed housing must be placed adjacent to the wall and can be oriented up to 45 degrees in either direction (as shown).

**NOTE:** At this point, the electrician should have the ability to install the building power without making the final connection.

# This circuit must be protected by a listed 120 V∼ 20A GFCI device.

- L+N+PE 1 Pole GFCI
- 2W+N+PE 2 Pole GFCI





#### POWER TRACK INFEED INSTALLATION

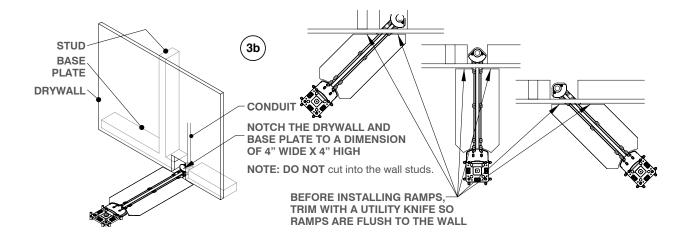
# **Step 3B (For Inside Wall Mounting)**

- 1. Locate studs in wall and plan power track infeed housing to be located between studs.
- 2. Remove base trim to expose wall where power track infeed will enter the wall. Cut hole in the wall large enough so that housing and infeed wire can be placed inside the wall. This may include locally removing steel or wood bottom plate.
- 3. The electrician must now locate the most convenient junction box or install a new junction box. Connect the power track infeed to this junction box.

**NOTE:** This circuit must be protected by a listed 120 V~, 20A GFCI device.

- L+N+PE 1 Pole GFCI
- 2W+N+PE 2 Pole GFCI
- 4. At this point, the electrician should have the ability to install the building power to the junction box without making the final connection to the power track infeed.
- 5. All debris must be removed from inside the wall and on the floor to ensure the power track infeed rests flat on the sub-floor.
- 6. Position the power track infeed housing inside the wall in its approximate final location. Verify that one of the four anchor holes on each end of the track is accessible during installation of anchor screws.

**NOTE:** A portion of each ramp will need to be removed when choosing an inside wall mount. This can be accomplished by marking a line where the ramp ends at the wall and cutting with a utility knife.





#### **POWER TRACK INSTALLATION**

# Step 4

Inspect the power track for damage. If it is damaged, the power track must be replaced (4a).

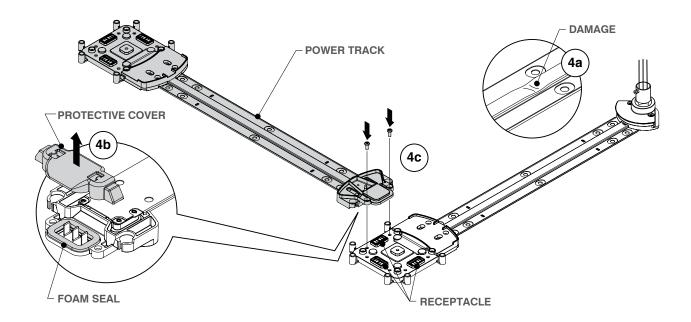
Do not remove protective cover until you are ready to make the connection. After removing the protective cover, make sure the foam seal and terminals are in place and not damaged (4b).

Install the two (2) M4 screws with a T20 torx bit to 7-10 in-lbs torque (4c).

**NOTE:** The power track can be installed in any of the three (3) available receptacles.

**NOTE:** Do not anchor tracks to the floor until the entire layout has been placed on the floor, all door modules installed, all fillers attached and open receptacles for the NEMA monument have been taped off.

TIP: Use chalk line or laser to establish squareness to a wall and layout of the entire system.





#### **DOOR INSTALLATION**

# **Step 5 (Single Door Module)**

Make sure the foam seal is in place and not damaged (5a). Install the two (2) M4 screws with a T20 torx bit to 7-10 in-lbs torque (5b). NOTE: The single door module can be installed in any of the three (3) available receptacles. 5a FOAM SEAL

## **Step 6 (Double Door Module)**

Make sure the foam seals are in place and not damaged (6a). Install the four (4) M4 screws with a T20 torx bit to 7-10 in-lbs torque (6b). **NOTE:** The double door module must be installed directly across from each other. The doors cannot be installed 90 degrees to each other. 6a



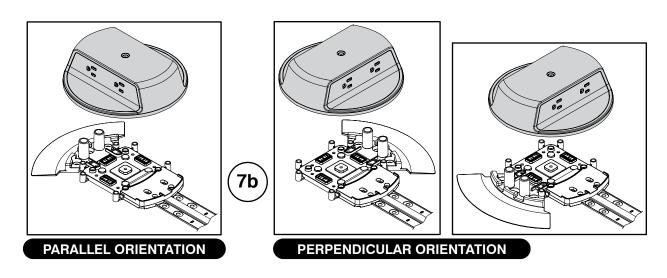
#### **NEMA MONUMENT INSTALLATION**

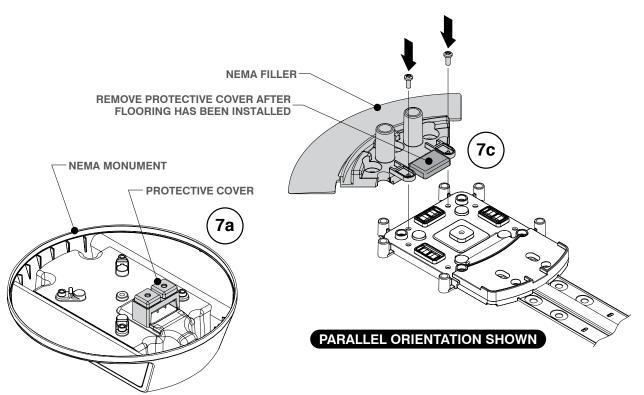
## Step 7

At this point, DO NOT remove the protective cover from the NEMA Monument (7a). Determine the desired orientation of the NEMA Monument (7b). The NEMA filler determines the orientation of the NEMA Monument. Install the NEMA filler with two (2) M4 screws with a T20 torx bit to 7-10 in-lbs torque (7c).

**NOTE:** The NEMA Monument is not installed at this point.

**NOTE**: Remove protective cover after flooring has been installed.



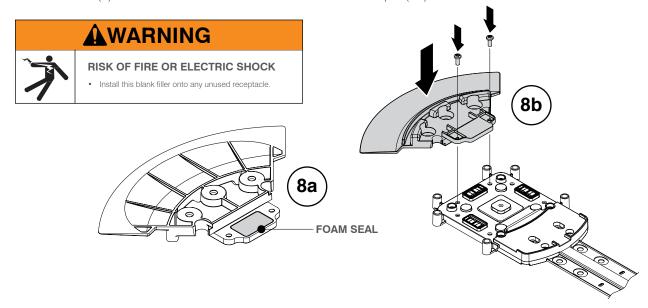


#### **BLANK FILLER INSTALLATION**

# Step 8

Make sure the foam seal is in place and not damaged (8a).

Install the two (2) M4 screws with a T20 torx bit to 7-10 in-lbs torque (8b).





#### SYSTEM INSTALLATION

#### Step 9

At this point, the system should have all the power tracks, door fillers, NEMA fillers and blank fillers installed.



For receptacles that have a NEMA filler and are missing the protective cover, place a piece of masking tape over the receptacle if the dust cover is missing to keep dust out of the connector during the floor anchoring process.

The next step is to anchor the system to the sub-floor. See page 20 for hardware recommendations for mounting to concrete and wood sub-floors.

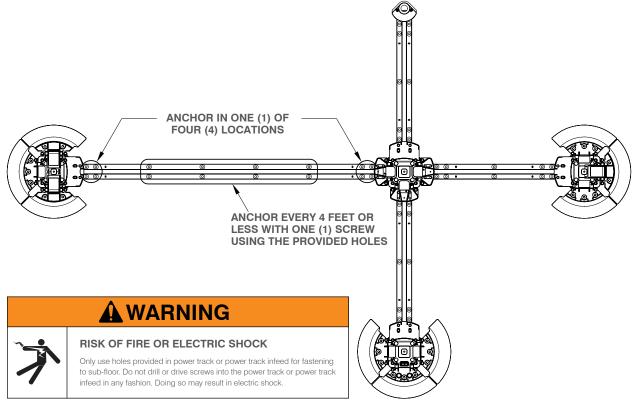
#### **Power Track and Power Track Infeed Anchor Points**

Install one (1) screw on each end of the power track or power track infeed. Install a screw every 4 feet or less.

**NOTE:** Extra screw holes are provided in case a rock exists in the concrete sub-floors and the installer is unable to use a hole. Not all screw holes are required to be fastened.

Ensure the power track or power track infeed is not strained prior to drilling holes or driving screws for its attachment to the sub-floor.

Ensure that all concrete and wood dust is vacuumed prior to anchoring power tracks or power track infeeds to the floor and laying down carpet.

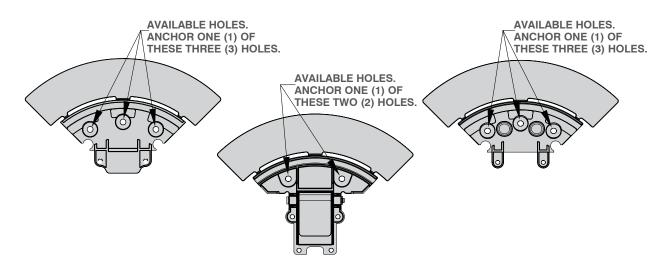


#### FILLER USAGE AND ANCHOR POINTS

# Step 9 (continued)

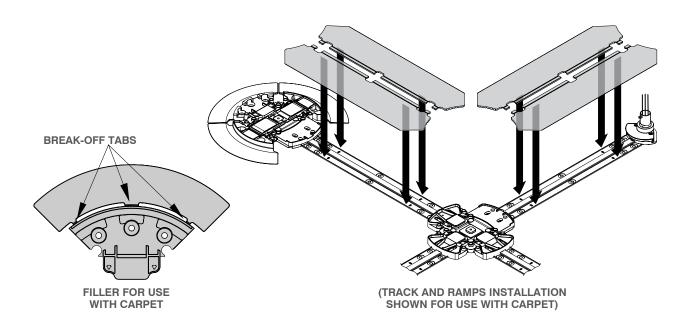
Each filler must be anchored to the sub-floor using one (1) of the available holes (shown) in each module.

All fillers have break-off tabs for removing the tapered ramps. Tapered ramps are used for carpeted installations. For conformable floor covering installations with underlayment, remove tapered ramps from module by cutting the break-off tabs, then discard the tapered ramps.



Step 10

Place the ramps onto the metal raceway if no underlayment is used.



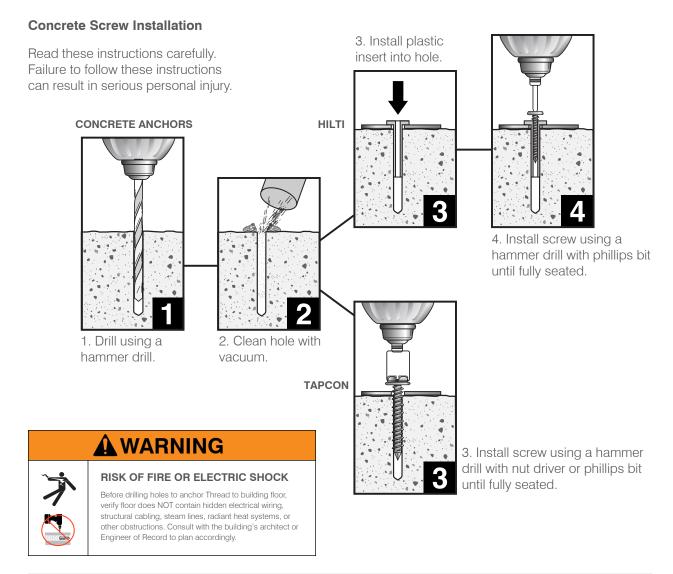


#### **ANCHORING TO SUB-FLOOR**

After building the designed layout, anchor the system to the sub-floor with the appropriate hardware.

#### Recommended Items:

- Concrete screws for concrete sub-floor.
- #10 X 3/4" wood screws for wood sub-floor. (Head height must be less than 0.149")



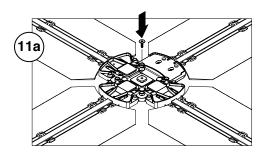
Part #	Description	Screw Diameter	Drill Bit	Min. Screw Embedment	Drive	Recommended Hole Depth
	Tapcon	3/16"	5/32"	1"	1/4" Hex	1-1/4"
260368	Hilti HPS-1 1/4" x 1"	#8	1/4"	1"	#2 Phillips	1-1/4"

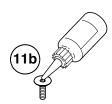


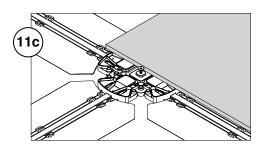
## Step 11

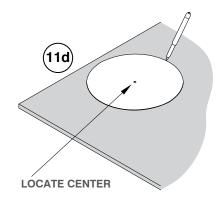
- 1. In order to lay the carpet over the connector, temporarily remove the NEMA filler. This is required to get an accurate mark transferred to the carpet.
- 2. Install a short center screw (provided with non-NEMA connectors) into center of connector (11a).
- 3. Fill the center of the screw with marking chalk (11b).
- 4. Dry fit the carpet squares or rolled carpet across the first junction (11c).
- 5. Lay the carpet over the screw. Press down on the carpet, over the screw, to transfer the marking chalk (11c). Vacuum all marking chalk & remove the screw.
- 6. Re-install all NEMA fillers that were temporarily removed.
- 7. Using the (provided) round template, use the hole in the center of the template to locate the mark. Mark the carpet around the outside of the template and cut (11d).
- 8. Place the carpet on a surface that cannot be cut with a utility knife. In the case of carpet squares, arrange the carpet squares as they will lay across the junction.
- 9. Dry fit the carpet onto the junction again (11e).
- 10. Apply adhesive to floor where carpet lays. This includes the power track, power track infeed, ramps, and sub-floor. See page 19.
- Place trim ring into the newly cut carpet hole and align the four (4) tabs into the corresponding wells in the junction (11f).

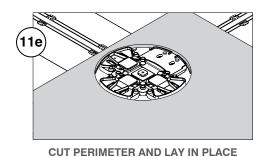
(Do this after the adhesive for carpet has been installed.)

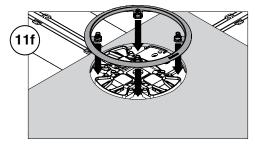










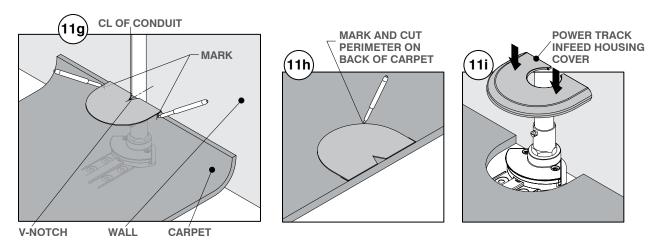


**INSTALL TRIM RING IN PLACE** 



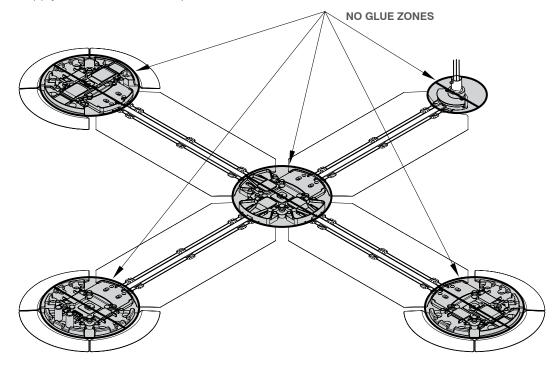
# Step 11 (continued)

- 12. With the carpet layed over the conduit, align the v-notch with the conduit and mark each edge of template (11g).
- 13. Pull the carpet back, mark around the perimeter of the horseshoe template, move to a surface that can be used for cutting with a utility knife, and cut out the horseshoe shaped mark in the carpet. Replace the carpet back over the housing (11h).
- 14. Push the cover down onto the housing pilot. A snapping sound will be apparent. Keep pushing the cover down until the cover is tight against the carpet (11i).



- 15. Proceed to finish cutouts for all connectors.
- 16. Apply adhesive across the entire floor including power track, power track infeed and ramps.

**DO NOT** apply adhesive on the receptacle assemblies and modules.

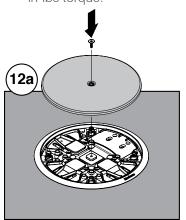




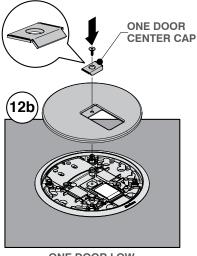
#### **CONNECTOR COVER**

### Step 12

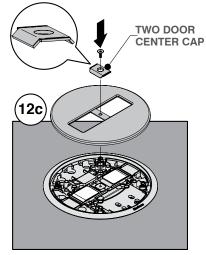
- 1. After the outer trim ring has been installed, select the appropriate cover for each junction (12a, 12b or 12c).
- 2. For the single door (12b) and double door (12c) connector, select the appropriate center cap.
- 3. Align the cutouts in the cover with the doors in the connector. Place the appropriate center cap on the cover.
- 4. Use the 3/4" long center screw (supplied) to fasten the cover to the connector.
- 5. Tighten the center screw to 7-10 in-lbs torque.



BLANK LOW PROFILE CONNECTOR AND FLOOR INFEED



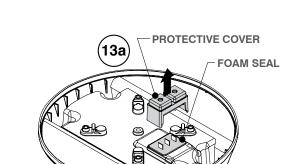
ONE DOOR LOW PROFILE CONNECTOR



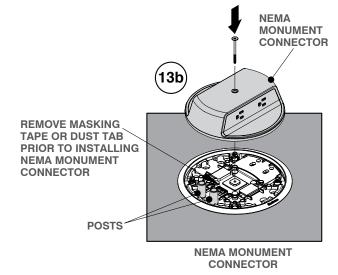
TWO DOOR LOW PROFILE CONNECTOR

#### Step 13

- 1. DO NOT remove the protective cover until you are ready to make the connection. After removing the protective cover, make sure the foam seal and terminals are in place and not damaged (13a).
- 2. Remove the masking tape or dust tab previously placed over the receptacle (13b).
- 3. After the trim ring has been installed in the cutout in the carpet, make sure the NEMA monument is oriented correctly on the two posts sticking up.
- 4. Use the 1-1/2" long center screw (supplied) to fasten the NEMA monument to the connector.



5. Tighten the center screw to 7-10 in-lbs torque.



AMQ

Please contact cc@amqsolutions.com if you are missing any parts, have difficulty with assembly, or have any product related questions.