

# INSTALLATION GUIDE

A comprehensive guide to install Flex under carpet tile or on top of any flooring surface



## WARNING: RISK OF FIRE OR ELECTRICAL SHOCK

- Read these assembly instructions prior to installation.
- Flex must be anchored to the building floor for safe and proper use. Ensure use of proper anchors suitable for the application and environment.
- The electrical supply connection to the building must be performed by a licensed electrician. Install per National Electric Code adopted in your location.
- There are no user serviceable parts in this system.
- Use provided hardware only.
- Only use and install Flex in dry environments.
- Do not place Top Cover seam directly over Power Hub terminals
- Do not install this system over raised floors, across building expansion joints, or in areas where it will be subject to constant heavy loads.
- For use with flooring materials between .1" and .35" (2.5mm-9mm ) thick.
- Cap all unused connector openings with recommended termination system.
- Power End Hub must be used to terminate power system.
- Overall system length should not exceed 75' (30m).

## INSTALLATION BASICS

- Cut a 2" x 4" hole in your wall.
- Find your Entrance Fitting and fish the flexible conduit through the hole. Fasten the plastic base to the floor.
- Arrange your Powertracs and Power Hubs according to your layout.
- Connect all modular components of the raceway together (ex. Powertracs and Power Hubs), and fasten the system to the floor with screws. Securely anchor the system at least every four feet using the holes provided.
- At Receptacle Device or Hubcap locations, remove the "Remove Me" sticker from the Power Hub. Install the Receptacle Device, Hardwire Device or Hubcap as shown.
- Completely surround the power distribution raceway with the transition ramping system. Position the transition ramping system down using some form of adhesive, and secure the ramps to the floor slab with 1/4" x 1 1/4" pin-drive anchors.
- Trim the aluminum Top Cover and install in Powertrac between Receptacle Devices and Hubcaps.
- Connect the flexible conduit to the building junction box.
- Install carpet tile or suitable conformable flooring over the entire Flex assembly, cutting around devices.

REFER TO THE FOLLOWING PAGES FOR DETAILED  
INSTALLATION AND ASSEMBLY INFORMATION.

## IN-WALL ENTRANCE FITTING

This is the most common way to install Connectrac Flex - by passing all the cabling through a wall cavity.

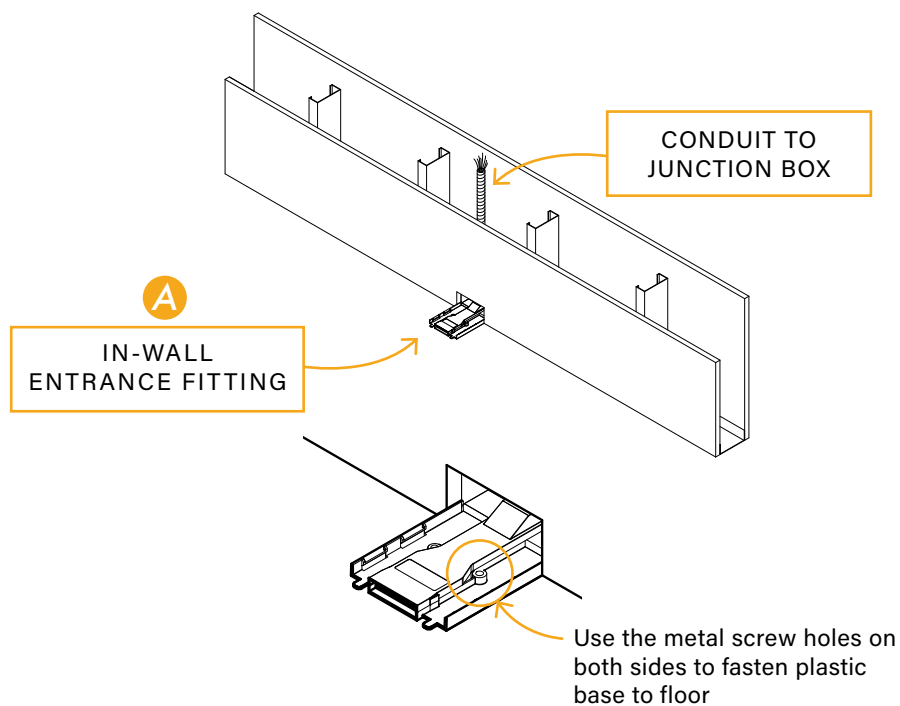
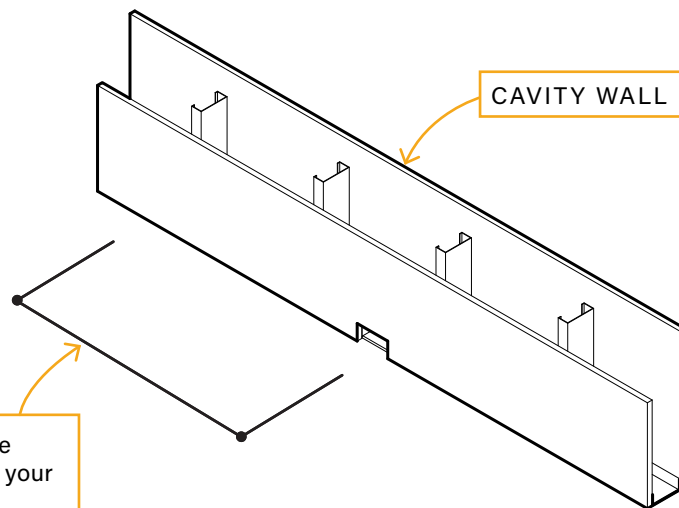
**NOTE!** If you are installing Flex with a Walltrac Accessory, see page 05 for installation information.

If you are installing Flex with a Poke-Thru Entrance, see separate installation instructions on [Connectrac.com](http://Connectrac.com) or [Legrand.us](http://Legrand.us).

1

Cut a 4" x 2" hole through the base of your wall, and bend the stud track inward.

**TIP!** Make sure to coordinate the placement of your opening with your furniture



3

Connect Entrance Fitting, Powertracs, Power Hubs, Power End Hubs, and devices to complete the Flex raceway system. Once connected, securely install them using appropriate fasteners for your flooring.

## A In-Wall Entrance Fitting

## B Raceway System

### Powertrac

These come in various lengths.  
Make sure to coordinate the raceway with furniture in the space.

### Power Hub

These connect Powertracs.  
You can install power devices or Hubcaps into them.

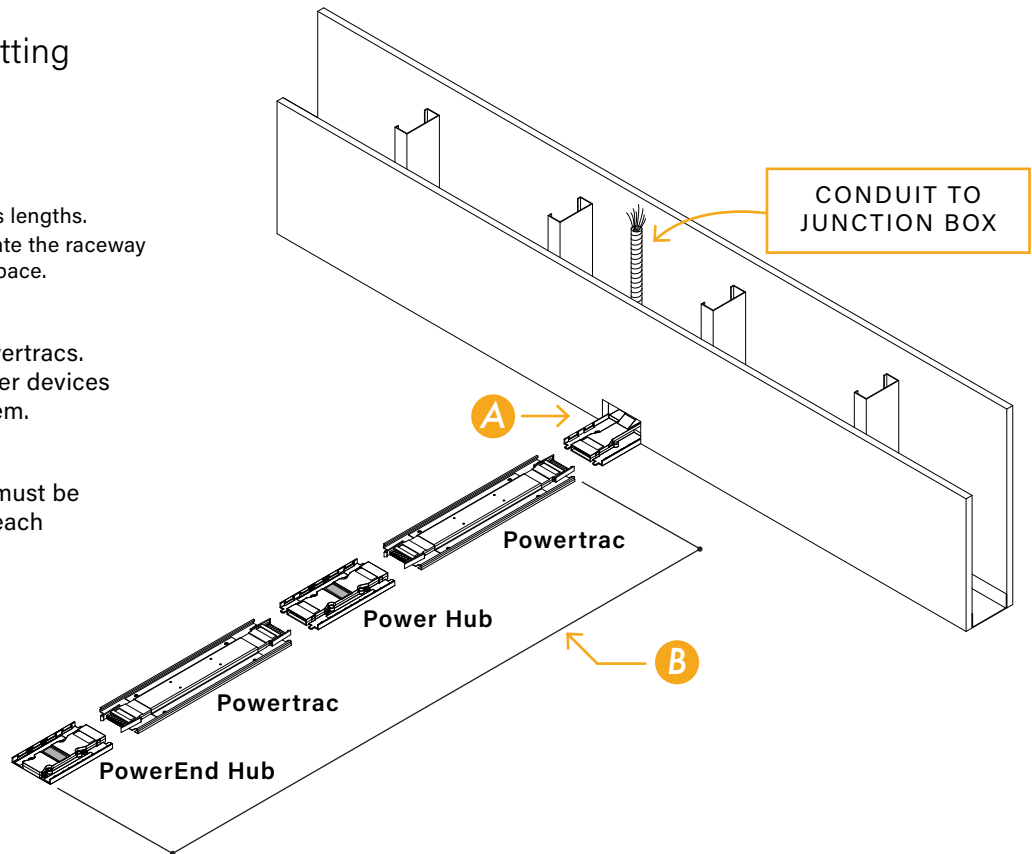
### Power End Hub

A special hub that must be used at the end of each raceway.

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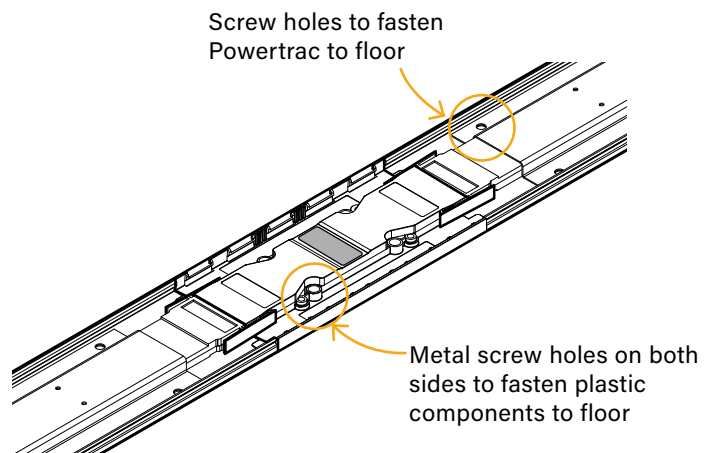
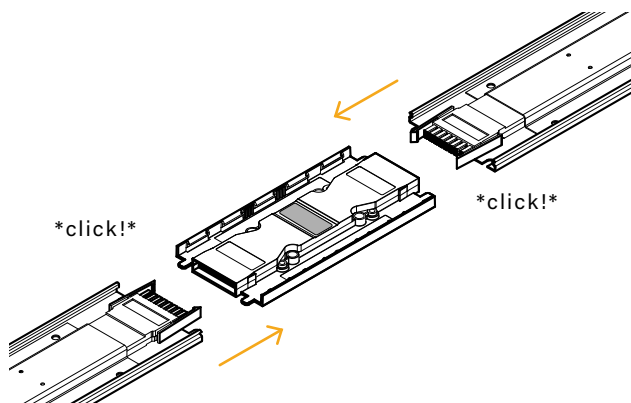


INSTALL TIPS!



Snap everything together...

... and fasten everything down.



For more information about Flex raceway system components, see Tech Guide



When using a Walltrac kit, your Surface-Mounted Entrance Fitting is installed in the same way, except the conduit passes through aluminum extrusions mounted to the wall.

There are several variations of Walltracs - for more information, refer to the instructions included with your Walltrac kit.

## A Surface-Mounted Entrance Fitting

## B Raceway System

### Powertrac

These come in various lengths.  
Make sure to coordinate the raceway with furniture in the space.

### Power Hub

These connect Powertracs.  
You can install power devices or Hubcaps into them.

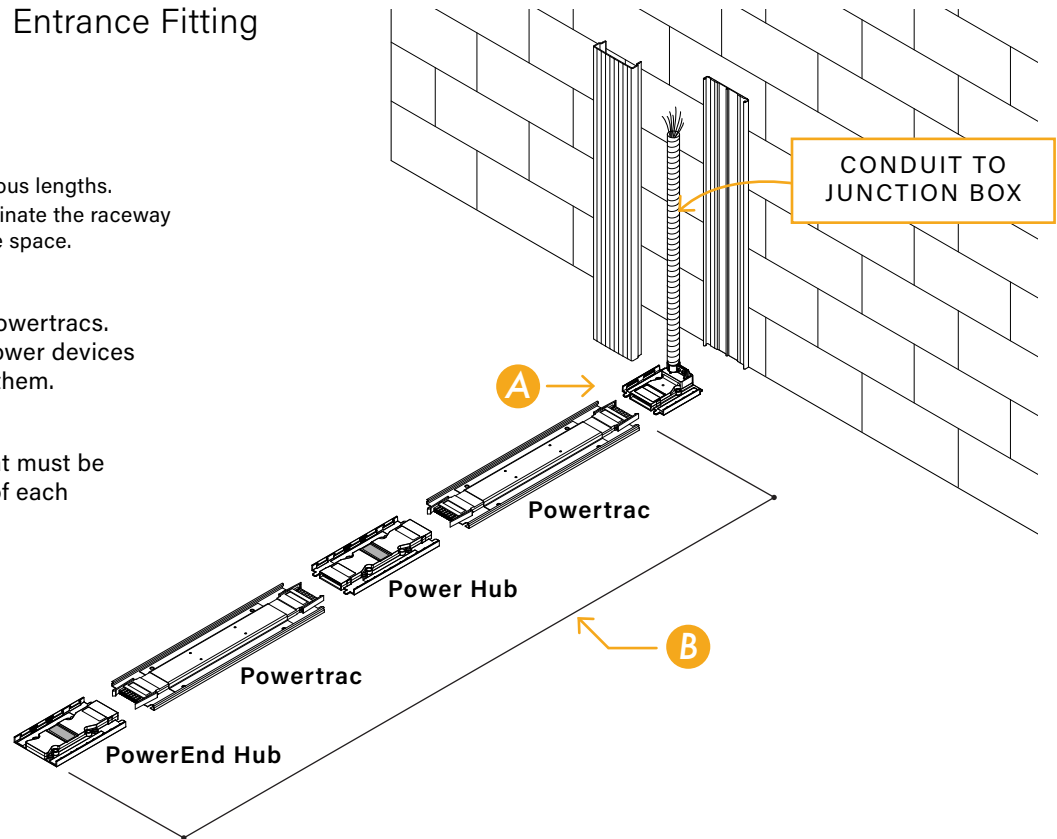
### Power End Hub

A special hub that must be used at the end of each raceway.

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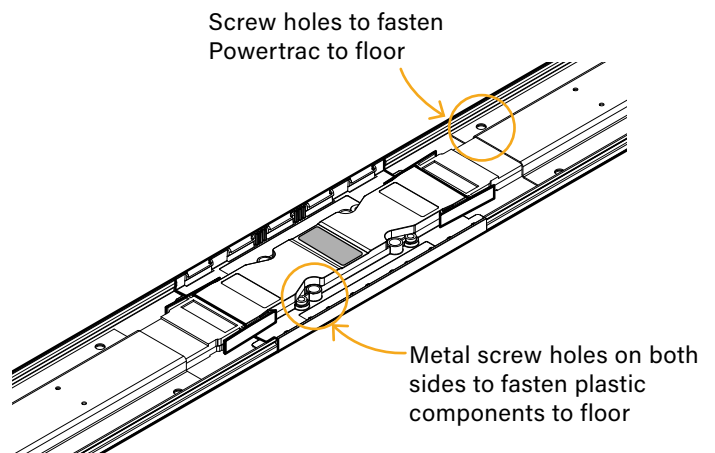
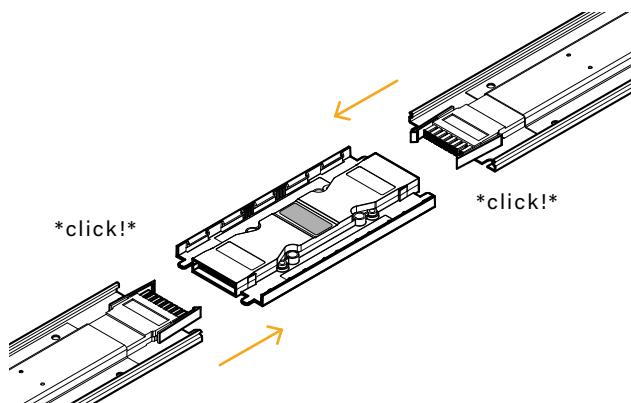


INSTALL TIPS!



**Snap everything together...**

**... and fasten everything down.**

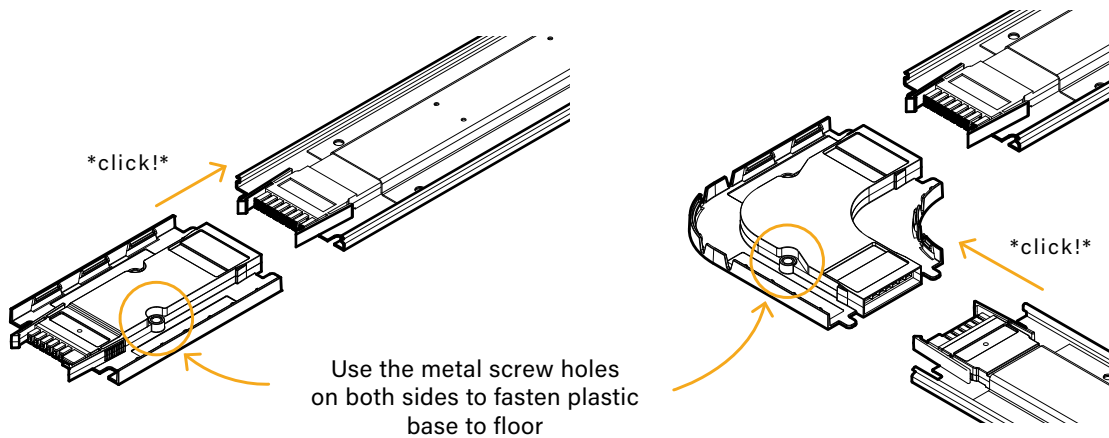


For more information about Flex raceway system components, see Tech Guide



### Additional Powertrac Options

These additional Powertrac options are installed exactly like everything else - snap them together and fasten them down!



### Powertrac Extender

Extend any Powertrac by 6"

### Powertrac Corner

Connect any two Powertracs at a 90° angle

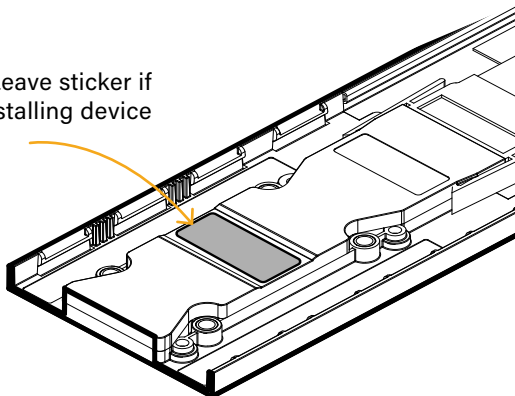
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If you are NOT installing a power device or Hubcap into a Hub, do not remove the sticker over the central terminals.

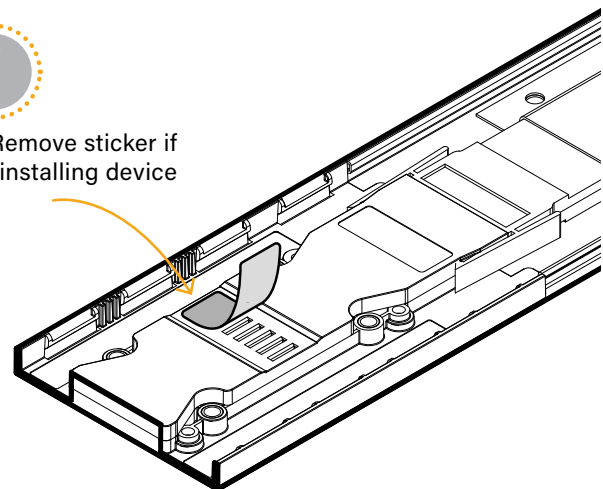
When installing a Receptacle Device or Hubcap into a Hub or End Hub, remove the sticker that says "remove me" to expose the terminals. Then securely fasten the device or Hubcap down using the screws indicated.



Leave sticker if NOT installing device

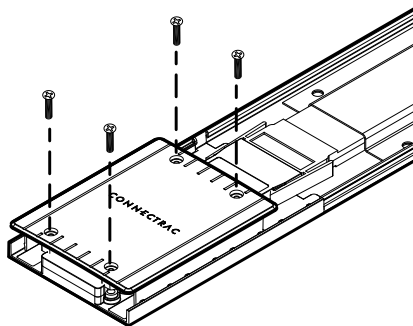
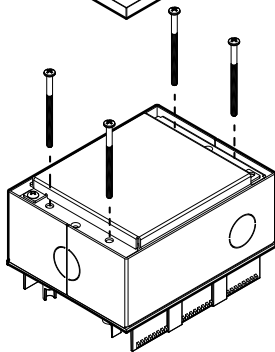
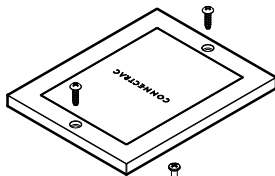
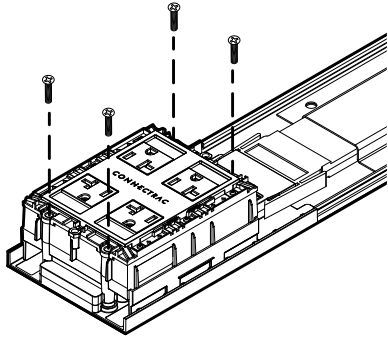


Remove sticker if installing device



5

Align the device to the Power Hub, and press down firmly. Then, use the screws included to securely fasten the device to the Hub. Make sure there is nothing preventing the device from sitting on the bottom of the Hub.



### Receptacle Device

Provides (4) NEMA 5-20R receptacles wired to one or two of four available circuits. It can also be swapped at any time with Hubcap or other power device.

SCAN FOR



INSTALL TIPS!

### Hardwire Device

A junction box for connecting to systems furniture and other electrical applications. This provides 35.6 cubic inches of volume and (3) 1/2" knockouts to provide power where it's needed.

**NOTE:** This device is not intended for use with any electrical wiring device such as power outlets / faceplates / switches.

SCAN FOR



INSTALL TIPS!

### Hubcap

This component covers a Power Hub to create an ADA-compliant, walkable surface.

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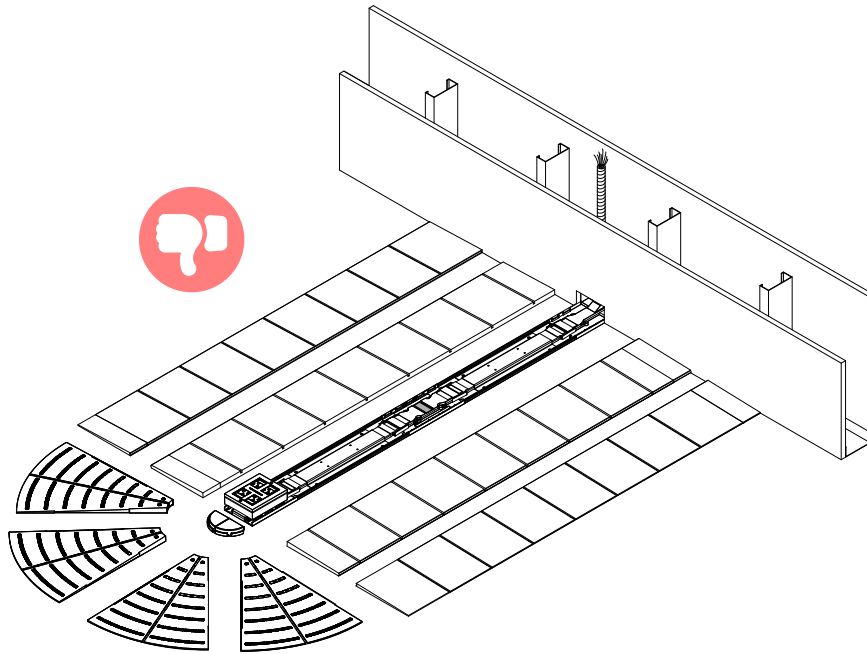


INSTALL TIPS!

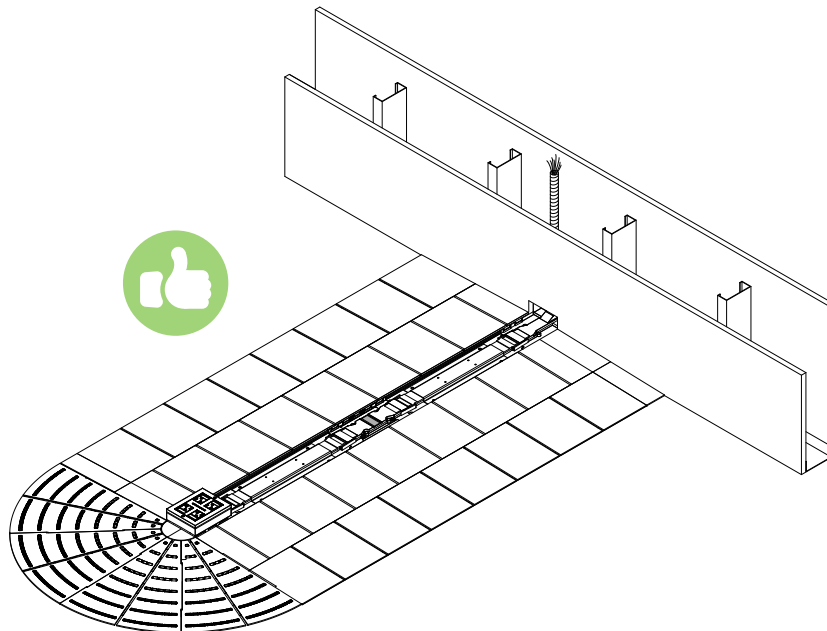


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After the Flex raceway system is installed, completely surround it with the transition ramps.



Use construction adhesive to position the transition ramps around the raceway.



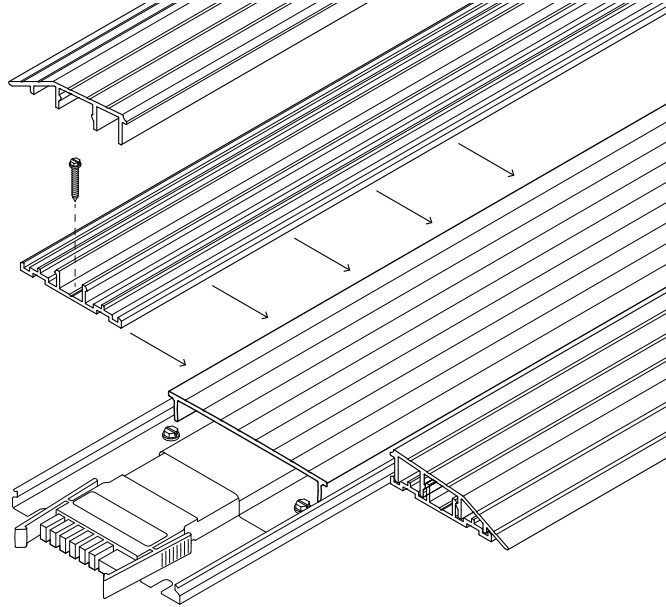
Secure the ramps to the floor slab with 1/4" x 1 1/4" pin-drive anchors.



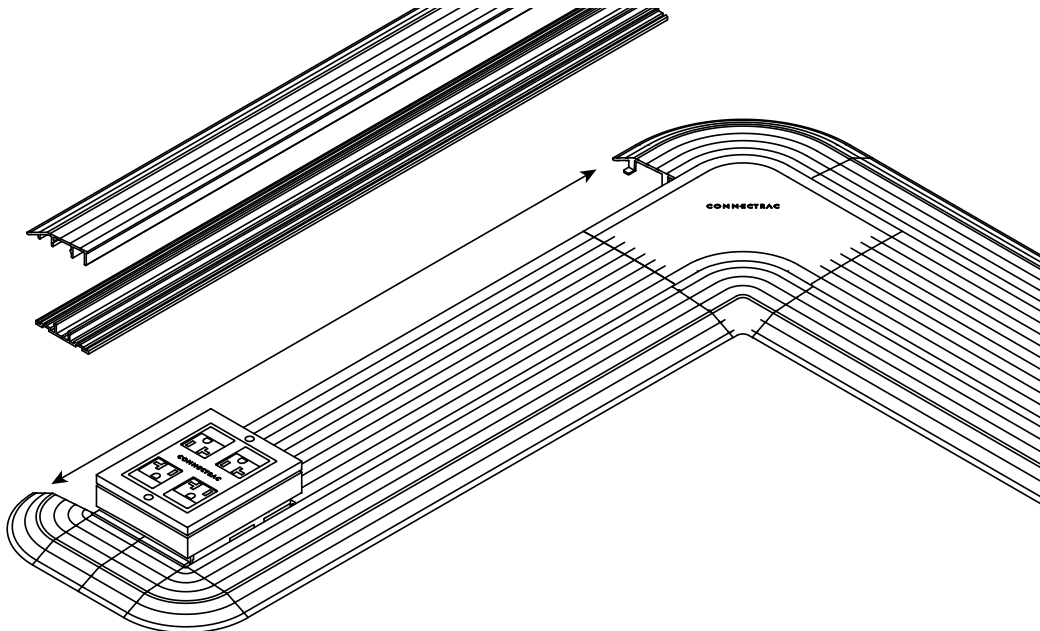


Some Flex installations use alternate transition ramps for installation on top of any flooring. Refer to instructions included with these ramp extrusions for more information.

**TIP!** Make sure bottom of ramp is flat on the floor, and that the top is fully snapped in along the length of the entire ramp.



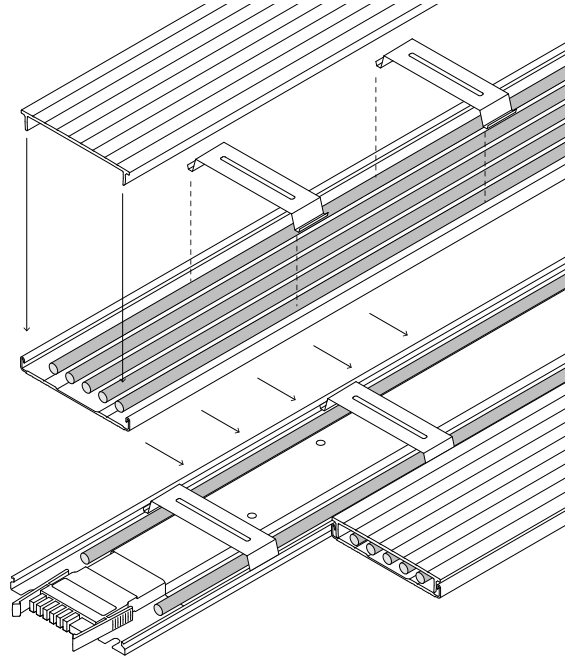
**TIP!** Place Corner and End ramps down first, then measure in between to get side ramp length.





Some Flex installation use Datatracs for added low-voltage capacity. Use the included data management clips to organize the data cabling.

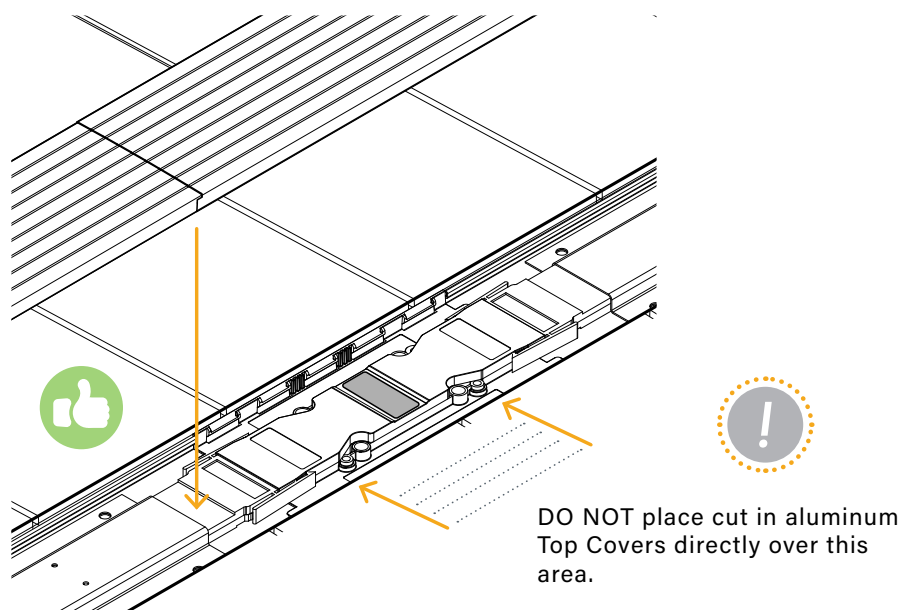
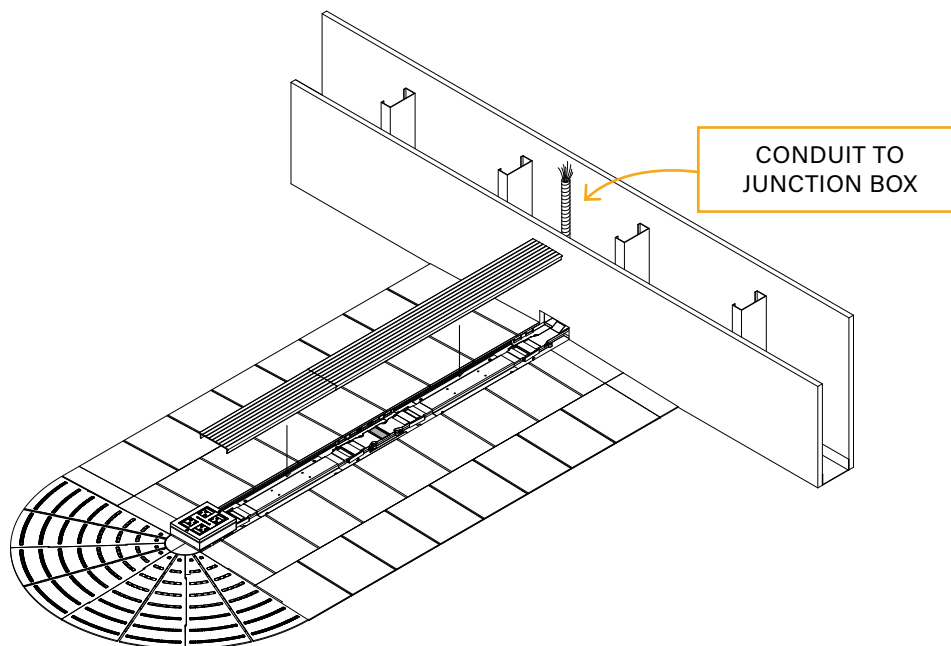
**TIP!** Pull slightly from one end of the cable as you are installing top cover to ensure proper installation.



See capacity information on page 14

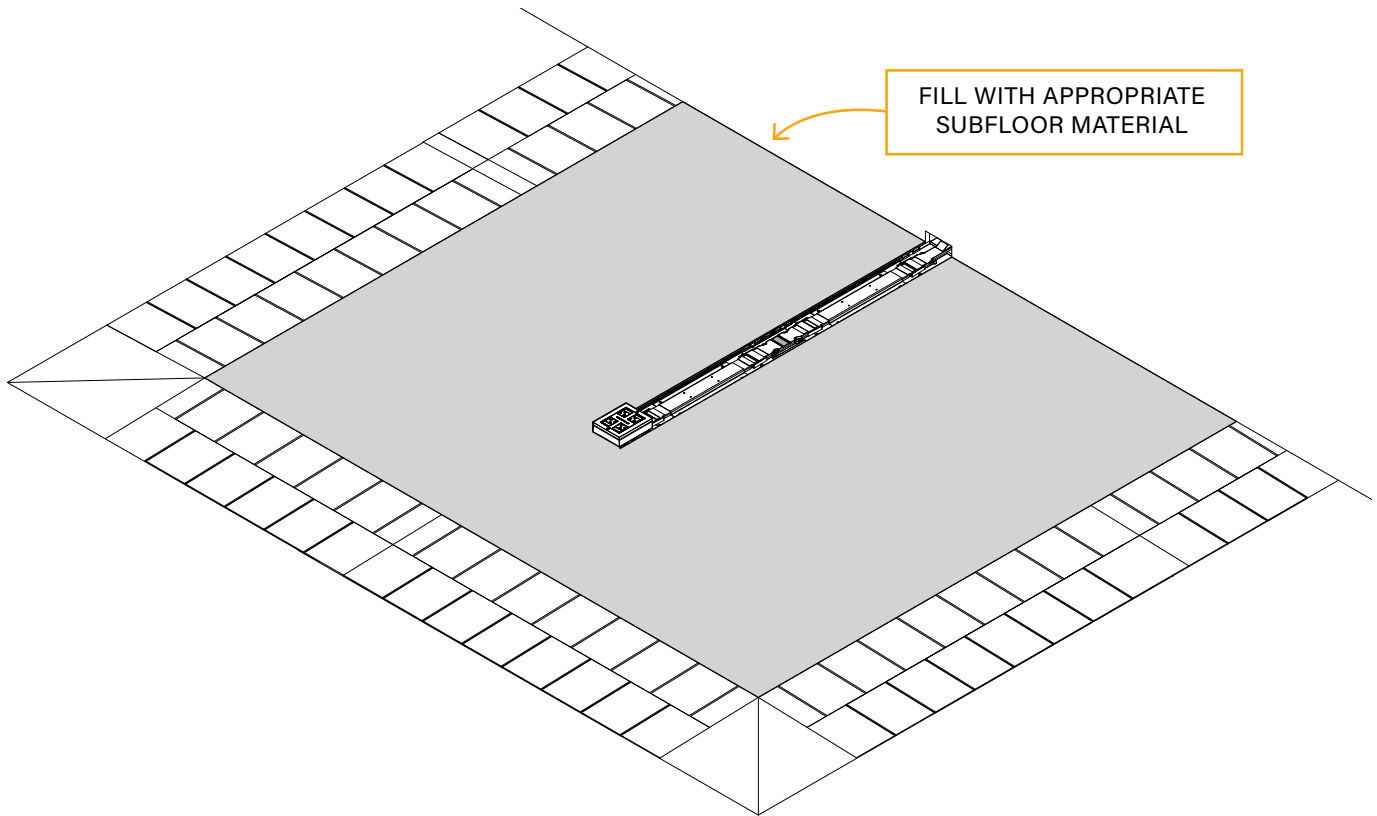
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Trim the aluminum Top Covers and install them into the Flex raceway system. Be careful not to align any Top Cover seams directly over the central terminals of a Power Hub.



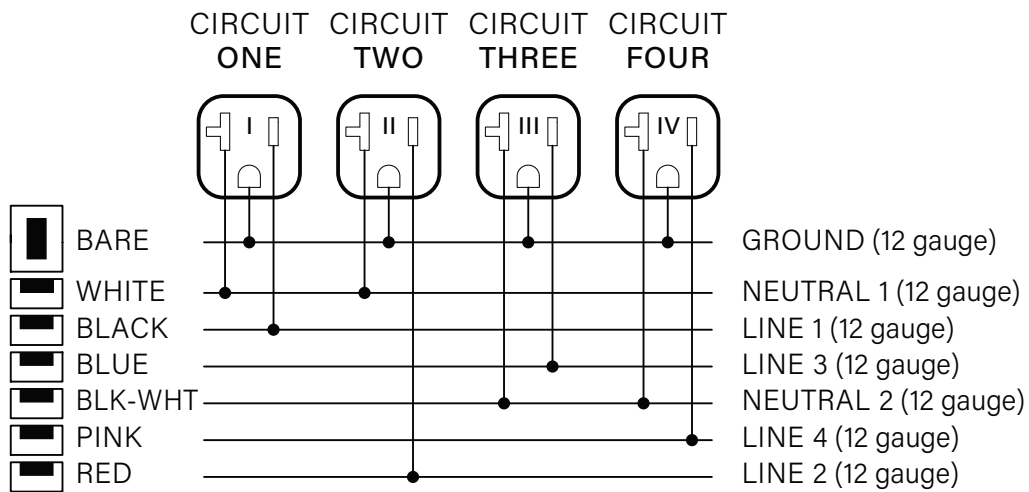
**Alternate Installation Method**

The Connectrac Flex ramping system is very flexible! The “flat” area of the Powertrac raceway can be extended as far as you’d like, just put the standard Transition Ramps at the edges of an “island” of flooring:



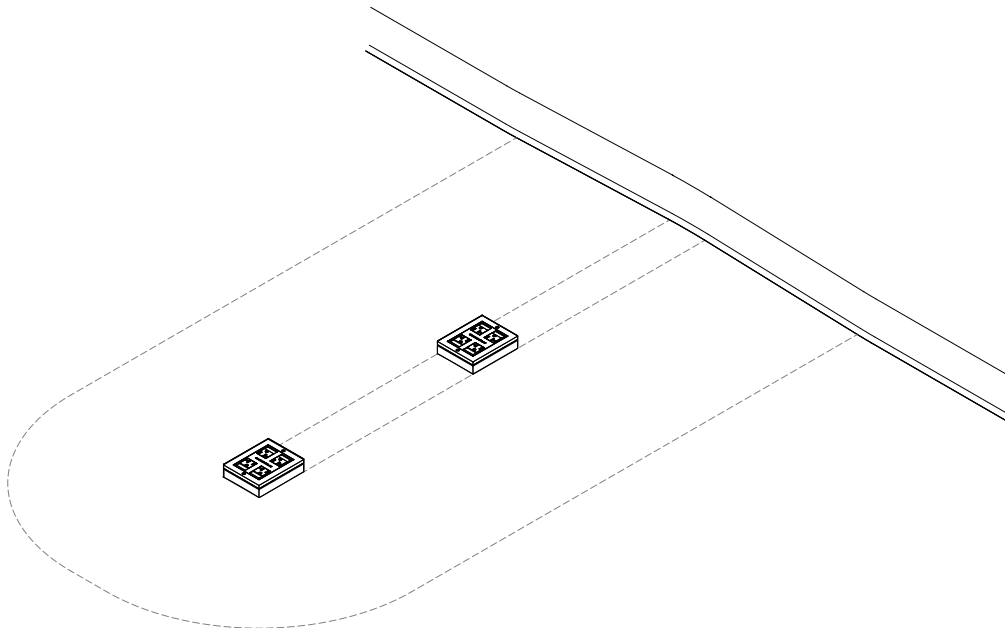
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Connect the flexible conduit to junction box using wiring diagram below.



9

Install carpet tile over entire system. Trim the carpet around devices.

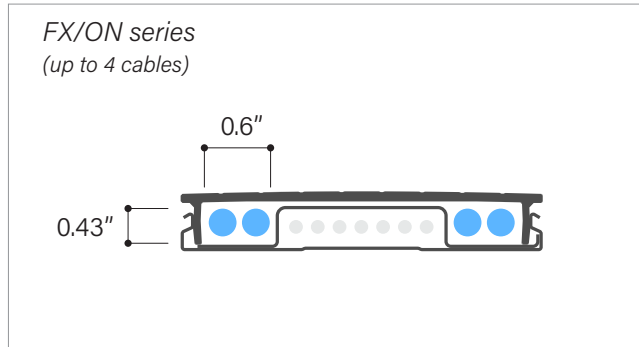


# WIREWAY CAPACITY & DIMENSIONS

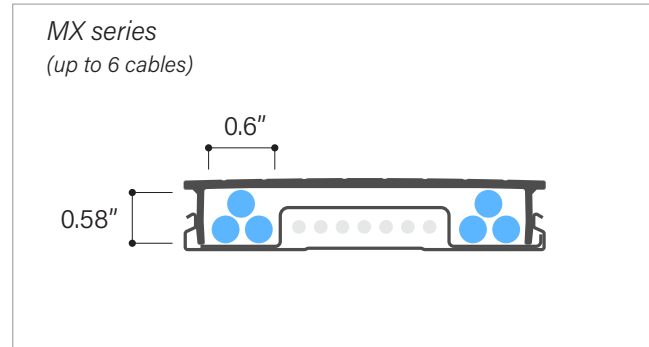
## Powertrac

Powertracs are pre-wired raceway segments available in five nominal lengths (2', 3', 4', 5', 6') that are paired with Top Covers and Transition Ramps. Each Powertrac has modular connectors on each end that easily snap into an Entrance Fitting, Powertrac Extender, Powertrac Corner, Power Hub, or Power End Hub to build your Flex raceway.

FOR INSTALLATION UNDER CARPET TILE  
AND ON TOP OF ANY FLOORING SURFACE



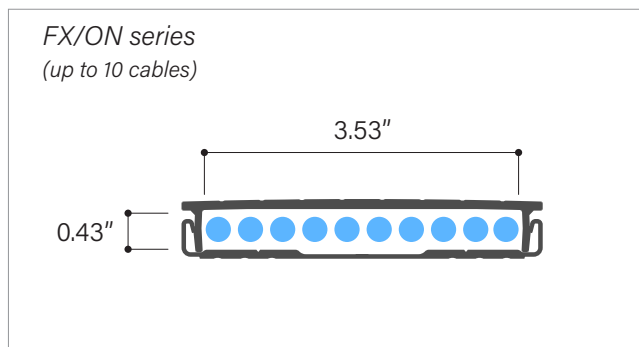
FOR INSTALLATION UNDER CARPET TILE WITH  
TOP COVER EXPOSED



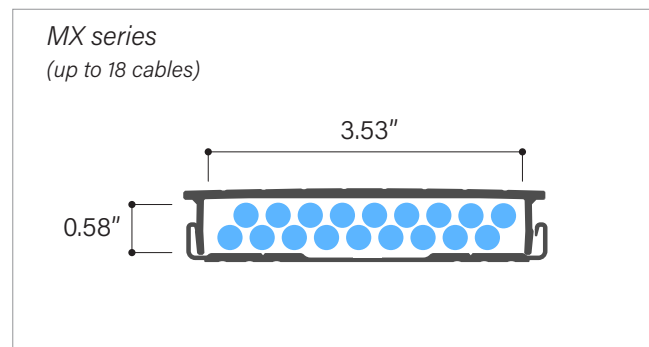
## Data Channel

Data channels can be ganged alongside the main Flex raceway to provide additional data capacity. Data channels include both a bottom Datatrak and a Top Cover. Each data channel typically holds up to 10 cables for our FX/ON systems, which are installed under carpet tile and on top of flooring, and up to 18 cables for our MX system, which is installed under carpet tile with top cover exposed.

FOR INSTALLATION UNDER CARPET TILE  
AND ON TOP OF ANY FLOORING SURFACE



FOR INSTALLATION UNDER CARPET TILE WITH  
TOP COVER EXPOSED



(Measurements with Top Covers installed and typical data capacity shown.)