# SAPPHIRE WALL SYSTEM

## Installation Guide

**84”H-108”H**

SAPPHIRE WALL SYSTEM

SKUTCHI DESIGNS

# Tools Needed for Installation

**(Professional Assembly Recommended)**

**Drill Bits**

**1/4 Driver**

**Clamp**

**Mallet**

**Screw Gun**

**Allen Keys**

**Chop Saw**

**Level**

**Pry Bar**

## Quick Tips

**1.** Unpack all product before assembly

**2.** Hang door last on install

**3.** 3 person installation

**4.** Make sure all panels are level

**5.** Frame entire office and lock to wall before hanging tiles.

**6.** Professional installation recommended.

**7.** **If your floor plan does not fit exactly with our sizes we suggest the following: A contractor may be hired to build out wall to meet measurements. This is called a knee wall and very common in the industry when odd measurements are left. This will make a finished look.

# SAPPHIRE WALL SYSTEM

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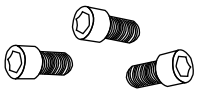
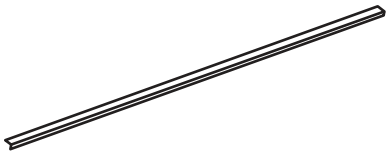
## Identifying Parts

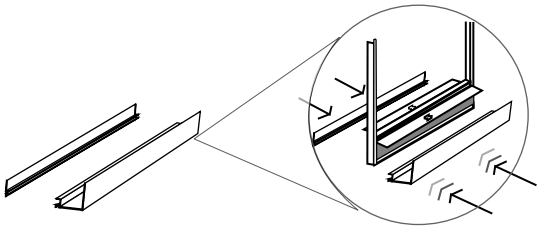


1/2" Hex Bolts- for connectors
1" Hex Bolts- for panel to panel connectors
3" Hex Bolts- for wall starter

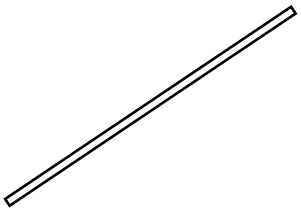
2" Sheet Metal Screws
for top beam.



Top Beam

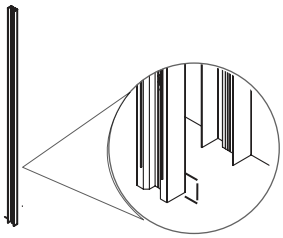


Bottom Track



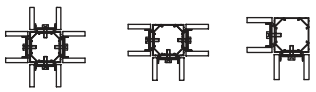
Spacer

Spacer Threaded
and not Threaded



Wall Starter

Stack up
Connector



x T L

Connectors

End Trim

Full Slab
Frame

Panel
Frame

Panel Topper- 10"
Panel Topper- 20"

Tiles

Glass Laminate Fabric

Sliding Swinging Open

Door and Frame

Glass Door Topper- 10"
Glass Door Topper- 20"
*1/2" Bigger Than regular Glass



Light Blockers
Small/Large

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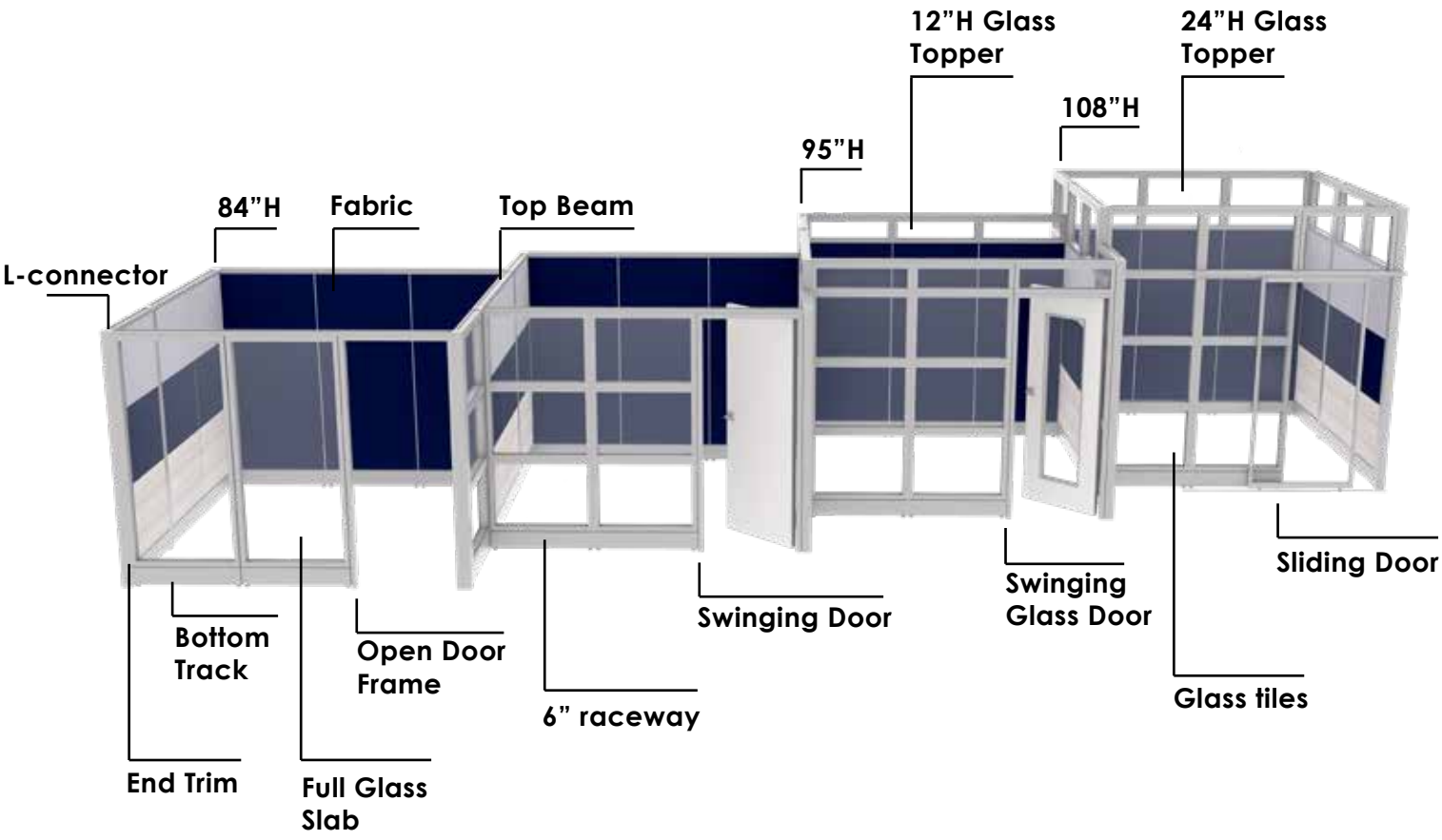
# Example Images




**Example of bottom track option**

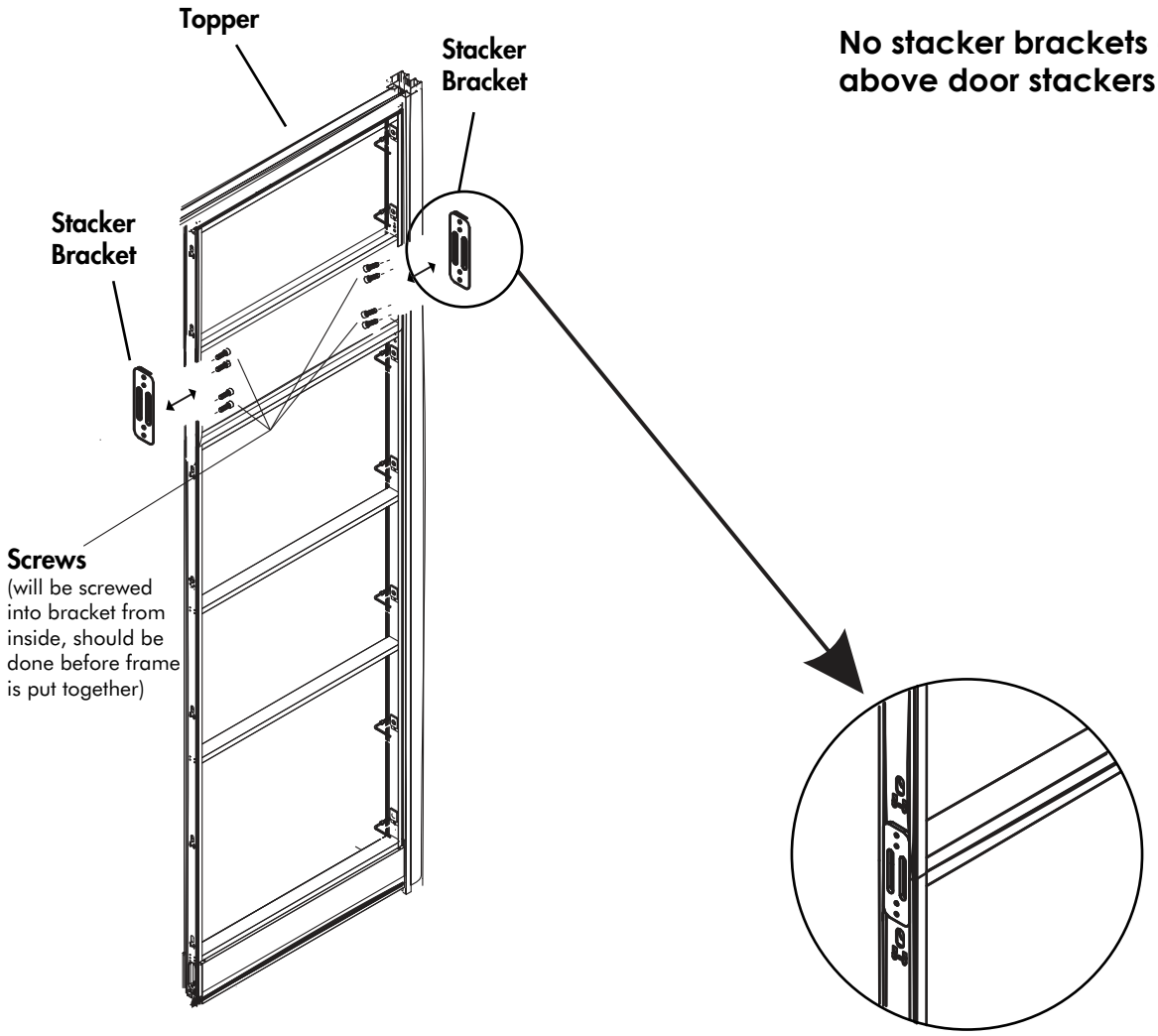
**With bottom track**

**Without bottom track**

# Step 1: (for 95”H and 108”H only)

Attach glass topper to the wall system using the bracket shown (84”H wall system will not need a topper). **Please attach stacker brackets and stacker frame before putting panels together.**

**Above door glass is 1/2” larger**




**No stacker brackets on above door stackers**

***95”H wall system will have a 11”H topper**

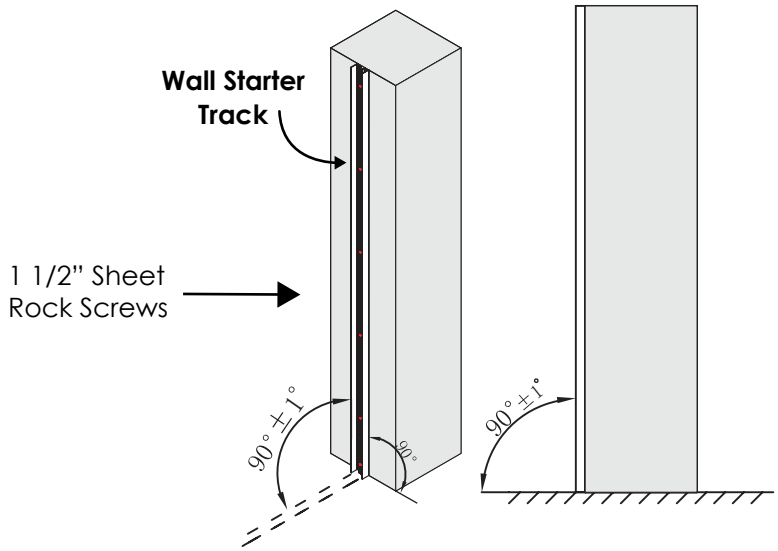
***108”H wall system will have a 24”H topper**

**View Installation video here:**

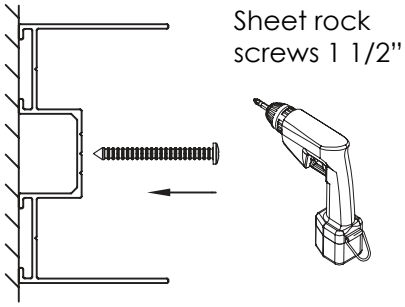
**https://youtu.be/ULeI-iZAwAk**

## Step 2:

**Locate** the starting point of the project and install your first wall starter sleeve. After that is installed attach the wall starter post for your first frame. **Use 3 in hex bolts.**




**No pre-drilled holes.**
Please use drill bolt and tap holes through frame. Then install sleeve on the wall

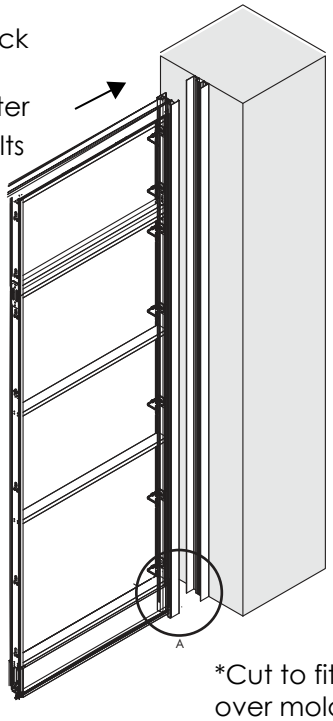


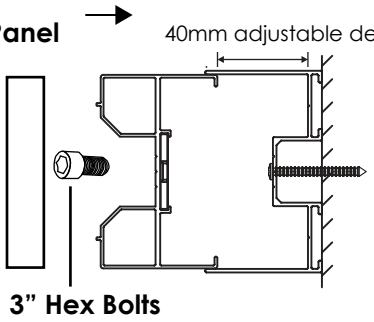

**Fix the side groove into wall**

## Step 3:

Slide frame into track

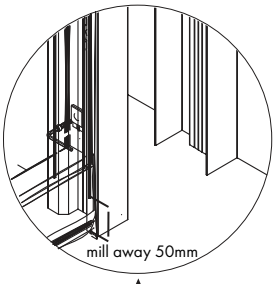
Connect Wall Starter To panel using 3" hex bolts




***Wall starters can adjust up to 1"**

*If a connector needs to be attached to a wall, make pilot holes on the panel side and screw through the other side into the wall




*Cut to fit wall starter over molding.

Insert the side pole to the side groove. Side pole is processed as photo and fixed with panel connectors.

**View Installation video here:**

**https://youtu.be/jMRIdvsThrQ**

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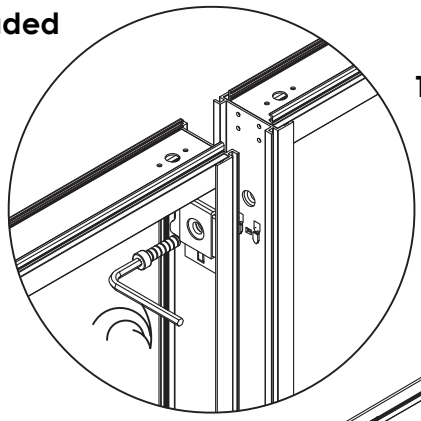
# Straight Connectors

***Make sure everything is level**

**2. Connect the frames by M8*30 bolt (1" Hex Bolts)**

**Unthreaded**

**Threaded**






**1. Adjust all frames into same level**

Washers are threaded and unthreaded and con be interchanging.

**View Installation video here:**

**https://youtu.be/-KztYAftzi0**

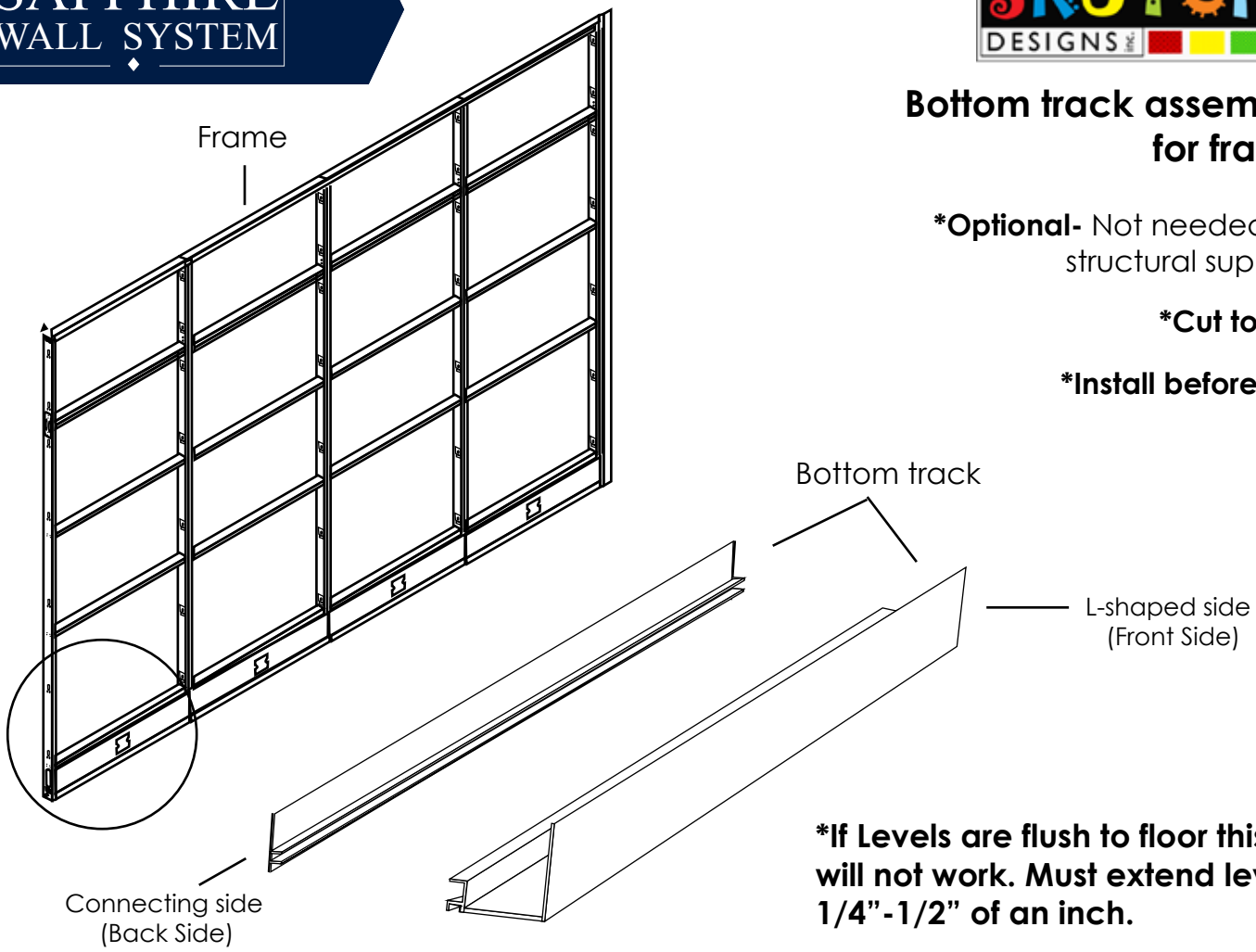
SKUTCHI DESIGNS

# Bottom track assembly for frame

***Optional-** Not needed for structural support

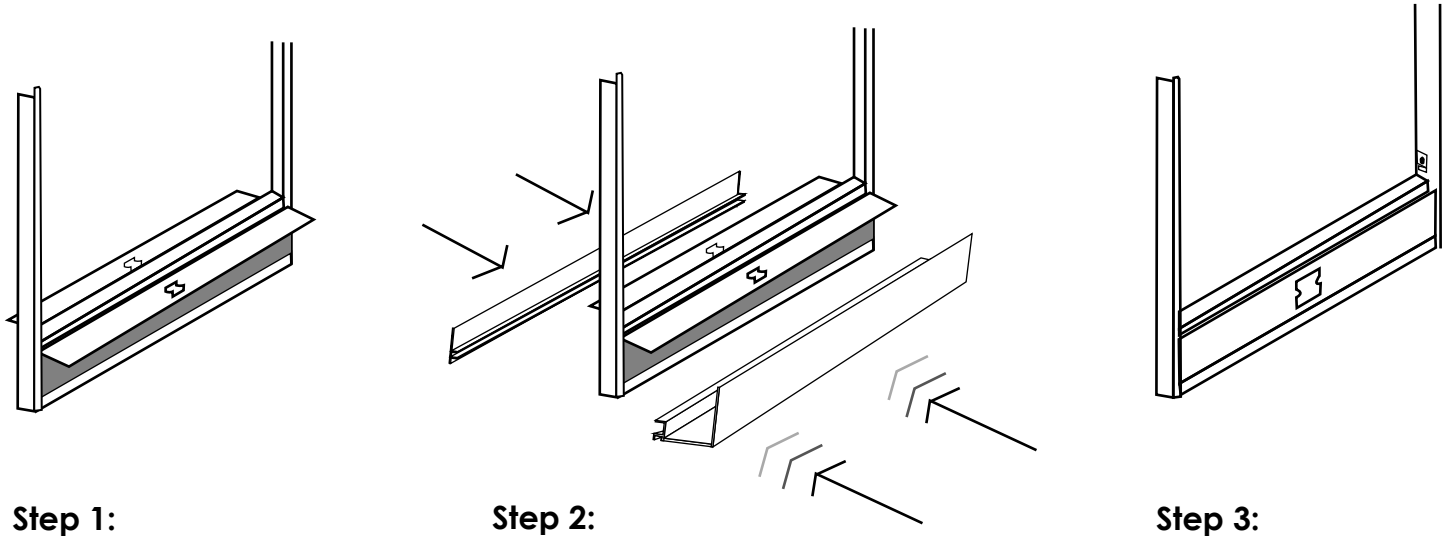
***Cut to size**

***Install before tiles**




***If Levels are flush to floor this will not work. Must extend levels 1/4"-1/2" of an inch.**

***Assemble bottom track before attaching tiles to frame**



**Step 1:**

Open bottom raceways

**Step 2:**

Slightly lift frame a half an inch

Slide L-shaped part track underneath frame. When finished connect back of track to Bottom of L-shaped part of track

**Step 3:**

Close raceways

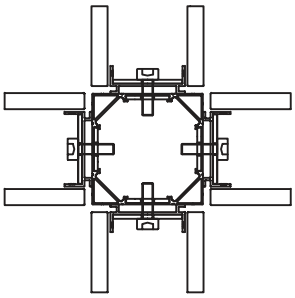
**View Installation video here:**

**https://youtu.be/NaZqDuL9unM**

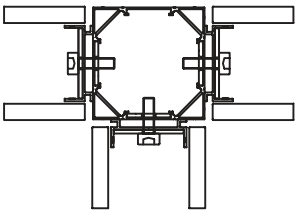
SKUTCHI DESIGNS

# Attaching Connectors

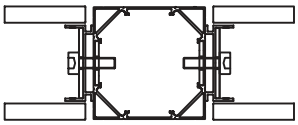
***All connectors simply bolt into panels.**



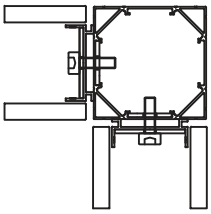
4 ways connection



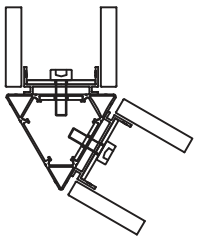
3 ways connection



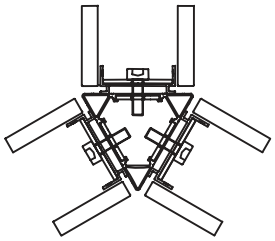
Straight Connector



2 ways connection



120 degree
2 ways connection



120 degree
3 ways connection

***Use 1/2" Hex Bolt**
***Washers might need to be changed**

**1/2" Hex Bolts**

Top of the connector should be even with the top of the frame minus the top cap.

Adjust frame feet to correct height of conector



***Connect the partition and column by M8*20mm bolt.**

*On smaller sapphire, top bolt might not line up. If this is the case, just use sheet metal screws.

**View Installation video here:**

**https://youtu.be/hPV8lzmqWQ4**

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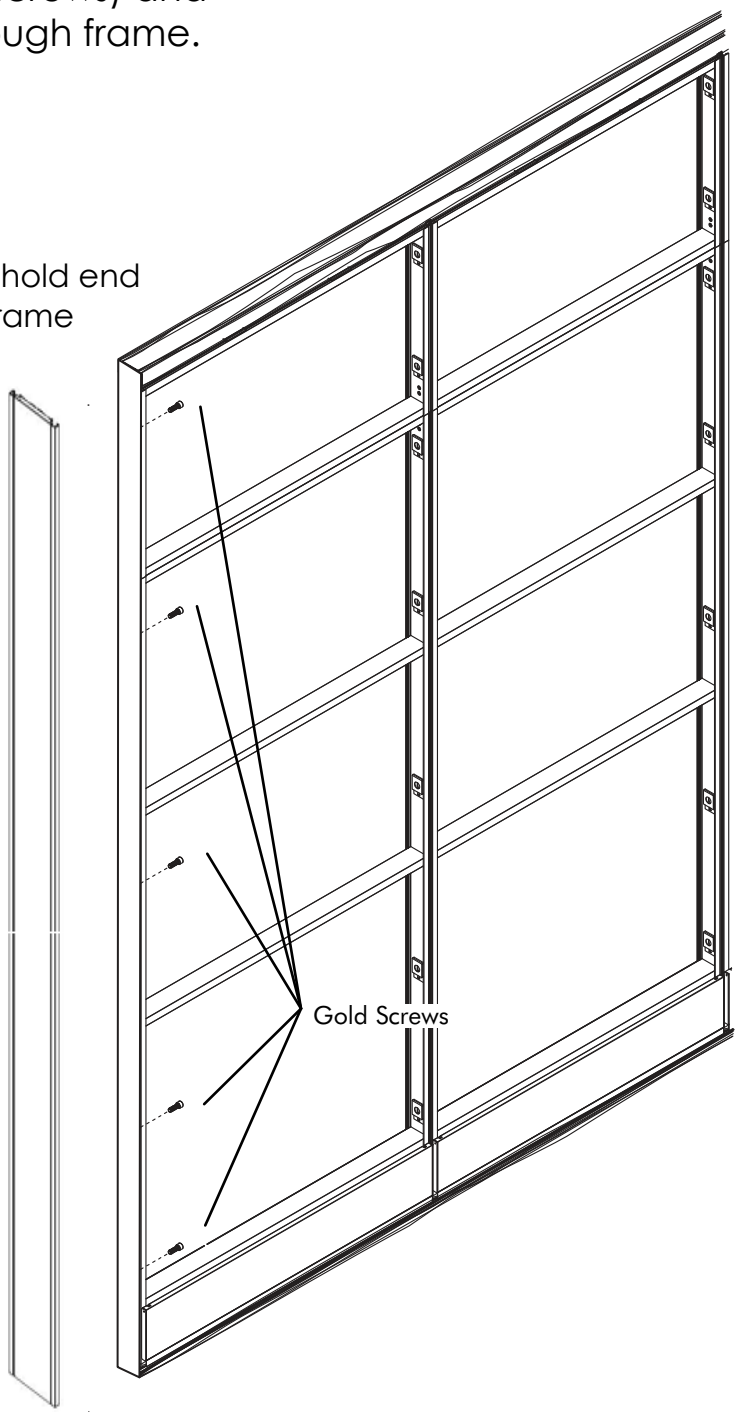
# Attach End Trim to Wall system

**No pre-drilled holes.**
Please use sheet metal screws (gold screws) and tap holes through frame.

***Do not overtighten**

*Use clamp to hold end trim tightly to frame

*Use self tapping 5\8 gold screws.



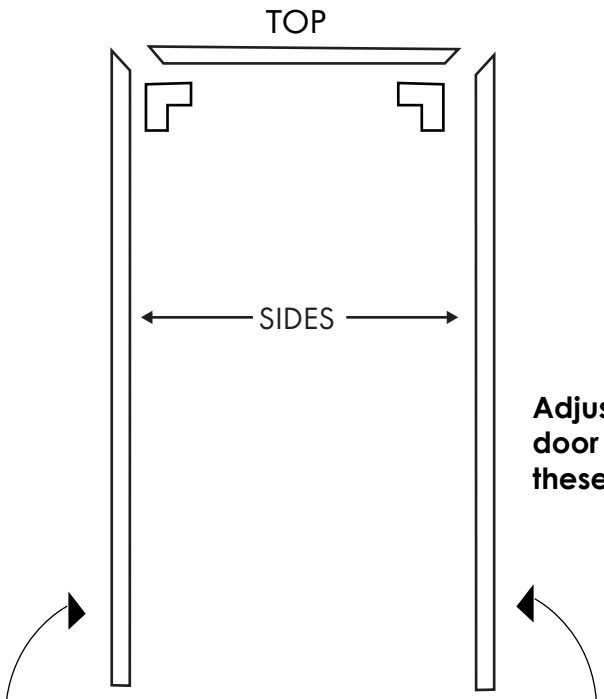

**View Installation video here:**

**https://youtu.be/0hgIhQg3juU**

SKUTCHI DESIGNS

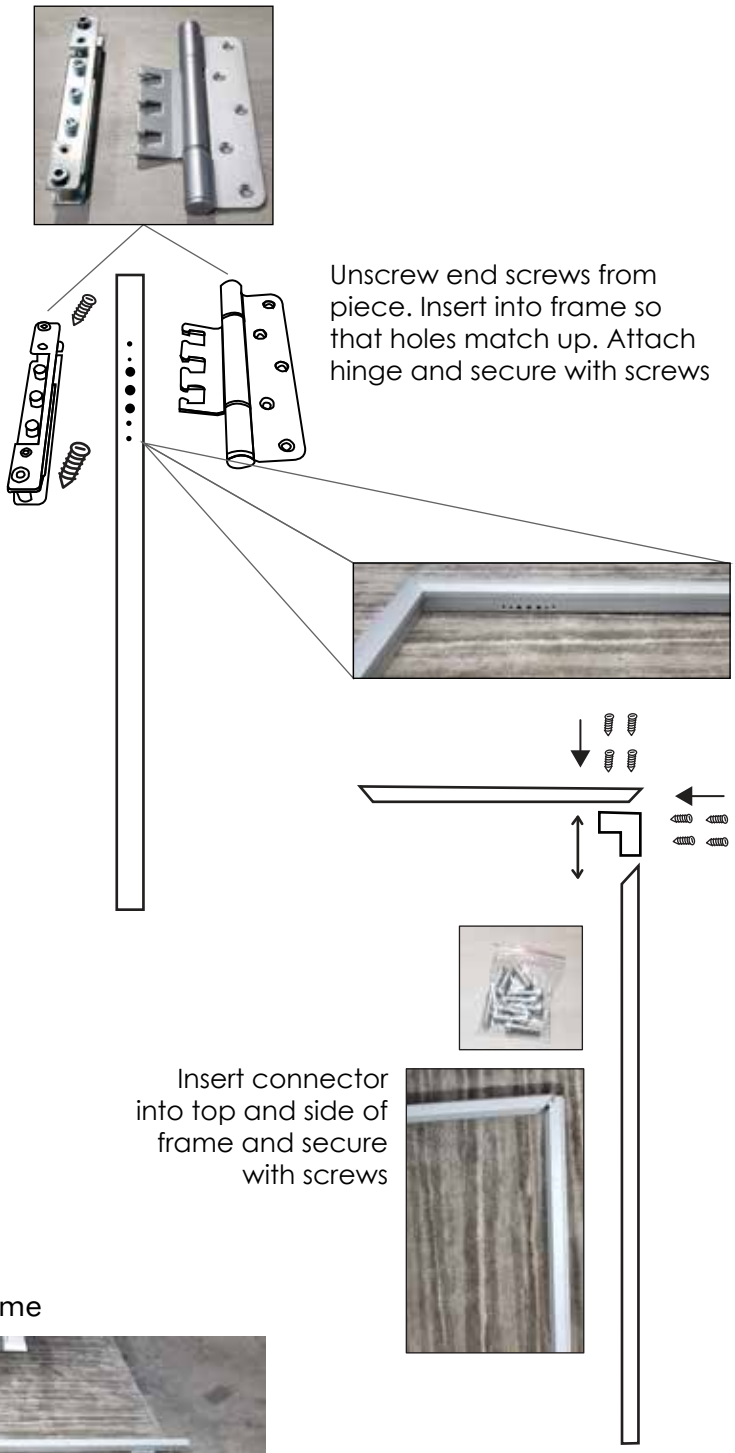
# Door Frame Assembly

1. **Arrange door frame pieces on the floor in the correct positions that they will be put together.**




**Adjust the door with these screws**

If installing on a connector, do not use gold clips, use sheet metal screws to be able to attach to panels



Unscrew end screws from piece. Insert into frame so that holes match up. Attach hinge and secure with screws

Insert connector into top and side of frame and secure with screws

Parts

Assembled Frame

***When installing on connector please pre drill holes and use sheet metal screws**

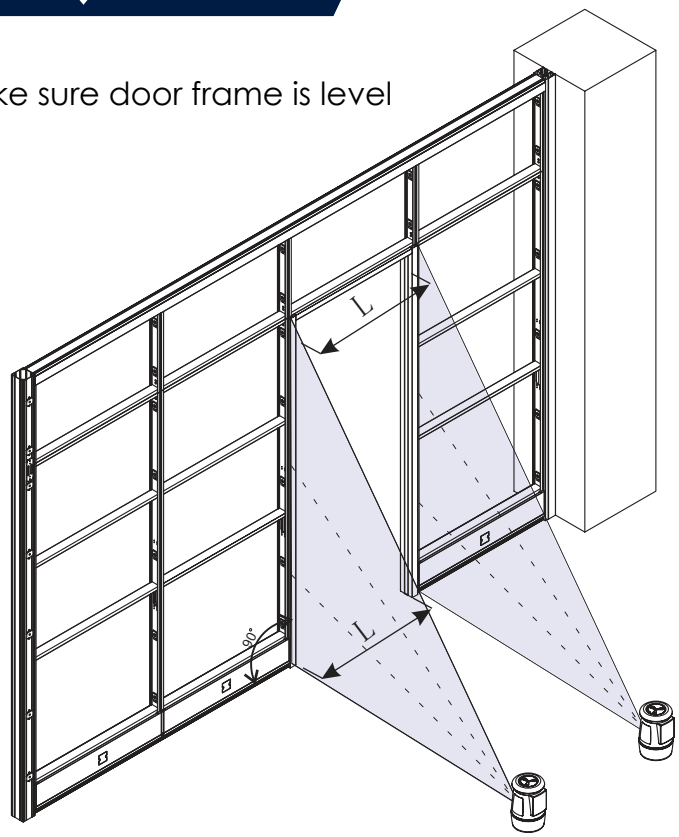
**View Installation video here:**

**https://youtu.be/5iAHI74A6Uc**

SKUTCHI DESIGNS

## Installing Swing Door Frame

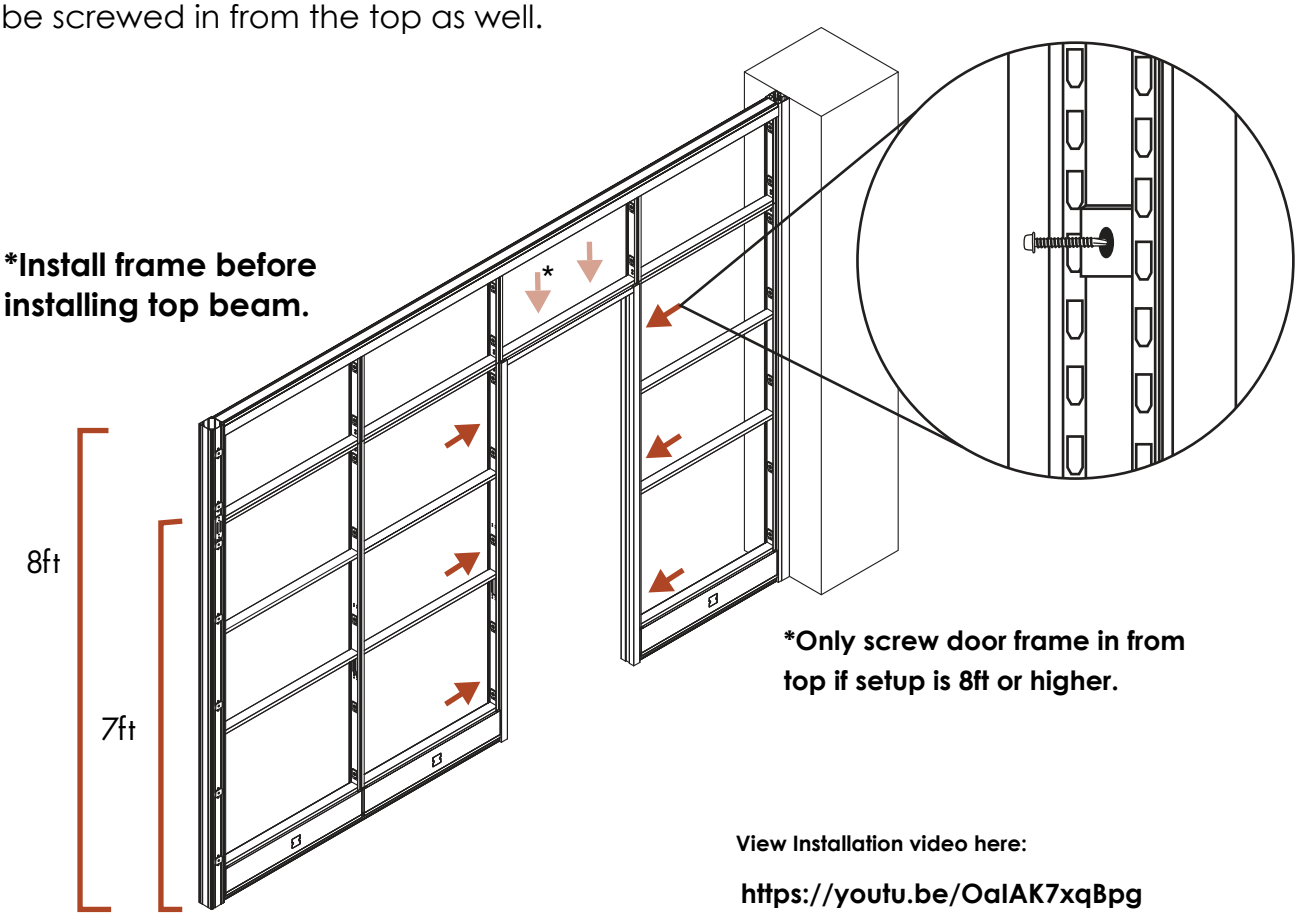
**4.** Make sure door frame is level




*Door frame on sliding door needs to be installed using sheet metal screws.

**5.** While tiles are off on 1 side of the wall, screw in through the panel to the frame with 1" hex bolts. 7ft walls this is the final step for the door frame assembly. 8ft walls need to be screwed in from the top as well.

***Install frame before installing top beam.**




***Only screw door frame in from top if setup is 8ft or higher.**

**View Installation video here:**

**https://youtu.be/OaIAK7xqBpg**

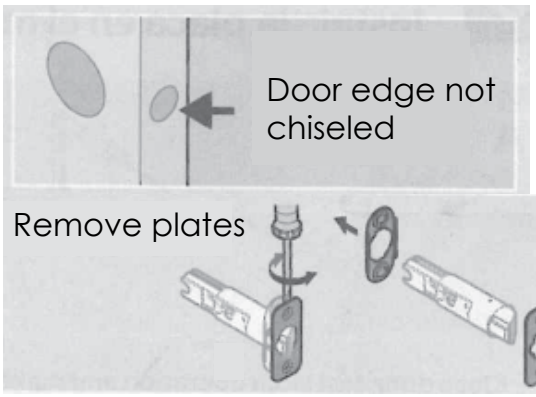
# Install Door Latch

Follow this side if door edge is chiseled ▼

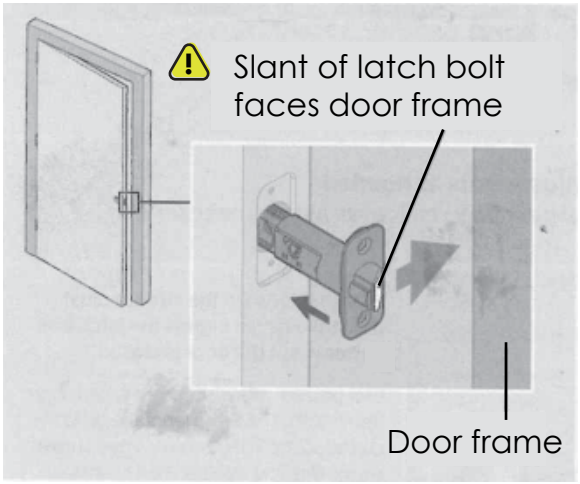
Follow this side if door edge is not chiseled ▼

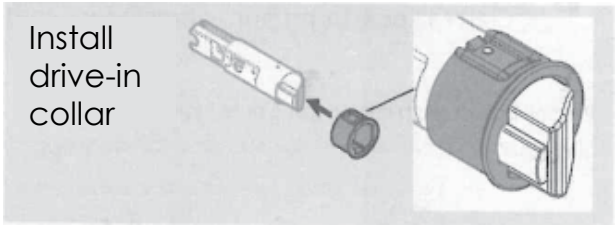
## Step 1:


OR

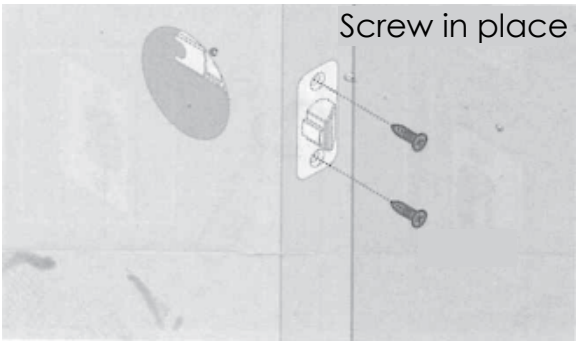


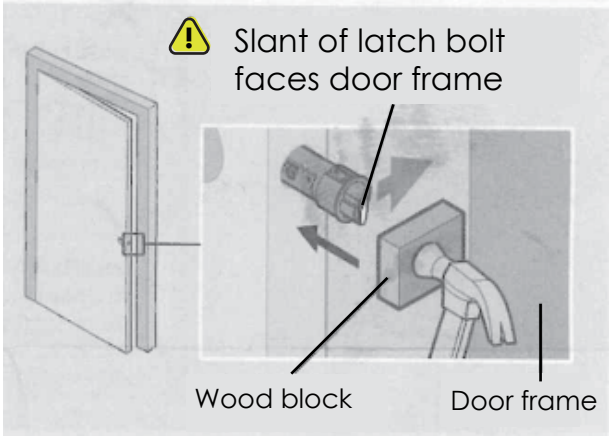

## Step 2:




## Step 3:

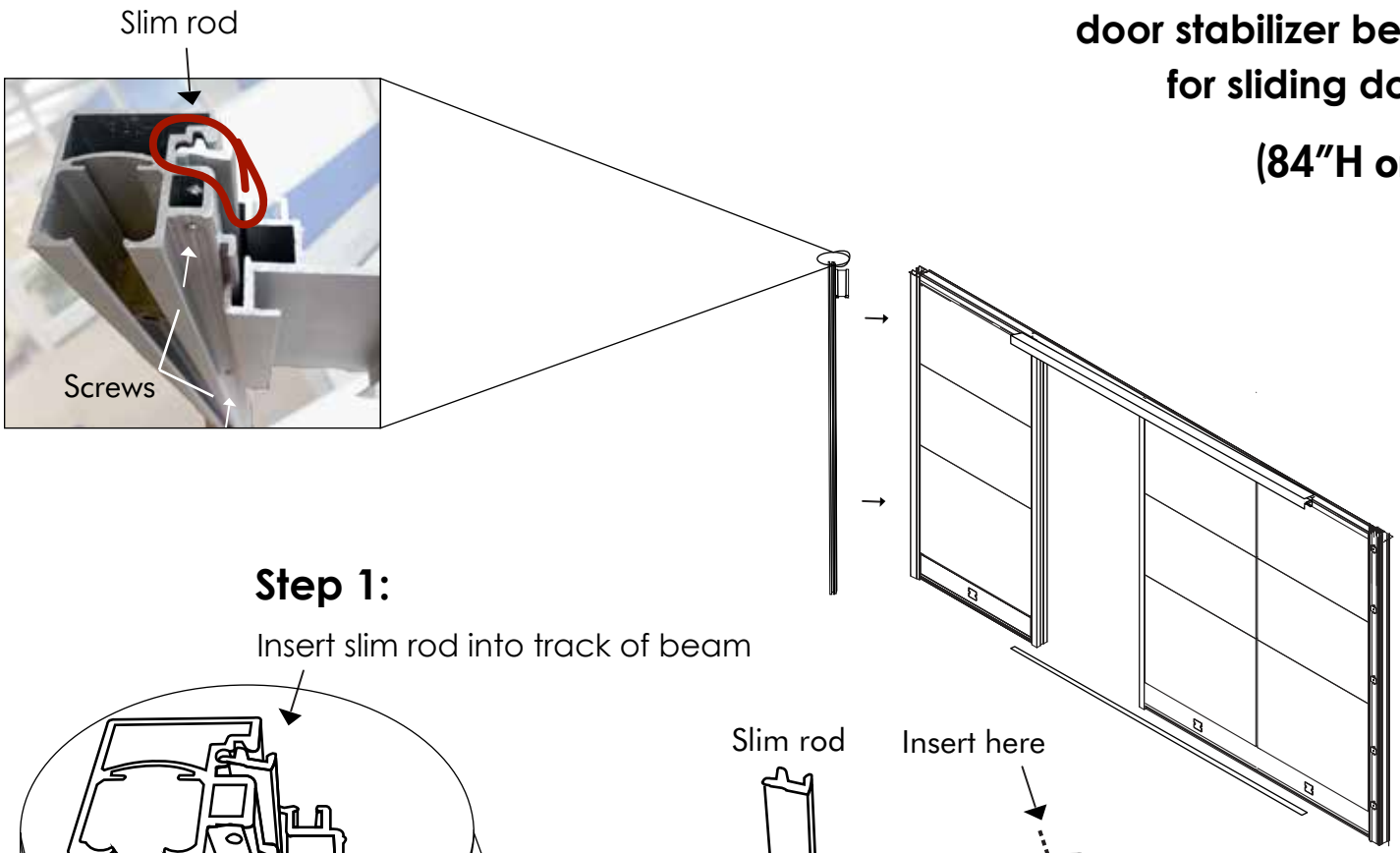


SKUTCHI DESIGNS

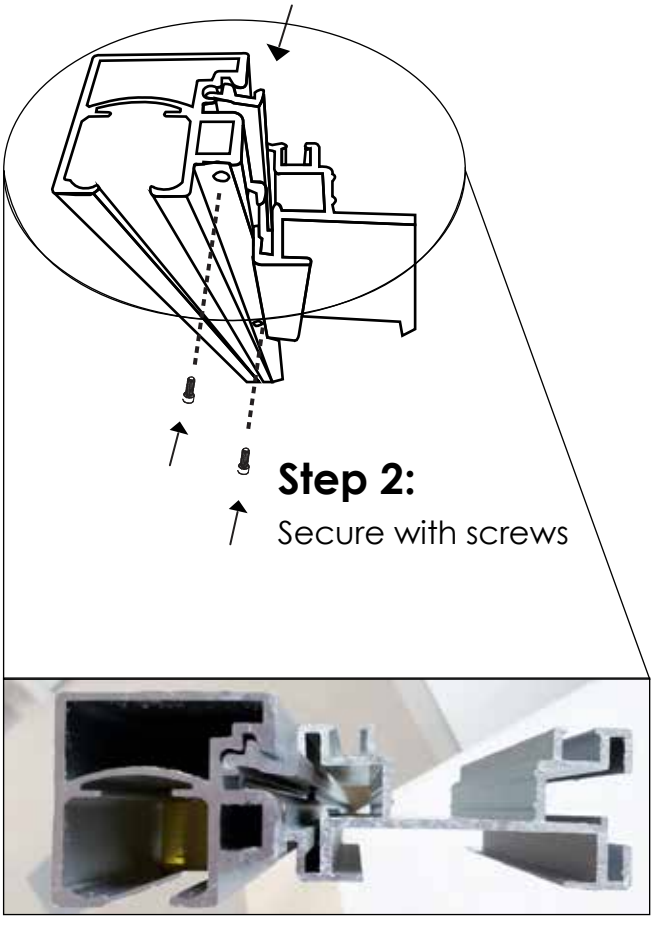
# Installing slim rod to door stabilizer beam for sliding doors

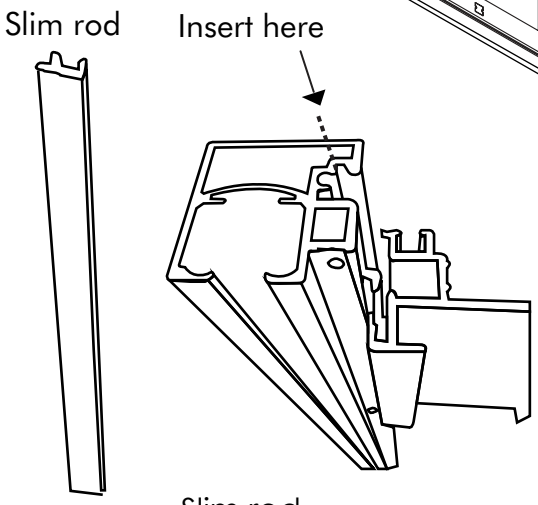
## (84"H only)

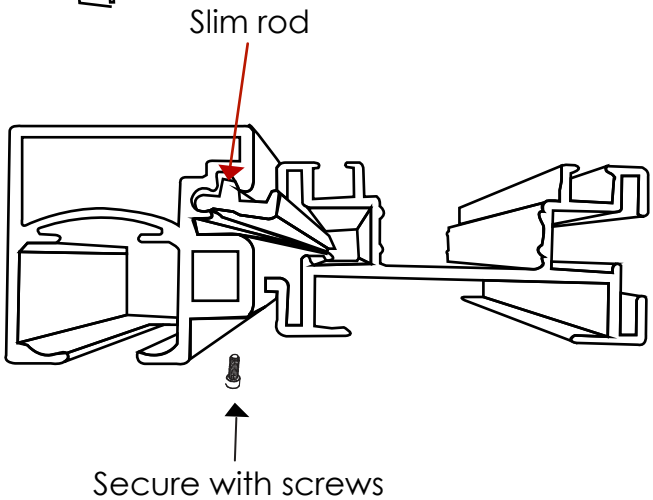



## Step 1:

Insert slim rod into track of beam



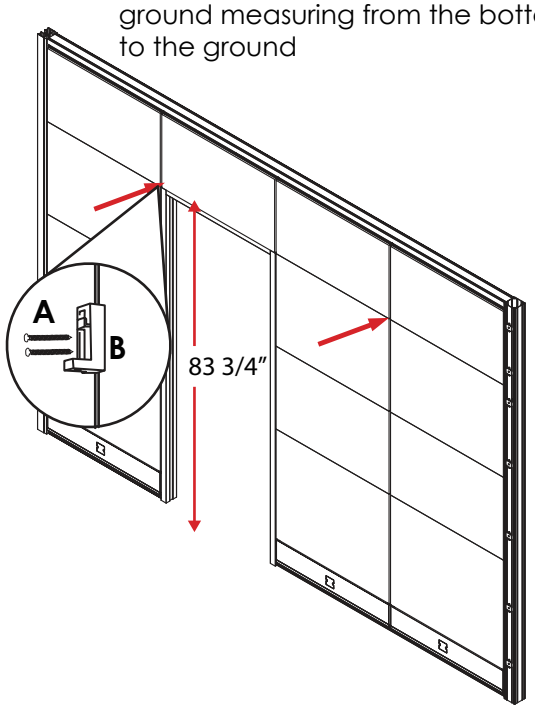

**View Installation video here:**

**https://youtu.be/_4cBCwJAmaM**

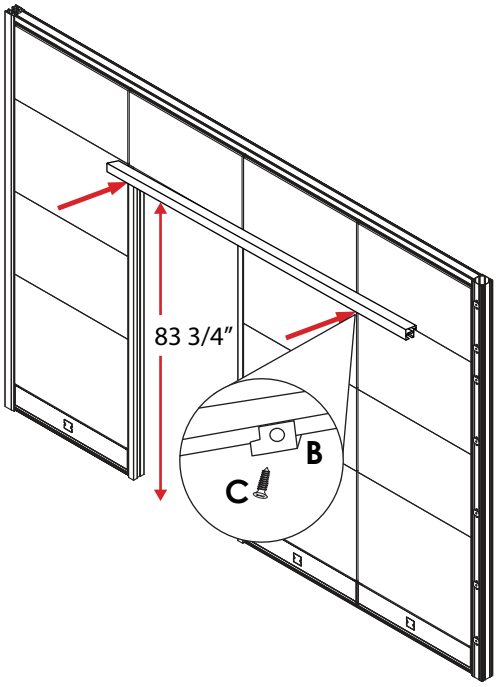
SKUTCHI DESIGNS

# Sliding Door Assembly

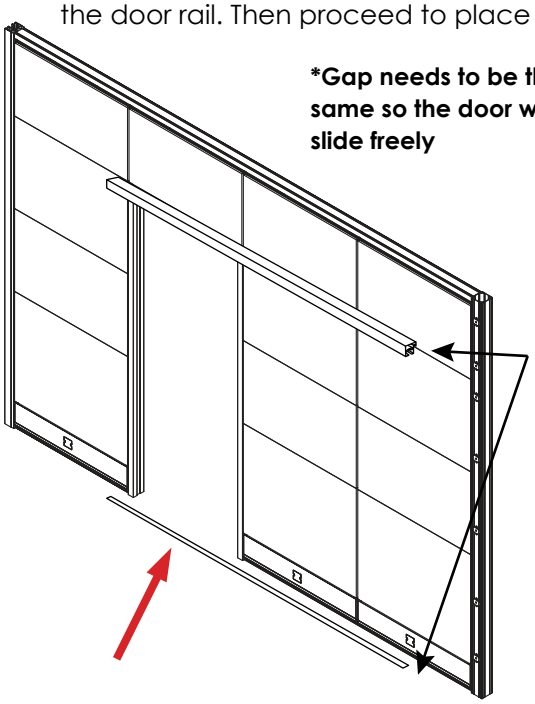
**1.** Screw in sliding door track directly into panel. Door rail must be placed 83 3/4" from the ground measuring from the bottom of the rail to the ground




**2.** Place sliding door rail onto screwed in sliding door rail clips and screw in from below. Door rail must be placed 83 3/4" from the ground.

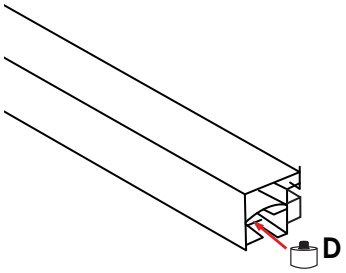



**3.** Place sliding door bottom track on floor using double sided tape, velcro, or glue; Lining it up with the door rail. Then proceed to place in sliding door.

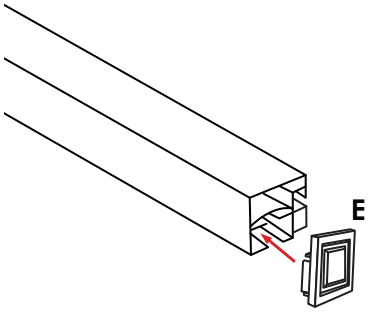


***Gap needs to be the same so the door will slide freely**

**4.** After inserting the sliding door into the rail, secure stopper on the end



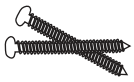
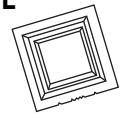

**5.** Place sliding door rail finish caps




**Sliding Door Lock**

Locks are available on bottom only of sliding doors. **Spring lock**-a 1" deep hole must be drilled in floor to engage lock.

**Parts:**

| A | B | C | D | E |
|---|---|---|---|---|
|  |  |  |  |  |
| Track Clips Screws | Track Clips | Door Rail Screws | Stopper | Finish Caps |

**View Installation video here:**
**https://www.youtube.com/watch?v=xhDhiL7eM0I**

SKUTCHI DESIGNS

# Installing Door Frame Against Connector

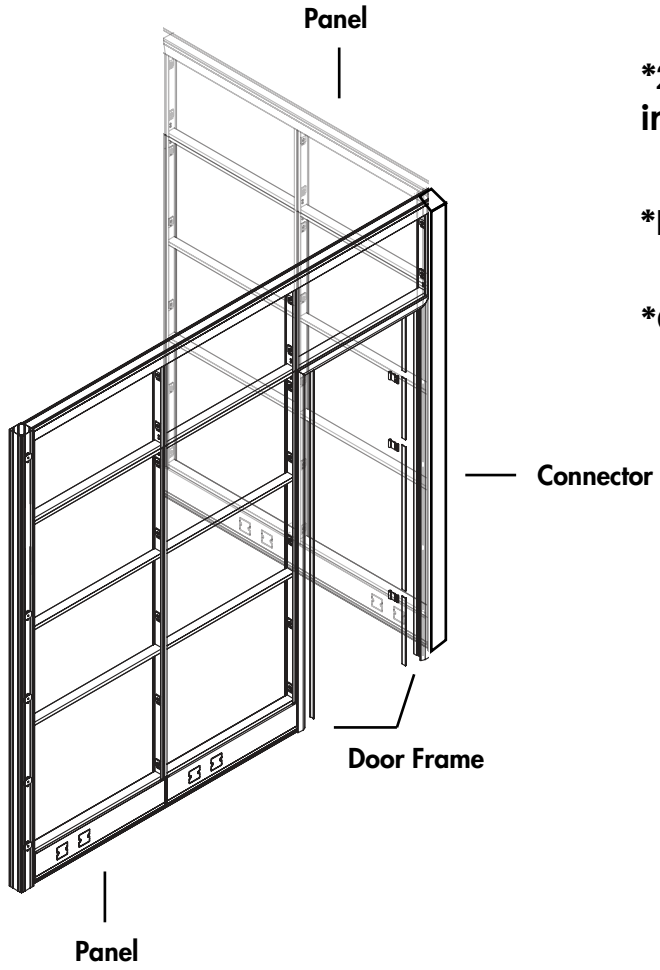
**1. When installing a door frame against a connector:**

Remove the white clips from the connector.

**2. Use pre-drilled holes and screws to install**

**3. Make sure its level**

**4. Install door after everything else is install**




***2" pan head screws into pre drilled holes.**

***Pre-drilled holes**

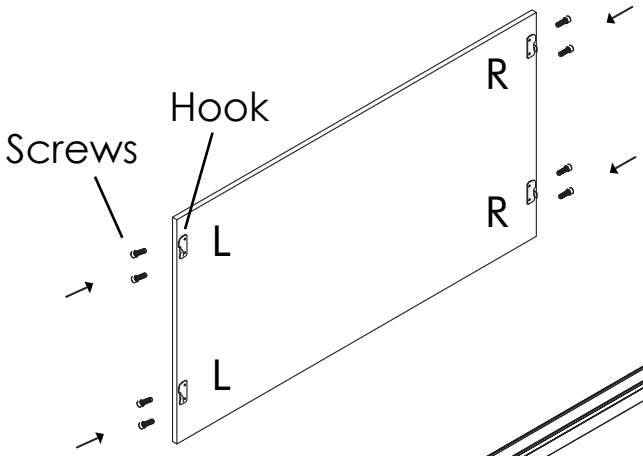
***Change new hinges**

View Installation video here:

https://youtu.be/76n4jfOB1OU

SKUTCHI DESIGNS

## Installing the tile hook




***Please use mallet to tap down tiles**

***Please use wood in between to keep tiles aligned**

***Do not hit tiles too hard**

*** If top tile doesn't clip in you are off on the bottom.**

## Fix the Tiles



**View Installation video here:**

**https://youtu.be/_qhIGucfsfY**

SKUTCHI DESIGNS®

## Top Beam Panel Stabilizer

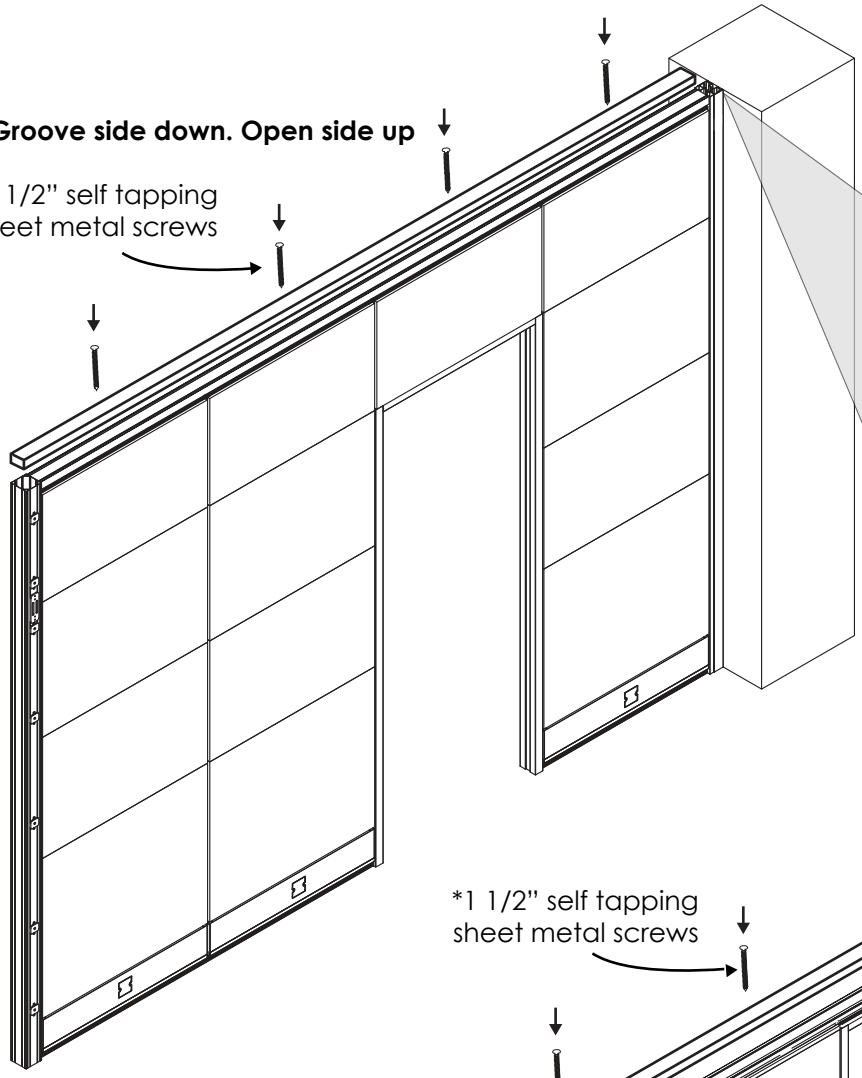
*May need to be cut to size.

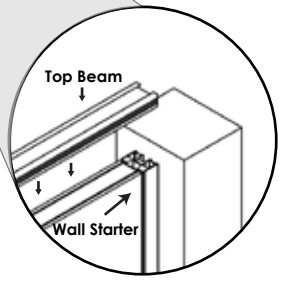
***To be installed last**

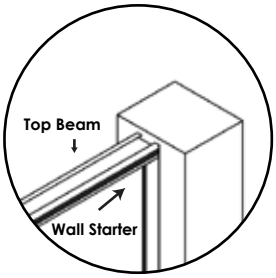
***MAKE SURE TOP BEAM GOES OVER WALL STARTER AND PANELS!**

***Groove side down. Open side up**

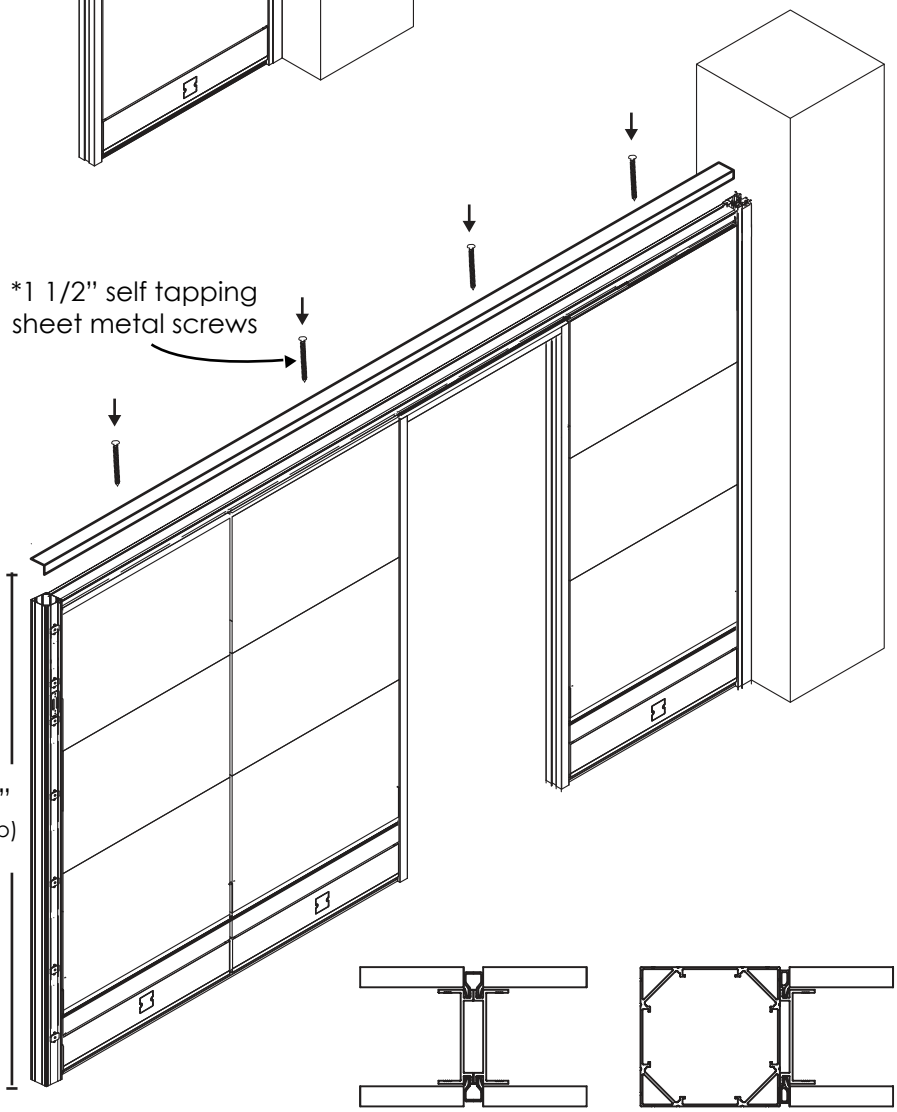
*1 1/2" self tapping sheet metal screws



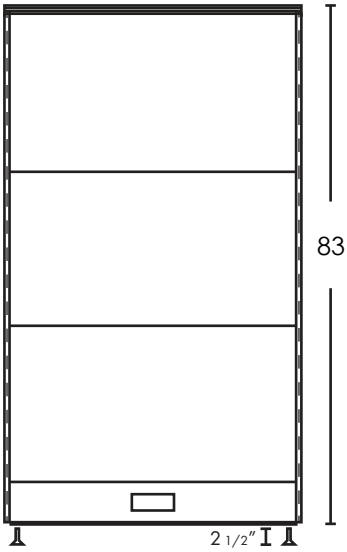



*1 1/2" self tapping sheet metal screws



7"H Custom Panel



SKUTCHI DESIGNS

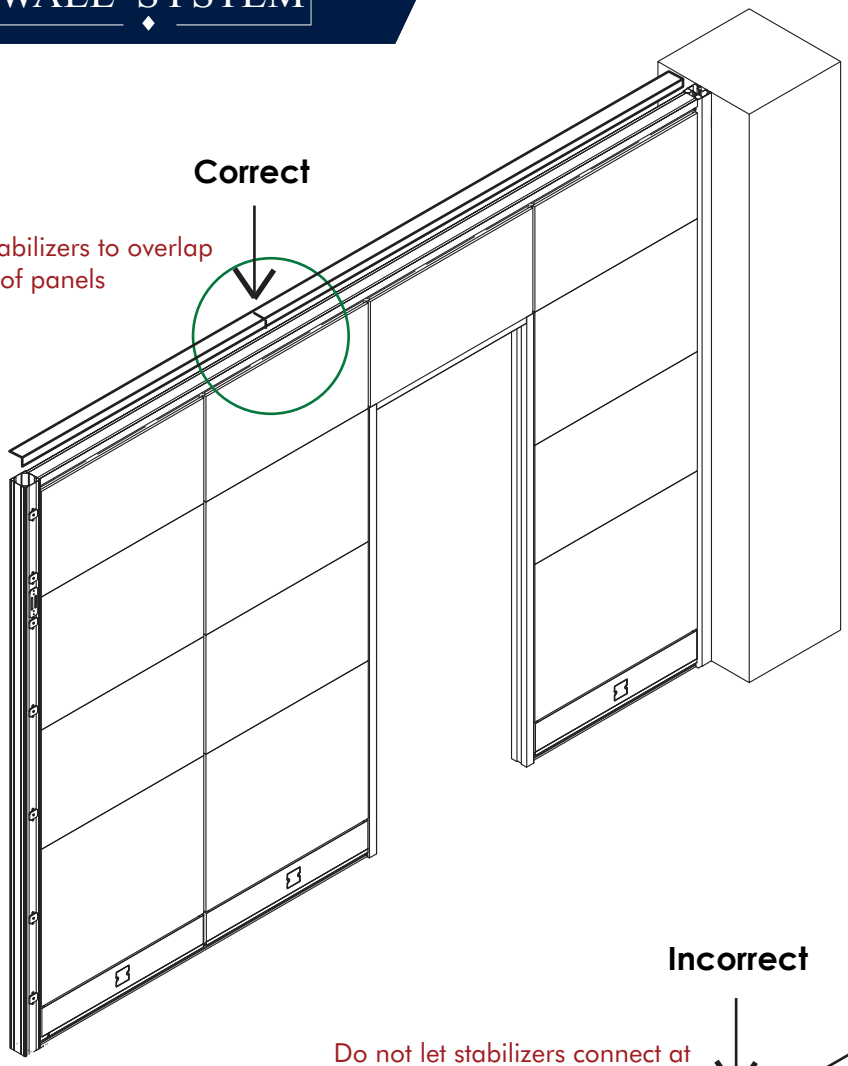
## Top Beam Panel Stabilizer

*May need to be cut to size.

***MAKE SURE TOP BEAM GOES OVER WALL STARTER AND PANELS!**

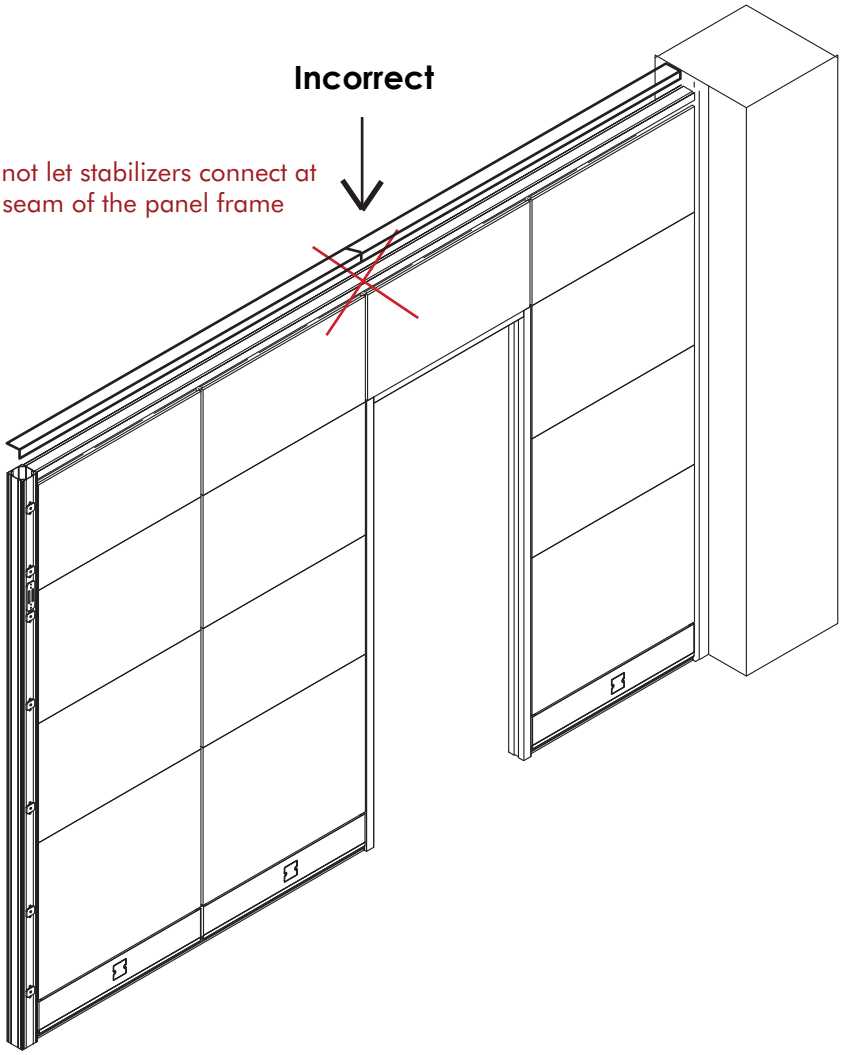
**Correct**

Cut stabilizers to overlap seam of panels



**Incorrect**

Do not let stabilizers connect at the seam of the panel frame



**View Installation video here:**

**https://youtu.be/zrFb1a7cj-4**

SKUTCHI DESIGNS

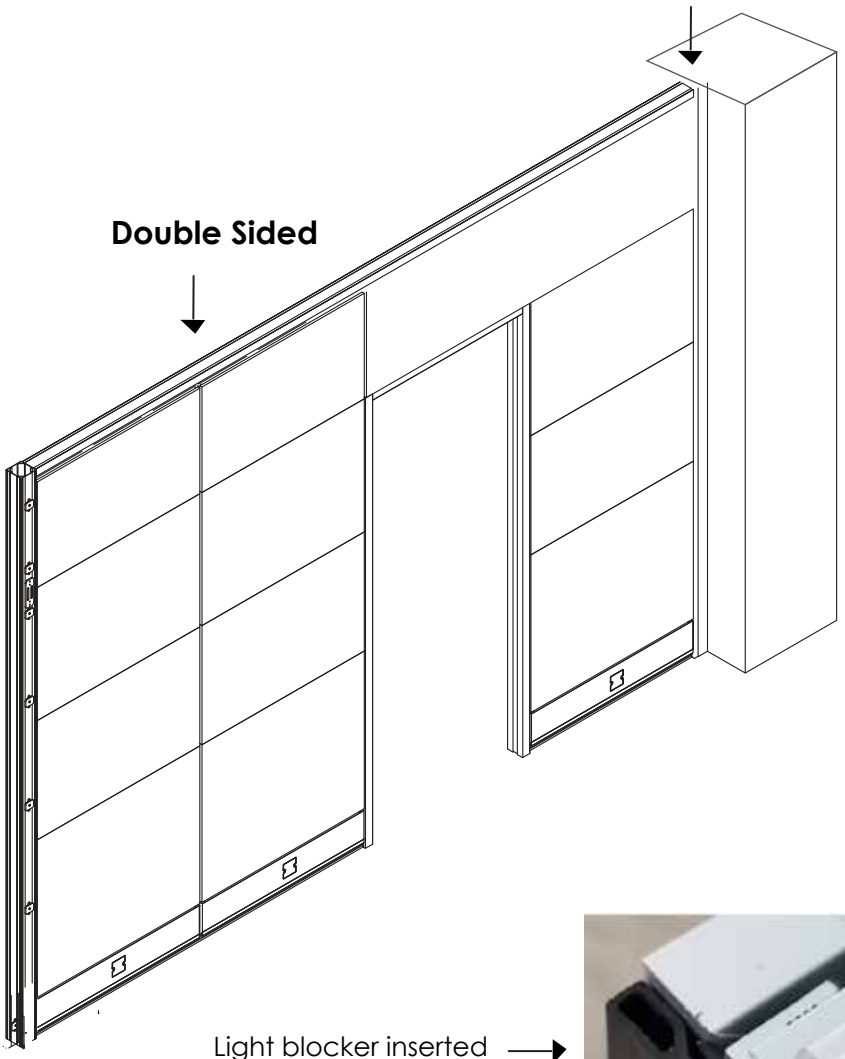
# Light Blockers

**Single sided by any connector.**

**Double sided in between panels.**

**Single Sided**

**Double Sided**



Light Blockers



***If having trouble fittiing between tiles start installing light blocker from the bottom to the top instead of top to bottom.**

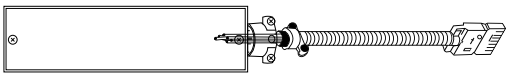
Light blocker inserted →

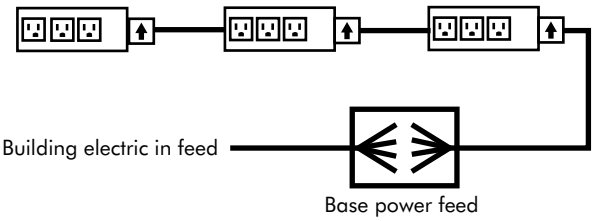
**View Installation video here:**

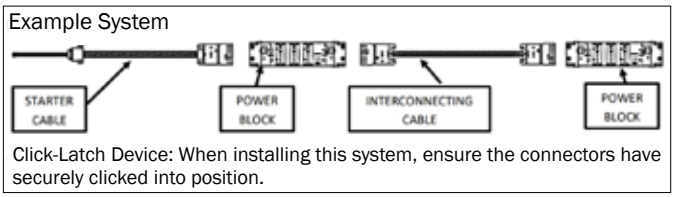
**https://youtu.be/_aX_EJXjXdk**

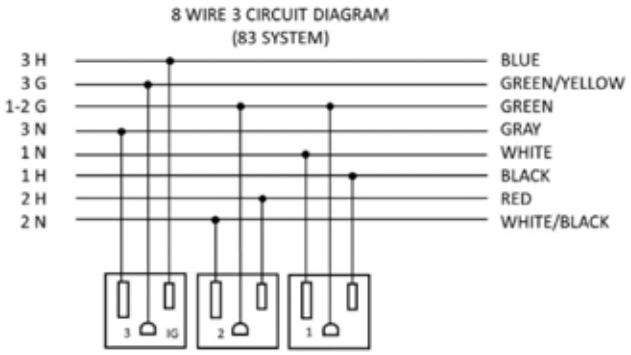
## FINAL CONNECTION IS DONE BY A LICENSED ELECTRICIAN

WARNING: Risk of fire or electric shock. As with all non-directional systems, do not electrically connect panel to more than one supply source. Always determine that the panel is electrically connected to one and only one source of supply. Before using any equipment, check the entire system for polarity, continuity, and grounding integrity.






Power Supply Connection

The Power System is an eight wire system consisting of four individual circuits rated at 20 amps/120 volts maximum. Circuit 1 (black), circuit 2 (red), and circuit 4 (pink), are served by a system neutral (white) and an equpiment ground (green). Circuit 3 (blue) uses an isolated neutral (gray), and an isolated ground (green/yellow). The system may be supplied by a three phase power system with four individual circuits rated 20 amps/120 volts maximum, or as perimtted by local code.

**When connecting electric pass throughs to power moduals, please make sure ARROW is up**

### Outlet Layout Options

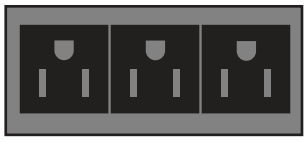
**O1**

OUTLET - BLANK - BLANK

**O2**

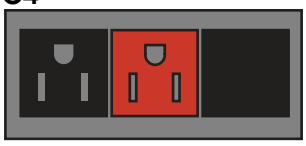
OUTLET - OUTLET - BLANK

**O3**



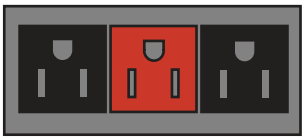
OUTLET - OUTLET - OUTLET

**O4**



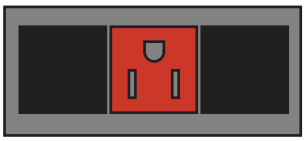
OUTLET - DEDICATED* - BLANK

**O5**



OUTLET - DEDICATED* - OUTLET

**O6**



BLANK - DEDICATED* - BLANK

*__PLEASE NOTE:__ Orange is used to represent the dedicated outlet. The actual color of the outlet is **black.**

**EMERALD** Cubicles come with style #225 Outlets.
**SAPPHIRE** Cubicles come with style #325 Outlets.

**DM1**


CAT 6 - Blank - Blank - Blank

**DM2**


CAT 6 - CAT 6 - Blank - Blank

**DM3**


CAT 6 - CAT 6 - CAT 6 - Blank

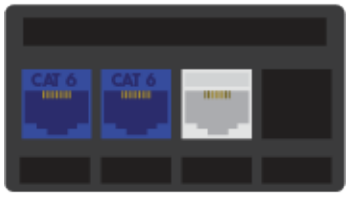
**DM4**


CAT 6 - CAT 6 - CAT 6 - CAT 6

**DM5**


CAT 6 - Phone Jack - Blank - Blank

**DM6**




CAT 6 - CAT 6 - Phone Jack - Blank

**DM7**


CAT 6 - CAT 6 - CAT 6 - Phone Jack

All Modules can be customized to customers specifications. Please call to review options with one of our sales representatives. Color of jacks may vary.

## Optional Acoustic Installation

Choose to add additional acoustic to your system using this rockboard. Below are the test results of its performance.

### ROCKBOARD® 40 – Acoustical Performance

| ASTM C 423 CO-EFFICIENTS AT FREQUENCIES | | | | | | | |
|---|---|---|---|---|---|---|---|
| Thickness | 125 Hz | 250 Hz | 500 Hz | 1000 Hz | 2000 Hz | 4000 Hz | NRC |
| 1.0" | 0.07 | 0.32 | 0.77 | 1.04 | 1.05 | 1.05 | 0.80 |
| 2.0" | 0.26 | 0.68 | 1.12 | 1.10 | 1.03 | 1.04 | 1.00 |
| 4.0" | 1.03 | 1.07 | 1.12 | 1.04 | 1.07 | 1.08 | 1.10 |

### ROCKBOARD® 60 – Acoustical Performance

| ASTM C 423 CO-EFFICIENTS AT FREQUENCIES | | | | | | | |
|---|---|---|---|---|---|---|---|
| Thickness | 125 Hz | 250 Hz | 500 Hz | 1000 Hz | 2000 Hz | 4000 Hz | NRC |
| 1.0" | 0.08 | 0.33 | 0.78 | 1.03 | 1.02 | 1.04 | 0.80 |
| 2.0" | 0.32 | 0.81 | 1.06 | 1.02 | 0.99 | 1.04 | 0.95 |

### ROCKBOARD® 80 – Acoustical Performance

| ASTM C 423 CO-EFFICIENTS AT FREQUENCIES | | | | | | | |
|---|---|---|---|---|---|---|---|
| Thickness | 125 Hz | 250 Hz | 500 Hz | 1000 Hz | 2000 Hz | 4000 Hz | NRC |
| 1.0" | 0.11 | 0.31 | 0.82 | 1.01 | 1.02 | 1.01 | 0.80 |
| 2.0" | 0.43 | 0.78 | 0.90 | 0.97 | 0.97 | 1.00 | 0.90 |

### Environmentally Sustainable

Our stone wool production process uses some of the most advanced technology available. The last decade has seen a new generation of ROXUL manufacturing advancements designed to lower our environmental footprint. These endeavors have included:

- the capture and recycling of rainwater;
- reduction in energy consumption;
- recycling of raw materials back into the production process;
- the use of natural lighting in our facilities; and
- repurposing water used during the manufacturing process.

### Moisture Resistance

| | | |
|---|---|---|
| ROCKBOARD® 40/60/80 ASTM C 1104 | Moisture Sorption | <0.08% |

### Fungi Resistance

| | | |
|---|---|---|
| ROCKBOARD® 40/60/80 ASTM C 1338 | Determination of Fungi Resistance | Passed |

### Thermal Resistance

| | | |
|---|---|---|
| ROCKBOARD® 40/80 ASTM C 518 (C 177) | R-value/inch @ 75 °F RSI value/25.4 mm @ 24 °C | 4.1 hr.ft².F/BTU 0.72 m²K/W |
| ROCKBOARD® 60 ASTM C 518 (C 177) | R-value/inch @ 75 °F RSI value/25.4 mm @ 24 °C | 4.2 hr.ft².F/BTU 0.72 m²K/W |

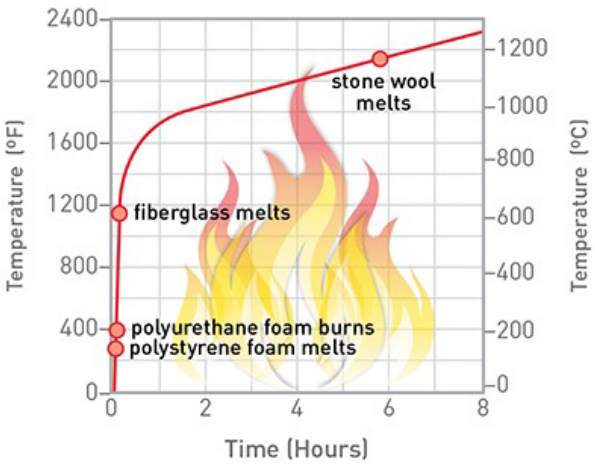
### Maximum Service Temperature

| | | |
|---|---|---|
| ROCKBOARD® 40/60/80 | ASTM C 411 | Hot Surface Performance In Compliance with ASTM C 612 @ 1200 °F (650 °C) |

### Fire Performance

| | | |
|---|---|---|
| ROCKBOARD® 40/60/80 CAN4 S114 | Test for Non-Combustibility | Non-Combustible |
| ROCKBOARD® 40/60/80 ASTM E 84(UL 723) | Surface Burning Characteristics | Flame Spread = 0 Smoke Developed = 0 |
| ROCKBOARD® 40/60/80 CAN/ULC S102 | Surface Burning Characteristics | Flame Spread = 0 Smoke Developed = 0 |

### Temperature Development in a Standard Fire (ASTM E119)




### Compliance and Performance

| | | |
|---|---|---|
| ROCKBOARD® 40 ASTM C 612 | Mineral Fiber Block and Board Thermal Insulation | Type IVA, Complies |
| ROCKBOARD® 60/80 ASTM C 612 | Mineral Fiber Block and Board Thermal Insulation | Type IVB, Complies |

**Installing the rockboard in the sapphire system.**

Rockboard fits in between the laminate tiles on the system.