

# **The DREAMVIEW™ Automation System**

## **Automation Installation Instructions**

- **Safety Tips**
- **Tool List**
- **Components**
- **Automation System Installation:**
  - Pre-Installation Checks
  - Placement of Components
  - Clearance for Belt Path
  - Motor Assembly Installation
    - Clearance Needed
    - Motor Placement
    - Motor Installation
  - Pulley Installation
  - Threading the Belt
  - Turnbuckle Installation & Attachment
  - Belt Retainer Clip Installation
  - Collector Plate Installation
- **Electrical Connections**
- **Programming**



Disclaimer: The information provided here is a general guideline. The representations and drawings included show typical placements and configurations. Refer to shop drawings and building documents for information specific to individual applications.

**Safety is number one priority here at Caldwell. Factory Authorized Installers only, should be installing this product. Please be cautious of your surroundings during installation and use tools the proper way.**

## **Electrical Safety:**

Whenever you work with power tools or on electrical circuits, there is a risk of electrical hazards, especially electrical shock. We recommend that all workers pay special attention to electrical hazards while installing this system. Coming in contact with an electrical voltage can cause current to flow through the body, resulting in electrical shock and burns. Serious injury or even death may occur.

**Note: Incorrect installation can lead to injury. Read and follow instructions contained in this manual carefully.**

## **Safety Tips:**

- Do not wear rings, watches or any loose clothing when installing or servicing the automation system.
- **Safety glasses** must be worn at all times
- Door system must be installed correctly before any automation is installed
- Watch for nails, sharp edges/corners, splintered wood, and uneven surfaces

## **Recommended Safety Equipment:**

- Safety Glasses



- Heavy Duty Gloves



- Hard Toe Shoes



- Knee Pads



- First Aid Kit



**Safety First!**

# Tool List



**In addition to safety equipment, standard framing contractor or carpenter tools are required.**

- Power Drill



- Drill Bit Kit



- 1/8" Shim Spacers



- Tape Measure



- 6' Jamb Level



- Precision Screw Driver Kit



- Ladders



- Screw Driver



- Hammer



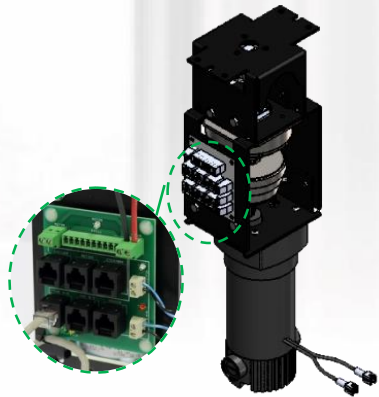
- 2 1/8" & 1" Hole Saws



- Paddle/Spade Bit Kit



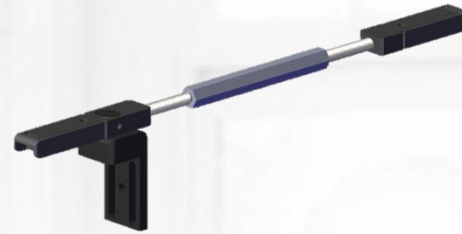
# Components



**Motor Assembly &  
Motor Breakout Board (Green)**



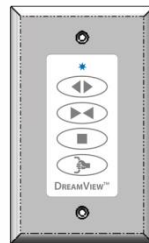
**Drive Belt**



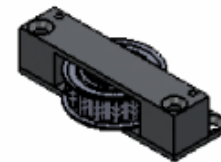
**Turnbuckle Belt Clamp &  
Mounting Bracket**



**Wireless Receiver**



**Wall Switch**



**Return Pulley**



**6 Foot 10 Pin  
Connector Cable**



**Automation Panel**



**Wireless Remote**



**Overhead Motion Detector**



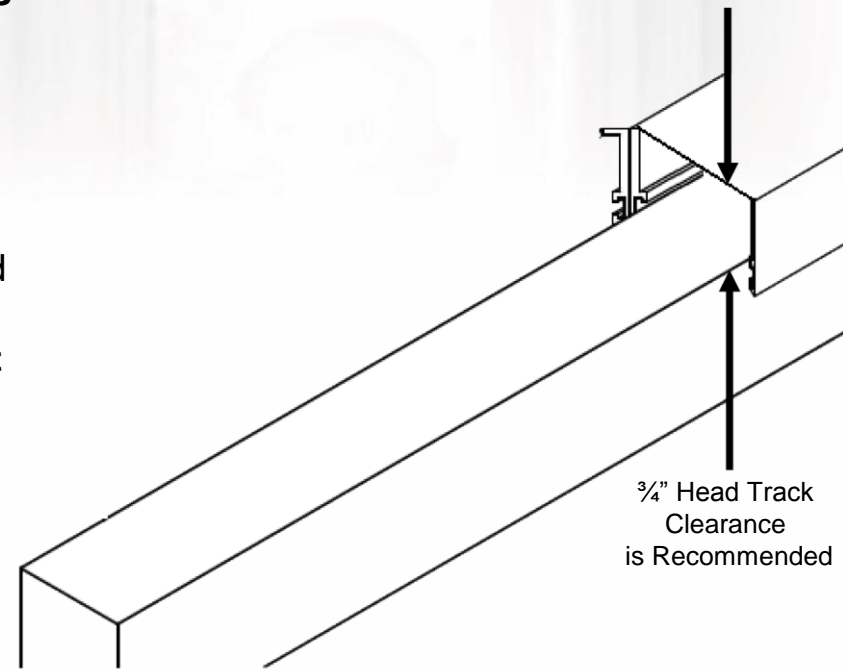
**Power Cable**

# Pre-Installation Checks



- Before beginning, some things need to be checked to ensure a smooth installation.
- Ensure that a 110V, 60Hz, 15A (dedicated is preferred) circuit is located at the Automation Panel.
- Pre-installation door checks:
  - **Door Movement** - Make sure that the door moves freely over its entire length of travel, and that it is square panel to panel and panel to jambs. **If any problems are detected, contact the door installer or job superintendent to correct them.**
  - **Head Track Clearance** - Sagging or distortion in the door head track may cause an interference with the drive belt or belt clamp assembly. Therefore, before beginning installation, measure and record the distance between the top of the door and the head track. This should be done at several locations over the length of the door travel.

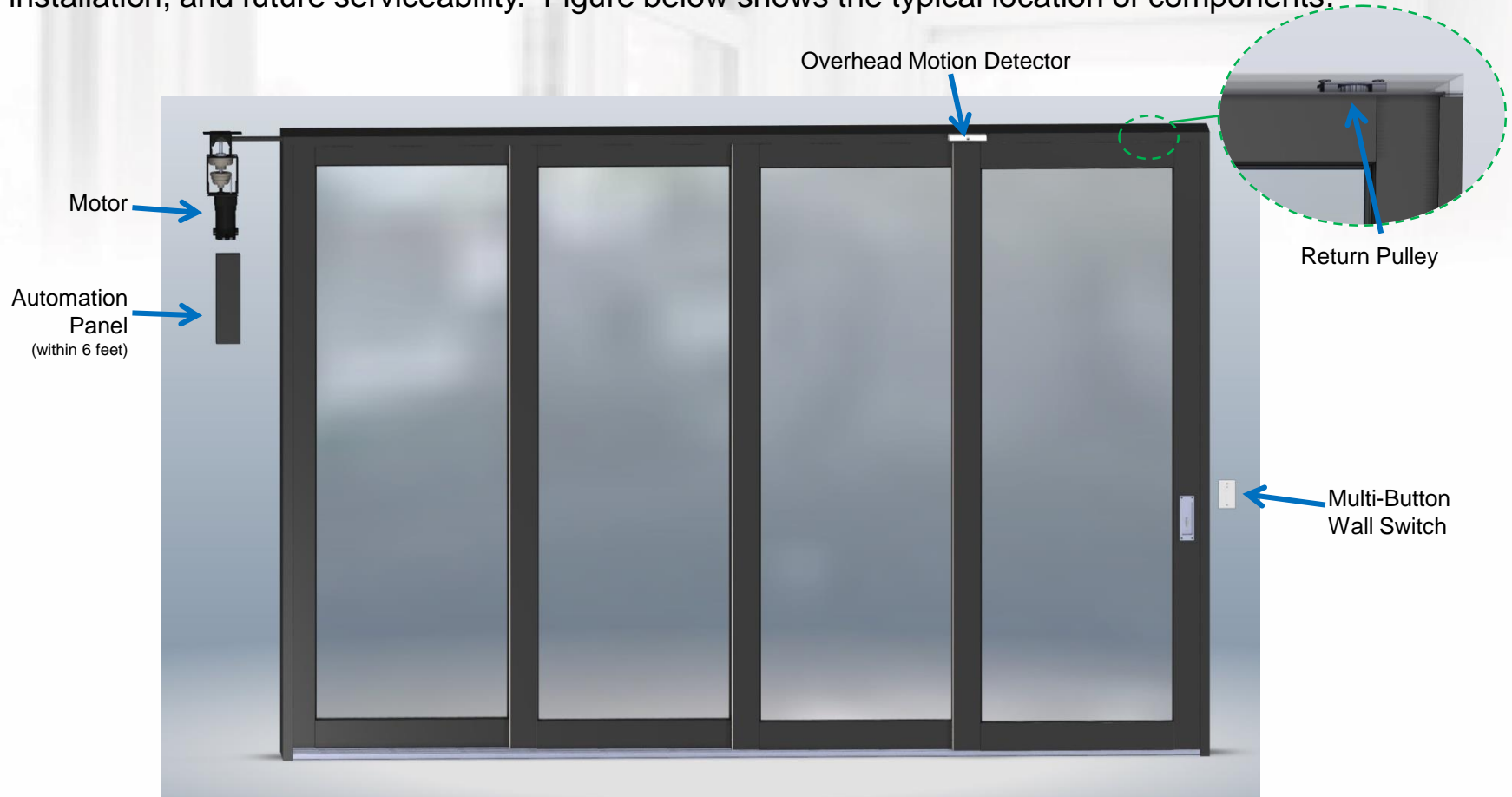
Note: There are different minimum clearance recommendations for different door manufactures.



# Placement of Components



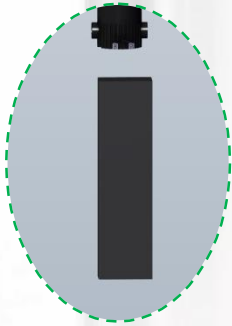
When determining component locations, consider the visual impact on the end customer, ease of installation, and future serviceability. Figure below shows the typical location of components.



# Placement of Components



## Continued



- **Automation Panel** – The automation panel is an electrical enclosure box that measures 4 1/4" x 2 1/8" x 14". To ensure proper system operation, the automation panel, needs to be mounted within 6 feet (wire length) of the motor assembly. This panel needs to be accessible. The Automation Panel comes with an electrical cord, so it can be plugged into a normal 110V, 60Hz, 15A, dedicated circuit.

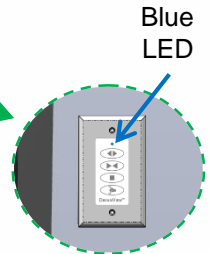
- **Motor Assembly** – On a single pocket door or stacked door, the motor assembly is typically located opposite the lock side jamb or in an extended pocket.



- **Return Pulley** – The return pulley is located on the opposite end of the door from the motor assembly and in many instances can be installed within the head track. (Note: Image is looking up into the head track of a partially opened door. Belt not show in image.)



- **Multi-Button Wall Switch** – A wireless multi-button wall switch, which fits into a single-gang switch box, is typically installed 54" above the floor to control the door. This is an interior switch. The blue LED will illuminate with every command and blink five times to indicate low battery.



- **Overhead Motion Detector** – The wireless motion detector is located where the first and second operating doors meet and should be installed no more than 14' above the floor. If properly installed and adjusted, when the door is closing and the motion detector senses motion, the door will come to a stop. The motion detector will beep to indicate low battery.

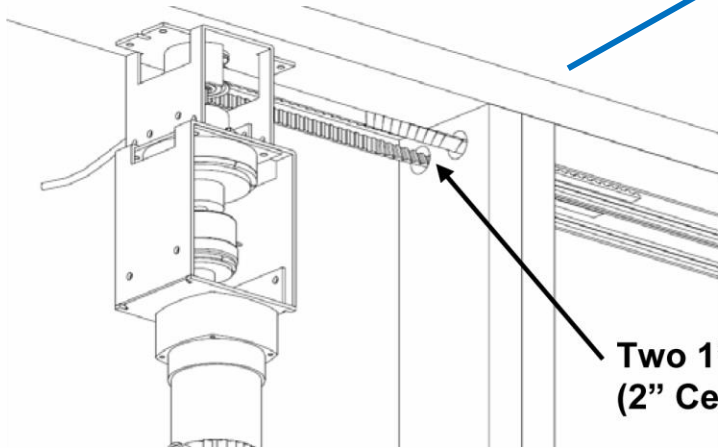


# Clearance for Belt Path



## **Bi-Parting Systems: See Addendum BEFORE DRILLING** **for Clearance and Component Placement (Slide 27)**

- **Clearance for Belt Path** – If the motor assembly is mounted outside the jamb (non-pocketing doors), two 1" holes (2" center to center) must be drilled for the belt. **Drilling the holes needs to be done before installing the motor assembly.**



**Two 1" Holes  
(2" Center to Center)**



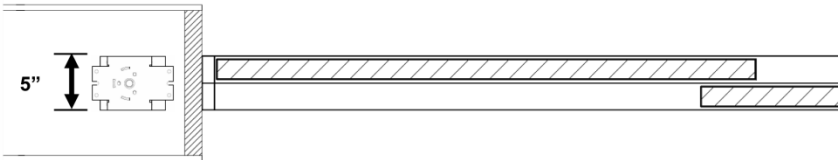
# Motor Assembly Installation



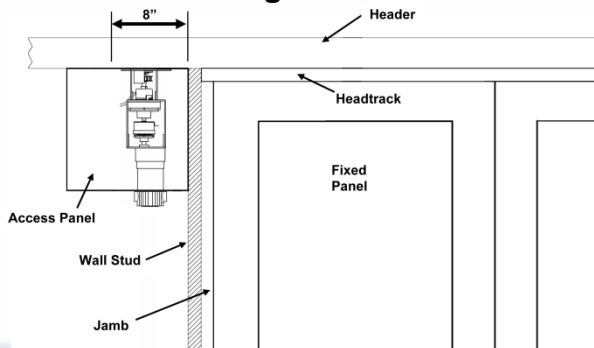
## Clearance Needed

### Typical Door Motor Placement

- **Stacking Door Unit Installation of Motor Assembly** - When installing the motor assembly, a minimum of 5 inches of clearance must be allowed, within the wall system. **Top View of Clearance Needed for Motor Assembly Installation for Stacking Door Unit**

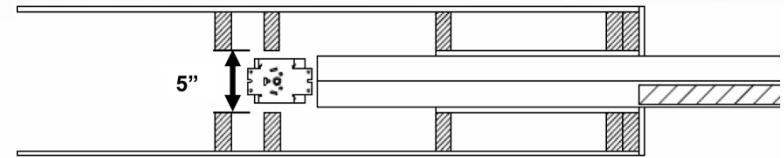


- A minimum of 8 inches (10" recommended) of clearance must be allowed from the wall stud. **Side View of Clearance for Motor Assembly Installation for Stacking Door Unit**

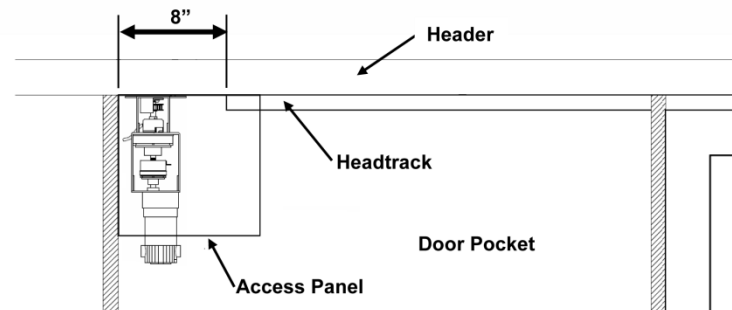


### Pocketing Door Motor Placement

- **Inside Door Pocket Installation of Motor Assembly** - When installing the motor assembly, a minimum of 5 inches of clearance must be allowed, within the wall system. **Top View of Clearance Needed for Motor Assembly Installation Inside Door Pocket**



- A minimum of 8 inches (10" recommended) of clearance must be allowed from the end of the head track to the wall stud. **Side View of Clearance for Motor Assembly Installation Inside Door Pocket**

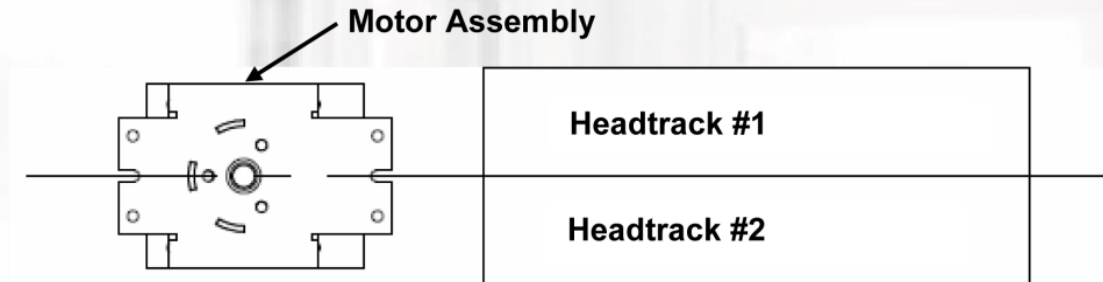


# Motor Assembly Installation

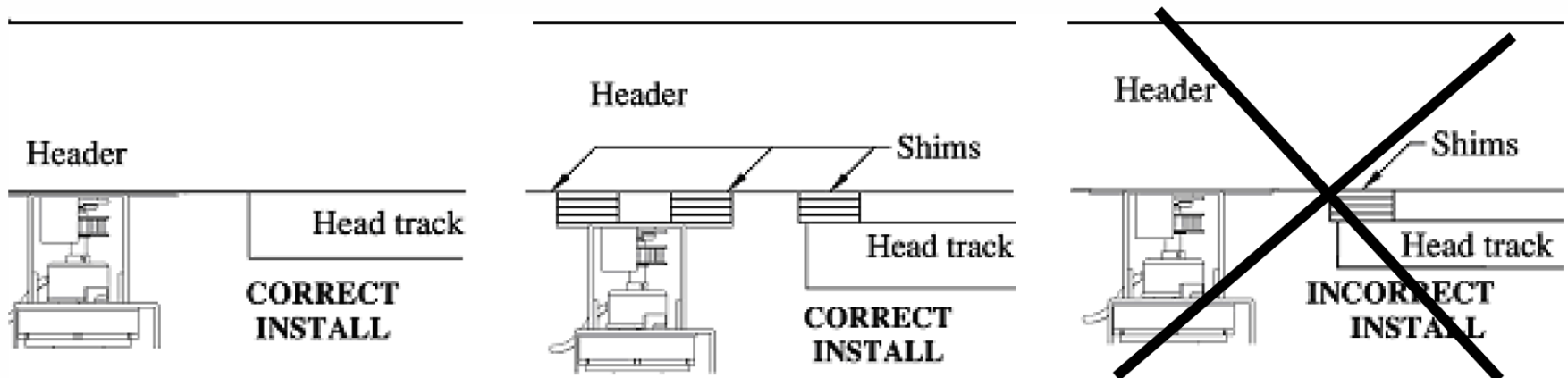


## Motor Placement

- **Installation of Motor Assembly**- Center the motor assembly between the two head tracks.



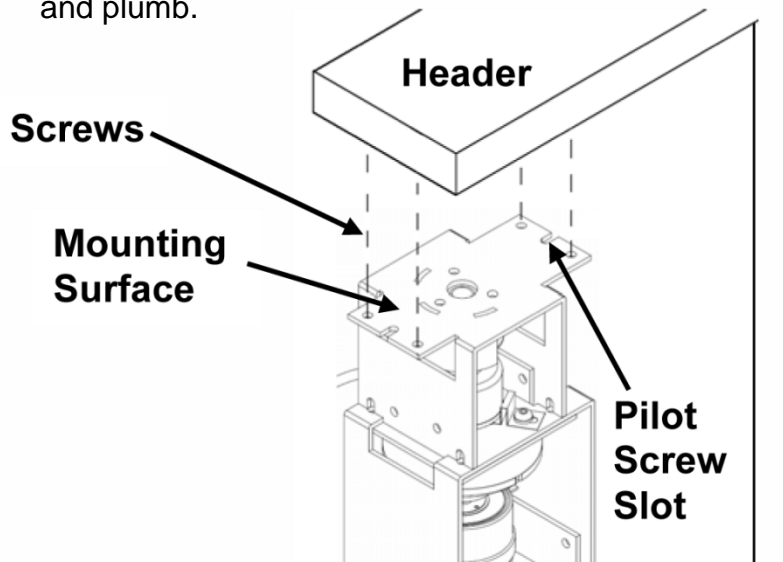
- **Alignment** - For proper drive belt operation, it is critical that the motor assembly is aligned on the same plane as the head track and that it is level. Under typical conditions, flush mounting the motor to the header will achieve proper alignment; however, if the head track has been shimmed, the motor assembly must be shimmed to match.



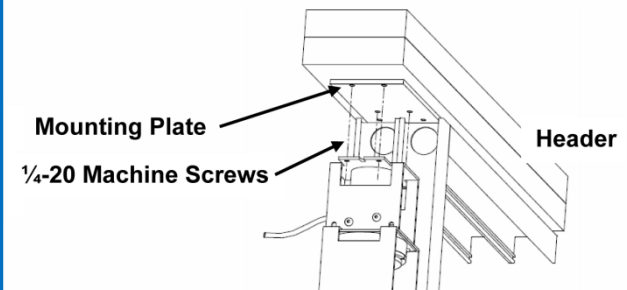
# Motor Assembly Installation



- **Motor Assembly Installation** - The motor assembly should be installed beyond the end of the final door panel or door jamb.
- **Important Note: The motor assembly must be mounted to a solid support member such as a 2"x8" header.**
- To make installation easier, first install a drywall or wood screw in the pilot screw slot to center and support the motor assembly. Then attach the motor assembly to the header using the four (4) 3" - #12 lag screws supplied. Once the motor assembly is attached, check to make sure that it is centered, square, level, and plumb.



- **Mounting Plate** - To make installation of the motor assembly easier and more accurate, several door manufacturers have incorporated a "mounting plate" as part of their door system. This plate is pre-drilled to directly accept the motor assembly.
- **Important Note: The mounting plate and motor assembly must be anchored to a solid support member such as a 2"x8" header.**

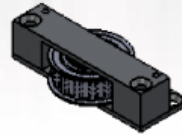


# Pulley Installation

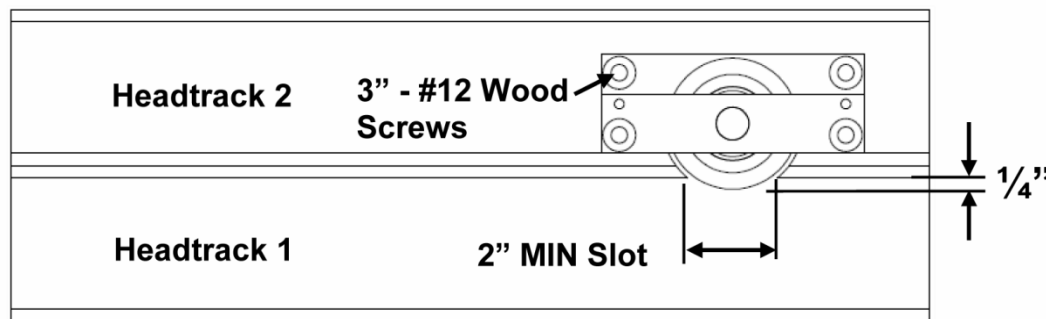


**Note: Inline Return Pulley Installation Shown.** Return Pulley can also be installed beyond the end of the door.

- **In-line Installation of Return Pulley:** A slot which is a minimum of 2 inches in length needs to be cut into the head tracks. This enables the drive belt to pass through from head track 1 to head track 2. The Return Pulley should only protrude beyond the wall of the head track approximately  $\frac{1}{4}$ ". Attach the Return Pulley to the head track and header using the supplied 3" - #12 lag screws.



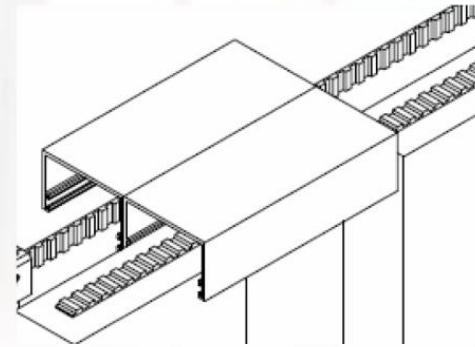
- **Bottom View of In-line Return Pulley Installation When Using Two Head Tracks:**



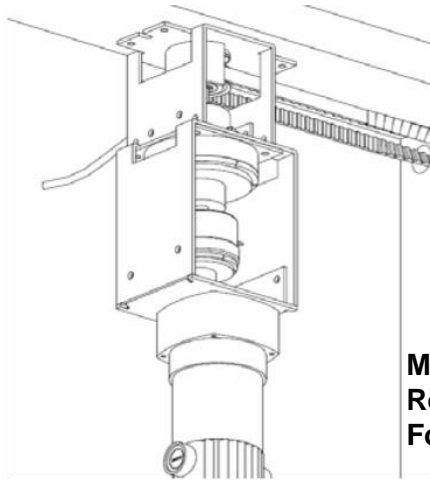
# Threading the Belt



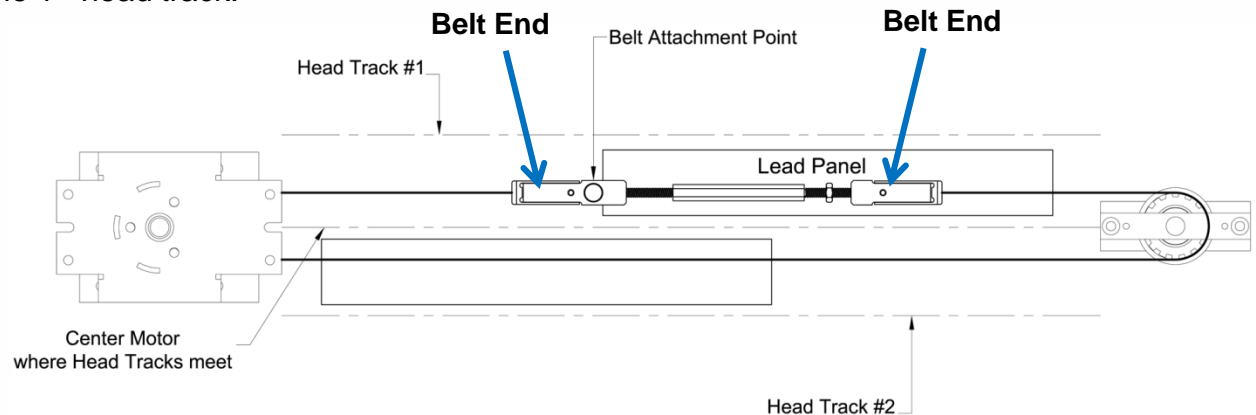
- **Belt Path**- Each direction of the belt rides in a separate head track.



- **Thread the belt**- First ensure that there aren't any twists in the belt. Then thread the belt through both the Motor's Pulley and the Return Pulley with the opening of the belt where the Turnbuckle will be placed. The open ends of the belt will always end up in the 1<sup>st</sup> head track.



**Motor Belt  
Routing  
For Ref.**



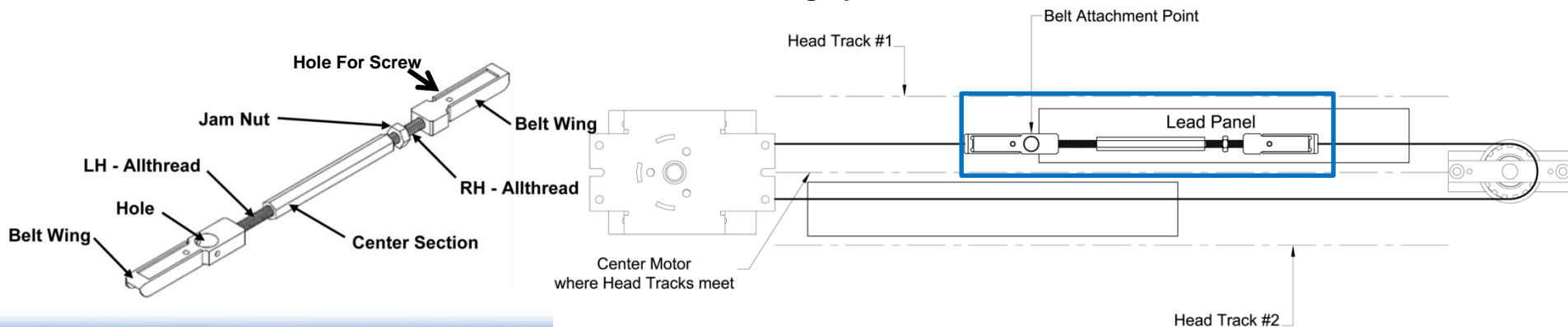
# Turnbuckle Installation



## Turnbuckle Installation To Belt

- **Installation of Turnbuckle Belt Clamp Assembly for One Way Doors**

- **Twist** to nearly fully extend the turnbuckle while ensuring at least 5 threads of engagement of both the left hand (LH) and right hand (RH) all-thread into the center section.
- **Cut the belt close to one of the teeth.** Ensure that both ends of the belt are facing up.
- **Insert the drive belt (teeth up- as shown)** through the belt wing and install one 8 – 32 X 3/8" machine screw to hold the belt wing to the belt clamp.
- **Trimming the Belt:** Pull the belt tight-take as much slack out of the belt as possible- without leaving the belt too short and also ensuring full engagement of the belt with the belt clamp. Cut the belt close to one of the teeth. Insert the drive belt (teeth up) through the other belt wing and install one 8 – 32 X 3/8" machine screw to hold belt wing to the belt clamp.
- **Tighten the** turnbuckle belt clamp assembly by rotating the center section initially by hand and then with a 3/8" wrench.
- **Once the belt has been adequately tensioned, tighten the jam nut** against the center section using a 7/16" wrench.
- **Ensure that both ends of the belt are still facing up and have not rotated relative to each other.**

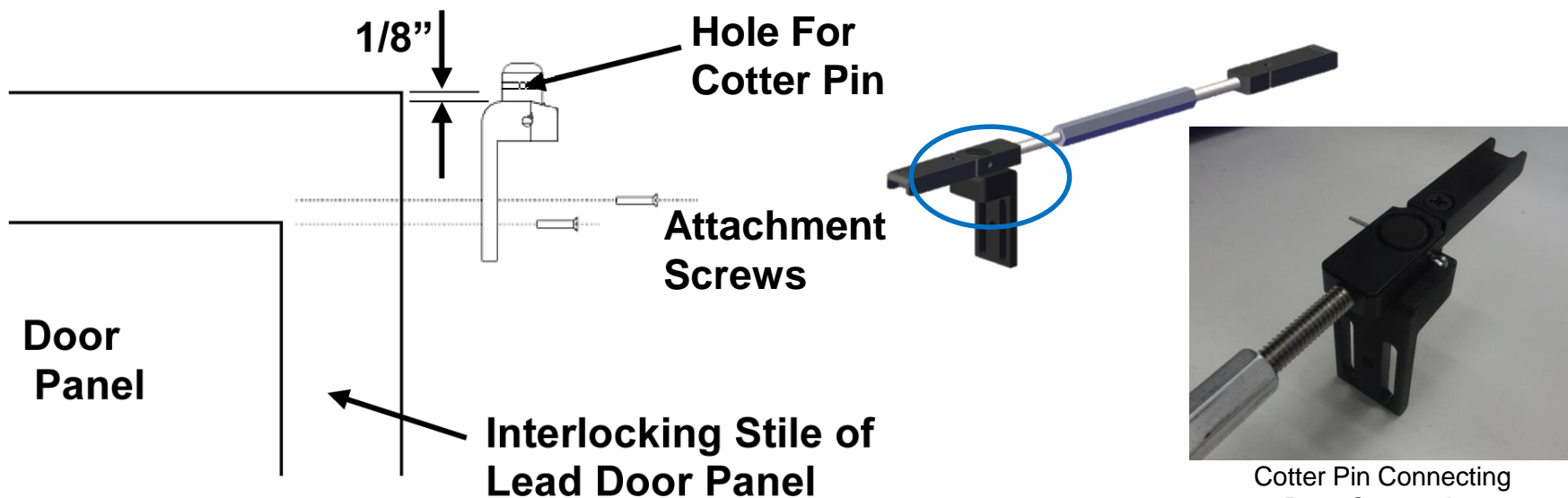


# Turnbuckle Installation



## Turnbuckle Installation To Door

- **Installation of Door Connection Bracket for One Way Doors** The bracket is installed on the interlocking stile, at the top of the lead door panel.
  - **Pull** the belt clamp assembly and belt down to the top of the door.
  - **Align** the door connection bracket with the belt clamp assembly hole.
  - **Recess** the connection bracket about 1/8" from the top of the door.
  - **Attach** the bracket with five (5) #8 x 1" attachment screws
  - **Insert the provided cotter pin** through the holes in the belt clamp and the door connection bracket to keep the belt clamp assembly from disengaging from the connection bracket.

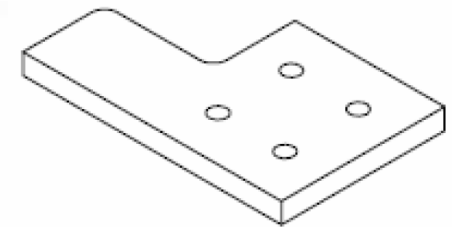
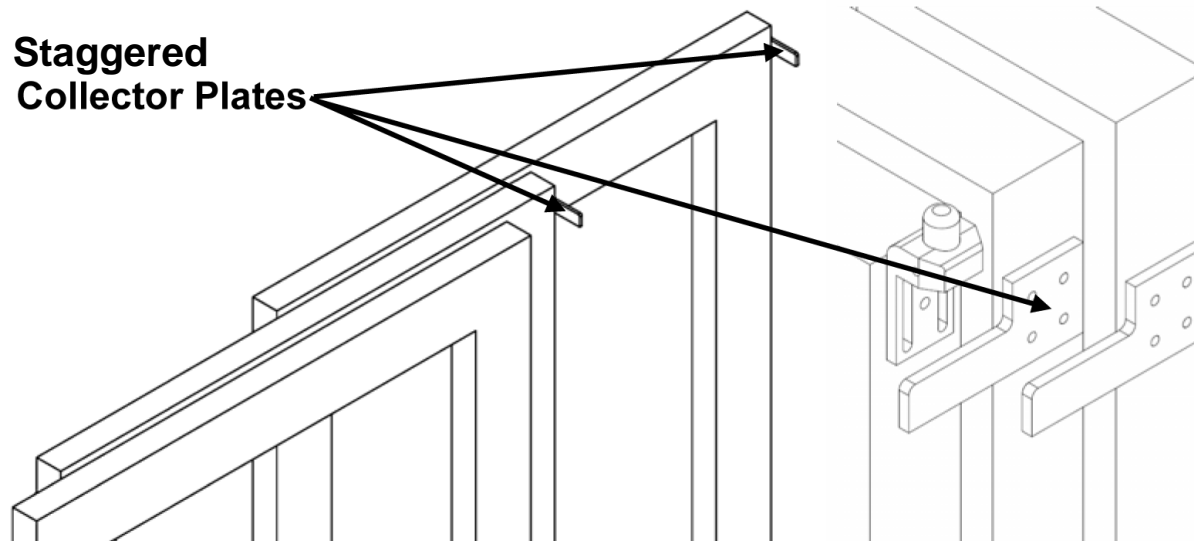


Cotter Pin Connecting  
Door Connection  
Bracket to Turnbuckle.

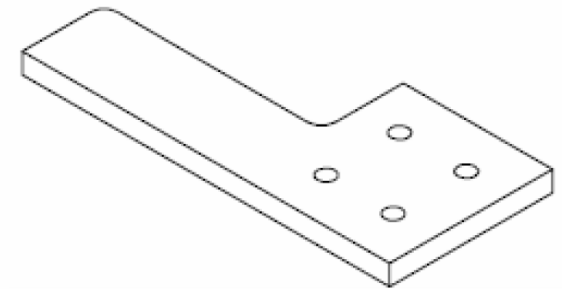
# Door Collector Plates



- **Installation of Door Collector Plates** – When a multi-panel sliding door is **closing**, factory interlockers “collect” the next door panel. For doors that do not have **opening** interlockers, collector plates need to be installed at the top of each door (except the lead panel).
- Depending on the thickness of the door panels 1” or 2” collector plates are used. **Install door collector plates using four (4) #8 x 1” attachment screws provided. Make sure the door collector plates are installed on the back side of the door panels.**



**1” Collector Plate**

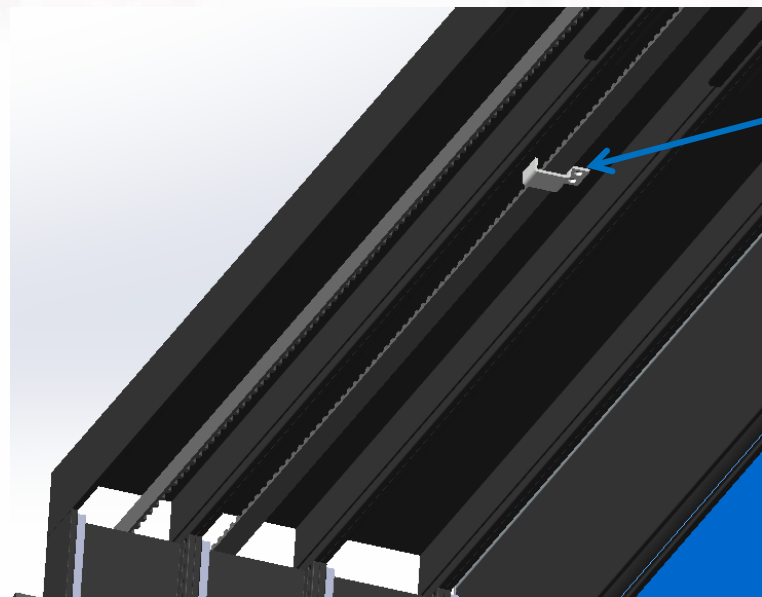


**2” Collector Plate**

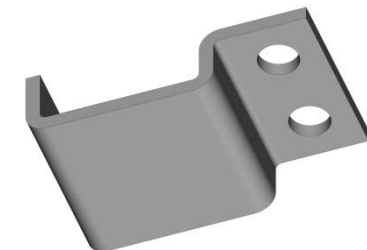
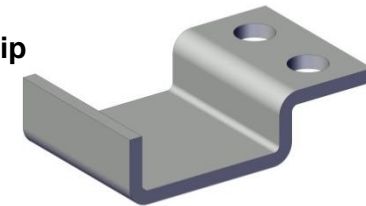
# Belt Retainer Clip Installation



- **Installation of belt retainer clips** Belt retainer clips are used to prevent the belt from sagging, flapping, and rubbing. The retainer clips also help keep the belt teeth in the “up” orientation.
- **Important Note:** Retainer clip is installed in the 2<sup>nd</sup> head track, in the middle of the daylight opening. Do not place belt retainer clips within the lead door head track. This will interfere with the belt clamp assembly during door travel. Always be sure to keep drive belt teeth facing up.
- Install belt retainer clips using the 8 – 24 X 1” self tapping screws. Multiple clips can be added, throughout the door opening, as needed.



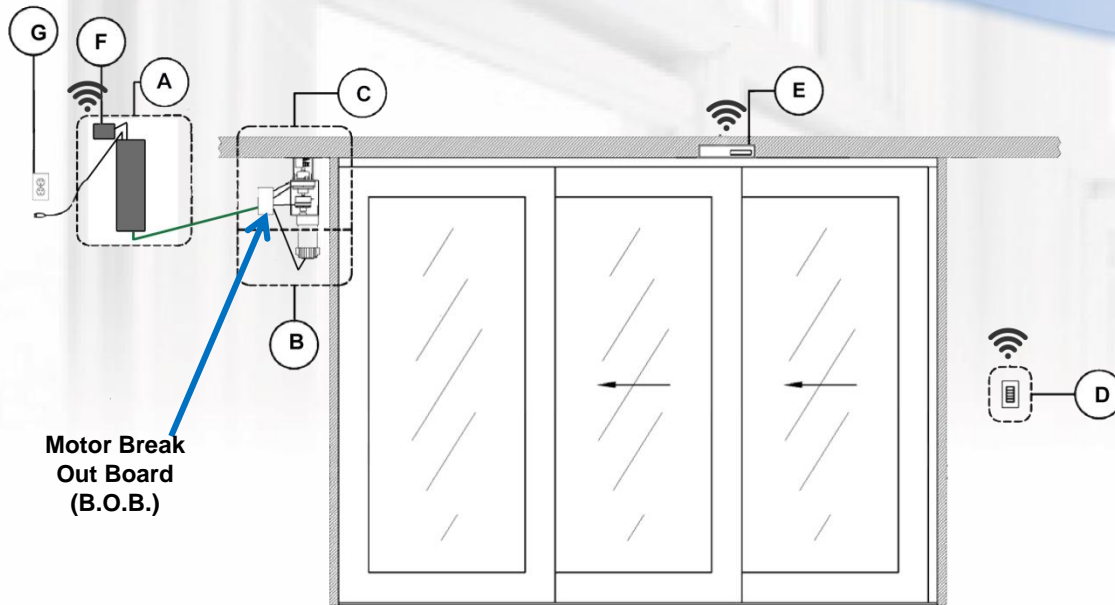
Retainer Clip



Retainer Clip

**Before connecting electrical components, make sure that the door moves freely over its entire length of travel, and that it is square panel to panel and panel to jambs.**

# Automation System Installation



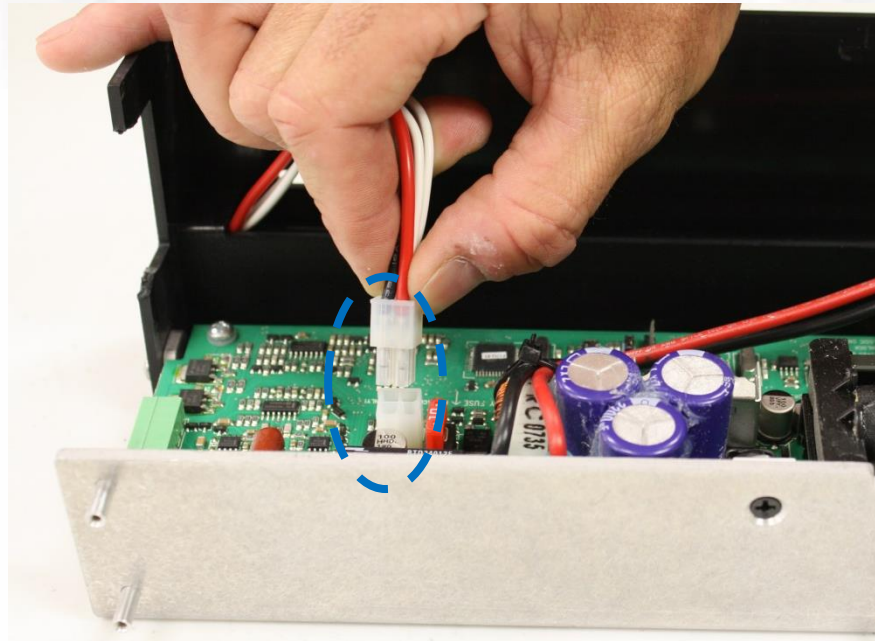
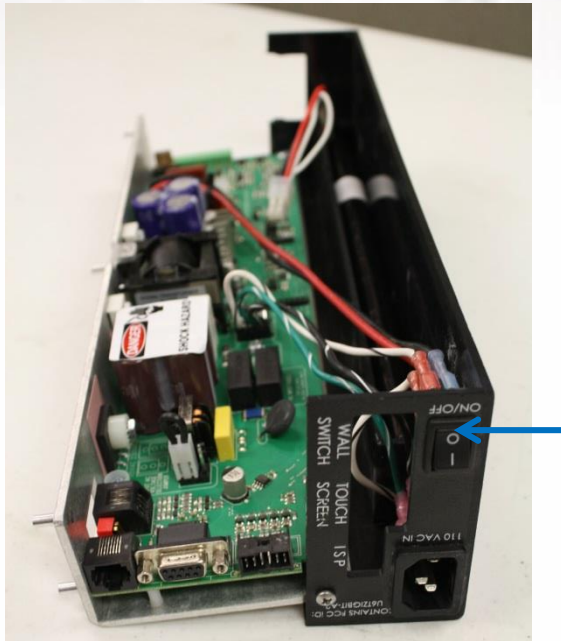
- **Automation Panel (A) to Power Supply (G)** – When instructed, the automaton panel will be connected to “G” which is a 110V, 60Hz, 15A, dedicated circuit. “G” should be within 6 feet of the automaton panel. A power cord is supplied with the automation panel.
- **Motor Breakout Board (C) to Automation Panel Main Circuit Board (A)** – Use the provided 6 foot 10 pin cable (Shown Green) to connect the motor breakout board, on the side of the motor assembly, to the automation panel main circuit board.
- **Wireless Receiver (F)**– The wireless receiver is plugged into the RJ45 Port next to the DIP Switches on the side of the DREAMVIEW™ Automation Panel via the provided RJ45 Wire. This receives the wireless signals from the other components.
- **Multi-button Wall Switch (D)**– The wall switch is wirelessly connected.
- **Remote Control** – The remote control is wirelessly connected.
- **Overhead Motion Detector (E)**– The motion detector is wirelessly connected. (Note: Do not install batteries until after initial programming.)

# Automation System Installation



## Connect the Battery

- Begin with nothing connected, **unit open and OFF** ("O" pressed in).
- **Connect the battery** (red and black wire). **Close** controller cover.



# Automation System Installation



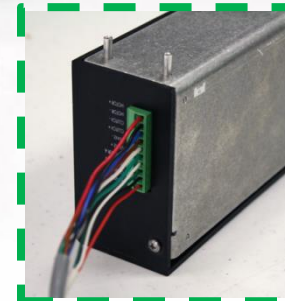
## Initial Programming

### While the power is OFF:

Confirm that everything is plugged in correctly.



**Motor to Automation Panel**



**Back View of DREAMVIEW™ Automation Panel (Rotated)**

### Power Cable Connection



### Wireless Motion Connection

Wireless Motion Receiver plugged into the RJ-45 port next to the DIP Switches on the side of the DREAMVIEW™ Automation Panel.



**Side View of DREAMVIEW™ Automation Panel (Rotated)**

# Automation System Installation

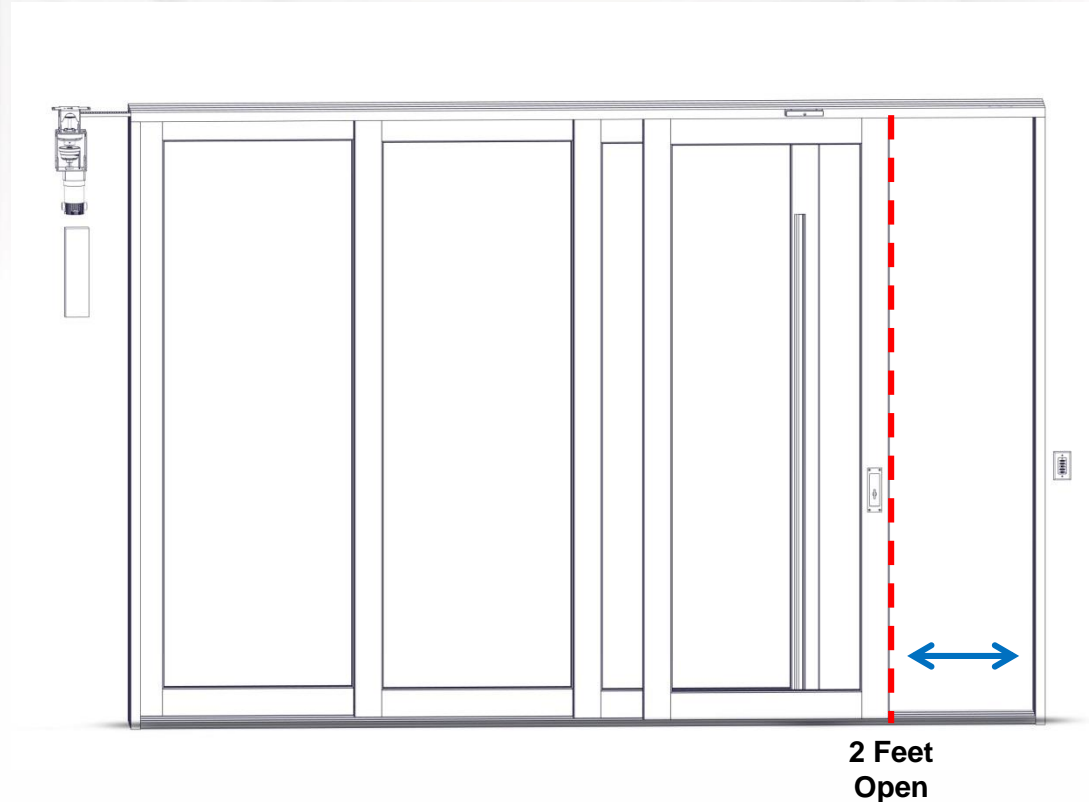
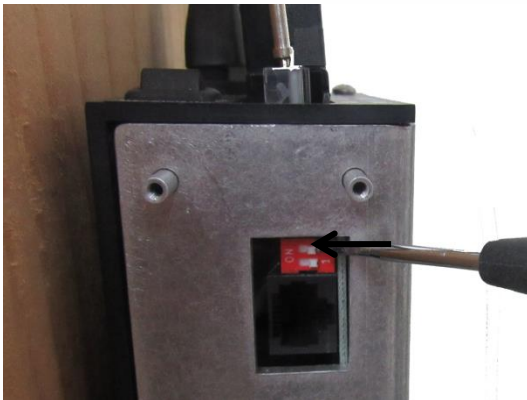


## Initial Programming: 123 Set Up

1. Begin with all connections made and the DREAMVIEW™ Automation Panel turned OFF.



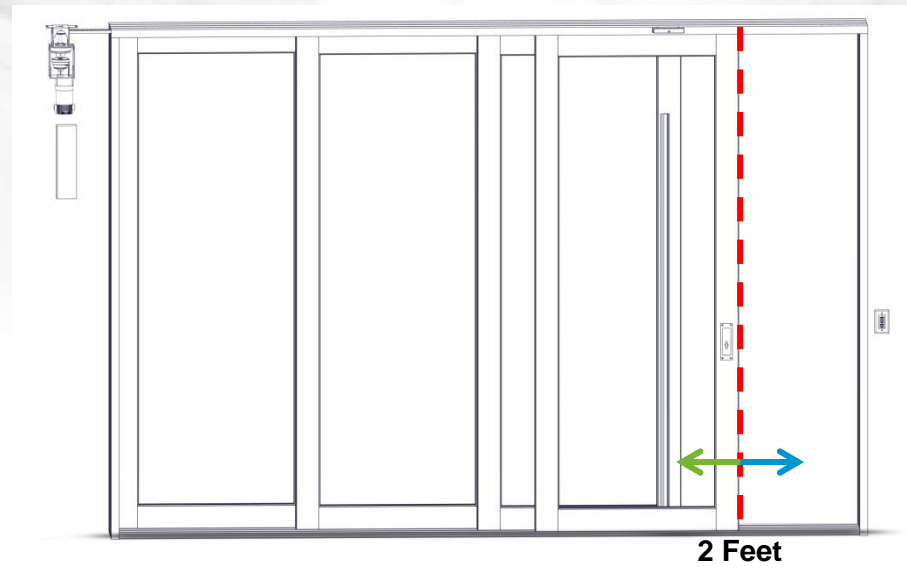
2. Position the lead panel approximately two feet from the fully closed position. Refer to right image.
3. Set DIP switch #1 & #2 to the ON position – Located on the side of the DREAMVIEW™ Automation Panel.



# Automation System Installation



## Initial Programming: 123 Set Up



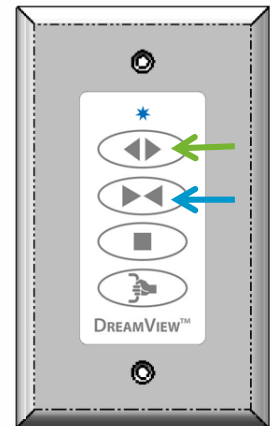
4. Turn ON the DREAMVIEW™. Automation Panel

The RED LED will blink once, the YELLOW LED will blink twice and the GREEN LED will blink three times. This is the indication for the 1 2 3 Simple Setup.

5. The lead panel will move about six inches, either towards the **closed position** or towards the **open position**.

**If the door moved towards the closed position, press the CLOSE button on the wall switch.**

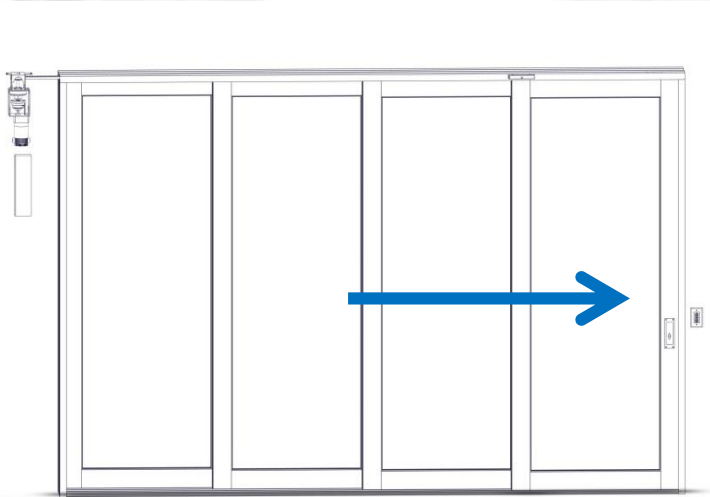
**If the door moved towards the open position press the OPEN button on the wall switch.**



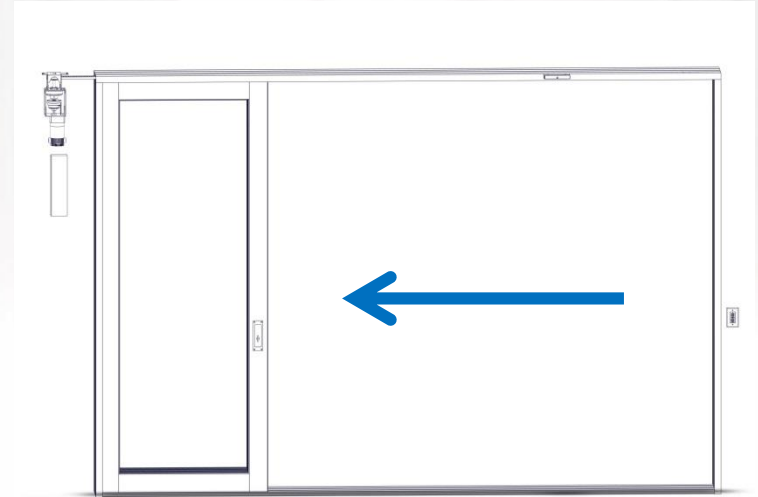
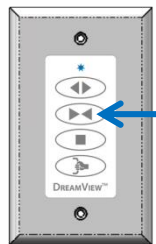
# Automation System Installation



## Initial Programming: 123 Set Up



6. Slide the lead panel to the fully closed position and press the CLOSE button on the wall switch.



7. Slide all of the panels to the fully open position and press the OPEN button on the wall switch.



**123 Simple Setup Programming is complete.** The door will cycle a few times and then fully close and lock. All of the LEDs should be OFF and the door is programmed.

## Initial Programming: 123 Set Up



8. Shut OFF the DREAMVIEW™ Automation Panel and set both of the DIP switches to the OFF position. Turn ON the DREAMVIEW™ Automation Panel and after about 20 seconds you will be ready for normal operation.

## Motion Detector

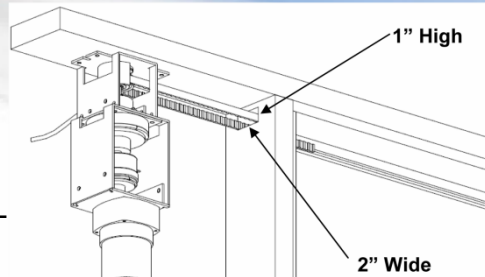
- After Initial Programming is complete, insert the batteries into the Overhead Motion Detector.
- **Overhead Motion Detector Installation** – The motion detector is located where the first and second operating doors meet and should be installed no more than 14' above the floor. If properly installed and adjusted, when the door is closing and the motion detector senses motion, the door will come to a stop.
- Blinders may be required, refer to the Motion Sensor Manual.
- The Wireless Overhead Motion Detector will beep when the battery needs to be replaced.



# Bi-Part Addendum

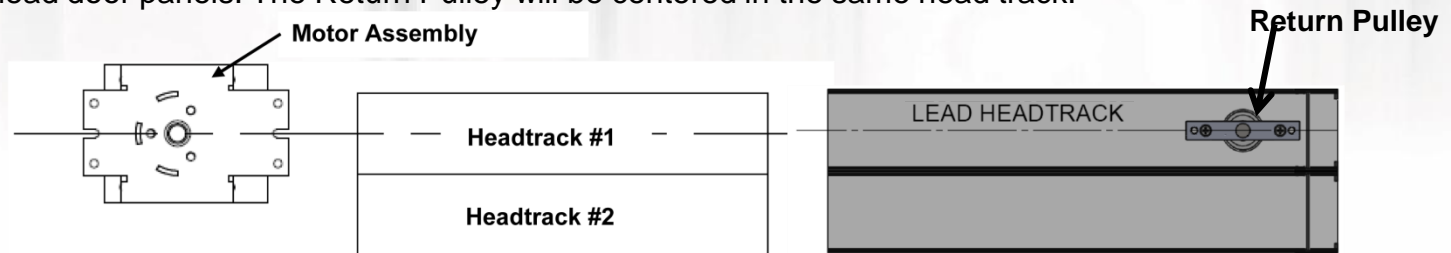


- **Clearance for Belt Path** –

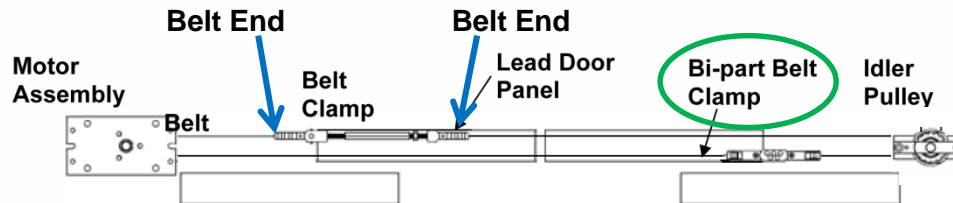


2" Wide & 1" High hole in lead head track jamb.

- **Installation of Motor Assembly & Idler Pulley**– Center the motor assembly with the center of the head track that contains the lead door panels. The Return Pulley will be centered in the same head track.



- **Belt Path** –



- **Installation of Bi-Part Belt Clamp Assemblies for Bi-parting Door** – A bi-parting door requires the installation of both a turnbuckle belt clamp assembly and a bi-part belt clamp assembly. Install a turnbuckle belt clamp assembly and door connection bracket as described for a one way door. Tighten the drive belt using the turnbuckle. Close the lead door panels and move them to the “dead center” of the door opening. With the belt under tension, install two screws in the bi-part belt clamp slots as shown (1<sup>st</sup> image). Pull the bi-part belt clamp down firmly trapping the belt between the bi-part belt clamp and the top of the door, and tighten the two screws in the slots. To keep the bi-part belt clamp from moving, install a third screw into the hole in the bi-part belt clamp (2<sup>nd</sup> image).