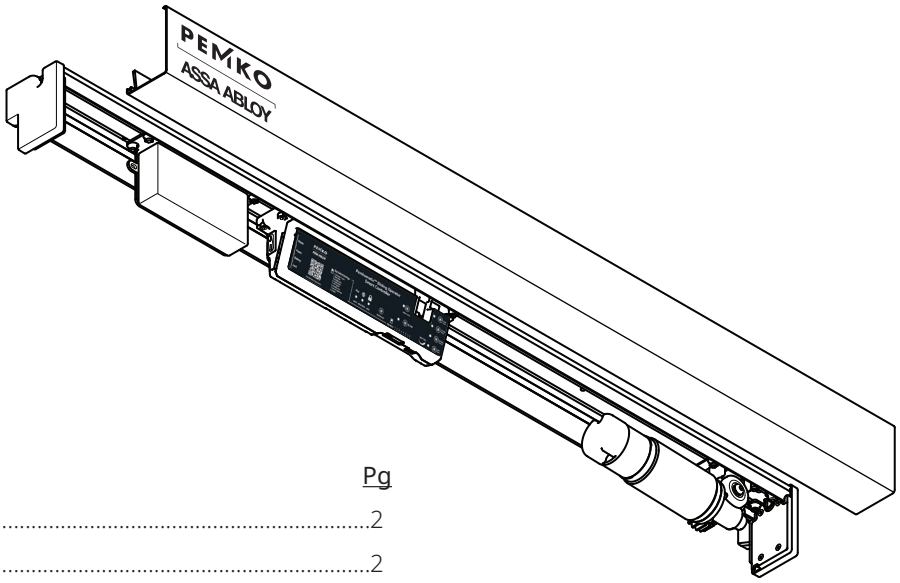
INSTRUCTION SHEET

PEMKO
PEMKOMATIC® PSLIDE SERIES LOW ENERGY AUTOMATIC SLIDING DOOR OPERATOR

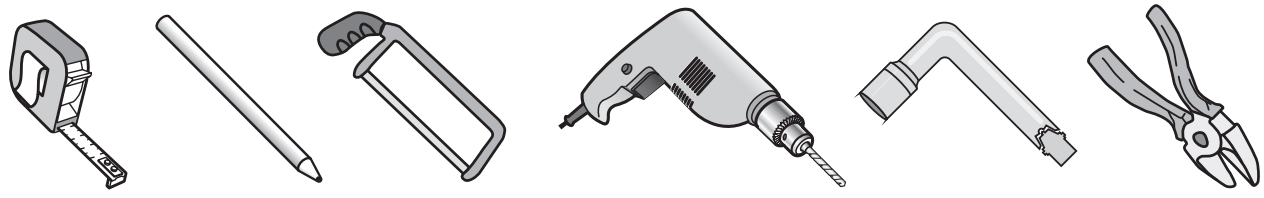
PEMKO
ASSA ABLOY

Experience a safer
and more open world

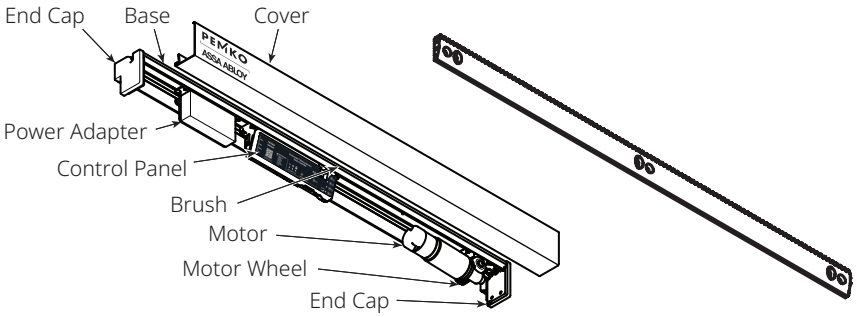


Contents

Tools Required

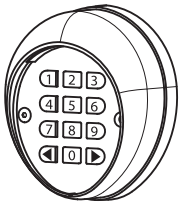


1 In the Box



Sliding Operator (1x)
PSLIDE

Slim Track (2x)
ST-PSLIDE



Keypad (1x)
KP-PSLIDE

Wave Sensors (2x)
WS-PSLIDE

Mode Pad (1x)
MP-PSLIDE

Other Items In The Box

- Motor Wheels in Four Different Lengths
- 16 Qty (#8 x 1") Wood Screws
- 8 Qty (#8 x 1") Sheet Metal Screws
- Hex Keys, Screwdriver, Wrench
- Cable Retaining Clips
- Fasteners and Double-Sided Tapes for Mounting Keypad and Wave Sensors
- Cable for Hardwiring Wave Sensors and Mode Pad
- Two 'Wave to Open' Stickers
- Two 'Automatic Door' Stickers

2 Technical Data

Operator Dimensions	36" x 2.5" x 3" (L x W x H)
Power Adapter	• Input*: 120VAC, 50/60HZ, 2.7A max • Output: 24VDC, 2.7A
Maximum Door weight	330 lbs
Minimum Opening Width	30"
Door Activation	• Wall-Mounted 433 MHz Wireless/Hardwired Wave Sensors (WS-PSLIDE) • Wall-Mounted Wireless Keypad (KP-PSLIDE) • Slide to Open Automatically • Wall-Mounted 433 MHz Wireless Push Buttons (PB-PSLIDE). Sold Separately.
Hold Open Time	0-24 Seconds

* Permanent wiring is to be installed as required by local and federal codes.

3 Certifications and Standards

Operator certified to ANSI/UL standard 325 for automatic closing doors.

ANSI BHMA A156.38. This product is designed and tested to:

- Withstand 300,000 cycles.
- Obstruction force when closing less than 15 LBF*.
- Closing speed less than 6 inches/second.
- Setup Hold Open time delay more than 5 seconds.

Americans with Disabilities Act (ADA): These door operators can be installed and adjusted to conform with ADA regulations.

Door activators comply with part 15 of FCC Rules.

*with DIP SWITCH 5 ON

4 Product Safety Warnings

WARNING: To reduce the risk of injury to person, use this operator only with sliding doors. FOR INDOOR USE ONLY

1. READ AND FOLLOW ALL INSTRUCTIONS.
2. Install PemkoMatic® only on a properly operating and balanced door. An improperly operating door could cause severe injury. Have qualified service personnel make repairs to any hardware before installing the operator.
3. Remove, or make inoperative, all locks and soft close devices that are connected to the door before installing the operator.
4. Do not connect the door operator to the source power until instructed to do so.
5. Never let children operate or play with door activators.
6. Personnel should keep away from a moving door in motion.
7. Test the door's safety features at least once a month. After adjusting limit of travel, retest door operator's safety features. Failure to adjust the operator properly may cause severe injury or death.
8. KEEP DOOR PROPERLY OPERATING. An improperly operating door could cause severe injury or death. Have a trained door systems technician make repairs.
9. SAVE THESE INSTRUCTIONS.

5 Things to Know Before You Install

It is recommended to read the instructions completely before proceeding.

Drive unit mounting location:

- Header of the opening – Under-header mount (Fig 1).
- For pocketed doors or overhead mount sliding system, drive unit may be installed on either side of the door (Fig 2).
- For applications that will not allow an under-header mount, a 90-degree wall-mounted adaptor bracket (AB-PSLIDE) may be used (Fig 3). Sold separately.
- The location of motor wheel will indicate the approximate max door opening position.

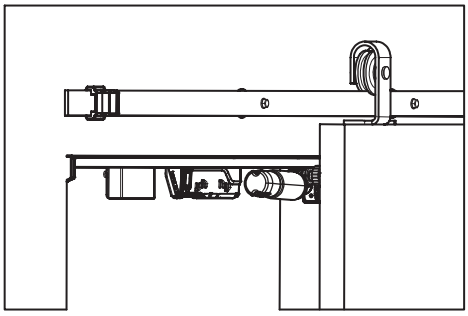


Fig 1: Sidewall Mount Sliding System

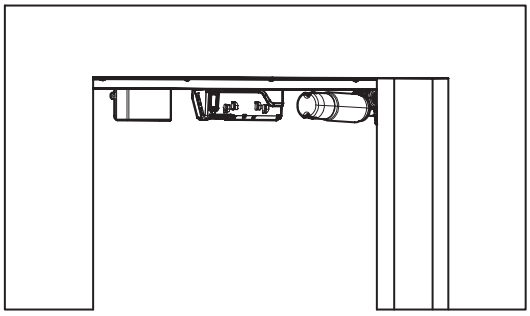


Fig 2: Overhead Mount/Pocket Door Sliding System

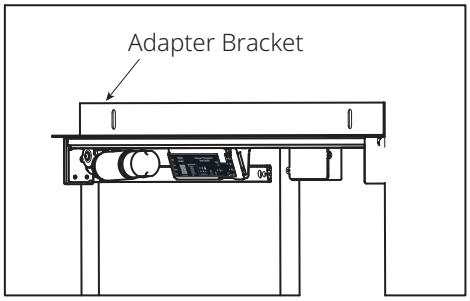


Figure 3: Overhead Mount/Pocket Door System with Adapter Bracket

5.1 Mounting Options

Mounting Surface	Recommended Fasteners
Drywall	Fasteners with Drywall Anchors
Masonry	Fasteners with Concrete Anchors
Vinyl, Wood	Particle Board Screws (Pbs)
Metal	Sheet Metal Fasteners

Table 1: Recommended Fasteners for Different Mounting Options

Additional materials may be needed to fit the PSLIDE system to the door (i.e. Shims, drywall anchors, other material anchors, specialized screws, etc.).

Ensure a power source is close to the door where the sliding operator will be installed. There are two acceptable methods for connecting power:

1. Plug operator into the nearest 120V, 3A US standard grounded wall outlet.
2. Hardwire the unit. Splice the power supply cord into existing building power per local and federal electrical codes.

6 Pre-installation Preparation

It is recommended that you read the Section 6 completely before you proceed.

Ensure any existing soft close devices or/and soft close triggers are removed from the manual sliding door.

6.1 Choosing Motor Wheel and Track

1. Measure the gap (G) between the door and the wall.
2. Refer to the table below for recommended motor wheel and track combinations for typical gaps.
3. The operator by default comes with the 1 3/8" long motor wheel.
4. Follow the process mentioned in Section 6.4 to swap the motor wheels.

Gap - G	Motor Wheel Length (A)	Track	Shim*
1/4"	1"	ST-PSLIDE	-
3/8"	1 1/4"	ST-PSLIDE	-
1/2"	1 3/8"	ST-PSLIDE	-
5/8"	1 3/8"	ST-PSLIDE	1/8"
3/4"	1 3/8"	ST-PSLIDE	1/4"
7/8"	1 3/8"	LT-PSLIDE	-
1"	1 3/8"	LT-PSLIDE	1/8"

Table 2. Motor Wheel Selection Guide

***Shim should be solid and of the same length as the track.**

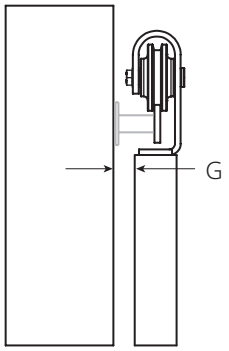


Figure 4: Measure Gap G

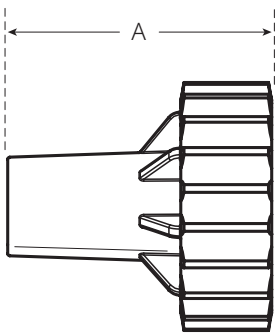


Figure 5: Measure Motor Wheel Length 'A'

6.2 Trim Track, Cover and Brush

1. Measure the width of the opening (W).
   a. Maximum length of the PemkoMatic® operator with end caps on should be less than the width of the opening. Proceed to Step 2 if the length of the operator is more than the width of the opening (W).
   b. If the width of the opening (W) is more than the length of the operator, the unit will work as it is.

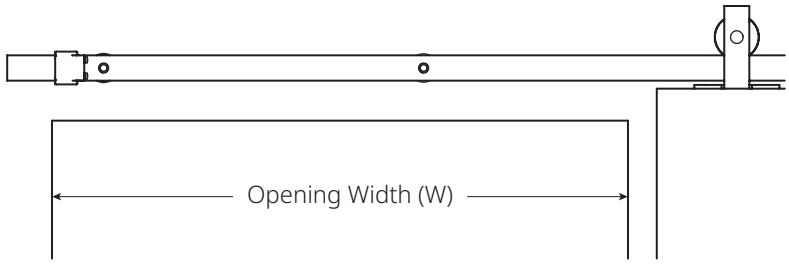


Figure 6: Measure the Width of the Opening (W)

2. Cut the base and the cover to W – 2". Before cutting,
   a. Slide the brush off the base and cover.
   b. Loosen the nuts or fasteners holding the motor, control panel, and power adapter.
   c. Slide them to make space to cut the base.
3. Snip or cut both brushes to W – 5".

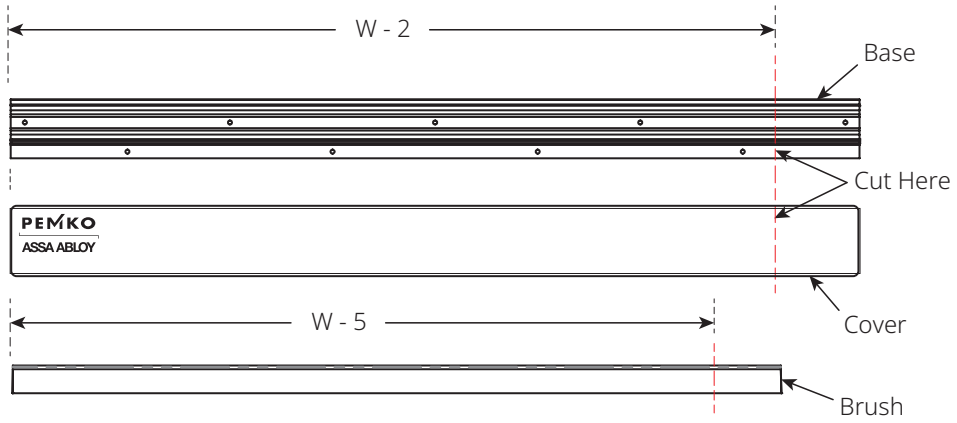


Figure 7: Cut Base, Cover, and Brushes

6.3 Determine Handing of Opening

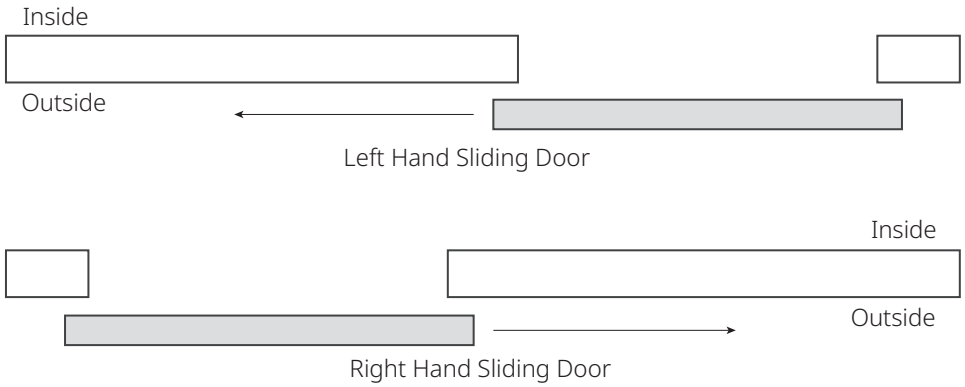
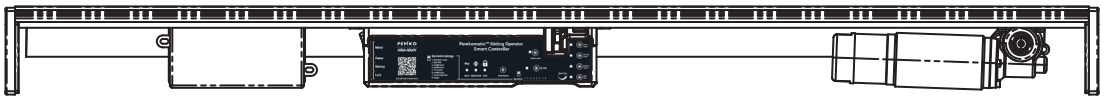
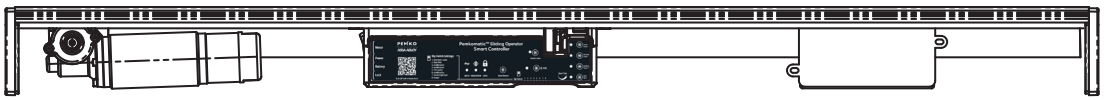


Figure 8: Sliding Door Handing Guide

The PSLIDE system comes **left-handed** by default. You may have to re-hand the unit before installation. If re-handing the drive unit is necessary, proceed to Section 6.5 and Section 6.6, if not required, skip to Section 7.



Left Handed - Looking at Front of Control Panel



Right Handed - Looking at Front of Control Panel

Figure 9: Handing of Sliding Operator

6.4 Switching Out the Motor Wheel

1. Use the hex key provided to remove the bolt opposite the motor wheel. Slide out the motor wheel.
2. If you have to rehand the operator skip to Section 6.5, else proceed to Step 3.
3. Insert the new motor wheel on the same side of the motor and tighten the bolt using the hex key.

6.5 Reversing the Motor

1. Snap out the cable cover and carefully unplug all cables from the control panel.
2. Use the hex key provided to remove the bolt opposite the motor wheel. Slide out the motor wheel. See Fig 10.
3. Insert the motor wheel on the opposite side of the motor and tighten the bolt using the hex key. Change the motor wheel if required. See Fig 11.

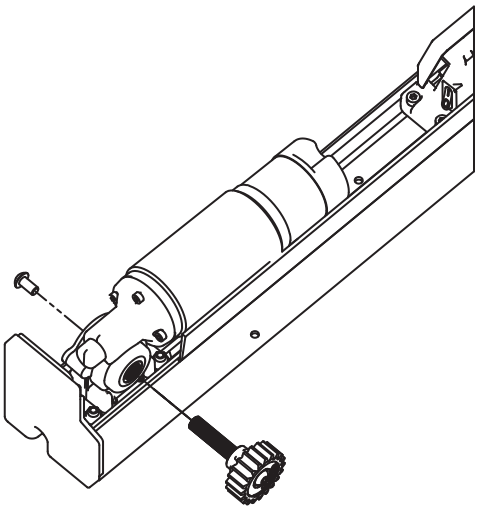


Figure 10: Remove the Motor Wheel

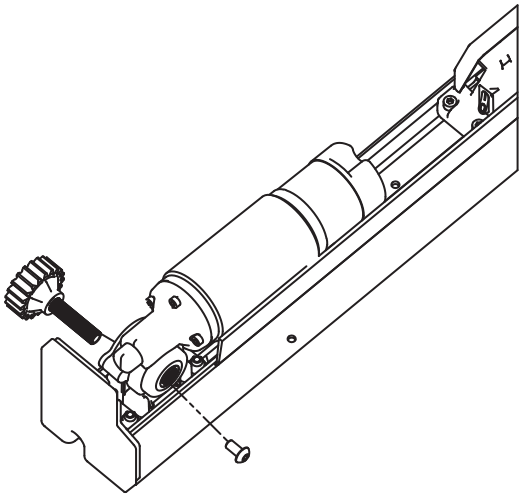


Figure 11: Insert the Motor Wheel from the Opposite Side

6.6 Switching the Motor, Control Unit, and Power Adapter

1. Snap out the cable cover and carefully unplug all cables from the PemkoMatic® control panel.
2. Using the wrench provided, loosen the two nuts per endcap to pull the end caps out. Do not remove the nuts completely.
3. Use the hex key provided to loosen the four fasteners holding the control panel to the unit base. Do not remove the fasteners completely. Slide the control panel out.
4. Similarly, remove the power adapter and motor using the wrench.
5. Slide the brush on the base and cover to the opposite side to make room for the motor wheel and end caps.
6. Reattach the motor to the unit base on the opposite side, with the motor wheel facing the same side as the brush. The motor should be mounted as close to the edge of the base as possible, leaving ¾" to attach the end caps.
7. The location and orientation of the power adapter are decided by the location of the power outlet or how the unit is going to be hardwired. It can go in between the motor and control panel or to the opposite end of the motor.
8. Reattach the control panel facing opposite the brush as in Fig 9.
9. To conceal and route the cables going to the motor from the control panel, use the recessed area on the base.
10. For the power cable from the control panel to the power adapter, tie and hide them using the cable cover provided.
11. Plug the motor, power, and lock cables into the corresponding ports on the control panel. Check Section 8 – Control Panel and Mode Guide for more details.

7 Installation

7.1 Mounting the Unit (Sidewall Mount, Overhead Mount & Pocket Sliding Doors)

Mount the PSLIDE drive system to the header using the #8x1 fasteners provided (or other appropriate fasteners). If the existing holes are not usable, you may drill additional holes. It is recommended to have at least six fasteners installed to hold the unit against the mounting surface.

1. Place the unit against the mounting surface such that the brush side edge of the end caps is flush with the door side edge as shown.
2. For overhead and pocket sliding doors, the drive unit can be mounted on either side of the door or using an adapter bracket (AB-PSLIDE) which is sold separately.
3. Mark and predrill the mounting surface for #8 fastener.
4. When the door is fully opened, the motor wheel should be as close as possible to the door's leading edge.

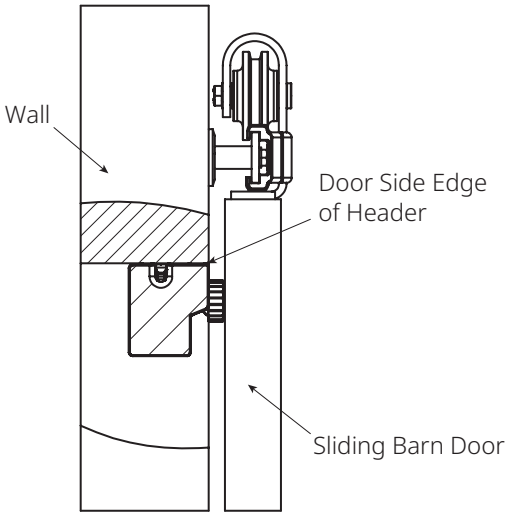


Figure 12: Sidewall Mount Sliding Door

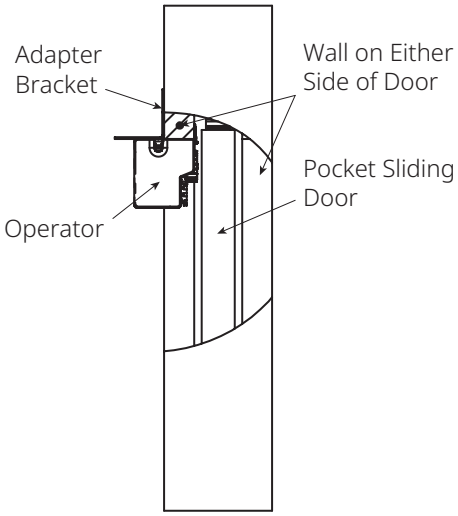


Figure 13: Pocket Sliding Door with Adapter Bracket

5. The drive unit should be mounted as close as possible to the door surface without touching if using a slim track and leave a gap of at least 3/16" if using an L track.
6. The aim is to have maximum engagement of the motor wheel and track without the motor wheel touching the door.
7. Alternatively, if the motor wheel cannot vertically meet the track, please consider shimming the drive unit to maximize engagement between the motor wheel and the track.
8. If using an adapter bracket (AB-PSLIDE) because the drive unit cannot be mounted to the header, please follow the same steps above while installing.
9. Upon completion of the drive unit mechanical installation, determine the method of applying 120-volt AC power to the power adaptor. The unit may be plugged directly into an electrical outlet, or it may be hard-wired.

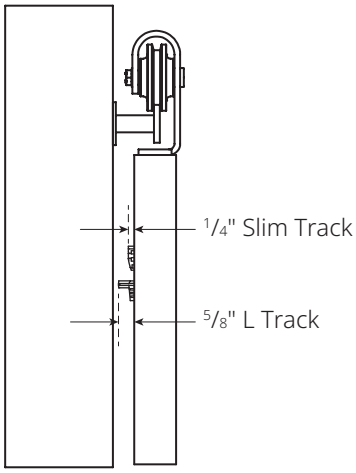


Figure 14: Track Dimensions

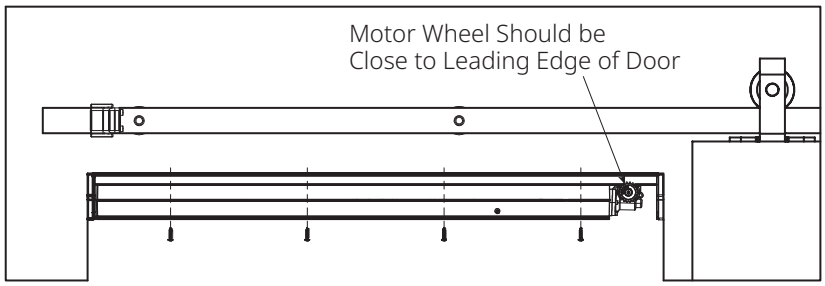


Figure 15: Mount the Unit Using the Provided Fasteners or Other Appropriate Fasteners

7.2 Mounting the Track (Sidewall Mount, Overhead Mount & Pocket Sliding Doors)

1. Two slim tracks (ST-PSLIDE) 20" come in each PemkoMatic® box. The two slim tracks can be joined using the grooves at the end as shown Fig 16. We recommend the **total length of the track = width of the door**. Excess length of the track if any must be cut using a hack saw.

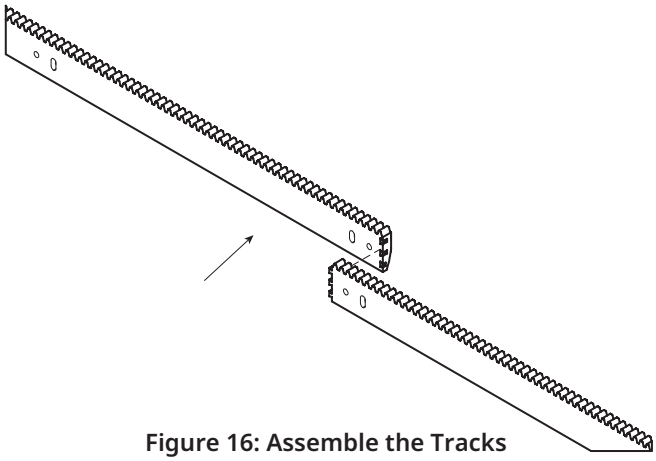


Figure 16: Assemble the Tracks

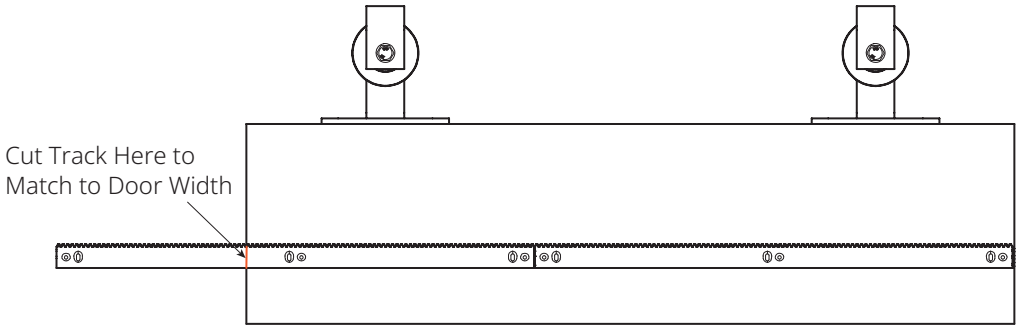


Figure 17: Length of Track = Width of the Door

2. If the total track length is shorter than the width of the door, the door opening width will be limited to the track length.
3. Additional tracks (ST-PSLIDE) can be ordered separately and added if the door width is larger than 40".
4. If installing the track on a door that opens into a pocket, ensure adequate clearance between the face of the door and the inside face of the pocketed wall to allow the track passage while opening the door. If not, you must recess the wall to get adequate clearance. This may require taking the door off the track.

5. Additional holes may be drilled into the track as needed.
6. Hold the flat side of the track to the door surface facing the motor wheel and with the track's edge aligned with the sliding door's edge. The L track (LT-PSLIDE), if used, may be mounted flanged up or down.
7. Keeping the track in place on the door, slide the door to a position where a track mounting hole is accessible and close to the motor wheel.
8. Install the #8x1" provided (or other appropriate fasteners) in the closest hole **while pushing the track up tightly to the motor wheel as shown in Fig 18**.
9. Slide the door so that the next track mounting hole is close to the motor wheel. Install another fastener to the next closest hole **while pushing the track up tightly to the motor wheel**.
10. Repeat the same process for all the mounting holes on the track. There should be at least three fasteners per 20" track.
11. **If there are no holes on the track near the trailing edge of the door, drill a hole on the track through the space between the motor wheel and end cap and repeat the same procedure**.
12. Ensure the door slides smoothly and that the track always engages with the motor wheel.

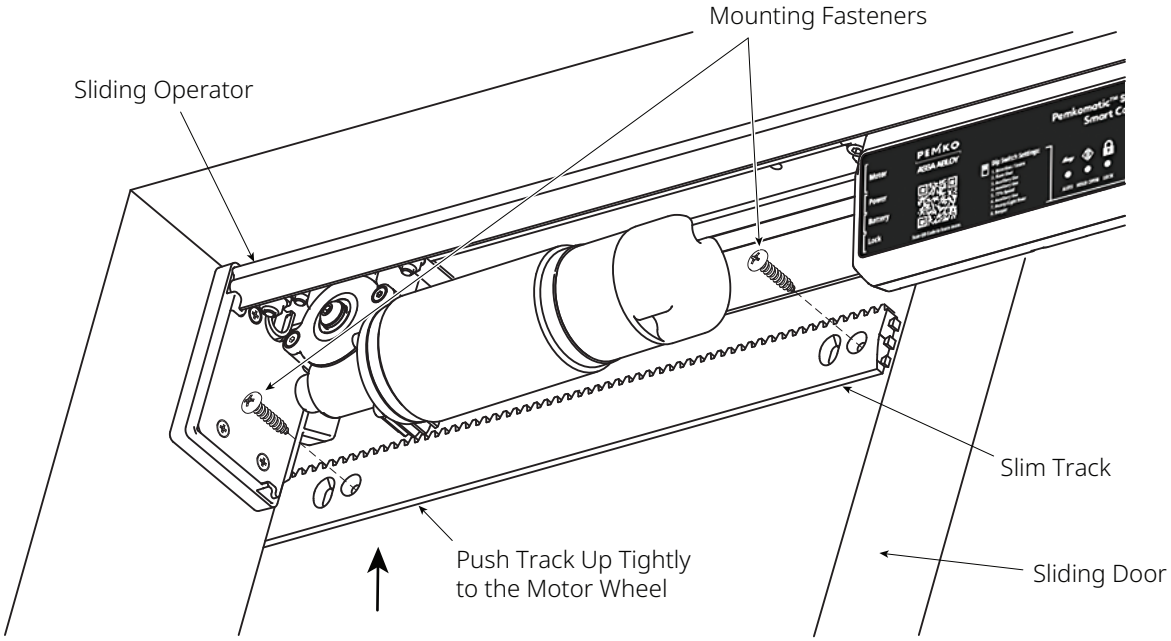


Figure 18: Mount the Track While Pushing it Up Tightly to the Motor Wheel

8 Control Panel and Mode Guide

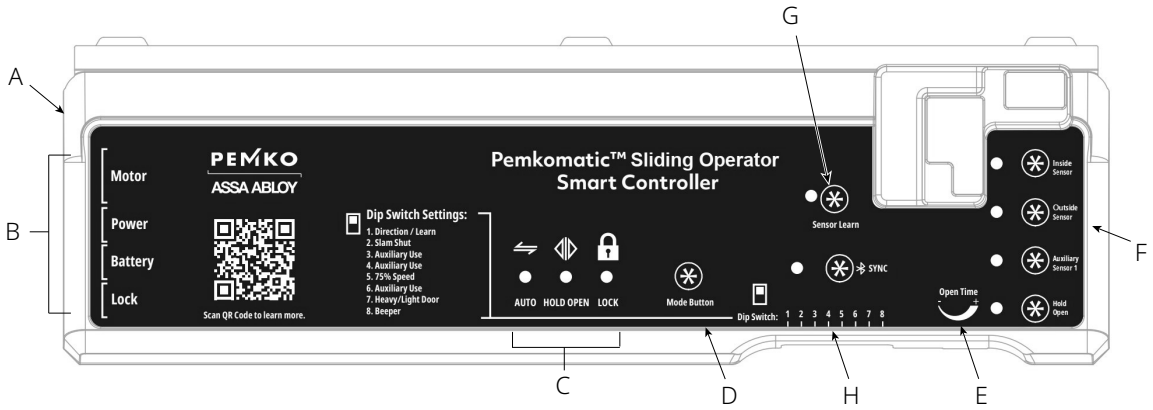


Figure 19: Control Panel

A. Power Switch: For switching off power to the controller. OFF – 'O' down, ON – 'I' down.

B. Cable Ports:
   1. Motor Port – For cable from motor (5 wire connector).
   2. Power Port – For cable from power adapter.
   3. Battery Port – For cable from battery (used only if installed with batteries).
   4. Lock Port – For cable from motor (2 wire connector).

C. Modes: Indicates which mode the system is currently in.
   1. Green/Auto Mode – A mode for everyday human use. Open assist is enabled, and the door doesn't lock. Most common mode.
   2. Blue/Hold Open Mode – Keeps the door fully open by default.
   3. Red/Lock Mode – Open-Assist is disabled, and the door is locked. It can only be opened using a keypad or one of the door activators.

D. Mode Button: For toggling between modes. With each press, mode will cycle in the order displayed.

E. Hold Open-Time Dial: Set the door to stay open anywhere from 0-24 seconds before closing. If the dial is set to the max, once opened, the door will close only when the activator is re-triggered.
   1. To decrease open time – turn the dial clockwise.
   2. To increase open time – turn the dial counterclockwise.

F. Sensor Ports: These ports are used when the door activators are hard-wired.
   1. Inside Sensor – Master channel enabled in Green and Red mode.
   2. Outside Sensor – Secondary/Slave channel enabled only in Green mode.
   3. Auxiliary Sensor – For future upgrades.
   4. Hold Open Sensor – Channel enabled only in Blue mode.

G. Sensor Learn Button: To trigger the controller, calibrate input from wireless inputs such as wave sensors and push buttons.

H. DIP Switches: Various settings are used to program and set up the system. **Dip switches are 'off' when their position is closer to the front of the panel.**
   1. Direction/Learn – Used to program the opening width of the door.
   2. Power Boost – Increases power at the opening and closing of the door. Designed for tight jambs/seals. Cannot be used when DIP switch #7 is on.
   3. Do not use, available for future upgrades.
   4. Do not use, available for future upgrades.
   5. 75% Power – Reduces the power of the motor if the unit opens too fast or if the door is lightweight. Keep this switch ON to bring Obstruction force when closing < 15 lbf.
   6. Do not use, available for future upgrades.
   7. Extra Power – Increases the amount of power the motor uses for heavy sliding doors. This cannot be used when DIP switch #2 is on.
   8. Beeper – When turned on the unit will beep when the door opens, starts to close, and when changing modes.

9 Programming the Unit

9.1 Initial Setup

1. Ensure the Power switch (A) is set to OFF.
2. Dip switch #1 is switched off.
3. Ensure sliding system hard stops are adjusted to the desired fully open and fully closed position of the door. Also, ensure that the motor wheel is always on the track at both positions.
4. Move the door to a halfway open position.
5. **Ensure all cables are plugged into the correct ports.**
   Warning: Failure to ensure all cables are connected to the right ports may damage the control board and require a replacement.
6. Power on the unit. Set the Power switch (A) to ON.
   a. If the door closes, let it close fully until it hits the door stop before proceeding.
   b. If the door opens, power the unit OFF using the Power switch (A). Set Dip switch #1 to ON.
   c. Power the unit ON again. The door should now close until it hits a doorstop.
7. Check the light on the unit.
   a. Proceed to the programming of the opening width step if it is solid green.
   b. If it is anything else, press the Mode button (D) until the green light appears.

9.2 Setting up Full Opening Width

Before starting this process, ensure doorstops are installed in the desired fully open and closed position.

1. Flip Dip switch #1 from its current position and immediately flip it back.
2. The door should open immediately until it hits a doorstop. In the absence of a doorstop, stop the door at the desired fully open location.
3. Observe the door returning to fully closed position, then partially open position, then fully closed position. Do not intervene as the door completes this cycle. Once the door stays in the fully closed position with a green light on the control panel, the full opening width is programmed.
4. Test the door by pressing the inside sensor button (F) on the right of the control panel. The door should open and close automatically if OpenTime is not set at the max.

9.3 Programming Hold Open Width

1. Press the mode button (D) to change from Auto mode to Hold Open.
2. Flip Dip switch #1 from its current position and immediately flip it back.
3. The door should open immediately until it hits a doorstop. In the absence of a doorstop, stop the door at the desired open location.
4. Observe the door returning to a fully closed position. Do not intervene as the door completes this cycle. Once the door stays in the fully closed position with a solid blue light, the hold open width is programmed.
5. Test the door by first changing the mode (D) to Auto/Solid green light. Ensure the door stays closed during this process.
6. Now press the mode button again to change to Hold Open mode. The door should automatically open to the programmed 'Hold Open' width.

10 Installing and Pairing Door Activators

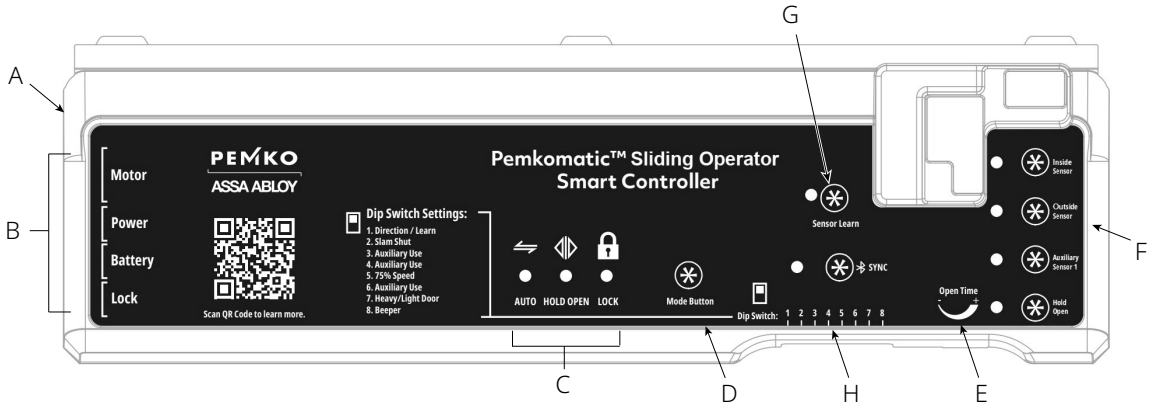


Figure 19: Control Panel

10.1 Wave Sensors (WS-PSLIDE) and Push Buttons (PB-PSLIDE)

The Wave Sensor can be hardwired or wirelessly connected to the unit, offering touch-free operation. Each wave sensor must be paired separately.

The Push Button can only be wirelessly connected to the unit. Each button must be paired separately.

10.1.1 Wireless Installation

1. If the unit is not set to 'Auto' mode, use the mode button (D) to switch to Auto mode.
2. Install the two CR2032 batteries.
   a. Wave Sensors - Slide the back lid off.
   b. Push Buttons - Unscrew the fastener holding the back lid with the screwdriver provided.
3. To pair, press the Sensor Learn (G) button on the control panel. A red light should appear next to the button.
4. Trigger the wave sensor by waving or pressing the Push button. The red light on the control panel should blink once. Trigger the Wave Sensor or Push button again - the red light should flash before going out. This indicates that the Wave Sensor or Push button has been successfully paired.
5. Test the Wave Sensor or Push button to ensure it is paired with the system. A blue light appears on top of the sensors when activated.
6. Set the mode on the sensor to M or S based on the use case and activator location. Refer Table 3 for guidance on mode selection.
7. Use the 3M double-sided tape provided to mount the activators to the wall.
8. Alternatively, you may mount the Wave Sensor to the wall using fasteners.
   a. Slide the back lid off.
   b. Using appropriate fasteners, mount the back lid to the wall.
   c. Slide the sensor from the top.
9. Follow the below process to mount the Push button to the wall using fasteners.
   a. Take the fastener off the top of the push button using the screwdriver provided.
   b. Remove the back lid off.
   c. Using the fasteners provided, mount the back lid to the wall.
   d. Re-attach the front panel.
10. Perform the same procedure for the second activator.

	Master (M) / Inside Sensor	Slave (S) / Outside Sensor	Stack
Green Mode (Auto)	✓	✓	X
Blue Mode (Hold Open)	X	X	✓
Red Mode (Secure)	✓	X	X

Table 3: Guide for Activator Mode Selection

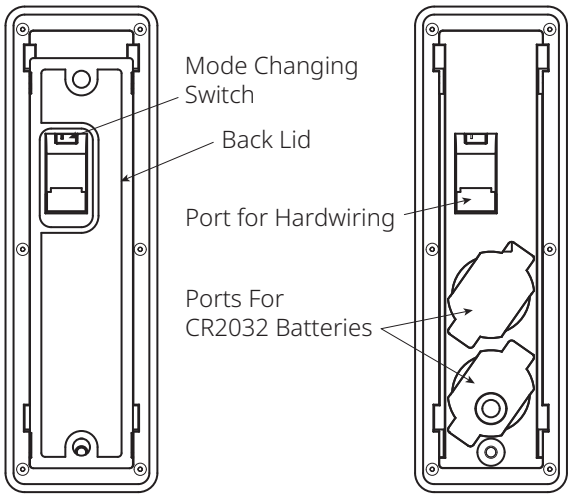


Figure 20: Wave Sensor

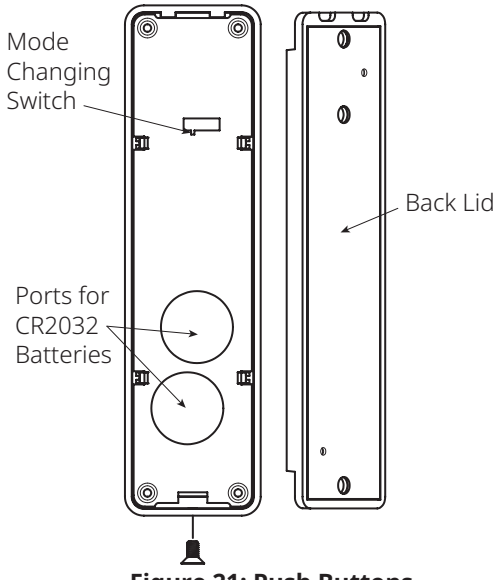


Figure 21: Push Buttons

10.1.2 Hardwired Installation – for Wave Sensors Only

1. If the unit is not set to 'Auto' mode, use the mode button (D) to switch to Auto mode.
2. Plug the sensor cable provided into the port on the back of the sensor.
3. The other end of the cable should be plugged into the 'Inside Sensor' or 'Outside Sensor' port (F) on the unit's control panel. See the above table for information on which port to use.
4. The handwave sensor should now be connected to the unit. Test the sensor by waving. A blue light appears on top of the sensor when activated.
5. After installation, it is recommended to add the sticker, that came in the box, on the bottom third of the Wave Sensors. For reference, the blue light appears on the top third of the sensors.
6. Use the 3M double-sided tape provided to mount the Wave Sensor to the wall.
7. Alternatively, you may mount the Wave Sensor to the wall using fasteners.
   a. Slide the back lid off.
   b. Using appropriate fasteners, mount the back lid to the wall.
   c. Slide the sensor from the top.

10.2 Security Keypad (KP-PSLIDE)

The Security keypad can only be wirelessly connected to the unit. The Security keypad has two channels for communicating with the units, each channel having its own combination. See Step 6 below.

10.2.1 Wireless Installation

1. Install two CR2032 batteries. Press any button on the keypad. If it beeps, the batteries are already installed, proceed to Step 2. Otherwise, follow the procedure below to install batteries.
   a. Pry open the blue cover using the screwdriver provided. Loosen the two screws using a metric 2.5 hex key to open and take the back cover off. Turn the cap counterclockwise to expose the battery cavity.
   b. Put the cap, back cover and blue cover back on.

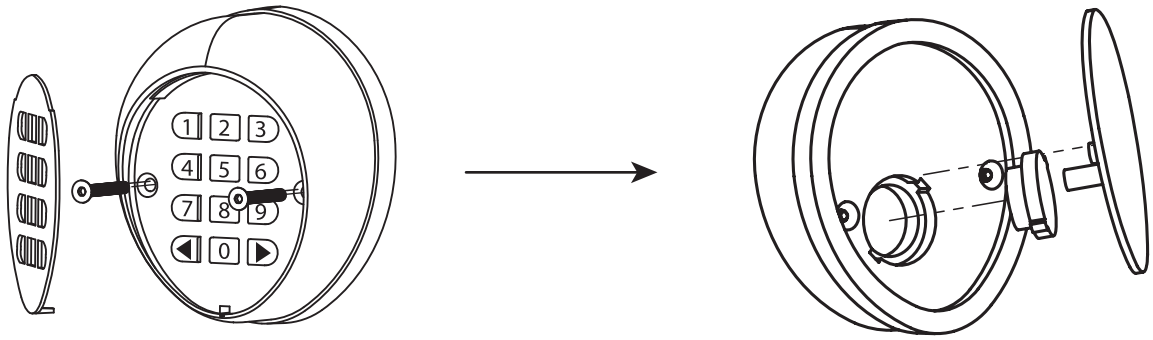


Figure 22: Install 2 CR2032 Batteries in the Keypad

2. If the unit is not set to 'Auto' mode, use the mode button (D) to switch to Auto mode.
3. Press the Sensor Learn button (G) on your unit's control panel.
4. Enter the current code for the channel you want paired (if no code has been set, use the factory code as mentioned below) on the keypad.
   a. Channel 1: use (◀) on the keypad; Factory code is 11.
   b. Channel 2: use (▶) on the keypad; Factory code is 22.

5. Press the corresponding channel's arrow key on the keypad. The keypad should make a long beeping sound.
6. Quickly repeat Steps 4 and 5, then wait 5 seconds.
7. Repeat Steps 4 and 5 to enter the code. The door should open if properly paired.
8. Mount Keypad:
   a. Use the 3M double-sided tape provided to mount the keypad to the wall.
   b. Alternatively, you may mount the keypad to the wall using fasteners (not provided).
      i. Take off the back cover.
      ii. Punch four holes on the back cover.
      iii. Use appropriate fasteners to mount the back cover to the wall.
      iv. Assemble the keypad to the back cover.

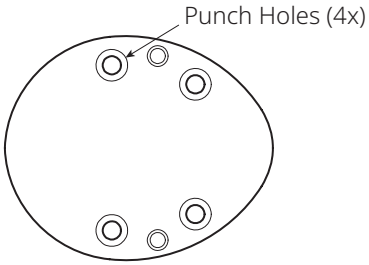


Figure 23: Punch 4 Holes for Mounting Keypad Using Fasteners

10.2.2 Customizing Code

Each channel has its code that can be set to any number combination of fewer than eight digits.

1. While holding down (0) on the keypad, press the arrow key for the channel you want to change. The keypad should make a long beeping sound. Release both keys.
2. Enter the current code on the keypad for the selected channel. If no code has been previously set, this is the original factory code for that channel, as listed above. Press the channel's arrow key (as listed above) to submit the code.
   a. Channel 1: use (◀) on the keypad; Factory code is 11.
   b. Channel 2: use (▶) on the keypad; Factory code is 22.
3. Enter the desired new code on the keypad, then press the channel's arrow key (as listed above) to submit the code.
4. Confirm the new code by repeating Step 3. The keypad will make a long beeping sound if the modification is successful. If the keypad makes five short beeps, either the current code entered in Step 2 is invalid, or the desired code is more than eight digits long.

Audible Signal	Meaning
1 Short Beep	Keypad tone / Button tone
1 Long Beep	Code accepted / Correct pin
3 Long Beeps	Change confirmed
5 Short Beeps	Error during combination input / Error during combination edit operation
10 Rapid Beeps	Battery low warning: new batteries required

Table 3: Audio Signal Guide for Keypad

11 Installing Mode Pad

The mode pad lets the user change the mode of the system or know what mode the system is currently in without taking the cover off. The mode pad should be connected to the control panel with the cable provided.

1. Mark the position of the mode pad on the mounting surface. There should be a hole on the mounting surface to allow a cable to pass through to the controller.
2. Plug one end of the cable into the 7-pin socket of the controller as shown in Fig 24.
3. Route the cable through the hole on the mounting surface and plug the other end of the cable into the 7-pin electrical connector on the back of the mode pad.
4. With the double-sided tape provided, stick the mode pad to the wall or to the housing if you are mounting the mode pad using fasteners.

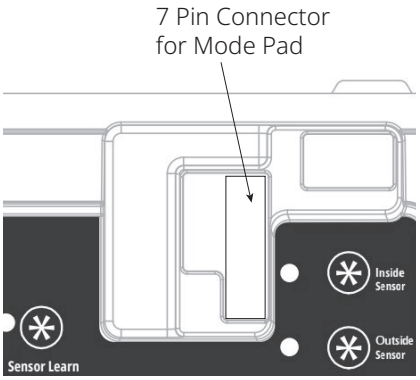


Figure 24: Connect one End of Cable to Control Panel

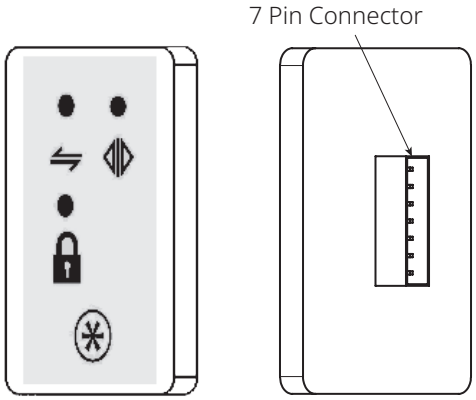


Figure 25: Connect other End of Cable to Mode Pad

12 Installing the Cover

1. Lift the cover below the unit as shown.

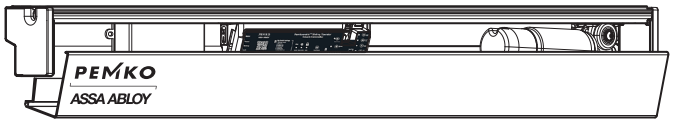


Figure 26: Lift the Cover Below the Unit

2. Push the groove on the cover into the tabs on the end caps as shown.

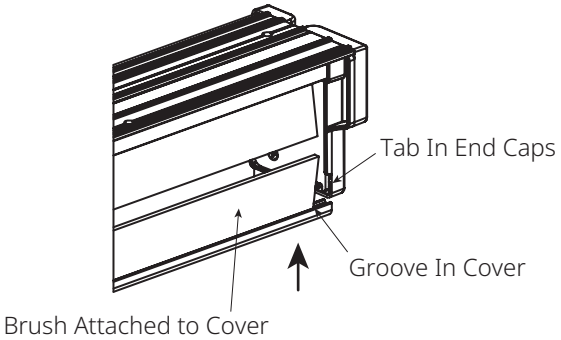


Figure 27: Align the Groove in Cover to the Tab on the End Caps

3. Rotate the cover about the groove and push upwards so that the other end of the cover clips the top of the base.

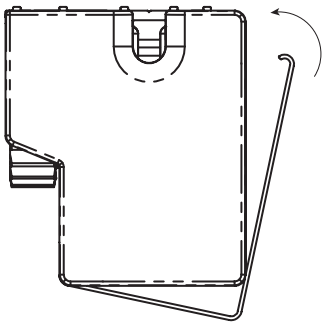


Figure 28: Rotate the Cover

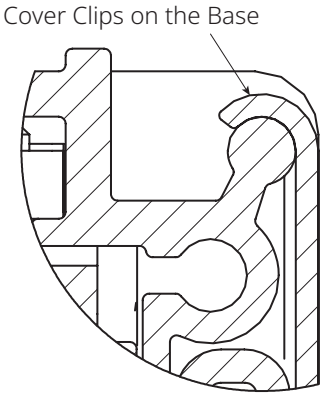


Figure 29: Clip the Cover to the Top of the Base

13 Signage

13.1 Automatic Door Sticker

- Stickers must be placed on or adjacent to the door at eye level, typically at 50-60 inches above the floor.
- They should be clearly visible when approaching the door.
- These stickers are intended to alert users that the door opens automatically to prevent injury.
- They assist individuals with disabilities or limited mobility by informing them of automatic operation.

13.2 Stickers on Activators

- 'Wave to Open' or 'Push to Open' stickers must be added to the bottom of the door activators as shown in Fig 30.

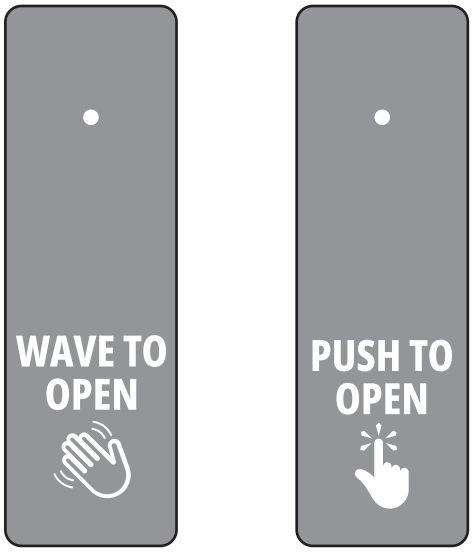


Figure 30: Add the Stickers as Shown.

Pemko
5535 Distribution Dr.
Memphis, TN 38141
www.pemko.com

Memphis, TN USA
P: 800 824 3018
F: 800 243 3656

Ventura, CA USA
P: 800 283 9988
F: 800 283 4050

Vaughan, ON CA
P: 800 461 3007
F: 800 461 8989