Retrofit Installation Instructions Auto-Locks

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Section – 3 Installing the Auto-lock Module IM 523643

The Auto-lock Module is used to connect the Auto-locks to the APEX controller. This will allow the APEX controller to sense whether the door is safe to open or close and if the door has been secured.

NOTICE

The figures in this document are shown as reference for installation and setup **for Auto-lock use ONLY**, and may not have all components fully detailed.

1. Put the door in the fully open position. Ensure the curtain is completely out of the guides using the override function on the APEX controller.
2. Secure the curtain in the open position using straps, industrial strength tape, or other safe industry proven method for keeping the curtain in the rolled up position.

⚠WARNING

Following the steps in **Section 4** of this manual will disengage the brake on the operator. Failure to safely secure the curtain in the open position may result in damage or injury.

3. Disconnect power to the operator and the APEX controller.

⚠WARNING

Failure to disconnect power may result in damage to the APEX controller or injury.

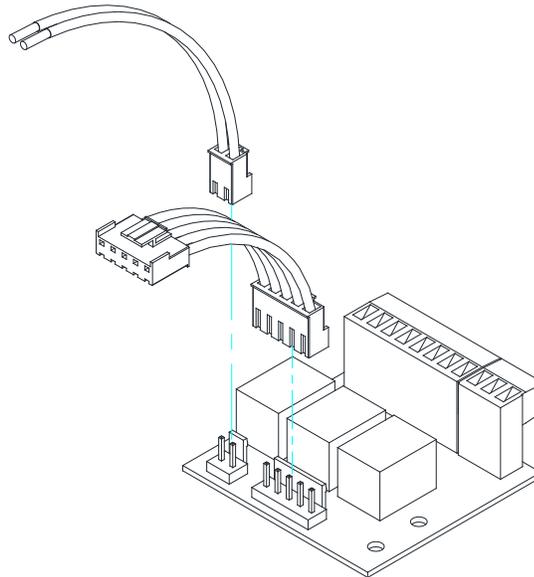4. Plug the provided connectors into the Auto-lock Module. See **Figure 1**.

Figure 1

5. Remove the plastic cover over the power board, the cable connecting the BRAKE_CONTROL to the APEX controller, and the 6 screws. See **Figure 2** and **Figure 3**
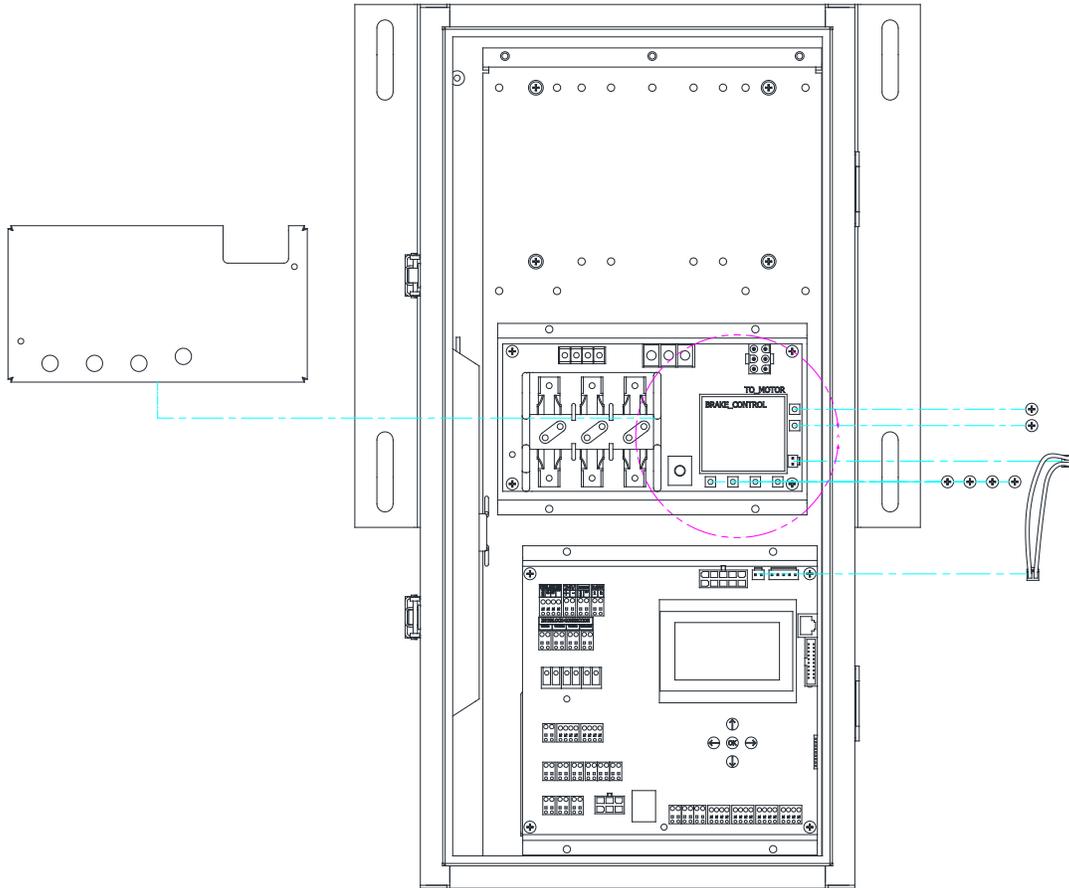

Figure 2
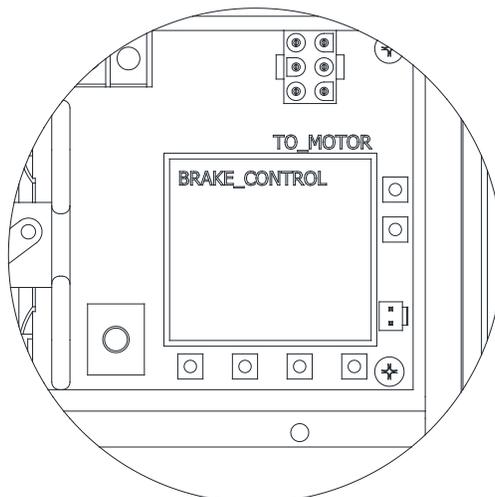

Figure 3

6. Place the Auto-lock Module into the space labeled BRAKE_CONTROL on the power board and secure into place using 3 of the screws previously removed in step 3. See **Figure 4** & **Figure 5**.
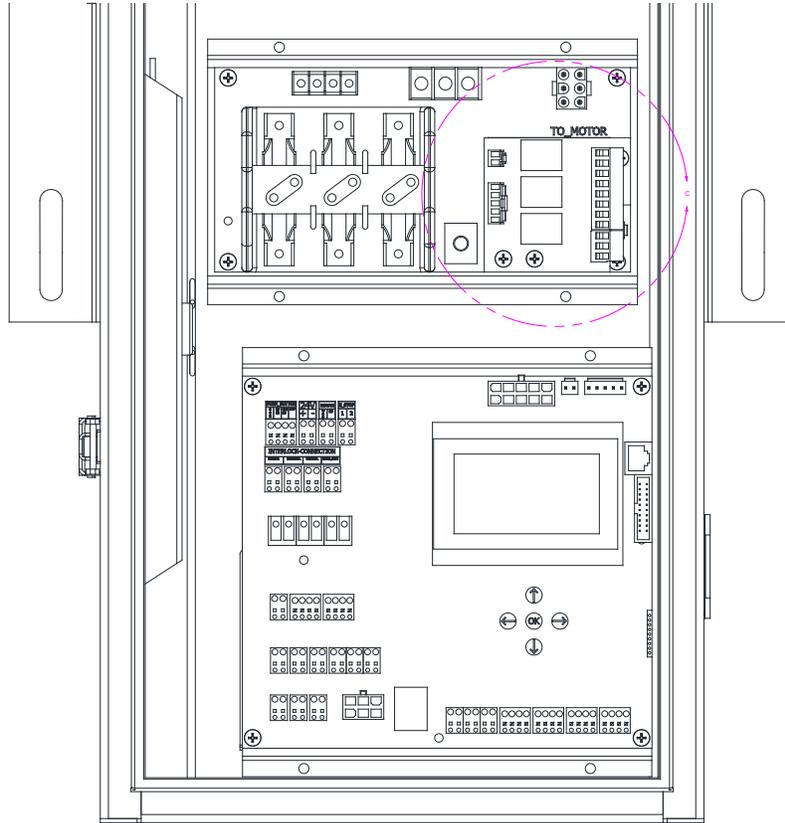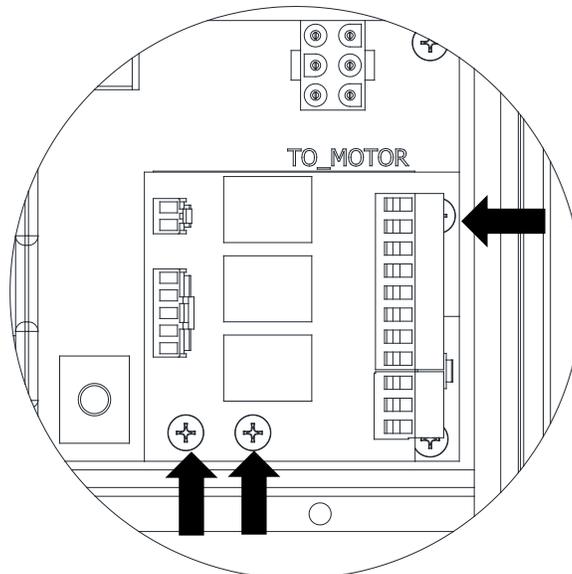

Figure 4

Figure 5

7. Remove the jumper wires in the Interlock section from the "INERTIA" and "MANUAL_CHAIN" terminals connections as shown in **Figure 6**. This is the WHITE TERMINAL and the GRAY TERMINAL respectively. Plug the **WHITE WIRE** from the Auto-lock Module into the **RIGHT POLE** of the **WHITE TERMINAL** labeled "INERTIA". Plug the **BLACK WIRE** from the Auto-lock Module into the **RIGHT POLE** of the **GRAY TERMINAL** labeled "MANUAL_CHAIN". Plug the 5 wire cable from the Auto-lock Module into the APEX control board as shown in **Figure 7**.
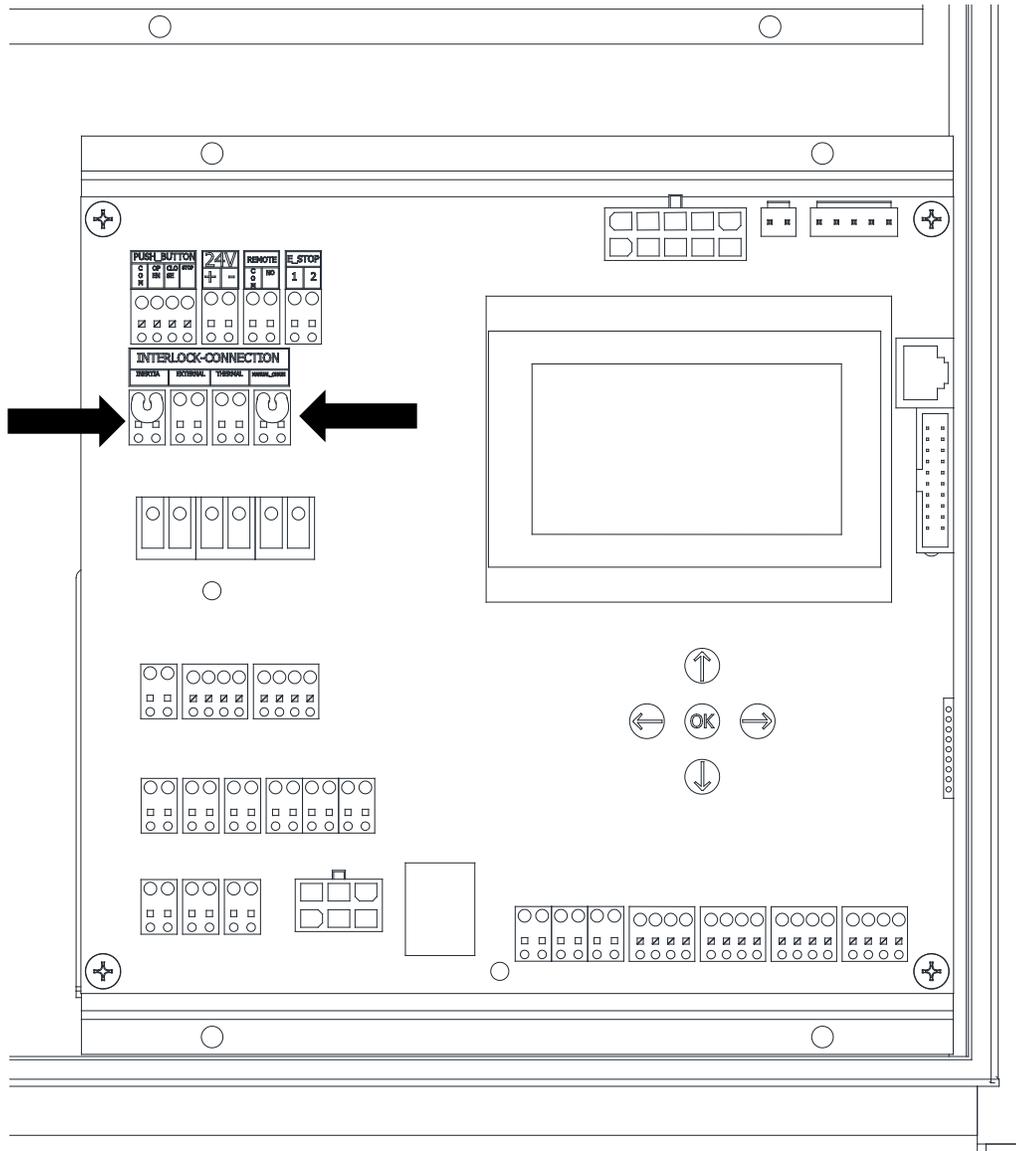

Figure 6

TO_MOTOR

WHITE WIRE

BLACK WIRE
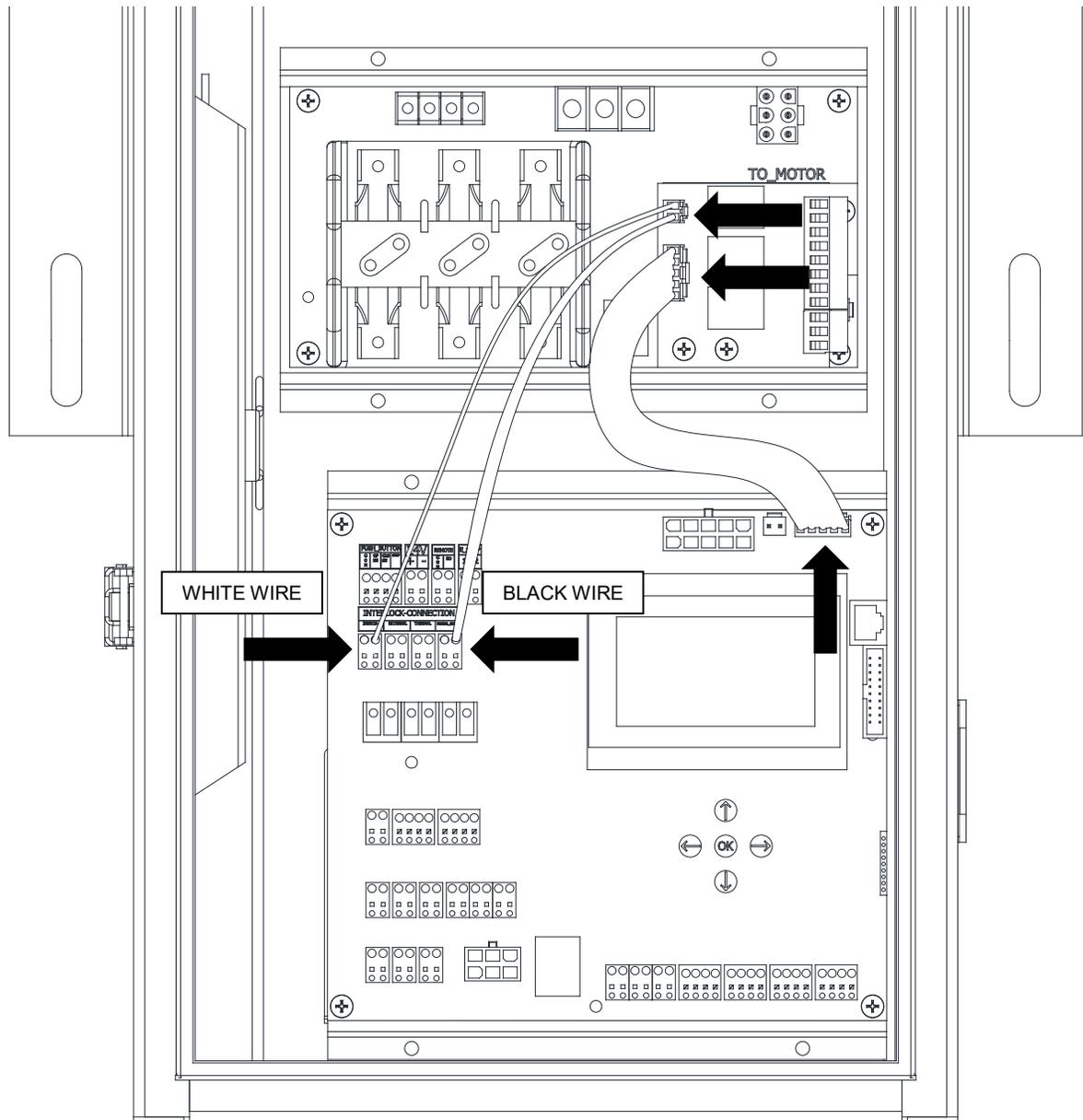
Figure 7

8. Insert the bare wire from the cables labeled **IM# 200408** & **Cable IM# 200409** (the cables not already attached to Auto-locks) up through an empty cable gland at the bottom of the APEX control panel housing.
9. Insert the wires into the terminal block. There are 4 wires and 4 terminal holes for each Auto-lock. The **Shorter M12 Cable IM# 200408** should be plugged into Lock 1 as printed on the Auto-lock Module. The **Longer M12 Cable IM# 200409** should be plugged into Lock 2 as printed on the Auto-lock Module. See **Table 1.**
10. Depending on the door's setup this should mean that the guide closer to the APEX controller will be Lock 1, and the further guide will be Lock 2. This is useful to know when troubleshooting the locks. It is recommended to notate inside the APEX control panel door which Lock # is associated to each guide.
11. Plug the terminal block into the Auto-lock Module. The wires should be coming out of the top of the block with the screw head point to the right. See **Figure 8**.

Auto-lock	Wire Color	Auto-lock Module Label
Lock 1 Short M12 Cable IM# 200408	Red	L1
	Black	L1
	Green	S1
	White	S1
Lock 2 Long Male M12 IM# 200409	Red	L2
	Black	L2
	Green	S2
	White	S2

Table 1
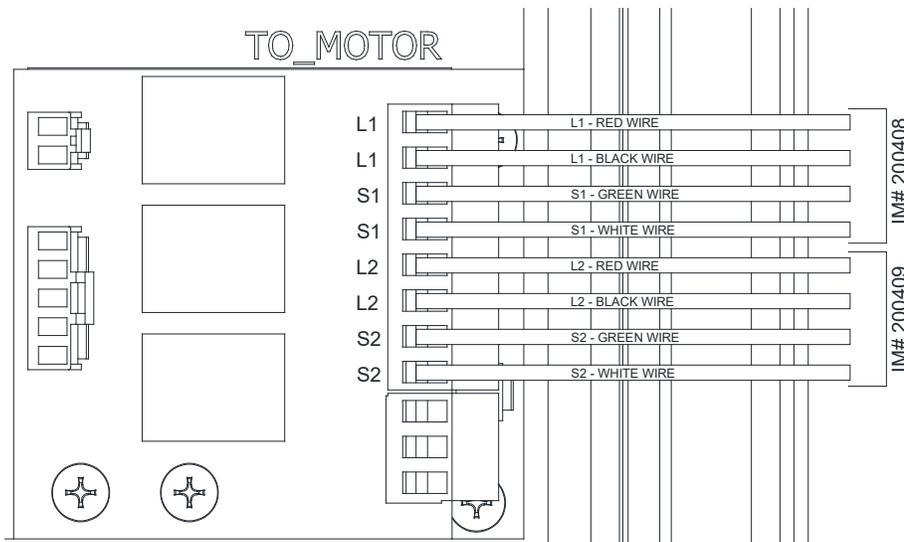
Figure 8

12. Reinstall the plastic cover over the Auto-lock Module and power board. Make sure the wires are routed through the cutout windows on the right side of the plastic cover.

Section – 4 Update Firmware IM 200410

The APEX module will need the firmware updated in order to work with the Auto-locks. Update the firmware using the following steps.
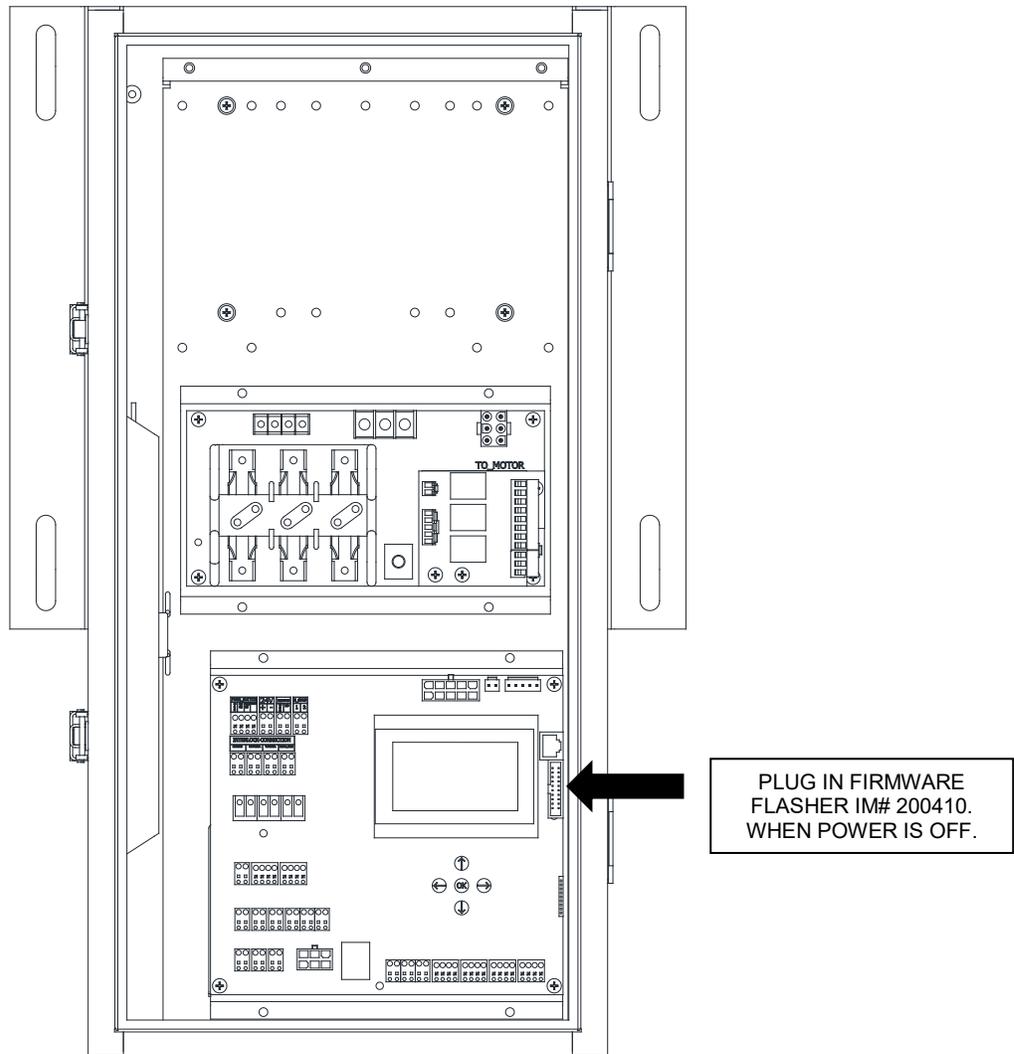
⚠WARNING

Failure to update the firmware will result in damage to the curtain.

1. Disconnect power to the operator and APEX controller.

⚠WARNING

Failure to disconnect power may result in damage to the APEX controller or injury.

2. Plug in the provided firmware flasher. See **Figure 9**.

PLUG IN FIRMWARE FLASHER IM# 200410. WHEN POWER IS OFF.

Figure 9

3. Connect power to the APEX controller. There will be a solid blue light on the firmware flasher and a single beep sound.
4. Push the blue button on the firmware flasher. The light will flash blue and red. When the device has completed updating the firmware it will make a beep and show a solid blue light.
5. Disconnect power to the APEX controller and remove the firmware flasher.
6. Connect power to the APEX controller.
7. Press the ⇦ & **OK** at the same time to enter the settings menu.
8. Using the ⇩, navigate to Item 6 "DOOR_TYPE". Enter the Item 6 Menu by pressing the ⇨. See **Figure 10**.
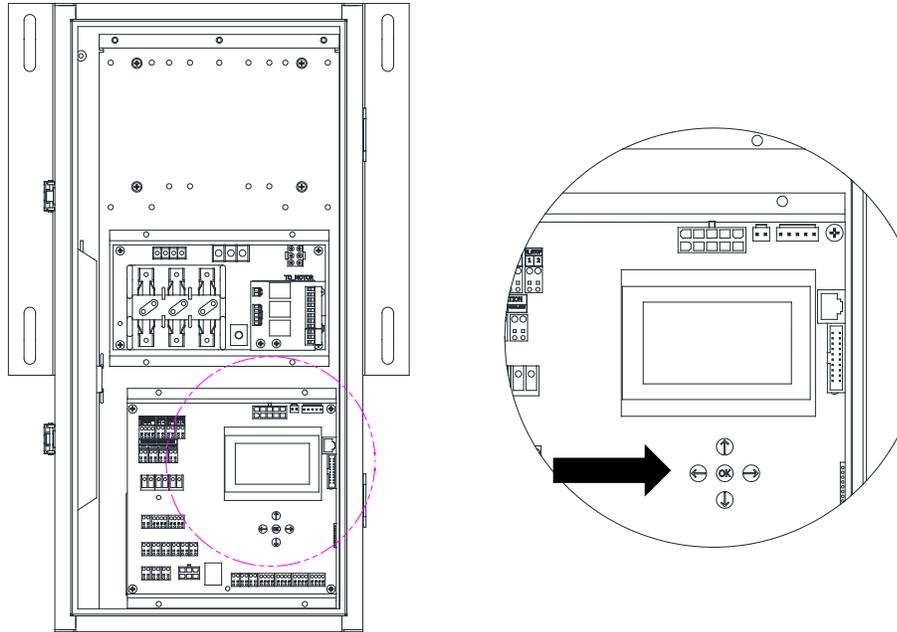
Figure 10

9. Once inside the "DOOR_TYPE" menu press the ⇩ until you reach the "MICRO_COIL W/ LOCK". Press the **OK** to select this door type.
10. Disconnect power to the APEX controller.
11. Wait 30 seconds.
12. Connect power to the APEX controller.
13. Press the ⇨ to enter the menu. Use the ⇩ to navigate to the last menu item "ABOUT". Select this item by pressing the ⇨. Verify that the firmware has been properly updated. It will read "FW0001-F××" (the × may be different values or not present based on the firmware version).
14. Press ⇦ two times to exit and return to the main screen. The firmware has now been successfully updated.

Section – 5 Light Curtain & Photoeye Sensors

The light curtain and photo eye sensors will need to be removed from the old guides and moved to the new guides.

Light Curtain:
1. Take note of which side each light curtain is currently installed on.
2. There are 2 screws on each guide that secure the light curtain to the guide. Remove the light curtain and transfer it to the new guides. See **Figure 11**
3. Ensure that each light curtain is moved to the corresponding guide. For example, the light curtain on the old right guide should be moved to the new right guide.
4. The bottom of each light curtain must be 12 inches above the ground. See **Figure 12**
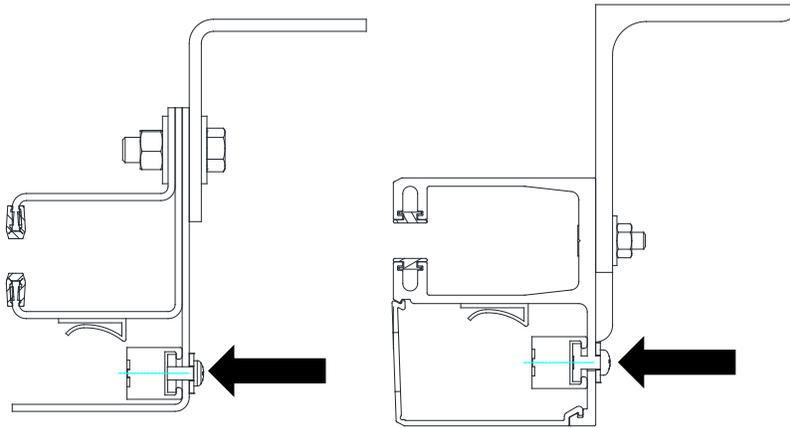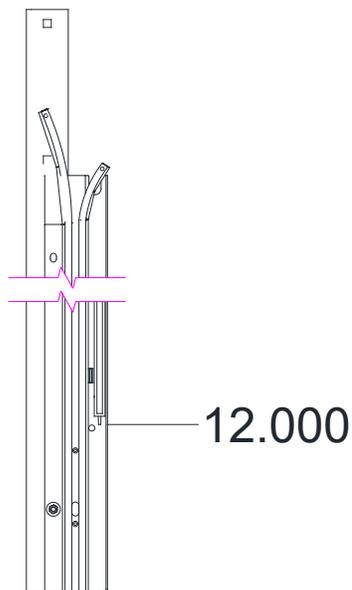
Figure 11

Figure 12

Photoeyes:
1. Take note of which side each photoeye is currently installed on.
2. There are 2 screws on each guide that secure the photoeye to the guide. Remove the photoeyes and transfer them to the new guides.
3. Ensure that each photoeye is moved to the corresponding guide. For example, the photoeye on the old right guide should be moved to the new right guide.
4. Align the photoeyes so that they are able to see each other through the guides when there is no obstruction.
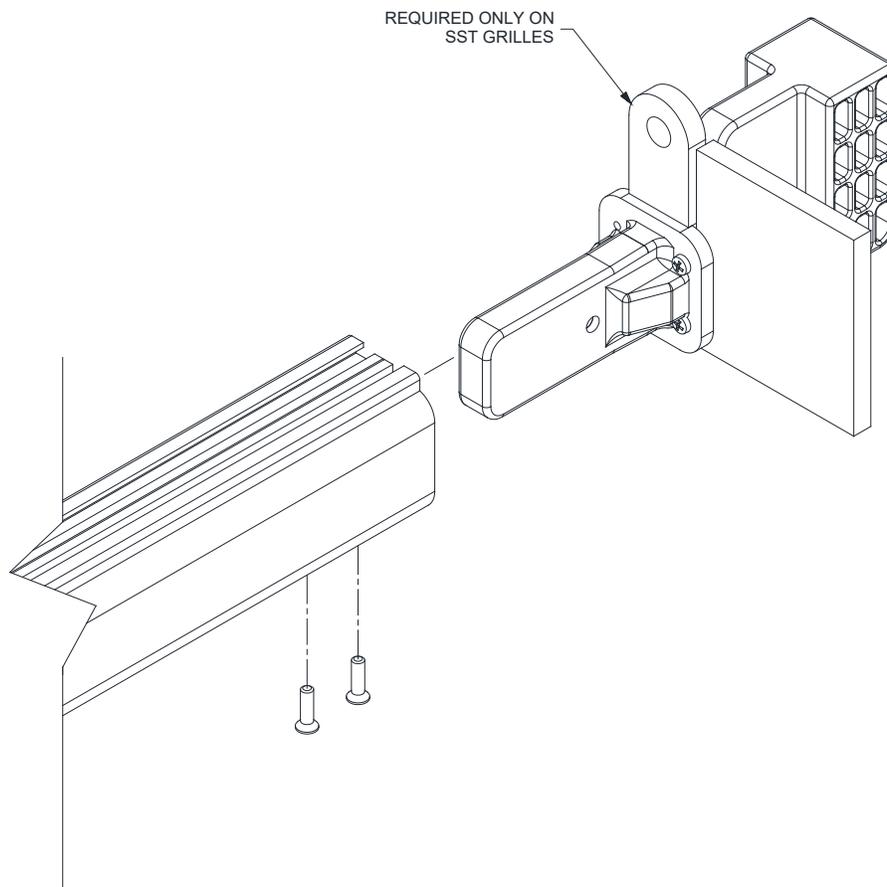
Section – 6 Microcoil Retrofit

Standard Bottom Bar Endplug Replacement see **Figure 13**:

1. Take note of which side the rubber flag is on.
2. Remove the existing bottom bar endplugs by removing the screws from the underside of the bottom bar on each end.

NOTICE

On Stainless Steel Microcoil units there is an additional support that runs through the last curtain rod. You will need to remove the nut, the last curtain link, and the last spacer in order to remove the endplug. Once the new endplug is inserted into the bottom bar reinstall these components.

3. Remove the screws from the new endplug assembly and insert into the bottom bar. Ensure that the endplug with the rubber flag is on the same side that the flag was previously installed on.
4. Make sure the rubber flag is straight and able to block the light curtain.
5. Insert the screws removed from the endplug and tighten screws. **NOTE:** Depending on the version of the bottom bar, there may be an extra hole on the underside of the bottom on each end with no fastener.
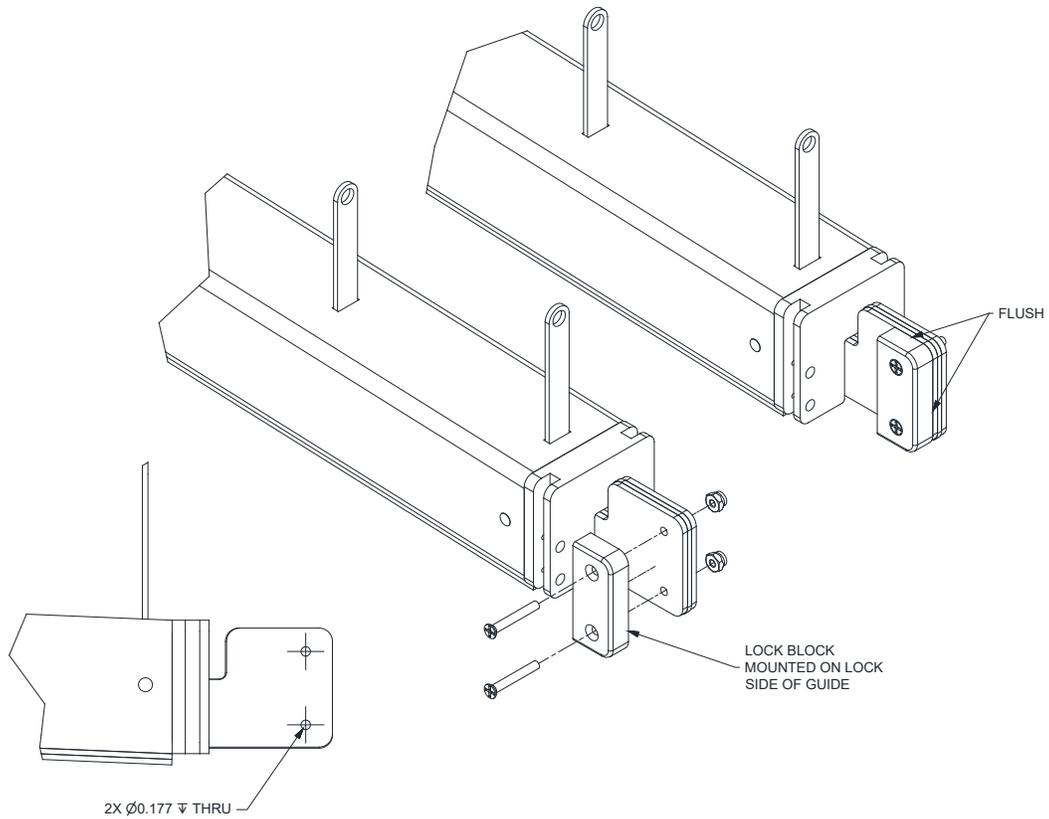
REQUIRED ONLY ON
SST GRILLES

Figure 13

Pitched Bottom Bar End Block **Figure 14**:

1. The lock block is placed on the lock side of the guide on both ends of the bottom bar.
2. Place the lock block on the end of the bottom bar so that the edges are flush.
3. Using a #29 drill bit and the lock block as a template drill 2 holes for the mounting fasteners.
4. Place the lock block into position and secure with the hardware provided.

FLUSH

LOCK BLOCK
MOUNTED ON LOCK
SIDE OF GUIDE

2X Ø0.177 ⩫ THRU

Figure 14