



**DOE 2017  
COMPLIANT  
& REGISTERED**

Styleline ***INNOVATOR***<sup>™</sup>

# Installation Manual

**STYLELINE**<sup>®</sup>  
GLASS DOOR SYSTEMS

022024



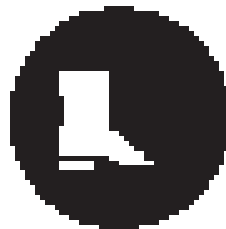
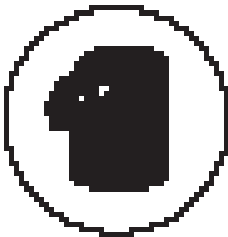
## BEFORE YOU BEGIN

Read these instructions completely and carefully.



### PERSONAL PROTECTION EQUIPMENT (PPE)

Personal Protection Equipment (PPE) is required whenever servicing this equipment. Always wear safety glasses, gloves, protective boots or shoes, long pants, and a long-sleeve shirt when handling glass.



FOR CALIFORNIA INSTALLATIONS ONLY:



WARNING:

Cancer and Reproductive Harm  
[www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

August 31, 2018 3069575

**This warning does not mean that Hussmann products will cause cancer or reproductive harm, or is in violation of any product-safety standards or requirements. As clarified by the California State government, Proposition 65 can be considered more of a ‘right to know’ law than a pure product safety law. When used as designed, Hussmann believes that our products are not harmful. We provide the Proposition 65 warning to stay in compliance with California State law. It is your responsibility to provide accurate Proposition 65 warning labels to your customers when necessary. For more information on Proposition 65, please visit the California State government website.**

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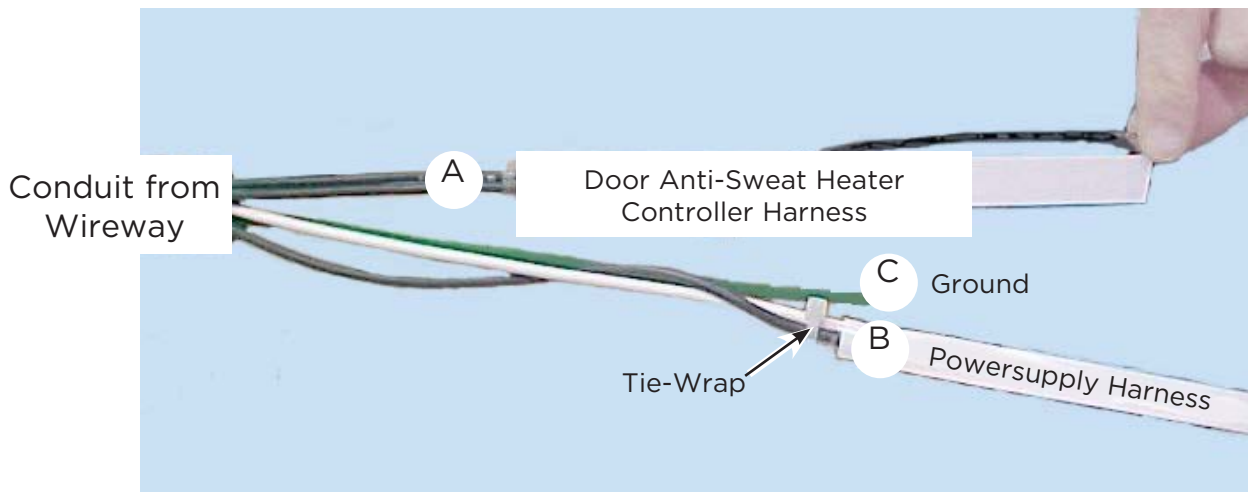
PARTS LIST						
Item	Quantity					Description
	1 DOOR	2 DOOR	3 DOOR	4 DOOR	5 DOOR	
1.	1	1	1	1	1	Frame
2.	10	20	30	40	50	Screws
3.	1	1	1	1	1	Silicone
4.	1	2	3	4	5	Doors
Joining						
5.	1	1	1	1	1	Joint Molding
6.	5	5	5	5	5	Binder Post and Screw

Conduit from Wireway

Each frame has the following wires in flexible conduit:

This photo shows the wiring with labels added for clarity. The diagram shows how the wires must be connected.

- A. The Glass Sentry Controller Harness is made of two separate wires, one black and one white wire.
- B. The Ballast Supply Harness has one white wire and one black wire bound with Tiewrap.
- C. The Ground wire is green.



GENERAL

Thank you for choosing Hussmann’s Innovator Cooler Door System. This document provides information necessary for successful installation and operation of the door system. The door nameplate is attached to the top of the door, handle side, behind the magnetic gasket. The frame nameplate is located



Innovator Cooler Door System

on the top left near the switch.



APPLICATION

The Innovator Cooler Door System is designed for installation in new medium temperature or low temperature walk-in coolers with insulated structural walls. To maintain structural integrity of the cooler wall and the door system, the cooler wall must be manufactured with a reinforced opening to match the door



Standard Reinforced Opening frame.

Frames may be joined when more than a 5 door length is needed. Frames to be joined are manufactured without the vertical outside frame flange.



ELECTRICAL SPECIFICATIONS

Appropriate electrical power must be available for the door system, including lighting and heaters. Check the nameplate for minimum circuit ampacity and maximum overcurrent protection device. Always follow NEC guidelines and local codes.

SPECIFICATIONS FOR OPENING

Each door frame is 1 to 5 doors wide. Several standard frame heights are available. Always compare the wall opening dimensions with the frames to be installed.

SHIPPING DAMAGE

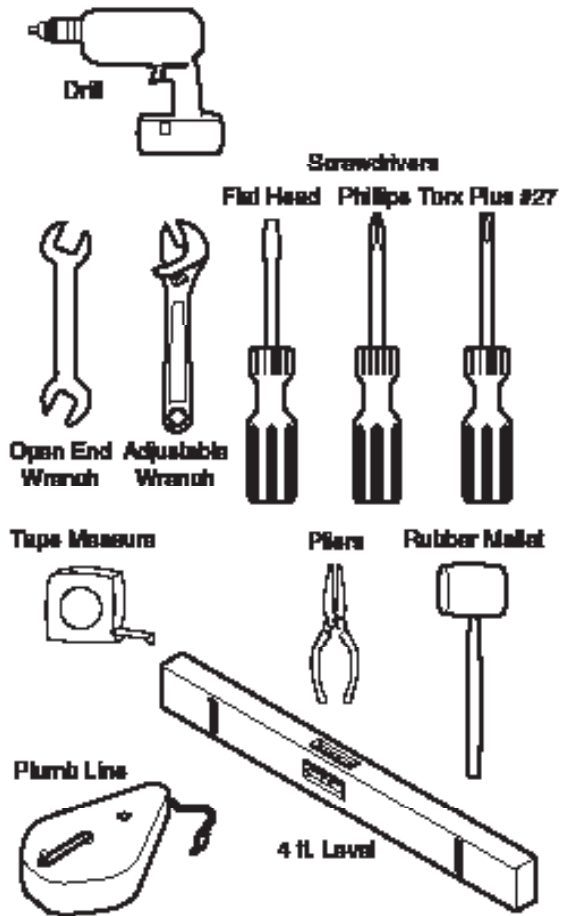
All equipment should be thoroughly examined for shipping damage before and during unloading.

This equipment has been carefully inspected at our factory. Any claim for loss or damage must be made to the carrier. The carrier will provide any necessary inspection reports and/or claim forms.

PREPARATION

Clear an area outside the wall opening to lay the frame flat and work around it. Gather tools needed for installation.

Doors are shipped separately from the frame. Set doors aside until frame is installed. Lay the frame face down. Remove all packing materials, packaged parts and tape. Take care



Typical Tools Needed to Install Innovator Cooler Door System not to scratch or otherwise damage

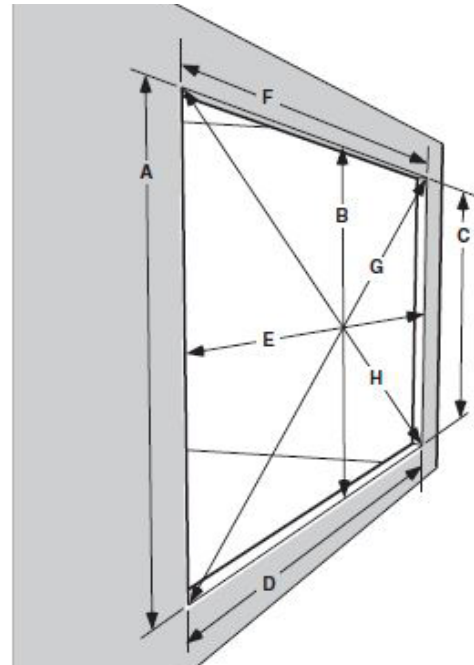


Unpack Frame and Lay Face Down frame face.

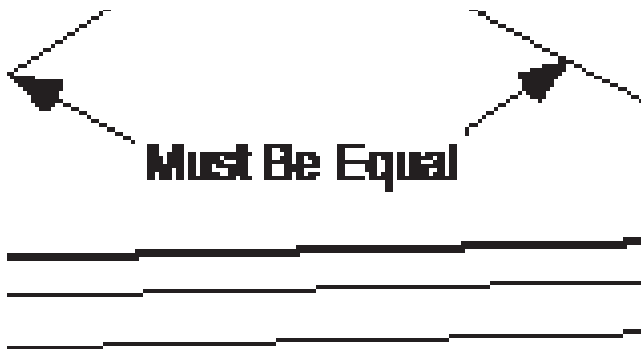
INSTALL FRAME



Apply Silicone Sealant



Verify Square and Level Opening



**Must Be Equal**

Verify Square Frame



Do Not Damage Wiring

Add Shims When Needed

Place Frame in Opening

**Apply Sealant**  
Apply field-supplied silicone sealant between edge of gasket and outside edge of frame.



Use the Level

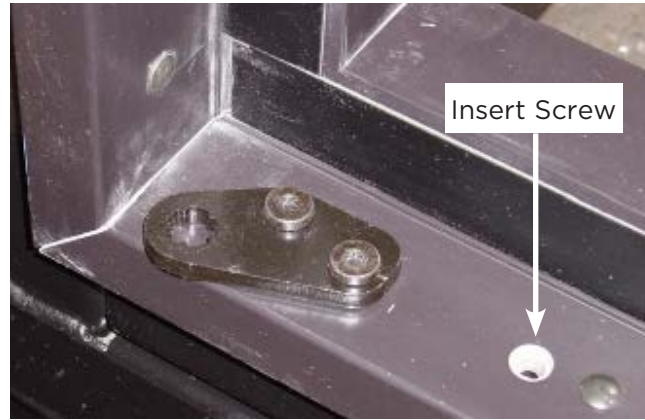
**Check Frame and Opening for Square**  
Verify the frame is not racked (out of square) by measuring from one corner diagonally to the other. The



Clamp the Frame

measurements must be the same. Verify that the opening is large enough

for the frame. Use a long level (4 ft (1220 mm) or more) to determine if the opening is level side to side. If



Fasten the Frame Bottom

shims are needed, they must be used under the frame at the bottom of the opening, or at the sides.

**Place Frame in Opening**  
Lift frame by mullions to avoid gaskets and sealant. Position bottom of frame in opening and then tilt top of frame toward opening. Take care that wiring from wireway at top of frame is not damaged.





Keep Frame Level

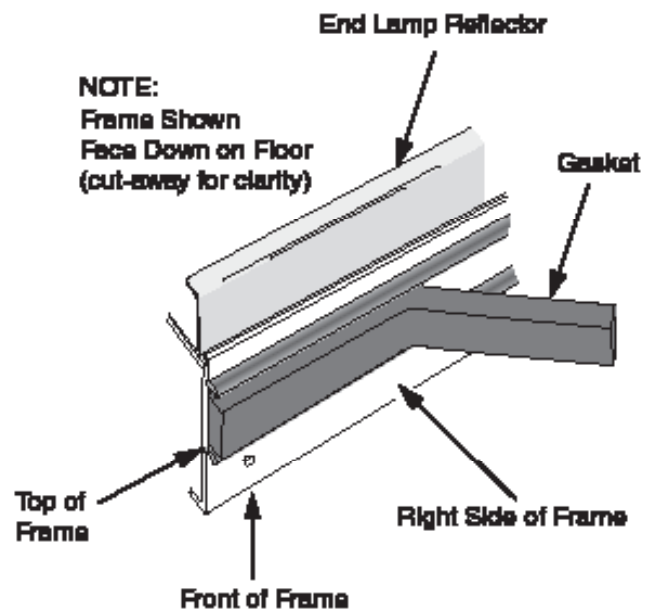
Use the level to ensure the frame is plumb within the opening. Use shims as needed below and to the side to keep the frame level.

Once the frame is properly positioned,



Fasten Frame Top Last

large clamps should be used to hold frame in position.



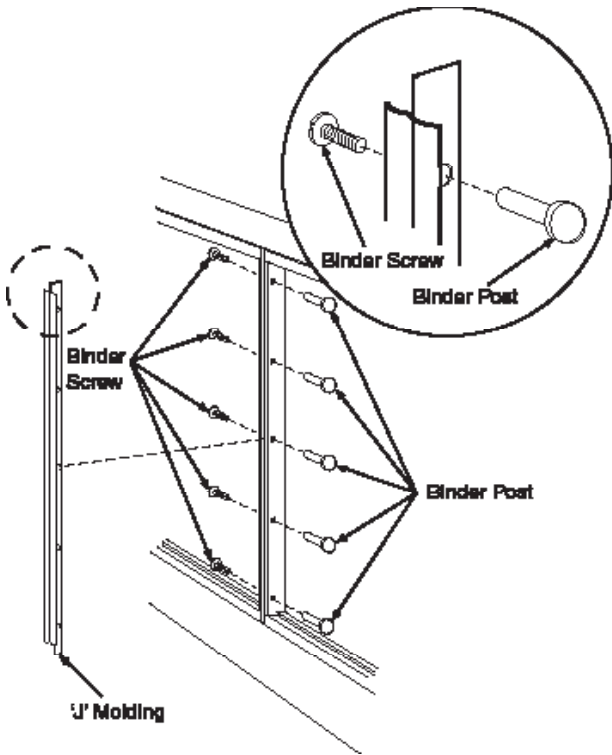
Install Gasket Between Wipes

**IMPORTANT!**  
**DO NOT OVER-TIGHTEN**

Fasten Frame to Cooler Wall  
Use screws provided to fasten the bottom frame to the wall.

Verify frame is still square.

Fasten side frame to wall with screws provided. Use shims as necessary.



Install 'J' Molding Between Frames

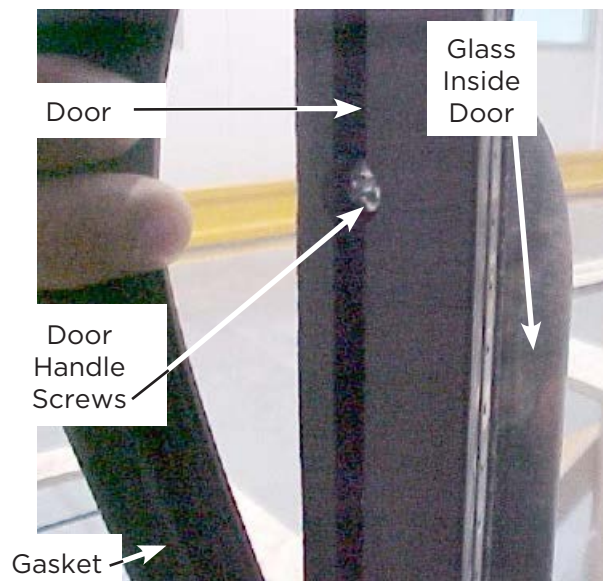
Do not distort frame by excessive tightening.



Apply Silicone Around Frame

Fasten top of frame to wall with screws provided. Do not distort frame by excessive tightening.

Use shims at each screw location to prevent distortion. Once screws are in, verify top of frame is straight and level from side to side.



Lift Gasket at Handle Location

JOINING FRAMES

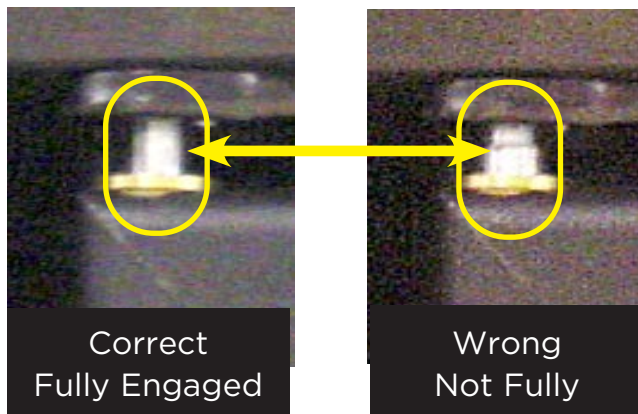
Frame sides to be joined will have no front face flange.

Install the first frame as above, and prepare the second frame. Apply 1 in. wide gasket between wipes of each frame side to be joined. Lift the second frame into position and fasten the bottom as above.



Spring, Pin and Bushing

Verify the second frame is still square.



Ensure Hinge Pin is Fully Engaged into Hinge Plate

If last frame in opening, fasten side frame to cooler wall opening.



Lift Door Retainer Over Shoulder Screw

Insert 'J' molding between frames. Fasten frames together with binding post and screw in five locations. Fasten top of frame to cooler wall opening. Do not distort frame sides or top.

Once all frames are installed, verify overall frame is square and plumb.

SEAL INSIDE FRAME PERIMETER

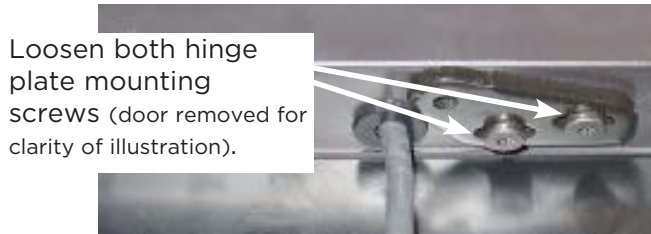
Apply a small continuous bead of silicone sealant around the inside of the frame to seal the frame to the wall.



Adjust Closing Torque

ATTACH DOOR HANDLES

Carefully lift the magnetic gasket away from the frame nearest the handle location to expose the mounting screw holes as shown in below.



Adjust Door Sag

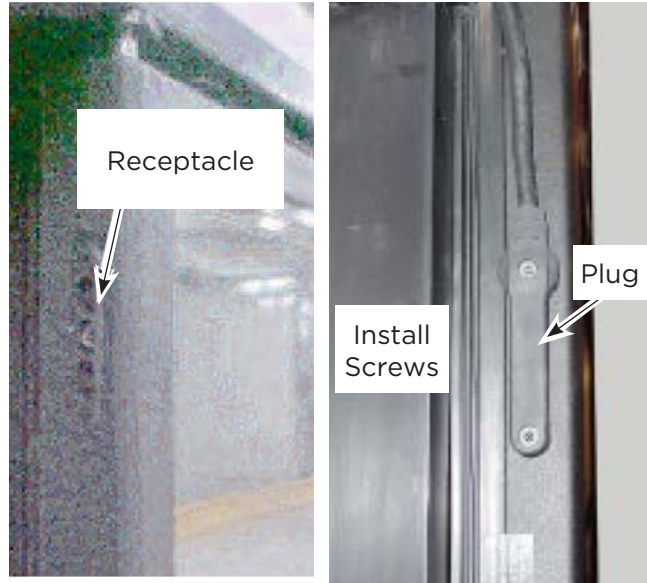
Install handle and screws carefully (if gasket is damaged, it must be replaced). After installing screws,

**⚠ WARNING**

Always disconnect the electrical power at the main disconnect when servicing or replacing any electrical component. This includes, but is not limited to, such items as doors, lights, fans, heaters, and thermostats.

gasket should again lie flat. If needed, use a mild soap and water solution to lubricate the gasket. Clean and dry the gasket to complete the door handle installation.

INSTALL DOORS



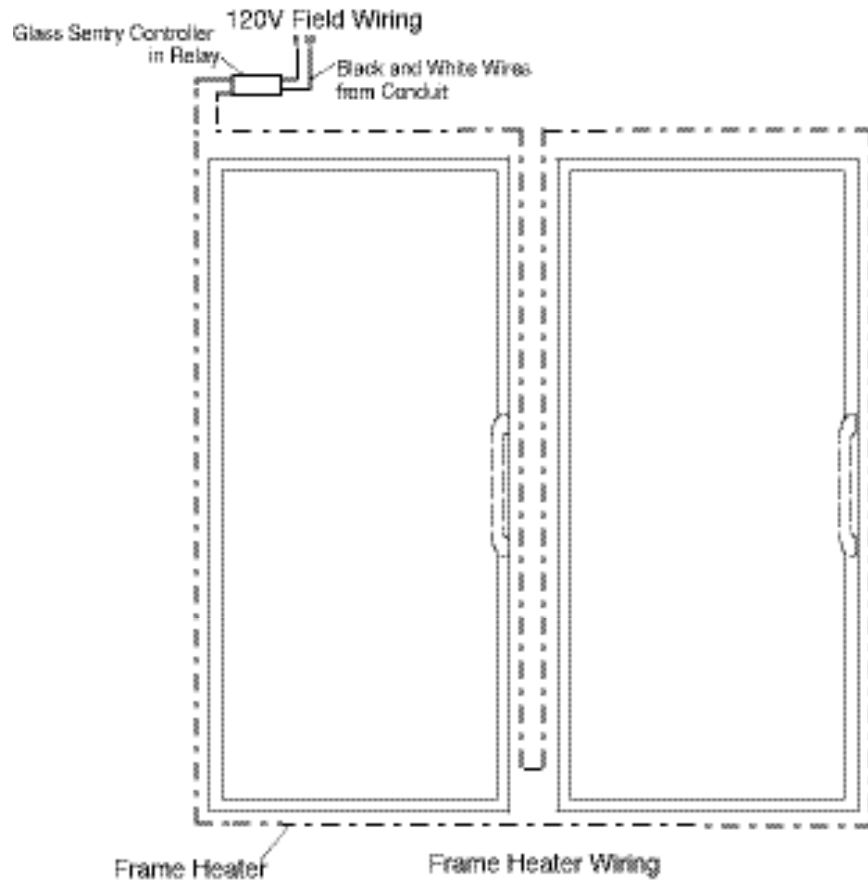
Connect Heater

Insert the spring, bushing and pin in the top of door. Lift the door and insert the bottom hinge pin into the bottom hinge socket. Rotate the top of the door under the top socket while holding down the top hinge pin. Once the hinge pin is under the top socket, maneuver the door until the hinge pin pops into the socket.



Connect Wireway Wiring to Power Source

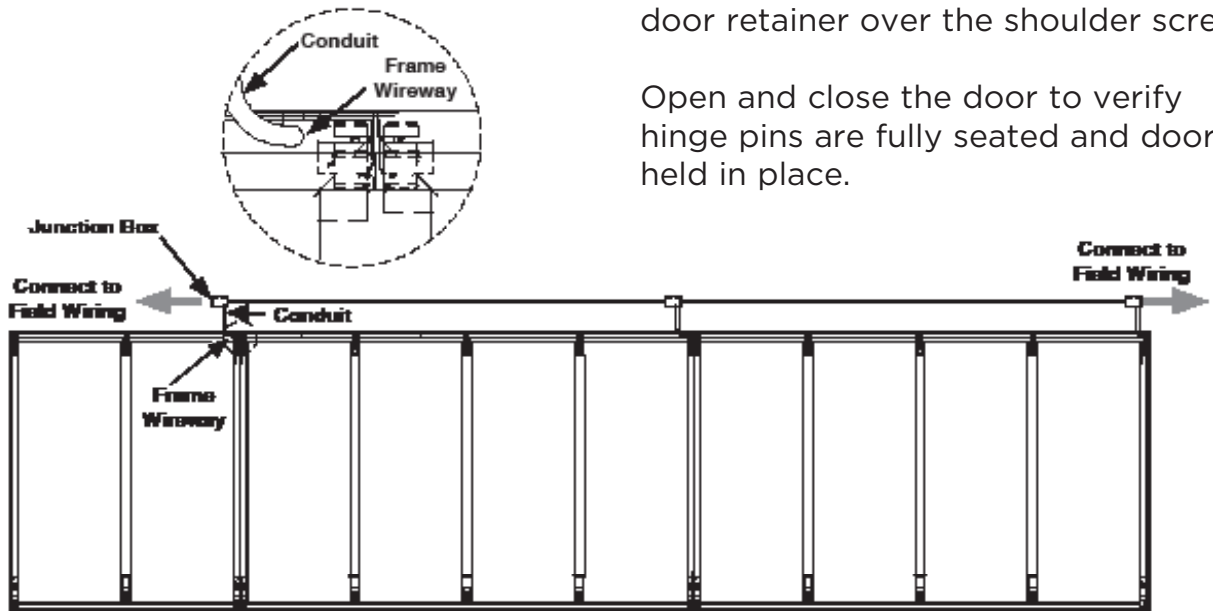
Ensure the hinge pin is fully engaged



into the hinge plate as shown below.

Use a flat blade screwdriver to lift the door retainer over the shoulder screw.

Open and close the door to verify hinge pins are fully seated and door is held in place.



Connect Frame to Field Wiring



Install remaining doors before adjusting doors.

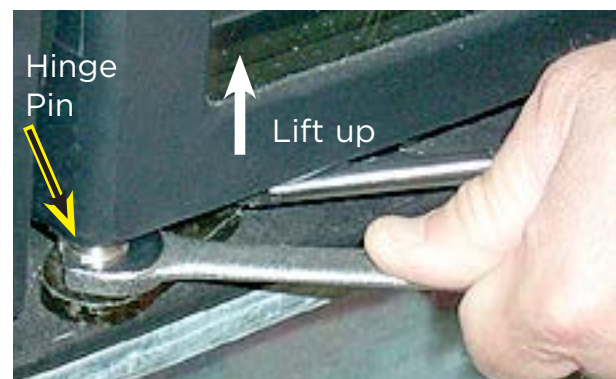
## **WARNING**

Always disconnect the electrical power at the main disconnect when servicing or replacing any electrical component. This includes, but is not limited to, such items as doors, lights, fans, heaters, and thermostats.

### ADJUST CLOSING TORQUE

Adjust closing torque by turning the bottom hinge pin in the direction the door closes. Use a 1/2 in. (13 mm) wrench. Turn the hinge pin until the door closes on its own, usually 3 to 4 clicks or  $\frac{3}{4}$  turn.

DO NOT over-torque the hinge spring



Loosen Torque on the Door

## **ATTENTION**

TO ENSURE PROPER DOOR GASKET SEAL - INSTALL DOORS AND FRAMES, THEN ENERGIZE ALL ANTI-SWEAT AND LIGHT CIRCUITS 2 TO 4 HOURS PRIOR TO INITIATING REFRIGERATION CYCLE.

**DO NOT EXCEED 8 HOURS OF ENERGIZED CIRCUITS WITHOUT REFRIGERATION. DAMAGE OR PRODUCT FAILURE MAY OCCUR AND VOID THE WARRANTY.**  
**DO NOT REMOVE THIS LABEL UNTIL REFRIGERATION IS INITIATED.**

assembly. Excessive torque (over 1 full turn) will result in damage to the spring assembly and/or door. If door does not close on its own after one full turn (5

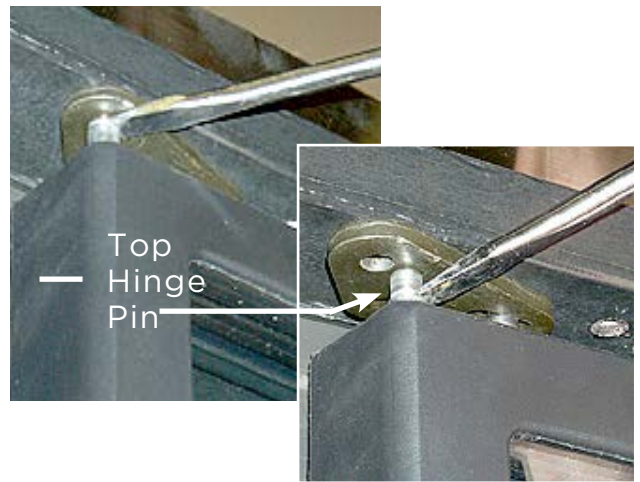


Lift Door Retainer

clicks), look for obstructions causing the door to hang up.

### ADJUST DOOR SAG

To adjust door sag (saw-tooth effect from door to door), loosen the two hinge plate mounting screws using a Torx Plus no. 27 bit. Adjust hinge plate as needed, then tighten the screws.



Remove Top Hinge Pin from Top Hinge Socket

### CONNECT HEATERS

NOTE: NOT ALL DOORS HAVE HEATER HARNESSES.

Use screws supplied with the harness to attach the heater harness to the receptacle mounted in the door. DO NOT use other screws which may damage the door.



Replace Door Hinge Spring

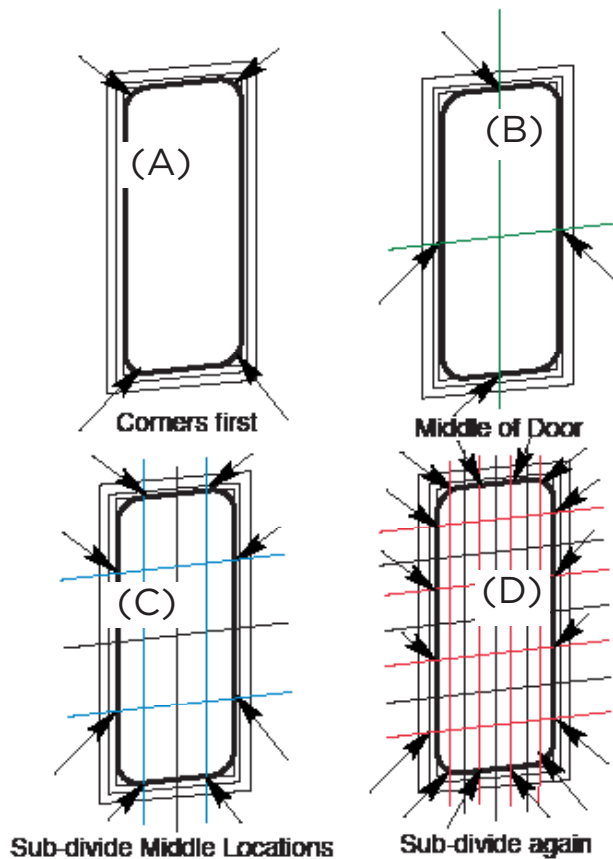
connected to the power source. Wiring diagrams for the heater harnesses follow. Wiring diagrams for the power supply and EcoShine LED lamps begin on page 19. Wiring diagrams for ballast and fluorescent lighting begin on page 26.

CONNECT WIRING FROM WIREWAY

Door system wiring is routed from the wireway through flexible conduit to be



Remove Door Gasket



Sequence for Installing New Gasket

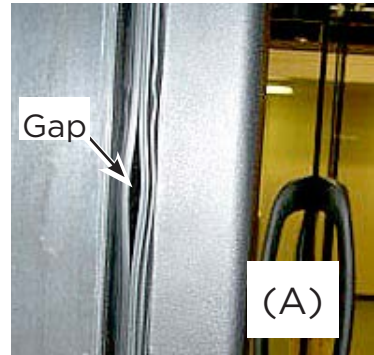
**Field Wiring Connection**

Each frame is connected to field wiring through junction boxes as shown below. Frames must not be wired in series. All wiring must be done in



Improperly Installed or Damaged Gasket

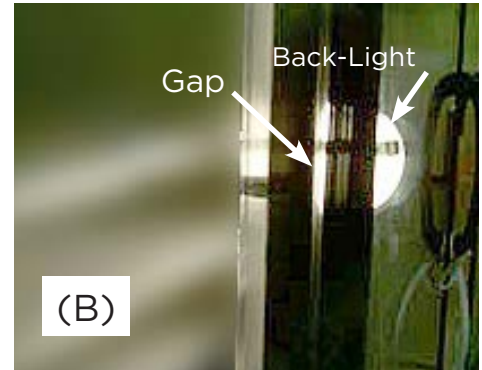
accordance with NEC and local codes.



**CONDITIONING GASKETS**

In the factory environment, gaskets can be fitted to seal properly. However, the manufacturer

cannot control the



Back-Lighting Gaps in Gasket

environment surrounding components during shipment or installation. Temperature and humidity fluctuations promote gaps which prevent sealing between gasket and frame. This is not a warranty issue or defect.

Before refrigerating the walk-in space, follow this procedure which was developed to ensure gaps close and gaskets seal properly in most environments.

1. Install the frames and doors, connect all wiring, and make adjustments as directed in the preceding pages.
2. Close each door. Use a flashlight to identify any gaps between frame and gasket.
3. Energize all anti-sweat, fan and light circuits for at least two hours, but not more than four hours, prior to initiating the refrigeration cycle.

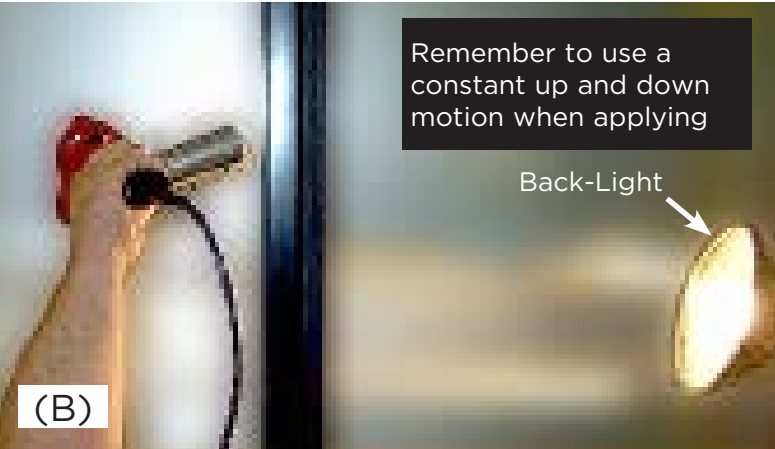
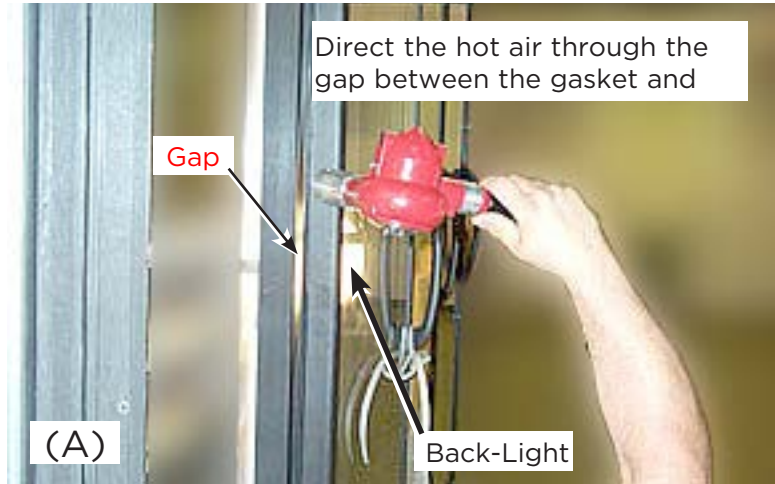


4. Monitor all gaps.

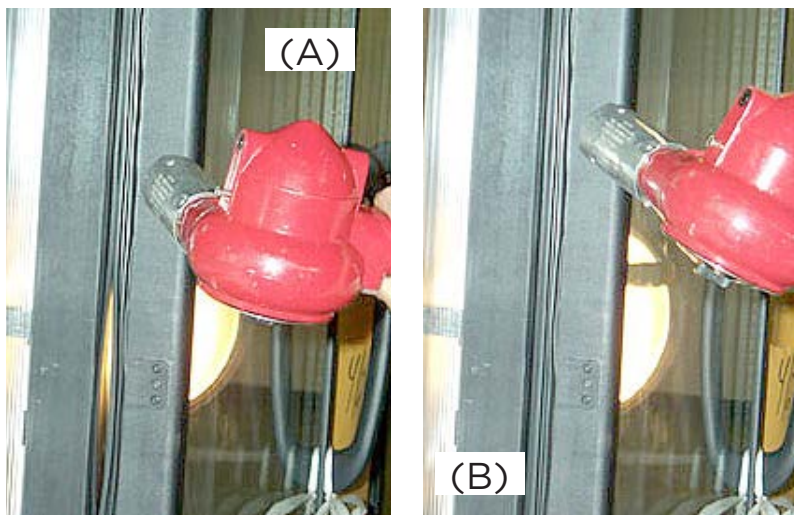
5. Initiate cooling sequence after four hours or once the gaps disappear, whichever comes first.

Do not exceed 8 hours of energized circuits without refrigeration. Doing so may cause damage to doors and frames and will void the warranty.

If gaps remain at the end of four hours, follow the procedure for Restoring Gasket Seal, beginning on page 13 of this manual.



Applying Heat to Gasket



Zipper Effect





Pulling Gasket Into Place With a Pencil  
**SERVICE AND MAINTENANCE**  
 Replacing Doors

1. Loosen torque on door before removing the door. Wedge a screwdriver between the bottom of the door and the hinge socket, then lift the door up. This will lift the bottom hinge pin up and out of the bottom hinge socket. Hold the hinge pin with a 1/2 in. (13 mm) open end wrench to keep it from spinning out and stripping the socket.



2. Use a flat blade screwdriver as shown to lift the door retainer over the shoulder screw.

3. Push down the spring-loaded top hinge pin until it clears the top socket using a flat blade screwdriver. With finger, hold the hinge pin in the door to keep it from popping out. Tape may be used to

temporarily hold the

Mounting Screws



hinge pin once door is removed.

4. Rock the door out and pull the bottom hinge pin out from the bottom socket.

5. Install the new door in reverse order.

6. Adjust the torque on the new door. If

**Replacing Door Handle**

needed, adjust sag.

### Replacing Door Hinge Spring

The door must be removed before replacing the door hinge spring.

Pull the hinge spring assembly out of the bottom of the door and replace with a new assembly. Note that there are right-hand and left-hand hinge spring assemblies.

Refer to manufacturer's documentation for LED fixtures other than Hussmann's EcoShine™

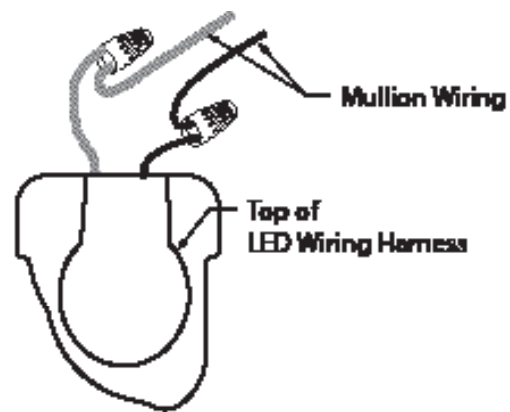
### **WARNING**

— LOCK OUT / TAG OUT —

To avoid serious injury or death from electrical shock, always disconnect the electrical power at the main disconnect when servicing or replacing any electrical component. This includes, but is not limited to, such items as doors, lights, fans, heaters, and thermostats.

### Replacing Magnetic Gasket

Carefully remove the old gasket from the groove in the back of the door. The new gasket will be easier to work with if it is at ambient temperature. Begin by lubricating the new gasket with a mild soap and water solution.



Disconnect Wiring  
(Center Fixture Shown, End Fixture Similar)

Work from the corners to the centers of each side, top and bottom. Carefully

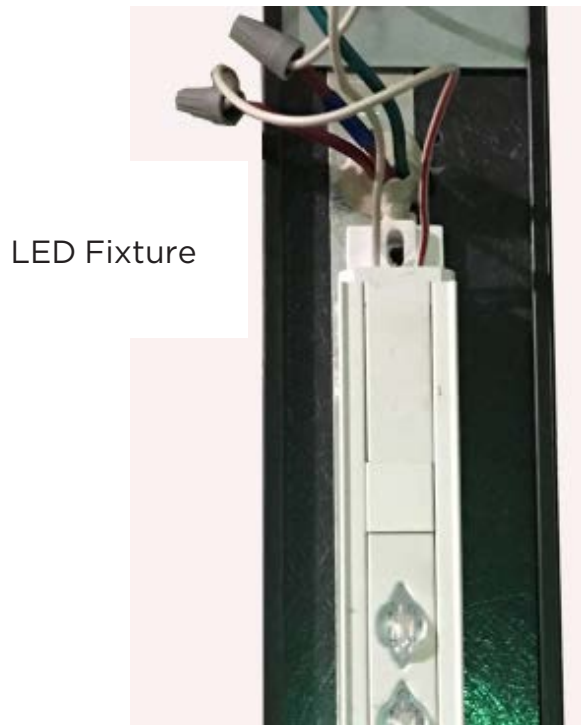


Figure 4.

push the new gasket into the groove at each corner, refer to sequence (A). Then, push the gasket into the channel at the center of the top, bottom and each side, (B). Avoid stretching the gasket.

Sub-divide remaining areas and push the gasket in at those points, (C).

Sub-divide once again and repeat pushing the gasket in until all of the gasket is evenly seated in the groove, (D).

Use a soft cloth or paper towels to dry the gasket before closing door on clean door frame.



Figure 5. Interior View of End Fixture

Restoring Gasket Seal

Occasionally, a crimped or damaged gasket can cause gaps in the seal, leading to frost formation on the doors. Use this procedure to close gaps and end frost formation on doors.

LOCATE GAPS

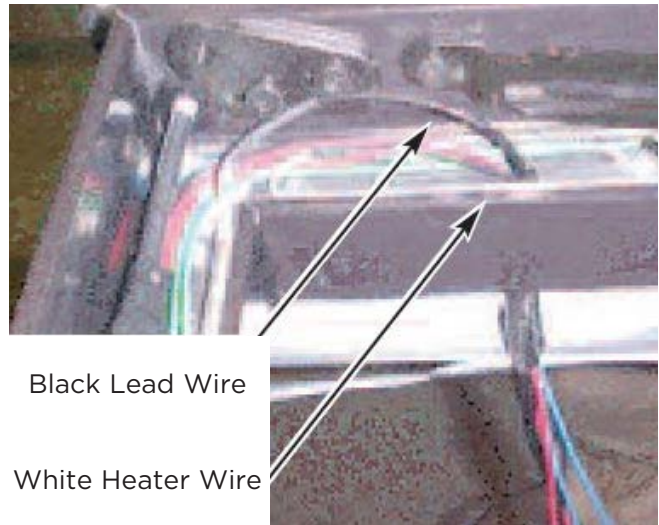
Normally, interior ambient lighting will provide enough light to see gaps. In



some cases, the only way to see gaps is to provide a backlight as shown (A). Backlight the door mullion and look for places the light shines between the door and gasket, (B).



Remove Wireway Cover



Remove and Replace Frame Heater



### Dimmer Control

The LED Dimmer Control regulates the brightness of the merchandiser's LED lighting. A passive infrared motion detector located on the top front center of merchandisers or on the wall for wall mounts, detects the presence of approaching customers.

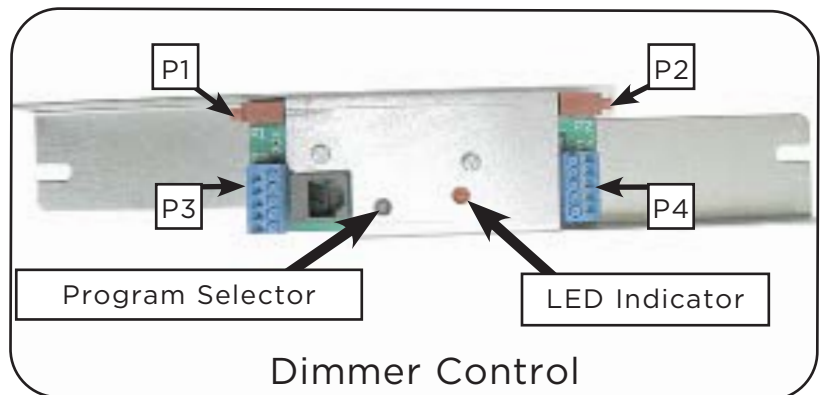
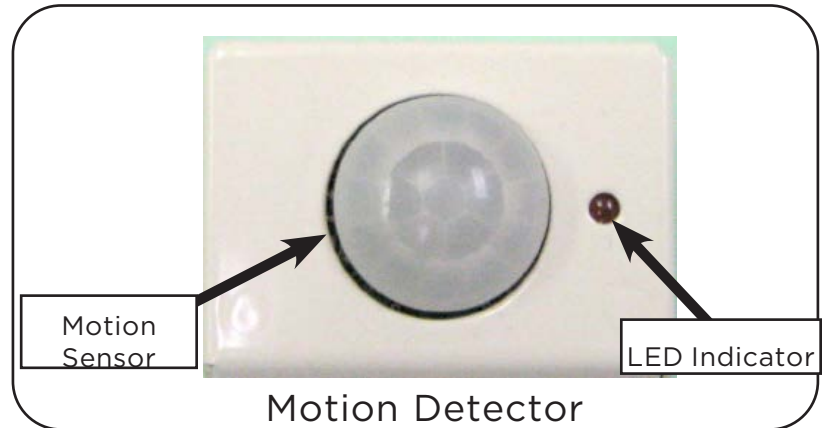
NOTE: THE MOTION DETECTOR IS AVAILABLE IN GRAY, BLACK AND PEARL.

A signal is passed to the dimmer control, which is connected to the LED lighting power supply.

The dimmer control receives a signal from the motion detector and adjusts the brightness of the merchandiser's LED lights accordingly.

The amount of LED brightness emitting from the merchandiser lights can be modulated from 100% to 0%, 20% or 50% as selected by the installer. The Motion Activated Dimmer Control regulates the application of power to the LED lighting and is powered by a LED 24VDC power supply.

Dimmer Control is factory set to 20% minimum LED brightness.



**CAUTION**

avoid overheating and possible damage to other equipment, DO NOT use dimmers to control receptacles, or fluorescent lighting



Operation

When power is first applied to the Motion Activated LED Dimmer Control, The LED Indicator flashes two times and the LED lights are set to dim at 20%. The dimmer control can be set to dim the LED lights to 0%, 20% and 50% respectively.

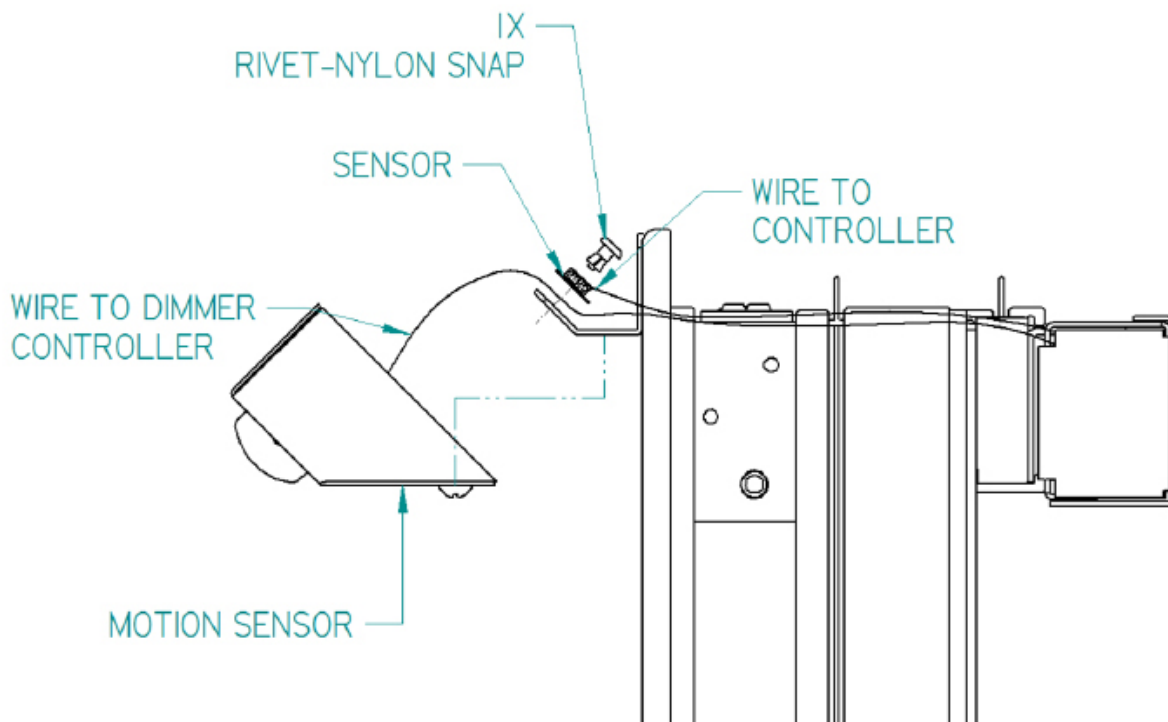
The dimmer level remains at 20% for five seconds, and is then elevated to 100%. After one minute, the motion detector “learns” the background environment. During this time, the output will remain at 100%. If no motion is detected after 30 seconds, the LED brightness will dim to the selected output minimum from the dimmer control.

This dimming takes place over a period of three seconds as the lighting is reduced from 100% to the selected minimum as programmed on the dimmer control.

When motion is detected again, the LED brightness will increase to 100% over one second. Lighting will again remain at 100% until 30 seconds of no detected motion.



TH  
09  
5C



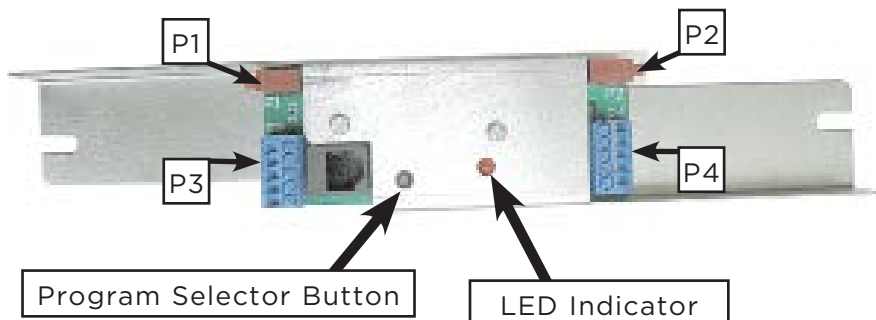
**Program Dimmer Control**

The Motion Activated LED Dimmer Control is factory installed and set to 20% minimum LED brightness. The dimmer control is located near the merchandiser's LED lighting power supplies. This may require the installer to remove the case bumper and front panel to access the wireway or to open the canopy lamp panel.

Locate the dimmer control. Press and hold the program selector button on the dimmer control for three seconds. This enters the Motion Activated LED Dimmer Control's program mode. The LED on the dimmer control will flash four times.

From program mode, press the program selector button one time, and the LED on the dimmer control will flash

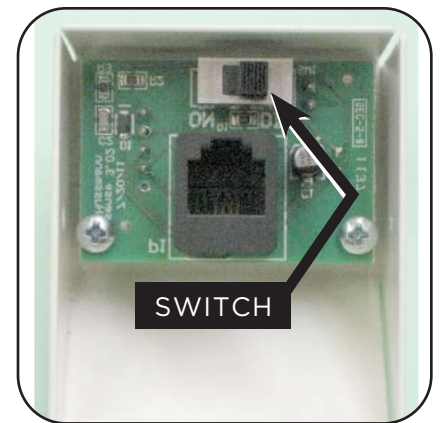
one time. Case LEDs will turn off. The case LED lights are now set to dim to 0% minimum.



Dimmer Control

From program mode, press the program selector button twice, and the LED on the dimmer control will flash two times, Case LEDs will illuminate to 20%. The case LED lights are now set to 20% minimum.

From program mode, press the program selector button three times, and the LED



Dimmer Switch in "DIM" position.

**NOTE:**  
Do not paint motion detector. Painting motion detector may cause overheating, or loss of motion sensing capability.  
  
Do not mount motion

gram mode.) After 30 seconds, the case LEDs will illuminate to 100% to indicate exit from program mode.

## TROUBLESHOOTING GUIDE

Problem	What to Check for	Possible Causes	Solution / Action
Case LEDs stay at 100% after one and a half minutes of operation.	LED Indicator on Motion Detector is "ON." Dimmer Control LED Indicator is lit.	Dimmer Control has a startup delay of about one and a half minutes, and the Motion Sensor had not warmed up.	Wait more than two minutes for Motion Sensor to dim to programmed setting on Dimmer Control.
Case LEDs stay at 100%.	LED Indicator on Motion Detector is "ON." Dimmer Control LED Indicator is lit.	Sensor sensing motion.	Ensure all objects remain motionless in the view of Motion Detector for more than 30 seconds.
Case LEDs stay at 100%.	LED Indicator on Motion Detector is "ON." Dimmer Control LED Indicator is lit.	Switch on Motion Detector is in the "ON" position, bypassing the Dimmer Control.	Move Motion Detector switch to "DIM" position.
Case LEDs stay at 100%.	LED Indicator on Motion Detector is "ON." Dimmer Control LED Indicator is lit.	Dimmer Control is wired backwards.	Wire Power Supply to the Dimmer Control input and the LEDs to the Dimmer Control output.
Case LEDs stay at 100%.	LED Indicator on Motion Detector is "OFF." Dimmer Control LED Indicator is lit.	RJ-11 connector is not properly seated or bad RJ-11 Connector Cord.	Install new RJ-11 Connector Cord.
Case LEDs stay at 100%.	No motion is present. Dimmer Control LED Indicator flashes at 1-second interval.	Bad Dimmer Control.	Install new Dimmer Control.

