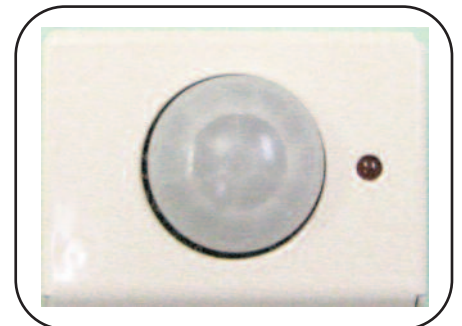


# **HUSSmann®**

## ***FIELD INSTALLED MOTION ACTIVATED LED DIMMER CONTROL***

***FOR REACH-IN GLASS DOORS***

***AND MULTI-DECK MERCHANDISERS***



## ***INSTALLATION AND OPERATION MANUAL***

**P/N 0522689\_A**

**November 2011**





## **PARTS LIST**

<b>Item</b>	<b>Quantity</b>	<b>Description</b>
1. ....	1 .....	Motion Detector
2. ....	1 .....	Motion Detector Mounting Bracket
3. ....	2 .....	Screw Self-Tapping Hex Head 6-32 x <sup>5</sup> / <sub>8</sub> in.

### **REVISION HISTORY**

#### *REVISION A*

1. Original Issue Nov. 2011

### **ANSI Z535.5 DEFINITIONS**



• **DANGER** – Indicate[s] a hazardous situation which, if not avoided, will result in death or serious injury.



• **WARNING** – Indicate[s] a hazardous situation which, if not avoided, could result in death or serious injury.



• **CAUTION** – Indicate[s] a hazardous situation which, if not avoided, could result in minor or moderate injury.

• **NOTICE** – *Not related to personal injury* – Indicates[s] situations, which if not avoided, could result in damage to equipment.

**IMPORTANT**  
**KEEP IN STORE FOR FUTURE REFERENCE**  
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## GENERAL INFORMATION

The HUSSMANN® Motion Activated 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.

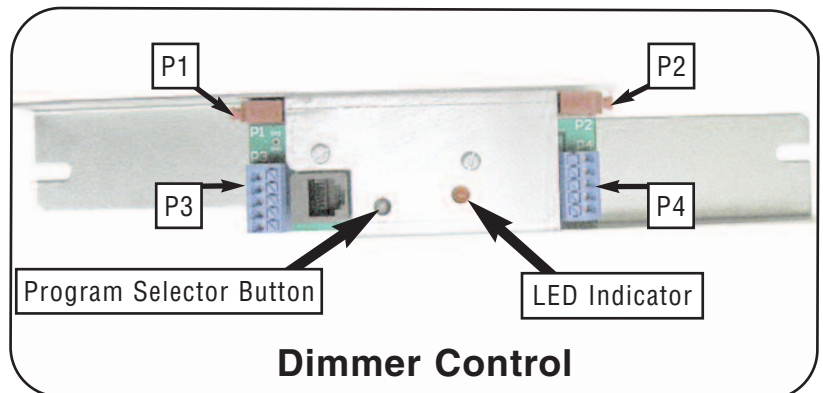
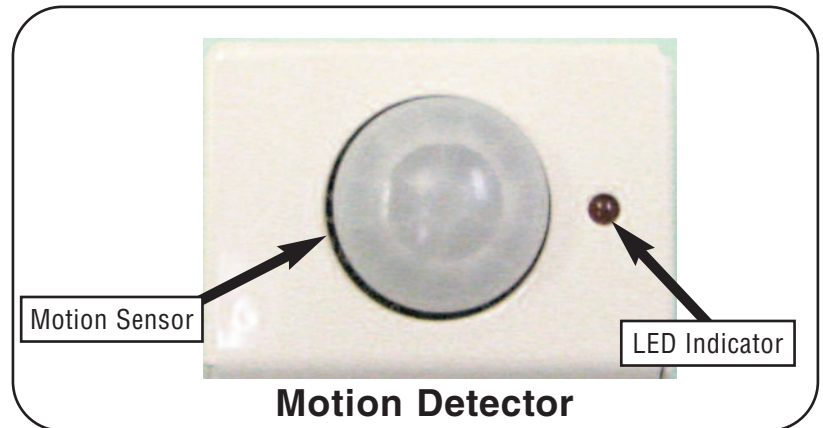
NOTE: THE MOTION DETECTOR IS AVAILABLE IN GRAY, BLACK AND PEARL.

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

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

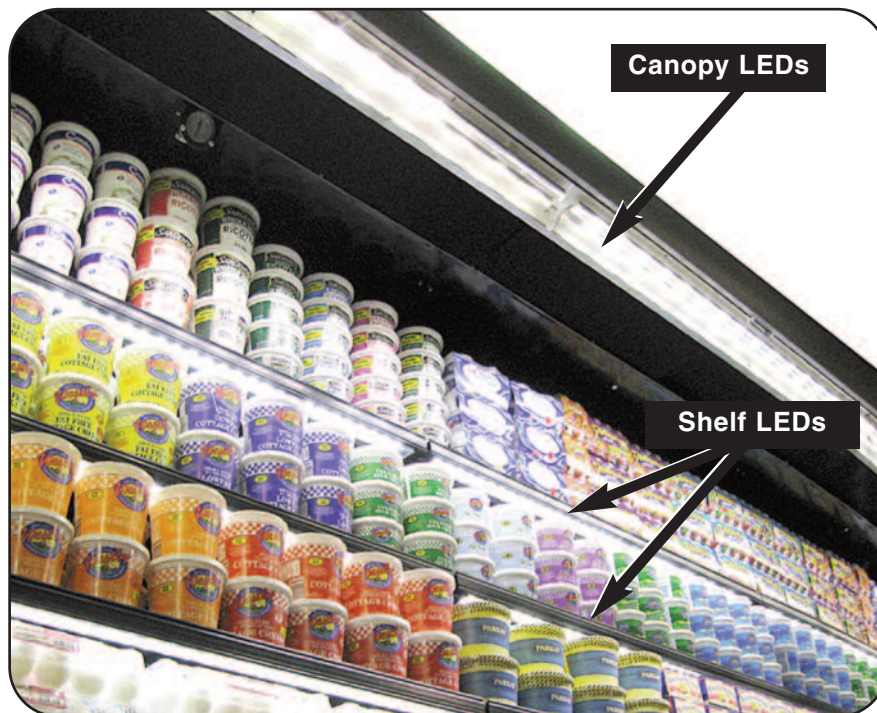
## OPERATION

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 back-ground 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. The minimum setting can be set to 0% (off), 20% (default setting), or 50%.

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.



**D6X Multi-deck Merchandiser**



**RL Merchandiser**



## **PROGRAM DIMMER CONTROL**

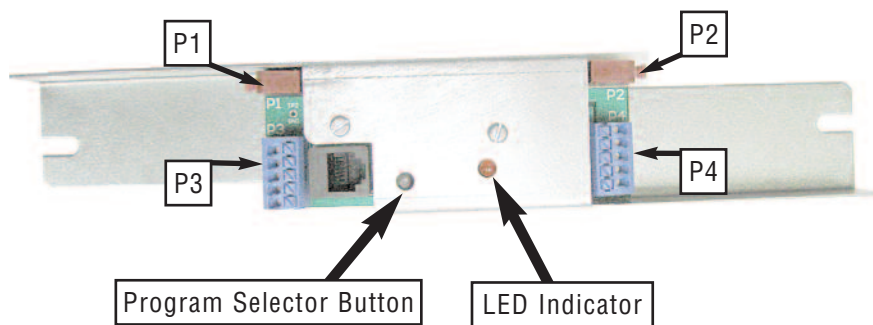
The Motion Activated LED Dimmer Control is factory installed and set to 20% minimum LED brightness. The dimmer control is located near the merchandiser's LED lighting power supplies. This may require the installer to remove the case bumper and front panel to access the wireway or to open the canopy lamp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

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 on the dimmer control will flash three times. Case LEDs will illuminate to 50%. The LED lights are now set to 50% minimum. Program mode times out after 30 seconds. (This is the only way to exit program mode.) After 30 seconds, the case LEDs will illuminate to 100% to indicate exit from program mode.

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



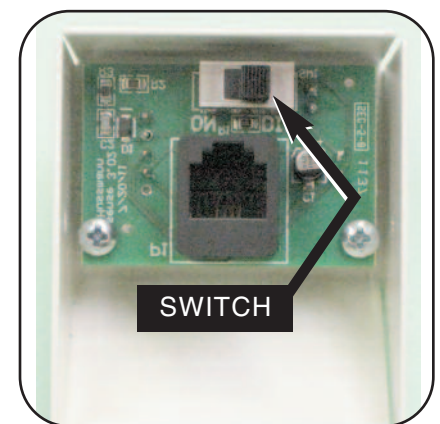
**Dimmer Control**

## **MOTION DETECTOR SWITCH**

A switch on the top rear of the motion detector has two settings ON and DIM.

When the switch is set to ON, the merchandiser LEDs will power to 100%, bypassing the motion sensor.

The motion sensor will operate normally when the switch is set to DIM.



**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  
detector in outdoor areas.**

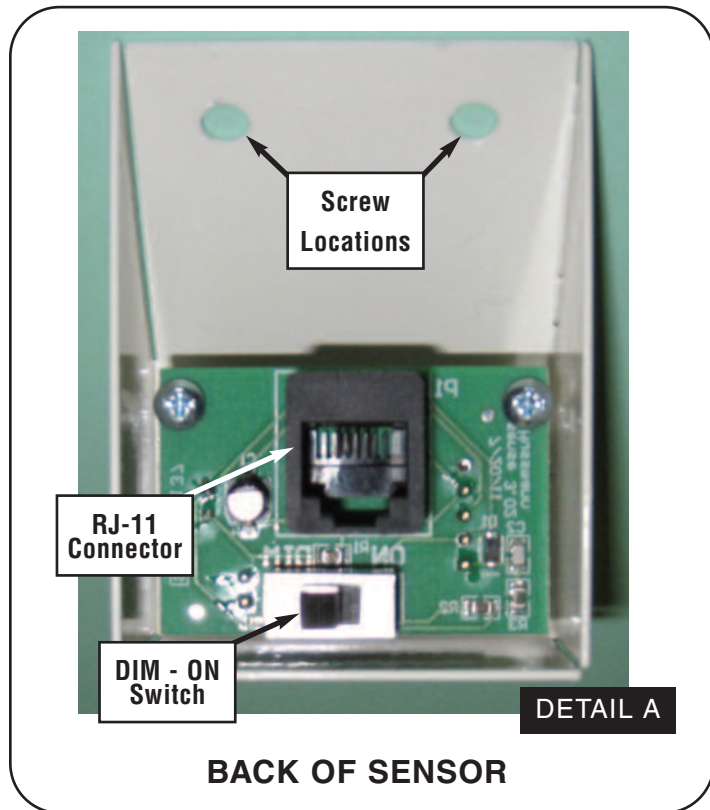
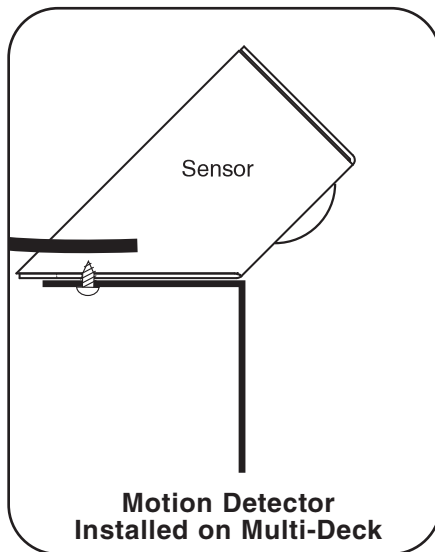
## INSTALLATION INSTRUCTION FOR MULTI-DECK CASES

1. DISCONNECT POWER TO THE MERCHANDISER. Remove all packaging materials, and check parts list. Place the sensor assembly on the top, front center of the merchandiser's canopy. (The mounting bracket is only needed when mounting the sensor to a wall.)

The assembly mounts  $1\frac{1}{4}$  in. from the front edge of the canopy. Mark canopy assembly screw locations using the assembly holes as a reference.

2. Drill two self-tapping sheet metal screws (Item 4) through assembly into the top of the case canopy. Secure assembly in place. (See Detail A for mounting screw locations).

3. The factory installed RJ-11 connector cord can be found on top of case. Plug into RJ-11 connector on rear of assembly.



## WARNING

### — LOCK OUT / TAG OUT —

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



## INSTALL DIMMER CONTROL

4. Once lamp panel is accessed, install dimmer control in the merchandiser's canopy. Select an open power supply mount location. Install the dimmer control into the wireway of the first available power supply opening.

### Dimmer Wiring

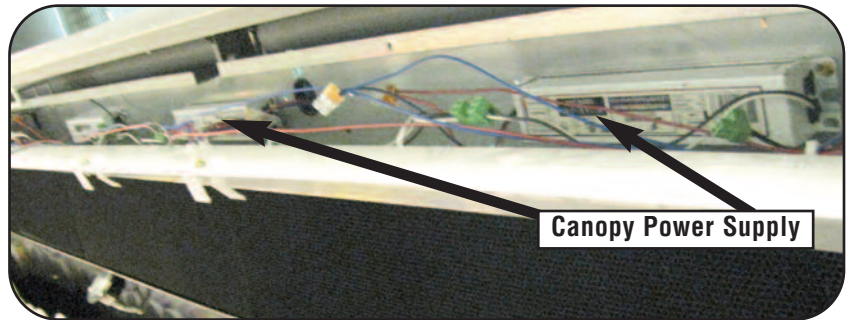
All blue wire connections between power supply and LED light bar(s) must be removed and routed through dimmer control. Only one of the red wire connections from the power supply and LED(s) need to be removed and routed through the dimmer control. Wire the controller between the power supplies and LED light bars following the wiring diagram on pages 11 - 13, accordingly.

5. Clip dimmer control RJ-11 connector into controller as shown in **Detail C**.

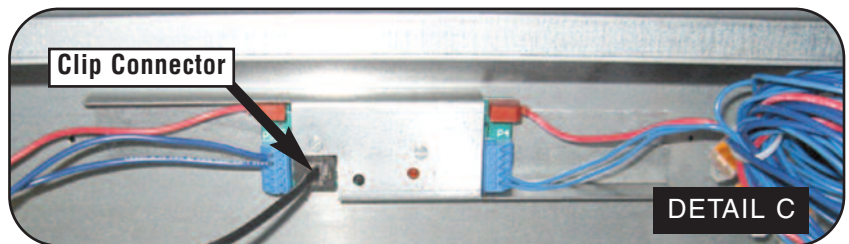
6. Route RJ-11 connector cord through center wireway snap bushing as shown in **Detail D**.

7. Insert  $\frac{1}{2}$  inch snap bushing (Item 6) into center recess hole, and route RJ-11 connector cord through  $\frac{1}{2}$  inch snap bushing to the top of the case as shown in **Detail E**.

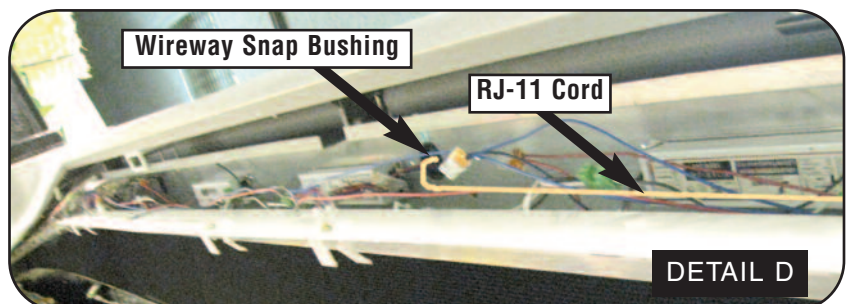
8. Replace lamp panel and LED fixture.



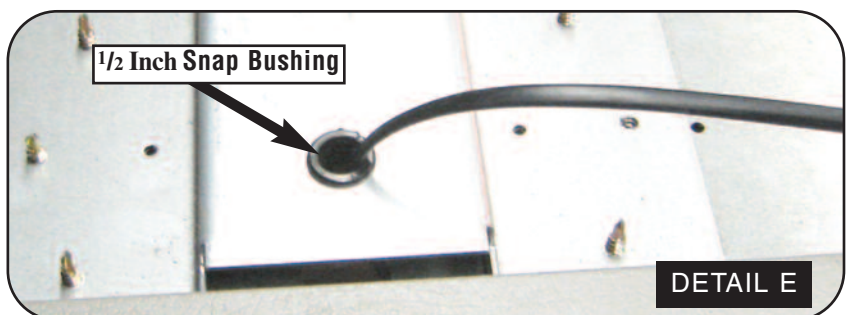
Electrical Components behind Lamp Panel



Dimmer Control Installed in Merchandiser Canopy



Electrical Components behind Lamp Panel

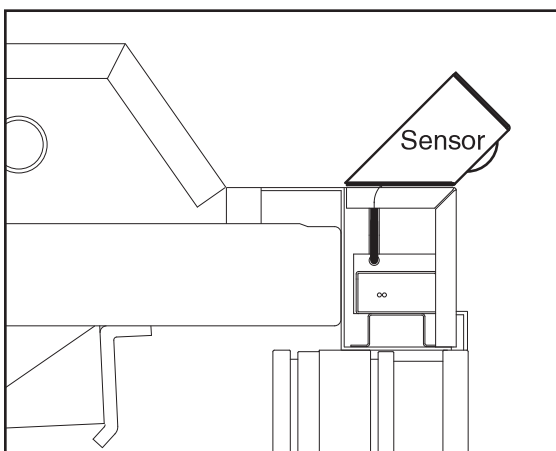
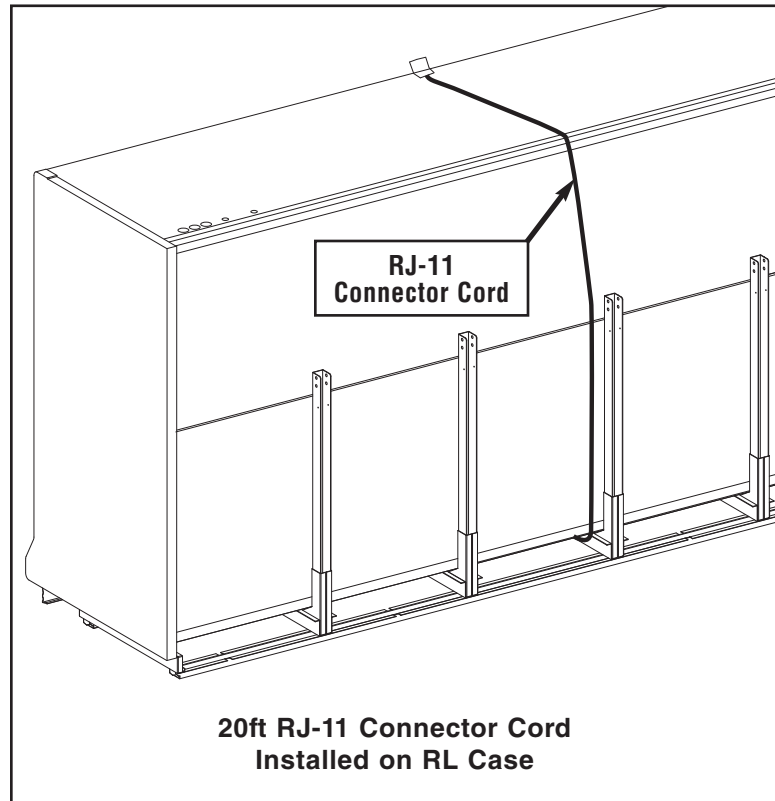


Feed RJ-11 Connector through Center Bracket Recess

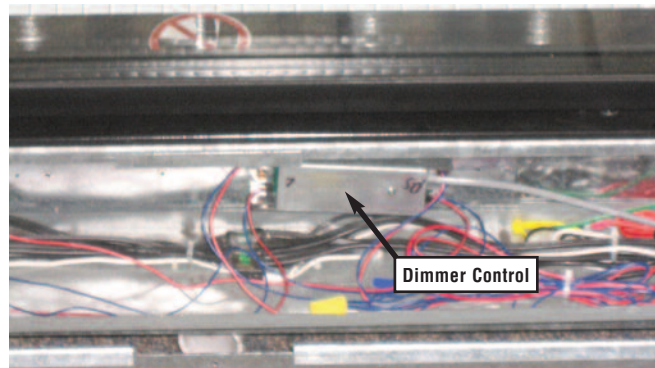
## INSTALLATION INSTRUCTION FOR REACH-IN CASES

Motion Activated LED Dimmer Control Installation instructions for reach-in cases are similar to multi-deck cases. The factory-installed RJ-11 connector cord is positioned from the top to the back of the case and underneath case to front wireway on RL/RLN case models. Dimmer Control may be accessed by removing the bumper and front panel for RL/RLN merchandisers.

For RLT cases, the factory installed RJ-11 cord is routed through a knockout recess at the top front center of the case, and the Dimmer Control is located in the canopy wireway. The motion sensor is to be mounted at the top, front center edge of the case for all reach-in case models.



**Motion Detector Installed on RLT Case**

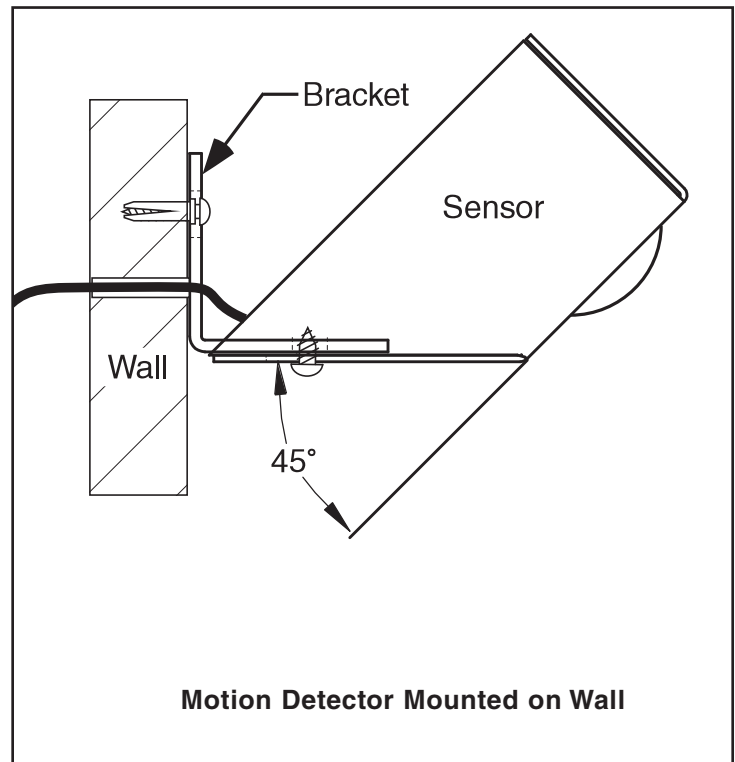


**Dimmer Control in RL front Wireway near Floor**

## LED DIMMER CONTROL FIELD INSTRUCTION FOR REACH-IN CASES

## INSTALLATION INSTRUCTION FOR WALL MOUNTS

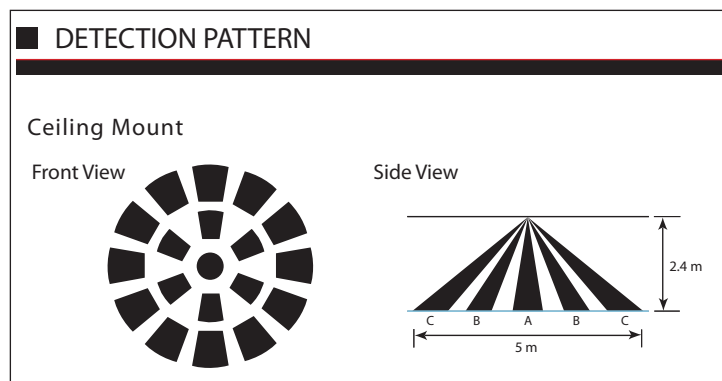
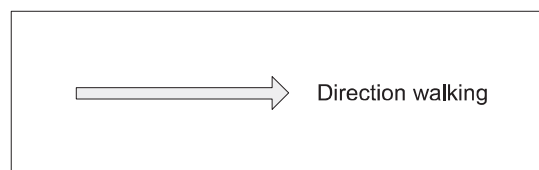
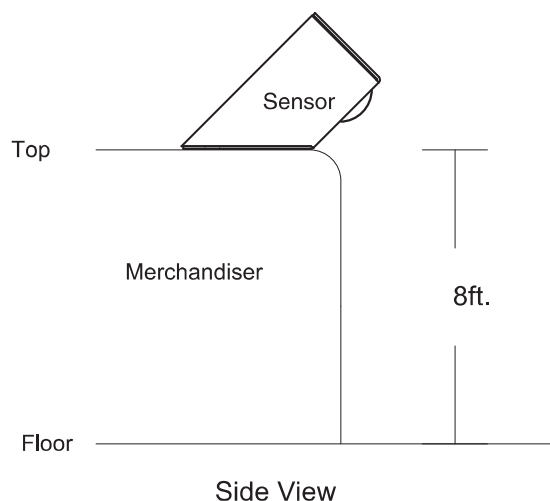
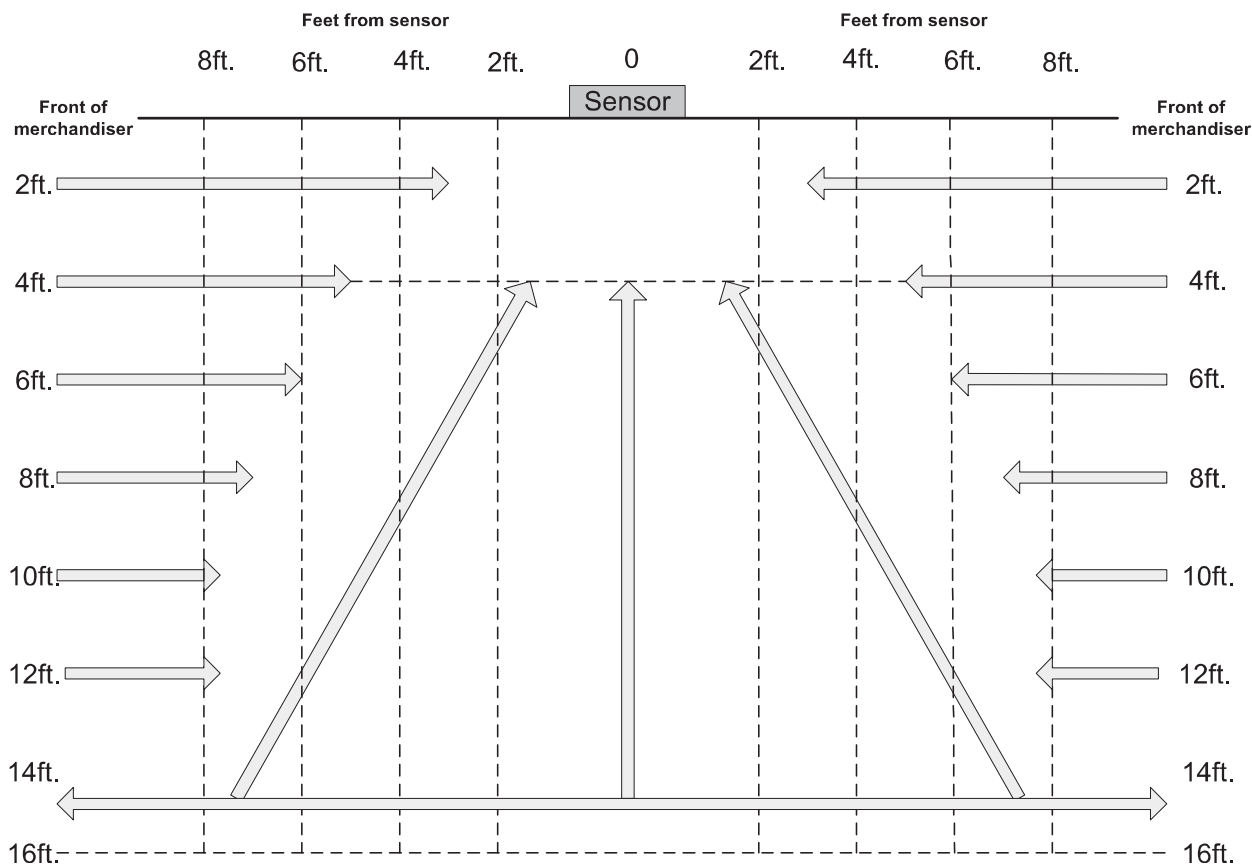
The motion detector can be mounted on most hard surfaces. Select a mounting location for the bracket. Use the bracket for reference, and mark the screw locations on the wall with a marker. Insert appropriate wall anchor, (depending on type of wall surface), and attach with two screws (not provided).



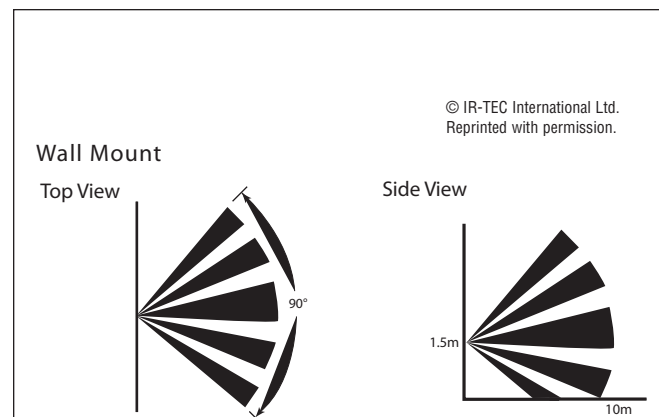
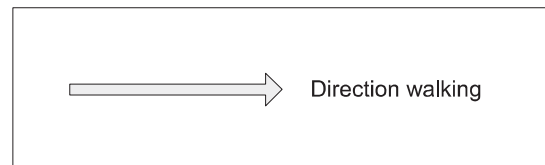
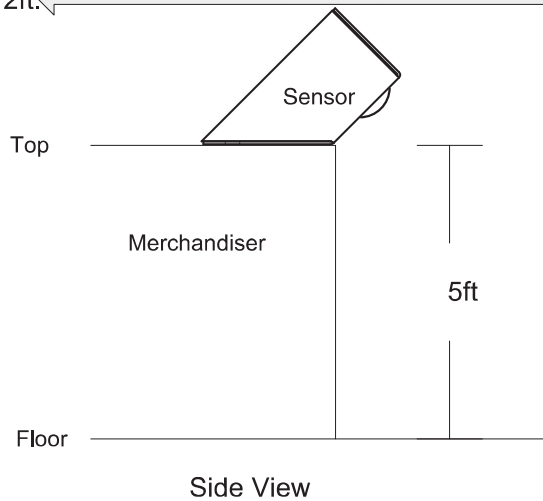
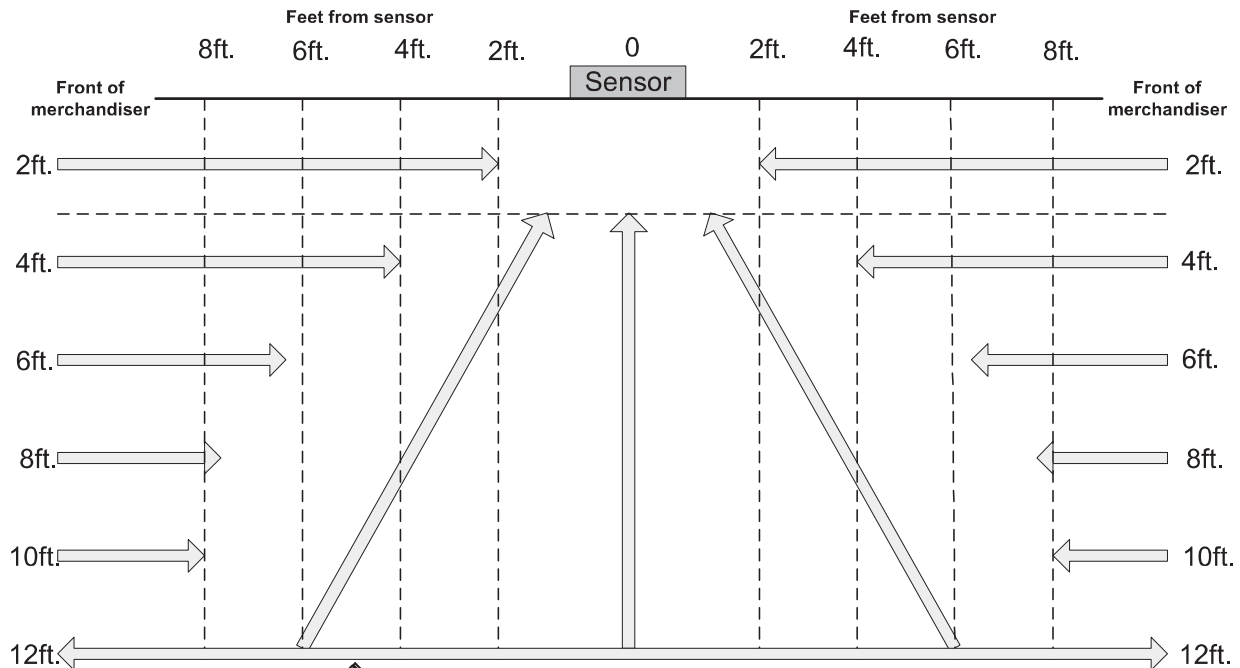
**TROUBLE SHOOTING GUIDE**

<b>Problem</b>	<b>What to Check for</b>	<b>Possible Causes</b>	<b>Solution / Action</b>
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.
Case LEDs stay at dimmed level.	Motion Detector detects no motion. LED Indicator on Motion Detector is "OFF." Dimmer Control LED Indicator flashes at 1-second interval.	Bad Motion Detector.	Install new Motion Detector.

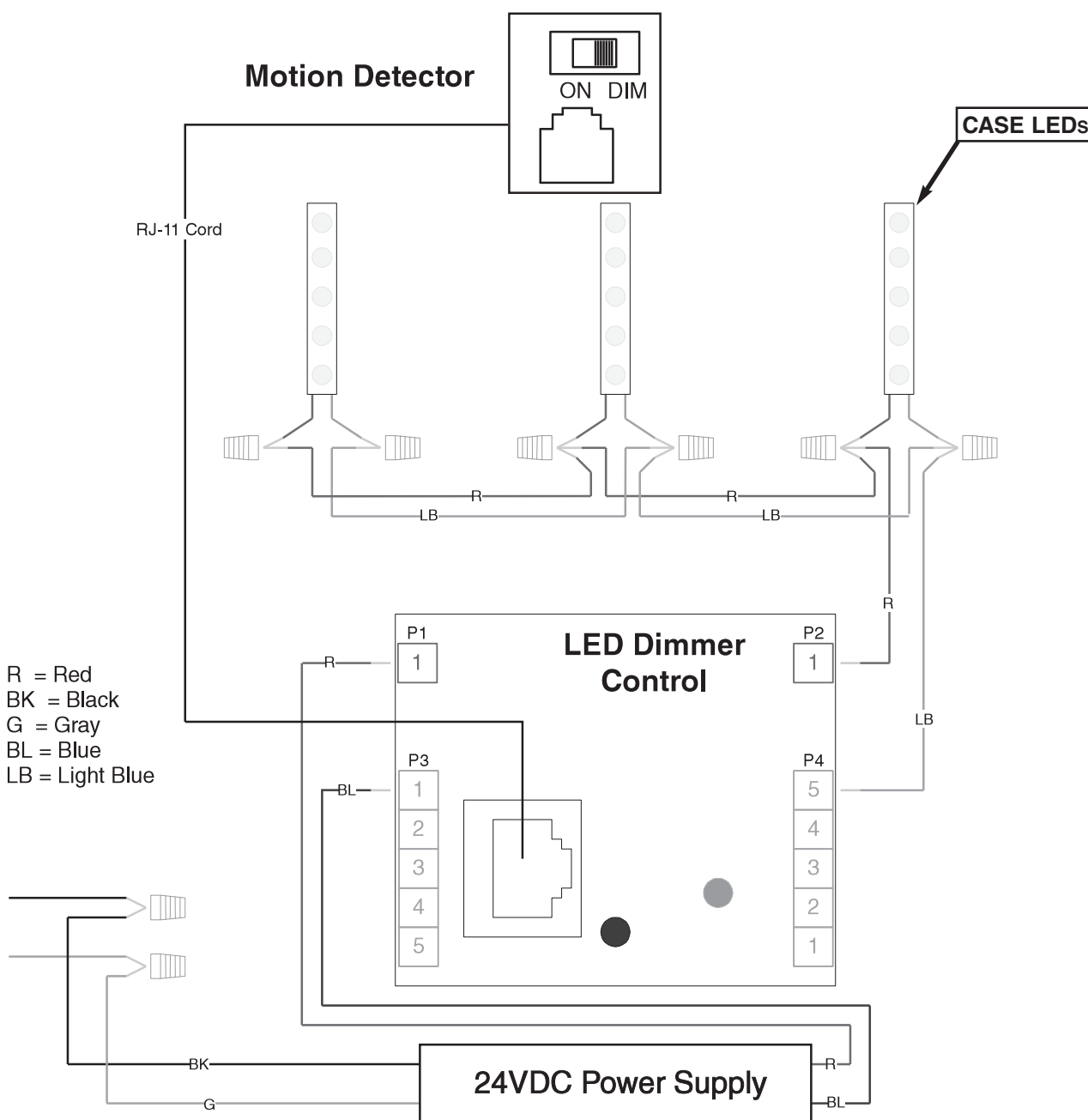
Motion sensor range when mounted on a 8ft.  
 curved top merchandiser at a 45° angle

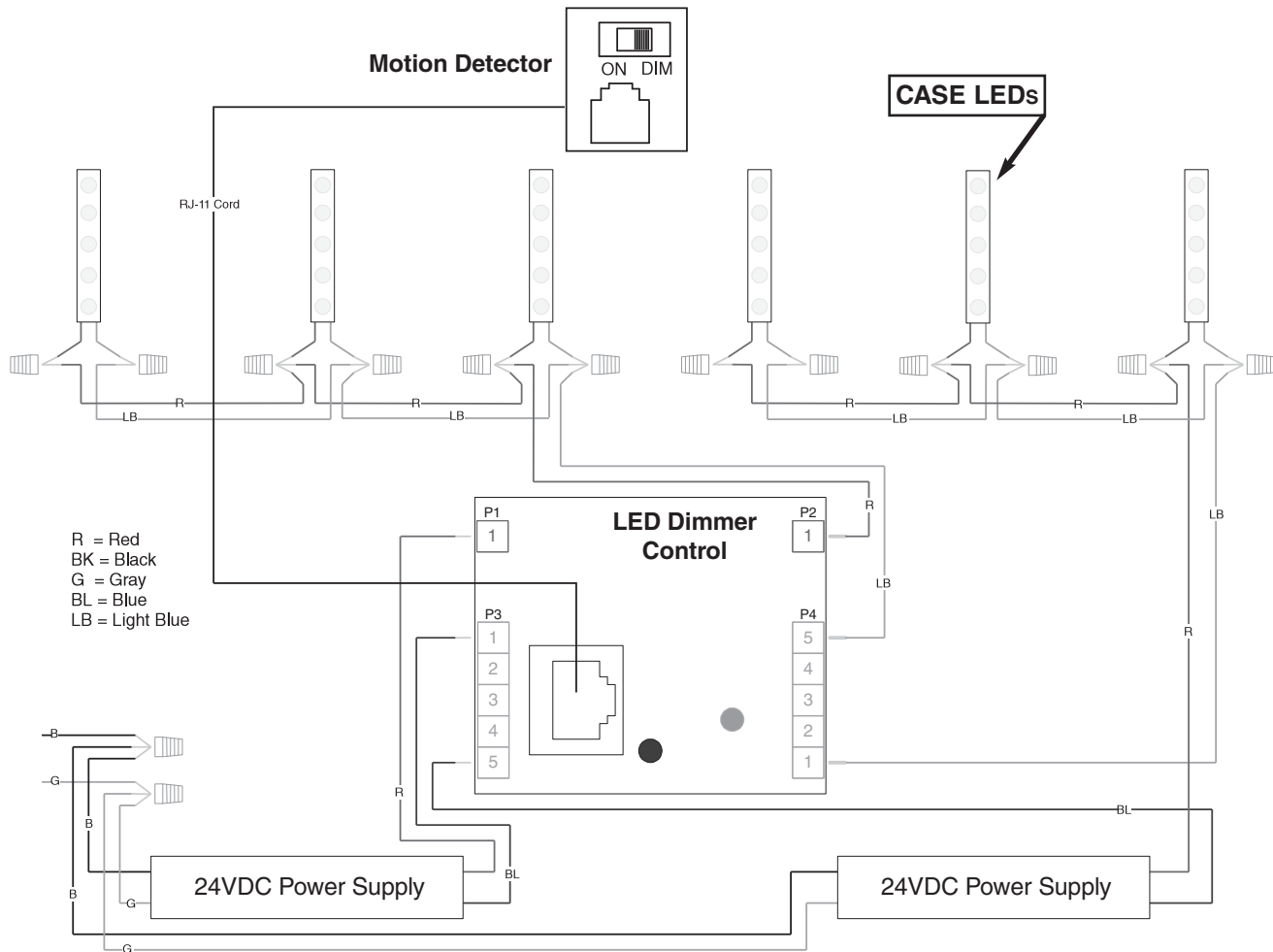


Motion sensor range when mounted on a 5ft.  
merchandise facing straight ahead

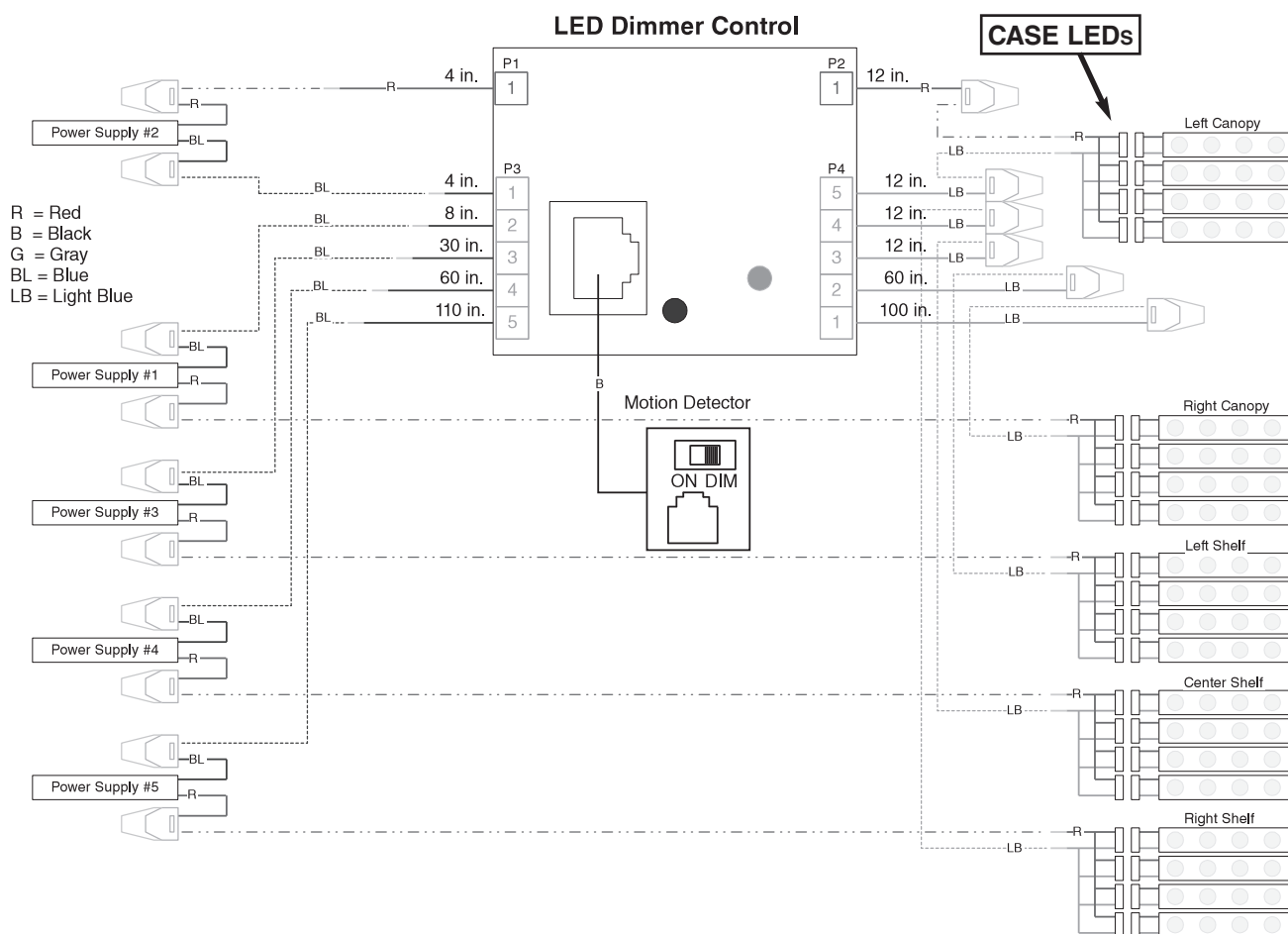




**RL WITH ONE POWER SUPPLY**

**RL WITH TWO POWER SUPPLIES**

**MULTI-DECK MERCHANDISERS**



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