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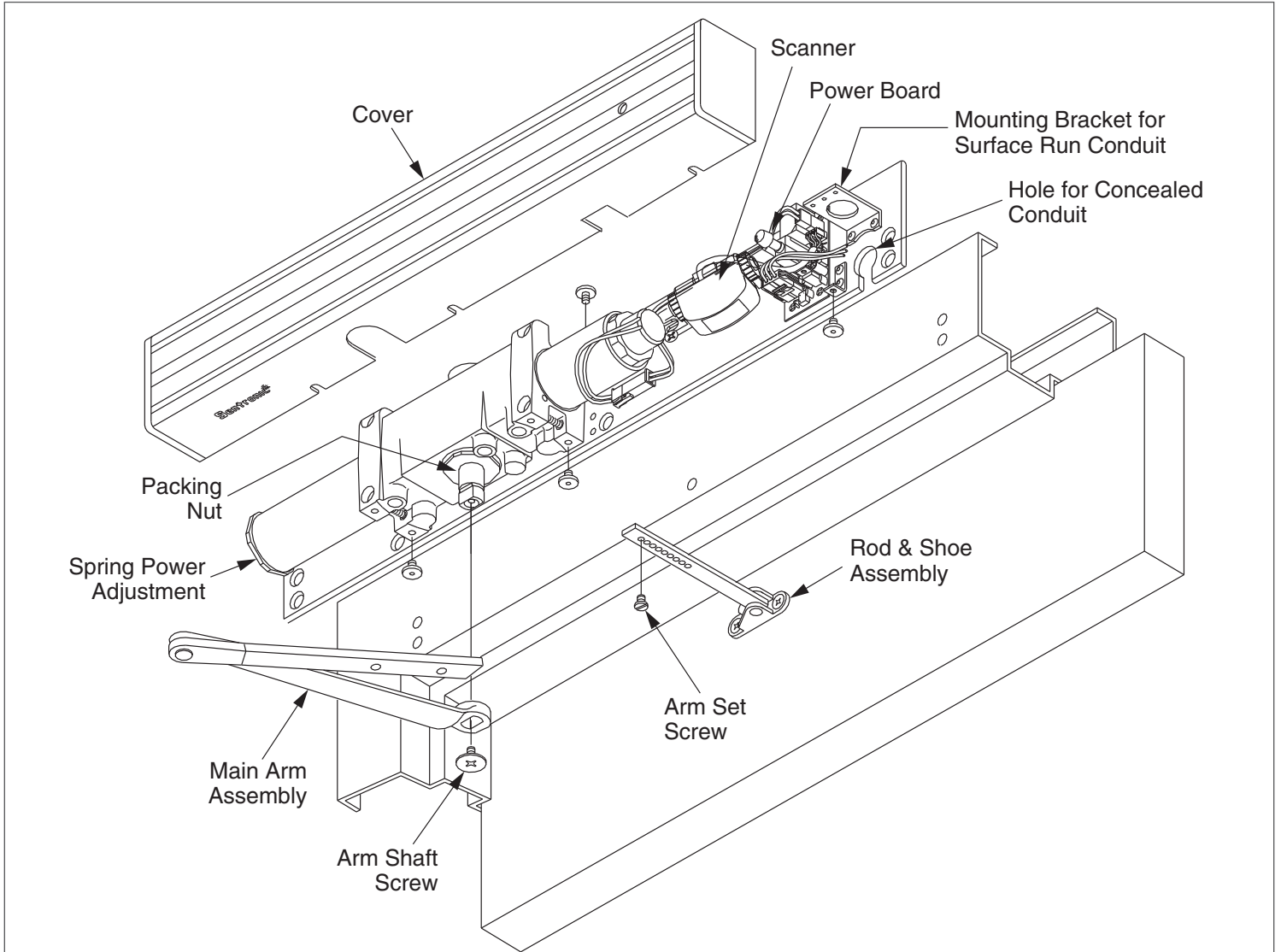
4412 HSA



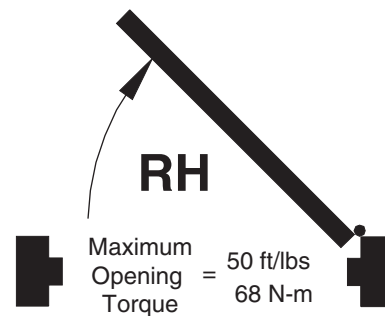
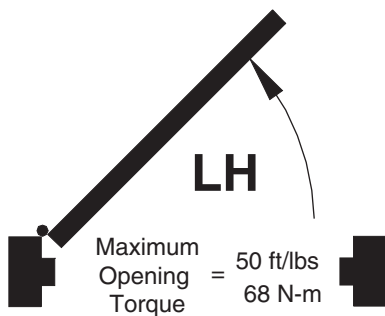
Door Closer With Scanner Activated Hold Open

Installation Instructions

The LCN Sentronic HSA (Holder Scanner Activated) is a door closer with a scanner activated hold open feature designed to hold the door open as there is traffic passing through the opening.



How To Tell Hand Of Door



Customer Service

1-877-671-7011

www.allegion.com/us

Installation Instructions



HAZARDOUS VOLTAGE CAN SHOCK AND CAUSE SEVERE INJURY
Disconnect power before making any electrical connections
or performing maintenance.

1 Closer

The closer is handed at the factory, and marked with an “R” or “L” on top of the packing nut. The hand of the closer must match the handing of the door (see the door handing diagram on page 1).

2 Input Voltage

Input voltage supplied to the door frame must be 24V. Determine whether the wiring will be concealed or surface-run, and follow the remaining instructions carefully.

3 Wiring

3a For concealed wiring:

See Figure 2 on page 3.

1. Prepare the frame with the proper template on page 6. Be sure all of the holes are dimensioned correctly before drilling and tapping.
2. Assemble the conduit connector provided to the flexible conduit, then attach to the hole in the mounting plate.
3. Secure the mounting plate to the frame with the screws provided.

3b For surface wiring:

See Figure 3 on page 3.

① **NOTE: Remove the knockout in the top of the cover.**

1. Prepare the frame with the proper template on page 6. Be sure all of the holes are dimensioned correctly before drilling and tapping.
2. Secure the mounting plate to the frame with the screws provided.
3. Attach the surface run ½” EMT conduit to the hole in the bracket on the mounting plate. Be sure the conduit is securely attached to the bracket.

4 Wiring Connections

Make your wiring connections at this time. Connect two black wires to the 24V input voltage. The green wire **MUST** be connected to an earth ground. See Figures 2 & 3 on page 3.

5 Arm Shaft

Place the main arm on the closer shaft, 90° to the closer body, and secure with the arm shaft screw.

6 Track Setup

Attach the rod & shoe to the door (per the template on page 5) with the screws provided.

7 Set Screw

Open the door partway, insert the rod into the forearm, then close the door. With the main arm at a right angle (90°) to the door, insert the arm set screw, and tighten securely.

8 Spring Power Adjustment

See Figure 1 for the spring power adjustment diagram. To adjust the spring power, use a 5/32” allen wrench provided to turn the spring adjustment nut clockwise or counterclockwise the required number of turns to match the door width in the spring adjustment chart on page 6. **DO NOT** exceed 7 turns clockwise or 8 turns counterclockwise.

9 Closing Speed Regulation

The closing speed regulation is preset at the factory. Normally no adjustment is required. If adjustment is needed or desired, adjust the main speed and latch speed by turning the proper regulating screw for each (see Figure 1) clockwise to slow or counterclockwise to increase the speed. Do not allow the door to slam into the frame. A “normal” closing time from a 90° position is 5 to 7 seconds, equally divided between the main and latch speed. When adjusting the backcheck, use the least amount of force necessary to sufficiently slow the swing of the door. To adjust the backcheck, turn the regulating screw clockwise to increase the amount of force, or counterclockwise to reduce the amount of force. **DO NOT USE AN ABRUPT BACKCHECK SETTING OR EXPECT THE CLOSER TO ACT AS A STOP!**

10 Electrical Checkout

Perform the electrical checkout on page 4 before installing the closer cover.



Improper installation or regulation may result in personal injury or property damage! Follow all instructions carefully.

**For questions, call LCN at
1-877-671-7011.**

Figure 1: Spring Power Adjustment & Closing Speed Regulation

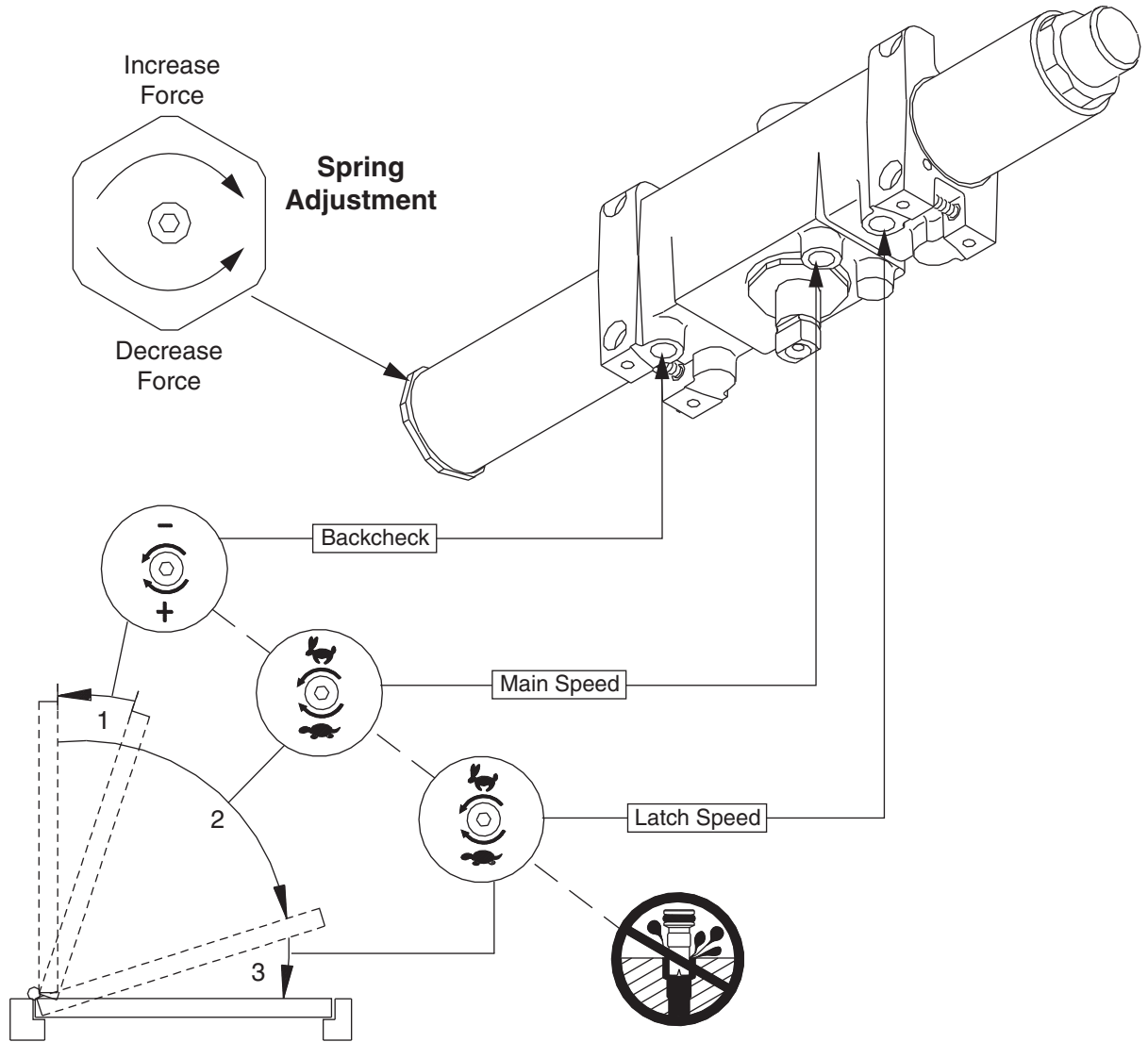
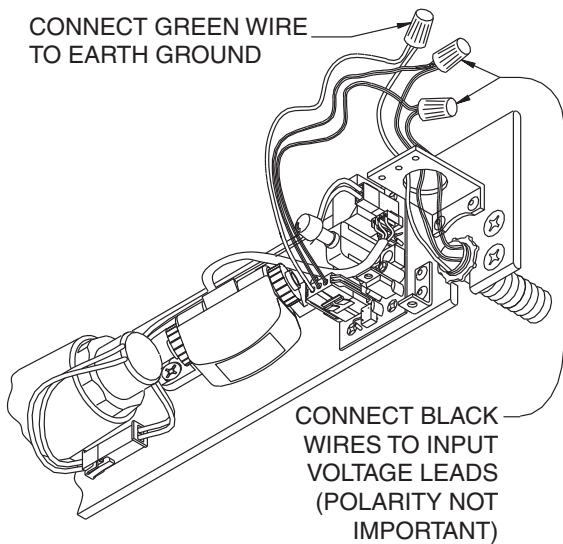


Figure 2 CONCEALED WIRING

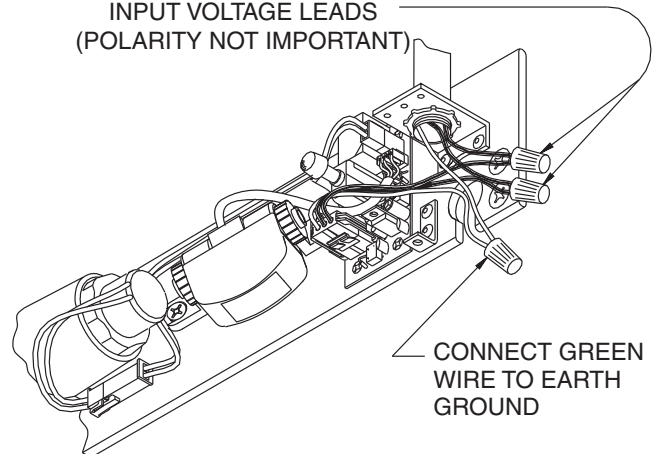
CONNECT GREEN WIRE TO EARTH GROUND



CONNECT BLACK WIRES TO INPUT VOLTAGE LEADS (POLARITY NOT IMPORTANT)

Figure 3 OPTIONAL SURFACE RUN WIRING

CONNECT BLACK WIRES TO INPUT VOLTAGE LEADS (POLARITY NOT IMPORTANT)



CONNECT GREEN WIRE TO EARTH GROUND

Electrical Checkout

① **After completion of installation & wiring, and with the unit properly powered, perform the following steps:**

1 LED

When 24V AC/DC power is applied, the LED on the scanner will flash on and off for 10 seconds, then turn off. The scanner LED will stay lit as long as any motion is detected. The scanner LED will remain lit for 15 seconds after motion has stopped, and then it turns off.

2 Scanner Sensitivity

Adjust the scanner sensitivity if required (Figure 4).

3 Door Hold Open Time

The door hold open time is controlled by the scanner, and it is set at 15 seconds. This time can be set at 30 seconds by setting switch 3 to "On" (see Figure 4).

4 Hold Open Operation

To check the hold open operation, open the door beyond 80°. The door should remain in the hold open position. The door should release and close 15 seconds after there is no motion at the door.

5 Continuous Hold Open

For continuous hold open, press the switch once to put the unit in the continuous hold open mode. Press the switch again to activate the timed hold open mode. The door must be opened beyond 80° for the hold open function to take effect.

Electrical Data

4412 HSA Scanner Activated Hold Open:

Voltage 24V AC/DC Nominal (+10% - 15%)
Standby Current **0.010A**
Hold Open Current **0.120A**

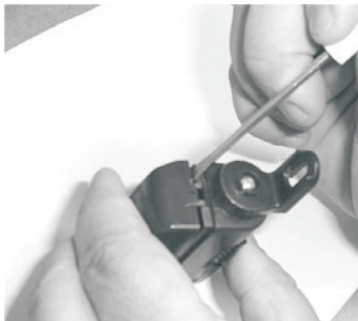
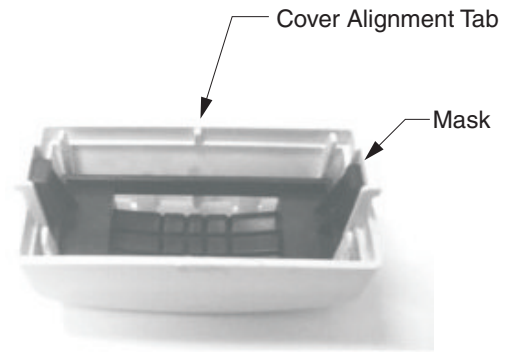


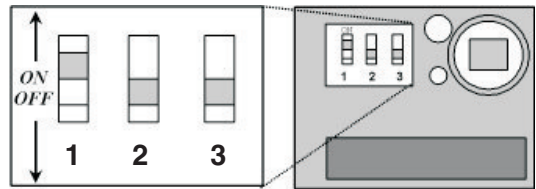
Figure 4: To Adjust Scanner Sensitivity

1. Insert a small screwdriver on the side of the housing and gently pry the cover off.

2. Keep mask and cover together as shown.
Note: Cover alignment tab.



3. Set dip switch 1 to ON to increase sensitivity.



① **Note: Leave switches 2 & 3 OFF.**

4. Snap mask and cover onto scanner housing.
Note: Cover alignment tab fits into a notch on the bottom of the scanner housing.

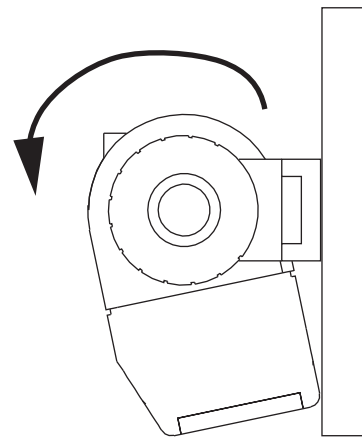
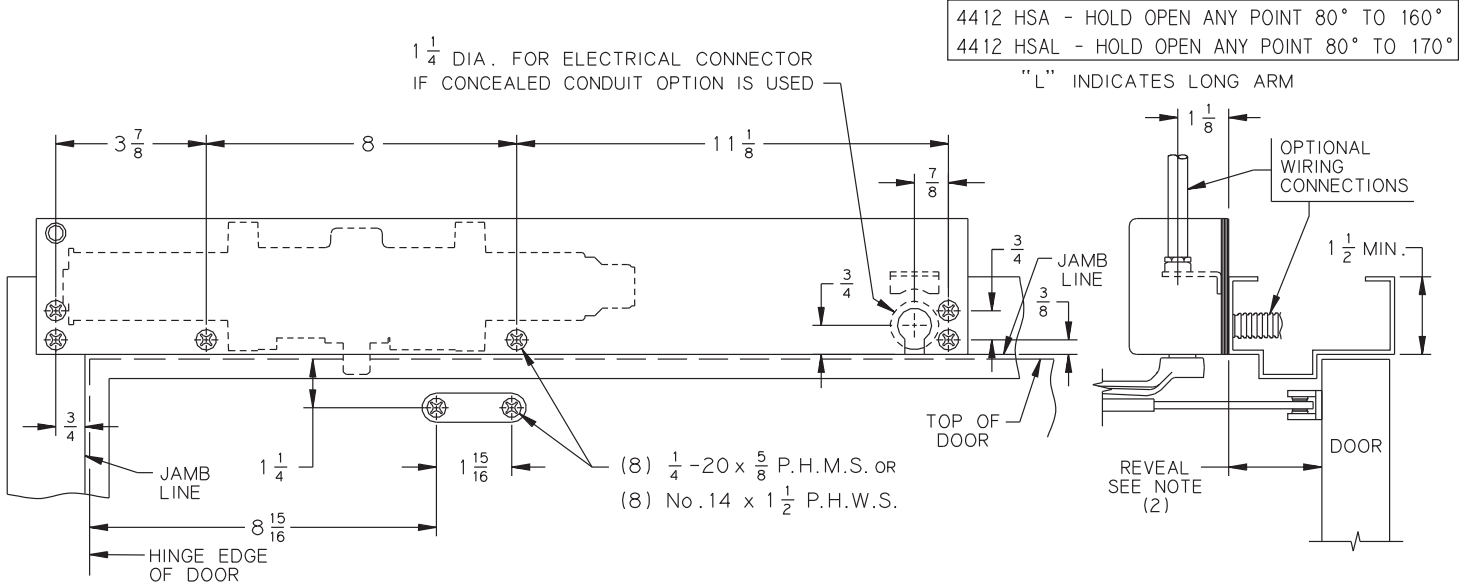


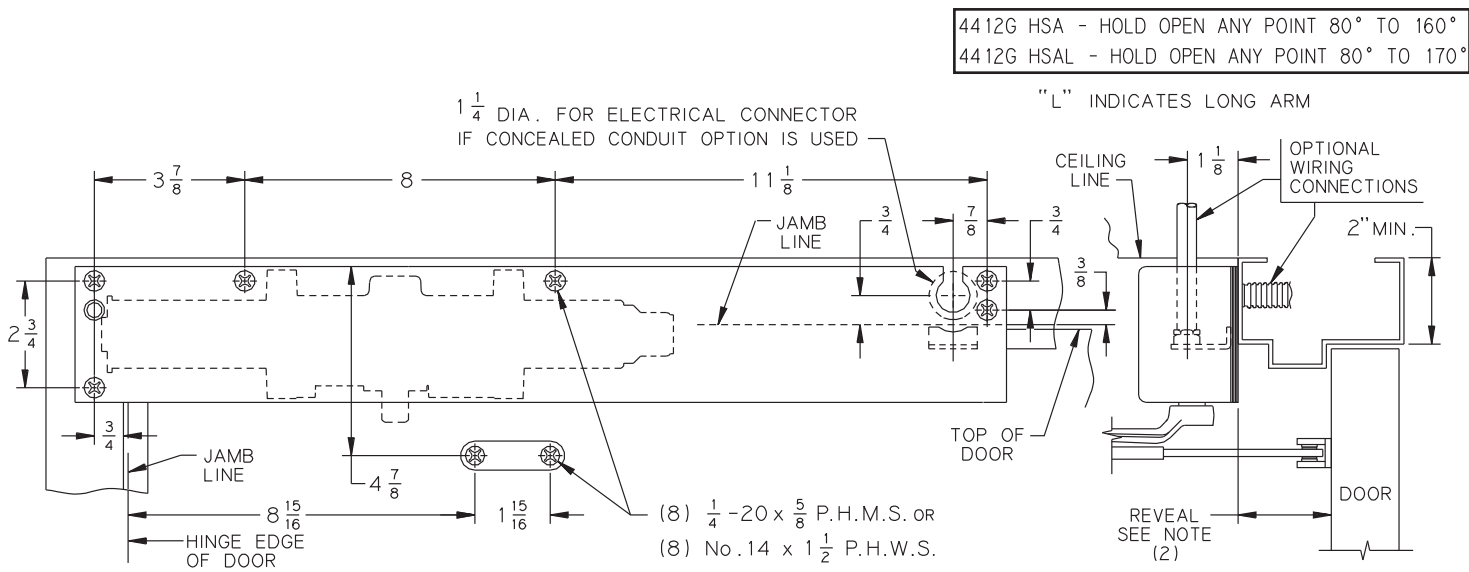
Figure 5

5. Rotate scanner towards mounting plate, as shown in Figure 5 (above).

4412 HSA Standard Mounting



4412 HSA Flush Ceiling Mounting



Notes:

1. The voltage supplied to the unit must be 24 volts.
2. Long arms are required for opening beyond 160°; the reveal is not to exceed $3\frac{7}{8}$ " ($5\frac{3}{4}$ " frame).
3. Maximum stop thickness is $\frac{5}{8}$ ".
4. The electrical connector is provided by LCN.
5. If the door is hung on pivots, locate the closer and shoe from the centerline of pivot. If the door is hung on swing clear hinges, consult the factory.
6. Fillor or wall stops are recommended at maximum hold open.
7. For additional information on recommended use of this unit, consult the NFPA-72E pamphlet.
8. Reinforcing per ANSI/SDI-100 is recommended for hollow metal doors and frames.

Inch	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	$1\frac{1}{8}$	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{15}{16}$	2	$2\frac{1}{16}$	$2\frac{3}{8}$	$3\frac{1}{8}$	$5\frac{1}{4}$	8	$8\frac{15}{16}$	$11\frac{1}{8}$	2' 4"	3' 0"	3' 1"	4' 0"
M.M.	6	10	13	16	19	22	29	32	38	49	51	65	70	98	146	203	227	283	700	900	925	1200