



25073

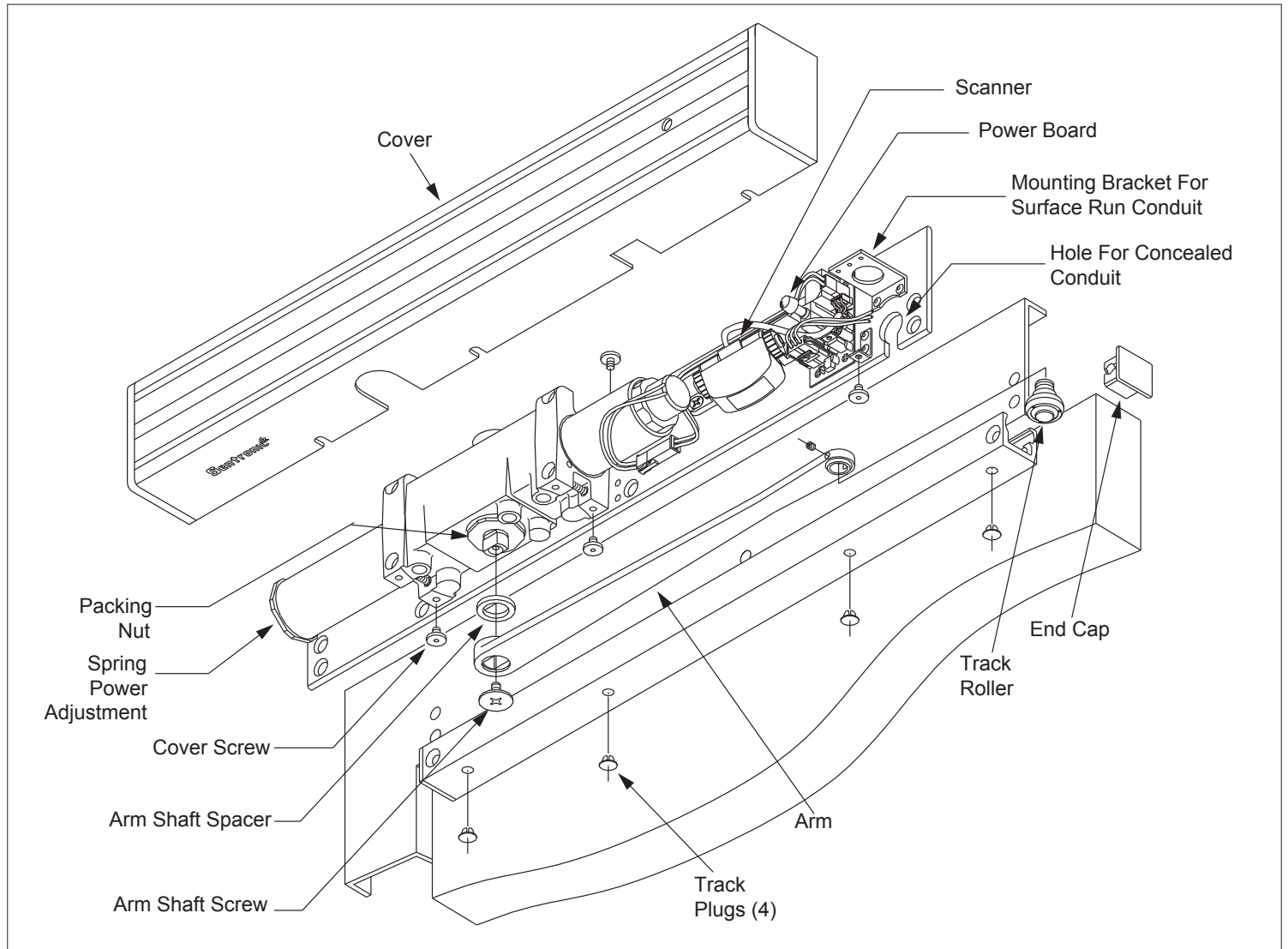
# 4311 HSA

# LCN®

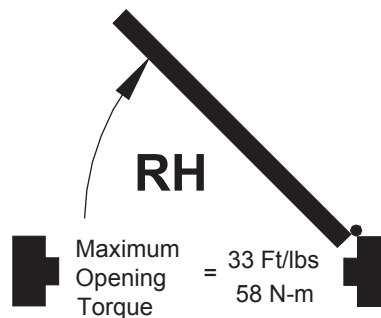
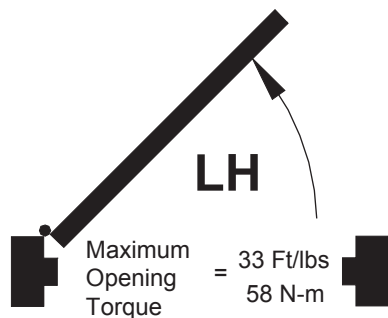
Door Closer With Scanner Activated Hold Open

Installation Instructions

The LCN Sentronic HSA (**H**older **S**canner **A**ctivated) is a door closer with a scanner activated hold open feature designed to hold the door open as long as there is traffic passing through the opening.



## How To Tell Hand Of Door:



Customer Service

1-877-671-7011 [www.allegion.com/us](http://www.allegion.com/us)



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## 1 Installation Instructions

### ⚠ WARNING ⚠



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

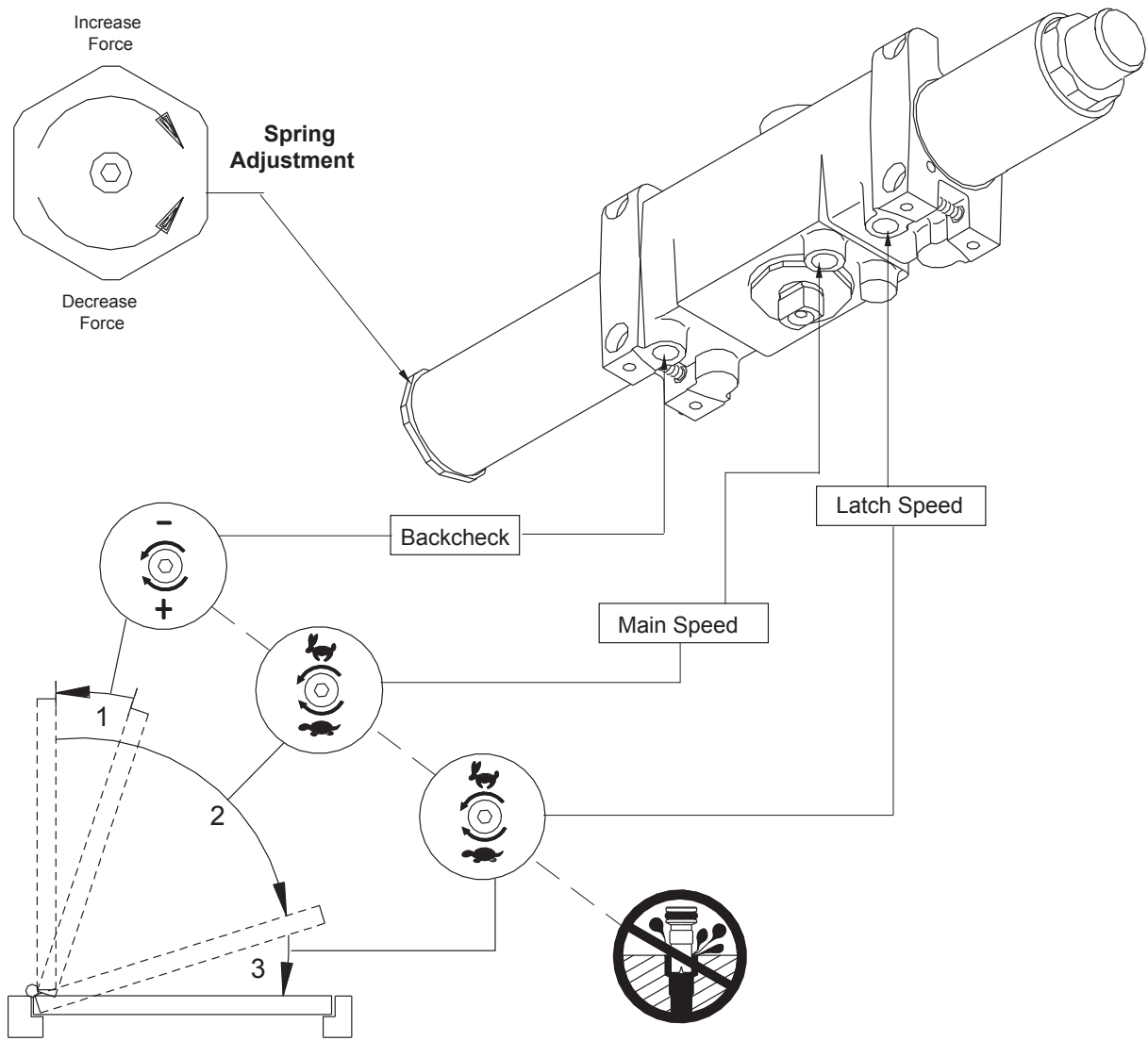
- 1a Closer is handed at factory and marked with an “R” or “L” on top of packing nut. The hand of closer must match hand of door (See door handing diagram on page 1).
- 1b Input voltage supplied to door frame must be 24V.** Determine whether the wiring will be concealed or surface run, and follow the remaining instructions carefully.
- 1c **FOR CONCEALED WIRING:** See **Figure 2** on page 3.
- Prepare frame per proper template on page 6. Be sure all the holes are dimensioned correctly before drilling and tapping.
  - Assemble conduit connector provided to flexible conduit, then attach to hole in mounting plate.
  - Secure mounting plate to frame with screws provided.
- 1d **FOR SURFACE WIRING:** See **Figure 3** on page 3.
- ① **NOTE: Remove knockout in top of cover.**
- Prepare frame per proper template on page 6. Be sure all holes are dimensioned correctly before drilling and tapping.
  - Secure mounting plate to frame with screws provided.
  - Attach the surface run 1/2” EMT conduit to hole in bracket on mounting plate. Be sure conduit is securely attached to bracket.
- 1e Make wiring connections at this time. Connect two black wires to 24V input voltage. Green wire **MUST** be connected to an earth ground. See **Figure 2 or 3** on page 3.
- 1f Place arm shaft spacer on closer shaft, then place arm on closer shaft and secure with arm shaft screw.
- 1g Remove end cap from track and insert track roller. Reinsert end cap into end of track and insert track plugs. Using fasteners provided, mount track to door per template on page 6.
- 1h Loosen set screw in end of arm, open door approx. 30°, pull arm over top of door and connect to track roller. Tighten set screw firmly.
- 1i Spring Power Adjustment:** See **Figure 1** for spring power adjustment diagram. To adjust spring power, use a 5/32” allen wrench provided to turn spring adjustment nut clockwise or counter clockwise the required number of turns to match the door width in Spring Adjustment chart on page 6. **DO NOT** exceed 7 turns c.w. or 8 turns c.c.w. direction.

### ⚠ CAUTION ⚠

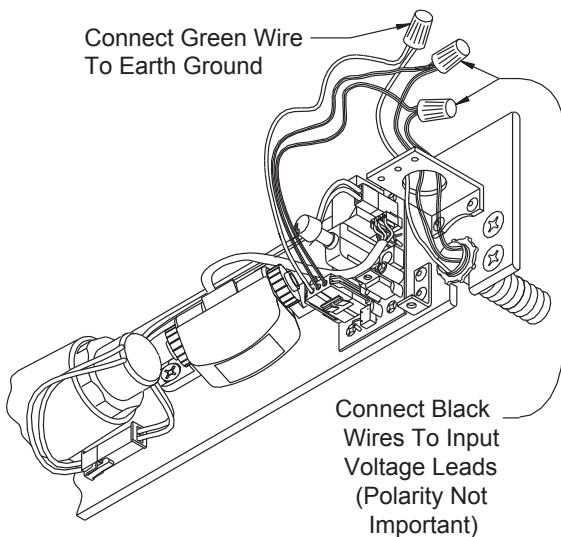
**Improper installation or regulation may result in personal injury or property damage. Follow all instructions carefully. For questions, call LCN at 877 - 671 - 7011**

- 1j Closing Speed Regulation** is preset at factory. Normally no adjustment is required, if desired: adjust **Main** and **Latch Speed** by turning proper regulating screw (see **Figure 1**) clockwise to slow speed or c.c.w. to increase speed. Do not allow door to slam into frame. A “normal” closing time from a 90° position is 5 to 7 seconds, equally divided between **Main** and **Latch Speed**. When adjusting the **Backcheck** use the least amount of force necessary to sufficiently retard the swing of the door. To adjust **Backcheck**, turn regulating screw clockwise to increase amount of force or c.c.w. to reduce the amount of force. **Do not use abrupt backcheck setting or expect closer to act as a stop!**
- 1k Perform electrical checkout on page 4 before installing closer cover.

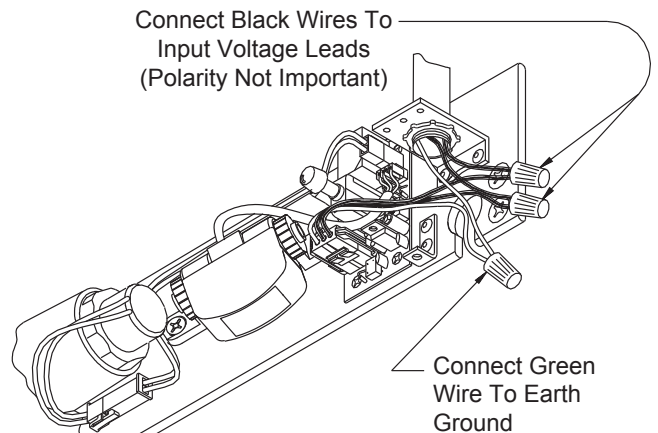
**Figure 1 Spring Power Adjustment & Closing Speed Regulation**



**Figure 2 Concealed Wiring**



**Figure 3 Optional Surface Run Wiring**



## 2 Electrical Checkout

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

2a When 24V AC-DC power is applied, LED on scanner will flash on and off for 10 seconds, then turn off. Scanner LED will stay lit as long as motion is detected. Scanner LED will remain lit for 15 seconds after motion has stopped and then turn off.

2b Adjust scanner sensitivity if required (figure 4).

2c Door hold open time is controlled by the scanner and is set at 15 seconds. This time can be set at 30 seconds by setting switch 3 to on (see figure 4).

2d To check hold open operation, open door beyond 80°. The door should remain in hold open. 15 seconds after there is no motion at the door, the door should release and close.

2e Continuous hold open - Press switch once to put unit in continuous hold open mode. Press the switch again to activate the timed hold open mode. Door must be opened beyond 80° for hold open function to take effect.

## 3 Electrical Data

4311 HSA SCANNER ACTIVATED HOLD OPEN:

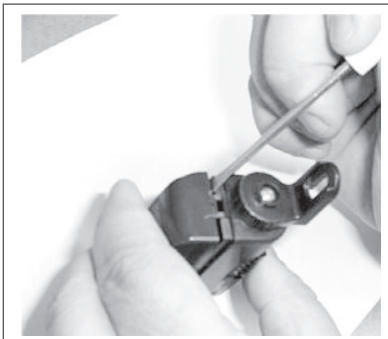
Voltage..... 24V AC-DC Nominal (+10% - 15%)

Standby Current       **0.010A**

Hold Open Current     **0.120A**

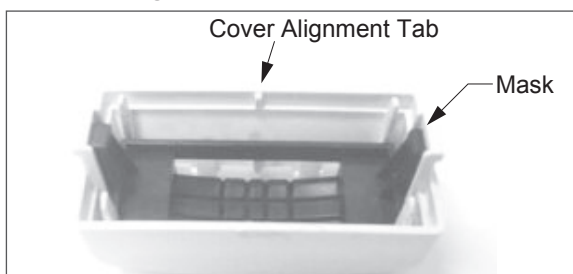
Figure 4: To Adjust Scanner Sensitivity

3a Insert a small screwdriver on the side of the housing and gently pry the cover off.

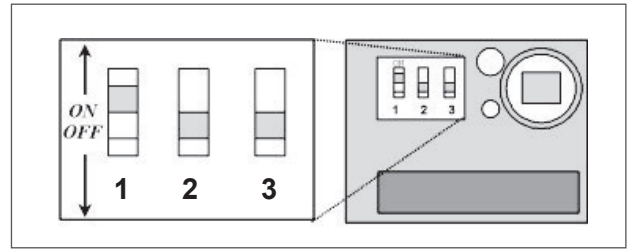


3b Keep mask and cover together as shown.

① **Note: Cover alignment tab.**

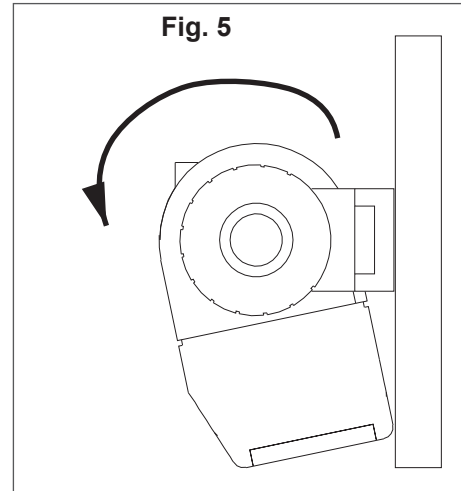


3c Set dip switch 1 to ON to increase sensitivity.



① **NOTE: Leave switches 2 & 3 OFF.**

3d Snap mask and cover onto scanner housing.

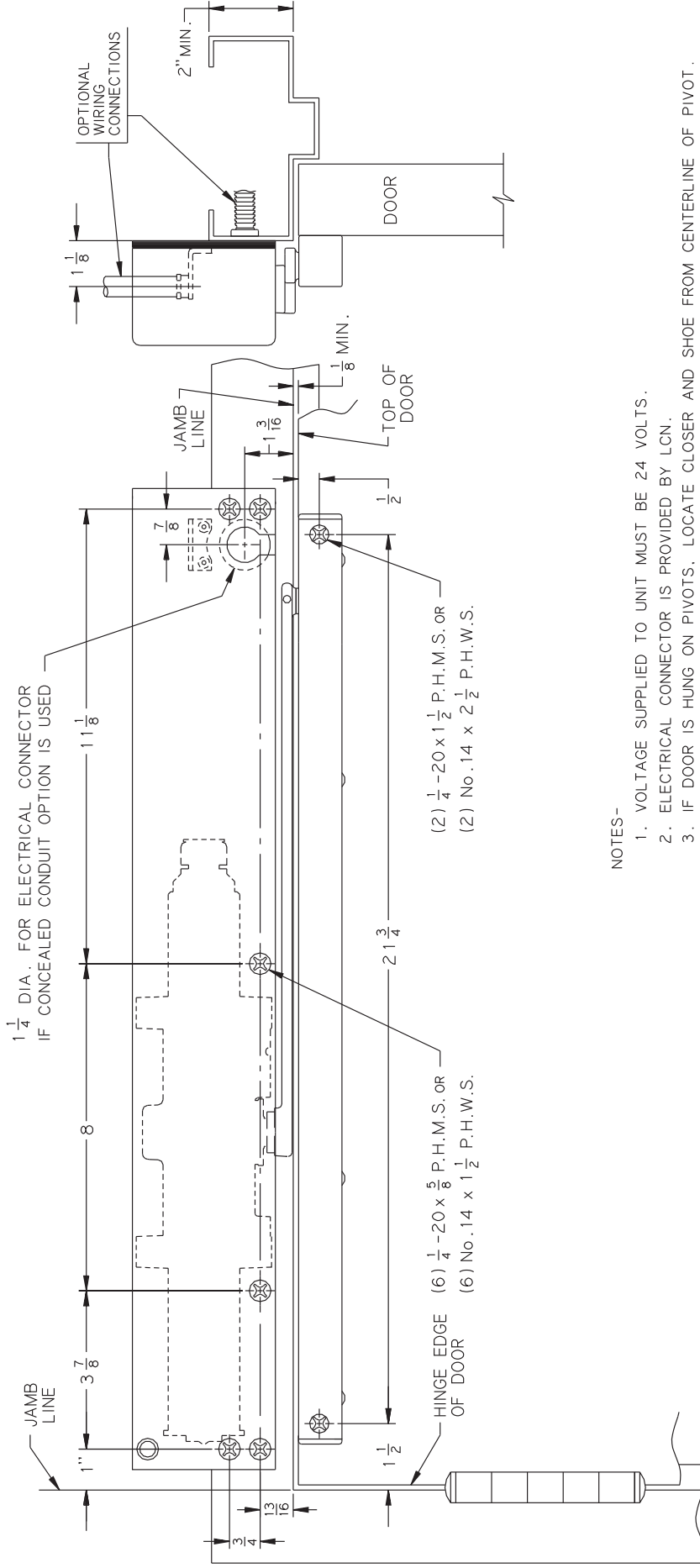


① **Note: Cover alignment tab fits into a notch on the bottom of the scanner housing.**

3e Rotate scanner towards mounting plate, as shown in Fig. 5.

# 4311 HSA

4311 HSA - HOLD OPEN ANY POINT 80° TO 160°  
 AUXILIARY STOP RECOMMENDED  
 AT MAXIMUM HOLD OPEN



**NOTES-**

1. VOLTAGE SUPPLIED TO UNIT MUST BE 24 VOLTS.
2. ELECTRICAL CONNECTOR IS PROVIDED BY LCN.
3. IF DOOR IS HUNG ON PIVOTS, LOCATE CLOSER AND SHOE FROM CENTERLINE OF PIVOT.
4. IF DOOR IS HUNG ON SWING CLEAR HINGES, CONSULT FACTORY.
5. FLOOR OR WALL STOPS MUST BE USED AT MAXIMUM HOLD OPEN.
6. FOR ADDITIONAL INFORMATION ON RECOMMENDED USE OF THIS UNIT CONSULT NFPA-72E PAMPHLET.
7. REINFORCING PER ANSI/SDI-100 RECOMMENDED FOR HOLLOW METAL DOORS AND FRAMES.

INCH	1/8	1/4	1/2	5/8	3/4	13/16	7/8	1	1 1/8	1 3/16	1 1/4	1 1/2
M.M.	3	6	13	16	19	21	22	25	29	30	32	38
INCH	2	2 1/2	2 3/4	3 3/8	8	11 1/8	21 3/4	2' 4"	3' 0"	3' 1"	4' 0"	
M.M.	51	64	70	98	203	283	553	700	900	925	1200	

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