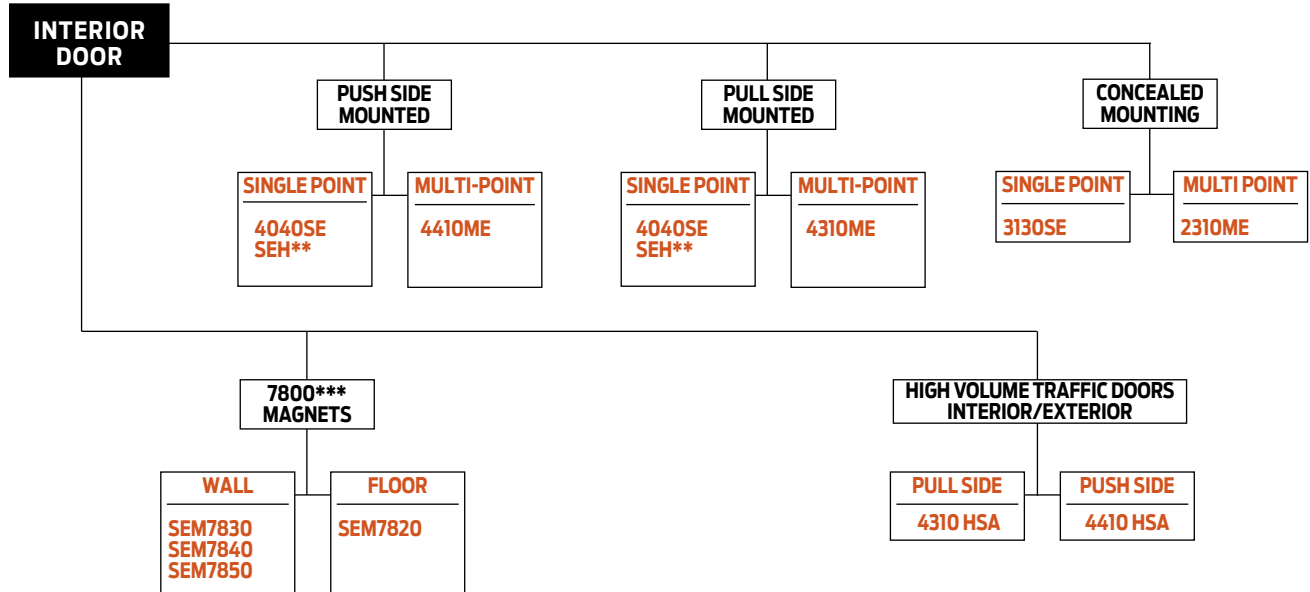


Product selection guide

SENTRONIC® Series LCN closer/holders combine heavy duty closers with electrically controlled hold-open functions to control fire and smoke barrier doors. This guide is based on the desired mounting of the unit.



** See SEH section (cylinder not included).

*** SEM 7800 Series are die cast.

Product comparison

This chart shows a basic comparison of Sentronic closer/holders. Refer to the specific product chapter for complete details..

CLOSER SERIES	MOUNTING					FINISH		COVER		CYLINDER			*ARM FUNCTION									
	HINGE (PULL SIDE)	TOP JAMB (PUSH)	STOP FACE (PUSH)	CONCEALED (FRAME)	CONCEALED (DOOR)	POWDER COAT	PLATED	PLASTIC	METAL	HANDED	NON-SIZED	SIZED	SINGLE-POINT/HOLD-OPEN	MULTI-POINT/HOLD-OPEN	BYPASS 80/140	STANDARD (SINGLE)	REGULAR (DOUBLE)	SWING FREE	DOUBLE EGRESS			
3130SE	○	○	○	○	●	●	●	○	○	●	○	●	○	○	○	○	○	○	110°	○	○	○
4040SE	●	○	●	○	○	●	●	●	●	○	●	○	○	○	○	○	○	○	110°	○	○	95°
2310ME	○	○	○	●	○	●	●	○	○	●	○	○	○	○	○	○	○	○	160°	○	○	○
4310ME	●	○	○	○	○	●	●	○	○	●	○	○	○	○	○	○	○	○	○	○	160°	95°
4410ME	○	●	○	○	○	●	●	○	○	●	○	○	○	○	○	○	○	○	○	○	150°	○
4310HSA	●	○	○	○	○	●	●	○	○	●	○	○	○	○	○	○	○	○	160°	○	○	95°
4410HSA	○	●	○	○	○	●	●	○	○	●	○	○	○	○	○	○	○	○	○	○	150°	○

● AVAILABLE
○ NOT AVAILABLE

* Maximum hold-open with standard template. See individual closer series for degrees of opening and hold-open per installation.

SENTRONIC® CLOSER/HOLDERS

Automatic detection and containment of fire and smoke are the best ways to minimize danger to life and property. Patented Sentronic door closer/holders are designed to hold swinging doors open in normal use and release and automatically close the doors under fire conditions. Conforms to major building codes, life safety codes (eg. NFPA 101) and ANSI A156.15.

SINGLE POINT HOLD-OPEN (SE)

SE Series offers adjustable single point hold-open function controlled by solenoid assembly located in the SE track.

MULTI-POINT HOLD-OPEN (ME)

ME Series offers infinitely adjustable, multi-point hold-open function controlled by solenoid on the cylinder assembly.

HOLDER SCANNER ACTIVATED (HSA)

Electronically controlled closer/holder designed to provide easy passage for groups of pedestrians through high traffic doors. Best suited for high traffic emergency exit doors.

MAGNETS (SEM) - ELECTROMAGNETIC DOOR HOLDERS

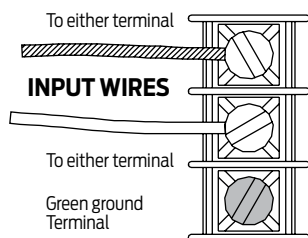
SEM Series magnets work with manual door closers to provide single point hold-open. Now available in new **tri-voltage** with 35 lbs. of holding force.

APPLICATIONS

- For fire and smoke barrier doors.
- Integrated into larger system.
- Surface and concealed mountings.
- Remote control hold-open function of executive and conference area doors.
- Adapter plates and other installation accessories available for unusual conditions.

GENERAL NOTES

- Note 1: For installations where 120V AC input voltage is supplied, 120V/24V transformer, 4040SE-3210, is required to reduce line voltage for 24V holding solenoid. Units are available in either 24V or 120V input, please specify.
- Note 2: Transformer 4040SE-3210 mounted on cover plate to fit 4" (102 mm) x 4" x 2-1/8" (54 mm) junction box (by others).
- Note 3: SE track quick-connector is required for 1/2" conduit.
- Note 4: SE test switch assembly includes fuse to protect solenoid. Works with ionization, photoelectric and heat sensing detectors (by others).



SE WIRING DIAGRAM

LISTINGS AND APPROVALS

Sentronic closer/holders are listed by Underwriters Laboratories, Inc. in the following product categories under FIRE DOORS (GSNV), Combination Door Closers and Holders (GTIS) file R7050. SEM 7800 Series magnets are listed under Door Holders (GTPR) file R8327.

Consult the factory for other listings, such as; cUL, Department of Labor and Industry of the Commonwealth of Pennsylvania, The Board of Standards and Appeals of the City of New York, Fire and Panic Safety Standards of the California State Fire Marshal.

HOLDING SOLENOIDS CURRENT DRAW

SE/ME

24V AC/DC (+10% -15%) @ 90 mA max.
120V AC/DC (+10% -15%) @ 30 mA max.

SEM (TRI-VOLT)

12V DC (+10% -15%) @ 30 mA max.
24V AC/DC (+10% -15%) @ 20 mA max.
120V AC (+10% -15%) @ 20 mA max.

HSA

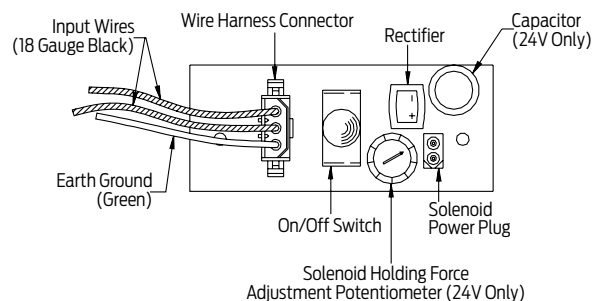
24V AC/DC (+10% -15%) @ 120 mA max.

TRANSFORMER DATA

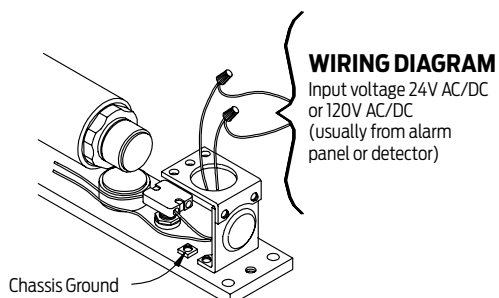
120V AC 50-60 Hz (primary); 24V AC @ 400 mA max. (secondary)
An LCN supplied transformer will power (recommended) 2 SE, 3 SE/ME, and 15 SEM.

ME WIRING

ME "ON/OFF" switch assembly includes trim pot to adjust pull out force and fuse to protect solenoid.



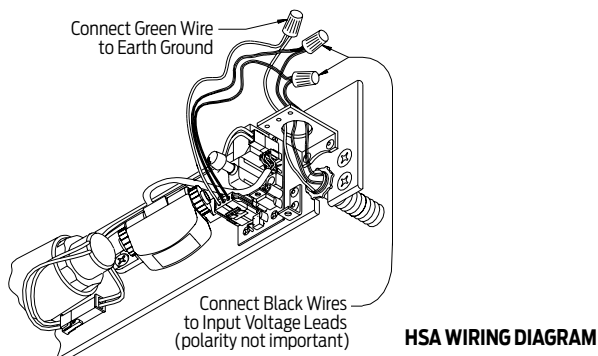
ME (4310, 4410) WIRING DIAGRAM (24V only)



ME (2310) WIRING DIAGRAM

HSA WIRING

HSA "On/Off" switch assembly includes trim pot to adjust hold-open time and fuse to protect solenoid.



FEATURES COMMON TO FIRE/LIFE SAFETY CLOSERS

- 24V AC/DC or 120V AC input, please specify for SE or ME.
- When current is interrupted, hold-open releases and door closes.
- Adjustable hydraulic backcheck cushions opening swing prior to 90°.
- Separate regulation of general closing speed and latching speed.
- Available in a wide range of powder coated finishes to blend with door and frame. SEM magnets available in Aluminum and Dark Bronze only.
- Circuit automatically handles AC or DC input.
- Can be pushed safely and easily out of hold-open.
- Functions as a full rack and pinion door closer when hold-open is not engaged or current is interrupted.
- Works with ionization, photoelectric and heat sensing detectors (by others).

WARRANTY

2 year limited warranty. See General Information Section for complete warranty details..

SPECIFICATIONS

Refer to "SPECIFICATIONS" section for suggested architectural specifications.

DESIGN ASSISTANCE

LCN has been providing reliable solutions to unique door control problems since 1925.

MATERIALS

- High strength **cast iron** cylinder.
- **Forged steel** main arm.
- One piece **forged steel** piston.
- **All weather fluid** eliminates seasonal adjustments.
- **High efficiency, full complement**, low friction bearings.
- Tamper resistant regulating screws.
- Quiet, low friction track and roller combination for all single lever arm closers.

FINISHES

- Available in six standard or a wide selection of optional custom powder coat finishes to blend with door and frame.
- LCN's powder coat finishes surpass 100 hours of salt spray which is over four times the ANSI standard for corrosion resistance.
- Plated finishes are available as an option to accent door and frame.

MAINTENANCE

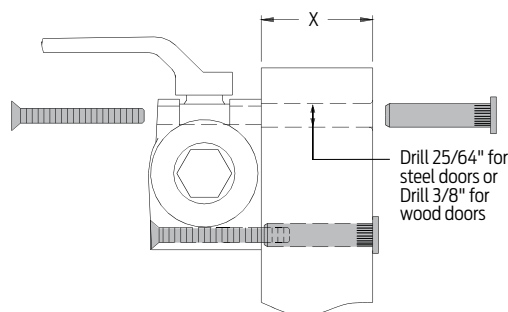
Closers mounted according to LCN installation instructions require no periodic adjustments. Quarterly inspections are recommended. Refer to the installation instructions for complete, product specific details.

POSITIVE PRESSURE

LCN closers have been certified for three hours by UL to be in compliance with UL 10 C. Contact LCN for specific details on door closer fire ratings.

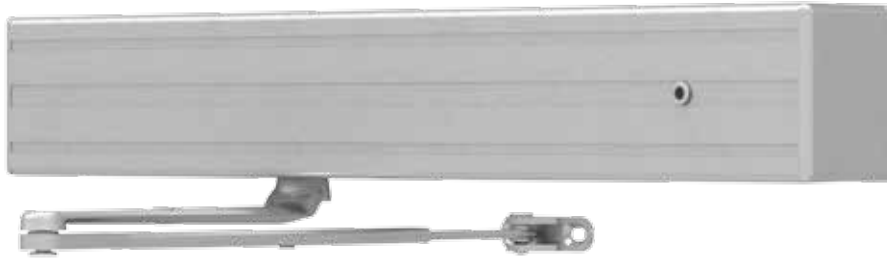
FASTENERS

Standard WOOD and MACHINE SCREW (WMS) pack contains phillips head wood and machine screws to install the closer. Thru Bolts and/or TORX® machine screws are available for most closers. LCN thru bolts (TB) can be installed on 1-3/4" thick doors with either the 1/4"-20 machine screws or optional TORX screws supplied with the closer. Optional sizes are available for 1-5/8" or 1-3/8" door thicknesses, but this must be specified when ordering.



NOTE 1: For Thru Bolts, specify door thickness if other than 1-3/4" (44 mm).

NOTE 2: Phillips head, metric machine screws are available on special order.



The 4410HSA SENTRONIC® is an electrically controlled closer/holder designed to provide easy passage for groups of pedestrians through high traffic doors. Pedestrians, moving through the doorway, trigger the built-in scanner. When the door is opened to 80° or more, the door is electrically held open to minimize wear and tear on applied door hardware. After the last pedestrian in a group passes through the doorway, the system timer releases the hold-open, closing the door under control of the heavy duty closer. Double lever arm closer is specifically designed for push side mounting. Choice of finishes and accessories meet virtually all high traffic installation requirements.

Certifications Grade 1 - ANSI A156.4, ANSI 156.16, NFPA 101, UL 10C, ADA, 100 Hour Salt Spray, Meets BAA - Buy American Act

Body Construction

- Cast Iron Body
- Full Complement Bearing
- 1-1/2" Diameter Piston
- 11/16" Diameter Double Heat Treated Pinion Journal

Fluid	All Weather Fluid
Handing	Handed
Size	Field adjustable, shipped at size 3
Warranty	2 years
Fasteners	Wood and machine screw pack
Mounting	Top Jamb (Push Side)
Cover	Metal, Standard

Arms

- Regular Arm
- Long arm, optional

**Finishes/Colors/
Powder Coat**

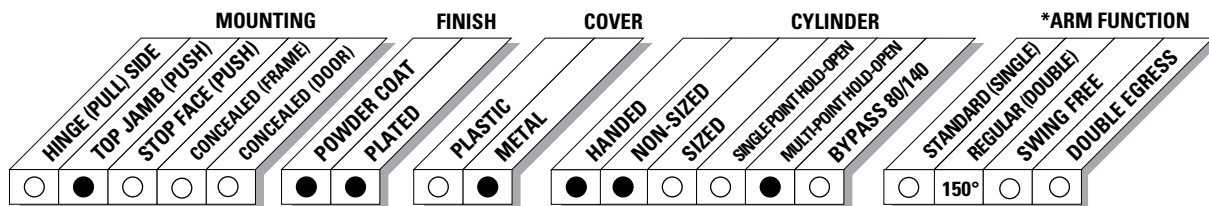
- Aluminum (689)
- Statuary Bronze (690)
- Light Bronze (691)
- Black (693)
- Dark Bronze (695)
- Brass (696)
- Custom colors optional
- Optional plated finishes

Wiring

- Concealed or surface
- 24V AC/DC input only
- 120V AC input requires 4410HSA-3210 transformer
- HSA features a scanner activated hold-open function, adjustable 15 seconds or 30 seconds
- Built-in "On/Off" switch provides continuous hold-open feature

Special Templates

Customized installation templates or products may be available to solve unusual applications. Contact LCN Product Support for assistance.



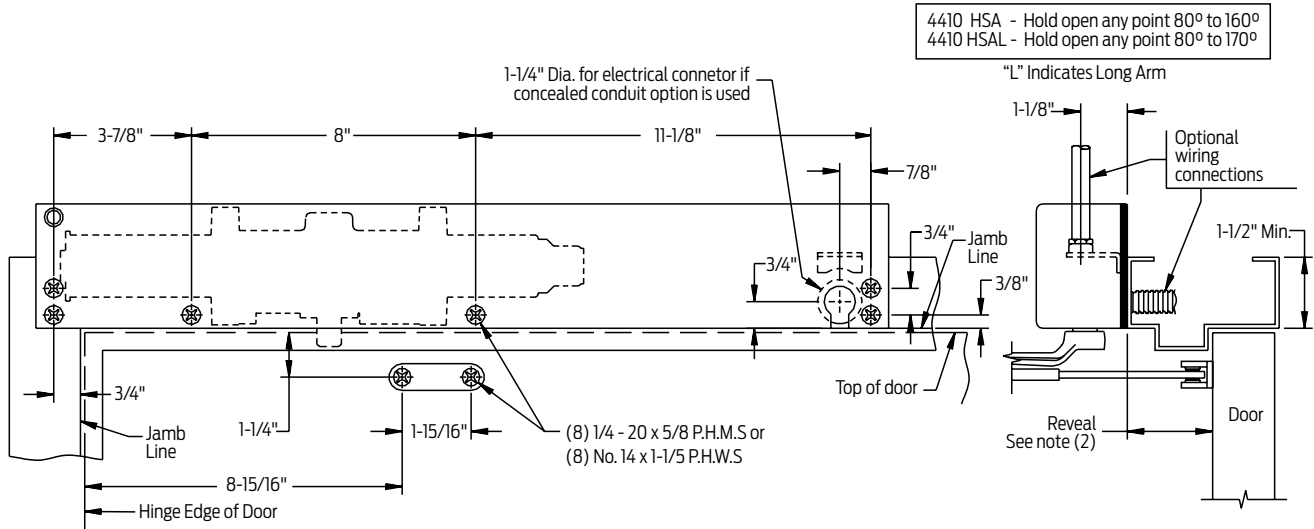
● AVAILABLE
○ NOT AVAILABLE

* Maximum opening/hold-open point with standard template. See individual closer series for degrees of opening per installation.

4410 HSA Series

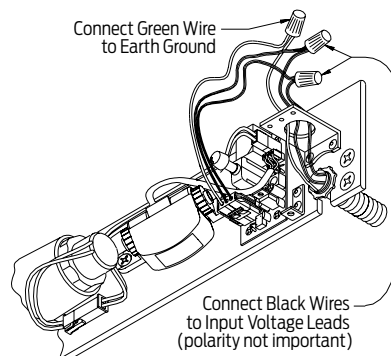
Mounting details

Top Jamb (Push) Side Mounting



Butt Hinges	Should not exceed 4-1/2" (114 mm) in width
Top Rail	<ul style="list-style-type: none"> 1-3/4" (44 mm) minimum 3-3/4" (95 mm) minimum with flush ceiling
Head Frame	<ul style="list-style-type: none"> Requires 1-1/2" (38mm) minimum 2" (51 mm) minimum with flush ceiling
Reveal	<ul style="list-style-type: none"> 3-7/8" (98 mm) maximum for regular or long arm For reveals greater than 3-7/8" consult factory
Maximum Opening	<ul style="list-style-type: none"> Templating allows 160° Infinite hold-open points from 80° up to 150° Optional long arm allows 180°, hold-open points up to 170°
Options	<ul style="list-style-type: none"> Optional long arm allows 180° with hold-open points up to 170° Optional -18G plate accommodates flush ceiling conditions 120 volt input requires 4410HSA-3210 transformer to change 120V AC to 24V AC

HSA Wiring Diagram

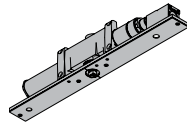


Cylinders



4412HSA-3971

- Handed
- Cast iron
- 24V AC/DC input only for holding solenoid
- Standard



4412HSA-3071 HSA Cylinder / Plate Assembly

- Handed
- Includes scanner module and system timer module
- "On/Off" switch assembly provides continuous hold-open function
- 24V AC/DC input only for holding solenoid and electronics modules
- Standard

Cover



4410HSA-72MC Metal Cover

- Handed
- Standard

Arms



4410HSA-3077 Regular Arm

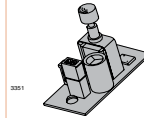
- Non-handed
- 3-7/8" (98 mm) maximum reveal



4410HSA-3077L Long Arm

- For increased opening
- 3-7/8" (98 mm) maximum reveal
- Optional

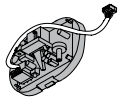
Switch



4410HSA-3448 Switch Assembly

- Provides continuous hold-open function
- Available in 24V only

Scanner



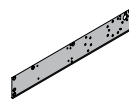
4410HSA-3428 Scanner Module

Installation Accessories



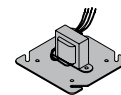
4410HSA-18 Mounting Plate

- Standard



4410HSA-18G Transformer Mounting Plate

- Substituted on flush ceiling installations
- Optional



4410HSA-3210 Transformer

- Reduces line voltage from 120V to 24V AC
- Mounted on plate for 4" (102 mm) x 4" x 2-1/8" (54 mm) junction box (by others)

How-to-order 4410 HSA Series closers

Select hand

- RH
- LH

Voltage

- 24V AC/DC

Specify finish

- Standard Powder Coat _____
Aluminum, Dark Bronze, Statuary, Light Bronze, Black, Brass.

Closer will be shipped with:

- 24 AC/DC HSA cylinders
- Metal cover
- Regular arm
- Wood & machine screw pack
unless options listed below are selected.

Closer options

Arm

- Long Arm (LONG)

Finishes

- Custom Powder Coat (RAL) _____
- Plated Finish, US _____

Screw pack

- TB*, Wood & Machine Screw (TBWMS)
- TORX Machine Screw (TORX)
- TB* & TORX Machine Screw (TBTRX)
* Specify door thickness if other than 1-3/4"

Installation accessories

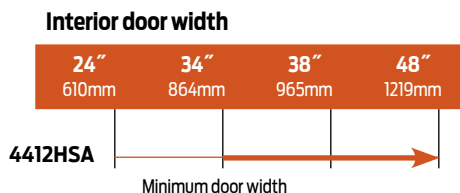
- Plate, 4410HSA-18
- Plate, 4410HSA-18G
(substituted for standard mounting plate)
- Transformer, 4410HSA-3210


Special template

- ST- _____ (if required)

Table of sizes

- Closing power of 4410 HSA Series closers is field adjustable, shipped at size 3



 Indicates recommended range of door width for closer size.