LCN®
1-800-526-2400

4410 ME

Sentronic®

DOOR CLOSER WITH ELECTRONIC RELEASE & MULTI - POINT HOLD OPEN.

INSTALLATION INSTRUCTIONS

1. Closer is handed at factory. The hand of closer must match hand of door (See door handing diagram at bottom of page). Determine closer mounting template to be used - Standard or Flush-Ceiling (see Pg.4). Refer to proper template for entire installation.

2. Voltage supplied to door frame MUST match voltage of solenoid.

3. Before beginning Step 3, determine which type of wiring option is to be used and follow the corresponding instructions.

FOR CONCEALED WIRING: See Fig. 3 on page 3.

A. Prepare frame per proper template on page 4. Be sure all the holes are dimensioned correctly before drilling and tapping.

B. Assemble conduit connector provided to flexible conduit, then attach to hole in mounting plate.

C. Secure mounting plate to frame with screws provided.

⚠ WARNING

HAZARDOUS VOLTAGE CAN SHOCK AND CAUSE SEVERE INJURY

Disconnect power before making any electrical connections or performing maintenance.

FOR SURFACE WIRING: See Fig. 4 on page 3. **NOTE:** Remove knockout in top of cover.

A. Prepare frame per proper template on page 4. Be sure all holes are dimensioned correctly before drilling and tapping.

B. Secure mounting plate to frame with screws provided.

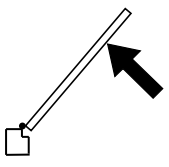
C. Attach the surface run 1/2" EMT conduit to hole in bracket on mounting plate. Be sure conduit is securely attached to bracket.

4. Make wiring connections at this time. Connect two black wires to input voltage (polarity not important). Green wire MUST be connected to an earth ground. (See Fig. 3 & 4 on page 3)
5. Place main arm onto shaft, 90° to closer body and secure with arm shaft screw.

6. Attach rod & shoe to door (per proper template on page 4) with screws provided.

7. Open door part way and insert rod into forearm, then close door. With **main arm** at right angle (90°) to door, insert arm set screw and tighten securely.

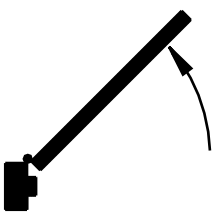
8. Regulate closer and perform electrical checkout as instructed on page 2 before installing closer cover.



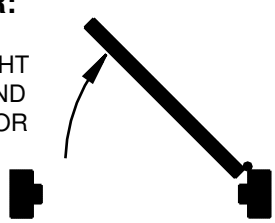
= 50 ft-lbs
68 N-m
89 N

MAXIMUM OPENING FORCE

HOW TO TELL HAND OF DOOR:



LEFT HAND DOOR



RIGHT HAND DOOR

REGULATION INSTRUCTIONS

SEE FIGURE 2 ON OPPOSITE PAGE FOR REGULATING SCREW LOCATION, DOOR CONTROL DIAGRAM & SPRING POWER ADJUSTMENT

1. **SPRING POWER ADJUSTMENT:** Do not allow door to slam into frame. Spring power should be adjusted **only** if more power is needed to close the door. Turning spring adjustment clockwise will increase spring power. 6 turns maximum adjustment.

2. **REGULATION:** A "normal" closing time from a 90° position is 5 to 7 seconds, equally divided between **MAIN** and **LATCH SPEED.** If adjustments are needed, use the socket screw key provided. To adjust **MAIN SPEED,** turn regulating screw clockwise to slow door speed or c.c.w. to increase speed. **LATCH SPEED** is adjusted in the same way. When adjusting the **BACK CHECK,** use the least amount of force necessary to sufficiently retard the swing of door. To adjust closer **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 !**

⚠CAUTION

IMPROPER INSTALLATION OR REGULATION MAY RESULT IN PERSONAL INJURY OR PROPERTY DAMAGE. FOLLOW ALL INSTRUCTIONS CAREFULLY. FOR QUESTIONS, CALL LCN AT 800 - 526 - 2400

ELECTRICAL CHECKOUT

AFTER COMPLETION OF INSTALLATION & WIRING, AND WITH THE UNIT PROPERLY POWERED, PERFORM THE FOLLOWING TESTS:

1. With power on, open the door any position and release. The door should remain in the hold-open position within 10°. For a bypass model to hold open, the door must be opened beyond degree of door swing indicated on label.

2. If door does not hold open, push the on/off switch. If door still does not hold open, verify proper voltage input at solenoid leads.

3. Turn power off. Door should close completely.

4. To release manually, pull on door firmly. Door should close completely.

5. System should be checked at regular intervals. It is recommended that steps 1-3 be repeated every 90 days.

ELECTRICAL DATA FOR DOOR HOLDER SOLENOID:

24V AC-DC Nominal +10% - 15% @ .090 Amp. Max.
120V AC-DC Nominal +10% - 15% @ .030 Amp. Max.
Consult Factory for 12V Wiring.

24V HOLD OPEN FORCE ADJUSTMENT

IF DOOR IS HARD TO PULL OUT OF HOLD OPEN, ADJUST AS SHOWN

IMPORTANT

Closer leaves the factory set at maximum holding force. The holding force may be decreased and increased again, but it cannot be increased beyond the original setting.

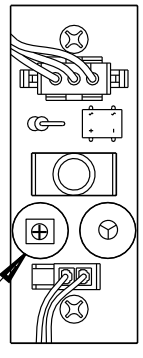


Figure 1

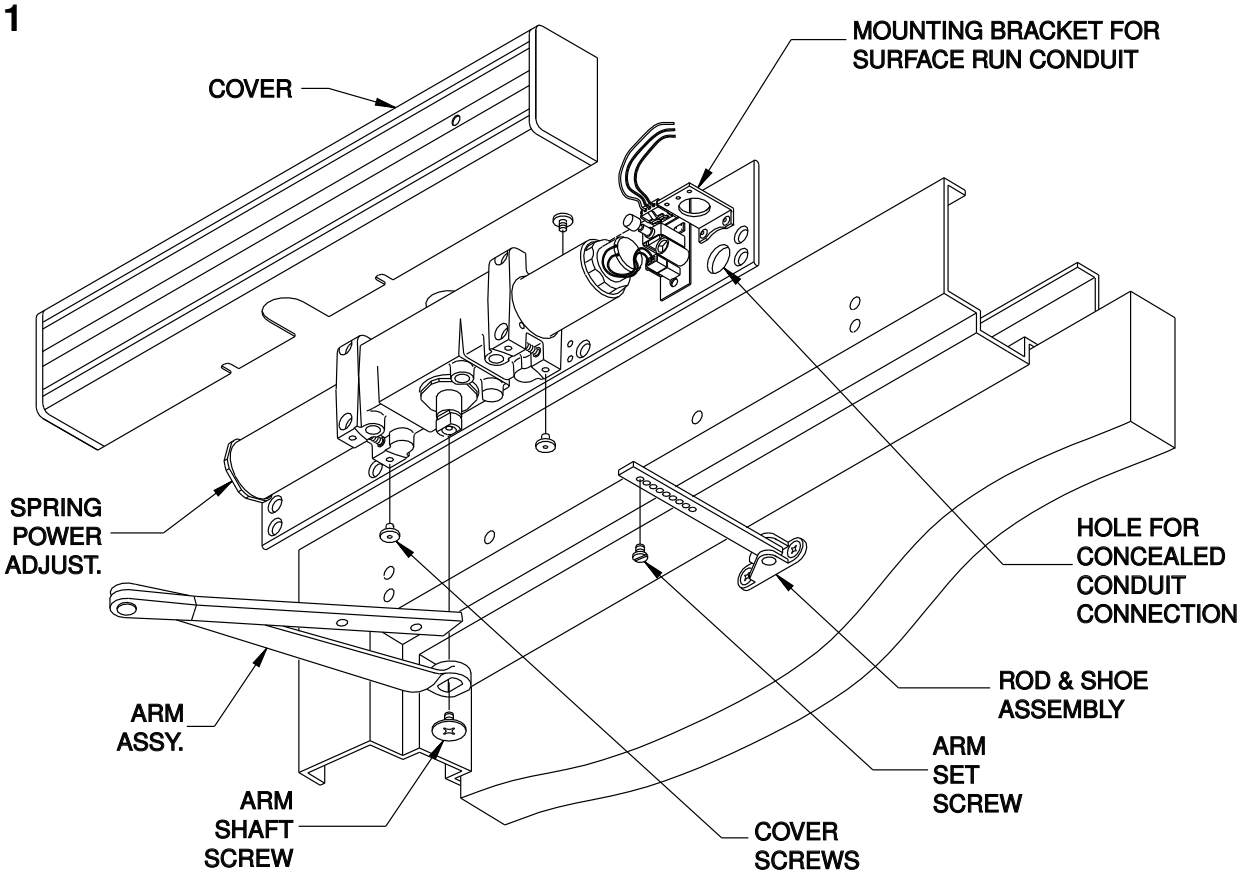
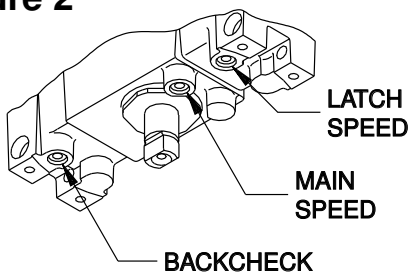
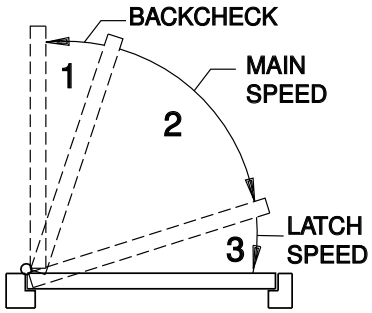
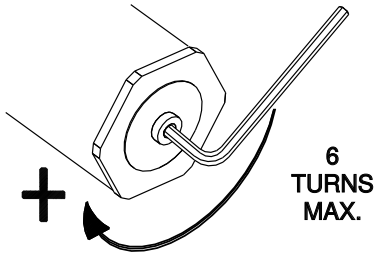


Figure 2







TO INCREASE CLOSING POWER

Figure 3

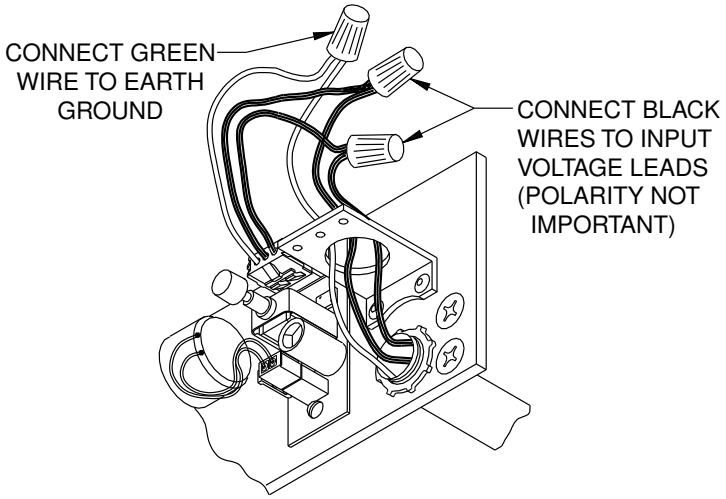
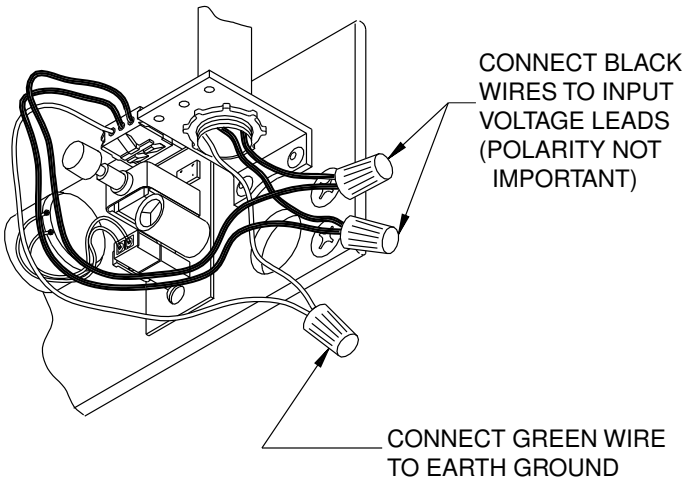


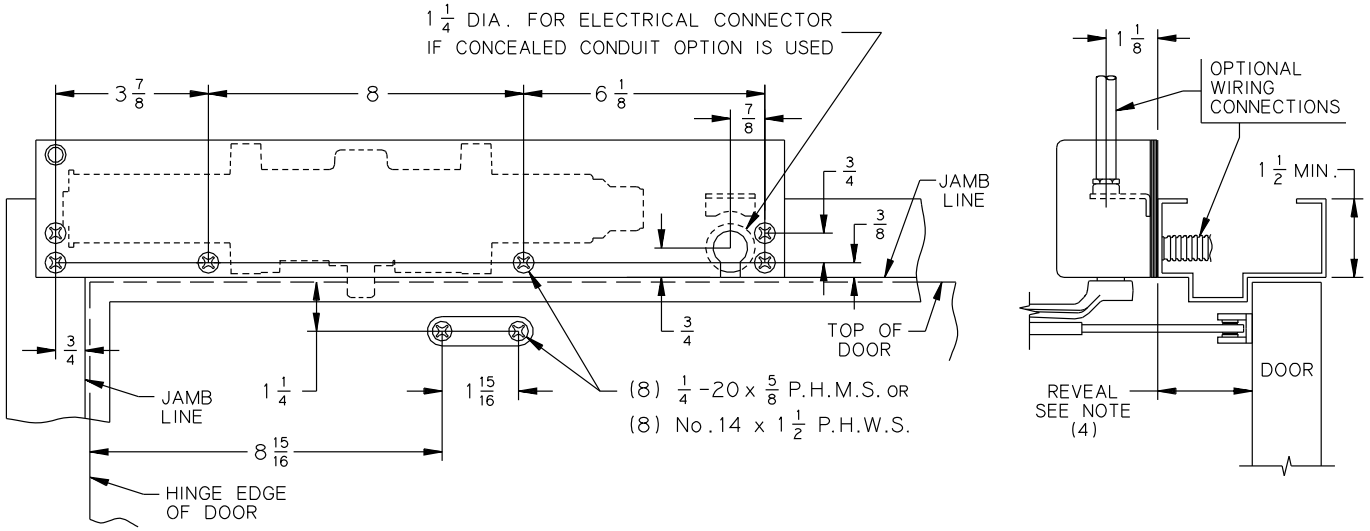
Figure 4



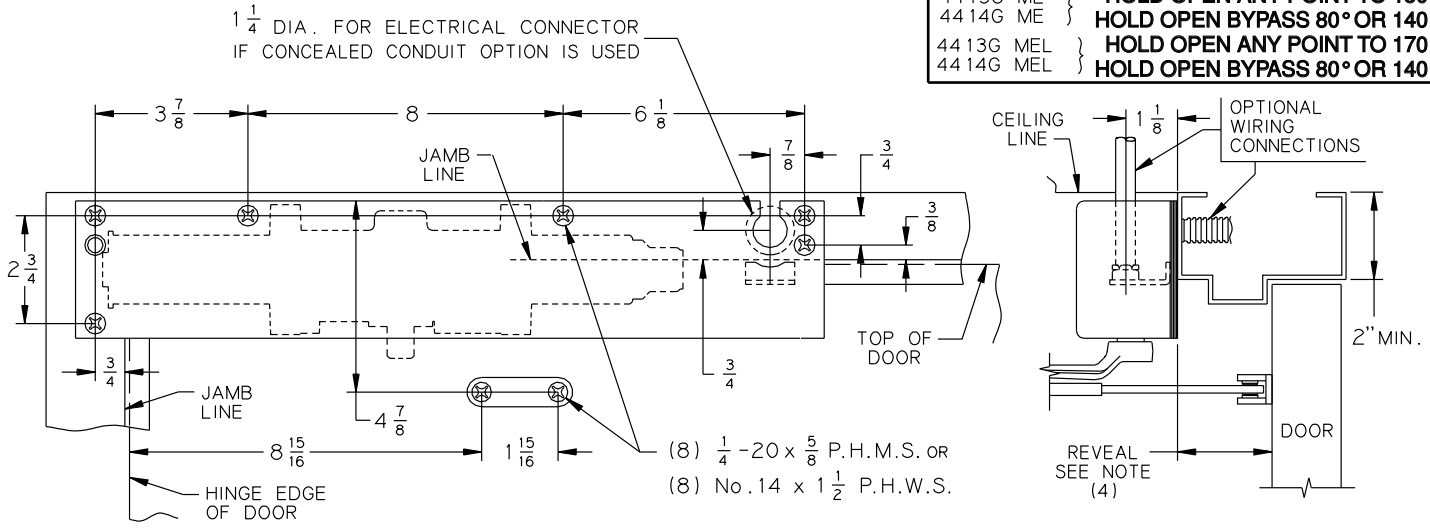
4410 ME

4413 ME 4414 ME	HOLD OPEN ANY POINT TO 150° HOLD OPEN BYPASS 80° OR 140°
4413 MEL 4414 MEL	HOLD OPEN ANY POINT TO 170° HOLD OPEN BYPASS 80° OR 140°
LEFT HAND DOOR AND CLOSER SHOWN, RIGHT HAND OPPOSITE	5/94

"L" INDICATES LONG ARM



4413G ME 4414G ME	HOLD OPEN ANY POINT TO 150° HOLD OPEN BYPASS 80° OR 140°
4413G MEL 4414G MEL	HOLD OPEN ANY POINT TO 170° HOLD OPEN BYPASS 80° OR 140°



⚠ WARNING

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

NOTES-

1. Voltage supplied to unit must match voltage shown on Sentronic® label.
2. Locate closer and shoe from ℄ of pivot when pivots are used. For use with swing clear hinges, consult factory.
3. Auxiliary stop is recommended. For use with overhead stops, shoe must be lowered to clear holder.
4. Long arm required for opening beyond 160°. Reveal not exceed 3 7/8" (5 3/4" FRAME).
5. Maximum stop thickness is 5/8".
6. Electric connector provided by LCN.
7. Reinforcing per ANSI\SDI - 100 is recommended for hollow metal door and frames.

INCH	1/4	3/8	1/2	5/8	3/4	7/8	1 1/8	1 1/4	1 1/2	1 15/16	2
M.M.	6	10	13	16	19	22	29	32	38	49	51

INCH	2 9/16	2 3/4	3 7/8	5 3/4	6 1/8	8	8 15/16	2'4"	3'0"	3'1"	4'0"
M.M.	65	70	98	146	156	203	227	700	900	925	1200

DOOR HOLDER SOLENOID DATA

24 VAC - DC Nominal +10% - 15% @ .090 Amp. Max.
120 VAC - DC Nominal +10% - 15% @ .030 Amp. Max.
For 12V wiring consult factory

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