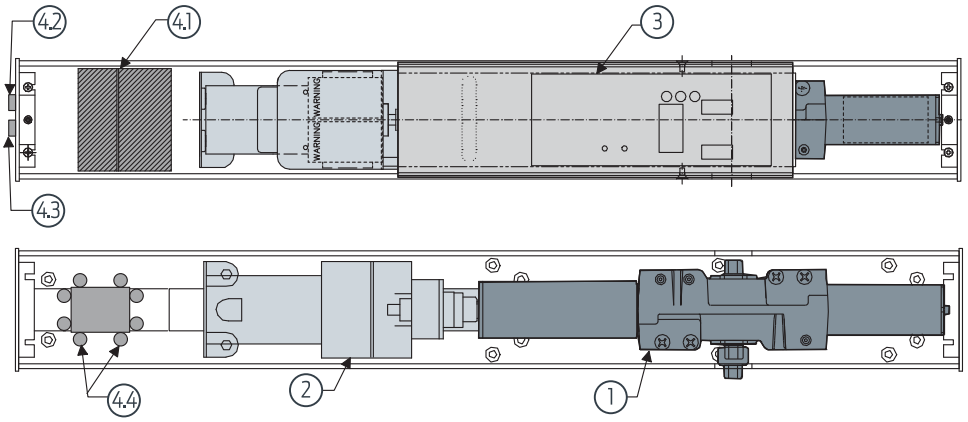


1 - DOOR CLOSER ASSEMBLY

- Based on a heavy duty 4040, cast iron cylinder with all-weather fluid for consistency and reliability
- Rugged drive mechanism provides the connection to the electric motor assembly
- Fully adjustable, independent hydraulic regulation controls the door to minimize the chance of damage to the door and frame assemblies

2 - ELECTRIC MOTOR/CLUTCH ASSEMBLY

- Highly efficient motor combined with a custom designed gear system provides exceptionally quiet and smooth operation
- Special clutch transmits the power and provides a unique "breakaway" function that prevents damage to the operator, door and frame if a vandal forces the door closed during the powered opening swing

3 - DIGITAL CONTROLLER MODULE

- Digital Control Suite
- Dual Independent Program Memories
- On Board Diagnostics
- Visual Function Indicators
- Adjustable Programming Modes

4.X - FIELD WIRING

4.1

- Input power; 120V AC @ 1.5 amperes
- On-board, low voltage power supply provides both 12V and 24V DC @ 1.0 ampere (maximum combined load) for LCN actuators, RF receivers, and electric strikes or magnetic locks
- Slow blow and self-resetting fuses protect input and output power from voltage spikes
- Terminal strips simplify field wiring

4.2

- On/Off Switch

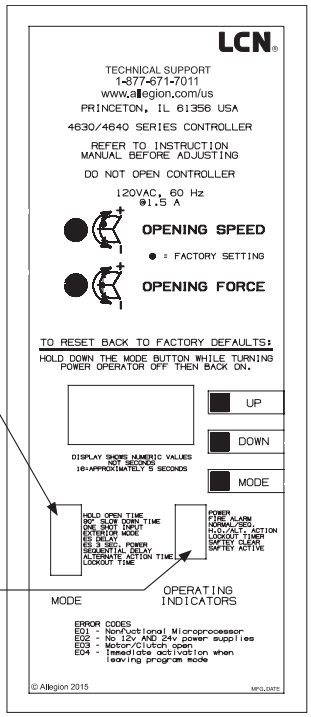
4.3

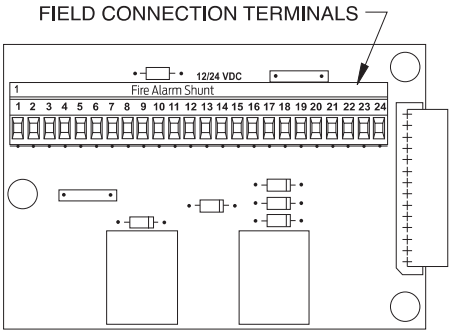
- Hold Open Switch

4.4

- Separate conduits for high voltage power and low voltage power and signal wiring meet UL and National Electrical Code requirements

LCN DIGITAL CONTROL BOX	
Opening Speed Adjustment	Limited to a minimum of 3 seconds to backcheck (approx. 70°)
Opening Force Adjustment	Maximum of 15 lb-f to stop door swing
Time Display	Displays numeric value relating to timing adjustments (16 = approx. 5 seconds)
Mode Indicator	Indicates programming mode currently being displayed
Up Button	Increases time or changes from OFF to ON when programming
Down Button	Decreases time or changes from OFF to ON when programming
Mode Button	Advances through programming setups on Mode Indicator
Operating Indicators	Displays operating information about internal functions and external hardware





LCN LOW VOLTAGE (CLASS 2 NEC) ELECTRICAL CONNECTIONS	
Function	**Terminal**
Actuator - Normal Input (N.O.)	16 & 17 or 18 & 19
Actuator - Sequential Input (N.O.)	8 & 19
Actuator - Alternate Action (N.O.)	15 & 17
Actuator - Continuous (N.O.)	6 & 17
Sequential Output	9
Stop Side Safety (N.O.)	19 & 20
Swing Side Safety (N.O.)	19 & 21
Fire Alarm Contact (N.C.)	13 & 14 (Fire Shunt)
Auxiliary Relay Contacts (5 amp max)	10 - Common 11 - N.O. 12 - N.C.
E.S. Relay Contacts (5 amp max)	22 - Common 23 - N.O. 24 - N.C.
12V DC & 24V DC Negative*	2, 4, 13, 17, & 19
12V DC Positive*	5 & 7
24V DC Positive*	1 & 3

** NOTE: 1 Amp max load between 12V and 24V DC outputs.*

CANNONDESIGN

SUBMITTAL IDENTIFICATION SHEET

To be completed by Contractor/CM

WEBSTER UNIVERSITY ISB
PROJECT NAME

8274 BIG BEND BLVD
ADDRESS

NUMBER

WEBSTER UNIVERSITY
OWNER

CANNON DESIGN
ARCHITECT / ENGINEER

DEVIN D GATES
SUBMITTED BY

087100.01-001
CONTRACTOR / CM SUBMITTAL NO.

CANNON DESIGN SUBMITTAL NO.

DRAWING / DETAIL REFERENCE

087100.01
SPECIFICATION SECTION / PARAGRAPH

MANUFACTURER / SUPPLIER

ITEM / PRODUCT ID

REQUIRED DATE

PRIORITY

CRITICAL

ITEM BEING SUBMITTED (check only one)

- ○ Shop Drawings
- ○ Samples (_____ copies)
- ○ LEED Submittal
- ○ Certification / Qualifications
- ◉ Record Documents
- ○ Product Data
- ○ Coordination Drawing
- ○ Calculations
- ○ Schedules
- ○ O&M Manuals
- ○ Other _____

ITEM BEING SUBMITTED FOR (check only one)

◉ Action ○ Information Only ○ Record

REMARKS OR DEVIATIONS

CONTRACTOR / CM CERTIFICATION
(SUBMITTALS NOT CERTIFIED WILL BE RETURNED WITHOUT REVIEW)

PARIC

PARIC CORPORATION
SUBMITTAL STAMP

THIS SHOP DRAWING HAS BEEN REVIEWED BY PARIC CORPORATION

Subcontractor remains responsible for dimensions, quantities, coordination with other trades and compliance with contract documents.

By:
Devin D. Gates

DEVIN D GATES — REVIEWED BY
10/31/16 — DATE

To be completed by Reviewer

08 7100.01-001
CANNON DESIGN SUBMITTAL NUMBER

10/31/16
RECEIVED DATE

- ○ A. No Exceptions Taken
  No further review of submittal is required.
- ◉ B. Make Corrections Noted
  Incorporate corrections in work; resubmission is not required.
- ○ C. Revise and Resubmit
  Revise as noted, and resubmit for review.
- ○ D. Rejected
  Submittal is not in compliance with Contract Documents; provide new submittal.
- ○ E. For Record / Information Only
  Submittal was reviewed for Record / Information purposes only.
- ○ F. Not Required for Review
  Submittal is not required by Contract Documents and has not been reviewed.

Review is for conformance with the design concept of this project and for general compliance with contract documents. Contractor is responsible for quantities, dimensions and compliance with contract documents and for information that pertains to fabrication processes, construction techniques and coordination of this work with all trades which will be affected thereby. This review is null and void if submittal deviates from contract documents and does not indicate or note deviations.

A/E COMMENTS ◉ See attached sheet(s) for additional comments

SEE MARKUP

SEE LETTER ON FOLLOWING PAGE

Lynn Grossman — REVIEWED BY
Digitally signed by Lynn Grossman
DN: C=US, E=lgrossman@cannondesign.com, O=Cannon Design, CN=Lynn Grossman
Date: 2016.12.05 18:32:59-06'00'

12.05.16 — DATE

Allegion, PLC
6810 Hillsdale Ct.
Indianapolis, IN 46250 USA
Office 877.238.2022 Fax 317.715.4055
allegion.com

Submittal Review
Specification Section: 087100 Door Hardware

Date: 11/10/2016

Project: Webster University - ISB
Webster, MO

Firm: Cannon Design
Attn: Kelvin Patel
1100 Clark Ave
St. Louis, MO 63102
(314) 425-8756

Kelvin,

I have reviewed this submittal for the door hardware per specification section 087100. This review is for specification compliance based on the specifications submitted to you for the above referenced project. I did not review for doors and frames and nor did I respond to any questions or comments regarding doors and frames. The Contractor remains responsible for the accuracy and completeness of submittal including, but not limited to, dimensions, quantities, fabrication, and construction techniques. General Conditions of contract documents apply.

You will need to review the door and frame submittal for compliance based on your plans, door schedule, and door/frame elevations. If any changes were made through addenda or RFI please update my comments appropriately.

Submittal Action:
Door Hardware Submittal dated 10/31/16 - Reviewed / Reviewed As Noted

Submittal Notes/Comments:
- Revise all closers to 4010/4110 DEL series per email revision
- Provide Exit Devices with NL-OP trim where specified versus the submitted NL trim

Door Hardware Submittal–
Note: The general comments are listed to save time for repetitious items, comments, and/or concerns. The specific comments listed for individual headings are subject to the general comments listed below.

1. General:
   a. I did not review submittal for handing.
   b. Operational Description: Operational Description, of openings with electrified hardware, needs to be included in the door hardware schedule. [Reference Section 087100, Article 1.3.C.3.]

Please remind the contractor to coordinate the hardware being supplied by the Aluminum Door supplier with the hardware from this package. The hardware for aluminum doors is specified in Section 087100. This submittal references aluminum hardware as “by others”. All the hardware is required to be of the same manufacturer and model and meet the requirements of Section 087100.

✓ Single Source Responsibility: Obtain each type of hardware (ie. latch and locksets, hinges, exit devices, closers, etc.) from a single manufacturer. [Reference Section 087100, Article 1.4.D.]

The door hardware specification includes some project controls to assist in a smooth project. Please remind the general contractor of the following specification items in Section 087100:

- ✓ Article 1.3.C.3.I.3. Riser and Wiring Diagram – Please advise hardware supplier to provide riser and (point-to-point) Wiring Diagrams per approved finish hardware schedule.
- ✓ Articles 1.3.D. and 2.6. Keying – Please advise the hardware supplier to schedule and complete the keying conference prior to ordering hardware to avoid issues with keying or lock functions.
- ✓ Articles 1.6. and 1.7. Coordination – Please advise general contractor to schedule pre-installation, installation coordination, and electrified hardware coordination conferences prior to installation of any finish hardware.

Also, put the following items on the check-list at project completion time:

- ✓ Article 3.1 Installation
- ✓ Articles 3.1.L and 3.2 Adjustment and Field Inspections

As a reminder the following services are available to you for this project:

- ✓ Provide product training to installers.
- ✓ Assist you with “Jobsite Inspection” and creation of a detailed punch-list.
- ✓ Provide product training to owner.

Please review and contact us at the above telephone number or via email at aaron.owens@allegion.com with any questions or if you need further assistance. Thank you for your time and allowing me to follow up on this project.

Sincerely,

Aaron Owens

<Aaron Owens>