

# Medium-Duty Door Operator Specifications

COMMERCIAL DOOR OPERATOR

MODEL

## PART 1 GENERAL

### 1.1 SECTION INCLUDES

- A. Hoist-type door operators for rolling doors, shutters, and grilles.

### 1.2 RELATED SECTIONS

- \*\* Note to Specifier: Please list all applicable CSI Masterformat Sections requiring coordination to Automatic Door Operators.

### 1.3 REFERENCES

- \*\* Note to Specifier: Please list all applicable Standards, Codes and other Reference documentation related to the design, functionality, installation and performance of Automatic Door Operators.

### 1.4 SUBMITTALS

- \*\* Note to Specifier: Please list all applicable submittal requirements required for approval.

### 1.5 DELIVERY, STORAGE, AND HANDLING

- \*\* Note to Specifier: Please list all applicable delivery, storage and handling requirements for Automatic Door Operators that are pertinent to the project site and conditions.

### 1.6 WARRANTY

- A. Manufacturer's standard 2-year warranty against material and manufacturing defects.

## PART 2 PRODUCTS

### 2.1 MANUFACTURERS

- A. Acceptable Manufacturer: The Chamberlain Group, Inc.; 845 Larch Avenue, Elmhurst, IL 60126-1196. ASD. Tel: (800) 282-6225. Fax: (630) 516-8412. www.chamberlain.com  
B. Substitutions: Not permitted.  
C. Requests for substitutions will be considered in accordance with provisions of Section 01600.

### 2.2 HOIST DOOR OPERATOR

- A. Medium-Duty Operator: Limited-duty (recommended duty of 12 cycles per hour), high-starting torque motor with overload protection and emergency chain hoist with electric interlock; Model MH; Chamberlain, Elmhurst, IL.
- Electric Operator: Model MH medium-duty assembly, cULus Listed and cULus Labeled, with electric motor and factory-wired motor controls, emergency floor-level manual chain hoist mechanism with electrical interlock, electric solenoid-actuated brake, 3-button OPEN/CLOSE/STOP control station, conduit-encased wiring from control circuit to motor, and accessories required for proper operation; operator shall provide a door speed of approximately 8 inches (203 mm) to 9 inches (229 mm) per second.
    - Primary Speed Reduction: Heavy-duty 4L V-belt and #41 chain and sprocket with sprocket reduced secondary; operator shall be equipped with adjustable friction clutch and output and door driven sprockets.
    - Brake: Electric solenoid-actuated brake capable of stopping and holding a door at any position.
    - Limit Switches: Fully adjustable, driven linear-type switch mechanism synchronizing operator with door; low friction nylon limit nuts fitted on threaded steel shaft that rotates on oil-tight self-lubricating bronze bushings; motor shall be removable without affecting limit switch settings.
    - Electric Motor: High-starting torque, 1/2 Horsepower, 115 volts, 1 phase motor with an internal automatic reset thermal overload device to protect against overload.
    - Motor Control and Enclosure: LiftMaster Medium Duty Logic motor control shall be a microprocessor solid-state type PCB; the control board shall provide the capability to select one of two wiring types, diagnostic LEDs for operator status and troubleshooting, programmable timer-to-close w/timer defeat capabilities and a maximum run timer to provide motor overrun protection; motor control shall be housed in a NEMA 1 enclosure integral to the operator and shall conform to ANSI/NEMA ICS6.
      - Radio Receiver: LiftMaster Medium Duty Logic on-board, 3-channel receiver with external antenna; equipped to accept Security+ Rolling Code Technology remote transmitters and Trinary Dip Switch remote transmitters, with memory for up to 20 Security+ remote transmitters or an unlimited number of Trinary Dip Switch remote transmitters.
    - 3-Button Control Station: 3-button station providing OPEN/CLOSE/STOP within a NEMA 1 Type enclosure
  - Door Drive: Full #41 roller chain; operator shall be equipped with an electrically interlocked, floor level disconnect and chain hoist for manual operation.
2. Primary Entrapment Protection Safety Devices  
**\*\*NOTE TO SPECIFIER\*\*** for any type of operating mode other than basic constant contact on the 'Close' button of the 3-button station to lower the door, one of the following UL-Approved and UL-Listed Monitored Entrapment Protection safety devices must be corrected directly to the Logic 4 operator; select one of the following:
- Industrial/Commercial Monitored Photo Sensors: CPS-U fully monitored, non-contact, infrared beam photo sensor system shall reverse, in conjunction with the Logic 4 operator, a closing door to the full open position when an obstruction is sensed; photo sensors shall be mounted no higher than 6" maximum above the floor.
  - NEMA 4 Monitored Photo Sensors: CPS-UN4 fully monitored, non-contact, infrared beam reversing photo sensor system, with NEMA 4 watertight enclosure shall reverse, in conjunction with the Logic 4 operator, a closing door to the full open position when an obstruction is sensed; photo sensors shall be mounted no higher than 6" maximum above the floor.
  - Monitored Sensing Edge Interface: CPS-EI edge interface shall provide a means to attach a 4-wire monitored sensing edge to a Logic 4 operator for continuous monitoring purposes; the edge, in conjunction with the Logic 4 operators shall reverse a closing door to the full open position when an obstruction is sensed; sensing edge supplied by others.
3. Ancillary Entrapment Protection Safety Devices  
**\*\* NOTE TO SPECIFIER\*\*** Ancillary Entrapment Protection safety devices are optional and can be used to supplement, but not replace, Primary Entrapment Protection safety devices; select one of the following:
- Retro-Reflective Photo Sensors: CPS-RN4 non-monitored, non-contact, infrared beam photo sensor with polarized reflector for use in conjunction with the CPS-EI edge interface and monitored 4-wire sensing edge; shall reverse a closing door to the full open position when an obstruction is sensed; photo sensor shall be mounted no higher than 6" maximum above the floor.
  - Non-Monitored Electric Sensing Edge: 2-wire non-monitored electric edge shall reverse a closing door to the full open position when an obstruction is sensed
  - Pneumatic Sensing Edge: Pneumatic (air hose) sensing edge shall reverse a closing door to the full open position when an obstruction is sensed.

## PART 3 EXECUTION

### 3.1 EXAMINATION

- \*\* Note to Specifier: Please list all requirements regarding examination of the Substrate to which Automatic Door Operators will be mounted.

### 3.2 PREPARATION

- \*\* Note to Specifier: Please list all requirements regarding preparation of the Substrate to which Automatic Door Operators will be mounted.

### 3.3 INSTALLATION

- A. Install in accordance with manufacturer's instructions.

### 3.4 PROTECTION

- A. Protect installed products until completion of project.  
B. Touch-up, repair or replace damaged products before Substantial Completion.