

# Industrial-Duty Door Operator Specifications

COMMERCIAL DOOR OPERATOR

DJ

MODEL

## PART 1 GENERAL

### 1.1 SECTION INCLUDES

- A. Jackshaft-type door operators for high or vertical lift sectional doors and limited rolling door and grille applications.

### 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. Industrial-Duty Operator with Internal Door Lock Sensor: Continuous-duty, high-starting torque motor with overload protection, internal door lock sensor to prevent accidental operation of a locked door and emergency disconnect for manual door operation; Model DJ; Chamberlain, Elmhurst, IL.
1. Electric Operator: Model DJ industrial-duty assembly, cULus Listed and cULus Labeled, with electric motor and factory-prewired motor controls, internal door lock sensor, positive locking mechanical system acting as a holding brake, an emergency disconnect for manual operation of the door, 3-button OPEN/CLOSE/STOP control station, conduit-encased wiring from control circuit to motor, and accessories required for proper operation; provides door speed of approximately 8 to 9 inches (203 mm) to 9 inches (229 mm) per second.
    - a. Drive Reduction: Heavy-duty 5L V-belt primary reduction and chain/sprocket secondary and third stage reduction; all reduction sprockets and pulleys shall be drilled and pinned to steel shafts plated for resistance to corrosion; operator shall be equipped with permanently lubricated ball bearings on output shaft, adjustable friction clutch, floor level disconnect and output and door driven sprockets.
    - b. Limit Switches: Fully adjustable, driven linear-type switch mechanism synchronizing operator with door; low friction nylon limit nuts fitted on treaded steel shaft that rotates on oil-tight self-lubricating bronze bushings; motor shall be removable with affecting limit switch settings.
    - c. Electric Motor: High-starting torque, continuous-duty, industrial-type protected against overload by current sensing and thermal overload devices.
      - 1) Motor Specification (NOTE TO SPECIFIER: select one of the following):
        - (a) 115V-60Hz-1Phase; 1/3, 1/2, 3/4 or 1HP
        - (b) 230V-60Hz-1 Phase; 1/3, 1/2, 3/4 or 1HP
        - (c) 208/230V-60Hz-3 Phase; 1/3, 1/2, 3/4 or 1HP
        - (d) 460V-60Hz-3 Phase; 1/3, 1/2, 3/4 or 1HP
        - (e) 575V-60Hz-3 Phase; 1/3, 1/2, 3/4 or 1HP
    - d. Motor Control and Enclosure: LiftMaster LOGIC 4.0 motor control shall be UL approved microprocessor solid-state type and shall include the capability to select one of seven wiring types; additional features shall include a maintenance alert diagnostic system, programmable timer-to-close w/ timer defeat input, mid-stop programming 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.
      - 1) Radio Receiver: LiftMaster LOGIC 4.0 on-board, 3-channel receiver with standard external antenna; equipped to accept Security+ Rolling Code Technology remote transmitters and Trinary Dip Switch remote transmitters, with memory for up to 23 Security+ remote transmitters or an unlimited number of Trinary Dip Switch remote transmitters.
    - e. Internal Door Lock Sensor: Sensing circuit to stop operator when door is locked.
    - f. 3-Button Control Station: 3-button station providing OPEN/CLOSE/STOP functionality shall be NEMA Type 1 with maintenance alert indicator to signal intervals

- for routine door and operator maintenance.
- g. Door Drive: Full #50 roller chain; operator shall be equipped with a floor level disconnect for manual operation of the door.
  - h. Optional Operator Modifications  
\*\*NOTE TO SPECIFIER\*\*: select only if applicable:
    - 1) Electric solenoid-actuated brake capable of stopping and holding a door at any position.
2. Primary Entrapment Protection Safety Devices  
\*\*NOTE TO SPECIFIER\*\* for any type of operating mode other than 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 connected directly to the Logic 4 operator; select one of the following):
- a. 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.
  - b. 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.
  - c. 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):
- a. 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.
  - b. 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
  - c. 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.

**LiftMaster**  
ELITE SERIES™  
LOGIC 4.0

Chamberlain reserves the right to make design or specification changes without notice.

Form LM SPEC DJ

# DJ Jackshaft Operator

## Industrial-Duty Door Operator with internal Lock Sensor

CHAMBERLAIN IS AN ISO9001:2008 REGISTERED COMPANY



I.C./F.C.C. Certified

Customer \_\_\_\_\_

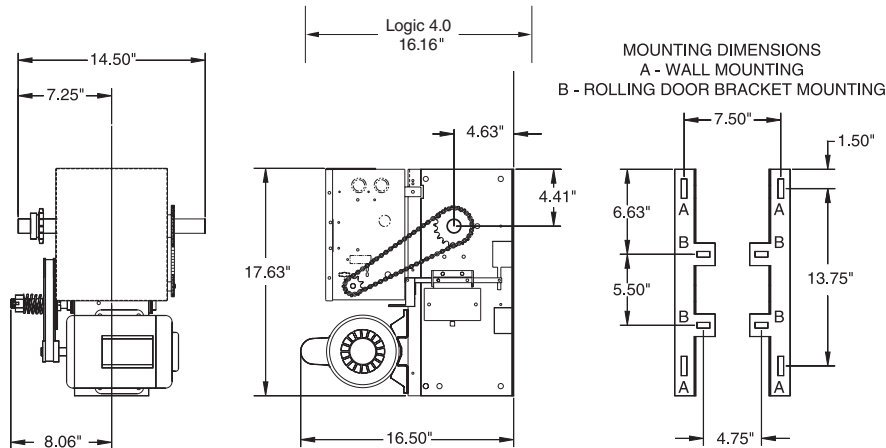
Project \_\_\_\_\_

Architect/Engineer \_\_\_\_\_

Contractor \_\_\_\_\_

Drawing Number \_\_\_\_\_ Date \_\_\_\_\_ Sheet \_\_\_\_\_ of \_\_\_\_\_

### SHOP DRAWING



### Specifications for Ordering

1) Supply \_\_\_\_\_ ( ) LiftMaster Operator(s) Model \_\_\_\_\_  
 \_\_\_\_\_ HP, \_\_\_\_\_ Volts, \_\_\_\_\_ Phase, \_\_\_\_\_ Hertz \_\_\_\_\_

2) For \_\_\_\_\_ wide x \_\_\_\_\_ high door(s) with \_\_\_\_\_

3) Supply \_\_\_\_\_ ( ) OPEN/CLOSE/STOP control station(s) in NEMA \_\_\_\_\_ enclosure per operator

4) Supply auxiliary and optional equipment as specified below (one per operator unless otherwise noted)

Additional Info

### Notes:

- 1) Refer to Model DJ product data sheet for general information
- 2) Refer to drawing \_\_\_\_\_ for wiring diagram

HORSE POWER	MOTOR AMPERAGE RATING				
	VOLTAGE - PHASE - 60Hz				
	115-1Ø	230-1Ø	230-3Ø	460-3Ø	575-3Ø
1/3	6.6	3.3	2.2	1.0	0.8
1/2	8.2	4.1	2.2	1.0	0.8

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<http://specs.liftmaster.com/architectscorner>

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