

Heavy Industrial-Duty Door Operator Specifications



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. Heavy Industrial-Duty Gear-Reduced Operator: Continuous-duty high-starting torque motor with overload protection and emergency chain hoist with electric interlock; Model GH; Chamberlain, Elmhurst, IL.

- 1. Electric Operator: Model GH heavy industrial-duty assembly, cULus Listed and cULus Labeled, with electric motor and factory-prewired motor controls, wormgear reduction unit, electric solenoid-actuated brake, manually operated chain hoist, 3-button OPEN/CLOSE/STOP control station, conduit-encased wiring from control circuit to motor, and accessories required for proper operation; operator shall be capable of driving door at a speed of approximately 8 inches (203 mm) to 9 inches (229 mm) per second

- a. Primary Speed Reduction Device: Wormgear-in-oil-bath gear reducer with synthetic "All Climate" oil with 45:1 speed reduction; permanently lubricated ball bearings on output shaft; and, output and door driven sprockets.

- b. Brake: Electric solenoid-actuated brake capable of stopping and holding a door at any position.

- c. 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.

- d. Electric Motor: High-starting torque, continuous-duty, industrial-type protected against overload by current sensing and thermal overload devices.

- 1) Motor Specification (choose one):

- (a) 115V-60Hz-1Phase; 1/2, 3/4, 1, or 1-1/2 HP
- (b) 230V-60Hz-1 Phase; 1/2, 3/4, 1, or 1-1/2 HP
- (c) 208/230V-60Hz-3 Phase; 1/2, 3/4, 1, 1-1/2 HP, 2, 3, or 5 HP
- (d) 460V-60Hz-3 Phase; 1/2, 3/4, 1, 1-1/2 HP, 2, 3, or 5 HP
- (e) 575V-60Hz-3 Phase; 1/2, 3/4, 1, 1-1/2, 2, or 5 HP

- e. Motor Control and Enclosure

- ** NOTE TO SPECIFIER ** - LOGIC 4.0 motor control circuit available on all models except 5 HP versions; Mechanical contactor-style circuit available only on 5 HP versions

- 1) 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.

- (a) 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.

- 2) Contactor-style (Mechanical) Motor Starter, Control, and Enclosure: Motor starter shall be an across-the-line,

mechanically interlocked, magnetic-reversing contactor; motor control shall be housed in a NEMA 1 enclosure integral to the operator; control enclosures shall conform to ANSI/NEMA ICS 6; control enclosures shall conform to ANSI/NEMA ICS6.

- 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: Operator shall be equipped with appropriate roller chain and sprockets as noted below, an electrically interlocked, floor level disconnect, a chain hoist for manual operation and an electric solenoid-actuated brake to stop motor and hold the door in any position:
 - 1) Roller Chain and Sprocket: 50B40 door sprocket and #50 drive chain, motor rated up to 1HP
 - 2) Roller Chain and Sprockets: 50B60 door sprocket and #50 drive chain, motor rated from 1-1/2 to 2HP
 - 3) Roller Chain and Sprockets: 80B60 door sprocket and #80 drive chain, motor rated at 3HP
 - 4) Roller Chain and Sprockets: As required for 5HP based upon door specification

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

GH Gear-Hoist Operator Heavy Industrial-Duty Door Operator

CHAMBERLAIN IS AN ISO9001:2008 REGISTERED COMPANY



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

Customer _____

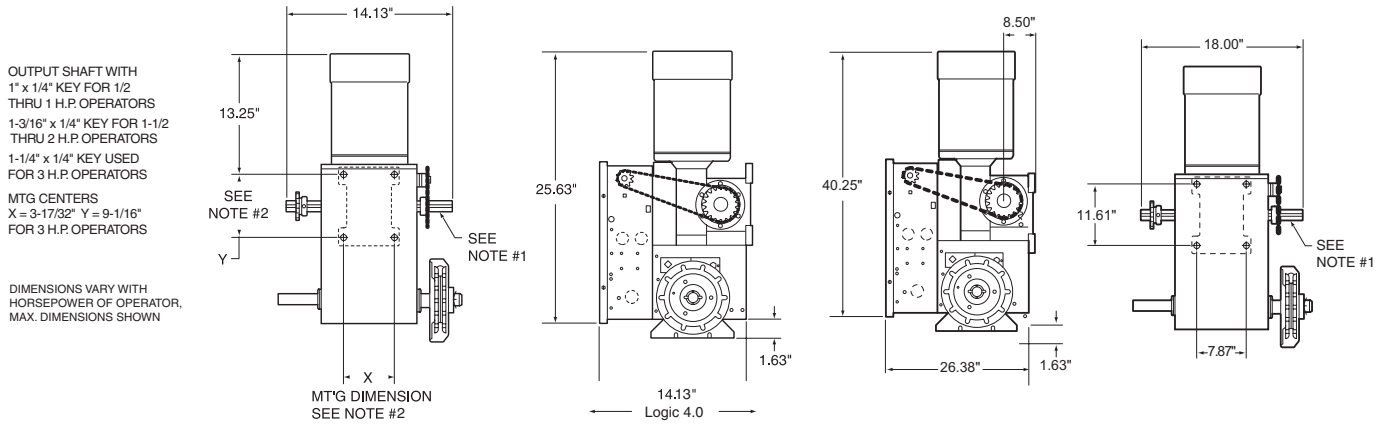
Project _____

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 GH product data sheet for general information
- 2) Refer to drawing _____ for wiring diagram

Manufactured by:
The Chamberlain Group, Inc.
845 Larch Avenue • Elmhurst, Illinois 60126

For More Information:
call (800) 323-2276
visit www.liftmaster.com or
<http://specs.liftmaster.com/architectscorner>

HORSE POWER	MOTOR AMPERAGE RATING				
	VOLTAGE - PHASE - 60Hz				
	115-1Ø	230-1Ø	230-3Ø	460-3Ø	575-3Ø
1/2	11.2	5.6	3.1	1.4	1.2
3/4	11.2	5.6	3.1	1.4	1.2
1	13.6	6.8	4.0	1.8	1.4
1-1/2	17.5	8.7	6.6	3.1	2.5
2	-	-	6.6	3.1	2.5
3	-	-	9.0	4.3	-

LiftMaster®

Commercial Door Operators