Low-Profile Door Operator Specifications

MODEL APT
COMMERCIAL DOOR OPERATOR

PART 1 GENERAL

1.1 SECTION INCLUDES
A. Apartment House door operators.

1.2 RELATED SECTIONS
** Note to Specifier: Please list all applicable CSI Masterformat Sections related to Automatic Door Operators requiring coordination.

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 limited lifetime 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. Email: www.chamberlain.com
B. Substitutions: Not permitted.
C. Requests for substitutions will be considered in accordance with provisions of Section 01600.

2.2 APARTMENT HOUSE DOOR OPERATOR
A. Low-Profile Apartment House Operator: Resilient mount motor with overload protection and emergency disconnect with auto-reconnect trolley assembly for manual door operation; Model APT; Chamberlain, Elmhurst, IL.
1. Electric Operator: Model APT low-profile assembly, cULus Listed and cULus Labeled, with electric motor and factory-prewired motor controls, 3-button OPEN/CLOSE/STOP control station, conduit-encased wiring from control circuit to motor, and accessories required for proper operation; operator shall drive the door at a speed of approximately 6 to 7 inches (150 mm) to 7 inches (178 mm) per second. Operator vertical profile shall not exceed 11 inches (279 mm).
a. Drive Reduction: Heavy-duty 5L V-belt and chain/sprocket secondary; 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 and quick disconnect door arm to facilitate manual operation.
b. Brake: Standard solenoid brake to stop and hold 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, 1/2 Horsepower, 115 volts, 1 phase resilient-mount continuous-duty type motor, protected against overload by current sensing and thermal overload devices.
e. Solid-State 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.
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 #48 roller chain with emergency disconnect for manual door operation.
h. Track: Heavy-duty, double-angle, 11 gauge galvanized steel.
i. Trolley Assembly: 2 inch (51 mm) by 2 inch (51 mm) galvanized steel angle rails with cast aluminum trolley including plated steel rail spacers with a nylon chain-guide assembly.
2. Primary Entrapment Protection Safety Devices
** NOTE TO SPECIFIER **
For any type of operating mode or features beyond basic constant contact on the 3-Button station 'Close' button to lower the door, one of the following UL-Approved and 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.
4. Trolley Track: 2 inch (51 mm) by 2 inch (51 mm) galvanized steel angle rails with automatic reconnecting trolley and shall include plated steel rail spacers with nylon chain-guide assembly; nylon inserts will be provided on trolley mechanism and rail spacers to reduce vibration and chain noise.

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

Amarr® GARAGE DOORS