

Architectural Specifications for LiftMaster HS 670 Hydraulic Slide Gate Operator

(For Inclusion within Section 02829 Gate Operators)

Part 1 – General

1.1 Section Includes

- A. Slide Gate Operators and Accessories
- B. Access Controls

1.2 Related Sections

- A. Section 02820 – Fences and Gates
- B. Section 03300 – Cast-In Place Concrete – Concrete Mounting Pad
- C. Section 11150 - Parking Control Equipment
- D. Section 11150 - Parking Control Equipment
- E. Section 16131 – Conduits
- F. Section 16155 - Equipment Wiring

1.3 References

- A. UL325 – Standard for Safety for Door, Drapery, Gate, Louver, and Window Operators and Systems
- B. UL991 – Standard for Safety – Tests for Safety-Related Controls Employing Solid-State Devices

1.4 Submittals

- A. Submit under provisions of Section 01300
- B. Product Data: Equipment list, system description, block diagrams on equipment to be finished, electrical wiring diagrams for installation, and manufacturer's data sheets on each product to be used, including:
 - 1. Preparation instructions and recommendations
 - 2. Storage and handling requirements and recommendations
 - 3. Installation methods

1.5 Quality Assurance

- A. Provide documentation of maintenance and repair service availability for emergency conditions
 - 1. Installer Qualifications: Factory authorized contractor specifically trained in gate operation systems of the type found within this section

1.6 Warranty

- A. Warranty: Manufacturers standard warranty of five years for commercial installation

Part 2 – Products

2.1 Manufacturer

- A. Acceptable Manufacturer: Chamberlain/LiftMaster, 845 Larch Avenue, Elmhurst, Illinois 60126. Telephone: (800) 282-6225
- B. Substitutions: Not permitted
- C. Requests for substitutions will be considered in accordance with the provisions of Section 01600

2.2 Parking Gates

- A. Hydraulic Slide Gate Operator
 - a. Chamberlain/LiftMaster HS 670 Heavy Duty Hydraulic GC or GI (Note to Specifier: Select one) Model Slide Gate Operator that provides continuous cycle operation for gates up to 3000 lbs. (GC Model) or 5000 lbs. (GI Model) and 80 ft. in length with a traveling speed of up to 12" per second (GC Model) or 18" per second (GI Model)
 - a. UL Classification: (Note to Specifier: Select one)
 - 1) (GC Model) Conforms to Class I, when tested in accordance with UL325

- 2) (GC Model) Conforms to Class II, when tested in accordance with UL325
- 3) (GI Model) Conforms to Class III, when tested in accordance with UL325
- 4) (GI Model) Conforms to Class IV, when tested in accordance with UL325
- b. Operator Enclosure: Powder-coated, weatherproof, locking, 14 gauge pre-galvanized steel cabinet over a metal frame
- c. Operator Motor:
 - 1) GC Model - 1 HP Continuous Duty motor with built-in overload protection in 115, 208, or 230 VAC 60 Hz Single Phase (Note to Specifier: Select One) operation
 - 2) GI Model - 2 HP Continuous Duty motor with built-in overload protection in 208, 230, 460, or 575 VAC 60 Hz Three Phase (Note to Specifier: Select One) operation
- d. Open and Close Limit Settings: NEMA 4 limit switches that are modular and fully adjustable
- e. Control circuit: LiftMaster GL solid-state control board; low-voltage control inputs protected from external spikes and surges that provides long distance control of wiring runs over 1,000 ft. for connection of a full range of optional external devices including loop detectors, telephone entry systems, access control systems, and radio receivers
- f. Additional required controls:
 - 1) Internally-mounted RF receiver tuned at 315 MHz
 - 2) Inherent obstruction sensing providing separate, single force adjustments for both open and closed directions, allowing a closing gate to reverse to the opposite limit and stop when encountering an obstruction
 - 3) External obstruction sensing providing separate open and close cycle input connections for external contact and non-contact sensors
 - 4) Maglock control relay to activate and deactivate an optional magnetic lock for securing the gate
 - 5) UL 325-compliant entrapment warning alarm system providing ability to offer a warning tone which begins 3-seconds prior to gate movement and continues during gate operation
 - 6) Loop detector inputs allowing for the connection of exit, shadow, and interrupt loop detectors
 - 7) Dual gate operation 2-wire control system that provides for the operation of two separate gate operators in unison at a single entrance and also provides the ability to connect accessories to either operator
 - 8) Timer-to-close providing adjustable timer settings between 1 and 180 seconds which resets upon receiving any additional open commands
 - 9) Sequenced Access Management System providing ability to control a slide or swing gate operator in tandem with a barrier gate operator
 - 10) Maximum run timer to protect gate and operator from damage by limiting run time to 120 seconds
- g. Emergency Release: Manual hydraulic release for manual operation of gate during emergencies and maintenance work
- h. Emergency Stop: Stop button in a weather-tight outdoor enclosure to halt operation of the operator in an emergency situation
- i. Accessory Power: One 24 VAC connection for operator accessories, including a radio receiver and loop detectors

Part 3 – Execution

3.1 Examination

- A. Do not begin installation until substrates have been properly prepared
- B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding

3.2 Preparation

- A. Clean surfaces thoroughly prior to installation
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions

3.3 Installation

- A. Install in accordance with manufacturer's specifications
- B. Mount directly to concrete pad, firmly secured, plumb, and level
- C. Mount to mounting pedestal; provide base plate
- D. Wire in accordance with National Electric Code
- E. Enclose all splices in easily accessible junction boxes or on terminal boards
- F. Tag and identify all cable runs in all junction boxes
- G. Test system and adjust to assure components and accessories are properly connected and in working order

3.4 Preparation

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

3.5 Maintenance

- A. Provide Owner with two copies of operation, installation, and maintenance manuals including wiring diagrams
- B. Provide owner with two copies of risers, layouts, and special wiring diagrams showing any changes to standard drawings
- C. Maintain at three-month intervals, checking external reversing devices once per month