

# Architectural Specifications for LiftMaster SL 595 Gate Operator

(For Inclusion within Section 2829 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 11150 – Parking Control Equipment
- C. Section 16131 – Conduits
- D. Section 16115 – 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
- C. UL Listed Product

### 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
- B. Manufacturer is an ISO9001/2000 Certified Company

### 1.6 Warranty

- A. Warranty: Manufacturers standard warranty for two years

## 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. Slide Gate Operator
  - a. Chamberlain/LiftMaster SL 595 Model Slide Gate Operator that provides continuous cycle operation and a traveling speed of up to 12" per second
  - b. UL Classification: (Note to Specifier: Select one)
    - 1) Conforms to Class I, when tested in accordance with UL325
    - 2) Conforms to Class II, when tested in accordance with UL325
    - 3) Conforms to Class III, when tested in accordance with UL325

- 4) Conforms to Class IV, when tested in accordance with UL325
- c. Operator Motor (Note to Specifier: Select one of the following):
  - 1) ½ HP Continuous Duty motor with built-in overload protection in 115, 208, or 230 VAC 60 Hz Single Phase operator for gates up to 1100 lbs. and over 45 ft. (Overhead) or 25 ft. (Cantilever) in length
  - 2) 1 HP Continuous Duty motor with built-in overload protection in 208, 230, 460, or 575 VAC 60 Hz Three Phase operator for gates up to 1700 lbs. and over 70 ft. (Overhead) or 35 ft. (Cantilever) in length
  - 3) 1.5 HP Continuous Duty motor with built-in overload protection in 208, 230, 460, or 575 VAC 60 Hz Three Phase operator for gates up to 2100 lbs. and over 90 ft. (Overhead) or 45 ft. (Cantilever) in length
  - 4) 2 HP Continuous Duty motor with built-in overload protection in 208, 230, 460, or 575 VAC 60 Hz Three Phase operator for gates up to 2500 lbs. and over 90 ft. (Overhead) or 45 ft. (Cantilever) in length
- d. Drive System: 20:1 gear reduction using worm-gear reduction in synthetic oil bath with a solenoid-activated brake system that prevents back-driving
- e. Open and Close Limit Settings: Limit switches are modular and fully adjustable
- f. Control circuit: LiftMaster GL Security+ solid state rolling code remote 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
- g. Additional required controls:
  - 1) Built-in LiftMaster 312HM Radio Receiver
  - 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 operator 2-wire control system that provides for the operator 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
- h. Emergency Release: External manual hydraulic release for manual operation of gate during emergencies and maintenance work
- i. Emergency Stop: Stop button in a weather-tight outdoor enclosure to halt operation of the operator in an emergency situation
- j. Accessory Power: One 24 VAC connection for operator accessories, including a radio receiver and loop detectors
- k. Optional Equipment:
  - 1) Integral thermostatically-controlled fin heater kit for use in cold weather climates. Note: 115V (65 32449) or 208-575V (65 32448) are meant for factory installation
  - 2) Diagonal support brace (G65 3509)
  - 3) #50 Nickel Plated Chain, bulk pack 25 ft. with two master links (G19 3025)

- 4) Fire access release kit (G60FAR)
- 5) Remote antenna mounting kit (86LM) for use in remote locations

## **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