

# Architectural Specifications for Chamberlain ELITE™ Miracle-One Residential Linear Swing Gate Operator

(For Inclusion within Section 2827 Gate Operators)

## Part 1 – General

### 1.1 Section Includes

- A. Swing gate operators with integral battery backup systems and accessories
- B. Sensors and 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 16131 – Conduits
- E. 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

### 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 for two years on electronics and mechanism and 10 years on chassis and cover

## 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 Slide Gate Operator

- A. Residential 24VDC Residential Linear Swing Gate Operator for Single or Double Gates (using Master/Second package)
  - 1. Chamberlain/Elite™ Miracle-One Residential Linear Gate Operator
    - a. Gate capacities: For Open inside/Close outside or Open outside/Close inside operation of swing gates up to 600 lbs and lengths to 15 feet for each leaf.

- 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: Low voltage 24V DC 12 amp motor with variable speed soft start/stop using limit switch system that provides 600 lbs. of operating torque without a positive stop requirement providing extended gate system life; provides a travel speed of 14 to 18 seconds to provide a 90° opening for up to 100 cycles per day; protection is provided via spike suppressors
- d. Control circuit: Microprocessor electronics and solid-state control board in a weatherproof housing; low-voltage control inputs to provide for connection of a full range of optional external devices including safety loop, photocell sensors, telephone entry access systems, and keyed manual disconnect switch operation (to provide release and manual operation of the gate in emergency situations); provides outputs for sensor alarm, alarm system, and magnetic locks; provides LED indication of all input and output functions
- e. Additional required controls:
  - 1.) Internally-mounted RF receiver tuned at 315 MHz pre-wired for compatibility with LiftMaster Security+ transmitters
  - 2.) Inherent obstruction sensing providing a slight reverse/full stop if an object is contacted while opening or a complete reopen if an object is contacted while closing
  - 3.) Timer-to-close providing adjustable timer settings between 3 and 60 seconds or push open/stop/close operation
  - 4.) Battery Backup: The weatherproof control housing shall contain a standard, integral battery backup system to automatically engage in the event of a power loss and auto-reset to normal operation when power is restored; battery backup shall provide complete operation of the gate operator for 100-200 cycles and all DC control devices and sensing devices, including all sensing loops, to insure proper and expected operation of the barrier gate system in the event of a power loss; battery charging shall be accomplished by an integral regulated battery management system that maintains proper battery levels to insure no disruption in service in the event of line power failure.
  - 5.) Integral anti-theft system alarm with external alarm reset button
- f. Mounting: Left- or right-hand operation to provide flexibility in determining orientation either prior to or during installation
- g. Optional Equipment (Note to Specifier: Delete all not applicable)
  - 1.) Master/Second option providing a cable extension kit consisting of a direct burial wire, junction box and connecting hardware to provide synchronized movement between two gate operators in a double gate installation at a single entrance
  - 2.) Solar panel package that allows for operation as an independent unit with the use of a DC adapter and solar panel

## **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