

Architectural Specifications for LiftMaster MAS/MAST

(For Inclusion within Section 11151 Parking Gate Operators)

Part 1 – General

1.1 Section Includes

- A. Parking gates and operators with battery backup systems
- B. Sensors and Controls

1.2 Related Sections

- A. Section 16131 – Conduits
- B. 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 Parking Gate Barrier Operator

- A. Swing-up Arm Barrier Gate Operator
 - 1. Chamberlain/LiftMaster Mega ARM Sprint (Model Number: MASDCBB)/ Mega ARM Sprint Tower (Model Number: MASTDCBB) High-Performance DC Barrier Gate Operator that provide proper 90-degree orientation of the barrier arm to the housing
 - a. Gate capacities: For barrier gates up to 8' (soft-padded arm) in length operating up to 10,000 cycles per day.
 - 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
- b. Chassis: Manufactured from ¼” rustproof T-6 aluminum alloy for superior heat and corrosion resistance; powder-coated
- c. Operator: ½ HP Continuous Duty 24VDC operator
- d. Control circuit: Microprocessor (RISC) electronics and solid-state control board; low-voltage control inputs to provide for connection of a full range of optional external devices including loop detectors, access control systems, and radio receivers
- e. Additional required controls:
 - 1) Internally-mounted RF receiver tuned at 315 MHz
 - 2) Inherent obstruction sensing providing separate force adjustments for both open and closed directions, allowing a closing gate to reverse to open and an opening gate to stop
 - 3) Soft start/stop capabilities providing extended gate system life
 - 4) Dynamic electronic braking to provide gate position control and ensure consistent gate closing without coasting
 - 5) Magnetic sensing to control arm position and set the arm limits for the up and down positions
 - 6) Dual gate operation capabilities to allow two separate gate operators to operate in unison at a single entrance
 - 7) Timer-to-close providing adjustable timer settings between 1 and 33 seconds
- f. Battery Backup: The barrier gate housing shall contain an integral and internally-mounted 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 not only the gate operator, but 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.
- g. Mounting: Left- or right-hand mounting capabilities to provide flexibility in determining arm orientation either prior to or during installation
- h. Gate arm: 8’ breakaway soft-padded aluminum arm; padding shall be (select one: Silver, Pink, Red, Blue, Purple, Aqua, and Yellow) in color
- i. Optional Equipment (Note to Specifier: Delete all not applicable)
 - 1) Sequenced Access Management System providing ability to control a slide or swing gate operator in tandem with a barrier gate operator
 - 2) Heater kit for use in cold weather climates

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