SECTION 32 31 00

ELECTRIC GATE OPERATORS



Display hidden notes to specifier by using “Tools”/“Options”/“Display”/“Hidden Text”.

\*\* NOTE TO SPECIFIER \*\* LiftMaster; Electric Gate Operators.

This section is based on the products of The LiftMaster Group, Inc., which is located at:

 300 Windsor Drive

 Oak Brook, IL 60523

 Tel: 800.282.6225

 Email: specs@LiftMaster.com

 Web: LiftMaster.com

 [{click Here} for additional information.](http://www.arcat.com/arcatcos/cos42/arc42485.html?src=spec)

LiftMaster’s full commercial and residential garage door operator/gate operator/access control product lines meet the needs of Architects, Designers, Engineers, and Specifiers in any design or conceptual plan, while offering 100 percent compliance with UL 325 safety and construction codes. Our entire product line also contributes to energy-efficiency credits for LEED green building certification from the U.S. Green Building Council. LiftMaster is a registered presenter of the American Institute of Architects and is approved to present any of our AIA CEUs at your firm’s location. For learning objectives and to schedule a Lunch & Learn for your firm, please send a request to specs@LiftMaster.com. To find a complete library of architectural specifications, shop drawings, CSI format 3-part specs, CAD, and BIM product renderings, visit LiftMaster.com.

1. GENERAL
	1. SECTION INCLUDES

\*\* NOTE TO SPECIFIER \*\* Delete items below not required for project.

* + 1. Electric Gate Operators:
			1. High-speed commercial DC barrier gate operators with built-in Battery Backup (LiftMaster Model MAS Series High Speed).
		2. Monitored Photo Eyes

\*\* NOTE TO SPECIFIER \*\* Delete items below not required for project.

* + - 1. Monitored Retro-Reflective Photo Eyes (LiftMaster Model LMRRUL)
			2. Monitored Through-Beam Photo Eyes (LiftMaster Model LMTBUL)
	1. RELATED SECTIONS

\*\* NOTE TO SPECIFIER \*\* Delete any sections below not relevant to this project; add others as required.

* + 1. Section 02820 - Fences and Gates: Adjoining fences and gates.
		2. Section 03300 - Cast-in-Place Concrete: Concrete mounting pads.
		3. Section 11150 - Parking control equipment.
		4. Division 16 - Requirements for electrical connections.
	1. REFERENCES

\*\* NOTE TO SPECIFIER \*\* Delete references from the list below that are not actually required by the text of the edited section.

* + 1. National Electrical Manufacturers Association (NEMA): NEMA ICS 6 - Industrial Control and Systems: Enclosures.
		2. Underwriters Laboratories (UL): UL 325 - Standard for Safety for Door, Drapery, Gate, Louver, and Window Operators and Systems.
		3. Underwriters Laboratories (UL): UL 991 - Standard for Tests for Safety-Related Controls Employing Solid-State Devices.
		4. International Organization for Standardization: ISO 9001 - Quality Management Systems.
	1. SUBMITTALS
		1. Submit under provisions of Section 01300.
		2. Product Data: Equipment list, system description, 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.
		3. Shop Drawings: Submit shop drawings showing layout, profiles, and product components, including anchorage, edge conditions, and accessories.
			1. Operation, installation, and maintenance manuals including wiring diagrams.
			2. Risers, layouts, and special wiring diagrams showing any changes to standard drawings.
	2. DELIVERY, STORAGE, AND HANDLING
		1. Deliver, store, and handle materials and products in strict compliance with manufacturer’s instructions and industry standards.
		2. Store products indoors in manufacturer’s original containers and packaging, with labels clearly identifying product name and manufacturer. Protect from damage.
	3. QUALITY ASSURANCE
		1. Manufacturer Qualifications: ISO 9001 Certified Manufacturer.
		2. Installer Qualifications: Installation performed by factory authorized contractor specifically trained in gate operation systems of the type found within this section.
			1. Provide documentation of maintenance and repair service availability for emergency conditions.
			2. Provide quarterly maintenance for one year following Substantial Completion of the Project.
	4. WARRANTY
		1. Manufacturer’s Standard Limited Warranty:
			1. Warranty Period: 2 years for operator, 10 years for operator frame.
1. PRODUCTS
	1. MANUFACTURERS
		1. Acceptable Manufacturer: LiftMaster; 300 Windsor Drive; Oak Brook, IL 60523. ASD. Toll-Free: 800.282.6225. Email: specs@LiftMaster.com. Web: LiftMaster.com.

\*\* NOTE TO SPECIFIER \*\* Delete one of the following two paragraphs; coordinate with requirements of Division 1 section on product options and substitutions.

* + 1. Substitutions: Not permitted.
		2. Requests for substitutions will be considered in accordance with provisions of Section 01600.
	1. GATE OPERATORS
		1. Gate Operators: LiftMaster MAS Series High-Speed Commercial Barrier Gate Operators with Built-in Battery Backup.

\*\* NOTE TO SPECIFIER \*\* Delete model not required.

* + - 1. LiftMaster MAS Mega Arm Barrier Gate Operators with plastic cover.
			2. LiftMaster MAST Mega Arm Barrier Gate Operators with aluminum cover.
			3. Compliance: UL Listed. Compliant to the UL 325, UL 991 and CSA C22.2 No. 247 standards.
				1. This model is intended for use in Class I, II, III and IV vehicular barrier gate applications.
			4. Warranty: 2 years.
			5. Operation:
				1. Soft start/stop.
				2. Universal Controller: 8 inputs right or left-handed operation safety-stop.
				3. Anti-tailgate, quick-close features.
				4. Selectable Auto Open: 15 seconds after power failure or upon battery depletion barrier arm can be set to automatically open. 15-second delay helps reduce nuisance callbacks due to short power interruptions or brownouts.
			6. Operator Speed: Open or close speed of 0.9 second.

\*\* NOTE TO SPECIFIER \*\* Delete gate arms not required.

* + - 1. Gate Arm: Breakaway arm; held in place with breakaway retaining nuts. If arm is hit, it will break away and can be re-installed; can be set up for right or left-hand mount.
			2. Gate Arm: Length 8 feet (2438 mm) long, yellow padded arm.
			3. Motor: 1/2 HP, 24V DC, 800 RPM motor, 10,000 cycles per day.
			4. Electrical Power Requirements: 120/220V AC.
			5. Accessory Electrical Power Requirements: 24V DC 500 mA Battery Backup for accessory power.
			6. Gear Reduction: 60:1 wormgear reduction in synthetic oil bath.
			7. Chassis: Powder-coated 1/4-inch (6.35 mm) T-6 aluminum alloy.
			8. Drive System: No. 80 gearbox.
			9. Built-in Receiver: Single remote control solution for gate access and additional access points. Ability to add up to 50 remote controls.
			10. Magnetic Limit Sensors: Designed for high-cycle applications, contain no moving parts to wear out, provide reliable operation.
			11. Surge Protection: Built-in at point of incoming line voltage from power spikes, surges.
			12. Auxiliary Outlet: Powers accessories devices.
			13. Battery Backup: Provides operation during power outages to maintain traffic flow. Automatically resets to normal operation when power is restored; provides up to
			900 full cycles with a 12 foot (3658 mm) arm.

\*\* NOTE TO SPECIFIER \*\* Delete optional accessories if not required.

* + - 1. Accessories: Provide the optional accessories listed below.
				1. Clutch: Allows arm to be manually pushed open. Arm automatically resets to normal closed position upon receiving activation. Ideal for areas that are concerned with vandals damaging arm.
				2. LiftMaster EL2000 Commercial and Gated Community Telephone Entry System.
				3. LiftMaster STAR1000 Commercial Access Control Receiver.
				4. LiftMaster 811LM 1-Button Encrypted DIP Remote Control.
				5. LiftMaster 813LM 3-Button Encrypted DIP Remote Control.
				6. LiftMaster PPWR Passport Receiver with Security+ 2.0 Technology.

LiftMaster PPV1 Passport 1-Button Remote.

LiftMaster PPK1 Passport 1-Button Mini Remote.

* + - * 1. LiftMaster KPR2000 Single Access Control Keypad and Proximity Reader.
				2. LiftMaster LD7LP Low-Power Loop Detector.
				3. LiftMaster 361LM 1-ButtonRemote Control.
				4. LiftMaster 363LM 3-Button Remote Control.
1. EXECUTION
	1. EXAMINATION AND PREPARATION
		1. Inspect and prepare substrates using the methods recommended by the manufacturer for achieving best result for the substrates under project conditions.
		2. Do not proceed with installation until substrates have been prepared using the methods recommended by the manufacturer and deviations from manufacturer’s recommended tolerances are corrected. Commencement of installation constitutes acceptance of conditions.
		3. If preparation is the responsibility of another installer, notify Architect in writing of deviations from manufacturer’s recommended installation tolerances and conditions.
	2. INSTALLATION
		1. Install in accordance with manufacturer’s instructions. Test for proper operation and adjust until satisfactory results are obtained.
	3. PROTECTION
		1. Protect installed products until completion of project.
		2. Touch-up, repair or replace damaged products before Substantial Completion.

 END OF SECTION