

Solar Powered Chamberlain/LiftMaster LA 412 Residential Linear Swing Gate Operator

(For Inclusion within Section 2829 Gate Operators)

Part 1 – General

1.1 Section Includes

- A. Solar Powered 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 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

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 on electronics and mechanism

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 Complete Solar Powered Residential Linear Swing Gate Operator System LA412

- A. Residential 12VDC Solar Powered Residential Linear Swing Gate Operator System for Single or Double Gates (using Master/Second packages LA412CONT/LA412-S)
 - 1. Chamberlain/LiftMaster LA 412 Solar Powered Residential Linear Swing Gate Operator
 - a. Gate capacities: For Open inside/Close outside or Open outside/Close inside operation of swing gates up to 550 lbs and lengths to 16 feet for each leaf.
 - b. UL Classification: (Note to Specifier: Select one)
 - 1.) Conforms to Class I, when tested in accordance with UL

- c. Operator: Low voltage 12V DC with variable speed soft start/stop with electronic limit switch system that provides extended gate system life; provides a travel speed of 15 seconds to provide a 90° opening for up to max. 50 cycles per day depending upon seasonal climate and available sunlight. Solar operator not available for areas with temperature that reach below -4 F. Includes arm, control box, standard 10W solar panel, and batteries.
- 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 solar friendly external devices including safety loop detectors, photocell sensors, wireless access control systems, and a keyed manual disconnect (to provide release and manual operation of the gate in emergency situations); provides LED indication of all input, status, and diagnostic capabilities
- e. Additional required controls:
 - 1.) Internally-mounted RF receiver tuned at 315 MHz pre-wired for compatibility with LiftMaster Security+ and Passport remote controls
 - 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. External obstruction sensing input connections are provided for photo-eyes and edge sensor devices
 - 3.) Timer-to-close providing adjustable timer settings between 0 and 180 seconds which resets upon receiving additional open commands
 - 4.) Control Inputs allow the connection of external devices. Low power draw or wireless accessories are recommended to minimize electrical current usage
 - 5.) Bi-Part latch for dual or double gate applications requiring one leaf to open or close before the other
- f. Mounting: Left or right-hand operation to provide flexibility in determining orientation either prior to or during installation
- g. Popular Solar Friendly Optional Equipment (Note to Specifier: Delete all not applicable)
 - 1.) Primary/Secondary Package; LA412 is available in a second package which includes a cable extension kit consisting of 40 ft. direct burial wire, junction box, and connecting hardware. For use in applications where two gate operators are needed.
 - 2.) U-Bolt Mounting Kits: 6" post mount kit (50-19509); 4" post mount kit (50-19511); 2.5" post mount kit (50-19512)
 - 3.) Available Loop Detectors
 - 4.) Solenoid Gate Lock (SGLOCK12V)
 - 5.) The Protector System safety sensors prevent gate from closing on people, pets, and objects (50-220). Includes mounting brackets
 - 6.) Wireless Keypad WKP250LM – WKP5LM

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