SECTION 32 31 11

VEHICULAR GATE OPERATORS

MODEL RCSW36V SWING GATE OPERATOR

Display hidden notes to specifier by using ‘Tools’/‘Options’/‘View’/‘Hidden Text’. On newer versions of Microsoft Word click on round Windows logo in top left corner, Click on ‘Word Options’ button at bottom of drop down menu. Click on ‘Display’ on left menu bar, and check the box for ‘Hidden Text’.

## PART 1 GENERAL

### 1.1 SECTION INCLUDES

A. Vehicular Gate Operators.

### 1.2 RELATED SECTIONS

A. Section 03 – Concrete

B. Section 05 – Metal Work

C. Section 26 – Electrical

D. Section 28 – Electronic Safety and Security

E. Section 31 – Earthwork

F. Section 32 – Exterior Improvements

## 1.3 REFERENCES

A. Underwriters Laboratories UL 325: Standard for Safety – Door, Drapery, Gate, Louver, and Window Operators and Systems

B. Underwriters Laboratories UL 991: Standard for Safety – Tests for Safety-Related Controls Employing Solid-State Devices

C. Canadian Standards Association CSA C22.2 No. 247-14: Operators and systems of doors, gates, draperies, and louvres.

D. ASTM International ASTM F2200-20: Standard Specification for Automated Vehicular Gate Construction

E. National Electrical Manufacturers Association NEMA ICS 6: Enclosures for Industrial Controls and Systems

## 1.4 DESIGN / PERFORMANCE REQUIREMENTS

A. Products Requiring Electrical Connection: Listed and classified by Underwriters Laboratories, Inc. acceptable to authority having jurisdiction as suitable for purpose specified.

B. Electric Motors shall be direct-current brushless commutation.

C. Wiring Connections: Requirements for electrical characteristics.

1. 115 volts, 60 Hz single phase.
2. 230 volts, 60 Hz single phase.
3. Solar powered, 24V DC panel.

## 1.5 SUBMITTALS

A. Submit under provisions of Section 01300.

B. Product Data: Manufacturer's data sheets on each product to be used, including:

1. Preparation instructions and recommendations.
2. Storage and handling requirements and recommendations.
3. Details of construction and fabrication.
4. Installation methods.

C. Shop Drawings: Include detailed plans, elevations, details of framing members, required clearances and accessories. Include relationship with adjacent construction.

## 1.6 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing products specified with minimum of five years documented experience.

B. Installer Qualifications: Installation shall be performed by certified contractor specifically trained in vehicular gate operator installation.

C. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.

1. Install in areas designated by Architect.
2. Do not proceed with remaining work until workmanship and installation is approved by Architect.
3. Refinish mock-up area as required to produce acceptable work.

## 1.7 DELIVERY, STORAGE, AND HANDLING

A. Store products in manufacturer's unopened packaging until ready for installation.

B. Protect materials from exposure to rain, snow, ice and hail. Do not deliver until after wet work is complete and dry.

C. Store materials in a dry, warm, ventilated weathertight location.

## 1.8 PROJECT CONDITIONS

A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

## 1.9 WARRANTY

A. Provide operators with a 5-year limited warranty on motor and parts.

## PART 2 PRODUCTS

### 2.1 MANUFACTURERS

A. Acceptable Manufacturer: Overhead Door Corp., 2501 S. State Hwy. 121, Suite 200, Lewisville, TX 75067. ASD. Tel. Toll Free: (800) 275-3290. Phone: (469) 549-7100. Fax: (972) 906-1499. Web Site: www.overheaddoor.com. E-mail: sales@overheaddoor.com.

B. Substitutions: Not permitted.

C. Requests for substitutions will be considered in accordance with provisions of Section 01600.

### 2.2 VEHICULAR GATE OPERATORS

A. Swing Gate Operator: Model RCSW36V:

1. Articulated arm swing gate operator.
2. Compliance: UL Listed, Class I, II, III, AND IV. Compliant with UL 325 UL991 and CSA C22.2 No. 247.
3. Maximum gate ratings allowed gate weight vs gate length: 600lbs at 18ft, 800lbs at 16ft, 1000lbs @ 14ft, 1200lbs @ 12ft, 1500lbs @ 10ft.
4. Electrical power: 115VAC field switchable to 230VAC, or optional 24V solar panel (20W) (50W) (90W).
5. Accessory outlet: two 115VAC outlets, 6A max current.
6. Power switches: One AC toggle switch and one DC toggle switch.

7. Battery backup: built-in
8. Reset switch: NEMA 4 reset switch on exterior of control enclosure for UL 325 alarm reset.
9. Motor: 36V Brushless DC, 100% continuous duty cycle.
10. Motor speed: adjustable acceleration, deceleration, max speed, slowdown speed, and slowdown distance.
11. Direct drive motor to primary and secondary worm gear in oil bath reduction.
12. Limit switches: electromechanical set via LCD, absolute position type.
13. Frame: steel with rust resistant plating.
14. Enclosure: dark grey polyethylene.
15. Mounting type: pad or post (optional bracket kit)
16. Mounting position: right- or left-hand mount.
17. Drive chain: articulating two-piece arm assembly.
18. Opening/closing speed: 90° in 15-18 seconds.
19. Manual release: drive hub release lever

B. Control System: Microprocessor based logic board with a separate motor drive board. System incorporates a dual line backlit 8-character Liquid Crystal Display (LCD) to display system status and for setup. System shall include the following:

1. Control action will be constant contact until the minimum required number of entrapment devices are installed.
2. Adjustable motor speeds via LCD.
3. On board open, close, and stop control keys for local operation and setup.
4. On board timer to close.
5. On board seven-day timer with ability to set multiple opening and closing events as well as relay output actions.

6. Built-in CodeDodger® 315/390Mhz frequency cycling radio receiver capable of storing 250 single button and/or 250 Open-Close-Stop transmitters with the ability to add and/or delete transmitters individually, identify and store activating transmitter IDs.
7. Four monitored entrapment inputs; a pulsed or 10k ohm monitored photo eye and/or 10k ohm edge in the close direction and a pulsed or 10k ohm photo eye and/or 10k ohm edge in the open direction.
8. OHD Anywhere® ready (with optional Wi-Fi board).
9. Activating inputs; open, close, stop, 1-button, fire department, exit loop.
10. Loop inputs; exit, shadow, reversing.
11. Control includes connections for secondary arm in dual gate applications.
12. Wired primary/secondary control synchronization for two control panel each with one arm installation. (Optional wireless primary/secondary).
13. Adjustable bi-parting delay via LCD.
14. 800mA combined constant on and switched 24VDC outputs.
15. Built-in loop rack for up to three 10-pin pluggable loop detectors.
16. Anti-tailgating with quick close capability

C. Accessories

1. Photo eyes: monitored pulse or 10k ohm type photo eyes.
2. Edges: monitored 10k ohm type sensing edges.
3. Handheld programming pendant with multi-line backlit LCD display and 6 ft cable.
4. Pluggable loop detectors.
5. Loop rack for pluggable 10-pin loop detectors.
6. Traffic signal: red/green type.
7. Solar panel kits.
8. 33Ah batteries.

9. External radio receivers.
10. 315/390Mhz CodeDodger® transmitters.
11. Exterior NEMA 4 push button and key switch stations.
12. Interior NEMA 1 push button and key switch stations.
13. Signaling lights.
14. Horn/strobe in weatherproof gang box.

## PART 3 EXECUTION

### 3.1 EXAMINATION

A. Verify gate sizes, configuration, tolerances and conditions are acceptable.

B. Examine conditions of earthworks, driveway, concrete, masonry, metalwork and other conditions under which this work is to be performed.

C. If gate and surrounding 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 instructions.

B. Use anchorage devices or welding must be done so as to securely fasten assembly without distortion or stress.

C. Fit and align assembly including hardware; level and plumb, to provide smooth operation.

D. Coordinate installation of electrical service with Section 16150. Complete wiring from disconnect to unit components.

## 3.4 ADJUSTING

A. Test for proper operation and adjust as necessary to provide proper operation without binding or distortion.

B. Adjust hardware and operating assemblies for smooth and noiseless operation.

## 3.5 CLEANING

A. Clean components using non-abrasive materials and methods recommended by manufacturer.

B. Touch-up, repair or replace damaged products before Substantial Completion.

## 3.6 PROTECTION

A. Protect installed products until completion of project.

B. Touch-up, repair or replace damaged products before Substantial Completion.

## 3.7 SCHEDULES

A. :

1.

2.

3.

B. :

1.

2.

3.

END OF SECTION