



SECTION 08 71 13
COMMERCIAL DOOR OPERATORS

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**** NOTE TO SPECIFIER ** Overhead Door Corporation; Commercial door operator products.**

This section is based on the products of Overhead Door Corporation, which is located at:

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Lewisville, TX 75067

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[[Click Here](#)] for additional information.

Overhead Door Corporation pioneered the upward-acting door industry, inventing the first upward-acting door in 1921 and the first electric door opener in 1926. Today, we continue to be the industry leader through the strength of our product innovation, superior craftsmanship and outstanding customer support, underscoring a legacy of quality, expertise and integrity. That's why design and construction professionals specify Overhead Door Corporation products more often than any other brand.

This specification includes Overhead Door Corporation commercial electric operators to suit new construction and retrofit applications, as well as unusual or special requirements. In order to improve safety and enhance door and motor life, industry quality assurance guidelines recommend the choice of a single manufacturer for both door and operator applications.

Overhead Door Corporation is the only manufacturer of a full line of commercial and industrial doors and operators specifically designed for integral applications.

PART 1 GENERAL

1.1 SECTION INCLUDES

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

- A. Overhead Rolling Door and Grille Operators.

1.2 RELATED SECTIONS

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

- A. Section 05 50 00 - Metal Fabrications.
- B. Section 06 20 00 - Finish Carpentry.
- C. Section 08 33 00 - Coiling Doors and Grilles.
- D. Section 08 71 53 - Security Door Hardware.
- E. Section 09 90 00 - Painting and Coating.

- F. Section 27 05 39 - Surface Raceways for Communications Systems.
- G. Section 26 05 00 - Common Work Results for Electrical.

1.3 REFERENCES

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

- A. NEMA 250 - Enclosures for Electrical Equipment (1000 Volts Maximum).
- B. NEMA ICS 6 - Enclosures for Industrial Controls and Systems.
- C. NEMA MG 1 - Motors and Generators.

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 alternating-current squirrel-cage motors conforming with NEMA MG 1.

**** NOTE TO SPECIFIER ** Edit the following paragraph for power operators as required. Delete those not required.**

- C. Wiring Connections: Requirements for electrical characteristics.
 - 1. 115 volts, 60 Hz single phase.
 - 2. 208 volts, 60 Hz single phase or three phase.
 - 3. 230 volts, 60 Hz single phase or three phase.
 - 4. 460 volts, 60 Hz three phase.
 - 5. 575 volts, 60 Hz three phase.

1.5 SUBMITTALS

- A. Submit under provisions of Section 01 30 00 - Administrative Requirements.
- 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.
- D. Manufacturer's Certificates: Certify products meet or exceed specified requirements.
- E. Operation and Maintenance Data: Submit lubrication requirements and frequency, and periodic adjustments required.

1.6 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing products specified with minimum of five years documented experience.
- B. Installer Qualifications: Authorized representative of the manufacturer with minimum five years documented experience.

**** NOTE TO SPECIFIER ** Include a mock-up if the project size and/or quality warrant taking such a precaution. The following is one example of how a mock-up on a large project might be specified. When deciding on the extent of the mock-up, consider all the major different types of work on the project.**

- 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 moisture. 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

**** NOTE TO SPECIFIER ** Include the following paragraph for RSX, RMX, and CDX Models only. Delete if not required.**

- A. Provide operators with a 2 year or 20,000 cycle limited warranty on motor and parts.

**** NOTE TO SPECIFIER ** Include the following paragraph for RHX Model only. Delete if not required.**

- B. Provide operators with a 2 year limited warranty on motor and parts.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Overhead Door Corporation, 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: info@overheaddoor.com.

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

- B. Substitutions: Not permitted.
- C. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00 - Product Requirements.

2.2 OVERHEAD ROLLING DOOR AND GRILLE OPERATORS

**** NOTE TO SPECIFIER ** Model RHX Heavy Duty Operator is suitable for rolling doors with a maximum height of 24 feet and a maximum weight of 1650 pounds and with Hoist, Front-of-Hood, Top-of-Hood, Bench Mount, Wall Mount mounting configurations. Edit as required to suit project requirements.**

**** NOTE TO SPECIFIER ** Model RSX Standard Duty Egress Operator is suitable for rolling grilles with a maximum weight of 1440 pounds. Edit as required to suit project requirements.**

A. Commercial Rolling Grille Operator: Model RSX Commercial Standard Duty Egress Operator:

1. Application:

**** NOTE TO SPECIFIER ** Select one or more of the following paragraphs, edit to include model(s) required and delete the ones not required.**

- a. Rolling Steel Grilles.
- 2. Electric Motor: UL listed.
 - a. Rating:

**** NOTE TO SPECIFIER ** Consult manufacturer ' s Operator Selection Charts for door models, weights and sizes suitable for rated horsepower specified. Select ratings required and delete those not required.**

- 1) 1/2 horsepower single phase or three.
- 2) 1 horsepower single phase or three phase.
- b. Motor frame comply with:

**** NOTE TO SPECIFIER ** Select one of the following operation paragraphs for the motor horsepower specified and delete the ones not required.**

- 1) NEMA 48 for 1/2 hp single phase.
- 2) NEMA 56 for 1/2 hp three phase.
- 3) NEMA 56 1 hp all phases.
- c. Construction:

**** NOTE TO SPECIFIER ** Select construction required from the following paragraphs and delete the ones not required.**

- 1) Open drip-proof construction.
- d. Reduction: Primary reduction is Super Belt, an auto tension poly-V flex belt that does not require adjustment. Secondary reduction is by chain and sprocket.
- e. Duty cycle: Accommodate standard usage, up to 60 cycles per hour during peak usage periods.
 - 1) Brake: DC Disc type with selectable Progressive Braking for smooth stopping.
 - 2) Clutch: Adjustable friction disc type on primary reduction.
 - 3) Limit System: Limit Lock limit system, magnetic type providing absolute positioning with push to set and remote setting capabilities. Limit System shall remain synchronized with the door during manual operation, supply power interruptions, and after emergency egress release.
 - 4) Door Release Clutch: 24VDC solenoid activated clutch that releases up upon loss of primary power.
 - 5) Integral Centrifugal Governor: Governor shall limit door ascent speed during emergency egress test or alarm activated release.
- 3. Control System: Microprocessor based with relay motor controls on a single board. System incorporates a 16 character Liquid Crystal Display (LCD) to display the system status. System shall include the following:
 - a. Capable of monitoring and reporting on a variety of operating conditions, including: Current operating status, Current command status, Motor movement status, Current error status (if applicable), Hoist Interlock status (if applicable), External Interlock status, and 24VDC status.
 - b. A delay-on-reverse operating protocol.
 - c. Maximum run timers in both directions of travel that limit motor run time in the event a clutch slips or some other problem occurs.
 - d. Provisions for connection of a 2-wire monitored photo-eye or a 2-wire monitored edge sensor, as well as non-monitored standard 2-wire sensing edges, photo-eyes or other entrapment protection devices.
 - e. Control action will be constant contact close until a monitored entrapment

- f. device is installed, allowing for selection of momentary contact.
- f. Provisions for connection of single and/or 3-button control stations.
- g. Provisions for connection of an external 3-wire radio controls and related control devices.
- h. On board open, close and stop control keys for local operation.
- i. Egress activation form C output for notification of local egress activation to remote alarm system.
- j. Capable of remote egress activation via normally closed contact to egress input for emergency egress operation.
- k. Input for normally closed contact operation by test key switch or push-pull type emergency egress control station.
- l. CodeDodger radio receiver that is dual frequency cycling at 315 Mhz and 390 Mhz 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.

4. Mounting:

- a. Rolling Steel Grilles:

**** NOTE TO SPECIFIER ** Select mount type from the following three paragraphs and delete the ones not required.**

- 1) Front of hood and chain/sprocket coupling to door.
- 2) Top of hood and chain/sprocket coupling to door.
- 3) Wall-mount and chain/sprocket coupling to door.
- 4) Bench mount and chain/sprocket coupling to door.
- 5) Front of hood horizontal and chain/sprocket coupling to door.

5. Release:

- a. Release shall be a 24VDC solenoid activated clutch that releases up upon loss of primary power, or removal of 24VDC from clutch controlled by internal egress accessory board.

**** NOTE TO SPECIFIER ** Overhead Door Corporation recommends the installation of an external reversing device for all electrically operated commercial doors. If a sensing edge or some other reversing device is not installed, a constant contact control switch must be used to close the door. We recommend a Fail Safe electric sensing edge that will not allow the door to close if the sensing edge is damaged or not working properly.**

6. Entrapment Protection:

- a. Control system shall have provisions to connect monitored entrapment protection devices such as monitored electric sensing edge or monitored photo-eye and to provide constant contact close control operation in lieu of such devices.

7. Control accessories:

- a. Operator Controls:

**** NOTE TO SPECIFIER ** Select one of the following operation paragraphs and delete the one not required.**

- 1) Push-button operated control stations with open, close, and stop buttons.
- 2) Key operation with open, close, and stop controls.
- 3) Push-button and key operated control stations with open, close, and stop buttons.
- 4) Test key operated control station for testing of emergency egress operation.
- 5) Push-pull button operation for local emergency egress activation.

**** NOTE TO SPECIFIER ** Select one of the following location paragraphs and delete the one not required.**

- 6) Controls for interior location.
- 7) Controls for exterior location.
- 8) Controls for both interior and exterior location.

**** NOTE TO SPECIFIER ** Select one of the following two paragraphs and delete the one not**

required.

- 9) Controls surface mounted.
- 10) Controls flush mounted.
- b. Special Operation:

**** NOTE TO SPECIFIER ** Select one or more of the following operation paragraphs and delete the ones not required.**

- 1) Vehicle detector operation.
- 2) Radio control operation.
- 3) OHD monitored photo-eyes.
- 4) Commercial photo-eyes.
- 5) Timer Close Module for unattended timed door closing. Auxiliary control inputs, safety inputs, timer hold input and automatic door closing feature with selectable time delay. Safety inputs can be configured using on board keypad.
- 6) Commercial light package.
- 7) Auxiliary Output Module for up, down, and mid-stop limit status via several auxiliary sets of dry contacts that are microprocessor controlled. ADA compliant outputs that activate when door is moving up, down, or both directions and can be configured using the on board keypad.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify door sizes, configuration, tolerances and conditions are acceptable.
- B. Examine conditions of substrates, supports, and other conditions under which this work is to be performed.
- C. 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 instructions.
- B. Use anchorage devices to securely fasten assembly without distortion or stress.
- C. Fit and align assembly including hardware; level and plumb, to provide smooth operation.

**** NOTE TO SPECIFIER ** Select the following paragraph for electric operation of counter doors and delete if not required.**

- D. Coordinate installation of electrical service with Section 26 05 00 - Common Work Results for Electrical. 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

**** NOTE TO SPECIFIER ** Retain Paragraph below if required to suit project requirements. Identify products by name on the Drawings or use this paragraph to define the location of each type of operator to be used. The following are some examples of schedule references. Edit as required to suit project or delete and identify products on the Drawings.**

- A. :
 - 1.
 - 2.
 - 3.
- B. :
 - 1.
 - 2.
 - 3.

END OF SECTION