



record-usa
4910 STARCREST DR.
MONROE, NC 28110
(704) 289 - 9212

AUTOMATIC SWING DOOR OPERATORS

ARCHITECTURAL SPECIFICATIONS
SERIES 8100 ELECTROMECHANICAL SWING DOOR
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PART 1 - GENERAL

1.01 DESCRIPTION

A. Work included: Furnish all labor, materials, equipment and services necessary for the proper installation of the record-usa 8100 swinging door system, a High Energy Power Operated Door System as defined in ANSI/BHMA A156.10-2005 or a Low Power Operated Door System as defined in ANSI/BHMA A156.19-2002, and have an AAADM certified inspector on staff.

A. Related Work:

1. Aluminum doors and frames as described in aluminum doors and frames Section of Division 8.
2. Electrical wiring shall be as described in electrical section of the specifications. The Electrical Contractor shall provide 115V, 60 HZ, 1-phase, 15 amp dedicated circuit to the door header. Two pair of 18 AWG N.E.C. Class II wires shall be provided by the Electrical Contractor between the door header and all activation devices (buttons, switches, push plates).
3. Electrical wiring and connections by Electrical Contractor. Buttons and push plates at door locations provided by Door Operator Installer.
4. The general contractor shall provide adequate support for the door operating equipment.
5. The installer of the equipment shall inspect the condition of the support and shall notify the contractor if additional support is required. By installing his equipment, the installer accepts the support as adequate to properly support the equipment.

1.02 QUALITY ASSURANCE

- A. The door operator shall be manufactured by an ISO 9001 registered company with a minimum of 5 years experience in producing electro-mechanical door systems.
- B. Door operators and accessories shall be installed by a factory-trained contractor in strict accordance with the manufacturer's recommendations. The installed equipment shall be subject to inspection and final acceptance by the Architect.

1.03 SUBMITTALS

- A. Comply with pertinent provisions of Section 01340.
- B. Product data: Within 15 calendar days after the contractor has received the owner's notice to proceed, submit:
 1. Shop drawings showing exact dimension for each door unit including operator details, electric strike interface (if required) and wiring details. Also, show a plan indicating exact location of all activating devices.
 2. Manufacturer's specifications and other data needed to prove compliance with the specified requirements. Provide cut and data sheets on all parts being used.

1.04 PRODUCT HANDLING

- A. Comply with pertinent provision of Section 01640.

1.05 WARRANTY

- A. The record-usa 8100 equipment and controls shall be warranted for two (2) years from the date of installation. Warranty paper(s) shall be given to the owner upon completion of the job.



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PART 2 - PRODUCTS

2.01 MANUFACTURER

- A. Series 8100 Electromechanical automatic swing door operator as detailed shall be supplied by record-usa, Monroe, N.C.

2.02 MATERIALS & EQUIPMENT:

- A. Unit must be non-handed, and able to operate as an in-swing or out-swing unit with simple field modifications.
- B. The unit must be factory assembled, adjusted and tested.
- C. The door operating equipment must use the electro-mechanical 8100 series drive system utilizing a dc motor and helical gears for quiet operation. The gear box shall use an adjustable compression spring engineered for maximum life. No electro-hydraulic equipment shall be allowed.
- D. All equipment must meet the requirements of the American National Standard for High Energy Power Operated Doors, ANSI/BHMA A156.10-2005 and be adjustable to meet ANSI/BHMA A156.19-2002 Standard for Low Energy Power Operated Doors.
- E. The system must be capable of operating between -40°F (-40°C) and 140°F (60°C).
- F. Door closing shall be by spring force and monitored by the microprocessor control, capable of providing limited power assist to insure the door closes.
- G. The operator header shall be 5" (127 mm) deep by 4-1/2" (114 mm) high, by the width of the door panel(s) plus 3" (76 mm).
- H. Door activating and holding controls shall be by push plates or motion sensors. All controls shall be hard wired using standard 4x4 handicap push plates on the exterior or swing side and using jamb mounted push plates on the interior or approach side. On some existing conditions, radio controls may be accepted.

2.03 FINISH

- A. The header shall be anodized aluminum in CL 204R1 clear aluminum finish to match framing. (DB 313R1 dark bronze aluminum finish where entrance framing bronze).
Any exposed conduit shall match header in color.

2.04 FUNCTIONAL REQUIREMENTS AND MARKINGS

- A. The equipment must be designed to handle swing doors up to a weight of 250 lbs. (113 kg).
- B. Opening speed:
1. Opening speed to fully open shall be adjusted as required in ANSI/BHMA A.156.10-2005 for high energy doors and ANSI/BHMA A.156.19-2002 for low energy doors.
- C. Hold open:
1. The door shall be field adjusted to remain fully open for not less than 1.5 seconds for high energy doors and 5 seconds for low energy doors.
- D. Closing speed:
1. Doors shall be field adjusted to close from 90° to 10° as required in ANSI/BHMA A156.10-2005 or ANSI/BHMA A.156.19-2002 dependent upon final door weight.
 2. Doors shall close from 10° to fully closed in not less than 1.5 seconds.



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- E. The force required to prevent a stopped door from opening in the last 10° of opening, or at any point in closing shall not exceed 40 lbs. (133 N) applied 1" (25 mm) from the latch edge of the door.
- F. In the event of a power failure, doors shall open with a manual pressure not to exceed 30 lbs. (133 N) at a point 1" (25 mm) from the latch edge of the door.
- G. Doors shall be equipped with a sign(s) visible from either side, instructing the user as to the operation and function of the door. Signs or stickers should include the following:
 - 1. PUSH TO OPERATE
 - 2. PULL TO OPERATE
 - 3. AUTOMATIC PUSH SWITCH TO OPEN
 - 4. CAUTION – AUTOMATIC DOOR
- H. Upon completion of the work, apply a sticker to the operator header case where the owner can easily read the installer's name, address, and phone number in the event a service call is needed.
- I. The microprocessor control shall be easily field adjustable to comply with ANSI/BHMA A156.10-2005 Standard for Full energy Automatic Door Systems or ANSI/BHMA A156.19-2002 Standard for Low energy Automatic Door Systems.
 - 1. Code requirements:
 - a. Field adjustments for door opening speed, door opening force, door closing speed, and door closing force shall be standard within the unit and adjust independently from all other external requirements. The same unit will be able to be converted easily in the field from full energy to low energy without the necessitation of a new unit being provided.
- J. Display board
 - 1. Unit will provide the ability to determine diagnostic evaluation of problematic issues through a digitized display panel. When provided, the display will provide confirmation that the door is performing properly and also provide error codes when it is not. This same panel shall also provide systematic information such as counters for usage determination, and provide the installing contractor's telephone number in the event of service requirements.

2.01 SYSTEM OPERATION

- A. Doors will be operable through the use of press/push plates that fall under the knowing act regulation as defined in ANSI A156.10-2005. Safety systems which include a door mounted system will prevent the door from making contact with a user should the presence area be activated while the user is within the detection zone.

PART 3 – EXECUTION

3.01 SURFACE CONDITIONS

- A. Examine the areas and conditions under which work of this section will be performed. Correct conditions detrimental to timely and proper completion of the work. Do not proceed until existing unsatisfactory conditions are corrected.

3.02 INSTALLATION, GENERAL

- A. The general contractor shall provide adequate support for the door operating equipment so that equipment is secure and located in the proper position.

3.03 COORDINATION

- A. Coordinate as required with other trades to assure proper and adequate provision in the work of those trades for interface with the work of this section.

END OF SECTION