

SECTION 8740

IN-GROUND, AUTOMATIC SWING DOOR OPERATOR CONVERTER ADAPTED TO DAIHATSU SERIES ECS20 SWING DOOR OPERATOR

PART 1-GENERAL

1.01 DESCRIPTION

- A. This section describes the requirements for furnishing and installing the in-ground converter for the following automatic swing door operators.
1. Barrier free, handicap speed, swing door operators meeting ANSI A156.19. Electro-mechanical and electro-hydraulic types.
 2. Full speed, swing door operators meeting ANSI A156.10. Electro-mechanical and electro-hydraulic types requiring full safety systems.

B. RELATED SECTIONS

1. Exterior aluminum entrance doors as specified in Section 8950.
2. Hollow metal doors as specified in Section 8700.
3. Door hardware as specified in Section 8700.
4. Electrical connections (high and low volt) as specified in Section 16810

1.02 SUBMITTALS

- A. Product Data: Furnish manufacturer's product data and standard details including fabrication, finishing, hardware, operators (specific to manufactured unit being converted), accessories, and other components of the work. Include rough-in diagrams, wiring diagrams, parts lists, and maintenance instructions.
- B. Shop Drawings: Furnish shop drawings for fabrication and installation. Show anchors, cement casings, hardware, and other components not shown in manufacturer's instructions.
- C. Templates and Diagrams: Furnish templates, diagrams, block-out dimensions, and other data to fabricators and installers of related work for coordination of operators with doors, frames, hardware, electrical, and other work.

1.03 QUALITY ASSURANCE

- A. Manufacturer's Qualifications: Provide converters produced by OPCON Manufacturing Systems holding United States Patent number US6,176,044 B1, or by authorized and licensed OPCON manufacturer.
- B. Installer's Qualifications: An authorized OPCON technician that is also authorized by the automatic door operator manufacturer. Installer shall have not less than 3 years automatic door installation experience.
- C. Automatic Door Operator Converter shall not impede door operator compliance with ANSI A156.19 (low energy type) or ANSI A156.10 (full speed type).

PART 2-PRODUCTS

2.01 APPROVED MANUFACTURER

- A. OPCON Manufacturing Systems, Inc. www.opconusa.com
PO Box 308
Carlsbad, CA 92018
Tel: 760-720-3902 Fax: 760-720-9653
E-mail: sales@opconusa.com or Opcon@adelphia.net
Attn: Nick Nixon

2.02 OPERATOR CONVERTER FOR AUTOMATIC SWING DOORS

- A. Converter: Manufacturer's specialized unit to adapt specified automatic swing door operator to underground use. The converter shall be mounted beneath the door leaf and jamb area utilizing a standard 2 3/4" or 3 3/4" pivot setback. Reference shop drawings and templates for offset hung or center hung application. Heavy-duty pivot shall incorporate 1200 pound rated, sealed thrust bearings in 1" steel bearing plate. Bottom door arm (push or pull type) shall mount within bottom rail of swing door. Drive transfer between converter and operator shall be manufacturer's standard chain drive with tensioner. Direct shaft drive and belt drive available for some door operator models.
 - 1. Converter shall not impede manual operation of swing door.
 - 2. Converter shall not impede ANSI compliance of operator.
 - 3. Converter shall not impede operation of automatic door operator.

- B. Converter Cement Case shall be sheet steel (ASTM-A-570 Grade A) formed and welded type with galvanized coating (A568/A568M). Cement case shall incorporate a vinyl gasket at the perimeter of the cement can cover, and a shaft seal as a water and moisture barrier. Unit accommodates threshold floors, stone floors, and other floor conditions.
1. Cement case shall be encased below grade as detailed on shop drawings, utilizing (quick-set or pour-stone or equal) setting cement. A minimum 3/8" of setting cement shall be placed at all exterior vertical surfaces and along the entire bottom surface. Allow setting cement to cure as required by cement product manufacturer prior to installing door leaf.
 2. Cement case shall be field bored to accept liquid-tight conduit connections for electric power service and signal wires. Conduit, conduit connections, electric power service and signal wire to unit is furnished and installed by others as specified in electrical specification section.
- C. Operator Manufacturer shall be:
Daihatsu Diesel Mfg; contact Kenwa Co. Ltd. Osaka, Japan and New Castle, England; info@kenwa.co.uk or info@kenwa.co.jp
ECS20; Electro-Mechanical Swing Door Operator

PART 3 – EXECUTION

3.01 INSTALLATION

- A. Install operator converter using factory authorized technicians. Technicians shall also be authorized to install and tune automatic door operator. Install converter in accordance with manufacturer's instructions and reviewed shop drawings.
- B. Adjust converter drive transfer system (chain tensioner, direct shaft, or belt) to achieve smooth operation including back-check, latch, and proper limit stops.
- C. Water-test electrical conduit penetrations (high volt and low volt connections) in cement case to assure leak-free system.
- D. Certify that door operation complies with ANSI A156.19 or A156.10 as specified.

3.02 CLEANING AND PROTECTION

- A. Clean exposed operating components as recommended by manufacturer.
- B. Protect converter and automatic door operator equipment from damage and deterioration during construction.