

ED250

Installation in In-ground Case

Owner's Manual

DL4614-090 – 08-2018

| EN |

dormakaba 

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1 General information

1.1 Owner's manual

This Owner's Manual applies to the ED250 operator packaged in a cement case for in-ground floor installations.

1.2 Manual storage

This document must be kept in a secure place, and accessible for reference as required.

If the door system should be transferred to another facility, insure that this document is transferred as well.

1.3 dormakaba.com website

Manuals are available for review, download, and printing on dormakaba.com website.

1.4 Dimensions

Unless otherwise specified, all dimensions are given in inches (").

1.5 Symbols used in this manual



WARNING

This symbol warns of hazards which could result in personal injury or threat to health.

NOTICE

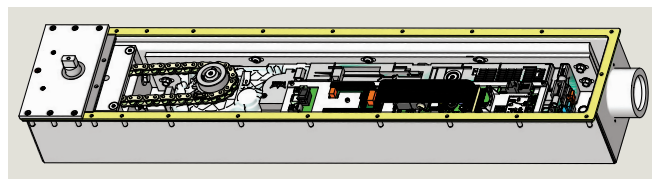
Draws attention to important information presented in this document.

CAUTION

This symbol warns of a potentially unsafe procedure or situation.

1.6 In-ground case and ED 250 operator

Fig.1.1 In-ground case and ED250 operator



2 To our customers

We are pleased that a dormakaba USA Inc. ED250 in-ground system has been selected for this installation. The system has been designed, tested and built to provide many years of service.

The purpose of this manual is to familiarize you with your ED250 in-ground swing door system.

It is essential that you "know your system" and that you recognize the importance of maintaining your door system in compliance with industry standards for safety.

It is your responsibility as owner and caretaker of the equipment, to inspect the operation of your door system on a daily basis as outlined in Chapter 4, Safety Information Checklist to insure that it is safe for use by your customers and employees.



WARNING

Should the door fail to operate as prescribed in the Safety information checklist or at any other time for any reason, do not attempt to repair or adjust the ED250 swing door system!

Access to the ED250 in-ground system must only be done by dormakaba USA Inc. certified technicians!

Call your local authorized dormakaba USA Inc. distributor for repair. The distributor's AAADM certified technicians are trained to service the ED250 in-ground swing door system using dormakaba USA Inc. installation and service manuals, and in accordance with ANSI/BHMA safety standards.

2.1 Service availability

dormakaba USA Inc. has a nationwide network of authorized distributors for sales, installation and service of its products.

2.2 Compliance with industry standards for safety

Your ED250 automatic swing door system was designed to the latest ANSI/BHMA operating and safety standards. In order to insure the continued safe operation of the door, it is important that:

- Proper decals and labels be applied and maintained on your doors (Chapter 7).
- If decals and labels have been removed, or cannot be read, contact your local authorized dormakaba USA Inc. distributor for replacement decals or labels.

3 What you should know

3.1 Distributor information

3.1.1 dormakaba USA Inc. distributor information.

Be sure that the dormakaba USA Inc. distributor has provided the following information for each door installation:

1. dormakaba USA Inc. ED250 in-ground Owner's Manual.
2. Review of the daily Safety Information Checklist (Chapter 4).
3. Instructions on how to conduct the daily Safety Information checklist by walk through example.
4. Annual compliance inspection label completion (Chapter 4).
5. Circuit breaker or disconnect location for 115 Vac power to the ED250 in-ground system.
6. ED250 program switch panel location and instructions in its use. (Para. 3.4).
7. Discussion of problems that could result from operator being allowed to operate after a malfunction observed.
8. Number to call for service or questions about your system if you are uncertain of any condition or situation.



WARNING

If there are any problems, discontinue door operation immediately and secure the door in a safe manner. Call your local dormakaba USA Inc. distributor for repair.

3.2 Knowing act

3.2.1 ANSI/BHMA standard A159.19 definition.

Consciously initiating the powered opening of a low energy door using acceptable methods including:

- Push plates.
- Fixed non-contact switches.
- Action of manually opening (pushing or pulling) a door.
- Controlled access devices such as keypads, card readers, and key switches.

3.3 Low energy power operated door

3.3.1 ANSI/BHMA standard A159.19 definition.

A door with a power mechanism that opens the door upon receipt of a knowing act signal, does not generate more kinetic energy than specified in the ANSI/BHMA A156.19 standard, and is closed by a power mechanism or other means.

3.4 Program switch panel

3.4.1 Program switch door control modes.

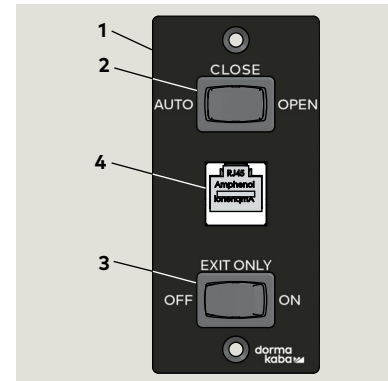
1. Auto, door opens when actuated by:
 - Knowing act device (Para. 3.2). Door will remain at full open position for not less than 5 seconds.
 - Push/pull actuation of door, Para. 6.1.4. Door will remain at full open position for not less than 3 seconds.
2. Open, door opens automatically and remains open.
3. Close, door will remain closed, or if door is open door will close.

3.4.2 Exit only switch modes

- Off, Interior and exterior activation sensors both active.
- On, exterior activation sensor disabled when door fully closed. Only interior activation sensor will enable door opening.

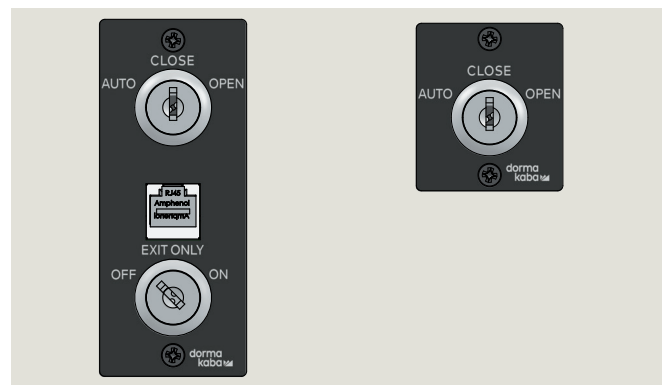
Fig. 3.4.1 Program switch panel

- 1 Program switch panel
- 2 Program switch, three position
- 3 Exit only switch, two position
- 4 Comm port for dormakaba handheld



3.5 Optional key switch panels

Fig. 3.5.1 Optional key switch panels



4 AAADM safety information label

4.1 Safety label, low energy swing doors

4.1.1 Low energy swing door safety information label.

This AAADM label outlines safety checks that should be performed daily on an automatic swing door controlled by an ED250 in-ground operator configured for low energy operation.

4.1.2 Safety information label location.

Place label in a protected, visible location on door frame, near operator power switch if possible.

4.1.3 Annual compliance section of label.

This section of label is only completed on low energy swing doors that comply with ANSI/BHMA A156.19 standard and pass inspection by a AAADM certified dormakaba USA Inc. technician.

4.1.4 Additional annual compliance inspection labels.

Place additional labels over annual compliance inspection section of safety information label.

Fig. 4.1.1 Annual compliance inspection label

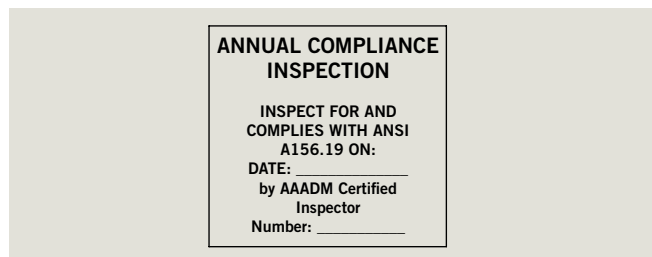
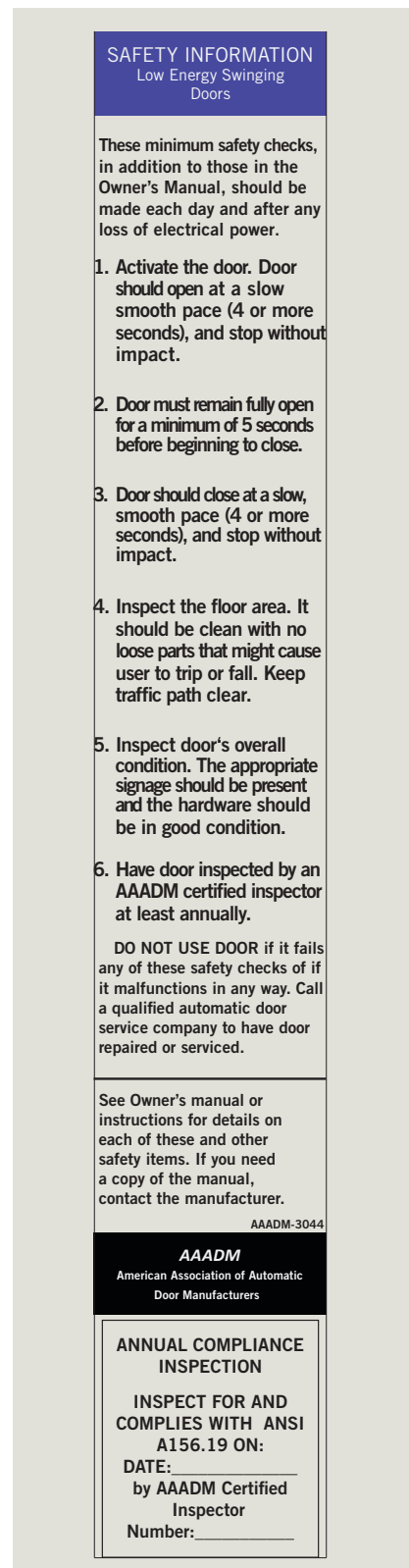


Fig. 4.1.2 Safety information label



5 Daily safety check procedure

5.1 Low energy power operated swing doors

5.1.1 Performing daily safety checks

Perform safety checks daily on your low energy swing door to insure your customer and employee safety. These daily safety checks are also listed in Chapter 4, Safety Information labels, low energy swinging doors.

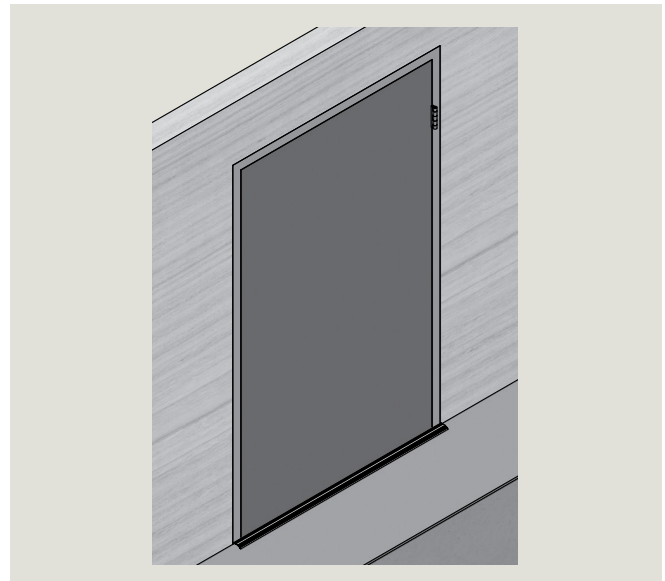
1. Activate the door by a knowing act (Para.3.3).
 - Door should open at a slow smooth pace (4 seconds or more) and stop without impact.
2. Door must remain fully open for a minimum of 5 seconds before beginning to close.
 - Door should close at a slow smooth pace (4 seconds or more) and stop without impact.
3. Inspect the floor area, it should be kept clean with no loose parts that might cause user to trip or fall. Keep traffic path clear.
4. Inspect door's overall condition. The appropriate signage (Chapter 7) should be present and all hardware should be in good condition.
5. Have door inspected by a dormakaba USA Inc. AAADM certified technician at least annually.



WARNING

If there are any problems, discontinue door operation immediately and secure the door in a safe manner.
Call your local dormakaba USA Inc. distributor for repair.

Fig. 5.1.1 In-ground ED250 door (LH door with track and arm example)



6 General safety related items

6.1 Low energy power operated swing doors

6.1.1 Review safety related items and perform checks periodically as noted



TIPS AND RECOMMENDATIONS

Perform these checks while traffic is restricted.

1. Housekeeping
 - Check door area for tripping or slipping hazards.
 - Make sure all door hardware is properly secured.
 - There should be no bulletin boards, literature racks, merchandise displays, or other attractions in the door area that would interfere with the use of the door or encourage people to stop and stand in the door area.
2. Check all doors for damage.
3. Door closing force



TIPS AND RECOMMENDATIONS

Reference ANSI/BHMA A156.19 standard, power assist and low energy power operated doors.

- Force to prevent the door from closing should not exceed 15 pounds measured with a force gauge.
4. Door safety signage
 - Refer to Chapter 7 for door safety signage requirements. Chapter 4 documents safety information (daily safety check) and annual compliance inspection labels requirements.
 5. Lock stile
 - With door open, grasp lock stile of door and attempt to move horizontally and vertically.
 - There should be no looseness in the door pivots or in connections between door and operator.
 6. Breakout stop
 - Center pivoted in swinging doors may be supplied with an emergency breakout stop or switch that will allow the door to open in the direction of emergency egress.
 - When the door is pushed into the breakout mode, check that the door will not activate.



WARNING

If there are any problems, discontinue door operation immediately and secure the door in a safe manner.
Call your local dormakaba USA Inc. distributor for repair.

7 ED250 door signage

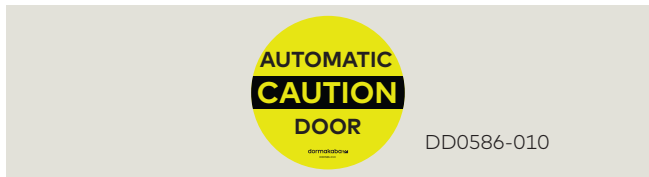
7.1 Low energy operator

7.1.1 Overview

Signage and warnings are specified in ANSI /BHMA A156.19, American National Standard for power assist and low energy power operated doors.

7.1.2 All low energy doors

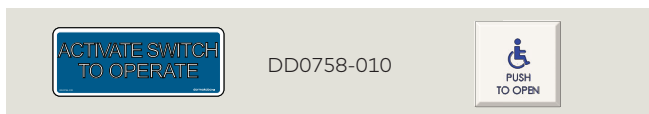
Fig. 7.1.1 AUTOMATIC CAUTION DOOR decal



1. AUTOMATIC CAUTION DOOR decal.
 - All low energy doors shall be marked with signage visible from both side of door with the words "AUTOMATIC CAUTION DOOR".
 - Signs shall be mounted 50" ± 12" from floor to centerline of sign.

7.1.3 Knowing act switch used to initiate door operation¹

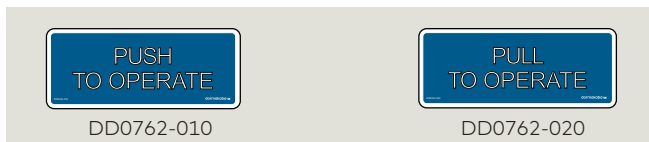
Fig. 7.1.2 ACTIVATE SWITCH TO OPERATE decal



1. ACTIVATE SWITCH TO OPERATE decal.
 - When a knowing act device is used to initiate operation of door operator, door shall be provided with sign on each side of door where switch is operated with message "ACTIVATE SWITCH TO OPERATE".

7.1.4 Push/Pull used to initiate door operation.

Fig. 7.1.3 PUSH TO OPERATE, PULL TO OPERATE decals



1. PUSH TO OPERATE, PULL TO OPERATE decals.
 - When push/pull is used to initiate operation of door operator, doors shall be provided with the message "PUSH TO OPERATE" on push side of door and "PULL TO OPERATE" on pull side of door.

7.2 Door signage, low energy swing doors, initiation of door operation

7.2.1 Single door

Fig. 7.2.1 Activate Switch To Operate

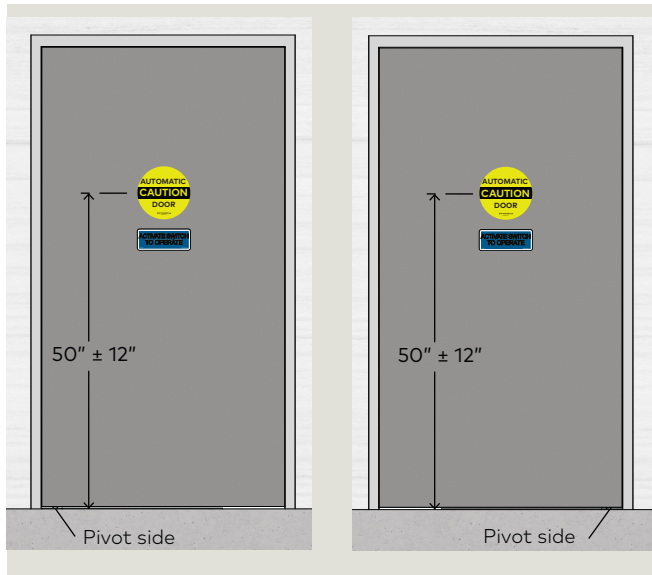
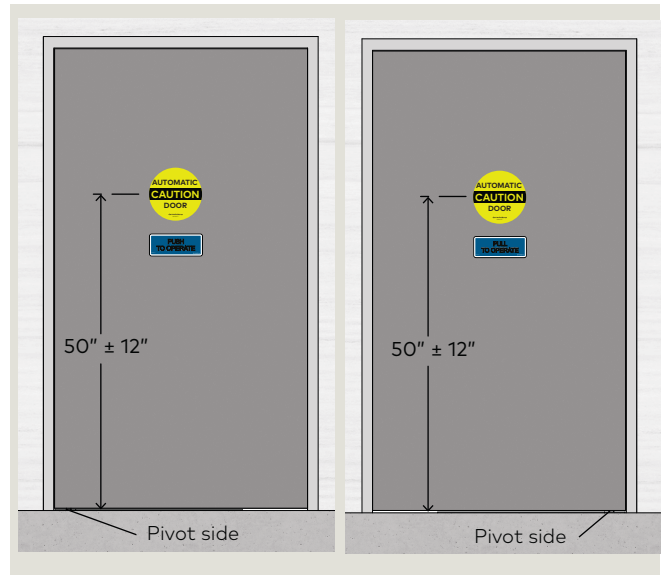


Fig. 7.2.2 Push/Pull
Push To Operate



Pull To Operate

7.2.2 Double doors

Fig. 7.2.1 Activate Switch to Operate



Fig. 7.2.2 Opposite side, no device

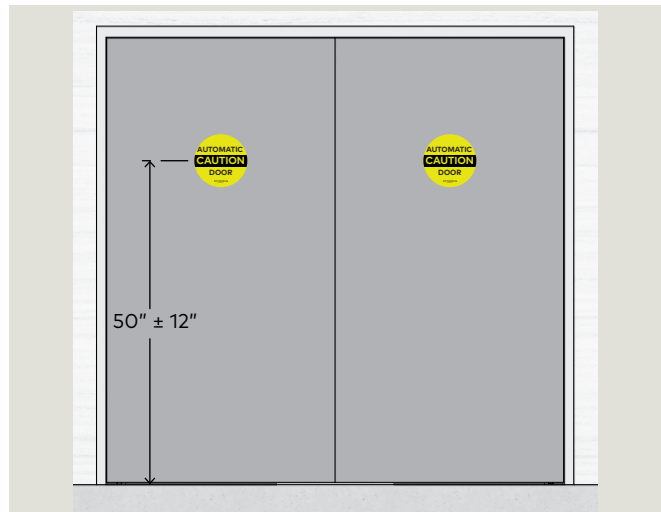


Fig. 12.623 Push/Pull, Pull side

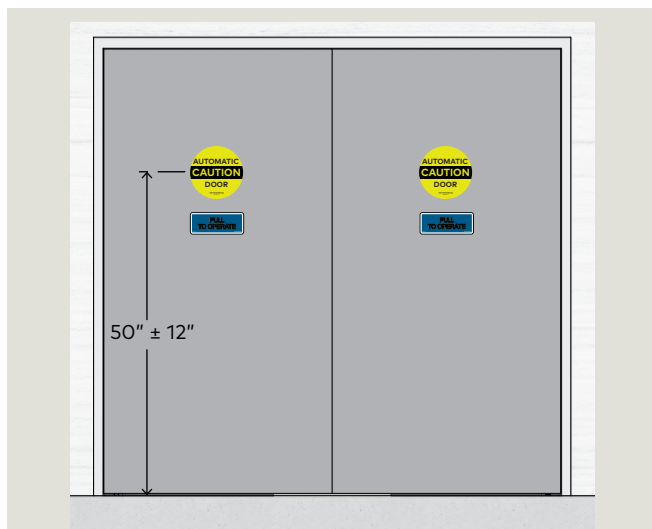


Fig. 12.2.4 Push/Pull, Push side



8 ED250 in-ground door threshold

8.1 Install door threshold

Fig. 8.1.1 Threshold example for ED250 in-ground

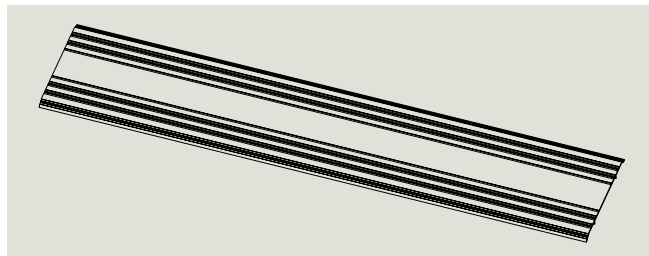


Fig. 8.1.2 Door threshold installation example for ED250 in-ground

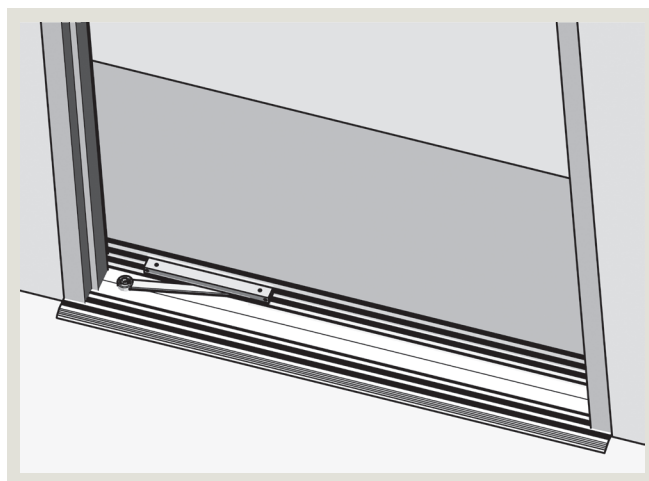
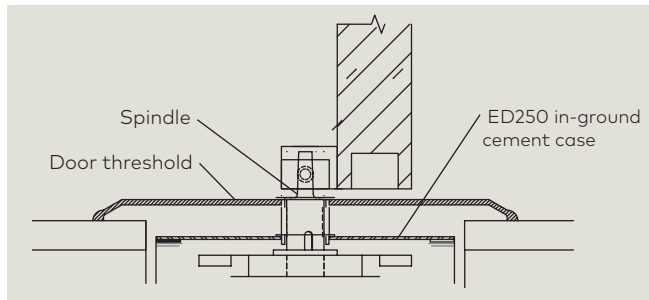


Fig. 8.1.3 Threshold installation end view example



NOTICE

Door threshold installation and maintenance is owner's responsibility

8.1.1 Door threshold seal at spindle.

CAUTION

Spindle opening at threshold must be sealed with an O-ring or similar device.

8.1.2 Door threshold perimeter seal

CAUTION

Threshold perimeter must be sealed with a silicone sealant.

8.1.3 Cleaning door threshold and floor area around threshold.

CAUTION

Do not pressure wash door threshold or floor area adjacent to door threshold!



WARNING

Access to the ED250 in-ground system must only be done by dormakaba USA Inc. certified technicians!

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