

# ED50/ED100/ED250

Swing Door Operators

Installation in Overhead Concealed Header

## Owner's Manual

DL4616-011 – 09-2021

| EN |

dormakaba 

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# 1 General information

## 1.1 Owner's manual.

This Owner's manual applies to dormakaba ED50/ED100/ED250 swing door operators packaged in an overhead concealed header (OHC).

Fig.1.1 Single door OHC header with overhead arm



## 1.2 ED50/ED100/ED250 OHC header Installation.

### NOTICE

#### Exterior door use.

To insure proper suitability for exterior door use, the following topics must be addressed in the context of the door application setting.

- Site-specific use factors such as high wind conditions and/or building pressure.
- Door width, height, weight, and usage patterns.
- Observable prevailing conditions at the opening under which the operator is expected to perform. In some instances, this may require increased force settings to counteract these conditions.
- Door mounted presence sensors. When attempting to overcome these forces, it is strongly suggested that door mounted presence sensors be employed to enhance pedestrian safety through the opening.

## 1.3 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.

## 1.4 dormakaba.us website.

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

## 1.5 Dimensions

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

## 1.6 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.

Fig. 1.2 ED50 low energy OHC operator



Fig.1.3 ED100/ED250 OHC operator



## 2 To our customers

We are pleased that a dormakaba ED50/ED100/ED250 overhead concealed header (OHC) assembly has been selected for this swing door installation. dormakaba USA Inc. designed, tested and built this assembly to provide many years of service.

The purpose of this manual is to familiarize you with your ED50/ED100/ED250 overhead concealed header installed on a swing door.

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 5, Daily Safety Check Procedure 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 ED50/ED100/ED250 overhead concealed swing door system!

Call your local authorized dormakaba USA Inc. distributor for repair.

The distributor's AAADM certified technicians are trained to install and service the ED50/ED100/ED250 overhead concealed swing door system using the dormakaba USA, Inc. Installation and Setup 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 ED50/ED100/ED250 overhead concealed 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. ED50/ED100/ED250 Overhead Concealed Owner's Manual DL4616-011.
2. Review of:
  - Daily Safety Check Procedure (Chapter 5).
  - General Safety Related Items (Chapter 6).
3. Instructions on how to conduct the daily safety check procedure by walk through example.
4. Annual compliance inspection label completion (Chapter 4).
5. Circuit breaker or disconnect location for 115 Vac power to the ED50/ED100/ED250 overhead concealed header.
6. ED50/ED100/ED250 Mode switch panel location and instructions in its use (Para. 3.6).
7. Discussion of problems that could result from ED 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 ED50 low energy operator

ED50 operator is available only as a low energy operator (Para. 3.4).

### 3.3 ED100/ED250 operator power configuration

1. ED100/ED250 operators can be configured for:
  - Low energy (Para. 3.4).
  - Power operated (full energy) (Para. 3.5).

### 3.4 Low energy power operated swinging doors ANSI/BHMA A156.19

#### 3.4.1 Low energy power operator door definition (ANSI/BHMA A156.19).

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.

#### 3.4.2 Knowing act definition (ANSI/BHMA A159.19).

Any conscious action with the expected result of opening a door. This includes but is not limited to:

- Wall or jamb mounted contact or non contact switches such as pushplates.
- The action of manually opening (pushing or pulling) a door.
- Controlled access devices such as keypads, card readers, wireless transmitters and key switches.

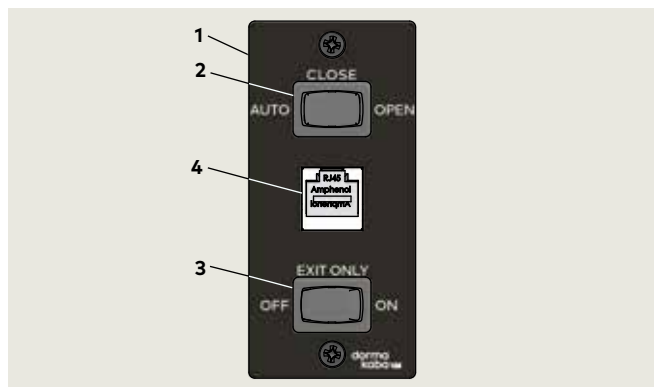
### 3.5 Power operated swinging doors ANSI/BHMA A156.10

#### 3.5.1 Power operated door definition (ANSI/BHMA A156.10).

The combination of door, operator, controls and sensors constituting the system. (also called automatic door.).

## 3.6 Mode switch and Exit Only switch panel

Fig. 3.6.1 Mode switch and Exit Only switch panel



- |                               |                                  |
|-------------------------------|----------------------------------|
| 1 Mode switch panel           | 3 Exit only switch, two position |
| 2 Mode switch, three position | 4 RJ45 Comm port for service     |

### 3.6.1 Mode switch positions.

Fig. 3.6.2 Auto

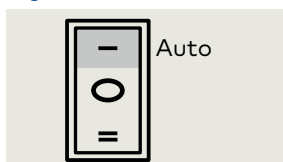


Fig. 3.6.3 Close

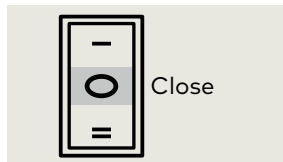
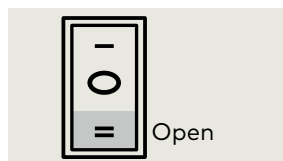


Fig. 3.6.4 Open



### 3.6.2 Exit Only switch positions.

Fig. 3.6.5 On

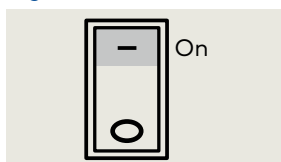


Fig. 3.6.6 Off

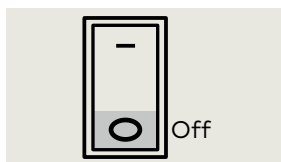
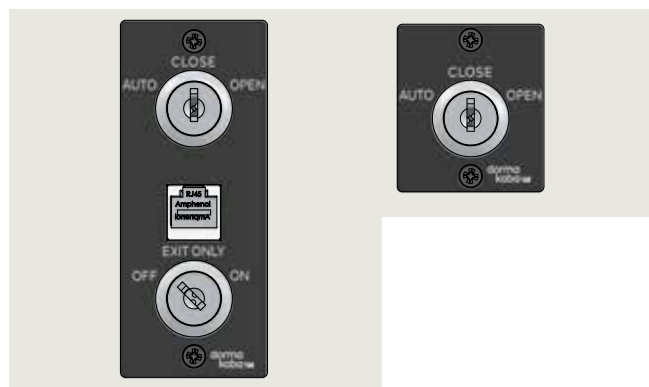


Fig. 3.6.7 Optional key switch panels



### 3.6.3 Mode switch position descriptions.

#### Auto

1. Door opens automatically when one of the activators is actuated or triggered.  
Door closes on expiration of adjustable hold open time with no activators or actuators triggered.
2. With knowing act device actuation (Para. 3.4.2).  
Door will remain at full open position for not less than 5 seconds.
3. With push/pull actuation of door (Para. 7.2).  
Door will remain at full open position for not less than 3 seconds.

#### Close

1. Door will remain closed, or if door is open door will close.

#### Open

1. Door opens automatically and remains open.

### 3.6.4 Exit Only switch position descriptions.

#### On

1. Exterior activation sensor or knowing act device disabled when door fully closed.
- Only interior activation sensor or knowing act device will enable door opening.

#### Off

1. Both interior and exterior activation sensors or knowing act devices will enable door opening.

## 4 AAADM safety information labels

### 4.1 Safety information label, full energy swing doors (ANSI/BHMA A156.10)

#### 4.1.1 Full energy automatic swing door safety information label.

This AAADM label (Fig. 4.1.1) outlines safety checks that should be performed daily on a swing door controlled by an ED100/ED250 OHC operator configured for full energy operation (ANSI/BHMA 156.10).

#### 4.1.2 Safety information label location.

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

#### 4.1.3 Annual compliance section of label.

This section of label is only completed on automatic swing doors that comply with ANSI/BHMA A156.10 standard and pass inspection by an AAADM certified dormakaba USA Inc. technician.

#### 4.1.4 Additional annual compliance inspection labels.

Place additional labels (Fig. 4.1.2) over annual compliance inspection section of safety information label.

Fig. 4.1.1 Full energy safety information label

**SAFETY INFORMATION**  
Automatic Swinging Doors

These minimum safety checks, in addition to those in the Owner's Manual, should be made each day and after any loss of electrical power.

1. Walk toward the door at a normal pace. The door should open when you are about 4 feet from the door.
2. Stand motionless on threshold for at least 10 seconds. The door should not close.
3. Move clear of the area. The door should remain open for at least 1.5 seconds and should close slowly and smoothly.
4. Repeat steps 1 through 3 from other direction if door is used for two way traffic.
5. Inspect the floor area. It should be clean with no loose parts that might cause user to trip or fall. Keep traffic path clear.
6. Inspect door's overall condition. The appropriate signage should be present.
7. Have door inspected by an AAADM certified inspector at least annually.

DO NOT USE DOOR if it fails any of these safety checks or if it malfunctions in any way. Call a qualified automatic door service company to have door repaired or serviced.

See Owner's manual or instructions for details on each of these and other safety items. If you need a copy of the manual, contact the manufacturer.

AAADM-2496

**AAADM**  
American Association of Automatic Door Manufacturers

**ANNUAL COMPLIANCE INSPECTION**

INSPECT FOR AND COMPLIES WITH ANSI A156.10 ON:

DATE: \_\_\_\_\_  
by AAADM Certified Inspector  
Number: \_\_\_\_\_

Fig. 4.1.2 Annual compliance label, full energy

**ANNUAL COMPLIANCE INSPECTION**

INSPECT FOR AND COMPLIES WITH ANSI A156.10 ON:

DATE: \_\_\_\_\_  
by AAADM Certified Inspector  
Number: \_\_\_\_\_

## 4.2 Safety information label, low energy swing doors (ANSI/BHMA A156.19)

### 4.2.1 Low energy swing door safety information label.

This AAADM label (Fig. 4.2.1) outlines safety checks that should be performed daily on a swing door controlled by an:

- ED50 OHC operator.
- ED100/ED250 OHC operator configured for low energy operation (ANSI/BHMA A156.19).

### 4.2.2 Safety information label location.

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

### 4.2.3 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.

### 4.2.4 Additional annual compliance inspection labels.

Place additional labels (Fig. 4.2.2) over annual compliance inspection section of safety information label.

Fig. 4.2.1 Low energy safety information label

**SAFETY INFORMATION**  
Low Energy Swinging  
Doors

These minimum safety checks, in addition to those in the Owner's Manual, should be made each day and after any loss of electrical power.

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

DO NOT USE DOOR if it fails any of these safety checks or if it malfunctions in any way. Call a qualified automatic door service company to have door repaired or serviced.

See Owner's manual or instructions for details on each of these and other safety items. If you need a copy of the manual, contact the manufacturer.

AAADM-3044

**AAADM**  
American Association of Automatic  
Door Manufacturers

**ANNUAL COMPLIANCE  
INSPECTION**

INSPECT FOR AND  
COMPLIES WITH ANSI  
A156.19 ON:

DATE: \_\_\_\_\_  
by AAADM Certified  
Inspector  
Number: \_\_\_\_\_

Fig. 4.2.2 Annual compliance inspection label

**ANNUAL COMPLIANCE  
INSPECTION**

INSPECT FOR AND  
COMPLIES WITH ANSI  
A156.19 ON:

DATE: \_\_\_\_\_  
by AAADM Certified  
Inspector  
Number: \_\_\_\_\_



## 5 Daily safety check procedure

### 5.1 Full energy power operated swing door (ANSI/BHMA 156.10)

#### NOTICE

All figures and diagrams are for purposes of illustration only and are from AAADM power operated pedestrian door manual, reprinted with permission.

#### 5.1.1 Performing daily safety checks.

Perform safety checks daily on your automatic swinging door to insure your customer and employee safety. The daily safety checks are listed in Chapter 4, AAADM safety information labels.



#### TIPS AND RECOMMENDATIONS

Perform these checks while traffic is restricted from all detection and sensing zones.

#### 5.1.2 Sensor activation, safety sensor detection.

1. Check activation sensor by walking toward door opening at moderate speed, door should:
  - Start opening when you are about four feet from door.
  - Open smoothly.
  - Stop at fully open without impact.
2. Move slowly through door opening (approximately six inches/second) stop in door swing path, and pause for ten seconds.
  - Door should remain open.
3. If two way traffic, repeat from other side of door.
4. Step out of sensor zone activating area.
  - After a brief delay (minimum 1.5 seconds) door should close smoothly and without impact.
5. For one way traffic, approach safety side of door and have someone else approach activating side.
  - Door equipped with overhead mounted safety sensor (Fig 5.1.1), as long as you are in safety area of door it should not open.
  - Door equipped with door mounted safety sensors (Fig 5.1.2, Fig. 5.1.3), door may start to open but should reverse, stop or slow down.
6. Stand motionless in door for at least 4 seconds.
  - Door equipped with overhead mounted presence sensor (Fig 5.1.1), door should not close.
  - Door equipped with door mounted safety sensors (Fig 5.1.2, Fig. 5.1.3), door may start to close but should reverse, stop or slow down.

Fig. 5.1.1 One way traffic, overhead mounted safety sensor

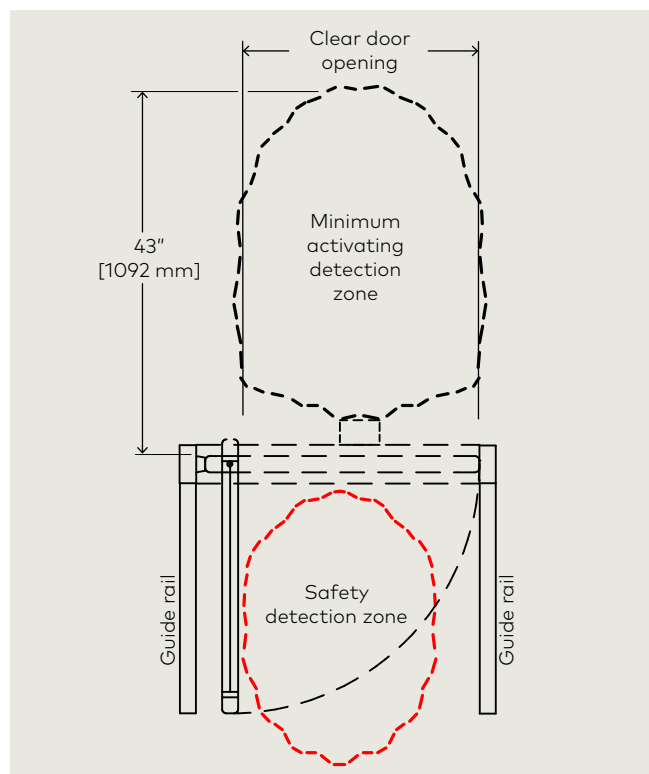
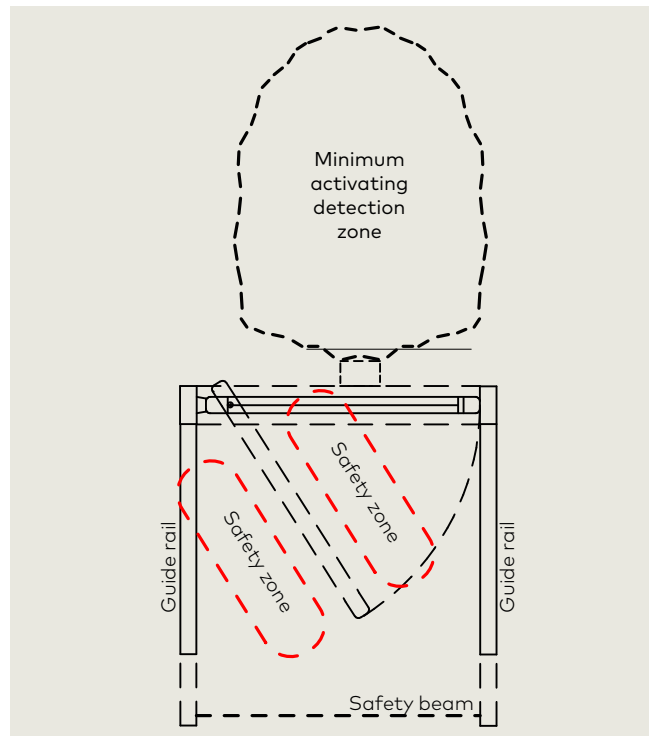


Fig. 5.1.2 One way traffic, door mounted safety sensors



### 5.1.3 Swing door double egress; knowing act switch activation.

1. Double egress doors are commonly activated by knowing act switch(es).
2. Operate knowing act device, doors should:
  - Open smoothly and stop at fully open without impact.
  - Remain open for a minimum of five seconds before closing.
3. As door closes, approach door from approach side:
  - Door should reopen.
4. Continue across threshold and stand motionless for 10 seconds:
  - Door should not contact you.
5. Continue through door, the door should:
  - Start closing after a minimum of five seconds.
  - Close smoothly and without impact.
6. Approach safety zone side of door:
  - If door equipped with overhead safety sensor (Fig. 5.1.4) door should not open as long as you are in safety zone when door closed.
  - If door equipped with door mounted safety sensor (Fig. 5.1.5) door may start to open but should reverse, stop or slow down.

Fig. 5.1.3 Two way traffic, activating and safety detection zones with door mounted safety sensors

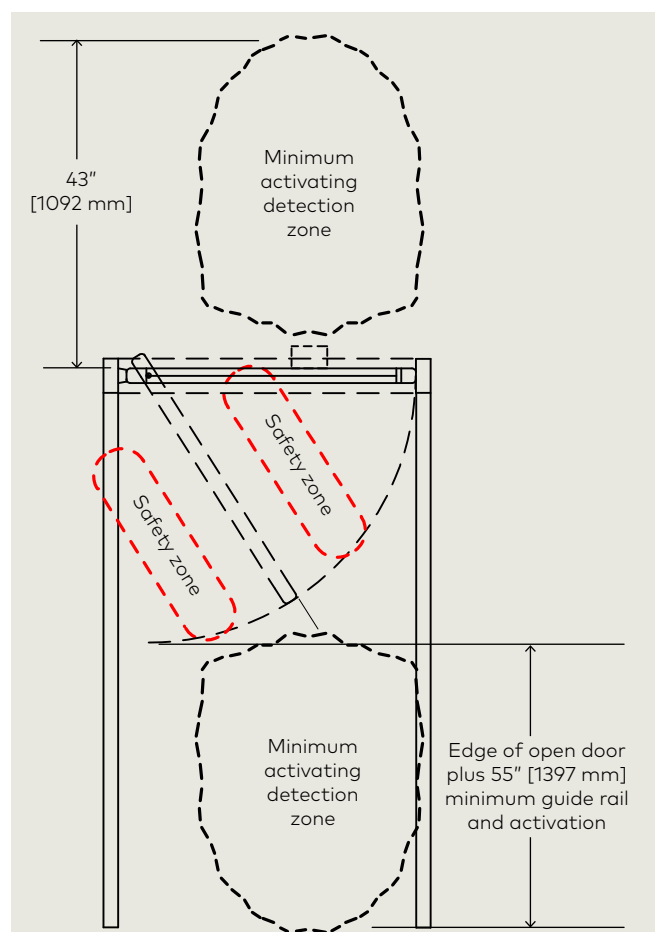


Fig. 5.1.4 Overhead safety sensors

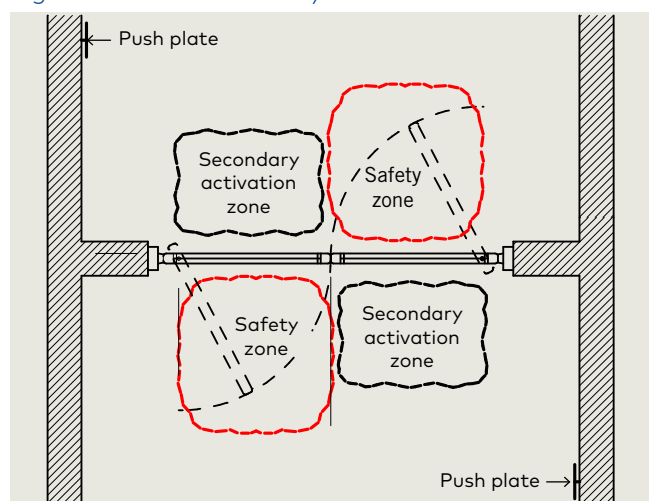
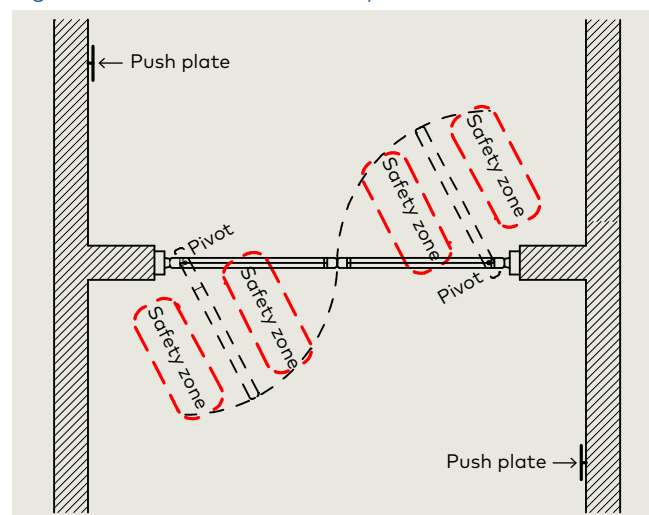


Fig. 5.1.5 Door mounted safety sensors



## 5.2 Low energy power operated swing door (ANSI/BHMA 156.19)

### 5.2.1 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.3.4).
  - 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.

---

## 6 General safety related items

### 6.1 Full energy power operated swing door (ANSI/BHMA 156.10)

#### 6.1.1 Review safety related items and perform checks periodically as noted.



##### TIPS AND RECOMMENDATIONS

Perform these checks while traffic is restricted from all detection and sensing zones.

1. Housekeeping:
  - Check door area for tripping or slipping hazards.
  - Check all doors for damage.
  - Make sure all hardware and overhead covers are 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. Door closing force:
  - Force to prevent the door from closing should not exceed 30 pounds measured with a force gauge.
3. Door safety signage:
  - Refer to Chapter 7 for door safety signage requirements.
  - Refer to Chapter 4 for Safety Information labels.
4. Activating switch, knowing act (Para. 3.4):
  - Doors equipped with a manual activating switch shall hold door fully open for a minimum of five seconds before closing.
5. Guide rails (Fig. 6.1.1, Fig. 6.1.2), if used:
  - Check that guide rails or other barriers or separators are present (two per swing door side) and firmly anchored.
  - Rail lengths should be the width of the open door or greater.
6. 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.
7. 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.
8. Traffic patterns:
  - Observe traffic patterns. Plan routing so people enter and exit in a straight approach, directly toward the door opening.
9. Finger guard:
  - If installed, inspect finger guard to see that it is secure and in good repair.
10. AAADM safety information label (Chapter 4):
  - An AAADM safety information label should be affixed on the door or door frame in a protected, visible location.
  - If you need additional decals or labels, contact your local authorized dormakaba USA Inc. distributor.



##### 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. 6.1.1 Guide rails, jamb and floor mounted

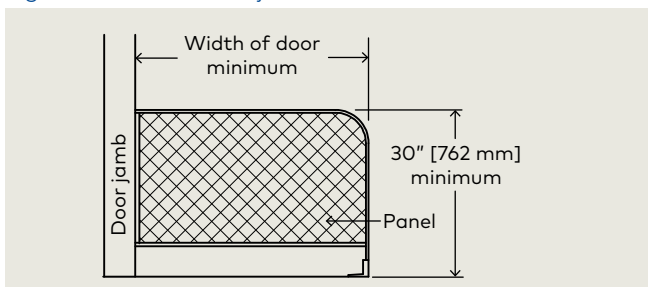
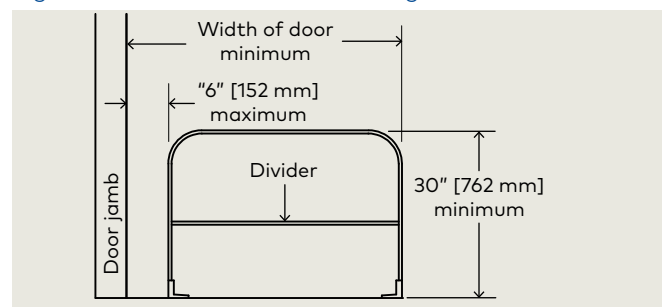


Fig. 6.1.2 Guide rails, free standing, floor mounted



## 6.2 Low energy power operated swing door (ANSI/BHMA 156.19)

### 6.2.1 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 hardware and overhead covers are 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:
  - 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 ED50/ED100/ED250 door signage

### 7.1 ED100/ED250 operator configured for full energy

#### 7.1.1 Overview

Signage and warnings are specified in ANSI /BHMA A156.10, American National Standard for Power Operated Pedestrian Doors, paragraph 11.

#### 7.1.2 Door, one way traffic, Fig. 7.1.1.

1. Arrow and AUTOMATIC DOOR, one side of decal.
  - Shall be visible from approach side of a swinging door, mounted on door at a height of  $50" \pm 12"$  from floor to centerline of sign.
2. DO NOT ENTER and AUTOMATIC DOOR, one side of decal (or separate decal for solid doors - DD0739-020).
  - Shall be visible from non-approach side of door that swings towards pedestrians attempting to travel in wrong direction.

#### 7.1.3 Door, two way traffic, Fig. 7.1.2.

1. Arrow and AUTOMATIC DOOR, one side of decal.
  - Shall be visible from approach side of a swinging door, mounted on door at a height of  $50" \pm 12"$  from floor to centerline of sign.
2. CAUTION AUTOMATIC DOOR, one side of decal.
  - Swinging doors serving both egress and ingress shall have a "CAUTION AUTOMATIC DOOR" sign visible from swing side of door.
  - Sign shall be mounted on door at a height of  $50 \pm 12"$  from floor to centerline of sign.

Fig. 7.1.1 One decal, approach side, non-approach side

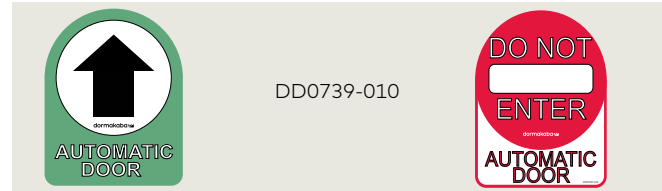


Fig. 7.1.2 One decal, two way traffic

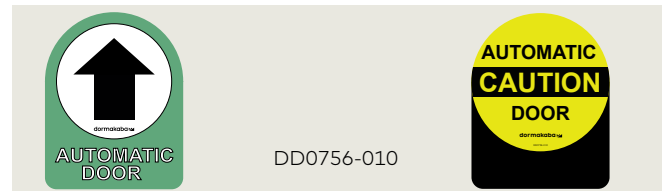
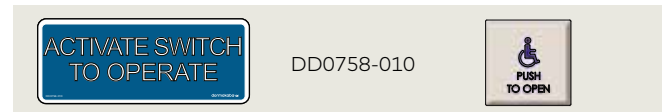


Fig. 7.1.3 ACTIVATE SWITCH TO OPERATE decal



#### 7.1.4 Knowing act door.

1. ACTIVATE SWITCH TO OPERATE decal.
  - Knowing act doors shall have signage stating "ACTIVATE SWITCH TO OPERATE" on side of door having knowing act switch or other knowing act device.

### 7.2 ED50 operator and ED100/ED250 operator configured for low energy

#### 7.2.1 Overview

Signage and warnings are specified in ANSI /BHMA A156.19, American National Standard for Power Assist and Low Energy Power Operated Doors.

#### 7.2.2 All low energy doors.

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  $50" \pm 12"$  from floor to centerline of sign.

#### 7.2.3 Knowing act switch used to initiate door operation.

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".

#### 7.2.4 Push/Pull used to initiate door operation.

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.

Fig. 7.2.1 AUTOMATIC CAUTION DOOR decal

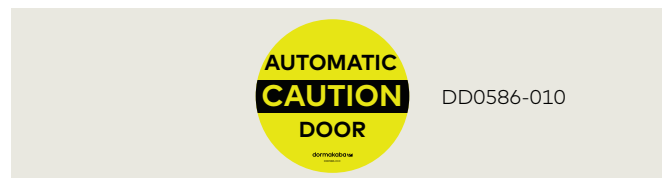


Fig. 7.2.2 ACTIVATE SWITCH TO OPERATE decal



- 1 Activate Switch to Operate DD0758-010

Fig. 7.2.3 PUSH TO OPERATE, PULL TO OPERATE decals



- 2 Push to Operate DD0762-010
- 3 Pull to Operate DD0762-020

## 7.3 Door signage, full energy power operated single swing doors (ANSI/BHMA 156.10)

Fig. 7.3.1 One decal, one way traffic  
Approach side Swing side

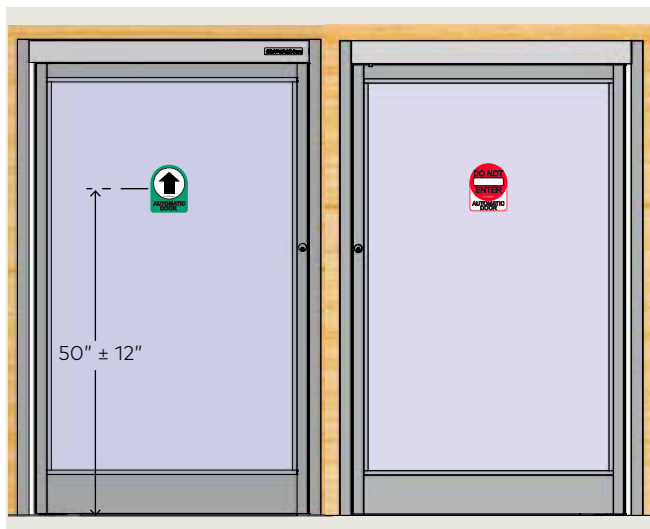


Fig. 7.3.3 One decal, two way traffic  
Approach side Swing side

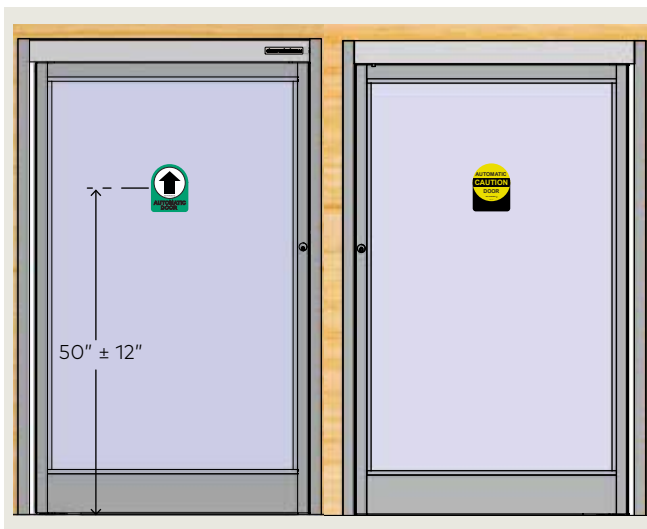


Fig. 7.3.2 One way traffic

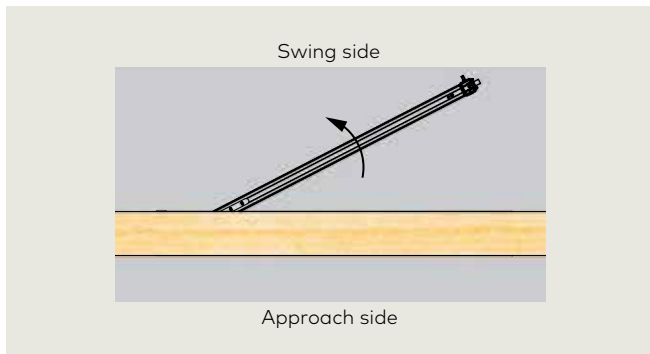
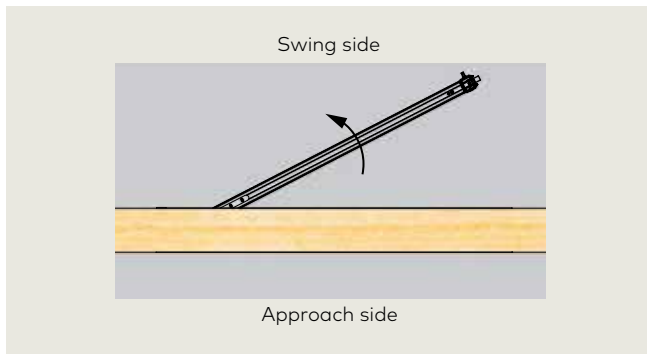


Fig. 7.3.4 Two way traffic



## 7.4 Door signage, low energy power operated single swing doors (ANSI /BHMA 156.19): initiation of door operation

Fig. 7.4.1 Knowing act device

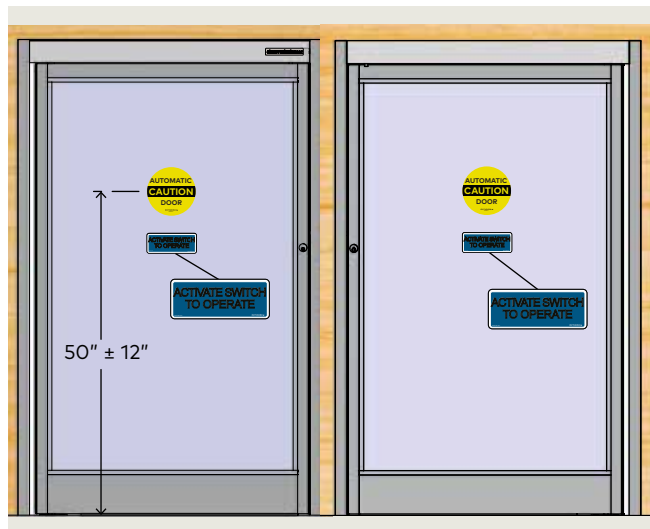
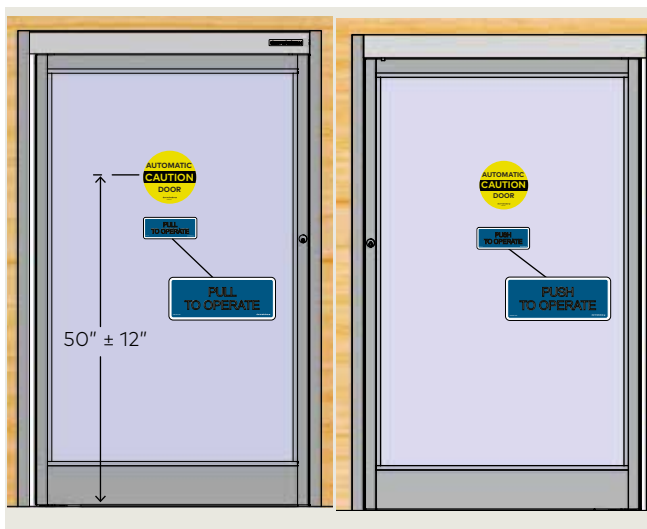


Fig. 7.4.2 Push/Pull  
Push To Operate Pull To Operate



## 7.5 Door signage, full energy power operated double swing doors (ANSI/BHMA 156.10)

Fig. 7.5.1 One way traffic, approach side

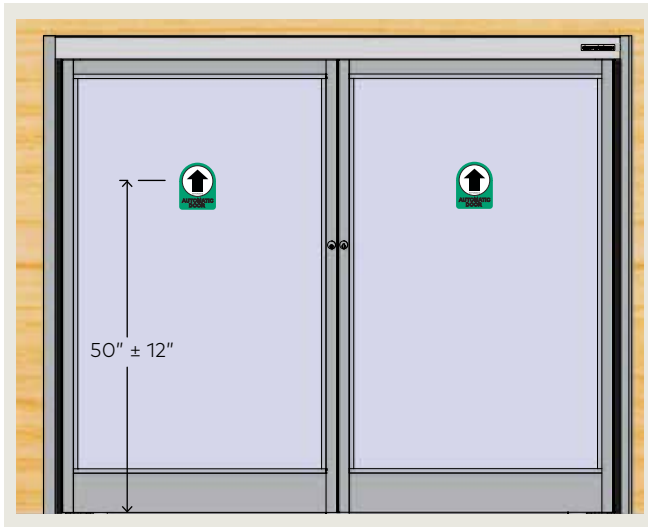


Fig. 7.5.4 One way traffic, swing side

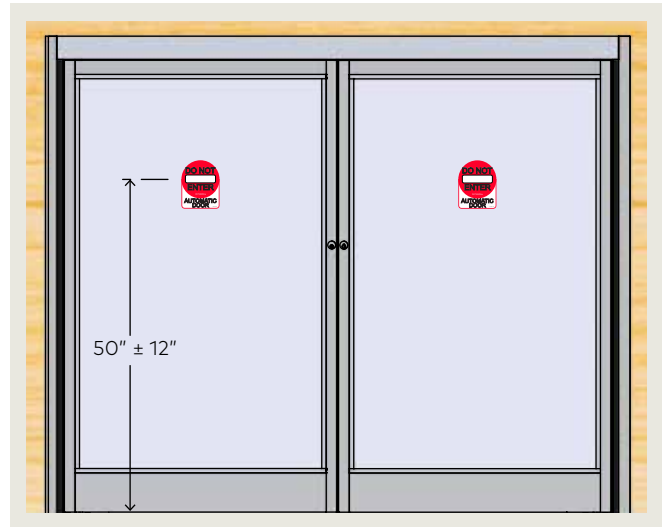


Fig. 7.5.2 Two way traffic, approach side

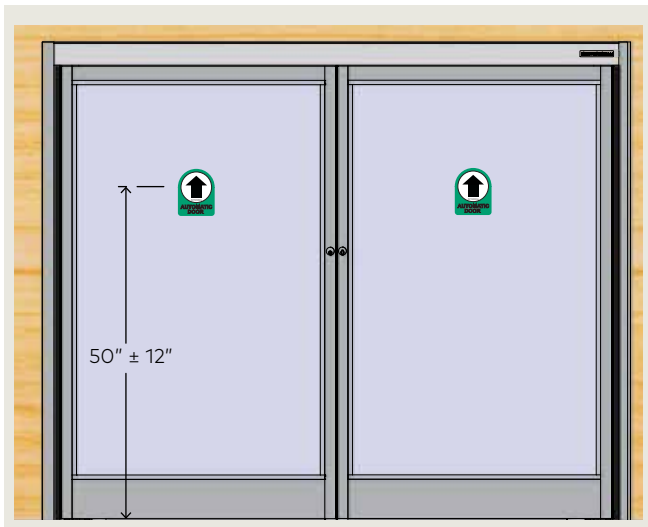


Fig. 9.5.5 Two way traffic, swing side

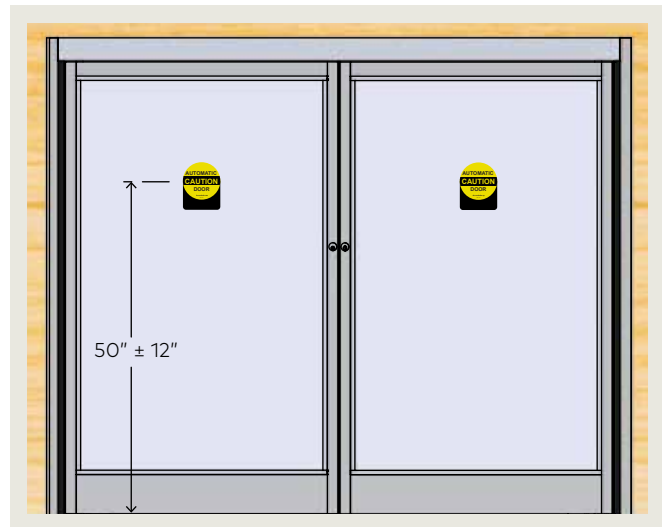


Fig. 7.5.3 Knowing act, approach side, one way

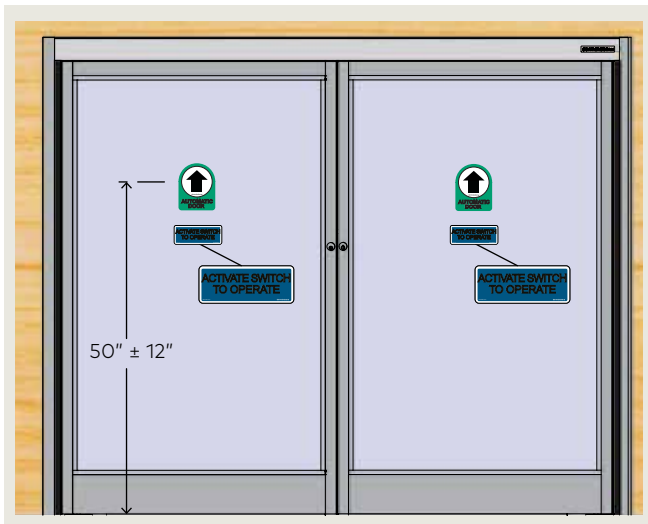
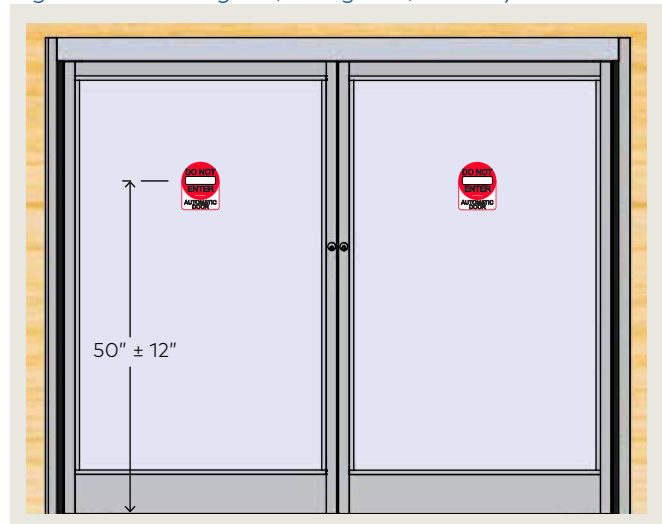


Fig. 7.5.6 Knowing act, swing side, one way





## 7.6 Door signage, low energy power operated double swing doors, initiation of door operation (ANSI/BHMA 156.19)

Fig. 7.6.1 Knowing act device, approach side

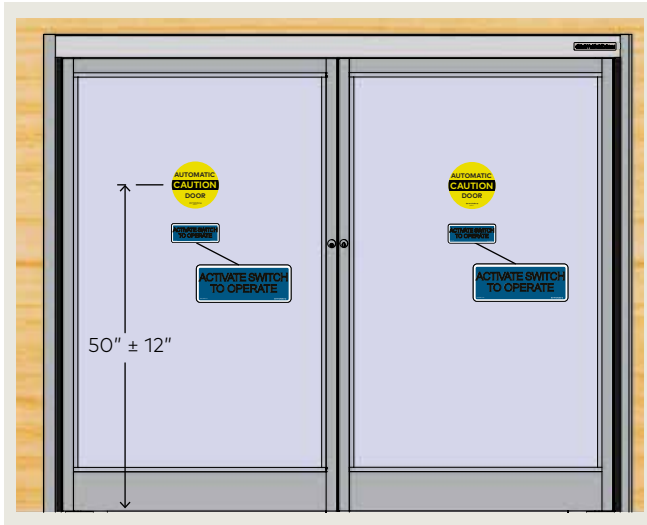


Fig. 7.6.3 Knowing act device, swing side

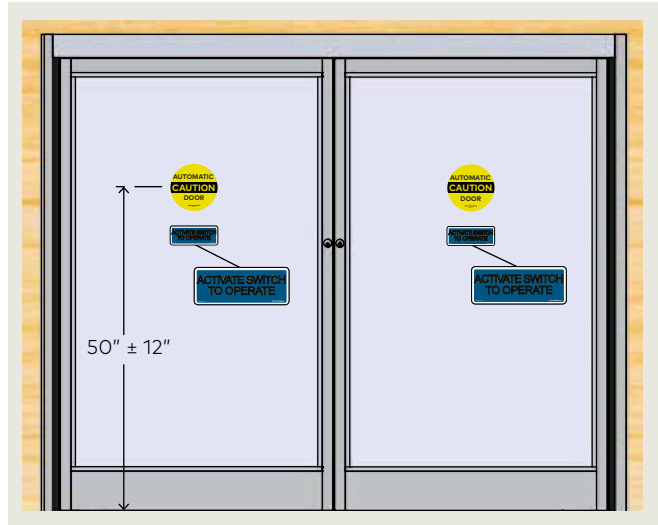


Fig. 7.6.2 Push/Pull, Push

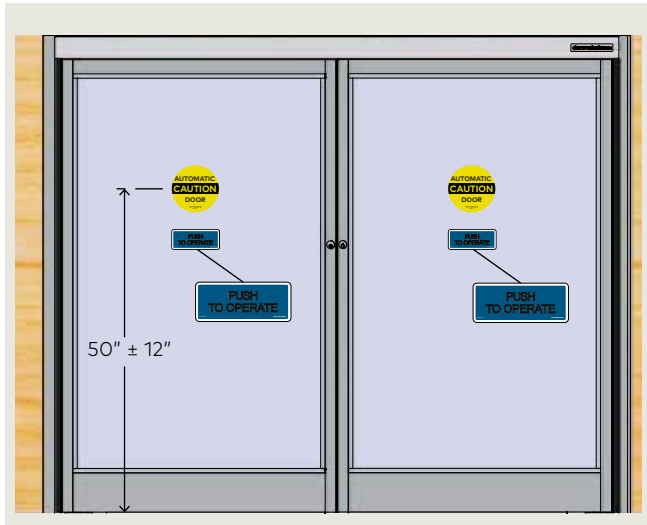
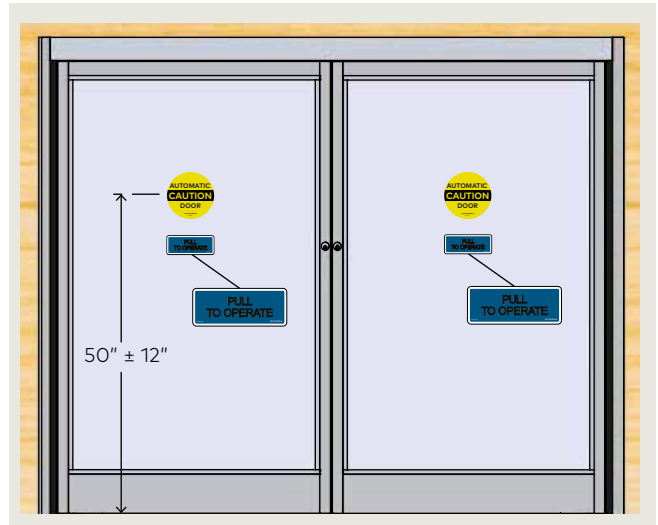
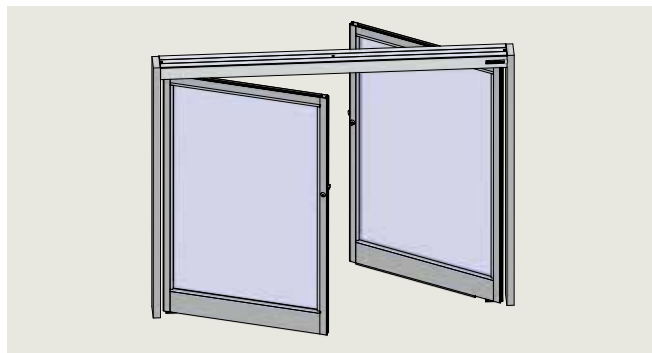


Fig. 7.6.4 Push/Pull, Pull



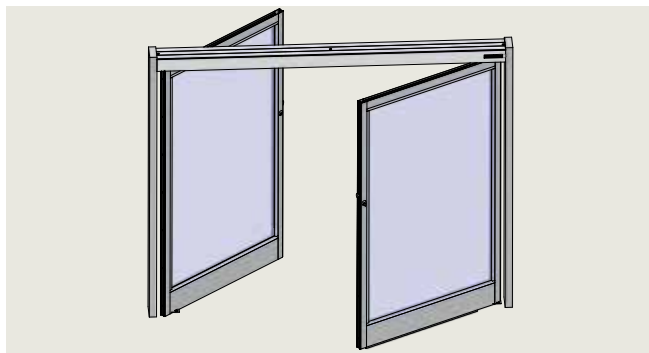
## 7.7 Door signage, full energy power operated double egress swing doors (ANSI/BHMA 156.10)

Fig. 7.7.1 OHC RH double egress



Swing side Approach side

Fig. 7.7.4 OHC LH double egress



Approach side Swing side

Fig. 7.7.2 RH double egress, interior side  
Swing side Approach side

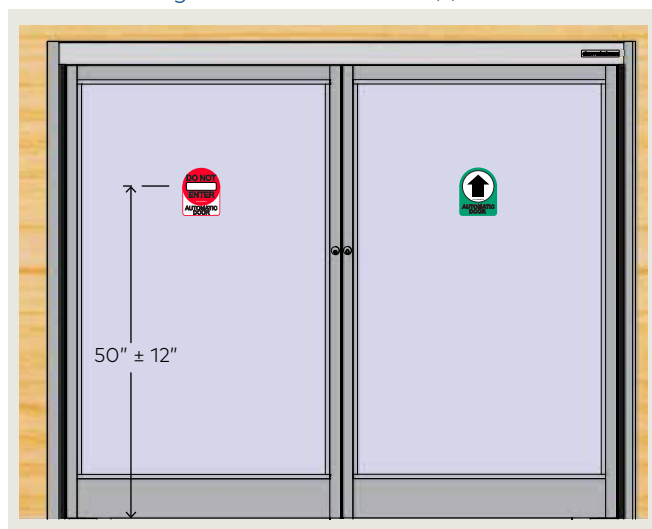


Fig. 7.7.5 LH double egress, interior side  
Approach side Swing side

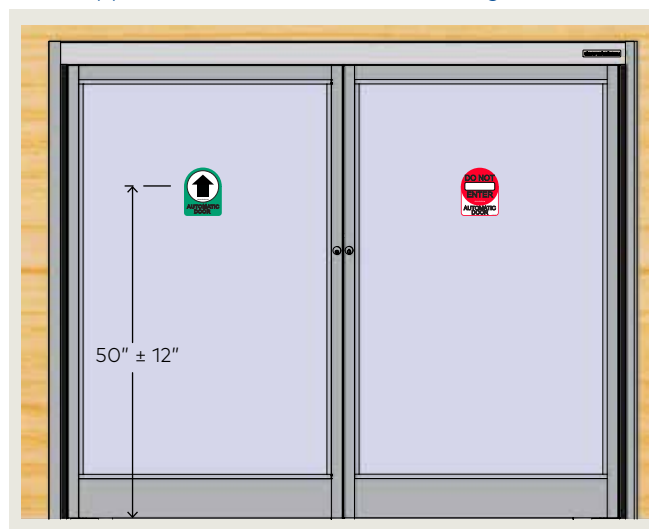


Fig. 7.7.3 RH double egress, exterior side  
Swing side Approach side

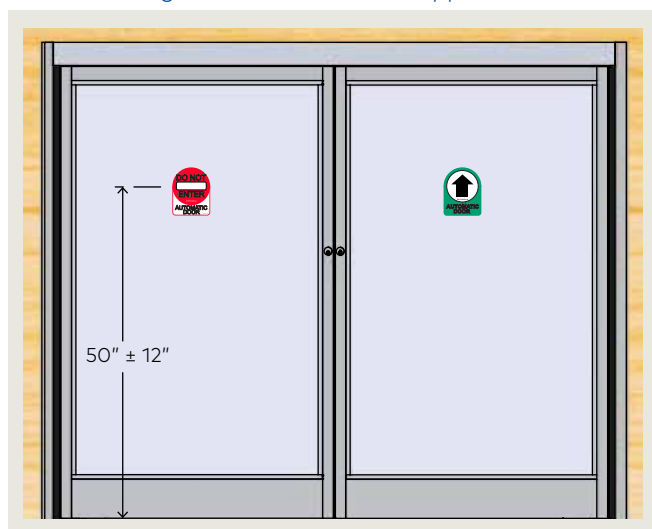
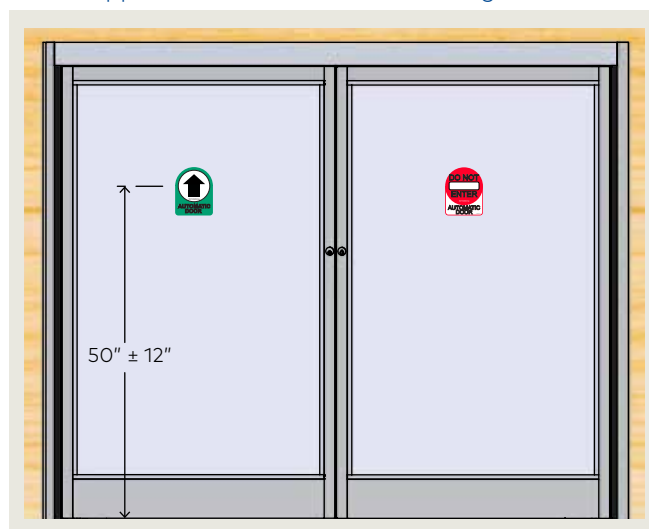


Fig. 7.7.6 LH double egress, exterior side  
Approach side Swing side



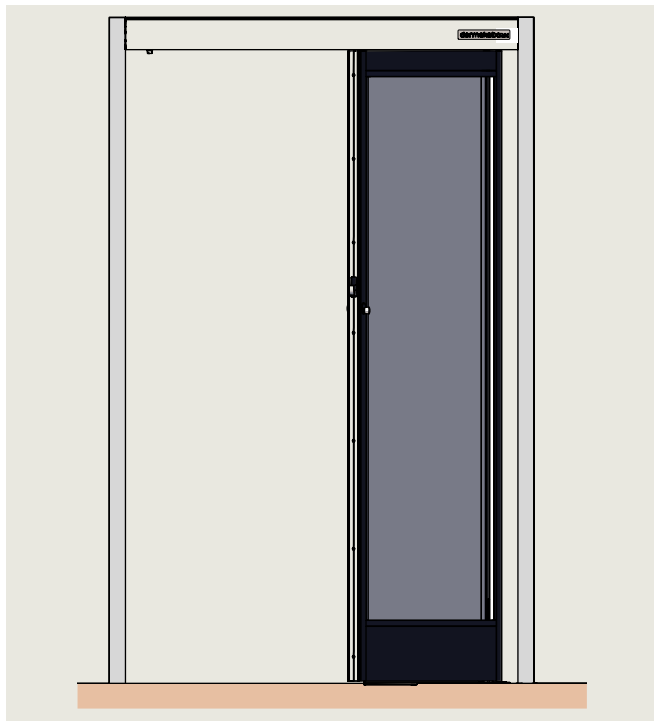
## 8 ED50/100/ED250 header maintenance

### 8.1 ED50/ED100/ED250 environment and cleaning

**Table 8.3.1 Operator environmental requirements**

Ambient temperature	5 to 122 °F
---------------------	-------------

**Fig. 8.3.1 ED50/ED100/ED250 overhead concealed header**



#### 8.1.1 ED50/ED100/ED250 environmental requirements.

ED50/ED100/ED250 overhead concealed header assembly is designed to operate under the environmental specifications shown in Table 8.3.1.

#### 8.1.2 Areas around door(s) and door swing radius.

Areas around doors and door swing radius must be kept clear of all obstacles.

#### 8.1.3 Cleaning of header.



#### WARNING

Cleaning of all header surfaces must be done with Mode switch (Para. 3.5) in CLOSE position!

External surfaces of the header can be cleaned with a damp cloth and commercial cleaning agents.



#### TIPS AND RECOMMENDATIONS

Abrasive (scouring) agents should not be used as they may damage external surfaces.

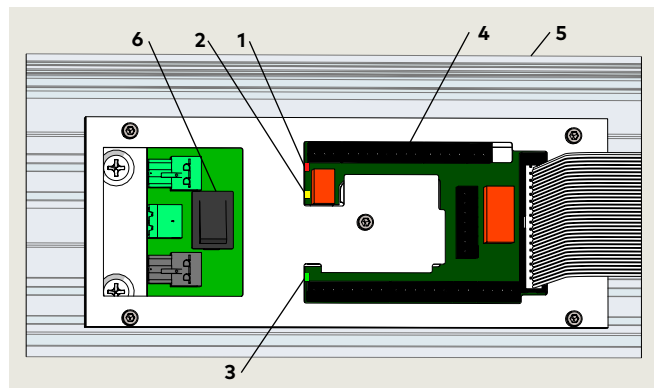
#### 8.1.4 Water and other liquids.

#### CAUTION

No water or other liquids must be sprayed or spilled on ED50/ED100/ED250 overhead concealed header!

### 8.2 Operator status LEDs

**Fig. 8.2.1 Operator status LEDs, header cover removed**



- |              |                            |
|--------------|----------------------------|
| 1 Red LED    | 4 Accessory terminal board |
| 2 Yellow LED | 5 OHC header               |
| 3 Green LED  | 6 Power Off/On switch      |

#### 8.2.1 Operator status LEDs.

1. Red LED  
Blinking codes are used to indicate "In\_" information (system status or operating conditions) or certain error codes "E\_".
2. Yellow LED  
Maintenance interval indicator. When illuminated, an indication the operator system has to be serviced.
3. Green LED
  - On, internal 24 Vdc power is On.
  - Off, internal 24 Vdc power is Off.



#### TIPS AND RECOMMENDATIONS

Details on LED status codes and maintenance intervals can be found in Appendix B – Troubleshooting.

