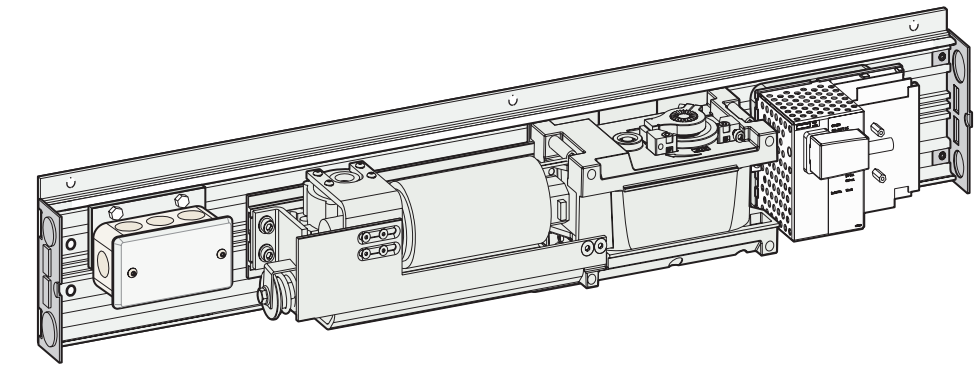
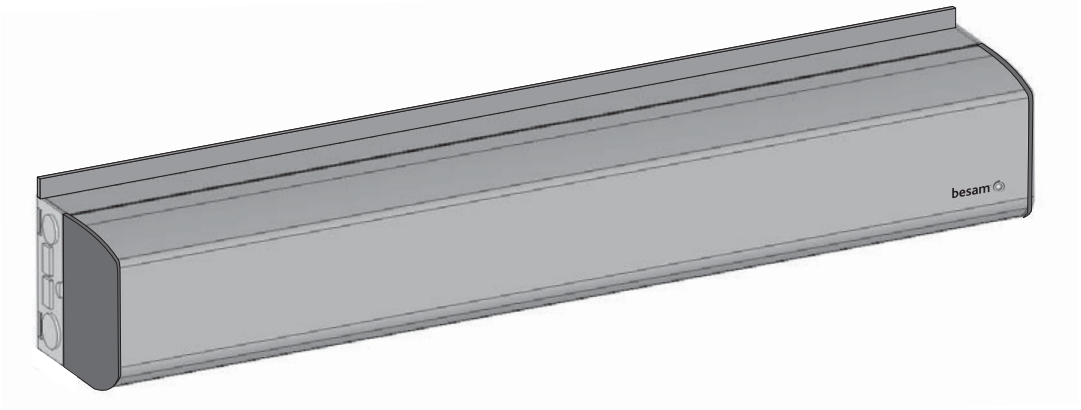
besam

ASSA ABLOY

# Besam Low Energy Swing Door Operator SW100

## Owners Manual






Complies with ANSI/BHMA A156.19 standard for Power Assist and Low Energy Power Operated Doors.
UL 325 Listed.

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# Table of content

# 1 Caution

- **Improperly adjusted doors can cause injury and equipment damage**
- **Inspect door operation daily using safety checklist on page 7.**
- **Have door adjusted by a qualified Besam service technician as described on page 5.**
- **To avoid bodily injury, material damage and malfunction of the product, the instructions contained in this manual must be strictly observed.**


AAE407

**Your low energy swing door operator SW100, when correctly installed and maintained, is safe and fully ANSI/BHMA A156.19 compliant. Perform the daily safety checks as described in this manual, and always call a qualified Besam service technician when maintenance is required.**

# 2 To our customers

The purpose of this manual is to familiarize you with your low energy automatic door system. It is essential that you know the system and that you recognize the importance of maintaining your door system in compliance with the 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 to ensure that it is safe for use by visitors, customers, and employees.** This manual will provide you with a description of the operation and maintenance requirements of your door. It also provides instructions for the Daily Safety Check.

Should the door fail to operate as described in the Daily Safety Check, or at any other time for any other reason, **do not attempt to repair or adjust the door. Discontinue door operation immediately and secure door in a safe manner.** Then call a qualified Besam service technician. Besam technicians are trained to service your door in accordance with applicable industry safety standards.

## 2.1 Service availability

Besam products are distributed through a nationwide network of Besam authorized distributors for sales, installation and service. Should you need service on your door system, visit www.besam.com and select “contact us” to search for a local authorized Besam technician. You can also contact Besam at 1-866-Besam-US.

## 2.2 Compliance with safety standards

Your door was designed to meet the latest operating and safety standards. In order to ensure the continued safe operation of your door, it is important that:

- Your door system is maintained in compliance with the standards of the industry.
- Proper decals and labels are applied and maintained on your doors. If decals are removed or cannot be read, request replacement decals when calling for service.

## 2.3 What you should know

Be sure that a Besam office or distributor has provided the following for each door:

1. Instruction on how to conduct the Daily Safety Check (by walk-through example).
2. Location of switches and instruction in their use.
3. Circuit breaker or power disconnect location for each door system.
4. Discussion of problems that could result from door being allowed to operate after a malfunction is observed.
5. Number to call for service or questions about your system if you are uncertain of any condition or situation.
6. Warranty information for each door.

# 3 How the SW100 works

The low energy swing door operator SW100 uses a DC motor and a gear-reduction system to drive an arm system which opens the door. Closing power is provided by a motor and a clock spring. An electronic control unit uses a motor encoder and a microprocessor to control the door's movement.

## 3.1 Operation

Your SW100 operator can be configured in two variations to meet low energy standards:

1. Push plates are provided to activate the operator. The door also can be used as a manual door.
2. Push to activate can be enabled. In this mode, your door is pushed (or pulled) 5° manually, and then automatically opens to full open position.

If desired, overhead presence devices can be provided for an extra level of protection. These are not required by current ANSI A156.19 codes.

## 3.2 Opening

When an opening signal is received by the control unit, the door is opened at the operator-adjusted opening speed. Before the door is fully open at back check, it slows automatically to low speed. The motor stops when the selected door opening angle has been reached. The open position is held by the motor.

If the door is obstructed while opening, it will either stall or stop which can be selected with a DIP switch.

- When stalling - the door will continue to try to open during the hold open time.
- When stopping - the door will, even if hold open time has not expired, close after 2 seconds.

## 3.3 Closing

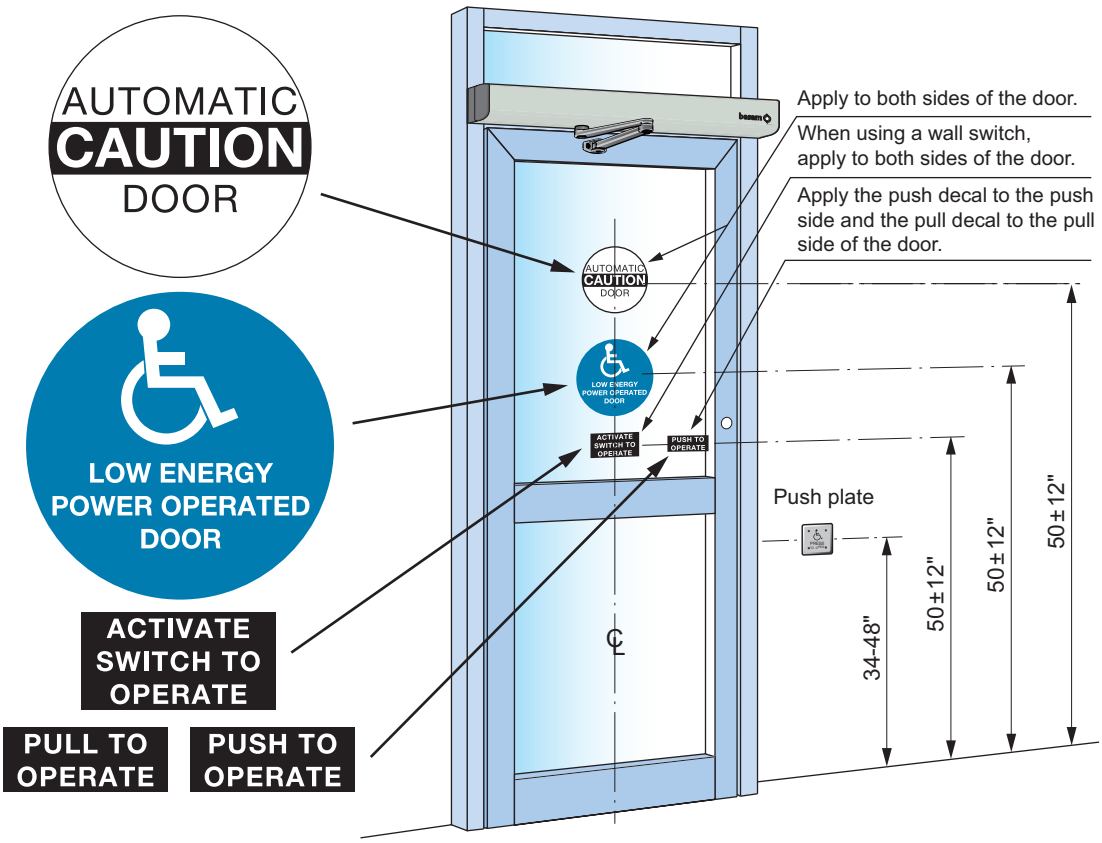
When the hold open time has elapsed, the operator will close the door automatically, using spring force and motor. The door will slow to low speed at latch check before it reaches the fully closed position. The door is kept closed by spring power or extended closing force by the motor.

# 4 Daily safety checklist

These minimum safety checks 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 the 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.**



# 5 Service schedule

Although Besam's automatic door equipment has earned a reputation of world-class quality and reliability, all mechanical devices need service...just like your automobile.

Your authorized Besam distributor can offer you a Planned Maintenance Agreement on the equipment you have just purchased. This agreement means the distributor will make planned maintenance calls to inspect, clean lubricate, adjust, repair or replace worn components.

Frequency of maintenance visits will depend on factors such as traffic, climate, etc. Please ask your local Besam office or distributor how often they recommend the following services:

1. Gaskets and Seals
2. Glass Protection Bars
3. Moldings and Thresholds
4. Pivots (Top and Bottom)
5. Door Control Operations
6. Condition of Door Frames
7. Opening and Closing Speeds
8. Function of Sensor
9. Guide Rails

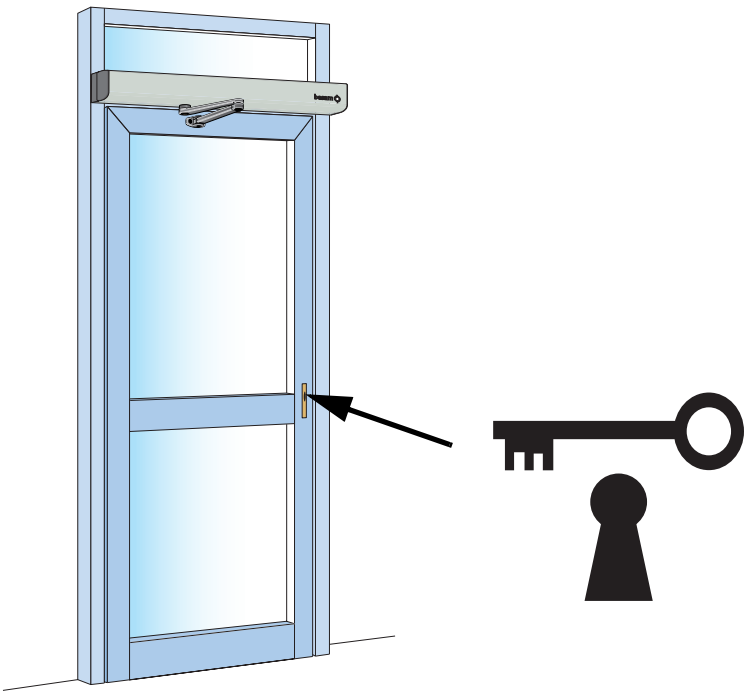
Periodic maintenance will increase the life and performance of your Besam automatic door. We suggest you contact your authorized Besam distributor to discuss a Planned Maintenance Agreement. Planned Maintenance Agreements differ between Besam offices and distributers, and Besam has no control over the Agreement each distributor may offer.

## Limited warranty

Besam US Inc. hereby warrants, subject to the provisions hereof, that the products and parts manufactured by Besam and its affiliates shall be free from defects in material and workmanship for a period of 1 year from the date of shipment from Besam's factory.

# 6 Doors and locks

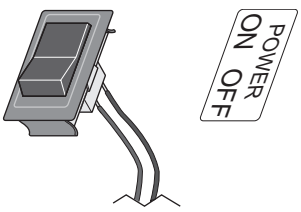
- Normally the doors and mechanical locks are manufactured by other suppliers.
- Unlock all the mechanical locks before switching on the operator. Note that more than one lock may be fitted.



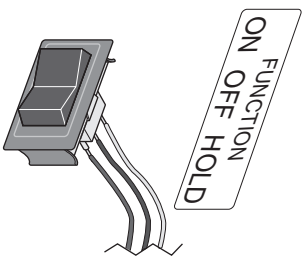
# 7 Control switches

The SW100 can be equipped with control switches to control the door operation. The control switches are flush mounted in the operator end plates.

Power On/Off switch
(standard)
P/N: 1003581



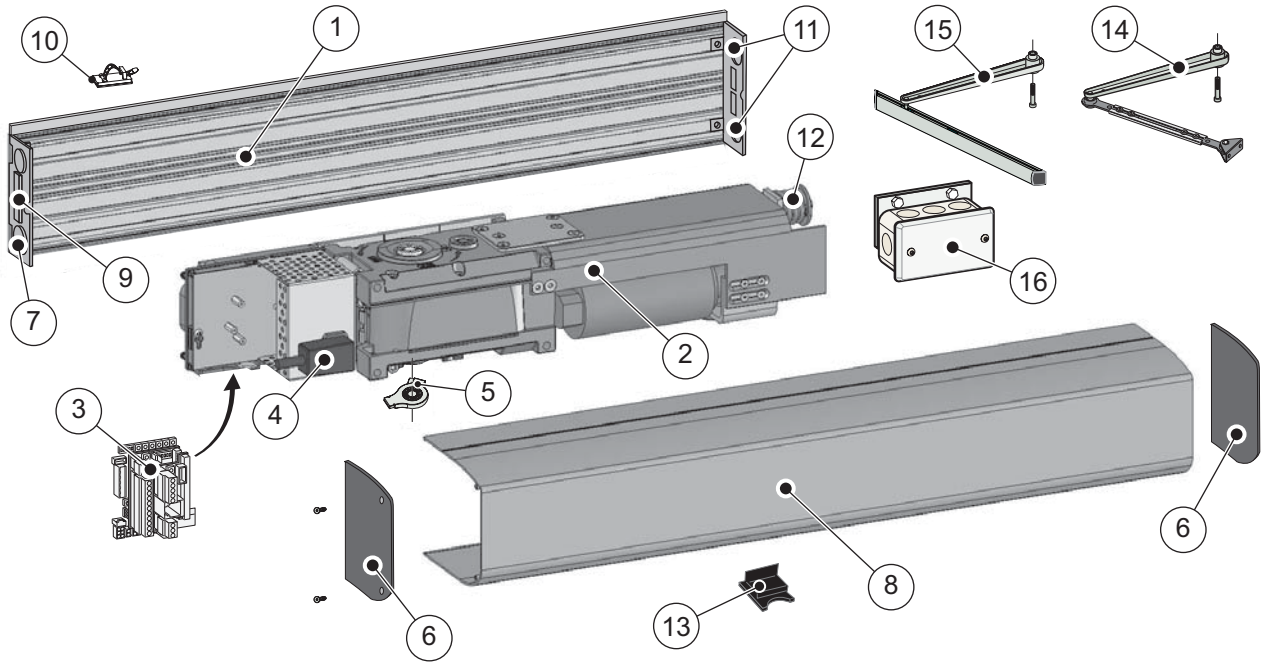

On/Off/Hold open switch
(optional)
P/N: 1003582



# 8 Troubleshooting

| Fault | Possible reasons why | Remedies/Explanations |
|---|---|---|
| **The door does not open**<br>- The motor does not start | Control switch is set to OFF | Change the setting of both control switches (ON) |
| | Main power is missing | Check the main power switch |
| | Presence detection is activated | Check that there are no objects in the detection zone |
| | Kill activated | Deactivate Kill |
| - The motor starts | Mechanical lock is locked | Unlock the lock |
| | Something jammed beneath the door | Remove object |
| | Electric strike is binding | Adjust strike |
| **The door does not close** | Control switch is set to HOLD | Change the setting of the control switch |
| | Presence impulse is activated | Remove objects in the detection zone |
| | Something jammed beneath the door | Remove object |

# 9 Part identification




| Item No. | P/N | Description |
|---|---|---|
| 1 | 1003547 | Back plate (shorty) |
| 2 | 1003498 | Transmission unit/operator |
| 3 | 1003532 | Control unit CU-ESD |
| | 1003554 | EXU-SI (Kit to extend the security functions) – optional |
| | 1003557 | EXU-SA (Kit to extend the safety functions) – optional |
| 4 | 1700607 | Mains contact |
| 5 | 1003540 | Door stop body |
| 6 | 1003542 | Top end plate |
| 7 | 1003543 | Bottom end plate |
| 8 | 1003546 | Main cover (shorty) |
| 9 | 1003581 | Power On/Off switch |
| | 1003582 | On/Off/Hold open switch – optional |
| 10 | 1003578 | Cable holder (50 pcs) |
| 11 | – | Knockouts for cable inlet |
| 12 | – | Belt tension device |
| 13 | 1003545 | Fill cover (output shaft) |
| 14 | 1003576 | Arm system, PUSH |
| 15 | 1003577 | Arm system, PULL |
| 16 | 1004437 | Connection box |
| – | 1003583 | Sync cable – optional |

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