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Instructions for safe operation

- Failure to observe the information in this manual may result in personal injury or damage to equipment.
- To reduce the risk of injury of persons - use this operator only with pedestrian doors.
- Do not use the equipment if repair or adjustment is necessary.
- Disconnect supply when cleaning or other maintenance is to be carried out.
- The operator can be used by children over 8 years of age if they have been instructed by a person in charge of their safety.
- The operator can be used by children 8 years of age or younger if they are supervised by a person responsible for their safety.
- The operator can be used by persons with impaired physical, sensory or mental capacity if they have been instructed by a person in charge of their safety.
- Cleaning and user maintenance shall not be made by children.
- Do not let anyone climb on or play with the door or the fixed/remote controls.
- The doorset can be operated automatically by sensors or manually by activators.
Congratulations on your new automatic door!

Entrematic Group AB has developed automatic doors for more than 50 years. State-of-the-art technology and carefully tested materials and components provide you with a superior product. As with all other technical products, your automatic door requires periodic maintenance and service. It is essential that you know your automatic door (system) and that you recognize the importance of maintaining it in compliance with applicable standards for safety. Your local Entrematic Group-authorized representative is familiar with these standards, as well as all applicable local codes and Entrematic Group recommendations for power-operated pedestrian doors. Service and adjustments performed by your Entrematic Group-authorized representative, will ensure safe and proper operation of your automatic door unit.

Electronic equipment reception interference

The equipment may generate and use radio frequency energy and if not installed and used properly, it may cause interference to radio, television reception or other radio frequency type systems. If other equipment does not fully comply with immunity requirements interference may occur. There is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Re-orient the receiving antenna.
- Relocate the receiver with respect to the equipment.
- Move the receiver away from the equipment.
- Plug the receiver into a different outlet so that equipment and receiver are on different branch circuits.
- Check that protective earth (PE) is connected.

If necessary, the user should consult the dealer or an experienced electronics technician for additional suggestions.

Environmental requirements

Entrematic Group products are equipped with electronics and may also be equipped with batteries containing materials which are hazardous to the environment. Disconnect power before removing electronics and battery and make sure it is disposed of properly according to local regulations (how and where) as was done with the packaging material.

Product liability

According to regulations, the following are the responsibility of the owner or caretaker of the equipment

- that the equipment operates correctly, so that it gives sufficient protection in regard to safety and health
- that the equipment is operated and regularly maintained, inspected and serviced by someone with documented competence in the equipment and in applicable regulations
- that the provided “Service Log Book” and “Site Acceptance Test and Risk Assessment” documents are kept available for maintenance and service records
- that inspection covers the emergency opening function (when applicable)
- that the closing force is appropriate for the door size on fire-approved door systems (when applicable)
Service

Inspections should be done regularly by a trained and qualified person. The frequency of these inspections should be according to national regulations (or according to industry standard if there are no national regulations). This is especially important when the installation concerns a fire-approved door or a door with an emergency-opening function. To extend the life of your investment and ensure safe and reliable operation of the door, we recommend a minimum of 2 visits per year or more, depending on usage and operating conditions. Environmental aspects shall also be considered.

Talk to your Entrematic Group representative to learn more about our service offering.

Intended use

The EM PSL150, EM PSL150-T and EM PSL100 are automatic sliding door operators developed to facilitate entrances to buildings and within buildings through sliding doors.

The door is designed to offer continuous use, a high degree of safety and maximum lifetime. The system is self-adjusting to the effects caused by normal variations in the weather conditions and to minor friction changes caused by e.g. dust and dirt.

In emergency situations the doorset is opened and remains open automatically. It may also be equipped with break-out function, in which case the door leaf is pushed manually open in the escape direction.

Dual batteries and motors are used in escape routes as indicated in associated certificates. See "Electrical emergency unit with batteries" on page 21 and "Electrical emergency unit with batteries and two motors" on page 22. For manual break-out see "Break-out unit PSB" on page 22.

It is to be used indoors where it is suitable for almost all types of external and internal sliding doors. Ensure that the lock is only activated when there are no persons in the room.

For installation and maintenance see Installation and Service manual 1016248 (EM PSL150), 1016249 (EM PSL150-T) or 1016250 (EM PSL100).

Save these instructions for future reference.

Technical specification

<table>
<thead>
<tr>
<th>Manufacturer:</th>
<th>Entrematic Group AB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address:</td>
<td>Lodjursgatan 10, SE-261 44 Landskrona, Sweden</td>
</tr>
<tr>
<td>Type:</td>
<td>Sliding Door Operator EM PSL150, EM PSL150-T and EM PSL100</td>
</tr>
<tr>
<td>Mains power supply:</td>
<td>100 V AC -10% to 240 V AC +10%, 50/60 Hz, fuse 10 A</td>
</tr>
<tr>
<td>Power consumption:</td>
<td>Max. 250 W</td>
</tr>
<tr>
<td>Degree of protection:</td>
<td>IP20</td>
</tr>
<tr>
<td>Sound pressure:</td>
<td>$L_{pa} \leq 70$ dB(A)</td>
</tr>
<tr>
<td>Approvals:</td>
<td>Third party approvals from established certification organizations valid for safety in use, see Declaration of Conformity.</td>
</tr>
</tbody>
</table>
How the EM PSL150, EM PSL150-T and EM PSL100 work

The EM PSL150, EM PSL150-T and EM PSL100 work electromechanically. The motor, control unit, transmission – and optional emergency unit and electromechanical locking device – are all assembled in a support beam with an integrated cover. The motor and gear box transmit movement to the door leaves by means of a tooth belt. The door leaf is fitted to a door adapter/carriage wheel fitting and hangs on a sliding track. The guiding at the bottom is carried out by means of floor guides, (Full Break-Out) or Side Panel Guides (Fixed Sidelites).

When an OPENING IMPULSE is received by the control unit the motor starts and transmits movement to the door leaves, which move to the open position.

The closing starts when no OPENING IMPULSE is received and the HOLD OPEN TIME has expired.

The EM PSL150, EM PSL150-T and EM PSL100 user can select five different modes of operation if a mode selector is installed. See Operation mode selectors on page 9.

Locking

Doors used for emergency escape in buildings such as hospitals and homes for elderly people may not be locked or put in mode selection OFF mode. In other buildings emergency escape doors may be locked or put in mode selection OFF mode after it has been secured and all people have left the building.

Unlocking

Unlock all the mechanical locks before activating the operator.
Entrematic Door Connect

If the operator is equipped with an OMS BLE, it is possible to change the mode selections with the smartphone app **Entrematic Door Connect**.

**Installation of the app**

- Download the app **Entrematic Door Connect**, at **App Store** or **Google Play**. Make sure to have your value document ready.
- Tap the button "+ Add Door" in the app, and follow the door setup wizard. The setup wizard will guide you how to pair the smartphone with the door.

**Note!** To be able to pair, you have to be in the range of 10 meters from the door.
# Operation mode selectors

The door functions are set with different operation mode selectors. The operation mode selector is available with 5 positions (plus RESET). The key on the PS-6, OMS Standard and OMS BLE mode selectors must always be removed on emergency escape doors after changing settings.

## OMS Standard and OMS BLE - Modes

OPEN, PARTIAL, AUTO, EXIT and CLOSE modes can be obtained.

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Text</th>
<th>Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="OPEN Symbol" /></td>
<td>OPEN</td>
<td>The door is permanently open. The door can be moved by hand e.g. for window cleaning. All activation units except for the emergency push button (if fitted) are disconnected.</td>
</tr>
<tr>
<td><img src="image2.png" alt="PARTIAL Symbol" /></td>
<td>PARTIAL</td>
<td>Two-way traffic, AUTO PARTIAL is obtained. The door can be opened partially with the inner and outer activation units and with a key switch (if fitted). With an emergency push-button (if fitted) the door opens fully.</td>
</tr>
<tr>
<td><img src="image3.png" alt="AUTO Symbol" /></td>
<td>AUTO</td>
<td>Two-way traffic, normal operation of the door. The door can be opened fully with the inner and outer activation units and with a key switch/emergency push-button (if fitted).</td>
</tr>
<tr>
<td><img src="image4.png" alt="EXIT (ONE WAY) Symbol" /></td>
<td>EXIT (ONE WAY)</td>
<td>One-way traffic passage from inside only. The door is normally locked if an electromechanical locking device has been fitted. The door can only be opened with the inner activation unit or with a key switch/emergency push-button (if fitted).</td>
</tr>
</tbody>
</table>
| ![CLOSE Symbol](image5.png) | CLOSE | The door is closed and locked (if an electromechanical lock is fitted). In an escape route the OFF mode may only be set after it is certain that all people have left the building. The door cannot be opened with inner and outer activation units. The door can be opened partially with a key switch (if fitted). The door can be opened fully with an emergency push button (if fitted). When the mode selector is in OFF mode the OFF button can give a key impulse. The key impulse will open the door to partial open position. There are 3 different ways how the OFF button works, depending on the configuration.  
1. It is not possible to give a key impulse.  
2. It is always possible to give a key impulse by pressing the OFF button for 2 seconds.  
3. The mode selector must first be unlocked then it is possible to give a key impulse by pressing the OFF button for 2 seconds. |
| ![RESET Symbol](image6.png) | RESET | By briefly pushing the button (placed in the hole accessible from the underside of the unit) with a narrow object, the door operator will make a RESET function with system test. The door will return to closed position (if not in operating mode selection OPEN or if an error is present) and is then ready for normal operation. If the operator is equipped with emergency unit for escape, the operator will test the emergency unit by opening with battery after the doors have closed with low speed (if operation mode selection is not OPEN or OFF). |

**Note!** If monitored emergency unit is a demand, a test of the emergency unit is performed when the operation mode selector is set from OFF or OPEN to any other operation mode.
OMS Standard and OMS BLE - Access codes and flashing light description

### Codes

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>One of four access codes can be used.</strong></td>
<td></td>
</tr>
<tr>
<td><strong>1</strong></td>
<td><strong>No access code.</strong></td>
</tr>
</tbody>
</table>
| **2** | **The access is obtained by pushing any mode selection button for 2 seconds.**  
Once unlocked, it will stay unlocked if no button has been pushed for 5 seconds. |
| **3** | **A passcode can be selected where the access is obtained by briefly pushing the buttons in the correct order. The entire code must be entered within 10 seconds.**  
Default passcode is ![Passcode](image) |
| | **Once unlocked, the unit will be locked 15 seconds after entering the passcode.**  
When selecting a new mode it must be confirmed by pressing ![Confirmation](image), after which the mode selector will be locked. |
| **4** | **Give access with an internal/built in key.**  
Once unlocked, the unit will be locked 15 seconds after activating the key.  
When selecting a new mode it must be confirmed by pressing ![Confirmation](image), after which the mode selector will be locked. |
|   | **The different operation modes are selected by pushing their respective symbol. If selected, the symbol shines blue.** |

### Flashing light

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Red</strong></td>
<td>A flashing red light is indicating an error in the operator. If the error remains after a RESET then service is needed.</td>
</tr>
<tr>
<td><strong>Magenta</strong></td>
<td>A magenta light every other second indicates a status or condition that can be cleared by the owner e.g. a break-out door is broken out.</td>
</tr>
<tr>
<td><strong>Yellow</strong></td>
<td>A yellow light every other second indicates that maintenance is needed.</td>
</tr>
<tr>
<td><strong>Green</strong></td>
<td></td>
</tr>
</tbody>
</table>
- A green light will flash whenever a button is pressed while typing the passcode.  
- When correct passcode is entered, the green led is continuously lit.  
- A green light will flash four times per second when a new operation mode has been selected but not yet confirmed. |
<table>
<thead>
<tr>
<th>Bluetooth LED (For OMS BLE)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>No light</td>
<td>Bluetooth is disabled</td>
</tr>
<tr>
<td>Lit</td>
<td>Bluetooth is active</td>
</tr>
<tr>
<td>Flashing light</td>
<td>OMS BLE module is pairing with the app Entrematic Door Connect</td>
</tr>
</tbody>
</table>
**OMS Basic and PS-6 - Modes**

OPEN, AUTO PARTIAL, AUTO, EXIT and OFF modes can be obtained.

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Text</th>
<th>Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="Symbol" /></td>
<td>OPEN</td>
<td>The door is permanently open. The door can be moved by hand e.g. for window cleaning. All activation units except for the emergency push button (if fitted) are disconnected.</td>
</tr>
<tr>
<td><img src="image2" alt="Symbol" /></td>
<td>AUTO PARTIAL</td>
<td>Two-way traffic, AUTO PARTIAL is obtained. The door can be opened partially with the inner and outer activation units and with a key switch (if fitted). With an emergency push-button (if fitted) the door opens fully.</td>
</tr>
<tr>
<td><img src="image3" alt="Symbol" /></td>
<td>AUTO</td>
<td>Two-way traffic, normal operation of the door. The door can be opened fully with the inner and outer activation units and with a key switch/emergency push-button (if fitted).</td>
</tr>
<tr>
<td><img src="image4" alt="Symbol" /></td>
<td>EXIT (ONE WAY)</td>
<td>One-way traffic passage from inside only. The door is normally locked if an electromechanical locking device has been fitted. The door can only be opened with the inner activation unit or with a key switch/emergency push-button (if fitted).</td>
</tr>
<tr>
<td><img src="image5" alt="Symbol" /></td>
<td>OFF</td>
<td>The door is closed and locks (if an electromechanical lock is fitted). This function is only used on emergency escape doors after it is certain that all people have left the building. The door cannot be opened with inner and outer activation units. The door can be opened partially with a key switch (if fitted). The door can be opened fully with an emergency push button (if fitted). <strong>OMS Basic</strong>: When the mode selector is in OFF mode the arrow down button can give a key impulse. The key impulse will open the door to partial open position. There are 3 different ways how the arrow down button works, depending on configuration. 1. It is not possible to give a key impulse. 2. It is always possible to give a key impulse by pressing the arrow down button for 2 seconds. 3. The mode selector must first be unlocked then it is possible to give a key impulse by pressing the arrow down button for 2 second.</td>
</tr>
<tr>
<td><img src="image6" alt="Symbol" /></td>
<td>RESET</td>
<td>By briefly pushing the green dot with a narrow object, the operator will RESET. The operator will start-up again, the doors will return to closed position with low speed (if operation mode selection is not OPEN). If the operator is equipped with emergency unit for escape, the operator will test the emergency unit by opening with battery after the doors have closed with low speed (if operation mode selection is not OPEN or OFF).</td>
</tr>
<tr>
<td><img src="image7" alt="Symbol" /></td>
<td>RESET</td>
<td>Turn the key clockwise to the position &quot;R&quot; (six o'clock) and insert a narrow object in the small hole on the operation mode selector and push briefly. The operator will RESET, then turn the key counter-clockwise back to the requested setting. The operator will start-up again, the doors will return to closed position with low speed (if operation mode selection is not OPEN). If the operator is equipped with emergency unit for escape, the operator will test the emergency unit by opening with battery after the doors have closed with low speed (if operation mode selection is not OPEN or OFF). <strong>Note!</strong> The key cannot be removed in the &quot;R&quot; position.</td>
</tr>
</tbody>
</table>
Note! If monitored emergency unit is a demand, a test of the emergency unit is performed when the operation mode selector is set from OFF or OPEN to any other operation mode.

OMS Basic - Access codes and flashing light description

<table>
<thead>
<tr>
<th>Codes</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Three alternative selectable codes are used.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 The access is obtained by pushing the arrow symbol pointing up or down for 2 seconds.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 The access code is obtained by briefly pushing in turn the arrow up symbol, followed by the arrow down, arrow down again and the arrow up symbol. The entire code must be entered within 3 seconds.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 No access code.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The different operation modes are selected by pushing the arrow symbols pointing upwards or downwards. When a button is pushed a buzzer will sound. The present selection is indicated by a blue light to the left of the function symbol or text. When an arrow symbol has not been pushed for 5 seconds the access will be locked.

<table>
<thead>
<tr>
<th>Flashing light</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Red</td>
<td>• When a red light is flashing it is indicating an error in the door operator. If the error remains after a RESET then service is needed. • When an external key is connected and activated, the indication LED on the OMS Basic will be steady red for 15 seconds and it will be possible to change mode selection.</td>
<td></td>
</tr>
<tr>
<td>Orange</td>
<td>An orange light every other second indicates a status or condition that can be cleared by the owner e.g. a break-out door is broken out.</td>
<td></td>
</tr>
<tr>
<td>Yellow</td>
<td>A yellow light every other second indicates that maintenance is needed.</td>
<td></td>
</tr>
</tbody>
</table>

Integrated safety

To permit a safe passage between closing doors, the doors reverse immediately if an obstruction is detected. They then resume their interrupted movement at low speed to check whether the obstruction has disappeared or not.

If an obstruction is detected while the door is opening, the doors stop immediately, and then close after a time delay.
Safety system with presence sensors

Usually the safety system incorporates presence sensors installed above the door opening. A presence sensor detects an object in the doorway, while the doors are closing, the doors reverse immediately. The doors will start to close when the object is removed.

Technologically advanced sensors

The Entrematic Group sensors have been tested and approved by the Entrematic Group test laboratory for use on Entrematic Group’s automatic sliding doors. These presence sensors further improve the already high obstruction detection obtained with the built in self-monitored crush force limitation. Monitored sensors have built-in monitoring for error detection.

Note! If you have a problem you cannot correct, turn off the automatic door immediately and call your Entrematic Group service representative for assistance.

How to check your inner and outer combined motion and presence detection sensors

Combined sensors are used when you want both a motion sensor and a presence sensor integrated into the same unit.

1. Walk towards the door opening, the door shall start to open when you are about 1.5 meter from the door and the door shall stop in open position.

2. When the door has closed, repeat the same procedure from the other side of the door opening.

3. Open the door, stand still close to the face of the open door leaf on the left side for more than 5 s. The door shall remain open. Repeat on the right side.

4. Repeat step 3 in the other side of the door opening.
How to check your side presence detector(s)
Side presence sensors can be used for example if higher door speed is required or for installations in homes for elderly/disabled or childcare centres, to protect users from being struck by the doors during their opening cycle. When a side presence sensor detects an obstacle the door operator will not stop, but slow down the door movement to a safe speed. With this safe speed the door will try to push the obstruction away, to ensure that the person passing through the door will not walk into the door.
Walk into the detection field of the side presence sensor on one side. Activate the impulse on the operator, the door shall not stop, but slow down to safe speed during the opening.
If you have a bi-parting (double) door then repeat the procedure above on the other side.
Emergency escape

The operator can be fitted with different emergency escape units to ensure a safe evacuation of the building.

Break-out unit PSB

The door leaves and the side screens are swung outwards when a defined pressure is applied. The break-out function can also be used to create a wider opening. From the fully swung out position, the door leaves can be manually slid sideways, offering the possibility to transport wide objects through the opening, or to make a shop entrance more inviting during good weather.

Mechanical emergency unit (MEU)

An elastic cord is used to open the door in the event of power failure. Until the power is restored, the door remains open. The operator will then resume the function set by the mode selector. The emergency unit is monitored by the operator control unit. A monitoring error means that the door opens and remains open until the error is cleared.

For further information, see General accessories on page 21.

Electrical emergency unit

The door is opened by means of a rechargeable battery unit in the event of a power failure. The door remains in this position until the power is restored. The operator will then resume the function set by the mode selector. The emergency unit is monitored by the operator control unit. A monitoring error is indicated by flashing red LED on the operation mode selector (OMS) and the door remains in open position until the error is cleared.

For further information, see General accessories on page 21.

The electrical emergency function can also be used to close the door in the event of power failure. The fire authorities make this a requirement to stop fire or smoke from spreading throughout the building.
Regular safety checks

To help you fulfill the national/international requirements and to avoid malfunction and risk for injuries, we have provided the following checklist.

- Do not use the operator if repair or adjustment is necessary.
- Disconnect supply when cleaning or other maintenance is to be carried out.

### Daily Action

<table>
<thead>
<tr>
<th>Daily Action</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Activate your operator and visually check, fastening and any damage of</strong></td>
</tr>
<tr>
<td>- operator and cover (1)</td>
</tr>
<tr>
<td>- cables (2)</td>
</tr>
<tr>
<td>- operator mode selector(s) (3)</td>
</tr>
<tr>
<td>- door and glass (stability) (4)</td>
</tr>
<tr>
<td><strong>Also inspect your operator and check visually for</strong></td>
</tr>
<tr>
<td>- condition of door seals and weather stripping (5)</td>
</tr>
<tr>
<td>- condition of glazing rubbers (6)</td>
</tr>
<tr>
<td>- finger protection (7)</td>
</tr>
<tr>
<td>- proper operation; closes slowly and smoothly</td>
</tr>
<tr>
<td>- any ventilation being obstructed</td>
</tr>
<tr>
<td><strong>Set the mode selector to OFF and check that the operator and electromechanical lock (if fitted) work together. Also check that the lock really secures the door.</strong></td>
</tr>
<tr>
<td><strong>Activate the manual activation units, if any, and walk towards the door. Check that the door has opened appropriately while you pass the entrance/exit. Then proceed with the automatic activation units in the same way.</strong></td>
</tr>
<tr>
<td><strong>Check the safety sensors if any.</strong> If you are unsure of which type of sensor you have, please contact your Entrematic Group representative.**</td>
</tr>
</tbody>
</table>

#### Escape doors

If the operator is equipped with break-out system, set the mode selector to AUTO mode. Push the door manually while in the escape direction to ensure that nothing prevents the door from being open. Also ensure that the escape route is free for use. After the test, restore the door(s) to their normal mode of operation.

If the operator is equipped with automatic opening system, shut off the power and the door should open and remain open. Restore power and the door should close.

### Fire doors

By law, these tests must be performed regularly by trained personnel.

Let the door close after an impulse ensuring nothing prevents the door from closing and locking (if regulations require it).

- = Take appropriate measures.
- = Contact your Entrematic Group representative. For contact information, see last page.
A gentle detergent may be used. To maintain the quality of the surface treatment, the surfaces should be cleaned once/four months period. The cleaning should be documented. To avoid damages to the profiles the brushes/weather stripping must be vacuum-cleaned weekly.

- Do not expose windows, doors or profiles to alkalis. Both aluminium and glass are sensitive to alkalis.
- Do not clean with high pressure water. Operator, mode selector and sensor may be damaged and water may enter the profiles.
- Do not use polishing detergent.
- Do not scrub with materials like Scotch-brite, as this will cause mechanical damage.
Check that all required signage is applied and intact. Mandatory indicates that the signage is required by European directives and equivalent national legislation outside the European Union.

- **Product label**: Mandatory
- **Emergency break-out**: Mandatory, if approved for escape route.
- **Entrematic Group door sticker**: Mandatory, if applicable to highlight the presence of the glass (applied to all glass sections that are moving).
- **Supervision of child (applied to both sides of the door)**: Mandatory according to national regulations. Recommended, if the risk analysis shows use by children.
- **Operator designed for disabled people**: Recommended, if applicable (applied to both sides of the door).
- **Activation by disabled people**: Recommended, if applicable.
- **No entry, identifying one-way traffic**: Mandatory in GB and US, if applicable, not included in the product.
- **Local product label**
- **Keep clear**
- **Automatic door**

### Safety accessories

Even though the EM PSL150, EM PSL150-T and EM PSL100 are installed to comply with all applicable safety regulations, it is possible to enhance safety/comfort with the following add-ons (please contact your local Entrematic Group company for detailed description).

- Combined motion and presence sensors
- Separate presence sensors (presence in the door opening or side presence for the trailing edge of the door)
General accessories
Your EM PSL150, EM PSL150-T and EM PSL100 can be further improved with the following add-ons (please contact your local Entrematic Group dealer for detailed description).

Cover
Made in clear anodized aluminium as standard. Paint finished in RAL colours or anodizing optional.

Motion sensor and presence sensors
Add motion and presence sensors to improve comfort and safety.

Operation mode selectors
See page 9.

Electrical locks
The following locks are available to the operator:
- Locked with power (LDP), fail safe
- Locked without power (LD), fail secure
- Bistable lock (LDB)
- Espagnolette lock (LDE) (Only available for EM PSL150)

Note! The espagnolette lock is at the moment not allowed to mount in escape routs.

Manual Opening Lock device, MOLD
For manual unlocking of the electrical lock (LD), locked without power (fail safe).

Micro switch kit, LSK/LIS
For indication of door and lock position.

Locked door indicator, LDI/LIS
For indication of locked lock and closed door for connection to alarm system.

Electrical emergency unit with batteries
Used if a door is required to be opened or closed by means of a rechargeable battery unit and remain in this position in the event of power failure. Authorities can demand that the emergency units are monitored on a regular time basis. Half an hour before this time has elapsed the following opening impulse generates an emergency opening test. If there is no opening impulse within the next half hour, the operator control unit generates the opening impulse itself. If the battery opens the door within the limited time the test is successful and the door resumes the function set by the operation mode selector.

Note! The test is never performed in operation mode selection OPEN. In OFF mode it can be selected. The test is always performed after a RESET and after changing operation mode selection, from a position where a test is not done to a position where the test is a demand.
Electrical emergency unit with batteries and two motors
Used if a door is required to be opened by means of a rechargeable battery unit and remain in this
position in the event of power failure. Authorities can demand that the emergency unit is monitored
on a regular time basis. Half an hour before this time has elapsed the following opening impulse
generates an emergency opening test. If there is no opening impulse within half an hour, the oper-
ator control unit generates the opening impulse itself.
If the battery opens the door within the limited time the test is successful and the door resumes the
function set by the operation mode selector.

Note! The test is never performed in operation mode selector setting OPEN. In setting OFF it can be
selected. The test is always performed after a RESET and after changing operation mode selection,
from a position where a test is not done to a position where the test is a demand.

Emergency closing with repeated closing
If the door is opened by hand after an electrical emergency closing, it will close again.

Mechanical emergency unit with elastic cord
Used if a door is required to be opened and remain opened by means of an elastic cord in the event
of power failure. Authorities can demand that the emergency unit is monitored on a regular time
basis. Half an hour before this time has elapsed the following opening impulse generates an emergency
opening test. If there is no opening impulse within half an hour, the operator control unit generates
the opening impulse itself.
If the elastic cord opens the door within the limited time the test is successful and the door resumes
the function set by the mode selector.

Note! The test is never performed in mode selector setting OPEN. In setting OFF it can be selected.
The test is always performed after a reset and after changing mode selection, from a position where
a test is not done to a position where the test is a demand.
The MEU can be equipped with a 12 or 24V battery. The battery will only help to open and brake the
door when mains power is lost. The battery is not a part of the escape system and will not be mon-
itored when parameter 10 is configured to 1 or 2, only the elastic cord is monitored.

Break-out unit PSB
Enables door/side screens to be broken outwards in case of emergency.
See page 18.

Interlocking
Used between two operators when the first operator must close before the other one can open
(typical to reduce energy losses and not for security reasons).

Convenience battery UPS
Stand-by supply which gives continued operation during short power failure.

External error indication
Obtained if a lamp or a buzzer is connected.

Key switches (flush and/or surface mounted)
Used to give opening impulse to the door in any operation mode selector setting. The key switch
can also open the door when power is switched off, if a battery is fitted.

Push button
Used to give opening impulse to the door.

Synchronization
Used between the operators of two single sliding doors, working together in very large openings.
Interconnecting cable required.

Open / Close function
One button impulse, will alternate between Open and Close. The door will stand open until next impulse or can after an adjustable time delay automatically start to close even if a new impulse is not received.

Fire alarm connection
Used to emergency open or fire close the door with mains power on.

Nurse function
Used mostly in combination as a Nurse - Bed function. Nurse opens the door to partial open position, and bed (connected to inner or outer impulse) opens to full open position.
Nurse works in operation mode selections Exit, Auto.
The Nurse impulse has the same hold open time as partial open.

Remote Exit mode
Remotely put door into Exit via an remote system, like timer.

Emergency open impulse
Used to give opening (fireman's opening) impulse to the door in any operation mode selector setting. With electrical emergency unit also during power failure.

Troubleshooting

<table>
<thead>
<tr>
<th>What’s wrong?</th>
<th>Remedies</th>
</tr>
</thead>
<tbody>
<tr>
<td>The door does not open</td>
<td></td>
</tr>
<tr>
<td>The motor does not start</td>
<td>Change the setting of the mode selector.</td>
</tr>
<tr>
<td></td>
<td>Check the mains switch and fuse in the building.</td>
</tr>
<tr>
<td>The motor starts but stops during opening</td>
<td>Unlock the mechanical locks.</td>
</tr>
<tr>
<td></td>
<td>Clean the floor guide.</td>
</tr>
<tr>
<td></td>
<td>Check for objects jammed under the door.</td>
</tr>
<tr>
<td>The door does not close</td>
<td></td>
</tr>
<tr>
<td>The motor does not start</td>
<td>Change the setting of the mode selector.</td>
</tr>
<tr>
<td></td>
<td>If a presence sensor is installed, check for and remove objects placed in the presence zone.</td>
</tr>
<tr>
<td>The motor starts but stops during opening</td>
<td>Clean the floor guide.</td>
</tr>
<tr>
<td></td>
<td>Check for objects jammed under the door.</td>
</tr>
<tr>
<td>The door moves slowly</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Prevent traffic from using the door and allow it to close completely.</td>
</tr>
<tr>
<td></td>
<td>Reset the operator by briefly pushing the reset button (see page 9).</td>
</tr>
</tbody>
</table>

If the problem continues, please contact your Entrematic Group representative.
Service/Maintenance

Service and adjustments performed by your Entrematic Group-authorized representative will ensure safe and proper operation of your automatic door unit. Remember to keep “Service Log Book” and “Site Acceptance Test and Risk Assessment” documents available. These are used together.

The table below shows the recommended interval in months, when to replace parts during preventive maintenance.

<table>
<thead>
<tr>
<th>Part</th>
<th>Cycles/hour in operation</th>
<th>Abusive Environment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>&lt;10 &lt;100 &gt;100</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Low traffic Medium traffic High traffic</td>
<td></td>
</tr>
<tr>
<td>Electrical emergency unit battery</td>
<td>24 24 24 24</td>
<td>24</td>
</tr>
<tr>
<td>Floor guide shoe</td>
<td>24 12 6 6</td>
<td></td>
</tr>
<tr>
<td>Standard Felt padded Break-out</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Door carriage</td>
<td>36 24 12 12</td>
<td></td>
</tr>
<tr>
<td>Plastic wheels</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Steel wheels</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anti-riser device</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sliding track</td>
<td>36 36 36 24</td>
<td></td>
</tr>
<tr>
<td>Tooth belt</td>
<td>48 48 48 36</td>
<td></td>
</tr>
<tr>
<td>Drive unit damper kit</td>
<td>60 60 60 60</td>
<td></td>
</tr>
<tr>
<td>Lock ramp</td>
<td>60 60 60 60</td>
<td></td>
</tr>
<tr>
<td>Belt clamp</td>
<td>60 48 36 24</td>
<td></td>
</tr>
<tr>
<td>Plastic protector center shaft kit</td>
<td>60 60 60 48</td>
<td></td>
</tr>
<tr>
<td>Door stop rubber kit</td>
<td>24 24 24 24</td>
<td></td>
</tr>
<tr>
<td>Tension wheel assembly</td>
<td>36 36 36 36</td>
<td></td>
</tr>
<tr>
<td>Detachment guard</td>
<td>60 60 60 60</td>
<td></td>
</tr>
<tr>
<td>Brush/sealing</td>
<td>12 12 12 12</td>
<td></td>
</tr>
</tbody>
</table>

Other products from Entrematic Group

- Door Systems
- Swing doors
- Automatic and manual activation units
Declaration of conformity

We
Entrematic Group AB
Lodjursgatan 10
SE-261 44 Landskrona
Sweden

declare under our sole responsibility that the type of equipment:
EM PSL150, EM PSL150-T, EM PSL100. With or without emergency unit

complies with the following directives:
2014/30/EU ElectroMagnetic Compatibility Directive (EMCD)
2006/42/EC Machinery Directive (MD)
2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)

Harmonized European standards which have been applied:
EN 61000-6-3:2007+A1
EN 61000-6-2:2005
EN ISO 13849-1:2015
EN 60335-1:2012
EN 60335-2-103:2015
EN 60335-1:2012

Other standards or technical specifications, which have been applied:
BBR
UL 325
DIN 18650-1/-2:2010

EC type examination or certificate issued by a notified or competent body (for full address, please contact Entrematic Group AB) concerning the equipment:
SC1320-13
B 085479 0010
B 1604 85479 007

The manufacturing process ensures the compliance of the equipment with the technical file. The manufacturing process is regularly assessed by 3rd party.
The CE mark was first applied 2013-12-20.

Compilation of technical file:

Anders Forslind
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Email: anders.forslind@entrematic.com

Place
Date
Signature
Position
Landskrona
2019-06-06
Klas Hagelin
Global Quality Manager

DoC 1011991-EMen-11.0