



# Motorised sliding doors

IP2103EN

## User Manual

(Original instructions)



All the rights concerning this material are the exclusive property of Entrematic Group AB. Although the contents of this publication have been drawn up with the greatest care, Entrematic Group AB cannot be held responsible in any way for any damage caused by mistakes or omissions in this publication. We reserve the right to make changes without prior notice. Copying, scanning and changing in any way are expressly forbidden unless authorised in writing by Entrematic Group AB.

## General precautions for safe use



- Failure to observe the information in the User Manual may lead to personal injury or damage to the equipment. These instruction must be kept and forwarded to all possible future users of the system.
- The sliding door must only be used for the purpose for which it was designed. Any other use should be considered improper and therefore dangerous. The manufacturer cannot be held responsible for any damage caused by improper, incorrect or unreasonable use.
- Do not use the automation if it needs repairing or adjusting. Disconnect the power supply when carrying out cleaning or maintenance tasks.
- This product must not be used by people (including children) with reduced physical, sensorial or mental abilities, or lack of experience or knowledge, unless they are given proper surveillance and instructions for operating the device by a person responsible for their safety.
- Any cleaning or maintenance intervention by the user must be carried out directly by, or under the supervision of, a person in charge.
- Do not allow children to play or stay near the sliding door. Keep remote controls and/or any other control devices out of the reach of children, to prevent the sliding door being accidentally activated.

## TECHNICAL SPECIFICATIONS OF THE MOTORISED DOOR AND ITS INSTALLATION

<b>Manufacturer / Installer:</b>	_____
	Name, address, reference person
<b>Customer / User:</b>	_____
	Name, address, reference person
<b>Order number:</b>	_____
	Number and date of the customer order
<b>Model and description:</b>	_____
	Type of door
<b>Dimensions and weight:</b>	_____
	Dimensions of the passage opening, dimensions and weight of the door wings
<b>Serial number:</b>	_____
	Unique door identification number (serial number)
<b>Location:</b>	_____
	Installation address

### LIST OF COMPONENTS INSTALLED

The technical characteristics and performance of the components listed below are shown in the relative installation manuals and/or on the label on the component itself.

<b>Motor / Drive unit</b>	_____
	Model, type, serial number
<b>Control panel:</b>	_____
	Model, type, serial number
<b>Safety devices:</b>	_____
	Model, type, serial number
<b>Command devices:</b>	_____
	Model, type, serial number
<b>Radio devices:</b>	_____
	Model, type, serial number
<b>Other:</b>	_____
	Model, type, serial number

Entrematic produces technologically advanced automatic doors, using carefully tested materials and components to ensure a high quality product.

Like any other technical product, an automatic door needs regular maintenance and servicing in compliance with the relevant safety standards.

## Responsibility for the product

In compliance with the European directives, the following aspects are the responsibility of the system owner or user.

To ensure the system works efficiently and correctly, the manufacturer's indications must be complied with and only qualified personnel must perform routine maintenance on the sliding door.

In particular, regular checks are recommended in order to verify that the safety devices are operating correctly.

In the event of a fault or a malfunction of the sliding door, disconnect the power supply and contact qualified personnel. Do not attempt to repair or intervene directly.

Failure to comply with the above may cause a dangerous situation.

It is important to keep a record of all inspection, maintenance and assistance interventions.

## Environmental requisites

Entrematic Group products contain electronic components and may be equipped with batteries containing materials that are harmful for the environment.

Disconnect the power supply before removing the electronic components and battery. Local regulations concerning the disposal of worn products and packaging must be respected. Correct product disposal helps prevent potential harmful consequences for the environment and human health.

 To correctly dispose of electrical and electronic equipment, batteries and accumulators, owners/users must take the product to special "recycling centres" set up by the municipal authorities.

# Operating mode

The automatic system for Entrematic sliding doors works electronically.

The motor, control unit, transmission and electro-mechanical lock are all assembled in a specific aluminium box.

The gearmotor conveys the movement to the moving door wings via a toothed belt. The moving door wing is fixed to a carriage, and slides on a track inside the box. The path of the door wing is guided by a special floor guide.

When an opening pulse (for instance from a movement sensor) is received by the control unit, the motor starts up and conveys the opening movement to the door wings.

Closure is automatic once the "opening time" has lapsed and the control unit has received no opening or stop command.

In some cases, closure can be forced via a manual command.

The user can choose the type of door operation by means of the functions selector switch, as explained on page 36.

## Built-in safety

To ensure safe transit during closing operations, the door wings immediately reverse their movement direction if they meet an obstacle. They subsequently resume their interrupted movement at low speed, to make sure the obstacle has been removed.

If an obstacle is detected during the opening operation, the door wings stop immediately and then close after a set delay time.

## Safety system with presence sensors

One or more presence sensors can be installed to detect the presence of objects or people in both the passage opening and on the opening side of the moving door wings. If the presence sensor detects an object or person in the passage opening while the door is closing, the door wings immediately reverse their movement direction. They start moving again when the obstacle has been removed.

# Safety exit

The door can be fitted with various safety systems to ensure the safe evacuation of the building.

## Emergency opening system with door wing break-out

The moving door wings and semi-fixed door wings rotate outwards when a certain pressure is applied.

This rotation can be used to obtain a wider opening of the passage space so that bulky objects can get through.

**WARNING:** the use of the door as an escape route requires the release of any locks on the frame.

## Emergency opening system without door wing break-out

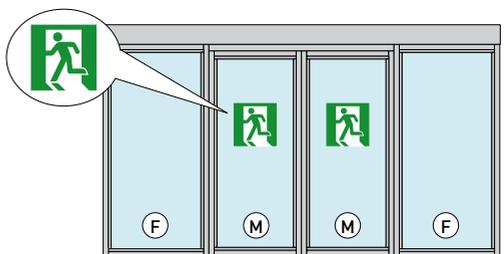
If there is a power failure, the door is opened by means of a rechargeable battery. It remains open until the power supply is restored; the automatic system will then resume the operating mode set via the functions selector switch.

The automatic system has an emergency unit that constantly monitors door operation. In the event of an error or failure, the door opens and remains open until the problem is resolved.

**WARNING:** the use of the door as an escape route requires the release of any locks on the frame.

# Instructions for sliding doors in break-out escape routes

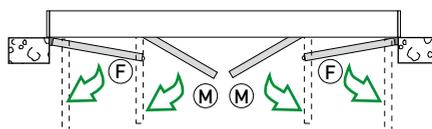
The label supplied must be fixed in a visible point on every break-out moving door wing [M], in the escape direction.



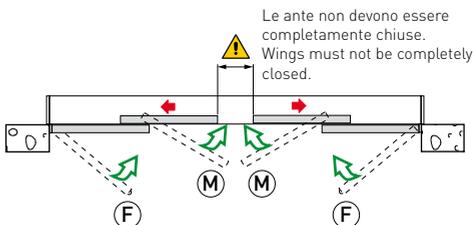
The break-out of the moving door wings is obtained by pushing them in the escape direction.

A force of no more than 220 N near the closure edge is sufficient, at about 1m from the ground.

The door wing break-out interrupts motorised operation, so the door can only be moved manually.



To restore automatic operation of the sliding door, partly open the break-out moving door wings and manually reposition each one - first the moving wings [M] and then the semi-fixed wings [F] if present, bringing them back to their starting positions.



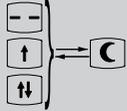
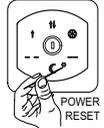
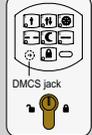
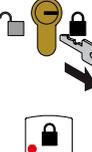
# User instructions for the functions selector switch

Select the required function as explained below.

The STOP position (night-time closure) prevents the batteries from engaging in the event of an emergency. The automation must be connected to the power supply at all times with the batteries connected (even at night) in order to ensure the correct functioning of the door and constant recharging of the batteries.

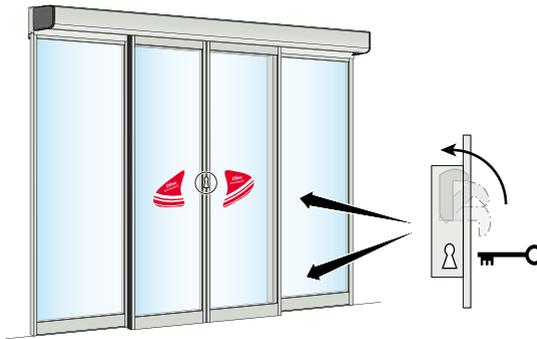
FUNCTION SELECTOR	COME	COMH-K
<b>DOOR OPEN</b> The door opens and remains open.		--
<b>TOTAL ONE-WAY OPENING</b> For one-way operation from the inside/outside of the door.		↑
<b>TOTAL TWO-WAY OPENING</b> For two-way door operation		↑↓
<b>PARTIAL OPENING</b> For two-way, one-way and partial opening operation.		
<b>PARTIAL OPENING</b> For two-way partial opening.		
<b>DOOR CLOSED</b> The door closes and remains closed and locked (if lock is present).		--
<b>IMMEDIATE NIGHT-TIME CLOSURE (STOP)</b> The door stops immediately when the NIGHT-TIME CLOSURE key is pressed for 3 s.		
<b>DELAYED NIGHT-TIME CLOSURE</b> Pressing the NIGHT-TIME CLOSURE key, the door closes after 10 seconds (with J1=ON) or 60 seconds (with J1=OFF). This allows authorised door management personnel to get out before it closes.		
<b>IMMEDIATE NIGHT-TIME CLOSURE</b> The door stops immediately when the NIGHT-TIME CLOSURE is selected.		
<b>POWER RESET</b> Cancels the data acquired, proceeding with a new acquisition after 3 seconds.		
<b>DMCS Jack</b> This is used to connect the DMCS software. N.B.: The DMCS jack can be accessed by removing the function selector switch cover.		
<b>SETTING THE CODE (with J3=ON)</b> The code can contain up to 5 numbers. Press the LOCK key for 3 seconds. Enter the numerical code. NOTE: the red LED flashes during this procedure. Press the LOCK key for 3 seconds. If the LED remains steady on, the selector is protected by an access code.	  	
<b>CANCELLING THE CODE (with J3=ON.)</b> Press the LOCK key for 3 seconds. Enter the numerical code. NOTE: the red LED flashes during this procedure. Press the LOCK key for 3 seconds. If the LED is switched off, the selector is working and no access code is set.	  	

# User instructions for the functions selector switch for escape routes

SELECTOR FUNCTIONS	COMER	COMKR
<b>DOOR OPEN</b> The door opens and remains open.		
<b>TOTAL ONE-WAY OPENING</b> For one-way operation from the inner side of the door.		
<b>TOTAL TWO-WAY OPENING</b> For two-way door operation.		
<b>PARTIAL OPENING</b> For two-way, one-way and partial opening operation.		
<b>DOOR CLOSED - DO NOT USE</b> The door closes and remains closed and blocked (if block is present). <b>WARNING:</b> the MD1 display module displays alarm S3.		
<b>NIGHT-TIME CLOSURE</b> The door closes after 10 seconds of operation, to allow authorised door management authorised staff to get out before it closes. NB: with the COMER selector, operation can be extended to 60 s; with the COMKR selector, operation can be set from the MD1 display module. The NIGHT-TIME CLOSURE mode allows the door to be closed even in the presence of an alarm, except when the 1-EO emergency opening contact is open. <b>WARNING:</b> door operation as an escape route is disabled.		
<b>ALARM CLEAR</b> ALARM CLEAR can be activated by temporarily selecting the NIGHT-TIME CLOSURE mode and then reselecting the current mode. <b>WARNING:</b> in the event of an alarm, ALARM CLEAR must be activated (when envisaged) to restore door operation.		
<b>POWER RESET</b> It annuls the acquired data and, after 3 s, the door carries out the ESCAPE ROUTE TEST and makes a new acquisition. <b>WARNING:</b> in the event of an alarm, POWER RESET must be activated (when envisaged) to restore door operation.		
<b>DMCS jack</b> This is used to connect the DMCS software. NB: the DMCS jack can be accessed by removing the functions selector switch cover.		
<b>SELECTOR DISABLED</b> Red LED on. (COMER) Compulsory position during operation. <b>WARNING:</b> during door operation as escape route, the COMER or COMKR selector must be disabled, the key must be removed, and the set operating mode must be TWO-WAY, ONE-WAY or DOOR OPEN. Any other selector setting may affect escape route operation and can be selected by authorised staff only, when the usage conditions allow it.		
<b>COMER SELECTOR ENABLED</b> Used to select the required function. <b>WARNING:</b> after selecting the required function, disable the selector and remove the key to prevent the alarm being visualised on the MD1 display module.		

# Instructions for releasing and manually activating the door

Release all the mechanical locks before activating the automatic system.



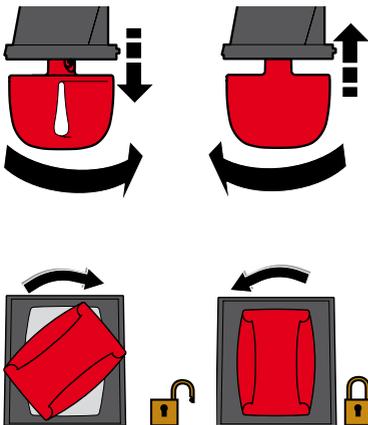
"In compliance with the EN 16005 Standard, transparent glass panels must be marked. The application of stickers complies with the provisions of the Standard regarding accident prevention".

In the event of maintenance, malfunctioning or emergency, disconnect the power supply then pull the VALSB lock release lever downwards and turn it to the right. Alternatively, lower the LOKSBM lock release lever (if installed) and manually move the door wings to their open position. To block the door wings again, bring the lock release lever back to its initial position.

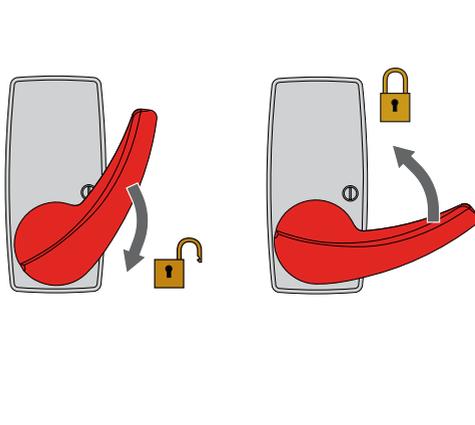


**WARNING:** only lock and release the door wings when the motor is switched off.

## VALSB



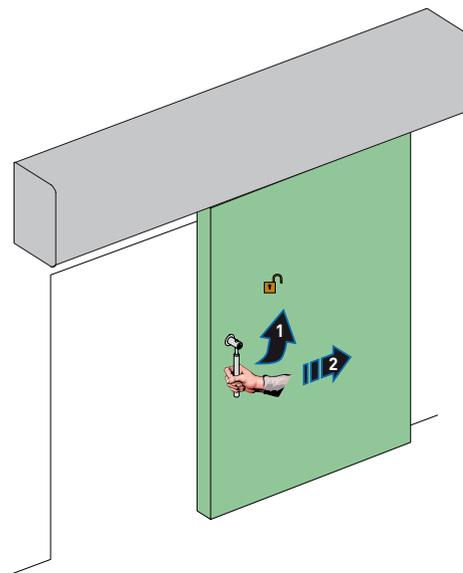
## LOKSBM



# Instructions for releasing and manually activating the hermetic seal door

## MANA1-MANA2

In the event of maintenance, malfunctioning or emergency, disconnect the power supply then raise the lock release lever (if installed) and manually move the door wings to their open position.



## Technical specifications

<b>Manufacturer:</b>	Entrematic Group AB				
<b>Address:</b>	Lodjursgatan 10, SE-261 44 Landskrona, Sweden				
<b>Type:</b>	Ditec VALOR L Ditec VALOR H	Ditec VALOR P Ditec VALOR N Ditec VALOR T	Ditec REXS	Ditec VALORHH Ditec VALORHS	Ditec TEN
<b>Mains power supply:</b>	230 V~ 50/60 Hz	230 V~ 50/60 Hz	230 V~ 50/60 Hz	230 V~ 50/60 Hz	230 V~ 50/60 Hz
<b>Power absorption:</b>	max 200 W	max 300 W	max 200 W	max 200 W	max 200 W
<b>Protection class:</b>	IP20 - FOR INDOOR USE ONLY				
<b>Sound pressure emitted</b>	<70 dB(A)				
<b>Certifications:</b>	Certifications of third parties, supplied by accredited certification bodies and valid for usage safety. Refer to the Conformity Declaration.				

# Regular safety checks

To meet the national/international requisites and avoid any risk of personal injury or device malfunctioning, the following check-list is supplied.

Do not use when repairs or adjustments need to be carried out.

Disconnect the power supply [A] when carrying out cleaning or maintenance tasks.

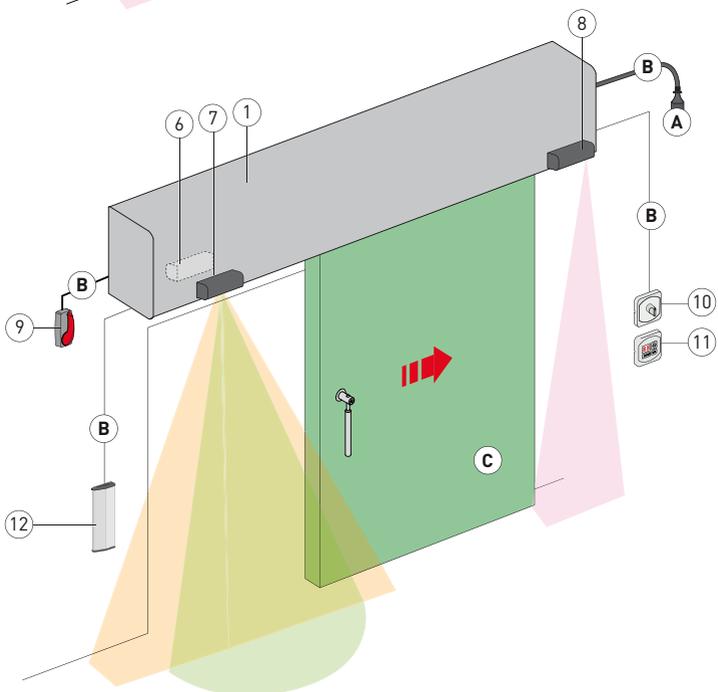
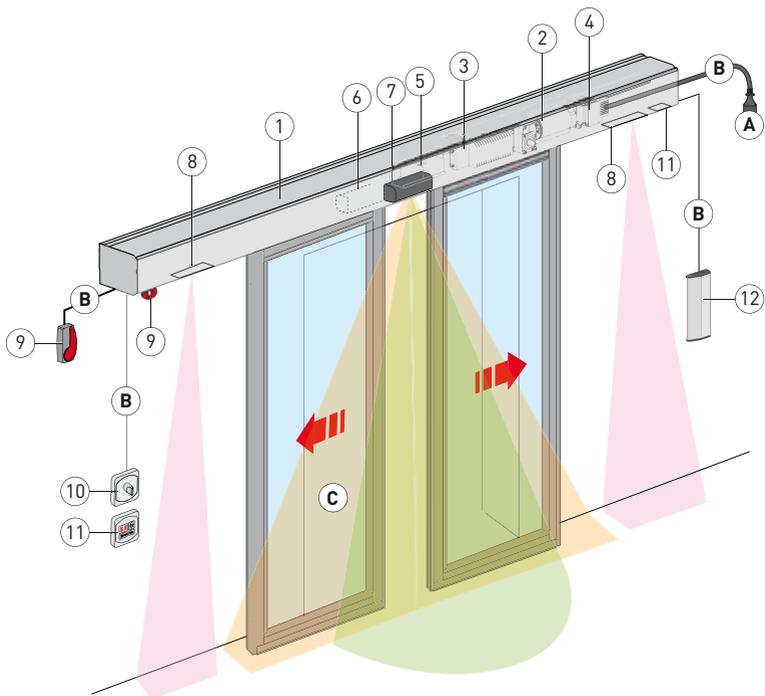
Daily tasks	In the event of problems
Activate the automation and visually check the fixing of: <ul style="list-style-type: none"> <li>• the automation [1]</li> <li>• the cables [B]</li> <li>• the function selectors [10] -[11]</li> <li>• the door and glass [C]</li> </ul>	
Check the automation, and visually check: <ul style="list-style-type: none"> <li>• the condition of the door seals and atmospheric guards</li> <li>• the condition of the door gaskets</li> <li>• the presence of the finger guard</li> <li>• that the door is working correctly, and closes slowly and smoothly</li> </ul>	 
Set the program selector on DOOR CLOSED and check the automation and electro-mechanical lock (if installed) work in synch. Check the door hooks up to the locking device properly.	
Activate the manual command devices [10]-[12], if installed. Approach the door and check it opens correctly via the automatic command devices [7].	
Check the safety sensors [6]-[7]-[8] (if installed) by standing on the door opening/closing path and activating the automation. As it opens and closes, the door must not hit the person carrying out the check. If you do not know what type of sensor is installed, contact ENTREMATIC.	
In the event of malfunctioning or ALARM (door fully open and 5 acoustic signals repeated every minute), press the RESET button and wait until the door has performed some automatic movements for about 10 seconds [acquisition and redundancy test, indicated by a brief acoustic signal emitted every second]. If the door does not resume normal operation at the end of the test, CONTACT THE TECHNICAL SUPPORT SERVICE and indicate the alarm visualised on the MD1 display.	



= adopt suitable measures.



= contact the ENTREMATIC technical support service For contact information, see the last page of this manual.



# Cleaning

To remove dust and dirt from the Ditec ENTREMATIC sliding door automations, use a soft cloth or sponge with a delicate detergent.

To keep the surface in good condition, clean it once every four months.

Thoroughly clean the seal gaskets and brushes (where envisaged) at regular intervals.

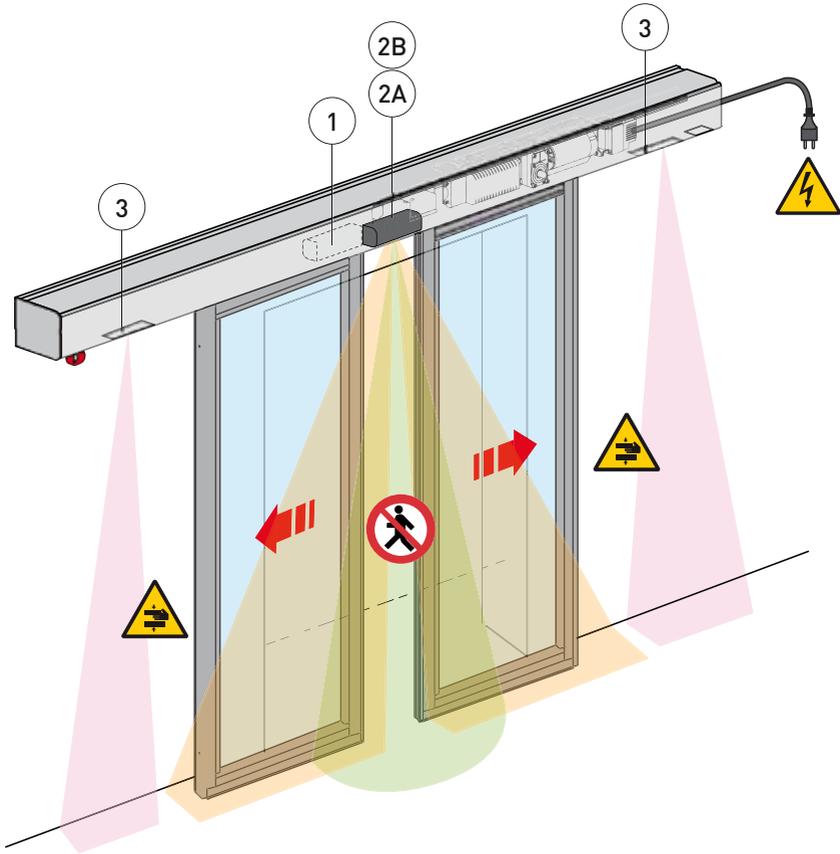
- Do not use alkaline-based products; they may damage the aluminium and glass.
- Do not use high pressure water jets for cleaning; the automatic system, functions selector switch and sensor may get damaged and water could penetrate into the profiles.
- Do not use polishing detergents.
- Do not rub with abrasive products, as they could cause damage.

# General accessories

- The Ditec ENTREMATIC sliding door automations can be fitted with the following accessories (for a detailed description, contact your local ENTREMATIC Group branch).
- Opening sensors
- Functions selector switches
- Electro-mechanical lock
- Elbow switch
- Safety sensor
- Anti-panic break-out system
- System for escape routes without break-out

# Safety accessories

The following safety devices can be installed to protect the danger areas (in accordance with EN 16005):



1	PAS024AMW (microwave+infrared), or PAS024AMT (microwave+infrared) <b>(only for escape routes without break-out)</b> or PASAA2 (infrared only)	Combined opening and safe closing sensor, outer side
2A	PAS024AMW (microwave+infrared), or PAS024AMT (microwave+infrared) <b>(only for escape routes without break-out)</b> or PASAA2 (infrared only)	Combined opening and safe closing sensor, inner side (automation)
<b>or (only VALOR / VALORHH-HS)</b>		
2B	PASM24W (microwave), or PASM243 (microwave), or PASS24 (microwave), or PASS24W (microwave), or PASA (infrared)	} + PASAT31 (infrared) Opening sensor (a) + Safe closing sensor (b) inner side (inside the automation box)
3	PASAT3 PASAT31 (only VALOR / VALORHH-HS)	

# Troubleshooting / alarms

Problem	Solution
The door doesn't open and the motor doesn't start up	Check and change the functions selector switch settings.
	Make sure there are no objects on the sensor's detection path.
	Check the power supply switch inside the building.
The motor starts up, but the door doesn't open	Check any locks, releasing them if necessary.
	Make sure there are no objects hindering the opening of the door.
The door doesn't close	Check and change the functions selector switch settings.
	Make sure there are no objects on the sensor's detection path.
The automation opens and closes by itself.	Make sure there are no moving elements on the sensor's detection area.
The door stays open and emits 5 acoustic signals every minute <b>(only for escape route doors without break-out)</b>	Press the RESET button on the functions selector switch (see pages 36-37) and wait until the door has made some automatic movements for about 10 s. If the door does not resume normal operation at the end of the test, CONTACT THE TECHNICAL SUPPORT SERVICE.



If the problem persists, contact the Ditec ENTREMATIC Customer Support Service, informing them of the type of alarm shown on the MD1 display module (if installed).

# INSTRUCTIONS FOR MAINTENANCE WORKERS

## Indication of alarms on MD1 module

The MD1 display module shows the following alarms, that take priority over all other displayed messages.

**The following alarms cause the door to open immediately.**

Display	Description	Operation	POWER RESET
	Failed test on safety sensor installed on terminal 6.	Check the wiring and correct operation of the safety sensor.	NO
	Failed test on safety sensor installed on terminal 6A.	Check the wiring and correct operation of the safety sensor.	NO
	Failed test on safety sensor installed on terminal 6B.	Check the wiring and correct operation of the safety sensor.	NO
	Failed test on safety sensor installed on terminal 8.	Check the wiring and correct operation of the safety sensor.	NO
	Failed test on safety sensor installed on terminal 8A.	Check the wiring and correct operation of the safety sensor.	NO
	Failed test on safety sensor installed on terminal 8B.	Check the wiring and correct operation of the safety sensor.	NO
	Incorrect connection between terminal 9 and terminal 41.	Connect contact 1-9 as shown.	NO
	Batteries almost flat.	Restore the power supply or replace the battery kit.	NO
	Flat batteries.	Restore the power supply or replace the battery kit.	NO
	Batteries not connected or absent.	Check the battery kit is correctly connected to the control panel, or disable the advanced battery test (if there are no batteries).	NO
	Encoder fault.	If the alarm persists, contact Technical Support.	YES
	Reversal of the motor leads.	Check the motor leads.	YES
	Encoder disconnected, false encoder contacts, encoder fault.	Check the encoder is connected correctly, clean the contacts by connecting and disconnecting the encoder plug on the contacts, or replace the encoder.	YES

Display	Description	Operation	POWER RESET
F 1	Failed closure of door wings due to execution of escape route mode test.	Manually check that the door wings move freely.	YES
		Check the activation of the photocells and safety sensors.	YES
F 2	Failed opening of door wings.	Manually check that the door wings move freely, and adjust their height.	YES
G 0	Activation of the EMERGENCY OPEN command.	Check contact 1-E0 is closed.	NO
I 0	Fault on EMERGENCY OPEN input.	Check the control panel is working properly. If the alarm persists, contact Technical Support.	YES
I 2	Failed internal BUS communication.	Check the control panel is working properly.	NO
	No Master/Slave presence with automations in simultaneous synchronism.	Check the correct power supply is reaching the automations.	
I 3	Internal radar input fault.	Check the control panel is working properly. If the alarm persists, contact Technical Support.	YES
I 4	Factory initialisation incomplete.	Contact Technical Support.	NO
I C	Operation time-out error.	Perform a POWER RESET with command 1-29 or via the functions selector switch (if present).	YES
I G	Motor drive fault.	Perform a POWER RESET with command 1-29 or via the functions selector switch (if present). If the alarm persists, contact Technical Support.	YES
I H	Motor current fault.	Perform a POWER RESET with command 1-29 or via the functions selector switch (if present). If the alarm persists, contact Technical Support.	YES
I L	Electronic failure on escape route mode stage.	Verificare il funzionamento del quadro elettronico. Se l'allarme persiste contattare Assistenza Tecnica.	YES
L 0	Failed release of door wings.	Check the wiring of the blocking device and microswitch.	YES
		Check the microswitch is working properly.	
		Check blocking device movement.	
L 1	Failed locking of door wings.	Check the wiring of the blocking device and microswitch.	YES
		Check the microswitch is working properly.	
		Check blocking device movement.	

Display	Description	Operation	POWER RESET
	Auxiliary coil short circuit.	Check the wiring of the bistable blocking device.	YES
		Check the bistable blocking device is working properly.	
	Auxiliary coil not connected.	Check the wiring of the bistable blocking device.	YES
	Main coil not connected.	Check the blocking device wiring.	YES
	Main coil short circuit.	Check the blocking device wiring.	YES
		Check the blocking device is working properly.	
	Motor short circuit.	Check the motor is correctly connected.	YES
		Check the motor is working properly.	
	Absence of motor during an operation.	Check the motor is correctly connected.	YES
	No power supply.	Check the control panel is powered correctly.	NO
	Blocking device settings error.	Check the blocking device settings on the control panel.	YES
	Operating mode setting error.	Check the operating mode set on the COMER-COMKR functions selector switch.	NO
	Fault or connection error on the COMKR mechanical functions selector switch.	Check the COMKR mechanical functions selector switch is correctly connected.	YES
	Connection error on the KEY contacts of the COMER electronic functions selector switch.	Check the KEY contacts of the OMER and 1-G1 electronic functions selector switch on the control panel are both connected and are enabled/disabled at the same time.	YES
	Closure command setting not compatible with escape route mode.	Check the closure commands.	NO
	Main motor test failure. (Insufficient movement during redundancy test).	Check the wiring of the main motor.	YES
		Check the main motor is working properly.	
		Manually check that the door wings move freely.	
	Auxiliary motor test failure. (Insufficient movement during redundancy test).	Check the wiring of the auxiliary motor.	YES
		Check the auxiliary motor is working properly.	
		Manually check that the door wings move freely.	

The following alarms do not cause the door to open.

Display	Description	Operation	POWER RESET
	Detection of irregular overspeed.	Perform a POWER RESET with command 1-29 or via the functions selector switch (if present). If the alarm persists, contact Technical Support.	NO
	Automation blocked.	Check the blocking device is working properly.	NO
		Check there are no obstacles near the end stops.	YES
	Door dimension error. Door too long.	Check the transmission belt.	NO
	Door dimension error. Door too short.	Manually check that the door wings move freely.	NO
	Stop exceed error.	Perform a POWER RESET with command 1-29 or using the functions selector switch (if present).	NO
	COMER electronic functions selector switch enabled.	Disable the COMER electronic functions selector switch.	NO
	Request for maintenance intervention	Carry out the routine maintenance intervention.	NO

# Routine maintenance plan (to be carried out by qualified personnel)

Perform the following operations and checks every 6 months, according to the intensity of use of the automation.

Disconnect the 230V~ power supply and batteries (if present):

- Clean and lubricate the moving parts (the carriage slide guides and any floor slide guides).
- Check the belt tension.
- Clean the sensors.
- Check the stability of the automatic system, and make sure all the screws are correctly tightened.
- Check the alignment of the doors, the position of the end stops, and the correct introduction of the blocking device.

Reconnect the 230V~ power supply and batteries (if present):

- Check the blocking system is working correctly.
- Check the stability of the door, and make sure it moves smoothly.
- Check all the command and selection devices are working properly.
- Check the force developed by the door meets the requisites of the applicable regulations.

## **Additional checks for escape route doors.**

- In automations with break-out devices, check the door opens correctly when pushed. Make sure the door wings are correctly reset and the door restarts in the proper manner.
- In automations without break-out devices, make sure the door opens quickly when there is no mains power supply, and emits cyclical acoustic signals (see the alarm signalling on page 45).



NB: For spare parts, see the spares price list.



Use original spare parts only for repairs or replacements of products.

The installer must supply all information on automatic, manual and emergency operation of the motorised door and must provide the user with the operating instructions.

The installer must prepare and keep a maintenance record showing all the routine and extraordinary maintenance work carried out.

**Entrematic Group AB**  
Lodjursgatan 10  
SE-261 44, Landskrona  
Sweden  
[www.ditecentrematic.com](http://www.ditecentrematic.com)

**Ditec**  

---

**ENTRE//MATIC**

