

## Instructions for Use

For Automatic Sliding Door Systems

**TORMAX 2353.HERM**

**TORMAX 2453.HERM**



Safety instructions in chapter 2 must be observed!

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First edition: 8.17, Update: 3.18, 6.22, 7.23

We reserve the right to make technical changes.

# 1 General Information

## 1.1 Target Groups

- Operator of the automatic door. The operator is the person responsible for the operation and maintenance of the system.
- Persons instructed by the operator to carry out certain duties, for example the servicing and maintenance of the automatic sliding door.

## 1.2 Storage and Forwarding of the Manual

- Store the instructions for use in the vicinity of the automatic door system.
- If the manual has become illegible due to constant usage, reorder the instructions or download from [www.tormax.com](http://www.tormax.com)
- When the door system is transferred or resold to a third party, pass the following documents to the new owner:
  - This instructions for use
  - Documentation concerning modification and repair work
  - Proof of the regular examinations → System test book T-879

## 1.3 Area of Application

Product name, door system: TORMAX 2353.HERM

TORMAX 2453.HERM

Product name, door drive: TORMAX 2303/2303.HB 230 V



TORMAX 2303/2303.HB 115 V

TORMAX 2403/2403.HB 230/115 V

Service label  
door system (example),  
attached to the side plate  
of the drive

<b>*****</b> <b>TORMAX</b> AUTOMATIC Contact: Max Muster AG Hauptstrasse 43 - 8049 Zürich <b>SERVICE: 043 827 33 55</b>	 DIN 18650-1:2010 	Sliding Door System	TORMAX .....HERM
		System No.	000/000/00
		Manufactured	MM.YYYY
		Initial Commissioning	DD.MM.YYYY

Identification plate  
drive (example)

<b>*****</b> <b>TORMAX</b> AUTOMATIC		TORMAX Unterweg 14 CH-8180 Bulach-Zürich A Division of LANDERT Group AG			
Model:					
Un:					
Pmax.:	lmax.:	Pedestrian Door Operator			
Pmin.:	lmin.:	Manufactured: MM/YYYY			
Leaves:					Serial No.:

The identification plate  
with the serial number  
is attached to the drive  
under the cladding.

## 1.4 Explanation of the Symbols



### Warning (signal word)

**Source of hazard** (designates a possibly hazardous situation)

Possible consequences of non-observance

- Measures for averting danger.

Text which is highlighted in grey MUST be observed to ensure that the system operates perfectly. Failure to observe these sections can cause damage to equipment.

- ⊙ Functions marked with this symbol are the factory setting. However, they can be reprogrammed by a specialist.
- ◆ Optional components which are not present in all systems.

## 1.5 Technical Data

Door system	TORMAX 2353.HERM Hermetically closing or Airtight closing	TORMAX 2453.HERM Hermetically closing or Airtight closing
Door leaf weight	≤ 150 kg with force compensator ≤ 300 kg	≤ 300 kg
Drive	TORMAX 2303 230 V TORMAX 2303.HB 230 V TORMAX 2303 115 V TORMAX 2303.HB 115 V	TORMAX 2403 230/115 V TORMAX 2403.HB 230/115 V
Drive type	Electro-mechanical sliding door drive with DC motor	Electro-mechanical sliding door drive with 2 DC motors
Control system	230 V: MCU42-COU-C/-J 115 V: MCU42-COU-E/-L	MCU42-COU-D/-K
Mains	1 x 230 V AC, 50 – 60 Hz, 10 A 1 x 115 V AC, 50 – 60 Hz, 10 A	1 x 230 / 115 V AC, 50 – 60 Hz, 10 A
Power consumption	5 ... 305 W	13 ... 375 W
Motor	24 V DC, 130 W	2 x 40 V DC, 130 W
Sensor supply	24 V DC, 1,5 A	
Protective class, drive	IP 20	
Ambient temperature	–20 °C to +50 °C	
Noise emission level	typically 55 dB (A) at 40 cm/s	
Electromagnetic Compatibility (EMC)	IEC 61000-6-2 IEC 61000-6-3	
System tightness	Pa100, class 4	
Service life	min. 10 years / tested to 2 000 000 cycles	

## 2 Safety

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### Warning

#### Important Safety Instructions

It is important to comply with these Instructions to ensure the safety of persons. These Instructions must be kept in a safe place.

### 2.1 Responsibilities

Installation of the system:	A qualified person from a TORMAX sales partner
For instructing the operator:	A qualified person from a TORMAX sales partner
For operating the system:	The operator or a person instructed by the operator
For maintenance and function control:	The operator or a person instructed by the operator
For annual testing and approval:	A qualified person authorised by the manufacturer

Qualified persons are persons who have adequate knowledge in the field of power-operated doors as a result of their specialist training and experience and who are so familiar with the relevant health and safety regulations, guide-lines and generally recognised codes of practice that they are able to assess the condition of power-operated doors with regard to the safety of their operation.

Maintenance of electrical parts must be carried out by a trained electrician.

### 2.2 Intended Use

The product including the related components is intended for the automation of horizontally moving, hermetically or airtight closing sliding doors for pedestrian passages in the interior of buildings in sensitive areas.

- When used as a fire protection door, observe the country-specific approvals as well as installation and maintenance regulations.
- Assembly, installation, repair and maintenance work and the commissioning of the drive must only be undertaken by qualified persons. This competent person is also responsible for the safety of users or third parties.
- The operation of the sliding door operator may only be performed by people that have been previously instructed and under consideration of the operating instructions. This competent person is also responsible for the safety of users or third parties.
- The door system may be used by persons with impaired physical, sensory or mental capabilities, provided that they are either supervised by the person responsible for their safety or have been instructed on safe use and possible risks.
- Children must be supervised to ensure that they do not play in the proximity of the automatic door and do not operate the existing operating controls.

#### Examples of areas of application

- Access door for operating rooms and quarantine zones
- Access door for laboratories or clean rooms in research and industry
- Air-locks with low safety requirements for laboratory areas or quarantine zones

## 2.3 Improper Use

The manufacturer will not accept any liability whatsoever for loss or damage caused by improper use, failure to comply with the maintenance specification (see chapter 7) or unauthorised modification of the system.

- The door system is not approved in escape and rescue routes.
- Any conversion of the system (eg. other user group) is not permitted without a new risk assessment and the measures derived from it.
- Structural changes in the danger zone of the door system without new risk assessment and the measures derived from it are inadmissible.
- Changes to the door system (eg. heavier door leaves, other handles, controls, sensors) may only be made by a specialist in compliance with the technical limit values.
- No changes of any kind may be made to the door leaf (e.g. drilling holes).
- Safety facilities (e.g. sensor technology, manual unlocking) must not be removed or disabled.

## 2.4 Pre-conditions for the Operation of the System

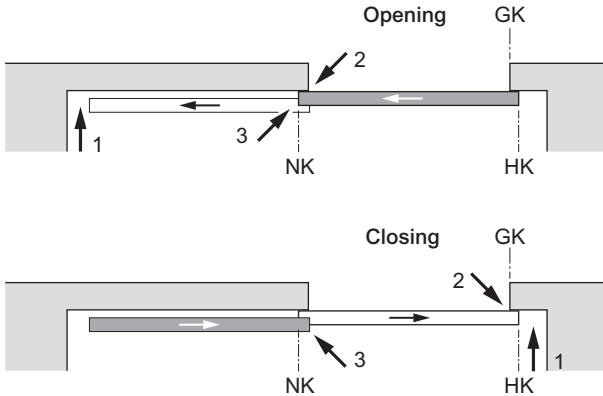
The door system (new installation as well as reinstalled system) was planned by specialists, mounted on a load-bearing wall and tested for their function and safety before being handed over to the operator. The company responsible for the system's installation instructed the operator on the system's use and maintenance as well dangers associated with the system operation. The operator has confirmed this by his signature in the system test book T-879.

The provisions imposed by law, health and safety and occupational health regulations for the avoidance of accidents and the protection of the environment which are generally applicable in the country in which the system is operated supplement the instructions for use.

- The responsible personnel (see chapter 2.1) must read and understand the instructions for use before commissioning respectively using the automatic sliding door system.
- Only use the system when it is in perfect working order. The operating conditions, inspection and maintenance intervals stipulated by the manufacturer must be observed (chapter 7).
- Arrange to have any faults rectified immediately by a qualified person.

## 2.5 Residual Risks

Depending on the system design and equipment, there is a residual risk of crushing (1), entanglement (2) and collision (3) with limited force in the movement area of the door leaf.



HK: Main closing edge  
NK: Secondary closing edge  
GK: Opposing closing edge



### Warning

#### Danger through moving parts:

- in the area of all closing edges (HK, NK, GK)
- in the gap for suspending the door in the cladding
- when objects such as, for example, display shelves are erected in the direct proximity of the moving part of the door leaf.



### Warning

**Hazards can arise due to deliberate damage, incorrect installation, defective sensors or sensors which are longer properly adjusted, sharp edges, incorrectly mounted and defective casing or missing covers.**

Danger for body and life, danger of injury

- Have the system repaired by a qualified person.

## 2.6 Checks

Regular checks and inspections are to be carried out in accordance with chapter 7.

## 2.7 Decommissioning the System in the Event of a Fault

If there is a fault the automatic door may only be taken out of service by a specialist, the operator or a person who is instructed to do so by the operator. This must be done on all occasions on which the safety of persons could be compromised.



- Disconnect the system from the power (mains switch set to 0).



### Warning

**The door is freely moveable in currentless state (mains switch set to 0)  
Crushing and shearing at the closing edge**

Risk of injury.

- Do not keep your hand or fingers in the door opening when the door is moving towards the closed position or is < 5 cm away from it.

- Select operating mode "P" if the system is nevertheless to continue to be operated using the emergency power supply (see chapter 4.2 for operating modes).
- Open the door manually. The door can be opened with <220 N from the lowered position.

See chapter 6 for rectification of faults.

## 2.8 Disposal

This system must be properly dismantled at the end of its working life. Its disposal must comply with national regulations. We recommend that you contact a specialist disposal company.



### Warning

**Electrical voltage**

Risk of injury from electric shock

- Disconnect the mains power supply to the system before disassembly.



### Warning

**Heavy door**

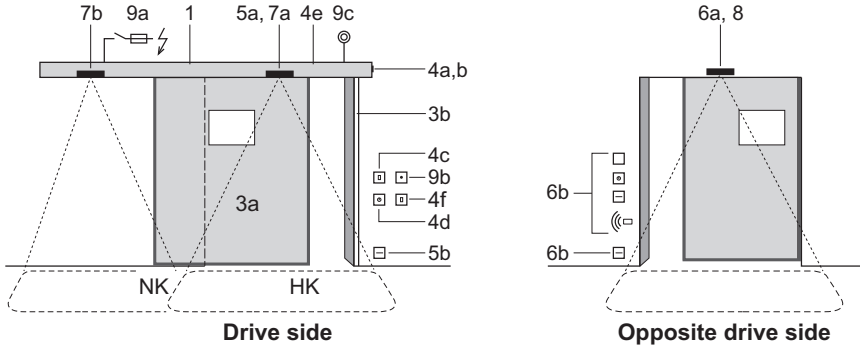
Danger of injury when removing the door leaves.

- Dismantle and move the door leaves professionally using suitable equipment.



# 3 System Overview

Automatic, hermetically or airtight closing TORMAX sliding door system with one door leaf. The door leaf (3a) with all-round sealing is lowered shortly before the final closure and pressed against the wall connection profile (3b). The lowering/pressing mechanism is integrated in the drive (1) and door leaf. System variant: Airtight door system without lowering.



<b>1</b>	<b>Drive</b>	Cladding, motor unit, MCU42 control system with monitoring system, power limitation and permanent diagnosis <input type="checkbox"/> 2303 <input type="checkbox"/> 2303.HB <input type="checkbox"/> 2403 <input type="checkbox"/> 2403.HB
<b>2</b>	<b>Drive accessories</b>	<input type="checkbox"/> Emergency power supply via battery unit <input type="checkbox"/> Lock
<b>3</b>	<b>Door leaf</b>	a) Moving leaf with main closing edge (HK) and secondary closing edge (NK) b) Wall connection profile
<b>4</b>	<b>Operating controls</b>	a) <input type="checkbox"/> Mains switch with status LED b) <input type="checkbox"/> Operating mode switch with 3 positions c) <input type="checkbox"/> User interface with 5 operating modes and fault display d) <input type="checkbox"/> Lock for the user interface e) <input type="checkbox"/> Remote control of operating modes f) <input type="checkbox"/> Blind control system *
<b>5</b>	<b>Activators drive side</b>	a) With automatic activation: <input type="checkbox"/> Activator/sensor (combined sensor) b) With manual activation: <input type="checkbox"/> Push button * <input type="checkbox"/> Large size rocker switch * <input type="checkbox"/> Foot switch * <input type="checkbox"/> Contact-free button * <input type="checkbox"/> .....
<b>6</b>	<b>Activators opposite drive side</b>	a) With automatic activation: <input type="checkbox"/> Activator/sensor (combined sensor) b) With manual activation: <input type="checkbox"/> Push button * <input type="checkbox"/> Large size rocker switch * <input type="checkbox"/> Foot switch * <input type="checkbox"/> Contact-free button * <input type="checkbox"/> Key switch <input type="checkbox"/> Foot switch .....
<b>7</b>	<b>Safety sensors drive side</b>	a) <input type="checkbox"/> Safety sensor (combined sensor): main closing edge protection c) <input type="checkbox"/> Safety sensor (combined sensor): secondary closing edge protection
<b>8</b>	<b>Safety sensors opposite drive side</b>	<input type="checkbox"/> Safety sensor (combined sensor): main closing edge protection
<b>9</b>	<b>Emergency systems</b>	a) <input type="checkbox"/> Emergency on/off * b) <input type="checkbox"/> Fire alarm system *
<b>10</b>	<b>Output message</b>	<input type="checkbox"/> Bell <input type="checkbox"/> General fault <input type="checkbox"/> Door locked/holding brake active <input type="checkbox"/> Door status .....

Depending on the system's equipment

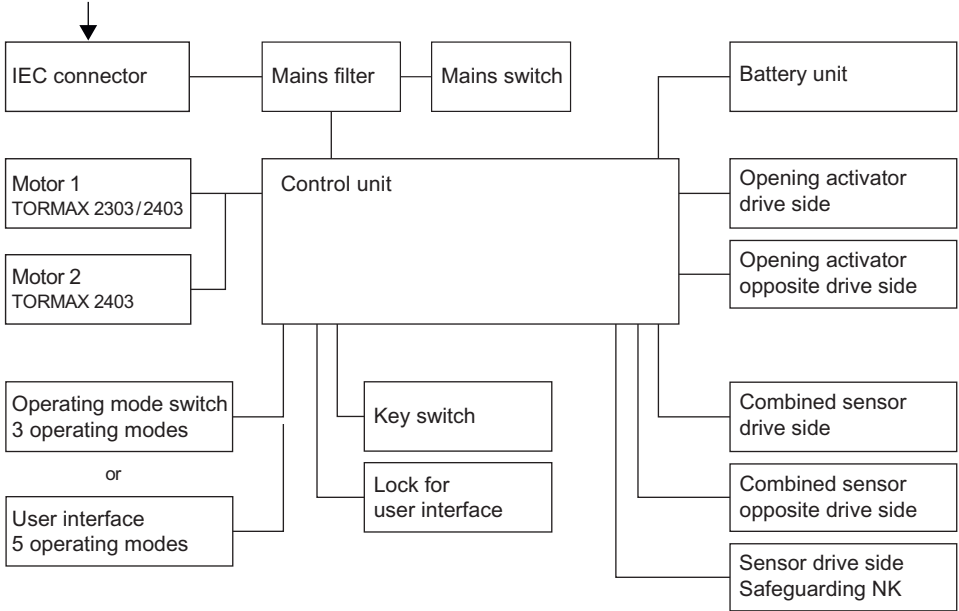
\* Not offered by the manufacturer.

The company installing the system must select and install suitable components in accordance with the product standard EN16005.

## Block diagram

All work on the mains connection cable and the wiring of the system may only be carried out by an authorized, qualified person under consideration of the required documents!

10 A / 230 VAC ⚡  
15 A / 115 VAC ⚡

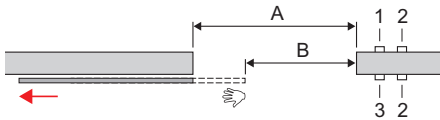


T1821\_18e

# 4 System Function

## 4.1 Manually Activating of Door Opening / Door Closing System without User Interface

### ► With push button

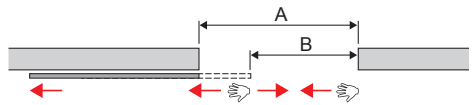


- Key switch/badge
- ! Button full opening
- ! Button reduced opening

### For use only in operating mode AUTOMATIC

- After activation the door opens automatically to its full opening width (A) or a reduced opening width (B).
- The door closes at the end of the hold-open time or, if the step control function is being used, when the button is pressed again.
- The opening width, hold-open time or the step control function can be programmed.
- The door remains open as long as there are persons moving in the detection area of the safety sensors.
- The door can be fully opened or closed from the reduced opening by pushing it manually.

### ► Without push button, with Push & Go

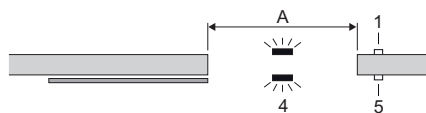


### For use only in operating mode AUTOMATIC

- The door is manually pushed (Push & Go). It opens automatically to the reduced opening width (B) or full opening width (A) ☺.
- The opening width and hold-open time can be programmed. If the door is at the reduced opening width in can be pushed again. It will then open to the full opening-width. The door remains open as long as there are persons moving in the detection area of the safety sensors.
- The door closes automatically after a hold-open time or closes automatically after being pushed for a short distance in the closing direction.

## 4.2 Automatic Activation of Door Opening by Sensors System with User Interface (3 or 5 Operating Modes)

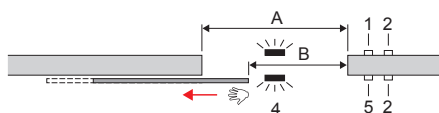
### ► Operating to full opening width



1 Key switch / badge  
4 Sensor  
5 User interface

- The door is automatically opened by sensors when approached from either side (4).
- The door remains open as long as there are persons moving in the detection area of the safety sensors.





















### ► Operating with a reduced opening width and button for opening to full width



1 Key switch/ badge  
2 Button full opening  
4 Sensor  
5 User interface

- The door is automatically opened by sensors to a reduced opening width (B) when approached from either side (4).
- To allow equipment or beds to pass through the door it can be opened to its full width (A) by an activation device (2) e.g. a push button with longer hold-open time or with step control function.
- The door remains open as long as there are persons moving in the detection area of the safety sensors.

## Operating Modes

Operating mode	Operating controls	Function
<b>OFF</b> 	 or 	Normal use for temporary closing of the room. Access only possible using the key switch  . Other sensors or activation devices are disregarded when the door is closed. The door is secured by the electro-mechanical lock  or maintained in the closed position by means of the holding magnet  (2303.HB, 2403.HB) or the motor.  The door can still be used for 5 seconds after selecting operating mode OFF (the operating mode display OFF flashes). The door is locked at the end of this period.
<b>AUTOMATIC</b> 	 or 	Normal use during the day. The door opens automatically in response to sensors on both sides or when instructed by an activation device.
<b>EXIT</b> 		Normal use for one way traffic. The door only opens in response to the internal sensor. The door continues to respond to the key switch  .
<b>OPEN</b> 	 or 	The door opens and remains open.  The door can be automatically locked in this position by the holding magnet  (2303.HB, 2403.HB).
<b>Manual Operation P</b>		The door leaf is freely moveable. The speed is controlled at all times during the manual movement. This operating mode can be used for cleaning the system or for temporary closure of the system.
<b>Mains switch to OFF</b>		The door leaf is freely moveable. The speed is restricted during the manual movement.

### 4.3 Activation Devices

The door is automatically activated by means of sensors, the coverage range of which can be adjusted. Manual activation can be by means of push buttons, for instance. In areas with more stringent hygiene requirements activation can be by foot switches, elbow switches or contact-free electric switches for example.

### 4.4 Step Control Function

If the button is pressed once the door opens and remains open. This status can be indicated by a signalisation ◆ or on the user interface ◆ where H41 is displayed. The door closes if the button is pressed again. If the button is pressed during the opening movement when the door has moved 50 cm, the door closes automatically again after a hold-open time of 1 second.

### 4.5 Safety Sensors

Depending on the results of the risk assessment the travel movement in the closing direction of the door leaf is rendered safe by two presence sensors or alternatively by one presence sensor in the opening direction. The presence sensor prevents the door colliding with a person when the door is opening or closing. Depending on the risk assessment the opening movement of the door can be stopped if a person is detected or the speed and force can be reduced. The presence sensor automatically adjusts to its environment within >30 seconds. After this period an object remaining in its detection area is ignored and the door can continue to move once again. Activation and presence sensor can be combined in a one sensor.

### 4.6 Automatic System Monitoring

Safety sensors and the control system are continuously or cyclically monitored. If a safety-relevant component should fail, the system automatically switches to a safe mode. The fault is displayed in the TORMAX user interface or by the status LED on the mains switch. More information can be found in chapter 5 "Procedure in the event of a fault".

### 4.7 Lock/Holding Magnet

Door with electric lock ◆: The door is automatically locked in operating mode OFF or in other operating modes depending on the setting.

Door with electric holding magnet (2303.HB, 2403.HB): The door is maintained in the closed position by a brake with increased force mounted on the motor shaft. The brake is released in operating mode "P" (manual operation).

### 4.8 Function in the Event of a Power Failure

#### System with battery ◆

- ☉ The system continues to be powered for a certain time in operating mode AUTOMATIC and EXIT by a battery. ☉ The door opens before the battery is switched off.
- The power supply from the battery can be switched on by the key switch. The door unlocks, opens and then closes. The power supply is switched off again after this.
- The door can be manually operated after the battery has been switched off. For details see the "System without battery".

#### System without battery

- The door can be operated with an effort of <220 N using the door handle. The speed is restricted during manual movement.



#### Warning

**The hermetic door is lowered into closed position.**

Risk of injury

- Do not keep your hand or fingers in the door opening when the door is moving towards the closed position or is < 5 cm away from it.

# 5 Operation



## Warning

### Danger through moving parts

Risk of injury

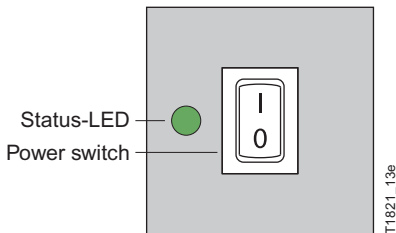
- Safety instructions in chapter 2 must be observed!
- The automatic sliding door may only be operated by a specialist, the operator or a person instructed by the operator.

## 5.1 Commissioning

Before switching on the mains power supply:

- Unlock the optional mechanical door lock.
- Check that the movement area of the door leaf is free from objects.
- Switch on the mains power supply. If a user interface or an operating mode switch are present choose operating mode AUTOMATIC.
- Activate the door opening by the sensor or other activation device (e.g. push button).
  - the first movement is slow and H61/H62 is displayed on the user interface ◆.
  - The control system is checking the door leaf's travel distance and defining the end position.
  - The door is now ready for operation.

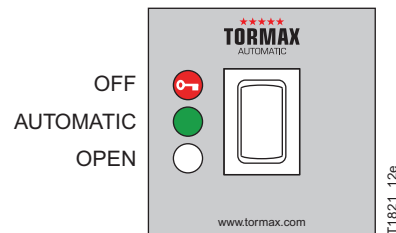
## 5.2 Operation with Mains switch



I = System is switched on  
(= operating mode AUTOMATIC)  
0 = System is currentless

- Activate opening command → the door is ready for operation after the calibration run.
- The green LED is illuminated when the door is ready for operation.

## 5.3 Operation with Operating Mode Switch ◆



### Operating mode selection

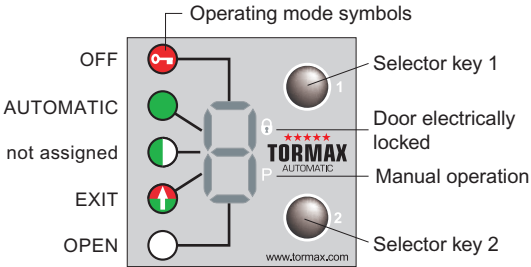
The operating mode can be set directly.

### Restarting the system

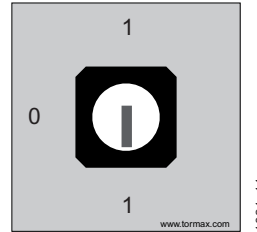
- Switch the mains switch off for 5 seconds.

## 5.4 Operation with the TORMAX User Interface ♦

### TORMAX User Interface



### Key switch ♦ for User Interface



### Selection of Operating Modes

- Press selector keys 1 or 2 briefly. The corresponding operating mode symbol is illuminated.

### Fault Display

e.g. H31 or z. B. E41 → See chapter 8 for the meaning of the display.

- Reset by pressing the selector key 2 briefly.

### Resetting the System

- Press the selector key 2 for at least 5 seconds.

The software is restarted. The control system then conducts a calibration run, checks the travel distance and looks for the end position again. Displayed as H61 and H62.

### Unlocking of user interface

The user interface can be protected against unauthorised access by way of the key switch ♦ or the code lock ⊕ (default is inactive).

- Unlock lock = position 0

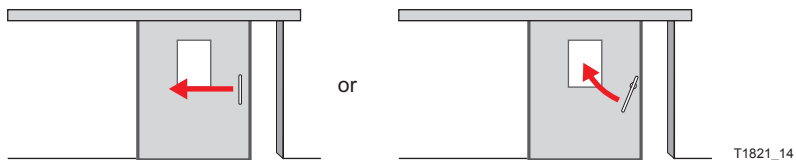
or

- Enter code ... / ... / ... on the user interface. The code can be customized. ⊕  
Example with code 2/2/2. Press upper selection button 3 times, then press the lower selection button 3 times and the upper selection button within 15 s. In case of entering wrong code: Wait at least 5 s. After successfully entering the code, the user interface will be accessible for 60 s. The operating mode can be adjusted. Access will be automatically blocked again 60 s after the button has been pressed for the last time.

## 5.5 Operation on Power Failure

### Manual door opening

- Close or open the door slowly. The movement is actively limited.



### Warning

**The door is freely moveable in currentless state:  
Crushing and shearing at the closing edge**

Risk of injury

- Do not keep your hand or fingers in the door opening when the door is moving towards the closed position or is < 5 cm away from it.

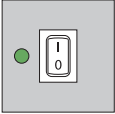


# 6 Procedure in the Event of a Fault

Faults are evident from unusual door behaviour and/or the LED status or as an error display on the user interface. If it proves impossible to rectify a fault as described in chapter 8.1 resp. 8.2 or if it reoccurs after a short period, you must arrange for it to be rectified by a specialist from the TORMAX dealer. In this case note the fault number and inform the dealer. See the last page or the service label on the system for the dealer's address.

## 6.1 Reset of the Fault

### Mains switch



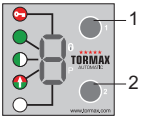
- Switch off the power supply for about 5 seconds.

### Operating Mode Switch



- Change the operating mode. A reset is activated in the event of a malfunction

### TORMAX User Interface

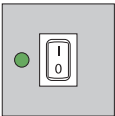


- Reset the error message, press selector key 2 briefly.
- Restarting the system: press the key for 5 seconds.

## 6.2 Fault Display

See the table in chapter 8.1 and 8.2 for an overview of the fault displays.

### Mains switch



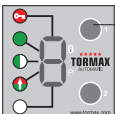
- LED illuminated → System is operating perfectly
- LED not illuminated → – Fault present or  
– Power supply or mains switch is switched off or  
– Power supply short-circuited or defective

### TORMAX User Interface

Error messages on the user interface take the form of a flashing “E” or “H” followed by two figures.

Display H = notification → the system can continue to be used.

Display E = fault → the door stands still.



- Browse through the fault display using selector key 1 (to display several faults).

# 7 Maintenance

The system was tested and approved by an expert before initial commissioning. The manufacturer recommends that you conclude a service contract in order to maintain the value of your system for as long as possible as well as to ensure the system operates reliably and safely for a long time.

Only genuine TORMAX spare part should be used. The manufacturer accepts no liability if you fail to observe this requirement. Original spare parts and original accessories guarantee the safety of use in accordance with norm EN 16005.

## 7.1 Cleaning



### Warning

#### Potential danger of crushing from closing and lowering door

Entrapment of limbs can lead to serious injuries.

- Clean the system only in operating mode OFF, OPEN, manual operation or when there is now power supply (mains switch = 0).
  - Place the door in the closed position or at least 30 cm in front of the closed position.
- Clean the operating controls, covers, door leaf and seals with a damp cloth and a mild commercial detergent. Do not use petroleum or acetone to clean the door sealing.

## 7.2 Functional Checks

- Check the function and safety devices of the sliding door system at least **every 3 months**.

This will ensure that faults or hazardous changes in the system are detected at an early stage. See chapter 8.3 for items to be checked.

- Arrange for any defects detected during period checks to be rectified immediately by a TORMAX dealer (see the back page of this manual for the address).



### Warning

#### Potential switching malfunction in the automatic sliding door.

Potential hazards – injury caused by impact or crushing.

## 7.3 Maintenance and Testing

Maintenance and testing should only be carried out by a trained specialist following the manufacturer's instructions.

### Maintenance Interval

For next maintenance check service label.

The maintenance interval depends on the frequency of use but the system must be maintained **at least once per year**.

### Scope of the Maintenance Work

The content of the maintenance work is specified by the manufacturer in an inspection list.

### System Test Book

The test findings are recorded after the test in the system test book. The operator must keep it in a safe place.

# 8 Appendix

## 8.1 Display with Operation Status LED



System Behaviour	LED	Cause	Remedy/ Rectification
The door remains closed.	On	Operating mode at OFF.	Switch to AUTOMATIC.
The door remains open.	On	Operating mode at OPEN.	Switch to AUTOMATIC or OFF.
		Step control active.	Press button (beds).
The door stands still.	Off	Safety sensor or encode frequently active.	Remove objects which have been placed in the coverage range.
		Mains switch at 0.	Change mains switch to I.
		Power supply is switched off.	Check power supply → main fuse
		T8A fuse inside the system defective.	Have the system repaired by an expert.

## 8.2 Display with TORMAX User Interface



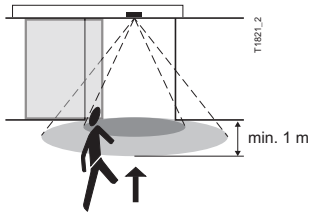
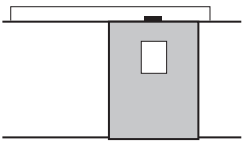
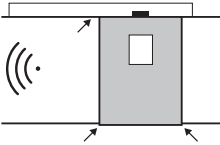
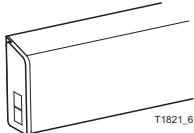

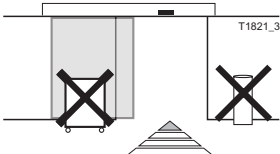
System Behaviour	No.	Cause	Remedy/ Rectification
The door stops when opening.	H31	Electronic obstacle recognition on opening.	Remove obstacle.
Door reverses when closing.	H32	Electronic obstacle recognition on closing.	Remove obstacle.
The door stops repeatedly when opening.	H33	Electronic obstacle recognition on opening in the same position by stationary obstacle.	Remove obstacle. Check the movement area of the door leaf. Reset or mains 0 → I
The door stops repeatedly when closing.	H34	Electronic obstacle recognition on closing in the same position by stationary obstacle.	Remove obstacle. Check the movement area of the door leaf. Reset or mains 0 → I
The door remains open.	H41	Step control is active.	Push button (beds).
Search run notified.	H61 H62	Search run of the door after a reset or after power recovery.	Allow the search run to travel its full course.
Door operates at a reduced speed.	H71	Battery operation	Wait for power recovery, switch on mains supply.
Door remains open or in normal operation.	H72	Battery charge < 15 %	Wait until the battery is sufficiently charged.

<b>System Behaviour</b>	<b>No.</b>	<b>Cause</b>	<b>Remedy/ Rectification</b>
The door stands still.	E0 ...	Safety shutdown of control.	Perform software reset. Otherwise have the system repaired by a qualified person.
The door stands still.	E2 ...	Error in bus system.	Have the system repaired by an expert.
The door does not lock in OFF.	E11	Lock is jammed or defective.	Push the door leaves for a few seconds against the closed position in operating mode OFF when the door is closed. Have the system repaired by an expert.
The door does not open after changing from OFF to AUTOMATIC. The lock makes switching noises from time to time.	E11	Lock is jammed or defective.	Push the door leaves for a few seconds against the closed position in operating mode AUTOMATIC. Have the system repaired by an expert.
The door does not open in OFF when the key switch is used. The lock makes switching noises.	E11	Lock is jammed or defective.	Switch on with the key switch and then push the door leaves briefly against the closed position. Have the system repaired by a qualified person
The door closes slowly/ the door remains open.	E31	The safety facility in the closing direction is permanently active (>1 min.) or defective.	Remove objects from the sensor area. Otherwise have the system repaired by a qualified person
The door closes slowly/ the door remains open.	E32	The safety facility in the closing direction is permanently active (>1 min.) or defective.	Remove objects from the sensor area. Otherwise have the system repaired by a qualified person
The door opens slowly/ the door remains open.	E33	The safety facility in the opening direction is permanently active (> 1 minute) or defective.	Remove objects from the sensor area. Otherwise have the system repaired by a qualified person
The door opens slowly/ the door remains open.	E34	The safety facility in the opening direction is permanently active (> 1 minute) or defective.	Remove objects from the sensor area. Otherwise have the system repaired by a qualified person
The door remains open.	E41 E42 E43	Activator inside is active > 1 min. Activator outside is active > 1 min. Key switch is active > 1 min.	Get sensor adjusted by an expert. Reset the key switch.
Door remains open.	E45	Emergency opening < 1 min. active.	Check external message for opening command.
Door remains closed.	E46	Emergency closing < 1 min. active.	Check external message for closing command.
Door remains open.	E47	Emergency opening in case of fire > 1 min. active.	Have the system repaired by a qualified person.
Door remains closed.	E48	Emergency closure in case of fire > 1 min. active.	Have the system repaired by a qualified person.
The door stands still.	E51	Encoder defective.	Have the system repaired by an expert.
The door stands still/ is blocked	E53 E54	Anomaly in the travel distance. Solid obstruction in the movement area.	Remove firm obstacle in the travelling range of the door. Perform a software-reset. Have the system repaired by an expert.

<b>System Behaviour</b>	<b>No.</b>	<b>Cause</b>	<b>Remedy/ Rectification</b>
The door stands still.	E61 E62 E63	Power supply is overloaded or voltage too low.	Get the power supply and connections checked by an expert.
The door stands still.	E64 E65	Drive/control system is overheated.	Wait for the automatic reset after the door/control system has cooled. Protect from direct sunlight.
The door stands still.	E66	Motor control defective.	Have the system repaired by an expert.
Door remains open or normal operation.	E73	Battery unit defective	Have the system repaired by an expert.
Green LED not illuminated and user interface displaying nothing.	–	Mains switch = 0.	Change mains switch to I
		Mains current is switched off.	Check power supply → main fuse
		T8A fuse inside the system defective.	Have the system repaired by a specialist.
Green LED illuminated and user interface displaying nothing.	–	User interface is defective / connection broken.	Have the system repaired by a specialist.
		User interface is in power saving mode.	Press button on user interface.
Door remains closed.	–	Operating mode such as OFF, EXIT or P Mains switch = 0	Select operating mode AUTOMATIC for example. Mains switch = I
Door remains open.	–	Operating mode such as OPEN or P.	Select operating mode AUTOMATIC for example.

## 8.3 Check-list for Functional Checks

Have any defects found repaired immediately by a TORMAX sales partner.

Item to be checked	Procedure	Result
<b>Sensors</b>		
 <p>T1821_2 min. 1 m</p>	<ul style="list-style-type: none"> <li>• Pass through the door at normal speed frontally and from different directions from inside and outside.</li> <li>• Pass through the door at slow speed like an infirm person, frontally and from different directions from inside and outside.</li> </ul>	<p>The door opens at the right time and with sufficient speed so that passage through the door is not hindered.</p> <p>The door opens and remains open until you are completely through the door.</p>
<b>Moving leaf</b>		
 <p>T1821_4</p>	<ul style="list-style-type: none"> <li>• First select operating mode P or switch off main switch.</li> <li>• Check the door leaf for damages: surface, door edges, windows and rubber seals.</li> <li>• Check the rubber seals for damage.</li> </ul>	<p>The moving leaf does not have any damaged edges; the door surface is undamaged on both sides.</p> <p>The seals sit tight all the way round and are not split.</p>
<b>Guide system and door guides</b>		
 <p>T1821_5</p>	<ul style="list-style-type: none"> <li>• Check the noises made while the door moves.</li> </ul>	<p>No unusual and noticeable movement noises can be heard in the drive, guide system or floor guides.</p>
<b>Cladding</b>		
 <p>T1821_6</p>	<ul style="list-style-type: none"> <li>• Check whether the cladding is correctly slotted into place and secured.</li> </ul>	<p>The cladding is firmly slotted into place.</p>
<b>Operating controls</b>		
	<ul style="list-style-type: none"> <li>• Check the function and marking of operating controls.</li> </ul>	<p>The operating controls are functioning correctly; the markings are visible and legible.</p>
<b>System vicinity</b>		
 <p>T1821_3</p>	<ul style="list-style-type: none"> <li>• Check access to the door and the movement area of the door leaf.</li> </ul>	<p>Access to the door is free from objects and items likely to cause the user to trip. There are no objects such as shelves or plant containers within a radius of 50 cm of the movement area.</p>



## EC Declaration of Conformity

The manufacturer (installation company) of the complete door system declares

Manufacturer's address: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

that the product (door system)

Type designation: \_\_\_\_\_

Serial number: \_\_\_\_\_

is in conformity with the directive 2006/42/EC (Machinery Directive)

is in conformity with regulations of the guidelines:

- 2014/35/EU (low tension)
- 2014/30/EU (electro-magnetic-compatibility)

and the following harmonised standards have been adhered to:

- EN 16005

Base document:

- Declaration of incorporation by TORMAX | LANDERT Group AG
- Risk evaluation for automatic sliding doors | T-1178

Person responsible for documents

Name/address: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Place, date: \_\_\_\_\_

Signatory

(CE authorized person): \_\_\_\_\_

Signature: \_\_\_\_\_



the passion to drive doors

**TORMAX** Swing Door Drives

**TORMAX** Sliding Door Drives

**TORMAX** Folding Door Drives

**TORMAX** Revolving Door Drives

**Manufacturer**

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**Installation company** (installation, repairs, service)

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