

User Manual

Applicable for

- Servo Sectional Door Operator
- Servo High-speed Door Operator



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1. General Safety Information



- The door operator may only be used under the conditions described in these instructions. Any other use will be considered improper usage and therefore dangerous. The manufacturer is not liable for damage resulting from improper, incorrect or inappropriate usage.
- Failure to observe the information contained in these instructions may lead to personal or material damage. The instructions must be passed on to all future users and operators of the door operator.
- Only use the door operator if no maintenance or adjustment measures are required to do so. Disconnect the operator from the power supply for cleaning or maintenance.
- Only use the door operator if the entire area of movement is fully visible. During operation, be aware of other people who may be within the operating range of the product or who may enter this area. Do not drive or walk underneath the door while it is moving.
- Do not use the door operator to lift objects and/or people.
- Ensure that children are kept away from the area around the door.
- Keep remote controls and/or other controls out of reach of children to prevent the accidental activation of the door operator
- Maintenance and upkeep must be carried out by trained or authorized professionals.
- Relevant installation personnel must strictly adhere to standards, be responsible for the accurate installation, especially comply with local safety standards and operate strictly according to these standards.
- Read and follow the safety instructions carefully.

2. Product Description

- The door operator has been developed for industrial doors and high-speed doors.
- The door operator can be equipped with the following additional safety devices, such as:
 - Photocells, Light curtains, Safety edges
 - Radar
 - Loop detector
 - Remote control, Push buttons, Pull switches
 - Traffic light, Warning light
- The door operator is operated via the control unit.
- You can choose different operating settings for the operator (e.g., automatic, semi-automatic or hold to run).

3. Technical Data

Servo High-speed Door Operator:

Type	Servo High-speed Door Operator				
Model	SV75-HSD	SV100-HSD	SV150-HSD	SV180-HSD	SV220-HSD
Voltage	1N~110-120VAC / 1N~220-240VAC 50/60Hz				
Motor power in KW	0.75	1.0	1.5	1.8	2.2
Rated output torque in Nm	50	70	120	150	180
Max.output torque in Nm	75	100	150	180	220
Speed in RPM	10-250				
Diameter hollow shaft in mm	25 / 30 / 25.44 / 31.75				
Endurance in c/h	200				
Emergency release	Crank/Chain hoist				
Limit setting of door travel	Absolute encoder				
Max. door area in m ² (PVC door)	18	26	40	50	64
Max. door area in m ² (Spiral door)	12	16	25	30	40
Optional accessories	Main power switch, Built-in WiFi, External WiFi, Extended function board, Remote control				

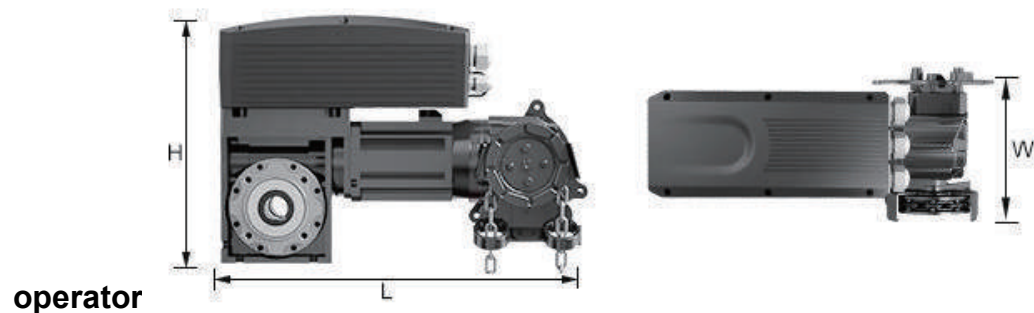
Servo Sectional Door Operator:

Type	Servo Sectional Door Operator		
Model	SV80-ISD	SV120-ISD	SV140-ISD
Voltage	1N~110-120VAC / 1N~220-240VAC 50/60Hz		
Motor power in KW	0.4	0.75	1.0
Rated output torque in Nm	60	100	120
Max output torque in Nm	80	120	140
Speed in RPM	5-50		
Diameter hollow shaft in mm	25.44 / 31.75		
Endurance c/h	60		
Emergency release	Crank/Chain hoist		
Limit setting of door travel	Absolute encoder		
Max.door area m ²	25	49	60
Optional accessories	Main power switch, Built-in WiFi, External WiFi, Extended function board, Remote control		

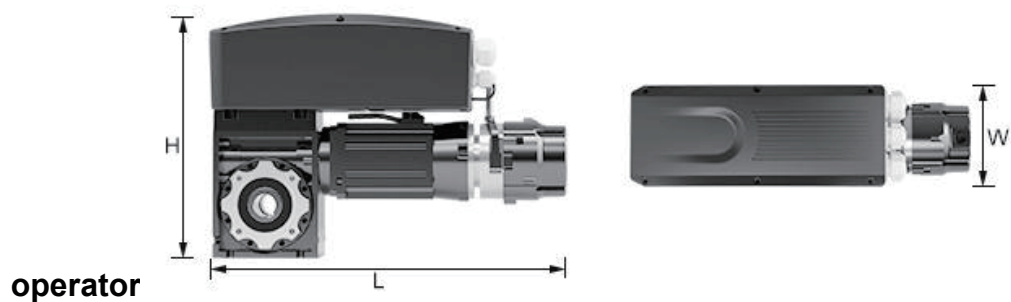
4. Drawing of appearance and dimension

Type	Servo Sectional Door operator			Servo High-speed Door operator		
Model	SV80-ISD	SV120-ISD	SV140-ISD	SV75-HSD	SV100-HSD	SV150-HSD
Door operator L*W*H(mm)	355*200*280	385*200*280	415*200*280	405*130*280	435*130*280	540*130*310
Door operator packing L*W*H(mm)	450*300*200	450*300*200	450*300*200	450*300*200	450*300*200	573*360*200
Control box L*W*H(mm)	420*122*162	420*122*162	420*122*162	420*122*162	420*122*162	420*122*162
Control box packing L*W*H(mm)	550*140*180	550*140*180	550*140*180	550*140*180	550*140*180	550*140*180
Rough Weight (kg)	15.28	16.22	17.16	13.72	14.66	15.47
Net Weight (kg)	13.78	14.72	16.66	12.22	13.16	14.28

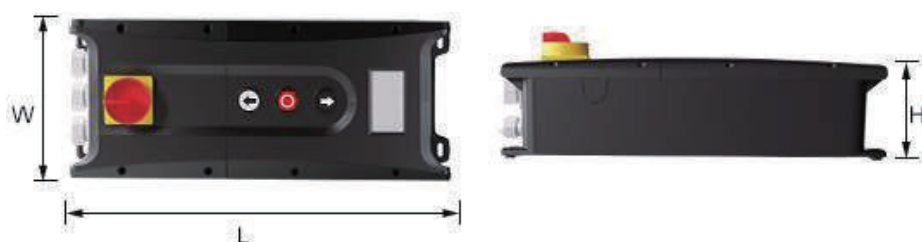
Sectional door



High speed Door



Control box



5. Warnings – Symbols



Note: Technical information must be observed

Fig.



Caution: Warns of a risk to a person / risk of injury



Warning: Warns of a risk to material / risk of damage

6. Safety information of operation



The door may only operate if:

- Conformity in accordance with Machinery Directive 2006/42/EC was declared following assembly.
- The door complies with the standards EN 12605, EN 12604 and DIN EN 13241-1.
- The door operator has been assembled in accordance with EN 12453, EN 12445 and EN 12635.
- Any additionally installed safety equipment is functioning properly.
- There is an internally operated emergency release for garages that have no second access
- Any pass door set within the door is equipped with a safety device that prevents switch-on while the door is open.
- The emergency release cannot be caught on any vehicle parts (e.g. roof structures).
- It is insured that the installation is conform with the national safety regulations.

Keep the instruction manual at a safe place!

7. Safety information for installation

Important: 

The door must move easily and be functional and well-balanced in accordance with the manufacturer's specifications.

It must be possible to open and close the door by hand easily.

Assembly must be carried out by trained and specialized personnel.

Electrical installation work must only be performed by authorized and specialized personnel.

The suitability and bearing capacity of the supporting structure of the building in which the door operator is to be installed must be checked and confirmed by expert personnel.



The door operator must be securely fastened at all the mounting points provided. The mounting material must be chosen according to the material characteristics of the supporting structure to ensure that a minimum tensile force of 900 N can be withstood.

If these requirements are not fulfilled, the door operator may fall down, or the door may move without control. This means there is a risk of personal injury or material damage.

When mounting the door operator, it must be secured by appropriate means against falling until it is completely and safely attached. Observe the relevant occupational health and safety regulations during the installation.

8. Proper Use

This door operator is suitable for use with balanced sectional/ high speed doors and sectional/ high speed doors equipped with spring-break protection and/or safety catch.

The maximum dimensions given in the technical data must be complied with.

Before installing the door operator, any existing locking mechanisms for the door must be disassembled or taken out of operation.

Use in an explosion-proof environment is not permitted.

Any other use above and beyond this is considered as improper use.

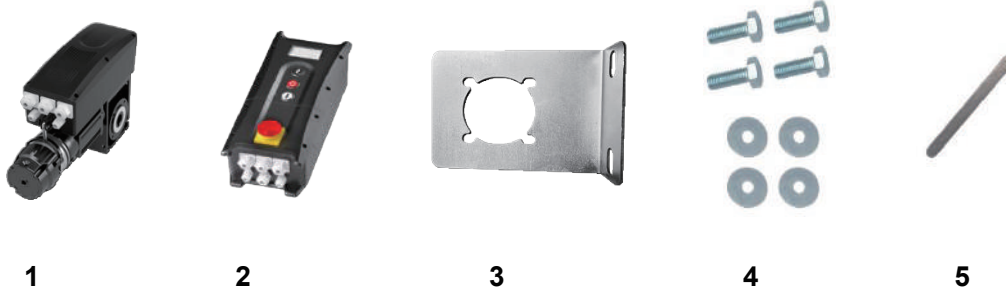
All of the below activities performed without the express written approval of the manufacturer:

- Expansions or modifications
- Use of non-original replacement parts
- Performance of repairs by persons or operators that have not been authorized by the manufacturer may result in the loss of the warranty.

No liability can be accepted for damages that result from the following causes:

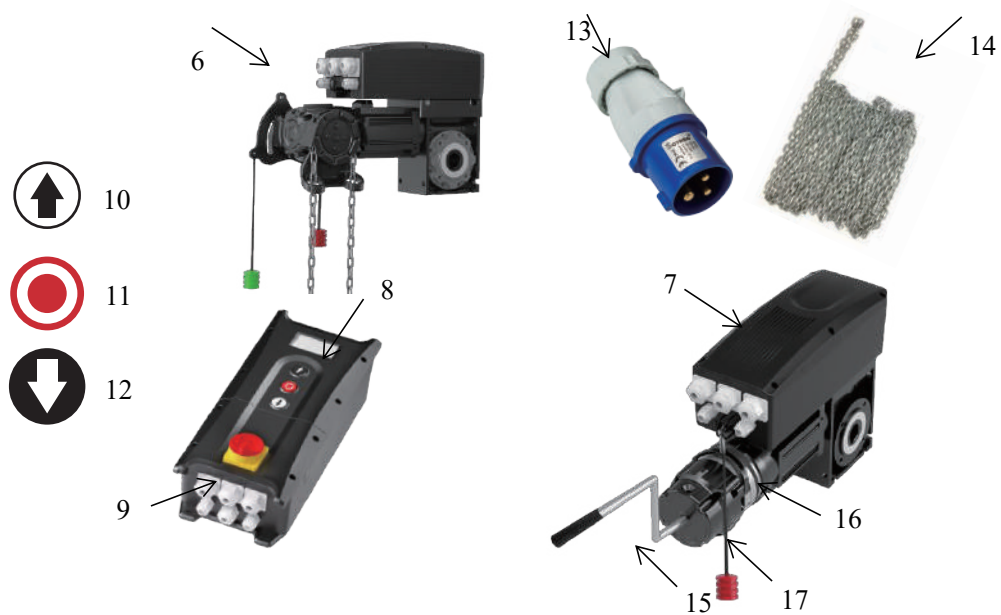
- Technical defects on the door to be operated and structural deformations occurring during operation
- Improper maintenance of the door
- Failure to observe the operating instructions

9. Standard configuration



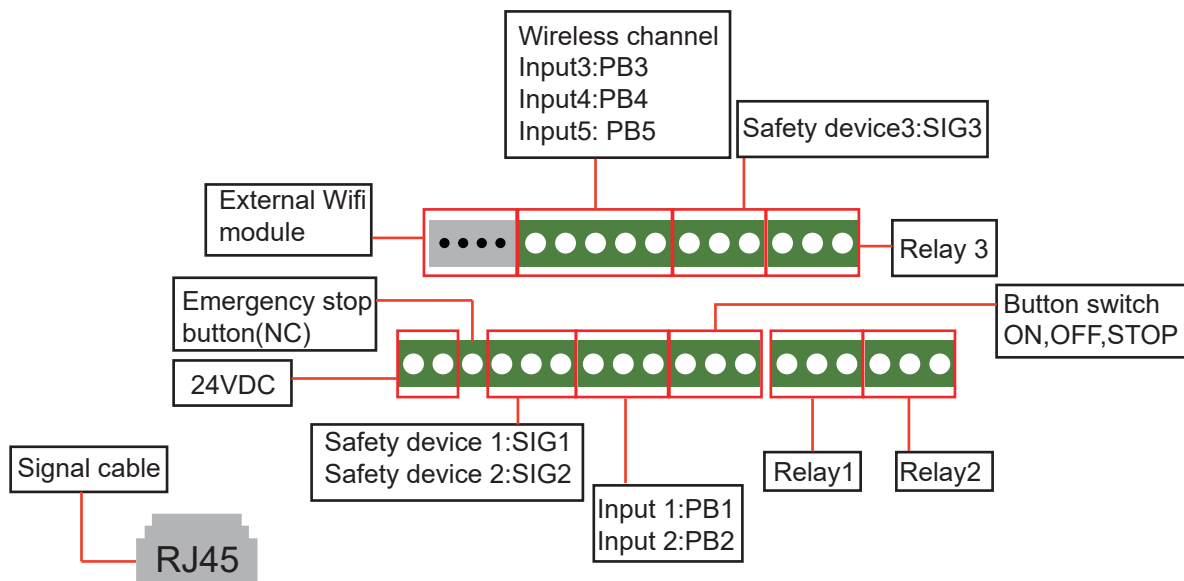
1	Door operator with emergency release (chain or crank)
2	Control unit with main switch
3	Torque bracket
4	Assembly material
5	Key for shaft

10. Table of components



6	Servo door operator (for balanced sectional doors)
7	Servo door operator (for high-speed doors)
8	Display
9	Main power switch
10	"UP" button
11	"STOP" button
12	"DOWN" button
13	Industrial power plug
14	Chain (for emergency release)
15	Crank (for emergency release)
16	Brake (for high-speed operators)
17	Emergency release cord

11.Layout of control unit



3 Safety device connections for light curtain, light barriers, photocell, safety edge, etc.
 5 input connection for radar, loop detector, push button, pull switch, wireless receiver, etc.
 3 output relays for traffic light, warning light, Electric Door-Lock

11. Installation



Preparation for installation



Risk of personal injury and/or material damage due to electrical voltage. Have a specialized electrician to open and close the cover for the motor controller.

Determine the installation location of the door operator



The door operator must be positioned 100% above the door drive shaft.



Make sure that neither the emergency manual operation chain nor crank (depending on version) can impair the normal operation of the door (clearance) and that they can be used at any time.

12.1 Install the torque bracket

Install the torque bracket (3) as shown in Fig. 1. Make sure that the drive shaft for the door can extend at least 135 mm (dimension A) in the door operator to be installed.

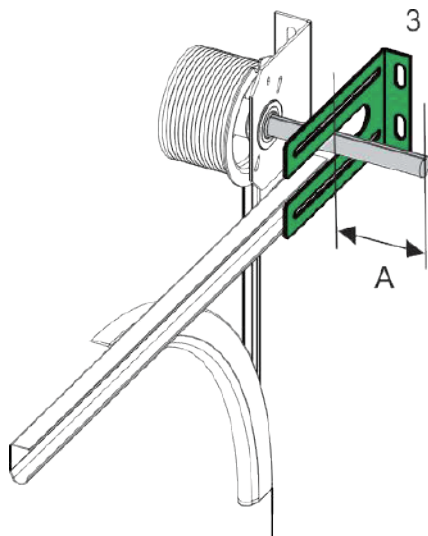


Fig 1

12.2 Install the feature key

Install the key (8) in the groove of the drive shaft for the door so that is secured against movement in Fig2.

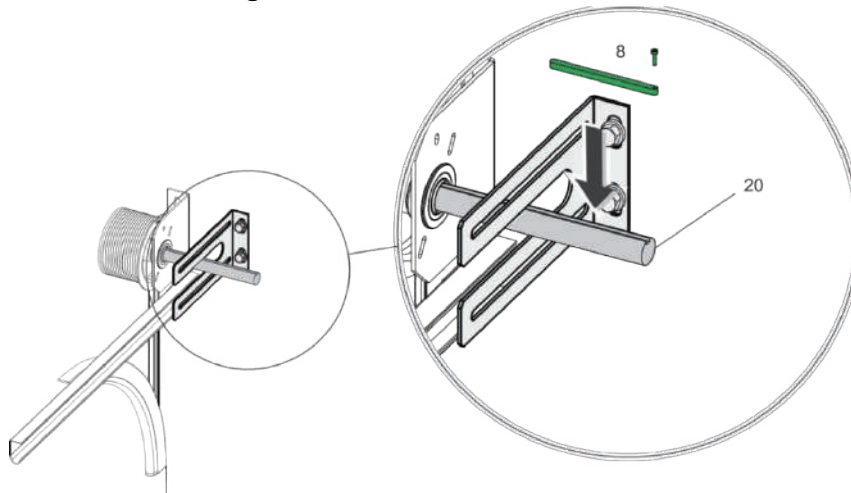


Fig2



The door operator is heavy, which may fall and causes personal injury and/or material damage. A suitable hoist must be used to bring it into the installation location.

- Do not supply power to the door operator yet. Do not connect any plugs.
- Position the drive shaft for the door operator such that it is suitable for the position of the anti-twist device (key, position 8 in Fig. 2). To do this, turn the transmission via the emergency operation.
- Grease the drive shaft for the door such that the door operator can be easily connected.

12.3 Secure the door operator

Slide the door operator onto the door drive shaft (20) in Fig. 2. Secure the door operator with the 4 screws and washers (13) in Fig. 3.

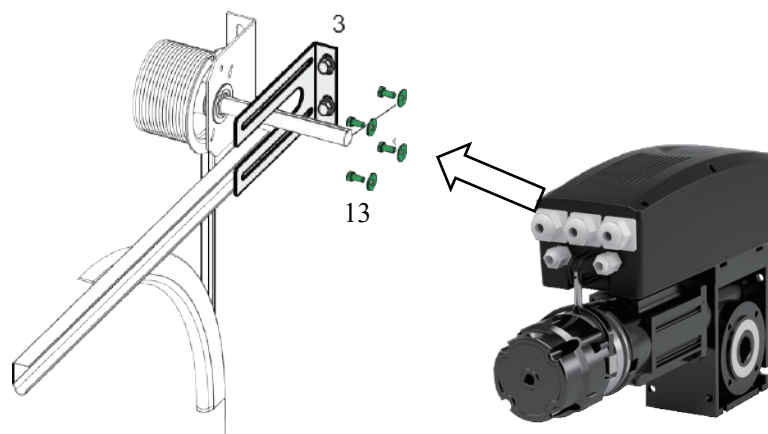


Fig 3

12.4 Install the emergency release cord

Emergency release with chain

- Secure the emergency release cord such that the emergency release can be activated by using the red emergency release cord.
- The emergency release is activated when the chain wheel (3) has been moved by pulling the red emergency release cord to the direction of the arrow in Fig. 4.
- Make sure that the emergency release can be deactivated again by pulling the black cord.

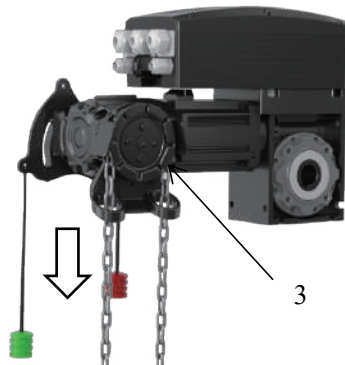


Fig 4

Emergency release with crank

- Secure the emergency release cord such that the emergency release can be activated by using the end of the cord with the "HAND" label on it.
- The emergency release is activated when the brake (1) is pulled by the cord (2) to the direction of arrow in Fig. 5.
- Make sure that emergency release can be deactivated again by loosening the cord.
- Insert the emergency crank (3) to hand crank housing in Fig. 5.

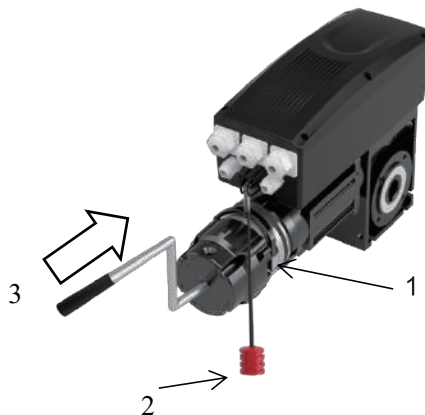


Fig 5

12.5 Check the emergency operation

Ensure to operate the emergency release device only in the event of a power outage, in order to prevent the risk of accidental mechanical injuries.

Emergency release with chain

Make sure that the door can be opened and closed without any problems by pulling on the chain (2) in Fig. 6.

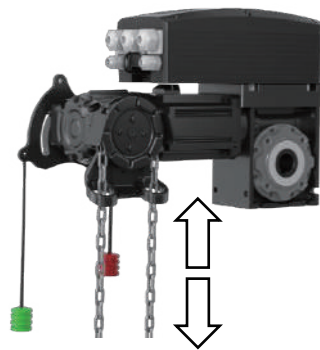


Fig 6

Emergency release with crank

Make sure that the door can be opened and closed by crank (3) or hands without any problems in Fig. 7.

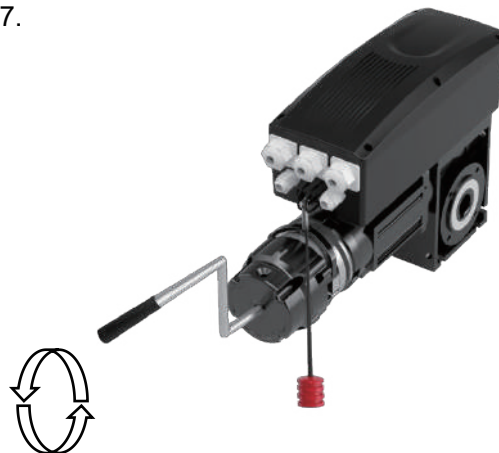
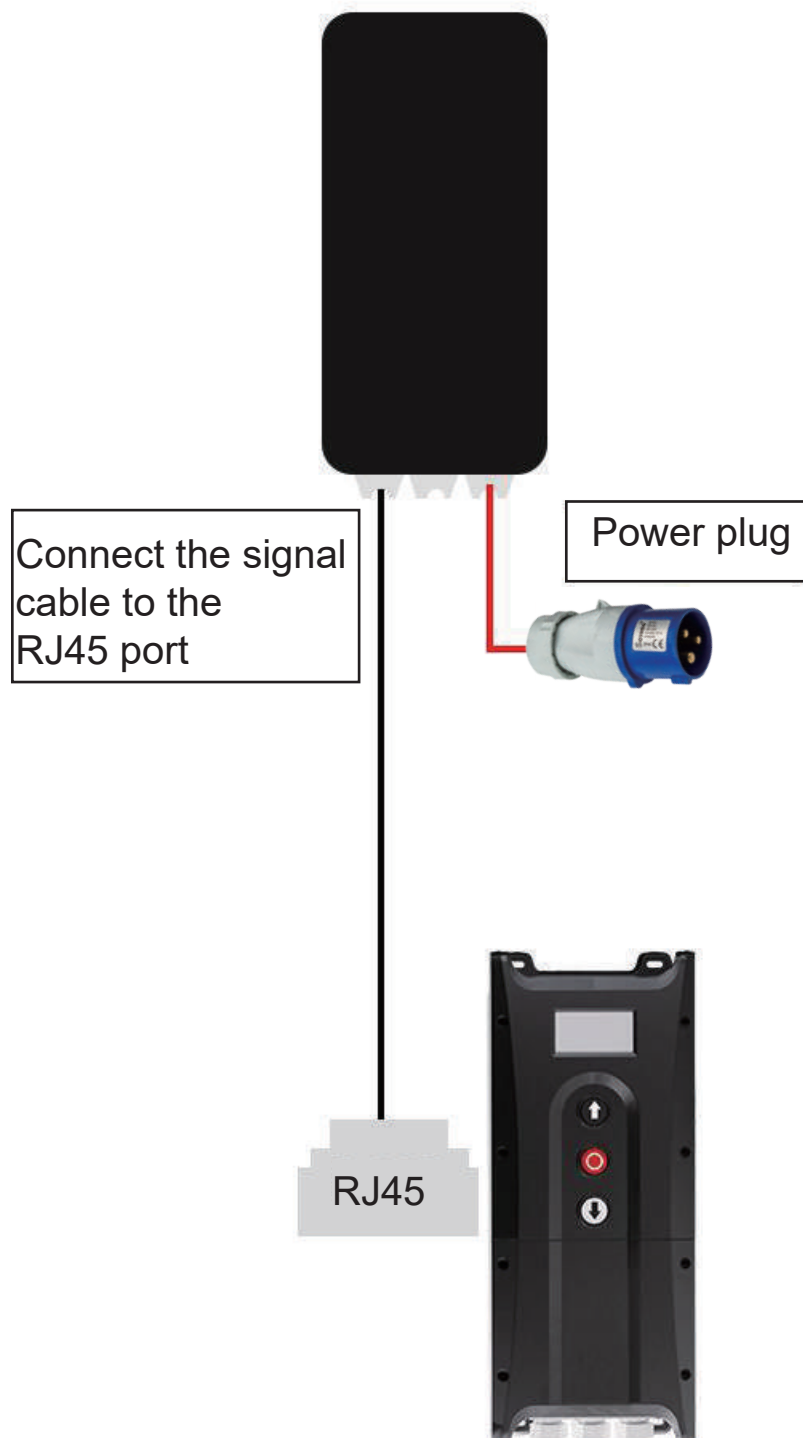


Fig 7

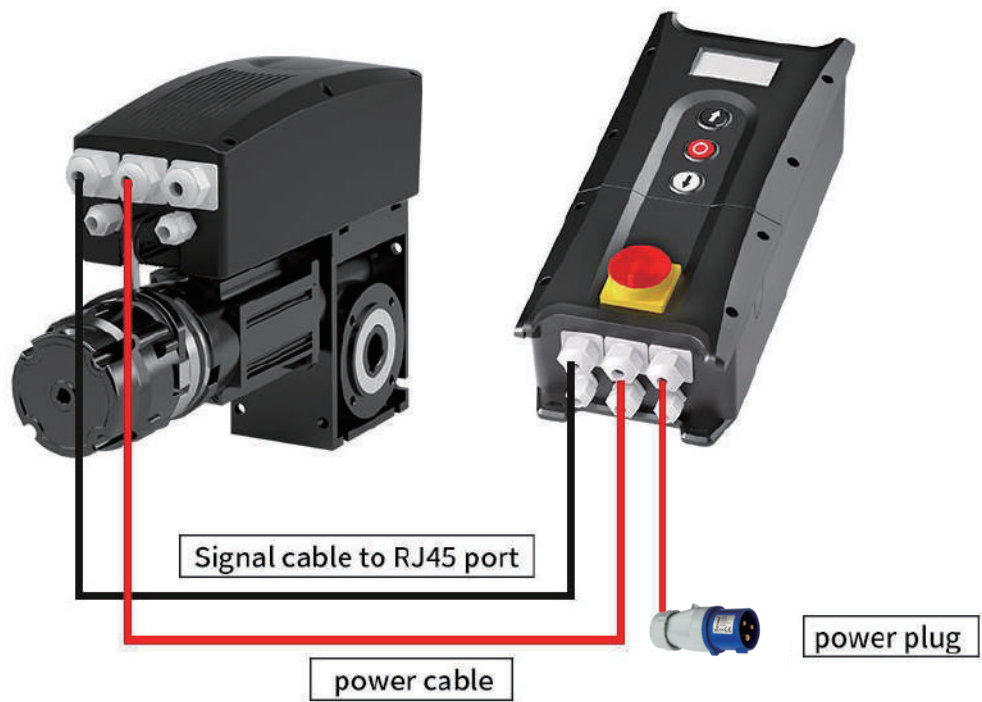
If the door can be opened and closed without any problems, this confirms the functional reliability of the emergency operation. The door operator can be commissioned.

13.Wiring

Control box without main power switch:



Control box with main power switch:



13.1 Additional accessories wiring guideline



Note:

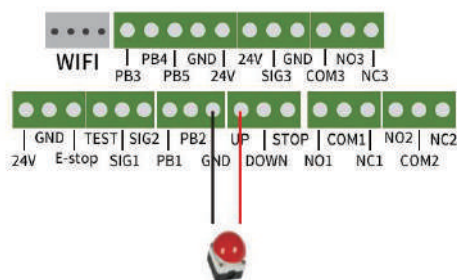
Button (the wiring diagram shows the door opening button)

Different buttons or switches can be used to control the opening and closing actions of the door.

For the button used to open the door, select the "UP" port when wiring (see the figure below);

Similarly, select the "STOP" port for stopping;

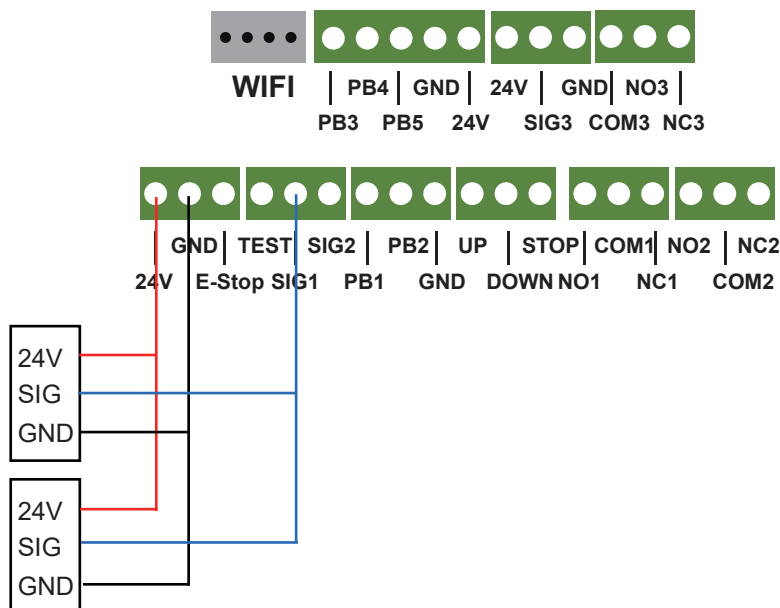
Similarly, select the "DOWN" port for closing the door.



Light Curtain

The light curtain serves as an external safety device. During the wiring process, you have the option to select from "SIG1", "SIG2", or "SIG3" ports. This selection should be made in accordance with the manufacturer's instruction manual. To set up the functionality of the light curtain, navigate through the menu options as follows: "Safety Device" → choose the respective "SAFETY1", "SAFETY", or "SAFETY3" based on your earlier selection → then select "Light Curtain".

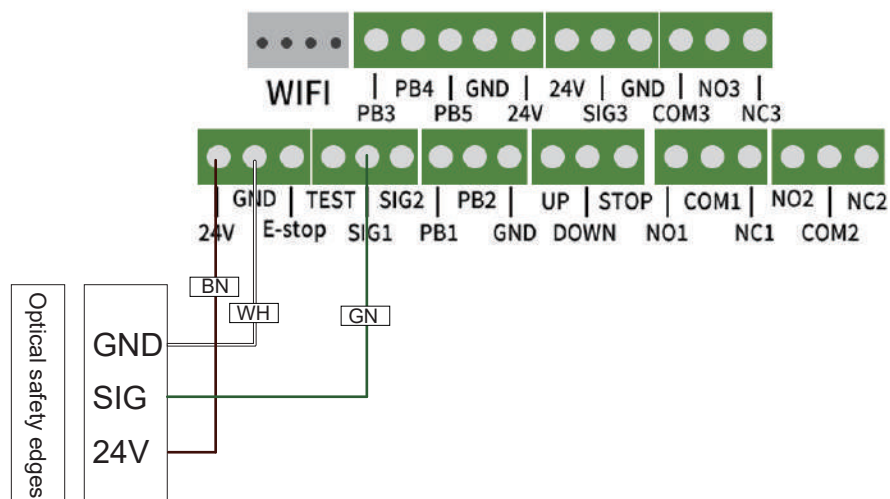
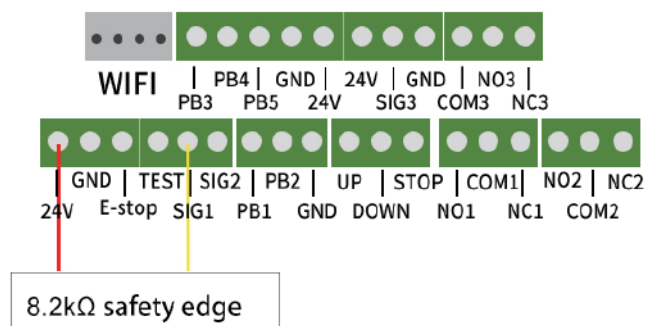
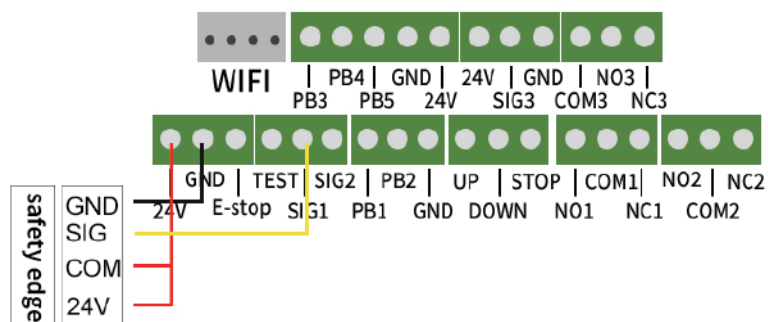
The "24V" port is typically connected to the power supply's positive pole and the COM/common. The "SIG" port is generally wired to the normally closed signal. The "GND" is usually connected to the power supply's negative pole, or to 0V, or to GND.



Safety Edge

The safety edge is an additional safety feature installed at the bottom of the door. During its installation, you have the option to select from "SIG1", "SIG2", or "SIG3" ports. This selection should be guided by the manufacturer's instruction manual. To configure the functionality of the safety edge, proceed as follows: navigate to the "Safety Device" menu → choose the respective "SAFETY1", "SAFETY2", or "SAFETY3" based on your previous selection → then select "Safety Edge".

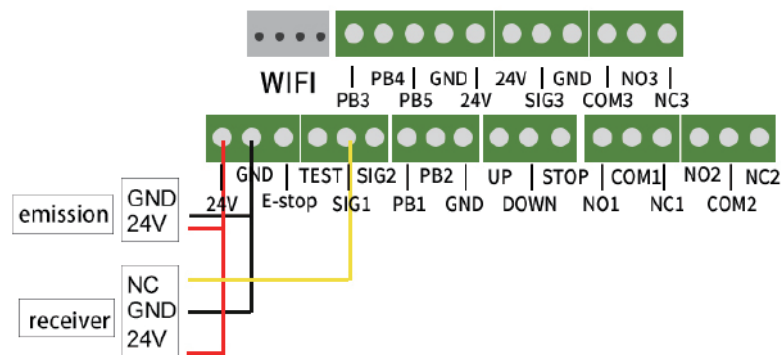
The "24V" port is typically connected to the power supply's positive terminal and the COM/common. The "SIG" port is generally wired to the normally closed signal. The "GND" is ordinarily connected to the power supply's negative terminal, or to 0V, or to GND.



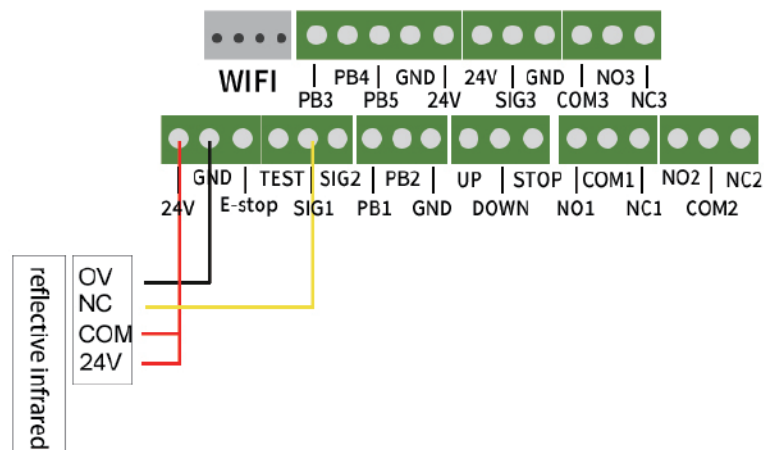
Photocell

The photocell serves as an external safety feature. During its installation, you have the choice of selecting from the "SIG1", "SIG2", or "SIG3" ports, based on the guidelines given in the manufacturer's instruction manual. To configure the functionality of the photocell, navigate through the menu options as follows: "Safety Device" → choose the respective "SAFETY1", "SAFETY2", or "SAFETY3" depending on your previous selection → then select "Photocell".

The "24V" port is typically connected to the power supply's positive pole and the COM/common. The "SIG" port is generally wired to the normally closed signal. The "GND" is usually connected to the power supply's negative pole, or to 0V, or to GND.

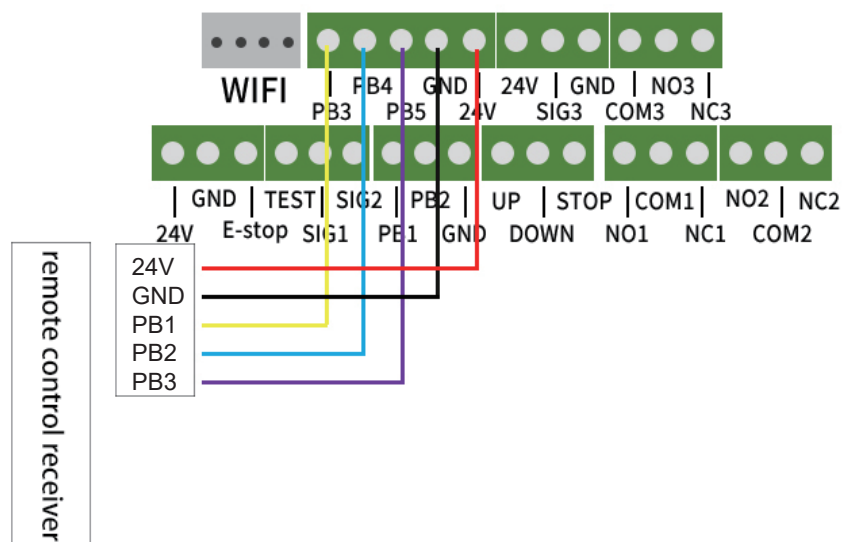
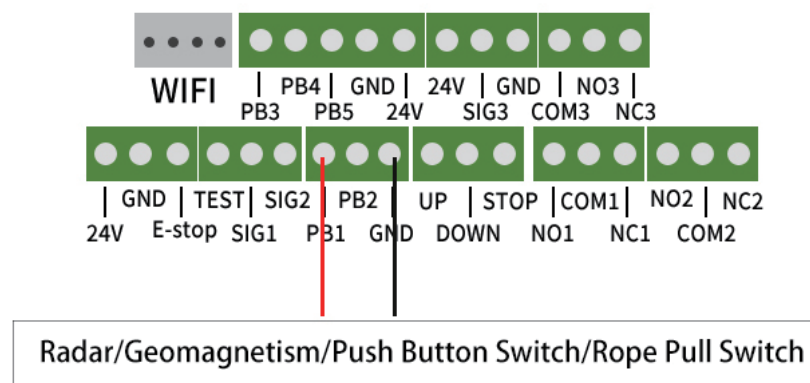


Retro-reflective Photocells:



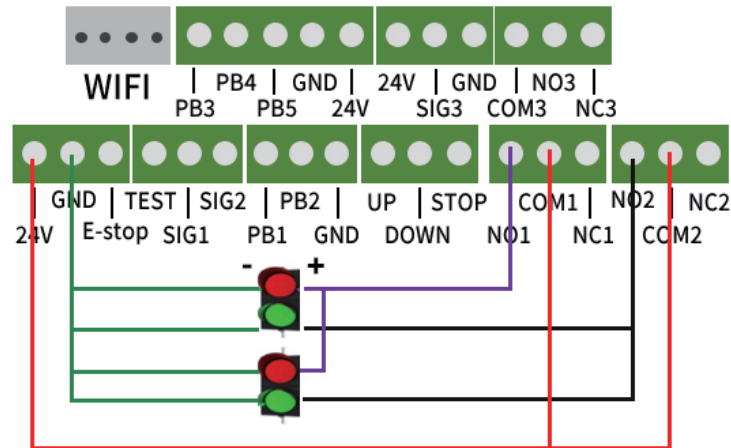
Radar / Loop Detector / Push Button / Pull Switch / Wireless Remote Receiver

An input device can be used for object detection to operate door opening. During the wiring process, you may select from the "PB1", "PB2", "PB3", "PB4", or "PB5" ports, following the guidelines in the manufacturer's instruction manual. To configure the functionality of the input, navigate through the menu options as follows: "Input/Output" → "Input" → "PB1" or "PB2". Alternatively, you can adjust the settings through the menu "Input/Output" → "Wireless Channel".



Traffic light

Install a red and green light for entrance and exit indication. Connect the power and wiring as shown in the diagram. To configure the functionality of these lights, navigate through the menu options as follows: "Input Output" → "Output Port".



Examples:

The green light is always on at the open end position, the red light is always on during operation, and the red light is always on at the close end position.

Green light setting steps:

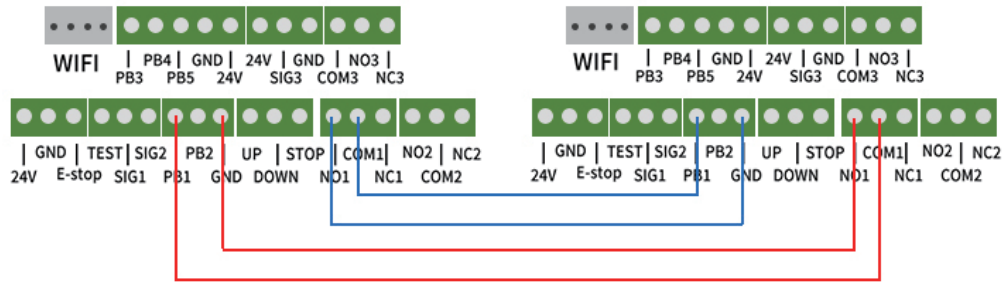
Input/output → Relay Outputs → Relay 1 → Endposition → open endposition

Red light setting steps:

Input/output → Relay Outputs → Relay 2 → Endposition → Not Open

Airlock

The connection of two door openers as depicted in the diagram allows for an interlocking function: it is possible for both doors to be simultaneously in a closed state, but they are not designed to be open concurrently. Only one door can maintain an open state at a given time. Thus, the full closure of one door is a prerequisite for the opening of the other door. The functionality of this setup can be configured by navigating through the following menu options: "Input Output" → "Output Port" and "Input Port".



Setup steps:

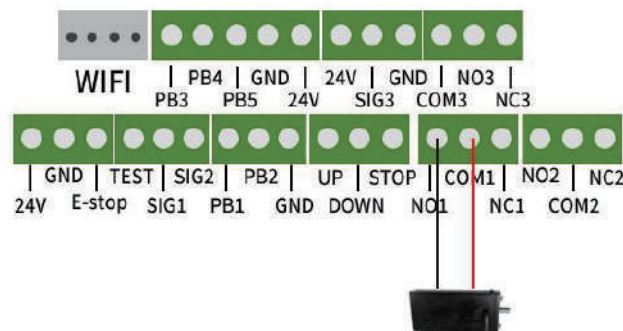
Input/output → Relay Outputs → Relay 1 → Endposition → Not Closed → Confirm → Back
Inputs → Input GPIO PB1 → Stop → Confirm

Note: Before setting, close the two door openers to the close end position limit, and the setting steps of the two door openers are the same

Electric Door-Lock

In instances where the door is equipped with an electronic lock, the output port can be utilized to automate the control of the electronic door lock's opening and closing mechanism. The connection should be made following the diagram provided. The functionality of this setup can be configured by navigating through the menu options:

"Input/output" → "Relay Outputs" → "Relay 1" → "Relay 2"

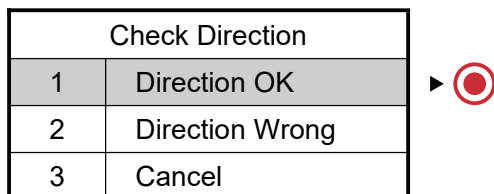
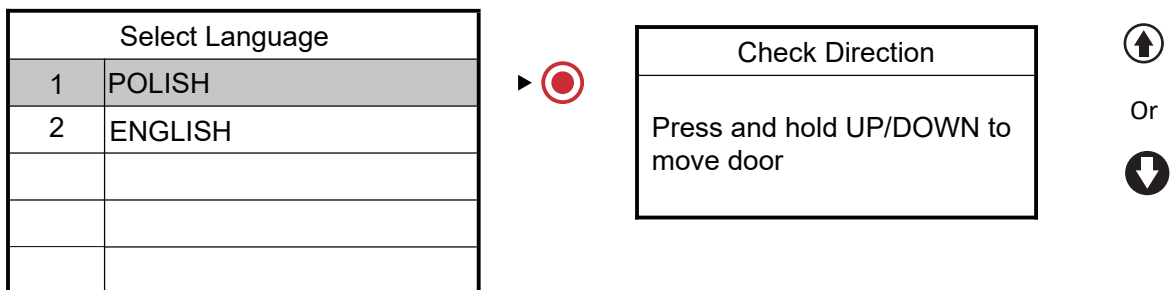


14. Operator Configuration

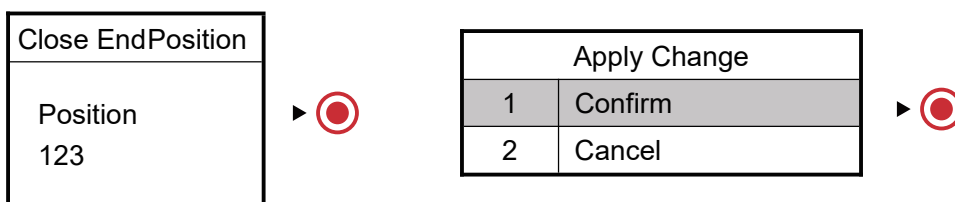
14.1 Quick Setting

Upon the initial power-up or under default factory settings, the door operator will automatically enter the quick setup mode. Follow the guidance provided on the display screen to perform direction check, travel limit setting, speed setting and safety device setting. Once these steps have been followed as directed, the basic setup for the door operator will be completed.

If automatic working mode is required, please connect an external safety device and enter the "Safety Device" menu to make corresponding settings.



Note: Check whether the moving direction is consistent with the direction of the button, select "correct direction" if consistent, and select "wrong direction" if inconsistent.



Press and hold the "up" or "down" button to move the door body to the lower limit position you need.

Open End Position
Position 123



Apply Change	
1	Confirm
2	Cancel

Press and hold the "up" or "down" button to move the door body to the upper limit position you need.

Up Direction 1/3
Opening Speed
.....RPM



Up Direction 2/3
Acceleration Time
.....ms



Up Direction 3/3
Deceleration Time
.....ms



Apply Change	
1	Confirm
2	Cancel



Down Direction 1/3
Closing Speed
.....RPM



Down Direction 2/3
Acceleration Time
.....ms



Down Direction 3/3
Deceleration Time
.....ms



Apply Change	
1	Confirm
2	Cancel

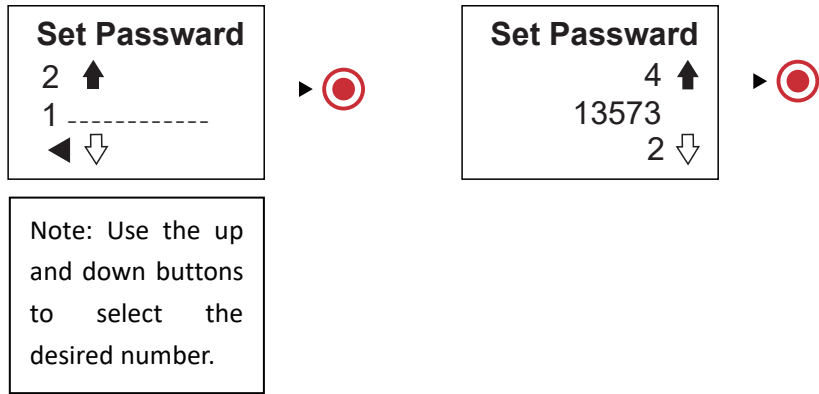


Close Manually
Open End Position

14.2 Main Menu

Press and hold( + ) or ( + ) for 3 sec. to enter menu.

Input the password "11113". Upon confirmation, the system will navigate to the main menu.



Main Menu	
1	Speed Settings
2	Safety Devices
3	Automatic Close
4	Door-positions
5	Operation Mode
6	Inputs / Outputs
7	Service
8	Select Language
9	Factory Reset
10	Built-in wireless
11	Advanced Settings
	Exit Menu

 **Password cannot be changed!**

14.3 Speed Setting



Caution!

Motor settings may only be operated by trained or authorized professionals! Any changes or wrong configuration may cause personal injury or property damage!

Adjust the door opening and closing speed:

Main Menu	
1	Speed Settings
2	Safety Devices
3	Automatic Close
4	Door-positions
5	Operation Mode
6	Inputs / Outputs
7	Service
8	Select Language
9	Factory Reset
10	Built-in wireless
11	Advanced Settings
	Exit Menu



Speed Settings	
1	Up Direction
2	Down Direction
	Back



Up Direction 1/3	
	Opening Speed
.....	RPM



Up Direction 2/3	
	Ramp up to fast speed
in	ms



Up Direction 3/3	
	Stop within
.....	ms



Apply Change?	
1	CONFIRM
2	CANCEL



Configure the Down Direction with the same process respectively.

14.4 Safety Devices:

The control unit provides three connection ports for external safety devices (such as infrared sensors, light curtains, and safety edges):

SAFETY1, SAFETY2, SAFETY3



We strongly recommend to use always safety devices in order to ensure a safe operation of the door !

Example Safety Edge:

Main Menu	
1	Speed Settings
2	Safety Devices
3	Automatic Close
4	Door-positions
5	Operation Mode
6	Inputs / Outputs
7	Service
8	Select Language
9	Factory Reset
10	Built-in wireless
11	Advanced Settings
	Exit Menu



Safety Devices	
1	SAFETY SIG1
2	SAFETY SIG2
3	SAFETY SIG3
	Back



Type	
1	Off
2	Safety-Edge
3	Retractable-Edg
4	Photocell
5	Light curtain
6	Stop-Switch



Test Mode	
1	Untested
2	8K2 resistor
3	8K2 Pneumatic
4	Pulsed (3Wire/OSE)
5	4-Wire:Active Test (+)
6	4-Wire:Active Test (-)
	CANCEL



Active Direction	
1	Down
	CANCEL



Reverse Mode	
1	Full Reverse
2	Partial Reverse
3	Stop



Apply Change?	
1	CONFIRM
2	CANCEL

	CANCEL
--	--------

1. Configuring the Safety Edge: It is important to determine the type of safety edge before configuration.

- For an 8.2KΩ safety edge, navigate to the safety edge strip option first, then proceed to choose 8.2k resistor under test mode.

- For a pneumatic safety edge, navigate to the safety edge strip option first, then proceed to choose untested under test mode.

- For a wireless pneumatic safety edge, navigate to the safety edge strip option first, then proceed to choose untested under test mode.

- For a Retractable Photocell, navigate to Retractable Photocell option first, then proceed to choose pulse (3-wire/OSE) under test mode.

2. Configuring the photocell:

- Navigate to the photocell option and then proceed to choose untested under test mode.

3. Configuring the Light Curtain:

- Navigate to the light curtain option and then proceed to choose pulse (3-wire/OSE) under test mode.



For SAFETY 2 or other safety devices, re-do the configuration similarly as shown in above example.

Please pay attention:

1: Must use NC mode safety devices.

2: If only connect 1 single channel photocell, CDO will not work. Must connect 1 single channel photocell and another 1 safety edge or 1 light curtain.

3: "Stop-Switch" can be used to set door-in-door function



The function of the safety devices before you set the door in operation!

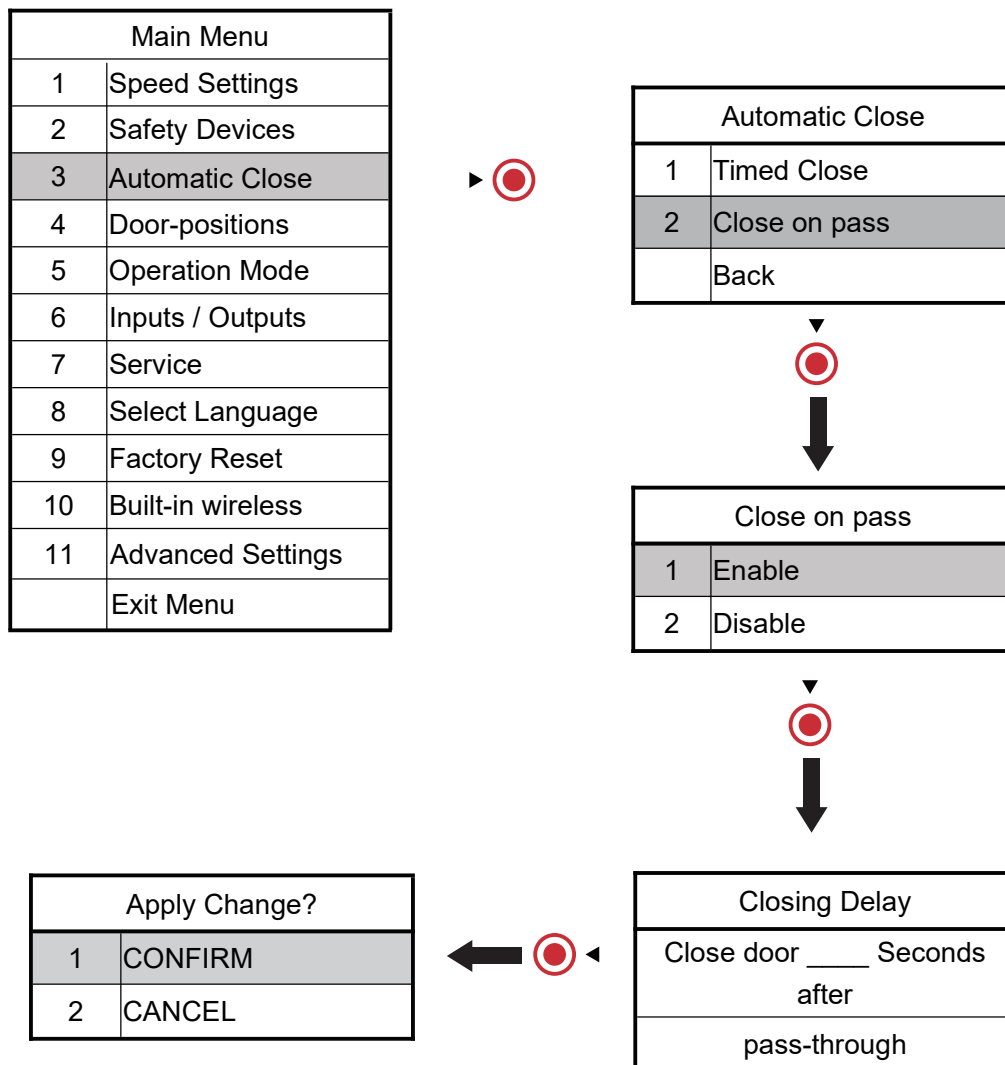
14.5 Automatic Close



It is mandatory to install a photocell before activating “automatic closing” !

Example:

“Closing on pass”: Upon passage of a pedestrian or object through the open door, the door automatically closes. This is triggered by the activation of the infrared sensor when something passes through the door, which then initiates a countdown to close the door.



The function “timed close” is programmed similar.

14.6 Door Positions

In this menu you define the following parameters:

- Rotation direction of the motor (depending on your installation, it has to be changed)
- “Closed” and “Open” position of the door
- Position of partial opening
- Position of hiding photocell (e.g. at fast acting doors)
- Pre-End Position

Main Menu	
1	Speed Settings
2	Safety Devices
3	Automatic Close
4	Door-positions
5	Operation Mode
6	Inputs / Outputs
7	Service
8	Select Language
9	Factory Reset
10	Built-in wireless
11	Advanced Settings
	Exit Menu



Door-Positions	
1	Check Direction
2	Closed End position
3	Open End position
4	Partial Open Pos.
5	Blank Light barrier
6	Pre-end position
	Back



Check Direction

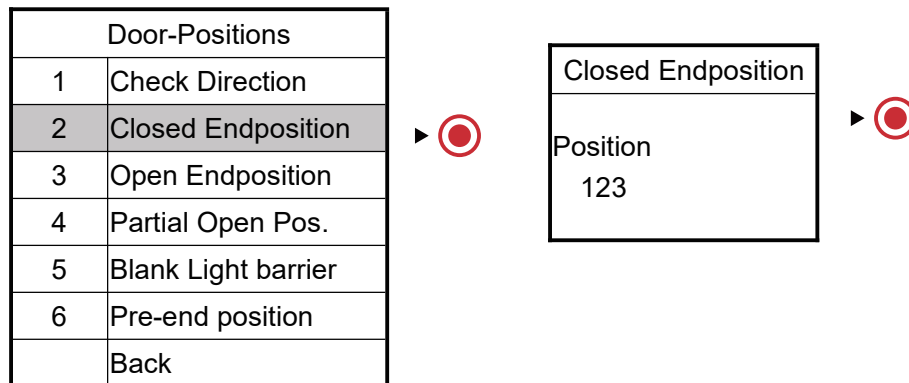
Press “UP” or “DOWN” button and keep pressed to move the door.

Check Direction	
1	Direction OK
2	Direction Wrong
3	Cancel

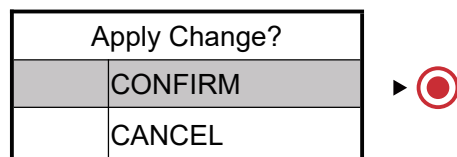


Note: Check if the operating direction aligns with the key direction. If they are consistent, select "Direction OK". If they are inconsistent, select "Direction Wrong". This completes the setup process.

Closed End Position (Door closed):



Press and hold the "Up" or "Down" button to move the door to the desired Closed Endposition.

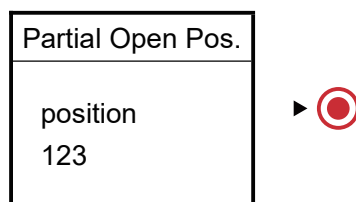
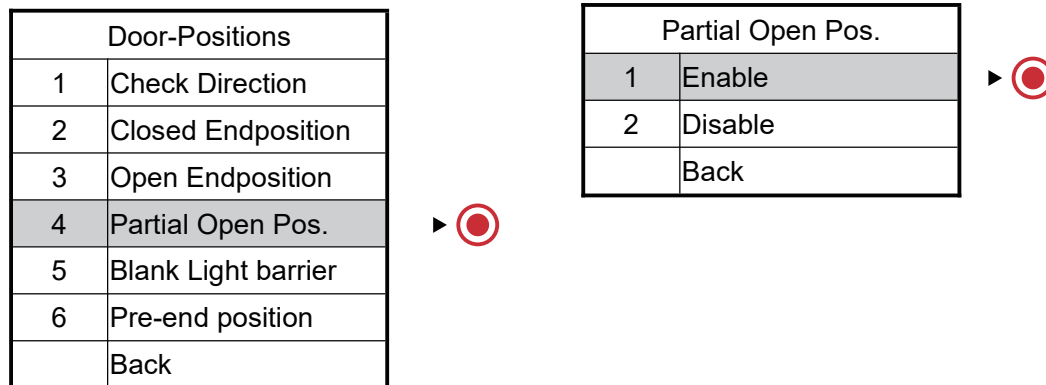


Open End position (Door open):

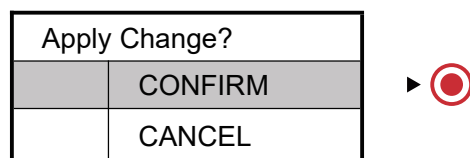
➡ In the " Open Endposition" menu, repeat the steps as described above.

Partial Open Position:

Operate the door to reach the desired partially open position!



Press and hold the "Up" or "Down" button to move the door to the highest opening position you need.



Blank light barrier:

If you have a very fast acting door, it might be needed that you switch off the light barrier at a certain door position in order to avoid malfunction in obstacle detection by the photocell.

Caution!

Before blanking the light barrier, ensure that a second safety device (light curtain, safety edge etc.) is installed!

Door-Positions	
1	Check Direction
2	Closed Endposition
3	Open Endposition
4	Partial Open Pos.
5	Blank Light barrier
6	Pre-end position
	Back



Safety Device	
1	SAFETY1
2	----
3	----
	Back



Blanking	
1	Enable
2	Disable
	Back



Blank Light barrier	
Position	▶ 
123	

Press and hold the "Up" or "Down" button to move the door to a safe position where you want to disable the light barrier.

Apply Change?	
	CONFIRM
	CANCEL



Pre-end position

When the safety edge surpasses this position, the logic of the obstruction switches from reverse to stop. This prevents safety edge of certain fast-reacting doors from reversing back when they impact the ground.

Door-positions	
1	Check Direction
2	Closed Endposition
3	Open Endposition
4	Partial Open Pos.
5	Blank Light barrier
6	Pre-end position
	Back

► 

Pre-end position
Distance above

► 


Press the "Up" or "Down" button to adjust the response distance of the safety edge strip.

Apply Change?	
	CONFIRM
	CANCEL

► 

14.7 Operation Mode

Here you can choose between 3 different operation modes:

- Manual UP and DOWN (Hold to run mode)
- Automatic UP and DOWN
- Semi Automatic (automatic UP, hold to run DOWN)



Caution!

If choose Automatic UP/DOWN mode, do confirm that you have installed safety device(at least 1safety edge, or 1 light curtain, or 1 photocell + 1 safety edge / light curtain).

Main Menu	
1	Speed Settings
2	Safety Devices
3	Automatic Close
4	Door-positions
5	Operation Mode
6	Inputs / Outputs
7	Service
8	Select Language
9	Factory Reset
10	Built-in wireless
11	Advanced Settings
	Exit Menu



Operation Mode	
1	Manual UP/DOWN
2	Automatic UP/DOWN
3	Semi-Automatic
	Back



Apply Change	
1	CONFIRM
2	CANCEL



14.8 Inputs/Outputs

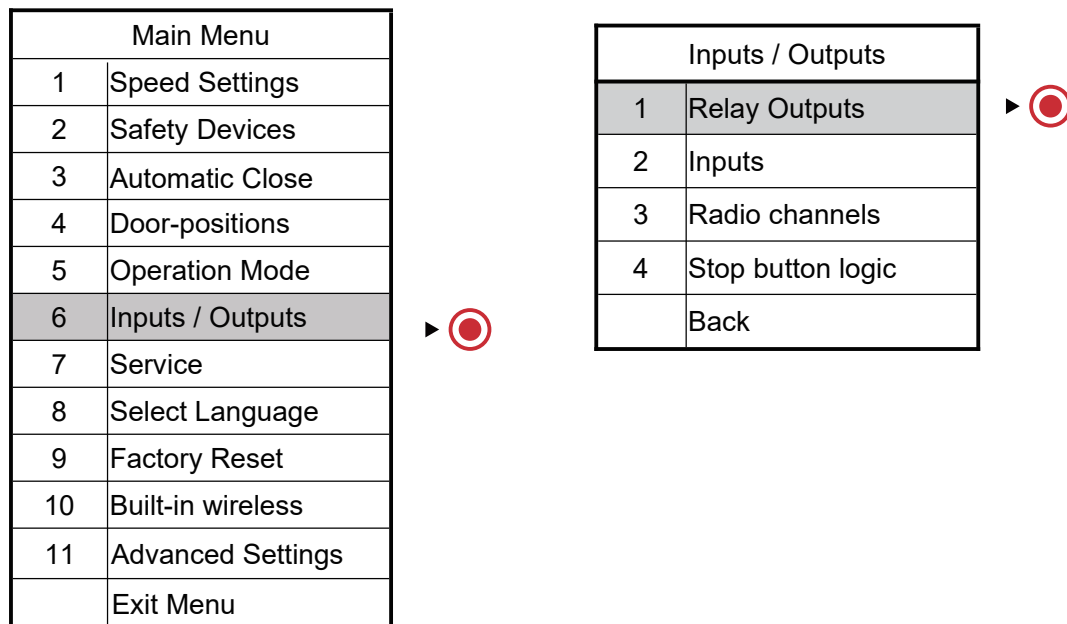
The control unit has 3 protentional free relays contacts/ 5 GENERAL INPUTS, which can be used for different applications during door movement or when the door reached one of the endpositions.

You can choose in the menu how the relays should react.

Furthermore, the relays contacts can be used for the realization of red-green traffic light connections,warning light, eclectic Door-lock and Airlock.

Outputs

Example: Warning light just blinking while door closing (connect to NO1& COM1 on RELAY1)



Relay outputs	
1	Relay 1
2	Relay 2
3	Relay 3
	Back



Relay Function	
1	Off
2	Door- Movement
3	Endposition
4	Electrical Door-Lock
5	Radio Remote
6	Fault Indication
	Back



Direction	
1	Opening
2	Closing
3	Both directions



During Movements	
1	Blinking
2	RelayOn



Pre-Run Delay	
1	Closing
2	Seconds



Apply Change?	
1	CONFIRM
2	CANCEL

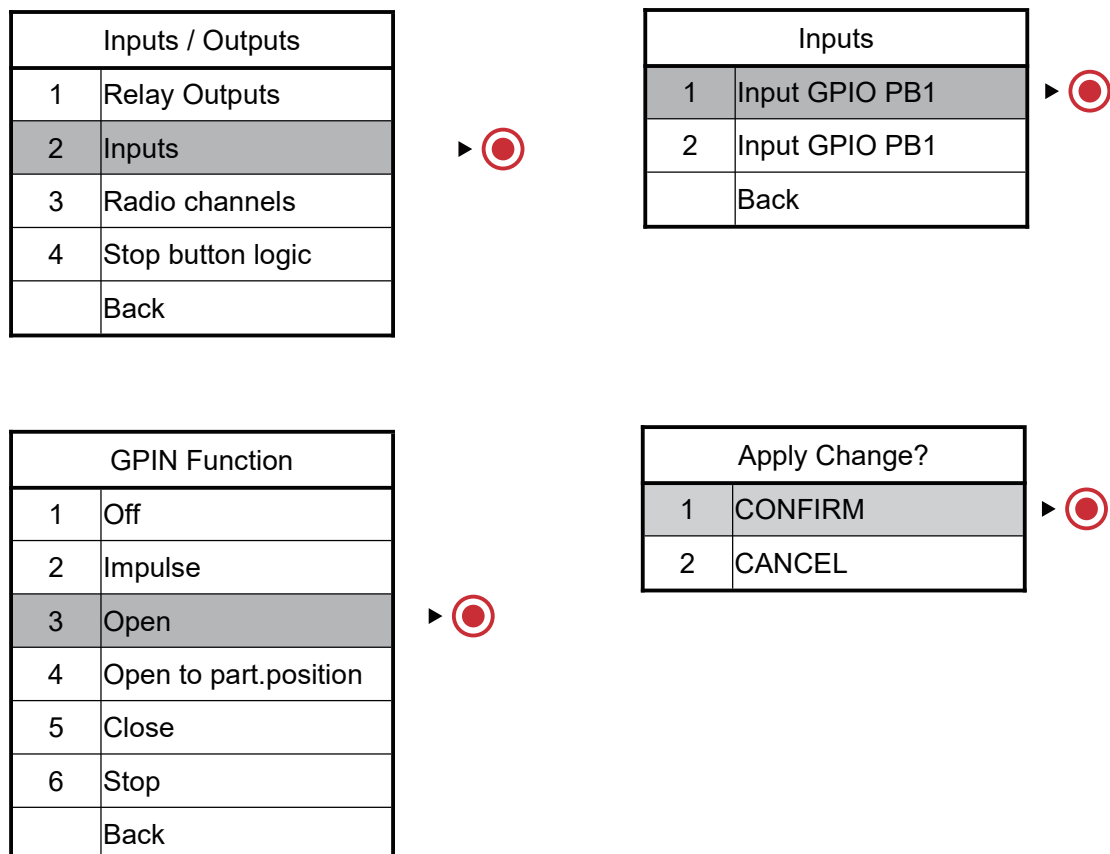


For the programming of relays 2+3 you redo the steps above

Inputs

External devices can be connected to the input port (PB1, PB2). These devices can control the action of the door operator with their output signal.

Example: Control door opening with input signal (connect to GPIO1 & COM on GENERAL INPUTS)



Radio Channels

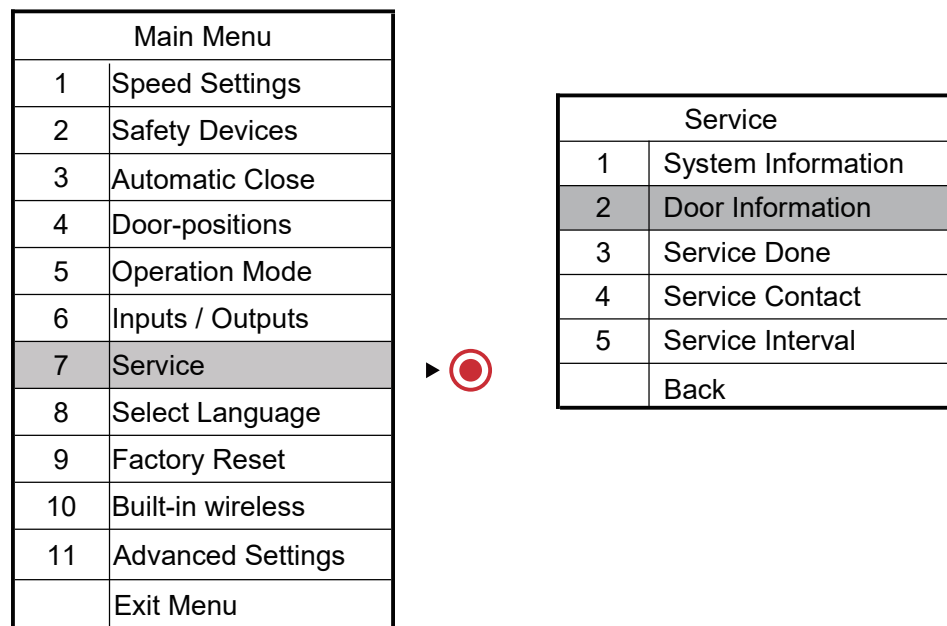
The GPIO3, GPIO4, GPIO5 ports on the control unit circuit board can be connected to a wireless remote-control receiver. This connection allows for wireless remote control of the door opening. These ports can also be connected to a radar or loop detector for wireless door operation, or can function similarly to the GPIO1 or GPIO2 ports, allowing for the connection of switch signal controls for door operation. Refer to the setup steps for the "GPIO1 or GPIO2" ports for further guidance.

Stop button logic

Here you can choose the control logic for the "Stop" button of the switch, whether it should be normally open or normally closed. If you choose normally closed, this port must be short-circuited for the door machine to operate normally.

14.9 Service

In the service menu you can show up all information that is related to the door and operator. You can define service intervals, store service contacts etc.



1. "System Information":

shows model of control unit and software release

2. "Door information":

Shows total number of door cycles and cycles from and until next service

3. "Service done":

Here you confirm that you made service

4. "Service contact":

Here you can store a service contact and phone number

5. "Service interval":

Here you define the no. of cycles for next service

6. "Error Log"

Shows the recent error the system encountered.

➡ Please respect your local regulations in terms of safety of automatic doors !

14.10 Language

Choose the language you want to use.

Main Menu	
1	Speed Settings
2	Safety Devices
3	Automatic Close
4	Door-positions
5	Operation Mode
6	Inputs / Outputs
7	Service
8	Select Language
9	Factory Reset
10	Built-in wireless
11	Advanced Settings
	Exit Menu



Select Language	
1	POLISH
2	ENGLISH



Apply Change?	
1	CONFIRM
2	CANCEL



14.11 Factory Setting

After restoring to factory settings, previous settings will be erased. Upon re-powering the device, quick setup or other configurations can be performed.

Main Menu	
1	Speed Settings
2	Safety Devices
3	Automatic Close
4	Door-positions
5	Operation Mode
6	Inputs / Outputs
7	Service
8	Select Language
9	Factory Reset
10	Built-in wireless
11	Advanced Settings
	Exit Menu



Factory Reset	
1	CONFIRM
2	CANCEL



14.12 Advanced Settings



Caution!

Only trained or authorized professionals are allowed to operate motor settings! Any changes or incorrect configurations could potentially lead to personal injury or property damage!

15. Error Code Table

Error code	Error display	Solution
1	Travel exceeds limit	Press UP to return to limit position
2	Travel exceeds limit	Press DOWN to return to limit position
4	The door is stuck	Power off and restart
8	Program verification error	Restore factory settings
9	Motor verification error	Reprogramming the driver board
10	Door unexpectedly moved	Press STOP to reset
15	Watchdog restart	Press STOP to reset
16	Control board parameter error	Press STOP to reset
17	Motor power-up failure	Check the driver board
20	Low battery voltage	Replace the battery (travel data will be lost)
21	Battery failure	Replace the battery (travel data will be lost)
22	Encoder operation error	Replace the encoder (travel data will be lost)
23	Encoder restart	Restart and reset (travel data will be lost)
24	Encoder UVW error	Replace encoder or main board (travel data will be lost)
25	Encoder ABC alarm	Replace encoder or main board (travel data will be lost)
26	Encoder C pulse error	Replace encoder or main board (travel data will be lost)
27	Encoder C pulse anomaly	Replace encoder or main board (travel data will be lost)
33	Overcurrent	Check encoder flange condition, IPM module, and solder joints of resistors/capacitors for integrity
34	Overcurrent	Check encoder flange condition, IPM module, and solder joints of resistors/capacitors for integrity
35	CRC error	Abnormal memory chip on driver board
36	Motor overspeed	Check encoder flange for data loss
37	Motor overload	Check electronic wiring and encoder data
38	Motor blocked	Check electronic wiring and encoder data
39	Internal position error counting error	Replace the driver board
40	Position error pulse error	Replace the driver board
41	Gear error or pulse frequency too high	Replace the driver board
42	Abnormal IU current	Check sampling resistor
43	Abnormal IV current	Check sampling resistor
44	CPLD fault	Replace the driver board
45	Overvoltage	Check input voltage and bus voltage on driver board
46	Undervoltage	Check input voltage and bus voltage on driver board
47	Damaged discharge resistor	Check brake resistor connection
48	Regenerative circuit abnormality	Check brake resistor rating

49	Missing phase	Check motor wiring
50	Momentary pause alarm	Replace the driver board
51	Power failure	Check input power supply voltage
52	Overheating	Replace the driver board
53	Encoder communication timeout	Replace the encoder
54	IO Return to Zero Abnormal	Replace the battery
55	Motor adaptation code error	Replace the battery
56	IO positioning abnormal	Replace the driver board
57	Motor safety chain alarm	Replace the driver board
58	Motor serial port failure	Check emergency stop switch on control box, manual release on motor head
59	Driver user data abnormal	Press STOP to reset
60	User data check error	Press STOP to reset (travel data will be lost)
61	Safety edge 1	Check safety device interface
62	Photocell sensing edge 1	Check safety device interface
63	Fixed infrared 1	Check safety device interface
64	Light curtain 1	Check safety device interface
65	Stop switch 1	Check safety device interface
71	Safety edge 2	Check safety device interface
72	Photocell sensing edge 2	Check safety device interface
73	Fixed infrared 2	Check safety device interface
74	Light curtain 2	Check safety device interface
75	Stop switch 2	Check safety device interface
81	Safety edge 3	Check safety device interface
82	Photocell sensing edge 3	Check safety device interface
83	Fixed infrared 3	Check safety device interface
84	Light curtain 3	Check safety device interface
85	Stop switch 3	Check safety device interface
90	Control board serial port reception error	Check control board serial port wiring
93	Invalid travel	Reset travel limit
96	Control segment safety chain	Check safety chain

EC Declaration of Incorporation

For the assembly of a partly machine
annex II part 1 B

the manufacturer herewith declares that the door operators
SV80-ISD, SV120-ISD, SV140-ISD, SV75-HSD, SV100-HSD, SV150-HSD, SV180-HSD,
SV220-HSD is developed and produced in accordance with

- machinery directive 2006/42/EC
- emc directive 2014/30/EU
- RoHS directive 2011/65/EU

Following normatives have been applied:

- EN 60335-1, as far as it concerns (safety of electrical devices/ operators for doors)
- EN 61000-6-4 (emc)
- EN 61000-6-2 (emc)
- EN 60335-1:2012 (safety of electrical devices)
- EN 60335-2-103:2003 (safety of electrical devices)
- EN ISO 13849-1:2008 (safety of control units for machinery)

Following requirements of machinery directive 2006/42/EC are fulfilled:

1.1.2, 1.1.3, 1.1.5, 1.2.1, 1.2.2, 1.2.3, 1.2.4, 1.2.6, 1.3.2, 1.3.4, 1.3.7, 1.5.1, 1.5.4, 1.5.6,
1.5.14, 1.6.1, 1.6.2, 1.6.3,
1.7.1, 1.7.3, 1.7.4

On request of authorities the technical approvals can be transferred electronically.

The partly machine is only for use on door applications in order to build a complete machine in accordance with machinery directive 2006/42/EC. The door must set in operation only if the above normatives are fulfilled.

ET Door GmbH
June 2023