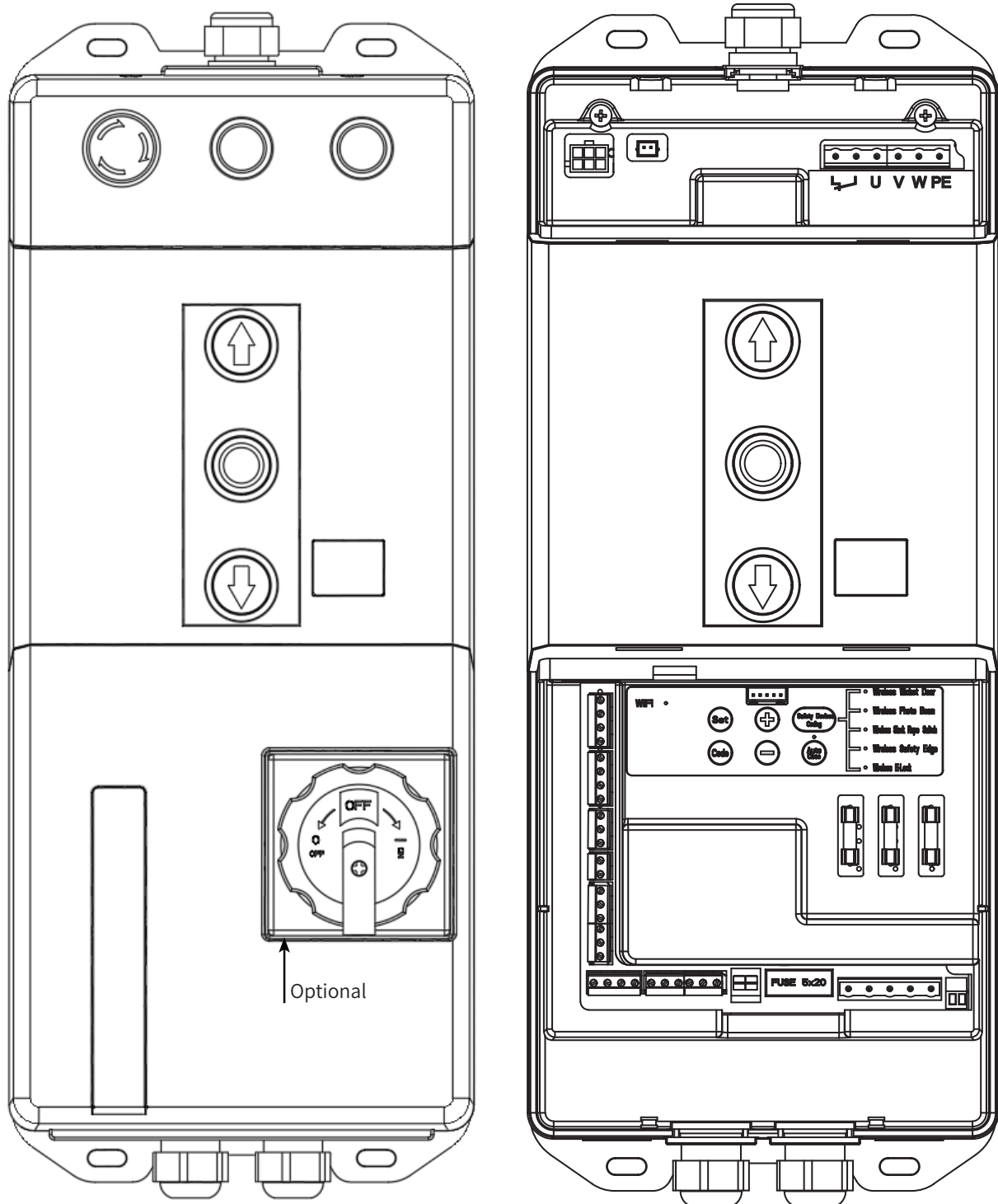


AC Industrial Door Drive Control Unit Instruction (PRO Version)



Available for

AC 90 Industrial Door Drive

AC 140 Industrial Door Drive

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1.General Information



Warning – General hazard

Hazard for user and/ or fitter Intended to draw attention to the caption.



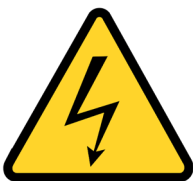
Warning – Electrical hazard

Symbol denotes a specific hazard regarding electricity.



Precautions – Important

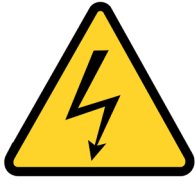
★ The schematic diagram is based on the product example, and the delivered product may deviate.



WARNING:

Do not connect the CEE plug until installation is complete, all plug-in terminals are attached and all connectors are secured.

2. Installation & Installation Instructions



- Only competent and professional persons may install and fit the door. The person responsible for electrical installation of the door must also have electron qualification in order to work on such an installation. Persons may not be allowed to work on the door or its electrical installation if they are under the influence of drugs, alcohol or medication which may reduce their reactive capacity.
- The supplied product may only be converted and/or changed following consultation with the manufacturer. Original components or original replacement parts must always be used. Any liability will automatically be canceled if any other parts are used.
- Electric current is a hazard. Contact with live components can result in electric shock, burns and even death. Only professional and electron qualified persons may conduct work on electrical components. The installation must be disconnected from the mains power during any work. Always check the disconnection before work is conducted. When working on the electrical installation, the entire system must be protected against unintentional reconnection to the mains network by a third party.
- Before starting up the installation, it must be checked whether all connections are sound and fitted according to the user manual. It must also be checked whether all fittings of the operator and control box are sound. All electric cables must be fitted and connected in such a way that they cannot be unintentionally moved. The control box must be

programmed in a way that it is guaranteed to work safely and according to standards.

- Upon delivery of the door with the electrical installation, the responsible user/owner must be informed of the hazards of the door and the electrical installation. And told that this information must be passed on to any other users.

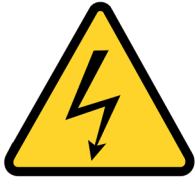
- The competent and professional person, and in the case of an electrical installation also an electron qualified person, is responsible for correct fitting of the door and the electrical installation.



WARNING:

The control box is programmed for a clockwise (right-rotating field). Avoid any damage caused by incorrect rotation of the operator.*

3. Instructions for Use



- Children and/or any person with limited physical, sensory or mental capacity must not be allowed to operate the control box. Playing in the direct vicinity of an electrically operated door is also prohibited. These persons must not be allowed to operate the door even under supervision.
- Defective components can be extremely hazardous and can result in serious and even fatal injury. In the case of failure of a component, the door and its electrical installation must be switched off. In doing so, the installation must be disconnected from the mains network. This disconnection must take place in such a manner that accidentally switching the door back on is reasonably impossible. The defective component or components may only be repaired and/or replaced by a competent and professional person.
- The electrical installation must always be in good condition when in use. It is essential that proper maintenance and management takes place as given in the user manual.
- The electrical installation and its components may only be deployed for the described purpose.
- Children and/or any person with limited physical, sensory or mental capacity must not be allowed access to hand-held openers and other control components. These must be stored safely and out of reach, to avoid unintentional and unauthorized use.
- The control box must not be used in environments where there is a risk of condensation.

4. Maintenance, Disassembly and Disposal

Maintenance

The operator and control box are maintenance-free. The following inspections are to be conducted during maintenance.

- Check the complete fitting of the operator and control box.
- Check the balance of the door and correct this when necessary .
- Check the functioning of the end switch, encoder and limit switch setting.
- Check the functioning of all (safety) switches.
- Check the functioning of any safety edge or light curtain.
- Check the functioning of any braking device.
- Conduct a general (audio) visual inspection.

The supplied product may only be converted and/or changed following consultation with the manufacturer. Original components or original replacement parts must always be used. Any liability will automatically be canceled if any other parts are used.

Disassembly



HAZARD:

With a view to the hazards of maintenance work, this may only be conducted by a competent and professional person.*

The installation manual can be used as a reference for disassembly of the operator and control box. The described adjustment work does not apply in that case.

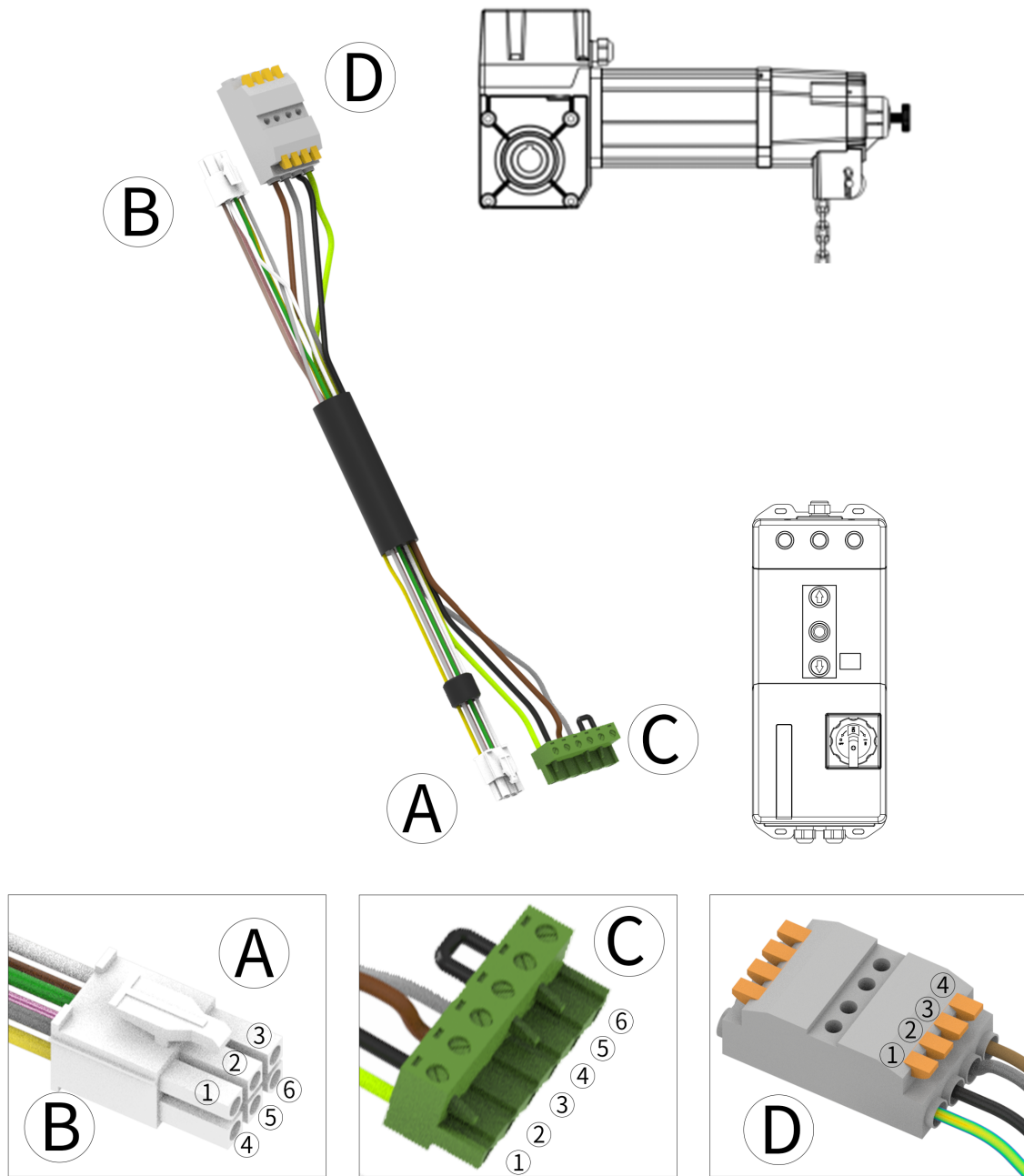
Disposal

- When disposing of waste products, these must be separated into metals, plastics, electrical parts and lubricants.
- The applicable national rules must be taken into account for disposal of materials .
- The product must not be disposed of with regular household waste, and must be disposed of as electronic equipment.

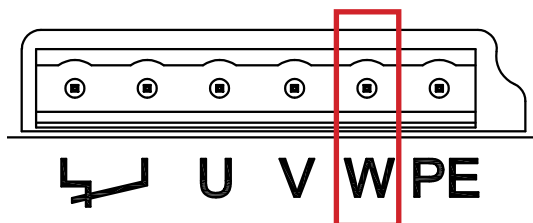
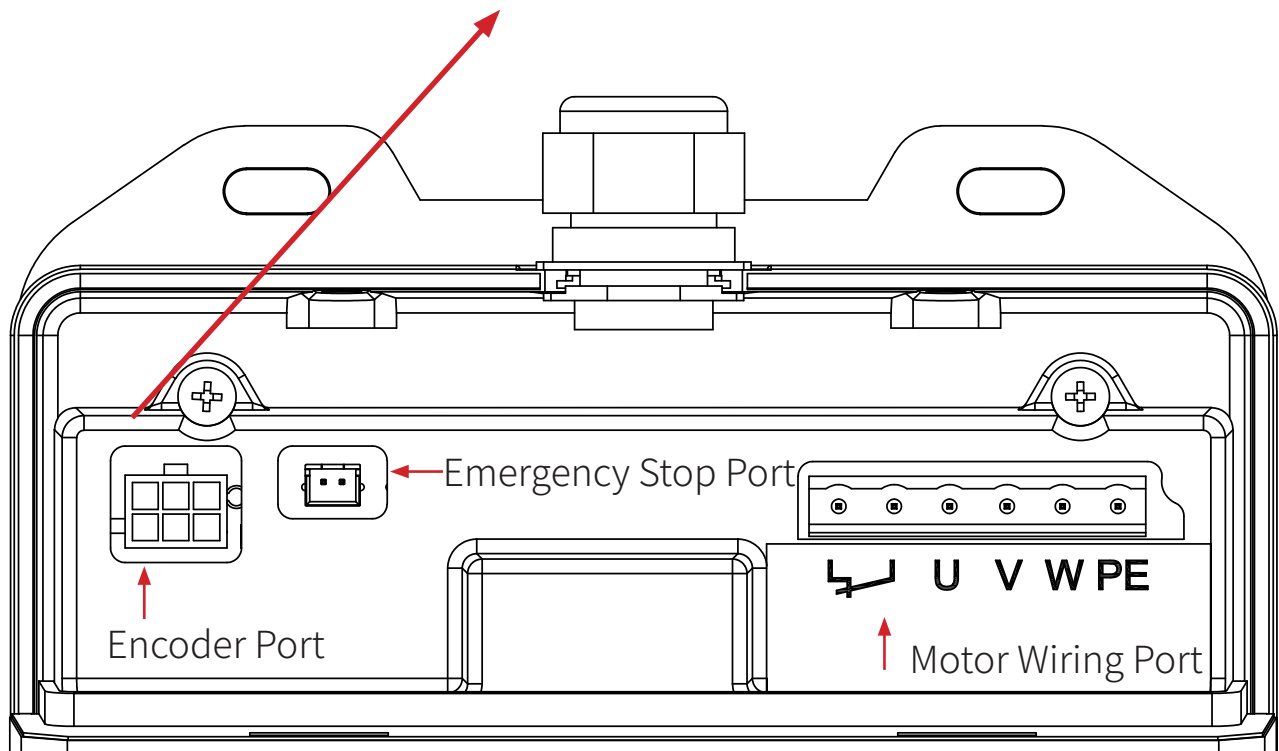
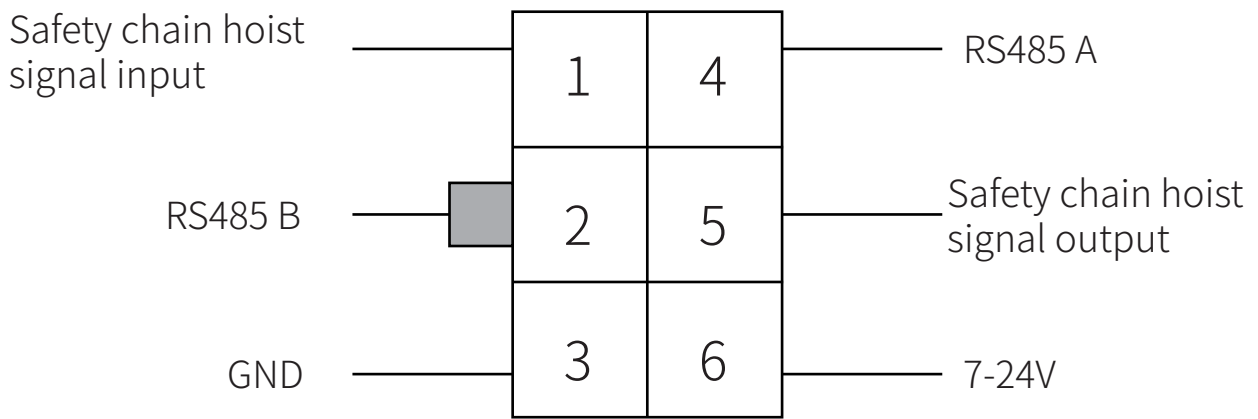
5. Electrical Parameters

Series Name	AC220-20115020-1/AC400-20115019-1
Dimensions (L*W*H mm)	446*174*112
Installation	Vertical, No Vibration/Horizontal
Power supply frequency (HZ)	50/60
Power supply voltage ($\pm 10\%$)	1 N~220-230 V, PE 3 N~380-420 V, PE
Drive unit output power max (KW)	1.5
Phase protection current (A)	10-12
External power supply:24V/GND	24V(DC)
	0.5A
External power supply:X1(L/N) (Protection via F1 fuse)	1 N~230 V
	1.6A
Control input	24V(DC)
	500mA
Control power consumption	4W
Temperature range (° C)	-20°C~ +60°C
Enclosure protection level	IP54
WiFi	Built-in
Safety receiver	Built-in
Limit switch	DES (Digital Limit Switch)

6. Motor Cable Overview



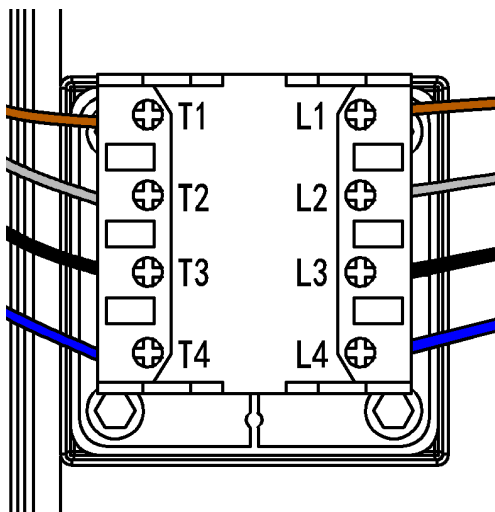
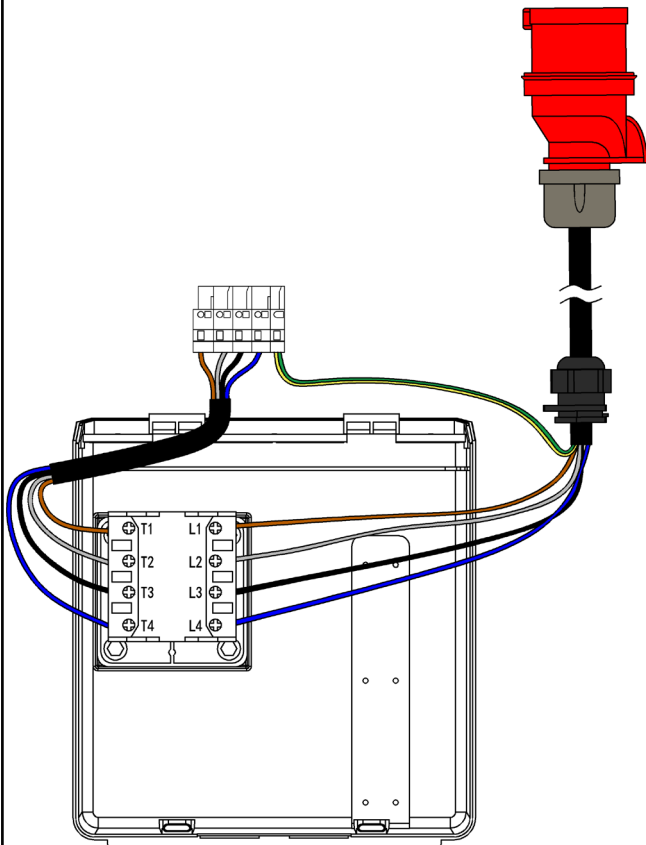
A → B				C → D			
Serial Number	Color	Serial Number	Functional Description	Serial Number	Color	Name	Functional Description
①	Grey	①	Clutch/Temperature control switch 24V power supply	①	Yellow-green	PE	Grounding
②	Green	②	Channel B (RS485)	②	Black	W	W Phase
③	White	③	GND	③	Brown	V	V Phase
④	Yellow	④	Channel A (RS485)	④	Grey	U	U Phase
⑤	Pink	⑤	Clutch/Temperature Control Switch Output	⑤	/	Connection lines	/
⑥	Brown	⑥	+13V DC Power Supply	⑥			



Note: When using the AC220 control box, the "W" port is the gear motor COM terminal.

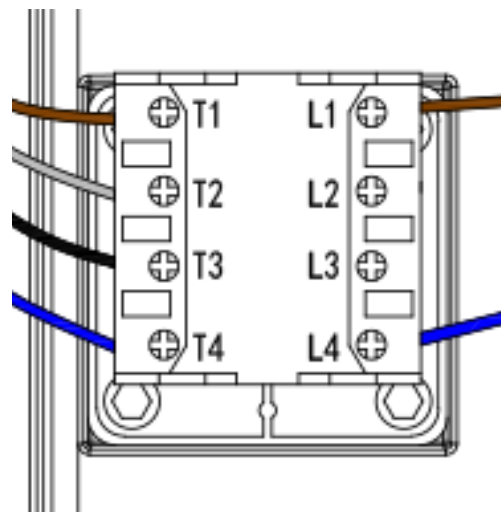
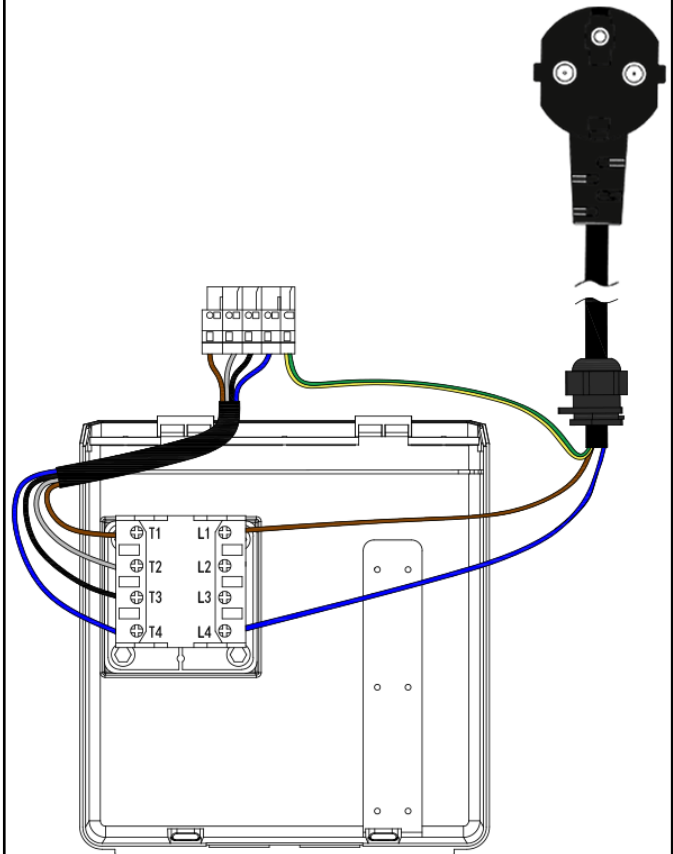
7. Disconnect Switch Assembly and Reversible Three-phase Power Cable Wiring Instructions

Three-phase power cable
(applicable to AC400V drive)
disconnect switch and wiring



L1 - T1 BN
L2 - T2 GY
L3 - T3 BK
L4 - T4 BU

Single-phase power cable
(applicable to AC220V drive)
disconnect switch and wiring

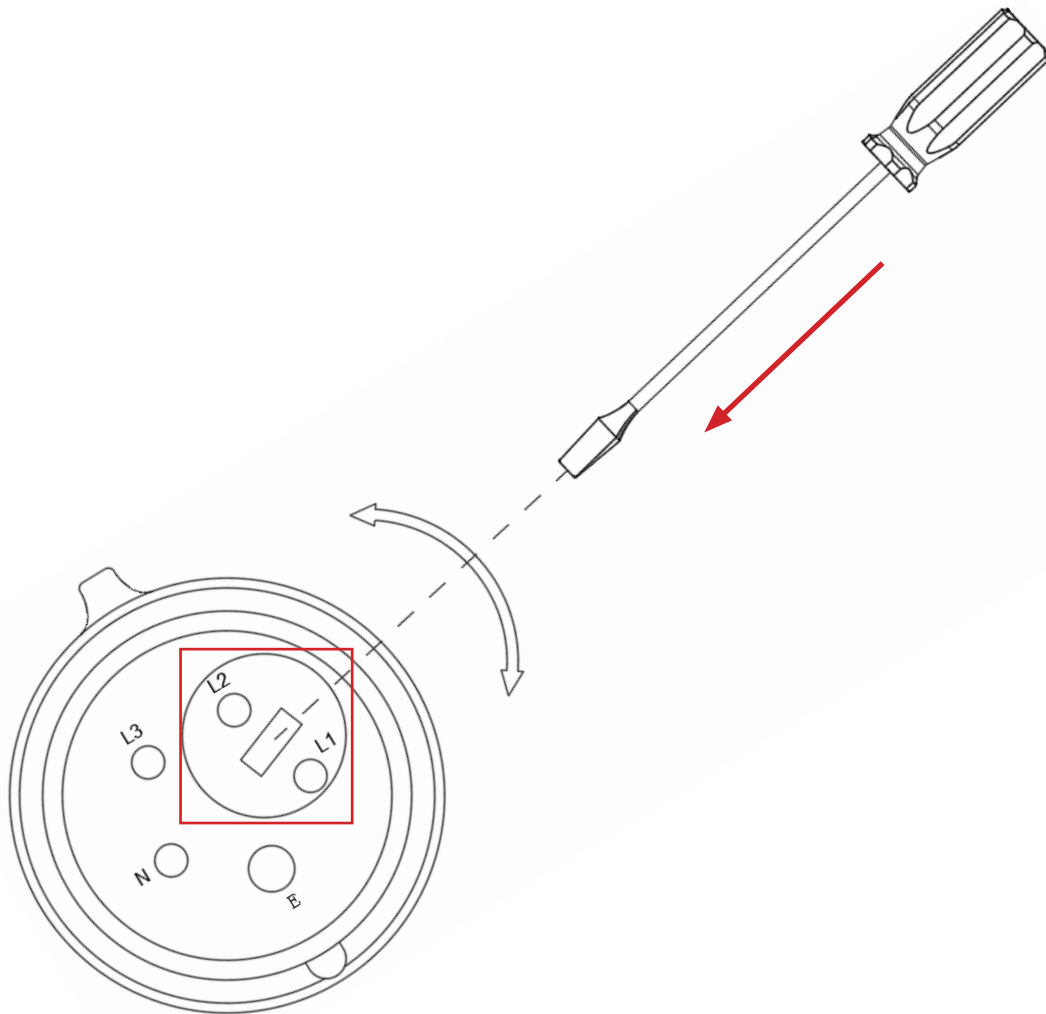


L1 - T1 BN
L2 - T2
L3 - T3
L4 - T4 BU

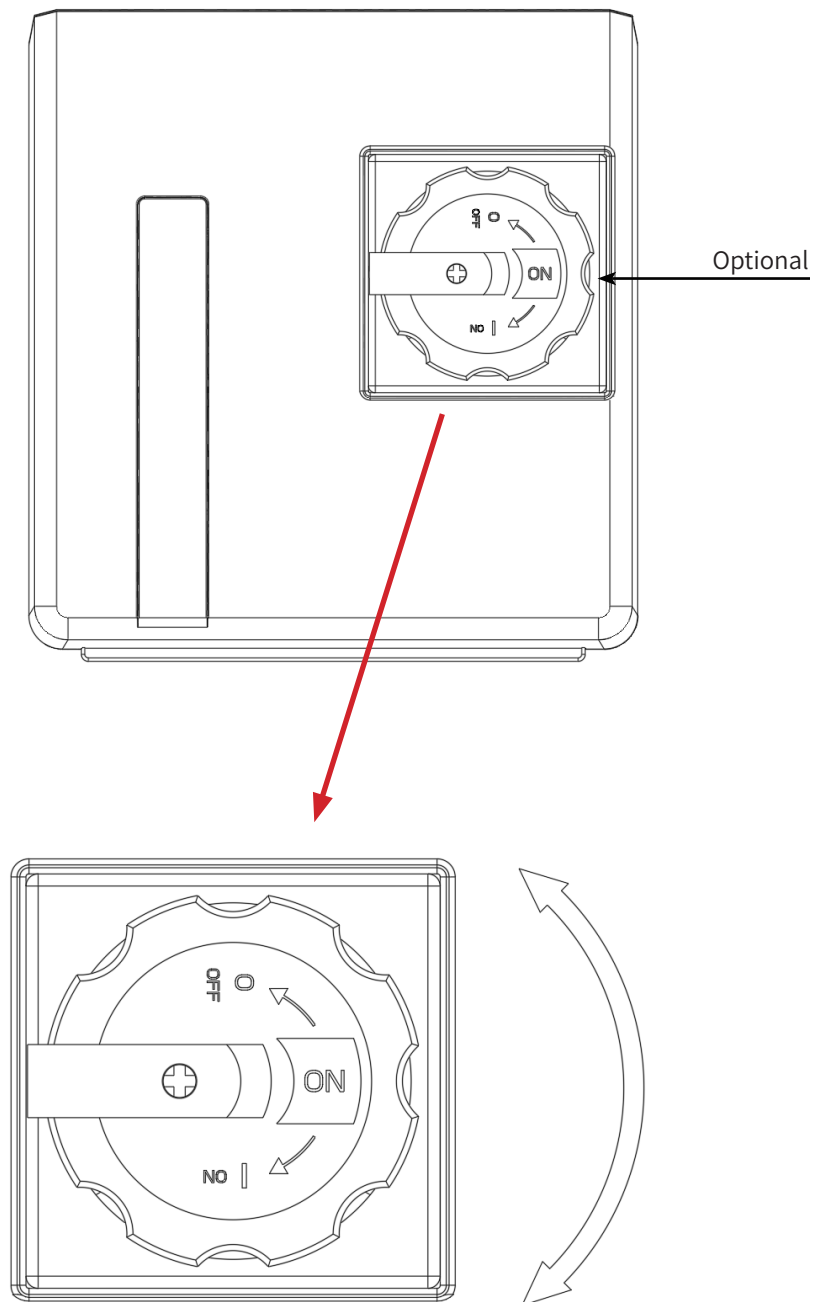
Convertible Three-phase Power Cables Instructions

① . In order to ensure the normal and safe operation of the AC400V motor, it is necessary to ensure that the phase sequence of the power input terminal is correct after power-on.

② . When the motor learns to travel limit, the  reports an error, first unplug the three-phase power supply, rotate the phase sequence inside the three-phase power supply plug through the screwdriver.



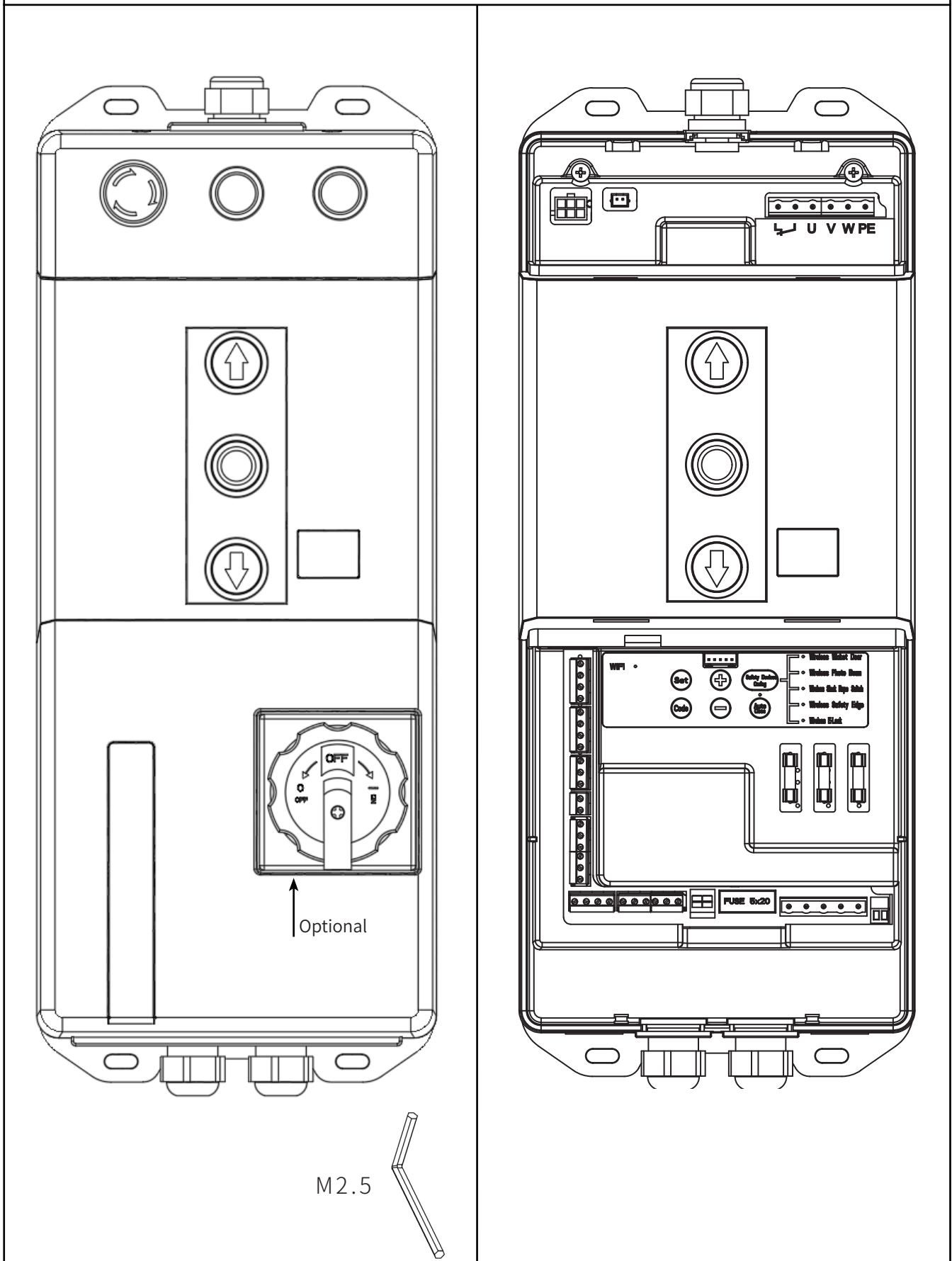
Disconnect Switch Front Side



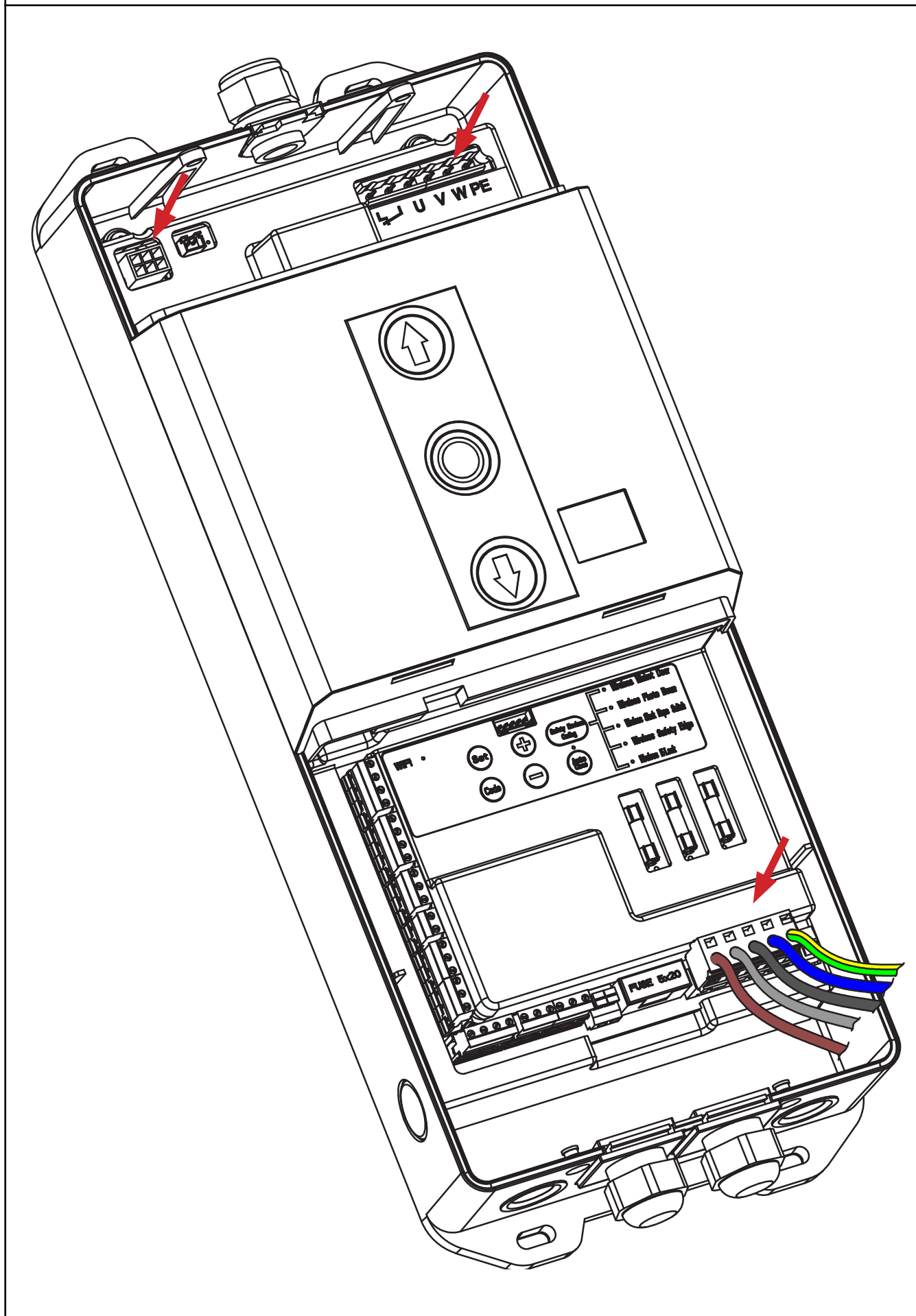
Note: Rotate the disconnect switch to turn the power on or off.

8. Instructions for Connection of Motor/ Control box Connection Wire and Power Wire

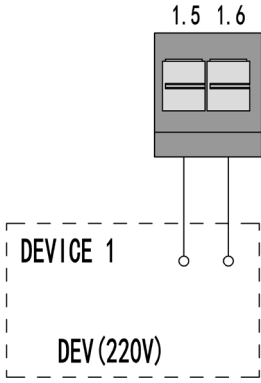
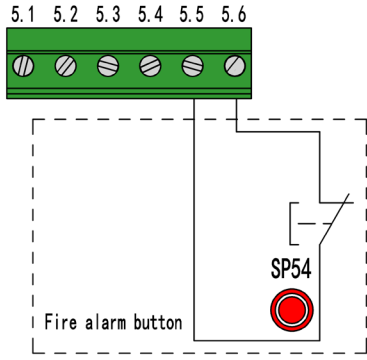
1. Unscrew the screw and open the cover of the control box

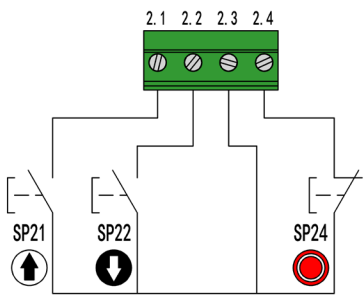
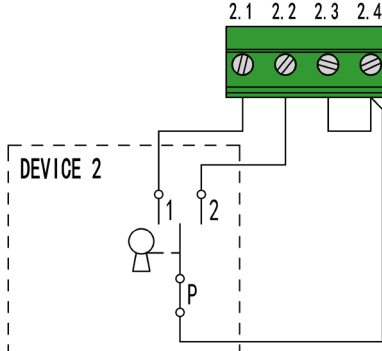
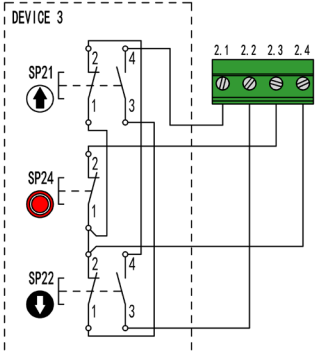


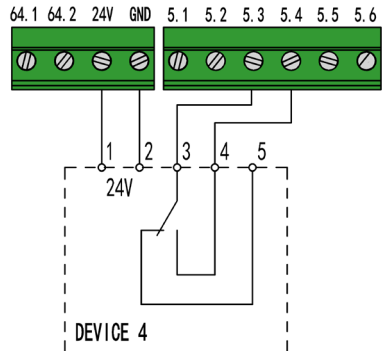
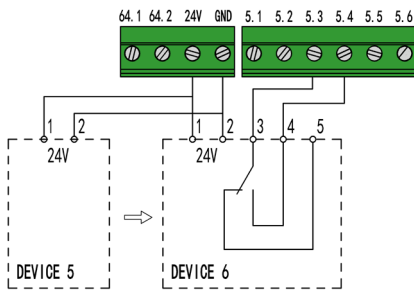
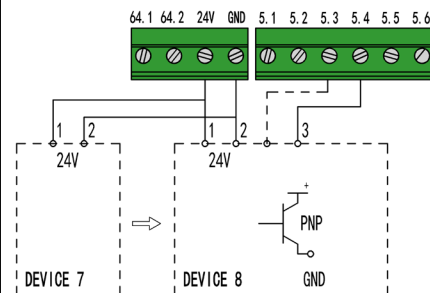
2.Connecting the Control Box Cable/ Control Box Power Cable

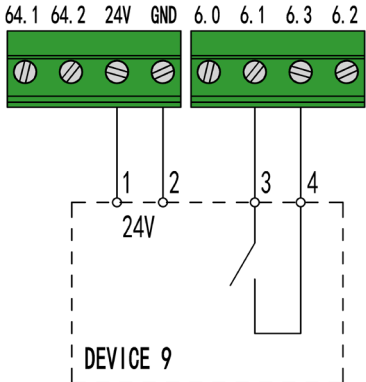
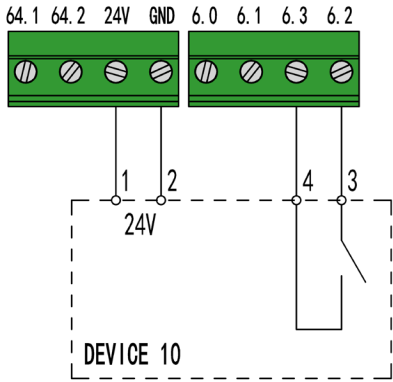
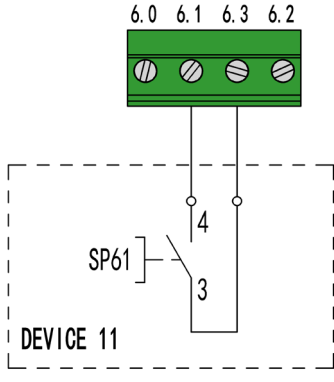


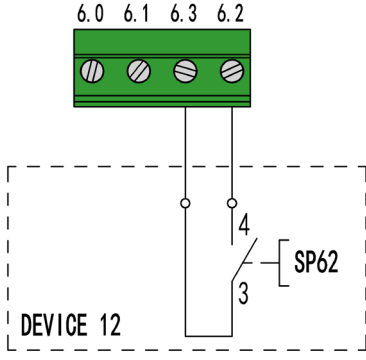
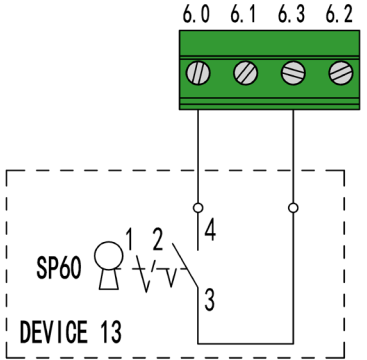
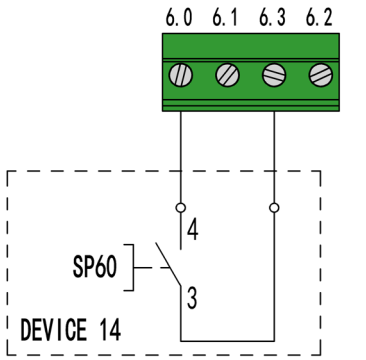
9. Electrical Installation Wiring Instructions

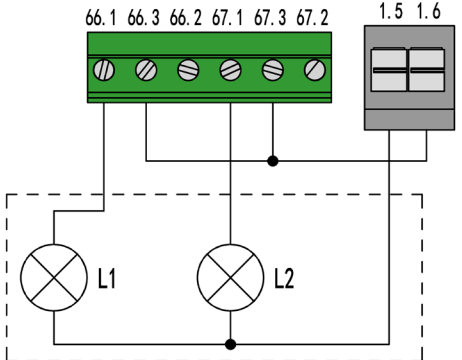
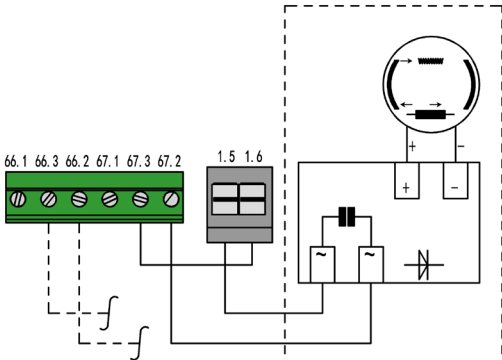
External power output X1		Emergency stop self-locking switch X4	
			
DEVICE1	External devices (220V MAX:1.6A)	DEVICE2	Fire alarm button

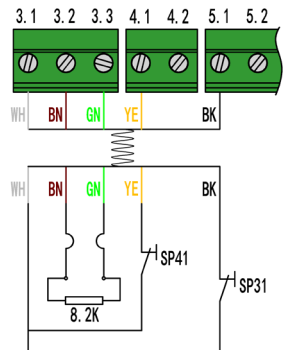
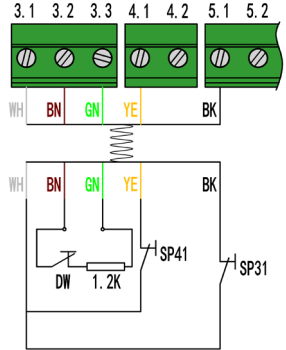
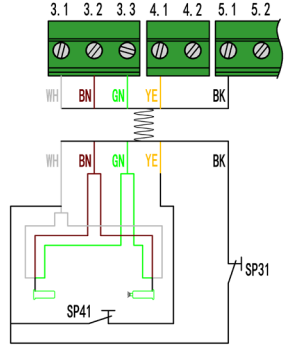
External switch stop control port X2				
				
	DEVICE2	Key self-resetting switch	DEVICE3	External Open/ Stop/Close wiring port

Infrared function port X5					
					
DEVICE4	Reflective photo cell	DEVICE5 DEVICE6	Through-beam photo cell Transmitter Receiver	DEVICE7 DEVICE8	Through-beam photo cell Transmitter Receiver

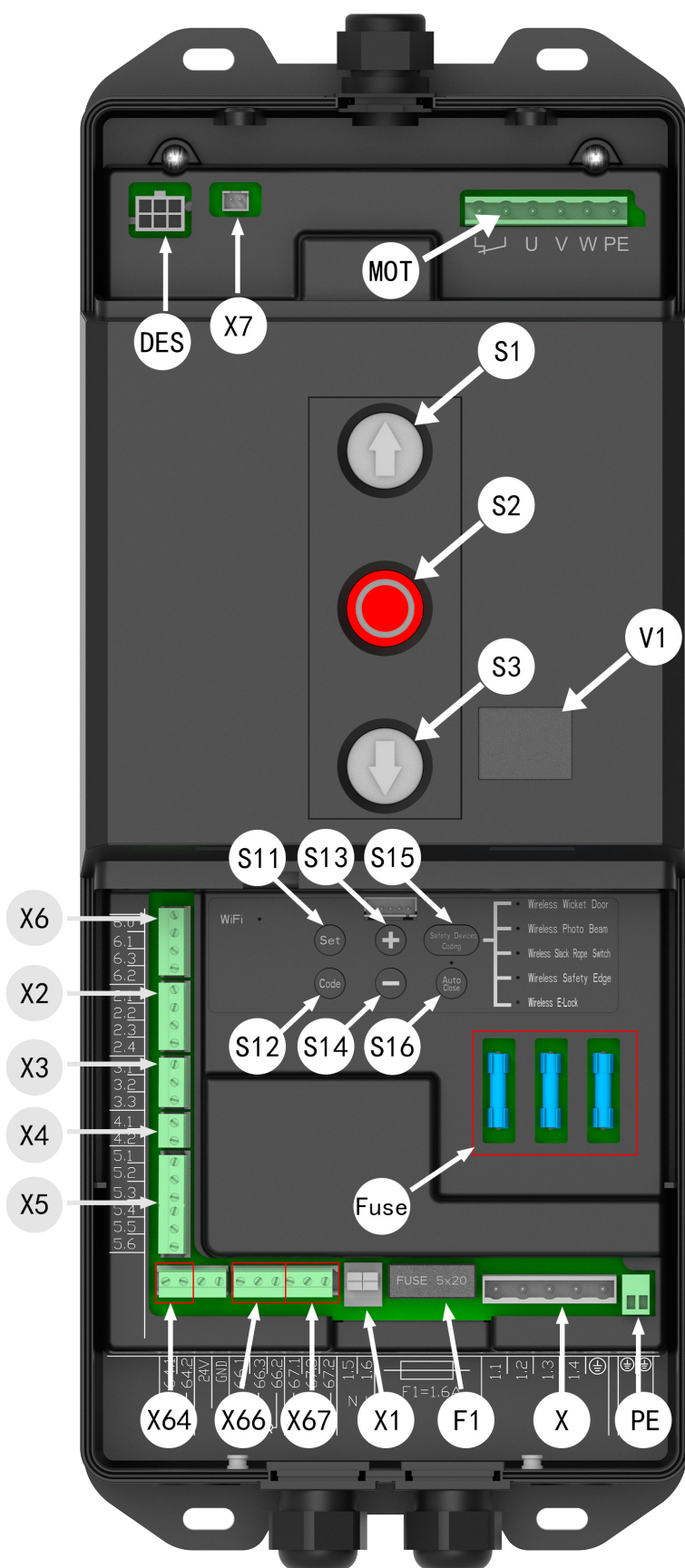
External receiver X6.1		External receiver X6.2		Self-resetting switch X6.1	
					
DEVICE9	X6.1/6.3 external receiver (For detailed function, refer to menu 6.1 to set P.59)	DEVICE10	X6.1/6.3 external receiver (For detailed function, refer to menu 6.2 to set P.60)	DEVICE11 :SP61	X6.1/6.3 self-resetting switch (For detailed function, refer to menu 6.1 to set P.59)

Self-resetting switch X6.2		Self-locking switch X6.0		Self-locking switch X6.0	
					
DEVICE12: SP62	X6.2/6.3 self-resetting switch (For detailed function, refer to menu 6.2 to set P.60)	DEVICE13: SP60	When closed:All door opening commands execute the pass door command (Enable:01-09 Function selection in menu 6.0 _P.57)	DEVICE14: SP60	X6.0/6.3 Self-resetting switch, pulse-triggered partial open command (Enable: menu 6.0 for function selection 10-18_ P.58)

Traffic lights (red/green) X66/X67		Safety brake function X66/X67
		
L1 L2	traffic light green light traffic light red light	The use of electromagnetic brakes needs to cooperate with the relay function 6.6/6.7-25/26 (25/26 can be selected according to the characteristics of the brake device to trigger the brake with NO or NC)

Safety Edge Port Wiring	
Electrical safety edge	 GN Conductive strips(8.2K in series) BN WH GND YE SP41 Slack rope switch port BK SP31 Wicket door port
Pneumatic safety edge	 GN DW air switch detection (1.2K in series) BN WH GND YE SP41 Slack rope switch port BK SP31 Wicket door port
Optical sensor edge	 GN 1KHZsignal BN Optical sensor edge +12V WH GND YE SP41 Slack rope switch port BK SP31 Wicket door port

10.Control Port Overview

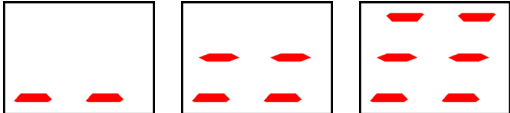


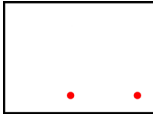
DES/NES	DES/NES limit port
MOT	Motor wiring port
F1	X1 (220V) output port blown fuse 1.6A
S1	Open button
S2	Stop button
S3	Close button
S11	Menu settings button
S12	Remote control coding button
S13	Plus button/Open limit travel setting "door open" button
S14	Minus button/Close limit travel setting "door close" button
S15	Wireless safety devices coding button
S16	Auto close button
V1	Digital display
X	AC power supply port
X1	External equipment power supply (220V/1.6A)
X2	External Open/Stop/Close wiring port
X3	Safety edge port
X4	Slack rope switch port
X5	Wicket door port(X 5.1/5.2) Photo beam(X 5.3/5.4)/fire alarm (X 5.5/5.6) function port
X6	External function port
X7	Emergency stop port
X64	Warning light wiring port
X66	No power relay port A
X67	No power relay port B
Fuse	Fuse(12A 700V)

11. Basic Button Operation Instructions

Item	Button	Function Description
1.		Short press: Confirm settings Long press: Enter the function menu setting
2.		Short press: Move up to adjust the function menu/travel limit setting of "door open" button Long press: Restore factory settings cycles
3.		Short press: Move down to adjust the function menu/travel limit setting of "door close" button Long press: Quick query of running times
4.		Short press: Enter remote control code pairing mode / Return to the function menu setting Long press: Clear the remote control code
5.		Long press: Quickly activate the "AUTO close" function
6.		Long press 3 seconds: Enter wireless security device pairing code mode Long press 8 seconds: Clear all wireless device pairing code

12.General Function Quick Setup Instructions

Function Name	Function Operation	Function Description
Automatic close	Long press for 3 seconds: 	● Long press the "Auto Close" button, when the indicator light turns on. This means that the "AUTO close " function has been activated. (Default condition: the door can only be closed automatically when it is in the open limit position, and the automatic close time is 15 seconds). NOTE: If necessary, see page 49 - Menu 4 to change the AUTO close function settings for close conditions or time. ● Long press the "Auto Close" button, when the light turns off, it means the "Auto Close" function is deactivated
Running cycles query	Long press for 5 seconds: 	● The digital tube scrolls to display the running cycles  Indicates that the motor has run 10 times Note: The number of runs is displayed in 6 digits
Restore factory settings	Long press for 5 seconds: 	● Digital tube scrolling display  Indicates that the motor has been restored to factory settings Remarks: The running times are displayed in 6 digits (it is recommended to power off for 1 minute after restoring the factory and then power on again).

Function Name	Function Operation	Function Description
Remote control coding function	Short press : 	Short press: a) In the setting state, short press CODE to exit the current operation and return to the standby interface. b) In standby mode, short press CODE, there will be a dot at the corner, then it will enter the learning mode . First click the button on the transmitter you want to use, the dot may disappear, then press the same button on the transmitter again, the dot will blink, so far, the code learning is complete. Long press: Clear the remote control code. Press and hold the CODE button until the letters  are displayed, all stored remote control codes will be deleted.

12.1 F-LinX APP configuration

1. Download the app and follow the prompts to complete the F-LinX app network configuration.



F-LinX APP

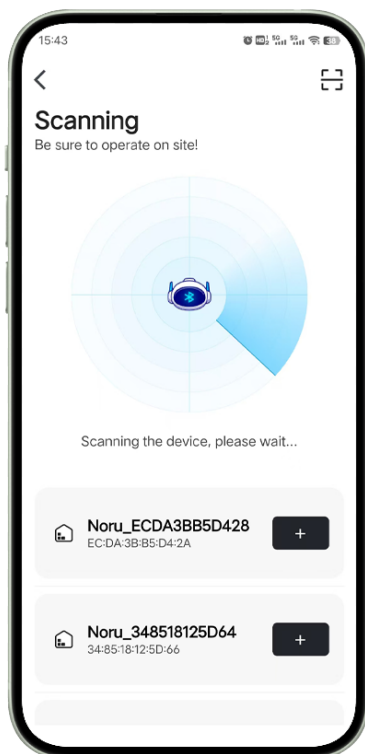


IOS

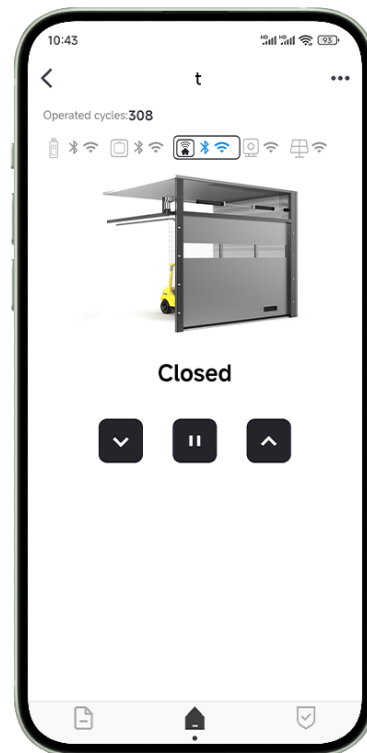
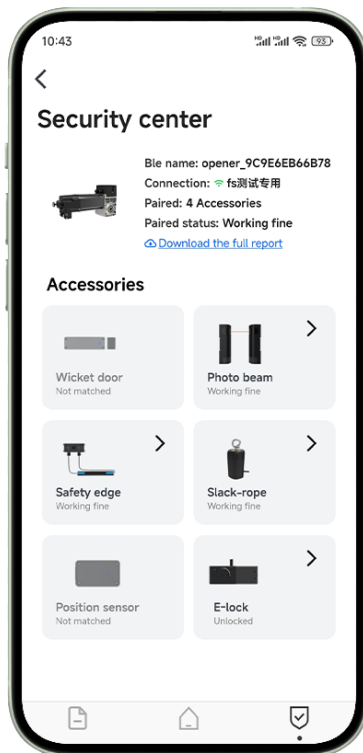


GOOGLE PLAY

2. By scanning the QR code on the body of the motor through the APP, you can quickly get the motor linked to F-LinX app.(QR code on the motor as the photo below)



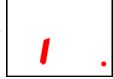
3. With the security center of the F-LinX app, you can monitor and manage your wireless security devices anytime and anywhere, ensuring the safety of your doors without worry. And you can also control it through the app.

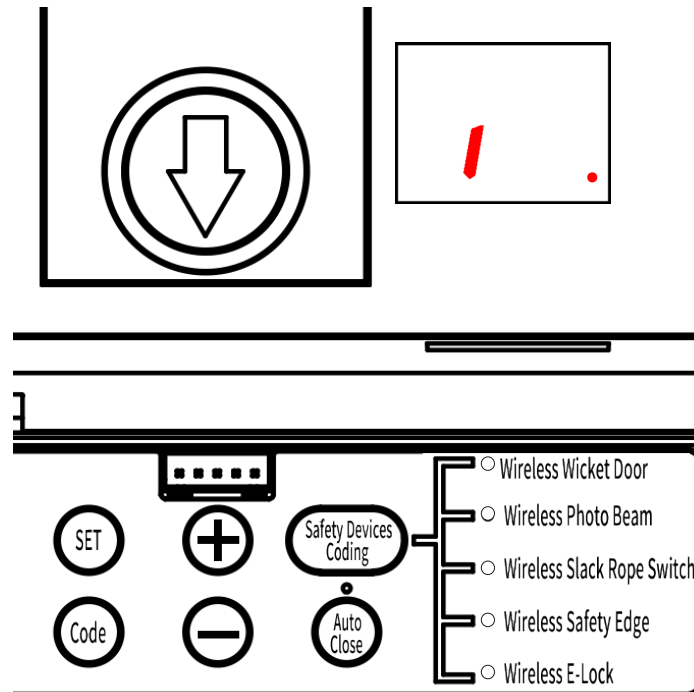


12.2 Wireless device code pairing and clearing instructions

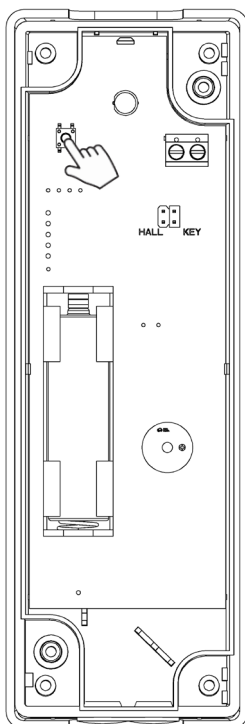
Wireless device code pairing steps

1. Press and hold the wireless devices coding button ON MOTOR for 3 seconds.

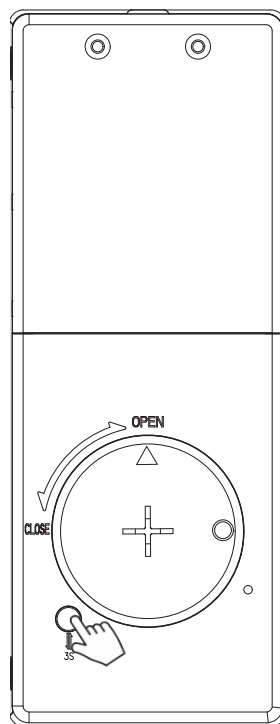
2. Check if the LED light is on and the panel display , it means now the motor is in pairing mode.



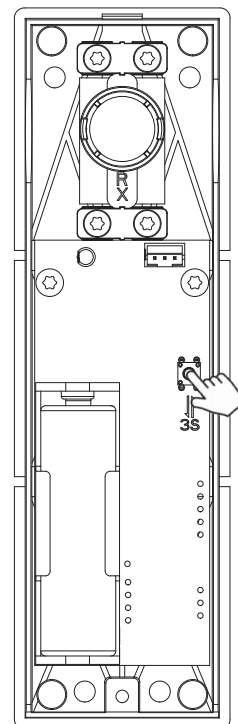
3. Press and hold the pairing button on the wireless device.



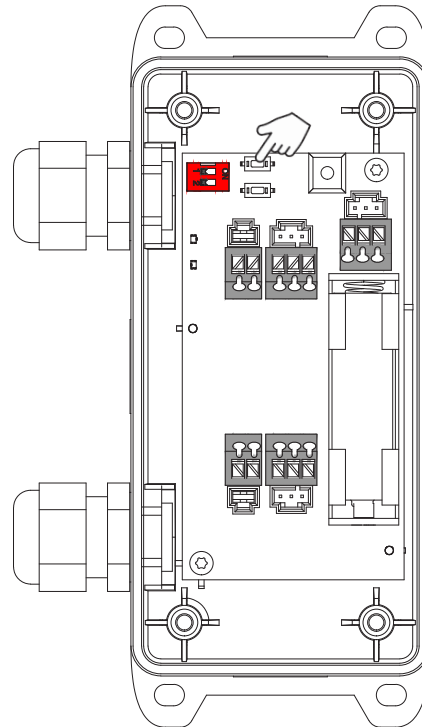
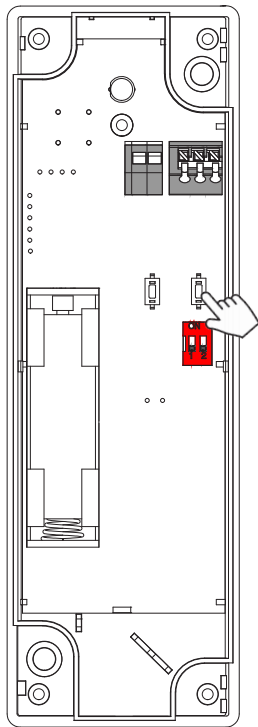
Wireless wicket door
(Optional)



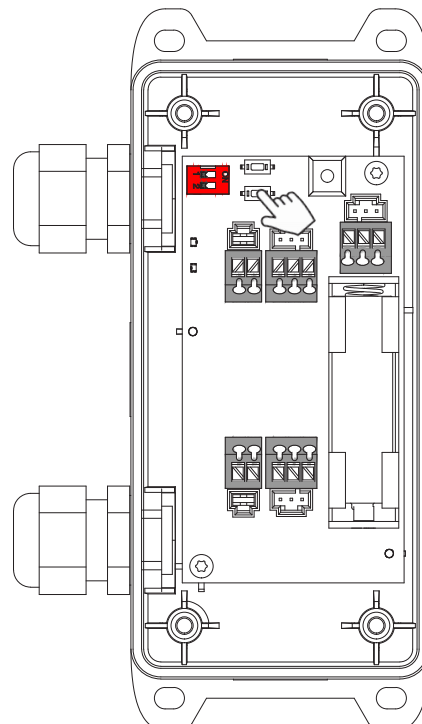
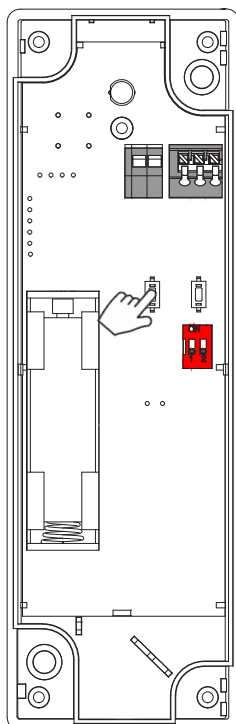
Wireless E-Lock
(Optional)



Wireless photo beam
(Optional)

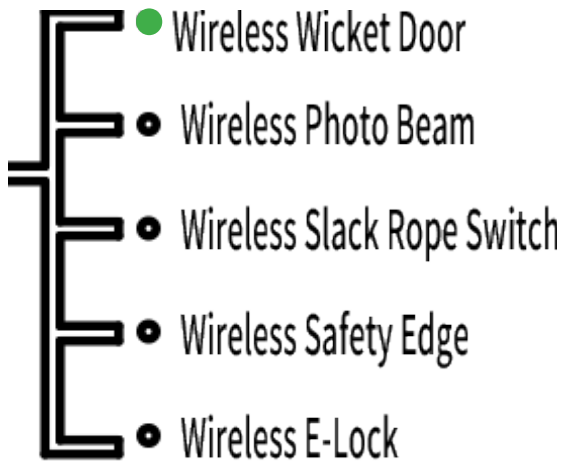


Wireless safety edge (industrial & residential)
(Optional)

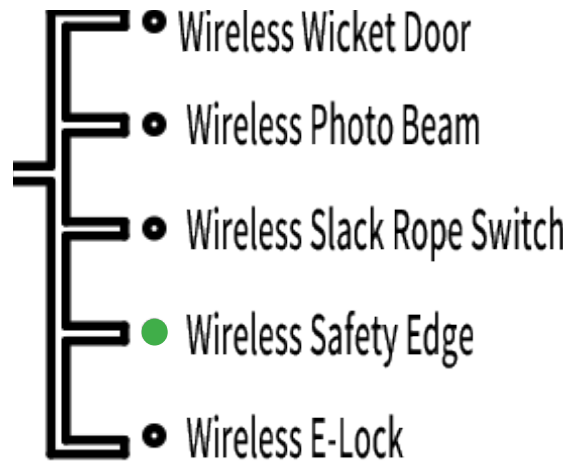


Slack rope switch
(Optional)

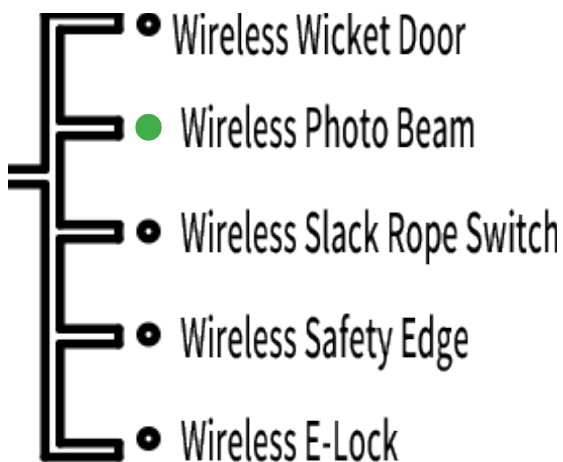
4. After the LED light on the motor flashes, check if the corresponding indicator light is on. (The indicator light color changes according to the device status.)



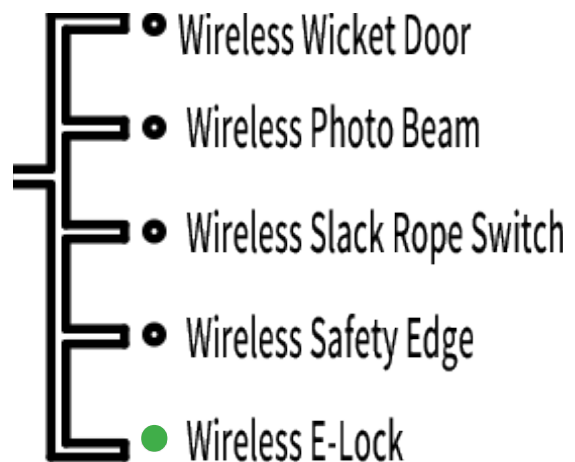
Wireless wicket door



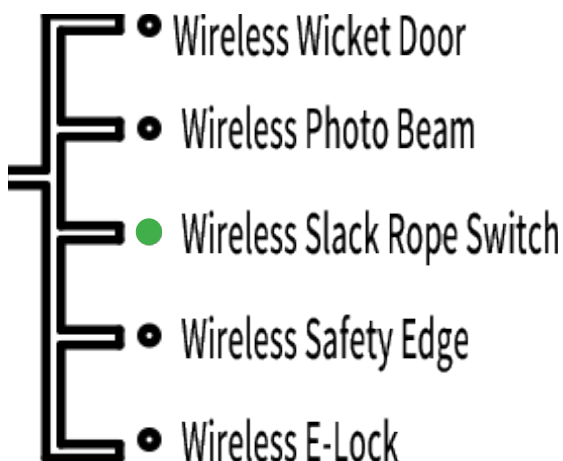
Wireless safety edge



Wireless photo beam



Wireless E-Lock

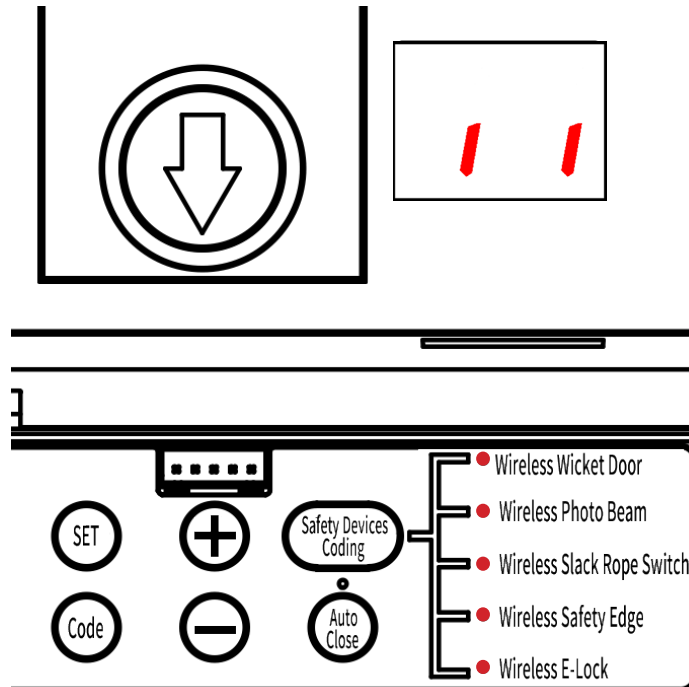


Wireless Slack rope switch

Wireless device code clearing steps

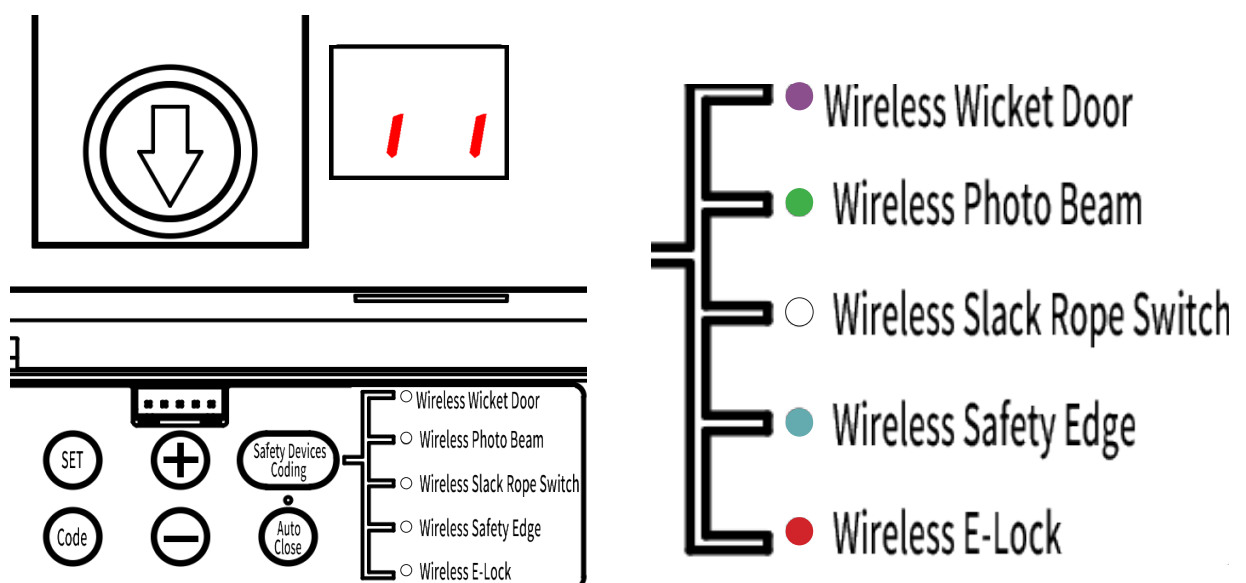
1. Press and hold the wireless pairing button on the motor for 10 seconds.

The motor display . At the same time, the LED light flashes red, and all wireless device indicators turn off after releasing.



12.3 Detailed Description of the LED Status on the Control Box Panel Label Equipment

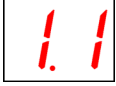
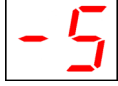
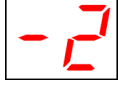
The following figure is a reference for the LED color display

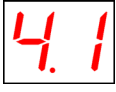


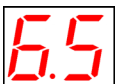
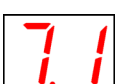
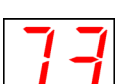
Wireless security device status corresponds to different colors of LED display:

LED Color Device Name	 Red	 Green	 Cyan	 Purple	 White
E-LOCK: Wireless E-LOCK	Device is paired and triggered	Device is paired and not triggered	Low battery, Device is not triggered	Low battery, Device is triggered	Device signal lost
PE: Wireless Photo Beam	Device is paired and triggered	Device is paired and not triggered	Low battery, Device is not triggered	Low battery, Device is triggered	Device signal lost
SE: Wireless Safety Edge	Device is paired and triggered	Device is paired and not triggered	Low battery, Device is not triggered	Low battery, Device is triggered	Device signal lost
WD: Wireless Wicket Door	Device is paired and triggered	Device is paired and not triggered	Low battery, Device is not triggered	Low battery, Device is triggered	Device signal lost
SRS: Wireless Slack Rope Switch	Device is paired and triggered	Device is paired and not triggered	Low battery, Device is not triggered	Low battery, Device is triggered	Device signal lost

13.Parameter Overview

Par	Function Description	Description of default parameters	P.
	Travel limit setting	Learning the open limit and close limit of motor travel	34
	Motor rotation direction adjustment	 : Motor standard direction (Default)	36
	Remote control function selection	 : Standard Functions - Single Key Cycle (Default)	38
	Door opening and closing operation mode	 : Click to open the door Click to close the door (Default)	39
	Safety edge pre-limit fine-tuning (only applicable to DES electronic limit)	 : Safety edge pre-limit area parameters (Default)	40
	Motor open limit fine-tuning (only applicable to DES electronic limit)	 : Actually the limit shifts towards the door closing direction (Default)	41
	Motor close limit fine-tuning (only applicable to DES electronic limit)	 : The actual close limit shifts toward the door opening direction (Default)	42
	Motor close limit overflow time setting	 : Close limit overflow time is closed(Default)	44
	Wire rope anti-loose reverse time setting	 : Function not active (Default)	45
	X3 safety edge port encounter resistance reaction time setting	 : Response time of safety edge encountering obstacles 0.005 seconds (Default)	46
	(X5.3-X5.4) Reaction time setting for infrared resistance	 : Infrared resistance reaction time 0.5 seconds (Default)	47

Par	Function Description	Description of default parameters	P.
	Reversal time setting in case of resistance	 : Reverse to the Open limit when encountering resistance (Default)	48
	AUTO close function	 : AUTO close function is disabled (Default)	49
	AUTO close condition function setting	 : Open limit executes AUTO close (Default)	50
	Association setting of AUTO close and infrared function	 : After the PE port is triggered, stop the AUTO close time and disable the AUTO close function (Default)	51
	Association setting of AUTO close and STOP port (S2 and (X2.4-X2.3)) function	 : STOP triggers to stop this AUTO close (Default)	52
	X5.3/X5.4 Photo beam port function setting	 : Disable photo beam function (Default)	53
	Partial open function setting	 : Disable the partial open function (Default)	57
	X6.1/6.3 port function setting	 : Switch stop cycle function (Default)	59
	X6.2/6.3 port function setting	 : Door closing process executes door opening(Default)	60

Par	Function Description	Description of default parameters	P.
	Warning light function setting	 : Function off(Default)	61
	Buzzer function setting	 : Buzzer function off(Default)	63
	Relay A-X66 function setting	 : Relay A-X66 port function is closed(Default)	63
	Relay b-X67 function setting	 : Relay b-X67 port function is closed(Default)	69
	Safety edge function (security edge port self-adaptation, only for query)	Query function: View the current safety edge type	75
	Restore factory function settings	For factory reset	76
	Software version query function	Query function: query all software versions of the IDO controller	77
	Hardware version query function	Query function: query all hardware versions of the IDO controller	77
	Motor accumulative running times query function	Query function: query the cumulative running times of the motor	78
	Motor last 4 fault query function codes	Query function: query the last 4 fault codes of the motor	78
	Maintenance alarm times function setting	 : Enabled maintenance alarms cycles function (Default)	79
	Motor performance function setting after the number of maintenance times is reached	 : Display the fault code, force to switch to the long press mode for opening and closing the door (Default)	80

Par	Function Description	Description of default parameters	P.
	Inquiry function for the remaining number of maintenance alarms	Query function: query the remaining number of maintenance alarms	81
	X5.5/5.6 fire alarm port function control mode setting	 : The port triggers to open the door, only emergency stop, in the closed state, the door cannot be closed (Default)	82
	Remote control lock function setting (holiday mode)	 : Function off (can also be enabled by standard remote control) (Default)	83
	Control box oopen/stop/close (S1/S2/S3) button lock function	 : Function off (Default)	84
	The warning light X64 flashes at a frequency of 60 times/minute (cooperate with the X64 port 00-06 application, and the corresponding function menu can be seen when it is turned on)	 : Flashing frequency 60 times/min (Default)	84
	Warning light extra warning time function setting during AUTO close (cooperate with the application of X64 port 01-06, and the AUTO close function menu can be seen at the same time)	 : The warning time is 0 (Default)	85
	Warning light X64 pre-warning time before closing the door (cooperate with X64 port 01-06 application, open the corresponding function menu to see)	 : The warning time is 0 (Default)	85
	Warning light LED off setting (with the application of X64 port 01-06, the corresponding function menu can be seen when it is enabled)	 : Warning light delay function off (Default)	86
	Relay A-X66 traffic light function Pre-warning time setting(cooperate with X66 port 01-06 traffic light application, open the corresponding function menu to see)	 : The warning time is 0 (Default)	88

Par	Function Description	Description of default parameters	P.
	Relay A-X66 traffic light function AUTO close extra warning time setting (cooperate with X66 port 01-06 traffic light application, and open the AUTO close function menu at the same time)	 : The warning time is 0 (Default)	88
	Relay A-X66 flashing frequency function setting (cooperate with X66 port 01-06 traffic light application, open the corresponding function menu to see)	 : Relay X66 flashing frequency 60 times/minute (Default)	89
	Relay A-X66 traffic light function LED off setting (cooperate with X66 port 01-06 traffic light application, open the corresponding function menu to see)	 : Relay - AX66 Release (Default)	90
	Relay A-X66 activation zone function setting above the close limit (cooperate with X66 port 30 function application, open the corresponding function menu to see)	 : 5% area above the close limit (Default)	91
	Relay A-X66 activation zone function setting below the open limit (cooperate with X66 port 31 function application, open the corresponding function menu to see)	 : 5% area below the open limit (Default)	92
	Relay b-X67 traffic light function Pre-warning time setting(cooperate with X67 port 01-06 traffic light application, open the corresponding function menu to see)	 : The warning time is 0 (Default)	94
	Relay b-X67 traffic light function extra warning time setting during AUTO close (cooperate with X67 port 01-06 traffic light application, and open the AUTO close function menu at the same time)	 : The warning time is 0 (Default)	94

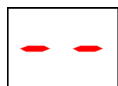
Par	Function Description	Description of default parameters	P.
	Relay b-X67 traffic light function flashing frequency setting (cooperate with X67 port 01-06 traffic light application, open the corresponding function menu to see)	 :Relay b-X67 flashing frequency 60 times/min (Default)	95
	Relay b-X67 traffic light function LED off setting (cooperate with X67 port 01-06 traffic light application, open the corresponding function menu to see)	 :Relay b-X67 Release (Default)	96
	Function setting of activation area above the close limit of relay b (cooperate with. X67 port 30 function application, open the corresponding function menu to see)	 :5% area above the close limit (Default)	97
	Relay b below the open limit activates the area function setting(cooperate with X67 port 31 function application, open the corresponding function menu to see)	 :5% area below the open limit (Default)	98

14.Parameter Details



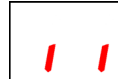
Menu 0: Travel limit setting

①



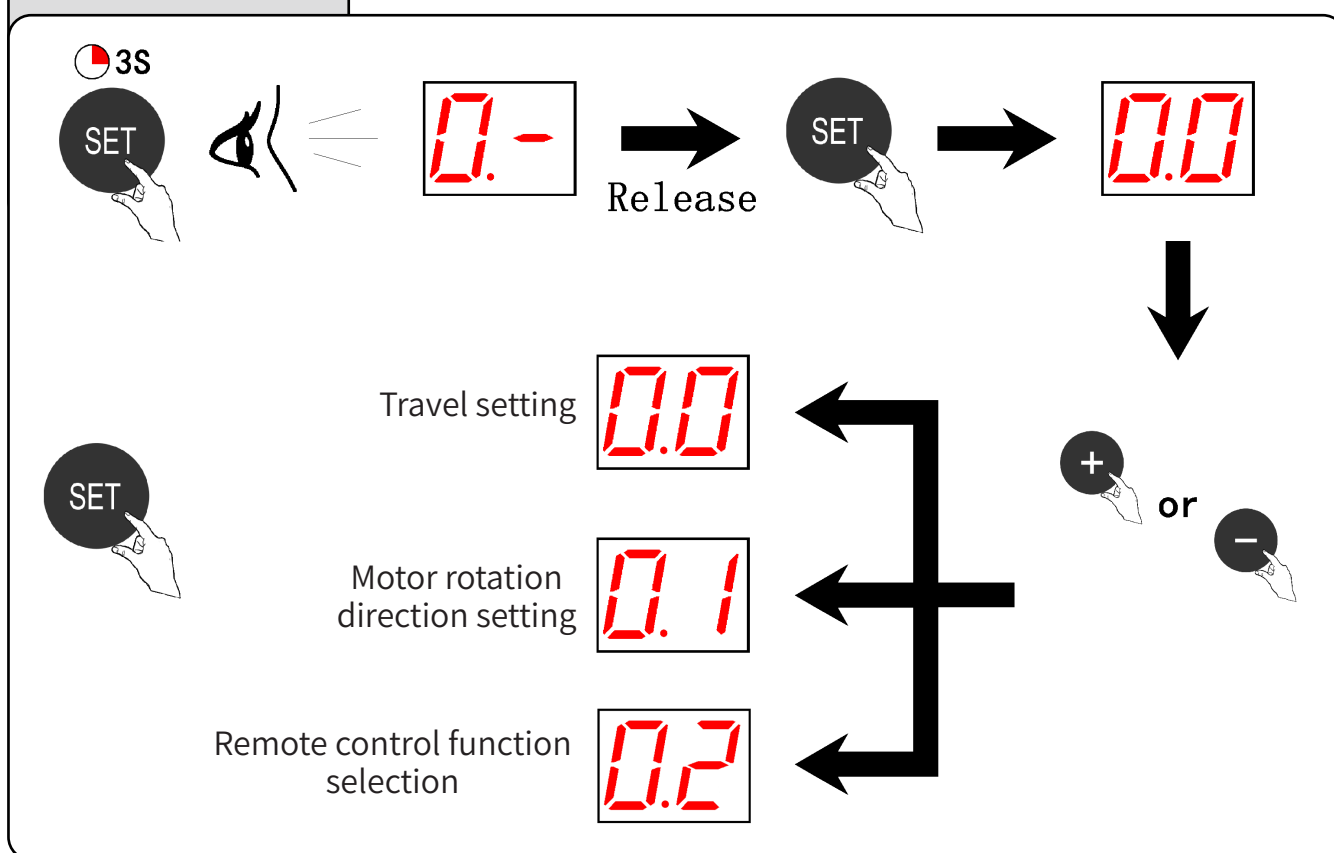
: The motor has no travel limit, and the door can be opened and closed in long press mode.

①



: The motor has a travel limit.

Function Guide



Travel limit setting

! Avoid any damage caused by incorrect rotation during operation. Manually open the door halfway before setting the travel limit for the first time.

! Once you enter the itinerary setting menu, the previous itinerary will be cleared, and you need to learn the itinerary again.

① When using an AC400V motor, it is recommended to learn the close limit position about 2cm from the ground, and then fine-tune the close limit in menu 1.3.

Motor travel limit setting:

First learn the open limit of the motor travel limit ,

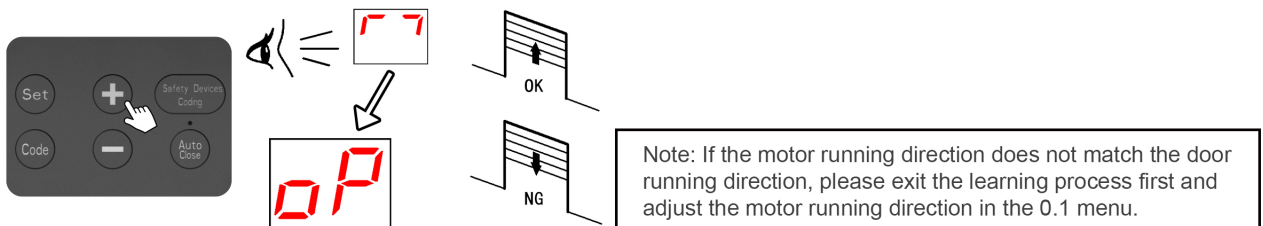
Re-learn the close limit of the motor travel limit ,

For detailed operation steps, please see the figure below:

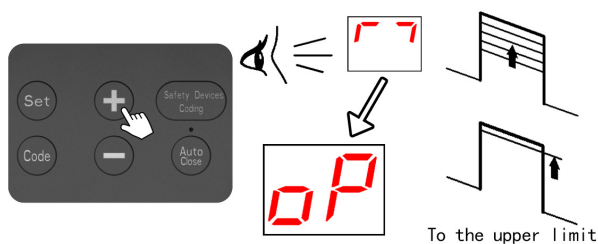
1. Enter motor travel limit setting



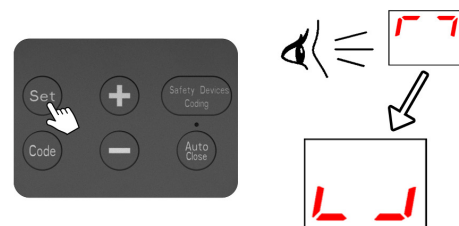
2. Check motor output direction and door direction



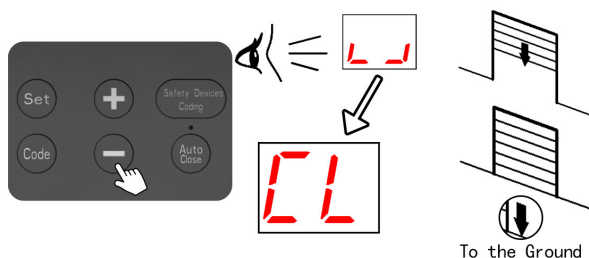
3. Start the learning travel limit, open the door and move to the open limit position



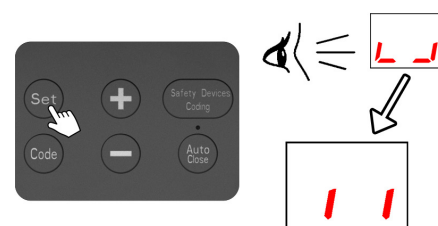
4. Save open limit position



5. Close the door and move to the close limit

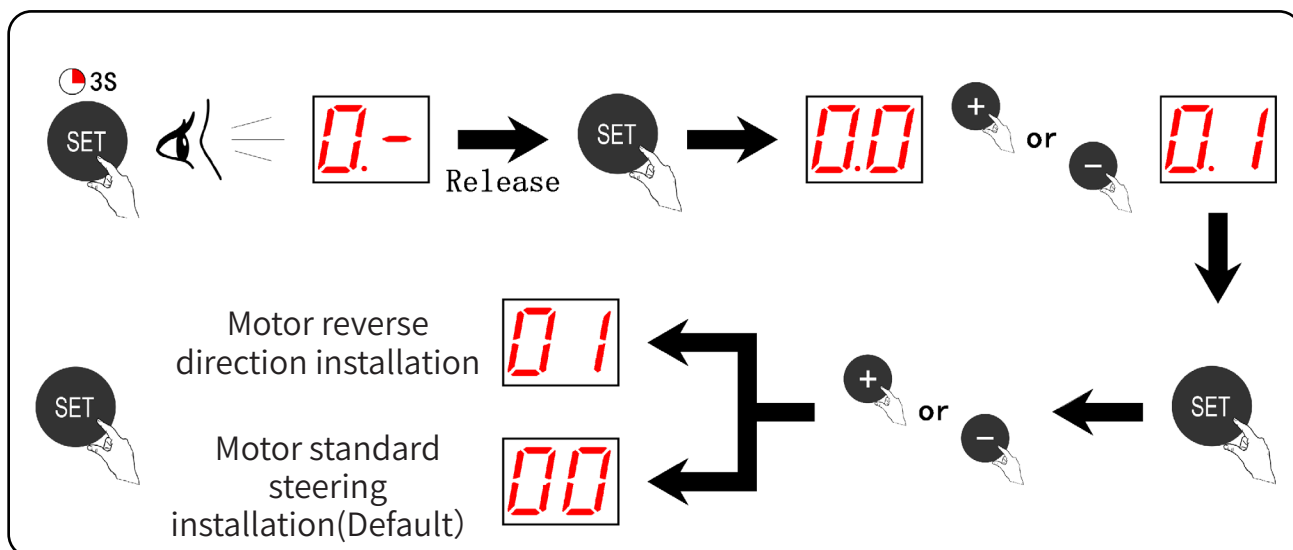


6. Save the close limit position and complete the travel limit learning



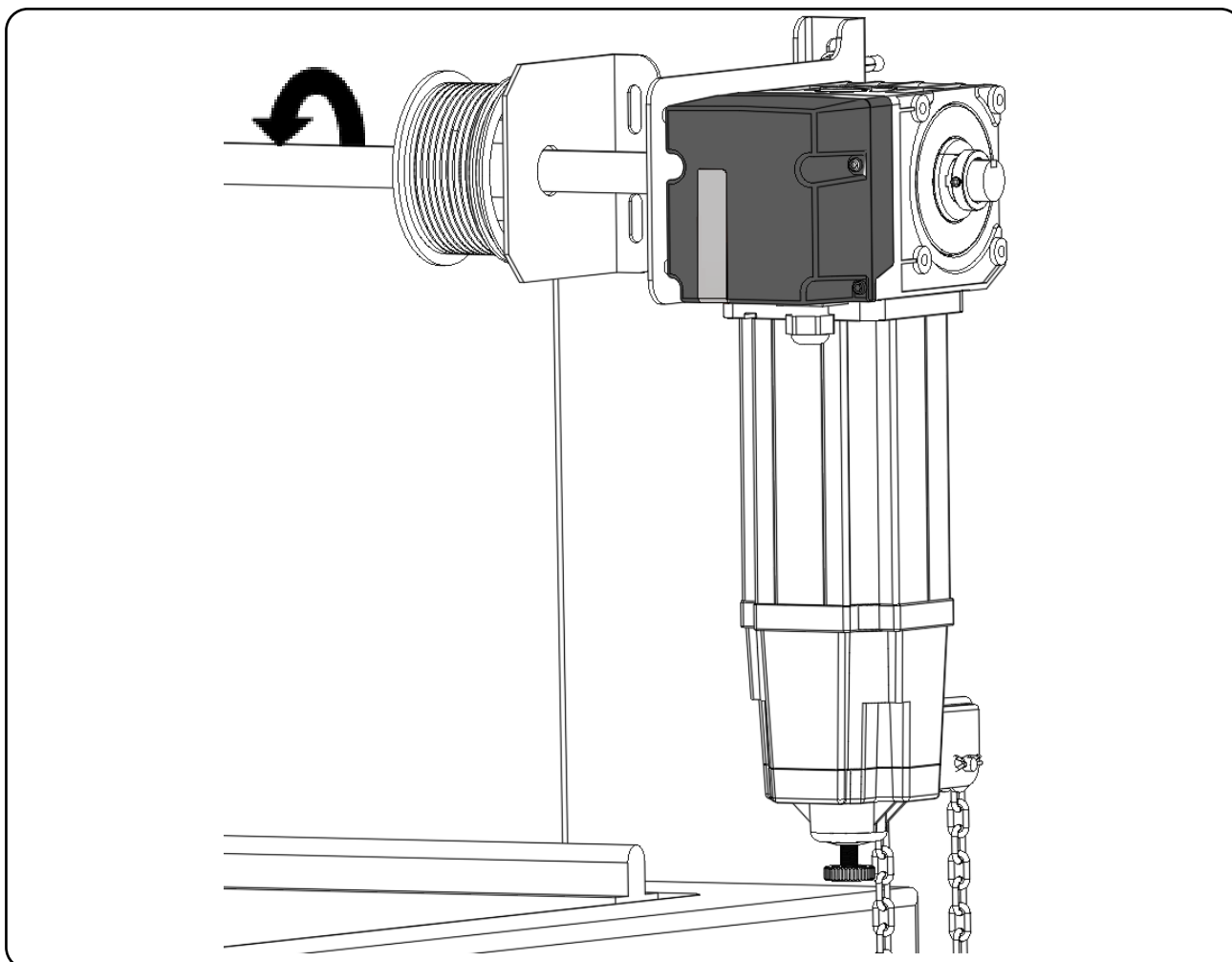
0.1 Motor rotation direction setting

! The motor steering adjustment must be confirmed when the travel limit is set, and then learn the travel limit after confirmation to avoid damage to the door by the motor.



0.0 Motor standard running direction installation(Default)

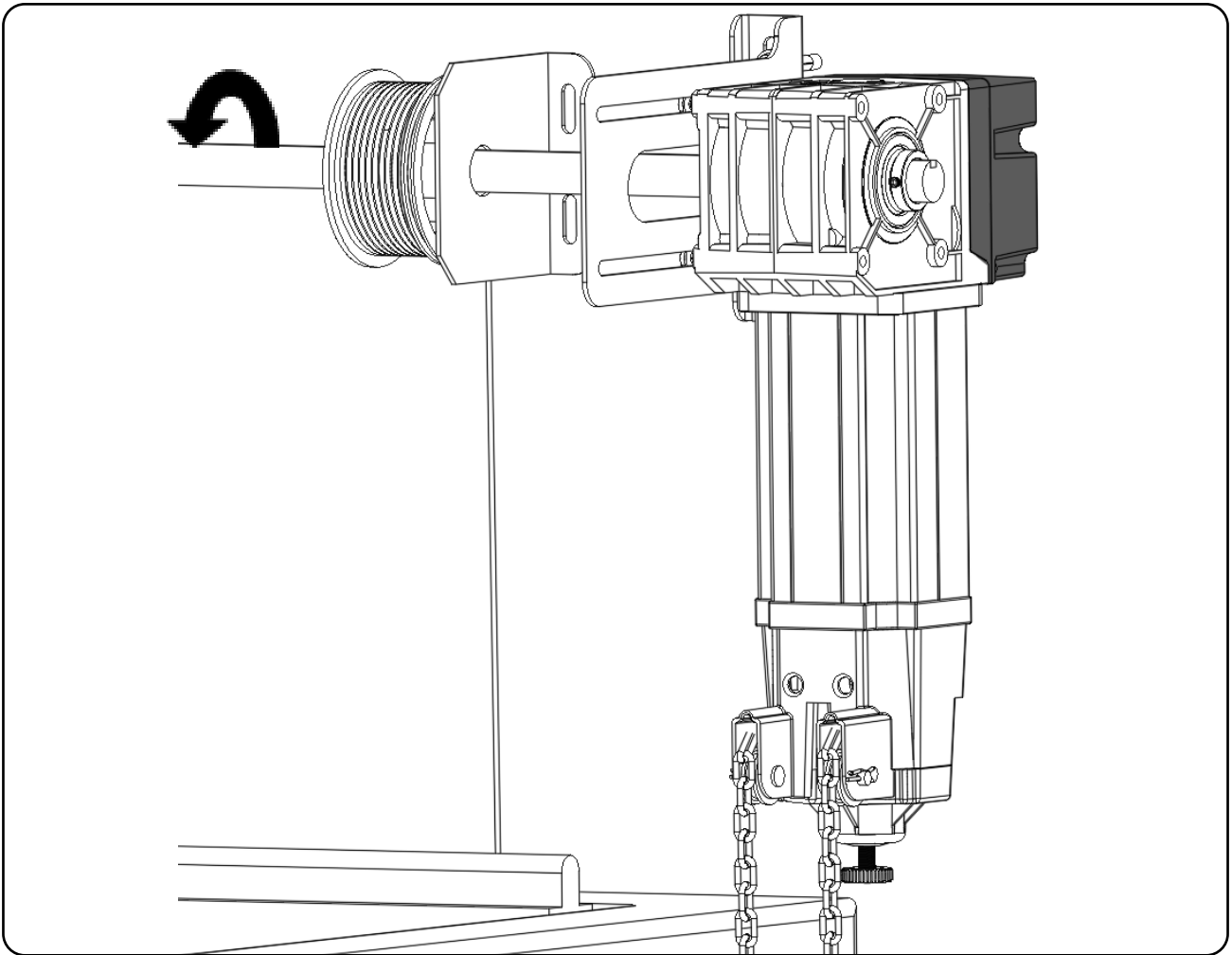
① When the door is opened, when the cable drum rotates as shown in the picture, the motor is installed as shown in the figure.



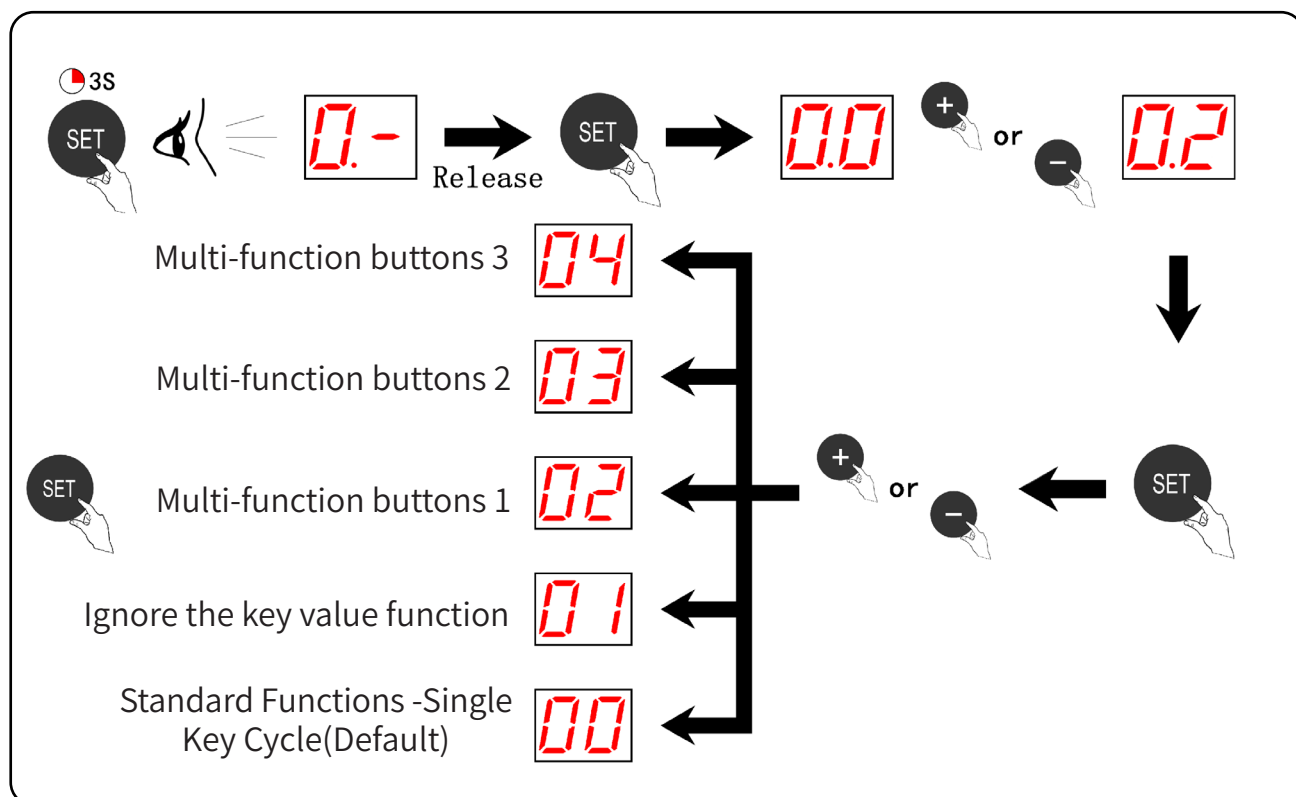


Motor reverse direction installation

- ① When the door is opened, when the cable drum rotates as shown in the picture, the motor is installed as shown in the figure.



!Default maximum number of remotes to be stored is 50, when 50 remotes are learned, the 51st one will automatically overwrite the 1st one.

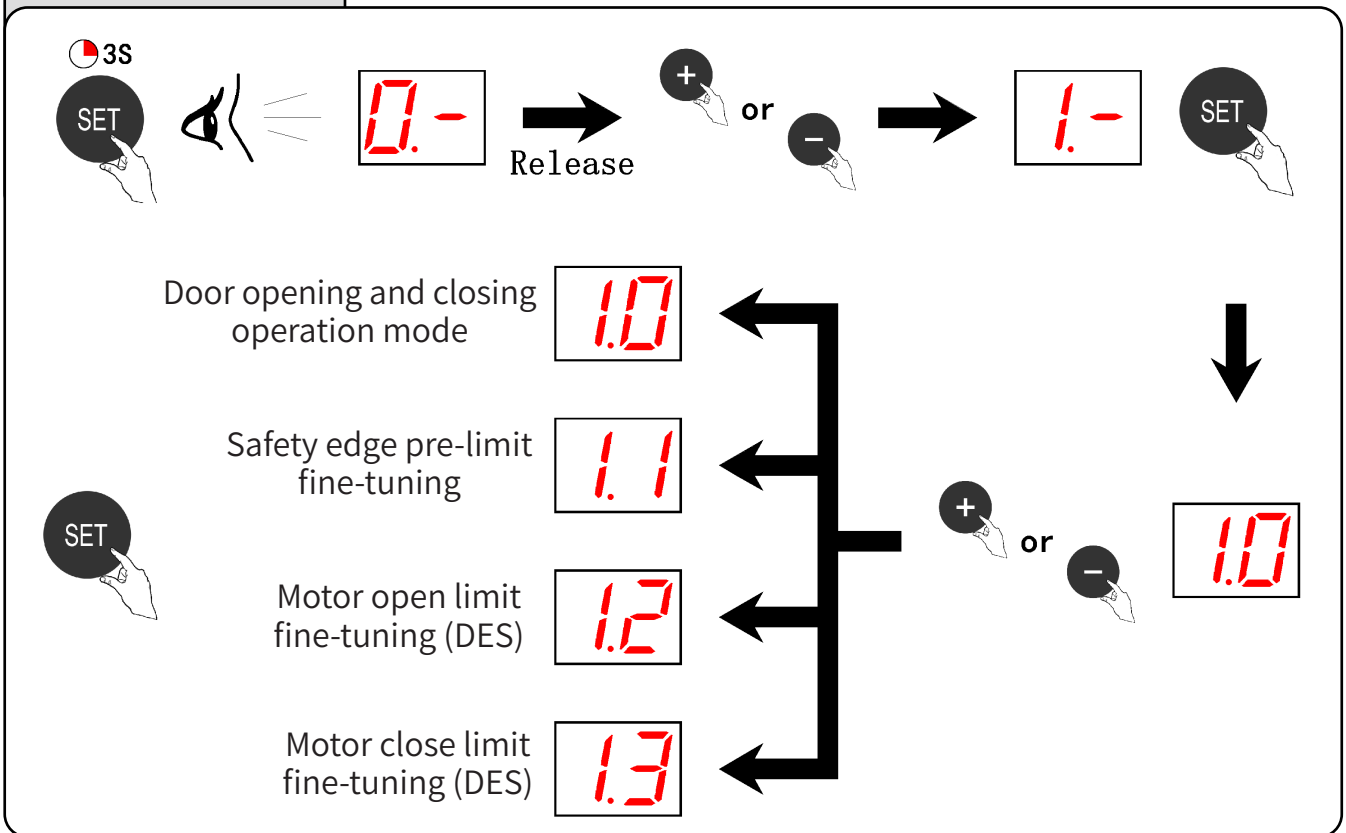


	Standard Functions - Single Key Cycle (Default)
	Ignore the key value function, all keys are valid, open-stop-close cycle
	Multi-function button 1: No. 1 key controls the motor on-off cycle; No. 2 partial open function; No. 3 key CF function; ("CF" function means that pressing the 4th button will directly open the door without stopping, and it will directly execute the door opening action when closing the door)No. 4 key remote lock function;
	Multi-function button 2: No. 1 to open the door; No. 2 key to stop; No. 3 to close the door; No. 4 key remote lock function;
	Multi-function button 3: No. 1 to open the door; No. 2 key to stop; No. 3 to close the door; No. 4 key CF function; ("CF" function means that pressing the 4th button will directly open the door without stopping, and it will directly execute the door opening action when closing the door)

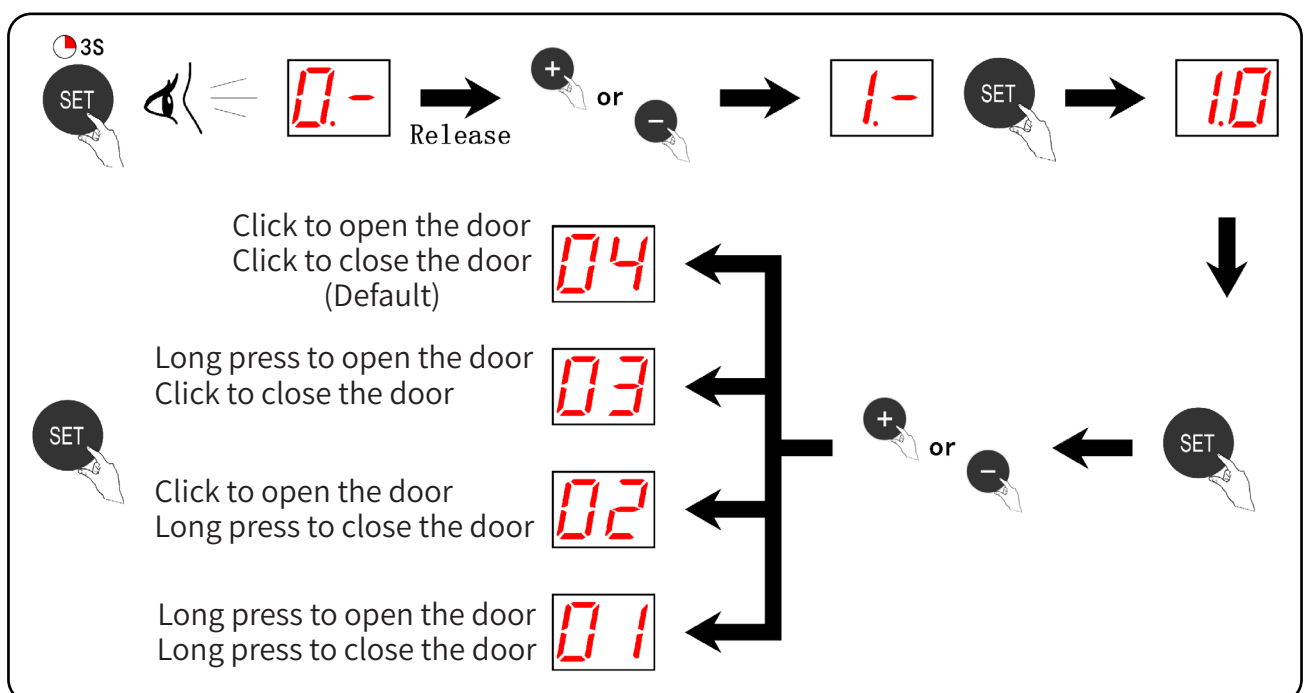


Menu 1: Motor common function setting

Function Guide



Door opening and closing operation mode

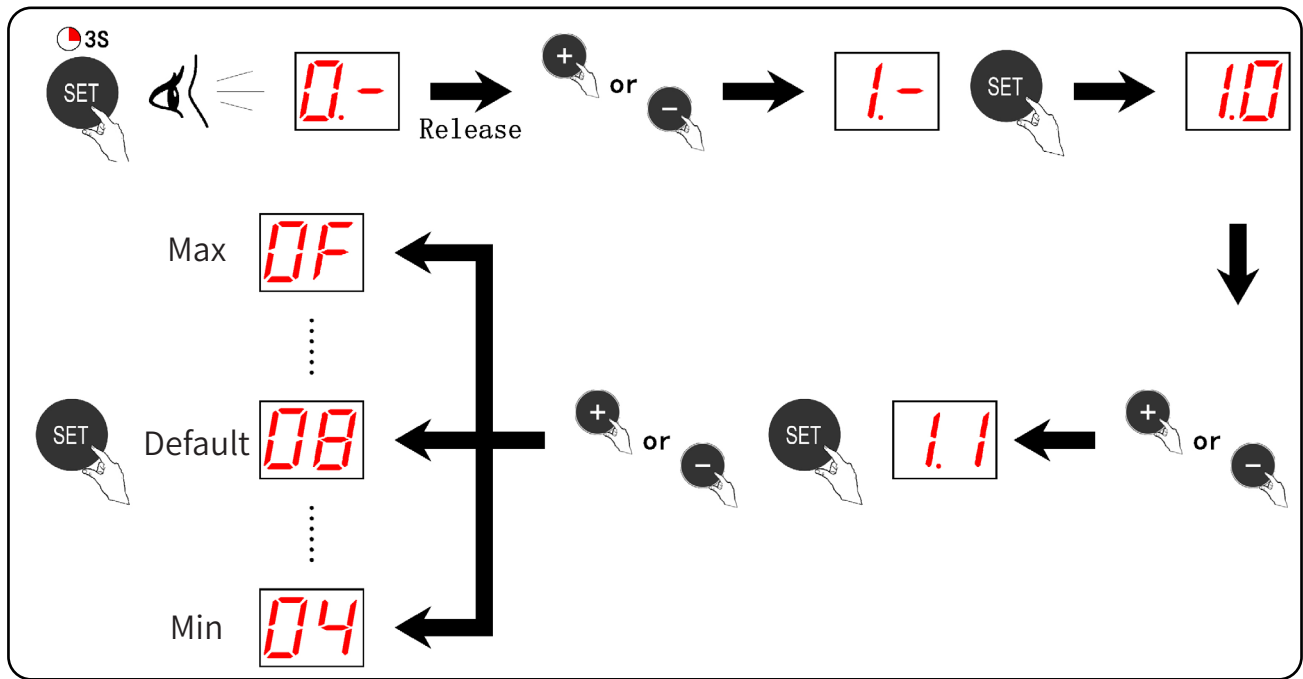




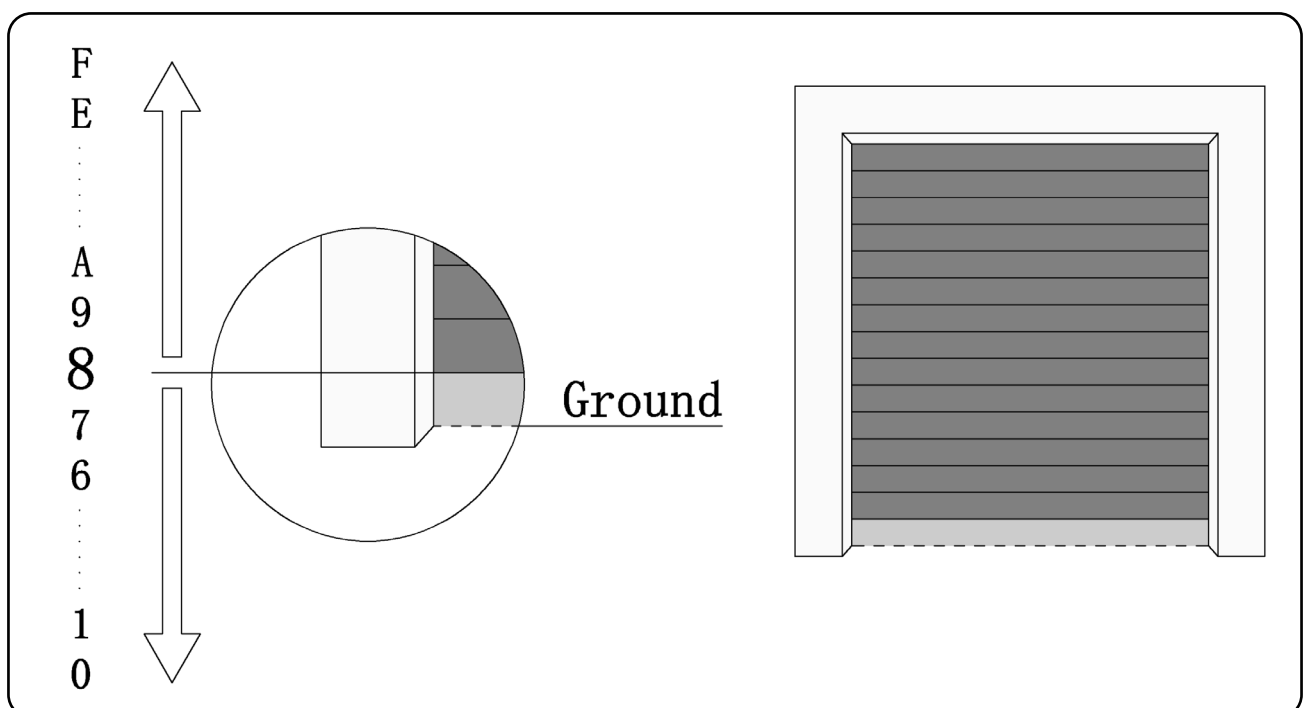
Safety edge pre-limit fine-tuning (DES)

! Please adjust the adjustment range between 2-5mm each time according to the size of the door track system and the cable drum. This parameter needs to be selected according to the actual state of the door.

① In the area below the pre-limit position of the safety edge, the safety edge or the infrared trigger motor will perform the stop action.



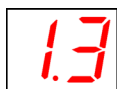
① Take an 18-inch standard lift drum (about 150MM in diameter) as an example: about 5CM
Function description: In this area, when the safety edge is blocked or the infrared is blocked, the motor does not perform the function of reversing when it is blocked, and it will stop when it is blocked; when using the DW function safety edge at the same time, this position is where the DW function starts self-test starting point.



Motor open limit fine-tuning (DES)

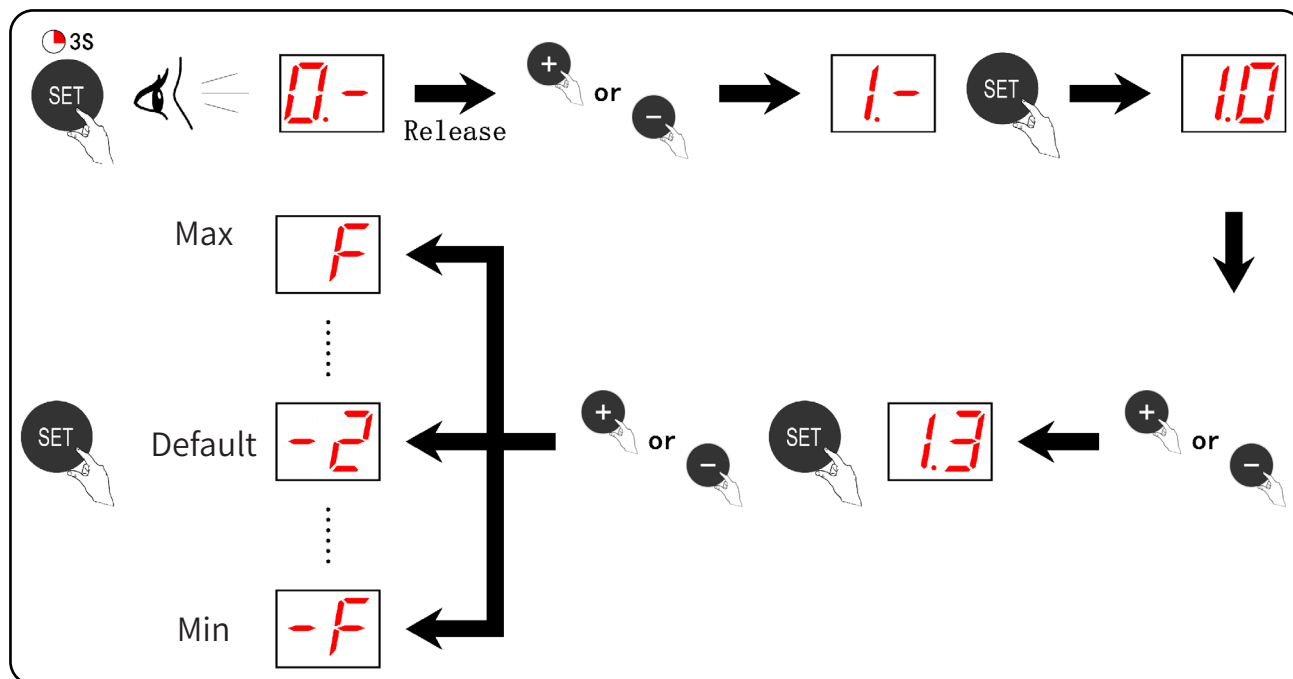


This function fine-tunes the open limit of the motor.

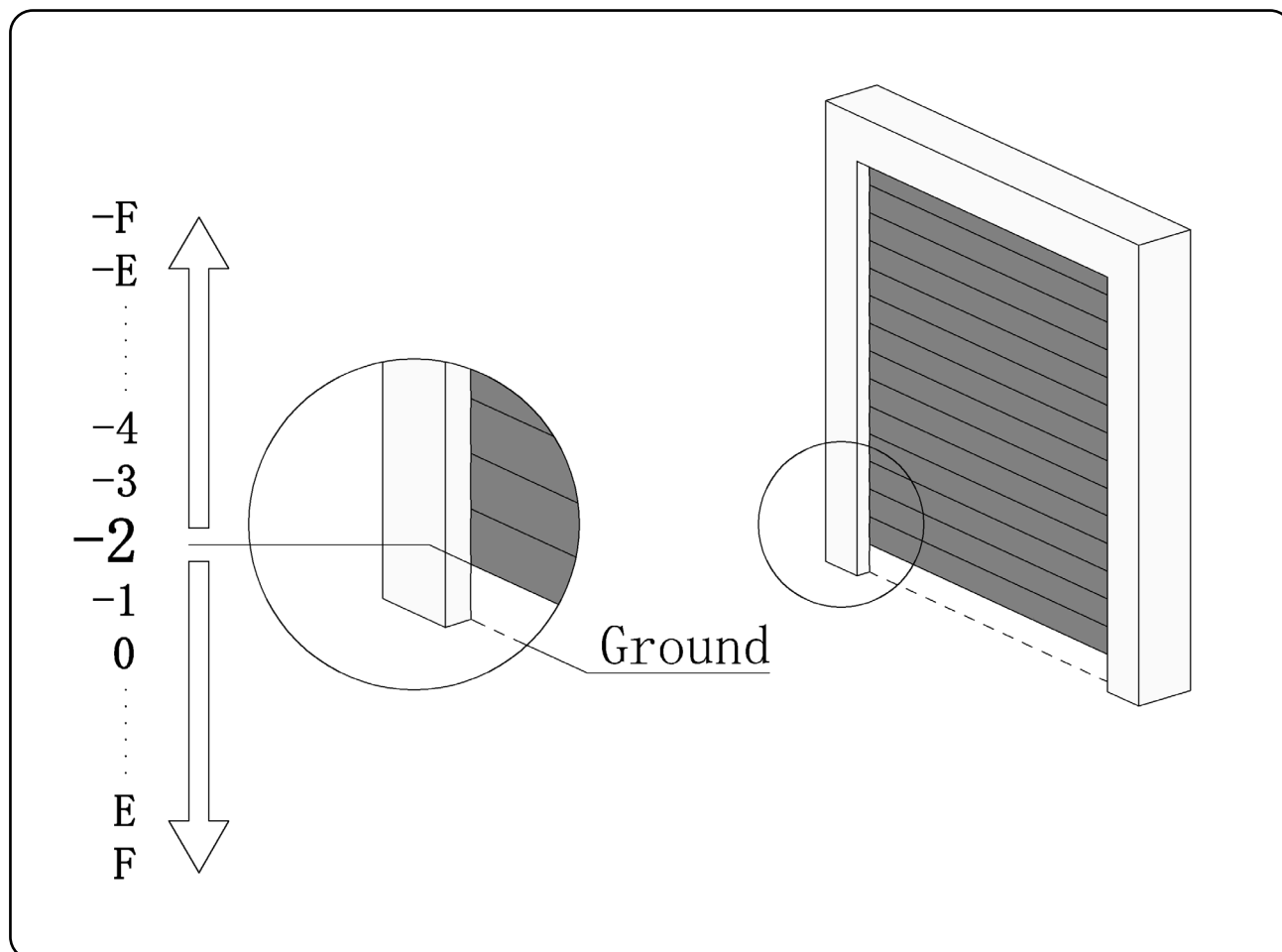


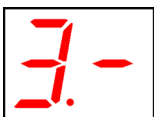
Motor close limit fine-tuning (DES)

① If the close limit fine-tuning setting exceeds the ground position, it is easy to cause the wire rope to loosen. Please adjust according to the actual situation.



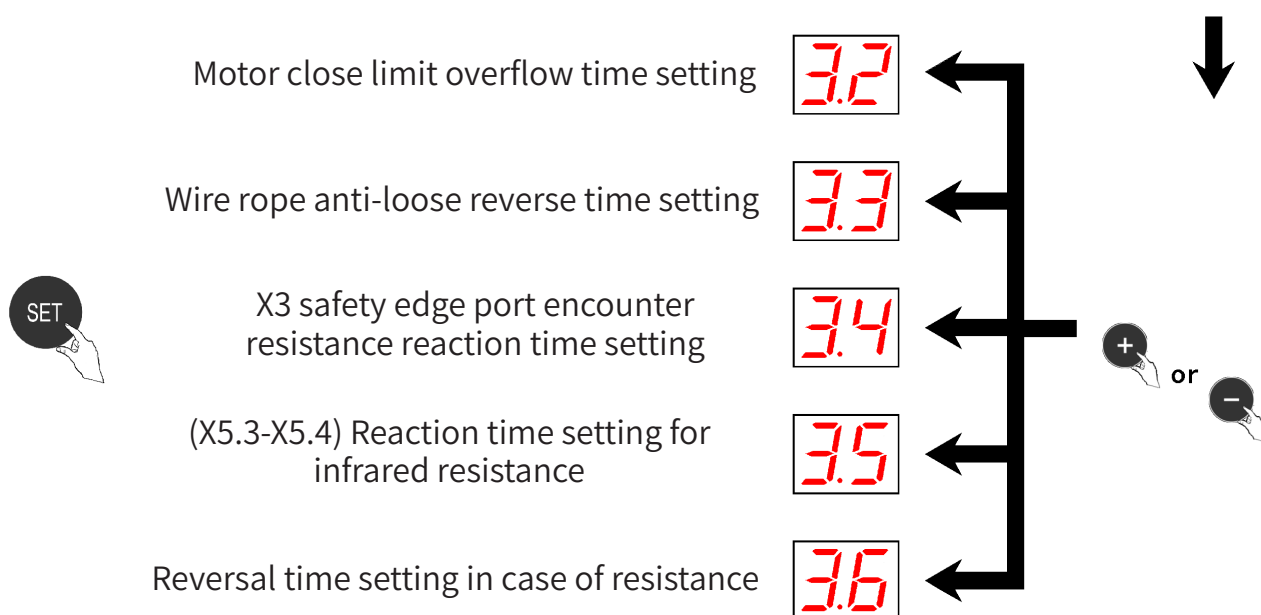
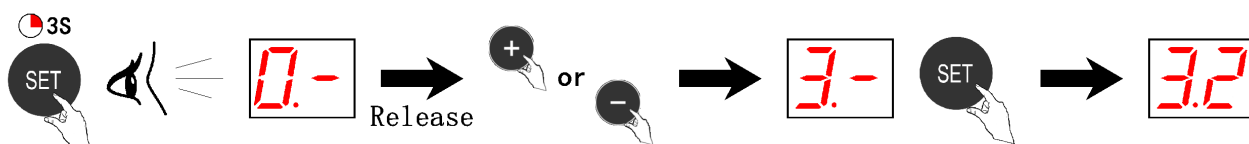
Function description: This function fine-tunes the close limit of motor.





Menu 3: Motor parameter time setting

Function Guide

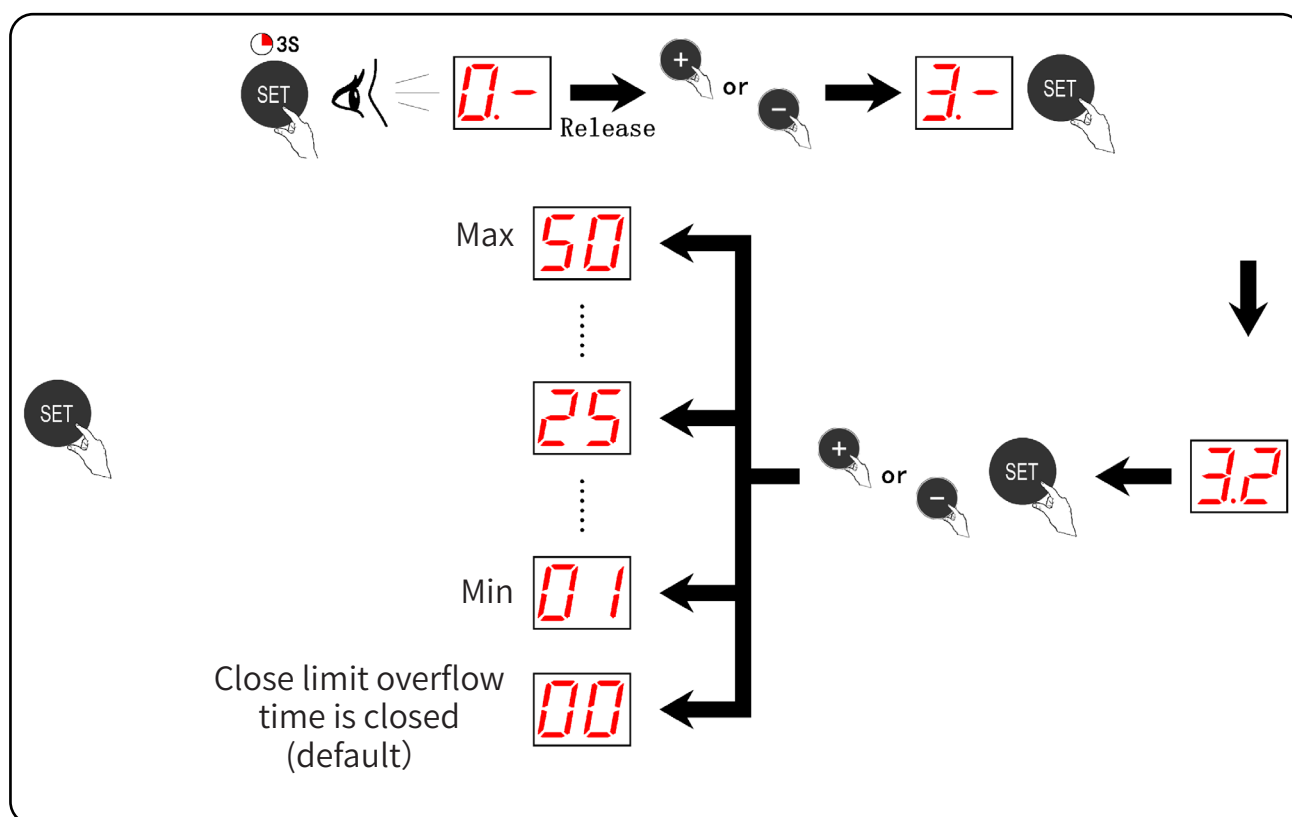


3.2

Motor close limit overflow time setting

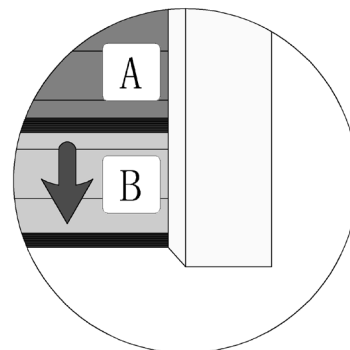
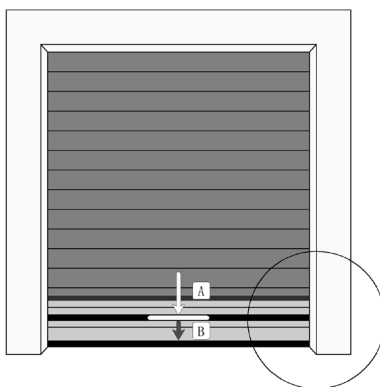
! If you use the DW air switch on the safety side, it is recommended to turn on the overflow time. If you do not turn on the DW self-test function, it may fail.

- ① During the overflow time of the close limit, the motor will also detect the activation of the safety edge and perform an obstruction stop.
- ① Adjust the overflow time of the close limit according to the condition of the door. This setting is mainly to complement the close limit in the user's travel limit. Closing the door by motor through this setting will ensure that the door is on the ground.
- ① In the case of ensuring that the DW air switch is safe and works normally, if the DW self-test cycle cannot be completed when the door is closed, please adjust the overflow time according to the actual situation.

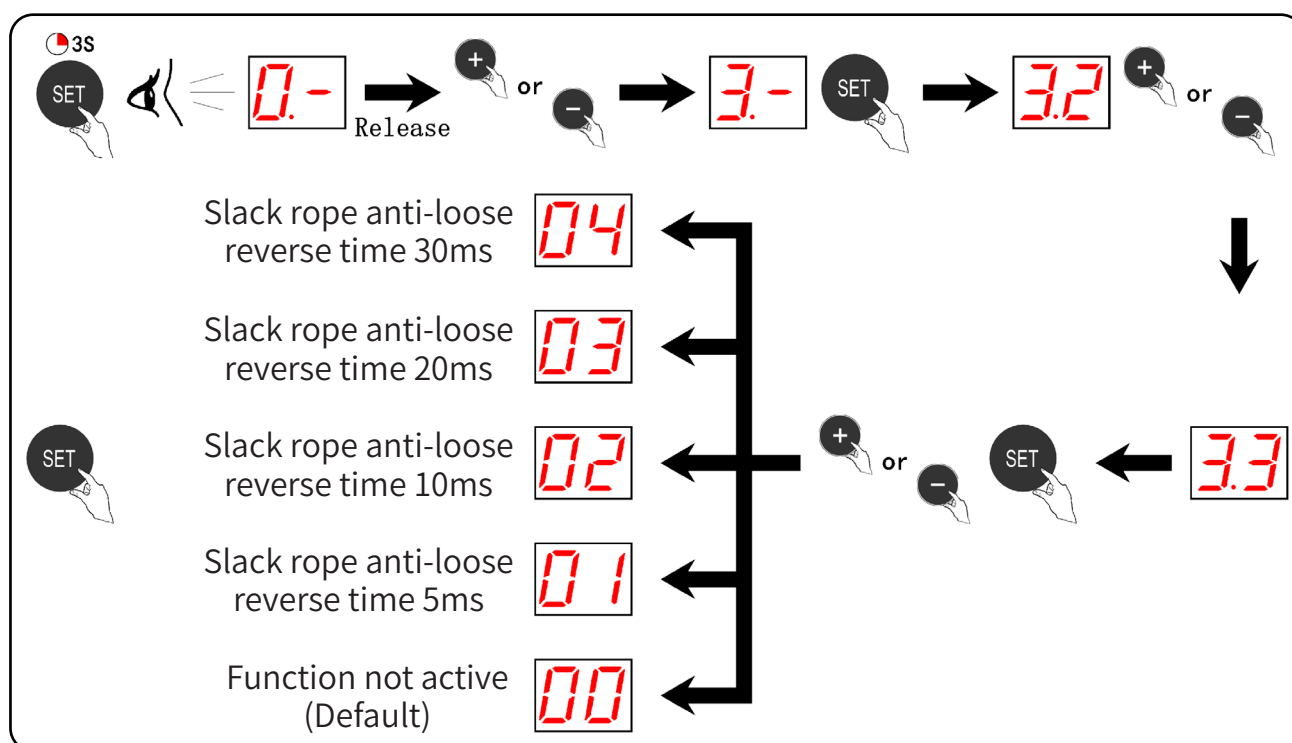


Parameter: :0.25s

A: The set close limit position
B: The location after setting the overflow time



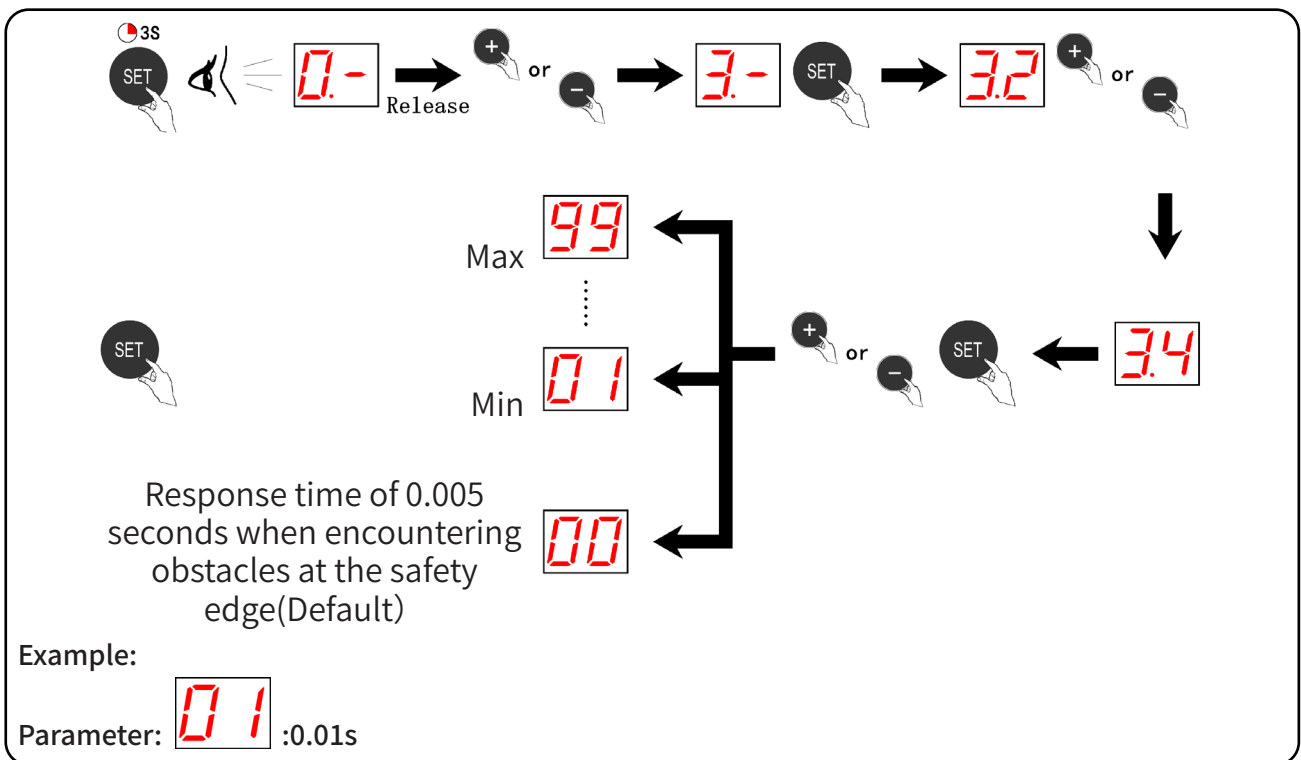
- ① When using this function, after the door body is closed to the close limit position, the door body will reverse and run in the direction of door opening for the time set in the parameters to prevent the door body slack wire rope from loosening.
- ① The time setting range of this parameter is: (AC drive: 5m-s-30ms) .



34

X3 safety edge port encounter resistance reaction time setting

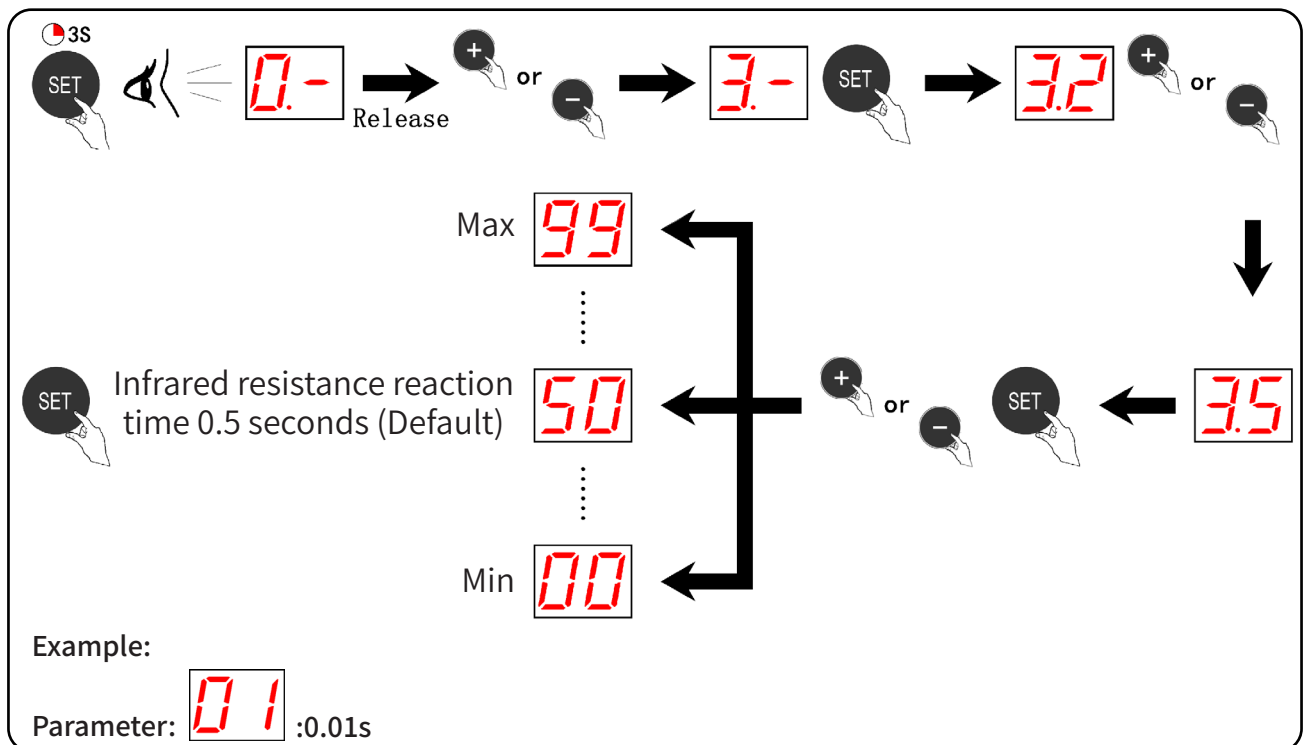
- i The safety edge reaction time is the time between the reversing of the control door after the door detects an obstacle.
- i The time setting range of this parameter is: 0.01 seconds -0.99 seconds.



3.5

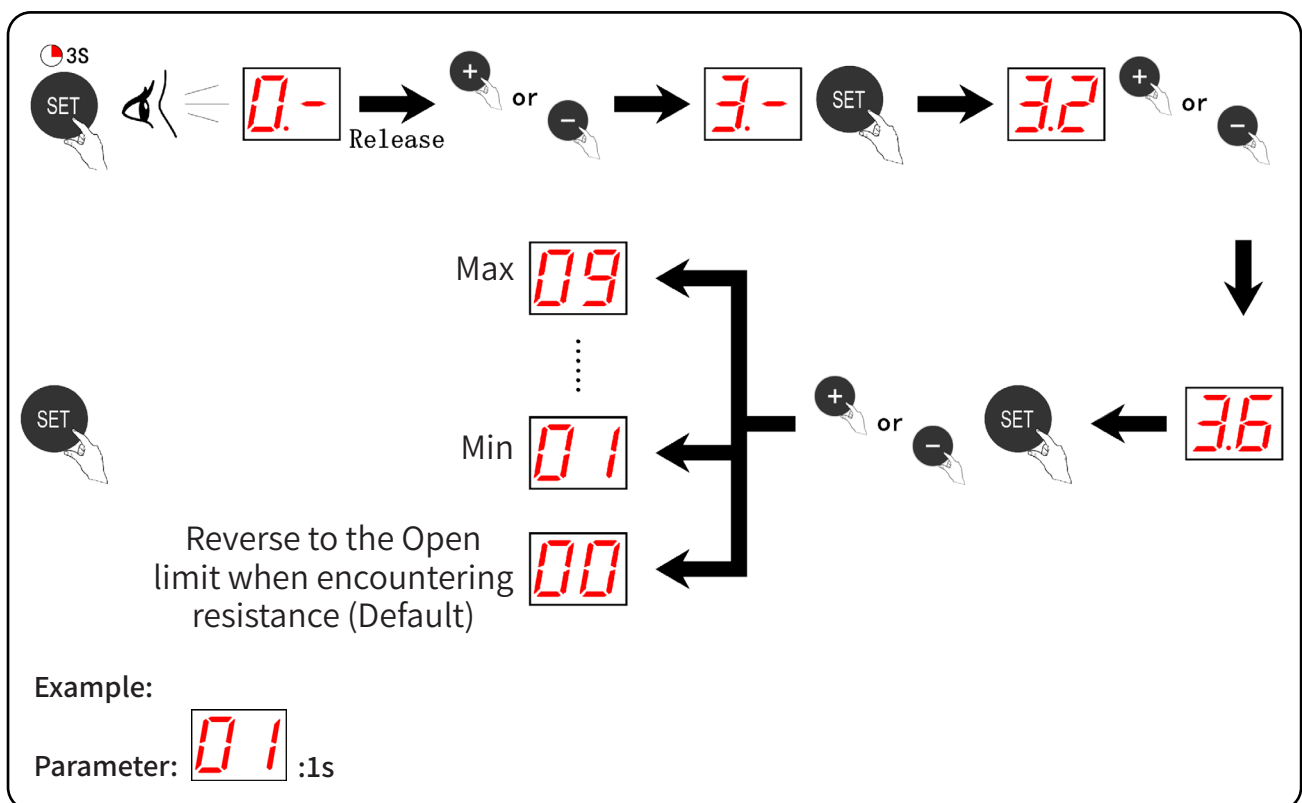
(X5.3-X5.4) Reaction time setting for infrared resistance

- ① The reaction time of the infrared port is the time from when the door detects an obstacle to control the door to reverse operation.
- ① The time setting range of this parameter is: 0.01 seconds-0.99 seconds.
- ① According to the actual situation of the door body or the needs of the scene, the reaction time of the safety edge is adjusted.



Reversal time setting in case of resistance

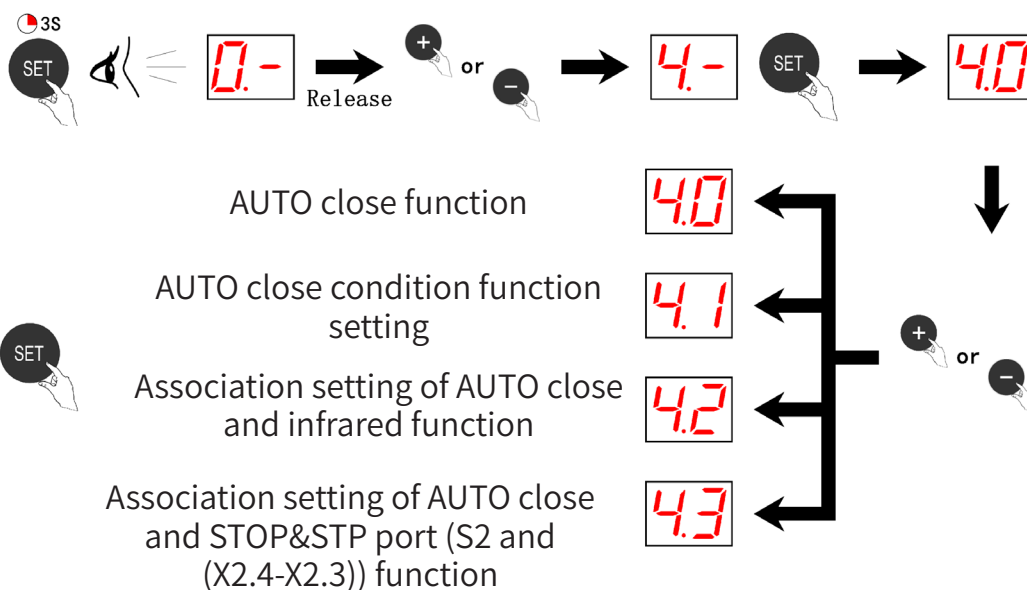
- ① Reversal time in case of resistance refers to the running time for the motor to open the door in the opposite direction after the safety edge or infrared or door closing overcurrent during the door closing process.
- ① The time setting range of this parameter is: 1 second - 9 seconds (if the time is not up, the motor will stop first when it reaches the Open limit)
- ① According to the actual situation of the door body or the needs of the scene, the reaction time of the safety edge is adjusted.



4-

Menu 4: AUTO close function setting

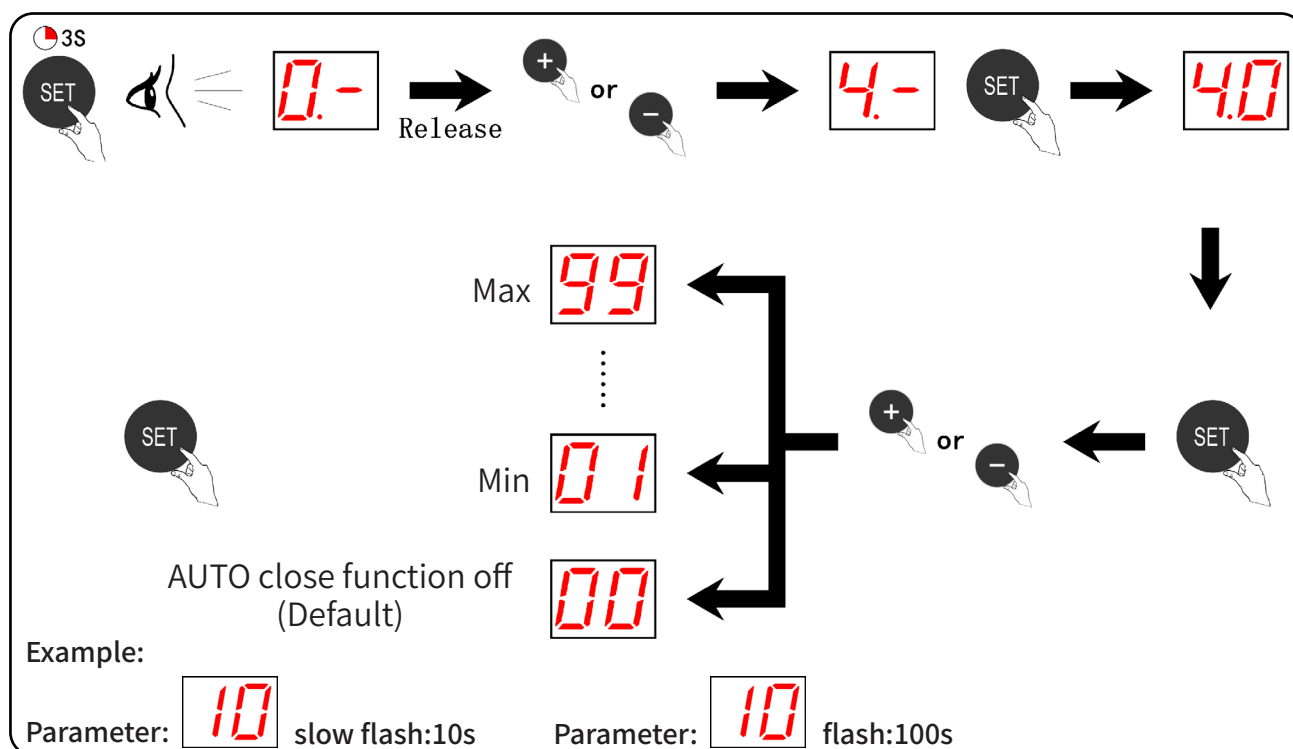
Function Guide



4.0

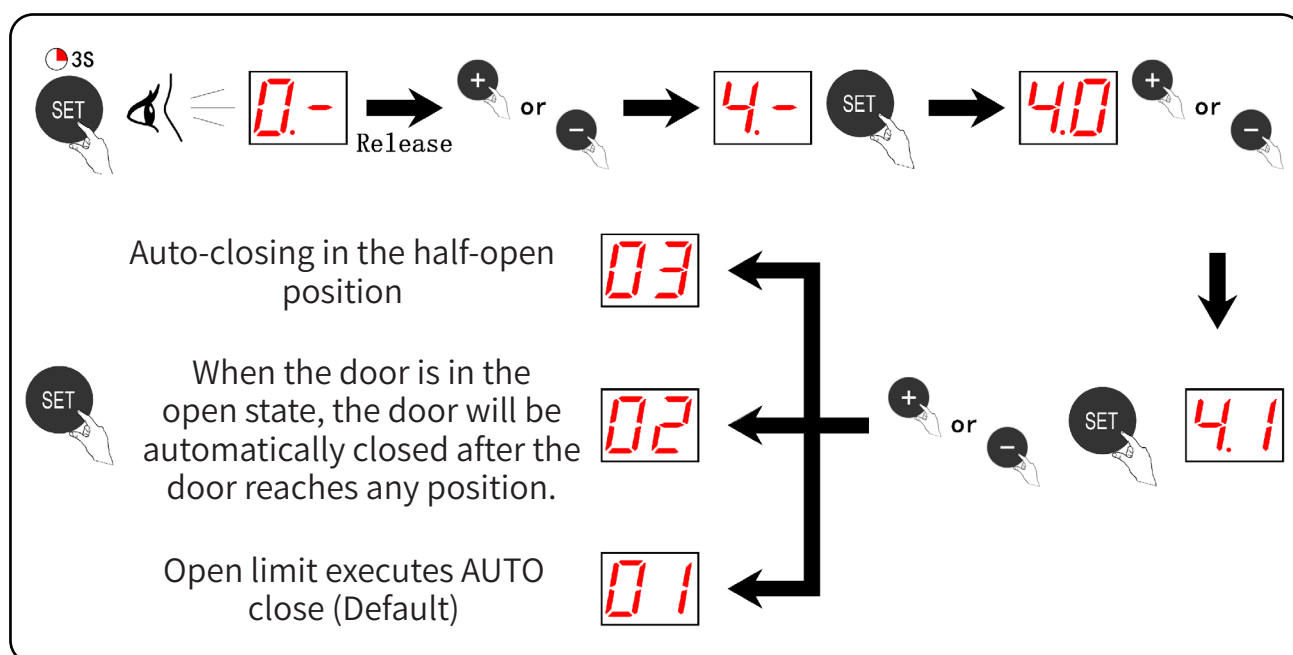
AUTO close function(Automatic closure)

- ① To use the AUTO close function, a safety edge protection device or infrared safety protection must be installed. And the motor door is in Click to open/close the door mode. (menu 1.0)
- ① The time setting range of this parameter is: 1 second - 990 seconds.
- ① Press the + button to set the parameter per second to flash slowly 1-99, and when the + button exceeds 99, the parameter resets to flash 1-99 quickly, and each parameter is 1*10 seconds at this time.



4.1 AUTO close condition function setting

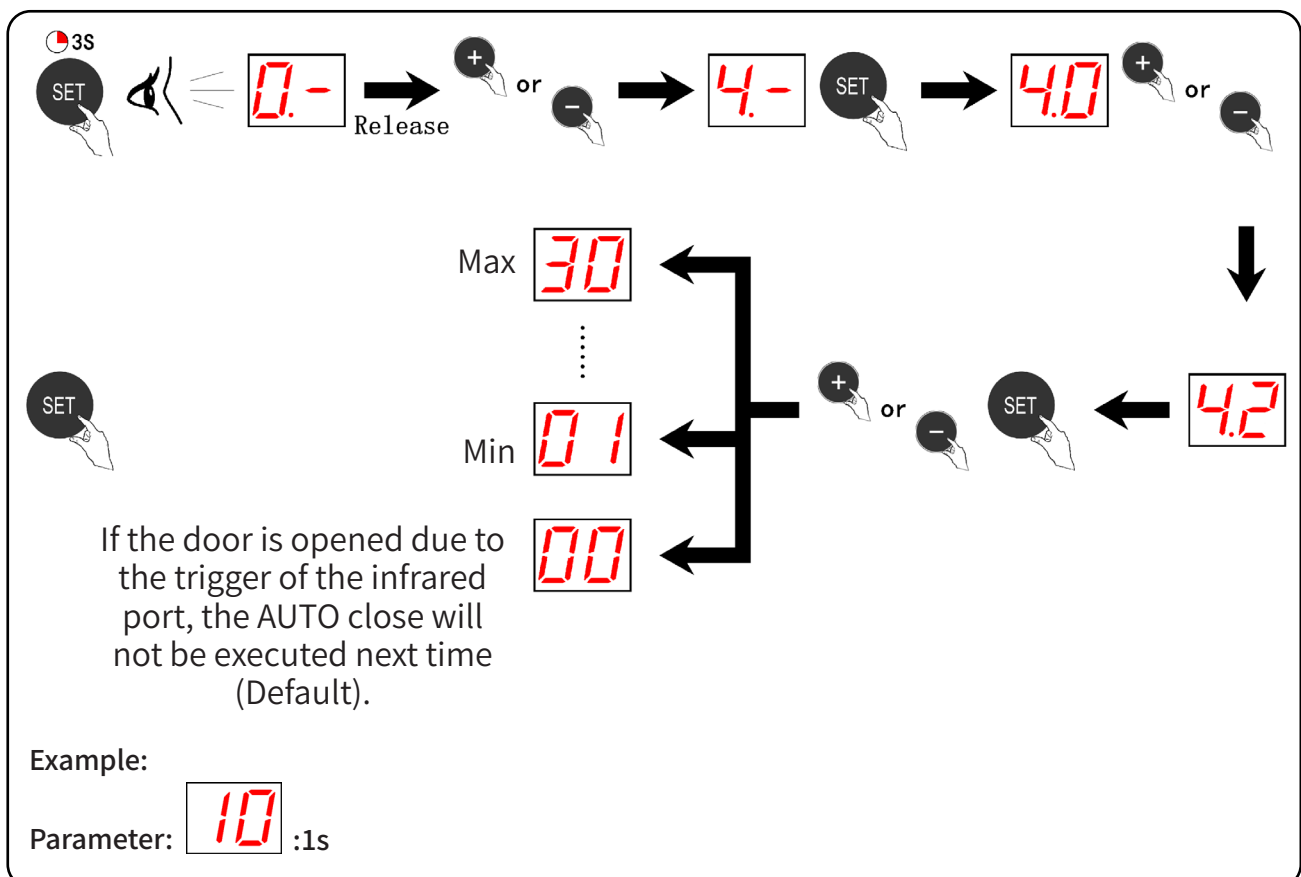
① The AUTO close condition is only used with the menu 4.0 AUTO close function.



4.2

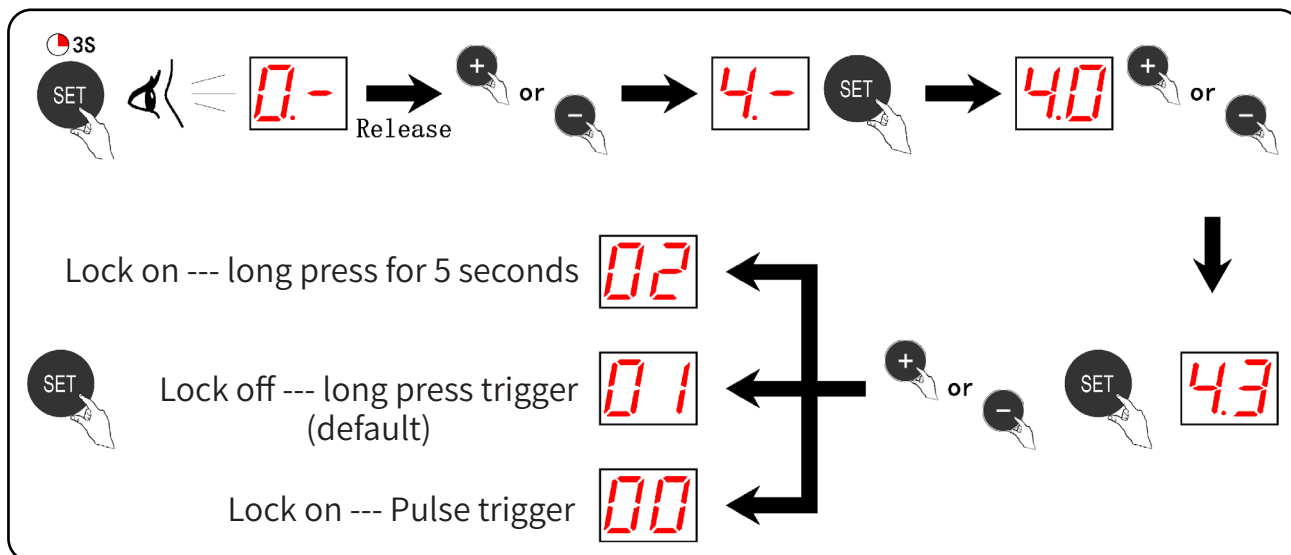
Association setting of AUTO close and infrared function

- ① The association setting of AUTO close and PE function can only be used with the infrared function of menu 5.
- ① Default parameters : The door opening triggered by the infrared port does not perform AUTO close this time, and the door will resume AUTO close after the door is opened normally in the next cycle (the door opening triggered by the infrared port does not perform AUTO close)
- ① After the timing is set, the door body can still close the door automatically when the infrared triggers the opening. After the infrared port is triggered, the automatic closing timing will resume. The setting range is: 0.1 seconds to 3 seconds.



4.3

① S2 and STP (X2.4-X2.3) ports can only be executed on one port at the same time.

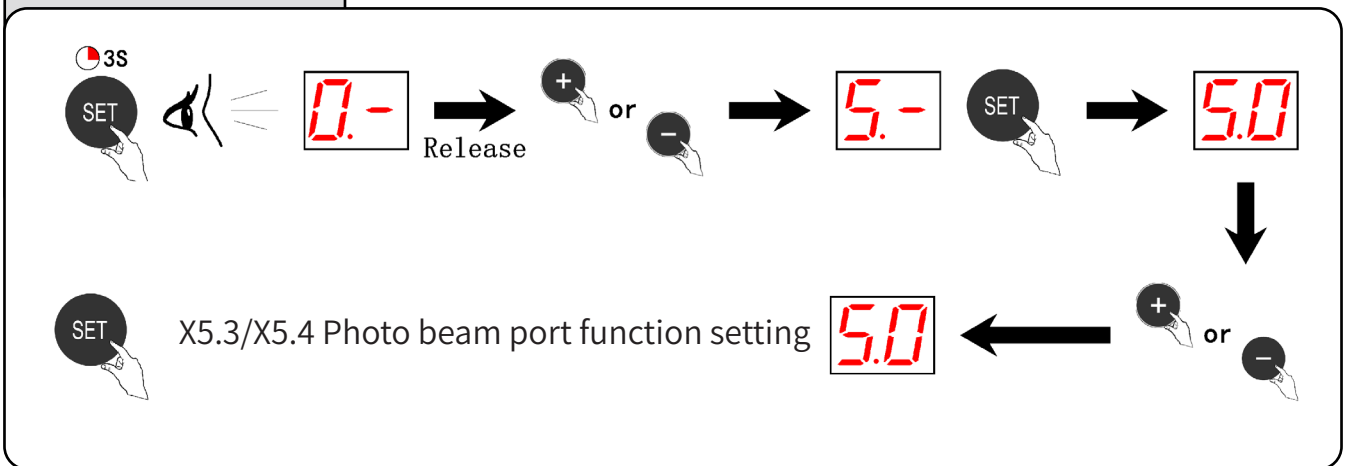


	Lock on --- Pulse trigger
	The motor stops during the AUTO close time. After STOP or STP is triggered, the AUTO close will stop this time, and the AUTO close function will resume in the next cycle.
	Lock off --- long press trigger(default)
	The motor stops during the AUTO close time. After STOP or STP is triggered, the AUTO close time will stop. When the STOP button is restored, the AUTO close will start time again.
	Lock on --- long press for 5 seconds
	During the AUTO close counting period after the motor stops, press the STOP or STP button for more than 5 seconds, this AUTO close will be stopped, and the AUTO close function needs to be resumed in the next cycle. If the STOP or STP button restores the AUTO close within 5 seconds and restarts timing.



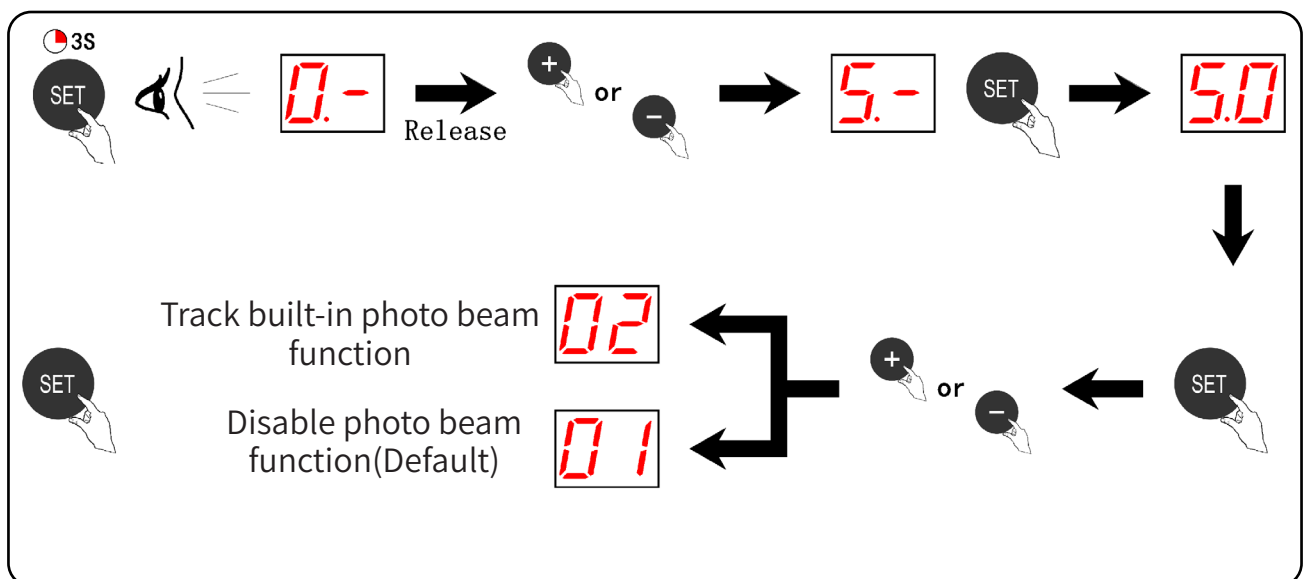
Menu 5:Photo beam function

Function Guide



X5.3/X5.4 Photo beam port function setting

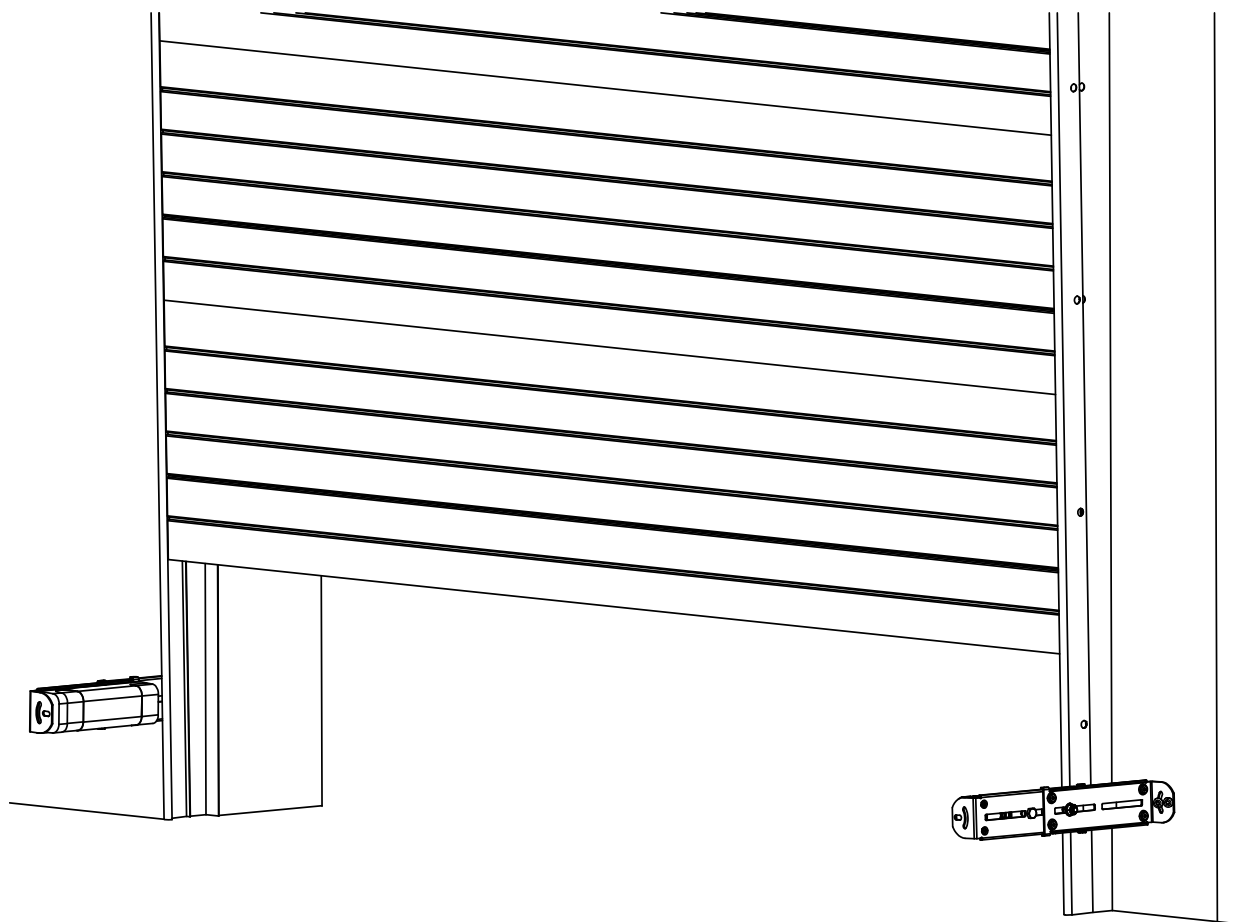
i Connection Description: Port X5.3/5.4





Standard photo beam function

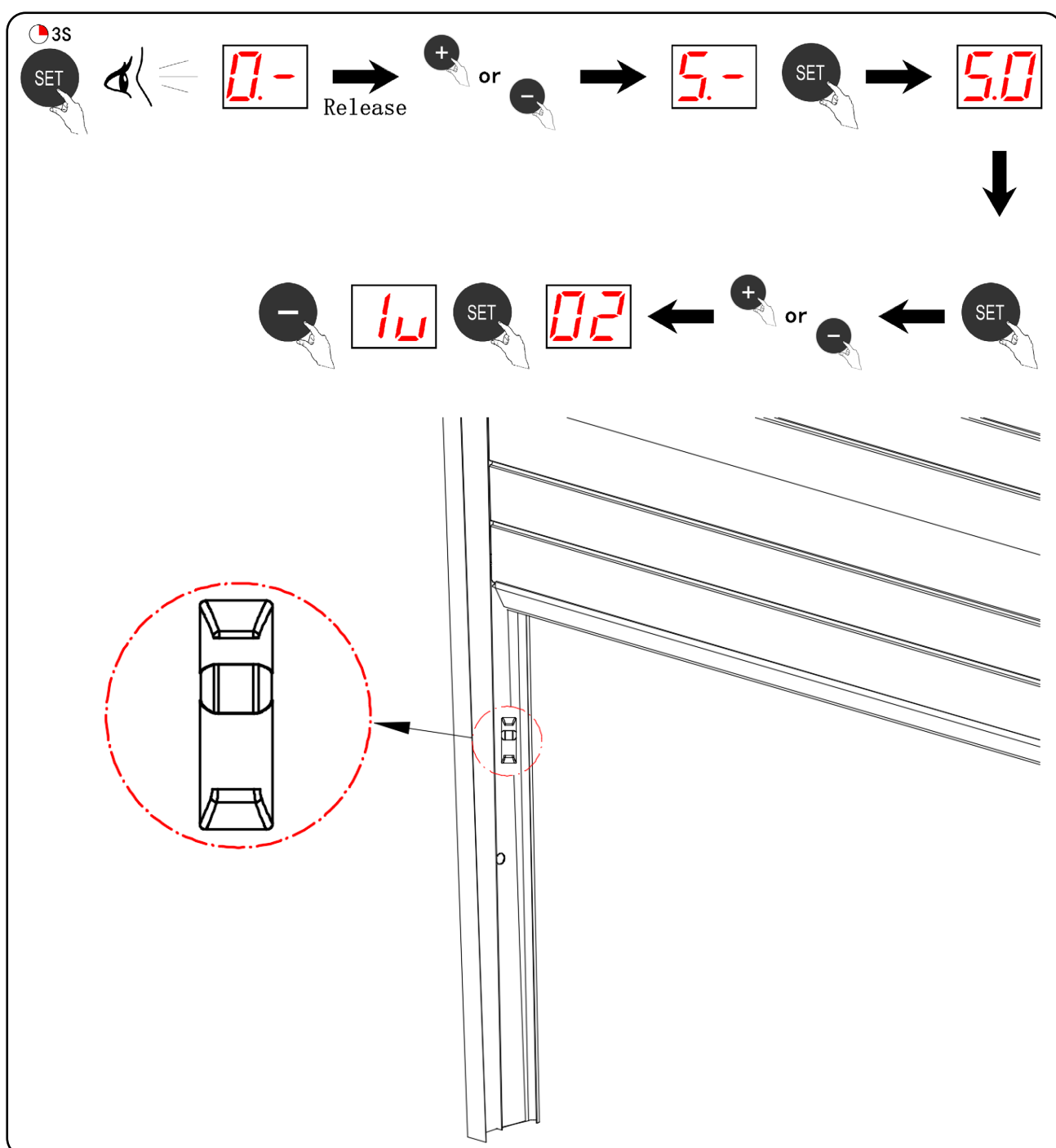
- ① Before using this function, the infrared device needs to be installed on both sides of the door.



Track built-in photo beam function

① Before using this function, the photo beam device needs to be installed in the door track.

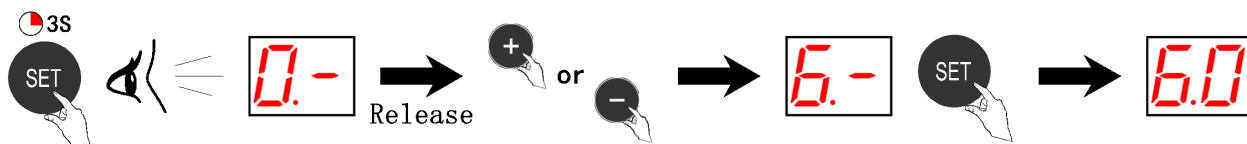
① Function description: Before using the built-in photo beam function of the track, you need to open the door to the open limit. If it is not set at the open limit, an error will appear . If the photo beam sensor has not been detected from closing the door to the close limit, it will prompt an error .



6.-

Menu 6: External port function setting

Function Guide



Partial open door function setting 6.0

X6.1/6.3 port function setting 6.1

X6.2/6.3 port function setting 6.2

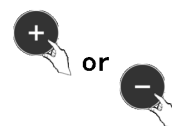
Warning light function setting 6.4

Buzzer function setting 6.5

RL -A function setting 6.6

RL -b function setting 6.7

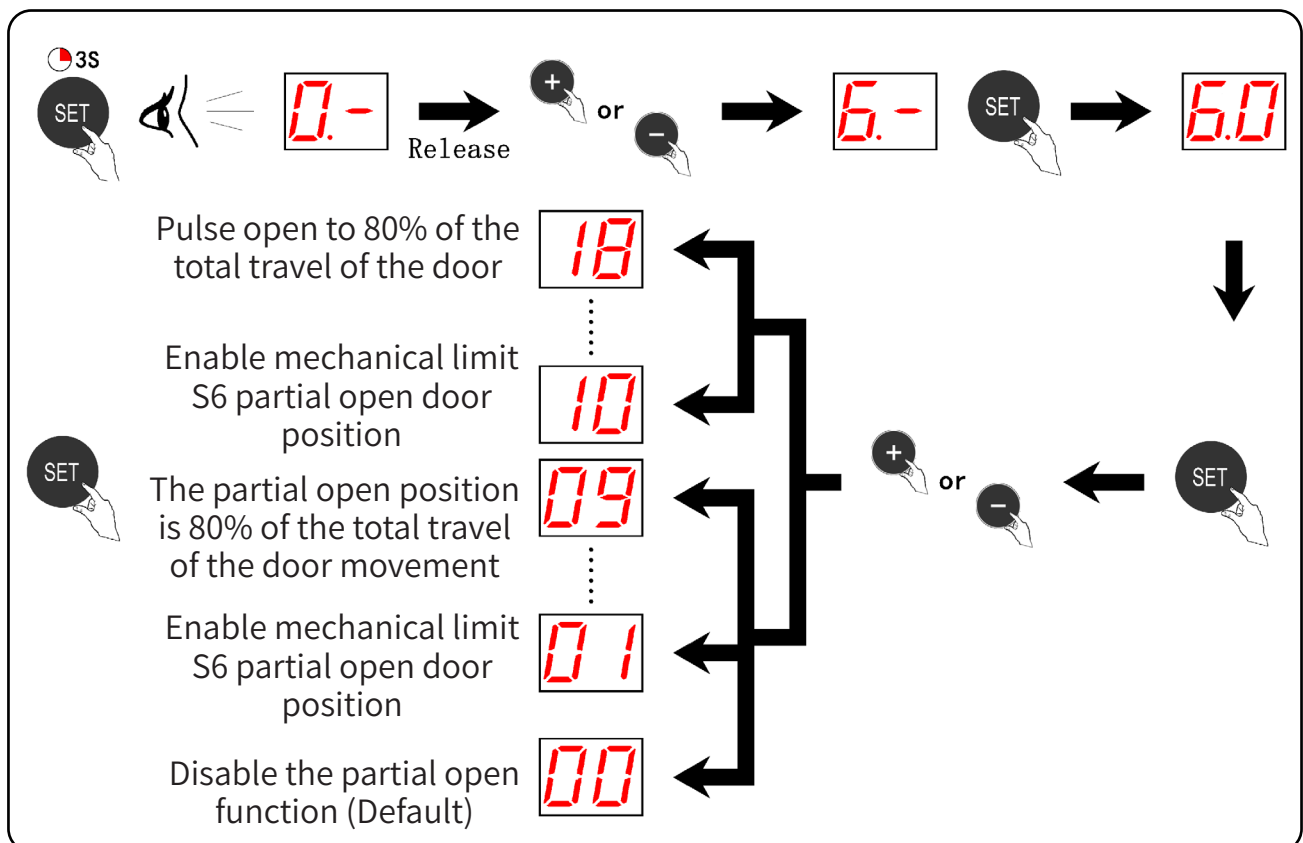
Safety edge function query 6.8



Partial open function setting

Parameter —:

- ① Connection instructions: X6.0/6.3 in X6 port.
- ① The partial open door position is set, and the normally open contact of X6.0/6.3 in the X6 port performs a long press to activate the global partial open door state.
- ① Parameter — Partial open door function: When the X6.0/6.3 port is closed, the door opening position will not exceed the set value of the partial open door, and display .



	Disable the partial open function (Default)
	Enable mechanical limit S6 partial open door position (NES-2.4 option 2) X6.0/6.3 port executes the global function partial-open door after closing (enable the mechanical limit motor, the menu is visible)
	The partial open position is 5% of the total travel of the door movement

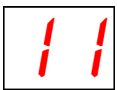
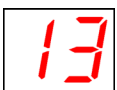
	The partial open position is 10% of the total travel of the door movement
	The partial open position is 20% of the total travel of the door movement
	The partial open position is 40% of the total travel of the door movement
	The partial open position is 50% of the total travel of the door movement
	The partial open position is 55% of the total travel of the door movement
	The partial open position is 60% of the total travel of the door movement
	The partial open position is 80% of the total travel of the door movement

Parameter —:

① **Connection Description: X6.0/6.3 (Normal Open) in X6 port.**

① **After setting the partial open door position, the normally open contact of X6.0/6.3 in the X6 port executes the jog to execute the partial open door command.**

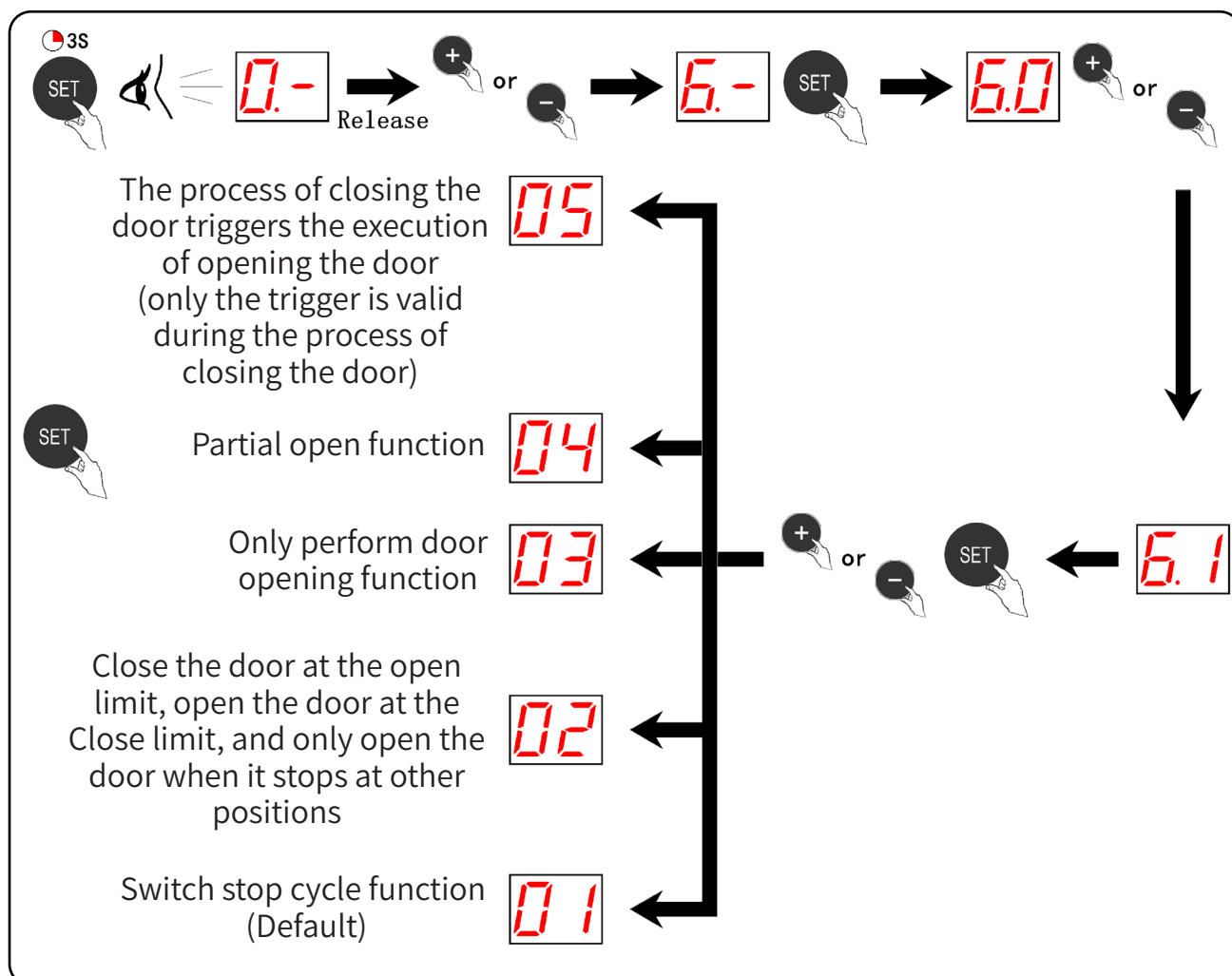
① Parameter — **Partial open door function: When the X6.0/6.3 port pulse triggers, the door will open to the set partial open door set value position, and display .**

	Enable mechanical limit S6 partial open door position (NES-2.4 option 3) X6.0/6.3 port executes partial open door pulse trigger switch (enable the mechanical limit motor, the menu is visible)
	Pulse open to the partial open position of 5% of the total travel of the door movement
	Pulse open to the partial open position of 10% of the total travel of the door movement
	Pulse open to the partial open position of 20% of the total travel of the door movement

14	Pulse open to the partial open position of 40% of the total travel of the door movement
15	Pulse open to the partial open position of 50% of the total travel of the door movement
16	Pulse open to the partial open position of 55% of the total travel of the door movement
17	Pulse open to the partial open position of 60% of the total travel of the door movement
18	Pulse open to the partial open position of 80% of the total travel of the door movement

6.1 X6.1/6.3 port function setting

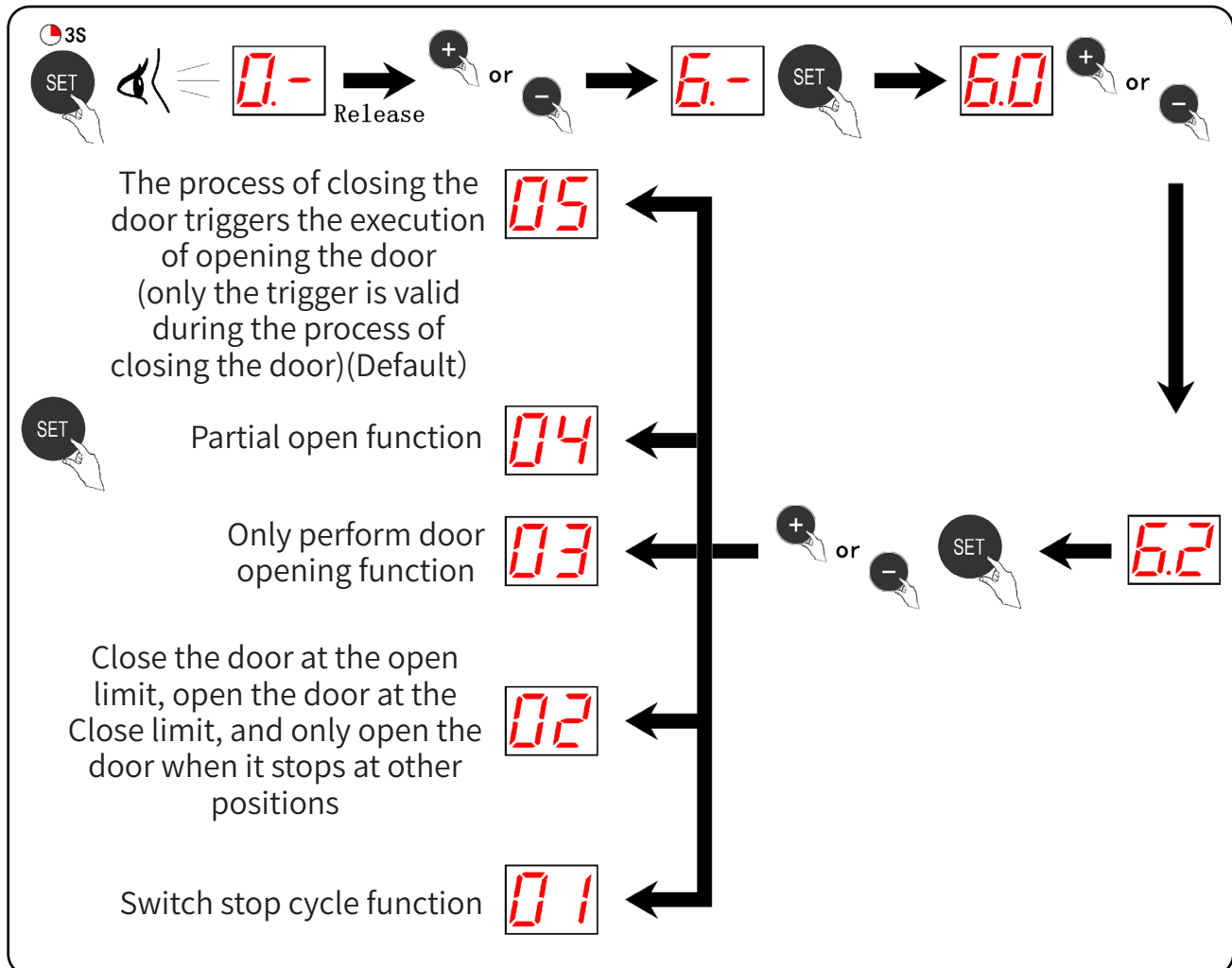
- ① **Connection Description: Port X6.1/6.3.**
- ① **The X6.1/6.3 port performs the pulse trigger function.**
- ① **When using the 04 Partial open function, the parameters in menu 6.0 need to be set.**



6.2

X6.2/6.3 port function setting

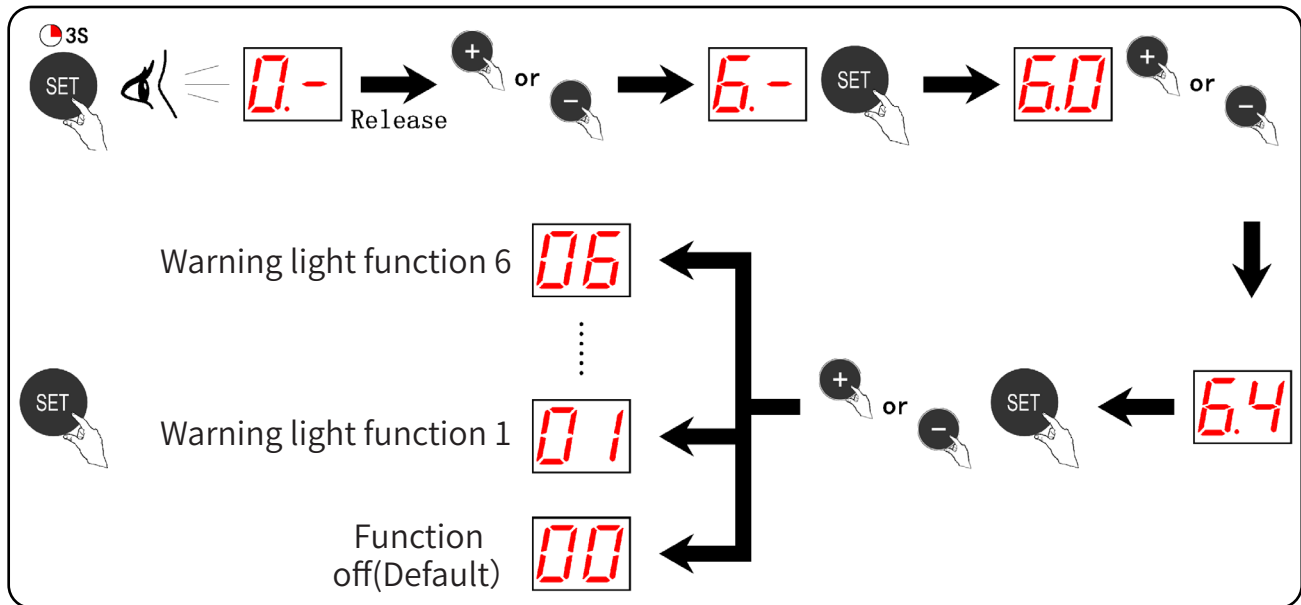
- ① Connection Description: Port X6.2/6.3.
- ① The X6.2/6.3 port performs the pulse trigger function.
- ① When using the 04 Partial open function, the parameters in menu 6.0 need to be set.



6.4

Warning light function setting

① Connection Description: Port X64.1/64.2.



Standard warning light features

- ① 1. Standard warning light: no warning function, flashes when running, and turns off when stopped.
- ① 2. The flashing frequency of the warning light depends on parameter 9.5 Flashing frequency of the warning light.

CODE	Function	Close limit state	Open limit state	Alert status	Operating status
	standard application (Default)	OFF	OFF	OFF(without warning)	Flashing

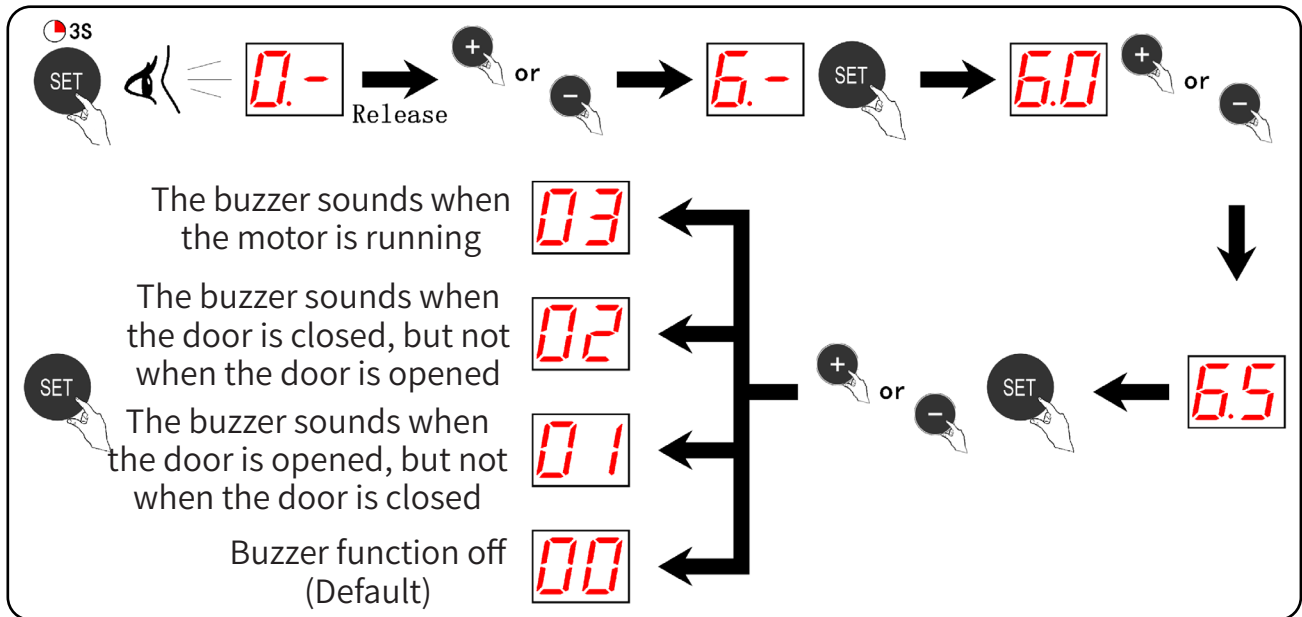
Other warning light functions

- ① 1.The flashing frequency of the warning light depends on the function setting of parameter 9.3 Flashing frequency of the warning light.
- ① 2.The warning light warning time depends on the setting of parameter 9.5 warning light closing operation warning time function.
- ① 3.The state of the warning light at the Close limit depends on the setting of parameter 9.6 Warning light LED off.

CODE	Function	Close limit state	Open limit state	Alert status	Operating status
	Warning light function 1	OFF	OFF	Flashing	ON
	Warning light function 2	OFF	OFF	Flashing	Flashing
	Warning light function 3	OFF	OFF	ON	ON
	Warning light function 4	OFF	OFF	Flashing	OFF
	Warning light function 5	OFF	ON	Flashing	OFF
	Warning light function 6	OFF	ON	OFF	OFF

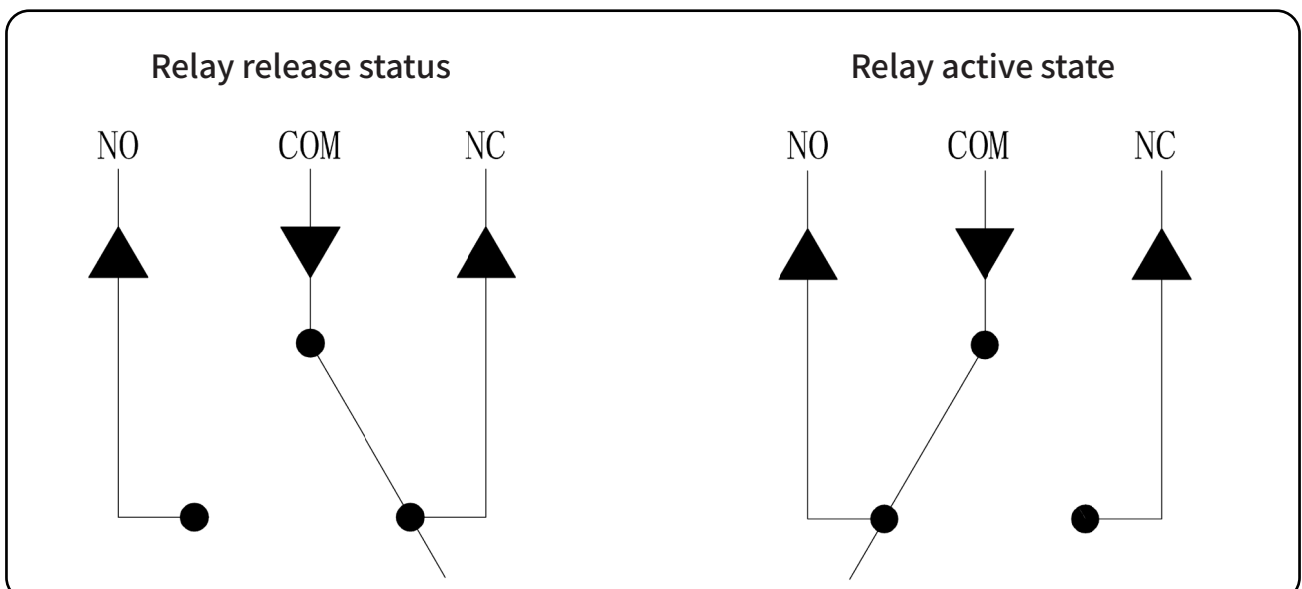
6.5

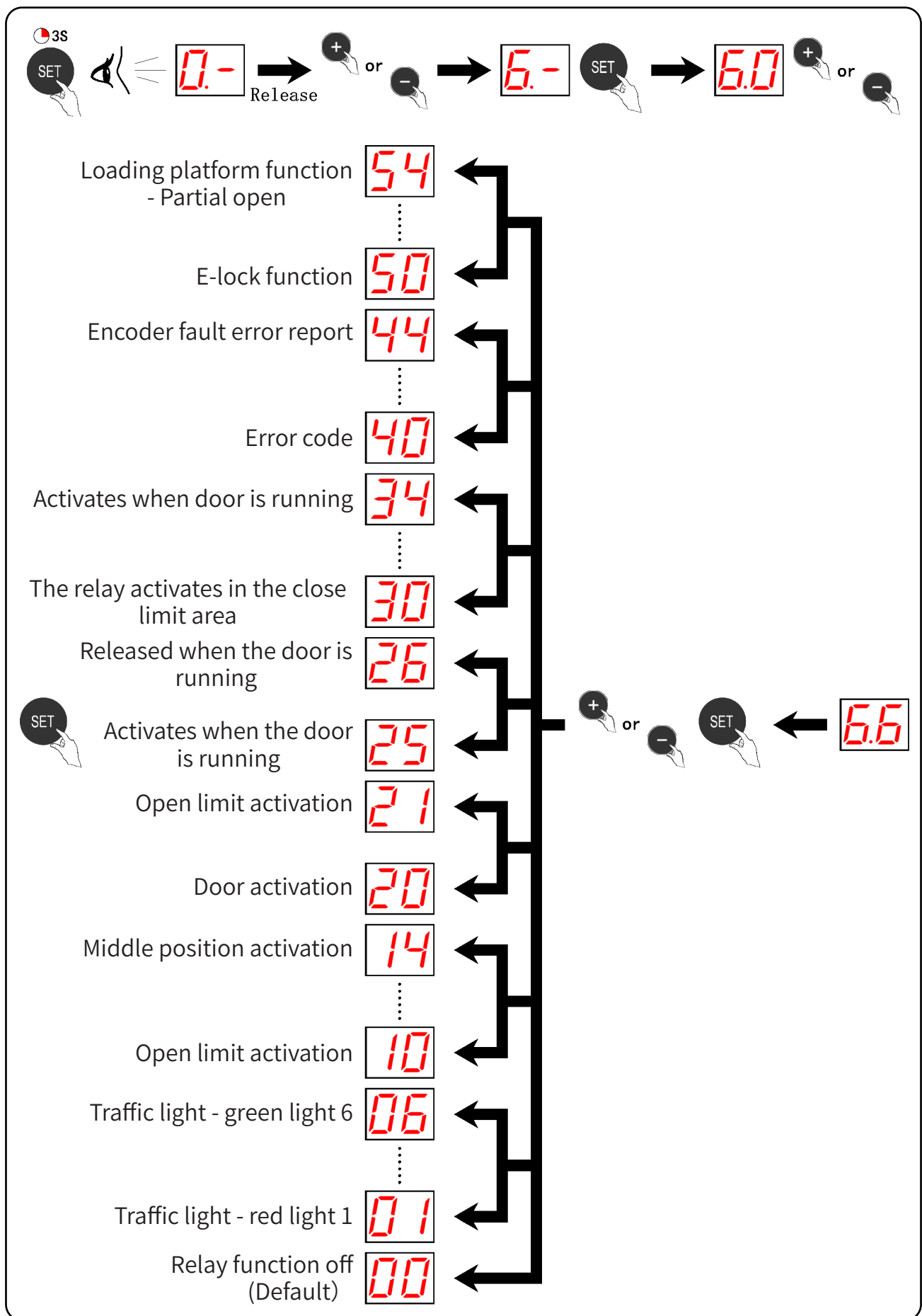
Buzzer function setting

**6.6**

RL - A Function settings

- ① Connection instructions: X66 port X66.1(NO)/66.3(COM)/66.2(NC).
- ① Menu A.0/A.1/A.2/A.3 is visible when using relay RL - A traffic light function group.
- ① Menu A.4 is visible when using function 30 in relay RL - A (relay active in Close limit zone).
- ① Menu A.5 is visible when using function 31 in relay RL - A (relay active in Open limit zone).
- ① Relay status description:





Code	Function	Function Description
	Relay function off (Default)	No function - Relay released state

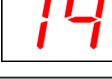
Traffic light function group:

- ① 1: The pre-warning state depends on the setting of the pre-warning time for closing the door of the traffic light function of the parameter A.0 relay A.
- ① 2: The flashing frequency depends on the flashing frequency setting of parameter A.2 relay A traffic light function.
- ① 3: The state of the Close limit depends on the parameter A.3 relay A traffic light function delay off setting.

Code	Traffic light function	Close limit state	Open limit state	Alert status	Operating status
	Traffic light - red light1	OFF	OFF	Flashing	ON
	Traffic light - red light2	OFF	OFF	Flashing	Flashing
	Traffic light - red light3	OFF	OFF	ON	ON
	Traffic light - red light4	OFF	OFF	Flashing	OFF
	Traffic light - green light5	OFF	ON	Flashing	OFF
	Traffic light - green light6	OFF	ON	OFF	OFF

Door Position Function Group

① Relay triggering based on door position.

Code	Function	Close limit state	Open limit state	Centre position	Operating status
	Open limit enabled	OFF	ON	ON	OFF
	Close limit activation	ON	OFF	OFF	OFF
	Open limit disabled	ON	OFF	OFF	ON
	Close limit disabled	OFF	ON	ON	ON
	Middle position enabled	OFF	OFF	ON	OFF

Pulse function group

Code	Function	Function Description
	Door activation	Each time the motor executes a door open, the relay activates for one second
	Open limit activation	After the motor opens the door and reaches the open limit, the relay is activated for two seconds

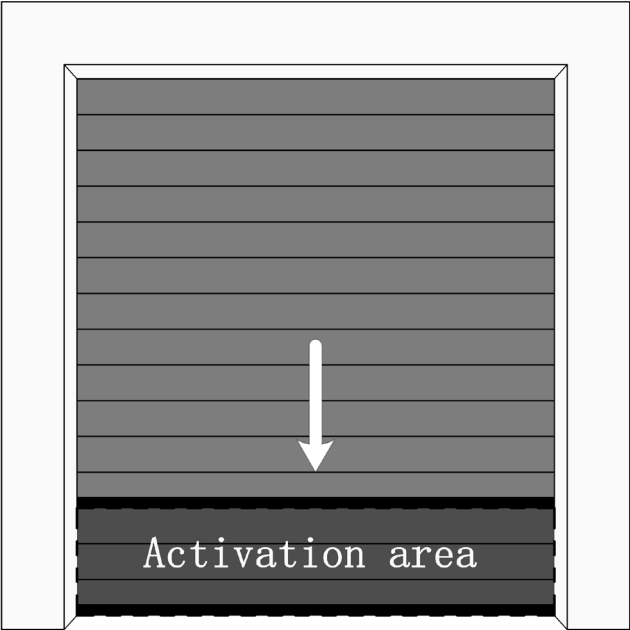
Brake function group

① Please select 25 or 26 function options according to the actual brake device function description.

Code	Function	Function Description
	Activates when the door is running	Brake function - relay activates while motor is running
	Released when the door is running	Brake function - relay activates when motor is stopped

Gate Runtime Function Group

① Relay triggering based on the door movement state

Code	Function	Function Description
	The relay activates in the close limit area	When the door travels below the set position, the relay activates. The position at which the relay activates can be set using parameter A.4. 
	The relay activates in the open limit area	When the door travels above the set position, the relay activates. The position at which the relay activates is programmable using parameter A.5. 

Code	Function	Function Description
	Activation with door open	When the door is open and running, the relay is activated
	Activate with door closed	When the door body is closed, the relay is activated
	Activates when the door is running	When the door is opened or closed, the relay is activated

Fault code function group

① Relay triggering based on fault code

Code	Function	Function Description
	Error code	When the motor reports errors EA, Ed, EF, E7, the relay activates
	Safety edge	When the safety edge is triggered, the relay activates
	Maintenance alarm cycles	When the number of maintenance alarms reaches (8.0 menu setting), the relay will activate
	Photocells and Light Curtains	When the photocell and light curtain (x5.3/5.4) are triggered, the relay is activated
	Encoder failure error	When the encoder fault E2 reports an error, the relay activates

Add-on function group

① Relay triggering based on the door movement state

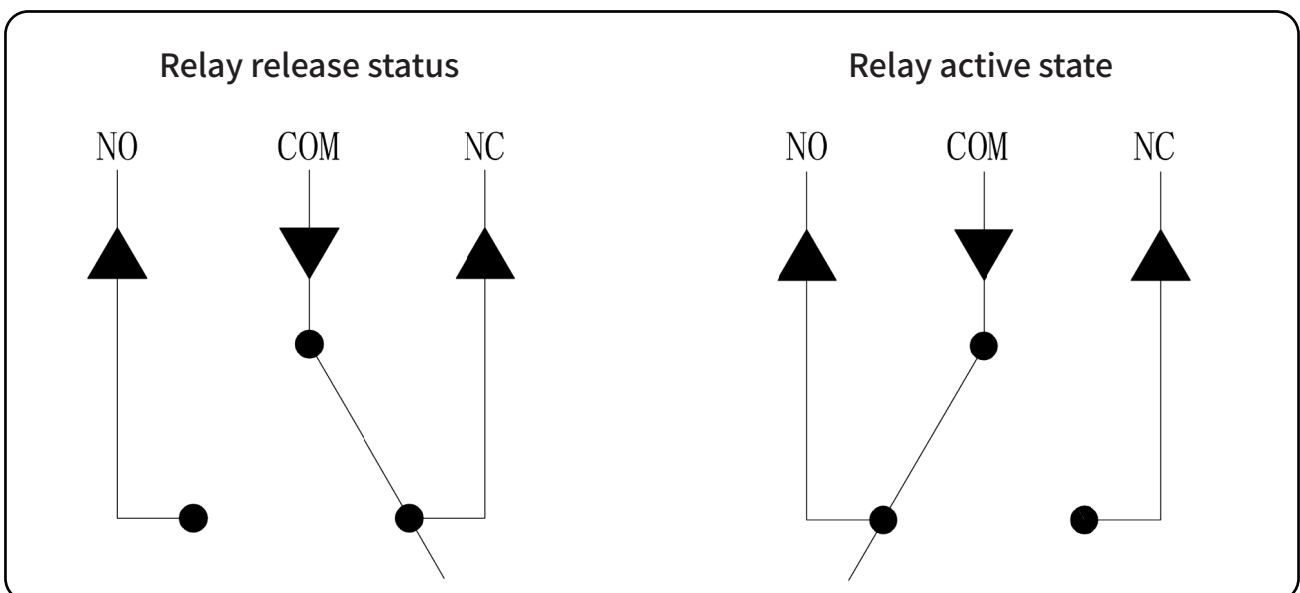
Code	Function	Function Description
	The function of the electronic lock	The relay is inactive in the close limit position; the relay is active during door operation and in any position except the Close limit position. The switching delay time of the relay switch is 0.4 seconds.
	Start capacitor function	The relay activates a 1 second pulse every time the motor starts.

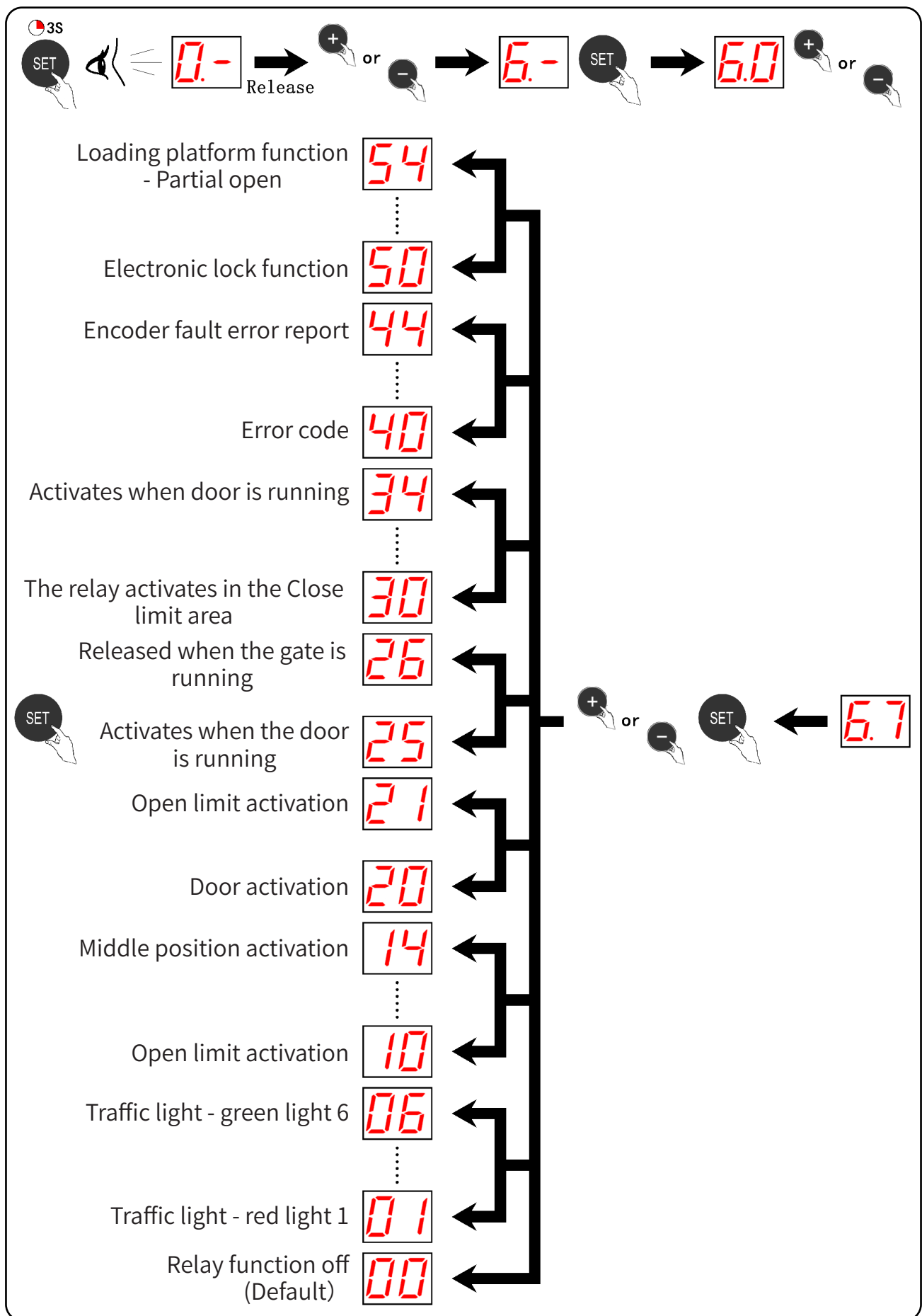
	Lighting (outdoor) function	The relay activates when there is a door open command and remains active for 2 minutes at the open limit.
	Loading platform function - fully open	The relay establishes communication with the dock leveler. Doors are fully open during dock leveler operations.
	Loading platform function - partial door	The relay establishes communication with the dock leveler. Doors are in the partial open position when the leveler is in operation.

6.7

RL - b Function settings

- ① Connection instructions: X67 port X67.1(NO)/67.3(COM)/67.2(NC)
- ① When using the relay RL -b traffic light function group 01-06, see the menu b.0/b.1/b.2/b.3 for related settings.
- ① Menu b.4 is visible when using function 30 in relay RL - b (relay activated in the area above the close limit).
- ① Menu b.5 is visible when using function 31 in relay RL - b (relay active in the area below the open limit).
- ① Relay status description:





Code	Function	Function Description
	Relay function off(Default)	No function - Relay released state

Traffic light function group

- ① 1: The pre-warning status depends on the pre-warning time setting of parameter b.0 relay b traffic light function.
- ① 2: The flashing frequency depends on the flashing frequency setting of parameter b.2 relay b traffic light function.
- ① 3: The state of the Close limit depends on the setting of parameter b.3 relay b traffic light function delay off.

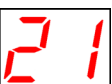
Code	Traffic light function	Close limit state	Open limit state	Alert status	Alert status
	Traffic light - red light	OFF	OFF	Flashing	ON
	Traffic light - red light	OFF	OFF	Flashing	Flashing
	Traffic light - red light	OFF	OFF	ON	ON
	Traffic light - red light	OFF	OFF	Flashing	OFF
	Traffic light - green light	OFF	ON	Flashing	OFF
	Traffic light - green light	OFF	ON	OFF	OFF

Door Position Function Group

① Relay triggering based on door position.

Code	Function	Close limit state	Open limit state	Centre position	Operating status
	Open limit enabled	OFF	ON	ON	OFF
	Close limit enabled	ON	OFF	OFF	OFF
	Open limit disabled	ON	OFF	OFF	ON
	Close limit disabled	OFF	ON	ON	ON
	Middle position enabled	OFF	OFF	ON	OFF

Pulse function group

Code	Function	Function description
	Door activation	Each time the motor executes a door open, the relay activates for one second
	Open limit activation	After the motor opens the door and reaches the Open limit, the relay is activated for two seconds

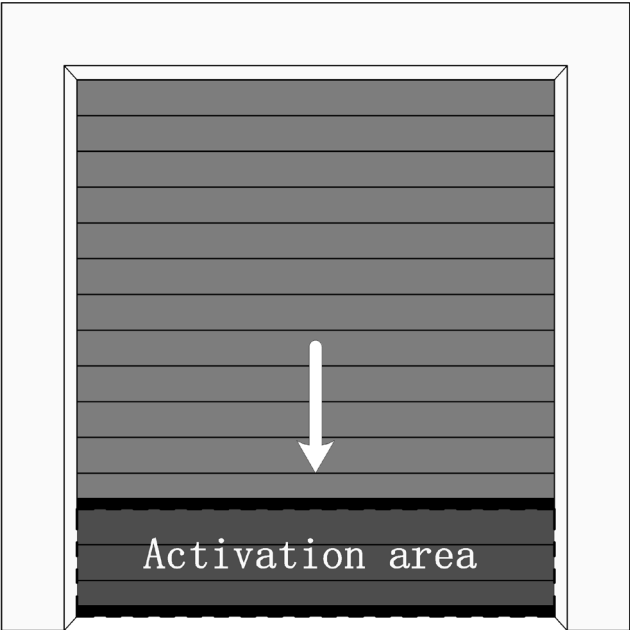
Safety brake function group

① 1: Please choose 25 or 26 function options according to the actual safety brake device function description.

Code	Function	Function Description
	Activates when the door is running	Brake function - relay activates while motor is running
	Released when the door is running	Brake function - relay activates when motor is stopped

Gate Runtime Function Group

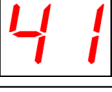
i Relay triggering based on the door movement state.

Code	Function	Function Description
	The relay activates in the close limit area	When the door travels below the set position, the relay activates. The position at which the relay activates can be set using parameter b.4. 
	The relay activates in the open limit area	When the door travels above the set position, the relay activates. The position at which the relay activates is programmable using parameter b.5. 

Code	Function	Function Description
	Activation with door open	When the door is open and running, the relay is activated
	Activate with door closed	When the door body is closed, the relay is activated
	Activates when the door is running	When the door is opened or closed, the relay is activated

Fault code function group

① Relay triggering based on fault code.

Code	Function	Function Description
	Error code	When the motor reports errors EA, Ed, EF, E7, the relay activates
	Safety edge	When the safety edge is triggered, the relay activates
	Maintenance alarm cycles	When the number of maintenance alarms reaches (8.0 menu setting), the relay will activate
	Photocells and Light Curtains	When the photocell and light curtain (x5.3/5.4) are triggered, the relay is activated
	Encoder failure error	When the encoder fault E2 reports an error, the relay activates

Add-on function group

① Relay triggering based on the door movement state.

Code	Function	Function Description
	The function of the E-lock	The relay is inactive in the Close limit position; the relay is active during door operation and in any position except the Close limit position. The switching delay time of the relay switch is 0.4 seconds.
	Start capacitor function	The relay activates a 1 second pulse every time the motor starts.

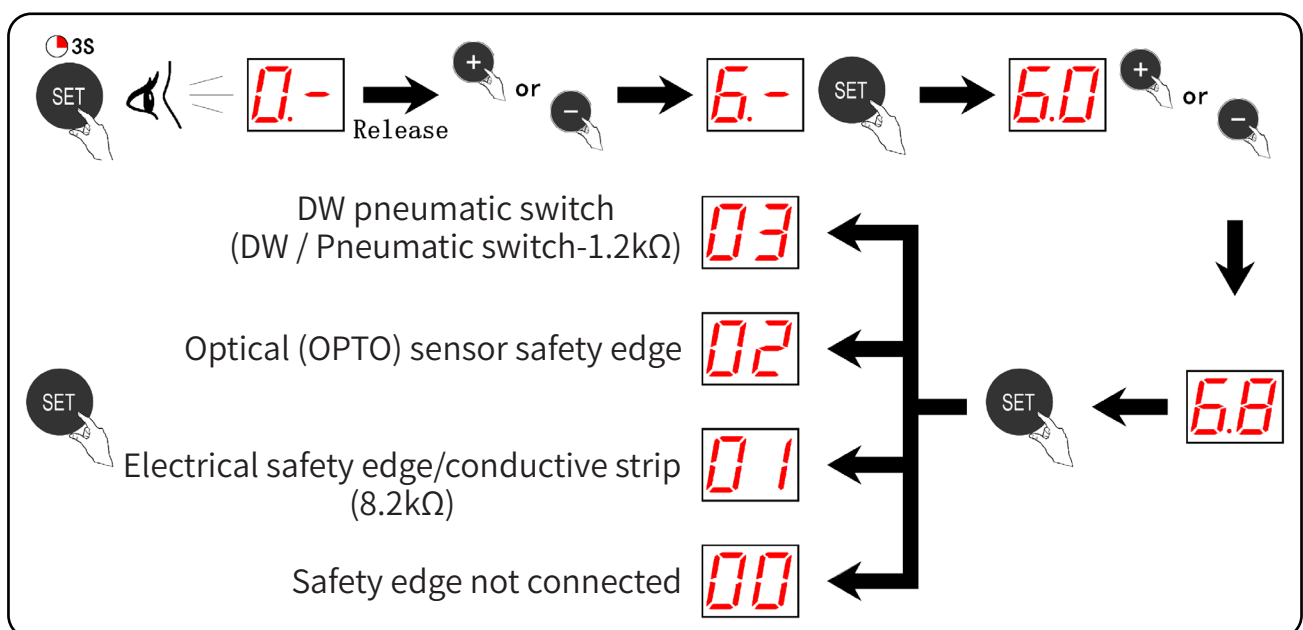
	Lighting (outdoor) function	The relay activates when there is a door open command and remains active for 2 minutes at the Open limit.
	Loading platform function - fully open	The relay establishes communication with the dock leveler. Doors are fully open during dock leveler operations.
	Loading platform function - partial door	The relay establishes communication with the dock leveler. Doors are in the partial open position when the leveler is in operation.

Safety edge function query

! The following types of safety edge devices are automatically recognized by the devices connected to the control box. Remember to properly connect the corresponding safety side before starting.

! The safety side must be connected, otherwise the motor will run in long press mode when closing the door.

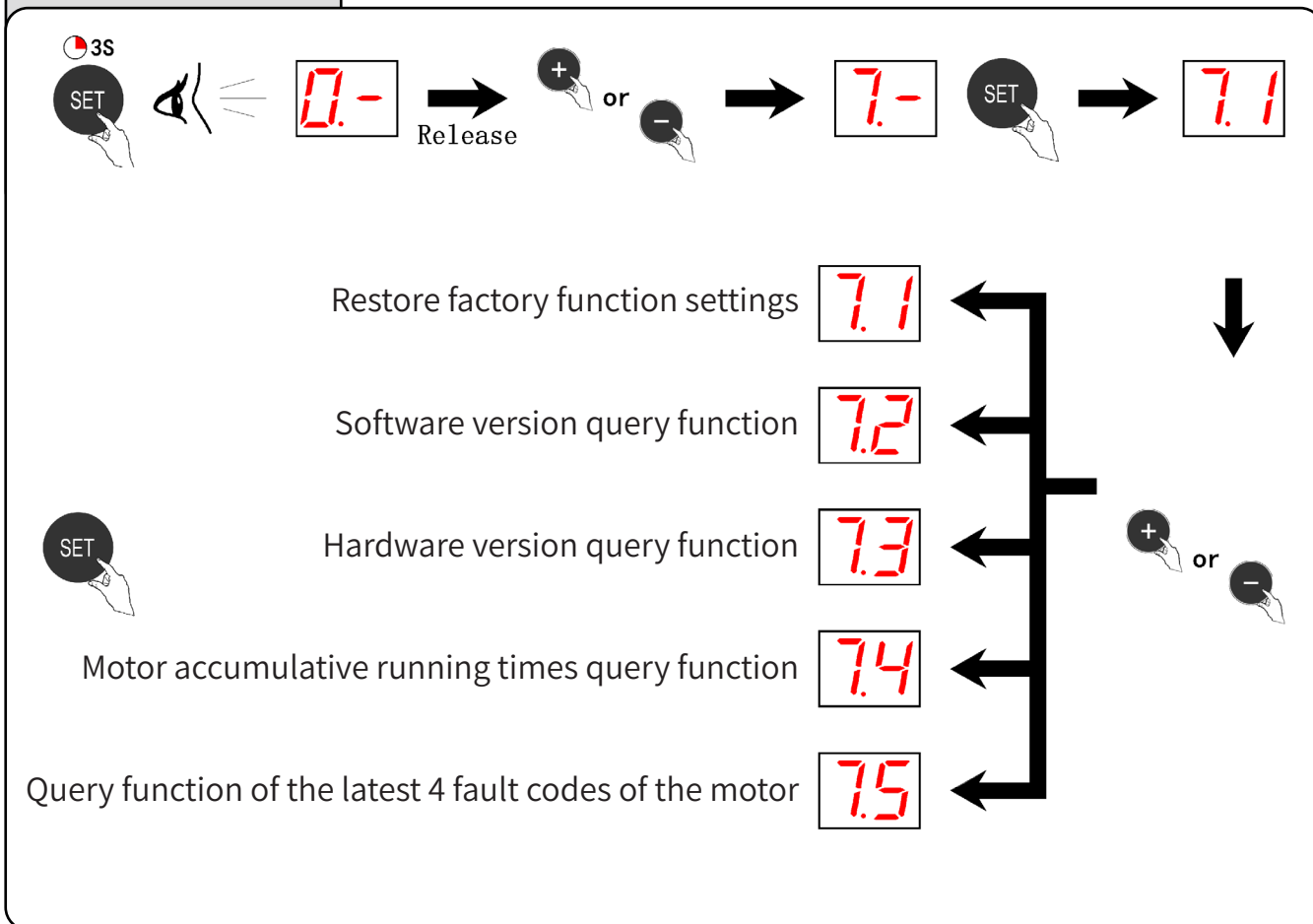
- ① This function can only query the current safety edge type.
- ① When the door is closed, the trigger on the safety side will perform reverse, and the reverse running time is set by parameter 3.6 Rebound time when encountering resistance; the reverse sensitivity is set by parameter 3.4 Reaction time when encountering resistance when the safety side is encountered.



7-

Menu 7: Motor query function setting

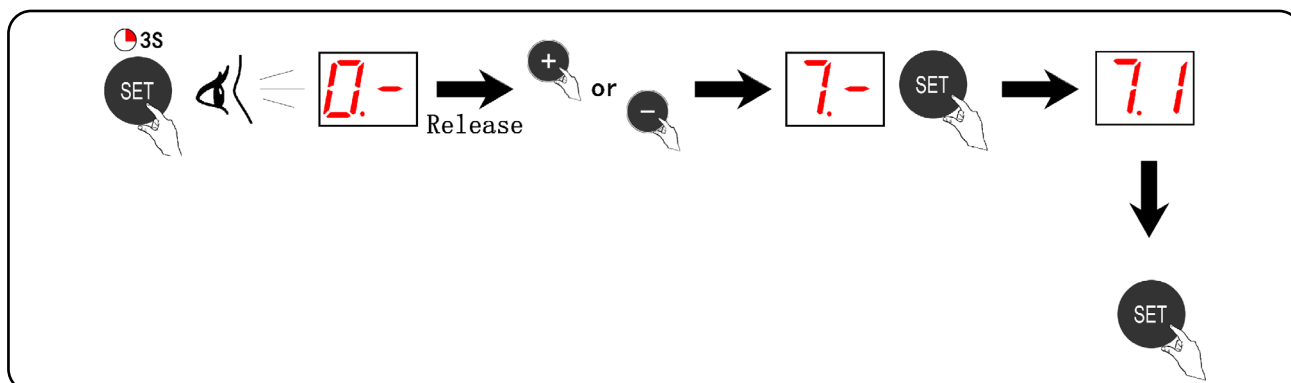
Function Guide



7.1

Restore factory function settings

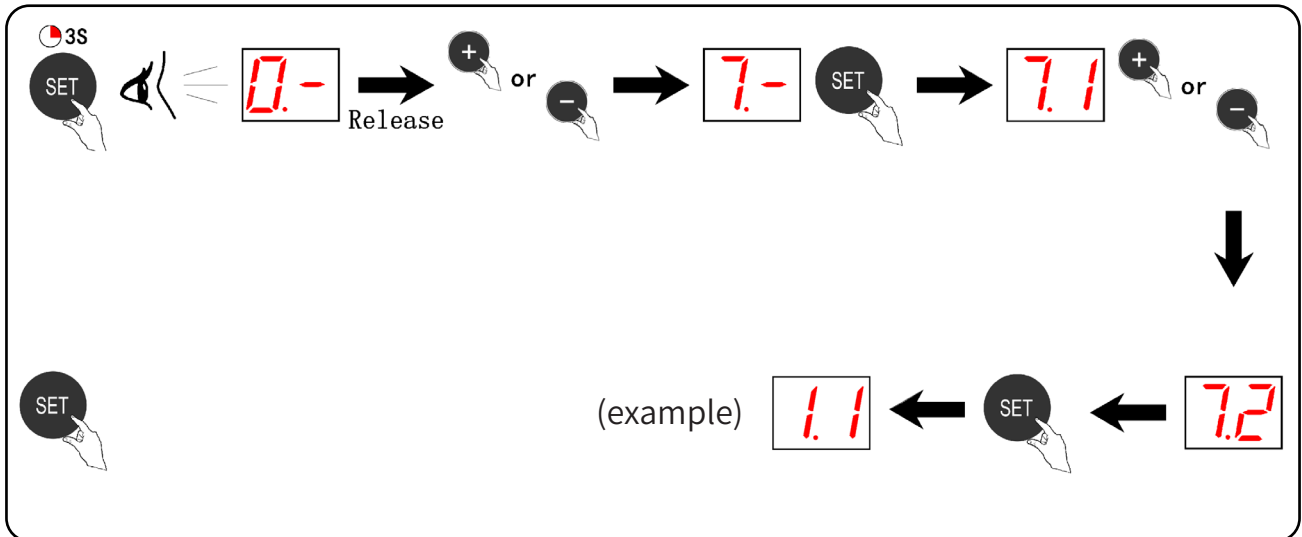
- ① All settings are set to factory settings! In addition to the cumulative running times of the motor and the number of maintenance alarms.
- ① After restoring the factory settings, power off the system for 1 minute and then power on again.



7.2

Software version query function

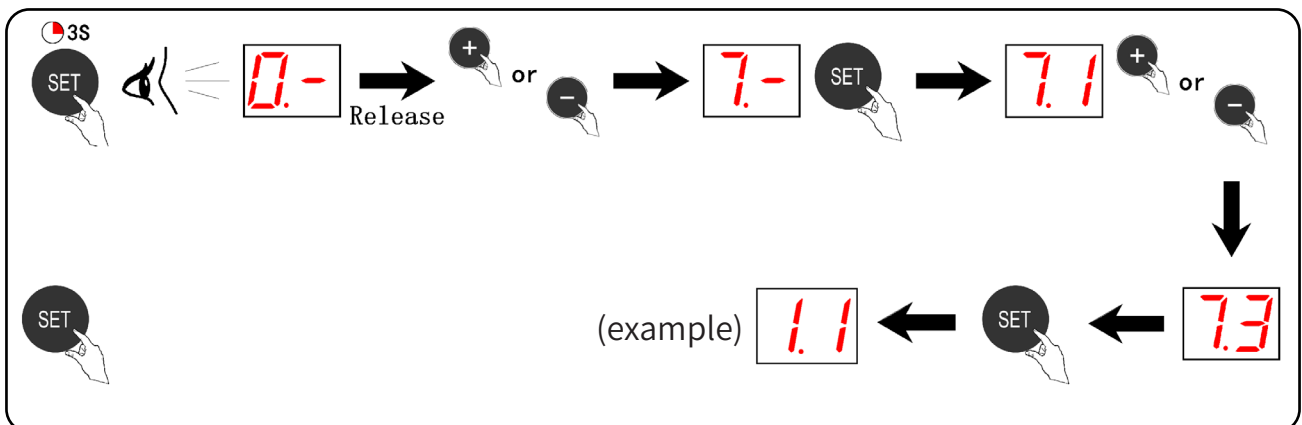
- ① This function can query the software versions of the control module, encoder module, power limit module, and inverter module.



7.3

Hardware version query function

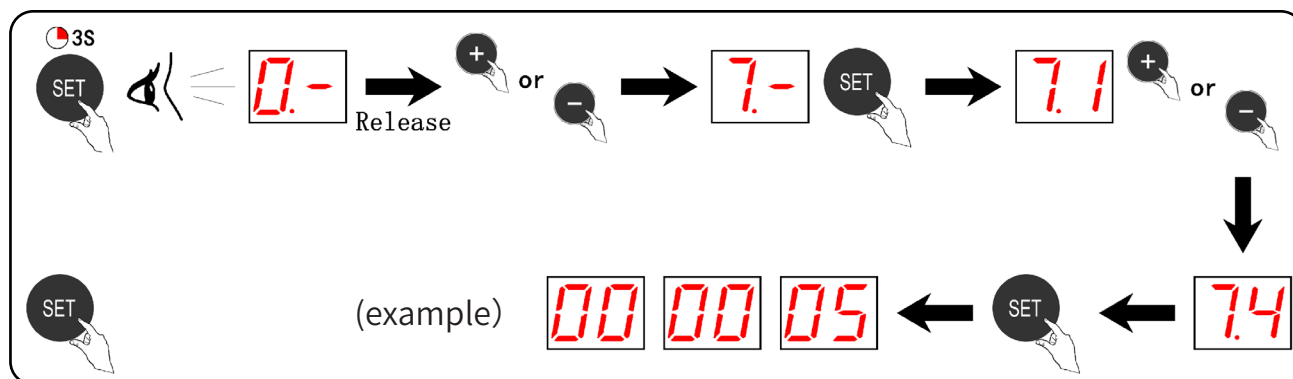
- ① This function can query the hardware versions of the control module, encoder module, power limit module and inverter module.



7.4

Motor accumulative running cycles query function

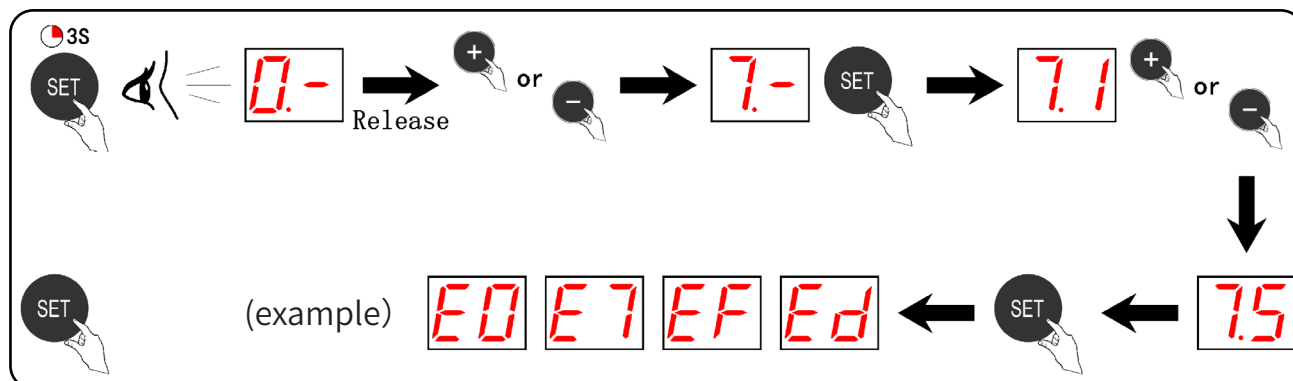
- i This function can query the accumulative running cycles of the motor.
- i The accumulative running cycles of the motor will not be cleared after the motor is restored to factory settings.



7.5

Query function of the latest 4 fault codes of the motor

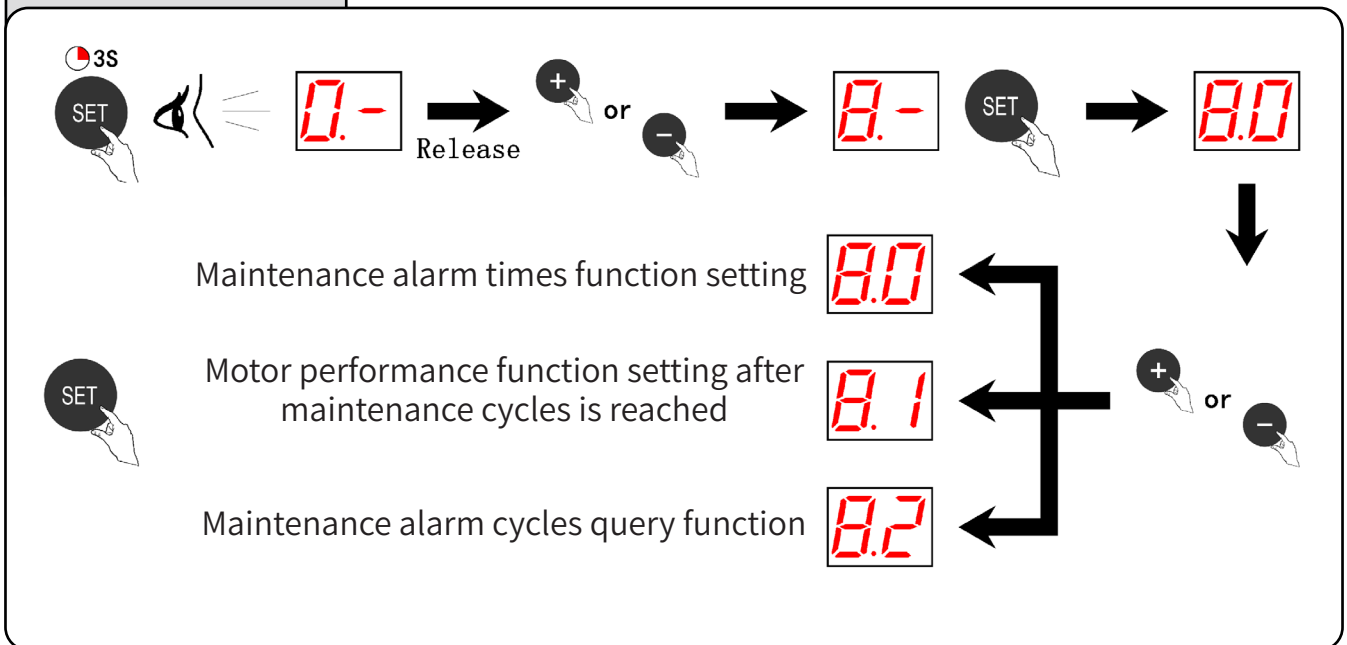
- i This function can query the latest four fault codes of the motor.





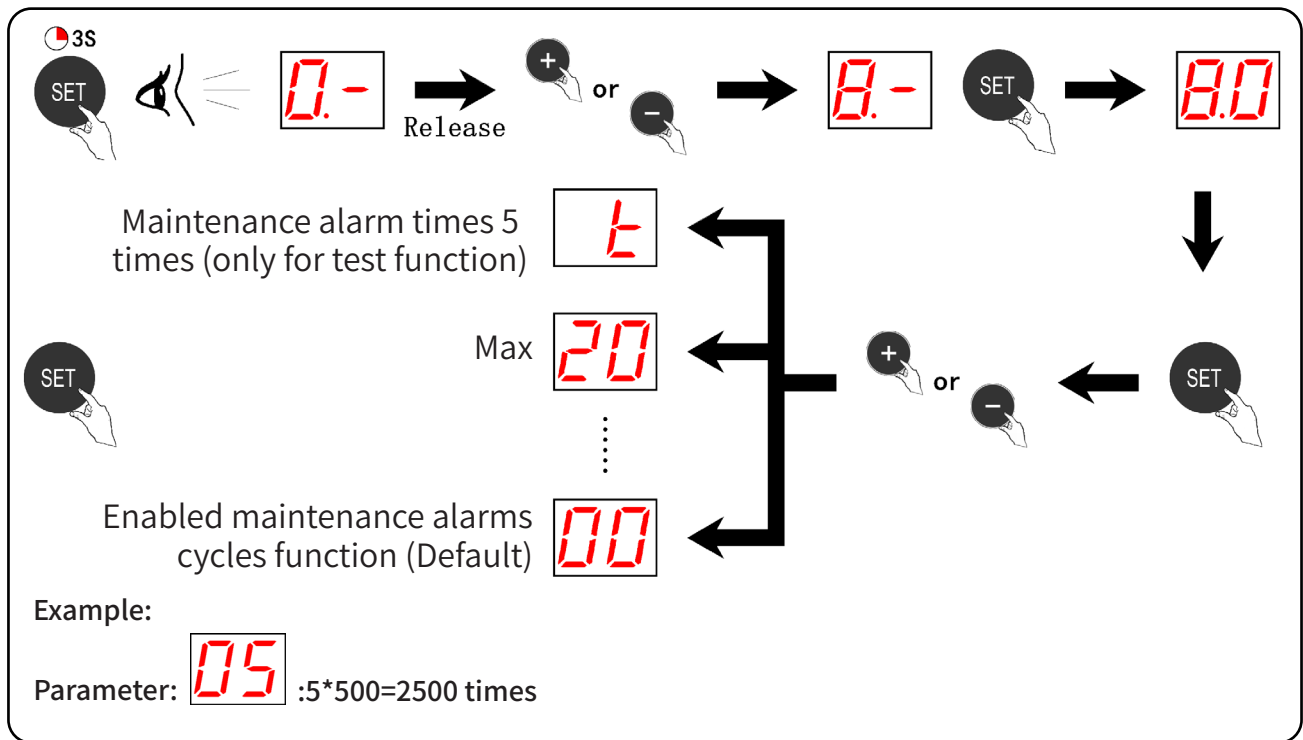
Menu 8: Maintenance alarm function setting

Function Guide



Maintenance alarm cycles function setting

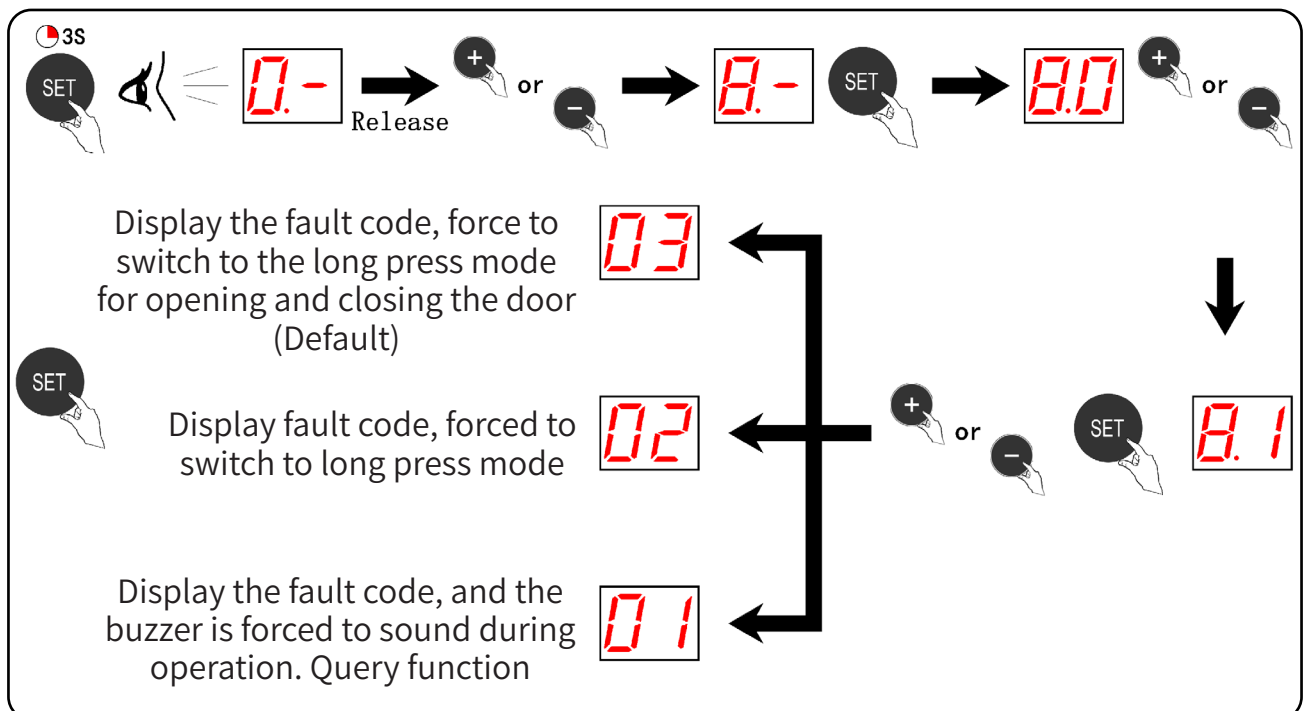
- ① After the number of maintenance alarm cycles is reached, the digital tube of the motor will display a prompt code **CA**, And the motor executes the long press operation mode of opening and closing the door.
- ① The behavior of the motor after the number of maintenance alarm cycles is reached is determined by the parameter **8.1** The behavior of the motor after the number of maintenance alarm cycles is reached is determined by the parameter.



Motor performance function setting after the cycles number of maintenance times is reached

① Motor behavior after the number of maintenance alarm cycles is reached and display fault codes **CA**.

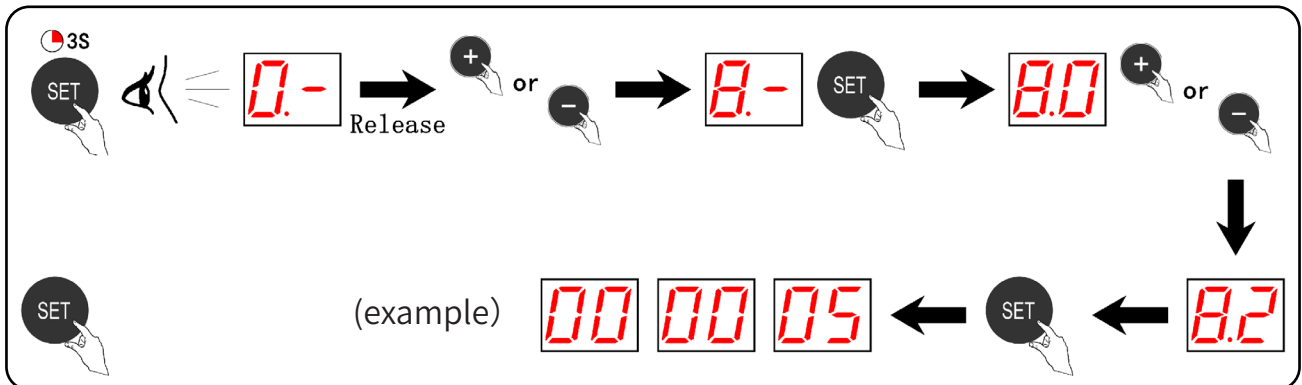
① Function **03** Details: display the fault code, force to switch to the long press mode of opening and closing the door, and press the STOP button for 3 seconds to set the number of maintenance alarms to 500 times, and display **48** (Default).





Maintenance alarm cycles query function

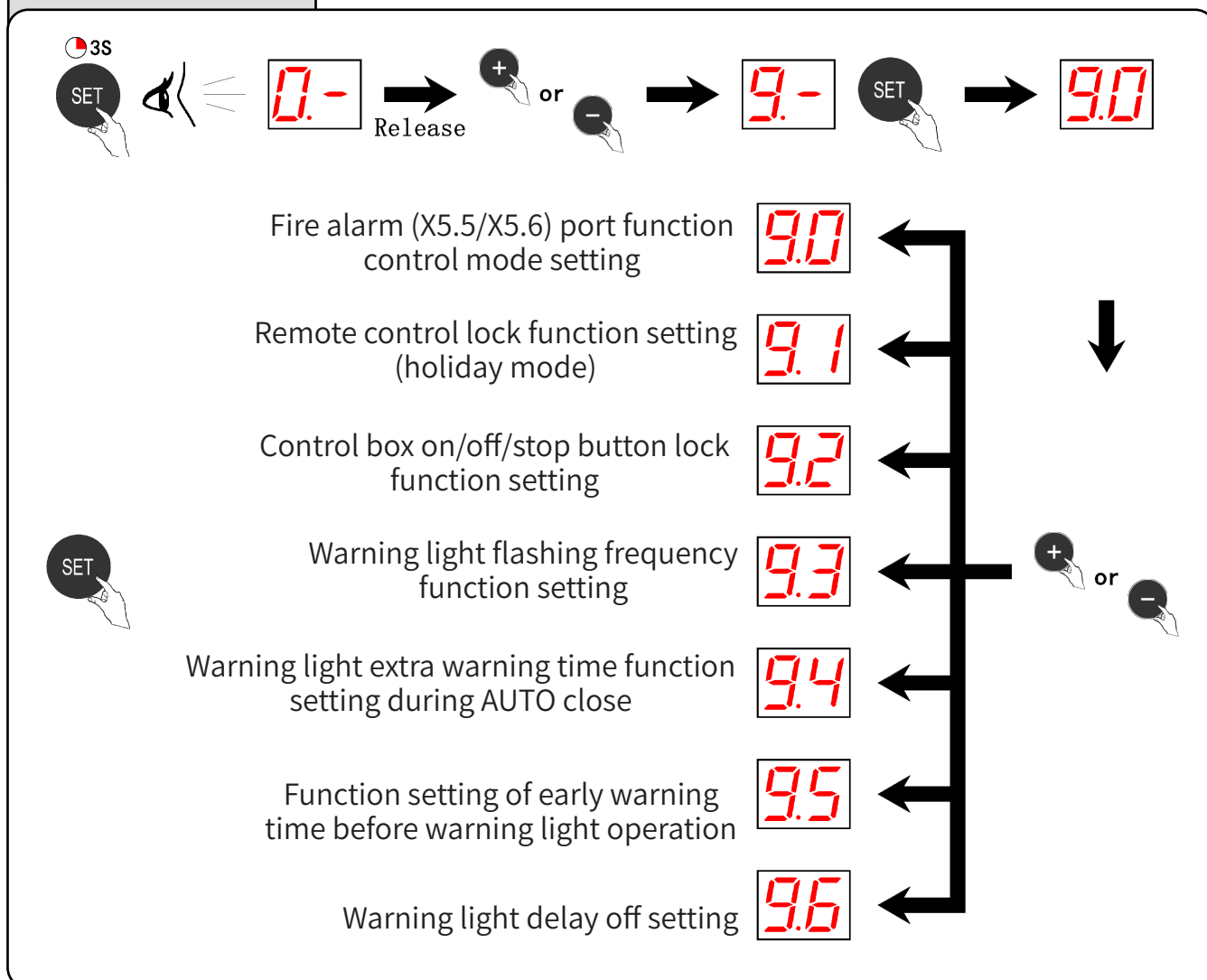
- ① The number of maintenance alarms cycles will not be cleared after the motor is restored to factory settings.
- ① After the maintenance of the door body is completed, the maintenance personnel need to re-enter the menu to set the maintenance alarm cycles, and the number of motor maintenance alarms cycles will start counting again.



9-

Menu 9: Other function settings of the motor

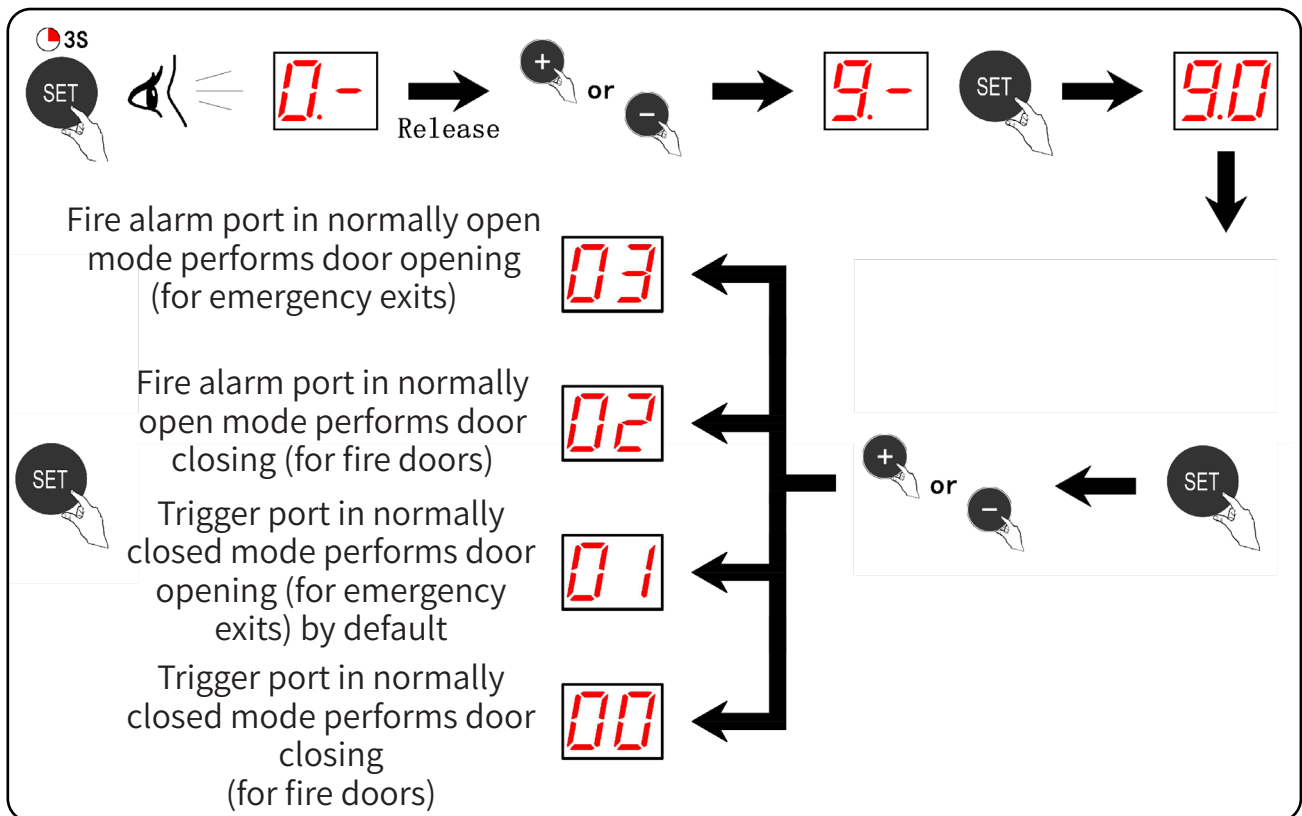
Function Guide



9.0

Fire alarm (X5.5/X5.6) port function control mode setting

① This function is used to change the door body operation after the fire alarm function is triggered. After the fire alarm triggers the door body action, only X7/X4/(X3.1/X3.2) can control the motor to stop, and other stop operation commands cannot stop the door body running.

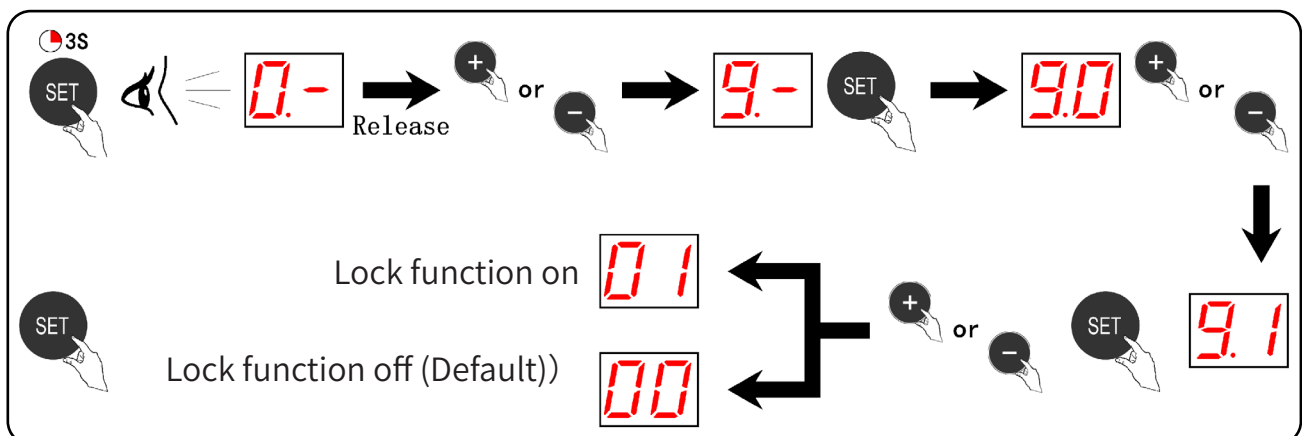


9.1

Remote control lock function setting (holiday mode)

① The remote controller control will be locked after the function is enabled. Can be unlocked and locked via this menu or the remote control receiver

① Displayed when the remote is locked **LF** , show when unlocked **FL** .

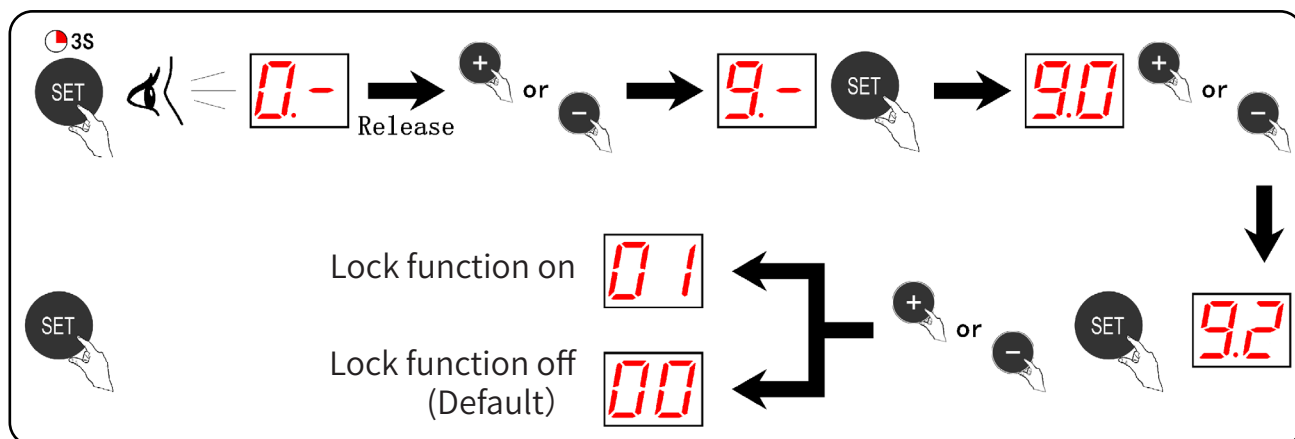


9.2

Control box open/stop/close (S1/S2/S3) button lock function setting

① After the function is enabled, the open/stop/close (S1/S2/S3) buttons of the control box will be locked. It can be set directly in the menu, or use quick operation settings (see general function quick setting instructions for details)

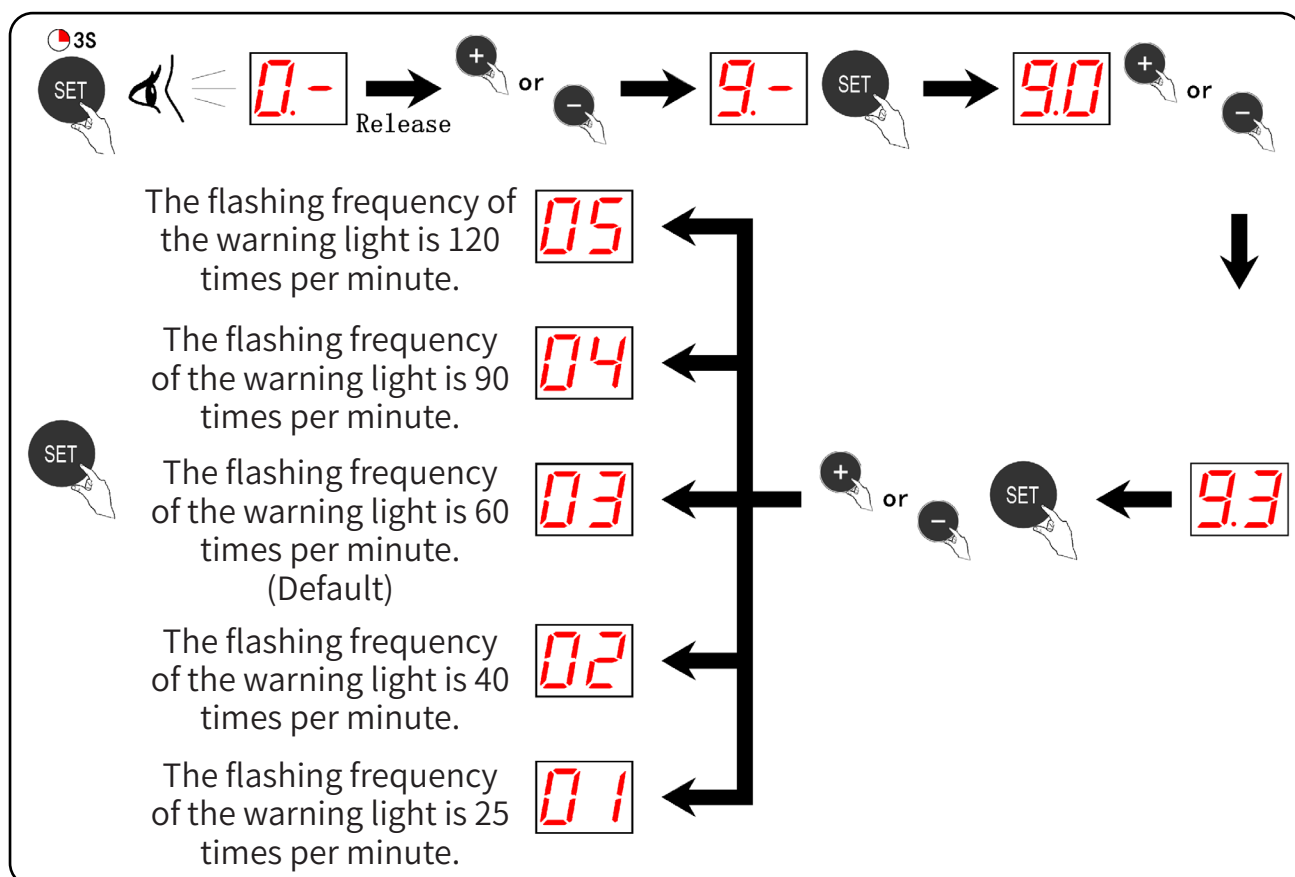
① Displayed when the control box keys are buttons **LL**, show when unlocked **UL**.



9.3

Warning light flashing frequency function setting

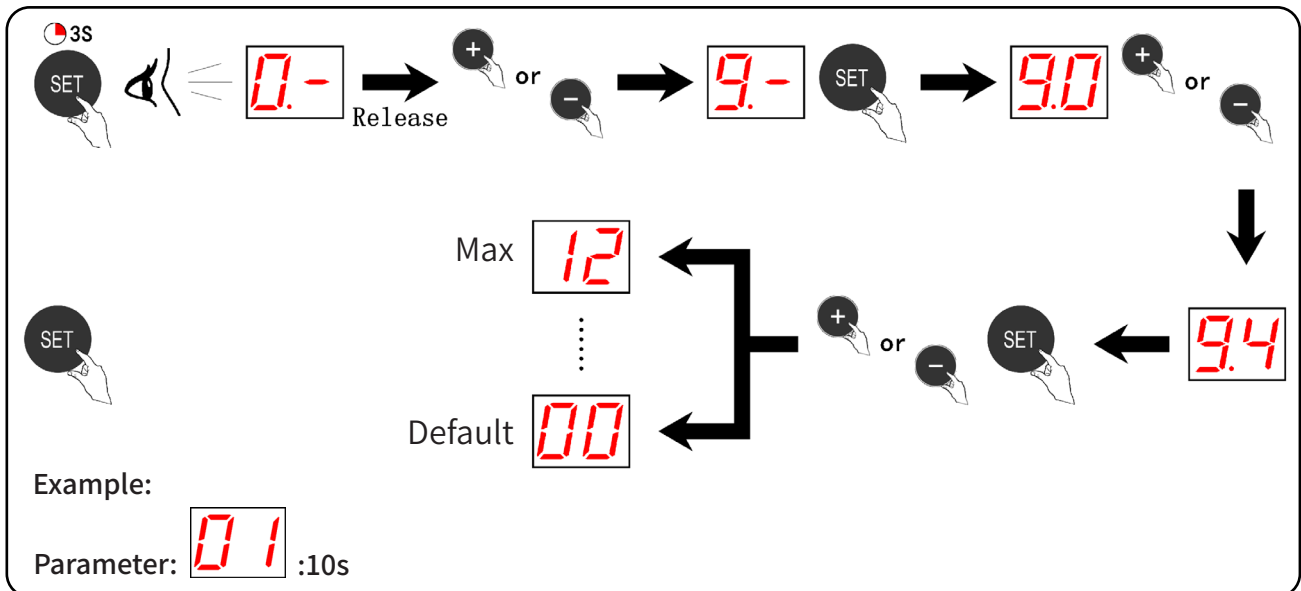
① This function is used to adjust the flashing frequency of the warning light.



9.4

Warning light extra warning time function setting during AUTO close

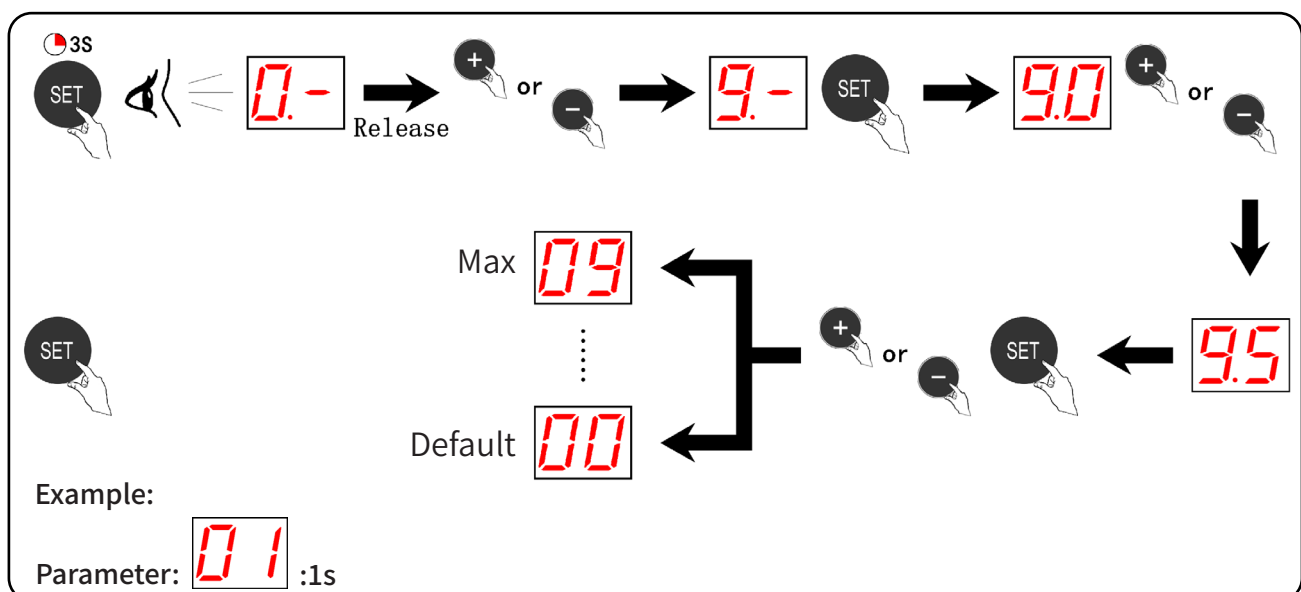
- ① The time setting range of this parameter is: 0 seconds-120 seconds ($X=n*10$ seconds).
- ① Before using this function, you need to turn on the 01-06 traffic light function in menu 6.4.
- ① To use this function, you need to enable the AUTO close function in menu 4.0.



9.5

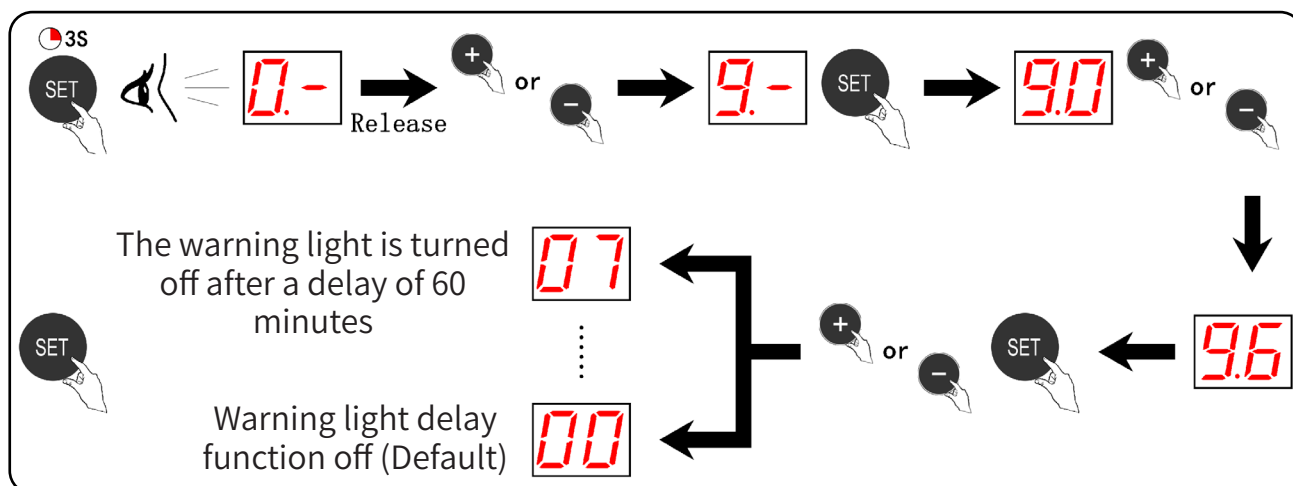
Function setting of early warning time before warning light operation

- ① The time setting range of this parameter is: 0 seconds-9 seconds.
- ① This menu is only visible after the warning light turns on the 01-06 traffic light function in menu 6.4.



9.6**Warning light LED off setting**

- ① This function is used to adjust the LED off time after the warning light reaches the close limit position.
- ① Before using this function, you need to turn on the 01-06 warning light function in menu 6.4..



00	The warning light LED off function is disabled. (Default)
01	The warning light LED off function is on.
02	The warning light turns off after a delay of 1 minute.
03	The warning light will be turned off after a 3-minute delay.
04	The warning light will be turned off after a 5-minute delay.
05	The warning lights are turned off after a 20-minute delay.
06	The warning lights are turned off after a 30-minute delay.
07	The warning light will be turned off after a delay of 60 minutes.



Menu A: Relay A function setting

① This menu is only visible if Relay A-X66 has enabled the Relay A-X66 function in menu 6.6.

Function Guide

3S



Release



or



Relay A-X66 traffic light function
Pre-warning time setting



Relay A-X66 traffic light function AUTO close
extra warning time setting



Relay A-X66 traffic light function
flashing frequency setting



Relay A-X66 traffic light function
LED off setting



Relay A-X66 activation zone function
setting above the close limit



Relay A-X66 activation zone function
setting below the open limit



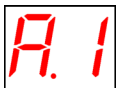
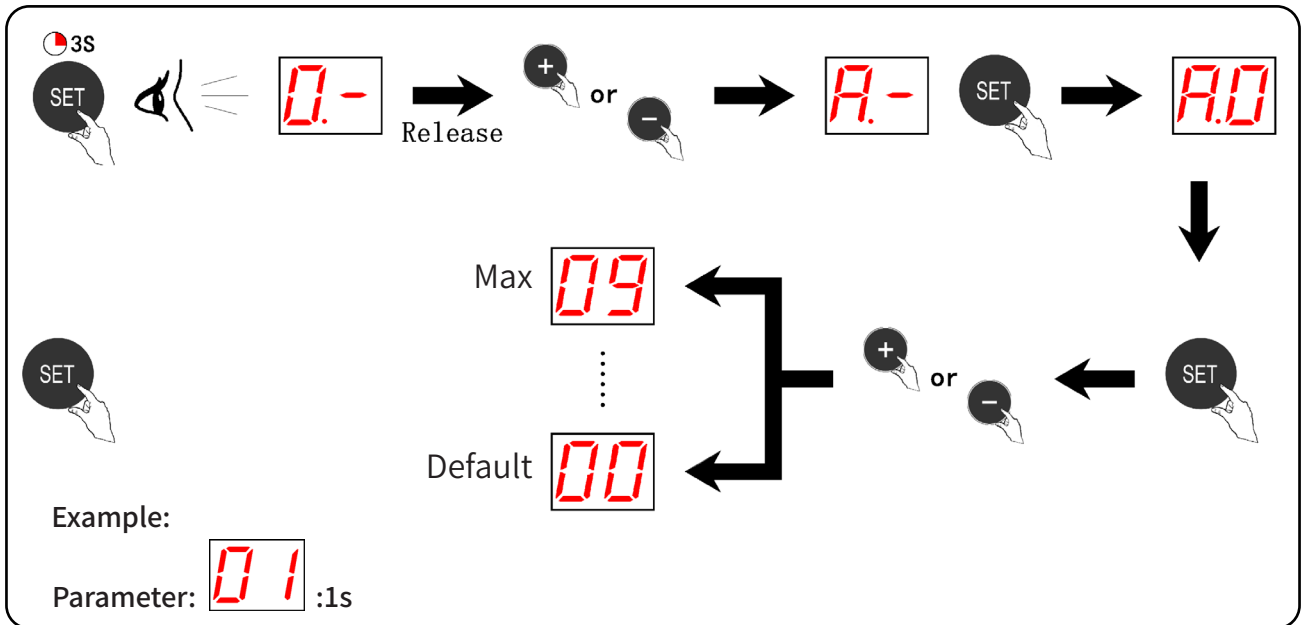
or





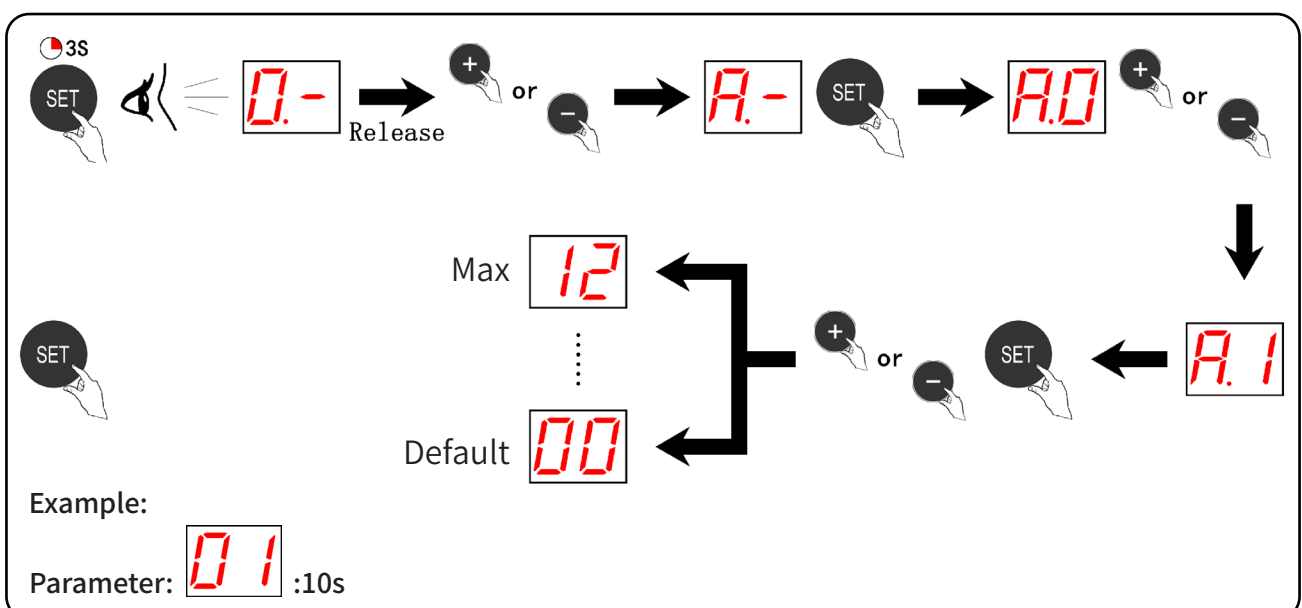
Relay A-X66 traffic light function Pre-warning time setting

- ① The time setting range of this parameter is: 0 seconds - 9 seconds.
- ① This menu is only visible when the relay A-X66 is enabled in menu 6.6 and the 01-06 traffic light function is enabled.



Relay A-X66 traffic light function AUTO close extra warning time setting

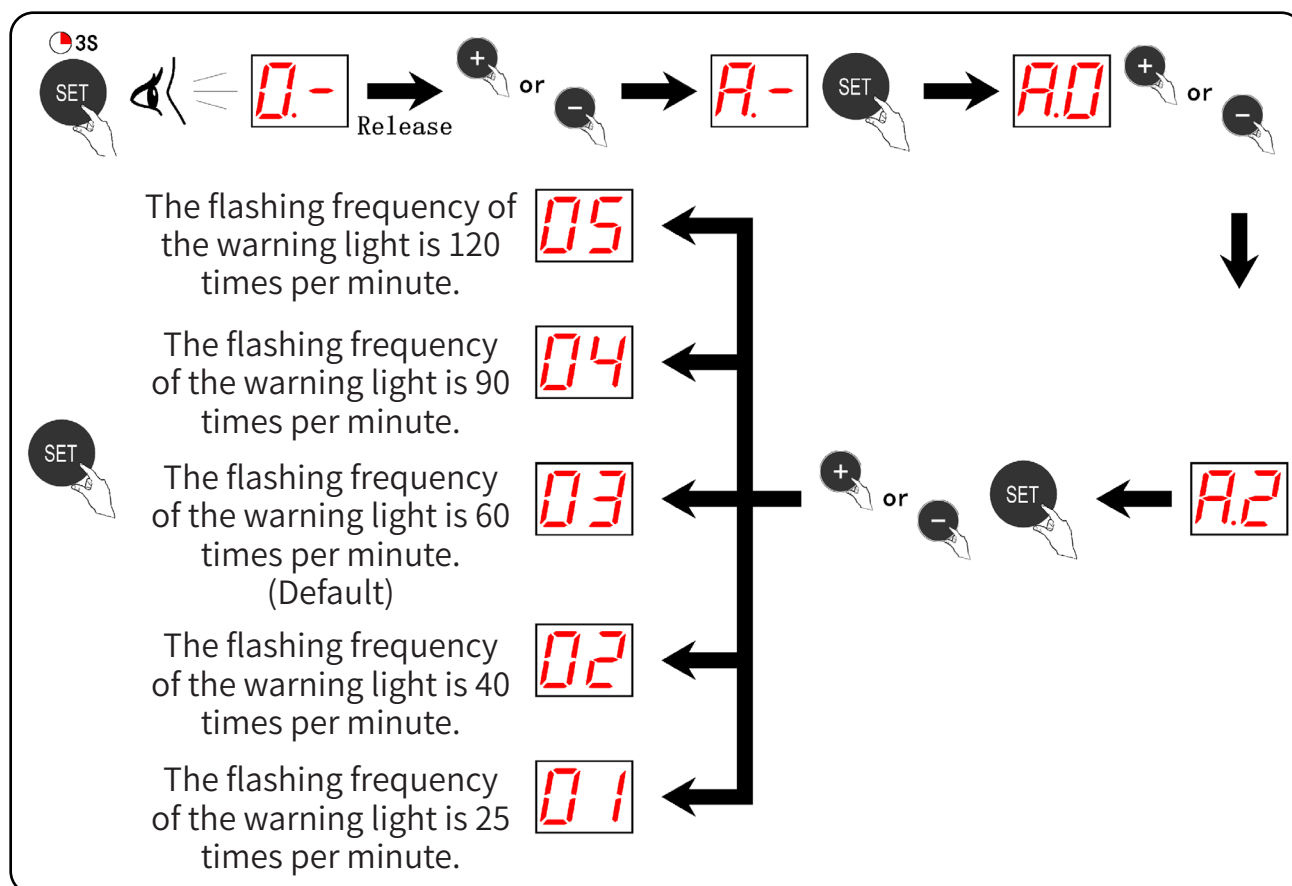
- ① The time setting range of this parameter is: 0 seconds-120 seconds ($x=n*10$).
- ① This menu is only visible when the relay A-X66 is enabled in menu 6.6 and the 01-06 traffic light function is enabled.
- ① To use this function, you need to enable the AUTO close function in menu 4.0.





Relay A-X66 traffic light function flashing frequency setting

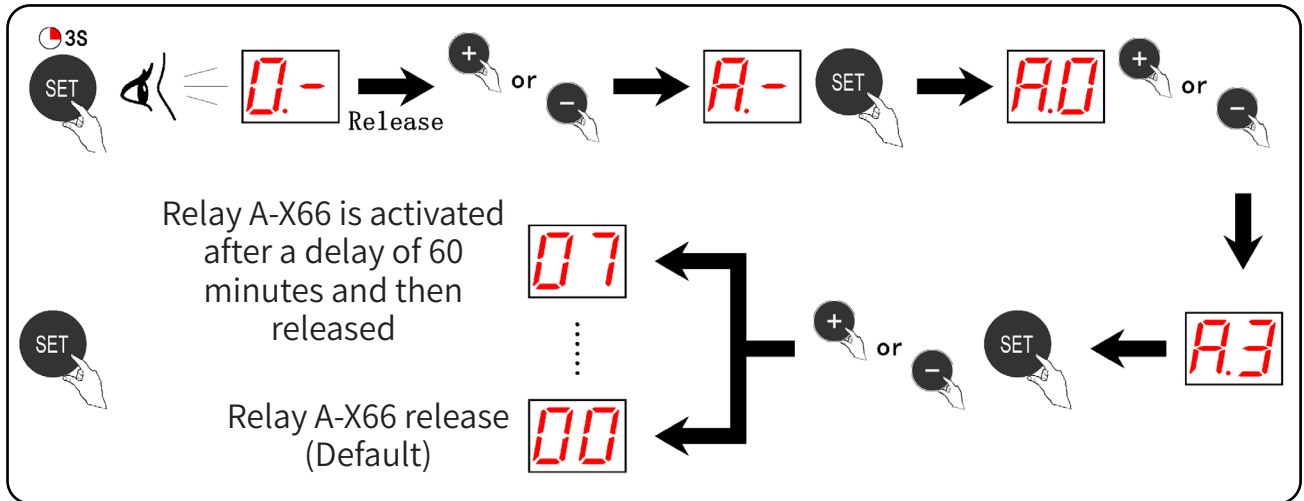
- ① This function is used to adjust the flashing frequency of relay A.
- ① This menu is only visible when the relay A-X66 is enabled on in menu 6.6 and the 01-06 traffic light function is enabled.



A.3

Relay A-X66 traffic light function LED off setting

- ① This function is used to adjust the delay release time after the relay A-X66 reaches the close limit.
- ① This menu is only visible when the relay A-X66 is enabled in menu 6.6 and the 01-06 traffic light function is enabled.

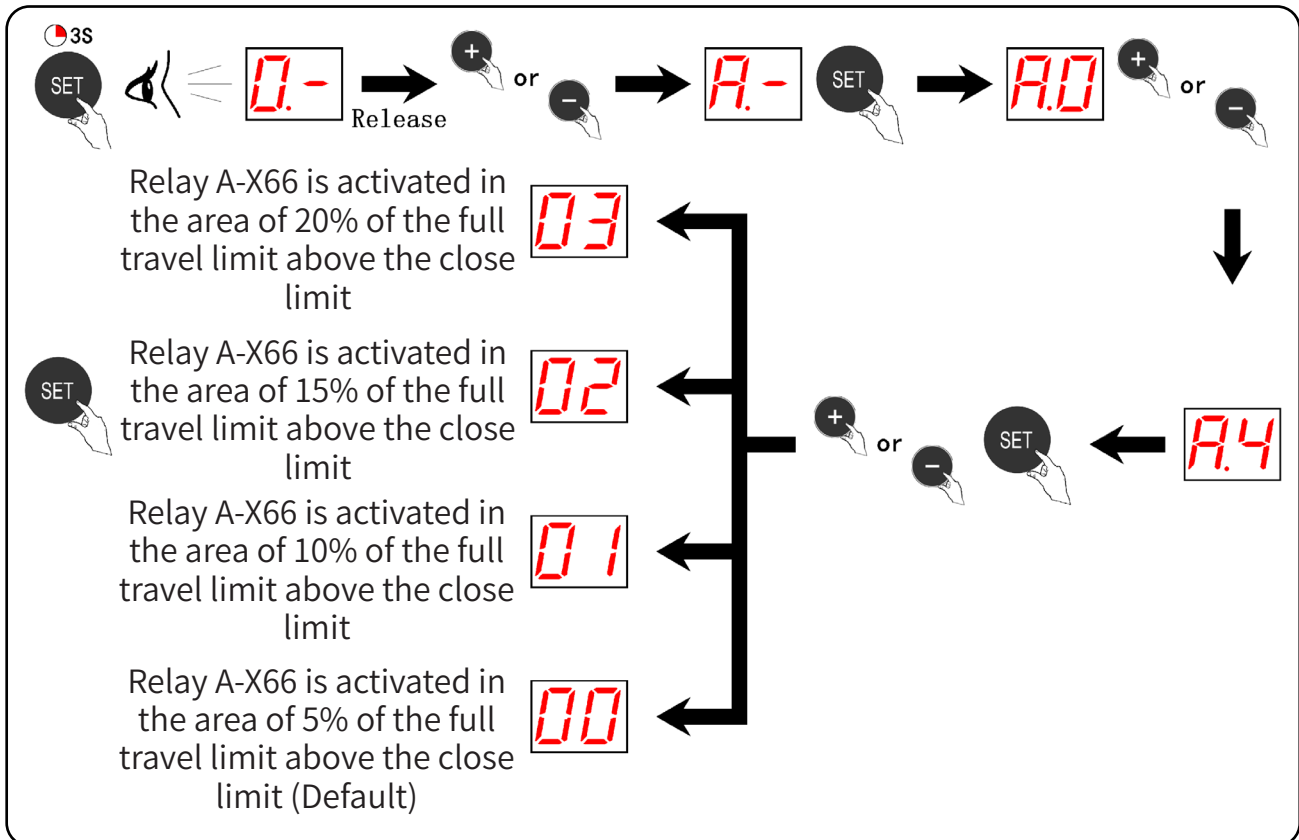


00	Relay -X66 released. (Default)
01	Relay -X66 is activated.
02	Relay -X66 is released after 1 minute delay activation.
03	Relay -X66 is released after 3 minutes of delayed activation.
04	Relay -X66 is released after 5 minutes of delayed activation.
05	Relay -X66 is activated after a delay of 20 minutes and released.
06	Relay -X66 is released after 30 minutes of delayed activation.
07	Relay -X66 releases after 60 minutes of delayed activation.

A.4

Relay A-X66 activation zone function setting above the close limit

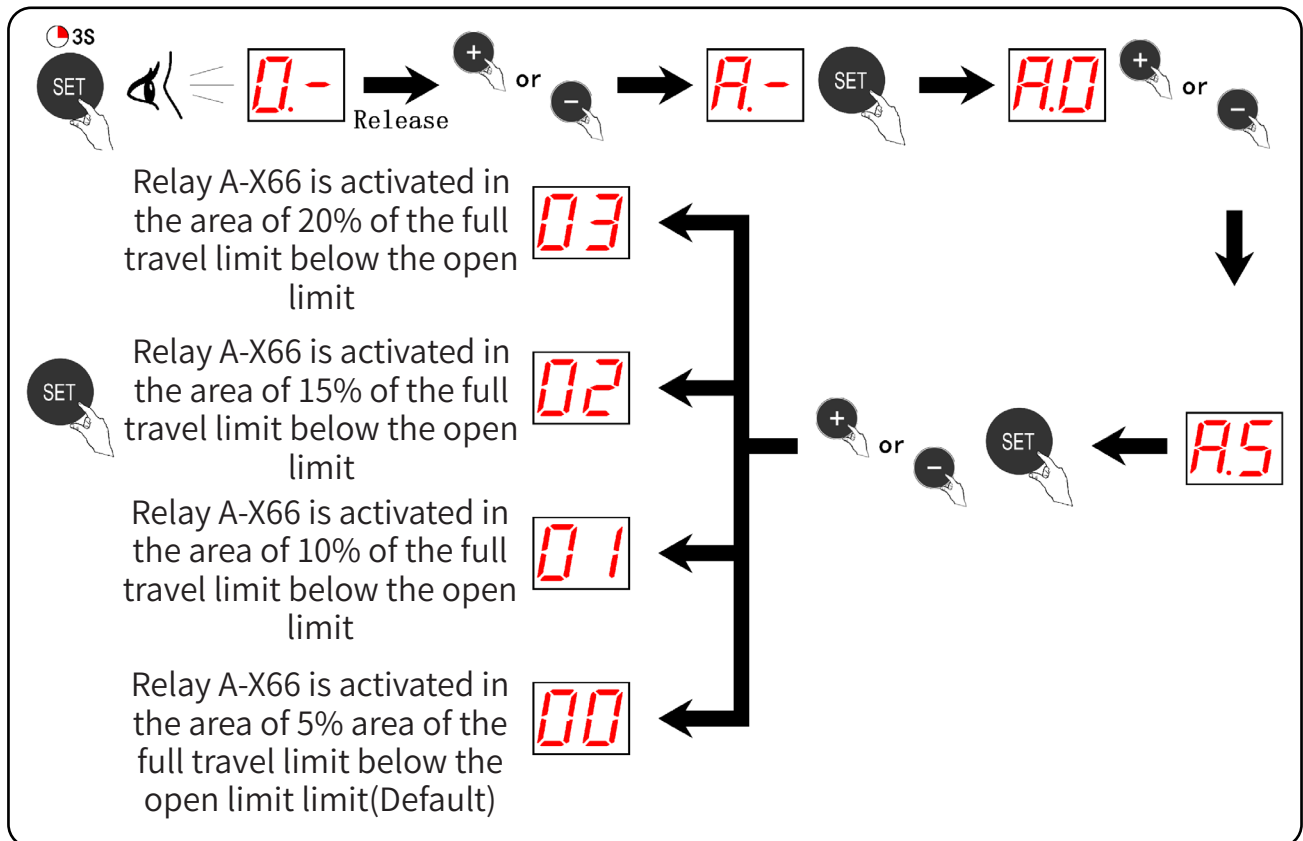
- ① This function is used to adjust the activation in the area above the close limit of relay A-X66.
- ① This menu is only visible after the relay A-X66 is enabled in menu 6.6 and the 30 function is enabled.



A.5

Relay A-X66 activation zone function setting below the open limit

- ① This function is used to adjust the activation in the area below the open limit of relay A-X66.
- ① This menu is only visible when the relay A-X66 is enabled in menu 6.6 and the 31 function is enabled.





Menu b: Relay b-X67 function setting

① This menu is only visible if relay b-X67 has enabled the relay b-X67 function in menu 6.7.

Function Guide

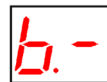
3S



Release



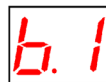
or



Relay b-X67 traffic light function
Pre-warning time setting



Relay b-X67 traffic light function extra
warning time setting during AUTO close



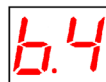
Relay b-X67 traffic light function
flashing frequency setting



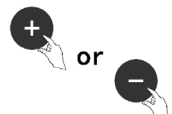
Relay b-X67 traffic light function
LED off setting



Function setting of activation area
above the close limit of relay b

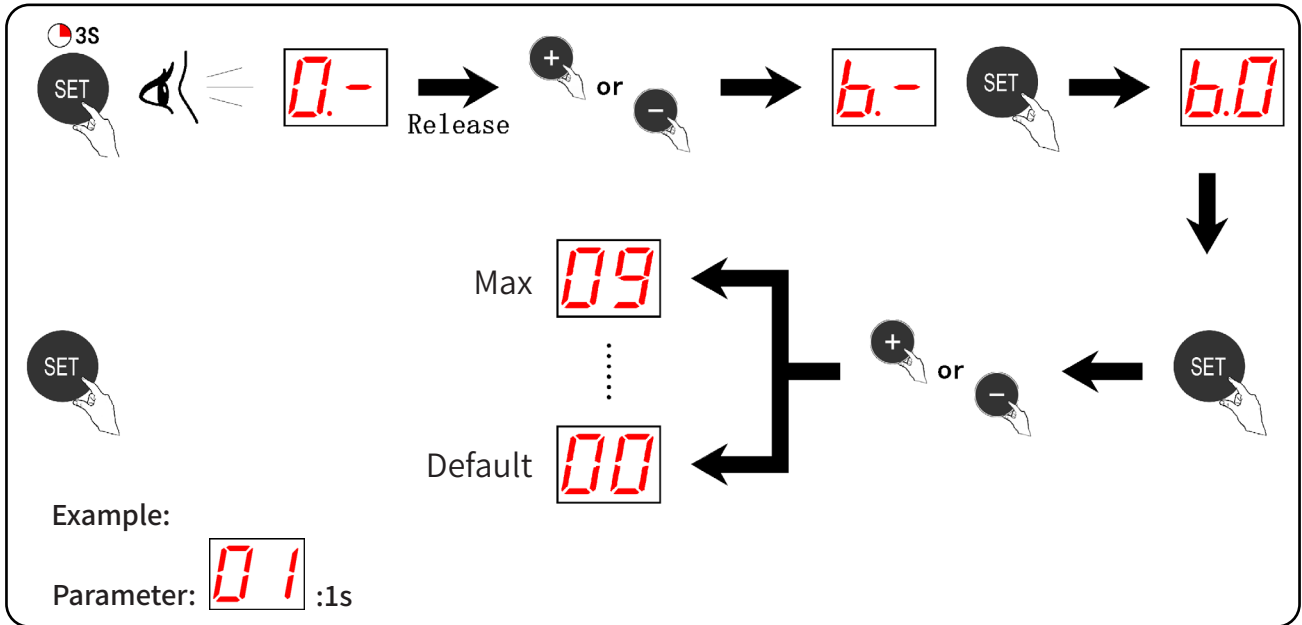


Relay b below the open limit
activates the area function setting

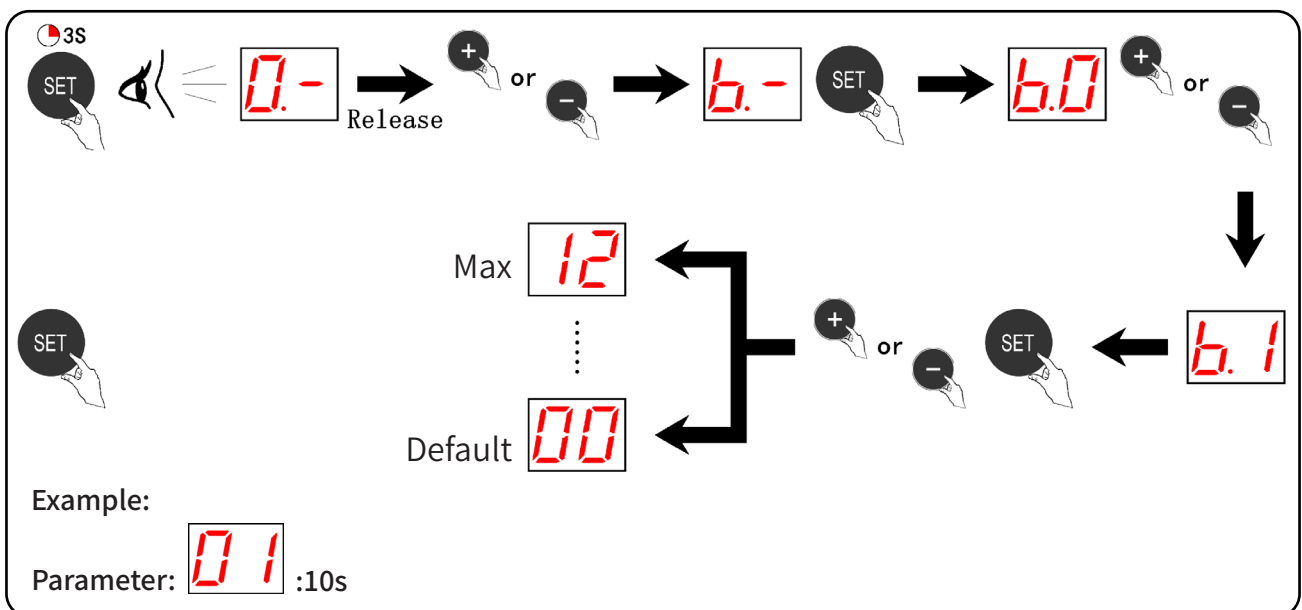


b.0**Relay b-X67 traffic light function Pre-warning time setting**

- ① The time setting range of this parameter is: 0 seconds-9 seconds.
- ① This menu is only visible after the relay b-X67 is enabled in menu 6.7 and the 01-06 traffic light function is enabled.

**b.1****Relay b-X67 traffic light function extra warning time setting during AUTO close**

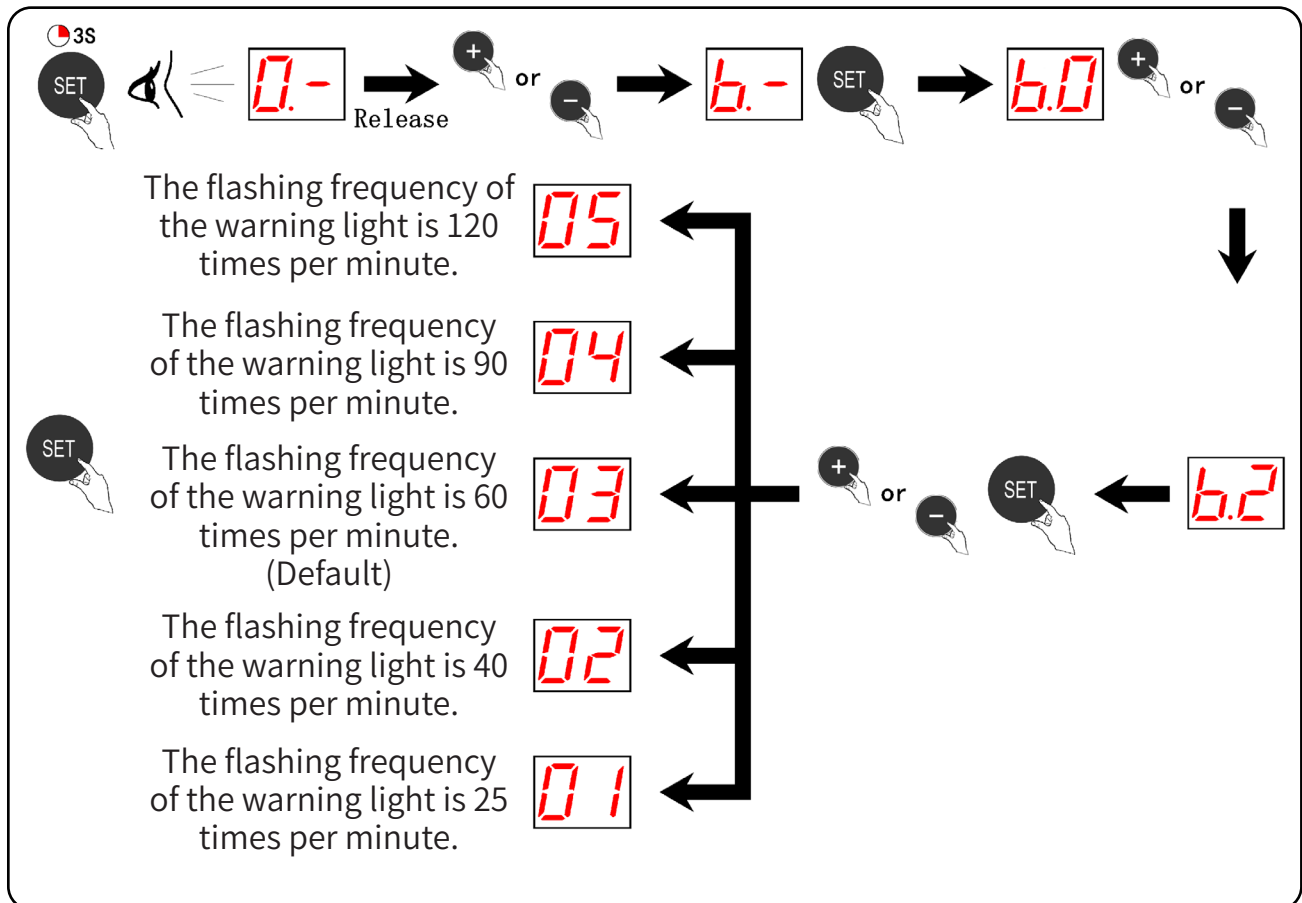
- ① The time setting range of this parameter is: 0 seconds-120 seconds ($x=n*10$).
- ① This menu is only visible when the relay b-X67 is enabled in menu 6.7 and the 01-06 traffic light function is enabled.
- ① To use this function, you need to enable the AUTO close function in menu 4.0.



6.2

Relay b-X67 traffic light function flashing frequency setting

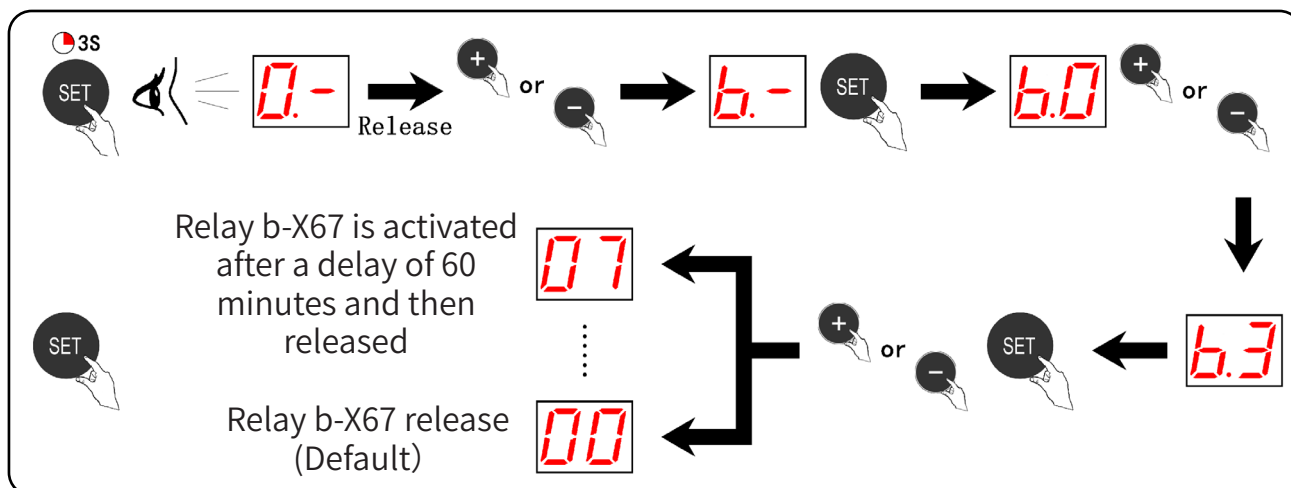
- i This function is used to adjust the flashing frequency of the relay b-X67.
- i This menu is only visible when the relay b-X67 is enabled on in menu 6.7 and the 01-06 traffic light function is enabled.



6.3

Relay b-X67 traffic light function LED off setting

- ① This function is used to adjust the LED off of relay b-X67.
- ① This menu is only visible when the relay b-X67 is enabled in menu 6.7 and the 01-06 traffic light function is enabled

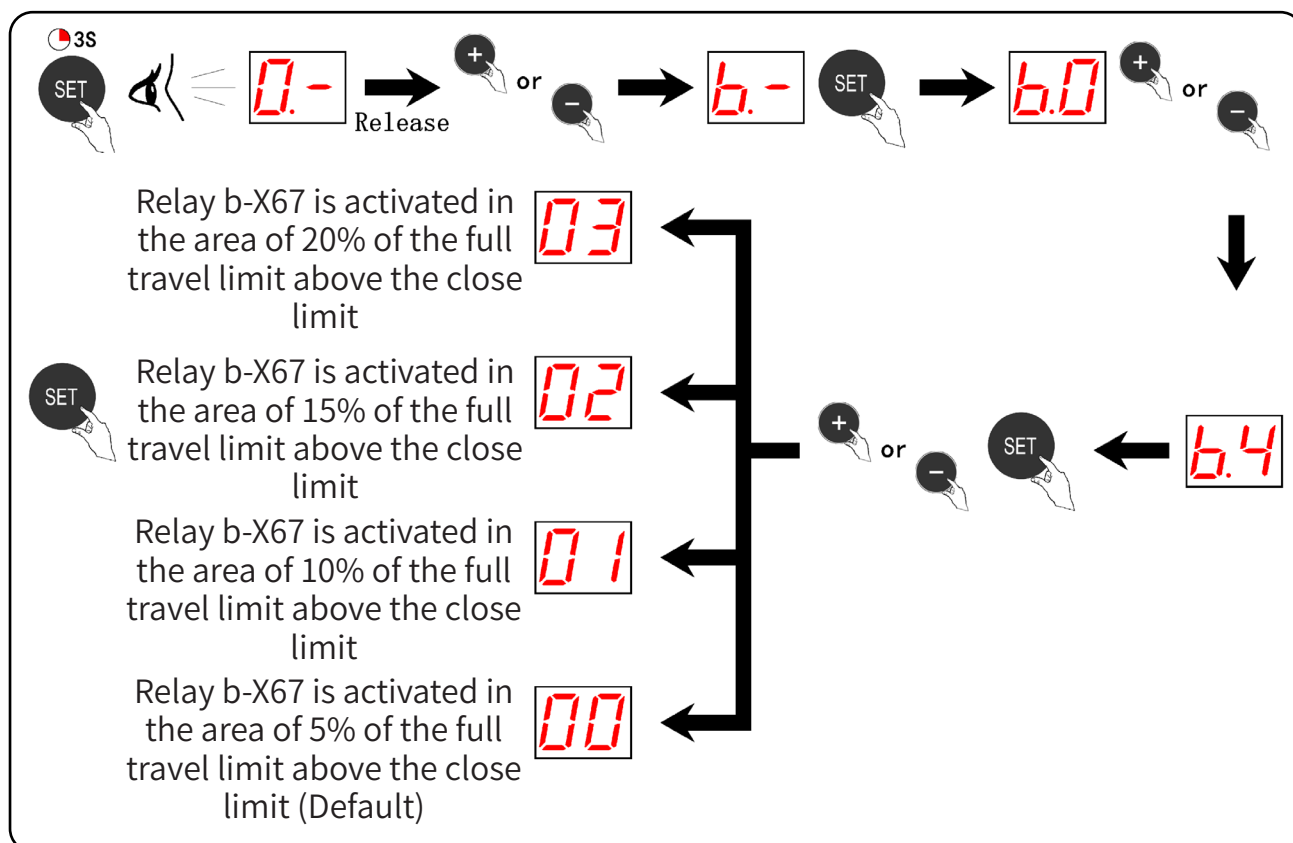


00	Relay b-X67 released. (Default)
01	Relay b-X67 is activated.
02	Relay b-X67 delays activation for 1 minute and then releases.
03	Relay b-X67 is released after 3 minutes of delayed activation.
04	Relay b-X67 is released after 5 minutes of delayed activation.
05	Relay b-X67 is released after 20 minutes of delayed activation.
06	Relay b-X67 is released after 30 minutes of delayed activation.
07	Relay b-X67 is released after 60 minutes of delayed activation.

6.4

Function setting of activation area above the close limit of relay b

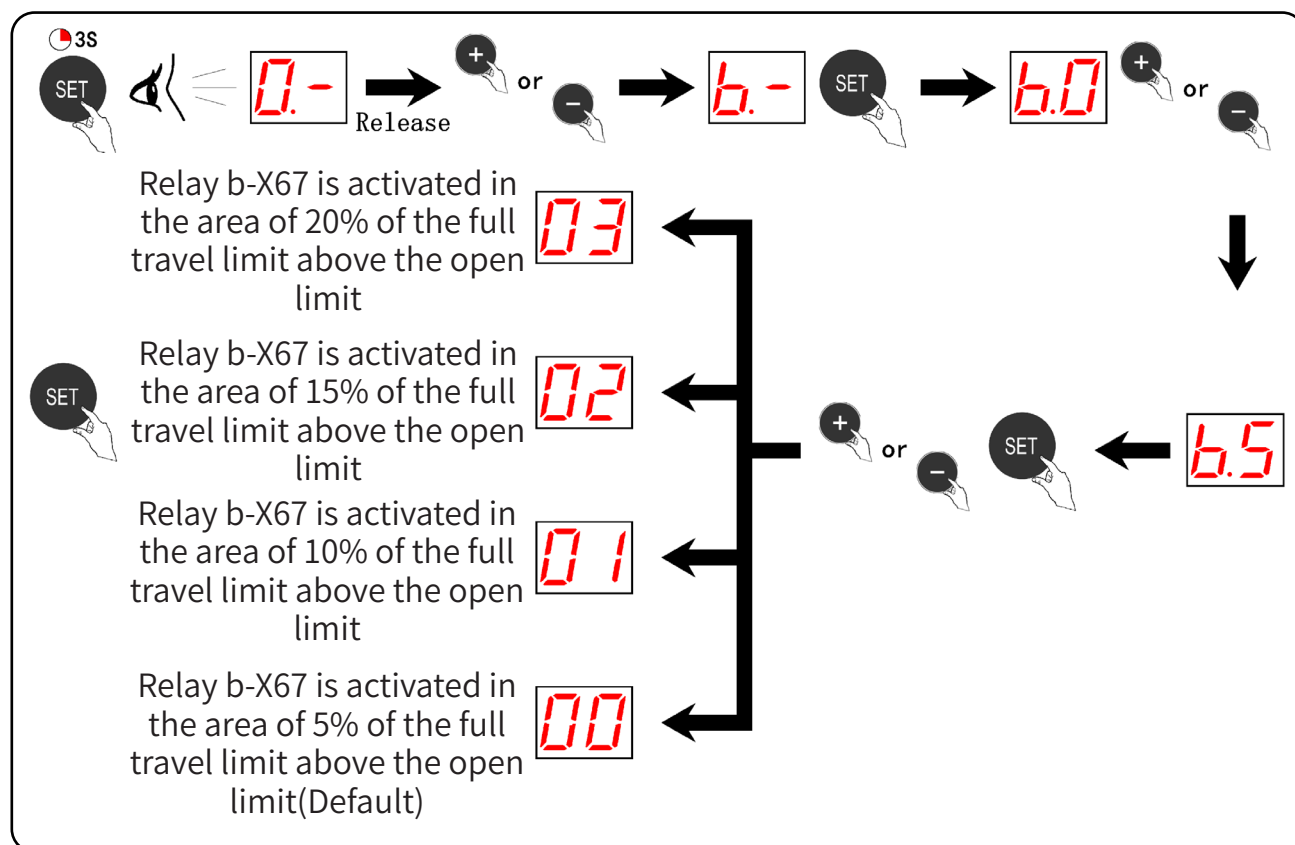
- i This function is used to adjust the activation of the area above the close limit of the relay b-X67.
- i This menu is only visible after the relay b-X67 is enabled in menu 6.7 and the 30 function is enabled.



6.5

Relay b below the open limit activates the area function setting

- ① This function is used to adjust the activation area below the open limit of relay b.
- ① This menu is only visible after the relay b-X67 is enabled in menu 6.7 and the 31 function is enabled.



15. Advanced Features

Loading and dock leveler function--53 functions in relay A-X66/b-X67

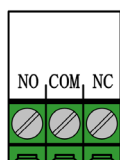
! For use with dock levelers only.

① Parameter 53 is used in conjunction with the dock leveler, which can only be operated with the door fully open.

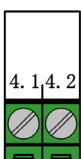
53	Loading platform function - fully open	The relay establishes communication with the dock leveler. Doors are fully open during dock leveler operations.
----	--	---

Connecting Leveler Controls - Door Controls	Connection instructions
Relay output (X66/67 port)	1. The relay output of the door control device is connected to the stop port of the dock leveler controller (A). When the door is at the open limit, the control device will release the loading and unloading platform to stop. In other states, active dock leveler stopped.
Dock leveler stop input	2. The dock leveler's external relay (B) is connected to the stop port of the door control. For example X4-4.1/4.2 ! Emergency stop devices such as door controls must be locked when the dock leveler is not in the idle position.
Parameter 53 - Working principle of dock leveler	
1. When the door is closed (The dock leveler cannot be locked by releasing the relay A-X66/b-X67 of the door control device). 2. The door is opened to the open limit position (when the door is fully opened, the relay A-X66/b-X67 is activated, and the dock leveler is unlocked and can be operated). 3. The dock leveler moves to the operating position (the door control device will be locked by the loading and unloading platform controller B, and the door cannot operate).	

X66/X67



X4



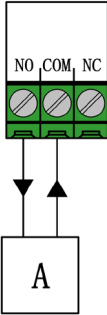
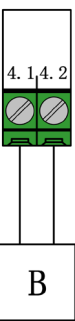
4. The dock leveler moves to the idle position (the door control device will be released by the loading and unloading platform controller B, and the door can be closed).
5. When the dock leveler stops at the idle position, the door control device will not be locked by the loading and unloading platform controller B at this time, and the door can be operated.
6. The door is closed, and the loading and unloading platform cannot be operated by locking the loading and unloading platform through the relay X17.

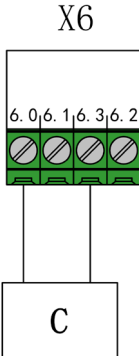
Dock leveler function--54 functions in relay A-X66/b-X67

! For use with dock levelers only.

① Use parameter 54 in conjunction with a leveler that can only be operated with the doors fully open.

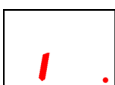
54	Dock leveler function - partial open	The relay establishes communication with the dock leveler. Doors are in the partial open position when the leveler is in operation.
----	--------------------------------------	---

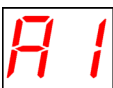
Connecting Leveler Controls - Door Controls	Connection instructions
Relay output (X66/67 port) X66/X67  X4  Leveler stop input	1. Connect the relay output of the door control unit to the stop port of the dock leveler controller (A), the control unit will release the dock leveler when the door is in the partial open position. 2. Connect the dock leveler's external relay (B) to the stop port on the door control. For example X4-4.1/4.2 ! Door controls must be locked when the dock leveler is not in the idle position.

Middle position output 	3. The external relay (C) of the dock leveler is connected to the terminal X6-6.0/6.3 of the door control device. ! Relay C must remain active when the dock leveler is not in the idle position.
Parameter 54 - Working principle of dock leveler 1. When the door is closed (the dock leveler cannot be locked by releasing the relay A-X66/b-X67 of the door control device). 2. Open the door to the partial open position (when the door is in the partial open position, the relay A-X66/b-X67 is activated, and the dock leveler can be released to run). 3. The dock leveler moves to the operating position (the loading and unloading platform is in the operating position, and the door control device will be locked by the dock leveler relay B). 4. The dock leveler moves to the working position, the dock leveler relay C is released, the global partial opening function is canceled, and the door can be opened to the open limit. 5. When the door is opened to the open limit, the relay A-X66/b-X67 of the door control device is released to lock the dock leveler and cannot move. 6. Close the door to the partial open position. 7. The dock leveler moves to the idle position (the door control device will be locked by the dock leveler controller B, and the door cannot operate) 8. When the door is closed to the close limit, the door control device relay A-X66/b-X67 is released to lock the dock leveler and cannot move	

16.Control System Running Display Code

Display information	
	No travel state, can run in long press mode
	With travel limit status display
	Open limit learning status display
	Close limit learning status display
	Door open display
	Closed door operation display
	Partial open door trigger/Whole partial open door trigger standby display
	Built-in track infrared learning display in menu 5.0
	X5.3/X5.4 Photo beam ports are triggered
	X2.4/X2.3 ports are triggered
	X3.2/3.3 safety edge conductive strip is triggered
	X3.2/3.3 safety edge DW is triggered by the port

Display information	
	X3.2/3.3 optical safety sensor edge is triggered
	X3.2/3.3 safety edge DW self-test failure fault
	X5.5/5.6 Fire alarm function port are triggered
	After the number of maintenance alarms cycles in menu 8.0 is reached, it will be displayed every time
	Remote control lock function display
	Remote control unlock function display
	Control box key function lock display
	Control box button function unlock display
	Wireless device code pairing display
	Wireless photo beam is triggered
	Wireless slack rope switch is triggered
	Wireless wicket door switch is triggered

Display information	
	Wireless E-Lock is triggered
	Wireless safety edge is triggered
	Wireless E-Lock device communication failure
	Wireless safety edge device communication failure
	Wireless photo beam device communication failure
	Wireless photo beam device battery is low
	Wireless E-Lock device battery is low
	Wireless safety edge device battery is low
	Wireless wicket door device battery is low

17.Control System Fault Codes

Fault display code	Problem Description	Solution
	There is no change in position data during operation	The door is blocked, check the blocked point The running speed of the door body is too slow, adjust the running speed of the door opening and closing Motor limit structure failure, replace the motor
	Encoder chip data failure	Replace the encoder
	Limit and encoder communication failed	There is some interference in the operation site. Eliminate the source of interference on site and execute the control operation again The communication cable is broken, replace the communication cable Encoder failure Control system failure replacement control system accessories
	Limit module not detected	Encoder failure and replacement of encoder accessories Encoder wire connection, replace the 10-core wire The limit system is faulty, replace the control module
	X4.1/4.2 Slack rope switch port is triggered	Check the status of the steel wire rope on the door body, and then run it after repairing
	X3 safety edge port not connected	Without the safety edge device installed, the door operator can only execute the deadman mode, and it must be connected to the safety side device correctly

Fault display code	Problem Description	Solution
	1. Appears when the travel limit is set, and the motor does not operate, press SET to appear 2. Over-limit coordinates appear during standby operation 3. Appears when the built-in infrared coordinate setting condition is not at the Open limit, or appears when both are built-in infrared 4. When the automatic door is closed this time, the door closing prompt cannot be performed due to related failures or dead man mode DW.	According to the operation instructions, after the relevant conditions are met, perform the operation setting
	Chain hoist assy port, or motor temperature is too high	Check whether the chain hoist assy is triggered, check whether the temperature of the motor is too high, AC drive the motor, and check whether the MOT port is connected to the motor
	Communication failure between the control system and the limit system	Occasional failure of communication interference, re-execute the operation, failure of the connection line between the control system and the limit system, replace the connection line again, or replace the control system
	The travel limit setting failed, the distance is too short, or the limit is exceeded	Reset itinerary
	Pass door port(X 5.1/5.2)triggers emergency stop	Check the pass door switch
	The motor wiring sequence is reversed	Adjust the UVW cable sequence of the MOT port
	X7 emergency stop port is triggered	Emergency stop button is pressed
	Motor Running Current Overload	1.Check the door for any jamming points. 2.Maintain the door in a properly balanced state. 3.Replace with a higher-power motor.