



Commercial swing door operator



SERIES

SW 200

Installation Manual

Safety Guide	2
Technical Data	3
Components	4
Installation	6
Installation (Pull Arm)	7
Installation (Push Arm)	10
Programming and Set up	13
FAQ	20

WARNING

Please read this manual carefully before beginning installation and for ensuring users are safe when using the door operator. Failure to follow correct procedures, could result in injury, and will void any warranty provided for this product

Instructions for ongoing use

For your safety and the safety of others, it is essential to follow these instructions carefully. Please retain these instructions for future reference.

This door operator is not intended for use by individuals (including children) with reduced physical, sensory, or mental capabilities, or those lacking experience and knowledge, unless they are supervised or instructed in its use by someone responsible for their safety.

Children must be supervised to ensure they do not play with the door operator.
Do not allow children to operate fixed controls. Keep remote controls out of their reach.

Regularly inspect the door operator for signs of imbalance (where applicable), as well as wear or damage to cables, springs, and mounting components. Do not use the equipment if repairs or adjustments are required.

Ensure that the mains voltage is disconnected before performing cleaning or maintenance.
If the supply cord is damaged, it must be replaced by the manufacturer, their service agent, or a similarly qualified person to prevent hazards.

DO NOT turn on power if person or object is in the doorway or cut power when door is operational.
DO NOT attempt to disassemble gearbox from motor as main spring is under tension and could result in serious injury

If power fails you can manually open door, however be aware the mechanical closer will still operate.
Ensure the door is opening in the right direction.

Installation Instructions

Improper installation can result in serious injury. Follow all installation instructions carefully.

Please refer to Technical Data to ensure that operator model is suitable for the width and weight of the door

The installer must ensure that the temperature range marked on the drive is suitable for the intended location.

Before installing the drive, ensure that the driven part is in good mechanical condition, operates properly, and is correctly balanced (where applicable).

Stay clear of moving parts to avoid chance of crush injury.

Ensure that the mains voltage is disconnected from door operator unit during installation.

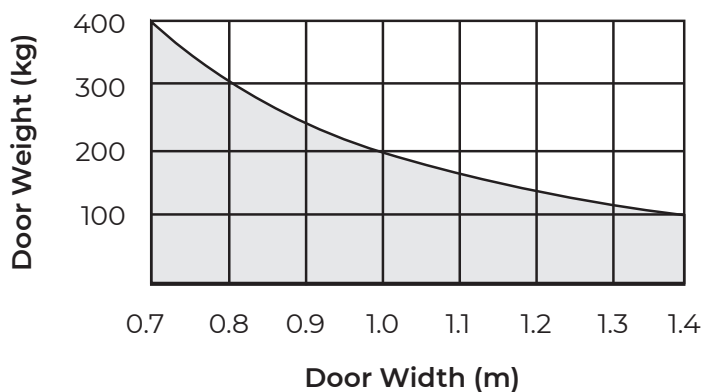
Input supply power is AC 220V. Ensure the ground wire is earthed.
Do not attempt to modify or repair any of the components of this product.
The 24V output is for the sensor. DO NOT use 12V for the sensor

After installation, verify that the mechanism is properly adjusted and that all safety systems, including any manual release mechanisms, are functioning correctly.

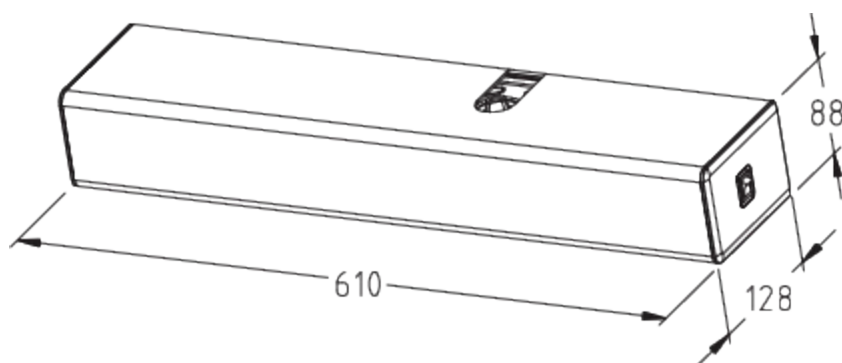
Technical Data

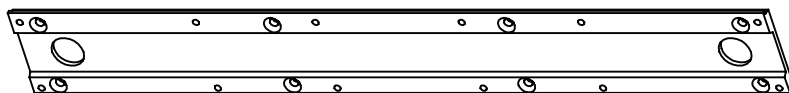
Supply power:	220VAC $\pm 10\%$, 50/60Hz
Power consumption:	100W (max)
Drive unit:	24V DC Motor, spring closer
Anti- press device:	STD
Open angle:	80°-100°
Opening time(speed):	3-7Sec . (adjustable)
Closing time(speed):	3-7Sec. (adjustable)
Hold-open time:	0.5-30Sec . (adjustable)
Drive arm:	pull arm(inward open) / push arm(outward open)
Environment temperature:	-20°C-45 ° C
Relative humidity :	$\leq 85\%$

Door width and weight

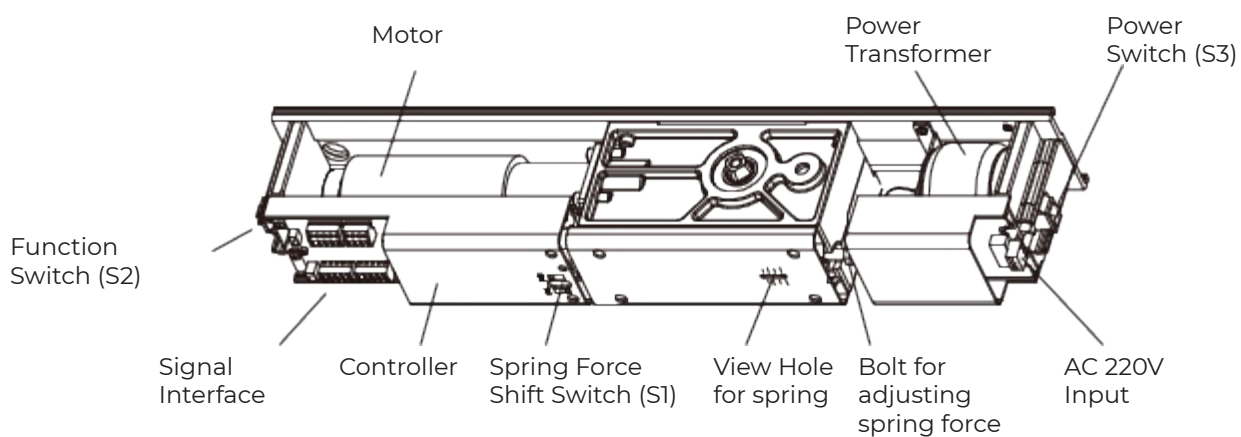


Product Dimension (mm)

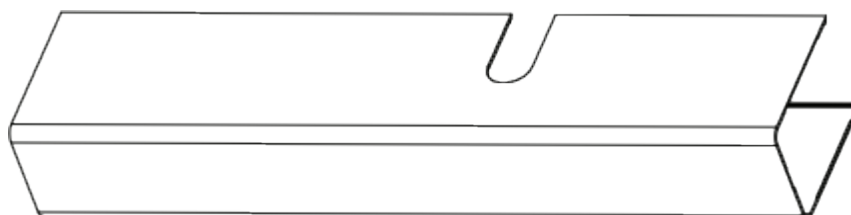




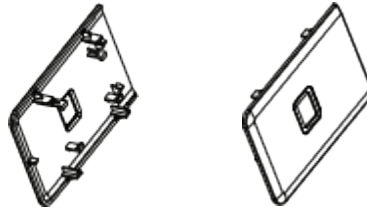
Base Plate



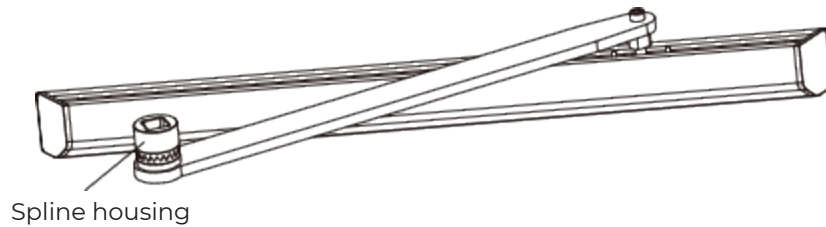
Drive Device



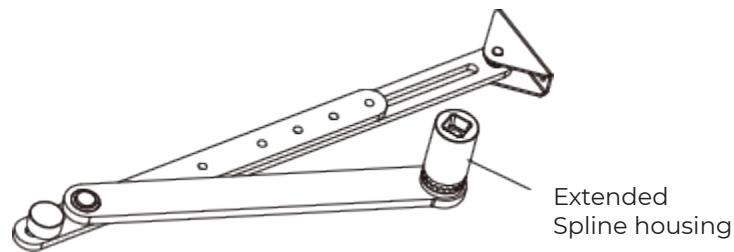
Cover



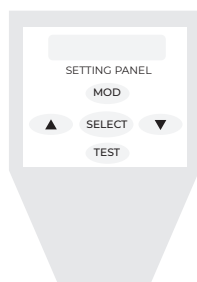
End caps (1 pair)



Pull arm (alternative with push arm)



Push arm (alternative with pull arm)



Hand programmer





Set Installation Mode

Find the Drive Selector switch (S1) on the Operator

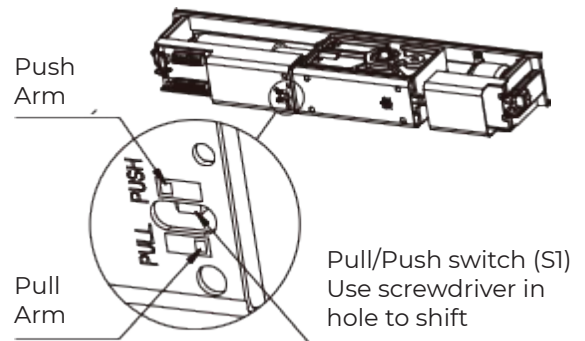
Choose Installation mode according to the operational orientation of the door

- Pull Arm : Inward opening
- Push Arm : Outward opening

Note

Default factory setting is for installation with a pull arm

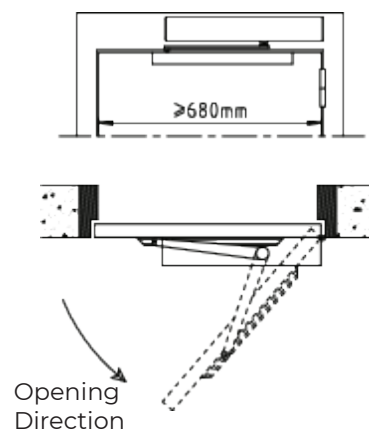
If incorrectly selected the operator will not work properly



Application of Pull arm mounting

For Inward opening doors

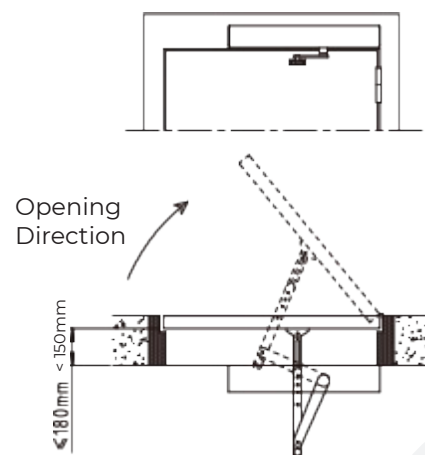
Minimum door leaf width is 680mm



Application of Push arm mounting

For Outward opening doors

The depth between the door face and the opposite wall should be less than 150mm





200SW

INSTALLATION MANUAL

4 Installation

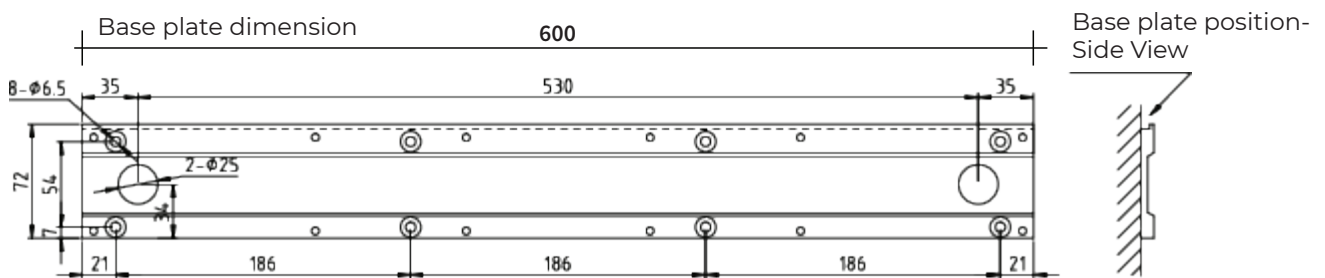
with Pull Arm

Installation with Pull Arm

1 Base Plate and Side rail

The installation of the end of the base plate is to be in line with the hinges and 55mm above the top of the side rail.

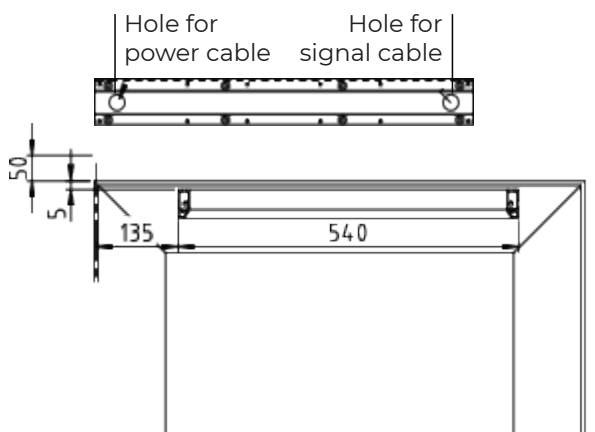
Insure base plate and side rail are level and parallel to each other



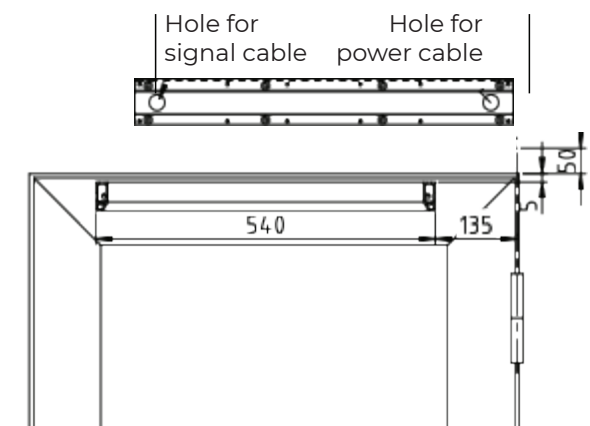
Ensure the mounting location for the base plate has sufficient structure and is aligned vertically

Additional structural strength or packing maybe required to ensure operator is level and secured sufficiently

The slide rail mounts 135mm from the hinged edge of the door and 5mm from the top edge



Pull arm Left hinge



Pull arm Right hinge

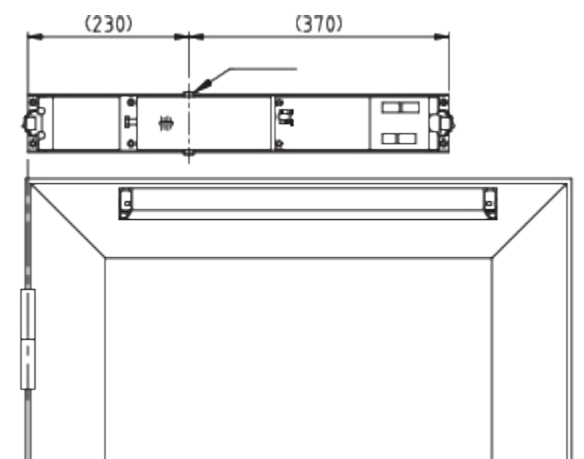
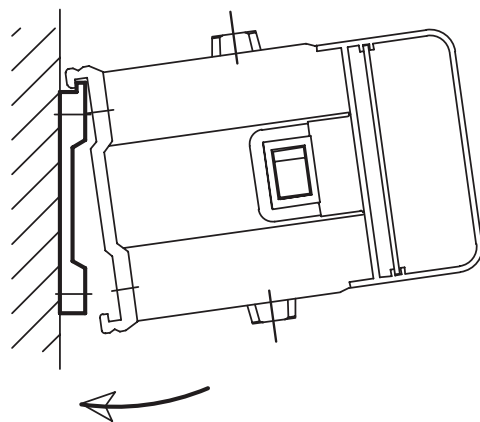


Installation with Pull Arm

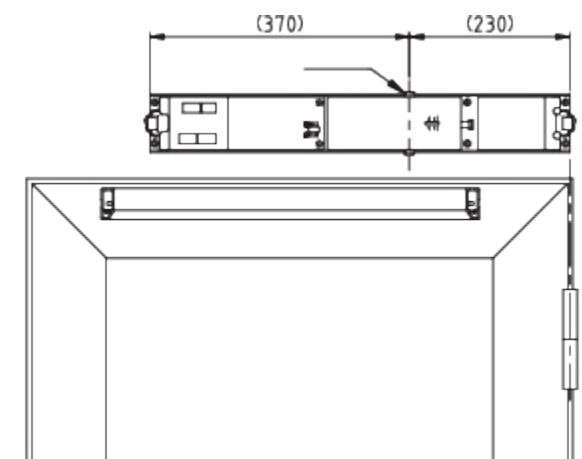
2 Drive Device

Position the drive device onto the base plate and tighten with the 8 M6 x 12mm screws.

The Power Switch aligns to the hinge side of the door



Pull arm Left hinge



Pull arm Right hinge



Installation with Pull Arm

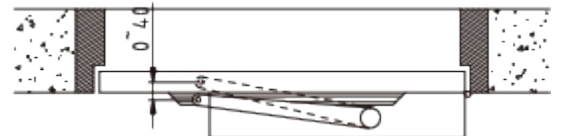
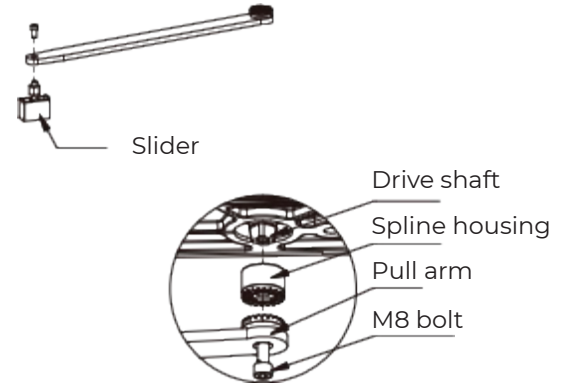
3 Install the Pull Arm

Temporarily remove the slider pull arm, (Take the right hinge as per assembly as an example), as per the diagram. Assemble to spline housing, and the pull arm to the drive shaft.

The Pull arm (shown by the dashed line), must be in the range of 0-40mm, if not remove and rotate the spline housing 90° on the drive shaft and test again until it meets the requirements.

Fasten the M8 bolts and tight torque to 15 Nm.

Finally place the slider back into the slide rail and reinstall the pull arm



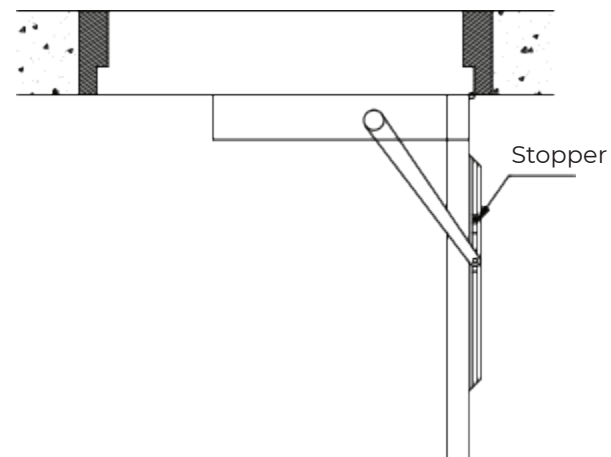
Position the stopper according to the actual full opening angle of the door. The full opening angle should be less than 100°, otherwise the spring reset mechanism in the drive may not be able to drive the door back to the closed position.

It can be tested by pushing the door to the fully open angle with the operator powered off.

The door leaf should be able to close slowly by itself.

Note:

If the door closes rapidly without resistance, this indicates that the setting of the pull/push arm shift switch (S1) is incorrect. See the page 6 relating to 'Setting the Installation mode'





200SW

INSTALLATION MANUAL

4 Installation

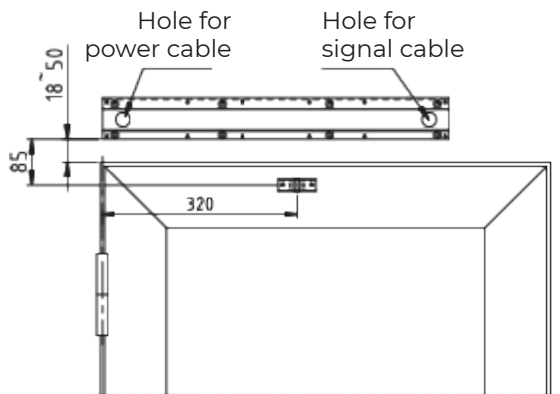
with Push Arm

Installation with Push Arm

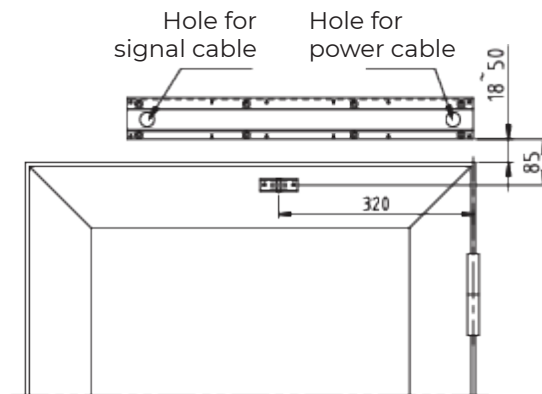
1 Base Plate and mounting position of push arm

The installation of the end of the base plate is to be inline with the hinge and 50mm above the top of the door.

Ensure that the base plate is level



Push arm Left hinge



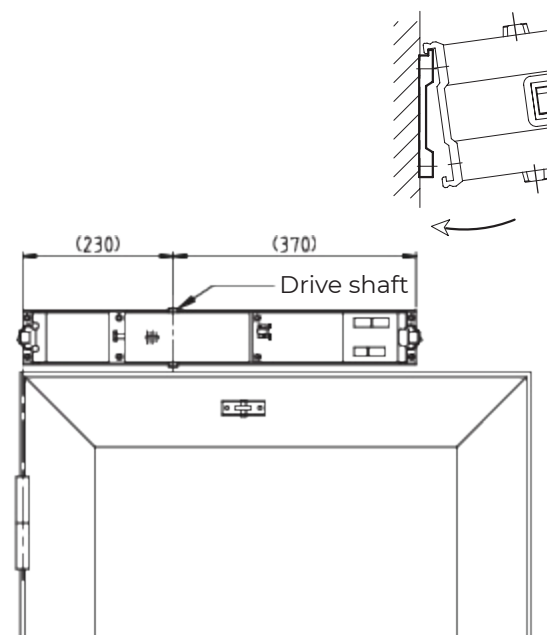
Push arm Right hinge

Ensure that the mounting location for the base plate has sufficient structural strength and that is aligned vertically with the operator
(Additional structural material or packing may be required to ensure operator is level and held securely.)

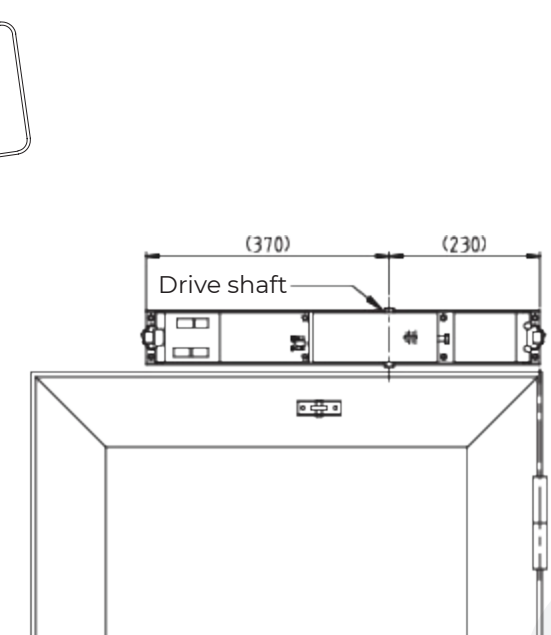
The Push arm mounts 320mm from the hinged edge of the door and 35mm from the top edge

2 Drive device

Hang the drive device onto the base plate and tighten with the 8 M6 x 12mm bolts
The Power switch aligns with the the hinge end of the door.



Push arm Left hinge



Push arm Right hinge





A-200SW

INSTALLATION MANUAL

4 Installation

with Push Arm

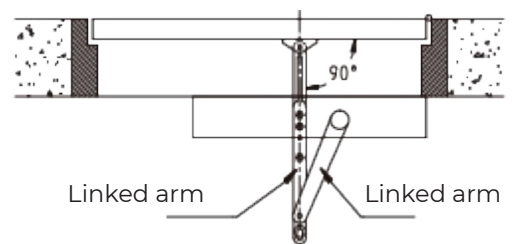
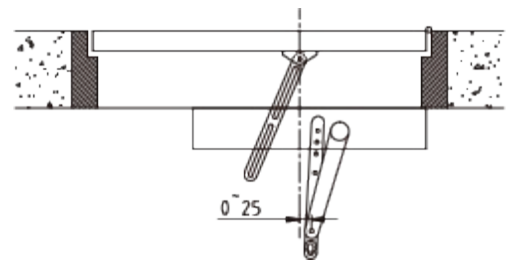
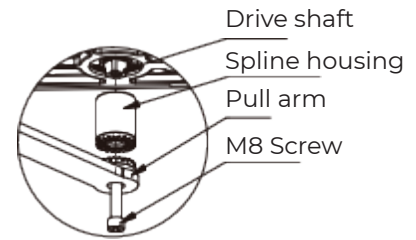
Installation with Push Arm

3 Install the Push Arm

Take the Right hinge assembly as an example, (refer to diagram), and assemble the spline housing, and the push arm to the drive shaft.

Check that the Push arm angle is within the range of 0-25°, if not, rotate the spline housing 90° relative to the drive shaft and test again until it meets the requirements.

Fasten the M8 screws and tight torque to 15 Nm.



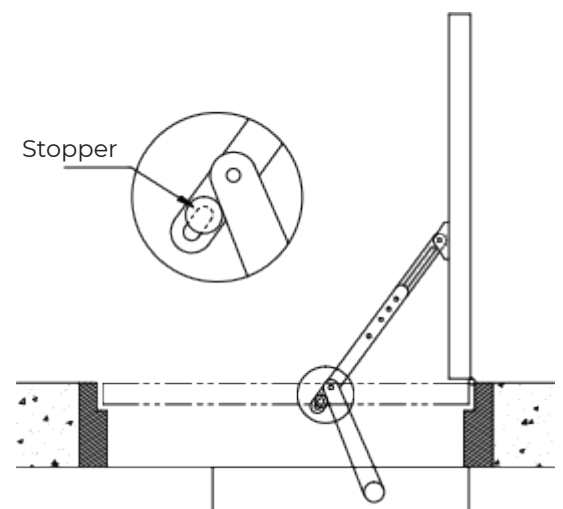
Install the linked arm and adjust the length of it so that it is perpendicular to the door and body at the closed door position.

Position the stopper when the door is in its full open position. The full opening position should not be more than 100°, otherwise the spring in the drive device may not be able to drive the door leaf back to the closed position.

It can be tested by pushing the door to the fully open position with the operator powered off. The door leaf should be able to close slowly by itself.

Note:

If the door closes rapidly without resistance this indicates that the setting of the Push/Pull arm shift switch (S1), is incorrect. Please refer to Page 6 and the 'Setting of Installation mode'.



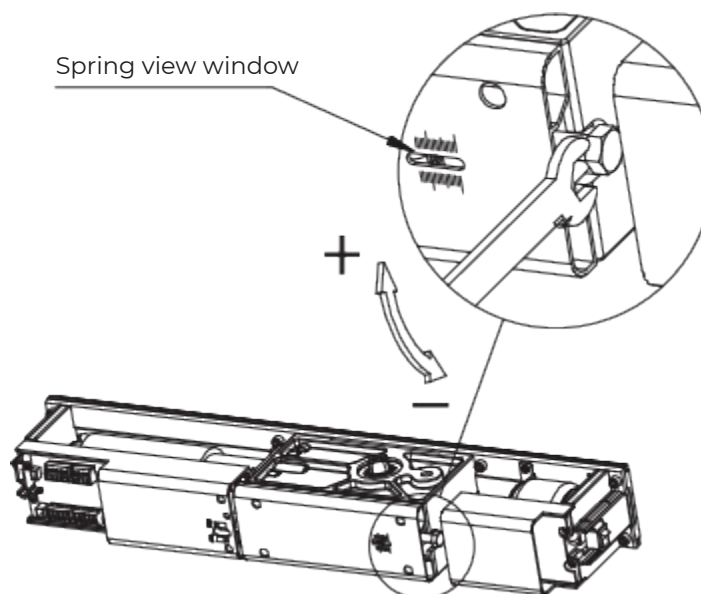


Installation with Push Arm

3 Adjust the Spring force

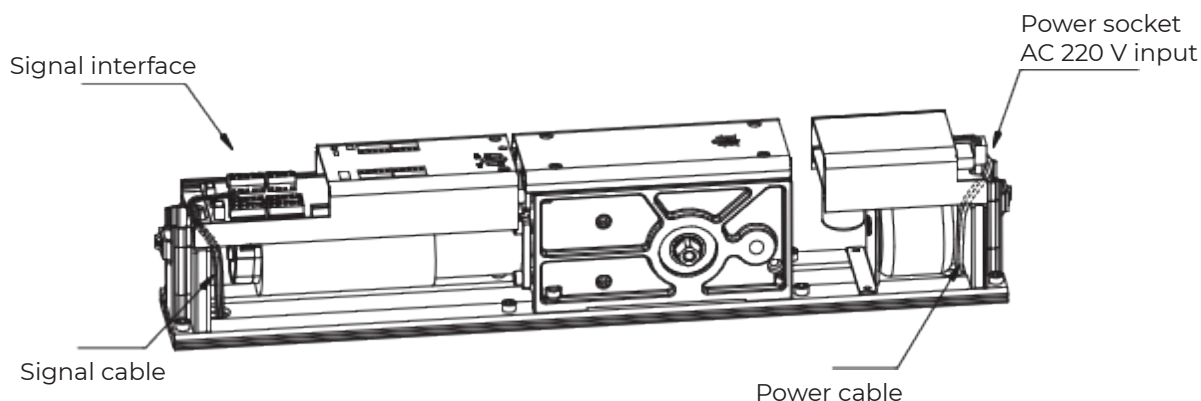
The preloading force of the spring in the operator is set to the minimum by default. During installation, the spring force can be increased according to the door weight and resistance, to allow the spring to close the door smoothly. Check that the force is not too strong, as during a power failure you should be able to open the door manually.

Adjusting the tensioning screw in the clockwise direction increases the closing force.



4 Cable connection

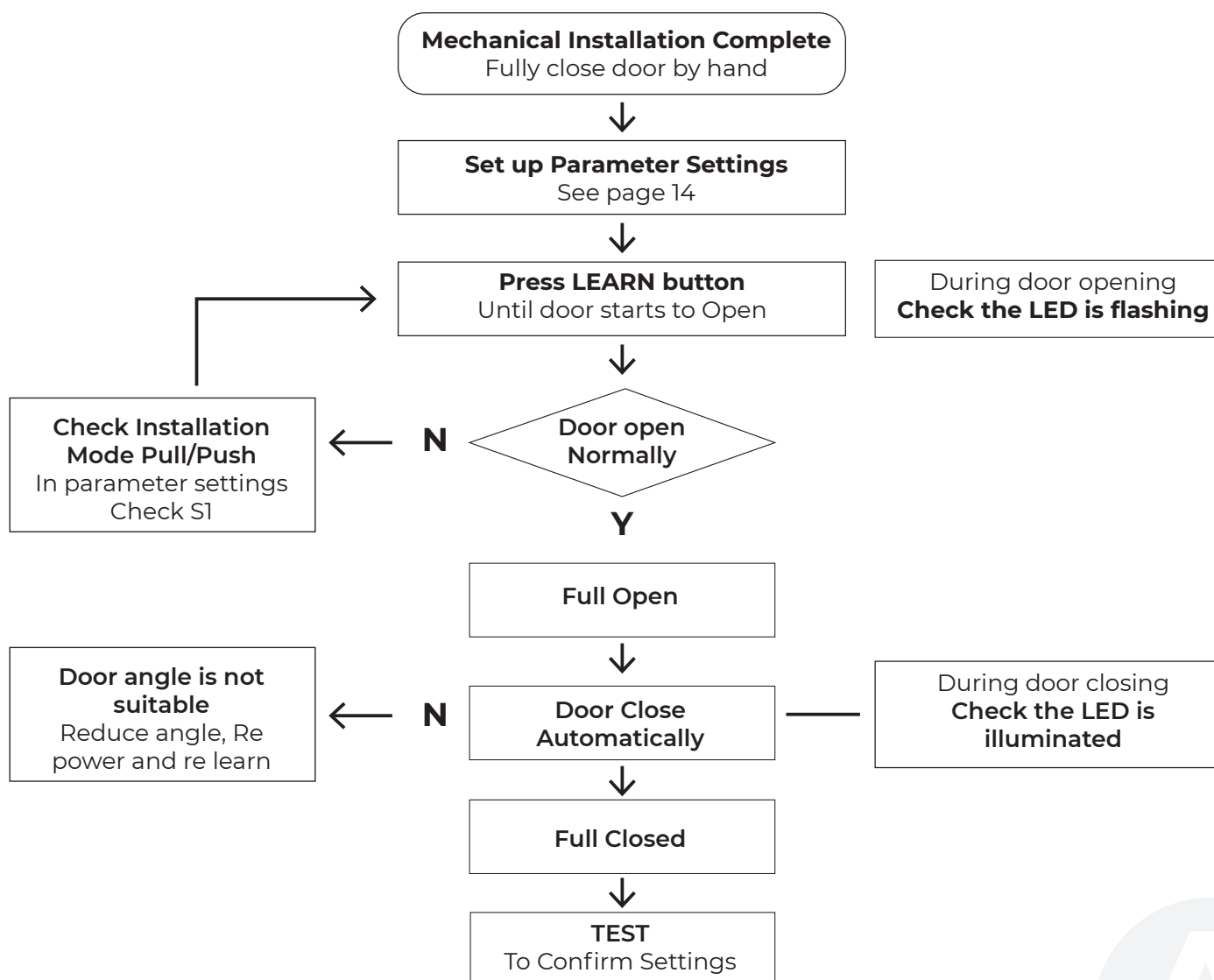
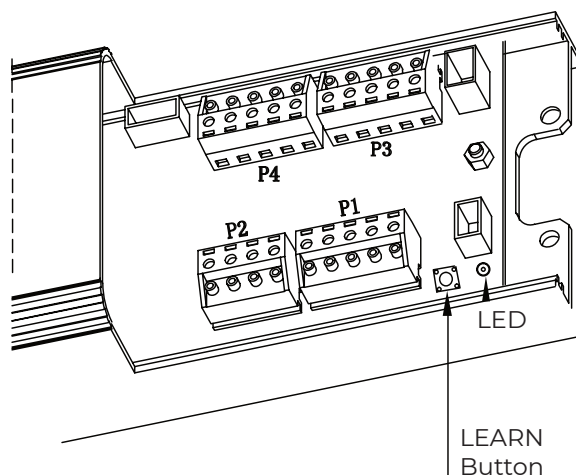
The power cable and signal cable are connected to their respective terminals and go through the position shown in the diagram, or via suppliers side entry with lead. Please refer to Page 6 'Electronic Connection' for the wiring of signal cables





5 Programming and Set up

Initialisation Setting



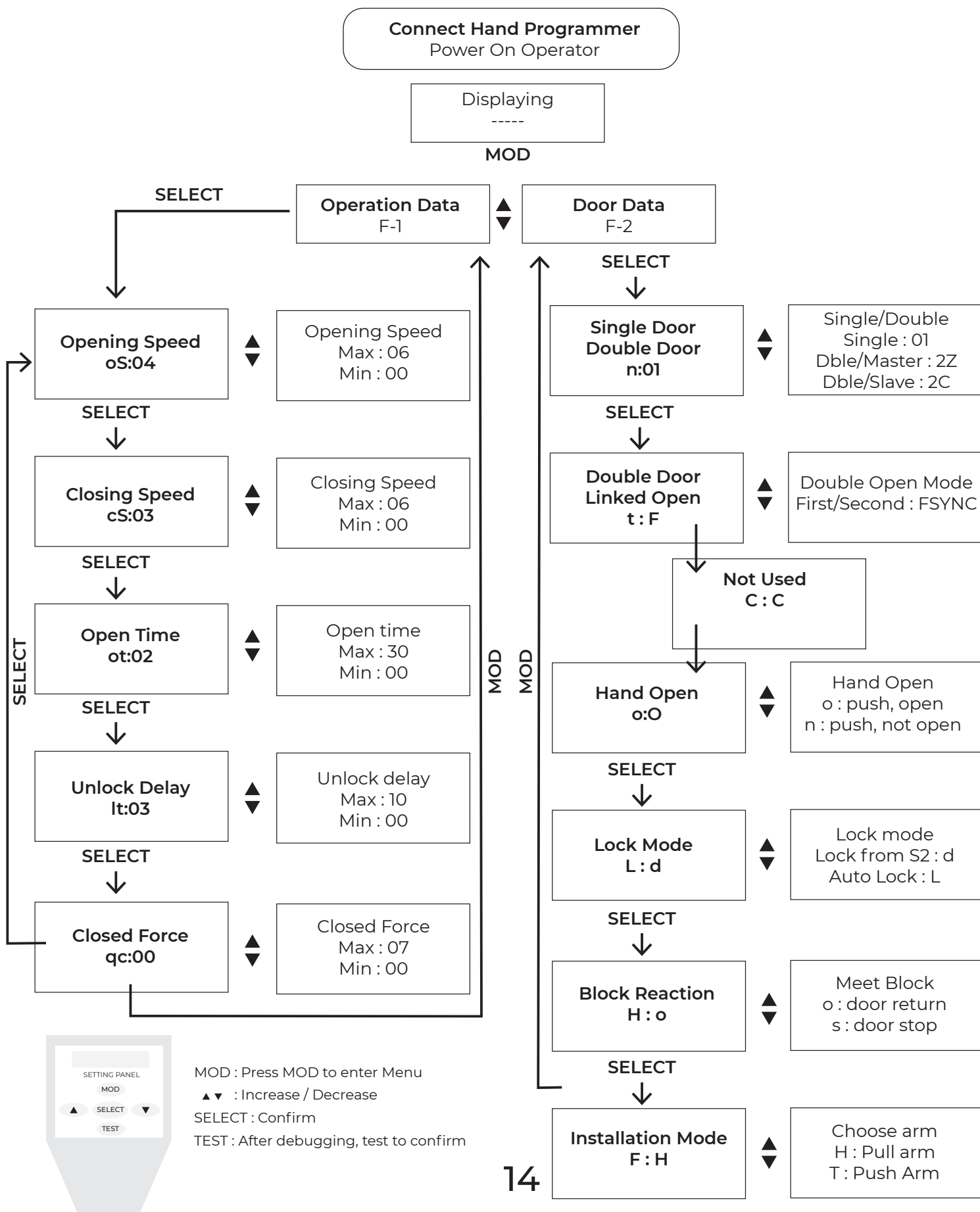


A-200SW

INSTALLATION MANUAL

5 Programming and Set up

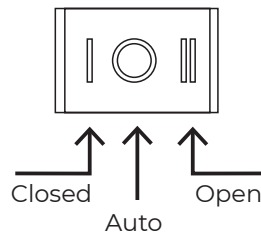
Parameter Setting



5 Programming and Set up

State Setting Selector

Choose the State setting from Function switch (S2)



Closed : Sensor signal is shielded, but access control signal is effective

Open : The automatic door is kept fully open

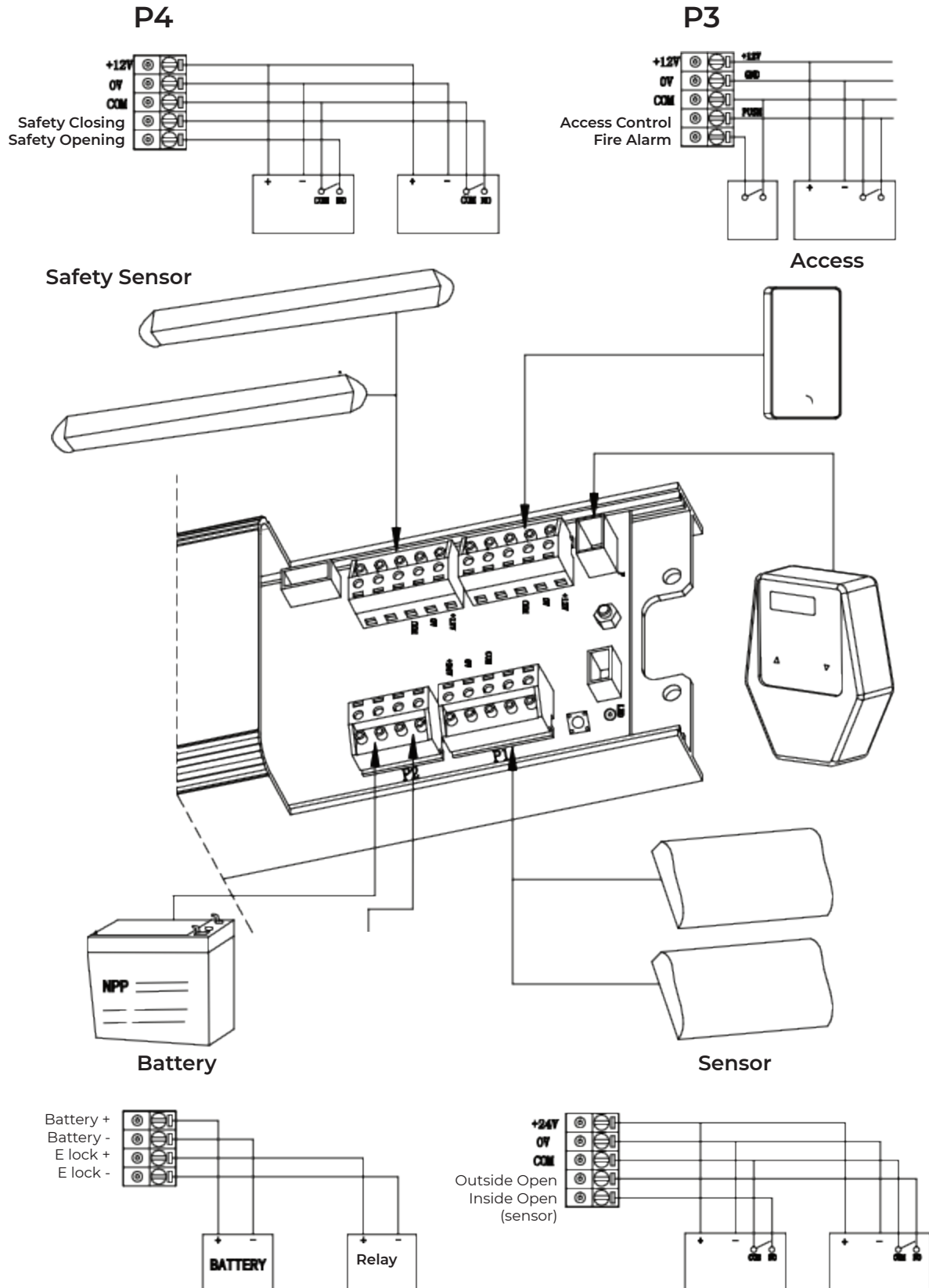
Auto : All signal inputs are valid (Normal Operation)

200SW

INSTALLATION MANUAL

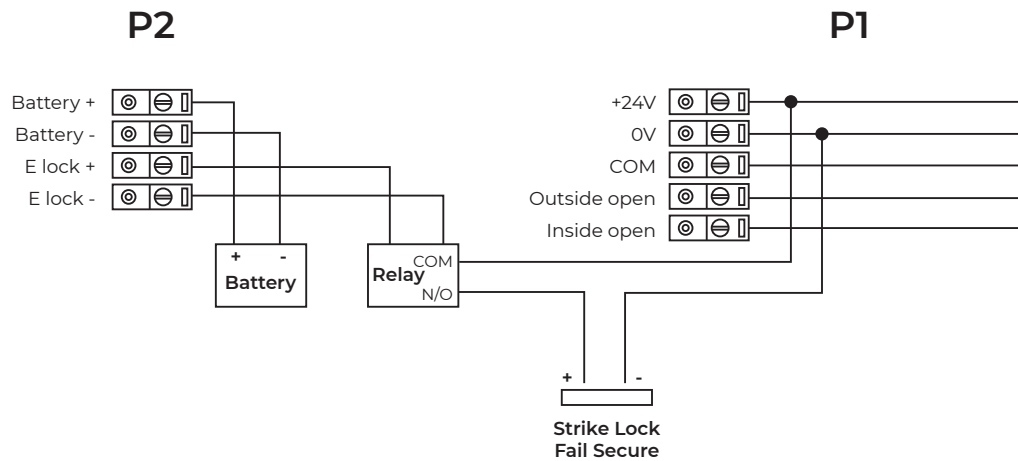
5 Programming and Set up

Electronic Connection



5 Programming and Set up

Electronic Lock



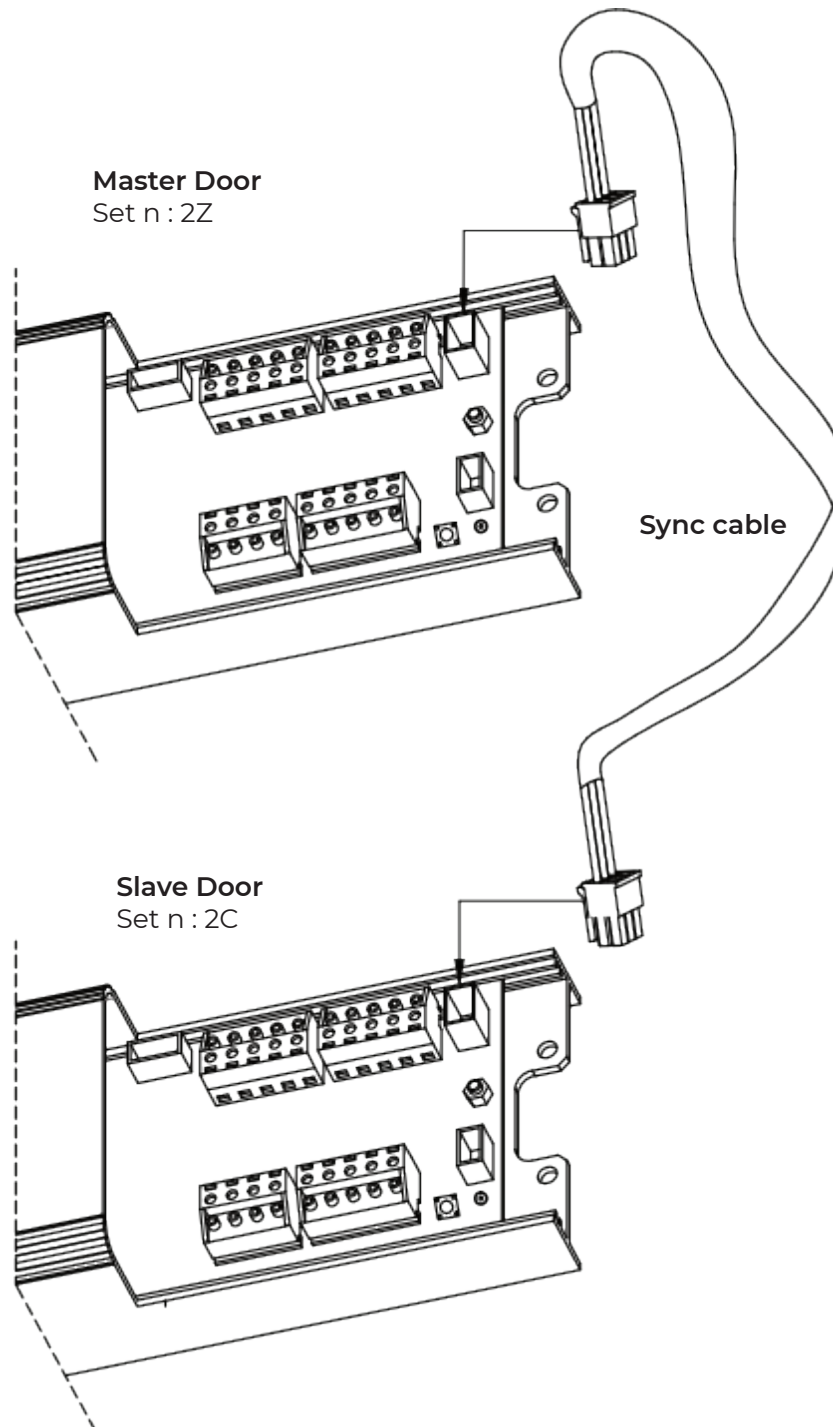
NOTE

When using an electronic strike, use a single pole relay, and power strike from P1 and 24V DC

DO NOT WIRE DIRECT TO P2 E LOCK AS IT WILL DAMAGE PCB

5 Programming and Set up

Double open connection option

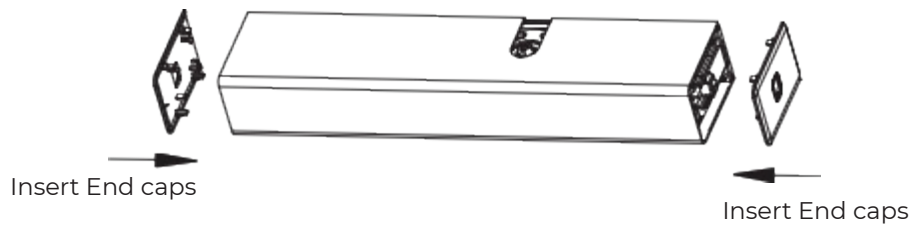
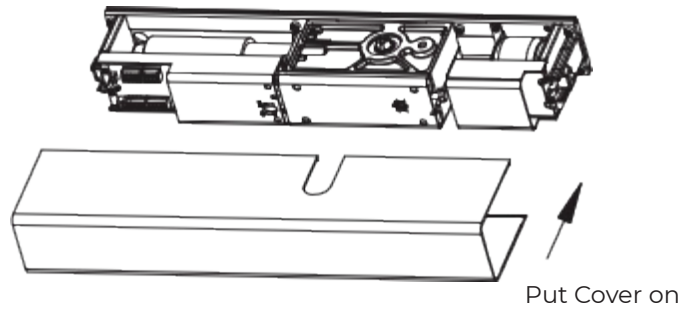


NOTE

Set n : 2Z Master and n : 2C Slave once all other parameters are set and tested

Cover and end caps

After debugging, put on cover and end caps



Operator does not open

Check unit has power

Check signal input is activating

Check state switch (S2) is in Auto position

Check for obstructions

Check safety sensors are not being triggered

Operator opens but does not close

Check state switch (S2) is in Auto position

Operator may have gone past 100°. Power off and adjust stopper. Repower and may need to relearn

Safety sensor triggered at full open. Adjust sensor and remove obstruction.

Check signal inputs are not latching on.

Check F2 n setting on Master/Slave

Operator will not learn. LED continues to flash on closing after opening learn

Angle of opening is too large

1. Adjust stopper to maximum 100°
2. Remove spline housing and rotate 90° on drive shaft, realign arm

Door weight or opening force required exceeds operator drive ability.

Door will not full close: (not latching)

Remove spline housing and rotate 90° on drive shaft, realign arm and load.

Increase spring tension

Increase closing force (F1)

Increase preload on door by 1 spline housing tooth.

Electronic lock is not releasing

Check Lock Mode (F2) is set to L : Auto lock

Check relay is triggering when door is activated

Check Unlock delay (F1) is sufficient to allow lock to release before operator actuates.

How do I programme the door with the sync cable installed

Programme each door separately prior to connecting sync cable. Ensure master door operator is set to (F2) n : 2Z and the slave set to n : 2C. The slave operator will receive the opening signal from the master unit and the master will not fully close until it receives the fully closed signal from the slave.