

EC MACHINE DIRECTIVE COMPLIANCE DECLARATION

(DIRECTIVE 89/392 EEC, APPENDIX II, PART B)

Manufacturer: FAAC S.p.A.

Address: Via Benini, 1 - 40069 Zola Predosa BOLOGNA - ITALY

Hereby declares that: the 550 automation system

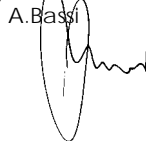
- is intended to be incorporated into machinery, or to be assembled with other machinery to constitute machinery in compliance with the requirements of Directive 89/392 EEC, and subsequent amendments 91/368 EEC, 93/44 EEC and 93/68 EEC;
- complies with the essential safety requirements in the following EEC Directives:

73/23 EEC and subsequent amendment 93/68 EEC.
89/336 EEC and subsequent amendments 92/31 EEC and 93/68 EEC.

and furthermore declares that unit must not be put into service until the machinery into which it is incorporated or of which it is a component has been identified and declared to be in conformity with the provisions of Directive 89/392 EEC and subsequent amendments enacted by the national implementing legislation.

Bologna, 1 January 1999

Managing Director
A. Bassi



IMPORTANT NOTICE FOR THE INSTALLER

GENERAL SAFETY REGULATIONS

- IMPORTANT! FAAC strongly recommends to follow these instructions carefully for the safety of persons. Improper installation or misuse of the product will cause very serious damages to persons.**
- Read the instructions carefully before installing the product.
- Packaging materials (plastic, polystyrene etc.) are a potential hazard and must be kept out of reach of children.
- Keep these instructions for future reference.
- This product has been designed and manufactured only for the use stated in this manual. Any other use not expressly set forth will affect the reliability of the product and/or could be source of hazard.
- FAAC S.p.A. cannot be held responsible for any damage caused by improper use or different from the use for which the automation system is destined to.
- Do not use this device in areas subject to explosion: the presence of flammable gas or fumes is a serious hazard.
- Mechanical constructive elements must comply with UNI 8612, CEN prEN 12604 and CEN prEN 12605 standards.
Countries outside the EC shall follow the regulations above besides their national normative references in order to offer the utmost safety.
- Faac cannot be held responsible for failure to observe technical standards in the construction of gates and doors, or for any deformation of the gates which may occur during use.
- Installation must comply with UNI8612, CEN pr EN 12453 and CEN pr EN 12635.
The degree of safety of the automation must be C+D.
- Before carrying out any operations, turn off the system's main switch.
- An omnipower switch shall be provided for the installation with an opening distance of the contacts of 3 mm or more. Alternatively, use a 6A thermomagnetic breaker with multi-pole switching.
- Ensure that there is a differential switch up-line of the electrical system, with a trip threshold of 0.03 A.
- Check that the earthing plant is in perfect condition and connect it to the metallic parts. Also earth the yellow/green wire of the operator.
- The automation is fitted with an anti-crush safety system that is a torque control device. In any case, further safety devices shall be installed.
- The safety devices (e.g. photocells, safety edges, etc.) protect areas where there is a **mechanical movement hazard**, e.g. crushing, entrapment and cutting.
- Each installation must be fitted with at least one flashing light (e.g. FAAC LAMP, MINILAMP, etc.) as well as a warning plate suitably fixed to the gate, besides the safety devices as per point 16 above.
- Faac cannot be held responsible regarding safety and correct functioning of the automation in the event that parts other than Faac original parts are used.
- Use only Faac original spare parts for maintenance operations.
- Do not carry out any modifications to automation components.
- The installer must supply all information regarding manual operation of the system in the event of an emergency and provide the end-user with the "End-user Guide" attached to the product.
- Do not allow children or adults to stand near the product during operation.
- Keep out of reach of children the remote radio controls and any control devices. The automation could be operated unintentionally.
- The end-user must avoid any attempt to repair or adjust the automation personally. These operations must be carried out exclusively by qualified personnel.
- What is not explicitly stated in these instructions is not permitted.**

AUTOMATION SYSTEM 550 & 550 MP

These instructions apply to the following models:

550 I - 550 Slave

The FAAC 550 automation system is designed to operate residential counterbalanced up-and-over garage doors. It consists of an electromechanical operator, a control unit with courtesy light and a protective cover integrated into a single unit to be mounted on the garage door panel using the relevant accessories.

The irreversible system locks the door mechanically when the motor is not running, so a lock is not required. A manual release device allows the door to be operated in the case of a power failure or malfunction.

Anti-crushing safety is assured by an adjustable electronic device.

The 550 automation system allows two operators (550 I + 550 Slave) to be installed on the same door.

The 550 automation system has been designed and constructed for vehicle access control. Do not use for any other purpose.

1. DESCRIPTION AND TECHNICAL SPECIFICATIONS

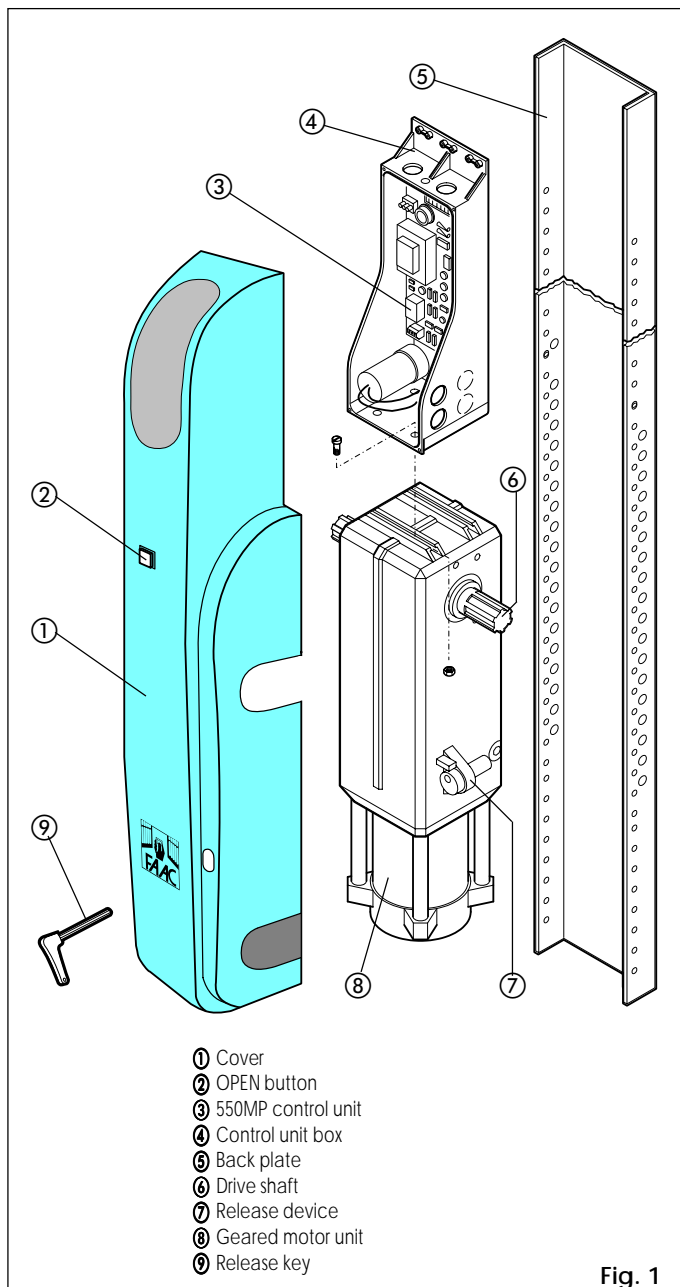


Fig. 1

TABLE 1 550 OPERATOR TECHNICAL SPECIFICATIONS

MODEL	550
Power supply	230V- (+6% -10%) 50Hz
Power consumption (W)	360
Max. torque (Nm)	300
Angular velocity (°/sec)	12
Duty cycle (cycles/hour)	15 (without limit switch) 25 (with limit switch)
Temperature range	-20 ÷ +55°C
Geared motor weight (kg)	13
Housing protection	IP 31 IP 44 (with Kit)
Max. door width (m)	3 (1 operator) 4 (2 operators)
Max. door height (m)	2.7 (1 operator) 3 (2 operators)
Max. door weight (kg/m ²)	10
Clutch	electronic
Control unit	550MP
Geared motor dimensions LxHxD(mm)	see fig.2
Technical characteristics of electric motor	
Speed (rpm)	1400
Reduction ratio	1 :700
Thermal cutout on winding	135 °C
Power (W)	350
Current draw (A)	1.5
Surge capacitor	8µF
Power supply	230V- (+ 6% -10%) 50Hz

2. DIMENSIONS

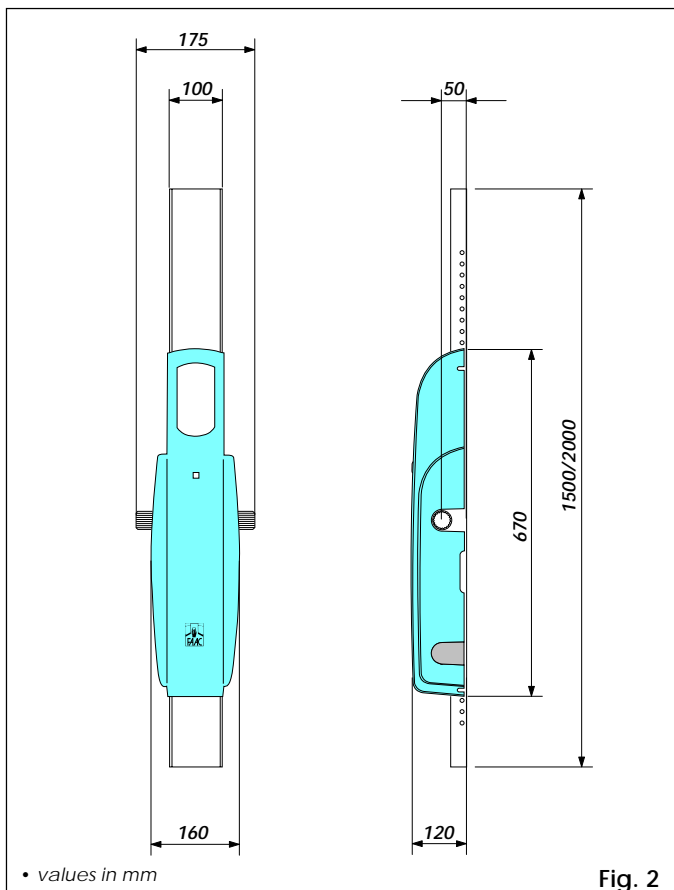


Fig. 2

3. ELECTRICAL INSTALLATION LAYOUT (standard system)

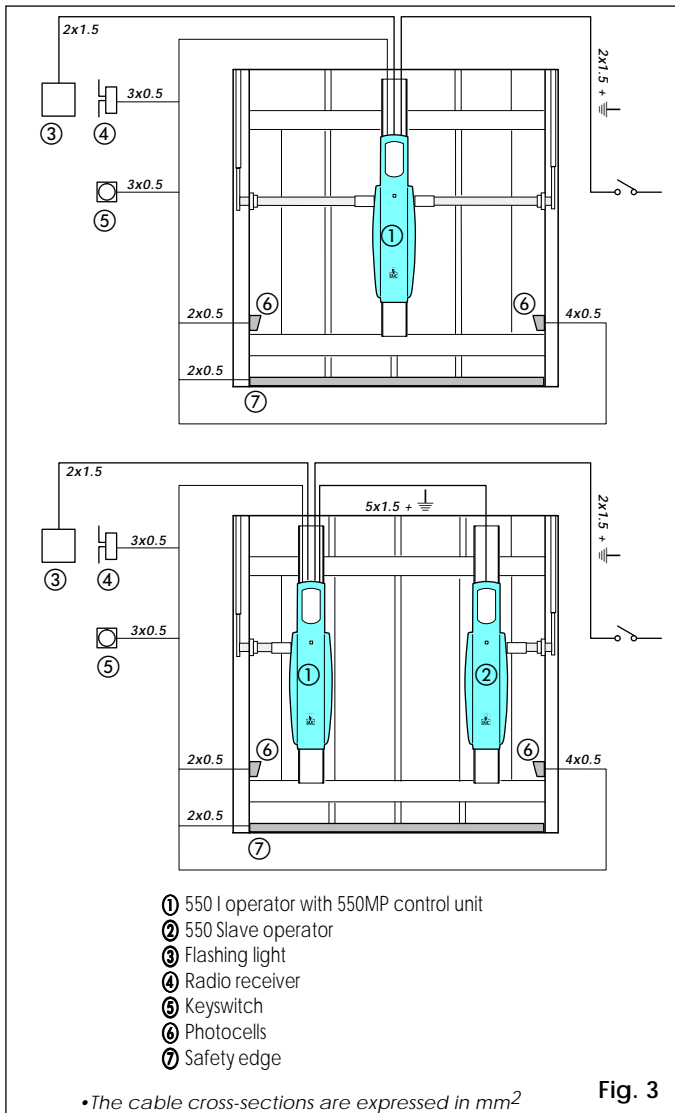


Fig. 3

4. INSTALLING THE AUTOMATION SYSTEM

4.1. PRELIMINARY CHECKS

To ensure safe, proper operation of the automation system, check the following:

- The door's structure must be suitable for automation. Make particularly sure that dimensions of the door meet the requirements given in the technical specifications and that the door is sufficiently robust.
- Check the condition of the door bearings and joints.
- Check that the door moves smoothly. If necessary clean the tracks and lubricate them with a silicone based lubricant. Do not use grease.
- Check that the door is correctly balanced.
- Remove the mechanical door locks so that when the door is closed it is locked only by the automation system.
- Check that there is an effective earth connection for the geared motor.

The 550 automation system is designed to operate various types of counterbalanced up-and-over garage doors. Fig. 4 shows the most common types:

- ① single section outward swinging
- ② double section outward swinging
- ③ single section inward swinging with horizontal tracks

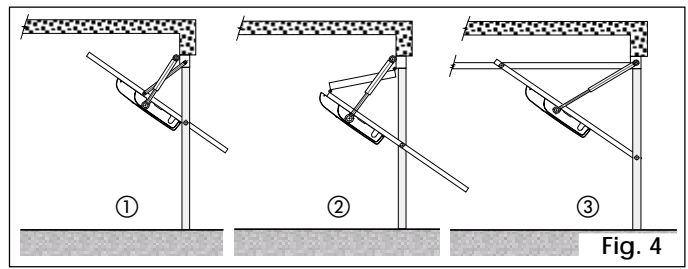


Fig. 4

4.2. POSITIONING TELESCOPIC ARMS

The gap between the existing balancing arm and the frame (distance "S1" in Fig. 5) must be at least 15 mm to allow the straight telescopic arms to rotate correctly.

If not, it is possible to use curved telescopic arms which can be installed over the top of existing balancing arms. Check that the gap between the door panel and the frame is at least 20 mm (distance "S2" in Fig. 5).

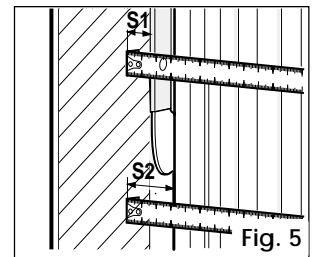


Fig. 5

4.3. POSITIONING OPERATOR/BACK PLATE

In accordance with the measurements given in Table 1, install either a single operator (550 I) at the centre of the door as shown in Fig. 6 or two operators (one 550 I and one 550 Slave) at the sides of the door as shown in Fig. 7.

The operator 550 is designed so that the geared motor unit can be installed with the drive shaft at two different heights (see section 6).

The following instructions apply to both assembly options, although they refer specifically to installation of the operator with the geared motor unit as it is delivered from the factory.

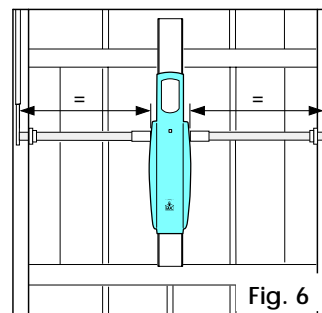


Fig. 6

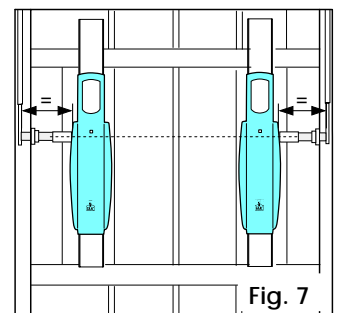


Fig. 7

4.4. ASSEMBLY SEQUENCE

Begin installation with the garage door closed and the operator released (see chapter 7).

1) Determine the position of the operator shaft as follows:

- **single section outward swinging garage door (Fig. 8)**

When the door is closed, the axis of rotation of the drive shaft must be about 10 cm lower than the axis of rotation of the door.

The telescopic arms must be attached as close as possible to the point where the door arm is fixed.

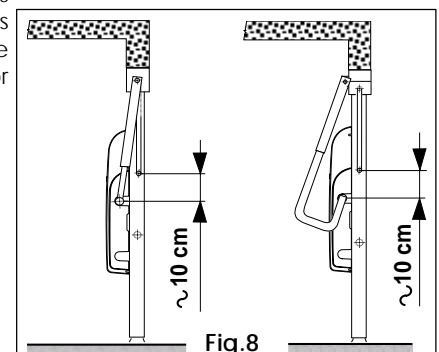


Fig. 8

• **double section garage door (Fig. 9)**

When the door is closed, the axis of rotation of the drive shaft must be about 10 cm below the axis of rotation of the door hinge (A).

The telescopic arms must be attached as close as possible to the point where the hinges are fixed to the door (B).

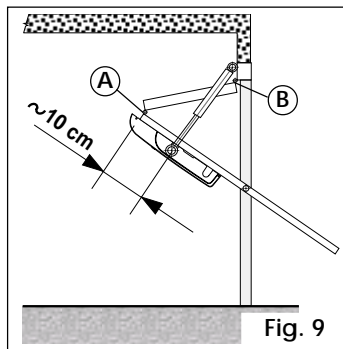


Fig. 9

• **garage door with horizontal guides (Fig. 10)**

The axis of rotation of the drive shaft must be halfway between the two bearings. The telescopic arms must be attached as close as possible to the point where the upper and vertical guides meet.

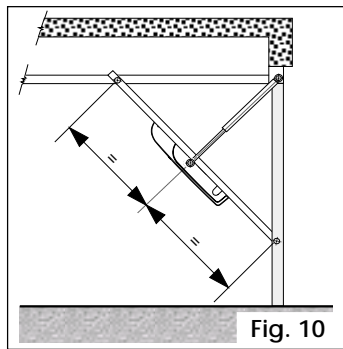


Fig. 10

2) Fix the back plate to the reinforcement ribbing of the door panel using suitable screws for the door's structure. It is advisable to use nuts and bolts.

➤ Position the back plate in such a way that the last section without Ø 4mm holes (approximately 20 cm) is facing upwards.

➤ The back plate has a series of Ø 8mm holes which, when it is fixed, allow the operator to be installed at various heights. Check that the fixing position of the back plate allows the operator to be installed in accordance with the previously determined shaft position.

In double operator installations, both shafts must be aligned at the same height.

3) Fix the operator to the back plate using the nuts and bolts provided, as shown in Fig. 11.

4) Weld the upper telescopic arm fixing brackets in the position described in the instructions for the specific type of garage door.

In the case of curved arm installation, the brackets can be welded directly to the existing door arms.

Fix the outer profiles of the telescopic arms to the brackets using the pins and the nuts and bolts provided, as shown in Fig. 11.

5) Fit the transmission shafts firmly onto the drive shaft and cut them to size as shown in Figs. 6 and 7.

➤ If limit switches are used (optional), first fit the cams as shown in Fig. 11.

6) Mount the brackets on the transmission shafts and fasten them to the door panel using screws, taking care to maintain perfect alignment.

7) Tighten the grub screws on the transmission shaft bushings.

8) Open the garage door and adjust the length of the telescopic arms as follows:

• **straight arms (Fig. 12)**

Place the telescopic arm in position as shown in figure 12.

Cut the outer profile of the telescopic arm at point A.

Cut the inner profile at point B.

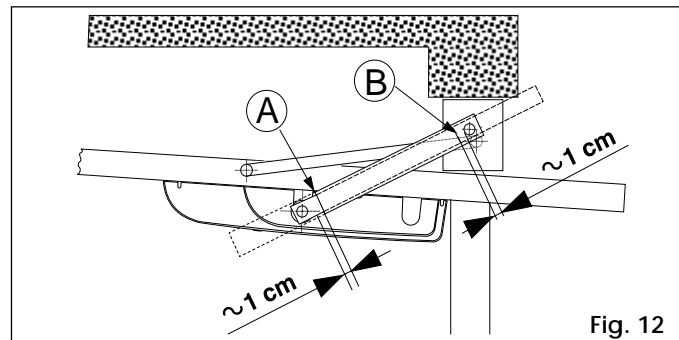


Fig. 12

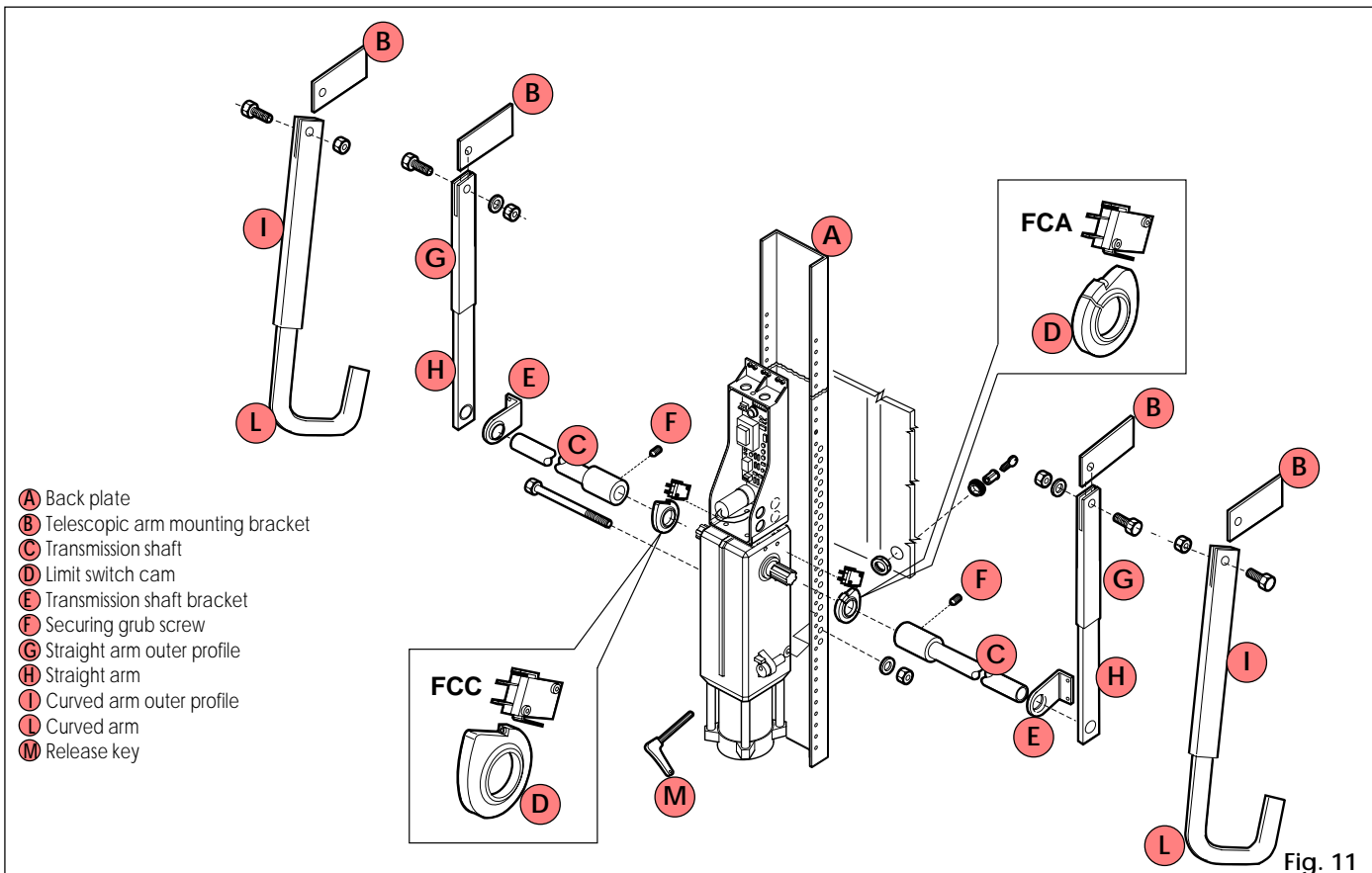
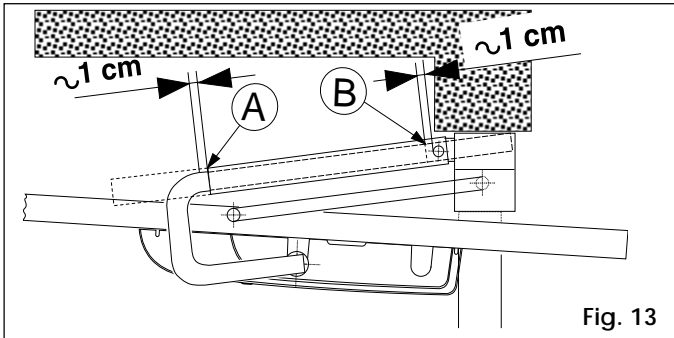


Fig. 11

• **curved arms (Fig. 13)**

Place the telescopic arm in position as shown in figure 13.
Cut the outer profile of the telescopic arm at point A.
Cut the inner profile at point B.



- Leave a gap of about 1 cm at the ends of both profiles.
- 9) Fit the inner profile of the telescopic arm to the transmission shaft and weld securely.

4.5. ADJUSTING THE COUNTERWEIGHTS

On completing mechanical installation, check whether the door has become unbalanced by the weight of the operator and accessories.

If necessary, change the counterweights.

For optimum balancing, the door should remain in equilibrium in an intermediate position (45°) with the operator released. Also check that the door opens and closes smoothly without jerky or irregular movements.

5. START-UP

5.1. CONNECTING ELECTRONIC CARD

➤ Before carrying out any operation on the electronic card (connections, programming, maintenance) be sure to switch off the power supply.

Warning: Risk of exposure to high voltages when disconnecting terminal blocks J2 or J3.

Follow points 10, 11, 12, 13 and 14 of GENERAL SAFETY OBLIGATIONS.

As shown in Fig. 3, prepare the conduits and make the electrical connections between the 550 MP control unit and the chosen accessories.

Always route the power cables separately from the control and safety cables (pushbuttons, receivers, photocells, etc.). Use separate sheaths to avoid electrical disturbance.

5.1.1. 550MP CONTROL UNIT

The 550MP control unit included in the 550I package is capable of controlling both operators in the case of double installation. Instead of a control unit, the 550 Slave has an electronic interface card with a built-in courtesy lamp.

TABLE 2 550MP OPERATING PARAMETERS

Logic	automatic/semiautomatic
Pause time	adjustable by trimmer 4÷50 sec.
Operating time	adjustable by trimmer 4÷50 sec.
Max. starting torque	Yes/No
Closure stroke	Yes/No
Pre-flashing 3 sec.	Yes/No
Electronic clutch	adjustable by trimmer 38÷98%
Operating time memory	Yes

TABLE3 550MP HARDWARE CHARACTERISTICS

Power supply	230V~ (+6 -10 %) 50Hz
Max. power consumption	12VA
Max. motor load	800 W
Accessories power supply	24Vdc
Max. accessories load	500 mA
Temperature range	-20°C +55°C
Safety fuses	transf. primary/transf. secondary/motor
Quick connector	- for decoder or RP receiver cards -
Terminal blocks	pull-out
Terminal block inputs	Open Stop Closure safeties Limit switches
Terminal block outputs	flashing light motor 230V~ external courtesy light 24Vdc accessories power supply
Courtesy timing	90 sec.
Max. external courtesy lamp load	100W

5.1.2. 550MP CARD LAYOUT

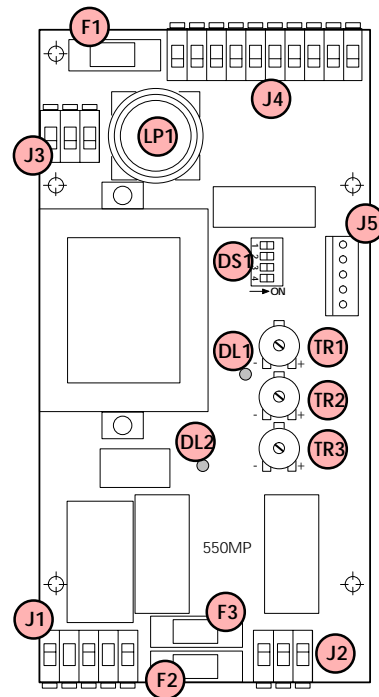


Fig. 14

TABLE 4 550MP CARD COMPONENTS

F1	Fuse F1 5x20 2A/250V (transformer secondary)
F2	Fuse F2 5x20 4A/250V (motor)
F3	Fuse F3 5x20 0.5A/250V (transformer primary)
LP1	Courtesy lamp 25W 220V E14
DL1	Mains power LED
DL2	Motor operation LED
DS1	Programming dials
J1	230V~ power input terminal block
J2	Motor output terminal block
J3	Flashing light and external courtesy light output terminal block
J4	Inputs/accessories low-voltage terminal block
J5	Quick connector for decoder/RP receiver cards
TR1	Operating time adjusting trimmer
TR2	Pause adjusting trimmer
TR3	Torque adjusting trimmer (electronic clutch)

5.1.3. ELECTRICAL CONNECTIONS

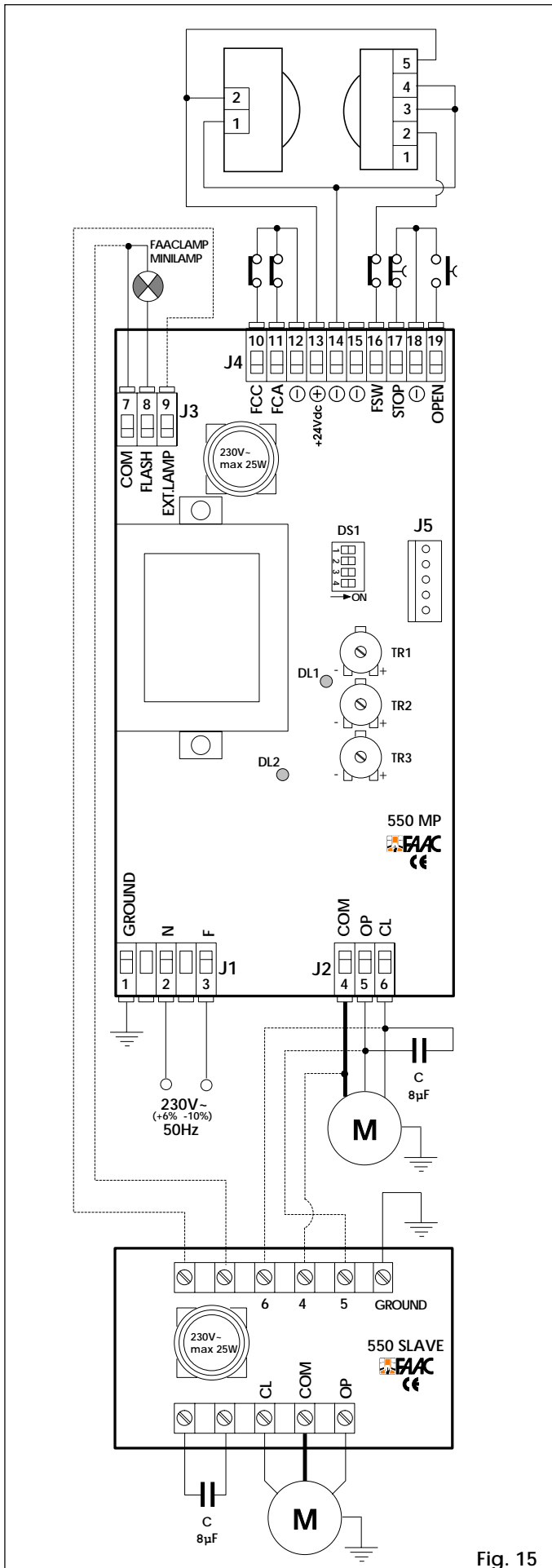


Fig. 15

5.2. DESCRIPTION

5.2.1. TERMINAL BLOCK J1 (high voltage)

Terminal block for 230V~ 50Hz power supply (F=Phase N=Neutral). Connect the electrical system earth and the operator earth cable to the "Ground" terminal.

5.2.2. TERMINAL BLOCK J2 (high voltage)

230V~ terminal block for connecting the electric motor.
BLACK CABLE AND BROWN CABLE = electric motor phases (OP/CL)
BLUE CABLE = electric motor common (COM)
 The surge capacitor must be connected in parallel with the phases.

5.2.3. TERMINAL BLOCK J3 (high voltage)

230V~ terminal block for connecting:
 • Flashing light (FLASH) max. 60W.
 • Courtesy light of 550 Slave (EXT LAMP) or alternatively an external courtesy light max. 100W.

5.2.4. TERMINAL BLOCK J4 (low voltage)

FCC= Closure limit switch contact (N.C.)
 The closure limit switch (optional) consists of a microswitch which is activated by the cam when the door reaches the closed position and stops movement after 2 seconds.

FCA= Opening limit switch contact (N.C.)
 The opening limit switch (optional) consists of a microswitch which is activated by the cam when the door reaches the open position and stops movement immediately.

➔ If limit switch devices are not used, jumper FCC and FCA with the common inputs.

⊖ = Common inputs/Accessories power supply negative

⊕ = Accessories power supply positive 24Vdc (+)

The max. accessories load is 500mA.

To calculate absorption values, refer to the instructions for the individual accessories.

FSW= Closing safeties contact (N.C.)

The term "safeties" refers to any device (photocells, safety edges, etc.) with an N.C. contact that reverses the closing movement of the door when it detects an obstacle within the area it protects. These devices have no effect during opening.

If the safeties are engaged when the door is closed, stopped or open, they prevent it from moving. To install a number of safety devices, connect the N.C. contacts in series.

➔ If safety devices are not connected, jumper FSW with the common inputs.

STOP= STOP command (N.C.)

Any device (e.g.button) which stops the door movement by opening a contact.

To install a number of stop devices, connect the N.C. contacts in series.

➔ If Stop devices are not connected, jumper the STOP and common inputs.

OPEN=OPEN command (N.O.)

Any device (button, detector, etc.) which activates door opening (or closing) by closing a contact.

To install a number of Open devices, connect the N.O. contacts in parallel.

5.2.5. CONNECTOR J5 (low voltage)

Connector J5 is used for quick connection of MINIDEC, DECODER and RP RECEIVER cards.

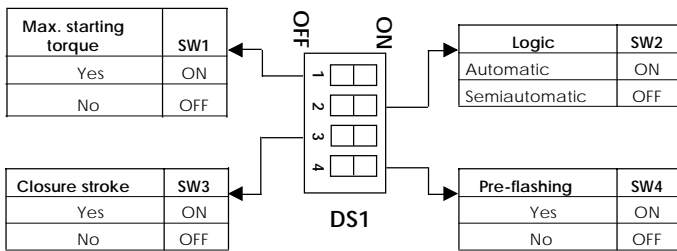
Fit the accessories cards so that their component side faces the inside of the 550MP card.

Disconnect power before engaging or removing.

5.3. PROGRAMMING

To program operation of the automation, set the dipswitches as shown in the following diagram.

- Disconnect the power supply momentarily from the card after every programming operation.



SW1 - Max. starting torque

The maximum starting torque allows the electronic clutch setting (Trimmer TR3) to be disabled in the initial movement phase.

SW2 - Operating logic

The operation of the automation in the various logics is shown in Tables 5-6.

SW3 - Closure stroke

The closure stroke is enabled only if the limit switches are used. It delays cut-out of the motor by 4 seconds after activation of the closing limit switch.

SW4 - Pre-flashing

It is possible to select 3 sec. pre-flashing of the flashing light prior to every movement. This warns anyone in the vicinity of the door that it is about to move.

TABLE 5 AUTOMATIC LOGIC

DOOR STATUS	PULSES		
	OPEN	STOP	SAFETIES
CLOSED	opens the door and recloses after pause time (1)	nbo effect	no effect (prevents opening)
OPEN ON PAUSE	closes (1)	stops counting of pause time	freezes pause until disengagement
CLOSING	reverses movement	stops	reverses movement
OPENING	stops	stops	no effect
STOPPED	closes/opens (1)(2)	no effect	no effect (prevents op/cl)

TABLE 6 SEMIAUTOMATIC LOGIC

DOOR STATUS	PULSES		
	OPEN	STOP	SAFETIES
CLOSED	opens (1)	no effect	no effect (prevents opening)
OPEN	closes (1)	no effect	prevents closure
CLOSING	reverses movement	stops	reverses movement
OPENING	stops	stops	no effect
STOPPED	closes/opens (1)(2)	no effect	no effect (prevents op/cl)

(1) with pre-flashing selected, the movement begins after 3 sec.
 (2) giving an OPEN signal with the door stopped starts the opposite movement to the previous one.

5.4. TESTING THE AUTOMATION SYSTEM

Notes on operation:

- The 550MP card performs an electronic check (for which the motor must be connected) prior to every start-up. If any attempt is made to operate the card without the motor load or with an insufficient load, voltage is not supplied to the motor output and LED DL2 flashes to signal the fault.
- There must be a delay of at least 1.5 seconds between one OPEN signal and the next.
- The courtesy light comes on when the motor starts and stays on for about 90 seconds after the end of the movement.

5.4.1. CHECKING DIRECTION OF ROTATION

- 1) Turn off the power supply to the system.
- 2) Move the door manually to its half open position.
- 3) Lock the operator (see chapter 8)
- 4) Turn the power supply back on.
- 5) Send an open signal (OPEN) and check that this causes the door to open.

If the door closes, invert the electric motor phase wires on the card terminal block (brown and black wires).

In the double operator installation, connect the same colour wires to the COM, OP and CL terminals on the 550MP card and the 550 Slave card. If you have to invert the wires, invert them on both motors.

5.4.2. SETTING THE OPERATING TIME

Set trimmer TR1 to obtain an operating time such that the electric motor remains powered up for a few seconds after the door has reached the mechanical stops.

This setting also represents the maximum time for reaching the limit switches (optional).

5.4.3. SETTING PAUSE TIME

By selecting automatic logic it is possible to set the pause time by means of the trimmer TR2.

5.4.4 SETTING ELECTRONIC CLUTCH (ANTI-CRUSHING SAFETY SYSTEM)

The 550MP control unit is equipped with an electronic system for regulating the motor torque which limits the thrust of the door when obstructed by an obstacle (depending on the setting). When the obstacle is removed, the door continues its movement until it reaches the limit switch or until the end of the operating time.

The setting is made by means of trimmer TR3. Make sure that the electronic clutch is calibrated in accordance with current applicable legislation.

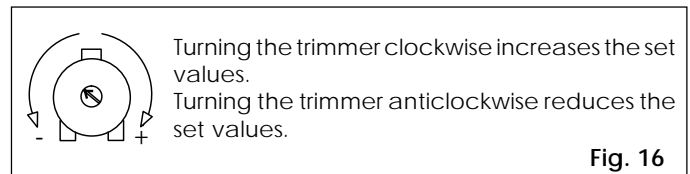


Fig. 16

5.4.5. ADJUSTMENT OF LIMIT SWITCHES (OPTIONAL)

Open the door as far as required, then turn the cam until it just trips microswitch FCA (Fig.11).

Close the door, then turn the cam until it just trips microswitch FCC (Fig.11).

Tighten the screws on the cams.

5.4.6. MOUNTING COVER

Connect the OPEN cable to the button on the operator cover. Fasten the cover in place by tightening the four screws at the sides.

Push the 2 plastic caps onto the side slots on the cover not used by the operator shaft.

Push the plastic cap onto the unused front slot on the cover for gaining access to the release system.

6. MOUNTING GEARED MOTOR UNIT

Depending on requirements, the geared motor unit can be mounted in two different ways:

- With the drive shaft at the top (Fig. 17)
The card support is fixed to the geared motor by means of 4 bolts which engage with nuts inserted in the guides.
- With the drive shaft at the bottom (Fig. 18)
The card support is fixed to the electric motor cap by means of 4 screws.

The cover is designed for both applications (note that in the two cases the release device is located in different positions). There are also two tabs for fixing the power cable to the clear light fixture (Fig. 19).

Figs.17-18 also show the recommended layout for routing and fixing the cables in the card support.

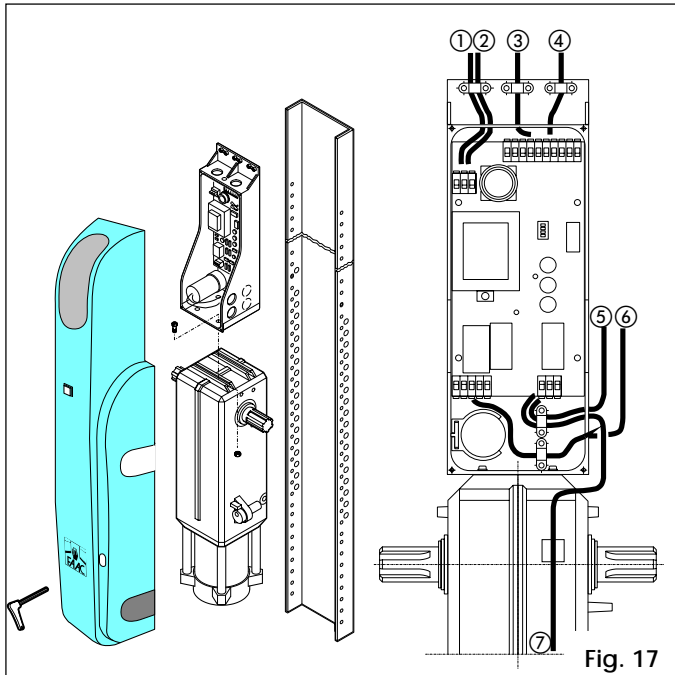


Fig. 17

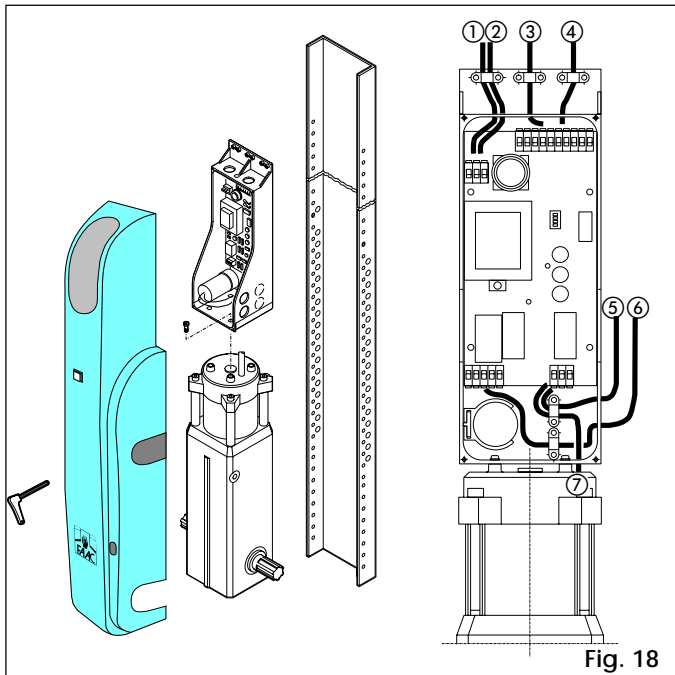


Fig. 18

KEY TO CABLES

- ① Flashing light
- ② External courtesy light
- ③ OPEN button on cover
- ④ Low-voltage connections
- ⑤ 550 Slave motor
- ⑥ 230V - power supply
- ⑦ 550 I motor

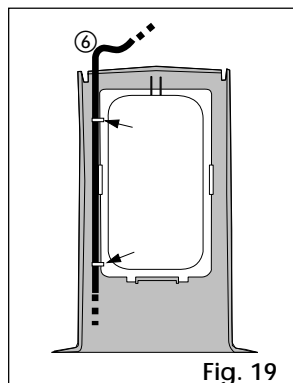


Fig. 19

7. MANUAL OPERATION

The operator 550 is equipped with an emergency release device that can be operated from inside the garage. On request, a lock can be fitted to the door panel which allows the release device to be operated also from outside the garage. If the door has to be operated manually due to a power failure or a malfunction of the automation system, operate the release device as follows:

- **From inside (Fig. 20)**

Insert the hex wrench provided and turn clockwise about half a turn until the stop is reached.

Warning: depending on the type of installation, the release device may be on the right (A) or left (B).

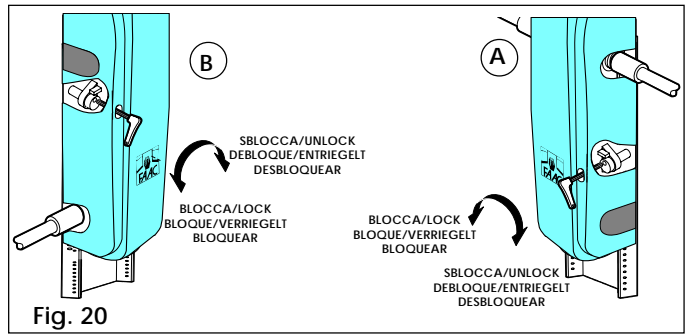


Fig. 20

- **From outside (Fig.21)**

- 1) Open the safety door and insert the wrench.
- 2) Turn anticlockwise as far as possible and remove the lock unit.
- 3) Insert the hex wrench provided and turn anticlockwise about half a turn until the stop is reached.

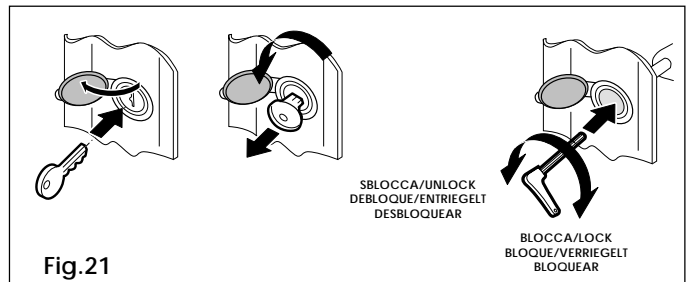


Fig. 21

8. RETURNING TO NORMAL OPERATION

To prevent an accidental movement from activating the door during the operation, disconnect the power supply from the system before locking the operator again.

- **From inside (Fig.20)**

Insert the hex wrench provided and turn anticlockwise about half a turn until the stop is reached.

Note: depending on the type of installation, the release device may be on the right (A) or the left (B).

- **From outside (Fig.21)**

- 1) Insert the hex wrench provided and turn clockwise about half a turn until the stop is reached.
- 2) Remove the hex wrench and insert the lock unit.
- 3) Turn the wrench clockwise so that it can be removed; close the safety door again.

9 MAINTENANCE

Carry out the following operations at least every six months:

- Check that the motor torque is set correctly.
- Check the door's rollers and sliding guides; clean and lubricate if necessary.
- Check the efficiency of the release system.
- Check the efficiency of the safety devices.

10 REPAIRS

For repairs contact authorised FAAC Service Centres.

User's guide

550 AUTOMATION SYSTEM

Read the instructions carefully before using the product and keep for future reference.

GENERAL SAFETY RULES

If correctly installed and operated, the 550 automation systems ensure a high level of safety.

However, some simple rules should be followed to avoid accidents:

- Do not stand underneath the garage door.
- Do not stand in the vicinity of the automation or allow anyone else, especially children, to do so and do not place objects in the vicinity of the automation. This is particularly important during operation.
- Keep remote controls and other control devices out of the reach of children to prevent them from accidentally operating the door.
- Do not allow children to play with the automation.
- Do not deliberately obstruct the movement of the door.
- Make sure that branches or bushes do not interfere with the movement of the door.
- Keep the luminous signalling systems efficient and clearly visible.
- Do not attempt to operate the door manually without first releasing it.
- In the event of a malfunction, release the gate to allow access and call a qualified technician for service.
- After setting manual operation, disconnect the electricity supply from the system before returning to normal operation.
- Do not make any modifications to components belonging to the automation system.
- Do not attempt to perform any repair work or tamper with the automation. Call FAAC qualified personnel for repairs.
- At least once every six months have the automation, the safety devices and the earth connection checked by a qualified technician.

DESCRIPTION

The 550 automation system is ideal for operating residential counterweighted up-and-over garage doors.

It consists of an electromechanical operator, a control unit with courtesy light and a protective cover integrated into a single unit to be mounted on the garage door panel using the relevant accessories.

The irreversible system locks the door mechanically when the motor is not running, so a lock is not required. A manual release device allows the door to be operated in the event of a power failure or malfunction.

Anti-crushing safety is assured by an adjustable electronic device. The 550 automation system allows two operators (550 I + 550 Slave) to be installed on the same door.

The door is normally closed. When the control unit receives an opening signal via the radio control or another control device, it activates the electric motor which rotates the door to the open position to allow access.

If automatic operation has been set, the door closes again after the selected pause time.

If semiautomatic operation has been set, a second signal must be given to close the door again.

Giving an opening signal while the door is opening always causes the door to stop moving.

Giving an opening signal while the door is closing causes the door to reverse its direction of movement.

A stop signal (if available) always stops the door.

Ask the installation engineer if you need further information on operation of the door in the various operating logics.

The automation systems may include safety devices (photocells) which prevent the door from closing when an obstacle lies within the area they are protecting.

The 550 automation systems are provided as standard with an anti-crushing safety device which limits the torque transmitted to the door.

The door can be opened manually by using the release system. The light flashes to indicate that the gate is moving.

The courtesy light comes on when the motor starts and remains on for about 90 seconds after it has stopped.

MANUAL OPERATION

The 550 operator is equipped with an emergency release device that can be operated from inside the garage. On request, a lock can be fitted to the door panel to allow the release device to be operated from outside.

If the door has to be operated manually due to an electric power failure or malfunction of the automation, use the release device as follows:

- From inside (Fig. 1)

Insert the hex wrench provided and turn it about half a turn clockwise until it stops.

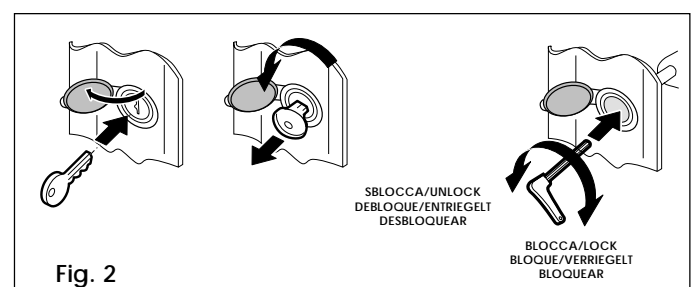
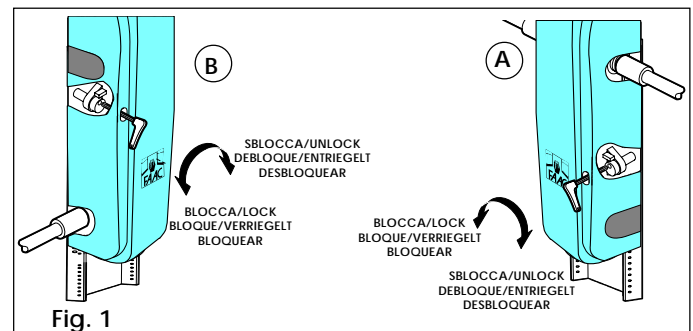
Note: depending on the type of installation, the release device may be on the right (A) or left (B).

- From outside (Fig. 2)

1) Open the safety door and insert the wrench.

2) Turn anticlockwise as far as possible and remove the lock unit.

3) Insert the hex wrench provided and turn anticlockwise about half a turn until the stop is reached.



RETURNING TO NORMAL OPERATION

To prevent an accidental movement from activating the door during this operation, disconnect the power supply from the system before locking the operator again.

- From inside (Fig. 1)

Insert the hex wrench provided and turn anticlockwise about half a turn until the stop is reached.

Note: depending on the type of installation, the release device may be on the right (A) or the left (B).

- From outside (Fig. 2)

1) Insert the hex wrench provided and turn clockwise about half a turn until the stop is reached.

2) Remove the hex wrench and insert the lock unit.

3) Turn the wrench clockwise so that it can be removed; close the safety door again.