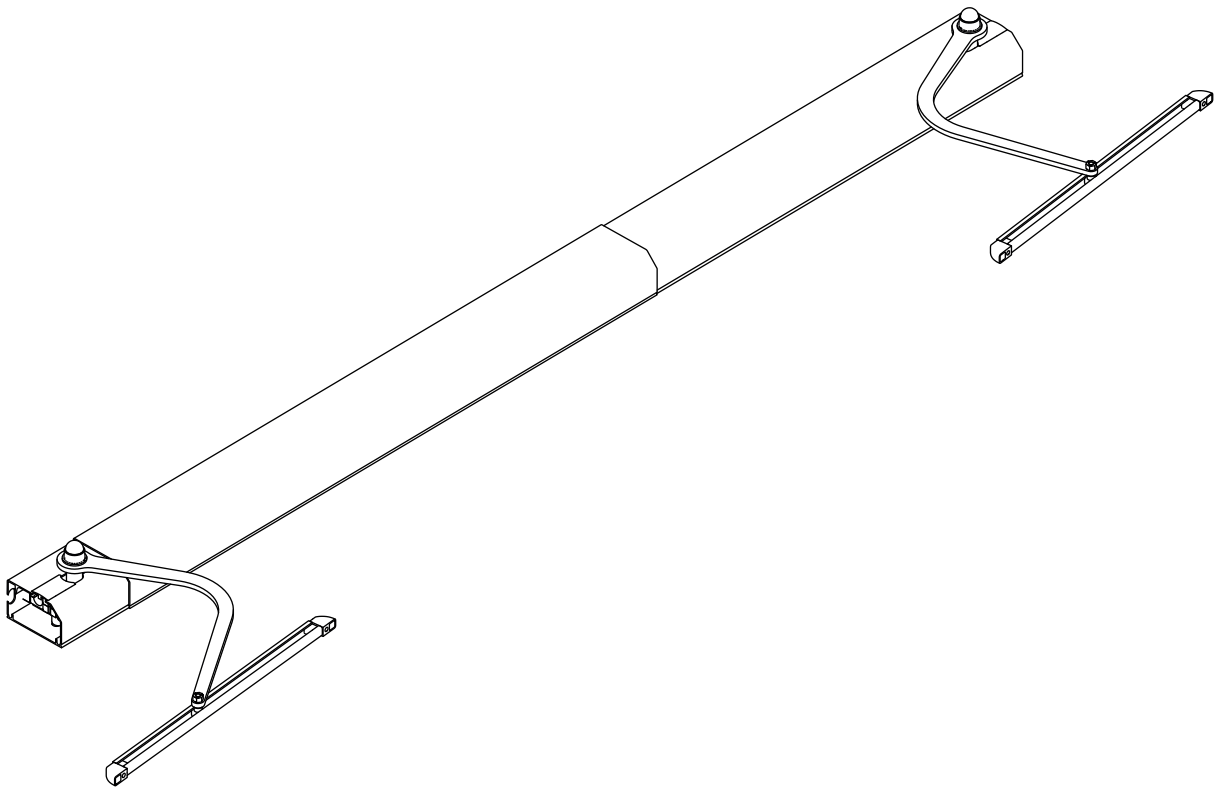
ND2 SENSO KIT



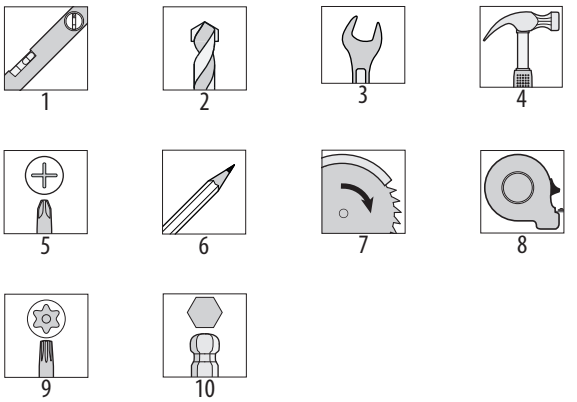
Translation of the original instructions

FAAC S.p.A. Soc. Unipersonale
Via Calari, 10 - 40069 Zola Predosa BOLOGNA - ITALY
Tel. +39 051 61724 - Fax +39 051 09 57 820
www.faac.it - www.faacgroup.com

WARNINGS FOR THE INSTALLER
GENERAL SAFETY OBLIGATIONS

1. CAUTION! The following instructions must be read and followed in full in order to ensure the security and safety of individuals. Incorrect installation and/or incorrect use of the product could cause serious harm to people.
2. Read the instructions carefully before attempting to install the product.
3. The packaging materials (plastic, polystyrene etc.) must not be left within reach of children as they are potential sources of danger.
4. Keep these instructions for future reference.
5. This product has been designed and built strictly for the use indicated in this documentation. Any other use that is not expressly specified in these instructions could affect the integrity of the product and/or represent a source of danger.
6. FAAC declines all liability deriving from misuse or any use other than that for which the automated system is intended.
7. Do not install the equipment in an explosive atmosphere: the presence of flammable gas or fumes represents a serious safety hazard.
8. FAAC is not responsible for failure to observe the rules of good technical practice during construction of motorised gates or closure devices, or for any damage which occurs during use of these.
9. Before performing any operation on the system, disconnect the power supply.
10. Installation must be carried out by qualified personnel and in accordance with current regulations.
11. The power mains of the automation must be fitted with a multi-pole power switch with a switch-contact gap of at least 3 mm. It is advisable to use a 6A circuit breaker with a multi-pole power switch.
12. Ensure there is a residual current device with a 0.03 A threshold upstream of the system.
13. If used outdoors, install the electric cables inside suitable protective conduits.
14. Check that the earthing system is constructed in accordance with the highest standards of workmanship and connect this to the metal parts of the gate.
15. Do not connect more than one motor to the same inverter.
16. Do not connect two inverters to the same motor.
17. FAAC cannot be held responsible for any issue regarding the safety and correct operation of the device in any case in which components not produced by FAAC are used.
18. For maintenance, only original parts manufactured by FAAC must be used.
19. Do not modify the components of the automation system in any way.
20. The device must always be visible when in operation.
21. Do not allow children or adults to remain near the product during operation.
22. Keep all radio controls or any other pulse generator out of the reach of children, to prevent the automated system from being activated involuntarily.
23. The user must not attempt any kind of repair or any other form of direct operation on the device, and must only contact qualified personnel in order to do this.
24. Anything else not expressly specified in these instructions is not permitted.

1. REQUIRED TOOLS



1. Level
2. Drill with suitable bits
3. No.1 box wrench 10 mm
   No.1 box wrench 13 mm
   No.1 box wrench 18 mm
4. Hammer
5. Phillips screwdrivers
6. Pencil
7. Hacksaw
8. Tape measure
9. Torx wrench or screwdriver T40
10. Allen key 10 mm

Fig. 1

2. KIT CONTENTS

1. Motorframe:profilecontainingthemotor
2. Transmission housing: hollow profile
3. Casing
4. Cover profiles
5. Cable gland
6. Remote control TM2 POP 1
7. N°2 Toothed washers
8. N°2 Tie rods (8x80)
9. Fast transmission (grey)
10. Slow transmission (yellow)
11. Transmission shaft
12. N°2 Hex head screws M12x20
13. N°2 screw caps for hex head screws
14. N°2 Spring washers
15. N°2 Drive rings
16. N°4 Guide plugs
17. N°2 guides
18. N°4 Screws for guides (5x35)
19. N°2 Nuts
20. N°2 safety screws
21. N°2 Reversible rollers
22. N°2 Screws (6x50)
23. Transmissionarms(ND1orND4according to the country)

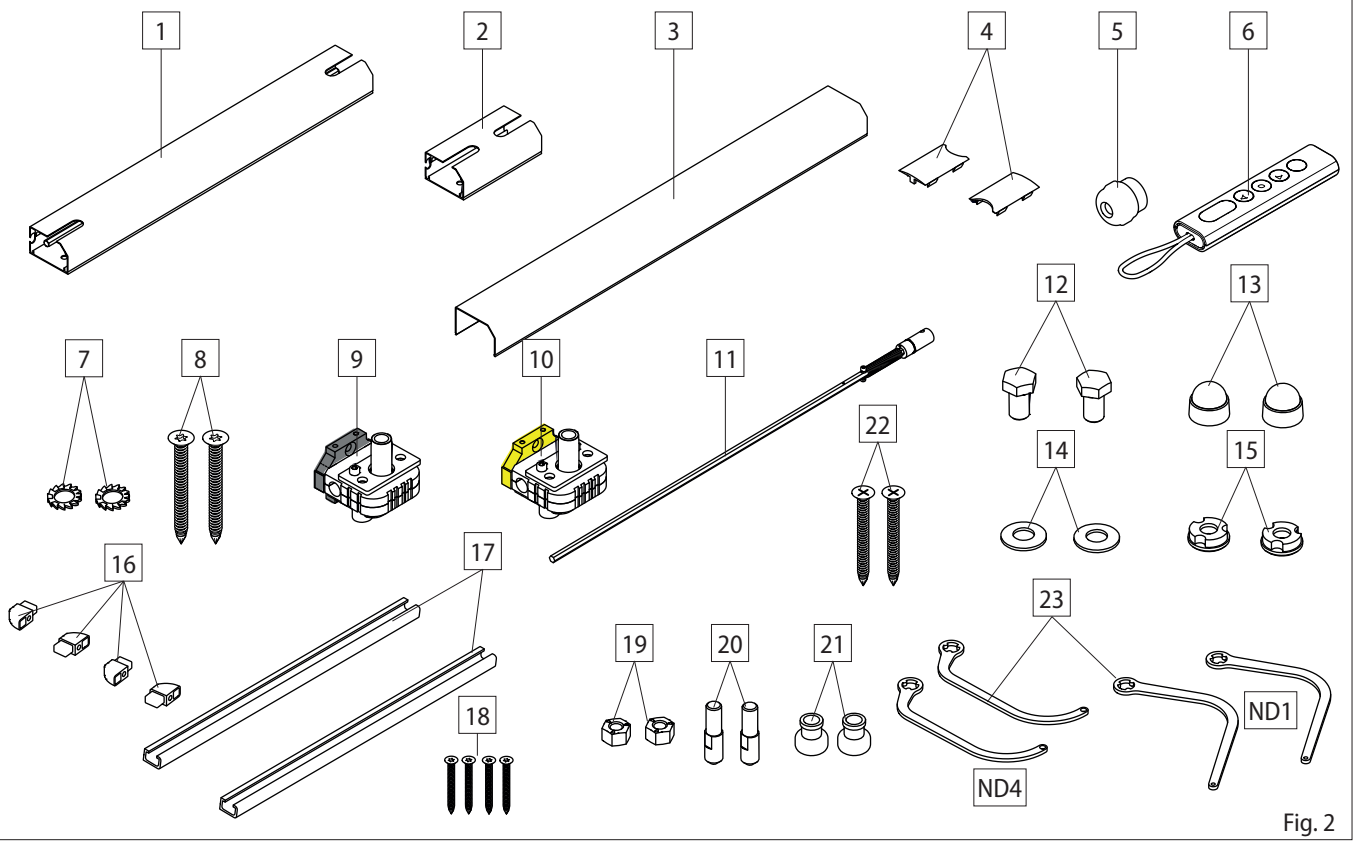


Fig. 2

The ND2 line automations are designed to automate shutters in the 16 configurations described in section 4.

In the case of double-leaf applications, the opening angles of both leaves must be identical.

The ND2 SENSO can be controlled by a:

- remote control
- step logic N.O. button
- double interlocked N.O. step logic or dead-man button.

The opening and closing limit stops are set using a learning function. The wired control devices are not included in the kit.

The automation detects the presence of obstacles during its movement. If an obstacle is detected during opening, the motor reverses the movement slightly and then continues to open the shutter. After detecting 4 consecutive obstacles, the motor stops. If an obstacle is detected during closing, the motor reverses the movement completely.

3. PRELIMINARY OPERATIONS AND TECHNICAL CHARACTERISTICS

Power supply voltage	230 V~ 50 Hz
Power	150 W
Protection rating	IP44
Opening/closing time	16 s
Continuous use time (ROT)	240 s
Power cable outlet	Right or left
Frame RAL colour	White RAL 9010 or Brown RAL 8017

3.1 APPLICATION LIMITS

	MINIMUM WIDTH OF OPENING (mm) (* cutting the casing and shaft)	MAXIMUM WIDTH OF OPENING (mm)
1 Leaf	760 (* 680)	1100
2 Leaves	960 (* 880)	1600

3.2 SHUTTER OPERATION CHECK

First, make sure that the shutters open and close properly. If necessary, lubricate the hinges and level the shutters. (Fig. 3.1)

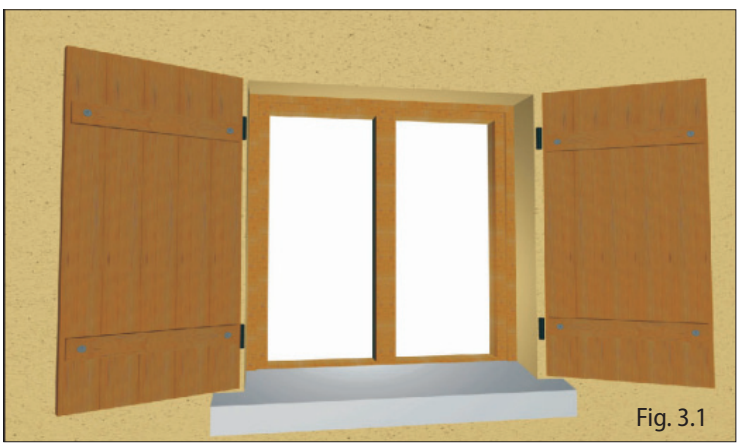


Fig. 3.1

3.3 REFERENCE MARK

Close the shutters and mark a line 3 mm from the shutters when closed on the architrave or windowsill.
This line will be used to determine the position of the frames. (Fig. 3.2)

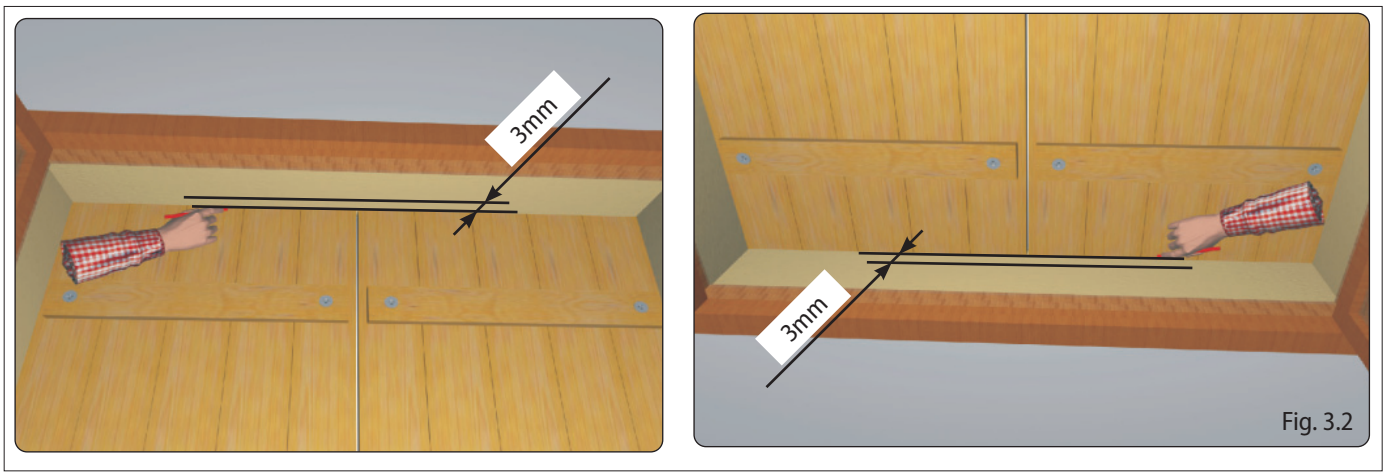


Fig. 3.2

3.4 INSTRUCTIONS

With the arm ND4 supplied in the kit, the minimum depth is 110 mm. For other arms, see section 12 regarding the range of optional arms.

With the arm ND1 supplied in the kit, the minimum depth is 150 mm. For other arms, see section 12 regarding the range of optional arms.

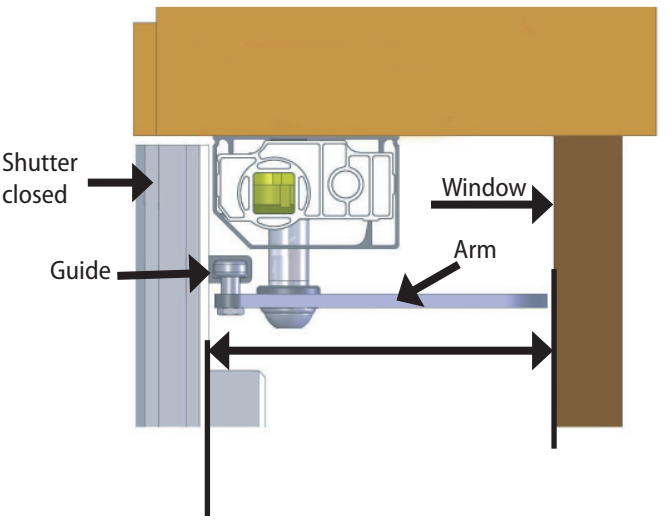


Fig. 3.3

The frame must be installed with the bevelled edge facing towards the outside. (Fig. 3.4 and Fig. 3.5)

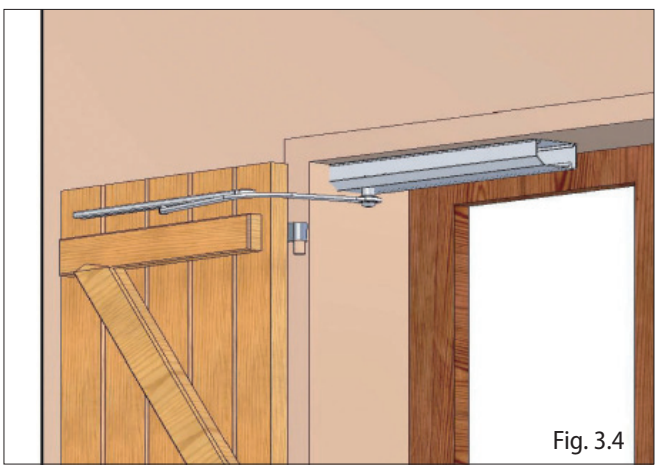


Fig. 3.4

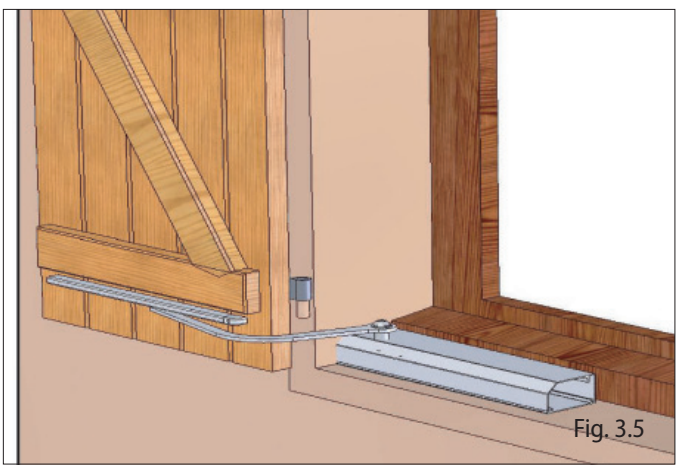


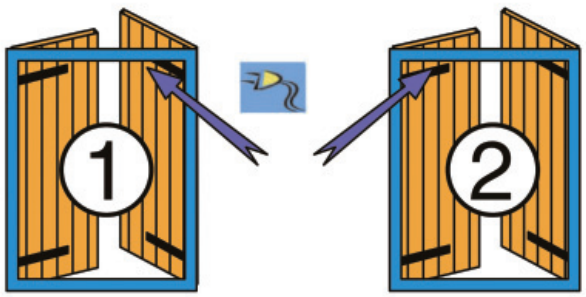
Fig. 3.5

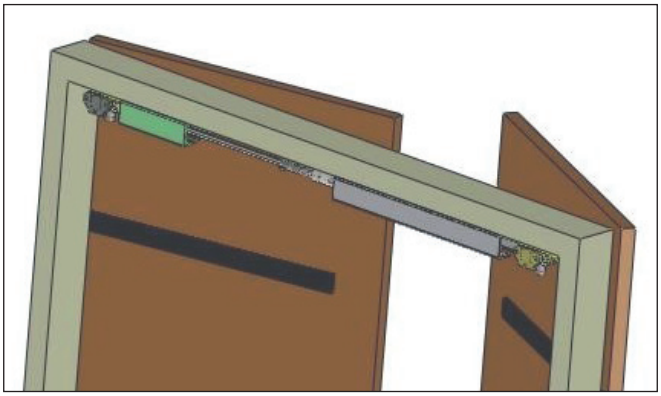
4. SELECTING THE CONFIGURATION

The shutter closing delay is always viewed from the inside.

Architrave mounted
Right delay
Right cable outlet

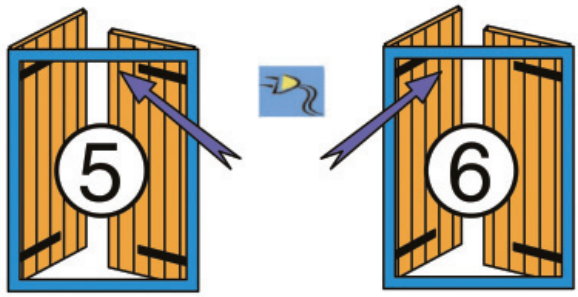
Architrave mounted
Right delay
Left cable outlet

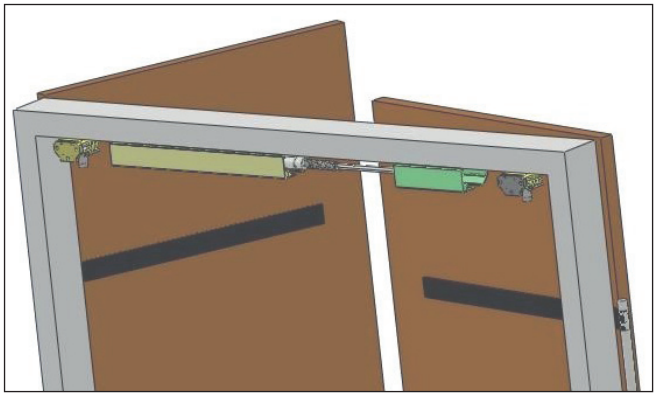




Architrave mounted
Left delay
Right cable outlet.

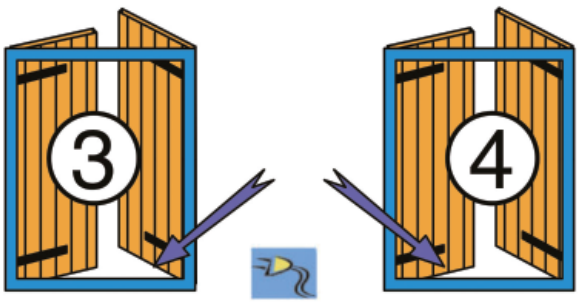
Architrave mounted
Left delay
Left cable outlet

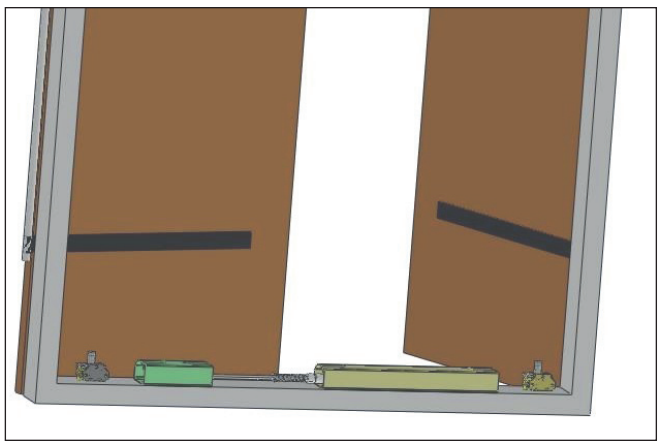




Windowsill mounted
Right delay
Right cable outlet

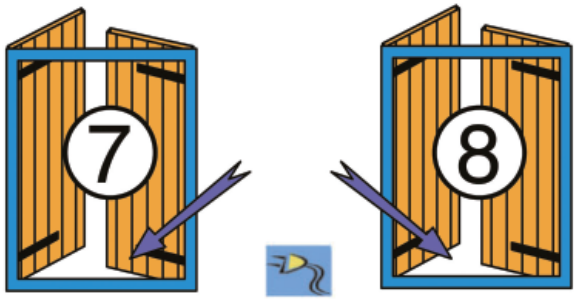
Windowsill mounted
Right delay
Left cable outlet

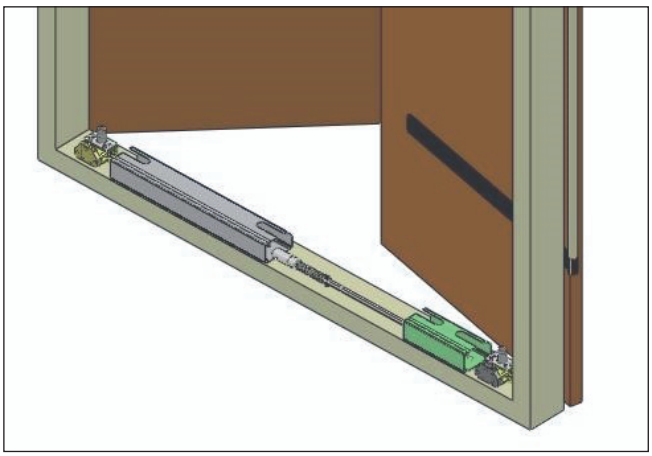




Windowsill mounted
Left delay
Right cable outlet

Windowsill mounted
Left delay
Left cable outlet



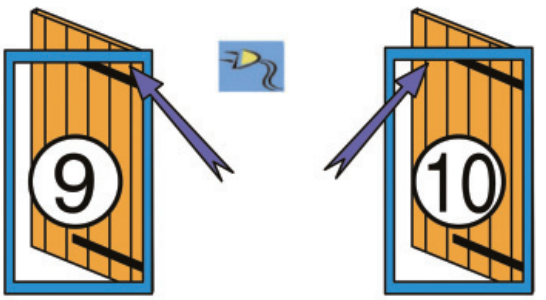


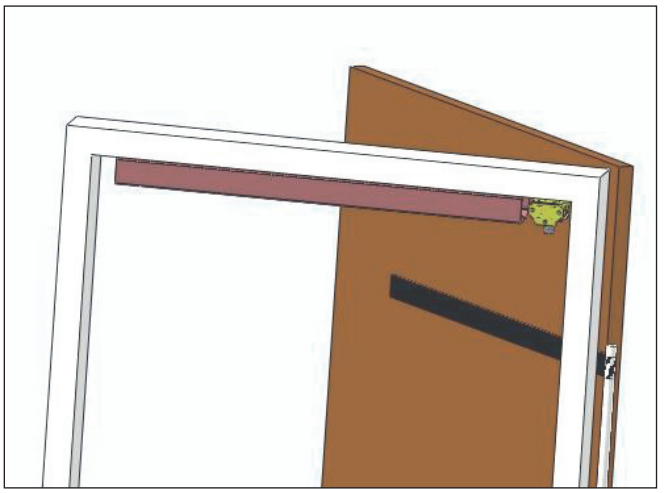
ENGLISH

Translation of the original instructions

Architrave mounted
Right shutter
Right cable outlet

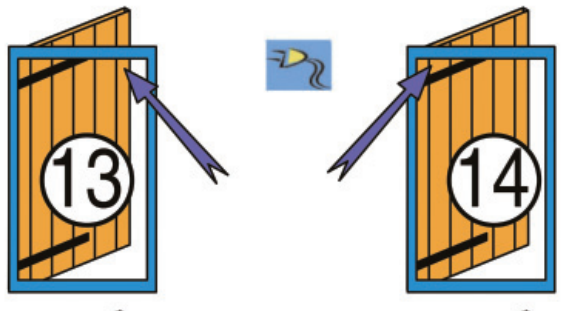
Architrave mounted
Right shutter
Left cable outlet

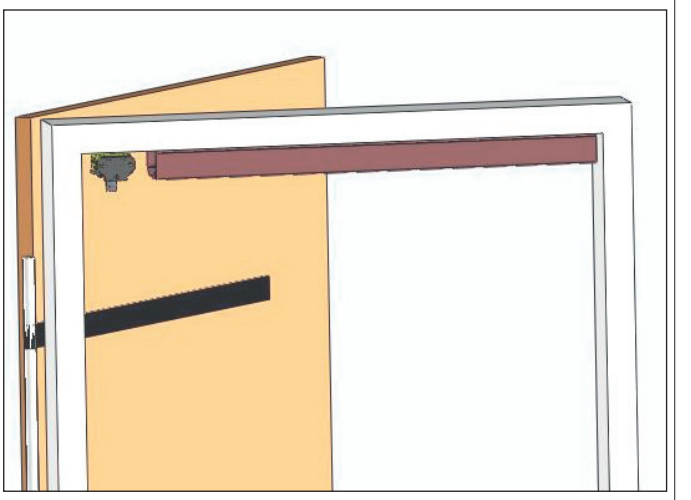




Architrave mounted
Left shutter
Right cable outlet

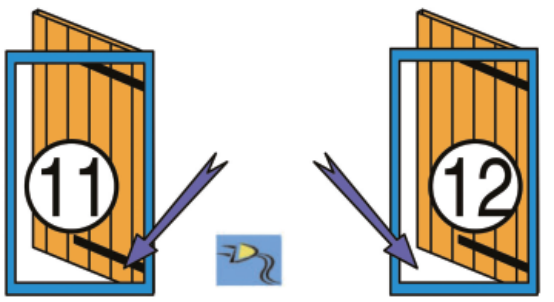
Architrave mounted
Left shutter
Left cable outlet

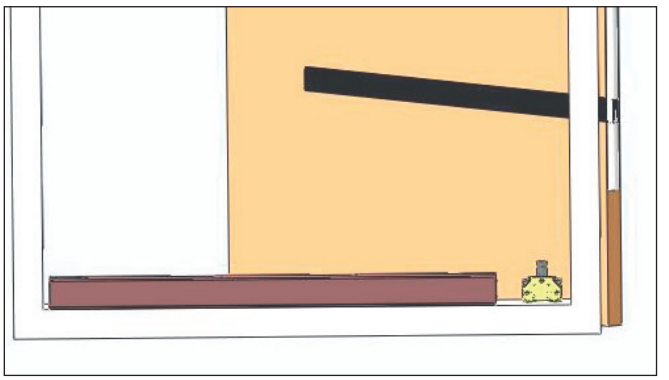




Windowsill mounted
Right shutter
Right cable outlet

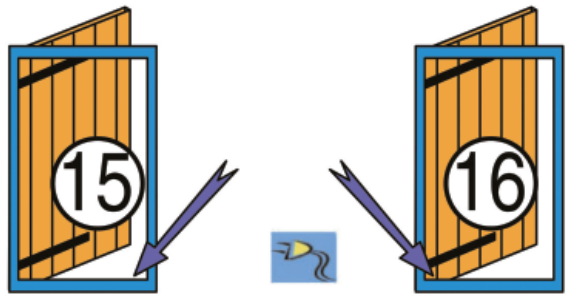
Windowsill mounted
Right shutter
Left cable outlet

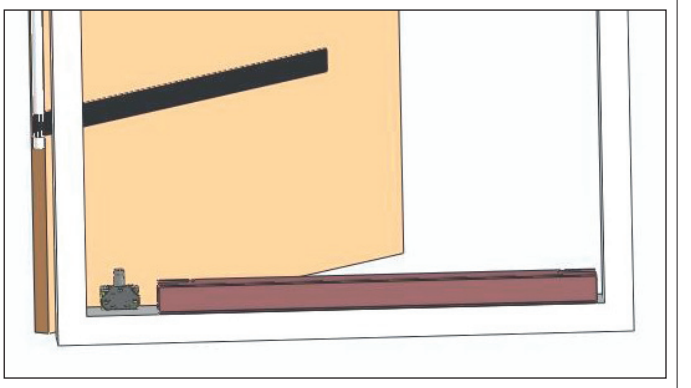




Windowsill mounted
Left shutter
Right cable outlet

Windowsill mounted
Left shutter
Left cable outlet





5. CONFIGURATION N° 1, 2 AND 3, 4

Arrange the components as shown in fig. 5.

1. Right shutter
2. Left shutter
3. Fast transmission (grey)
4. Transmission frame
5. Transmission shaft
6. Motor frame
7. Slow transmission (yellow)

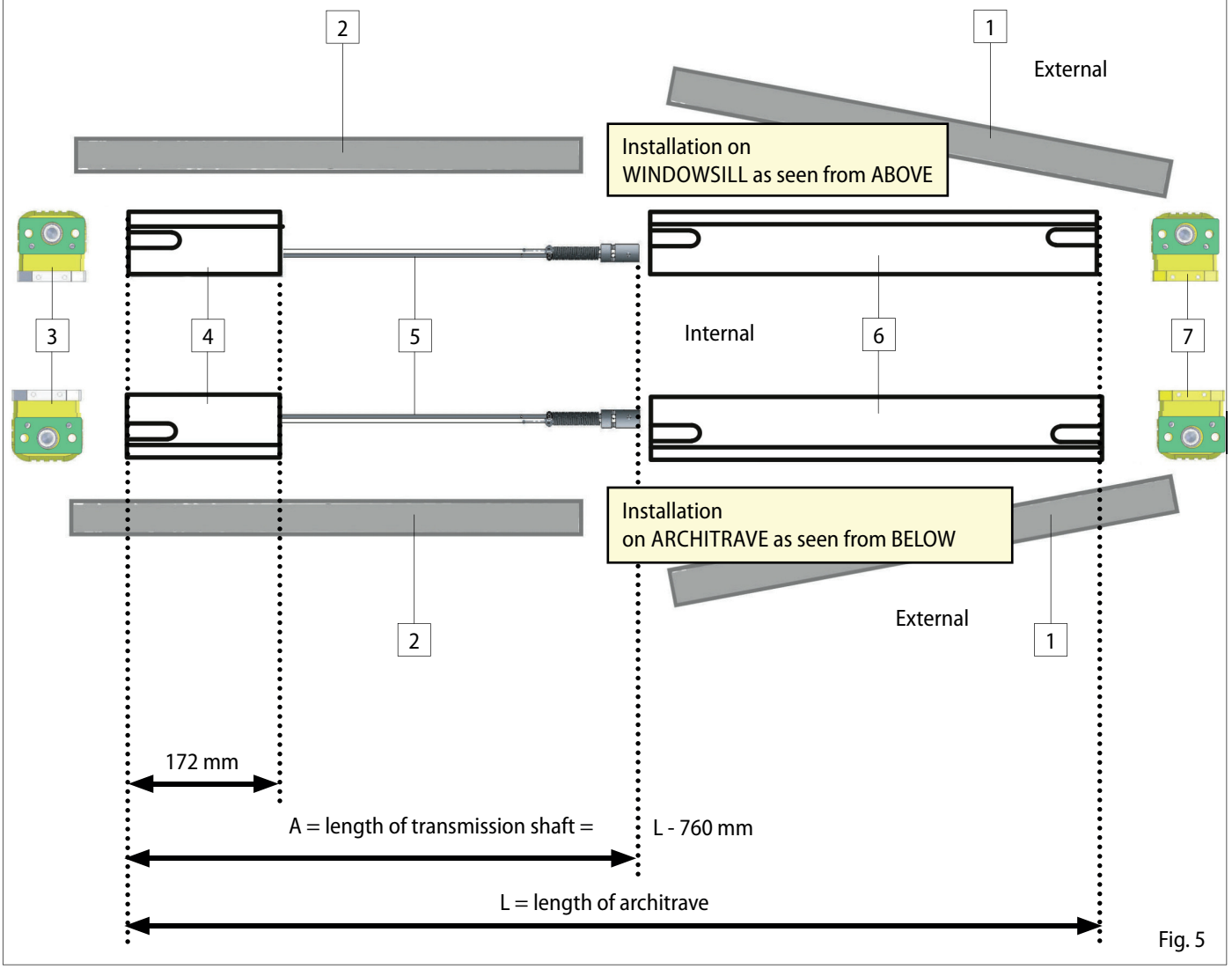
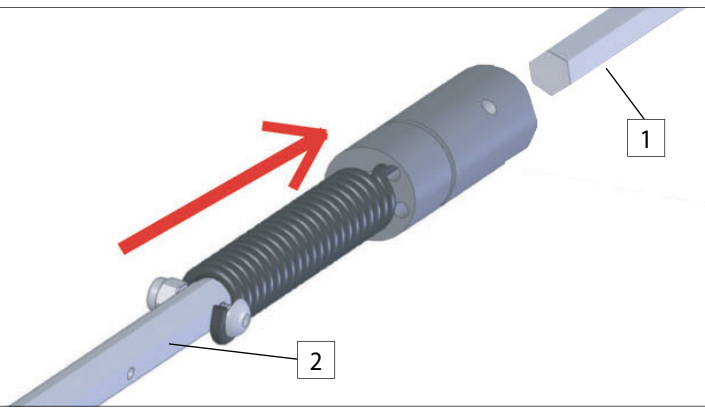


Fig. 5

5.1 INSERTING THE TRANSMISSION SHAFT

Cut the transmission shaft (Fig.6 ref. 2) to length A (Fig.5 ref. A), using the formula below:
A = Length of architrave - 760 mm
Remove any burrs from the area in which the transmission shaft was cut.
Insert the transmission shaft in the hexagonal profile of the motor frame.



1. Motor frame
2. Transmission shaft

Fig. 6

5.2 CABLE OUTLET

Only for configurations 2 and 3:
insert the electrical cable into the PVC tube (see Fig. 7).

CAUTION: the electrical cable must not be in contact with any moving parts.
CAUTION: The cable must be as taut as possible.

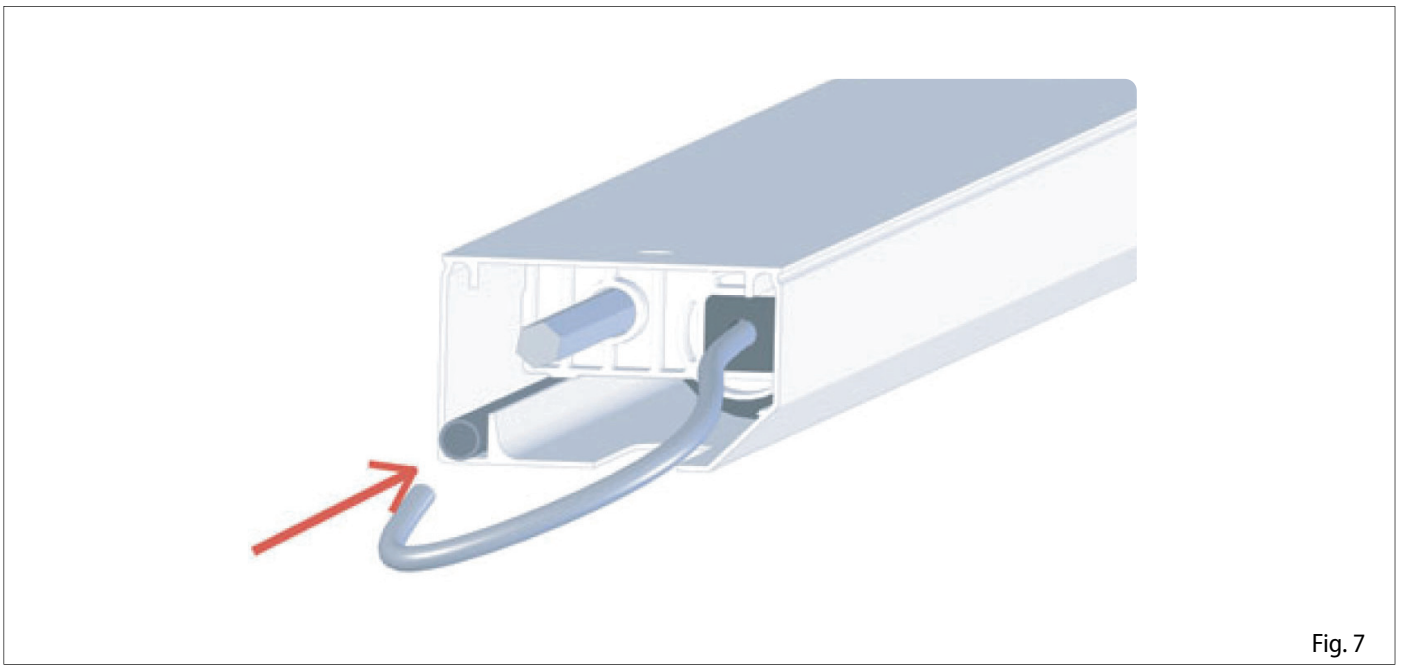
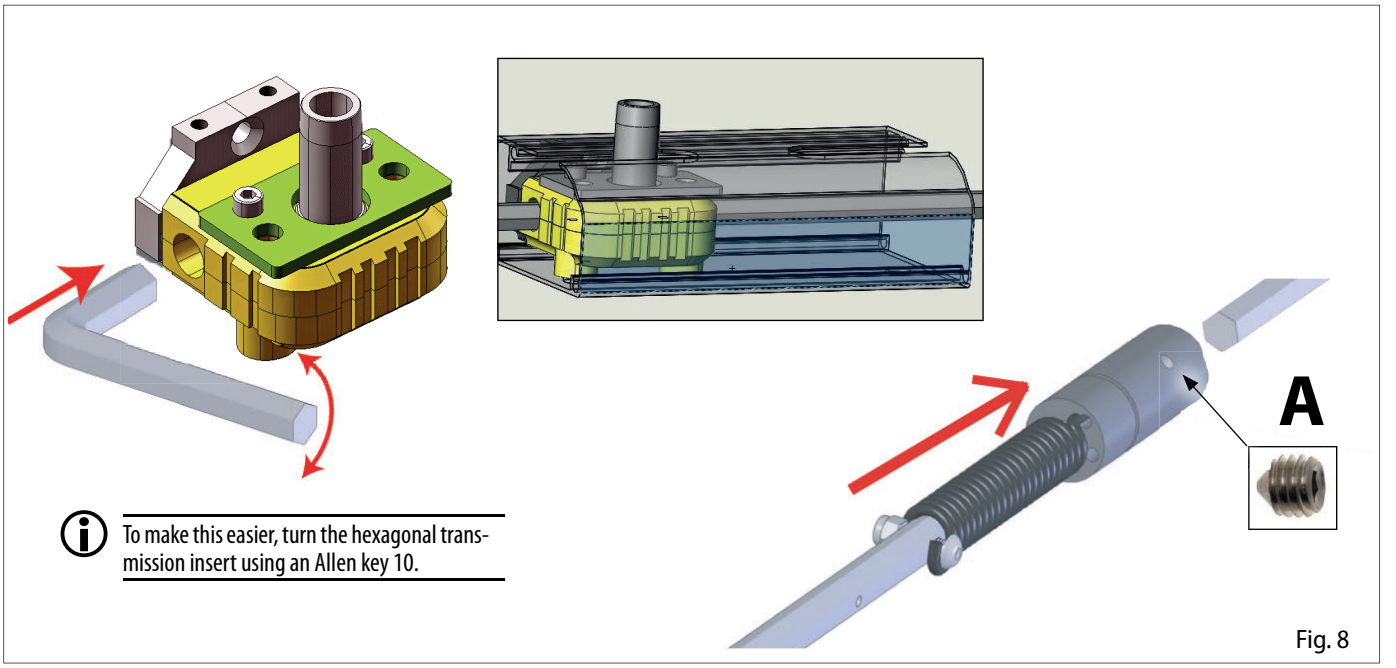


Fig. 7

5.3 ASSEMBLY

Insert the transmission units at each end, making sure that the screws of the reinforcement plate are tightened correctly.
Insert the hexagonal transmission shaft into the hexagonal hole in the transmission unit.
Insert the transmission shaft into the motor frame and fully tighten the grub screw A (Fig. 8)



To make this easier, turn the hexagonal transmission insert using an Allen key 10.

Fig. 8

5.4 MOUNTING HOLES

Assemble the components and place them under the architrave or on the windowsill (figure 9 shows them being installed on the architrave).
Mark the position of the holes for the frames and drill the holes using a suitable bit.
Insert the dowels into the holes.

CAUTION: It is extremely important that it is fastened correctly if the device is to work properly. The dowels must therefore be suitable for the material to which it is fastened.

Screw 1	8x80
Screw 2	6x50

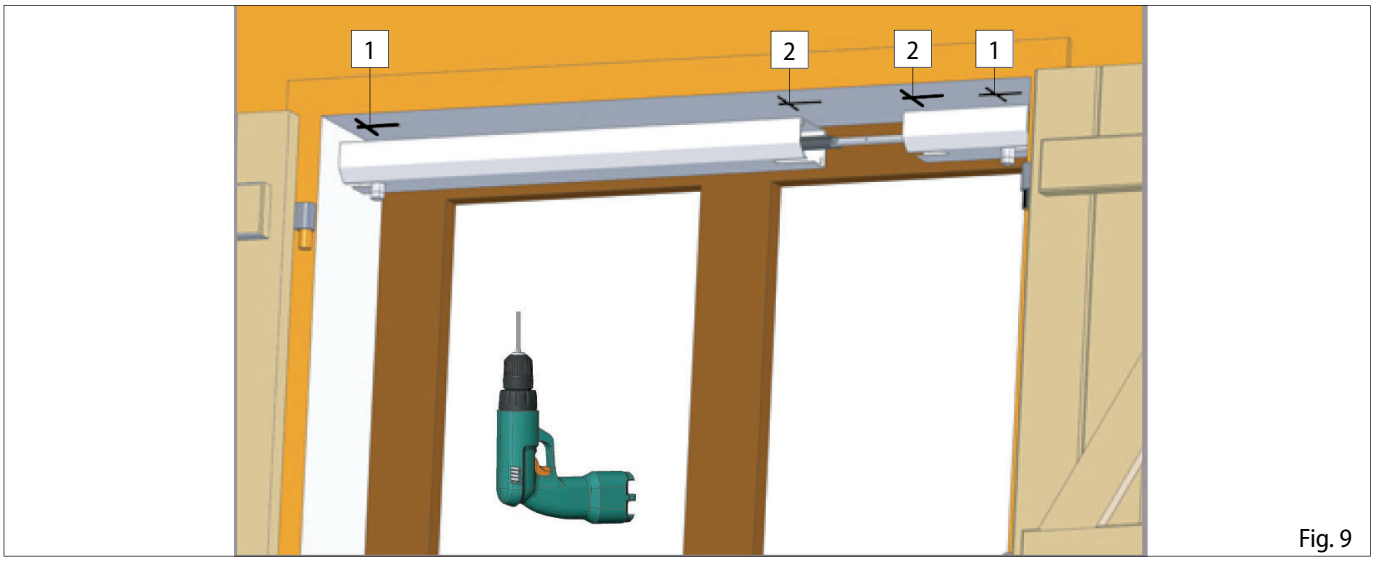


Fig. 9

5.5 INSTALLING THE FRAME

Make sure that the frames are aligned.
Use a spirit level to make sure that the device is perfectly level.
Use the toothed washers supplied with the 8x80 screws. Tighten the screws.
Proceed as indicated in section 9.

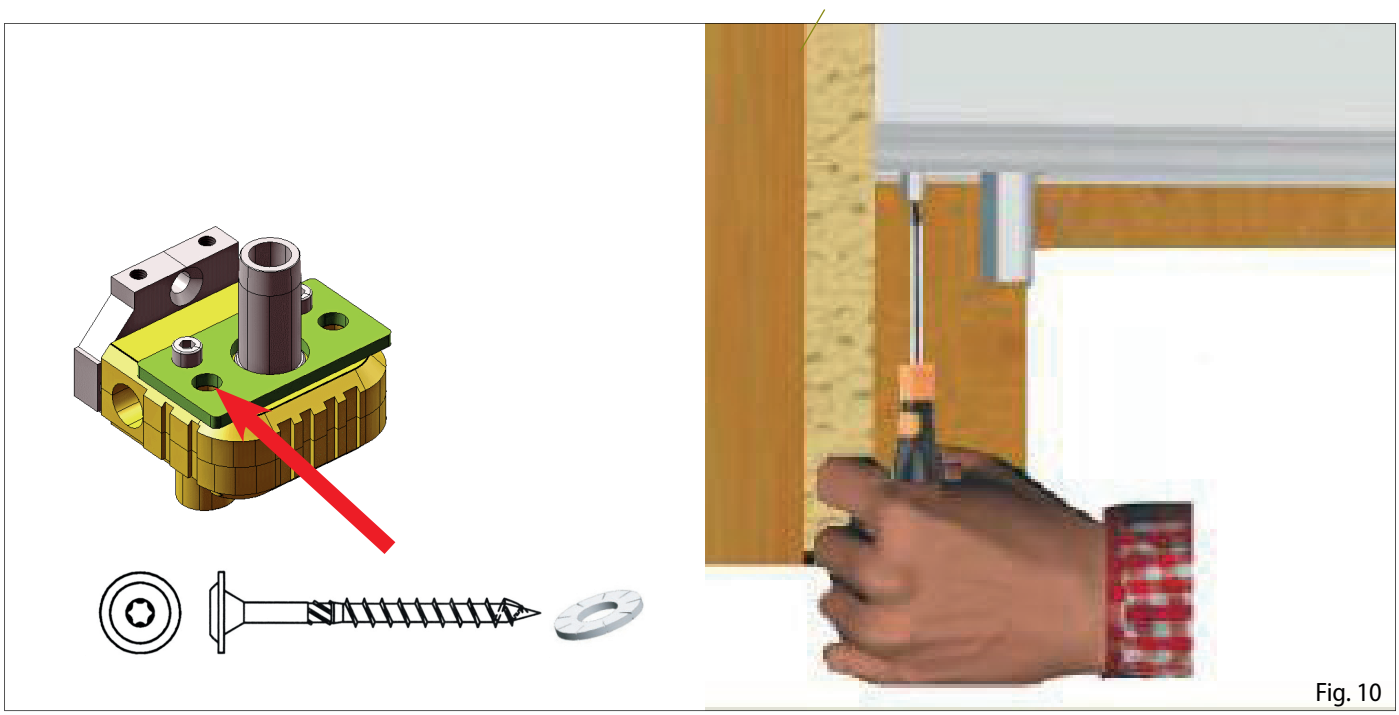
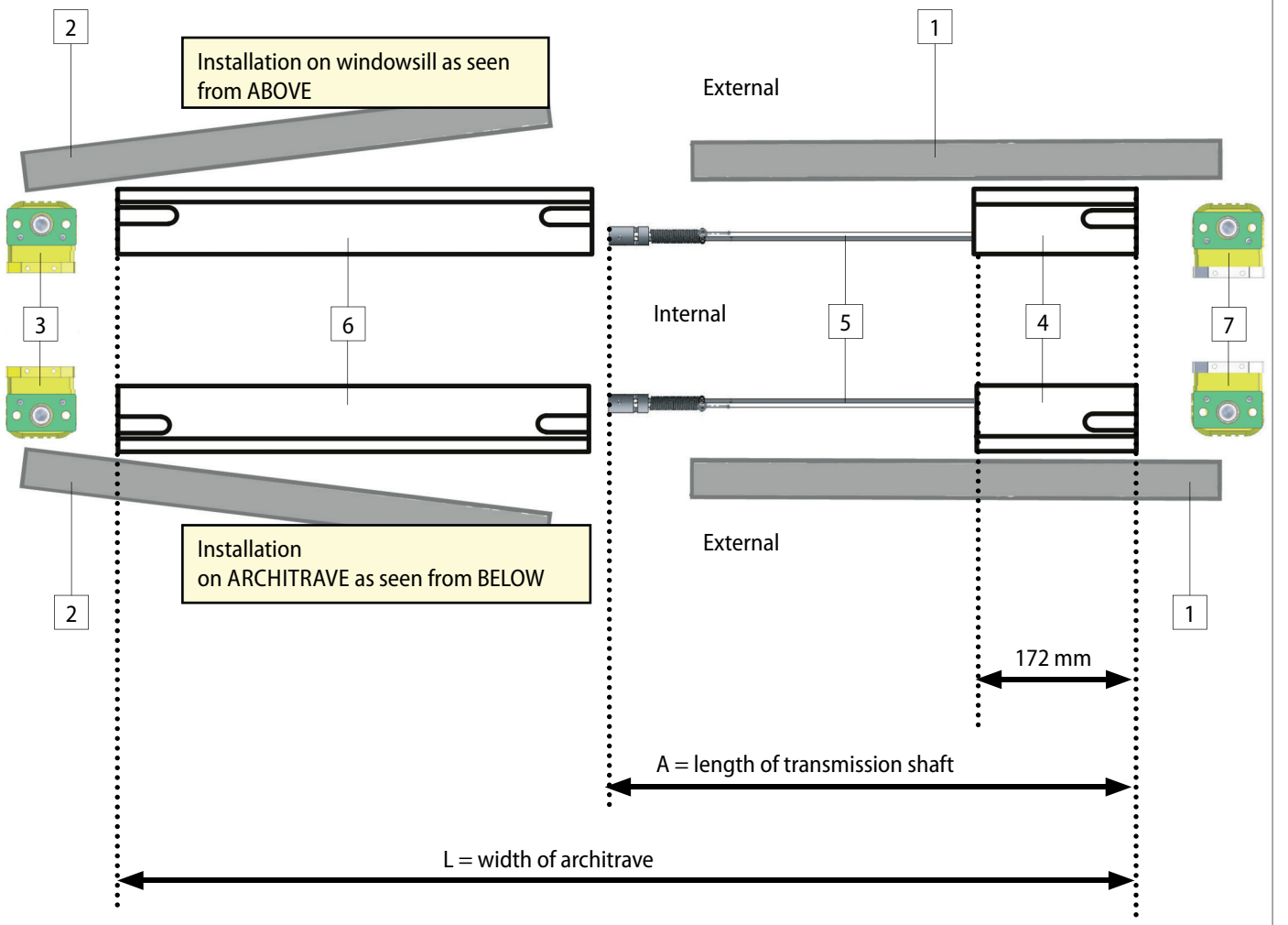


Fig. 10

6. CONFIGURATION N° 5, 6 AND 7, 8

Arrange the components as shown in fig. 11.

1. Right shutter
2. Left shutter
3. Slow transmission (yellow)
4. Transmission frame
5. Transmission shaft
6. Motor frame
7. Fast transmission (grey)

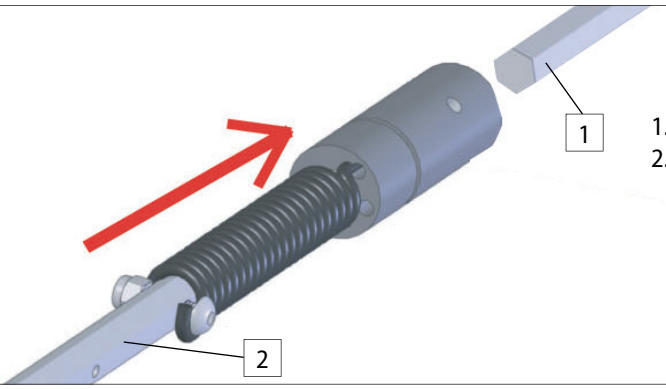


A = length of transmission shaft = L - 760 mm

Fig. 11

6.1 INSERTING THE TRANSMISSION SHAFT

Cut the transmission shaft (Fig.12 ref. 2) to length A (Fig.11 ref. A), using the formula below:
A = Length of architrave - 760 mm
Remove any burrs from the area in which the transmission shaft was cut.
Insert the transmission shaft in the hexagonal profile of the motor frame



1. Motor frame
2. Transmission shaft

Fig. 12

6.2 CABLE OUTLET

Only for configurations 6 and 7:
insert the electrical cable into the PVC tube (see Fig. 13).

CAUTION: the electrical cable must not be in contact with any moving parts.
CAUTION: The cable must be as taut as possible.

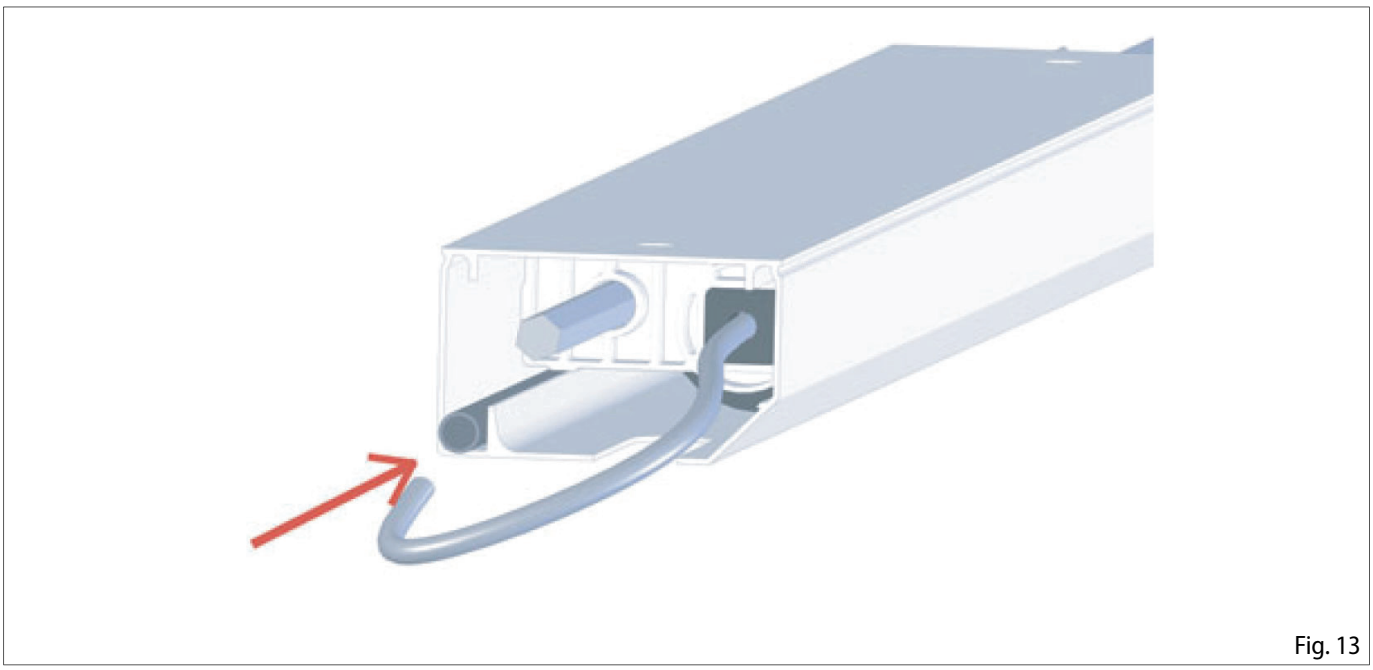
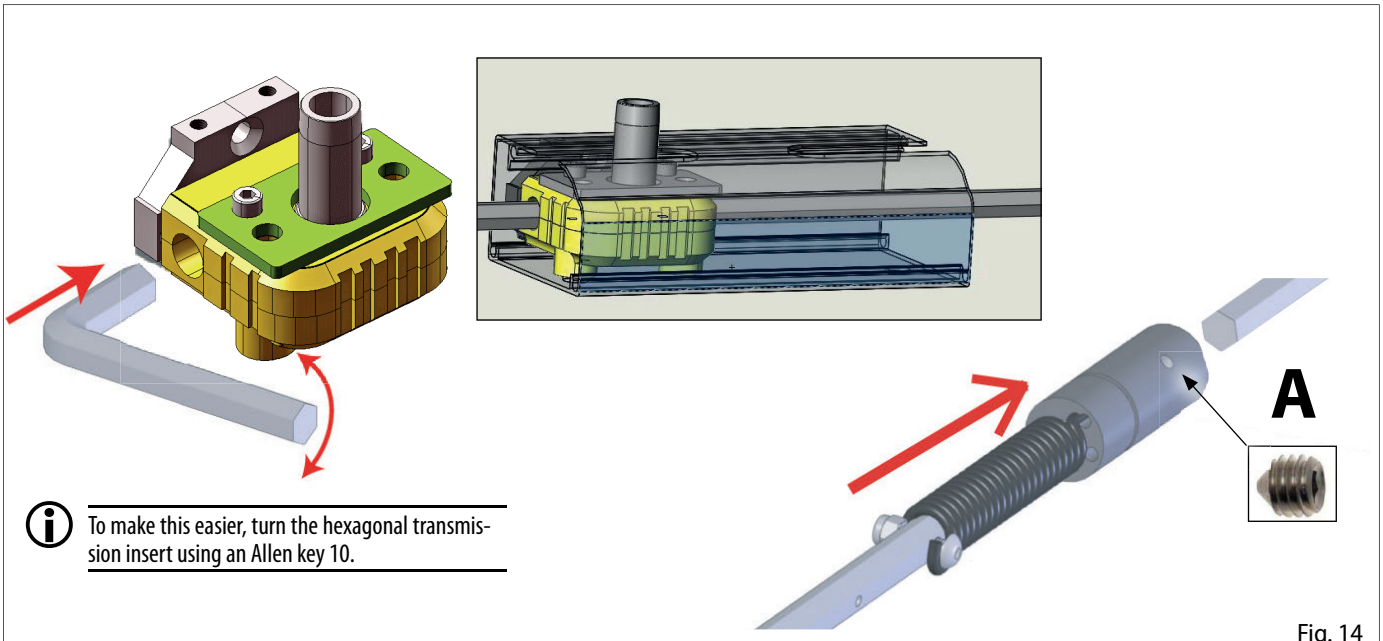


Fig. 13

6.3 ASSEMBLY

Insert the transmission units at each end, making sure that the reinforcement plate is installed correctly.
Insert the hexagonal transmission shaft into the hexagonal hole in the transmission unit.
Insert the shaft into the motor frame and fully tighten the grub screw A (Fig. 14)



To make this easier, turn the hexagonal transmission insert using an Allen key 10.

Fig. 14

6.4 MOUNTING HOLES

Assemble the components and place them under the architrave or on the windowsill (figure 15 shows them being installed on the architrave).
Mark the position of the holes for the frames and drill the holes using a suitable bit.
Insert the dowels into the holes.

CAUTION: It is extremely important that it is fastened correctly if the device is to work properly. The dowels must therefore be suitable for the material to which it is fastened.

Screw 1	8x80
Screw 2	6x50

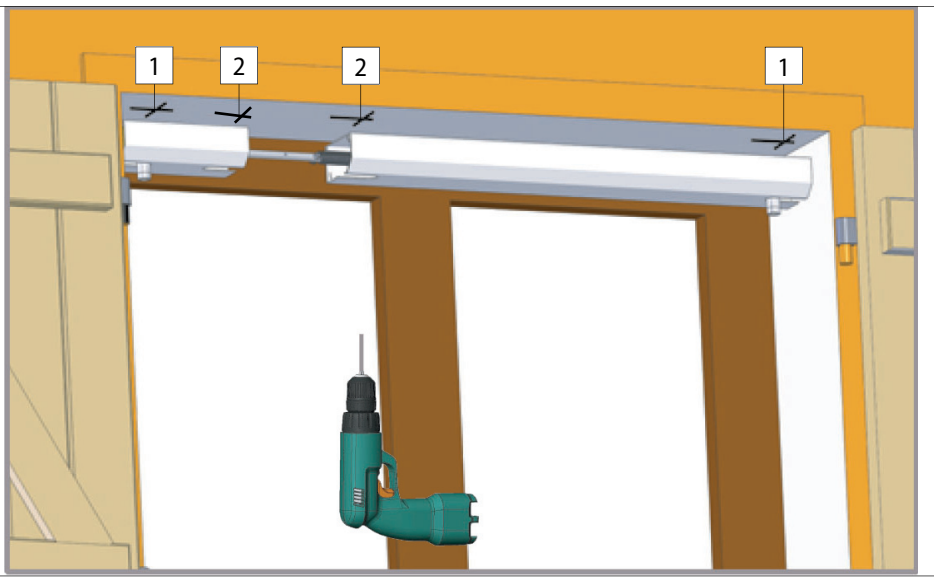
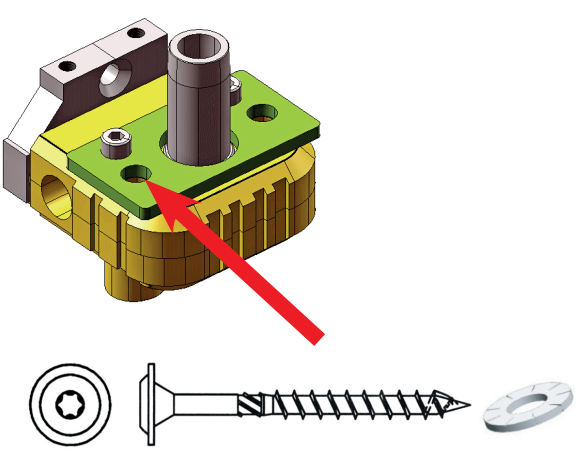


Fig. 15

6.5 INSTALLING THE FRAME

Make sure that the frames are aligned.
Use a spirit level to make sure that the device is perfectly level.
Use the toothed washers supplied with the 8x80 screws. Tighten the screws.
Proceed as indicated in section 9.



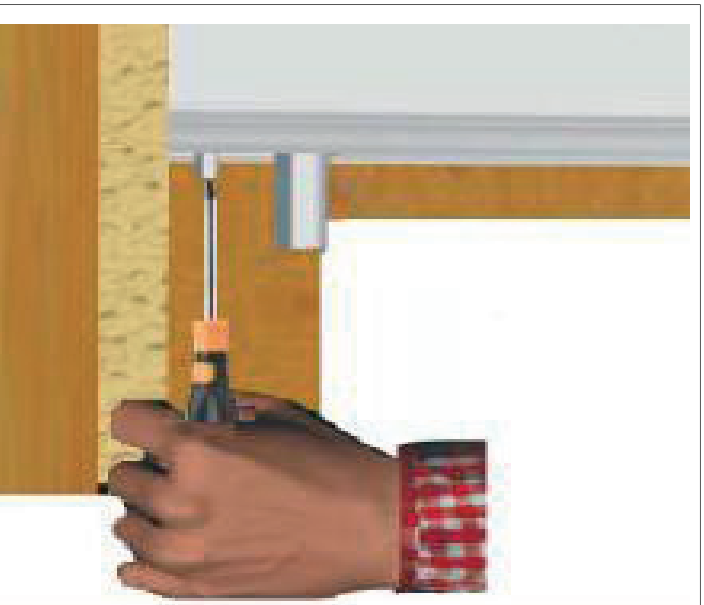


Fig. 16

7. CONFIGURATION N° 9, 10 AND 11, 12

Arrange the components as shown in fig. 17.

1. Right shutter
2. Fast transmission (grey)
3. Motor frame

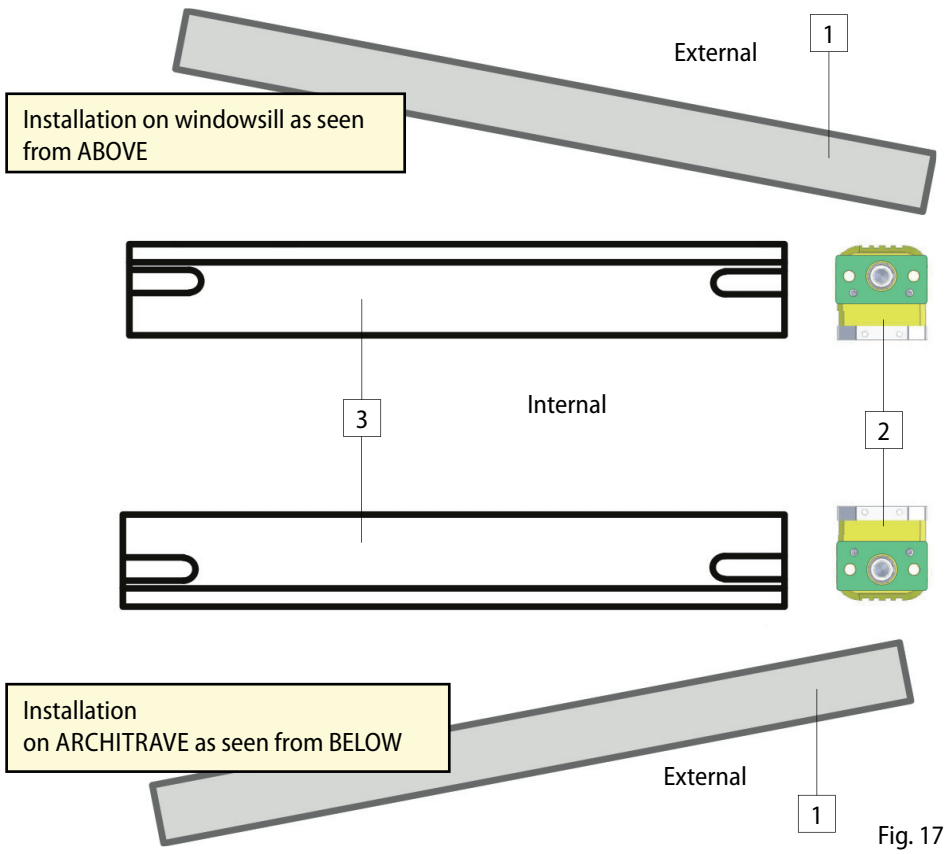


Fig. 17

7.1 PREPARING THE FRAME

For windows with a width of 660 to 760mm, cut the frame as indicated in fig. 18

CAUTION: Protect the cable when doing this.

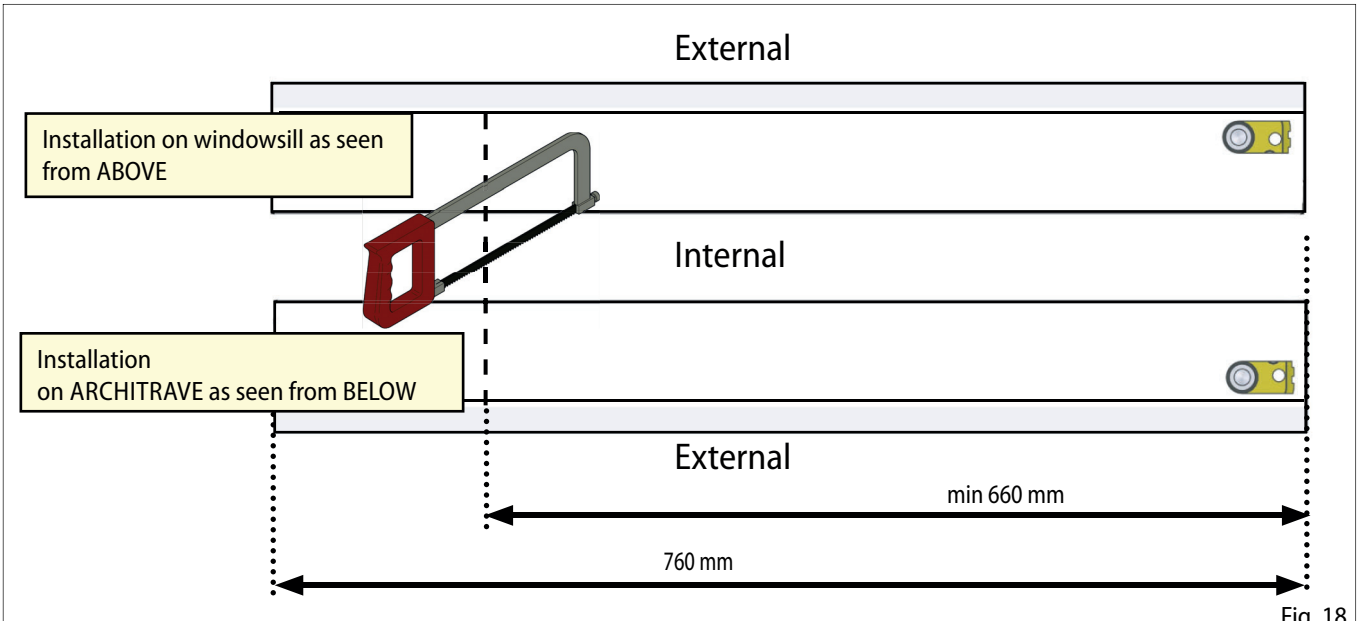


Fig. 18

7.2 CABLE OUTLET

Only for configurations 10 and 11:
insert the electrical cable into the PVC tube (see Fig. 19).

CAUTION: the electrical cable must not be in contact with any moving parts.
CAUTION: The cable must be as taut as possible.

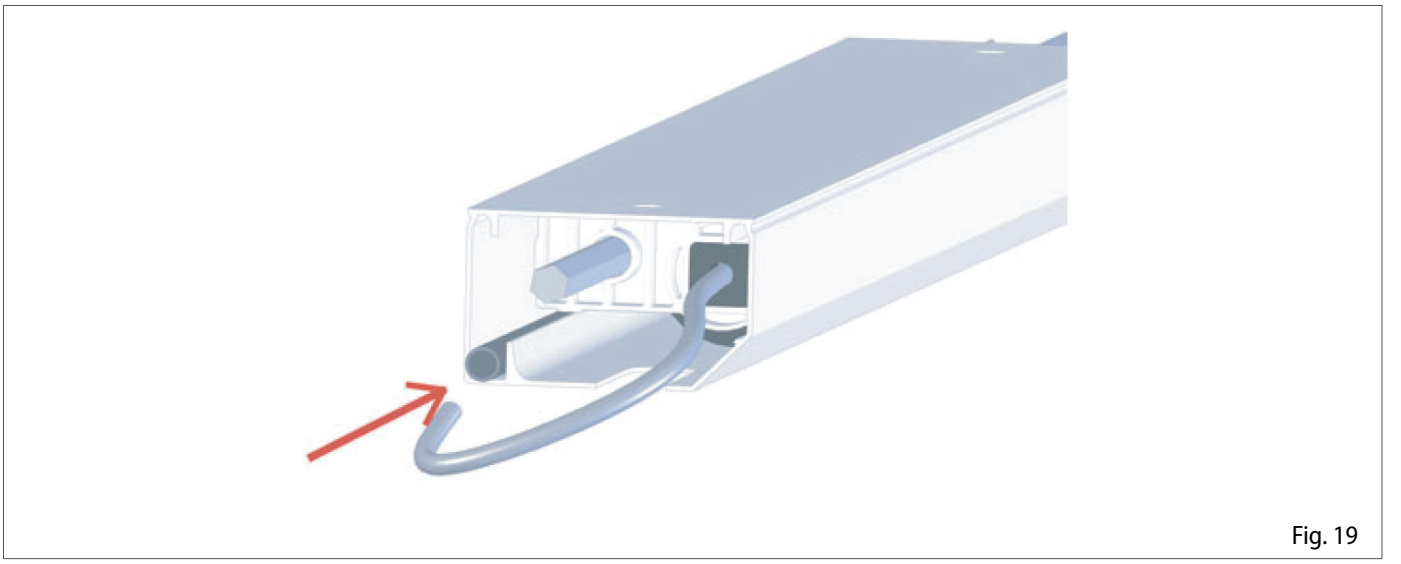
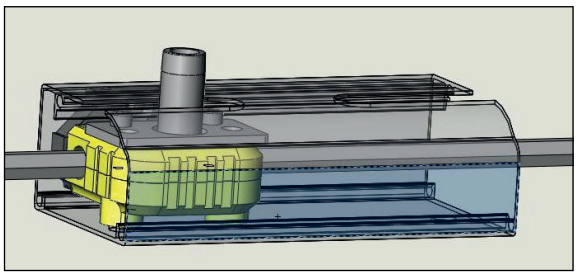
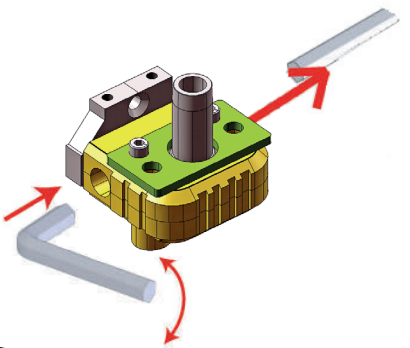


Fig. 19

7.3 ASSEMBLY

Insert the right transmission unit, making sure that the reinforcement is installed correctly.
Position the frame.





To make this easier, turn the hexagonal transmission insert using an Allen key 10.

A. Motor frame.
B. Fast transmission (grey).

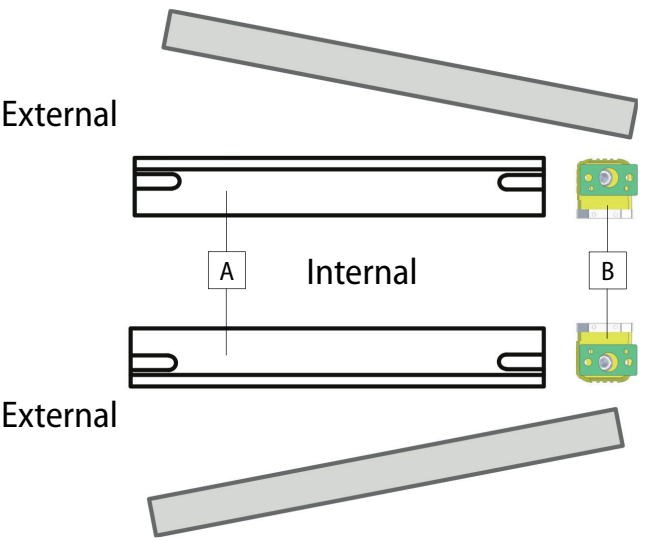


Fig. 20

7.4 MOUNTING HOLES

Assemble the components and place them under the architrave or on the windowsill (figure 21 shows them being installed on the architrave).
Mark the position of the holes for the frame and drill the holes using a suitable bit.
Insert the dowels into the holes.

CAUTION: It is extremely important that it is fastened correctly if the device is to work properly. The dowels must therefore be suitable for the material to which it is fastened.

Screw 1	8x80

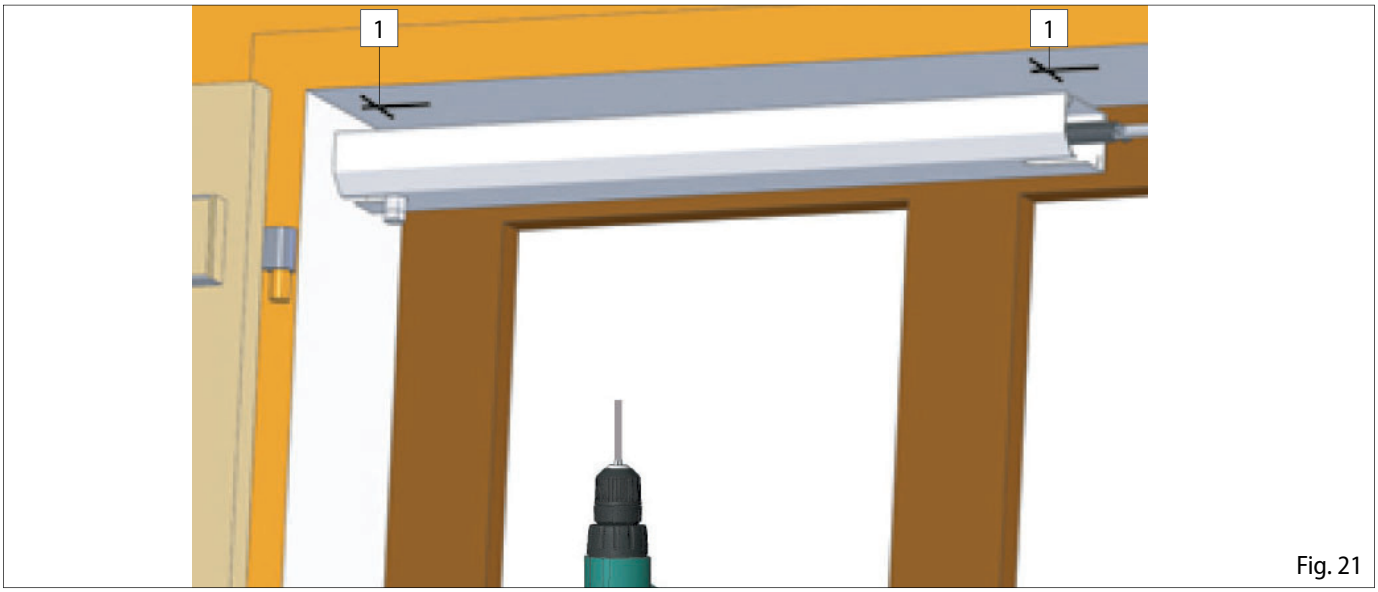


Fig. 21

7.5 INSTALLING THE FRAME

Make sure that the frames are aligned.
Use a spirit level to make sure that the device is perfectly level.
Use the toothed washers supplied with the 8x80 screws. Tighten the screws.
Proceed as indicated in section 9.

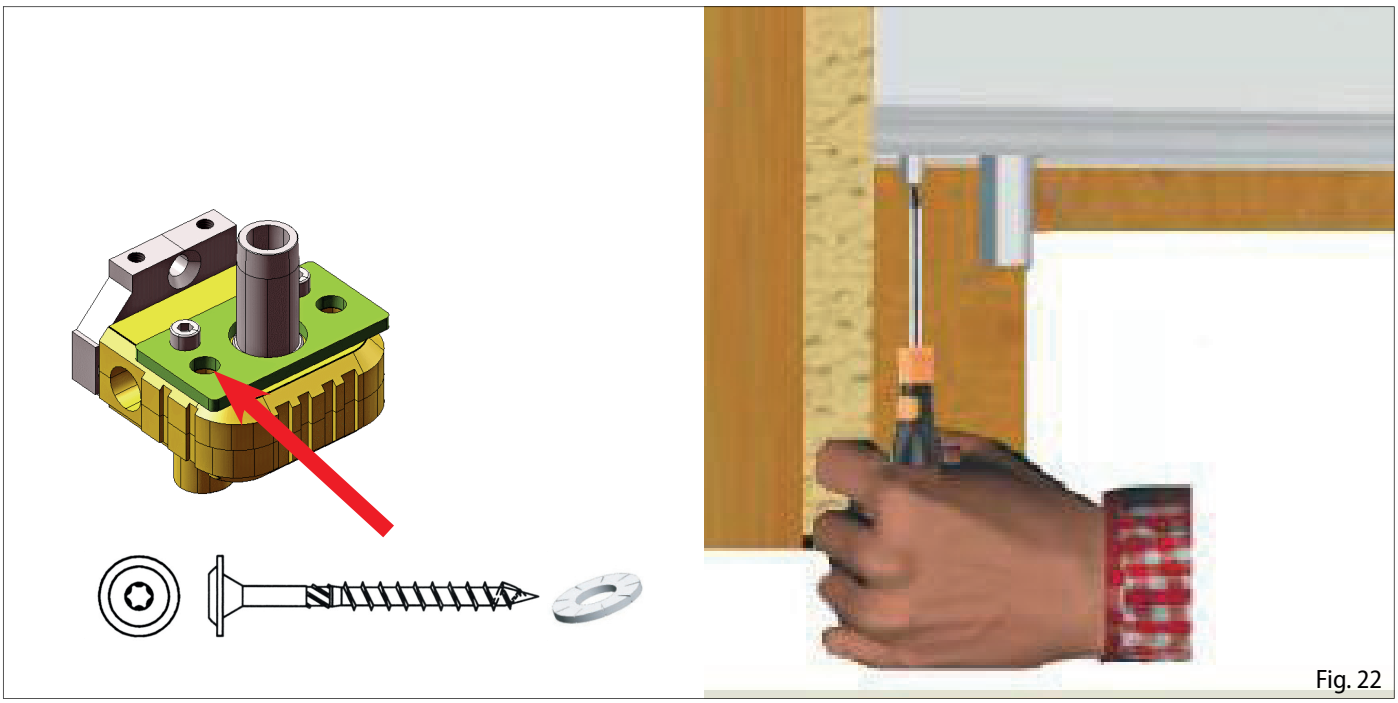


Fig. 22

8. CONFIGURATION N° 13, 14 AND 15, 16

Arrange the components as shown in fig. 23.

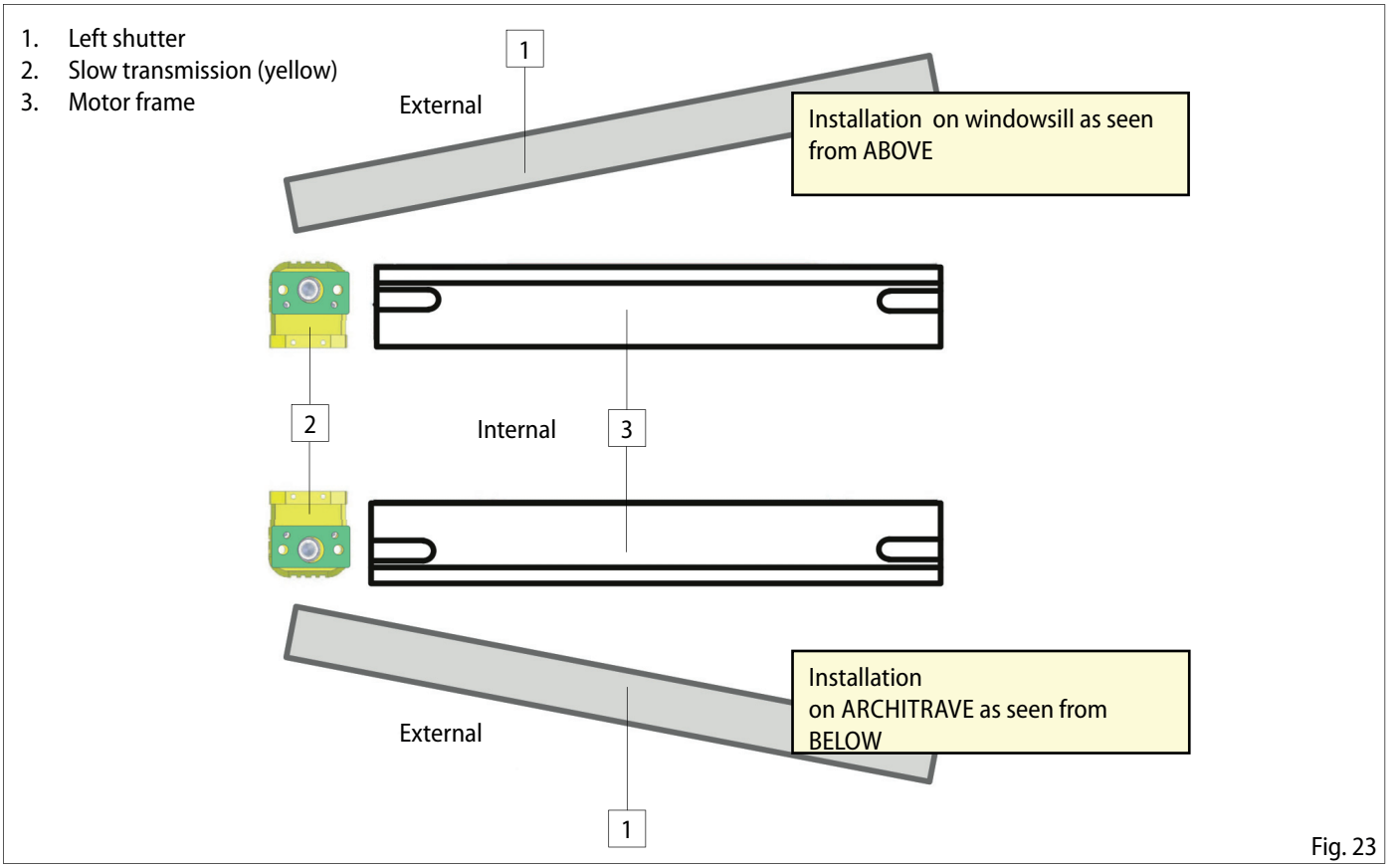


Fig. 23

8.1 PREPARING THE FRAME

For windows with a width of 660 to 760mm, cut the frame as indicated in fig. 24

CAUTION: Protect the cable when doing this.

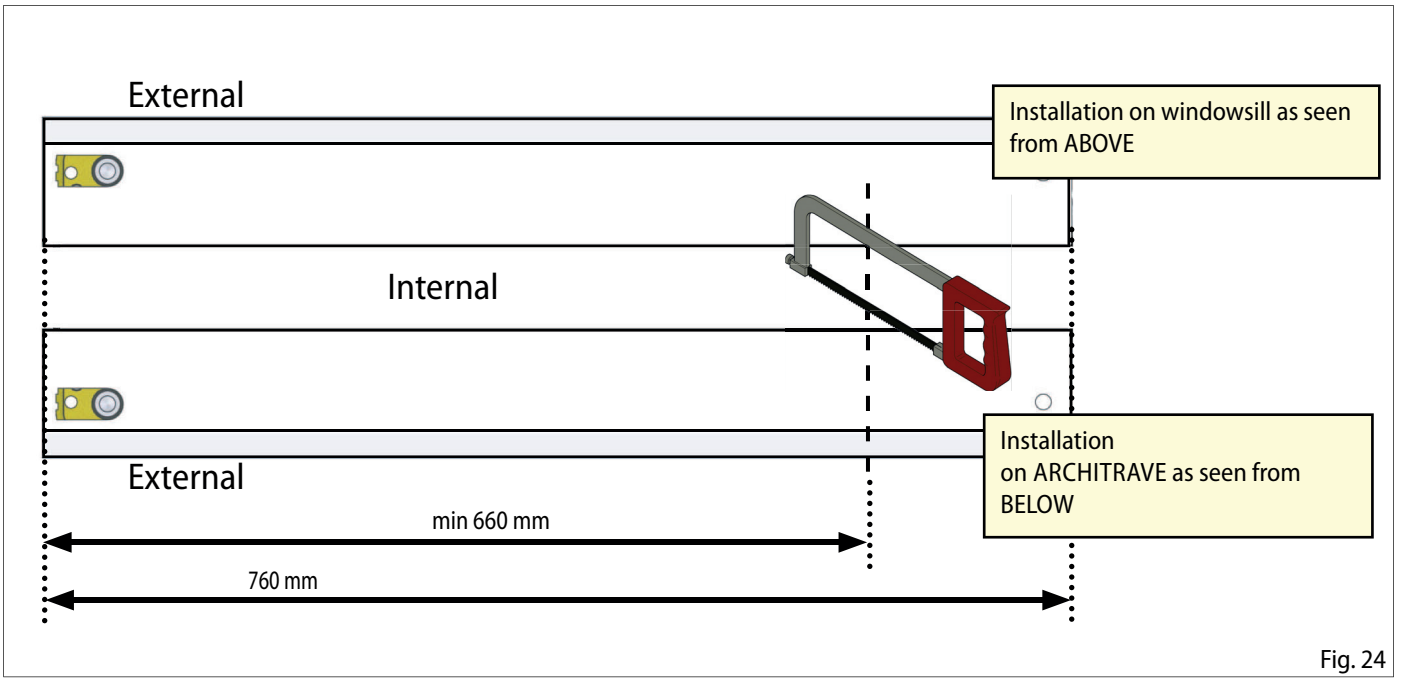


Fig. 24

8.2 CABLE OUTLET

Only for configurations 14 and 15:
insert the electrical cable into the PVC tube (see Fig. 25).

CAUTION: the electrical cable must not be in contact with any moving parts.
CAUTION: The cable must be as taut as possible.

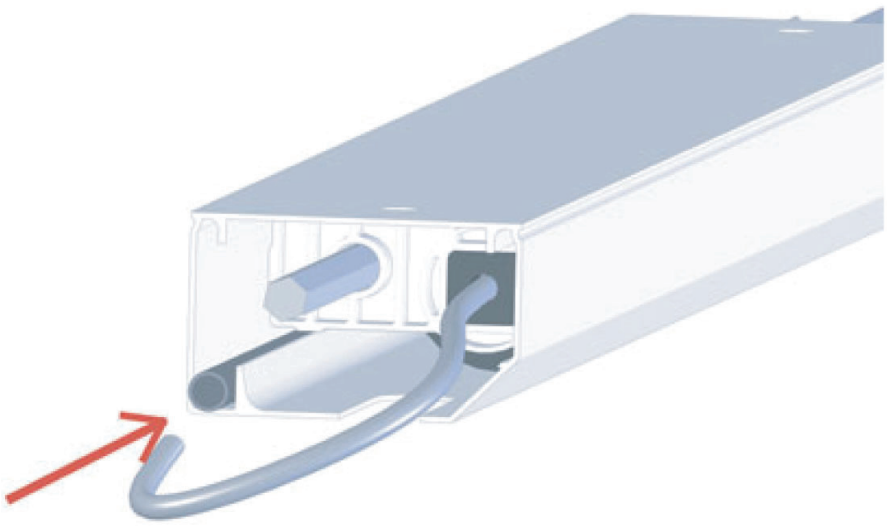
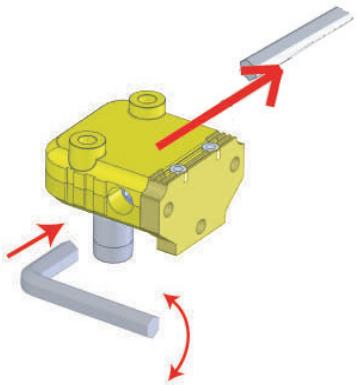


Fig. 25

8.3 ASSEMBLY

Insert the left transmission unit , making sure that the reinforcement is installed correctly.
Position the frame.

A. Motor frame.
B. Slow transmission (yellow).



To make this easier, turn the hexagonal transmission insert using an Allen key 10.

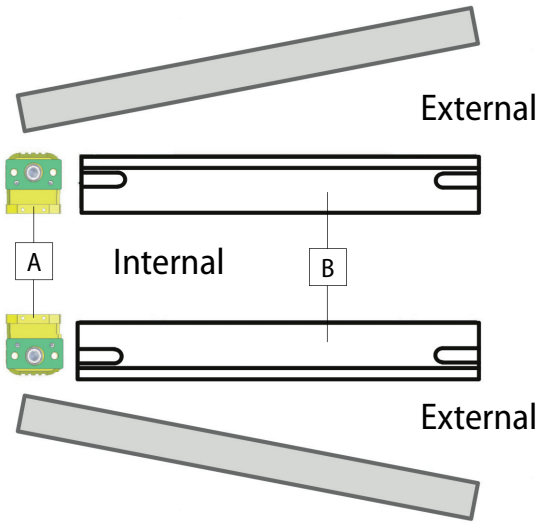


Fig. 26

8.4 MOUNTING HOLES

Assemble the components and place them under the architrave or on the windowsill (figure 27 shows them being installed on the architrave).
Mark the position of the holes for the frames and drill the holes using a suitable bit.
Insert the dowels into the holes.

CAUTION: It is extremely important that it is fastened correctly if the device is to work properly. The dowels must therefore be suitable for the material to which it is fastened.

Screw 1	8x80

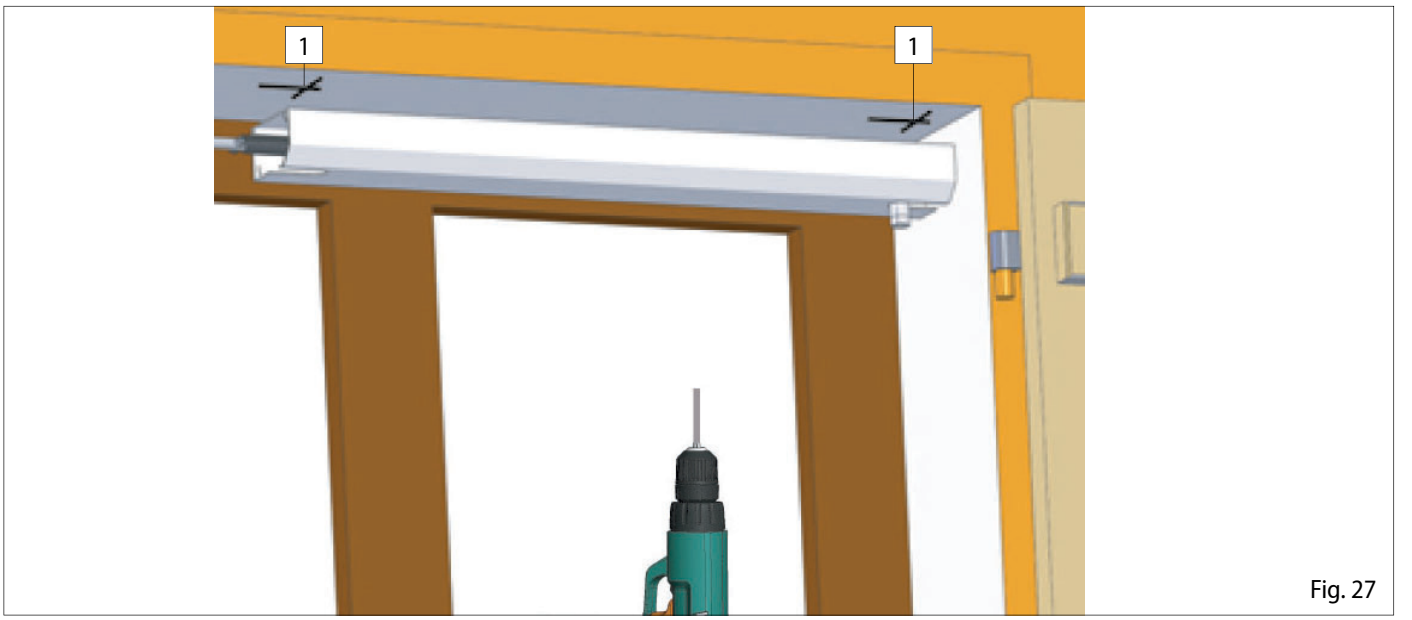


Fig. 27

8.5 INSTALLING THE FRAME

Make sure that the frames are aligned.
Use a spirit level to make sure that the device is perfectly level.
Use the toothed washers supplied with the 8x80 screws. Tighten the screws.
Proceed as indicated in section 9.

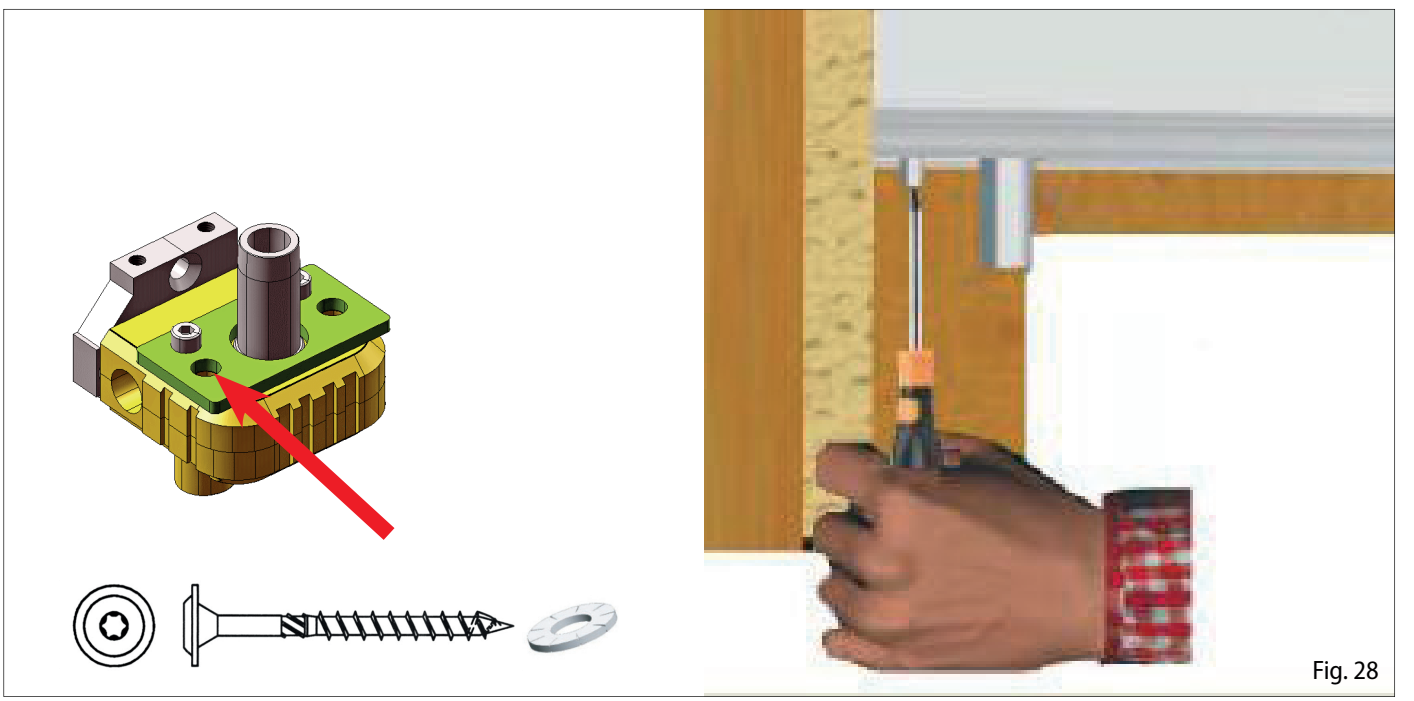


Fig. 28

9. POSITIONING THE CASING

9.1 ROUTING THE CABLE

Insert the cable into the cable gland.
Place the cable gland into the notch on the frame next to the cable outlet.

1. Cable gland
2. Notch for cable gland

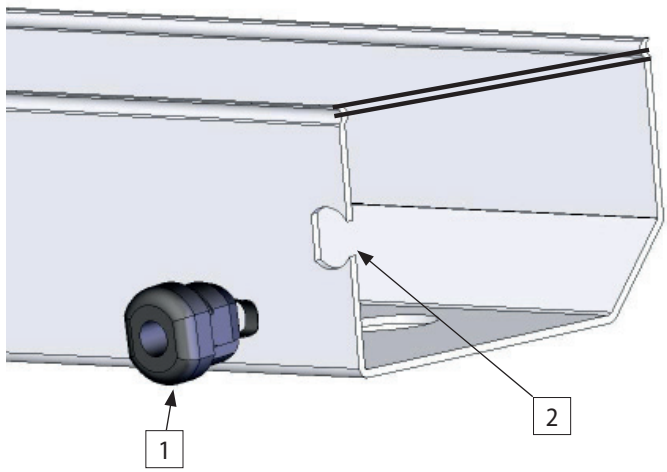


Fig. 29

9.2 INSTALLING THE CASING

1. Install the casing and the cover profiles on the frames.
2. Push them upwards until you hear them "click" into place.

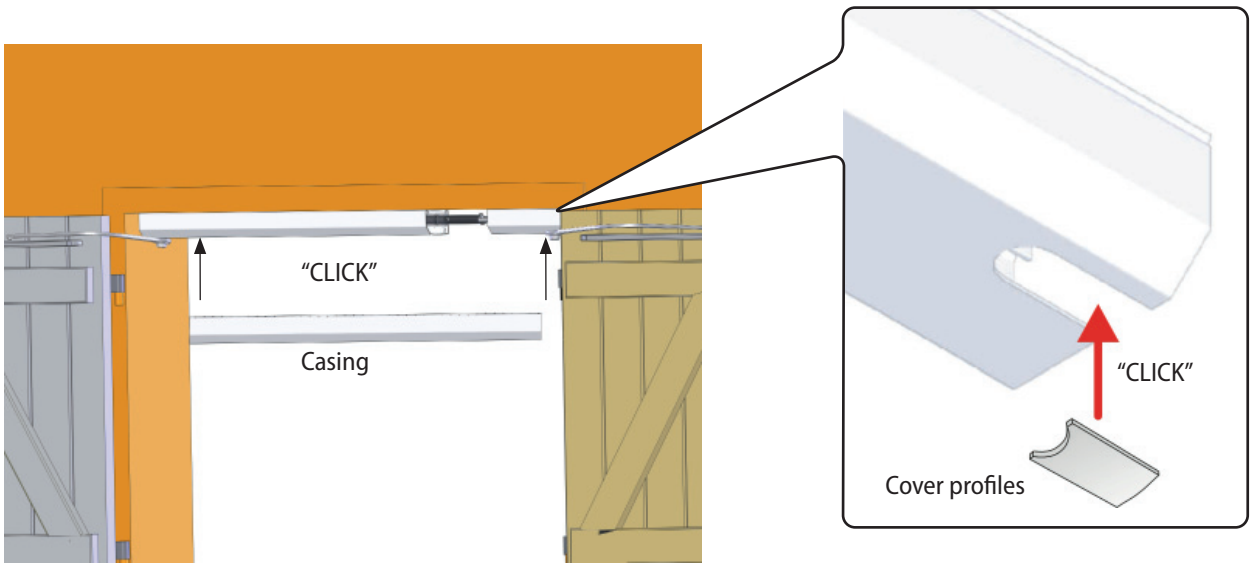


Fig. 30

10. POSITIONING THE ARMS

10.1 INSTALLING THE ARMS

Open both leaves (the leaves must be opened by the same amount / degrees)

Place the spring washer (fig 31 ref. F) onto the screw (fig. 31 ref. G) making sure that it is inserted the correct way round as shown in the figure.

Insert the drive ring (Fig. 31 ref. E) onto the arm

Insert the drive ring/arm assembly onto the transmission shaft of the transmission unit and tighten the screw G in order to be able to turn the arm.

Insert the safety screw onto the shaft (Fig. 31 ref. A) and secure it using the M6 nut (Fig. 31 ref. C).

Install the reversible roller on the safety screw.

Carry out the same operation for the other leaf, if present.

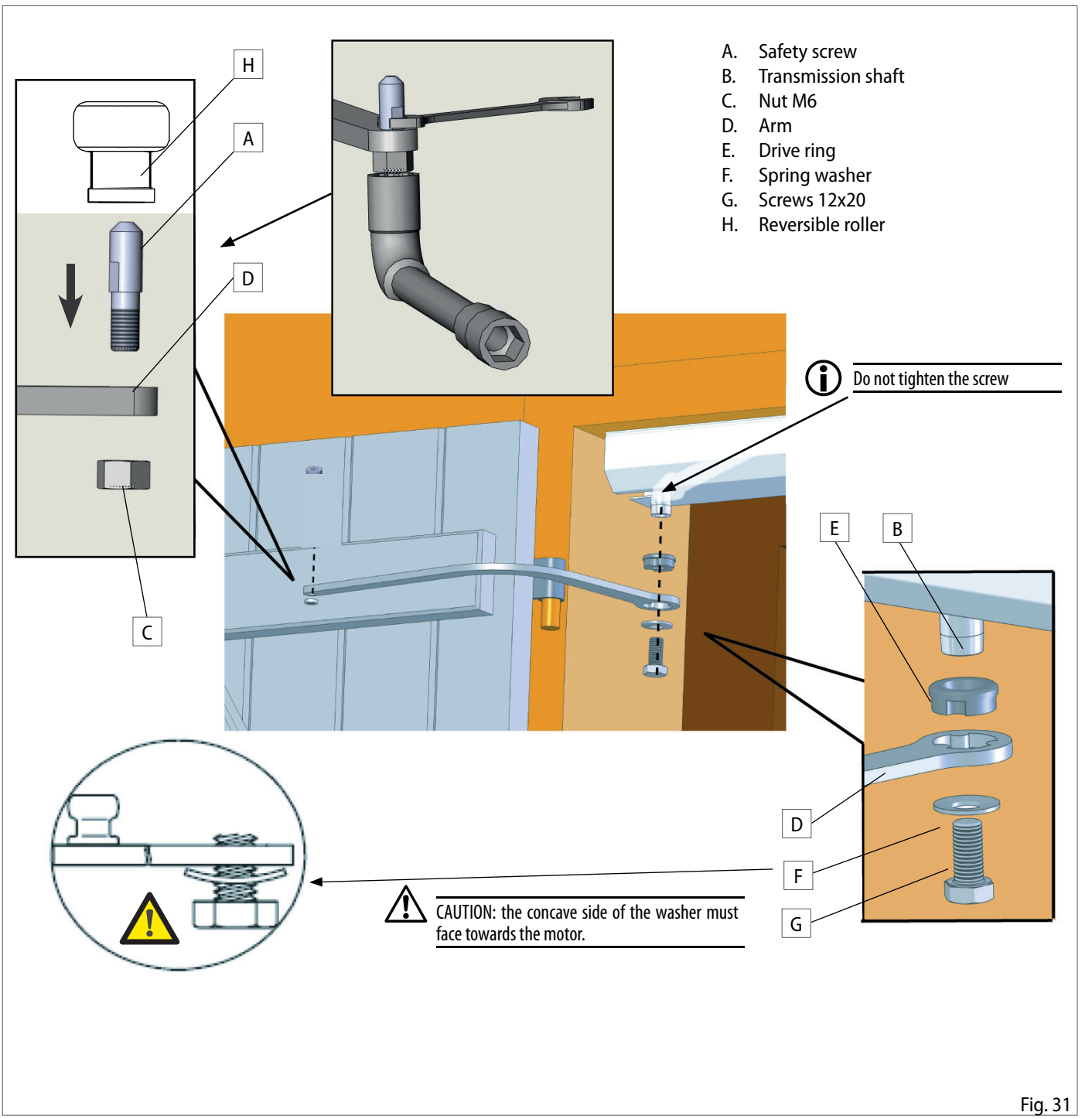


Fig. 31

10.2 DETERMINING THE STROKE OF THE ARM

Mark the position of the arm spacer on the shutter:
Shutter open
Shutter closed

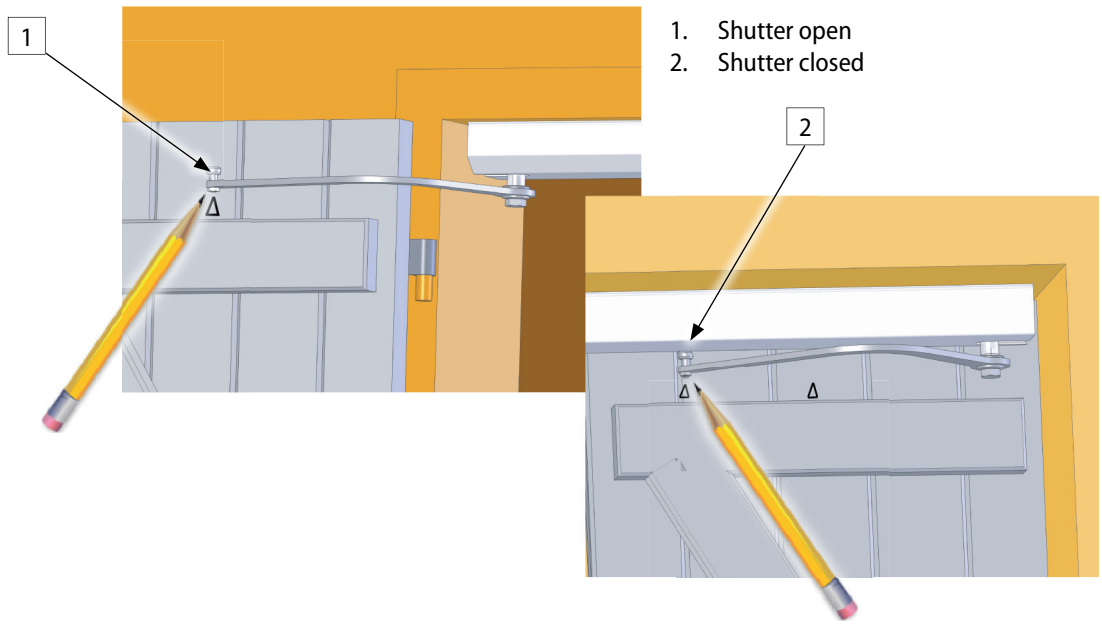


Fig. 32

10.3 INSTALLING THE GUIDE

Insert the reversible roller into the guide and position it on the open shutter.
Centre the guide on the shutter and level it.
Insert the plugs into the guides and fasten them to the shutter using the 5x35 screws.
Make sure that the shutters are resting firmly against the façade.
Fully tighten the 12x20 screws of the arms (Fig.33 ref. A).

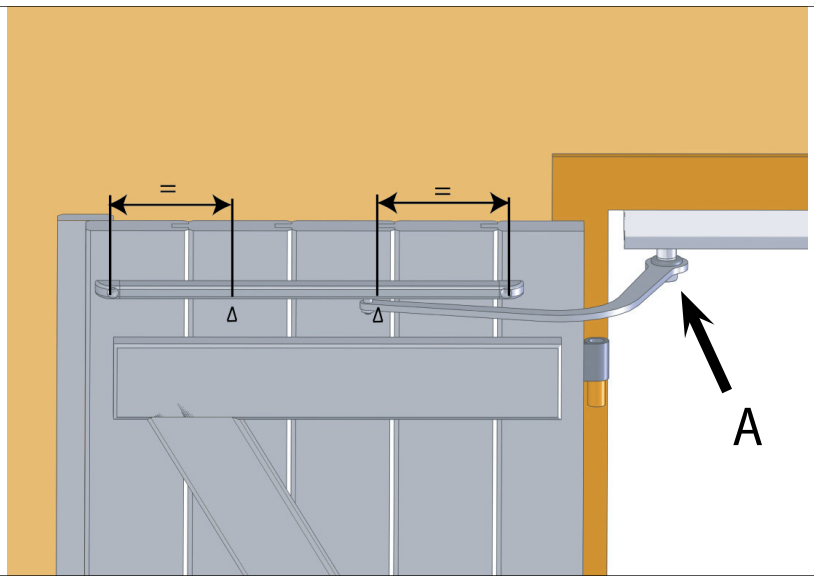


Fig. 33

11. STARTUP

11.1 WIRING

Connect the yellow-green wire to the earth terminal.

Connect the mains power supply as indicated in figure 34.

BUTTON

The ND2 SENSO can be controlled by a step logic N.O. button.

Connect the N.O. button to the phase or the neutral and the white (or black) wire of the motor (figure 34).

Multiple ND2 SENSO devices can be controlled by the same button (figure 35).

Do not operate the same ND2 SENSO with more than one button (figure 38).

The maximum length of the motor power cable is 50m. If a longer cable has to be used, install an isolating relay close to the motor.

DOUBLE INTERLOCKED SWITCH

The ND2 SENSO can be controlled by a double interlocked N.O. step logic or dead-man button (figure 36).

Make sure that it is wired correctly. The shutters should open when the open button is pressed. If they don't, you should invert the phase wires of the double switch.

Multiple ND2 SENSO devices can be controlled by the same double interlocked switch (figure 37).

Do not operate the same ND2 SENSO with more than one double interlocked switch (figure 39).

The maximum length of the motor power cable is 50m. If a longer cable has to be used, install an isolating relay close to the motor.

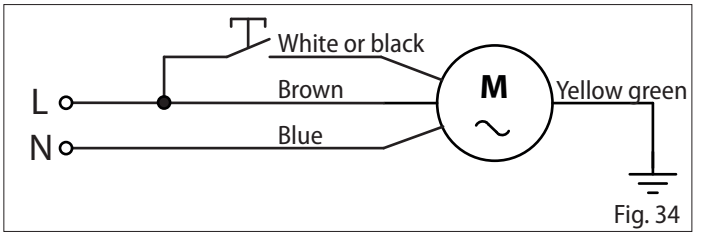


Fig. 34

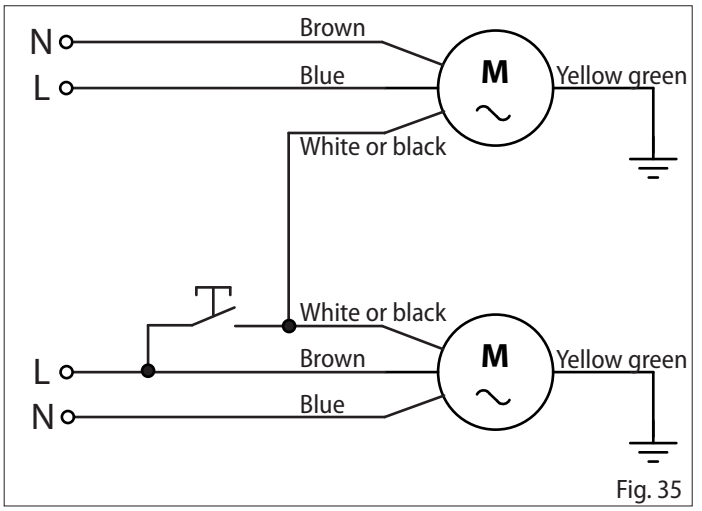


Fig. 35

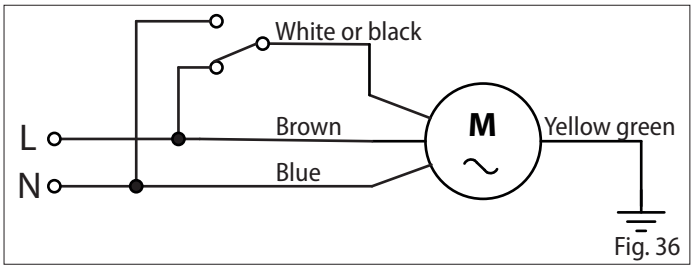


Fig. 36

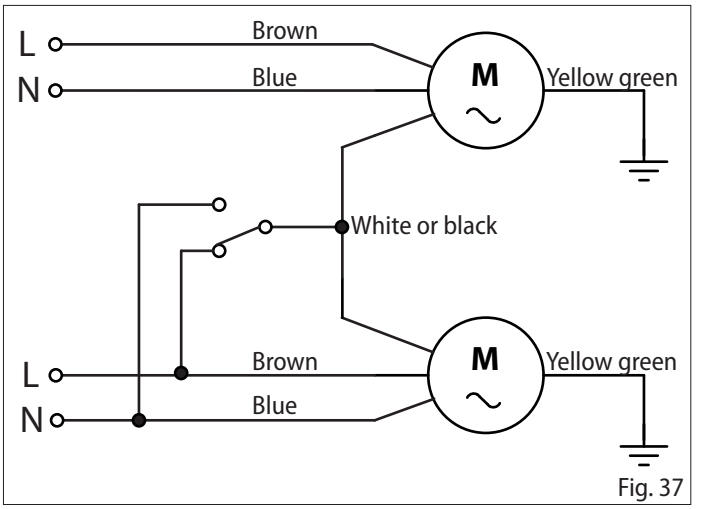


Fig. 37

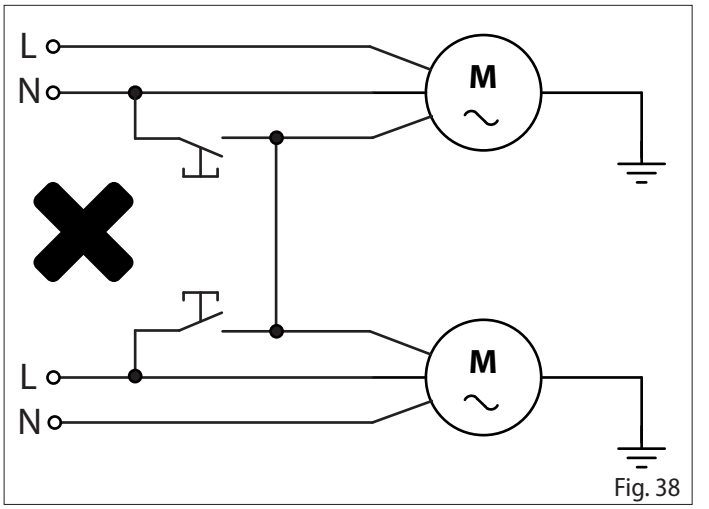


Fig. 38

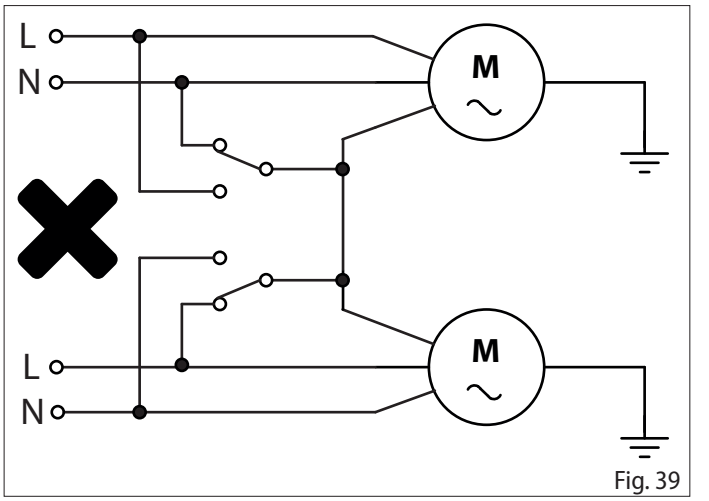
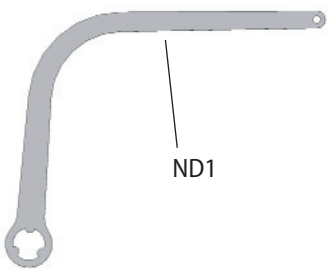
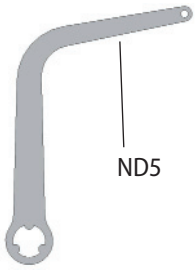


Fig. 39

12. ARM TYPES

The type of arms (ND1 or ND4) supplied in the KIT depends on the country in which the product is marketed. Other types of arms are available for special installation requirements. The following tables can be used to select the most suitable model for the measurements of your application.





Arm ND1. Min. depth 150 mm.

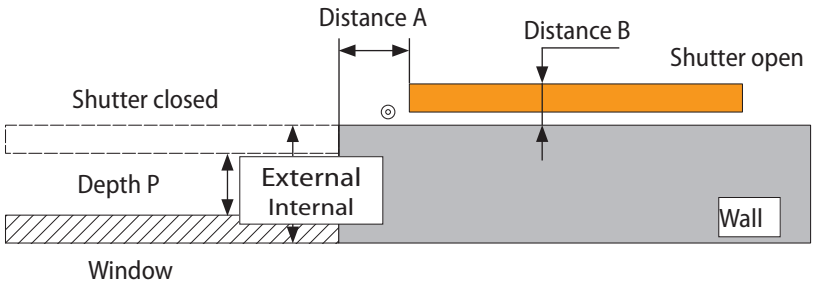
Arm ND5. Min. depth 150 mm.

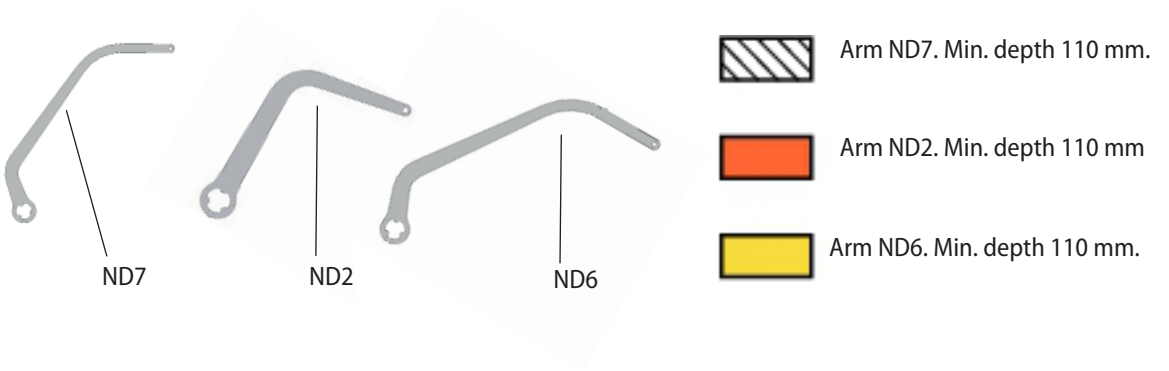
	For a depth P of > 150mm													
Distance B	20	30	40	50	60	70	80	90	100	110	120	130	140	150
Distance A														
10														
20														
30														
40														
50														
60														
70														
80														
90														
100														
110														
120														
130														
140														
150														

This table does not cover all situations. It can be used for shutters that are 28 mm thick and 500 mm wide.

The recess could be on the shutter rather than on the wall.

Use an articulated arm for "Padua" type (hinged) shutters.



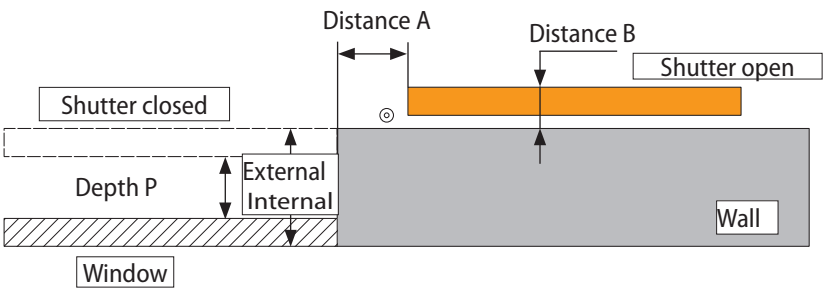


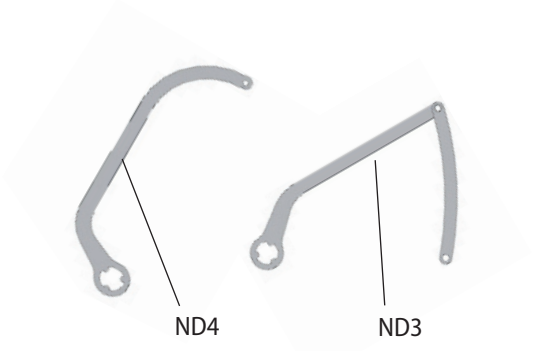
	For a depth P > 110mm													
Distance B	20	30	40	50	60	70	80	90	100	110	120	130	140	150
Distance A														
10														
20														
30														
40														
50														
60														
70														
80														
90														
100														
110														
120														
130														
140														
150														
160														
170														
180														

This table does not cover all situations. It can be used for shutters that are 28 mm thick and 500 mm wide.

The recess could be on the shutter rather than on the wall.

Use an articulated arm for “Padua” type (hinged) shutters.





Arm ND4. Min. depth 110 mm.

Arm ND3 (used without guide). Min. depth 110 mm.

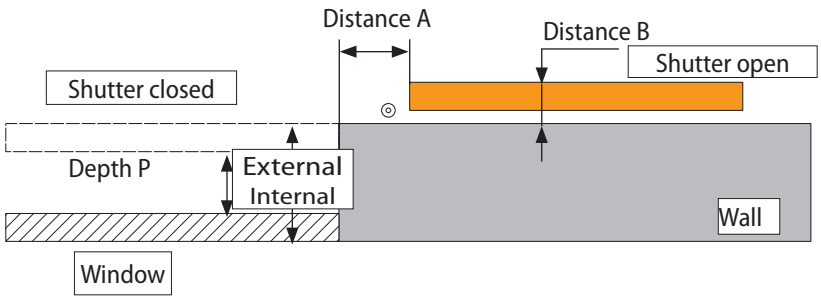
Arm ND8 (used without guide). Min. depth 110 mm.

	For a depth P > 110mm													
Distance B	20	30	40	50	60	70	80	90	100	110	120	130	140	150
Distance A														
10														
20														
30														
40														
50														
60														
70														
80														
90														
100														
110														
120														
130														
140														
150														
160														
170														
180														

This table does not cover all situations. It can be used for shutters that are 28 mm thick and 500 mm wide.

The recess could be on the shutter rather than on the wall.

Use an articulated arm for "Padua" type (hinged) shutters.



13. OPERATING THE AUTOMATION MANUALLY

If there is a power failure or the automation malfunctions, the following procedure can be used to release the leaves:

1. On the first leaf that opens, pull the arm downwards until the pin comes out from the guide.
2. Open the leaf.
3. Carry out the same procedure for the other leaf (if present).
4. To restore normal operation, close the leaves and put the pin back in the guide.

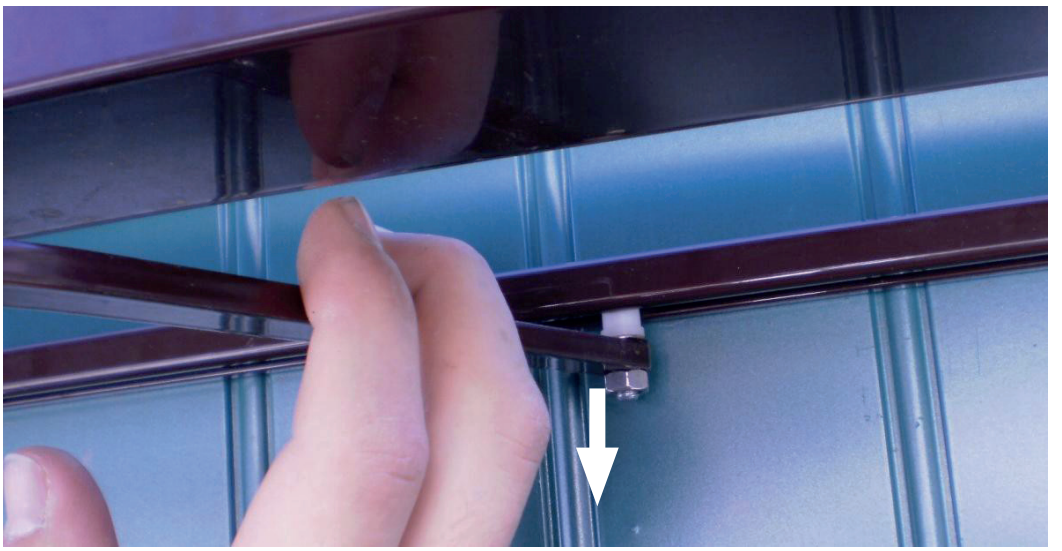


Fig. 40

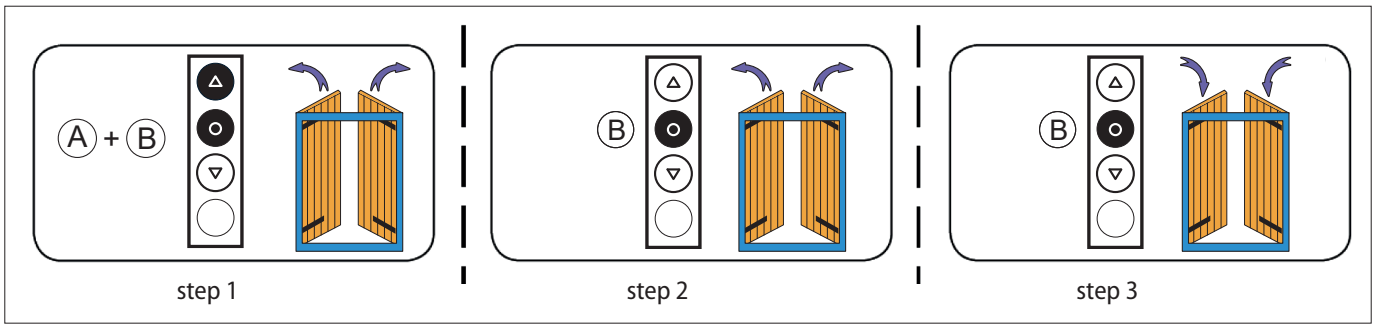
14. EXPLANATION OF COMMAND SEQUENCES

Most command sequences consist of three distinct steps, after which the motor indicates whether the step has ended correctly or not by rotating in different ways. The purpose of this section is to explain the

motor signals.

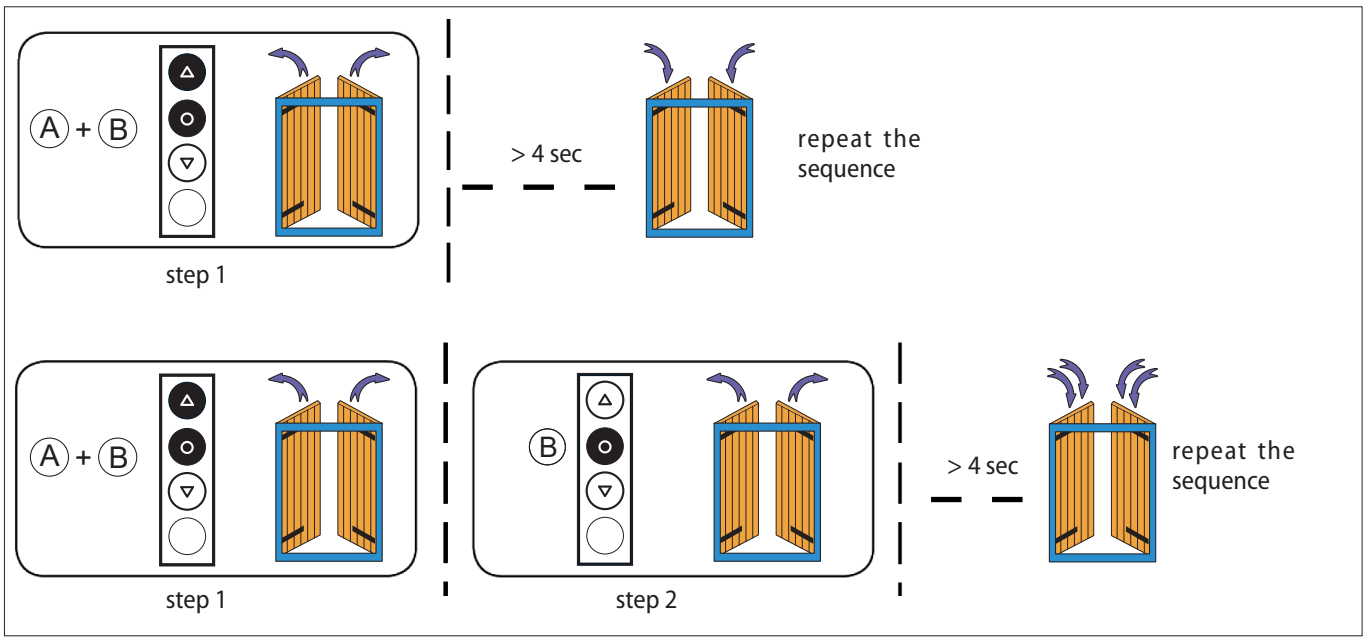
The buttons must be pressed as shown in the sequence, without more than 4 seconds elapsing between one step and the next. If more than 4 seconds elapse, the command is not accepted and the sequence has to be repeated.

Command sequence example:



As can be seen in the example, when the sequence ends correctly, the motor returns to its starting position with a single long rotation. In fact, two short rotations in the same direction correspond to one long rotation in the opposite direction. The motor returns to its starting position even when the sequence is not completed, in this case by carrying out one or two short rotations.

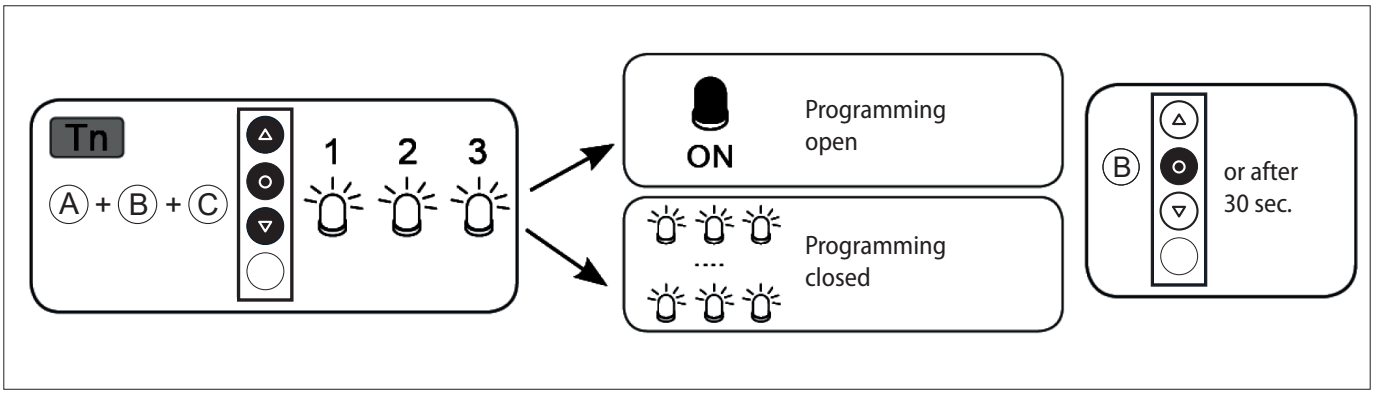
Incomplete sequence example:



15. OPEN / CLOSE FUNCTION PROGRAMMING REMOTE CONTROL

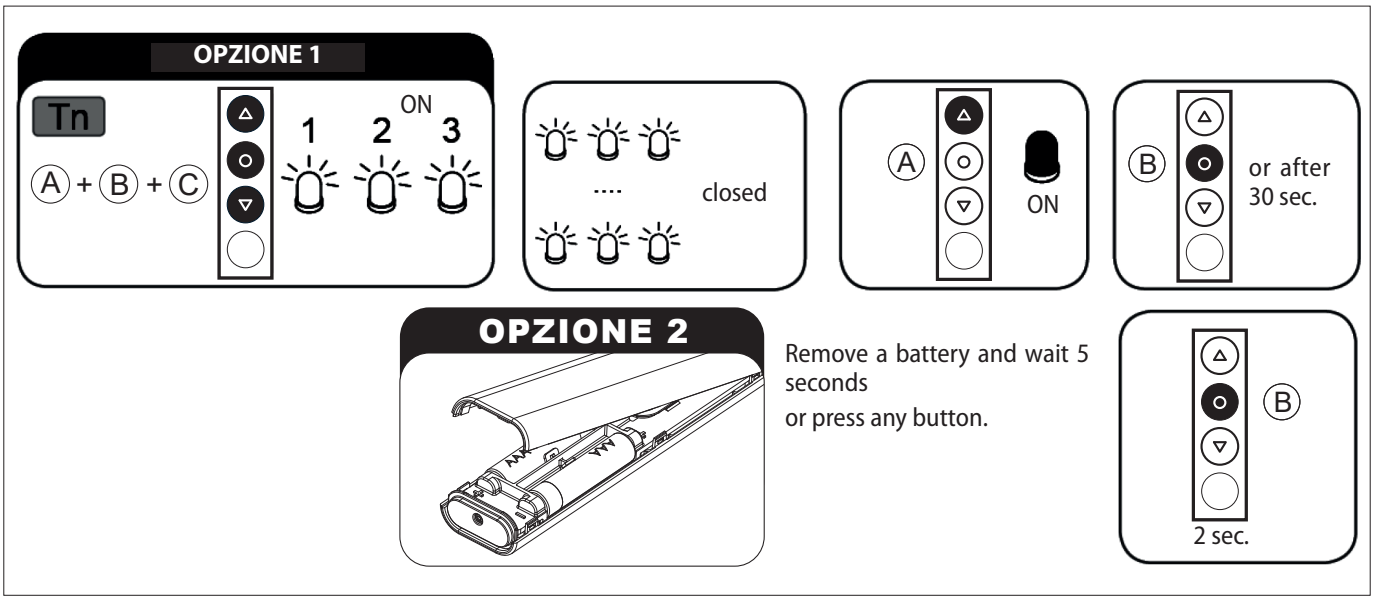
In order to prevent accidental modifications to the motor settings during the daily use of the remote control, the programming function is automatically disabled 8 hours after the last sequence was sent (A+B or B+C).

15.1 CHECKING THE STATUS OF THE FUNCTION



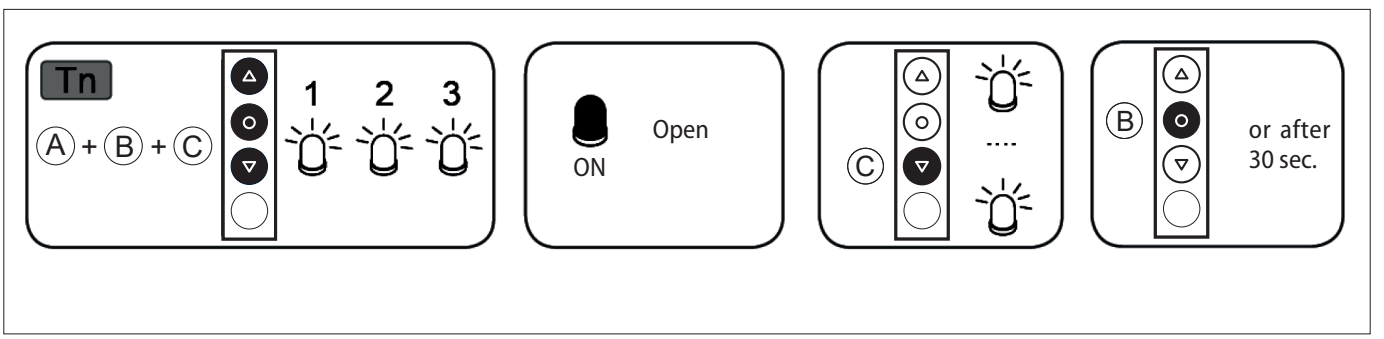
To change the status of the function, see the ENABLING / DISABLING sequence.

15.2 ENABLING PROGRAMMING



Program the device as per the instructions manual.

15.3 DISABLING PROGRAMMING

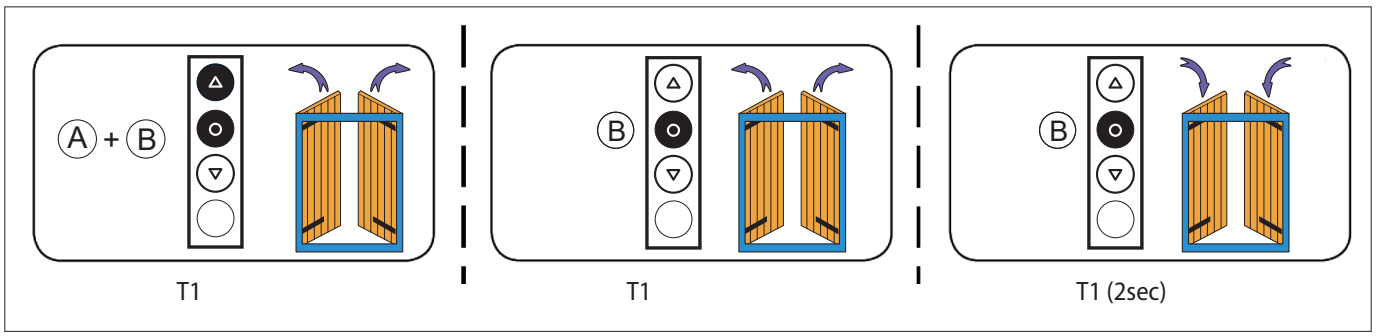


16. MEMORISING THE FIRST REMOTE CONTROL

This can only be carried out when the motor is new, or after the memory has been completely erased.

Only switch power on to one motor at a time when doing this.

T1: First remote control to be memorised



FIRST REMOTE CONTROL AUTOMATIC MEMORISATION DISABLE FUNCTION. Each time the motor is switched on, you have up to 3 hours in which to memorise the first remote control. Once this time has elapsed, it is no longer possible to memorise the remote control. To reset the timer of the function, simply switch the motor off and on again.

17. ADJUSTING THE LIMIT STOPS

17.1 ADJUSTING THE LIMIT STOPS AUTOMATICALLY

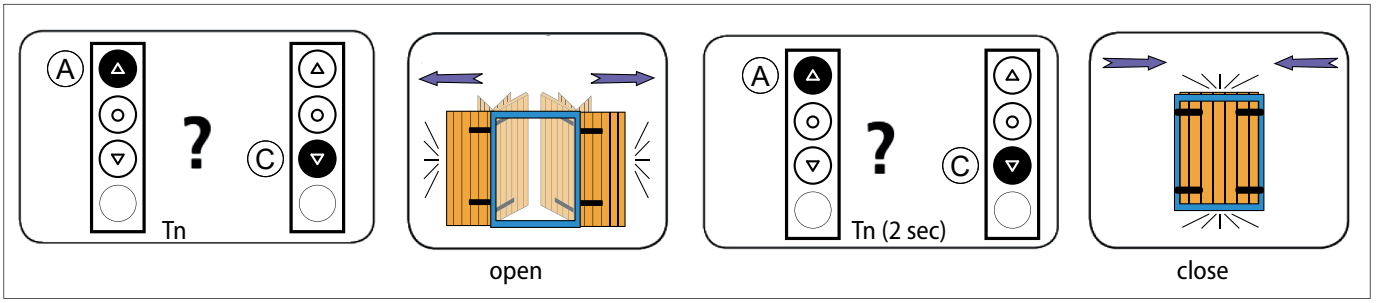
After having memorised the remote control, you first have to set the opening position of the leaves. To do this, open the leaves completely by pressing the control button until the motor stops automatically.

If the leaves are already completely open, you should close them by approximately 20 cm.

Sometimes it may be necessary to use the close button to open the leaves because the correct direction of rotation will be apparent only after the open position has been memorised.

When the leaves are open as far as they will go, keep the control button pressed; after 2 seconds, the motor closes the leaves to attempt to memorise the closing limit stop position. At the end of the procedure, the motor will have automatically memorised the limit stops. Simply press A or C button briefly to start the motor.

Tn: Memorised remote control



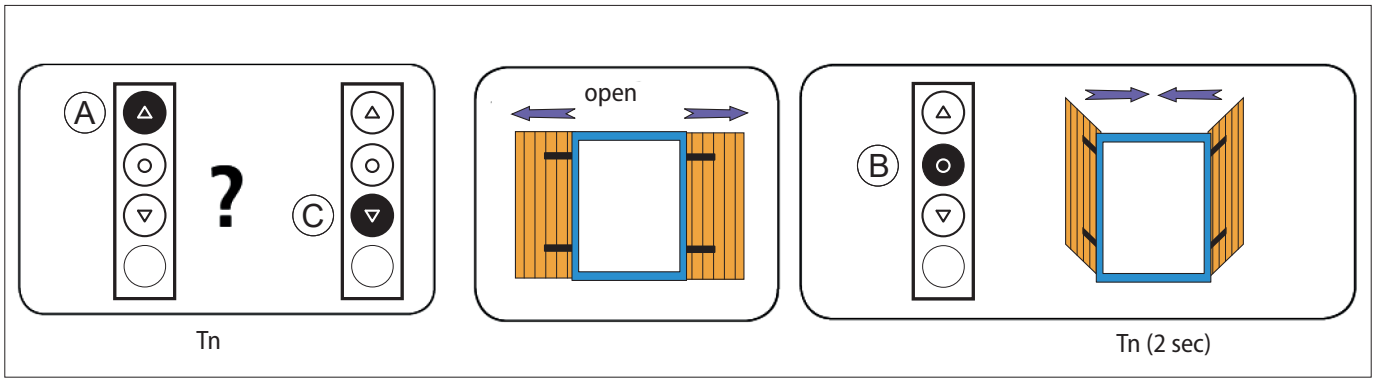
17.2 ADJUSTING THE LIMIT STOPS MANUALLY

ADJUSTING THE OPENING LIMIT STOP

After having memorised the remote control, you first have to set the opening position of the leaves. To do this, first open the leaves, but not completely.

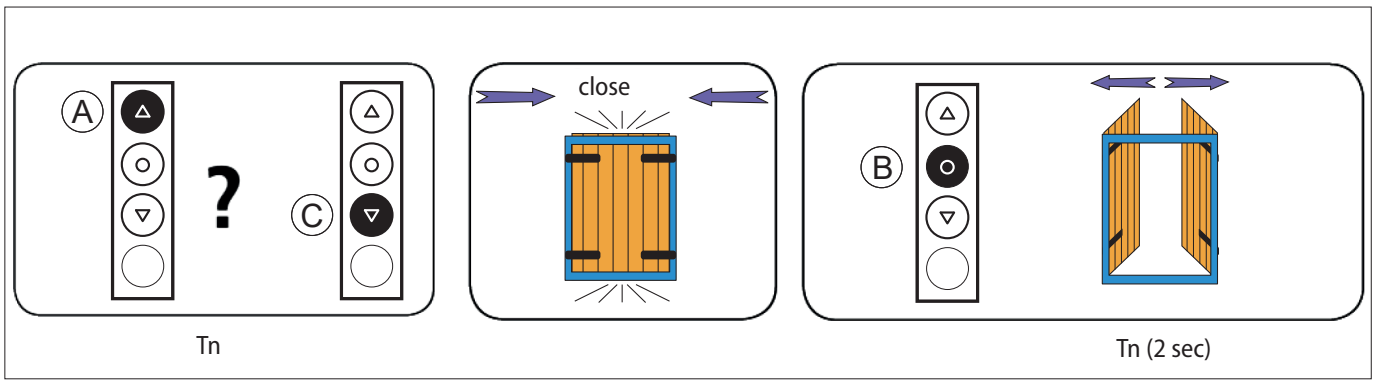
If the leaves are already completely open, you should close them by approximately 20 cm.
Sometimes it may be necessary to use the close button to open the leaves because the correct direction of rotation will be apparent only after the open position has been memorised.

To memorise the open position, keep button B (stop) pressed for approximately 2 seconds, until the motor performs a brief closing movement.
Tn: Memorised remote control



ADJUSTING THE CLOSING LIMIT STOP

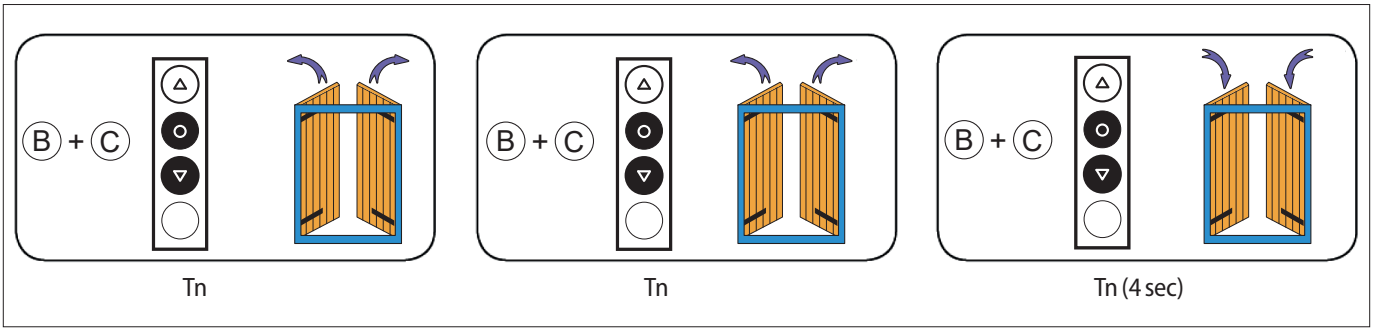
After having adjusted the open position, close the leaves, but not completely, by keeping the closing button on the remote control pressed.
The A / C buttons can be used to accurately adjust the closed position.
To memorise the closed position, keep button B (stop) pressed for approximately 2 seconds, until the motor performs a brief opening movement.
Tn: Memorised remote control



18. DELETING THE LIMIT STOP POSITIONS

18.1 ERASING THE LIMIT STOP POSITIONS

Tn: Memorised remote control



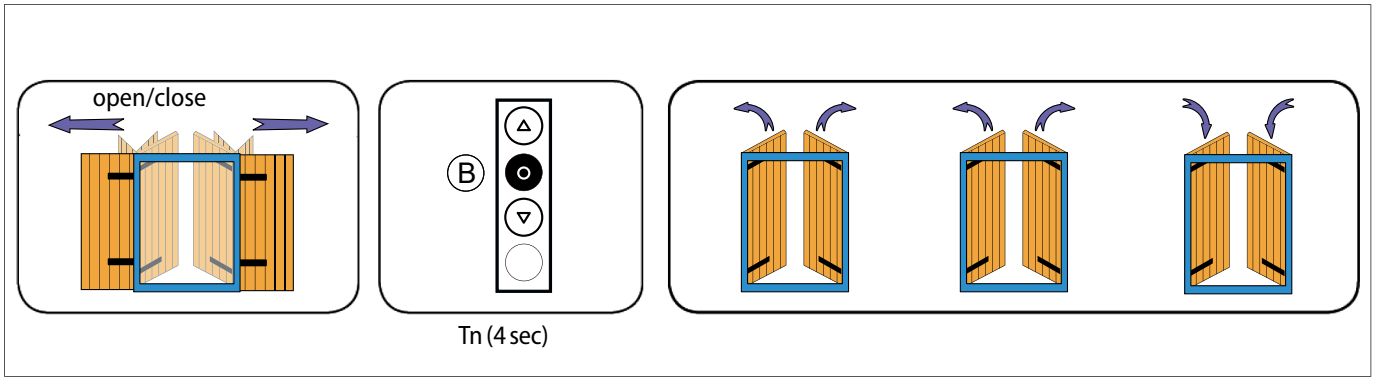
Even if the limit stops are deleted, the closing and obstacle detection force settings are maintained, while the default direction of rotation of the motor is restored.

18.2 SETTING AN INTERMEDIATE POSITION

This optional function allows the leaves to be placed in a preferred intermediate position. When the intermediate position has been memorised, simply press button B (stop) for 2 seconds to move the leaves to this position.

To memorise the intermediate position, place the leaves in the required position and then press and hold button B (stop) for approximately 4 seconds, until the motor issues a confirm signal.

Tn: Memorised remote control

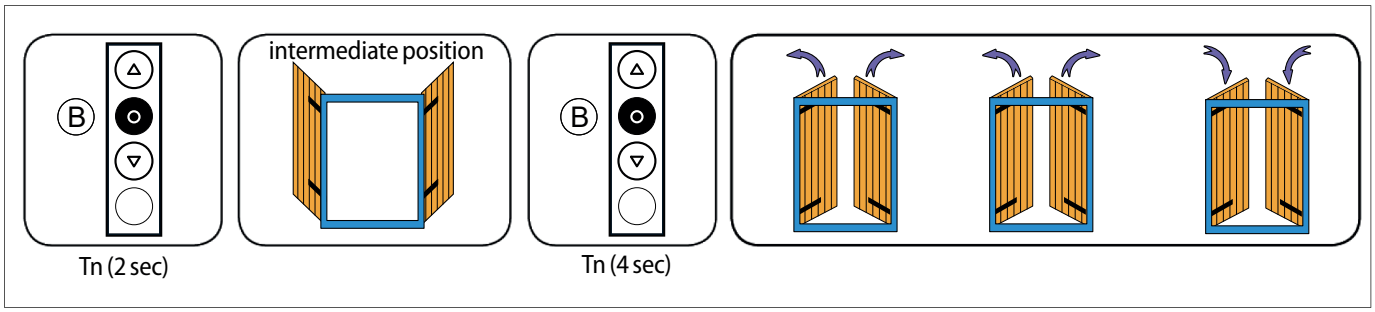


18.3 DELETING THE INTERMEDIATE POSITION

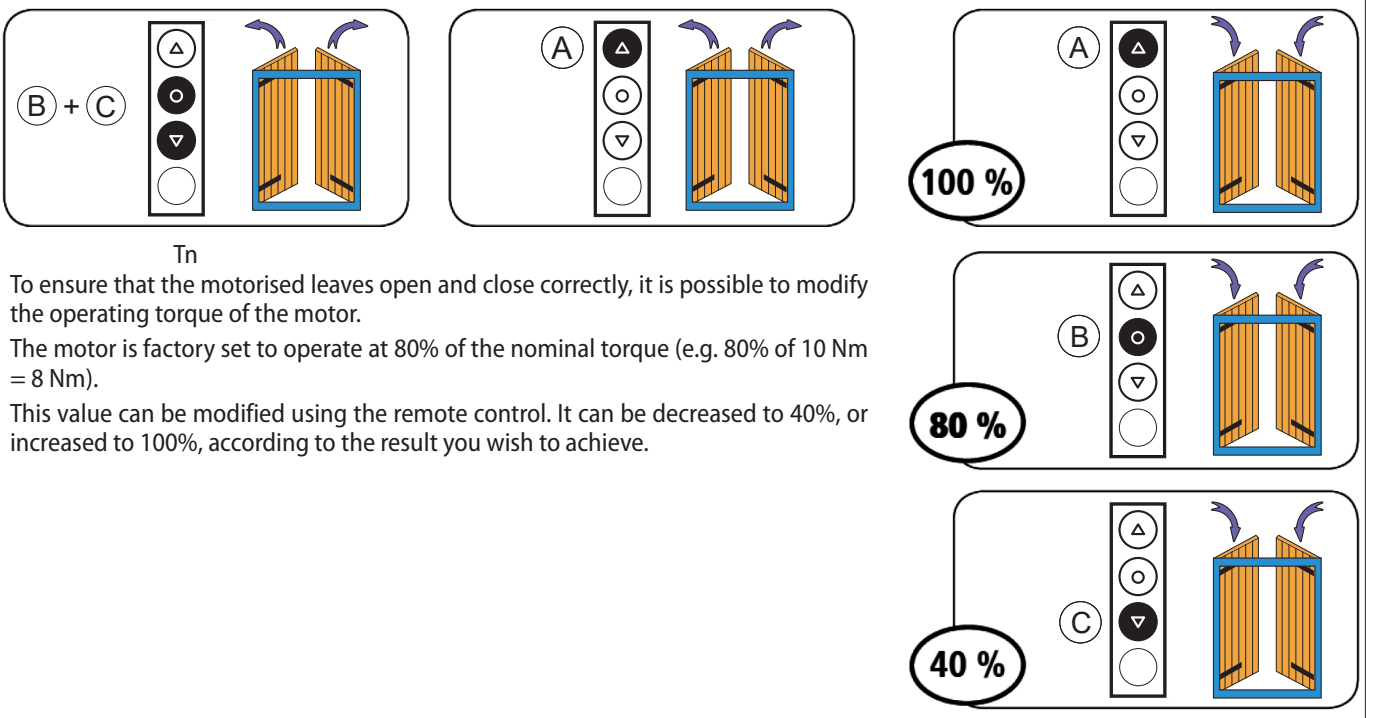
The intermediate position can be deleted if you no longer wish to use this function. It also has to be deleted if you want to modify an intermediate position that has already been memorised.

Before deleting the intermediate position, first move the leaves to the intermediate position by pressing button B (stop) for 2 seconds. Then press button B (stop) again for approximately 4 seconds, until the motor issues a confirm signal.

Tn: Memorised remote control



18.4 ADJUSTING THE MOTOR TORQUE

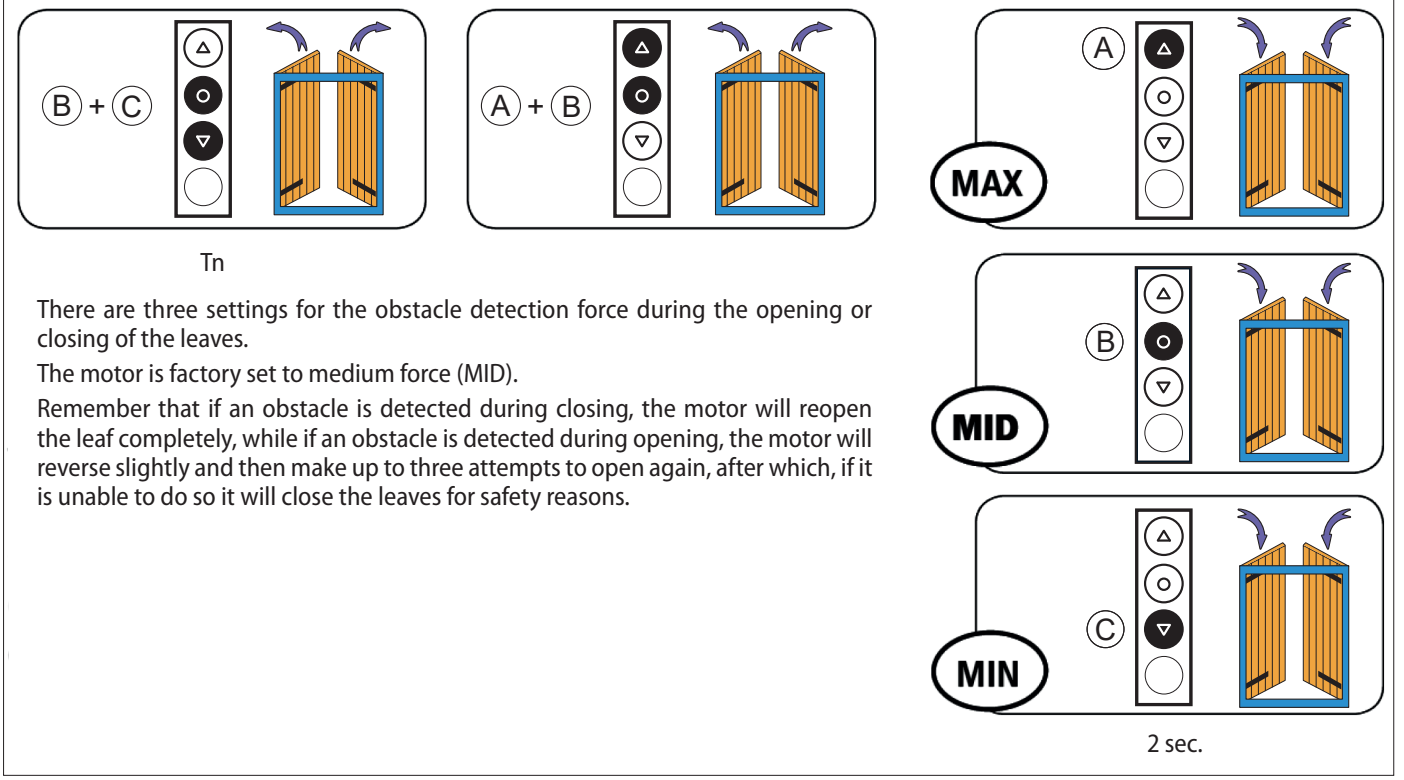


To ensure that the motorised leaves open and close correctly, it is possible to modify the operating torque of the motor.

The motor is factory set to operate at 80% of the nominal torque (e.g. 80% of 10 Nm = 8 Nm).

This value can be modified using the remote control. It can be decreased to 40%, or increased to 100%, according to the result you wish to achieve.

18.5 ADJUSTING THE OBSTACLE DETECTION FORCE



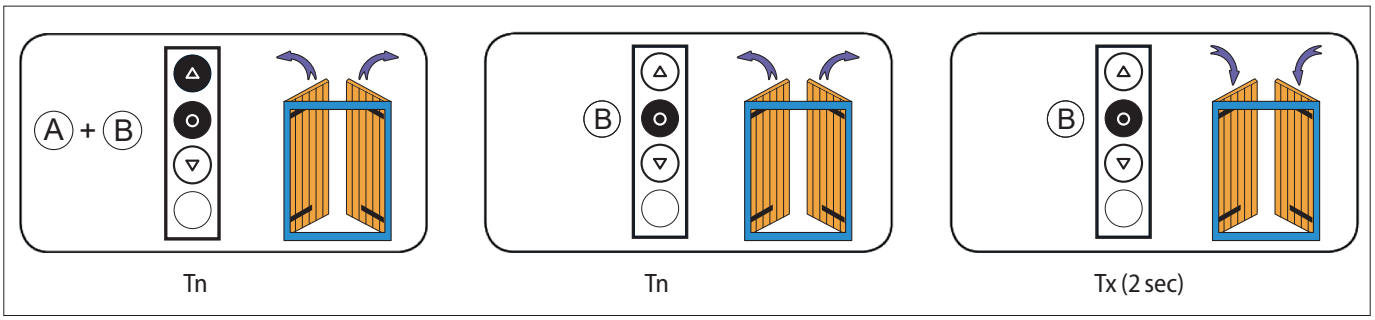
There are three settings for the obstacle detection force during the opening or closing of the leaves.

The motor is factory set to medium force (MID).

Remember that if an obstacle is detected during closing, the motor will reopen the leaf completely, while if an obstacle is detected during opening, the motor will reverse slightly and then make up to three attempts to open again, after which, if it is unable to do so it will close the leaves for safety reasons.

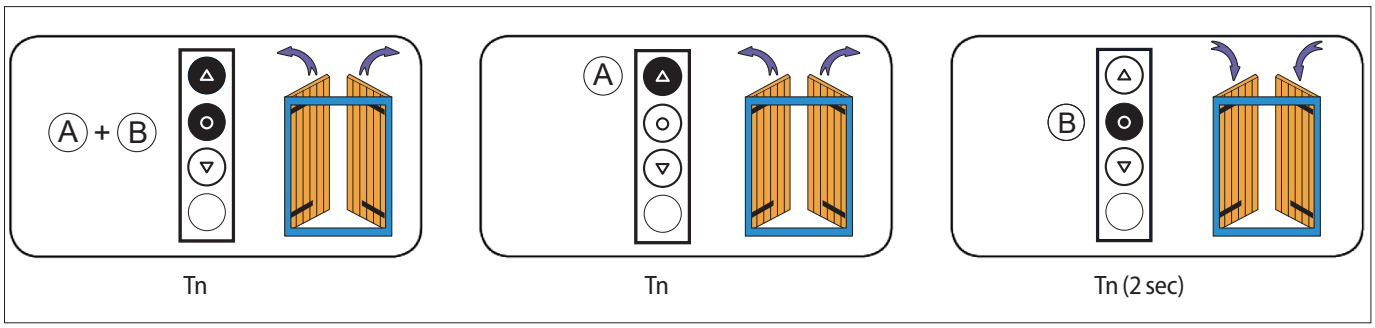
18.6 MEMORISING OTHER REMOTE CONTROLS

Up to 15 remote controls can be memorised, including the light / wind sensor.
Tn: Memorised remote control
Tx: Remote control to be memorised



18.7 DELETING A SINGLE REMOTE CONTROL

It is possible to delete each memorised remote control individually. When the last one is deleted, the motor returns to its initial condition. The same applies to the individual channels of the multichannel remote control. Just select the channel to be deleted before carrying out the sequence.
Tn: Memorised remote control

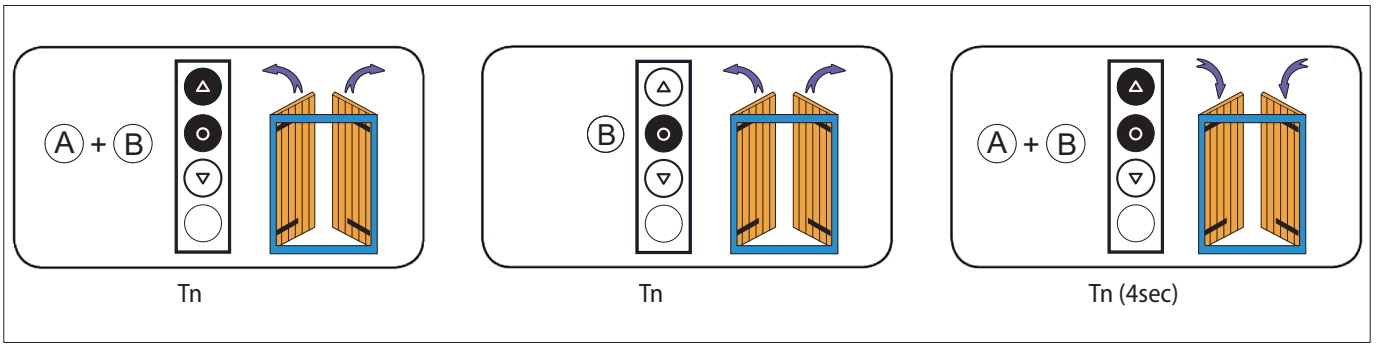


18.8 TOTAL DELETION OF REMOTE CONTROLS FROM MEMORY

Even if the memory is deleted, the limit stop settings are maintained.

The memory can be completely erased in two ways

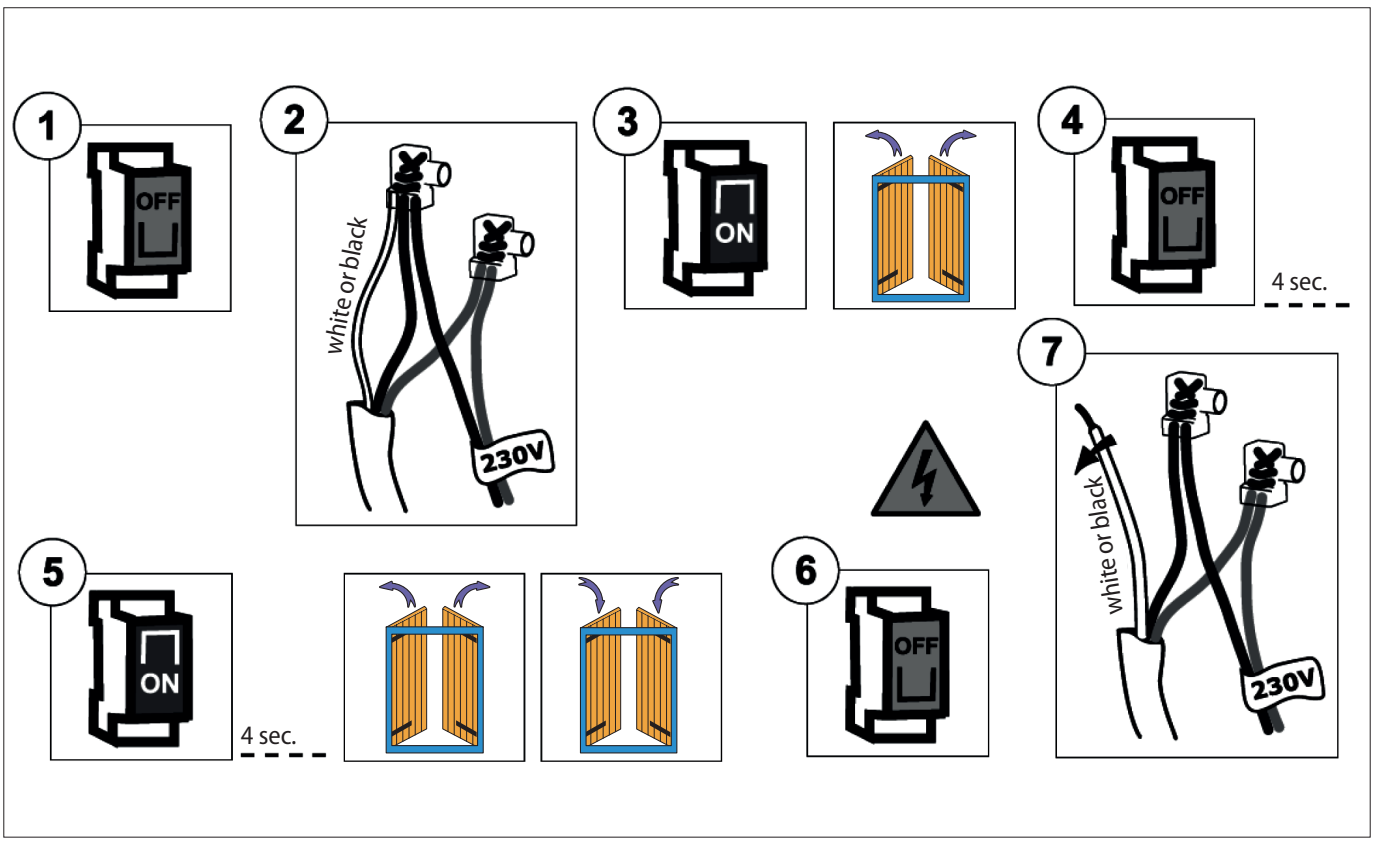
1) USING THE REMOTE CONTROL
Tn: Memorised remote control



2) USING THE AUXILIARY WIRE (WHITE or BLACK)
Use this option in an emergency or if a working remote control is not available. The white or black wire of the motor has to be accessed in order to delete the memory.
The sequence of operations is as follows:

1. Turn off the power to the motor, for example by using the main switch.
2. Connect the white or black wire of the motor to the brown wire (phase) or to the blue wire (neutral).
3. Turn on the power to the motor, which will carry out a short rotation in one direction.
4. Turn off the power to the motor for at least 4 seconds.
5. Turn on the power to the motor, which after approximately 4 seconds will carry out a short rotation in one direction and a longer rotation in the other direction.
6. Turn off the power to the motor.
7. Separate the white or black wire from the brown or blue wire. Insulate the white or black wire before turning the power on.

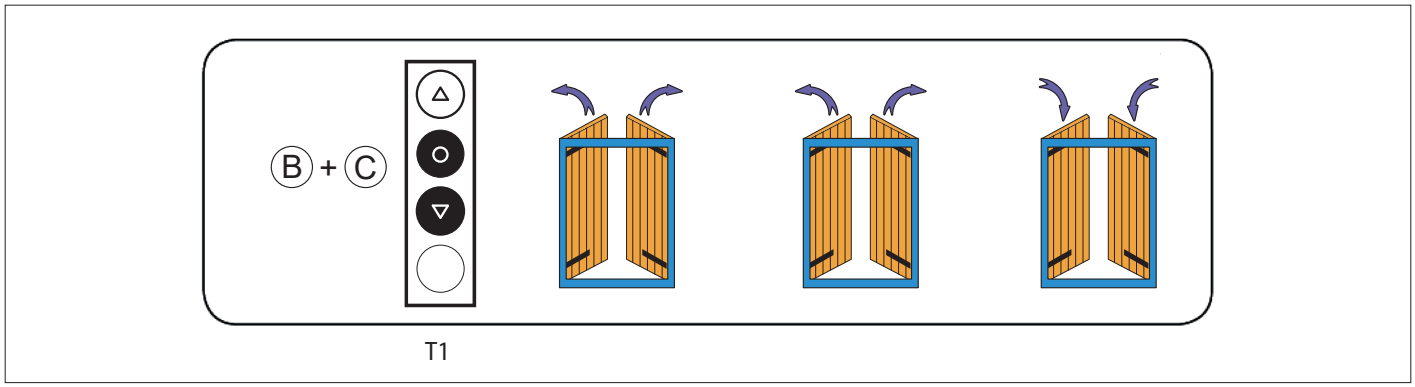
It is now possible to start to memorise the first remote control.



19. SPECIAL FUNCTIONS

19.1 TEMPORARILY MEMORISING A REMOTE CONTROL

This function allows a remote control to be memorised temporarily, for example in order to allow the limit stops to be set during assembly at the factory. The actual remote control can be memorised at a later stage using the appropriate command sequence (see "MEMORISING THE FIRST REMOTE CONTROL").
The following operations can only be carried out when the motor is brand new, or after the memory has been completely erased (see "TOTAL DELETION OF REMOTE CONTROLS"). To ensure that temporary programming is used only during installation or adjustment, and not for everyday use, the motor only allows the following operations to be carried out within the time limits described.
Power up the motor, make sure that there are no other powered motors and with empty memories within the range of the remote control.
Within 30 seconds of switching it on, press buttons B and C simultaneously, until the motor issues a confirmation signal. The remote control will be memorised for 5 minutes, while the motor is powered. After 5 minutes have elapsed, or if you switch off the power to the motor, the remote control will be deleted.
T1: First remote control to be memorised

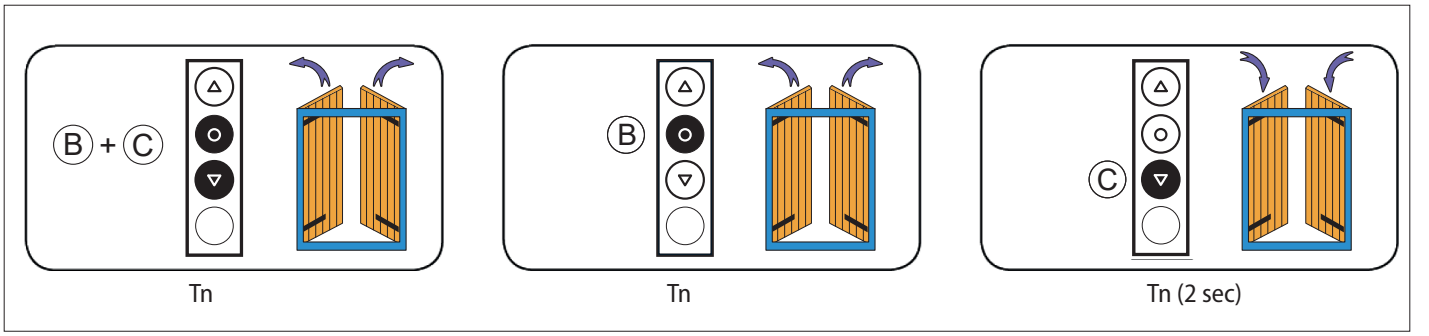


T1

19.2 WHITE OR BLACK WIRE MOTOR OPERATING MODE

The motors are factory set to be used with one button (OPEN-STOP-CLOSE-STOP operation). The operating mode setting can be modified by following the sequence indicated below.

SETTING THE OPERATING MODE
Tn: Memorised remote control



There are 3 possible settings available in the order indicated below:
- OPEN-STOP-CLOSE-STOP (factory setting)
- OPEN-CLOSE (for 2 independent buttons)
- OPEN-CLOSE in "DEAD-MAN" mode (for 2 independent buttons)

To switch from one setting to another, repeat the sequence as many times as necessary to reach the required setting.

EU DECLARATION OF CONFORMITY

FAAC S.p.A. Soc. Unipersonale hereby declares that the ND2 SENSO KIT motor complies with the European Union's applicable harmonisation regulations: Directive 2014/53/EU, Directive 2011/65/EU.

The full text of the EU declaration of conformity is available at the following Internet address: **http://www.faac.biz/certificates**

Bologna, Italy, 01-09-2020 CEO

A. Marcellan

DECLARATION OF INCORPORATION FOR PARTLY COMPLETED MACHINERY

(2006/42/EC ANNEX II P.1, B)

Manufacturer and person authorised to prepare the relevant technical documentation

Company name: FAAC S.p.A. Soc. Unipersonale

Address: Via Calari, 10 - 40069 Zola Predosa BOLOGNA - ITALY

hereby declares that for the partly completed machinery:

Description: Automation for shutters

Model: ND2 SENSO KIT

The essential requirements of the Machinery Directive 2006/42/EC (including all applicable amendments) have been applied and fulfilled. The relevant technical documentation has been compiled in compliance with Annex VII B.

Furthermore, the following harmonised standards have been applied:

EN 12100:2010
EN60335-1:2012+AC:2014+A11:2014
EN60335-2-103:2015

And also undertakes to transmit, in response to a reasoned request by the national authorities, relevant information on the partly completed machinery by mail or e-mail.

Finally, the manufacturer declares that the above-mentioned partly completed machinery must not be put into service until the final machine in which it is to be incorporated has been declared compliant with the requirements of the above-mentioned Machinery Directive 2006/42/EC.

Bologna, Italy, 01-09-2020 CEO

A. Marcellan

FAAC S.p.A. Soc. Unipersonale
Via Calari, 10 - 40069 Zola Predosa BOLOGNA - ITALY
Tel. +39 051 61724 - Fax +39 051 09 57 820
www.faac.it - www.faacgroup.com

532282 - Rev.B