



Professional Awning
Manufacturers Association



How to S



installation/
assembly
manual



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1 INTRODUCTION

This manual for the awning was prepared by the Manufacturer to provide the necessary information to those authorized to assemble the components that make up the product. It is prohibited to remove, rewrite or in any way modify the pages of the manual and their content.

Assembly must be carried out by personnel with the technical and professional skills required by current applicable national laws or standards (see chap. 1.2 "Personnel requirements").

This manual must be kept complete in all its parts in an easily accessible place.

The manufacturer reserves the right to update products and corresponding manuals without the obligation to update previous products and manuals.

The manufacturer reserves all rights on this manual. It may not be reproduced in any way, wholly or in part, without the manufacturer's written authorization.

1.1 Symbols used in the manual

The WARNING symbols used in the manual are shown below.

i INFORMATION AND PRECAUTIONS

Useful suggestions and instructions to ensure proper assembly of the awning. Failure to observe these messages may compromise the integrity and/or the resistance of the product.

! WARNING

DANGER TO OPERATOR! Instructions to be evaluated and followed carefully. Failure to comply with these messages may compromise individual safety.

1.2 Personnel requirements

Personnel assigned to this operation must have technical knowledge of the product obtained either through two years' experience or by means of a suitable technical training course.

1.3 Required equipment

To ensure proper assembly of the mechanical part and of the fabric part, and as a result the proper operation of the finished product, you will need the following equipment:

- fabric rewinder frame;
- awning assembly frame with vertically mobile positioning bar;
- power screwdriver
- a level;
- complete tool set
- equipment for working at heights (scaffolding, ladders, aerial platforms, etc.) which are compliant with current standards of individual safety in the workplace.

! WARNING

All of the screws used on aluminium components must be tightened with a maximum force of 20Nm (=2Kgm). Greater tightening force causes the castings to break and damage to the stainless steel screws. It is advisable to use dynamometric power screwdrivers and wrenches.

1.4 Before starting assembly

i INFORMATION AND PRECAUTIONS

Before starting assembly, the technician must have already cut the guides, profiles and roller tube to size, according to the dimensions of the awning required (see Chap. 3.2, "Table of size dimensions").

2 SAFETY

2.1 General safety information

- Do not set objects on the canvas of the awning.
- It is prohibited to stand on or hang from the awning. This would create the risk of severe personal injury, as well as damaging the awning.
- Wear personal protective equipment and clothing as required by current standards on safety in the workplace.

! WARNING

Assembly of components must be carried out only by skilled, specialized personnel.

2.2 Requirements for working in safety

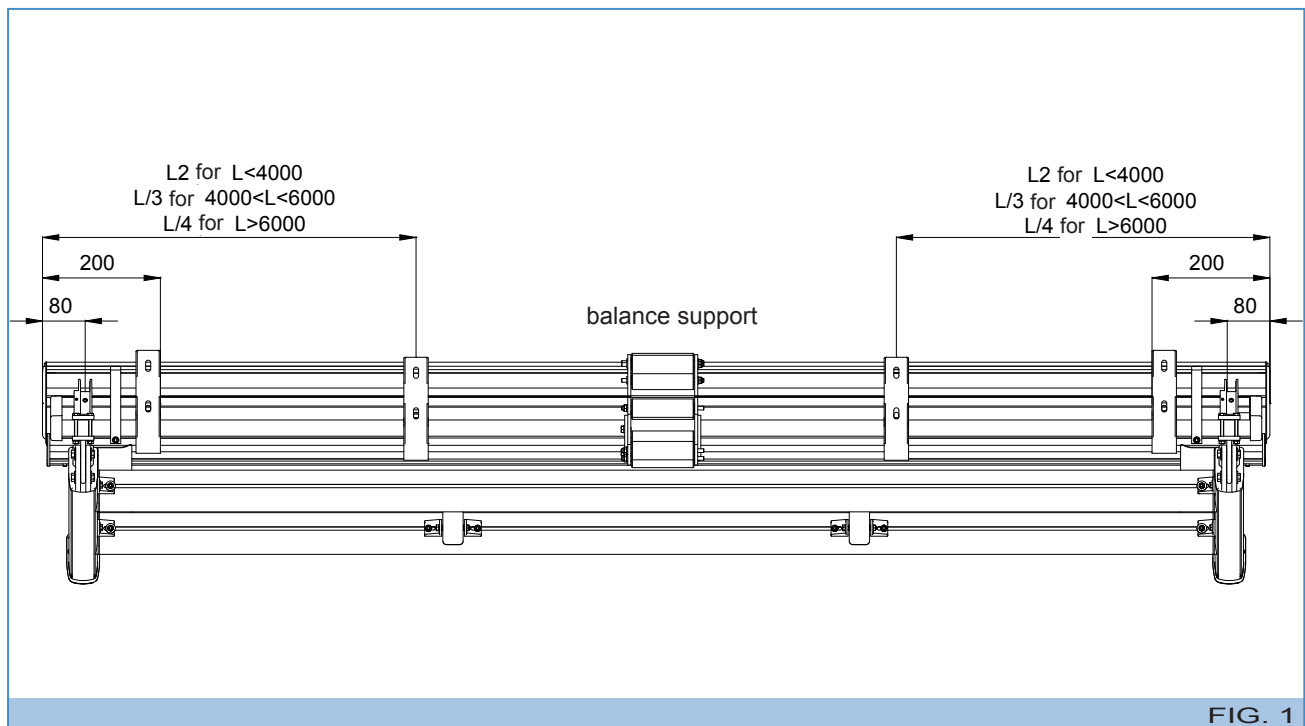
- Installation must be performed in full compliance with standards set forth by Presidential Decree 164/56 and Legislative Decree 494/96 for all that which concerns individual safety.
- Before use, check that all temporary structures (scaffolding, ladders, etc.) and all individual safety gear (harnesses, belts, etc.) are compliant with standards and in good condition.
- Always use suitable individual protection gear.
- If there is more than one installation technician, their work must be coordinated.
- Operators must work in compliance with the safety instructions given to them.
- If the awning is to be installed above ground level, the area underneath the awning must be marked off and guarded so that no one can get underneath the hanging load.

2.3 Working environment

- Assembly of components must be carried out in a place that is sufficiently illuminated (based on specific standards) by either natural or artificial lighting. The operator must have a clear view of the work to be performed, and he must also prevent third parties from approaching the work area around the the awning.

3 TECHNICAL TABLES FOR ASSEMBLY

3.1. Diagram of bracket-guide support distances



! WARNING

For width greater than 4,5mt, place the balance support from the side (Cap. 7.7 - Assembly of compensator support pag.25).

3.2- Table of size dimensions

SIZES OF J9FCB5 single module				
Insert the measurements of the awning in mm (L indicates the total overall size of the awning)	J9FCB5			
	SOMFY MOTOR UP TO 60 NM	SOMFY MOTOR UP TO 80 NM	SOMFY MOTOR WITH S.M.	WINCH
TERMINAL PROFILE	L-35	L-35	L-35	L-35
ROLLER TUBE OF 80	L-100	L-100	L-105	L-110
SQUARE BAR	L-10	L-10	L-10	L-10
CROSSPIECE	L-235	L-235	L-240	L-245
GUIDE & DRAIN	S-210	S-210	S-210	S-210
FABRIC	L-250	L-250	L-260	L-260

The protrusion does not include the thickness of the terminal during descent, which is 80 mm


3.3- Piston pre-loading table

i INFORMATION AND PRECAUTIONS

Pre-loading of the gas spring is carried out as described in chapter 7.4, "Pre-charging of pistons". The table shows how much to open the awning in order to obtain the proper pre-loading. The measures are approximate.

J9FCB5 INSTALLATION											
Piston pre-loading (cm)		WIDTH (m)									
		2,5	3	3,5	4	4,5	5	5,5	6	6,5	7
PROTRUSION (m)	2	50	50	50	50	50	50	50	50	50	50
	2,5	55	55	55	55	55	55	55	55	55	55
	3	60	60	60	60	60	60	60	60	60	60
	3,5	65	65	65	65	65	65	65	65	65	65
	4	70	70	70	70	70	70	70	70	70	70
	4,5	75	75	75	75	75	75	75	75	75	75
	5	80	80	80	80	80	80	80	80	80	80
	5,5	100	100	100	100	100	100	100	100	100	100
	6	120	120	120	120	120	120	120	120	120	120
	6,5	140	140	140	140	140	140	140	140	140	140
7	160	160	160	160	160	160	160	160	160	160	

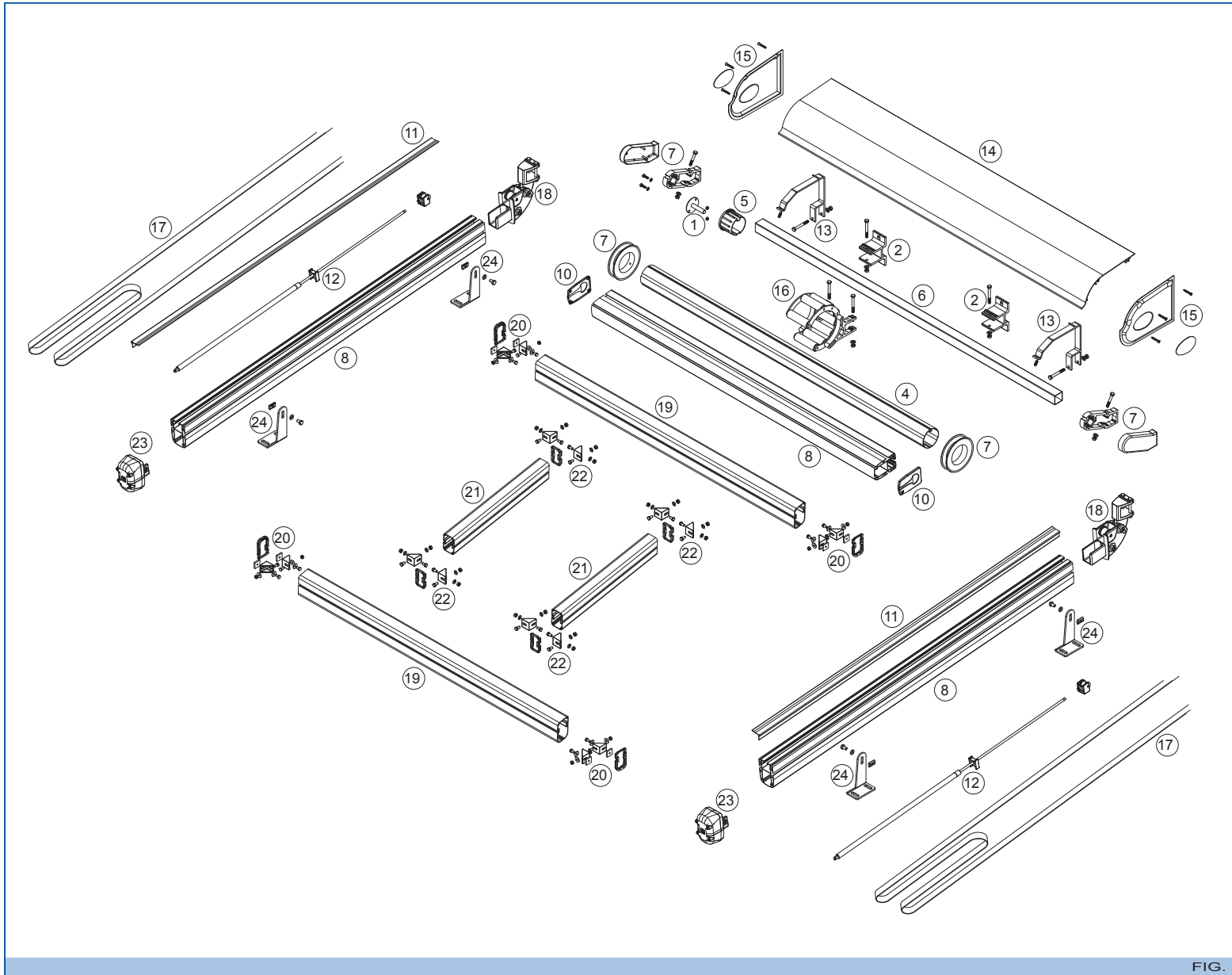
 gas spring stroke 1000 mm

 gas spring stroke 2300 mm



4 COMPONENTS AND DIAGRAMS FOR JEF CB5

4.1 Exploded view of the components of JYfcbU



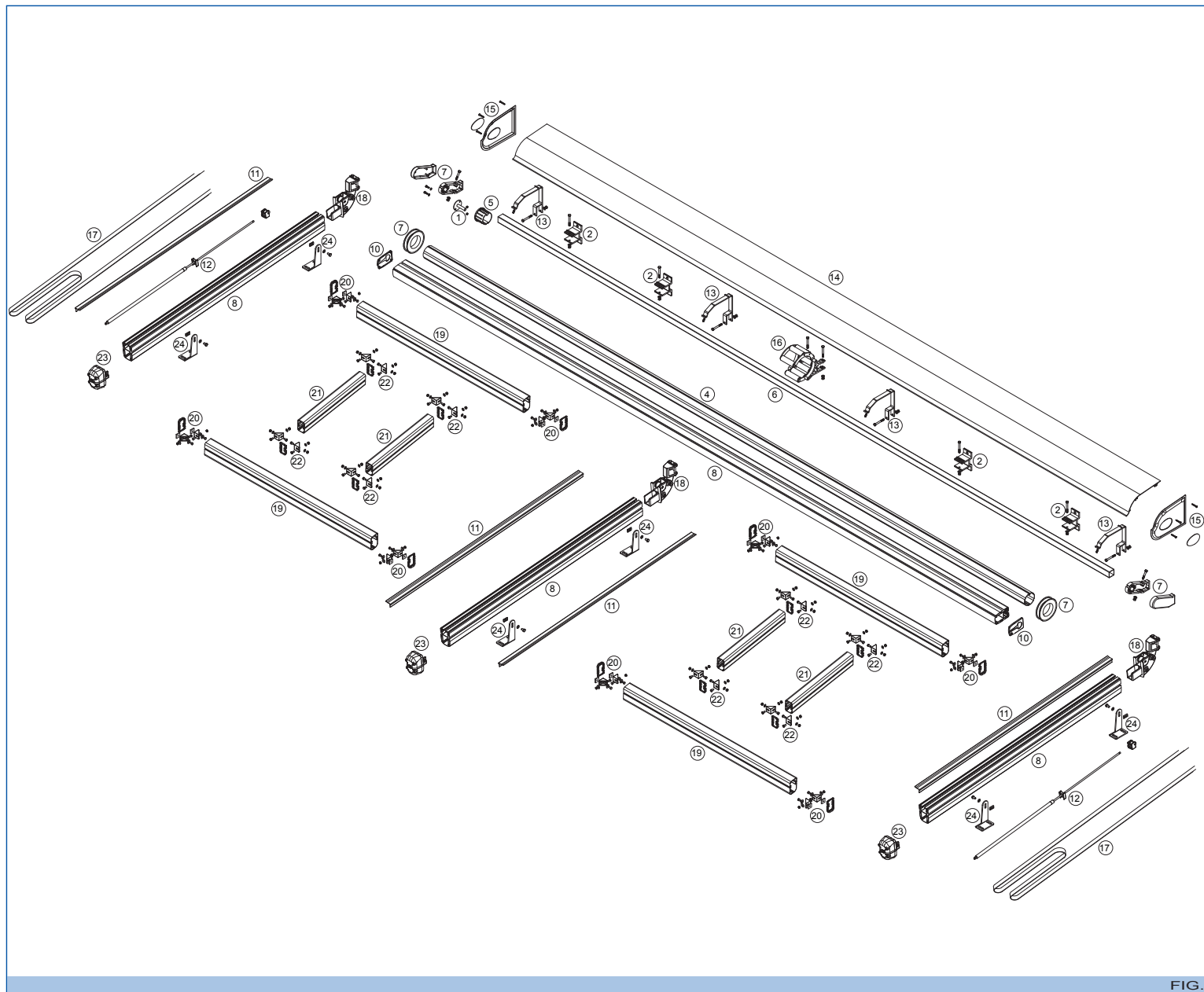
LEGEND

- 1 Plate with pin
- 2 Package of wall brackets with square bar
- 4 Rollerbat Ø 80 mm
- 5 Cap with hole Ø 14 mm
- 6 Square bar 40 x 40 mm
- 7 Roller tube support kit
- 8 Guide/T erminal
- 10 Package of terminal plugs
- 11 Closing profile and drain
- 12 Gas piston
- 13 Support for top
- 14 Top
- 15 Top plugs
- 16 Compensator support
- 17 Belt
- 18 Complete guide support
- 19 Crosspiece profile
- 20 Crosspiece attachment kit
- 21 Upright profile
- 22 Upright attachment kit
- 23 Return kit with carriage
- 24 Guide support

FIG. 1



4.2 · Exploded view of the components of JYfcbU Double



LEGEND

- 1 Plate with pin
- 2 Package of wall brackets with square bar
- 4 Rollerbat Ø 80 mm
- 5 Cap with hole Ø 14 mm
- 6 Square bar 40 x 40 mm
- 7 Roller tube support kit
- 8 Guide/T erminal
- 10 Package of terminal plugs
- 11 Closing profile and drain
- 12 Gas piston
- 13 Support for top
- 14 Top
- 15 Top plugs
- 16 Compensator support
- 17 Belt
- 18 Complete guide support
- 19 Crosspiece profile
- 20 Crosspiece attachment kit
- 21 Upright profile
- 22 Upright attachment kit
- 23 Return kit with carriage
- 24 Guide support

FIG.2



4.3· Dimensions and footprints

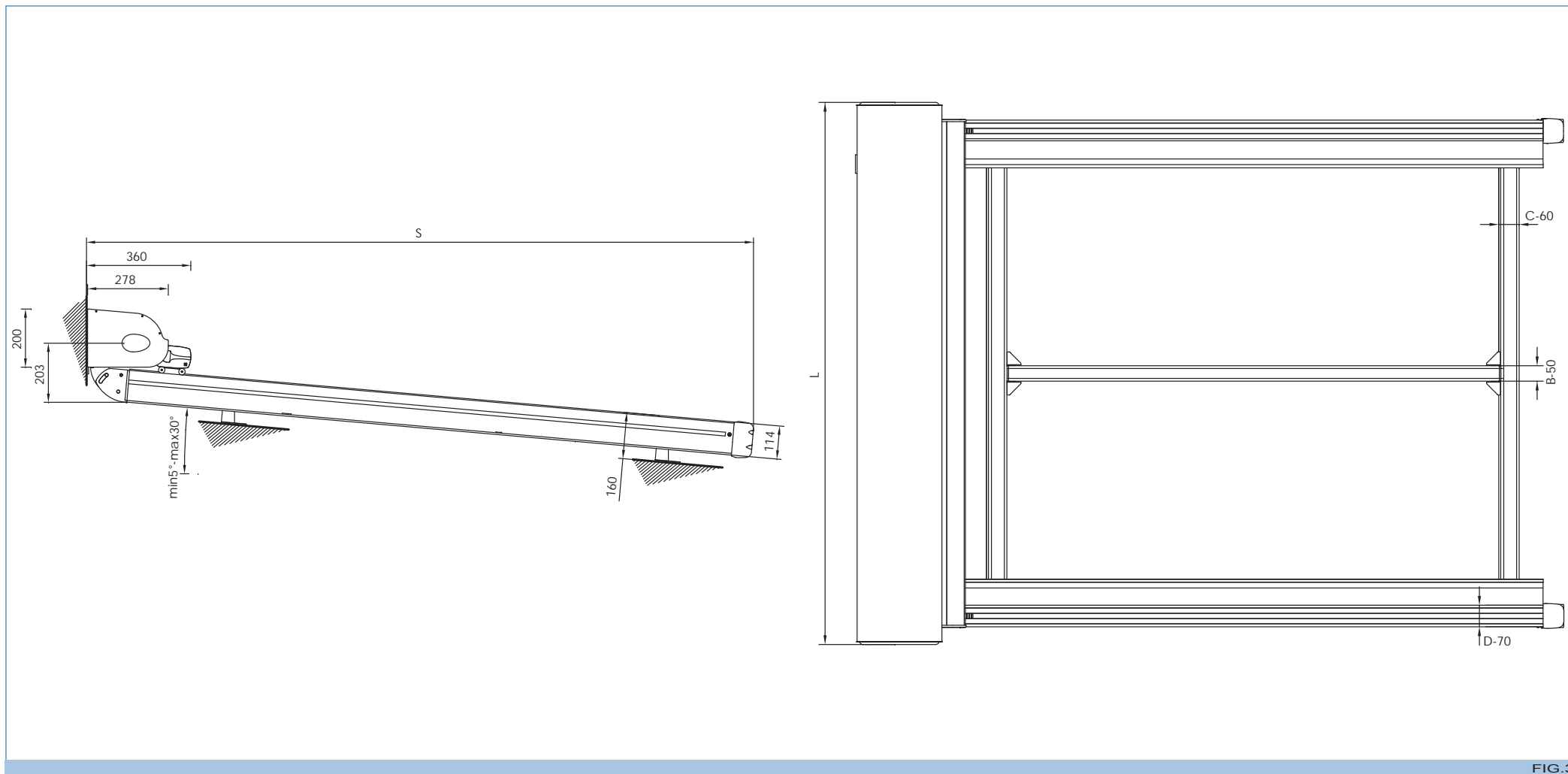
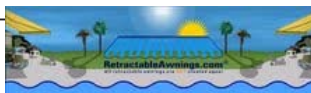


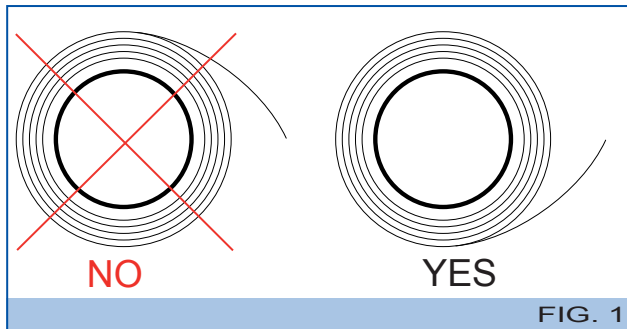
FIG.3



5 ASSEMBLY OF CANVAS ON REWINDER TUBE

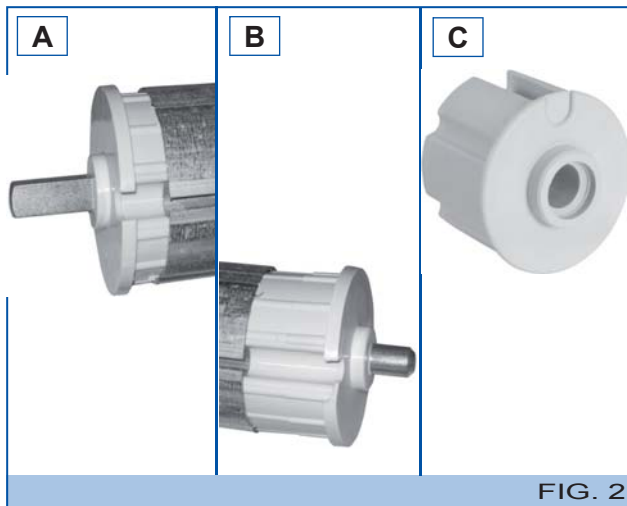
i INFORMATION AND PRECAUTIONS

▫ The instructions which follow are of a general nature and must therefore be adapted to the model of awning being assembled. In the JYfcbU, **THE CANVAS IS ROLLED UP in the OPPOSITE direction to that described below.**



i INFORMATION AND PRECAUTIONS

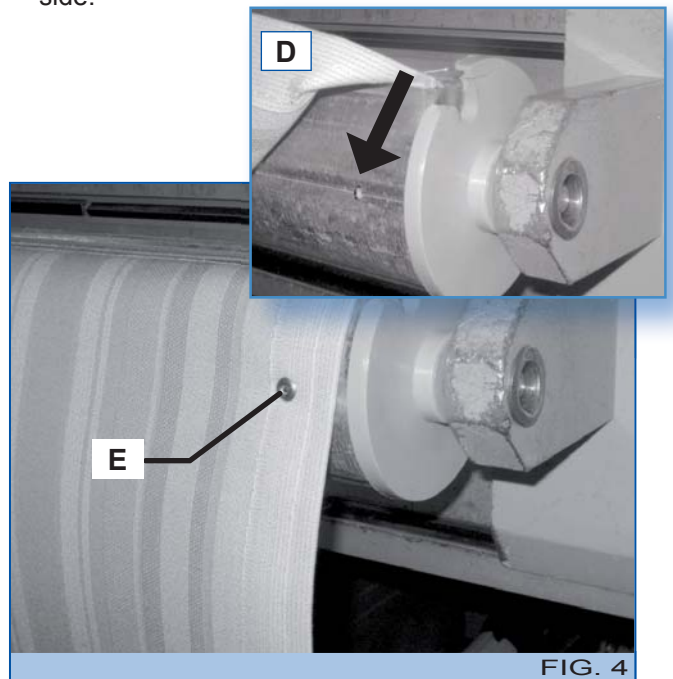
To make this easier, it is advisable to temporarily fasten the rewriter tube to the canvas rewriter frame.



- 1° On the control side of the roller tube, insert the cap with the square pin (A).
- 2° Insert on the opposite side the cap with the round pin (B), or as an alternative the one with a hole (C).

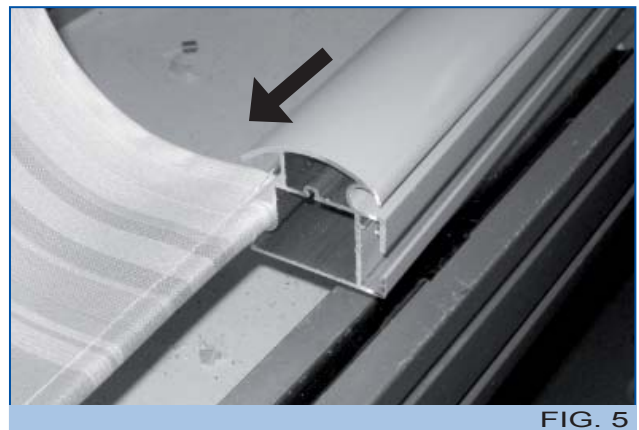


- 3° Insert the previously packed canvas in the apposite ferrule of the rewriter tube and run it to the opposite side.



- 4° Turn the rewriter tube in the suitable direction. Pay attention to the control side.

- 5° On both sides of the tube, apply two rivets (E). Be sure to make the hole where the tube is bent (D).



- 6° Roll up the canvas and insert the lower edge in the hub of the terminal.

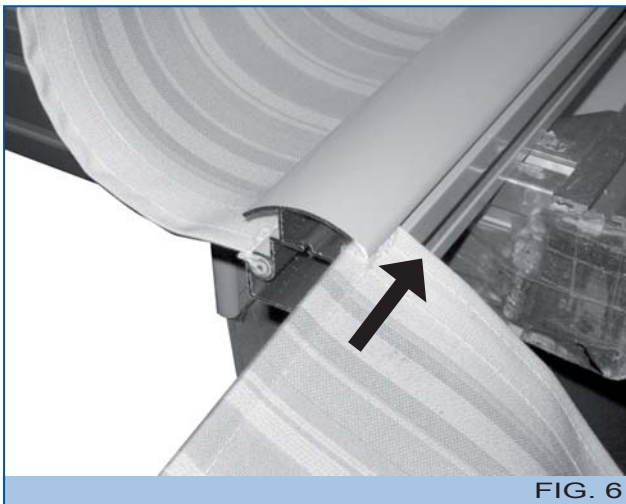


FIG. 6

7° If present, insert the fabric valance in the hub of the terminal.

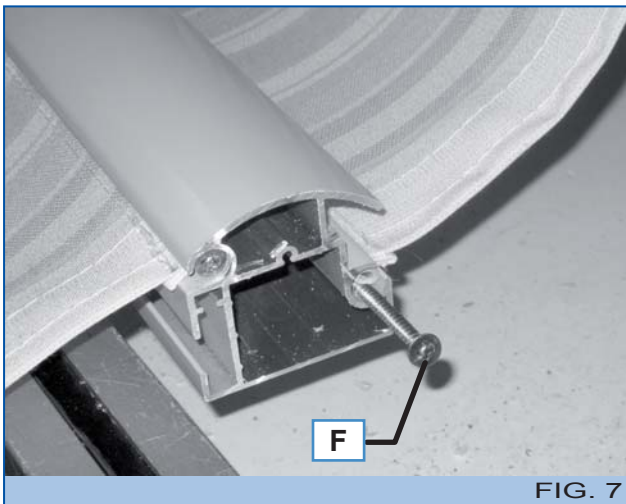


FIG. 7

8° Fasten the canvas on the terminal using one screw per side. Be careful when positioning these screws: they need to be slightly tilted (between the canvas and the ferrule) to ensure proper blocking (F).

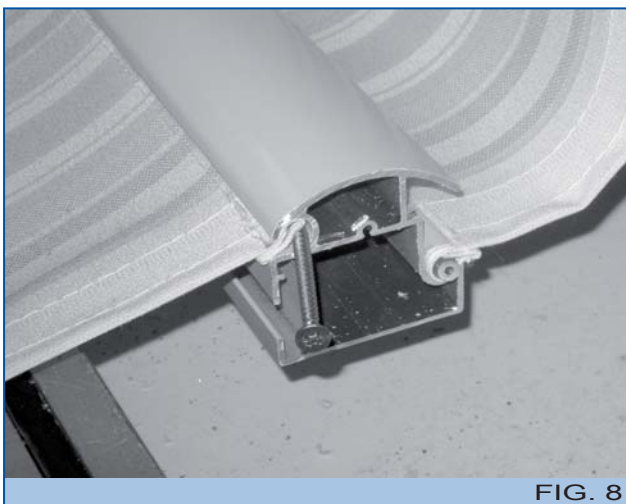


FIG. 8

9° If present, attach the valance to the terminal using one screw per side. Follow the instructions in point 7.

6 ASSEMBLY OF COMPONENTS KIT



FIG. 9

i INFORMATION AND PRECAUTIONS

To assemble the components, you will need to temporarily mount the support brackets which will be used during installation, on a frame of suitable capacity (see chap. 1.3 "Required equipment").

Instructions for bracket installation are described in the "Installation Technician's Manual".

6.1 - Assembly of guide supports

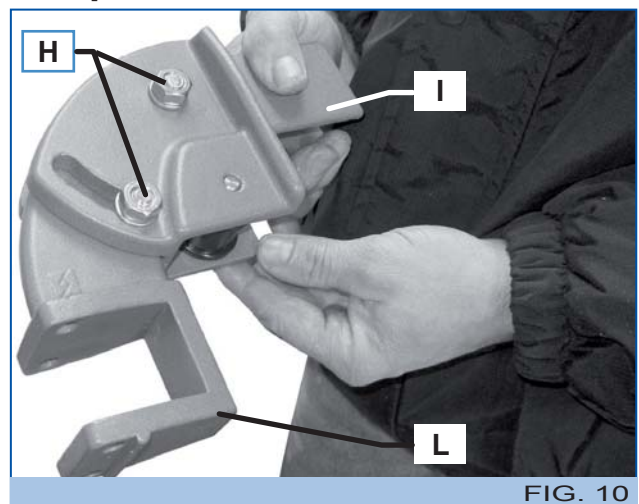


FIG. 10

11° Assemble the two components of the support (I and L) with the two screws and the washers with nuts (H).

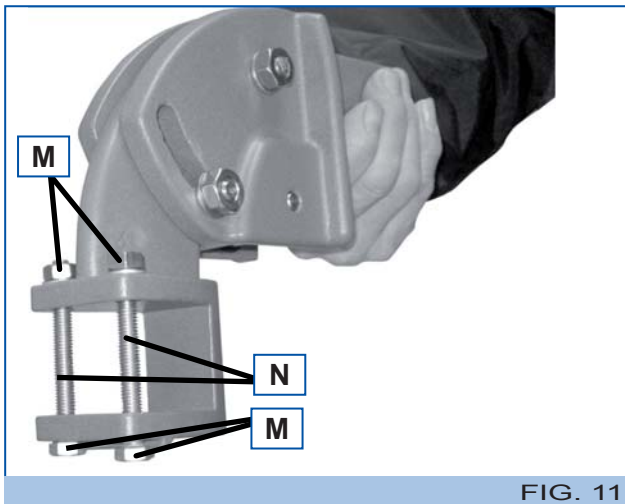


FIG. 11

12=Insert the two screws (N) and fasten them to the element using the nuts and washers (M). You need to this so that during assembly of the structure, you will have the required screws close at hand.

6.2 • Assembly of feet, carriages and pistons

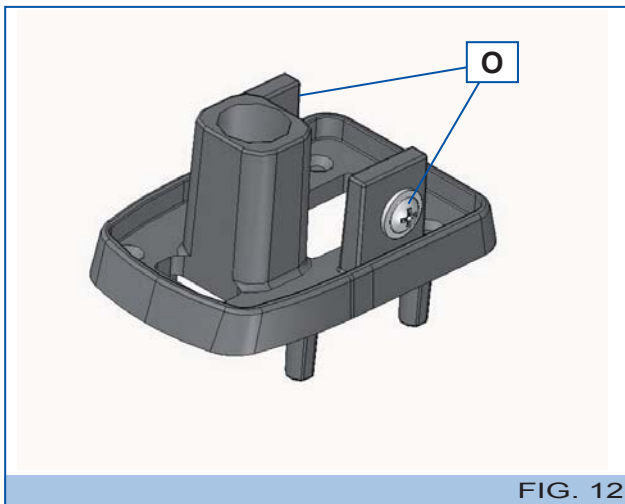


FIG. 12

13=Apply the screw with washer (O) to each return attachment.

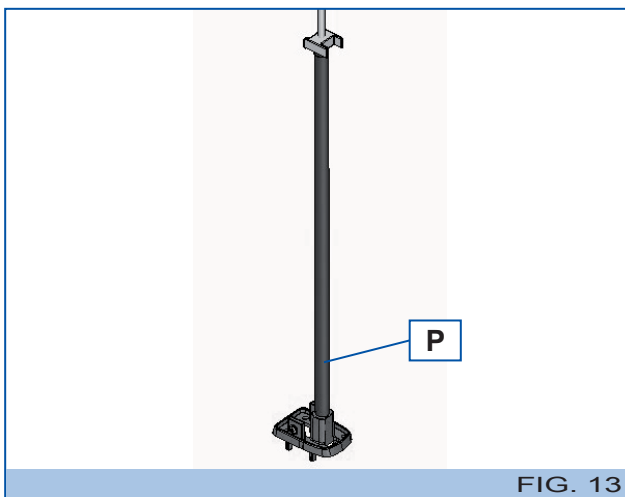


FIG. 13

14=Insert the piston (P) in the return attachment.

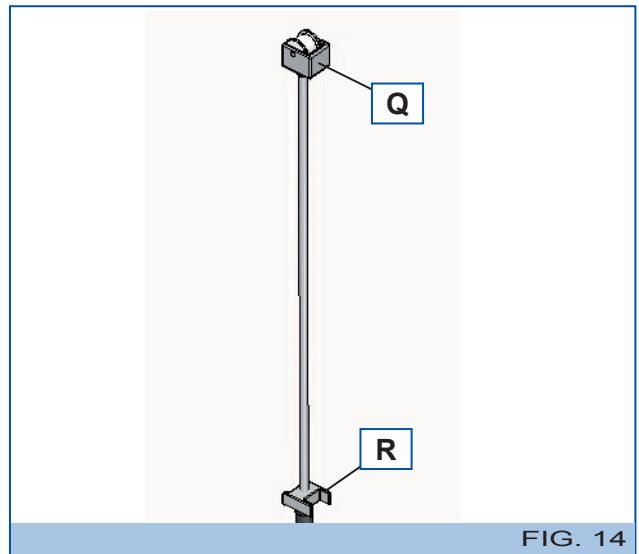


FIG. 14

15=Insert the spacer (R) on the piston.
16=Insert the head (Q) on the piston.

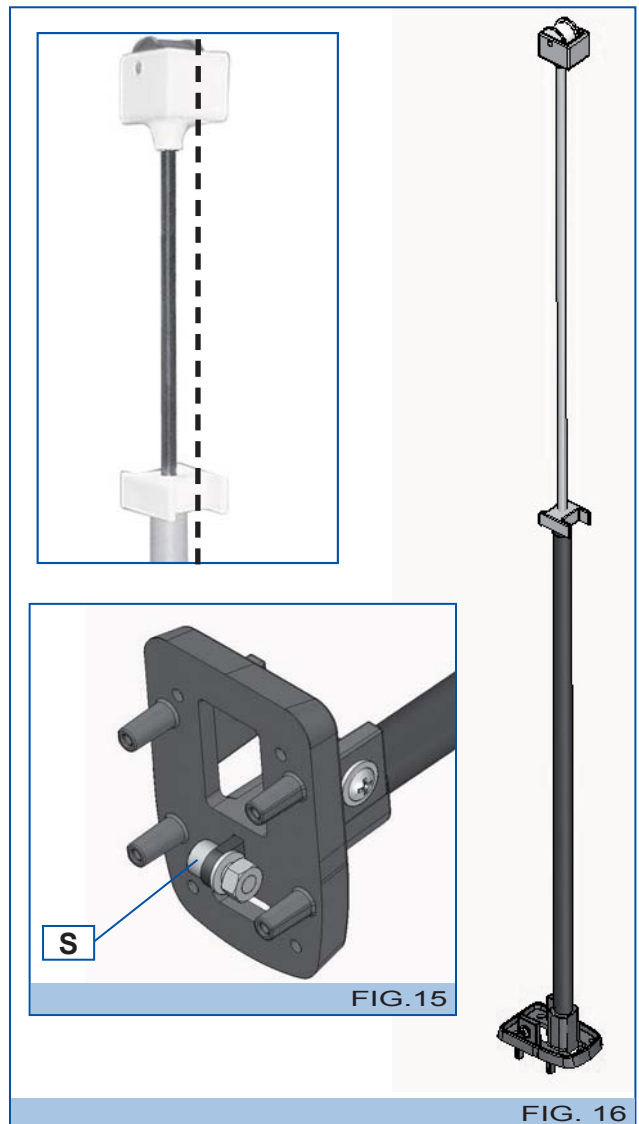


FIG. 15

FIG. 16

17=The elements (attachment/spacer/head) must be aligned with one another (BE SURE TO INSERT THE ACCESSORIES THE RIGHT WAY AROUND).

18° Repeat for the second guide.

19° Fix the piston rod to the return attachment using an M8 screw (S) and the respective washer and bolt.

6.3 • Assembly of guides

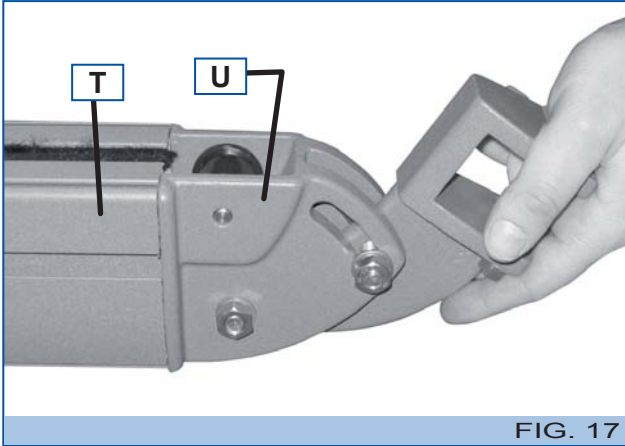


FIG. 17

20° Snap the guide support (U) into the guide profile (T).

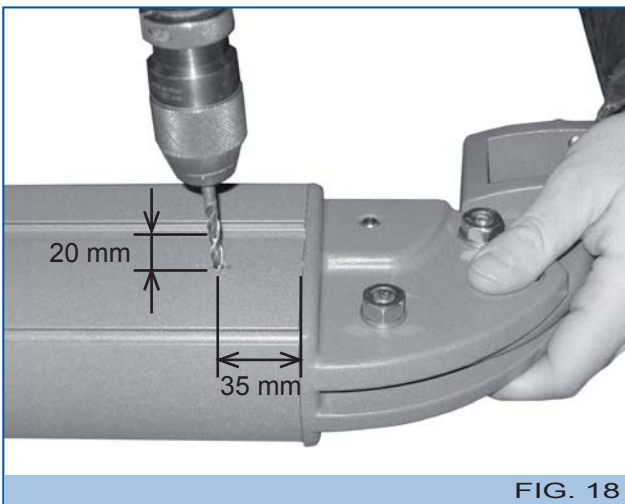


FIG. 18

21° Make a 5 mm hole all the way through the guide, 35 mm from the edge and 20 mm from the slot.

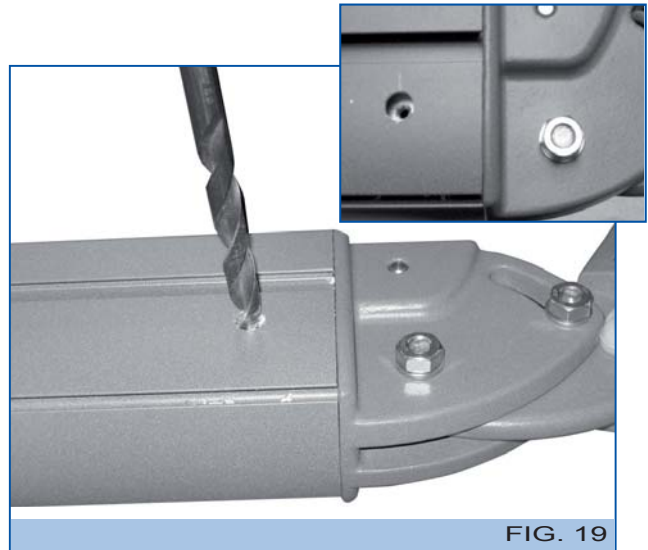


FIG. 19

22° Ream the outer hole only, with a 12 mm bit.

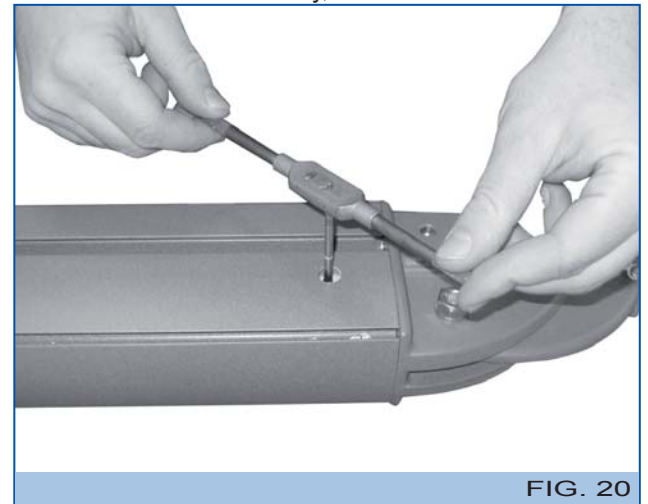


FIG. 20

23° Thread the internal hole using a tap wrench.

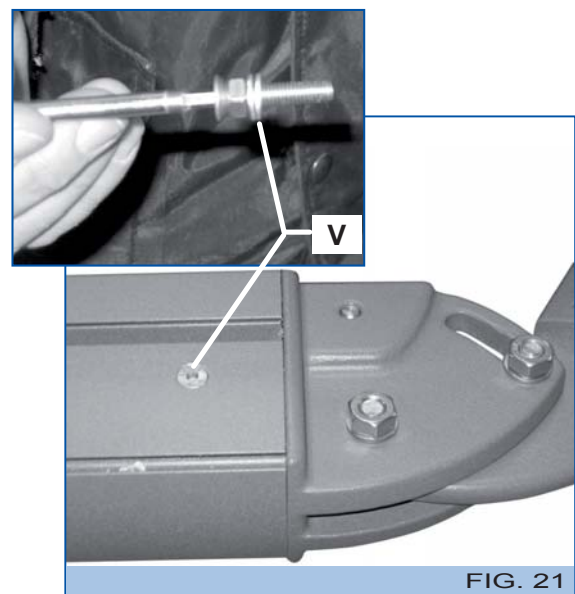


FIG. 21

24° In the holes you have made, insert a countersunk screw (TSPCE M6x25) with two washers and a nut (V ; not included).

Turn the guide upside down and repeat the drilling steps.

i INFORMATION AND PRECAUTIONS
Fastening of the guides to the accessories may be made using self-tapping screws 5.5x20.

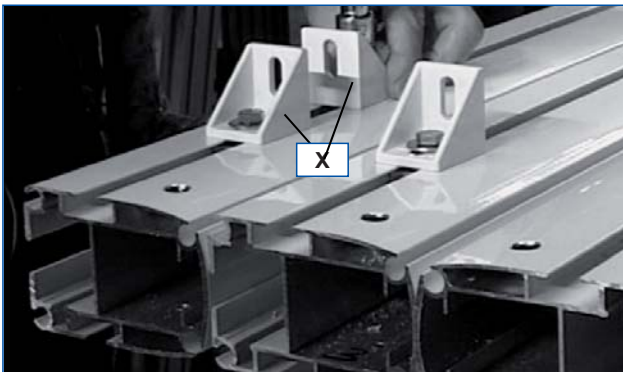


FIG. 22

25° Insert 4 plates (X) for each guide profile, from the side opposite the guide support, and position two on the guide support side and two on the opposite side (about 6 cm from the edge of the guide).

Before inserting the plates in the profiles, pre-assemble them with the dedicated screw, washer and nut).

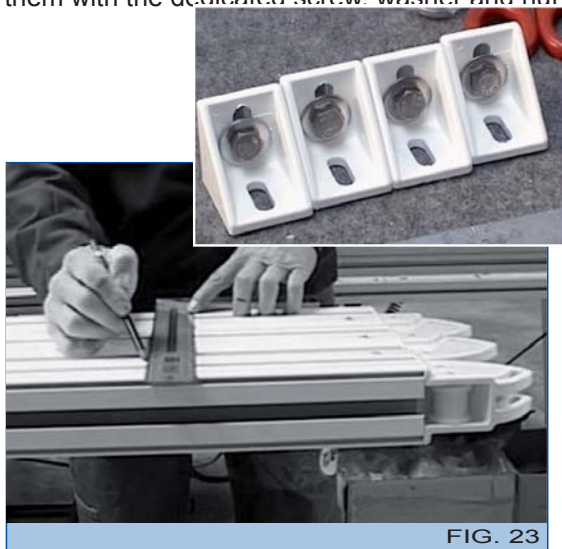


FIG. 23

i INFORMATION AND PRECAUTIONS
It is advisable to position the guide profiles alongside one another so that the square plates are all fastened in the same position.

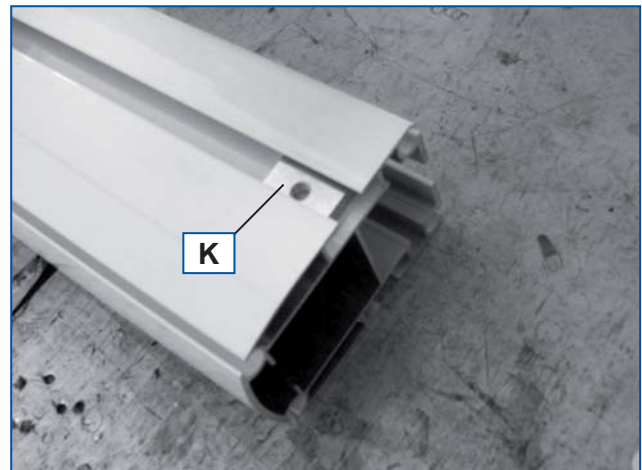


FIG. 23A

25a° In addition to the small plates for affixing the uprights and crosspieces, insert a plate (K) for each foot into the hollow in the guide profile.

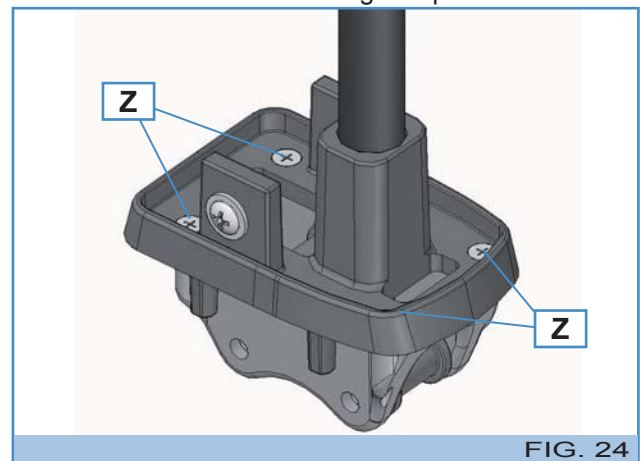


FIG. 24

26° Fasten the return of the foot to the return attachment using the dedicated screws (Z).

6.4 • Assembly of belt on guide

This operation must be performed by at least two workers.

29° Cut two pieces of belt, each of which will have a length determined by the following calculation (in mm):

$$[(\text{protrusion} + 2200 (\text{size provided by piston} + \text{one empty turn on the pulley and curve}) \times 2]$$

30° Take one of the two belts for running out the canvas and use a felt-tip marker to mark a spot 20 mm from one of the ends.

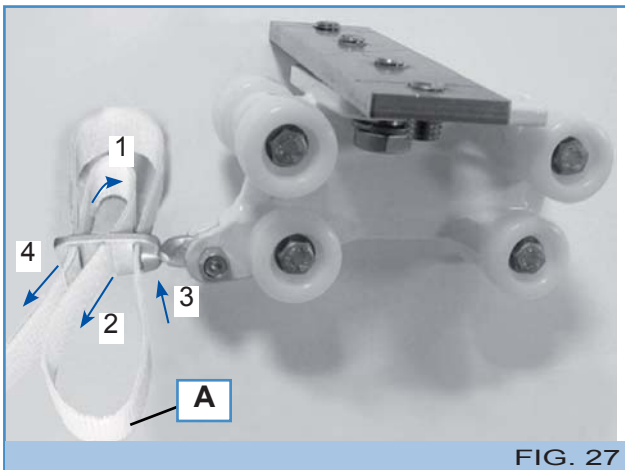


FIG. 27

31 ▫ Insert the belt (A) on the buckle of the carriage, as shown in the figure.

32 ▫ Stop the belt at the outermost slot (1) of the buckle at the mark you have just made.

33 ▫ Tighten the belt on the buckle. Hold its end at the position mentioned above with adhesive tape.

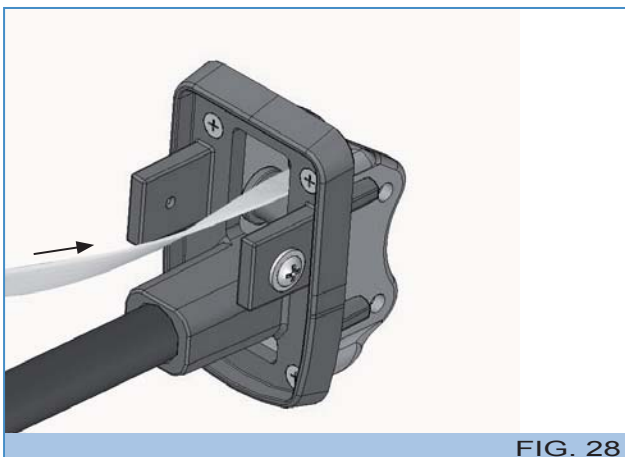


FIG. 28

34 ▫ Insert the other end of the belt in the return, as shown in the figure.

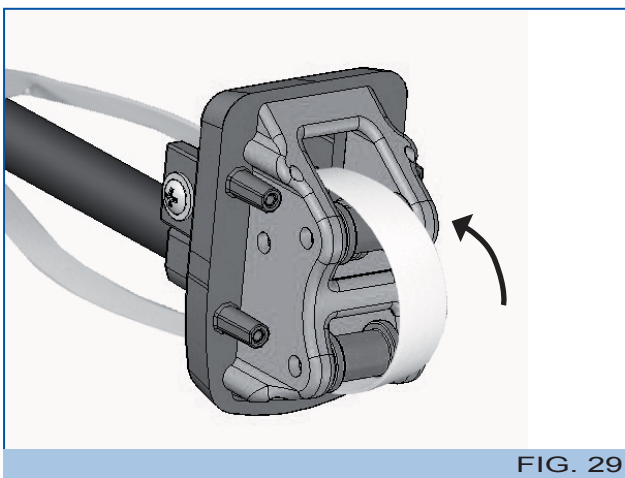


FIG. 29

35 ▫ Insert the belt as shown in the figure.

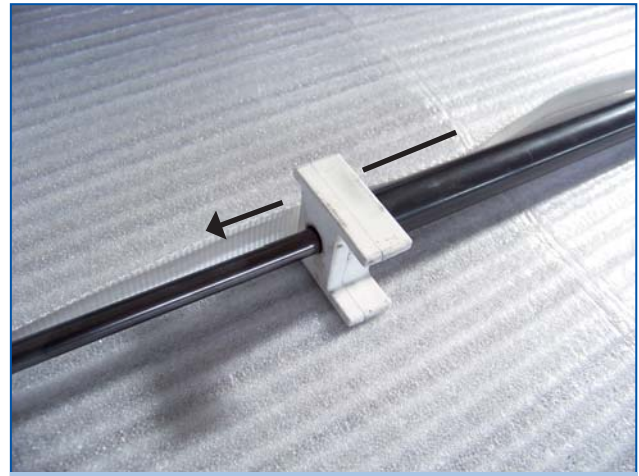


FIG. 30

36 ▫ Run the belt onto its proper place on the spacer.



FIG. 31

37 ▫ Run the belt into the slot on the head of the piston.

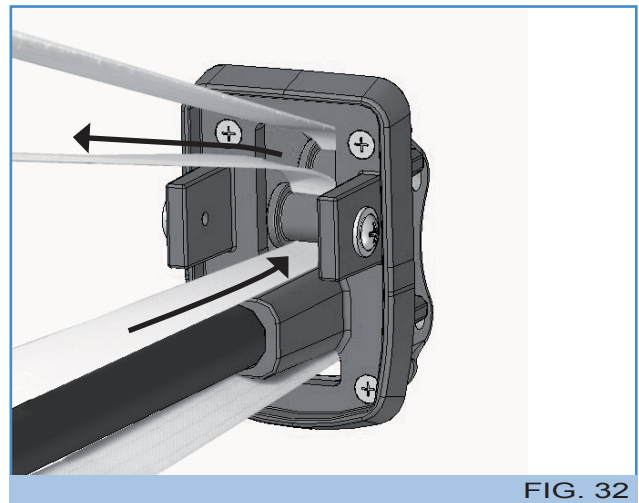


FIG. 32

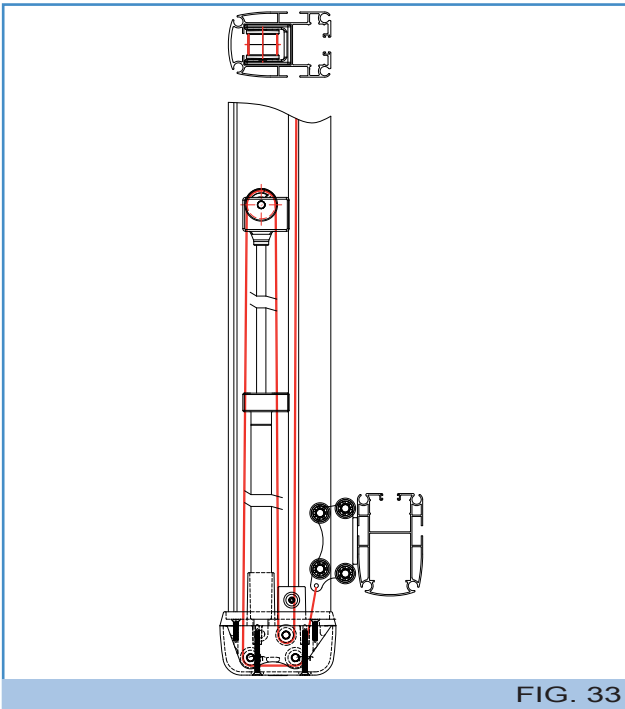


FIG. 33

38° Insert the belt in the upper roller of the return.



FIG. 34

39° Run the belt through as shown in the figure, ensuring that the belt does not become twisted.

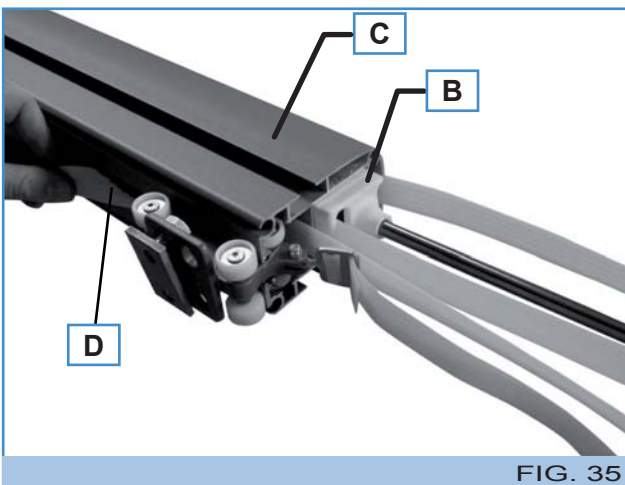


FIG. 35

40° Insert the carriage in the slot (D) of the guide profile.

41° Insert the end of the belt in the guide (C), passing over the carriage, and the piston (B) in the other cavity of the upright.

The belt must run along the entire length of the guide. It is advisable to use a pointed tool to prod the belt, so that it is more easily drawn.

42° While one person holds the piston and carriage in place, the second person draws the belt along the entire length of the guide, keeping it taut.

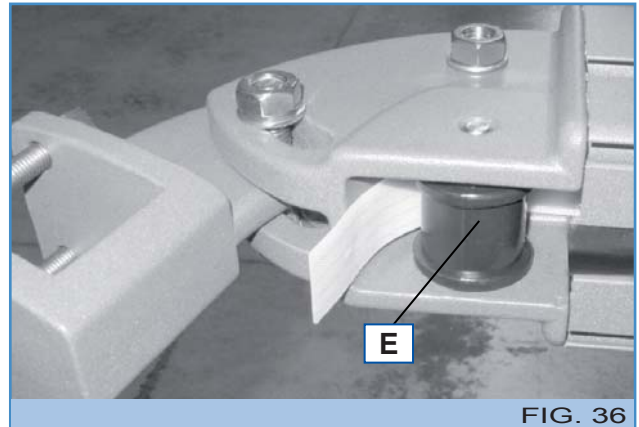


FIG. 36

43° Pull the belt as far as the guide support and run it behind the roller (E).

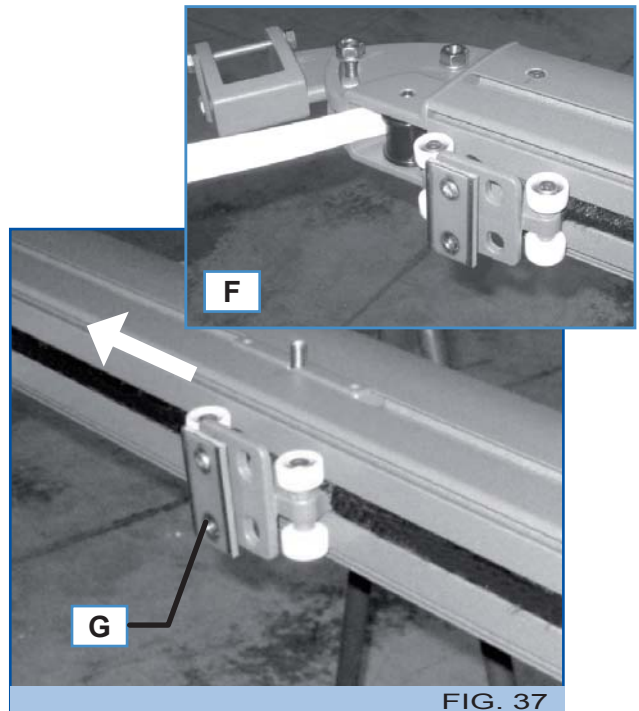


FIG. 37

44° Run the carriage (G) along the entire guide, until you reach the end of the belt on the guide support (F).

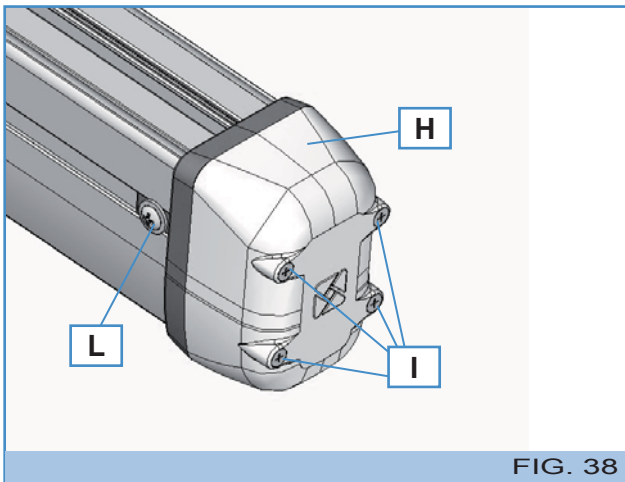


FIG. 38

- 45° While keeping the belt and carriage fixed in position on the other end of the guide, assemble the return plug (H), fixing the plug with the 4 screws (I).
- 46° Fix the return attachment to the guide profile using the screw with washer (L).
- 47° From the guide support side, make a knot in the belt to keep it from going back into the guide.
- 48° From the guide support side, wind some adhesive tape around the guide to keep the carriage from going back.
- 49° Repeat the same steps for the other guide.

6.5 Assembling the roller tube support kit



FIG. 39

50° Roller tube support kit

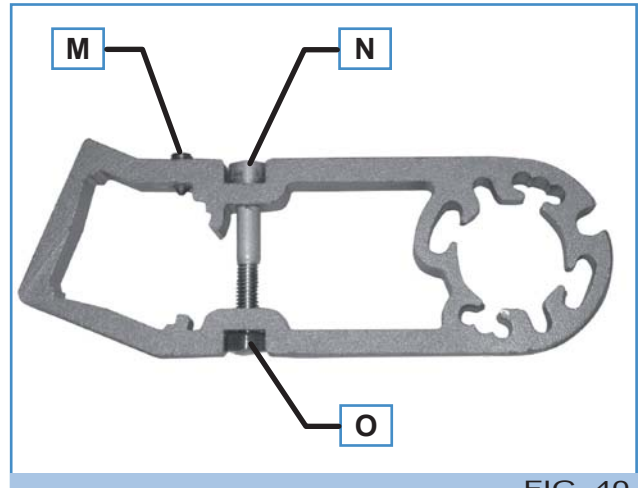


FIG. 40

51° Assemble the two roller tube supports by first tightening the screw (N) with nut and washer (O) and then the grub screw (M).

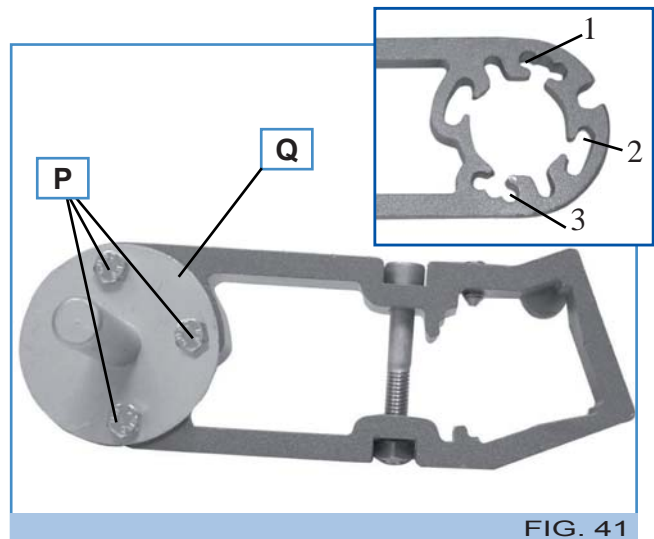


FIG. 41

52° For the side opposite the control, fasten the plate with pin (Q) to the roller tube support using the three screws (P) and the nut with washer, in the places shown in the box at the top right of the figure.

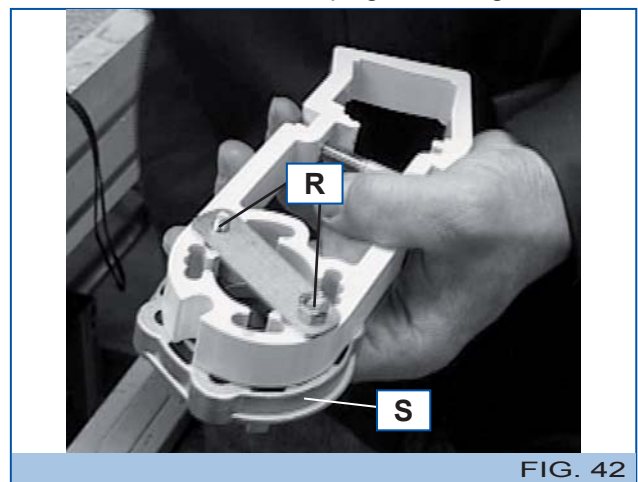


FIG. 42

53° For the control side, fasten the crown (S) to the roller tube support, using the two screws (R) and the nut with washer together with the plate, in the places shown in the figure.

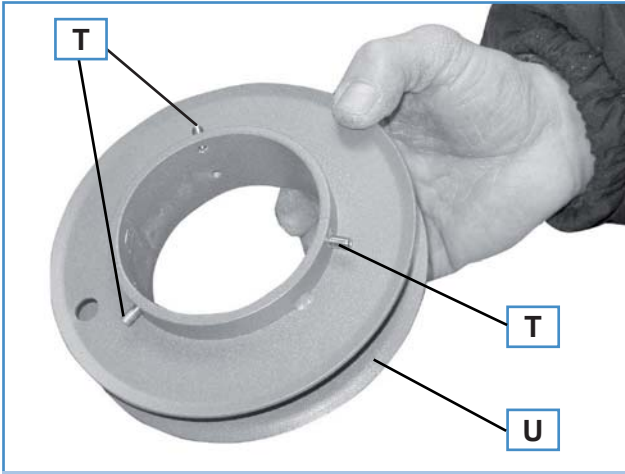


FIG. 43

54▫ Screw the three grub screws (T) onto each pulley (U).

6.6 - Assembling the motor in the roller tube

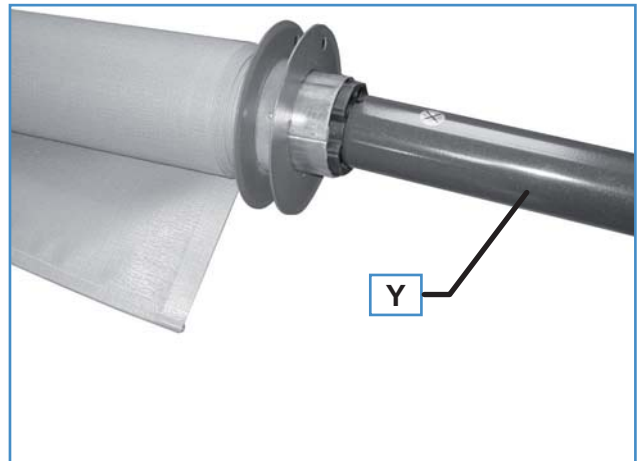


FIG. 46

57▫ In the control side, insert the pre-assembled motor (Y). The assembly instructions for the motor are described in Chap. 7.8, "Motor assembly".

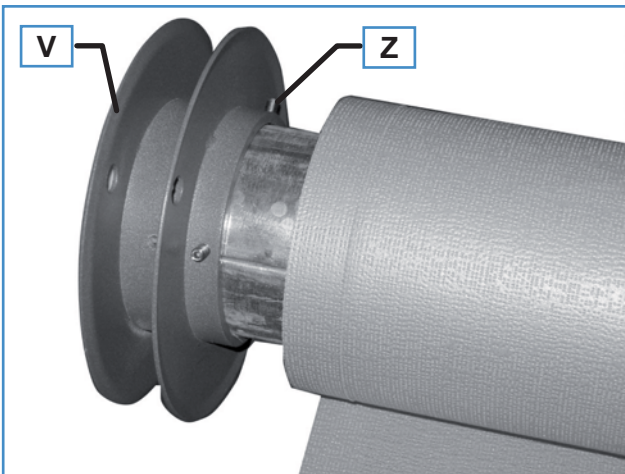


FIG. 44

55▫ Insert the two pulleys (V) on the two sides of the roller tube, keeping the grub screws (Z) facing inward.

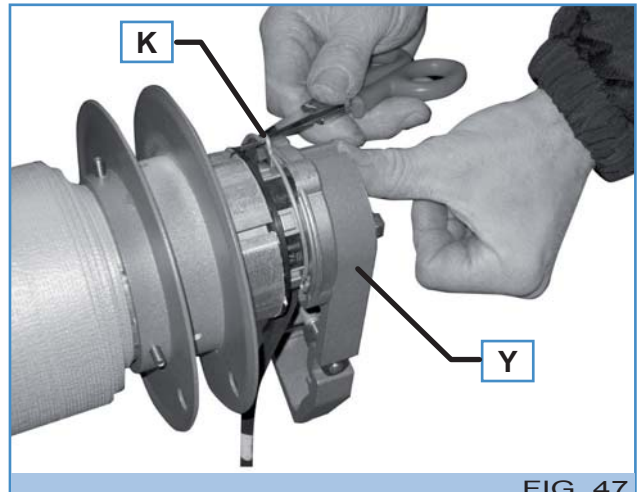


FIG. 47

58▫ Snap in the roller tube support with the crown (Y), and secure it with the clip (K).

59▫ Insert the covers on the roller tube supports.

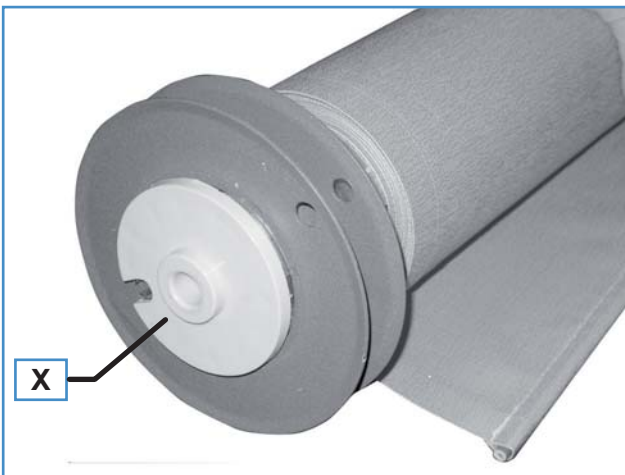


FIG. 45

56▫ Close the side opposite the control using the cap with the hole (X).

7 STRUCTURE ASSEMBLY

The following operations require at least two workers.

7.1 Installation of the guides

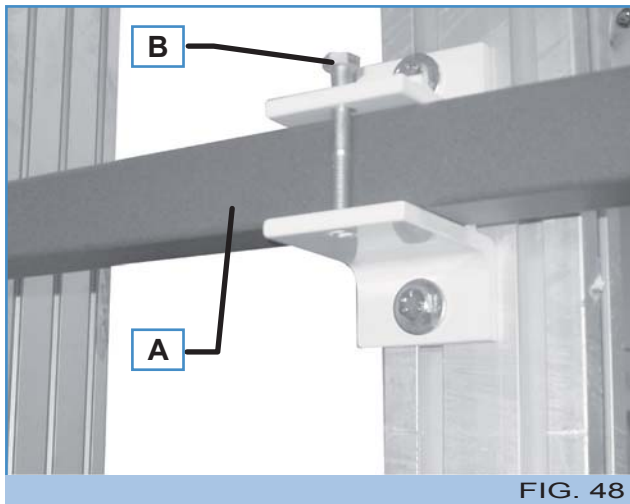


FIG. 48

60=Position the square bar (A) in the two support brackets previously installed on the frame and fix them in position with the screw (B).

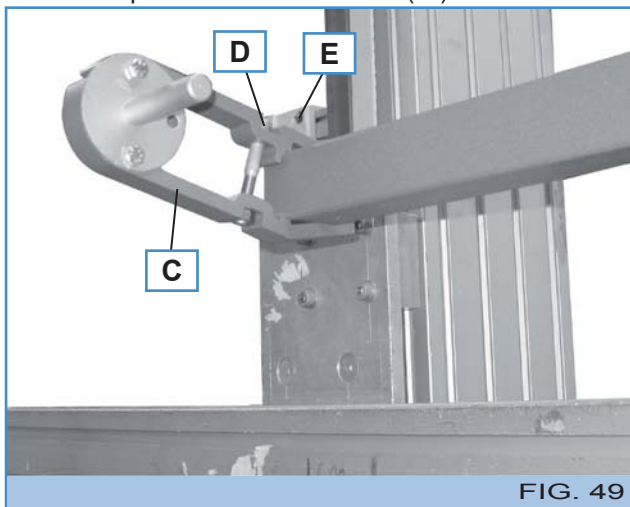


FIG. 49

61=On the side opposite the control, assemble the roller tube support (C). Fasten it by tightening first the screw (D) and then the grub screw (E).

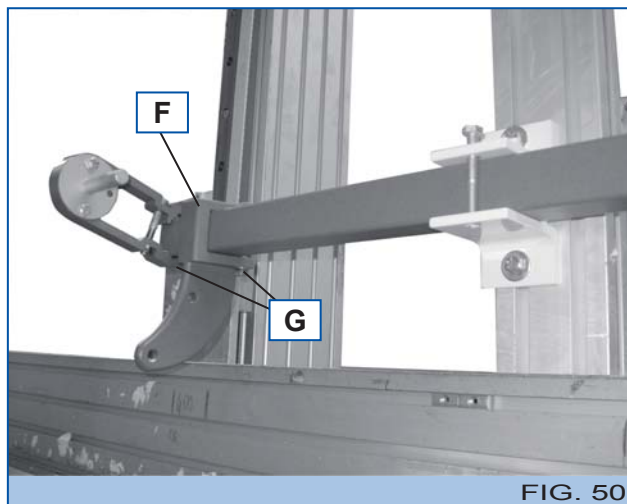


FIG. 50

62=Assemble the guide supports (F) close to the roller tube supports. Lock them in position with the two screws (G), nuts and washers (see Chap. 6.1 "Assembly of guide supports").

63=Raise the frame to the correct height to insert the complete guides.

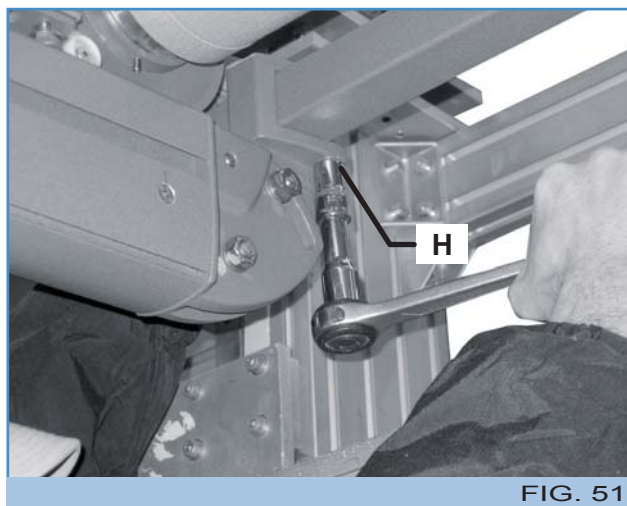


FIG. 51

64=Centre the guides with respect to the square bar, and lock it in position by tightening the two screws (H) on each guide.

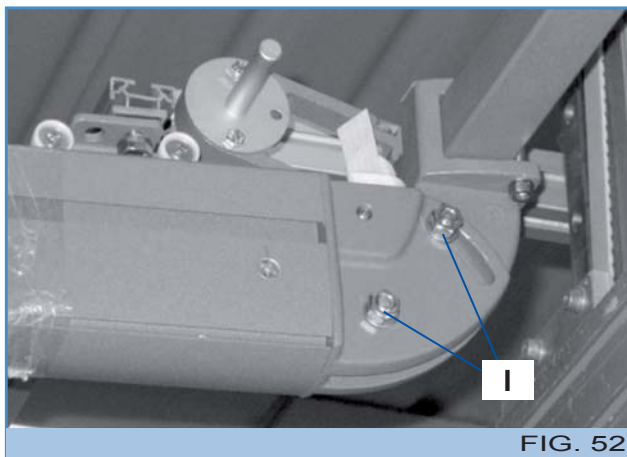


FIG. 52

65=Adjust the inclination of the awning using the screws (I).

66° Apply the square bar to the second guide as well, as described in the previous points.

7.2 - Assembling the roller tube

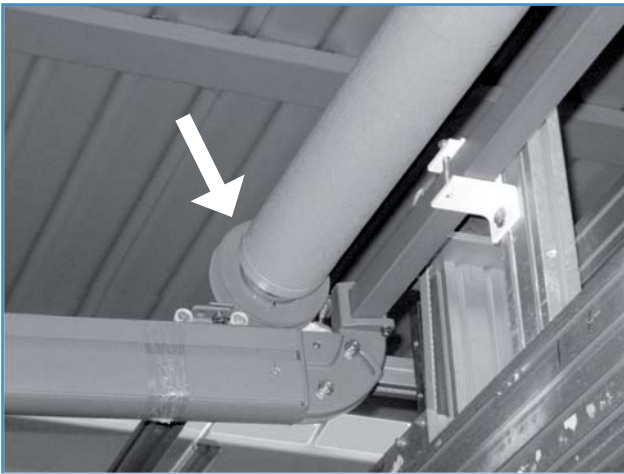


FIG. 53

67° Assemble the roller tube by first inserting the perforated cap (side opposite control) in the plate with pin previously affixed to the roller tube support.

68° From the control side, affix the roller tube support (previously mounted on the roller tube) to the square bar as per the instructions in Chap. 7.1 "Installation of the guides", point 61.

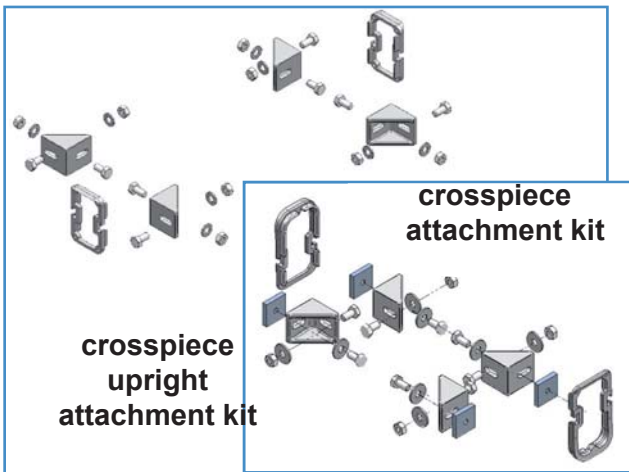


FIG. 54

69° Ensure that the attachment kits correspond to the figure above.

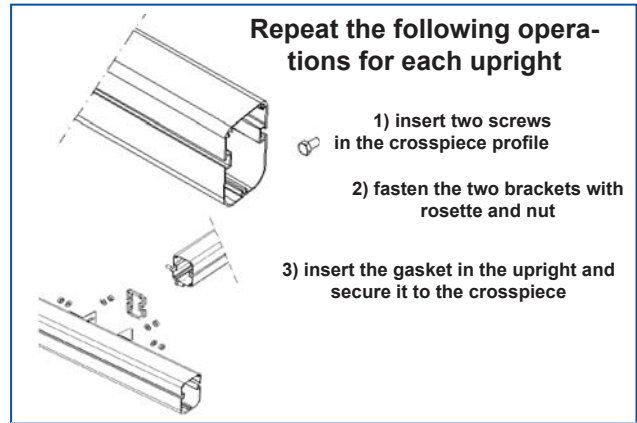


FIG. 55

70° Position the crosspieces and the uprights. Fasten them to the structure with the respective kits, as shown in figure 56 for the crosspiece and figure 55 for the upright.

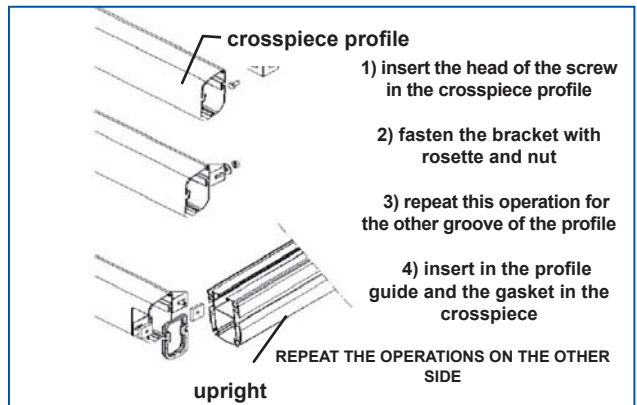


FIG. 56

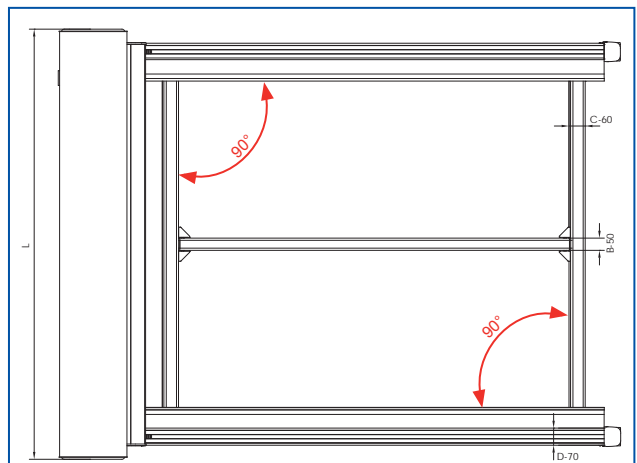


FIG. 57

i INFORMATION AND PRECAUTIONS
 Check that the guides are perfectly parallel to one another. Move them manually if necessary. If the guides are not parallel, the carriage may travel with difficulty and get jammed.

7.3 - Assembly of the terminal

i **INFORMATION AND PRECAUTIONS**
 The width of the terminal must be 7 cm less than the width of the awning (see chap. 3.2 "Table of size dimensions").

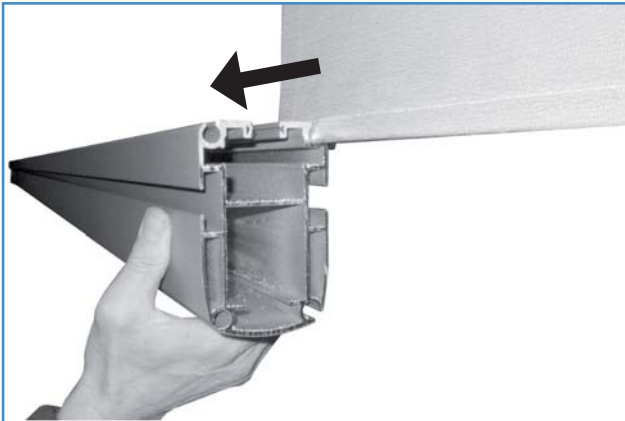


FIG. 58

71° Open the awning.

72° Insert the lower edge of the canvas in the hub of the terminal.

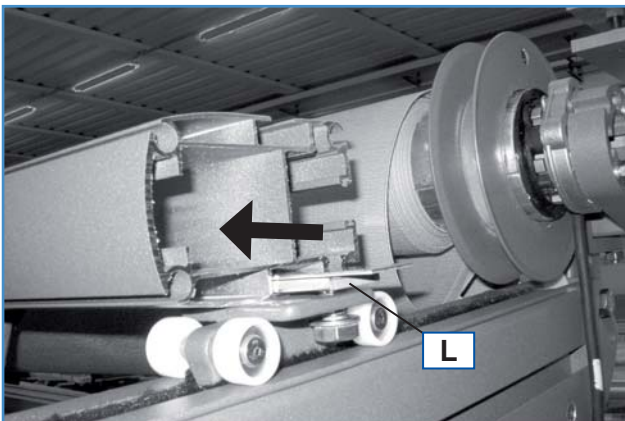


FIG. 59

73° Close the awning almost completely.

74° Set the terminal on the carriages. Centre it on the width of the awning, running the plate of the carriage (L) along the slot of the terminal.



FIG. 60

75° Fasten the terminal to the carriage on both sides by tightening the two screws (M).

76° The fabric must be fastened to the terminal after pre-loading the pistons (see chap. 7.5, "Completion of assembly").

7.4 - Preloading the pistons

i **INFORMATION AND PRECAUTIONS**
 Read the information in Chap. 3.3 "Piston pre-loading table".

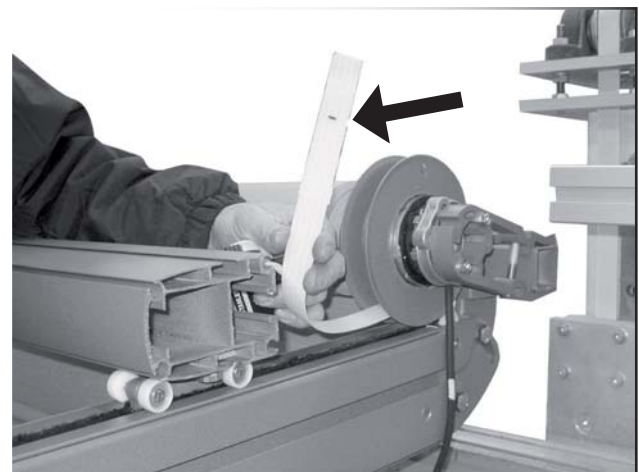


FIG. 61

77° Make a pencil mark 5 cm from the edge of the belt.

78° Apply double-face tape to the belt, on the side which will come into contact with the pulley.

79° Make a small hole with a bit in the centre of the belt where you made the mark.

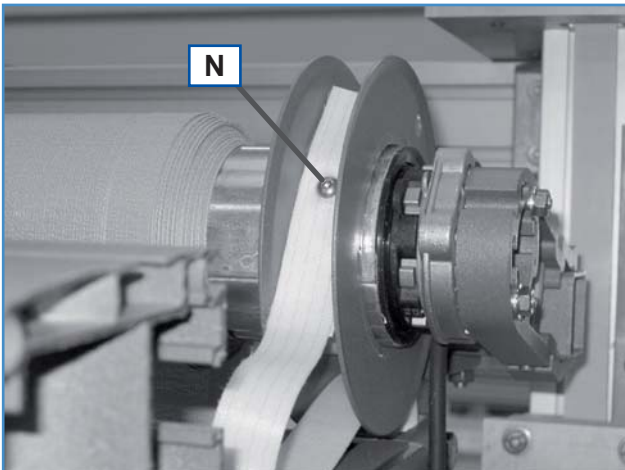


FIG. 62

80° Fasten the start of the belt to the pulley by placing a screw (N, included in the pulley kit) at the hole just made, and then fasten the belt with another two screws.

81° Fasten the belt to the pulley on the other side of the awning, following the same procedure. Make sure that the two horizontal holes of the pulleys are aligned. It is advisable always to fasten the belts in 3 places.

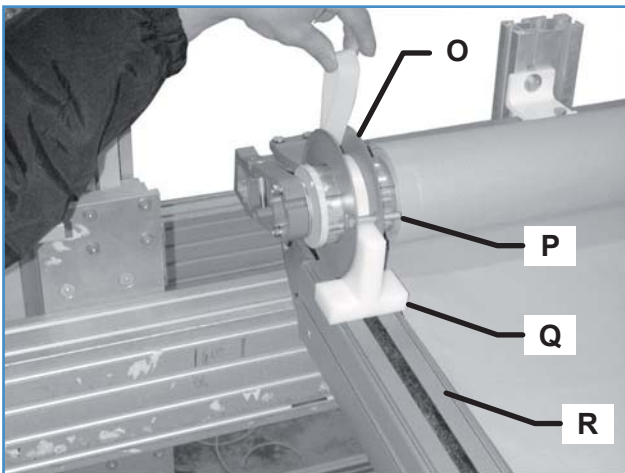


FIG. 63

82° Centre the pulley (O) on the guide (R).

- ° Check that the pulleys are free with respect to the roller tube.

83° Open the awning to the extent set out in **Table 3.3**, page 7.

84° Manually wind the belt on the pulleys and again check that they are free with respect to the roller tube.

85° Insert the pin (P) and the T-block (Q) in the two pulleys, to prevent the pulleys from turning while rolling up the canvas.

86° After blocking both pulleys, close the awning slowly. Check that the pulleys remain stationary and that the roller tube turns with respect to them.

! WARNING

During this operation, do not put your hands near the pulleys.

87° After closing the awning, block the pulleys by closing at least one of the side grub screws. Make sure that one of the grub screws corresponds to the hub of the roller tube. To do this, adjust its rotation.

88° After tightening the grub screws, remove the pins (P) and the plastic T-blocks (Q). Open the awning enough to close the last grub screw.

89° Try opening the awning, and check for proper operation and tension of the fabric. If the fabric is not tight enough, open the awning about 15 ÷ 20 cm. Block the pulleys again with the T-blocks and the pins. Release the grub screws so that the pulleys are free with respect to the roller tube. Block the pulleys again with the grub screws. Remove the pins and the T-blocks.

! WARNING

The stroke of the gas piston is about 100 cm. This equates to a pre-load of about 200 cm, but you should never pre-load the piston to the maximum because there is the risk that you will not have the necessary stroke for complete closure of the awning. Always refer to table 3.2 "Table of size dimensions" on page 7. If the awning does not close, reduce the pre-loading of the piston.

7.5 - Completion of assembly

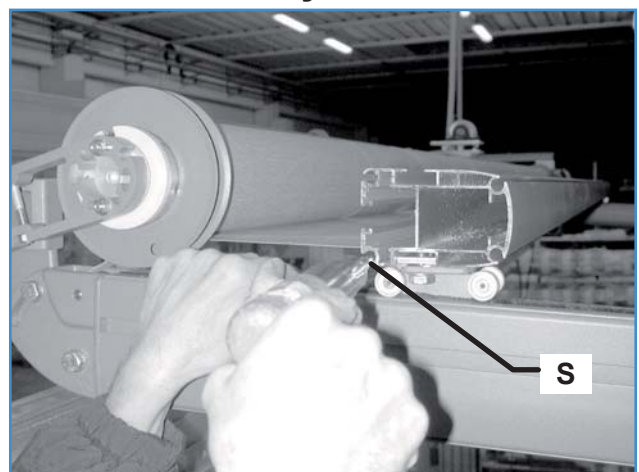


FIG. 64

90° Fasten the canvas on the terminal using one screw per side.

Be careful when positioning these screws. They need to be slightly tilted (between the canvas and the ferrule) to ensure they fasten correctly (S).

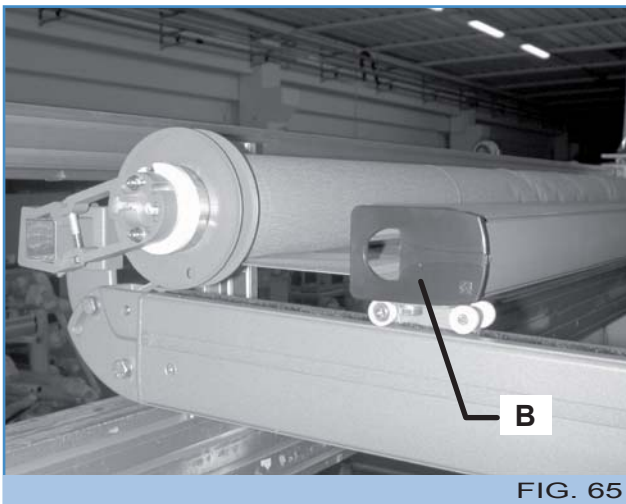


FIG. 65

91=Close the sides of the terminal with the plugs (B).

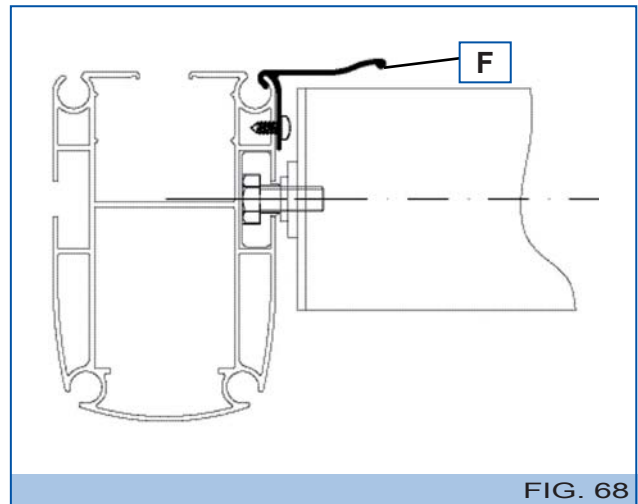


FIG. 68

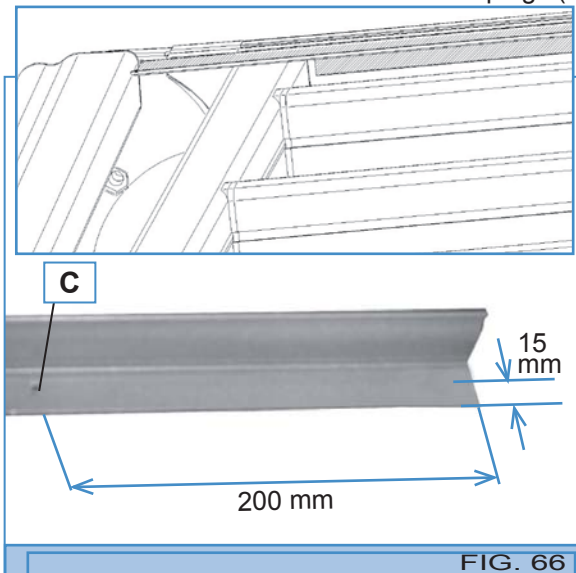


FIG. 66

92=Prepare the closure and drain profiles. Mark the two points for fastening the profiles to the guide, measuring 200 mm from the outer edges and 15 mm laterally. Make holes at these two points (C).

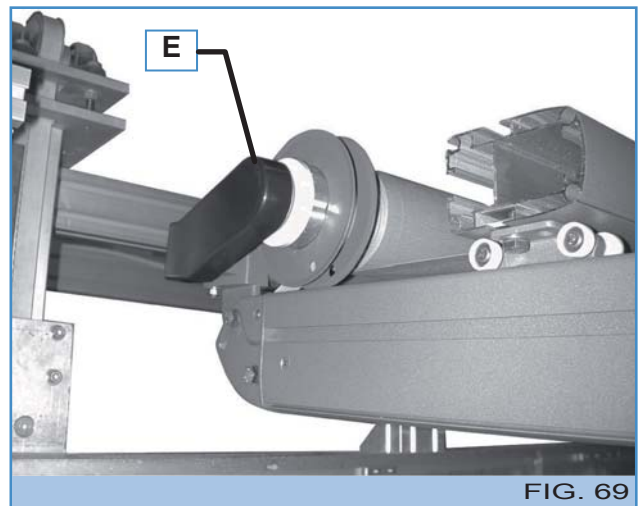


FIG. 69

94=Assemble the covers to the roller tube supports (E).

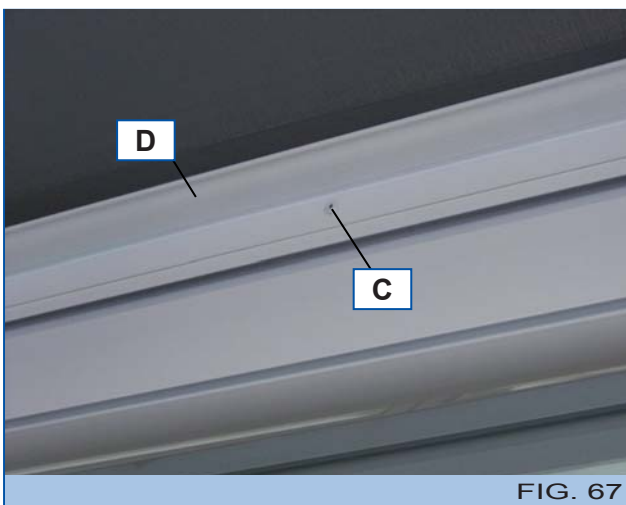


FIG. 67

93=Fasten the closure and drain profile (D) to the guide profile with one screw (C) per profile (see figure 68).

7.6 Assembly of double module

The assembly method for the double module is as described in this manual, with the additional measure of using three guide profiles (see exploded view in Chap. 4.2, page 8).

i **INFORMATION AND PRECAUTIONS**

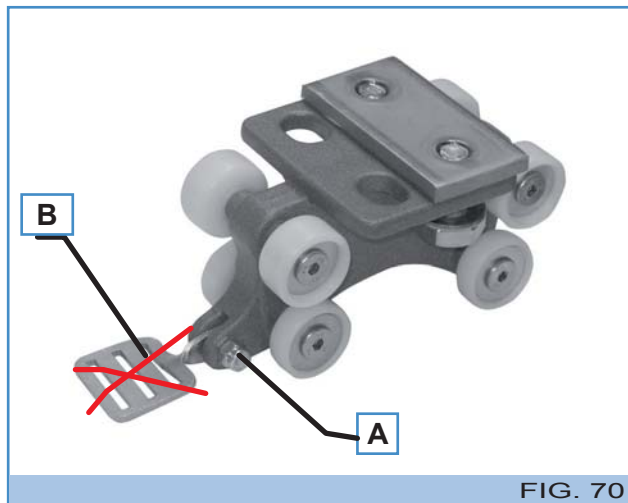
The gas pistons are to be placed in the lateral guide profiles. The central profile is only a support profile for the carriage and does not therefore require a cord or pulley.

Dimensions X^i[} æDouble:

L 700 cm x PR 700 cm

SIZES OF J9FCB5 double module				
Insert the measurements of the awning in mm (L indicates the total overall size of the awning)	J9FCB5			
	SOMFY MOTOR UP TO 60 NM	SOMFY MOTOR UP TO 80 NM	SOMFY MOTOR WITH S.M.	WINCH
TERMINAL PROFILE	(L-35)/2	(L-35)/2	(L-35)/2	(L-35)/2
ROLLER TUBE OF 80	(L-100)/2	(L-100)/2	(L-105)/2	(L-110)/2
SQUARE BAR	(L-10)/2	(L-10)/2	(L-10)/2	(L-10)/2
CROSSPIECE	(L-315)/2	(L-315)/2	(L-320)/2	(L-325)/2
GUIDE & DRAIN	S-210	S-210	S-210	S-210
FABRIC	L-250	L-250	L-260	L-260

The protrusion does not include the thickness of the terminal during descent, which is 80 mm



For the central carriage, it is necessary to remove the screw (A) and the cord hook (B).

To assemble profiles greater than 7 m, you will need to use the special joints for the square bar, roller tube and terminal, securing them with suitable rivets or screws.

7.7 Assembly of compensator support

For width greater than 4,5mt, place the balance support from the side by inserting it in the roller tube

It is advisable to place it at the point where the stitching falls.

Fasten it to the square bar using the screws (D, Fig. 71) and adjust it by loosening the side screws (C, Fig. 71).

i **INFORMATION AND PRECAUTIONS**

For the dual module, use a support compensator up to 6 m, placing it as near as possible to the central profile (if possible where the stitching falls). Use two compensator supports over 6 m at the halfway point of each module or at the point where the stitching falls.

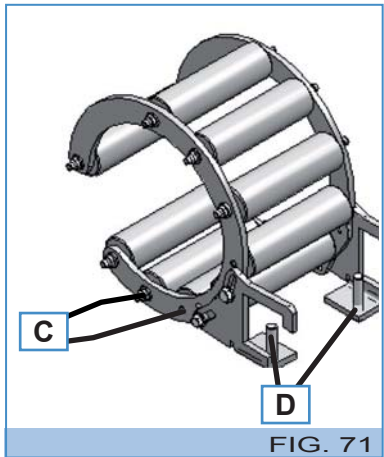
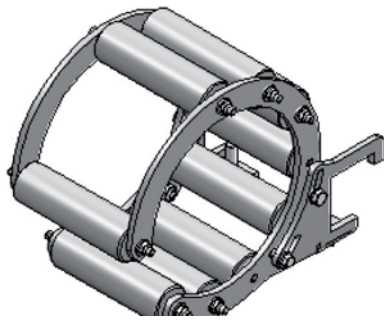
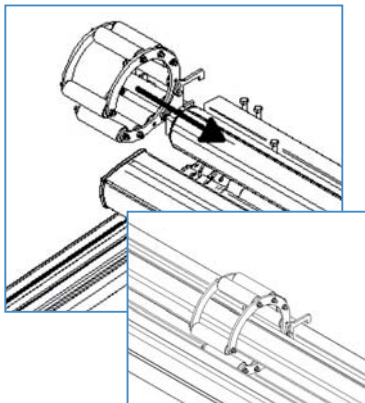


FIG. 71



7.8· Motor assembly

i **INFORMATION AND PRECAUTIONS**
 The instructions which follow are of a general nature and must therefore be adapted to the model of motor being assembled. Follow the instructions in the manual as supplied with the requested motor.

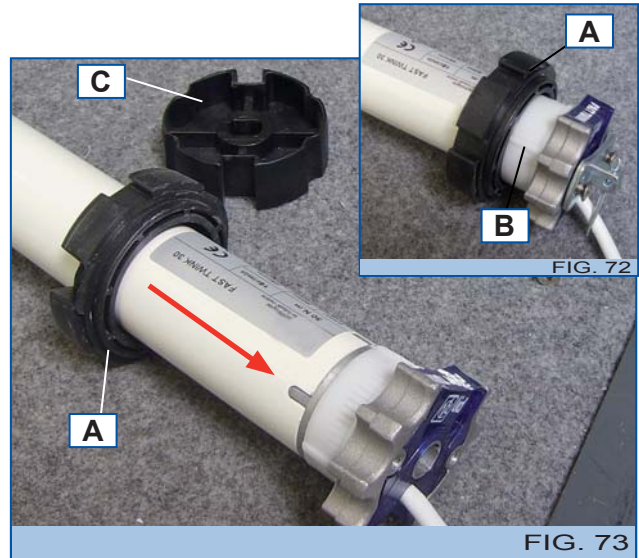


FIG. 73

95=Insert the crown (A) into the tube motor side.
 96=Slowly turn the crown until the respective crown-motor housings match (B) (there will be an audible click).

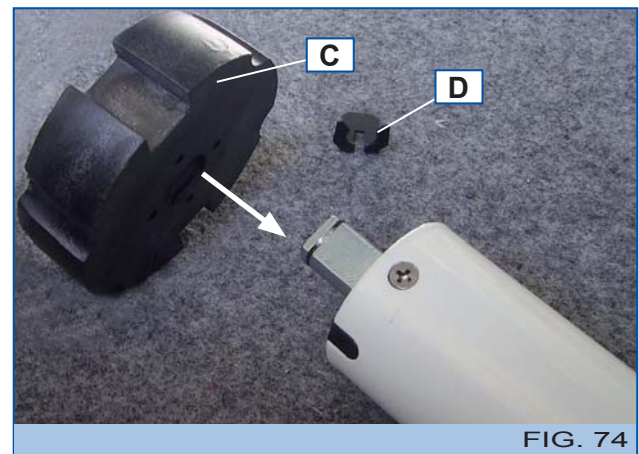


FIG. 74

97=Insert the adaptor (C) in the other side, ensuring that it fits in properly. Insert the clip (D) to secure the motor.

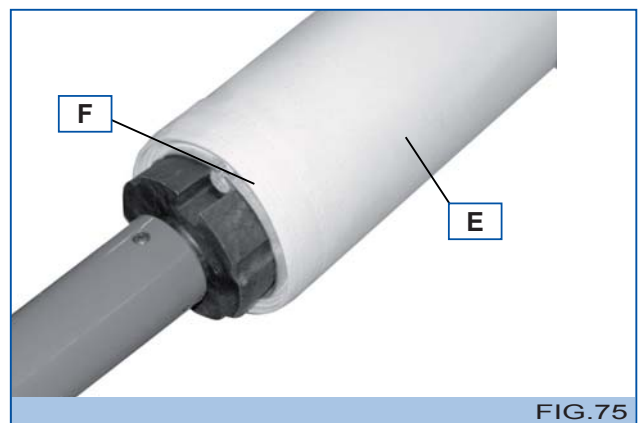


FIG. 75

98 = Insert the motor into the rewriter tube (E), making sure that the groove for the pulley houses the internal ferrule of the rewriter tube (F) properly.

i **INFORMATION AND PRECAUTIONS**
 When inserting the motor, do not pound on the head with the hammer.

i **INFORMATION AND PRECAUTIONS**
 After assembling the awning and the motor, adjust the limit switch as per the instructions in the attached "Motor Manual".

7.9- Table for selection of motors

		WIDTH (cm)		
		single module		dual module
		400	500	over 500 up to 700
PROTRUSION	400	80 Nm	80 Nm	120 Nm
	500	100 Nm	100 Nm	120 Nm

! **WARNING**
 For maximum protrusions of 6.5 and 7 metres, use a motor of over 27 RPM.

8 PACKING

! **WARNING**
 Be careful when moving the awning. If necessary, use suitable lifting and moving equipment. Also make sure that there are no people in the work area.

Pack the profiles of the awning using suitable protective material (e.g. Poliball, cardboard boxes, etc.)

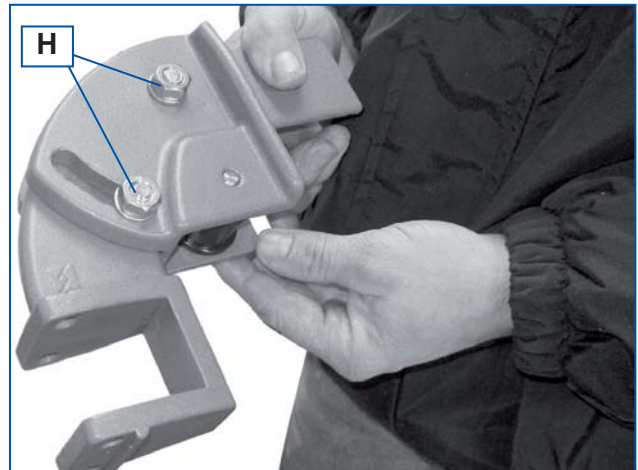


FIG.10

99=Remove the two screws (H) from the guide support and leave the guide lever attached to the square bar.

100=Detach the uprights, crosspieces and the terminal, leaving the attachment kits attached to the guides.

Position the terminal, the uprights, crosspieces and the guide profile (with the preassembled piston and return plug) alongside the square bar and the roller tube.

i **INFORMATION AND PRECAUTIONS**
 Leave the guides assembled with the drain profile, the piston and the return plug.



Professional Awning
Manufacturers Association



How to S



Installation manual



All information contained in this document was provided by the manufacturer of the components of this model. As a fabricator, Retractableawnings.com claims no liability with respect to these documents as we are not engineers and did not complete any of the information, engineering or calculations in this document.

9 INTRODUCTION

This manual for the awning was prepared by the Manufacturer to provide the necessary information to those authorized to install and perform special maintenance of the product. It is prohibited to remove, rewrite or in any way modify the pages of the manual and their content.

Operations must be carried out by personnel with the technical and professional skills required by current applicable national laws or standards.

This manual must be kept complete in all its parts in an easily accessible place.

The manufacturer reserves the right to update products and corresponding manuals without the obligation to update previous products and manuals.

The manufacturer reserves all rights on this manual. It may not be reproduced in any way, wholly or in part, without the manufacturer's written authorization.

9.1 Symbols used in this manual

The WARNING symbols used in the manual are shown below.

INFORMATION AND PRECAUTIONS

Useful advice and instructions to be observed to ensure proper installation and/or maintenance of the awning. Failure to observe these messages may compromise the integrity and/or the resistance of the product.

WARNING

DANGER TO OPERATOR! Instructions to be evaluated and followed carefully. Failure to comply with these messages may compromise individual safety.

9.2 Personnel requirements

Personnel assigned to this operation must have technical knowledge of the product obtained either through two years' experience or by means of a suitable technical training course.

9.3 Required equipment

To ensure proper installation of the awning, and consequently best operation of the finished product, the following equipment is required:

- power screwdriver;
- a level;
- string;
- complete tool set;
- equipment for working at heights (scaffolding, ladders, aerial platforms, etc.) which are compliant with current standards of individual safety in the workplace.

10 SAFETY

10.1 General safety information

- **During all operations described in this manual, make sure that ONLY individuals involved in the work are in the work zone (see Chap. 1.2 "Personnel requirements") .**
- Do not set objects on the canvas of the awning.
- It is prohibited to stand on or hang from the awning. This would create the risk of severe personal injury, as well as damaging the awning.
- Wear personal protective equipment and clothing as required by current standards on safety in the workplace.

WARNING

Installation, adjustment, and special maintenance of the awning must be carried out only by specialized, skilled technical personnel.



! WARNING

It is necessary to ensure a distance of at least 500 mm between the end of the fully-opened awning (outermost part) and any fixed obstacle (wall, terrace, etc.).

! WARNING

It is prohibited to install or place ladders or any fixed object near the awning which may reduce the space required by the awning.

10.2 · Requirements for Working in Safety

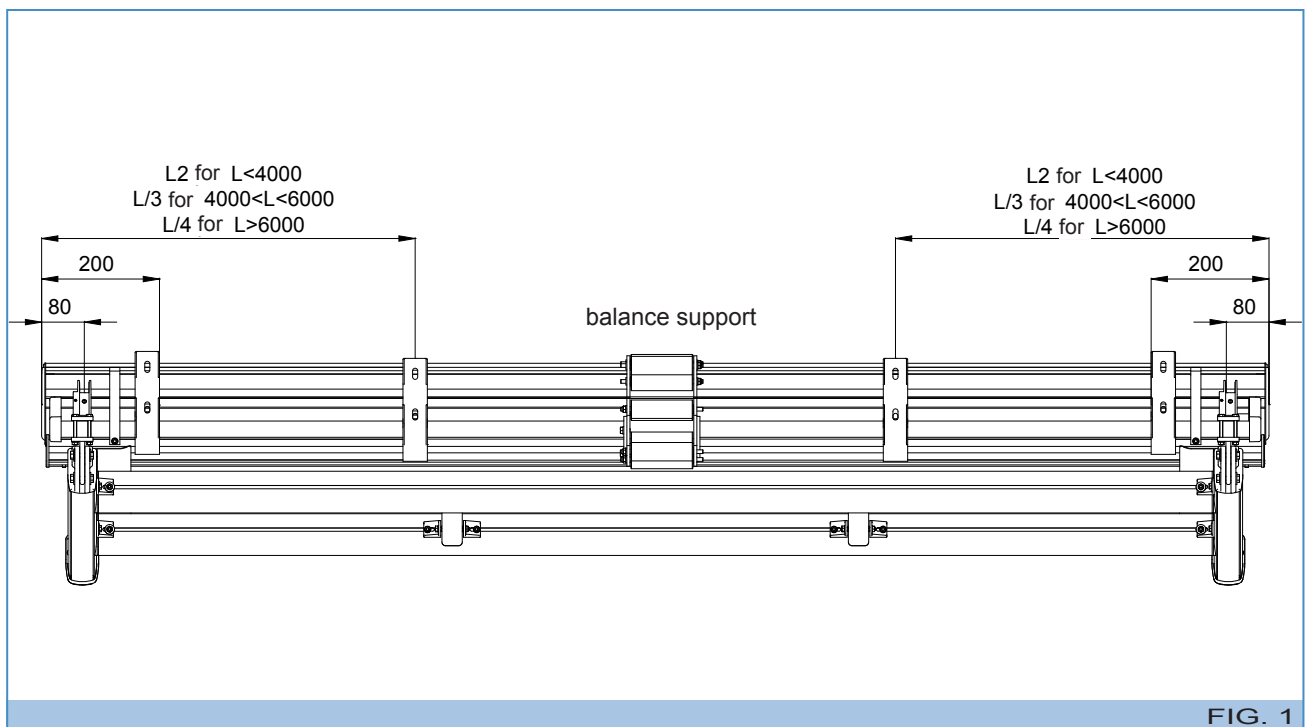
- Installation must be performed in full compliance with standards set forth by Presidential Decree 164/56 and Legislative Decree 494/96 for all that which concerns individual safety.
- Before use, check that all temporary structures (scaffolding, ladders, etc.) and all individual safety gear (harnesses, belts, etc.) are compliant with standards and in good condition.
- Always use suitable individual protection gear.
- If there is more than one installation technician, their work must be coordinated.
- Operators must work in compliance with the safety instructions given to them.
- If the awning is to be installed above ground level, the area underneath the awning must be marked off and guarded so that no one can get underneath the hanging load.
- Firmly tie the ropes or straps around the pre-assembled parts, so that the components do not slip and risk falling.

10.3 · Working environment

- Installation and special maintenance must be carried out in a place that is sufficiently illuminated (based on specific standards) by either natural or artificial lighting. The operator must have a clear view of the work to be performed, and he must also prevent third persons from approaching the work area around the awning.

11 TECHNICAL TABLES FOR INSTALLATION

11.1 · Diagram of guide supports-brackets distances



11.2. Table of loads on awning fastening plugs, based on type of attachment

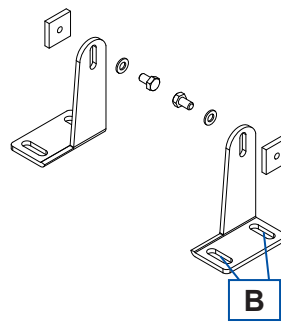
i **INFORMATION AND PRECAUTIONS**

The calculations for the plugs were made for Class 1 wind resistance, as per standard EN 13561.

i **INFORMATION AND PRECAUTIONS**

The plug calculations are made on the basis of a simplified configuration. It is assumed that the force of the wind action is borne entirely by the front foot and the square bar. The foot can be considered as a simple support, with the square bar system as a perfect housing. The simplification neglects the presence of the rear foot, which normally shares the load.

FOOT INSTALLATION



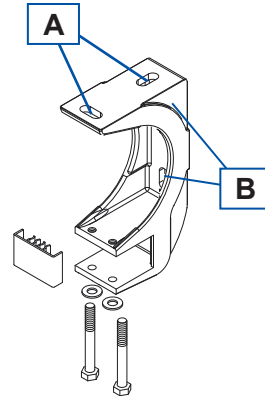
i **INFORMATION AND PRECAUTIONS**

Plugs calculation, for the FOOT as illustrated, on the basis of using the 2 slots (B).

DUAL MODULE

VERONA FOOT MOUNTING							
Extraction load on anchoring devices (KN)	WIDTH (m)						
	2	3	4	5	6	7	
PROTRUSION (m)	2	0.01	0.02	0.03	0.03	0.04	0.04
	3	0.02	0.03	0.04	0.05	0.06	0.07
	4	0.03	0.04	0.05	0.06	0.08	0.09
	5	0.03	0.05	0.06	0.08	0.09	0.11
	6	0.04	0.06	0.08	0.09	0.11	0.13
	7	0.04	0.07	0.09	0.11	0.13	0.15

WALL/CEILING INSTALLATION



i INFORMATION AND PRECAUTIONS

The calculations for the plugs were made with the UNIVERSAL BRACKET in the figure, taking account of the fact that for wall mounting it is the 2 slots (B) are used, and for ceiling mountings the two slots (A).

■ DUAL MODULE

VERONA WALL INSTALLATION							
Extraction load on anchoring devices (KN)		WIDTH (m)					
		2	3	4	5	6	7
PROTRUSION (m)	2	0.3	0.5	0.7	1.0	1.4	1.8
	3	0.4	0.6	1.0	1.5	2.0	2.7
	4	0.5	0.8	1.3	1.9	2.6	3.5
	5	0.5	1.0	1.6	2.3	3.2	4.3
	6	0.6	1.1	1.8	2.7	3.8	5.1
	7	0.7	1.3	2.1	3.2	4.5	6.0

VERONA CEILING INSTALLATION							
Extraction load on anchoring devices (KN)		WIDTH (m)					
		2	3	4	5	6	7
PROTRUSION (m)	2	0.4	0.5	0.8	1.1	1.5	2.0
	3	0.4	0.7	1.1	1.6	2.2	2.9
	4	0.5	0.9	1.4	2.1	2.9	3.8
	5	0.6	1.1	1.8	2.6	3.6	4.8
	6	0.7	1.3	2.1	3.1	4.3	5.7
	7	0.8	1.5	2.4	3.6	5.0	6.6

! WARNING

The plug values are calculated on the basis of two square bar brackets for each guide support. For a double span, the brackets under the greatest stress are those in the centre.

The value in the table is in KN and expresses the extraction load of the plug that is under the greatest stress. These values are required for the selection of the most suitable anchoring, based on the type of material upon which the awning will be installed. Choose the anchoring by referring to the recommended load values in the Hilti General Catalogue.



Example:

Wall installation:







- awning dimensions: 4x4 - load on plug: 1.3 kN - base material: non-cracked concrete C25. Suggested plug: Hilti HST M8 (see the plug technical specifications in the Hilti General Catalogue).

! WARNING

The selection of the most suitable type of fastening device depends on the base material and its physical condition. It is therefore the responsibility of the installer to check the condition of the base material before attaching the awning. The installer is not obliged to use Hilti plugs.

11.3. Table of suggested anchoring devices




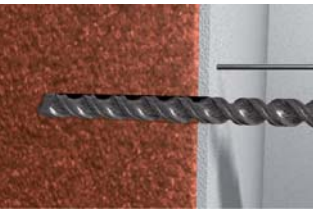

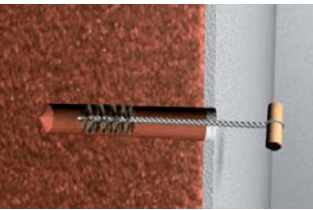






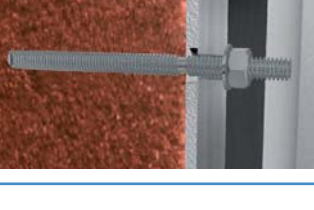
11.3.1 Types of anchoring devices for different base materials

Extraction load on anchoring devices (KN)		
Hilti HST		CONCRETE CRACKED CONCRETE HARD NATURAL STONE
Hilti HSA		CONCRETE HARD NATURAL STONE
Hilti HIT-HY 150 with HAS		CONCRETE
Hilti HIT-RE 500 with HAS		CONCRETE HARD NATURAL STONE SOLID BRICK WOOD
Hilti HIT-HY 50		BETON GAS SOLID BRICK WOOD
Hilti HIT-HY 20		PERFORATED BRICK

i INFORMATION AND PRECAUTIONS

For corrosive environments, we suggest using stainless steel anchoring devices. For additional information, contact Hilti Italia S.p.A. technical service. (e-mail: tecnici@hilti.com)

11.3.2 - Steps for fastening anchoring devices

MECHANICAL ANCHORING DEVICE		CHEMICAL ANCHORING DEVICE	
	1º Make a hole with a drill bit that is suitable for the anchoring device		1º Make a hole with a drill bit that is suitable for the anchoring device
	2º Pay attention to how deep you make the hole		2º Pay attention to how deep you make the hole
	3º Remove dust and debris from the hole (preferably using compressed air)		3º Remove dust and debris using a brush
	4º Install the anchoring device		4º Remove residual dust with compressed air
	5º Tighten until achieving recommended tightening torque (see Hilti General Catalogue)		5º Inject the chemical adhesive
	6º Final configuration		6º Insert and settle the anchoring device. Comply with the setting time required before placing the plate (see product cartridge)
			7º After the time "T cure" has elapsed, place the plate and tighten until achieving recommended tightening torque (see Hilti General Catalogue)

! WARNING

For proper installation of the anchoring devices, refer to the Hilti General Catalogue



11.4· Dimensions and footprints

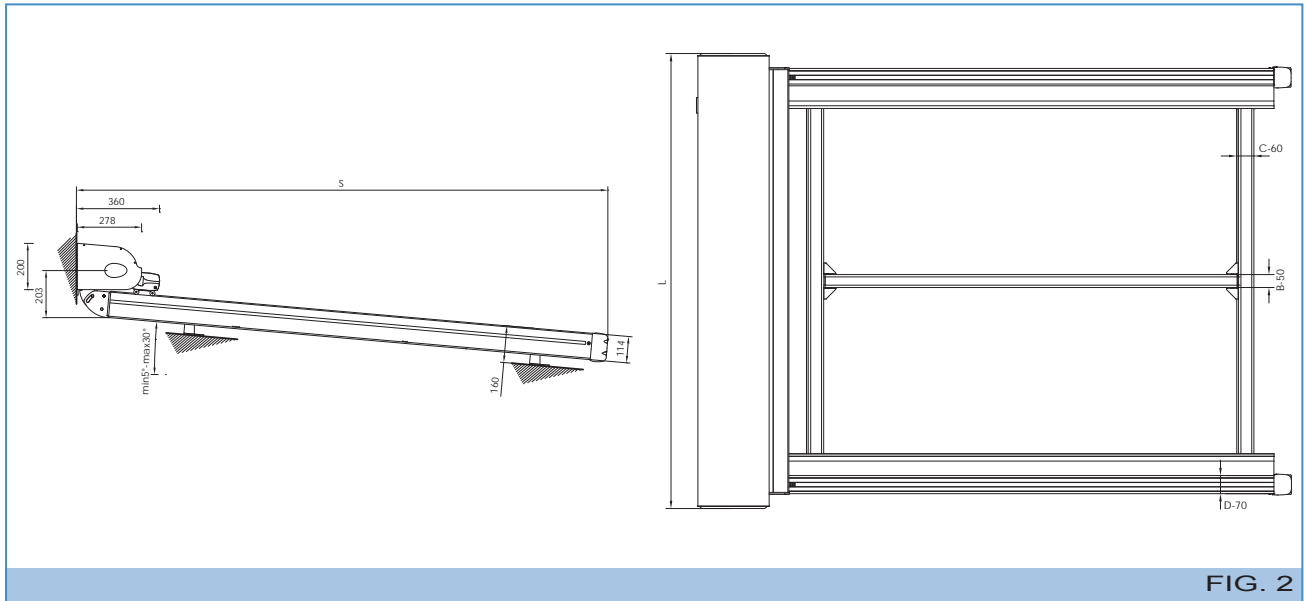


FIG. 2

11.5· Support brackets

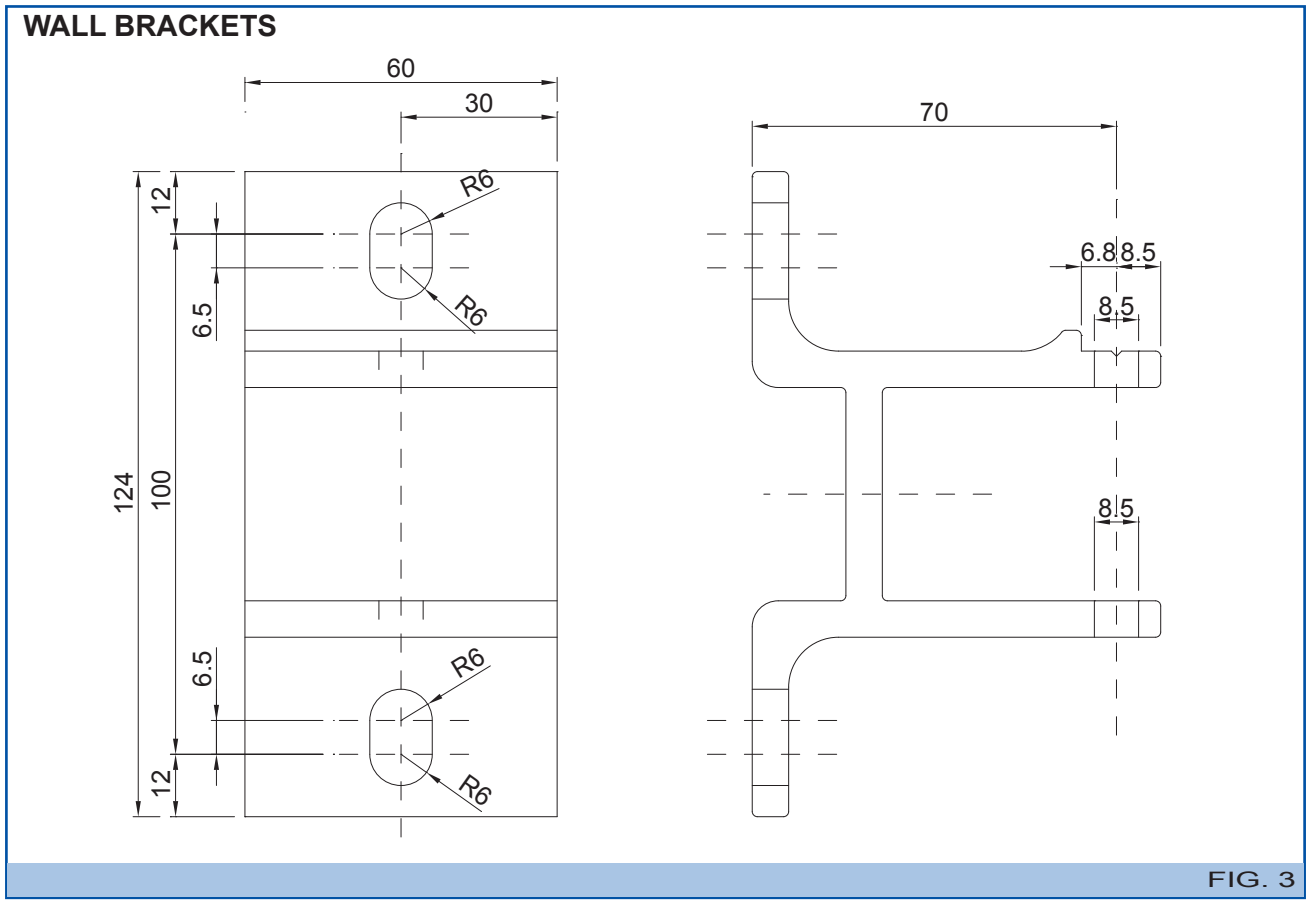


FIG. 3

CEILING BRACKETS

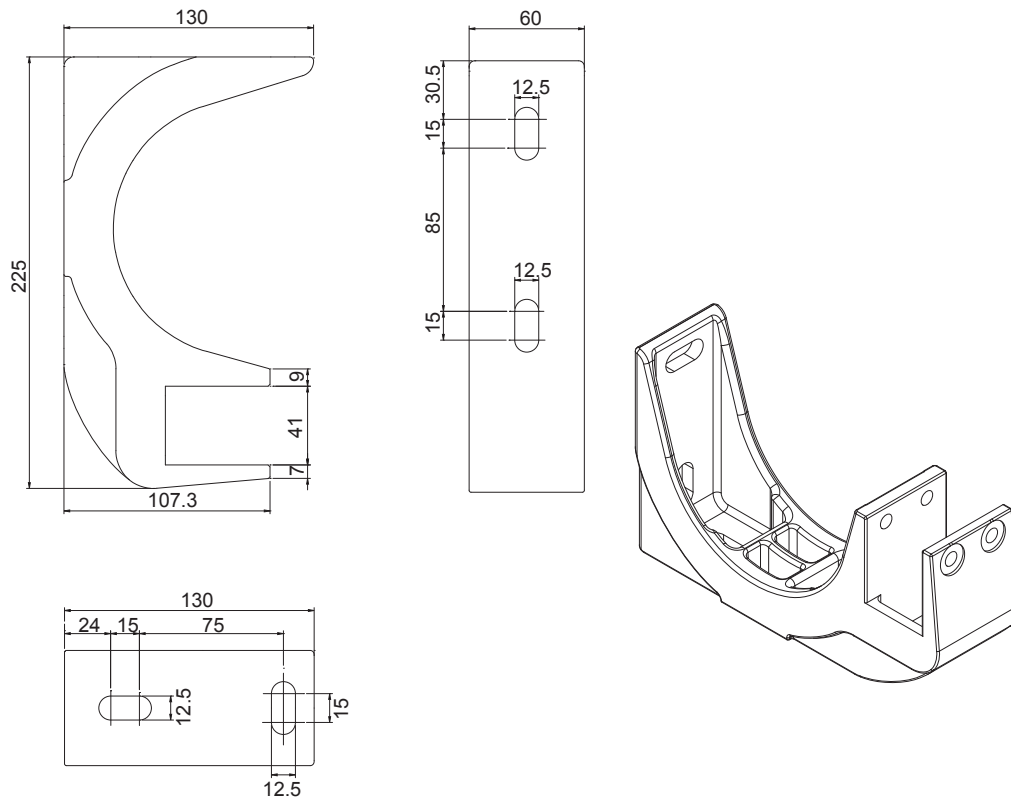


FIG. 4

11.6 · Foot

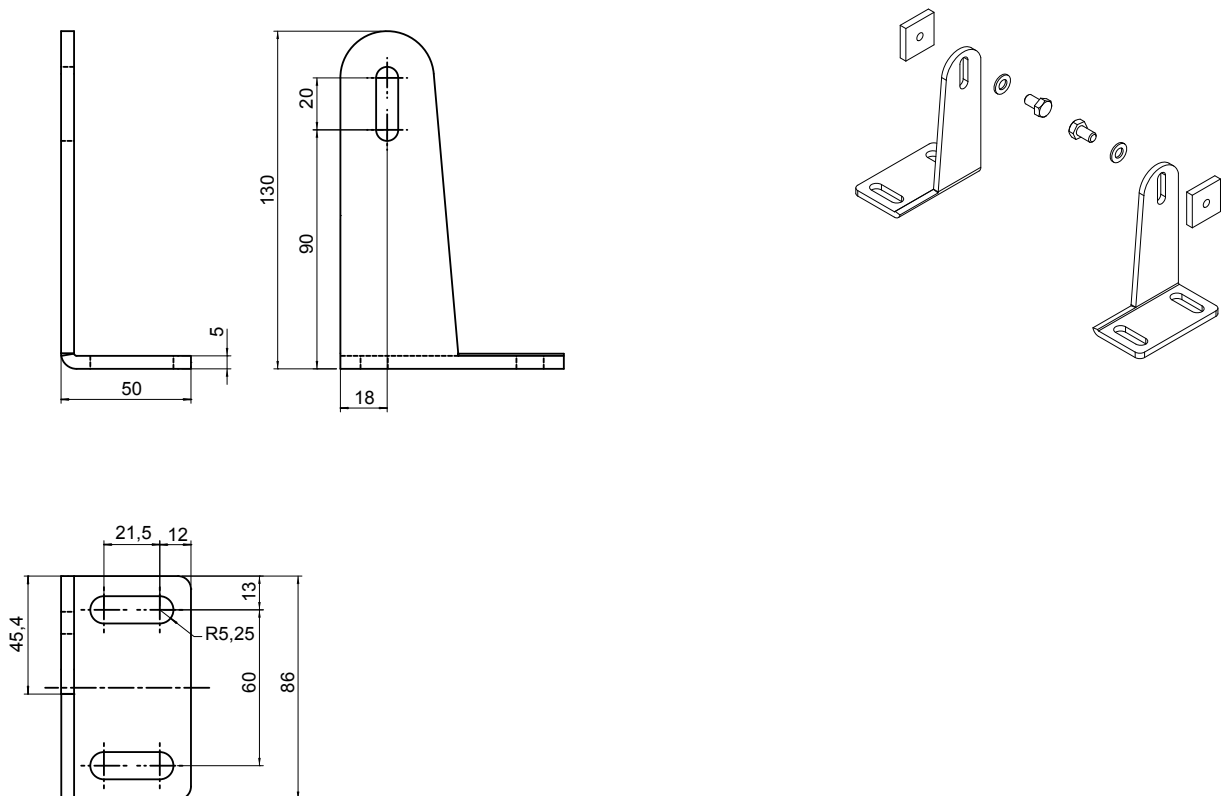


FIG. 5

12 INSTALLATION OF AWNING

The **JYfcbU** awning can be either wall-mounted or ceiling-mounted. Where the procedure for **ceiling installation** differs, the correct instructions will be provided in detail. If any options are provided, **first read** Chapter 13, "Options".

This procedure must be performed by at least two workers.

! WARNING

All movement and lifting must be done with extreme care. Ensure that individuals not involved in the work are kept at a safe distance, so that no one is standing under hanging loads, whether they are moving or standing still.

! WARNING

Ensure a minimum space of 500 mm between the open awning and any fixed obstacle. The awning must be installed at a minimum height of 2500 mm. If this is not possible, for awnings equipped with automations it is obligatory to install an acoustic warning device.

i INFORMATION AND PRECAUTIONS

Use the most suitable plugs for the type of wall where the awning is to be installed.

i INFORMATION AND PRECAUTIONS

For **CEILING INSTALLATION**, **DO NOT FASTEN THE BRACKETS TO THE BLOCKS**. The awning may fall with the risk of serious injury to individuals and damage to the product.

! WARNING

IT IS PROHIBITED to install the motorized product in an explosive atmosphere.

! WARNING

Use a locking switch (with key) if the awning is installed in sensitive locations such as schools, boarding schools, hospitals, retirement homes, etc. If the awning is equipped with a radio control, keep it out of the reach of children.

! WARNING

If there is an opening/closing switch, it must be located in a protected position at a height of at least 1500 mm above ground level and in a safe place.

12.1 -Limit switch calibration

i INFORMATION AND PRECAUTIONS

Before installation, check that the limit switch is properly calibrated. If it requires adjustment, follow the instructions in the attached "Motor Manual".

12.2 - Electrical connections and installation

! WARNING

The electrical connections must be performed by qualified personnel and with the electrical energy disconnected.

i INFORMATION AND PRECAUTIONS

It is prohibited to connect two or more motors to the same switch due to the risk of induced current which would result in damage to the motors.

Instructions for electrical connection and programming the type of operation are described in the "Motor Manual" which is attached.

12.3 - Securing brackets to the wall and installation of the square bar

1. Before starting installation, take note of the following information, which is indispensable to find the right position for fastening the brackets:

- dimensions of the awning (protrusion and guide height);
- dimensions of the square bar on which the awning is to be installed;
- dimensions of support brackets (see chapter 3.6);
- side of awning where control is located;
- dimensions of the wall where the awning is to be installed.

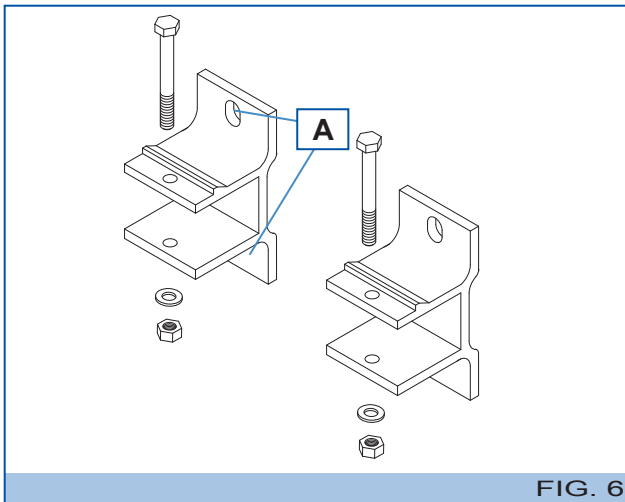


FIG. 6

- 2º The brackets must be fixed to the wall via the two holes (A).
- 3º Position the holes for the brackets. Measure the width of the square bar and, referring to the data shown in Chapter 11.1, "Diagram of bracket-guide support distances", calculate the position of the holes.
- 4º Using a string and a level, mark the position of the holes to be made on the wall.



FIG. 7

- 5º Drill a hole in the wall based on the type of screws available and the type of masonry.

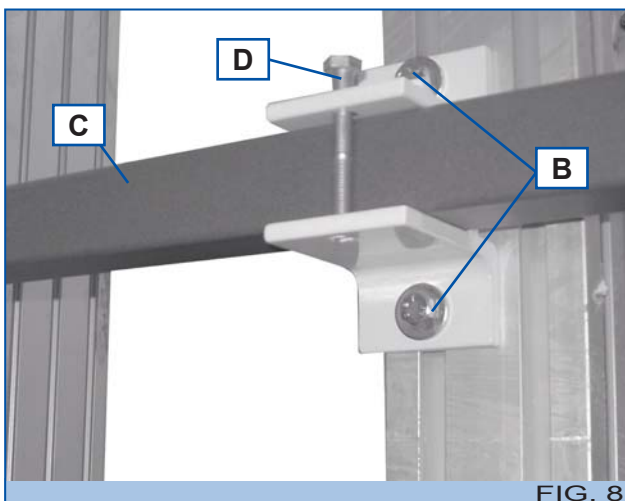


FIG. 8

- 6º Fasten the two brackets to the wall: insert the plugs in the holes and secure the brackets with the

screws and washers (B).

- 7º Place the square bar (C) in the two support brackets and secure it in position with the screw (D) and the nut with washer.

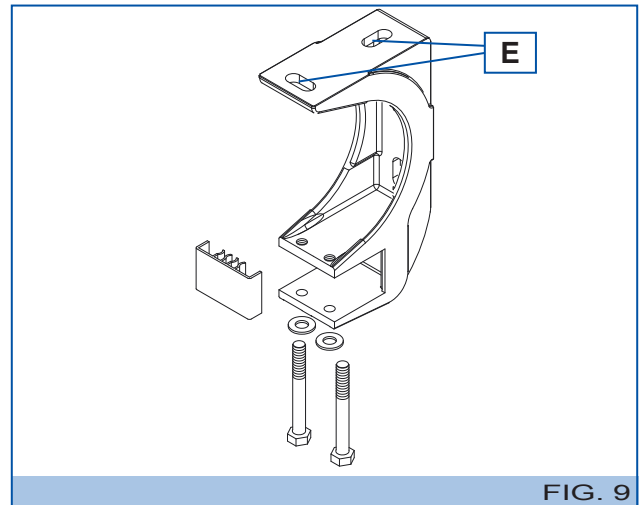


FIG. 9

- 8º If installing the awing on the CEILING, fix the bracket in the holes (E) as shown in the figure.

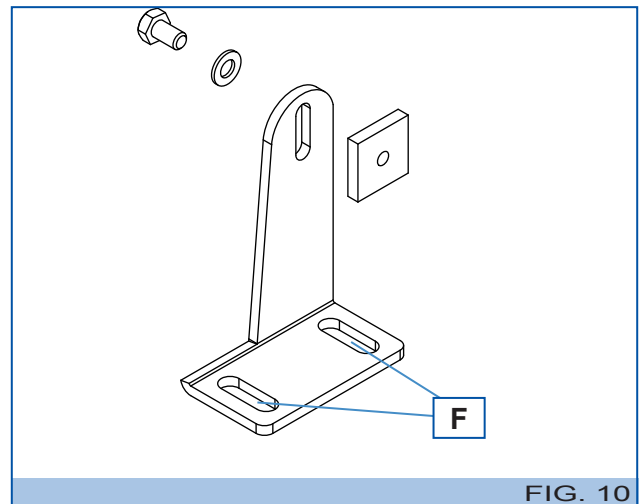


FIG. 10

- 9º To install the feet, fasten them in the slots (F).

i **INFORMATION AND PRECAUTIONS**
 If the wall is off-square, it may be difficult to install the box on the square bar support. It is therefore advisable to check the alignment of the brackets (especially if there are more than two of them) and to provide inserts to ensure proper alignment for good installation. Use a string to check alignment.



FIG. 11

10. To install the awning on external structures (e.g. pergolas/ arbours), fasten the screw (G) in the foot to the plate previously inserted in the guide profile (Fig. 23A, page15).

i INFORMATION AND PRECAUTIONS
 The foot may be assembled internally or externally to the guide profile, according to requirements.

11. Proceed with installation of the awning, following the instructions in the "Assembly Manual".

13 OPTIONALS

13.1 - Lights kit



FIG. 12

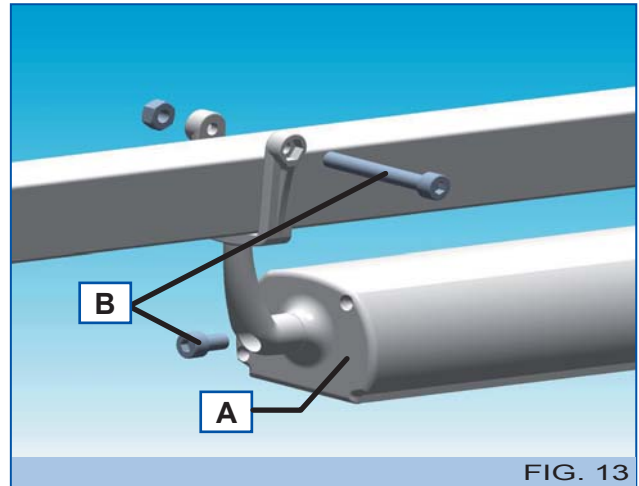


FIG. 13

The lighting kit is provided pre-assembled in boxes.

12. Insert the corresponding lights support on the square bar.

13. Use the screws (B) provided to fasten the profile of the lighting kit.

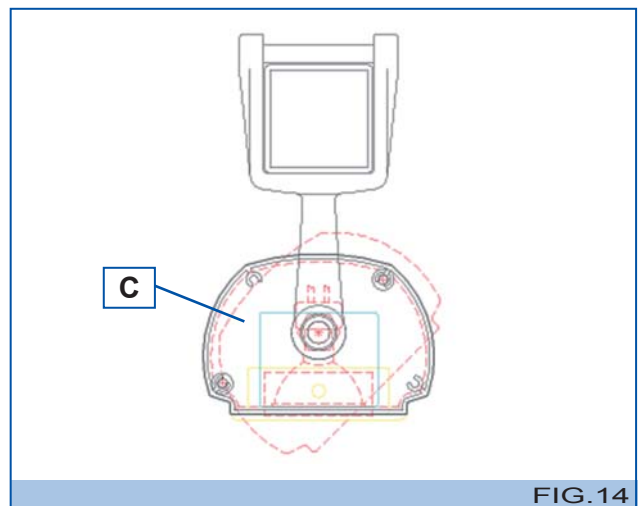


FIG. 14

14. Adjust the direction of the kit to meet your needs (C).

13.2 - Automations (Motorized awnings only)

WIND GAUGE, RAIN GAUGE, TWILIGHT SENSOR: installation of these optional is described in the manuals for automations and for requested controls.

! WARNING

For awnings with automations, the awning must be installed at a minimum height of 2500 mm. If this is not possible, it is obligatory to install an acoustic warning device.

14 SPECIAL MAINTENANCE

14.1 · Troubleshooting table

MANUAL AWNING

PROBLEMS	CAUSES	SOLUTIONS
Conical rewinding of canvas	Incorrect symmetry of arms Uneven fabric thickness	See manual for Assembly, Chap. 7 Roll the canvass all the way back up

MOTORIZED AWNING

Without electronic control unit

PROBLEMS	CAUSES	SOLUTIONS
Conical rewinding of canvas	Incorrect symmetry of arms Uneven fabric thickness	See manual for Assembly, Chap. 7 Roll the canvass all the way back up
The awning does not roll up all the way. The awning does not open up all the way.	Incorrect adjustment of limit switch. Motor crown shifts during movement	See manual for motor (attached) See manual for Assembly, Chap. 8
The motor is very noisy	Incorrect wiring Motor failed	See manual for motor (attached) See manual for motor (attached)
The motor shuts down after 4-5 minutes of continuous operation	Thermal protection of motor trips	Let the motor cool off for a few minutes

With electronic control unit

PROBLEMS	CAUSES	SOLUTIONS
The awning does not move	Fuse blown Incorrect wiring	Replace the fuse as shown in the attached manual See manual for motor (attached)
The awning moves in jerks (moves for 50 cm, stops, etc.)	Faulty wind gauge	See instructions on automations (attached)
The awning does not roll up in high winds.	Fuse blown Faulty wind gauge	Replace the fuse as shown in the attached manual See instructions on automations (attached)
The awning does not roll up in heavy rain.	Fuse blown Rain gauge defective	Replace the fuse as shown in the attached manual See instructions on automations (attached)
With radio control, the awning opens or closes by itself.	Battery dead	Replace battery in radio remote control (see instructions concerning controls)



Professional Awning
Manufacturers Association



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