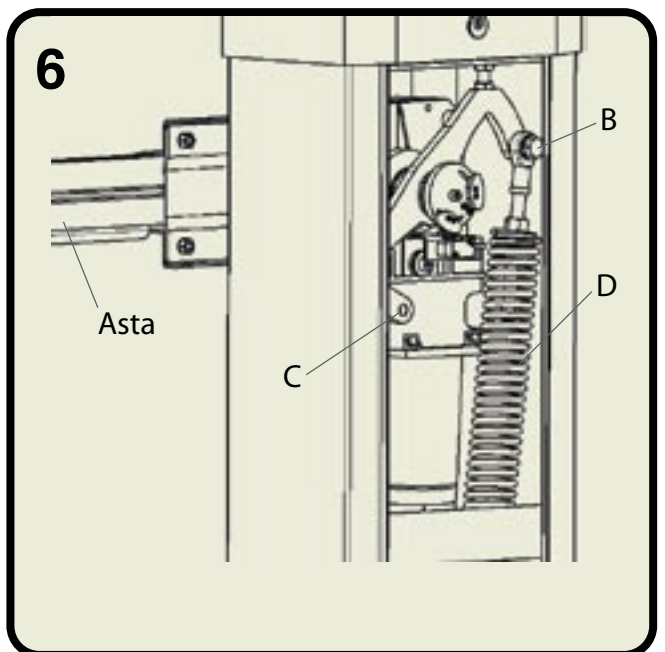
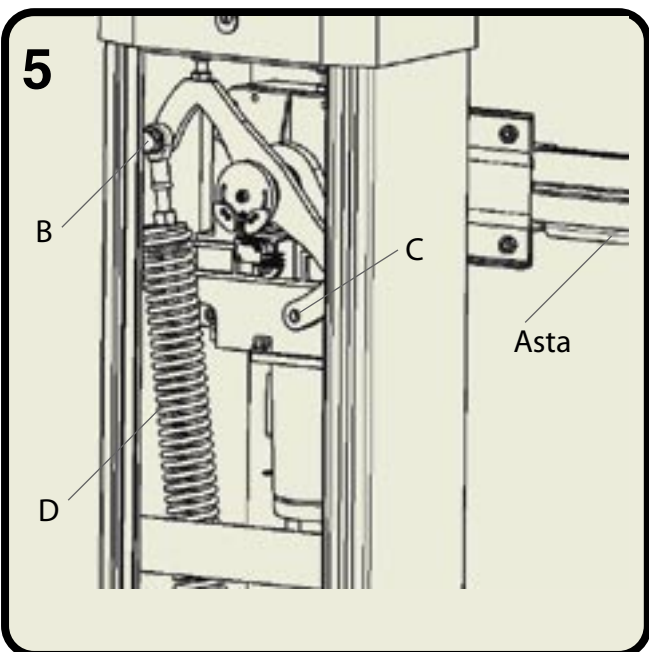
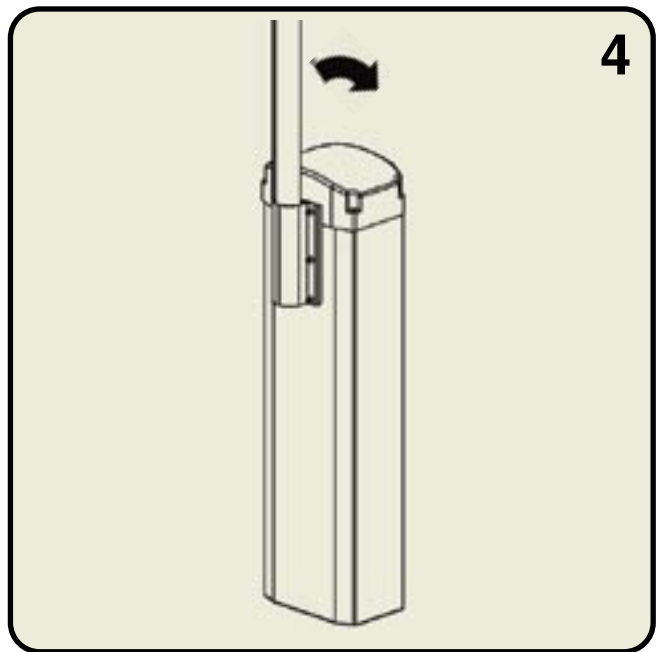
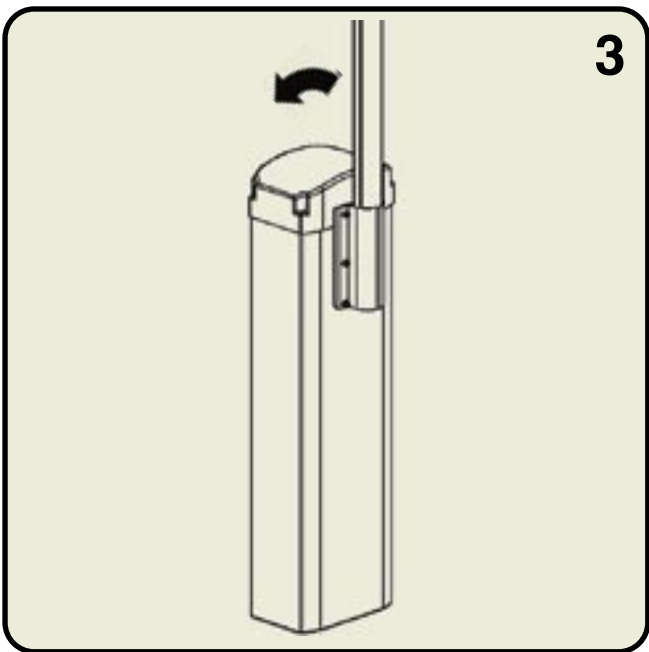
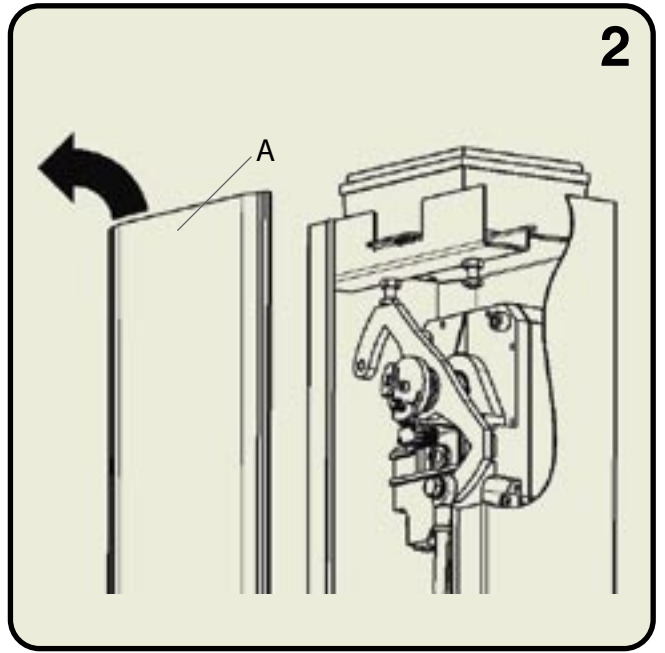
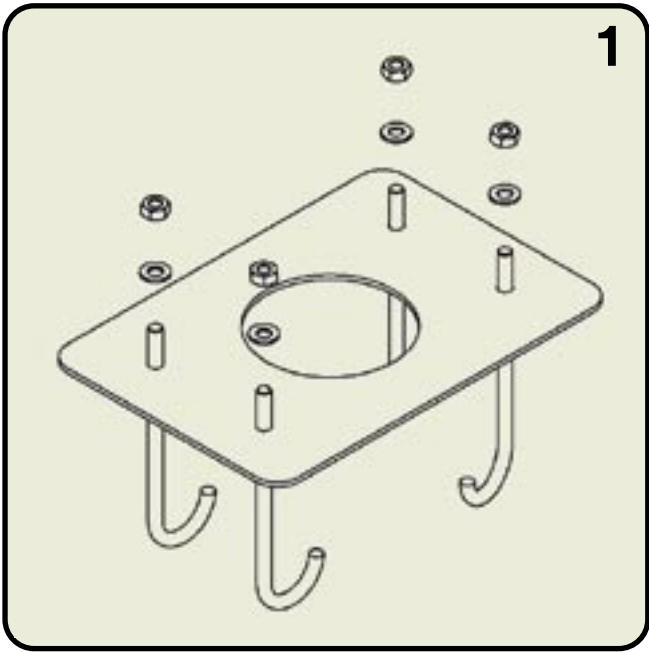


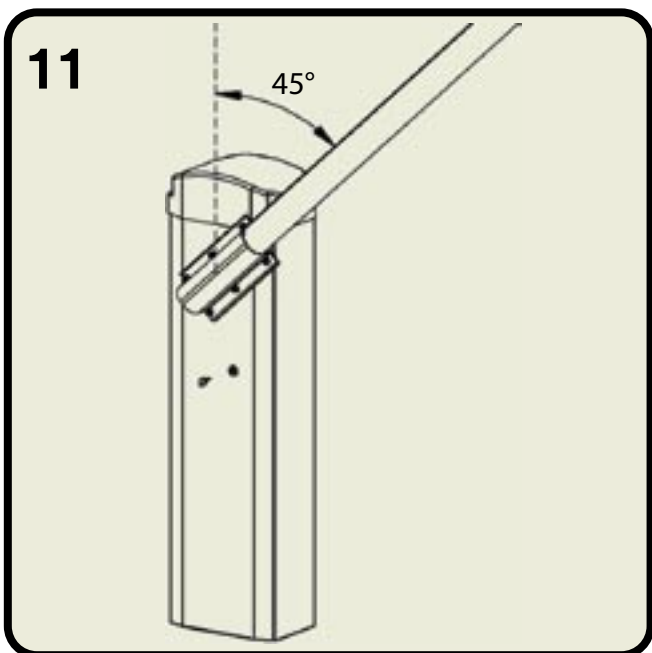
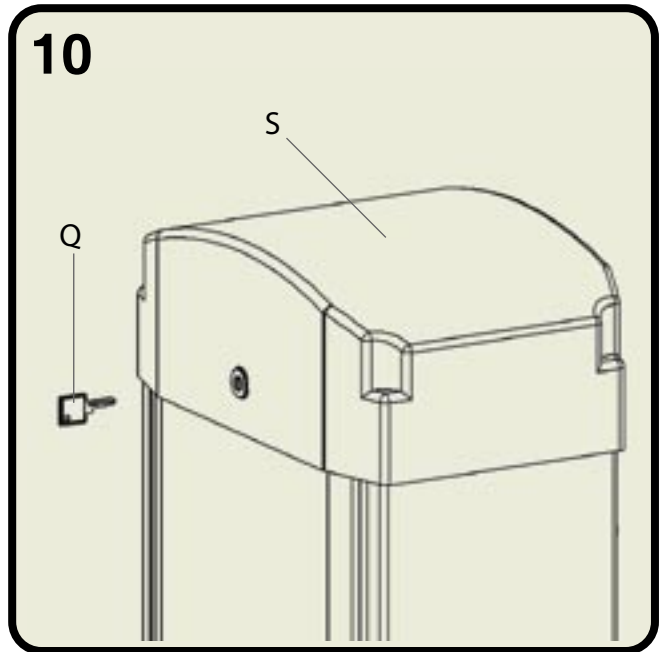
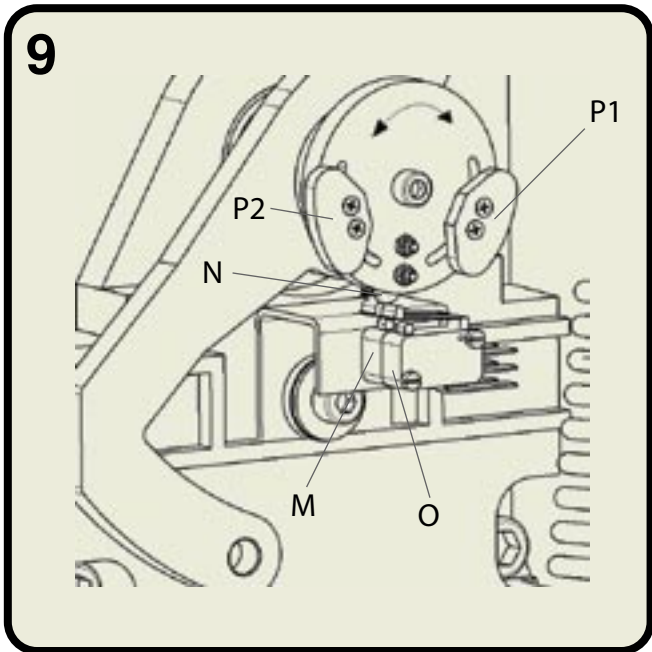
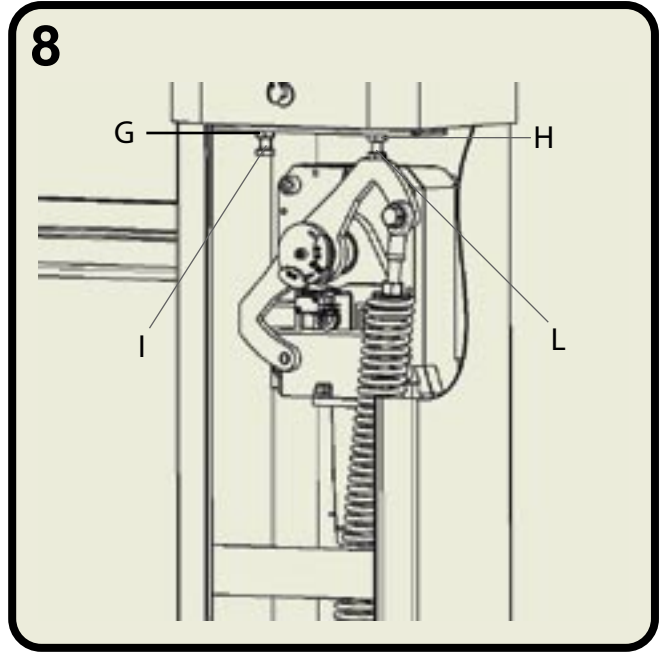
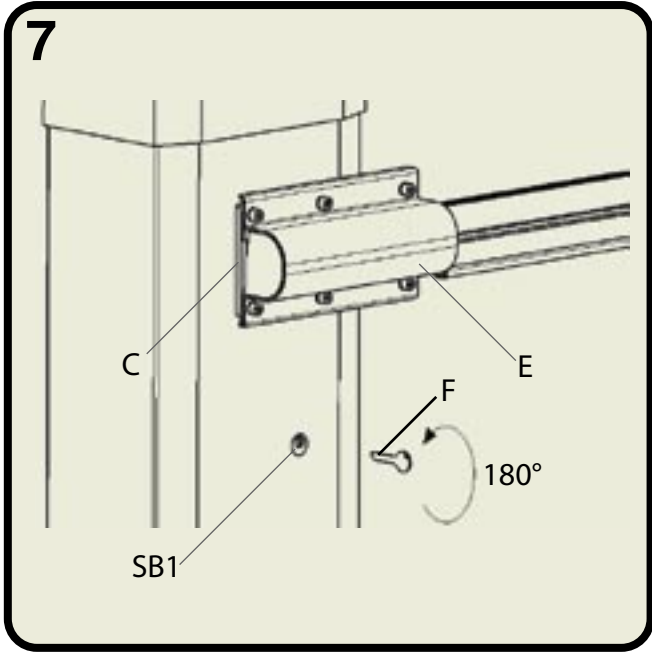
OPEN 424



Open 424= Barrier 24Vdc with encoder



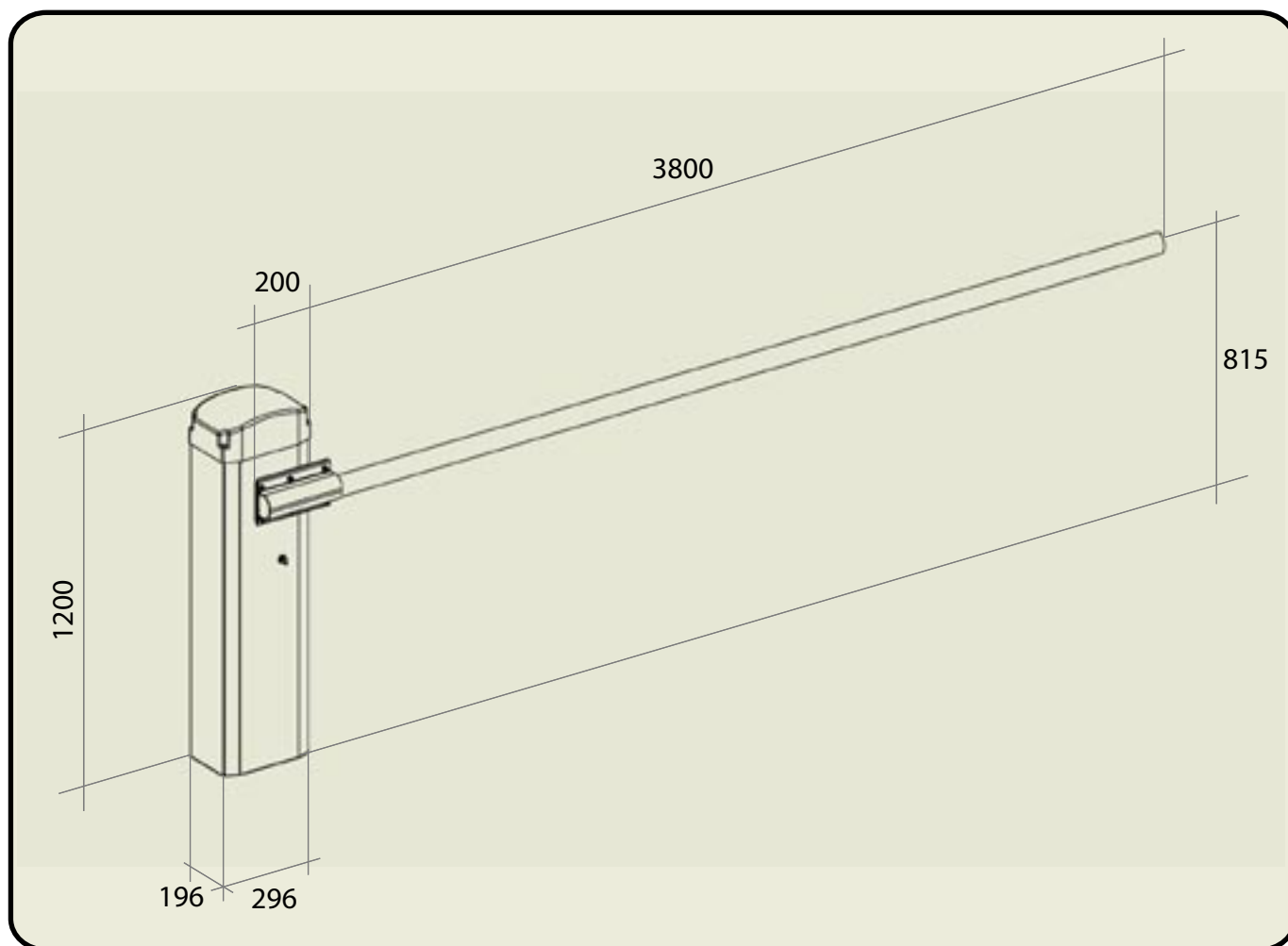




TECHNICAL DATA

Voltage	(Vac 50Hz)	230
Motor feed	(Vdc)	24
Motor power	(W)	120
Motor consumption	(A)	5
Torque	(Nm)	200
Insulation class		Y
Degree of protection		IP 54
Jogging		Intensive
Operating temperature	(°C)	-20 / +70
Lubrication		Permanent grease
Opening time	(s)	da 2 a 8
Weight	(Kg)	34

OVERALL DIMENSION



EMERGENCY OR MANUAL MANOEUVRE

An emergency or manual manoeuvre is carried out during the installation stage and only in the case of malfunction of the mechanism or in the absence of electrical power.

⚠ For any reason whatsoever never carry an emergency or manual manoeuvre if the barrier arm is not assembled

INSTALLATION

BOX FIXING

- Remove the anterior door "A" (image 2) getting access to the fixing holes onto the barrier's base.
- Fix the barrier on a plane base, or use the optional fixing plate (KING-gates code "BAO 200").

BAR ASSEMBLY

- Choose the desired closing direction to the bar (LEFT= images 4 and 6, or RIGHT= images 3 and 5).
- If necessary, unscrew the screw "B" (images 5, 6) and screw it on the other side of the spring fixing bracket (point "C" images 5, 6).

⚠ **Unscrew the screw "B" only when the spring "D" is loosened (turn the spring clockwise as long as it will be completely loosened)**

- Connect the motor cables as follows:

LEFT OPENING (images 4 and 6)= **Brown cable** on **terminal 24** and **blue cable** on **terminal 25**

RIGHT OPENING (images 3 and 5)= **Brown cable** on **terminal 25** and **blue cable** on **terminal 24**

- Fix the bar depending on the selected direction, and fix it with the plate "E", through 4 screws M8X16 and the 4 washers (image 7).

⚠ **When the bar is closed, the spring "D" (images 5 and 6) must be tightened; vice versa when the bar is opened, the spring must be loosened.**

REGULATION OF THE TRAVEL WITH THE MECHANIC AND ELECTRIC LIMIT SWITCHES

- Release the bar turning the key "F" (image 7) counterclockwise.
- Guide the bar in complete opened position and complete close position; then, regulate the 2 mechanical stop acting on the nuts "G" and "H" and on the screws "I" and "L" (image 8).
- When the bar is closed, check that the microswitch "M" is pushed down by the cam "N" just before the mechanical stop.
- When the bar is opened, check that the microswitch "O" is pushed down by the cam "P1" or "P2" (depending of the direction of the bar, just before the mechanical stop (image 9)).

⚠ **When the bar is closed, it must be at most parallel to the ground, and guiding it in vertical position, it must be at most at 90° in respect to the ground.**

TIGHTNESS REGULATION

- Release the bar, turning the key "F" (image 7) clockwise.
- Guide the bar in many positions (for example: 0°, 20°, 45°...), to verify that it doesn't tend to rise or go down.

⚠ **If the bar tends to rise, loosen the spring "D", turning it clockwise.
If the bar tends to go down, tighten the spring "D", turning it counterclockwise.**

PROGRAMMING PROCEDURE

For more information about the electrical connections and about the programming procedure, please check the manual "Star OP 124".

INSTALLATION

PRELIMINARY CHECKS

- Read carefully all parts of this manual.
- Check that the product was not damaged during transportation.
- Check that the electrical plants is conforming to the characteristics required by the gear motor.
- Check that an adequate grounding plant exists and that all metallic parts are connected to this plant.

⚠ A wrong installation can produce serious damages or wounds.

ATTENTION: For any reason whatsoever never disassemble the barrier's arm when it is in the horizontal position

ATTENTION: For any reason whatsoever never carry out an emergency or manual manoeuvre if the barrier arm is not assembled

ATTENTION: For any reason whatsoever never carry out an emergency or manual manoeuvre with the gear motor in movement.

BOX FIXING

Locate the point inside the property where the Space4000 barrier will be installed.

Construct a solid concrete base with proper dimensions for the fixation of the base of the barrier providing a passage for the sheath of power cables and system controls. Before the concrete sets, position the "Ps" plate (Optional) well down into the concrete making sure that the plate is correctly oriented and perfectly horizontal on both axis (figure 1)

If a flat solid base is already available on the ground, the barrier can be fixed directly to the base by screws and fixing plugs without using the "Ps" plate.

Use the "M" key to remove the protection carter "Cp" (Figure 2), remove the anterior door "P" (Figure 3) getting access to the fixing holes onto the barrier's base

CHOISE OF THE WAY OF THE ARM

Choose the desired closing direction to the barrier's arm "As" (Figure 10 counter clockwise or Figure 11 - clockwise) . If necessary, loosen the upper and lower locking nuts of the spring "Mb", unload completely the spring by turning it in the counter clockwise sense (Figure 4), unscrewing completely the screw "V1" (Figure 4, Figure 5) move the spring "Mb" to the other extremity of the plate "Pm" (Figure 4, Figure 5).

If the chosen closing direction to the barrier's arm "As" is as shown in the Figure 11, the motor's power cable must be connected to the control unit as following:

Brown wire in the clamp 36

Blue wire in the clamp 37

If the chosen closing direction to the barrier's arm "As" is as shown in the Figure 10, the motor's power cable must be connected to the control unit as following:

Brown wire in the clamp 37

Blue wire in the clamp 36

When the barrier's arm is closed, the spring "Mb" must be in tension (Figure 4, Figure 5) , vice versa, when the barrier's arm is opened, the spring "Mb" must be almost unloaded (Figure 11, Figure 12)

ATTENTION: The spring "Mb" (Figure 4, Figure 5) must be completely unload before unscrewing "V1".

ARM ASSEMBLY

(Only for barrier's arm equipped with light stripe and/or sensitive rubber)

Bend to 90° the final extremity of the cable that comes out of the barrier's arm "As".

(Only for barrier's arm equipped with light stripe)

Pass the cable from the outside toward the inside of barrier's body thought the hole of the plate of fixing arm "C" (Figure 6).

(Only for barrier's arm equipped with light stripe)

Take the cable's extremity that has gone inside the barrier's body and make it pass into the vain of the control unit.

Fix the barrier's arm and the plates "B" and "B1" using 4 bolts M8x16 ("Z" – Figure 6) and 4 washers M8. Pay attention to not crush the cables between the plates "C" and "B1" (Figure 6)

(Only for barrier's arm equipped with light stripe)

Connect the light stripe cable in the control unit. The white wire into clamp 27 and the green wire into common (+) clamp 31 or 32. Set the dip parameters 7 and 8 as desired following the instructions in the central unit handbook.

ADJUSTMENT OF THE TRAVEL

Unblock the barrier's arm "As" turning the unblocking key "M1" (Figure 6) in counter clockwise sense (Slightly pushing the barrier's arm, it must freely move for the whole 90° run).

Using two 17 mm spanners, loosen the locking nut "D1" and screw in or out the adjusting screw "F1" until the desired horizontal stop position is obtained and then tighten the nut "D1" (Figure 8).

Bring the barrier's arm to the vertical position, loosen the nut "D2" and adjust the stop "F2" until the desired vertical stop position is obtained and then tighten the nut "D2" (Figure 8). Once the above operation is terminated, carry out a manual opening and closure manoeuvre to check that the mechanical stops are in the correct position.

SWITCH REGULATION

Put the barrier's arm in the horizontal position and check if the stop switch "Ms1" is committed by the cam "Cs" (Figure 9), if this doesn't happen, loosen the screw "V2" and rotate the disk support to do so that the cam "Cs" press the stop switch "Ms1". Tighten the screw "V2".

Bring the barrier's arm "As" in the position of around 45° (Figure 13), and block it turning the unblocking key "M1" in the clockwise sense.



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