

DUCATI

HOME AUTOMATION

8990 SOLAR POWERED GARAGE DOOR OPENER



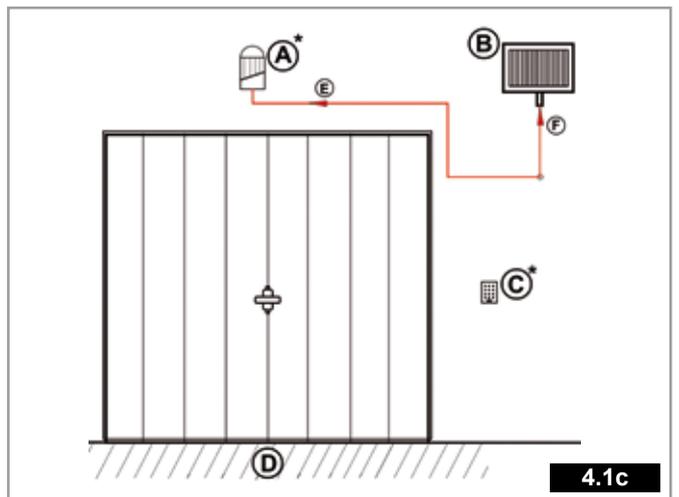
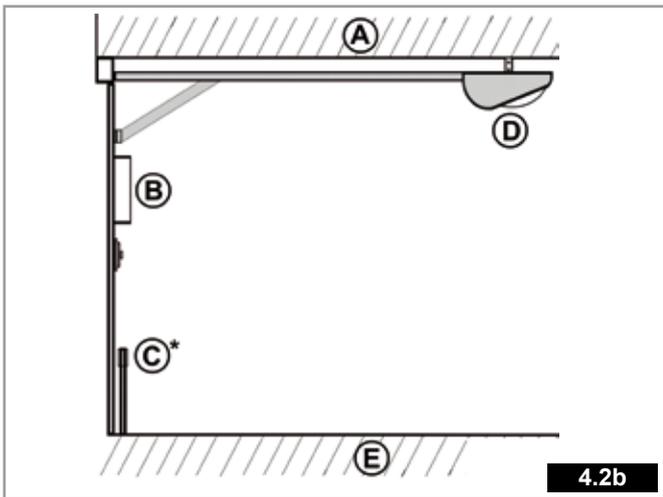
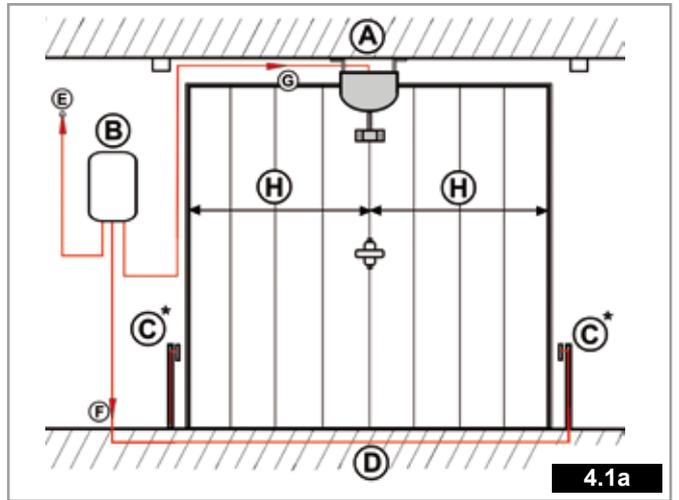
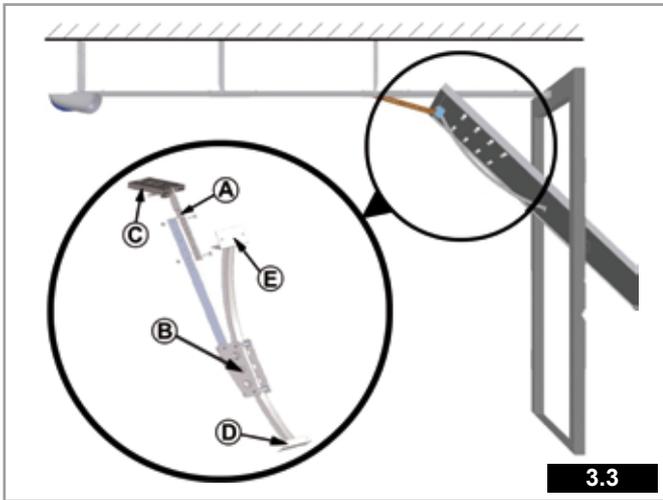
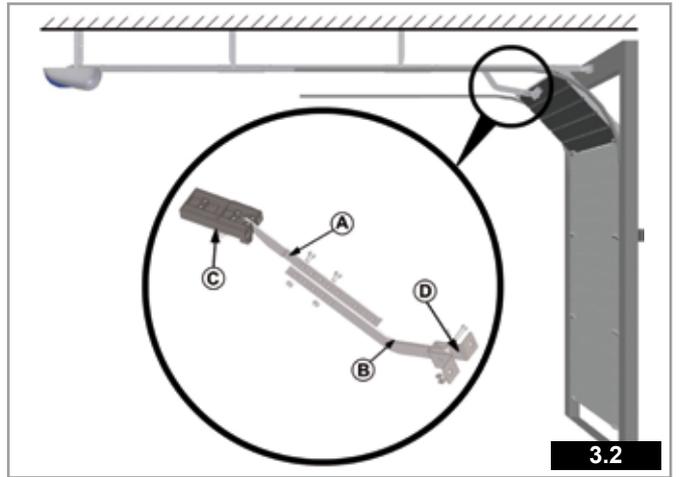
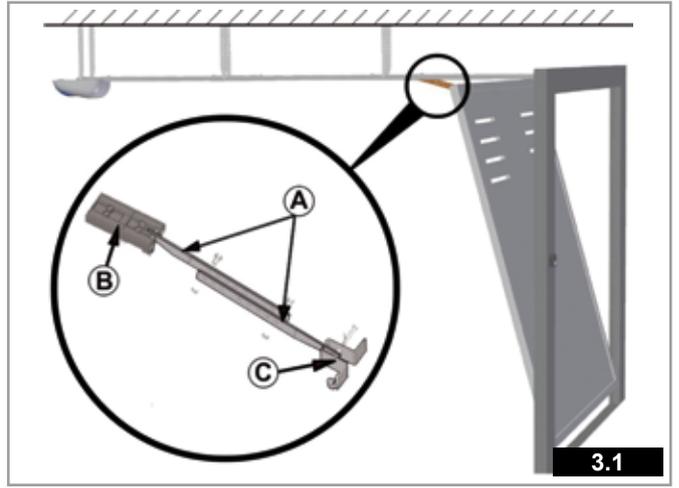
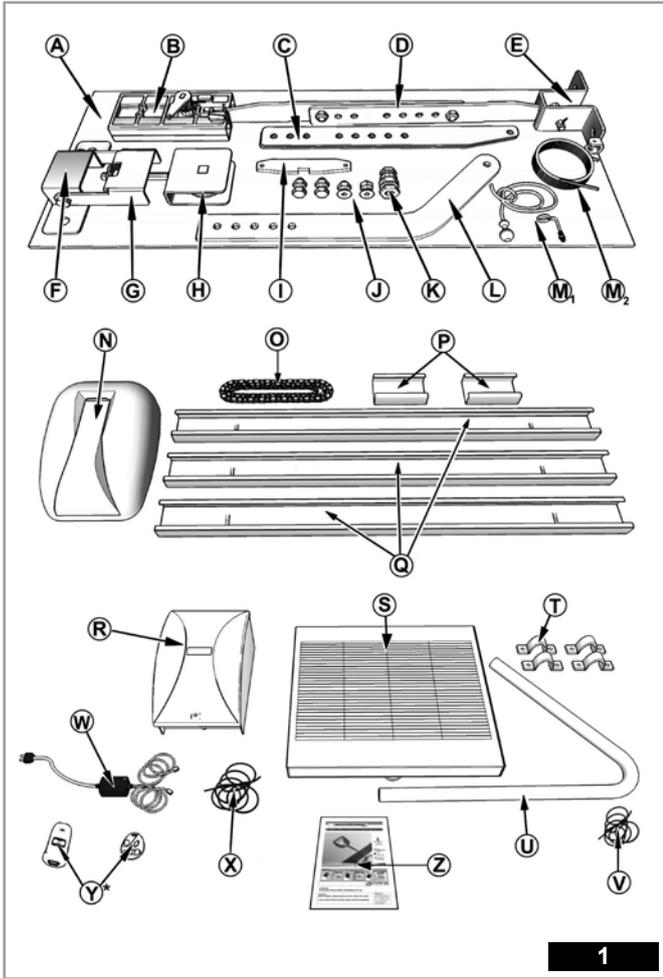
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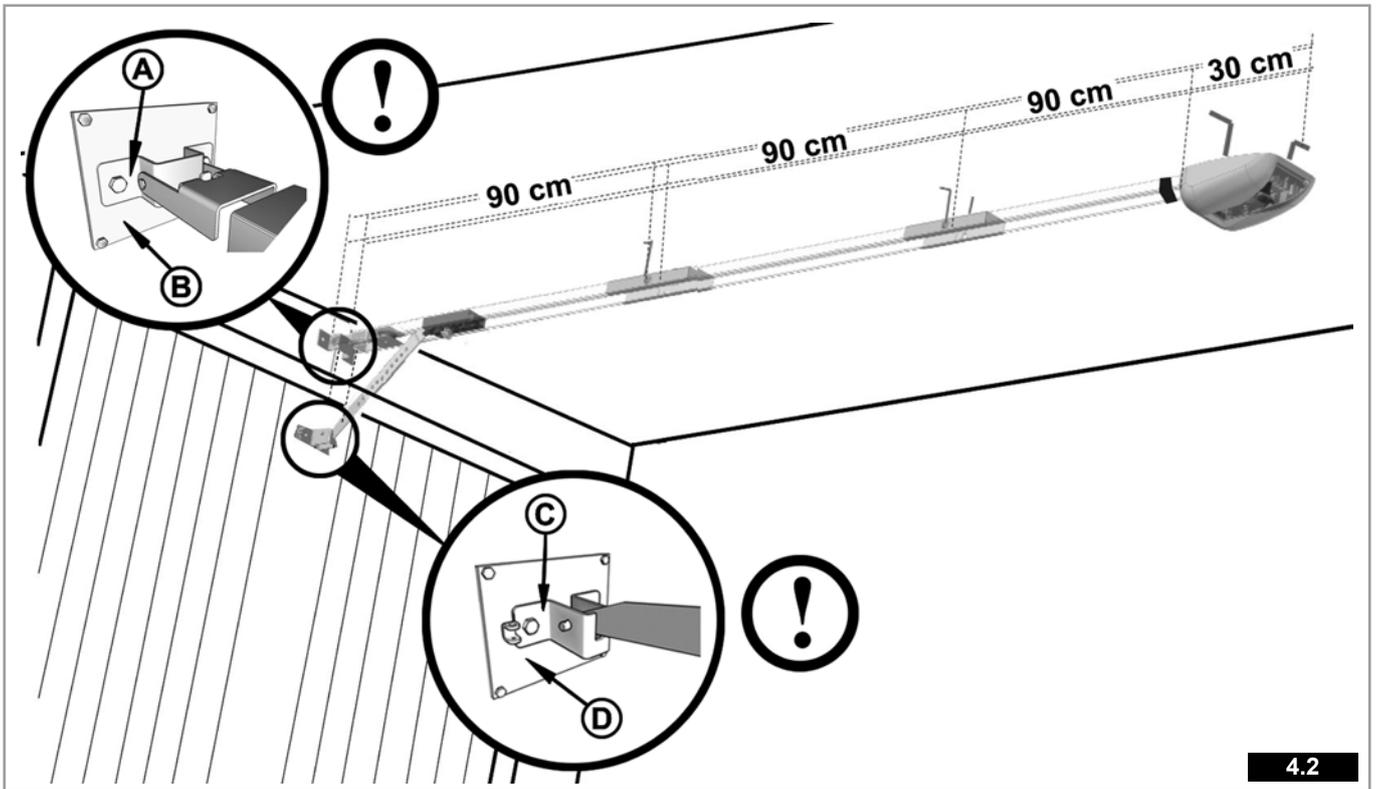
Installation & User Manual

Important safety instructions.

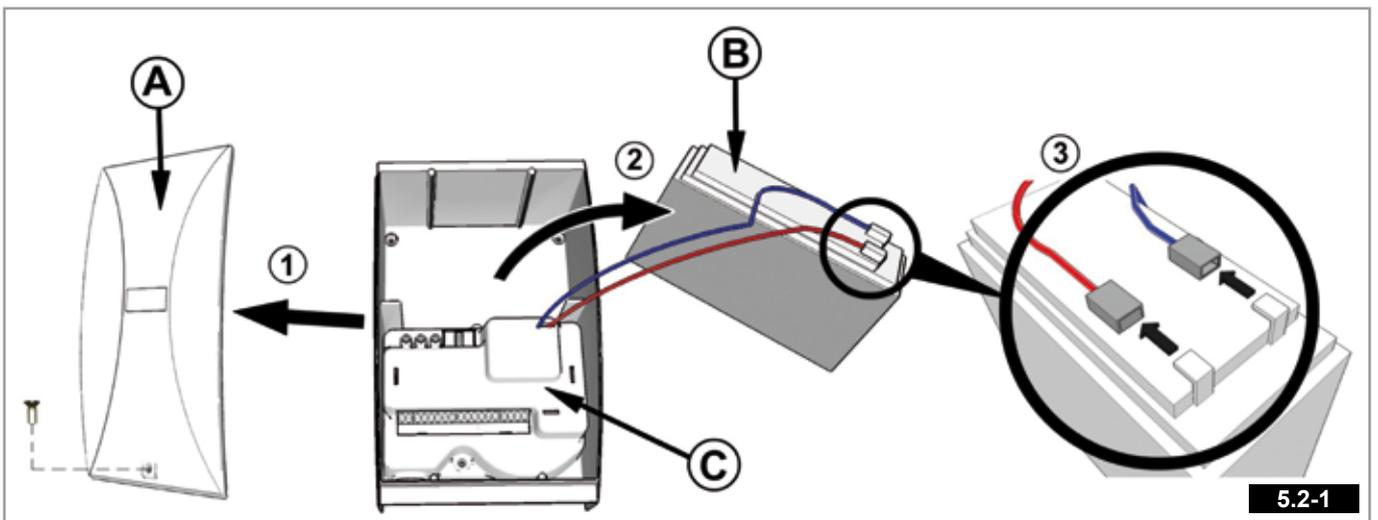
It is important for the safety to follow all instructions included in this manual.

Save these instructions for further use and give a copy of this manual to each user. Save it and give it also to ev. new owner.

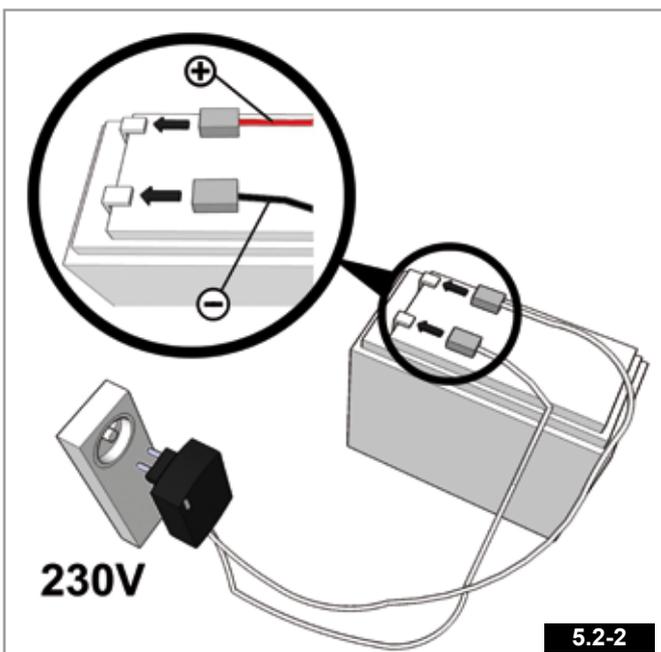




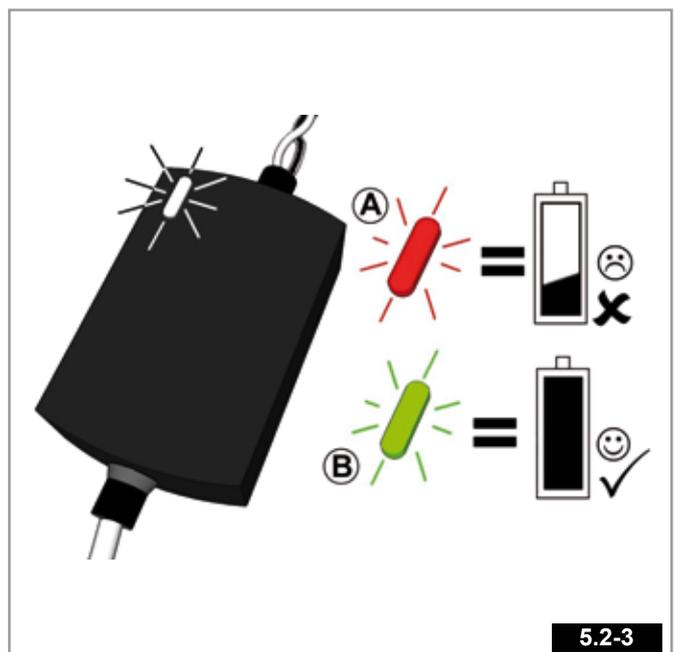
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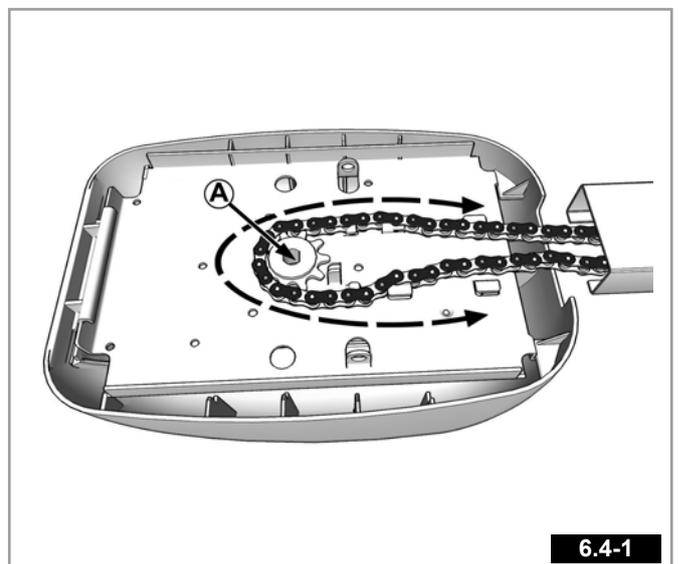
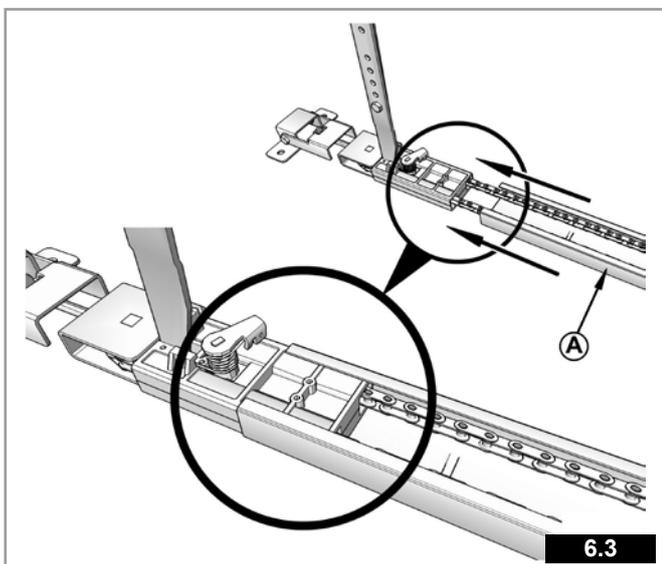
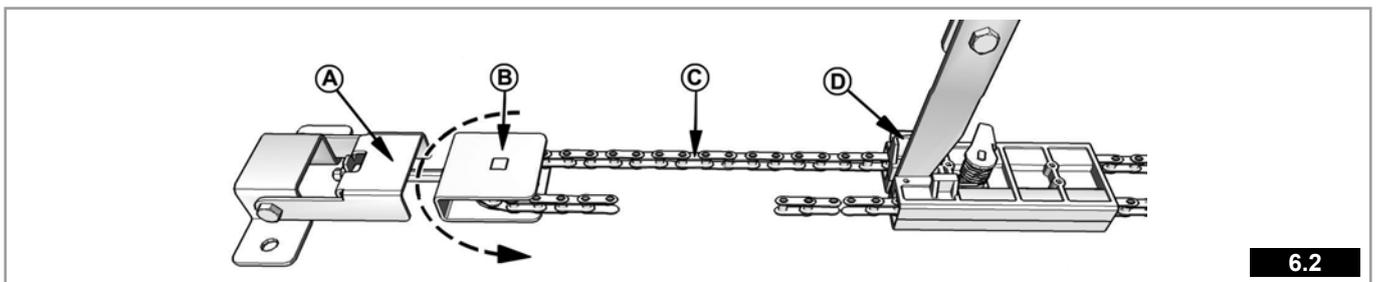
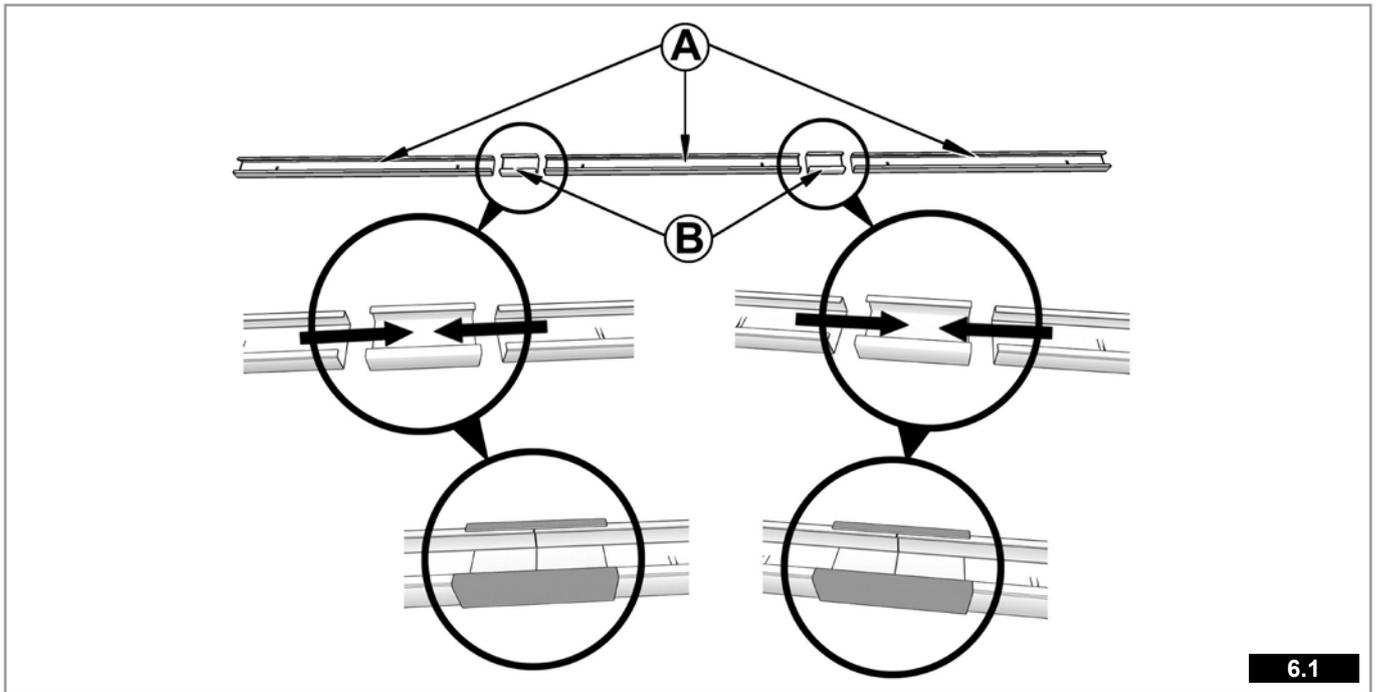
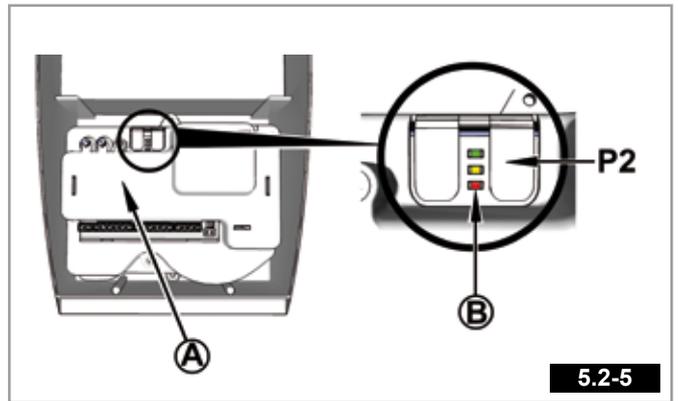
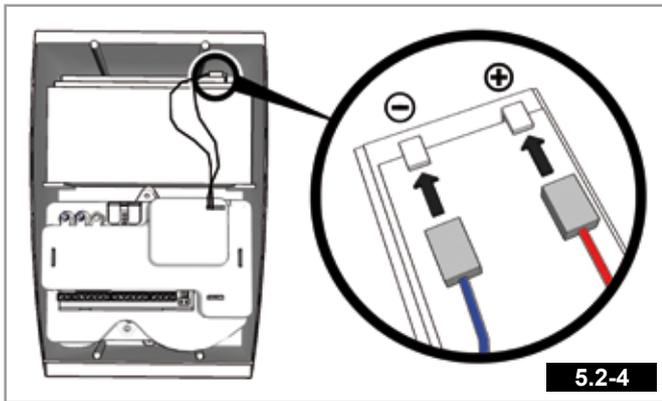
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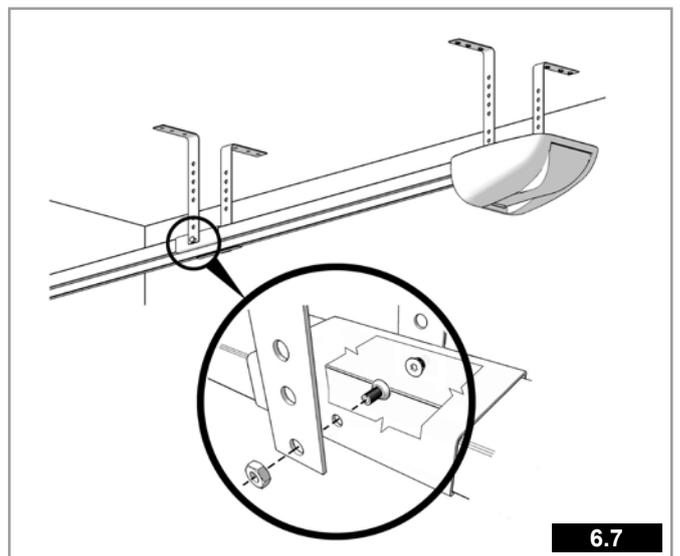
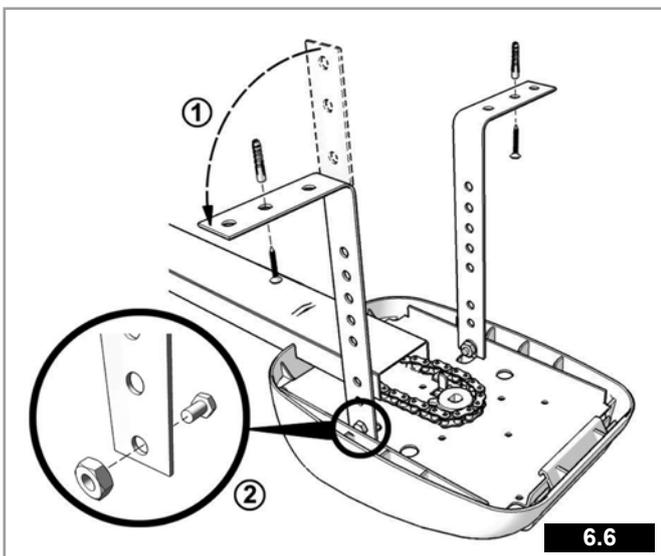
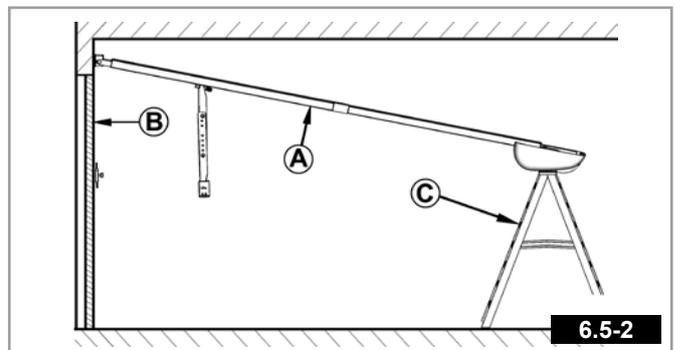
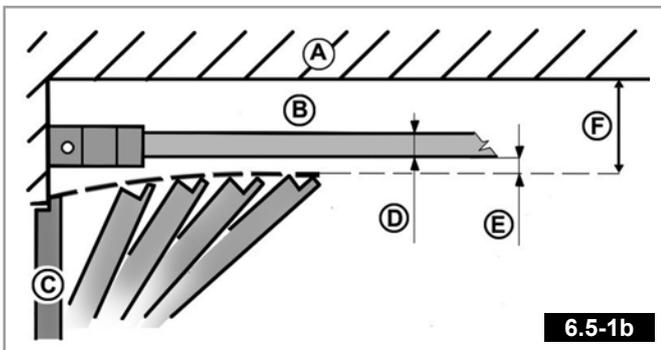
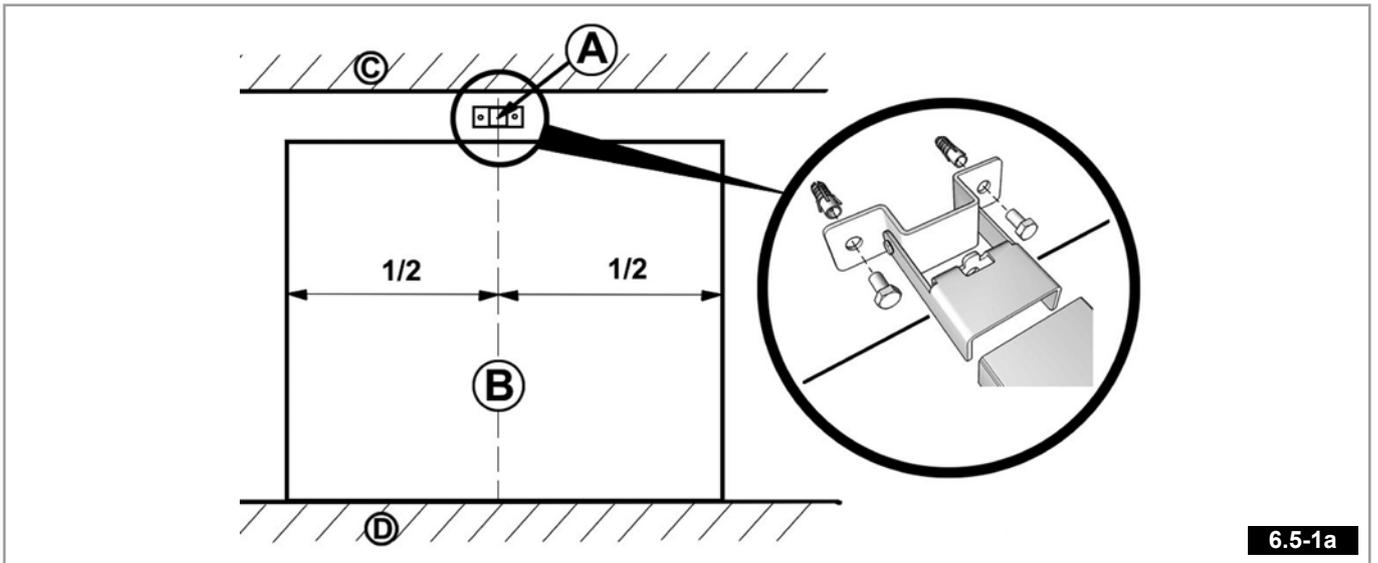
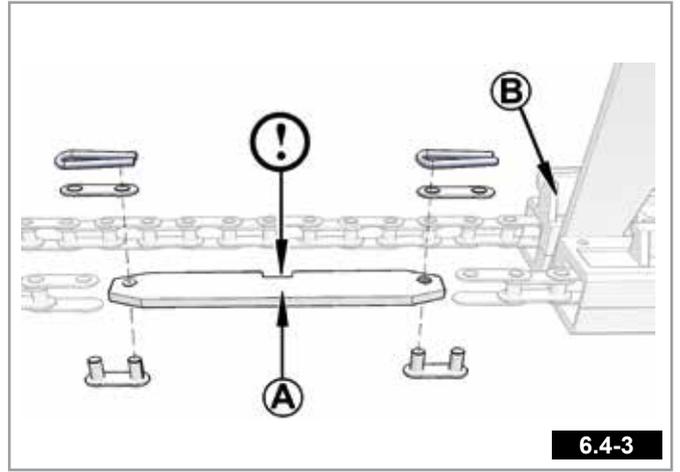
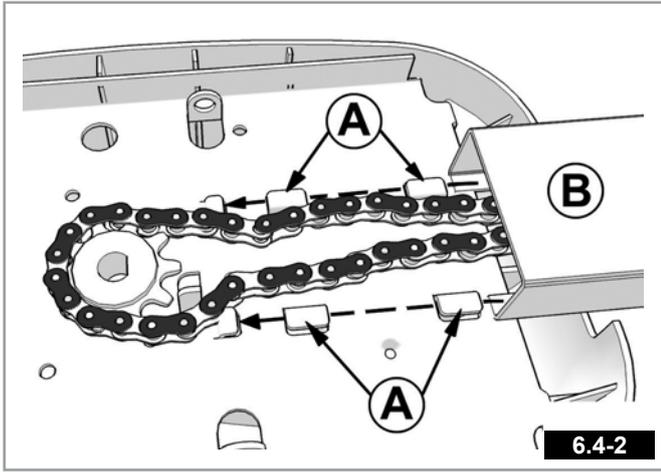


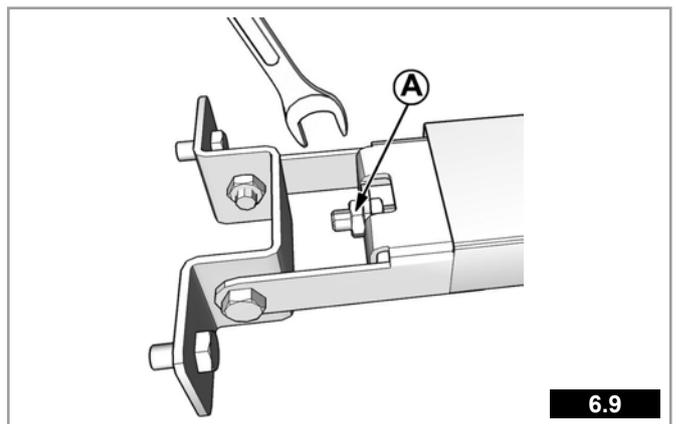
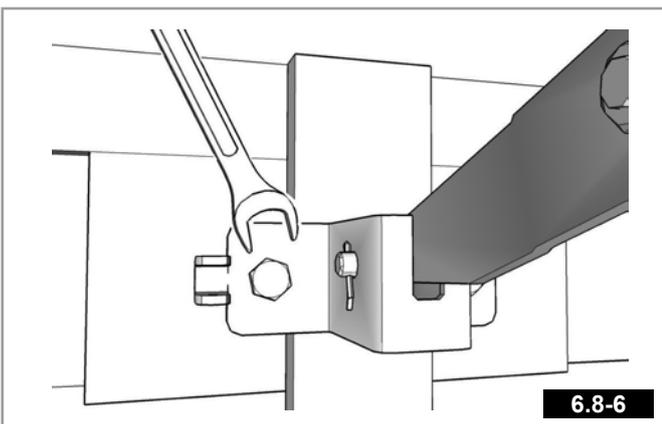
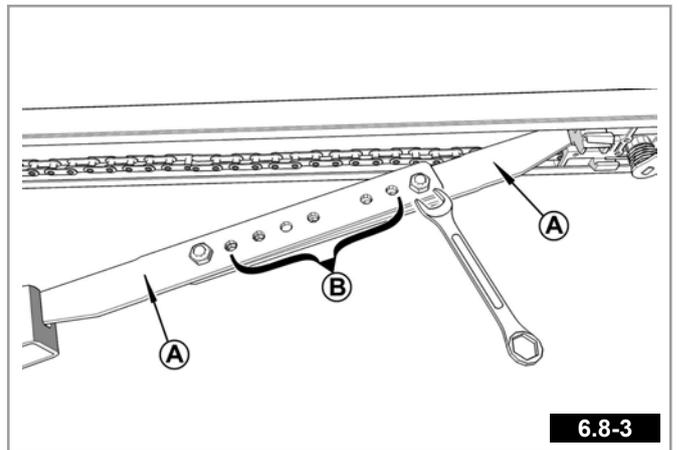
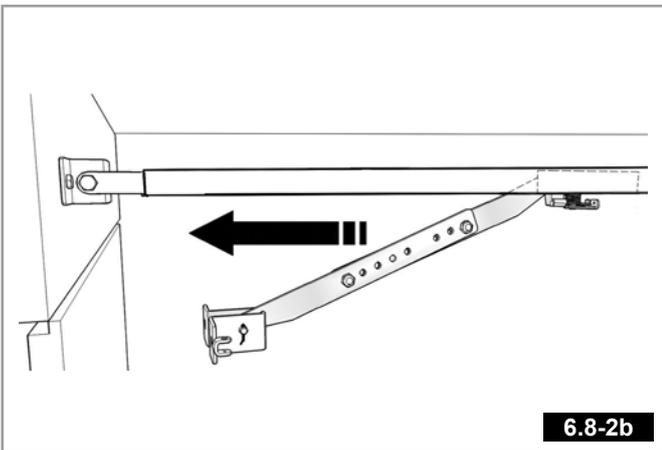
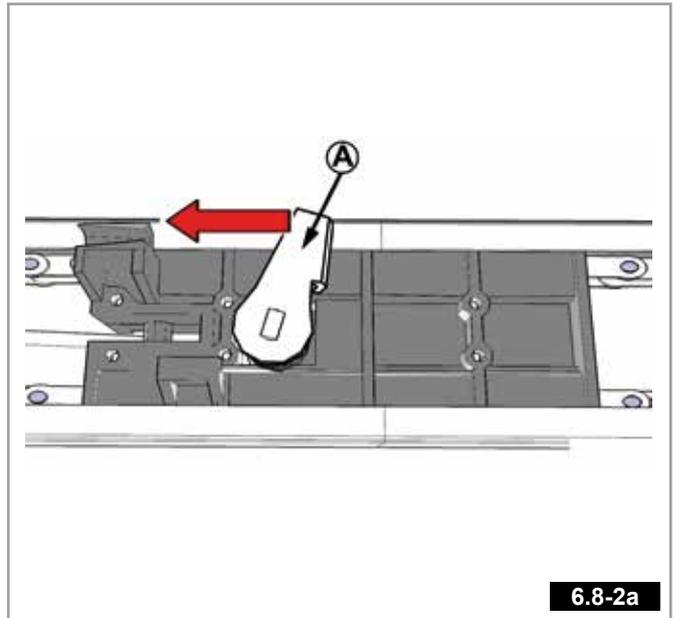
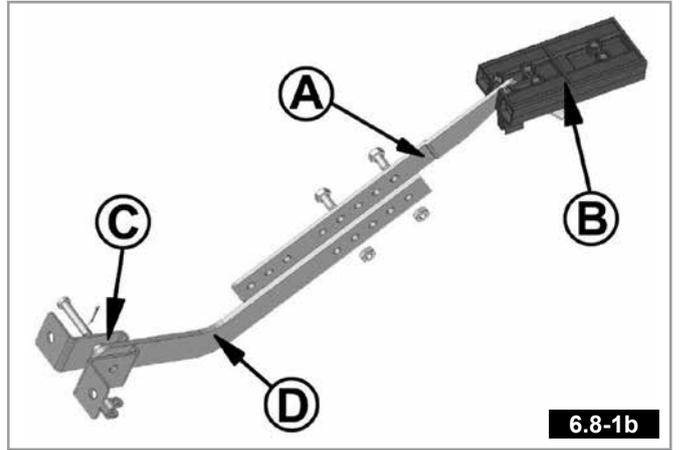
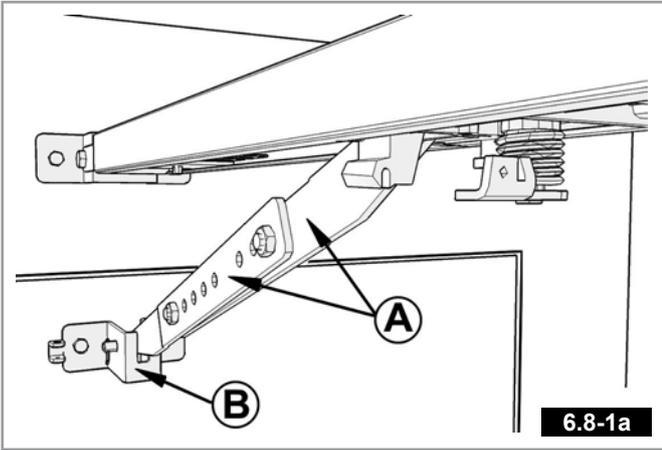
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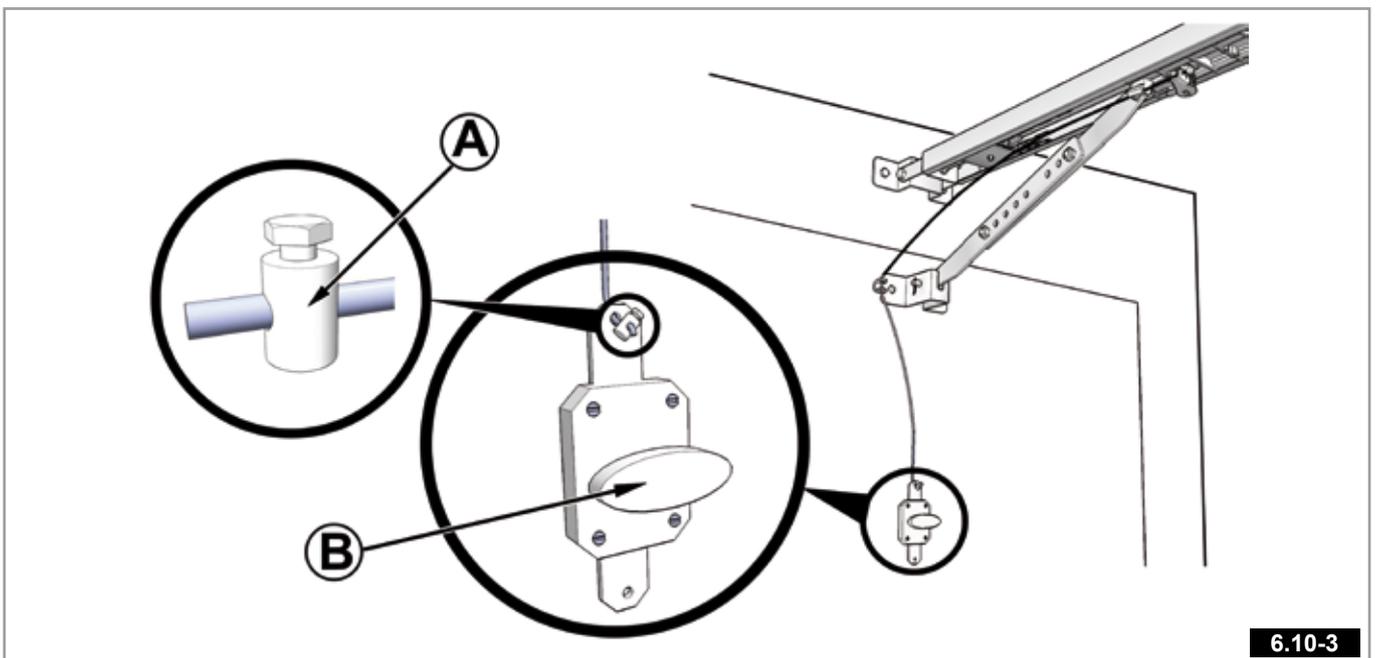
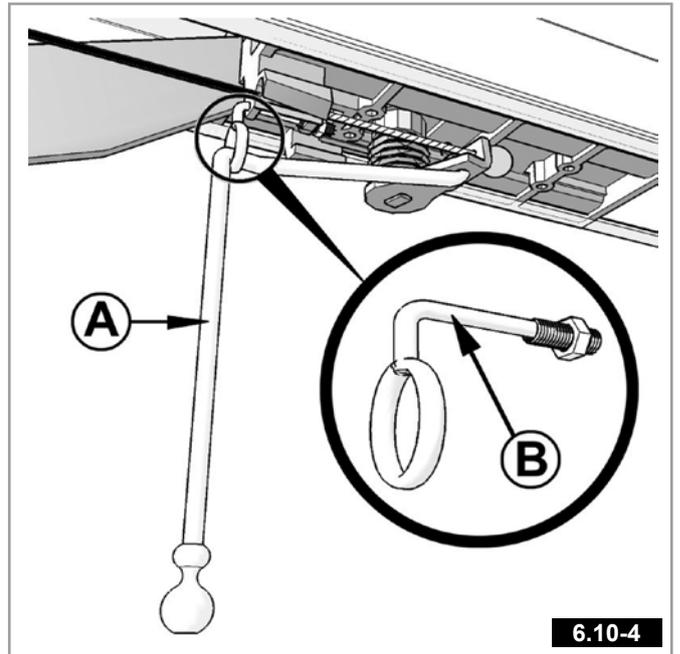
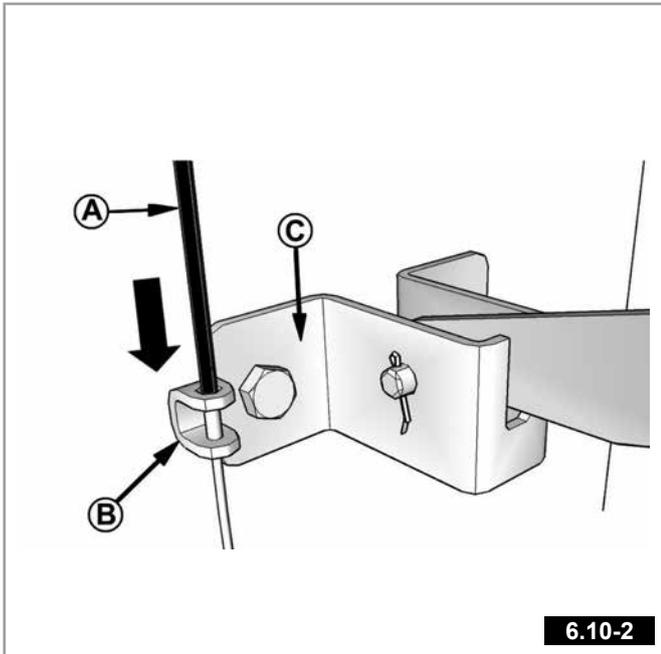
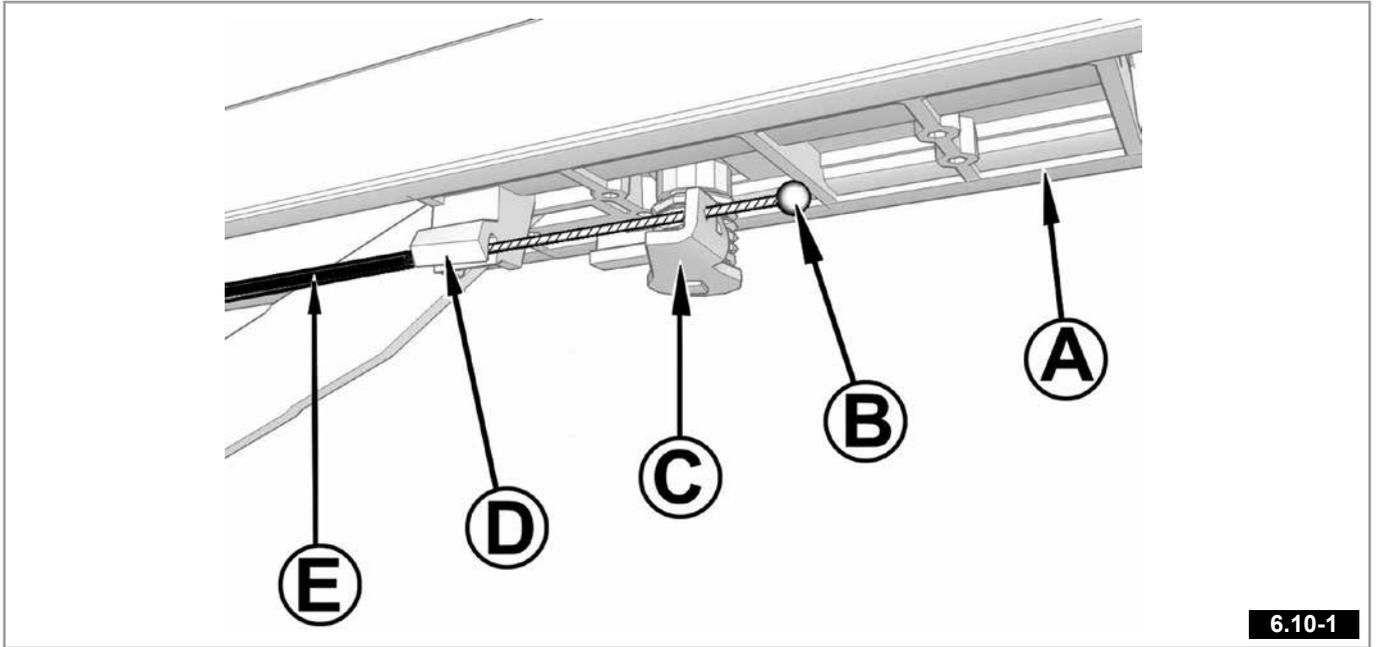


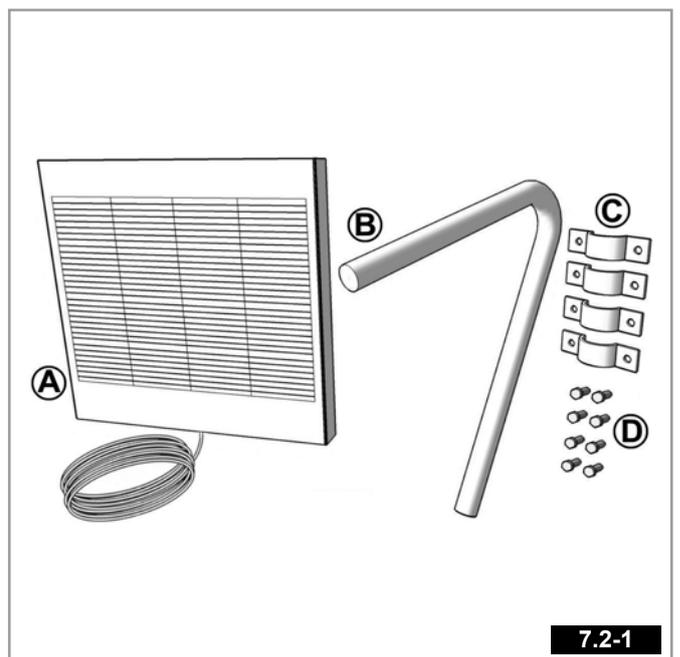
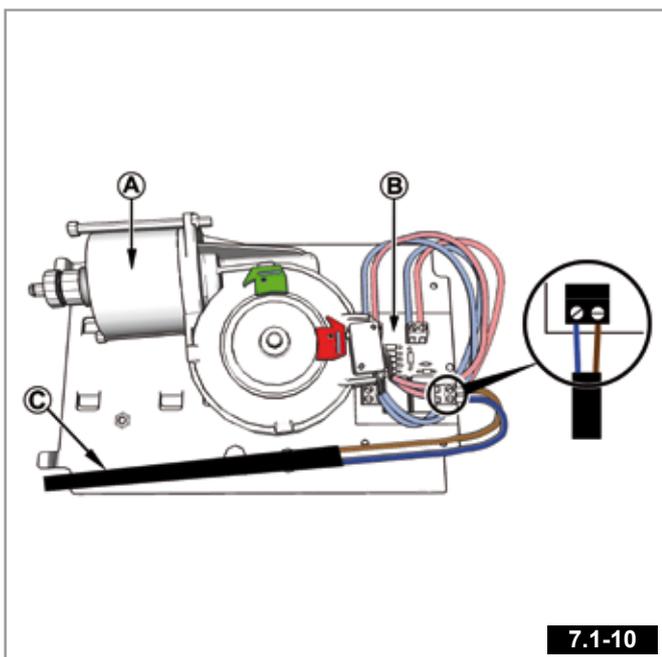
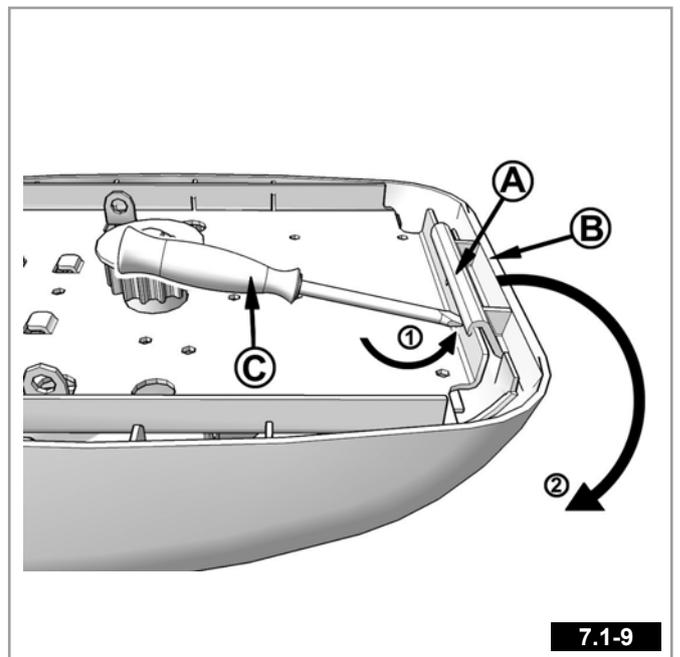
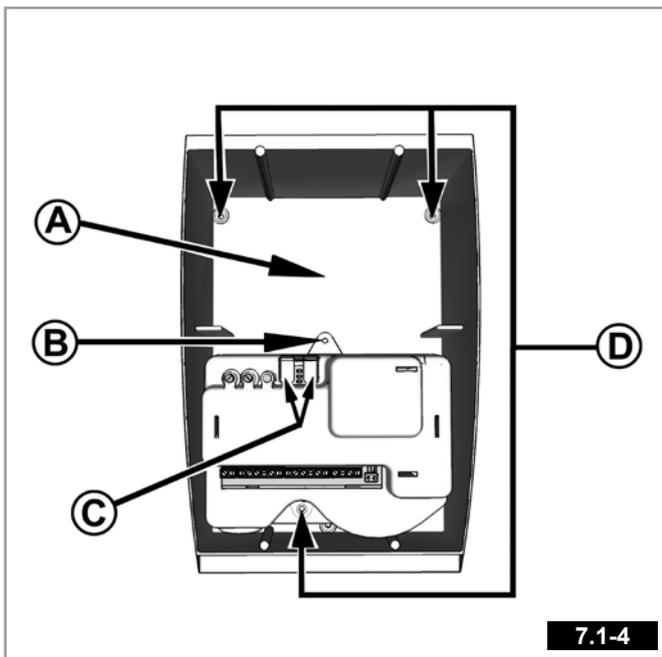
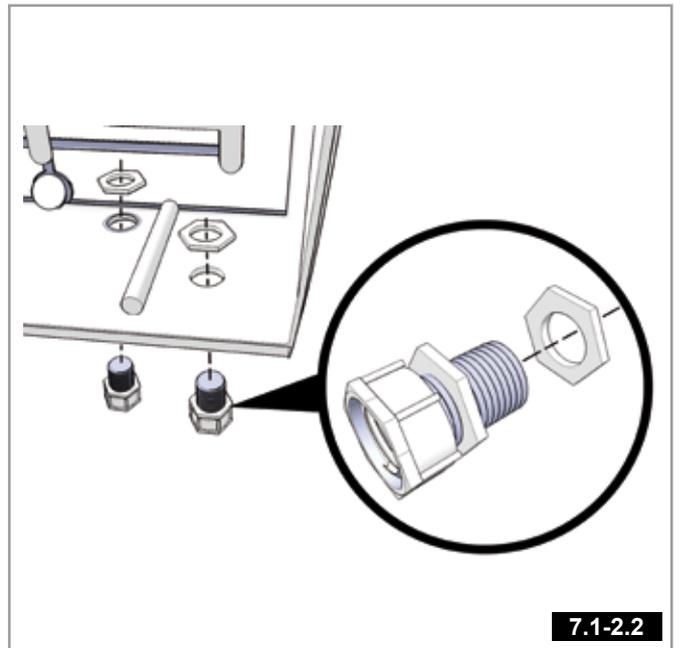
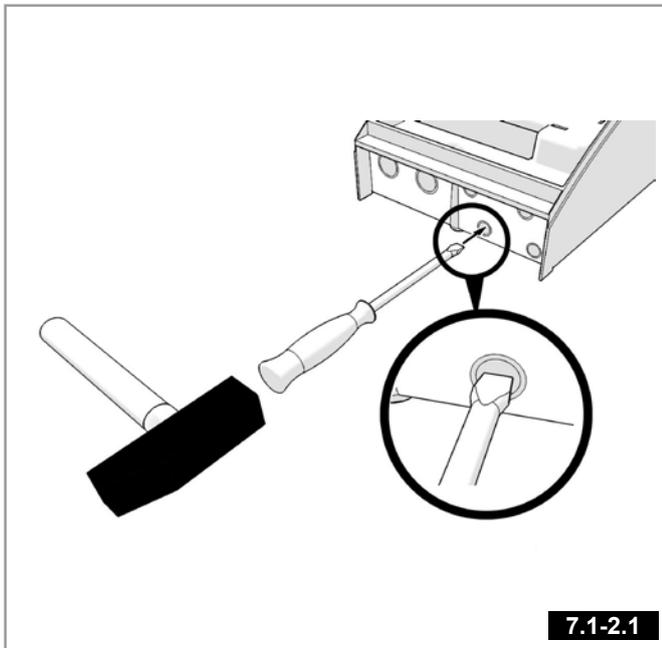
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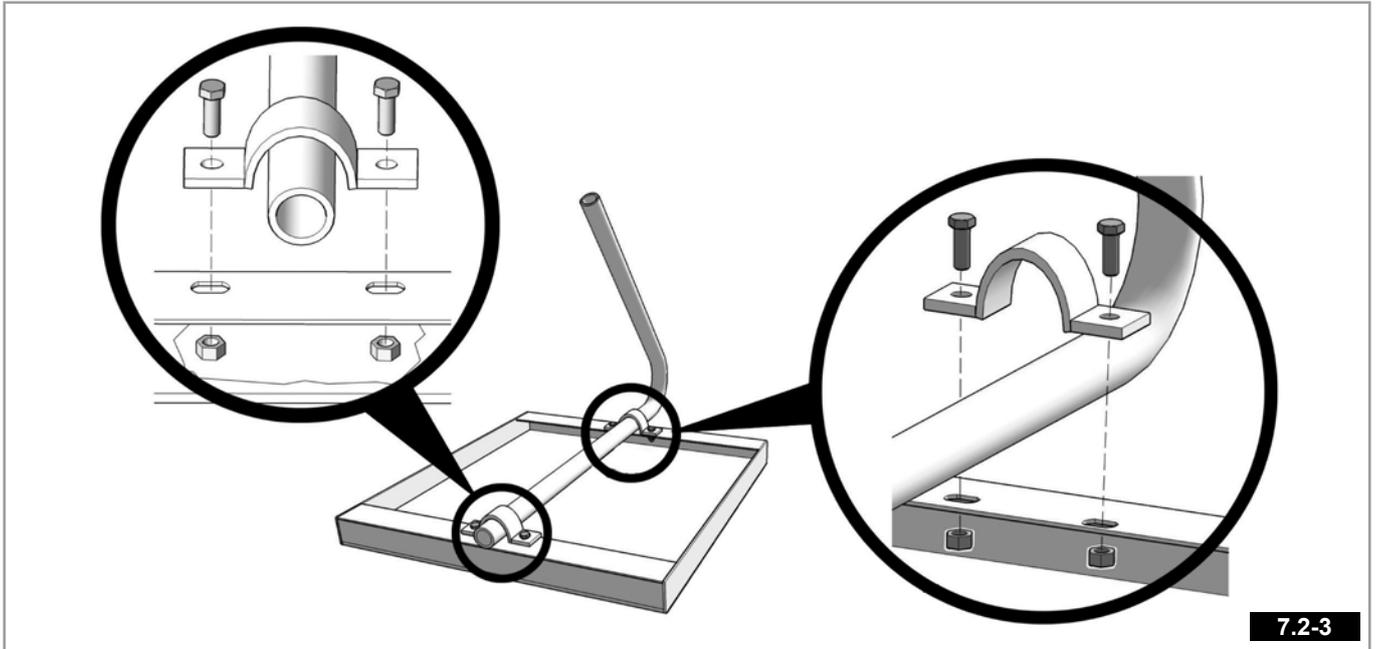




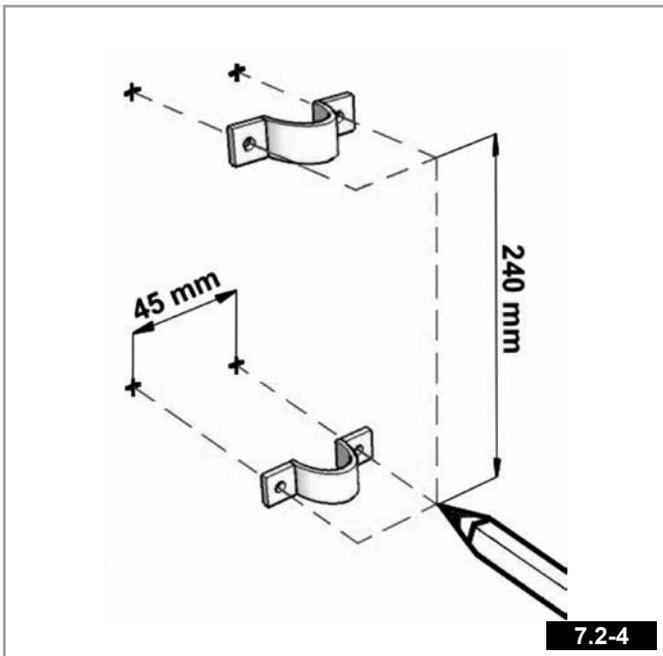




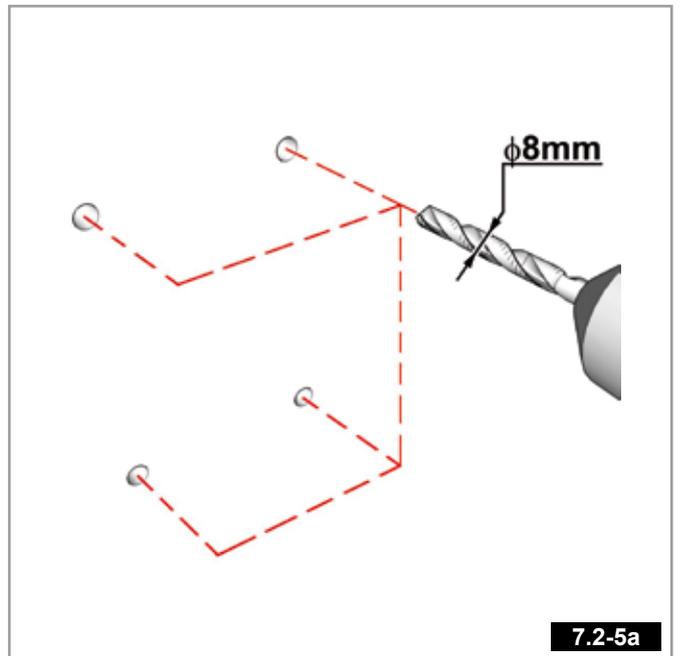




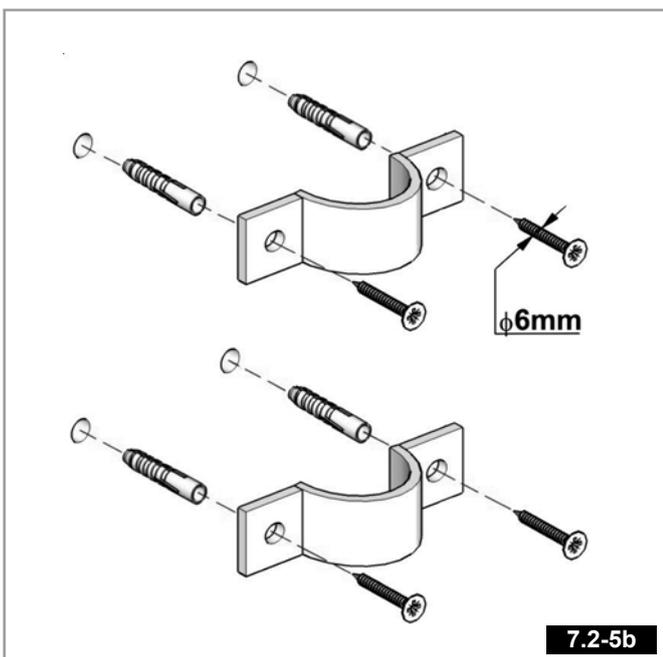
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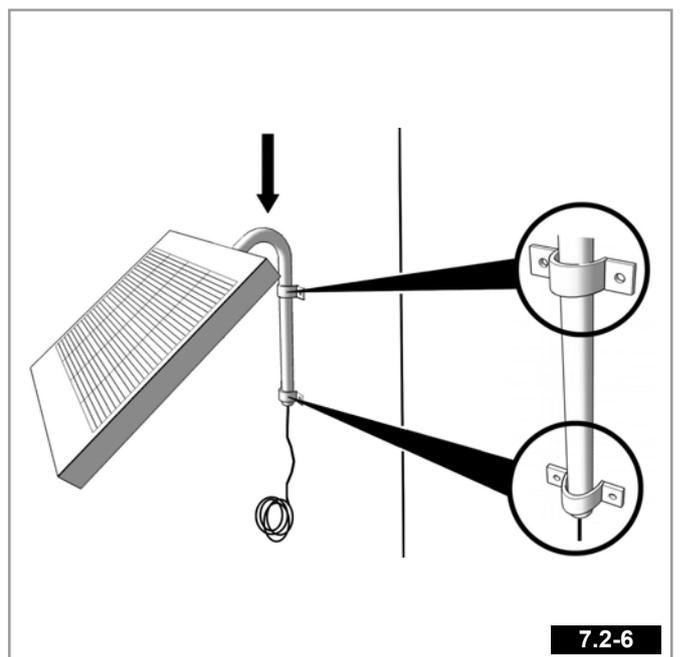
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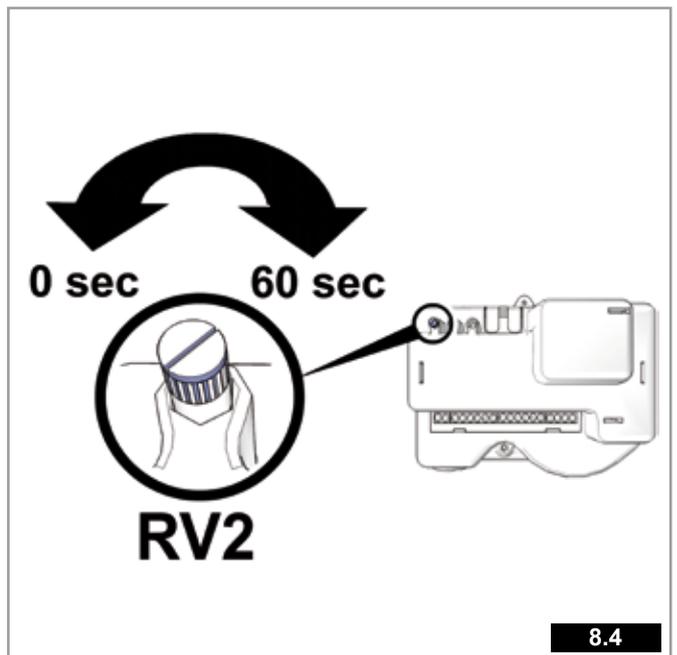
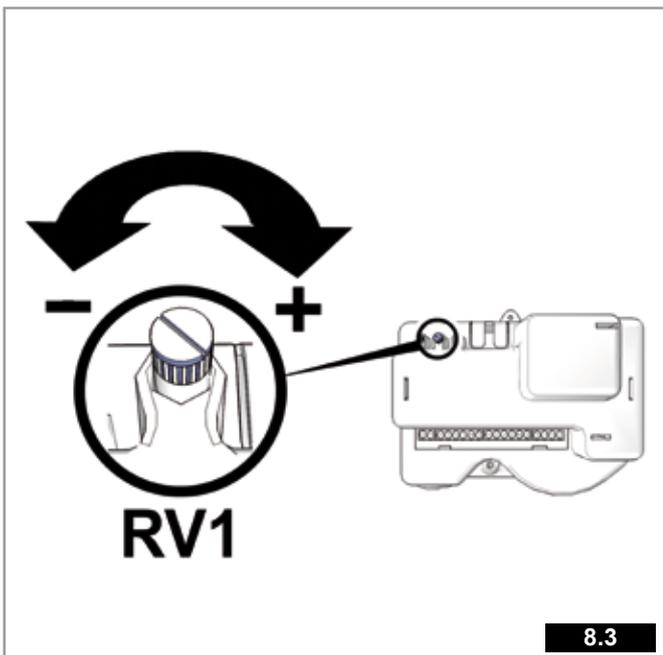
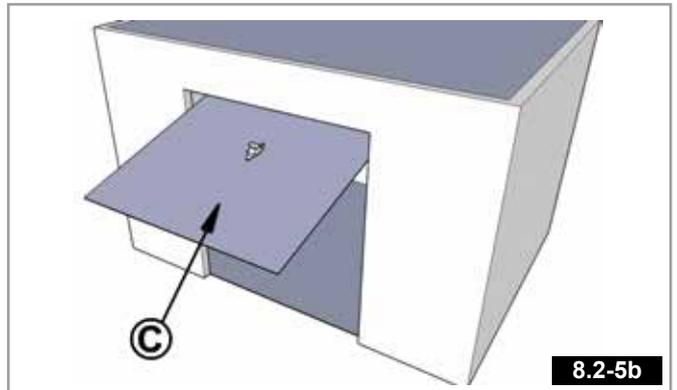
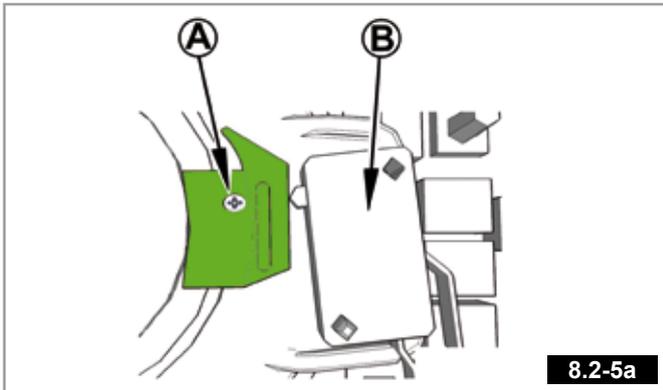
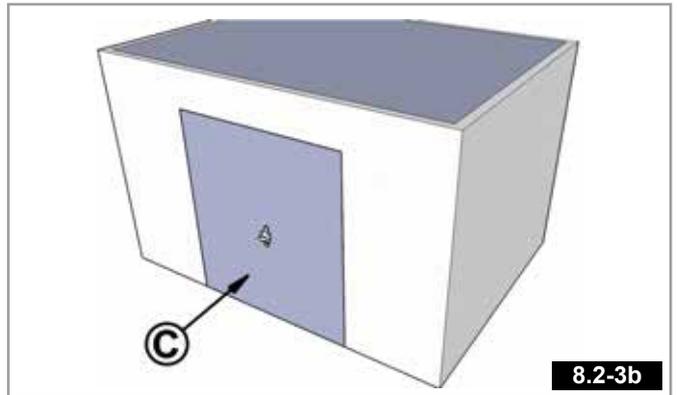
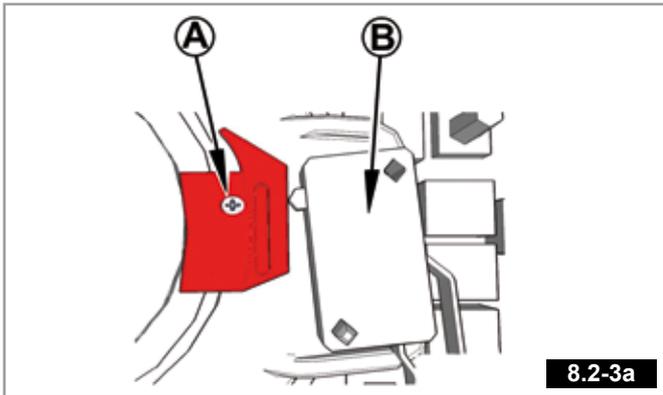
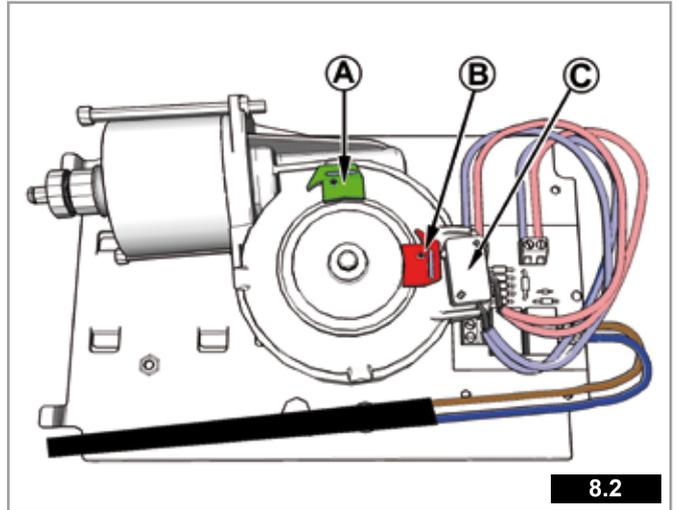
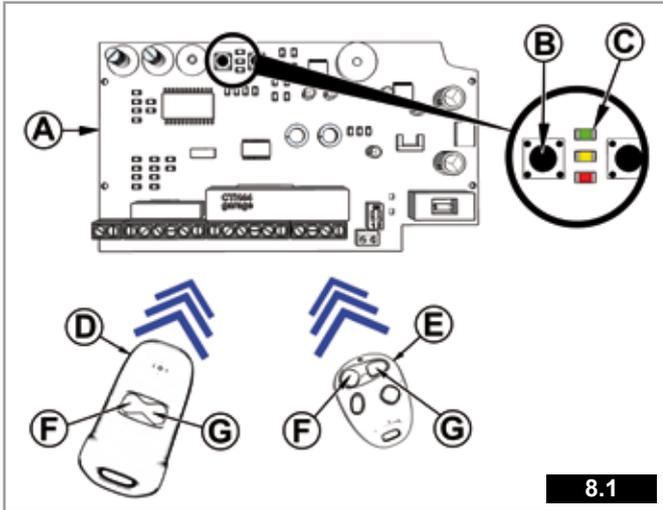
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GENERAL SAFETY AND WARNINGS AGAINST DANGER

GENERAL SAFETY INSTRUCTIONS

- ✓ Precautions and warnings in this manual are identified by the following warning symbols:



These symbols, accompanied with the word “IMPORTANT”, identify the conditions that can result in damage to the opening system or its components, serious injury or death of the user.

- ✓ **READ AND FOLLOW ALL INSTRUCTIONS.** This garage door opener has been designed and tested to offer safe service provided it is installed, operated, maintained and tested in strict accordance with the instructions and warnings contained in this manual. Failure to meet the requirements stated in this instruction manual could cause severe injury and/or death, for which the manufacturer cannot be held responsible.

1 Before installation

- ✓ **Understand your new Garage Door Opening system:**
 - ! Read this instruction manual in advance to thoroughly understand its function and features.
 - ! Verify that this garage door opening system is proper for the type, size and weight of your door.
- ✓ **Check the state of your garage door:**
 - ! Make sure that your garage door has been properly installed and is functional.
 - ! Check the structure of the door and the walls or pillars – it must be sound and stable.
 - ! Make sure your garage door is properly balanced and lubricated. **An unbalanced garage door may not reverse when required and could result in serious injury or death!**
 - ! If the door binds, sticks or is out of balance, always call a trained, certified door systems technician to prevent serious injury or death.
 - ! Repair or replace all worn or damaged door components prior to installation. Call a trained professional door systems technician for this.
 - ! To avoid entanglement, disable all locks and remove all ropes connected to garage door before installing and operating the garage door opener. remove any unnecessary ropes or chains and disable any equipment such as locks, not needed for powered operation.
 - ! To prevent damage to the garage door and opening system, always disable the locks before installing and operating the opening system.
- ✓ **Prevent serious injury or death by electric power:**
 - ! Be sure the power is not connected BEFORE installing the door control.
 - ! NEVER connect the garage door opener to the power source until instructed to do so.
 - ! The garage door installation and wiring MUST be in compliance with all local electrical and building codes.

2 During installation

- ✓ **Ensure your personal safety:**
 - ! Never wear watches, rings or loose clothing while installing or servicing the opening system. They could get caught in the garage door opener mechanisms.
 - ! Never try to loosen, move or adjust the garage door, door springs, cables pulleys, brackets or their hardware, all of which are under EXTREME tension.
- ✓ **Prevent serious injury or death:**
 - ! Be careful when manipulating with moving parts and avoid close proximity to areas where fingers or hands could be pinched.
 - ! To avoid serious injury from a falling garage door opener, fasten it securely to structural supports of the garage.
 - ! Use concrete anchors when installing any brackets into masonry.
 - ! The motor head bracket must be rigidly fastened to a structural support on a header wall or ceiling.
 - ! Do not activate your door opening system unless you are sure that the area of its travel is clear of persons, pets or other obstructions. Watch the door through its entire movement.
- ✓ **Prevent damage of the opening system and reduction of its safety features:**
 - ! Incorrect adjustment of garage door travel limits will interfere with proper operation of the safety reversal system.
 - ! Too much force on the garage door will interfere with proper operation of the safety reversal system.
 - ! Never increase force beyond minimum amount required to close the garage door.
 - ! Never use force adjustment to compensate for a binding or sticking garage door. After any adjustment is made, the safety reversal system must be tested.

3 After installation

- ✓ **Verify correct installation:**
 - ! Upon completion of installation, test to make sure that your garage door opening system is working correctly, and test the safety system. The door must reverse when it contacts an object on the floor.
 - ! The safety reversal system could fail if the garage door opener is not correctly installed and if limit switches are not adjusted to the correct positions.
 - ! Verify power adjustment and settings after installation.
 - ! Always make sure you have connected the unlocking cable in order to allow the garage door to be manually unlocked (from inside and out), and operate it manually if there is a power failure or other problem.
 - ! Ensure that the parts of the door do not extend over public footpath or roads
 - ! Install any fixed control at height of at least 1,5m and within sight of the door but away from moving parts
- ✓ **Ensure safety and prevent injuries:**
 - ! Place warning labels on the wall next to garage door control. permanently fix a label warning against entrapment in a prominent place or just near any fixed control
 - ! Without a properly working safety reversal system, people (particularly small children) can be SERIOUSLY INJURED or KILLED by a closing garage door. after installation ensure that the mechanism is properly adjusted and monthly verify that the drive reverses when the door contacts a 5 cm high object placed on the floor
 - ! Never permit anyone to cross the path of a closing garage door.
 - ! No one should go under a stopped, partially open garage door.
 - ! Never leave children unsupervised near a garage door opener, whether moving, open, closed or stopped.
 - ! Never permit children to play with the garage door opener's remote control buttons or transmitters, and do not allow children to use them to operate the door opener. Always keep remote controls out of reach of children.
 - ! Install wall-mounted garage door controls (optional) out of the reach of children and away from moving parts of the door.
 - ! Always keep the garage door in sight until completely closed.
 - ! While the door is closing, do not attempt to stop it by hand. This is extremely dangerous.
- ✓ **Prevent damage of the opening system and objects:**
 - ! Never leave cars, motorcycles or similar objects under the garage door.
 - ! Do not attempt to drive into the garage while the door is moving. Always wait until the door comes to a complete stop.
 - ! Activate the door only when it can be seen clearly, when it is properly adjusted and there are no obstructions to door travel.
- ✓ **Maintain the opening system:**
 - ! Keep the garage door and the opening system properly maintained.
 - ! Always turn OFF the power before performing any maintenance. Service the door and opening system regularly. Regularly grease hinges and other appropriate moving parts.

After installation, ensure that the mechanism is properly adjusted and that the drive reverses when the door contacts a 5cm high object placed on the floor.
- ✓ **Prevent unauthorized usage:**
 - ! Secure outdoor and/or easily accessed garage door opening system control to prevent from unauthorized use of the door.
 - ! Never install any control devices where someone could be tempted to reach into your property and activate the door opening system.

Other symbols used in the manual

	This symbol gives you a notice on an important feature, procedure or matter that is necessary to observe during and after installation.
	This symbol provides you useful information for correct installation and usage of your product.
	This symbol is always accompanied with a number referring to a picture, with description of each item or part indicated on the picture
	This symbol is always accompanied with a number referring to a chapter in this manual.

SAVE THIS INSTRUCTION MANUAL	
 IMPORTANT:	Make sure everyone who is using or will be using the garage door opening system is aware of the dangers associated with this system.
	In case you will sell the property with the garage or sell garage door opening system, provide a copy of this manual to the new owner.
	In case you lose or misplace this manual, obtain a new copy either by downloading one from the ALLDUCKS website (http://www.allducks.it/), or by contacting the nearest distributor or the Aftersale department.

1 KIT CONTENTS

ITEM	PART NAME	Qty.
A	Paper plate	1x
B	Trolley	1x
C	Motor head fixing brackets	4x
D	Standard bracket	2x
E	Door fixing plate	1x
F	Wall fixing plate	1x
G	Chain tensioner	1x
H	Chain tensioning pulley	1x
I	Chain securing joint	2x
J	Connecting bolts and nuts	4x
K	Cable gland, Pg7	1x
L	Sectional door connecting bracket (part #992014)	1x
M ₁	Manual release system – rope and eye-bolt with nut	1x
M ₂	Manual release system - unlocking cable with sleeve	1x
N	12V d.c. geared motor unit (motor head) with secondary electronic board	1x
O	Chain	1x
P	U-rail connecting sleeve	2x
Q	U-rail	3x
R	Control box with main electronic board CTH44G	1x
S	Solar panel 10W 12V	1x
T	Solar panel fixing clamps	4x
U	Solar panel holder	1x
V	Solar panel connecting cable	1x
W	Battery charger with adapters for various sockets types	1x
X	Control box connecting cable (5 m)	1x
Y	2-channel or 4-channel ducati rolling coded remote control *	2x
Z	Installation manual	1x

* = Based on distributors choice

2 TECHNICAL DATA

Power	Solar and battery powered – no external power source needed
Traction (lifting force)	700 N (max. 8 m ²)
Absorbed power	80 W
Opening time	14 -18 sec
Protection fuse	T 10 A
Radio frequency and coding	433 MHz rolling code
Speed	0.15 m/sec
Working temperature	-10 / +50 °C
Amperometrical safety system	Yes
Power adjustment	With trimmer
Door travel limits	Limit switches (2x)
Soft stop	Yes

3 GARAGE DOOR TYPES

Before starting any installation, you must be sure of what door type you have and if you have all the necessary accessories (connecting brackets mainly).

3.1 Non projecting up-and over door

For installation on a non-projecting up-and over door, no extra accessories are needed.

 3.1	A = Standard door brackets (2pcs, included in kit) B = Trolley C = Door fixing plate
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3.2 Sectional door

For installation on sectional door, one of the two supplied brackets must be replaced by the supplied sectional door connecting bracket (part #992014).

 3.2	A = Standard door bracket (included in kit) B = Sectional door bracket (included in kit) C = Trolley D = Door fixing plate
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3.3 Projecting up-and-over door

For installation on projecting up-and-over door, the extra "CANOPY ARM" accessory is required (part #992012). This accessory must be **purchased separately**.

 3.3	A = Standard door bracket (included in kit) B = Canopy arm (extra accessory #992012) C = Trolley D = Door fixing plate E = Wall fixing plate
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4 CONNECTION SCHEME, SPACE PLAN AND OPERATION LIMITS

4.1 Connection scheme

Inside of garage - front view	
 4.1a	A = Ceiling B = Control box C = Safety photocell D = Floor E = Cable to solar panel F = Cable to photocells G = Cable to secondary electric board in motor head H = Half of the doors * = Extra accessory; must be purchased separately

Inside of garage - side view	
 4.1b	A = Ceiling B = Control box C = Photocell D = Motor head E = Floor * = Extra accessory; must be purchased separately

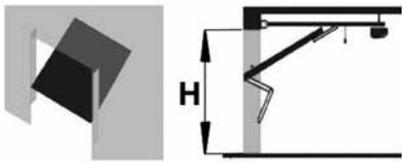
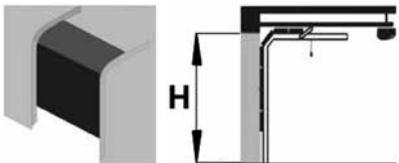
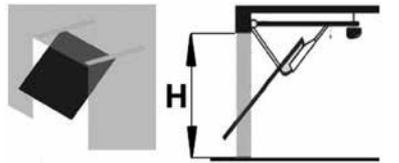
Outside of garage	
 4.1c	A = Signal lamp B = Solar panel C = Key pad or key switch (wireless) D = ground E = Cable to signal lamp, from control box F = Cable to solar panel, from control box * = Extra accessory; must be purchased separately

4.2 Space plan

 4.2	A = Wall fixing plate B = Reinforcing steel plate C = Door fixing plate D = Reinforcing steel plate
---	--

 IMPORTANT:	The structure of the garage door in area for the wall fixing plate and door fixing plate must be strong and sturdy. If not, it is necessary to reinforce it, e.g. by means of a suitable steel plate, etc.
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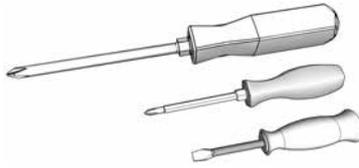
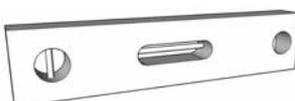
4.3 Operation limits

Standard door	Sectional door	Counterweighted / projecting up-and-over door*
		
H = maximal height = 2,3 m	H = maximal height = 2,15 m	H = maximal height = 2,15 m
		*requires extra accessory not included in kit (the canopy arm, part #992012)

5 BEFORE STARTING INSTALLATION

5.1 Tool and equipment needed

For the installation, prepare in advance the following:

		
• Tape ruler and marking pencil/pen	• Pliers and nippers	• Screwdrivers of various sizes
		
• Electric drill with drilling bits acc. to dimensions of fastening screws	• Step ladder	• Fixing screws with corresponding screw anchors installation of: - Wall plate2x - Door plate2x - Motor head2x - Control box3x - Solar panel4x
		
• Adjustable spanner or set of spanners	• Water level	• Cable protective duct

5.2 Recharging battery before installation

Although the battery inside the control box is supplied charged, it may lose its capacity e.g. when it is stored for a longer time, etc. Thus before installing your opening system and using it, **it is necessary to fully charge the battery**. Proceed as follows:

- 1) Unscrew the cover of the control box (1), take out the battery (2) and disconnect the red and blue cable from it (3).



- 2) Connect the charger cables to the battery and plug the charger to a standard **230V** socket.



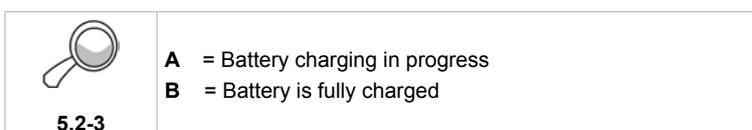
IMPORTANT:

Respect the polarity of the cables!

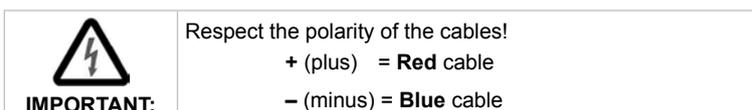
- + (plus) = **Red** cable
- (minus) = **Black** cable

Make sure you **first connect the charger to the battery** and **then to the mains socket**, otherwise the battery could be damaged.

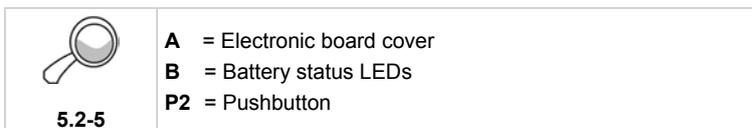
- 3) The charging process is indicated by a **red light** on the charger. A fully charged battery is indicated by a **green light**. Once the battery is charged, unplug the charger from the mains socket and disconnect it from the battery.



- 4) Reconnect the cables of the control box to the battery while respecting the polarity of the cables.



- 5) Check the status of the battery by pressing the **P2** pushbutton (press the cover) on the control box electrical board and watch the colour of the LEDs.



LED COLOR		BATTERY STATUS		
	(GREEN)		Fully charged (>12.4 V)	
	(YELLOW)		Partially charged (11.9 V - 12.4 V)	
	(RED)		Almost discharged (11.9 V)	
	(RED + BEEP)		Fully discharged (<11.2 V)	



INFO:

After making sure the battery is fully charged, **disconnect it** from the control box again and put it aside. The reason for this is that it is easier to fasten the control box to the wall with the battery out (□  7.1).

6 INSTALLATION OF MECHANICAL PARTS

6.1 U-Rail assembly

Assemble the three U-rails (part #829) by simply sliding them into the two U-rail connecting sleeves (part #830).

 6.1	A = U-Rail #829 (long) B = U-Rail #830 (short)
---	---

6.2 Fixing chain to trolley and tightening pulley

1) Slide the chain through the trolley a pass it around the tightening pulley.

 6.2	A = Chain tensioner B = Tightening pulley C = Chain D = Trolley
---	--

6.3 Sliding trolley with chain and tightening pulley into U-rail

Slide the trolley with the chain into the assembled U-rail.

 6.3	A = U-rail #829
---	------------------------

6.4 Connecting chain and U-rail to motor head

1) Put the chain on the motor head chain pulley.

 6.4-1	A = Chain pulley
---	-------------------------

2) Slide the U-rail into guides on the motor head plate.

 6.4-2	A = Guides for U-rail B = U-rail
---	---

3) Lock the chain by means of the securing joint.

 6.4-3	A = Chain joint B = Trolley
---	--

 IMPORTANT:	Notch in the securing plate must face inside of the chain assembly!
--	--

6.5 Fixing the assembly to the wall

Fix the whole assembly to the door lintel or wall using the wall fixing plate #828. For this, you must prepare two screws and anchors which you must choose according to the properties of the wall.

1) The assembly fixing plate must be in the middle of the door width (📖 "4.1 Connection scheme"), so measure-out the correct distance and mark the spots for the fixing screws.

 6.5-1a	A = Wall fixing bracket B = Garage door C = Ceiling D = Floor
--	--

 6.5-1b	A = Ceiling
	B = Rail
	C = Garage door
	D = Rail height = 3 cm
	E = Minimal distance of 1 cm
	F = Minimal distance of 5 cm

**IMPORTANT:**

When measuring the position, take into account the minimal distances of the rail from the ceiling and door upper edge, see the fig. bellow.

- 2) Drill out the holes for the fixing screws. Support the assembly in a suitable way, e.g. by a stepladder and fasten the assembly to the wall.

 6.5-2	A = Assembly
	B = Garage doors
	C = Stepladder, etc. for support

6.6 Fixing the motor head

Fix the motor head to the ceiling by means of the two supplied brackets. Before fastening, prepare screws and anchors according to the properties of the ceiling.

- 1) Bend the brackets ends to 90° by hand (1).
- 2) Fasten the other ends of brackets to the motor head plate (2).
- 3) Lift the motor head up and mark the spots for the fixing screws.
- 4) Drill-out the holes for the screws and fix the motor head to the ceiling.

6.7 Fixing the rail (optional)

After fixing the motor head, it is possible to fix also the rail to prevent from its excessive slackness. To do this, use the additional motor head fixing brackets, fastened to one of the U-rails #830 (the short one) and to the ceiling.

6.8 Fixing the assembly to the garage door

The door fixing plate is supplied preassembled to the trolley by means of the two standard connecting brackets. For fixing it to the doors, prepare 2 screws of size based on the type of your door.

- 1) Based on the type of your door ( "3. GARAGE DOOR TYPES"), use either the preassembled **standard door connecting brackets**, or combine the **sectional door connecting bracket** (included in kit) **with the standard bracket**, or assemble the "**Canopy Arm**" **extra accessory** (part #992012, not in kit) **with the standard bracket**.

 6.8-1a	A = Standard door connecting brackets
	B = Door fixing plate
 6.8-1b	A = Standard door connecting brackets
	B = Trolley
	C = Sectional bracket (included in kit, part #992014)
	D = Door fixing plate
 6.8-1c	A = Standard door connecting brackets
	B = Trolley
	C = Canopy arm (extra accessory, part #992012)
	D = Door fixing plate

- 2) Press the unlocking handle on the trolley and slide the trolley with the connecting brackets and door fixing plate as close as possible to the door.

 6.8-2a	A = Unlocking handle
--	-----------------------------

- 3) Find the correct fixing position for the plate. If necessary, adjust the length of the connecting brackets by sliding them one on another and using the holes on the brackets.

 6.8-3	A = Standard door connecting bracket
	B = Holes for brackets length adjustment

- 4) Place the fixing plate on the door and mark the spots for fixing screws.

 NOTE:	<p>The door fixing plate should be positioned as high-up on the door as possible, and should be in the centre of the door.</p>
---	--

- 5) Drill out two holes for the fixing screws.
- 6) Fasten the assembly to the door.

 IMPORTANT:	<p>Operate the system manually to check the mechanical operation of the opening system.</p>
--	---

6.9 Tensioning the chain

Once the mechanical parts of the system are installed, tension the chain by turning the chain tensioning nut. The correct tension is when pressing the chain downwards by finger, it should slack about 1 cm down. Do not overtighten the chain.

 6.9	<p>A = Chain tensioning nut</p>
---	--

6.10 Installing the manual release system

The garage door opener is provided with a manual unlocking system that enables to unlock the trolley and open the door by hand. It is composed of a steel cable, protective sleeve and a rope with handle and is to be connected to the unlocking mechanism on the trolley.

- 1) Pass the cable through the hole in the releasing handle and the guide on the trolley and slide it into the sleeve.

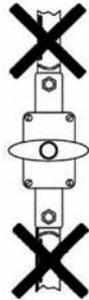
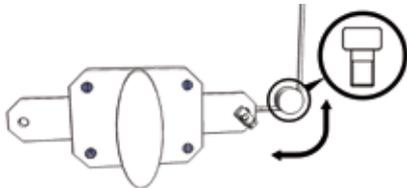
 6.10-1	<p>A = Trolley B = Cable end with ball C = Release handle D = Cable guide E = Cable protective sleeve</p>
---	--

- 2) Pass the cable through the small bracket on the door fixing plate.

 6.10-2	<p>A = Cable sleeve B = Cable bracket C = Door fixing plate</p>
--	--

- 3) Attach the cable to the door handle by means of the cable clamp.

 6.10-3	<p>A = Cable clamp B = Door handle</p>
--	---

 IMPORTANT:	<p>The manual opening system cannot be installed on door having mechanical opening/closing system that engages into the floor and/or ceiling.</p> <p>Warning: install the actuating member of the manual release at height less than 1,8m</p> <div style="text-align: center;">  </div>
	<p>In case you have differently positioned handle (horizontally moving), it is necessary to fix a button head bolt or screw to the door which will guide the cable and convert the horizontal movement to vertical.</p> <div style="text-align: center;">  </div>

- 4) Install also the rope manual release system. Insert the elbow-type eye bolt into the guide on the carriage bottom (next to the cable guide) and secure it with a nut. Put the rope through the eye and through the hole in the release handle.



7 INSTALLATION OF ELECTRICAL PARTS

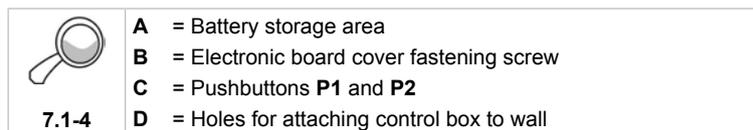
7.1 Installation of the control box



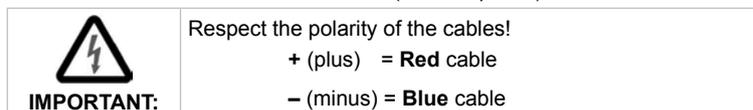
INFO:

The installation of the control box and other electrical connections requires a fully charged battery. In case it is not charged, please refer to the chapter 5.2.

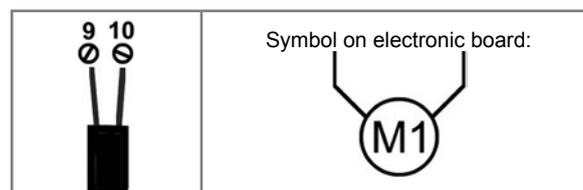
- 1) In case you have returned the battery into the control box and reinstalled the box cover, take all out again.
- 2) Using a screwdriver and a hammer, punch out the cable passage holes on the bottom of the control box. One hole is for the main cable, second for the solar panel cable. Screw the two cable glands into the punched-out holes.
- 3) Select a suitable location for the box on the wall inside the garage as close as possible to the door. Take into account that the main electronic board inside the box must be connected to the secondary electronic board located in the motor head by means of the 5 m cable (included in kit). In case you will select a spot and the cable would not reach the motor head, buy a second cable (twin cable – 2 x 0.5 mm) and connect them using a cable connecting block (terminal).
- 4) Place the box on the desired place on the wall and mark the three spots for the fixing screws (two at the top, one at the bottom). For this, prepare three fixing screws and corresponding anchors according to the wall properties (material, thickness, etc.).



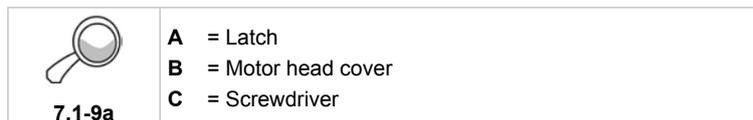
- 5) Drill out the three holes.
- 6) Fasten the control box to the wall.
- 7) Return the battery inside the control box and reconnect the cables (📖 5.2, par .4)



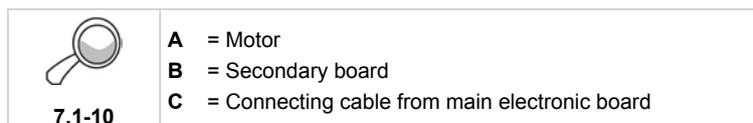
- 8) Connect one end of the supplied cable to the terminals of opening system electronic board. The **brown cable** goes to terminal no.9 and the **blue cable** on the terminal no.10.



- 9) Remove the cover of the motor head. Use a screwdriver to press on the cover latch.



- 10) Connect the other end to the secondary electronic board in the motor head. Respect the polarity of the cables, see picture below.



INFO:

Do not return the cover of the motor head yet.

- 11) Attach the cable to the wall and ceiling or U-rail using suitable cable clamps or adhesive tape in order to prevent it from being damaged during door opening/closing and so it will not interfere with your everyday activities in the garage.

7.2 Installation of the solar panel

The solar panel is used as an alternative source of power for opening/closing of door. It recharges the battery and the battery than gives power to the opening system. At good sunlight condition, the solar panel guarantees up to 10 opening and closing cycles per day. The efficiency of the panel depends on the quality of the sunlight conditions, on the day time and on how many cycles of use you require.

Solar panel components:

 7.2-1	A = Solar panel with cable1x
	B = Panel holder1x
	C = Pipe clamps4x
	D = Screws8x

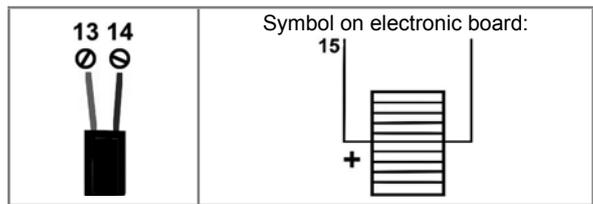
- 1) Drill a hole through the garage wall as close as possible to the control box. The hole is intended for the solar panel connecting cable. Insert a protective cable duct into the hole. Take into account the length of the cable (2.35 m).
- 2) Select a suitable position on the garage outside wall. At this, respect the following recommendations:
 - The solar panel must be positioned facing the **SOUTH** direction
 - It must be placed in a **high position** which prevents the panel from being even partially under a shadow a trees, buildings or other objects that could cause interference with the sunlight.
 - The panel must be protected from foliage, dust and any other items that could cover it.



Most important is to ensure sufficient sunlight. It should be exposed to sun at least 6 hours a day. In areas with average sunlight, i.e. shorter that 6 hours, it is recommended to install a second solar panel.

 INFO:			Zone with average sunlight of 4h/day
			Zone with average sunlight of 6h/day
			Zone with average sunlight of 7h/day
			Zone with average sunlight of 8h/day
			Zone with average sunlight of 9h/day

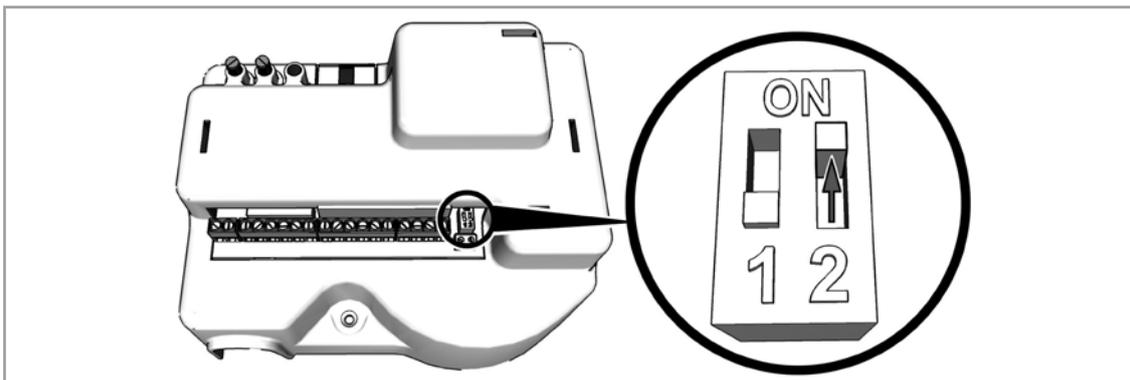
- 3) Attach the solar panel to the holder by means of the pipe clamps provided. Use 4 screws and corresponding nuts. Pass the cable, connected to the panel box, through the pipe.
- 4) Place the pipe clamps to the selected positions on the wall (see step 1) and mark the spots for fixing holes.
- 5) Drill-out the holes in the wall for each pipe clamp and fasten both pipe clamps to the wall. Do not tighten the screws yet.
- 6) Slide the holder with the panel into pipe clamps. Do not tighten the screws too much as you will need to adjust the correct position of the panel according to the control box signals – see point 8).
- 7) Connect the cables from the solar panel to the terminals of opening system electronic board. The **red cable** goes to terminal no.13 and the **blue cable** on the terminal no.14.



- 8) Find the correct position of the solar panel on the wall. Use the procedure stated below.

 NOTE:	To identify the best fixing position, it is recommended to adjust the panel at noon (from 12:00 to 14:00) on a sunny day.
---	---

- a) On the electrical board, locate two alignment switches (under blue cover). Set the switch no. 2 up while holding the switch no.1 down.



- b) Loosen the screw fastening the panel holder to the wall.
 c) Move the solar panel by hand and find its ideal position either by listening to the beeps emitted by the electric board buzzer, or watching the colour of the LEDs.

Alignment buzzer sounds and LED colours:

BUZZER	😊	BEEEEEEEEEEEEEEEP = Correct position
	😞	BEP- BEP- BEP- BEP- BEP = Incorrect position

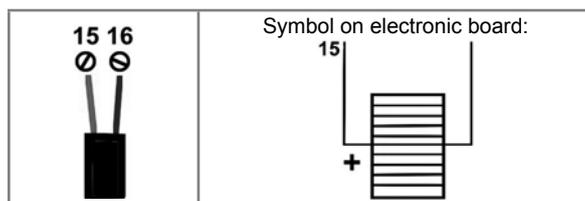
LED	😊	GREEN = Correct position (correct charging)
	😐	YELLOW = Position must be adjusted (incorrect charging)
	😞	RED = Incorrect position (no charging)

- d) After finding the ideal position, set the switch no. 2 back down and tighten the solar panel securely to the wall.

7.3 Installation of a second solar panel

If the doors opening/closing power is too low even after setting the power to maximum (chapter 8.3), it means that the battery is insufficiently charged by the solar panel. In such a case we recommend to purchase and connect a second solar panel.

The installation procedure is the same as described in the previous chapter, only the connection to electrical board is different. The **red cable** goes to terminal no.15 and the **blue cable** to the terminal no.16.



8 SETTINGS AND ADJUSTMENTS

8.1 Memorizing the remote control code

This is a procedure required to enable the opening system to operate with your remote control. Before storing the code, the door must closed and in standstill.

- 1) Press the **P1** button on the system electric board for little more than **1** second. The **red LED** illuminates with a steady light.
- 2) Immediately hold down for **4** seconds the pushbutton on your remote control which you wish to use to operate the automation system. The **green LED** on the electric board will flash once, then it will remain illuminated and will turn off after few seconds.
- 3) Press the remote control again to initiate operation of the opening system. By this, the code of your remote control has been stored in the automation system circuit board memory.

 IMPORTANT:	The circuit board memory can store a maximum of 10 different codes.
-----------------------	--

 8.1	A = Electric board CTH44G
	B = P1 pushbutton
	C = LEDs
	D = Remote control 6203
	E = Remote control 6204
	F = OFF pushbutton*
	G = ON pushbutton*
* = based on which type of remote is included in the kit	

8.2 Setting travel limit

Travel limits are points at which the door stops during each „up“ and „down“ operation. The stopping is ensured by two trip dogs, red and green, which come into contact with a limit switch. Both trip dogs and limit switch are located in the motor head.

When the **red trip dog** touches the limit switch, the door is in **closed** position.

When the **green trip dog** touches the limit switch, the door is in **open** position.

 8.2	A = Green trip dog (open)
	B = Red trip dog (closed)
	C = Limit switch

- 1) Unlock the trolley by means of the handle.
- 2) Manually close the door.
- 3) The **red trip dog** should be on or near the limit switch. Loosen its fastening screw slightly and move the trip dog so it will be in contact with the limit switch (the limit switch must be pressed by the trip dog).

 INFO:	To help the travel limit setting, there is a yellow light on the main electrical board which will switch-on when the limit switch detects the trip dog.
---	---

 8.2-3a	A = Red trip dog (closed) B = Limit switch
 8.2-3b	C = Door closed; when the door is in the closed position, the RED trip dog must touch the limit switch.

- 4) Press your remote control to activate the opening system. It will automatically relock the trolley while moving to open position.
- 5) During door opening, loosen the **green trip dog** and move it to the limit switch, but do not touch the limit switch. Once the door is in the desired opened position, move the trip dog so it will touch the limit switch. Tighten the screw.

 8.2-5a	A = Green trip dog (opened) B = Limit switch
 8.2-5b	C = Door opened; when the door is in the desired open position, the GREEN trip dog must touch the limit switch.

- 6) Check the correct function of the trip dogs and limit switch and if necessary, readjust the position of the trip dogs.

8.3 Power adjustment

If your garage door stops before reaching the end of travel, it is necessary to increase the opening/closing power of the system in accordance with your door's weight and friction during movement. For this, use the RV1 trimmer on your electric board inside the control box.

To **reduce** the power, turn the RV1 trimmer **counterclockwise (-)**.

To **increase** the power, turn the RV1 trimmer **clockwise (+)**.

8.4 Setting the door automatic closing

The opening system is provided with a function for automatic door closing. The interval for the closing can be set by turning the **RV2** trimmer on the electric board in clockwise direction. The adjustment range (time interval for closing) can be set from 0 to 60 seconds. The door will automatically close after the set time interval elapses.

 IMPORTANT:	<p>All adjustments and settings can be carried out with the garage door in closed position only. Make sure, there is no person or object in the operating zone.</p> <p>By setting the opening system to the automatic closing function, you increase the risk of injury to people or damage to objects! In this case, we recommend to install the safety photocells or other safety devices.</p>
 NOTE:	<p>If the automatic door closing function is set, the opening system will not accept a remote control, keypad or keyswitch impulse while in the pause mode.</p>

8.5 Final actions

After completing all the installation steps described in the previous chapters, do the following:

- 1) Check if all electrical and mechanical connections (screws, etc.) as well as the cables are tightly secured.
- 2) Reinstall the motor head cover.
- 3) Reinstall the cover of the control box.

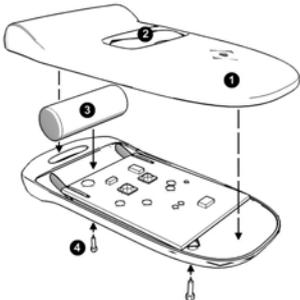
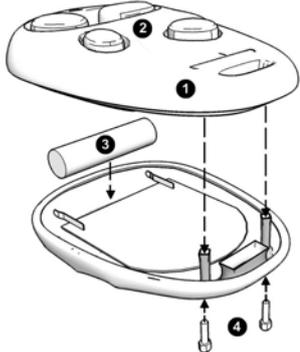
9 USING YOUR REMOTE CONTROL

The garage door opening system can be equipped with one of the two remote controls.

The **6203 ROLLING** is a coded remote control with 2 channels of transmission working on frequency of 433 MHz. Each button can be used to operate a different opening device.

The code, which is secret and cannot be copied, is determined automatically from a choice of more than a billion possible combinations. This system ensures that only your remote control will be able to operate your opening system.

The **6204 ROLLING** remote control has the same properties as the 6203 Rolling but has 4 channels of transmission.

<p style="text-align: center;">Model 6203:</p> 	<ul style="list-style-type: none"> 1 Blue plastic cover 2 Blue pushbuttons 3 Battery 12V A23-5mA1x 4 Countersunk head screws..... 2x
<p style="text-align: center;">Model 6204:</p> 	<ul style="list-style-type: none"> 1 Upper plastic cover 2 Pushbuttons.....4x 3 Battery 12V 27mA.....1x 4 Countersunk head screws.....2x

9.1 Erasing the electronic board memory (deleting codes)

If the memory of the electronic board is full or if you lose your remote control, the memory must be erased. By this, all the stored codes will be erased and it is necessary to re-input them.

 IMPORTANT:	<p>Before erasing the memory, the door must be closed and in standstill.</p>
--	--

- 1) Press and hold the **P1** pushbutton for approximately 20 seconds until the **red LED** switches off.
- 2) Release **P1** button. All codes have been erased.
- 3) Input all required codes using the procedure stated in the chapter 8.1.

10 TROUBLESHOOTING

PROBLEM	CAUSE	SOLUTION
<p style="text-align: center;">1</p> <p style="text-align: center;">THE GARAGE DOOR DOES NOT OPEN OR CLOSE (THE SYSTEM IS NOT OPERATING)</p> <p style="text-align: center;">- immediately after installation</p>	<ul style="list-style-type: none"> The power cable is incorrectly connected to the main electrical board in the control box 	Connect the power cable correctly to the electrical board in the control box (📖 7.1)
	<ul style="list-style-type: none"> The power cable is incorrectly connected to the secondary electrical board in the motor head 	Connect the power cable correctly to the electrical board in the motor head (📖 7.1)
	<ul style="list-style-type: none"> The cables of the battery inside the control box are incorrectly connected 	Connect the battery cables correctly (📖 5.2)
	<ul style="list-style-type: none"> The battery inside the control box is not charged 	Charge the battery (📖 5.2)
	<ul style="list-style-type: none"> The switches no.1 and 2 in the electronic board are not down 	Locate the switches and move them both down (📖 7.2)
	<ul style="list-style-type: none"> The solar panel cable is either incorrectly connected to the control panel electrical board or to the solar panel connecting box. In case you have two solar panels, check the same with the other one 	Connect the solar panel cables correctly (📖 7.2)
	<ul style="list-style-type: none"> The solar panel is incorrectly aligned. In case you have two solar panels, check the same with the other one, too 	Align the solar panel (📖 7.2)
	<ul style="list-style-type: none"> The remote control code is incorrectly stored in the electrical board memory 	Erase the electronic board memory (📖 9.1) and store the code again (📖 8.1)
	<ul style="list-style-type: none"> The remote control battery is discharged 	Replace the remote control battery (📖 11.3)
<p style="text-align: center;">2</p> <p style="text-align: center;">THE GARAGE DOOR DOES NOT OPEN OR CLOSE (THE SYSTEM IS NOT OPERATING)</p> <p style="text-align: center;">- after some time of troubleless usage</p>	<ul style="list-style-type: none"> The battery inside the control box is discharged. - if the door is <u>open</u>, you will hear beeping from the control box and the RED LED will be flashing - if the door is <u>closed</u>, no sound is heard, only the RED LED will be flashing 	Charge the battery (📖 5.2)
	<ul style="list-style-type: none"> The fuse of the control box is blown 	Replace the fuse with the same type (10AT). The fuse is located under blue cover of the electrical board.
	<ul style="list-style-type: none"> The battery of the remote control is discharged 	Replace the remote control battery (📖 11.3)
	<ul style="list-style-type: none"> The solar panel(s) is (are) disaligned. 	Align the solar panel(s) (📖 7.2)
	<ul style="list-style-type: none"> Some of the electrical cables is damaged 	Visually inspect the state of the cables and/or measure them with a tester. If any of them is damaged, replace it with a new one
	<ul style="list-style-type: none"> The remote control or electronic board radio transmission system is faulty 	- If you have another remote control, try to use it - Give a „start“ to the system by connecting the terminals no. 1 and 3 with a small wire. If the system works, the remote control is faulty. If not, the receiver is faulty. In both cases, contact the Aftersale service for more info.
<p style="text-align: center;">3</p> <p style="text-align: center;">THE DOOR OPEN BUT DO NOT CLOSE</p>	Your opening system IS NOT equipped with the solar photocells:	
	<ul style="list-style-type: none"> The terminals 2 and 3 of the electrical board are not connected by a bridge (small wire) 	Connect the terminals with the original wire or use a metallic paper clip
	Your opening system IS equipped with the solar photocells:	
<ul style="list-style-type: none"> The terminals 2 and 3 of the electrical board are connected by a bridge (small wire) 	Disconnect the terminals by removing the bridge. Store the bridge in a safe place for future use.	
<ul style="list-style-type: none"> The photocells are incorrectly aligned or dirty 	Align the photocells or clean thee (see the independent manual for the photocells)	

4 THE BATTERY INSIDE CONTROL BOX IS QUICKLY DISCHARGED	• The doors make too many opening/closing cycles and one solar panel is insufficient	Buy and install a second solar panel
	• The battery is faulty	Contact your local dealer or the Allducks Aftersale department for details (📖 12)
5 THE REMOTE CONTROL DOES NOT WORK	• The battery inside the remote is discharged	Replace the battery (📖 11.3)
	• The electric board memory is full	Erase the electronic board memory (📖 9.1) and store the code again (📖 8.1)
	• The remote control or electronic board radio transmission system is faulty	Try to operate the system with a second remote. If you do not have one, give a „start“ to the system by connecting the terminals no. 1 and 3 with a small wire. If the system works, the remote control is faulty. If not, the receiver is faulty. In both cases, contact the Aftersale service for more info.

11 MAINTENANCE

11.1 General maintenance

Periodically (at least once every six months) check:

- the state of all electrical cables. In case they are damaged, replace them with the same type.
- the state of all mechanical connecting elements, such as screw and nuts. If necessary, retighten them.

11.2 Solar panel

Daily check the cleanness of the solar panel and if necessary, clean it.

11.3 Remote control

Apart from **battery changing**, the remote control requires no special maintenance.

To replace the battery, simply unscrew the two screws by means of a small Phillips screwdriver. Remove the battery and insert a new one of same type.

11.4 Chain

Regularly check the tension of the chain. In case it slackens more than 1 cm after pressing it down by finger, retighten it. See chapter 6.9.

11.5 Manual opening system cable

Regularly check the state of the cable of the door manual opening system. If the cable or its protecting sleeve appears to be damaged, replace it.

12 WARRANTY & AFTERSALE

DUCATI's products are guaranteed for 12 months from the purchase date, for manufacturing or material defects. If repaired, the product shall be returned to one of our authorised customer service centres. The authorised technical assistance centres are the only facilities suitable to carry out warranty repairs. If you have a problem, or if you need to reach the customer service offices of your country, please contact:

ITALY:

Automazione cancelli via cassani snc 43036 Fidenza (PR) Italy www.ducatihome.it info@ducatihome.it mob 0039-3351022019 tel+39-0524-527967

Warranty conditions

1. The warranty is valid only with proof of purchase; no alteration or cancellation may be shown on the proof-of-purchase document.
2. The manufacturer is responsible only for repair or, at its own discretion, replacement of defective parts.
3. The product warranty shall immediately be void if the product has been modified or adapted to technical or safety norms different from those in force in the country for which the product was designed and manufactured.
No refund shall be provided for damages deriving from the above-mentioned modifications.
4. The warranty does not cover:
 - a) Routine checks, maintenance, repairs or replacement of worn-out parts.
 - b) Transport, handling or installation costs related to this product.
 - c) Improper use, operator error or incorrect installation.
 - d) Damage caused by fire, water, natural phenomena, storms, incorrect power supply, or any other cause beyond the manufacturer's control.
5. This warranty has no influence on the rights of the customer under applicable law, nor on the rights of the customer towards the reseller deriving from the purchase contract.

If no national laws apply, this guarantee shall be the only safeguard for the customer, and neither the manufacturer nor his distributor shall be responsible for accidental or indirect damage to their own products deriving from the infringement of warranty conditions.

13 SPARE PARTS AND OPTIONAL ACCESSORIES

13.1 Spare parts

<p>ATTACHEMENT SET</p>		<p>COMPLETE MOTOR HEAD</p> <p>8990T</p>
<p>RAIL SET</p>		<p>COMPLETE MOTOR</p> <p>#825/R117</p>
<p>CHAIN / BELT</p>	<p>CHAIN or BELT PULLEY</p> <p>#827</p>	<p>ELECTRONIC BOARD:</p> <p>CTH44G</p>

13.2 Optional accessories

Key switch	Radio key pad	Solar photocells	Wide angle mirror	External antenna with 5 m cable	Blinking light
SW5000	SW6500	SW7112	SW7950	6025/5	SW7500

<p>Canopy arm</p> <p>992012</p>	<p>Solar panel</p> <p>SW7900</p>
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13.3 How to order

Shop online: www.ducatihome.it

14 DECLARATION OF CONFORMITY

We declare that:

The above-mentioned products and all accessories detailed in the manual comply with the following-mentioned directives and standards:

CE 98/37/CE-ROHS-WEEE

EMC
EN 61000-6-2
EN 61000-6-3
EN 301489-3
EN 50366

ELECTRICAL SAFETY
EN 60335-1
EN 60335-2-95
EN 60335-2-103

REMOTE
ETSI EN 301 489-1
ETSI EN 301 489-3
EN 300 220 -2
EN 60950-1
APPROVAL
Ref 6203 CE 0681 and FCC ID OLS137925764
Ref 6204 CE 0678

SAFETY
EN 13241-1
EN 12453
EN 12445

Company declaration:

When installed and used in accordance with the manufacturer's instructions, the above automation system complies with all 89/392/EEC directives and all revisions.

I the undersigned declare that the above-mentioned products and all the accessories detailed in the manual comply with the above-mentioned directives and standards.

The product complies with RoHS requirements.

December 2008

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