

Owner's manual

Evolution

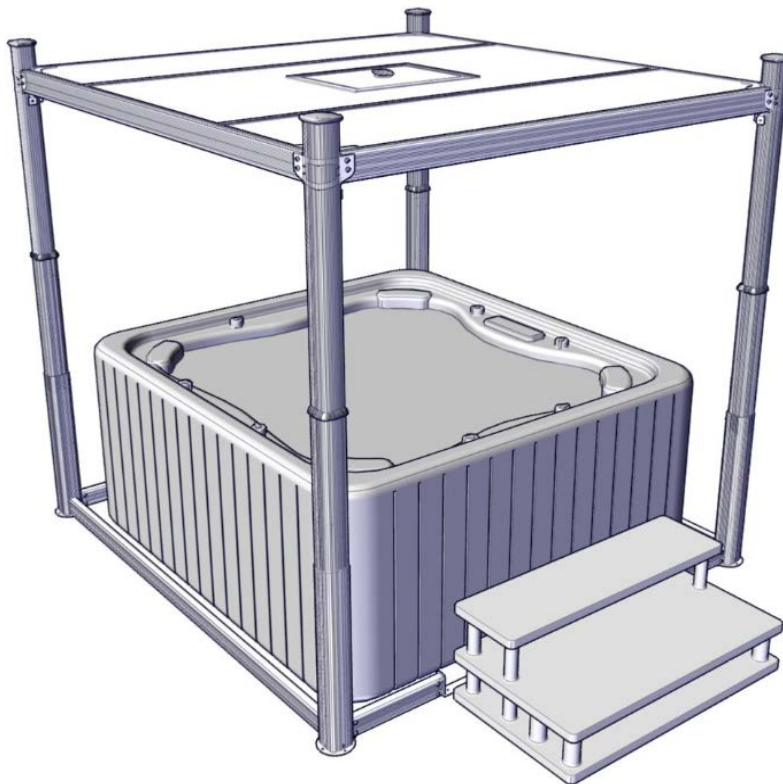
COVANA



COVANA

SPA COVER MANUFACTURER

OWNER'S MANUAL



MANUAL NO. 252808

EVOLUTION COVER
MANUAL NO. 252808
First edition 2023-12-08

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0	OWNER'S MANUAL NEW RELEASE	2023-12-08

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INTRODUCTION

As part of its ongoing commitment to improve the quality, reliability, durability and safety of its products, Covana is proud to present this edition of the cover Owner's Manual.

The various sections that make up this manual will provide you with the most recent information allowing you to understand the operation of the cover, its installation and its maintenance in order to obtain complete satisfaction and to ensure maximum safety and comfort for users.

CONGRATULATIONS FOR THE PURCHASE OF YOUR NEW COVANA COVER

Thank you for choosing our product. The Covana cover you have chosen is the result of excellent engineering, attention to detail and a great deal of pride. With proper care and attention, your cover will last many years and offer great performance.

Although our products are built to last, we strongly recommend that you register your cover at the time of purchase to ensure an adequate follow-up process.

In fact, registering the cover allows us to quickly reach you in the unlikely event a safety notice has to be issued. Your product and safety are a top priority for us at Covana.

You will need your original sales receipt as proof of purchase to obtain warranty service, and the work must be performed by a certified technician. If your cover is ever to malfunction, your product registration will allow us to access necessary information in a timely manner.

Experience the benefits of registering your cover at <https://www.covana.com/warranty.html>.

Please take a few minutes to read all the instructions before you use your new cover. This owner's manual indicates how your cover works, how to install it and how to care for it, so you will get the most from your cover for many years.

For service and advice, do not hesitate to call your local authorized Covana dealer.

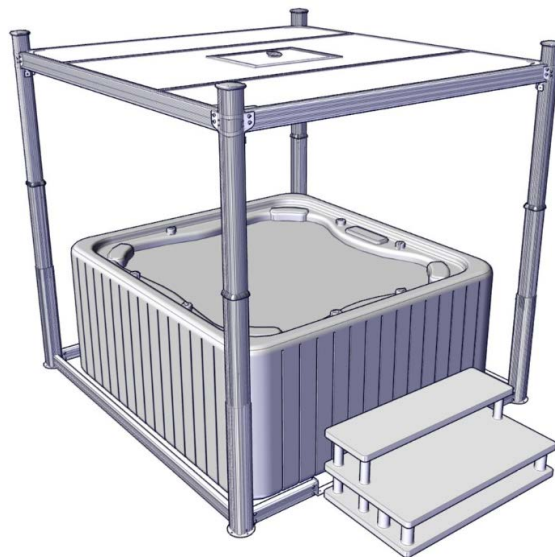


FIGURE 1: EVOLUTION COVER MODEL

SAFETY AND IMPORTANT INSTRUCTIONS

IMPORTANT INFORMATION

DANGER, WARNING, CAUTION and NOTE are used throughout this manual to emphasize important points when necessary:



DANGER

Directs the user's attention to unsafe practices which could result in serious personal injury or death.



WARNING

Directs the user's attention to unsafe practices which could result in serious personal injury or severe damage to the cover.



CAUTION

Directs the user's attention to unsafe practices where personal injury is not likely but damage to cover components could occur.

NOTE

Indicates supplementary information essential to the proper operation of the cover, proper installation or proper maintenance.

The lifespan of your new cover depends on the kind of attention it receives. Pay close attention to the DANGER, WARNING, CAUTION, and NOTE.

Read the various notices and instructions attached to the equipment.

Keep this manual in a safe location.

NOTE

Illustrations in this manual are used for reference only and may differ from the actual cover; however, key components addressed in the manual are represented as accurately as possible.

Before reproducing or copying this manual, in whole or in part, written consent must be obtained from Covana. Covana reserves the right to make changes without notice and without incurring any obligation.

SAFETY

The cover was designed, tested and certified to be installed over a residential spa under important installation instructions issued by Covana. Any other type of usage will void the warranty and product certification.

The cover was not designed to support any additional load or people walking or standing on its lid. Failure to observe this instruction will void the cover warranty and nullify its certification.

The power safety cover meets ASTM F1346-91 requirements.

DRUGS AND ALCOHOL



DANGER

The use of drugs or alcohol while operating the cover is strictly prohibited. The impairment of judgment, vision or hearing might affect the safety of other people or result in death.

IMPORTANT SAFETY INSTRUCTIONS



WARNING

KEEP THESE INSTRUCTIONS IN A SAFE LOCATION.

REVIEW THESE INSTRUCTIONS REGULARLY.

NOTE

READ AND FOLLOW ALL INSTRUCTIONS.



WARNING

CALIFORNIA PROPOSITION 65

This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

**DANGER**

- To reduce the risk of injury, do not allow children under the age of 18 to use this product unless they are supervised at all times.
- Failure to follow all the instructions may result in injury or even death.
- Do not climb or walk on the cover at any time.
- Do not allow children to have access to the cover operation without supervision.
- Never operate the cover until all people and objects are out of the spa.
- Do not operate the cover in extreme wind. See Technical specifications section for the wind limitations.
- The cover must be completely visible when operating the key switch.

**WARNING**

- Be sure to keep the key switch and key out of the reach of children under the age of 18.
- Do not put any type of fabric or plastic sheet, such as a tarpaulin or canvas, on the cover. This may overheat the cover and result in the deformation or delamination of the cover panels.
- Inspect the cover periodically. It should raise smoothly and evenly. Contact your Covana dealer if any unusual mechanical sound is heard during cover operations.

**DO'S**

- Remove the key from the key switch after operating the cover. Store the key in a secure location when not in use. Users must bring the key in the spa with them to prevent the unauthorized operation of the cover.
- Always remove the key from the key switch.
- Check the cover frequently for any sign of deterioration.
- Have any repairs, adjustments or mechanical work performed by a certified Covana dealer as soon as possible when you notice any malfunction.
- Completely lower the cover when it is not in use or if the spa is not being monitored.
- The cover should only be operated by an adult.
- This product can be operated by an 8-year-old or older child and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge **ONLY** if they are supervised by an adult or have received instructions regarding safe use of the cover.
- Children must not play with the product. Cleaning and user maintenance must not be performed by children without supervision.



DON'TS

- Do not operate the unit before all mechanical and electrical connections are completely installed.
- Do not step on or stack anything on the operator cover.
- Do not operate the cover while somebody is in the spa.
- Do not climb, walk, sit or stand on the cover at any time.
- Do not keep the cover open for more than 12 consecutive hours. Failure to follow this instruction may cause permanent deformations to the cover.
- Do not converge or directly reflect sunlight on the cover. This could cause permanent damage.
- Do not wash the cover with harsh chemicals or cleaners.
- Do not use a pressure washer to clean any component of the cover. This could result in premature wear or damage.
- Do not use an extension cord to supply electrical power to the cover. The extension cord may not be properly grounded, and the connection is an electrical shock hazard. An extension cord may cause a voltage drop, which may cause the motor to overheat.



CAUTION

- Be sure to follow all instructions in this manual and use only accessories and tools approved by Covana.
- Do not rotate or slide the cover using its edges. This may damage the edge components.
- When unpacking after delivery or disassembling parts, always keep them in a safe location on a clean and level surface as to not damage them.



CAUTION

- All four jacks of the cover must be properly anchored to the foundation using the anchoring holes of the jack base plate. The optional non-permanent mounting plates can be used when anchoring jacks is not possible, but under strict condition. See [NON-PERMANENT MOUNTING PLATE](#) section for more details.
- This product mainly contains steel, plastic, fiberglass, foam, copper and die-cast aluminum. Please recycle properly according to the local rules.
- The gearbox contains oil and other materials. Please recycle properly according to the local rules.
- The jack stroke is limited by two limit switches. These switches are pre-adjusted at the factory. The down-limit switch should never be readjusted. The up-limit switch should be readjusted only to reduce the maximum height of the cover to avoid possible contact with environment. Please refer to the [LIMIT SWITCH ADJUSTMENT](#) section in this manual before making any adjustments. An improper adjustment can result in damage to the operator and/or to the cover.

RISK OF ELECTROCUTION



CAUTION

All electrical work should be done by a certified electrician, otherwise the certification and warranty will be void. Furthermore, any modifications to the electrical components will also void the warranty.



DANGER

Failure to comply with these instructions may result in death by electrocution or serious injury

**DANGER**

- Disconnect or turn off and secure all power supplies before starting any intervention on the cover.
- A circuit breaker needs to be incorporated into the fixed wiring at the time of installation. This circuit breaker must be accessible to the user or service technician to turn the power off for future maintenance or repair.
- Only a certified electrical contractor may perform any electrical maintenance on the cover. The wiring must comply with all applicable local electrical regulations.
- The operator must be connected to a circuit that is protected by a dedicated ground fault circuit interrupter (GFCI) that complies with all applicable local electrical codes and regulations.
- Install the cover in such a way that drainage directs water away from the electrical and the mechanical components at the base.
- Do not connect any auxiliary components to the electrical system of the cover unless they have been approved by Covana.
- Replace electrical components with original components provided or approved by Covana. Ask your dealer for replacement parts.
- To reduce the risk of electrical shock, replace a damaged electrical cord immediately. Failure to do so may result in death or serious personal injury due to electrocution.
- Do not bury the electrical wires into the ground unless using a direct-burial underground cable. Not respecting this precaution may result in death, or serious personal injury due to electrocution.

**SAVE THESE
INSTRUCTIONS**

ELECTRICAL WARNING**WARNING**

- For AC-operated model: To reduce the risk of electrical shocks, the green-colored terminal (or the terminal marked “g,” “gr,” “ground,” “grounding” or with a \cong symbol) that is located inside the supply terminal box or compartment must be connected to the grounding connection provided in the electric supply service panel with a continuous copper wire equivalent in size to the circuit conductors supplying the equipment.
- Two lugs marked “bonding lugs” are provided on the external surface or on the inside of the supply terminal box or compartment. To reduce the risk of electric shock, connect the local common bonding grid in the area of the cover. Use terminals with an insulated or bare copper conductor not smaller than No. 6 AWG (4.11 mm / 13.30mm²).
- All field-installed metal components, such as rails, ladders, drains or other similar hardware, within 10 ft (3 m) of the spa must be bonded to the equipment grounding bus with copper conductors not smaller than No. 6 AWG (4.11 mm / 13.30mm²). (NEC art. 680).

MODIFICATIONS TO THE COVER**WARNING**

- Any modifications to the cover, such as mechanical, electrical or aesthetic, may cause the cover to operate in an unwanted or dangerous way. Furthermore, these modifications are not permitted and might void the warranty and certification.
- The cover has been designed, tested and certified for the only purpose of covering and securing a spa. Any installation that differs partly or entirely from this purpose will void the warranty and certification.

POSITION OF THE KEY SWITCH



WARNING

- The key switch must be permanently installed and located 5 ft (1.5 m) away from the spa and 5 ft (1.5 m) above the deck or ground level, see [Figure 2](#).
- Make sure the user has a clear view of the cover when operating it.
- The key switch must be located in an area where no water downpour or debris might fall on it.

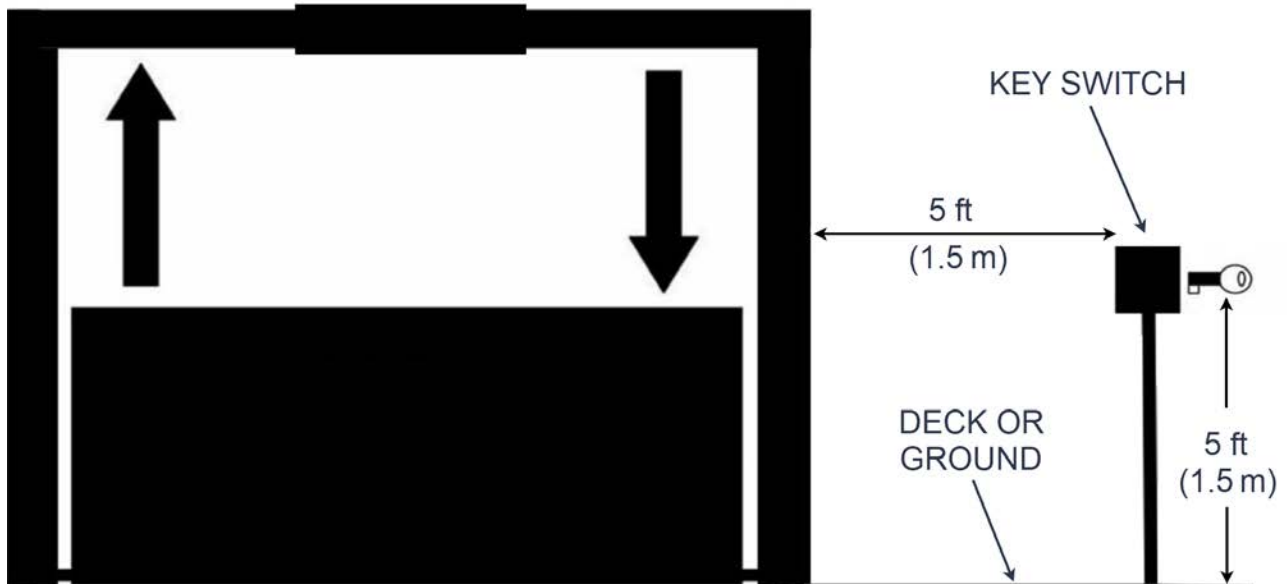



FIGURE 2: POSITION OF THE KEY SWITCH

LABELING

LABELING

This section features the labels affixed to various components for your safety.

 WARNING
<p>Removing any labels on the cover will void product certification.</p> <p>All labels should always remain visible.</p> <p>It is the owner's responsibility to ensure that these labels are always visible and are never removed.</p>

RISK OF ELECTROCUTION

This label warns the user about the risk of electrocution. It is located on the operator.

 WARNING
<p>RISK OF INJURY DISCONNECT OR TURN OFF ALL POWER SUPPLY BEFORE STARTING INTERVENTION ON THE SPA COVER</p>
 AVERTISSEMENT
<p>RISQUE DE BLESSURE DÉBRANCHER OU COUPER L'ALIMENTATION ÉLECTRIQUE AVANT TOUTE INTERVENTION SUR LE COUVERCLE DE SPA</p>
 ADVERTENCIA
<p>RIESGO DE LESIONES DESCONECTAR O APAGAR LA CORRIENTE ELÉCTRICA ANTES DE COMENZAR A TRABAJAR EN LA CUBIERTA DEL SPA</p>

FIGURE 3: RISK OF ELECTROCUTION

INFORMATION ON THE ELECTRICAL CABLES

These labels inform the user about the danger of electrocution with the presence of water near the electrical wiring.

The labels are located on the power cable near the key switch.










<p>95002</p> <p>LIRE LE MANUEL D'INSTRUCTION</p>	<p>RIESGO DE LESIONES EN EL AGUA CUBIERTA ESTANDO PROHIBIDO OPERAR</p>
 ATTENTION	 ADVERTENCIA
<p>READ THE INSTRUCTION MANUAL</p>	<p>RISK OF INJURY WHILE IN WATER DO NOT OPERATE</p>
 CAUTION	
<p>CONNECT ONLY TO A CIRCUIT PROTECTED BY A CLASS A GROUND FAULT CIRCUIT INTERRUPTER</p>	 WARNING
 CAUTION	 AVERTISSEMENT
<p>CONNECTER UNIQUEMENT À UN CIRCUIT PROTÉGÉ PAR UN DISJONCTEUR DIFFÉRENTIEL DE CLASSE A</p>	
 ATTENTION	<p>NE PAS ACTIVER EN ÉTANT DANS L'EAU RISQUE DE BLESSURE</p>
	<p>230548</p>

FIGURE 4: DANGER WITH WATER

KEY SWITCH OPERATION DIAGRAM

This label shows the user how to push the button while turning the key into the key switch to raise or lower the cover.

The label is located on the key switch.

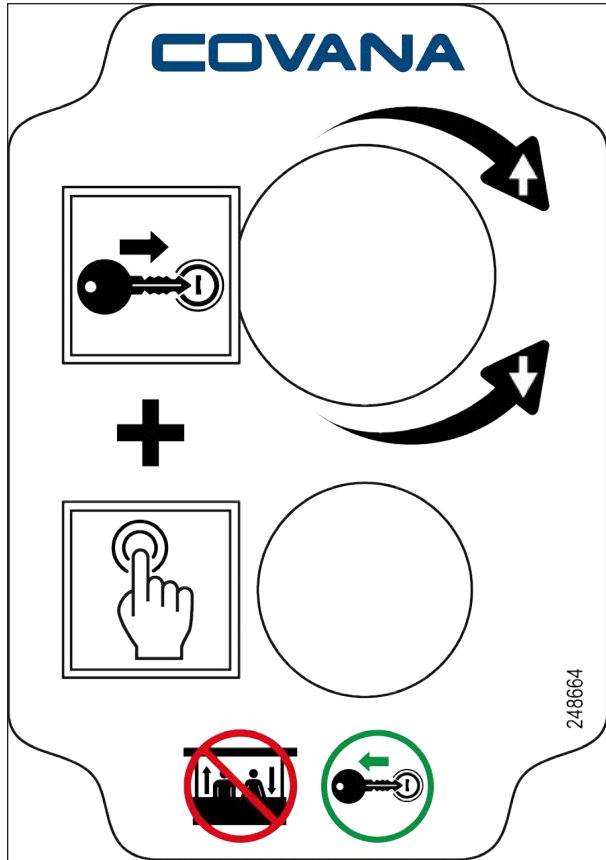


FIGURE 5: KEY SWITCH OPERATION DIAGRAM

TECHNICAL SPECIFICATION LABEL

These labels show the user the important technical specifications. They are located on the operator cover.

The European label is used for the units sold in Europe and the North American label is used for the units sold in North America.

NOTE
 These labels also show the serial number of the cover.

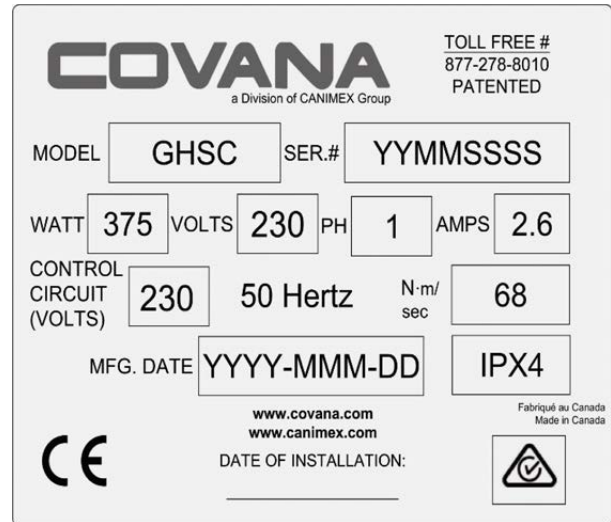


FIGURE 6: TECHNICAL SPECIFICATION LABEL FOR EUROPEAN UNITS

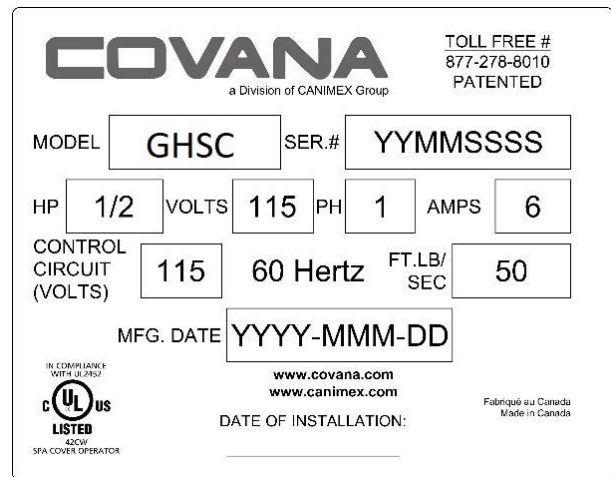


FIGURE 7: TECHNICAL SPECIFICATION LABEL FOR NORTH AMERICAN UNITS

NO STEP LABEL

This label is a reminder not to step on this area of the unit.

The label is located on the top of the operator cover.



FIGURE 8: NO STEP LABEL

PROPOSITION 65 LABEL

This label informs the user that the cover may contain chemicals known to cause cancer or reproductive harm (North American model only).

The label is located on the side of the operator cover.

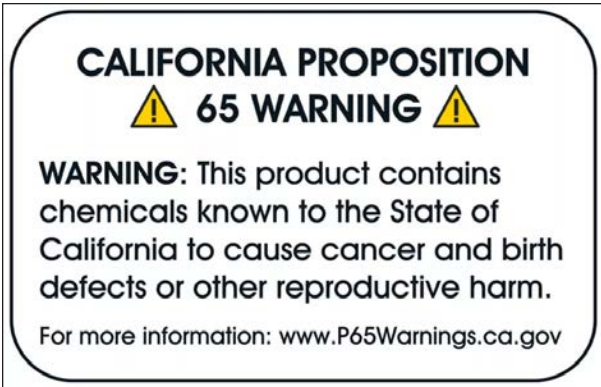


FIGURE 9: PROPOSITION 65 LABEL

AVOID DROWNING LABEL

This label warns the user about the risk of drowning. One label is affixed on each exterior side of the cover.



FIGURE 10: AVOID DROWNING LABEL

DO NOT STEP ON THE COVER LABEL

This label is a reminder not to step on the cover. The labels are located on the end of the C-channels of the cover.

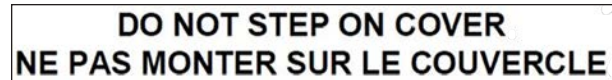


FIGURE 11: DO NOT STEP ON THE COVER LABEL

MAINTENANCE INFORMATION LABEL

This label displays the web site where the user can get more information on maintenance procedures. It is located on one of the C-channels.



FIGURE 12: MAINTENANCE INFORMATION LABEL

TOP LABEL

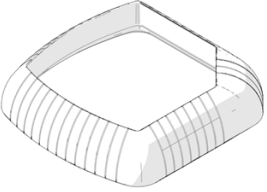

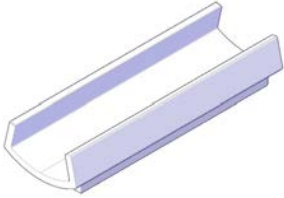

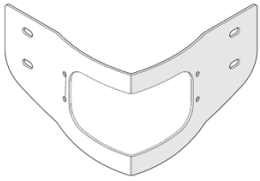
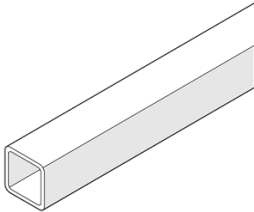
This label is located on the I-Beams and in the escape hatch opening.

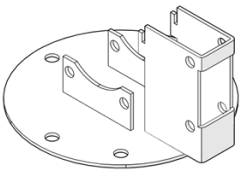
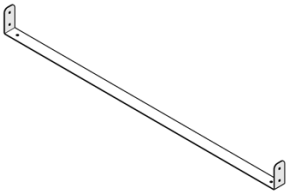


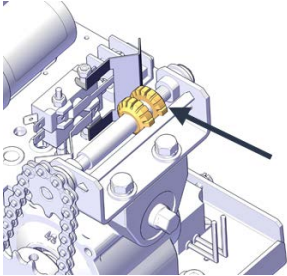
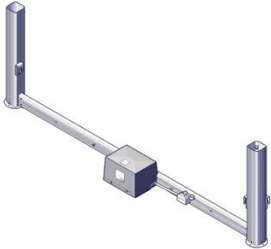



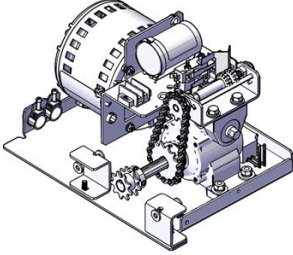

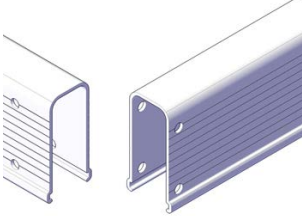
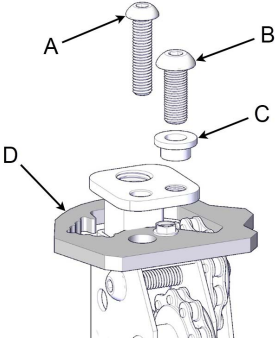
FIGURE 13: TOP LABEL

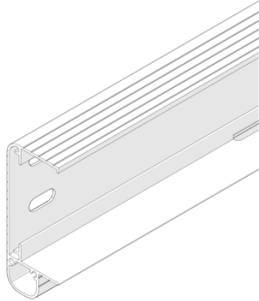
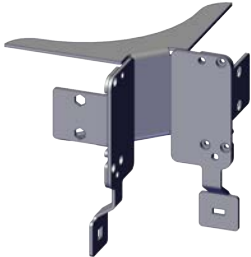


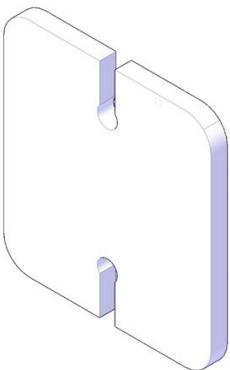
GLOSSARY

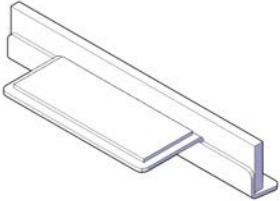
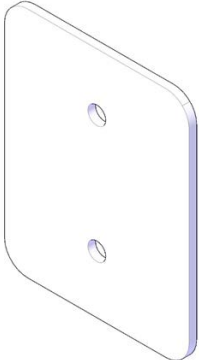
GLOSSARY

PART	IMAGE	FUNCTION
Sleeve all-weather seal		<p>This all-weather seal protects sleeves from damage due to weather.</p>
Contour seal		<p>The contour seal makes sure there is uniform contact between the cover panels and the spa.</p>
Contour seal installation clip		<p>Contour seal installation clips are used during the installation process to make sure the seal is installed properly.</p>
Contour seal connector		<p>The seal connector is used to link both ends of the contour seal.</p>
Outer corner bracket		<p>The outer corner bracket fastens the cover to the sleeves.</p>
Drive shaft		<p>The drive shaft transmits the power from the operator to the non-motor-side jacks.</p>

PART	IMAGE	FUNCTION
Foot bracket		The foot bracket provides a solid footing of the cover and is attached to the bottom of the jack.
Spa entrance U-frame link		This link is installed under the entrance steps of the spa. It links the two non-motor-side posts.
Key switch		The key switch is used to operate the cover.
Foam spacer		The foam spacer is used for the installation process to protect the spa from direct contact with the cover.
Limit switch		The limit switches are located on the operator. Refer to the LIMIT SWITCH ADJUSTMENT section for further details.
Motor frame		The motor frame is composed of two motor-side jacks and the operator.

PART	IMAGE	FUNCTION
Jack		<p>Jacks are a very important component of the cover. They allow the cover to lift up and down.</p>
Operator		<p>The operator powers and controls the lifting mechanism of the cover.</p>
Sleeve		<p>The sleeves are aluminum extrusions to hide and protect the jacks.</p>
U-frame		<p>The U-frames protect the lifting mechanical components and connect all four posts at the bottom.</p>
Jack lock screw (A)		<p>The jack lock screw (A) prevents the non-motor side jacks from extending. Do not remove this screw until the driving shaft is connected.</p> <p>Follow installation steps carefully.</p> <p>A: Jack lock screw B: Top plate screw C: Bushing D: Alignment bracket (red or white)</p>

PART	IMAGE	FUNCTION
C-channel		The C-channel is the outer frame of the cover panels.
Inner corner bracket		The inner corner bracket links the C-Channels. It creates the frame of the cover panels.
Escape hatch		The escape hatch is a removable panel component of the middle cover panel.
I-beam		The I-beams are the aluminum extrusions installed between the cover panels.
I-to-C spacer		The I-to-C spacer is used to prevent over tightening of the I-to-C connection plates.

PART	IMAGE	FUNCTION
Wiper bracket		<p>The wiper bracket is attached under the I-beams. This component ensures the waterproofing of the cover.</p>
I-to-C connection plate (short)		<p>The short I-to-C connection plate is installed between the I-beams and C-Channels.</p>

INSTALLATION AND PREPARATION

INSTALLATION PROCEDURE

This section shows the procedure on how to install your new cover on your spa.

The installation requires two people for certain steps.

Wear the necessary PPE such as protective glasses, boots and gloves.



CAUTION

The cover must be installed by a certified Covana installer. Having the cover installed by someone who is not certified will void the warranty.

Ask your local Covana dealer for information on certified installers.

TOOLS REQUIRED

- Scissors or utility knife
- Robertson screwdriver
- Flat blade screwdriver
- Phillips screwdriver
- Hammer
- 3/8" (10 mm) socket wrench and spanner
- 7/16" (11 mm) socket wrench and spanner
- 1/2" (13 mm) socket wrench and spanner
- #2 x 6" Robertson drive bit
- 7/32" (5.5 mm) Allen key
- 25' (7.62 m) measuring tape
- Rubber mallet
- Power drill
- SAE or metric Socket kit
- 36" (92 cm) level
- Step ladder

- J-Roller with rubber roller
- Masking tape

The following hardware is NOT INCLUDED, but is required for the installation:

- To anchor the jacks to the foundation using at least one of the holes on the foot of each post (we recommend using two holes per post): eight 1/4" (6 mm) concrete anchor bolts for concrete pads or eight 1/4" (6 mm) lag bolts for wood foundations.
- If the four jacks cannot be anchored to the foundation, a set of non-permanent mounting plates is required.
- Four screws to fasten the key switch to its permanent mounting location (0.195" diameter holes).

PREPARATION FOR THE INSTALLATION

To ensure safe use of the cover, it must be installed on a properly prepared surface. It is important to adequately prepare the foundation and carefully read the following recommendations.

SPA LOCATION CONSIDERATIONS

Make sure the future cover location is not subject to the water downpours or debris falling.

Make sure the base of the cover is not in a flood zone. Any damage caused by flooding or water accumulation will not be covered by the warranty.

Make sure there are no obstacles, such as branches or electrical power lines, in the operating area of the cover.

Refer to the Technical Specifications section for cover dimensions

Make sure there is safe access to the spa, free of obstacles or debris.

All the base components of the cover must be supported by the foundation.

Do not converge or directly reflect sunlight on the cover. This could cause permanent damage (Example: reflection from a window).

Make sure the cover is installed on a clean surface free of any vegetation, such as grass, branches or

roots, or mineral contaminants, such as rocks, dust or sand.

The key switch must be permanently mounted and located 5 ft (1.5 m) away from the spa and 5 ft (1.5 m) above the deck or ground level, see [Figure 2](#). This ensures the user has a clear view of the cover when operating it. Furthermore, the key switch terminal should be located in a location where no water downpour or debris could fall on it.



DANGER

Failure to properly install the key switch according to these instructions could result in injury or even death.



WARNING

Failure to permanently install the key switch as indicated could void the warranty and certification. Only proper installation of the key switch combined with the suggested procedures and caution will reduce such risks.

Do not install the cover in an area prone to snow accumulation and water run-off.

FOUNDATION PREPARATION

The cover requires a clean, flat and level surface such as an engineered wood deck or a concrete slab.

Each of the four jacks of the cover must be properly anchored to the foundation using at least one of the holes located on the foot of each post. Use a 1/4" (6 mm) concrete anchor bolt for concrete pads or a 1/4" (6 mm) lag bolt for wood foundations and insert at least 1 1/4" (30 mm) deep (tag bolts and anchor bolts are not included). If you cannot meet these requirements, install a set of non-permanent mounting plates. See [NON-PERMANENT MOUNTING PLATE](#) section for more information.

For an existing foundation, refer to the Technical Specifications section to see the diagram.



WARNING

The non-permanent mounting plates can only be used in areas with low winds (less than 30 mph (50 km/h) in open position).

The non-permanent mounting plates must also be properly installed.

The cover requires a solid foundation. The foundation for the cover must be able to support at least 600 lb. (272 kg).

The foundation must be leveled with a maximum tolerance of 1" (25 mm) over a diagonal section as shown in [Figure 14](#). Refer to Technical Specifications section for information on the minimum base size of the foot print.

The annual variation in levelness for the same diagonal section cannot exceed 1/4" (6 mm)

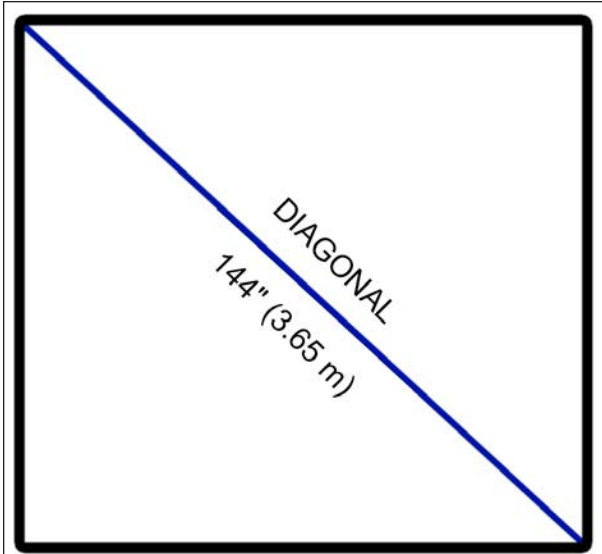


FIGURE 14: FOUNDATION DIAGONAL



CAUTION

Damage caused by inadequate foundation construction is not covered by the Covana warranty. It is the responsibility of the owner to provide a proper foundation.

Failure to follow these guidelines might cause permanent damage or improper functioning of the cover. Such damage might not be covered by the warranty.

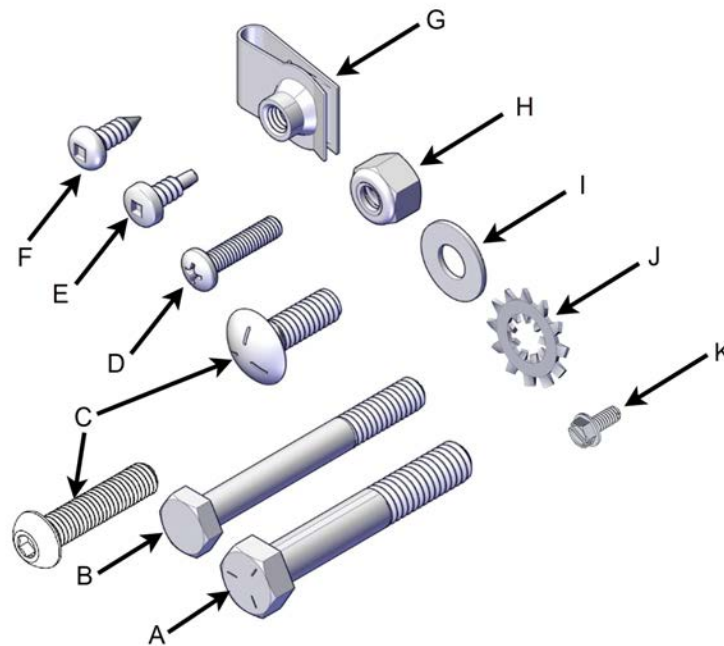
UNPACKING PROCEDURE

The unpacking procedure is in the envelope on the side of the crate.

NOTE

<i>If you find any damage, refer to the Covana Damaged claim form attached to the crate, take pictures and simply refuse the delivery from the carrier.</i>

HARDWARE IDENTIFICATION TABLE



ID	CODE	QTY	DESCRIPTION
A	202000/01	16	5/16-18 x 2" Hex bolt to assemble the lower frame (slate or mocha)
B	188801	4	1/4-20 x 2 1/4" Hex bolt to assemble the feet of the posts
C	202013/14	4	1/4-20 x 3/4" Carriage bolt to assemble the front frame cut-out (slate or mocha)
	240803	8	No. 10-32 x 5/8" socket HD screw to fasten the I-beam assemblies
D	202005/06	18	M6 x 20 mm Screw to fasten the cover and sleeves (slate or mocha)
E	202009/10	16	No. 8 x 1/2" Self-drilling screw to fasten the inner sleeves to the cover (slate or mocha)
F	202011/12	24	No. 8 x 3/4" Self-drilling screw to fasten the corner brackets (slate or mocha)
G	202159	2	M6 Clip-on nut to secure the sleeves on each post
H	213128	8	1/4-20 Nylon-insert lock nut to fasten post feet with front cut-out
	200425	8	No. 10-32 Hex nut for I-beam assemblies
	202002/03	16	5/16-18 Nylon-insert lock nut to connect the U-frames (slate or mocha)
I	198684	32	5/16" Nylon washer to connect the U-frames
	201998/99	16	1/4" Painted washer (slate or mocha)
	240801	8	5/8" Flat washer
J	224035	2	1/4" Int./Ext. Tooth lockwasher to fasten sleeve bottom with M6 x 20 mm screw
K	200368	2	8-32 x 3/8" Hex slotted thread-cutting screw to add between the metal coupler and U-frame link

ASSEMBLY PREPARATION

This section shows you how to assemble the cover panels.

FOAM SPACER INSTALLATION

NOTE

The following figures represent the assembly of an 8' model. Panel size may vary.

1. Install foam spacers on the top of the spa near each corner. Use the masking tape provided in the seal bag to keep the spacers in place. Install at least 3 foam spacers on each longest side. Do not stack foam spacers, see [Figure 15](#).

CAUTION

The foam spacers must be placed on the flat top surface of the spa. The spa must indeed have a flat surface without any protruding headrests.

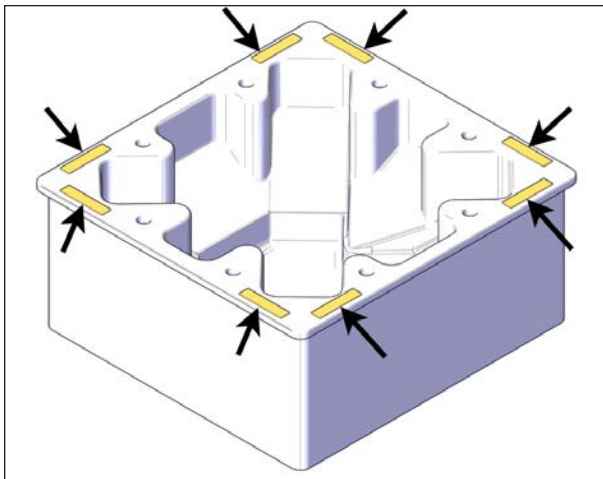


FIGURE 15: FOAM SPACER INSTALLATION

I-BEAM CONNECTION PLATE INSTALLATION

NOTE

Make sure the label TOP/DESSUS in the I-beam is facing upwards, see [Figure 16](#).



FIGURE 16: TOP ORIENTATION OF I-BEAM

1. Assemble the two I-beam short connection plates as shown in [Figure 17](#).
2. Use #10-32 x 5/8" screws and #10-32 nuts. Insert the I to C spacer in between the I to C connection plate and the bracket. The screws and nuts can now be properly tightened, see [Figure 17](#).

CAUTION

Two I to C connection plates must be installed per I-beam.

Ensure these bolts and nuts are not overly tight so they don't bend the I to C-bracket and the I to C short connection plate.

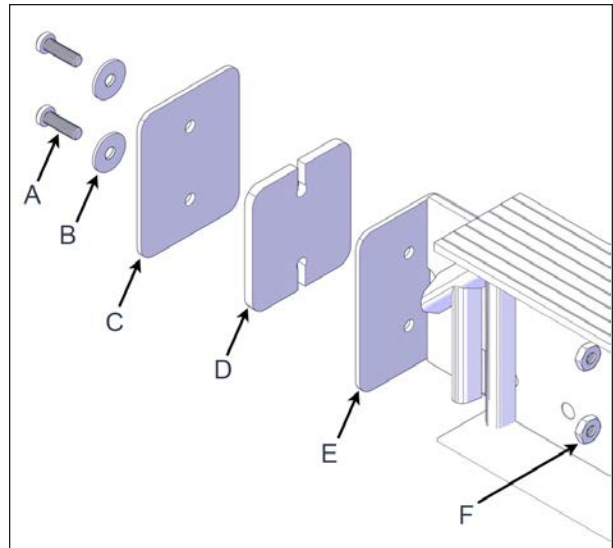


FIGURE 17: I-BEAM WITH THE SHORT I TO C CONNECTION PLATE INSTALLATION

ID	DESCRIPTION
A	SCREW #10-32 X 5/8"
B	FLAT WASHER #10
C	I TO C SHORT CONNECTION PLATE
D	I TO C SPACER

ID	DESCRIPTION
E	BENT PART OF I TO C BRACKET
F	NUT #10-32

COVER PANEL ASSEMBLY

NOTE

It is recommended to use a table as a base to build the top section of the cover, and later transfer it to the spa once it is assembled.

If you use a table, use foams to support the cover assembly to prevent any damage to the cover.



CAUTION

If there is limited space, follow the next steps while assembling directly onto the spa. Avoid scratching the spa or any components of the cover.

1. Install the center cover panel, with an opening in the center, on the mounting table, see [Figure 18](#). Ensure the TOP/DESSUS label located in the panel hole is properly oriented.

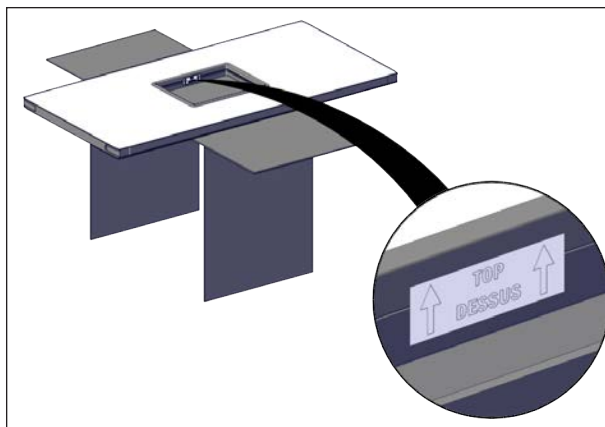


FIGURE 18: PANEL INSTALLATION

2. Locate the escape hatch box.
3. On the escape hatch, check if the release mechanism is working well. Make sure that the hatch arms are retracted when open and non-retracted when closed, see [Figure 19](#).

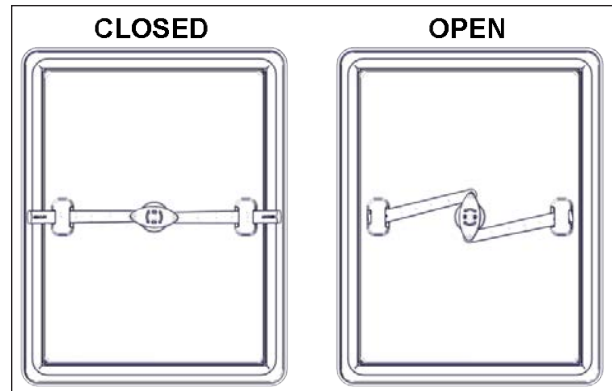


FIGURE 19: ESCAPE HATCH LOCKING MECHANISM

4. Turn the escape hatch handle to retract the arms and install it into the escape hatch opening of the center panel, see [Figure 20](#).



WARNING

Failure to install the escape hatch properly may impede the performance of the cover, such as vapor steam leakage, water infiltration and unwanted access to the spa.

All security risks such as drowning, injury or undesired entry due to an open cover without an escape hatch installed are not approved by Covana and product certification will be void.

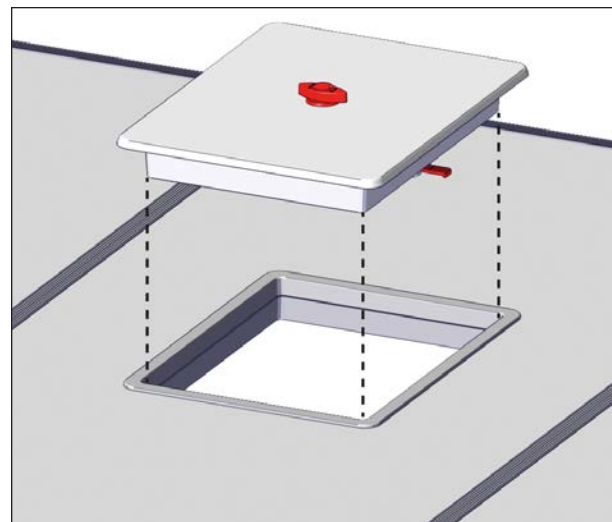


FIGURE 20: ESCAPE HATCH INSTALLATION

NOTE

The cover is rectangular; The motor frame assembly will need to be installed on the short side of the cover.

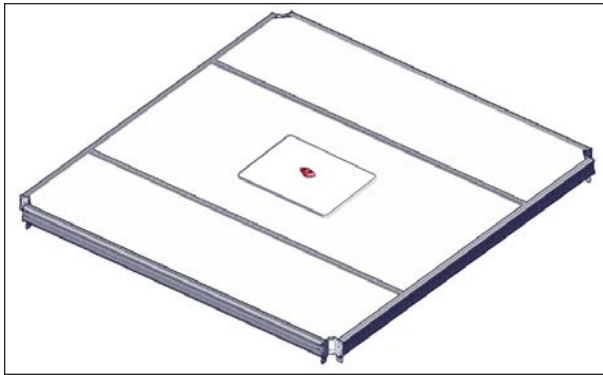


FIGURE 21: RECTANGULAR COVER

5. Install the longer C-Channels on the center panel, see [Figure 22](#).

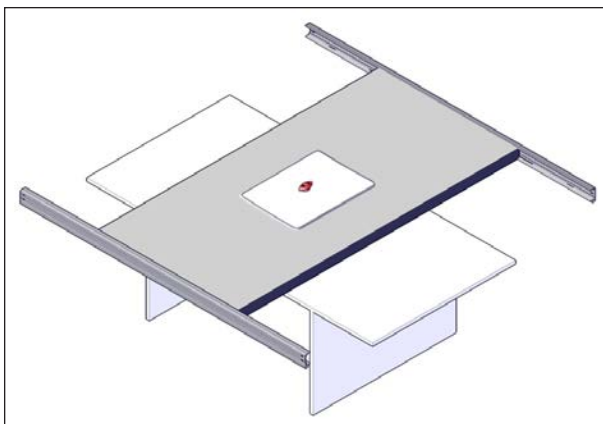


FIGURE 22: C-CHANNEL INSTALLATION



WARNING

When mounting the C-channel onto foam panel, be careful not to delaminate the fiberglass.

6. Slide one I-beam with short I to C connection plates in the C-channels on both sides of the middle panel, see [Figure 24](#) and [Figure 25](#). Install the I-beams so that the bent portion of the I to C connection plate is pointing outwards, see [Figure 26](#).

NOTE

Make sure the label in the I-beam is facing upwards, see [Figure 23](#).



FIGURE 23: TOP ORIENTATION OF I-BEAM



CAUTION

Make sure the I-beam has cleared the bottom and top sections.

While inserting the I-beam in the C-channel, make sure it is always square with the C-channel.

Make sure parts fit snugly with foam panels.

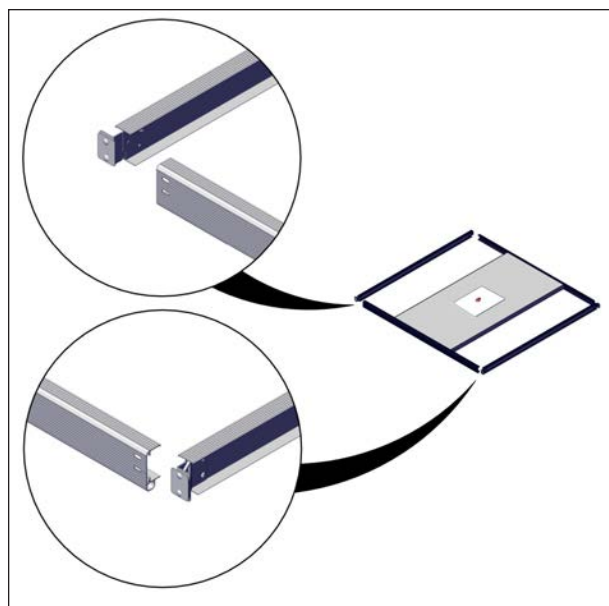


FIGURE 24: I-BEAM INSTALLATION

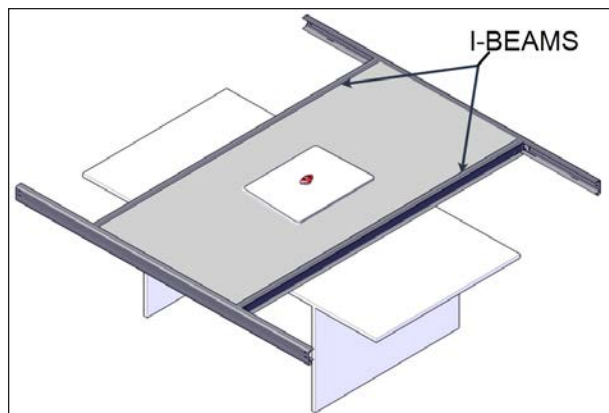


FIGURE 25: I-BEAM FINAL POSITIONS

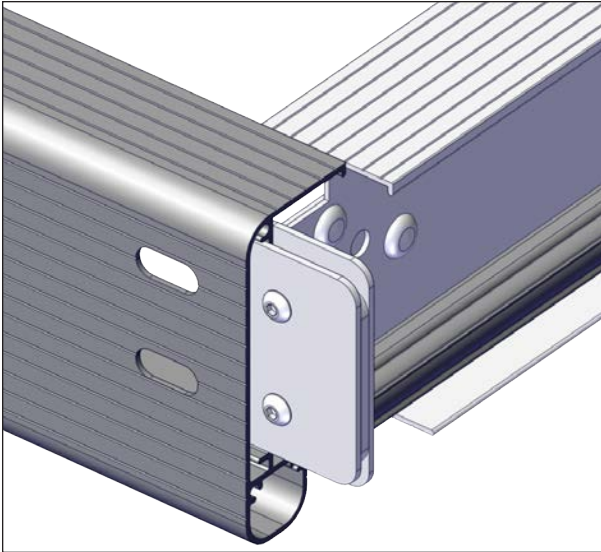


FIGURE 26: C-CHANNELS / I-BEAM INSTALLATION

- Slide the end panels on both ends of the cover. Make sure the I-beams have slid over the panel on both bottom and top sides, see [Figure 27](#).

NOTE

The tapered ends of the panel should be positioned outwards.

 **CAUTION**

Make sure that the panels are pushed as far as possible by hand and are completely inserted in the I-beam.

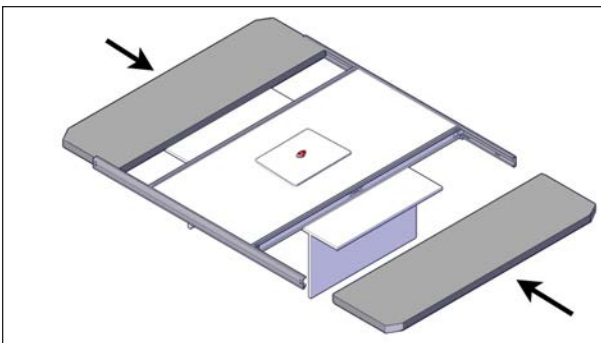


FIGURE 27: END PANELS

NOTE

Ensure that the panel groove is oriented downwards.

- Insert the inner corner brackets in both ends of the remaining C- channels. Use the provided Robertson sheet metal #8 x 3/4 in. screws on the inside holes, see [Figure 28](#).

 **CAUTION**

Do not overtighten the screws to avoid thread damage.

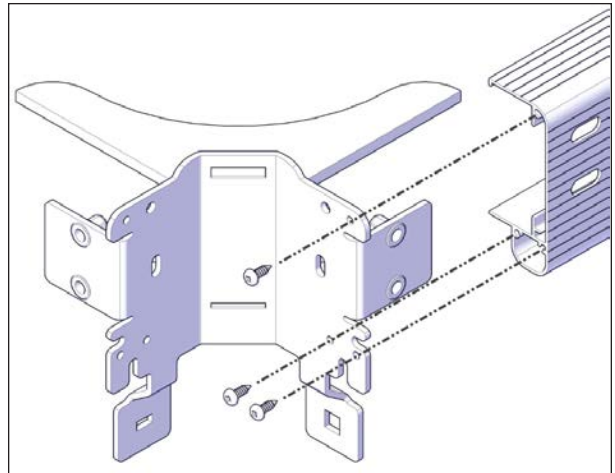


FIGURE 28: CORNER BRACKET INSTALLATION

- On one end of the cover, slide one corner brackets and C- channel assembly, see [Figure 29](#). It is recommended to slightly engage the top flange before the bottom when sliding the C-Channel onto the foam panel.

 **CAUTION**

When assembling the C-Channel onto the foam panel, be careful not to delaminate the fiberglass.

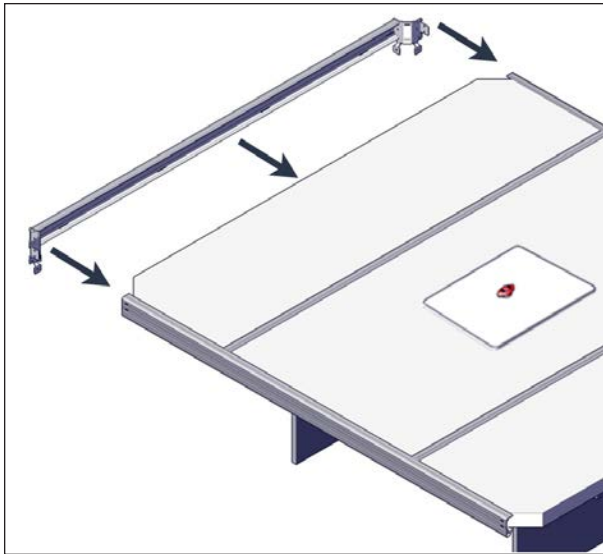


FIGURE 29: CORNER AND C-CHANNEL INSTALLATION

10. On the other end of the cover, slide the other corner bracket and C-channel assembly.
11. Use a 50 ft. (15 m) ratchet strap on each side to tighten the panels snugly in place. This operation is necessary for the next steps, see [Figure 30](#).

CAUTION

Use cardboard or non-abrasive material under the ratchet of the straps. The ratchet could damage the fiberglass panel and the beams.

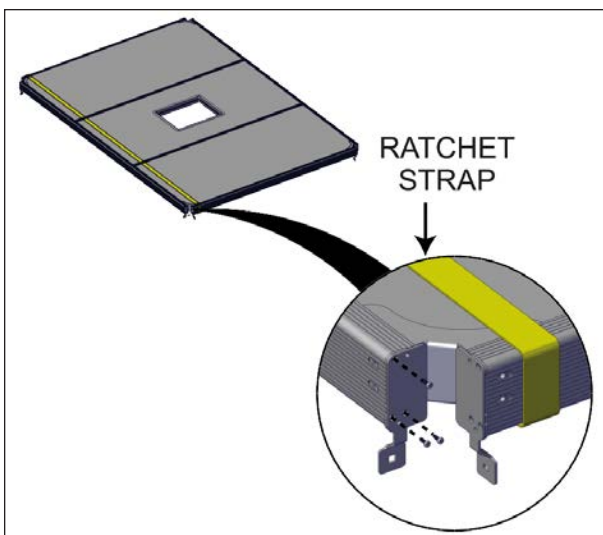


FIGURE 30: FOAM PANEL STRAPPING ON CORNERS

12. On both corners of the assembly, install the Robertson sheet metal #8 x 3/4 in. screws on

the inside holes of the side C-channels, see [Figure 31](#).

WARNING

Do not overtighten screws as they might break.

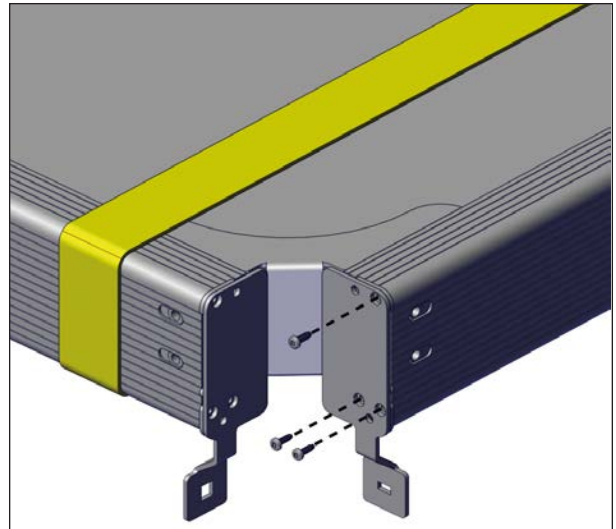


FIGURE 31: FASTEN CORNERS ON THE C-CHANNEL

13. Repeat the previous steps for the other side of the cover.
14. Remove both ratchet straps.
15. Carefully position the panels on the spa. Try to align the cover as best as possible.

CAUTION

Failure to correctly position the cover on the spa could result in scratching of the acrylic or damaging the cover.

Make sure the foam spacers are correctly aligned under the I-beams and they are installed in each corner of the spa.

LIFTING MECHANISM INSTALLATION

1. Install the motor frame in place, usually to the opposite side of the spa entrance, see [Figure 32](#). The motor frame must be installed on the short side of the cover.

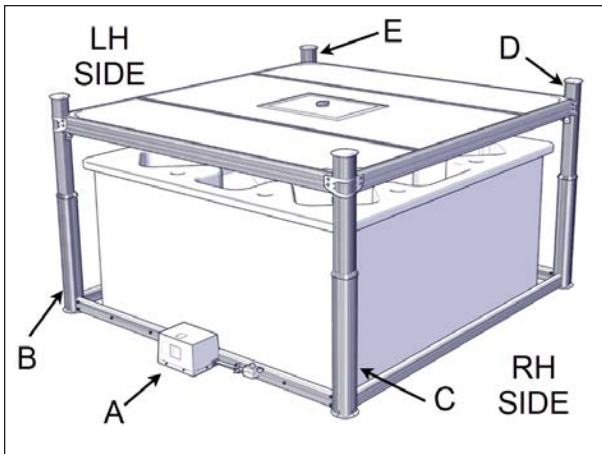


FIGURE 32: OPERATOR AND JACKS INSTALLATION

ID	DESCRIPTION
A	OPERATOR
B	MOTOR SIDE LEFT JACK
C	MOTOR SIDE RIGHT JACK
D	NON-MOTOR SIDE RIGHT JACK
E	NON-MOTOR SIDE LEFT JACK

**WARNING**

Do not remove the alignment bracket on the top of the jack (plastic part).

IMPORTANT NOTE

The next steps are side-specific. They are for the non-motor left-hand side foot assembly.

2. Install a foot bracket to the non-motor side jack. Make sure to align the foot bracket on the right side of the U-frame shaft as shown, see [Figure 33](#).

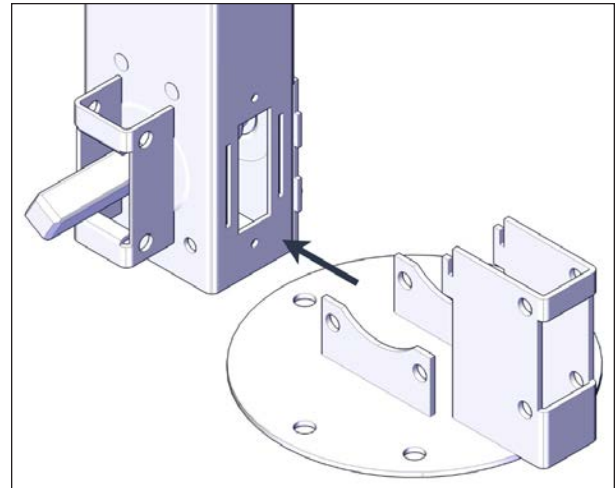


FIGURE 33: FOOT BRACKET INSTALLATION

3. Slide the alignment vertical legs of the foot in the bottom alignment slots of the jack, see [Figure 33](#) and [Figure 34](#).

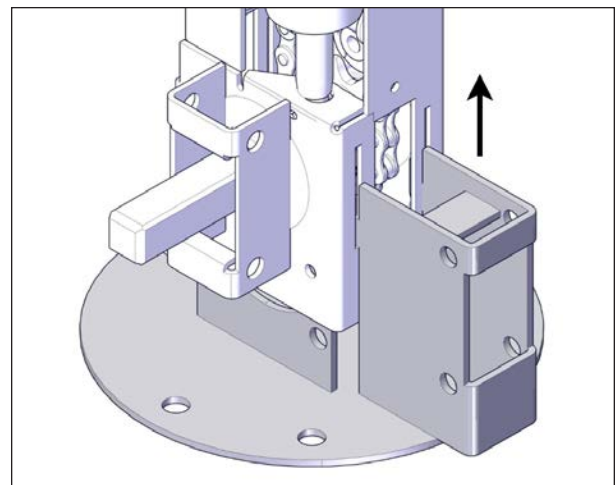


FIGURE 34: INSERT LEGS IN SLOTS

4. Push upwards to lock in place, see [Figure 34](#). Make sure to get a full contact with the bottom plate. Use a rubber mallet if necessary.
5. Install two 1/4" x 2 1/4" hexagonal head screws and nylon-insert lock nuts. Use the appropriate socket wrench spanner to fasten the foot in place, see [Figure 35](#).

**CAUTION**

To prevent the mechanism from bending inward, do not overtighten the screws.

Make sure you respect the orientation of the fasteners, as shown in [Figure 35](#).

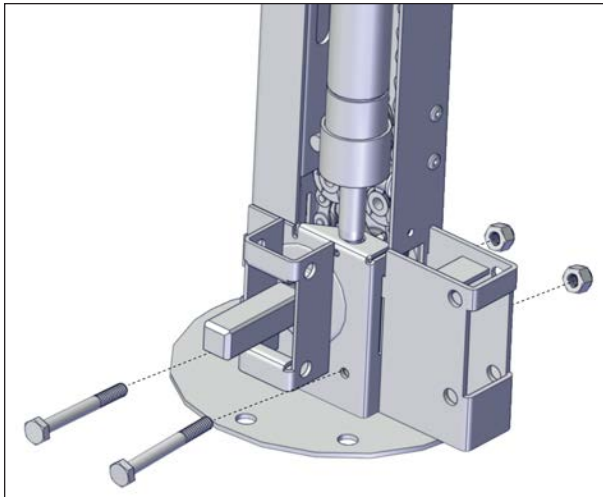


FIGURE 35: SCREW INSTALLATION

6. Repeat previous steps with the non-motor right-hand side foot.

CAUTION

Posts will fall easily when installed upright with the foot installed. Secure the posts by laying them down before proceeding with next step.

7. Position the left non-motor-side jack in the remaining corner of the cover. The square shaft at the bottom of the jack should face toward the motor frame, and the U-frame bracket should be inwards. If not, review the previous steps to install the left and right post feet.
8. Slide the drive shaft over the square shaft located at the bottom of the left motor-side jack assembly, see [Figure 36](#).

NOTE

The drive shafts are in the two long U-frames. Remove the plastic film to locate them.

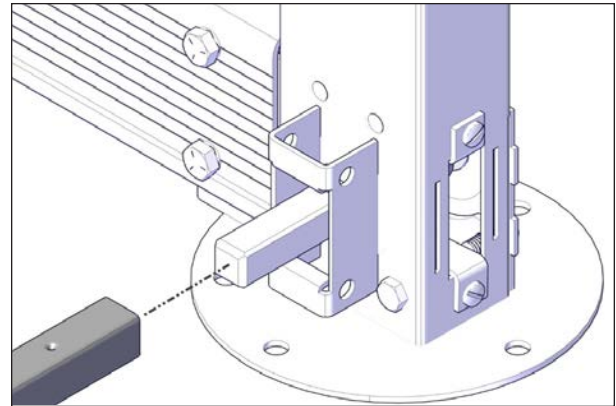


FIGURE 36: DRIVE SHAFT INSTALLATION

9. Hold the left-hand non-motor-side jack assembly upright and in line with the left drive shaft. Use a 3/4" adjustable wrench to carefully rotate the square shaft of the jack to align with the drive shaft, see [Figure 37](#).

CAUTION

Make sure the drive shaft is fully installed before proceeding further in the installation process. Using the jack without the drive shaft properly connected may cause injury.

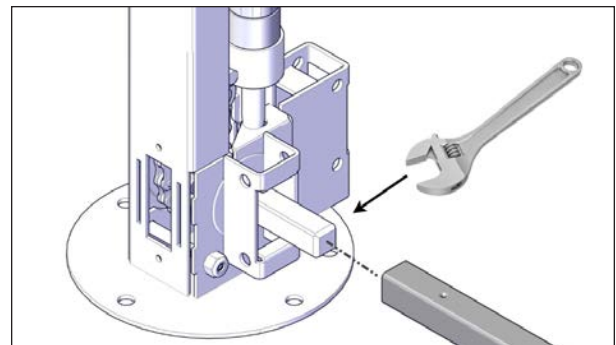


FIGURE 37: DRIVE SHAFT INSTALLATION

10. Install the long aluminum U-frame over the left drive shaft and make sure it lines up with the motor-side and non-motor-side jack assemblies. Fasten in place using two hexagonal 5/16"-18 x 2" screws, two 5/16"-18 nylon-insert lock nuts and four 5/16" plastic washers (2 per side) with the 1/2" (13 mm) socket wrench and spanner, see [Figure 38](#).

NOTE

Do not fully tighten the screws.

The drive shaft may fall off during operation, and reassembling can be done faster when the screws have not been fully tightened, see [Figure 38](#).

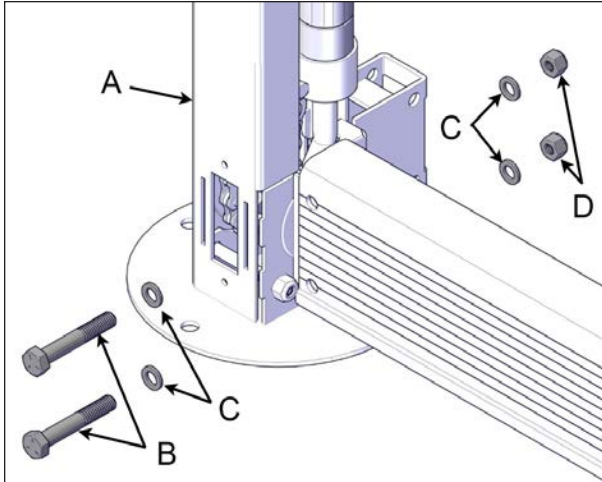


FIGURE 38: LONG U-FRAME INSTALLATION

ID	DESCRIPTION
A	NON-MOTOR SIDE JACK
B	5/16" x 2" HEX HEAD SCREWS
C	PLASTIC WASHER
D	5/16" NYLON INSERT LOCKNUT

11. Repeat previous steps on the opposite side.
12. Install one unpainted metal coupler on each end of the spa entrance U-frame link, see [Figure 39](#).
13. Align one coupler with the holes on each end of the spa entrance U-frame link. Fasten with the provided 1/4" x 3/4" carriage bolts and 1/4" nylon-insert lock nuts using the 7/16" (11 mm) socket wrench and spanner. There is one metal coupler per side, see [Figure 39](#).
14. Insert an 8-32 x 3/8" Hex slotted thread-cutting screw in the center hole on each end of the spa entrance U-frame link, see [Figure 39](#).

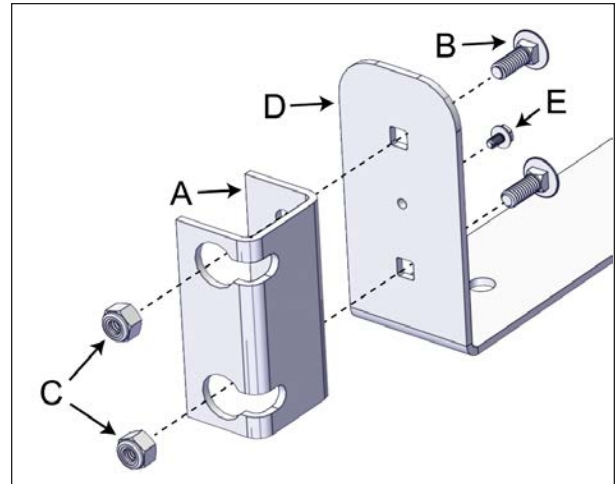


FIGURE 39: SPA ENTRANCE U-FRAME LINK AND METAL COUPLER

ID	DESCRIPTION
A	UNPAINTED METAL COUPLER
B	1/4" x 3/4" CARRIAGE BOLT
C	1/4" NYLON INSERT LOCK NUT
D	SPA ENTRANCE U-FRAME LINK
E	8-32 x 3/8" HEX SLOTTED THREAD-CUTTING SCREW

15. Fasten a short U-frame to each end of the spa entrance U-frame link and then install the entire assembly between the front posts. Use four hexagonal 5/16"-18 x 2" bolts, four 5/16"-18 nylon-insert lock nuts, and eight 5/16" washers (4 per side). Use the 1/2" (13 mm) socket wrench and spanner, see [Figure 40](#).

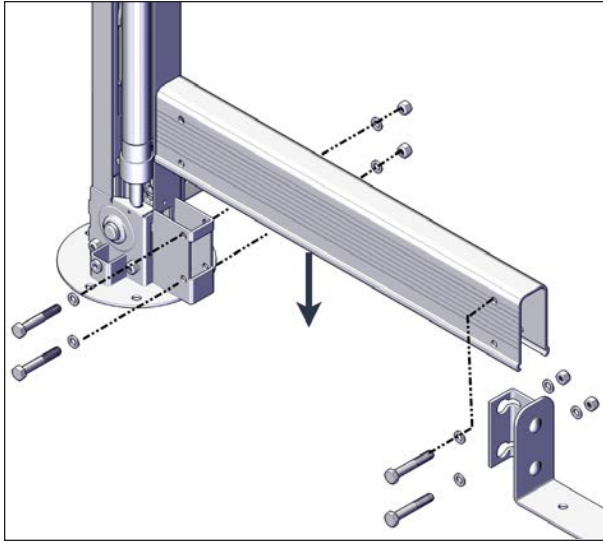


FIGURE 40: SHORT U-FRAME INSTALLATION

16. Check whether the drive shafts fell off during installation. If so, review the previous steps. If not, tighten all U-frame screws.



DANGER

Failure to verify the proper installation of the drive shafts could result in the non-motor-side jacks extending on their own.

17. Once all the drive shafts are installed, the jack lock screws located at the top of the non-motor-side jacks can safely be removed. Remove the Allen M8 x 50 mm screw from each jack and keep them for future use, see item "A" in [Figure 41](#).



WARNING

Failure to remove the locking screws will damage the lifting mechanism when operating.

Do not remove the alignment bracket on the top of the jack (plastic part).

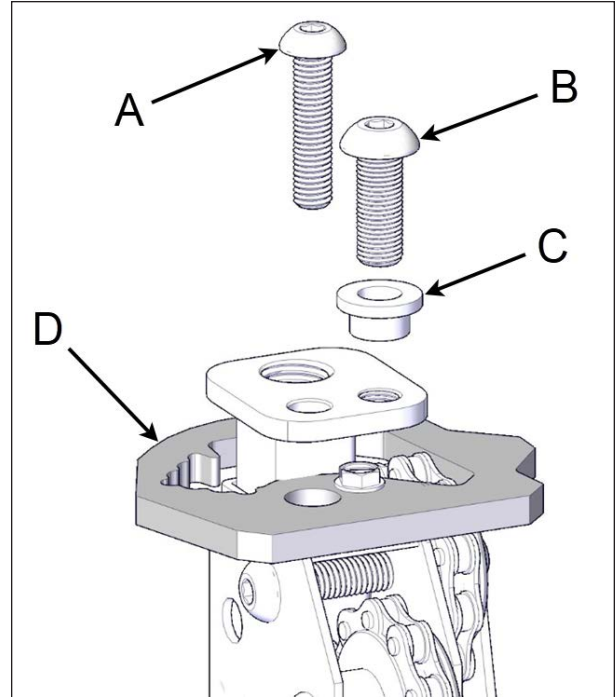


FIGURE 41: JACK LOCK SCREW (ITEM A)

ID	DESCRIPTION
A	M8 x 50mm JACK LOCK SCREW
B	3/8" x 1" SOCKET HD SCREW
C	BUSHING
D	ALIGNMENT BRACKET (PLASTIC)

18. Unscrew the 3/8" x 1" Allen bolt with a 7/32" (5.5 mm) socket on the top of all four jack assemblies, see item "B" in [Figure 41](#). Keep these screws and bushings (item "C") in a safe location for future use.
19. Install the clip-on barrel nuts at the bottom of the non-motor-side jack assemblies to hold the sleeves in the bottom. Use Phillips M6 x 20 mm screws and 1/4" int./ext. tooth lockwashers. Only the non-motor-side jack assemblies need clip-on barrel nuts to be installed, see [Figure 42](#).

NOTE

Do not fully screw in the M6 screws; a gap is needed to slip on the sleeves.

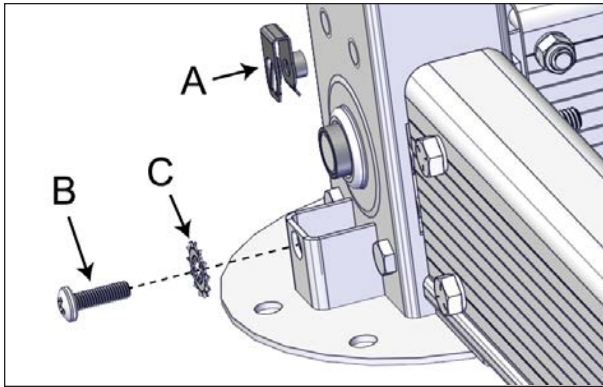


FIGURE 42: CLIP-ON BARREL NUT INSTALLATION

ID	DESCRIPTION
A	CLIP-ON BARREL NUT
B	M6 SCREW
C	1/4" INT./EXT. TOOTH LOCKWASHER

20. Slide the sleeves over all four jacks, see [Figure 43](#).

NOTE

Be sure to align the cutouts at the bottom of the sleeves with the U-frames.

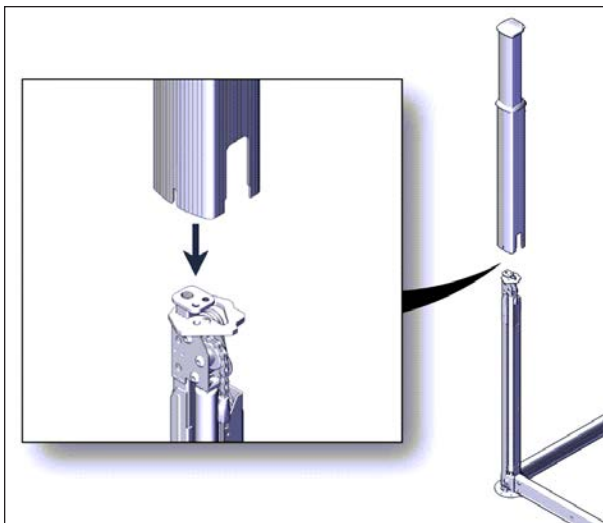


FIGURE 43: SLEEVE INSTALLATION

21. Fasten the sleeve with the Phillips M6 x 20 mm screws at the bottom of all four sleeves, see [Figure 44](#).

**CAUTION**

Make sure that the lockwasher is located on the outside of the outer sleeve.

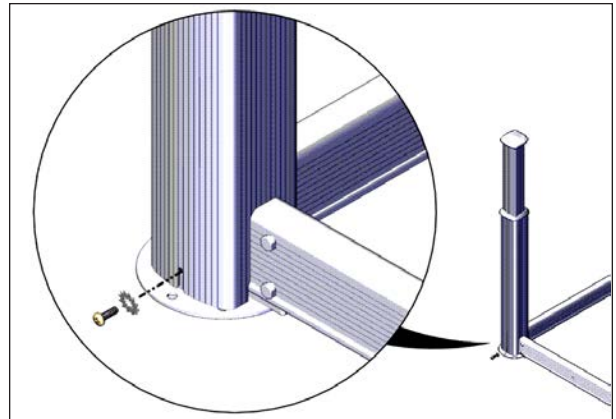


FIGURE 44: MOUNTING SCREW ON THE SLEEVE

22. Install the all-weather seal on each post and make sure it is slid all the way down against the top of each outer sleeve, see [Figure 45](#).

**WARNING**

Failing to properly position this seal may cause serious damage to the post mechanism.

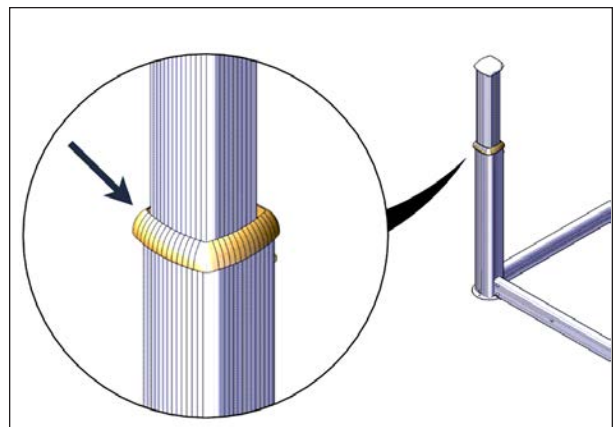


FIGURE 45: ALL-WEATHER SEAL INSTALLATION

23. Install the previously removed 3/8" x 1" Allen screw on the jacks with a 7/32" (5.5 mm) socket. The narrow part of the bushing must be facing downwards, see [Figure 46](#).

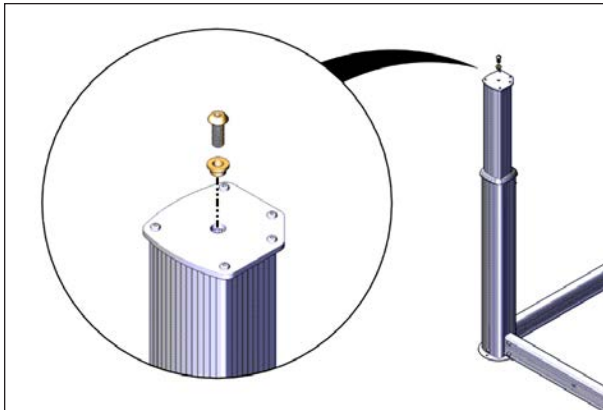


FIGURE 46: FASTEN THE SLEEVE TO THE JACK

24. Make sure the cover is centered on the spa. Use a measuring tape on all four sides and make sure it is still resting on the foam spacers.
25. Check if all posts are vertically leveled with a 36" (92 cm) long level. You will need to verify the front and right sides of each post with the level.
26. Install the outside corner brackets following the installation sequence shown in [Figure 47](#). The first bracket goes to corner number 1 and so on.

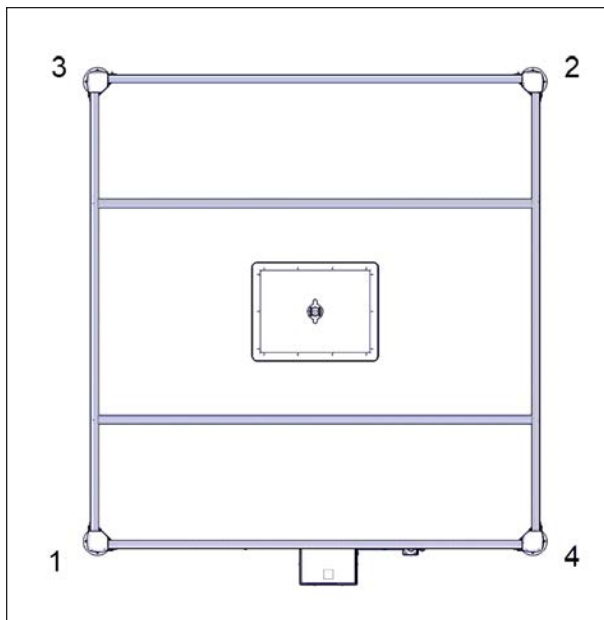


FIGURE 47: INSTALLATION PATTERN FOR THE OUTER CORNER BRACKETS

27. Install the first outer corner bracket as shown in [Figure 48](#). Fasten the bracket to the cover

C-Channels with four painted Phillips M6 x 20 mm bolts and 1/4" painted washers. Install the first screw on position A and for the remaining screws, keep following the pattern shown in [Figure 48](#).



WARNING

Make sure the sleeve is correctly pressed against the outer shell before installing the M6 x 20 mm screws.

NOTE

We recommend orientating the corner bracket with the rounded edge towards the **bottom**.

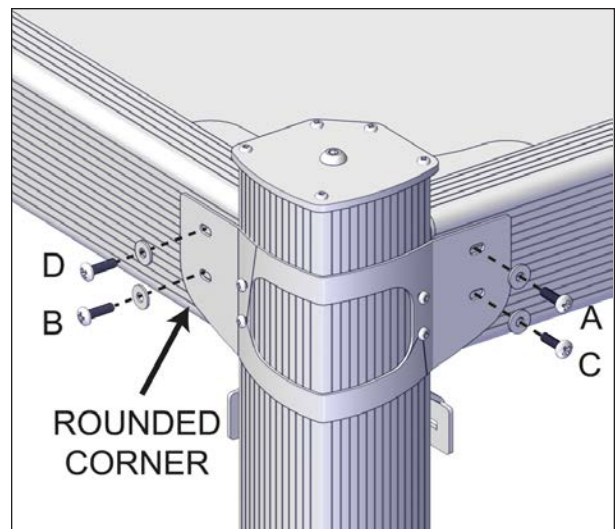


FIGURE 48: CORNER BRACKET INSTALLATION PATTERN

28. Install #8 x 1/2" self-tapping screws (4) to fasten the corner bracket to the sleeve and follow the A to D pattern shown in [Figure 49](#).



CAUTION

Tighten screws with care; self-tapping screws can break when screwed in too hard.

NOTE

When screwing in the screws, it is recommended to pull the post towards you for a better fit of the corner bracket. This will diminish the possible gap.

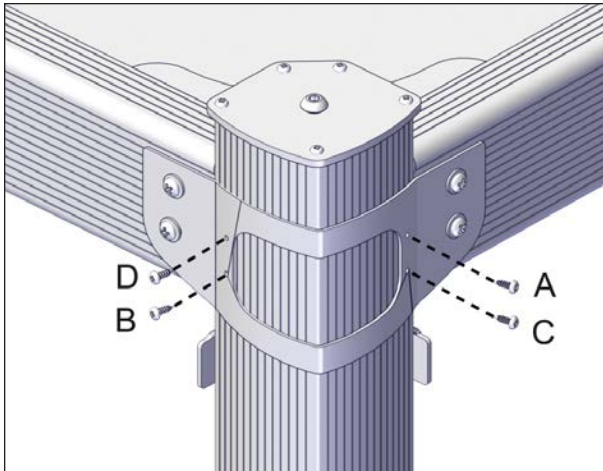


FIGURE 49: INSTALLATION PATTERN FOR CORNER BRACKET SCREWS ATTACHED TO THE SLEEVE

29. Check the installation of the brackets by trying to lift each sleeve. Review previous steps for any broken screws or to retighten screws if the sleeve keeps moving, see [Figure 50](#).

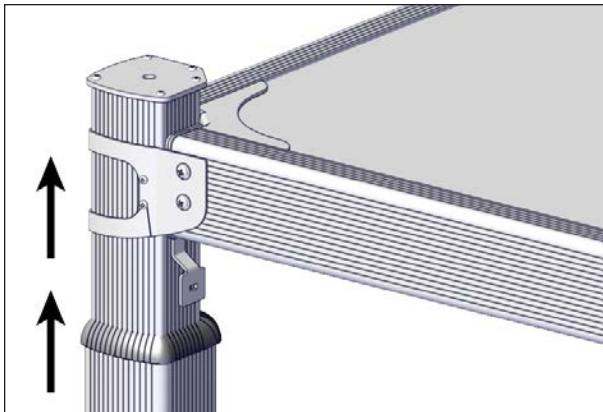


FIGURE 50: CHECKING THE SLEEVE INSTALLATION

30. Install the rubber caps on all posts. These caps are in the parts box and protect the post assembly tops from weathering, see [Figure 51](#).

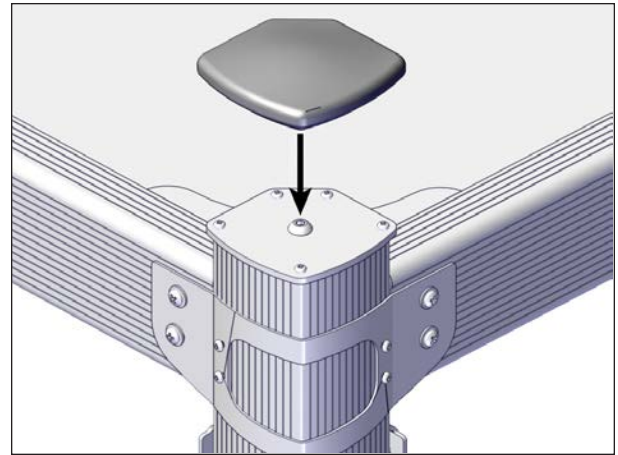


FIGURE 51: RUBBER CAP INSTALLATION



CAUTION

The four jacks will have to be anchored to the foundation after the [TESTING THE COVER](#) section (next section). If they cannot be anchored, a set of non-permanent mounting plates will need to be installed.

TESTING THE COVER

1. Plug in the cover. Have a certified electrician to complete the electrical hook-up and refer to the Electrical diagrams section.



WARNING

All electrical connections must be done by a certified electrician.

2. Make sure there is no object directly above the cover or in its lifting path while performing this test. Refer to the instructions in the [LIMIT SWITCH ADJUSTMENT](#) section if adjustment is required.
3. Use the key switch to raise the cover to a maximum of 8" (20 cm) and then stop. Make sure the cover lifts evenly (no corners higher than the others).
4. Lower the cover completely and make sure it is touching all foam spacers on the spa top perimeter.
5. Raise the cover all the way up and pay attention to any unusual sounds (metal screeching or knocking). If so, consult the

[TROUBLESHOOTING](#) section or contact your local dealer.

6. Lower the cover and make sure it stops at the point of contact with all the foam spacers on the spa. If not, adjust the corner brackets (see corner bracket installation in the Lifting Mechanism section).
7. Check if the posts are still leveled before anchoring. Use a 36" (92 cm) long level.

 **CAUTION**

When operating the cover, the user must always have a clear view of the cover and its surroundings.

8. The four jacks of the cover must now be anchored to the foundation using at least one of the holes located on the foot of each post. Use a 1/4" (6 mm) concrete anchor bolt for concrete pads or a 1/4" (6 mm) lag bolt for wood foundations and insert at least 1 1/4" (30 mm) deep. If you cannot meet these requirements, install a set of [NON-PERMANENT MOUNTING PLATES](#).



FIGURE 52: ANCHOR THE JACKS TO THE FOUNDATION

KEY SWITCH INSTALLATION

 **DANGER**

The key switch must be permanently mounted and located 5 ft away from the spa and 5 ft above the deck or ground level. This ensures the user has a clear view of the cover when operating it. Furthermore, the key switch terminal should be located in a location where no water downpour or debris could fall on it.

Failure to properly install the key switch according to these instructions could result in injury or even death.

Fasten the backplate of the key switch to its permanent mounting location using screws (not included) in the four 0.195" diameter holes, see [Figure 53](#).

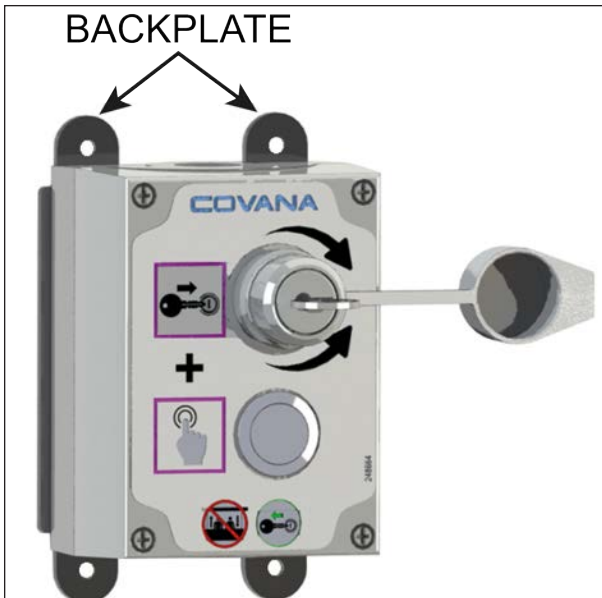


FIGURE 53: FASTEN THE BACKPLATE WITH FOUR SCREWS

NON-PERMANENT MOUNTING PLATES

If you don't have non-permanent mounting plates, skip this section.

NOTE

This setup is only available for spa base sizes larger than 82" wide.

1. After the unit has been installed, but before installing the seal, proceed with the non-permanent mounting plate installation. Using the key switch, raise the cover to make room to slightly lift the spa.

NOTE

Three installers are required. Two installers should lift the spa at one end approximately 4" off the ground while the third installer slips the non-permanent mounting plates under the spa and hooks them over the U-frame, see [Figure 54](#) and [Figure 55](#).

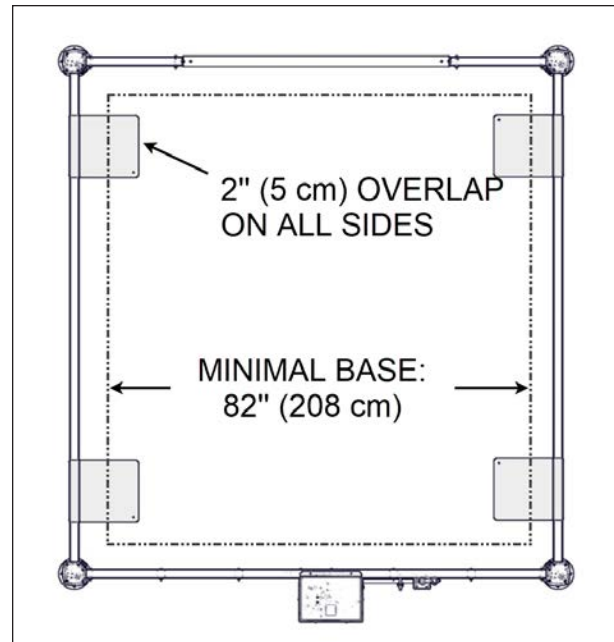


FIGURE 54: LOCATION OF THE PLATES

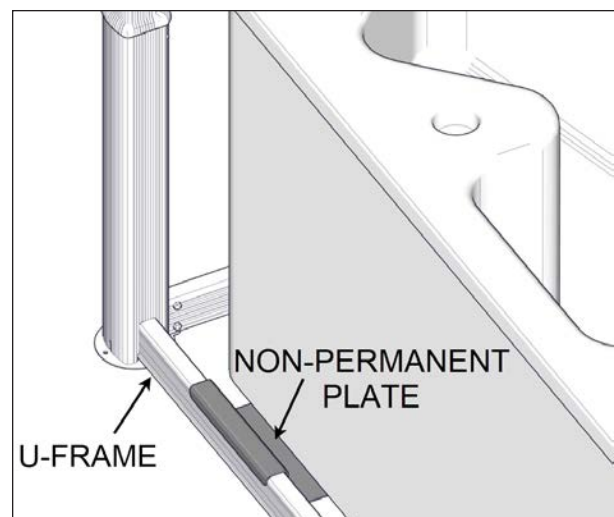


FIGURE 55: NON-PERMANENT MOUNTING PLATE INSTALLATION

2. Repeat the previous steps for all the plates.

NOTE

The plates must be installed over the U-frame (two on each side).

3. The proper disposition of the plates is determined by the size of the spa. Position the plates as close as possible to the corners of the spa.
4. Once the plates are under both sides of the spa and once they have been properly

positioned over the U-frames, you may continue with the wiper installation.

WIPER INSTALLATION

1. Lift the cover halfway up to proceed to the next steps. The next steps are important to minimize water intrusion.

CAUTION

There are four wipers.
 Make sure the I-beams are dry and clean.
 Make sure the ambient temperature is between 70 °F to 100 °F (21 °C to 38 °C) for the wiper installation.

2. Peel back the red siding of the double-sided tape of one wiper, see [Figure 56](#).

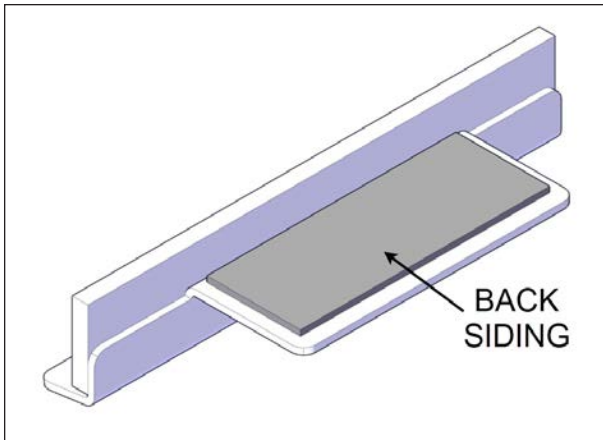


FIGURE 56: PEEL BACK WIPER SIDING

3. Under the cover, locate an I-beam and orientate the wide flap of the wiper outwards of the cover, see [Figure 57](#).

WARNING

Failure to properly install the wiper impedes performance.
 Failure to install each wiper bracket properly can result in excessive cover leakage.

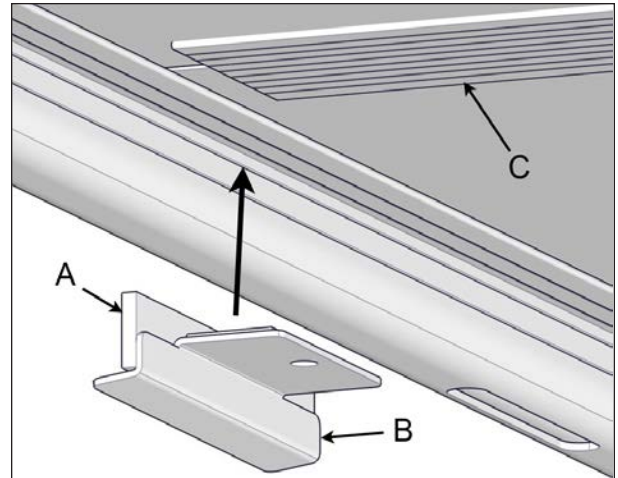


FIGURE 57: WIPER LOCATION

ID	DESCRIPTION
A	FLAP
B	WIPER BRACKET
C	I-BEAM

NOTE

At the final position of the wiper, the flap must touch the edge of the I-beam, see [Figure 58](#).

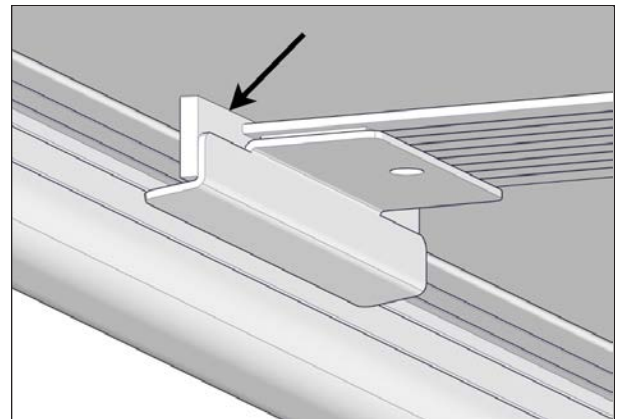


FIGURE 58: FINAL POSITION OF THE WIPER

4. Stick the wiper bracket on the middle of the I-beam by holding it in place and maintaining pressure for at least 60 seconds. This ensures a proper bond to the I-beam. Make sure you install the wiper flap at the edge of the I-beam directly into the gap between the I-beam and the C-channel, see [Figure 58](#).
5. Repeat previous steps for all wipers.

SEAL INSTALLATION



WARNING

The recommended tool to install the seal properly is a J-Roller with rubber roller (Covana part no. 239693), see [Figure 59](#).

The roller is not included in the tools. It must be free of scratches, clean and non-abrasive.

Covana is not responsible for any misuse of the tool and any damage done to the spa or the cover while using the roller.



CAUTION

It is recommended to install the seal when the ambient temperature is above 50 °F (10 °C).

Before installing the seal, it is strongly recommended to reduce the water vapor steam generated by the spa. To do this; stop the agitation of the water by turning off the recirculation pump, and then set the temperature of the spa water to be between 2 and 5 degrees under the ambient temperature. Wait for the water to reach ambient temperature or use a plastic canvas to stop the vapor steam.

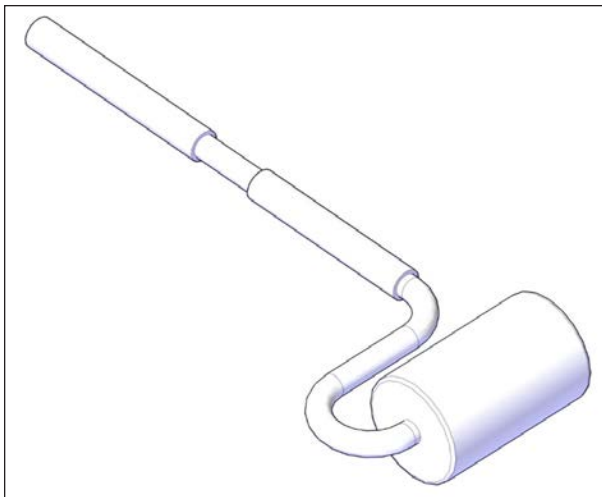


FIGURE 59: J-ROLLER WITH RUBBER ROLLER

1. Once the cover has been fully mounted, raise the cover and remove the foam spacers and tape.

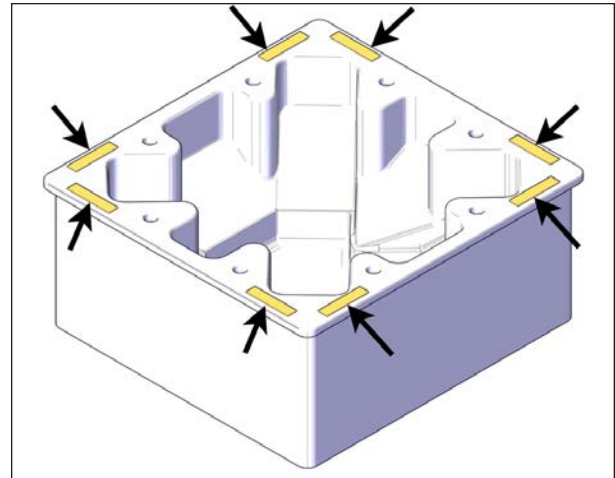


FIGURE 60: REMOVE FOAM SPACERS AND TAPE

2. Lower the cover and walk around the entire perimeter of the spa. Check where the inside surface of the cover makes contact with the spa. This determines the best location to install the seal.
3. Dry the spa top edges and the underside of the cover with a clean cloth.



CAUTION

The spa top edges must be 100% dry and clean. Use isopropyl alcohol (IPA) if necessary.

4. Apply the masking tape on the perimeter of the spa where the seal will be installed. The ideal location for the seal is closer to the swim spa interior edge on a flat surface, see [Figure 61](#).

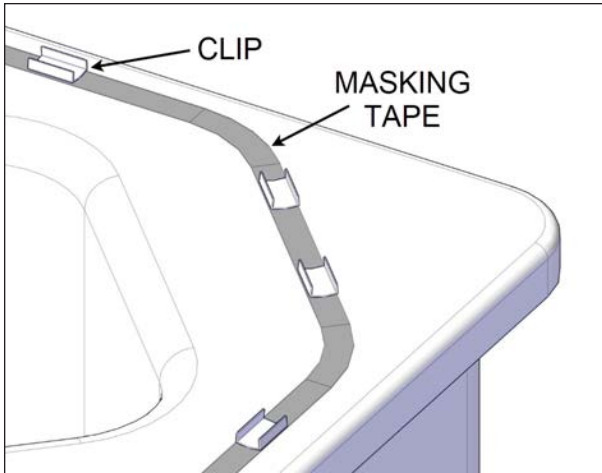


FIGURE 61: MASKING TAPE AND CLIPS



CAUTION

The use of masking tape is recommended since it will protect the spa acrylic from the clip glue. Furthermore, pulling the masking tape from one corner to the next will ensure straightness.

Install the masking tape at the best location as possible according to the contact surface between the cover and the top edge of the spa.

5. The number of seal clips is limited. Temporarily install the clips all around the spa to ensure the best distribution (do not stick yet). The minimum turn radius for the seal is 4" (10 cm), see [Figure 61](#). Keep two clips for the seal joint connector as shown in [Figure 62](#). Once the distribution is done, stick the clips in place (on the tape if applied).
6. The seal joint starts on the opposite side from the spa entrance. Install two clips where the seal joint connector will be located, see [Figure 62](#).

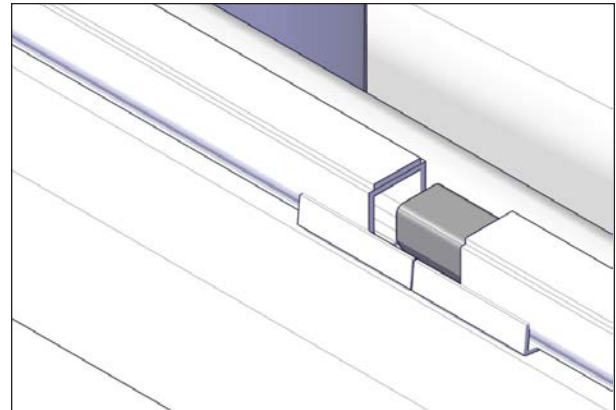


FIGURE 62: SEAL JOINT CONNECTOR

7. Start installing the seal joint with the adhesive layer facing up towards the cover, see [Figure 62](#) and [Figure 63](#).



CAUTION

Do not install the seal joint near a control system or the critical components of the spa.

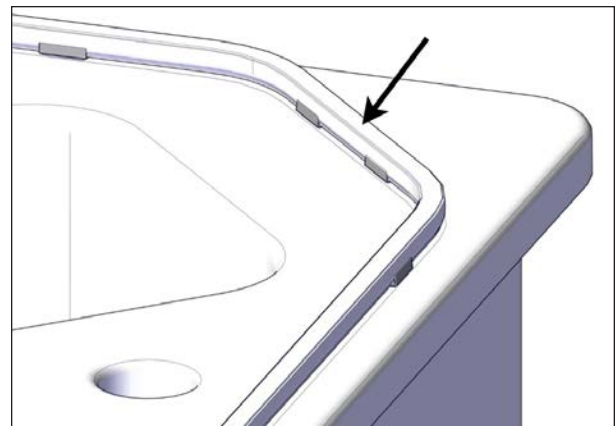


FIGURE 63: SEAL INSTALLATION

8. Once the seal is installed in the clips around the entire spa, cut the extra length as straight as possible for the best joint finishing results.
9. Insert the supplied seal connector in both ends of the seal. The use of masking tape to hold the two ends is recommended, see [Figure 62](#).

**WARNING**

At this point, if there is no water in the spa and the ambient air temperature is below 50 °F (10 °C), a temporary heater must be installed inside the spa for 10 to 15 minutes.

Install the heater on a pedestal or spacers so it will not rest directly on the acrylic of the spa.

Do not install the heater too close to the acrylic surface, as the surface could melt or catch on fire.

Once the heater is in the spa, lower the cover until it touches the seal to increase the air temperature.

The rubber seal should not be overheated. Do not directly heat the acrylic or seal, as this may cause permanent damage.

While generating heat, regularly check interior air temperature and do not let it reach temperatures above 104 °F (40 °C). After 10 to 15 minutes, remove the heater and continue with the seal installation.

**WARNING**

Make sure that the air temperature in the spa is still between 68 °F and 104 °F (20 °C and 40 °C) before proceeding to the next steps.

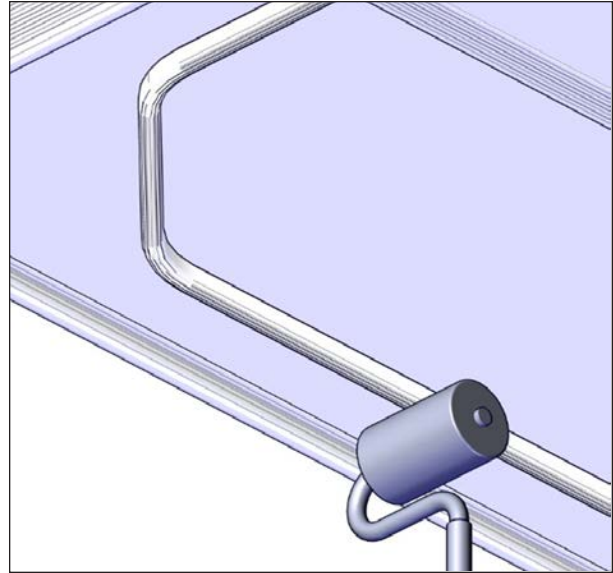
Remove all dirt, oil residues and moisture from the underside of the cover for proper seal adhesion, especially in wet spa installations. The use of mild detergent can help clean the surface.

Make sure the seal stays tight in the clips to ensure its proper positioning.

10. Test the seal placement by lowering the cover about 1/4" (6 mm) over the seal to ensure that the entire perimeter will make contact with the seal. If you are satisfied, raise the cover and remove the red plastic backing off the seal.
11. Completely lower the cover onto the seal. Leave the cover in this position for at least 5 minutes to ensure a proper seal-to-cover adhesion.
12. Slowly raise the cover no more than 1/4" (6 mm) and leave the cover in this position for about 10 seconds, as this will allow the seal

to slowly and fully release from the seal clips. You can also use a non-abrasive plastic tool or your fingers to help release the seal from the clips.

13. Once satisfied that the seal is released, raise the cover 36" (91 cm) high. Apply a minimal pressure of 15 psi (103 kPa) on the seal with the roller as shown in [Figure 64](#) to properly bond the adhesive to the underside of the cover.

**FIGURE 64: APPLY PRESSURE WITH ROLLER**

14. Remove all seal clips and tape (if applied) from the spa top edges.
15. Lower the cover and stop at approximately 6" (15 cm) from the spa top edges.
16. Make sure the cover is flat with all corners at the same height.
17. Lower the cover, and make sure the seal is touching the spa all around. The heater can be put back in place if necessary.
18. Completely lower the cover and leave it closed for **at least 24 hours**. This will ensure the seal is properly bonded to the cover surface. The heater can be put back in place if necessary.
19. **Write the date of installation on the technical specifications label located on the operator**, see [Figure 65](#).

COVANA
a Division of CANIMEX Group

TOLL FREE #
877-278-8010
PATENTED

MODEL SER.#

INPUT AMPS /

MFG. DATE

IN COMPLIANCE WITH IEC 60335-1
UL LISTED
Covana SPA COVER OPERATOR

www.covana.com
www.canimex.com

DATE OF INSTALLATION:

Fabrique au Canada
Made in Canada

FIGURE 65: WRITE THE DATE OF INSTALLATION

20. Complete the Customer's installation checklist and the Installer's installation checklist on the following pages.

ELECTRICAL CONNECTIONS

This section shows how to connect the electrical wiring to operate the cover.

RISK OF ELECTROCUTION



CAUTION

All electrical work should be done by a certified electrician, otherwise the certification and warranty will be void. Furthermore, any modifications to the electrical components will also void the warranty.



DANGER

Failure to comply with these instructions may result in death by electrocution or serious injury



DANGER

- Disconnect or turn off and secure all power supplies before starting any intervention on the cover.
- A circuit breaker needs to be incorporated into the fixed wiring at the time of installation. This circuit breaker must be accessible to the user or service technician to turn the power off for future maintenance or repair.
- Only a certified electrical contractor may perform any electrical maintenance on the cover. The wiring must comply with all applicable local electrical regulations.
- The operator must be connected to a circuit that is protected by a dedicated ground fault circuit interrupter (GFCI) that complies with all applicable local electrical codes and regulations.
- Install the cover in such a way that drainage directs water away from the electrical and the mechanical components at the base.
- Do not connect any auxiliary components to the electrical system of the cover unless they have been approved by Covana.
- Replace electrical components with original components provided or approved by Covana. Ask your dealer for replacement parts.
- To reduce the risk of electrical shock, replace a damaged electrical cord immediately. Failure to do so may result in death or serious personal injury due to electrocution.
- Do not bury the electrical wires into the ground unless using a direct-burial underground cable. Not respecting this precaution may result in death, or serious personal injury due to electrocution.

ELECTRICAL WARNING**WARNING**

- For AC-operated model: To reduce the risk of electrical shocks, the green-colored terminal (or the terminal marked “g,” “gr,” “ground,” “grounding” or with a \equiv symbol) that is located inside the supply terminal box or compartment must be connected to the grounding connection provided in the electric supply service panel with a continuous copper wire equivalent in size to the circuit conductors supplying the equipment.
- Two lugs marked “bonding lugs” are provided on the external surface or on the inside of the supply terminal box or compartment. To reduce the risk of electric shock, connect the local common bonding grid in the area of the cover. Use terminals with an insulated or bare copper conductor not smaller than No. 6 AWG (4.11 mm / 13.30mm²).
- All field-installed metal components, such as rails, ladders, drains or other similar hardware, within 10 ft (3 m) of the spa must be bonded to the equipment grounding bus with copper conductors not smaller than No. 6 AWG (4.11 mm / 13.30mm²). (NEC art. 680).

GROUNDING AND POWER SUPPLY CONNECTIONS

1. Remove the screws (4) on the bottom side of the operator cover and remove the cover, see [Figure 67](#).
2. For the complete wiring diagrams refer to the Electrical diagrams section (North American models and European models).

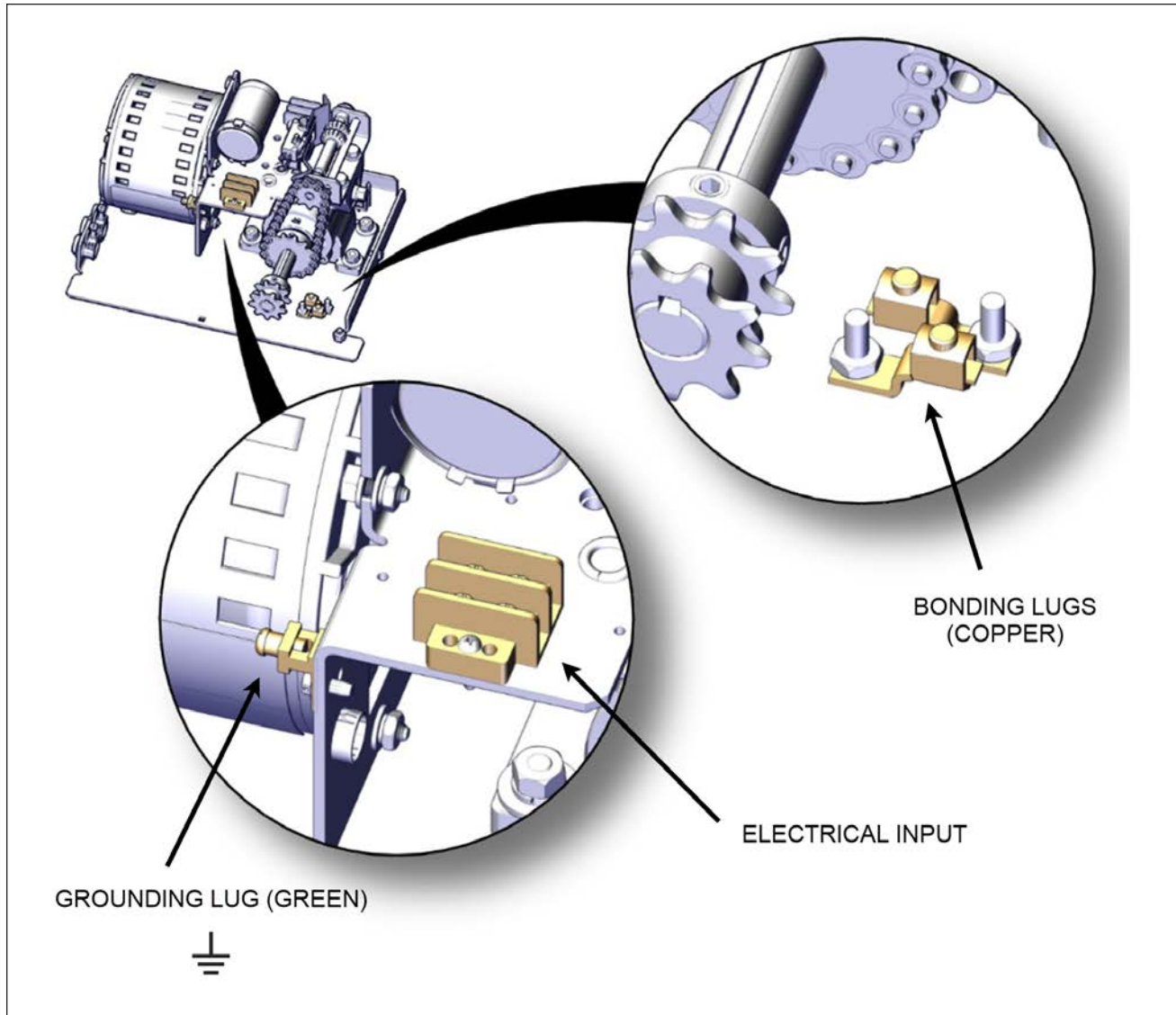


FIGURE 66: POWER SUPPLY CONNECTIONS



CAUTION

The key switch must be permanently installed and located 5 ft (1.5 m) away from the spa and 5 ft (1.5 m) above the deck or ground level (see [POSITION OF THE KEY SWITCH](#)).

LIMIT SWITCH ADJUSTMENT



WARNING

Disconnect or turn off the power supply before starting any work on the cover. All electrical work should be performed by a qualified electrician.

NOTE

The up and down limit switches have been factory-adjusted and there should be no need to readjust them. If adjustments are required to ensure the cover does not come in contact with surrounding obstacles while being raised, the maximum height may be reduced. Never change the factory setting of the down limit nor increase the up limit beyond the factory setting. Failing to do so may result in equipment damage and/or injury.

1. Disconnect or turn off the power and lock out the power source.
2. Remove the four slotted screws at the bottom of the operator and remove the cover, see [Figure 67](#).

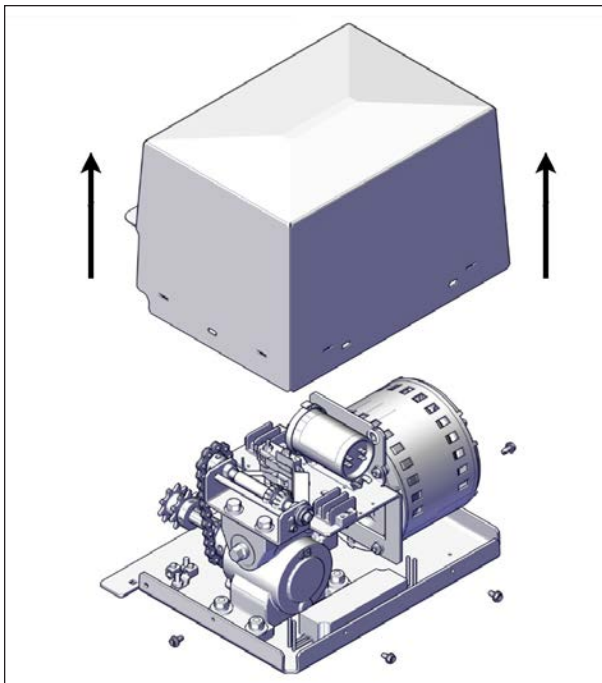


FIGURE 67: REMOVE OPERATOR COVER

3. Remove the slotted retaining screw (item B, [Figure 68](#)) and slide the cam plate (item A,

[Figure 68](#)) out from the operator frame. Be careful not to rotate the cam wheels (items C and D, [Figure 68](#)).

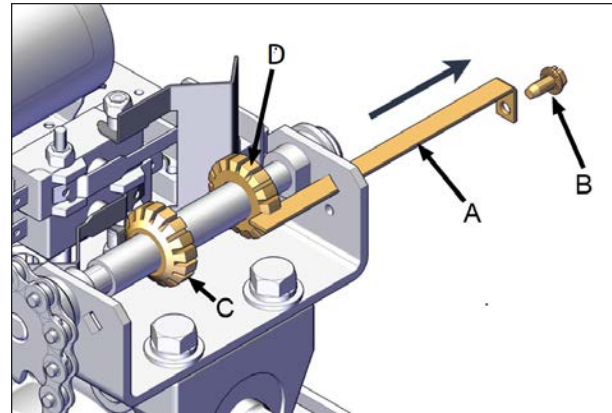


FIGURE 68: CAM PLATE REMOVAL

ID	DESCRIPTION
A	CAM PLATE
B	SLOTTED SCREW
C	DOWN-CAM WHEEL
D	UP-CAM WHEEL

4. To reduce the lift up limit, turn by hand the up- cam wheel counterclockwise looking from the cam plate mounting screw side as shown in [Figure 69](#). It has around 4° between each cam wheel tooth and adding or removing a tooth resolves in adding or removing approximately 5/32" (4 mm) on the cover lifting stroke.

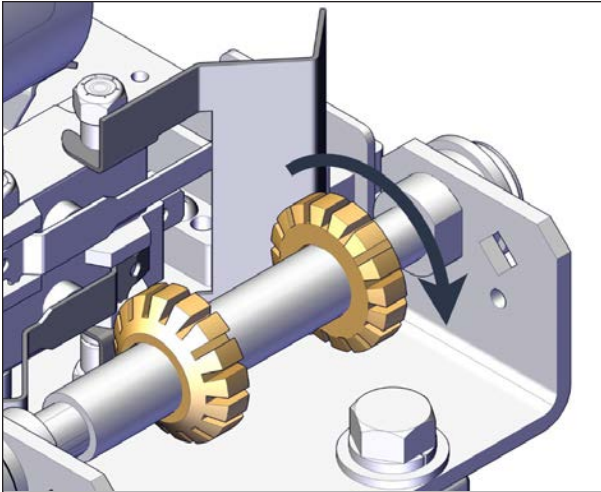


FIGURE 69: CAM WHEELS

5. Once the up limit is set to the desired position, reinstall the cam plate to its original location and make sure that it is properly inserted in the slot of each cam. Never operate the system without the cam plate and retaining screw installed.
6. Reinsert the slotted mounting screw.
7. Reinstall the operator cover without the four screws for the next step.
8. Turn the power on and test the cover. Repeat the previous steps if necessary.
9. Once the adjustment is completed, fasten the operator cover with the four screws.

INSTALLATION CHECKLIST (CUSTOMER COPY)

To ensure proper installation you must carefully read this checklist and confirm that you have completed all steps of the installation. The customer must receive a completed copy of this checklist.

(Please check each circle when the point is completed)

- The base preparation steps are done correctly. **(Spa location considerations and Foundation preparation sections)**
- The installation steps are done correctly. **(Unpacking, Assembly preparation, Lifting mechanism and Electrical connections sections)**
- The seal is properly installed and there is no steam leaking out around the cover. **(Seal installation section)**
- The wipers are properly installed to make sure the cover is watertight. **(Wiper installation section)**
- The key switch is **permanently installed** at least 5 ft (1.5 m) away from the spa and 5 ft (1.5 m) from the ground. **(Key switch installation section)**
- The electrical portion of the installation was done by a certified electrician. **(Electrical connections, Limit switch adjustment sections)**
- All parts supplied and included into the crate are installed.
- The start-up procedure is completed. **(The key sequence responds correctly and Testing the cover section is completed)**
- The four jacks have been properly anchored to the foundation OR a set of non-permanent mounting plates has been installed. **(Testing the cover and Non-permanent mounting plates sections)**
- The all-weather seal works properly. **(The cover raises and lowers properly)**
- The middle sleeves slide freely **(Manually slide the middle sleeve up and down when the cover is half open)**.
- Write the date of installation on the technical specifications label.

Serial number: _____ Date (YYYY/MM/DD): _____

Installer name: _____ Signature: _____

Customer name: _____ Signature: _____

Customer address: _____

Date (YYYY/MM/DD): _____

Dealer name : _____

INSTALLATION CHECKLIST (INSTALLER COPY)

To ensure proper installation you must carefully read this checklist and confirm that you have completed all steps of the installation. The customer must receive a completed copy of this checklist.

(Please check each circle when the point is completed)

- The base preparation steps are done correctly. **(Spa location considerations and Foundation preparation sections)**
- The installation steps are done correctly. **(Unpacking, Assembly preparation, Lifting mechanism and Electrical connections sections)**
- The seal is properly installed and there is no steam leaking out around the cover. **(Seal installation section)**
- The wipers are properly installed to make sure the cover is watertight. **(Wiper installation section)**
- The key switch is **permanently installed** at least 5 ft (1.5 m) away from the spa and 5 ft (1.5 m) from the ground. **(Key switch installation section)**
- The electrical portion of the installation was done by a certified electrician. **(Electrical connections, Limit switch adjustment sections)**
- All parts supplied and included into the crate are installed.
- The start-up procedure is completed. **(The key sequence responds correctly and Testing the cover section is completed)**
- The four jacks have been properly anchored to the foundation OR a set of non-permanent mounting plates has been installed. **(Testing the cover and Non-permanent mounting plates sections)**
- The all-weather seal works properly. **(The cover raises and lowers properly)**
- The middle sleeves slide freely **(Manually slide the middle sleeve up and down when the cover is half open)**.
- Write the date of installation on the technical specifications label.

Serial number: _____ Date (YYYY/MM/DD): _____

Installer name: _____ Signature: _____

Customer name: _____ Signature: _____

Customer address: _____

Date (YYYY/MM/DD): _____

Dealer name : _____

OWNER'S MANUAL

OPERATE THE COVER

Read the [SAFETY](#) section of this manual carefully before operating the cover.

RAISING/LOWERING THE COVER WITH THE KEY SWITCH

1. Make sure all debris and snow are removed from the top of the cover before operating.
2. Make sure there is nobody in the spa or near the spa when raising or lowering the cover.
3. Make sure there is no obstruction over or around the cover.
4. When raising or lowering the cover, press and hold the button while turning the key until fully open or closed.
5. The cover will automatically stop in both the fully open and fully closed position.
6. Press and hold the button while turning the key UP (↑ arrow) to raise the cover.
7. Press and hold the button while turning the key DOWN (↓ arrow) to lower the cover.
8. The key automatically returns to center position when released (off position).
9. Always remove the key when the raising or lowering operations are completed and keep it in a safe location.



WARNING

Users must bring the key in the spa with them to prevent any unauthorized operation of the cover.

10. Install the rubber cap back on the key switch after each use.

IMPORTANT NOTE

Keep the spa cover fully closed when it is not used.

MANUAL OPERATION OF THE COVER



WARNING

Disconnect or turn off and secure all power supplies before starting any intervention on the cover.

1. Disconnect or turn off and secure the power supply.
2. Remove the four screws at the bottom of the operator cover, and remove the cover as shown in [Figure 70](#).

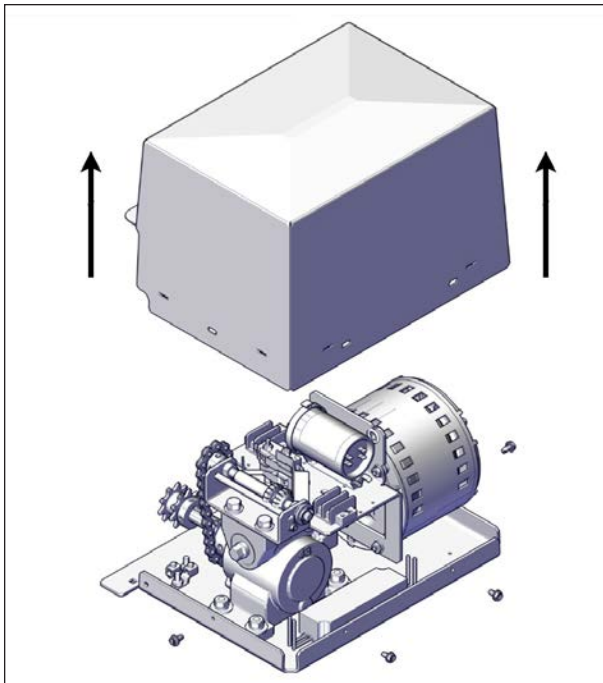


FIGURE 70: OPERATOR COVER REMOVAL

3. Use 1/2" (13 mm) hexagonal socket wrench to raise or lower the spa cover by turning the operator extension shaft, see [Figure 71](#).
4. Slowly turn the extension shaft. Stop immediately if some tension occurs.

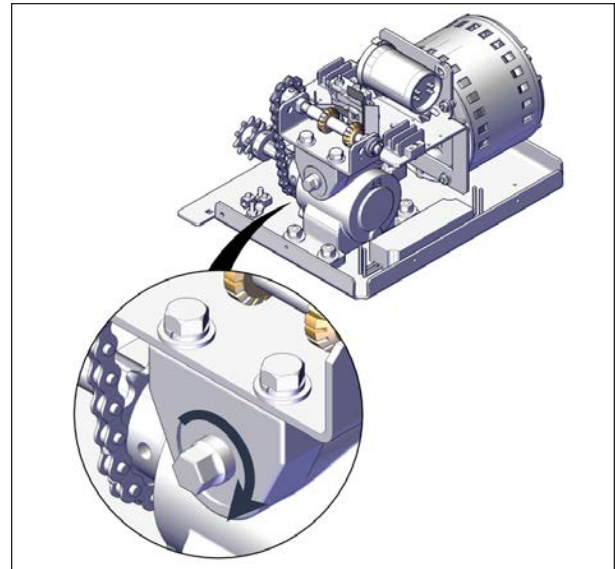


FIGURE 71: OPERATOR EXTENSION SHAFT



CAUTION

Keep in mind that the screws may break or strip if the torque is too much when using power tools.

5. Turn the extension shaft clockwise to lower the cover and counterclockwise to raise the cover.



WARNING

Do not exceed the limits of the mechanism. Failure to respect this guideline may cause mechanical failure.

6. Reinstall the operator cover with the four screws.
7. Reconnect and turn on the power supply.

USING THE ESCAPE HATCH

FROM INSIDE THE SPA

1. Turn the red handle by a quarter turn in either direction to retract the arms, see [Figure 72](#).

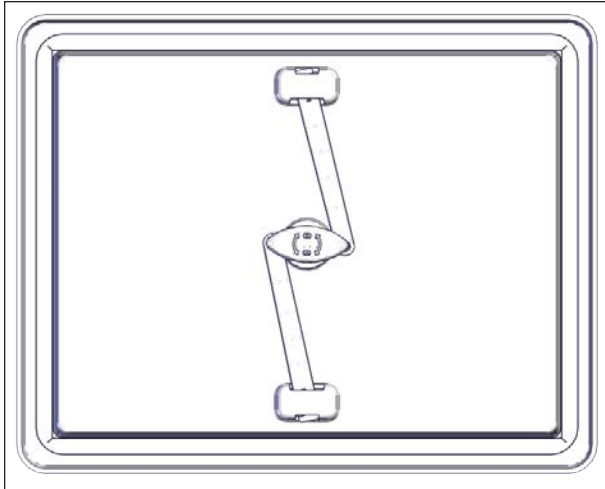


FIGURE 72: INTERIOR HANDLE

2. Push straight up on the escape hatch and move it to the side, see [Figure 73](#).

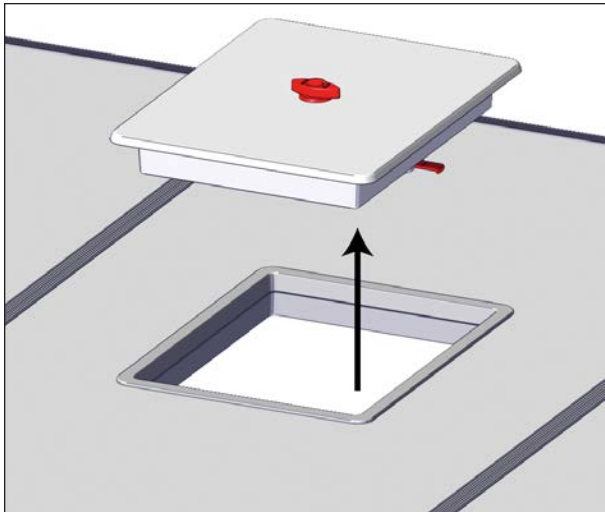


FIGURE 73: REMOVE HATCH

3. Escape via the opening and call for assistance if required.

FROM OUTSIDE THE SPA

1. Never step on the escape hatch as it may affect the removal and may jeopardize the life of the persons trapped in the spa.
2. Turn the red handle left or right to align the slots located in the center part of the handle, see [Figure 74](#).

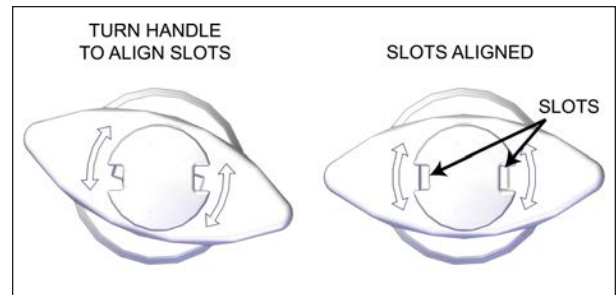


FIGURE 74: ALIGN THE SLOTS

3. Insert the COVANA key or ANY key into one of the slots, see [Figure 75](#).



FIGURE 75: USE THE KEY INSIDE THE SLOT

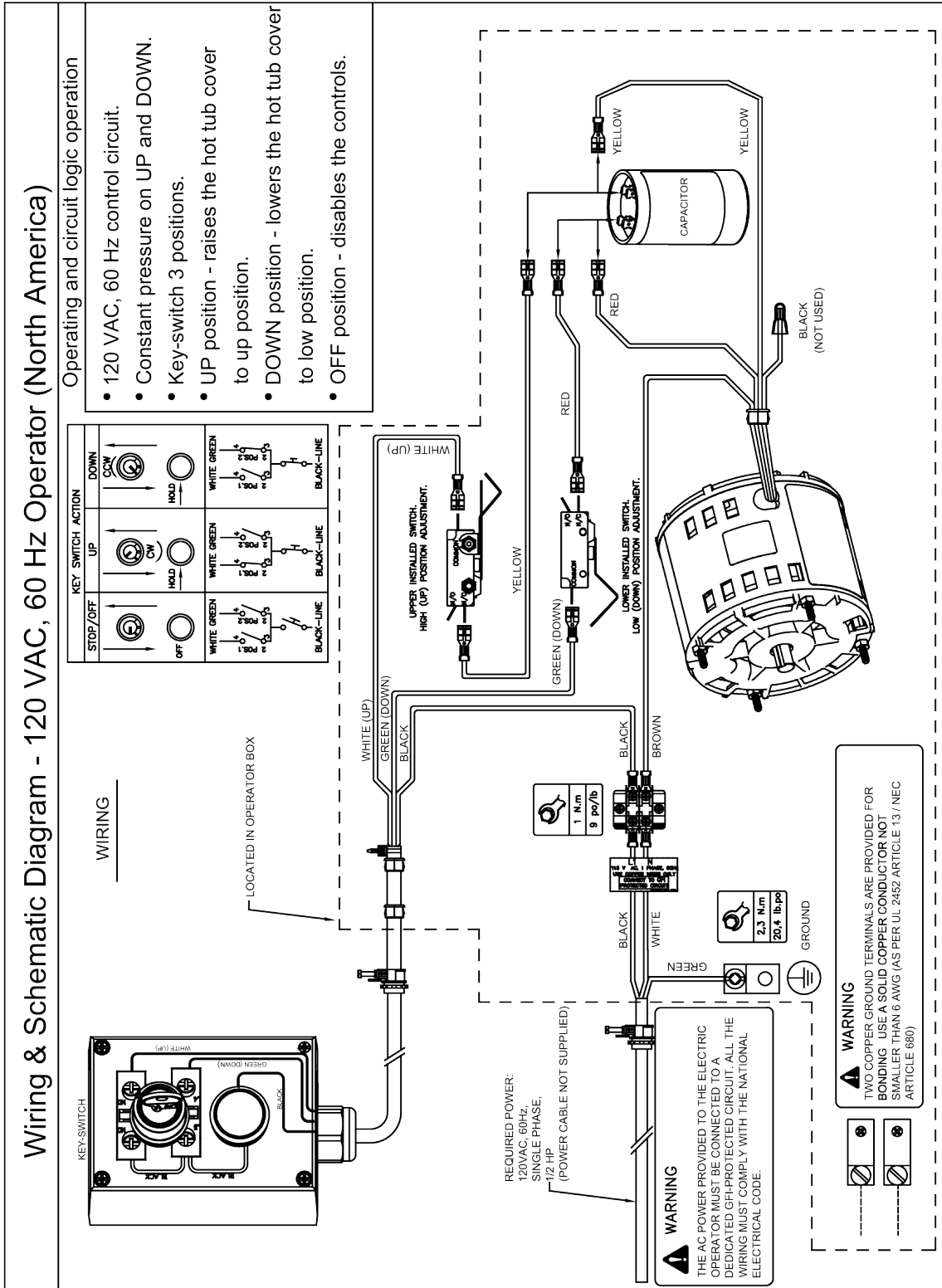
4. Turn the handle one quarter turn in either direction.
5. Lift the escape hatch straight up by gripping its sides and move it to the side
6. Help the persons trapped below by pulling them out of the spa via the opening.

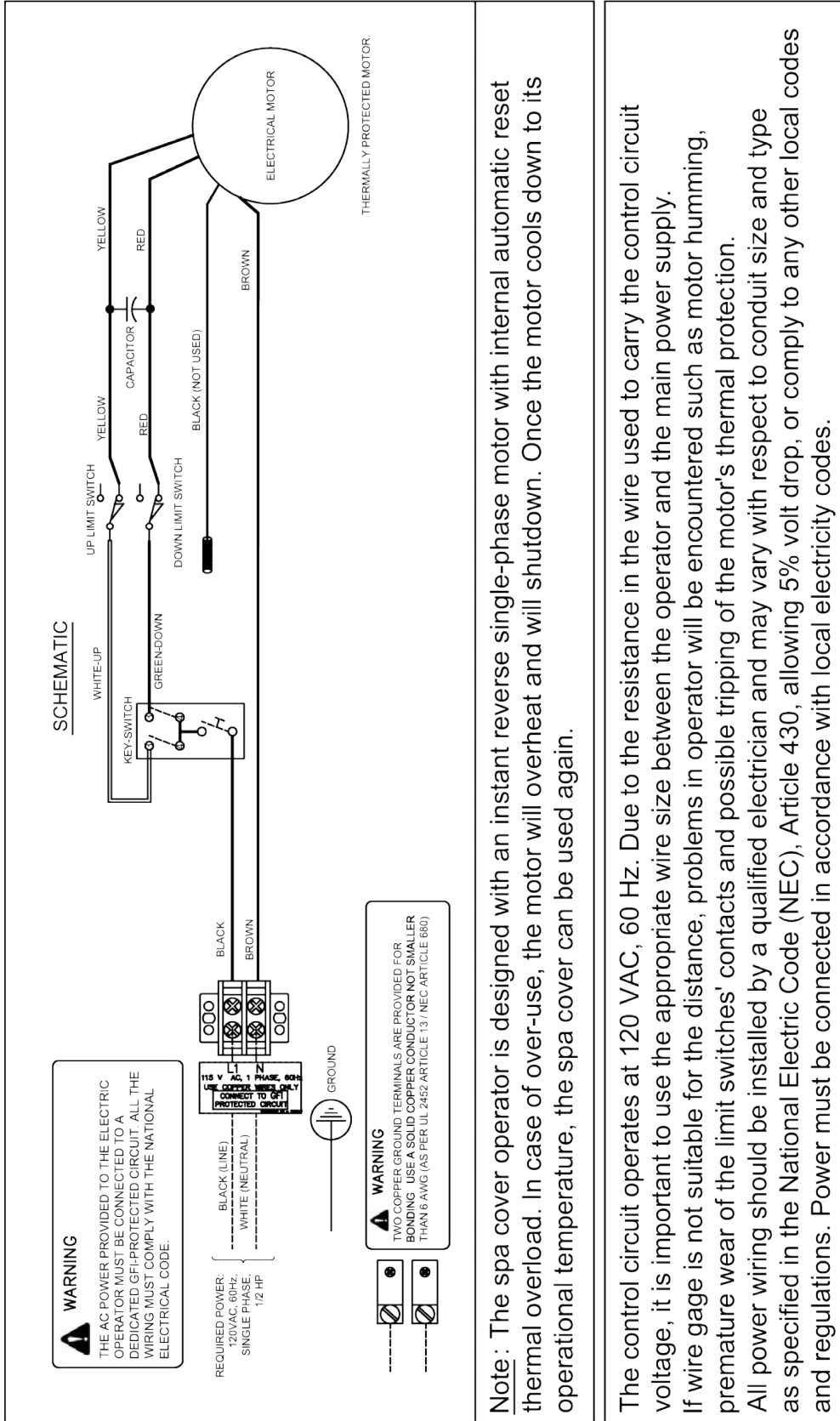
ELECTRICAL DIAGRAMS

ELECTRICAL DIAGRAMS

Next pages of this section show electrical diagrams of the cover.

WIRING DIAGRAM (NORTH AMERICA) – 60 HZ, 120 VAC OPERATOR



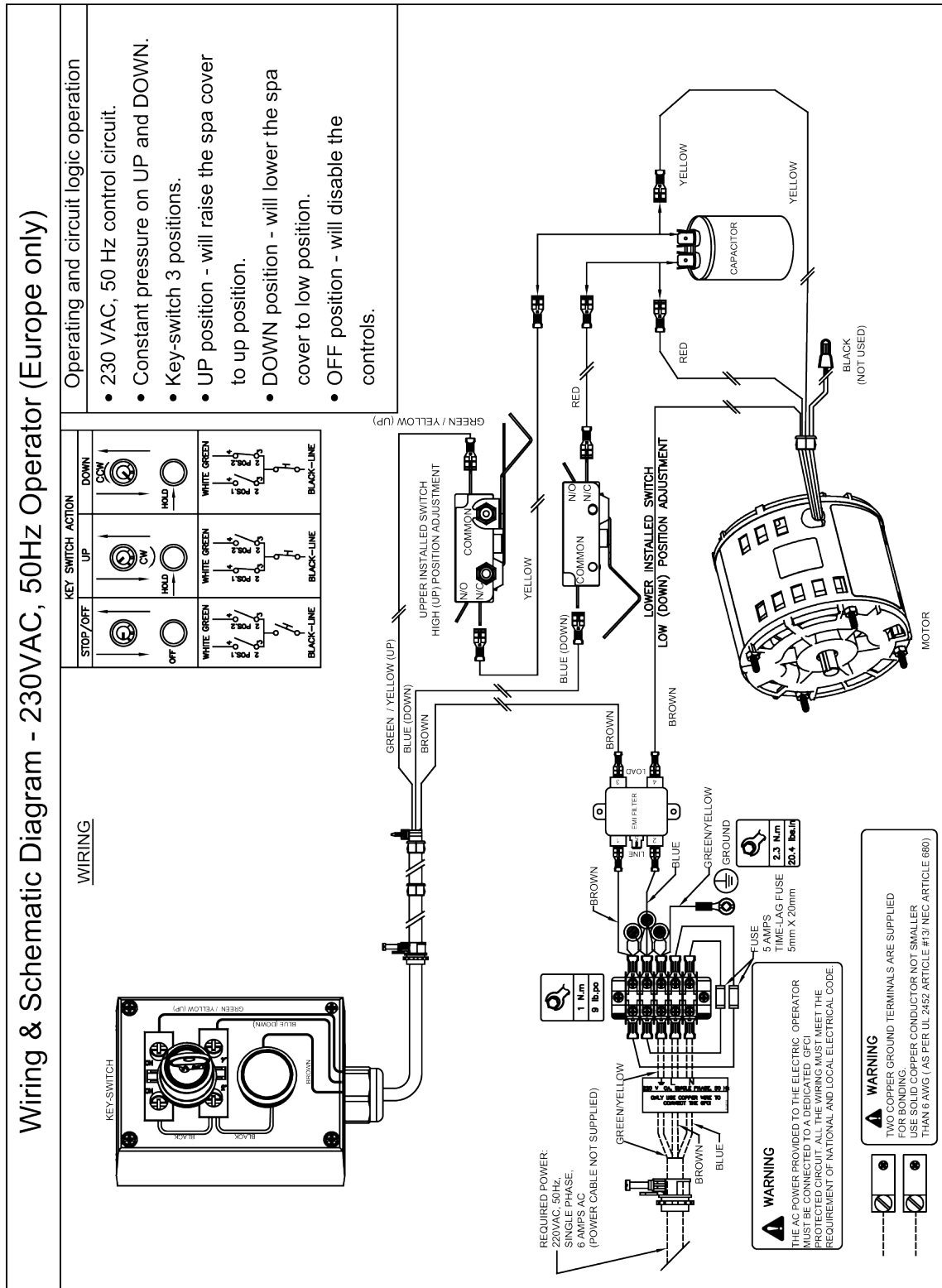


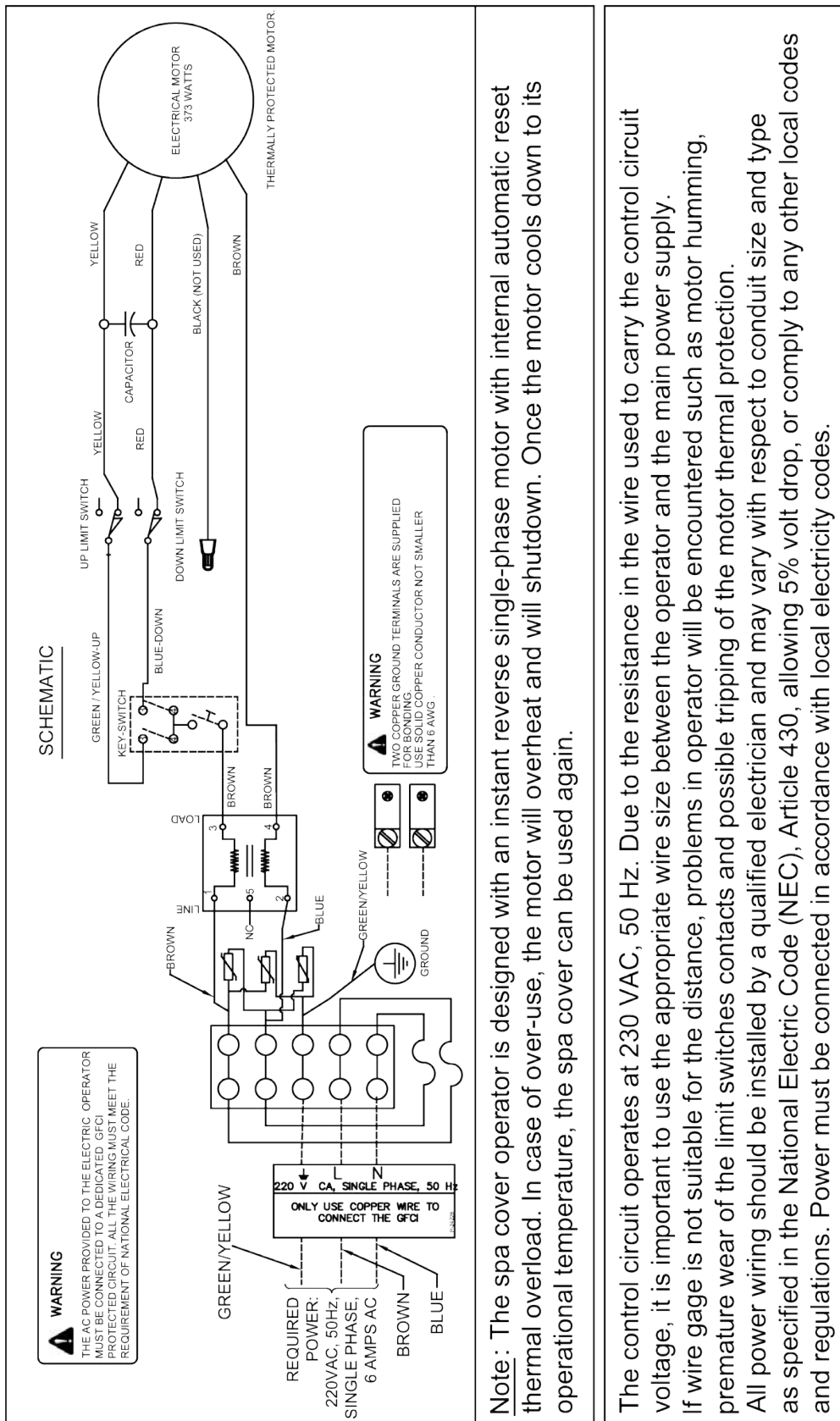
Note: The spa cover operator is designed with an instant reverse single-phase motor with internal automatic reset thermal overload. In case of over-use, the motor will overheat and will shutdown. Once the motor cools down to its operational temperature, the spa cover can be used again.

The control circuit operates at 120 VAC, 60 Hz. Due to the resistance in the wire used to carry the control circuit voltage, it is important to use the appropriate wire size between the operator and the main power supply. If wire gage is not suitable for the distance, problems in operator will be encountered such as motor humming, premature wear of the limit switches' contacts and possible tripping of the motor's thermal protection. All power wiring should be installed by a qualified electrician and may vary with respect to conduit size and type as specified in the National Electric Code (NEC), Article 430, allowing 5% volt drop, or comply to any other local codes and regulations. Power must be connected in accordance with local electricity codes.

Brevet en instance / Patent Pending
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WIRING DIAGRAM (EUROPE) – 50 HZ, 230 VAC OPERATOR





Note: The spa cover operator is designed with an instant reverse single-phase motor with internal automatic reset thermal overload. In case of over-use, the motor will overheat and will shutdown. Once the motor cools down to its operational temperature, the spa cover can be used again.

The control circuit operates at 230 VAC, 50 Hz. Due to the resistance in the wire used to carry the control circuit voltage, it is important to use the appropriate wire size between the operator and the main power supply. If wire gage is not suitable for the distance, problems in operator will be encountered such as motor humming, premature wear of the limit switches contacts and possible tripping of the motor thermal protection. All power wiring should be installed by a qualified electrician and may vary with respect to conduit size and type as specified in the National Electric Code (NEC), Article 430, allowing 5% volt drop, or comply to any other local codes and regulations. Power must be connected in accordance with local electricity codes.

Brevet en instance / Patent Pending
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MAINTENANCE

MAINTENANCE

The product lifetime depends on the time you spend for the care and maintenance of the cover.

WINTERIZING

If you plan on winterizing your spa during the cold season, Covana recommends winterizing the cover as well. This process prevents any potential damage to the cover and minimizes the risk of freezing water damage to the spa. Please follow these instructions:



WARNING

These instructions are relevant for anyone who plans to stop using the spa for a long period of time or especially if the temperature goes below the freezing point.

1. Clean the cover completely to remove any dust, greasy residue or any other dirt from all surfaces.
2. Prepare the spa for closure by following the spa manufacturer's winterization instructions.
3. Completely close the cover on the spa. Make sure the seal touches the whole perimeter of the spa.
4. Make sure the escape hatch is properly seated on the cover and is closed and locked.
5. Shut off the power of the cover. This can be done by shutting off and securing the circuit breaker powering the cover.
6. Install a waterproof canvas over the cover.
7. Install a waterproof protection canvas over the operator.



WARNING

Using any type of fabric or plastic canvas to cover the Covana cover during hot weather may damage the components. Only use such protection for the winterization procedure and during the cold season.

Remove any type of cover or plastic canvas as soon as seasonal temperatures are higher than the freezing point.

8. For regions with a long seasonal snowfall, remove excessive snow accumulation regularly or after a heavy snowfall to avoid damage to the structure of the cover. Do not let more than 12" (30 cm) of snow accumulate on the cover.

WASHING THE COVER

Washing the cover is an essential part to maintain and keep it in the best running conditions. Clean your cover as needed or when dirt, debris or leaves are present. We also recommend cleaning your cover before and after winterization.

TOOLS AND PRODUCT TO USE

- Use a 1% solution of household dish soap. The cleaner is required to have a neutral pH (pH range 6.5-7.5).
- Soft plastic brush
- Sponge
- Cloth

The following steps are guidelines to safely and properly clean the cover:

METHOD:

1. Rinse the cover with water in order to remove any large accumulated debris.
2. Apply the soap solution, working it across the surface in a scrubbing or circular motion. The surface of the cover panels can be cleaned with a sponge, cloth or a soft plastic brush.

3. Quickly rinse very thoroughly to remove all traces of soap; otherwise, a film will build up giving the cover a dull, dirty appearance.



WARNING

Never use a pressure washer or high pressure to clean the cover. The high pressure could puncture the fiberglass panels.

Never use harsh detergents that may cause a chemical reaction and permanently damage the surface.

Never use water hotter than 130 °F (54 °C), this may cause melting of the fiberglass panels.

Do not use abrasive cleaners.

Do not use a cleaner or stain remover that contains chlorinated hydrocarbons or aromatic hydrocarbons.

POST GREASING

This unit will require the following greasing maintenance to ensure the best performance.

The internal jacks require yearly greasing. Early in the fall season is the best time. The “Mobil Epic EP MOLY Grease” is recommended for cold and hot climates. Ideally, a sprayable grease or an equivalent low temperature synthetic grease.

NOTE

The posts will not lift by unscrewing the post covers. Only the motor can raise or lower the posts.

POST GREASING PROCEDURE

1. Lower the roof until it is fully closed.
2. Remove the rubber cap on top of each post, see [Figure 76](#).

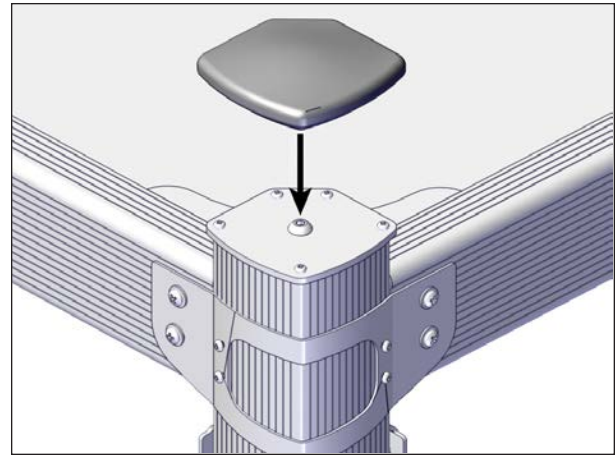


FIGURE 76: RUBBER CAP REMOVAL

3. Remove the five screws on the top plate of each post, see [Figure 77](#).
4. Remove the center screw and bushing from each post. Keep the top plates, screws, and bushings in a safe location, see [Figure 77](#).

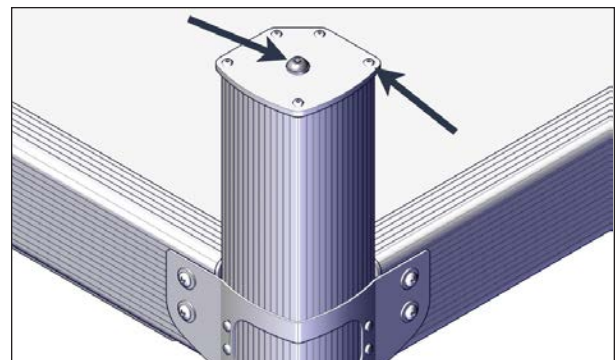


FIGURE 77: SCREW REMOVAL



WARNING

Failure to remove all four top plates will result in important damages to your cover.

Keep in mind that the screws may break or strip if the torque is too much when using power tools.

5. Raise the jacks with the key switch. The four internal jacks will raise but the cover should stay in place, see [Figure 78](#).

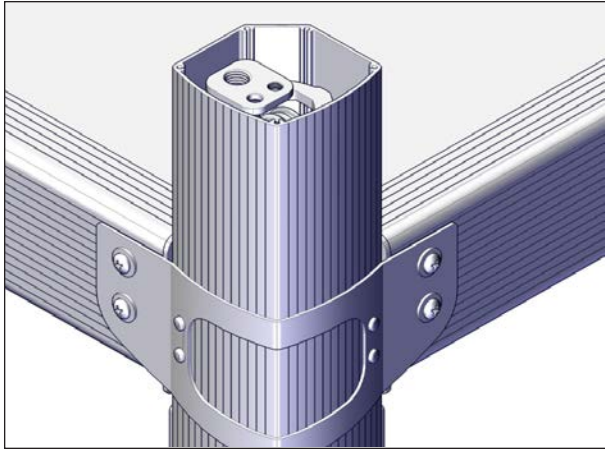


FIGURE 78: INTERNAL JACK

6. Raise the jacks until they reach the maximum height, see [Figure 79](#).

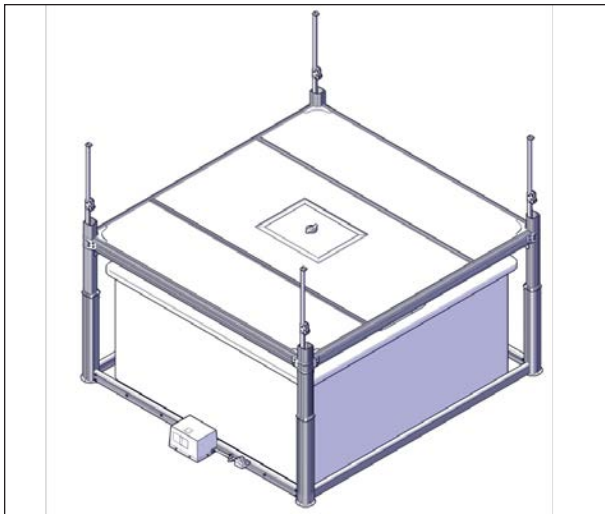


FIGURE 79: JACKS RAISING

7. Spray grease on all the sliding parts and mechanical components of all four jacks, see [Figure 80](#).

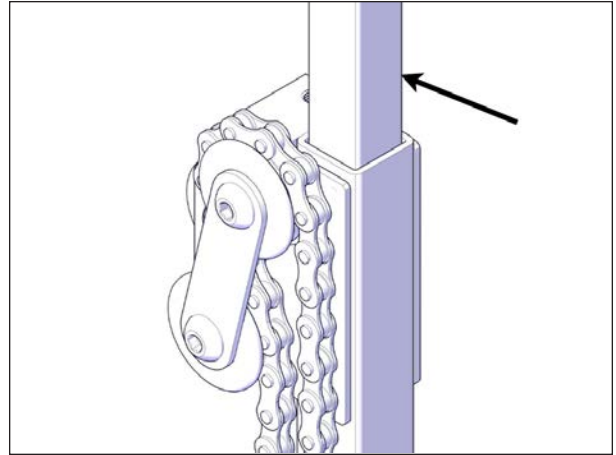


FIGURE 80: SLIDING PARTS GREASING

8. Inspect the chains for signs of deterioration. If this is the case, call your local Covana dealer, see [Figure 81](#).

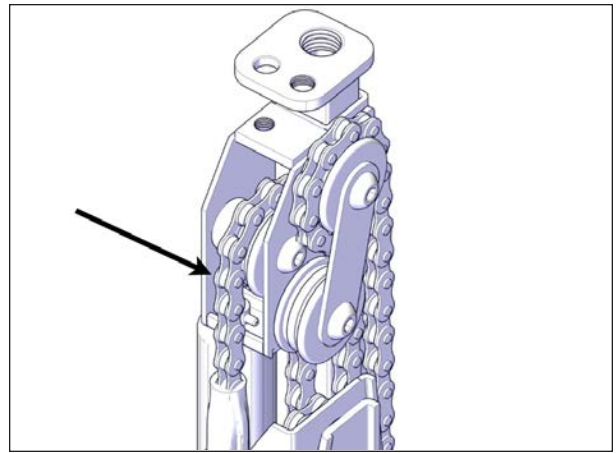


FIGURE 81: JACK CHAINS

9. Cycle the system up and down and inspect if any further grease should be added.
10. Lower the system completely until it stops automatically.
11. For each post, reinstall the top plate with the five screws, as well as the hexagonal head screw and bushing.



WARNING

Keep in mind that the screws may break or strip if the torque is too much when using power tools.

12. Reinstall the rubber cap on top of each post.

CHAIN LUBRICATION

This procedure shows how to lubricate the transmission power chain attached to the operator. The “Mobil Epic EP MOLY Grease” is recommended for cold and hot climates. Ideally, a sprayable grease or an equivalent low temperature synthetic grease.

NOTE

Two separate chains are attached to the operator (left and right). Do not remove the U-Frame protecting the chains.

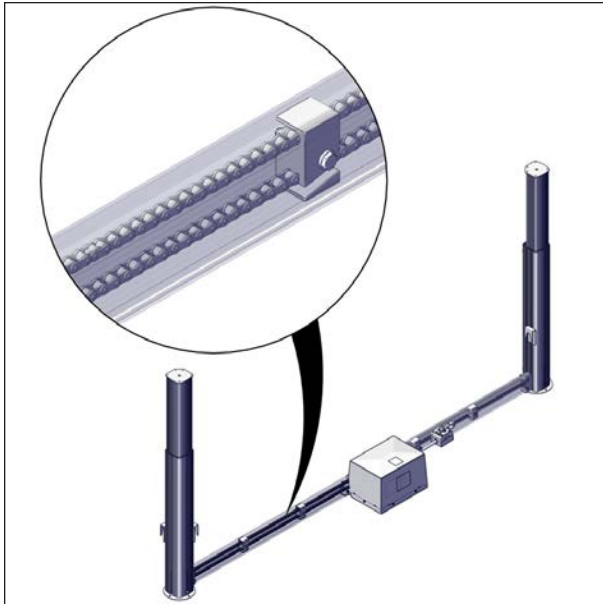


FIGURE 82: POWER TRANSMISSION CHAIN

PROCEDURE

1. Partially unscrew the M6 x 20 mm Phillips screw located at the base of the external sleeve of the post, see [Figure 83](#).

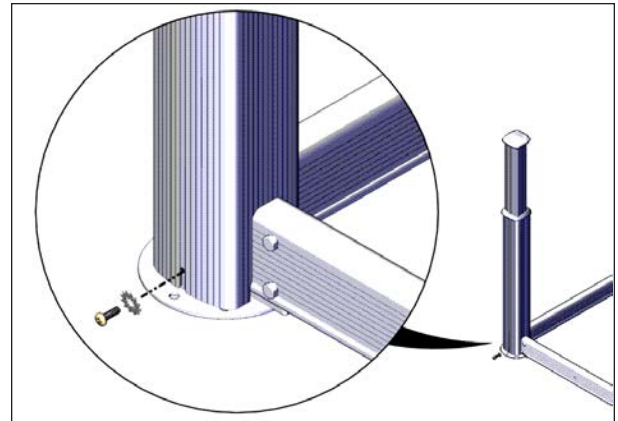


FIGURE 83: SLEEVE BOTTOM SCREW

2. Lift up the sleeve by hand and keep it safely in position with a wooden block, see [Figure 84](#).

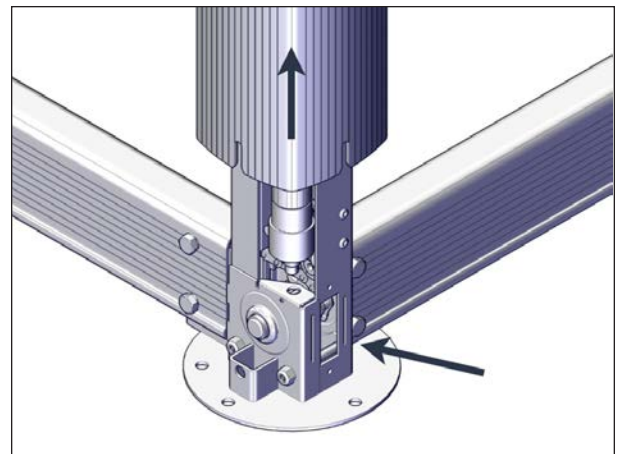


FIGURE 84: ACCESS TO THE CHAINS

3. Locate the chain inside the post. The opening at the bottom of the post allows access to the chain, see [Figure 84](#).
4. Spray the chain lightly with grease while another operator cycles the cover up and down with the key switch.
5. Lower the sleeve. Make sure the int./ext. tooth lockwasher is outside of the sleeve. Tighten the M6 x 20 mm Phillips screw.
6. Repeat previous steps with the opposite post.

PERIODIC MAINTENANCE TABLE

TASKS	FREQUENCY				
	EACH USE	WEEKLY	EVERY 3 MONTHS	YEARLY	AS NEEDED
Perform a visual inspection (debris, snow, ice, etc.) .	X				
Check that the sleeves are correctly positioned. (Middle sleeves are not out of their normal position).	X				
Verify if all-weather seals are correctly positioned (in contact with the outer sleeves when the cover is closed).	X				
Listen to any unusual noises during operation.	X				
Verify the shades to prevent wrinkles; adjust the brackets if needed.		X			
Verify the seal around the cover (no vapor steam leakage).		X			
Verify the lifting mechanism by raising and lowering the cover.		X			
Verify the anchoring of the cover.*				X	
Check if the escape hatch works properly.		X			
Test the GFCI.			X		
Check the tension of the chains on all posts and in the U-frame. *				X	
Lubricate chains on all posts and in the U-frame. *				X	
Grease the jack assemblies. *				X	
Wash the cover with a mild detergent (i.e., dishwashing detergent) and water. Rinse well using only water.					X
Remove the escape hatch and clean it with a mild detergent (i.e., dishwashing detergent) and water. Rinse well using only water.					X

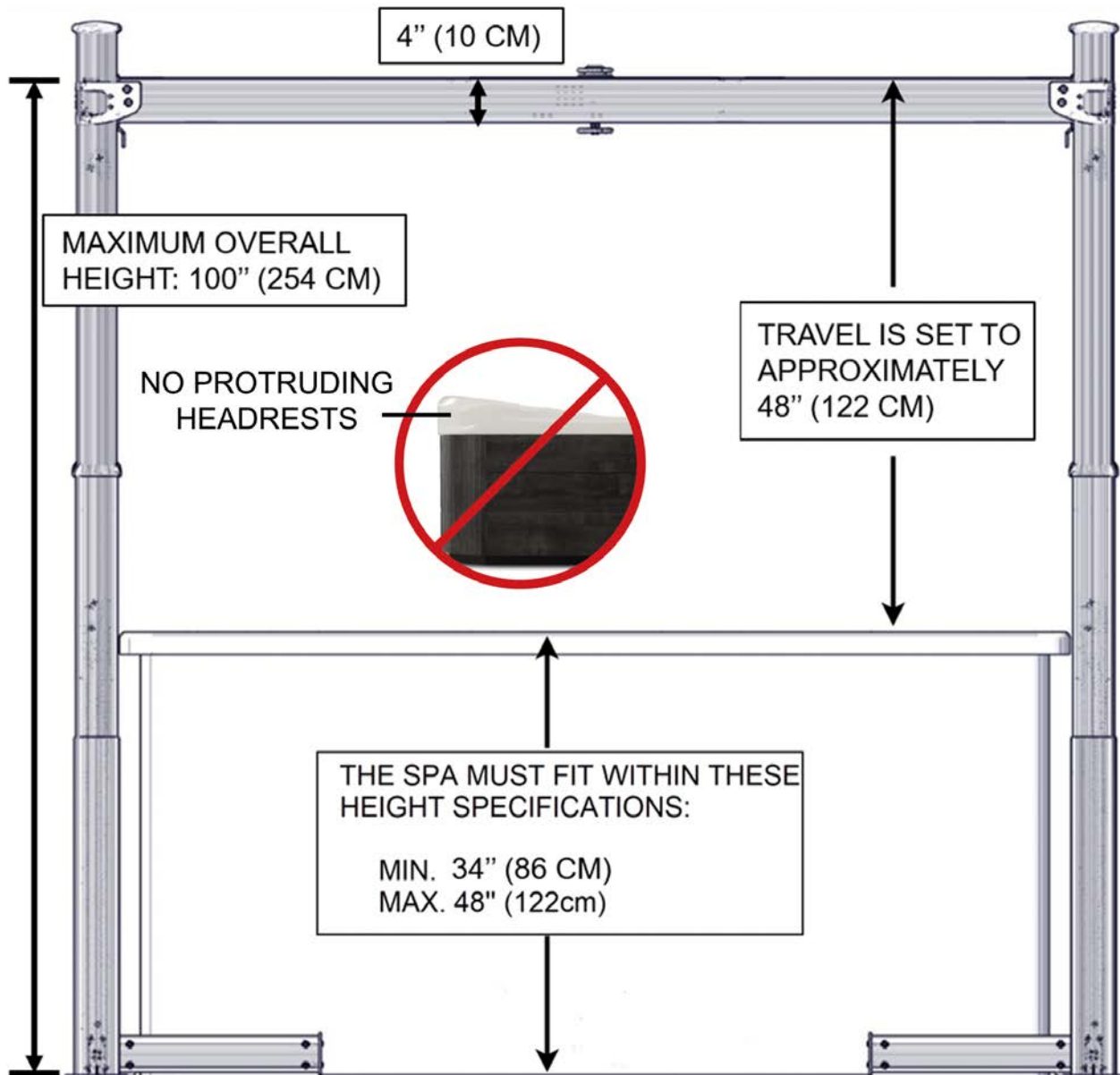
*Contact your local Covana dealer

Please call your Covana dealer for any mechanical, electrical or aesthetic maintenance.

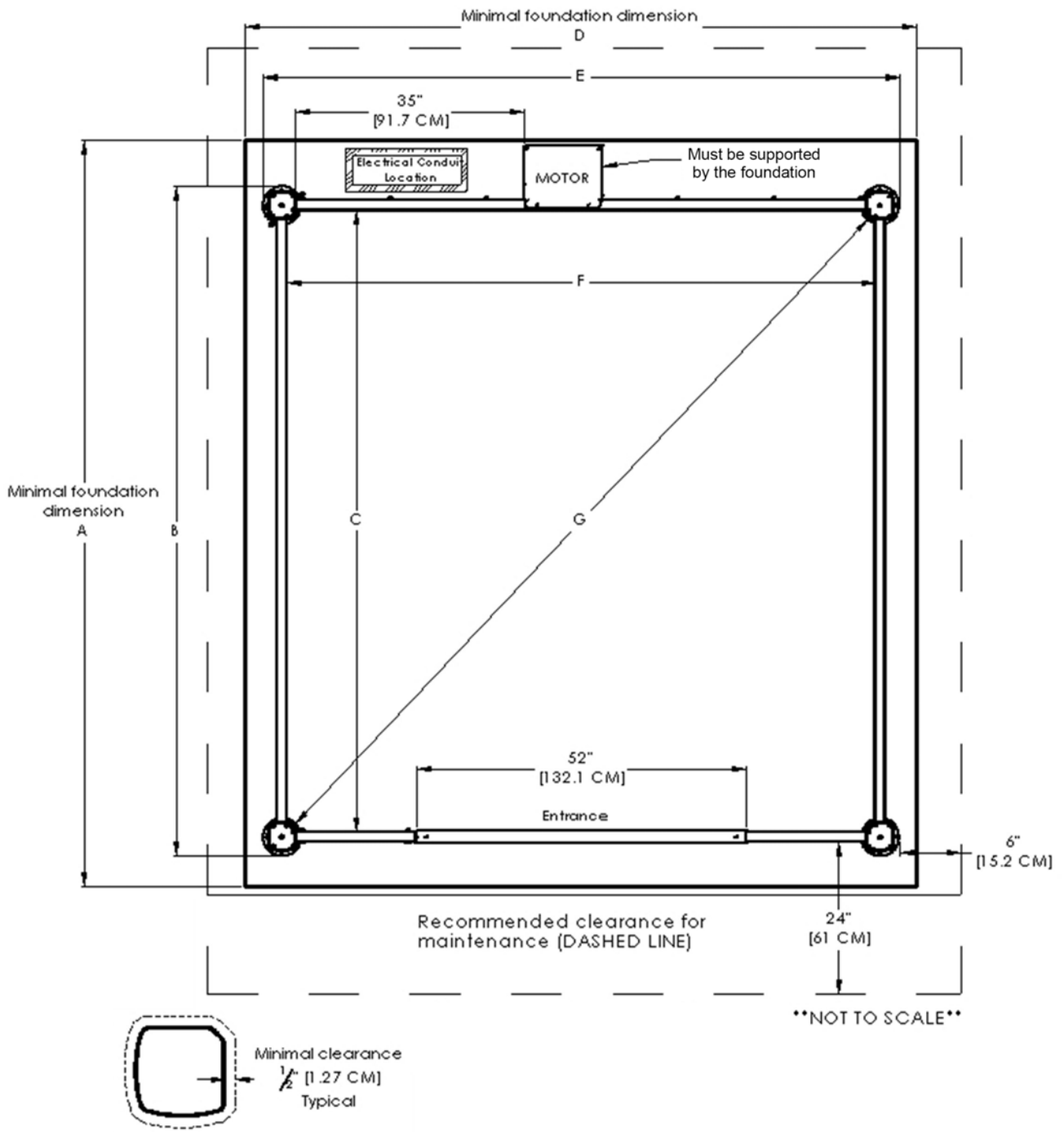
TECHNICAL SPECIFICATIONS

TECHNICAL SPECIFICATIONS

COVANA COVER FRONT ELEVATION PLAN

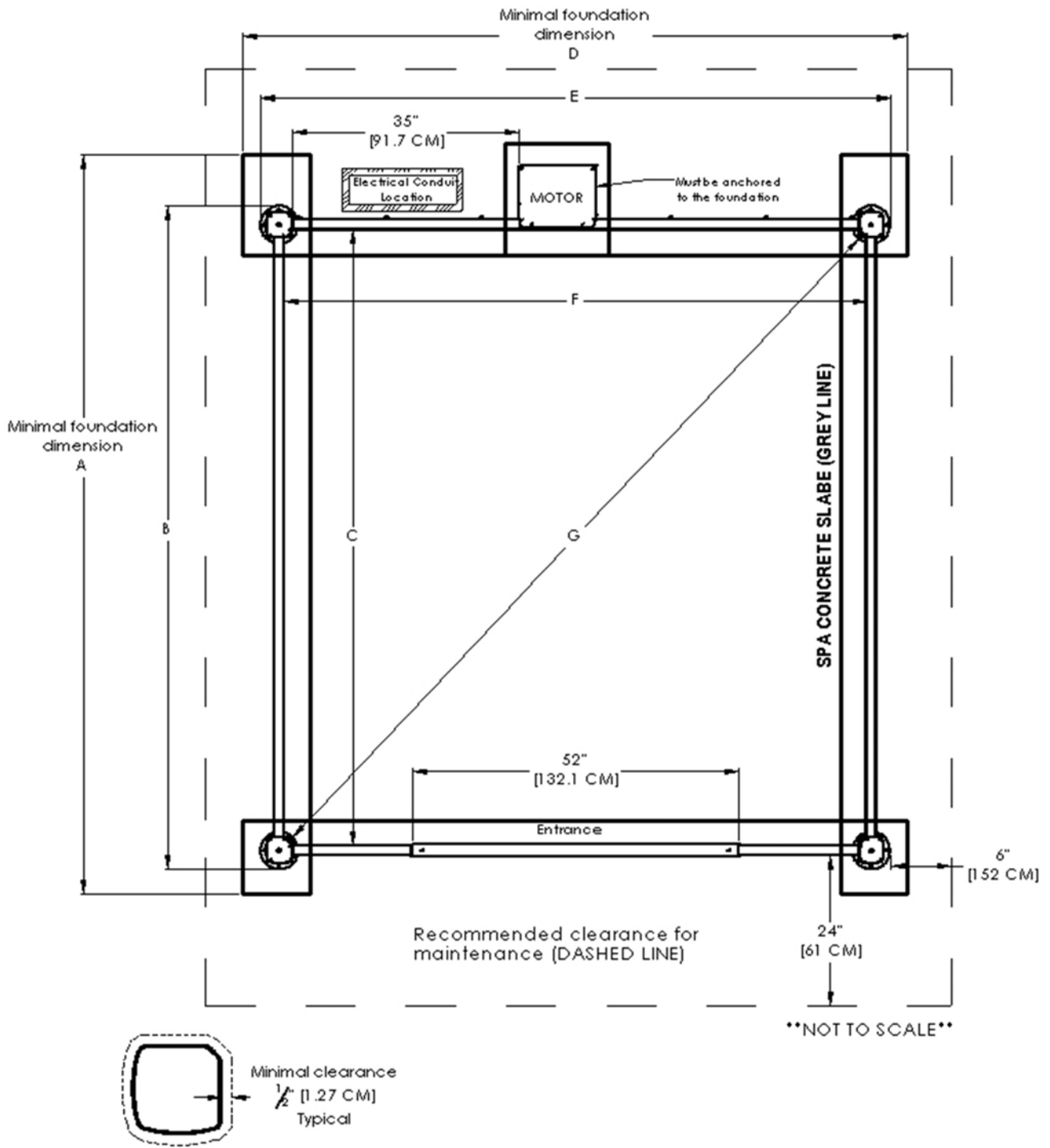


FRAME DIMENSIONS AND FOOT PRINT



COVER LENGTH	8 FT	9 FT	10 FT	11 FT
A	118" (299.7cm)	130.5" (331.5cm)	142.5" (362cm)	154.5" (392.4cm)
B	105.75" (268.5cm)	118.25" (300.4cm)	130.25" (330.8cm)	142.25" (361.3cm)
C	98" (249cm)	110.5" (280.7cm)	122.5" (311.2cm)	134.5" (341.6cm)
D	106" (269.2cm)			
E	100.5" (255.2cm)			
F	92.75" (235.7cm)			
G	131.25" (333.4cm)	140.5" (356.9cm)	150" (381cm)	159.75" (405.8cm)

CONCRETE SLAB LAYOUT OPTION



COVER LENGTH	8 FT	9 FT	10 FT	11 FT
A	118" (299.7cm)	130.5" (331.5cm)	142.5" (362cm)	154.5" (392.4cm)
B	105.75" (268.5cm)	118.25" (300.4cm)	130.25" (330.8cm)	142.25" (361.3cm)
C	98" (249cm)	110.5" (280.7cm)	122.5" (311.2cm)	134.5" (341.6cm)
D	106" (269.2cm)			
E	100.5" (255.2cm)			
F	92.75" (235.7cm)			
G	131.25" (333.4cm)	140.5" (356.9cm)	150" (381cm)	159.75" (405.8cm)

ELECTRICAL SPECIFICATIONS

The cover requires a dedicated single phase 115 V AC (North America) or 230 V AC (Europe) hard-wired power supply.

The cover must be installed in accordance with and comply with all applicable local codes and regulations. All wiring and connections should be performed by a certified electrician.

Wires and cables should be sized according to local codes and regulations.

NORTH AMERICAN REQUIREMENTS

Voltage	115 V, 60 Hz (1 hot, 1 neutral, 1 ground)
GFCI	15 A single-pole GFCI (not included)
Current draw	Max 12 A

EUROPEAN REQUIREMENTS

Voltage	230 V, 50 Hz (2, 1 ground)
GFCI	10 A single-pole GFCI (not included)
Current draw	Max 6 A



WARNING

Covana does not allow any modifications of the electrical system. Covana reserves the right to void the warranty if any modifications is done without its approval.

OPERATION LIMITATIONS



WARNING

The cover should never be used if the following conditions are reached.

Maximum wind	Gusts of 30 mph (50 km/h) while in the raised position. Lower the cover when winds exceed 30 mph (50 km/h).
Maximum weight on the cover (evenly distributed)	200 lb. (90 kg) Before operating the cover, make sure it is free of any dirt, debris, leaves, snow, etc.

GENERAL SPECIFICATIONS

Lifting speed	2.5 in./s (6 cm/s)
Total weight	600 lb. (272 kg)
Length of keyswitch cable	25 ft. (7.6 m)

TROUBLESHOOTING AND WARRANTY

TROUBLESHOOTING

PROBLEM	PROBABLE CAUSES	SOLUTIONS
<p>The cover does not raise or lower (Silent motor and no movement)</p>	<ul style="list-style-type: none"> • The GFCI is tripped. • The power source is disconnected. 	<ul style="list-style-type: none"> • Reset the GFCI. • Verify that the power source is enabled. • Check the breaker panel. • Verify whether the cables were damaged or pinched.
<p>The cover does not raise or lower. (Motor humming and some visible movement)</p>	<ul style="list-style-type: none"> • Posts are frozen. • Jack assemblies are jammed. • The motor is obstructed. • Posts are obstructed. • The debris on the cover is too heavy. 	<ul style="list-style-type: none"> • Remove all the debris from the top of the cover. • Verify whether any posts are obstructed. • Use methanol to free ice buildup on posts. • Apply grease on the post assemblies. • Verify the relative position of the four posts (See Foundation Preparation section). • If all previous attempts failed, contact your local authorized Covana dealer.
<p>The posts are not equally positioned.</p>	<ul style="list-style-type: none"> • The post screws (attached to the outer shell) are loose. • The chain skipped during operation. • A spring pin at the bottom of a jack is broken. • A drive shaft has fallen off. • Excessive weight on one side of the cover. 	<ul style="list-style-type: none"> • Lower the cover completely and fasten the post back in at the correct height. • Verify whether a drive shaft has fallen off and if it is the case, reinstall the shaft. • Lower the cover and replace the chain. • Replace any missing or broken spring pin by lifting the outer sleeve, using an awl and a hammer. • Remove all debris from the top of the cover. • If all previous attempts failed, contact your local authorized Covana dealer.
<p>The shades are loose, retract improperly and/ or disconnect from the brackets. The shades are wrinkling or bulging at the roller.</p>	<ul style="list-style-type: none"> • The internal spring is not wound enough. • Too much tension in the internal spring. • Holding bracket not parallels. 	<ul style="list-style-type: none"> • Consult shade installation manual. • Remove the bottom bar and reset the tension back to "4 turns". • Make sure the outer sleeves are sitting on the foot plate, reposition the holding bracket so the roller shade is moving straight.

PROBLEM	PROBABLE CAUSES	SOLUTIONS
The middle sleeve has gripped and might have dropped abruptly	<ul style="list-style-type: none"> • Posts are frozen. • The stopper kit is broken/missing. 	<ul style="list-style-type: none"> • Verify the position of the all-weather seal. While cover is closed, it must be sitting on the top of the outer sleeve. • Check whether the stopper kit is broken/missing. • Reinstall the sleeves. • Check level on 2 faces of the sleeve. • If all previous attempts failed, contact your local authorized Covana dealer.
Escape hatch doesn't open/close	<ul style="list-style-type: none"> • Mechanism is jammed. • Verify the position of the locking mechanism. 	<ul style="list-style-type: none"> • Refer to the USING THE ESCAPE HATCH section. • Remove the escape hatch from the underside of the cover and clean it to free the mechanism. • If all previous attempts failed, contact your local authorized Covana dealer.
The cover raises unevenly.	<ul style="list-style-type: none"> • The chain is broken. • A spring pin is broken. • A drive shaft has fallen off. • Posts are gripped. 	<ul style="list-style-type: none"> • Call your local certified Covana dealer for technical support. • Do not operate the cover.
Cover raises but does not lower.	<ul style="list-style-type: none"> • The cam plate is incorrectly positioned or missing. • The key switch is faulty. • Limit switches cannot move properly. 	<ul style="list-style-type: none"> • Remove power before performing any electrical work. • Ask a certified electrician only. Open the operator and check for faulty up and down limit switches. • Check if there is any corrosion on the terminals and clean it if necessary. • Open the key switch and check for faulty switch. • Check if any electrical cables are damaged or pinched.

PROBLEM	PROBABLE CAUSES	SOLUTIONS
Cover lowers but does not raise.	<ul style="list-style-type: none"> • The cam plate is incorrectly positioned or missing. • The key switch is faulty. • Limit switches cannot move properly. 	<ul style="list-style-type: none"> • Remove power before performing any electrical work. • Ask a certified electrician only. Open the operator and check for faulty up and down limit switches. • Check if there is any corrosion on the terminals and clean it if necessary. • Open the key switch and check for faulty switch. • Check if any electrical cables are damaged or pinched.
Cover seal turned black.	<ul style="list-style-type: none"> • The seal has accumulated mold. 	<ul style="list-style-type: none"> • Clean the affected areas with bleach and a soft brush. Rinse well with water.



FOR MORE INFORMATION, AND TO FIND THE NEAREST
COVANA RETAILER VISIT OUR WEBSITE:

covana.com info@covana.com



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committed to excellence since 1969.