

Owner's manual

# Legend

**COVANA**

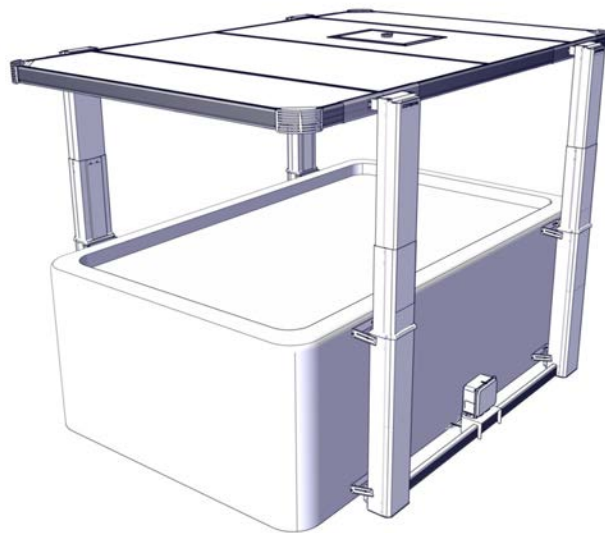




# COVANA

**SPA COVER MANUFACTURER**

**OWNER'S MANUAL**



**MANUAL NO. 252853**

LEGEND COVER

MANUAL NO. 252853

First edition 2023-12-12

REVISION	DESCRIPTION	DATE
0	OWNER'S MANUAL NEW RELEASE	2023-12-12

<b>INTRODUCTION</b> .....	<b>6</b>
CONGRATULATIONS FOR THE PURCHASE OF YOUR NEW COVANA COVER .....	6
IMPORTANT INFORMATION .....	8
<b>SAFETY</b> .....	<b>8</b>
DRUGS AND ALCOHOL .....	8
IMPORTANT SAFETY INSTRUCTIONS .....	8
RISK OF ELECTROCUTION .....	10
ELECTRICAL WARNING .....	11
MODIFICATIONS TO THE COVER .....	11
POSITION OF THE KEY SWITCH .....	12
<b>LABELING</b> .....	<b>14</b>
RISK OF ELECTROCUTION .....	14
INFORMATION ON THE ELECTRICAL CABLES .....	14
KEY SWITCH OPERATION DIAGRAM .....	15
TECHNICAL SPECIFICATIONS .....	15
NO STEP LABEL .....	15
PROPOSITION 65 LABEL .....	16
AVOID DROWNING LABEL .....	16
DO NOT STEP ON THE COVER LABEL .....	16
MAINTENANCE INFORMATION LABEL .....	16
CENTER LABEL .....	16
TOP LABEL .....	16
BATTERY SPECIFICATION LABEL .....	17
<b>GLOSSARY</b> .....	<b>20</b>
<b>INSTALLATION PROCEDURE</b> .....	<b>26</b>
TOOLS REQUIRED .....	26
PREPARATION FOR THE INSTALLATION .....	26
UNPACKING PROCEDURE .....	27
HARDWARE IDENTIFICATION TABLE - BAGS .....	28
ASSEMBLY PREPARATION .....	31
MOUNT BRACKET INSTALLATION .....	47
JACK INSTALLATION .....	49
ELECTRICAL CONNECTIONS .....	57
TESTING THE COVER .....	61
WIPER INSTALLATION .....	62
SEAL INSTALLATION .....	63
UPPER LIMIT RESET OF THE COVER .....	66
INSTALLATION CHECKLIST (CUSTOMER COPY) .....	68
INSTALLATION CHECKLIST (INSTALLER COPY) .....	69
<b>OPERATE THE COVER</b> .....	<b>72</b>
RAISING/LOWERING THE COVER WITH THE KEY SWITCH .....	72

USING THE ESCAPE HATCH .....	72
BATTERY CHARGING .....	73
<b>ELECTRICAL DIAGRAMS .....</b>	<b>76</b>
WIRING DIAGRAM (NORTH AMERICA) – 60 HZ, 120 VAC CONTROL BOX .....	77
<b>MAINTENANCE .....</b>	<b>80</b>
WINTERIZING .....	80
WASHING THE COVER .....	80
POST GREASING .....	81
PERIODIC MAINTENANCE TABLE .....	83
<b>TECHNICAL SPECIFICATIONS .....</b>	<b>86</b>
COVER SIDE VIEW .....	86
FRAME DIMENSIONS AND FOOT PRINT (CONCRETE PAD RECOMMENDED) .....	87
CONCRETE PAD OPTIONS .....	88
ELECTRICAL SPECIFICATIONS (AC OPERATED MODEL) .....	89
ELECTRICAL SPECIFICATIONS (BATTERY OPERATED MODEL) .....	89
OPERATION LIMITATIONS .....	89
GENERAL SPECIFICATIONS .....	89
<b>TROUBLESHOOTING .....</b>	<b>92</b>



# 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.

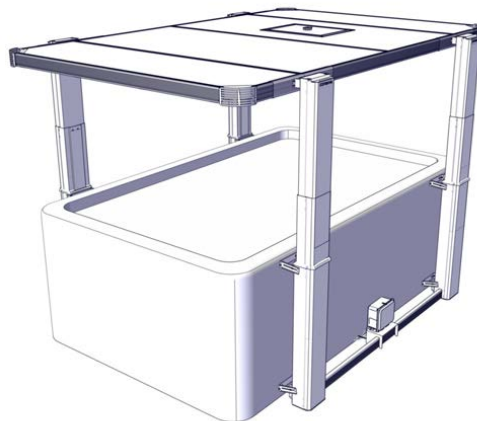


FIGURE 1: LEGEND COVER MODEL



# 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 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 posts of the cover must be properly anchored to the spa frame using the tub mounting brackets and arms.
- This product mainly contains steel, plastic, fiberglass, foam, copper and die-cast aluminum. Please recycle properly according to the local rules.
- For the battery-operated option or the emergency backup option, both are powered by a rechargeable sealed lead acid battery. Please recycle properly.

## 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 control box 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.
- One bonding lug is installed on one non-motor jack. To reduce the risk of electric shock, connect the cover bonding lug to the local common bonding grid in the area. Use terminals with an insulated or bare copper conductor no smaller than No. 6 AWG (4.11 mm).
- 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 / 13.30mm<sup>2</sup>). (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.

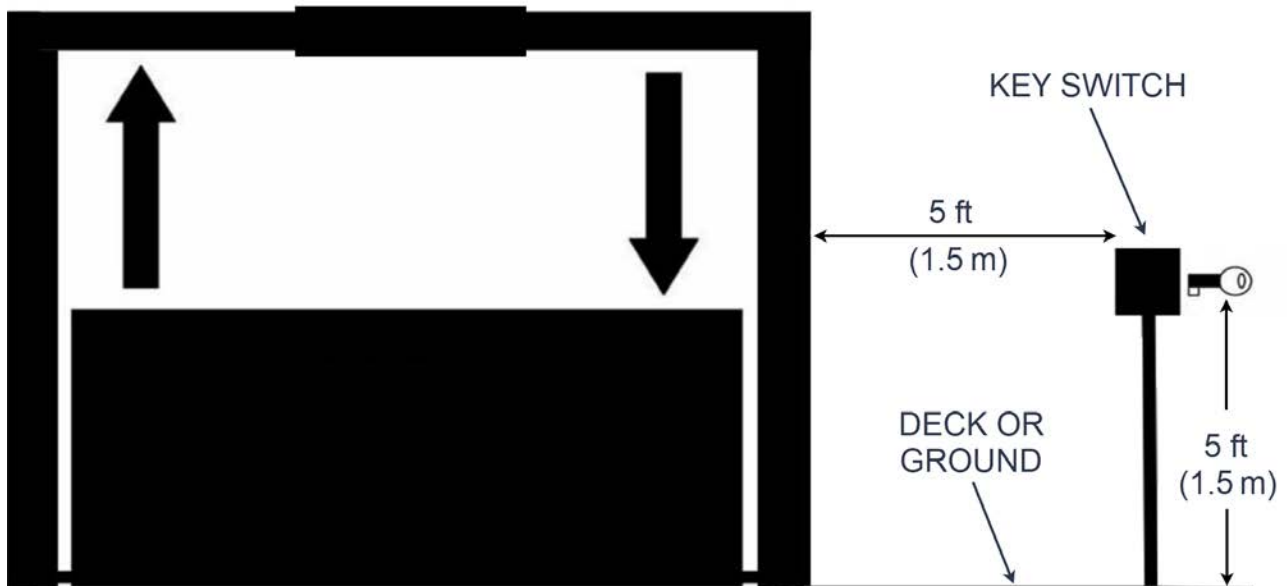



FIGURE 2: POSITION OF THE KEY SWITCH

# LABELING

# LABELING

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

 <b>WARNING</b>
<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

(For AC-operated models only)

This label warns the user about the risk of electrocution. It is located on the AC control box

 <b>WARNING</b>
<p><b>RISK OF INJURY</b> DISCONNECT OR TURN OFF ALL POWER SUPPLY BEFORE STARTING INTERVENTION ON THE SPA COVER</p>
 <b>AVERTISSEMENT</b>
<p><b>RISQUE DE BLESSURE</b> DÉBRANCHER OU COUPER L'ALIMENTATION ÉLECTRIQUE AVANT TOUTE INTERVENTION SUR LE COUVERCLE DE SPA</p>
 <b>ADVERTENCIA</b>
<p><b>RIESGO DE LESIONES</b> 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>995002</p> <p>LIRE LE MANUEL D'INSTRUCTION</p>	<p>RIESGO DE LESIONES EN EL AGUA CUBIERTA ESTANDO PROHIBIDO OPERAR</p>
 <b>ATTENTION</b>	 <b>ADVERTENCIA</b>
<p>READ THE INSTRUCTION MANUAL</p>	<p>RISK OF INJURY WHILE IN WATER</p>
 <b>CAUTION</b>	
 <b>CAUTION</b>	 <b>WARNING</b>
<p>CONNECT ONLY TO A CIRCUIT PROTECTED BY A CLASS A GROUND FAULT CIRCUIT INTERRUPTER</p>	<p>AVERTISSEMENT</p> 
 <b>ATTENTION</b>	<p><b>NE PAS ACTIVER</b> EN ÉTANT DANS L'EAU</p> <p>RISQUE DE BLESSURE</p> <p>230548</p>
<p>CONNECTER UNIQUEMENT À UN CIRCUIT PROTÉGÉ PAR UN DISJONCTEUR DIFFÉRENTIEL DE CLASSE A</p>	

FIGURE 4: DANGER WITH WATER



### KEY SWITCH OPERATION DIAGRAM

This label shows the user how to turn the key into the key switch to raise or lower the cover.

The label is located on the key switch.

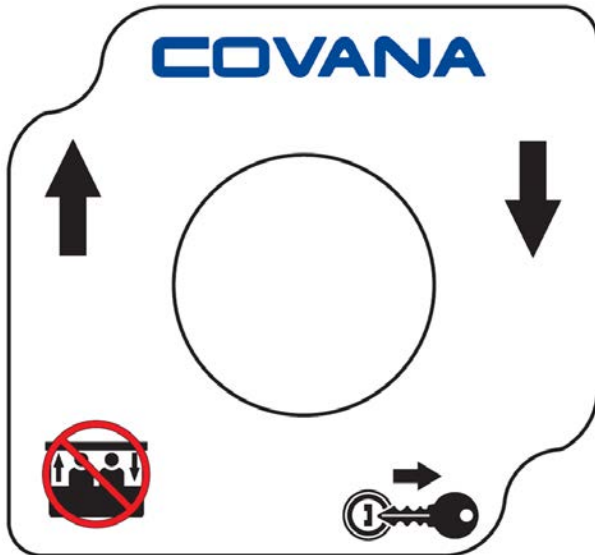


FIGURE 5: KEY SWITCH OPERATION DIAGRAM

### TECHNICAL SPECIFICATIONS

This label shows the important technical specifications. It is located on the control box of the AC-operated model.

**NOTE**

*This label also shows the serial number of the cover.*

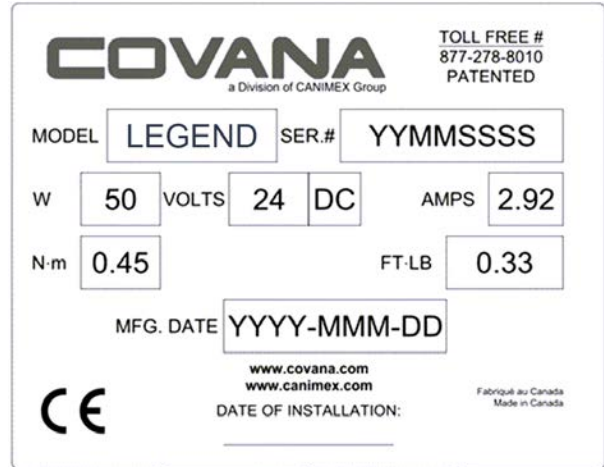


FIGURE 6: BATTERY OPERATED MODEL ONLY

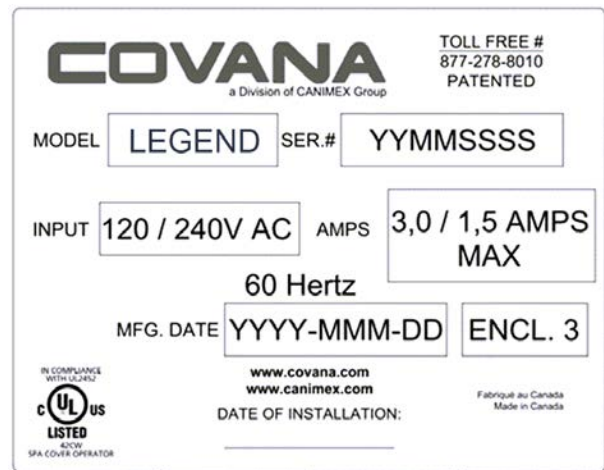


FIGURE 7: AC OPERATED NORTH AMERICAN MODEL ONLY

### 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 control box of the AC-operated model.



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).

For the AC-operated model, the label is located on the control box.

For the battery operated model, the label is located on the side of the control box housing.

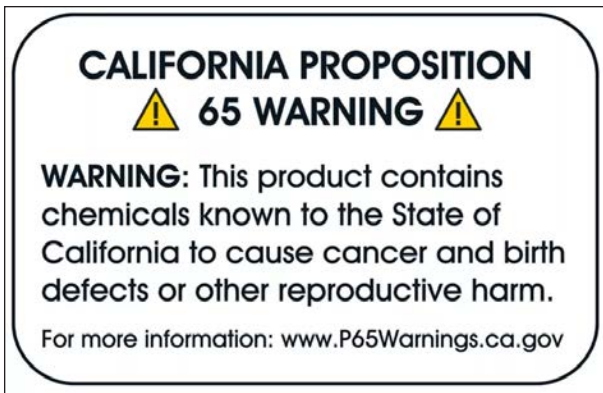


FIGURE 9: PROPOSITION 65 LABEL

### 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.

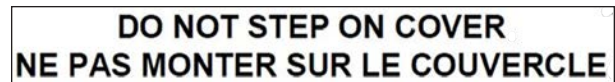


FIGURE 11: DO NOT STEP ON THE COVER LABEL

### 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

### CENTER LABEL

This label is located on the 94.6" (240 cm) long C-channel (remove after installation).

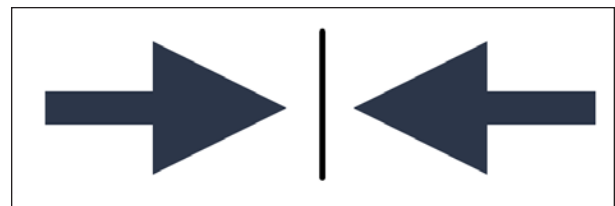


FIGURE 13: CENTER LABEL

### TOP LABEL

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



FIGURE 14: TOP LABEL

### BATTERY SPECIFICATION LABEL

This label is located on the battery pack casing.

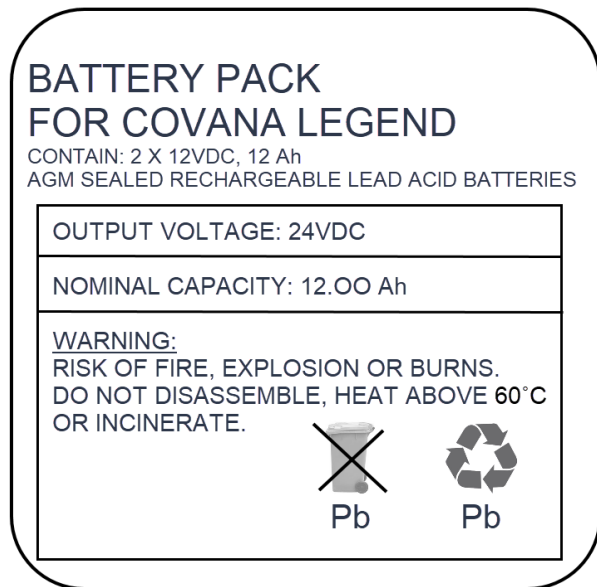
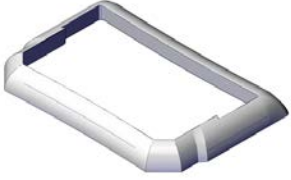
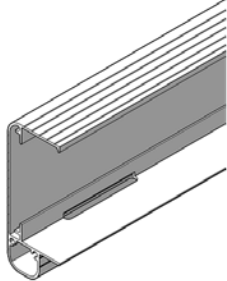

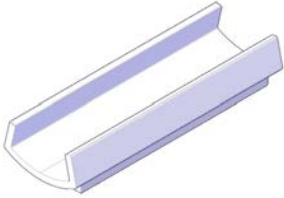




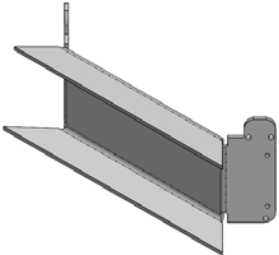
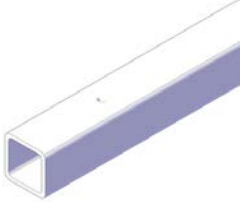


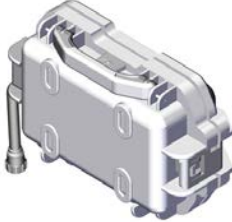
FIGURE 15: BATTERY SPECIFICATION LABEL

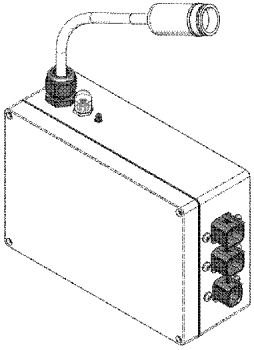
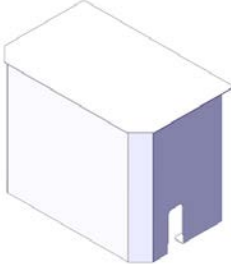

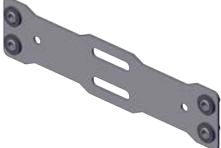

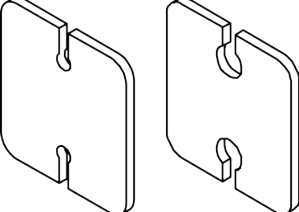


# GLOSSARY



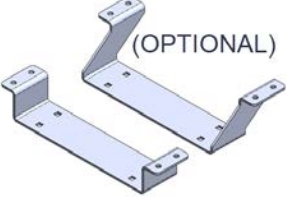



# GLOSSARY

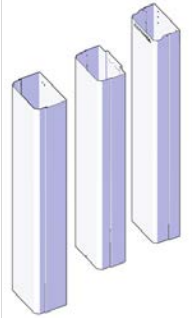
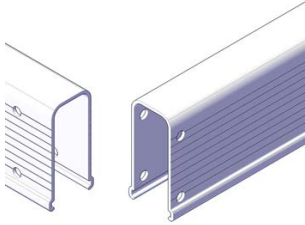
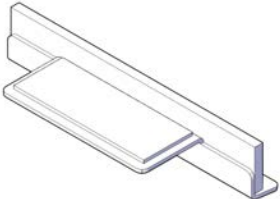
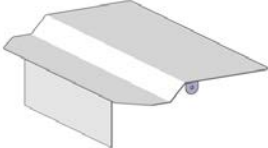

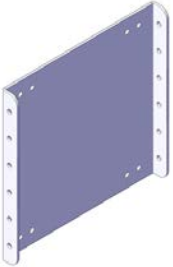
PART	IMAGE	FUNCTION
Sleeve all-weather seal		<p>This all-weather seal protects sleeves from damage due to weather.</p>
C-channel		<p>The C-channel is the outer frame of the cover panels.</p>
Contour seal		<p>The contour seal ensures even contact between the cover and the spa, preventing the entry of contaminants into the spa or the loss of heat from the spa.</p>
Contour seal installation clip		<p>Contour seal installation clips are temporary parts used to facilitate the installation of the seal. The clips are used during the installation process to ensure the seal is installed properly.</p>
Contour seal connector		<p>The seal connector is used to link both ends of the contour seal.</p>

PART	IMAGE	FUNCTION
Outside corner		The outside corner is an aesthetic aluminum grid fixed to the corner bracket.
Outside corner bracket		The outside corner brackets link the Cchannels on the side to the ones in front and back.
Drive shaft		The drive shaft transmits the power between the jack assemblies.
Escape hatch		The escape hatch is a removable panel and part of the cover. Refer to section <a href="#">USING THE ESCAPE HATCH</a> .
AC control box (AC-operated model only)		The AC control box powers and controls the lifting mechanism of the cover.
Battery pack (Battery-operated model and battery backup only)		The battery pack is a sealed case where the two 12 V batteries are located.

PART	IMAGE	FUNCTION
<p>Control box (for battery-operated model only)</p>		<p>The control box manages the movement of the unit.</p>
<p>Control box housing (for battery-operated model only)</p>		<p>The control box housing contains the control box and the battery pack of the cover.</p>
<p>I-beam</p>		<p>The I-beams are the aluminum extrusions installed between the cover panels.</p>
<p>I to C connection plate (long)</p>		<p>The long I to C connection plate makes the link between the I-beam, the C-channels, and the sleeves.</p>
<p>I to C connection plate (short)</p>		<p>The short I to C connection plate is installed between the I-beams and C-channels.</p>
<p>I to C spacer</p>		<p>The I to C spacer creates the necessary space between the I to C connection plate, thus allowing the I-Beam to easily slide into the C-Channel. It prevents the over-tightening of the I to C connection plates.</p>



PART	IMAGE	FUNCTION
Key switch		The key switch is used to operate the cover.
Foam spacer		The foam spacer are used for the installation process to protect the spa from direct contact with the cover. They are removed after installation of the contour seal.
Post mount bracket or Dual side bracket (optional)		Post mount bracket links the sleeves and posts to the cover. Dual side bracket is used for higher or lower spa.
Mount bracket arm		This mount bracket arm links the sleeves and spa together.
Jack assembly (with or without motor)		The jack allows the cover to move up and down.
Support bracket		The support bracket strengthens the joint between the center C-channel to the C-channel on either side. It clips and is screwed on the top and bottom. It also acts as the link between the cover and the inner sleeve of the post via the cover mounting bracket.

PART	IMAGE	FUNCTION
Sleeve		<p>The sleeves are aluminum extrusions to hide and protect the jacks.</p>
U-frame		<p>The U-frames protect the drive shaft. They are fastened to the bottom of the posts.</p>
Wiper		<p>The wiper is attached under the I-beams. This component ensures the waterproofing of the cover.</p>
Top plate		<p>The top plate is a cover that is installed on the sleeve assembly.</p>
Tub mount bracket		<p>This bracket links the cover to the spa. There is one tub mount bracket located at the top of the outer sleeve and one at the bottom for every post.</p>
Extended tub mount bracket (optional)		<p>The extended tub mount bracket is optional for spas with a <b>structure</b> over 50" (127 cm) high. This bracket will replace the upper tub mount bracket on the spa and will allow for better mounting options.</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
- Sheet metal shears
- 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
- 9/16" (14 mm) wrench
- 5/32" (4 mm) Drill bit (supplied)
- 5/32" (4 mm) Allen key (supplied)
- 7/32" (5.5 mm) Allen key
- 25' (7.62 m) measuring tape
- Rubber mallet
- Power drill

- SAE or metric Socket kit
- 48" (122 cm) level
- Step ladder
- J-Roller with rubber roller
- Masking tape
- Permanent marker
- Antiseize lubricant for stainless steel

**The following hardware MIGHT NOT BE INCLUDED, but is required for the mount bracket installation:**

- 32 screws for tub mount bracket installation: 4 screws per bracket (0.26" hole diameter on the bracket). The screws must make it possible to attach the cover securely on the spa frame.
- Two screws to fasten the key switch to its permanent mounting location (0.17" 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 fastened to the spa frame. It is the installer's responsibility to ensure the cover is properly fastened in a safe manner.

Just like the spa, the cover requires a solid foundation. The foundation for the cover must be able to support at least 1,000 lb (454 kg).

Ideally, the cover must be put on the spa foundation, see Technical Specifications section. When not possible, a concrete pier or some cover support dedicated slabs must be provided, see Technical Specifications section. Those independent supports must respect the same level variation as mentioned below.

The foundation must be leveled with a maximum tolerance of 1" (2.5 cm) over a 153" (3.89 m) diagonal section and 112" (2.84 m) by 104¼" (2.65 m) rectangle, see [Figure 16](#). The annual variation in levelness for the same diagonal section cannot exceed 1/4" (6 mm).

A path at least 1" (2.5 cm) wide all around the perimeter of the spa is necessary to properly install the seal.

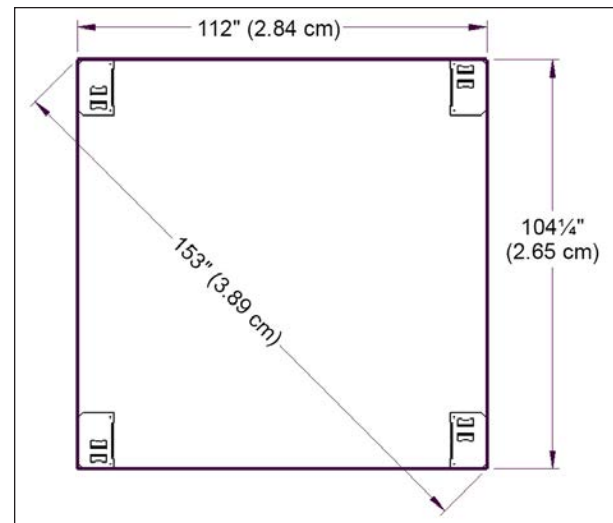


FIGURE 16: FOUNDATION DIAGONAL

### 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

*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.*

**HARDWARE IDENTIFICATION TABLE - BAGS**

**No. 10**

12 TO 15': **13x**  
16 TO 20': **21x**

12 TO 15': **13x**  
16 TO 20': **21x**

**9x**

12 TO 15': **13x**  
16 TO 20': **21x**

12 TO 15': **2x**  
16 TO 20': **6x**

**4x**

**No. 20**

**5x**

**4x**

240853 12 TO 15'  
240852 16 TO 20'

**5x**

**5x**

**No. 30**

**17x**

**5x**

**No. 40**

**45x**

235540 MOCHA  
235541 SLATE

**4x**

240851

**No. 50**

**4x**

**4x**

**4x**

**4x**

**4x**

**4x**

**Tools**

**1x**

**1x**

**No. 60**

**11x**

202010 MOCHA  
202009 SLATE

**33x**

**33x**

**33x**

**33x**

**42x**

**33x**

**No. 70**

**17x**

**8x**

**17x**

**21x**

**9x**

**9x**

**18x**

**4x**

**4x**

**2x**

ID	USE	QTY	DESCRIPTION
No. 10	<b>Preparation of the I-Beams</b>	4	I-TO-C CONNECTION SPACER LONG PLATE
		9	3/8" UNTHREADED SPACER
		13 or 21	10-32 HEX NUT
		13 or 21	5/8" FLAT WASHER
		13 or 21	10-32 x 5/8" LOW PROFILE SOCKET SCREW
		2 or 6	I-TO-C CONNECTION SPACER SHORT PLATE
No. 20	<b>Cable installation on the I-to-C long connection plate</b>	4	3/32" AIRCRAFT SWAGED WIRE ROPE EYELET
		5	5/16-18 x 5/8" LOW PROFILE SOCKET SCREW
		5	5/16" TYPE A PLAIN WASHER
		5	5/16-18 HEX NYLON LOCK NUT
No. 30	<b>Cover mount bracket installation</b>	17	1/4-20 x 1" BUTTON HEAD SOCKET CAP SCREW SS 18-8
		5	8- 32 x 3/8" HEXAGONAL SLOTTED THREAD-CUTTING SCREW
No. 40S or 40M	<b>Corner installation</b>	4	GROOVE FLANGE HEX SHAFT BUSHING
		45	#8- 32 X 1/2" PAN HEAD SQUARE THREAD-CUTTING SCREW
No. 50	<b>Griplock installation</b>	4	CABLE GRIPPER
		4	3/8-16 x 1 3/4" COUPLING NUT
		4	3/8-16 x 4" HOLLOW ROD
		4	3/8-16 WING NUT
		4	3/8-16 HEX NUT
		4	3/8" WASHER
No. 60S or 60M	<b>Top plate, sleeve and spa bracket</b>	33	#10- 12 x 3/4" PAN HEAD PHILLIPS SS 18-8 SELF-TAPPING SCREW
		33	1/4-20 X 1" BUTTON HEAD SOCKET CAP SS 18-8 SCREW
		33	1/4" SS 316 LOCK WASHER
		33	1/4-20 SS 316 HEX NUT
		42	1/4" INTERNAL/EXTERNAL TOOTH LOCKWASHER
		11	#8 x 1/2" SELF-TAPPING SCREW

ID	USE	QTY	DESCRIPTION
No. 70	<b>U-frame, sleeve to corner installation</b>	9	5/16-18 x 2" HEX CAP SCREW
		18	5/16" NYLON WASHER
		9	5/16-18 HEX NYLON LOCK NUT
		21	1/4-20 SS 316 HEX NUT
		17	1/4 SS 316 LOCK WASHER
		17	1/4-20 x 3/4" SS 18-8 CARRIAGE SCREW
		8	1/4-20 x 1" SS 18-8 HEX CAP SCREW
		4	1/4-20 x 5/16" HEXAGONAL HEAD SCREW
		4	1/4" INTERNAL/EXTERNAL TOOTH LOCKWASHER
		2	8- 32 x 3/8" HEXAGONAL SLOTTED THREAD-CUTTING SCREW
N/A	<b>Tools</b>	1	5/32" HEX ALLEN KEY
		1	5/32" DRILL BIT



## ASSEMBLY PREPARATION

Next steps show how to assemble the cover.

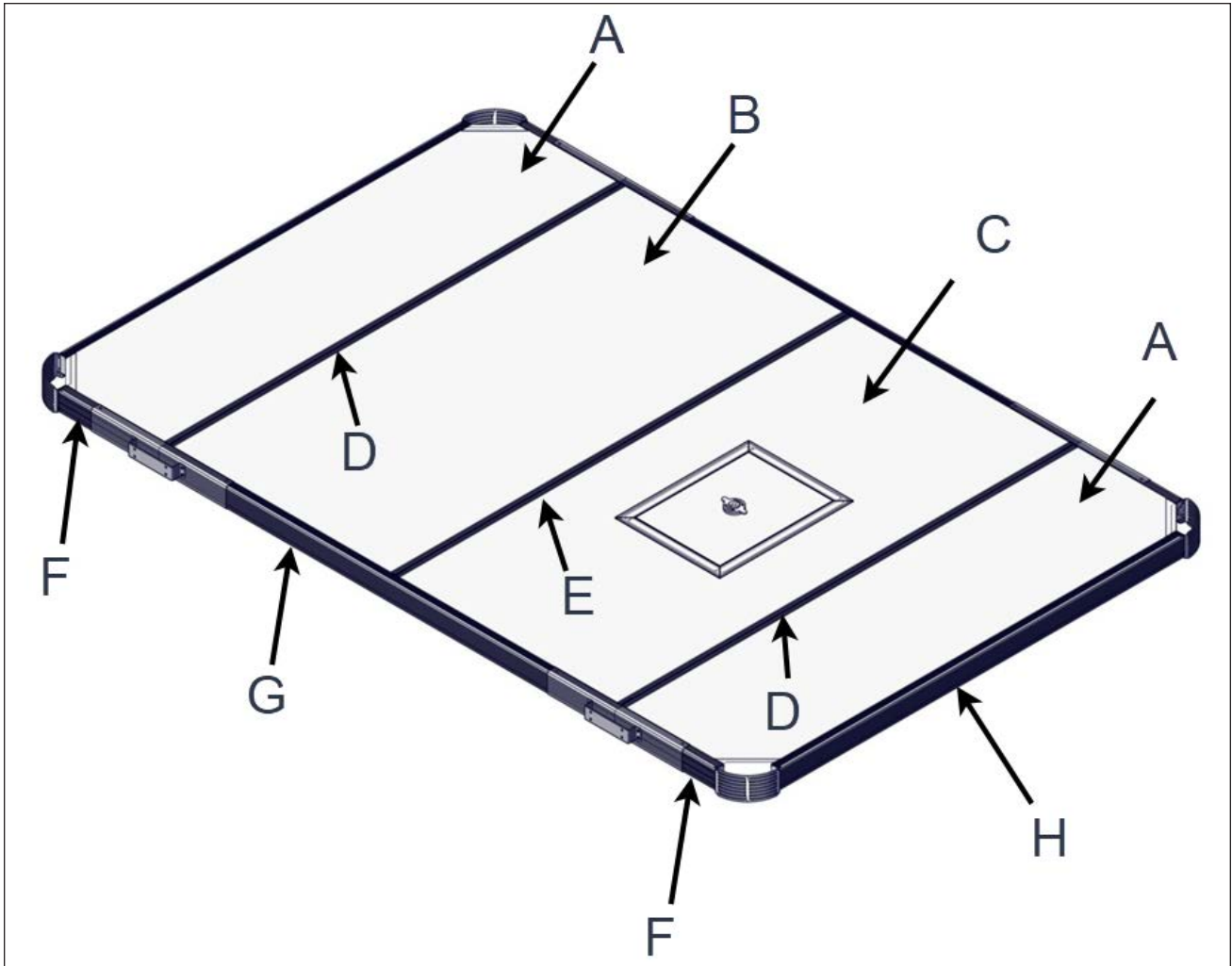


FIGURE 17: SPA COVER SETUP (12' TO 15' LONG)

ID	DESCRIPTION
A	END PANEL
B	MIDDLE PANEL
C	MIDDLE PANEL WITH ESCAPE HATCH
D	I-BEAM WITH I TO C LONG CONNECTION PLATE
E	I-BEAM WITH I TO C SHORT CONNECTION PLATE
F	SIDE EXTENSION C-CHANNEL
G	SIDE MIDDLE C-CHANNEL
H	END C-CHANNEL

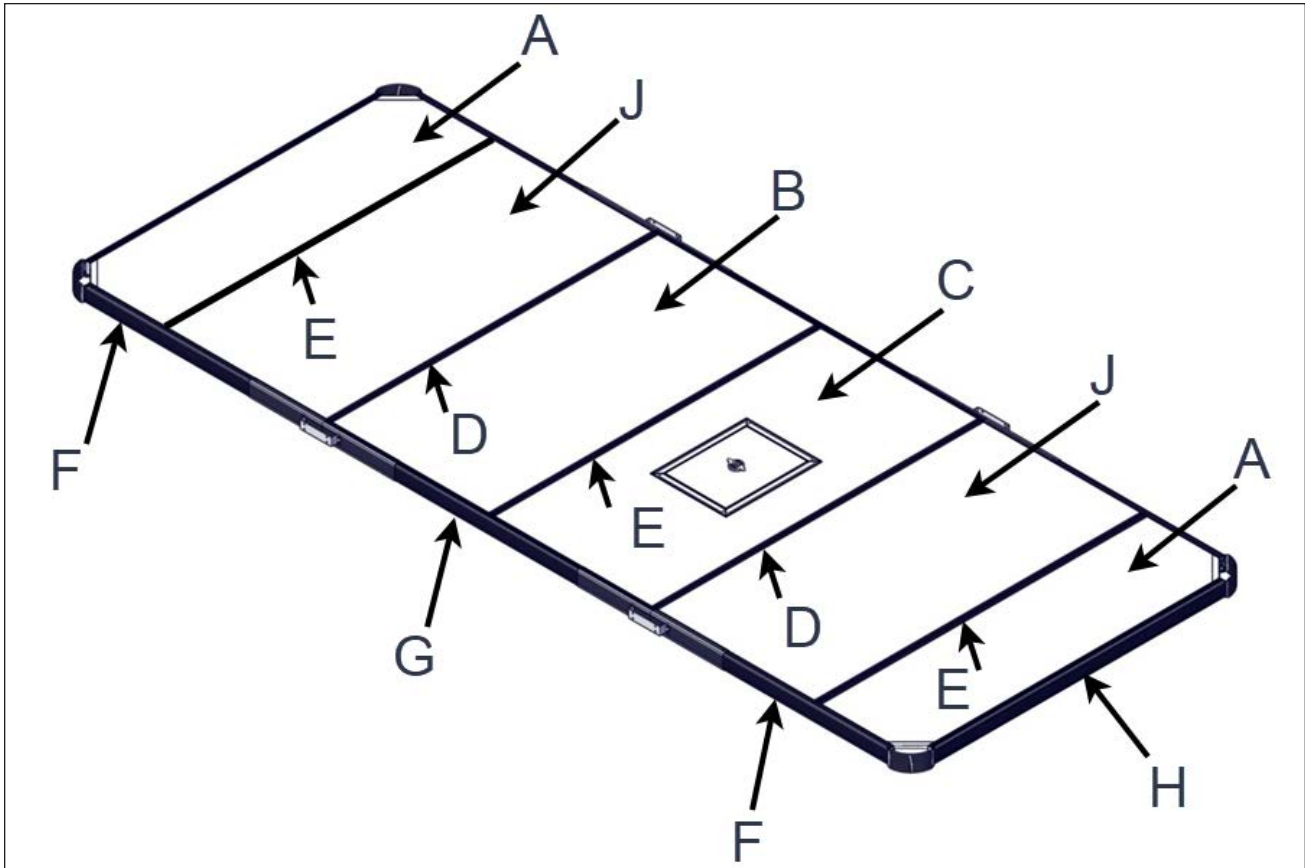


FIGURE 18: SPA COVER SETUP (16' TO 20' LONG)

ID	DESCRIPTION
A	END PANEL
B	MIDDLE PANEL
C	MIDDLE PANEL WITH ESCAPE HATCH
D	I-BEAM WITH I TO C LONG CONNECTION PLATE
E	I-BEAM WITH I TO C SHORT CONNECTION PLATE
F	SIDE EXTENSION C-CHANNEL
G	SIDE MIDDLE C-CHANNEL
H	END C-CHANNEL
J	EXTRA PANEL*

\* If your swim spa has two sections, the installation of two escape hatches is mandatory.



**WARNING**

Before assembling, keep in mind that the screws may break or strip if the torque is too much when using power tools.

### FOAM INSTALLATION

1. Install the foam spacers on the top of the spa using the masking tape provided in the seal bag to keep the spacers in place. There must be at least four foam spacers on each long side plus two in each corner. Do not stack foam spacers, see [Figure 19](#).

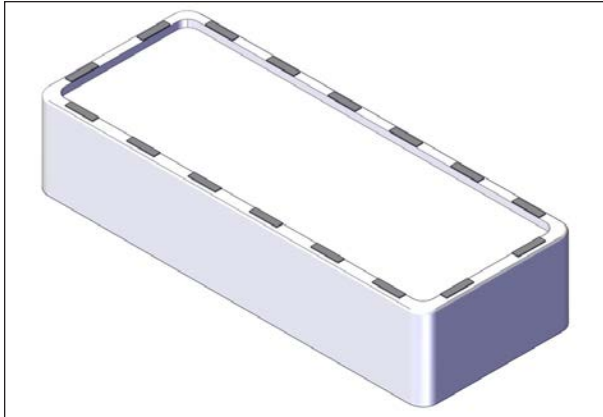


FIGURE 19: FOAM SPACER INSTALLATION



### 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.



### 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.

### PREPARATION OF I-BEAMS

This section shows how to assemble the I to C plates on the I-beams.

### NOTE

Use hardware bag no. 10 for the following steps.

### I TO C PLATE INSTALLATION ON THE I-BEAMS

1. Install an I to C long connection plate as shown in [Figure 20](#). See the table following the figure for the fasteners to use.

### NOTE

Do not forget to orientate the nut inserts of the connection plate facing inwards, see [Figure 20](#).

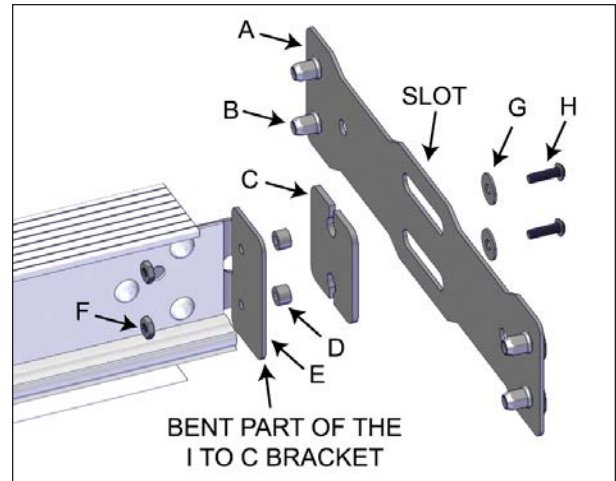


FIGURE 20: I TO C LONG CONNECTION PLATE INSTALLATION

ID	DESCRIPTION
A	I TO C LONG CONNECTION PLATE
B	INSERT
C	I TO C SPACER
D	SPACER
E	I TO C BRACKET
F	NUT #10-32
G	FLAT WASHER #10
H	SCREW #10-32 x 5/8"

**CAUTION**

Two I to C long connection plates must be installed per I-beam and on two I-beam.

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

Make sure there is grease in the inserts before installing it; if not, apply some anti-seize lubricant for stainless steel in the inserts.

Make sure the I-beam is free to move in the slots of the I to C long connection plates.

Make sure the spacers (item D, [Figure 21](#)) are in place between the I to C bracket and the I to C long connection plate.

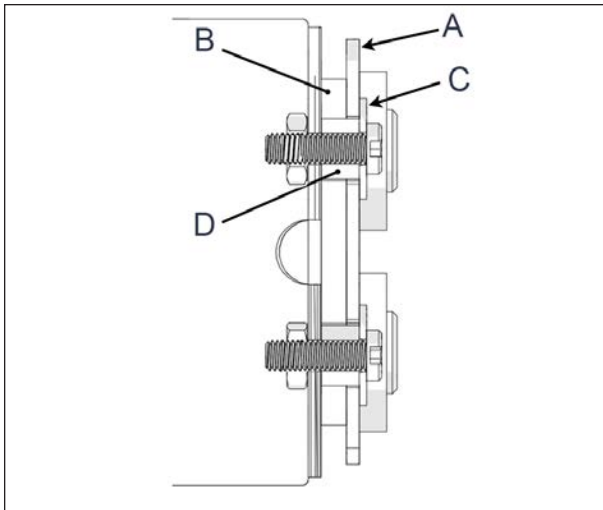


FIGURE 21: I TO C LONG CONNECTION PLATE SECTION VIEW

ID	DESCRIPTION
A	I TO C LONG CONNECTION PLATE
B	I TO C SPACER
C	FLAT WASHER #10
D	SPACER

**WARNING**

The orientation and the installation of each component shown on must be imperatively and exactly mounted as it is shown on the figure to succeed the cover installation.

2. Repeat the previous steps for the opposite side of the I-beam and repeat on a second I-beam.
3. Next steps show how to assemble the I-beam with the short I to C connection plate.

QUANTITY OF I-BEAMS TO ASSEMBLE WITH THE SHORT I TO C CONNECTION PLATE	
COVER LENGTH	QUANTITY
12' to 15' long	1
16' to 20' long	3

4. 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 22](#).

**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.

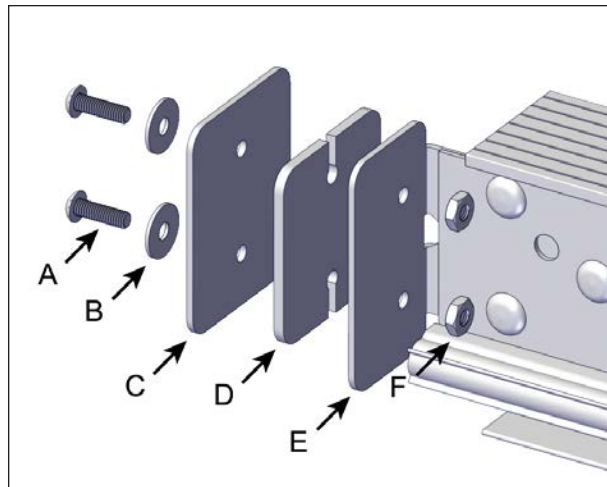


FIGURE 22: I-BEAM WITH THE SHORT I TO C CONNECTION PLATE INSTALLATION

ID	DESCRIPTION
A	SCREW #10-32 X 5/8"
B	FLAT WASHER #10

ID	DESCRIPTION
C	I TO C SHORT CONNECTION PLATE
D	I TO C SPACER
E	BENT PART OF I TO C BRACKET
F	NUT #10-32

**CABLE INSTALLATION ON THE I TO C LONG CONNECTION PLATE**

**NOTE**

Use hardware bag no. 20 for the following steps.

1. Install the cable with the eyelet flat side in contact with the long connection plate, see [Figure 23](#). See the table following the image for the fasteners to use.

**NOTE**

Check that the eyelet of the cable is parallel to the longitudinal side of the I to C long connection plate when it is installed.

Make sure to use the appropriate hole as shown in image [Figure 23](#).

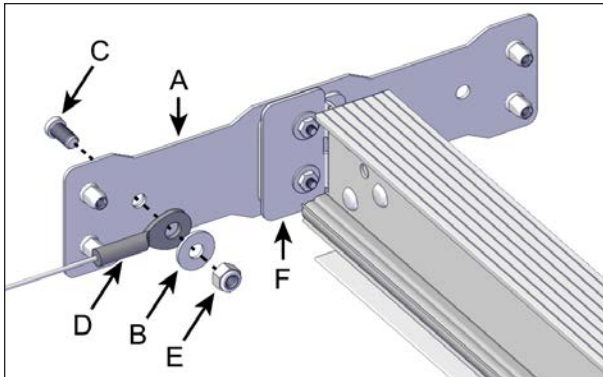


FIGURE 23: WIRE INSTALLATION

ID	DESCRIPTION
A	I TO C LONG CONNECTION PLATE
B	FLAT WASHER 5/16"
C	SCREW 5/16-18 x 5/8"
D	WIRE FOR GRIPLOCK INSTALLATION
E	LOCK NUT 5/16-18
F	I TO C BRACKET

**PANEL INSTALLATION**

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



**CAUTION**

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

2. Install the escape hatch panel (approx 47" x 96" [119 cm x 244 cm]) onto the middle of the installation surface, see [Figure 24](#). Ensure the TOP/DESSUS label ([Figure 24](#)) located in the panel hole is properly oriented.

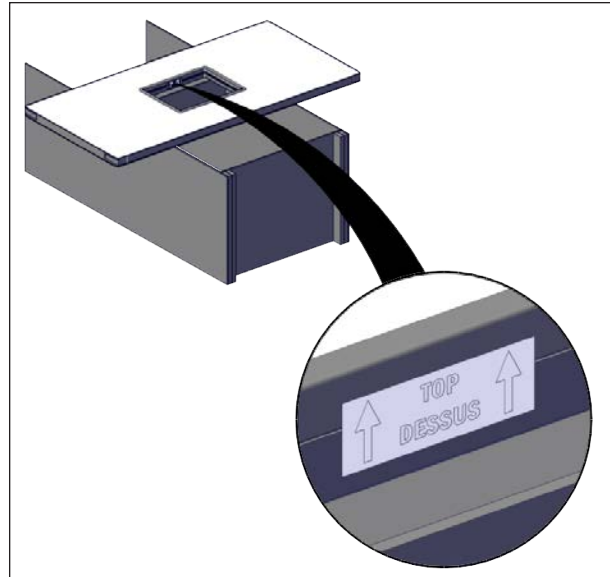


FIGURE 24: PANEL INSTALLATION

3. Locate the escape hatch box (one hatch for standard spas, two for dual zone spas).
4. 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 25](#).

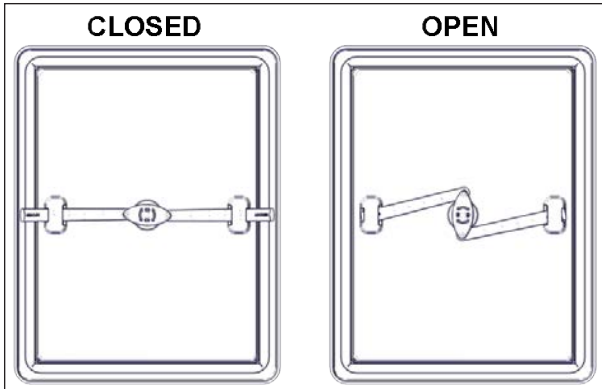


FIGURE 25: ESCAPE HATCH LOCKING MECHANISM

5. Turn the escape hatch handle to retract the arms and install it into the escape hatch opening of the center panel, see [Figure 26](#).

**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.

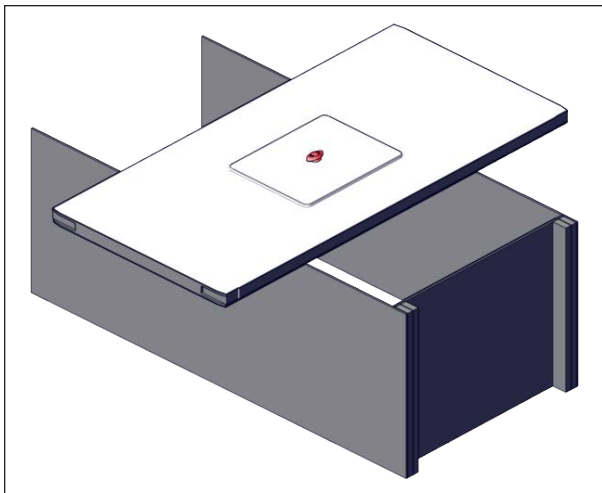


FIGURE 26: ESCAPE HATCH INSTALLATION

6. Install 2 long C-channels 94 9/16" (240 cm) on the panel so that the middle of the C-channel, premarked with a center label ([Figure 28](#)), is aligned with the edge of the panel, see [Figure 27](#).

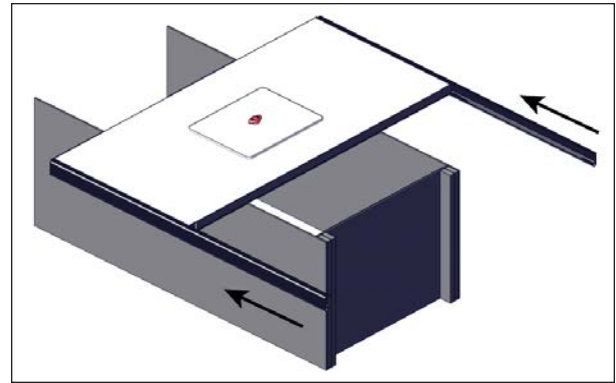


FIGURE 27: LONG C-CHANNEL INSTALLATION

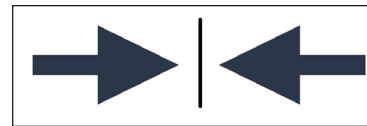


FIGURE 28: CENTER LABEL

**WARNING**

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

7. Slide one I-beam with short I to C connection plates in the C-channels. Install the I-beam in such a manner that the bent portion of the I to C bracket is pointing outwards ([Figure 29](#)). Make sure it fits snugly with the foam panel. Ensure the top label in the I-beam is pointing upwards.

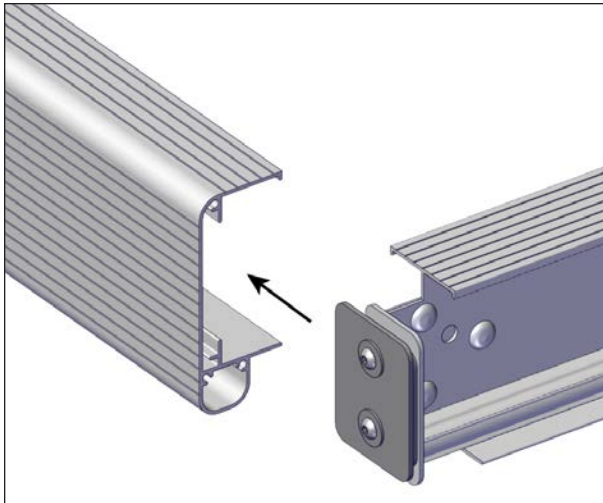


FIGURE 29: I-BEAM INSTALLATION

**CAUTION**

Ensure the upright position of the I-beam.

Ensure the proper insertion of the short I to C connection plate in the C-channel ([Figure 30](#)).

When inserting the I-beam into the fiberglass foam panel, make sure not to chip the fiberglass.

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

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

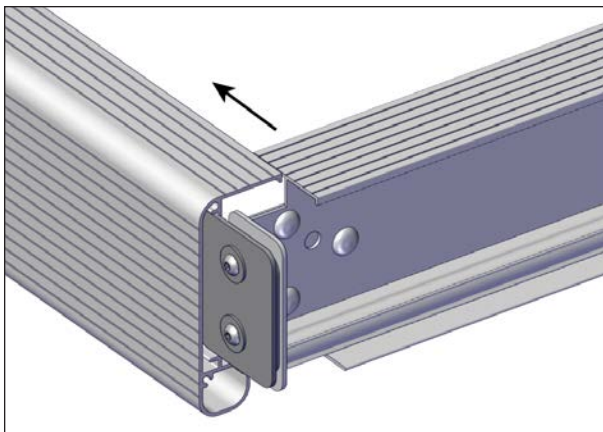


FIGURE 30: I-BEAM INSTALLATION

8. Slide the large panel (approx. 47" x 96" [119 cm x 243 cm]) into the C-channels. Ensure the I-beam has slid over the panel on both the bottom and top side ([Figure 31](#)).

**CAUTION**

Ensure that the panel is pushed as far as possible by hand and is completely inserted in the I-beam.

Ensure that the panel groove is oriented downwards.

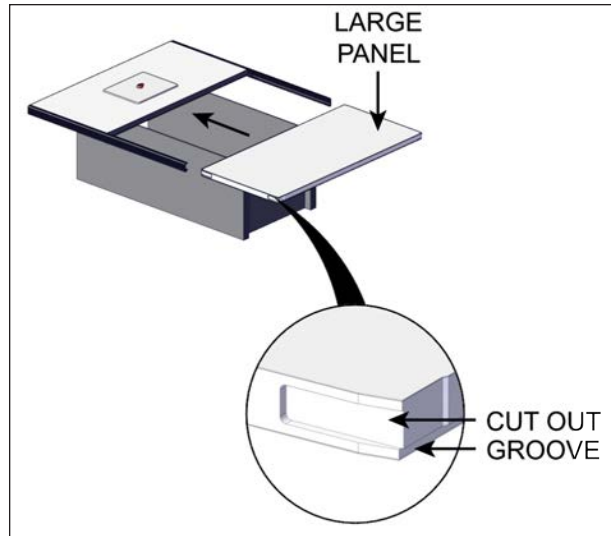


FIGURE 31: INSTALL LARGE PANEL INTO THE C-CHANNELS

**WARNING**

Make sure the panel side with the cut out shown in [Figure 31](#) is pointing outward.

9. Install both I-Beams with the long I to C connection plates in such a manner that the bent portion of the I to C bracket is pointing outwards, see [Figure 32](#) and [Figure 33](#).
10. Align by hand the C-channels (left and right sides) in such a manner that the I to C connection plate holes are visible behind the C-channel, see [Figure 33](#).

**WARNING**

Ensure the I-beam is oriented toward the top as indicated by the arrows on the TOP/DESSUS label.

When assembling the I-beam onto the foam panel, be careful not to delaminate the fiberglass.

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

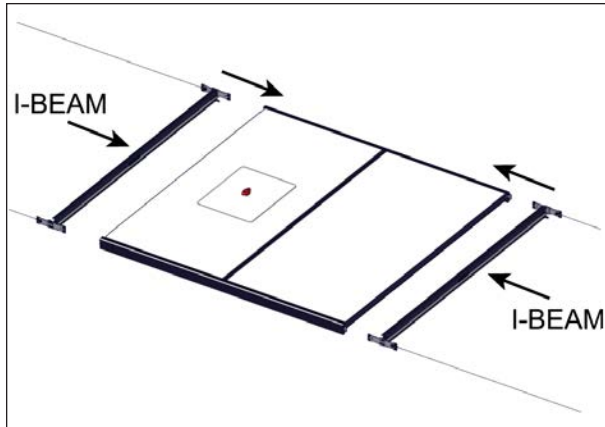


FIGURE 32: INSTALL BOTH I-BEAMS WITH LONG I TO C CONNECTION PLATES

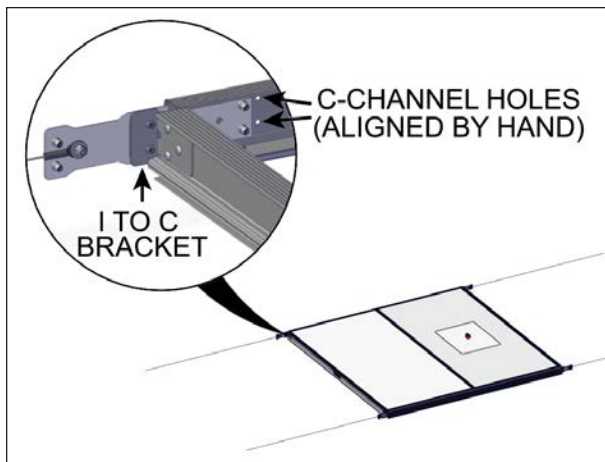


FIGURE 33: I-BEAM WITH LONG I TO C CONNECTION PLATE

**NOTE**

Use hardware bag no. 30 for the following step.

11. Refer to [Figure 34](#) for this step. Align the holes of the support bracket (item A), the holes of the post mount bracket (item D), and the holes of the long C-channel by hand. Assemble them with two 1/4" x 1" socket head screws. Tighten to a torque value of 5 ft-lb.
12. Repeat the previous step for the remaining brackets, see [Figure 35](#).

**NOTE**

Remove the "Center" labels from the C-channels.



**WARNING**

Make sure the I-beam is still free to move in the I to C slots.

**NOTE**

For some spas, optional dual side brackets (item B, [Figure 34](#)) are needed to mount the cover to the posts. The installation of these brackets is made the same way as for the post mount brackets described in the previous step.

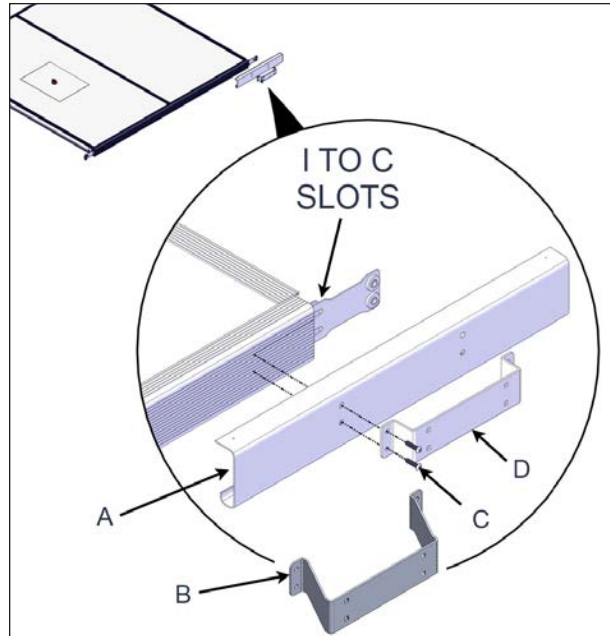


FIGURE 34: POST MOUNT BRACKET INSTALLATION

ID	DESCRIPTION
A	SUPPORT BRACKET
B	DUAL SIDE BRACKET (OPTIONAL)
C	1/4-20 X 1" SOC RD HEAD SCREW
D	POST MOUNT BRACKET



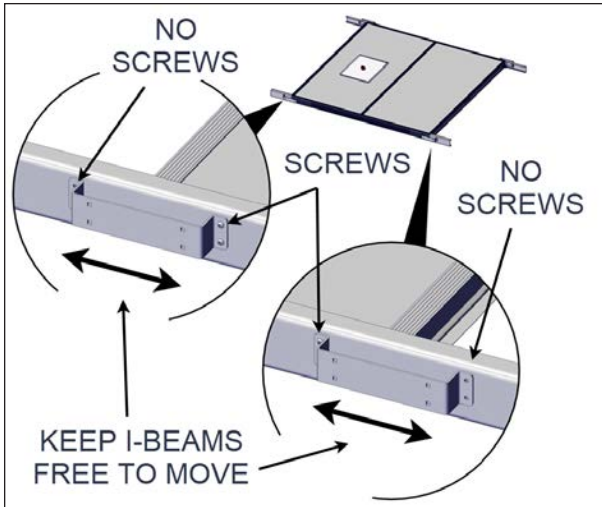


FIGURE 35: OTHER POST BRACKET INSTALLATION

13. If it is not done yet, carefully position the assembled center section of the cover onto the middle of the spa. Try to align the cover as best as possible, see [Figure 36](#).

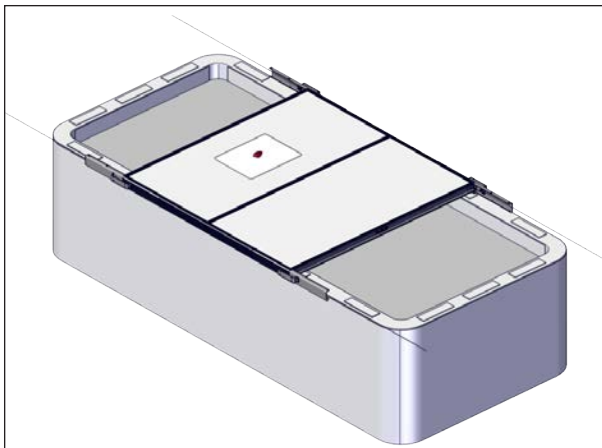


FIGURE 36: INSTALLATION OF THE COVER ON THE SPA

**CAUTION**

Failure to gently position the cover onto the spa could result in scratching the acrylic of the spa or damaging the cover.

Ensure foam spacers are correctly positioned under the I-beams to simulate seal height.

14. Insert the side extension C-channel inside the support bracket, see [Figure 37](#).

**NOTE**

There are two slots at one end of the C-channels. The slots must go toward the cover, see [Figure 37](#).

Ensure that the long I to C connection plate is well inserted into the short C-channel.

Make sure that the cable runs through the gutter of the side extension C-channel.

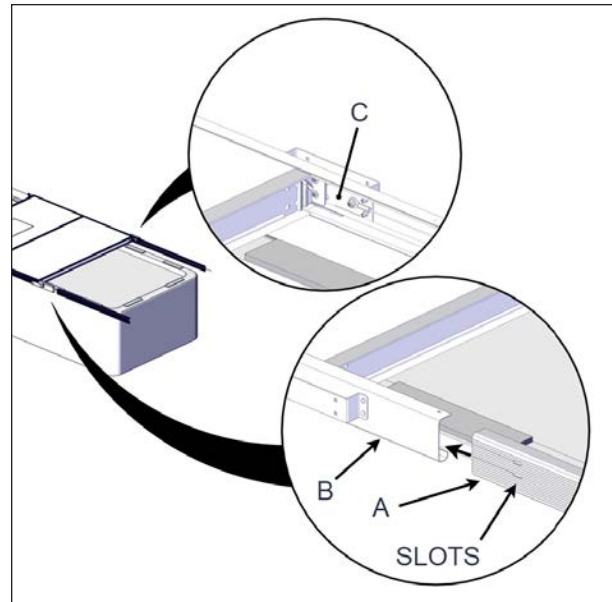


FIGURE 37: SIDE EXTENSION C-CHANNEL INSTALLATION

ID	DESCRIPTION
A	SIDE EXTENSION C-CHANNEL
B	SUPPORT BRACKET
C	I TO C LONG CONNECTION PLATE

**NOTE**

Use hardware bag no. 30 for the following step.

15. Install two 1/4" x 1" hexagonal round head screws on the post mount bracket, see [Figure 38](#). DO NOT tighten those screws yet. The side extension C-channel must be free to move in its slots.

**IMPORTANT NOTE**

In the previous step, install the screws but do not tighten yet to ensure a free movement of the extension C-channel.

Failure to follow this procedure will make the joint tightening between panels impossible.

**NOTE**

Ensure that the screws run through the extension C-channel slots.



**WARNING**

Make sure the extension C-channel is free to move in its slots.

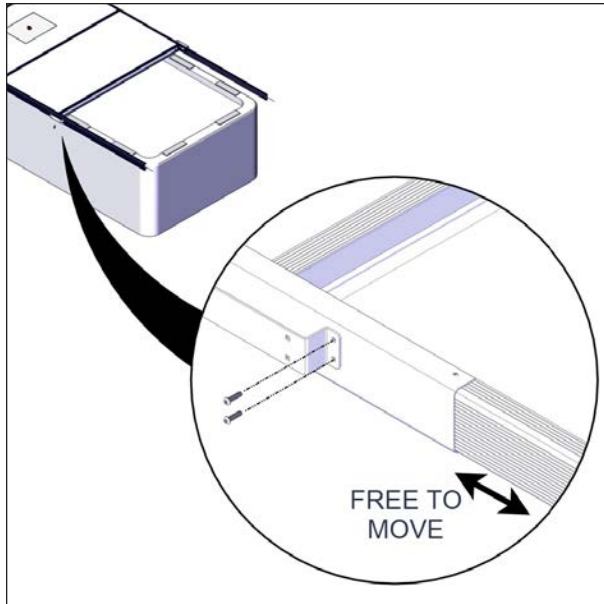


FIGURE 38: SCREW INSTALLATION

- Repeat previous steps for the remaining side extension C-channels.

**SECTION FOR 16' TO 20' LONG SPAS**

**IMPORTANT NOTE**

Steps in this section show how to install the extra I-beams and the extra panels ([Figure 18](#)) for the 16' to 20' long spa models.

- Slide in one of the remaining extra panels into the C-channels, see [Figure 39](#).



**WARNING**

Make sure the panel side with the cut out shown in [Figure 39](#) is pointing outward.

**NOTE**

If your swim spa has two sections, the installation of two escape hatches is mandatory.



**CAUTION**

It is very important to check if the I-beams have locked in properly into the foam panels.

Ensure that the panel groove is oriented downwards.



**WARNING**

When installing the panels on the C-channels, be careful not to delaminate the fiberglass.

Ensure the I-beam has cleared the bottom and top sections.

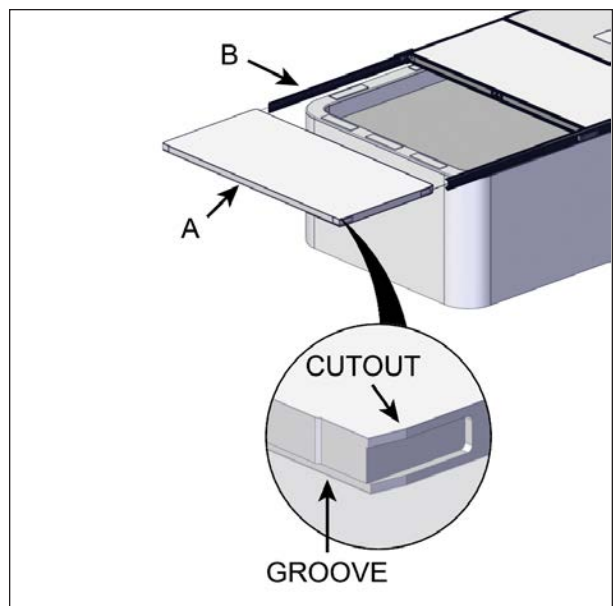


FIGURE 39: EXTRA PANEL INSTALLATION FOR 16' TO 20' LONG SPA MODELS

ID	DESCRIPTION
A	EXTRA RECTANGULAR PANEL
B	C-CHANNEL

**SECTION FOR ALL MODELS**

- Slide an I-Beam with the short I to C connection plates in the C-channels with the bent portion pointing outwards, see [Figure 40](#).

**NOTE**

Make sure that the wire passes through the I to C connection plate hole ([Figure 41](#)).

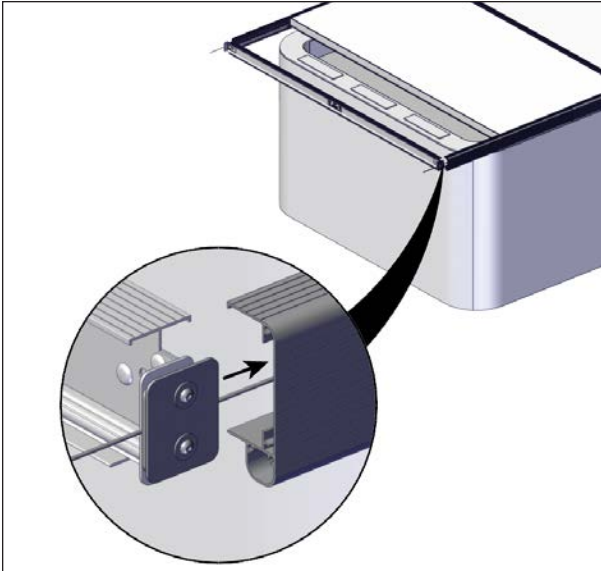


FIGURE 40: I-BEAM INSTALLATION

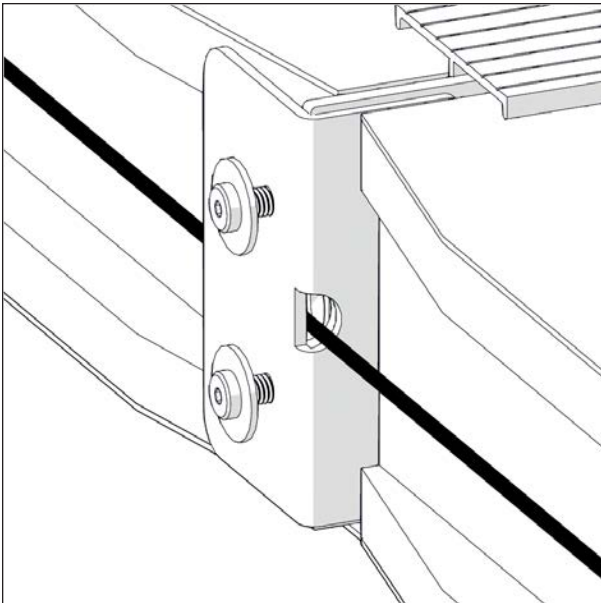


FIGURE 41: WIRE INSTALLATION THROUGH THE I TO C CONNECTION PLATE

19. Insert one end panel with the tapered end toward the end of the cover. The end panel is tapered with a 45° cut, see [Figure 42](#).

**CAUTION**

It is very important to check if the I-beams have locked in properly into the foam panels.

Ensure that the panel groove is oriented downwards.

**WARNING**

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

Ensure the I-beam has cleared the bottom and top sections.

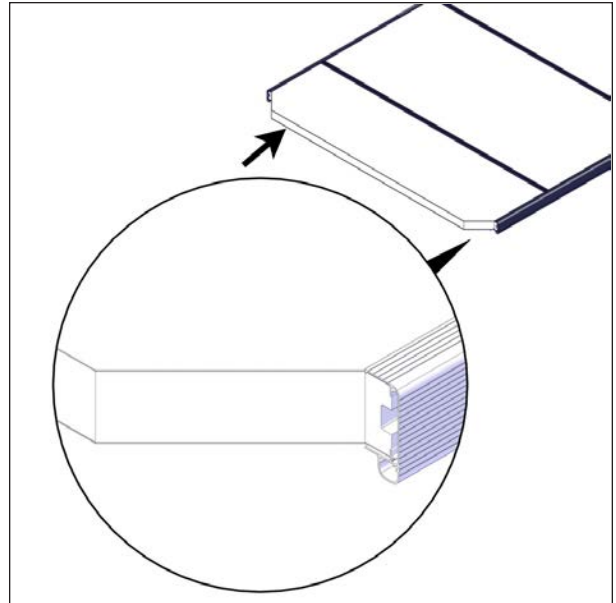


FIGURE 42: END PANEL INSTALLATION

20. For models 16' to 20' repeat on the opposite side the steps in [SECTION FOR 16' TO 20' LONG SPAS](#).
21. For models 12' to 20', repeat on the opposite side the steps in [SECTION FOR ALL MODELS](#).

**END C-CHANNEL INSTALLATION****NOTE**

Use hardware bag no. 40 for the following steps.

1. Install one hexagonal guide bushing into each corner bracket support so that you have 2 left and 2 right corner bracket supports. Secure with one no. 8 x 1/2" self-tapping screw, see [Figure 43](#) and [Figure 44](#).

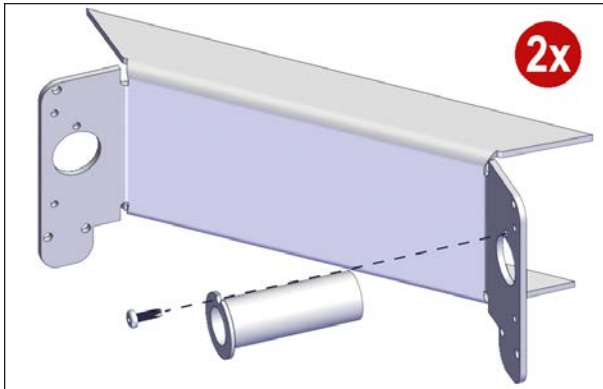


FIGURE 43: HEXAGONAL GUIDE BUSHING INSTALLATION

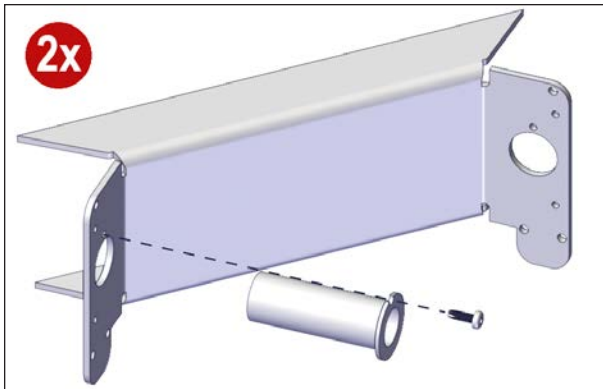


FIGURE 44: HEXAGONAL GUIDE BUSHING INSTALLATION

2. Install one left and one right corner bracket supports on each end C-channel with three no. 8 x 1/2" self-tapping screws, see [Figure 45](#).

**NOTE**

[Figure 45](#) and [Figure 46](#) display the proper orientation of the left and right brackets.



**WARNING**

Do not over tighten the screws as they might break.



**CAUTION**

Make sure the bushing will be facing the **short** C-channel.

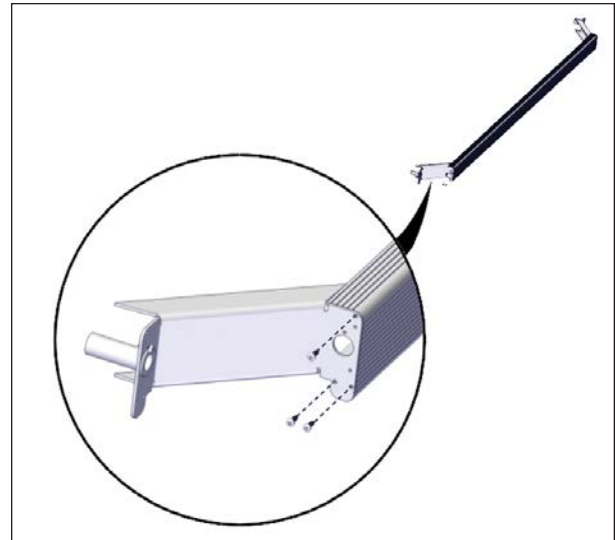


FIGURE 45: CORNER BRACKET SUPPORT INSTALLATION

3. Take the assemblies made at the previous step ([Figure 45](#)) and slide them on the edge panels ([Figure 46](#)) located on each side of the cover. Make sure that the wire passes through the hexagonal guide bushings ([Figure 47](#)).
4. Use a #2 square screwdriver to secure the corner bracket on the short C-channel by using the #8 x 1/2" screws ([Figure 46](#)).

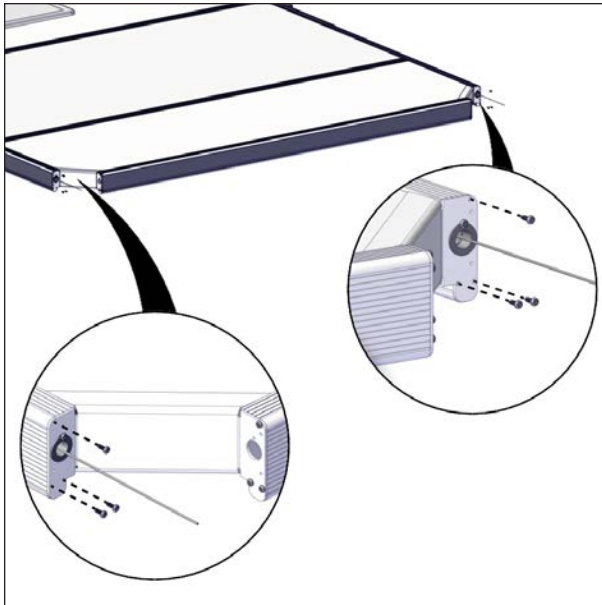


FIGURE 46: END C-CHANNEL INSTALLATION

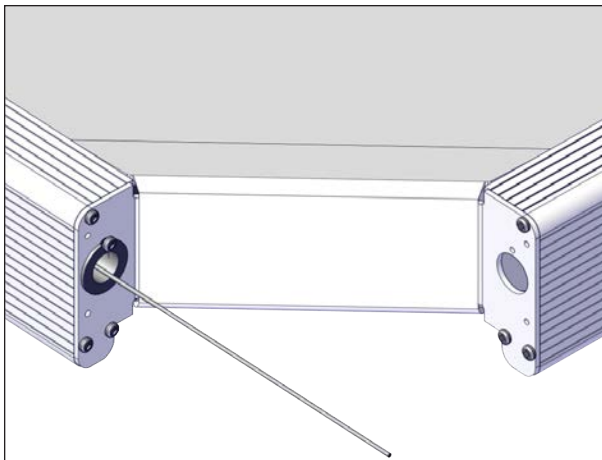


FIGURE 47: WIRE INSTALLATION

### GRIPLOCK INSTALLATION

**NOTE**

Use hardware bag no. 50 for the following steps.

1. Install the Griplock completely into the hexagonal coupling nut, see [Figure 48](#).
2. Check that the Griplock is well tightened in place.
3. **Apply grease** to the hollow threaded stud and install it into the hexagonal coupling nut until it reaches the Griplock extremity.

**DANGER**

The hollow threaded stud might be very sharp!

4. Ensure that the washer and the wing nut are mounted at the minimum distance of  $d=1/2"$ , see [Figure 48](#).
5. Keep a gap between part A and part B as shown in [Figure 48](#).

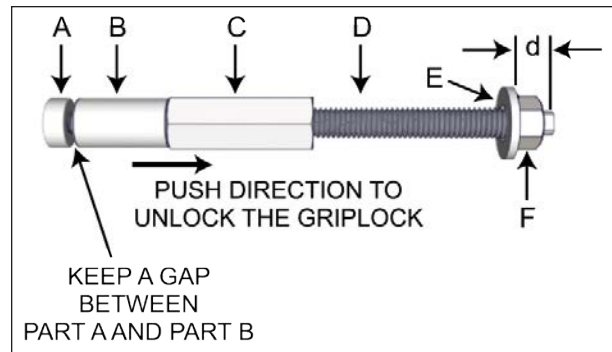


FIGURE 48: GRIPLOCK DEVICE

ID	DESCRIPTION
A	GRIPLOCK NUT
B	GRIPLOCK
C	HEXAGONAL COUPLING NUT
D	HOLLOW THREADED STUD
E	FLAT WASHER
F*	3/8-16 HEX. NUT or WING NUT

\* As you prefer, the Griplock can be used with the wing nut or with the hex. nut and a 9/16" wrench. This procedure refers only to the hex. nut to simplify the text.

6. Push on the Griplock nut according to the specified direction to unlock the mechanism, see [Figure 48](#).
7. Run the wire through the Griplock, see [Figure 49](#).

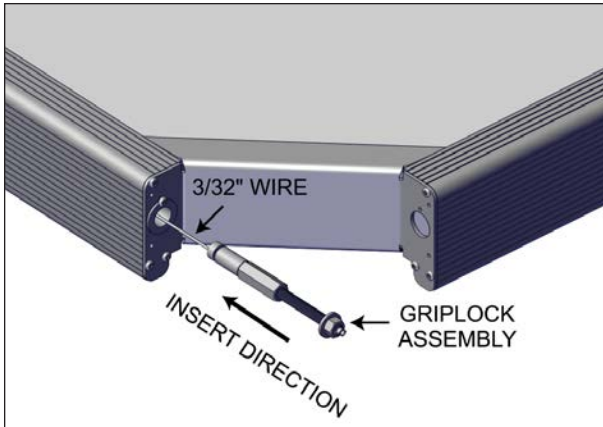


FIGURE 49: GRIPLOCK INSTALLATION

8. Insert the Griplock assembly into the hexagonal guide bushing (located in the outside corner bracket support), pull on the wire while pushing on the Griplock as much as possible, see [Figure 50](#).

**NOTE**

*If the Griplock assembly does not fit easily, it must be because the Griplock nut ("A" in [Figure 48](#)) has not been loosened enough.*

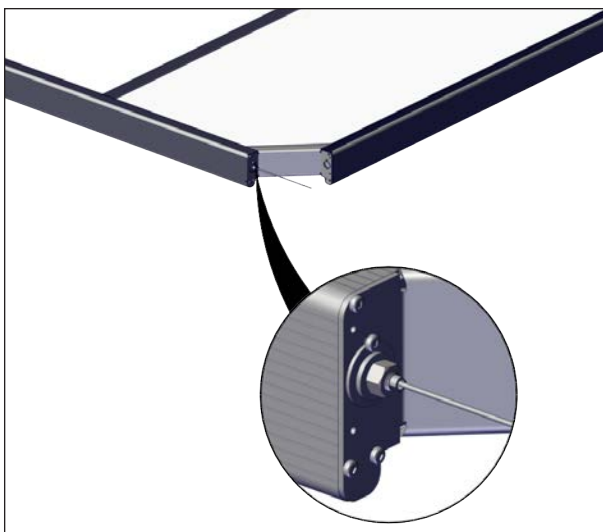


FIGURE 50: INSERT GRIPLOCK INTO THE HEXAGONAL GUIDE BUSHING

9. Repeat previous steps for other Griplock assemblies on the 3 other corners.

**PANEL FINAL TIGHTENING**

1. Use a 9/16" wrench to tighten the hex. nut on the hollow bolt in order to compress the

panels on the I- beams. Tighten simultaneously the 4 hex. nuts by keeping the same number of turns to avoid that mobile parts get stuck on the C-channels ([Figure 51](#)) and check the gap between the C-channels, see [Figure 52](#).

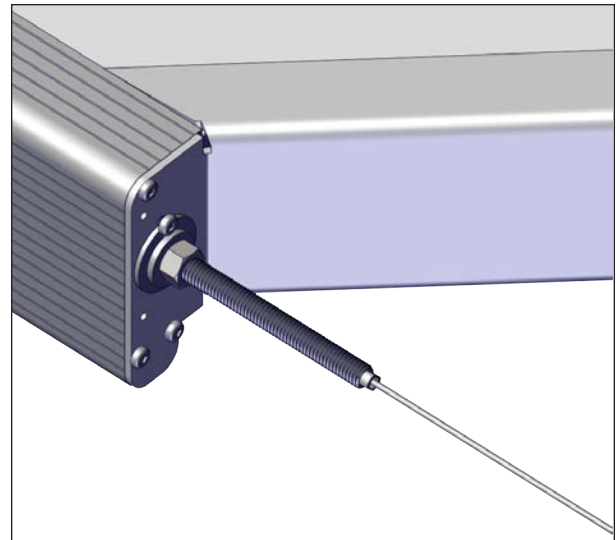


FIGURE 51: WIRE TIGHTENING

2. Repeat the process again and again until the short and long C-channels touch each other, see [Figure 52](#).

If the C-channels still don't touch each other and it is not possible to tighten the hex. nut any further, pull on the cable while pushing on the hollow threaded stud to continue the panel tightening. Be careful not to turn the hollow threaded stud, otherwise the cable could be lost.



**WARNING**

Stop tightening the hex. nuts when the C-channels are in contact (no gap between the C-channels).

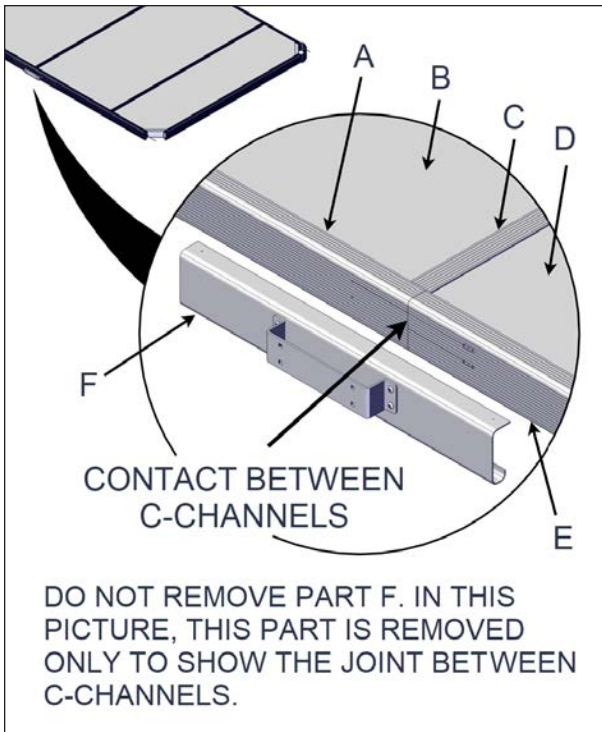


FIGURE 52: GAP BETWEEN THE C-CHANNELS

ID	DESCRIPTION
A	MIDDLE C-CHANNEL
B	MIDDLE PANEL
C	I-BEAM WITH I TO C LONG CONNECTION PLATE
D	EXTRA OR END PANEL
E	EXTENSION C-CHANNEL
F	SUPPORT BRACKET

- When the previous step is completed, use a 5/32" (4 mm) Allen key or Allen head wrench hex screwdriver bit to tighten the 1/4-20 x 1" round head screws on each sleeve mounting bracket and secure them well, see [Figure 53](#). Those two screws need to be well tightened to keep the I-Beam seals compressed properly.

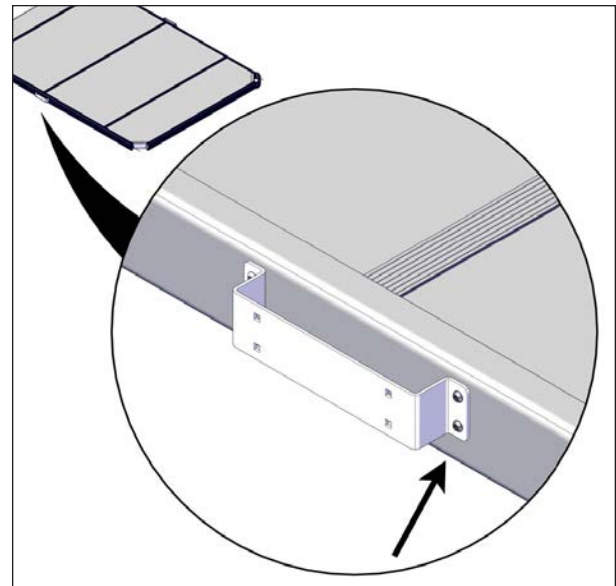


FIGURE 53: SUPPORT BRACKET SCREW TIGHTENING

- Repeat the previous steps for all remaining support brackets.
- Next steps show how to drill holes to install the final screws on the support brackets. There are 4 holes to drill in the short support bracket ([Figure 54](#)) and 8 in the long support bracket ([Figure 55](#)).

**WARNING**

Make sure the cover is perfectly straight and sitting on the foam spacers before drilling.

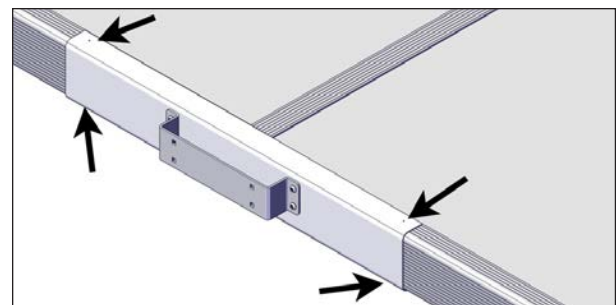
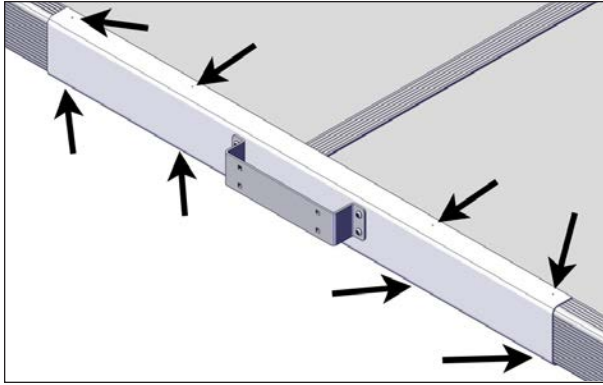


FIGURE 54: LOCATION OF THE DRILLING HOLES (4) IN THE SHORT SUPPORT BRACKET



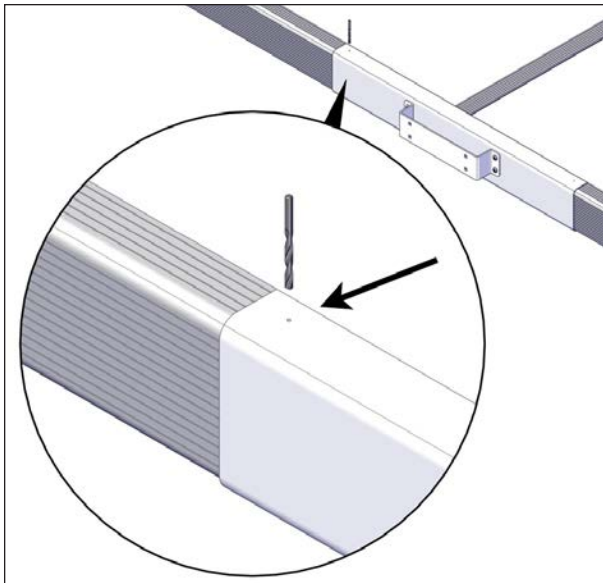
**FIGURE 55: LOCATION OF THE DRILLING HOLES (8) IN THE LONG SUPPORT BRACKET**

- Use the provided 5/32" drill bit to drill the holes on the top and bottom of the support bracket, see [Figure 56](#). Use the pre-drilled holes in the support bracket as guidance.



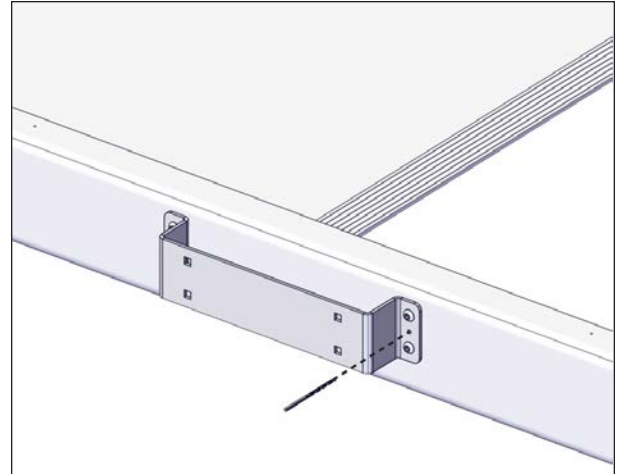
**CAUTION**

Do not drill the foam panel, only drill through the metal. Be careful while cleaning holes; metal chips might scratch the painted parts.

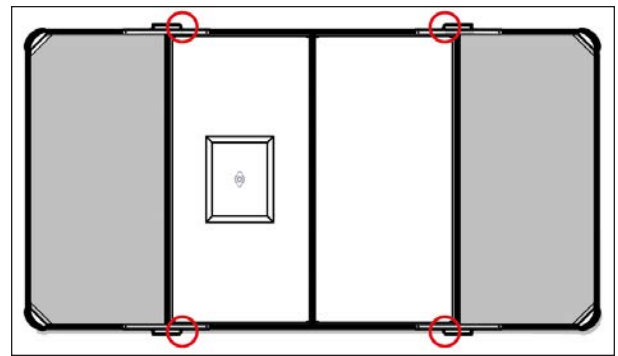


**FIGURE 56: HOLE DRILLING THROUGH THE C-CHANNEL**

- Drill a hole between both screws on the **inner side** of each post mount bracket, and insert a 8-32 x 3/8" hexagonal slotted thread-cutting screw, see [Figure 57](#) and [Figure 58](#). Use the pre-drilled hole in the bracket as guidance.



**FIGURE 57: DRILL A HOLE BETWEEN BOTH SCREWS**



**FIGURE 58: INNER SIDE OF EACH POST MOUNT BRACKET**

- Install the painted Phillips #10-24 x 1/2" tapping screws at the bottom and top of the support bracket (4 in the short support bracket and 8 in the long support bracket).
- Repeat previous steps on the other corners.

**OUTSIDE CORNER INSTALLATION**

- Remove the hexagonal nut (or wing nut), the washer, and the hollow threaded stud from each Griplock assembly. Keep them in a safe location for potential future use.
- Remove the previously installed hexagonal guide bushing from each corner bracket support using a Phillips screwdriver. Keep them in a safe location for potential future use.
- Push the wire and the Griplock in the C-channel and repeat this step on the 3 other cover corners, see [Figure 59](#).



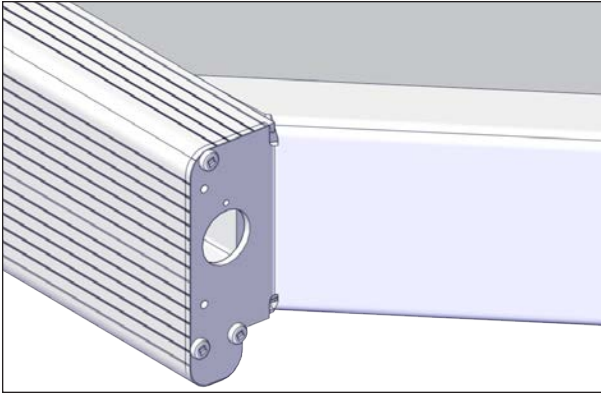


FIGURE 59: PUSH WIRE INSIDE THE C-CHANNEL

4. Use a #2 6" long Robertson screwdriver to attach the outside corner (left and right) on the corner bracket support by using the #8 x 1/2" screws, see [Figure 60](#).

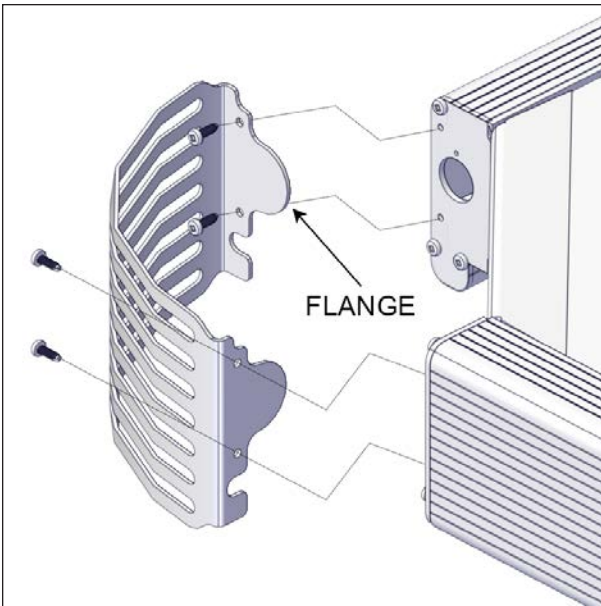


FIGURE 60: OUTSIDE CORNER INSTALLATION

**WARNING**

Do not over tighten the screws as they might break.

5. Repeat previous steps for the 3 other cover corners.
6. Make sure the escape hatch is in place.

**MOUNT BRACKET INSTALLATION**

**NOTE**

Use hardware bag no. 60 for the following steps.

**WARNING**

Spa wall on both sides must be flat and parallel to the sleeves.

1. Make sure the cover is centered on the spa. The use of a measuring tape is required to reference your measures on all four sides.
2. Next steps show how to install the tub mount brackets.

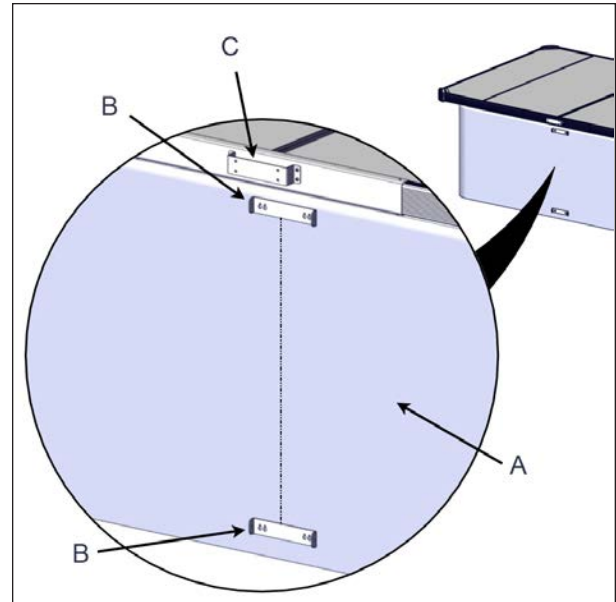
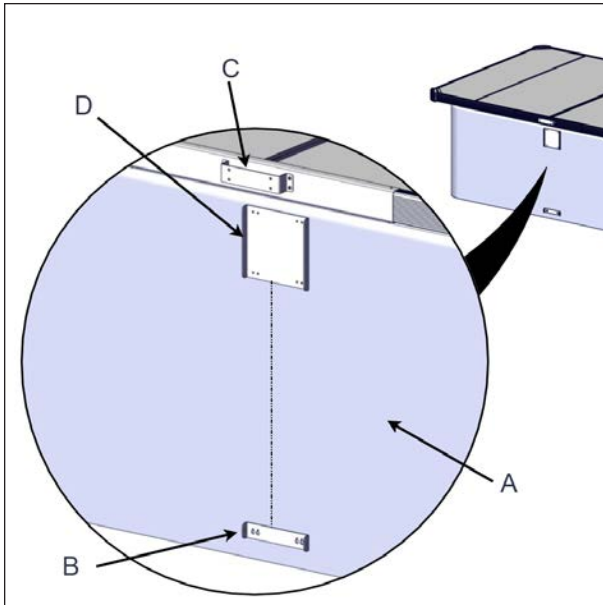


FIGURE 61: TUB MOUNT BRACKET INSTALLATION

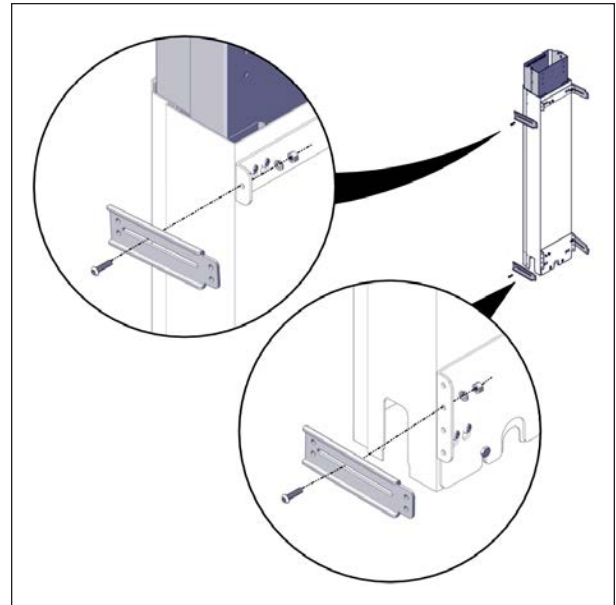
ID	DESCRIPTION
A	SPA
B	TUB MOUNT BRACKET
C	POST MOUNT BRACKET



**FIGURE 62: TUB MOUNT BRACKET INSTALLATION WITH THE OPTIONAL EXTENDED TUB MOUNT BRACKET**

ID	DESCRIPTION
A	SPA
B	TUB MOUNT BRACKET
C	POST MOUNT BRACKET
D	EXTENDED TUB MOUNT BRACKET (OPTIONAL)

3. Install the top and bottom mount bracket arms on one of the sleeves, see [Figure 63](#).

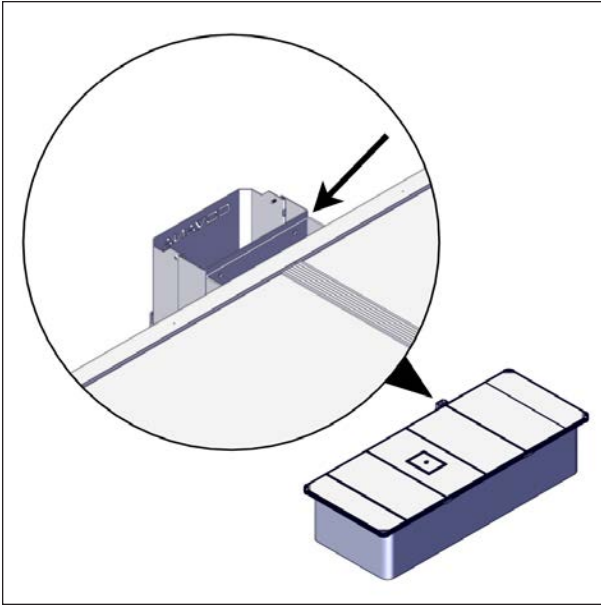


**FIGURE 63: MOUNT BRACKET ARM INSTALLATION**

4. Gently install the sleeve on the ground so it is in contact at the top with the post mount bracket, see [Figure 64](#).

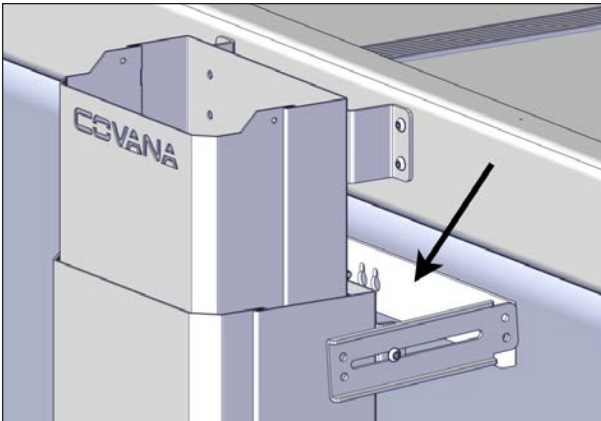
**NOTE**

*Make sure the sleeve is at vertical level in all directions when in contact with the post mount bracket.*



**FIGURE 64: POST MOUNT BRACKET ALIGNMENT WITH THE SLEEVE**

5. With the sleeve and its arms, align the top and the bottom tub mount brackets, see [Figure 65](#). Make sure the brackets will be fixed on a solid spa frame and no soft material between the brackets and the spa frame.
6. Use pieces of masking tape to mark the position of the mount brackets. Do not use a marker. These marks will be used when fixing the brackets to the tub.



**FIGURE 65: TOP TUB MOUNT BRACKET ALIGNMENT**

7. Position the tub mount bracket with the previous marks, fasten it properly and securely to the spa frame ([Figure 61](#)). If the spa structure is over 50" (127 cm) high, install the extended tub mount bracket on the

top ([Figure 62](#)). Use the provided Phillips #10-12 x 3/4" screws for fastening.



## DANGER

Fastening the tub mount brackets and/or extended tub mount brackets to soft/fragile engineered wood, MDF panels, plastic skirting or any composite siding is not approved by Covana and is not safe for operation.

Improper fastening to the spa frame can result in serious injury or even death when the cover operates. Covana is not responsible for any improper fastening.

Ensure the screws of the tub mount brackets and/or extended tub mount bracket are installed on a solid feature of the spa frame.

## NOTE

*If the spa has a metal frame, the provided screws for the mounting brackets will need to be replaced with self-tapping screws.*

## JACK INSTALLATION

1. Position the jacks in their location. Motorized jacks should always be on the left side when looking at the spa, see [Figure 66](#).

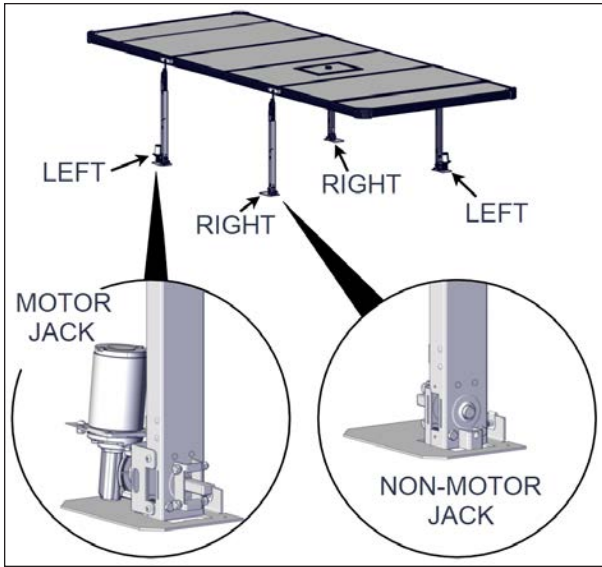


FIGURE 66: JACK POSITIONS

**NOTE**

Position the non-motor jack with the bonding lug (Figure 67) on the same side where the control box will be installed. Refer to section [ELECTRICAL DIAGRAMS](#) for more information.

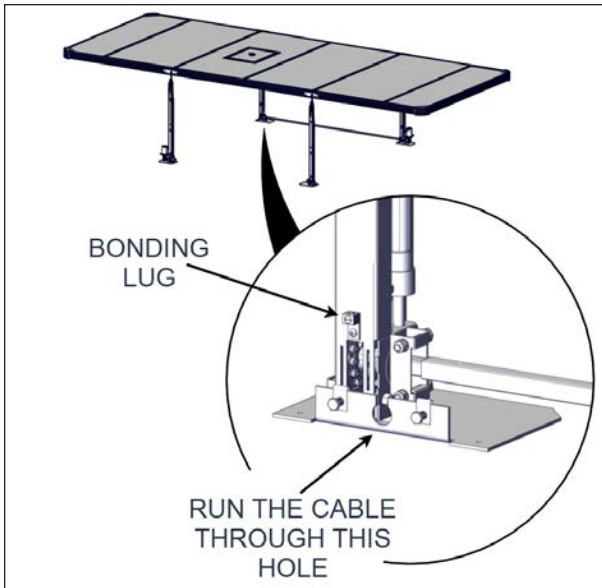


FIGURE 67: BONDING LUG POSITION

- Slide the drive shaft over the square shaft of one motor-side jack, see [Figure 68](#).

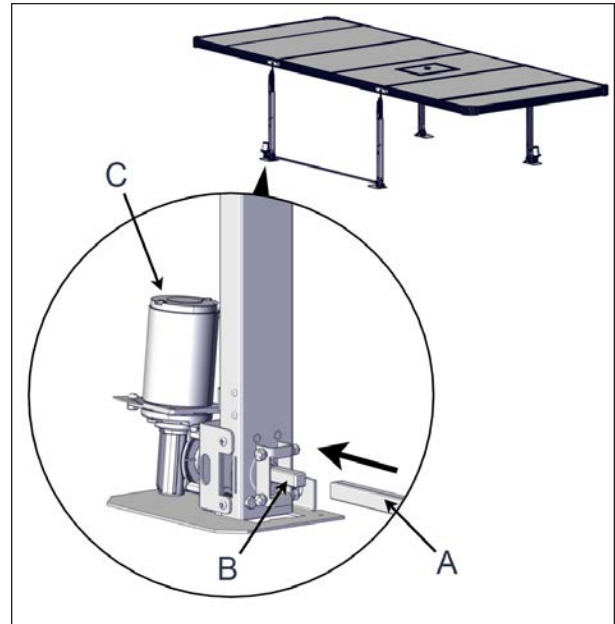


FIGURE 68: DRIVE SHAFT INSTALLATION ON THE MOTOR SIDE

ID	DESCRIPTION
A	DRIVE SHAFT
B	SQUARE SHAFT
C	JACK MOTOR

- On the same spa side, install the drive shaft onto the non-motorized jack shaft, see [Figure 69](#).

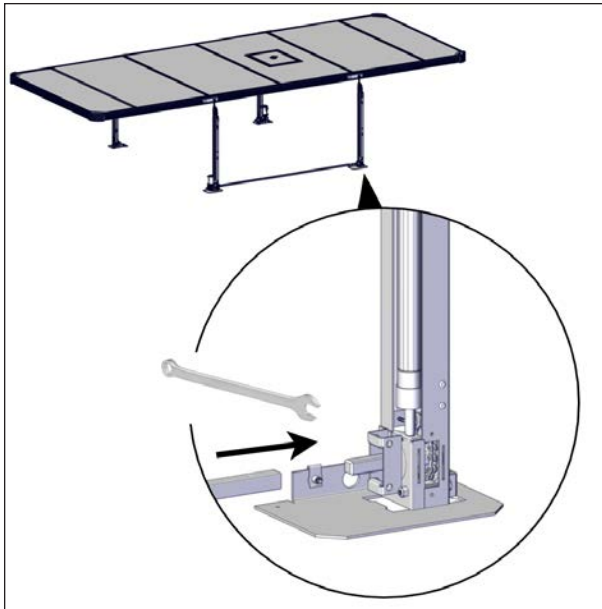
**NOTE**

If the drive shaft does not line up with the non-motorized jack shaft, the use of a 3/4" (19 mm) wrench or adjustable wrench can help. Slightly rotate the shaft as shown in [Figure 69](#).

**WARNING**

While installing the drive shaft, check if it has not been pulled out from the opposite side when manipulating the part.

Do not twist the motorized jack with the wrench. This jack contains a gearbox which could break when stressed from the output.

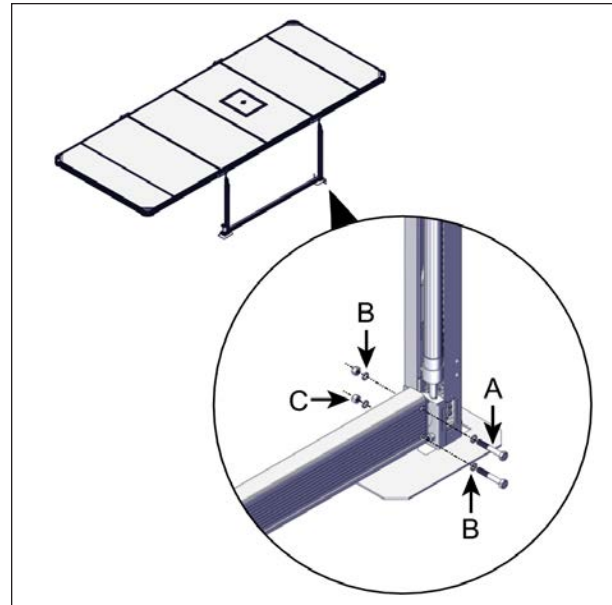


**FIGURE 69: DRIVE SHAFT INSTALLATION ON THE NON-MOTOR SIDE**

**NOTE**

Use hardware bag no. 70 for the following steps.

4. Install the U-frame over the drive shaft. The U-frame is attached to the post bracket of the motor and non-motor jacks. Fasten in place using the hardware provided: four hexagonal 5/16" x 2" screws, four 5/16" nylon insert locknuts, and eight 5/16" flat nylon washers. Use a 1/2" (13 mm) socket wrench and spanner, see [Figure 70](#).
5. Repeat the previous steps on the opposite side.



**FIGURE 70: U-FRAME INSTALLATION**

ID	DESCRIPTION
A	5/16" X 2" HEXAGONAL SCREW
B	5/16" NYLON WASHER
C	5/16" NYLON INSERT LOCKNUT

6. Check if the drive shaft is still engaged on both ends. Slip your fingers under the U-frames to do this operation.
7. Once the U-frames are installed, the jack lock screw located at the top of the non-motor side jacks can now be unlocked safely. Remove the M8 x 35 mm locking screw and reinstall it in the hole next to it so you don't lose it. Remove the screw on both non-motor jacks. You can remove the red tag on the non-motor jacks, see [Figure 71](#).



**WARNING**

Failure to properly engage the drive shaft will cause the non-motor jack to elevate by itself as soon as the locking screw is removed, and will therefore increase the risk of serious injury.

Failure to remove this locking screw when the drive shafts are properly installed will break the lifting mechanism during startup.

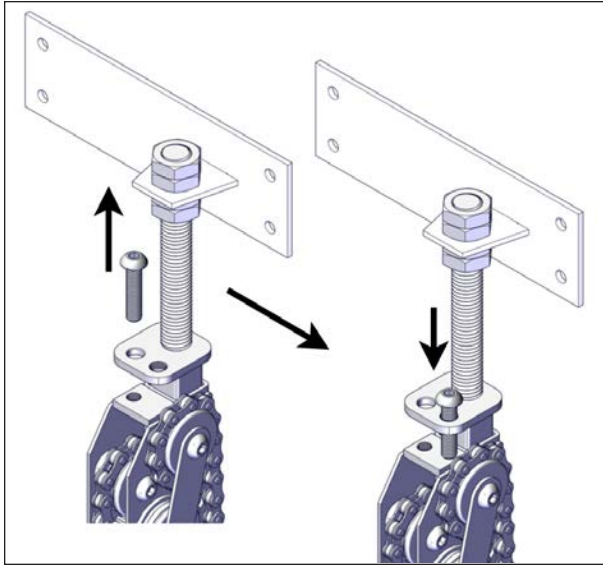


FIGURE 71: JACK LOCKING SCREW REMOVAL

8. For both motorized jacks, locate electrical cables that are found in the part boxes.

**NOTE**

*The shortest cable goes on the side where the control box will be located. For the AC-operated model, position the AC control box so it is protected from direct sunlight.*

9. Locate the short end of the cable, which can be identified from the metal compression connector near the end of the cable.
10. Run the connector through the center hole on the back of the motor jack base plate.
11. Connect the cable to the motor harness and tighten the screws of the compression connector onto the base. The screws of the compression connector should be oriented horizontally. You might have to rotate the connector as shown on [Figure 72](#).
12. Let the remainder of the cable pass near the U-frame. The electrical hook-up will be explained further. When connecting the motor harness, you must hear a CLIC from the connector to confirm it has been installed properly.



**WARNING**

Ensure the proper orientation of harnesses when trying to plug in the motor.

Failure to properly clip on harness will cause damage to the electrical circuit.

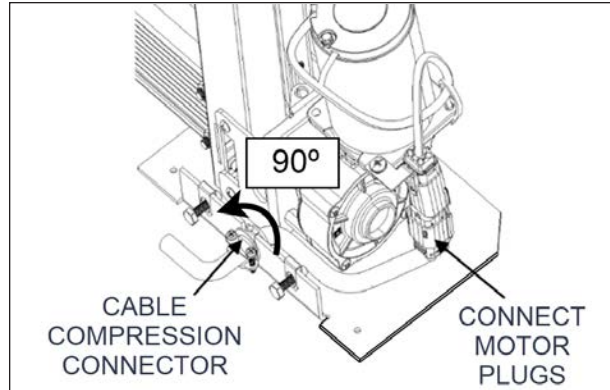


FIGURE 72: CONNECTOR AND PLUGS

13. Repeat previous step for the second motorized jack.
14. The jack adapter located at the top of the jack can be adjusted by turning the threaded rod on the top of the jack. Use an adjustable wrench to adjust the height so that they match the cover mount bracket holes. Repeat this step for all four jacks ([Figure 73](#)).



**WARNING**

The threaded rod must not be unscrewed more than 14 inches (35 cm). Measure the length from the top of the threaded rod nut to the top of the bottom nut, see [Figure 73](#).

Further unscrewing is not considered safe and is not recommended by Covana.

Failure to follow these guidelines could cause serious injury.

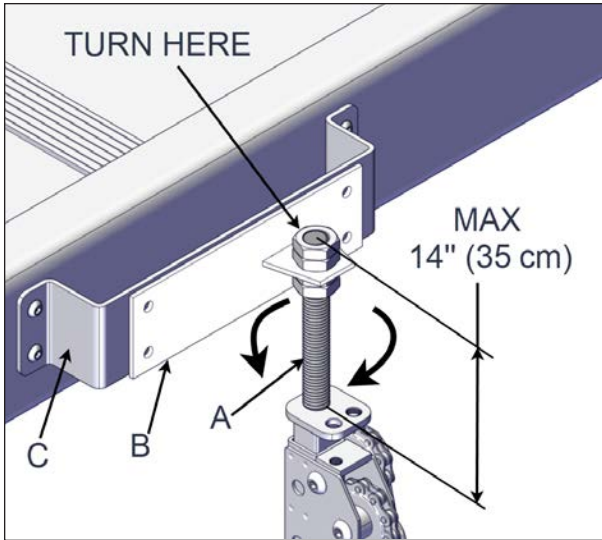


FIGURE 73: THREADED ROD ADJUSTMENT

ID	DESCRIPTION
A	THREADED ROD
B	JACK ADAPTER
C	POST MOUNT BRACKET

- To make the next step easier, place a piece of cardboard on the I-beam of the cover, and lay one of the sleeve assemblies on it, see [Figure 74](#).

**CAUTION**

The cardboard is important so as not to damage the cover.

When sliding the sleeves over the jacks, ensure the slot at the bottom of the outer sleeve is going to slide over the U-frame that covers the drive shaft. **There are right and left sleeve models**, see [Figure 77](#).

Handle the sleeves with care to prevent them from being scratched otherwise damaged.

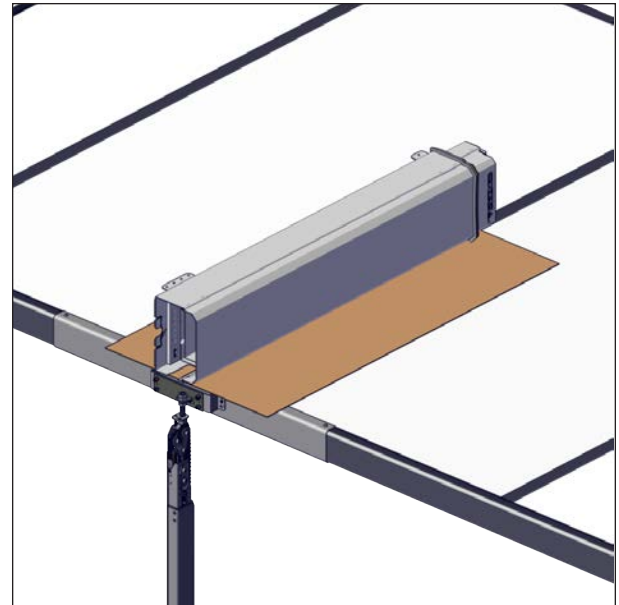
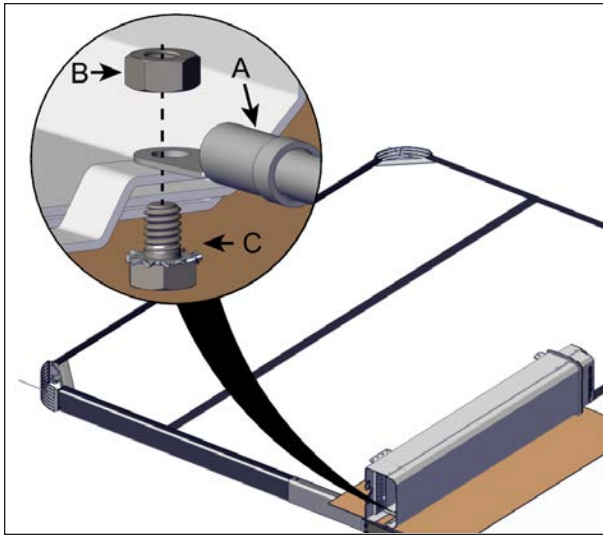


FIGURE 74: PLACE A SLEEVE ASSEMBLY ON THE COVER

- One end of a cable is already attached to the top of the jack. Attach the other end to the bottom of the middle sleeve using the 1/4-20 hexagonal nut as well as the 1/4-20 x 5/16" hexagonal head screw + 1/4" internal/external tooth lockwasher assembly, see [Figure 75](#).

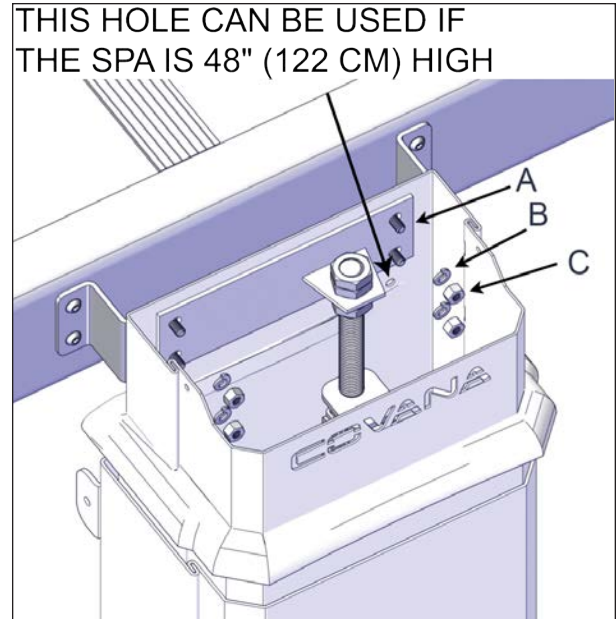


**FIGURE 75: ATTACH THE CABLE TO THE BOTTOM OF THE MIDDLE SLEEVE**

ID	DESCRIPTION
A	CABLE
B	1/4-20 HEXAGONAL NUT*
C	1/4-20 x 5/16" HEXAGONAL HEAD SCREW + 1/4" INT./EXT. TOOTH LOCKWASHER ASSEMBLY

\* Unscrew nut from assembly before using.

17. Repeat the previous steps for each post.
18. Slide the sleeves over the top of the jacks and fasten them using the 1/4" x 3/4" carriage bolts at the top with 1/4" lock washers and 1/4" nuts. Use a 7/16" (11 mm) socket and spanner, see [Figure 76](#).



**FIGURE 76: SLEEVE INSTALLATION**

ID	DESCRIPTION
A	CARRIAGE BOLT 1/4-20 X 3/4"
B	LOCK WASHER 1/4"
C	NUT 1/4-20

19. Repeat previous step for all jacks.
20. Tighten the 1/4" hexagonal screws at the bottom of all the sleeve base using a 7/16" (11 mm) socket wrench. Ensure that the tooth lockwasher is outside of the outer sleeve. This will ensure the sleeve is held correctly, see [Figure 77](#).



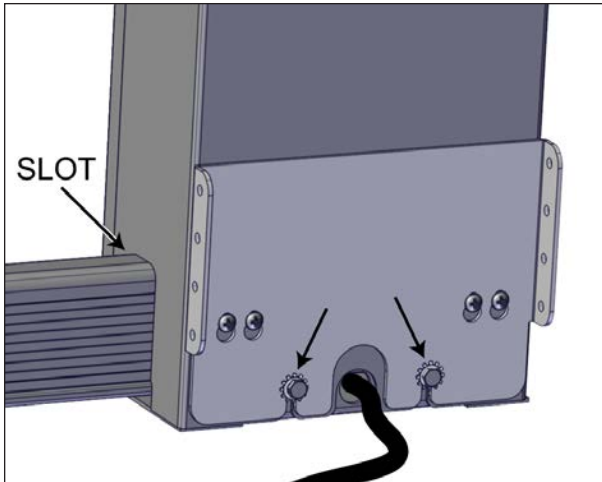


FIGURE 77: SLEEVE INSTALLATION

21. Repeat previous step for all jacks.
22. Use a 48" long level to ensure that the four posts are vertically level, see [Figure 80](#).
23. Attach the top mount bracket arms to the tub mount brackets using the 1/4" x 1" socket head screws, 1/4" int./ext. tooth lockwashers on the outside. Use a 1/4" lock washer and 1/4" nut on the inside. Use a 5/32" (4 mm) drive and 7/16" (11 mm) spanner, [Figure 78](#) and [Figure 79](#).

**CAUTION**

The rounded tongue section of the bracket should always be mounted on the spa side, see [Figure 78](#).

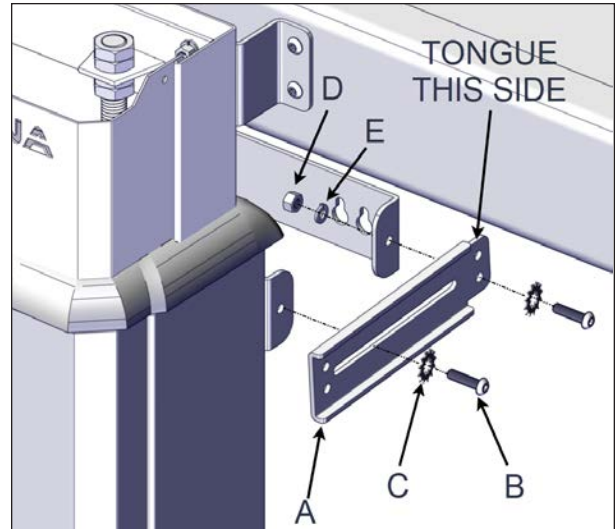


FIGURE 78: MOUNT BRACKET ARM INSTALLATION

ID	DESCRIPTION
A	MOUNT BRACKET ARM
B	SOCKET HD SCREW 1/4-20 X 1"
C	1/4" INT./EXT. TOOTH LOCKWASHER
D	NUT 1/4-20
E	LOCK WASHER 1/4"

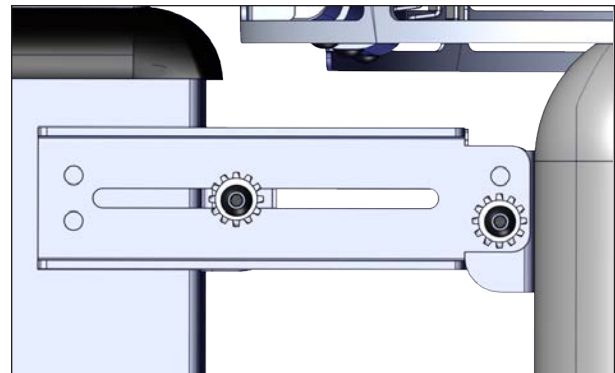
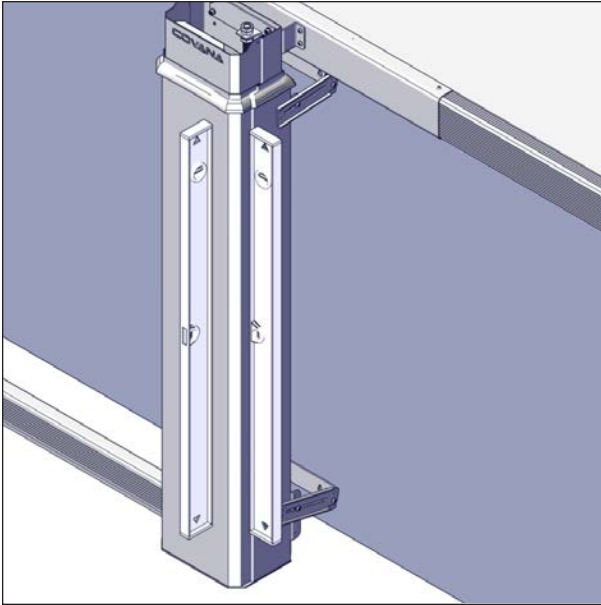


FIGURE 79: MOUNT BRACKET ARM SIDE VIEW



**FIGURE 80: POST LEVEL ADJUSTMENTS**

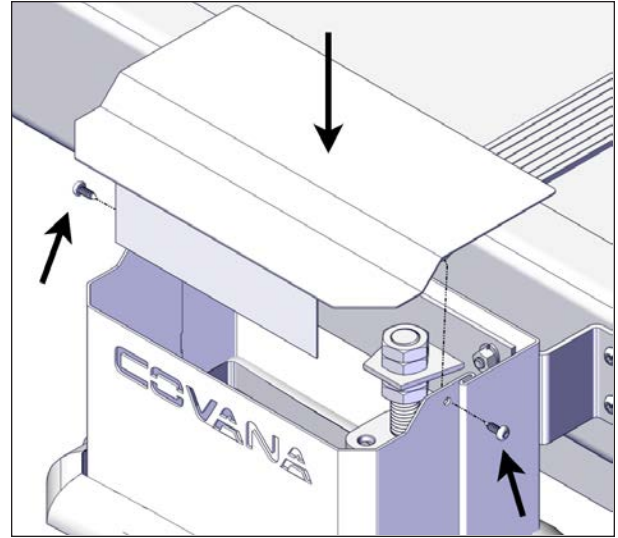
24. Repeat the previous steps for the bottom mount bracket arm, and then for the remaining posts.
25. Check if the posts are still level on both vertical axes. If not, unscrew the mount arms and reposition the sleeves. Use the outer sleeve as a reference. Use the 48" (122 cm) level, see [Figure 80](#).



**WARNING**

Failure to properly level the posts could cause aesthetic damage, even mechanical damage or malfunction.

26. Attach the top plate cover for all posts. Use the provided Robertson #8 x 1/2" self-drilling screws (2 screws per post), see [Figure 81](#)



**FIGURE 81: TOP PLATE COVER INSTALLATION**

27. For all posts, slide the all-weather seals down. Ensure they are properly seated on the outer sleeve base. Push down on the seal as shown in [Figure 82](#).



**WARNING**

Improper installation of the all-weather seal could result in unwanted performance and reduce the lifespan of the mechanical lifting components

Improper installation of the all-weather seal might cause damage to the lifting mechanism.

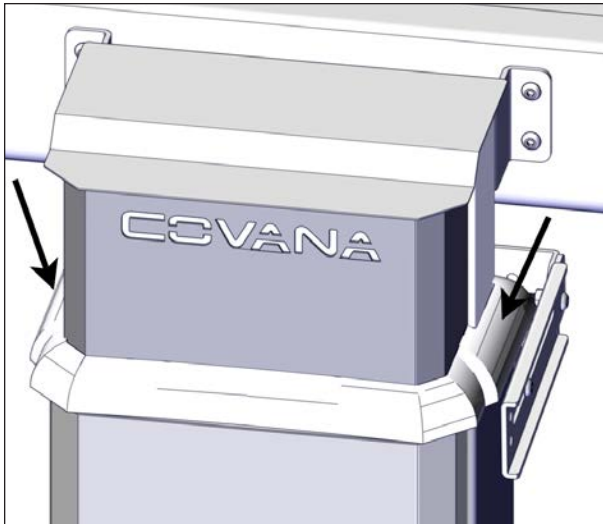


FIGURE 82: SEAL INSTALLATION

## 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.
- For AC-operated model: A disconnect mean needs to be incorporated into the fixed wiring at the time of installation. This mean must be accessible to the user or service technician to turn the power off for future maintenance or repair.
- For AC-operated model: Always entrust the initial connection, maintenance or electrical repairs of the cover to a professional electrician certified by the competent authorities of the country. The wiring must comply with all applicable local electrical codes and regulations.
- For AC-operated model: The AC control box 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 and proper digging. Failure to follow this instruction 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.
- One bonding lug is installed on one non-motor jack. To reduce the risk of electric shock, connect the cover bonding lug to the local common bonding grid in the area. Use terminals with an insulated or bare copper conductor no smaller than No. 6 AWG (4.11 mm).
- 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 / 13.30mm<sup>2</sup>). (NEC art. 680).

**AC CONTROL BOX INSTALLATION**

**NOTE**

*This section is for AC-operated model only. If you are installing a battery-operated model, skip to [BATTERY AND OPTIONAL SOLAR PANEL INSTALLATION](#).*

1. Install the pre-assembled control box and its holding bracket on one of the U-frames between the two sleeves, see [Figure 83](#).



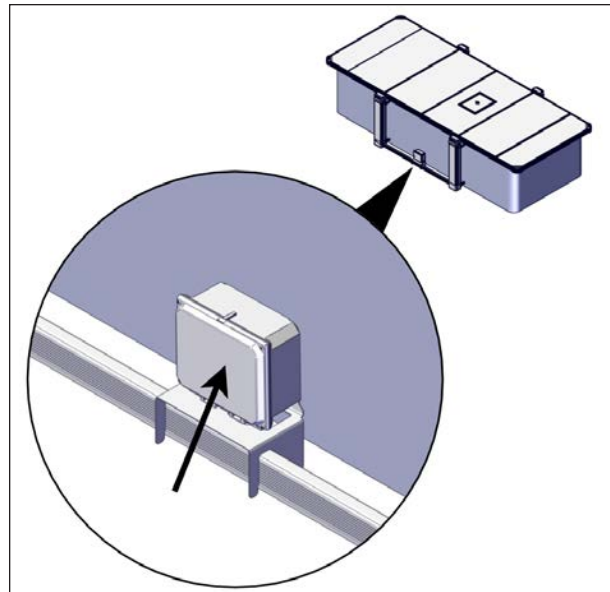
**WARNING**

Choose a side of the spa that will allow any maintenance to the box to be easily done but that will also avoid direct and constant sunlight exposure. In some region, the heat from the sun could impede the performance of the controller.

The AC control box must always be out of reach of anyone in the spa. It should be installed at a minimum distance of 4' (1.2 m) away from any position in the spa.

The AC control box must be installed in its vertical position. The connectors must face the ground, see [Figure 83](#).

The AC control box connector must be installed at a minimum distance of 5" (127 mm) from ground level.



**FIGURE 83: CONTROL BOX INSTALLATION**

2. Once installed, a certified electrician must connect the AC control box to a power source following instructions from the [ELECTRICAL DIAGRAMS](#) section.



**WARNING**

A certified electrician must install a conduit connector that will be type 3 enclosure rated (not included). The hole diameter on the box is 22 mm ([Figure 85](#)). Refer to the [ELECTRICAL DIAGRAMS](#) section for wiring.

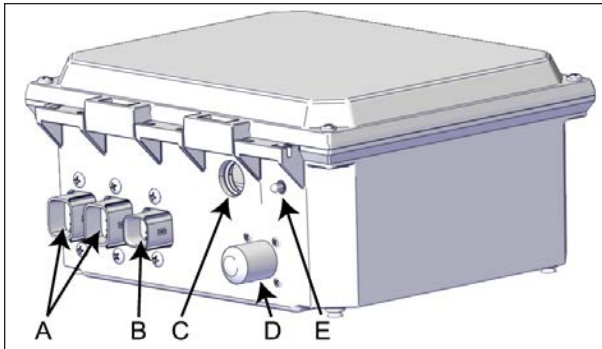


FIGURE 84: CONTROL BOX

ID	DESCRIPTION
A	MOTOR CONNECTORS
B	KEY SWITCH CONNECTOR
C	POWER LINE ENTRY
D	EMERGENCY BATTERY CONNECTOR
E	LED INDICATOR

3. Start by connecting the two motor jack harnesses to the AC control box, see [Figure 84](#). Use the wires shown in [Figure 7](#) in the Jack installation section. Put the exceeding wires as close to the spa as possible to hide and protect the wires.

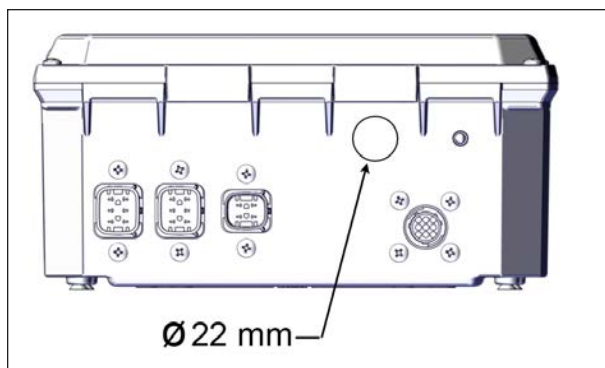


FIGURE 85: MAIN POWER LINE CONNECTION

4. Unpack the key switch and plug the harness into the AC control box, see item B in [Figure 84](#).
5. When the AC control box is in place on the U-frame, use the provided 5/32" drill bit to drill a hole through the tab (located on the holding bracket of the control box) and into the U-frame, and insert an 8-32 x 3/8" hexagonal slotted thread-cutting screw, see [Figure 86](#).

**WARNING**

Do not drill too deep so as not to puncture the drive shaft located inside the U-frame.

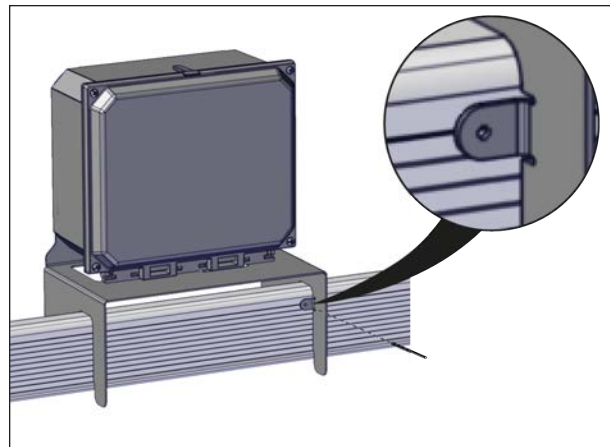


FIGURE 86: DRILL A HOLE THROUGH THE TAB

**OPTIONAL EMERGENCY BATTERY BACKUP**

**NOTE**

*If you have purchased the optional emergency battery backup kit, it will be in one of the parts boxes. Install the charger in a safe, indoor location. The charger cuts the power once the battery is fully charged. Therefore, you can keep the battery plugged on the charger.*

**DANGER**

The charger must always be indoors, away from water. Damage, injury or death might occur if this instruction is not followed.

**WARNING**

The optional emergency battery backup must only be connected when needed. If the battery is left connected to the AC control box, damage to the battery and AC control box may occur.

## BATTERY AND OPTIONAL SOLAR PANEL INSTALLATION

### NOTE

*This section is for battery-operated models only. If you have the AC-operated model, skip to the next section.*

1. Locate the control box housing and control box, see [Figure 87](#) and [Figure 88](#).
2. Start by connecting the two motor jack harnesses to the control box. Use the wires shown in [Figure 72](#) in the Jack installation section. Put the exceeding wires as close to the spa as possible to hide the wires.

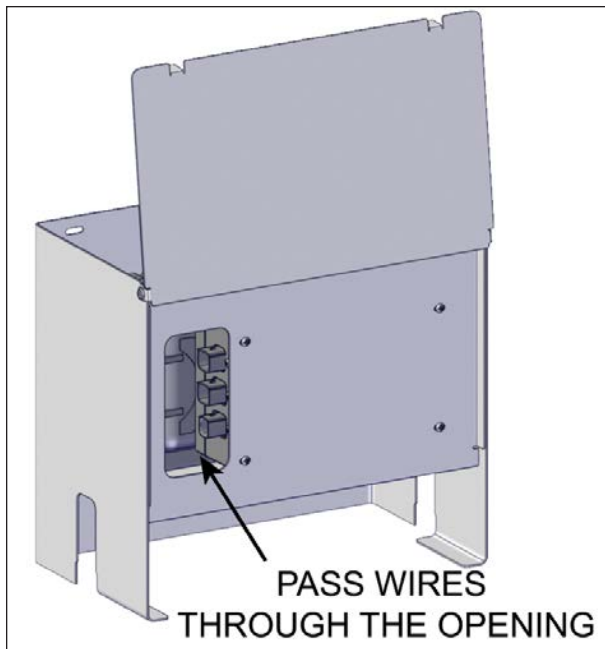


FIGURE 87: CONTROL BOX HOUSING

3. Unpack the key switch and plug the harness into the control box (item C, [Figure 88](#)).
4. Unpack the optional solar panel kit from the boxes and connect the solar panel harness (item E, [Figure 88](#)).
5. Install the optional solar panel on the side of the spa that is most exposed to the sun, directly onto the paneling of the spa, under the acrylic edge.



### DANGER

Do not install the solar panel on the cover since the wire will hang above water and might cause electrocution.

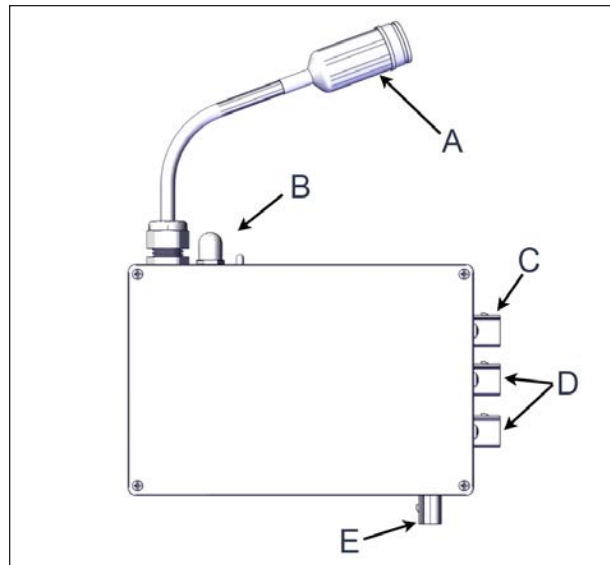


FIGURE 88: BATTERY/SOLAR PANEL CONTROL BOX

ID	DESCRIPTION
A	BATTERY
B	CIRCUIT BREAKER
C	KEY SWITCH
D	MOTOR
E	SOLAR PANEL

6. Slide the control box housing onto the U-frame, see [Figure 89](#).

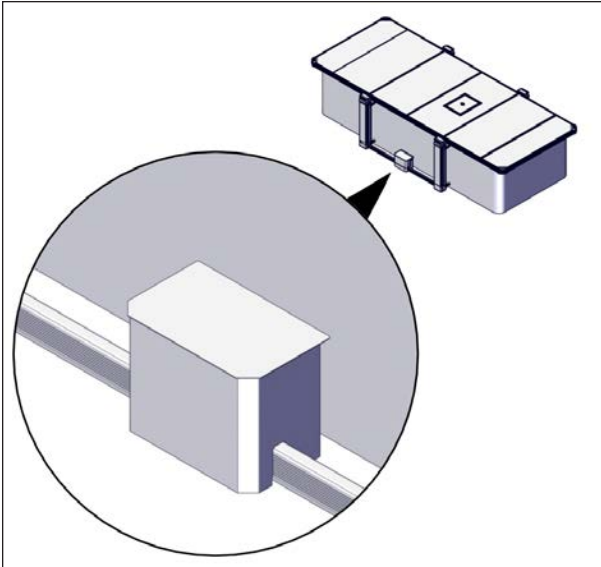


FIGURE 89: CONTROL BOX HOUSING INSTALLATION

- When the control box is in place on the U-frame, use the provided 5/32" drill bit to drill a hole through the tab (located on the control box housing) and into the U-frame, and insert an 8-32 x 3/8" Hexagonal slotted thread-cutting screw, see [Figure 90](#).

**WARNING**

Do not drill too deep so as not to puncture the drive shaft located inside the U-frame.

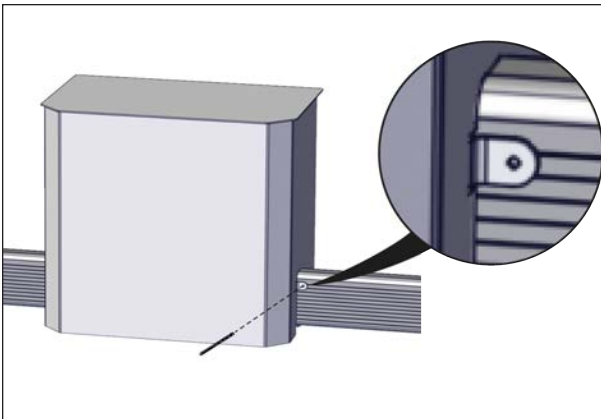


FIGURE 90: DRILL A HOLE THROUGH THE TAB

- Install the remainder of the wires as near as possible to the spa to hide them.
- Open the control box housing top and connect the battery harness. The battery is located in the parts boxes. Install the battery

inside by opening the top and closing the control box.

**NOTE**

*A second battery and a charger will also be in the parts boxes. Install the charger in a safe, indoor location. The charger cuts the power once the battery is fully charged. Therefore, you can keep the battery plugged on the charger.*

**DANGER**

The charger must always be indoors, away from water. Damage, injury or death might occur if this instruction is not followed.

**TESTING THE COVER****CAUTION**

If the cover is in an area with limited clearance, never completely lift the cover while performing this test sequence.

**WARNING**

For AC- operated models, all electrical connections must be done by a certified electrician.

- Ensure there are no objects directly above or in the path of the cover opening while performing this test. If there is, do not fully raise the cover while performing the start-up procedure.
- Use the key switch to raise the cover by approximately 8" (20 cm). Make sure the cover is raised evenly (there are no corners higher than the others).
- Bring the cover down again and ensure the cover is evenly seated on the pieces of foam all around the spa perimeter.
- Lift the cover halfway up.
- Check if the middle sleeves are free by sliding them up and down by hand. Test if the middle sleeve slides without scratching or interfering with inner or outer sleeve. If all

seems to function properly, lower the cover and check if the sleeves are level using a 48" (122 cm) level on both sides of the sleeves.

6. Raise the cover all the way up (or as high as possible without objects obstructing the cover) and pay attention to any abnormal sounds (metal grinding or knocking). If so, stop any movement, consult the [TROUBLESHOOTING](#) section and inspect all the systems.
7. Lower the cover and ensure it stops at the zero position and that it is evenly seated on all pieces of foam around the spa.
8. Permanently mount the key switch at least 5 feet (1.5 m) away from the spa and 5 feet (1.5 m) above the deck or ground level, see [POSITION OF THE KEY SWITCH](#) section. Ensure the user has a clear view of the cover when operating it. Cut the power when installing the key switch.



### WARNING

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 [POSITION OF THE KEY SWITCH](#) section. 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 will void the warranty and product certification.



### DANGER

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

## WIPER INSTALLATION

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



### CAUTION

For covers between 12' and 15', there are 6 wiper brackets. For models 16' to 20', there are 10 wiper brackets. The number of wiper brackets is determined by the number of I-beams used to assemble the cover.

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 91](#).

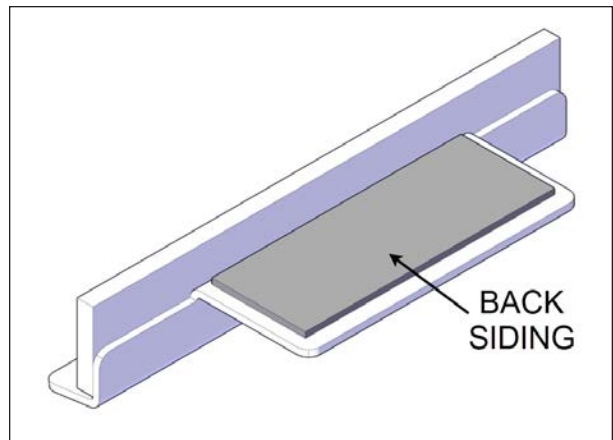


FIGURE 91: PEEL BACK WIPER SIDING

3. Under the cover, locate an I-beam and orientate the wide flap of the wiper outwards of the cover, see [Figure 92](#).



### WARNING

Failure to properly install the wiper impedes performance.

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



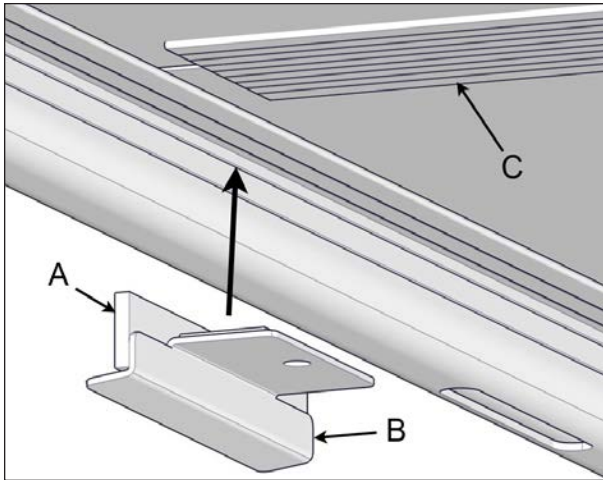


FIGURE 92: WIPER LOCATION

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 93](#).

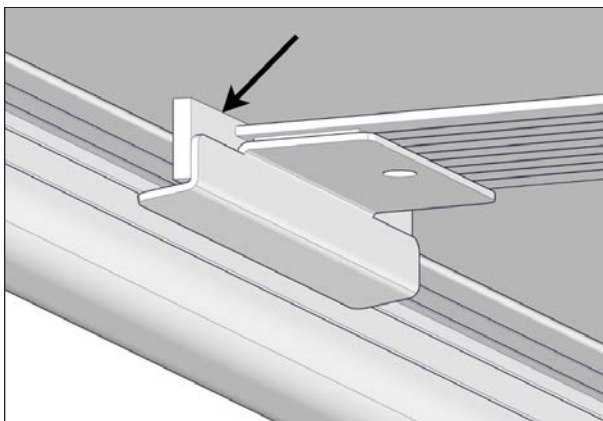


FIGURE 93: FINAL POSITION OF THE WIPER

- 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 93](#).
- 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 94](#).

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.

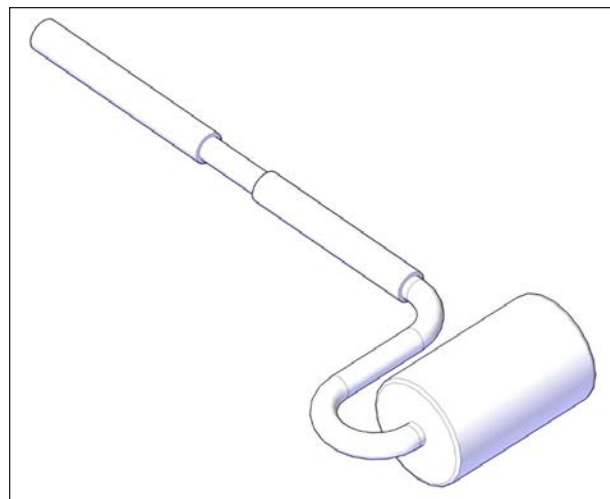


FIGURE 94: J-ROLLER WITH RUBBER ROLLER

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

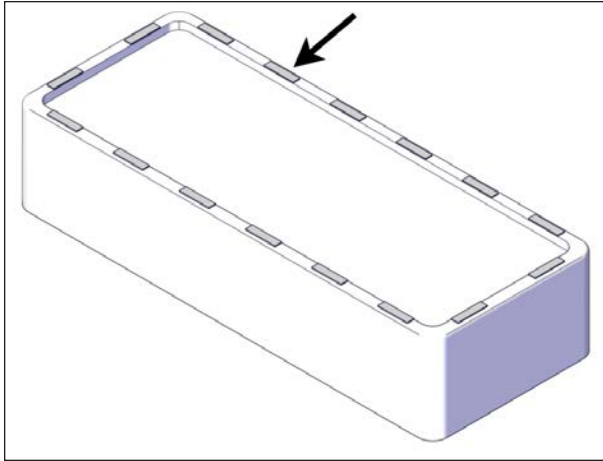


FIGURE 95: REMOVE FOAM SPACERS AND TAPE

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 96](#).

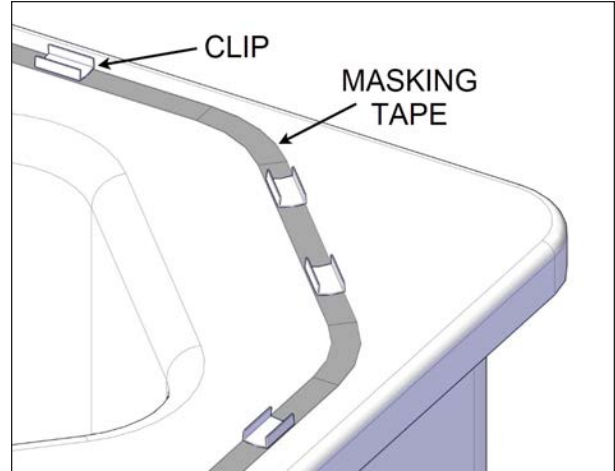


FIGURE 96: MASKING TAPE AND CLIPS



**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 96](#). Keep two clips for the seal joint connector as shown in [Figure 97](#). 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 97](#).

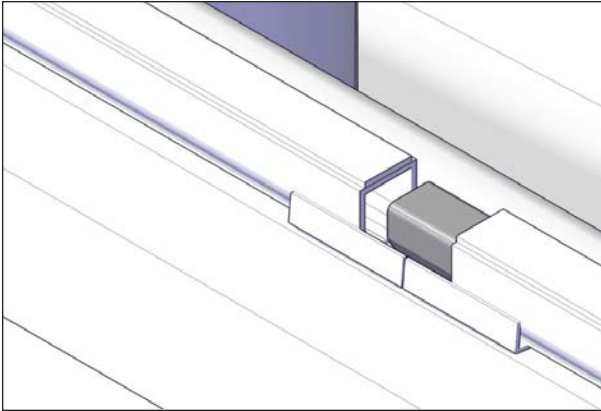


FIGURE 97: SEAL JOINT CONNECTOR

- Start installing the seal joint with the adhesive layer facing up towards the cover, see [Figure 97](#) and [Figure 98](#).

**CAUTION**

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

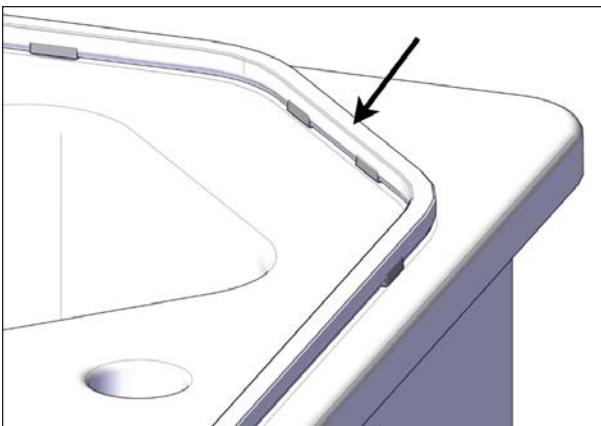


FIGURE 98: SEAL INSTALLATION

- 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.
- 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 97](#).

**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.

- 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.
- 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.
- 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.

- 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 99](#) to properly bond the adhesive to the underside of the cover.

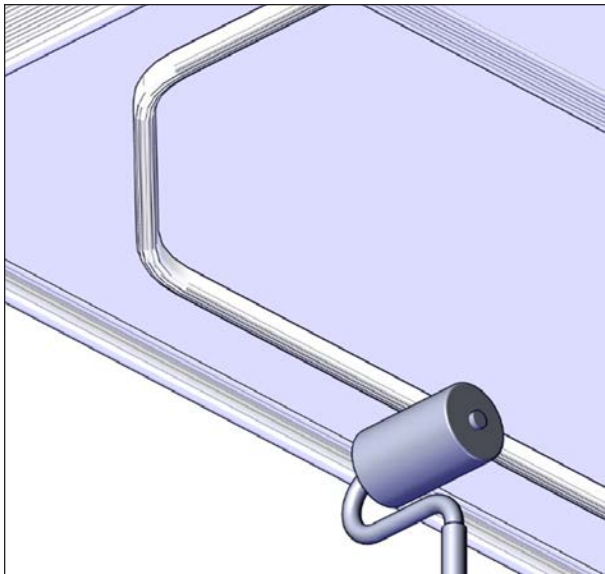


FIGURE 99: APPLY PRESSURE WITH ROLLER

- Remove all seal clips and tape (if applied) from the spa top edges.
- Lower the cover and stop at approximately 6" (15 cm) from the spa top edges.
- Make sure the cover is flat with all corners at the same height.
- Lower the cover, and make sure the seal is touching the spa all around. The heater can be put back in place if necessary.
- 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.
- Write the date of installation on the technical specifications label located on the control box**, see [Figure 100](#).


<b>COVANA</b> a Division of CANIMEX Group		TOLL FREE # 877-278-8010 PATENTED
MODEL	<input type="text"/>	SER.# <input type="text" value="YYMMSSSS"/>
INPUT	<input type="text"/>	AMPS <input type="text" value="/ AMPS MAX"/>
MFG. DATE	<input type="text" value="YYYY-MMM-DD"/>	<input type="text"/>
<small>IN COMPLIANCE WITH UL-2242</small>  <small>www.covana.com</small> <small>www.canimex.com</small>		<small>Fabrique au Canada</small> <small>Made in Canada</small>
DATE OF INSTALLATION:		<input type="text"/>

FIGURE 100: WRITE THE DATE OF INSTALLATION

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

### UPPER LIMIT RESET OF THE COVER

#### NOTE

Should there be an object that will obstruct the cover during operation, follow the next steps to reset the maximum height of the cover. If not, skip to the last step of this section.

#### NOTE

Use the key switch to perform the following steps without interruption during the sequences.



#### WARNING

When following the next steps, the cover will ignore its upper limit. This means the mechanism can break if elevated too high.

- The cover must be lowered to zero position. (Seal touches equally around spa perimeter).
- Disconnect both motors (remove motor plug harness from the control box).
- Disconnect the battery. If you are installing the AC-operated model, wait until the LED turns off to proceed to the next step.

4. Reconnect battery (ignore the step if you have an AC-operated model)
5. Using the key switch, turn the key UP (↑ arrow) and hold for at least 10 seconds.
6. Release the key.
7. Turn the key UP (↑ arrow) 10 times within 10 seconds.
8. Look at the control box LED. If the LED is flashing once about every 3 seconds, the reset process was successfully initiated.
9. You now have 30 seconds to reconnect the motors and set the upper height limit of the cover. Use the key switch to raise the cover.

**NOTE**

*Every time that the height of the cover is changed, the 30-second countdown will restart. If that period of time is exceeded before having made the adjustments, you will exit the reset mode.*

10. Raise the cover to the desired height.

**WARNING**

Do not exceed 120" (3 m) from the bottom of the sleeve to the underside of the cover. Refer to the [TECHNICAL SPECIFICATIONS](#) section for more information.

11. Once satisfied with the cover height, disconnect the battery again. If you have an AC-operated model, wait until the LED turns off. This is required to save the upper limit position.
12. Reconnect the battery. This is required to reboot the system (ignore the step if you have an AC-operated model).
13. Lower the cover to its zero position.
14. The initialization process was completed for the cover. This memorizes the upper limit of the cover.
15. Test the system by raising the cover. Check if the cover has saved the upper limit height.
16. Lower the cover to zero position.

**NOTE**

*Next section is a checklist for the installer and the customer. Please check the sections to ensure everything was done properly. It is very important to sign both copies and tear off the installer's copy.*

## 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 cable is properly attached to the bottom of each post. **(Jack installation section)**
- 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.
- 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 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 located on the control box.

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 cable is properly attached to the bottom of each post. **(Jack installation section)**
- 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.
- 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 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 located on the control box.

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, hold the key until fully open or closed.
5. The cover will automatically stop in both the fully open and fully closed position.
6. Turn the key UP (↑ arrow) to raise the cover.
7. Turn 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.

## 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 101](#).

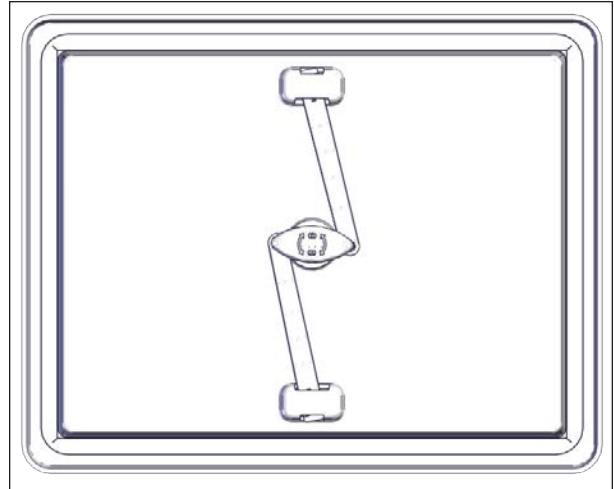


FIGURE 101: INTERIOR HANDLE

2. Push straight up on the escape hatch and move it to the side, see [Figure 102](#).

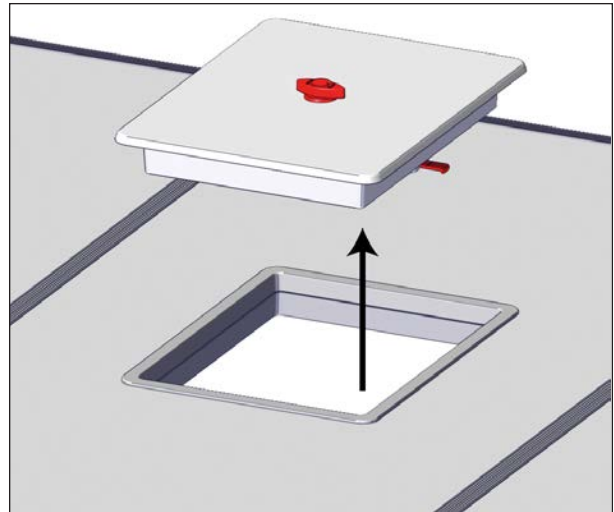


FIGURE 102: REMOVE HATCH

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 103](#).

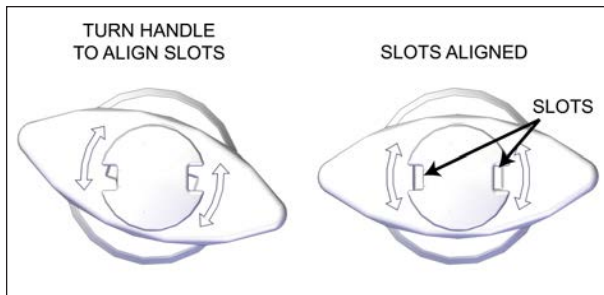


FIGURE 103: ALIGN THE SLOTS

3. Insert the COVANA key or ANY key into one of the slots, see [Figure 104](#).



FIGURE 104: 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.

## BATTERY CHARGING

### NOTE

*This section is for battery-operated models and Emergency-battery backup only.*

*The cover includes two 24 V DC battery packs.*

*Since the cover operates with these batteries, it is essential to maintain and charge the battery packs.*

1. Use the battery charger provided and plug it in a regular wall power outlet (110 V North America, 230 V Europe) ([Figure 105](#))
2. Plug the battery charger harness into the battery.
3. A red light should appear to indicate that it is charging.
4. Wait for the green light to appear. It indicates that the charging process is complete (charging time may vary).



### WARNING

Only use the charger provided by Covana to charge the batteries.

Do not charge the battery when it is connected to the cover. Remove the battery and replace it with the second battery provided.

### NOTE

*The charger cuts the power once the battery is fully charged. Therefore, you can keep the battery plugged on the charger.*



FIGURE 105: BATTERY CHARGER

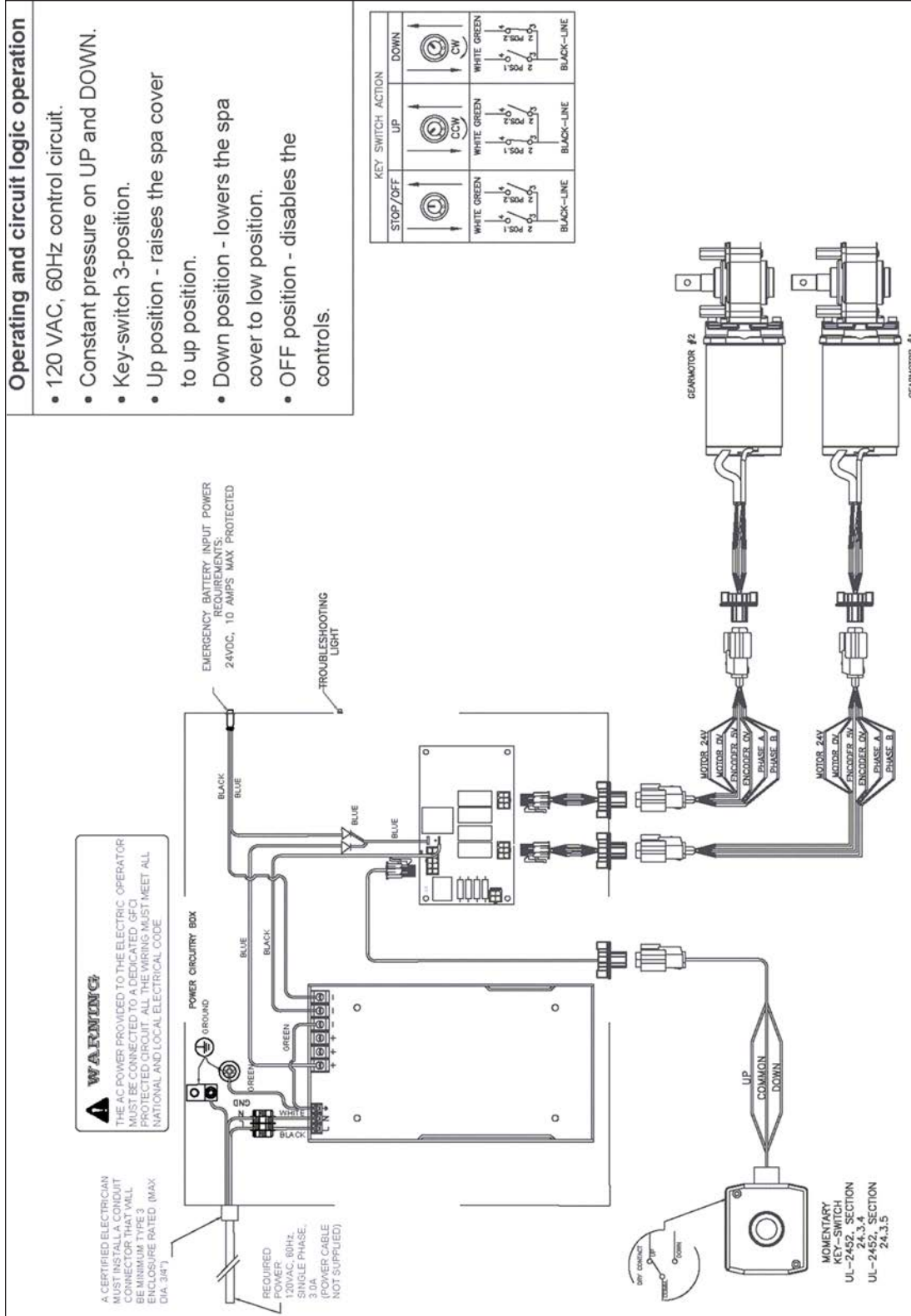


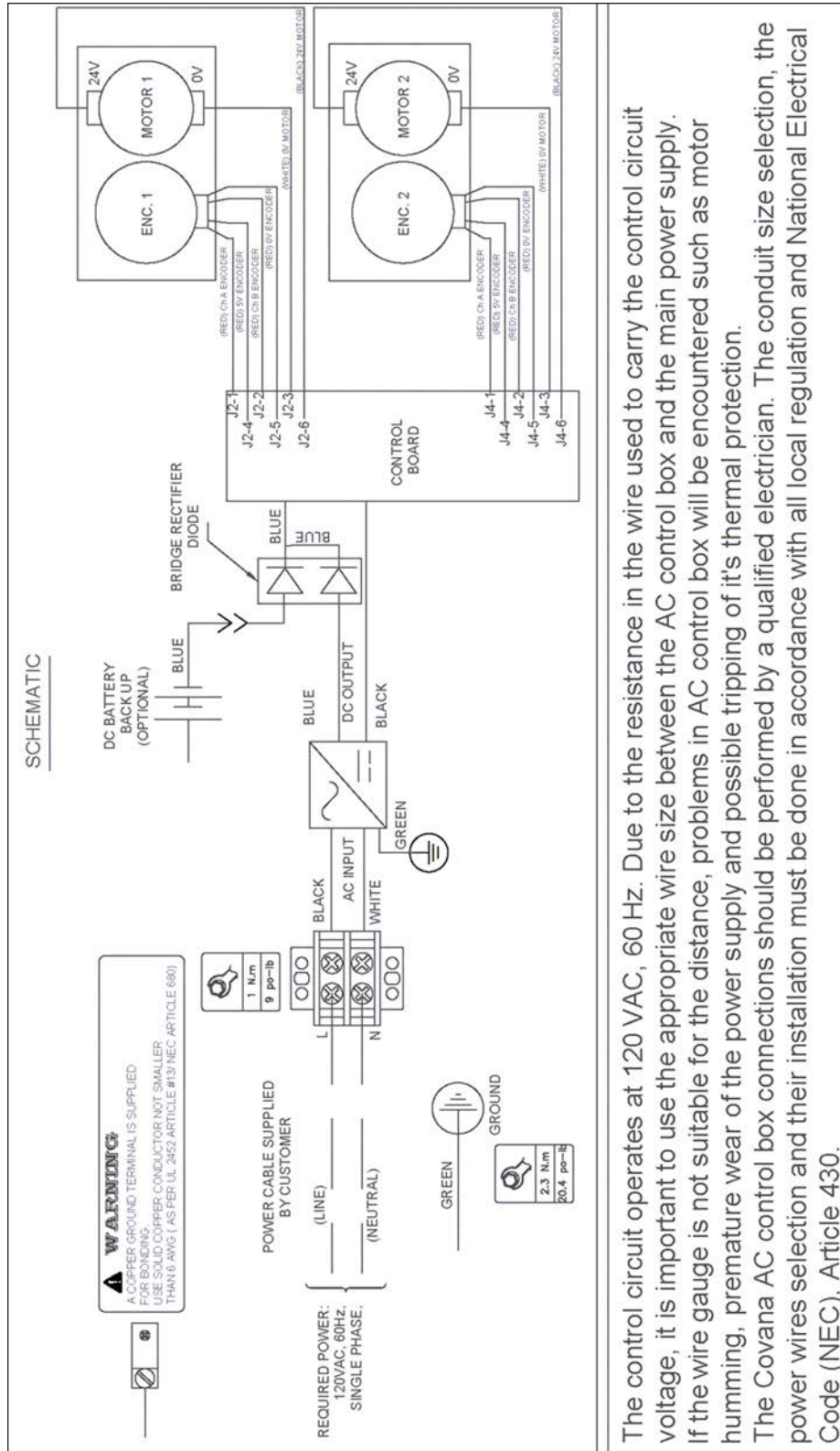
# ELECTRICAL DIAGRAMS

# ELECTRICAL DIAGRAMS

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

# WIRING DIAGRAM (NORTH AMERICA) – 60 HZ, 120 VAC CONTROL BOX





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 AC control box and the main power supply. If the wire gauge is not suitable for the distance, problems in AC control box will be encountered such as motor humming, premature wear of the power supply and possible tripping of it's thermal protection. The Covana AC control box connections should be performed by a qualified electrician. The conduit size selection, the power wires selection and their installation must be done in accordance with all local regulation and National Electrical Code (NEC), Article 430.



# 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. For AC-operated model: Remove the power from the cover. This can be done by shutting off and securing the circuit breaker powering the cover.
6. For battery-operated model: Unplug the battery from the control box. Store your batteries in a safe, dry location between 59 °F (15 °C) and 86 °F (30 °C).
7. Install a waterproof canvas over the cover.
8. Install a waterproof protection canvas over the control box.



### 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.

9. 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.
10. For battery-operated model: During storage, charge batteries every month or leave them on the Covana battery charger (only use Covana-provided battery charger).

## 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**

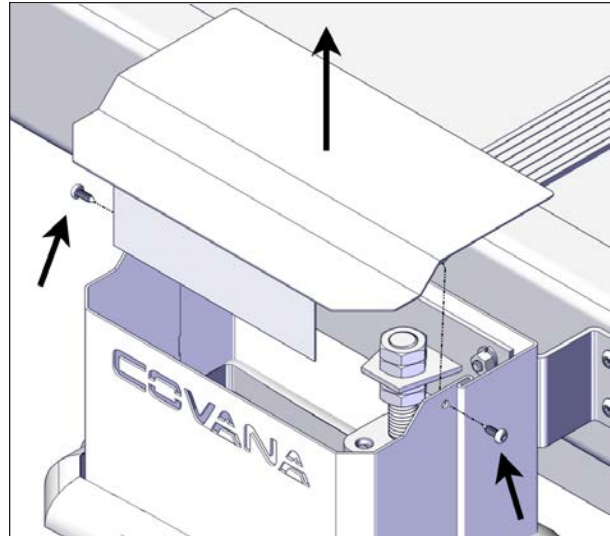
*It is not possible to lift the posts even if the jack is unscrewed. Only the motor can raise or lower the jacks.*

### POST GREASING PROCEDURE

1. Lower the cover until it is fully closed.
2. Remove both #2 Robertson screws on the top plate of each post, see [Figure 106](#). Keep the top plates and the screws in a safe location.

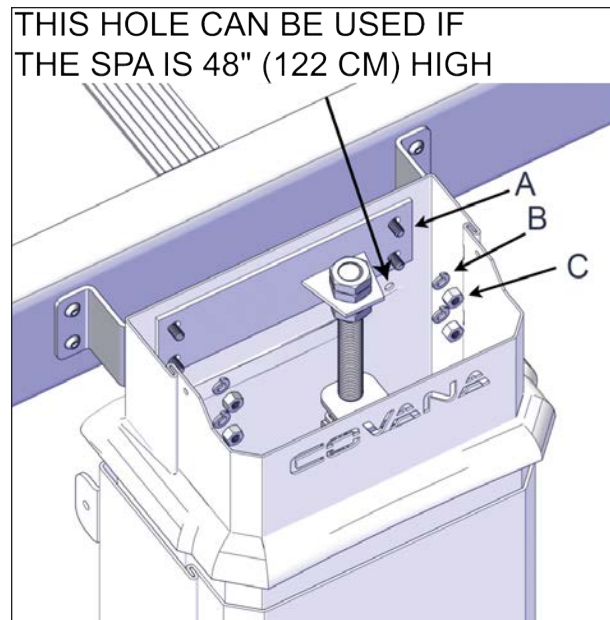
**! WARNING**

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



**FIGURE 106: TOP PLATE REMOVAL**

3. Remove the 1/4-20 x 3/4" carriage bolts (4) of the jack adapter, from each post using a 7/16" (11 mm) socket wrench, see [Figure 107](#).



**FIGURE 107: JACK ADAPTER SCREW REMOVAL**

ID	DESCRIPTION
A	CARRIAGE BOLT 1/4- 20 X 3/4"

ID	DESCRIPTION
B	LOCK WASHER 1/4"
C	NUT 1/4- 20

- Gently slide down the sleeve assembly, see [Figure 108](#).
- Reinstall the jack adapters, but not the sleeves. Reinstall the 1/4-20 x 3/4" carriage bolts (4), see [Figure 108](#).



### WARNING

If the jacks are raised without the cover fastened on, they will not be able to lower back to their original position.

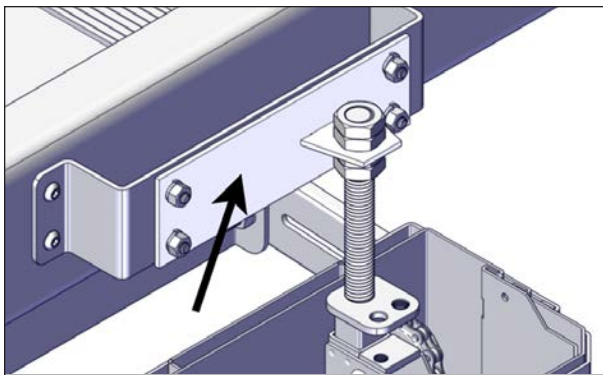


FIGURE 108: JACK ADAPTER SCREW RE-INSTALLATION

- Raise the jacks until the system stops at its maximum limit, see [Figure 109](#).

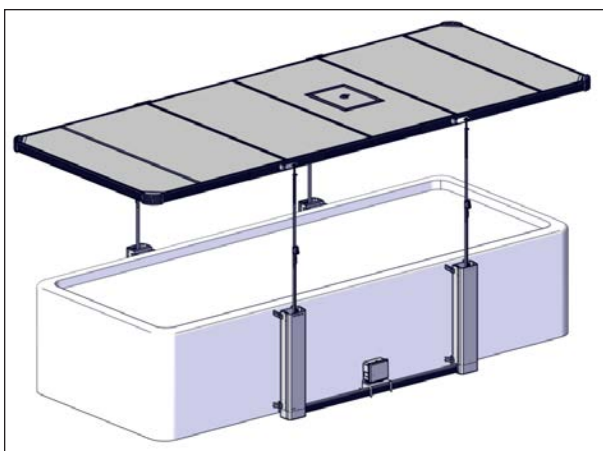


FIGURE 109: JACK RAISING

- Spray grease on all the sliding parts and mechanical components of all jacks, see [Figure 110](#).

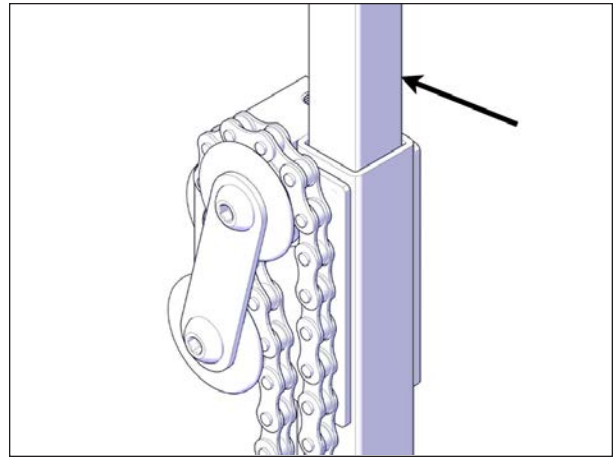


FIGURE 110: SLIDING PARTS TO GREASE

- Inspect the chains for signs of deterioration. If this is the case, please call your local Covana dealer immediately, see [Figure 111](#).

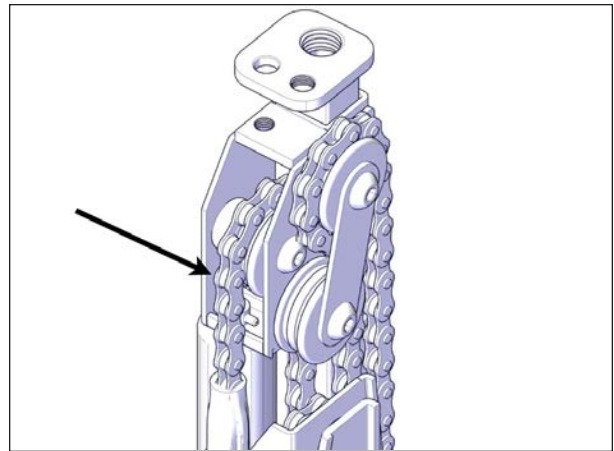


FIGURE 111: JACK CHAINS

- Cycle the system up and down and inspect if any further grease should be added.
- Lower the system completely until it stops automatically.
- Reverse the previous steps to reinstall the sleeves. For all posts, slide the all-weather seals down. Ensure they are properly seated on the outer sleeve base.

**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 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. *				X	
Lubricate chains on all posts . *				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

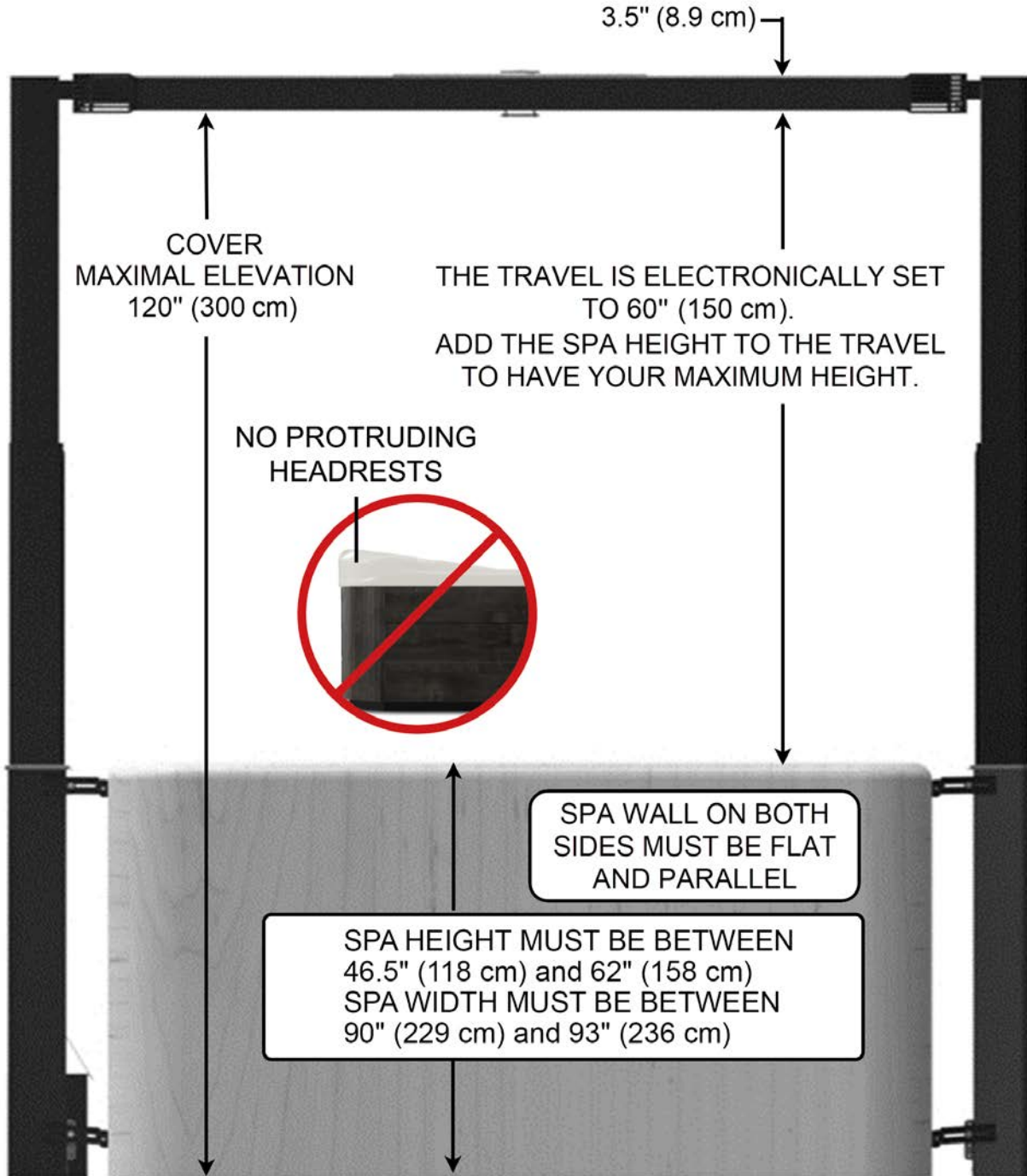
Please call your Covana dealer for any mechanical, electrical or aesthetic maintenance.



# TECHNICAL SPECIFICATIONS

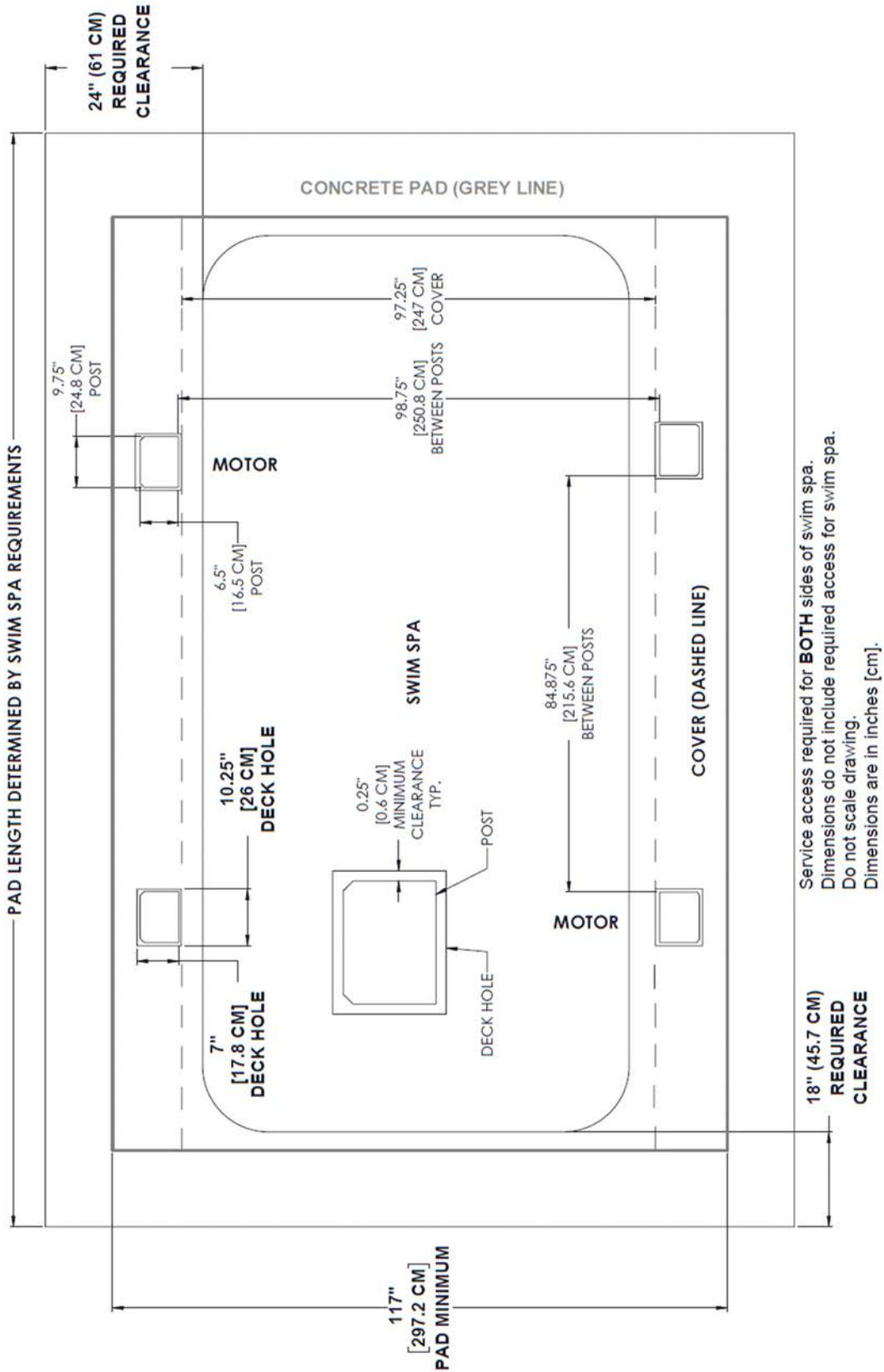
# TECHNICAL SPECIFICATIONS

## COVER SIDE VIEW





**FRAME DIMENSIONS AND FOOT PRINT (CONCRETE PAD RECOMMENDED)**



**FIGURE 112: FRAME DIMENSIONS AND FOOT PRINT**

### CONCRETE PAD OPTIONS

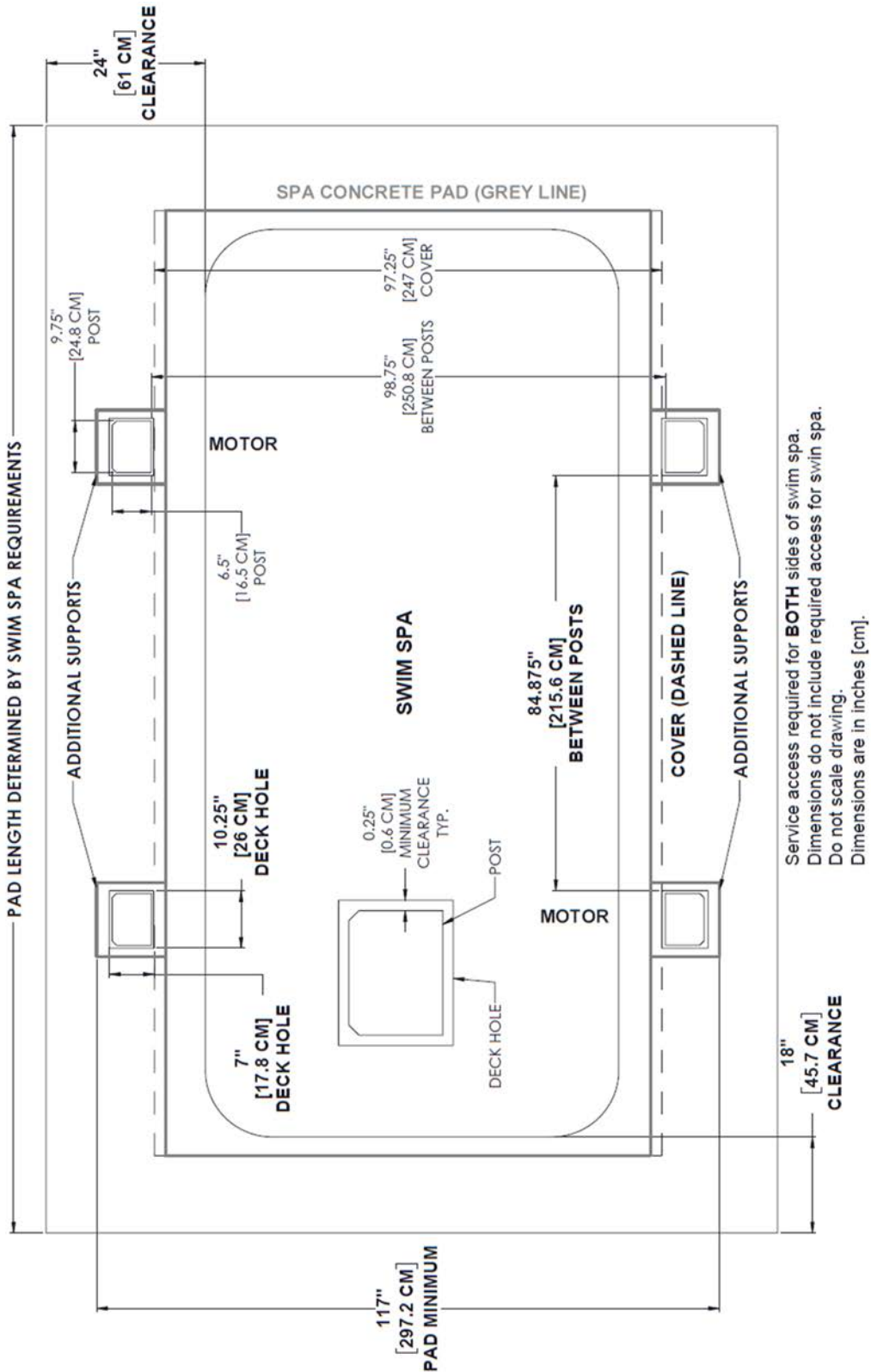


FIGURE 113: CONCRETE PAD OPTIONS

## ELECTRICAL SPECIFICATIONS (AC OPERATED MODEL)

The cover requires a dedicated single phase 115 VAC (North America).

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 (AC OPERATED)

Voltage	115 V, 60 Hz (1 hot, 1 neutral, 1 ground)
GFCI	15 A single-pole GFCI (not included)
Continuous current draw	3 A



### WARNING

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

## ELECTRICAL SPECIFICATIONS (BATTERY OPERATED MODEL)

Voltage	24 VDC System
Wall outlet voltage	115 VAC for charger North America (230 VAC European model)
Battery	24 V DC, 12 Ah, AGM sealed lead-acid battery

## OPERATION LIMITATIONS



### WARNING

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

Maximum wind	Gusts of 25 mph (40 km/h) while in the raised position. Lower the cover when winds exceed 25 mph (40 km/h).
Maximum weight on the cover (evenly distributed)	150 lb. (68 kg) Before operating the cover, make sure it is free of any dirt, debris, leaves, snow, etc.

## GENERAL SPECIFICATIONS

Lifting speed	2.5"/s (6.35 cm/s)
Total weight	560 lb. (254 kg) (20' models)
Length of key switch electrical wire	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"> <li>• The GFCI is tripped.</li> <li>• The power source is disconnected.</li> <li>• Battery has low power.</li> <li>• Controller is in “lockout” mode.</li> </ul>	<ul style="list-style-type: none"> <li>• Reset the GFCI.</li> <li>• Verify that the power source is enabled.</li> <li>• Check the breaker panel.</li> <li>• Verify whether the cables were damaged or pinched.</li> <li>• Disconnect the battery for 60 seconds to reset the controller.</li> <li>• Charge battery.</li> </ul>
<p>The cover does not raise or lower. (Motor humming and some visible movement)</p>	<ul style="list-style-type: none"> <li>• Posts are frozen.</li> <li>• Jack assemblies are jammed.</li> <li>• The motor is obstructed.</li> <li>• Posts are obstructed.</li> <li>• The debris on the cover is too heavy.</li> </ul>	<ul style="list-style-type: none"> <li>• Remove all the debris from the top of the cover.</li> <li>• Verify whether any posts are obstructed.</li> <li>• Use methanol to free ice buildup on posts.</li> <li>• Apply grease on the post assemblies.</li> <li>• Verify the relative position of the four posts (See Foundation Preparation section).</li> <li>• If all previous attempts failed, contact your local authorized Covana dealer.</li> </ul>
<p>The posts are not equally positioned.</p>	<ul style="list-style-type: none"> <li>• The chain skipped during operation.</li> <li>• A spring pin at the bottom of a jack is broken.</li> <li>• A drive shaft has fallen off.</li> <li>• Excessive weight on one side of the cover.</li> <li>• Controller does not calculate the height properly.</li> </ul>	<ul style="list-style-type: none"> <li>• Verify whether a drive shaft has fallen off and if it is the case, reinstall the shaft.</li> <li>• Lower the cover and replace the chain.</li> <li>• Replace any missing or broken spring pin by lifting the outer sleeve, using an awl and a hammer.</li> <li>• Remove all debris from the top of the cover.</li> <li>• If all previous attempts failed, contact your local authorized Covana dealer.</li> </ul>

PROBLEM	PROBABLE CAUSES	SOLUTIONS
The middle sleeve has gripped and might have dropped abruptly	<ul style="list-style-type: none"> <li>• Posts are frozen.</li> <li>• The stopper kit is broken/missing.</li> </ul>	<ul style="list-style-type: none"> <li>• Verify the position of the all-weather seal. While cover is closed, it must be sitting on the top of the outer sleeve.</li> <li>• Check whether the stopper kit is broken/missing.</li> <li>• Reinstall the sleeves.</li> <li>• Check level on 2 faces of the sleeve.</li> <li>• If all previous attempts failed, contact your local authorized Covana dealer.</li> </ul>
Escape hatch doesn't open/close	<ul style="list-style-type: none"> <li>• Mechanism is jammed.</li> <li>• Verify the position of the locking mechanism.</li> </ul>	<ul style="list-style-type: none"> <li>• Refer to the <a href="#">USING THE ESCAPE HATCH</a> section.</li> <li>• Remove the escape hatch from the underside of the cover and clean it to free the mechanism.</li> <li>• If all previous attempts failed, contact your local authorized Covana dealer.</li> </ul>
The cover raises unevenly.	<ul style="list-style-type: none"> <li>• The chain is broken.</li> <li>• A spring pin is broken.</li> <li>• A drive shaft has fallen off.</li> <li>• Posts are gripped.</li> </ul>	<ul style="list-style-type: none"> <li>• Call your local certified Covana dealer for technical support.</li> <li>• Do not operate the cover.</li> </ul>
Cover seal turned black.	<ul style="list-style-type: none"> <li>• The seal has accumulated mold.</li> </ul>	<ul style="list-style-type: none"> <li>• Clean the affected areas with bleach and a soft brush. Rinse well with water.</li> </ul>







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

[covana.com](http://covana.com) [info@covana.com](mailto:info@covana.com)



COVANA a division of Canimex,  
committed to excellence since 1969.