

Owner's manual

# Legend

**COVANA**

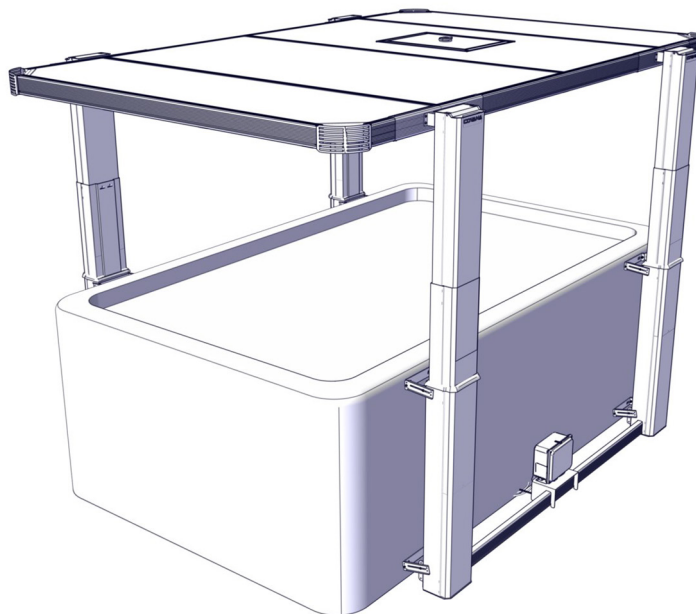




# COVANA

**SPA COVER MANUFACTURER**

**OWNER'S MANUAL**



**MANUAL NO. 261320**

LEGEND COVER

MANUAL NO. 261320

First edition 2025-11-10

REVISION	DESCRIPTION	DATE
0	OWNER'S MANUAL NEW RELEASE	2025-11-10
1	UPDATE TO THE SCREWS AT THE BOTTOM OF THE SLEEVES	2026-03-02
	KEY SWITCH INSTALLATION INSTRUCTIONS	
2	INSTRUCTIONS FOR SNOW REMOVAL	2026-03-24
3	ELECTRICAL DIAGRAMS UPDATE	2026-04-13

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# SAFETY AND IMPORTANT INSTRUCTIONS

## CONGRATULATIONS!

Congratulations for the purchase of your new COVANA cover!

### IMPORTANT NOTE



**PLEASE REGISTER  
YOUR COVER AT THE  
TIME OF PURCHASE  
TO ENSURE A PROPER  
FOLLOW-UP PROCESS.**

[COVANA.COM/EN/WARRANTY-REGISTRATION](http://COVANA.COM/EN/WARRANTY-REGISTRATION)

### NOTE



**FOR SERVICE  
AND ADVICE,  
DO NOT HESITATE  
TO CALL YOUR  
LOCAL AUTHORIZED  
COVANA RETAILER.**

# IMPORTANT INFORMATION

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

## DANGER

Directs your attention to unsafe practices which could result in serious personal injury or death.

## WARNING

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

## CAUTION

Directs your 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.*

# IMPORTANT NOTE



**READ THIS MANUAL  
BEFORE USING  
THE COVER.**

## NOTE

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

Keep this manual in a safe location for future reference.

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.



## CAUTION



**THE COVER WAS NOT DESIGNED TO SUPPORT ADDITIONAL LOAD OR PEOPLE WALKING OR STANDING ON IT. FAILURE TO FOLLOW THIS INSTRUCTION WILL VOID THE WARRANTY AND ITS CERTIFICATION.**

The power safety cover meets ASTM F1346-23 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

- 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, walk, sit or stand on the cover at any time.
- 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.

## 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 retailer if any unusual mechanical sound is heard during cover operations.

## DO'S

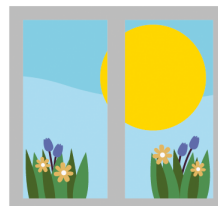
- Remove the key from the key switch after operating the cover. Users must bring the key in the spa with them to prevent the unauthorized operation of the cover. Store the key in a secure location when not in use.
- Check the cover frequently for any sign of deterioration.
- Have any repairs, adjustments or mechanical work performed by a certified Covana retailer 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 keep the cover open for more than 12 consecutive hours. Failure to follow this instruction may cause permanent deformations to the cover.
- 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 electric shock hazard. An extension cord may cause a voltage drop, which may cause the motor to overheat.



## CAUTION



**DO NOT CONVERGE OR DIRECTLY REFLECT SUNLIGHT ON THE COVER. THIS COULD CAUSE PERMANENT DAMAGE (E.G.: REFLECTION FROM A WINDOW).**

**⚠ CAUTION**

- 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.
- 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. As the COVANA LEGEND BATTERY PACK contains lead, please recycle properly according to the local rules.
- Do not expose the COVANA LEGEND BATTERY PACK to excessive temperatures.
- Be aware of the risk of the terminals of the battery-operated device, or battery, being short-circuited by metal objects.

**RISK OF ELECTROCUTION****WARNING**

**ALL ELECTRICAL CONNECTIONS MUST BE DONE BY A CERTIFIED ELECTRICIAN OTHERWISE THE CERTIFICATION AND WARRANTY WILL BE VOID.**

**⚠ CAUTION**

Any modifications to the electrical components will 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.

- 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.

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.

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 and COVANA LEGEND BATTERY PACK with original components provided or approved by Covana. Ask your retailer for replacement parts.
- To reduce the risk of electric 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.
- In the event of a battery leak:  
Wear appropriate protective equipment (gloves, safety glasses, etc) when processing the leakage.  
For disposal, follow waste management and public cleaning laws as well as local government standards.

## ELECTRICAL WARNING

### **WARNING**

- AC-operated model: To reduce the risk of electric shock, the green-colored terminal (or marked “g,” “gr,” “ground,” “grounding” or with a  $\frac{1}{\perp}$  symbol) 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.
- 1 bonding lug is installed on 1 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 / 13.30 mm<sup>2</sup>) (NEC art. 680).

## MODIFICATIONS TO THE COVER


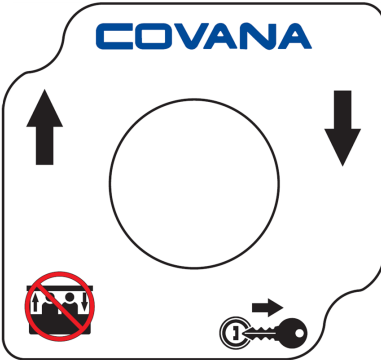

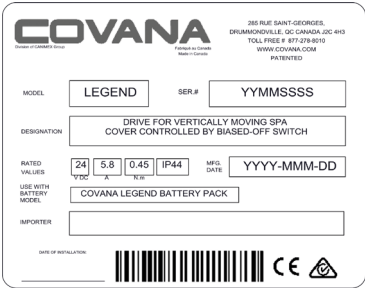
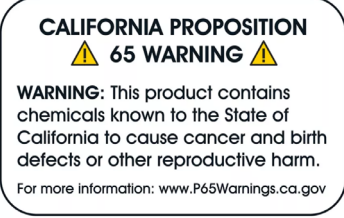

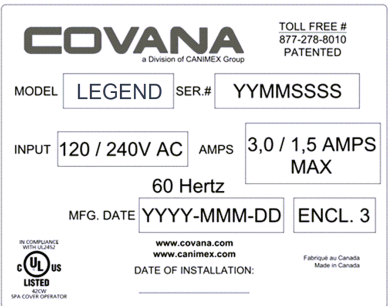


### **WARNING**

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.

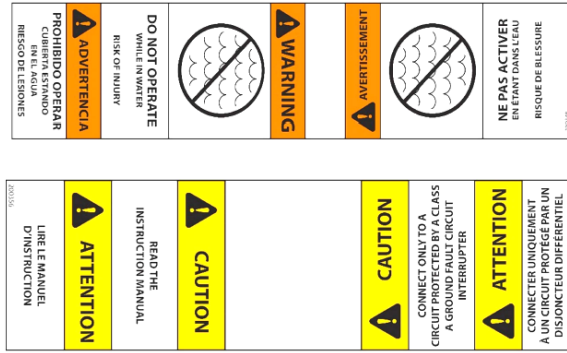
**SAVE THESE  
INSTRUCTIONS**

# LABELING

# LABELING

<p style="text-align: center;"><b>Top</b></p> <div style="text-align: center;">  </div> <p style="text-align: center;">➔ On the I-Beams and in the escape hatch opening</p>	<p style="text-align: center;"><b>Key switch operation diagram</b></p> <div style="text-align: center;">  </div> <p style="text-align: center;">➔ On the key switch</p>	<p style="text-align: center;"><b>No step</b></p> <div style="text-align: center;">  </div> <p style="text-align: center;">➔ On the top of the control box</p>
<p style="text-align: center;"><b>Technical specifications (Battery operated model)</b></p> <div style="text-align: center;">  </div> <p style="text-align: center;">➔ On the control box</p>	<p style="text-align: center;"><b>Proposition 65 (North American models)</b></p> <div style="text-align: center;">  </div> <p style="text-align: center;">➔ On the control box OR on the side of the control box housing</p>	<p style="text-align: center;"><b>Risk of electrocution</b></p> <div style="text-align: center;">  </div> <p style="text-align: center;">➔ On the AC control box</p>
<p style="text-align: center;"><b>Technical specifications (AC operated North American models)</b></p> <div style="text-align: center;">  </div> <p style="text-align: center;">➔ On the control box</p>	<p style="text-align: center;"><b>Maintenance information</b></p> <p style="text-align: center;">Visit <a href="http://www.covana.com">www.covana.com</a> for recommended maintenance procedures and videos This label not to be removed except by the consumer</p> <p style="text-align: center;">Visitez <a href="http://www.covana.com">www.covana.com</a> pour des conseils et des vidéos sur les procédures d'entretien Seul l'utilisateur peut retirer cet autocollant</p> <div style="text-align: center;">  </div> <p style="text-align: center;">➔ On one of the C-channels</p>	<p style="text-align: center;"><b>Battery specification</b></p> <div style="text-align: center;">  </div> <p style="text-align: center;">➔ On the battery pack casing</p>

**Risk of electrocution**



⇒ On the power cable

**Avoid drowning**



⇒ One label is affixed on each exterior side of the cover

**Center**



⇒ On the 94.6" long C-channel (remove after installation)

**Do not step on the cover**

**DO NOT STEP ON COVER  
NE PAS MONTER SUR LE COUVERCLE**

⇒ On the end of the C-channels

**! WARNING**

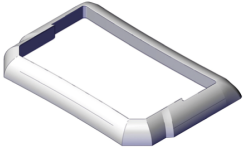
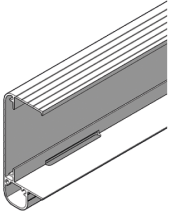
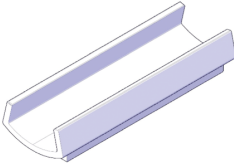
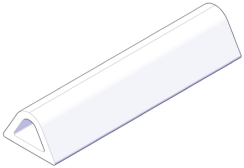

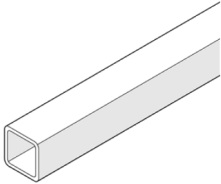

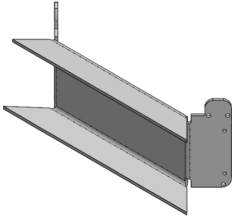
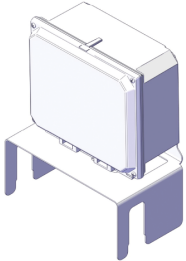
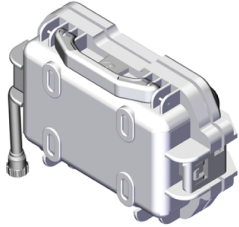
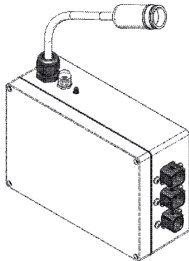
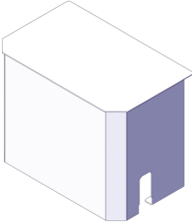
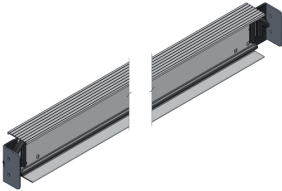
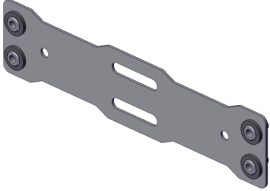

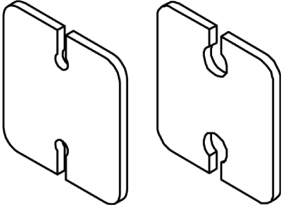



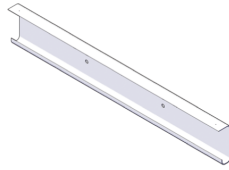
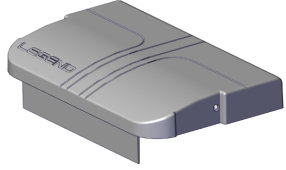
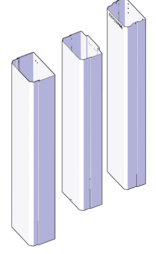
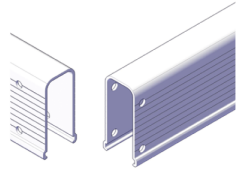
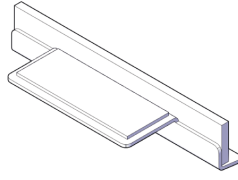
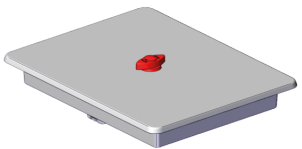

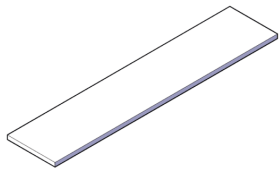
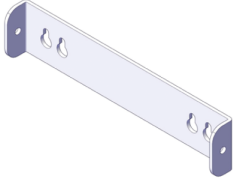
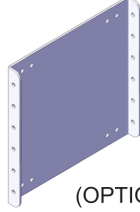
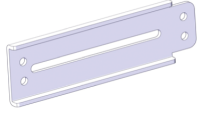
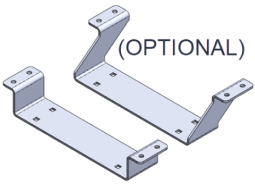
**REMOVING ANY LABEL ON THE COVER WILL VOID THE PRODUCT CERTIFICATION. ALL LABELS SHOULD ALWAYS REMAIN VISIBLE. IT IS THE OWNER'S RESPONSIBILITY TO ENSURE THAT THE LABELS ARE ALWAYS VISIBLE AND NEVER REMOVED.**





# PARTS

<p><b>All-weather seal</b></p> 	<p><b>C-channel</b></p> 	<p><b>Seal clip</b></p> 	<p><b>Seal connector</b></p> 
<p><b>Contour seal</b></p> 	<p><b>Drive shaft</b></p> 	<p><b>Outside corner</b></p> 	<p><b>Outside corner bracket</b></p> 
<p><b>AC control box</b></p> 	<p><b>Battery pack</b></p> 	<p><b>Control box</b></p> 	<p><b>Control box housing</b></p> 
<p><b>I-beam</b></p> 	<p><b>Long I-to-C connection plate</b></p> 	<p><b>Short I-to-C connection plate</b></p> 	<p><b>I-to-C spacer</b></p> 

<p><b>Jack</b></p> 	<p><b>Support bracket</b></p> 	<p><b>Top plate</b></p> 	<p><b>Sleeves</b></p> 
<p><b>U-frame</b></p> 	<p><b>Wiper</b></p> 	<p><b>Escape hatch</b></p> 	<p><b>Key switch</b></p> 
<p><b>Foam spacer</b></p> 	<p><b>Tub mount bracket</b></p> 	<p><b>Extended tub mount bracket</b></p>  <p>(OPTIONAL)</p>	<p><b>Mount bracket arm</b></p> 
<p><b>Post mount bracket</b></p>  <p>(OPTIONAL)</p>			









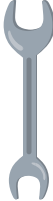

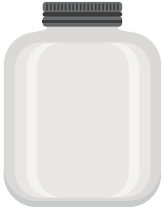




# INSTALLATION AND PREPARATION

# INSTALLATION PROCEDURE

## CAUTION

The cover must be installed by a certified Covana installer (two people are required for certain steps). Having the cover installed by someone who is not certified will void the warranty.

### TOOLS REQUIRED

<p><b>Power drill</b></p>  <p>5/32"</p>	<p><b>Phillips, Robertson, and flat blade screwdriver</b></p> 	<p><b>Scissors</b></p> 	<p><b>25' (7.62 m) Measuring tape</b></p> 
<p><b>36" (92 cm) level</b></p> 	<p><b>SAE or metric socket kit</b></p> 	<p><b>7/16" Wrench (11 mm) 9/16" Wrench (14 mm)</b></p> 	<p><b>J-Roller with rubber roller</b></p>  <p>No. 242084</p>
<p><b>Antiseize lubricant for stainless steel</b></p> 	<p><b>Step ladder</b></p> 	<p><b>5/32" and 7/32" Allen keys</b></p> 	<p><b>Screws for tub mount bracket installation</b> Bracket holes: <math>\varnothing</math> 0.26"</p>  <p>32x</p> <p><b>Screws to secure key switch</b> Key switch holes: <math>\varnothing</math> 0.17"</p>  <p>2x</p>

## PREPARATION FOR THE INSTALLATION

To ensure safe use of the cover, it must be installed on a properly prepared surface (Figure 2).

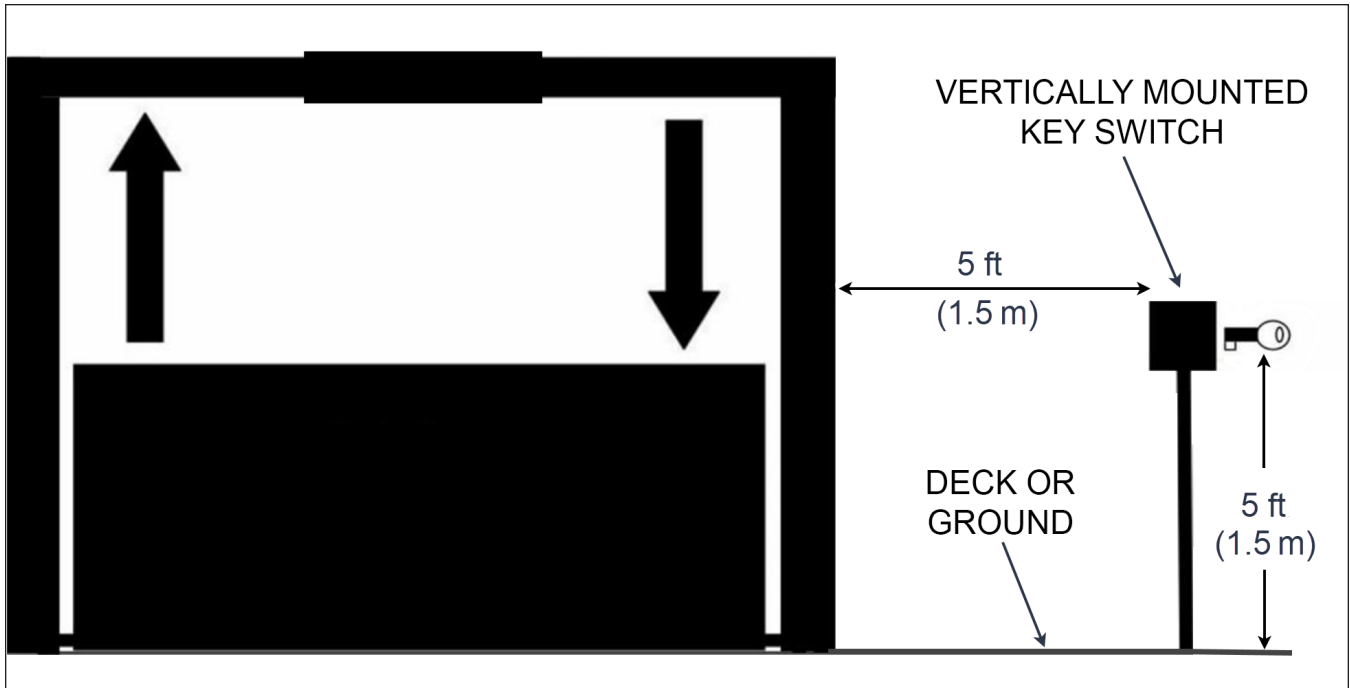


FIGURE 1: POSITION OF THE KEY SWITCH

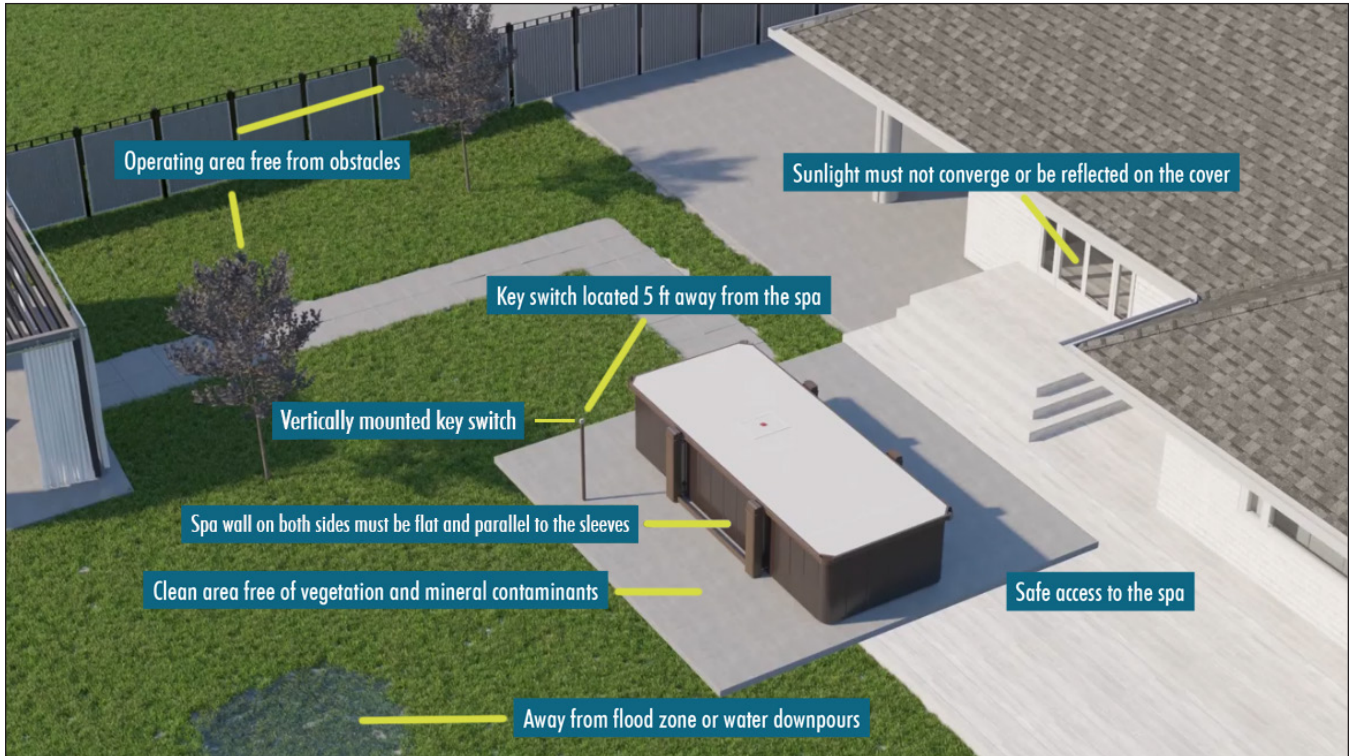


FIGURE 2: PREPARATION FOR THE INSTALLATION

### FOUNDATION PREPARATION

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


The four jacks must be properly fastened to the spa frame.



## WARNING


**THE FOUNDATION MUST BE ABLE TO SUPPORT AT LEAST 1,000 LB. (454 KG)**





## WARNING

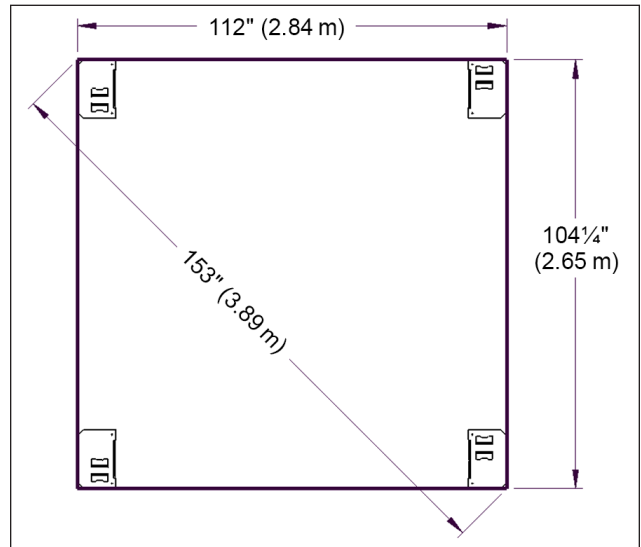
- Ideally, the cover must be put on the spa foundation. When not possible, a concrete pier or some cover support dedicated slabs must be provided. Those independent supports must respect the same level variation mentioned below.
- The foundation must be leveled with a maximum tolerance of 1" (2.5 cm) over a 153" (3.89 m) diagonal section and 112" (2.84 m) by 104¼" (2.65m) rectangle (Figure 3).
- The annual variation in levelness for the same diagonal section cannot exceed 1/4" (6 mm).



## CAUTION

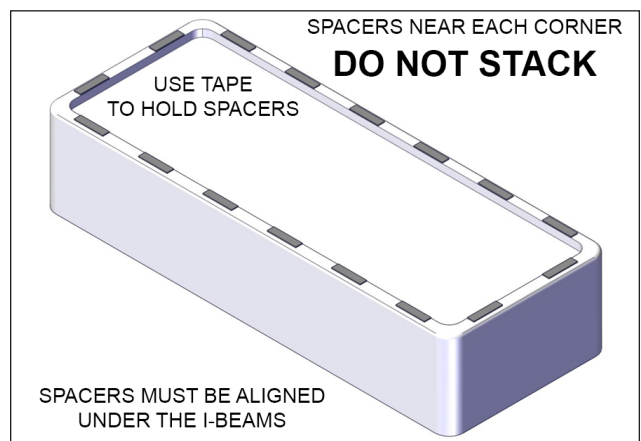
- Damage caused by inadequate foundation construction is not covered by the warranty. It is the responsibility of the owner to provide a proper foundation.
- Failure to follow these guidelines might cause permanent damage or improper functioning of the cover. Such damage might not be covered by the warranty.

**FIGURE 3: FOUNDATION DIAGONAL**



### FOAM INSTALLATION

**FIGURE 4: INSTALL FOAM SPACER**






## CAUTION



**PLACE SPACERS ON THE FLAT TOP SURFACE OF THE SPA.**

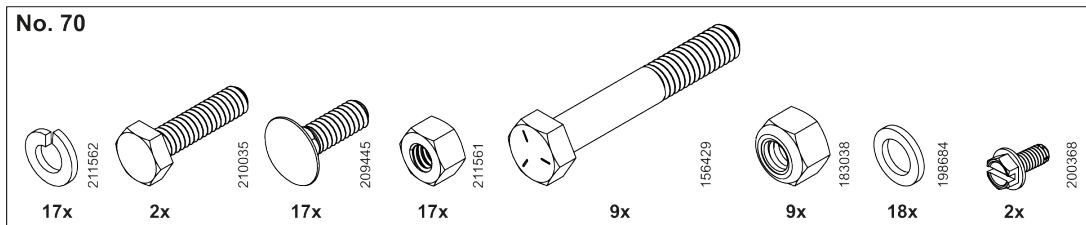
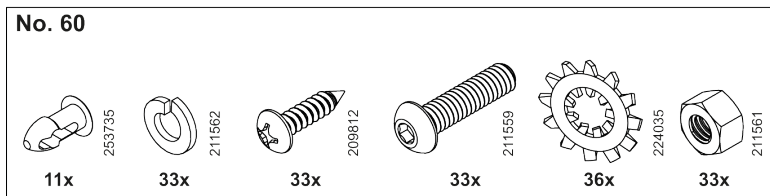
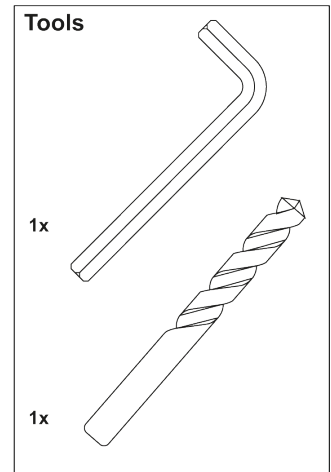
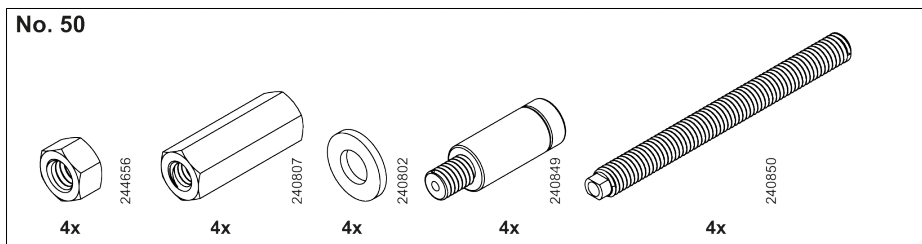
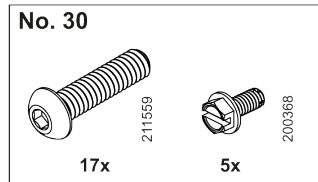
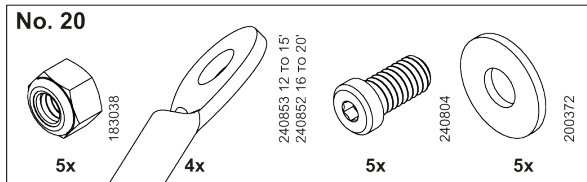
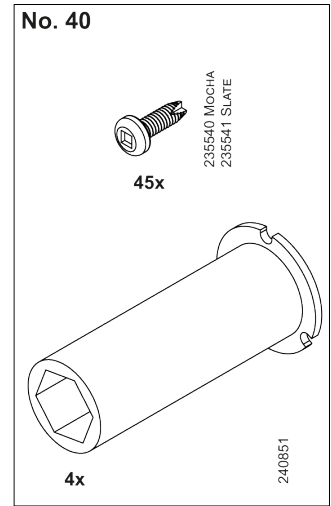
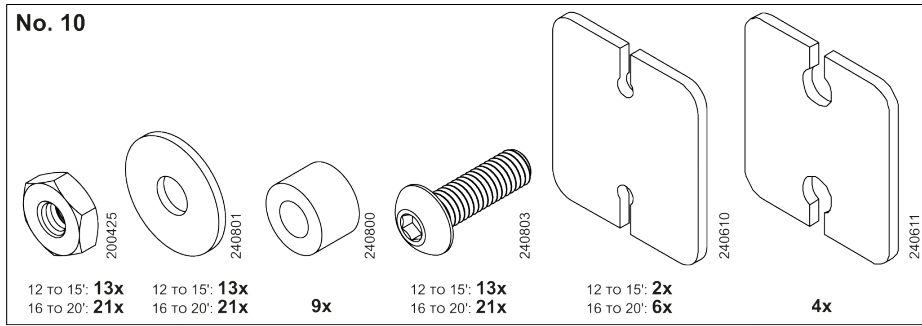
**NO PROTRUDING HEADRESTS**



## CAUTION

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

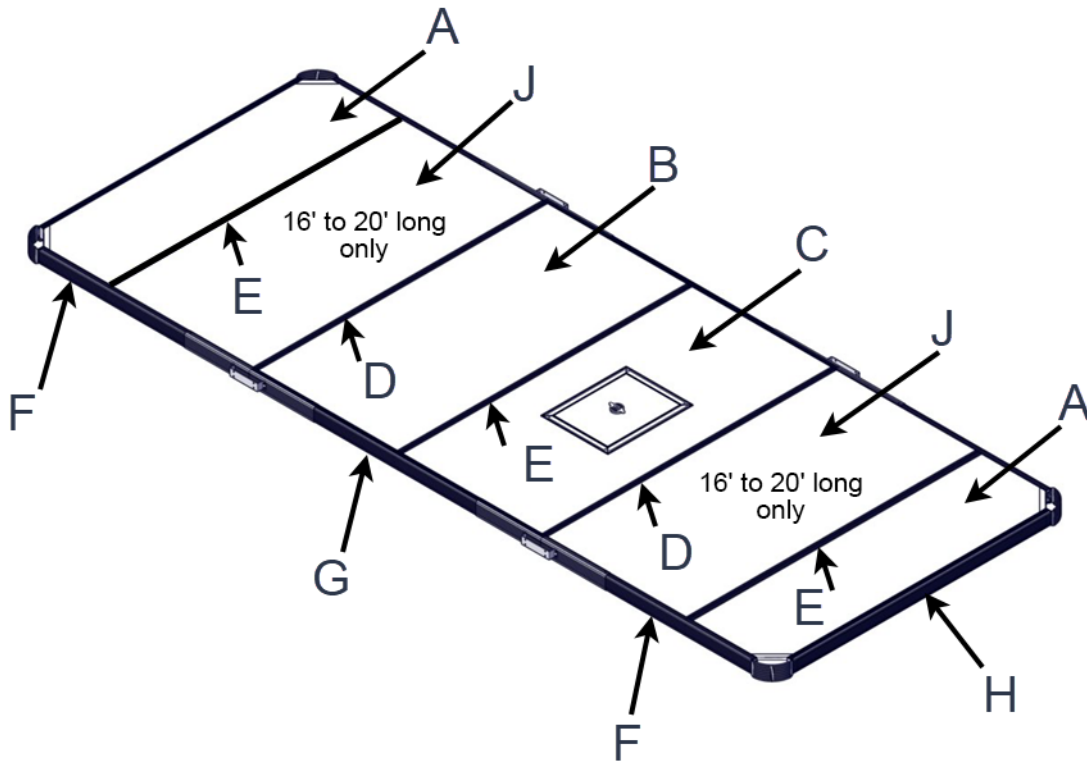
## HARDWARE IDENTIFICATION BAGS



## THE HARDWARE BAG TO USE IS MENTIONED AT THE BEGINNING OF EACH SECTION

NOTE: Extra parts are included in case some break or are lost during installation

**ASSEMBLY PREPARATION**



**FIGURE 5: SPA COVER SETUP**

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

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

PREPARATION OF I-BEAMS

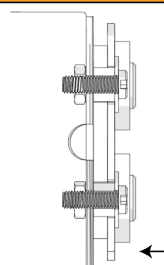
HARDWARE BAG #

USE HARDWARE BAG NO. 10  
FOR THE FOLLOWING STEPS



I TO C PLATE INSTALLATION ON THE I-BEAMS

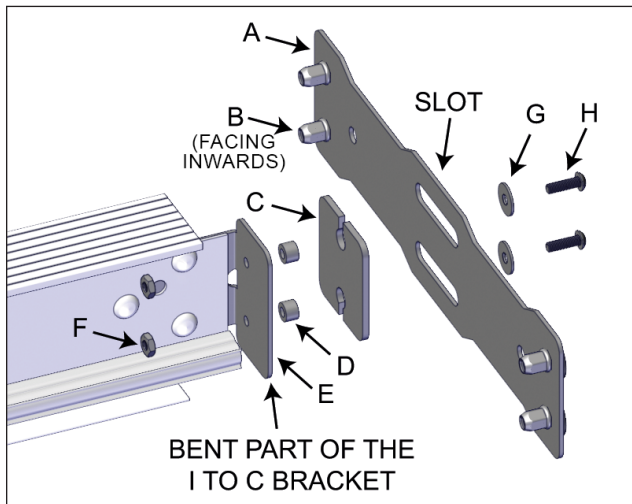
! WARNING



THE ORIENTATION AND INSTALLATION OF EACH COMPONENT MUST BE STRICTLY AND EXACTLY MOUNTED AS SHOWN.

I TO C LONG CONNECTION PLATE SECTION VIEW

FIGURE 6: INSTALL I TO C LONG CONNECTION PLATES



<b>A</b>	I TO C LONG CONNECTION PLATE
<b>B</b>	NUT INSERT
<b>C</b>	I TO C SPACER
<b>D</b>	SPACER
<b>E</b>	I TO C BRACKET

<b>F</b>	NO. 10-32 NUT
<b>G</b>	NO. 10 FLAT WASHER
<b>H</b>	NO. 10-32 x 5/8" SCREW


! CAUTION

- Two I to C long connection plates must be installed per I-beam and on two I-beams.
- Make sure there is grease in the inserts; 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 6) are placed between the I to C bracket and the I to C long connection plate.

- Do the same on the opposite side of the I-beam and on a second I-beam.

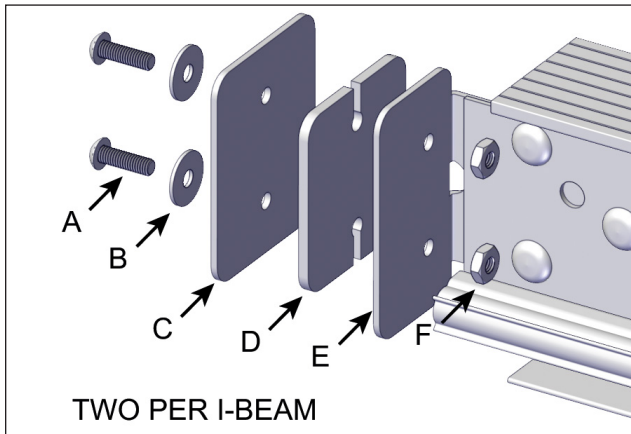
QUANTITY OF I-BEAMS TO ASSEMBLE WITH THE I TO C SHORT CONNECTION PLATE	
COVER LENGTH	QUANTITY
12' to 15' long	1
16' to 20' long	3

! CAUTION



ENSURE THE SCREWS AND NUTS ARE NOT OVERLY TIGHT SO THEY DON'T BEND THE I TO C BRACKETS AND THE I TO C CONNECTION PLATES.

FIGURE 7: INSTALL I TO C SHORT CONNECTION PLATES



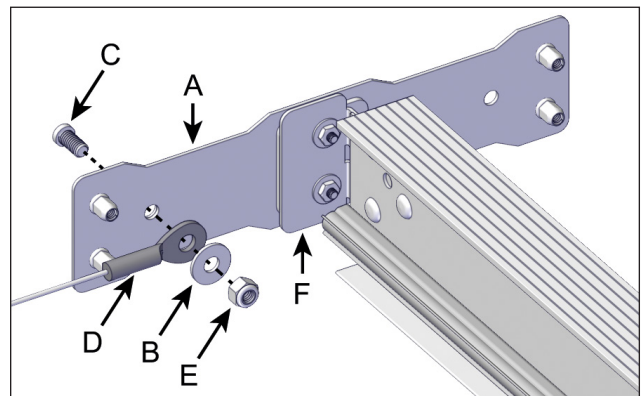
A	NO. 10-32 x 5/8" SCREW
B	NO. 10 FLAT WASHER
C	I TO C SHORT CONNECTION PLATE
D	I TO C SPACER
E	BENT PART OF I TO C BRACKET
F	NO. 10-32 NUT

CABLE INSTALLATION ON THE I TO C LONG CONNECTION PLATE

**HARDWARE BAG #**

**USE HARDWARE BAG NO.20**  
FOR THE FOLLOWING STEPS


FIGURE 8: INSTALL THE CABLE WITH THE EYELET FLAT SIDE IN CONTACT WITH THE LONG CONNECTION PLATE



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

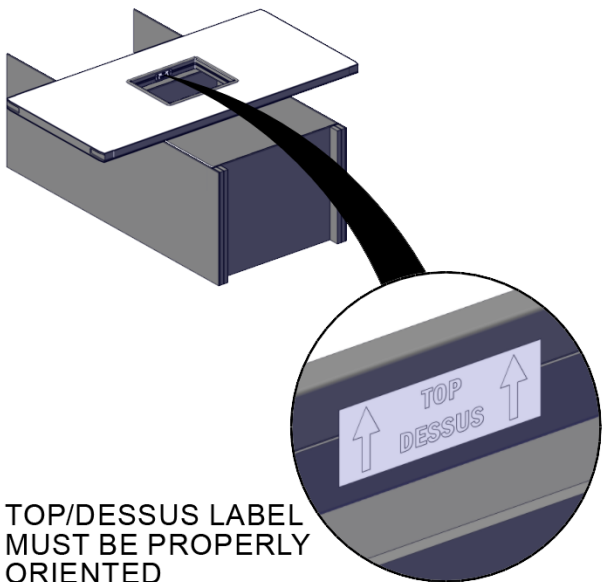
**PANEL INSTALLATION**

**NOTE**



**USE A TABLE OR THE SHIPPING CRATE AS A BASE TO BUILD THE MIDDLE SECTION OF THE COVER.  
IF THERE IS LIMITED SPACE, ASSEMBLE THE COVER DIRECTLY ON THE SPA.**

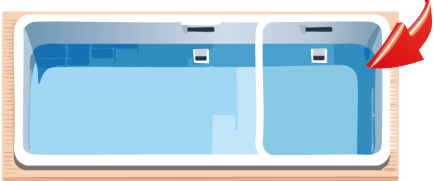
**FIGURE 9: PLACE THE ESCAPE HATCH PANEL IN THE MIDDLE OF THE INSTALLATION SURFACE**



**TOP/DESSUS LABEL MUST BE PROPERLY ORIENTED**

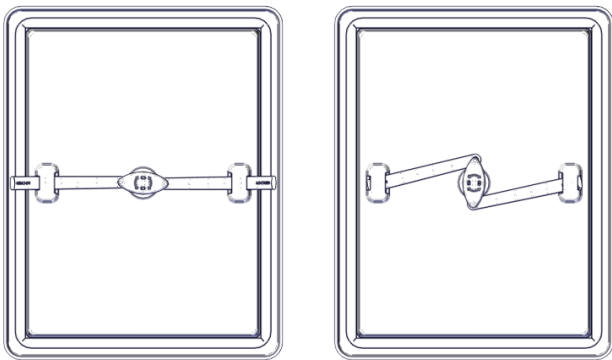
**! WARNING**

**ONE HATCH FOR STANDARD SPAS,  
TWO FOR DUAL ZONE SPAS**

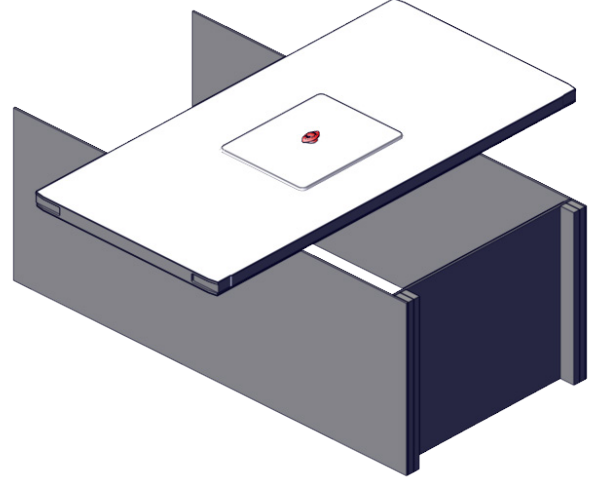


**FIGURE 10: CHECK IF THE ESCAPE HATCH RELEASE MECHANISM WORKS**

**CLOSED                      OPEN**



**FIGURE 11: RETRACT THE ARMS TO INSTALL THE ESCAPE HATCH IN THE CENTER PANEL**



**! 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 12: INSTALL 2 LONG C-CHANNELS ON THE PANEL

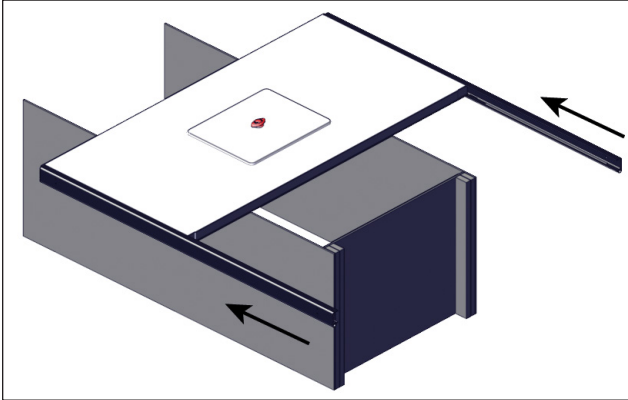
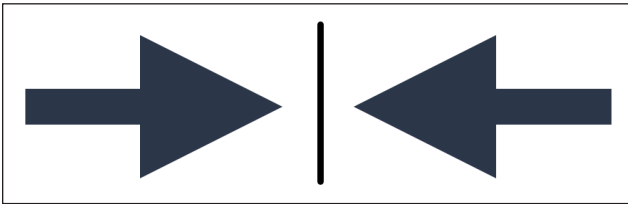


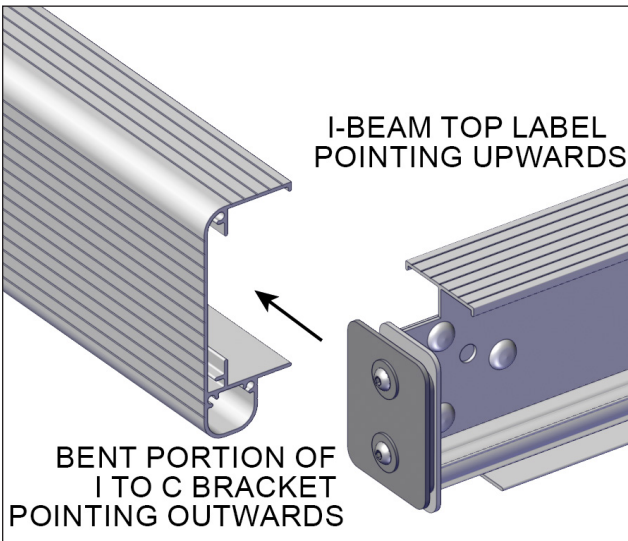
FIGURE 13: ALIGN CENTER LABEL WITH EDGE OF PANEL



**WARNING**

WHEN ASSEMBLING THE C-CHANNEL OR I-BEAM ON THE FOAM PANEL, BE CAREFUL NOT TO DELAMINATE THE FIBERGLASS

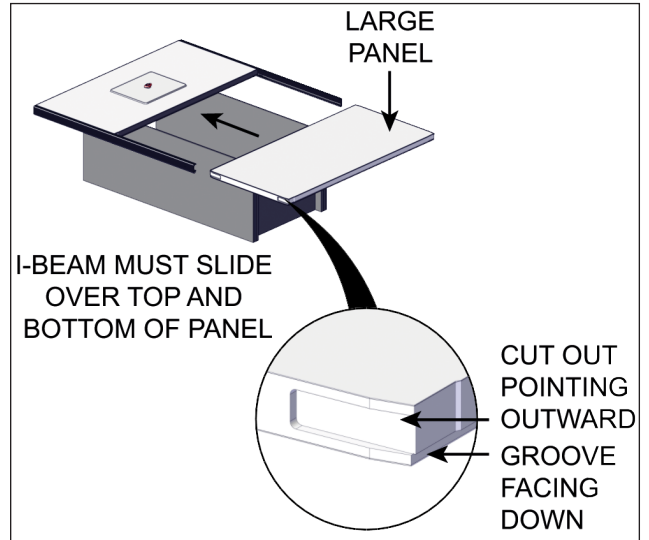
FIGURE 14: SLIDE ONE I-BEAM WITH SHORT I TO C CONNECTION PLATES IN THE C-CHANNELS



**CAUTION**

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

FIGURE 15: SLIDE LARGE PANEL IN THE C-CHANNELS



**CAUTION**

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

FIGURE 16: INSTALL BOTH I-BEAMS WITH LONG I TO C CONNECTION PLATES

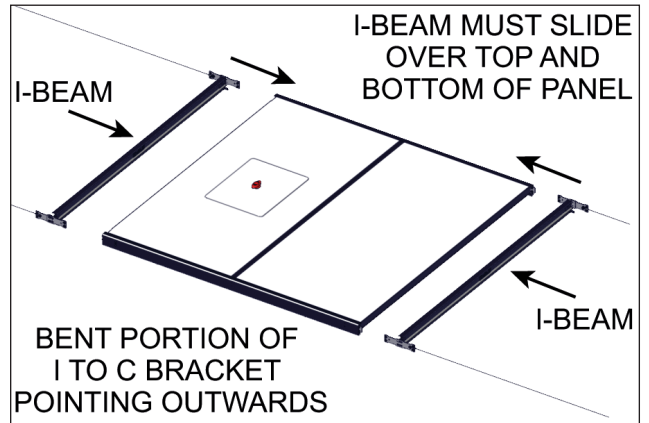
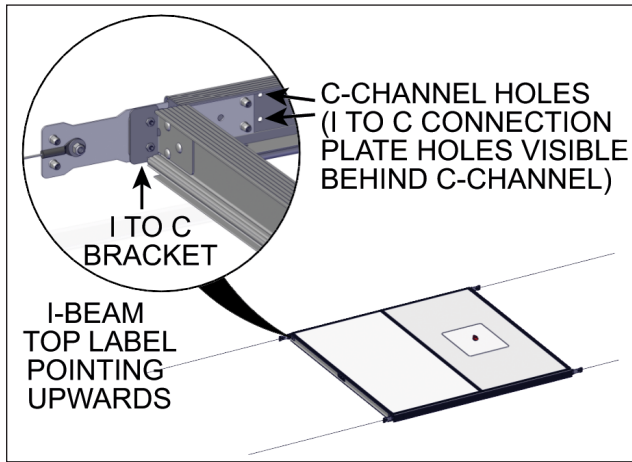


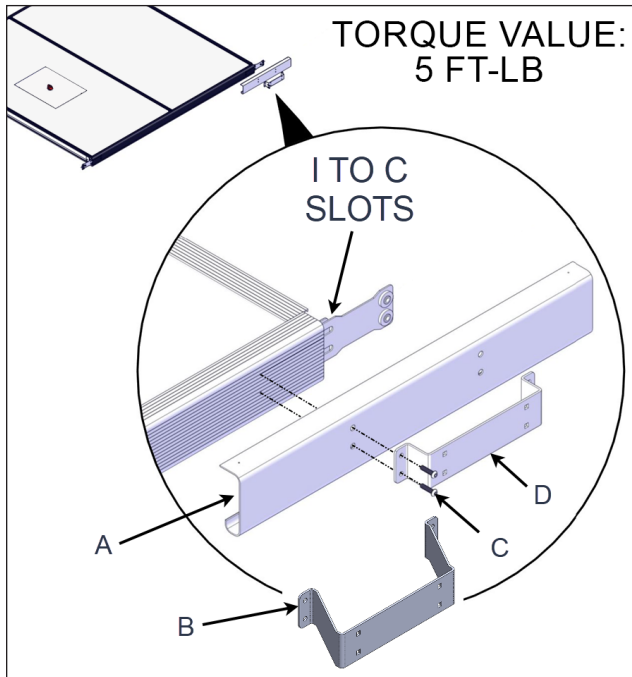
FIGURE 17: ALIGN C-CHANNELS BY HAND



**HARDWARE BAG #**

**USE HARDWARE BAG FOR THE FOLLOWING STEPS NO. 30**

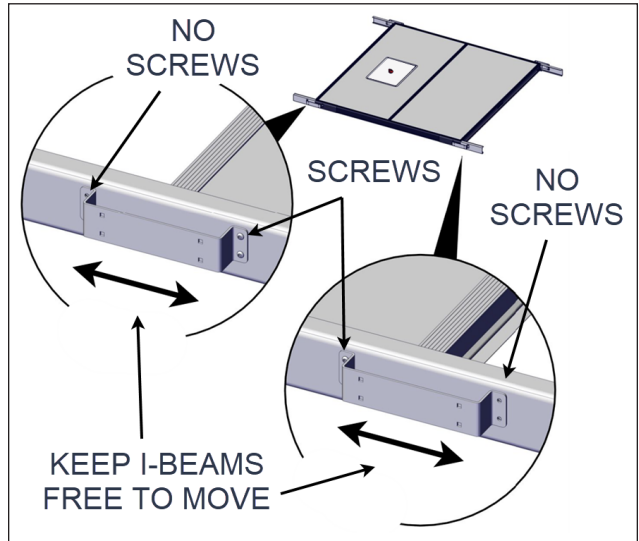
FIGURE 18: ALIGN SUPPORT BRACKET, POST MOUNT BRACKET, AND LONG C-CHANNEL; ASSEMBLE WITH 2 SCREWS



**A** SUPPORT BRACKET

<b>B</b>	OPTIONAL DUAL-SIDED BRACKET for spas 49.5" and 61" high (same installation as post mount bracket)
<b>C</b>	1/4-20 x 1" SOC RD HEAD SCREW
<b>D</b>	POST MOUNT BRACKET

FIGURE 19: REPEAT THE PREVIOUS STEP FOR THE REMAINING BRACKETS

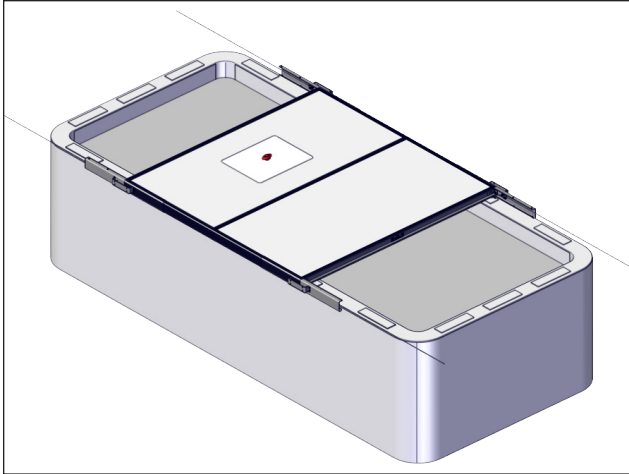


**NOTE**  
Remove the "Center" labels from the C-channels.

**WARNING**

**MAKE SURE THE I-BEAM IS STILL FREE TO MOVE IN THE I TO C SLOTS.**

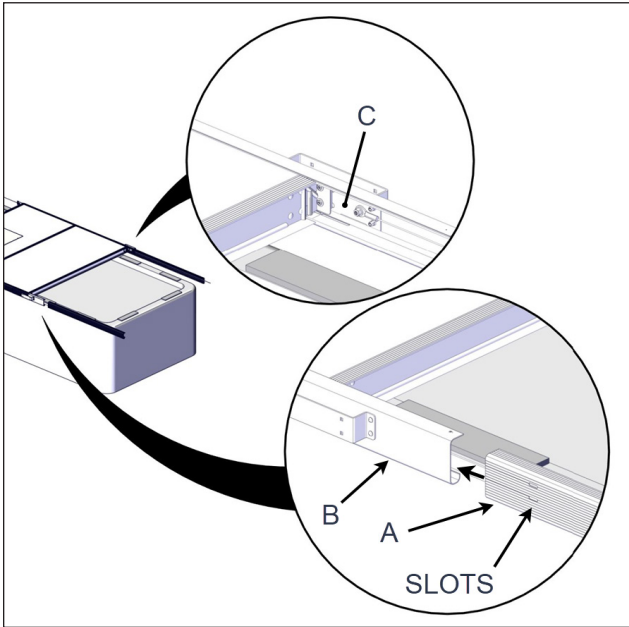
**FIGURE 20: CAREFULLY PLACE THE ASSEMBLED CENTER SECTION ON THE MIDDLE OF THE SPA**



**⚠ CAUTION**

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

**FIGURE 21: INSERT THE SIDE EXTENSION C-CHANNEL INSIDE THE SUPPORT BRACKET**

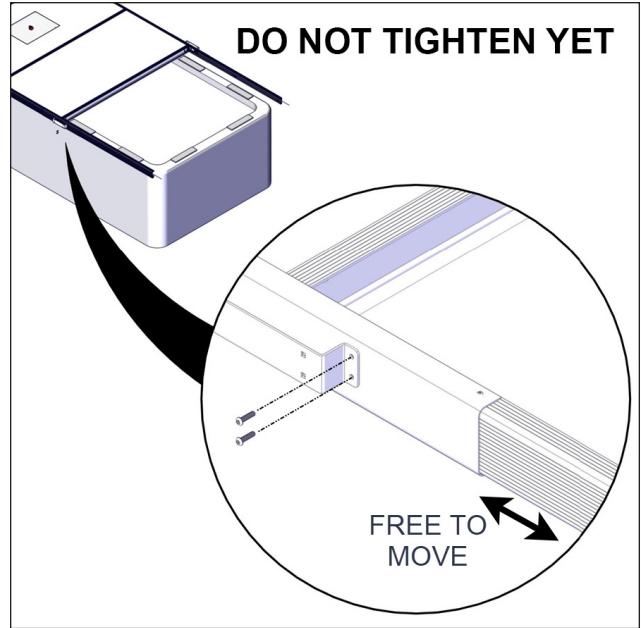


<b>A</b>	SIDE EXTENSION C-CHANNEL
<b>B</b>	SUPPORT BRACKET
<b>C</b>	I TO C LONG CONNECTION PLATE

**NOTE**

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

**FIGURE 22: INSTALL TWO 1/4" X 1" HEX. SCREWS ON THE POST MOUNT BRACKET; DO NOT TIGHTEN YET**



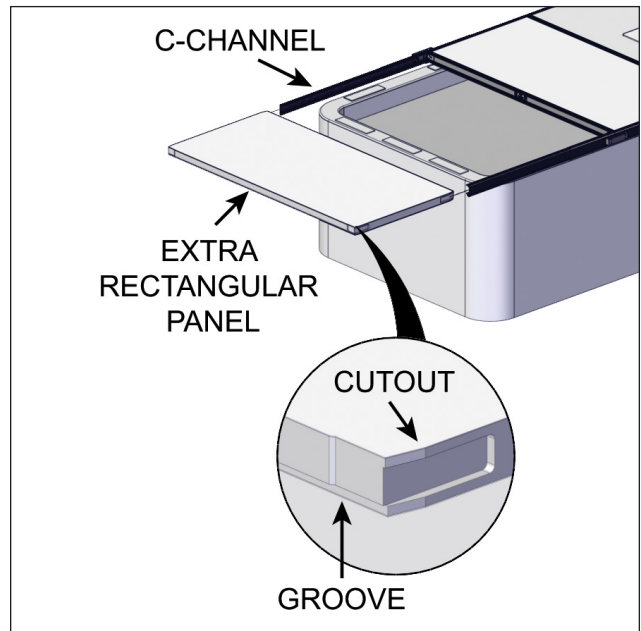
**NOTE**

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

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

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

**FIGURE 23: SLIDE ONE OF THE REMAINING EXTRA PANELS INTO THE C-CHANNELS**

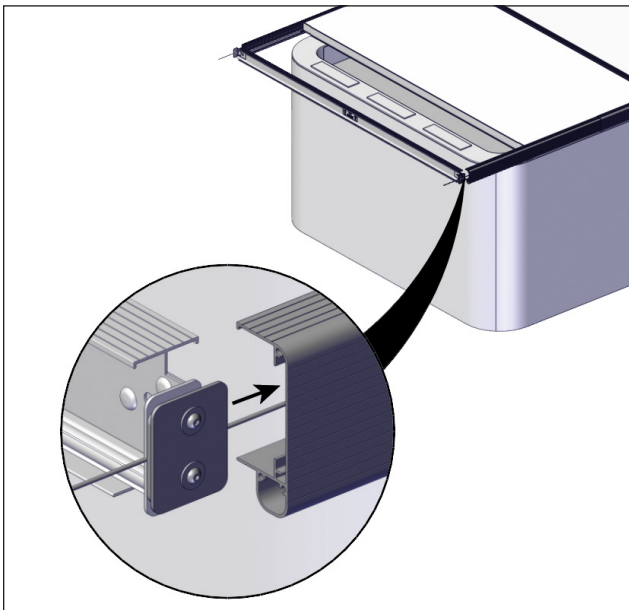


**⚠ CAUTION**

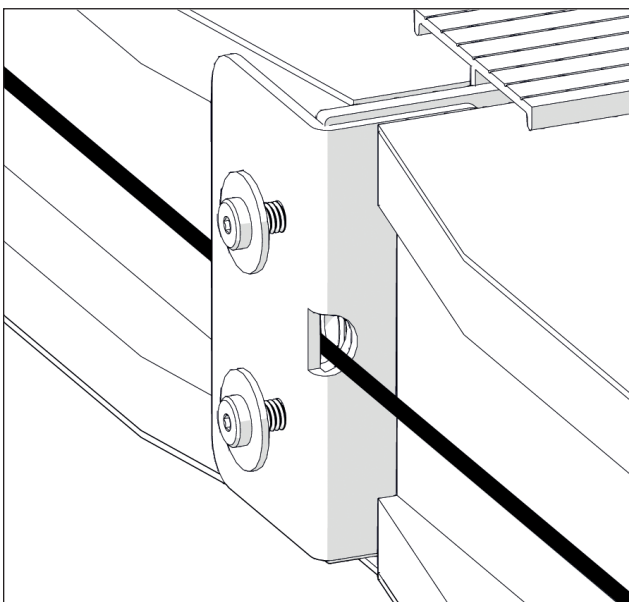
- Make sure the I-beams have locked in properly into the foam panels.
- Make sure the I-beam has cleared the bottom and top sections.
- Make sure the panel side with the cut out is pointing outward.
- Ensure that the panel groove is oriented downwards.

**SECTION FOR ALL MODELS**

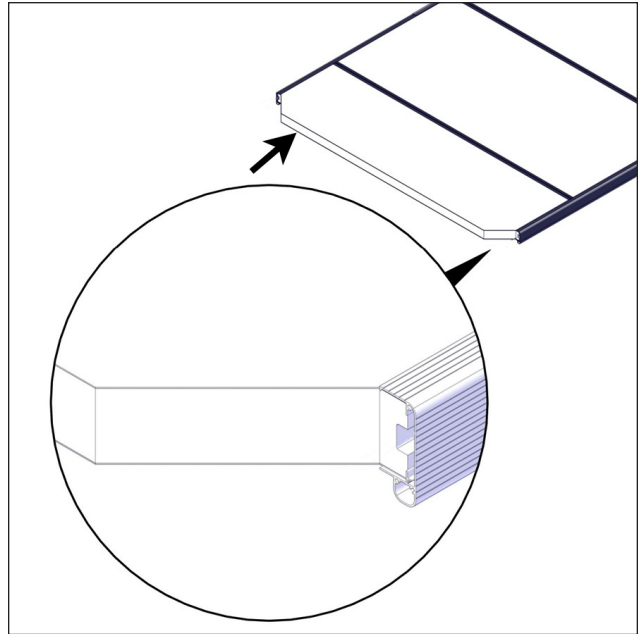
**FIGURE 24: SLIDE AN I-BEAM WITH THE SHORT I TO C CONNECTION PLATES IN THE C-CHANNELS (BENT PORTION POINTING OUTWARDS)**



**FIGURE 25: MAKE SURE THAT THE WIRE PASSES THROUGH THE I TO C CONNECTION PLATE HOLE**



**FIGURE 26: INSERT ONE END PANEL WITH THE TAPERED END TOWARD THE END OF THE COVER**



**⚠ CAUTION**

- Make sure the I-beams have locked in properly into the foam panels.
- Make sure the I-beam has cleared the bottom and top sections.
- Ensure that the panel groove is oriented downwards.

1. For 16' to 20' models, repeat on the opposite side the steps in SECTION FOR 16' TO 20' LONG SPAS.
2. For 12' to 20' models, repeat on the opposite side the steps in SECTION FOR ALL MODELS.

### END C-CHANNEL INSTALLATION

**HARDWARE BAG #**

**USE HARDWARE BAG NO.40 FOR THE FOLLOWING STEPS**



FIGURE 27: INSTALL ONE HEXAGONAL GUIDE BUSHING INTO EACH CORNER BRACKET SUPPORT (MAKE 2 LEFT & 2 RIGHT)

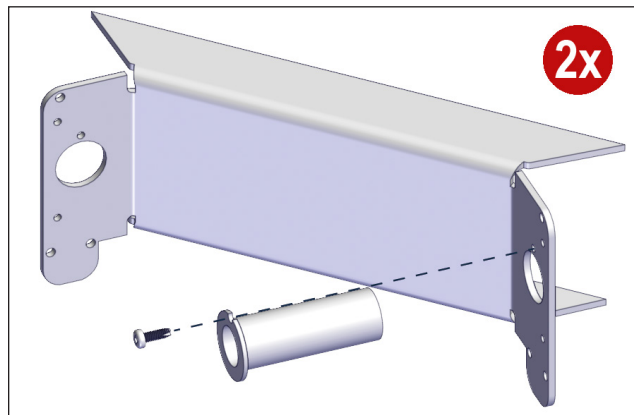


FIGURE 28: SECURE WITH ONE NO. 8 X 1/2" SELF-TAPPING SCREW

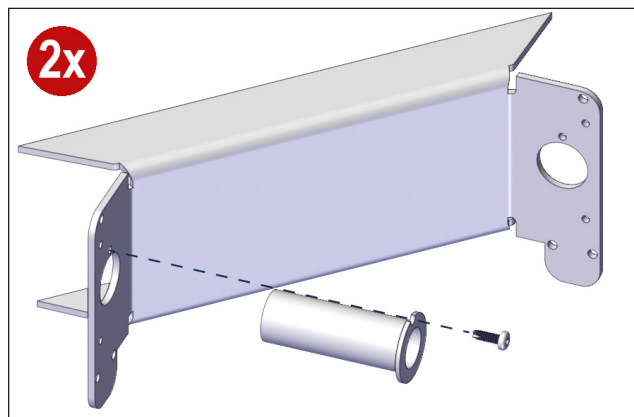
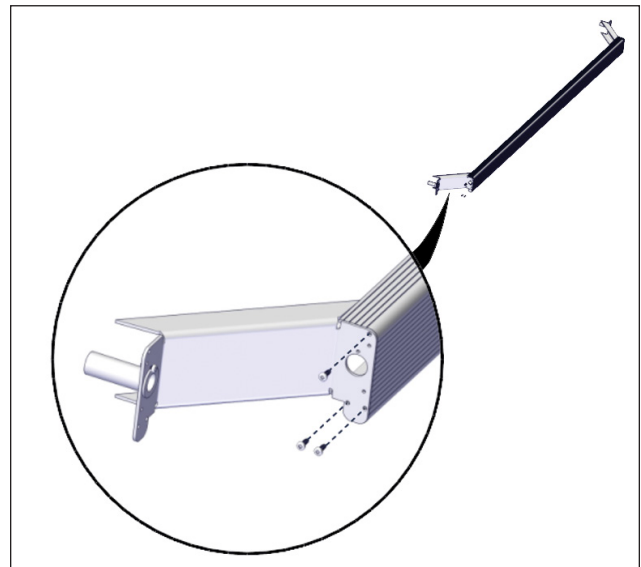



FIGURE 29: INSTALL ONE LEFT AND ONE RIGHT CORNER BRACKET SUPPORTS ON EACH END C-CHANNEL WITH THREE NO. 8 X 1/2" SELF-TAPPING SCREWS



**CAUTION**

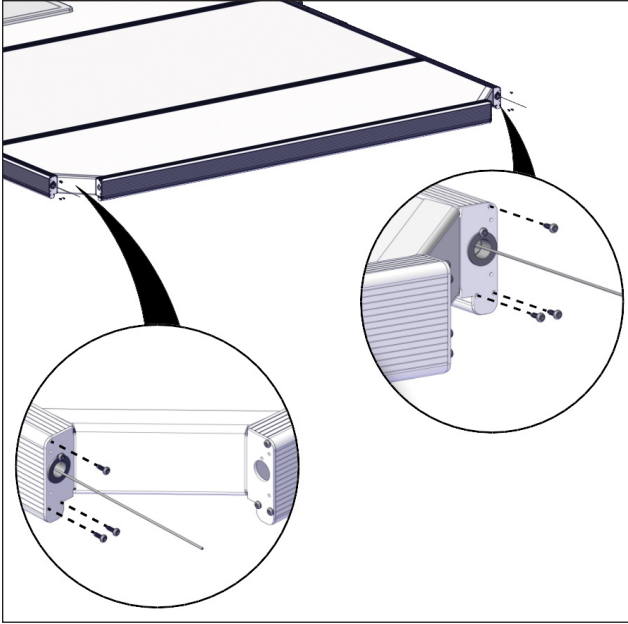


DO NOT OVER TIGHTEN THE SCREWS AS THEY MIGHT BREAK.

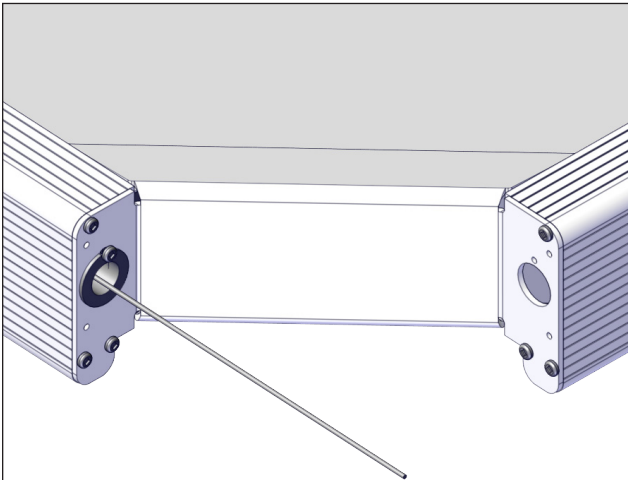
**CAUTION**

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

**FIGURE 30: SLIDE THE ASSEMBLIES ON THE EDGE PANELS; SECURE WITH NO. 8 X 1/2" SCREWS**



**FIGURE 31: THE WIRE HAS TO PASS THROUGH THE HEXAGONAL GUIDE BUSHINGS**



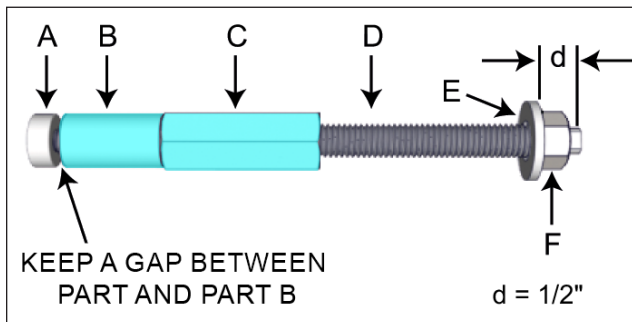
**GRIPLOCK INSTALLATION**

# HARDWARE BAG #

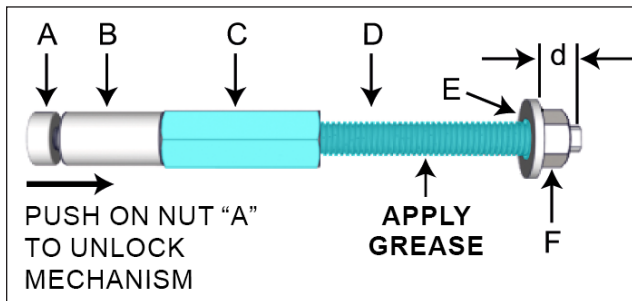
USE HARDWARE BAG FOR THE FOLLOWING STEPS **NO.50**



**FIGURE 32: INSERT THE GRIPLOCK INTO THE HEXAGONAL COUPLING NUT; TIGHTEN WELL**



**FIGURE 33: INSERT THE HOLLOW THREADED STUD INTO THE HEXAGONAL COUPLING NUT UNTIL IT REACHES THE GRIPLOCK EXTREMITY**



<b>A</b>	GRIPLOCK NUT
<b>B</b>	GRIPLOCK
<b>C</b>	HEXAGONAL COUPLING NUT
<b>D</b>	HOLLOW THREADED STUD
<b>E</b>	FLAT WASHER
<b>F</b>	3/8-16 HEX. NUT

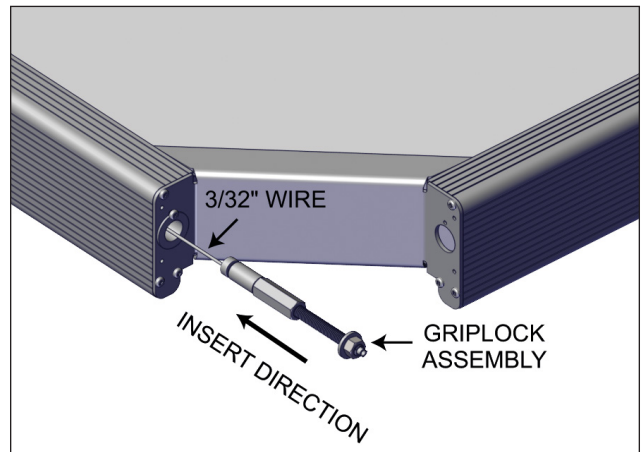


## WARNING



THE HOLLOW THREADED STUD MIGHT BE SHARP!

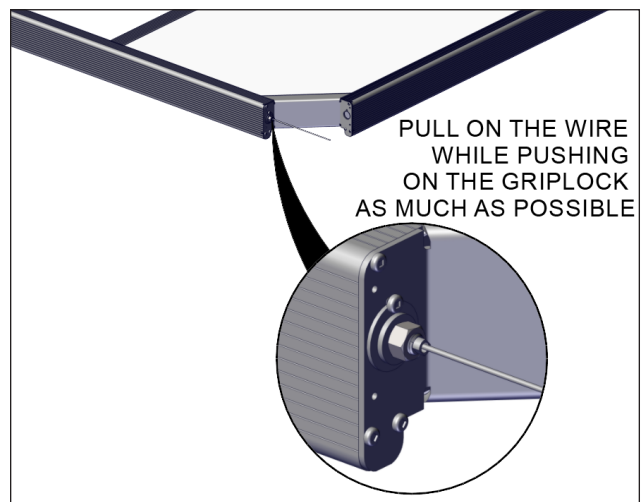
**FIGURE 34: RUN THE WIRE THROUGH THE GRIPLOCK**



NOTE

*If the Griplock assembly does not fit easily, it must be because the Griplock nut ("A" in Figure 32) has not been loosen enough.*

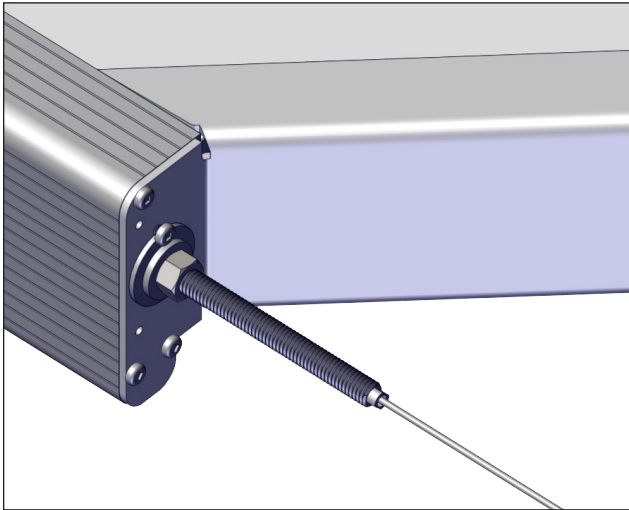
**FIGURE 35: INSERT GRIPLOCK INTO THE HEXAGONAL GUIDE BUSHING**



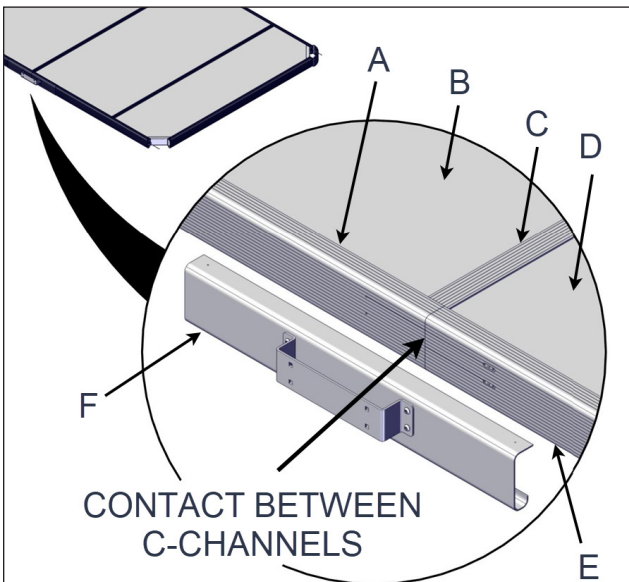
- Repeat the previous steps for the other 3 corners.

**PANEL FINAL TIGHTENING**

**FIGURE 36: SIMULTANEOUSLY TIGHTEN THE 4 HEX. NUTS BY KEEPING THE SAME NUMBER OF TURNS**



**FIGURE 37: REPEAT THE PROCESS UNTIL THE SHORT AND LONG C-CHANNELS TOUCH EACH OTHER**



DO NOT REMOVE PART F. IN THIS PICTURE, THIS PART IS REMOVED ONLY TO SHOW THE JOINT BETWEEN C-CHANNELS.

<b>A</b>	MIDDLE C-CHANNEL
<b>B</b>	MIDDLE PANEL
<b>C</b>	I-BEAM WITH I TO C LONG CONNECTION PLATE
<b>D</b>	EXTRA OR END PANEL
<b>E</b>	EXTENSION C-CHANNEL
<b>F</b>	SUPPORT BRACKET

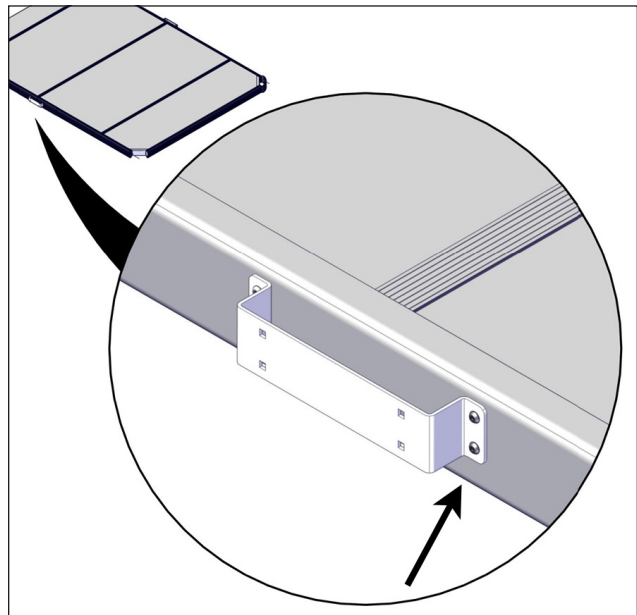
**!** **WARNING**

**STOP TIGHTENING THE NUTS WHEN THE C-CHANNELS ARE IN CONTACT (NO GAP BETWEEN THE C-CHANNELS).**

**NOTE**

*If the C-channels still don't touch each other and it is not possible to tighten the nut any further: tighten the screws of the post mount bracket, loosen the hollow threaded stud by approximately 1/2", 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.*


**FIGURE 38: TIGHTEN THE ROUND HEAD SCREWS ON EACH SLEEVE MOUNTING BRACKET**




- Repeat the previous steps for the other support brackets.

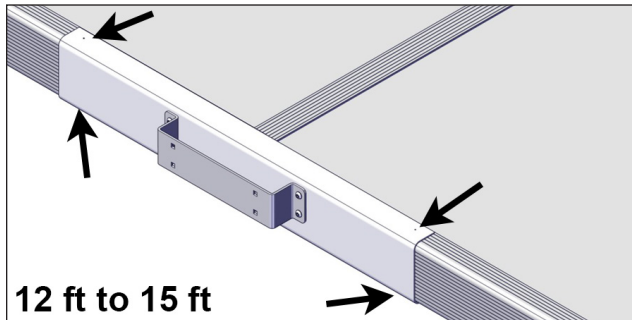
**!** **WARNING**

The cover must be perfectly straight and sitting on the foam spacers before moving on to the next steps.

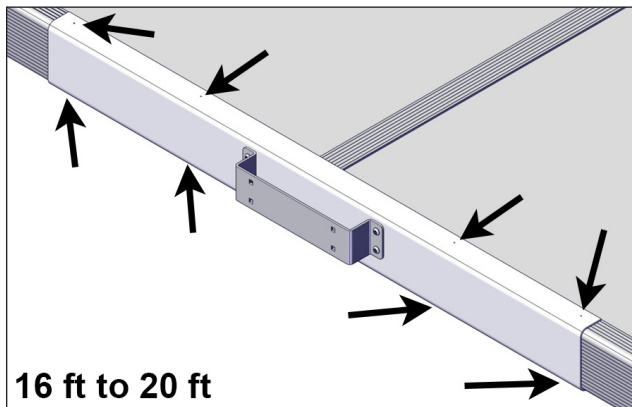
 **CAUTION**

 **DRILL ONLY THROUGH THE METAL, NOT THE FOAM PANEL. BE CAREFUL WHILE CLEANING HOLES; METAL CHIPS MIGHT SCRATCH THE PAINTED PARTS.**

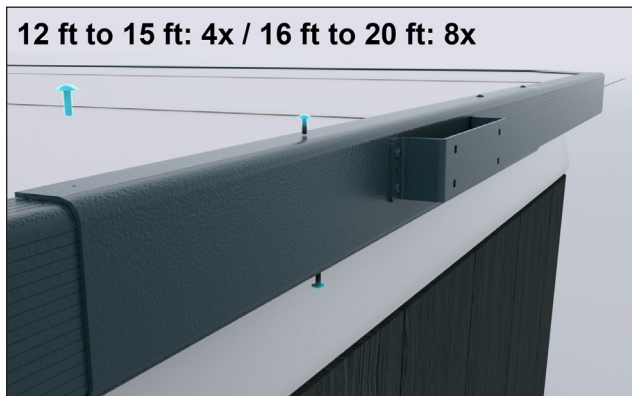
**FIGURE 39: FOR SHORT SUPPORT BRACKETS: USE 5/32" DRILL BIT TO DRILL THE 4 PRE-DRILLED HOLES**



**FIGURE 40: FOR LONG SUPPORT BRACKETS: USE 5/32" DRILL BIT TO DRILL THE 8 PRE-DRILLED HOLES**

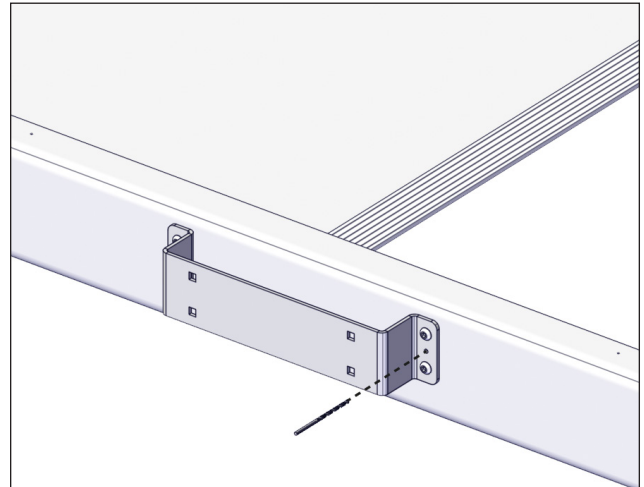


**FIGURE 41: SCREW IN THE PAINTED NO. 10 X 1/2" SCREWS IN THE PRE-DRILLED HOLES AT THE BOTTOM AND TOP OF THE SUPPORT BRACKET**

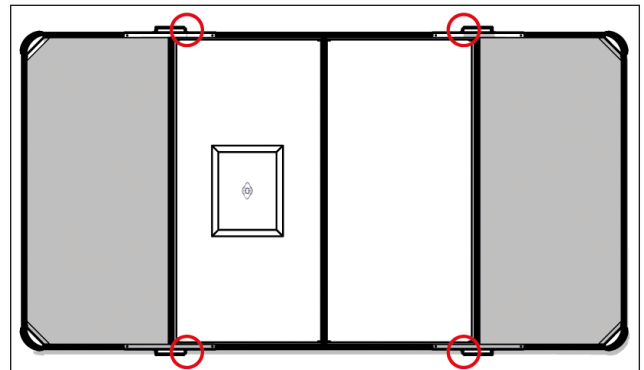


- Repeat the previous steps on the other corners.

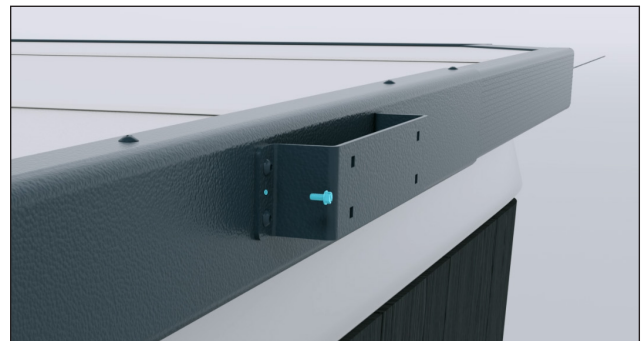
**FIGURE 42: DRILL THE PRE-DRILLED HOLE BETWEEN THE SCREWS ON THE INNER SIDE OF EACH POST MOUNT BRACKET**



**FIGURE 43: INNER SIDE OF EACH POST MOUNT BRACKET**

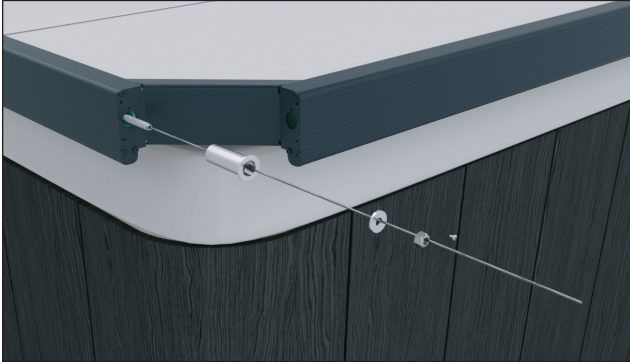


**FIGURE 44: SCREW IN A 3/8" THREAD-CUTTING SCREW ON THE INNER SIDE OF EACH POST MOUNT BRACKET**



**OUTSIDE CORNER INSTALLATION**

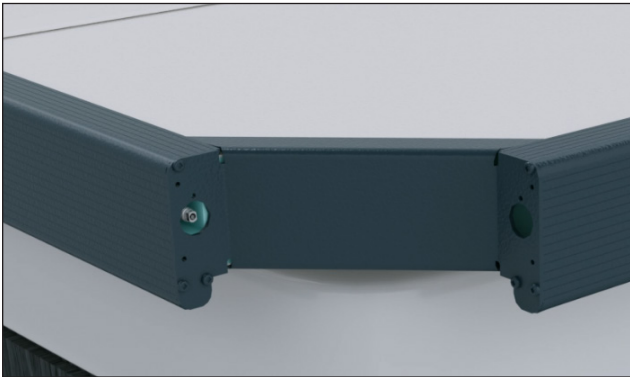
**FIGURE 45: REMOVE THE SCREW, NUT, WASHER, AND HEXAGONAL GUIDE BUSHING FROM THE GRIPLOCK ASSEMBLY**



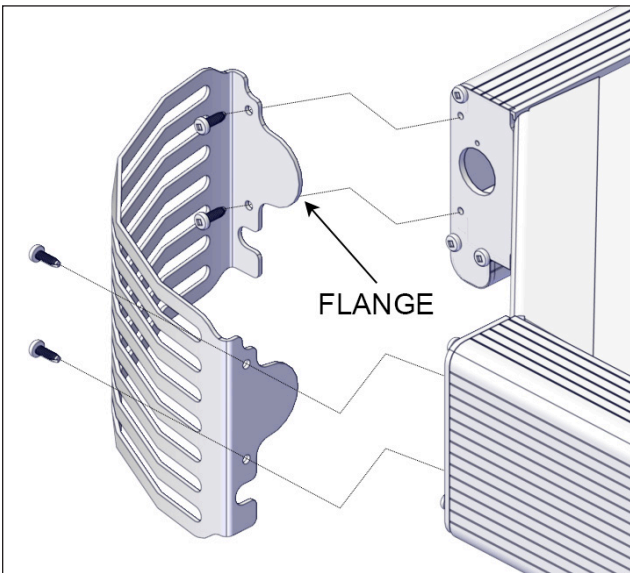
**NOTE**


*Keep these parts in a safe location for potential future use.*

**FIGURE 46: PUSH THE WIRE AND REMAINDER OF THE GRIPLOCK ASSEMBLY INSIDE THE C-CHANNEL**




**FIGURE 47: USE THE NO. 8 X 1/2" SCREWS TO SECURE THE OUTSIDE CORNER TO THE CORNER BRACKET SUPPORT**





# CAUTION



**DO NOT OVER TIGHTEN THE SCREWS AS THEY MIGHT BREAK.**

- Repeat the previous steps on the other corners.

### MOUNT BRACKET INSTALLATION

**HARDWARE BAG #**

**USE HARDWARE BAG NO. 60 FOR THE FOLLOWING STEPS**



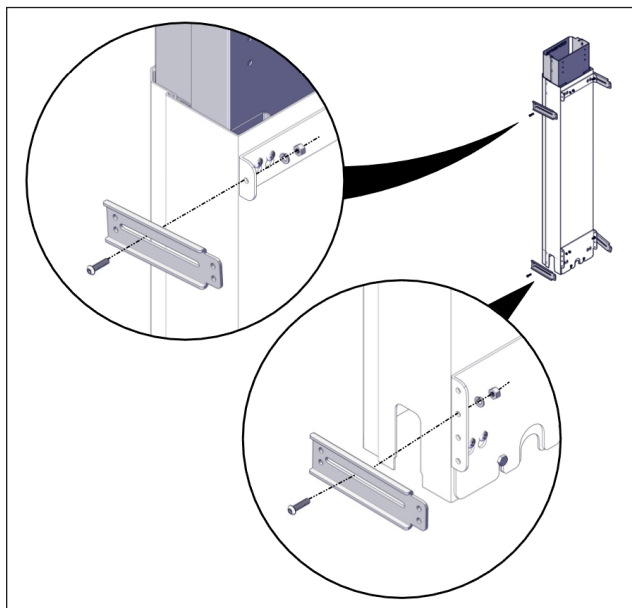
**⚠ WARNING**

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

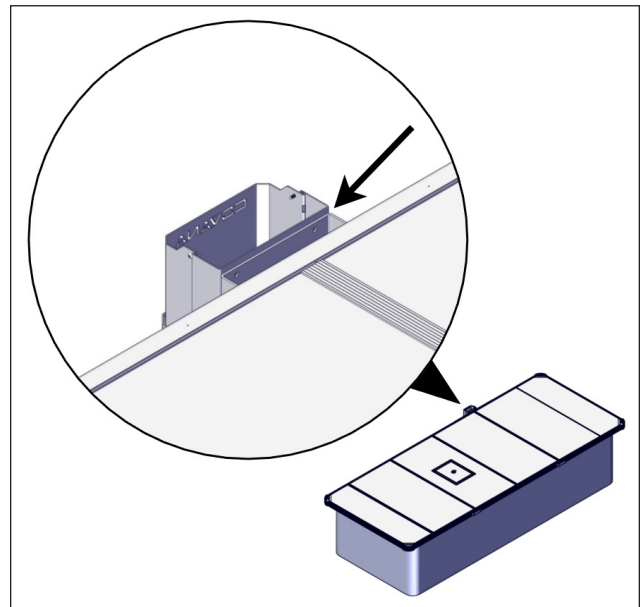
**⚠ CAUTION**

Make sure the cover is centered on the spa. The use of a measuring tape is required to reference the measures on all four sides.

**FIGURE 48: INSTALL THE TOP AND BOTTOM MOUNT BRACKET ARMS ON ONE OF THE SLEEVES**



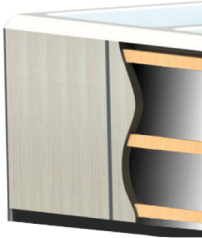
**FIGURE 49: PLACE THE SLEEVE ON THE GROUND SO IT IS IN CONTACT AT THE TOP WITH THE POST MOUNT BRACKET**



**NOTE**

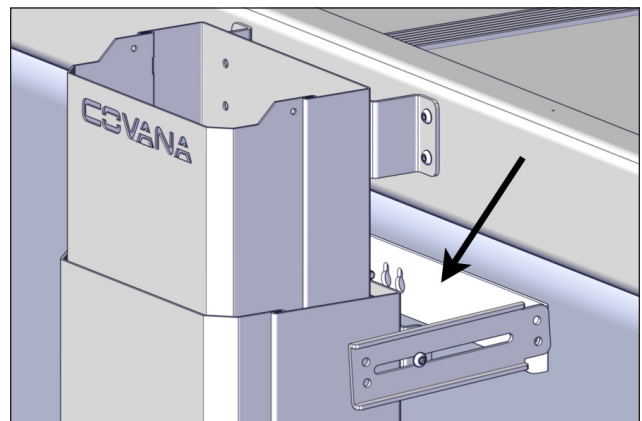
*Make sure the sleeve is at vertical level in all directions when in contact with the post mount bracket.*

**⚠ CAUTION**



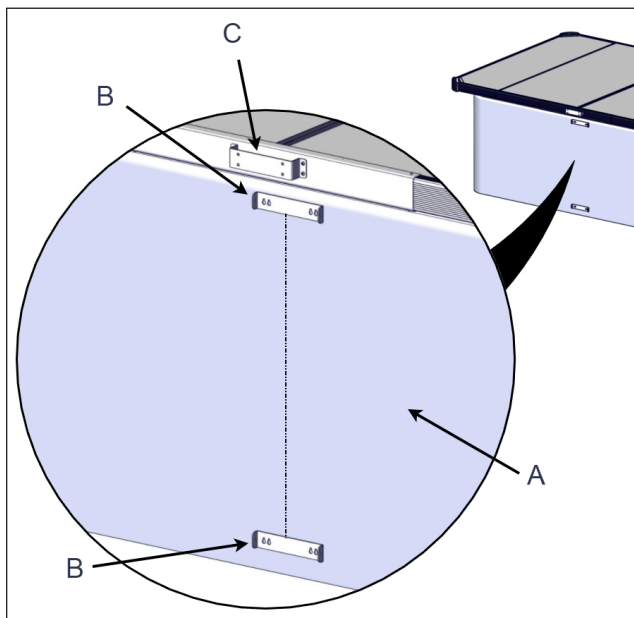
**MAKE SURE THE BRACKETS WILL BE FIXED ON A SOLID SPA FRAME AND NO SOFT MATERIAL BETWEEN THE BRACKETS AND THE SPA FRAME (DO NOT USE THE SPA SKIRT AS THE ONLY SUPPORT).**

**FIGURE 50: ALIGN THE TOP AND BOTTOM TUB MOUNT BRACKETS**



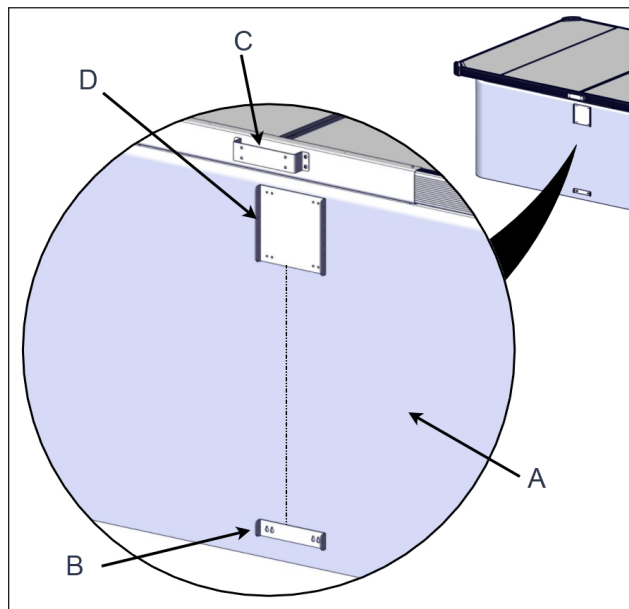
- Use masking tape to mark the position of the tub mount brackets (do not use a marker).

**FIGURE 51: POSITION THE BRACKETS ACCORDING TO THE MASKING TAPE MARKS AND FASTEN THEM WITH THE APPROPRIATE SCREWS**



<b>A</b>	SPA
<b>B</b>	TUB MOUNT BRACKET
<b>C</b>	POST MOUNT BRACKET

**FIGURE 52: FOR A SPA STRUCTURE OVER 50" (127 CM) HIGH, INSTALL THE EXTENDED TUB MOUNT BRACKET AT THE TOP**



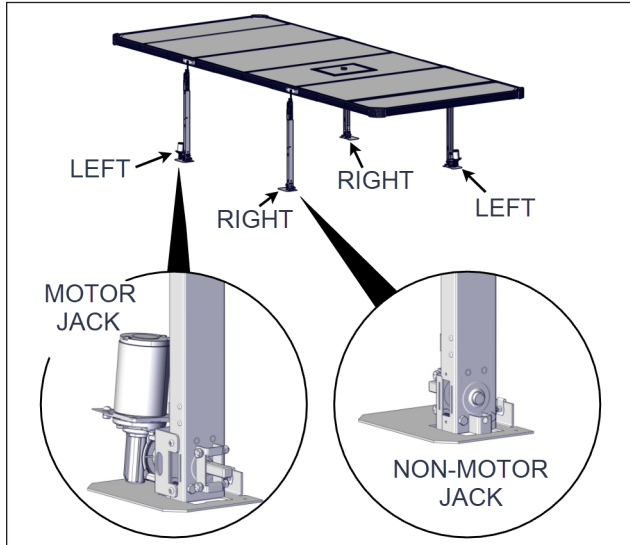
<b>A</b>	SPA
<b>B</b>	TUB MOUNT BRACKET
<b>C</b>	POST MOUNT BRACKET
<b>D</b>	EXTENDED TUB MOUNT BRACKET (OPTIONAL)

**⚠ 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.

## JACK INSTALLATION

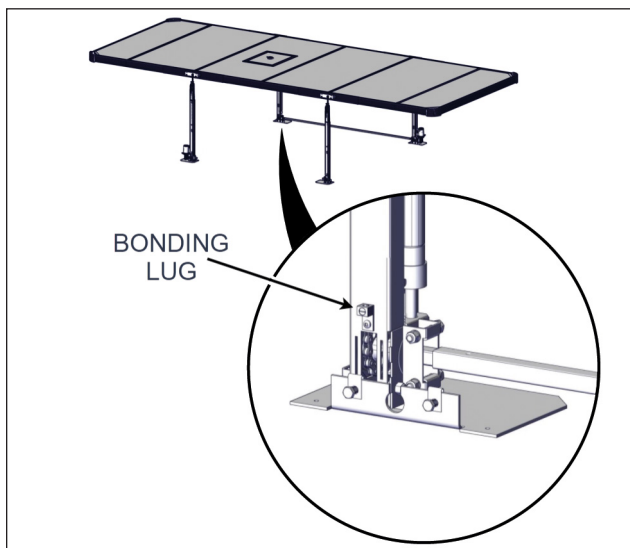
**FIGURE 53: POSITION EACH JACK IN ITS LOCATION. (MOTORIZED JACKS ALWAYS ON THE LEFT SIDE WHEN LOOKING AT THE LONG SIDE OF THE SPA)**



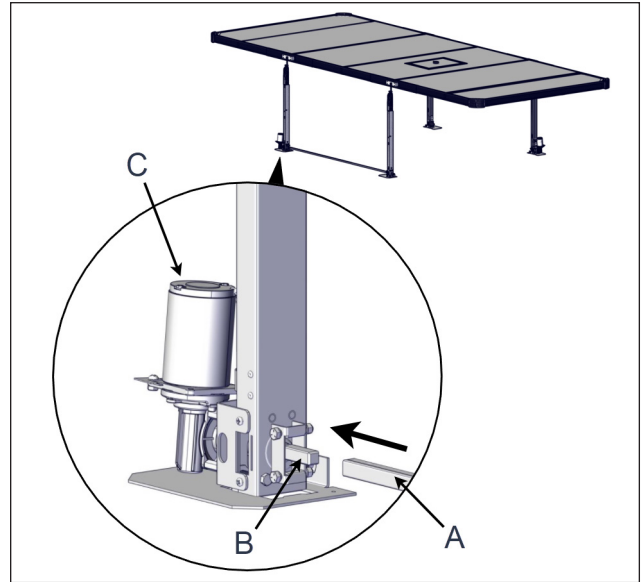
**CAUTION**



**FIGURE 54: POSITION THE NON-MOTOR JACK WITH THE BONDING LUG ON THE SAME SIDE WHERE THE CONTROL BOX WILL BE INSTALLED**

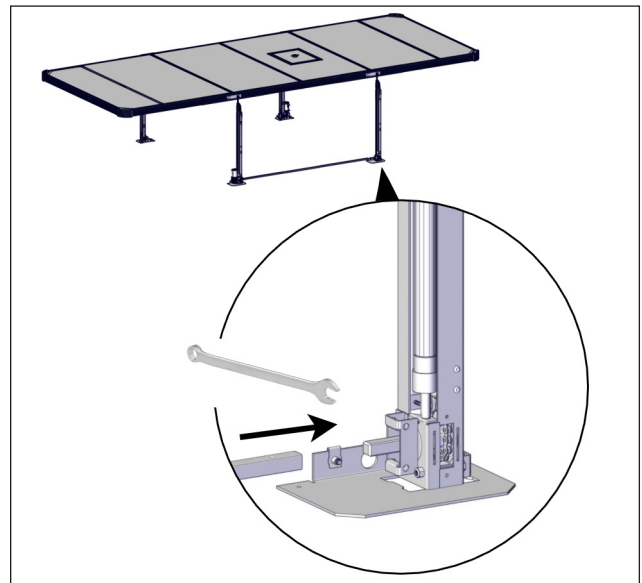


**FIGURE 55: SLIDE THE DRIVE SHAFT OVER THE SQUARE SHAFT OF ONE MOTOR-SIDE JACK**



A	DRIVE SHAFT
B	SQUARE SHAFT
C	JACK MOTOR

**FIGURE 56: ON THE SAME SPA SIDE, INSTALL THE DRIVE SHAFT ONTO THE NON-MOTORIZED JACK SHAFT**



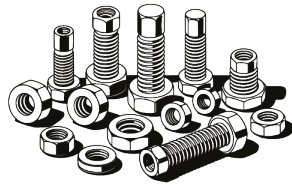
**NOTE**  
*If the drive shaft does not line up with the non-motorized jack shaft, slightly rotate the shaft with an adjustable wrench.*

**⚠ WARNING**

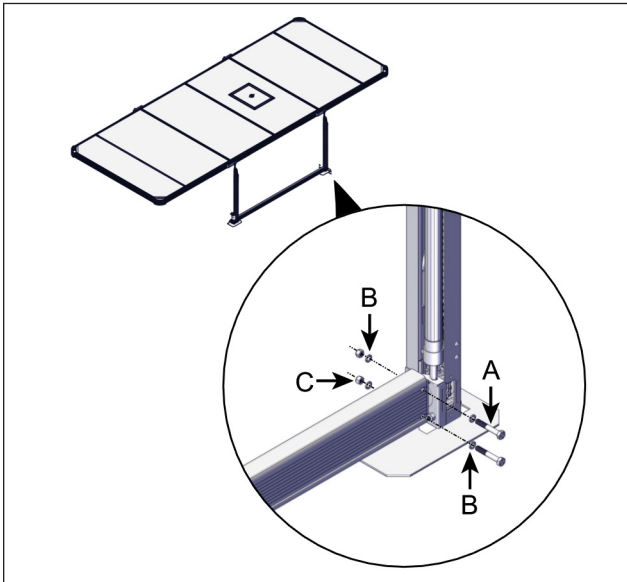
- While installing the drive shaft, check if it has not been pulled out from the opposite side when manipulating the part.
- Do not twist the motorized jack with the wrench as it contains a gearbox which could break when stressed from the output.

**HARDWARE BAG #**

**USE HARDWARE BAG FOR THE FOLLOWING STEPS NO.70**



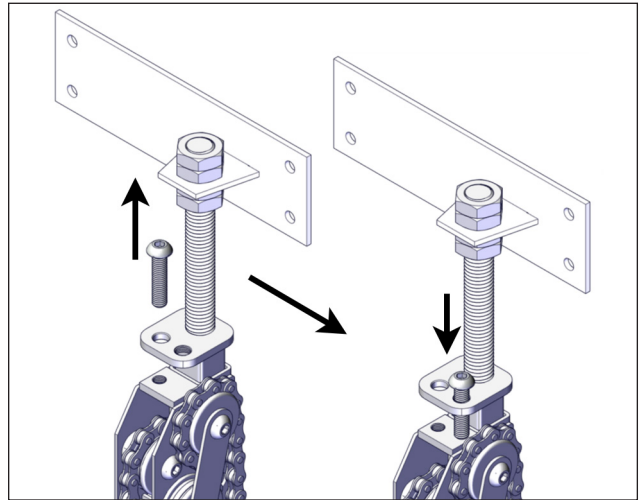
**FIGURE 57: INSTALL THE U-FRAME OVER THE DRIVE SHAFT AND SECURE IN PLACE**



<b>A</b>	5/16" x 2" HEXAGONAL SCREW
<b>B</b>	5/16" NYLON WASHER
<b>C</b>	5/16" NYLON INSERT LOCKNUT

- Repeat the previous steps on the opposite side.
- Slip your fingers under the U-frames to check if the drive shaft is still engaged on both ends.

**FIGURE 58: REMOVE THE JACK LOCK SCREW AT THE TOP OF BOTH NON-MOTOR JACKS (REINSTALL IT IN THE HOLE NEXT TO IT) AND REMOVE THE RED TAG**



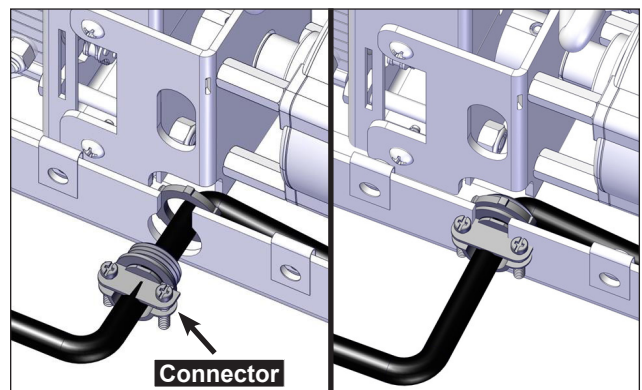
**⚠ WARNING**

- 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 the locking screw when the drive shafts are properly installed will break the lifting mechanism during startup.

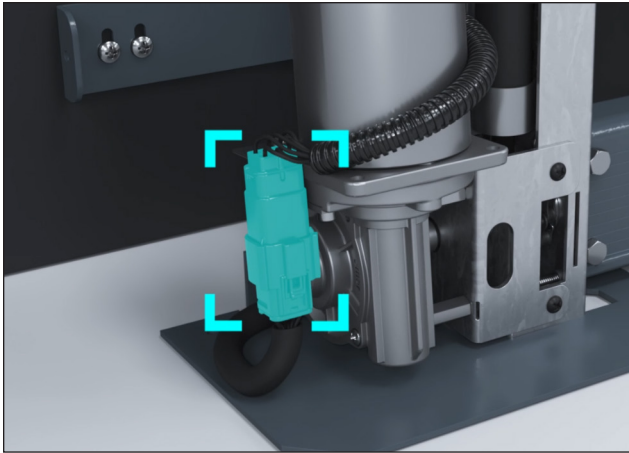
**NOTE**

*The electrical cables are in the parts boxes. The shortest cable goes on the side where the control box will be located.*

**FIGURE 59: RUN THE CONNECTOR OF THE SHORTEST CABLE THROUGH THE CENTER HOLE ON THE BACK OF THE MOTOR JACK BASE PLATE**



**FIGURE 60: CONNECT THE CABLE TO THE MOTOR HARNESS**

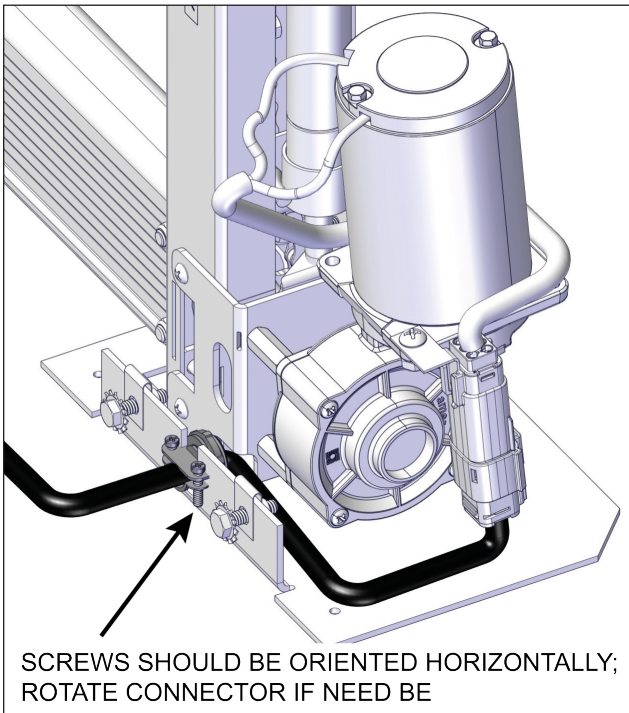


**CAUTION**



**WHEN CONNECTING THE HARNESS, YOU MUST HEAR A CLIC FROM THE CONNECTOR TO CONFIRM IT HAS BEEN INSTALLED PROPERLY.**

**FIGURE 61: TIGHTEN THE RING AND THE SCREWS OF THE COMPRESSION CONNECTOR**

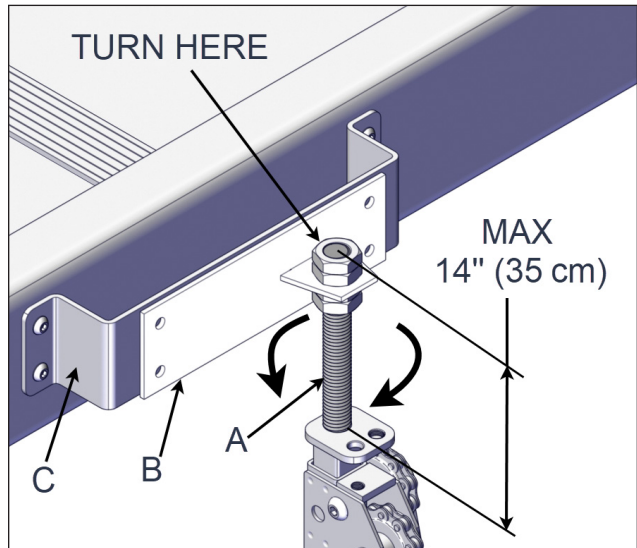


**WARNING**

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

- Repeat the previous steps for the second motorized jack.

**FIGURE 62: TURN THE THREADED ROD TO ADJUST THE HEIGHT OF THE JACK ADAPTER TO MATCH THE POST MOUNT BRACKET HOLES**



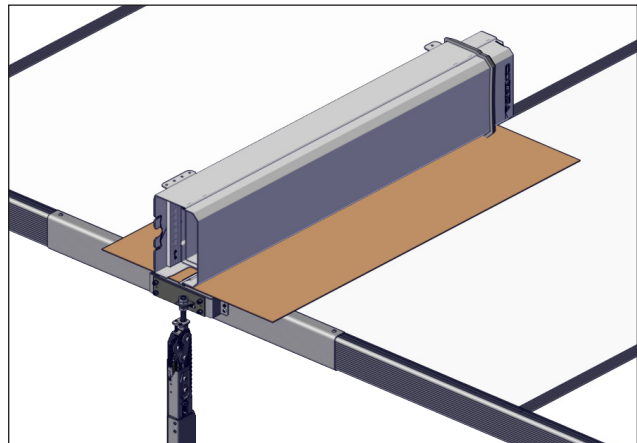
A	THREADED ROD
B	JACK ADAPTER
C	POST MOUNT BRACKET

**WARNING**

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

- Repeat this step for the other jacks.

**FIGURE 63: PLACE A PIECE OF CARDBOARD (OR HARDBOARD FROM THE CRATE) ON THE I-BEAM, AND LAY ONE OF THE SLEEVE ASSEMBLIES ON IT**

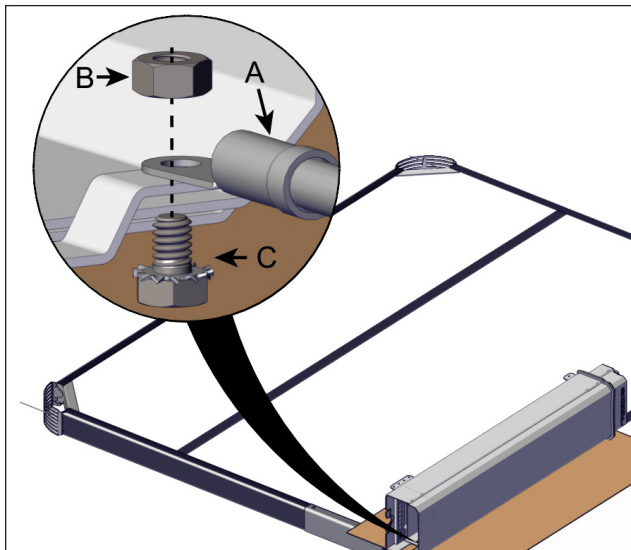


 **CAUTION**



**THE CARDBOARD IS IMPORTANT SO AS NOT TO DAMAGE THE COVER.**

**FIGURE 64: 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**

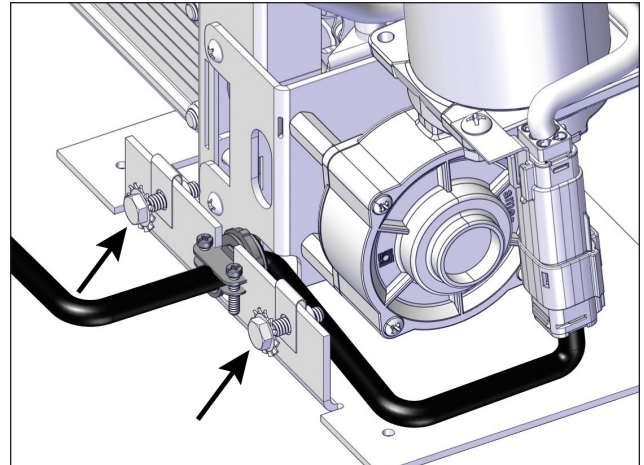


<b>A</b>	CABLE
<b>B</b>	1/4-20 HEXAGONAL NUT*
<b>C</b>	1/4-20 x 5/16" HEXAGONAL HEAD SCREW + 1/4" INT./EXT. TOOTH LOCKWASHER ASSEMBLY

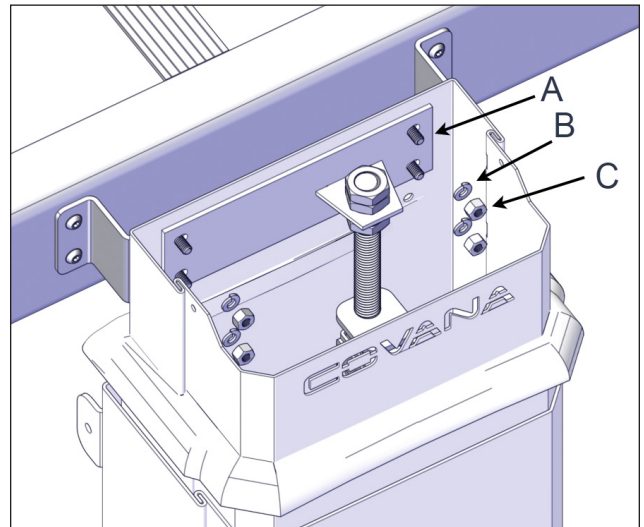
\*Unscrew nut from assembly before using.

- Repeat the previous steps for the other jacks and sleeves.


**FIGURE 65: LOOSEN BOTH HEXAGONAL SCREWS AT THE BOTTOM OF THE JACK**




**FIGURE 66: SLIDE THE SLEEVES OVER THE TOP OF THE JACK AND SECURE THEM**



<b>A</b>	1/4-20 x 3/4" CARRIAGE BOLT
<b>B</b>	1/4" LOCK WASHER
<b>C</b>	1/4-20 NUT

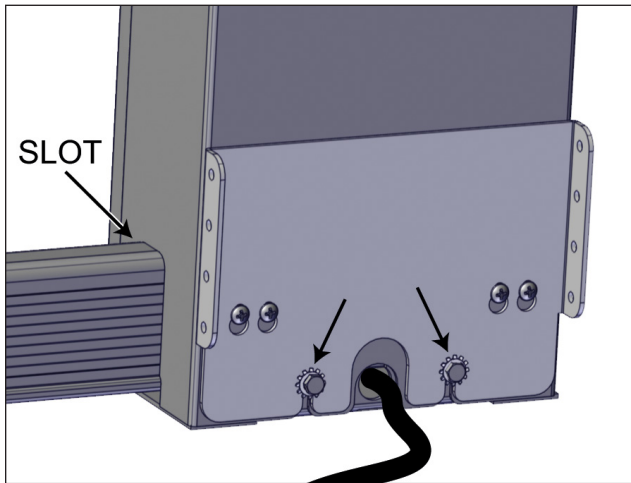
 **CAUTION**



**THERE ARE LEFT AND RIGHT SLEEVE MODELS. ENSURE THE SLOT AT THE BOTTOM OF THE OUTER SLEEVE SLIDES OVER THE U-FRAME.**

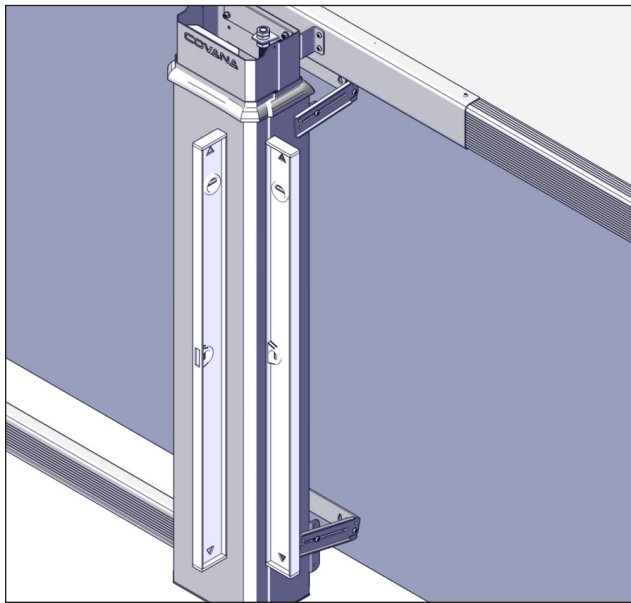
- Repeat the previous two steps for the other jacks and sleeves.

**FIGURE 67: TIGHTEN BOTH HEXAGONAL SCREWS AT THE BOTTOM OF THE POST (THE TOOTH LOCKWASHERS MUST BE OUTSIDE OF THE OUTER SLEEVE)**

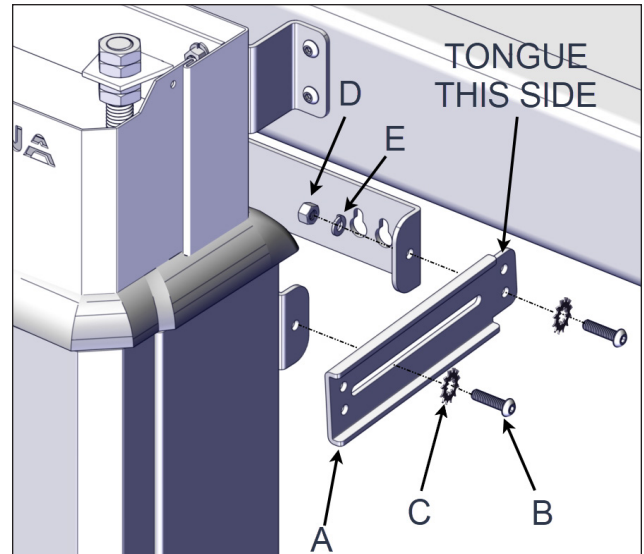


- Repeat the previous step for the other posts.

**FIGURE 68: USE A 36" LONG LEVEL TO ENSURE THAT THE FOUR POSTS ARE VERTICALLY LEVEL**

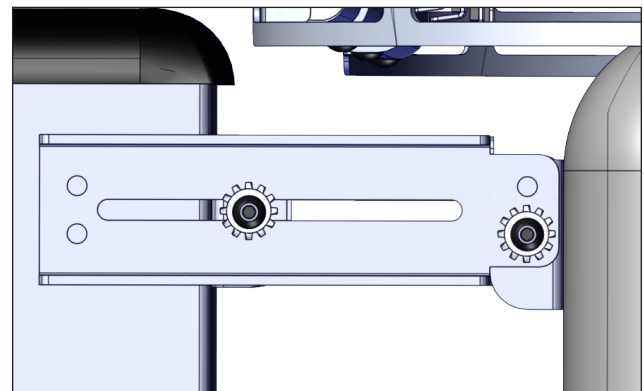


**FIGURE 69: ATTACH THE TOP MOUNT BRACKET ARMS TO THE TUB MOUNT BRACKET**



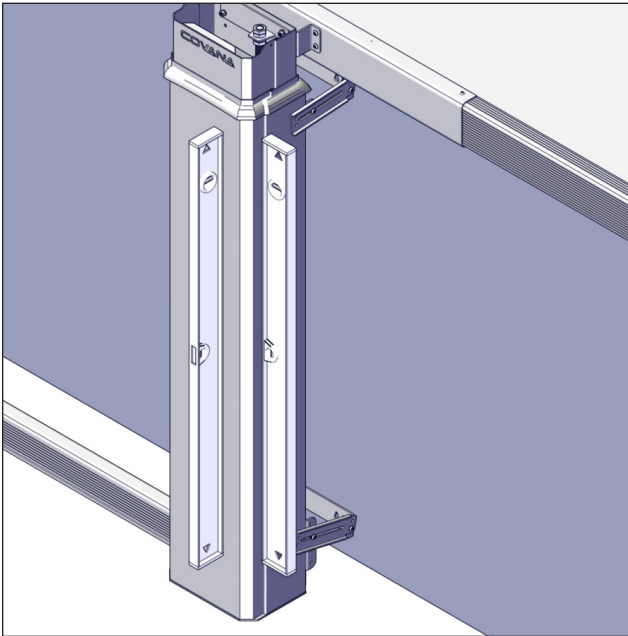
A	MOUNT BRACKET ARM
B	1/4-20 x 1" SOCKET HD SCREW
C	1/4" INT./EXT. TOOTH LOCKWASHER
D	1/4-20 NUT
E	1/4" LOCK WASHER

**FIGURE 70: MOUNT BRACKET ARM SIDE VIEW**



- Repeat the previous step for the bottom mount bracket arms, and then for the other posts.

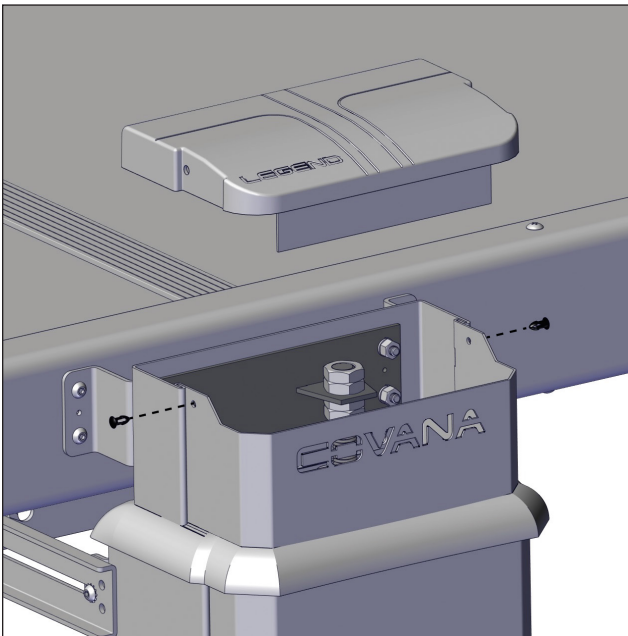
**FIGURE 71: CHECK IF THE POSTS ARE STILL LEVEL ON BOTH VERTICAL AXES. IF NOT, UNSCREW THE MOUNT ARMS AND REPOSITION THE SLEEVES**



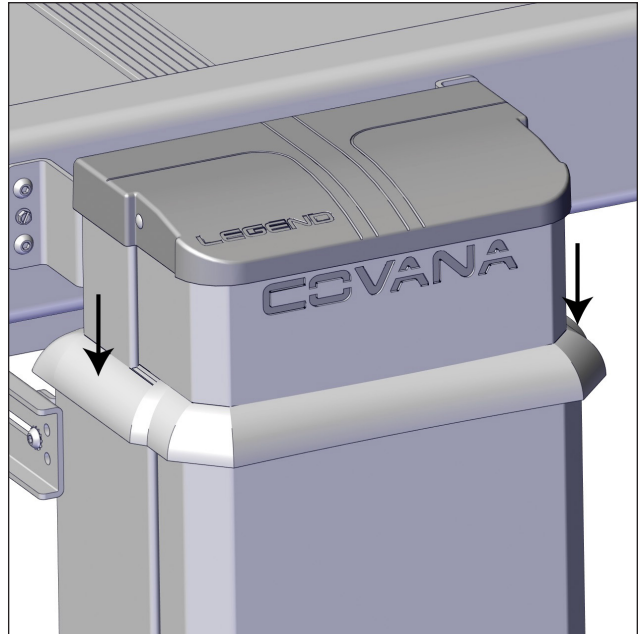
**⚠ WARNING**

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

**FIGURE 72: ATTACH A TOP PLATE TO EACH POST USING TWO PUSH-IN RIVETS**



**FIGURE 73: FOR EACH POST, SLIDE THE ALL-WEATHER SEAL DOWN (IN CONTACT WITH THE OUTER SLEEVE)**



**⚠ WARNING**

Improper installation of the all-weather seal could:

- Result in unwanted performance.
- Reduce the lifespan of the mechanical lifting components.
- Cause damage to the lifting mechanism.

## ELECTRICAL CONNECTIONS

### AC CONTROL BOX INSTALLATION

#### NOTE

*This section is for AC-operated model only.*

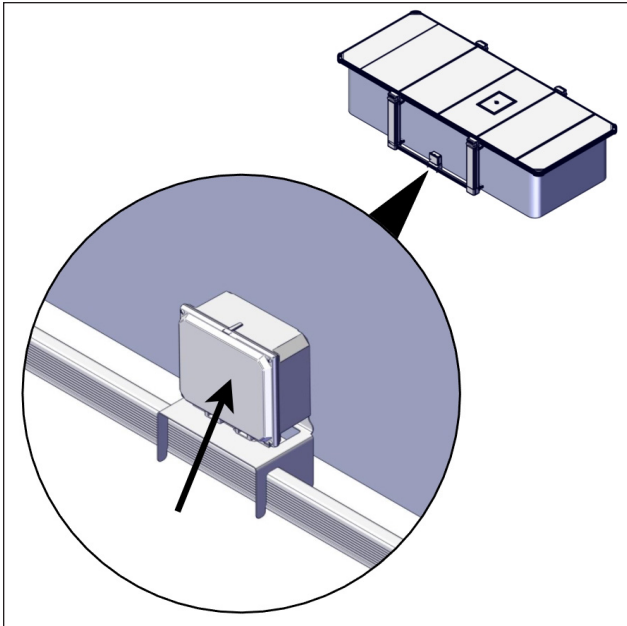


## CAUTION



**CHOOSE A SIDE THAT WILL ALLOW EASY MAINTENANCE OF THE CONTROL BOX AND THAT WILL AVOID DIRECT AND CONSTANT SUNLIGHT EXPOSURE.**

**FIGURE 74: INSTALL THE CONTROL BOX AND HOLDING BRACKET ON ONE OF THE U-FRAMES BETWEEN THE POSTS**



## WARNING

- The AC control box must always be out of reach of anyone in the spa. It should be installed in its vertical position at a minimum distance of 4' (1.2m) away from any position in the spa.
- The AC control box connectors must face the ground and be installed at a minimum distance of 5" (127 mm) from ground level.

- Have a certified electrician connect the AC control box to a power source following the instructions from the ELECTRICAL DIAGRAMS section.

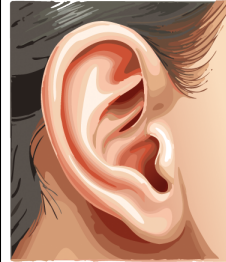


## WARNING

A certified electrician must install a type 3 enclosure rated conduit connector (not included).

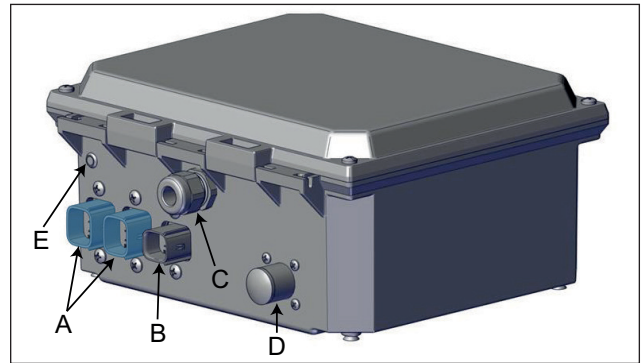


## CAUTION

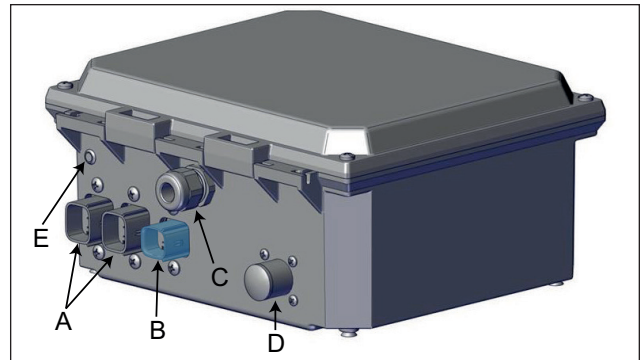


**WHEN CONNECTING THE HARNESS, YOU MUST HEAR A CLIC FROM THE CONNECTOR TO CONFIRM IT HAS BEEN INSTALLED PROPERLY.**

**FIGURE 75: CONNECT BOTH MOTOR JACK HARNESSES TO THE AC CONTROL BOX (REFER TO THE ELECTRICAL DIAGRAMS SECTION)**



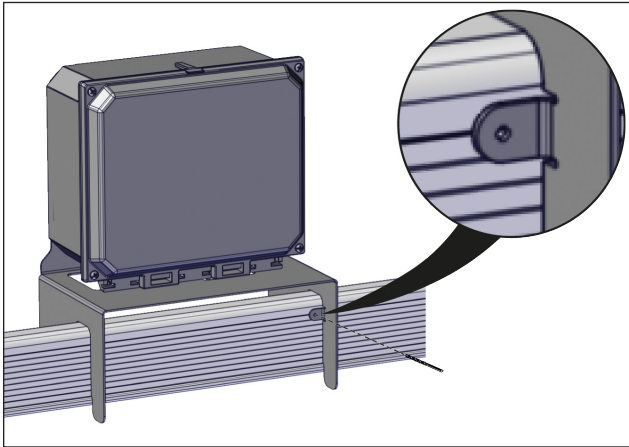
**FIGURE 76: UNPACK THE KEY SWITCH AND PLUG ITS HARNESS INTO THE AC CONTROL BOX**



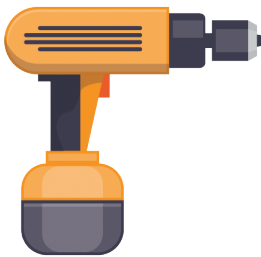
<b>A</b>	MOTOR CONNECTORS
<b>B</b>	KEY SWITCH CONNECTOR
<b>C</b>	POWER LINE ENTRY (HOLE DIA: 22 mm)
<b>D</b>	EMERGENCY BATTERY CONNECTOR
<b>E</b>	LED INDICATOR

- Put the exceeding wires as close to the spa as possible to hide and protect them.

**FIGURE 77: DRILL A HOLE THROUGH THE TAB ON THE HOLDING BRACKET AND INTO THE U-FRAME (USE THE 5/32" DRILL BIT). SCREW IN A 8-32 X 3/8" HEXAGONAL SLOTTED THREAD-CUTTING SCREW**



**CAUTION**



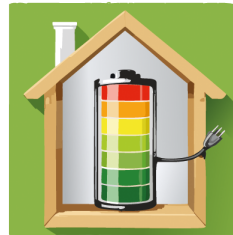
**DO NOT DRILL TOO DEEP SO AS NOT TO PUNCTURE THE DRIVE SHAFT LOCATED INSIDE THE U-FRAME.**

**OPTIONAL EMERGENCY BATTERY BACKUP**

**NOTE**

- If you have purchased the optional emergency battery backup kit, it will be in the parts boxes.
- 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.

**CAUTION**

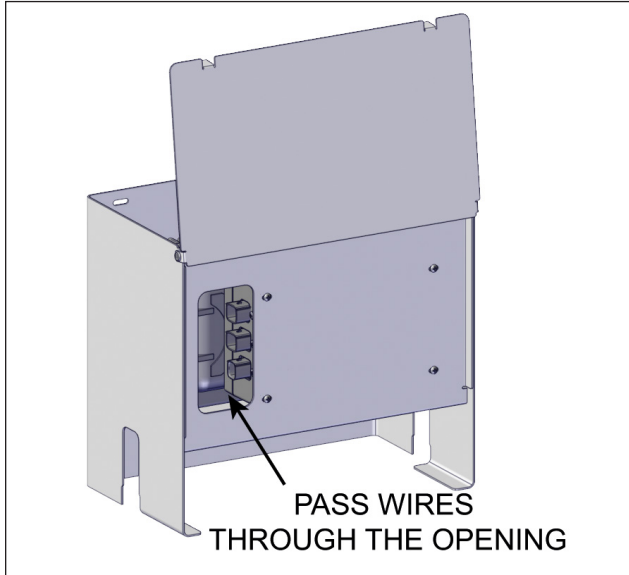
- Only use the battery pack and charger provided by COVANA.
- Do not expose the COVANA LEGEND BATTERY PACK to excessive temperatures.
- Do not handle the batteries inside the COVANA LEGEND BATTERY PACK.

**BATTERY AND OPTIONAL SOLAR PANEL INSTALLATION**

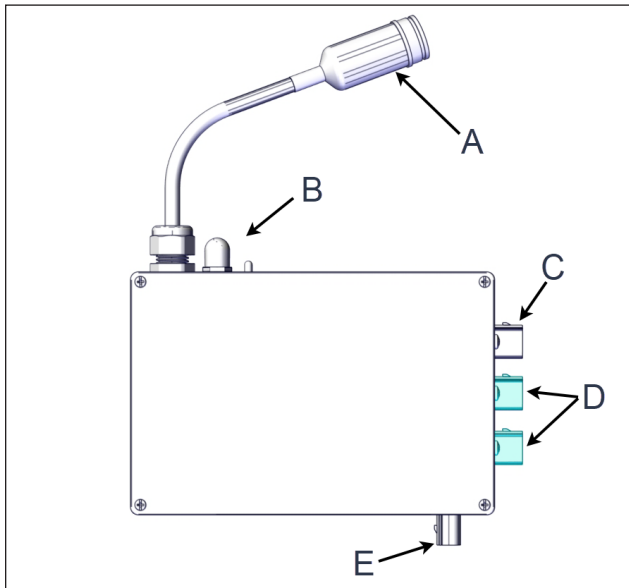
**NOTE**

*This section is for battery-operated models only.*

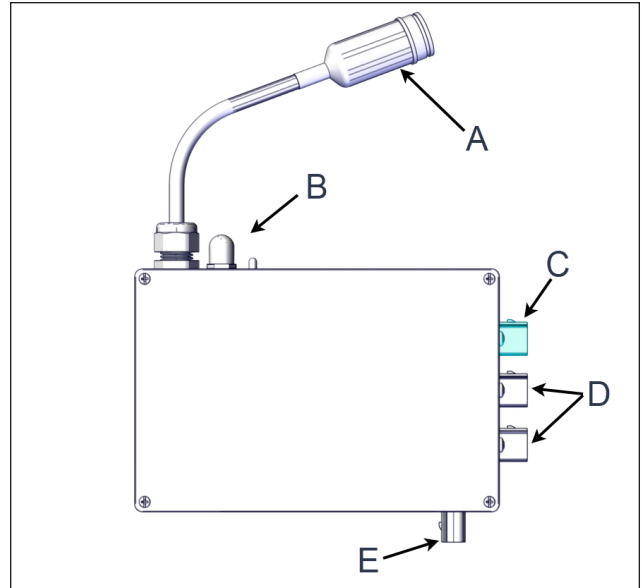
**FIGURE 78: CONTROL BOX HOUSING**



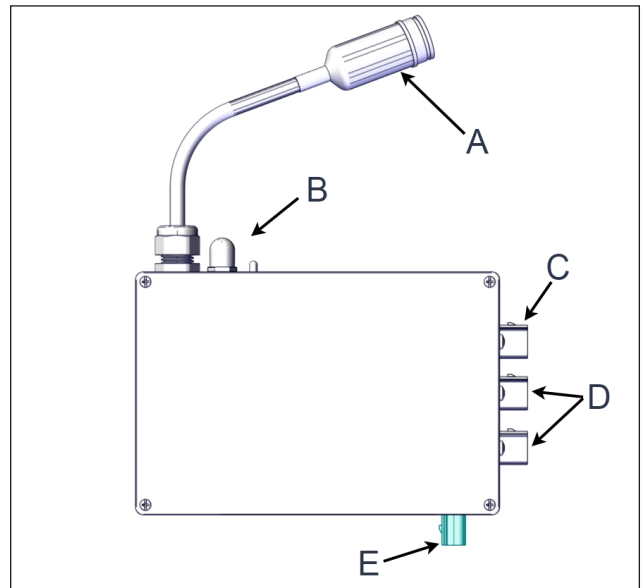
**FIGURE 79: CONNECT BOTH MOTOR JACK HARNESSES TO THE CONTROL BOX**



**FIGURE 80: UNPACK THE KEY SWITCH AND CONNECT THE HARNESS TO THE CONTROL BOX**



**FIGURE 81: UNPACK THE OPTIONAL SOLAR PANEL KIT AND CONNECT ITS HARNESS**



<b>A</b>	BATTERY
<b>B</b>	CIRCUIT BREAKER
<b>C</b>	KEY SWITCH CONNECTOR
<b>D</b>	MOTOR CONNECTORS
<b>E</b>	SOLAR PANEL

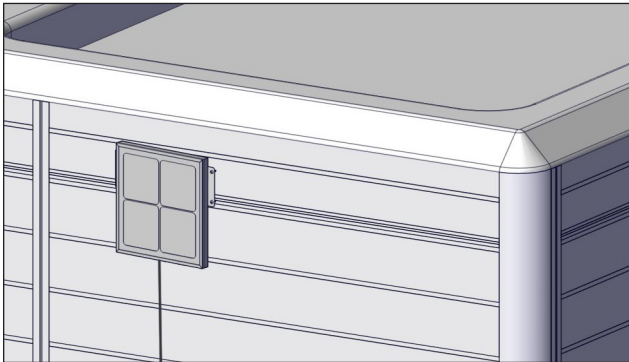
**CAUTION**



WHEN CONNECTING THE HARNESS, YOU MUST HEAR A CLIC FROM THE CONNECTOR TO CONFIRM IT HAS BEEN INSTALLED PROPERLY.

- Put the exceeding wires as close to the spa as possible to hide them.

FIGURE 82: INSTALL THE SOLAR PANEL ON THE SIDE OF THE SPA THAT IS MOST EXPOSED TO THE SUN (ON 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 83: SLIDE THE CONTROL BOX HOUSING ONTO THE U-FRAME

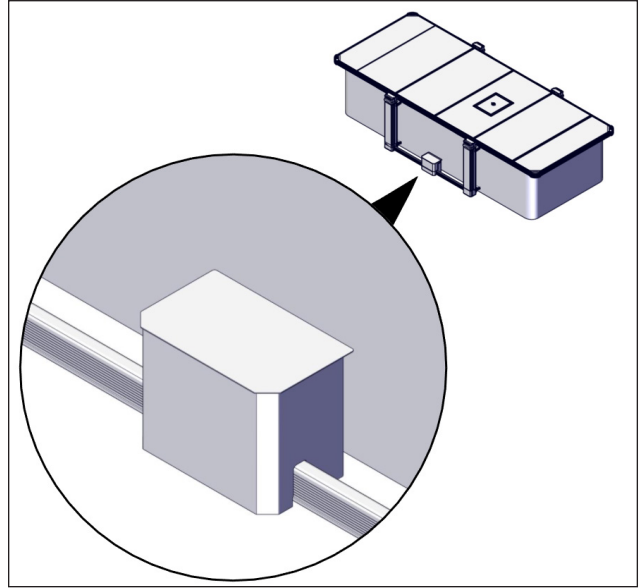
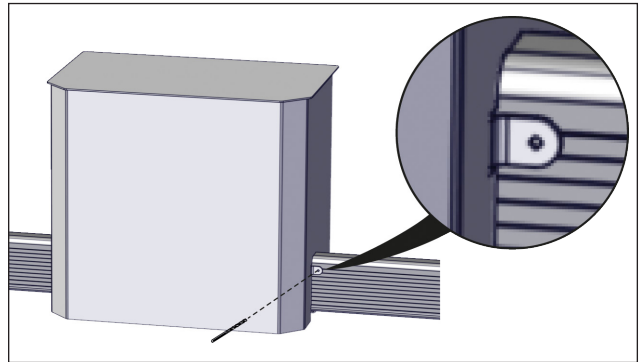


FIGURE 84: DRILL A HOLE THROUGH THE TAB AND INTO THE U-FRAME (USE THE 5/32" DRILL BIT). SCREW IN A 8-32 X 3/8" HEX. SLOTTED THREAD-CUTTING SCREW



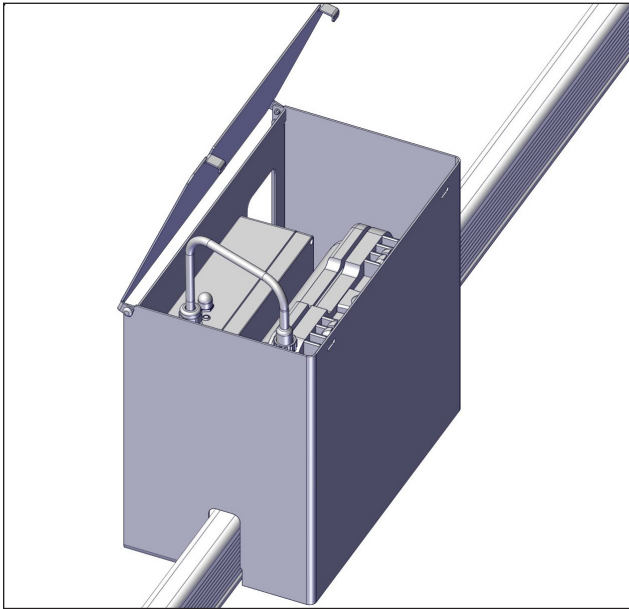
**CAUTION**



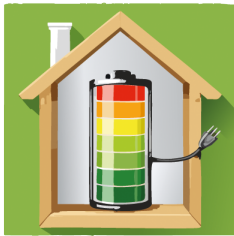
DO NOT DRILL TOO DEEP SO AS NOT TO PUNCTURE THE DRIVE SHAFT LOCATED INSIDE THE U-FRAME.

- Put the exceeding wires as close to the spa as possible to hide them.

**FIGURE 85: OPEN THE CONTROL BOX HOUSING COVER AND CONNECT THE BATTERY HARNESS. SLIDE THE BATTERY INSIDE THE BOX AND CLOSE THE COVER**



**!** **DANGER**



**THE CHARGER MUST ALWAYS BE INDOORS, AWAY FROM WATER. DAMAGE, INJURY OR DEATH MIGHT OCCUR IF THIS INSTRUCTION IS NOT FOLLOWED.**

**NOTE**

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

**!** **CAUTION**

Only use the battery pack and charger provided by COVANA.

**TESTING THE COVER**

**FIGURE 86: IF THE COVER IS IN AN AREA WITH LIMITED CLEARANCE, NEVER COMPLETELY LIFT IT WHILE PERFORMING THIS TEST SEQUENCE**



**FIGURE 87: RAISE 8" — MAKE SURE COVER LIFTS EVENLY**



**FIGURE 88: LOWER COVER — MUST TOUCH FOAM SPACERS**



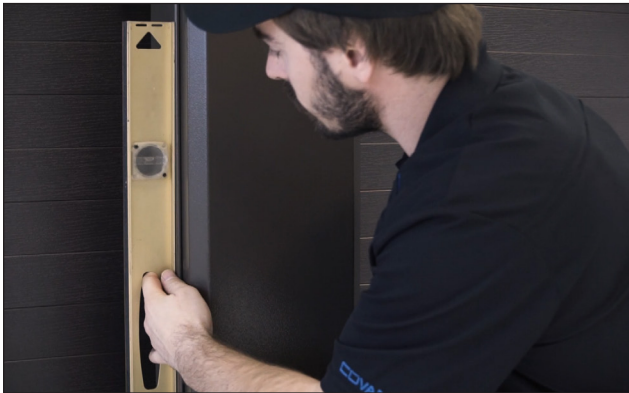
**FIGURE 89: LIFT COVER HALFWAY UP**



**FIGURE 90: SLIDE MIDDLE SLEEVES UP AND DOWN TO TEST IF THEY ARE FREE AND NOT SCRATCHING OR INTERFERING WITH INNER/OUTER SLEEVES**



**FIGURE 91: LOWER COVER AND CHECK IF THE SLEEVES ARE LEVEL USING A 36" LEVEL ON THE SIDE AND FRONT OF THE SLEEVES**



**FIGURE 92: RAISE COVER — LISTEN FOR UNUSUAL SOUNDS**



## KEY SWITCH INSTALLATION

### **DANGER**

- The key switch must be:
  - Permanently mounted 5 ft away from the spa and 5 ft above the deck or ground level.
  - Vertically mounted in a location where no water downpour or debris could fall on it.
- Failure to properly install the key switch according to these instructions could result in injury or even death, and will void the warranty and product certification.



### **WARNING**



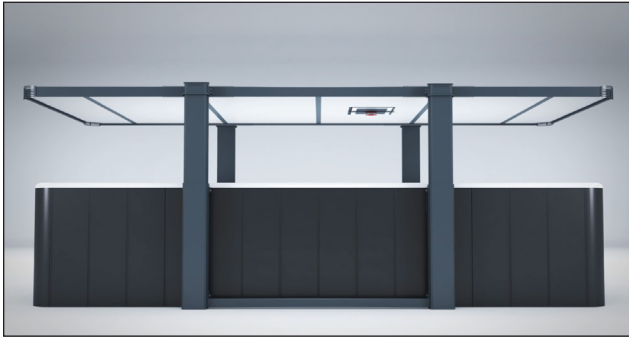
**WHEN OPERATING THE COVER, THE USER MUST ALWAYS HAVE A CLEAR VIEW OF THE COVER AND ITS SURROUNDINGS.**

**FIGURE 93: FASTEN KEY SWITCH WITH TWO SCREWS (NOT INCLUDED)**



## WIPER INSTALLATION

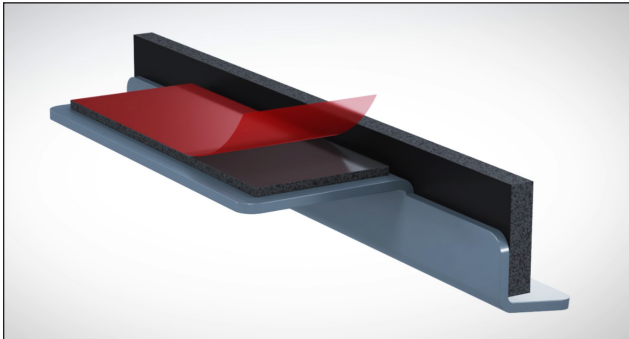
FIGURE 94: LIFT THE COVER HALFWAY UP



### CAUTION

- The number of wiper brackets is determined by the number of I-beams used to assemble the cover: 6 for 12' and 15' models, and 10 for 16' to 20' models.
- Make sure the I-beams are dry and clean.
- The ambient temperature must be between 70 °F to 100 °F (21 °C to 38 °C)

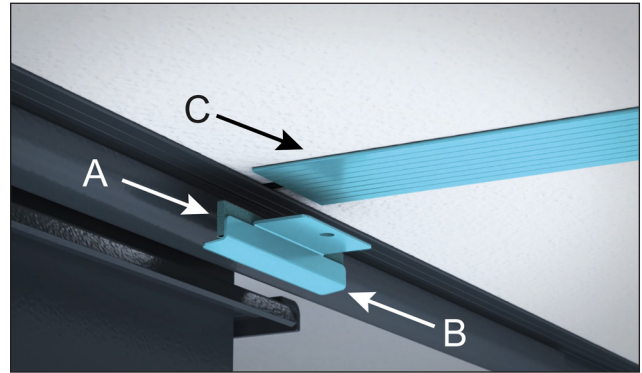
FIGURE 95: PEEL BACK THE RED SIDING OF THE DOUBLE-SIDED TAPE OF ONE WIPER



### WARNING

- Improper installation of the wiper will affect its performance.
- Failure to install each wiper bracket properly can result in excessive cover leakage.

FIGURE 96: LOCATE AN I-BEAM UNDER THE COVER AND ORIENTATE THE FLAP OF THE WIPER OUTWARDS OF THE COVER



A	FLAP
B	WIPER BRACKET
C	I-BEAM

FIGURE 97: PLACE THE FLAP OF THE WIPER AT THE EDGE OF THE I-BEAM INTO THE GAP BETWEEN THE I-BEAM AND THE C-CHANNEL. STICK IT IN PLACE AND MAINTAIN PRESSURE FOR AT LEAST 60 SECONDS

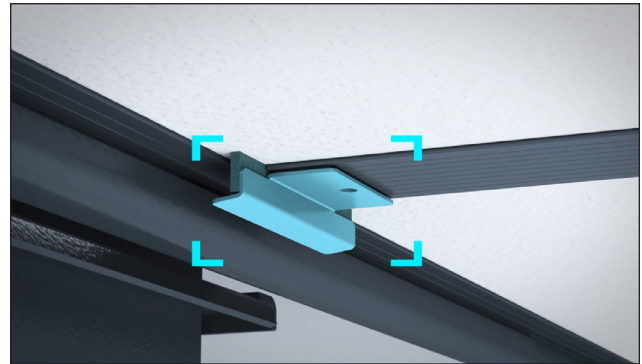
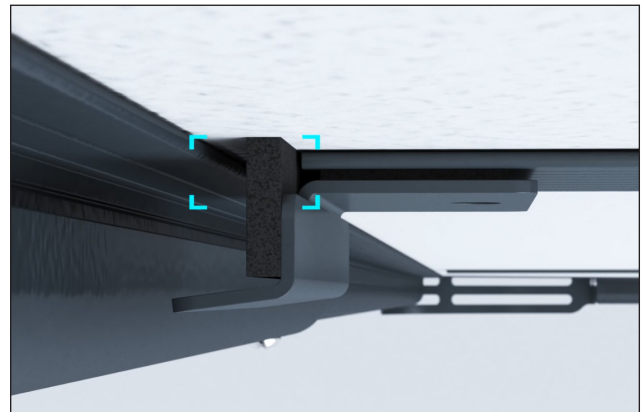


FIGURE 98: AT THE FINAL POSITION OF THE WIPER, THE FLAP MUST TOUCH THE EDGE OF THE I-BEAM



- Repeat previous steps for all wipers.

**SEAL INSTALLATION**

**CAUTION**

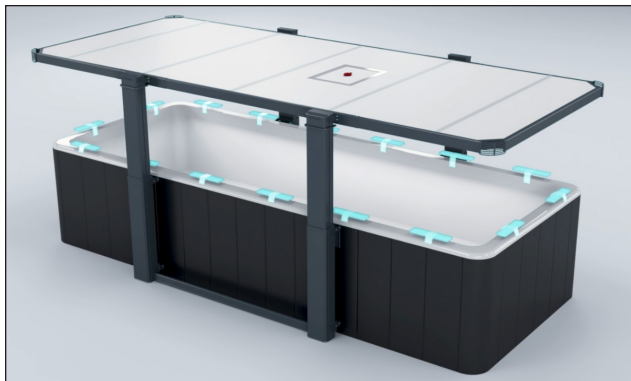


THE RECOMMENDED TOOL TO INSTALL THE SEAL IS A J-ROLLER WITH RUBBER ROLLER. IT MUST BE FREE OF SCRATCHES, CLEAN AND NON-ABRASIVE.  
COVANA PART NO. 239693 (NOT INCLUDED)

**CAUTION**

- A path at least 1" (2.5 cm) wide all around the perimeter of the spa is necessary to install the seal.
- Install the seal when the ambient temperature is above 50 °F (10 °C).
- Reduce the water vapor steam generated by the spa (turn off the recirculation pump and set the temperature of the water between 2° and 5° under the ambient temperature). Wait for the water to reach the ambient temperature.

**FIGURE 99: RAISE COVER AND REMOVE FOAM SPACERS AND TAPE**



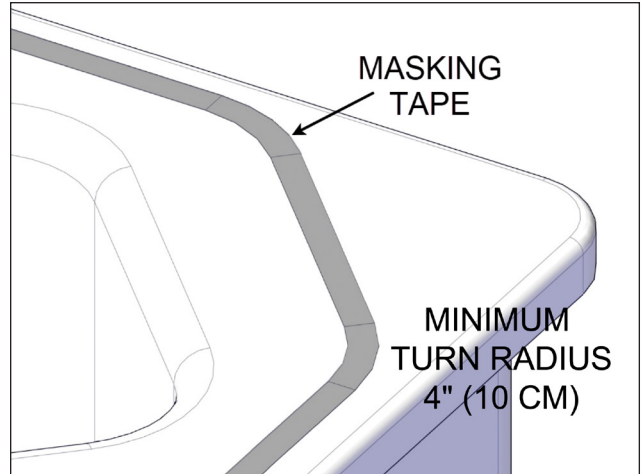
**FIGURE 100: DRY TOP OF SPA AND UNDERSIDE OF COVER**

**CAUTION**

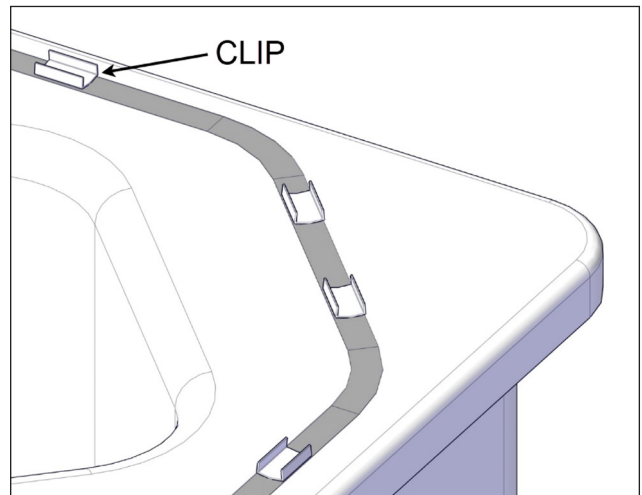


THE TOP EDGES OF THE SPA MUST BE 100% DRY AND CLEAN. IF NECESSARY, USE ISOPROPYL ALCOHOL (IPA).

**FIGURE 101: APPLY MASKING TAPE CLOSE TO INTERIOR EDGE OF SPA, ON A FLAT SURFACE**



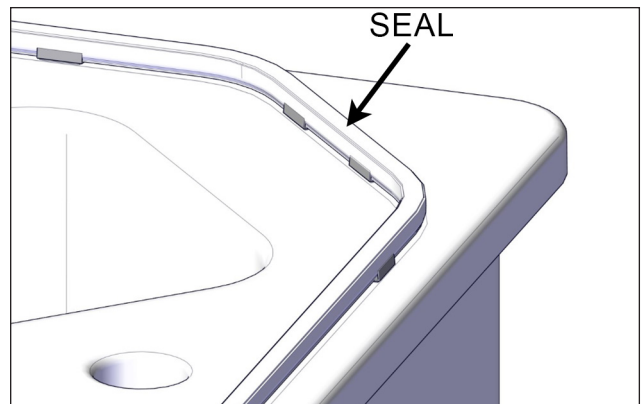
**FIGURE 102: DISTRIBUTE THE CLIPS AROUND THE SPA (USE 2 FOR THE JOINT ON THE OPPOSITE SIDE FROM THE SPA ENTRANCE). ONCE THE DISTRIBUTION IS DONE, STICK THEM IN PLACE**



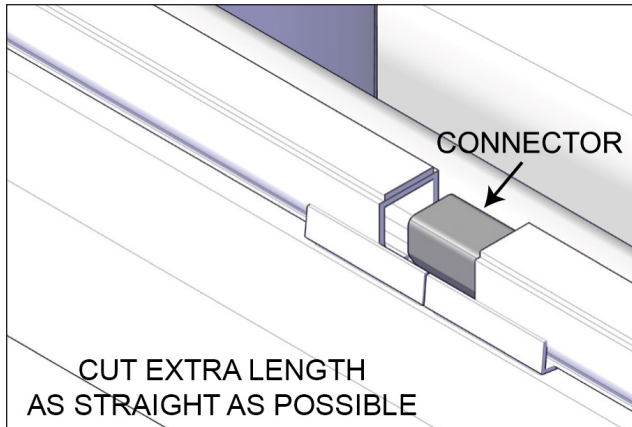
**CAUTION**

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

**FIGURE 103: INSTALL SEAL IN CLIPS WITH ADHESIVE LAYER FACING UP**



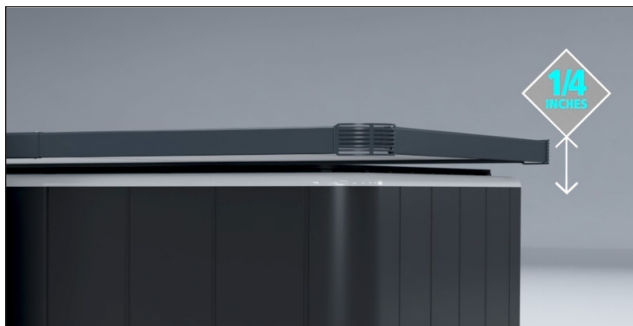
**FIGURE 104: INSERT CONNECTOR IN BOTH ENDS OF THE SEAL**



**⚠ WARNING**

- If there is no water in the spa and the ambient air temperature is below 50 °F (10 °C), a heater must be installed **on a pedestal** inside the spa.
- Do not directly heat the acrylic or the seal, as this may cause permanent damage.
- Once the heater is in the spa, lower the cover until it touches the seal. Regularly check the interior air temperature and do not let it reach temperatures above 104 °F (40 °C). After 10 to 15 minutes, remove the heater.
- 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.

**FIGURE 105: LOWER THE COVER 1/4" OVER THE SEAL TO TEST THE SEAL PLACEMENT**



**FIGURE 106: RAISE THE COVER AND REMOVE THE RED BACKING OFF SEAL**



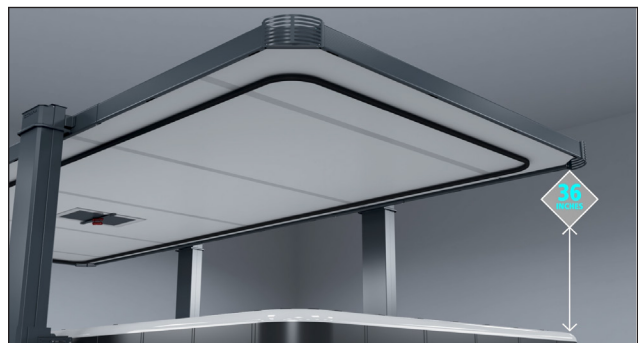
**FIGURE 107: COMPLETELY LOWER THE COVER FOR AT LEAST 5 MINUTES**



**FIGURE 108: RAISE THE COVER 1/4" TO RELEASE THE SEAL FROM THE CLIPS**



**FIGURE 109: WHEN THE SEAL IS RELEASED, RAISE THE COVER 36"**



**FIGURE 110: APPLY 15 PSI PRESSURE WITH J-ROLLER**

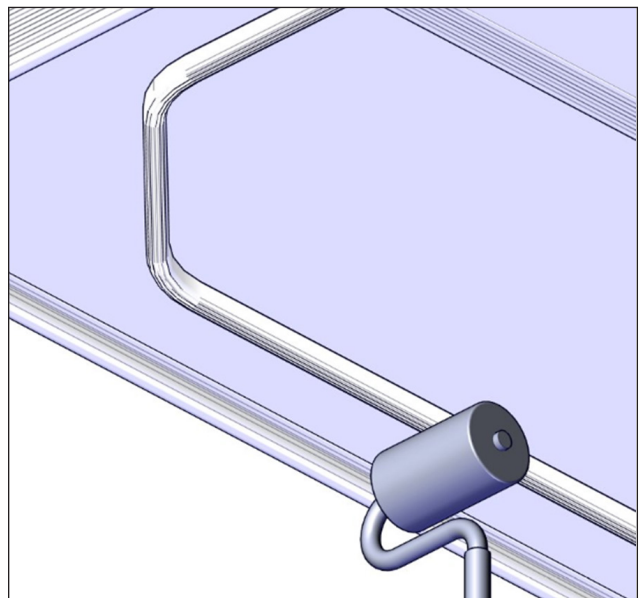


FIGURE 111: REMOVE THE CLIPS AND TAPE

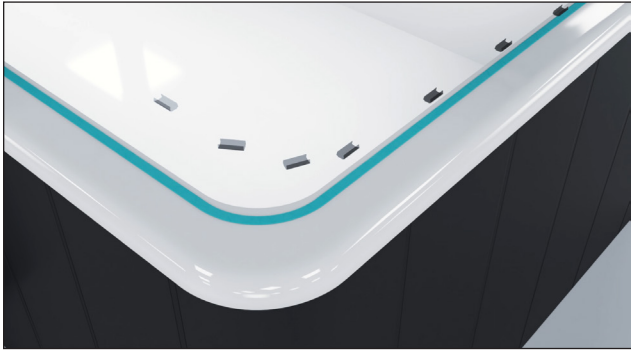


FIGURE 112: LOWER THE COVER 6" ABOVE THE SPA TO ENSURE THE CORNERS ARE AT THE SAME HEIGHT



FIGURE 113: LOWER THE COVER AND CHECK IF THE SEAL IS TOUCHING ALL AROUND THE SPA



FIGURE 114: LEAVE THE COVER COMPLETELY CLOSED FOR AT LEAST 24 HOURS



FIGURE 115: WRITE THE DATE OF INSTALLATION ON THE CONTROL BOX LABEL

**COVANA** a Division of CANIMEX Group

TOLL FREE # 877-278-8010 PATENTED

MODEL  SER.# Y Y M M S S S S

INPUT  AMPS /  AMPS MAX

MFG. DATE Y Y Y Y - M M M - D D

IN COMPLIANCE WITH UL2482 **UL** LISTED 42CV SPA COVER OPERATOR

www.covana.com www.canimex.com

DATE OF INSTALLATION:

Fabrique au Canada Made in Canada

FIGURE 116: WRITE THE ADDRESS IN THE IMPORTER BOX (EUROPEAN MODEL SOLD IN SWITZERLAND)

**COVANA** Division of CANIMEX Group

285 RUE SAINT-GEORGES, DRUMMONDVILLE, QC CANADA J2C 4H3  
TOLL FREE # 877-278-8010  
WWW.COVARNA.COM PATENTED

MODEL LEGEND SER.# Y Y M M S S S S

DESIGNATION DRIVE FOR VERTICALLY MOVING SPA COVER CONTROLLED BY BIASED-OFF SWITCH

RATED VALUES 24 V DC 5.8 A 0.45 N.m IP44 MFG. DATE Y Y Y Y - M M M - D D

USE WITH BATTERY MODEL COVARNA LEGEND BATTERY PACK

IMPORTER

DATE OF INSTALLATION:




  

FIGURE 117: ATTACH THE YELLOW TAG TO THE COVANA KEY RING



- Complete the Customer's installation checklist as well as the Installer's installation checklist.

## UPPER LIMIT RESET OF THE COVER

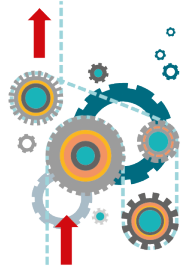
### NOTE

*Reset the maximum height of the cover if an object might obstruct the cover during operation.*

*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.**

1. The cover must be lowered to the zero position (seal touches equally around the spa perimeter).
2. Disconnect both motors (remove motor plug harnesses from the control box).
3. Wait until the LED turns off, or disconnect the battery, or cut power off at the breaker panel for an AC-operated model.
4. If you have waited for the LED to turn off, go to step 5. If not, reconnect the battery, or turn power on at the breaker panel for an AC-operated model.
5. Turn the key UP (↑ arrow) and hold for at least 15 seconds.
6. Release the key.
7. Turn the key UP (↑ arrow) 15 times within 10 seconds.
8. If the LED of the control box is flashing about 3 times per second, the process is starting with success.
9. Reconnect the motors and use the key switch to set the desired height of the cover within 30 seconds.

### 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.*



## WARNING



**DO NOT EXCEED 120" (3 M) FROM THE BOTTOM OF THE SLEEVE TO THE UNDERSIDE OF THE COVER OR 60" ABOVE THE ACRYLIC WHICHEVER COMES FIRST.**

10. Once satisfied with the cover height, wait until the LED turns off, or disconnect the battery, or cut power off at the breaker panel for an AC-operated model (required to save the new limit).
11. If you have waited for the LED to turn off, go to step 12. If not, reconnect the battery, or turn power on at the breaker panel for an AC-operated model (required to reboot the system).
12. Lower the cover to the zero position.

# SPA COVER INSTALLATION Checklist

<input checked="" type="checkbox"/> <b>INSTALLATION STEPS</b>	<b>NOTES</b>
<input type="checkbox"/> The base preparation steps are done correctly.	
<input type="checkbox"/> The installation steps are done correctly.	
<input type="checkbox"/> The cable is properly attached to the bottom of each post.	
<input type="checkbox"/> The seal is properly installed and there is no steam leaking out around the cover.	
<input type="checkbox"/> The wipers are properly installed to make sure the cover is watertight.	
<input type="checkbox"/> The key switch is <b>permanently installed</b> vertically, at least 5 ft (1.5 m) away from the spa and 5 ft (1.5 m) from the ground.	
<input type="checkbox"/> The electrical portion of the installation was done by a certified electrician.	
<input type="checkbox"/> All parts supplied and included into the crate are installed.	
<input type="checkbox"/> The start-up procedure is completed.	
<input type="checkbox"/> The all-weather seals work properly.	
<input type="checkbox"/> The middle sleeves slide freely ( <b>manually slide the middle sleeves up and down when the cover is half open</b> ).	
<input type="checkbox"/> The date of installation has been written on the technical specifications label.	
<input type="checkbox"/> The yellow tag is attached to the COVANA key ring.	

Serial number	
Installation date (YYYY/MM/DD)	
Installer's name	
Installer's signature	
Customer's name	
Customer's signature	
Customer's address	
Retailer's name	

**CUSTOMER COPY**



# SPA COVER INSTALLATION Checklist

<input checked="" type="checkbox"/> INSTALLATION STEPS	NOTES
<input type="checkbox"/> The base preparation steps are done correctly.	
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Serial number	
Installation date (YYYY/MM/DD)	
Installer's name	
Installer's signature	
Customer's name	
Customer's signature	
Customer's address	
Retailer's name	



INSTALLER COPY



# OWNER'S MANUAL

# OPERATE THE COVER



## WARNING



**READ THE SAFETY SECTION OF THIS MANUAL CAREFULLY BEFORE OPERATING THE COVER.**

### RAISING/LOWERING THE COVER WITH THE KEY SWITCH



## WARNING

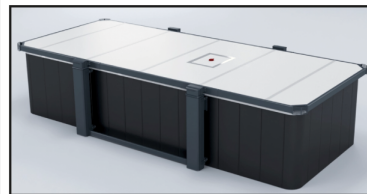
Ensure that:

- There is nobody in or near the spa.
  - There is no obstruction over or around the cover.
  - The cover is completely visible when operating the key switch.
  - The key is removed from the key switch when not in use; Bring the key in the spa to prevent any unauthorized operation of the cover.
- 
- Turn the key UP (↑ arrow) to raise the cover.
  - Turn the key DOWN (↓ arrow) to lower the cover.
  - Install the rubber cap back on the key switch after each use.

## NOTE

*The cover will automatically stop in both the fully open and fully closed position.*

## IMPORTANT NOTE



**KEEP THE COVER FULLY CLOSED WHEN NOT IN USE.**



## CAUTION



**REMOVE ALL DEBRIS AND SNOW FROM THE COVER, CONTROL BOX AND AROUND THE SLEEVES.**

## USING THE ESCAPE HATCH

### FROM INSIDE THE SPA

FIGURE 118: TURN THE HANDLE A QUARTER TURN IN EITHER DIRECTION TO RETRACT THE ARMS

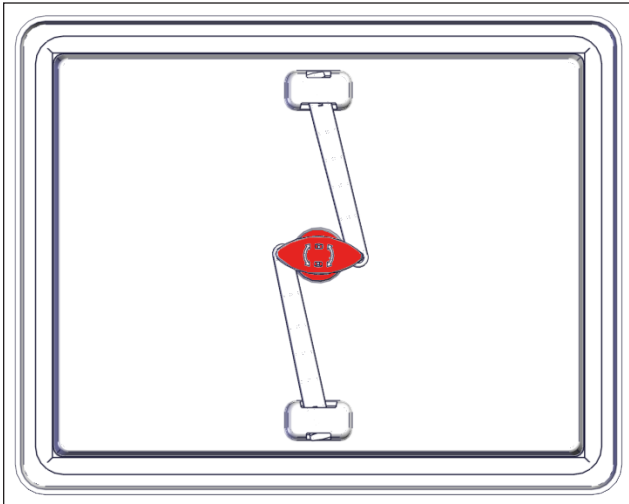
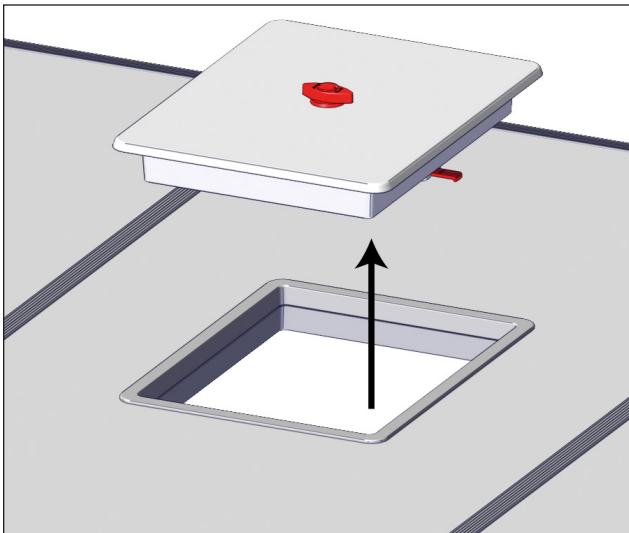


FIGURE 119: PUSH STRAIGHT UP ON THE ESCAPE HATCH AND MOVE IT TO THE SIDE



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

### FROM OUTSIDE THE SPA



FIGURE 120: TURN THE HANDLE LEFT OR RIGHT TO ALIGN THE SLOTS IN THE CENTER OF THE HANDLE

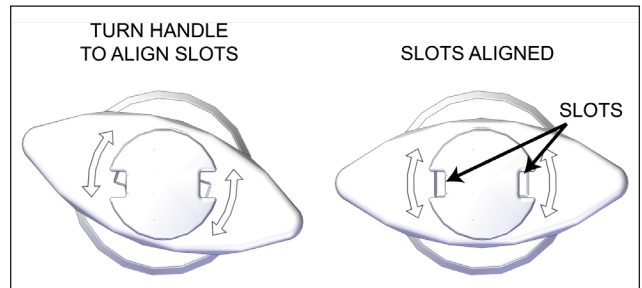


FIGURE 121: INSERT THE COVANA KEY OR ANY KEY INTO ONE OF THE SLOTS



- Turn the handle a quarter turn in either direction to retract the arms (Figure 116).
- Lift the escape hatch straight up by gripping its sides and move it to the side.
- 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 COVANA LEGEND BATTERY PACKS.*

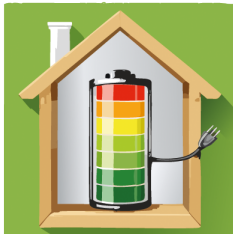
1. Plug the provided battery charger in a regular wall power outlet (110 V North America, 230 V Europe).
2. Plug the battery charger harness into the battery (the red light indicates that it is charging).
3. Wait for the green light to appear (indicates that the charging process is complete; charging time may vary).

### WARNING

- Only use the COVANA LEGEND BATTERY PACKS provided by COVANA.
- 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 one.
- Do not handle the batteries inside the COVANA LEGEND BATTERY PACK as they can only be replaced by qualified personnel.



## DANGER



**THE CHARGER MUST ALWAYS BE INDOORS, AWAY FROM WATER. DAMAGE, INJURY OR DEATH MIGHT OCCUR IF THIS INSTRUCTION IS NOT FOLLOWED.**

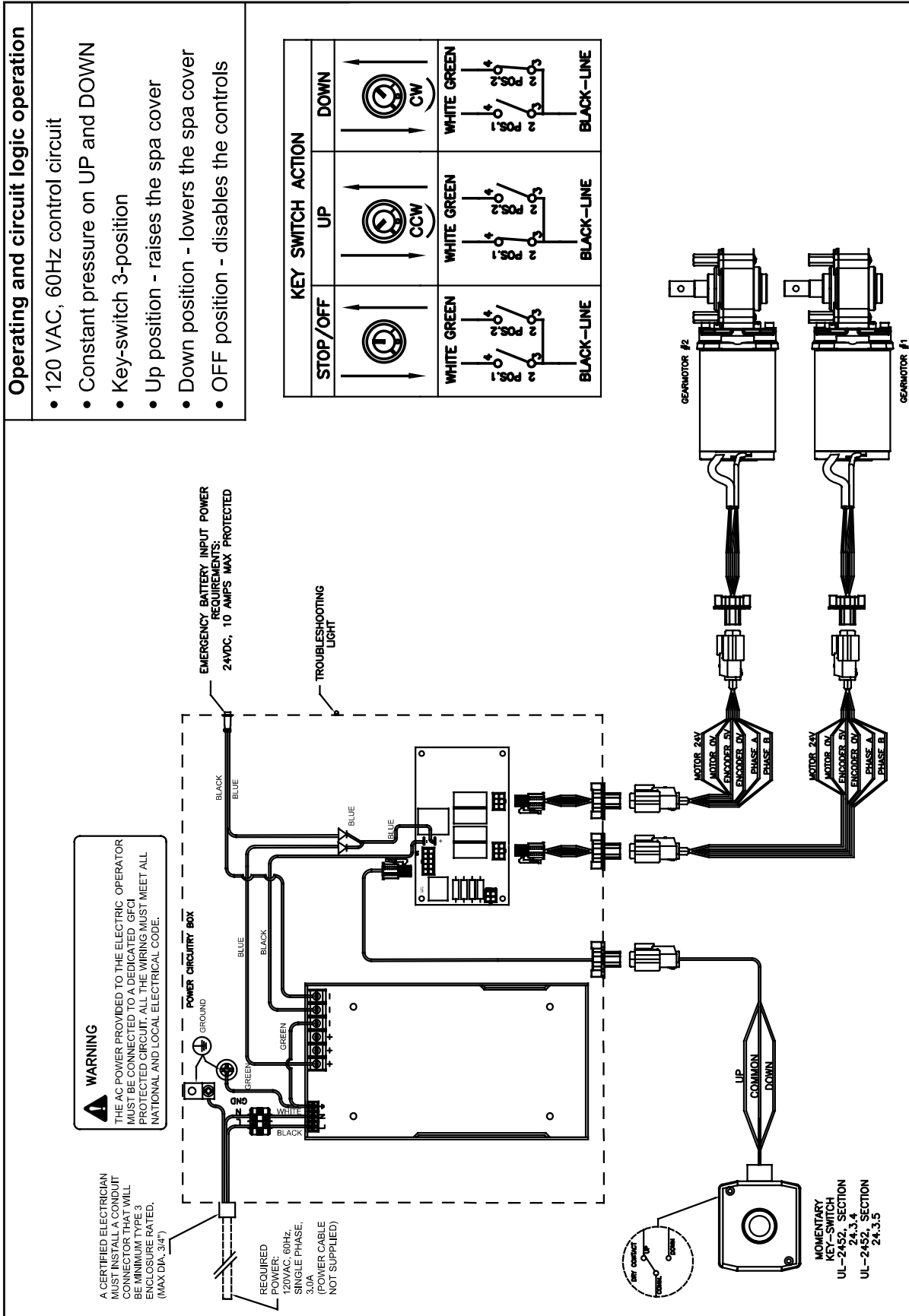
### NOTE

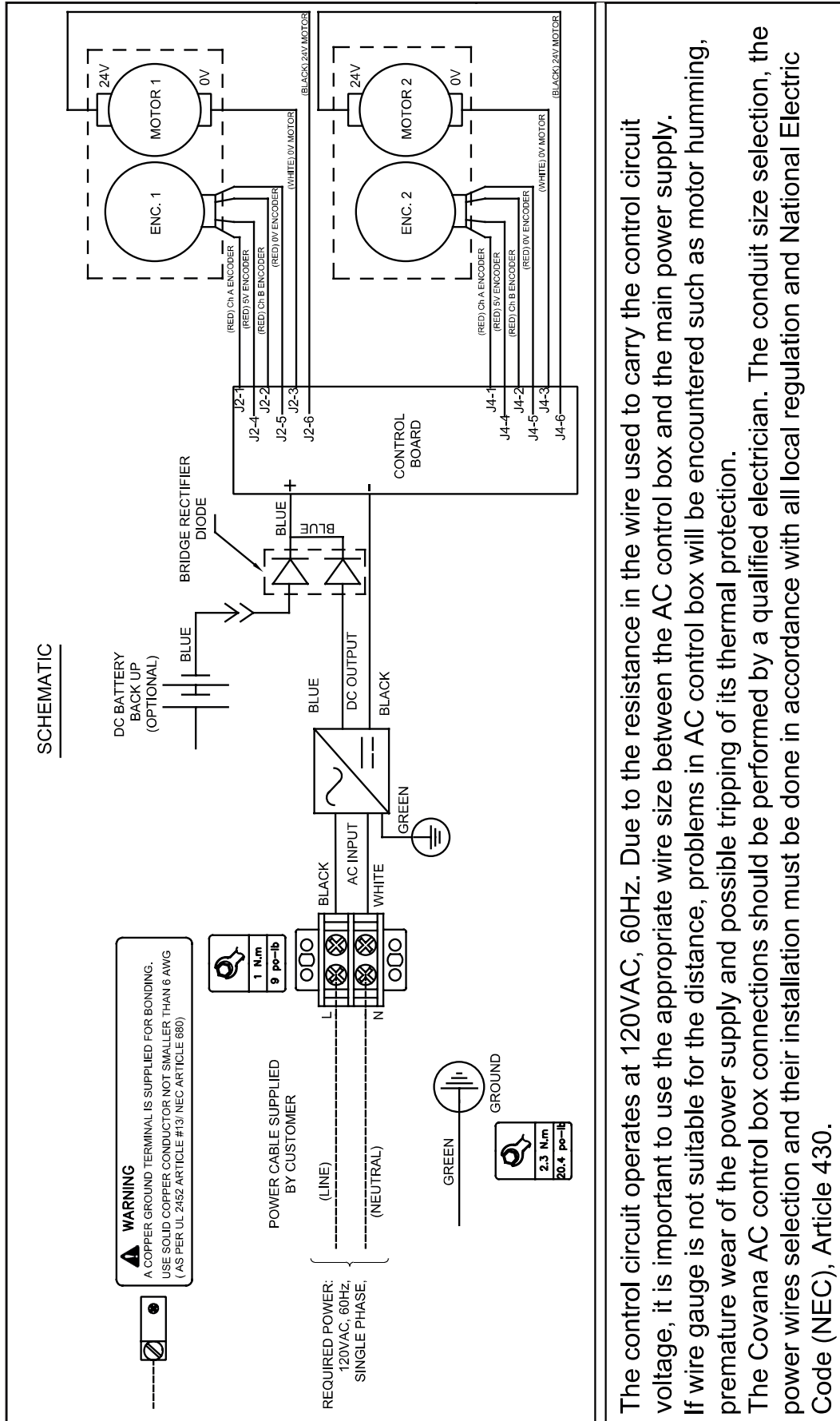
*The charger cuts the power once the battery is fully charged. Therefore you can keep the battery plugged on the charger.*

# ELECTRICAL DIAGRAMS

# ELECTRICAL DIAGRAMS

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






The control circuit operates at 120VAC, 60Hz. 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 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 its 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 Electric Code (NEC), Article 430.

# MAINTENANCE

# MAINTENANCE


## WASHING THE COVER



### CAUTION

**NEVER USE:**

- A PRESSURE WASHER OR HIGH PRESSURE
- HARSH DETERGENTS
- ABRASIVE CLEANERS
- WATER HOTTER THAN 130°F (54°C)
- CLEANER OR STAIN REMOVER WITH CHLORINATED OR AROMATIC HYDROCARBONS



### Step 1.


#### Gather supplies

- 1% solution of household dish soap (must have a neutral 6.5-7.5 pH range)
- Soft plastic brush
- Sponge
- Cloth



### Step 2.

#### Wash the cover

1. Rinse the cover to remove any large debris.
2. Apply the soap solution in a scrubbing or circular motion using a sponge, cloth or 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.



### CAUTION



**REMOVE SNOW REGULARLY OR AFTER HEAVY SNOWFALL. DO NOT LET MORE THAN 12" (30 CM) OF SNOW ACCUMULATE ON THE COVER.**

## WINTERIZING



### CAUTION



**FOLLOW THESE INSTRUCTIONS IF YOU PLAN TO STOP USING THE SPA FOR A LONG PERIOD OF TIME OR IF THE TEMPERATURE DROPS BELOW FREEZING POINT.**

### Step 1.

#### Prepare the spa for closure

Follow the spa manufacturer's winterization instructions.

### Step 2.

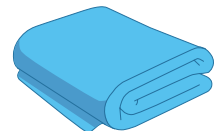
#### Prepare the cover for closure


1. Remove dust, greasy residue and dirt from the cover.
2. Close the cover (the escape hatch must be closed and locked).
3. AC-operated model: Turn off the power to the cover.
4. Battery-operated model: Unplug the battery from the control box.

### NOTE

*Store the batteries in a dry location between 59 °F (15 °C) and 86 °F (30 °C). During storage, charge the batteries every month or leave them on the COVANA battery charger.*

5. Place a waterproof tarp on the cover, and another on the control box.





### CAUTION

Use a tarp only for the winterization procedure and during the cold season; remove it as soon as seasonal temperatures are higher than the freezing point.

## POST GREASING

The internal jacks require yearly greasing to ensure the best performance. Early in the fall season is the best time.

# IMPORTANT NOTE



**WHITE LITHIUM GREASE IS RECOMMENDED FOR ALL CLIMATES. IDEALLY A SPRAYABLE GREASE OR AN EQUIVALENT LOW TEMPERATURE SYNTHETIC GREASE.**

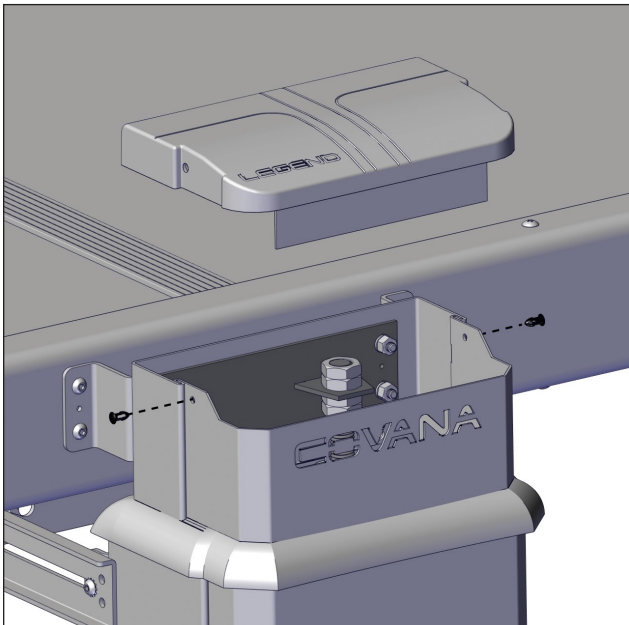
## NOTE

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

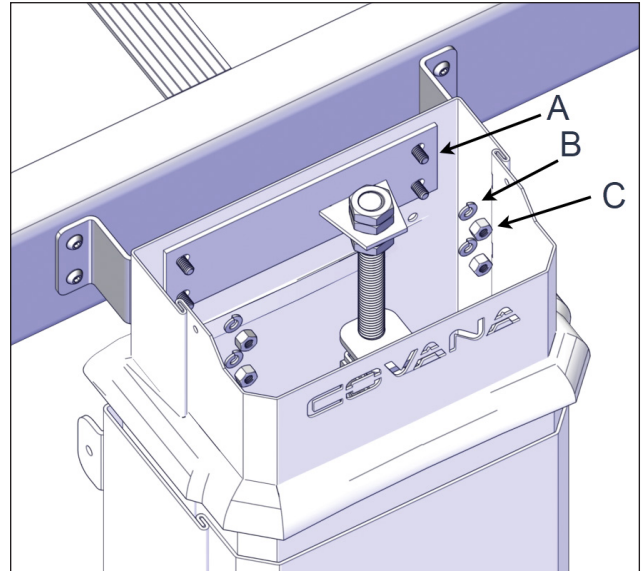
## POST GREASING PROCEDURE

- Lower the cover until it is fully closed.

**FIGURE 122: REMOVE BOTH PUSH-IN RIVETS ON THE TOP PLATE OF EACH POST**



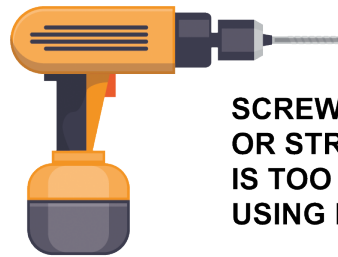
**FIGURE 123: REMOVE THE FOUR JACK ADAPTER CARRIAGE BOLTS FROM EACH POST**



<b>A</b>	1/4- 20 x 3/4" CARRIAGE BOLT
<b>B</b>	1/4" LOCK WASHER
<b>C</b>	1/4- 20 NUT

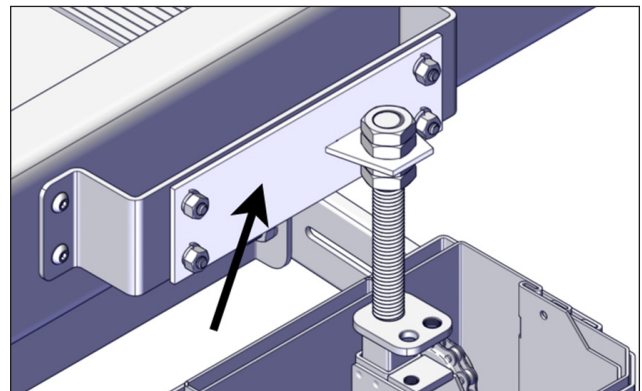


# WARNING



**SCREWS MAY BREAK OR STRIP IF THE TORQUE IS TOO MUCH WHEN USING POWER TOOLS.**

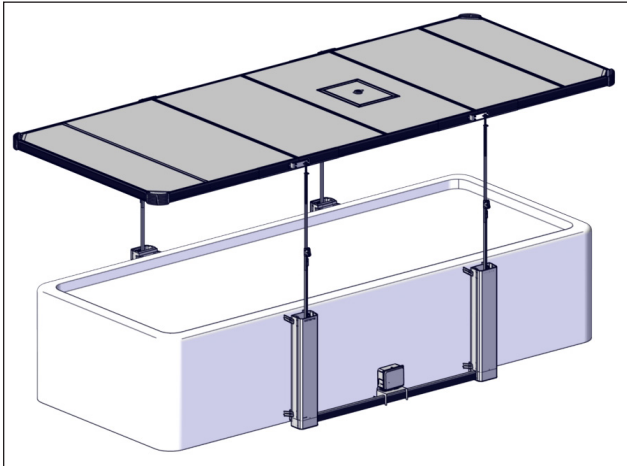
**FIGURE 124: SLIDE DOWN THE SLEEVE ASSEMBLIES AND REINSTALL THE JACK ADAPTERS (NOT THE SLEEVES) WITH THE FOUR CARRIAGE BOLTS**



**⚠ WARNING**

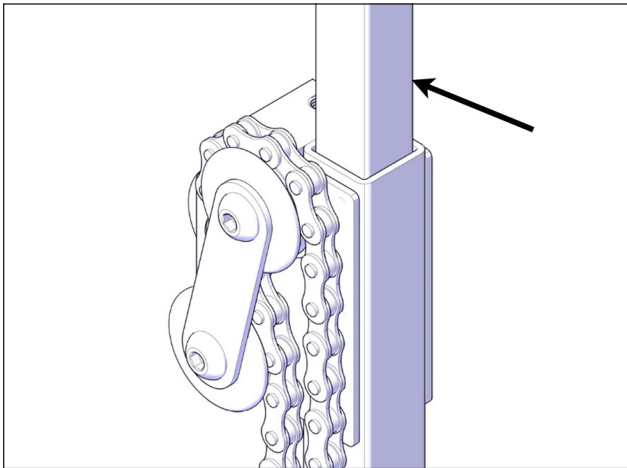
If the jacks are raised without the cover fastened on, they will not be able to lower back to their original position and might damage the electrical component of the system.

**FIGURE 125: RAISE THE JACKS UNTIL THE SYSTEM STOPS AT ITS MAXIMUM HEIGHT**

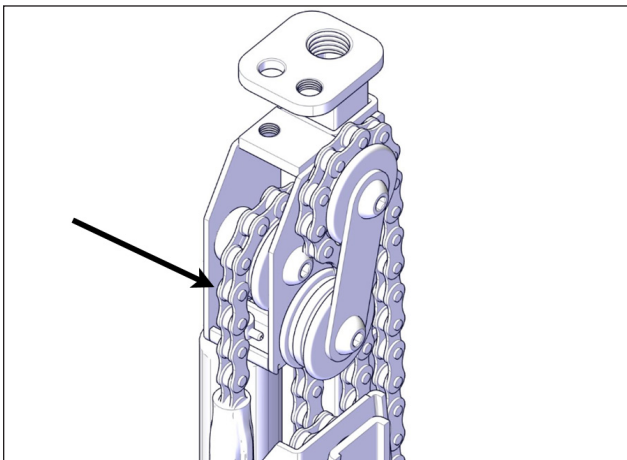


- Cycle the system up and down and check if more grease should be added.
- Lower the system completely until it stops automatically.
- Reverse the previous steps to reinstall the sleeves.
- Slide the all-weather seal down on each post and ensure they are in contact with the outer sleeves when cover is closed.

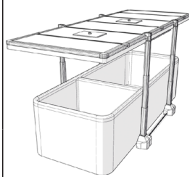
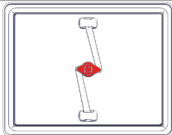
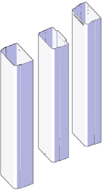
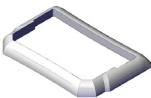

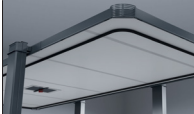
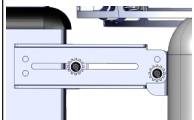
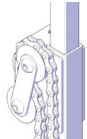

**FIGURE 126: SPRAY GREASE ON THE SLIDING PARTS AND MECHANICAL COMPONENTS OF EACH JACK**



**FIGURE 127: INSPECT THE CHAINS FOR SIGNS OF DETERIORATION**



## PERIODIC MAINTENANCE SCHEDULE

ITEM	TASKS	Each use	Weekly	Every 3 months	Yearly
	<b>COVER</b> <ul style="list-style-type: none"> <li>Wash with a mild detergent (i.e., dishwashing detergent) and water. Rinse well using only water.</li> <li>Remove snow and debris from the cover, control box, and around the sleeves.</li> <li>Perform a visual inspection (debris, snow, ice, etc.).</li> <li>Listen to any unusual noises during operation.</li> </ul>	<b>As needed</b>			
	<b>LIFTING MECHANISM</b> Raise and lower the cover.	●	●		
	<b>ESCAPE HATCH</b> <ul style="list-style-type: none"> <li>Remove and wash with a mild detergent (i.e., dishwashing detergent) and water. Rinse well using only water.</li> <li>Check if it works properly.</li> </ul>	<b>As needed</b>			
			●		
	<b>SLEEVES</b> Check if correctly positioned (middle sleeves are not out of their normal position).	●			
	<b>ALL-WEATHER SEALS</b> Check if correctly positioned (in contact with outer sleeves when cover is closed).	●			
	<b>ROLLER SHADES</b> Adjust the brackets if needed to prevent wrinkles.		●		
	<b>SEAL</b> Make sure there is no vapor steam leakage.		●		
	<b>ANCHORS</b> Check anchoring of cover.*				●
	<b>CHAINS</b> <ul style="list-style-type: none"> <li>Check tension of the chains on all posts.*</li> <li>Lubricate chains on all posts.*</li> </ul>				●
	<b>JACKS</b> Grease the jack assemblies.*				●
<b>GFCI</b>	Test GFCI.			●	

\*Contact your local Covana retailer.

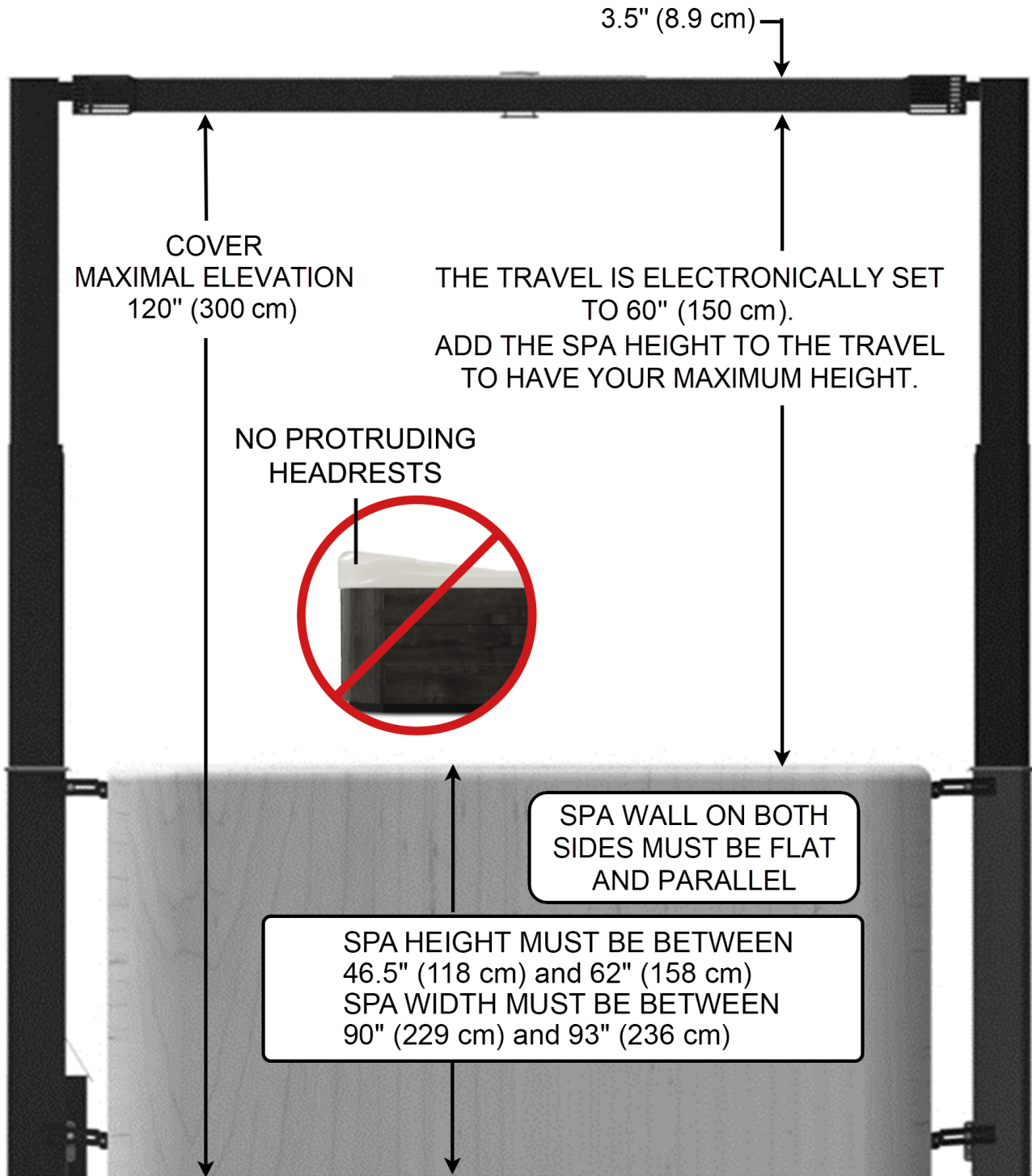
Call your Covana retailer for any mechanical, electrical or aesthetic maintenance.



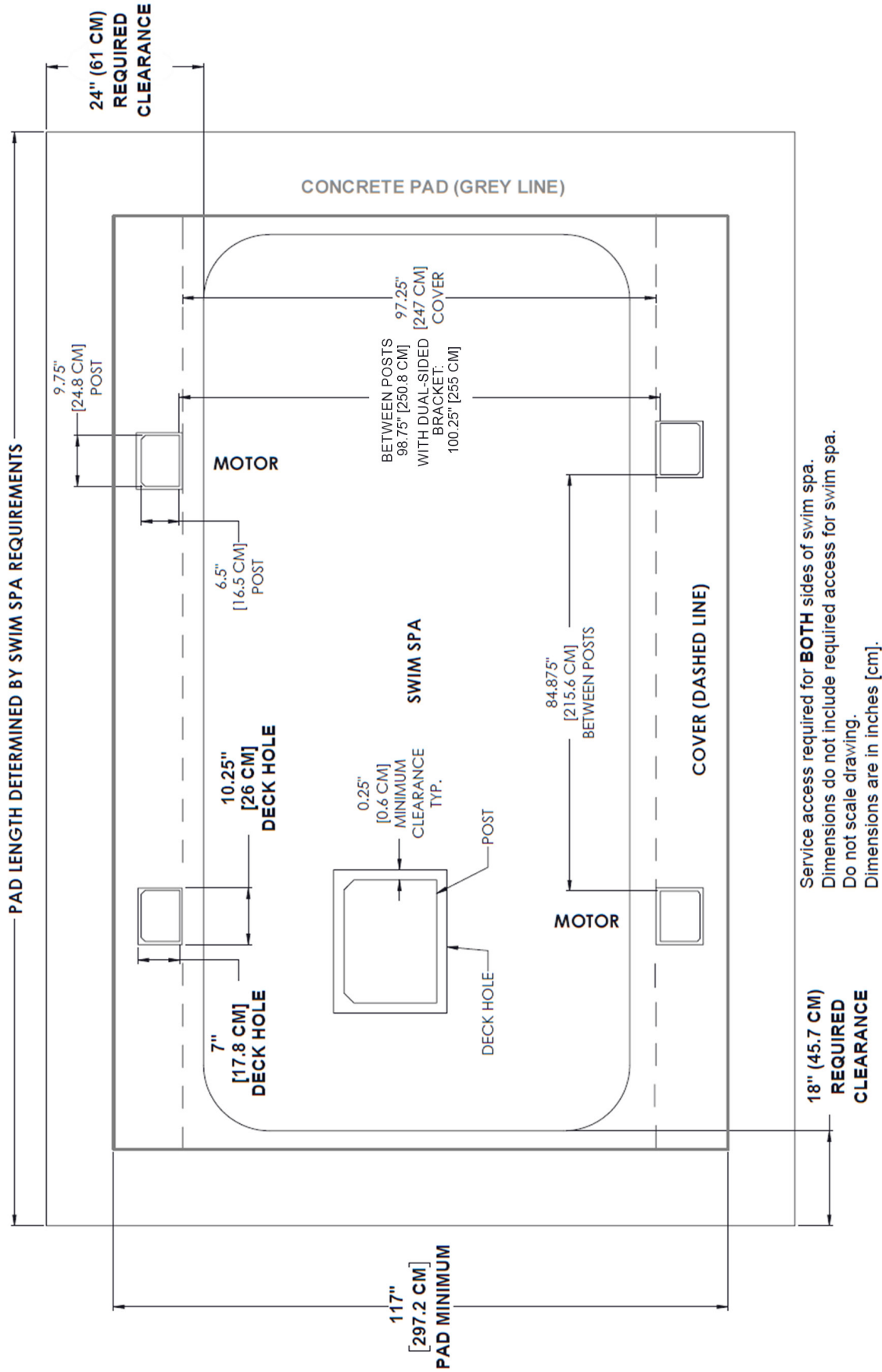
# TECHNICAL SPECIFICATIONS

# TECHNICAL SPECIFICATIONS

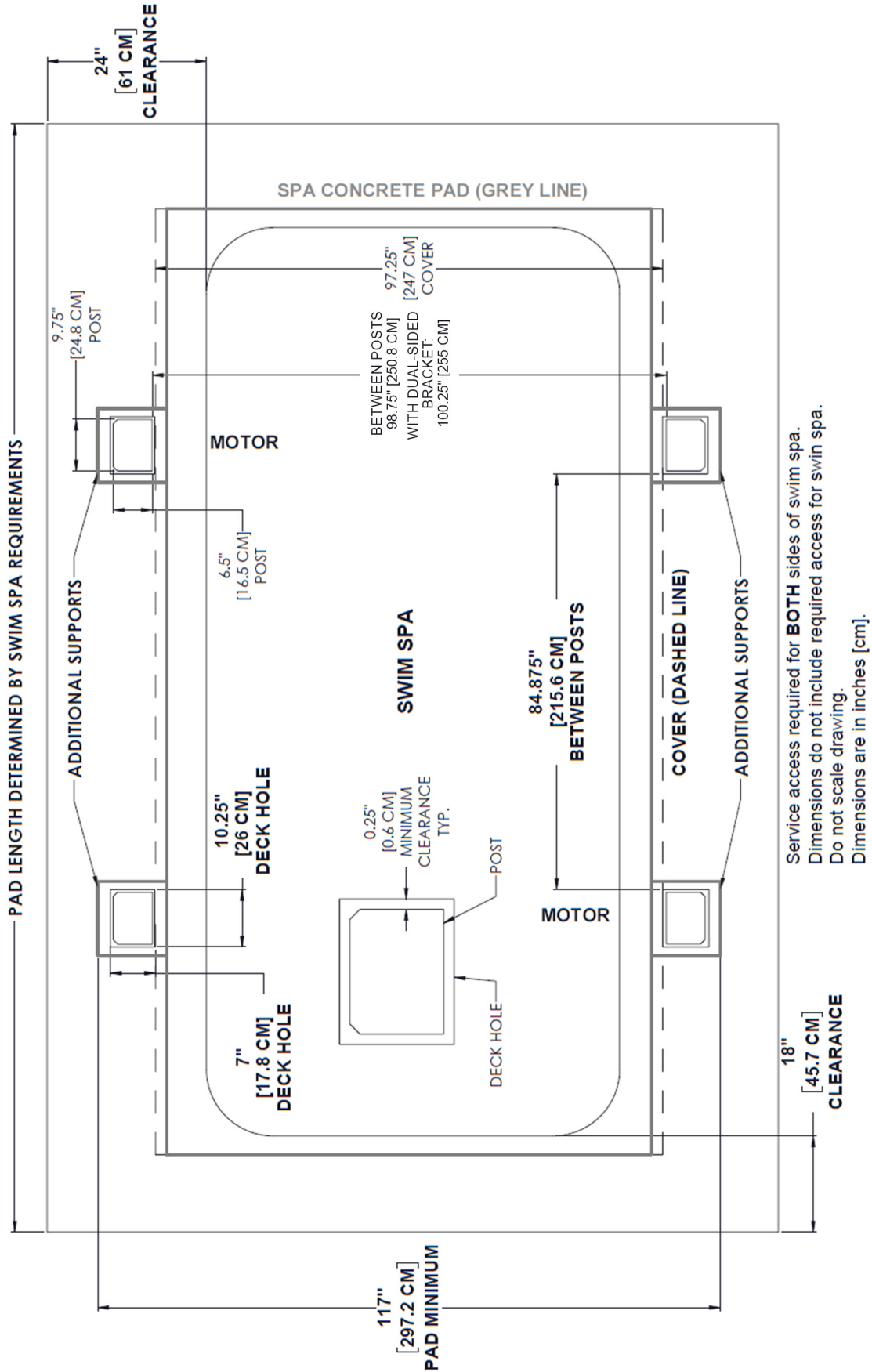
## COVER SIDE VIEW



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



### 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 (COVANA LEGEND BATTERY PACK)

Voltage	24 VDC System
Wall outlet voltage	115 VAC for charger North America (230 VAC European model)
Battery pack	2 x 12 VDC, 12 Ah, AGM sealed rechargeable lead-acid batteries

## 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

# TROUBLESHOOTING

PROBLEM	PROBABLE CAUSES	SOLUTIONS
The cover does not raise or lower (silent motor and no movement).	The GFCI is tripped.	Reset the GFCI.
	The power source is disconnected.	<ul style="list-style-type: none"> <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> </ul>
	Battery has low power.	Charge the battery
	Controller is in "lockout" mode.	Disconnect the battery for 60 seconds to reset the controller.

The cover does not raise or lower (motor humming and some visible movement).	Posts are frozen.	Use methanol to free ice buildup on posts.
	Jack assemblies are jammed.	Apply grease on the post assemblies.
	The motor is obstructed.	<ul style="list-style-type: none"> <li>• Hold the key in the problematic direction. If the cover moves in the opposite direction, this indicates a mechanical restriction (contact your local authorized Covana retailer).</li> <li>• If the cover does not move in the opposite direction, reset the lower limit of the cover.</li> </ul>
	Posts are obstructed.	<ul style="list-style-type: none"> <li>• Verify whether any posts are obstructed.</li> <li>• Verify the relative position of the four posts (see FOUNDATION PREPARATION).</li> </ul>
	The debris on the cover is too heavy.	Remove all the debris from the top of the cover.
If all previous attempts failed, contact your local authorized Covana retailer.		

The posts are not equally positioned.	Controller does not calculate the height properly.	Check for any flash alarm on the control box within a minute of the last activation.
	The chain skipped during operation.	Lower the cover and replace the chain.
	A spring pin at the bottom of a jack is broken.	Replace any missing or broken spring pin by lifting the outer sleeve, using an awl and a hammer.
	A drive shaft has fallen off.	Verify whether a drive shaft has fallen off and if it is the case, reinstall the shaft.
	Excessive weight on one side of the cover.	Remove all debris from the top of the cover.
If all previous attempts failed, contact your local authorized Covana retailer.		

The shades are loose, retracted improperly or disconnected from the brackets. The shades are wrinkling or bulging at the roller.	<ul style="list-style-type: none"> <li>• The internal spring is not wound enough.</li> <li>• Too much tension in the internal spring.</li> </ul>	<ul style="list-style-type: none"> <li>• Consult the Shade installation manual.</li> <li>• Remove the bottom rod and reset the tension back to "4 turns".</li> </ul>
	Holding brackets are not parallel.	Make sure the outer sleeves are sitting on the foot plate, reposition the holding brackets so the roller shade is moving straight.

PROBLEM	PROBABLE CAUSES	SOLUTIONS
The middle sleeve has gripped and might have dropped abruptly.	Posts are frozen.	Verify the position of the all-weather seal. While the cover is closed, it must be sitting on the top of the outer sleeve.
	Sleeves are misaligned.	<ul style="list-style-type: none"> <li>Reinstall the sleeves.</li> <li>Check level on 2 faces of the sleeve.</li> </ul>
	The stopper kit is broken/missing.	Check whether the stopper kit is broken/missing.
If all previous attempts failed, contact your local authorized Covana retailer.		

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>	Do not operate the cover.
	Contact your local authorized Covana retailer for technical support.	

Escape hatch doesn't open/close	Mechanism is jammed.	Refer to the USING THE ESCAPE HATCH section.
	Verify the position of the locking mechanism.	Remove the escape hatch from the underside of the cover and clean it to free the mechanism.
If all previous attempts failed, contact your local authorized Covana retailer.		

Cover seal turned black.	The seal has accumulated mold.	Clean the affected areas with bleach and a soft brush. Rinse well with water.
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MEANING OF LED ALARMS			
# OF FLASHES	DESCRIPTION	PROBABLE CAUSES	SOLUTIONS
1	Undervoltage	Occurs when the battery voltage is lower than the "Low Battery UP" parameter in the UP direction or when the battery voltage is lower than the "Low Battery DOWN" parameter in the DOWN direction.	Check the battery charge state. The alarm will be reset when to board is powered off and the key released.
2	Short circuit	Occurs if one of the gear motor cable is short-circuited.	Check the cables or motor status. The alarm will be reset when the board is powered off.
3	Enc. fail mot1	Occurs if one of the hall sensor cable (+ power, - power, ChA, ChB) of gear motor 1 is not connected or if the hall sensor board is broken after a delay settled in the "Time Enc. Fail" parameter.	
4	Enc. fail mot2	Occurs if one of the hall sensor cable (+ power, - power, ChA, ChB) of gear motor 2 is not connected or if the hall sensor board is broken after a delay settled in the "Time Enc. Fail" parameter.	







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)



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