

## PRODUCT MODELS

- C-EP Cover
- Legend Cover

## PURPOSE OF THE REPAIR PROCEDURE

This repair procedure should be performed if there is a leaking issue of the seals between the I-beams and the cover panels or for blistering or waterlogged panels on the C-EP or Legend swim spa cover. Contact Covana's Technical Support department to request the proper installation kit.

## PREPARATION

- Gather the required tools, as seen in the table at right.

*Version française à la page 12.*

### TOOLS REQUIRED

5/32" Allen key	Phillips screwdriver	Robertson screwdriver
Ratchet straps	Anti-seize lubricant	48" level
7/16" socket wrench and spanner		

### IF NOT DAMAGED, THE FOLLOWING PARTS MUST BE REUSED

End C-channels	Mounting brackets
Long C-channels	Joint support brackets
Short C-channels (except if new ones have been supplied)	

## ⚠ CAUTION

Do not use power tools, some parts are fragile and may break under too much torque.

## ⚠ WARNING

This procedure must be performed by a certified Covana installer.

**Never use the key switch while the cover is not attached to its posts.**

## STEP BY STEP PROCEDURE

### A- SEAL REMOVAL

Refer to the *Seal removal replacement procedure* (no. 245088) to remove the contour seal.

## ⚠ CAUTION

If parts of the previous cover are being reused, make sure that there is no glue residue left.

### B- FOAM SPACERS INSTALLATION

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

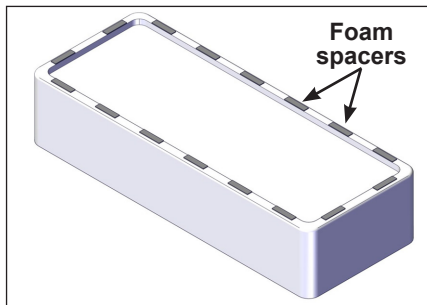


IMAGE 1

## ⚠ CAUTION

The foam spacers must be installed on the flat top surface of the spa.

- 2) Lower the cover onto the foam spacers.

## ⚠ WARNING

Make sure that the appropriate breaker is at off position in the electrical panel and keep the key out of the key switch socket at all times. The certified Covana installer must keep control of the key during the repair procedure. Derogation from this directive could cause serious injury or damage the cover.

### C- DETACHING COVER FROM POSTS

- 1) Use the Robertson screwdriver to remove the top cover by unscrewing both Robertson no. 8 self-drilling screws (see image 2).

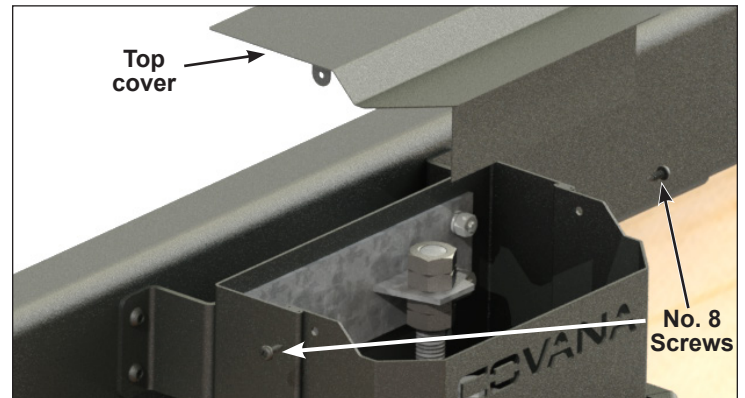


IMAGE 2

- 2) Use a 7/16" socket wrench and spanner to unfasten the sleeve from its cover mount bracket by unscrewing the four 1/4-20 x 3/4" carriage bolts, 1/4" lock washers, and 1/4" hex nuts (see image 3).

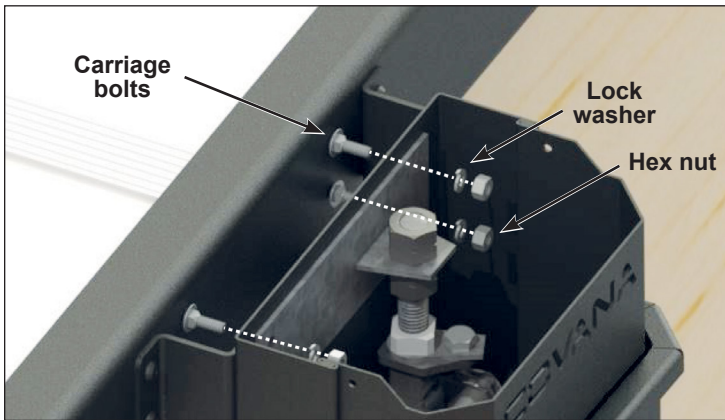


IMAGE 3

3) Repeat the previous steps for each post.

**D- DISASSEMBLING THE COVER**

1) Use a 5/32" Allen key to remove the 1/4-20 x 1" button head socket cap screws on each sleeve mounting bracket. Then use a no. 2 6" long Phillips screwdriver to remove the no. 10-24 x 1/2" round head Phillips cap screws on each joint support bracket. Remove the sleeve mounting brackets and joint support brackets, keep them for reinstallation (image 4, post not shown).

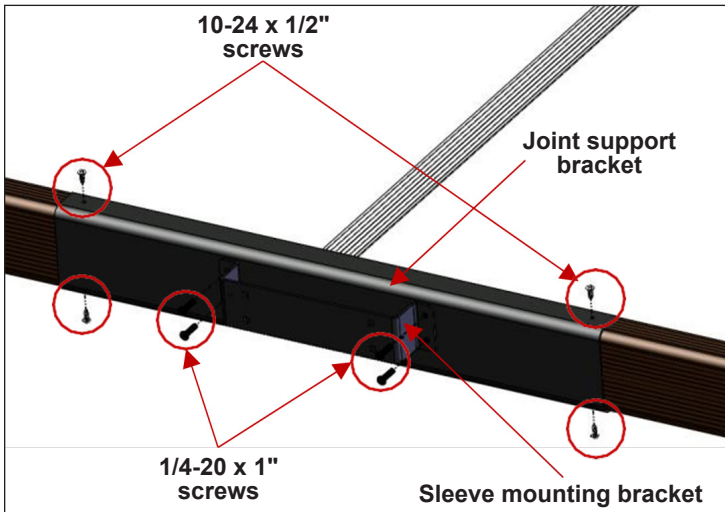


IMAGE 4

2) Use a no. 2 Phillips screwdriver to remove the no. 8-32 x 1/2" Phillips head thread cut screws. Remove the corner bracket support and outside corner bracket from each post.

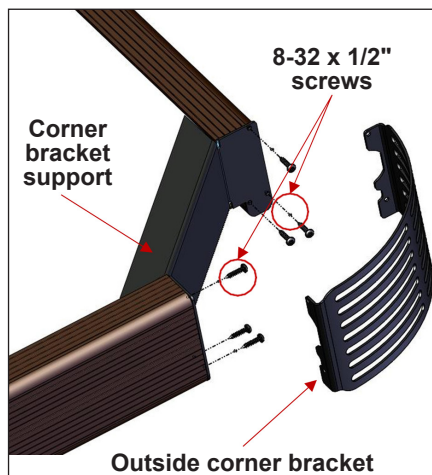


IMAGE 5

**NOTE**

Every screw shown in image 4 will be replaced by new ones. The corner bracket supports, outside corner brackets, and screws shown in image 5 will also be replaced by new ones.

- 3) Remove and discard the following parts from both sides of the cover:
- All panels;
  - I-beam assemblies with short connection plates;
  - I-beam assemblies with long connection plates.

The following parts must be reused if they are not damaged: End C-channels, long C-channels, joint support brackets, sleeve mounting brackets and short C- channels (except for 20' long Legend model that must be replaced).

**E- REASSEMBLING THE COVER**

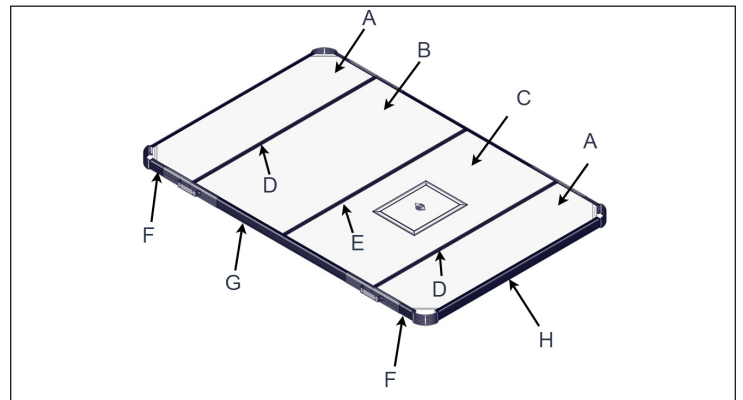


IMAGE 6

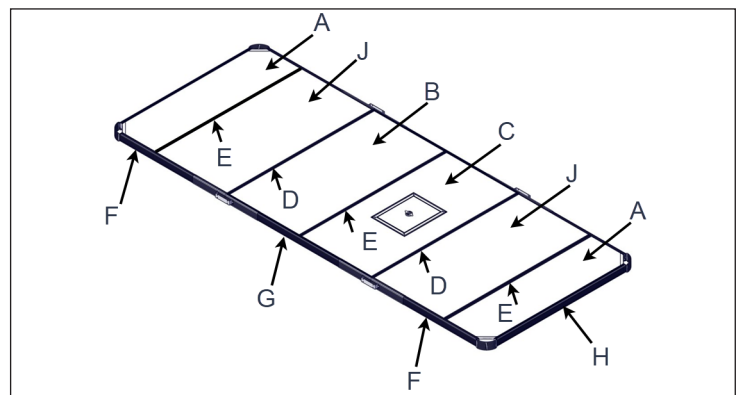


IMAGE 7

ID	DESCRIPTION	ID	DESCRIPTION
A	End panel	F	Side extension C-channel
B	Middle panel	G	Side middle C-channel
C	Middle panel with escape hatch	H	End C-channel
D	I-beam with I to C long connection plate	J	Extra panel
E	I-beam with I to C short connection plate		

**⚠ WARNING**

Do not overtighten the screws as they might break.

**F- I TO C PLATE INSTALLATION ON THE I-BEAMS**

- 1) Install an I to C long connection plate as shown in image 8. See the table following the image for the fasteners to use.

**NOTE**

The trimmed portion of the I to C-long connection plates must be oriented in the same direction as the bent part of the I to C bracket.

Do not forget to orientate the nut inserts of the connection plate facing inwards see image 8.

Make sure the label TOP/DESSUS in the I-beam is facing upwards.

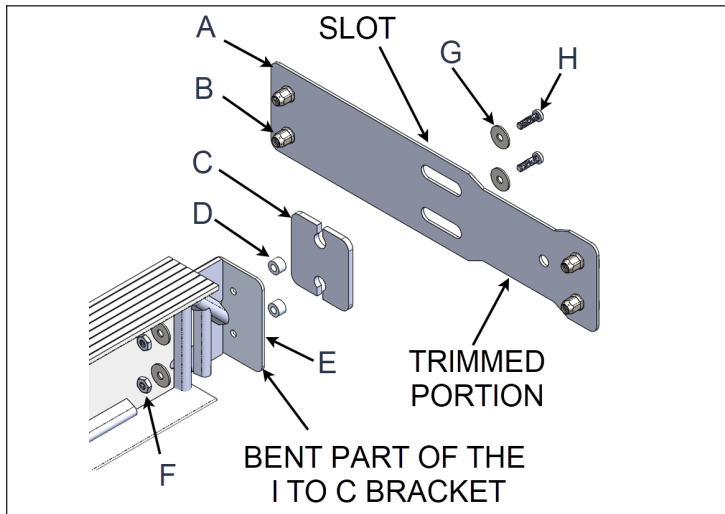


IMAGE 8

ID	DESCRIPTION	ID	DESCRIPTION
A	I to C long connection plate	E	I to C bracket
B	Insert	F	Nut no. 10-32
C	I to C spacer	G	Flat washer no. 10
D	Spacer	H	Screw no. 10-32 x 5/8"

**CAUTION**

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

Pay attention to the orientation of the trimmed portion of the I to C long connection plate.

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

Ensure the upright position of I-beam by ensuring the TOP/DESSUS label is pointed upwards.

Make sure there is grease in the inserts (item B, image 8) before installation; if not, apply 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, image 9) are in place between the I to C bracket and the I to C long connection plate.

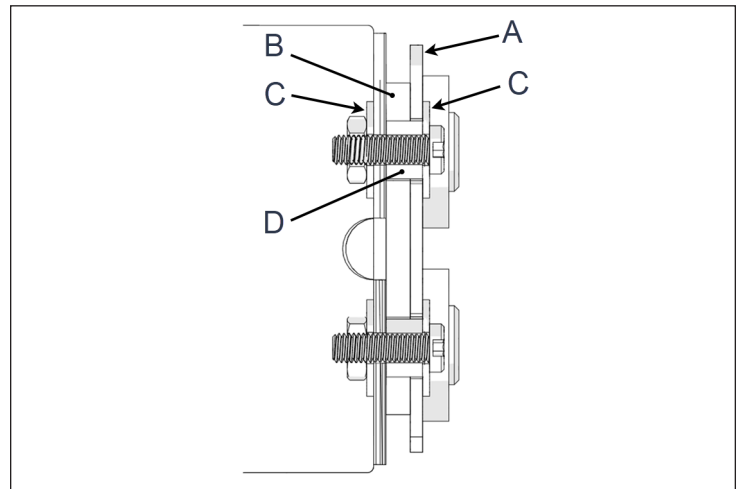


IMAGE 9

ID	DESCRIPTION
A	I to C long connection plate
B	I to C spacer
C	Flat washer no. 10
D	Spacer

**WARNING**

The orientation and the installation of each component shown in image 8 must be imperatively and exactly mounted as it is shown to successfully install the cover.

- 2) Repeat the previous steps for the opposite side of the I-beam and repeat on a second I-beam.
- 3) Use the no. 1/4" x 5/8" screws and 1/4" nuts. Insert the I to C spacer in between the I to C short connection plate and the bracket. The screws and nuts can now be properly tightened (see image 10).

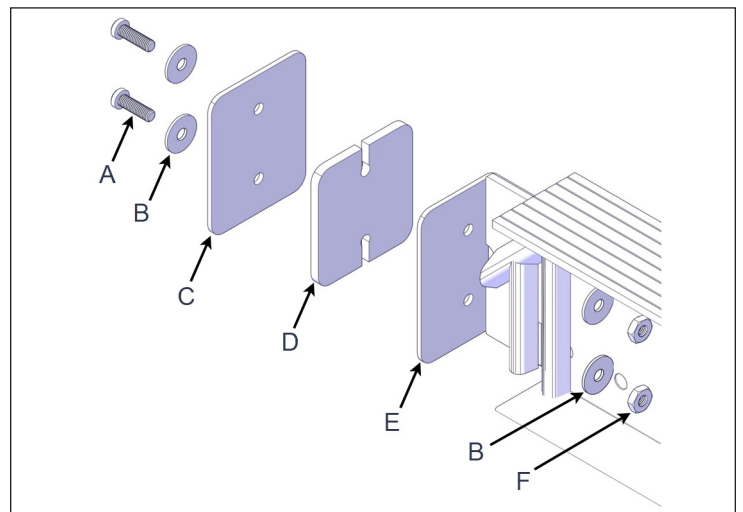


IMAGE 10

ID	DESCRIPTION	ID	DESCRIPTION
A	Screw 1/4" x 5/8"	D	I to C spacer
B	Flat washer 1/4"	E	Bent part of the I to C bracket
C	I to C short connection plate	F	Nut 1/4"

**G- PANEL INSTALLATION**

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

**⚠ CAUTION**

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

- 2) Install the escape hatch panel (approx. 47" x 96") onto the middle of the installation surface. Ensure the seal around the escape hatch opening is on the top and TOP/DESSUS label located in the panel hole is properly oriented.

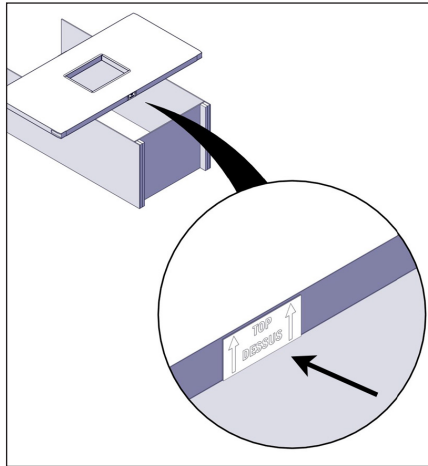


IMAGE 11

- 3) Install 2 long C-channels 94<sup>9</sup>/<sub>16</sub>" on the panel so that the middle of the C-channel, premarked with a center label (image 13), is aligned with the edge of the panel, see image 12.

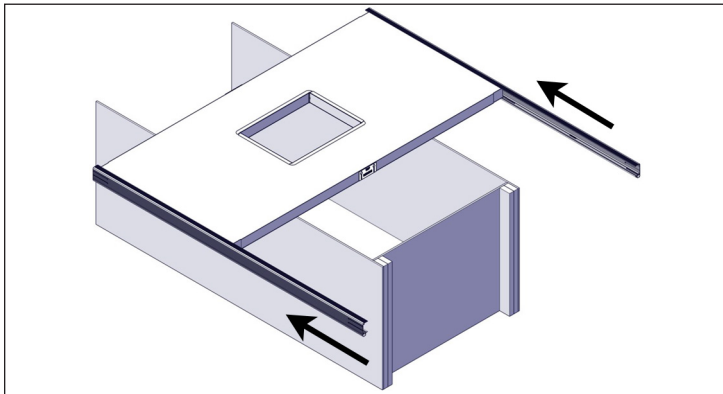


IMAGE 12

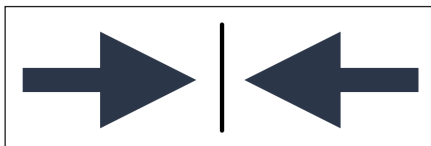


IMAGE 13

**⚠ WARNING**

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

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

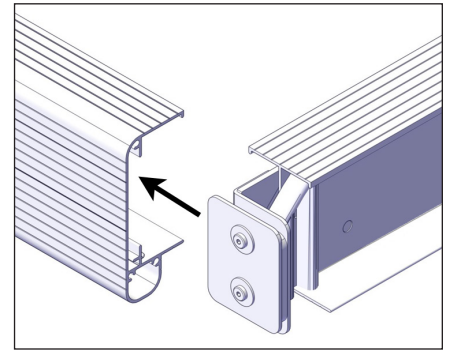


IMAGE 14

**⚠ CAUTION**

Ensure the upright position of the I-beam.

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

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

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

**⚠ CAUTION**

Ensure the proper insertion of the short I to C connection plate in the C-channel.

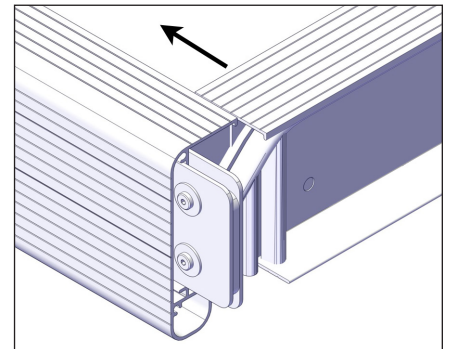


IMAGE 15

- 5) Slide the large panel (approx. 47" x 96") into the C-channels. Ensure the I-beam has slid over the panel on both the bottom and top side (image 16).

**⚠ CAUTION**

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

If you have a color panel, make sure the colored side is on top.

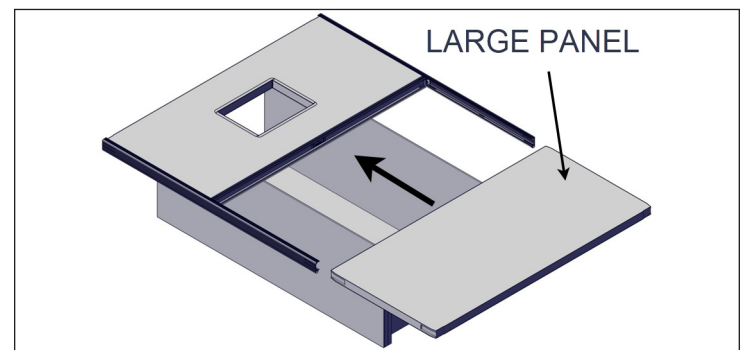


IMAGE 16



**⚠ WARNING**

Make sure the panel side with the cut out shown in image 17 is pointing outward. Note that in a leaking situation, the panel might not have the cut out, as the original panels of the unit will be re-used.

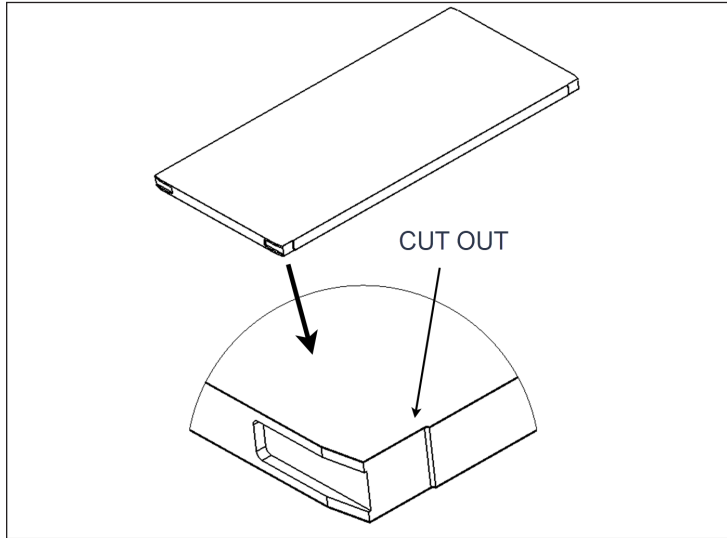


IMAGE 17

6) Install both I-beams with the long I to C connection plates. Ensure the trimmed portion of the I to C connection plate faces toward the end of the cover, see images 18 and 19.

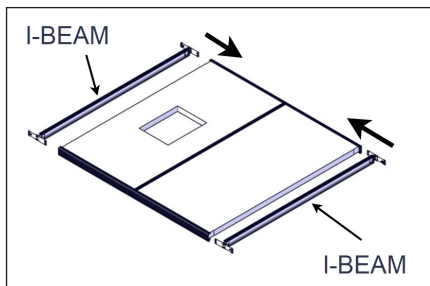


IMAGE 18

7) Align by hand the C-channels (left and right sides) in such a manner that the I to C connection plate holes are visible behind the C-channel.

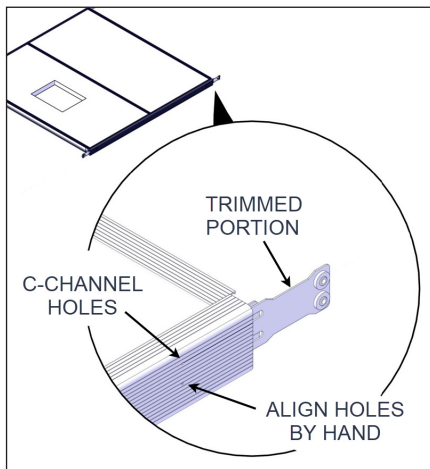


IMAGE 19

**⚠ WARNING**

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

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

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

- 8) Refer to image 20 for this step. Align the holes of the support bracket (item A), the holes of the post mount bracket (item D), and the holes of the long C-channel by hand. Assemble them with two 1/4" x 1" socket head screws. Tighten to a torque value of 5 ft-lb.
- 9) Repeat the previous step for the remaining brackets, see image 21.

**NOTE**

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

**⚠ WARNING**

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

**NOTE**

For some spas, optional dual side brackets (item B, image 20) are needed to mount the cover to the posts. The installation of these brackets is made the same way as for the post mount brackets described in the previous step.

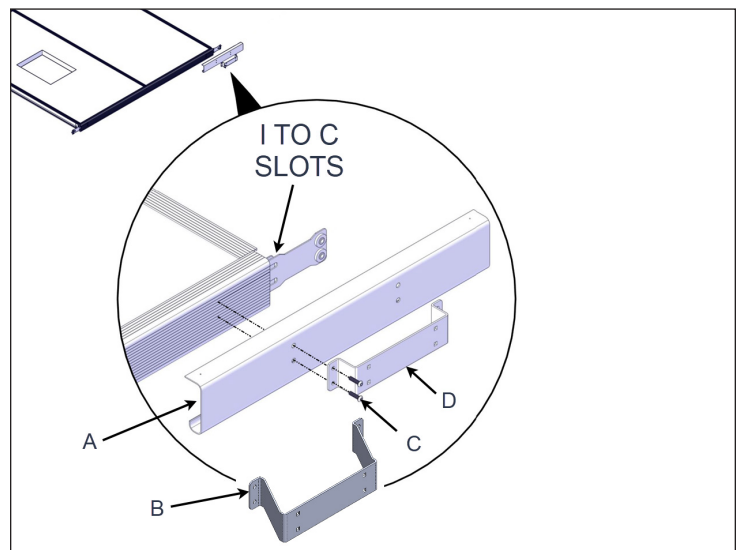


IMAGE 20

ID	DESCRIPTION	ID	DESCRIPTION
A	Support bracket	C	1/4-20 x 1" Soc rd head screw
B	Dual side bracket (optional)	D	Post mount bracket

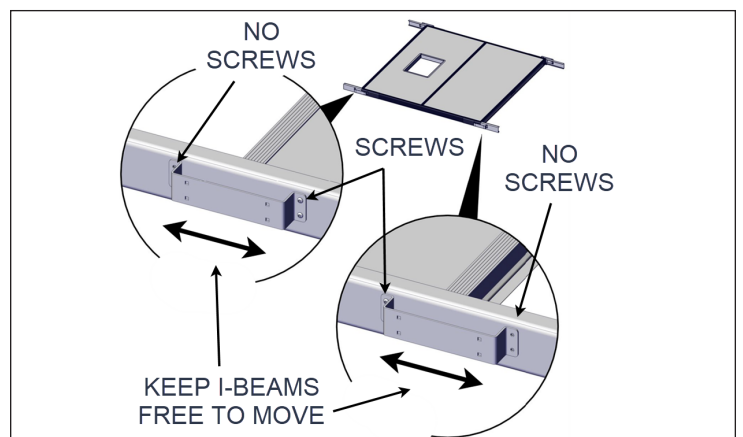


IMAGE 21

10) If it is not done yet, carefully position the assembled center section of the cover onto the middle of the spa. Try to align the cover as best as possible, see image 22.

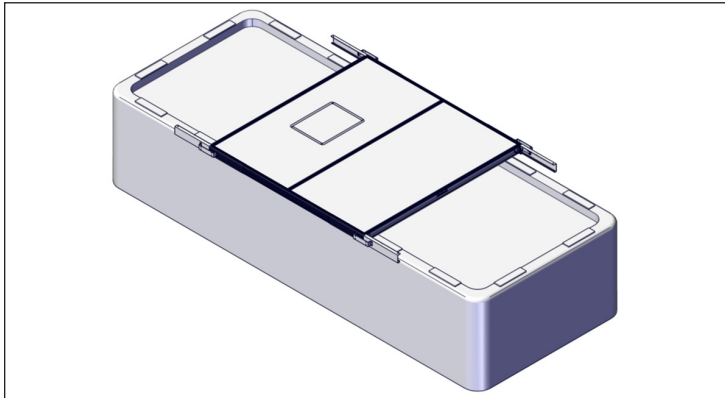


IMAGE 22

**⚠ CAUTION**

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

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

11) Insert the side extension C-channel inside the support bracket, see image 23.

**NOTE**

There are two slots at one end of the C-channels. The slots must go toward the cover see image 23.

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

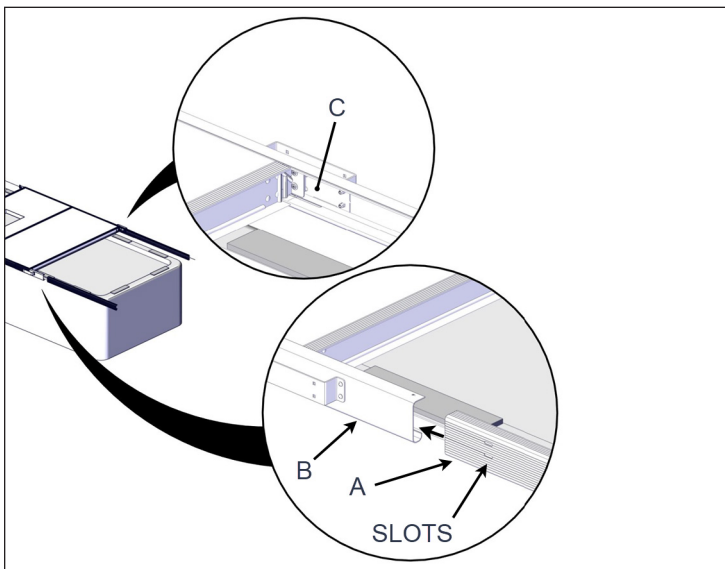


IMAGE 23

ID	DESCRIPTION	ID	DESCRIPTION
A	Side extension C-channel	C	I to C long connection plate
B	Support bracket		

12) Install two 1/4" x 1" hexagonal round head screws on the support bracket, see image 24. DO NOT tighten those screws yet. The side extension C-channel must be free to move in its slots.

**NOTE**

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

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

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

**⚠ WARNING**

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

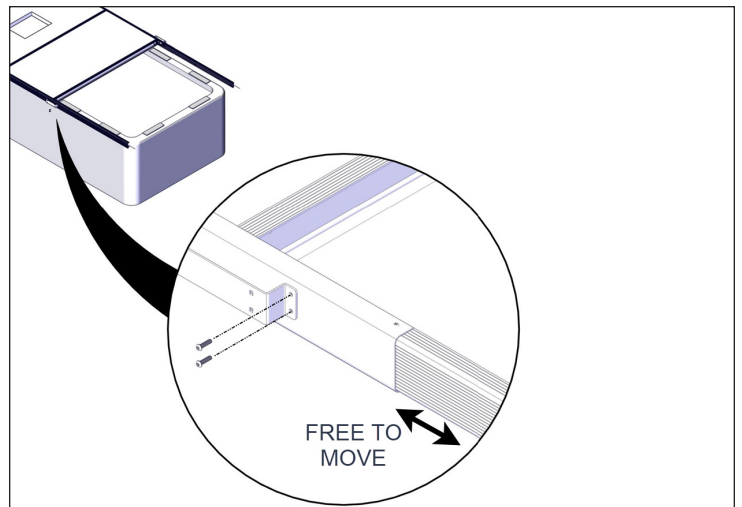


IMAGE 24

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

**SECTION FOR THE 16' TO 20' LONG SPA**

14) Slide in one of the remaining extra panels into the C-channels, see image 25.

**NOTE**

In a leaking situation, the panel might not have the cut out illustrated in image 25, as the original panels will be re-used.

**⚠ CAUTION**

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

If you have a color panel, make sure the colored side is on top.

**⚠ WARNING**

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

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

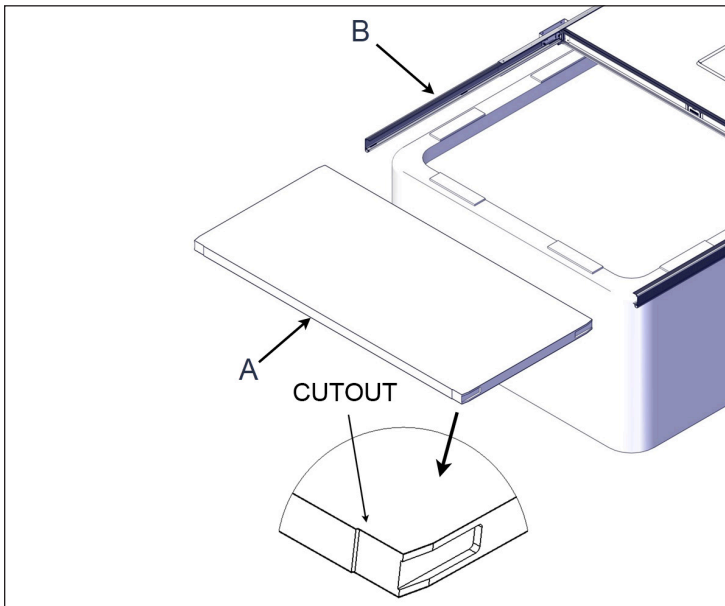


IMAGE 25

ID	DESCRIPTION	ID	DESCRIPTION
A	Extra rectangular panel	B	C-channel

**SECTION FOR ALL MODELS**

15) Slide an I-beam with the short I to C connection plates in the C-channels with the bent portion pointing outwards.

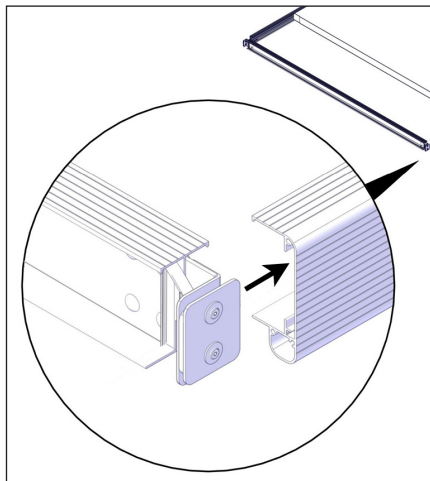


IMAGE 26

16) Insert one end panel with the tapered end toward the end of the cover. The end panel is tapered with a 45° cut.

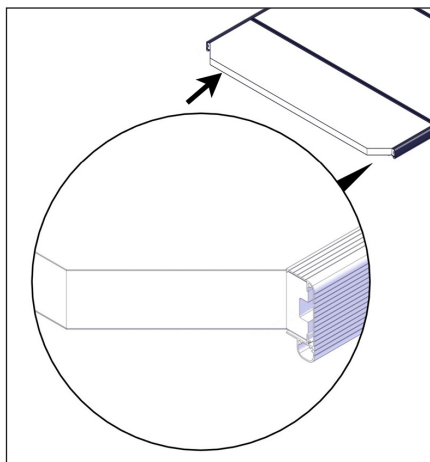


IMAGE 27

**⚠ CAUTION**

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

If you have a color panel, make sure the colored side is on top.

**⚠ WARNING**

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

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

17) For 16' to 20' models, repeat on the opposite side the steps in *SECTION FOR THE 16' TO 20' LONG SPA*.

18) For 12' to 20' models, repeat on the opposite side the steps in *SECTION FOR ALL MODELS*.

**H- END C-CHANNEL INSTALLATION**

1) Install the left and right corner brackets on each end C-channel by using a no. 2 Robertson screwdriver and the no. 8 x 1/2" self-tapping screw.

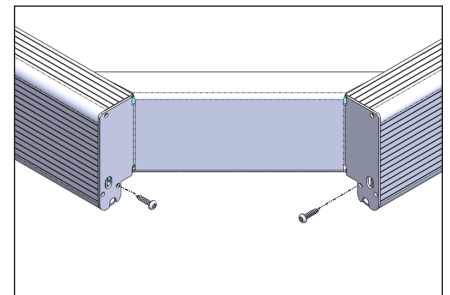


IMAGE 28

2) Use a 6" long no. 2 Robertson screwdriver to install the outside corner brackets using the no. 8 x 1/2" sheet metal screws.

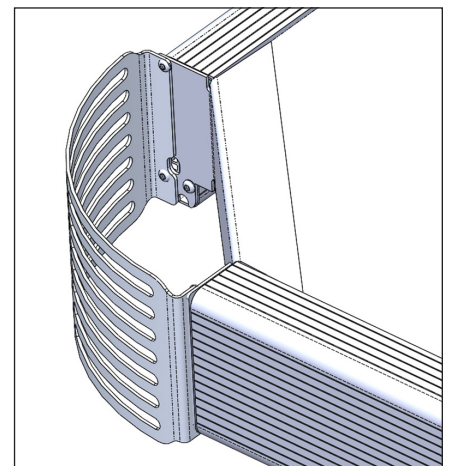


IMAGE 29

**⚠ WARNING**

Do not overtighten the screws as they might break.

**I- PANEL FINAL TIGHTENING**

- 1) Use the ratchet straps to compress the entire cover assembly (image 30) until you are left with a gap between the short C-channel and the middle C-channel between 1/16" and 3/16", see image 31.
- 2) While you are compressing the cover, make sure it stays as straight as possible by tightening both sides at the same time and is safely resting on the foam bumpers.

**⚠ CAUTION**

Use cardboard or a non-abrasive material to protect panels while using ratchet straps.

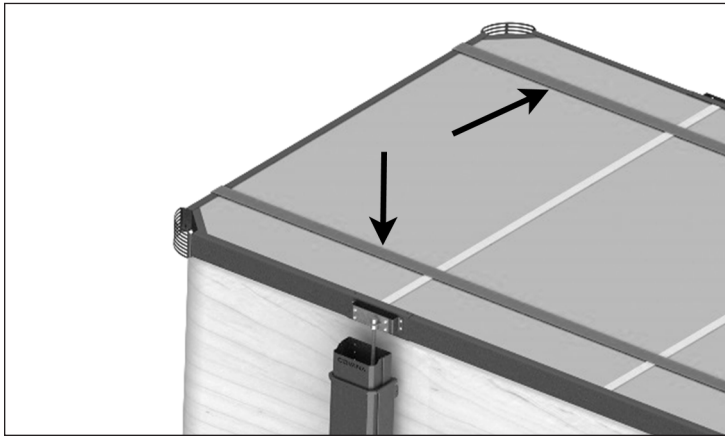
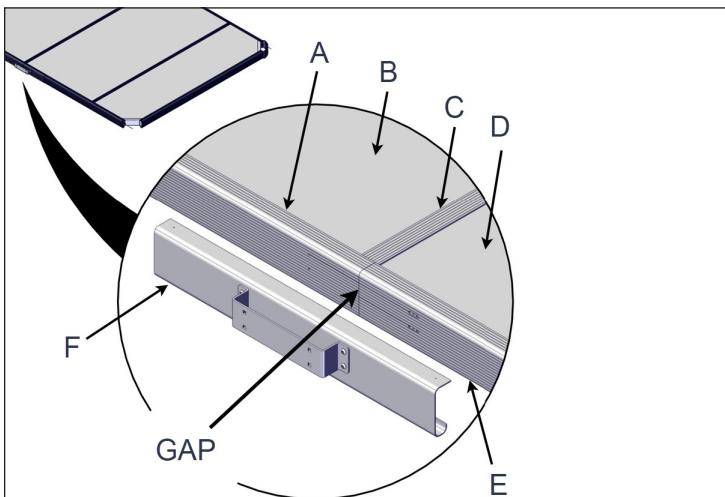


IMAGE 30

**⚠ WARNING**

Do not overtighten the straps. Overtightening might permanently damage the sealing components of the I-Beams and allow for water infiltration. Tighten slowly and stop when the gaps are between 1/16" and 3/16".

Make sure both end C-channel and all corner brackets are in place before tightening the straps.



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

IMAGE 31

ID	DESCRIPTION	ID	DESCRIPTION
A	Middle C-Channel	D	Extra or end panel
B	Middle panel	E	Extension C-Channel
C	I-Beam with I to C long connection plate	F	Support bracket

- 3) When you are satisfied with the required gap and the straps are secured, tighten both screws (5 ft-lb torque), see image 35.

**⚠ WARNING**

Do not remove or loose straps until the assembly is final.

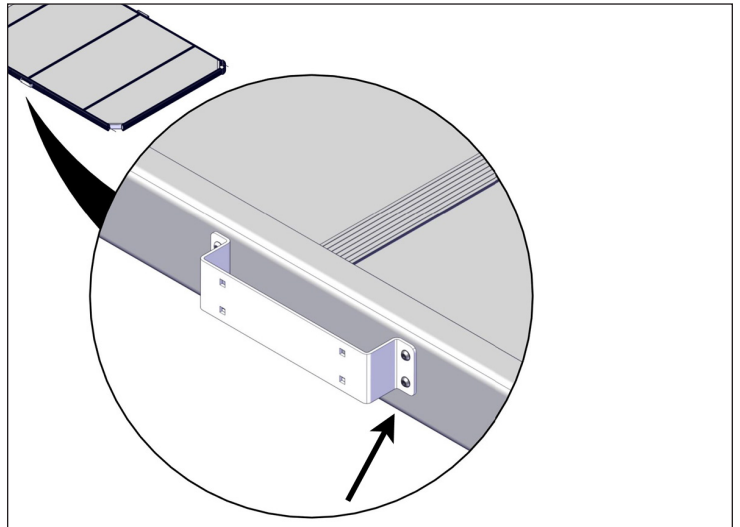


IMAGE 32

- 4) Repeat the previous steps for all remaining support brackets.
- 5) Next steps show how to drill holes to install the final screws on the support brackets. There are 4 holes to drill in the short support bracket (image 33) and 8 in the long support bracket (image 34).

**⚠ WARNING**

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

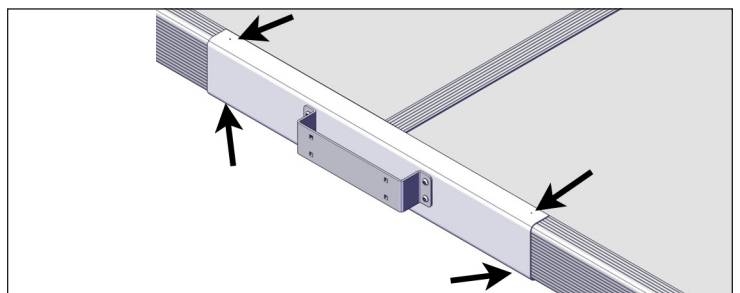


IMAGE 33



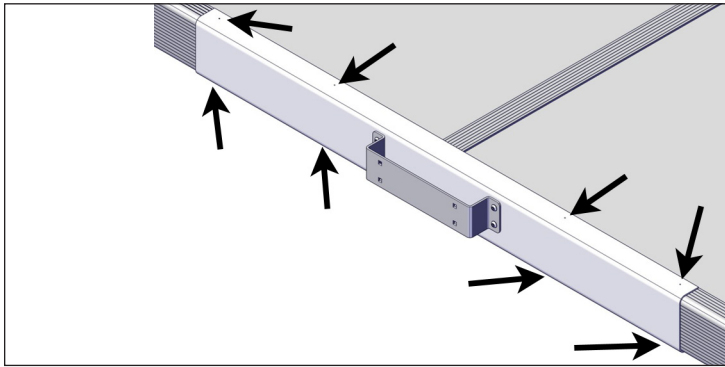


IMAGE 34

- 6) Use the provided 5/32" drill bit to drill the holes on the top and bottom of the support bracket. Use the pre-drilled holes in the support bracket as guidance.

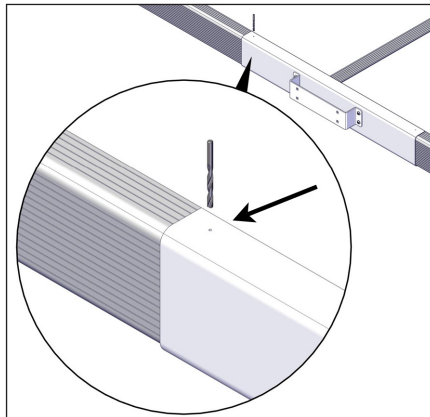


IMAGE 35

**⚠ CAUTION**

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

- 7) Install the painted Phillips no. 8 x 1/2" tapping screws at the bottom and top of the support bracket.

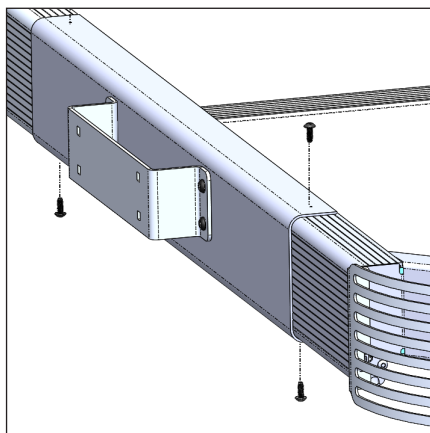


IMAGE 36

- 8) Repeat previous steps on the other corners.

**J- SLEEVE REINSTALLATION**

- 1) Slide the sleeves over the top of the jacks and fasten them using the 1/4-20 x 3/4" carriage bolts at the top with 1/4" lock washers and 1/4" nuts. Use a 7/16" socket wrench and spanner.

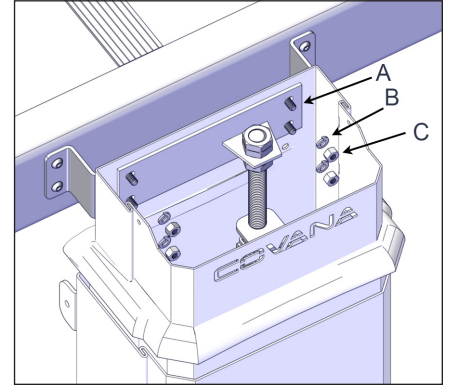


IMAGE 37

ID	DESCRIPTION
A	Carriage bolt 1/4-20 x 3/4"
B	Lock washer 1/4"
C	Nut 1/4-20

**⚠ CAUTION**

When sliding the sleeves over the jacks, ensure the slot at the bottom of the outer sleeve is going to slide over the U-frame that covers the drive shaft. There are left and right sleeves.

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

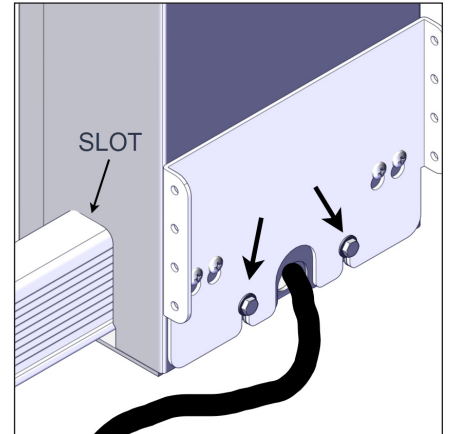


IMAGE 38

- 2) Use a 48" level to check if the posts are still level on both vertical axes. If not, unscrew the mount arms and reposition the sleeves. Use the outer sleeve as a reference.

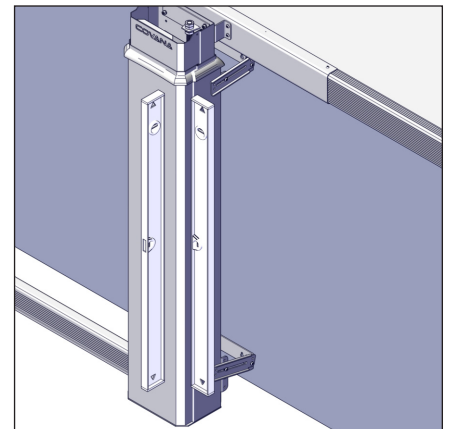


IMAGE 39

**⚠ WARNING**

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

- 3) Attach the top plate cover for all posts. Use the provided Robertson no. 8 x 1/2" self-drilling screws (2 per post).

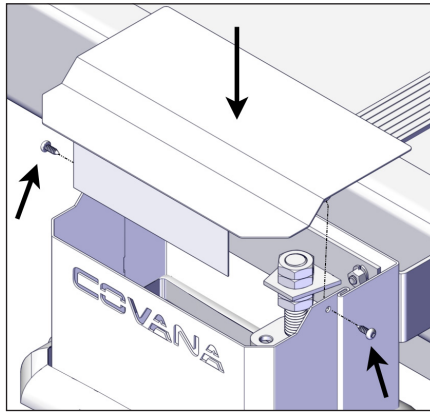


IMAGE 40

- 4) For all posts, slide the all-weather seals down. Ensure they are properly seated on the outer sleeve base. Push down on the seal as illustrated at right.

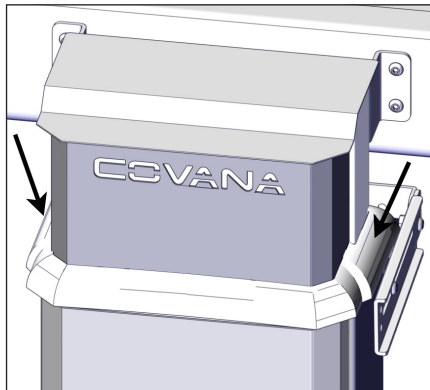


IMAGE 41

### ⚠️ WARNING

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

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

## K- TESTING THE COVER

### ⚠️ CAUTION

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

### ⚠️ WARNING

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

- 1) Put the power back on and the key back in its key switch socket. Ensure there are no objects directly above or in the path of the cover opening while performing this test. If there is, do not fully lift while performing the start-up procedure.
- 2) Use the key switch to lift the cover by approximately 8". Make sure the cover is lifted evenly (i.e., there are no corners higher than the others).

- 3) Bring the cover down again and ensure the cover is evenly seated on the pieces of foam all around the spa perimeter.
- 4) Lift the cover halfway up.
- 5) Check if the middle sleeves are free by sliding them up and down by hand. Test if the middle sleeve slides without scratching or interfering with the inner or outer sleeve. If all seems to function properly, lower the cover and check if the sleeves are level using a 48" level on both sides of the sleeves as illustrated in image 39.
- 6) Lift the cover all the way up (or as high as possible without objects obstructing the cover) and pay attention to any abnormal sound (metal grinding or knocking). If so, stop any movement, consult the Troubleshooting section of the Owner's manual and inspect all the systems.
- 7) Lower the cover and ensure it stops at the zero position and that it is evenly seated on the pieces of foam all around the spa perimeter.
- 8) Permanently mount the key switch at least 5 feet away from the spa and 5 feet above the deck or ground level (see Owner's manual *Position of the key switch* section). Ensure the user has a clear view of the cover when operating it. Cut the power when installing the key switch.

### ⚠️ WARNING

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

Failure to properly install the key switch according to these instructions will void the warranty and product certification.

### ⚠️ DANGER

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

## L- WIPER INSTALLATION

- 1) Lift the cover halfway up to proceed with the next steps. The next steps are important for minimizing water intrusion.

### ⚠️ CAUTION

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

Make sure the I-beams are dry and clean.

Make sure the ambient temperature is between 70 °F to 100 °F (21 °C to 38 °C) for the wiper installation.

- 2) Peel back the red siding of the double-sided tape of one wiper.

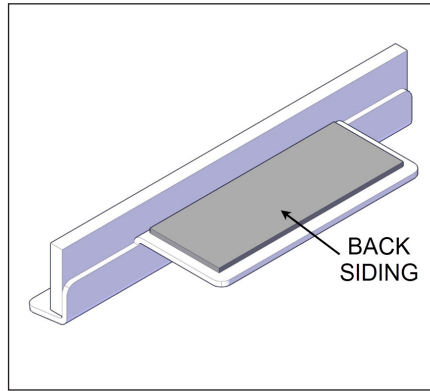


IMAGE 42

- 3) Under the cover, locate an I-beam and orientate the wide flap of the wiper outwards of the cover, see image 43.

**⚠ WARNING**

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

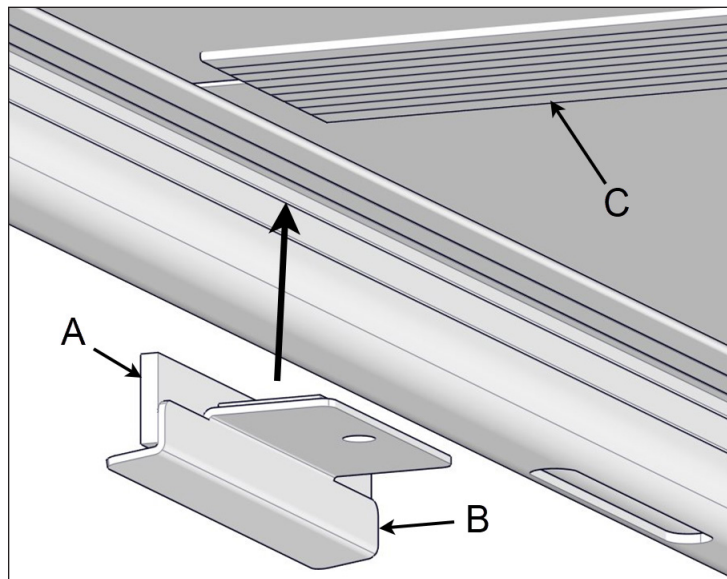


IMAGE 43

ID	DESCRIPTION
A	Flap
B	Wiper bracket
C	I-beam

**NOTE**

At the final position of the wiper, the flap must touch the edge of the I-beam.

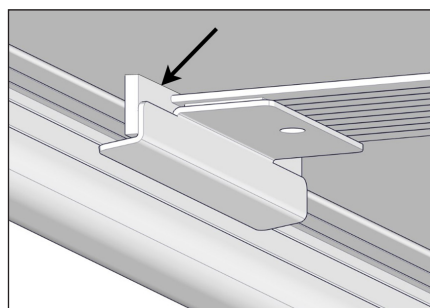


IMAGE 44

- 4) Stick the wiper bracket on the middle of the I-beam by holding it in place and maintaining pressure for at least 60 seconds. This ensures a proper bond to the I-beam. Make sure you install the wiper flap at the edge of the I-beam directly into the gap between the I-beam and the C-channel, see image 44.
- 5) Repeat previous steps for all I-beams on the left and right sides.

**M- SEAL INSTALLATION**

Refer to the *Seal removal replacement procedure* (no. 245088) or the Legend Owner's manual to install the new contour seal.