IMPORTANT NOTICE

New procedure: Cover assembly

COVANA

These steps replaces pages 23 to 35 of the installation manuel.

Cover assembly

⚠ WARNING

- Before assembling, keep in mind not to overtighten bolts. Power tools **must not** be used. The bolts will break under too much torque.

Note: The following figures represent the assembly of a 19' model. The number of panels may vary depending on the actual cover size you are assembling.

1) Attach the foam spacers to the top of the swim spa near each corner using the masking tape provided in the seal bag. There must be at least four foam spacers on each long side. Do not stack two pieces of foam high (Figure 1).

⚠ CAUTION

- The foam pieces must be placed on the flat top surface of the swim spa.

2) Assemble **two I to C-long connection plates per I-beam** as shown in Figure 2. Use 1/4-20 x 5/8" carriage bolts, 1/4-20 nuts, 1/4" flat stainless steel washer and 7/16" (11 mm) socket wrench and spanner. Insert the I to C spacer and washer between the I to C connection plate and the bracket. The carriage bolts and nuts can now be properly tightened. (Figure 2 & Figure 3).

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 place the inserts facing inwards (Figure 2 & Figure 4).

⚠ CAUTION

- Two I to C-long connection plates must be installed per I-beam.
- Pay attention to the orientation of the trimmed portion of the I to C-long connection plate.
- Ensure these bolts 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 sticker, shown in (Figure 5), is pointed upwards.
- Make sure there is grease in the insert before installing it; if not, apply some anti-seize lubricant for stainless steel in the inserts.
- Make sure the I-beam is free to move in the slots of the I to C long connection plate.
- Make sure the flat stainless steel washers are in place between the I to C spacer and the I to C-long connection plate. (figure 4)

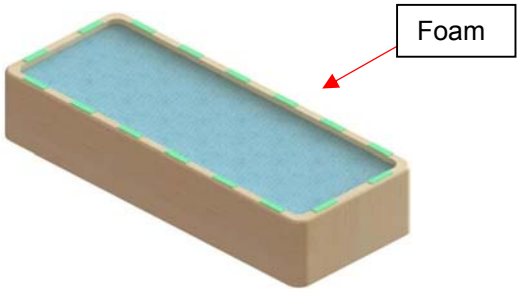


Figure 1

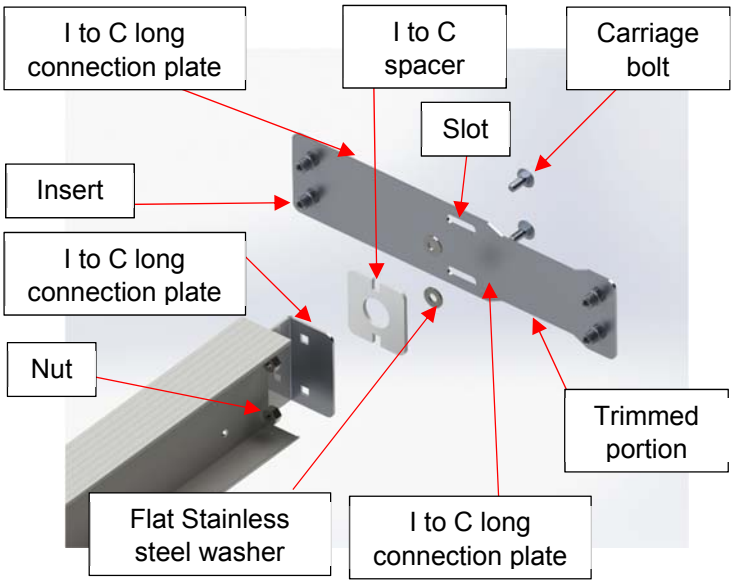


Figure 2

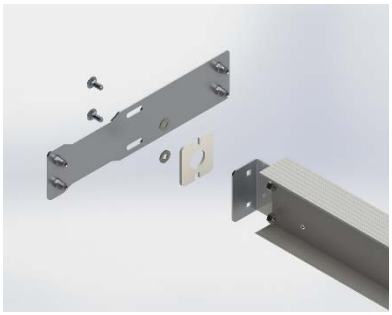


Figure 3

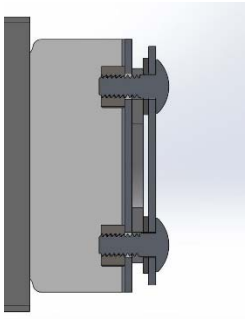


Figure 4

Figure 5

3) Repeat step 2 for a second assembly.

4) For models ranging from **12' to 15',** you will need to install **one** I-beam with **two short** I to C connection plates per I-beam. (Figure 6)

- Use 1/4-20 x 5/8" carriage bolts, 1/4-20 nuts and 7/16" (11 mm) socket wrench and spanner. Insert the I to C spacer in between the I to C connection plate and the bracket. The carriage bolts and nuts can now be properly tightened. (Figure 6).

⚠ CAUTION

- Two I to C connection plates must be installed per I-beam.
- Ensure these bolts and nuts are not overly tight so they don't bend the I to C-bracket and the I to C-long connection plate.

5) For models ranging from **16' to 20'** you will need to install **three** I-beams with **two short** I to C connection plates per I-beam (Figure 6).

- Use 1/4-20 x 5/8" carriage bolts, 1/4-20 nuts and 7/16" (11 mm) socket wrench and spanner. Insert the I to C spacer in between the I to C connection plate and the bracket. The carriage bolts and nuts can now be properly tightened. (Figure 6).

⚠ CAUTION

- Two I to C connection plates must be installed per I-beam.
- Ensure these bolts and nuts are not overly tight so they don't bend the I to C-bracket and the I to C-long connection plate.

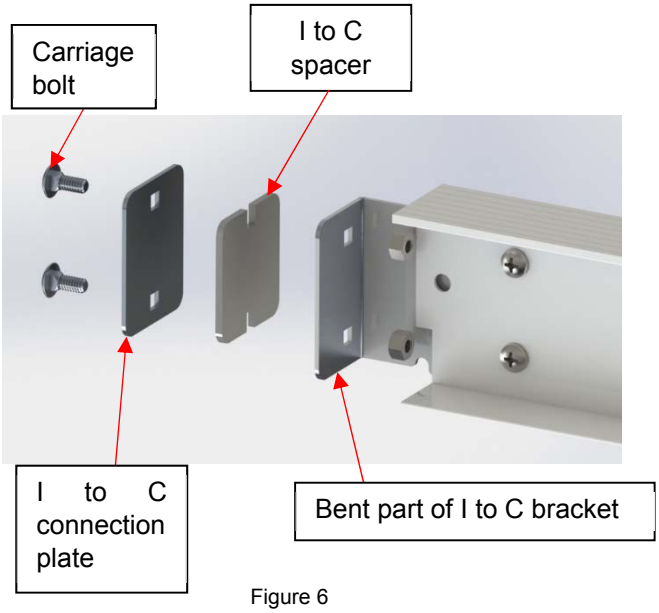


Figure 6

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

⚠CAUTION

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

7) Place the escape hatch panel (approx 47" x 96" [119 cm x 244 cm]) onto the middle of the installation surface. **Ensure the seal around the escape hatch opening is on top** (Figure 7) **and the top sticker located in the panel's hole is properly oriented** (Figure 8).

8) Assemble the long C-Channels, 94 9/16" (240 cm), over the previously placed panel so that the middle of the C-Channel, premarked with a center sticker (Figure 9), is aligned with the edge of the panel (Figure 7).

⚠ WARNING

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

9) Slide one I-beam with short I to C connection plates in the C-channels. Place the I-beam in such a manner where the bent portion of I to C bracket is pointing inwards (Figure 10). Ensure it fits snug with the foam panel. Ensure the sticker in the I-beam is pointing upwards (Figure 8).

⚠CAUTION

- Ensure the upright position of I-beam.
- Ensure the proper insertion of the short I to C connection plate in the C-channel (Figure 11).
- When inserting the I-beam into the fiberglass foam panel, ensure 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 is it always square with the C-channel.

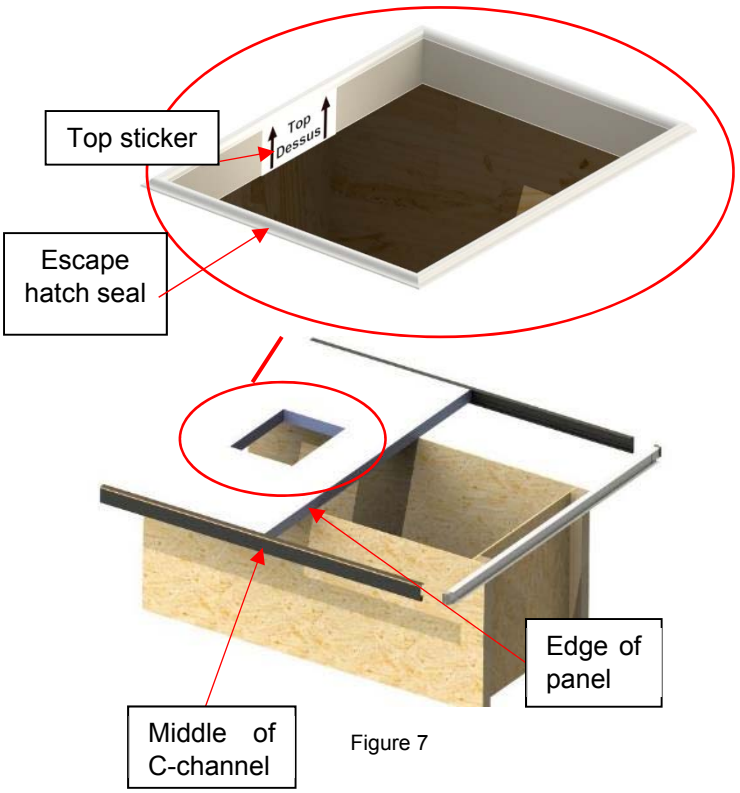


Figure 7

Figure 8

Figure 9

Figure 10

Figure 11

10) Slide the large (approx. 47” x 96” [119 cm x 243 cm]) panel into the C-channels. Ensure the I-beam has slid over the panel on both the bottom and top side (Figure 12).

⚠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.

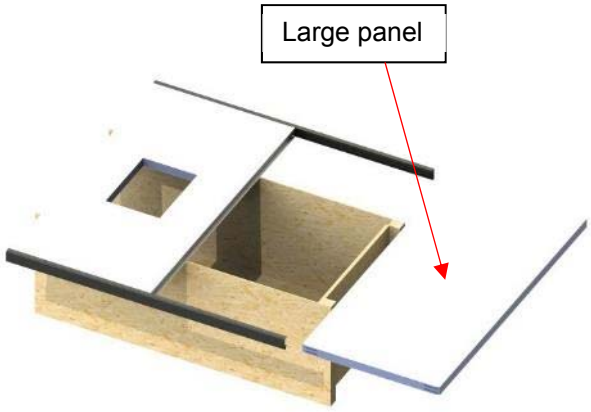


Figure 12

11) Install the 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 (Figure 13 and Figure 14).

⚠ WARNING

- Ensure I-beam is oriented toward the top as indicated by the sticker (Figure 8).
- When assembling the C-channel onto the foam panel, be careful not to delaminate the fiberglass.
- Make sure the I-beam has cleared the bottom and top section.

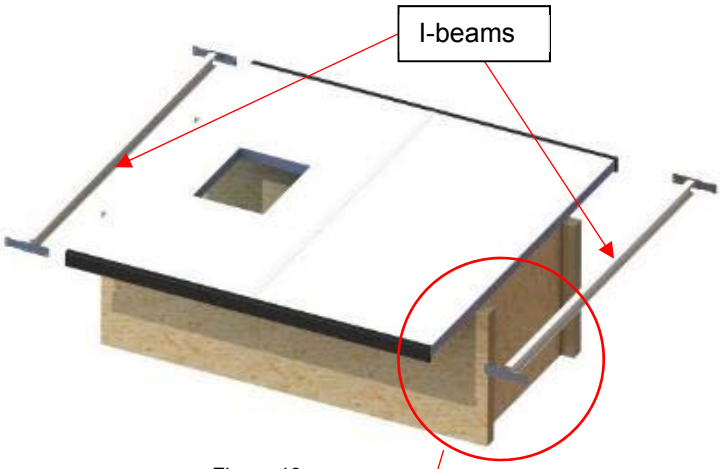


Figure 13

12) Align by hand the C-channels (left and right sides) in such a matter that the I to C connection plate holes are visible (Figure 14).

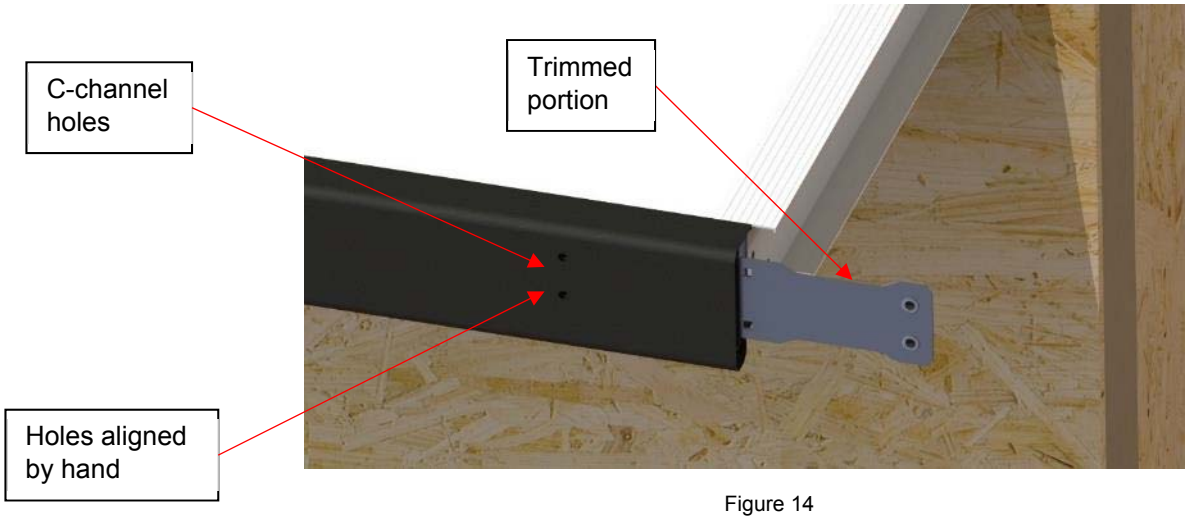


Figure 14

13) Align the holes of the support bracket, the post mount bracket and the C-channel by hand. Assemble them with the 1/4-20 x 1” hex drive rounded head screws (5/32” [4 mm]) (5 ft-lb torque). **DO NOT** install the bolts on the other end of the brackets yet (Figure 15).

⚠ WARNING

- Make sure the I-beam is still free to move in the I to C slots (figure 15).

Note: For some spa, optional dual side brackets 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 at step 13 (Figure 16).

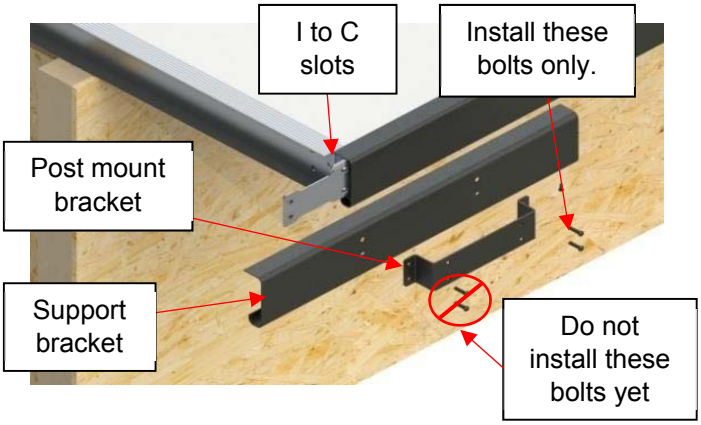


Figure 15

14) Repeat step 13 for the opposite side of the cover (Figure 17).

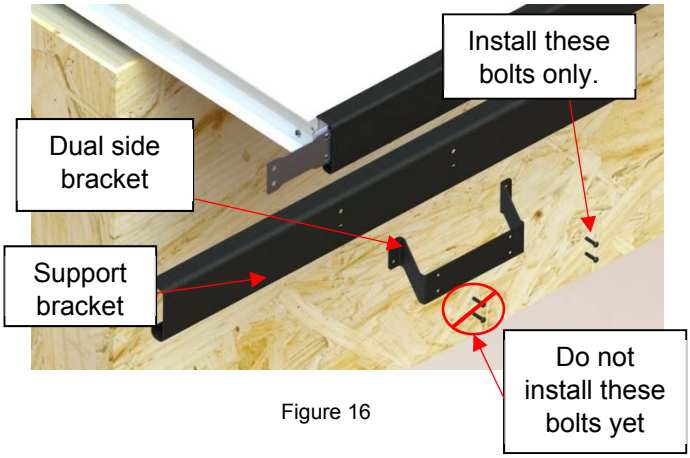


Figure 16

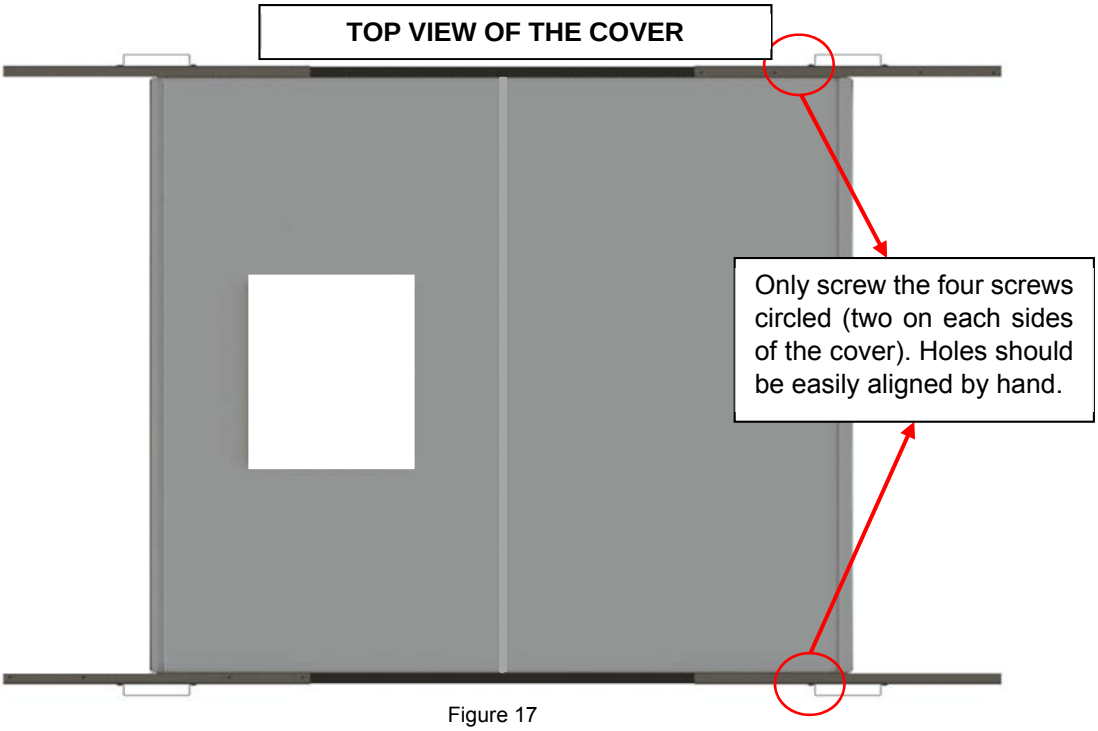


Figure 17

15) Assemble the support bracket at the other end of the cover (Figure 18).

16) Align the holes of the support bracket, the post mount bracket and the C-channel by hand. Assemble them with the 1/4-20 x 1” hex drive rounded head screws (5/32” [4 mm] [5 ft-lb torque]. Figure 18).

17) Repeat steps 15 and 16 for the opposite side of the cover (Figure 20).

18) Remove only the center stickers on the C-channels (Figure 19).

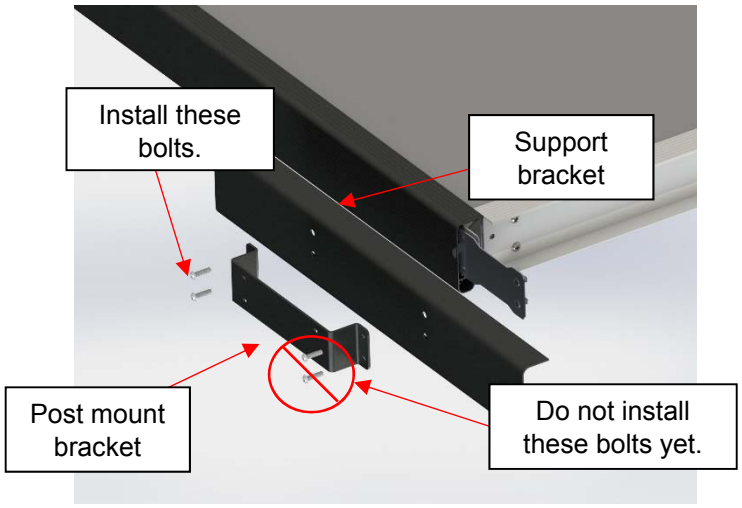


Figure 18

Figure 19

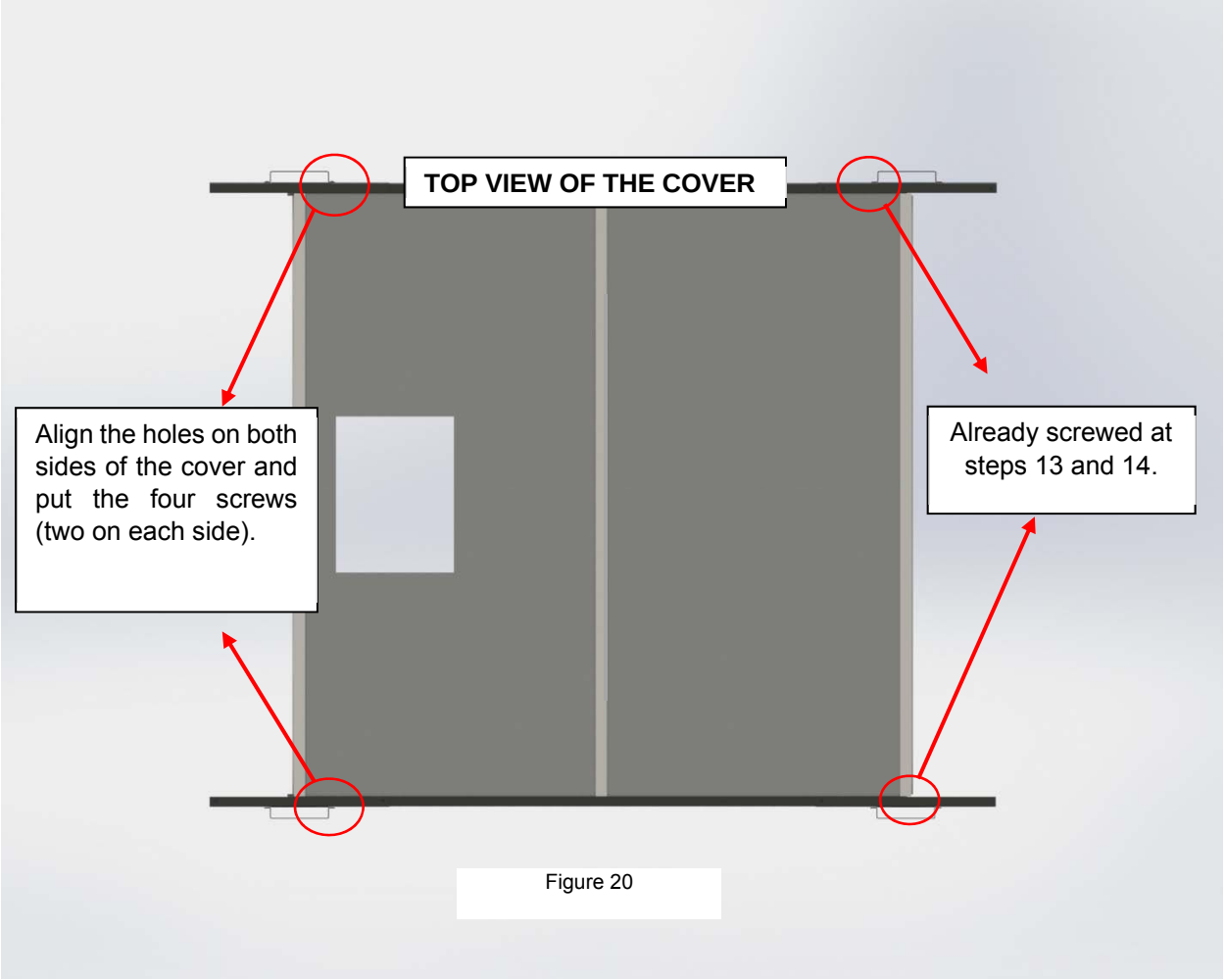


Figure 20

19) Carefully position the assembled center section of the cover onto the swim spa. Try to align the cover as best as possible.

⚠CAUTION

- Failure to gently position the cover onto the swim 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.

20) Insert the shortest C-Channel inside the support bracket. **Note:** There are **only** two holes at the end of these parts. The holes must go inwards toward the cover (Figure 21, Figure 22, Figure 23 and Figure 24).

Note: Ensure that the long I to C connection plate is well inserted into the short C-channel (Figure 23).

21) Install in the remaining Hex drive 1/4-20 x 1" rounded head screw on the support bracket. (5/32" [4 mm] drive) (Figure 24 and Figure 24A). **DO NOT** tight those screw yet. The C-Channel must be free to move in its slots

Note: Ensure that the bolts go through the end C-channel slots.

⚠ WARNING

Make sure the short C-Channel is free to move in its slots.

22) Repeat steps 20 and 21 for all four corners.

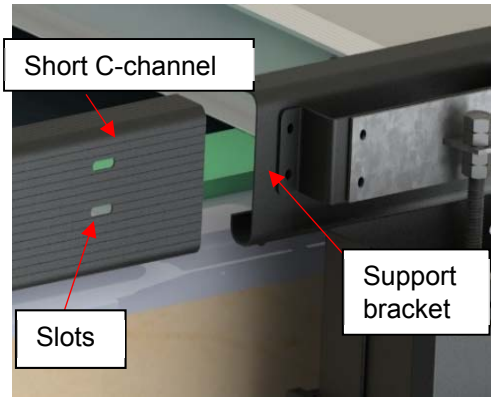


Figure 21

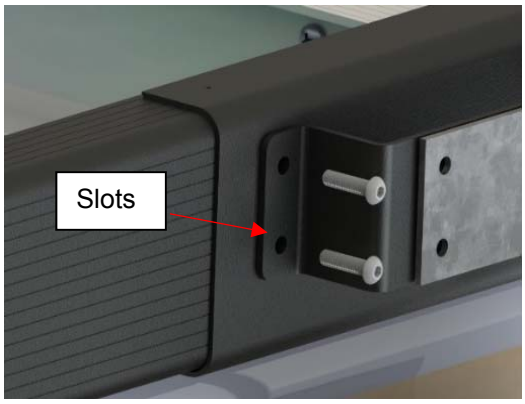


Figure 22

Figure 23

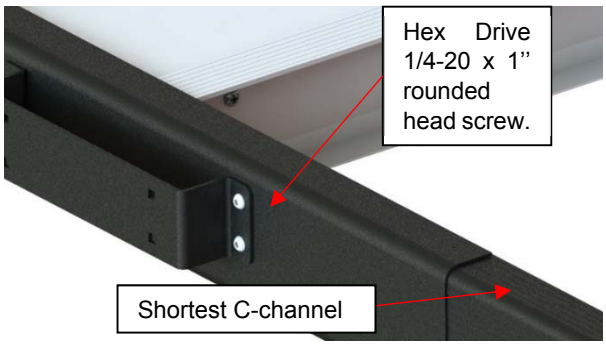


Figure 24A

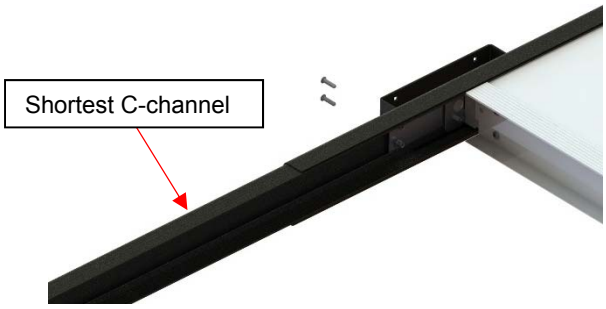


Figure 24

For models 12' to 15' only, go to step 26.

23) Slide in one of the remaining rectangular panels into the C-channels. (Figure 25)

⚠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.

24) Use the hammer block to ensure the panel is fully engaged in the I-beam. Gently strike the **center** of the block and ensure the block is continuously in contact with the panel edge (Figure 26). Strike the hammer block on each side of the panel for a better fit on the panel (Figure 26).

⚠WARNING

- Ensure the hammer block is properly fitted to the foam panel before striking. Failure to use the hammer block properly could break the lamination of the fiberglass panel (Figure26).

25) Slide the I-Beam with the short I to C connection plates in the C-Channels with the bent portion pointing inwards (Figure 27).

26) Insert one of the end panels with the tapered end toward the end of the cover. The end panels are tapered with a 45-degree cut. (Figure 28).

⚠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.

27) Use the hammer block to ensure the panel is fully engaged in the I-beam. Gently strike the **center** of the block and ensure the block is continuously in contact with the panel edge. (Figure 26)

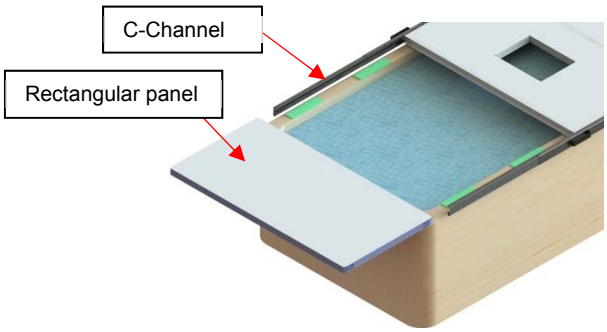


Figure 25

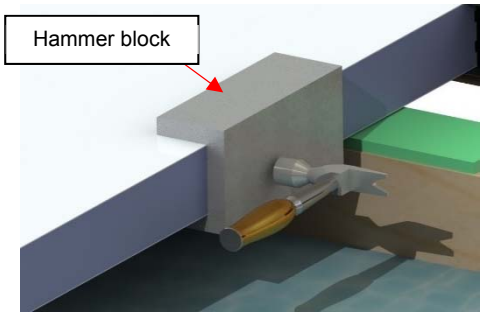


Figure 26

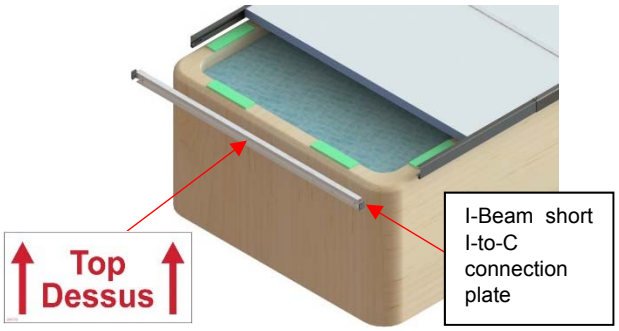


Figure 27

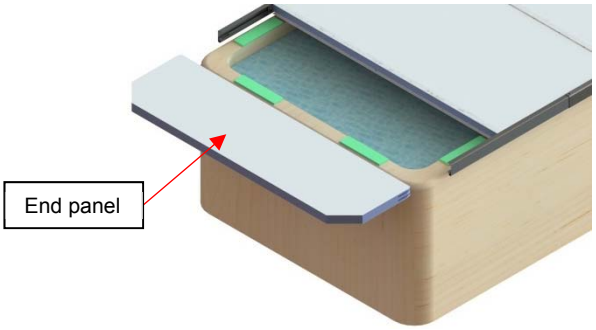


Figure 28

28) For models **12' to 15,** repete steps 26 to 27 on the other side.

For models **16' to 20'** repeat step 23 to 27 on the other side.

29) Insert the corner bracket on the tapered part of one end panel. Use the provided Robertson sheet metal #8 x 1/2" screws on the inside hole. **The two remaining holes will be used later** (Figure 29).

⚠WARNING

- Do not overtighten the screws as they might break.

30) Snap on the remaining side C-channels, 83" (210 cm) at one end of the cover. It is recommended to slightly engage the top flange before the bottom when sliding the C-channel onto the foam panel (Figure 30).

31) Screw in the Robertson sheet metal #8 x 1/2" screw in the inner hole of the corner bracket reinstall the (Figure 30).

⚠WARNING

- Do not overtighten the screws as they might break.

32) Orient the corner cover piece and screw it in completely with the last two screws on the side toward the center of the cover. Use the Robertson sheet metal #8 x 1/2" screws. (Figure 31)

⚠WARNING

- Do not overtighten the screws as they might break.

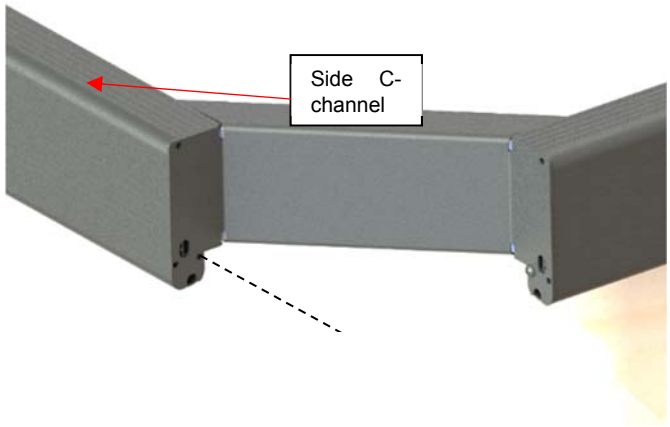


Figure 29

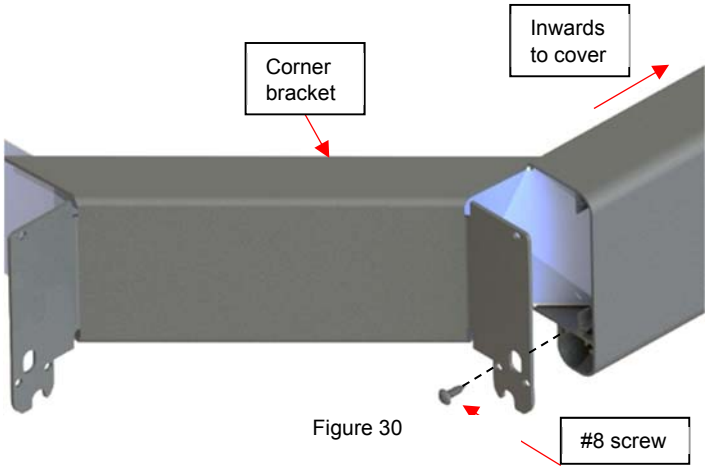


Figure 30

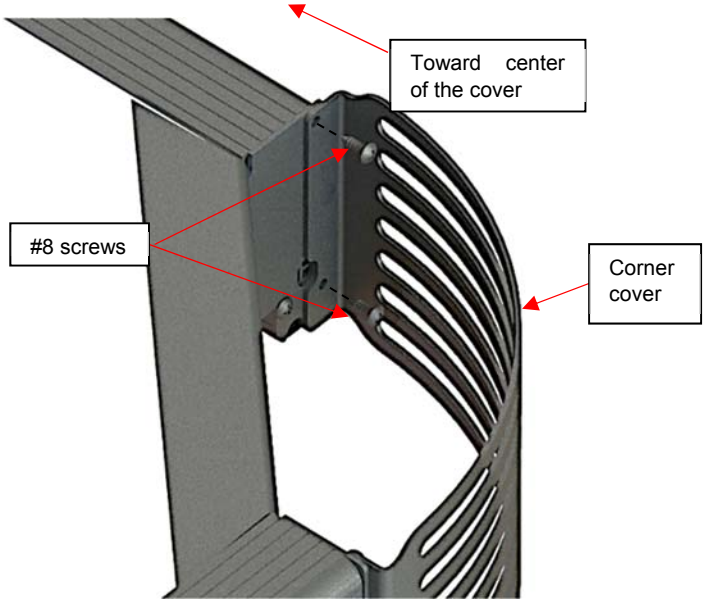


Figure 31

33) Fasten the Robertson sheet metal #8 x 1/2" screws that hold the side C-channel (Figure32).

Note: If the gap between the corner bracket and side C-channel is too large, try bringing the two parts closer by hand before fully screwing.

⚠WARNING

- Do not overtighten the screws as they might break.

34) Repeat steps 24 to 33 for all four corners.

Note: The Side C-channel will be already in place from the opposite sides when installing the other corner brackets.

35) Use the rachet straps to compress the entire cover assembly (Figure 33). Until you are left with a gap between the short C-channel and the middle C-channel between 1/16'' and 3/16" (Figure 34 and 35).

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.

⚠WARNING

Do not over tightening the straps. Over tightening 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''. (Figure 34 and Figure 35)

⚠WARNING

Make sure both end c-channel and all corner brackets are in place before tighten the straps

36) When you are satisfied with the required gap and the straps are secured, tighten the two bolts (5 ft-lb torque) (figure 36) Repeat for all four posts assemblies (figure 37)

⚠ WARNING

DO NOT remove or loose straps until the assembly is final.

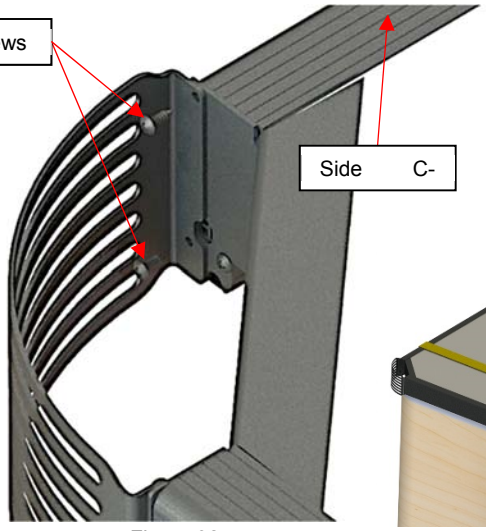


Figure 32

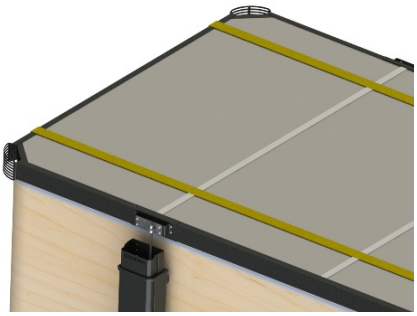


Figure 33

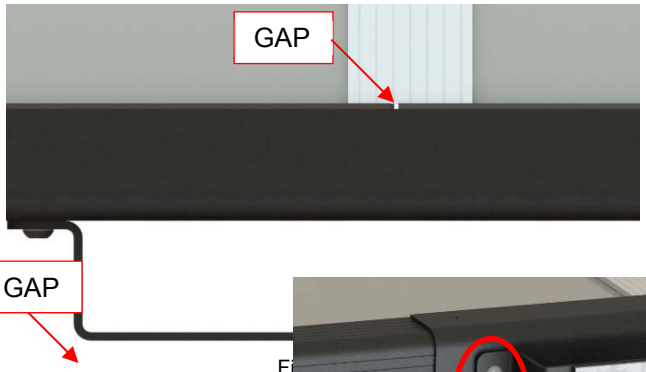
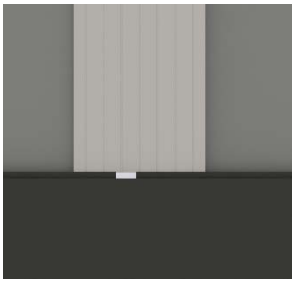


Figure 36



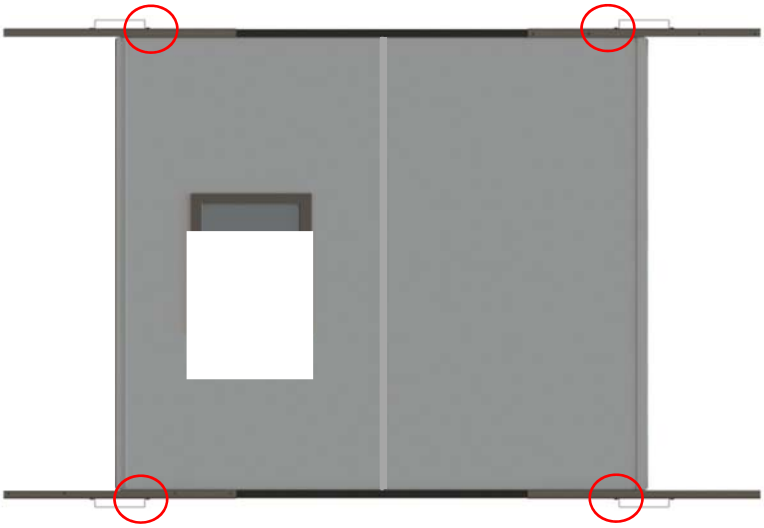


Figure 37

37) Use the provided 5/32” drill bit to drill the holes on the top and bottom of the support bracket (four holes per bracket) (Figure 38 and Figure 39). Use the pre-drilled holes in the support bracket as guidance.

NOTE: Models with long support brackets (approx. 42’’ [1,066 mm]) have eight holes per support bracket.

⚠CAUTION

- Do not drill the foam panel; only drill through the metal.
- Be careful while cleaning holes; metal chips might scratch the painted parts.
- The paint on the aluminum frame is fragile.

⚠WARNING

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

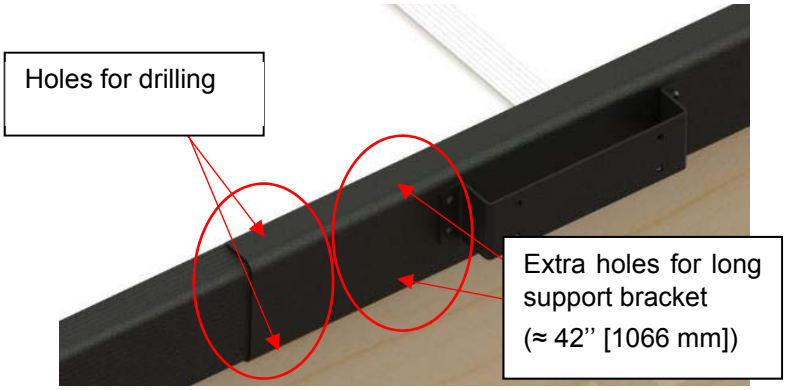


Figure 38

38) Screw in the painted Phillips 10–24 x 1/2” thread cutting screws at the bottom and top of the support bracket (four screws per bracket) (Figure 40).

NOTE: Models with long support brackets (approx. 42’’ [1,066 mm]) have eight screws per support bracket

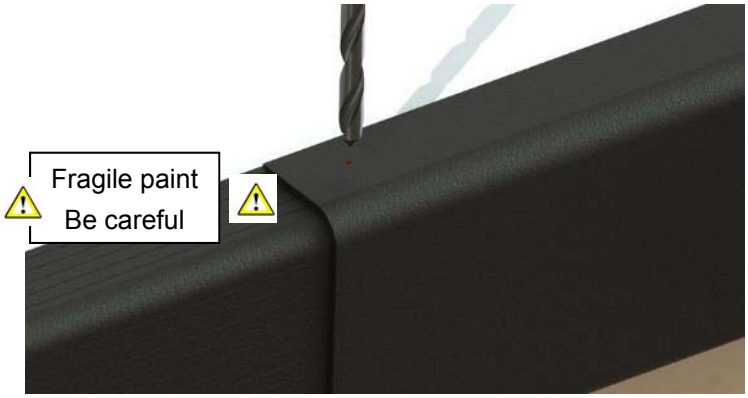


Figure 39

39) Repeat steps 37 and 38 for all four support brackets.

40) Remove the straps, once all screws are in place.

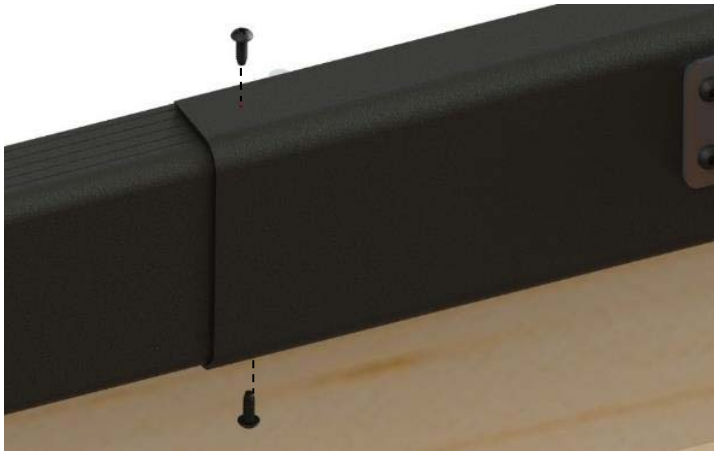


Figure 40

41) Turn the escape hatch handle to retract the arms and install it into the escape hatch opening of the center panel (Figure 41)

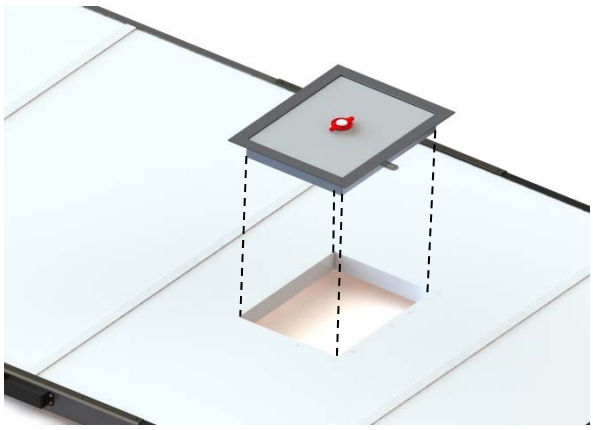


Figure 41

⚠CAUTION

- Verify the functionality of the escape hatch's release mechanism prior to installation and before use. Please ensure that the hatch's arms are retracted when open and non-retracted when closed (Figure 42).

⚠WARNING

- Failure to install the escape hatch properly may impede the performance of the COVANA cover, such as vapor leakage, water infiltration and unwanted access to swim spa.
- All security risks such as drowning, injury or undesired entry due to an open COVANA cover without an escape hatch installed are not approved by COVANA and product certification will be void.

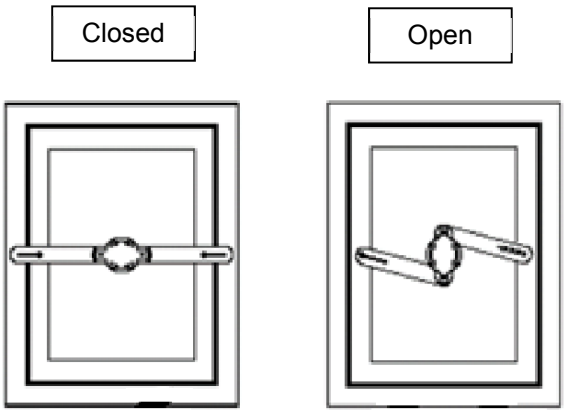


Figure 42