COVANA

MEMBER OF THE CANIMEX Group

GAS SPRING REPLACEMENT ON THE NON-MOTOR JACK (LEGEND)

Date: Feb/28/2019	RPL005-CA-233218	Rev.: 0

PRODUCT MODELS INVOLVED

This repair procedure involves the following product:

- Legend 12 to 20 feet long models.

PURPOSE OF THE REPAIR PROCEDURE

This repair procedure must be applied when the replacement of a gas spring for a non-motor jack assembly is need on the COVANA Legend spa cover.

TOOLS NEEDED

The following tools recommended by the repair procedure are:

- 1 X 5/32 in (4 mm) Allen key
- 1 X 7/16 in (11 mm) spanner
- 1 X 7/16 in (11 mm) socket wrench
- 1 X ½ in (13 mm) spanner
- 1 X ½ in (13 mm) socket wrench
- 1 X Adjustable wrench
- 1 X 48 in (122 cm) level
- 1 X Robertson screws driver
- 1 X Vise grip
- 1 X Heat gun
- 1 X Scissors or retractable utility knife
- 1 X long nose pliers

LIST OF PARTS USED

The following new parts will be needed to proceed with this procedure.

Parts kit for model 2018 and lower:

226557: LEGEND NON-MOTOR GAS SPRING (G2 Generation)		
QTY	**CODE**	**DESCRIPTION**
1	188968	GAS SPRING 500N
2	226588	COTTER PIN 1/16'' X 3/4''
1	233218	PROCEDURE « GAS SPRING REPLACEMENT ON THE NON-MOTOR JACK (LEGEND) »

Parts kit for model 2019 and higher:

233276: LEGEND NON-MOTOR GAS SPRING (G3 Generation)		
QTY	**CODE**	**DESCRIPTION**
1	233221	GAS SPRING 600N
2	226588	COTTER PIN 1/16'' X 3/4''
1	233218	PROCEDURE « GAS SPRING REPLACEMENT ON THE NON-MOTOR JACK (LEGEND) »

PREPARATION

- The cover must be in close position before executing that procedure.
- Keep a clean working area to prevent accidents or stumbling.
- Provide a clear space to discard old parts.
- Prepare the appropriate tools, as suggested above.
- Make sure the parts kit is complete as per the above list and parts have not been damaged during transport. Call your local dealer if the parts kit needs to be replaced.

WARNINGS AND CAUTIONS

⚠ **Warning:** This procedure must be performed by a certified COVANA installer.

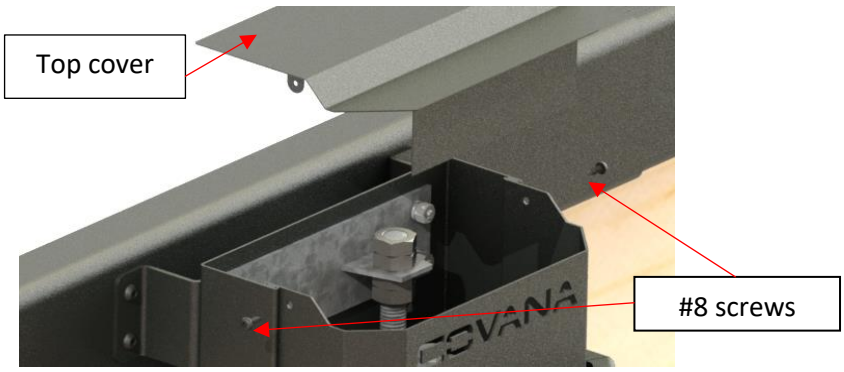
⚠ **Warning:** To prevent someone operating the spa cover during repair procedure, prior to execute the following steps, pull the key out of the key-switch and make sure that the appropriate breaker is at off position in the electrical panel. Derogating from this directive could cause serious injury or damaging the cover.

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

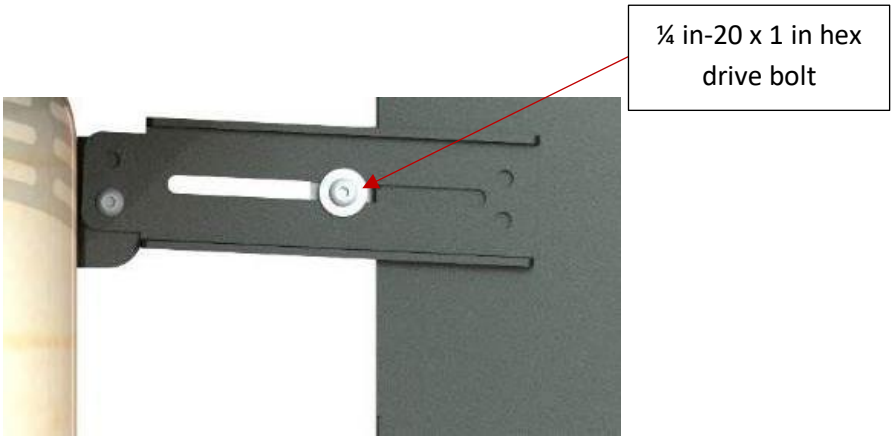
STEPS TO FOLLOW

Disassembling steps

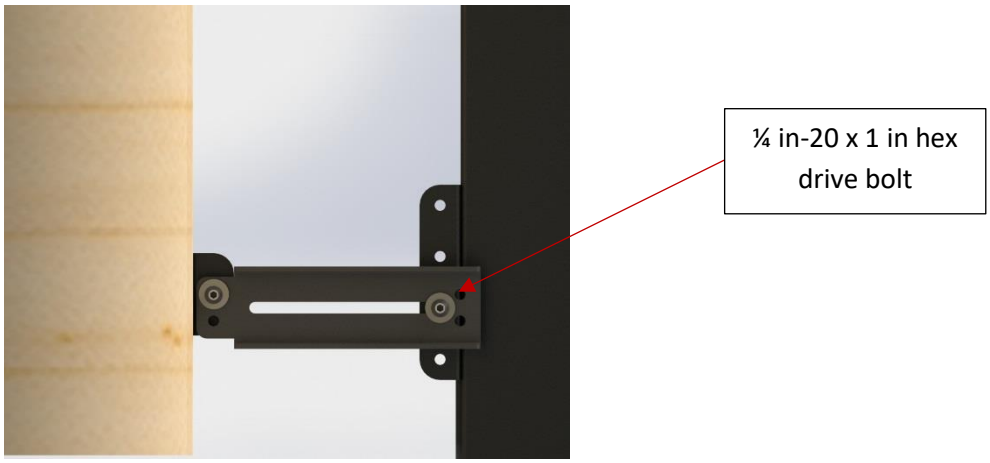
1) Unscrew the two Robertson #8 self-drilling screws and take the top cover off. Use the Robertson screwdriver.



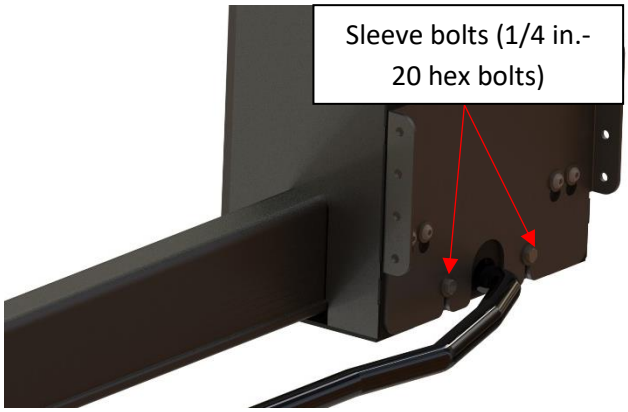
2) Detach the bottom mount bracket arms from the tub mount brackets. Unscrew the two ¼ in-20 x 1 in hex drive bolts on the outside. Use a 5/32 in Allen key with a 7/16 in spanner.



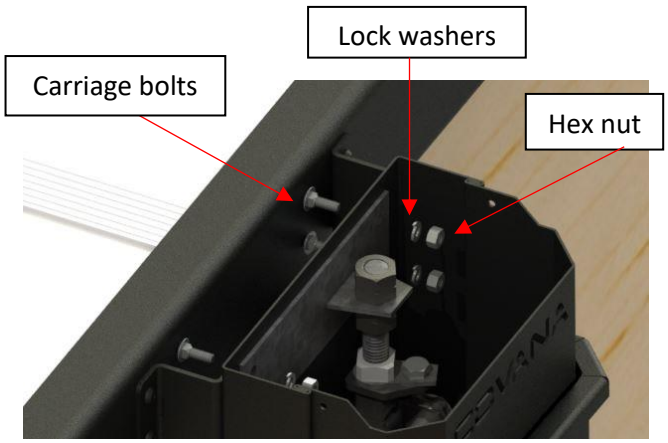
3) Separate the top mount bracket arms from the tub mount brackets by unscrewing the two ¼ in-20 x 1 in hex drive bolts on the outside. Use a 5/32 in Allen key with a 7/16 in spanner.



4) Untighten the two ¼ in-20 hexagonal bolts at the bottom of the sleeve. Use a 7/16 in socket wrench or spanner if there's not enough space.



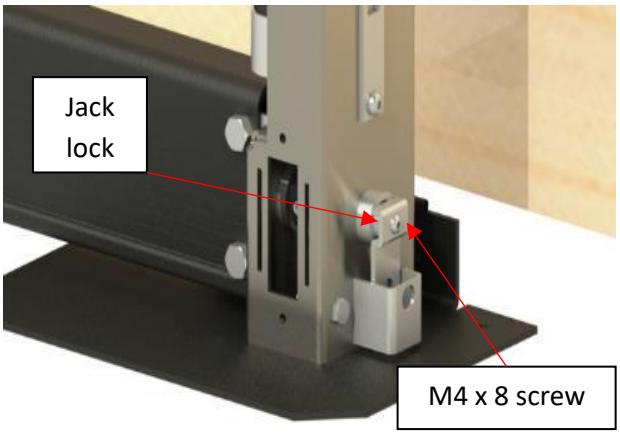
5) Unfasten the sleeve from the cover mount bracket. Unscrew the four ¼ in-20 x ¾ in carriage bolts. Use a 7/16 in socket.

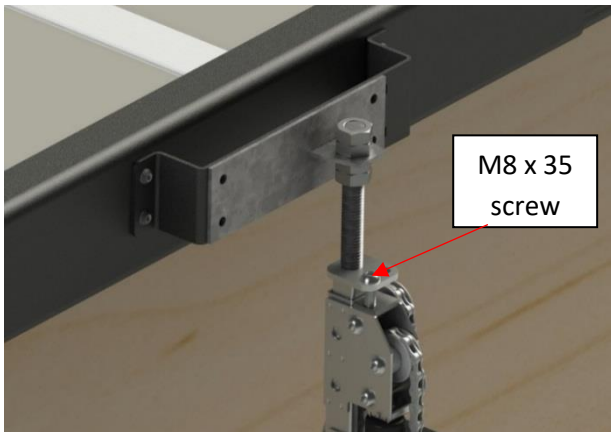


6) Slide the three sleeves (Inner/Middle/Outer) upward to expose the jack.

7) Repeat steps 1 to 6 for the other post, if needed.

8) Put the jack lock back in its original place and screw on the M4 x 8 screw to fix it. Turn the shaft with the key to align it with the bracket. If your unit doesn't have a jack lock bracket near the bottom of the jack, locate the M8 x 35mm screw at the top and put it to lock the jack assembly.

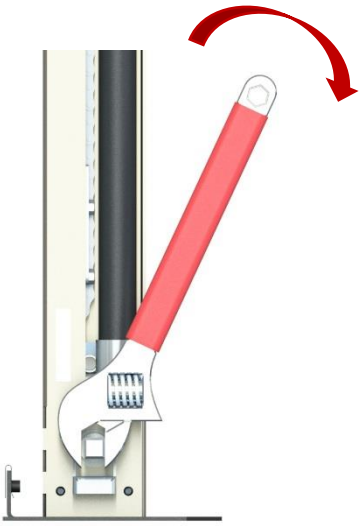




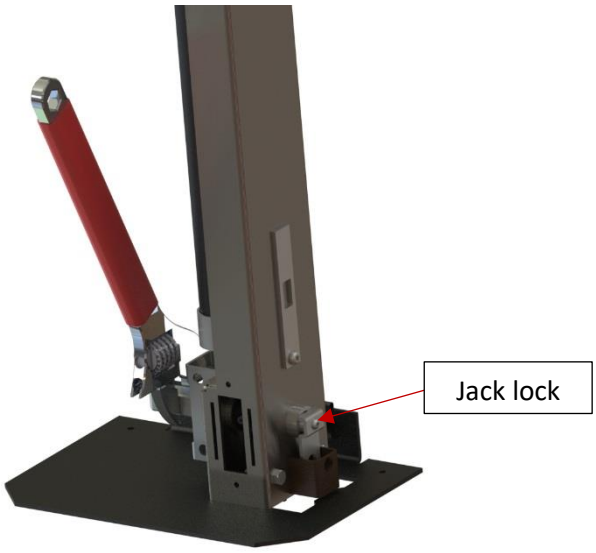
9) Take the U-frame off the drive shaft by unfastening the two hexagonal 5/16 in-18 x 2 in bolts at both legs. Use a ½ in socket wrench and spanner.

10) Take the drive shaft off. Slightly tilt the post to facilitate the operation.

11) Fix an adjustable wrench to the square shaft of the non-motor jack.



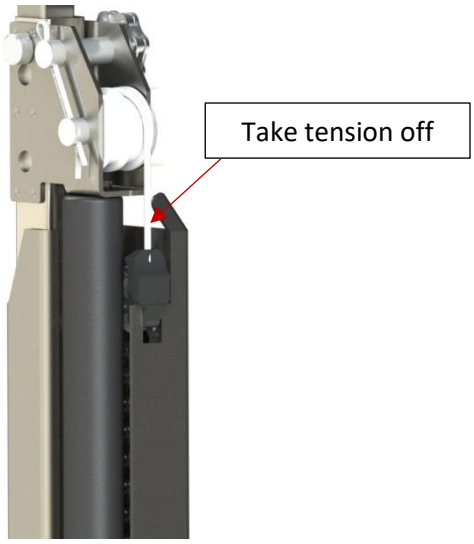
12) Unscrew the M4 x 8 Phillips screw and take jack lock off. Hold the wrench while doing this step to keep the tension in the gas spring.



13) Rise the jack of approximately 4 in by turning the adjustable wrench clockwise.

14) Fix a vise grip at the bottom of the exposed inner jack tube. **The vise grip needs to be very tight around the inner tube of the jack.**

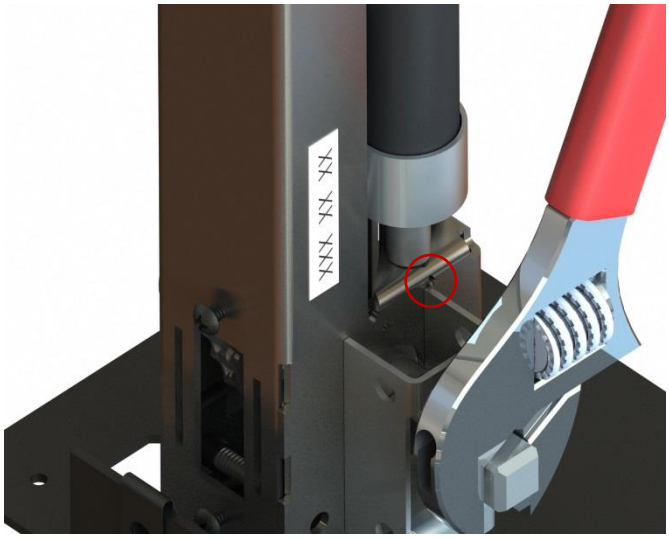
15) Lower the jack of 2 in by turning the adjustable wrench counter clockwise to take the tension off the metal wire.



16) Use a utility knife to cut the heat-shrink and remove it from the hook.

17) Take the hook off the jack outer section.

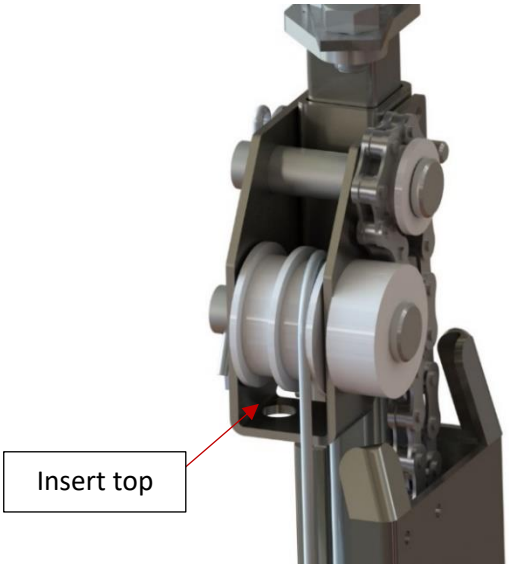
18) Take the two spring pins off. Use the pliers or punch them out.

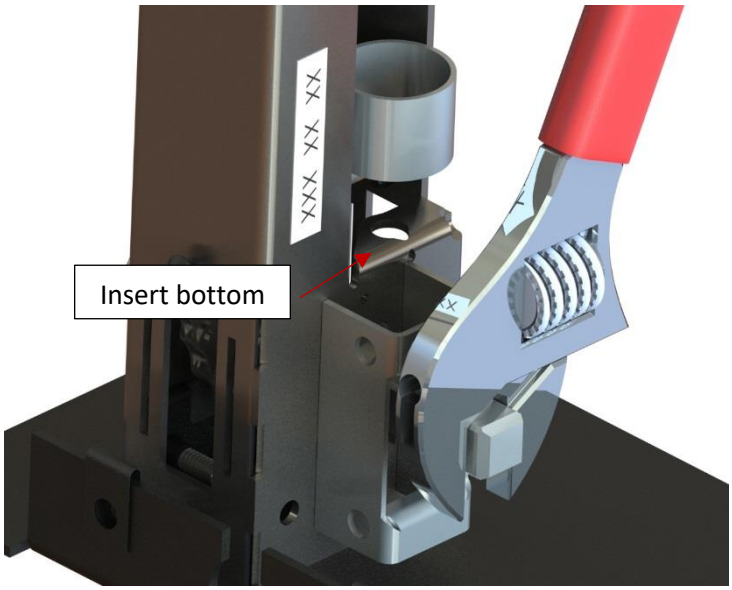


19) Turn the adjustable wrench clockwise to rise the jack to its maximum height, then take the gas spring off. **Keep control on the jack with the wrench.**

Assembling steps

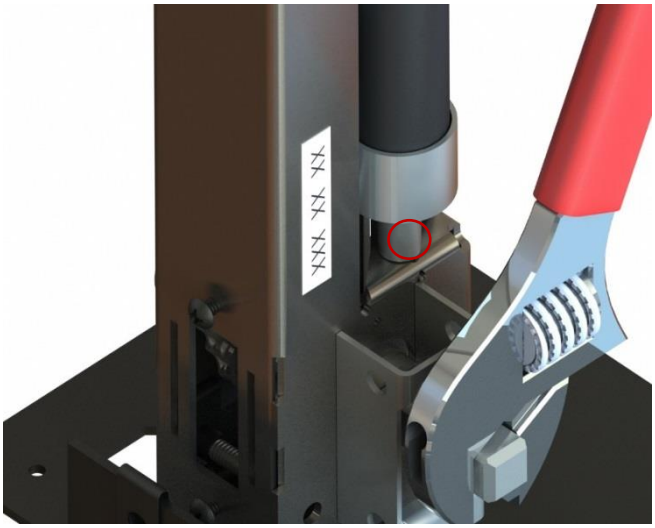
1) Change the gas spring for the new one. **Make sure the two extremities of the gas spring are insert in their appropriate place.**



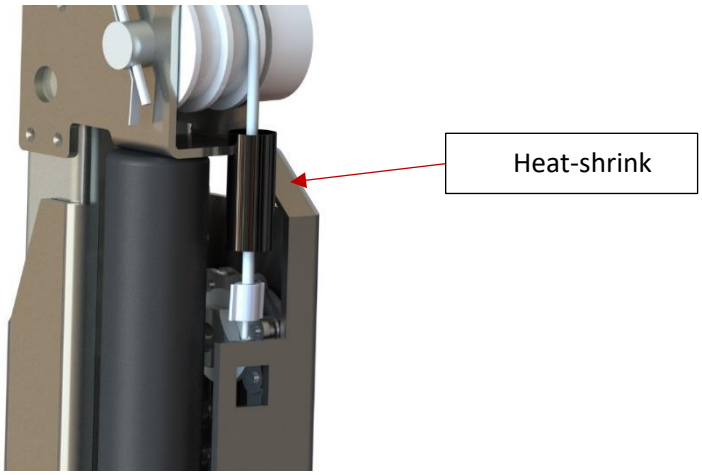


2) Lower the jack to your height by turning the wrench on the square shaft counter clockwise. Hold the wrench to keep the jack at this position.

3) Put the new spring pins on. You may have to use pliers.



4) Insert the metal wire in the heat-shrink.

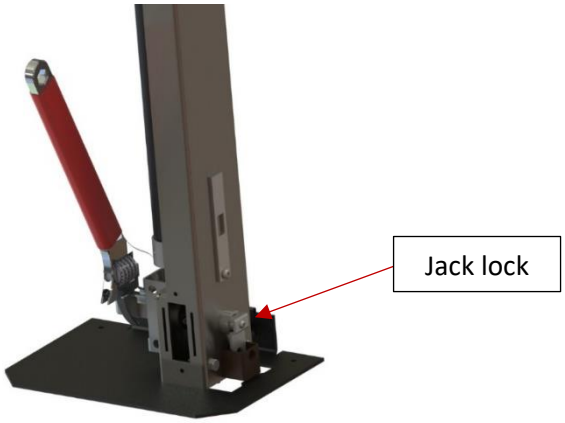


5) Put the hook back on the post and insert the cable in it. Cover the hook with the heat shrink.

6) Use a heat gun to shrink the heat shrink on the hook and turn the wrench clockwise to put tension back on the cable.

7) Put the jack lock back in its original place and screw on the M4 x 8 screw to fix it. If you have problem fixing it, try turning the square shaft.

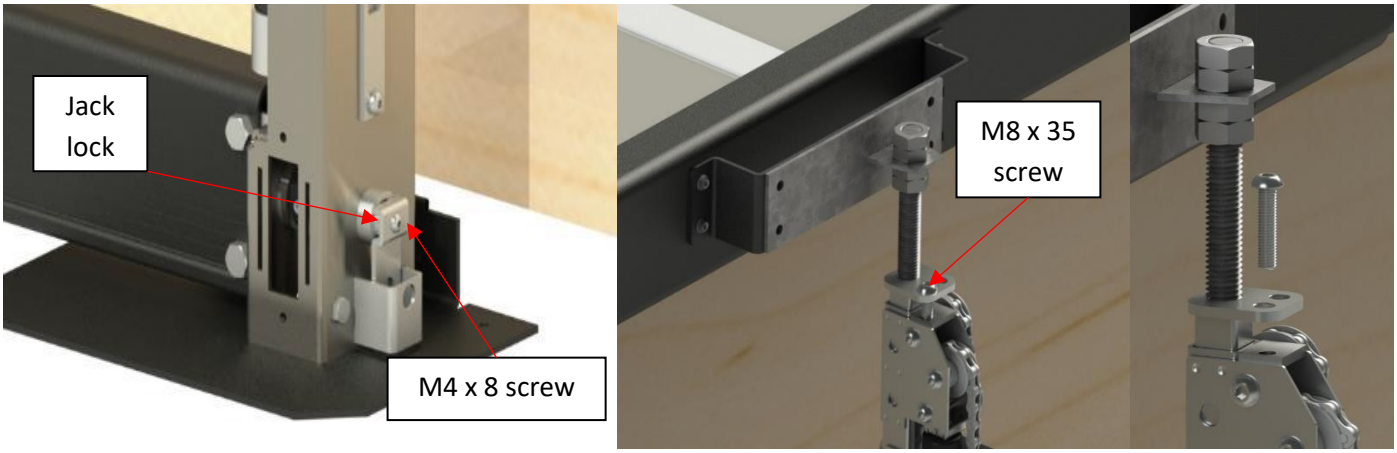
8) Remove the wrench from the square shaft and the vise grip from the inner jack tube.



9) Install the drive shaft onto the motorized and non-motorized jack's shaft.

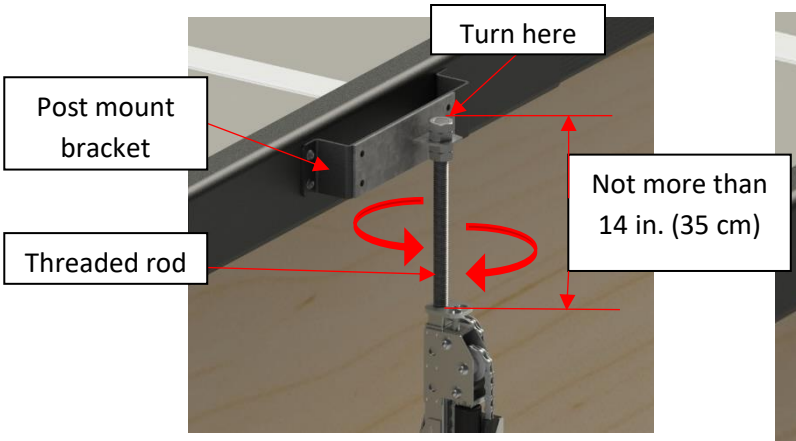
10) Install the U-frame over the drive shaft. The U-frame will bolt on the motor and on the non-motor jack. Fasten it back in place using the four hexagonal 5/16 in-18 x 2 in bolts and the 5/16 in-18 nylon insert locknuts. Use a ½ in socket wrench and spanner again.

11) Verify if the drive shaft is still engaged at both ends. Slip your fingers under the U-frame to do this operation.

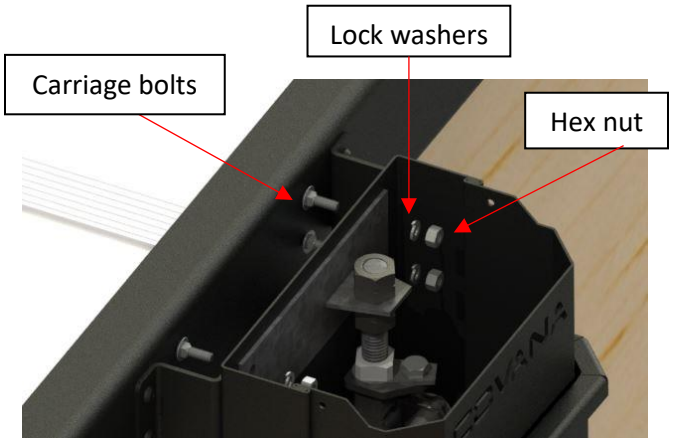


12) Once the U-frame is in place, you can now remove the jack lock bracket at the bottom of the non-motor jack. Unscrew the Philips M4 x 8 mm bolt. **Keep the lock bracket and the hardware for future use.** If your unit doesn't have a jack lock bracket near the bottom of the jack, locate the M8 x 35mm screw at the top and remove it to unlock the jack assembly.

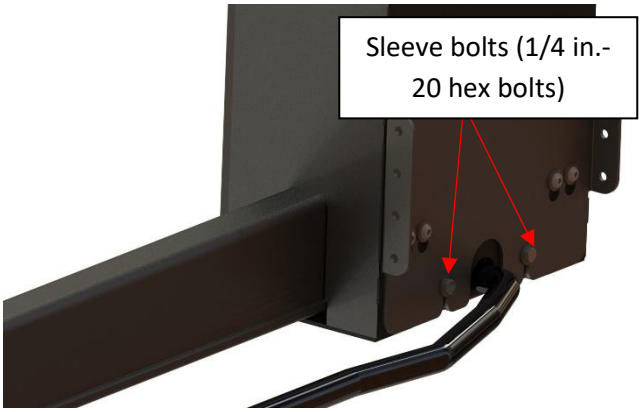
13) If anything moved, with the jack adapter located at the top of the jack, adjust the height so that they match the cover mount brackets holes. Use the adjustable wrench.



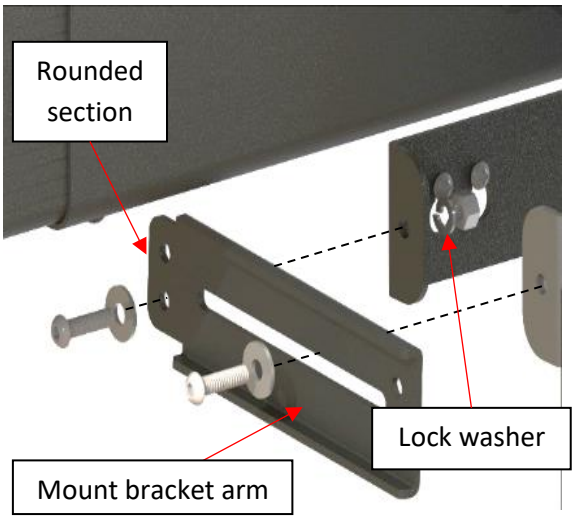
14) Slide the three sleeves over the jack and fasten them using the ¼ in-20 x ¾ in carriage bolts at the top with ¼ in lock washers and ¼ in-20 nuts. Use a 7/16 in socket.



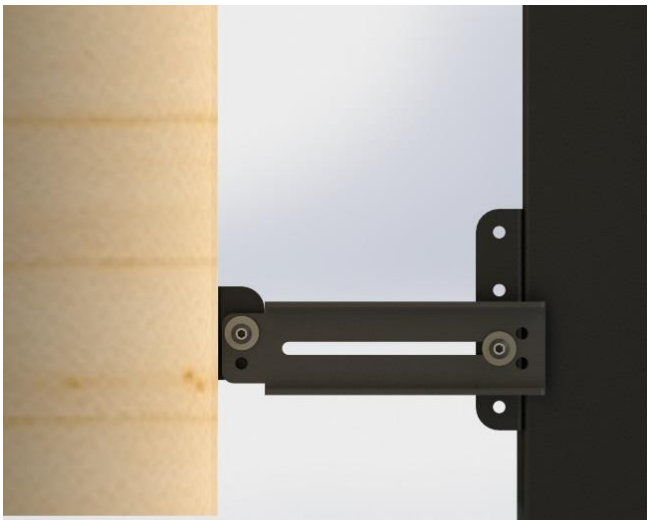
15) Retighten the ¼ in-20 hexagonal bolts at the bottom of the sleeve. Use a 7/16 in socket wrench or spanner if there's not enough space. Ensure that the washer is outside of the outer sleeve. This will ensure the sleeve is held correctly.



16) Attach the top mount bracket arms to the tub mount brackets using the ¼ in-20 x 1 in hex drive bolt, ¼ in flat washer on the outside. Use a ¼ in lock washer and ¼ in-20 nut on the inside. Use a 5/32 in Allen key and 7/16 in spanner



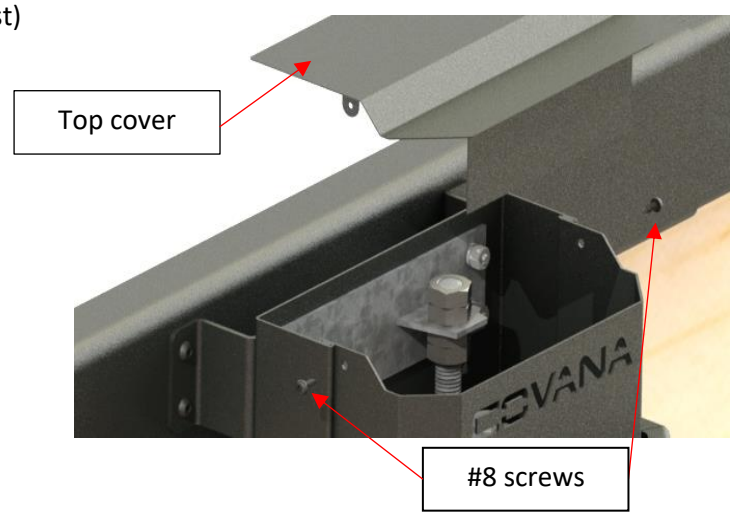
17) Just as the top brackets, attach the bottom mount bracket arms to the tub mount brackets using the ¼ in-20 x 1 in hex drive bolt, ¼ in flat washer on the outside. Use a ¼ in lock washer and ¼ in-20 nut on the inside. Use a 5/32 in Allen key and 7/16 in spanner.



18) Repeat steps 11 to 17 for the other post.

19) Verify if the posts are still level in both axes. If not, unscrew the mount arms and reposition the sleeves. Use the outer sleeve as a reference. Use the 48 in level.

20) Attach the top cover of the two posts. Use the provided Robertson #8 self-drilling screws. (2 screws per post)



21) Put the breaker back on into the electrical panel and the key into its key switch socket. Operate the spa cover normally to see if everything is correct. If there are any issues with the cover, please refer to the troubleshooting section of the Legend user manual.