

# COVANA

## OASIS

**Read this manual before proceeding with installation**



# Installation Manual

[www.covana.dk](http://www.covana.dk)

COVANA.DK

## **WARNING**

### **RISK OF ELECTROCUTION**

ALL ELECTRICAL WIRING MUST BE DONE BY A QUALIFIED PROFESSIONAL. THE WIRING MUST MEET THE REQUIREMENTS OF ALL APPLICABLE LOCAL CODES AND REGULATIONS.

## **WARNING**

### **RISK OF ELECTROCUTION**

THE COVANA OPERATOR MUST BE CONNECTED TO A DEDICATED GFCI (GROUND FAULT CIRCUIT INTERRUPTERS) PROTECTED CIRCUIT. REFERENCE: MUST COMPLY WITH ALL APPLICABLE LOCAL CODES AND REGULATIONS.

## **WARNING**

### **RISK OF INJURY**

DISCONNECT OR TURN OFF ALL POWER SUPPLY BEFORE STARTING ANY INTERVENTION ON THE COVANA.

## **WARNING**

### **RISK OF INJURY**

DO NOT OPERATE THE COVANA WHILE IN WATER.



## **WARNING**

### **AVOID DROWNING RISK ENTRAPMENT POSSIBLE**

FAILURE TO FOLLOW ALL INSTRUCTIONS MAY RESULT IN INJURY OR DROWNING.  
INSPECT COVER PERIODICALLY.  
POWER SAFETY COVER MEETS ASTM F1346-91 REQUIREMENTS.

## IMPORTANT

**OBSERVE** THE FOLLOWING STEPS FOR PROPER ASSEMBLY AND SETUP OF THE COVANA.

## IMPORTANT

**DO NOT** OPERATE THE UNIT UNTIL ALL MECHANICAL AND ELECTRICAL CONNECTIONS HAVE BEEN MADE.

## IMPORTANT

ALL 4 POSTS OF THE COVANA MUST BE PROPERLY ANCHORED TO ITS FOUNDATION USING THE ANCHORING HOLES LOCATED AT THE FOOT OF EACH POSTS. THE OPTIONAL NON PERMANENT MOUNTING PLATES CAN BE USED WHEN ANCHORING IS NOT POSSIBLE.

## IMPORTANT

### LIMIT SWITCHES ADJUSTMENT

BOTH THE UP & DOWN LIMIT SWITCHES ARE PRE-ADJUSTED AT THE FACTORY. THE DOWN LIMIT SWITCH SHOULD **NEVER** BE READJUSTED. THE UP LIMIT SWITCH SHOULD **ONLY** BE ADJUSTED TO REDUCE THE MAXIMUM HEIGHT OF THE ROOF TO AVOID POSSIBLE CONTACT WITH ITS SURROUNDINGS. REFER TO THE LIMIT SWITCH ADJUSTMENT GUIDE FOUND IN THIS MANUAL BEFORE MAKING ANY ADJUSTMENTS. IMPROPER ADJUSTMENT CAN RESULT IN DAMAGE TO THE DRIVE SYSTEM.

## IMPORTANT

DO NOT STEP ON THE COVANA OPERATOR.

## NOTICE

THIS OPERATOR IS SPECIALLY DESIGNED TO OPERATE ONLY WITH THE COVANA LIFTING SYSTEM. UNDER NO CIRCUMSTANCES SHOULD THIS OPERATOR BE USED FOR ANY OTHER APPLICATIONS.

## NOTICE

**DISPOSAL:** THIS PRODUCT MAINLY CONTAINS STEEL, COPPER (CU) AND ALUMINUM DIE-CAST (AL). THE GEARBOX CONTAINS OIL AND OTHER MATERIALS. PLEASE RECYCLE WISELY

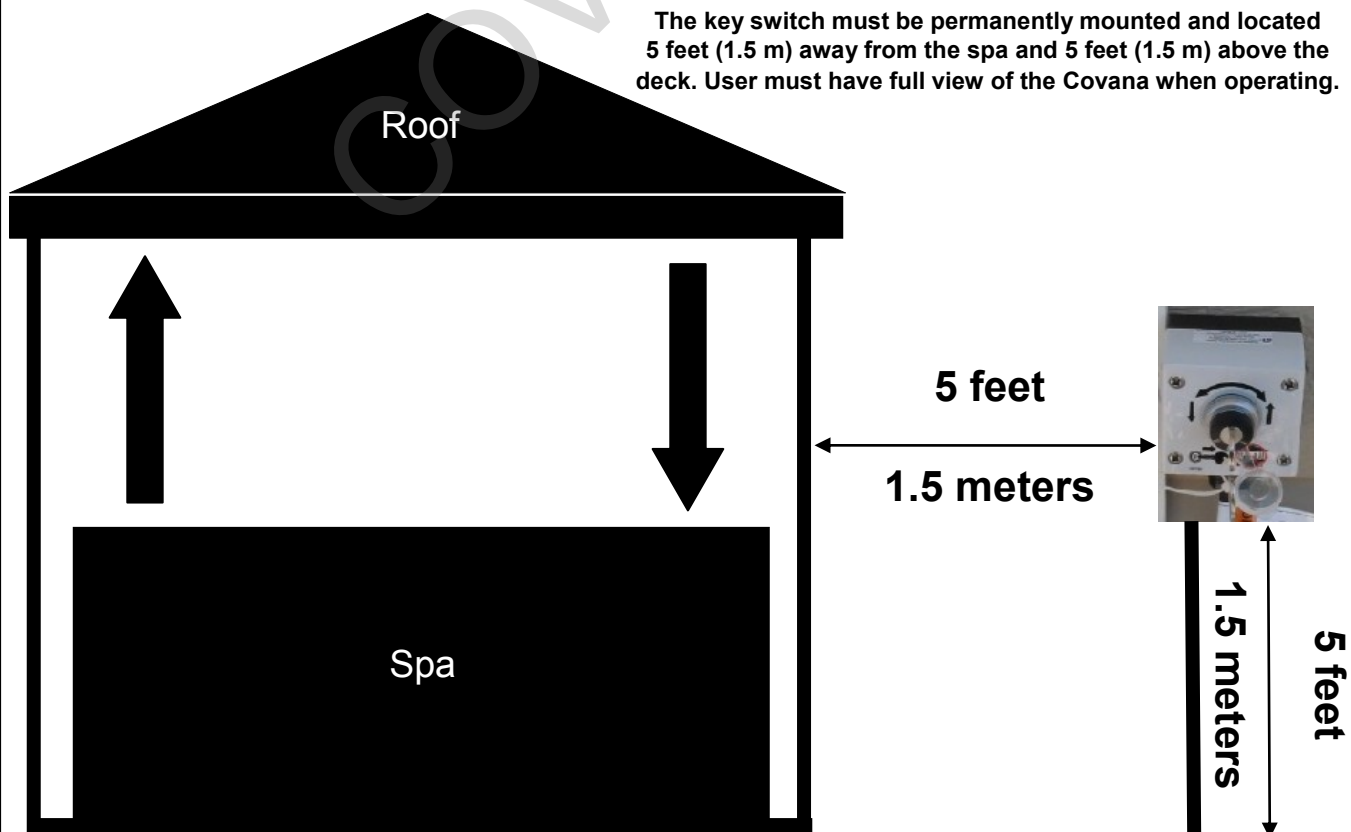
## NOTICE

REMOVE THE CONTROL KEY AFTER OPERATING THE COVANA.  
STORE THE KEY IN A SECURE LOCATION WHEN NOT IN USE.  
BRING THE KEY WITH YOU IN THE SPA TO PREVENT UNAUTHORIZED OPERATION OF THE COVANA.



## NOTICE

The key switch must be permanently mounted and located 5 feet (1.5 m) away from the spa and 5 feet (1.5 m) above the deck. User must have full view of the Covana when operating.



## PREPARING A PROPER FOUNDATION

Just like the spa, the Covana requires a solid foundation. The area that the Covana sits on must be able to support at least 600 lb (272 kg) and must be leveled. **All components of the Covana** must be supported by the foundation.

**Note: Damage caused by inadequate or improper foundation support is not covered by the Covana warranty. It is the responsibility of the owner to provide proper foundation.**

### Foundation recommendation:

1. Engineered wood deck OR concrete pad - 4" (10 cm) thick.
2. Each of the 4 posts on the Covana must be properly anchored to the foundation using at least one of the pre-drilled holes located at the foot of each post. Use a 1/4" (0.6 cm) concrete anchor for concrete pads or a 1/4" (0.6 cm) lag bolt for wood foundations of a minimum of 1-1/4" (3 cm) long.

## COVANA ELECTRICAL REQUIREMENTS

1. The Covana requires a dedicated 115V (North America) or 230V (Europe) permanently connected (hard wired) power supply.
2. The Covana motor has a dedicated connection for 115V (North America) or 230V (Europe), please see enclosed connection diagram.
3. The Covana must be installed in accordance to and comply with all applicable local codes and regulations. All wiring should be installed by a qualified electrician.
4. Wire and conduit should be sized as per local codes and regulations.

The electrical circuit for the Covana must include a suitable ground fault interrupter (GFCI) as required to comply with codes and regulations.

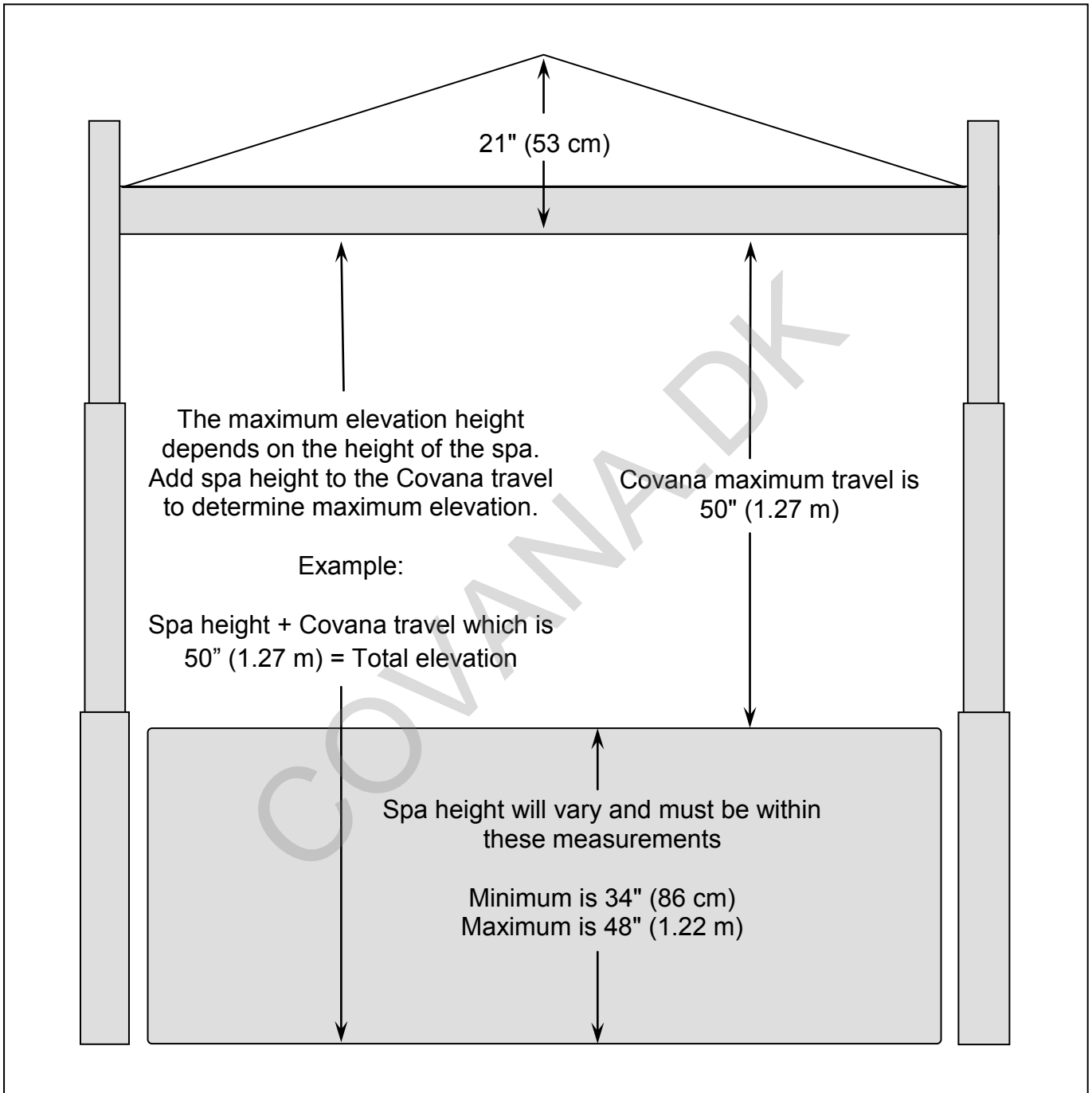
|                          |   |
|--------------------------|---|
| Required Voltage:        | 115V (North America) 230V (Europe) (1 hot, 1 neutral, 1 ground)         |
| Required GFCI Breaker:   | 15A (North America) 10A (Europe) single-pole GFCI breaker, not included |
| Max Covana current draw: | 12 (North America) 6 (Europe) Amps                                      |

## KEY OPERATING INSTRUCTIONS

- Turn the key to the right — clockwise to raise the roof.
- Turn the key to the left — counterclockwise to lower the roof.
- The key will automatically return to center, off position, when released.

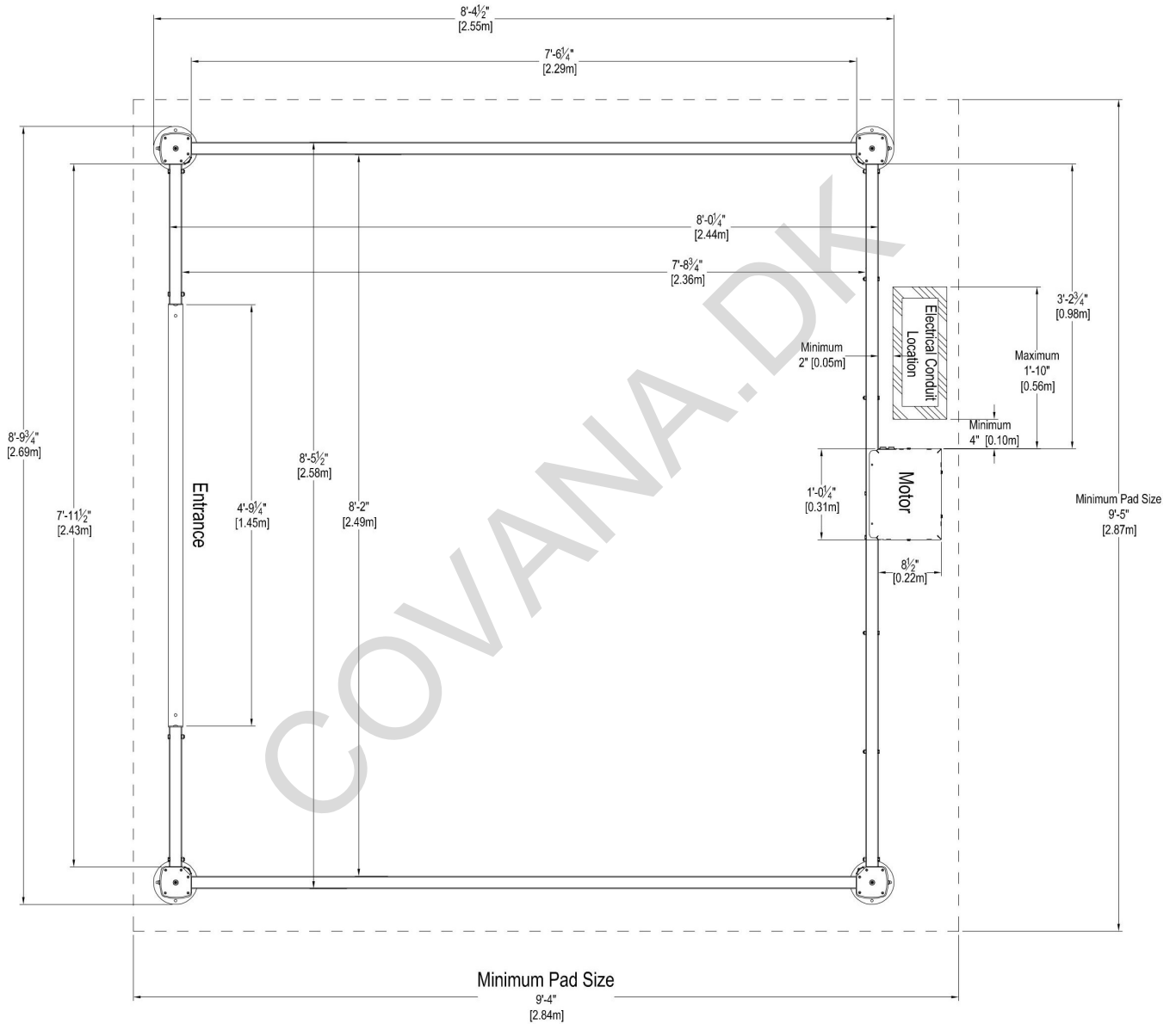


## SIDE ELEVATION DIMENSIONS



# FRAME DIMENSIONS AND FOOTPRINT

## OASIS Frame Dimensions/Foot Print Long Side (LS) Model



**Please Note:**

Standard or Long Side (LS) model needs to be specified at time of order;

-On standard model, the motor is installed on shorter side.

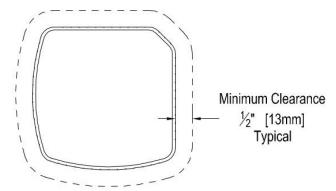
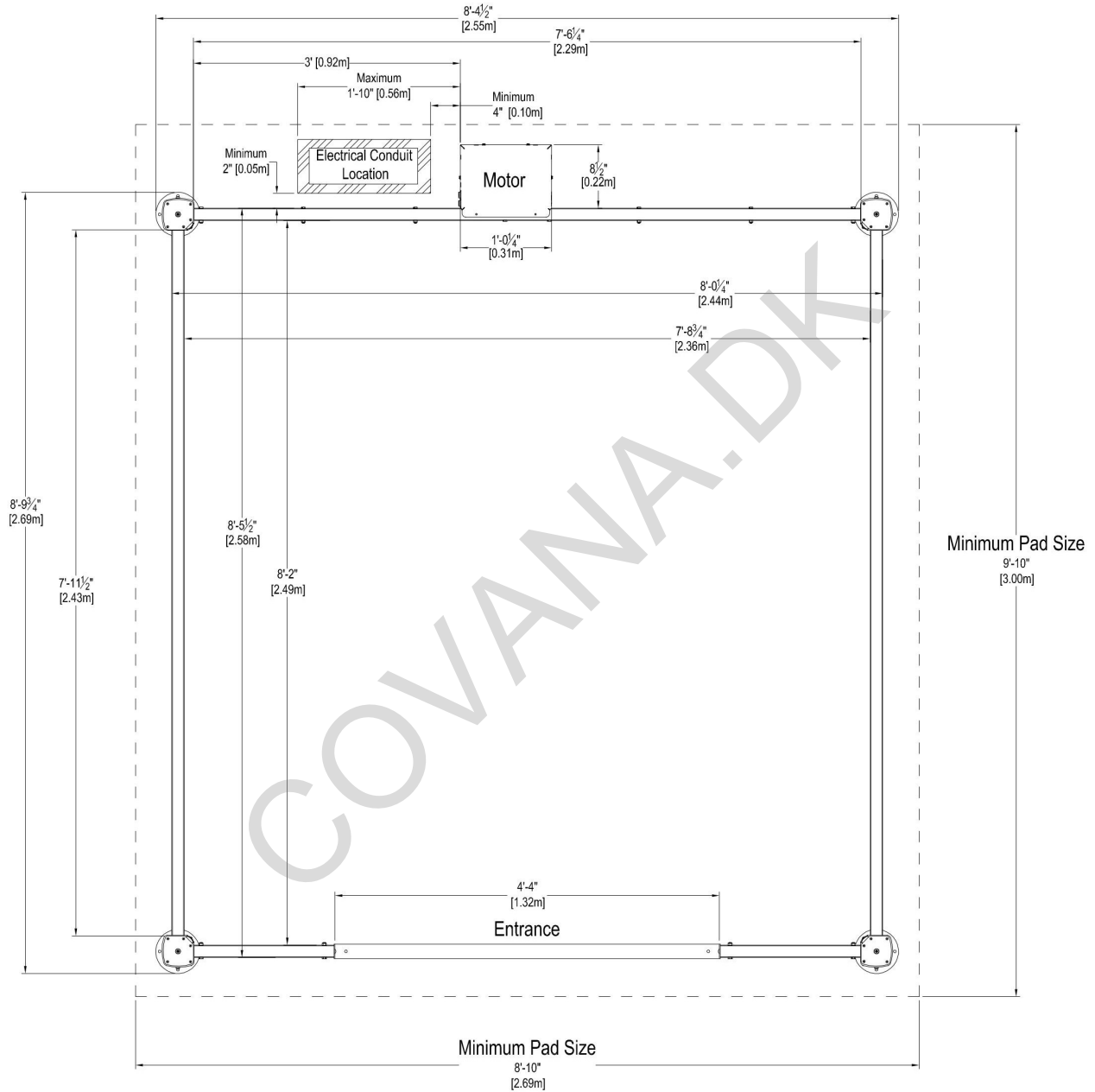
-On LS model, the motor is installed on longer side.

If the frame installation is below a deck, the required minimum post to deck clearance



# FRAME DIMENSIONS AND FOOTPRINT

## OASIS Frame Dimensions/Foot Print Standard Model



**Please Note:**

Standard or Long Side (LS) model needs to be specified at time of order;

-On standard model, the motor is installed on shorter side.

-On LS model, the motor is installed on longer side.

If the frame installation is below a deck, the required minimum post to deck clearance

# GROUNDING AND CONNECTION OF POWER SUPPLY

## WARNING

### RISK OF INJURY

DISCONNECT OR TURN OFF ALL POWER SUPPLY BEFORE STARTING ANY INTERVENTION ON THE COVANA.

Remove the four screws on the bottom side of the Covana operator and take the cover off.

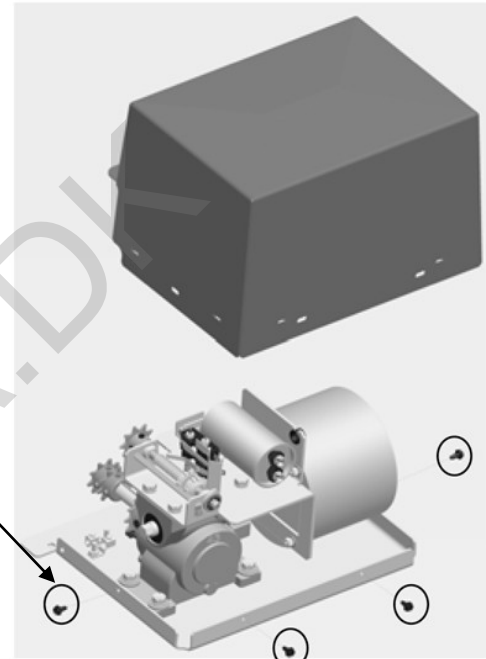
Pre-wired key switch with 20' (7,5 m) of cable included. Cable must be run through a conduit.

Connect the ground cable of the main power supply to the provided terminal.

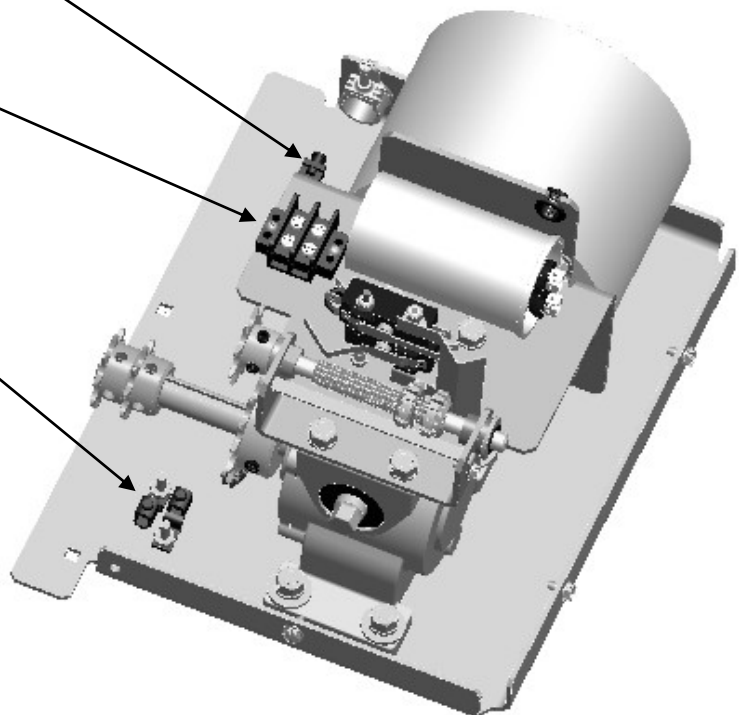
Connect the main 115V (North America) 230V (Europe) power to their respective terminals.

Use the provided terminals to bond the Covana operator.

Reinstall the operator cover.



**OPERATOR**



## LIMIT SWITCH ADJUSTMENT

### WARNING

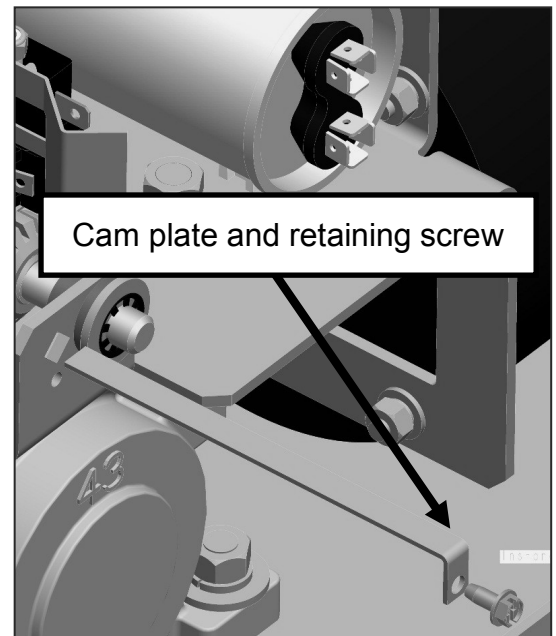
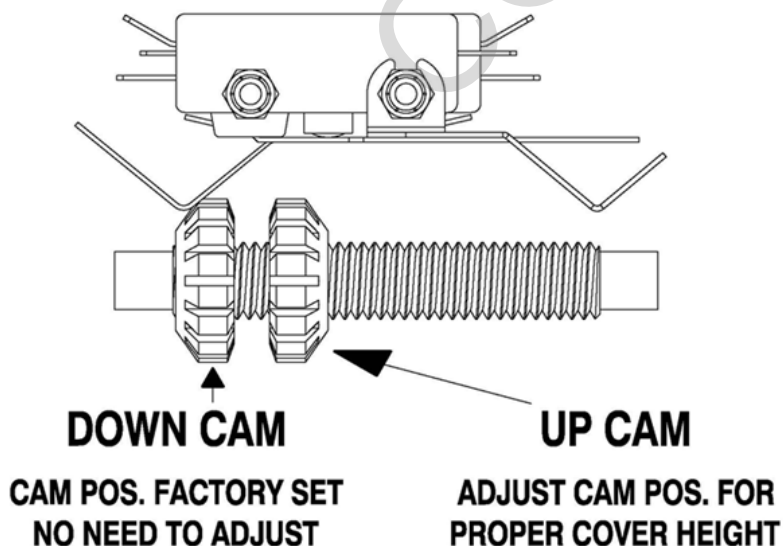
#### RISK OF INJURY

DISCONNECT OR TURN OFF ALL POWER SUPPLY BEFORE STARTING ANY INTERVENTION ON THE COVANA.

**Note:** The UP & DOWN limits are factory adjusted and there is no need for re-adjustment. If adjustments are required to ensure the Covana roof does not come into contact with its surroundings while elevating, the UP direction may be decreased. Never change the factory settings of the DOWN limits or increase the UP limit. Failing to do so may result in possible equipment damage and/or injury.

- Disconnect or turn power off.
- Remove the four screws at the bottom of the operator and take the cover off.
- Remove the retaining screw and slide the cam plate from operator frame.
- To reduce the travel in the UP direction, turn the UP cam counterclockwise as per arrow.
- Once the cam is set to the desired position, reinstall the cam plate and make sure that it is properly inserted in the slot of each cam. **NEVER OPERATE THE SYSTEM WITH THE CAMPLATE REMOVED.**
- Reinsert the retaining screw to prevent the cam plate from coming out.
- Reinstall the operator cover.
- Turn the power ON and test the system.

## LIMIT SWITCH ADJUSTMENT



## MANUAL OPERATION IN CASE OF POWER FAILURE

### **WARNING**

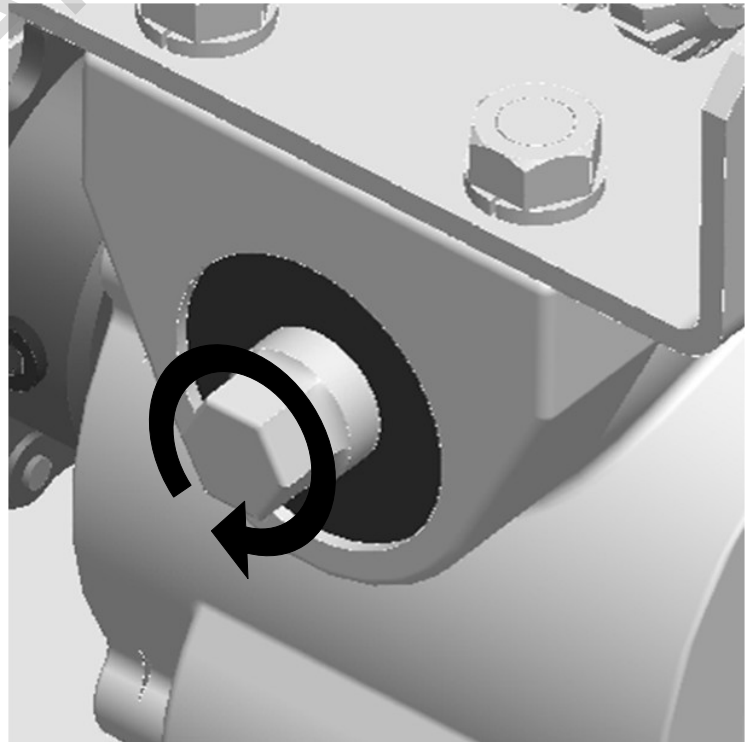
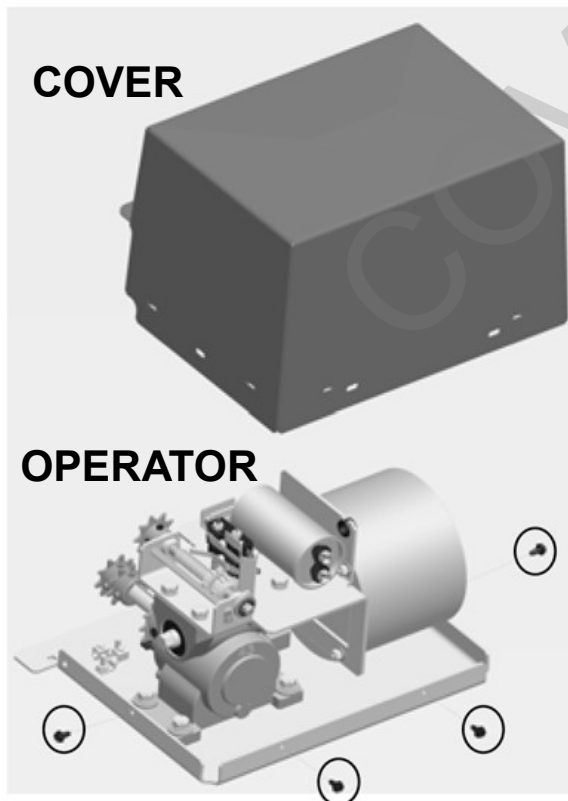
#### **RISK OF INJURY**

DISCONNECT OR TURN OFF ALL POWER SUPPLY BEFORE STARTING ANY INTERVENTION ON THE COVANA.

1. Disconnect or turn power off.
2. Remove the four screws at the bottom of the operator and take the cover off.
3. Use 1/2" or 1.3 cm hexagon socket wrench to operate the operator by turning the input shaft.

**SLOWLY TURN THE SHAFT - STOP IF EXCESS TENSION IS FELT.  
NEVER USE A POWER TOOL AS THIS WILL DAMAGE UNIT.**

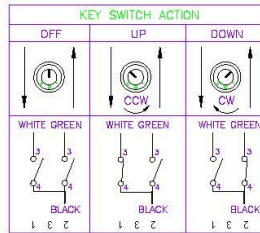
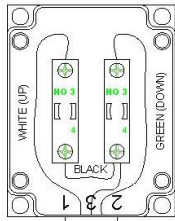
4. Turn the input shaft clockwise to lower the roof and counterclockwise to raise the roof.
5. Reinstall the operator cover.
6. Reconnect or turn power on.



# WIRING & SCHEMATIC DIAGRAM - 120VAC, 60HZ OPERATOR (NORTH AMERICA)

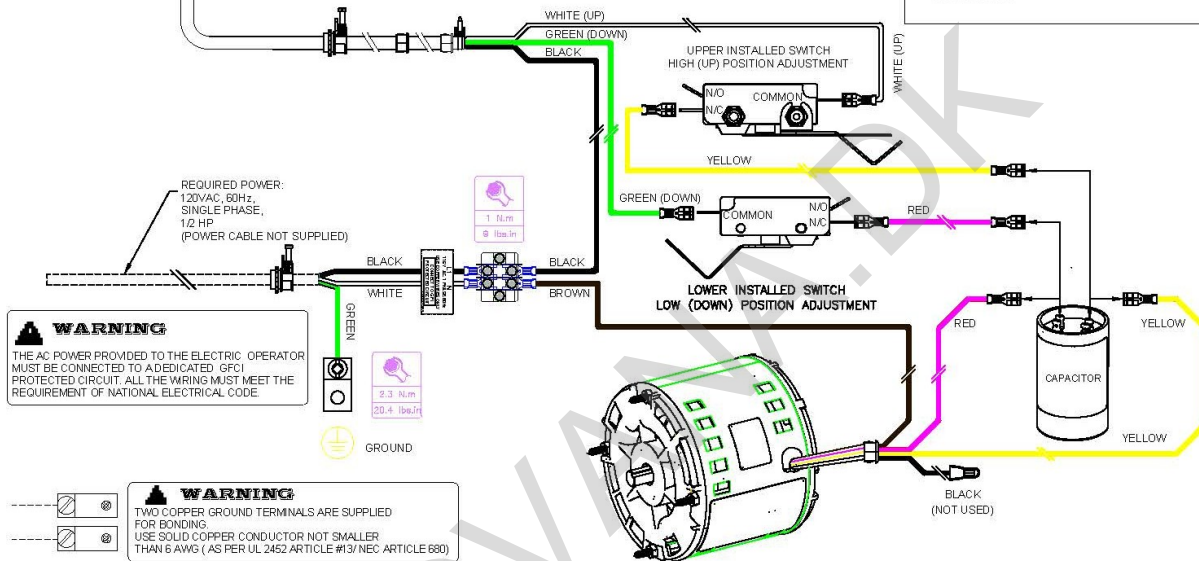
## Wiring & Schematic Diagram - 120VAC, 60Hz Operator (North america)

### WIRING

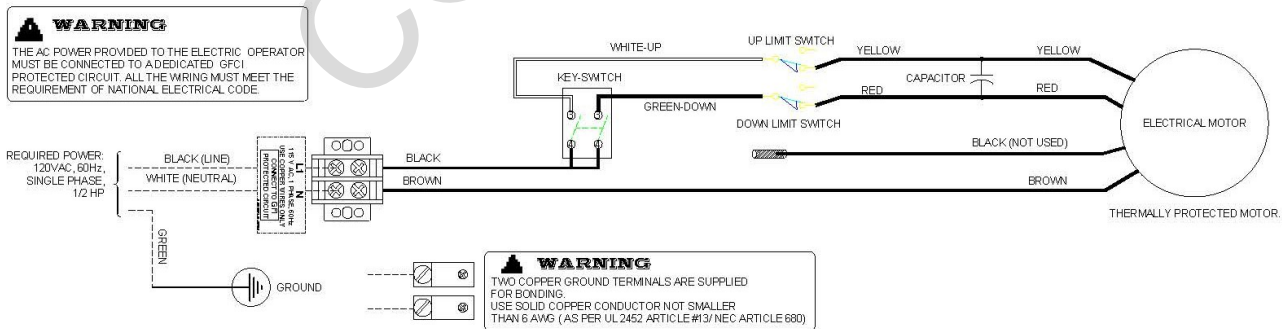


### Operating and circuit logic operation

- 120 VAC, 60Hz control circuit.
- Constant pressure on UP and DOWN.
- Key-switch 3-position.
- Up position - will raise the spa cover to up position.
- Down position - will lower the spa cover to low position.
- OFF position - will disable the controls.



### SCHEMATIC



**Note:** The spa cover operator is designed with an instant reverse single-phase motor with internal automatic reset thermal overload. In case of over-use, the motor will overheat and will shutdown. Once the motor cools down to its operational temperature, the spa cover could be used again.

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 operator and the main power supply.

If wire gage is not suitable for the distance, problems in operator will be encountered such as motor humming, premature wear of the limit switches' contacts and possible tripping of the motor's thermal protection.

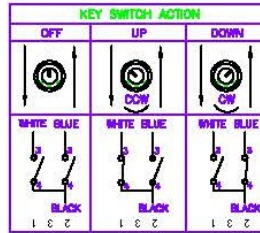
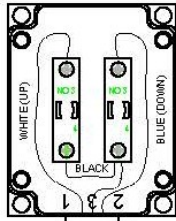
All power wiring should be installed by a qualified electrician and may vary with respect to conduit size and type as specified in the National Electric Code (NEC), Article 430, allowing 5% volt drop, or comply to any other local codes and regulations. Power must be connected in accordance with local electricity codes.



# WIRING & SCHEMATIC DIAGRAM - 220VAC, 50HZ OPERATOR (EUROPE)

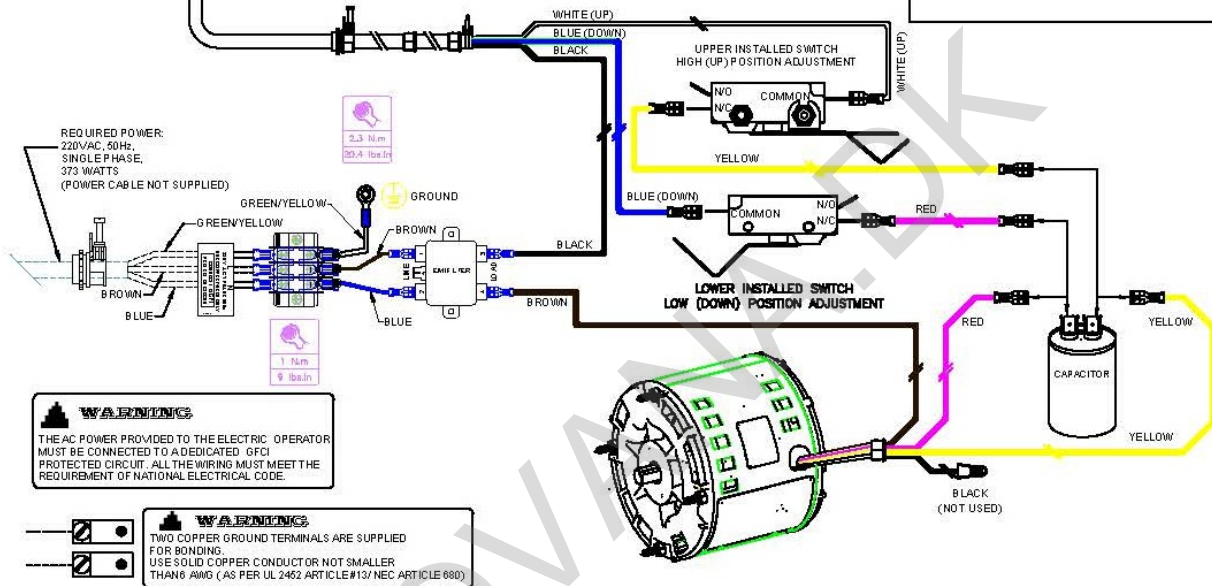
## Wiring & Schematic Diagram - 220VAC, 50Hz Operator (Europe only)

### WIRING

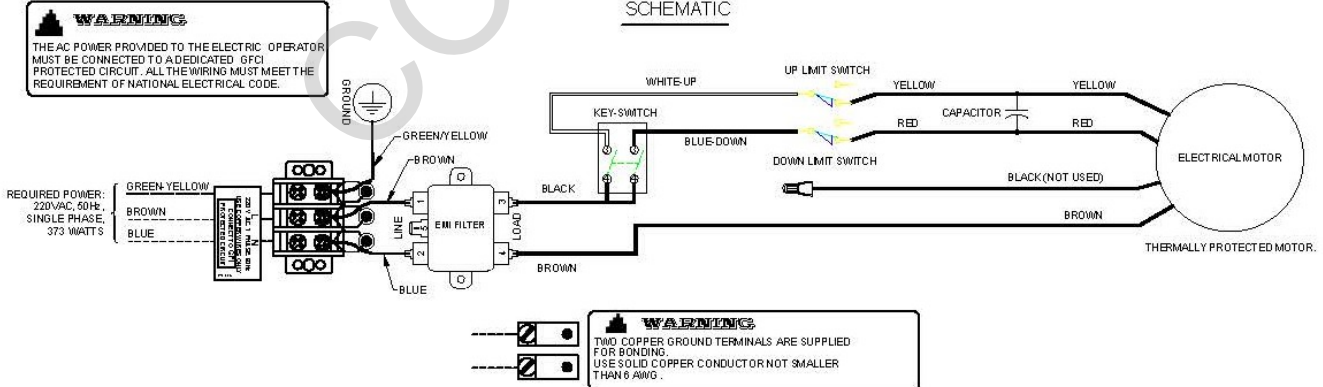


### Operating and circuit logic operation

- 220 VAC, 50Hz control circuit.
- Constant pressure on UP and DOWN.
- Key-switch 3-position.
- Up position - will raise the spa cover to up position.
- Down position - will lower the spa cover to low position.
- OFF position - will disable the controls.



### SCHEMATIC



**Note:** The spa cover operator is designed with an instant reverse single-phase motor with internal automatic reset thermal overload. In case of over-use, the motor will overheat and will shutdown. Once the motor cools down to its operational temperature, the spa cover could be used again.

The control circuit operates at 220 VAC, 50Hz. 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 operator and the main power supply.

If wire gage is not suitable for the distance, problems in operator will be encountered such as motor humming, premature wear of the limit switches' contacts and possible tripping of the motor's thermal protection.

All power wiring should be installed by a qualified electrician and may vary with respect to conduit size and type as specified in the National Electric Code (NEC), Article 430, allowing 5% volt drop, or comply to any other local codes and regulations. Power must be connected in accordance with local electricity codes.

# INSTALLATION

## REQUIRED TOOLS

- Scissors / Retractable blade knife
- Robertson screwdriver
- Hammer
- Imperial wrench (3/8")
- 7/32" Allen wrench

## UNCRATING

1. Before uncrating the unit, make sure there is no apparent damage to the crate. In case of suspicious damage, take photos. If any damage is discovered, call Covana customer service at 1-877-278-8010.
2. Stand the Covana in the vertical position. Ensure wind conditions allow for this to be done safely.



3. With the retractable blade knife or scissors, cut and remove the front cardboard.



4. Use scissors to cut and remove the four (4) cable ties holding the sleeve boxes – two (2) boxes per side.



5. Remove the four (4) sleeve boxes from the crate and place them in a safe place – two (2) boxes per side. **Be careful not to damage the cover.**



6. Remove the parts box, the foams and the seals package from the crate and place them in a safe place. Use a hammer to remove the front wood board by hitting it.



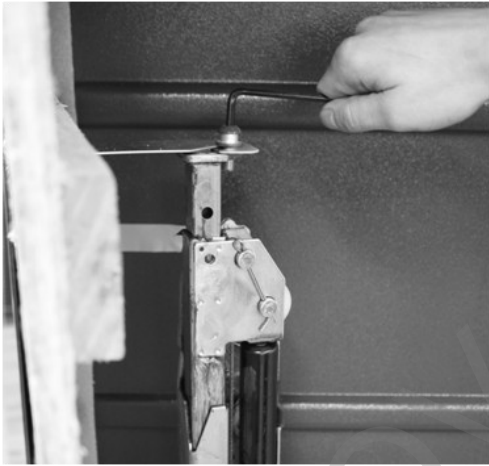
7. Use the Robertson screwdriver to remove the two (2) screws holding the motor box.



8. Use the 3/8" Imperial wrench to unscrew the screws holding the bottom of the jack – one (1) screw per side.



9. Use the 7/32" Allen key to unscrew the screws holding the bracket with the jack – one (1) screw per side.



10. With the help of one other person, remove the motor end post assembly from the crate. We recommend one hand under the main frame and one holding the vertical post. Handle and carry the assembly so that the posts are straight and parallel. **DO NOT TWIST.**



11. Use the Robertson screwdriver to unscrew the four (4) screws on the aspenite sheet at the bottom of the crate – one (1) sheet per side.



12. Remove the aspenite sheet at the bottom of the crate.  
13. Remove the extrusions and the jacks at the bottom of the crate.



14. With the help of one other person, flip the crate horizontally on its back side. One (1) person on each side of the side panel.





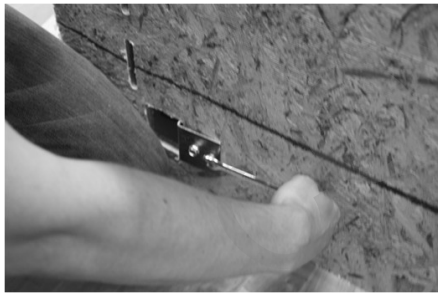
15. With the retractable blade knife or scissors cut and remove the top cardboard.



16. If your Covana comes with roller shades, remove the cardboard cylinder from the holes in the side panels and place them in a safe place. **Be careful not to damage the cover.** Use a hammer to remove the last wood board in the front of the crate.



17. Use the 3/8" Imperial wrench to unscrew the four (4) roof brackets from the side panels – four (4) screws per side.



18. Use the Robertson screwdriver to unscrew the three (3) screws holding the side panels to the bottom of the crate.



19. Remove the side panels by hitting them outward with a hammer – one (1) panel per side.

20. With the help of one other person, lift up the cover by holding it in the middle of the edges and place it on the spa.

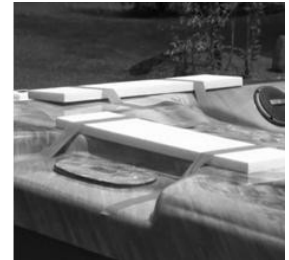
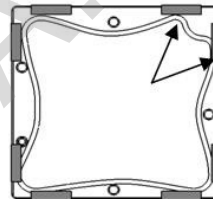
**\*\*\*WARNING\*\*\***

**When handling the cover, make sure to support the complete assembly with your hands (both inner shell and outer shell must be supported). DO NOT GRAB THE OUTER SHELL EDGE ALONE TO LIFT THE COVER, THIS WOULD DAMAGE THE OUTER SHELL CORNER.**

**Note:** *The cover alone is approximately 220 lb. You might want to split the cover in two parts if you need to move it where space is limited. To do so, gently pull off the outer shell.*

## ASSEMBLING

1. Attach the foam spacers, using tape, to the top of the spa near each corner.

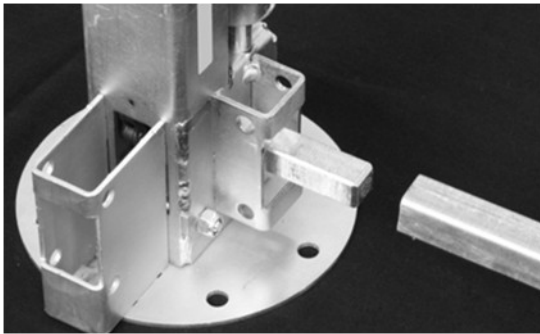


2. Place and center the roof of the Covana on the spa, pay attention to the short side and long side. The light switch, if a LED light kit option is installed in the cover, should be placed on the entry side of the spa.
3. If the Covana has the optional lights, perform the LED light kit installation/ procedure. Instructions are on the next page.
4. Loosen the lower sleeve retaining bolt, **no more than five turns**. Note that the sleeve must be put back in place **between** the 2 washers.

**Note:** It is possible, for ease of installation, to completely take off the sleeve assembly from the post. To do so, remove the cap screw located at the top of the sleeve with a 7/32" Allen wrench.



5. Lay the sleeves in a safe location, preferably horizontal on a soft surface.
6. Position the motor and two post assembly in place, usually to the rear of the spa. Slide the jacks against the cover's corners.
7. Slide the drive shafts over the square shaft located at the bottom of both motor side jacks.



8. For the non-motor side jacks, hold the jack vertical and in line with the drive shaft (square tube). Using a 3/4" wrench on the square shaft at the bottom of the jack, make fine adjustments so it is in line with the drive shaft and carefully slide the square shaft of the jack into the drive shaft.



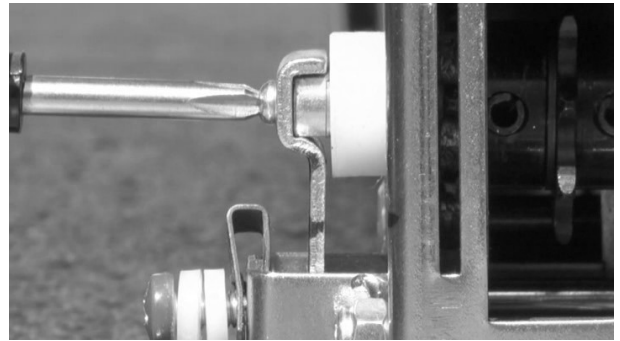
9. Install the aluminum U frame over the drive shaft and post bracket. Fasten in place using hardware provided, 4 bolts + 4 nuts + 8 washers.



10. Perform steps 8 to 9 on the second non-motor side jack.
11. Assemble and install the front frame with the cut-out for the steps.



12. Jack lock bracket located at the bottom of non-motor side jacks can now be safely removed.



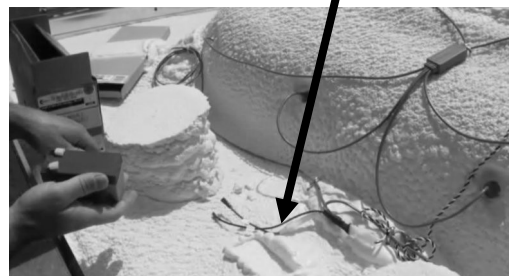
## LIGHTING INSTALLATION (OPTIONAL FEATURE)

### IMPORTANT

- Determine the corner of the Covana that is likely to receive the most sun, generally south is best; ensure there are no interfering objects.
  - Take note that the battery is shipped inside the hardware kit.
  - The battery is installed on the same short side as the on/off switch.
  - Take note the switch should be positioned at the entry side of the spa.
  - Ensure that all the hardware securing the outer shell to the inner shell is removed.
  - Lights should operate for about 4 hours on a full charge.
1. Lift the outer shell on the side where the battery is located to access the connections of the Solar Panel. Do not lift more than 16" (40 cm).



2. Install the battery in its foam support (located left of the on/off switch inside the top.) Make sure to correctly connect the positive "+" and negative "-" wires to the proper battery terminal. Each wire is clearly labeled accordingly.



3. **Outside installation** – Remove the solar panel from the box located inside the top of the Covana. Connect the solar panel to the lighting wire harness and place the wires and panel to the corner of the Covana where the panel will be mounted.

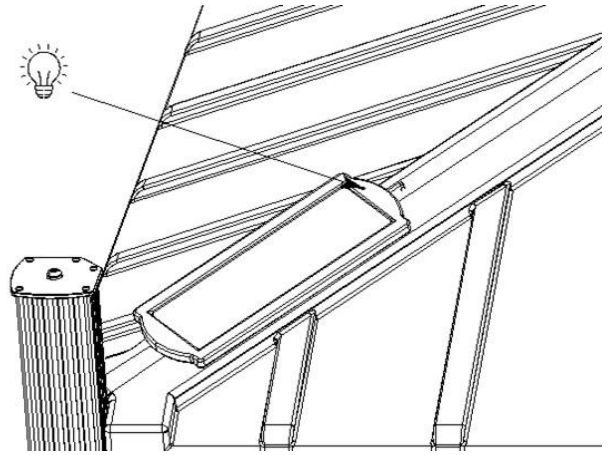


4. **Show Room installation** — Determine the best corner to locate the charger connection; generally the back side would be less visible. Connect the charger on the outside of the cover. Hide the cord of the solar panel inside the unit so it appears to be installed.



**Note: The charger is only to be used in a show room and is not designed or intended to be used outdoors.**

5. Lower the outer shell back over the inner shell taking care to ensure the wires are not pinched and are placed in the slit of the outer shell corner.
6. Insert the suction cups in the panel; then remove the protective layer from the foam tape on the back suction cups. Carefully place the panel 3" (7.5 cm) up from the corner and center the panel on the ridge of the roof.



**The blue light MUST be located at the top of the solar panel.** Apply pressure and rock the panel back and forth to ensure proper adhesion.



7. If using the solar panel, check to ensure the panel is working – blue flashing light.
8. Continue with final installation.

## FINAL ASSEMBLY

**AT THIS POINT, THE ELECTRICAL POWER SUPPLY MUST BE CONNECTED TO CONTINUE THE INSTALLATION. THIS WILL ENSURE THE PROPER SETTINGS CAN BE MADE.**

1. Mount key box as per instructions on page 4.



2. Test system by turning key clockwise to elevate posts. Continue holding key until motor stops automatically and posts are fully elevated.
3. Turn the key counterclockwise to lower the jacks, continue holding key until motor stops automatically and posts are fully lowered. Measure from the foot to the top of the jack. Maximum height should be 51.5" (1.28 m).
4. Reinstall the post sleeves. Ensure the all-weather kit is fully slid down to make contact with the outer sleeve. Ensure that one washer is on the inside and the other washer is on the outside at the bottom of the posts.



5. Make sure the cover is centered and leveled on the hot tub.
6. Install corner brackets at each corner. Fasten the bracket to the cover with the M6 first. Do not tighten completely.



7. Verify that all four corner brackets are positioned at the same height.



8. Then, using the self drilling screws, insert four screws per post.

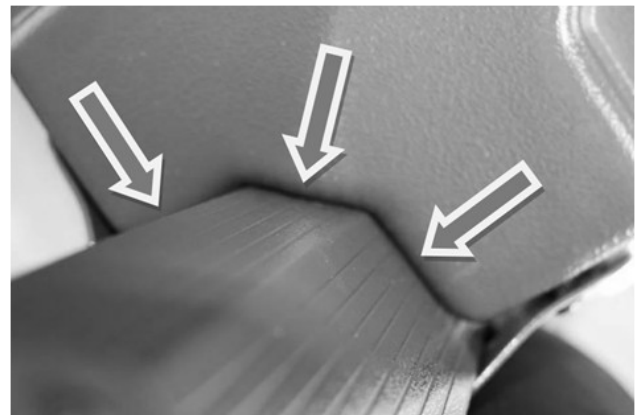


**IMPORTANT:** Make sure there is no gap between the sleeve and the bracket.



**Finish by tightening the four M6 screws on the cover.**

**IMPORTANT:** There should not be any gap between the cover and the sleeve.



9. Make sure the Covana is centered and aligned with respect to the spa on all four sides. If necessary, reposition the post's foot and frame accordingly.



10. Verify that all the posts are leveled on both sides. Reposition the posts if necessary.  
11. To insure a square installation, measure both



diagonals of the post and make sure they are identical.



12. Ensure that the middle sleeve is running freely up and down. If the middle sleeve stays up or does not move freely, verify installation on points 5 to 11.



13. Test the system to verify the cover elevates normally. Make sure there is no object directly above or in the path of the opening cover while performing this test; refer to limit switches adjustment instructions on page 11 if adjustments need to be made.  
14. Lower the cover and ensure it stops at the point of contact with the eight foam spacers on the spa. Readjust the corner brackets if contact is not made.  
15. Each of the 4 posts on the Covana must be properly anchored to the foundation using at least one of the pre-drilled holes located on the foot of each post.  
a. Use a 1/4" (0.6 cm) concrete anchor for concrete pads or a 1/4" (0.6 cm) lag bolt for wood foundations. Minimum of 1-1/4" (3 cm) long.  
b. The optional non permanent mounting plates can be used when anchoring is not possible.



## APPLYING THE SEAL

1. Once the Covana has been fully assembled, elevate the cover using the key switch and remove the foam spacers. Lower the cover, walk around the entire perimeter of the spa observing where the white inside shell makes contact with the spa. This will determine the best location to apply the seal.
2. Ensure the spa edge is completely dry.
3. With the cover elevated, apply the provided seal clips to the spa in the predetermined area for the seal. The ideal location for the seal is closer to the inside/water edge. To obtain straight lines, use clips in the corners only.



4. Install the seal starting at motor end with the adhesive layer pointing up towards the roof. Use the supplied seal connector in both ends of the seal.

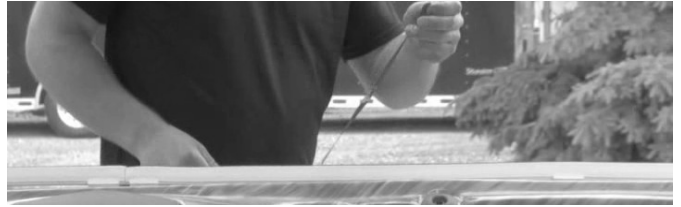


5. A clean cut must be performed so when closed, the hot spa is perfectly sealed.



**NOTE** – At this stage, if the ambient air temperature is below 32°F (0°C), a temporary heater must be placed inside the spa for 10 to 15 minutes. When the heater is in the spa, bring down the cover until it touches the seal to increase the air temperature. After 10 to 15 minutes, remove the heater and continue with the seal installation.

6. Test by lowering the cover again to ensure that the seal makes contact on the entire perimeter. If satisfied, elevate the cover, remove the red plastic backing off the seal and lower the roof to the seal.



7. Let the cover rest in this position for two minutes to ensure proper seal-to-cover adhesion.



**IMPORTANT** – Now elevate the cover no more than an inch and let the cover rest again for a short period of time (a few seconds) as this will allow the seal to slowly and fully release from the seal clips. A plastic tool or your fingers can be used to help release the seal.

8. Once satisfied that the seal is released, elevate the cover and remove the seal clips from the tub edge.



9. Lower the cover and verify again for proper seal. If satisfied, elevate the cover and finalize the seal installation by applying pressure on the seal perimeter to properly set the adhesive on the inner surface.

## ASSISTANCE

You can also refer to the videos available on Youtube. Go to [www.covana.com](http://www.covana.com) and click on the YouTube button.

For immediate assistance, please call us between 8 am to 12 pm and 1 pm to 5 pm EST at 1-877-278-8010.



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