

## **User Manual** SAFETY | INSTALLATION | MAINTENANCE

# **SECTION ONE**

Important Safety Information

### Important safety information

#### Please follow these important safety measures when in or around your hot tub.

- Children should not use spas or hot tubs without adult supervision
- Do not use spas or hot tubs unless all Suction guards are installed to prevent body and hair entrapment
- People using medications and/or having an adverse medical history should consult a physician before using a spa or hot tub
- People with infectious diseases should not use a spa or hot tub
- To avoid injury, be careful when entering or exiting the spa or hot tub
- Do not use drugs or alcohol before or during the use of a spa or hot tub to avoid unconsciousness and possible drowning
- Pregnant women or women who could be pregnant should consult a physician before using a spa or hot tub
- Water temperature in excess of 38°C can be injurious to your health.
  Ensure the water temperature in the hot tub does not exceed 38°C by using the up and down arrows on the controller keypad to regulate temperature
- Before entering the spa or hot tub, measure the water temperature with an accurate thermometer
- Do not use a spa or hot tub immediately following strenuous exercise
- Prolonged immersion in a spa or hot tub can be injurious to your health
- Maintain water chemistry in accordance with the instructions in this guide
- Using alcohol or drugs can greatly increase the risk of fatal hyperthermia in spas and hot tubs. Hyperthermia occurs when the internal temperature of the body reaches a level several degrees above the normal body temperature of 37°C. The symptoms of hyperthermia include drowsiness, lethargy, and an increase in the internal temperature of the body. The effects of hyperthermia include the following:
  - unawareness of an impending hazard
  - failure to perceive heat
  - failure to recognize the need to exit the spa or hot tub
  - physical inability to exit the spa or hot tub
  - fetal damage in pregnant women
  - unconsciousness and danger of drowning

### Safety instructions for electrical equipment

Please follow these important safety measures when using Canadian Hot Tubs electrical equipment. If you are not comfortable following these instructions, consult an electrician.

- A green coloured terminal or a terminal marked G, GR, Ground, Grounding, or the asterisk symbol\* is located inside the supply terminal box or compartment. To reduce the risk of electric shock, this terminal must be connected to the grounding means provided in the electric supply service panel with a continuous copper wire that's the same size as the circuit conductors supplying this equipment. \* IEC 60417, Symbol 5019.
- 2. At least two lugs marked "BONDING LUGS" are provided on the external surface or on the inside of the supply terminal box or compartment. To reduce the risk of electric shock, connect the local common bonding grid in the area of the hot tub or spa to these terminals with an insulated or bare copper conductor not smaller than No. 6 AWG.
- 3. All field-installed metal components such as rails, ladders, drains, or other similar hardware within 3 metres of the spa or hot tub shall be bonded to the equipment grounding bus with copper conductors not smaller than No. 6 AWG.
- **4. WARNING** To reduce the risk of injury, do not permit children to use this product unless they are closely supervised at all times.
- 5. A wire connector is provided on this unit to connect a minimum 8 AWG (8.4 mm2) solid copper conductor between this unit and any metal equipment, metal enclosures of electrical equipment, metal water pipe, or conduit within 5 feet (1.5 m) of the unit.
- DANGER Risk of injury If you have been provided with a 120V cord-connected Spa Pack
  - a) Replace damaged cord immediately.
  - b) Do not bury cord.
  - c) Connect to a grounding type of receptacle only.
- 7. WARNING Risk of accidental drowning. Extreme caution must be exercised to prevent unauthorized access by children. To avoid accidents, ensure that children cannot use a spa or hot tub unless they are closely supervised at all times.
- 8. DANGER To reduce the risk of drowning from hair and body entrapment, install a Suction fitting(s) with a marked flow rate that equals or exceeds the flow rate marked on the equipment assembly.

- 9. DANGER To reduce the risk of injury, do not remove the Suction fittings. Never operate a spa or hot tub if the Suction fittings are broken or missing. Never replace a Suction fitting with one rated less than the flow rate marked on the equipment assembly.
- **10. DANGER** Risk of electric shock. Electric devices such as a light, telephone, radio, or television should not be used within 5 feet (1.5 m) of a spa or hot tub.
- **11. WARNING** Risk of electric shock. Install electronic equipment at least 5 feet (1.5 m) from inside wall of hot tub or spa using non-metallic plumbing.
- **12. WARNING** To reduce the risk of injury:

a) The water in a spa should never exceed 40°C (104°F). Water temperatures between 38°C (100°F) and 40°C are considered safe for a healthy adult. Lower water temperatures are recommended for young children and when spa use exceeds 10 minutes.

**b)** Since excessive water temperatures have a high potential for causing fetal damage during the early months of pregnancy, pregnant or women who could be pregnant should limit spa water temperatures to 38°C (100°F).

c) Before entering a spa or hot tub, the user should measure the water temperature since the tolerance of water temperature-regulating devices varies.d) The use of alcohol, drugs, or medication before or during spa or hot tub use may lead to unconsciousness with the possibility of drowning.

**e)** Obese persons and persons with a history of heart disease, low or high blood pressure, circulatory system problems, or diabetes should consult a physician before using a spa.

**f)** Persons using medication should consult a physician before using a spa or hot tub since some medication may induce drowsiness while other medication may affect heart rate, blood pressure, and circulation.

**13.** (For equipment assemblies with a blower)

**a)** WARNING – Install blower no less than 12" (305 mm) above the maximum water level to prevent water from contacting electrical equipment unless the blower is protected with a 12" "plumber's loop" as outlined in the installation manual.

**b)** WARNING – Risk of Electric Shock. Install at least 5 feet (1.5 m) from tub water using non-metallic plumbing or provide an enclosure for the blower to prevent water from contacting electrical equipment.

#### SAVE THESE INSTRUCTIONS.

### **FRANÇAIS**

#### IMPORTANT

AVERTISSEMENT : NE PAS LAISSER LES ENFANTS UTILISER UNE CUVE DE RELAXATION SANS SURVEILLANCE

AVERTISSEMENT : POUR ÉVITER QUE LES CHEVEUX OU UNE PARTIE DU CORPS PUISSENT ÊTRE ASPIRÉS,

NE PAS UTILISER UNE CUVE DE RELAXATION SI LES GRILLES DE PRISE D'ASPIRATION NE SONT PAS TOUTES EN PLACE

AVERTISSEMENT : LES PERSONNES QUI PRENNENT DES MÉDICAMENTS ET (OU) ONT DES PROBLÈMES DE SANTÉ DEVRAIENT CONSULTER UN MÉDECIN AVANT D'UTILISER UNE CUVE DE RELAXATION

AVERTISSEMENT : LES PERSONNES ATTEINTES DE MALADIES INFECTIEUSES NE DEVRAIENT PAS UTILISER UNE CUVE DE RELAXATION

AVERTISSEMENT : POUR ÉVITER DES BLESSURES, USER DE PRUDENCE EN ENTRANT DANS UNE CUVE DE RELAXATION ET EN SORTANT

AVERTISSEMENT : POUR ÉVITER L'ÉVANOUISSEMENT ET LA NOYADE ÉVENTUELLE, NE PRENDRE NI DROGUE NI ALCOOL AVANT D'UTILISER UNE CUVE DE RELAXATION NI QUAND ON S'Y TROUVE

AVERTISSEMENT : LES FEMMES ENCEINTES, QUE LEUR GROSSESSE SOIT CONFIRMÉE OU NON, DEVRAIENT CONSULTER UN MÉDECIN AVANT D'UTILISER UNE CUVE DE RELAXATION

AVERTISSEMENT : IL PEUT ÊTRE DANGEREUX POUR LA SANTÉ DE SE PLONGER DANS DE L'EAU À PLUS DE 38 °C

AVERTISSEMENT : AVANT D'UTILISER UNE CUVE DE RELAXATION, MESURER LA TEMPÉRATURE DE L'EAU À L'AIDE D'UN THERMOMÈTRE PRÉCIS

AVERTISSEMENT : NE PAS UTILISER UNE CUVE DE RELAXATION IMMÉDIATEMENT APRÈS UN EXERCICE FATIGANT

AVERTISSEMENT : L'UTILISATION PROLONGÉE D'UNE CUVE DE RELAXATION PEUT ÊTRE DANGEREUSE POUR LA SANTÉ

AVERTISSEMENT : NE PAS PLACER D'APPAREIL ÉLECTRIQUE (LUMINAIRE, TÉLÉPHONE, RADIO, TÉLÉVISEUR, ETC) À MOINS DE 1.5 M DE CETTE CUVE DE RELAXATION

ATTENTION : LA TENEUR DE L'EAU EN MATIÈRES DISSOUTES DOIT ÊTRE CONFORME AUX DIRECTIVES DU FABRICANT.

AVERTISSEMENT: LA CONSOMMATION D'ALCOOL OU DE DROGUE AUGMENTE CONSIDÉRABLEMENT LES RISQUES D'HYPERTHERMIE MORTELLE DANS UNE CUVE DE RELAXATION



## **SECTION TWO**

Hot Tub Installation Instructions

### **Hot Tub Kit Contents**

#### CLICK HERE TO WATCH THE UNBOXING VIDEO

- 1. Floor two sections that include six screws to join them together
- 2. Wall staves two or three bundles (depending on the type of hot tub you purchased) of wooden tongue and groove staves that include three smaller staves for finishing. Machined staves for Jets, Suctions, Light, and Bubbler will be labelled.
- **3.** Three or four stainless steel bands with lugs and nuts to hold your hot tub together.
- 4. A box containing a vinyl liner.
- 5. Seat supports and hardware, including wooden seat supports, lag bolts and washers, red silicone gaskets, and round-headed locator screws. If you have a 5-foot-deep tub, you will also have supports and hardware for the footrests.
- **6.** A set of seats with 2 ½ inch screws to attach the seats to the supports.
- 7. Foil reflecting insulation to fit between the liner and the cedar staves and floor, and rolls of insulation to wrap the pipes once the installation is complete. Tape is also provided.
- 8. A roll of coping.
- **9.** One or two Suction fittings (depending on your hot tub model) and optional elbows that may be useful during setup.
- 10. One Light fitting and nut.
- 11. Jets (4, 6, or 10 Jets depending on your hot tub model) and one or two 1 ½ inch x 1 ½ inch x 1 ½ inch Tee fittings for the water line.
- One or two 1 ½ inch x 1 ½ inch x 1 inch Tees and an air intake valve for each air line.
- 13. A certified and tested Spa Pack which includes your pump, controller, heater, keypad, and filter. If you have two Suctions and/or 10 Jets, you will have additional Tee fittings. If you have a 10 Jet hot tub, you will also have a 1 ½ inch valve needed during set up.

- **14.** A starter chemical pack.
- **15.** A wooden tool to tighten and loosen the brown Jet thru-walls on the inside of the hot tub. Please keep this tool for future use.
- 16. Silicone and PVC cement
- 17. A roll of flex hose for plumbing
- 18. A roll-up cover

#### Optional components:

- 1. A floating thermal blanket
- 2. If you ordered the Bubbler, you will have pipes, fittings, and a motor.
- **3.** If you ordered the Ionizer, it has been partially assembled for you.

#### **Required Tools**

- 1. A white rubber mallet used for setting the staves to the floor
- 2. Adjustable wrench (or ratchet set)
- 3. 3/8" electric drill
- Screwdrivers
- 5. Carpenters square
- 6. Saw or flex pipe cutters
- 7. Pump pliers or pipe wrench
- **8.** 3/16" bit for drilling holes into the Bubbler pipe (if you purchased the Bubbler)
- 9. Sharp blade
- 10. Level

#### Important Information – KEEP WOOD DRY

The wood used for your hot tub is precision-machined so that it will fit snugly together when dry. If the wood gets wet before it's assembled, it will swell and the staves will not fit onto the floor easily.

The foundation or base for your hot tub is very important. When filled, your hot tub will weigh several tons. Assemble the hot tub in the area it will be used on a 4 to 6-inch-thick concrete pad as the base. Other bases may be used as long as they are designed to support the weight of the filled hot tub.

While assembling the hot tub, leave enough room to move around it easily.

### Instructions

#### CLICK HERE TO WATCH THE FLOOR, STAVES, AND BANDS VIDEO

### STEP 1 – The Floor

#### Floor Installation

The floor for your hot tub comes in two pre-built sections.

- **1.** Align the two halves of the floor together so that there's no gap.
- 2. Place the 1  $\frac{1}{2}$  inch screws that are provided in the pre-drilled holes and drill them in.

**Note:** Do not set the floor on its edge and roll it to the desired location. The floor edges must remain undamaged to allow the precision-cut staves to fit perfectly into it. Sandpaper may be used to smooth any rough edges.

### STEP 2 – Stave Installation

#### **Important Information**

- Pick out the staves to be used for the front of the hot tub wall. Use any marked or discolored staves at the back side of your hot tub.
- As you plan the arrangement of your hot tub, such as the placement of Jets, make a mark on the floor to clearly identify where you need to add a certain pre-cut stave.
- Suctions should be located close to the Spa Pack to minimize plumbing.
- If you have two Suction fittings to install, space them at least 3 feet apart.
- Allow a minimum of three staves between Jets to facilitate easy plumbing

#### Important Information for Hot Tubs with 10 Jets

 If your hot tub has 10 Jets, the Jet staves should be distributed to create two separate rows of Jets – the top row about 11 inches from the top, and the bottom row of Jets about 17 ½ inches from the top. Be sure to leave space between the Jets to make plumbing easier.

### Instructions

Each stave has a slot cut out at the bottom that will be banged onto the outside edge of the floor to create the wall. This slot is called a "croze."

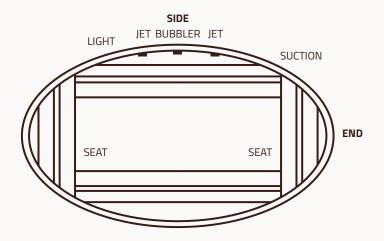
 Before you begin installing the wall, pick out the three odd-sized or smaller staves, and set them aside. These are "spacer" staves and will be the last ones to be installed.

- 2. Separate the staves with the pre-drilled holes.
  - The Suction stave(s) has a hole cut out about 4 ½ inches up from the croze.
  - The Light stave has a hole cut out about 17 inches from the top of the stave.
  - $\bullet\,$  If you have a Bubbler, the Bubbler stave has a hole cut out about 16 % inches from the croze.
  - The remainder of the staves that have holes cut out are for your Jet fittings.
- Decide where the Spa Pack will be located and place the Suction stave(s) on that side of the hot tub.
- **4.** If you have a Bubbler, the Bubbler stave should be the first stave attached and span the seam of the floor.

#### **OVAL HOT TUBS**

- Suction and Light staves should be placed in the side section of oval hot tubs.
- Always use the "spacer" staves on the side section.

Arrange the staves as shown in the diagram below:



#### TUB FOR 2 (5'X3' OVAL)

This hot tub has two different groups of staves: one group is for the side sections and one is for the ends where the curve radius becomes tighter. To make it easy to see where the staves change, the floor of the hot tub has four marks to show you where one group of staves ends and the other begins.

5. When all the staves have been arranged around the hot tub, tap each stave into the floor. Make sure that they are straight and that the tongue and groove joints are tight together. The staves will slip easily onto the floor for the first ¼ inch if they are positioned square to the floor.

Use a Carpenter's Square when tapping staves onto the floor. You can use the square in two ways:

- Against the inner angle of the staves and the floor, to make sure the staves are going on perfectly upright.
- Against the side of each newly placed stave to make sure staves do not begin to lean sideways.

**Note:** All the staves will be drawn tighter to the floor once the bands are around the hot tub.

Use a combination of the three spacer staves to fill in the last gap in the wall.

### STEP 3 – Installing Bands

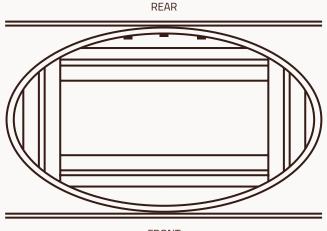
#### Important Information

- Use gloves when handling the bands as the edges may be sharp. Firmly grasp the bands as you open them.
- When marking the placement of the bands, always measure from the bottom of the stave on the outside of the hot tub.

- To help position the stainless steel bands, you can use a few small finishing nails located at the correct height for the bottom of the band. The band can then rest on the finishing nails while it is secured into place.
- Buckles should all be placed at the back of the hot tub, out of view.
- DO NOT put the top band on until after the liner is fitted into the hot tub.
- When the installation is complete and the hot tub is filled with water, check all bands to make sure they are tight.

#### **OVAL HOT TUBS**

 To keep the oval shape of your hot tub, build wooden supports about halfway up the hot tub sides. This will prevent your oval tub from changing shape over time due to water pressure. This step is strongly recommended for the Saguenay and Manitoulin models.



### Instructions

- Measure 2 ¼ inches up from the bottom of the stave on the outside of the hot tub (do not measure from the inside floor). This is where the bottom of the bottom band will be located. It is also where the croze are cut into the staves.
- 2. Place the band around the hot tub on the floor. Join it together using the bolts, washers, and nuts, then slide it up to the 2 ¼ inch mark. Line up the bottom of the band at this mark and tighten it just enough so that it does not slide down.

**Note:** It is important that the bottom band covers the croze. To double check that the band has covered the croze, compare a leftover spacer stave by placing it against the wall. The band should span the croze.

- **3.** Install the middle band(s) so they are evenly spaced in the centre of the tub. Tighten them until they are just snug. They will be re-tightened later.
- **4.** Once the bands are snug, tap in each stave again with the mallet to ensure they are firmly on the floor. Then check and re-tighten each band.

### STEP 4 – Marking Seat and Footrest Supports

### CLICK HERE TO WATCH THE SEAT SUPPORTS, LINER, AND SUCTIONS VIDEO

#### Important Information

- At least 60 minutes before installing the seat supports, put a generous amount of silicone on one side of the red silicone washers and attach them to the back of the seat supports. This will allow the silicone to form a good seal.
- Do not pre-drill the holes of the seat supports. Use a screwdriver to turn the "locator" screw directly into the wood of the hot tub. Ensure that the lag bolts will go into the stave and not into a joint between staves.

### Instructions

#### Seat Supports

It is critical that seat supports are positioned correctly. Locations for seat supports have been marked on the floor for 7-foot-diameter hot tubs.

- **1.** Place the long seat boards into the hot tub and measure between them so that they are an equal distance apart.
- 2. From the front corner of the seat, draw a line up 17 ½ inches from the floor and make a mark.
- **3.** From the back corner of the seat, draw a line up 17 ½ inches from the floor and make a mark.

**Note:** This is the recommended seat height for a 4-foot-high tub. If you have a Bubbler, you must place the seats at this height. If not, you can adjust the seat height to your preference.

- **4.** Place the front of the seat support in line with the vertical line you drew up from the floor, and line up the top of the seat support horizontally so that it is level with the two marks.
- **5.** Holding the seat support in position, place a pencil through the centre hole of the seat support and mark the stave. This is where the "locator" screw will be inserted.

Note: The seat support will go into this location after the liner is installed.

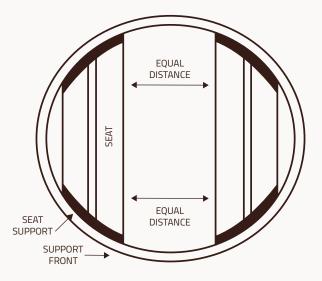
- **6.** Screw in the 1 inch, round-headed screws (provided in kit) halfway into the mark on the stave. This is the locator screw that marks where the seat support will be installed after the liner is in the hot tub.
- 7. Repeat these instructions for the remaining seat supports.

#### **Footrest Supports**

If you have a 5-foot-deep tub, you will also have footrests. Locations for the footrests may have been marked on your floor in red.

Footrest supports are installed in the same manner as the seat supports (follow the directions above). The recommended height is 11 inches, but that can be changed according to individual preferences.

Put seat supports and footrest supports (if applicable) aside for now.



### STEP 5 - Liner Installation

#### Important Information

- The pre-cut pieces of Ayrfoil insulation are used to line the floor and walls of the hot tub. This insulation goes under the liner and the foil side needs to face the liner (i.e., toward the water).
- The rolls of Ayrfoil insulation and tape are to wrap the plumbing once the setup is complete.
- If you have a blue thermal blanket, set it aside.

### Instructions

#### Insulation Installation

You need to be in the hot tub to complete this step. Place the insulation, foil tape, and a sharp blade into the hot tub and get in.

- 1. With the foil side facing you, place the edge of the Ayrfoil insulation on a stave that is at least two staves away from any Jet, Suction, Light, or Bubbler.
- 2. Using the foil tape, tape the edge into place at the top and bottom of the wall.
- **3.** Work around the hot tub, placing tape on the top and bottom every few feet to secure the insulation around the entire circumference of the hot tub.
- **4.** When your reach the point of where you started, cut the insulation so that the two ends join together with no overlap and secure with tape.
- **5.** The insulation should not be higher than the top of the hot tub wall. If it is, trim it down to ½ inch below the top of the staves.
- **6.** Find the locator screws and cut around to expose them. Do not remove the screws.

- **7.** Cut an "X" into the insulation where the holes are in the staves. Trim the insulation back 1 inch on all sides of the holes. Removing the insulation around the fittings will ensure a tight fit against the wall.
- **8.** Place the floor insulation down and tape the two pieces together. Then tape around the sides to secure it to the rest of the insulation.

#### **Coping Installation**

Coping is the rubber cap that is attached around the top of the staves. It provides a comfortable edging to your hot tub.

- Line the top of the staves with silicone. Put the edge of the coping down and tape it against the hot tub so that the end does not slip as you run it around the top of the staves. Make sure that the coping is placed evenly in the centre.
- **2.** When you get to where you started, cut the coping to create a tight seam and secure it in place with foil tape.

#### Liner Installation

#### **Important Information**

- Make sure that the liner is warm before you install it. This will allow the liner to stretch easily and create a better fit. To warm it up, place it in a bathtub or laundry sink with very warm water for a few minutes or leave it outside on a warm day.
- For oval hot tubs, it is critical that the liner be positioned correctly to fit the oval shape.
- The top of the liner has a "bead" that will hold the top band around the hot tub.

### Instructions

- **1.** Place the liner into the hot tub. Check that the wall seam does not line up with any fitting holes.
- **2.** Pull the liner into place so that the liner overlaps the outside of the tub by about 3 inches. It is designed to be a tight fit.
- **3.** Place the top band over the liner so that the lower edge is seated into the bead of the liner. Tap the band down into the bead and tighten the band so that the liner is held firmly in place.
- 4. Run 2 inches of water into the tub. The weight of the water will stretch the liner and ensure a good fit. Working inside the tub, use your feet to push the liner down and into the corners. The floor should be smooth and wrinkle free.
- **5.** If necessary, you can loosen the top band and ease the liner down enough to ensure a good fit at the bottom.

### STEP 6 – Suction and Spa Pack Installation

- The Spa Pack needs to be located within 20 feet of the hot tub and protected from outside elements by an enclosure. If locating it within 40 inches (1 metre) of the hot tub, a second enclosure or water shield is required to protect the Spa Pack from splash-overs from the hot tub. The Spa Pack can also be installed in a utility room or garage, provided that it is within 20 feet of the hot tub. To provide the best possible circulation and water action, run straight lines of hose, with as few bends as possible, to the Spa Pack.
- The Suction fitting, Light fitting, and Bubbler fitting (if ordered) use a nut to secure the fitting to the tub. These nuts should be snug but not too tight.
- You have been supplied with a 90-degree elbow with your Suction fitting. Depending on your setup, you may or may not use the elbow.
- All fitting gaskets are ribbed on one side. The ribbed side faces the liner and will have silicone applied to it.

### Instructions

#### Suction Installation

- **1.** Add water to just below the hole(s) for the Suction. Make sure that the liner is flat by smoothing it out with your feet.
- **2.** Locate the Suction hole and cut a 1 ½ inch "X" into the liner, using your foot to hold the liner in place.
- **3.** Add silicone to the washer on the Suction thru-wall fitting and push it into the hole.
- **4.** Have a person on the outside of the hot tub put on the nut and tighten it with pump pliers or a pipe wrench.
- 5. Once the nut has been tightened, screw the Suction screen onto the thru-wall.
- **6.** Repeat for the second suction, if provided.
- **7.** If you have two Suction fittings, the two hoses from the Suction fittings connect to the Tee fitting that is attached to the intake (front) of the pump.

#### Spa Pack Installation

**1.** Make sure that your Spa Pack is located within 20 feet of your hot tub and below the water line. It will need to be accessible for maintenance.

**Note:** *If the Spa Pack is located less than 40 inches (1 metre) from the hot tub, you need to protect it from getting splashed with a water shield or another type of enclosure.* 

- 2. When the Spa Pack is in the desired location, run the white flex hose from the Suction(s) to the front of the pump. It is recommended to dry-fit (assemble without gluing) first. If needed, use the elbows to position the hose into place.
- **3.** Once everything is together and in position, use the PVC cement to connect the hose to the Suction fitting and the pump side of the Spa Pack. Be sure to use PVC cement on both sides of the joints.
- **4.** Make sure all valves are closed before adding more water to the hot tub. Turn the valve handles to be 90 degrees with the hose. This will turn the flow OFF as you to proceed with the next steps.

### STEP 7 – Seats, Bubbler, and Light Installation

### CLICK HERE TO WATCH THE SEATS, BUBBLER, AND LIGHT VIDEO

#### Important Information

- The top of the seat supports have the word "Front" written on them. "Front" should be facing up when you install the seat support locations are marked on the floor.
- If you have a 7-foot-diameter model, the seat support locations are marked on the floor.
- Everything that will be installed in the hot tub should be installed from the bottom up, starting with the footrests.

### Instructions

#### Footrest Support Installation

Skip this step if your tub does not have footrests. If you do, footrest supports are installed in a similar manner to the seat supports. Please follow the Seat Support instructions, below.

Bubbler Fitting Installation (Skip this step if you did not purchase a Bubbler.)

- 1. Add water to just below the hole for the Bubbler.
- **2.** Cut a 1  $\frac{1}{2}$  inch "X" into the liner where the Bubbler hole is located.
- **3.** Put a generous amount of silicone on the ribbed side of the Bubbler fitting gasket and push it through the hole.
- **4.** As you did with the Suction, have someone on the outside of the hot tub thread the nut and tighten it with a wrench.

**5.** Using the 1 ½ inch flex hose and the pipes provided, create a loop that extends 12 inches above the top of the water line. This will prevent the water from backing up into the blower motor.

### CLICK HERE TO WATCH THE BUBBLER AND ANTI-SIPHON VIDEO

**Note:** The blower motor should be mounted at least two feet above the ground and five feet away from the hot tub to prevent it from getting wet due to splash-overs. If mounted less than 5 feet from the hot tub, the blower motor must be protected from getting splashed with a water shield or another type of enclosure. The blower motor is connected to the controller unit and controlled from the keypad. Please see the Spa Pack Configuration Diagram for details.

**6.** Assemble the Bubbler pipe and set it aside. **The joints on the Bubbler do not need to be glued.** After the seats are installed, you will install the Bubbler.

#### Seat Support Installation

- **1.** Raise the water level up so that it is 2 to 3 inches below the level of the locator screws of the seat supports.
- **2.** With a sharp blade, cut a small incision in the liner to expose the head of the locator screw. Remove the locator screw.
- **3.** Put a generous amount of silicone on the backs of the red seat support gaskets. This will go against the liner.
- **4.** Put a stainless steel washer on a lag screw and put it through the centre hole of the seat support. Turn the lag screw through the hole you made for the locator screw. Do not predrill.
- **5.** Tighten the lag screw just enough to hold the support in place. Use a level to ensure that the support is straight.
- **6.** Install the other two lag screws. Make sure that all three lag bolts are tight. This will secure the seat support to the wall and seal the holes.
- **7.** Repeat these instructions to install the remaining seat supports.

#### Seat and Optional Bubbler Installation

Note: For the Okanagan, 7-foot-round model, see the diagram in the Appendix.

- **1.** Position the front main seats. Measure between them to ensure that they are evenly spaced apart.
- 2. Position the rear main seats (they are curved to the shape of the hot tub wall).
- **3.** Fasten the seats into the supports using the 2 ½ inch stainless steel screws.
- If you have a Bubbler, insert the end into the Bubbler wall fitting. Do not glue the pipe to the fitting.
- **5.** Secure the Bubbler under the seat boards by using the hangers and screws provided.
- **6.** Position the side seats. These seats are supported by the stainless steel brackets that are attached to the front seats. You may need to trim the length of the side seats so that they fit.
- 7. Mark the location of the holes in the stainless steel brackets on the middle seats, then drill and countersink the holes. Fasten the middle seats into place using the stainless steel bolts, making sure to use the nut and lock washer for each bolt.
- **8.** Once the middle seats are installed, finish securing the Bubbler under them by using the hangers and screws that are provided.
- 9. Place your drill between the seats and drill 3/16 inch holes into the top of the Bubbler pipe. The holes should be equally spaced, about 1 to 2 inches apart. This will ensure that the bubbles come up through the seat. Only drill these holes on the top side of the pipe once it is installed under seats. If the Bubbler is too forceful, drill additional holes.

#### **Light Installation**

- **1.** Bring the water up to just below the Light fitting hole and cut a small "X" in the liner.
- 2. Add silicone to the ribbed side of the gasket.
- 3. Insert the Light fitting and secure it on the outside with the nut.

**Note:** The LED Light mounts inside the Light fitting (do not glue it). The Light is connected to the controller unit and is controlled from the keypad.

### STEP 8 – Jet and Plumbing Installation

#### CLICK HERE TO WATCH THE JETS AND PLUMBING VIDEO

#### Important Information

- Each brown Jet thru-wall comes with two silicone washers:
  - One washer goes on the inside of the hot tub, with the ribbed surface against the liner.
  - The other goes on the outside of the hot tub, with the white Jet body, and the ribbed side faces the hot tub.
- Every hot tub is supplied with two (or four) end Jets: one for the right and one for the left ends of the plumbing. These Jets have plugs on one side.
- The centre Jets have no plugs in the holes.
- The white Jet body holds the Air and Water lines on the outside of the hot tub. The Air line must be in the top position.

### Instructions

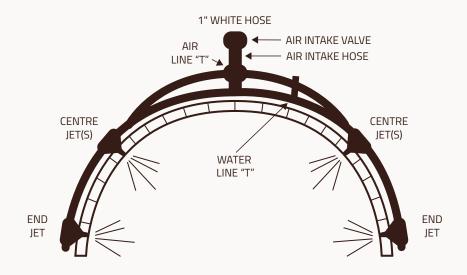
#### Jet Installation

- 1. Bring the water up to within 1 to 2 inches of the Jet holes.
- At the Jet hole, cut an "X" in the liner that is large enough to put the threaded portion of the thru-wall into the wall of the tub.

- **3.** There should be two white silicone gaskets on the thru-wall, remove one and leave one on the threaded fitting.
- **4.** Apply silicone to the threads of the brown thru-walls and the ribbed side of the gaskets. The ribbed surfaces of the gaskets will go against the liner on the inside, and against the wood on the outside of the hot tub.
- **5.** Push the brown thru-wall through the hole in the stave and put the outside gasket on.
- **6.** Put on the white Jet body on the outside of the hot tub. While holding the brown thru-wall on the inside of the tub, tighten the body firmly from the outside.

**Note:** The thru-wall can be backed off (turned a partial turn backwards or forwards) so that the outside Jet body ends up in the proper horizontal position with the Air line at the top.

The Jet fittings are to be installed with the thru-wall section as shown in the following diagram:



#### Important Information

- When connecting the white flex hose to the Jet bodies, put PVC cement on both sides of the joint. This will ensure that no small leaks occur when the hose is under pressure.
- The air intake hose will be raised vertically from the Air line. It can be trimmed but the air controller must be above the water line.
- Ensure that people do not bump or handle the plumbing or equipment. This can cause the seal to break or the fittings to come loose and potentially leak. Protect all connections with decking as quickly as possible.

### Instructions

#### **Plumbing Installation**

- 1. With the Jets in place, cut and fit the white flex hose to create an Air line on top and the Water line on the bottom. Use a generous amount of PVC cement on both sides of the joint and hold for 5 to 10 seconds.
- Install the 1 ½ inch x 1 ½ inch x 1 inch Tee fitting into the Air line. Place this Tee fitting with the 1 inch opening on top.
- **3.** Glue the 1 inch hose into the Tee fitting. The Air controller should not be glued on the top.
- 4. Install the 1 ½ inch x 1 ½ inch x 1 ½ inch Tee into the Water line with the opening facing downwards. This will connect to the filter side of the Spa Pack. If you have the optional Ionizer, it is connected into this Water line.

#### Hot Tubs with 10 Jets

If your hot tub is equipped with 10 Jets, the two rows of Jets are installed in a similar manner with the exception of the following:

- 1. A 1 ½ inch valve (provided) must be connected into the Water line of the bottom row of Jets. The valve should be closed prior to raising the water level above the bottom row which will prevent water draining from the tub as you complete the installation. This valve must be opened prior to turning on the pump and will remain open.
- 2. The two Water lines connect to a Tee fitting at the filter. This Tee has not been glued and can be moved to allow the hoses to be positioned easily. Once the final position is determined, use the PVC cement to connect the hoses and glue all the joints.

### STEP 9 – Final Steps and Starting Up

#### CLICK HERE TO WATCH THE SPA PACK AND TEST RUN VIDEO

#### **Important Information**

- We recommend installing the keypad on a vertical surface to protect it from rain, snow, and UV light.
- The Spa Pack must be connected to a 240V, 40A GFCI.
- A qualified electrician must connect the power to the Spa Pack.
- If your hot tub has been equipped with a 120V Spa Pack, it will have a factory-connected GFCI cord that can be plugged directly into a standard wall outlet.

### Instructions

- **1.** When all final connections are complete, raise the water level above the top row of Jets.
- 2. Make sure all valves are in the open position (handle in line with the hose).
- **3.** Drain any air from the system by loosening the air vent screw on the filter lid. Quickly tighten it again when the water starts to escape.
- 4. With the power on and the Jets on high, check all connections for leaks.
- **5.** When everything is complete, use the rolls of foil insulation and tape to wrap all the plumbing.
- **6.** The roll-up cover has a "tail" which should be fastened to the surrounding decking by three screws through one of the boards of the tail.

A manual has been included for the keypad controller and any other peripheral equipment that has been provided. Please consult and familiarize yourself with their operation.

Please contact Canadian Hot Tubs at 1-800-265-6355 if you have any questions.

Click the link below to watch all the videos on our website:

www.canhottub.com/hottubassembly PASSWORD: hottubassembly



# **SECTION THREE**

Maintenance

### Maintenance

### CLICK HERE TO WATCH THE CHEMICALS VIDEO

#### Water Chemistry

Maintaining proper water chemistry is very important to ensure the water in your hot tub is safe to use and to preserve the liner, pump, and other components. The goal is to maintain "balanced" water; which means that pH, alkalinity, and sanitizer (chlorine or bromine) are all within the recommended range at the same time. It is important to understand that when starting with fresh water, this is a process that may take several days. As well, water chemistry will change over time so regular (two to three times per week) testing is recommended.

Any local pool and spa store will have all the required products and be able to offer testing and advice about the water in your area.

#### **Total Alkalinity**

Total alkalinity should be maintained between 80-120 ppm (parts per million). Total alkalinity is an important factor in stabilizing pH and should therefore be adjusted prior to adjusting pH. Use commercially available products to raise and lower alkalinity as required. Follow the directions provided on the containers.

#### pH Balance

Use commercially available products to raise or lower pH as necessary to maintain your water's pH in the range of 7.2 to 7.8. Ensure that the alkalinity is between 80-120 ppm prior to trying to manipulate the pH.

#### Chlorine or Bromine Maintenance

Test your chlorine or bromine levels two to three times per week. You need to maintain your sanitizer level in the 3-5 ppm range. If using a chlorine or bromine tablet dispenser, set at a low level to start and move up if necessary. Test regularly to understand your water's patterns. Never mix chlorine and bromine. Use the chart below and the instructions on the containers to guide how much product should be added to your hot tub.

HOT TUB	GALLONS
Muskoka	400
Algonquin	600
Okanagan	1000
Total Therapy	1200
Tub for 2	200
Saguenay	400
Manitoulin	600

#### **Changing Water**

The water in your hot tub should be changed two to four times per year. This will make your water chemistry easier to balance and ensure clean, safe water.

#### Filter Maintenance

A clean filter cartridge is an important part of maintaining clean and safe water. The filter should be cleaned once a month and replaced every 9 to 12 months. The replacement filter cartridge is the Unicel C4326 (or equivalent). It is a good idea to have a second filter cartridge and alternate monthly.

#### Filter Cleaning Instructions

- **1.** Turn off the power to your hot tub at the GFCI or disconnect it. Your pump should not be working and there should be no water flowing through the Jets.
- **2.** Turn all red/blue valve handles at each end of your Spa Pack so that they are 90 degrees to the hose. This will close them.

- 3. Open the small black screw on the filter lid.
- **4.** Press the white tab and unscrew the black lid lock ring at the top of the white filter.
- **5.** Remove the lid from the top of the filter, and remove and clean the filter cartridge. You can use a garden hose to clean it the first few times but after that, it is recommended that a cartridge cleaner is used.
- **6.** Replace the filter and put the lid back on (it's a tight fit). When the lid is on, tighten the black lid lock ring until it clicks into place.
- **7.** Close the air vent on the filter lid and open the valves by turning the handles so that they are in line with the hose.
- **8.** Open the air vent again to purge excess air from the system. When water spurts from the air vent, quickly tighten the screw.
- 9. Turn the power on.

#### Liner Maintenance

The liner is made from high-quality vinyl. Improper water chemistry is the main determinant of liner life span.

- KEEP YOUR WATER BALANCED. Improper levels of sanitizer, pH, and alkalinity will cause damage to the liner over time.
- Only use products that are designed and approved for hot tub and spa use.
  Do not use hydrogen peroxide or other non-approved products.
- Add only one water chemistry product at a time.
- When adding products, keep the Jets on high for at least 15 minutes.
- To clean the liner, use a vinyl cleaner that is designed for pool liners. Do not use abrasive or household cleaning products.
- Never mix chlorine and bromine together.

#### **General Maintenance Tips**

- Leaves and other debris in your hot tub will be pulled to the Suction fitting. Clean off the Suction fitting regularly to maintain a good flow.
- Test your water two to three times per week and try to keep your water balanced (pH, alkalinity, and chlorine or bromine all within the recommended range). Get the alkalinity within range first, then adjust the pH. It is very important to maintain a proper balance of pH and alkalinity. Failure to do so will result in the decreased life span of pump seals, heater elements, the liner, and other fittings.

## Chemical imbalance is the number one reason for problems with liners, heating elements, seals, gaskets, and pump impellers.

- Do not fill your hot tub with water that has been treated by a residential water softener. Most outdoor faucets bypass water softeners. If you live in an area with very hard water, we recommend using a "Stain and Scale" type of product to remove minerals and metals from your water. There are also pre-filters that attach to your hose to filter out minerals while you fill the hot tub. Both of these are generally available at a pool and spa retailer. Do not use stain and scale if using an lonizer.
- Periodically, when changing your water, use a wrench to gently re-tighten any seat support lag bolts that may have loosened due to wear and use.

#### To Empty Your Hot Tub

- 1. You can also use submersible pump or put a garden hose at the bottom of the hot tub, then turn the water on at the wall tap for a few seconds.
- 2. Disconnect the hose from the tap and let the water from the hot tub drain (gravity will siphon the water through the hose).

#### Tips to Reduce Energy Bills

- Wrap your pipes. You have been provided with rolls of reflective insulation to wrap all hoses and fittings.
- Float thermal blanket on the water, under the cover.
- Do not put insulation on the outside wood of the hot tub as this will hold moisture and cause the wood to rot over the long term. However, you can put insulation on the inside of the decking away from the hot tub.

#### Shutting Down in Winter

If you are going away for a few weeks or longer, or want to shut your hot tub down for the season, it is best to empty your tub. You can leave a few inches of water at the bottom, as a little ice will not hurt your tub or liner. However, you need to make sure that you empty the water out of the lines by removing the drain plug at the bottom front of the pump and disconnecting the valves. If possible, move your Spa Pack indoors.

#### Turning Your Equipment Back On

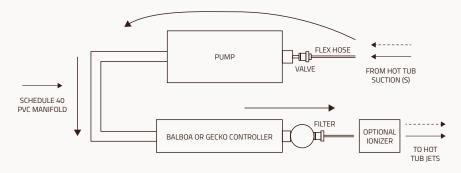
Before turning your equipment on, always make sure that you have filled your hot tub and that all valves are open. Turn the air vent screw on the filter lid to release any air.

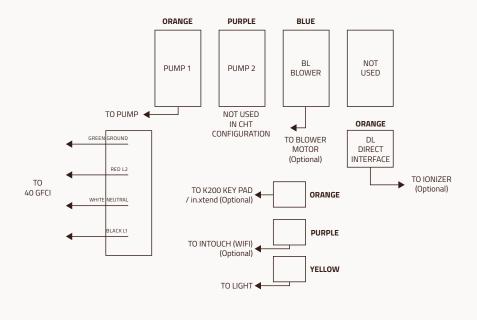
## Appendix

#### ORANGE PURPLE BLUE BL NOT PUMP 1 PUMP 2 BLOWER USED TO PUMP NOT USED IN CHT ORANGE 4 CONFIGURATION TO BLOWER DL MOTOR DIRECT (Optional) INTERFACE TO IONIZER ELECTRICAL TO K200 KEY PAD (Optional) TO 120V CORD ORANGE OUTLET / in.xtend (Optional) CONNECTION 11 PURPLE TO INTOUCH (WIFI) (Optional) Integral ground-fault circuit-interrupter (GFCI) protection is provided for all YELLOW electrical parts within unit. TO LIGHT 🗲

CHT 120 VOLT GECKO IN.XE SPA PACK CONFIGURATION

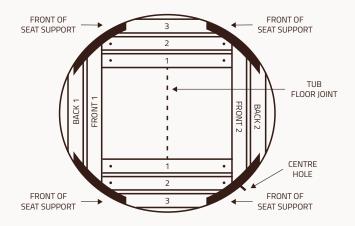
FLOW DIAGRAM





#### CHT 240 VOLT GECKO IN.XE SPA PACK CONFIGURATION







CANADIAN HOT TUBS INC. 330 Gage Ave, Unit 15, Kitchener, ON, N2M 5C6 519-745-1651 | info@canhottub.com