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**OWNER'S MANUAL  
& LIMITED WARRANTY**

# Welcome to the Chilly GOAT community!

## MICHAEL PHELPS CHILLY GOAT™ COLD TUB BY MASTER SPAS OWNER'S MANUAL

Thank you for choosing your new Michael Phelps Chilly GOAT Cold Tub by Master Spas. For How-to Videos and helpful tips on operating and maintaining your cold tub, please visit <https://ChillyGOATtubs.com/pages/owners-manual>.

Please read the entire Owner's Manual before installing and using your cold tub. The goal of this manual is to provide you with safety and operational information plus some tips that will help you enjoy your cold tub to its fullest. At the time of print, this manual is accurate in its information. Master Spas reserves the right to change or improve its product without prior notice.

### REGISTER YOUR SPA

Please be sure to register your cold tub so we can efficiently assist with any questions you may have. Until your cold tub has been registered Master Spas will not have record of your ownership. To register your cold tub, visit <https://ChillyGOATtubs.com/pages/owners-manual> and click on Spa Registration.

### SERIAL NUMBER LOCATION

The serial number for your cold tub is located near the filter area, on the cold tub system pack, or on the listing plate on the cold tub frame behind the front skirt panel. It begins with "T", followed by 6 digits. For example, T231234.

### RECORD OF OWNERSHIP

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Phone \_\_\_\_\_ Date Purchased \_\_\_\_\_

Model \_\_\_\_\_ Serial \_\_\_\_\_

Dealer Name \_\_\_\_\_

Service Tech Rep \_\_\_\_\_

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digital owner's manual



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# SAFETY INSTRUCTIONS

## SAVE THESE INSTRUCTIONS

Included with your new Chilly GOAT™ is a safety sign. The sign is for you and your guest's protection and is suitable for outdoor use in wet locations. The sign should be placed in a location visible to all users of the Chilly GOAT.

Please take time to point out the physical location of the safety sign and the importance of the safety precautions displayed on the safety sign to all of your guests. Remember, your safety and the safety of anyone who enjoys the use of your Chilly GOAT is our utmost concern.

The sign should be mounted with screws or another type of permanent fastener. Additional or replacement signs can be obtained from your dealer or direct from the factory.

## INTRODUCTION

It's time to Chill! You now have your very own Michael Phelps Chilly GOAT™ Cold Tub made by Master Spas. By fully understanding the operation of each of the features of your new Chilly GOAT, you will enjoy many years of revitalizing, cold-water therapy and fun.

Your safety is of paramount importance to the Chilly GOAT. We urge you to carefully read, understand, and follow all information in this user manual before installing and using the cold tub. These warnings, instructions, and safety guidelines address some common risks of water recreation, but they cannot cover all risks and dangers in all cases. Always use caution, common sense, and good judgment when enjoying any water activity. Retain this information for future use.



## IMPORTANT SAFETY INSTRUCTIONS

When installing and using this electrical equipment, basic safety precautions should be observed including the following:

## READ AND FOLLOW ALL INSTRUCTIONS

**WARNING:** To reduce the risk of injury, do not permit children to use this product unless they are closely supervised at all times.

A wire connector is provided on this unit to connect a minimum 10AWG (5.26mm<sup>2</sup>) solid copper conductor between this unit and any metal equipment, metal enclosures of electrical equipment, metal water pipe, or conduit within 5 feet (1.5m) of the unit.

(For cord-connected/convertible units)

**DANGER:** Risk of injury.

Replace damaged cord immediately.

Do not bury cord.

Connect to a grounded, grounding type receptacle only.

### (FOR UNITS WITH GFCI)

**WARNING:** This product is provided with a ground-fault circuit interrupter located on the plug end of the 120 volt power cord. The GFCI must be tested before each use.

Next, push the test button on the GFCI. The product should not operate. Now push the reset button on the GFCI. The product should now operate normally. When the product fails to operate in this manner, there is a ground current flowing indicating the possibility of an electric shock. Disconnect the power until the fault has been identified and corrected.

**DANGER:** Risk of Accidental Drowning. Extreme caution must be exercised to prevent unauthorized access by children. To avoid accidents, ensure that children cannot use this Chilly GOAT™ unless they are supervised at all times.

**DANGER:** Risk of Injury. The suction fittings in this Chilly GOAT are sized to match the specific water flow created by the pump. Should the need arise to replace the suction fittings or the pump, be sure that the flow rates are compatible. Never operate Chilly GOAT if the suction fittings are broken or missing. Never replace a suction fitting with one rated less than the flow rate marked on the original suction fitting.

## SAFETY INSTRUCTIONS CONT.

**DANGER:** Risk of Electric Shock. Install at least 5 feet (1.5m) from all metal surfaces. As an alternative, a Chilly GOAT may be installed within 5 feet of metal surfaces if each metal surface is permanently connected by a minimum 10AWG (5.26mm<sup>2</sup>) solid copper conductor to the wire connector on the terminal box that is provided for this purpose. Be sure to review and comply with any overruling local or national applicable regulations.

**DANGER:** Risk of Electric Shock. Do not permit any electric appliance, such as a light, telephone, radio, or television, within 5 feet (1.5 m) of a Chilly GOAT.

**WARNING:** To reduce the risk of injury:

- a. The water in a Chilly GOAT should never exceed 104°F (40°C). Water temperatures between 100°F (38°C) and 104°F (40°C) are considered safe for a healthy adult. Lower water temperatures are recommended for young children when Chilly GOAT water use exceeds 10 minutes. Persons with any medical condition should seek medical advice before using a Chilly GOAT.
- b. Since excessive water temperatures have a high potential for causing fetal damage during the early months of pregnancy, pregnant or possibly pregnant women should limit Chilly GOAT water temperatures to 100°F (38°C) and duration of use and should also seek medical advice.
- c. Before entering a Chilly GOAT, the user should measure the water temperature with an accurate thermometer since the tolerance of water temperature-regulating devices varies.
- d. The use of alcohol, drugs, or medication before or during Chilly GOAT 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 Chilly GOAT.
- f. Persons using medication should consult a physician before using a Chilly GOAT since some medication may induce drowsiness while other medication may affect heart rate, blood pressure, and circulation.

This Chilly GOAT tub enables the user to determine the temperature and duration for which they are immersed in the Chilly GOAT. Before using a Chilly GOAT tub, you should always ask a qualified professional if use of this Chilly GOAT is safe and appropriate for you.

## SAVE THESE INSTRUCTIONS

### HYPERTHERMIA

Hyperthermia occurs when the internal temperature of the body reaches a level several degrees above the normal body temperature of 98.6°F (37°C). Prolonged immersion in hot water may induce hyperthermia.

### THE SYMPTOMS OF HYPERTHERMIA INCLUDE:

- Dizziness
- Fainting
- Drowsiness
- Lethargy
- Increase in Internal Body Temperature

### THE EFFECTS OF HYPERTHERMIA INCLUDE:

- Unawareness of Impending Hazard
- Failure to Perceive Heat
- Failure to Recognize the Need to Exit Chilly GOAT
- Physical Inability to Exit Chilly GOAT
- Fetal Damage in Pregnant Women
- Unconsciousness Resulting in a Danger of Drowning

**WARNING:** The use of alcohol, drugs, or medication can greatly increase the risk of Hyperthermia.

### HYPOTHERMIA

Hypothermia occurs when the internal temperature of the body reached a level several degrees below the normal body temperature of 98° F (37° C). Prolonged immersion in cold water may induce hypothermia.

### THE SYMPTOMS OF HYPOTHERMIA INCLUDE:

- Shivering
- Slurred speech or mumbling
- Slow shallow breathing
- Weak pulse

## SAFETY INSTRUCTIONS CONT.

- Clumsiness
- Drowsiness
- Confusion
- Unconsciousness
- Bright red, cold skin (in infants)

### THE EFFECTS OF HYPOTHERMIA INCLUDE:

- Failure of the nervous system
- Respiratory system and heart
- Failure to recognize the need to exit the Chilly GOAT™ cold tub
- Unawareness of impending hazard
- Fetal damage in pregnant women
- Physical inability to exit the Chilly GOAT
- Unconsciousness resulting in the danger of drowning

**WARNING:** The use of alcohol, drugs, or medication can greatly increase the risk of hypothermia.

**DANGER:** To reduce the risk of injury to persons, do not remove the suction grate. Suction through drains and skimmers is powerful when the jets in the Chilly GOAT are in use. Damaged covers can be hazardous to small children and adults with long hair. Should any part of the body be drawn into these fittings, turn off the Chilly GOAT immediately. As a precaution, long hair should not be allowed to float in the Chilly GOAT.

**WARNING:** Install the Chilly GOAT so that water can be easily drained out of the compartment containing electrical components so as not to damage equipment. When installing the Chilly GOAT make sure to allow for an adequate drainage system to deal with any overflow water. Please allow for at least 2' of clearance around the perimeter of the Chilly GOAT to provide enough room to access for servicing. Please keep in mind the front panel will require more space for proper ventilation. Please contact the Chilly GOAT support line for questions or service needs.

**WARNING:** The Chilly GOAT should be covered with an approved locking cover when not in use, to prevent unauthorized entry and injuries.

**WARNING:** People with infections, sores or the like should not use the Chilly GOAT. Warm

and hot water temperatures may allow the growth of infectious bacteria if not properly disinfected.

**CAUTION:** Safe temperatures for swimming or aquatic exercise is around 80F (26C).

**CAUTION:** Replace components only with identical components.

**WARNING:** Risk of Electric Shock. Do not connect any auxiliary components (for example, additional speakers, headphones, additional audio/video components etc.) to the system. These units are not provided with an outdoor antenna.

Unless you are qualified and knowledgeable to work with the electrical products and its components, do not service this product yourself. Opening or removing covers may expose you to dangerous voltage or other hazards. If you are not experienced with home power, wiring, electrical components and troubleshooting; contact a qualified service technician. If the power supply cord(s) are damaged, water is entering the speaker, audio compartment, or any other component in the electrical equipment compartment area, the protective shield is showing signs of deterioration, or there are signs of other potentially hazardous damage to the unit, turn off the circuit breaker from the wall and refer servicing to qualified personnel.

The unit should be subjected to periodic routine maintenance once every quarter to make sure that it is operating properly.

**DANGER:** Risk of Electric Shock. A green colored terminal or a terminal marked G, GR, Ground, Grounding or the symbol shown in Figure 14.1 of UL 1563 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 equivalent in size to the specifications called out in the latest version of the National Electrical Code, or your local authority having jurisdiction.

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 Chilly GOAT™ to these terminals with an insulated or bare copper conductor not smaller than 10AWG.

## SAFETY INSTRUCTIONS CONT.

All field installed metal components such as rails, ladders, drains, or other similar hardware within 10 feet (3m) of the Chilly GOAT shall be bonded to the equipment grounding bus with copper conductors not smaller than 10AWG.

## SAVE THESE INSTRUCTIONS

**WARNING:** CHILDREN SHOULD NOT USE CHILL GOAT WITHOUT ADULT SUPERVISION.

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

**WARNING:** DO NOT USE CHILLY GOAT UNLESS ALL SUCTION GUARDS ARE INSTALLED TO PREVENT BODY AND HAIR ENTRAPMENT.

**AVERTISSEMENT:** POUR ÉVITER QUE LES CHEVEUX OU UNE PARTIE DU CORPS PUISSENT ÊTRE ASPIRÉS, NE PAS UTILISER UNE CUVE DE RELAXATION SI LES GRILLES DI PRISE D'ASPIRATION NE SONT PAS TOUTES EN PLACE.

**WARNING:** PEOPLE USING MEDICATIONS AND/OR HAVING AN ADVERSE MEDICAL HISTORY SHOULD CONSULT A PHYSICIAN BEFORE USING A CHILLY GOAT.

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

**WARNING:** PEOPLE WITH INFECTIOUS DISEASES SHOULD NOT USE A CHILLY GOAT.

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

**WARNING:** TO AVOID INJURY EXERCISE CARE WHEN ENTERING OR EXITING THE CHILLY GOAT.

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

**WARNING:** DO NOT USE DRUGS OR ALCOHOL BEFORE OR DURING THE USE OF A CHILLY GOAT TO AVOID UNCONSCIOUSNESS AND POSSIBLE DROWNING.

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

**WARNING:** PREGNANT OR POSSIBLY PREGNANT WOMEN SHOULD CONSULT A PHYSICIAN BEFORE USING A CHILLY GOAT.

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

**WARNING:** WATER TEMPERATURE IN EXCESS OF 38°C MAY BE INJURIOUS TO YOUR HEALTH.

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

**WARNING:** BEFORE ENTERING THE CHILLY GOAT MEASURE THE WATER TEMPERATURE WITH AN ACCURATE THERMOMETER.

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

**WARNING:** DO NOT USE A CHILLY GOAT IMMEDIATELY FOLLOWING STRENUOUS EXERCISE.

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

**WARNING:** PROLONGED IMMERSION IN A CHILLY GOAT MAY BE INJURIOUS TO YOUR HEALTH.

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

**WARNING:** DO NOT PERMIT ELECTRIC APPLIANCES (SUCH AS LIGHT, TELEPHONE, RADIO, OR TELEVISION) WITHIN 1.5 M OF THIS CHILLY GOAT.

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

**CAUTION:** MAINTAIN WATER CHEMISTRY IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTION.

## SAFETY INSTRUCTIONS CONT.

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

Hyperthermia occurs when the internal temperature of the body reaches a level several degrees above the normal body temperature of 98.6°F (37°C). The symptoms of hyperthermia include drowsiness, lethargy, and an increase in the internal temperature of the body. The effects of hyperthermia include:

- a. Unawareness of impending hazard;
- b. Failure to perceive heat;
- c. Failure to recognize the need to exit Chilly GOAT™;
- d. Physical inability to exit Chilly GOAT;
- e. Fetal damage in pregnant women; and
- f. Unconsciousness and danger of drowning.

Hypothermia occurs when the internal temperature of the body reaches a level several

degrees below the normal body temperature of 98° F (37° C). Prolonged immersion in cold water may induce hypothermia. The affects of hypothermia include:

- a. Failure to the nervous system
- b. Failure of the respiratory system and heart
- c. Failure to recognize the need to exit the Chilly GOAT or cold tub
- d. Unawareness of impending hazard
- e. Fetal damage in pregnant women
- f. Physical inability to exit the Chilly GOAT
- g. Unconsciousness resulting in drowning

**WARNING:** THE USE OF ALCOHOL OR DRUGS CAN GREATLY INCREASE THE RISK OF FATAL HYPERTHERMIA AND HYPOTHERMIA IN HOT TUBS, COLD TUBS AND SPAS.

**AVERTISSEMENT:** LA CONSOMMATION D'ALCOOL OU DE DROGUES PEUT AUGMENTER CONSIDÉRABLEMENT LE RISQUE D'HYPERTHERMIE ET.

## GLOSSARY OF TERMINOLOGY

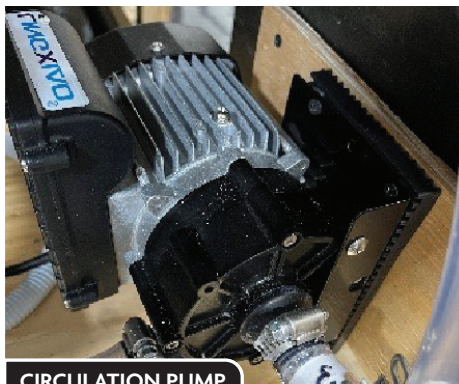
These are some terms and definitions to help get you acquainted with your cold tub.

### 1. ACCESS PANELS

These are the skirt panels located around all four sides of the cold tub. All of the skirt panels are removable should service be required. Master Spas recommends at least 2' of access be provided around the cold tub. Keep in mind 6' of open space is necessary, on the front long side, for proper heat pump output ventilation.

### 2. CIRCULATION PUMP

This small, efficient pump typically runs 24 hours for efficient filtration and provides flow for heat pump operation to cool or heat the water.



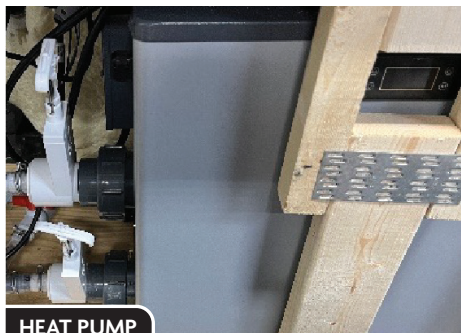
CIRCULATION PUMP



## GLOSSARY OF TERMINOLOGY CONT.

### 3. HEAT PUMP

This device provides heating and cooling capabilities to cool or heat the water to the desired temperature. The heat pump is sometimes referred to as the chiller.



### 4. HEAT PUMP CONTROL PANEL

This panel is located on the outside of the heat pump, which is located inside the cabinet and equipment area. Turning the heat pump on or off, setting the water temperature and other functions can be controlled from this panel. The digital display will give you a temperature readout and will notify you in case of certain operational messages or errors.



### 5. HEAT PUMP UNIONS

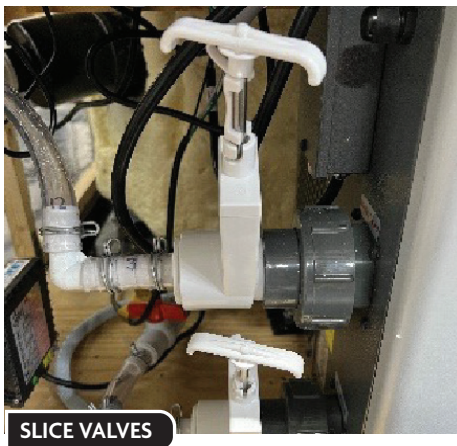
Heat Pump Unions are used to connect the plumping to the heat pumps. These are used to help service personnel to easily service the heat pump.



### 6. SLICE VALVES (if equipped)

These valves are used to shut off water to the heat pump and circulation pump, so the cold tub water does not need to be drained if the cold tub requires service (varies by model).

**NOTE:** Slice valves must be completely open during normal operations.



## GLOSSARY OF TERMINOLOGY CONT.

### 7. BALL VALVE (If equipped)

This valve is used when filling and draining your system. Turning the handle opens and closes the valve to allow or restrict/shut off water flow. This must be opened when filling and draining your cold tub. When full and operating, this valve needs to be in the closed position to ensure proper flow through the heat pump. Opening this valve during filling helps prevent the circ pump from air locking, preventing unwarranted damage. While draining, opening this valve allows most all water to naturally exit the circ pump and heat pump.



**BALL VALVE**

### 8. DRAIN VALVE

The drain valve will be secured with a beaded, reusable zip tie. It will be secured up high, on the frame where the valve assembly is above normal water level. After use, always re-secure it up high, above water level to preven possible unwarranted freeze damage.



**DRAIN VALVE**

### 9. CIRCULATION JETS

These jets provide the output for the circulation pump and flow for heat pump operation. The circulation jets also play a crucial role in providing a cold-water immersion experience. Water movement across the user prevents your body warmth from creating a warm water layer just over your skin, making the water feel warmer than it is. By circulating water over the user, it prevents that warmer water layer from developing, resulting in the user experiencing the full water set temperature.



**CIRCULATION JETS**

### 10. SKIMMER FILTER HOUSING

This skimmer assembly provides water flow to the circulation pump and houses the filter. The front skimmer faceplate portion can be removed, to allow access to the filter element.

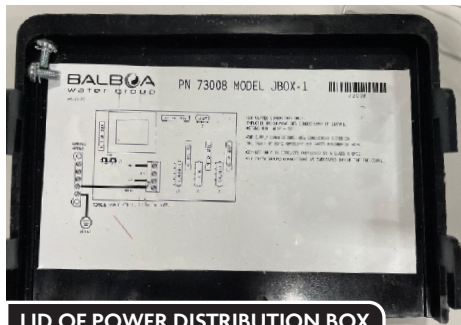


**SKIMMER FILTER HOUSING**

## GLOSSARY OF TERMINOLOGY CONT.

### 11. POWER DISTRIBUTION PACK

This houses and distributes the power to the electrical components. (offering terminals for the GFCI power cord, connectors for the electrical components and fuses for the component circuits.)



LID OF POWER DISTRIBUTION BOX



POWER DISTRIBUTION PACK

### 12. THERMOMETER

This is a floating thermometer, provided in your luggage kit. It needs to be tethered within the unit and left floating in the water, so that users can check the water temperature before entering.



THERMOMETER

# WATER CHEMISTRY TERMS YOU SHOULD KNOW

Before jumping into Water Maintenance, here are some terms to help you.

## 1. PARTS PER MILLION (PPM):

This is a form of measurement used in most pool or cold tub chemical readings. Best described as any one million like items of equal size and make up, next to one unlike item, but of equal size. This would be one part per million.

## 2. TOTAL ALKALINITY (TA):

Measures substances in your water such as hydroxides, carbonates, and bicarbonates. When at the proper levels, these elements keep your water from clouding and growing bacteria, as well as prevent the inner workings of your Chilly GOAT™ from deteriorating or forming scale. TA also helps to stabilize pH. The higher the TA level (when it is within the recommended range), the less likely the pH is to change. With low alkalinity, the pH will fluctuate and be harder to control. With high alkalinity, it becomes extremely difficult to change the pH.

## 3. PH OR POTENTIAL HYDROGEN:

This indicates the acidity or basicity of the water. The goal is to have a neutral, stable pH to prevent cold tub damage and unhealthy conditions. Low pH levels can corrode metals, etch or stain fiberglass or acrylic, cause unsanitary conditions that irritate the eyes or skin, and derail the total alkalinity of the water. High pH can cause cloudy water, eye or skin irritation, scale formation and poor chlorine or bromine efficiency. Note that the chemicals you are using to sanitize and clean your cold tub can also lower or raise the pH level in the water. There are many variables involved preventing high pH in your cold tub.

## 4. SHOCKING:

By shocking the water in your cold tub, you remove organic compounds from the water, kill bacteria, remove chloramines, and reactivate the bromides in the Chilly GOAT for cleaner water. You should shock your water once a week, after heavy bather use or any time free chlorine levels test lower than total chlorine levels. To do this, either add oxidizer/non-chlorine shock to burn off the chloramines or

add extra chlorine to raise the chlorine level. Oxidizer/non-chlorine shock acts by releasing oxygen in the water, which serves a similar function as chlorine. An advantage to using this type of shock is that the water is safe to enter after 15 minutes of the application and excessive sanitizer (chlorine) levels do not occur. However, an oxidizer/non-chlorine shock doesn't disinfect the water for bacteria. If you use chlorine to shock, you must wait until the total chlorine reading is at a level safe to reenter the water.

## 5. SEQUESTERING:

This can be defined as the ability to form a chemical complex which remains in solution, despite the presence of a precipitating agent (i.e. calcium and metals). If the minerals and metals in water are not sequestered, they can cause a reaction, turning the water brown, red, orange, or green depending on the minerals and metals present in your water. It is important to add a sequestering agent when adding water to your Chilly GOAT and even on a regular basis (if bottle instructions recommend doing so). Common names for sequestering chemicals are: Minquest, Stain and Scale Control, Metal-X, Spa Defender, Spa Metal Gone, etc.

## 6. FILTRATION:

Filters are necessary to remove particles of dust, dirt, algae, etc., that are continuously entering the water. If the Chilly GOAT is not operated long enough each day for the filter to do a proper job, this puts a burden on the chemicals, causing extra expense. Filtration time will depend on the water capacity, pump, and filter size and, of course, bather load. Spare filter cartridges should be kept on hand to make it easy to frequently clean the cartridge without the need for a long shut down. This will also allow the cartridge to dry out between usages, which can double the life span of the filter. Replace the cartridge when the pleats begin to deteriorate. Cartridge cleaning should be done a minimum of once a month. More often with a heavy bather load. See *Cleaning Your Filter Elements* in the Regular Maintenance section.

## WATER CHEMISTRY TERMS YOU SHOULD KNOW CONT.

### 7. SANITIZERS:

Germs and bacteria enter the water from the environment and the human body; a sanitizer keeps the water balanced and safe to use. Chlorine can be used as sanitizer to create a healthy water environment

#### Chlorine

1. Only one type is approved for Chilly GOAT™ use. Sodium Dichlor which is a granular, fast dissolving pH neutral chlorine.
2. Chlorine is an immediate sanitizer and will be added as needed to maintain free chlorine levels.

**NOTE:** Bromine is not recommended in the Chilly GOAT™ because it will cause premature deterioration to the Non-Slip mats used in the cold tub.

### 8. TOTAL DISSOLVED SOLIDS (TDS):

Materials that have been dissolved by the water, i.e. like what happens when you put sugar in coffee or tea.

### 9. USEFUL LIFE OF WATER (IN DAYS):

Water should be drained at least once every 180 days. Useful life may vary by usage and bather load.

### 10. DEFOAMER:

A chemical used to temporarily reduce foaming. Causes of foaming include body oils, cosmetics, lotions, surface cleaners, high pH or algae, as well as other organic materials. Low levels of calcium or sanitizer can also cause increased foaming. Note that you may need to physically remove the foam and/or drain all or a portion of your water to remove or dilute the causes of the foam.

### 11. CALCIUM HARDNESS:

This measurement tells you how much magnesium and calcium are in your water. However, calcium hardness can react with all the chemicals, bacteria, dirt and other substances that your water dissolves and get thrown out of balance. Just like the other elements, calcium levels must remain balanced and need to be monitored or you run the risk of metal deterioration, water foaming or clouding and scale formation at the surface of your water.

### 12. BIOFILM:

This is any group of microorganisms in which cells stick to each other and often these cells adhere to a surface (i.e., Chilly GOAT plumbing and shell). Biofilm can occur over time during the use of your Chilly GOAT.

## WHY ARE CHEMICALS IMPORTANT

### EVAPORATION:

As water evaporates, only pure water evaporates, leaving the salts, minerals, metals, and any unused chemicals behind. Adding water adds more salts, minerals, and metals. In time, the water can become saturated with these dissolved solids and can cause stains or scale to form on the walls of the Chilly GOAT or a scale build up inside the equipment. Colored or cloudy water and possible corrosion of plumbing and fittings may also occur.

### HEAT:

Heat causes much quicker evaporation and will cause minerals and metals to precipitate out of solution.

### AIR:

Dust and other airborne contaminants are introduced into the Chilly GOAT.

### ENVIRONMENT:

The environment surrounding the Chilly GOAT can also impact the water quality. Items such as pollen, grass, sand, dirt, lawn fertilizer, airborne dust, insects, leaves, and pets can all affect the water quality of the Chilly GOAT.

### BATHERS:

As the Chilly GOAT is used, bathers introduce contaminants to the water. Increased bather load, length of use and frequency will increase the amounts of contaminants added into the water.

**NOTE:** The maintenance routines set forth in this manual may need to be adjusted depending on bather load and how much the Chilly GOAT is being used.



## WATER MAINTENANCE

# SCHEDULE

### WATER CHEMISTRY GUIDE AND RECOMMENDED RANGES

Before treating your water, refer to the Model Specifications section of this manual for the correct gallons of your cold tub, to ensure you are adding the correct amount of chemicals.

The concentration of active ingredients in the cold tub chemicals varies by manufacturer, so always consult chemical manufacturer's instructions. When adding cold tub chemicals, always spread them across the surface of the water while the cold tub is circulating. See chart below for recommended ranges.

**NOTE:** It is recommended to add chemicals in smaller quantities and gradually build up chemical levels than to add in a large amount of product all at once.

PARAMETER	VALUE <sup>a</sup>
Water Clarity	Clear view of the bottom
Color of Water	No color should be observed <sup>b</sup>
Total Alkalinity (TA)	80- 150 ppm
pH Value <sup>c,d</sup>	7.2 - 7.6
Chlorine	2- 4 ppm
Calcium Hardness	180- 250 ppm
<b>When using alternative/additional disinfectants other appropriate parameters may be considered.</b>	
a. Consult national regulations and guidelines for any deviations.	
b. Natural water sources may introduce water coloration.	
c. Subject to the flocculant(s) used (if any).	
d. When pH is greater than 7.5 the free active chlorine is less than 50 %.	

**NOTE:** Recommended levels stated in this manual are based on industry standards for permanently installed and portable residential spas. Improper use of chemicals may result in unsanitary and unsafe water conditions as well as unwarranted discoloration, degradation, damage and other imperfections of the cold tub surface and components.

## WATER MAINTENANCE

# START UP

**WATCH HOW-TO VIDEOS:** <https://ChillyGOATtubs.com/pages/how-to-videos>

### CHEMICAL START UP STEPS

1. Your Chilly GOAT™ should be filled with fresh tap water using a Pre-filter, which can be obtained from your retailer or Master Spas direct. This Pre-filter will help remove many of the minerals existing in the water, which will make adjusting the water balance easier after a new fill. Never use more than 50% softened water when filling the Chilly GOAT.
2. During the initial filling of the Chilly GOAT, add a sequestering agent to combat suspended minerals in the water. The agents are sold under many different names such as

Mineral Clear or Metal Protect. Always follow the instructions listed on the bottle and allow water to circulate and filter for at least 30 minutes (or per bottle recommendations) before adding any other chemicals.

3. Test water for pH, total Alkalinity, and Calcium hardness. There are two different methods commonly used to test your water.

**TEST STRIPS:** Due to the negative effects that cold water has on test strips; it is only recommended to use liquid drop style testing kit.

**TESTING KIT:** When using a testing kit, you will be examining an actual water sample from

## WATER MAINTENANCE - START UP CONT.

your cold tub, rather than a strip. Be careful to follow the instructions on your kit, filling the container to the appropriate level and then dropping the instructed liquid into the container. Compare the new color of your water to the key provided with the kit to determine how to proceed. Depending on which kit you purchase, it can test for each one of these elements: total alkalinity, pH, chlorine, and calcium hardness.

4. Adjust pH and total Alkalinity (TA) utilizing the directions on the chemical bottles. Wait 15 minutes, test and adjust if necessary.
5. It may be necessary to retest and add additional chemicals to get to the proper levels.
6. Add Sanitize (sodium Dichlor-s-triazinetreone) on initial start up to begin sanitizing the Chilly GOAT™ water, according

to directions on chemical bottle. Bathers should not enter the Chilly GOAT until the chlorine drops to a safe level, refer to Water Chemistry Guide in this section. It is important not to add the chlorinating granules until the pH and alkalinity have been adjusted to their proper levels.

**NOTE:** See the Model Specifications section of this manual for the correct gallons of your Chilly GOAT, to ensure you are adding the correct amount of chemicals. When adding chlorine or non-chlorine shock/ oxidizer always spread it across the water while the Chilly GOAT is circulating. The concentration of active ingredients in chemicals varies by manufacturer.

## WATER MAINTENANCE

# SCHEDULE

WATCH HOW-TO VIDEOS: <https://ChillyGOATtubs.com/pages/how-to-videos>

### BEFORE EACH USE

Test the Chilly Goat water for proper pH and sanitation levels. Adjust accordingly to the proper levels outlined in the Water Chemistry Guide, found in the Water Maintenance – Recommended Ranges section. Appropriate levels should be present before use of the Chilly Goat. Bathers should not enter the Chilly Goat if the chlorine levels are outside of the safe, recommended ranges.

### AFTER EACH USE

Test water and treat accordingly to maintain proper pH and free chlorine levels for continued sanitary conditions after use. The amount of people using the Chilly Goat (and duration of use) will deplete chlorine levels and can cause free chlorine to test below total chlorine, resulting in a more frequent need to use an oxidizer/non-chlorine shock treatment.

### 3 TIMES A WEEK

Test the water using chemical test kit. Adjust sanitizer, pH, and Alkalinity, accordingly, following directions on the chemical manufacturer's packaging. If free chlorine level measures less than total chlorine level, additional non-chlorine shock/oxidizer treatment is necessary.

### ONCE A MONTH

Soak your filter elements overnight in a container with Chilly Goat Filter Cleaner and then rinse with clean water. For best results, allow the filter to dry before re-inserting. When cleaning filters, be sure to never have the pumps (including the circulation pump) running without the filters in place. Failure to do so may result in debris being drawn into the pumps causing unwarranted damage. See Cleaning Your Filter Elements in the Maintenance section of this manual for more information.

## WATER MAINTENANCE - SCHEDULE CONT.

PROBLEM	POSSIBLE CAUSES	HOW TO FIX IT
<b>CHLORINE ODOR</b>	Excessive chlorine	Shock water with oxidizer/non-chlorine shock treatment
	Low pH	
<b>WATER ODOR</b>	Low levels of sanitizer	Adjust sanitizer level with chlorinating granules
	pH out of range	Adjust pH if necessary
	Bacteria or algae growth	If sanitizer has already been adjusted, it may be necessary to perform a system flush
<b>CLOUDY WATER</b>	Dirty filters or inadequate filtration	Clean filters with filter cleaner and adjust filtration (if possible)
	Unbalanced water chemistry	Test and adjust chemistry levels
	Old water	Drain, clean inner shell and refill with filtered water
<b>CLOUDY AND GREEN WATER</b>	Total alkalinity levels are low	Use a sequestering agent
	Sanitizer levels are low	Apply oxidizer/non-chlorine shock treatment and adjust sanitizer
<b>CLEAR GREEN WATER</b>	High iron or copper content	Use a sequestering agent
	Sanitizer levels are low	Apply oxidizer/non-chlorine shock treatment
<b>BROWN WATER</b>	High iron or manganese level	Use a sequestering agent
<b>FOAMING</b>	High levels of body oils, lotions, soap, etc.	Add small amount of defoamer, an enzyme product and check water chemistry
	Low calcium hardness	Use a calcium hardness increaser
	Unbalanced water chemistry	Test and adjust chemistry levels
<b>EYE OR SKIN IRRITATION</b>	Unsanitary water	Adjust water chemistry according to testing results
	Total chlorine level above 5 ppm	Apply oxidizer/non-chlorine shock treatment
	Poor sanitizer/pH levels	Adjust pH level as necessary
<b>SCUM DEPOSITS AT WATERLINE</b>	Body oils and dirt	Use multi-purpose cleaner to clean Chilly GOAT™ surface and add enzyme product to Chilly GOAT water
<b>CHALKY, WHITE SCALE DEPOSITS</b>	Minerals present in the water and lack of sequestering agent use	When tub is drained, use a multi-purose cleaner or white vinegar and scrub with a soft cloth
<b>PITTING OF METAL FIXTURES</b>	Low pH or total alkalinity	Check water chemistry and adjust

**NOTE:** Please refer to the Water Maintenance - Recommended Ranges section to review recommended chemical levels.



# REGULAR MAINTENANCE PROCEDURES

WATCH HOW-TO VIDEOS: <https://ChillyGOATtubs.com/pages/how-to-videos>

## DRAINING YOUR CHILLY GOAT™

Before you start draining your cold tub, be sure all power is turned off to it. Your cold tub requires periodic draining and cleaning to ensure a safe, healthy environment. It is recommended that you drain and clean your cold tub at least every 180 days or as necessary. Heavy use may require draining and cleaning more often. Draining times will vary by model when using the equipped internal drain assembly. A sump pump may also be used to expedite the draining of the cold tub.

Caution and careful planning should be taken if draining in freezing temperatures to ensure the process is performed quickly (by use of a submersible pump) and that the water is either refilled quickly again or winterization steps are immediately performed. Try to plan your regular draining maintenance during times when temperatures are above freezing. Excess water in the plumbing can freeze in a short time frame depending on temperatures and conditions. Water freezing within plumbing and components can result in freeze damage which is not warranted.

**NOTE:** When draining, you will want to locate and open the ball valve located in the equipment area between the circulation pump and heat pump. The handle will be situated perpendicular to the plumbing, when in the closed position. In the open position, the handle will be in line with the plumbing. During draining, opening this valve will allow most of the water to drain out of the circulation pump and heat pump. The below pictures show the ball valve, with the handle in the closed position.



## STEPS FOR DRAINING YOUR CHILLY GOAT

The cold tub comes equipped with a drain fitting. This is in the main equipment area which is on the side opposite the seat.



1. Remove the equipment area skirt panels by removing screws from the vertical trim piece. Lift up on the skirting panel and pull the bottom out to remove the skirting panel.
2. Flex the plastic shroud barrier out and down to gain access to see in to the equipment area. Always place this shroud piece back in its original state, when no longer needing access in to equipment area. This protects against any rain water ingress from the cabinet intake vent.

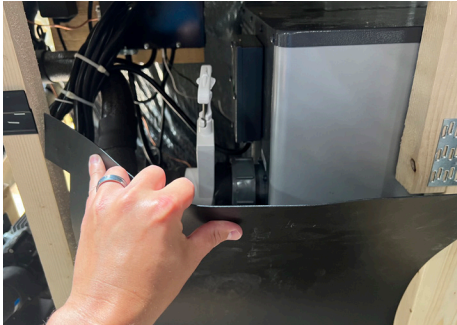


**NOTE:** These maintenance procedures are the responsibility of the cold tub owner to perform. These procedures are not covered by the cold tub warranty.

## REGULAR MAINTENANCE PROCEDURES CONT.



**NOTE:** Always put shroud back in its original position when done accessing equipment area, as this helps block any rain or water intrusion through the instake vent.



3. Turn the ball valve handle to the open position. Leave the valve open until after filling. Only close this ball valve when filled, before powering up the cold tub.



4. To start the flow of water from the drain assembly; remove the cap, twist the face counterclockwise and pull out slightly on the face. A garden hose can be attached to the end of the drain assembly, if desired, to reroute the draining water away from the area. When done draining, always secure the drain valve back up to its original position (up high on frame and above normal water level).

**NOTE:** With the cap removed from the drain; water may drip or weep from the drain. This is normal. Be sure that the steps are followed in reverse order when draining is finished. Make

sure that the drain cap is reattached and the valve adjusted to the fully closed position so that there is no water leaking from the drain assembly.



## STEPS FOR USING A SUMP PUMP\*

1. Carefully lower submersible pump with hose connected into the bottom of cold tub, taking care not to scratch or gouge your Chilly GOAT™ shell.
2. Run the discharge end of the hose from your submersible pump to a desired location several feet away from your cold tub, where the water will drain away from the foundation that the cold tub is resting on.
3. Plug in/turn on your submersible pump.
4. Turn off/disconnect your submersible pump once it is no longer able to suck up any residual water (indicated by a suctioning sound and water no longer coming out of the drainage hose). If you plan to fully wipe down and clean your entire cold tub shell, a shop vac can be used to remove the remaining small pockets of water in the cold tub.

\*Sump Pump is not provided with cold tub.

**NOTE:** These maintenance procedures are the responsibility of the cold tub owner to perform. These procedures are not covered by the cold tub warranty.

## REGULAR MAINTENANCE PROCEDURES CONT.

### SHELL SURFACE CARE

During use, always remove debris and pollutants that have settled in the water or built up on the cold tub surfaces as it occurs. These pollutants can cause growth of bacteria, algae, fungus, or biofilm if left on the cold tub surface potentially causing stains.

Clean the cold tub shell, jets, and other controls with a soft cloth and cold tub shell cleaner to help remove residue and buildup on the shell surface. For any remaining buildup, white vinegar or mild scale remover product may be necessary to use with a soft cloth for removal. Consult with your retailer or Master Spas Chilly GOAT support for further cleaning instructions or questions.

Rinse the cleaned surfaces with fresh water from your garden hose and wipe with a soft cloth as doing so will help to remove residual cleaning agents (as some may cause foaming to occur in the water once cold tub is refilled).

Always use an approved insulating cold tub cover to cover your Chilly GOAT™ when not in use, especially in outdoor installations where the cold tub is exposed to weather conditions and sun. Constant, prolonged exposure and use of unapproved or non-insulating cold tub cover can result in damage to the cold tub surface which would not be warranted.

### CARE OF YOUR SPA CABINET

The cold tub cabinet is made from a UV resistant material. The cabinet requires only periodic cleaning with a stream of water from a garden hose. If necessary, use mild soap and water with soft cloth to wipe down the cabinet surface. Rinse thoroughly.

### CLEANING YOUR FILTER ELEMENTS

The filter elements are one of the most important components of your cold tub. Not only are the filters essential for clean water, but they also extend the life of the cold tub equipment and help avoid unnecessary water changes in the cold tub. Your filter elements should be cleaned on a regular basis, at least once a month on average with normal usage. The filters may need to be cleaned more frequently if the cold tub is used heavily, the

water quality is poor, or their is high dissolved solid content in the water. It's recommended to allow filter elements to fully dry after cleaning. For this reason, it is ideal to have a spare set of filters on hand for filter cleaning intervals.

1. Turn off the cold tub before servicing filters. Never leave the cold tub running when removing the filters. Debris can be pulled into the plumbing system and cause unwarranted damage.
2. Remove filter element(s).
3. With a garden hose, spray each element under pressure. Monthly, the standard filter elements should be soaked in a filter cleaner. Replace filter annually or as needed (depending on water conditions, use and cleaning, lifespan will vary).



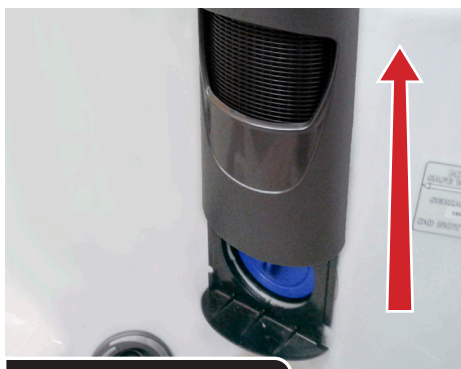
FILTER WEIR WITH SLIDE OFF ACCESS



TURN FILTERS COUNTER-CLOCKWISE TO REMOVE

**NOTE:** These maintenance procedures are the responsibility of the cold tub owner to perform. These procedures are not covered by the cold tub warranty.

## REGULAR MAINTENANCE PROCEDURES CONT.



SLIDE FACEPLATE UP TO REMOVE

### CARE OF YOUR SPA COVER

Always cover your cold tub when not in use with an approved insulating Chilly GOAT™ cover. Keep the cold tub cover on between uses (but not while it is being used). This will greatly reduce energy consumption and will cause cold tub water to cool or heat more rapidly. Water loss and chemical usage will also be reduced.

- Ensure the cover is fitted tightly, as per manufacturer's instructions to maximize insulation.
- Be sure to lock down all straps on the cover after each use.
- Do not allow your cold tub to sit uncovered in direct sunlight. The heat and UV from direct sun exposure can cause damage to exposed shell surfaces of the cold tub as well as damage or discoloration of the cold tub fittings.
- See cover manual instructions for detailed instructions on proper cover care. Clean the cover at least once a month using mild soap and water. Rinse thoroughly with fresh water to remove pollutants and soap residue. If mold/mildew staining has occurred (particularly on bottom of the cover), a mixture of bleach and water used with a soft cloth may be necessary. Thoroughly rinse with fresh water after cleaning.
- Keep the cover open for 15 minutes after adding chemicals to prevent excessive off gas buildup and damage.
- When the cold tub is being used, the cover should be placed in a clean, dry area,

otherwise it can pick up dirt and bacteria. Covers should not be put on wooden tables or wooden decking because of the risk of bleaching the wood.

**NOTE:** If your cold tub is going to be left empty for prolonged periods, do not place cover directly on the cold tub's surface (closed and sealed). Instead, place a 1" block of high-density foam between the cover and the cold tub. This allows for ventilation to help reduce mold and mildew from occurring while the cold tub is empty.

**NOTE:** The cover warranty is not part of the limited warranty provided with the cold tub. It is provided through the cover manufacturer and may not be through Master Spas. Check the tags and labeling on your cover to verify manufacturer and refer to the manufacturer's care, maintenance, and warranty information. Your retailer or Master Spas Chilly GOAT support can help provide these details.

### CARE OF STAINLESS STEEL

Master Spas uses stainless steel in many of our products. Its lasting beauty and resistance to corrosion make it an excellent material for handrails and jets faces. With the proper care it will keep its luster for many years. All stainless steel can corrode given the right circumstances, so we have provided a guide to help you keep the stainless components in your cold tub looking nice. Stainless steel derives its ability to resist corrosion by forming a very thin transparent coating on the surface when exposed to oxygen. This coating can be damaged by abrasive materials such as steel wool or sand paper. Chlorine salts, sulfides, or other rusting metals can also erode this thin coating exposing the metal to corrosion. The best defense to combat corrosion on stainless steel components in your cold tub is to make sure that it is kept clean and free of any chemical build up.

#### ALWAYS:

- Clean frequently with fresh, clean water.
- Remove any rust spots as soon as they appear with vinegar or a brass, silver, or chrome cleaner.
- Use a good car cleaning wax for extra protection.

**NOTE:** These maintenance procedures are the responsibility of the cold tub owner to perform. These procedures are not covered by the cold tub warranty.



## REGULAR MAINTENANCE PROCEDURES CONT.

- Leave cover removed for at least 15 minutes after adding chemicals to the cold tub water.

### NEVER:

- Clean with mineral acids or bleaches, steel wool or any other abrasive materials.
- Leave in contact with iron, steel any other metals.
- Close the cover immediately after adding chemicals to the water.

**NOTE:** Failure to take proper care of the stainless steel could result in them rusting. Rusting is not covered by the warranty.

**NOTE:** Do not cover the cold tub for 15 minutes after adding chemicals as the off gas can cause unwarranted damage. It may be necessary to keep the cover open longer than 15 minutes when adding larger amounts of chemicals. It is recommended to check cold tub water more frequently to allow small dosages to be added as necessary versus large dosages being added less often.

## CARE OF THE UV SANITIZATION SYSTEM

**NOTE:** This regular maintenance for the UV Purification system is not covered under the warranty of the cold tub. Contact Master Spas or your Chilly GOAT™ dealer for recommendations on service.

**WARNING:** BEFORE PERFORMING ANY MAINTENANCE ON THE UV PURIFICATION SYSTEM, MAKE SURE CHILLY GOAT IS SHUT DOWN.

### MAINTENANCE – SEE FIGURE 1

Quartz tube (6) to be cleaned every six months of usage.

**DANGER:** Unplug the cold tub.

### QUARTZ TUBE (6) CLEANING INSTRUCTIONS:

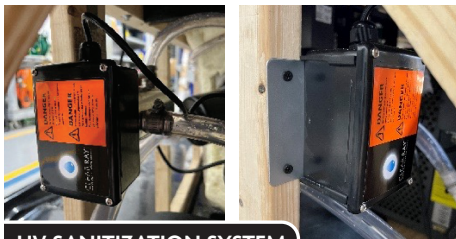
- a. Open the cold tub controller's cover and disconnect the unit from the Chilly GOAT™ controller.

- b. Drain the cold tub.

**WARNING:** Allow UV-C lamp (20) to cool down prior to removing from the unit.

**DANGER:** Never look at the lit UV-C lamp (20). This can cause severe eye damage or blindness

- c. Drain water out of the unit completely.
- d. Remove enclosure cover (14).



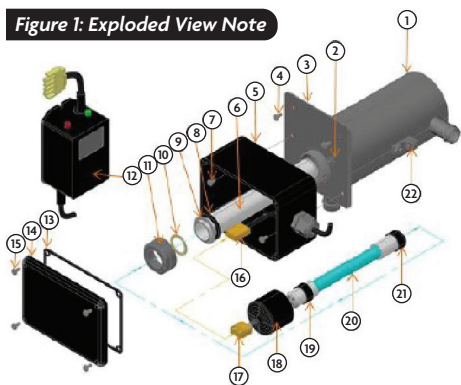
**UV SANITIZATION SYSTEM**

- e. Make sure to use latex glove when handling the UV-C lamp (20).
- f. Disconnect UV-C lamp connector (17) from ballast connector (16).
- g. Slowly remove boot cover (18) and UV-C lamp (20) from quartz tube (6).
- h. Remove quartz seal compression nut (11).
- i. Use bare hands carefully to remove quartz seal gasket (8) and metal compression washer (9) that go over the quartz tube. Do not use any metal tools.
- j. Carefully remove the quartz tube (6).
- k. Clean the quartz tube (6) with paper towel or dry cotton cloth. Do not use abrasive cleaner as they can scratch the quartz tube surface. Household tub and shower lime removal products can be used if needed. Rinse the quartz tube (6) with clean water to completely remove any cleaning products that were used.
- l. Install the quartz seal gasket (8) over the opened end of the new quartz tube (6). Place the new quartz tube (6) into the unit with the domed end first making sure it is inserted and seated inside the quartz end holder on the bottom of the reaction chamber. Only about 1/8" of quartz tube (6) will be exposed when it is seated correctly.
- m. Reinstall the compression washer (9) over

**NOTE:** These maintenance procedures are the responsibility of the cold tub owner to perform. These procedures are not covered by the cold tub warranty.

## REGULAR MAINTENANCE PROCEDURES CONT.

Figure 1: Exploded View Note



KEY	DESCRIPTION
1	REACTION CHAMBER
2	NUT KEP
3	MOUNTING BRACKET
4	MOUNTING SCREW (NOT PROVIDED)
5	ELECTRICAL ENCLOSURE
6	QUARTZ TUBE
7	SCREW 8 - 32 X 3/8"
8	QUARTZ SEAL GASKET
9	COMPRESSION WASHER
10	PLASTIC WASHER
11	COMPRESSION NUT
12	ELECTRONIC BALLAST
13	ENCLOSURE GASKET
14	ENCLOSURE COVER
15	SCREW #8 X 5/8"
16	BALLAST CONNECTOR
17	LAMP CONNECTOR
18	BOOT COVER
19	UPPER CUSHION
20	UV LAMP
21	LOWER CUSHION
22	GROUND LUG

the open end of the quartz tube (6). Push it against the quartz seal gasket (8).

- n. Reinstall and **HAND TIGHTEN** the quartz seal compression nut (11) by turning it clockwise until it stops. Add another quarter of a turn by using a pair of Channel Lock pliers.

- o. Fill the cold tub. Make sure no water is dripping from the seal compression nut (11). If water is visible, **STOP** and tighten the compression nut another quarter of a turn with a pair of Channel Lock pliers to make sure it's completely sealed. Make sure there is no water leaking anywhere before proceeding to the next step.
- p. Turn the breaker back on. Make sure the circulation pump is running and moving water through the system. Wait for 5 minutes and assure no water is dripping. If water is visible, **STOP**, fix the leak by repeating the quartz tube maintenance process from step (a) to step (o).

- q. Unplug the cold tub.

- r. Slide the UV-C lamp (20) back inside the quartz tube (6). Install boot cover (18) over compression nut (11).

- s. Reconnect the UV-Clamp connector (17) to the ballast connector (16). Make sure the connectors mate completely. Do not use force.

- t. Reinstall the enclosure cover (14) with gasket (13) and secure with screws (15).

- u. Reconnect the unit to the cold tub controller and reinstall the cold tub controller's cover.

- v. Turn **ON** the power to the cold tub.

- w. Once power is activated you can check the ballast to see if the unit is functioning. A solid green light indicates the unit is being provided power and should always be on. A solid red light indicates that UV-C lamp is activated.

The useful lifespan of the UV-C lamp (20) is approximately 12,000 hours. To keep your UV Purification System running at optimal performance, the UV-C lamp (20) should be replaced every 12-18 months of usage (during a drain and refill maintenance point falling between this time frame).

**NOTE:** Only use a proper replacement UV-C lamp (20), which can be acquired through your Master Spas or your Chilly GOAT™ dealer.

### UV-C LAMP (20) REPLACEMENT

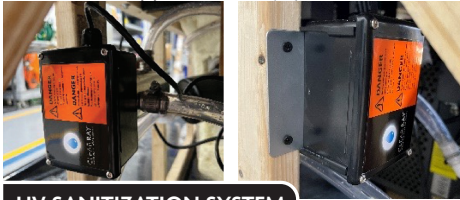
**NOTE:** These maintenance procedures are the responsibility of the cold tub owner to perform. These procedures are not covered by the cold tub warranty.

## REGULAR MAINTENANCE PROCEDURES CONT.

### INSTRUCTIONS:

**DANGER:** Unplug the cold tub.

- a. Open the cold tub controller's cover and disconnect the unit from the cold tub controller.
- WARNING:** Allow UV-C lamp (20) to cool down prior to removing from the unit.
- DANGER:** Never look at the lit UV-C lamp (20). This can cause severe eye damage or blindness.
- b. Remove enclosure cover (14).
- c. Make sure to use latex glove when handling the UV-C lamp (20).
- d. Slowly disconnect old UV-C lamp connector (17) from ballast connector (16).
- e. Slowly remove old UV-C lamp (20) from quartz tube (6). Save the upper cushion (19) & lower cushion (21).
- f. Install the upper cushion (19) & lower cushion



- (21) to the NEW UV-C lamp (20).
- g. Slide the NEW UV-C lamp (20) into the quartz tube (6).
- h. Reconnect the NEW UV-C lamp connector (17) to the ballast connector (16). Make sure the connectors mate completely. Do not use force.
- i. Reinstall the enclosure cover (14) with gasket (13) and secure with screws (15).
- j. Reconnect the unit to the cold tub controller and reinstall the cold tub controller's cover.
- k. Plug in the cold tub.
- l. Once power is activated you can check the ballast to see if the unit is functioning. A solid green light indicates the unit is being provided power and should always be on. A solid red light indicates that UV-C lamp

is activated.

**WARNING:** The UV-C lamp used in this unit contains mercury. Properly dispose the old UV-C lamp in accordance with disposal laws. See [www.lamprecycle.org](http://www.lamprecycle.org).

### NONSLIP, COMFORT FLOOR SYSTEM (IF EQUIPPED)

The exclusive Nonslip, Comfort Floor System is a standard feature on cold tubs manufactured by Master Spas to provide better grip, traction and comfort. Making our cold tubs as safe and easy as possible to use while getting in, out..

#### CARE & MAINTENANCE

##### RECOMMENDATIONS:

- Nonslip, Comfort Floor System cleans easily with soap, hot water and a brush (soft to medium bristle stiffness). Chlorine/bleach and water mixture, isopropyl rubbing alcohol or other household cleaner such as SoftScrub, Simple Green and 409 can be used to clean the pads.
- Be sure any soap or cleaning product is thoroughly rinsed from the pads and cold tub shell and this residue is removed before re-filling swim spa to prevent foaming.
- Always promptly attend to and clean any noticeable stains.

##### NEVER:

- Treat your water with bromine.
- Allow stains to develop without promptly being attended to and cleaned.
- Clean with acid based cleaning products.
- Use acetone or mineral spirits on Nonslip, Comfort Floor System or cold tub shell as damage caused to the Chilly GOAT shell from these chemicals would not be warranted.

**NOTE:** The Nonslip, Comfort Floor System is not compatible with the use of bromine sanitizer. Do not use this chemical.

**NOTE:** These maintenance procedures are the responsibility of the cold tub owner to perform. These procedures are not covered by the cold tub warranty.

# CHILLY GOAT TROUBLESHOOTING GUIDE

WATCH HOW-TO VIDEOS: <https://ChillyGOATtubs.com/pages/how-to-videos>

**NOTE:** For wiring outside of U.S. and Canada, GFCI may be referred to as a RCD (residual current device). Be sure all local electrical codes are followed.

## GFCI IS TRIPPING

A ground fault circuit interrupter (GFCI) is required by the National Electrical Code for your protection. The tripping of the GFCI may be caused by a component on the Chilly GOAT or by an electrical problem. Electrical problems include, but are not limited to, a faulty GFCI breaker, Chilly GOAT component, power fluctuations, and/or improper wiring. If this is a new electrical service and GFCI installation, an instantly tripping GFCI may likely be caused by improper wiring of the load neutral from the GFCI to the Chilly GOAT. It may be necessary to contact an electrician if your retailer or Master Spas recommends doing so.

## NOTHING ON THE CHILLY GOAT OPERATES

1. The circulation pump should be operating any time the unit is powered, check the GFCI plug and reset power.



**GFCI CORD**

*The 120V GFCI cord should be plugged into a nearby outlet, but no closer than 5 ft.*

2. If the Chilly GOAT™ does not respond, or the GFCI breaker continues to trip; contact your retailer or Master Spas Chilly GOAT support for further troubleshooting.

## CHILLY GOAT NOT HEATING/COOLING

If the Chilly GOAT is not heating/cooling and has not tripped the breaker, please follow these steps:

1. Check that the circulation pump is operating, and water is circulating.
2. Check that the heat pump is turned on, from its control panel.
3. Check the set water temperature to make sure it is set to the desired temperature, above the current water temperature for heating or below the current water temp for cooling. They heat pump should engage to warm or cool in 3-5 minutes.
4. If the heat pump is operating, close the cover and wait a reasonable amount of time to see if the water temperature is changing. You should notice the temperature changing within 1-3 hours.
5. If the heat pump is shutting down before the set temperature is met, the system should be displaying a message indicating why it has stopped operating. Check the heat pump control panel for diagnostic messages. Refer to Chilly GOAT Control Section titled System Related Messages. Follow steps to alleviate the message.
6. Turn off power for 5 minutes and then power the unit back on. The circulation pump should immediately start up and circulate water. In 3-5 minutes, the heat pump should begin operating if turned on and there is either a cooling or heating demand.
7. If your cold tub is still not heating/cooling, contact your retailer or Master Spas Chilly GOAT support for further troubleshooting assistance.



# WINTERIZING & STORING YOUR CHILLY GOAT

## WINTERIZING YOUR COLD TUB

Your Chilly GOAT™ is designed to be used year-round in any type of climate.

However, if you decide you don't want to use your cold tub in the winter, you must drain it and follow the winterizing steps listed below.\*

**DISCLAIMER:** Master Spas does not recommend winterizing your cold tub. If you choose to do so, any damage that may result is not covered under the cold tub warranty.

1. Drain your cold tub completely using the drain valve (see Steps for Draining in the prior Regular Maintenance section) or use an inexpensive submersible pump that you can buy from your local hardware store.
2. Use a shop vac to get all standing water out of your unit.
3. Remove access panels from equipment area.
4. With draining valves in the open positions (see Steps for Draining in the prior Regular Maintenance section), use shop vac to suck out any last remaining water from the drain valve and its plumbing.
5. Loosen and open pump unions.
6. Remove any remaining water from the pumps.
7. Although not necessary if water thoroughly vacuumed out, a non-toxic, RV water line type antifreeze can be used and added to the lines and equipment to help prevent freeze damage from occurring. Be sure to thoroughly flush the system before startup.
8. Use the shop vac to remove any remaining water in the cold tub and in the equipment area.
9. Clean the cold tub with a soft cloth and a non-abrasive cold tub surface cleaner.
10. Replace access panels.
11. Cover the cold tub to prevent water from entering it and check the cold tub periodically to be sure no water is entering and accumulating. Cold tub covers are

a great insulator but will allow some precipitation to enter the cold tub. For this reason, it is highly advised to also cover the cold tub with a watertight tarp while winterized. It is beneficial to keep the cold tub cover slightly gapped off the acrylic shell while winterized to allow air flow into the shell area to reduce mildew/mold buildup caused by trapped moisture.

\* If you decide to winterize your cold tub, we recommend that you periodically check the cold tub throughout the winter to ensure water is not entering the cold tub through or around the cold tub cover. The cold tub must be on and functional to prevent freeze damage not covered by the warranty.

## STORING YOUR COLD TUB

The cold tub shell should never be left unprotected and uninsulated while being stored. Clear plastic wrap or similar material should never be used to cover/protect the cold tub.

Prolonged, direct sun heat can damage the surfaces of the cold tub along with any components on the cold tub's surface. Always keep the cold tub covered and protected with an insulating cold tub cover. Resulting damage such as cracking in the shell surface, warping or discolored components on the cold tub would not be warranted.

An empty cold tub should never be exposed to temperatures below 0°F (-18°C) after delivery as extreme cold can cause shell damage. This includes storage and draining (winterizing). If your cold tub will be exposed to these temperatures, keep the unit filled and running. If you do not plan to use your cold tub, you can set the cold tub to the lowest temperature setting allowed by the control system .

Failure to adhere to these guidelines may result in unwarranted damage caused to the cold tub.

# MODEL SPECIFICATIONS

NAME	LISTING NUMBER	DIMENSIONS (IN./CM) <sup>5</sup>	REQUIREMENTS <sup>1</sup>	CAPACITY <sup>2</sup>	<sup>3</sup> WATER CAPACITY (GALLONS/M <sup>3</sup> )	DRY WEIGHT (LBS./KILOS) <sup>4</sup>	FULL WEIGHT (LBS./KILOS) <sup>3,4</sup>
CHILLY GOAT™ ALPINE TERRAIN	9955	84 X 42 X 30	Configuration #1 120V, 15A SVC	1	115 / 0.44	560 lbs / 254 kilos	1750 lbs / 794 kilos
CHILLY GOAT™ ALPINE GLACIER	9956	84 X 42 X 30	Configuration #1 120V, 15A SVC	1	115 / 0.44	560 lbs / 254 kilos	1750 lbs / 794 kilos

1. As configured from factory. See appropriate Electrical Requirements section for further details.
2. Total bather capacity in cold tub. The number of bathers in cold tub should never exceed indicated seating capacity. Do not allow additional bathers to enter if bather displacement results in water levels overflowing or reaching the lighting control which will potentially allow water to leak through the cold tub shell and into the equipment area.
3. Full weight based on dry weight of cold tub, max seating capacity of cold tub, assumed average weight per person of 185 pounds and estimated water weight of 8.34 pounds per gallon. Rounded up in increments of 5.
4. Manufacturing tolerances along with other factors can result in variance in actual cold tub weight. If weight is a critical figure necessary for delivery, or final installation, we suggest a minimum of 15% be added to the listed weight when planning delivery or installation.

# SITE PREPARATION/GENERAL GUIDELINES

Portable Chilly GOAT™ installation is simple when properly planned. It is important that you read the following information carefully and consult with your Chilly GOAT dealer.

**ACCESS:** The actual dimensions of your new cold tub will determine the amount of space that is needed in moving the cold tub from curbside to its final installation area. Be sure to consider and measure side yard dimensions, gates, doors, overall room dimensions and vertical obstructions such as ceilings, roof overhangs, balconies, and overhead cables. Any other space limiting obstacles such as stairs, trees, and shrubs must also be evaluated. Consideration should also be taken to ensure there is a convenient water supply for filling your cold tub (review national and local regulations). It is also good to consider these access requirements for ease of removing the cold tub from the premises in the event it is necessary to do so.

**SURFACE/PAD REQUIREMENTS:** When your new cold tub is filled with water and bathers, it can weigh thousands of pounds, see Model Specifications page for specific weight details. It is imperative that the base beneath the cold tub can support the entire weight. The cold tub must be on a uniformly firm, continuous, and level surface. The ideal, recommended foundation is a concrete pad with a minimum thickness of four inches with steel reinforcement bars crossed throughout the pad.

**3. VENTILAION:** Your Chilly GOAT requires proper ventilation for efficient operation of the heating and cooling system. We recommend that the unit be installed at least 12" from the side vent to any wall or obstruction, and at least 6' of clearance from the heat pump output vent of the unit to any wall or obstruction to allow for proper airflow. Failure to provide proper air flow will result in reduced efficiency or could prevent heating and cooling. Never install the unit in a closed room with a limited air volume in which the air expelled from the unit will be reused, or close to shrubbery that could block the air inlet. Such locations impair the continuous supply of fresh air, resulting in reduced efficiency and possibly preventing sufficient cooling/heating output.

## 4. CONDENSATION PRESENCE & DRAINAGE:

It is normal for your Chilly GOAT to drain water from the condensation drain line, as well as have areas within the unit build up condensation which can drip out of the unit. Water can accumulate either from condensation buildup, defrost cycles, or rainwater entering the chiller vents in the cabinets (if outdoors). It is particularly common to see water exiting the unit in areas of high humidity, a recent rainstorm (if outdoors), and/or during a heat cycle. This is normal and does not indicate a leak in the unit. The area where the unit is being placed must be able to withstand presence of water and high humidity.

**IMPORTANT:** Consult experts and/or local authorities to review and comply with all local and national laws and regulations relating to childproofing, safety barriers, lighting, and any other safety requirements at site. When installing your cold tub indoors, on a wood deck, roof or balcony, load requirements need to be evaluated before installation. It is also good to consider the location and position of cold tub as well as surfaces and foundation to minimize noise disturbance as much as possible. You should speak with a qualified contractor or your local building department to confirm that your surface is adequate for supporting the cold tub and conforms to these guidelines.

All sides of the cold tub must be accessible for regular maintenance or in the event service is needed. Periodical maintenance checks require entry into the equipment bay. When possible, it is wise to plan for future service needs, leaving at least 2' of access to 3 of the sides and 6' for the side with heat pump output ventilation.

**WAIT 24 HOURS TO FILL AND START YOUR COLD TUB ONCE IT IS IN PLACE.**

## GENERAL CONSIDERATIONS FOR OUTDOOR INSTALLATION

Again, proper planning will increase your total enjoyment factor with your new cold tub. Listed below are some additional items to consider when planning your installation.

- Local building codes (if applicable)
- Power cable

## SITE PREPARATION/GENERAL GUIDELINES CONT.

- Appropriate materials and drainage around the cold tub to handle water presence and runoff.
  - Consider local environmental conditions, such as ground water and risk of frost.
  - In cold climates, an insulating ground cloth can be installed between foundation and cold tub to minimize heat loss.
  - How Chilly GOAT™ will complement landscaping and vice versa
  - View from inside cold tub and view of cold tub from inside of home
  - Exposure to sunlight and shading from trees
  - Privacy
  - Getting to cold tub from the house and back
  - Proximity to dressing rooms and bathrooms
  - Storage for cold tub chemicals
- Installing your cold tub indoors creates an entirely different set of considerations.
  - Work with a local licensed contractor to ensure all local building, electrical and plumbing codes are met.
  - Plan for proper flooring and floor drains around your cold tub to drain off excess water runoff that will occur during normal use and for draining and cleaning your cold tub.
  - Proper room ventilation and dehumidification
  - Finished materials in your cold tub room should also be capable of withstanding increased humidity and moisture.

## ELECTRICAL REQUIREMENTS

### CONFIGURATION 1: 120V, 15A SERVICE

**NOTE:** Electrical requirements by model is shown in Model Specifications. Only electrical configurations pertaining to the models referenced in this manual are shown.

## ELECTRICAL REQUIREMENTS

### HAVE YOUR ELECTRICIAN READ THE FOLLOWING INFORMATION BEFORE INSTALLATION BEGINS

Electrical connections made improperly, or the use of wire gauge sizes for incurring power which are which are too small may continually blow fuses in the electrical equipment box, damage internal electrical controls and components, and be unsafe voiding the warranty.

It is the responsibility of the Chilly GOAT™ owner to ensure that electrical connections are made by a qualified electrician in accordance with the National Electrical Code and any local and state electrical codes in force at the time of installation.

These connections must be made in accordance with the wiring diagrams found inside the power distribution box. This equipment has been designed to operate on 60Hz. alternating current only, 120 volts are required. Make sure

that power is not applied while performing any electrical installation. A copper bonding lug has been provided on the electrical equipment pack to allow connection to local ground points. The ground wire must be at least 14 AWG copper wire (unless local or state codes require a heavier gauge wire) and must be connected securely to a grounded metal structure such as a metallic cold water pipe. Be sure to have a licensed electrician examine and ensure proper grounding is provided. All Master Spas equipment packs are wired for 120 VAC only. The electrical service for your cold tub must include a 15 AMP switch or circuit breaker to open all non-grounded supply conductors to comply with section 680-42 of the National Electrical Code. The disconnect must be readily accessible to the cold tub occupants, but installed at least five feet from the cold tub. A Ground-Fault Circuit Interrupter (GFCI) must be used to comply with section 422-20 of the National Electrical Code. A ground fault is a current leak from any one of the supply conductors to ground. A GFCI is designed to automatically shut off power to a piece of equipment when a ground fault is detected.

# ELECTRICAL REQUIREMENTS CONT.

## CONFIGURATION 1: 120V, 15A SERVICE

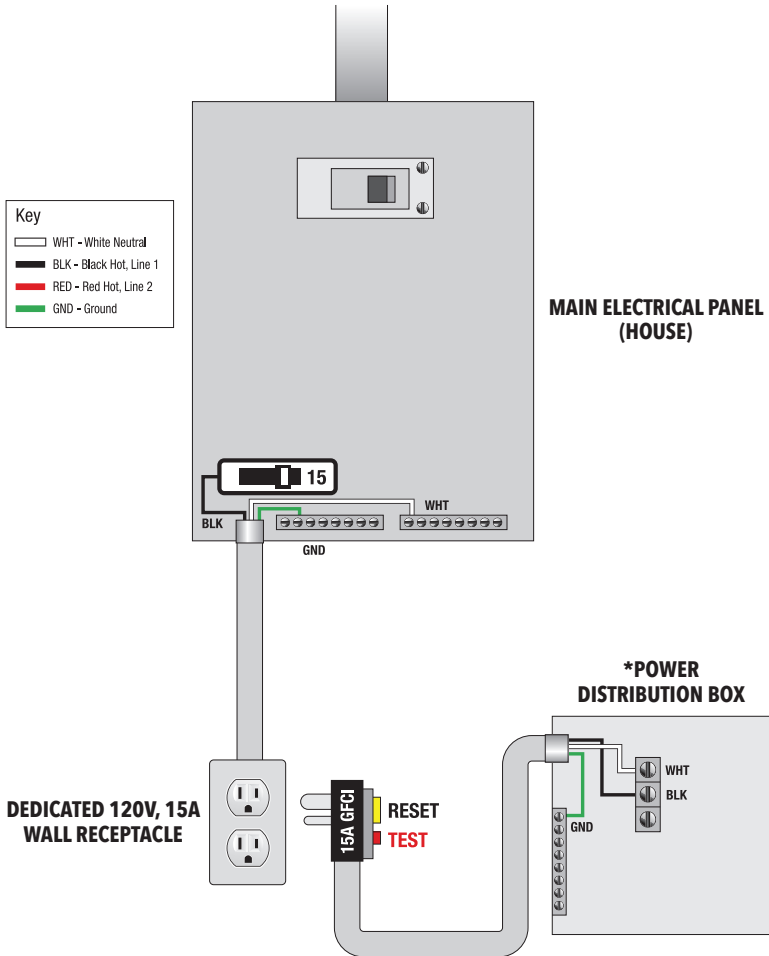
**NOTE:** Electrical requirements by model is shown in Model Specifications. Only electrical configurations pertaining to the models referenced in this manual are shown.

Service to the cold tub must be dedicated 120V, 15A 2 wire plus ground (14 AWG copper).

Route service into the equipment area for final hook-up to terminals inside the cold tub control system. The cold tub must be hooked up to a “dedicated” 120 volt, 15 amp breaker and GFCI. The term “dedicated” means the

electrical circuit for the cold tub is not being used for any other electrical items (patio lights, appliances, garage circuits, etc.). If the cold tub is connected to a non-dedicated circuit, overloading will result in “nuisance tripping” which requires resetting of the breaker switch at the house electrical panel.

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## CONFIGURATION 1 120V, 15A SERVICE (DEDICATED)

\*Refer to wiring diagram inside power distribution box for proper power connection to terminals. Only black hot (L1), white neutral (N) and ground will be connected to the spa control system terminals for this 120V configuration.

# ELECTRICAL REQUIREMENTS

## CONFIGURATION 1: CHILLY GOAT™ 120V PLUG-N-PLAY MODELS

For convenience, these models have the GFCI cord preinstalled from the factory. It will be wrapped over and hanging inside the cold tub, with remaining wiring and GFCI plug end bagged to protect the shell during shipping. When placing the cold tub, pay special attention that the cold tub is not sitting on top of and pinching the power cord. Be sure to review Configuration 1 - 120V, 15A Service Electrical Requirements in this manual to ensure you have a proper, dedicated outlet prior to connecting to the cold tub.



GFCI CORD





# INITIAL CHILLY GOAT SET UP

WATCH HOW-TO VIDEOS: <https://ChillyGOATtubs.com/pages/how-to-videos>

## PLACING YOUR CHILLY GOAT

The Chilly GOAT™ requires a dedicated 110V/15A outlet. Be sure the outlet you are going to plug your cold tub into meets all local codes. Check with an Electrician to be sure.

Your Chilly GOAT comes with a GFCI protected plug-in cord.

All cold tubs must be placed on a flat, level surface. A concrete pad is ideal, but a reinforced deck or properly prepped stone pad may also be suitable. Check your specific model details to determine the filled weight of your cold tub and prep the area accordingly. Placing your cold tub right on the ground is unacceptable. Decks and stone pads are more susceptible to sinking and settling that can occur. If the cold tub is not held flat/level between its frame and bottom of the shell, it can cause unwarranted problems with the shell and/or performance of your cold tub. All issues associated with improper placement are not covered by the limited warranty.

**ATTENTION: BE SURE TO WAIT TO FILL AND POWER YOUR COLD TUB FOR 24 HOURS AFTER IT HAS BEEN MOVED IN TO PLACE.**

## SETUP STEPS

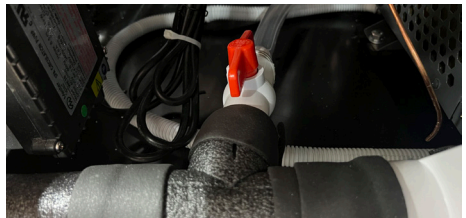
1. Put the cold tub in its final position. Consider things like cord length for the electrical connection and space for access and ventilation as described in the Site Requirements section. Master Spas recommends having 6' of clearance on the front side for adequate ventilation of the heat pump and 2' of access on the other 3 sides. This provides adequate space for regular maintenance and service in most cases.



2. Remove the skirt cabinet panels, particularly on the equipment end. These panels are removed by lifting the panel section vertically until it stops and then carefully pulling the bottom outward at an angle to unhook it from the channel. Although one person can do so, it is convenient to have a helping hand when removing the longer side panels.
3. With the equipment end skirt cabinet panel removed, be sure all unions are secure. The heat pump has 2 plumbing unions that can be tightened with an oil filter wrench or large channel lock pliers. Check that all slice valves are open, in the up position. Unions and slice valves can shift or loosen during the transportation and handling of the cold tub.



4. Check and adjust internal ball valve to "open" position before filling. Opening before filling will help prevent air locking of the circ pump and unwarranted damage to the circ pump. Close this valve when filling is completed.



5. Steps for attaching the condensation drain line to the Chilly GOAT™.
  - Locate the manufacturer installed drain line placed on a long side of the Chilly GOAT below the cabinet.
  - Use the additional, included length of clear 3/8" ID hose to couple and route the drain line away from the unit, so it does not allow water to return toward the Chilly GOAT.

## INITIAL CHILLY GOAT SET UP CONT.

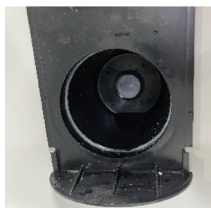


**CONDENSATION DRAIN LINE**

**NOTE:** It is normal for your Chilly GOAT to drain water from the condensation drain line. Water can accumulate either from condensation buildup, defrost cycles, or rainwater entering the chiller vents in the cabinets. It is particularly common to see water exiting this connection in areas of high humidity, a recent rainstorm, and/or during a heat cycle. This is normal and does not indicate a leak in the unit. As recommended in Site Preparations and General Guidelines, be sure site design and materials are intended to withstand water presence and high humidity.

The heat pump is designed to capture this water and route it to the condensation drain line and out to a safe, appropriate drainage spot external to the unit. Special care should be taken when planning for an indoor installation, so this water can be routed to an appropriate drain.

6. Attach the provided thermometer to the filter housing to allow the temperature to be read, confirming safe water temperatures, before each use.



7. Using a garden hose with prefilter on the end, fill cold tub to minimum water level label indication located on the cold tub shell near the filter area. When filling or topping off water, do not exceed the maximum fill level indication on the water level label.
8. Remove the pre-filter from the filling hose once the water level reaches the filter housing. With the filter removed temporarily, push the hose directly into the filter housing to put water directly into the circulation pump. Turn the the hose on, in full open position, for a few seconds and then back off. This should help relieve any air lock and assist with priming the circulation pump.

**NOTE:** In below freezing temperatures, caution should be taken when planning to install a cold tub and fill it with water. As it takes time for the water to fill the cold tub and reach the proper minimum water level, the water entering the various plumbing lines and equipment may begin to freeze when done in winter weather conditions. This could result in pumps being seized until thawed or other potentially worse freeze damage occurring to the equipment and plumbing lines.

9. Turn the power on to the cold tub. Your circulation pump should start up immediately. If you hear the pump running but there is no water flow circulating, repeat Step 5. Do not let the circulation pump run without water flow for more than 1 minutes without unplugging power, and repeating step 7 and 8. Allowing the circ pump to run without water flow will cause unwarranted damage.
10. Turn on the heat pump and set your desired temperature. You will either need to wait 10 minutes for the Wi-Fi pairing "NET" indication to end or set up Wi-Fi connection for control (see Clim8Zone Heat Pump Controls). The heat pump has a built-in 3-minute start-up delay to protect the circuitry and avoid excessive wear. The unit will restart automatically after this time delay expires. Even a brief power interruption will trigger this time delay and prevent the unit from restarting immediately. Additional power interruptions during this delay do not affect the 3-minute duration of the delay.
10. Adjust water chemistry according to the instructions provided in the Water Maintenance section.



## INITIAL CHILLY GOAT SET UP CONT.

11. Your cold tub will need some time to cool. The cooling or heating capabilities will vary depending on ambient temperature conditions, ventilation air flow at site and the current water temperatures. Its exciting and tough to wait, but give your cold tub a couple hours between water temperature checks.

**NOTE:** High ambient temperatures will extend cooling times.





12. Step into the exhilarating waters of your Michael Phelps Chilly GOAT™ Cold Tub by Master Spas!

## CLIM8ZONE HEAT PUMP CONTROLS










### HEAT PUMP CONTROL PANEL

**NOTE:** This display is found on the heat pump itself. To access this control panel, take off the trim piece on the equipment end by removing the 3, #1 square head screws (square bit supplied in luggage pack). The control panel will be positioned in an opening of the frame.

### BUTTON DESCRIPTION

No	Key	Description
1		Turn ON/OFF the controller panel
2		Increase the setting values
3		Decrease the setting values
4		Change modes
5	Red LED On	Heating mode
6	Green LED On	Cooling mode
7	The red light and the green light on for 3 seconds at the same time, then the red light on	Defrosting mode
8	The red light and the green light on for 3 seconds at the same time, then the green light on	Heat pump OFF
9	Red LED flashing	Defrosting mode
10	Red & Green LED Off	Heat pump OFF

### OPERATION INSTRUCTIONS:

1. Turn  ON/OFF
  - Press the button for 2 seconds.
2. Mode conversion
  - Press button  to switch heat/cooling mode; Heating = Red LED on; Cooling = Green LED on.
3. Change temperature unit Fahrenheit/Celsius
  - Long press three buttons    at the same time to switch the display of Fahrenheit and Celsius
4. Change Set Temperatures
  - The target temperature setting range is between 40F-104F (5C-40C).
  - The heat pump operates on a 2F differential, for heating and cooling triggering. In example, a set target temperature of 40F (4C) would result in the unit maintaining +/-2F or 38F-42F (3C-6C) water temperatures, before heating or cooling is triggered again.
  - Set temperatures can be adjusted by pressing Up  or Down  buttons.
5. Forced defrosting:
  - When the outer coil pipe temperature is below the Exit Defrosting Temperature, press two buttons   for 3 seconds to enter the Forced Defrosting.

**NOTE:** In warm climates with warm water temperatures, you may experience error messages as the system tries to cool. See E21 - ambient temp error troubleshooting for additional suggestions.

**ATTENTION:** If changing settings and an option comes up showing codes beginning with "A"

## CLIM8ZONE HEAT PUMP CONT.

or “P.” Do not press any more buttons. Wait for the screen to timeout. These parameters/settings should only be accessed under guidance of Master Spas.

### ERRORS & TROUBLESHOOTING OF THE HEAT PUMP

Key factors for proper operation are good water flow through the circulation pump and the heat pump as well as proper ventilation space around the unit. As the filter dirties, it will begin limiting flow through the circulation pump and can cause flow related errors. Clean the filter regularly and replace as needed. The unit should have 6’ of space on the

output ventilation side of the heat pump and minimum of 12” around the rest of the unit (ideally and recommending that there be at least 2’ clearance for access).

#### \*E20 SUB ERRORS:

These messages will alternately display on the screen every 3 seconds with the original E20 error message. These messages will need to be provided to your Chilly GOAT™ retailer support team, for troubleshooting purposes and necessary corrective actions.

#### Wi-Fi CONNECTION & OPERATION

1. Confirm you have a means of connecting the Clim8zone (heat pump) to dedicated 2.4GHZ Wi-Fi signal. If you cannot set such

### ERROR CODES

E03 – Water Flow Failure	Clean or replace filter. Check circulation pump operation making sure there is water flowing. Make sure gate valves are in full open position and that the internal drain ball valve is in the closed position.
E04 – Winter Anti-Freezing	Freezing temperatures have been detected. Check floating thermometer water temperature. Confirm circulation pump is operating and there is water flow in the unit. If water temps are 35F (2C) or less, adjust to heating mode and consider setting higher set temperature. Do not allow water to freeze and unwarranted damage to occur from freezing. Contact Master Spas or your retailer for support if unit is not able to heat and increase current water temperatures.
E05 – High Pressure Protection	Shut down power for 5 minutes and turn back on. If persists, contact Chilly GOAT support or your retailer for support.
E09 – Communication with Upper Computer Failed (communication with Balboa system failed)	Shut down power for 5 minutes and turn back on. If persists, contact Chilly GOAT support or your retailer for support.
E10 – Communication Fault of Frequency Conversion Module (alarm when communication is disconnected between external board and drive	Shut down power for 5 minutes and turn back on. If persists, contact Chilly GOAT support or your retailer for support.
E12 – Exhaust Too High Protection	Exhaust has started re-entering the system. Check ventilation around the unit. Make sure there is 6’ of open space on the output ventilation of the heat pump. If persists, contact Chilly GOAT support or your retailer for support.
E15 – Inlet Water Temp Error	The incoming water temperature is giving strange readings. This could be an internal heat pump sensor error. Shut down power for 5 minutes and turn back on. Confirm circulation pump operating and flowing water. If persists, contact Chilly GOAT support or your retailer for support.
E16 – Outer Coil Pipe Temp. Error	The outer coil has exceeded its temperature limit. Shut down power for 5 minutes and turn back on. Confirm circulation pump operating and flowing water. Check ventilation around the unit. Make sure there is 6’ of open space on the output ventilation of the heat pump. If persists, contact Chilly GOAT support or your retailer for support.
E18 – Exhaust Gas Temp. Error	The exhaust gas has exceeded its temperature limit. Shut down power for 5 minutes and turn back on. Confirm circulation pump operating and flowing water. Check ventilation around the unit. Make sure there is 6’ of open space on the output ventilation of the heat pump. If persists, contact Chilly GOAT support or your retailer for support.

## CLIM8ZONE HEAT PUMP CONT.

E18 – Exhaust Gas Temp. Error	The exhaust gas has exceeded its temperature limit. Shut down power for 5 minutes and turn back on. Confirm circulation pump operating and flowing water. Check ventilation around the unit. Make sure there is 6' of open space on the output ventilation of the heat pump. If persists, contact Chilly GOAT support or your retailer for support.
*E20 – Abnormal Protection of Frequency Conversion Module	This error message will alternately display E20 and a sub error message. Sub errors listed below. Shut down power for 5 minutes and turn back on. If persists, contact Chilly GOAT support or your retailer for support. Be prepared to provide subcodes seen.
E21 – Ambient Temp. Error	The temperature in the cabinet is too high, or the water temperatures and ambient temperatures are too warm for cooling operation to occur. Check ventilation around the unit. Make sure there is 6' of open space on the output ventilation of the heat pump. Shut down power for 1 hour and turn back on. Cool the water by either partially draining and refilling or adding ice to the water to jump start the cooling process. This is more susceptible to occur when ambient temperatures and water temperatures are 90F (32C) and higher. If persists, contact Chilly GOAT support or your retailer for support.
E29 – Return Gas Temp. Error	The return gas has reached its temperature limit. Shut down power for 5 minutes and turn back on. If persists, contact Chilly GOAT support or your retailer for support.
E46 – DC fan error	Check fan blade for damage. Shut down power for 5 minutes and turn back on. If persists, contact Chilly GOAT support.

ERROR CODE
1 – IMP Over-Current
2 – Compressor Synchronous Abnormal
8 – Compressor Output Phase Absent
16 – DS Bus Low Voltage
32 – DC Bus High Voltage
64 – Radiator Over Temperature
128 – Radiator Temperature Error
257 – Communication Failure
258 – AC Input Phase Absent
260 – AC Input Over-Current
264 – AC Input low voltage
272 – Compressor High Pressure Failure
288 – IMP Too High Temperature
320 – Compressor Peak Current Too High

from your WiFi router, there will not be proper, reliable connection.

- The heat pump offers 2.4GHz Wi-Fi connectivity option. If you desire to utilize this feature for control of heat pump and set temperature settings, you'll need to start by downloading the app:

- Go to "Google Play Store" or "Apple App Store"

- Search for "Smart Life" app, and download. The app icons in the app stores should look like the icon below.

- Sign up and register to create your account.

- Setting up the heat pump and mobile phone for pairing:

- Plug in or power the cold tub.
- Make sure circulation pump is pumping water through the heat pump.



Smart Life - ...

Smart Living

GET

★★★★★ 265K

- View the heat pump control screen:

- Turn on the Clim8zone II heat pump, from the main control panel on the unit.
- The Clim8zone will automatically go to pairing mode for 10 minutes. Pair the Clim8zone with your mobile device within this 10 minute timeframe. While in pairing mode, the word "nEt" will be flashing on the front control screen of the heat pump and stay flashing until Pairing is done.

- On your mobile device, turn on Wi-Fi

# CLIMBZONE HEAT PUMP CONT.

and bluetooth.

- e. Connect your mobile phone to your home 2.4 GHz Wi-Fi connection.

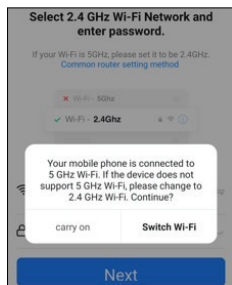
**NOTE:** Clim8zone II only works with 2.4 GHz



connection and will NOT work with 5GHz connection. When your mobile device is connected to a 5 GHz network, the app will detect and prompt a message asking you to change to 2.4GHz Wi-Fi. Please do so before proceeding forward.

**NOTE:** It is common for routers to have both 2.4 and 5 GHz connections. Consult your wireless router manual to review details and possible settings, to ensure dedicated 2.4GHz WiFi connection can be made.

## 4. Pairing

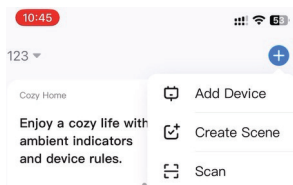


- a. Open the “Smart Life” app.
- b. Login to enter the main interface.
- c. Click the “+” in the upper right corner and select “Add Device.”

d. The interface will show

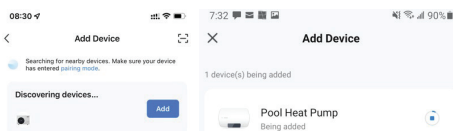
“Discovering devices...” Click “Add” to enter “Add Device” interface.

**NOTE:** It is possible to also choose to add manually by clicking on “Large Home



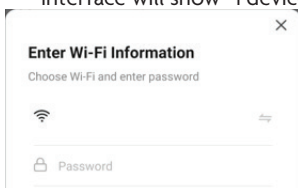
Appliances,” then choose “Water Heater (Wi-Fi)”

- e. Select the same 2.4 Ghz Wi-Fi network with

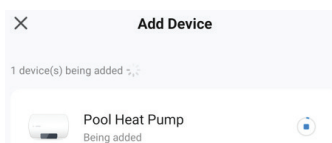


your mobile device and enter password created previously.

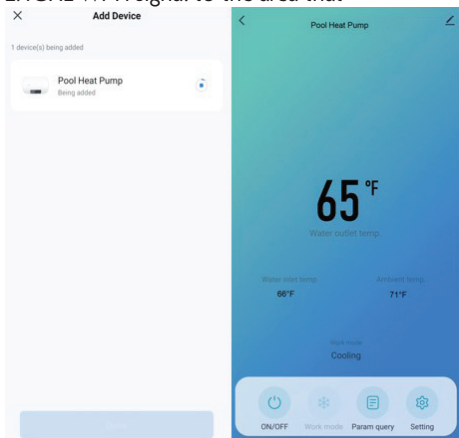
- f. Click “Next.” The interface will show “1 device is being added.” Be patient as it will take some time for the device to be added.
- g. When the device is added successfully, the interface will show “1 device(s)



added successfully.”



**NOTE:** It may take several times to pair depending on the strength of your Wi-Fi signal. Retry as needed or address providing stronger 2.4GHz Wi-Fi signal to the area that



the unit is located.

- h. Click “Done” to enter the app Homepage.

## 5. App operation

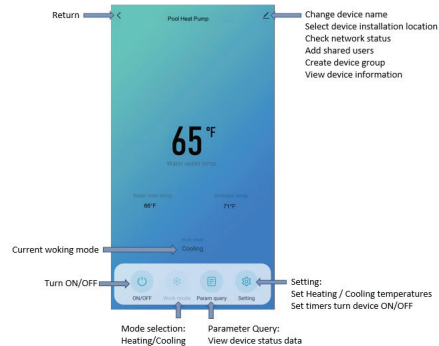
- i. After the device is successfully added,

# CLIM8ZONE HEAT PUMP CONT.

click "Pool Heat Pump" (your app may show a different name) in "All Devices" in the main interface of "Smart Life" app to enter the "Pool Heat Pump" operation page.

## 6. Icons

### i. Select device installation location



### ii. Check network status



### iii. Add shared users

### iv. Create device group

### v. View device information

Return to previous page

Turn the Clim8zone II on/ON/OFF

Set Heating or Cooling mode

< View device status data



i. Set Heating/Cooling temperatures

ii. Set timers turn device ON/OFF

## Sharing Device

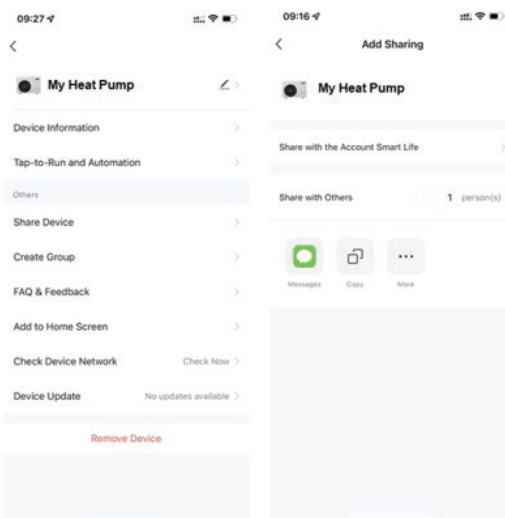
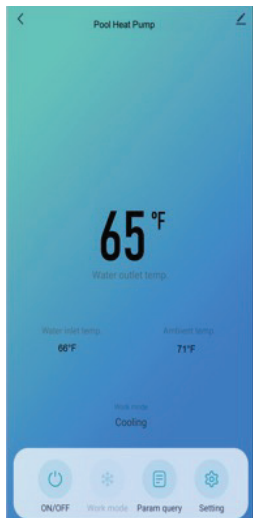
a. The "Share Device" feature in the Smart Life app allows you to share access to your heat pump with other Smart Life app users. This can be useful if you want to give family members access to control the heat pump, or if you want to give access to a technician who needs to troubleshoot the heat pump remotely. To use "Share Device" feature, follow the following steps:

i. Click on "Share Device"

ii. Enter the email address or Smart life username of the person you want to share.

iii. Choose the level of access you want to grant to the person. You can choose between "Device Control" (control heat pump operation only) and "Device management" (control heat pump, add/remove users and change setting.) Click "Confirm."

iv. The person you have invited will receive an email or notification in the Smart Life app with instructions on how to accept the invitation and gain access to the heat pump. They will need to have their own Smart Life account to accept the invitation.



# LIMITED WARRANTY

## MICHAEL PHELPS CHILLY GOAT™ COLD TUBS BY MASTER SPAS

**NOTE:** This Standard Limited Warranty applies to residential use within the United States and Canada.

### 2 YEARS - SHELL STRUCTURE

Master Spas warrants to the original retail purchaser that the cold tub shell structure manufactured by Master Spas will not leak water due to defects in material or workmanship in the cold tub shell structure for a period of 2 years from the date of the original retail purchase. Master Spas will either provide parts or materials to repair (parts only coverage) or replace the nonconforming cold tub shell structure. In the event of replacement, the cost of labor and equipment for removal and replacement of the unit is the sole responsibility of the Purchaser.

### 2 YEARS - SHELL SURFACE

Master Spas warrants to the original retail purchaser that the acrylic finish will not blister, crack, or delaminate to cause water leakage, for a period of 2 years from the date of original retail purchase resulting from defects in material or workmanship. Master Spas will replace the nonconforming shell (parts only coverage). In the event of replacement, the cost of labor and equipment for removal and replacement of the unit is the sole responsibility of the Purchaser. There is no Shell Surface warranty on blemished units. (Spider cracking in the acrylic is not a defect)

### 1 YEAR - EQUIPMENT

Master Spas warrants to the original retail purchaser the cold tub equipment (GFCI cord, power distribution box, circulation pump and chiller) should a component of the Equipment fail or malfunction due to defects in material and workmanship for a period of 1 year from the date of the original retail purchase. If a component of the Equipment fails or malfunctions due to a defect in material or workmanship, Master Spas will provide replacement parts to repair or replace the applicable components (parts only).

### 1 YEAR - PLUMBING & WALLFITTINGS

Master Spas warrants to the original retail purchaser for a period of 1 year from the date of original retail purchase that the plumbing and wall fittings of the cold tub will not leak due to defects in material and workmanship. If the plumbing and wall fitting components leak due to a defect in material or workmanship, Master Spas will provide replacement parts to repair or replace the applicable components (parts only).

### 1 YEAR - LED LIGHT SYSTEM

Master Spas warrants to the original retail purchaser, for a period of 1 year from the date of original retail purchase that the optional, factory installed LED light system will not malfunction due to defects in workmanship and materials (parts only). If the LED light system or any component thereof fails due to defects in material or workmanship, Master Spas will replace the applicable components (parts only).

### 1 YEAR - UV SYSTEM

Master Spas warrants to the original retail purchaser that the factory installed UV system will not malfunction due to defects in materials or workmanship for a period of 1 year from the date of original retail purchase. If the UV system malfunctions due to a defect in materials or workmanship, Master Spas will replace the applicable components (parts only).

### 1 YEAR - NONSLIP, COMFORT FLOOR SYSTEM

Master Spas warrants to the original retail purchaser that the factory installed Nonslip, Comfort Floor System will not separate from the floor of the cold tub for a period of 1 year (parts only). In the event the adhesion fails causing the pad to come free from the cold tub shell or separation of the pad material occurs; Master Spas will replace the applicable component(s), parts only. Normal discoloring, fading, or wear of the Nonslip, Comfort Floor System is not covered by this limited warranty. Causes of these failures include but are not limited to water conditions, chemical levels or UV exposure. See the owner's manual for proper water chemistry levels, water maintenance and cold tub care for best longevity of your Nonslip, Comfort Floor System. Damage such as cuts, gouges and scrapes caused to the pad from objects would not be covered by this limited warranty.

# LIMITED WARRANTY

## EXCLUSION AND LIMITATIONS

### EXCLUSIONS

This limited warranty is enforceable only by the original retail purchaser from the date of original retail purchase but is voidable if the entire purchase price has not been paid. Light bulbs, light lenses, fuses, covers, pillows or any aftermarket installed accessories are specifically excluded from this limited warranty. All warranties are void if the spa is placed in commercial service unless purchaser has selected the commercial business warranty upgrade at time of purchase. Normal wear and weathering of finishes and components are not defects and specifically excluded from this limited warranty. The cabinet panels are only warranted to be free from defects or damage at the time of delivery. In the event it is necessary to remove the cold tub from the residential premises to repair or replace any warrantable item, any and all cost of cold tub removal and replacement including but not limited to removal of the original cold tub and transportation of the replacement cold tub, damages to landscaping, decking, fencing or other structural alteration, or any cost related to obtaining access to the cold tub are specifically excluded and are the sole responsibility of the purchaser. Cold tub covers are not included or covered by this limited warranty.

### LIMITATIONS

This limited warranty is voidable if the cold tub has been subject to misuse, alteration or attempted alteration, repairs or attempted repairs, not approved by Master Spas, or if a failure or malfunction is due to improper installation, improper water chemistry, improper maintenance or lack of normal maintenance as prescribed in the Master Spas Owner's Manual, an act of God, weather conditions, animals, rodents, pests or any damage from causes beyond the control of Master Spas. Misuse or abuse shall mean operation of the cold tub other than in conformity with the Master Spas Owner's Manual. Such misuse and abuse shall include but not be limited to the following:

- Damage of the cold tub surface and components caused by leaving the cold tub uncovered or due to covering the cold tub with plastic film of any kind.

- Damage to the cold tub surface and components caused by use of a non-insulating cover or an unapproved cover not manufactured by Master Spas when the cold tub is subject to weather conditions and sun.
- Damage to the cold tub surface and components caused by contact with unapproved cleaners or solvents.
- Damage caused by operation of the cold tub at water temperatures outside the range of recommended in the owner's manual.
- Freeze damage.
- Damage caused by unapproved sanitizers such as calcium hypochlorite, sodium hydroxide, "tri-chlor" type chlorines or any sanitizing chemical that may remain undissolved on the cold tub surface.
- Damages or malfunction due to a dirty, clogged, calcified filters or use of an unapproved filter cartridge.
- Damages or malfunction caused by failure to provide even, proper support for the cold tub.
- Damages or malfunction caused during installation of the cold tub.
- Damages or malfunction caused by use of unapproved filter cartridges.
- Damages or malfunction caused due to moving the cold tub to a different location from its original installation.

### WARRANTY REGISTRATION AND WARRANTY CLAIM PROCEDURE

The original purchaser should register their cold tub purchase within 10 days from the date of original retail purchase to establish proof of purchase with Master Spas. Failure to register does not void this limited warranty but, upon any warranty claim, proof of purchase must first be provided to confirm the original retail purchase date to the original retail purchaser. Cold tub Registration can be submitted online at [www.masterspas.com/resources](http://www.masterspas.com/resources). In the event of a warranty claim of a defect or malfunction covered under the provisions of this limited warranty, the original retail purchaser must notify in writing the retail dealer or Master Spas Customer Service department within ten (10) days of the initial malfunction or discovery of defect. If the retail dealer does not provide support, then the purchaser should contact Master Spas Customer Service department, via the web site, or provide written notice of the malfunction or defect at the address below. Upon notice of the warranty claim, the



# LIMITED WARRANTY

## EXCLUSION AND LIMITATIONS

retail dealer or Master Spas Customer Service department will work with the retail purchaser to troubleshoot and determine if the claimed malfunction or defect is a covered malfunction or defect under this limited warranty. This limited warranty covers parts to repair or replace applicable components. If the retail purchaser does not feel comfortable with, knowledgeable or skilled to troubleshoot or make repairs, the retail purchaser should find and hire a local contractor (such as a local licensed electrician or HVAC technician) to assist them. In the event the retail purchaser does so, a copy of the repair invoice may be submitted to Master Spas Customer Service Department for consideration of up to \$125.00USD labor reimbursement (lesser of either the invoiced labor or up \$125.00 maximum) per claimed problem(s) case. The arrangements made with 3rd party, local contractor is sole responsibility of the purchase and made between the purchaser and their chosen 3rd party contact. Master Spas will assist with troubleshooting and provide applicable parts/components per the terms defined in this limited warranty. Repeat trips, made by a hired service contact, that may occur, will only be considered for reimbursed as 1 overall claim per problem case (lesser or maximum of \$125 per claim case). If it is determined that the malfunction is not covered by this limited warranty, the cost of the service, that the purchaser arranged and paid 3rd party, and any component(s) shipped by Master Spas would be the sole responsibility of the purchaser. If it is determined that the malfunction or defect is covered under this limited warranty, Master Spas will cover the applicable replacement components/items. In the event of cold tub replacement, the replacement cold tub will carry the balance of the original cold tub limited warranty from the original retail purchase date. In addition, access charges will be assessed if the cold tub is not reasonably accessible for inspection, repair or replacement. This limited warranty is extended only to the original retail purchaser and is not transferable. This limited warranty becomes void upon the transfer of ownership of the cold tub or moving

of the cold tub to a different location, outside the country of original purchase.

**NOTICE: ANY DAMAGE TO THE COLD TUB CAUSED FROM MOVING THE COLD TUB IS EXCLUDED FROM THIS LIMITED WARRANTY.**

**DISCLAIMERS:** MASTER SPAS LLC, NEITHER ASSUMES NOR DO WE AUTHORIZE ANY OTHER PERSON TO ASSUME FOR US, ANY OTHER LIABILITY IN CONNECTION WITH THE SALE OF COLD TUBS MANUFACTURED BY MASTER SPAS. THIS LIMITED WARRANTY SHALL BE THE EXCLUSIVE REMEDY AVAILABLE TO A PURCHASER AND MASTER SPAS SHALL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM MISUSE OF THE COLD TUB OR CAUSED BY ANY DEFECT, FAILURE OR MALFUNCTION OF THE COLD TUB, WHETHER A CLAIM IS BASED UPON WARRANTY, CONTRACT, NEGLIGENCE OR OTHERWISE. SOME STATES DO NOT ALLOW THE EXCLUSION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THIS LIMITATION MAY NOT APPLY TO YOU.

TO THE EXTENT PERMITTED BY APPLICABLE LAW, THIS LIMITED WARRANTY SPECIFICALLY EXCLUDES ANY AND ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND/OR FITNESS FOR A PARTICULAR PURPOSE, OTHERWISE ALL IMPLIED WARRANTIES ARE LIMITED IN DURATION TO TWO (2) YEARS FROM THE ORIGINAL DATE OF RETAIL PURCHASE. SOME STATES DO NOT ALLOW THE LIMITATION OF THE DURATION OF IMPLIED WARRANTIES, SO THIS LIMITATION MAY NOT APPLY TO YOU. THERE ARE

NO OTHER WARRANTIES, EITHER EXPRESSED OR IMPLIED, OF ANY KIND OR NATURE WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. SOME STATES DO NOT ALLOW THE LIMITATIONS OF REMEDIES SO THESE LIMITATIONS MAY NOT APPLY TO YOU.

**If your cold tub is designated by Master Spas and/or purchased as a “blem”, “blemished”, or “refurbished” model, the cold tub is sold “as-is” with regards to cosmetic appearances and will have no Shell Surface warranty of the cold tub. Other sections of the warranty including shell structure, equipment, and noted parts, remains in full as outlined above.**









TM

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GOAT Guide: <https://ChillyGOATtubs.com>

Stay Connected, Keep in Touch 

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Manufactures and assembled in the U.S.A with domestic and foreign components. Master Spas® reserves the right to changes product specifications or features without notice. Master Spas is a manufacturer of spas and related products, and we stand behind every product we produce pursuant to those representations which are stated in our written limited warranty. Your dealer is an independent businessperson or company and not an employee or agent of Master Spas, LLC. We cannot and do not accept any responsibility or liability for any other representations, statements or contracts made by any dealer beyond the provisions of our written limited warranty. Master Spa, Michael Phelps Legend Series, Master Blaster, and EcoPur are registered trademarks of Master Spas, LLC. The Ultimate Relaxation Machine, Mast3rPur, DreamStone, and DuraMaster are all trademarks of Master Spas, LLC. Patents: [masterspas.com/patents](https://masterspas.com/patents).