

T8-S / T8-X Topside Installation Manual & User's Guide





For C5 Series Spa Controls with the T8-S / T8-X Topside Revision 09.13

End User Disclaimer:

United Spa Controls systems have absolutely no end user serviceable parts. United Spa Controls does not authorize attempts by the spa owner/user to install or repair/service any United Spa Controls products.

Non-qualified users should never open or remove the control box's cover, as this will expose dangerous voltage points and other serious risks.

Non-qualified users should not attempt to make changes to the topside's programming, as mis-programming can result in malfunction or possible damage.

Please contact your dealer or a locally licensed service center for service and technical support.

Warranty Disclaimer:

It is extremely important that any user read this user's guide in it's entirety before attempting to operate this United Spa Controls system. Any damage that may occur due to misuse may void the warranty. See warranty page for more information.

Safety Disclaimer:

When using this electrical equipment, basic safety precautions should always be followed. Read and follow the important safety instructions in the safety section before and during use.

Table of Contents

Disclaimers	 1
Safety	 4

For Qualified Service Professionals Only!

T8 Topside Installation	
To Topside Installation	

About The T8 Topside)	 															 	. 8	8	
Using The T8 Topside		 		•			•	•	•	•	•	•	•	•	•		 	. 9	9	

Eor	Oualified	Sanvica	Drofoccionale O	
	Quaimeu	Service		

T8 Topside Initial Configuration	
----------------------------------	--

User Configurable Settings14
T8 User Settings Menu14
Entering/Using the User Settings Menu14
T8 User Settings Menu Tree
Time Settings
Filtration Settings17
Interface Settings
Lock Operation
Heating Modes: 'Standard' and 'Economy'
Operation Instructions
Temperature Operation
Heating Modes: 'Standard' and 'Economy'
Toggling Display Orientation
Operating Pump-1 23
Operating Pump-2 (If Applicable)24
Operating Aux (Pump-3/Air Blower - If Applicable) 25
Operating the Spa Light25
Standard Display & Error Messages
Warranty

Important Safety Instructions:

When using this electrical equipment, basic safety precautions should always be followed, including the following.

Read and follow all instructions!

1. **Warning:** Children should not use spas or hot tubs without adult supervision

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

2. **Warning:** Do not use the spa 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 DE PRISE D'ASPIRATION NE SONT PAS TOUTES EN PLACE.

3. **Warning:** People using medication and/or having an adverse medical history should consult a physician before using a spa or hot tub

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

4. **Warning:** People with inpectious diseases should not use a spa or hot tub

AVERTISSEMENT: LES PERSONNES ATTEINTES DE MALADIES INFECTIEUSES NE DEVRAIENT PAS UTILISER UNE CUVE DE RELACATION 5. **Warning:** To avoid injury exercise care when entering or exiting the spa or hot tub

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

6. **Warning:** Do not use drugs or alcohol before or during the use of a spa or hot tub to avoid unconsciousness and possible drowning

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

7. **Warning:** Pregnant or possibly pregnant women should consult a physician before using a spa or hot tub

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

8. **Warning:** Water temperature in excess of 100°F (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 (100° F)

9. **Warning:** Before entering a spa or hot tub 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

10. **Warning:** Do not use a spa or hot tub immediately following strenuous exercise

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

11. **Warning:** Prolonged immersion in a spa or hot tub may be injurious to your health

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

12. **Warning:** Do not permit electric appliances (such as a light, telephone, radio, or television) within 5 feet (1.5 m) of this spa or hot tub

AVERTISSEMENT: NE PAS PLACER D'APPAREIL ÉLECTRIQUE (LUMINAIRE, TÉLÉPHONE, RADIO, TÉLÉVISEUR, ETC) À MOINS DE 1.5M (5 FEET) DE CETTE CUVE DE RELAXATION

13. **Caution:** Maintain water chemistry in accordance with manufacturer's instruction

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

- 14. 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.
 - Effects: 1- Unawareness of impending hazard.
 - 2- Fetal damage in pregnant women.
 - 3- Failure to recognize the need to exit spa.
 - 4- Physical inability to exit spa.
 - 5- Unconsciousness and danger of drowning.
 - 6- Failure to perceive heat.
- 15. **Warning:** The use of alcohol or drugs can greatly increase the risk of fatal hyperthermia in hot tubs and spas

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

Topside Installation Preparation

The T8-S / T8-X topside control requires three 2-1/4" holes to be cut out of the shell of the hot tub it is to be installed into. Using a 2-1/4" hole saw, three holes will need to be drilled in a straight line, with the center of each hole spaced 1-5/8" from the center of the previous hole, as shown:



Topside Control Installation

Once ready to install, plug one end of the topside cable into the back of the T8 topside control, and snake the topside cable through the cutout in the spa's shell and down to the control box. Then plug the opposite end of the topside cable into the topside receptacle on the control box.

Simply affix the topside to the hot tub by peeling off the paper over the adhesive back of the topside and press it firmly into place, slowly pressing all around the perimeter of the topside firmly to assure a firm bond.

NOTE: Do NOT connect/disconnect the T8-S/T8-X topside while the control box is powered. Always make sure the power is shut off at the breaker before removing/installing a topside, as to avoid damaging the electronics.

About The T8-S / T8-X Topside

The T8-S / T8-X Topside

You will be using the T8-S / T8-X topside to operate your United Spa Controls C5 Series control box. The T8-X is pictured below, with the descriptions of the items that will be referenced throughout this user's guide. The difference between the T8-S and the T8-X is that the T8-X has an 'Jets-3' button, to operate a 3rd booster pump or air blower.



- 1 LED Display
- 2 Jets-1 Button & Indicator Light
- 3 Menu Button
- 4 Jets-2 Button & Indicator Light
- 5 Jets-3 Button & Indicator Light*
- 6 Temp Down Button
- 7 Heat Indicator Light
- 8 Light Button
- 9 Temp Up Button

* T8-X Only: There is no Jets-3 Button on T8-S Topsides.

Using The T8-S / T8-X Topside

The T8-S / T8-X topside uses United Spa Controls' technology. This hybrid switching technology marries the satisfaction of having a physical button to press, with the longevity and reliability of touch-panel switching system with no moving parts to break down over time.

If your button presses are not registering, make sure that you are pushing the raised buttons completely flat against the panel, and that you are waiting a second between button presses.

Upon Power-Up

Whenever the T8 topside is powered on, the unit will briefly flash between 'T8-S' or 'T8-X' and the current software version by showing a 'V' followed by a number (Example: 'V 03') while it starts up. All configurable settings are saved to permanent memory, the only thing that needs to be set upon power-up of a T8-S or T8-X topside that has already been configured previously is the current time (it will default to 12 AM upon power-up).

Checking Software Version After Power-up

The software version can be accessed after initial power-up by simply pressing the Menu button (Display will read 'MENU'), followed by pressing the Light button. The display will then show either 'S' or 'X' depending on the topside's decal setting, followed by '-' and the software version number. For example, a T8-X with software version 03 would display 'X-03'.

T8-S / T8-X Topside Configuration

Once the control box and topside have been properly installed, you can power up the unit and program the topside for the control's desired equipment and operational configuration.

The configuration instructions that follow are meant to be carried out by a spa service professional!

T8-S / T8-X Topside Configuration Menu & Codes

The topside has a configuration menu consisting of five codes that configure what components the system will operate, and what maximum amperage the system will operate at.

Each code has a number of options that the code can be set to. By default, all codes are set to their first option (Option 1).

Use the code chart on the next page to figure out which options you'll need to set for each code for the hot tub the control is being installed into.

Once you know what options all the codes should be set to, turn to the pages that follow for instructions on entering the configuration programming mode, and how to select the different options for each code.

T8-S / T8-X Initial Configuration

T8 Configuration Code Chart

Code 1: Jet-1 Button Configuration Option 1: Jet-1 button operates Hi-Speed Pump-1 Option 2: Jet-1 button operates Lo-Speed and Hi-Speed Pump-1 * Code 2: Jet-2 Button Configuration Option 1: Jet-2 button operates Lo-Speed Pump-1 Option 2: Jet-2 button operates Hi-Speed Pump-2 Option 3: Jet-2 button operates Lo-Speed and Hi-Speed Pump-2 Code 3: T8-S / T8-X Decal & Jets-3 Button Configuration Option 1: T8-S Decal (No Jets-3 / Air Blower) Option 2: T8-X Decal, Aux button operates Air Blower Option 3: T8-X Decal, Aux button operates Hi-Speed Pump-3 Code 4: Power (Amperage) Configuration Option 1: 50A Operation (No heat with Aux) Option 2: 60A Operation (No power restriction) Option 3: 50A Operation (No heat with P-2) Option 4: 40A Operation (No heat with P-2, and Aux) Option 5: 20A 120V Operation or 30A 240V Operation (No heat with anything other then P-1 Lo-Speed)

Code 5: Heater Operation

- Option 1: Electric Heater operates with Lo-Speed Pump-1
- Option 2: Electric Heater operates with Circulation Pump
- Option 3: External Gas Heater operates with Lo-Speed Pump-1
- Option 4: Electric Heater operates with Timed Circulation Pump **
- Option 5: Electric Heater operates with Circulation Pump but uses low-speed Pump-1 for the filtration cycle.
- ** Code 1 should only be set to Option 2 if there is a second jet pump in the spa. If there is only one jet pump, the default should be left so the unit operates as described later in this manual, where the Jet-1 button operates Hi-Speed, and the Jet-2 button operates Lo-Speed (avoiding 'unused' buttons).
- ** When setting Code 5 to Option 4 it is important to make sure that Pump-1 is wired as a single speed (Hi-Speed) pump - and not connected to the red (Lo-Speed) wire. In addition the Circulation Pump cord will need to be reconfigured to use the receptacles red wire for the power line going to the circulation pump.

T8-S / T8-X Initial Configuration

Entering The T8 Topside's Configuration Menu

Once you've gone over the code chart and have chosen the options you want to set for each code, follow these instructions for entering the programming mode and setting the options. There is a time-out delay, so taking longer then 10 seconds between steps will cause the topside to time-out and resume normal operation.







at any time to save any changes and exit the Configuration Menu

Changing The T8 Topside's Configuration Codes

Once you have entered the programming mode, you will have Code 1 and its selected Option showing on the display. This is shown on the display as 'C-O', where C is the current Code, and O is the currently selected/enabled Option for that code. While in programming mode the same 10 second time-out applies, if you take longer then 10 seconds to change a



Code 2 - Option 1

code's selected option or cycle through to the next code, all settings will be saved and the topside will time-out and resume normal operation.

Conflicting Codes

You may notice, when programming the topside that certain codes may not be visible/selectable. This means you have another code set to an option that conflicts with the missing option. So if you program the topside to use the Jets-2 button to operate a two-speed Pump-2, you will no longer see the code option allowing an air blower or third pump to be used on the Jets-3 button (since those functions all use the same relay). Likewise, you will not be able to set Code 5 to Option 4 if Code 1 is set to Option 2 and/ or Code 2 is set to Option 1.

Saving Configuration Menu Changes

When the settings in the configuration menu have been properly set for the spa's configuration, press the 'Menu' button (or let the menu time-out after approximately 15 seconds) to save changes and exit back to the normal operation display.

Upon Configuration Completion

Once the topside has been initially configured, it will not lose those settings, regardless of whether power to the unit is shut off or not.

User Configerable Settings

T8-S / T8-X User Settings Menu

The user settings menu is home to all of the user configurable settings of the topside. See the following page for a full menu tree.

Later in this section the individual settings will be explained in further detail. What follows are the instructions on getting into, maneuvering between, and making changes to these settings, which will be referenced throughout this section.

Entering the User Settings Menu





Step 2 Press



again to see the first setting (Time/Hour Setting).

Using the User Settings Menu



at any time to save your settings and exit - or - let the topside time-out and save the settings and return to the temperature display on its own (in about 15 seconds).

User Configerable Settings



User Configerable Settings



User Settings Explained

System Time

The first setting in the user's configuration menu is for setting the system time. Pressing 'Temp Up' will display the first setting, the Hour Setting. The system time is reset to the default of 12 PM whenever the units' power is reset. Pressing 'Temp Up' will cycle from 12 AM ('12:A') to 12 PM ('12:P'). Pressing 'Temp Down' takes you to the second setting, the Minutes Setting. Pressing 'Temp Up' will cycle from '--:00' thru '--:59'.

Filter Cycle Duration

The filtration cycle duration setting can be set from 0 Hours to 12 Hours. It is during these filtration cycles that the control will run the spa's ozonator, if one is installed. If set to zero there will be no filtration cycles, while setting between 1-12 will set the duration of each filtration cycle accordingly. The factory default filter cycle duration is 2 hours per cycle.

Filter Cycle 1 - Start Time

Filter Cycle 1's Start Time ('FC-1') sets the hour of day the first filtration cycle starts. Pressing 'Temp Up' will show the currently set start time, which can be set from 12 AM to 12 PM (or Off for no cycle) by pressing 'Temp Up'. The factory default start time for the first daily filtration cycle is 6 AM.

Filter Cycle 2 - Start Time

Filter Cycle 1's Start Time ('FC-1') sets the hour of day the first filtration cycle starts. Pressing 'Temp Up' will show the currently set start time, which can be set from 12 AM to 12 PM (or Off for no cycle) by pressing 'Temp Up'. The factory default start time for the second daily filtration cycle is 6 PM.

Filtration Purge

When the Purge Setting is turned on, the control will automatically purge the plumbing of whatever components the system is programmed to operate (on low speed where applicable) for 30 seconds each, starting a minute after the beginning of each cycle. This serves to push any water currently in those components' plumbing back into the main body of water for circulation and filtration.

Temperature Scale

The T8 topside can display the temperature in either Fahrenheit ('F') or Celsius ('C'). The factory default setting is Fahrenheit, and can be changed by pressing 'Temp-Up'.

Time Display

By factory default, Time Display is set to 'ON'. This means that during normal operation the display will flash between the current time, and the current temperature. Turning this setting 'OFF' will make it so that the display just shows the current temperature during normal operation.

Buzzer (Beep on Keypress)

By default the T8 topside will sound an internal buzzer when a button press is registered. Simply toggle this code off ('boF') to disable the buzzer.

Temp/Settings Lock

The T8-S / T8-X topside can be set to lock the set temperature ('TEMP'), the user settings menu ('MENU'), both the set temperature and the user settings menu ('BOTH'), or nothing at all ('OFF'). The factory default is that the lock is 'OFF'. See the next page for more on how these locks operate.

Lock Operation Explained

Set Temperature Lock

When the topside is set to lock the set temperature, pressing either 'Temp Up' or 'Temp Down' during normal operation will display the currently set temperature as usual. Pressing either 'Temp Up' or 'Temp Down' button again, will display 'LOCK' on the screen briefly, instead of allowing the set temperature to be changed.

Settings Menu Lock

When the topside is set to lock the user settings menu, pressing the 'Menu' button will display 'LOCK' instead of 'MENU'. This prevents accessing the user settings menu, changing the heat mode (standard or economy, explained later in this section), and accessing the initial system configuration menu.

Both Temp & Settings Menu Lock

When the lock is set to 'BOTH', both the above described locks are put into place; locking the set temperature, heat mode, and the user and system configuration menus.

Unlocking the Topside

Unlocking the topside, regardless of which lock is implemented, is done as follows:

Press



(which will display 'MENU', or 'LOCK' depending on which lock is in effect)

Then press



within 3 seconds.

Setting the Temperature

The temperature may be set to heat the spa water between 40°F (4°C) and 104°F (40°C).



displays the currently set temperature for approximately 4 seconds.

While the currently set temperature is being displayed:

to increase the set temperature. You can press and release right away to raise the setting incrementally by one degree, or keep the button pressed to scroll through higher temperature settings and release the button once the desired temperature is displayed.

Press

Press

to increase the set temperature. You can press and release right away to raise the setting incrementally by one degree, or keep the button pressed to scroll through higher temperature settings and release the button once the desired temperature is displayed.

When the control is heating...

When the control is heating, the indicator light between the temp buttons

will be lit, and the display will flash between the current temperature and 'HEAT' as shown. If the indicator light between the temp buttons is flashing, this indicates the control would be heating, but is currently set to economy mode.



Heating Modes: 'Standard' and 'Economy'

The topside is set by default to operate in 'Standard' heating mode. This means that when the temperature of the water in the spa drops below the set temperature, the control automatically start heating, bringing Lo-Speed of Pump-1 (or the Circulation Pump is set/wired for timed operation) on as necessary.

The topside can also be set to operate in 'Economy' heating mode, where the heater will only maintain the set temperature when Lo-Speed of Pump-1 is manually activated (if there is no 24hr Circulation Pump), and during filtration cycles. In 'Economy' mode, if the current temperature falls below the set heat temperature, the 'Heat' indicator light will flash to let you know that the unit would be heating if not in Economy Mode.

Note: On spas with Circulation Pumps that run 24 hours a day, economy mode will not effect heating behavior, the control will continue to heat as needed to maintain the set temperature.

Switching to Economy Heat Mode



Economy Heat Mode

See the following page for information on how to switch to Standard Heat Mode.

Switching to Standard Heat Mode







Standard Heat Mode

Toggling The Topside Display Orientation

The screen orientation of the T8-S and T8-X topside can be easily toggled to make the display readable from either inside or outside of the hot tub.

Screen orientation can be toggled at any time, from the standard operating display (when the display is showing the current temperature/time).

To toggle the screen orientation, simply press and hold the 'Menu' button for approximately 3 seconds, and the display will automatically flip to be readable from the opposite direction.

Example:

If the display was currently reading:







for 3 seconds the screen would flip:



Operating Pump-1

The operation of Pump-1 depends on the configuration of your control:

Pump-1 Operation on Single Pump Systems

Press

to toggle Hi-Speed between On/Off. (Will override Lo-Speed, if on)





to toggle Lo-Speed between On/Off. (Will override Hi-Speed, if on)

Pump-1 Operation on Dual (or Triple) Pump Systems

Press



to toggle between Lo-Speed/Hi-Speed/Off.

When Hi-Speed of Pump-1 is running the 'Jets-1' indicator light will be lit.

When Lo-Speed of Pump-1 is running the 'Jets-1' indicator light will flash.

Pump-1 will automatically shut-off after 30 minutes of operation when turned on manually. Should a system that uses Pump-1 for heating/ filtration enter a heat or filtration cycle during manual operation of Pump-1, the pump will continue low speed operation until the cycle is complete.

Operating Pump-2 (If Applicable)

If your control is configured for a secondary pump, it's operation depends on if it's configured to run a single speed Pump-2, or dual speed Pump-2:

Single Speed Pump-2 Operation

Press to toggle between On/Off.

Dual Speed Pump-2 Operation

Press



to toggle between Lo-Speed/Hi-Speed/Off.

When Hi-Speed of Pump-2 is running the 'Jets-2' indicator light will be lit.

When Lo-Speed of Pump-2 is running the 'Jets-2' indicator light will flash.

Pump-2 will automatically shut-off after 30 minutes of operation.

Standard Display & Error Messages

Operating Pump-3 or Air Blower - T8-X Only

If your T8-X topside control is configured to operate an auxiliary component, its operation is identical, whether it is configured to run a single speed Pump-3, or an Air Blower:

Press



to toggle between On/Off.

Whenever Jets-3 is active, the 'Aux' indicator light will be lit.

Jets-3 will automatically shut-off after 30 minutes of operation.

Operating the Spa Light

To operate the spa light, simply press



to toggle between On/Off.

The light will automatically shut-off after 4 hours of operation.

Note: If your spa also has a United Spa Controls Multi-Function LED Light installed in it, you can simply turn the light off and on again within 3 seconds to cycle to the next color function. Almost any spa using an industry standard 12V light harness can be upgraded to a United Spa Controls Multi-Function LED Light. For more information, please contact your local dealer or serviceman for more information.

Standard Display & Error Messages

Hi-Speed Pump-1 - This message will display briefly when Hi-Speed of Pump-1 is activated.

Lo-Speed Pump-1 - This message will display briefly when Lo-Speed of Pump-1 is manually activated.

Hi-Speed Pump-2 - This message will display briefly when Hi-Speed of Pump-2 is activated.

Lo-Speed Pump-2 - This message will display briefly when Lo-Speed of Pump-2 is activated.

Hi-Speed Pump-3 - This message will display briefly when Hi-Speed of Pump-3 is activated. (T8-X Only)

Air - This message will display briefly when the air blower is activated (T8-X Only)

Light - This message will display briefly when the spa light is activated.

Freeze Protection - One of the sensors is reading under 45°F/8°C. Lo-Speed Pump-1 cannot be shut off, and no other equipment will function until the sensors read that the water has risen to at least 48°F/9°C. Once that happens, this message will disappear.

















Standard Display & Error Messages

Filtration Cycle - A filtration cycle is in progress. This flashing message will disappear on its own once the current filtration cycle completes.

Heat - The spa is heating. This message will disappear once the heater shuts off.

Locked - This message displays briefly whenever access is denied to a locked function (Menu and/ or Temperature Setting - see page 19)

Flow Error - The pressure switch is not registering enough flow for safe heater operation. Check pressure switch and pump/plumbing/water flow.

Temperature Sensor Error - The temperature sensor is malfunctioning, or not properly connected. Reconnect or replace temperature sensor as needed.

Hi-Limit Sensor Error - The hi-limit sensor is malfunctioning, or not properly connected. Reconnect or replace temperature sensor as needed.

Software Overheat - The temperature sensor is reading over 113°F/45°C. Once the temperature drops to at least 103°F/39°C press and hold the Temp Down button for 10 seconds to reset.

Hardware Overheat - The hi-limit sensor is reading over 116°F/46°C. Once the temperature drops to at least 103°F/39°C press and hold the Temp Down button for 10 seconds to reset. Until the unit reaches 103°F/39°C Lo-Speed Pump-1 will be kept running in attempt to evenly distribute the build-up of heat.















United Spa Controls One Year Limited Warranty

United Spa Controls warrants, to the original purchaser, the spa control equipment against defects in materials or workmanship for a period of fourteen months from date of manufacture. The obligation of this warranty shall be limited to repairing or replacing the part, which in the opinion of the company shall be proved defective in materials or workmanship. This limited warranty does not include the limitations described below.

Limitations of Coverage: This warranty does not cover failures due to: damage, freezing, power failure, power reduction, unusual atmospheric conditions, rust or corrosion, repairs necessary because of operator negligence, improper re-packaging, and damage incurred in shipping. This warranty does not cover thermostat calibration, plumbing, and expendable items (gaskets, o-rings, filter cartridges).

Acts Invalidating Warranty: This warranty shall be invalid if this equipment has been subjected to alterations, misuse or abuse, improper water chemistry, improper handling, improper installation, repairs (or attempted repairs) which in United Spa Controls' judgment adversely affects the product's performance/reliability, or if the equipment is used for commercial purposes (used for other than single family household purposes). Misuse and abuse shall include application, installation, or operation outside of the environment and limitations for which it was designed. This warranty shall also be invalid if the spa equipment is damaged by earth or ground fill movement, fire, flood, wind, lightning, by act of God, accident, or by intentional, reckless, or negligent acts of any person.

Warranty Performance: All warranty service and/or replacement of parts must be performed by an individual or service company that has been authorized by United Spa Controls. If within the warranty period, any such products shall prove defective, it shall be replaced at United Spa Controls' option as follows: 1) The original retail purchaser shall first contact the point of purchase or the installing dealer, as soon as possible after discovery of the defect, but in no event later than the expiration date of this warranty. Processing claims should be initiated by the point of purchase or the installing dealer. 2) A Return Merchandise Authorization (RMA) form must be completed and submitted to United Spa Controls by the point of purchase or the installing dealer. 3) United Spa Controls will issue an RMA for eligible items that are not out of their warranty period. 4) Defective items may then be packaged along with note that contains the issued RMA number and return shipping information in a box marked with the issued RMA number and shipped to: United Spa Controls, 5614 E La Palma Ave, Anaheim, CA 9287. The customer must pay for all shipping charges and no product shall be returned to United Spa Controls without prior consent. 5) After receipt of the products, supporting documents, and verification of the nature and cause of the defect, United Spa Controls will replace or repair the defective product or issue warranty credit for eligible items at United Spa Controls option.

Removal charges, re-installation charges, any other associated labor, and freight charges to and from United Spa Controls of the failed part shall be the purchaser's responsibility. Any warranty replacement or repair shall be subject to the terms and condition of this warranty for the remainder of the original period of coverage. United Spa Controls reserves the right to inspect any malfunction or defect on location.

Disclaimers, Legal Remedies: This warranty is limited and shall be in lieu of all other warranties, expressed or implied, including but not limited to, any implied warranty or merchantability or fitness for a particular purpose. There are no other warranties that extend beyond the description of the face hereof. In no event shall United Spa Controls be liable for labor or material charges in connection with removal or replacement of the defective products. United Spa Controls is not liable for the incidental or consequential damages, loss of profit, loss of time, inconvenience and incidental expenses. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights, which vary state to state. United Spa Controls reserve the right to change its warranty at any time.

United Spa Controls

5614 E La Palma Ave Anaheim, CA 92807

Web:UnitedSpaControls.comE-mail:support@unitedspacontrols.comPhone:714-982-0170Fax:888-715-0286

©2019 United Spa Controls. All rights reserved.