

***C5 Controls  
T5 Command Control Panel  
Owner's Manual***

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**If you have questions about the set-up or programming of your new unit, please contact the dealer you purchased it from for assistance!**

## Limited Warranty

**One Year Limited Warranty:** United Spas, Inc. warrants, to the original purchaser, the Spa Equipment against defects in materials or workmanship for a period of one year from date of purchase. 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, expendable items (gaskets, o-rings, filter cartridges).

**Acts Invalidating Warranty:** This warranty shall be invalid if this equipment has been subjected to alterations, misuses or abuse, improper water chemistry maintenance or used for commercial purposes (used in 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, or other than in accordance with United Spas or the spa manufacturer printed instructions. 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 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 Spas. The purchaser may obtain the benefits of warranty coverage on a failed part by having the servicing company remove the part and send it for inspection, along with proof of purchase and field service report, freight pre-paid, to: United Spas 2480-A N. Glassell St., Orange, CA 92865 If the failure is covered by the warranty, there will be no charge for the repaired or replacement part. Removal/re-installation charges and freight charges to and from United Spas of the failed part shall be the purchaser's responsibility. Any such 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 Spas reserves the right to inspect the malfunction or defect on location.

**Disclaimers, Legal Remedies:** United Spas shall not be liable for the loss of use of any equipment. This warranty is in lieu of all other expressed warranties obligations or liabilities, any implied warranty of merchantability, shall be limited in duration to the duration of this written limited warranty. Any action for breach of warranty hereunder, including but not limited to, any applied warranty of merchantability must be brought within a period of 12 months from date of purchase. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you. No agent, representative, dealer or employee of the company has the authority to increase or alter the obligations of this warranty. In no case shall the company be liable for any incidental or consequential from state to state. United Spas does not authorize any person or company to assume for it any other obligation or liability in connection with the sale, application, engineering, damages for breach of this of any other warranty, expressed or implied, whatsoever. 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 installation use, removal, return, or replacement of it's systems: and no such representations are binding on United Spas.

## A. Control Module will not operate:

1. Make sure the Spa-Side Control is connected to the Spa Side Control receptacle.
2. Check the main circuit breaker panel. If the GFCI or circuit breaker has tripped, reset breaker. If the circuit breaker trips repeatedly, contact your spa dealer.
3. Turn the circuit breaker, or switch, supplying power to the Control Module OFF then ON.

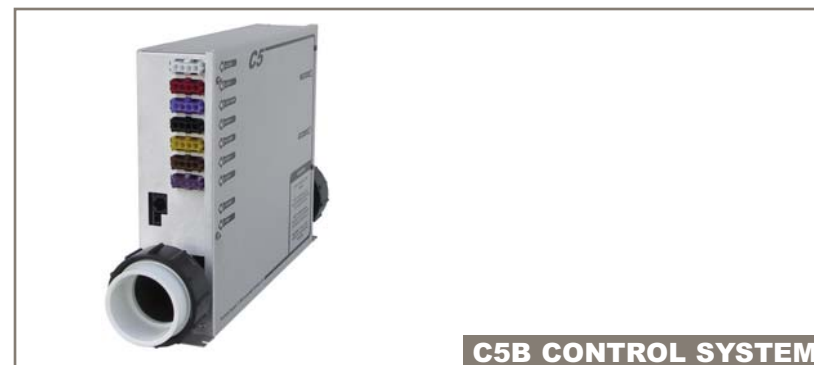
## B. Pump will run but there is no water flow:

1. Make sure all valves are in the open position.
2. Make sure the filter is clean.
3. Make sure the suction lines are free of debris.
4. Make sure the spa is filled to its proper operation level.
5. Make sure there is no air trapped in the pump. With the pump operating in HIGH speed, loosen the pump inlet union (turn counterclockwise) approximately one turn to release any air trapped in the pump. When there is water flow into the spa, tighten the pump inlet union securely.
6. Check to make sure that all Jet orifices are turned open.

## C. Pump runs and water flows but no heat:

1. Refer to **Setting the Temperature** page 13 and increase the temperature setting. Do not expect to feel hot water coming from the jets.
2. Check if high limit shut off has tripped. If so, press TEMP to reset.
3. Make sure that all valves are open, to allow a full flow of water through the system. Limited water flow will not build up enough pressure to allow the heater to come on.
4. Clean the filter to assure maximum water flow.
5. The system is equipped with a heater delay switch that will prevent heater operation from occurring for approximately 15 seconds after pump starts. Make sure the pump has been operating for at least 20 seconds.

**PLEASE CHECK THE SUPPORT PAGE FOR UPDATES AT [WWW.UNITEDSPAS.COM](http://WWW.UNITEDSPAS.COM)**



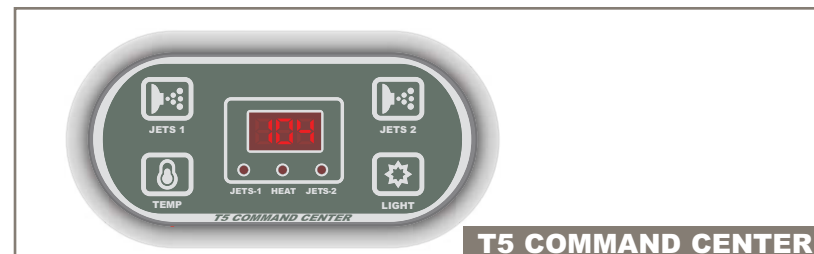
**C5B CONTROL SYSTEM**



**C5T CONTROL SYSTEM**



**C5R CONTROL SYSTEM**



**T5 COMMAND CENTER**

## Important Safety Instructions

When installing and 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 CUVE DE RELAXATION

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

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

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

## Display Messages

### Top Side Error Messages:

In the event of a system error an error message will be displayed on the Temperature display (LED) as follows:



The system water temperature has exceeded 118°F (48°C), causing the heater to automatically shut OFF. When the water temperature has dropped below 104°F (40°C), press the TEMP button to reset the heater. If this error message continues to occur, discontinue use of the spa and contact a qualified service technician to correct the problem.



The system water temperature has dropped below the minimum set point of 40°F (4°C). An automatic freeze protection will activate the pump(s) and heater - protecting the system from freeze damage. The heater and pump(s) will operate until the water has reached 43°F (6°C).



The flow switch is not measuring adequate water flow to permit heater operation. Check the spa for closed valves, low water level, or a dirty filter cartridge. If this error message continues, discontinue use and contact a qualified service technician to correct the problem.



The water temperature regulating sensor has malfunctioned or is not properly connected. IF either Er0 or Er1 error message is displayed, discontinue use and contact a qualified service technician to correct the problem.



The water temperature high limit sensor has malfunctioned or is not properly connected. IF either Er2 or Er3 error messages displayed, discontinue use and contact a qualified service technician to correct the problem.

### Normal Operating Messages:

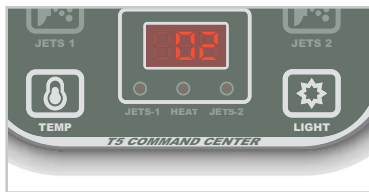


Whenever a timed filtration cycle is in operation, the Fc message and the current water temperature are alternately displayed on the LED.

## Setting Filtration Cycles:

There are two equal filtration cycles a day. They may be programmed in 2 hour increments, to operate from 2 to 24 hours/day.

To set the filtration cycles, press and hold (6 seconds) the LIGHT button. A number between 02 and 24 will be displayed, this is the total hours of programmed daily filtration. To change the current setting, press TEMP to increase the hours. To decrease the hours, press the TEMP button until 24 appears, press again, the display will start again at 00, press TEMP until the desired setting appears.



To set filtration start times, press and hold LIGHT (6 seconds) the filtration cycle setting will appear, press LIGHT again, a number between 00 and 24 will be displayed, this is the number of hours until the start of the first filtration cycle.

To increase the current setting, press TEMP until the desired setting is displayed. To decrease the setting, press TEMP until 24 appears, press again, the display will start again at 00, press TEMP until the desired setting is displayed. Press and release LIGHT to resume normal operation.

**Example - Two filtration cycles per day:** If the Spa -Side Control has been set for 2 hrs. filtration time (02) followed by 1 hr. start time (01), the first filter cycle of 1 hr. will start 1 hr. after programmed. 12 Hours later the second 1 hr. filter cycle will start. If the filter cycle Fc is ON, the second push of the LIGHT button advises the time left on the filter cycle. If the filter cycle is OFF, the second push of the LIGHT button advises the time until the next filter cycle starts.



**Example - One filtration cycle per day:** If the Spa-Side Control has been set for 2 hours. filtration time (02) followed by 1 hr. start time (01), the filter cycle will start 1 hr. after programmed and continue to operate for 2 hours.

**Note:** In the event of power outage, it will be necessary to reset the filtration cycle.

- 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

- 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

- 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)

- 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

- 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

- 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

## Important Safety Instructions

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

### Save These Instructions

**Read all instructions contained in this owner's manual before beginning installation**

## Operating Instructions

### Setting The Temperature:

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

To set the temperature press the TEMP button and the current temperature setting will be displayed for approximately 4 seconds.



To increase temperature setting, press the TEMP button until the desired temperature is displayed.

To decrease temperature setting, press the TEMP button, the display will continue to increase to 104° and start again at 40°, press TEMP button until desired temperature is displayed.

Whenever the heater is operating to maintain preset temperature, the spa water temperature and heat icon (HET) will flash on the temperature Display.



### Ozone Generator Electrical Connection:

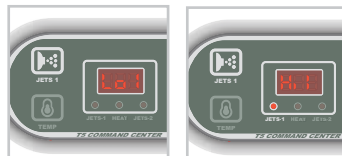
All Control Modules include OZONE receptacle for field connection of an ozone generator.

**Note:** Power is available at the OZONE receptacle whenever the circulating pump is operating during a programmed filtration cycle. See Setting Filtration Cycles on page 14.

## Operating Instructions

### Spas Equipped with Dual Pumps and Blower:

**JETS-1 Button:** Press the JETS-1 button once for low speed primary pump, press again for high speed primary pump, press again for OFF.



**JETS-2 Button:** Press the JETS-2 button once for air blower, press again for secondary pump, press again for air blower and secondary pump, press again for OFF.



#### Notes:

1. A safety shut-off timer circuit automatically turns off the pumps and air blower after 30 minutes of operation.
2. When operating in a filtration cycle, the low speed pump will not turn off until the end of the filtration cycle.
3. Air channel purge feature: The air system will automatically operate for 1 minute every day to clear the water from the air channel for filtration.

### Operating the Spa Light:

**LIGHT Button:** Press the LIGHT button to turn the light on, press again for OFF. A safety shut-off timer circuit automatically turns the spa light OFF after four hours of operation.



### Spas Equipped with a Circulating Pump:

**Option 1:** The circulating pump operates whenever the main power is ON. With this option the circulating pump will operate continuously.

**Option 2:** The circulating pump operates during a programmed filtration cycle. This option is only to be used if your circulation pump operates at less than 1A. Contact the dealer you purchased your unit from for information on how to program your control to circulate this way. See Setting Filtration Cycles on page 14 for information on setting the filtration cycle timing and duration.

## Electrical Installations

### 120V. Installation (Cord and Plug Connected Units):

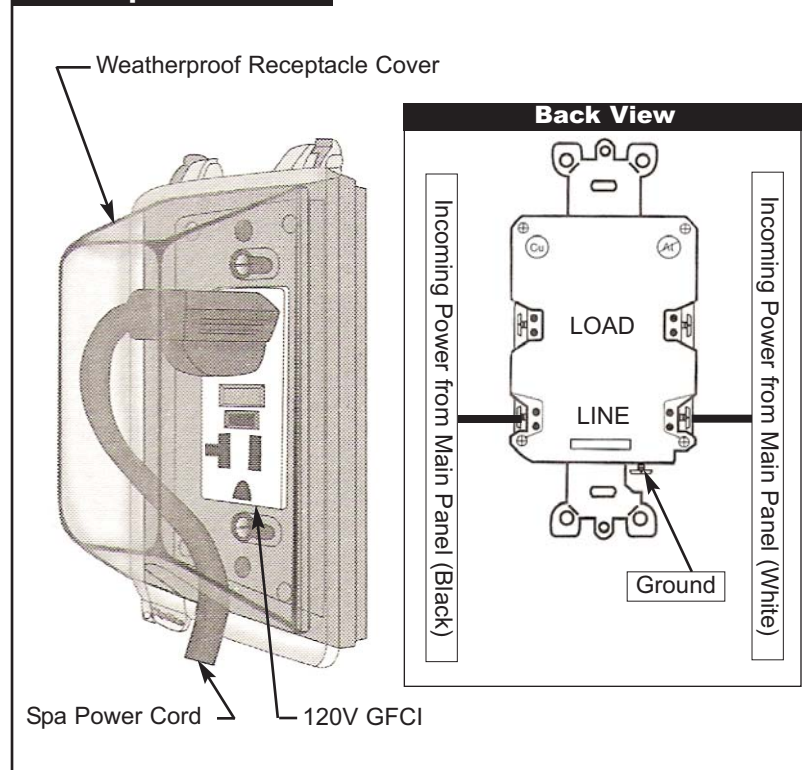
Equipment Modules provided with a factory installed power cord are to be plugged into a grounding type, 120 volt, receptacle.

The connection of the plug to a 240 volt service will cause the Equipment Module to operate improperly, create the potential for an electrical hazard, and will void the warranty.

The electrical supply for cord and plug connected units must include a suitably rated Ground Fault Circuit Interrupter (GFCI) in compliance with Article 680-42 of the National Electrical Code. ANSI/NFP70. No other electrical appliance or fixture should be used on this circuit.

- Use only dedicated electrical line with 25 amp breaker.
- Do not use an extension cord.
- Always use a weatherproof covered receptacle.
- Do not bury the power cord.

### Weatherproof GFCI Kit

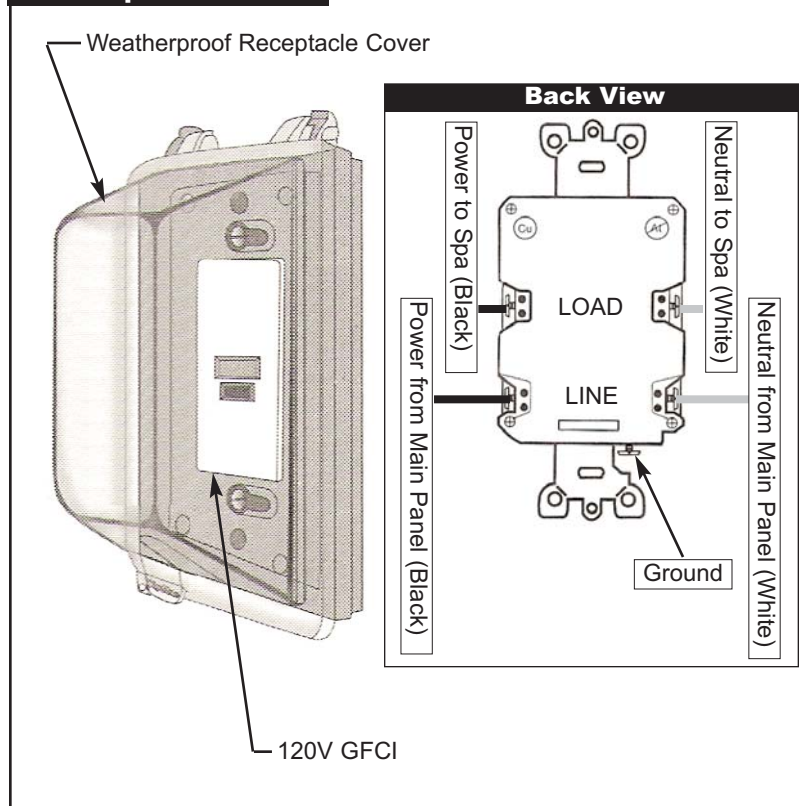


## 120V. Installation (Permanently Connected Units):

Units to be operated at 120 volt must have all electrical connections accomplished by a qualified electrician in accordance with the National Electrical Code or the Canadian Electrical Code, and other electrical codes at the time of installation. All connections must be made with copper conductors. The conductors and circuit breaker must be sized to accommodate the total amperage load as specified on the Equipment Module data label. Equipment Modules installed for 120 volt operation require a two wire electrical service, plus ground. (line 1, black), (neutral, white), and (ground, green).

The disconnecting means must be readily accessible to the tub occupant but installed at least 5 feet (1.5 m) from tub water. The electrical supply for permanently connected units must include a suitably rated Ground Fault Circuit Interrupter (GFCI) in compliance with Article 680-42 of the National Electrical Code. ANSI/NFP70. No other electrical appliance or fixture should be used on this circuit.

### Weatherproof GFCI Kit



## Spas Equipped with a Single Pump:

**JETS-1 Button:** Press the JETS-1 button once for High speed pump, press again for OFF.



**JETS-2 Button:** Press the JETS-2 button once for Low speed pump, press again for OFF.



## Spas Equipped with a Single Pump and Blower:

**JETS-1 Button:** Press the JETS-1 button once for low speed pump, press again for high speed pump, press again for OFF.



**JETS-2 Button:** Press the JETS-2 button once for air blower, press again for OFF.



## Spas Equipped with Dual Pumps:

**JETS-1 Button:** Press the JETS-1 button once for low speed primary pump, press again for high speed primary pump, press again for OFF.

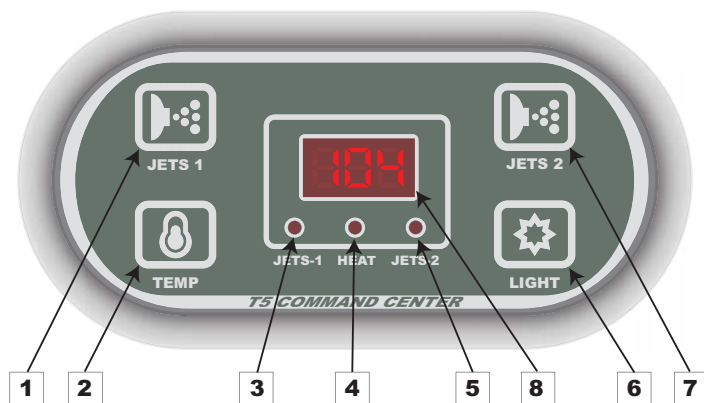


**JETS-2 Button "One speed second pump":** Press the JETS-2 button once for secondary pump, press again for OFF.



**Optional JETS-2 Button "Two speed second pump":** Press the JETS-2 button once for low speed secondary pump, press again for high speed secondary pump, press again for OFF.





1. **JET-1 Button:** Operates the primary pump
2. **TEMP Button:** Used to set temperature, program filtration cycles.
3. **JETS-1 Indicator Light:**  
Illuminate when the primary high speed pump is operating.
4. **Heat Indicator Light:** Illuminate when the heater is operating.
5. **JETS-2 Indicator Light:**
  1. Spas with single pump: Illuminate when the low speed pump is operating.
  2. Spas with dual pumps or air blower: Illuminate when the high speed secondary pump or blower are operating.
6. **LIGHT Button:** Controls the spa light operation. Also used to program filtration cycles.
7. **JET-2 Button:**
  1. Spas with single pump system: Operates the low speed primary pump.
  2. Spas with dual pumps or air blower: Operates the secondary pump and air blower.
8. **LED Temperature Display:** Continually indicates the current spa water temperature and display operating messages and error codes.

## 240V Installation:

Units to be operated at 240 volt must have all electrical connections accomplished by a qualified electrician in accordance with the National Electrical Code or the Canadian Electrical Code, and other electrical codes at the time of installation. All connections must be made with copper conductors. The conductors and circuit breaker must be sized to accommodate the total amperage load as specified on the Equipment Module data label. Equipment Modules installed for 240 volt operation require a three wire electrical service, plus ground. (line 1, black), (line 2, red), (neutral, white), and (ground, green).

The disconnecting means must be readily accessible to the tub occupant but installed at least 5 feet (1.5 m) from tub water. The electrical supply for permanently connected units must include a suitably rated Ground Fault Circuit Interrupter (GFCI) in compliance with Article 680-42 of the National Electrical Code. ANSI/NFP70. No other electrical appliance or fixture should be used on this circuit.

