

IMPORTANT SAFETY INSTRUCTIONS

When installing and using this Control Module, basic safety precautions should always be followed, including the following:

READ AND FOLLOW ALL INSTRUCTIONS

INSTALLATION CONSIDERATIONS

1. A bonding lug has been provided on the outside of the Control Module electrical control box. This lug permits the connection of a No. 8AWG (8.4mm²) solid copper bonding conductor between the Control Module and all other electrical equipment and exposed metal in the vicinity, as may be needed to comply with local regulations.
2. The Control Module must be installed to provide for adequate drainage, and to prevent water from entering the electrical equipment area. When installing the spa indoors, the floors and structures beneath the spa must be protected against water run-off.

FOR CORD AND PLUG CONNECTED UNITS 120 VOLT OPERATION

3. **DANGER** - Risk of injury.
Do **NOT** use an extension cord. The Control Module must be located close enough to the electrical outlet

that an extension cord shall not be required. Use of an extension cord will seriously degrade Control Module performance, and can create a serious electrical hazard.

Never bury the power cord.

To reduce the risk of electric shock, replace a frayed or damaged power cord immediately.

For units with a 20 ampere type plug, connect **ONLY** to a grounded, grounding type receptacle rated at 120 volts, 20 amperes. Never, for any reason, modify the attachment plug to fit other than a grounded, 120 volt, 20 ampere receptacle.



FOR PERMANENTLY CONNECTED UNITS "HARDWIRED" FOR 120 VOLT OR 240 VOLT OPERATION

4. The electrical supply for permanently connected Control Modules ("Hardwired" for 120 or 240 volt operation) must include a suitably rated switch or circuit breaker to open all ungrounded supply conductors to comply with Article 422-20 of the National Electrical Code, ANSI/NFPA 70. The disconnecting means must be within sight and readily accessible to the user of the spa, but installed at least 5 feet (1.5 m) from the spa. The electrical supply for permanently connected Control Modules must also include a suitably rated Ground

Fault Circuit Interrupter (GFCI) to comply with Article 680-42 of the National Electrical Code, ANSI/NFPA 70.

OPERATING PRECAUTIONS

5. **DANGER - RISK OF ELECTRICAL SHOCK.** Do not permit any electrical appliance, such as a light, telephone, radio, or television, within 5 feet (1.5 m) of the spa.
6. Be sure that water always flows freely from the hydrotherapy jets within the spa. Any blockage or restriction of this water flow by persons or objects may damage system components, create an electrical shock hazard, and/or cause water damage to the surrounding area. To avoid damage to the pump and heater, the Control Module must never be operated unless the spa is filled with water.
7. **DANGER** - To reduce the risk of injury to persons within the spa, never remove, or alter in any way, the grates or covers on the suction fittings in the spa. Never operate the Control Module if the grates or covers on the suction fittings are broken or missing.
8. **WARNING - RISK OF CHILD DROWNING.** Extreme caution must be exercised to prevent unauthorized access to the spa by children. **WARNING** - To reduce the risk of injury, do not permit children to use the spa unless they are closely supervised at all times.

9. **WARNING** - 120 volt Control Modules may be equipped with a Ground-Fault Circuit-Interrupter (GFCI), located in the plug or power supply cord. This GFCI protects against electrical shock hazard by sensing electric fault conditions and interrupting the electric power applied to the Control Module.

Before each use of the spa the GFCI, if provided, should be tested in the following manner: Push the **TEST** button. The **RESET** button should pop outward, indicating that the GFCI is functioning properly. Push the **RESET** button all the way in, restoring electrical power to the Control module.

If the **RESET** button does not pop outward when the **TEST** button is pushed, a loss of GFCI protection is indicated. Should this occur, immediately disconnect electrical power from the Control Module, and discontinue use of the spa until a qualified technician has identified and corrected the problem.

10. Prolonged immersion in water hotter than 104 °F (40 °C) may cause hyperthermia. The causes, symptoms, and effects of hyperthermia may be described as follows: 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 dizziness, fainting, drowsiness, lethargy, and an increase in the in-

ternal temperature of the body. The effects of hyperthermia include (1) unawareness of impending hazard, (2) failure to perceive heat, (3) failure to recognize the need to exit the spa, (4) physical inability to exit the spa, (5) fetal damage in pregnant women, and (6) unconsciousness resulting in a danger of drowning. **WARNING** - The use of alcohol, drugs, or medication can greatly increase the risk of fatal hyperthermia.

Leave the spa immediately if nausea, dizziness, or headaches occur. Immediately cool the body by taking a cool shower or by applying cold towels or ice packs. If the symptoms persist, seek medical attention.

11. **WARNING** - To reduce the risk of injury:

Before entering the spa the user should measure the water temperature with an accurate thermometer, since the tolerance of water temperature-regulating devices may vary as much as ± 5 °F (3 °C).

The use of alcohol, drugs, or medication before or during use of the spa may lead to unconsciousness with the possibility of drowning.

The water in the spa 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 extended use (exceeding 10 minutes) and for young children.

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 spa water temperature to 100 °F (38 °C).

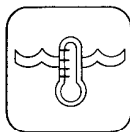
Persons suffering from obesity or with a medical history of heart disease, low or high blood pressure, circulatory system problems, or diabetes should consult a physician before using the spa.

Persons using medication should consult a physician before using the spa since some medication may induce drowsiness while other medication may affect heart rate, blood pressure, and circulation.

Because *occasional* users of the spa may not be aware of all of the potential risk associated with spa usage, they should be made aware of these Important Safety Instructions.

SAVE THESE INSTRUCTIONS

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).

The **HOT** and **COLD** touch buttons control temperature setting. To set the temperature press either touch button and the current temperature setting will be displayed for approximately 4 seconds. To increase temperature press **HOT**, to decrease temperature, press **COLD**.

The **HEAT** function indicator light will illuminate whenever the heater is operating to maintain preset temperature.

Note: Press and hold **HOT** or **COLD** touch button to cause the temperature setting to change slowly, then rapidly.



OPERATING MODE: There are two modes of operation to select from, Economy and Standard.

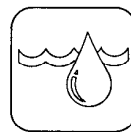
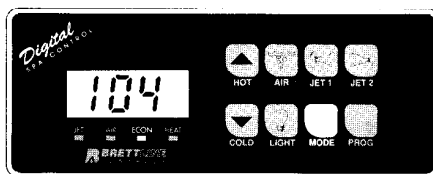
The **ECON** function indicator light will illuminate whenever the Economy mode is selected and is OFF whenever Standard mode is selected.

Selecting the operating mode

Press the **MODE** touch button to set the desired mode of operation.

Standard Mode . . . When operated in Standard Mode, the pump and heater will operate as required to maintain the preset temperature 24 hours a day. – The pump will operate during the programmed filtering cycles.

Economy Mode . . . When operated in the Economy Mode, the pump and heater will operate only during programmed filtration cycles, or when the jets are activated.



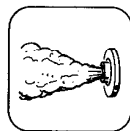
SETTING FILTRATION CYCLES:

There are two equal filtration cycles each day. They may be programmed in two hour increments, to operate from 2 to 24 (2 to 12*) hours a day. To set filtration cycles, press and release the **PROG** touch button. A number between 02 and 24 (02 and 12*) will be displayed, this is the total hours of programmed daily filtration. To change the current setting, press ▲ to increase the hours or ▼ to decrease the hours. Press and release **PROG** a second time, a number between 00 and 12 (00 and 6*) will be displayed, this is the number of hours until the start of the first filtration cycle. Press ▲ or ▼ to change the current settings, press and release **PROG** again to resume normal operation.

* For models with 12 hour filtration cycles.



Example: If the spa-side control has been set for 2 hrs. filtration time (02) followed by 1 hr. start time (01), the first filtering cycle of 1 hr. will start 1 hr. after programmed. 12 hrs. later the second 1 hr. filtering cycle will start. If the filter cycle Fe is on, the second push of the **PROG** touch button advises the time left on the filter cycle. If the filter cycle is off, the second push of the **PROG** touch button advises the time until the next filter cycle starts.



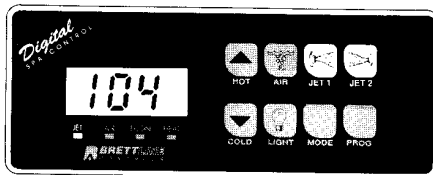
OPERATING THE JETS

Single Pump Operation* . . . To activate the jets press the **JET** touch button once for low speed, press again for high speed, press again for OFF. The **JET** function indicator

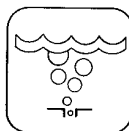
light will illuminate whenever the jet pump is operating. **Dual Pump Operation*** . . . **JET 1** touch button controls one jet pump and **JET 2** touch button controls the second jet pump. The **JET** function indicator light will illuminate whenever either jet pump is operating.

* A safety shut-off timer circuit automatically turns off the jets after 30 minutes of operation. Press the appropriate jet touch button again to continue using the jets.

NOTE: When operating in a filtration cycle, pressing the **JET** touchbutton will change between low speed and high speed operation. The pump will not turn off until the end of the filtration cycle.



NOTE: Systems with a separate filtration pump (instead of a 2-speed pump) utilize a separate single speed jet pump. Press the **JET** touchbutton once for jet high speed operation, press again for off.



OPERATING THE AIR SYSTEM:

The **AIR** touch button controls either single or dual speed air systems.

Single speed operation* . . . Press

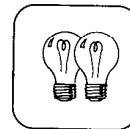
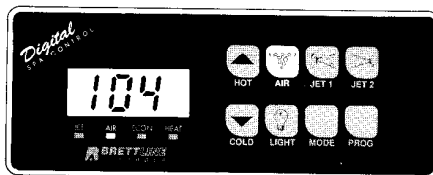
AIR to activate the air system, press **AIR** again to turn it off.

Dual speed operation* . . . press **AIR** once for high speed, press again for low speed, press again for OFF.

The **AIR** function indicator light will illuminate whenever the air system is operating.

*A safety shut-off timer circuit automatically turns off the air system after 30 minutes of operation. Press **AIR** again to continue using the air system.

Air channel Purge feature . . . The air system will automatically operate for 1 minute every day, assuring that all water is exposed to the sanitizer.



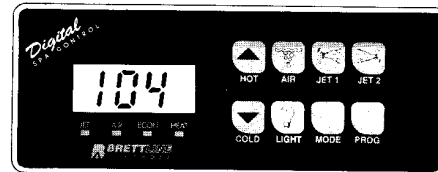
OPERATING THE SPA LIGHT:

The **LIGHT** touch button controls either single or dual light systems.

Single light operation* . . . Press **LIGHT** to turn the light ON or OFF

Dual light operation* . . . Press **LIGHT** once to turn on the first light, press **LIGHT** again to turn on the second light, press **LIGHT** a third time to turn OFF the first light and press **LIGHT** a fourth time to turn OFF the second light.

*A safety shut-off timer circuit automatically turns off the light(s) after four hours of operation.



OPERATING THE REMOTE CONTROL:

For remote control operation refer to *Operating the jets*, *Operating the air system* and *Operating the spa light* instructions above.

