

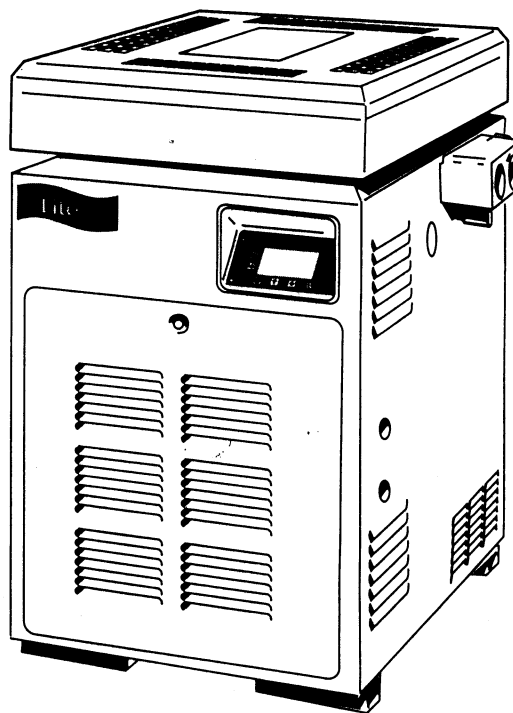
FOR YOUR SAFETY - This product must be installed and serviced by a professional service technician, qualified in pool heater installation. Improper installation and/or operation could create carbon monoxide gas in flue gases which could cause serious injury, property damage, or death. Improper installation and/or operation will void the warranty.

Installation and Operation Manual

Lite2 Pool and Spa Heater

Model LJ
Natural Gas or LP Gas

**NOTE: LP Gas For
Outdoor Use Only**



⚠ WARNING: If these instructions are not followed exactly, a fire or explosion may result, causing property damage, personal injury, or death.

Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

WHAT TO DO IF YOU SMELL GAS

- Do not try to light any appliance.
- Do not touch any electrical switch; do not use any phone in your building.
- Immediately call your gas supplier from a nearby phone. Follow the gas supplier's instructions.
- If you cannot reach your gas supplier, call the fire department.

Installation and service must be performed by a qualified installer, service agency, or the gas supplier.

To the Installer: After installation, these instructions must be given to the homeowner or left on or near the heater.

To the User: This booklet contains important information that will help you in operating and maintaining this heater. Please retain it for future reference.



SECTION 7. Operating Instructions

7.1 Start-Up

Be sure that there is water in the pool and that the surface level is above the skimmer or other inlet of the pool's filter system.

With any new pool or spa installation, operate the filter pump with the heater off long enough to completely clean the water. This will remove any installation residue from the water. Clean the filter at the end of this operation before starting the heater. When raising the temperature of a cold pool, program the time clock to turn the pump off 23 hours and 58 minutes after the start time (i.e. If start time is 2:00 PM then set stop time at 1:58 PM.) This lets the filter system and heater operate continuously until the water reaches the temperature setting on the temperature control. When that happens, the heater will automatically shut off, but the filter pump will keep running.

IMPORTANT: The temperature controls cannot be calibrated in the field. If the control is faulty, shut down the heater by following the procedures in Section 7.3 and have a qualified service technician replace the control. **DO NOT** use the thermostat switch to completely shut down the heater.

CAUTION

Do not use this heater if any part has been under water. Immediately call a qualified service technician to inspect the heater and replace any part of the control system and any gas control which has been under water.

ATTENTION

N'utilisez pas cet appareil s'il a été plongé dans l'eau, même partiellement. Faites inspecter l'appareil par un technicien qualifié et remplacez toute partie du système de contrôle et toute commande qui ont été plongés dans l'eau.

CAUTION

Should overheating occur or the gas supply fail to shut off, turn off the manual gas control valve to the heater.

ATTENTION

En cas de surchauffe ou si l'alimentation en gaz ne s'arrête pas, fermez manuellement le robinet d'arrêt de l'admission de gaz.

CAUTION

Do not attempt repairs on the gas controls or appliance. Tampering is dangerous and voids all warranties.

CAUTION

Keep all objects off the top of the heater. Blocking air flow could damage the heater, and may void the warranty.

WARNING

Vent pipes, draft hoods, and heater tops get hot! These surfaces can cause serious burns. Do not touch these surfaces while the heater is in operation. Adding a vent cap reduces the temperature on the top.

WARNING

For your safety, when starting the heater, keep your head and face well away from the lower firebox opening to prevent any risk of personal injury.

7.2 Setting the LJ Controller Functions and Limits

The LJ controller is a microprocessor based controller designed to control various functions of your pool and spa water circulation system. It provides a visual display of the status of the heater and pump functions. It has a built-in time clock that eliminates the need for an external clock to control the pump. It even provides information in the form of service codes used to diagnose a problem in the event of a malfunction. The pressure sensitive push-button keypad and large LCD display make the controller easy to program and use.

When the LJ controller is powered for the first time, it recognizes that the installation is new and uses all the internal default values for control. On initial start-up and any time the power to the heater has been interrupted and then reestablished, the firmware revision will flash for one second on the display screen where the time is normally displayed. After one second, the display will show the time. The following sections explain how to set your heater control to your preferences. After programming the controller for the first time, all settings and modes will remain in memory until changed. Even if the power to the heater is interrupted, the settings will not have to be reprogrammed. If the pump and heater were on when the power went off, they will be on when power is restored to the heater. The only indication that power to the heater has been interrupted is that the 'real time' clock will be flashing. When power is restored the clock will remember the time when the power went off and resume from that point on. Therefore, the clock will have to be reset. Refer to Figure 17 to identify the location of keys and display items mentioned in the following sections.

NOTE: All of the functions and limits of the LJ controller can be reset to factory default values by pressing and holding the ENTER key for 7 seconds.

HOLD FOR 7 SECONDS
TO RESET TO FACTORY
DEFAULT VALUES

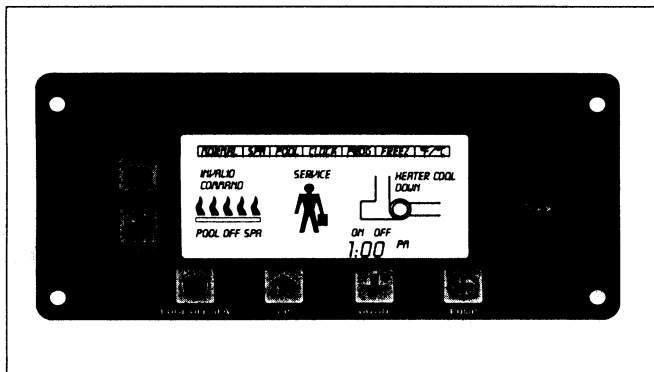
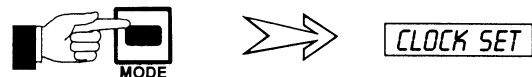


Figure 17. LJ Controller and Display

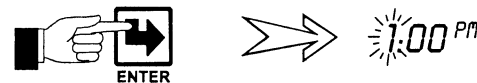
7.2.1 Setting the Real Time Clock

The 'REAL TIME CLOCK' displays the current time. When the heater is powered for the first time the controller will show a flashing display of 1:00 (PM). Any subsequent start-ups after a power interruption will cause the display to flash the time that the power went off. It is important to reset the 'REAL TIME CLOCK' anytime the power to the heater has been interrupted so that the 'PUMP TIME CLOCK' operates the pump at the desired times. To set the 'REAL TIME CLOCK' perform the following steps:

1. Press the MODE key repeatedly until the words 'CLOCK SET' appear at the top of the display screen.



2. Press the ENTER key. The hour indicator in the lower right corner of the display will start to flash.



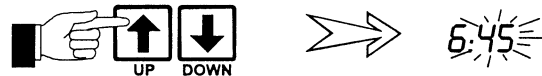
3. Press the UP or DOWN key to adjust the hour. The PM indicator shows for PM time. There is no indicator for AM time.



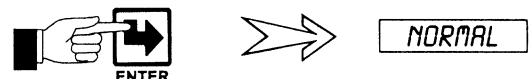
4. When the hour is set correctly, press the ENTER key. The minutes indicator will start to flash.



5. Press the UP or DOWN key to adjust the minutes.



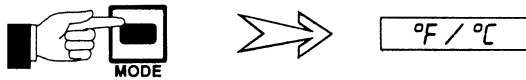
6. When the minutes are set correctly, press the ENTER key. The minutes indicator will stop flashing and the word 'NORMAL' will appear in the upper left corner of the display screen to indicate that the time has been set and the heater is now in normal operating mode.



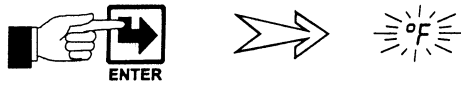
7.2.2 Setting the Temperature Scale

The LJ controller can display all temperature readings in either degrees Fahrenheit or degrees Centigrade. Once the temperature scale is entered, it may take up to 30 seconds to update the inlet water temperature. To set the display to the desired 'TEMPERATURE SCALE' perform the following steps:

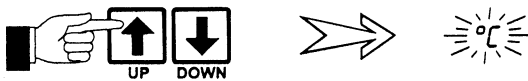
1. Press the MODE key repeatedly until the icon '°F/°C' appears at the top of the display screen.



2. Press the ENTER key. The temperature scale indicator in the lower left corner of the display will start to flash.



3. Press the UP or DOWN key to toggle between °F and °C.



4. When the temperature scale is set to your preference, press the ENTER key. The temperature scale indicator will stop flashing and the word 'NORMAL' will appear in the upper left corner of the display screen to indicate that the desired temperature scale has been set and the heater is now in normal operating mode.



7.2.3 Setting Pool and Spa Temperatures

The LJ controller has dual temperature modes, which allows two different temperature settings, selected by the SELECTION key on the bottom of the control panel. One mode can be set for normal use and the other for standby; or one can be set for pool and the other for a spa. This feature makes it easy to switch between heating the pool and heating the spa by eliminating the need to change the thermostat setting to the desired temperature each time the switch is made.

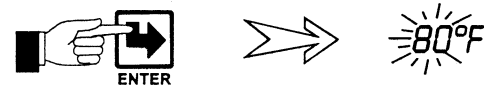
NOTE: The temperature set range for both the 'POOL' and 'SPA' settings is 70°F (21°C) to 104°F (40°C). If an attempt is made to set a temperature outside of this range, the words 'INVALID COMMAND' will appear on the left side of the display.

To set the 'POOL WATER TEMPERATURE' perform the following steps:

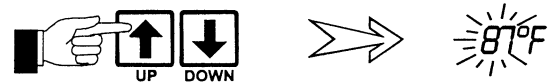
1. Press the MODE key repeatedly until the words 'POOL SET' appear at the top of the display screen.



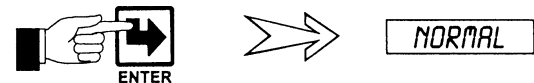
2. Press the ENTER key. The temperature indicator in the lower left corner of the display will start to flash.



3. Press the UP or DOWN key to adjust the desired temperature.

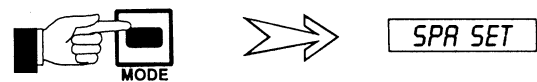


4. When the temperature is set to your preference, press the ENTER key. The temperature indicator will stop flashing and the word 'NORMAL' will appear in the upper left corner of the display screen to indicate that the desired pool temperature has been set and the heater is now in normal operating mode.

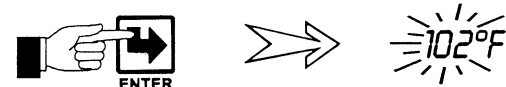


To set the 'SPA WATER TEMPERATURE' perform the following steps:

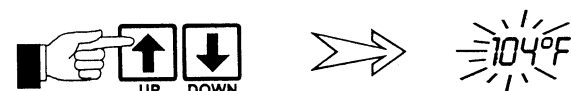
1. Press the MODE key repeatedly until the words 'SPA SET' appear at the top of the display screen.



2. Press the ENTER key. The temperature indicator in the lower left corner of the display will start to flash.



3. Press the UP or DOWN key to adjust the desired temperature.



- When the temperature is set to your preference, press the ENTER key. The temperature indicator will stop flashing and the word 'NORMAL' will appear in the upper left corner of the display screen to indicate that the desired spa temperature has been set and the heater is now in normal operating mode.



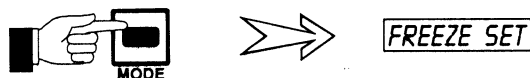
7.2.4 Setting the Freeze Temperature

The pump must be controlled by the heater's internal time clock for the freeze protection to operate. The LJ controller will protect your pool and spa equipment from damage due to freezing for short periods of time. Once the 'FREEZE TEMPERATURE' is set and the heater is in the 'OFF' mode, the pump will automatically start when the water temperature drops to the 'FREEZE TEMPERATURE'. The pump will shut off when the water has warmed to 2° above the 'FREEZE TEMPERATURE'.

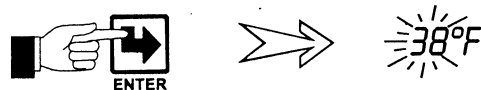
NOTE: The temperature set range for the 'FREEZE TEMPERATURE' is 34°F (1°C) to 42°F (5°C). If an attempt is made to set a temperature outside of this range, the words 'INVALID COMMAND' will appear on the left side of the display.

To set the heater to the desired 'FREEZE TEMPERATURE' perform the following steps:

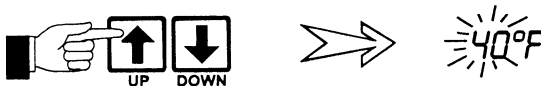
- Press the MODE key repeatedly until the words 'FREEZE SET' appear at the top of the display screen.



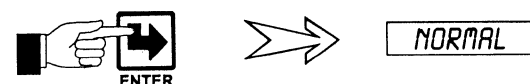
- Press the ENTER key. The temperature indicator in the lower left corner of the display will start to flash.



- Press the UP or DOWN key to adjust the desired temperature.



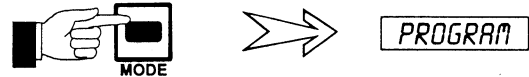
- When the temperature is set to your preference, press the ENTER key. The temperature indicator will stop flashing and the word 'NORMAL' will appear in the upper left corner of the display screen to indicate that the desired freeze temperature has been set and the heater is now in normal operating mode.



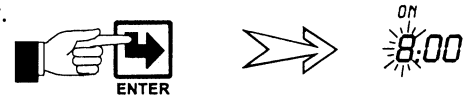
7.2.5 Setting the Pump Time Clock

The LJ controller has a built-in 'PUMP TIME CLOCK'. An optional electrical relay must be installed to use this function of the heater. The time clock may be set to cycle the pump once in each 24 hour period. To set the 'ON' and 'OFF' times for the 'PUMP TIME CLOCK' perform the following steps:

- Press the MODE key repeatedly until the icon 'PROGRAM' appears at the top of the display screen.



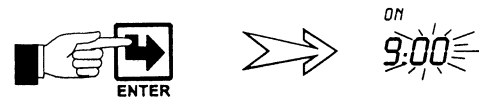
- To program the start time of the pump, press the ENTER key. The hour indicator in the lower right corner of the display will start to flash and the word 'ON' will appear over the hour indicator.



- Press the UP or DOWN key to adjust the hour. The PM indicator shows for PM time. There is no indicator for AM time.



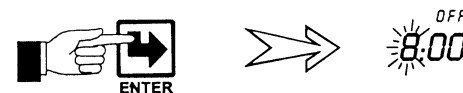
- When the hour is set correctly, press the ENTER key. The minutes indicator will start to flash.



- Press the UP or DOWN key to adjust the minutes.



- When the minutes are set correctly, press the ENTER key to program the stop time for the pump. The hour indicator in the lower right corner of the display will start to flash and the word 'OFF' will appear over the minutes indicator.



- Press the UP or DOWN key to adjust the hour. The PM indicator shows for PM time. There is no indicator for AM time.

