Ultimate-Plus Spaside Remote Control Panel
Programming Instructions

To make the most of your new investment, please READ and SAVE.
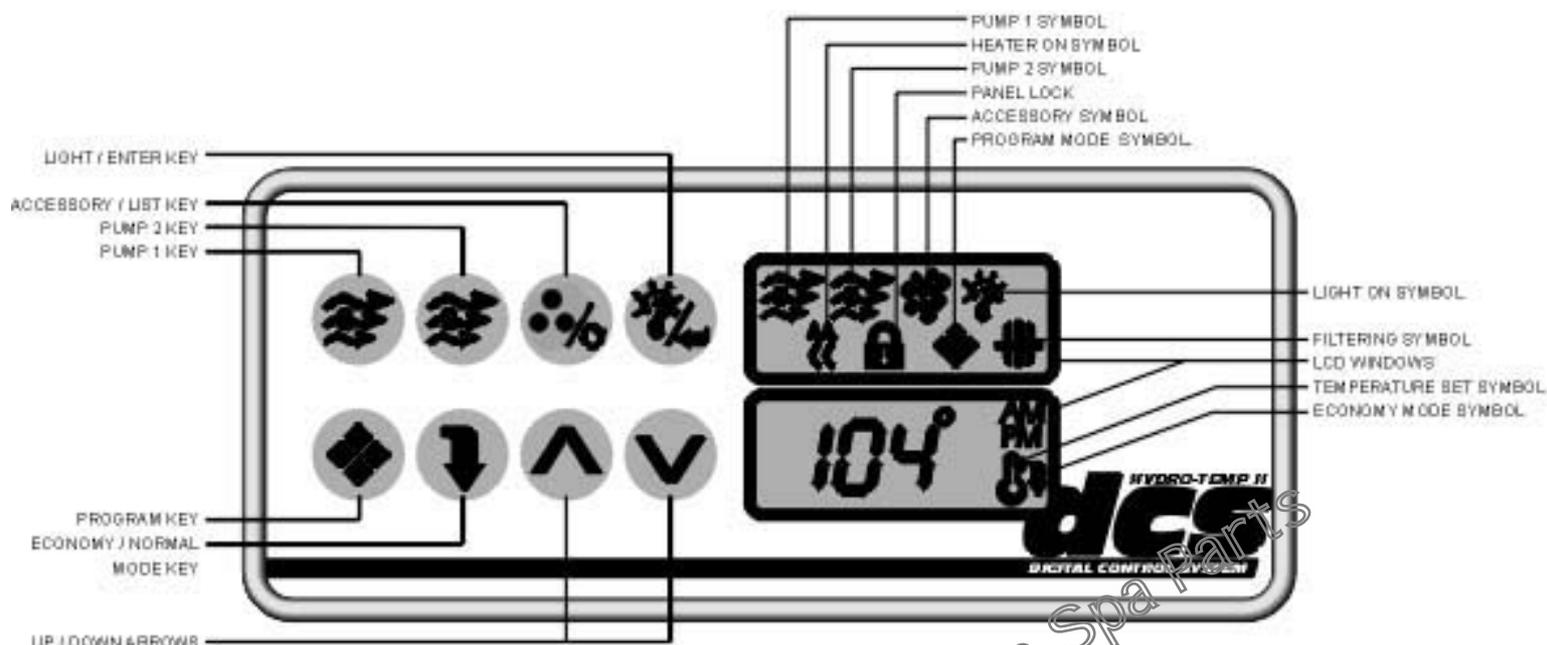
IMPORTANT NOTE: Some keys have two different functions. One is for the "normal mode" and the other is for the "programming mode".
SPECIAL FEATURES: Real-Time Time Clock - Programmable Economy Mode - Infrared Remote Control (Option) - Inhouse / Outdoor Remoter (Option)

Pump 1 Key

If Pump 1 is a single speed pump, the Pump 1 key is used to turn it on and off. If Pump 1 is a two speed pump, the Pump 1 key is used to turn it on and to select between off, low and high speeds. A built-in timer will shut the pump off 20 minutes after it has been started unless the user does so manually.

Pump 1 Symbol

The Pump 1 symbol will appear on the LCD display when the Pump 1 is running at high speed. The symbol will blink when the pump is running at low speed.

Pump 2 Key

If Pump 2 is a single speed pump, the Pump 2 key is used to turn it on and off. If Pump 2 is a two speed pump, the Pump 2 key is used to turn it on and to select between off, low and high speeds. A built-in timer will shut the pump off 20 minutes after it has been started unless the user does so manually.

Pump 2 Symbol

The Pump 2 symbol will appear on the LCD display when the Pump 2 is running.

Up/Down Arrows

Up and Down arrow keys are used to set the temperature of the water. Keeping pressure on the keys will increase (or decrease) the current temperature setting. The new and desired temperature setting will remain for 5 seconds on the LCD display as a confirmation of it's new value.

Set Point Symbol

The appearance of the Set Point symbol on the LCD display tells the user that the temperature shown is the desired, and not the actual temperature of the water. The temperature can be adjusted in 1^oF increments from 40^oF to 104^oF (or 4^oC to 40^oC.).

Water Heater Automatic Start

When the water temperature if 1^oF lower than the set point, the pump (at low speed if it is a two speed pump) and the heater will be turned on until the water temperature reaches the set point plus 1^oF.

Heater "ON" Symbol

The Heater On symbol will appear on the LCD display when the heater is on. The

Heater On Light symbol will blink on the LCD display whenever there is a call for heat and the heater has not yet been turned on.

Blower Key

The Blower key is used to turn the blower on or off and to select blower speeds. The first press of the blower key will turn the blower on at high speed. A second (or third) press of the blower key will change the blower speed from high to medium (or medium to low) speed. The fourth press will turn the blower off. A built-in timer will shut the blower off after 20 minutes if it has not been shut off manually.
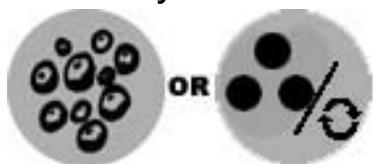
Blower Symbol

When the blower is on, the Blower symbol will appear on the LCD display (it will blink if the speed is at medium or low).

Light Key

The Light key is used to turn light on or off and to select light intensities. The first press of the Light key will turn the light on at its highest intensity. A second (or third) press will change the light intensity from high to medium (or from medium to low) intensity. A fourth press will turn the light off. The light will automatically turn itself off after 2 hours.

Light Symbol

When the light is on the Light symbol will appear on the LCD display (it will blink if the intensity is at medium or low).

Program Key

The Program key is used to switch between normal and programming modes.

Program Mode Symbol

The Program mode symbol will appear in the LCD window when the unit is in programming mode. Refer to the programming section for more details.

Economy/Normal Mode Key

This key is used to switch from the Normal Mode to the Economy Mode. In Economy Mode, the set point will be at 20°F below the normal set point.
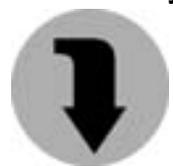
Economy/Normal Mode Symbol

The Economy Mode symbol appearing in the LCD window indicates to the user that the Economy Mode is on. The system can also be configured to automatically switch to the Economy Mode at certain periods of the day (see programming features). In this case, using the Economy / Normal Mode switch will override the automatic function until the next programmed cycle.

Temperature Display

In Normal Mode operation, the display alternates between the current time and the actual water temperature. The display alternates every 5 seconds.

Summary of LCD Window Codes

C Celsius
CL Current Time of Day
ECdu Economy Mode Duration
Econ Economy Mode Turn On
F Fahrenheit
Fldu Filter Cycle Duration
Flon Filter Cycle Turn On
FLC Pressure Switch Alarm
FLO Pressure Switch Alarm
FrEE Freeze Protection Alarm
HL High Temperature Alarm
Loc Panel / Keypad Locked
PrH Temperature Sensors Alarm
Prr Temperature Sensors Alarm
Tu Temperature Set Celsius
Tu Temperature Set Fahrenheit

Programming Instructions

Filter Cycle Start and Duration

The filter cycle will have the system run every day for filtering purposes even if the user is not using the spa. The filter cycle begins with a one minute purge cycle of the blower; then, pump 1 will be activated (in low speed for a two-speed pump) for an amount of time programmed by the user. The ozone output is also activated during the filter cycle.

To program a filter cycle, the user must enter two parameters; the start time of the cycle and the duration of the cycle. If no filtering is required, the user sets the duration to OFF. The filtering cycle will occur twice a day, every 12 hours. If continuous filtering is required, the filter cycle duration must then be set to 12 hours

Filter Cycle Symbol

When a filter cycle is in process, the Filter symbol appears in the LCD window.

To Set The Start Time Of The Cycle

1. Start the programming mode by pressing the Programming key.
2. Select the filter cycle turn on parameter by pressing on the List key until Flon appears in the LCD window.
3. Press the Enter key to display its current value.
4. Use the Up or Down arrow keys to change the number of hours.
5. Press the Enter key to store the new value of the parameter into the memory.

The spa side control will return to the normal mode.

To Set The Duration Of The Cycles

1. Start the programming mode by pressing on the Programming key.
2. Select the filter cycle duration parameter by pressing on the List key until Fldu appears in the LCD window.
3. Press the Enter key to display its current value.
4. Use the Up or Down arrow keys to change the value of the parameter.

5. Press the Enter key to store the new value of the parameter into the memory. The spa side control will return to the normal mode.

Temperature Display in ºF or ºC

The temperature of the water can be displayed in ºF or ºC. To select the desired type of measurement, the user must follow this procedure:

1. Start the programming mode by pressing on the Programming key.

2. Select the temperature display parameter by pressing on the List key until Tu appears in the LCD window.

3. Press the Enter key to display its current value.

4. Use the Up or Down arrow keys to change the value of the parameter.

5. Press the Enter key to store the new value of the parameter into the memory. The spa side control will return to the normal mode.

Time of Day

The time of day function allows the user to set the internal clock of the power unit to the current time. The unit will keep time for ±48 hours in case of power failure. The following is the procedure to set or modify the time of day.

1. Start the programming mode by pressing on the Programming key until the CL parameter appears in the LCD window.

2. Press the Enter key to display its current value.

3. Use the Up or Down arrow keys to set the clock.

4. Press the Enter key to store the new time into the memory.

The spa side control will return to the normal mode.

Economy Mode Start and Duration

The Economy Mode allows the user to lower the temperature set point to the spa by 20ºF during a certain period of the day. Two parameters must be entered: the start time of the economy cycle and its duration. If no Economy Mode is required, the duration must be set to OFF. IMPORTANT: If the Economy Mode is manually overridden, it will resume at midnight of the current day.

Loc0 = Unlocked Loc1 = Locked

To Set The Start Time Of The Economy Mode

1. Start the programming mode by pressing on the Program-ming

key.

2. Select the Economy Mode turn on parameter by pressing on the List key until Econ appears in the LCD window.

3. Press the Enter key to display its current value.

4. Use the Up or Down arrow keys to change the value of the parameter.

5. Press the Enter key to store the new value of the parameter into the memory. The spa side control will return to the normal mode.

To Set The Duration Of The Economy Mode

1. Start the programming mode by pressing on the Programming key.

2. Select the Economy Mode turn on parameter by pressing on the List key until ECdu appears in the LCD window.

3. Press the Enter key to display its current value.

4. Use the Up or Down arrow keys to change the value of the parameter.

5. Press the Enter key to store the new value of the parameter into the memory. The spa side control will return to the normal mode.

Panel Lock

The panel lock function allows the user to prevent unauthorized parameter programming of the unit. The basic functions of the spa will remain accessible (pump 1, pump 2, blower and light outputs) but it will be impossible to change the temperature set point, to override economy mode or to get into programming mode.

Panel Lock Symbol

When the panel lock function is on, the lock symbol will appear in the LCD window.

To Activate The Panel Lock Function

1. Start the programming mode by pressing on the Programming key.

2. Select the panel lock parameter by pressing on the List key until Loc appears In the LCD window.

3. Press the Enter key to display its current value.

4. Use the Up or Down arrow keys to change the value of the parameter.

5. Press the Enter key to store the new value of the parameter into the memory. The spa side control will return to the normal mode.

Keypad Unlock

When the keypad has been locked in the programming mode, the user must follow this procedure to unlock the keypad:

1. Press the Programming key. The Loc will appear in the LCD window.

2. Press (in this order): the Up arrow key, the Pump 1 key, then the Light key.

The lock icon will disappear from the display.

The unit will then return to normal mode.

If the unlock procedure takes more than 15 seconds, the unit will return to the normal mode and the keyboard will still be locked.

NOTE: When in Programming Mode, if no keys are pressed during 15 seconds, the control will return to the normal mode.

Alarms

Freeze Protection

If the temperature of the water falls below 50^{0}F, the system will start a special program to circulate the water in the plumbing. Pump 1 (in high speed), Pump 2 (in high speed), and the heater will be turned on for two minutes or until 50^{0}F is achieved. The message FrEE will be displayed throughout the special cycle. During this cycle all other functions of the unit (except the alarms) are disabled.

High Temperature Protection

If the water temperature exceeds 115^{0}F, the heater will be turned off and the High-Limit temperature protection circuit will display HL in the LCD window. After the water temperature has cooled down to 110^{0}F the system will automatically reset the heater. If for some reason, the water temperature continues to rise to 122^{0}F, the entire system will become disabled with the exception of a limited freeze protection mode. Once the water has cooled below 115^{0}F pressing any key will allow the system to reset. If this condition persists refer to the advanced trouble shooting guide available from your spa retailer or

contact a service technician to correct the problem.

Pressure Switch

To assure proper heater operation, a water pressure switch has been installed to monitor the system. If either alarm codes FLC or FLO are visible in the LCD window, this indicates the need for system service. Refer to the advanced trouble shooting guide available from your spa retailer or contact a service technician to correct the problem.

Temperature Sensors

To assure proper spa temperature maintenance, temperature probes are incorporated into the system. If either of the alarm codes PrH or Prr are visible in the LCD window, this indicates the need for system service. Refer to the advanced trouble shooting guide available from your spa retailer or contact a service technician to correct the problem.