

# ML700

## OPERATING PROCEDURE

### INITIAL START-UP

When your Spa is first activated (Powered up) it will go into Priming Mode indicated by `Pr` on the LCD readout.

The Priming Mode will last for up to 4 minutes and then the Spa will begin to heat and maintain the water temperature at the default pre-set temp of 37.5°C.

The  icon will be displayed when heating.



### Temperature Adjustment








The last measured temperature is consistently displayed on the LCD.


Press either button once to display the set temperature. Each time either button is pressed again, the set temperature will increase or decrease depending on which button is pressed.

After three seconds, the LCD will automatically display the last measured temperature. Temperature adjustments can only be made from the Main Touch Panel.

### Setting the time of day

When the Spa is first powered up, the `TIME` icon flashes on the display of your Touchpad.

To set the time firstly press  then , select the hour by pressing  or  (each press changes the time by 1 hour). Press  to enter. Select minutes by pressing  or  (each press changes the time by 1 minute).

Press  to exit the programming.

### Jets 1

Press `Jets 1` to turn Pump1 on and off. If left on Pump 1 will turn off after 30 minutes.

If a 2 Speed Pump (option) is utilised in your Spa, low speed automatically turns on during filter cycles. It cannot be de-activated during filter cycle but high speed may be activated.

### Jets 2

Press `Jets 2` to turn pump 2 on/off. If left on Pump 2 will turn off after 30 minutes.

### Blower

This pad turns the Blower on/off. The Blower automatically turns off after 30 minutes.




### Light

Press the Light button to turn the Spa Light on/off. If left on, the Light automatically turns off after 4 hours.

Circulation Pump (option) if fitted, the Circulation Pump operates continuously (24 Hours) with the exception of turning off for 30 minutes at a time when the water temperature reaches 1.5° above the set temperature. (most likely to happen in very warm climates).

### SETTING STANDARD/ECONOMY & SLEEP MODE




#### Mode/Prog

Press  to select the mode programming, press  to cycle through to the desired mode. Press  once desired mode is found to confirm selection.

**Standard** Mode - Maintains the desired temperature. The last measured Spa temperature, is displayed and current only when the pump has been running for at least 2 minutes. The `STANDARD` icon will display until the mode is changed.





**Economy** Mode - Heats the Spa to the set temperature only during filter cycles. The `ECONOMY` icon will display until mode is changed.






**Sleep** Mode - Heats the Spa to within 11°C of the set temperature only during filter cycles. The `SLEEP` icon will display until mode is changed.


**Invert** - Press the  or  pad, followed by the  pad to change the numbers on the LCD to read upside down.


### OPTIONAL FILTER CYCLE PROGRAMMING

You are not required to set filter cycles; however it is an option available to you.

Press , , ,  within 3 seconds. You will see the `PROGRAM`, `Filter 1` and `START TIME` icons appear on the display.

Press  or  to choose the filter hour. Enter the hour by pressing . Press  or  to choose the filter start times in minutes.

Press  to see `PROGRAM`, `FILTER 1` and `END TIME` icons. Adjust the time as above.

Proceed to Filter 2 and set as above. Pressing  will save the settings entered up to that point and exit the programming.








## Preset Filter Cycles

The first filter cycle is automatically activated at 8.00am and operates until 10.00am. The filter 1 icon will illuminate while filter 1 is operating.





The second filter cycle will start at 8.00pm and finish at 10.00pm. The filter 2 icon will illuminate while filter 2 is operating.





At the start of each filter cycle the blower will run for 30 seconds to clean out the air channels, and the main pumps will run for 5 minutes (approx).

## Locking the Panel

Press , 'Jet 1' then  within 3 seconds. When locked, the 'PL' indicator light will illuminate. All pads are frozen except the  pad. To unlock press , 'Jet 1' the  within 3 seconds.

## Locking the Set Temperature

Press  or  then , 'Jet 1' and  within 3 seconds to activate the lock. The TL indicator light will illuminate when the set temperature is locked.

To unlock the set temperature press  or  then , 'Jet 1' and .

## Freeze Protection

If the temperature sensors inside the heater detect a drop of water temp to approx 6.7°C, then the pumps will automatically activate to provide freeze protection.

The equipment will remain on for 4 minutes after the sensors detect the water temperature at approx 7.2°C. In colder climates, an optional freeze sensor may be added to protect against freeze conditions. See your Dealer for details.

## Diagnostic Messages

Message	Meaning	Action Required
	No message on display. Power has been cut off to the Spa.	The Control Panel will be disabled until power returns. Time of day will be preserved for 30 days with a battery backup.
<b>OH1</b>	'Overheat' - The Spa has shut down. One of the sensors has detected (approximately 47.8°C) at the Heater.	DO NOT ENTER THE WATER. Remove the Spa Cover and allow water to cool. Once the Heater has cooled, reset by pushing any button. If Spa does not reset, shut off the power to the Spa and call your Dealer or Service Organization.
<b>OH5</b>	'Overheat' - The Spa has shut down. One of the sensors has detected that the Spa water is (approximately 43.3°C).	DO NOT ENTER THE WATER. Remove the Spa cover and allow water to cool. At 43°C, the Spa should automatically reset. If Spa does not reset, shut off power to the Spa and call your Dealer or Service Organization.
<b>ICE</b>	'Ice' - Potential freeze condition detected.	No action required. The pump and Blower will automatically activate regardless of Spa status.
<b>SA1</b>	Spa is shut down. The sensor that is plugged into the Sensor 'A' jack is not working.	If the problem persists, contact your Dealer or Service Organization (May appear temporarily in an overheat situation and disappear when the heater cools).
<b>SA2</b>	Spa is shut down. The sensor that is plugged into the Sensor 'B' jack is not working.	If the problem persists, contact your Dealer or Service Organization. (May appear temporarily in an overheat situation and disappear when the heater cools).
<b>SAS</b>	Sensors are out of balance. If this is alternating with the temperature, it may just be a temporary condition. If the display shows only this message (periodically blinking), the Spa is shut down.	If the problem persists, contact your Dealer or Service Organization.
<b>HFL</b>	A substantial difference between the temperature sensors was detected. This could indicate a flow problem.	Check water level in Spa. Refill if necessary. If the water level is correct, make sure the pumps have been primed. If problem persists, contact your Dealer or Service Organization.
<b>LF</b>	Persistent low flow problems. (Displays on the fifth occurrence of the 'HFL' message within 24 hours.) Heater is shut down, but other Spa functions continue to run normally.	Follow action required for 'HFL' message. Heating capacity of the Spa will not reset automatically; you may press any button to reset. Remove filters if clears, dirty filters. Potential airlock, pumps may need to be purged.
<b>DR</b>	Inadequate water detected in Heater.	Check water level in Spa. Refill if necessary. If the water level is correct, make sure the pumps have been primed. Press any button to reset.
<b>DR4</b>	Inadequate water detected in heater (Displays on third occurrence of 'DR' message.) Spa is shut down.	Follow action required for 'DR' message. Spa will automatically reset; you may press any button to reset. Potential airlock, pumps may need to be purged.
<b>Pr</b>	When the Spa is first activated it will go into Priming Mode.	Priming Mode will last for up to 4 minutes and then the Spa will begin to heat and maintain the water temperature in the Standard Mode.

### Warning! Shock Hazard! No user Serviceable Parts.

Do not attempt service of this control system. Contact your Dealer or Service Organization for assistance. Follow all Owner's Manual power connection instructions. Installation must be performed by a licenced electrician and all grounding connections must be properly installed.