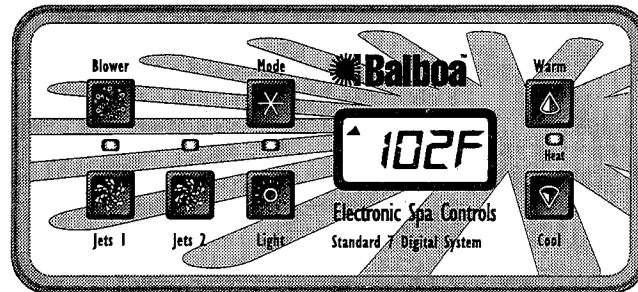


# M-3 Control Reference Card



*Instruction card for M-3 systems equipped with Standard Digital control panels*

## Initial Start-up


When your spa is powered up, it begins running in an economy mode. This setting is designed for periods of little or no spa use, but the spa continues to filter twice a day to maintain water quality. Press the "Mode" pad to switch the spa to standard mode which will automatically heat and maintain the water at 100°F or your desired set temperature.



## Temperature Adjustment (80°F - 104°F)


The current temperature is constantly displayed on the LCD. Press either  or  once to display the set temperature. (The set temperature is designated by a triangle in the upper left corner). Each time either pad is pressed again, the set temperature will increase or decrease depending on which pad is pressed. After three seconds, the LCD will automatically display the current spa temperature.

## Jets 1


Press the  pad to turn on the low speed of pump 1. Press the pad again to turn on the high speed of the pump. Press the pad a final time to turn off the pump. Due to Automatic Spa Control, the low speed of the pump will start automatically when the heater is turned on or when a filter cycle is activated. If the low speed of the pump is on under Automatic Spa Control, it cannot be deactivated from the panel; however, the high speed of the pump may be started. If left on, the low speed of the pump will automatically turn off after 4 hours; the high speed will turn off after 30 minutes.

**Systems with a circulation pump:** Pump 1 has only one speed. The pump will turn off if the water temperature is 2°F above the set temperature. It turns on again at 1°F below the set temperature. It always comes on during a filter cycle.


## Jets 2

Press the  pad to turn pump 2 on and off. If left on, the pump will automatically turn off after 30 minutes.


## Blower

Press the  pad to turn the blower on and off. The blower will automatically turn off after 30 minutes.

## Light

Your spa light has three settings. Press the  pad once for the brightest intensity and a second time for medium intensity. Press the pad a third time for the dimmest setting and a final time to turn the spa light off. If left on, the light will automatically turn off after 4 hours.

## Standard and Economy Mode

Press  to switch between modes. Economy mode heats the water only during filter cycles. **Standard mode maintains the set temperature at all times.**

## Preset Filter Cycles

Your spa will automatically filter itself twice each day. The first filter cycle will begin 1 minute after the spa is energized. The second filter cycle will begin 12 hours after the start of the first filter cycle. Filter duration is programmable at the topside panel for 2, 4, 6, or 8 hours. The default filter time is 2 hours. To program, press the "Warm" or "Cool" pad, then the "Jets 1" pad. Press the "Warm" or "Cool" pad to select the filter duration. Press the "Jets 1" pad again to exit the programming mode. During filtration, the low speed of the pump and the ozone generator (if installed) will run. To clean out the air channel, the blower will run for 30 seconds at the start of the first filter cycle.

**Systems with a circulation pump:** If your spa has a circulation pump and an ozone generator, each will run 24 hours per day to constantly maintain the spa water. Also, once a day, the blower will run for 30 seconds and the high speed of pump 1 will run for 5 minutes.

## Freeze Protection

If the high-limit sensor detects 40°F at the heater, then all equipment is automatically activated to provide freeze protection. This is a normal spa function; no corrective action is necessary. The equipment stays on until the sensor detects 45°F at the heater. Freeze protection is enabled regardless of the status of the spa. In colder climates, an optional additional freeze sensor may be added to protect against freeze conditions. See your dealer for details.

## Diagnostic Messages

### No message on display

Power has been cut off to the spa. The control panel will be disabled until power returns. Spa settings will be preserved for 30 days with a battery backup.

### **OH** Overheat Protection (Spa is deactivated)

DO NOT ENTER THE WATER. If the spa water has reached 112°F, remove the spa cover to cool the water. Overheating may occur if the filter cycle is set too long. At 110°F, the spa should reset itself. If the high-limit sensor detects 118°F at the heater, the spa will shut down. When the heater cools to 110°F, press any button to reset the spa. If the spa will not reset, then shut off power to the spa and call your dealer or service organization.

### **FLO** Flow (Flashing)

Flow of water is inhibited. Call your dealer or service organization.

### **FLO** Flow (Not Flashing)

A pressure switch is not working. Call your dealer or service organization.

### **SnI** Sensor (Spa is deactivated)

The high-limit sensor is not working. Call your dealer or service organization.

### **SnE** Sensor (Spa is deactivated)

The water temperature sensor is not working. Call your dealer or service organization.

### **ICE** Ice

A potential freeze condition is detected. No action is required. The pump(s) will automatically activate regardless of spa status.

### **COOL** Cool

Water temperature is 20°F or more below the temperature last set. No action is required. Spa is functioning properly.

### **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 licensed electrician and all grounding connections must be properly installed.

### **System Options - Activated by Dealer or Service Organization Only!**

Temperature control (80°F - 104°F): J17 on 1 pin

Overrange control (80°F - 108°F): J17 on 2 pins

Circulating pump & 24 hour ozone: J6 "B" position

Preset filter, ozone during filter cycle, no circulating pump: J6 "A" position

12/120V Light: J12

