



2 Pump Topside Control Instructions

Please refer to the owner's manual for important safety information, manufacturer's recommendations, installation, use, & care instructions.



American Owned
American Made

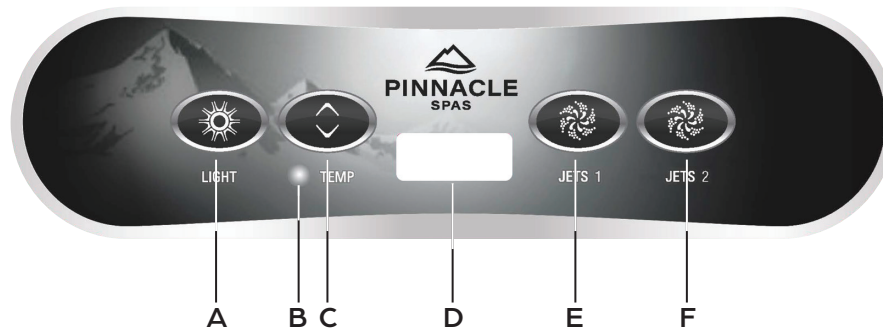


LPI, Inc.
506 Twin Oaks Drive
Johnson City, TN 37601
LPIinc.com



26PS2PVL400326

Topside Display & User Controls



Topside Controls

User functions, operating modes, and programming menus that simplify saving your preferences now and adjusting them later.

A - Lights & Operating Modes

- Turn lights on, off & select color
- Set the operating mode

B - LED Indicator Light

- Illuminated when the heater is on
- Flashes for approximately 1 minute during polling cycles

C - Temperature Controls & Programming Menus

- Adjust the water temperature
- Program operating mode and filtration cycle settings

D - Digital Display

- Monitor operating mode, water temperature, and error messages when your spa requires attention.

E - Pump 1

- Two-speed pump
- Set filtration cycles.

F - Pump 2

- Single-speed pump.

The pumps are programmed to turn off automatically after 20 minutes. Press the PUMP button to turn it back on.

The ozonator runs when the water is heating, during filtration cycles and when PUMP 1 is on low speed.

Factory Settings

The spa will start in Standard Mode.

The temperature setting is 100°F.

The minimum temperature setting is 80°F.

The maximum temperature setting is 104°F.

The Filtration cycles run twice each day for two hours.

Turning the Spa On

When the tub is full, remove the water hose, replace the filter, filter basket, skimmer lid. Make sure the jets are open and the 2" diverter valves on the flange are centered. Turn the GFCI on.

Each time the GFCI is turned on, diagnostic messages are displayed before priming mode begins.

User Controls & Filtration Cycles

Turning the Jets On

Your spa is equipped with 2 pumps.



Pump 1 is a two-speed pump. Press the PUMP 1 button once to turn the pump on. Press the PUMP 1 button again to change to High Speed. Press the Pump 1 button again to turn it off. The ozonator is on when Pump 1 is on low speed.

Pump 1 runs on low speed during filtration and heating cycles and turns off automatically when the cycle ends. To change the speed from low to high, press the PUMP 1 button once. Press it again for low speed. Pressing the PUMP 1 button will not turn the pump off until the cycle is complete.



Pump 2 is a single-speed pump. Press the PUMP 2 button once to turn the pump on. Press the PUMP 2 button again to turn it off.

Pumps are programmed to turn off automatically after 20 minutes. Press the PUMP button to turn it back on.

The ozonator runs when the water is heating, during filtration cycles and when PUMP 1 is on low speed.

Priming Mode

Priming Mode safely removes air trapped in the lines, which can instantly damage some components.

- Your spa starts in Priming Mode when you turn the GFCI on.
- Priming Mode runs for approximately 6 minutes
- When Priming Mode ends your spa runs in Standard Mode.

When PR is on your display, press the PUMP buttons to turn on the pumps. Press the PUMP 1 button twice so all pumps run on high speed.



If the jets or the pumps surge and water flows from jets in some seats but not others, turn the pumps off. Make sure water is 1" above the air relief valve, the jets are open, and the 2" diverters are centered. If the pumps aren't primed after 1 minute, press the PUMP buttons

to turn both pumps on and off. Bleed air from the plumbing unions, verify the T-Stems are up and locked, and if necessary remove debris from the skimmer and suction drain covers. Turn the GFCI on again and repeat the process. If the pumps aren't properly primed after the third attempt, turn the GFCI off, and contact technical support for assistance before turning the GFCI on. *Do not let the pumps run for more than 2 minutes if they do not prime.*

Polling Cycles in Standard Mode circulate the water for a few minutes every hour to monitor the water temperature. If heating is necessary, the water continues circulating until it reaches the correct temperature. Some topside buttons may not work until the polling cycle is complete.

Water Temperature

Adjusting the Water Temperature Setting



To change the programmed temperature setting, press the TEMP button once. While the temperature is flashing on the display, press and release or press and hold the TEMP button until the desired temperature is displayed. The new temperature is saved automatically.

When you press the TEMP button, wait until the display stops flashing before you press a different button to avoid unintended changes to your programmed settings.

To change the direction the temperature moves in:

Press and release the TEMP button 3 times (flash - solid - flash). When the TEMP button is pressed the 4th time, the temperature reverses and moves in the opposite direction.

OR

Press & hold the TEMP button. When the temperature reaches the range limit, it reverses and moves in the opposite direction.

Filtration Cycles



- Filtration cycles run every 12 hours.
- Filtration cycle duration adjusts in increments of one hour.

To change the duration of the filter cycles, press and release the UP button. While the display is flashing, press and release the Pump button, then press and release the UP button to scroll through cycle duration options, from F1 (1 hour filtration cycle) to F8 (8 hour filtration cycle) stopping when your selection is displayed on the LED. Press the "PUMP" button to confirm your selection and exit. Filter cycles can be set to run for 2, 4, 6, or 8 hours or continuous filtration (FC).

Each time you turn the GFCI on, your spa starts in Priming Mode. The first filtration cycle begins approximately 6 minutes later, when Priming Mode is complete. When the filtration cycle begins, the pump will operate on high speed for approximately 1 minute to flush the lines, then on low speed until the filtration cycle is complete. Filtration cycles run every 12 hours. For example, with the factory settings of 1 hour filtration cycles, if you turn your GFCI on at 4:54 your filtration cycles will run from 5 to 7 a.m. and from 5 to 7 p.m. If you want the filtration cycles to run from 3 to 5, turn on the GFCI at 2:54.

Operating Modes & Lighting

Operating Modes

Understanding Operating Modes

Operating modes can be programmed to help regulate energy consumption and reduce operating costs. How often you use your spa and the ambient temperature will help you determine which mode is best for you.

Your spa heats the water, it cannot cool it. In warm climates, the water temperature will not fall below the ambient temperature, regardless of the operating mode.

Standard Operating Mode



- The water temperature setting is consistently maintained.
- The water circulates for a few minutes every hour to monitor the temperature. It continues circulating to heat the water if necessary.



Economy Operating Mode

- The water heats only during filtration cycles.
- Heating stops when the cycle ends, regardless of the water temperature.
- In cool weather, the spa may not be ready for immediate use.
- The water temperature and EC will flash alternately on the display when the pump runs on low speed. Otherwise, EC is displayed on the topside controls.
- *Do not put your spa in Economy Mode when the ambient temperature is 40°F or lower.*

In moderate weather, setting the filtration cycle to end right before you use your spa can effectively reduce energy consumption. However, the water temperature can drop significantly below the temperature setting between filtration cycles in cool weather

Sleep Operating Mode



- The water heats to within 20°F of the temperature setting.
- The water only heats during filtration cycles.
- Heating stops when the cycle ends, regardless of the water temperature.

- The water temperature and "SL" flash alternately on the display when the pump runs on low speed. Otherwise, "SL" is displayed on the topside controls.
- *Do not put your spa in Sleep Mode when the ambient temperature is 40°F or lower.*

Sleep Mode is ideal for warm weather or if you aren't using the spa for a prolonged period in a moderate climate. Water only heats during filtration cycles to within 20°F of the temperature setting. For example, if your temperature setting is 100°F, your water will only heat to 80°F during filtration cycles. If your water temperature is above 80°F, the heater will not turn on during filtration cycles.

Programming Operating Modes



To change operating modes, press & release the TEMP button. While the display is flashing, press the LIGHT button. The current operating mode will flash on the display. To scroll to the next operating mode, press the TEMP button followed by the LIGHT button until your operating mode selection is displayed on the topside controls.

Lighting

Turning the Lights On, Off, & Selecting the Color



Turn the lights on & off: Press and release the light button once to turn the lights on. All light colors rotate continuously. Press the Light button to turn off.

Select a solid light color: Press and release the light button once to turn the lights on. All colors will rotate. When the light rotates to the color of your choice, quickly press and release the light button twice. The first quick press turns the lights off, the second quick press turns them back on in the color you selected. Press the light button to turn the lights off.

If the lights have been on for more than 1 minute the next press of the LIGHT button will turn the lights off.

The lights are programmed to turn off automatically after 2 hours if the light button isn't pressed to turn the lights off. Press the Light button to turn the lights back on. *Lighting features work in tandem with jets and water features (if equipped).*

Audio Controls & Bluetooth Connectivity

Built-In Audio Components must be turned on to pair your wireless devices and to hear your selection through the built-in speakers.



Press up to turn on.
Press down to turn off.

To turn the built-in audio components on and off, press the rocker switch mounted in the spa cabinet on the same side as your topside controls.

- Use your device to control the volume through the speakers and to make, play, and pause your selections.
- If you can't hear your selection, make sure your device isn't muted or paused, and that the volume setting isn't too low.
- If the device settings are correct, make sure the wiring to the switch wasn't disconnected during installation.
- Press the rocker switch down to turn the speakers off when you exit the spa to prevent overheating, which can permanently damage your audio components.

Pairing your Wireless Device

- Press the rocker switch to turn on the built-in audio components and listen carefully. A chime will sound within 15 seconds signaling the spa is discoverable and ready for pairing.
- Open your device settings, select Bluetooth settings, verify your Bluetooth is turned on and your device is scanning for available devices.
- If your device doesn't scan automatically, turn the Bluetooth off and back on.
- When discoverable device SC012345 appears on your screen, tap it to connect. A pairing code is not required.
- Multiple devices can be paired with your spa, but only one device can be connected at a time.
- Each device must be paired individually following the same process.

Troubleshooting Bluetooth Connections

No Connection: Discovery mode for the spa may have timed out before the connection to your device was established.

- Flip the rocker switch to turn the audio components off for 10 seconds. Repeat the process.

No Connection / Intermittent Connection: Bluetooth signal may be weak or wavering.

- Check the signal strength on your device standing next to your spa. If the signal on your device is weak or fades in and out, the signal may be wavering.
- Consider a booster to improve signal strength.

No Sound from Speakers: Device settings may need adjusting.

- Make sure the selection hasn't been paused or muted.
- Press play and increase the volume setting on your device.
- Make sure rocker switch is on.
- Check the Bluetooth settings on your device to confirm it's connected and the signal is strong.

Multiple Devices Connected: Spa is picking up active signal on a different device.

- Turn off Bluetooth on the device with active connection until the correct device is connected to the spa.
- Multiple devices can be paired with your spa, but only one device can be connected at a time.

Duplicate SC012345 Discovered: Occasionally, duplicate SC012345 devices are detected in discovery mode. If more than one SC012345 appears on your screen, tap the first device on the list. If that connection fails, press the rocker switch to turn the audio components off for 10 seconds before pressing the switch to turn them back on and repeat the connection process, this time choosing the second SC012345 device.

For your safety and to protect your device from water damage, store your device safely away from your spa. Always press the rocker switch to turn the audio components off when you exit the spa. Leaving them on causes overheating that will permanently damage the audio components. Damage to the audio components that occurs because the components were not turned off is not covered under the warranty.

Troubleshooting

Electrical Connections & Topside Error Messages

If your spa doesn't operate as expected when you turn on the GFCI:

- Make sure your GFCI is installed properly and the terminal block is wired correctly.
- Check the voltage at the terminal block and check for loose wires. If necessary secure the connection. The torque range for supply line connections to the terminal block is 27 to 30 in. lbs.
- Check for loose or disconnected wires which may have been disturbed during the electrical installation.
- If your pump surges or jets sputter you may have an airlock. Instructions to release an airlock are on the back cover.

An error message is displayed on your topside controls if sensors detect an abnormality that requires your attention. Many error codes can be resolved by cleaning or replacing your filters and removing debris from the skimmers. If following the recommendations in this troubleshooting guide does not clear the error code, turn the GFCI off and contact technical support at:

lpiinc.com/service/

or call

423-349-2900 option 6 Monday – Friday 10 am – 5 pm.

Message	Meaning	Possible Solution
	No message to display No Power to Spa	Control panel disabled until power is restored. Settings have been preserved.
--	Temperature Unknown	Temperature will be displayed after pump has been running for 2 minutes
HH	OVERHEAT - Spa shut down to protect against excessively high water temperature in heater chamber at sensor	DO NOT ENTER THE WATER! Turn off the GFCI. Make sure the water level is adequate. Change filter if dirty, remove debris from the filter, filter basket and suction drain cover. Make sure T Stems are up & locked.
OH	OVERHEAT - Spa has shut down to protect against high water temperatures in heater chamber at sensor	DO NOT ENTER THE WATER! Turn off the GFCI. Make sure the water level is adequate. Change filter if dirty, remove debris from the filter, filter basket and suction drain cover. Make sure T Stems are up & locked.
IC	Ice - Potential for freezing	Check frequently to be sure pump is on & water is circulating to prevent freezing.
SA	Spa shut down - Sensor A	DO NOT ENTER THE WATER! Turn off the GFCI. Make sure the water level is adequate. Change filter if dirty, remove debris from the filter, filter basket and suction drain cover. Make sure T Stems are up & locked.
SB	Spa shut down - Sensor B	DO NOT ENTER THE WATER! Turn off the GFCI. Make sure the water level is adequate. Change filter if dirty, remove debris from the filter, filter basket and suction drain cover. Make sure T Stems are up & locked.
Sn	Sensors out of balance. Temporary if alternating with water temperature. If flashing by itself, spa has shut down	DO NOT ENTER THE WATER! Turn off the GFCI. Put spa in Standard Mode and reduce water temperature so water circulates hourly without heating. Make sure the water level is adequate. Change filter if dirty, remove debris from the filter, filter basket and suction drain cover. Make sure T Stems are up & locked.
HL	Significant difference between sensors - likely flow problem	DO NOT ENTER THE WATER! Turn off the GFCI. Make sure the water level is adequate. Change filter if dirty, remove debris from the filter, filter basket and suction drain cover. Make sure T Stems are up & locked.
LF	Persistent Flow Problems Heater shut down, other functions will run normally	DO NOT ENTER THE WATER! Turn off the GFCI. Make sure the water level is adequate. Change filter if dirty, remove debris from the filter, filter basket and suction drain cover. Make sure T Stems are up & locked.
dr	Possible low water levels, low flow or air bubbles in heater. Spa inoperable for 15 minutes.	Check water level and refill if necessary. Bleed air. Make sure slice valves are up and locked, remove obstruction from filter basket and suction covers. Spa has shut down for 15 minutes, Press any button to reset.
dy	Inadequate water in heater. Likely low water level. Spa shut down.	Check water level and refill if necessary. Make sure slice valves are up and locked, remove obstruction from filter basket and suction covers. Press any button to reset.

Troubleshooting

Electrical Connections & Topside Error Messages

Priming Mode



Whenever you turn on the GFCI, your spa starts in Priming Mode. When "Pr" appears on your display, press the pump button twice to run the pump at high speed. Priming Mode ends after approximately 6 minutes. Your spa will be in Standard Mode.

Larger jets rotate to open & close the jet



Small fixed jets are always open.
Jet appearance varies by model.

Airlocks

If the pump is on but it surges or water isn't flowing from all of the jets, you may have an air lock.

- Press the pump button once to turn the pump off.
- Make sure the air relief valve near the filter is submerged.
- Center the 2" Diverter.
- Rotate the outer rim of the larger jets counterclockwise to ensure they're open.
- Turn the pump back on.



If the airlock isn't resolved, turn the pump off.

- Slowly loosen the plumbing union on top of the pump.
- Retighten when water trickles from the union.
- Restart the pump and check the union for leaks. If tools are necessary to tighten the union, wrap it with a towel and rotate no more than 1/4 turn.

Adjust the Water Temperature Setting



Press & release the TEMP button. While the temperature is flashing on the display, press & hold or press & release the TEMP button until the desired temperature is displayed. *The last change is saved and the display returns to the home screen automatically.*

Change the Operating Mode

Press & release the TEMP button then the LIGHT button to change the operating mode.



Standard Mode: Your water temperature is continuously maintained. If your water temperature falls a few degrees the setting, the pump automatically turns on and circulates on low speed until the correct temperature is reached



Economy Mode: Your water only heats during filtration cycles. EC is displayed when the water temperature is not current. If PUMP 1 is running on low speed, the water temperature and EC flash alternately on the display.



Sleep Mode: Heats your water only during filter cycles to within 20°F of the set temperature. SL is displayed on the topside controls. If PUMP 1 is running on low speed, the water temperature and SL flash alternately on the display.

Do not put your spa in Sleep or Economy Modes when the ambient temperature is 40°F or lower. Limited heating may not adequately protect your spa from freezing in cold temperatures.

Filtration Cycle Start Time & Cycle Duration

Turn your GFCI on

Priming Mode
Approximately
6 minutes

1st Filtration Cycle
Start time set when
Priming Mode ends

2nd Filtration Cycle
Starts 12 hours after
1st filtration cycle.



Filter duration is programmable for 2, 4, 6, or 8 hours or continuous filtration (FC).

Press & release the TEMP button then press & release the PUMP 1. Press & release the TEMP button to scroll through duration options. When the correct number of hours is displayed, press the PUMP 1 button to save the selection and exit the programming menu.