



TP740 CONTROL PANEL

USER GUIDE



THANK YOU

FOR CHOOSING BALBOA WATER GROUP SPA CONTROLS.



BP CONTROL SYSTEM

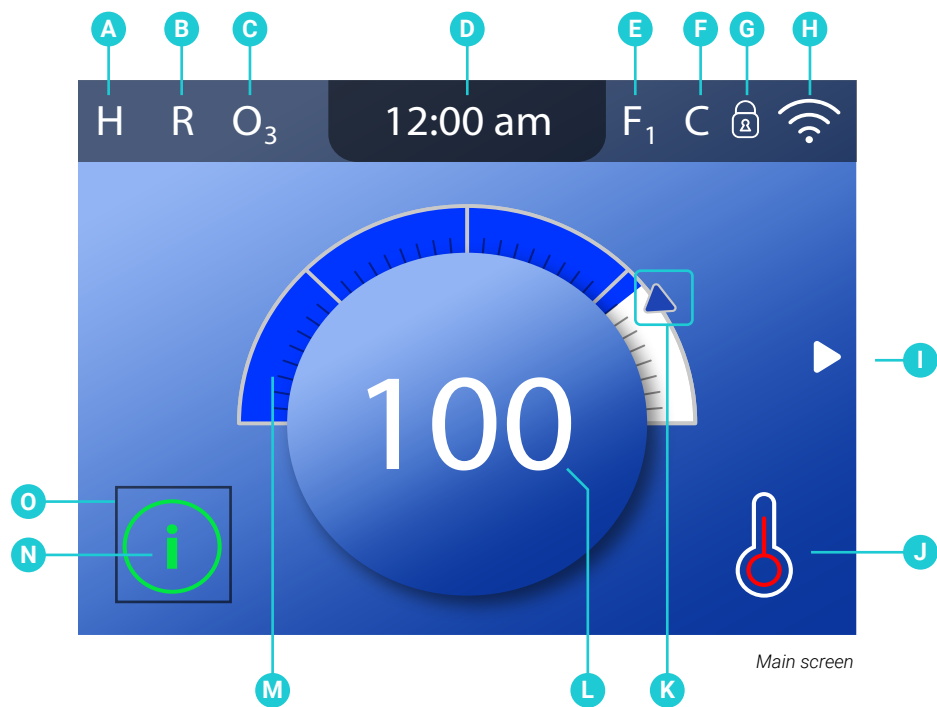
Software Version: 7.0 and later

TP740 Control Panels

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REVIEW MAIN SCREEN



REVIEW MAIN SCREEN

(CONTINUED)


- A - Temperature range
High: **H**
Low: **L**
- B - Heat mode
Ready: **R**
Rest: **⌂**
Ready-in-Rest: **RR**
- C - Ozone is running: **O₃**
- D - Time of day
- E - Filter cycle is running
Filter cycle 1: **F₁**
Filter cycle 2: **F₂** (optional feature)
Filter cycles 1 & 2 running together: **F₁₂**
- F - Cleanup cycle is running
(Optional Feature)
- G - Panel is locked and/or
Settings are locked
- H - Balboa Worldwide App™ or ControlMySpa™
connected (local or cloud connection)
- I - Arrow
- J - Heat Status
- K - Set temperature arrow
- L - Water temperature
- M - Water temperature bar
- N - Message (may appear)


Important information about the current state of your spa is displayed on the Main screen.

NOTE: Not all control systems are configured the same. Spa devices, Settings, and various menu items may vary on your control panel.

 Information

 Reminder

 Error - normal error or warning

 Error - spa will not function until fixed

O - Selection box

REVIEW USER INTERFACE



SPA DEVICE BUTTONS

These buttons control various spa devices, such as Jets, Lights and/or Blowers.

NAVIGATION BUTTONS

Navigate the entire menu structure with the 5 navigation buttons on the control panel. The names shown to the left refer to the navigation buttons in this user guide. The button names will be written in uppercase letters. Operating or changing a selected item on the panel screen is generally done with the SELECT button.

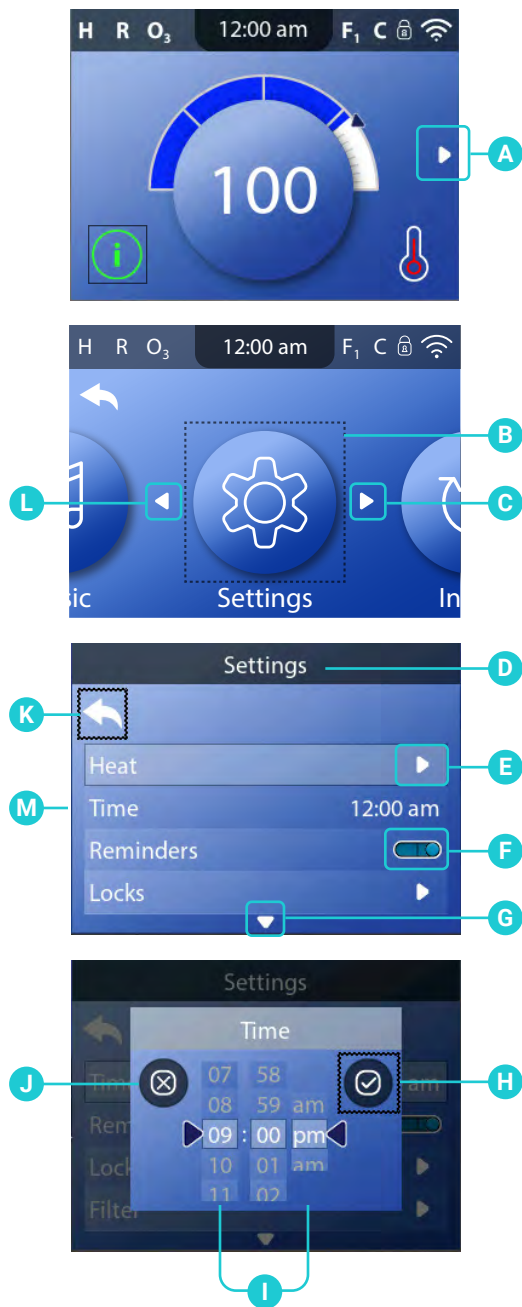
INVERTED DISPLAY

View page 20 for inverted panel operation.

SELECTION BOX

The Selection box is a fundamental navigation tool. It indicates a selected item. Move the selection box by pressing the UP, DOWN, LEFT, RIGHT navigation buttons. When an item is selected, press the SELECT navigation button to act upon the selected item. The next page shows various examples of selected items (B, H, K).

Main screen



REVIEW USER INTERFACE

(CONTINUED)

MENU NAVIGATION

The arrow (A) on the Main screen indicates the Main menu. Press the RIGHT navigation button until you enter the Main menu. A selection box (B) indicates that a menu item is selected. In this example Settings (B) is selected. Press the SELECT navigation button to enter the Settings screen (D).

ARROWS

Arrows (C, E, G, L) indicate more menu items. Each arrow corresponds with a navigation button (view page 6). For example, the right arrow (C) corresponds with the RIGHT navigation button. The left arrow (L) corresponds with the LEFT navigation button, etc.

BACK BUTTON

Use the Back icon (K) to navigate back in the menu structure. Use the navigation buttons to select the Back icon. The selection box (K) indicates that the Back icon is selected. When the Back icon is selected, press the SELECT navigation button to navigate back.

ON/OFF SWITCHES

In this example Reminders has an On/Off switch (F). When Reminders is selected, press the SELECT navigation button to turn the switch On/Off. In this example the switch is On (F).

MENU ITEMS WITHOUT AN ARROW OR ON/OFF SWITCH

If a menu item, such as Time (M), doesn't have an arrow (E) or an On/Off switch (F), use the SELECT button to enter a screen related to that menu item.

SELECT, SAVE, CANCEL

Select one of these columns (I) with the RIGHT and LEFT navigation buttons. Change the selected setting with the UP and DOWN navigation buttons. After you change the settings, select the Save icon (H) and press the SELECT navigation button. After you press SELECT, the setting is now saved. If you decide to cancel your new settings, select the Cancel icon (J) and press the SELECT navigation button.

View the corresponding video on YouTube.



Main screen



REVIEW USER INTERFACE

(CONTINUED)

NAVIGATE MAIN MENU

- 1 - Start from the Main screen (A), and press the RIGHT navigation button until the Main menu (B) appears.
- 2 - Spa (B) is the first item in the Main menu. Continue pressing the RIGHT navigation button to view all items in the Main menu.
- 3 - If you want to navigate back to the Main screen, press the UP navigation button to select the Back icon (F). Once the Back icon is selected, press the SELECT navigation button and the Main screen will appear (A).

NAVIGATE SETTINGS MENU

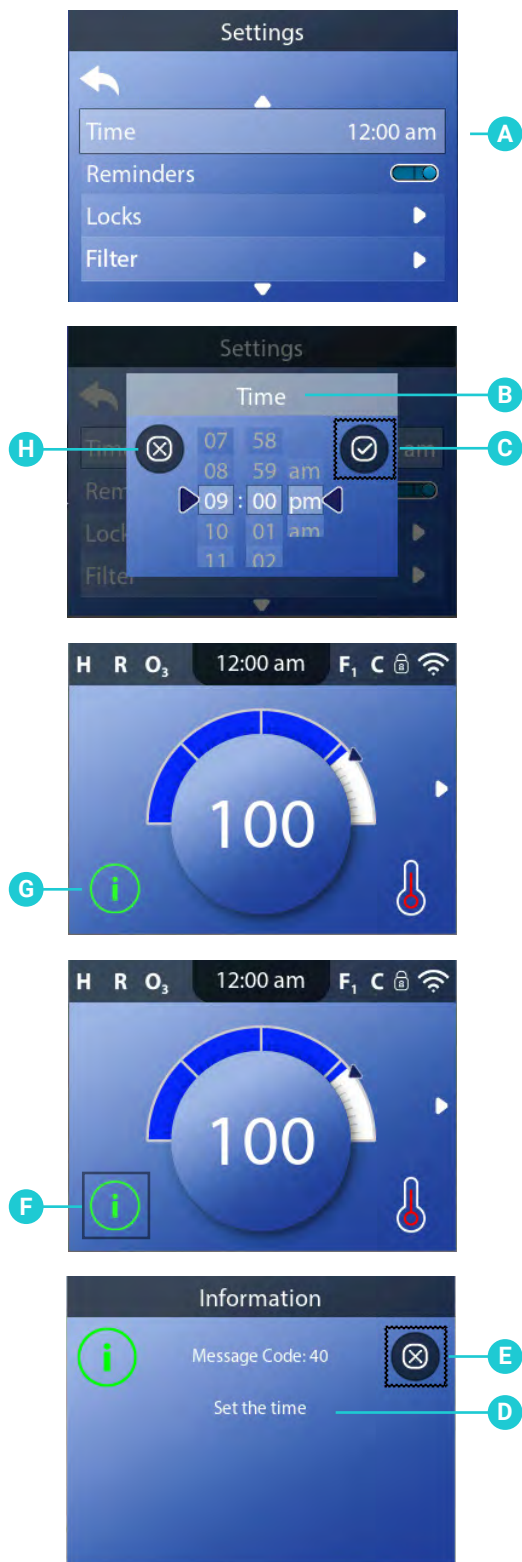
- 1 - Start from the Main screen (A), and press the RIGHT navigation button until the Main menu (B) appears.
- 2 - Spa (B) is the first item in the Main menu. Continue pressing the RIGHT navigation button until Settings (C) is selected.
- 3 - Press the SELECT navigation button to view the Settings menu (D).
- 4 - The arrow (E) indicates more settings. Press the DOWN navigation button to scroll down the Settings list.
- 5 - If you are at the bottom of a long list, press the LEFT navigation button to select the Back icon (F).

PRESS-AND-HOLD

If you need to navigate a long list, press-and-hold the UP or DOWN navigation button. For example, press-and-hold the DOWN navigation button to scroll down the Settings menu (D).

VIEW MESSAGE SCREEN

Go to page 23.



SET TIME OF DAY

Follow these steps to set the time of day:

- 1 - Go to the Main menu, Settings and Time (A) to view the Time screen (B).*
- 2 - Set the time.
- 3 - Cancel your settings (H), or save your settings (C).

Setting the time of day can be important for determining water filtration times and other background features.

If time of day has not been set, an information icon appears (G). If the selection box is not already around the Information icon (G), select the Information icon (F). Press the SELECT navigation button to view the corresponding message (D). Exit the information screen (E).

You can choose a 12-hour or 24-hour time display (View "Set Units" on page 14). CE control systems default to a 24-hour time display.

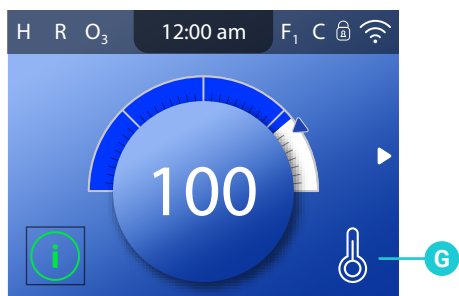
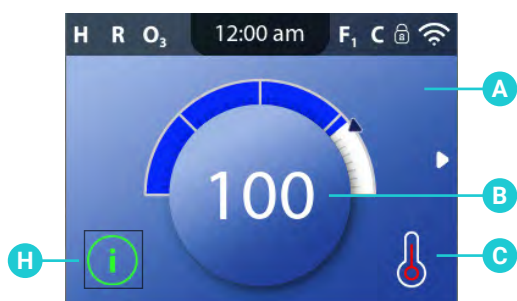


View the corresponding video on YouTube.



* View "Navigate Settings Menu" on page 8.

Main screen



Heater Off



Heater On

CHANGE/VIEW SET TEMPERATURE

Follow these steps to change or view the Set Temperature:

1 - Start at the Main screen (A), and press the SELECT navigation button to view the temperature menu (D). If the selection box is on a message icon (H), press the RIGHT navigation button and then the SELECT navigation button to view the Temperature menu.

2 - The center box (E) indicates the current Set Temperature.

3 - Press (or press-and-hold) the RIGHT or LEFT navigation buttons to change the Set Temperature.

4 - Once the desired Set Temperature is in the center box, press the SELECT navigation button to exit the Temperature menu. Or, wait a few seconds, and the panel will exit the Temperature menu automatically.

How do I view the water temperature?

The water temperature is displayed on the Main screen (B).

How do I know when the water heater is On?

The center of the Heater Status icon turns red (C). The center flashes red when the heater is preparing to turn On. The center turns white (G) when the heater is Off.

What do the dashes mean (F)?

They indicate that the spa control has not checked the water temperature for approximately an hour. A pump needs to cycle water through the heater for the control system to check the water temperature. After water cycles through the heater for 1 minute, the dashes are replaced with the current water temperature (B). Whenever the control system is powered On, dashes appear (F) for one minute while a pump cycles water through the heater to check the current water temperature.



View the corresponding video on YouTube.





RUN SPA DEVICES

A spa device is a pump, blower, light, etc. Press these buttons (E) to run spa devices. Depending on how many devices your system has, these buttons (E) may not control all devices. All devices can be controlled from the Spa screen (B).

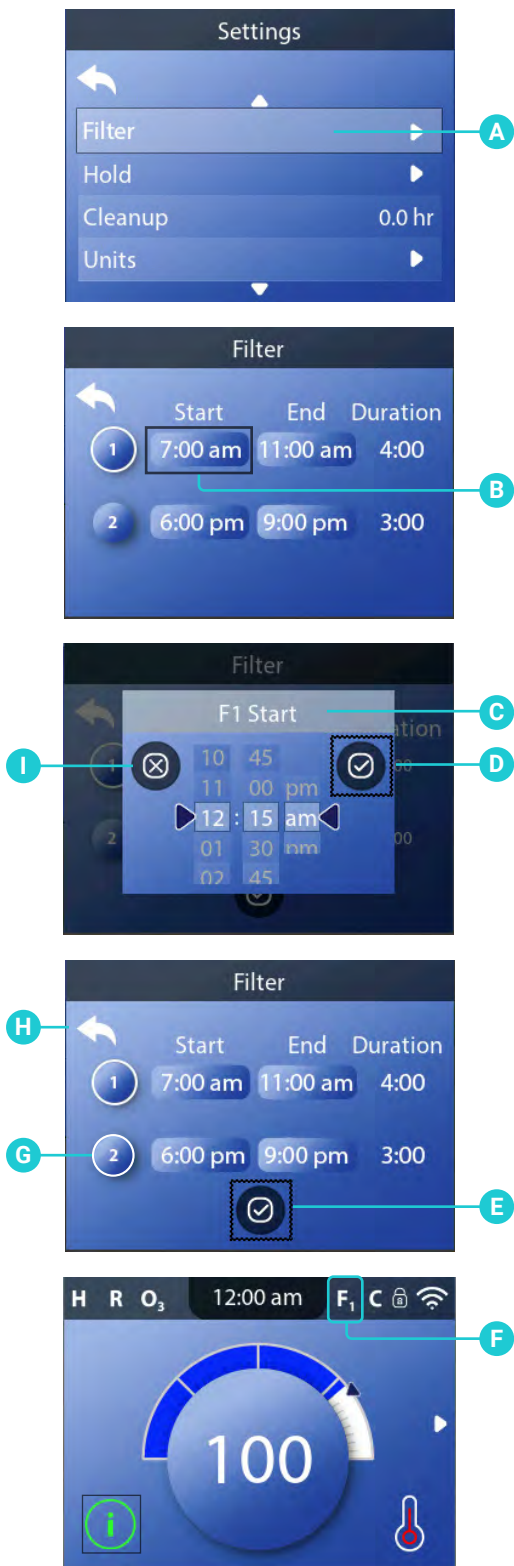
Follow these steps to run spa devices from the Spa screen.

- 1 - Go to the Main menu and Spa (A) to view the Spa screen (B).*
- 2 - Control your devices.
- 3 - If all of the spa devices do not fit on a single Spa screen, an arrow (C) leads to the next Spa screen.

The functionality of each spa device may vary. For example, some devices may have a single speed or state, while other spa devices may have multiple speeds or states. Your spa configuration will determine the number of spa devices and the functionality of each device.

One Spa screen (B) can display a maximum of six devices. If your spa has more than six devices, a right arrow will appear (C). Press the RIGHT navigation button to view and/or run devices on the next Spa screen.

If a Circulation Pump icon appears (D) in the Spa screen, the icon is not controllable. It is there to show you the equipment status only.



SET FILTER CYCLE TIME

Keep your water clean and ready to enjoy!

Follow these steps to set the filter cycle time:

1 - Go to the Main menu, Settings, Filter (A) and Start (B) to view the Filter Cycle 1 Start screen (C).*

2 - Set the time.

3 - Cancel your settings (I), or save your settings (D).

4 - Follow the same process to change the other filter cycle time times.

5 - Once all of the times are set, you can cancel your settings by using the Back icon (H), or save your settings (E).

How can you tell if filter cycle 2 is enabled?

A white ring appears around the "2" icon (G).

How can you tell when a filter cycle is running?

"F₁" appears (F) when filter cycle 1 is running.

"F₂" appears (F) when filter cycle 2 is running.

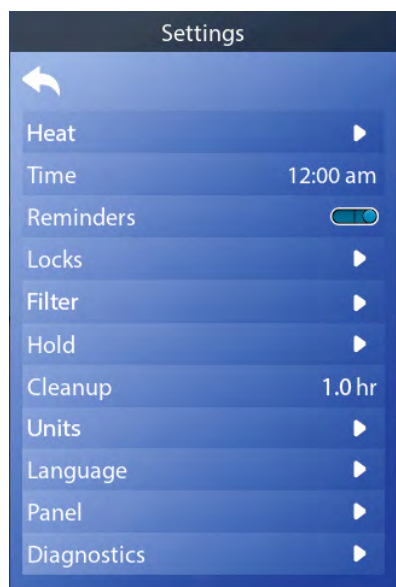
"F₁₂" appears (F) when filter cycles 1 & 2 are running together.



View the corresponding video on YouTube.



* View "Navigate Settings Menu" on page 8.



REVIEW SETTINGS MENU

Fine tune your spa with a wide variety of settings (A).

HEAT

Make sure your spa is heated and ready to enjoy with heat settings (view pages 15-16).

TIME

Set the time of day to ensure scheduled features have proper timing (view page 9).

REMINDERS

Reminders are helpful spa maintenance messages that are displayed periodically.

LOCKS

Lock the panel and/or settings (view page 21).

FILTER

Keep your spa water clean and ready to enjoy by setting filter cycles (view page 12).

HOLD

Hold is used to disable the pumps during service functions like cleaning or replacing the filter. Hold mode may last for 1 hour unless the mode is exited manually. If spa service will require more than an hour, it may be best to simply shut down the power to the spa.

CLEANUP

When a pump or blower is turned on by a button press, a cleanup cycle may begin 30 minutes after the pump or blower is turned off or times out. The pump and the ozone generator may run for 30 minutes or more, depending on the system. Cleanup can be turned Off by setting it to 0.0 hr.

UNITS

Select how time and temperature are displayed. The temperature choices are Fahrenheit or Celsius. The time choices are 12 or 24 hour mode (view page 14).

LANGUAGE

Select from a variety of languages.

PANEL

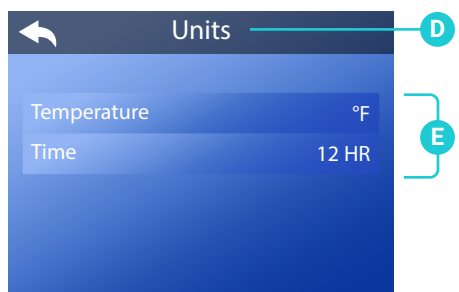
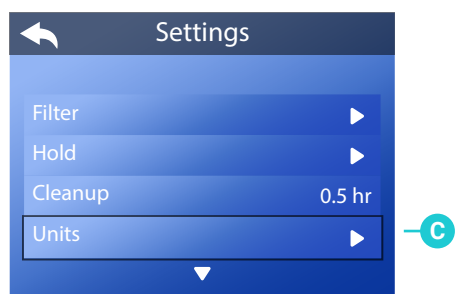
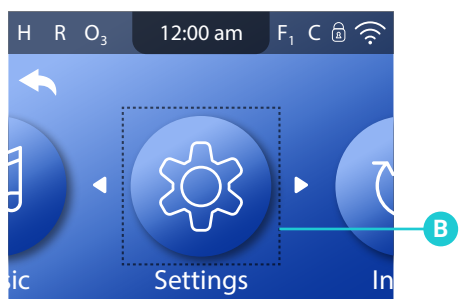
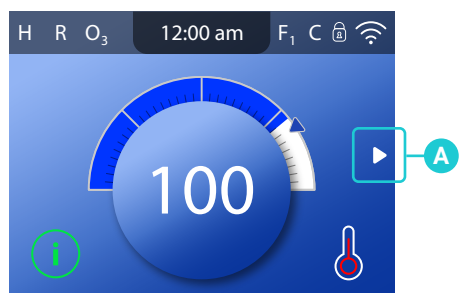
Set how long it takes the panel to go to sleep after the last activity, and adjust other panel settings (view pages 17-19).

DIAGNOSTICS

Diagnostics has useful information and features such as system information, fault log, and GFCI test (view page 22).

GFCI test applies to North America only. This feature is not available on CE rated systems.

Main screen

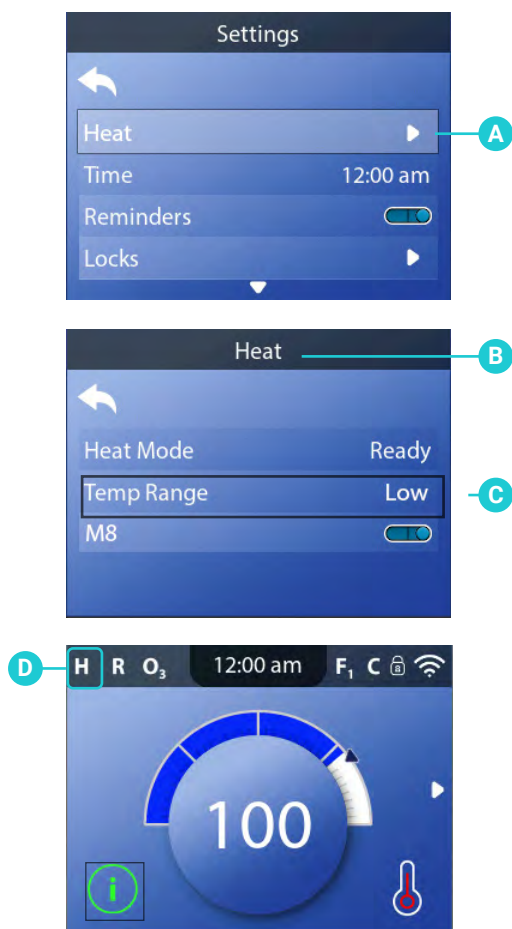


SET UNITS

Follow these steps to set the units:

- 1 - Go to the Main menu (A), Settings (B) and Units (C) to view the Units screen (D).
- 2 - Set the Temperature units and Time units (E). The changes take effect immediately. No need to press a save button.

* View "Navigate Settings Menu" on page 8.



CHANGE HEAT SETTINGS

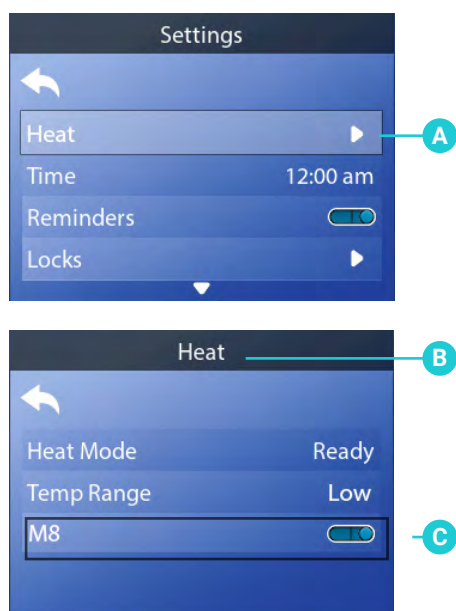
CHANGE TEMPERATURE RANGE

Follow these steps to change the Temperature Range:

- 1 - Go to the Main menu, Settings, Heat (A) to view the Heat screen (B).*
- 2 - Set the Temperature Range (C). The change takes effect immediately. No need to press a save button.

There are two temperature ranges: High, Low. If your spa is in High Range, "H" appears (D). High Range may limit the Set Temperature range to 80° - 104° F (26.5° - 40.0° C).

If your spa is in Low Range, "L" appears (F). Low Range may limit the Set Temperature range to 50° - 99° F (10.0° - 37.0° C).



CHANGE HEAT SETTINGS

TURN ON/OFF M8

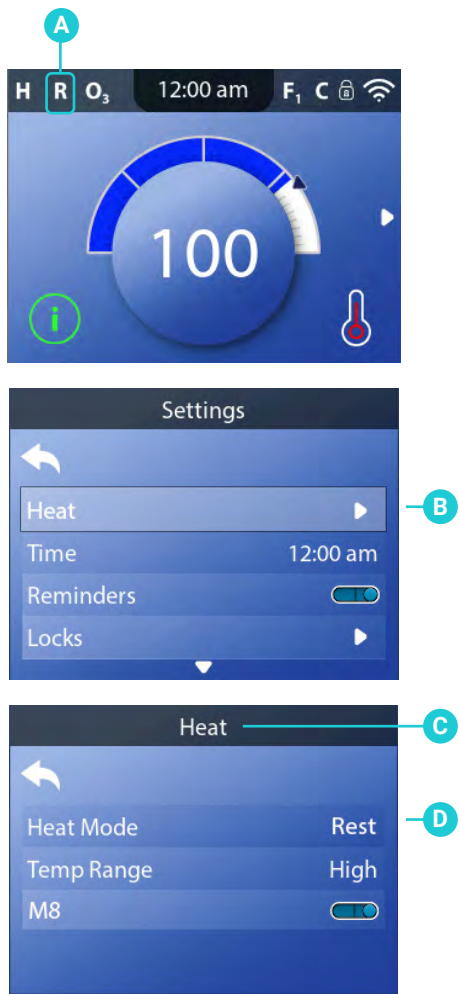
Follow these steps to turn M8 On/Off:

- 1 - Go to the Main menu, Settings, Heat (A) to view the Heat screen (B).*
- 2 - Turn M8 On/Off. The change takes effect immediately. No need to press a save button.

M8 looks for opportunities to decrease device usage by evaluating water temperature readings. Stable water temperatures equal less device usage and less wear and tear.

Note: M8 is not available on all control systems.

* View "Navigate Settings Menu" on page 8.



CHANGE HEAT SETTINGS

SET HEAT MODE

Keep your spa heated and ready to enjoy, or keep it cool and save energy. Heat settings help you do both.

Follow these steps to set the heat mode:

- 1 - Go to the Main menu, Settings, Heat (B) to view the Heat screen (C).
- 2 - Apply your setting (D). The change takes effect immediately. No need to press a save button.

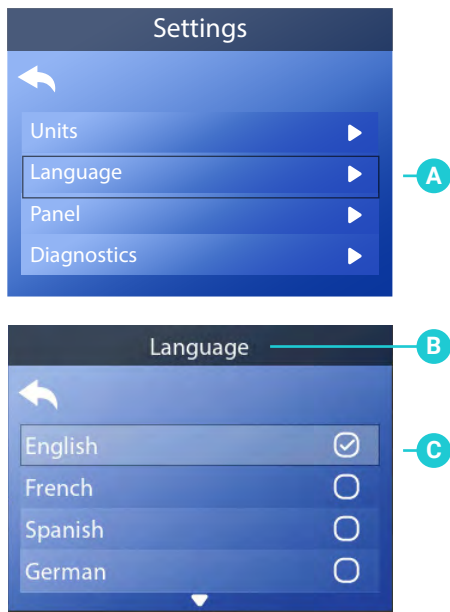
There are three heat modes: Ready, Rest, Ready-In-Rest. If your spa is in Ready mode, "R" appears here (A). Ready mode keeps the water temperature close to the set temperature 24 hours a day. If you use your spa consistently, select Ready mode. If your spa is in Rest mode, "R" appears here (A). Rest mode only heats the water during filter cycles. If you do not use your spa consistently, select Rest mode. If your spa is in Ready-In-Rest Mode, "RR" appears here (A). Ready-in-Rest Mode is the same as Rest Mode, except Ready-in-Rest Mode heats the water, if necessary, for one hour when you turn On Jets 1. If the spa is in Ready-in-Rest mode and you go to the Heat screen (C), that cancels Ready-in-Rest Mode and puts you back into Rest Mode, even if you press no buttons while on the Heat screen.



View the corresponding video on YouTube.



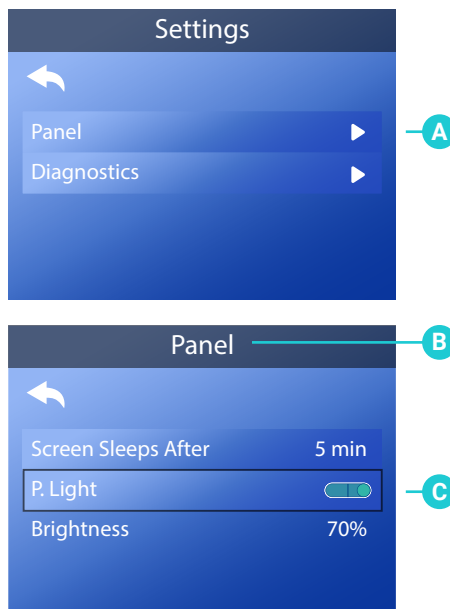
* View "Navigate Settings Menu" on page 8.



SELECT LANGUAGE

Follow these steps to select a language:

- 1 - Go to the Main menu, Settings and Language (A) to view the Language screen (B).*
- 2 - Select a language (C). The change takes effect immediately. No need to press a save button.



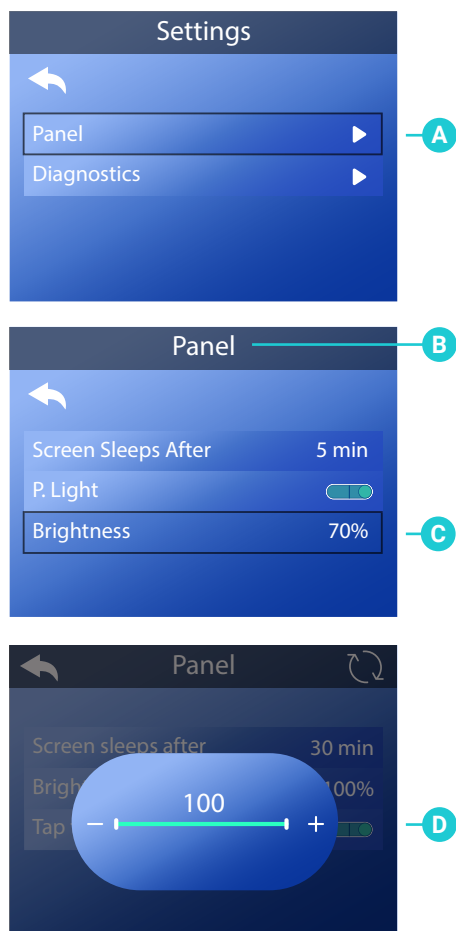
CHANGE PANEL SETTINGS

PANEL LIGHT

The panel has lights that illuminate the frame. Follow these steps to turn On/Off the Panel Light:

- 1 - Go to the Main menu, Settings and Panel (A) to view the Panel screen (B).*
- 2 - Turn the Panel Light On/Off (C). The change takes effect immediately. No need to press a save button.

* View "Navigate Settings Menu" on page 8.



CHANGE PANEL SETTINGS

SCREEN BRIGHTNESS

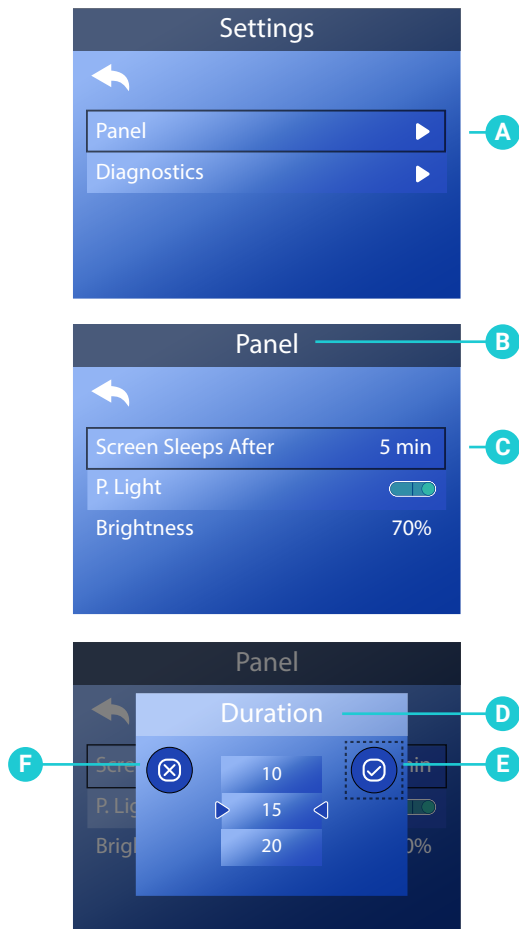
Follow these steps to change the brightness of the panel screen:

1 - Go to the Main menu, Settings and Panel (A) to view the Panel screen (B).*

2 - Select Brightness (C) to view the brightness control (D).

3 - Set the brightness. The change takes effect immediately. No need to press a save button.

* View "Navigate Settings Menu" on page 8.



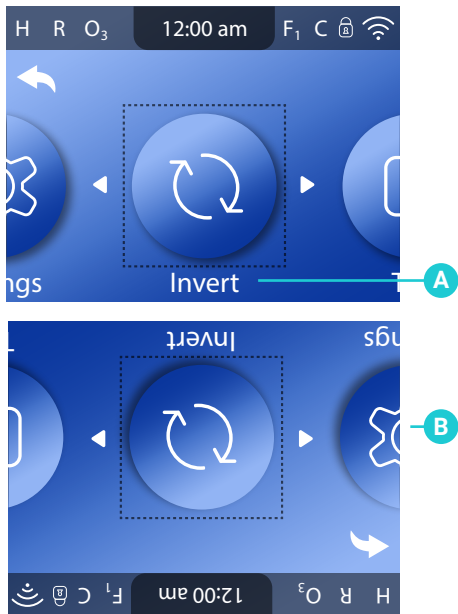
CHANGE PANEL SETTINGS

SCREEN SLEEP

The screen will go to sleep after you stop using the panel. You can set the amount of time it takes for the screen to go to sleep by following these steps:

- 1 - Go to the Main menu, Settings and Panel (A) to view the Panel screen (B).*
- 2 - Select Screen Sleeps After (C) to view the Duration screen (D).
- 3 - Select the duration.
- 4 - Cancel your setting (F), or save your setting (E).

* View "Navigate Settings Menu" on page 8.



INVERT DISPLAY

Follow these steps to invert the display:

1 - Go to the Main menu and select Invert (A).*

Here is the inverted display (B).

When the display is inverted, the navigation buttons change to match your orientation (C).



C NAVIGATION BUTTONS

SELECT

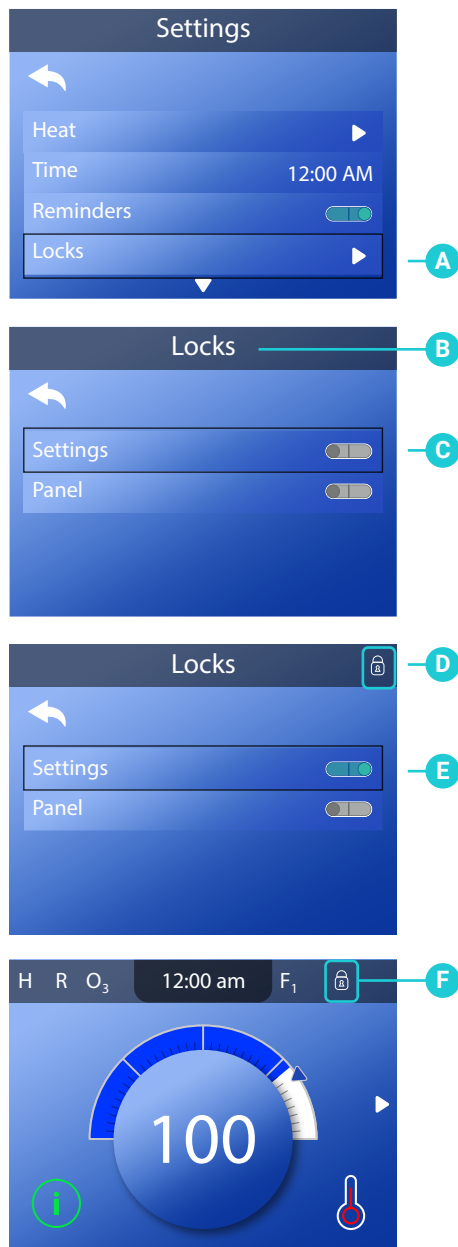
UP

LEFT

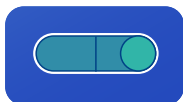
RIGHT

DOWN

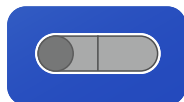
* View "Navigate Main Menu" on page 8.



Main screen



Switch On



Switch Off

LOCK THE PANEL AND/OR SETTINGS

Follow these steps to lock the Settings:

- 1 - Go to the Main menu, Settings, Locks (A) and Settings (C). * Settings are unlocked in this example (C).
- 2 - Press-and-hold the SELECT navigation button for approximately 5 seconds. After 5 seconds a lock icon will appear (D) and the switch icon will turn On (E).

Lock icons appear in these locations (D)(F) when the Settings are locked.

Follow these steps to unlock the Settings:

- 1 - Go to Settings (E), and press-and-hold the SELECT navigation button for approximately 5 seconds. After 5 seconds, the lock icons (D)(F) disappear, and the switch icon turns Off.

Follow the same steps to lock/unlock the panel. Lock icons appear in these locations (D)(F) when the Panel and/or Settings are locked.

* View "Navigate Settings Menu" on page 8.



PERFORM GFCI TEST

*GFCI test applies to North America only. This feature is not available on CE rated systems.**

Follow these steps to perform a GFCI test:

1 - Go to the Main menu, Settings, Diagnostics (A), GFCI Test (B) to view the GFCI Test screen (C).*

2 - Go to GFCI Test (D) and press the SELECT navigation button to perform the test.

3 - View the GFCI Status (E).

If the GFCI Test status is "Passed" (G), you may not need to perform this test. This test cannot be performed without resetting the GFCI first (F).

If the GFCI Test status is "Armed" (E), proceed to the next step.

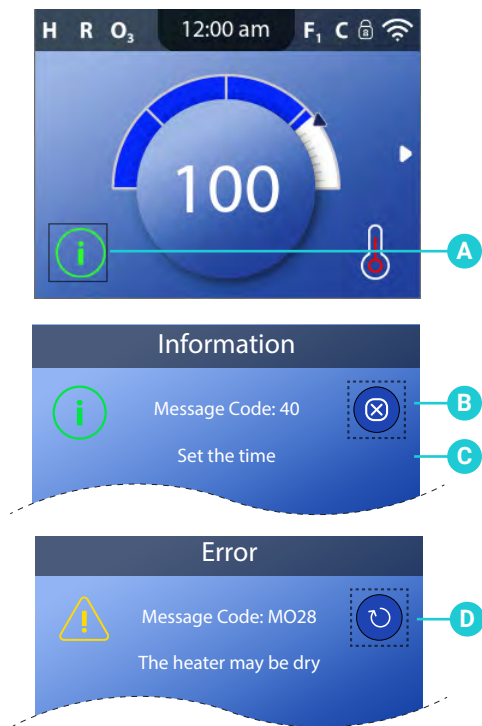
4 - Press the SELECT navigation button to perform the test. Within approximately 12 seconds, one of the following two things will happen:

1 - The spa powers Off. After the spa powers Off, go to the GFCI and power On the spa. When the spa is powered On, it goes into Priming Mode. When Priming Mode is complete, navigate to the GFCI Test screen and confirm that it says "GFCI Status - Passed" (G).

2 - A "GFCI Test Failed" message appears. In this case, contact a qualified service technician. While you wait for the spa technician to arrive, the spa can be run normally for a time by cycling the power.

Reset Button: The most common use of Reset (F) is when moving the spa to a new location. Using Reset (F) forces a new Test to be performed at the new location.

* View "Navigate Settings Menu" on page 8.



VIEW MESSAGES

Follow these steps to view the message:

- 1 - A message may appear automatically. If so, skip to step 3.
- 2 - Go here (A) to view the message (C).
- 3 - Exit the screen (B or D).

One of the following icons will appear in the bottom left corner of the Main screen (A).

- Information
- Reminder
- Error - normal error or warning
- Error - spa will not function until fixed

If a message has a clear button (D), the message may not go away until a certain condition is met. For example, the water temperature in the heater may need to change before a message will clear.

MESSAGE LIST

Possible freezing condition

A potential freeze condition has been detected, or the aux freeze switch has closed. All water devices are activated. In some cases, pumps may turn On and Off and the heater may operate during freeze protection.

The water is too hot

The system has detected a spa water temp of 110°F (43°C) or more, and spa functions are disabled. The system will auto reset when the spa water temp is below 108°F (42°C). Check for extended pump operation or high ambient temperature.

The water level is too low

This message can only appear on a system that uses a water level sensor. It appears whenever the water level gets too low (or the water level sensor is disconnected), and automatically disappears when the water level is adequate. Pumps and the heater turn Off when this message appears.

The water flow is low

There may not be enough water flow through the heater to carry heat away from the heating element. Heater start up will begin again after about 1 minute.

The water flow has failed

There is not enough water flow through the heater to carry the heat away from the heating element and the heater has been disabled. After the problem has been resolved, reset the message.

The heater may be dry

Possible dry heater, or not enough water in the heater to start it. The spa is shut down for 15 minutes. Reset this message to reset the heater start-up.

The heater is dry

There is not enough water in the heater to start it. The spa is shut down. After the problem has been resolved, you must reset the message to restart heater start up.

The heater is too hot

One of the water temp sensors has detected 118°F (about 48°C) in the heater and the spa is shut down. You must reset the message when water is below 108°F (about 42°C).

Set the time

Set the time of day to ensure scheduled features have proper timing, such as filter cycles.

Communications error

The control panel is not receiving communication from the control system (view diagram below). This can appear briefly during system start-ups. This is normal. If it does not go away quickly, call for service.



FILL YOUR HOT TUB

PREPARATION AND FILLING YOUR HOT TUB

Fill the spa to its correct operating level. Be sure to open all valves and jets in the plumbing system before filling to allow as much air as possible to escape from the plumbing during the filling process. Air may be trapped in the plumbing after filling the spa tub. Remove trapped air by priming the pumps. Priming will be discussed shortly.

After turning the power on at the main power panel, the spa control panel will display a splash screen or startup screen. After the initial start-up sequence, the control will enter Priming Mode and display a Priming Mode screen (view next page (B)). Only pump icons appear on the

Priming Mode screen. During Priming Mode, the heater is disabled to allow the priming process to be completed without the possibility of energizing the heater under low-flow or no-flow conditions.

WHAT IS PRIMING?

Priming removes trapped air from the plumbing. How do you know when a pump is done priming? Priming is complete when water flows from the jets without air bubbles. So, watch the jets as you prime the pump. If your spa has more than one pump, prime each pump one at a time. Why prime one at a time? If multiple pumps are running, it is too difficult to determine which pump is circulating air bubbles, or the flow from one pump may hide the flow from another pump.

Sometimes momentarily turning the pump Off and On will help it to prime. Do not do this more than 5 times. If the pump will not prime, shut Off the power to the spa and call for service.

PRIMING MODE

Priming Mode will last for 4 minutes, or you can manually exit Priming Mode after the pump(s) have primed.

Regardless of whether Priming Mode ends automatically or you manually exit Priming Mode, the control system automatically returns to normal heating and filtering at the end of Priming Mode.

PRIMING THE PUMPS

There are two ways to prime the pumps (and other water devices).

- 1 - Prime pumps by pressing the Spa Device buttons (C).
- 2 - Prime pumps from the Priming Mode screen (B).

One Priming Mode screen can display a maximum of six pumps (and other water devices). If there are more than six devices, a small navigation arrow will appear on the screen, indicating that more devices are available to control on the next Priming Mode screen. Press the RIGHT navigation button (G) to view the next screen.

The techniques for Priming pumps and running spa devices are almost identical. View page 11 for more information on running spa devices.

This panel message (B) indicates that the spa is in Priming Mode. Note: Turning the power Off and back On again will initiate a new pump priming session. If you need more than 4 minutes to prime all of the pumps, cycle power to the spa again.

FOLLOW THESE STEPS TO PRIME A TWO-SPEED PUMP:

Press the button (JETS 1, JETS 2, etc.) for that pump once to turn it On at low speed. Press the button again to run the pump at high speed. Run the pump at high speed for 2 minutes. If priming is not complete after 2 minutes, turn Off the pump and repeat the process.

FOLLOW THESE STEPS TO PRIME ANY ONE-SPEED PUMP, INCLUDING A CIRCULATION PUMP:

Press the button (JETS 1, JETS 2, etc.) for that pump once to turn it On. Run the pump for 2 minutes. If priming is not complete after 2 minutes, turn Off the pump and repeat the process.

WHICH PUMP IS THE HEATER PUMP?

When the spa has just entered Priming Mode, press the LIGHT button (D) and see if any water flows. If so, you have a circulation pump serving as the heater pump. If not, a two-speed pump serves as the heater pump. A circulation pump is controlled with the LIGHT (D) button (in Priming Mode only). A two-speed heater

pump is controlled by pressing the JETS 1 (E) button.

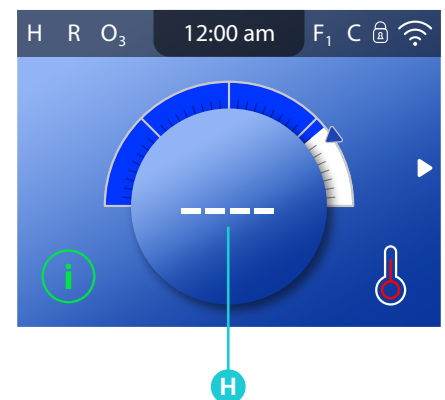
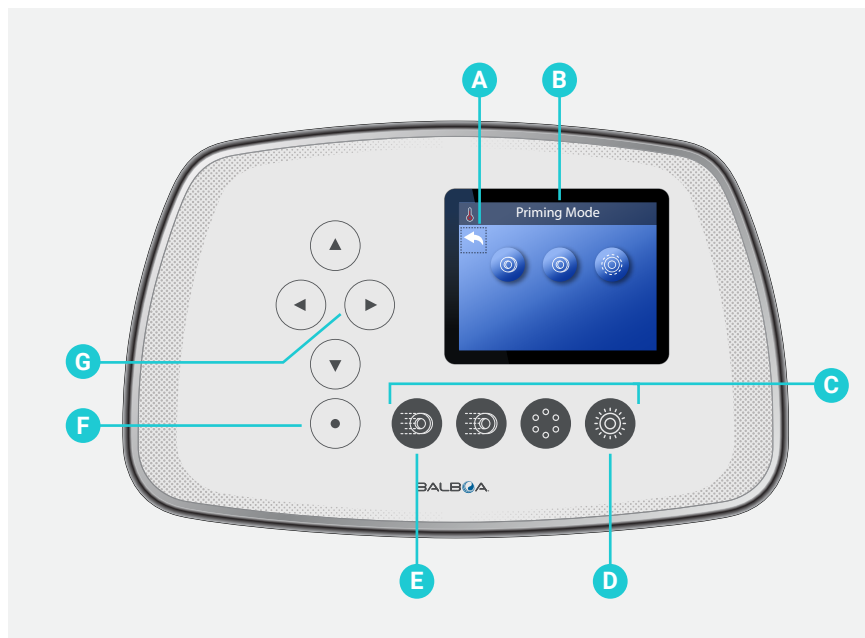
Once the heater pump is primed, prime any additional pumps.

IMPORTANT: A pump should not be allowed to run without priming for more than 2 minutes. Under NO circumstances should a pump be allowed to run without priming beyond the end of the 4 minute Priming Mode. Doing so may cause damage to the pump and in some cases may cause the system to energize the heater and go into an overheat condition.

EXITING PRIMING MODE

Priming Mode ends automatically. However, you can manually exit Priming Mode during this time by selecting the Back Arrow (A) and pressing the SELECT navigation button (F).

When Priming Mode ends (automatically or manually) the panel will display dashes (H). Once the control system cycles water through the heater for one minute, the dashes will be replaced by the water temperature.



NOTES

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

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