

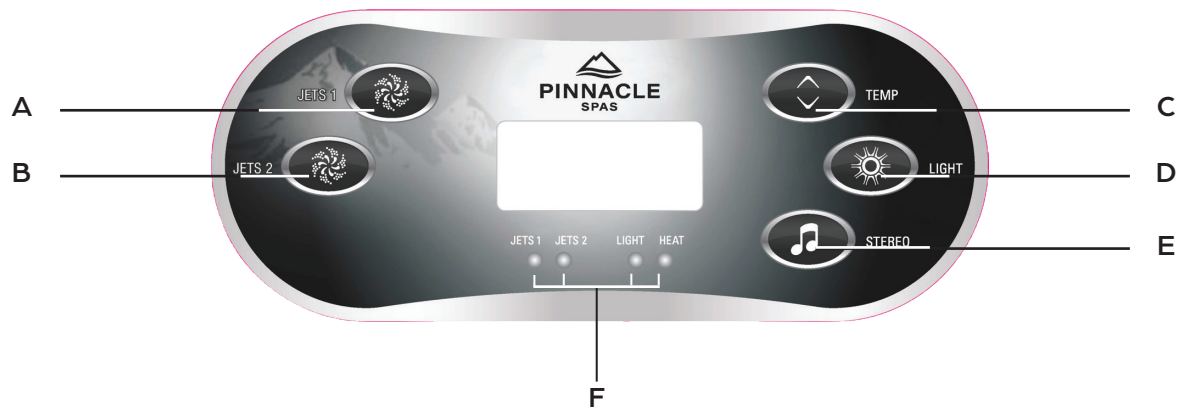


# PINNACLE SPAS

## 2 Pump Topside Control Instructions

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

# Topside Display & User Controls



## Topside Display

Monitor activity and performance in real time with illuminated icons for active settings, user controls and programming menus that simplify setting your preferences now and adjusting them later.

### A – Pump 1

- Two-speed pump.
- Ozonator runs when Pump 1 is on low speed.

### B – Pump 2

- Single-speed pump.
- Pumps automatically time out after 20 minutes. Press the pump button again to restart*

### C – Temperature Controls & Programming Menus

- Change the water temperature
- Enter programming menus.
- Navigate programming menu options
- Change settings.

### D – Lights & Programming Menu

- Turn lights on, off & select color
- Scroll through programming menus
- Toggle menu setting options
- Save changes.

### E – Built-in Audio Components

- Press once to turn on the speakers & sub woofer. Press again to turn off.
- Built-in audio automatically times out after 2 hours; press the button again to restart.*

### F – LED Indicator

- LED is illuminated when a component is on. LED is dark when a component is off.

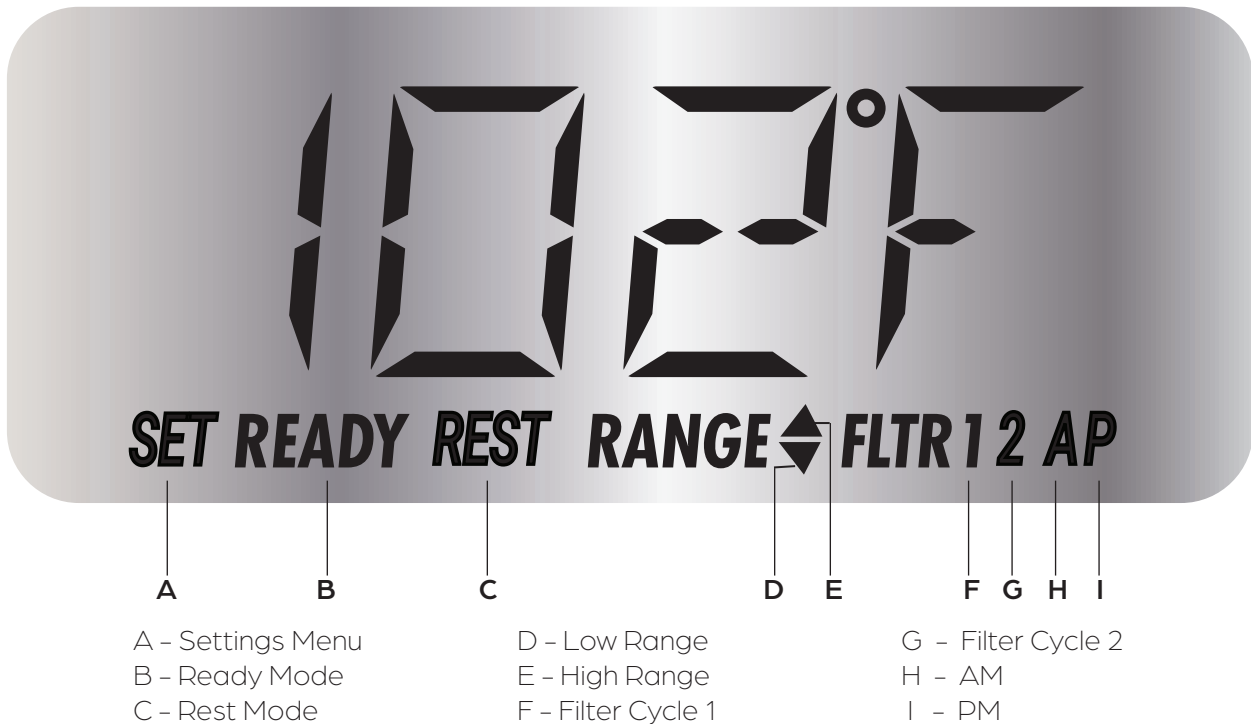
## Factory Settings

Your spa will start in Ready Mode.  
The water temperature setting is 100°F.  
The filtration cycles will run twice each day for 2 hours.

### Turning the Spa On

When the spa is full, remove the water hose, replace the filter(s), and close the skimmer lid. Make sure 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.

# The Menu Screen



Icons & LED notifications are illuminated for active user controls, programmable settings and during maintenance cycles.

A - Visible in programming menu when setting selections.  
 B - Visible when Ready Mode is selected.  
 C - Visible when Rest Mode is selected.  
 D - Down arrow is visible when Low Range is selected.  
 E - Up arrow is visible when High Range is selected.

F - F1 visible when setting & during 1st filtration cycle.  
 G - F2 visible when setting & during 2nd filtration cycle.  
 H - A visible in programming menu when AM is selected.  
 I - P visible in programming menu when PM is selected.

## Turning the Jets On

### Turning the Jets On and Off

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.

*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. When the GFCI is turned on, priming mode runs for 5 minutes.

### Run Pumps to Purge the Air



When this priming message is displayed on the screen, press the PUMP buttons to turn on the pumps. Press the PUMP 1 button twice so all pumps run on high speed.

# User Controls & Programming Menus



If the jets or the pumps surge and water flows from jets in some seats but not others, make sure the water is above the air release valve, check the 2" diverters to be sure they're centered and all jets are open. If the pumps aren't primed after 1 minute, press the PUMP buttons to turn all of the pumps 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.

## Topside Display After Priming



When Priming Mode is complete, the set temperature is briefly displayed. The current water temperature is displayed after the water circulates for approximately 1 minute.

## Polling Cycles in Ready Mode

When the spa is in Ready Mode, the water circulates for a few minutes every hour to monitor the water temperature. During polling cycles, the LED Heat Indicator flashes. If heating is necessary, the Heat Indicator is solid and the water continues circulating until it reaches the correct temperature. Some topside buttons may not work until the polling cycle is complete.

## Adjusting the Water Temperature



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.

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.

## High & Low Temperature Ranges

Your controls can be programmed with two independent temperature range settings. Use High Range to save your preferred warm water temperature and Low Range to minimize heating in warm weather. When you select a range, the spa will heat to the temperature setting for the range but it will not cool the water to the low temperature range in warm weather.



High Range  
the arrow points up



Low Range  
the arrow points down

When setting and selecting High and Low Ranges, pay attention to the direction of the arrow on the topside display.

Your spa heats the water, it cannot cool it. In warm weather, the water temperature will not fall below the average high ambient temperature, regardless of the operating mode or water temperature setting.



High Range  
Minimum Setting 80°F



High Range  
Maximum Setting 104°F



Low Range  
Minimum Setting: 50°F



Low Range  
Maximum Setting 99°F

Switch the temperature range in the programming menu if the temperature you're trying to set is higher or lower than the range limits.

## Setting Dual Temperature Ranges

To set the Dual Temperature Ranges, press and release the TEMP button. When the display is flashing, press the LIGHT button once. When TEMP is on the screen, press the TEMP button to toggle between High and Low Range. The arrow on the display points up for the High Range and down for the Low Range. When the arrow is pointing in the correct direction, press the LIGHT button to save and return to the home screen. If the LIGHT button isn't pressed to save the selection, the system reverts to the original setting and returns to the home screen.

## Understanding Operating Modes

Operating modes can be programmed to help regulate energy consumption and reduce operating costs. The frequency of use and the ambient temperature will help you determine which mode is best for you.

## The differences between Ready Mode & Rest Mode



Topside Display  
Ready Mode



Topside Display  
Rest Mode

**Ready Mode:** The water temperature is maintained consistently within a few degrees of the temperature setting. The water circulates every hour for a few minutes to monitor the water temperature, heat it as needed, and refresh the temperature on the topside display.

**Rest Mode:** Water is only heated during filtration cycles. Polling cycles do not run. Because the water temperature isn't monitored or maintained, it can fluctuate significantly. The current water temperature may not be immediately available.

Never put the spa in Rest Mode when the ambient temperature is 40°F or lower. If the spa is exposed to freezing temperatures, circulating water may not prevent freezing.

# Programming Menus



If the pump has been off for an hour or more and the PUMP 1 button is pressed, the polling message will scroll across the screen until the water temperature is available.



Ready Mode



Ready-in-Rest Mode

**Ready in Rest Mode:** If the PUMP button is pressed when the tub is in Rest Mode, the pump will circulate for 1 hour and heat the water if needed. After 1 hour, the pump will turn off regardless of the water temperature and return to REST Mode.

## Changing Operating Modes



Ready Mode



Rest Mode

To set the temperature range, press and release the TEMP button. When the display is flashing, press the LIGHT button twice. When MODE is on the screen, press the TEMP button to toggle between Ready and Rest Mode. When the desired mode is displayed, press the LIGHT button to save your selection and return to the home screen. If the LIGHT button isn't pressed to save the selection, the system reverts to the original setting and returns to the home screen.

## Setting the Time of Day



Setting the time of day establishes when filtration cycles and other functions are performed.

To set the Time of Day, press and release the TEMP button. When the display is flashing, press the LIGHT button 3 times. When TIME is on the screen, press the TEMP button to set the hours. Press the LIGHT button to save the hour and move to the minutes setting. When the minutes flash on the screen, press the TEMP button until the correct time is displayed. Press the LIGHT button to save your selection and return to the main screen. If the LIGHT button isn't pressed to save the selection, the system reverts to the original setting and returns to the home screen. If the time is not stored in memory, SET TIME will appear in the menu instead of just TIME.

## Flip the Display



The topside display can be inverted, making it easier to read from inside the tub and out. To invert the display, press and release the TEMP button. When the display is flashing, press the LIGHT button 4 times. When FLIP is displayed, press the TEMP button to toggle the options and release when your selection is displayed. The selection is saved automatically and the display returns to the home screen.

## Lock the Temperature and Topside Controls



The automatic functions work when the control panel is locked, but the topside controls cannot be used. When the temperature is locked, the jets and tub's other features can be used, but the temperature and other programmed settings cannot be adjusted.

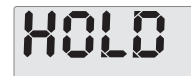
**To lock:** press and release the TEMP button. When the display is flashing, press the LIGHT button 5 times. When LOCK is displayed, press the TEMP button. When TEMP is displayed, press the LIGHT button to toggle between TEMP and PANL. When your preference is displayed, press the LIGHT button to save and return to the main screen. If the LIGHT button isn't pressed to save the selection, the system reverts to the original setting and returns to the home screen.



**To unlock:** While pressing and holding the TEMP button, press and release the LIGHT button twice. UNLK will appear on the display. The selection is saved automatically, and the display returns to the home screen.

Temperature cannot be unlocked if the controls are locked.

## Hold Mode



To put the tub in Hold Mode for up to 1 hour, press and release the TEMP button. When the display is flashing, press the LIGHT button 6 times. When HOLD is on the screen, press the TEMP button to put the tub on standby for up to 1 hour. A countdown of the remaining time will scroll across the screen. To exit Hold Mode manually before the automatic timeout, press the LIGHT button. The display returns to the home screen automatically.



# Programming Menus

## Filtration Cycle Settings

Your tub has been pre-programmed with factory settings to run for 2 hours twice daily.

During filtration cycles, the water circulates to remove debris and small particulates. Increasing filtration cycles does not reduce or eliminate chemical sanitizers. The length of filtration cycles varies depending on several factors, including the number of bathers, duration, and frequency of use. Under normal conditions, factory settings should provide adequate filtration. However, frequent use by several bathers may necessitate additional filtration.

## Programming Filtration Cycles



Filtration Cycle 1  
PM



Filtration Cycle 2  
AM

The start time and duration are used to set filtration cycles, which can be adjusted in 15-minute increments. Pay close attention to the "A" or "P" on the display when setting the time. If "A" is displayed, the filtration cycle will run in the morning; if "P" is displayed, it will run in the afternoon.

## Setting Filtration Cycle Start Time



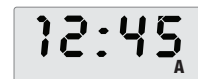
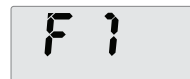
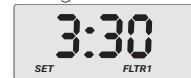
Press and release the TEMP button. When the display is flashing, press the LIGHT button 7 times. When FLTR 1 is displayed, press the TEMP button to open the menu settings. When BEGN is displayed, press the TEMP button to move to the hour setting. When the hour flashes on the display, press the TEMP button to change the hour. When the correct hour is displayed, press the LIGHT button to save and move to minutes. When the minutes are flashing, press the TEMP button to change the setting in 15 minute increments. When the minutes are correct, press the LIGHT button to save the start time and to move the duration setting.



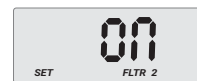
## Setting the Filter Cycle Duration



When "RUN HRS" is displayed, press the TEMP button until the correct number of hours is displayed. Press the TEMP button to set the hours. Press the LIGHT button to move to save the selection and move to minutes. When the minutes are flashing, press and release the TEMP button to change the setting in 15 minute increments. When the cycle duration on the display is correct, press the LIGHT button to save the setting and move to the message confirming the time of day the cycle will end. If the time is correct, press the TEMP button while the message is still scrolling to save and return to the home screen. If the TEMP button isn't pressed to save the selection, the system reverts to the original setting and returns to the home screen.



## Setting a Second Filter Cycle



Press and release the TEMP button. When the display is flashing, press the LIGHT button 8 times. When FLTR 2 is displayed, press the TEMP button to enter the programming menu and toggle between OFF and ON. When ON is displayed, press the LIGHT button to enter the programming menu. Repeat the steps to set the start time and duration for Filter Cycle 2. *If the TEMP button isn't pressed to save the selection, the system reverts to the original setting and returns to the home screen.*

## Stopping the Second Filter Cycle



Press and release the TEMP button. When the display is flashing, press the LIGHT button 8 times. When FLTR 2 is displayed press the TEMP button to enter the programming menu and toggle between OFF and ON. When OFF is displayed, press the LIGHT button to save the change and exit to the main screen. *If the LIGHT button isn't pressed to save the selection, the system reverts to the original setting and returns to the home screen.*

When filtration cycles begin, all pumps turn on to purge the lines. PUMP 2 shuts down automatically. When the purge cycle is complete, Pump 1 runs on LOW SPEED and shuts down automatically when filtration cycle is complete.

# Lighting & Audio

## Setting Preferences – Reminder Messages

These reminder messages will alternate with current water temperature. The default setting is ON. When maintenance is complete, press the LIGHT button to reset the display.

Message	Reminder	Frequency
CHEK CHEM	Check pH / chemical levels	7 Days
CHEK COVR	Clean cover Inspect for damage	365 Days
CHEK FLTR	Clean & inspect filter Replace if necessary	30 Days
CHNG WATR	Drain water from spa Refill with fresh water	90 Days
CHNG UV	Replace UV Lamp (If equipped - Default Off)	365 Days
CHNG OZN	Replace ozone unit (If equipped - Default Off)	365 Days
CHNG FLTR	Replace filter	120 Days
TEST GFCI	Test GFCI	60 Days

To set reminder preferences, press and release the TEMP button 9 times. When PREF is displayed, press LIGHT button to scroll through the options. When REMINDERS is displayed, press the LIGHT button to scroll through the options. Press TEMP to toggle ON and OFF. Press LIGHT when your preference is displayed. If ON is selected, reminders for routine maintenance will be displayed.

## 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 the lights 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 will turn 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. If the light button isn't pressed to turn the lights off, they turn off automatically after 2 hours. Press the Light button to turn the lights back on. Lighting features work in tandem.

## Turning the Built-In Audio Components On and Off



Press the audio button to turn the built in speakers on and off. 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.

*Built-In audio components automatically turn off after two hours. Press the audio button to turn them back on.*

## Pairing your Wireless Device

- Press the audio button 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 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.
- Use your device to make selections, play, and adjust the volume.
- 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.
- To switch between devices, turn off Bluetooth on the connected device until the correct device is connected.

## Troubleshooting Bluetooth Connections

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

- Press the audio button 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 in your spa is also wavering.
- Consider a booster to improve signal strength.

**No Sound from Speakers:** Settings may need adjusting

- Make sure the selection hasn't been paused or muted.
- Press play and increase the volume setting on your device.
- Press the audio button to turn the speakers 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 audio button on the topside controls to turn the audio components off.
- After 10 seconds press the button 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.**

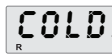
# Topside Control Error Messages

## General Messages



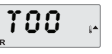
Unknown Water Temperature

Water circulates for 1 minute before water temperature is displayed.



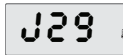
Water Too Cold Freeze Protection

A potential freeze condition has been detected. Take immediate action to prevent freezing. Pump will stay on for at least 4 minutes after the potential freeze condition has ended. Pumps may turn on and off automatically during freeze protection.



Water too Hot

One of the temperature sensors has detected 110°F (43.3°C) water temp and tub functions have been disabled. DO NOT ENTER THE WATER! Probable cause is pump running excessively or high ambient temperatures. Remove the cover and add cool water. Reduce filter cycle time. Operation will resume when the water temperature has fallen.



J29 Warning

J29 heater disable short when powered up.

## Heater Related Messages – Low or No Water Flow

To resolve heater related messages:

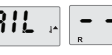
- Make sure pump is primed.
- Make sure all jets are open and T-Stems are up & locked.
- Add water & clean the filter if necessary.
- Remove debris from filter skimmer and suction drain cover.

DO NOT ENTER THE WATER UNTIL PROBLEM IS CORRECTED! If the error code persists after taking these steps, turn the GFCI off and contact technical support.



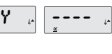
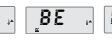
Reduced Heater Flow

There may not be enough water flow away from the heater. Water temperature readings in the heater chamber are too high. Heater will restart in approximately 1 minute.



Reduced Heater Flow

Not enough flow to carry water away from the heating element and the heater has been disabled.



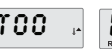
Heater Dry

There is not enough water in the heater. Tub shut down for 15 minutes. When the problem is resolved, press any button to resume operation.



Heater is Dry

There is not enough water in the heater. Tub is shut down. When the problem is resolved, press any button to resume operation.



Heater is too Hot

One of the temperature sensors has detected 118°F (47.8°C) water temp and tub functions have been disabled. DO NOT ENTER THE WATER!



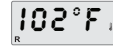
Reset Message

A reset message may appear with some error messages



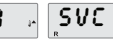
## Sensor Related Messages – Call for Service

### Sensor Balance is Poor



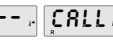
Temperature sensors are out of balance by 2 to 3 Degrees.

### Sensor Balance is Poor



Temperature sensors are out of balance and fault has been established for at least 1 hour.

### Sensor A or B Failure



Message may read Sensor A or Sensor B. Temperature sensor or sensor circuit has failed.

## Miscellaneous Messages



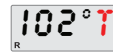
No Communication

The topside control is not communicating with the tub controls.



Beta Software

The tub controls is operating with test controls.



°F or °C replaced by °T

Tub controls are operating in Test Mode.

## System Related Messages – Call for Service



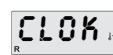
Memory Failure

When the tub was powered on the system failed the Program Checksum Test. There is a problem with the firmware.



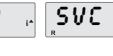
Persistent Memory Reset

Appears after system set up change. If this message appears on more than one power up, or it appears after operating normally for a period of time, call for service.



Memory Failure Clock Error

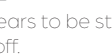
### Configuration Error No Power



GFCI Failure

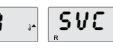


Pump Stuck On



Pump appears to be stuck ON. Water may be hot. DO NOT ENTER TUB! Turn GFCI off.

### Pump Stuck On



Pump appears to have been stuck ON when the tub was last powered. Water may be hot. DO NOT ENTER TUB! Turn GFCI off.