

Owner's Manual



Personalized Automated Control System

Important Information

WARNING: RISK OF ELECTRICAL SHOCK.

- **Read and follow operation and maintenance instructions carefully.**
- Electrical work should be performed by a licensed electrician and conform to all national, state and local codes.
- Do not have equipment serviced if precipitation is present or imminent.
- Always keep command center door closed when not accessing display panel.
- Do not allow children to handle this product.
- The Eos Wireless Remote requires a fully charged battery at startup. **Charge battery for at least 5 hours before use.** An inadequate charge can permanently damage the battery.

For customer service or support:

- Please mail Warranty Card immediately.
- For on-line support: www.polarispool.com
- To contact Polaris:

US and Canada

Customer Service
2620 Commerce Way
Vista, CA 92081-8438
1-800-822-7933

Introduction

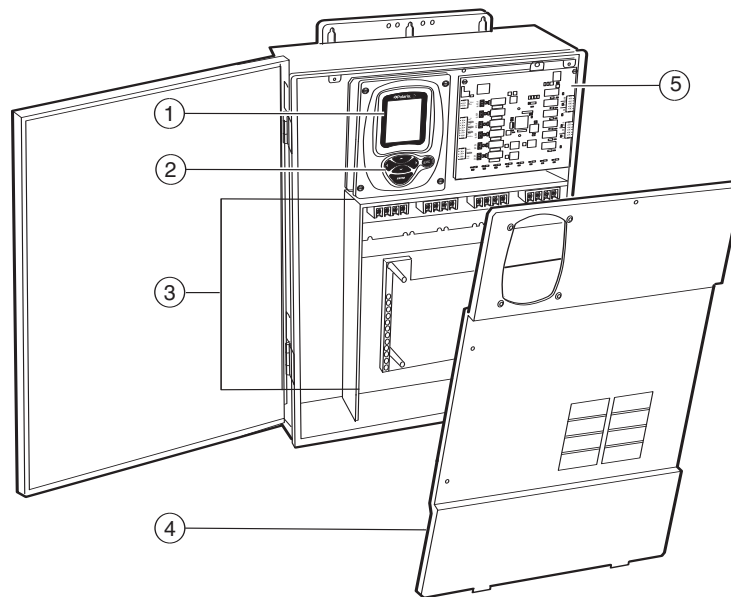


Congratulations on the purchase of your new automated control system and thank you for choosing Polaris. Designed to provide easy and convenient control of most pool and spa functions, the Polaris Eos Command Center:

- Controls pool and spa equipment, waterfalls, fountains, and lighting.
- Schedules regular pool and spa routines such as cleaning and circulation.
- Can be programmed to operate multiple devices with the touch of a single button.
- Components, options and functions can be expanded after installation is complete.
- Operates independently or can be remotely controlled from optional in-house wired remotes, wireless remotes or the Shortcut spa-side remote.
- Remotely operates electric devices including household appliances with the optional PLC (Power Line Carrier) Kit.
- Controls optional sanitation equipment including traditional chemical or salt chlorination systems.

Command Center Components

1. Command Center Display
2. Command Center Keypad
3. Relays and Power Subpanel
4. Deadfront
5. Activator Circuit Board





System Overview

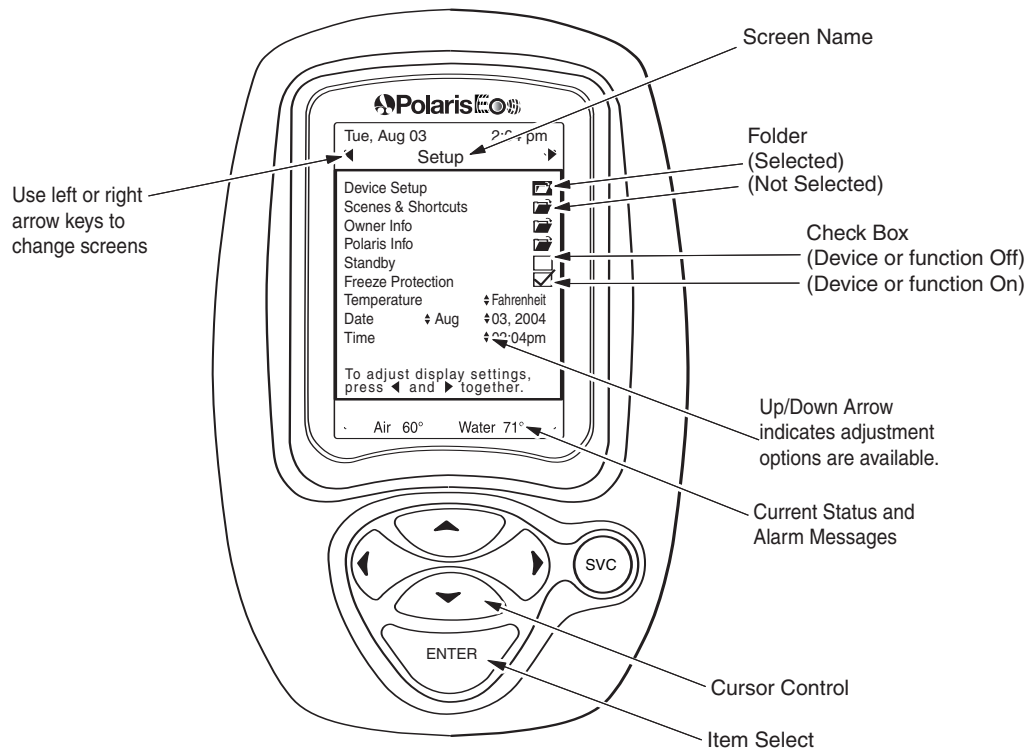
Starting the Eos Command Center

To activate: Turn on circuit breaker (main power source) to power up the unit.








To disable or put in "Standby Mode": Press and hold the Enter key for five seconds. Press any key to reactivate.

To shut down: Turn off main power source to command center.

Display Overview



Display Symbols

-  Folders indicate that additional screens, menu or setup options are available for an item.
-  Check Boxes are used to turn functions or devices on or off. Checked = On.
-  Up/Down Arrow indicates adjustment options are available for the field next to it and the up/down arrow keys are used to select or enter the setting.
-  Item in reverse (white text on black box) indicates cursor is over item or field.
-  Asterisk in front indicates a text field (blank line) that can be named by user.
-  Clock next to equipment status field means device is scheduled to be "on."
-  Flame next to status field of heater means heater is firing.



Screen Overviews

Setup Screen

During installation, this screen is used to define and configure the system. Adjustments to this screen will usually be minimal. For a complete description of system setup and the associated screens, refer to the Eos Installation and Operation Guide.

Device Setup is used to setup system equipment.

Scenes & Shortcuts can be established to start or stop several devices with a single command.

Owner Info is used to input of owner name and address.

Serial number and service contact phone numbers can be input in **Polaris Info**.

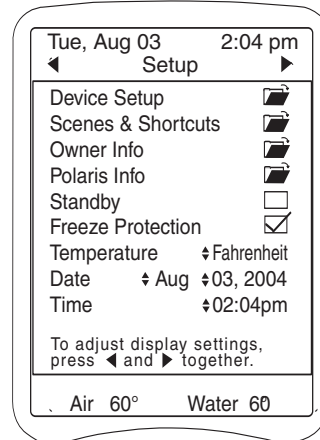
Checking the **Standby** box disables all automatic control functions.

Freeze Protection should always be checked to protect equipment from freezing conditions.

Temperature sets Fahrenheit or Celsius.

Sets **Date** by month, day and two-digit year.

Sets **Time** along with an am or pm designation.



Optional Device Control Screens

If a Watermatic pH/ORP controller or salt chlorinator is installed, additional control screens become available.

Main Screen

Once setup is complete, the Main screen provides access to most commonly needed measurements and functions. Most routine maintenance and adjustments can be made from this screen.

Annotations:

- Select folder icon to open the Device Manager screen where scheduling and other operational functions are controlled
- Shows current sensor temperature readings and alerts if any are present
- Shows designated heater (set point) temperature
- Status field indicates On/Off status of device
- Flame indicates heater is firing
- Clock indicates device is scheduled to be "On"
- Indicates adjustable settings are available for the device
- Indicates device list continues on another screen

Item	Value/Status
Pool Setpoint	71°
Spa Setpoint	100°
Pool Circulation	Spa
Cleaner Pump	Off
Pool Light	Off
Pool Light Dim	Off
PS Heater	On
Suction Valve	Off
Return Valve	Off
Cleaner Valve	Off
Music	On
Table Lamp	Off

Air 60° Water 71°



Device Manager Screens

Each piece of equipment controlled by Eos has a manager screen with specific settings for the device.

From these screens equipment can be:

- Turned on or off
- Set for specific on or off durations
- Scheduled to be active at specific times on specific days

The screenshot shows the 'PS Heater Manager' screen. At the top, it displays the date and time: 'Tue, Aug 03 2:04 pm'. Below that is the title 'PS Heater Manager'. The main section is titled 'PS Heater' and shows the status 'Off'. Underneath, there is a 'Manual Control' section with 'Duration' set to '04h 00m' and 'Remaining' set to '00h 00m'. A 'Schedules' section follows, with columns for 'Day', 'Start', and 'Stop'. The schedule is set to 'off' on all days, with start and stop times of '12:00p'. Below the schedule, there are three settings: 'Range' is set to '0°', 'Heater Cool Down' is checked, and 'Freeze Protect' is unchecked. At the bottom, the current temperatures are shown: 'Air 60°' and 'Water 71°'.

Navigating the System

- Use the keypad arrow (cursor control) keys to move through the screens and menu options.
- When the cursor is over an item, it will appear darkened or in reverse (white on black instead of black on white).
- Press the Enter key to select an item, open a folder, or activate/deactivate a feature with a check box.

To set or adjust an item:

1. Use the keypad arrow keys to move the cursor over the item.
2. Press <Enter> to select the item. The item will flash.
3. Use the up/down keys to choose or enter the setting.
4. Press <Enter> to activate the setting.

Using text fields

1. Move cursor over the text field and press <Enter> to select.
2. Use the up/down arrow keys to move through the alpha-numeric options.
3. Use the right arrow key to move to the next position within the field.
4. Press <Enter> when the entry is complete.

Using nameable text fields

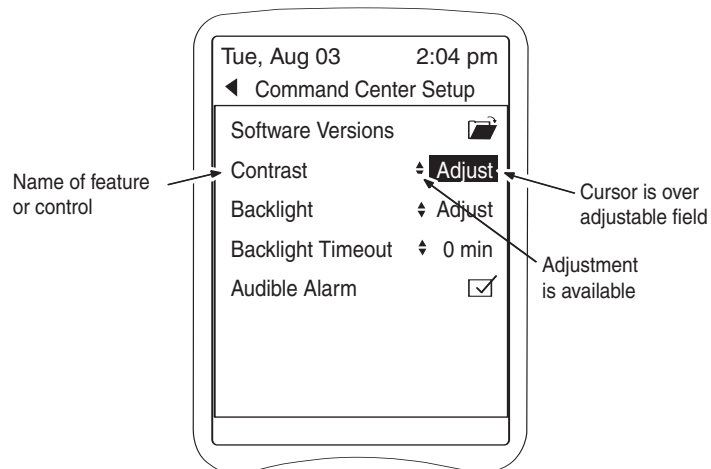
1. Move cursor over name field and press <Enter> to select. The last letter of the name will blink.
2. Use the left arrow key to erase the item name.
3. Use the up/down arrow keys to access the alpha-numeric options.
4. Use the right arrow key to move to the next position within the field.
5. Press <Enter> when the entry is complete.

To change the item back to "None," move to the asterisk and press <Enter>.

Using the Eos System



To adjust the brightness or contrast of the display, press the left and right arrow keys simultaneously to open the **Command Center Setup Screen**.



Software Version provides access to information on the current software versions for the command center and the various devices it controls.

Contrast controls readability of text, light or dark, on screen.

Backlight controls the illumination of screen.

Backlight Timeout sets a time limit for inactivity after which the light on the display turns off. Hit any key to reactivate the display.

When checked, **Audible Alarm** enables the alarm within the Command Center that sounds when an alert condition exists. (If remote devices are used to control the Eos, the alarm for each device can be enabled or disabled independently.)

To set or adjust any of the display controls:

1. Use arrow keys to move the cursor over the field to be adjusted. (Ex: **Adjust**)
2. Press <Enter> to select the item. The item will flash.
3. Use up arrow to increase or down arrow to decrease screen effect until it is at desired setting.
4. Press <Enter> to activate setting.

Press the left arrow key to return to the **Main** screen.

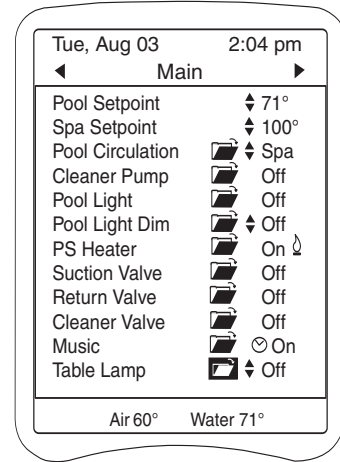


Common Tasks

Changing the Heater (Setpoint) Temperature Setting

On the **Main** screen:

1. Move the cursor to the Up/Down Arrow symbol next to the pool or spa (setpoint) temperature setting.
2. Press <Enter> to select the item.
3. Push the up or down arrow key to change the temperature setting.



Turning Equipment On or Off

On the **Main** screen or **Device Manager** screen:

1. Move the cursor to the Status field next to the device.
2. Press <Enter> to change the status, turn it on or off.

Customizing the Main Screen Display

Items can be reordered or devices grouped to make the system easier to work with.

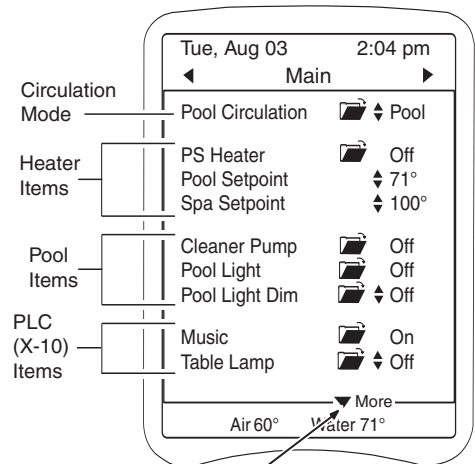
To move an item up or down on the menu:

1. Move the cursor to the Status field of the particular device.
2. Press and hold <Enter>.
3. Push the up or down arrow key to move the device.

To insert a space between menu items:

1. Move the cursor to the Status field of the device you want to insert a line above.
2. Press and hold <Enter>.
3. Press the up and down arrow keys simultaneously. A space will be inserted above the item.

To delete the space, move the item back up.



Indicates device list continues on another screen

Setting the Time and Date

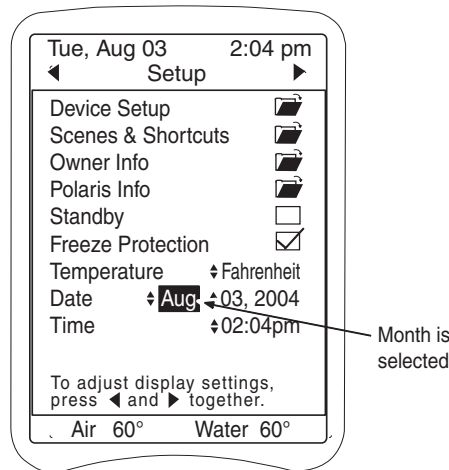
It is imperative that the date and time are set correctly to ensure proper function of the equipment scheduling features.

The command center offers multiple start and stop times and the ability to set various schedules. The built-in 365 day calendar clock accommodates multiple schedules without monthly reprogramming.

Adjustments are made on the **Setup** screen.

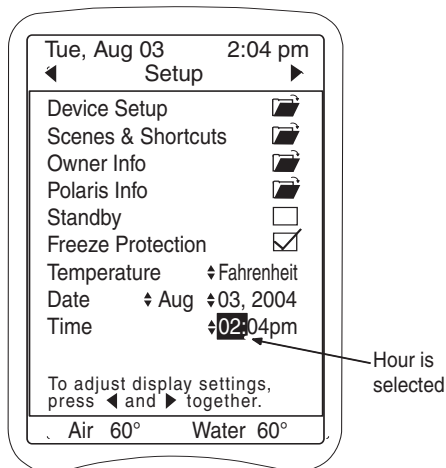
To set or adjust the date:

1. Use the arrow keys to move the cursor over the month field.
(Ex: **Aug**)
2. Press <Enter> to select the item. The item will flash.
3. Use the up or down arrows to select the desired setting.
4. Press <Enter> to activate the setting.
5. Use the same steps to set the day and year.



To set or adjust the time:

1. Use the arrow keys to move the cursor over the hour field
(Ex: **02**) first.
2. Press <Enter> to select the item. The item will flash.
3. Use the up arrow to run through the setting options, selecting the appropriate hour with am or pm.
4. Press <Enter> to activate the setting.
5. Use the same steps to set the minutes.



When adjustments are complete, use the left or right arrow key to return to the **Main** screen.





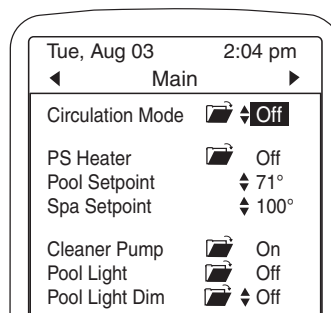
Setting the Circulation Mode

The options available for the circulation pump are dependent on the type of pool, the equipment installed, and the settings chosen at installation.

Pool Configuration	Circulation Mode Options	Additional Settings With a Two-Speed Pump
Pool/Spa with Shared Pump and Spillover Enabled	Pool, Spa, Spill, Off	Pool LS, Spa LS, Spill LS
Pool/Spa with Shared Pump without Spillover	Pool, Spa, Off	Pool LS, Spa LS
Pool Only	On, Off	On, Low, Off
Spa Only	On, Off	On, Low, Off
Pool/Spa with Separate Pumps		
Pool Circulation	On, Off	On, Low, Off
Spa Circulation	On, Off	On, Low, Off

To set (manually activate) the circulation mode:

1. Move the cursor over the **Status** field (Ex: **Off**) and press <Enter> to select the item. The item will flash.
2. Use the up/down arrow keys to access the circulation mode options.
3. Select the desired mode and press <Enter> to activate the selection.

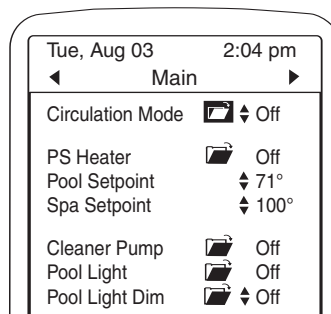


When a circulation mode is entered, either manually or as a scheduled event, circulation pumps as well as the appropriate valve actuators will activate.

When set manually, the selected mode will run for as long as the Manual Duration (found on device manager screen) specifies, if no other schedules are set.

To schedule the circulation mode:

Move the cursor over the circulation folder and press <Enter> to open the **Device Manager** screen.





Setting Manual Controls and Scheduling

Each piece of equipment has a manager screen (accessed by selecting the folder next to the item on the **Main** screen) with specific settings for the device. All manager screens include:

Status

Indicates on/off status for most devices. For a pool/spa circulation pump it also indicates the current circulation mode (pool, spa, or spillover).

Manual Control

Specifies how long a device will be active when turned on manually.

Some equipment is dependent on other equipment to operate properly. The rules governing these dependencies are referred to as Device Manager Rules. Manually activated devices are subject to these rules, meaning that even though a device turned is “on,” it may not activate unless all the rules are met. See **Device Associations, Safety Delays and Lockouts** for further information.

Each device has a **Duration** default. When the specified duration is complete, the device control returns to the established schedules.

Remaining refers to how much longer the device will be active under manual control.

Schedules

Scheduling is available for each device. Up to four schedules can be set based on date and time. When scheduling, equipment associations and manager rules should again be taken into consideration. For detailed information on equipment, review the original manufacturer’s documentation or talk with a pool professional.

Day: Specifies day(s) of operation
(Sun, Mon, Tue, etc. or All)
(M-F = Monday thru Friday)
(S-S = Saturday and Sunday)
(MWF = Mon., Wed. and Friday)

Start: Specifies start time

Stop: Specifies stop time

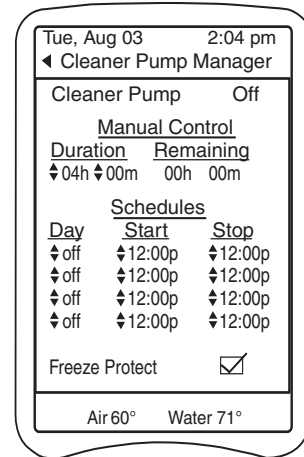
Mode: For circulation pump only: specifies circulation mode (pool, spa, spillover)

Schedule **priority is based on the order of the schedules** from the top (highest priority) to the bottom of the menu.

When a device is scheduled and active, a clock symbol will display next to it.

Freeze Protect

Enables or disables freeze protection for the specific device. **Freeze Protect must be specified for each device individually. Freeze Protection on the Setup screen must also be checked.**





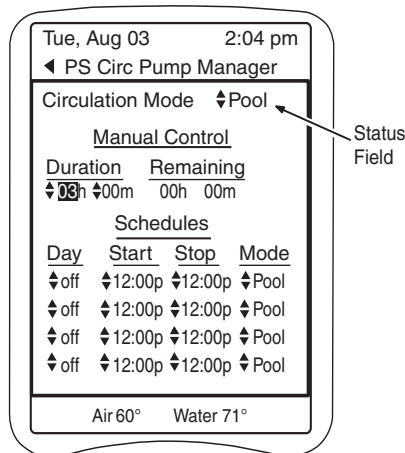
Circulation (Circ) Pump Manager

The same circulation options available on the **Main** screen are available on the manager screens by selecting and adjusting the **Status** field.

When manually activated, the chosen mode will run as long as the **Duration** specifies.

To change Duration:

1. Move the cursor over the hours (Ex: **03**) and press <Enter> to select. The item will flash.
2. Use the up/down arrow keys to select time.
3. Press <Enter> to activate the selection.
4. Use right arrow to move to minutes and set if desired.



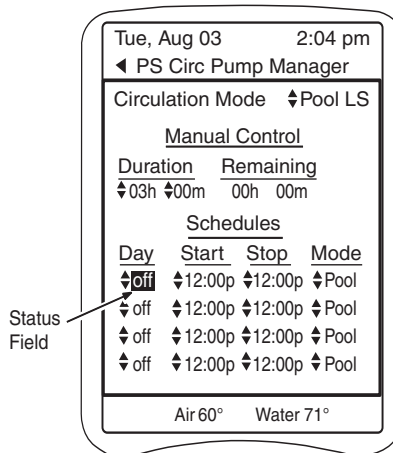
Schedules can be set for different circulation modes. **Schedule priority is based on the order of the schedules**, from the top (highest priority) to the bottom of the menu. **Start** and **Stop** time is set in hours and minutes with am / pm designated by the hour.

To schedule circulation **Mode**:

1. Use the arrow keys to move the cursor over the status field under Day (Ex: **off**) and press <Enter> to select. The item will flash.
2. Use the up/down arrow keys to set the day. Press <Enter> to activate the selection.
3. Move cursor to Start hour field and press <Enter> to select.

Use the up/down arrow keys to choose start time. Press <Enter> to activate. Set minutes if desired.

4. Move cursor to Stop. Set stop time, hours and minutes.
5. Move cursor to Mode, select the circulation mode and press <Enter> to activate.
6. Use the left arrow key to return to the **Main** screen.





Using Manager Screens

Access any manager screen from the **Main** screen by selecting the folder next to the item.

Heater Manager

An adjustable high and low operating **Range** is available for heaters. Defaults are 0° and 104° F.

Range can be used to set multiple heaters to heat to different temperatures. For example: two heaters can be set to heat together up to a certain temperature, such as 95° F, with only the second continuing to heat to the maximum.

Heater Cool Down is a safety feature that provides a two-minute delay in turning off the circulation pump after the heater has completed its firing cycle. This allows the heater to cool down.

If **Freeze Protect** is disabled (unchecked), the heater will not fire during “Freeze Alert.” If enabled, the heater will fire if the water temperature drops to 34° F or the air temperature drops to 36° F.

Tue, Aug 03 2:04 pm
 ◀ PS Heater Manager

PS Heater Off

Manual Control

Duration	Remaining
◄04h ◄00m	00h 00m

Schedules

Day	Start	Stop
◄off	◄12:00p	◄12:00p
◄off	◄12:00p	◄12:00p
◄off	◄12:00p	◄12:00p
◄off	◄12:00p	◄12:00p

Range ◄0° ◄104°

Heater Cool Down

Freeze Protect

Air 60° Water 71°

Spa Dep Valve Manager

If a Spa Dependent Valve is installed on the pool, use **Spa Mode Position** to set the valve position, open or closed, when the system is in circulation mode “Spa.”

1. Use the arrow keys to move the cursor over the Spa Mode Position field. (Ex: **Off**)
2. Press <Enter> to select On or Off.

Tue, Aug 03 2:04 pm
 ◀ Spa Dep Valve Manager

Spa Dep Valve Off

Manual Control

Duration	Remaining
◄04h ◄00m	00h 00m

Schedules

Day	Start	Stop
◄off	◄12:00p	◄12:00p
◄off	◄12:00p	◄12:00p
◄off	◄12:00p	◄12:00p
◄off	◄12:00p	◄12:00p

Spa Mode Position **Off**

Freeze Protect

Air 60° Water 71°

Solar Valve Manager

Solar Priority, available on the Solar Valve Manager and Solar Pump Manager screens, sets solar heating to have priority over all other heaters.

When checked (default), the solar heater has priority over other heaters until the water temperature gets within 5 degrees of the Solar Panel Temp. Then, solar heating will shut off and the other heater(s), if activated, will continue to heat until the setpoint is reached.

Solar Panel Temp displays the current reading from the temperature sensor on the solar panel.

Tue, Aug 03 2:04 pm
 ◀ Solar Valve Manager

Solar Valve Off

Manual Control

Duration	Remaining
◄04h ◄00m	00h 00m

Schedules

Day	Start	Stop
◄off	◄12:00p	◄12:00p
◄off	◄12:00p	◄12:00p
◄off	◄12:00p	◄12:00p
◄off	◄12:00p	◄12:00p

Solar Priority

Freeze Protect

Solar Panel Temp 60°

Air 60° Water 71°



Setting Scenes and Shortcuts

Scenes and Shortcuts establish one touch control of multiple devices. They can control groups of equipment routinely used together. For example: a Shortcut can turn on the pool light, porch light and landscape lighting. Or they can be used to create a particular mood for entertaining or relaxing.

Scenes

A Scene is a “snapshot” of the entire system operation that can be recalled to play at any time.

Scenes can be scheduled to run at specific times or activated manually.

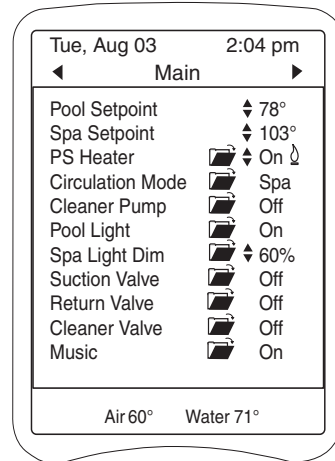
Up to five Scenes can be set up, but only one Scene can be played at a time. If a Scene is “in play” and another is recalled (either manually or by a schedule), the latter Scene takes priority.

To set a Scene:

1. Turn on any equipment that you want to operate during the Scene. Setpoints can be part of the Scene.

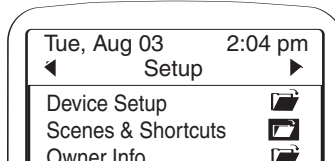
On the **Main** screen, move the cursor to the Status field of the each device and press <Enter> to select the setting.

In this example: circulation mode is Spa, Spa setpoint is 103°, Pool Light is On, Spa Light is dimmed to 60%, and Music is On.



2. Use the left arrow key to move to the **Setup** screen.

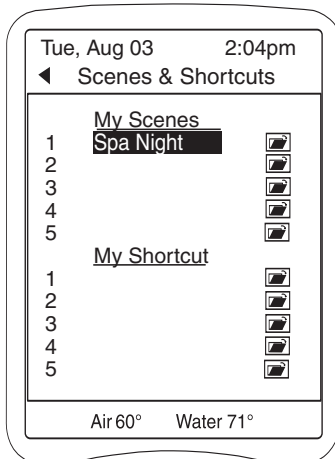
3. Move cursor to the Scenes & Shortcuts folder. Press <Enter> to open the **Scenes & Shortcuts** screen.



4. Move the cursor to the first available text field under My Scenes.

5. Press <Enter> to select the field and use the arrow keys to name the Scene. (Ex: **Spa Night**)

6. Move the cursor to the folder next to the newly named Scene and press <Enter> to open the **My Scene Manager** screen.





7. Move the cursor to Save and press <Enter> to capture the Scene.

The Scene “Spa Night” is now saved.

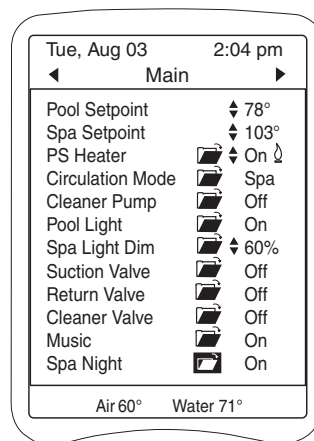
It can be manually activated or scheduled just like any other device.

Use the left arrow key to return to the **Main** screen.



8. The Scene is now displayed, just like a device, and can be recalled (activated) at any time by changing the Status to On.

The device manager for the Scene can be accessed by selecting the folder next to it.



Shortcuts

Shortcuts are also “snapshots” of system operation. Unlike Scenes that turn devices on or off to set the scene, **Shortcuts are only able to turn devices on.**

Up to five Shortcuts can be set up and run simultaneously.

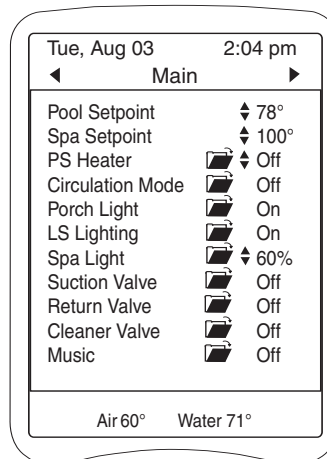
Shortcuts can run within a Scene, but Scenes cannot run within a Shortcut.

To set a Shortcut:

1. Turn on any equipment that you want to operate during the Shortcut.

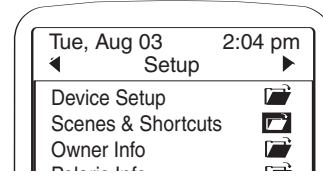
On the **Main** screen, move the cursor to the Status field of each device and press <Enter> to select the setting.

In this example: Pool Light is On, Spa Light is dimmed to 60%, Porch Light is On, and LS (Landscape) Lighting is On.

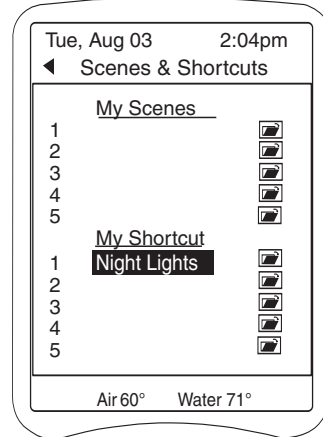




2. On the **Setup** screen, move the cursor to the Scenes & Shortcuts folder. Press <Enter> to open the **Scenes & Shortcuts** screen.



3. Move the cursor to the first available text field under My Shortcuts.



4. Press <Enter> to select the field and use the arrow keys to name the Shortcut. (Ex: **Night Lights**)

5. Move the cursor to the folder next to the newly named Shortcut. Press <Enter> to open the **My Shortcut Manager** screen.

6. Move the cursor to **Save** and press <Enter> to capture the Shortcut.

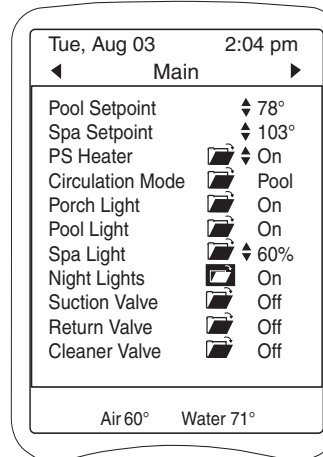


The Shortcut “Night Lights” is now saved.

It can be manually activated or scheduled just like any other device.

Use the left arrow key to return to the **Main** screen.

7. The Shortcut is now displayed, just like a device, and can be recalled (activated) at any time by changing the Status to On.



The device manager for the Shortcut can be accessed by selecting the folder next to it.

Understanding Eos System Functions



Freeze Protection

Freeze protection is activated when the air temperature drops to 36° F or the water temperature drops to 34° F. Manual activation or scheduled operation of Spa Mode will override freeze protection.

During freeze protection, “Freeze Alert” will flash on the bottom of the display screen.

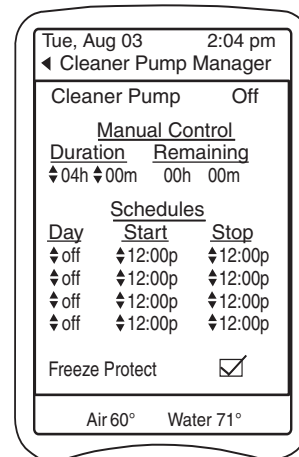
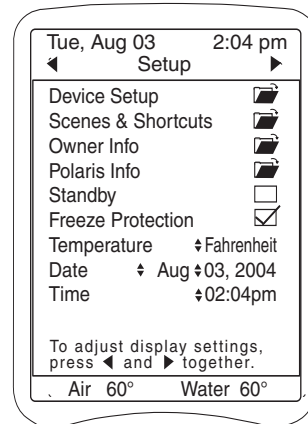
The **Freeze Protection** check box on the **Setup** screen should always be checked (enabled) to protect equipment from freeze damage. The circulation pump is covered by freeze protection as long as this check box is checked.

For all other equipment, **Freeze Protect** must also be specified on the individual device manager screen. Some devices default to freeze protect.

By default, heater freeze protect is unchecked; the heater will not fire during a freeze alert. If freeze protection is checked, the heater will fire when the water temperature drops to 33° F.

During Freeze Alert:

- In the pool/spa combo and pool/spa separate configurations, the system will alternate between activating the spa and the pool equipment every 15 minutes.
- In spa only and pool only configurations, the equipment will alternate for 15 minutes on and 15 minutes off.
- Blowers will run for five minutes every half hour.
- No lighting (pool, spa, landscape, etc.) will activate.





Alerts and Alarms

The following alert conditions will sound the audible alarm in addition to flashing the alert message at the bottom of the display screen.

Alert

Pool High Temperature
Pool Low Temperature
Spa High Temperature
Spa Low Temperature
Wireless Remote Battery Low
WM#1 High PH Alert
WM#1 Low PH Alert
WM#1 High ORP Alert
WM#1 Low ORP Alert
WM#1 PH Overfeed
WM#1 ORP Overfeed
WM#1 Feeder Empty

Alert

WM#2 High PH Alert
WM#2 Low PH Alert
WM#2 High ORP Alert
WM#2 Low ORP Alert
WM#2 PH Overfeed
WM#2 ORP Overfeed
WM#2 Feeder Empty

The following Alerts are flashing messages only.

Alert

Freeze Alert
WM#1 No Flow
WM#1 2 Minute Flow Delay
WM#1 Clean PH Sensor
WM#1 Cal PH Sensor
WM#1 Clean ORP Sensor
WM#2 No Flow
WM#2 2 Minute Flow Delay
WM#2 Clean PH Sensor
WM#2 Cal PH Sensor
WM#2 Clean ORP Sensor
Solar Purge Delay
Solar Panel Temp Too Low
Spa Has Reached Set Temp

Alert

Cleaner Requires Pool Mode
Standby Mode
CPC-ACT Comm Failure (Cable/Activator)
CPC-WM1 Comm Failure (Watermatic)
CPC-WM2 Comm Failure
SCB Comm Failure
X10 Comm Failure
Valves Turning
Heater Cooling Down
91 Check Salt
92 Chlorinator No Flow
Check Chlorinator

Device Associations, Safety Delays and Lockouts

Some equipment is dependent on other equipment for proper operation. The rules that govern these dependencies or associations are referred to as **Device Manager Rules**. Manually activated devices are subject to these rules, meaning that even though a device turned is “on,” it may not activate unless all the rules are met. The device manager rules and other safety functions are listed below.

Heater

When activated (turned on manually or by a schedule), the heater will only fire (indicated by flame on display) if the circulation pump is on and the temperature setpoint is above the current temperature reading.

There is a 45-second operational delay at initial startup of the heater. Once the heater is active and the desired temperature is reached, the heater will turn off and remain off until the temperature falls two degrees below the setpoint. This prevents the heater from short cycling (i.e., turning on and off in rapid succession).



After the heater shuts down, it enters a 2-minute cool down period. **Heater Cooling Down** will be displayed on the screen. If the filter pump is shut down during the cool down, the pump will remain on until the delay is finished and an hourglass will be displayed next to the pump on the screen.

Cleaner Booster Pump

The pool cleaner will only activate when the system is in the pool mode (i.e., water circulating to the pool) as it requires water circulation to function correctly. **Cleaner Requires Pool Mode** is displayed if cleaner schedule requires circulation mode adjustment.

There is a 1-minute prime delay to ensure the water is flowing to the booster pump. The display will read **Prime Delay** during this delay.

If the filter pump is turned off while the cleaner booster pump is running, the controller will automatically shut down the booster pump. The system recognizes that the booster pump cannot run without the circulation pump.

If the booster pump cleaner is active and spa or spa spillover mode is entered the booster pump will shut down and be locked-out. When the spa or spa spillover mode is cancelled, the booster pump schedule will resume.

Spa Drain

The spa drain can only be activated on the Service screen.

Valves

Valves Turning is displayed whenever a valve (pool to spa, spa to spillover, solar, etc.) is signaled to rotate. There is a 15 second delay during which the filter pump is shut off. The pump is reactivated when the valves have stopped turning.

Solar Heating Systems

When solar heating is initiated and there is a booster pump cleaner on the system, the booster pump will shut down and be locked-out for a 2-minute **Solar Purge Delay** to allow water to be purged from the solar collectors. When the delay is complete, the booster pump is reactivated.

When equipment is manually activated:

Existing schedules will be overridden. Remember to shut down the equipment, otherwise, the equipment will continue to run until the next scheduled shut down or time-out specified in the device setup.

If spa mode is not turned off, only the water in the spa will be filtered and the pool cleaner will be disabled.

Turning off the filter pump does not reset valves to pool mode. The valves will automatically return to pool mode after 6 hours.

Communication Failures

Communication failure messages (**CPC-ACT Comm Failure**, **X10 Comm Failure**, etc.) are displayed when there is a communications failure between the command center and the system components. Check connections or reposition the remote or antenna and try again.



Using Optional Components



With the basic system in place, optional components such as remote controls, sanitizing controllers, lighting controls, and even home appliance controls can be added at any time to customize the pool or expand the system capabilities.

Remote Controls

Eos can be controlled remotely by the Eos Wireless Remote or the In-House Panel remote. Limited system control is also available with the Shortcut remote which can be mounted spa-side or as an in-house panel.

Each remote has its own **Setup** screen where display adjustments can be made. To access this screen for either the Wireless or In-house Panel remote, press the left and right arrow keys of the remote keypad simultaneously.

Wireless Remote

Battery charge level  and signal reception  are indicated at the top of the display screen. **The battery must be charged for at least five hours before the initial use.** To ensure a full charge, always store the remote on the charger when not in use. An animated scrolling battery symbol on the display indicates the battery is charging.

Software Version provides access to current system software information.

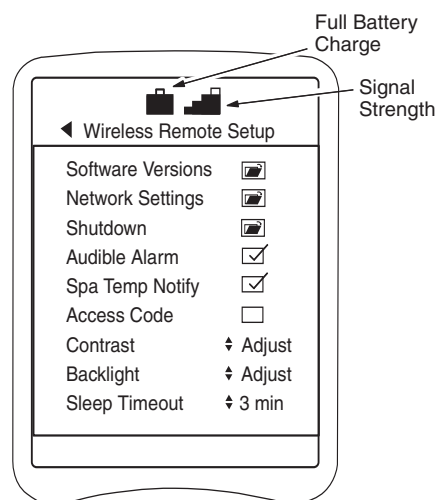
Remote device settings, including the unique remote channel setting, are listed on the **Network Settings** screen

Shutdown turns off the remote. Useful to conserve battery life. Press any key to reactivate.

When checked, **Audible Alarm** enables the alarm in this remote device to signal when an alert condition exists.

If **Spa Temp Notify** is checked, "Spa Has Reached Set Temp" will be displayed when the water temperature in the spa reaches its designated setpoint.

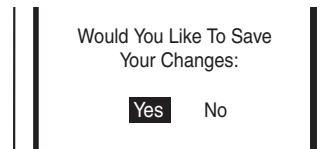
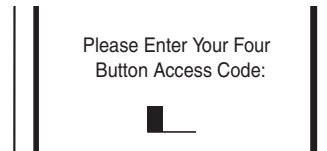
Access Code is a security feature available on the remote control devices. When activated, system change capabilities are limited to authorized users.





To set an **Access Code**:

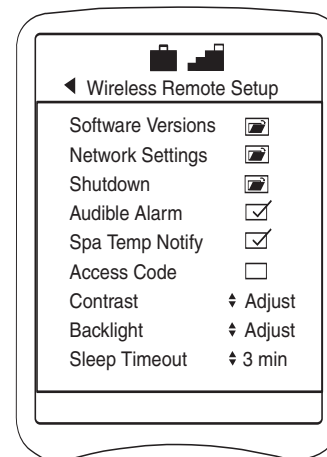
1. Check the Access Code box. A new screen will open and request a code.
2. Press any four keys on the keypad, in any order. Press <Enter> to activate the code.
3. Use the left arrow key to exit the **Setup** screen.
4. A confirmation screen will appear. Move cursor to Yes and press <Enter> to activate the change.



All function selections will lock requiring input of the access code to make changes.

To reset if the code is forgotten:

1. Press the left and right arrow keys simultaneously to open the **Setup** screen.
2. Disable (uncheck) the Access Code box.
3. Press left arrow key to exit the **Setup** screen. Move cursor to Yes on the confirmation screen and press <Enter> to activate the change.



Contrast controls readability of text on screen.

Backlight controls illumination of display screen.

To conserve battery life, set **Sleep Timeout** to switch the remote to sleep mode after a specified length of time without activity.

To save changes made to any settings on the Wireless Setup screen:

1. Make adjustment, then use the left arrow key to exit the screen. A confirmation screen will open.
2. Move cursor to Yes and press <Enter> to activate the change.

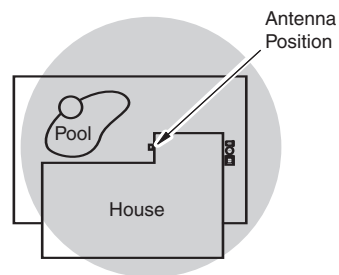


To reset the wireless display if it is locked-up or frozen:

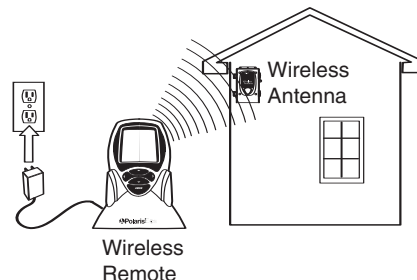
1. Press and hold <Enter>.
2. Press left and right arrow keys simultaneously.



The antenna for the Wireless Remote is positioned to ensure strong, clear communication between the remote and the Eos Command Center from anywhere within the coverage area. The coverage area, shown here in gray, spreads out in a circle from the antenna location.



For optimum performance, the remote should be used within line-of-sight of the antenna and away from areas where obstructions might interfere with the radio signal.



Some objects that can prevent communications are:

- Aluminum siding
- Cyclone fences
- Wrought iron
- Steel framing
- Leaded glass
- Mylar protected windows and doors
- Stone walls and structures
- Gas filled windows and doors
- Microwave ovens
- Other 5.6 GHz frequency devices

In-House Panel (Wired) Remote

To access the **Setup** screen, press the left and right arrow keys of the remote keypad simultaneously.

Software Version specifies the active software version.

Contrast controls readability of text on the screen.

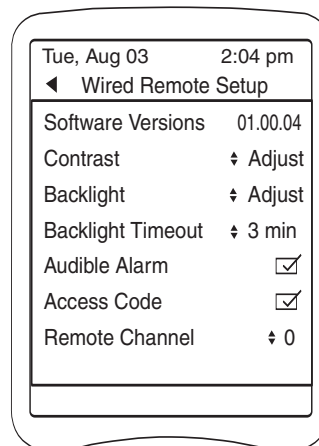
Backlight controls illumination of screen.

Use **Backlight Timeout** to set a time limit for inactivity after which the display turns off. Hit any key to reactivate the display.

When **Audible Alarm** is checked, the alarm in this remote device signals when an alert condition exists.

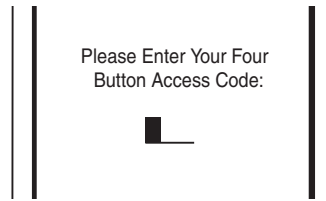
Access Code is a security feature available on the remote control devices. When enabled, system change capabilities are limited to authorized users.

If two In-House Panels are installed on a system, the **Remote Channel** on the second remote must be adjusted to a different channel to allow simultaneous use.



To set an **Access Code**:

1. Enable (check) the Access Code box. A new screen will open and request a code.
2. Press any four keys on the keypad, in any order. Press <Enter> to activate the code.



All function selections will lock requiring input of the access code to make changes.

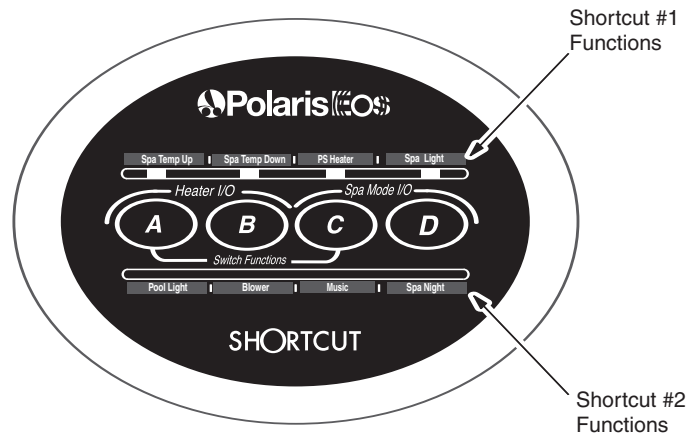
To reset if the code is forgotten:

1. Press the left and right arrow keys simultaneously to open the Setup screen.
2. Disable (uncheck) the Access Code box.

Shortcut Remote

During installation the control functions of the Shortcut buttons (A, B, C, D) are assigned and the buttons are labeled.

In addition to two factory-set functions, up to eight control functions (4 on Shortcut #1 and 4 on Shortcut #2) can be assigned.



General guidelines for the Shortcut:

- Button LEDs light when their respective device is active.
- If lights (including dimmers) are setup, the remote controls only the on/off function of the device.
- Temperature controls are the default on buttons A and B, if a heater has been set up.
- Temp Up and Temp Down button LEDs light only when the buttons are pushed.
- Temp Up and Temp Down increase or decrease the temperature setpoint by one degree. When the maximum temperature is reached (104 degrees for Spa), the Temp Up button LED will stay lit.

To switch from Shortcut #1 functions to Shortcut #2 functions, press buttons A and C simultaneously. The two button LEDs will flash; then the active shortcut button (i.e., C = Shortcut #2) will illuminate. Press A and C again to switch back.

To activate the heater, press buttons A and B simultaneously. The two button LEDs will flash together three times. While the heater is firing, the two LEDs will flash every 15 seconds. When the setpoint is reached the flashing will stop.

To activate Spa Mode, press buttons C and D simultaneously. All LEDs will flash three times.



PLC (X-10) Devices

If a PLC (Power Line Carrier) Kit is installed on the system, Eos can control lights, fans, stereos, and other household appliances.

Devices plug into a small receiver that plugs into a regular wall outlet inside the house. The receiver communicates with a transmitter connected to the Eos Command Center.

Once set up, devices can be turned on or off from the **Main** screen (Ex: Music is On) just like any other device wired directly to the Eos. Lamp dimmer modules also provide a percentage setting for bright to dim lighting.

Select the folder next to the PLC device to open the **PLC Device Manager** screen. PLC devices can be scheduled like any other piece of equipment.

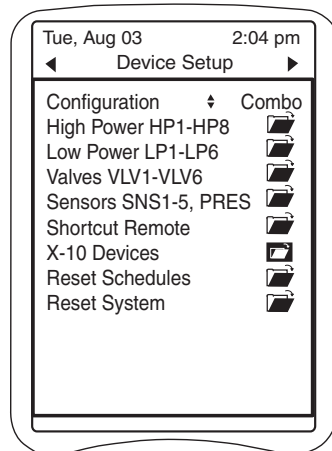
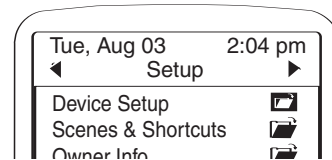
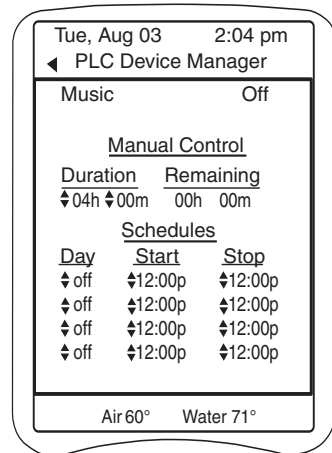
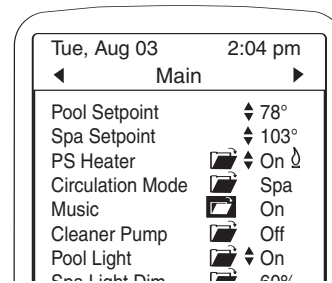
Receiver modules can be added to the system at any time. Contact your Polaris dealer for information on PLC Receivers.

To add a PLC device:

1. Scroll to the **Setup** screen on the command center or remote display.

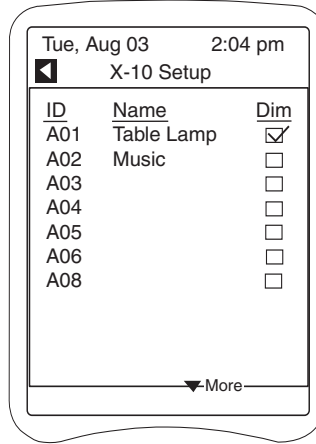
Move the cursor to the Device Setup folder and press <Enter> to open the **Device Setup** screen.

With the cursor over the X-10 Devices folder, press <Enter> to open the **X-10 Setup** screen.



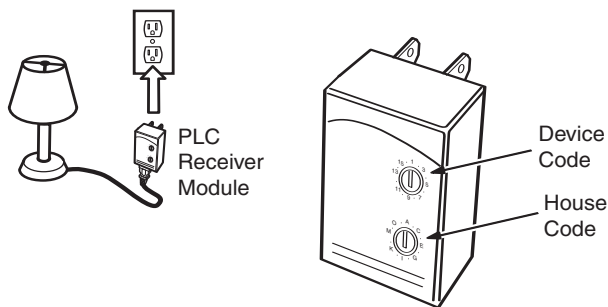
- Review the devices that are already installed to determine the available ID assignments for the new device.

Example: ID for Table Lamp is A01 (A = house code, 01 = device code). A03 is first available code.



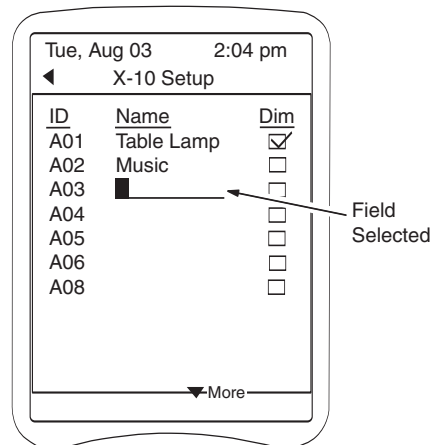
- Plug the receiver module into any wall plug and the device into the receiver.

- Use the dials on the front of the PLC Receiver to set the house code, A-D, and device code, 1-16. (Ex: A03)



- Move the cursor to the name field next to the code identifier position to be assigned. (Ex: A03)

- Press <Enter> to select the item. A line indicating the text field will appear and the first character position will flash.



- Enter the device name in the text field using the up/down keys to access the alpha-numeric characters. Press the right arrow key to move to the next letter position within the field. Press <Enter> when naming is complete.

- If a dimmer module is installed, use the right arrow key to move to the dimmer (Dim) check box and press <Enter> to enable (check) dimming control for the device.

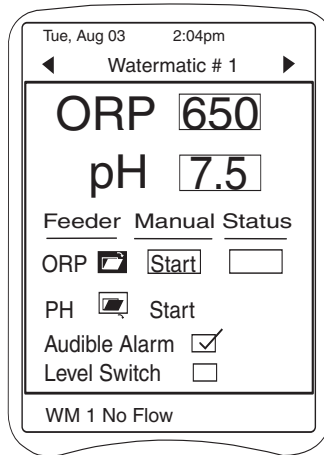
The dimmer control provides various settings between 0-100% to produce low to bright light levels.



Optional Controllers

Polaris Watermatic C2100 ORP/pH Controller

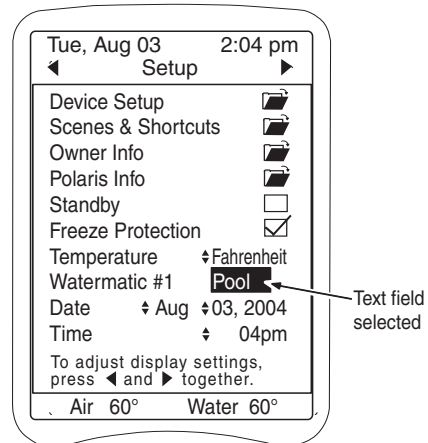
If a Watermatic controller is installed, a separate control screen is provided to monitor readings and access the controller settings. If a second controller is used, a second control screen will become available.



When a controller is installed, an optional nameable field becomes available on the **Setup** screen. If two controllers are installed, there will be nameable fields for each.

To name the controller(s):

1. Move the cursor to the Watermatic #1 text field and press <Enter> to select the field.
2. Enter the name in the text field using the up/down keys to access the alpha-numeric characters and the left/right keys to move within the field.
(Ex: **Pool**)
3. Press <Enter> when naming is complete.



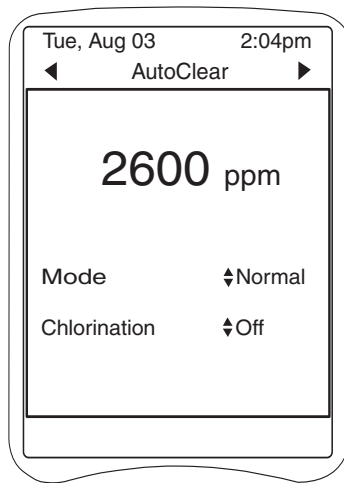
Refer to the Polaris Watermatic C2000/C2100 Owner's Manual for complete operation and maintenance information.



Salt Chlorinators

If a Polaris AutoClearPLUS or other salt chlorinator is installed, a control screen is provided to monitor salinity levels and access the chlorinator settings. The screen name is designated by the chlorinator installed.

If the AutoClearPLUS is connected to a Watermatic C2100 that is controlled by the Eos system, the Salt Chlorinator screen will not be displayed. Salinity and chlorine production will be monitored and controlled by the Watermatic making this separate control screen unnecessary.



The current salt concentration or **salinity** of the pool is displayed in parts per million (PPM).

Mode provides operational options:

Normal – Chlorine production at normal rate.

Super – Produces the maximum amount of chlorine for 24-hours, then reverts back to normal mode. If selected, the pool pump must be activated for a 24-hour run cycle as well.

Service – Disables control while chlorinator is being serviced.

Chlorination adjusts the chlorine output from 0 to 100% in increments of 10.

Refer to the Polaris AutoClearPlus Installation and Maintenance Guide or the chlorinator manual for recommended salinity levels, as well as complete operation and maintenance information.



Troubleshooting

If the Eos system displays the following actions, adjustments may be necessary to restore performance. Contact Polaris Customer Service at 1-800-822-7933 for further assistance, and repair or service information.

Action: The display screen is blank.

- Solution:
1. Confirm power is on to the command center.
 2. Press any key to reactivate the display from Backlight Timeout, Shutdown or Sleep Timeout.
 3. Adjust the contrast setting of the display (via Command Center Setup Screen or remote setup screen) if it is too high or too low.

Action: Wireless remote is not communicating with the command center.

- Solution:
1. Verify that the remote is charged (and was charged at least 5 hours before the initial use).
 2. Confirm that the remote is within the coverage area of the antenna and the signal is not being interrupted by walls or other structures.
 3. Check the command center's software settings.
From the Command Center Setup screen, open **Software Versions** and verify that "Telnet" is listed. If not, make sure that the antenna wiring connections are secure and undamaged.
 4. Check the remote's network settings.
From the Wireless Remote Setup screen, select **Network Settings**. Verify that the Eos SSID number

is the antenna serial number (located on left side of the antenna) with three leading zeros, and the second row of the Key number is the serial number with four leading zeros.

If two remotes are used with the antenna, verify that each remote has its own unique **Remote Address**. (Ex: first remote is set to 101 and second is set to 102)

Action: The heater does not fire when activated.

- Solution:
1. Confirm that heater is not in the 45-second startup delay.
 2. Confirm that the circulation pump is running and the temperature setpoint is above the current temperature reading.
 3. If the pool is a pool/spa combination sharing one heater (Combo configuration), verify that the temperature sensor is assigned as "PS Sensor," the heater is assigned as "PS Heater," and the circulation pump is assigned as "PS Circ Pump."
 4. Check the **Range** settings (found on heater manager screen) of the heater. The upper range should be set above and the lower range below the actual water temperature.

Action: Device (heater, pump, etc.) or feature comes on when activated but immediately turns off.

- Solution:
1. Verify that the **Duration** setting on the device manager screen has not been incorrectly set to zero.

Eos Automated Control System Limited Warranty

This limited warranty is extended to the original consumer purchaser of this Polaris Eos Control System (the "System") manufactured by Polaris Pool Systems, Inc. ("Polaris"), 2620 Commerce Way, Vista, California 92081-8438, U.S.A.

Polaris warrants the System, including all parts and components thereof, to be free of defects in material and workmanship. This limited warranty applies only to Systems which have been installed and maintained in strict accordance with the installation and operating instructions provided by Polaris, for its intended use with personal or single-family pools (commercial use is excluded), using installation hardware supplied and/or recommended in writing by Polaris, and to Systems which have been connected to the correct voltage supply. The instruction manual should be read in its entirety before the installation of the Polaris Eos Control System. Failure to follow the installation instructions may void this warranty. If you have any questions regarding this Polaris Eos Control System, please call or write us. Be sure to have the serial number of the unit available.

The Polaris Eos Control System is warranted for parts and labor for a period of one year from the date of manufacture of the unit as established by the serial number, or one year from the date of purchase of the Polaris Eos Control System with proof of purchase, whichever is later. This limited warranty does not apply if the failure is caused or contributed to by improper installation, handling, set up adjustments, usage, operation, storage, or maintenance. This limited warranty does not apply if the failure is caused or contributed to by a connection to improper voltage supply, power failure or reduction, signal interference problems, unsuitable application of the System, lack of reasonable and necessary maintenance, damage in transit or during installation, or damage from repairs/alterations/removal made or attempted by anyone other than Polaris or one of its Authorized Service Centers. This limited warranty does not cover cosmetic damage or damage due to acts of God, water, wind, rain, lightning, freezing, rodents or insects, accident, misuse, abuse, negligence, or modification of or to any part of the Polaris Eos Control System. This warranty does not cover consumables such as fuses or batteries. These are normal replacement items.

Polaris will repair or replace, at its option, the System or part or component thereof proven to be defective within the warranty period and under the conditions of the warranty. To make a claim under this warranty, the consumer must contact the Customer Service Department at 1-800-822-7933 (USA and Canada) or (760) 599-9600 with the serial number and proof of purchase. REPAIR OR REPLACEMENT AS PROVIDED UNDER THIS LIMITED WARRANTY IS THE EXCLUSIVE REMEDY OF THE CONSUMER. THIS LIMITED WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE AND ALL SUCH OTHER WARRANTIES ARE DISCLAIMED EXCEPT TO THE EXTENT ANY IMPLIED WARRANTY MAY BE IMPOSED BY STATE CONSUMER LAW. ANY SUCH IMPLIED WARRANTY IMPOSED BY STATE CONSUMER LAW IS LIMITED IN DURATION TO ONE (1) YEAR FROM THE DATE OF PURCHASE. IN NO EVENT SHALL POLARIS BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY NATURE OR KIND OR FOR DAMAGES TO PERSONS OR PROPERTY, INCLUDING ANY DAMAGES RESULTING FROM THE FAILURE OF OR DEFECT IN ANY EQUIPMENT USED IN CONJUNCTION WITH THE POLARIS EOS CONTROL SYSTEM (E.G., PUMPS, FILTERS, BLOWERS, HEATERS, POOL CLEANERS, LIGHTING, WATER FEATURES, VALVES) OR IN USE WITH A SUBSTANDARD POOL CIRCULATION SYSTEM. THE ONLY REMEDY PROVIDED TO YOU UNDER AN APPLICABLE IMPLIED WARRANTY AND THE LIMITED WARRANTY SET FORTH ABOVE SHALL BE THE REMEDIES EXPRESSLY PROVIDED FOR UNDER THIS LIMITED WARRANTY.

This limited warranty gives you specific legal rights. You may also have other rights that may vary from state to state. Some states do not allow limitation on how long an implied warranty lasts, or the exclusion or limitation of incidental or consequential damages, so the above limitations may not apply to you.

This limited warranty is valid only in the United States of America and Canada, and it does not apply to Polaris Eos Control Systems sold or installed in any other country.

FCC Statement

This equipment has been tested and complies with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio and television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the pool filtration equipment and the receiver.
- Connect the equipment to an outlet on a different circuit from the one to which the receiver is connected.

This equipment has been certified to comply with the limits of a Class B computing device, pursuant to FCC rules. In order to maintain compliance with FCC regulations, shielded cables must be used with this equipment. Operation with non-approved equipment or unshielded cables is likely to result in interference with radio and television reception. The user is cautioned that changes and modifications made to this equipment without the approval of the manufacturer could void the user's authority to operate this equipment.

FCC ID: PFU-E3

This device complies with Part 15 of the FCC rules. Operation is subject to the following conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received including interference that may cause undesired operation.

This Class B digital apparatus meets all requirements of the Canadian Interference Causing Equipment Regulations.



USA: 2620 Commerce Way, Vista, CA 92081-8438 • 760-599-9600 • 1-800-822-7933

www.polarispool.com