



INTELLIBRITE® CONTROLLER

(FOR INTELLIBRITE POOL & SPA)

**INSTALLATION GUIDE / INSTALLATIEHANDLEIDING
BEDIENUNGSANLEITUNG/GUIDEDEL'INSTALLATION
GUIA DE INSTALACION / GUIDE ALL'INSTALLAZIONE**



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IMPORTANT SAFETY INSTRUCTIONS READ AND FOLLOW ALL INSTRUCTIONS SAVE THESE INSTRUCTIONS

Customer Support

HERENTALS, BELGIUM (8:30 A.M. to 4:30 P.M.) CET

Website : www.pentairpooleurope.comE-mail : poolemea@pentair.com**Declaration of conformity**

Standards used for showing compliance with the essential requirements in directive 2006/42/EC

- CENELEC EN 60335-1

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⚠ DANGER Failure to follow the instructions in this manual may result in serious adverse health effects, or even serious or fatal injury. Failure to follow the instructions in this manual will in all cases invalidate all guarantees and liability on the part of the manufacturer. **INSTALLERS, OPERATORS AND OWNERS MUST READ THESE WARNINGS AND ALL INSTRUCTIONS IN THE OWNER'S MANUAL BEFORE USING THIS DEVICE. THESE WARNINGS AND THE OWNER'S MANUAL MUST BE LEFT WITH THE HOME OWNER.**

IMPORTANT WARNING AND SAFETY PRECAUTIONS

**Important Notice:**

Attention Installer: This manual contains important information about the installation, operation and safe use of this product. This information should be given to the owner and/or operator of this equipment. When installing and using this electrical equipment, basic safety precautions should always be followed, including the following:

⚠ DANGER **IMPORTANT SAFETY INSTRUCTIONS PERTAINING TO A RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS. READ AND FOLLOW ALL INSTRUCTIONS.**

⚠ WARNING **DANGER! RISK OF ELECTRIC SHOCK, WHICH CAN RESULT IN SERIOUS INJURY OR DEATH.** Before attempting installation or service, ensure that all power to the circuit supplying power to the system is disconnected/turned off at the circuit breaker. Grounding (earth bonding) is required. The IntelliBrite Controller should be installed by a qualified professional.



⚠ CAUTION **Read Safety Precautions and Important Instructions. Before attempting any electrical wiring, be sure to read and follow Safety Instructions. Wiring should only be performed by a qualified professional.**

Before installing this product, read and follow all warning notices and instructions which are included. Failure to follow safety warnings and instructions can result in severe injury, death, or property damage. Visit www.pentairpooleurope.com for additional free copies of these instructions.

Do not use this product to control an automatic pool cover. Swimmers may become entrapped underneath the cover.

WARNINGS AND IMPORTANT SAFETY PRECAUTIONS

Be sure the pool electrical system conforms with all requirements of all local codes and ordinances. A qualified electrician must install the electrical system to meet or exceed those requirements before the IntelliBrite Controller is installed. The electrician should also consult the local building department regarding local codes. Examples of requirements are listed below:

- The IntelliBrite Controller must be installed by a qualified electrician, according to local code requirements.
- The IntelliBrite Controller must be provided with a fail-proof ground as required by any applicable local codes.
- Do not install the IntelliBrite Controller within 3 meters of any body of water.
- The IntelliBrite Controller should be mounted at least 30 centimeters above the water and ground level.
- Do not exceed the maximum ratings of individual components, wiring devices, and current carrying capacity of conductors.
- The lighting circuit must have a Ground Fault Circuit Interrupter (GFCI), and an appropriately rated circuit breaker.
- The light fixture and all metal items within 1.5 meter of the pool must be properly electrically bonded.
- The IntelliBrite Controller must be properly electrically bonded and grounded.
- Do not submerge the IntelliBrite Controller.
- Do not connect two or more IntelliBrite Controller together.
- This device is IP54 rated.

IntelliBrite Controller kit contents

The following items are included in the IntelliBrite Controller kit:

- IntelliBrite Controller, 230 VAC, CE, P/N 620139
- Gasket, P/N 619763
- Knob, P/N 690026
- Door, P/N 690027
- Screw kit, P/N 619764
- Outlet box (P/N xxxxxx) (see page 3)
- Installation and User's Guide (this manual)

Related manuals - Download the IntelliBrite LED Pool Light Installation and User's Guide (P/N 619931) at: <http://www.pentairpooleurope.com>

IntelliBrite® Controller Overview

The IntelliBrite Controller provides complete control of Pentair Aquatic Systems IntelliBrite underwater LED (light-emitting diode) lights. It's easy to select a lighting feature, just dial in any one of the pre-programmed color light shows or fixed colors. Using the Hold and Recall buttons you can also create endless unique lighting effects. The IntelliBrite Controller can control individual or multiple IntelliBrite LED lights. Multiple IntelliBrite LED lights can be connected via a junction box to an IntelliBrite Controller so that all lights can be switched on and off together.

⚠ WARNING The IntelliBrite controller is a 230 VAC device, **DO NOT** connect 12 VAC IntelliBrite pool/spa LED lights directly to the IntelliBrite controller, use an appropriate step down transformer between the controller and lights.

Controls and Buttons

The IntelliBrite Controller controls, buttons and LEDs are shown below:



IntelliBrite® Controller

Selecting a Light Show or Fixed Color

Note: When the IntelliBrite LED light(s) are powered on, a white light will momentarily illuminate, followed by the selected color, unless the HOLD or RECALL feature was previously enabled.

To select a color light show mode or fixed color mode, rotate the dial so that it points to the desired selection.

The color mode selections are described below starting clockwise from the 9 o'clock position:

Light Show Mode

- **SAm Mode:** Cycles through white, magenta, blue and green colors (emulates the Pentair Water Pool and Spa SAm® light).
- **Party Mode:** Rapid color changing building energy and excitement.
- **Romance Mode:** Slow color transitions creating a mesmerizing and calming effect.
- **Caribbean Mode:** Transitions between a variety of blues and greens.
- **American Mode:** Patriotic red, white and blue transition.
- **California Sunset Mode:** Dramatic transitions of orange, red and magenta tones.
- **Royal Mode:** Richer, deeper color tones.

Fixed Colors

- **Blue:** Fixed color.
- **Green:** Fixed color.
- **Red:** Fixed color.
- **White:** Fixed color.
- **Magenta:** Fixed color.

Hold and Recall Feature

Note: When the IntelliBrite LED light(s) are powered on, a white light will momentarily illuminate, followed by the selected color, unless the HOLD or RECALL feature was previously enabled.

Hold button/LED: Press this button (LED on) to capture and save a color effect while displaying one of the light show modes. When the button is pressed, the LED will be on, indicating that the color effect is captured.

Recall Button/LED: Use this button (LED on) to activate the last saved color effect. When the button is pressed, the LED will be on, indicating that the color effect is being displayed.

Powering on the IntelliBrite light(s)

When the IntelliBrite LED light is powered on, a momentarily white light will illuminate, followed by the dial selected color.

Troubleshooting

Use the following tips to help to resolve problems that might occur while operating the IntelliBrite Controller.

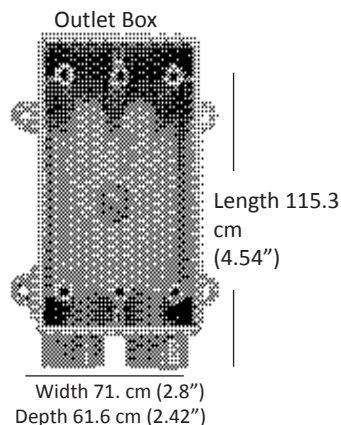
PROBLEM	SOLUTION
Both of the LEDs are flashing	The IntelliBrite Controller has detected that the load has exceeded the maximum allowable wattage or the output is shorted out. 1. Switch of the IntelliBrite Controller OFF. Remove excessive load or short. 2. Press the IntelliBrite Controller power switch to power on the unit. Ensure that the LEDs are no longer flashing.
The light will not illuminate. Light does not function properly.	Check the ground fault wiring and reset if necessary. Check the light wiring connection to the junction box at the pool side and to the main circuit breaker. Be sure that there is proper AC power applied to the light

Nonmetallic Outlet Box Specifications

The IntelliBrite Controller requires a specific nonmetallic outlet box. The outlet box must meet the following specifications:

- Outlet box type: **19 cubic inches (minimum)** - Suitable for wet locations with UL/CSA approval listings. Check the inside of outlet box for specification label.

650185 Gang Box Type Fss ¾ Dual Sckt Pvc
 650186 Thd Adptr ¾ Spgt To ½ Npt Pvc
 650187 Plug Hex Hd ½ Npt Sch80 Pvc Dark Gray
 650189 Scr 6-32/1-1/2 Inch Oval Pth
 522318 Lbl Door Intlbrt Cont 230V
 522319 Lbl Data Warn Intlrt Cont 230V



Installing an Outlet box for the IntelliBrite Controller

The IntelliBrite Controller mounts onto a specific outlet box (19.5 CU inches) supplied with the unit.

⚠ DANGER



RISK OF ELECTRICAL SHOCK OR ELECTROCUTION

TURN power OFF at circuit breaker - Always disconnect power to the pool light at the circuit breaker before servicing the light. Failure to do so could result in death or serious injury to installer, service person, pool users, or others due to electrical shock.

To install the outlet box:

1. Position the IntelliBrite Controller and outlet box to meet current local requirements, and to prevent hazard to personnel. Make sure the cable access ports face downwards.

Note: The outlet box must be located a minimum distance of 1.5 meter measured horizontally from the inside wall of the pool and not less than 0.3 meter above the maximum pool water level measured to the top of the outlet box.

2. Fit the 2 supplied PG nuts onto the outlet box. For best result use PVC adhesive to permanently fix the PG nuts. If it is required to use only one cable, close of the access part using the threaded plug supplied with the units (use PVC adhesive to secure permanently).
3. Run cable from the IntelliBrite transformer to the outlet box.
4. Run cable from the 230V power supply to the outlet box.



Plug



PG Nut

Wiring an IntelliBrite Controller to IntelliBrite LED Lights

Maximum wattage when using multiple lights with controller

When using multiple IntelliBrite LED lights, the total allowable light wattage is 300 Watts maximum. Up to 6 IntelliBrite 5g lights can be connected to one IntelliBrite Controller.

NOTE : When using multiple IntelliBrite lights, make sure to wire the 12V transformer accordingly.



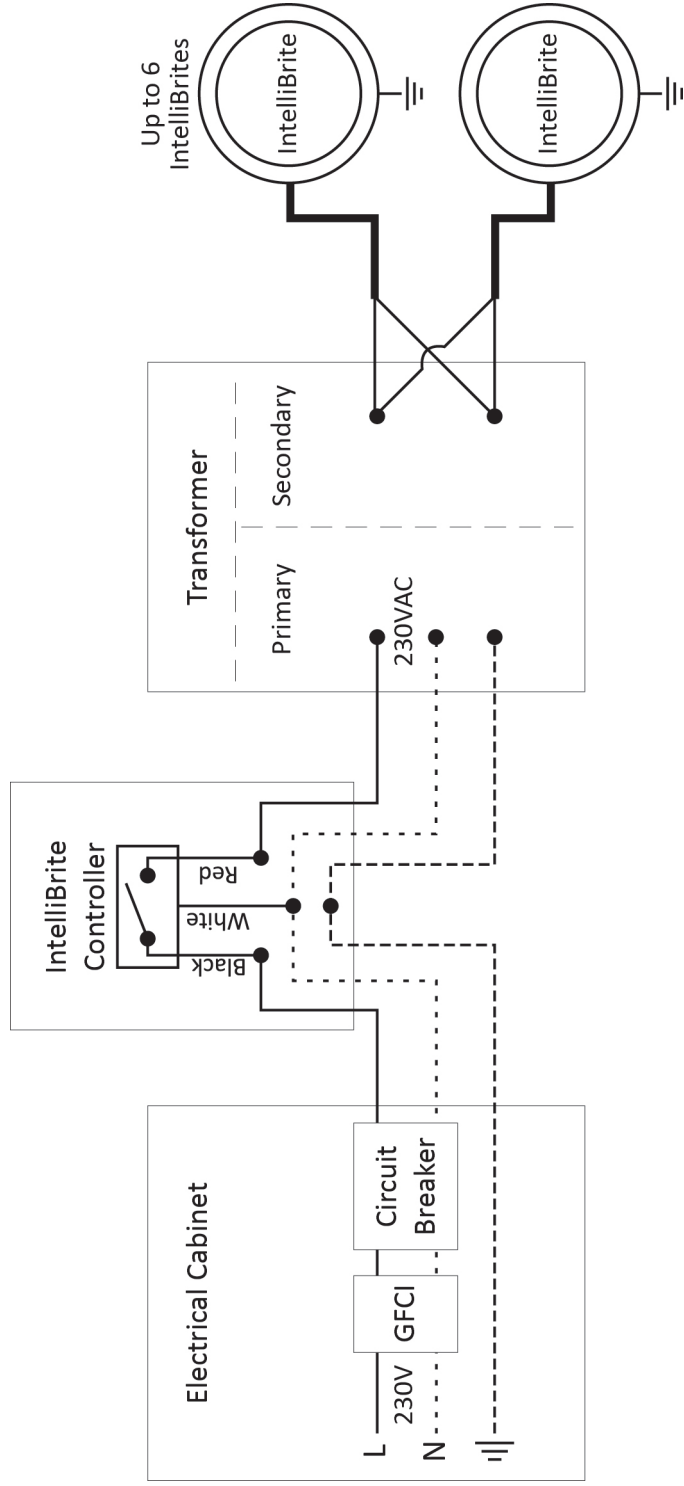
RISK OF ELECTRICAL SHOCK OR ELECTROCUTION

TURN power OFF at circuit breaker - Always disconnect power to the pool light at the circuit breaker before servicing the light. Failure to do so could result in death or serious injury to installer, service person, pool users, or others due to electrical shock.

To wire multiple 230 VAC IntelliBrite LED Lights to an IntelliBrite Controller:

1. Route the power supply cable, up through the PG nut and into the outlet box. Do the same for the cable going to the IntelliBrite transformer.
2. Strip the ends of the three light conductors, and the three power supply wires.
3. Connect the two ground wires (**green/yellow**) to each other.
4. Connect the (in most cases) **blue NEUTRAL wires** from the light and power supply cable together with the white cable on the IntelliBrite Controller.
5. Connect the remaining cable from the power supply to the **black cable** of the IntelliBrite Controller.
6. Connect the remaining cable from the transformer to the **red cable** of the IntelliBrite Controller.
7. After the wiring has been completed and checked, proceed to "Installing the Controller in the Outlet box".

IMPORTANT! When installing 12 VAC IntelliBrite LED lights, connect the lights to the **secondary 12 VAC output** of the step down transformer, then connect the IntelliBrite Controller to the **230 VAC primary input** of the step down transformer.



IntelliBrite® Controller System Wiring Diagram

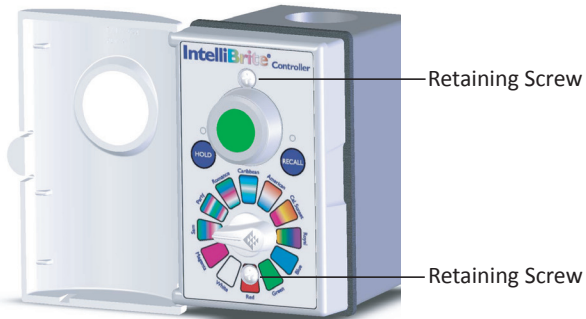
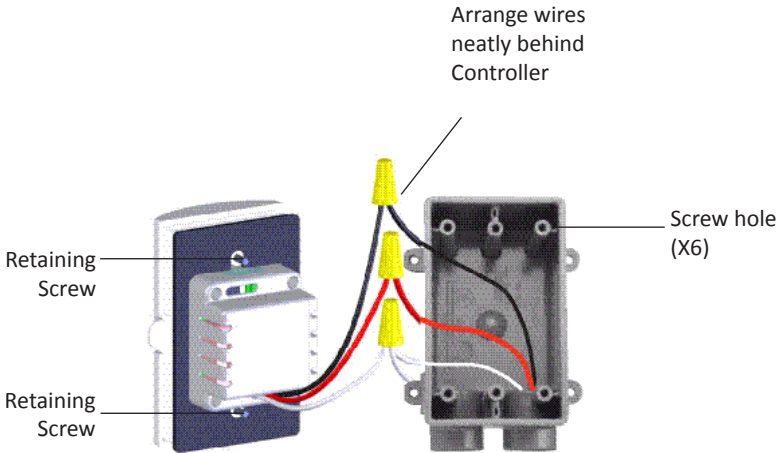
IMPORTANT! When installing 12 VAC IntelliBrite LED lights, connect the lights to the **secondary 12 VAC output** of the step down transformer, then connect the IntelliBrite controller to the **230 VAC primary input** of the step down transformer.

Installing the IntelliBrite® Controller in the Outlet box

The IntelliBrite Controller mounts onto a specific outlet box (19.5 cubic inches minimum). After wiring the IntelliBrite Controller, check all wiring connections before mounting the controller into the outlet box.

To install the IntelliBrite Controller:

1. Neatly arrange the wires in the back of the outlet box.
2. Align the Controller with the screw holes of the outlet box. Secure the Controller to the outlet box with the two (2) retaining screws.
3. Close the front door of the Controller.



SAVE THESE INSTRUCTIONS !



PENTAIR AQUATIC SYSTEMS

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