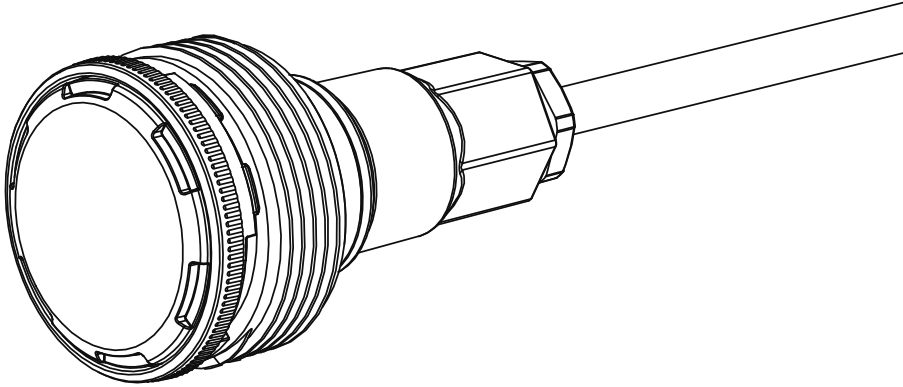




# MICROBRITE®

EN - COLOR LED LIGHT FOR POOL AND SPA



## QUICK START GUIDE

Compact LED light for 1.5" pool wall fitting

620424-EU

IMPORTANT SAFETY INSTRUCTIONS

READ AND FOLLOW ALL INSTRUCTIONS / SAVE THESE INSTRUCTIONS

Download the full instructions available in EN / FR / NL /  
DE / IT / ES on [www.pentairpooleurope.com](http://www.pentairpooleurope.com)



# COMPACT LED LIGHT FOR 1.5" POOL WALL FITTING

Pentair thanks you for placing your trust in the company and purchasing MICROBRITE®, the compact LED light for 1.5" pool wall fitting.

Please carefully read this user manual to fully benefit from all of the functions of MICROBRITE®. Store it carefully so that it can be consulted at any time.



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## Declaration of conformity

Directives – Harmonised standards

**Pentair International Sarl – Avenue de Sévelin 20 – 1004 Lausanne – Switzerland**

We declare, under our own responsibility, that the product meets the directives

**SAFETY EN 60598-1 (2015) ; EN 60958-2-18 (1994) + A1**

**EMC EN 55015 / 2013 / AMD1 : 2015 ; EN 61547 / 2009 ; EN 62493 : 2015**

**EN 61000-3-2 : 2014 ; EN 61000-3-3 : 2013**

**PHOTOBIOLOGICAL SAFETY EN 62471 12/2008 ; IEC TR 62778 Edition 2 07/2014**

**MICROBRITE :**

**620424**

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Other normative documents

**2002/95/EC (RoHS)**

**2002/96/EC (WEEE)**

Authorised person for technical documentation

Pentair International S.a.r.l  
Avenue de Sévelin 20  
1004 Lausanne – Switzerland

*Lausanne, 2021 01 28*



**Jacques Van Bouwel**  
Engineering Mgr

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**Product specifications:** 620424-EU

**Operating temperature:** 0° to 40° C

**Weight (cable included):** 1.2 kg

**Maximum installation depth underwater :** 2m

**Operating hygrometry:** 100% at 75° C

**Consumption:** 12 W

**Power supply:** 12 V ~, 50 Hz

**Light (underwater use):** IP 68

### Waste treatment of electronic devices at the end of their service life:



The crossed-out bin placed on the main parts which make up the product indicates that it must not be disposed of with household waste. It must be returned to an appropriate collection point for electronic device recycling (information available from the local household waste collection service). This product contains potentially dangerous substances which may have adverse effects on the environment and human health.

Hotline After sales service / SAV : +33(0)1 84 28 09 40

website: [www.pentairpooleurope.com](http://www.pentairpooleurope.com)

- Warranty : 2 years

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- The document is subject to change without notice

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## IMPORTANT WARNING AND SAFETY INSTRUCTIONS



**DANGER** - SERIOUS BODILY INJURY OR DEATH CAN RESULT IF THIS LIGHT IS NOT INSTALLED AND USED CORRECTLY.

**DANGER** - INSTALLERS, POOL OPERATORS AND POOL OWNERS MUST READ THESE WARNINGS AND ALL INSTRUCTIONS BEFORE USING THE POOL AND/OR SPA LIGHT.



The light should be positioned so that prolonged staring into the luminaire at a distance closer than 0.51m is not expected.

Do not stare at the operating light source.

**WARNING** - Most states and local codes regulate the construction, installation, and operation of public pools and spas, and the construction of residential pools and spas. It is important to comply with these codes, many of which directly regulate the installation and use of this product. Consult your local building and health codes for more information.

**IMPORTANT NOTICE - Attention Installer:** This Installation and User's Guide ("Guide") contains important information about the installation, operation and safe use of this underwater pool and spa light. This Guide should be given to the owner and/or operator of this equipment.

Before installing this product, read and follow all warning notices and instructions in this Guide. Failure to follow warnings and instructions can result in severe injury, death, or property damage.

Please refer to [www.pentairpooleurope.com](http://www.pentairpooleurope.com) for more information related to this products.

**DANGER - RISK OF ELECTRICAL SHOCK OR ELECTROCUTION: UNDERWATER POOL LIGHTS REQUIRE HIGH VOLTAGE WHICH CAN SHOCK, BURN, OR CAUSE DEATH.** Before working or servicing pool lights, always disconnect power to the pool and/or spa lights at the source circuit breaker. Failure to do so could result in death or serious injury to service person, pool users or others due to electric shock. When installing and using this electrical equipment, basic safety precautions should always be followed.

**ELECTRICAL WIRING RULES :** This product must be installed by a licensed or certified electrician or a qualified pool professional in accordance with the local regulation depending country :

A = ÔVE 8001-4-702

D = OIN VDE 0100-702

EW = EVHS-HD 384-7-702

GB = 6S7671:1992

I = CEi 64-8/7

LUX = 384-7.702 S2

NL = NEN 1010-7-702

PL = PN-IEC 60364-7-702:1999

SLO = SIST HD 384-7-702.S2

CZ = CSN 33 2000 7-702

E = UNE 20460-7-702 1993, RECBT ITC-BT-31 2002

F = NF C15-100

H = MSZ 2364-702/1994/MSZ 10-553 1/1990

IRL = Wiring Rules + IS HD 384-7-702

M = MSA HD 384-7-702.S2

P = RSUUEE

SK = STN 33 2000-7-702

TR = TS IEC 60364-7-702

All applicable local installation codes and ordinances must also be adhered to. Improper installation will create an electrical hazard which could result in death or serious injury to pool users, installers or others due to electrical shock, and may also cause damage to power source. Always disconnect the power to the pool light at the circuit breaker before installing or removing the light. Failure to do so could result in death or serious injury.

## IMPORTANT WARNING AND SAFETY INSTRUCTIONS

**WARNING** - For countries in compliance with International Electrotechnical Commission (IEC) regulatory standards: The light fixture must be installed by a licensed or certified electrician or a qualified pool service person, in accordance with current IEC 364-7-702 and all applicable local codes and ordinance. Improper installation will create an electrical hazard, which could result in death or serious injury to pool user, installer or other due to electrical shock and may also cause damage to the property.

**WARNING** - This product is intended for use in swimming pool applications only.

**POOL AND SPA FIXED LUMINARIES** - Follow these guidelines when installing or replacing Pentair Water Pool and Spa fixed luminaries.

FOR LIGHT OPERATION, ONLY USE A SAFETY ISOLATION TRANSFORMER COMPLIANT WITH NF EN 61558-2-6.

Note: Connect both wires to the corresponding circuit wires in the junction box (brown wire to power, and blue wire to common) FIXED POOL AND SPA LUMINARIES SPECIFICATION: 12 VAC 50/60 Hz.

- **IMPORTANT NOTICE** - THE MICROBRITE LIGHT IS A NON-SERVICEABLE LIGHT. THE COMPLETE LIGHT ASSEMBLY MUST BE REPLACED.
- **CAUTION** - DO NOT INSTALL MICROBRITE LIGHTS WITH DIMMER SWITCHES. USE OF DIMMER SWITCHES WILL RESULT IN PERMANENT DAMAGE TO THE LIGHT.
- **WARNING** - Connect the device to a differential interrupter. If this system is used to control the underwater lighting devices, a differential interrupter must be installed upstream of these devices. Conductors downstream of the differential interrupter shall not be located in ducts, junction boxes or enclosures containing other conductors, except if the conductors are also protected by a differential interrupter. Refer to valid local codes for more details.

## GLOBAL PRESENTATION

### MicroBrite® light overview

This manual describes how to install, replace and operate the 12 VAC MicroBrite light for pool and spa. The MicroBrite light provides exceptional brilliance and lighting uniformity. For new pool and spa designs, their compact size delivers the freedom to add dynamic lighting in places never before possible. Let your imagination take you to brighter places!

## GLOBAL WIRING INSTALLATION RULES

### MicroBrite® light wiring installation

To connect the MicroBrite light to a junction box:

- 1** - Route the MicroBrite light power cord light cable through the wall fitting to the location of the junction box.
- 2** - At the junction box, leave at least 15 cm of cord to facilitate the light installation. Cut off any extra cord.  
**WARNING** : Electrical wiring to the lighting must be in accordance with the latest edition of the Electrician Wiring Rules (see p1).
- 3** - Connect the two (2) conductors to the corresponding circuit wires in the junction box. Secure the junction box cover.
- 4** - Before operating the MicroBrite light, fill the pool with water until the light is completely submerged.  
Note: The MicroBrite white light should not be powered for more than 30 seconds if is not submerged in water.
- 5** - Final check for proper MicroBrite light operation:  
Switch on the main switch or circuit breaker to the 12 VAC transformer and the switch that operates the MicroBrite light itself. The light should illuminate when the 12 VAC power is applied. If not recheck the installation steps.

## LIGHT INSTALLATION

### INSTALLATION IN 1.5" WALL FITTING

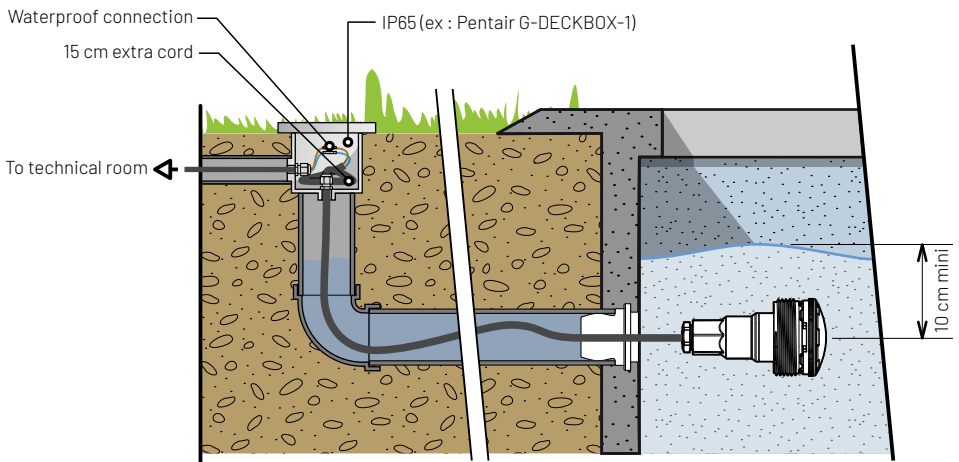
The following instruction describes how to install the MicroBrite light in a 1-1/2" wall fitting.

**BEFORE STARTING:** The following information describes the tasks that must be completed by the electrician before the light wall fitting is installed. See figure below.

**WARNING :** Electrical wiring to the lighting must be in accordance with the latest edition of the Electrician Wiring Rules (see p1).

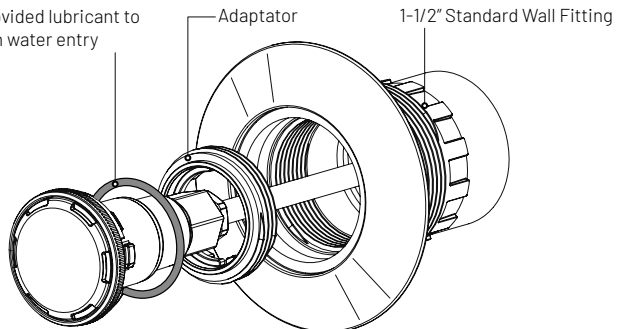
The Junction Box must be installed as shown below.

The low voltage transformer (compliant with NF EN 61558-2-6) must be located in the technical room.



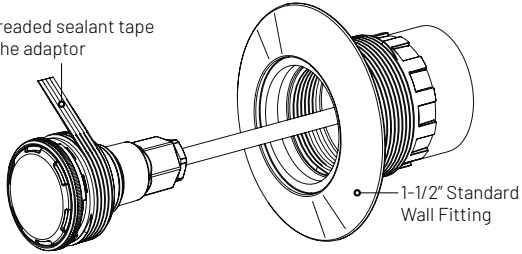
### DRY/SEALED CONDUIT INSTALLATION (USE PROVIDED KIT)

Install O-Ring then apply provided lubricant to seal fitting and conduit from water entry

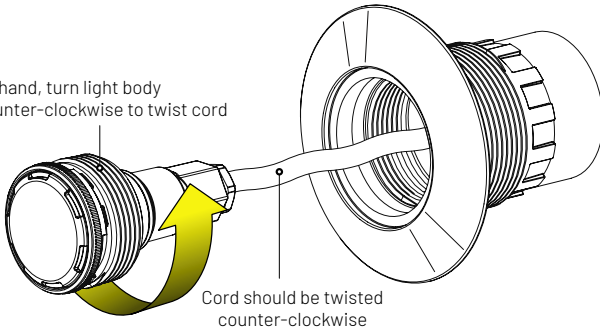


# WET CONDUIT INSTALLATION

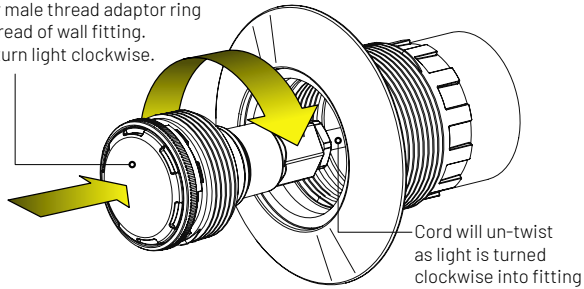
Wrap threaded sealant tape around the adaptor



By hand, turn light body counter-clockwise to twist cord

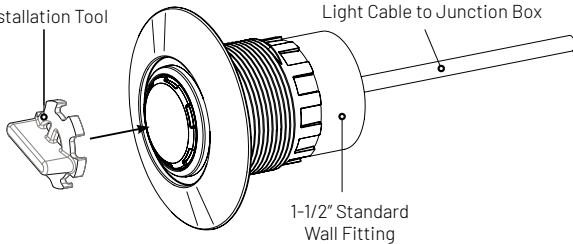


Insert adaptor male thread adaptor ring into female thread of wall fitting. By hand then turn light clockwise.



Installation Tool

Light Cable to Junction Box



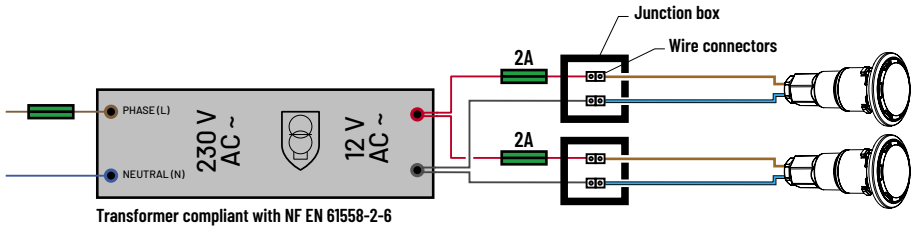
## ELECTRICAL CONNECTION

### EXTERNAL SAFETY ISOLATION TRANSFORMER :

#### Using an external safety isolation transformer for multiple 12 VAC MicroBrite lights

When using multiple MicroBrite 12 VAC ~ lights on a 100 Watt safety isolation transformer, it is recommended that no more than six (6) MicroBrite white lights be used.

For long cable lengths for each light, it is recommended not to exceed 45 m of total cable run between the 12 VAC isolation transformer and the MicroBrite.



#### Maximum wattage using multiple lights (with a 300 Watt isolation transformer).

**IMPORTANT!** When using multiple 12 VAC Pentair pool and spa lights the total allowable light wattage should not exceed 80% of rated value.

The individual light wattage is as follows:

- One MicroBrite light is 12 Watts maximum
- Up to six (6) MicroBrite 12 V AC lights can be connected on a 100W transformer.
- Up to twenty (20) MicroBrite 12 V AC lights can be connected on a 300W transformer.



Pentair International SARL

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