



**"TACTUS"**  
WATER LEVEL REGULATOR



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# 1 Safety Instructions

This product consists of the electronic controller and its accessories, was built, and tested in accordance with the safety measures applicable to electronic devices and left the factory in perfect safety condition.

To maintain this condition and ensure safe operation, the safety instructions included in this manual must be followed.

Installation of the product must be done by an authorized and licensed Bright Blue installer, or his representative duly identified.

The electrical installation must be done in accordance with the local electrical installation regulations.

The product connections to the electrical installation must be able to be totally isolated (lines, neutral and earth) to allow for safe repair and/or maintenance operations. In particular, all circuits must be protected by a differential switch with a ground fault current not exceeding 30mA.

Before turning on the electronic controller, check the physical condition of the product and its circuits. If it has been shipped from a cold location and the installation site is hot, do not turn it on immediately and allow the ambient temperature to stabilize in order to avoid condensation on the electronic components.

When you turn off the controller, remember that you must wait for the capacitors to discharge before handling it, to avoid electric shock.

## 1.1 Warnings

### **Electrocution risk**

Parts of the controller with electrical voltages that can cause electrocution are indicated with the following symbol:



It is strictly forbidden to perform any electrical operation by personnel who are not qualified for electrical work. The equipment must be disconnected before any maintenance operation.

## 2 How to Install

The Water Level Regulator TACTUS is connected to the pool electrical switchboard according to the diagram in figure 1.

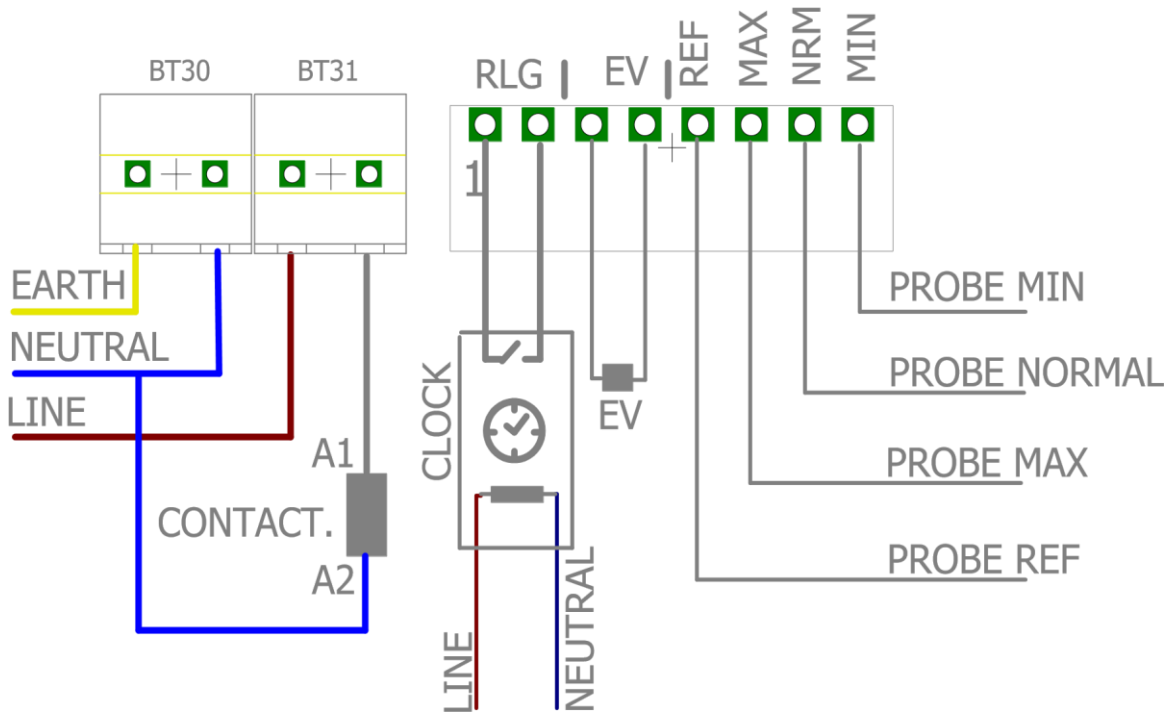


Figure 1 - Tactus Connections on the Electrical Switch Board

## 3 System Components

The Water Level Regulator TACTUS is supplied in a box containing the electronic controller and the level probes for the compensation tank. Optionally you can acquire the special probe for skimmers and/or an electro valve.

The TACTUS is supplied with four level probes, namely:

- Maximum Level (MAX)
- Normal Level (NORMAL)
- Minimum Level (MIN)
- Reference Probe (REF)

The REF must always be in the water for the equipment to function properly.

## 4 How It Works

i. **Normal Level** - the level is considered normal when the water is above the minimum level (i.e., MIN probe in the water) and below the maximum level (i.e., MAX probe out of the water). In this situation the equipment has no action and only the "ON" light is turned on (figure 2).



Figure 2 – Equipment ON with Normal Level

ii. **Low Level** - the level is considered low when the water is below the MIN probe. In this situation the circulation pump is inhibited, and the electro valve (EV) is activated to fill the pool. The low-level signal and the filling indication appear on the screen (figure 3). When the water level reaches the NORMAL probe, the electro valve stops, and the circulation pump is uninhibited.

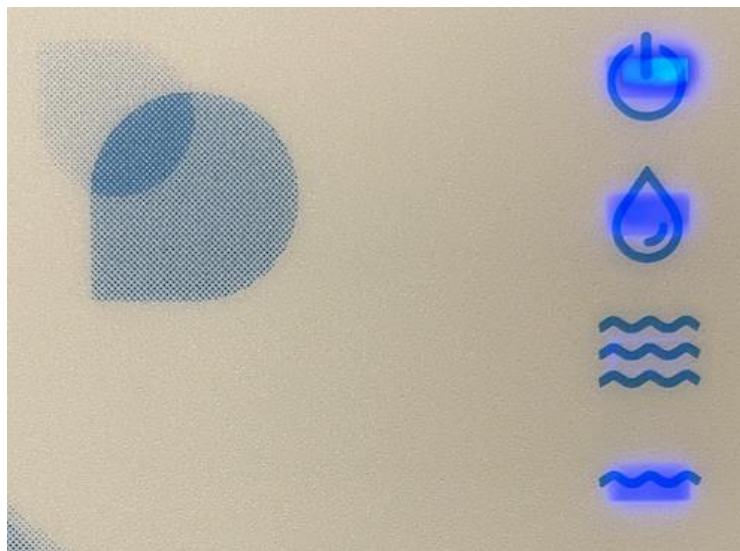
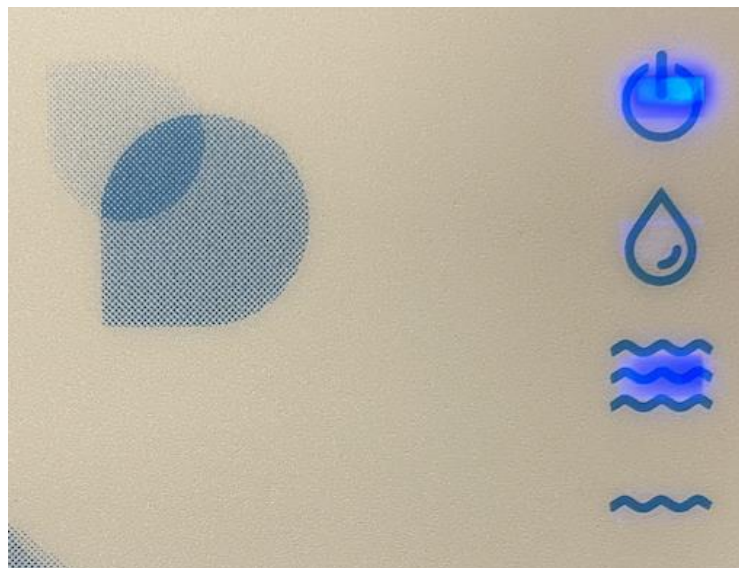


Figure 3 - Low Level and Filling Water

iii. **High Level** - the level is considered high when the water reaches the MAX probe. This situation can occur due to a failure of the check valve installed between the pool and the compensation tank, which generates a water return from the pool to the tank if circulation is stopped. To avoid water loss by overflow, the circulation pump is activated to return the water to the main pool. When the water reaches the normal level (i.e., below the NORMAL probe), the circulation pump stops.

In a situation of too much water (for example rain), although there is a forced circulation, the water level does not drop below the maximum. In this case the circulation pump works for a period of 1 hour and stops automatically, assuming that there is too much water in the pool. The control reactivates as soon as the MAX probe is dry.



**Figure 4 – High Level and Forced Circulation**

## 5 Terms and Conditions

### 5.1 Copyright

The present User Manual contains information secured by copyright. Every right is reserved to **Bright Blue, Lda**.

This User Manual has been written for personal use. The copy, reproduction or translation of the present document, as a whole or partially, requires prior written consent from **Bright Blue, Lda**.

### 5.2 Responsibilities

This User Manual has been written to be read, understood and followed by the people responsible for the installation, operation and maintenance of **TACTUS** model.

Knowledge of this manual's contents is vital to prevent damage and for correct system operation. It is intended to familiarize the user with the equipment and illustrate its mode of operation in order to obtain the maximum system profitability possible.

This User Manual contains important security information. Following the given instructions will contribute to: prevent possible hazards; reduce equipment failure; reduce repair costs; increase reliability and life span of the equipment and accessories.

This User Manual contains the necessary instructions to prevent environmental hazards and rules to sustain environmental protection. It should be kept close to the equipment and be read and known by all the people with access to the equipment, be it installation, operation, maintenance or repair technicians and/or end users.

As a complement to this User Manual, the technical knowledge of the rules and norms applicable to electronic equipment handling is required.

### 5.3 Warranty

This product, comprising the electronic controller and accessories, was built and tested in accordance with the security measures applicable to electronic devices and was subjected to the most rigorous quality controls, leaving the factory in perfect condition.

This warranty applies to the products manufactured by **Bright Blue, Lda**, according to the terms and conditions imposed by the company.

**Bright Blue, Lda** guarantees the manufactured product in accordance with the conditions and responsibilities of the present terms for a period of:

- Two years for the electronic water quality management equipment.
- One year for the level sensors

**Bright Blue, Lda** reserves the right to change the following warranty terms and conditions, without further notice, even after the date of purchase, applying the warranty terms and conditions in effect.

### **5.3.1 Warranty Exclusions**

Warranty and Responsibility does not apply to:

- accessories, consumables and peripherals that are not included in the original product package and/or that have been purchased to other companies;
- original identification marks that have been torn, changed or removed from the equipment, accessories or products;
- S/N that have been torn, changed or removed from the equipment and/or from its components;
- flaws and defects due to accidents, negligence or improper use of the equipment and its components; flaws and defects from improper electrical installation; unusual physical or electrical stress; disrespect for environmental rules, abnormal conditions of temperature, moisture, corrosive matters exposure and/or other climate conditions that spread beyond the predefined limits;
- operation beyond capacity, failure to report to Bright Blue, Lda within the warranty period, substitution of parts not previously approved by Bright Blue, Lda, failure or damage due to misapplication, lack of proper maintenance, abuse and/or improper installation;
- use and operation of the equipment, or product, in contradiction to the system's documentation written and/or indications by Bright Blue, Lda;
- system failure that according to Bright Blue, Lda is not due to raw material defect or fabrication deficiency;
- system failure caused by inadequate supervision of the components that are subject to wear-out or breakdown;
- product alteration and/or repair by unauthorized personnel and/or unapproved by Bright Blue, Lda;
- customers, technicians and/or end users that did not follow the procedures specified in this warranty;

This warranty substitutes all others, explicit or implicit, including, but not limiting itself to implicit commercial warranties and adequacy to a predetermined objective of the equipment and corresponding documentation;

Bright Blue's responsibility is limited to repair and/or substitution of product parts as long as none of the warranty exclusion conditions is met.

Under any circumstance is Bright Blue, Lda responsible for any other cost, tax, expense, loss, or damage of any kind, directly or indirectly, consequential or accidental, including, but not limited to ceasing profits.



The present limited responsibility represents the overall responsibility assumed by Bright Blue concerning its products, articles, goods, and provided services. Bright Blue, Lda will not have any further obligation or responsibility, moral or otherwise. Nevertheless, this responsibility limitation does not affect or limit the customer's legal rights in any way in regards to the sale of consumer goods and investment in this country.

Bright Blue, Lda does not assume the responsibility for any delay or fault caused by circumstances outside its own control. Possible situations include, but are not limited to, interrupted communications services, carrier delays, errors or interruptions that impede the delivery of goods, unexpected situations, climatic conditions, strikes, inability to establish contact with the customer or any responsible entity to report and/or confirm the situation.

Any technical assistance necessary will be provided within Bright Blue's facility and never on-site of installation. The freight costs from site to factory are the responsibility of the client.

If Bright Blue, Lda, or its representative, determines that the equipment repair is covered by the warranty period and conditions, the costs of analysis, repair and transportation back to the site will be the responsibility of Bright Blue, Lda or its representative.

If Bright Blue, Lda, or its representative, determines that the repair is not covered by the warranty clauses, for the reasons explained above, the repair will not be concluded until integral payment of the invoice has been issued. In this case, Bright Blue, Lda, or its representative, will send the customer an estimate of the diagnosis, repair and transportation costs. The customer can order the return of the goods, without repair, in which case Bright Blue, Lda will issue an invoice of the diagnosis fee and dispatch costs. If the customer requires the repair, Bright Blue, Lda will charge the repair and transportation costs according to the estimate. The goods will be returned after full payment verification.

### **5.3.2 Extended Warranty**

Depending on the country where the product was purchased, it may be possible to subscribe to an extension of the warranty period or its coverage. Bright Blue recommends that you contact your Customer Service Center or the store where you purchased the product to find out about these possibilities.

If an extended warranty is purchased, the general conditions applicable to the extended warranty will take precedence over this warranty.

