

RAL10BT Rechargeable Battery Unit INSTRUCTION MANUAL

This document describes the installation and operation of the **RECHARGEABLE BATTERY RAL10BT UNIT** of *RadioAstroLab*. It is a source of low voltage power supply rechargeable designed to allow the use of instruments *RadioAstroLab* (or any other apparatus operating at 12 VDC nominal) in areas not served by electricity mains. The device, equipped with a hermetic rechargeable battery able to ensure high operational autonomy, includes the electronic circuit of charge of the battery from the mains.

WARNING

Install the unit in a dry, ventilated area away from sources of heat, do not expose the instrument to rain or moisture. Avoid direct exposure to sunlight. To avoid the risk of electric shock do not place objects filled with liquids on the instrument (such as glasses, vases, bottles, ...). Do not install the appliance in a confined space such as a bookcase or cabinet.

The package includes:

- N. 1 Rechargeable battery *RAL10BT* Unit.
- N. 1 Cable for connection to the main power (85 - 265 VAC – 50/60 Hz).
- N. 1 Bipolar cable connection *RAL10BT - user* (1 meter), headed by jack.
- N. 1 Paper document “*RAL10BT Rechargeable Battery Unit - Instructions Manual*” (this document).
- Spare fuses for the power supply and socket for low voltage (battery).

RadioAstroLab warrants its products to be free from manufacturing defects for a period of one year when used according to the instructions and recommendations in this document. The manufacturer is not responsible for malfunctions or damage to the machine caused by poor installation or due to the use of external components are not suitable for the specific application. The manufacturer reserves the right to change, without notice, on the machine and documentation in order to improve performance. To get the best results from *RAL10BT* is essential that you read this manual carefully.

WARNING: *RAL10BT* contain harmful elements for the environment (lead rechargeable battery): at the end of its cycle of use is necessary to dispose of the component in the appropriate collection centers, avoiding dispersion in the environment.

Installation

The module *RAL10BT* contains the energy source (12 VDC - 7.5 VA battery rechargeable lead-acid sealed), the protection devices and the electronic circuit with high performance designed for optimal recharging of the battery, which optimizes the lifetime and efficiency. Before using *RAL10BT* for the first time it is necessary to subject the internal battery to a full charge. **During each charge cycle is important to disconnect any user apparatus from the outlet at low voltage.**

The system is designed to be connected to a power supply with single phase in the range of 85-265 VAC / 50-60 Hz. Connect the power supply cable to the power supply and turn on the *MAINS* switch (green light on): the battery must be charged for at least 24 hours.

The system does not report acoustically and/or visually battery status or the end of the charging cycle: the internal electronic circuit manages the charging process by activating the necessary protections and automatically adjusting the voltage and charge current as a function of the actual state of battery.

If you need to replace the internal battery always use a component with identical electrical and construction characteristics, or contact the *Service Center RadioAstroLab*. You must not release to the environment of the old battery.



On the back panel of *RAL10BT* there are:

- Power plug coaxial jack type for the output of the low voltage *OUTPUT 12 VDC* generated by internal battery (must be connected to the equipment users).
- Port-fuse for the line of low voltage power generated by the internal battery (12 VDC).
- Main switch of mains *POWER 0/1* (internal light green) that powers the electronic circuit inside the battery charger.
WARNING: The *POWER* switch does not exclude the voltage generated by the battery from the apparatus user. To do this, unplug the power jack bipolar cable from the wall *OUTPUT 12 VDC*.
- Power supply from mains *MAINS* (85/265 VAC - 50/60 Hz) with fuses (used to recharge the internal battery).

Specifications

- Dimensions of the instrument: [200L X 100H X 155P] mm.
- Weight: 3.44 Kg about.
- Charging the internal battery with high efficiency: Mains 85/265 Vac – 50/60 Hz.
- Internal battery: Hermetic sealed lead acid 12 VDC – 7.5 Ah.
- Operating time (average): > 30 hours (*RAL10* connected).
- Protection against reverse polarity and protection fuse for the battery.
- Protection fuses on the circuit of the battery charging from mains.
- Automatic limitation of the maximum charging current of the battery.
- Connection cable bipolar *RAL10BT - user*, length 1 meter, payable with jacks.

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