



USER MANUAL

FEATURES

Voltario combines touch switch functionality and a telemetry sensor in a single device. It uses advanced technology to reach minimum size with an enhanced set of features.

Voltario T30 is designed to turn on/off the electronics in your model. If you use a dedicated receiver battery, the Voltario can be used to directly replace a mechanical switch. Specifically in thin glider fuselages or models equipped with a small BEC circuit, the device will offer great benefits like a small size and receiver battery monitoring. The device remembers its last operating state, and if the battery is accidentally disconnected, the Voltario will automatically boot up again as soon as the battery is connected again.

- Touch switch function.
- Duplex EX, Futaba S.Bus2, Multiplex MSB and Graupner Hott telemetry support (current, voltage, capacity).
- Optional low voltage shutdown.
- Remembers the last operating state.

Voltario S30 is designed for monitoring power consumption of a single servo. It offers additional possibility to set the overcurrent protection shutdown.

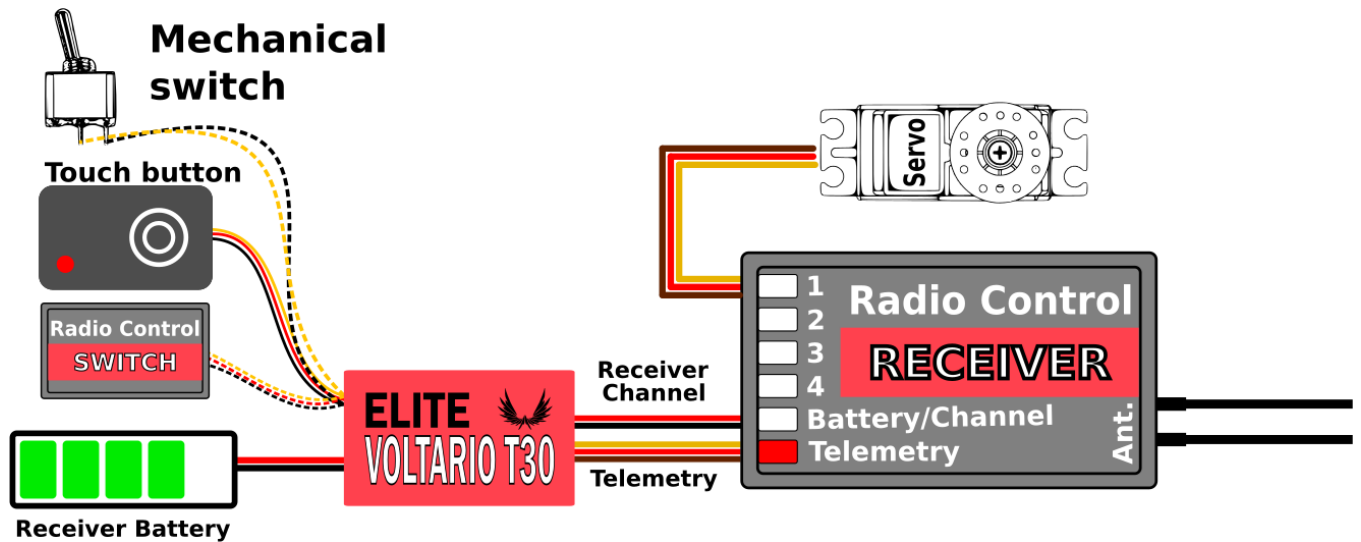
- Duplex EX, Futaba S.Bus2, Multiplex MSB and Graupner Hott telemetry support (current, voltage, capacity).
- Optional high current shutdown with regeneration.

	Voltario T30	Voltario S30
Dimensions	25x12x5mm	25x12x5mm
Weight incl. cables	9g	4g
Cables	0.5mm ² (20AWG)	0.25mm ² (23AWG)
Continuous current	10A	
Peak current (2s)	30A	
Standby current	80 µA (touch button active)	
Operating current	20mA	
Operating temperature	-20 – 85°C	
Supply Voltage	4 – 12V	
Telemetry	Duplex EX, Futaba S.Bus2, Multiplex MSB and Graupner Hott	
Touch switch support	Yes	No
Overcurrent protection	No	Yes
Selectable touch / mechanical switch/ RC switch	Yes	No
Status LED	Yes (touch button)	No

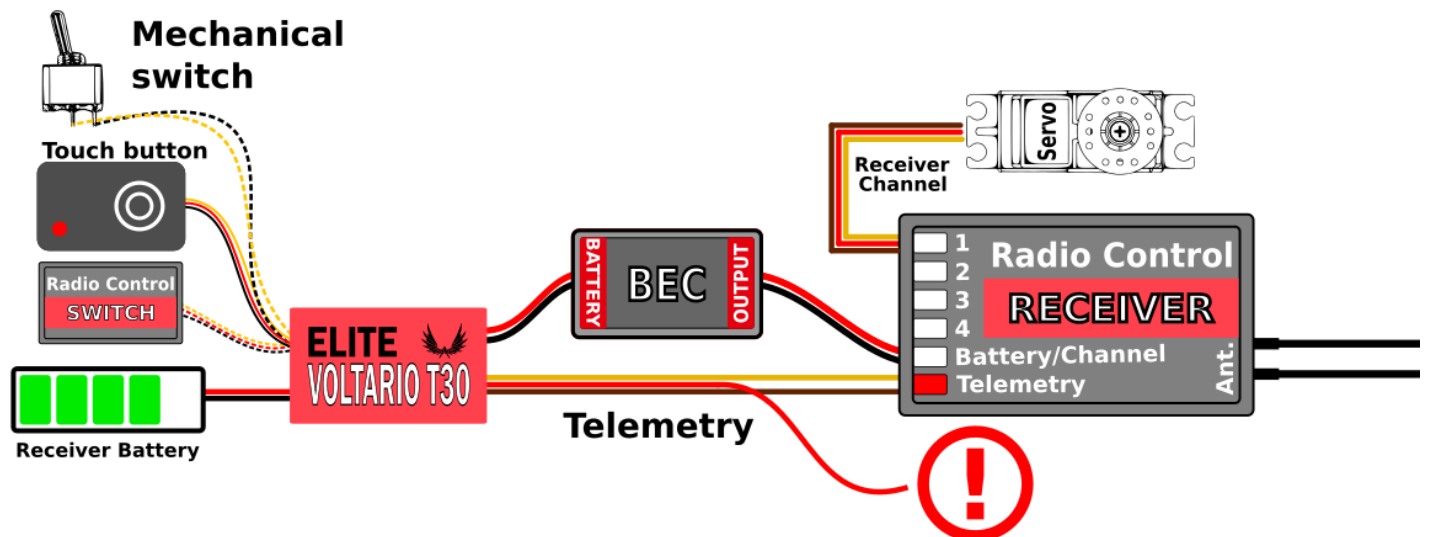
T30 INSTALLATION

Plug the device between receiver and battery. If you use a BEC, plug the Voltario between battery and the BEC. Remember, in this case you need remove the red wire from the extension between the Voltario telemetry port and the receivers telemetry port.

Direct installation (without BEC):



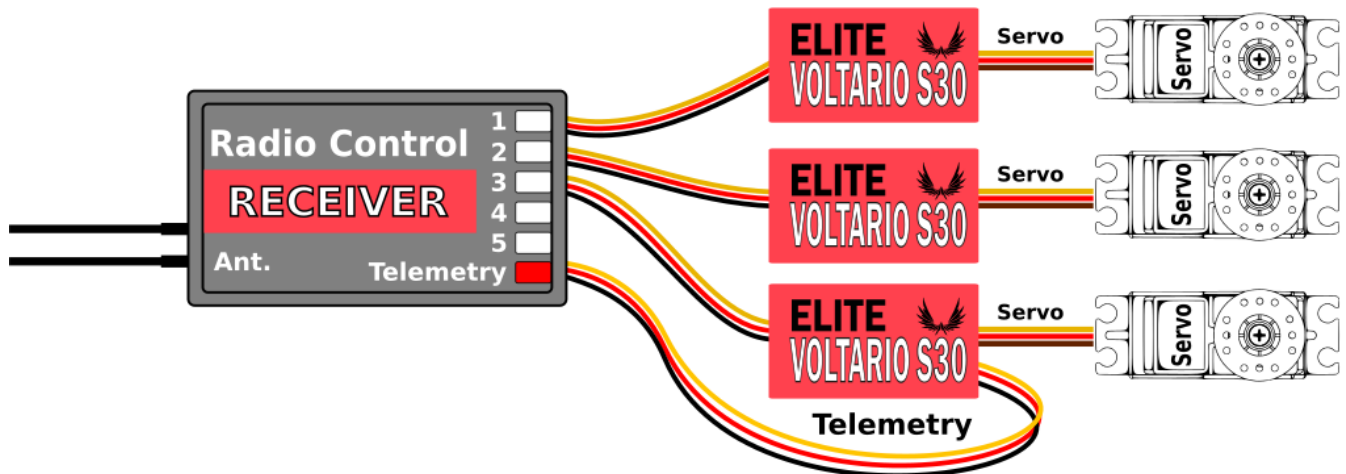
Installation with BEC:



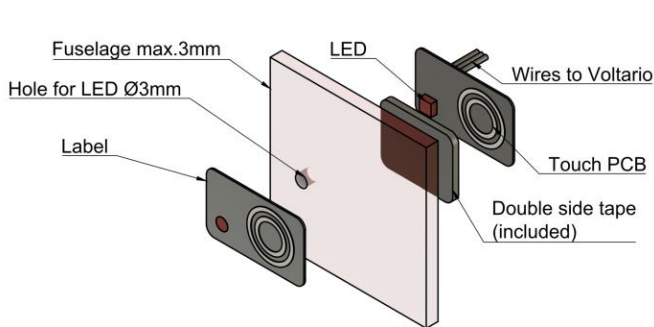
S30 INSTALLATION

Plug the device between receiver output channel and a servo. Voltario S30 works fully autonomously as a programmable fuse (this function has to be configured first). To view the telemetry data you can link the Voltario S30 with the receiver telemetry port using a JR-style cable.

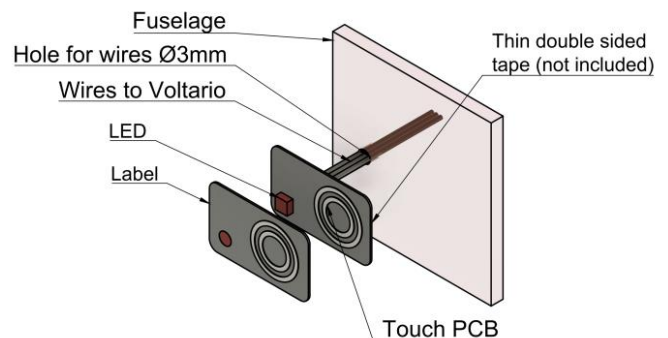
If you wish to configure the device using JETIBOX, you must supply the JETIBOX with external voltage since the red wire is not connected internally inside the Voltario S30.



TOUCH SWITCH:



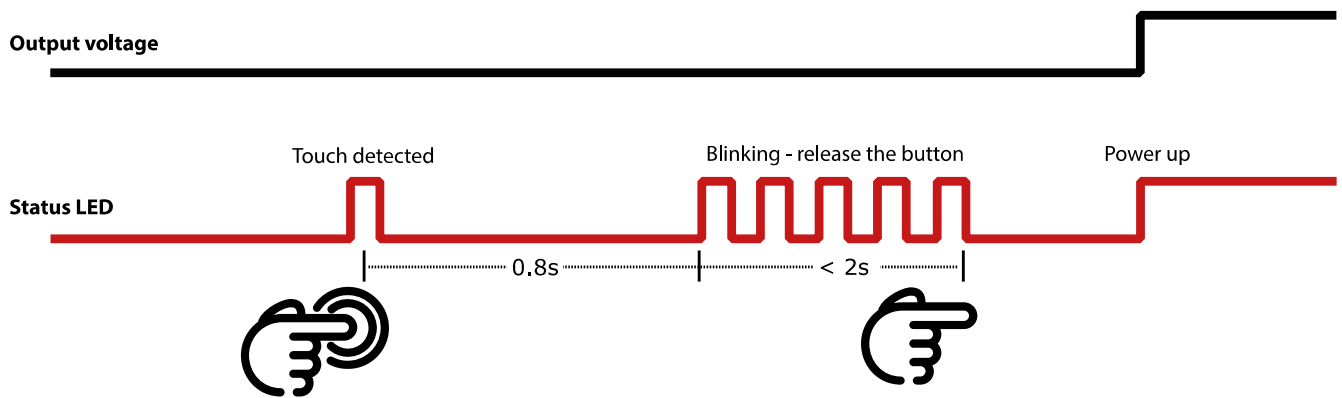
Installation inside the fuselage.



Installation on top of the fuselage.

TOUCH SWITCH BEHAVIOR

- Place the touch button anywhere on your model on the surface made of nonconductive material. You can place the touch button also inside the fuselage with maximum thickness up to 3mm.
- Make the status LED visible from outside the fuselage and put the “touch” sticker on top of the touch surface.
- Connect the receiver battery to the Voltario and briefly touch the button. Status LED should blink once. If not, please increase the touch sensitivity parameter in the configuration.
- Touch and hold the button for about 2 seconds. After the initial blink, the LED will start blinking again. At this moment, release the button. The main output will be activated:

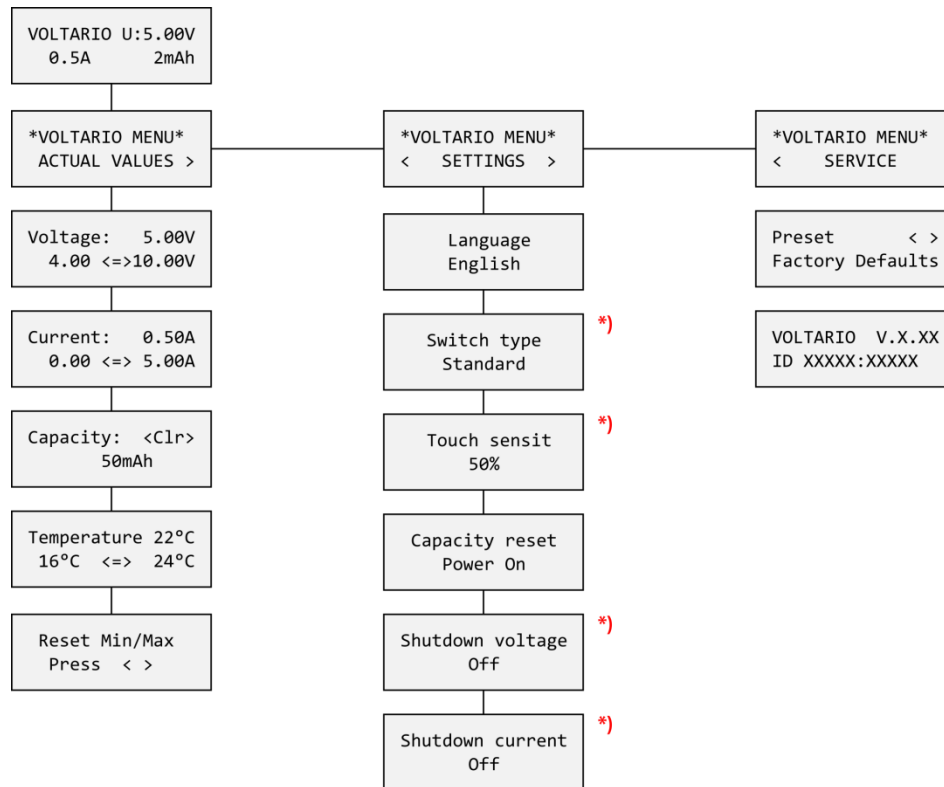


TELEMETRY AND SETTINGS

The device is compatible with JETIBOX and you can use it for programming. The JETIBOX menu is divided into three sections:

- **Actual values** – displays the latest telemetry values (current, voltage, capacity, temperature) together with minimums and maximums.
 - In the Capacity screen, you can press left+right buttons together to reset the measured capacity.
 - Reset Min/Max - press left+right buttons together to reset all minimums and maximums.
- **Setting** – basic settings of the sensor
 - **Language** – you can choose the language of the JETIBOX screen.
 - **Switch type** (Touch/Standard) – Only Voltario T30. You can specify which type of switch will be used to the device on and off. Change to “Standard” for R3 Wireless switch.
 - **Touch sensitivity** – if the touch switch is used, you can increase its sensitivity by editing this value. Please note that increasing the sensitivity will allow you to install the Voltario directly inside thicker fuselages. On the other hand, this will also make the touch sensor more vulnerable to erroneous inputs.
 - **Capacity reset** – Setting up this parameter will specify at which moment the capacity is reset to zero. Available options:
 - Power-On (default) – capacity is reset every time after connecting the battery.
 - Voltage-Change – capacity is reset after connecting the battery with different voltage (by 15% or more). This way the sensor may distinguish between charged and discharged battery.
 - Manual – capacity is never reset automatically.
 - **Shutdown voltage** (T30) – you can specify the minimum voltage for safe operation of the model. If the voltage goes below the specified level for more than 30 seconds, the Voltario will shut down.
 - **Shutdown current** (only S30) – you can specify the maximum allowed current before the Voltario shuts down the load. By default, after reaching the shutdown current, it takes approximately 0.5 seconds before the fuse reacts. But the overcurrent shutdown reacts proportionally faster if the current is higher.
- **Service** – In this menu you can view the device version and reset it to the default factory configuration.

Complete menu structure:



*) The option is not available in all product variants.

Graupner Hott Menu Structure:

Voltario offers telemetry like an “Air-ESC” speed controller.

VOLTARIO VX.XX VOLTAGE: 5.0V CURRENT: 0.1A CAPACITY: 120MAH TEMPERATURE: 24°C >RESET MIN/MAX 1/3	VOLTARIO VX.XX >LANGUAGE: English SWITCH TYPE: Touch TOUCH SENSIT 50% 2/3	VOLTARIO VX.XX >CAPACITY RESET: Power On SHUTDOWN VOLTAGE: Disabled FACTORY DEFAULTS 3/3
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Futaba and Multiplex connection (Version 1.06 and later)

Futaba and Multiplex systems do not offer wireless device configuration. The telemetry transmission is possible with the following fixed sensor slots:

	Futaba S.Bus2	Multiplex MSB
Current	3	3
Voltage	4	2
Capacity	5	4
Note	Manual detection in the menu Linkage – Sensor. Choose S1678 current sensor on slot 3.	Automatically detected by the transmitter.

SAFETY INFORMATION

- Operate the Voltario always in dry environment and within the device limits stated in this guide. Never expose the device to excessive heat or cold.
- Do not remove the heat shrink tube from the device and do not try to implement any changes or modifications. This can lead to a total destruction and to the denial of any warranty claims.
- Always check the polarity of the cables. Never inverse the polarity – this could lead to total destruction.

WARRANTY

We grant a warranty of 24 months from the day of purchase under the assumption that they have been operated in conformity with these instructions at recommended voltages and that they were not damaged mechanically. Warranty and post warranty service is provided by the manufacturer.

