

11/2016



# Instruction Manual

# TELECONVERTER

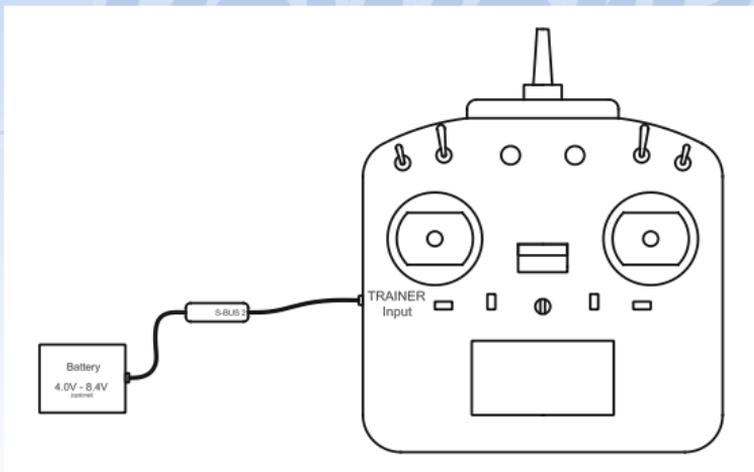


## 1. Product description

The **PowerBox Teleconverter** provides a means of connecting any **PowerBox** battery packer with a telemetry output to a Futaba S-BUS2 telemetry system. All you have to do is register the **Teleconverter** at the transmitter, like a standard sensor.

## 2. Registering the Teleconverter at the transmitter

Connect the S-BUS 2 socket on the **Teleconverter** to the Trainer socket on the back of the transmitter. Some Futaba transmitters supply power to the sensors, but many require an external power supply. Use one of the three-pin male connectors to connect a battery (4.0 V - 8.4 V) to the **Teleconverter**. The battery is plugged into the side which bears the **PowerBox** legend.



The menu structure used by all Futaba transmitters is almost identical. This is the method of accessing Sensor Registration:

**Base Menu → Sensor → Reload**

At the transmitter you will find the **Reload** point right at the bottom of the **Sensor** menu. If the transmitter fails to locate the sensor, simply disconnect it briefly, plug it in again, and repeat the procedure.

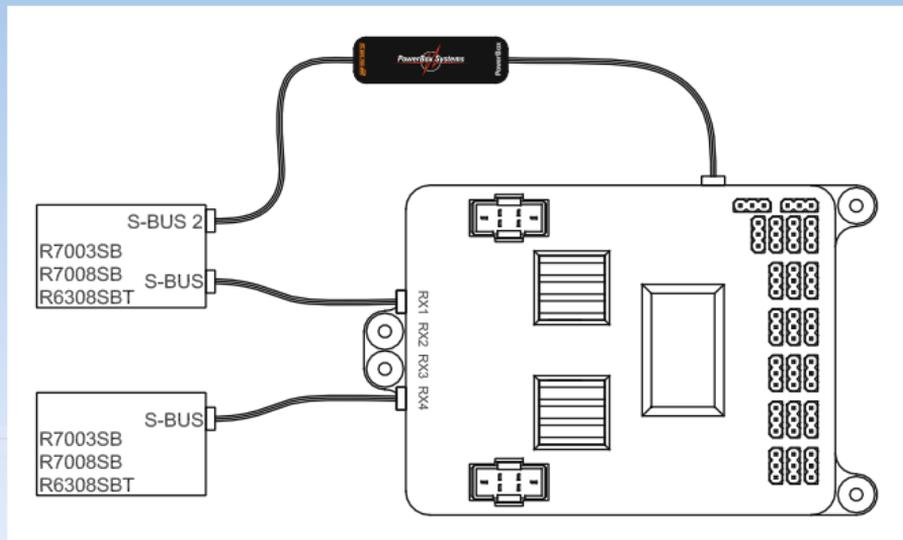
Depending on the mode in which the **Teleconverter** is operated, you will find **Current sensor** (CURR-1678) or **PowerBox Sensor** in the Sensor List.

At the time of preparing these instructions (11/2016) the **PowerBox Teleconverter** is not yet implemented in all Futaba transmitters. The T14SG, T18SZ and T18MZ are able to display the full range of telemetry. Other transmitters, such as the FX-32, are limited to the CURR-1678 current sensor, and therefore only display voltage and current.

The procedure is described in Point 4.

### 3. Connecting the Teleconverter

The **Teleconverter** is connected to the battery backer as shown below:



**Note:** when the receiver is connected, please ensure that the Telemetry function is activated at the transmitter!

#### 4. Setting the Mode, software updates

By default the **Teleconverter** is set to CURR-1678. If you wish to change this, you can switch the mode using the **PowerBox USB interface** or the **BlueCom-Adapter**.

This requires the use of **PowerBox Terminal**, which can be downloaded from our website, or the appropriate **Mobile Terminal App** from your App Store.

In either case the procedure is the same. The diagram below shows the **USB Interface**, but the **BlueCom Adapter** is connected in exactly the same way.

Install the program on your PC and connect the **USB Interface Adapter** (Order No. 9020) as shown below:



Start the program, select the **Teleconverter** tab at the top of the window, then click on **Continue**. Wait for **Terminal** to connect to the **Teleconverter**; this takes ten seconds. You can now select either **Futaba current sensor 1678** or **PowerBox Sensor**.

The **Futaba current sensor** transmits one value for residual capacity and one for voltage; the sensor always selects the lower of the values present at the backer.

Example: the two battery voltages present at the battery backer are 7.36 V and 7.48 V; the sensor transmits 7.36 V.

It is possible to set up alarm thresholds at the transmitter which warn the user in good time that the battery is almost flat.

If configured as **PowerBox Sensor**, the following data can be transmitted:

- Battery voltage, battery 1 and battery 2
- Residual capacity, battery 1 and battery 2
- Number of Fades, RX1 and RX2
- Number of Lost Frames
- Number of Fail-Safe events

If the **Teleconverter** is plugged into a **Royal SRS** with **GPS II**, the following GPS data can also be received:

- 3D speed
- Altitude
- 3D distance
- Distance covered
- GPS positional data

For software updates you also need to start by selecting the **Teleconverter** tab; after this click on **Continue**, and then on **Software update**.

## 5. Set contents

- **Teleconverter**
- Two 3-pin male connectors
- Operating instructions

## 6. Servicenote

We make every effort to provide a good service to our customers, and have now established a **Support Forum** which covers all queries relating to our products. This helps us considerably, as we no longer have to answer frequently asked questions again and again. At the same time it gives you the opportunity to obtain assistance all round the clock, and even at weekends. The answers come from the **PowerBox Team**, which guarantees that the answers are correct.

Please use the Support Forum before you contact us by telephone:

**[www.forum.powerbox-systems.com](http://www.forum.powerbox-systems.com)**

**Systems**

## 7. Guarantee conditions

At **PowerBox Systems** we insist on the highest possible quality standards in the development and manufacture of our products. They are guaranteed “**Made in Germany**”!

That is why we are able to grant a **36 month guarantee** on our **PowerBox Teleconverter** from the initial date of purchase. The guarantee covers proven material faults, which will be corrected by us at no charge to you. As a precautionary measure, we are obliged to point out that we reserve the right to replace the unit if we deem the repair to be economically unviable.

Repairs which our Service department carries out for you do not extend the original guarantee period.

The guarantee does not cover damage caused by incorrect usage, e.g. reverse polarity, excessive vibration, excessive voltage, damp, fuel, and short-circuits. The same applies to defects due to severe wear.

We accept no liability for transit damage or loss of your shipment. If you wish to make a claim under guarantee, please send the device to the following address, together with proof of purchase and a description of the defect:

### **Service Address:**

**PowerBox-Systems GmbH  
Ludwig-Auer-Straße 5  
D-86609 Donauwörth  
Germany**

## 8. Liability exclusion

We are not in a position to ensure that you observe our instructions regarding installation of the **PowerBox Teleconverter**, fulfil the recommended conditions when using the unit, or maintain the entire radio control system competently.

**For this reason we deny liability for loss, damage or costs which arise due to the use or operation of the PowerBox Teleconverter, or which are connected with such use in any way. Regardless of the legal arguments employed, our obligation to pay compensation is limited to the invoice total of our products which were involved in the event, insofar as this is deemed legally permissible.**

We wish you every success with your new **PowerBox Teleconverter**.

Donauwörth, November 2016

A handwritten signature in dark ink, appearing to read "E. Neubauer", is written over a light blue horizontal line. The signature is cursive and somewhat stylized.



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