

# USB Config Adapter



GND = Pin 1, RST = Pin 6

Ordercode: #8000005

The Lobar USB configuration adapter connects the configuration serial uart of our hardware to a PC. It is useful for:

- Sensor initial configuration, e.g. network parameters
- Viewing firmware log/debug diagnostic output
- Firmware updates
- Powering some of our devices (Boot and Reset must be disconnected to use as USB power supply)

using our free [Lobaro Maintenance Tool](#) PC software.



## Wire orientation

The **blue wire is not consistent** the RST/RTS pin(1) and may be inverted on some adapters, e.g. being the GND wire pin(6). Check the orientation of the adapter with the picture above to determinate the actual pin ordering and **do not simply rely** on the wire color coding alone!



## USB Driver

The **CP2102 USB driver** needs to be installed before using it.

[Download CP2102 Driver](#) [Download](#)

(Choose [CP210x Windows Drivers](#) v6.7.6)

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## Hardware Connection (LoRaWAN Sensors)



The USB adapter uses a six-wire [JST-ZH series](#) connector for attaching to Lobaro hardware at the config connector.

- Boot0 of Lobaro sensors is connected to DTR line of the PC uart
- Reset (active low) of Lobaro sensors is connected to RTS line of the PC uart



## Note

Normally the handling of these uart control is done automatically by the [Lobaro PC tool](#).

When using an alternative uart terminal tool (e.g. [HTERM](#)) make sure you setup the RTS and DTR lines correctly or simply cut the DTR/RTS wires from the USB adapter if the reset and/or bootloader functions are not needed.

## Default UART Configuration

The default 8E1 UART configuration that is used by all Lobaro devices on the "Config" port:

Baud Rate	115200
Parity	Even
Stop Bits	1
Data Bits	8

**DTR control line**

- Low / true => Run Firmware after Reset (Default since BOOT0 has internal pull-down)
- High / false => Run Bootloader after Reset

## RTS control line

- High / false => Run Firmware / Bootloader (Default since RESET has internal pull-up)
- Low / true => Chip in RESET mode (not running)

## Adapter Schematic

