

ProHub and HDT25 Telemetry Setup and Update Guide

This guide covers the setup and firmware update process for the ProHub (version 1.9), which supports telemetry for Jeti, FrSky, HoTT, PowerBox, and Futaba systems.

Note for Jeti users: An update is not required unless the module is being used in helicopters, turboprops, or multi-engine planes.

Firmware Update Procedure (Prohub and HDT25)

Follow these steps to update the firmware on the ProHub:

1. Unzip all files to a temporary directory.
2. Connect the ProHub/HDT25 to your computer using a standard USB-C cable (like those used in modern smartphones). Ensure the cable supports data transfer—not all USB-C cables do.
3. Launch the XicoyUSBUpdater1.2.exe program. It will scan for USB devices and detect the ProHub/HDT25. The current firmware version will be displayed.
4. Click the Update button and select the HubProx_x.bin/HDT25x_x.bin file from the directory you unzipped earlier.
5. Wait for the update to complete. Do not disconnect the USB lead until you hear the USB reconnection sound from your computer.
6. Close the program.
7. Optional: Launch the program again to verify the installed version.

Tip: Always use a high-quality USB-C cable that supports high speed data transfer.

Initial Telemetry Setup (ProHub only)

- Connect **only** the data terminal and the receiver throttle lead (not powered) to the ProHub.
- Using a small rod or unfolded paperclip, press the pushbutton on the ProHub (located at the center of the 4 rotating LED lights). In some units, this button may need to be pierced through the label.
- Power on the receiver. The data terminal will display the currently selected telemetry mode (default is Jeti).
- Use the “+” button to switch between FrSky, Futaba, HoTT, PowerBox, or Jeti.
- Once the telemetry mode is selected, use the “>” button to navigate options and save settings. Confirm to store the new settings; otherwise, changes will be lost.

Telemetry System Setup

Jeti Telemetry

- Connect the **EXT telemetry input** on the receiver to one telemetry connector on the ProHub. The second connector must remain unused. Jeti sensors require an expander and cannot be connected in parallel.
 - Power on the ECU and the transmitter. The **Telemetry LED** on the ProHub should light **green**, indicating successful data transmission.
 - On the transmitter, scan for telemetry sensors. The radio will auto-register all available sensors.
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Futaba Telemetry

□ **Note:** Futaba telemetry is less flexible. The only supported sensor is **Jetcat V10**, originally for Jetcat engines.

- **Limitations:** Not all Xicoy engine data is available, and labels/units may not match exactly.

Parameter Overview:

| Parameter | Displayed As |
|---------------------|--|
| RPM | Correct |
| Exhaust Temp | Correct |
| Pump Voltage | Interpreted as RPM (e.g., 10.12V = 1012 RPM) |
| Thrust | Throttle percentage |
| Fuel Remaining (ml) | Interpreted as percentage (100ml = 100%) |
| Fuel Flow (ml) | Correct |
| Altitude (m) | Correct |
| Fuel Quality | Replaced by receiver signal quality |
| Battery Voltage | Correct |
| Battery Amperage | Correct |
| Airspeed / Status | Not used |
| Second Shaft RPM | Correct (for turboprops/helicopters) |

Installation:

- Connect a servo patch cable from a ProHub telemetry port to the **SBUS2** port on the receiver.
- In the **Futaba transmitter**:
 - Ensure the receiver is linked; check that the receiver voltage appears on the main screen.
 - Under **Linkage → Sensors**, ensure 14 consecutive free slots.
 - Assign the **Jetcat V10 sensor** to the first free slot (usually Slot 8).

ProHub Setup:

- Enter telemetry setup and select **Futaba**.
- Choose the slot number used (default is 8).
- Save settings and power cycle the receiver.

When properly configured, the **Telemetry LED** will light **green**. If no SBUS2 data is received, the LED will be **red**.

FrSky Telemetry

- Connect a servo patch cable from a ProHub telemetry port to the **S.Port** on the receiver.
- If you use redundancy mode (more than one receiver) set the mode to SBUS24

Telemetry Modes:

- **Basic**: Uses standard FrSky sensor addresses.
- **Extended/Maximum**: Custom telemetry addresses with more data. Higher data volume may reduce refresh rate.

| Measure | Basic | Extended | Maximum |
|------------------------|-------|----------|---------|
| Exhaust Temp (°C) | 0x400 | 0x4400 | 0x4400 |
| Turbine RPM | 0x500 | 0x4401 | 0x4401 |
| Throttle % | 0xA20 | 0x4402 | 0x4402 |
| Battery Voltage (0.1V) | 0x900 | 0x4403 | 0x4403 |
| Pump RPM | 0x910 | 0x4404 | 0x4404 |
| Fuel Remaining (%) | 0xA10 | 0x4405 | 0x4405 |
| Status | 0x410 | 0x4406 | 0x4406 |
| Heli/TP RPM | 0xA30 | 0x4414 | 0x4414 |
| Ambient Temp (°C) | — | 0x4407 | 0x4407 |

| Measure | Basic | Extended | Maximum |
|----------------------|-------|----------|---------|
| Pressure (mBar) | — | 0x4408 | 0x4408 |
| Altitude (m) | — | 0x4409 | 0x4409 |
| Fuel Flow (ml/min) | — | 0x440A | 0x440A |
| Serial Number | — | — | 0x440B |
| Battery Used (mAh) | — | — | 0x440C |
| Engine Time (s) | — | — | 0x440D |
| Pump Amperage (0.1A) | — | — | 0x440E |

ProHub Setup:

- Enter telemetry setup and select **FrSky**.
- Choose the desired mode (Basic, Extended, Maximum).
- Save settings and power cycle the receiver.

Final Check:

- If connected correctly, the **Telemetry LED** will light **green**.
- On your transmitter, go to the telemetry page and **discover sensors**. Refer to FrSky instructions on how to add DIY sensors.

HoTT Telemetry

- Connect a servo patch cable to the **telemetry port** on your HoTT receiver telemetry port.

Modes:

- **Legacy Mode:** Emulates General Air Module.
- **Modern Mode:** Use Turbine 1–4 sensors on newer radios.

ProHub Setup:

- Select **HoTT**, then choose either **General Air Module** or **Turbine 1–4** depending on your radio.
- Save settings and power cycle the receiver.

When successful, the **Telemetry LED** will light **green**. The transmitter will auto-detect and display the telemetry data.

PowerBox Telemetry

- Connect a patch cable to the **P²Bus** port on your receiver.

ProHub Setup:

- Select **PowerBox**, then choose **Turbine 1–4** depending on the installation.
- Save settings and power cycle the receiver.

The **Telemetry LED** will light **green** if communication is established.

The transmitter will automatically recognize the data, you must set the widgets in the screens as you like.