Scorpion Power System
www.scorpionsystem.com

Using Scorpion Tribunus ESC with Futaba Telemetry

- Please check if your Futaba Tx and its latest firmware support telemetry function with Scorpion Tribunus ESC.
https://futabausa.com/product-support/software-downloads/

- Please make sure your Futaba Rx supports telemetry with your Tx.

Futaba Radios which support Scorpion Telemetry Function (as of August, 2022)

- T16SZ
- T16IZ
- T18SZ
- T32MZ

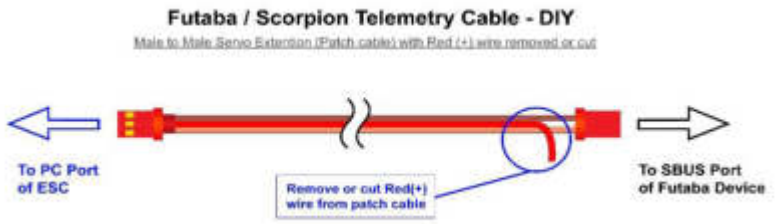
We have provided Futaba with our Telemetry protocol and our ESCs are functionally able to work within the Futaba Telemetry system. However, it is their decisions on which radios they choose to implement our Telemetry on. Please check with Futaba and email them if you wish to see more radios updated to work with Scorpion Telemetry.

Scorpion Tribunus ESC models which support Futaba Telemetry (as of August, 2022):

- Scorpion Tribunus II 14-300A ESC SBEC
- Scorpion Tribunus II**+** 14-200A ESC SBEC
- Scorpion Tribunus II 12-130A ESC SBEC (2022 Edition)
- Scorpion Tribunus II 12-130A ESC SBEC
- Scorpion Tribunus II 12-80A ESC SBEC
- Scorpion Tribunus II 06-120A ESC SBEC

Scorpion Tribunus ESC models NOT supported:

- Scorpion Tribunus II 14-200A ESC SBEC
- Scorpion Tribunus 14-300A ESC SBEC
- Scorpion Tribunus 14-200A ESC SBEC
- Scorpion Tribunus 06-120A ESC SBEC
- Scorpion Tribunus 06-80A ESC SBEC
- And other older models



Preparation:

Important - You can only run telemetry on T-FHSS or FASSTest protocol.
Go to “Linkage menu/ System type” and be sure to select one of the protocols and be sure to activate the telemetry there.
- Make sure you have installed the latest firmware for your Futaba Tx and Scorpion Tribunus ESC.
- Select “Futaba SBus2” as the communication protocol in the Sproto program.
- Remove the red wire out of one male to male servo extension. This cable will then be used for all connections from the ESC´s PC Port.

Configuring your Radio

- If it is your first time configuring the Scorpion Telemetry options to your Futaba Tx, then connect the before prepared cable form the PC-Port of the ESC to the SBus Port on the backside of your radio.
- In the Futaba Tx, go to the “Linkage Menu” then select “Sensor”
- Power up the ESC by plugging in the battery to the ESC.
- If there are any kind of sensors registered on channel 8 or higher, and you’re not using them, just remove them. If you do not remove them, then your ESC would be registered to higher channels.
- While your ESC is plugged in, press the “Register” Button on the last page of the Sensor menu.

If you have done everything correctly and all your firmwares are is up to date, now there should be Scorpion Selected from channel 8th to 15th, (or higher if you are running other sensors previously)
If not, please check your firmware and do the latest steps again.
If everything is correct, un plug the battery and then remove the wire connected to the SBUS port of your radio.
Then connect this wire to the SBUS port of your Futaba receiver.

Physical Connections:
Please note, that on the Tribunus line of ESC’s, the RPM signal of the ESC, is passed through the “signal” wire of the slave BEC cable. This is useful on many other radio systems, but with Futaba, special consideration may need to be taken. Please read below.

Scenario 1: Connection from Scorpion Tribunus ESC to a Futaba Rx (while using Scorpion Tribunus ESC internal Governor / or no governor at all for airplane use)

- Connect Master Cable to Channel 3 or Throttle port on the Futaba Rx
- Connect Slave Cable to a free port on the Futaba Rx for secondary BEC output
  *If an “RPM” port exists on your Futaba RX, do **not** plug the slave cable into that port.*
- Connect PC Port to SBUS2 port on the Futaba Rx with the before prepared patch cable.

Scenario 2: Connection from Scorpion Tribunus ESC to a Futaba CGY760 series (using Gyro’s Governor function)

- Connect Master Cable to Throttle port on Futaba CGY760 series
- On the Slave BEC Cable - Please separate the signal wire from the Slave BEC cable connector. You should install a new separate connector housing to the signal pin.
- Plug the connector with vcc/ground (+/-) into Ele2 port for secondary BEC power and then connect only the signal wire connector into the RPM port.
  Do not plug vcc/ground (+/-) wires into the “RPM” port as it will damage your CGY760
- Connect PC Port to SBUS2 port on Futaba CGY760 series with the before prepared patch cable.

www.modellmarkt24.ch

Setting up Telemetry Value Warnings with Futaba Telemetry

-If you want to enable warnings for certain Telemetry Values, go to the “Linkage Menu” and select the “Telemetry” button on the second page.
- In this page go again to the second page and select the Scorpion channel (8th normally).
- Inside there you could now choose your personal values for when you want to get a notification from the telemetry.

Setting up the Display of Scorpion Tribunus ESC Telemetry on your Futaba TX.

- While on the main page, press the “Home/Exit” Button on your radio.
- Press the upper left gray box, and select Scorpion channel (8th Normally).
- Go back one page, and then choose your telemetry value which you want to display in this box.

Telemetry Options - RPM, BEC Voltage, Battery Voltage, Motor Current, Capacity measuring, Mosfet Temperature, PWM*.

For details, please also refer to your Futaba Tx manual under the section “Telemetry”.

** Please note the PWM % may not be the same as throttle %.*

Please refer to our Tribunus ESC Manual for more information about Tribunus ESC capabilities and functions.

V1.2

www.modellmarkt24.ch