



PROGauge

INTRODUCTION/FEATURES

The **Viper ProGauge** is a revolutionary innovation that gives you every function you need in one pocket-sized box. You can use the **ProGauge** as:

- **A Li-Po Battery Monitor**
- **A Servo Tester**
- **An Input PPM Signal Monitor**
- **A Propeller RPM Tachometer**
- **A Viper Device Programming Card**

With an easy-to-read user interface and straightforward logic, the **Viper ProGauge** offers the most all-in-one functions, the easiest setup and the smallest size of any device on the market.

USER INTERFACE

A large 2x16 character LCD screen shows you all the information you need for each of the **ProGauge**'s many functions.

Four buttons located beneath the display make it easy to enter information, make adjustments and find the right selection. There are two connectors on your **ProGauge**.

1. BATTERY CONNECTOR

7-pin connector that connects to a LiPo battery pack (up to 6S) via a LiPo balance connector

2. I/O CONNECTOR

3-pin connector for PPM I/O that connects to the following devices.

- **Servo** when you use the **ProGauge** as a Servo Tester.
- **Receiver** RX connector when you use the **ProGauge** as an Input PPM Signal Monitor.
- **V-Port on any Viper product** when you use the **ProGauge** as a programming card for any Viper Device.

You can supply power to the **Viper ProGauge** through these ports when you use the Servo Tester, Propeller RPM Tachometer, or Viper Device Programming Card functions.

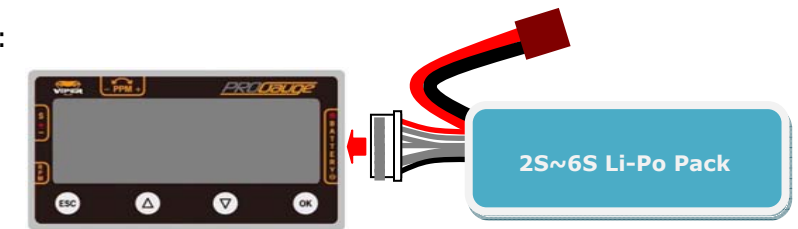


BATTERY MONITOR

Connect the LiPo balance connector to the **BATTERY CONNECTOR** on the **Viper ProGauge**. Align the ground line to the bottom pin.

The LCD screen will display the main menu:

- *Battery Monitor*
- *Link Device*
- *Servo Tester*
- *Tachometer*
- *PPM Monitor*



Use the **Up/Down Key** on the **ProGauge** to select the "**Battery Monitor**" option, press **OK Key** to enter the option. The Battery Monitor will display information about the battery on two pages. The first page displays the following readings:

- *Total number of cells*
- *Total voltage*
- *Highest and lowest voltage cells*
- *The voltage difference between the highest-voltage and lowest-voltage cells*

Press the **Up/Down Key** to see the second page. These readings are displayed on the second page:

- *The exact voltage of each cell – up to 4 cells per page*
- *The cell with the highest voltage is indicated with an upper line symbol after the cell number.*

INPUT PPM SIGNAL MONITOR

Turn on the corresponding transmitter

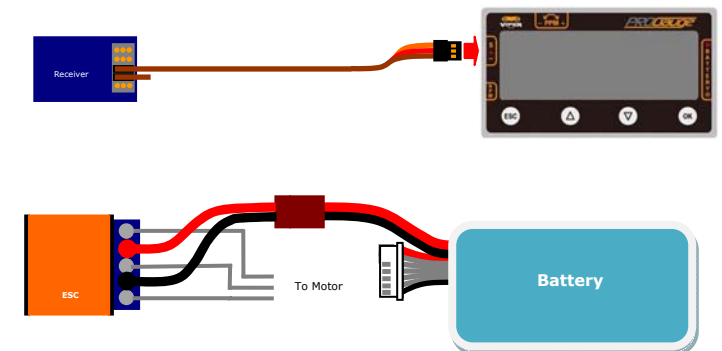
Use a female to female servo extension cable to connect a radio receiver (any channel and with BEC power on) to the I/O Connector of the Viper ProGauge

The LCD screen will display the main menu.

Use **Up/Down Key** on the **ProGauge** to select the "**PPM Monitor**" option. Press the **OK Key** to enter the option.

The **ProGauge** measures the PPM signal from the connected receiver. The LCD screen shows the following information:

- *Output voltage from the receiver*
- *Receiver's PPM signal width and frequency*



Viper Service Policy

- Your **Viper ProGauge** comes with a one-year (365 days) limited warranty that covers all parts and labor to repair any malfunctions under proper usage of the product.
- All requests for warranty service require the original proof of purchase showing the item, date, price, and dealer info.
- For service inquiries, please visit www.viper-rc.com and follow the service process for the quickest turnaround time.
- For all technical questions, please visit www.viper-rc.com for the corresponding FAQ, or e-mail your question to technical.support@viper-rc.com.

SERVO TESTER

Connect a LiPo battery (2S~6S) to the **BATTERY CONNECTOR** on the **Viper ProGauge**. Align the ground line to the bottom pin. The system will automatically regulate the output voltage to 5.0V to the I/O Connector for the Servo Tester. Connect the servo to the **I/O CONNECTOR**. The LCD screen will display the main menu. Use the **Up/Down Key** on the ProGauge to select the "Servo Tester" option, press **OK Key** to display the Servo Tester page.



The Servo Tester function has three settings. Press **OK Key** to enter the setup page from the Servo Tester main page. The following settings are available:

1. Set SWING/NORMAL Mode

- **SWING Mode** will send out a signal to make the servo swing automatically.
- **NORMAL Mode** allows you to turn the PPM Signal Knob to make the servo swing manually.

2. Set WIDE/NARROW Band

- **Wide Band** is neutral 1520us. Use this setting for most servos.
- **Narrow Band** is neutral 760us. This is for exceptionally fast servos like the Futaba S9251/S9256. Always check your servo specifications before setup.

3. Set NORMAL/EXTRA Range

This allows the ProGauge to send out an extended PPM signal range.

Use the **Up/Down Key** on the **ProGauge** to select each desired setting, and press **OK Key** to set.

On the Servo Tester main page, the LCD screen displays the following information:

- **WIDE/NARROW Band indication**
- **Servo swing time**
- **Voltage**
- **Servo travel position**
- **Peak current draw**

VIPER DEVICE PROGRAM CARD

The **Viper ProGauge** can act as a programming interface with all Viper electronic products, such as electronic speed controllers and helicopter gyros.

Properly connect the power source to the ESC or other device that you wish to program. Connect the V-Port on the Viper device to the **ProGauge** using the corresponding cable supplied with the product.

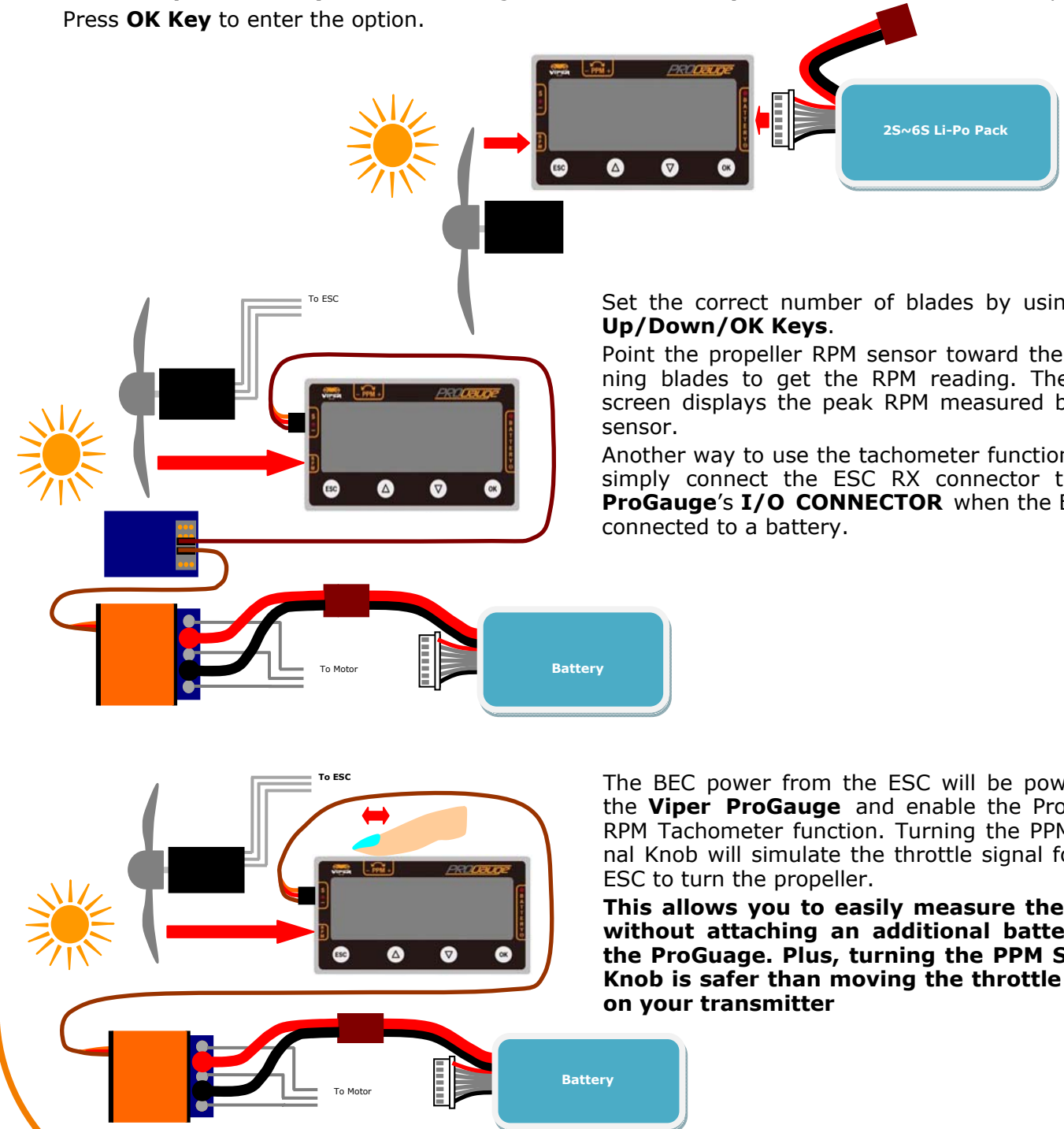
Use the **Up/Down Key** on the **ProGauge** to select the "Link Device" option. Press **OK Key** to enter the option. The LCD screen will display all available setup options for the linked device.

Please refer to the user manual of the linked device for suggested setups and corresponding parameters.

PROPELLER RPM TACHOMETER

Connect a LiPo battery (2S~6S) to the **BATTERY CONNECTOR**, or use a female to female servo extension cable to connect a radio receiver with the power on (any channel) to the ProGauge's **I/O CONNECTOR**.

Use the **Up/Down Key** on the ProGauge to select the "Propeller RPM Tachometer" option. Press **OK Key** to enter the option.



Set the correct number of blades by using the **Up/Down/OK Keys**.

Point the propeller RPM sensor toward the spinning blades to get the RPM reading. The LCD screen displays the peak RPM measured by the sensor.

Another way to use the tachometer function is to simply connect the ESC RX connector to the **ProGauge's I/O CONNECTOR** when the ESC is connected to a battery.

The BEC power from the ESC will be power on the **Viper ProGauge** and enable the Propeller RPM Tachometer function. Turning the PPM Signal Knob will simulate the throttle signal for the ESC to turn the propeller.

This allows you to easily measure the RPM without attaching an additional battery to the ProGauge. Plus, turning the PPM Signal Knob is safer than moving the throttle stick on your transmitter

