

RadioMaster FPV GPS

RadioMaster ERS GPS Precision Sensor Instruction Manual

INTRODUCTION

This manual provides detailed instructions for the proper setup, operation, and maintenance of your RadioMaster ERS GPS Precision Sensor. Designed for seamless integration with compatible ExpressLRS PWM receivers, this sensor offers advanced telemetry features for RC cars, fixed-wing aircraft, and boats.



Front view of the RadioMaster ERS GPS Precision Sensor, showcasing its compact design and satellite icon.

WHAT'S INCLUDED

- 1 x RadioMaster ERS-GPS Sensor
- 1 x CRSF Wire



The package includes the RadioMaster ERS-GPS sensor and a CRSF wire for connection.

SPECIFICATIONS

| Feature | Detail |
|---------|--------|
|---------|--------|

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|-------------------------|--|
| Item Weight | 0.05 ounces |
| Product Dimensions | 0.05 x 0.05 x 0.05 inches |
| Item Model Number | FPV GPS |
| Battery Life | 2 days (Note: Sensor is powered by receiver, this may be a general GPS spec) |
| Connectivity Technology | CRSF (USB mentioned in general specs, but CRSF is for receiver connection) |
| Special Features | GPS Data mode, GPS Ground speed mode, Future-Ready Pass-Through, Seamless ExpressLRS Integration |
| Vehicle Service Type | RC Car, Fixedwing, Boat |
| Mounting Type | Typically mounted inside RC vehicle (Dashboard Mount, Panel Mount mentioned in general specs) |



Detailed dimensions of the ERS GPS sensor: 32.8mm length, 25.5mm width, and 12.8mm height.



Close-up view of the 'IN' port on the RadioMaster ERS GPS sensor, used for connecting to compatible receivers.



The ERS GPS sensor with the CRSF wire connected to its input port, ready for integration.

SETUP GUIDE

1. Connection

The ERS-GPS Telemetry Sensor is designed for plug-and-play integration with compatible ER series ExpressLRS PWM receivers. Connect the provided CRSF wire to the 'IN' port on the GPS sensor and the corresponding CRSF port on your receiver.



Side view of the ERS GPS sensor, highlighting both the 'IN' and 'OUT' pass-through ports for future expansion.

2. Mounting

Securely mount the GPS sensor within your RC vehicle (car, fixed-wing, or boat). Ensure the satellite icon faces upwards for optimal signal reception. The compact size allows for versatile placement.



The sensor should be mounted with the satellite icon facing upwards to ensure proper GPS signal acquisition.

3. Initial Power-Up

Power on your RC system. The sensor will initially broadcast GPS location data. To switch to ground speed mode, press the mode button on the sensor. The LED indicator will change color (e.g., to blue) to confirm the mode change.



The ERS GPS sensor connected to its wiring harness, ready for power-up and configuration.

OPERATING MODES

GPS Data Mode

In this mode, the sensor logs your GPS position, latitude, longitude, and altitude (when used with ER series receivers with built-in barometers). This is ideal for tracking flight paths or vehicle locations.

GPS Ground Speed Mode

Switch to this mode to track your real-time speed and quickly access peak performance statistics. This is particularly useful for measuring speed in airplanes, jets, boats, or cars.

PLUG-N-PLAY INSTALLATION

COMPATIBLE RECEIVERS: ER6, ER8, ER8G, ER8GV



The ERS GPS sensor allows for tracking of both peak and real-time speeds, displayed directly on your compatible remote control.

MAINTENANCE

Keep the sensor clean and free from debris. Avoid exposing it to extreme temperatures or moisture. Regularly check the connection wire for any signs of wear or damage.

TROUBLESHOOTING

No GPS Signal

- Ensure the sensor has a clear view of the sky and is not obstructed by metal or carbon fiber components.
- Verify the sensor is correctly connected to the receiver.
- Allow sufficient time for initial satellite acquisition, especially during the first use.

Incorrect Speed Readings

- Confirm the sensor is in GPS Ground Speed Mode (indicated by the LED color).
- Ensure the sensor is securely mounted and not vibrating excessively.

WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the official RadioMaster website or contact your authorized dealer. Keep your proof of purchase for any warranty claims.

Documents - RadioMaster – FPV GPS



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