



TRX-4M® Brushless Power System Installation Instructions



Thank you for purchasing the Traxxas TRX-4M® Brushless Power System. The 3-channel ECM Brushless electronic control module features low voltage detection for 2s LiPo batteries and EZ-Set® one-button programming to select driving modes. The 3350Kv brushless

outrunner motor delivers consistent, high-power output, run after run. If you have questions or need assistance, call us at 1-888-TRAXXAS*.

Important Precautions

- Your TRX-4M® Brushless Power System is waterproof for use in mud, snow, puddles and other wet conditions. Make certain the other components of your model are waterproof or have sufficient water resistance before driving in wet conditions.
- Always disconnect the battery from the electronic control module when the module is not in use or when it is being stored or transported.

- Switch on your transmitter first before powering up the speed control to prevent runaways and erratic performance.
- The motor can become extremely hot during use, so be careful not to touch it until it cools. Supply adequate airflow for cooling.
- Do not change the battery or motor connectors. Improper wiring can cause fire or damage to the ECM Brushless.
- The electronic control module is not protected against reverse polarity voltage.

Batteries and Battery Charging

The Electronic Control Module (ECM) Brushless requires a LiPo battery with nominal voltage not to exceed 7.4 volts (2s pack). LiPo batteries have a minimum safe discharge voltage threshold that should not be exceeded. The ECM Brushless electronic control module is equipped with built-in Low-Voltage Detection (LVD) that alerts the driver when LiPo batteries have reached their minimum voltage (discharge) threshold. **It is the driver's responsibility to stop immediately to prevent the battery pack from being discharged below its safe minimum threshold.**

If you have questions about LiPo battery usage, please consult with your local hobby dealer or contact the battery manufacturer.

⚠ **WARNING! CAUTION!** ⚠
⚠ **DANGER!** ⚠

FIRE HAZARD! This model requires LiPo batteries. Charging and discharging batteries has the potential for fire, explosion, serious injury, and property damage if not performed per the instructions. Before use, read and follow all manufacturer's instructions, warnings, and precautions. In addition, Lithium Polymer (LiPo) batteries pose a SEVERE risk of fire if not properly handled per the instructions and require special care and handling procedures for long life and safe operation. LiPo batteries are intended only for advanced users that are educated on the risks associated with LiPo battery use. Traxxas does not recommend that anyone under the age of 18 use or handle LiPo battery packs without the supervision of a knowledgeable and responsible adult. Dispose of used batteries according to the instructions.

Covers Part #6250, 6251, 6253, 6254

Transmitter Setup

TQ 2.4GHz Binding Instructions

For proper operation, the transmitter and ECM Brushless must be electronically 'bound.' Follow these instructions to bind your TQ transmitter and ECM Brushless. **Note:** The transmitter and ECM must be within 5 feet of each other.

- Press and hold the red SET button as you turn on the transmitter. Release the SET button and the "ON" LED on the transmitter will flash red.



- Press and hold the EZ-set button on the ECM as you plug in the battery. Release the SET button when the LED flashes red.
- In a few seconds, the LEDs on the transmitter and the ECM will turn solid green indicating that the radio system is bound and ready for use. Confirm that the steering and throttle operate properly before driving your model.

Installation

1. Remove the ECM-2.5. Retain and reuse the screws.

2x14mm CS 2x14mm CS

2. Install the ECM Brushless using the screws from Step 1.

2x14mm CS 2x14mm CS

3. Remove the brushed motor/transmission assembly. Retain and reuse the screws.

2x6mm BCS 2x6mm BCS

4. Remove the brushed motor from the transmission; install the brushless motor and mounting plate on the transmission using the included hardware.

Motor
Mounting Plate
2x4mm BCS
2x6mm BCS
1.6x7mm BCS
2x4mm BCS
2x8mm BCS
2x8mm BCS

5. Install the brushless motor/transmission assembly using the screws from Step 3.

2x6mm BCS 2x6mm BCS

Important! Use the included zip tie here to secure the servo wire to the chassis rail and prevent contact with any moving parts.

ECM BRUSHLESS LED CODES	
LED COLOR / PATTERN	NAME
Solid green	Normal Driving Mode
Slow red (0.5 sec on / 0.5 sec off)	Binding / Low-Voltage Detect
Blinking fast red (0.125 sec on / 0.125 sec off)	Failsafe / Transmitter is off.

Low-Voltage Detection (LVD)

The ECM Brushless electronic control module is equipped with three-stage Low Voltage Detection (LVD) that alerts the driver when LiPo batteries have reached their minimum voltage (discharge) threshold.

LOW VOLTAGE DETECTION					
STAGE	ECM LED	ECM	LIGHTS	EXPLANATION	ACTION
1	Slow blinking red	On	Off	Vehicle speed reduced to 25%	Unplug the battery and recharge
2	Slow blinking red	On	Off	Vehicle will not drive	Unplug the battery and recharge
3	Off	Off	Off	Stage 3 shutdown	Unplug the battery and recharge

ECM Brushless Operation

To turn the model on:

1. Turn on the transmitter. Always turn the transmitter on first, before turning on the model. The transmitter's LED will glow green.
2. Plug the battery into the ECM Brushless. Make sure the battery plug is completely inserted. The LED will glow green.

To turn the model off:

1. Unplug the battery from the ECM Brushless. **The battery should always be unplugged from the ECM Brushless when the vehicle is not in use.** For this reason, the model is not equipped with a traditional on/off switch.
2. Turn off the transmitter.

Drive Mode Profiles

The ECM Brushless is equipped with three driving profiles.



Sport Mode (Single red flash)

100% Forward, 100% Brakes, 100% Reverse.



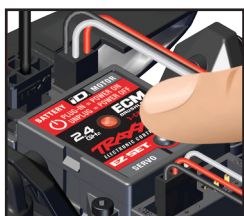
Trail Mode (Two red flashes)

Default factory setting. 100% Forward, 100% Brakes, 100% Reverse; Drag Brake at Neutral.



Crawl Mode (Three red flashes)

100% Forward, Hill Hold Brakes at Neutral, Immediate Reverse.



To change drive modes:

1. With the ECM Brushless powered on, press and hold the EZ-Set button.
2. The EZ-Set button will flash red once, then twice, then three times.
3. Release the EZ-Set button after the desired number of flashes to select the mode.

Note: If installing the optional two-speed transmission (part #9891), use the Channel 3 port on the ECM Brushless to provide power to the shift servo (part #9892). Swap to a 3- or 4- channel transmitter and you can use the red rocker switch to switch gears remotely. All accessory parts sold separately. **Visit Traxxas.com for additional information.**

Specifications

ECM Brushless

Input voltage7.4V (2s LiPo)
ECM case size (l/w/h).....45mm (1.79")/ 32mm (1.26")/ 19.5mm (0.77")
Weight28g (0.98 oz)

Motor

Type3350Kv sensorless brushless
Weight20g (0.70 oz)

Limited Warranty Information

All of us at Traxxas want to assure you that your Traxxas model is backed by the best service and support team in the industry.

Warranties expire, but Traxxas support is there for the life of the product.

At Traxxas, we work hard to make ourselves available to you. If you have questions about your electronic component, or you're having a problem with your electronic component and are not sure what to do, then simply call us at 1-888-TRAXXAS (U.S. customers only. International please call 972-549-3000). Our customer support staff is available 7 days a week from 8:30am to 9:00pm central time to answer your questions. You can also e-mail us at support@Traxxas.com. Troubleshooting support, how-tos, and technical information are available anytime from our website at Traxxas.com. The Traxxas online community (message forum) is a great, searchable reference for many topics. It is available anytime from the Traxxas website.

Traxxas Limited Warranty Coverage

Electronic Components

Traxxas electronic components are warranted to be free from defects in materials and workmanship for a period of thirty (30) days from the date of purchase. Electronic components consist of the radio system (transmitter, receiver, servos, switches, chargers, adapters, and receiver battery holders), and any other Traxxas electronic component. See the additional limitations that apply.

Limitations

Any and all warranty coverage does not cover replacement of parts and components damaged by abuse, neglect, improper or unreasonable use, crash damage, water or excessive moisture, chemical damage, improper or infrequent maintenance, accident, unauthorized alteration or modification, or items that are considered consumable. Traxxas will not pay for the cost of shipping or transportation of a defective component to us.

Detailed Limitations for Electronic Components:

- Allowing water, moisture, or other foreign material to enter the component or get onto the PC board.
- Exceeding the maximum input voltage of the electronic component.
- Removing the stock battery connector(s).
- Using the same type and (or) gender connectors on the motor and battery connections.
- Cross connection of the battery/motor.
- Reverse voltage application.
- Incorrect installation or wiring.
- Components worn from use.
- Splices to the input or switch harnesses.
- Disassembling the case.
- Excessive force when adjusting, pressing, or turning any of the controls.

Your Hobby Dealer's Role

All warranty claims are handled directly by Traxxas. Your dealer can assist you in contacting Traxxas and determining which components might be defective, but he is under no obligation to provide free replacement parts or service. Traxxas does not authorize dealers to make over-the-counter exchanges or refunds for Traxxas products that have been used. Traxxas will make the sole and final determination if a product or component can be covered under warranty.

Limitations of Liability

Traxxas makes no other warranties expressed or implied. Traxxas shall not be liable for any special, indirect, incidental, or consequential damages arising out of the assembly, installation, or use of their products or any accessory or chemical required to use their products. By the act of operating/using the product, the user accepts all resulting liability. In no case shall Traxxas' liability exceed the actual purchase price paid for the product. Traxxas reserves the right to modify warranty provisions without notice. All warranty claims will be handled directly by Traxxas. The Traxxas warranty gives the customer specific legal rights and possibly other rights that vary from state to state. All dollar amounts stated are in United States dollars. The term "lifetime" shall refer to the product's production life at Traxxas. Traxxas is not obligated to provide upgraded products at a reduced rate when a previous product's production cycle has ended.

Traxxas encourages you to register your model online at Traxxas.com/register.

Non-Warranty Service

Traxxas offers an extended electronics warranty plan. It requires no payment up front. You only pay when you need the service. After the expiration of the warranty period, contact Traxxas to discuss available options and speak with one of our friendly and knowledgeable support technicians. Often a product might appear defective, or to malfunction, only because it is being used improperly or requires a simple adjustment. One phone call to our experienced support staff just might get you back running quickly and easily! Please call us on our customer support line at: 1-888-TRAXXAS (U.S. customers only. International please call 972-549-3000).

FCC Compliance

This device complies with part 15 of the FCC Rules. This device contains a module that complies with the limits for a Class B digital device as described in part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

WARNING: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Canada, Industry Canada (IC)

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions: (1) This device may not cause interference. (2) This device must accept any interference, including interference that may cause undesired operation of the device.

Radio Frequency (RF) Exposure Statement

This equipment complies with radio frequency exposure limits set forth by FCC and Industry Canada for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 5 millimeters between the radiator and your body or bystanders and must not be co-located or operated in conjunction with any other antenna or transmitter.

TQ Radio System

Operation Frequency: 2435 MHz and 2444 MHz

Maximum Radio Frequency Power: Maximum Peak Power -1.86 dBm

CE Compliance for Users in the European Union

WEEE Compliance:

Please help the environment by disposing of your product responsibly at the end of its life. The wheeled bin symbol indicates that this product should not be disposed of in your household waste containers. Instead, the product should be disposed of by using a designated collection point for the recycling of waste electrical and electronic equipment. The Waste of Electrical and Electronic Equipment (WEEE) Directive (2002/96/EC) requires that the best available recycling techniques be employed to minimize the impact on the environment. Recycling electronics helps by keeping harmful chemicals out the environment, and also saves money by reusing precious metals. Remove any batteries and dispose of them and the product at your local authority's recycling facility. For more information about where you can drop off your waste equipment for recycling, please contact your local city office, your household waste disposal service or the location where you purchased this product.

Declaration of Conformity for RED Directive

Traxxas LP hereby declares that this product is in compliance with Directive 2014/53/EU.

The full text of the EU Declaration of Conformity is available online at:

<https://traxxas.com/compliance>

Signed:  Date: **August 16, 2024**

Traxxas, 6250 Traxxas Way, McKinney, TX 75070 USA

THIS MODEL IS NOT INTENDED FOR USE BY CHILDREN UNDER THE AGE OF 14 WITHOUT THE SUPERVISION OF A RESPONSIBLE ADULT.

WARNING!

POTENTIAL CHOKING HAZARD! KEEP THIS MODEL, ITS TRANSMITTER, AND EXTRA EQUIPMENT OUT OF THE REACH OF CHILDREN UNDER 3 YEARS OF AGE!

If you have questions or need technical assistance, call Traxxas at
1-888-TRAXXAS
(1-888-872-9927) (U.S. residents only)