

MODEL 6808



**SLASH 4x4**

**TRAXXAS**

OWNER'S MANUAL

## TABLE OF CONTENTS

- 3 BEFORE YOU PROCEED
- 4 SAFETY PRECAUTIONS
- 5 TOOLS, SUPPLIES AND REQUIRED EQUIPMENT
- 6 SLASH 4x4
- 7 QUICK START: GETTING UP TO SPEED
- 8 TQ 2.4GHZ RADIO AND VELINEON BRUSHLESS POWER SYSTEM
- 16 ADJUSTING THE ELECTRONIC SPEED CONTROL
- 18 DRIVING YOUR MODEL
- 20 BASIC TUNING ADJUSTMENTS
- 22 MAINTAINING YOUR MODEL
- 24 ADVANCED TUNING ADJUSTMENTS
- 28 TQ 2.4GHZ ADVANCED TUNING GUIDE

Thank you for purchasing the Slash 4X4 equipped with the Velineon® Brushless Power System. The Velineon Power System lets you experience the best that brushless motor technology has to offer. Incredible speed, efficient operation, long run times, and low-maintenance operation are just some of the benefits. We are confident you will be rewarded with high-speed performance in a durable, long-lasting product.

This manual contains the instructions you will need to operate and maintain your model so that you can enjoy it for years to come. We want you to feel confident that you own one of the best-performing models in the market and that it is backed by a team of professionals who aim to provide the highest level of factory support possible. Traxxas models are about experiencing total performance and satisfaction, not just with your model, but also with the company that stands behind it.

We know you're excited about getting your new model on the road, but it's very important that you take some time to read through the Owner's Manual. This manual contains all the necessary set-up and operating procedures that will allow you to unlock the performance potential that Traxxas engineers designed into your model. Also be sure to read and follow the precautions and warnings in this manual and on any labels or tags attached to your model. They are there to educate you on how to operate your model safely and also get maximum life and performance from your model.

**Even if you are an experienced R/C enthusiast, it's important to read and follow the procedures in this manual.**

Thank you again for going with Traxxas. We work hard every day to assure you receive the highest level of customer satisfaction possible. We truly want you to enjoy your new model!

**Traxxas Support**

Traxxas support is with you every step of the way. Refer to the next page to find out how to contact us and what your support options are.

**Quick Start**

This manual is designed with a Quick Start path that outlines the necessary procedures to get your model up and running in the shortest time possible. If you are an experienced R/C enthusiast you will find it helpful and fast. Be sure and read through the rest of the manual to learn about important safety, maintenance, and adjustment procedures. Turn to page 7 to begin.



## BEFORE YOU PROCEED

Carefully read and follow all instructions in this and any accompanying materials to prevent serious damage to your model. Failure to follow these instructions will be considered abuse and/or neglect.

Before running your model, look over this entire manual and examine the model carefully. If for some reason you decide it is not what you wanted, then do not continue any further. **Your hobby dealer absolutely cannot accept a model for return or exchange after it has been run.**

### WARNINGS, HELPFUL HINTS, & CROSS-REFERENCES

Throughout this manual, you'll notice warnings and helpful hints identified by the icons below. Be sure to read them!



An important warning about personal safety or avoiding damage to your model and related components.



Special advice from Traxxas to make things easier and more fun.



Refers you to a page with a related topic.

### SUPPORT

If you have any questions about your model or its operation, call the Traxxas Technical Support line toll-free at: **1-888-TRAXXAS (1-888-872-9927)\***

Technical support is available Monday through Friday from 8:30am to 9:00pm central time. Technical assistance is also available at [Traxxas.com/support](http://Traxxas.com/support). You may also e-mail customer support with your question at [support@Traxxas.com](mailto:support@Traxxas.com). Join thousands of registered members in our online community at [Traxxas.com](http://Traxxas.com).

Traxxas offers a full-service, on-site repair facility to handle any of your Traxxas service needs. Maintenance and replacement parts may be purchased directly from Traxxas by phone or online at [BuyTraxxas.com](http://BuyTraxxas.com). You can save time, along with shipping and handling costs, by purchasing replacement parts from your local dealer.

Do not hesitate to contact us with any of your product support needs. We want you to be thoroughly satisfied with your new model!

Traxxas  
1100 Klein Road  
Plano, Texas 75074  
Phone: 972-265-8000  
Toll-free 1-888-TRAXXAS

Traxxas U.K.  
P.O. Box 1128  
Winterbourne, Bristol  
BS36-25H  
England  
Phone: 44-117-956-1002

Internet  
[Traxxas.com](http://Traxxas.com)  
E-mail: [support@Traxxas.com](mailto:support@Traxxas.com)

Entire contents ©2010 Traxxas. Traxxas, Ready-To-Race, Ready-To-Win, Slash, Velineon and ProGraphix are trademarks or registered trademarks of Traxxas. Other brand names and marks are the property of their respective holders and are used only for purposes of identification. No part of this manual may be reproduced or distributed in print or electronic media without the express written permission of Traxxas. Specifications are subject to change without notice.

## SAFETY PRECAUTIONS



All instructions and precautions outlined in this manual should be strictly followed to ensure safe operation of your model.



This model is not intended for use by children under 14 years of age without the supervision of a responsible and knowledgeable adult. Gearing and battery choice (see *LiPo Batteries*, right) effect the skill level of the model. See chart below.



Gearing: Stock Pinion  
Battery: 7-Cell NiMH  
Voltage: 8.4V  
mAh: 3000+mAh



Gearing: Opt. Pinion  
Battery: 7-Cell NiMH  
Voltage: 8.4V  
mAh: 3000+mAh



Gearing: Stock Pinion  
Battery: 3S 20C LiPo  
Voltage: 11.1V  
mAh: 5000+ mAh



Gearing: Opt. Gearing  
Battery: 3S 20C LiPo  
Voltage: 11.1V  
mAh: 5000+ mAh

\*Nominal

See the gearing chart on page 24 for more information.



All of us at Traxxas want you to safely enjoy your new model. Operate your model sensibly and with care, and it will be exciting, safe, and fun for you and those around you. Failure to operate your model in a safe and responsible manner may result in property damage and serious injury. The precautions outlined in this manual should be strictly followed to help ensure safe operation. You alone must see that the instructions are followed and the precautions are adhered to.

### IMPORTANT POINTS TO REMEMBER

- Your model is not intended for use on public roads or congested areas where its operation can conflict with or disrupt pedestrian or vehicular traffic.
- Never, under any circumstances, operate the model in crowds of people. Your model is very fast and could cause injury if allowed to collide with anyone.
- Because your model is controlled by radio, it is subject to radio interference from many sources that are beyond your control. Since radio interference can cause momentary losses of radio control, always allow a safety margin in all directions around the model in order to prevent collisions.
- The motor, battery, and speed control can become hot during use. Be careful to avoid getting burned.
- Don't operate your model at night, or anytime your line of sight to the model may be obstructed or impaired in any way.
- Most importantly, use good common sense at all times.**

### BATTERIES AND BATTERY CHARGING

Your model uses rechargeable batteries that must be handled with care for safety and long battery life. Make sure to read and follow all instructions and precautions for charging and maintaining the batteries. It is your responsibility to charge and care for the battery packs properly. In addition to your battery and charger instructions, here are some more tips to keep in mind.

- Use the supplied charger to charge the included battery. See "*Charging your Battery Pack*" on page 11.
- Never leave batteries to charge unattended.
- Remove the battery from the model while charging.
- Always unplug the battery from the electronic speed control when the model is not in use and when it is being stored or transported.
- Allow the battery pack to cool off between runs (before charging).
- Children should have responsible adult supervision when charging and handling batteries.
- Do not use battery packs that have been damaged in any way.
- Do not use battery packs that have damaged wiring, exposed wiring, or a damaged connector.
- Only use approved chargers for NiMH battery packs (such as the Traxxas EZ-Peak™ Charger, Part #2930). Do not exceed the maximum charge rate of 4 amps.
- Do not short-circuit the battery pack. This may cause burns and severe damage to the battery pack.
- Do not burn or puncture the batteries. Toxic materials could be released. If eye or skin contact occurs, flush with water.
- Store the battery pack in a dry location, away from heat sources and direct sunlight.
- Nickel Metal Hydride batteries must be recycled or disposed of properly.

### Recycling Your Traxxas Power Cell NiMH Battery

Traxxas strongly encourages you to recycle your Power Cell battery when it has reached the end of its useful life. **Do not throw your battery in the trash.** All Power Cell battery packs display the RBRC (Rechargeable Battery Recycling Corporation) icon, indicating they are recyclable. To find a recycling center near you, ask your local hobby dealer or visit [www.rbrc.org](http://www.rbrc.org).

### LiPo Batteries

Lithium Polymer (LiPo) batteries are becoming popular for use in R/C models due to their compact size, high energy density, and high-current output. However, these types of batteries require special care and handling procedures for long life and safe operation. **Warning:** 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 16 use or handle LiPo battery packs without the supervision of a knowledgeable and responsible adult.**

Your model is able to use LiPo batteries with nominal voltage not to exceed 11.1 volts (3S packs). LiPo batteries have a minimum safe discharge voltage threshold that should not be exceeded. The Velinone VXL-3S electronic speed control is equipped with built-in Low-Voltage Detection 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.**

Low-Voltage Detection on the speed control is just one part of a comprehensive plan for safe LiPo battery use. **It is critical for you, the user, to follow all other instructions supplied by the battery manufacturer and the charger manufacturer for proper charging, use, and storage of LiPo batteries. Do not attempt to charge LiPo batteries with the Traxxas charger included in this package. Make sure you understand how to use your LiPo batteries.** Be aware that Traxxas shall not be liable for any special, indirect, incidental, or consequential damages arising out of the installation and/or use of LiPo batteries in Traxxas models. **If you have questions about LiPo battery usage, please consult with your local hobby dealer or contact the battery manufacturer.** As a reminder, all batteries should be recycled at the end of their useful life.

### SPEED CONTROL

- Disconnect the Batteries: Always disconnect the battery pack from the speed control when not in use.
- Transmitter on First: Switch on your transmitter first before switching on the speed control to prevent runaways and erratic performance.
- Don't Get Burned: The heat sink can get extremely hot, so be careful not to touch it until it is cool. Supply adequate airflow for cooling.
- Use Stock Connectors: If you decide to change the battery or motor connectors, only change one battery or motor connector at a time. This will prevent damage from accidentally mis-wiring the speed control. Please note that modified speed controls can be subject to a rewiring fee when returned for service. Removing the battery connector on the speed control or using the same-gender connectors on the speed control will void the product's warranty.
- Insulate the Wires: Always insulate exposed or damaged wiring with heat shrink tubing to prevent short circuits.

## TOOLS, SUPPLIES AND REQUIRED EQUIPMENT

Your model comes with a set of specialty metric tools. You'll need to purchase other items, available from your hobby dealer, to operate and maintain your model.

### SUPPLIED TOOLS AND EQUIPMENT



2.5mm "L" wrench



2.0mm "L" wrench



1.5mm "L" wrench



U-joint wrench



8mm/4mm wrench



4-way wrench



Body clips and body washers



Optional Pinion Gear *see page 24*



Various pre-load spacers and shock pistons (on plastic tree) *see page 21*



Foam battery spacer for 6-cell or small battery packs

### REQUIRED EQUIPMENT (SOLD SEPARATELY)



NiMH battery charger\*



7-cell NiMH battery pack with Traxxas High-Current Connector\*



4 AA alkaline batteries



For more information on batteries, see *Use the Right Batteries* on page 11.

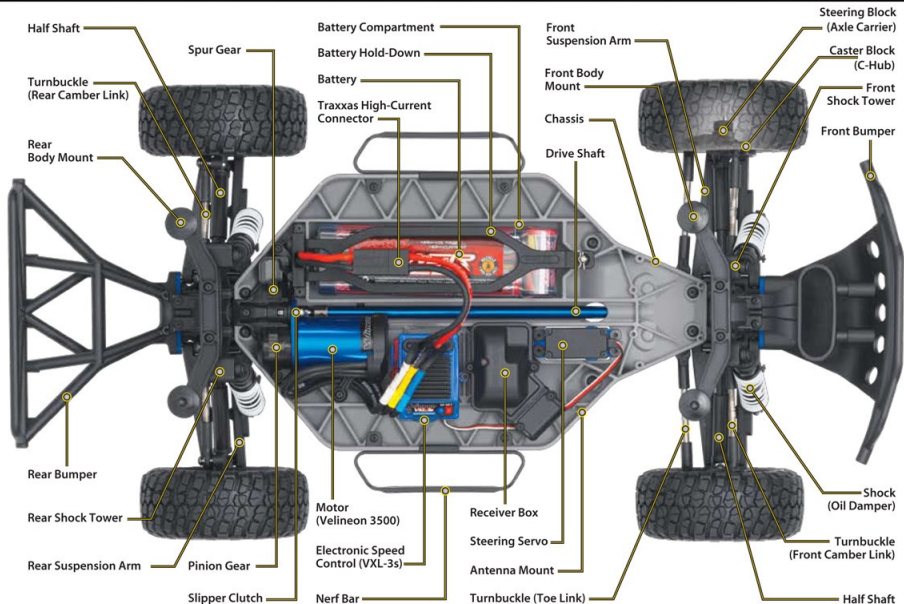


**Recommended Equipment**  
These items are not required for the operation of your model, but are a good idea to include in any R/C toolbox:

- Safety glasses
- Thin, hobby-quality cyanoacrylate instant tire glue (CA glue)
- Hobby knife
- Side cutters and/or needle nose pliers
- Phillips screwdriver
- Soldering iron

\*Battery and charger style are subject to change and may vary from images.

# ANATOMY OF THE SLASH 4X4



 The following guide is an overview of the procedures for getting your model running. Look for the Quick Start logo on the bottom corners of Quick Start pages.

1. Read the safety precautions on page 4

For your own safety, understand where carelessness and misuse could lead to personal injury and product damage.

2. Charge the battery pack • See page 11

Fully charge the included battery pack. Begin charging your battery right away.

3. Install batteries in the transmitter • See page 11

The transmitter requires 4 AA alkaline or rechargeable batteries.

4. Install the battery pack in the model • See page 12

Your model requires a fully charged battery pack.

5. Turn on the radio system • See page 13

Make a habit of turning the transmitter on first, and off last.

6. Check servo operation • See page 14

Make sure the steering servo is working correctly.

7. Range test the radio system • See page 14

Follow this procedure to make sure your radio system works properly at a distance and that there is no interference from outside sources.

8. Detail your model • See sidebar, page 8

Apply other decals if desired.

9. Drive your model • See page 18

Driving tips and adjustments for your model.

10. Maintaining your model • See page 22

Follow these critical steps to maintain the performance of your model and keep it in excellent running condition.



The Quick Start Guide is not intended to replace the full operating instructions available in this manual. Please read this entire manual for complete instructions on the proper use and maintenance of your model.

Look for the Quick Start logo at the bottom of Quick Start pages.





### Applying the Decals

The main decals for your model have been applied at the factory. The decals are printed on self-adhesive clear mylar and are die-cut for easy removal. Use a hobby knife to lift the corner of a decal and lift it from the backing.



To apply the decals, place one end down, hold the other end up, and gradually smooth the decal down with your finger as you go. This will prevent air bubbles. Placing both ends of the decal down and then trying to smooth it out will result in air pockets. Look at the photos on the box for typical decal placement.



### INTRODUCTION

Your model includes the latest Traxxas TQ 2.4GHz transmitter with Traxxas Link™ technology. The transmitter's easy-to-use design provides instant driving fun for new R/C enthusiasts, and also offers a full complement of pro-level tuning features for advanced users – or anyone interested in experimenting with the performance of their model. The steering and throttle channels feature adjustable Exponential, End Points, and Sub-Trims. Steering and braking Dual Rate are also available. Many of the next-level features are controlled by the Multi-Function knob, which can be programmed to control a variety of functions. The detailed instructions (page 28) and Menu Tree (page 30) included in this manual will help you understand and operate the advanced functions of the new TQ 2.4GHz radio system. For additional information and how-to videos, visit [Traxxas.com](http://Traxxas.com).

### RADIO AND POWER SYSTEM TERMINOLOGY

Please take a moment to familiarize yourself with these radio and power system terms. They will be used throughout this manual. A detailed explanation of the advanced terminology and features of your new radio system begins on page 28.

**2.4GHz Spread Spectrum** – This model is equipped with the latest R/C technology. Unlike AM and FM systems that require frequency crystals and are prone to frequency conflicts, the TQ 2.4GHz system automatically selects and locks onto an open frequency, and offers superior resistance to interference and “glitching.”

**BEC (Battery Eliminator Circuit)** - The BEC can either be in the receiver or in the ESC. This circuit allows the receiver and servos to be powered by the main battery pack in an electric model. This eliminates the need to carry a separate pack of 4 AA batteries to power the radio equipment.

**Brushless Motor** - A D/C brushless motor replaces the brushed motor's traditional commutator and brush arrangement with intelligent electronics that energize the electromagnetic windings in sequence to provide rotation. Opposite of a brushed motor, the brushless motor has its windings (coils) on the perimeter of the motor can and the magnets are mounted to the spinning rotor shaft.

**Cogging** - Cogging is a condition sometimes associated with brushless motors. Typically it is a slight stutter noticed when

accelerating from a stop. It happens for a very short period as the signals from the electronic speed control and the motor sync with each other. The VXL-3s electronic speed control is optimized to virtually eliminate cogging.

**Current** - Current is a measure of power flow through the electronics, usually measured in amps. If you think of a wire as a garden hose, current is a measure of how much water is flowing through the hose.

**ESC (Electronic Speed Control)** - An electronic speed control is the electronic motor control inside the model. The VXL-3s electronic speed control uses advanced circuitry to provide precise, digital proportional throttle control. Electronic speed controls use power more efficiently than mechanical speed controls so that the batteries run longer. An electronic speed control also has circuitry that prevents loss of steering and throttle control as the batteries lose their charge.

**Frequency band** - The radio frequency used by the transmitter to send signals to your model. This model operates on the 2.4GHz direct-sequence spread spectrum.

**kV Rating** - Brushless motors are often rated by their kV number. The kV rating equals no-load motor rpm with 1 volt applied. The kV increases as the number of wire turns in the motor decreases. As the kV increases, the current draw through the electronics also increases. The Velineon 3500 motor is a 10-turn, 3500 kV motor optimized for the best speed and efficiency in lightweight 1/10 scale models.

**LiPo** - Abbreviation for Lithium Polymer. Rechargeable LiPo battery packs are known for their special chemistry that allows extremely high energy density and current handling in a compact size. These are high performance batteries that require special care and handling. For advanced users only.

**mAh** - Abbreviation for milliamp hour. A measure of the capacity of the battery pack. The higher the number, the longer the battery will last between recharges.

**Neutral position** - The standing position that the servos seek when the transmitter controls are at the neutral setting.

**NiCad** - Abbreviation for nickel-cadmium. The original rechargeable hobby pack, NiCad batteries have very high current



handling, high capacity, and can last up to 1000 charging cycles. Good charging procedures are required to reduce the possibility of developing a "memory" effect and shortened run times.

**NiMH** - Abbreviation for nickel-metal hydride. Rechargeable NiMH batteries offer high current handling, and much greater resistance to the "memory" effect. NiMH batteries generally allow higher capacity than NiCad batteries. They can last up to 500 charge cycles. A peak charger designed for NiMH batteries is required for optimal performance.

**Receiver** - The radio unit inside your model that receives signals from the transmitter and relays them to the servos.

**Resistance** - In an electrical sense, resistance is a measure of how an object resists or obstructs the flow of current through it. When flow is constricted, energy is converted to heat and is lost. The Velineon power system is optimized to reduce electrical resistance and the resulting power-robbing heat.

**Rotor** - The rotor is the main shaft of the brushless motor. In a brushless motor, the magnets are mounted to the rotor, and the electromagnetic windings are built into the motor housing.

**Sensored** - Sensored refers to a type of brushless motor that uses an internal sensor in the motor to communicate rotor position information back to the electronic speed control. The VXL-3s electronic speed control is able to use sensed motors when applications benefit from them (such as some sanctioned racing classes).

**Sensorless** - Sensorless refers to a brushless motor that uses advanced instructions from an electronic speed control to provide smooth operation. Additional motor sensors and wiring are not required. The VXL-3s electronic speed control is optimized for smooth sensorless control.

**Servo** - Small motor unit in your model that operates the steering mechanism.

**Solder Tabs** - Accessible, external contacts on the motor that allows for easy wire replacement. The Velineon 3500 is equipped with solder tabs.

**Transmitter** - The hand-held radio unit that sends throttle and steering instructions to your model.

**Trim** - The fine-tuning adjustment of the neutral position of the servos, made by adjusting the throttle and steering trim knobs on the face of the transmitter. Note: The Multi Function knob must be programmed to serve as a throttle trim adjustment.

**Thermal Shutdown Protection** - Temperature sensing electronics used in the VXL-3s electronic speed control detect overloading and overheating of the transistor circuitry. If excessive temperature is detected, the unit automatically shuts down to prevent damage to the electronics.

**2-channel radio system** - The TQ radio system, consisting of the receiver, the transmitter, and the servos. The system uses two channels: one to operate the throttle and one to operate the steering.

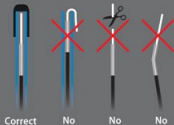
**Voltage** - Voltage is a measure of the electrical potential difference between two points, such as between the positive battery terminal and ground. Using the analogy of the garden hose, while current is the quantity of water flow in the hose, voltage corresponds to the pressure that is forcing the water through the hose.

#### IMPORTANT RADIO SYSTEM PRECAUTIONS

- ⚠ For maximum range, always hold the transmitter so the antenna is in a vertical position (pointing straight up). The transmitter's antenna can be swiveled and angled to allow for a vertical position if necessary.
- ⚠ Do not kink the receiver's antenna wire. Kinks in the antenna wire will reduce range.
- ⚠ DO NOT CUT any part of the receiver's antenna wire. Cutting the antenna will reduce range.
- ⚠ Extend the antenna wire in the model as far as possible for maximum range. It is not necessary to extend the antenna wire out of the body, but wrapping or coiling the antenna wire should be avoided.
- ⚠ Do not allow the antenna wire to extend outside the body without the protection of an antenna tube, or the antenna wire may get cut or damaged, reducing range. Always keep the wire protected (in the antenna tube) to prevent the chance of damage.



To prevent loss of radio range do not kink or cut the black wire, do not bend or cut the metal tip, and do not bend or cut the white wire at the end of the metal tip.



ESC/Motor Wiring Diagram



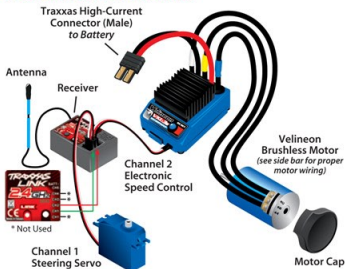
+ Positive █  
 - Negative █  
 A █  
 B █  
 C █

Your model is equipped with the newest Traxxas 2.4 GHz transmitter with Traxxas Link™. The transmitter has two channels for controlling your throttle and steering. The receiver inside the model has 5 output channels. Your model is equipped with one servo and an electronic speed control.

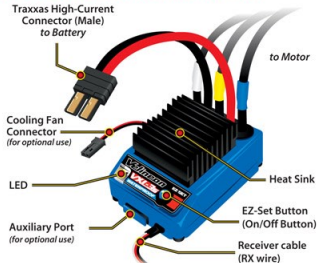
## TQ 2.4GHZ TRANSMITTER



## MODEL WIRING DIAGRAM



## VXL-3s ELECTRONIC SPEED CONTROL



**INSTALLING TRANSMITTER BATTERIES**

Your TQ transmitter uses 4 AA batteries. The battery compartment is located in the base of the transmitter.



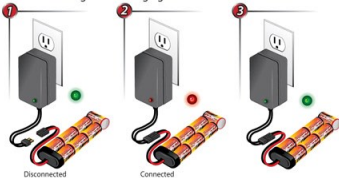
1. Remove the battery compartment door by pressing the tab and lifting the door up.
2. Install the batteries in the correct orientation as indicated in the battery compartment.
3. Reinstall the battery door and snap it closed.
4. Turn on the transmitter and check the status indicator for a solid green light.

If the status LED flashes red, the transmitter batteries may be weak, discharged or possibly installed incorrectly. Replace with new or freshly charged batteries. The power indicator light does not indicate the charge level of the battery pack installed in the model. Refer to the Troubleshooting section on page 29 for more information on the transmitter Status LED codes.

**CHARGING THE BATTERY PACK**

Use the included charger to charge the included battery pack. The battery pack should be removed from the vehicle before charging. Do not leave the battery unattended while charging. It is normal for the battery to become slightly warm as it nears full-charge, but the battery should never become hot. If the battery becomes hot, disconnect it from the charger immediately.

1. Plug the charger into the wall. The LED on the charger should glow green.
2. Connect the included battery pack to the charger output cord. The LED will glow red indicating the battery is charging.
3. A completely discharged 3000 mAh battery will charge for approximately 8 hours with the included charger. The LED will turn green when the battery is fully charged. Disconnect the battery from the charger after charging.

**Using Other Chargers**

Another convenient option for charging the included battery is an AC peak-detecting charger that plugs directly into an AC wall outlet, such as the TRX EZ-Peak™ (Part #2930). It contains special peak-detection circuitry that automatically shuts the charger off when the battery is fully charged.

For faster charging, the included battery may be charged at 4 amps. The TRX EZ-Peak™ is a 4 amp charger and will charge the included battery in only 45 minutes!

**Caution:** Never use a 15-minute timed charger to recharge your model's battery packs. Overcharging may result, causing damage to the battery packs.

**Use the Right Batteries**

Your transmitter uses AA batteries. Use new alkaline batteries, or rechargeable batteries such as NiMH (Nickel Metal Hydride) batteries in your transmitter. Make sure rechargeable batteries are fully charged according to the manufacturer's instructions.

If you use rechargeable batteries in your transmitter, be aware that when they begin to lose their charge, they lose power more quickly than regular alkaline batteries.

**Caution:** Discontinue running your model at the first sign of weak batteries (flashing red light on the transmitter) to avoid losing control.



If the power indicator doesn't light green, check the polarity of the batteries. Check rechargeable batteries for a full charge. If you see any other flashing signal from the LED, refer to the chart on page 29 to identify the code.





The following Traxxas High Current Connector packages are available from your hobby dealer. When using adapters, be careful not to exceed the current rating of the Molex connector.



Part #3060  
Single Male/Female



Part #3080  
2-Pack Female



Part #3061  
Male Charge Adapter



Part #3070  
2-Pack Male



Part #3062  
Female Charge Adapter



#### Battery Compartment Specs:

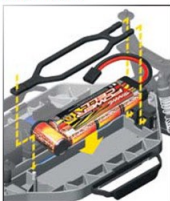
- 166mm (6.54") long  
x 49.5mm (1.95") wide
- Height with stock strap:  
23mm (.91") or 25mm (.94")
- Height with Part #5827X  
options battery standoffs:  
Up to 44mm (1.73")

Note: There is some flex with the battery strap. It is possible to fit slightly taller batteries in the compartment.



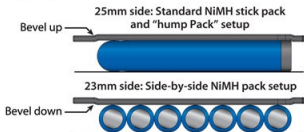
## INSTALLING THE BATTERY PACK

Install the battery pack with the battery wires facing the rear of the model. Insert the tabs of the battery hold-down into the slots in the rear hold-down retainer and then place the battery hold-down over the post. Secure the battery hold-down with body clip in the hole in the post. Do not connect the battery pack yet.



### Using Different Battery Configuration

The battery hold-down is capable of accommodating either side-by-side racing style packs, "hump packs" with a stacked seventh cell, or the more common stick packs. The battery compartment is configured for stick packs from the factory. The number on each side of the hold down indicates the battery height in millimeters that hold-down can accommodate. Note that one side is labeled "25" and other side is labeled "23". The 25mm side is for use with typical stick type battery packs. If you are using side-by-side racing packs, simply flip the hold-down over to the 23mm side and use it on the opposite side of the chassis. **Note:** For taller batteries, an extended battery hold down, part #5827X, is available (sold separately). For shorter batteries (6-cell), use the included foam block in the front of the battery compartment.



### The Traxxas High Current Connector



Your model is equipped with the patented Traxxas High-Current Connector. Standard connectors restrict current flow and are not capable of delivering the power needed to maximize the output of the Veelineon Brushless Power system.

The Traxxas connector's gold-plated terminals with a large contact surfaces ensure positive current flow with the least amount of resistance. Secure, long-lasting, and easy to grip, the Traxxas connector is engineered to extract all the power your battery has to give.



### Using Other Batteries

Your model is equipped with a state of the art, high-performance power system. It is designed to be able to flow large amounts power with the least amount of restriction. The benefits are drastically increased speed and acceleration. However, this places extra demands on the battery and electrical system connections. For best performance, your model requires the use of NiMH battery packs that have cells rated for high discharge and use high-quality, low-resistance assembly techniques, such as the included Traxxas Power Cell Battery Pack. Cheaply made battery packs do not retain their performance characteristics after repeated uses in high-powered electric applications. They will lose their punch and run time and may require frequent replacement. In addition, poor-quality, high-resistance cell connectors could fail, requiring disassembly and repair. The main goal is to reduce all sources of high resistance in the pack. This includes the connector, the wire, and the bars attaching the cells together. High pack resistance will create additional heat and rob you of the full power the cells are capable of producing. We recommend using Traxxas Power Cell batteries for best performance.



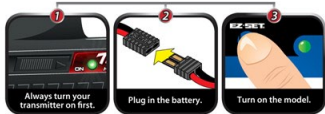
- 2923 Battery, Power Cell, 3000mAh (NiMH, 7-C flat, 8.4V)
- 2940 Battery, Series 3 Power Cell, 3300mAh (NiMH, 7-C flat, 8.4V)
- 2950 Battery, Series 4 Power Cell, 4200mAh (NiMH, 7-C flat, 8.4V)

## TQ 2.4GHZ RADIO SYSTEM CONTROLS



## TQ RADIO SYSTEM RULES

- Always turn your TQ 2.4GHz transmitter on first and off last. This procedure will help to prevent your model from receiving stray signals from another transmitter, or other source, and running out of control. Your model has electronic fail-safes to prevent this type of malfunction, but the first, best defense against a runaway model is to always turn the transmitter on first, and off last.
- Always use new or freshly charged batteries for the radio system. Weak batteries will limit the radio signal between the receiver and the transmitter. Loss of the radio signal can cause you to lose control of your model.



In order for the transmitter and receiver to bind to one another, the receiver in the model must be turned on within 20 seconds of turning on the transmitter. The transmitter LED will flash fast red indicating a failure to link. If you miss it, simply turn off the transmitter and start over.

- Always turn on the transmitter before plugging in the battery.

TQ 2.4GHZ RADIO SYSTEM BASIC ADJUSTMENTS  
Throttle Neutral Adjustment

The throttle neutral adjustment is located on the transmitter face and controls the forward/reverse travel of the throttle trigger. Change the adjustment by pressing the button and sliding it to the desired position. There are two settings available:



- 50/50: Allows equal travel for both acceleration and reverse.
- 70/30: Allows more throttle travel (70%) and less reverse travel (30%).

**Note:** We strongly recommend to leave this control in its factory location until you become familiar with all the adjustments and capabilities of your model. To change the throttle neutral adjust position, turn the transmitter off before adjusting the neutral position. You will need to reprogram your electronic speed control to recognize the 70/30 setting. Turn to ESC Setup Programming on page 16 for instructions.

## Steering Trim

The electronic steering trim located on the face of the transmitter adjusts the neutral (center) point of the steering channel.



## Multi-Function Knob

The Multi-Function knob can be programmed to control a variety of functions. From the factory, the Multi-Function knob controls steering sensitivity, also known as exponential or "expo." When the knob is turned counterclockwise all the way to the left (default position), expo is off and steering sensitivity will be linear (the most commonly used setting). Turning the knob clockwise will "add expo" and decrease the steering sensitivity in the initial range of steering wheel travel left or right from center. For more detail on steering exponential, refer to page 15.



Remember, always turn the TQ transmitter on first and off last to avoid damage to your model.

## Automatic Fail-Safe

The TQ 2.4GHz transmitter and receiver are equipped with an automatic fail-safe system that does not require user programming. In the event of signal loss or interference, the throttle will return to neutral and the steering will hold its last commanded position. If Fail-Safe activates while you are operating your model, determine the reason for signal loss and resolve the problem before operating your model again.

When rechargeable batteries begin to lose their charge, they will fade much faster than alkaline dry cells. Stop immediately at the first sign of weak batteries. Never turn the transmitter off when the battery pack is plugged in. The model could run out of control.

QS



Using Reverse: While driving, push the throttle trigger forward to apply brakes. Once stopped, return the throttle trigger to neutral. Push the throttle trigger forward again to engage proportional reverse.

### USING THE TQ 2.4GHZ RADIO SYSTEM

The TQ 2.4GHz Radio System has been pre-adjusted at the factory. The adjustment should be checked before running the model, in case of movement during shipping. Here's how:

1. Turn the transmitter switch on. The status LED on the transmitter should be solid green (not flashing).
2. **Elevate the model on a block or a stand so that all the tires are off the ground.** Make sure your hands are clear of the moving parts of the model.
3. Plug the battery pack in the model into the speed control.
4. The on/off switch is integrated into the speed control. With the transmitter on, press and release the EZ-Set button (.25 seconds). The LED will shine RED (see note, below). This turns the model on. To turn the VXL-3s off, press and hold the EZ-Set button until the LED turns off (.5 seconds). **Note:** If the LED shines green, Low-Voltage Detection is activated. This will cause erratic performance from the included NiMH battery pack. The default factory setting is for Low-Voltage Detection to be disabled (LED shines red). Make sure to turn the low voltage detection on when using LiPo batteries. **Never use LiPo batteries while Low-Voltage Detection is turned off.** See page 16 for more information.
5. Turn the steering wheel on the transmitter back and forth and check for rapid operation of the steering servo. Also, check that the steering mechanism is not loose or binding. If the steering operates slowly, check for weak batteries.
6. When looking down at model, the front wheels should be pointing straight ahead. If the wheels are turned slightly to the left or right, slowly adjust the steering trim control on the transmitter until they are pointing straight ahead.
7. Gently operate the throttle trigger to ensure that you have forward and reverse operation, and that the motor stops when the throttle trigger is at neutral. **Warning: Do not apply full throttle in forward or reverse while the model is elevated.**



8. Once adjustments are made, turn off the receiver on your model, followed by the hand-held transmitter.

### Range-Testing the Radio System

Before each running session with your model, you should range-test your radio system to ensure that it operates properly.

1. Turn on the radio system and check its operation as described in the previous section.
2. Have a friend hold the model. Make sure hands and clothing are clear of the wheels and other moving parts on the model.
3. Make sure your transmitter antenna is fully extended, and then walk away from the model with the transmitter until you reach the farthest distance you plan to operate the model.
4. Operate the controls on the transmitter once again to be sure that the model responds correctly.
5. Do not attempt to operate the model if there is any problem with the radio system or any external interference with your radio signal at your location.

#### • Higher Speeds Require Greater Distance

The faster you drive your Slash 4X4, the more quickly it will near the limit of radio range. At 60mph, a model can cover 88 feet every second! It's a thrill, but use caution to keep your model in range. If you want to see your Slash 4X4 achieve its maximum speed, it is best to position yourself in the middle of the truck's running area, not the far end, so you drive the truck towards and past your position. In addition to maximizing the radio's range, this technique will keep your model closer to you, making it easier to see and control.

**No matter how fast or far you drive your Slash 4X4, always leave adequate space between you, the model, and others. Never drive directly toward yourself or others.**

### TQ 2.4GHz Binding Instructions

For proper operation, the transmitter and receiver must be electronically 'bound.' **This has been done for you at the factory.** Should you ever need to re-bind the system or bind to an additional transmitter or receiver, follow these instructions. Note: the receiver must be connected to a 4.8-6.0v (nominal) power source for binding and the transmitter and receiver must be within 5 feet of each other.

1. Press and hold the transmitter's SET button as you switch transmitter on. The transmitter's LED will flash red slowly.

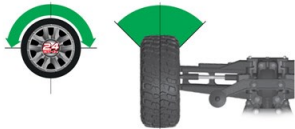
- Press and hold the receiver's LINK button as you switch on the speed control by pressing the EZ-Set button.
- When the transmitter and receiver's LEDs turn solid green, the system is bound and ready for use. Confirm that the steering and throttle operate properly before driving your model.

#### Steering Sensitivity (Exponential)

The Multi-Function knob on the TQ2.4GHz transmitter has been programmed to control Steering Sensitivity (also known as exponential). The standard setting for Steering Sensitivity is "normal (zero exponential)," with the dial full left in its range of travel. This setting provides linear servo response: the steering servo's movement will correspond exactly with the input from the transmitter's steering wheel. Turning the knob clockwise from center will result in "negative exponential" and decrease steering sensitivity by making the servo less responsive near neutral, with increasing sensitivity as the servo nears the limits of its travel range. The farther you turn the knob, the more pronounced the change in steering servo movement will be. The term "exponential" comes from this effect; the servo's travel changes exponentially relative to the input from the steering wheel. The exponential effect is indicated as a percentage—the greater the percentage, the greater the effect. The illustrations below show how this works.

#### Normal Steering Sensitivity (0% exponential)

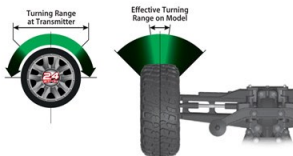
In this illustration, the steering servo's travel (and with it, the steering motion of the model's front wheels) corresponds precisely with the steering wheel. The ranges are exaggerated for illustrative purposes.



#### Decreased Steering Sensitivity (Negative Exponential)

By turning the Multi-Function knob clockwise, the steering sensitivity of the model will be decreased. Note that a relatively large amount of steering wheel travel results in a smaller amount of servo travel. The farther you turn the knob, the more pronounced the effect

becomes. Decreased steering sensitivity may be helpful when driving on low-traction surfaces, when driving at high speed, or on tracks that favor sweeping turns where gentle steering inputs are required. The ranges are exaggerated for illustrative purposes.

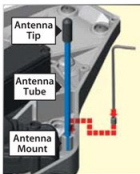


Experiment! Try varying degrees of exponential. It's easy to go back to "zero" if you don't like the effect. There's no wrong way to adjust exponential. Any setting that makes you more comfortable with your car's handling is the "right setting."

#### SETTING UP THE ANTENNA

The receiver antenna has been set up and installed from the factory. The antenna is secured by a 3x4mm set screw. To remove the antenna tube, simply remove the set screw with the included 1.5mm wrench.

When reinstalling the antenna, first slide the antenna wire into bottom of antenna tube until white tip of antenna is at top of tube under the black cap. Next insert the antenna tube into the mount while making sure that antenna wire is in slot in the antenna mount, then install the set screw next to the antenna tube. Use the supplied 1.5mm wrench to tighten the screw just until the antenna tube is securely in place. Do not over tighten. Do not bend or kink the antenna wire! See the side bar for more information. Do not shorten the antenna tube.



To prevent loss of radio range do not kink or cut the black wire, do not bend or cut the metal tip, and do not bend or cut the white wire at the end of the metal tip.

