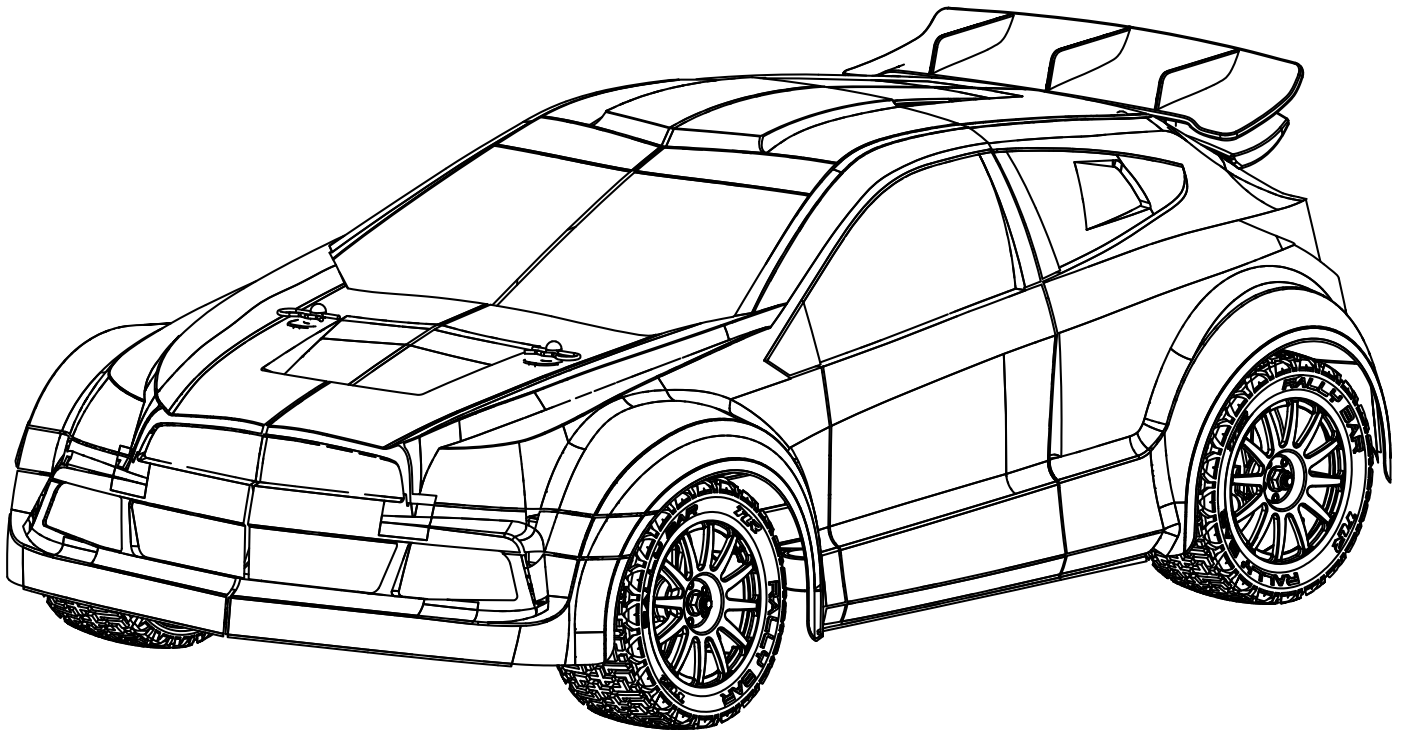


**RTR**  
READY-TO-RUN



**INSTRUCTION MANUAL**  
**BEDIENUNGSANLEITUNG**  
**MANUEL D'UTILISATION**  
**MANUALE DI ISTRUZIONI**



Before operating this vehicle, please read all printed materials thoroughly.  
Horizon Hobby is not responsible for inadvertent errors in this manual.

## NOTICE

All instructions, warranties and other collateral documents are subject to change at the sole discretion of Horizon Hobby, LLC. For up-to-date product literature, visit [horizonhobby.com](http://horizonhobby.com) and click on the support tab for this product.


## MEANING OF SPECIAL LANGUAGE

The following terms are used throughout the product literature to indicate various levels of potential harm when operating this product:

**NOTICE:** Procedures, which if not properly followed, create a possibility of physical property damage AND a little or no possibility of injury.

**CAUTION:** Procedures, which if not properly followed, create the probability of physical property damage AND a possibility of serious injury.

**WARNING:** Procedures, which if not properly followed, create the probability of property damage, collateral damage, and serious injury OR create a high probability of superficial injury.

 **WARNING:** Read the ENTIRE instruction manual to become familiar with the features of the product before operating. Failure to operate the product correctly can result in damage to the product, personal property and cause serious injury.

This is a sophisticated hobby product. It must be operated with caution and common sense and requires some basic mechanical ability. Failure to operate this Product in a safe and responsible manner could result in injury or damage to the product or other property. This product is not intended for use by children without direct adult supervision. Do not use with incompatible components or alter this product in any way outside of the instructions provided by Horizon Hobby, LLC. This manual contains instructions for

safety, operation and maintenance. It is essential to read and follow all the instructions and warnings in the manual, prior to assembly, setup or use, in order to operate correctly and avoid damage or serious injury.

### **WARNING AGAINST COUNTERFEIT PRODUCTS**

Always purchase from a Horizon Hobby, LLC authorized dealer to ensure authentic high-quality Spektrum product. Horizon Hobby, LLC disclaims all support and warranty with regards, but not limited to, compatibility and performance of counterfeit products or products claiming compatibility with DSM or Spektrum.

**Age Recommendation: Not for children under 14 years. This is not a toy.**

## SAFETY PRECAUTIONS AND WARNINGS

- Always keep a safe distance in all directions around your model to avoid collisions or injury. This model is controlled by a radio signal subject to interference from many sources outside your control. Interference can cause momentary loss of control.
- Always operate your model in open spaces away from full-size vehicles, traffic and people.
- Always carefully follow the directions and warnings for this and any optional support equipment (chargers, rechargeable battery packs, etc.).
- Always keep all chemicals, small parts and anything electrical out of the reach of children.
- Always avoid water exposure to all equipment not specifically designed and protected for this purpose. Moisture causes damage to electronics.
- Never place any portion of the model in your mouth as it could cause serious injury or even death.
- Never operate your model with low transmitter batteries.

## TABLE OF CONTENTS

Register your Losi Product Online .....	2
Components	
Tools Needed	
Tools Included	
Needed to Complete	
Contents .....	3
Water-Resistant Vehicle with Waterproof Electronics .....	3
Quick Start .....	3
Spektrum DX2E Radio System .....	4
Installing the Transmitter Batteries	
Driving Precautions .....	5
SRS4200 Stability Assist Receiver .....	5
Before Running Your TEN-RALLY X .....	5
Run Time .....	5
Batteries and Charging .....	6
Powering ON the Vehicle .....	6
Three-Position Battery Tray .....	6
AVC Sensitivity .....	6
130A Sensorless Brushless ESC (DYN4955) .....	6
Tuning, Adjusting & Maintaining your Vehicle .....	8
Changing the Travel Adjust Settings .....	8
Service/Repair .....	8
Disabling the Stability Assist Function .....	8
Troubleshooting Guide .....	8
Limited Warranty .....	9
FCC Information .....	9
IC Information .....	9
Compliance Information for the European Union .....	10
Parts Listings .....	38
Optional Parts .....	40
Exploded View .....	41
Setup Sheet .....	46

## REGISTER YOUR LOSI PRODUCT ONLINE

Register your vehicle now and be the first to find out about the latest option parts, product updates and more. Click on the Support tab at [WWW.LOSI.COM](http://WWW.LOSI.COM) and follow the product registration link to stay connected.

## COMPONENTS

- 1/10-Scale TEN-RALLY X RTR
- Spektrum™ DX2E 2.4GHz DSMR™ Radio System
- SRS4200 4-Channel DSMR® Receiver with Active Vehicle Control™ (AVC™) technology
- Fuze™ 130A Brushless Waterproof ESC
- Fuze 540 4P Sensorless Motor
- Digital High-Torque Waterproof Servo
- 4 AA batteries (for transmitter)

## TOOLS NEEDED

- Small flat blade and Phillips screwdrivers
- Needle-nose pliers
- Quality .050-inch, 1/16-inch, 5/64-inch, 3/32-inch, 1.5mm and 2.5mm hex (Allen) drivers

## TOOLS INCLUDED

- Wheel Wrench
- Four (4) Hex "L" Wrench Set: .050-inch, 1/16-inch, 5/64-inch, and 3/32-inch
- Shock Bottom wrench
- Turnbuckle/Shock Top wrench

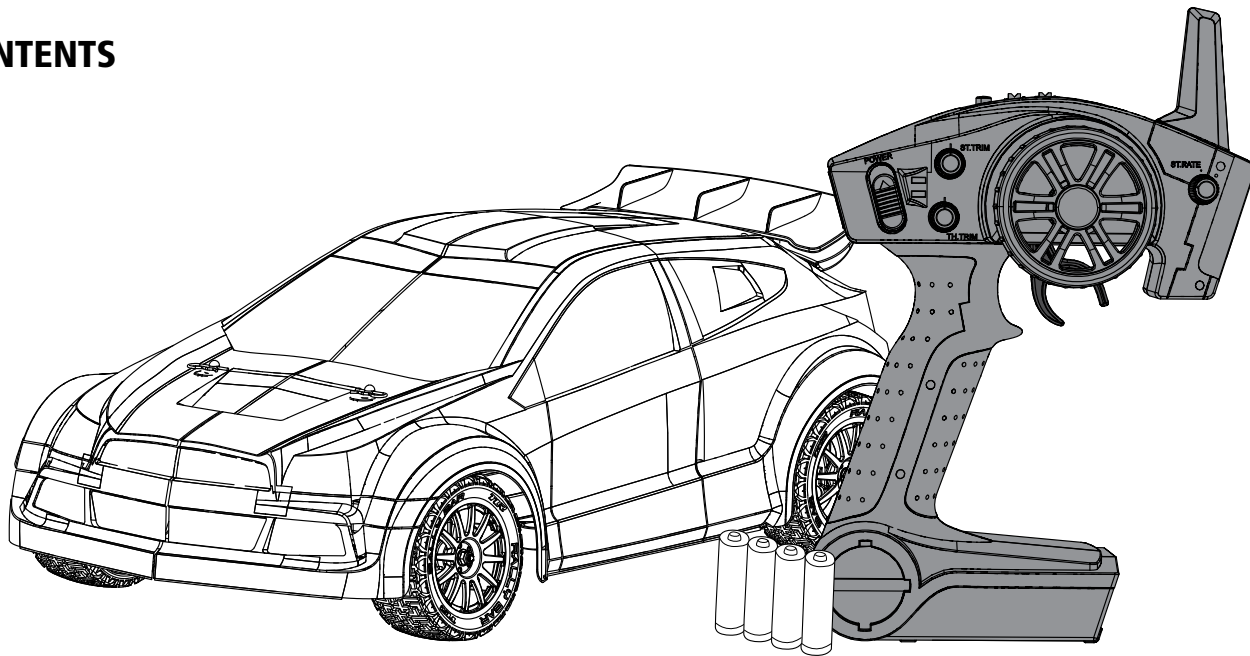
## NEEDED TO COMPLETE

- Battery: Dynamite® Speedpack™ Platinum 7.4V 5200mAh 2S 50C Li-Po Case: EC3™ connector (DYNP4000EC)

- Charger: Dynamite Passport™ UltraForce 200W AC/DC Charger (DYN4105)

Use only Losi® tools or other high-quality tools. Use of inexpensive tools can cause damage to the small screws and parts used on this type of model.

## CONTENTS



## WATER-RESISTANT VEHICLE WITH WATERPROOF ELECTRONICS

Your new Horizon Hobby vehicle has been designed and built with a combination of waterproof and water-resistant components to allow you to operate the product in many “wet conditions”, including puddles, creeks, wet grass, snow and even rain.

While the entire vehicle is highly water-resistant, it is not completely waterproof and your vehicle should NOT be treated like a submarine. The various electronic components used in the vehicle, such as the Electronic Speed Control (ESC), servo(s) and receiver are waterproof, however, most of the mechanical components are water-resistant and should not be submerged.

Metal parts, including the bearings, hinge pins, screws and nuts, as well as the contacts in the electrical cables, will be susceptible to corrosion if additional maintenance is not performed after running in wet conditions. To maximize the long-term performance of your vehicle and to keep the warranty intact, the procedures described in the “Wet Conditions Maintenance” section below must be performed regularly if you choose to run in wet conditions. If you are not willing to perform the additional care and maintenance required, then you should not operate the vehicle in those conditions.

**⚠ CAUTION:** Failure to exercise caution while using this product and complying with the following precautions could result in product malfunction and/or void the warranty.

### GENERAL PRECAUTIONS

- Read through the wet conditions maintenance procedures and make sure that you have all the tools you will need to properly maintain your vehicle.
- Not all batteries can be used in wet conditions. Consult the battery manufacturer before use. Caution should be taken when using Li-Po batteries in wet conditions.
- Most transmitters are not water-resistant. Consult your transmitter’s manual or the manufacturer before operation.
- Never operate your transmitter or vehicle where lightning may be present.
- Do not operate your vehicle where it could come in contact with salt water (ocean water or water on salt-covered roads), contaminated or polluted water. Salt water is very conductive and highly corrosive, so use caution.
- Even minimal water contact can reduce the life of your motor if it has not been certified as water-resistant or waterproof. If the motor becomes excessively wet, apply very light throttle until the water is mostly removed from the motor. Running a wet motor at high speeds may rapidly damage the motor.

## QUICK START

Please read the entire manual to gain a full understanding of the TEN-RALLY X RTR vehicle, fine-tuning the setup and performing maintenance.

1. Read the safety precautions found in this manual.
2. Charge the battery pack you have chosen (NOT INCLUDED). Refer to the Manufacturer’s Supplied instructions for battery charging information.
3. Install the AA batteries in the transmitter. Only use alkaline or rechargeable batteries.
4. Install a fully charged battery in the vehicle.
5. Power ON the transmitter and then the vehicle. Always power the transmitter ON before the vehicle and power it OFF after the vehicle has been powered OFF.
6. Check the steering and throttle control directions. Verify that the servos are moving in the correct direction.
7. Drive your vehicle.
8. Perform any necessary maintenance.

- Driving in wet conditions can reduce the life of the motor. The additional resistance of operating in water causes excess strain. Alter the gear ratio by using a smaller pinion or larger spur gear. This will increase torque (and motor life) when running in mud, deeper puddles, or any wet conditions that will increase the load on the motor for an extended period of time.

### WET CONDITIONS MAINTENANCE

- Drain any water that has collected in the tires by spinning them at high speed. With the body removed, place the vehicle upside down and pull full throttle for a few short bursts until the water has been removed.

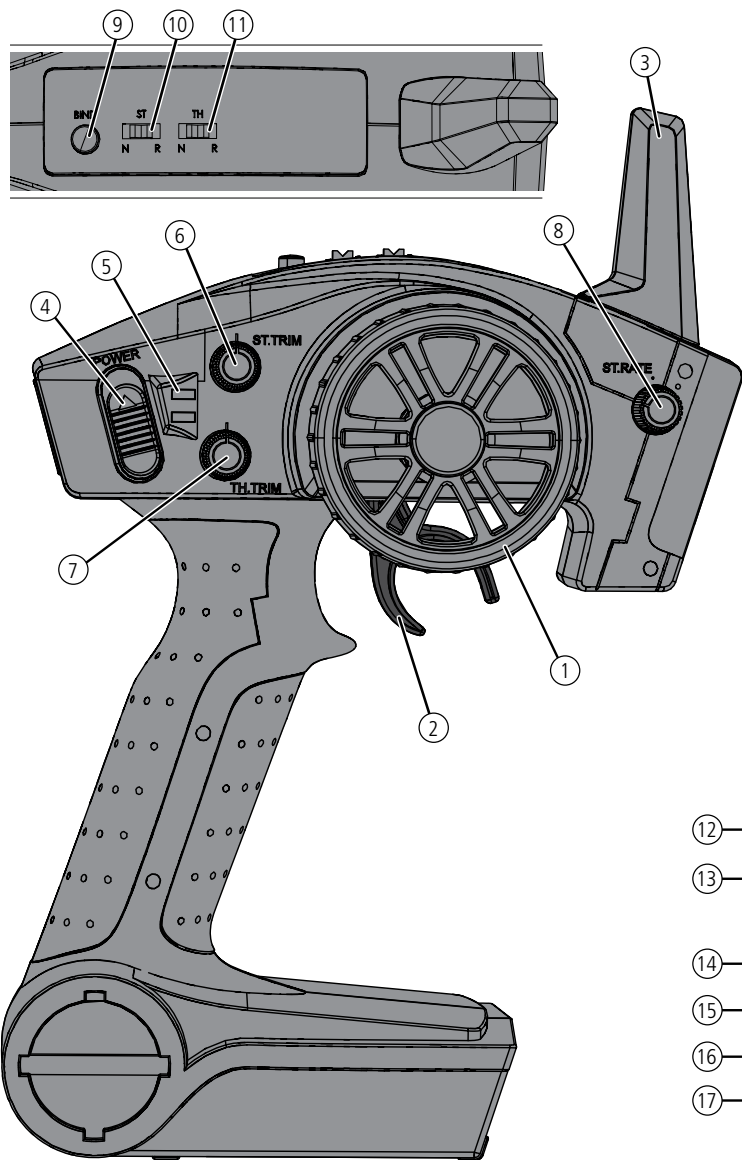
**⚠ CAUTION:** Always keep hands, fingers, tools and any loose or hanging objects away from rotating parts when performing the above drying technique.

- Remove the battery pack(s) and dry the contacts. If you have an air compressor or a can of compressed air, blow out any water that may be inside the recessed connector housing.
- Remove the tires/wheels from the vehicle and gently rinse the mud and dirt off with a garden hose. Avoid rinsing the bearings and transmission.

**NOTICE:** Never use a pressure washer to clean your vehicle.

- Use an air compressor or a can of compressed air to dry the vehicle and help remove any water that may have gotten into small crevices or corners.
- Spray the bearings, drive train, fasteners and other metal parts with a water-displacing light oil. Do not spray the motor.
- Let the vehicle air dry before you store it. Water (and oil) may continue to drip for a few hours.
- Increase the frequency of disassembly, inspection and lubrication of the following:
  - Front and rear axle hub assembly bearings.
  - All transmission cases, gears and differentials.
  - Motor—clean with an aerosol motor cleaner and re-oil the bushings with lightweight motor oil.

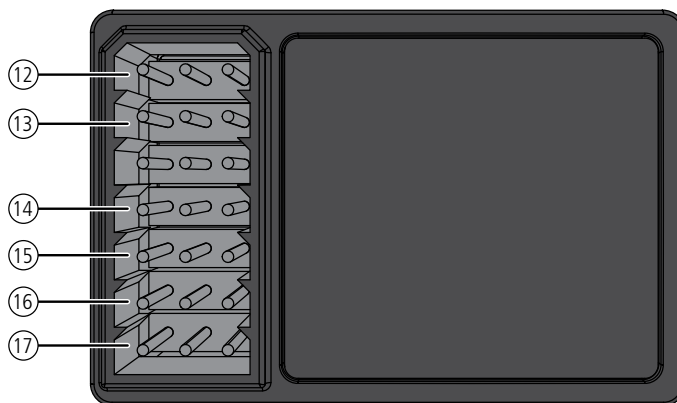
## SPEKTRUM DX2E RADIO SYSTEM



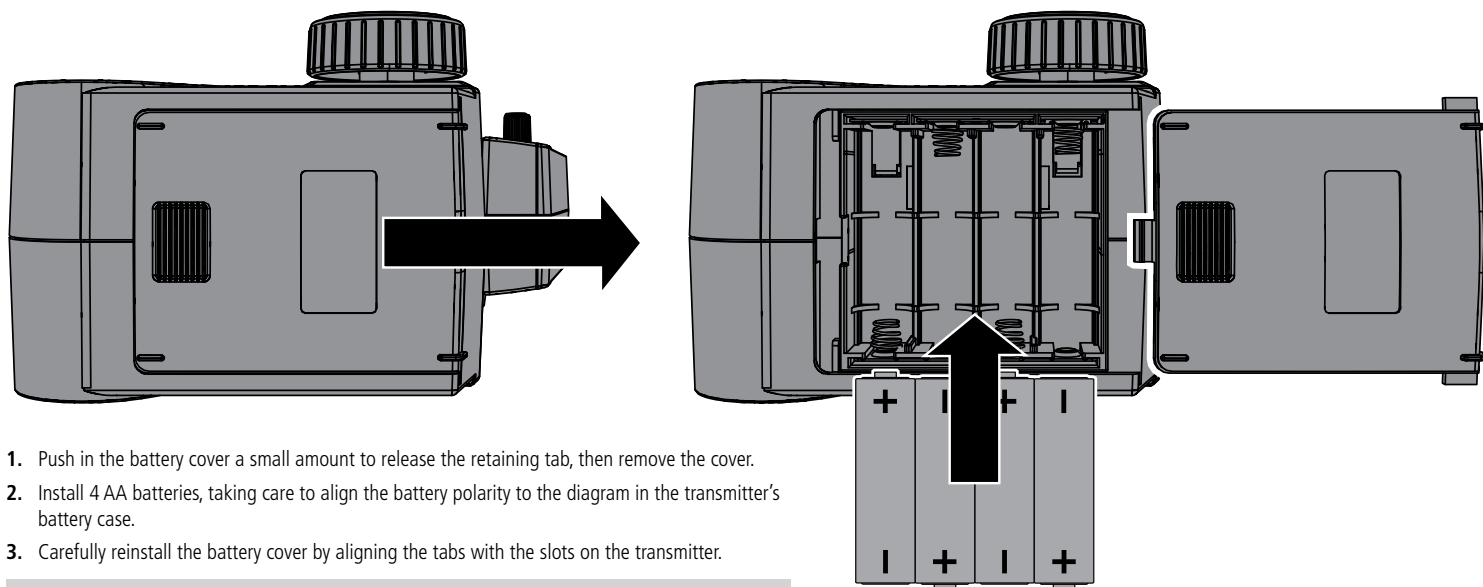
1. **Steering Wheel** Controls direction (left/right) of the model
2. **Throttle Trigger** Controls speed and direction (forward/brake/reverse) of the model
3. **Antenna** Transmits the signal to the model
4. **ON/OFF Switch** Turns the power ON/OFF for the transmitter
5. **Indicator Lights**
  - Solid green light—indicates adequate battery power
  - Flashing green light—indicates the battery voltage is critically low. Replace batteries
6. **ST Trim** Adjusts the total steering travel
7. **TH Trim** Adjusts the total throttle travel
8. **ST Rate** Adjusts the sensitivity value in the receiver
9. **BIND Button** Puts the transmitter into Bind Mode
10. **ST. REV** Reverses the function of the steering when the wheel is turned left or right
11. **TH. REV** Reverses the function of the speed control when pulled back or pushed forward

### SRS4200 AVC TECHNOLOGY RECEIVER

12. BIND
13. DISABLE
14. AUX 2
15. AUX 1
16. THR
17. STR



### INSTALLING THE TRANSMITTER BATTERIES



1. Push in the battery cover a small amount to release the retaining tab, then remove the cover.
2. Install 4 AA batteries, taking care to align the battery polarity to the diagram in the transmitter's battery case.
3. Carefully reinstall the battery cover by aligning the tabs with the slots on the transmitter.

**CAUTION:** Do not remove the transmitter batteries while the model is powered on or while operating, as a loss of model control, damage or injury can result.

For more information on the transmitter, go to [www.horizonhobby.com](http://www.horizonhobby.com) and click on the support tab for the Spektrum DX2E to download the instruction manual.

## DRIVING PRECAUTIONS

- Maintain sight of the vehicle at all times.
- Inspect the vehicle for loose wheel hardware.
- Inspect the steering assembly for any loose hardware. Driving the vehicle off-road can cause fasteners to loosen over time.
- Do not drive the vehicle in tall grass. Doing so can damage the vehicle or electronics.
- Stop driving the vehicle when you notice a lack of power. Driving the vehicle when the battery is discharged can cause the receiver to power off. You may lose control of the vehicle.

## SRS4200 STABILITY ASSIST RECEIVER

### AVC – ACTIVE VEHICLE CONTROL

The Spektrum SRS4200 receiver features Active Vehicle Control (AVC) technology that responds similar to traction control in full-scale vehicles. In addition to traction control, AVC technology also increases steering stability during high speed driving or while driving over rough terrain. As you increase the AVC sensitivity, the system increases steering stability and traction control, similar to reducing the amount of steering rate in a computer transmitter. Reducing the sensitivity value increases the amount of steering control from the transmitter. The SRS4200 receiver also enables you to quickly turn AVC on or off if you participate in organized racing.

**IMPORTANT:** You must use digital servos with the SRS4200 receiver. Using analog servos will reduce the performance of the system and may cause analog servos to overheat.

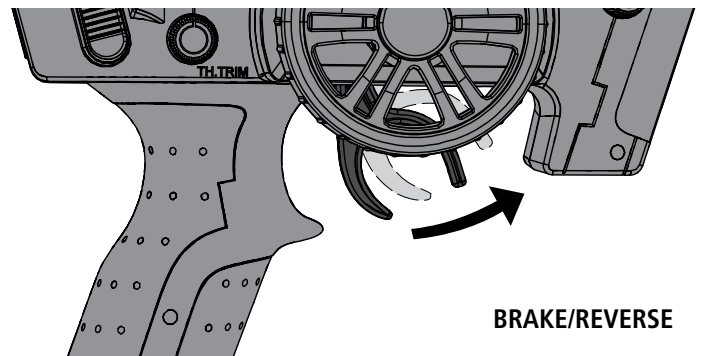
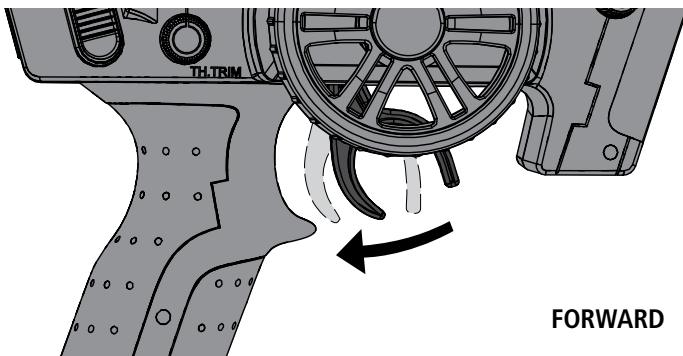


**CAUTION:** Do not discharge a LiPo battery below 3V per cell. Batteries discharged to a voltage lower than the lowest approved voltage may become damaged, resulting in loss of performance and potential fire when batteries are charged.

- Do not apply the throttle in forward or reverse if the vehicle is stuck. Applying throttle in this instance can damage the motor or ESC.
- After driving the vehicle, allow the electronics to cool to ambient temperature before using the next battery pack.

### CALIBRATING THE RECEIVER

1. Insert the Bind Plug in the BIND port on the receiver.
2. Connect a fully charged battery pack to the ESC.
3. Power on the ESC. The orange LED flashes, indicating the receiver is in bind mode.
4. Center the ST TRIM and TH TRIM dials on the transmitter.
5. Press and hold the BIND button while powering on the transmitter.
6. Release the BIND button when the orange LED slowly flashes. The transmitter and receiver are linked when the orange LED is solid.
7. Pull the transmitter trigger to Full Throttle.
8. Push the transmitter trigger to Full Brake, then return the trigger to center.
9. Turn the transmitter steering wheel to Full Right.
10. Turn the transmitter steering wheel to Full Left, then return the steering wheel to center. The orange LED flashes once.
11. Remove the Bind Plug, then power off the receiver to save the settings.
12. Power off the transmitter.



## BEFORE RUNNING YOUR VEHICLE

1. Break in the differentials. While holding the chassis with only the left side tires firmly on the ground, give the car about 1/8 throttle for 30 seconds. The right side tires should spin freely during this time. Repeat this with only the right side tires firmly on the ground, allowing the left side tires to spin freely. Repeat this 2–3 times.
2. Check for free suspension movement. All suspension arms and steering components should move freely. Any binds will cause the car to handle poorly.
3. Set the ride height. Set the ride height of your truck with all components installed so that the bottom of the chassis is 29.5mm from the ground in the front and 24.5mm in the rear by adjusting the shock collars.
4. Set the camber. Adjusting the camber tie rod length changes the camber. Set the front tires to have 0 degrees of camber at ride height. Set the rear tires to have 2.5 degrees of negative camber at ride height.
5. Set the front toe-in. Adjust the steering tie rods so that when the servo is centered on the transmitter, the front tires are both pointing straight.
6. Charge a battery pack. Always charge the battery pack as per the battery and/or charger manufacturers' instructions.
7. Adjust the electronic speed control. Follow the instructions to setup and adjust the speed control for your TEN-RALLY X RTR.
8. Set the transmitter steering trim. Follow the instructions to set the steering trim/subtrim so that the vehicle drives straight with no input to the steering.
9. Set the transmitter steering endpoints. Follow the instructions in the transmitter instruction manual to set the endpoints so that the servo hits full steering upon reaching full input from the transmitter.

## RUN TIME

The largest factor in run time is the capacity of the battery pack. A larger mAh rating increases the amount of run time experienced.

The condition of a battery pack is also an important factor in both run time and speed. The battery connectors may become hot during driving. Batteries will lose performance and capacity over time.

Driving the vehicle from a stop to full speed repeatedly will damage the batteries and electronics over time. Sudden acceleration will also lead to shorter run times.

### TO IMPROVE RUN TIMES

- Keep your vehicle clean and well maintained.
- Allow more airflow to the ESC and Motor.
- Change the gearing to a lower ratio. A lower ratio lowers the operating temperature of the electronics. Use a smaller pinion gear or larger spur gear to lower the gear ratio.
- Use a battery pack with a higher mAh rating.
- Use the optimum charger to charge battery packs (Visit your local hobby dealer for more information).

## BATTERIES AND CHARGING

The TEN-RALLY X RTR uses rechargeable Ni-MH or Li-Po batteries. These batteries all have special requirements to preserve performance and last.

- Read all instructions provided by the manufacturer of the batteries.
- Never allow minors to charge battery packs.
- Always check to ensure the polarity of the battery connection is correct.
- Never leave batteries unattended while charging.

- Never charge a battery while it is installed in the TEN-RALLY X RTR.
- Do not charge any battery that appears to have any damage.
- If there are exposed wires, do not charge or use the battery until you install shrink-wrap or replace the complete wire.

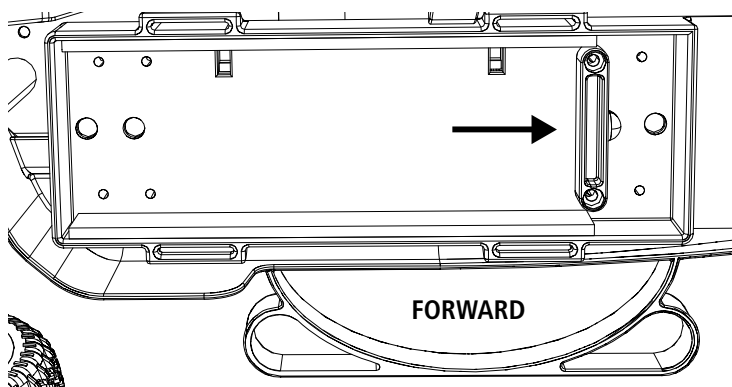
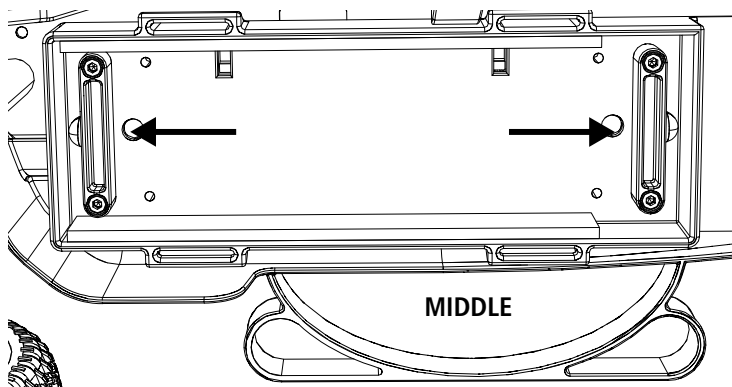
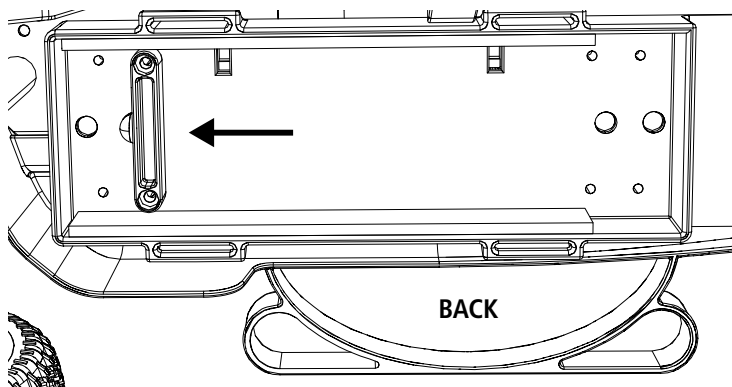
When charging Ni-MH or Li-Po batteries, select a charger to meet your requirements. You need a charger that is a 100–240V wall charger or one which requires a 12V power supply. Follow the charger manufacturer's instructions and precautions during each use.

## POWERING ON THE VEHICLE

1. Center the ST TRIM and TH TRIM dials on the transmitter.
2. Power on the transmitter.
3. Remove the body from the vehicle.
4. Connect a fully charged battery pack to the ESC.
5. Power on the ESC. The vehicle and receiver MUST remain motionless for at least 2 seconds.
6. Re-install the body on the vehicle.

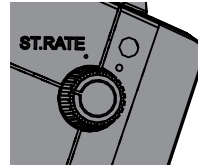
## THREE-POSITION BATTERY TRAY

Your TEN-RALLY X RTR comes with a three-position battery tray to alleviate the need for foam blocks. You can move the included battery stops in order to run the battery in a back, middle, or forward position. Please see the pictures as follows:



## AVC SENSITIVITY

The ST RATE dial adjusts the sensitivity, or stability, value in the receiver. If you increase the sensitivity, the AVC system becomes more sensitive to the vehicle drifting left or right. You would use maximum sensitivity during high speed driving or drag racing, when you want the vehicle to stay in a straight line. As the sensitivity value increases, the amount of steering travel decreases.



Turn the ST RATE knob counter-clockwise to reduce the sensitivity.

Turn the ST RATE knob clockwise to increase the sensitivity.

**IMPORTANT:** The ST RATE knob will only adjust the sensitivity when the transmitter is bound to a DSMR receiver. When the transmitter is bound to a DSM, DSM2 or DSM Marine receiver, the ST RATE knob controls the steering dual rate.

## 130A SENSORLESS BRUSHLESS ESC (DYN4955)

### ESC PROGRAMMING PROCEDURE

Programming can be accomplished using the SET button on the on/off switch or Digital Program Box (DYN3748).

1. Connect a battery to the ESC.
2. Power on the ESC using the ESC switch.
3. Hold the SET button for 1 second until the green LED blinks, then release the SET button to enter programming mode.
4. Press and release the SET button as needed to get to the desired menu option (the Green LED will blink corresponding to the menu item number). Programming menu items 1 through 9 are accessible using the SET button on the ESC. Programming menu items 10 and above are only accessible using the optional ESC programming card. Programming of menu items 10 and 11 is only possible after firmware updates to the ESC programming card.
5. When at the desired menu item, press the SET button for 3 seconds until the red LED blinks.
6. Press the SET button to move among the settings based on how many times the red LED blinks (Refer to the table for more information).
7. Save the setting by pressing the SET button for 3 seconds.
8. Power off the ESC switch and repeat instructions above to change other settings.

**Tip:** If desired, the ESC programming can be returned to default settings by powering on the ESC switch and pressing the SET button for 5 seconds.

The black-shaded setting is the factory default.

PROGRAMMABLE ITEMS	PROGRAMMABLE VALUE								
	1	2	3	4	5	6	7	8	9
<b>1 Running Mode</b>	Forward with Brake	Forward/Reverse with Brake	Forward/Reverse						
<b>2 Drag Brake Force</b>	0%	5%	10%	20%	40%	60%	80%	100%	
<b>3 Low Voltage Cutoff</b>	non-protection	2.6 V/Cell	2.8 V/Cell	3.0 V/Cell	3.2 V/Cell	3.4 V/Cell			
<b>4 Start Mode</b>	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	Level 8	Level 9
<b>5 Max Brake Force</b>	25%	50%	75%	100%	disable				
<b>6 Max Reverse Force</b>	25%	50%	75%	100%					
<b>7 Initial Brake Force</b>	= Drag Brake Force	0%	20%	40%					
<b>8 Neutral Range</b>	6% (Narrow)	9% (Normal)	12% (Wide)						
<b>9 Timing</b>	0.00°	3.75°	7.50°	11.25°	15.00°	18.75°	22.50°	26.25°	
<b>10 Reserved Item</b>									
<b>11 Reserved Item</b>									
<b>12 Motor Rotation</b>	Counter-clockwise	Clockwise							
<b>13 Li-Po Cells</b>	Auto Calculate	2 Cells	3 Cells	4 Cells	5 Cells	6 Cells			

## DESCRIPTIONS

### 1. Running Mode

- *Forward Only with Brake*  
Intended for competition use, this mode allows only forward and brake controls.
- *Forward/Reverse with Brake*  
This mode is the basic all-around mode, allowing forward, reverse and brake controls. To engage reverse while moving forward, apply the brake until the vehicle has come to a complete stop, release brake, then apply the brake again. While braking or in reverse, engaging the throttle will result in the vehicle immediately accelerating forward.

**NOTICE:** Do not use this mode with car types other than Rock Crawlers as this mode can overload and/or damage the ESC.

### 2. Drag Brake Force

Adjusts the amount of brake automatically applied when the throttle is returned to the neutral position. This simulates the engine braking effect of a full-scale vehicle, allowing improved turn-in and your vehicle's general response to controls.

### 3. Low Voltage Cutoff

This function helps to prevent battery over-discharge. The ESC continuously monitors the battery's voltage. If the voltage falls below the voltage threshold for 2 seconds, the output power shuts off and the red LED flashes twice repeatedly.

The cutoff threshold calculation is based on individual Li-Po cell voltage. For Ni-MH batteries, if the voltage battery pack is higher than 9.0V, it will be treated as a 3-cell Li-Po battery pack; if it is lower than 9.0V, it will be treated as a 2-cell Li-Po battery pack. Example: for a 8.0V Ni-MH battery pack used with a 2.6V/cell threshold, it will be treated as a 2-cell Li-Po battery pack and the low-voltage cut-off threshold will be 5.2V (2.6x2=5.2). Using the optional Digital Program Box (DYN3748), you can adjust the custom values for the cutoff threshold. Unlike the preset values, custom cutoff values are for the total battery voltage, not individual cell voltage.

### 4. Start Mode (Punch)

Sets the initial throttle punch when the car accelerates. Level 1 gives a very soft initial acceleration and level 9 gives a very strong initial acceleration. When using levels 7, 8 or 9, you must use high-power batteries. With low power batteries, the battery could overload and result in poor performance or unexpected results.

### 5. Max Brake Force

Adjusts the maximum braking force. A higher value provides stronger braking, but can also cause the wheels to lock, resulting in loss of control of the car.

### 6. Max Reverse Force

This parameter adjusts the maximum power when travelling in reverse.

### 7. Initial Brake Force (minimum brake)

Adjusts the minimum amount of braking power when the brakes engage. The default value is equal to the drag brake value. A high value can lock the wheels when the brake is used.

### 8. Neutral Range

Adjusts the throttle sensitivity around the neutral point. A higher value results in the throttle having to be moved more for the vehicle to move forward, backward or brake.

### 9. Timing

Adjusts the motor drive current timing. More timing gives more performance, but can lower efficiency and cause damage to the motor and/or ESC by overload or overheating.

**NOTICE:** Always ensure the motor timing is set correctly. Failure to set the motor timing correctly can result in damage to the motor and ESC. Refer to the manufacturer instructions for recommended timing settings.

### The Following Programmable Items require the optional Digital ESC Program Box: 10 and 11.

Available Items are subject to firmware updates to the ESC and the optional digital program box.

### 12. Motor Rotation

Lets you make this change in the ESC so no wires need to be changed between the ESC and the motor.

### 13. Li-Po Cells

Allows the ESC to automatically detect or manually set the number of cells in your Li-Po battery back.

## TUNING, ADJUSTING & MAINTAINING YOUR VEHICLE

- Examine your vehicle on a regular basis.
- Use a brush to remove dirt and dust.
- Look for damage to the suspension arms and other molded parts.
- Re-glue the tires to the wheels, if necessary.
- Use suitable tools to tighten fasteners.
- Make sure the camber and steering linkages are not bent. Replace any bent linkages.
- Adjust the Toe and Camber settings, if necessary.
- Remove the shocks and inspect them for damage. Rebuild the shocks if oil is leaking.
- Inspect electronics and batteries for exposed wires. Repair exposed wires with shrink-wrap or replace the wire.
- Make sure the ESC and receiver are secure on the chassis. Replace the double-sided tape, if necessary.
- Power on the transmitter. If the green LED is dim or off, replace the AA batteries in your transmitter.
- Check the spur gear for wear.

## CHANGING THE TRAVEL ADJUST SETTINGS

1. Hold the trigger in the full brake position while powering on the transmitter. The LED flashes rapidly, indicating the programming mode is active.
2. **Throttle End Point:** Continue holding full throttle. Turn the TH TRIM knob to adjust the full throttle end point.
3. **Brake End Point:** Hold the trigger in the full brake position. Turn the TH TRIM knob to adjust the full brake end point. Return the trigger to the center position.
4. **Left Steering End Point:** Hold the steering wheel in the full left position. Turn the ST TRIM knob to adjust the left end point.
5. **Right Steering End Point:** Hold the steering wheel in the full right position. Turn the ST TRIM knob to adjust the right end point. Return the steering wheel to the center position.
6. Power off the transmitter to save the travel adjust settings.

The minimum Travel is 75%, and the Maximum travel is 150%.

**IMPORTANT:** If the travel is changed on the DX2E, you must rebind and calibrate the SRS4200.

## SERVICE/REPAIR

### RADIO/SPEED CONTROL & MOTOR

If any problems other than those covered in the troubleshooting section arise, please call the appropriate electronics service department. They will be able to give the problem additional specific attention and provide instructions for the solution.

### MAINTENANCE

If any questions other than those covered in the troubleshooting or maintenance sections arise, please call the appropriate Horizon product support department.

### CLEANING

Performance can be hindered if dirt gets in any of the moving suspension parts. Use compressed air, a soft paintbrush, or a toothbrush to remove dust or dirt. Avoid using solvents or chemicals as they can actually wash dirt into the bearings or moving parts, as well as cause damage to the electronics.

## DISABLING THE STABILITY ASSIST FUNCTION

If you participate in organized racing, you may be required to turn Stability Assist off. To turn Stability Assist off:

1. Insert a Bind Plug in the BIND port on the receiver.
2. Insert a second Bind Plug in the DISABLE port on the receiver.
3. Connect a fully charged battery pack to the ESC.
4. Power on the ESC. The orange LED flashes, indicating the receiver is in bind mode.
5. Center the ST TRIM and TH TRIM dials on the transmitter.
6. Press and hold the BIND button while powering on the transmitter.
7. Release the BIND button when the orange LED slowly flashes. The transmitter and receiver are linked when the orange LED is solid.
8. Pull the transmitter trigger to Full Throttle.
9. Push the transmitter trigger to Full Brake, then return the trigger to center.
10. Turn the transmitter steering wheel to Full Right.
11. Turn the transmitter steering wheel to Full Left, then return the steering wheel to center. The orange LED flashes once.
12. Remove the Bind Plugs, then power off the receiver to save the settings.
13. Power off the transmitter.

**IMPORTANT:** You must calibrate the receiver each time it is placed in bind mode.

To activate AVC, see the steps in "Calibrating the Receiver".

## TROUBLESHOOTING GUIDE

PROBLEM	POSSIBLE CAUSE	SOLUTION
Vehicle does not operate	Battery not charged or plugged in	Charge battery/plug in
	ESC switch not "On"	Turn on ESC switch
	Transmitter not "On" or low battery	Turn on/replace batteries
Motor runs but rear wheels do not rotate	Pinion not meshing with spur gear	Adjust pinion/spur mesh
	Pinion spinning on motor shaft	Tighten pinion gear setscrew on motor shaft flat spot
	Transmission gears stripped	Replace transmission gears
	Drive pin broken	Check and replace drive pin
Steering does not work	Servo plug not in receiver properly	Make sure the steering servo plug is connected to the receiver steering channel, noting proper polarity
	Servo gears or motor damaged	Replace or repair servo
Will not turn one direction	Servo gears damaged	Replace or repair servo
Motor does not run	Motor wire solder joint is damaged	Resolder the motor wire with the proper equipment
	Motor wire broken	Repair or replace as needed
	ESC damaged	Contact Horizon Hobby Product Support
ESC gets hot	Motor over-geared	Use smaller pinion or larger spur gear
	Driveline bound up	Check wheels and transmission for binding
Poor run time and/or sluggish acceleration	Battery pack not fully charged	Recharge battery
	Charger not allowing full charge	Try another charger
	Driveline bound up	Check wheels, transmission for binding
Poor range and/or glitching	Transmitter batteries low	Check and replace
	Vehicle battery low	Recharge battery
	Loose plugs or wires	Check all wire connections and plugs



## LIMITED WARRANTY

### What this Warranty Covers

Horizon Hobby, LLC ("Horizon") warrants to the original purchaser that the product purchased (the "Product") will be free from defects in materials and workmanship at the date of purchase.

### What is Not Covered

This warranty is not transferable and does not cover (i) cosmetic damage, (ii) damage due to acts of God, accident, misuse, abuse, negligence, commercial use, or due to improper use, installation, operation or maintenance, (iii) modification of or to any part of the Product, (iv) attempted service by anyone other than a Horizon Hobby authorized service center, (v) Product not purchased from an authorized Horizon dealer, or (vi) Product not compliant with applicable technical regulations.

OTHER THAN THE EXPRESS WARRANTY ABOVE, HORIZON MAKES NO OTHER WARRANTY OR REPRESENTATION, AND HEREBY DISCLAIMS ANY AND ALL IMPLIED WARRANTIES, INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE PURCHASER ACKNOWLEDGES THAT THEY ALONE HAVE DETERMINED THAT THE PRODUCT WILL SUITABLY MEET THE REQUIREMENTS OF THE PURCHASER'S INTENDED USE.

### Purchaser's Remedy

Horizon's sole obligation and purchaser's sole and exclusive remedy shall be that Horizon will, at its option, either (i) service, or (ii) replace, any Product determined by Horizon to be defective. Horizon reserves the right to inspect any and all Product(s) involved in a warranty claim. Service or replacement decisions are at the sole discretion of Horizon. Proof of purchase is required for all warranty claims. SERVICE OR REPLACEMENT AS PROVIDED UNDER THIS WARRANTY IS THE PURCHASER'S SOLE AND EXCLUSIVE REMEDY.

### Limitation of Liability

HORIZON SHALL NOT BE LIABLE FOR SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES, LOSS OF PROFITS OR PRODUCTION OR COMMERCIAL LOSS IN ANY WAY, REGARDLESS OF WHETHER SUCH CLAIM IS BASED IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY OR ANY OTHER THEORY OF LIABILITY, EVEN IF HORIZON HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. Further, in no event shall the liability of Horizon exceed the individual price of the Product on which liability is asserted. As Horizon has no control over use, setup, final assembly, modification or misuse, no liability shall be assumed nor accepted for any resulting damage or injury. By the act of use, setup or assembly, the user accepts all resulting liability. If you as the purchaser or user are not prepared to accept the liability associated with the use of the Product, purchaser is advised to return the Product immediately in new and unused condition to the place of purchase.

### Law

These terms are governed by Illinois law (without regard to conflict of law principals). This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Horizon reserves the right to change or modify this warranty at any time without notice.

## WARRANTY SERVICES

### Questions, Assistance, and Services

Your local hobby store and/or place of purchase cannot provide warranty support or service. Once assembly, setup or use of the Product has been started, you must contact your local distributor or Horizon directly. This will enable Horizon to better answer your questions and service you in the event that you may need any assistance. For questions or assistance, please visit our website at [www.horizonhobby.com](http://www.horizonhobby.com), submit a Product Support Inquiry, or call the toll free telephone number referenced in the Warranty and Service Contact Information section to speak with a Product Support representative.

### Inspection or Services

If this Product needs to be inspected or serviced and is compliant in the country you live and use the Product in, please use the Horizon Online Service Request submission process found on our website or call Horizon to obtain a Return Merchandise Authorization (RMA) number. Pack the Product securely using a shipping carton. Please note that original boxes may be included, but are not designed to withstand the rigors of shipping without additional protection. Ship via a carrier that provides tracking and insurance for lost or damaged parcels, as Horizon is not responsible for merchandise until it arrives and is accepted at our facility. An Online Service Request is available at [http://www.horizonhobby.com/content/\\_service-center\\_render-service-center](http://www.horizonhobby.com/content/_service-center_render-service-center). If you do not have internet access, please contact Horizon Product Support to obtain a RMA number along with instructions for submitting your product for service. When calling Horizon, you will be asked to provide your complete name, street address, email address and phone number where you can be reached during business hours. When sending product into Horizon, please include your RMA number, a list of the included items, and a brief summary of the problem. A copy of your original sales receipt must be included for warranty consideration. Be sure your name, address, and RMA number are clearly written on the outside of the shipping carton.

**NOTICE: Do not ship Li-Po batteries to Horizon. If you have any issue with a Li-Po battery, please contact the appropriate Horizon Product Support office.**

### Warranty Requirements

**For Warranty consideration, you must include your original sales receipt verifying the proof-of-purchase date.** Provided warranty conditions have been met, your Product will be serviced or replaced free of charge. Service or replacement decisions are at the sole discretion of Horizon.

### Non-Warranty Service

**Should your service not be covered by warranty, service will be completed and payment will be required without notification or estimate of the expense unless the expense exceeds 50% of the retail purchase cost.**

By submitting the item for service you are agreeing to payment of the service without notification. Service estimates are available upon request. You must include this request with your item submitted for service. Non-warranty service estimates will be billed a minimum of ½ hour of labor. In addition you will be billed for return freight. Horizon accepts money orders and cashier's checks, as well as Visa, MasterCard, American Express, and Discover cards. By submitting any item to Horizon for service, you are agreeing to Horizon's Terms and Conditions found on our website [http://www.horizonhobby.com/content/\\_service-center\\_render-service-center](http://www.horizonhobby.com/content/_service-center_render-service-center).


**ATTENTION: Horizon service is limited to Product compliant in the country of use and ownership. If received, a non-compliant Product will not be serviced. Further, the sender will be responsible for arranging return shipment of the un-serviced Product, through a carrier of the sender's choice and at the sender's expense. Horizon will hold non-compliant Product for a period of 60 days from notification, after which it will be discarded.**

## WARRANTY AND SERVICE CONTACT INFORMATION

COUNTRY OF PURCHASE	HORIZON HOBBY	CONTACT INFORMATION	ADDRESS
United States of America	Horizon Service Center (Repairs and Repair Requests)	<a href="http://servicecenter.horizonhobby.com/RequestForm/">servicecenter.horizonhobby.com/RequestForm/</a>	4105 Fieldstone Rd Champaign, Illinois, 61822 USA
	Horizon Product Support (Product Technical Assistance)	<a href="http://www.quickbase.com/db/bghj7ey8c?a=GenNewRecord">www.quickbase.com/db/bghj7ey8c?a=GenNewRecord</a> 888-959-2305	
	Sales	<a href="mailto:sales@horizonhobby.com">sales@horizonhobby.com</a> 888-959-2305	
United Kingdom	Service/Parts/Sales: Horizon Hobby Limited	<a href="mailto:sales@horizonhobby.co.uk">sales@horizonhobby.co.uk</a> +44 (0) 1279 641 097	Units 1-4 Ployters Rd Staple Tye Harlow, Essex CM18 7NS, United Kingdom
Germany	Horizon Technischer Service	<a href="mailto:service@horizonhobby.de">service@horizonhobby.de</a> +49 (0) 4121 2655 100	Christian-Junge-Straße 1 25337 Elmshorn, Germany
	Sales: Horizon Hobby GmbH		
France	Service/Parts/Sales: Horizon Hobby SAS	<a href="mailto:infofrance@horizonhobby.com">infofrance@horizonhobby.com</a> +33 (0) 1 60 18 34 90	11 Rue Georges Charpak 77127 Lieusaint, France
China	Service/Parts/Sales: Horizon Hobby - China	<a href="mailto:info@horizonhobby.com.cn">info@horizonhobby.com.cn</a> +86 (021) 5180 9868	Room 506, No. 97 Changshou Rd. Shanghai, China 200060

## FCC INFORMATION

This device complies with 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.

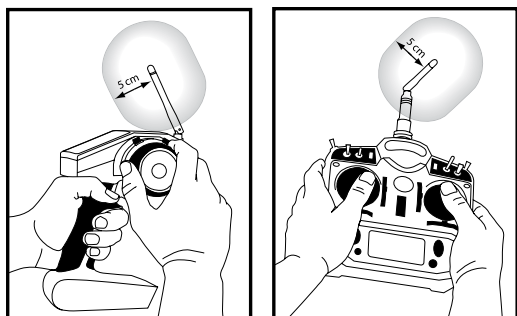
 **CAUTION:** Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This product contains a radio transmitter with wireless technology which has been tested and found to be compliant with the applicable regulations governing a radio transmitter in the 2.400 GHz to 2.4835 GHz frequency range.

## ANTENNA SEPARATION DISTANCE

When operating your Spektrum transmitter, please be sure to maintain a separation distance of at least 5 cm between your body (excluding fingers, hands, wrists, ankles and feet) and the antenna to meet RF exposure safety requirements as determined by FCC regulations.

The following illustrations show the approximate 5 cm RF exposure area and typical hand placement when operating your Spektrum transmitter.



## IC INFORMATION

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

## COMPLIANCE INFORMATION FOR THE EUROPEAN UNION

AT	BE	BG	CZ	CY	DE	DK
EE	ES	FI	FR	GR	HR	HU
IE	IT	LT	LU	LV	MT	NL
PL	PT	RO	SE	SI	SK	UK
IS	LI	NO	CH			



### DECLARATION OF CONFORMITY

(in accordance with ISO/IEC 17050-1)

No. HH2013092901

Product(s): LOS TEN-RALLY X (includes Spektrum DX2E Transmitter with Spektrum SRS4200 Receiver)

Item Number(s): LOS03000

Equipment class: 2

The object of declaration described above is in conformity with the requirements of the specifications listed below, following the provisions of the European R&TTE directive 1999/5/EC and EMC Directive 2004/108/EC:

**EN 300-328 V1.7.1: 2006**

**EN301 489-1 V1.9.2: 2012**

**EN301 489-17 V2.1.1: 2009**

**EN60950-1:2006+A11:2009+A1:2010+A12: 2011**

**EN55022:2010 + AC:2011**

**EN55024:2010**

Signed for and on behalf of:  
Horizon Hobby, LLC  
Champaign, IL USA  
September 29, 2013

Robert Peak  
Chief Financial Officer  
Horizon Hobby, LLC



### INSTRUCTIONS FOR DISPOSAL OF WEEE BY USERS IN THE EUROPEAN UNION

This product must not be disposed of with other waste. Instead, it is the user's responsibility to dispose of their waste equipment by handing it over to a designated collection point for the recycling of waste electrical and electronic equipment. The separate collection and recycling of your waste equipment at the time of disposal will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. 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 where you purchased the product.