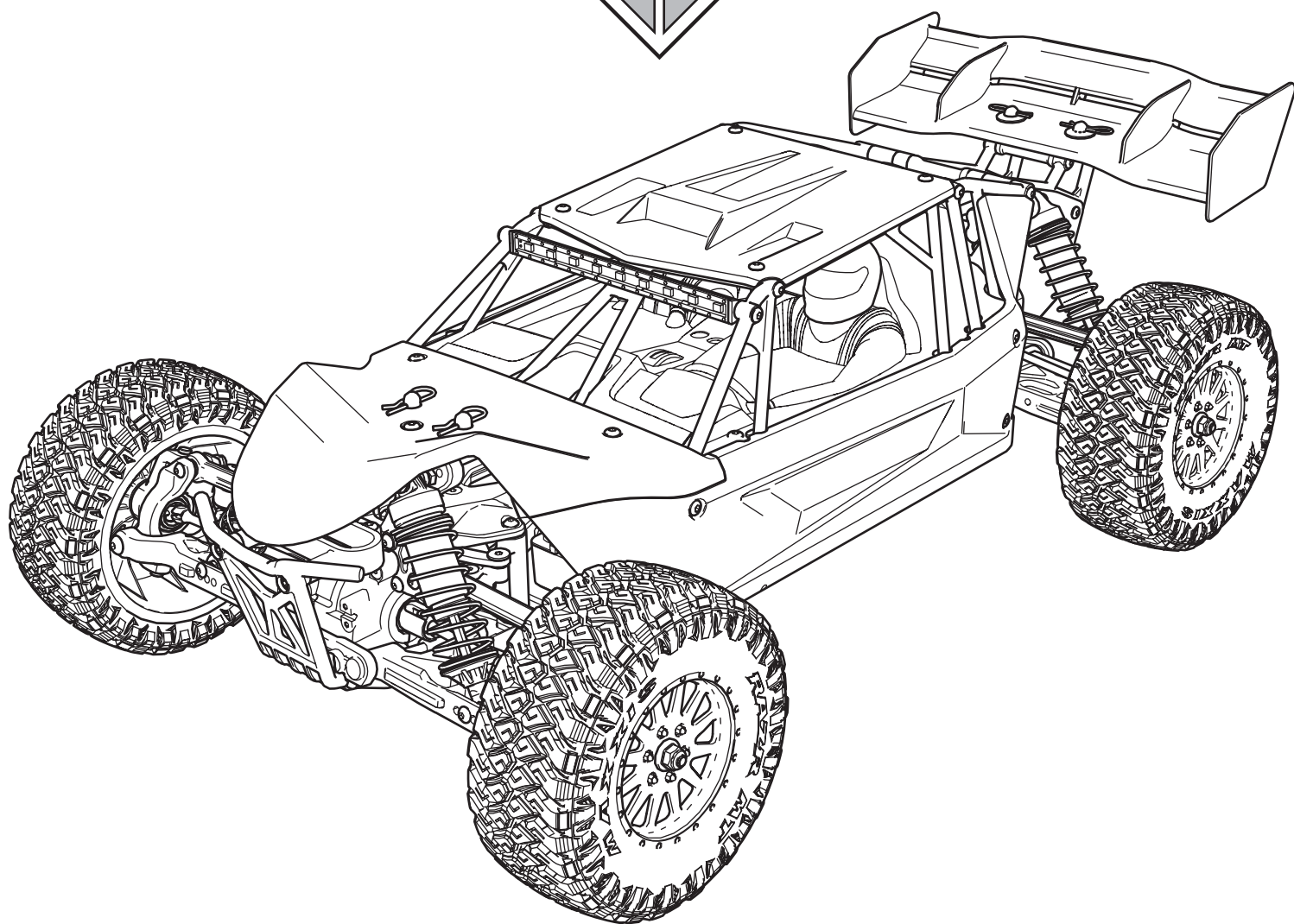


RTR
READY-TO-RUN

AVC® U.S. Pat. No. 9,320,977



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 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:

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.

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

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

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

SAFETY PRECAUTIONS AND WARNINGS

As the user of this product, you are solely responsible for operating in a manner that does not endanger yourself and others or result in damage to the product or property of others.

This model is controlled by a radio signal subject to interference from many sources outside your control. This interference can cause momentary loss of control, so it is advisable to always keep a safe distance in all directions around your model as this margin will help avoid collisions or injury.

- Never operate your model with low transmitter batteries.
- Always operate your model in open spaces away from full-size vehicles, traffic and people.
- Never operate the model in the street or in populated areas for any reason.
- Carefully follow the directions and warnings for this and any optional support equipment (chargers, rechargeable battery packs, etc.) you use.
- Keep all chemicals, small parts and anything electrical out of the reach of children.

- Never lick or place any portion of the model in your mouth as it could cause serious injury or even death.
- Exercise caution when using tools and sharp instruments.
- Take care during maintenance as some parts may have sharp edges.
- Immediately after using your model, do NOT touch equipment such as the motor, electronic speed control and battery, because they generate high temperatures. You may burn yourself seriously touching them.
- Do not put fingers or any objects inside rotating and moving parts, as this may cause damage or serious injury.
- Always turn on your transmitter before you turn on the receiver in the car. Always turn off the receiver before turning your transmitter off.
- Keep the wheels of the model off the ground when checking the operation of the radio equipment.

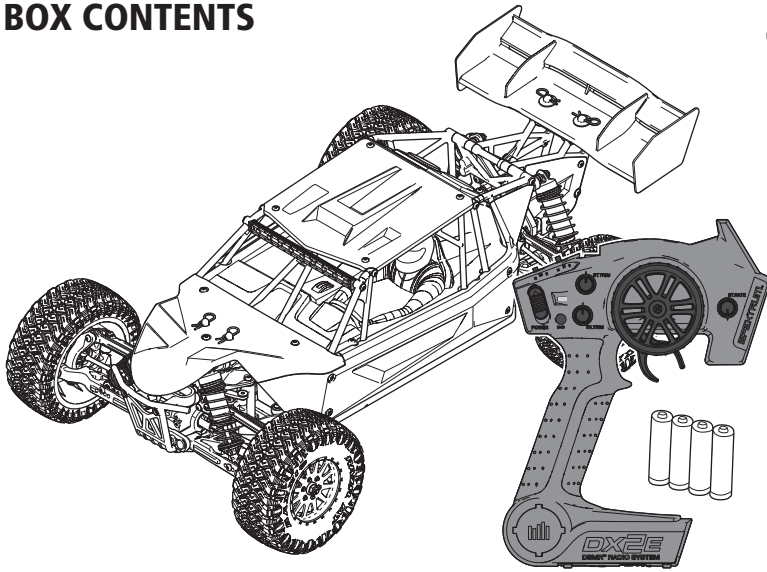
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REGISTER YOUR LOSI PRODUCT ONLINE

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 and follow the product registration link to stay connected.

BOX CONTENTS



COMPONENTS

- Losi® TENACITY™-DB RTR, AVC®: 1/10-Scale 4WD Desert Buggy (LOS03014T1/T2)
- Spektrum™ DX2E Active™, 2.4GHz Transmitter (SPM2335)
- Spektrum™ 6-Channel DSMR® AVC Surface Receiver (SPMSRS6000)
- Spektrum™ 9KG 23T Waterproof Servo (SPMS605)
- Dynamite® Fuze™ 130A Sensorless Brushless Waterproof ESC (DYN4955)
- Dynamite® Fuze™ 550 Brushless Motor 3800Kv (DYN51616)
- 4 AA batteries (for transmitter)

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.
- 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.

QUICK START

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

1. Read the safety precautions found in this manual.
2. Charge a battery for the vehicle. Refer to the included charging warnings and instructions for battery charging information.
3. Install the AA batteries in the transmitter. Only use alkaline or rechargeable batteries.
4. Install the fully charged battery in the vehicle.
5. Power ON the transmitter and then the vehicle. Wait 5 seconds for the ESC to initialize. 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.

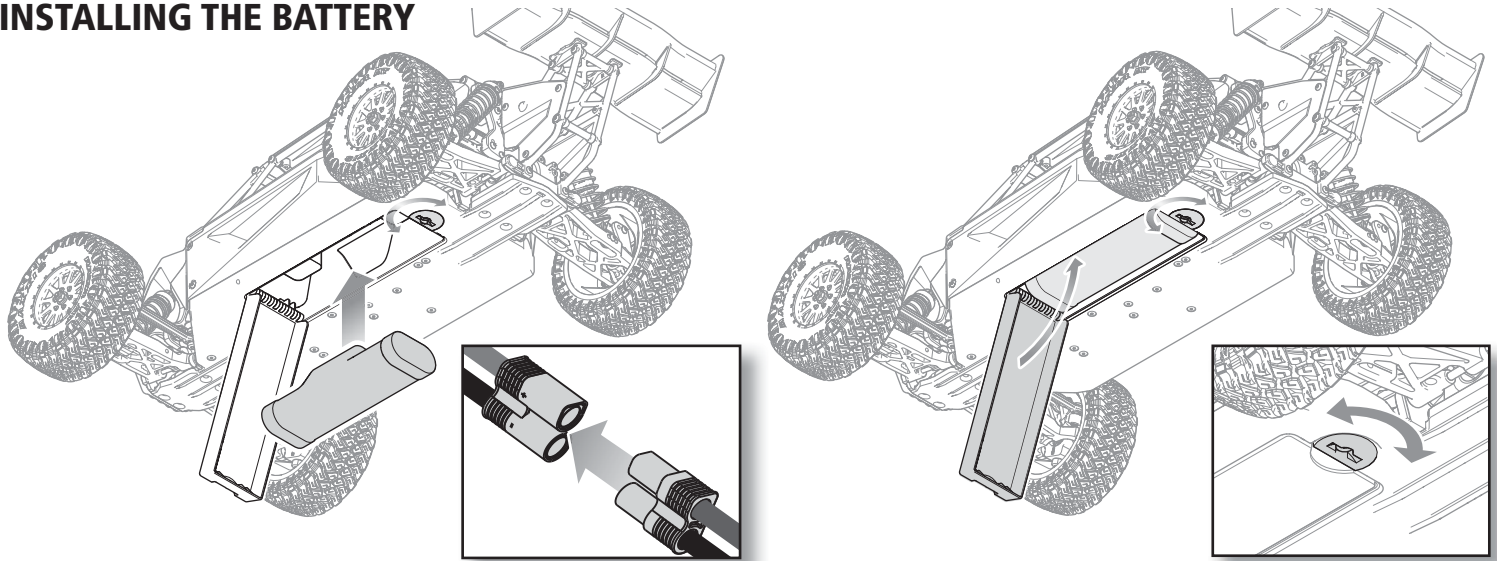
CHARGING THE BATTERY

Choose a battery designed to work with the Dynamite® Fuze™ 130A Sensorless BL Waterproof ESC. We recommend the Dynamite® 7.4 5000mAh 2S 30C LiPo: Hardcase with EC3™ connector (DYN9005EC) or Dynamite 11.1 5000mAh 3S 30C LiPo Hardcase with EC3 connector (DYN9007EC). Choose a charger designed to charge 2S and/or 3S Li-Po batteries.

We recommend the Dynamite® Prophet™ Sport Li-Po 35W AC Battery Charger (DYN2005CA). Refer to your battery and charger manuals for usage, safety, and charging information.

IMPORTANT: When using a 3S battery, you must change the motor pinion gear to the 12T pinion provided with your vehicle.

INSTALLING THE BATTERY

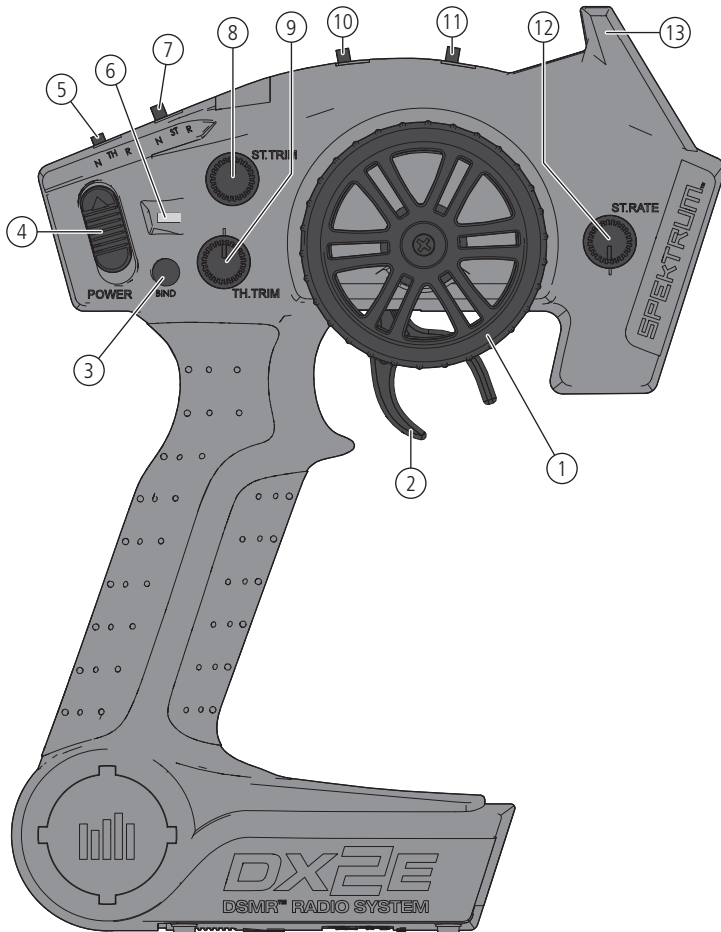


1. Ensure the ESC is powered OFF.
2. Rotate the battery hatch lock to align the flat section with the edge of the battery hatch.
3. Open the battery hatch.
4. Connect the battery to the ESC noting the correct polarity.

5. Install the fully charged battery in the vehicle.
6. Close the battery hatch and rotate the lock fully to secure the hatch.
7. Power ON the transmitter, then the vehicle.

IMPORTANT: Secure the ESC wires so they do not interfere with the gearing.

SPEKTRUM DX2E ACTIVE 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. **BIND Button** Puts the transmitter into Bind Mode
4. **ON/OFF Switch** Turns the power ON/OFF for the transmitter
5. **TH.REV** Reverses function of the speed control when pulled back or pushed forward
6. **Indicator Lights**
 - Solid green light—indicates adequate battery power
 - Flashing green light—indicates the battery voltage is critically low. Replace batteries
7. **ST. REV** Reverses the function of the steering when the wheels is turned left or right
8. **ST Trim** Adjusts the steering center point
9. **TH Trim** Adjusts the throttle neutral point
10. **TH Limiter** Limits throttle output to 50, 70 or 100%.
11. **3-Position Switch** Used to control a third channel and is preset at -100%/Neutral/100%
12. **ST Rate** Adjusts the sensitivity of AVC technology
13. **Antenna** Transmits the signal to the model

INSTALLING THE TRANSMITTER BATTERIES

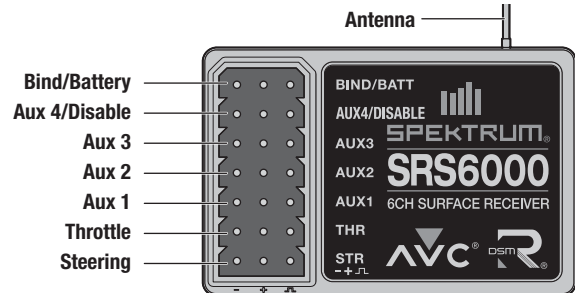
1. Push in the battery cover a small amount to release the retaining tab, then remove the cover.
2. Install 4 AA batteries, taking care to align the battery polarity to the diagram in the transmitter's battery case.
3. Carefully reinstall the battery cover by aligning the tabs with the slots on the transmitter.

CAUTION: If using rechargeable batteries, charge only rechargeable batteries. Charging non-rechargeable batteries may cause the batteries to burst, resulting in injury to persons and/or damage to property.

CAUTION: Risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries according to national regulations.

For more information on the transmitter, go to www.horizonhobby.com and click on the support tab for the Spektrum DX2E to download the instruction manual.

SRS6000 AVC TECHNOLOGY RECEIVER



AUX CHANNELS

The Aux channels can operate as additional servo channels, or as a power supply for a personal transponder.

If AVC is active, only 4 channels; Steering, Throttle, AUX3 and AUX4 are operational. The remaining Aux channels can be used to power a personal transponder or lights.

If AVC is disabled (see **DISABLING THE STABILITY ASSIST FUNCTION**), all 6 channels including the Aux channels can operate as servo channels.

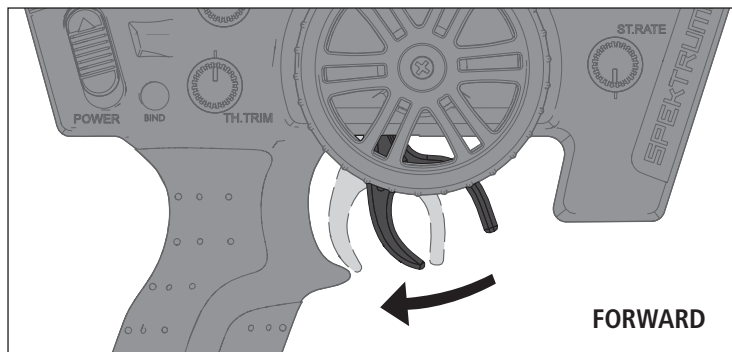
BINDING AND CALIBRATING THE RECEIVER

In order to operate, the receiver must be bound to the transmitter. Binding is the process of programming the receiver to recognize the GUID (Globally Unique Identifier) code of a single specific transmitter. When a receiver is bound to a transmitter/model memory, the receiver will only respond to that specific transmitter/model memory.

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

IMPORTANT: The following sequence of steps must be followed in order for AVC technology to function properly.

1. Insert the Bind Plug in the BIND port on the receiver.
2. Power on the receiver. The orange LED flashes, indicating the receiver is in bind mode.
3. Center the ST TRIM and TH TRIM on the transmitter.
4. Put your transmitter in bind mode by powering on transmitter while holding down bind button.
5. The bind process is complete when the orange LED on the receiver is solid.
6. Pull the transmitter trigger to Full Throttle.
7. Push the transmitter trigger to Full Brake, then return the trigger to center.
8. Turn the transmitter steering wheel to Full Right.
9. Turn the transmitter steering wheel to Full Left, then return the steering wheel to center. The orange LED flashes once.
10. Remove the bind plug once the calibration and binding process is complete.
11. Power off the transmitter.



IMPORTANT: You must rebind the transmitter and receiver if you:

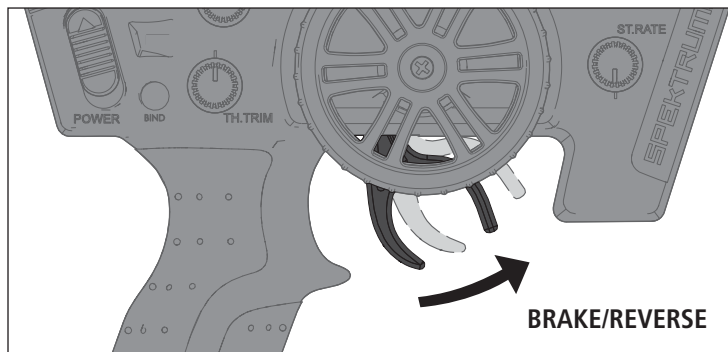
- Change the servo reverse after binding
- Change the travel after binding
- Want to use the receiver with a different model memory

If you change the servo reversing or travel adjust after binding, AVC will not work properly.

DISABLING THE STABILITY ASSIST FUNCTION

If you participate in organized racing, you may be required to turn AVC® technology off. To turn off AVC technology, insert a second Bind Plug in the Disable port before binding.

IMPORTANT: You must calibrate the receiver each time it is placed in bind mode. To activate AVC, see the steps in BINDING AND CALIBRATING THE RECEIVER.



DRIVING PRECAUTIONS

- Maintain sight of the vehicle at all times.
- Routinely inspect the vehicle for loose wheel hardware.
- Routinely 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. If the receiver loses power, you will lose control of the vehicle. Damage due to an over-discharged Li-Po battery is not covered under warranty.

CAUTION: Do not discharge a Li-Po 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 forward or reverse throttle 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 before driving the vehicle again.

IMPORTANT: Keep wires away from all moving parts.

BEFORE RUNNING YOUR VEHICLE

1. Check for free suspension movement. All suspension arms and steering components should move freely. Any binds will cause the vehicle to handle poorly.

Tip: To increase the ride height and ground clearance of your vehicle, install the included shock spacers.

2. Charge a battery pack. Always charge the battery pack as per the battery and/or charger manufacturers' instructions.
3. 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.
4. Perform a Control Direction Test.

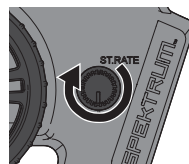
POWERING ON THE VEHICLE

1. Center the ST TRIM and TH TRIM dials on the transmitter.
2. Power on the transmitter.
3. Install a fully charged battery pack per the *Installing the Battery* section.
4. Power on the ESC.

IMPORTANT: The vehicle **MUST** remain on a flat, level surface and motionless for at least 5 seconds.

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.



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.

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.

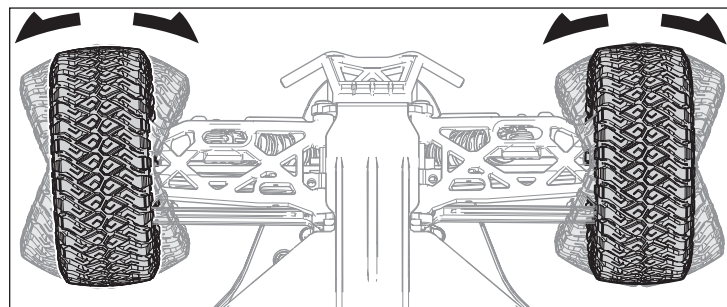
Driving the vehicle from a stop to full speed repeatedly will damage the batteries and electronics over time. Sudden acceleration will also lead to shorter run times.

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 decreases 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).

PERFORMING A CONTROL DIRECTION TEST

Perform a control test with the vehicle wheels off the ground. If the wheels rotate after the vehicle is powered ON, adjust the TH Trim knob until they stop. To make the wheels move forward, pull the trigger. To reverse them, wait for the wheels to stop, then push the trigger. When moving forward, the wheels should maintain a straight line without any steering wheel input. If not, adjust the ST Trim knob, so the wheels maintain a straight line without having to turn the steering wheel.



CHANGING THE TRAVEL ADJUST SETTINGS

Set the travel adjust settings with all four vehicle wheels off the ground. The throttle end point and brake end point adjustments will cause the wheels to spin at full speed. Have an assistant safely hold the vehicle securely while adjusting these settings.



CAUTION: Keep hands, hair and all loose clothing away from any moving parts, especially the wheels, while setting the travel adjust end points. Serious injury may result.

1. Hold the trigger in the full brake position and turn the steering wheel to Full Right 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 SPMSRS6000.

DYNAMITE® FUZE™ 130A SENSORLESS BRUSHLESS ESC (DYN4955)

SPECIFICATIONS

Type	Sensorless
Constant/Peak	130A/760A
Resistance	0.0004 Ohm
Function	Forward/Brake–Forward/Brake Reverse
Operation	Proportional forward, proportional reverse with braking delay
Input Voltage	7.4V–14.8V (The motor in this vehicle will not support 14.8V)
BEC Output	6V/3A
Overload Protection	Thermal
Dimensions (LxWxH)	53.5mm x 36mm x 36mm
Weight	79 g

ESC LED STATUS

- No ESC LEDs will glow when there is no throttle input from the transmitter.
- The red ESC LED glows when there is any throttle input from the transmitter.

AUDIBLE WARNING TONES

1. **Input Voltage:** The ESC checks the input voltage when it is powered ON. If a voltage problem is detected, the ESC continuously sounds 2 beeps with a 1 second pause (xx-xx-xx). Power OFF the ESC and ensure the connections are secure and that the battery power is not too low for safe operation.
2. **Radio Connection:** The ESC checks radio signal input when it is powered ON. If a problem is detected, the ESC continuously sounds 1 beep with a 2 second pause (x--x--x). Power OFF the ESC and ensure the radio system is operating correctly.

For sensorless brushless motors:

1. Connect the ESC terminal A to the motor's terminal A. This may also be changed in Programming Item 12, Motor Rotation, without changing wire connections.
2. Connect the ESC terminal B to the motor's terminal B.
3. Connect the ESC terminal C to the motor's terminal C.



NOTICE: Always disconnect the battery from the ESC when you have finished operating your vehicle. The ESC's switch only controls power to the receiver and servos. The ESC will continue to draw current when connected to the battery, resulting in possible damage to the battery through over discharge.

ESC CALIBRATION PROCEDURE

Ensure proper ESC function by calibrating the ESC to your transmitter inputs.

1. Power OFF the ESC.
2. Ensure your transmitter is powered ON, the throttle is not reversed, the throttle trim is neutral and the throttle travel range is at 100%. Disable any special functions such as ABS, etc.
3. Press the SET button while powering ON the ESC. Release the button as soon as the red LED starts to flash.
4. Calibrate the throttle points by pressing the SET button once after each step.
 - Neutral (1 flash)—leave the throttle at rest, untouched
 - Full throttle (2 flashes)—pull the throttle fully back
 - Full brake/reverse (3 flashes)—push the throttle fully forward
5. The motor will run 3 seconds after the last step is completed.

Tip: If the motor turns in the wrong direction, reverse the connection of the 2 outside motor wires. The center wire must remain in the center and cannot be moved to another motor tab.

ESC FUNCTIONS AND MODES

The ESC includes programming options so you can adjust the way your vehicle performs. Refer to the included settings table to adjust the ESC for your driving conditions.

ESC PROGRAMMING PROCEDURE

Programming is accomplished using the SET button on the ON/OFF switch or Digital Program Box (DYN3748).

1. Connect a fully charged 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, hold 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 holding the SET button for 3 seconds.
8. Power OFF the ESC switch and repeat the instructions above to change other settings.

Tip: If desired, the ESC programming can be returned to default settings by powering ON the ESC and holding the SET button for 5 seconds.

PROGRAMMABLE ITEMS Basic Items	PROGRAMMABLE VALUE									Default Settings
	1	2	3	4	5	6	7	8	9	
1 Running Mode	Forward w/ brake	Forward/Reverse w/ brake	Forward/Reverse							
2 Drag Brake Force	0%	5%	10%	20%	40%	60%	80%	100%		
3 Low Voltage Cutoff	non-protection	2.6V/Cell	2.8V/Cell	3.0V/Cell	3.2V/Cell	3.4V/Cell				
4 Start Mode	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	Level 8	Level 9	

PROGRAMMABLE ITEMS Advanced Items	PROGRAMMABLE VALUE									Default Settings
	1	2	3	4	5	6	7	8	9	
5 Max Brake Force	25%	50%	75%	100%	disable					
6 Max Reverse Force	25%	50%	75%	100%						
7 Initial Brake Force	= Drag Brake Force	0%	20%	40%						
8 Neutral Range	6% (Narrow)	9% (Normal)	12% (Wide)							
9 Timing	0.00°	3.75°	7.50°	11.25°	15.00°	18.75°	22.50°	26.25°		
10 Reserved Item										
11 Reserved Item										
12 Motor Rotation	Counterclockwise	Clockwise								
13 Li-Po Cells	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.

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).

4. Start Mode (Punch)

Sets the initial throttle punch when the car accelerates. Level 1 gives a very soft initial acceleration and level 4 gives a stronger initial acceleration.

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

Allows you to 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.

DYNAMITE® FUZE™ 3800KV BRUSHLESS MOTOR (DYSN1616)

PRECAUTIONS

- Never touch moving parts.
- Never disassemble while the batteries are installed.
- Always let parts cool before touching.

GEARING

Your vehicle has been equipped with the optimal gearing for the use of a 2S battery. It offers an ideal balance between speed, power and efficiency. Should you decide to customize your vehicle with a 3S battery it is necessary to change to a 12T pinion (included).

Installing a pinion gear with fewer teeth or a spur gear with more teeth will provide greater torque but will reduce top speed. Likewise, a pinion gear with more teeth or a spur gear with fewer teeth will reduce torque and increase top speed. Care should be taken when installing larger pinion gears as this can "overgear" the vehicle, resulting in overheating of the motor and ESC. When testing different gearing options, pay close attention to the temperature of the motor and speed control to ensure you are operating within the temperature range of the components. The motor or ESC should never be so hot that it cannot be touched. If temperatures are too hot, a different gearing combination with a lower pinion gear and/or higher spur gear is suggested.

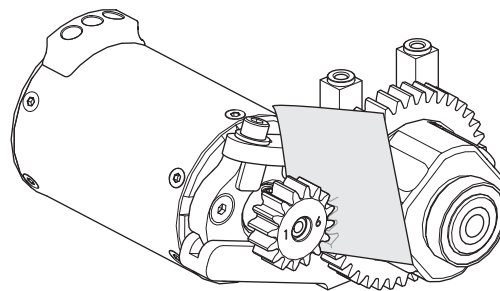
CHANGING THE PINION GEAR/GEAR RATIO

1. Remove screw holding the pinion gear cover in place.
2. Loosen the set screw and remove the installed pinion gear.
3. Loosen the motor screws and slide the motor back.
4. Place the new pinion on the end of the motor shaft so the set screw is located over the flat on the shaft.
5. Position it so the teeth line up with the spur gear and secure the pinion by tightening the set screw.
6. Set the gear mesh.

SETTING THE GEAR MESH

The gear mesh has already been set at the factory. Setting it is only necessary when changing motors or gears.

Proper gear mesh (how gear teeth meet) is important to the performance of the vehicle. When the gear mesh is too loose, the spur gear could be damaged by the pinion gear of the motor. If the mesh is too tight, speed could be limited and the motor and ESC will overheat.



7. Loosen the motor screws and slide the motor back.
8. Put a small piece of paper between the pinion and spur gears.
9. Push the gears together while tightening the motor screws.
10. Remove the paper. Check the mesh at 3–5 different locations around the spur gear for a small amount of movement.
11. Install the gear cover.

NOTICE: If you are using a 2S Li-Po battery, use the included 16T Pinion gear. If you are using a 3S Li-Po battery, use the optional 12T pinion gear (included). Using a 16T pinion gear with a 3S Li-Po battery will result in damage to the ESC and motor.

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 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-gear	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 or (vii) use that violates any applicable laws, rules, or 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, 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.

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 1/2 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.

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.

10/15

WARRANTY AND SERVICE CONTACT INFORMATION

Country of Purchase	Horizon Hobby	Contact Information	Address
United States of America	Horizon Service Center (Repairs and Repair Requests)	servicecenter.horizonhobby.com/RequestForm/	4105 Filedstone Rd. Champaign, Illinois 61822 USA
	Horizon Product Support (Product Technical Assistance)	productsupport@horizonhobby.com 877-504-0233	
	Sales	websales@horizonhobby.com 800-338-4639	
European Union	Horizon Technischer Service	service@horizonhobby.eu +49 (0) 4121 2655 100	Hanskampring 9 D 22885 Barsbüttel, Germany
	Sales: Horizon Hobby GmbH		

FCC STATEMENT

FCC ID: BRWDX2EQ2UC

FCC ID: BRWDASRX12

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 2.400GHz to 2.4835GHz frequency range.

This equipment has been tested and found to comply with the limits for Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

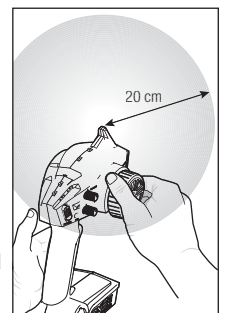
However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation distance between the equipment and receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.

Antenna Separation Distance

When operating your Spektrum transmitter, please be sure to maintain a separation distance of at least 20 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 illustration shows the approximate 20 cm RF exposure area and typical hand placement when operating your Spektrum transmitter.



IC INFORMATION

IC: 6157A-DX2EQ2UC

IC: 6157A-AMRX12

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

EU Compliance Statement: Horizon Hobby, LLC hereby declares that this product is in compliance with the essential requirements and other relevant provisions of the RED and EMC Directives.

A copy of the EU Declaration of Conformity is available online at: <http://www.horizonhobby.com/content/support-render-compliance>.



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 collections 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.

REPLACEMENT PARTS // TEILELISTE // LISTE DES PIÈCES DE RECHANGE // ELENCO DEI RICAMBI

Part #	English	Deutsch	Français	Italiano
DYN4955	Fuze 130A BL ESC: 4WD SCT 1/8 WP	Fuze 130 A Sensorloser BI WP Geschwindigkeitsregler: 4WD SCT 1/8	Contrôleur Brushless étanche Fuze 130A Sensorless pour SCT 4WD 1/8	ESC brushless waterproof Fuze 130 A senza sensori: SCT 4WD 1:8
DYNC0156	Telemetry Adapter Set: 4mm	Telemetrieadaptersatz: 4 mm	Ensemble d'adaptateur télémétrique : 4 mm	Set adattatore per telemetria: 4mm
DYNS1616	FUZE 550 BL Motor 3800kv	FUZE 550 bürstenloser Motor 3800 kV	Moteur Brushless Fuze 550, 3800Kv	Motore brushless FUZE 550 3800 Kv
LOS230051	Body Set, Red: Tenacity DB	Karosseriesatz, Rot: Tenacity DB	Carrosserie rouge: Tenacity DB	Set carrozzeria, rosso: Tenacity DB
LOS230052	Body Set, Blue: Tenacity DB	Karosseriesatz, Blau: Tenacity DB	Carrosserie bleu: Tenacity DB	Set carrozzeria, blu: Tenacity DB
LOS231023	Chassis: TENACITY SCT	Fahrgestell	Châssis	Telaio
LOS231024	Radio Box Set: TENACITY SCT	Funkgerätkastensatz	Boîtier Radio	Set Scocca Radiocomando
LOS231025	Shock Tower Set: TENACITY SCT	STOSSDÄMPFERSATZ	Support d'amortisseurs	SET TORRE AMMORTIZZATORE
LOS231026	Steer BellcrankSet:TENACITY SCT	STEUERHEBELSATZ	Renvois de direction	SET SQUADRETTE STERZO
LOS231027	Steer Pst/Tubes&HDWE:TENACITYSCT	Lenksäulen/Rohre und Hardware	Pivots/commandes de direction & visserie	Comandi/tubi sterzo e accessori
LOS231030	Chassis Support Set	Fahrgestellstützsatz	Support châssis	Set supporto telaio
LOS231031	Motor Mount: TENACITY SCT	Motorhalterung	Support moteur	Supporto motore
LOS231032	Battery Box: TENACITY SCT	Akkukasten	Boîtier batterie	Scatola batteria
LOS231033	SteeringDragLink&Hdwe: TENACITY	Spurstangenverbindung und Hardware	Biellette de commande de direction & visserie	Rinvio trascinamento sterzo e accessori
LOS231041	Roll Cage Set: Tenacity DB	Überrollkäfigsatz: Tenacity DB	Ensemble de cage de retournement : Tenacity DB	Set scocca di sicurezza: Tenacity DB
LOS232023	Diff Case Set: TENACITY SCT	DIFFERENTIALSGEHÄUSESATZ	Corps de différentiel	SET SCATOLA DIFFERENZIALE
LOS232024	CenterDrive Coupler:TENACITY SC	Zentralantriebskupplung	Liaison cardan central	Accoppiatore trasmissione centrale
LOS232025	40T SpurGear, Mod 1:TENACITY SCT	40T Stirnradgetriebe, Mod 1	Couronne 40T, Mod 1	Ingranaggio cilindrico 40T, modalità 1
LOS232026	Diff Housing: TENACITY SCT	Differentialgehäuse, integrierter Einsatz	Corps de différentiel, insert intégré	Scatola differenziale, inserto integrato
LOS232027	FRing&PinGearSet:TENACITY SCT	Frontring und Zahnradgetriebeatz	Couronne de différentiel avant et pignon d'attaque	Set pignone e fascia anteriore
LOS232028	R Ring&PinGearSet:TENACITY SCT	Heckring und Zahnradgetriebeatz	Couronne de différentiel arrière et pignon d'attaque	Set pignone e fascia posteriore
LOS232029	DiffGearSet w/Hardware:TENACITY	Differentialgetriebeatz mit Hardware	Différentiel avec visserie	Set ingranaggio differenziale con accessori
LOS232030	Outdrive, Diff (2):TENACITY SCT	Außenliegende Differentiale (2)	Noix de cardan, différentiel (2)	Trascinatore, differenziale (2)
LOS232031	Wheel Hex Set (4):TENACITY SCT	Radsechskantsatz (4)	Hexagones de roues (4)	Set esagoni ruote (4)
LOS232032	FR/R Driveshafts(2):TENACITY SCT	Front-/Heckantriebswellen (2)	Cardan avant/arrière (2)	Alberi di trasmissione ant./post. (2)
LOS232033	FRCenter Dogbone(2):TENACITY SCT	Mittlerer Front-Dogbone (2)	Cardan central avant (2)	Cardano centrale ant. (2)
LOS232034	R Center Dogbone(2):TENACITY SCT	Mittlerer Heck-Dogbone (2)	Cardan central arrière (2)	Cardano centrale post. (2)
LOS233011	Shock Plastics Set:TENACITY SCT	KUNSTSTOFF-STOSSDÄMPFERSATZ	Plastique amortisseurs	SET COMPONENTI AMMORTIZZATORI IN PLASTICA
LOS233012	FR & R Shock Body: TENACITY SCT	Front- und Heckstoßdämpfergehäuse	Corps d'amortisseurs avant & arrière	Corpo ammortizzatore ant. e post.
LOS233013	Spring Set: TENACITY SCT	Federsatz	Ressort	Set molle
LOS233014	RearShockShaft(2):TENACITY SCT	Hintere Stoßdämpferwelle (2)	Tige d'amortisseur arrière (2)	Albero ammortizzatore posteriore (2)
LOS233015	FrontShockShaft(2):TENACITY SCT	Vordere Stoßdämpferwelle (2)	Tige d'amortisseur avant (2)	Albero ammortizzatore anteriore (2)
LOS234016	Front Arm Set: TENACITY SCT	FRONTARMSATZ	Bras avant	SET BRACCIO ANTERIORE
LOS234017	Rear Arm Set: TENACITY SCT	HECKARMSATZ	Bras arrière	SET BRACCIO POSTERIORE
LOS234018	FR Spndl&Carrier St:TENACITY	VORDERER SPINDEL- UND SCHLITTENSATZ	Fusée avant & étrier	SET FUSELLO E PORTAFUSELLO ANTERIORE
LOS234019	FR/R PinMntCover St:TENACITYSCT	VORDERER/HINTERER Stift-Halterungsabdeckungssatz	Protections de renforts de cellules avant et arrière	Set copertura supporto ant./post. con perni
LOS234020	Rear Hubs Set: TENACITY SCT	Hinterer Nabensatz	Fusée arrière	Set mozzi posteriori
LOS234021	Hingepin&KingpinSet:TENACITY SC	Schmierbolzen- und Achsschenkelbolzen-Satz	Axe de suspension & axes	Set perni cerniere e perni fuso a snodo
LOS234022	Camber Link Set:TENACITY SCT	Sturzstangensatz	Biellette de carrossage	Set collegamenti campanatura
LOS234023	PivotPinMntSt,Steel(4):TENACITY	Kippzapfen-Halterungssatz, Stahl (4)	Goupilles de pivots, acier (4)	Set supporto a perno girevole, acciaio (4)
LOS235011	Set Screws M3x3mm Cup Point(10)	Stellschrauben, M3 x 3 mm Ringschneide (10)	Vis STHC M3 x 3mm CUV (10)	Grani, M3 x 3 mm con punta a coppa (10)
LOS235012	Set Screws M4x4mm Cup Point(10)	Stellschrauben, M4 x 4 mm Ringschneide (10)	Vis STHC M4 x 4mm CUV (10)	Grano, M4 x 4 mm con punta a coppa (10)
LOS235024	Button Head Screws M3x25mm (10)	Halbrundschrauben M3x25mm (10)	Vis à tête bombée M3x25mm (10)	Viti a testa tonda M3x25mm (10)
LOS235025	Button Head Screws M3x30mm (10)	Halbrundschrauben M3x30mm (10)	Vis à tête bombée M3x30mm (10)	Viti a testa tonda M3x30mm (10)
LOS235026	Set Screws, M3 x 4mm CupPoint(10)	Stellschrauben, M3 x 4mm Ringschneide (10)	Vis sans tête M3 x 4mm (10)	Grani, M3 x 4 mm con punta a coppa (10)
LOS235027	Set Screws, M3x10mm CupPoint(10)	Stellschrauben, M3 x 10mm Ringschneide (10)	Vis sans tête M3 x 10mm (10)	Grani, M3 x 10 mm con punta a coppa (10)
LOS236000	E-Clips 2.5mm (12)	E-Clips 2,5 mm (12)	E-Clips 2,5mm (12)	E-clip 2,5 mm (12)
LOS236001	3.2mm x 7mm x .5mm Washer(10)	3,2 mm x 7 mm x 0,5 mm Unterlegscheibe (10)	Rondelle 3,2mm x 7mm x 0,5mm (10)	Rondella 3,2 mm x 7 mm x .5 mm (10)
LOS237000	12x18x4mm Ball Bearing (4)	12 x 18 x 4 mm Kugellager (4)	Roulements 12 x 18 x 4mm (4)	Cuscinetto a sfera 12 x 18 x 4 mm (4)
LOS237001	10x15x4mm Ball Bearing (4)	10 x 15 x 4 mm Kugellager (4)	Roulements 10 x 15 x 4mm (4)	Cuscinetto a sfera 10 x 15 x 4 mm (4)
LOS237002	5x11x4mm Ball Bearing (4)	5 x 11 x 4 mm Kugellager (4)	Roulements 5 x 11 x 4mm (4)	Cuscinetto a sfera 5 x 11 x 4 mm (4)
LOS43006	Wheels (4): Baja Rey	Räder (4): Baja Rey	Baja Rey - Roues (4)	Ruote (4): Baja Rey
LOS43015	Wheel and Tire Mounted (2)	Rad und Reifen befestigt (2)	Pneu et jante monté (2)	Ruota e pneumatico montati (2)
LOS43016	Maxxis Razr MT, SCT TIRE (2)	Maxxis Razr MT, SCT REIFEN (2)	Pneu SCT, Maxxis Razr MT (2)	Maxxis Razr MT, pneumatico SCT (2)
LOS43022	Wheels, Grey (2):Tenacity DB	Räder, Grau (2):Tenacity DB	Roues, Grises (2) :Tenacity DB	Ruote, colore grigio (2):Tenacity DB
LOSA3572	1.0 Module Pitch Pinion, 12T:8E, SCTE	1.0 Modul Getrieberad 12T:8E, SCTE	Pignon module 1.0, 12T:8E, SCTE	Pignone a passo modulare 1.0, 12T:8E, SCTE
LOSA3574	1.0 Module Pitch Pinion, 14T:8E, SCTE	1.0 Modul Getrieberad 14T:8E, SCTE	Pignon module 1.0, 14T:8E, SCTE	Pignone a passo modulare 1.0, 14T:8E, SCTE
LOSA6940	6x12mm Sealed Ball Bearing (4)	6 x 12 mm geschlossenes Kugellager (4)	Roulements étanches 6x12mm (4)	Cuscinetto a sfera sigillato 6 x 12 mm (4)
SPM2335	DX2E ACTIVE 2ChDSMR Radio w/SR310	DX2e Active 2-Kanal Oberflächen-Funkgerät	Émetteur DX2e Active 2 voies	Radiocomando di superficie DX2e Active 2 canali
SPMS605	9KG Servo, WP, Metal, 23T	9KG Servo, WP, Metall, 23T	Servo 9Kg à pignons métal, étanche, tête 23T	Servo 9 kg, waterproof, metallo, 23T
SPMSRS6000	SRS6000 DSMR AVC Surface Rx	SRS6000 DSMR AVC Oberflächenempfänger	Récepteur Surface SRS6000 DSMR AVC	Ricevente di superficie SRS6000 DSMR con AVC
TLR235007	Flat Head Screw M2.5 x 10mm (10)	Flachkopfschraube M2,5 x 10 mm (10)	Vis FHC M2,5 x 10mm (10)	Viti a testa piatta M2,5 x 10 mm (10)
TLR255008	Button Head Screws, M4x16mm (10)	Halbrundschrauben, M4 x 16 mm (10)	Vis à tête bombée, M4x16mm (10)	Viti a testa tonda, M4 x 16 mm (10)
TLR255013	Flat Head Screws, M4x12mm (10)	Flachkopfschrauben, M4 x 12 mm (10)	Vis à tête fraisée, M4x12mm (10)	Viti a testa piatta, M4 x 12 mm (10)

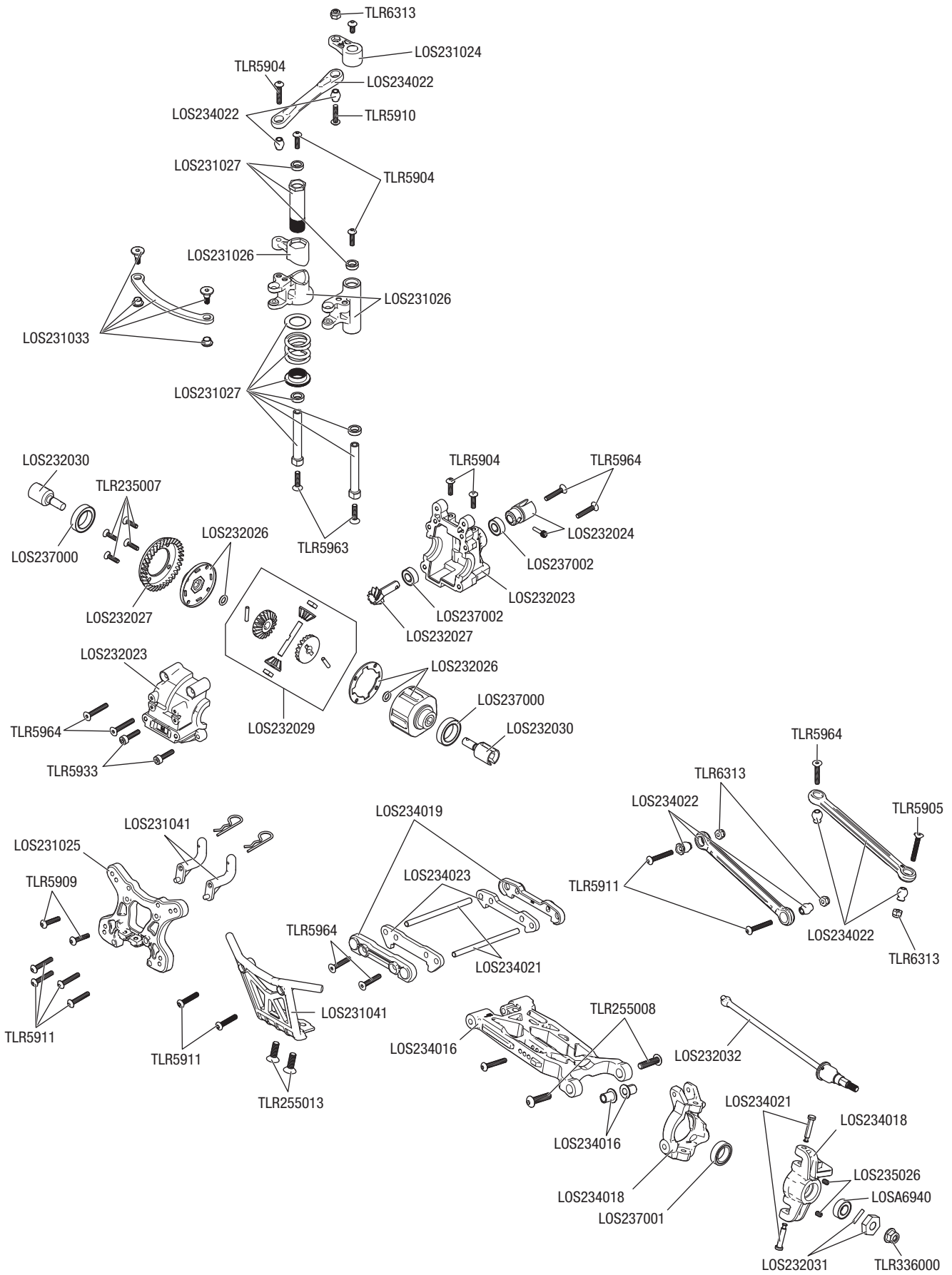
REPLACEMENT PARTS // TEILELISTE // LISTE DES PIÈCES DE RECHANGE // ELENCO DEI RICAMBI

Part #	English	Deutsch	Français	Italiano
TLR256005	Nylock Nut, M4 (10)	Einstellmutter, M4 (10)	Écrou auto-freiné, M4 (10)	Dado Nylock, M4 (10)
TLR336000	4mmAlumSerratedLockNuts,Black(6)	4mm Aluminium Stopmutter mit Flansch schwarz (6)	Écrou auto-freiné épaulé M4, aluminium, noire (6)	Dado autobloccante 4mm dentellato, nero (6)
TLR336005	M3 Flanged Alum Locknuts Blk(10)	M3 geflanschte Aluminium-Kontermuttern, Schwarz (10)	Écrou auto-freiné épaulé M3 en aluminium, noir (10)	Dadi autobloccanti a colletto M3 in alluminio, nero (10)
TLR5901	Button Hd Screws, M3 x 6mm (10)	Halbrundschrauben, M3 x 6mm (10)	Vis à tête bombée M3 x 6mm (10)	Viti a testa tonda, M3 x 6mm (10)
TLR5902	Button Hd Screws, M3 x 8mm (10)	Halbrundschrauben, M3 x 8mm (10)	Vis à tête bombée M3 x 8mm (10)	Viti a testa tonda, M3 x 8mm (10)
TLR5903	Button Hd Screws, M3 x 10mm (10)	Halbrundschrauben, M3 x 10mm (10)	Vis à tête bombée M3 x 10mm (10)	Viti a testa tonda, M3 x 10mm (10)
TLR5904	Button Hd Screws, M3 x 12mm (10)	Halbrundschrauben, M3 x 12mm (10)	Vis à tête bombée M3 x 12mm (10)	Viti a testa tonda, M3 x 12mm (10)
TLR5905	Button Hd Screws, M3 x 18mm (10)	Halbrundschrauben, M3 x 18mm (10)	Vis à tête bombée M3 x 18mm (10)	Viti a testa tonda, M3 x 18mm (10)
TLR5908	Button Hd Screws, M3 x 44mm (4)	Halbrundschrauben, M3 x 44mm (4)	Vis à tête bombée M3 x 44mm (4)	Viti a testa tonda, M3 x 44mm (4)
TLR5909	Button Head Screws, M3x16mm(10)	Halbrundschrauben, M3x16mm(10)	Vis à tête bombée M3x16mm(10)	Viti a testa tonda, M3x16mm(10)
TLR5910	Button Head Screws M3 x 14mm(10)	Halbrundschrauben, M3 x 14mm(10)	Vis à tête bombée M3 x 14mm(10)	Viti a testa tonda, M3 x 14mm(10)
TLR5911	Button Head Screws, M3 x 20mm(10)	Halbrundschrauben, M3 x 20mm(10)	Vis à tête bombée M3 x 20mm(10)	Viti a testa tonda, M3 x 20mm(10)
TLR5914	Button Head Screws, M2 x 12mm(10)	Halbrundschrauben, M2 x 12mm(10)	Vis à tête bombée M2 x 12mm(10)	Viti a testa tonda, M2 x 12mm(10)
TLR5932	Cap Head Screws, M3 x 10mm (10)	Kopfschrauben, M3 x 10mm (10)	Vis BTR, M3 x 10mm (10)	Viti a grano, M3 x 10mm (10)
TLR5933	Cap Head Screws, M3 x 12mm (10)	Kopfschrauben, M3 x 12mm (10)	Vis BTR, M3 x 12mm (10)	Viti a grano, M3 x 12mm (10)
TLR5963	Flathead Screw, M3 x 12mm (10)	Flachkopfschraube, M3 x 12 mm (10)	Vis à tête plate M3 x 12mm (10)	Viti a testa piatta M3 x 12 mm (10)
TLR5964	Flathead Screw, M3 x 16mm (10)	Flachkopfschraube, M3 x 16 mm (10)	Vis à tête plate M3 x 16mm (10)	Viti a testa piatta, M3 x 16 mm (10)
TLR5965	Flathead Screw, M3 x 20mm (10)	Flachkopfschraube, M3 x 20 mm (10)	Vis à tête plate M3 x 20mm (10)	Viti a testa piatta, M3 x 20 mm (10)
TLR6313	Locknut, M3 x .5 x 5.5mm (10)	Kontermutter, M3 x 0,5 x 5,5 mm (10)	Écrou M3 x 0,5 x 5,5mm (10)	Dado autobloccante, M3 x .5 x 5,5 mm (10)
TLR6352	Washers, M3 (10)	Unterlegscheiben, M3 (10)	Rondelles M3 (10)	Rondelle, M3 (10)
TLR74008	Silicone Shock Oil, 35 Wt, 2 Oz	Silikonstoßdämpferöl, 35wt, 2 oz	Huile silicone d'amortisseur, 35wt, 2oz	Olio silicone ammortizzatori, 35wt, 2oz
TLR8202	Body Clips, Black (12): 22	Karosserieklemmern, Schwarz (12): 22	22 - Clips de carrosserie noirs (12)	Clip carrozzeria, nero (12): 22

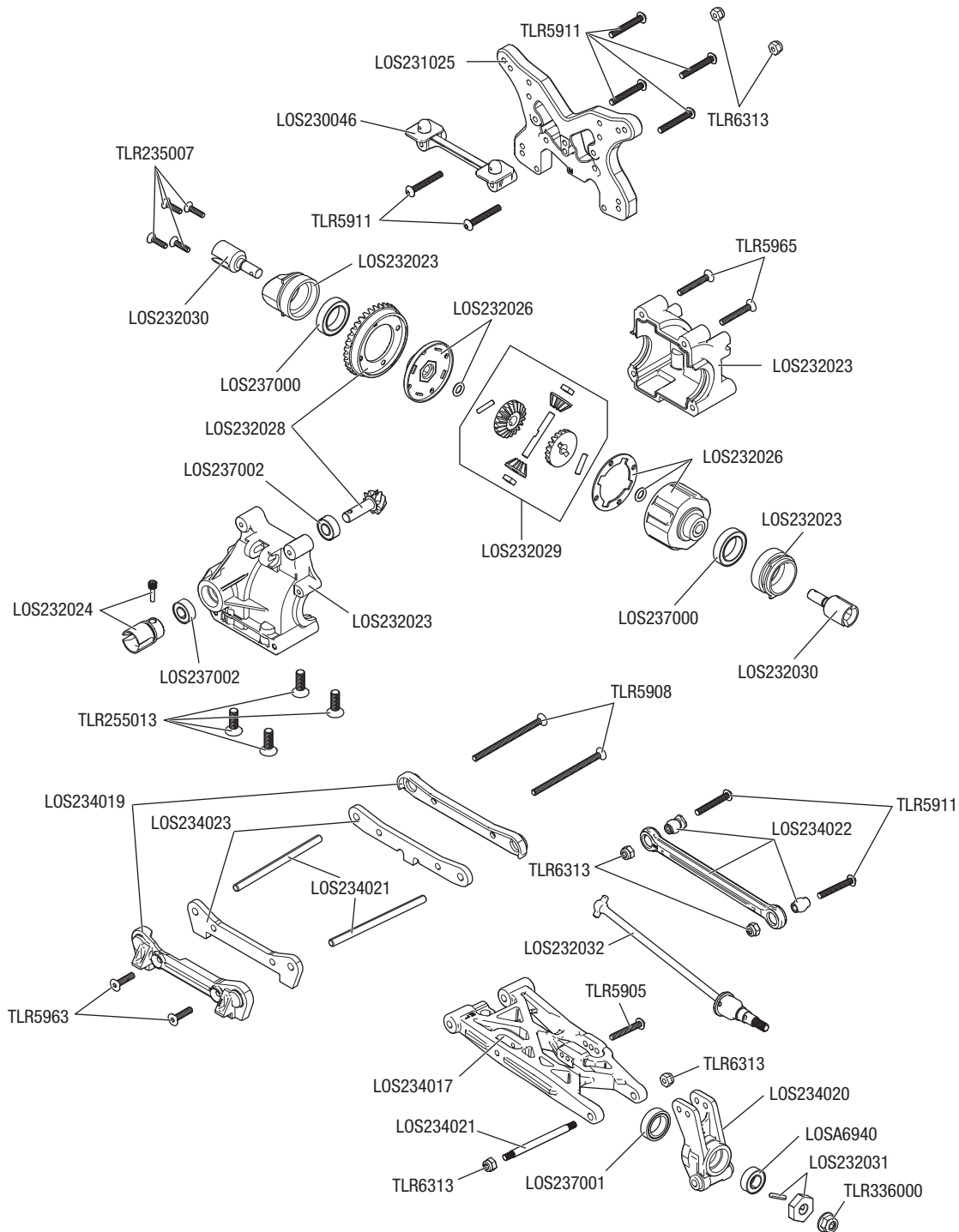
OPTIONAL PARTS // OPTIONALE TEILE // PIÈCES OPTIONNELLES // PARTI OPZIONALI

Part #	English	Deutsch	Français	Italiano
DYNB3802EC	7.4V 5000mAh 2S50CLiPo,Hrds:EC3	7.4V 5000 mA 50C 2S LiPo, Hartschale:EC3	7.4V5000mA 50C, boîtier rigide avec prise EC3	Batteria LiPo hardcase 7.4V 5000mAh 2S 50C: EC3
DYNB3803EC	11.1V5000mAh3S50CLiPo,Hrds:EC3	11.1V 5000 mA 50C 3S LiPo, Hartschale:EC3	11.1V 5000mA 50C, boîtier rigide avec prise EC3	Batteria LiPo hardcase 11.1V 5000mAh 3S 50C: EC3
DYNC2005CA	ProphetSport LiPo 35W AC Charge	Prophet Sport Li-Po 35 W Wechselstrom-Akku-Ladegerät	Chargeur Li-Po Prophet Sport 35W AC	Caricabatteria AC Prophet Sport 35 W per batterie LiPo
DYN2834	Startup Tool Set: Metric	Start-Tool-Set: Metrisch	Set d'outils de démarrage: métrique	Set di strumenti di avvio: metrico
DYN5500	Magnum Force 2 Motor Spray, 13 oz	Magnum Force 2 Motorspray, 13oz	Nettoyant moteur Magnum Force 2, 13oz	Spray per motori Magnum Force 2, 13oz
DYNT2010	Machined Nut Driver St(4)MET	Steckschlüsselset gefräst 4Stk. metrisch	Clés à écrous usinées 4 pièces, métrique	Set cacciaviti dadi lavorati, metrico (4)
DYNT2030	Machined Hex Driver Set (4) Met	Inbusschlüsselset (4) Metrisch	Clés BTR usinées 4 pièces, métrique	Set cacciaviti a brugola lavorati, metrico (4)
LOS230053	Body Set, Clear	Karosseriesatz, farblos	Carrosserie transparente	Set carrozzeria, trasparente
LOS43011	Desert Claws Tires with Foam (2)	Desert Claws Reifen mit Schaumstoff (2)	Pneus Desert Claws montés avec mousse (2)	Pneumatici Desert Claws con spugna (2)
LOSA3571	1.0 Module Pitch Pinion, 11T:8E, SCTE	1.0 Modul Getrieberad 11T:8E, SCTE	Pignon module 1.0, 11T:8E, SCTE	Pignone a passo modulare 1.0, 11T:8E, SCTE
LOSA3573	1.0 Module Pitch Pinion, 13T:8E, SCTE	1.0 Modul Getrieberad 13T:8E, SCTE	Pignon module 1.0, 13T:8E, SCTE	Pignone a passo modulare 1.0, 13T:8E, SCTE
LOSA3575	1.0 Module Pitch Pinion, 15T:8E, SCTE	1.0 Modul Getrieberad 15T:8E, SCTE	Pignon module 1.0, 15T:8E, SCTE	Pignone a passo modulare 1.0, 15T:8E, SCTE
LOSA3576	1.0 Module Pitch Pinion, 16T:8E, E	1.0 Modul Getrieberad 16T:8E, E	Pignon module 1.0, 16T:8E, E	Pignone a passo modulare 1.0, 16T:8E, E
LOSA3577	1.0 Module Pitch Pinion, 17T:8E, SCTE	1.0 Modul Getrieberad 17T:8E, SCTE	Pignon module 1.0, 17T:8E, SCTE	Pignone a passo modulare 1.0, 17T:8E, SCTE
LOSA3578	1.0 Module Pitch Pinion, 18T:8E, SCTE	1.0 Modul Getrieberad 18T:8E, SCTE	Pignon module 1.0, 18T:8E, SCTE	Pignone a passo modulare 1.0, 18T:8E, SCTE
LOSA99173	Ride Height Gauge	Reiten Höhenmessgerät	Jauge de hauteur	Misuratore di altezza di corsa
LOSA99174	Car Stand: 8IGHT/T	Carstand: 8IGHT/T	Socle : 8IGHT/T	Supporto auto: 8IGHT/T
LOS83493	Alum Clamping Whl Hex: TEN-SCTE	Alu-Klemm-Sechskant Rad: TEN-SCTE	Roue de blocage en aluminium hexagonale : TEN-SCTE	Dadi esagonali serraggio ruote in alluminio: TEN-SCTE
SPM6740	Optional Speedometer DX2E	Optional Tachometer DX2E	Compteur vitesse optionnel DX2E	Tachimetro opzionale DX2E
SPM6742	TM1500 Telemetry Module	TM1500 Telemetrie-Modul	Module de télémessure TM1500	Modulo per telemetria TM1500
SPMA3050	Standard Servo Extension 3"	Standard Servoverlängerung 76 mm (3 Zoll)	Rallonge de servo standard de 76 mm (3 po)	Prolunga servo standard 75 mm (3 pollici)
SPMA9560	SPM DSMR Tel BL RPM Sens Surf	SPM DSMR Tel U/min bürstenloser Flächensensor	SCapteur télémétrique de tours/minute sans balai SPM DSMR	Sensore di superficie RPM brushless telemetria DSMR SPM
SPMSS6230	S6230 High Torque, Dig Servo	S6230 Hochdrehmoment-Digital-Servo	S6230 Servo numérique à couple élevé	S6230 Servo digitale ad alta coppia
SPMVA2510	Water Resistant 25mw camera	Wasserfeste Kamera 25 MW	Caméra 25 mw étanche	Videocamera resistente all'acqua da 25mW
SPMVM430HA	Spektrum Headset Accessory	Spektrum-Headsetzubehör	Accessoire casque Spektrum	Accessorio visore Spektrum
SPMVM430	Spektrum 4.3 inch video monitor	Spektrum-Videomonitor 4,3 Zoll	Moniteur vidéo 4,3 pouces Spektrum	Monitor video Spektrum da 4,3 pollici
SPMVR1100	Teleporter V4 Video Headset	Teleporter V4-Videoheadset	Casque vidéo Teleporter V4	Visore Teleporter V4
SPMVX2510	SPMVA2510 HD Camera Cage Mount	SPMVA2510 HD-Kamera, käfigmontiert	Support de caméra HD SPMVA2510	SPMVA2510 Supporto gabbia videocamera HD
TLR332014	Rear Hex, +0.5mm Width, Alum:SCTE	Sechskant hinten, +0,5 mm Breite, Alu:SCTE	Roue de blocage arrière hexagonale, +0,5 mm de large, Alum:SCTE	Dado esagonale posteriore, larghezza +0,5mm, alluminio: SCTE
TLR5062	Bleeder Shock Caps, Alum (2):TEN	Stoßdämpfer-Entlüfterkappen, Alu (2):TEN	Capuchons d'amortisseurs avec purgeurs, Alum (2):TEN	Tappi di sfiato ammortizzatori, alluminio (2): TEN
TLR336001	4mmAlumSerratedLockNuts,Blue(6)	4mm Aluminium Stopmutter mit Flansch Blau (6)	Écrou auto-freiné épaulé M4, aluminium, bleu (6)	Dado autobloccante 4mm dentellato, blu (6)
TLR74006	Silicone Shock Oil, 30wt, 2oz	Silikonstoßdämpferöl, 30wt, 2 oz	Huile silicone d'amortisseur, 30wt, 2oz	Olio silicone ammortizzatori, 30wt, 2oz
TLR74010	Silicone Shock Oil, 40 Wt, 2 Oz	Silikonstoßdämpferöl, 40wt, 2 oz	Huile silicone d'amortisseur, 40wt, 2oz	Olio silicone ammortizzatori, 40wt, 2oz
TLR76000	Tire Glue, Standard	Reifenkleber, Standard	Colle à pneus, Standard	Colla pneumatici, Standard
TLR76004	TLR Lok, Threadlock, Blue	TLR-Lok, Schraubensicherung, blau	Frein filet, TLR-Lok, bleu	Frenafilietti, TLR Lok, blu

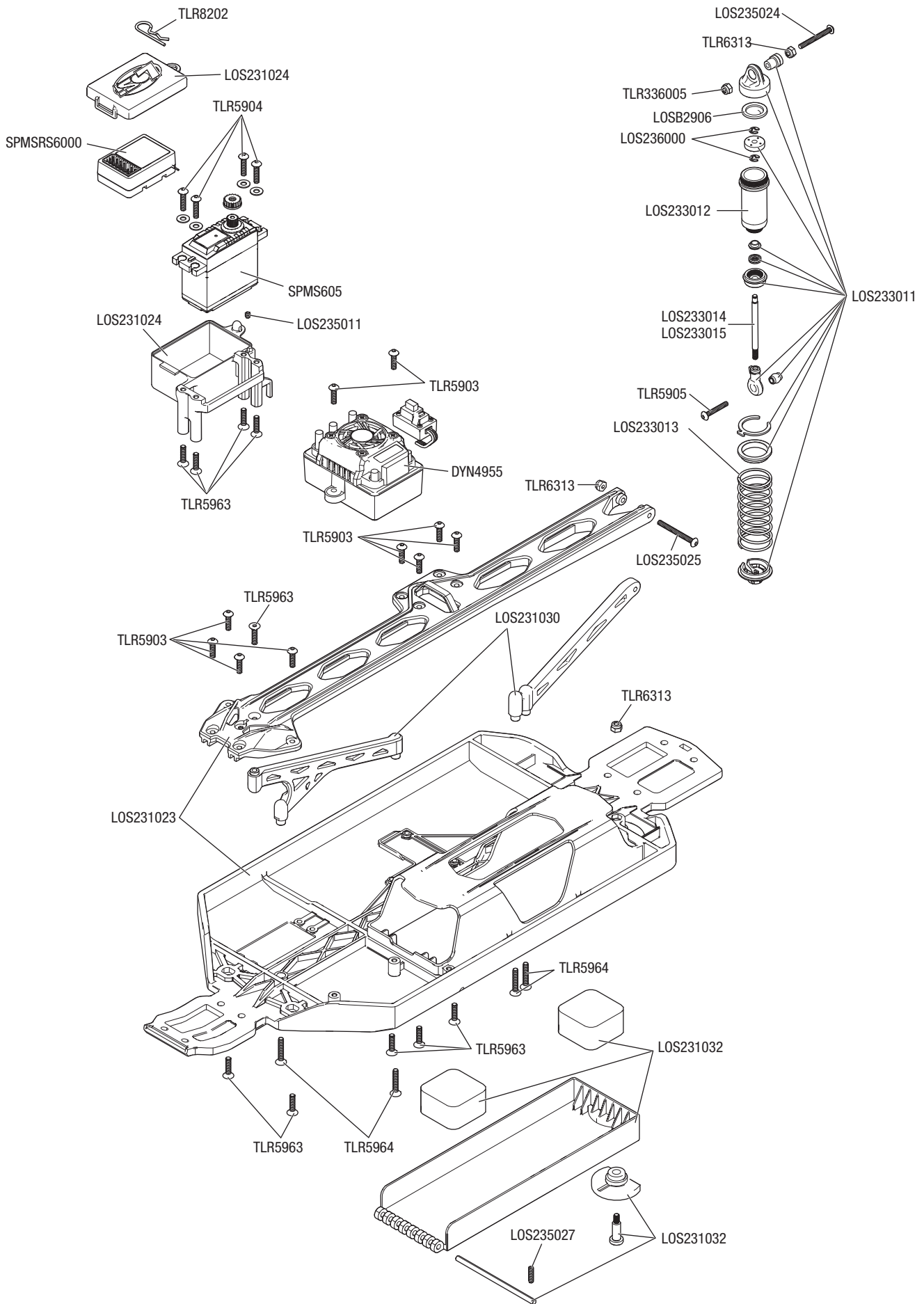
EXPLODED VIEW // EXPLOSIONSZEICHNUNG // VUE ÉCLATÉE DES PIÈCES // VISTA ESPLOSA DELLE PARTI



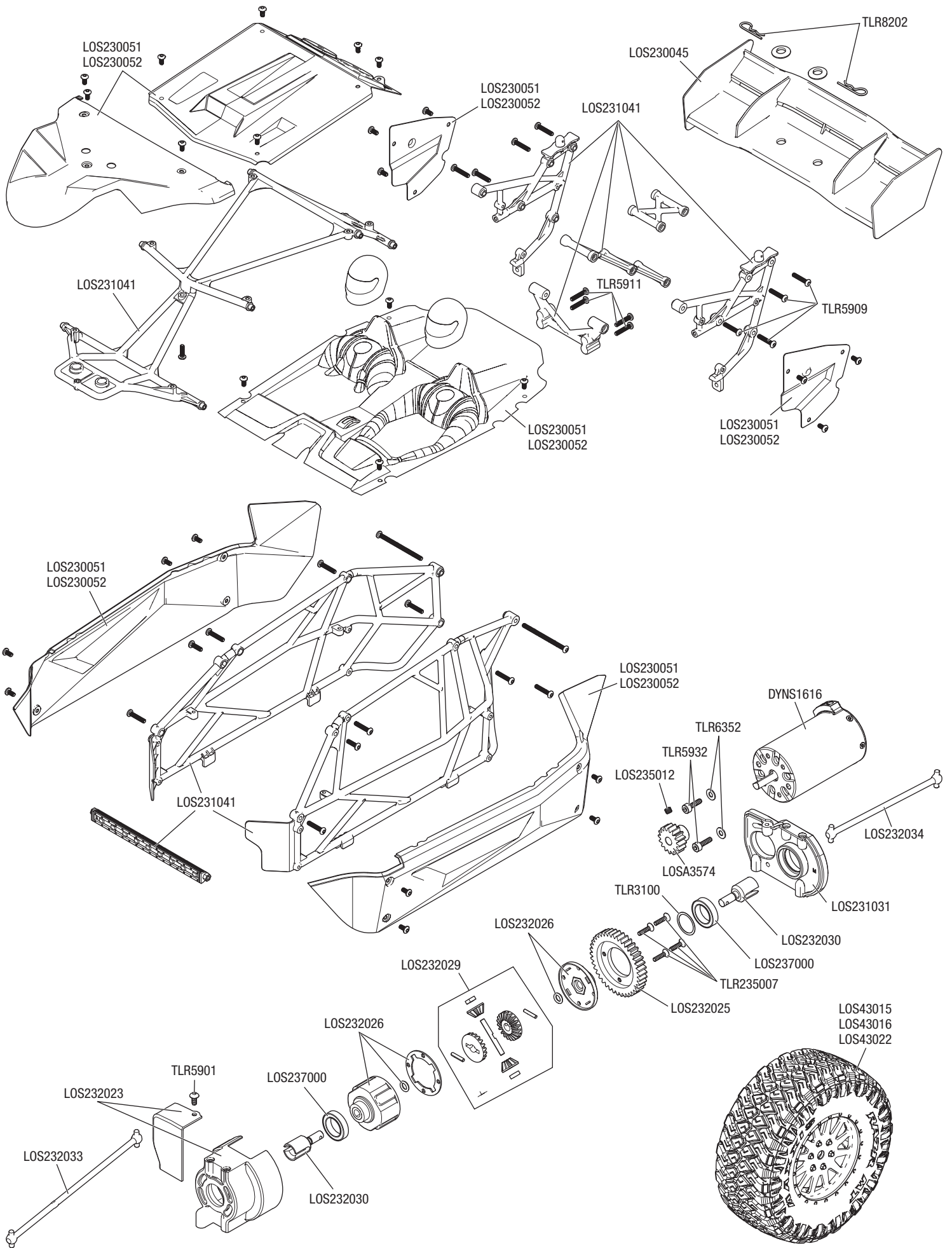
EXPLODED VIEW // EXPLOSIONSZEICHNUNG // VUE ÉCLATÉE DES PIÈCES // VISTA ESPLOSA DELLE PARTI



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