



Bind-N-Drive.™ Ready to run. redefined.

# 1968 FORD® F-100 ASCENDER®



## OWNER'S MANUAL

BEDIENUNGSANLEITUNG  
MANUEL DE L'UTILISATEUR  
MANUALE DELL'UTENTE



**VATERRA®**

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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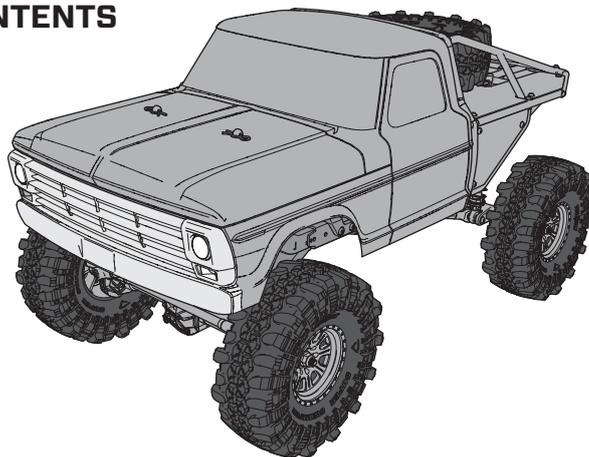
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**REGISTER YOUR VATERRA PRODUCT ONLINE**

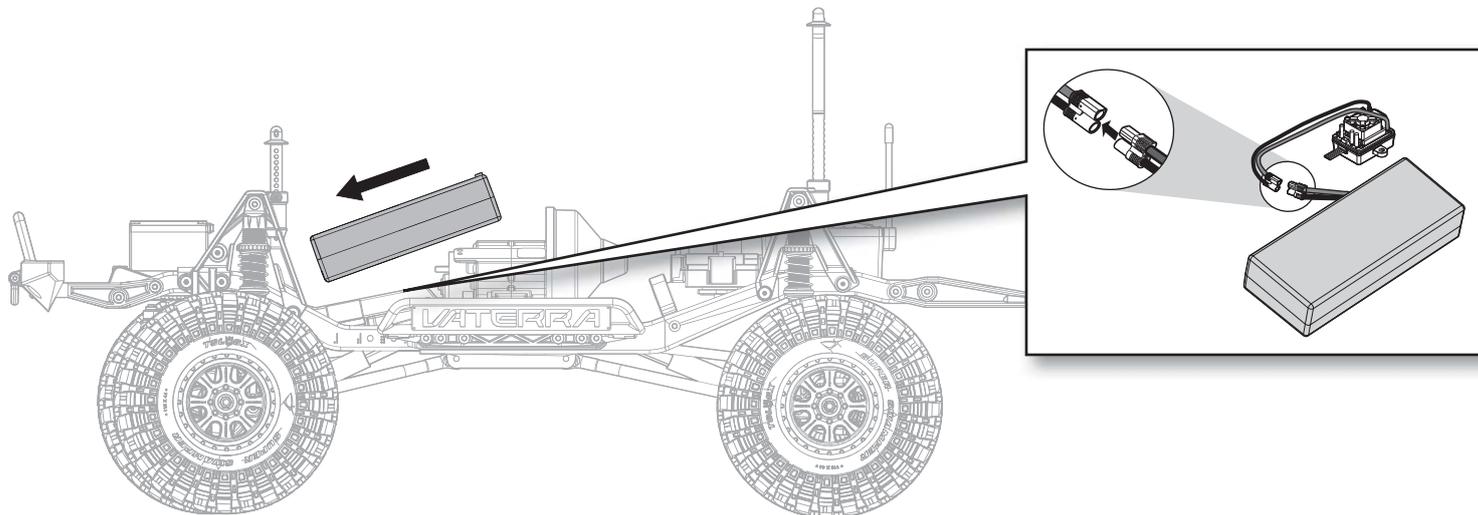
Register your vehicle now and be the first to find out about the latest option parts, product updates and more. Click on the Support tab at [WWW.VATERRARC.COM](http://WWW.VATERRARC.COM) and follow the product registration link to stay connected.

**COMPONENTS**

- » Vattera® 1968 Ford® F-100 Ascender® 4WD RTR (VTR03093)
- » Spektrum™ 3-Channel DSMR® Surface Receiver (SPMSR310)
- » Spektrum™ 9KG 23T Waterproof Servo (SPMS605)
- » Dynamite® 60A Brushed Waterproof ESC (DYNS2210)
- » Dynamite® 540 Brushed Motor 35T (DYNS1216)



## INSTALLING THE BATTERY



1. Ensure the ESC is powered OFF.
2. Loosen the hook and loop battery strap found on the battery tray and install the fully charged battery in to the vehicle.
3. Secure the battery to the battery tray using the hook and look battery strap.
4. Connect the battery to the ESC.
5. Power on the Transmitter and wait 5 seconds.
6. Power on the ESC.

## BINDING YOUR SPEKTRUM 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, the receiver will only respond to that specific transmitter. Follow the binding instructions for your transmitter. For a list of compatible transmitters, visit [www.losi.com/bindndrive](http://www.losi.com/bindndrive).

To bind the receiver to your Spektrum transmitter, follow these steps:

1. With the receiver off, insert the bind plug into the BIND port on the receiver.
2. Power the receiver through any other port. The LED will flash continuously, indicating the receiver is in bind mode.
3. With the steering wheel and throttle trigger in the desired preset failsafe positions (see the Failsafe section on this page for more information), press and hold the bind button and turn on the transmitter. The LED on the transmitter will flash within three seconds, indicating the transmitter is in bind mode. Release the bind button when the LED flashes. Continue to hold the failsafe positions until the binding process is complete.
4. The LED on the receiver will glow solid when the transmitter and receiver are bound.
5. Remove the bind plug and store it in a convenient place.

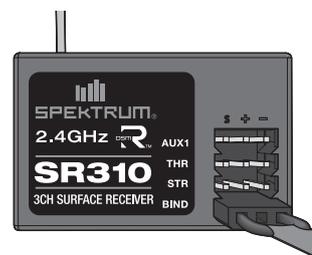
### YOU MUST REBIND WHEN:

- » Different failsafe positions are desired e.g., when throttle or steering reversing has been changed.
- » Changing receiver types e.g., changing from a DSM2® receiver to DSMR® receiver.
- » Binding the receiver to a different transmitter.

### FAILSAFE

Failsafe positions are also set during binding. In the unlikely event that the radio link is lost during use, the receiver will drive the servos to their preprogrammed failsafe positions (normally full brakes and straight steering). If the receiver is turned on prior to turning on the transmitter, the receiver will enter failsafe mode. When the transmitter is turned on, normal control is resumed. For more information on setting the failsafe, refer to the Binding a Receiver section above.

### SPMSR310 RECEIVER



**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.

## 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.



## 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)

## POWERING ON THE VEHICLE

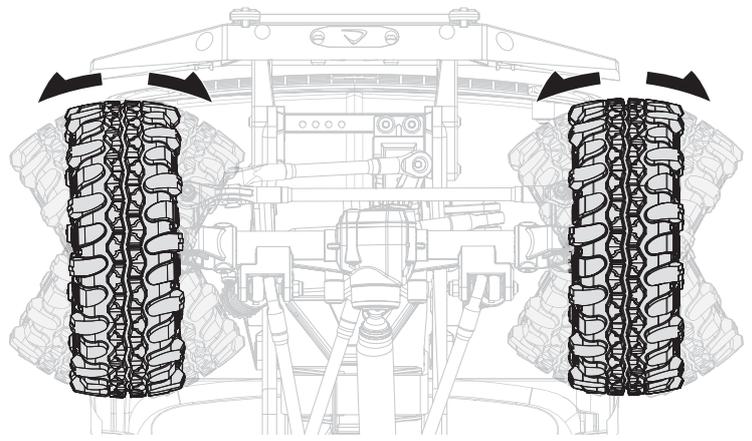
1. Center the ST TRIM and TH TRIM dials on the transmitter.
2. Power on the transmitter.
3. Remove the body from the vehicle.
4. Connect a fully charged battery pack to the ESC.
5. Power on the ESC.
6. Re-install the body on the vehicle.

## 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.
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.

## 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.



## DYNAMITE® 60A BRUSHED WATERPROOF ESC (DYNS2210) //////////////////////////////////////

### SPECIFICATIONS

Type	Brushed
Constant/Peak	60A/360A
Resistance	0.0008 Ohms
Function	Forward/Brake/Reverse, Forward/Brake, Forward/Reverse (Crawler Mode)
Operation	Proportional forward, proportional reverse with braking delay, Crawler Mode
Battery Type/Input Voltage	2 cell Li-Po/Li-Fe; 6-7 cell Ni-MH/Ni-Cd
Motor Type	540-/550-size closed endbell motors: 2S Li-Po down to 8T
BEC Output	5V/2A
Overload Protection	Thermal
Dimensions	35.6mm x 34mm x 18mm (1.40 in x 1.34 in x 0.71 in)
Weight	40 g (1.41 oz) with wires
Battery Connector	EC3™ connector
Motor Connector	3.5mm Tamiya-style bullet

### CONNECTING THE ESC

1. Connect the RED (+) ESC wire to the RED (+) motor wire.
2. Connect the BLACK (-) ESC wire to the BLACK (-) motor wire.

**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.

### PROGRAMMING

The ESC comes with two jumpers pre-installed in the MODE: F/B (forward/brake) and BATT: Li-Po configurations.

To change the mode to F/B/R (forward/brake/reverse) or F/R (forward/reverse) or change the battery type to Ni-MH

1. Power OFF the ESC.
2. Disconnect the jumper from the default port and connect it to the desired port.
3. Power ON the ESC.

If the jumpers are lost or not installed, the ESC will default to MODE: F/B/R and BATT: Li-Po.

**WARNING:** Do not connect bind plugs or receiver servo leads into the ESC programming port. Doing so may damage the ESC and/or components.

### 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.

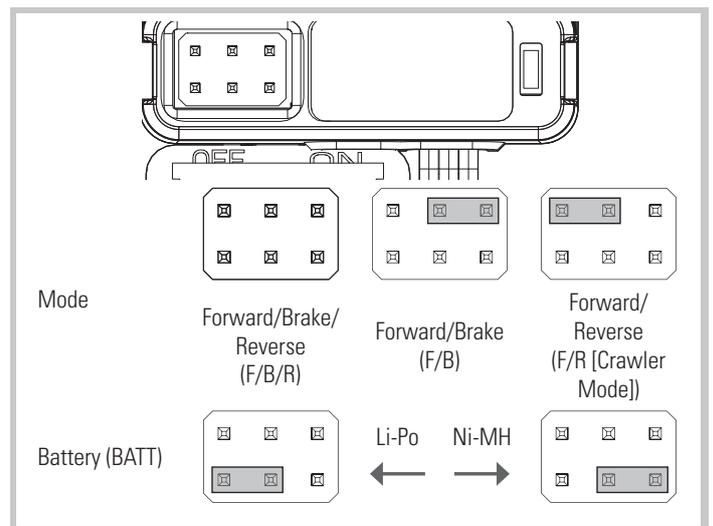
### AUDIBLE WARNING TONES

- 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.

### 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. Keep the throttle at neutral and power ON the ESC.
4. The ESC automatically calibrates the throttle range after 3 seconds.
5. One long beep will sound when the ESC is ready to run.





## 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](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 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](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.



# Replacement Parts List • Teileliste • Liste des pièces de rechange • Elenco dei ricambi

Part #	English	Deutsch	Français	Italiano
LOS4114	48 Pitch Pinion Gear, 14T	48 Pitch Ritzel, 14T	Pignon moteur 48DP, 14T	48 Pitch pignone, 14T
DYNS2210	Waterproof 60A Forward/Reverse Brushed ESC	Wasserdicht 60A Vorwärts / Rückwärts gebürstet ESC	Étanche à l'eau 60A avant / inversé ESC brossé	Impermeabile 60A ESC spazzolato in avanti / invertito
SPMSR310	SR310 DSMR 3 Channel Sport Receiver	SR310 DSMR 3 Kanal Sportempfänger	Récepteur sport SR310 DSMR à 3 canaux	Ricevitore sportivo SR310 DSMR 3 canali
SPMS605	9KG Servo, Waterproof, Metal Gear, 23T	9KG Servo, wasserdicht, Metallgetriebe, 23T	9KG Servo, imperméable à l'eau, équipement métallique, 23T	Servo 9KG, impermeabile, ingranaggio del metallo, 23T
TLR255002	Button Head Screws, M2.5x10mm (10)	Halbrundsrauben, M2,5x10mm (10)	Vis à tête bombée, M2,5x10mm (10)	Viti a testa tonda, M2.5x10mm (10)
TLR255006	Button Head Screws, M4x10mm (10)	Halbrundsrauben, M4x10mm (10)	Vis à tête bombée, M4x10mm (10)	Viti a testa tonda, M4x10mm (10)
TLR5903	Button Head Screws, M3 x 10mm (10)	Halbrundsrauben, M3x10mm (10)	Vis à tête bombée, M3x10mm (10)	Viti a testa tonda, M3 x 10mm (10)
TLR5904	Button Head Screws, M3 x 12mm (10)	Halbrundsrauben, M3x12mm (10)	Vis à tête bombée, M3x12mm (10)	Viti a testa tonda, M3 x 12mm (10)
TLR5909	Button Head Screws, M3 x 16mm (10)	Halbrundsrauben, M3x16mm (10)	Vis à tête bombée, M3x16mm (10)	Viti a testa tonda, M3 x 16mm (10)
TLR5962	Flathead Screws, M3 x 10mm (10)	Flachkopfschrauben, M3 x 10mm (10)	Vis à tête plate, M3x10mm (10)	Viti a testa piatta, M3 x 10mm (10)
TLR5964	Flathead Screw, M3 x 16mm (10)	Flachkopfschrauben, M3 x 16mm (10)	Vis à tête plate, M3x16mm (10)	Viti a testa piatta, M3 x 16mm (10)
VTR230055	Ascender Roll Cage Set w/Alum panels (290mm)	Ascender Roll Cage Set mit Alu-Verkleidung (290mm)	Arceau cage Ascender avec panneaux alu (290mm)	Set gabbia antiribaltamento Ascender Set c/pannelli allum. (290mm)
VTR230057	1968 Ford F-100 Pickup Cab Set Clear: ASN	1968 Ford F-100 Pickup Cab Set transparent: ASN	ASN - Carrosserie transparente 1968 Ford F-100 Pickup	Set cabina trasparente 1968 Ford F-100 Pickup: ASN
VTR231033	Chassis Frame Rail Set: ASN	Baugruppe Chassisrahmenschiene: ASN	ASN - Set de longerons de châssis	Set rotaie telaio: ASN
VTR231034	Chassis Brace Set: ASN	Chassisstrebe Set: ASN	ASN - Set de renforts de châssis	Set supporto telaio: ASN
VTR231035	Shock Tower Set FR/RR: ASN	Stoßdämpferbrücke Set v/h: ASN	ASN - Support d'amortisseur Av/Arr	Set torre ammort: ASN
VTR231036	Bumper Set FR/RR: ASN	Stoßstangenset v/h: ASN	ASN - Set de parechoc Av/Arr	Set paraurti FR/RR: ASN
VTR231037	Receiver Box & ESC Tray: ASN	Empfängerbox & Reglerhalter: ASN	ASN - Boite de récepteur et platine de contrôleur	Sede scatola ricevente ed ESC: ASN
VTR231038	Battery Tray, Mounts & Strap: ASN	Batterieeinschub, -träger & -lasche: ASN	ASN - Support de batterie, fixations et sangles	Sede batteria, supporti e cinghia: ASN
VTR232001	Transmission Case: Twin Hammers	Getriebegehäuse: Twin Hammers	Twin Hammers - Boîtier de transmission	Scatola trasmissione: Twin Hammers
VTR232013	Drive Shaft Yoke, Cup & Hardware (1): Twin Hammers	Antriebswellenmitnehmer und Zubehör (1): Twin Hammers	Twin Hammers - Coupelle de cardan avec croisillon et visserie (1)	Giogo albero trasm., coppa e viteria (1): Twin Hammers
VTR232017	Transmission Shaft Set: Twin Hammers	Antriebswellenset: Twin Hammers	Twin Hammers - Set d'arbres de transmission	Set albero trasmissione: Twin Hammers
VTR232024	Slipper Pads (2): Twin Hammers	Slipper Pads (2): Twin Hammers	Twin Hammers - Garnitures de slipper (2)	Pastiglie slipper (2): Twin Hammers
VTR232026	Slipper Spring, Cup, Spacer & Washer	Slipperfeder, Außenring, Distanzscheibe & Unterlegscheibe: TH ASN	Rondelle, entretoise, ressort et coupelle de slipper	Molla, coppa, distanziale e rondelle slipper
VTR232067	Motor Plate, Gear Cover & Hdw: ASN	Motorplatte, Getriebeabdeckung & Hdw: ASN	ASN - Support moteur, carter de transmission et visserie	Piastra motore, copertura ingran. e viteria: ASN
VTR232068	Center Transmission Gear Set & Spacers: ASN	Zentralgetriebe Set & Distanzscheiben: ASN	ASN - Set de pignons de transmission centrale et entretoises	Set albero trasmissione centrale e distanziali: ASN
VTR232069	Spur Gear, 86T, 48P (2)	Hauptzahnrad, 87T, 48P (2)	Couronne 82T, 48p (2)	Corona, 86T, 48P (2)
VTR232072	Input Drive Shaft Yoke, Cup & Hdw (1): ASN	Antriebswellengabel, Außenring, Distanzscheibe & Hdw (1): ASN	ASN - Tête de cardan, coupelle et accessoires	Giogo albero ingresso, coppa e viteria: ASN
VTR232073	Spool 24T & Pinion Gear 13T: ASN	Spule 24T & Zahngetriebe 13T: ASN	ASN - Spool 24T et pignon 13T	Rocchetto 24T e pignone 13T: ASN
VTR232074	Axle Housing & Link Mount Set FR/RR: ASN	Set Achsgehäuse & Befestigungspunkte v/h: ASN	ASN - Corps de pont et fixations Av/Arr	Sede albero e set supporto link: ASN
VTR232075	Diff Cover & Diff Skid Plate Set FR/RR: ASN	Set Differentialabdeckung & Differentialgleitplatte FR/RR: ASN	ASN - Couverture de différentiel et plaque de protection Av/Arr	Copertura diff. e set piastra pattino diff.: ASN
VTR232076	Front CV Shaft Set: ASN	CV Antriebswellenset vorne: ASN	ASN - Set de cardans CV avant	Set albero CV anteriore: ASN
VTR232077	Wheel Hex, Pins & Serrated Lock Nut: ASN (4)	Radmuttern, Stifte und Stopmmuttern (4): ASN	ASN - Goupilles, hexagones et écrous de roues (4)	Esagoni ruote, perni e dado autobloccante dentellato: ASN (4)
VTR232078	Axle Shafts Rear (2): ASN	Achswellen Heck (2): ASN	ASN - Axe de roue Arr (2)	Asse albero posteriore: ASN
VTR232079	HD Molded Center Dsft Set Short/Long: ASN	HD Antriebswelle Mitte, kurz/lang: ASN	Ascender - Cardan central moulé renforcé Court/Long	Set HD centrale stampato corto/lungo: Ascender
VTR232080	HD Pinion Drive Gear 13T (2)	Antriebsritzel HD 13T (2)	Pignon renforcé 13T (2)	Pignone HD 13T (2)
VTR233026	Shock Shaft & Piston Set (4): ASN	Set Kolbenstange & Kolben (4): ASN	ASN - Set de tige d'amortisseur et de piston (4)	Set pistone e albero ammort. (4): ASN
VTR233027	Shock Body, Adj Collar, Upper & Lower Cap (4): ASN	Gehäuse, Einstellmanschette, obere & untere Kappe (4): ASN	ASN - Corps d'amortisseur, bague de réglage et bouchons inf. et sup. (4)	Corpo ammort., collare regol., copertura infer./super. (4): ASN
VTR233028	Shock End,Cup,Rubber Stop & Mid Collar (4): ASN	Stoßdämpferende, Außenring, Anschlaggummi & Mittelmanschette (4): ASN	ASN - Chape d'amortisseur, coupelle, butée caoutchouc, bouchon inf. et sup. (4)	Terminale ammort., coppa, fermo in gomma e collare medio (4): ASN
VTR233029	Upper Shock Spring Set Soft, Med, Hard (2ea.): ASN	Set obere Stoßdämpferfeder weich, medium, hart (2ea.): ASN	ASN - Set de ressorts supérieurs, souple, moyen, dur (2 de chaque)	Set molla super. ammort. morbida, media, dura: ASN
VTR233030	Lower Shock Spring Set Soft, Med, Hard (2ea.): ASN	Set untere Stoßdämpferfeder weich, medium, hart (2es.): ASN	ASN - Set de ressorts inférieurs, souple, moyen, dur (2 de chaque)	Set molla infer. ammort. morbida, media, dura: ASN
VTR234025	Steering Spindle & Hub Set FR/RR: ASN	Set Lenkspindel & Träger (v/h): ASN	ASN - Set de fusées et étriers Av/Arr	Set fuso sterzo e mozzo: ASN
VTR234026	Steering Linkage Set: ASN	Set Lenkgestänge: ASN	ASN - Tringlerie de direction	Set comandi sterzo: ASN
VTR234027	Suspension Rod Ends: ASN	Kugelpfannenaufhängung: ASN	ASN - Chapes de suspension	Estremità asta sospensione: ASN
VTR234028	3mm Threaded Alum. Link, 61mm (4)	3mm Aluminiumgewinde, 61mm (4)	Biellette aluminium M3, 61mm (4)	Collegamento filettato allum. 3mm, 61mm (4)

# Replacement Parts List • Teileliste • Liste des pièces de rechange • Elenco dei ricambi

Part #	English	Deutsch	Français	Italiano
VTR234029	3mm Threaded Aluminum Link, 66mm (4)	3mm Aluminiumgewinde, 66mm (4)	Biellette aluminium M3, 66mm (4)	Collegamento filettato allum. 3mm, 66mm (4)
VTR234030	Link Spacers, Aluminum, 3x6x12mm (8)	Abstandshalter, Aluminium, 3x6x12mm (8)	Entretoises en aluminium 3x6x12mm (8)	Distanziali link allum., 3x6x12mm (8)
VTR235009	M2 x 20mm Cap Head Screw (10)	Innensechskantschrauben M2x20mm (10)	Vis BTR M2x20mm (10)	M2 x 20mm vite a brugola (10)
VTR235002	M2.5 x 10mm Cap Head Screw (10)	Innensechskantschrauben M2.5x10mm (10)	Vis BTR M2,5x10mm (10)	M2.5 x 10mm vite a brugola (10)
VTR235025	M3 x 8mm Cap Head Screw (10)	Innensechskantschrauben M3x8mm (10)	Vis BTR M3x8mm (10)	M3 x 8mm vite a brugola (10)
VTR235035	M3 x 30mm, Cap Head Screw (10)	Innensechskantschrauben M3x30mm (10)	Vis BTR M3x30mm (10)	M3 x 30mm, vite a brugola (10)
VTR235113	M3 x 25mm Button Head Screw (10)	Halbrundsrauben, M3x25mm (10)	Vis à tête bombée M3x25mm (10)	M3 x 25mm vite a testa tonda (10)
VTR235025	M3 x 30mm, Button Head Screw (10)	Halbrundsrauben, M3x30mm (10)	Vis à tête bombée M3x30mm (10)	M3 x 30mm, vite a testa tonda (10)
TLR5961	M3 x 8mm Flat Head Screw (10)	Flachkopfschrauben, M3x8mm (10)	Vis à tête fraisée M3x8mm (10)	M3 x 8mm vite a testa piatta (10)
VTR235223	M2.8 x 14mm Cap Head Screw Self-Tapping (10)	M2.8 x 14mm Innensechskantschrauben selbstschneidend (10)	Vis auto-taraudeuse M2,8x14mm (10)	M2.8 x 14mm vite a brugola autofilet-tante (10)
VTR235011	M3 x 3mm Cup Point Setscrew (10)	Ringschneide Gewindestift M3x3mm (10)	Vis sans tête M3x3mm (10)	M3 x 3mm grano c7punta a tazza (10)
VTR235322	M3 x 5mm Cup Point Setscrew (10)	Ringschneide Gewindestift M3x5mm (10)	Vis sans tête M3x5mm (10)	M3 x 5mm grano c7punta a tazza (10)
VTR235328	M3 x 20mm, Cup Point Set Screw (10)	Ringschneide Gewindestift M3x20mm (10)	Vis sans tête M3x20mm (10)	M3 x 20mm, grano c7punta a tazza (10)
VTR235330	M3 x 30mm, Cup Point Set Screw (10)	Ringschneide Gewindestift M3x30mm (10)	Vis sans tête M3x30mm (10)	M3 x 30mm, grano c7punta a tazza (10)
VTR236012	M2 Nylock Nut (10)	M2 Muttern Nylock (10)	Ecrou auto-freiné M2 (10)	M2 dado autobloccante (10)
VTR236014	M3 Nylock Nut (10)	M3 Muttern Nylock (10)	Ecrou auto-freiné M3 (10)	M3 dado autobloccante (10)
VTR236046	M4 Nylock Flanged Serrated Nut (10)	M4 Muttern Nylock angeflanscht gezackt (1)	Ecrou frein M4 épaulé strié (10)	M4 dado autobloccante flangia dentelata (10)
LOSA6109	E-Clip, 5mm (12)	E-Clip, 5mm (12)	E-clips 5mm (12)	E-Clip, 5mm (12)
VTR237003	4mm x 8mm x 3mm Ball Bearing (2)	4mmx8mmx3mm Kugellager (2)	Roulement 4x8x3mm (2)	4mm x 8mm x 3mm cuscinetto (2)
VTR237004	5mm x 10mm x 4mm Ball Bearing (2)	5mmx10mmx4mm Kugellager (2)	Roulement 5x10x4mm (2)	5mm x 10mm x 4mm cuscinetto (2)
VTR237009	5mm x 13mm x 4mm Ball Bearing (2)	5mmx13mmx4mm Kugellager (2)	Roulement 5x13x4mm (2)	5mm x 13mm x 4mm cuscinetto (2)
VTR237014	6mm x 12mm x 4mm Ball Bearing (2)	6mmx12mmx4mm Kugellager (2)	Roulement 6x12x4mm (2)	6mm x 12mm x 4mm cuscinetto (2)
VTR237020	8mm x 14mm x 4mm Ball Bearing (2)	8mmx14mmx4mm Kugellager (2)	Roulement 8x14x4mm (2)	8mm x 14mm x 4mm cuscinetto (2)
VTR237028	10mm x 15mm x 4mm, Nylon Retainer Ball Bearing (2)	10mm x 15mm x 4mm, Kugellager, gekapselt (2)	Roulement cage nylon 10x15x4mm (2)	10mm x 15mm x 4mm, cuscinetto c/fermo in nylon (2)
VTR243010	O-Ring, Bleeder Screw (4): Glamis Uno, Fear, Hal, Rap, Ral	O-Ring, Entlüftungsschraube (4): Glamis Uno, Fear, Hal, Rap, Ral	Glamis Uno, Fear, Hal, Rap, Ral - Joint torique de vis de purge d'amortisseurs (4)	O-ring, vite sfiata (4): Glamis Uno, Fear, Hal, Rap, Ral
VTR246005	Flanged Pivot Ball, 5,8mm x 3mm x 7mm (10)	Kugelkopf mit Flansch, 5,8mm x 3mm x 7mm (10)	Rotules épaulées 5,8x3x7mm (10)	Sfera perno flangiato, 5,8mm x 3mm x 7mm (10)
VTR43042	Wheel FR/RR Ascender 8 Spoke 1.9" Set Satin (4)	Set Räder (v/h) Ascender, 8 Speichen 1,9", Raso (4)	Jante Av/Arr Ascender 8 bâtons 1,9" Satiné (4)	Ruota FR/RR Ascender 8 Spoke 1.9" Set Satinata (4)

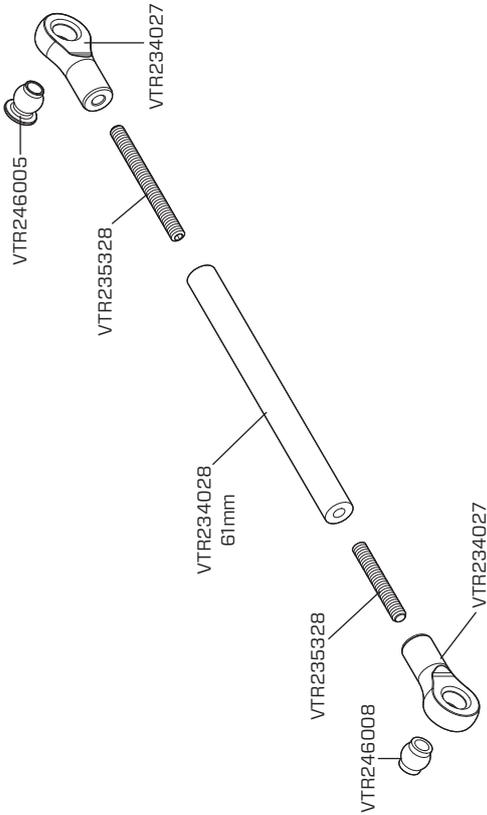
# Optional Parts List • Optionale Bauteile • Pièces optionnelles • Pezzi opzionali

Part #	English	Deutsch	Français	Italiano
DYNB3800EC	Reaction 7.4V 4000mAh 2S 50C LiPo, Hardcase: 96mm	Reaction 7.4V 4000mAh 2S 50C LiPo: Hardcase mit EC3 Anschluss	Batterie Reaction Li-Po 2S 7,4V 4000mA 50C, boîtier rigide, câbles 96mm	Scatola rigida Reaction 7.4V 4000mAh 2S 50C LiPo: 96mm
DYNC2005CA	Prophet Sport 35W AC/DC Charger	Prophet Sport Li-Po 35W AC/DC Ladegerät	Chargeur Prophet Sport 35W AC/DC	Caricatore Prophet Sport 35W AC/DC
VTR232007	Transmission Shift Linkage Set: Twin Hammers	Getriebeschaltgestänge Set: Twin Hammers	Twin Hammers - Tringlerie de changement de vitesse	Set comando cambio: Twin Hammers
VTR232008	High- & Low-Speed Gear Set: Twin Hammers	Vaterra Zwei-Gang-Getriebe Set: Twin Hammers	Twin Hammers - Set de pignons petite et grande vitesse	Set ingranaggi alta e bassa velocità: Twin Hammers
VTR232009	Transmission Shift Fork & Shaft: Twin Hammers	Getriebeschaltgabel & Shaft: Twin Hammers	Twin Hammers - Fourchette et axe de changement de vitesse	Forcella e albero cambio: Twin Hammers
VTR232017	Transmission Shaft Set: Twin Hammers	Antriebswelle: Twin Hammers	Twin Hammers - Set d'arbres de transmission	Set albero trasmissione: Twin Hammers
VTR331008	Battery Tray Mounts, Alum: ASN	Batteriefachhalterungen, Alu: ASN	ASCN - Fixations de support de batterie en aluminium	Supporti sede batteria, Alum: ASN
VTR331009	Winch Fair Lead, Alum: ASN	Windenthaler, Alu: ASN	ASCN - Passe câble de treuil en aluminium	Passacavo verricello, Alum: ASN
VTR331010	Steering Servo Horn, 23T, Alum: ASN	Lenkservohorn, 23T, Alu: ASN	ASCN - Bras de servo de direction 23T en aluminium	Squadretta servo sterzo, 23T, Alum: ASN
VTR331011	Steering Servo Horn, 24T, Alum: ASN	Lenkservohorn, 24T, Alu: ASN	ASCN - Bras de servo de direction 24T en aluminium	Squadretta servo sterzo, 24T, Alum: ASN
VTR331012	Steering Servo Horn, 25T, Alum: ASN	Lenkservohorn, 25T, Alu: ASN	ASCN - Bras de servo de direction 25T en aluminium	Squadretta servo sterzo, 25T, Alum: ASN
VTR332009	Transmission Metal Gear Set: Twin Hammers	Metallgetriebeset: Twin Hammers	Twin Hammers - Set de pignons métal de transmission	Set ingranaggi metallo trasmissione: Twin Hammers
VTR334017	Adjustable Coilover Shocks, Alum (2): ASN	Alu-Stoßdämpfer, einstellbar (2): ASN	ASCN - Amortisseurs réglables en aluminium (2)	Molla regolabile ammortizzatori, Alum (2): ASN
VTR334018	Front Spindle Set, Alum: ASN	Lenkhebelsset vorne, Alu: ASN	ASCN - Set de fusées avant en aluminium	Set fuso anteriore, Alum: ASN
VTR334019	Front Carrier Set, Alum: ASN	Trägerset vorne, Alu: ASN	ASCN - Set d'étriers avant en aluminium	Set guida anteriore, Alum: ASN
VTR334020	Rear Hub Carrier, Alum: ASN	Radträgerset hinten, Alu: ASN	ASCN - Set d'étriers arrière en aluminium	Guida mozzo posteriore, Alum: ASN
VTR334021	Brake Caliper/Rotor Weight, Brass (2): ASN	Brems-/Rotorgewicht, Messing (2): ASN	ASCN - Disque de frein/étrier lesté (2)	Pinza freno/peso rotore, ottone (2): ASN

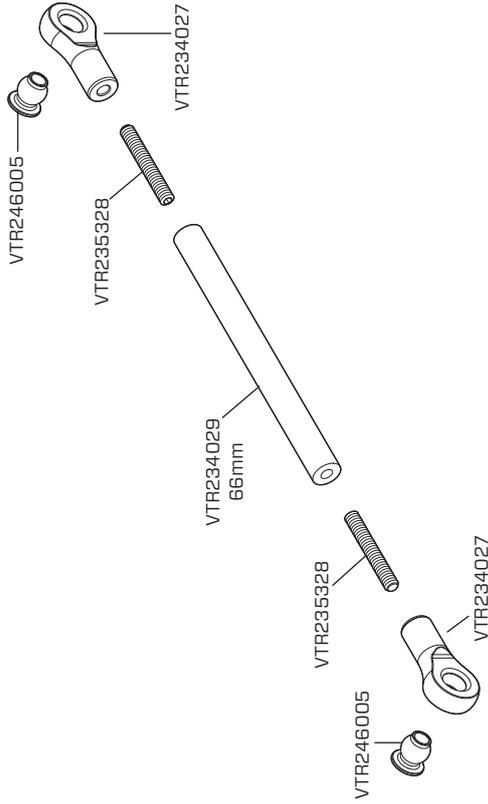




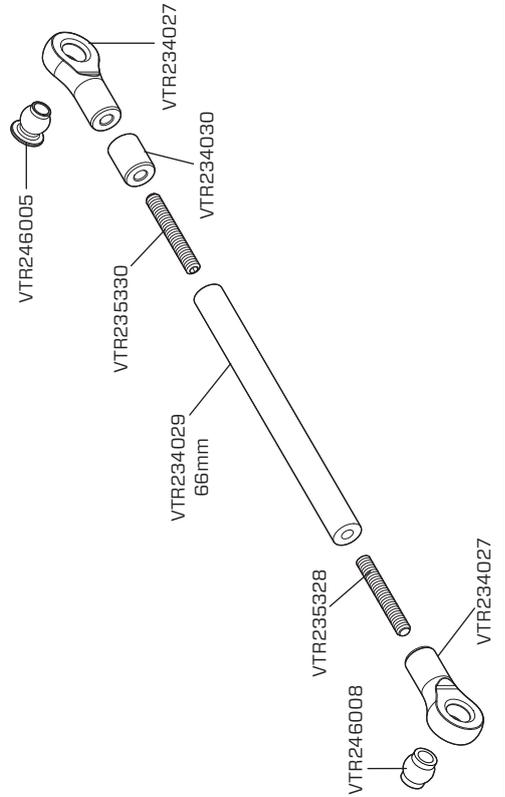
**FRONT UPPER LINK ASSEMBLY - WB2 (290mm)**  
**MONTAGE QUERLENKERARM VORNE OBEN - WB2 (290mm)**  
**ASSEMBLAGE DES TIRANTS SUPERIEURS AVANT - WB2 (290mm)**  
**GRUPPO BRACCETTO SUPERIORE SOSPENSIONE ANTERIORE - WB2 (290mm)**



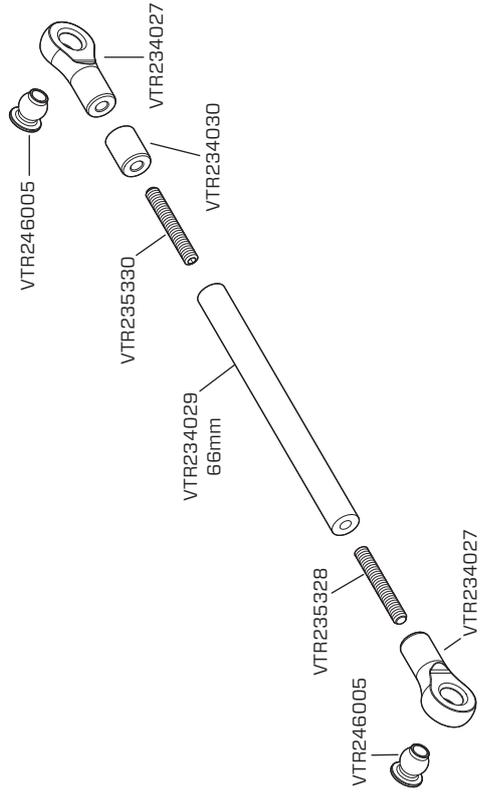
**FRONT LOWER LINK ASSEMBLY - WB2 (290mm)**  
**MONTAGE QUERLENKERARM VORNE UNTEN - WB2 (290mm)**  
**ASSEMBLAGE DES TIRANTS INFÉRIEURS AVANT - WB2 (290mm)**  
**GRUPPO BRACCETTO INFERIORE SOSPENSIONE ANTERIORE - WB2 (290mm)**



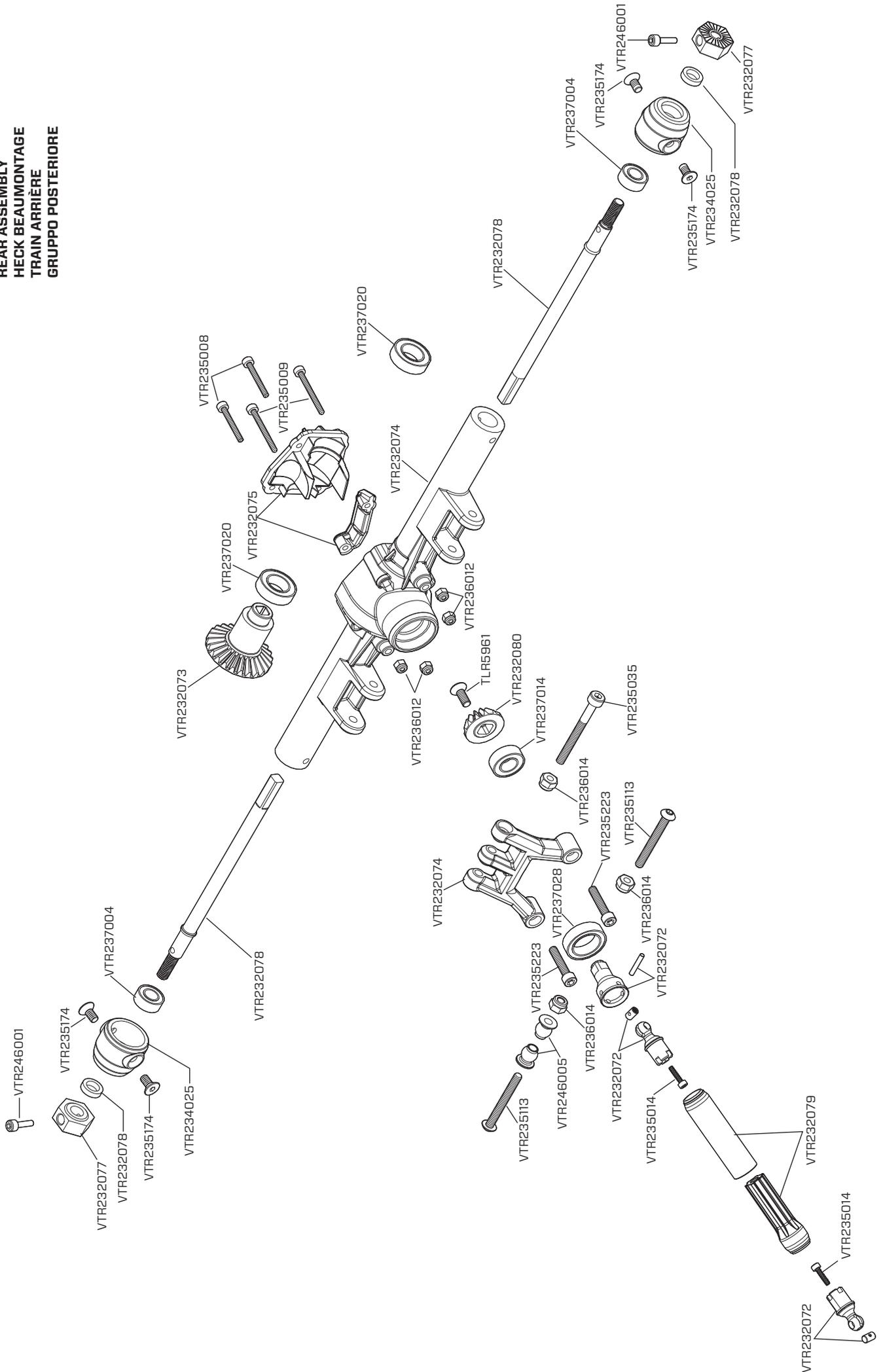
**REAR UPPER LINK ASSEMBLY - WB2 (290mm)**  
**MONTAGE QUERLENKERARM HINTEN OBEN - WB2 (290mm)**  
**ASSEMBLAGE DES TIRANTS SUPÉRIEURS ARRIÈRE - WB2 (290mm)**  
**GRUPPO BRACCETTO SUPERIORE SOSPENSIONE POSTERIORE - WB2 (290mm)**



**REAR LOWER LINK ASSEMBLY - WB2 (290mm)**  
**MONTAGE QUERLENKERARM HINTEN UNTEN - WB2 (290mm)**  
**ASSEMBLAGE DES TIRANTS INFÉRIEURS ARRIÈRE - WB2 (290mm)**  
**GRUPPO BRACCETTO INFERIORE SOSPENSIONE POSTERIORE - WB2 (290mm)**

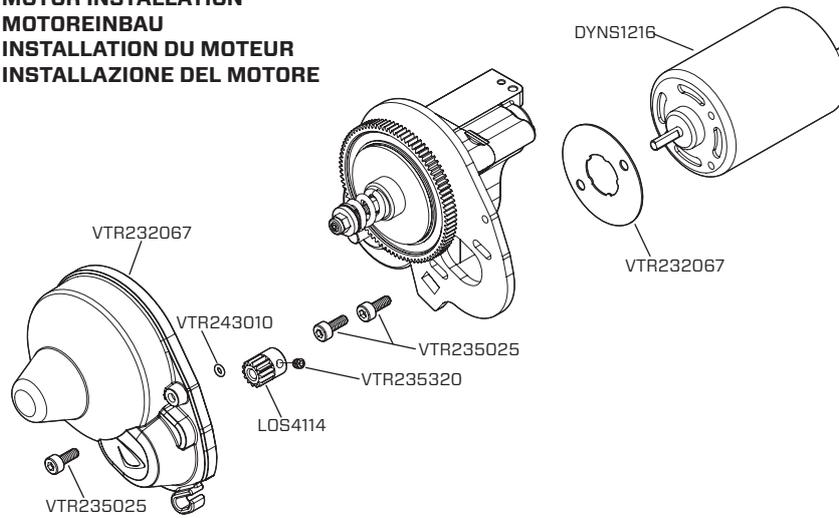


**REAR ASSEMBLY**  
**HECK BEAUMONTAGE**  
**TRAIN ARRIÈRE**  
**GRUPPO POSTERIORE**

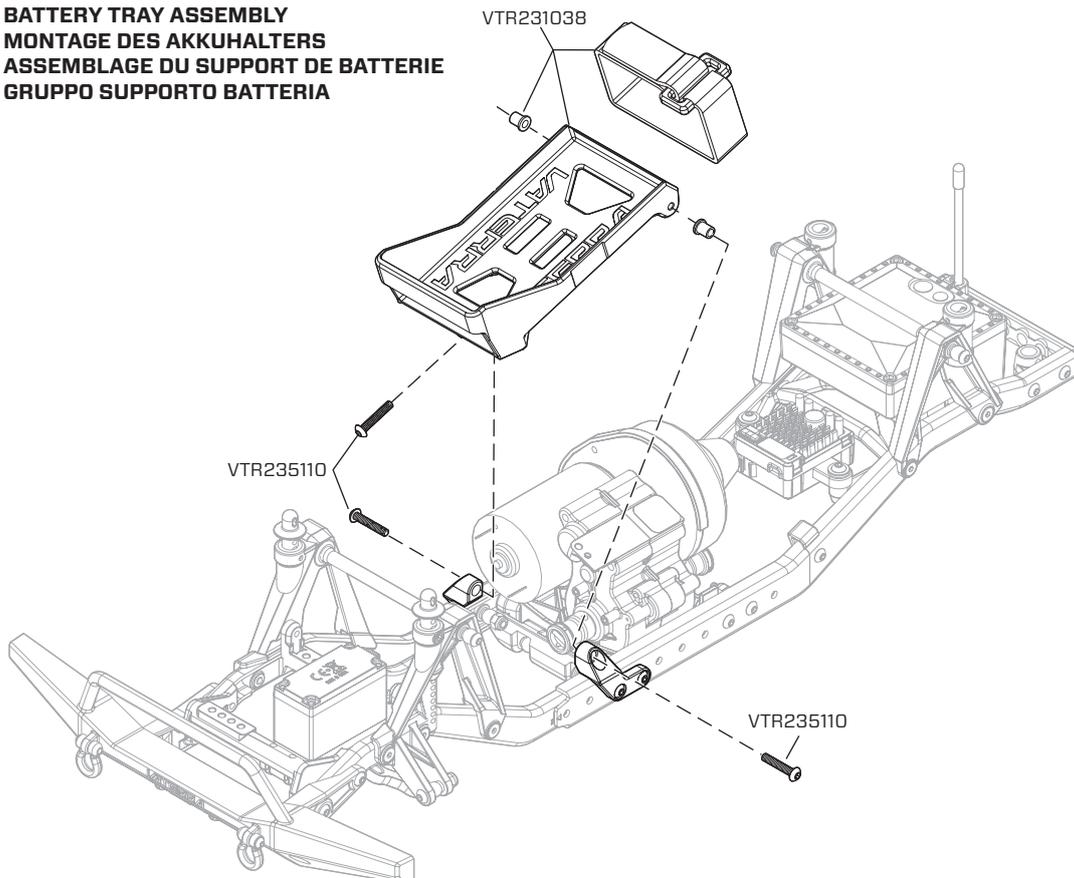




**MOTOR INSTALLATION**  
**MOTOREINBAU**  
**INSTALLATION DU MOTEUR**  
**INSTALLAZIONE DEL MOTORE**



**BATTERY TRAY ASSEMBLY**  
**MONTAGE DES AKKUHALTERS**  
**ASSEMBLAGE DU SUPPORT DE BATTERIE**  
**GRUPPO SUPPORTO BATTERIA**







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