



ECX[®] **AMP CRUSH**[™]



HORIZON[®]
H O B B Y

1/10 2WD ELECTRIC MONSTER TRUCK

ECX03048T1/T2

ECX03048IT1/T2

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

Congratulations on your purchase of the ECX[®] Amp Crush[™].

This 1/10-scale model introduces you to the sport of RC driving.

Herzlichen Glückwunsch zum Kauf des ECX Amp Crush.

Dieses 1/10 Scale Model öffnet Ihnen die Welt des RC Car Sports.

Nous vous félicitons pour l'achat de l'ECX Amp Crush.

Ce modèle 1/10 vous initie à la conduite RC.

Congratulazioni per l'acquisto di questo Amp Crush.

Questa vettura in scala 1/10 vi introdurrà nel mondo dei modelli RC.

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 <http://www.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 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 and NOT a toy. 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.

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



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.

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.

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) and servo(s) 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. Do not use Li-Po batteries in wet conditions.
- The included transmitter is not waterproof or water-resistant. If using a different transmitter than the one included, 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

- 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 or lubricant. 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.

SPECIFICATIONS

Transmitter (ECX10003)

Frequency	2.4GHz
Battery	AA × 4

Servo (SPMS603)

Power Supply	4.8V~6V
Output Torque	41.66 oz (3 kg-cm)
Operating Speed	0.23sec/60 degrees of travel
Size	55.6 × 18 × 30mm

Electronic Speed Control/Receiver (ECX13010)

Input Voltage	6–8.4V (NiMH Only)
Electric Capacity	20A
BEC Voltage	6V, 2A
Size	63.7 x 23.5 x 36.1mm
Weight	1.41 oz (40 g)

COMPONENTS

- ECX® Amp Crush™ (ECX03048)
- ECX® 2.4GHz Transmitter (ECX10003)
- AA (4) Batteries
- Speedpack® 1800mAh Ni-MH 6-Cell Flat w/EC3™ (DYN1050EC)
- ECX® ESC/RX 2.4GHz V4 1:10, WP/LiPo (ECX13010)
- Dynamite® 20T Brushed Motor (DYN1171)
- Spektrum™ 3KG, Plastic Gear Servo, WP, 23T (SPMS603)
- 200mA Wall Charger with EC3 Connector: US
- 200mA Wall Charger with EC3 Connector: INTL

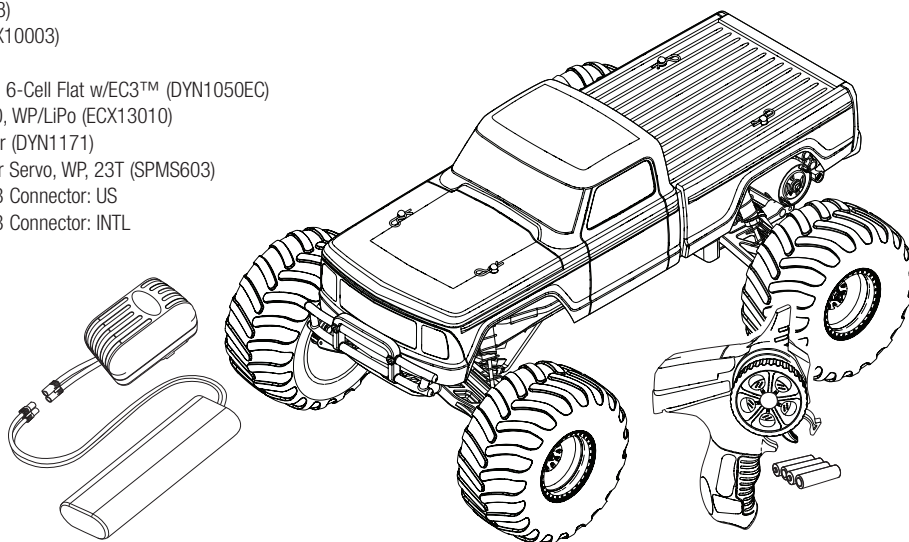


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QUICK START

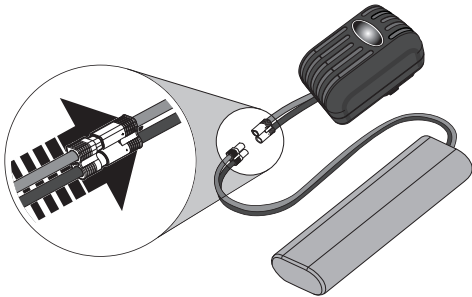
Please read the entire manual to gain a full understanding of the vehicle, fine-tuning the setup and performing maintenance.

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.

VEHICLE PREPARATIONS

CHARGING THE VEHICLE BATTERY

NOTICE: Never charge a battery in the vehicle or damage may result.



1. Connect the NiMH battery to the battery charger.
2. Connect the charger to an AC power outlet.
3. Allow the NiMH battery to charge for 9 hours.

CHARGING WARNINGS

WARNING: Failure to exercise caution while using this product and comply with the following warnings could result in product malfunction, electrical issues, excessive heat, FIRE, and ultimately injury and property damage.

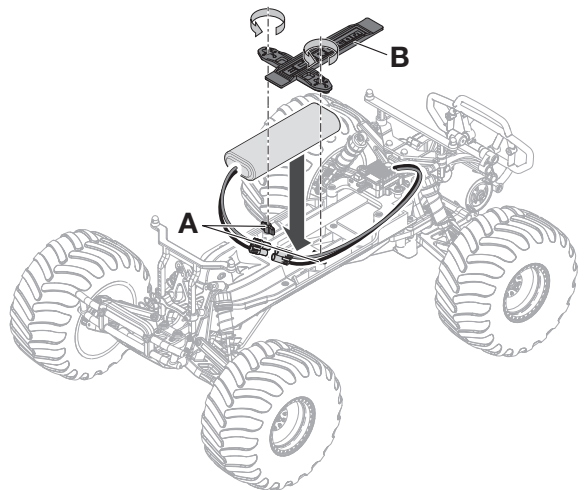
- **NEVER LEAVE CHARGING BATTERIES UNATTENDED.**
- **NEVER CHARGE BATTERIES OVERNIGHT.**
- Read all safety precautions and literature prior to use of this product.
- Never leave the battery and charger unattended during use.
- Never allow children under 14 years of age to charge battery packs.
- Never attempt to charge dead or damaged batteries.
- Never charge a battery if the cable has been pinched or shorted.
- Never allow batteries or charger to come into contact with moisture at any time.
- Never charge batteries in extremely hot or cold places (recommended between 50–80°F [10–26°C]) or place in direct sunlight.
- Always use only Ni-MH rechargeable batteries. This charger cannot charge batteries such as “heavy duty,” “alkaline,” “mercury” or “lithium” battery.
- Always connect to the charger correctly.
- Always disconnect the battery and charger after charging and let them cool between charges.
- Always inspect the battery before charging.
- Always terminate all processes and contact Horizon Hobby if the product malfunctions.
- Always make sure you know the specifications of the battery to be charged or discharged to ensure it meets the requirements of this charger.
- Always constantly monitor the temperature of the battery pack while charging.
- Always end the charging process if the charger or battery becomes hot to the touch or starts to change form during the charge process.
- Always charge in a well ventilated area.

INSTALLING THE BATTERY

1. Turn the battery clips (A) clockwise to remove the battery strap (B).
2. Install a fully charged battery.
3. Install the battery strap.
4. Turn the battery clips counterclockwise to secure the battery strap.

Place foam blocks (ECX236005) in front of the battery so the weight of the battery increases rear traction or in back of the battery to increase steering response.

CAUTION: Connecting the battery to the ESC with reversed polarity will cause damage to the ESC, the battery or both. Damage caused by incorrectly connecting the battery is not covered under warranty.



TRANSMITTER CONTROLS

REVERSE SWITCH



Allows you to change the direction of steering (ST. REV) and throttle (TH. REV) controls (Ensure proper function with a radio system test).



THROTTLE DUAL RATE

Adjusts the maximum amount of throttle the vehicle can be given



STEERING DUAL RATE

Adjusts the total steering travel



STEERING WHEEL

Control steering. Right and Left steering

BATTERY LEVEL INDICATOR



Solid Red: Battery voltage is good (above 4V).



Blinking Red: Battery voltage is critically low (below 4V). Replace transmitter batteries.



THROTTLE TRIM

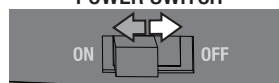
Adjusts the neutral point of the electronic speed control



STEERING TRIM

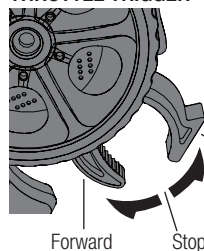
Adjust to make the vehicle drive straight with no input at the steering wheel

POWER SWITCH

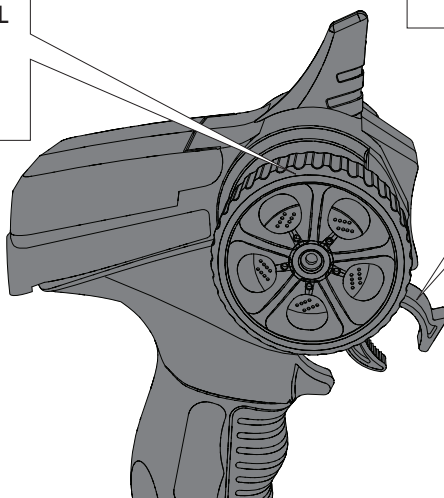


Power on or off the transmitter

THROTTLE TRIGGER



Controls power to the motor for forward or reverse



INSTALLING THE TRANSMITTER BATTERIES

This transmitter requires 4 AA batteries.

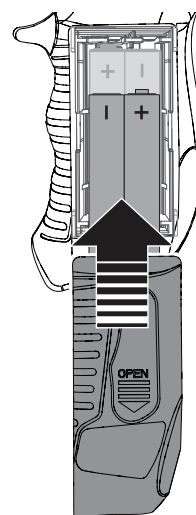
1. Remove the battery cover from the transmitter.
2. Install the batteries as shown.
3. Install the battery cover.



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.



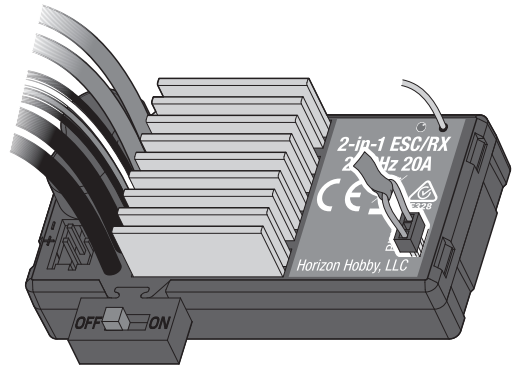
BINDING

The included transmitter and receiver are bound at the factory. If you need to rebind, follow the instructions below.

1. Power ON the receiver. The receiver LED flashes slowly.
2. Insert the bind plug into the receiver's binding pins. The receiver LED flashes rapidly.
3. Power ON the transmitter.
4. The receiver LED turns solid when binding is successful. Remove the bind plug.

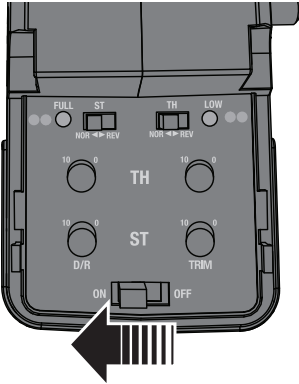
You must rebind when binding the receiver to a different transmitter.

NOTICE: Do not attempt to bind the transmitter and receiver if there are other compatible transmitters in bind mode within 400 feet. Doing so may result in unexpected binding.

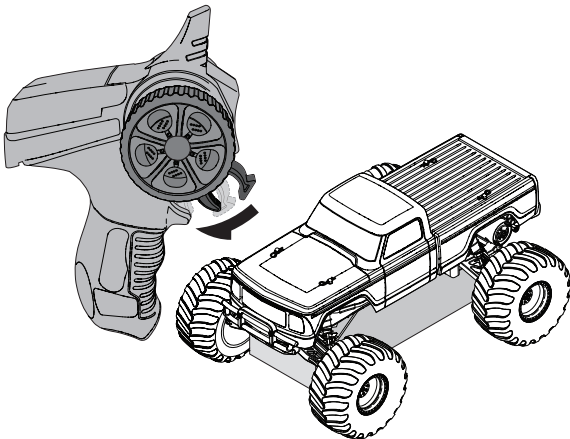


GETTING STARTED

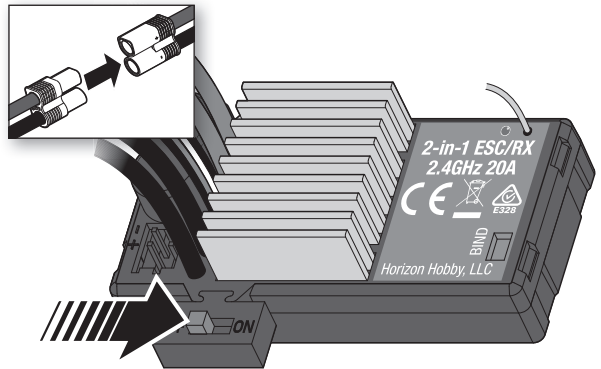
1. Power on the transmitter.



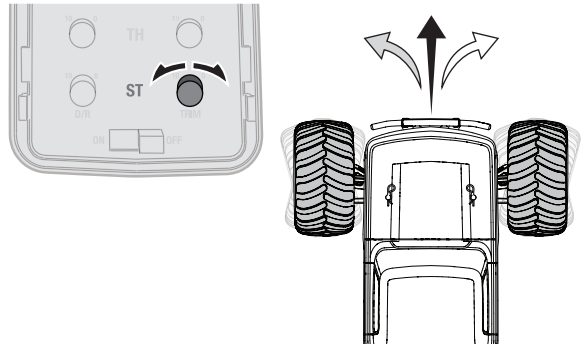
3. Perform a test of the transmitter's control of the vehicle with the vehicle's wheels off the ground.



2. Power on the ESC.



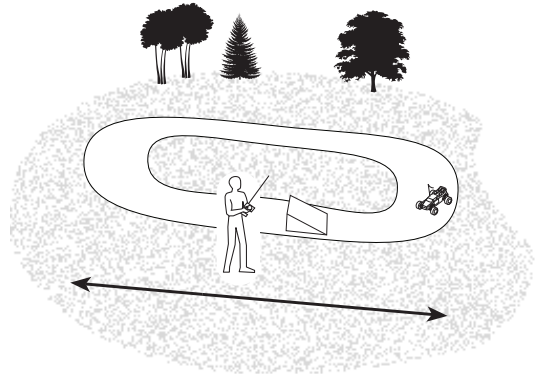
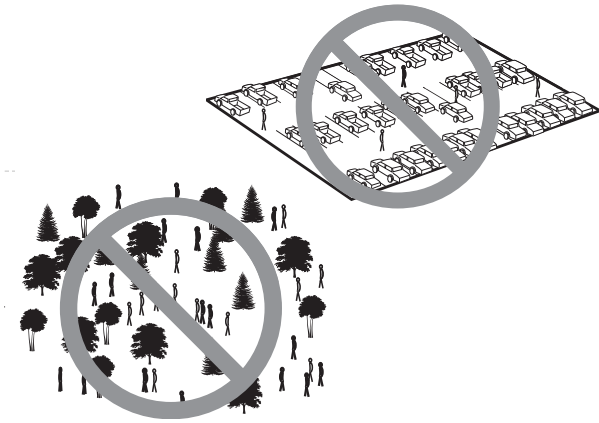
4. Start driving slowly, and, if the vehicle does not go straight, adjust the steering trim dial on the transmitter.



IMPORTANT: Seat the motor brushes by driving smoothly on a flat surface during use of the first battery charge. Properly seating the motor brushes will increase the life and performance of the motor.

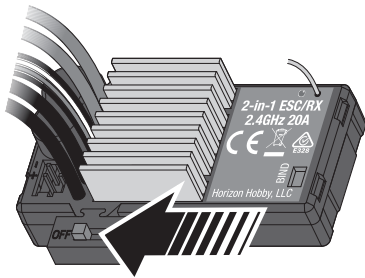
OPERATION

- ALWAYS turn on your transmitter before you turn on the receiver in the vehicle. Always power off the receiver before turning your transmitter off.
- ALWAYS operate your vehicle in a wide open area. Operating the vehicle in a small space or indoors can cause overheating at low speeds. Operating at low speed increases heat in the electronic speed control (ESC). Overheating can damage the vehicle and failure may result.

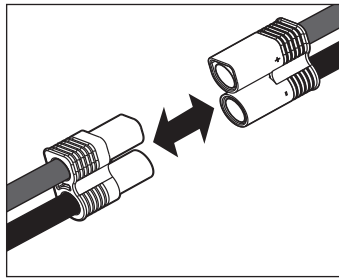


WHEN YOU ARE FINISHED

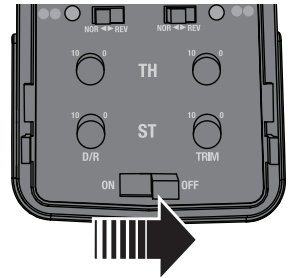
1. Power off the ESC.



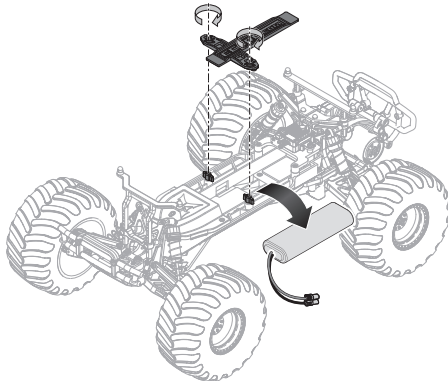
2. Disconnect the battery.



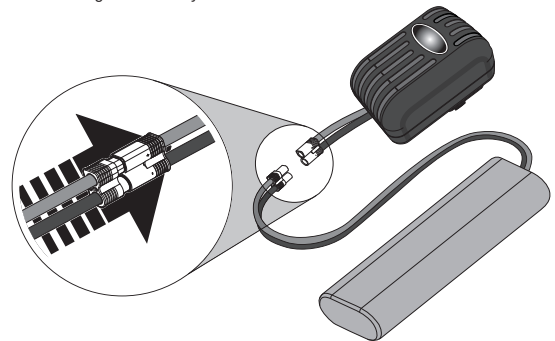
3. Power off the transmitter.



4. Remove the battery from the vehicle.



5. Recharge the battery.



MOTOR CARE

- Seat the motor brushes by driving smoothly on a flat surface during use of the first battery charge. **Failing to do so can greatly reduce motor performance and functional life.**
- Prolong motor life by preventing overheating conditions. Undue motor wear results from frequent turns, stops and starts, pushing objects, driving in deep water and tall grass, and driving continuously up hill.
- **Allow the motor to cool completely before running the vehicle.**
- Over-temperature protection is installed on the ESC to prevent circuit damage, but cannot protect the motor from driving against heavy resistance.

MAINTENANCE

SETTING THE GEAR MESH

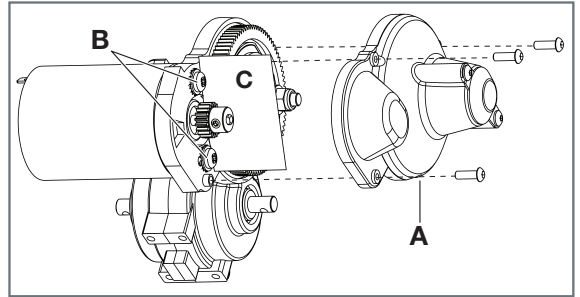
The gear mesh has already been set at the factory. Setting the gear mesh is only necessary when changing motors or gears.

You must remove the vehicle's gear cover (**A**) to make this adjustment.

Proper gear mesh (how the 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.

Set the gear mesh by following these simple steps:

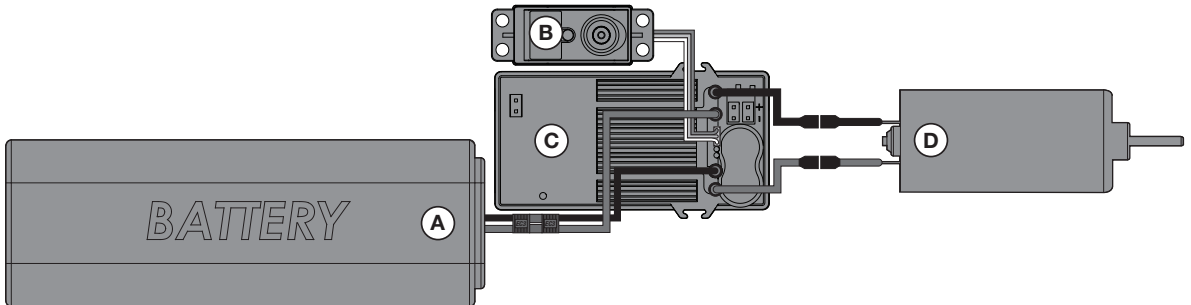
1. Loosen the 2 motor screws (**B**).
2. Put a small piece of paper (**C**) between the pinion and spur gears.
3. Push the gears together while tightening the motor screws.
4. Rotate the gears to remove the paper. The gearing should move a small amount.
5. Reinstall the gear cover.



ELECTRICAL LAYOUT

Number	Description
A	DYN1171 Dynamite 20T Brushed Motor
B	DYNC1050EC Dynamite Speedpack 1800mAh Ni-MH 6 Cell with EC3™
C	SPMS603* Waterproof Steering Servo
D	ECX13010 ESC/RX 2.4GHz V4

*OEM part only. Replacement, please use SPMS6170.



SHOCK CLEANING

Oil-filled shocks require regular maintenance because the oil breaks down or gets dirty. Perform this maintenance after every 3–5 hours of use, depending on the conditions.

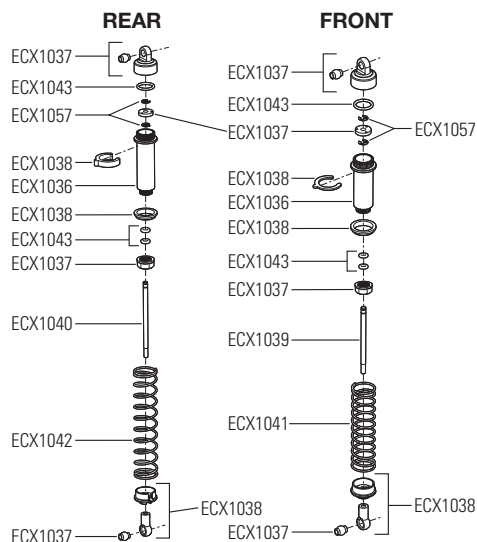
- Remove the shock from the vehicle.
- Remove the cap from the shock body and dispose of fluid.
- Disassemble the shock. Clean thoroughly with a plastic- and electronic-safe degreaser (DYNE50001). Dry parts before assembly.
- Re-assemble the shock and refill the shock body with silicone fluid (30 weight recommended).
- Slowly move the shaft and piston up and down to remove air bubbles.
- Move the piston to the midway point of the body and install the cap.
- Wipe off any overflowing fluid.
- When properly filled, the piston should rebound about 3/8 in (9.5mm) after being pushed in fully.
- Re-install the shock on the vehicle.

RIDE HEIGHT ADJUSTMENT

Ride height is an adjustment that affects the way the vehicle jumps, turns and goes over bumps. Drop one end of the vehicle from approximately 6 inches (152 mm) in height onto a flat surface. After the vehicle settles, verify the front arms are equal and parallel to the flat surface. Do the same with the rear to make sure both arms are parallel with the flat surface.

Lowering the front ride height increases steering, but decreases traction. Lowering the rear ride height increases traction, but decreases steering.

SHOCK ABSORBER PARTS



Part #	Description	Part #	Description
ECX1036	Shock Body Set	ECX1040	Rear Shock Shaft (2)
ECX1037	Shock Caps, Pistons	ECX1041	Front Shock Springs (2)
ECX1038	Shock Parts Set	ECX1042	Rear Shock Springs (2)
ECX1039	Front Shock Shaft (2)	ECX1043	Shock O-Ring Set

FASTENERS

No.	Description	No.	Description	No.	Description	No.	Description
	Tapping Binder Head M3x10 mm		Tapping Flat Head M2x16mm		Step Screw M3x0.5x7.4 mm		Washer 5x7x0.5 mm
	Tapping Binder Head M3x12 mm		Binder Head M3x8mm		Step Screw M3x0.5x13.4 mm		Washer 3x8x0.5 mm
	Tapping Binder Head M3x16 mm		Binder Head M3x12mm		Step Screw M3x0.5x10.5 mm		Washer 2x7x0.5 mm
	Tapping Binder Head M3x18 mm		Binder Head M3x20mm		Set Screw M3x3 mm		Flanged Lock Nut M4
	Tapping Flat Head M3x10 mm		Binder Head M3x25mm		Set Screw M3x12 mm		Lock Nut M3
	Tapping Flat Head M3x12 mm		Button Hex M2.5x4mm		Set Shaft Screw M3x13 mm		E-Clip E2.5
	Tapping Flat Head M3x15 mm		Button Hex M2.5x8mm				Lock Washer

TROUBLESHOOTING GUIDE

Problem	Possible Cause	Solution
Short run time	Battery damaged/not charged	Check/change battery
	Motor dirty	Check/clean
Sluggish action	Motor dirty	Check/clean
	Bind in drivetrain	Clean/adjust
	Vehicle battery is not charged	Replace/recharge
Controls reversed	ST. REV or TH. REV	Change switch position
Motor/ESC overheat	Over-geared for the driving environment	Install smaller pinion on the motor
Does not operate	Transmitter batteries low	Replace/recharge
	Transmitter powered off	Power on
	ESC powered off	Power on
	Vehicle battery is not charged	Replace/recharge
	Dual-rate (D/R) steering and/or throttle knobs on transmitter are turned counterclockwise	Adjust dual-rate (D/R) steering or throttle knobs clockwise to desired setting
Poor range	Transmitter batteries low	Replace/recharge
	Receiver antenna damaged	Check/repair/replace
The system will not connect	Transmitter and receiver too near each other	Move transmitter 3.3–9.8ft (1–3m) from receiver
	Transmitter and receiver too near large metal objects (vehicles, etc.)	Move away from large metal objects (vehicles, etc.)
	Throttle trim out of center on transmitter	Set throttle trim on transmitter to zero. Turn off and on transmitter and vehicle
	Receiver accidentally put in bind mode so receiver is no longer bound	Rebind transmitter and receiver
The receiver goes into failsafe mode a short distance away from the transmitter	Check the receiver antenna to be sure it is not cut or damaged	Make sure the antenna is in the antenna tube Contact Horizon Product Support
The receiver quits responding during operation	Low battery voltage	Completely recharge battery
	Loose or damaged wires or connectors between battery and receiver	Do a check of the wires and connection between battery and receiver. Repair or replace wires and/or connectors
Receiver and transmitter are not bound	Transmitter accidentally put in bind mode, ending bind to receiver	Bind transmitter to receiver
Vehicle moves forward or backward without input from user	Throttle trim on transmitter not centered	Adjust throttle trim on transmitter to neutral point
Car does not drive straight	Steering trim on transmitter not centered	Adjust steering trim on transmitter so the vehicle drives straight
No steering or lack of steering	Steering dual-rate (D/R) on transmitter not adjusted correctly	Adjust steering dual-rate (D/R) knob on transmitter clockwise to desired steering throw
	Servo failed	Contact Horizon Product Support
No throttle or lack of throttle	Throttle dual-rate (D/R) on transmitter not adjusted correctly	Adjust throttle dual-rate (D/R) knob on transmitter clockwise to desired steering throw
	ESC failed	Contact Horizon Product Support
	Motor failed	Contact Horizon Product Support
Clicking noise in transmission area	Dirt or rocks in spur gear	Remove gear cover and inspect. If necessary, replace gear
	Motor moved away from spur gear	Reset gear mesh

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. If you do not have internet access, please contact Horizon Product Support to obtain a RMA number along with instructions for submitting your product for service. When calling Horizon, you will be asked to provide your complete name, street address, email address and phone number where you can be reached during business hours. When sending product into Horizon, please include your RMA number, a list of the included items, and a brief summary of the problem. A copy of your original sales receipt must be included for warranty consideration. Be sure your name, address, and RMA number are clearly written on the outside of the shipping carton.

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

Warranty Requirements

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

Non-Warranty Service

Should your service not be covered by warranty, service will be completed and payment will be required without notification or estimate of the expense unless the expense exceeds 50% of the retail purchase cost. By submitting the item for service you are agreeing to payment of the service without notification. Service estimates are available upon request. You must include this request with your item submitted for service. Non-warranty service estimates will be billed a minimum of ½ hour of labor. In addition you will be billed for return freight. Horizon accepts money orders and cashier's checks, as well as Visa, MasterCard, American Express, and Discover cards. By submitting any item to Horizon for service, you are agreeing to Horizon's Terms and Conditions found on our website http://www.horizonhobby.com/content/service-center_render-service-center.

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

WARRANTY AND SERVICE CONTACT INFORMATION

Country of Purchase	Horizon Hobby	Contact Information	Address
United States of America	Horizon Service Center (Repairs and Repair Requests)	servicecenter.horizonhobby.com/ RequestForm/	2904 Research Road 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	Hanskampring 9 D 22885 Barsbüttel, Germany
	Sales: Horizon Hobby GmbH	+49 (0) 4121 2655 100	

FCC INFORMATION

FCC ID: XNZKTH91802G 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.

IC INFORMATION

IC ID: 20264-KTH91802G This device complies with Industry Canada license-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.



ECX AMP Crush | ECX03048I

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, EMC, and LVD directives.

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

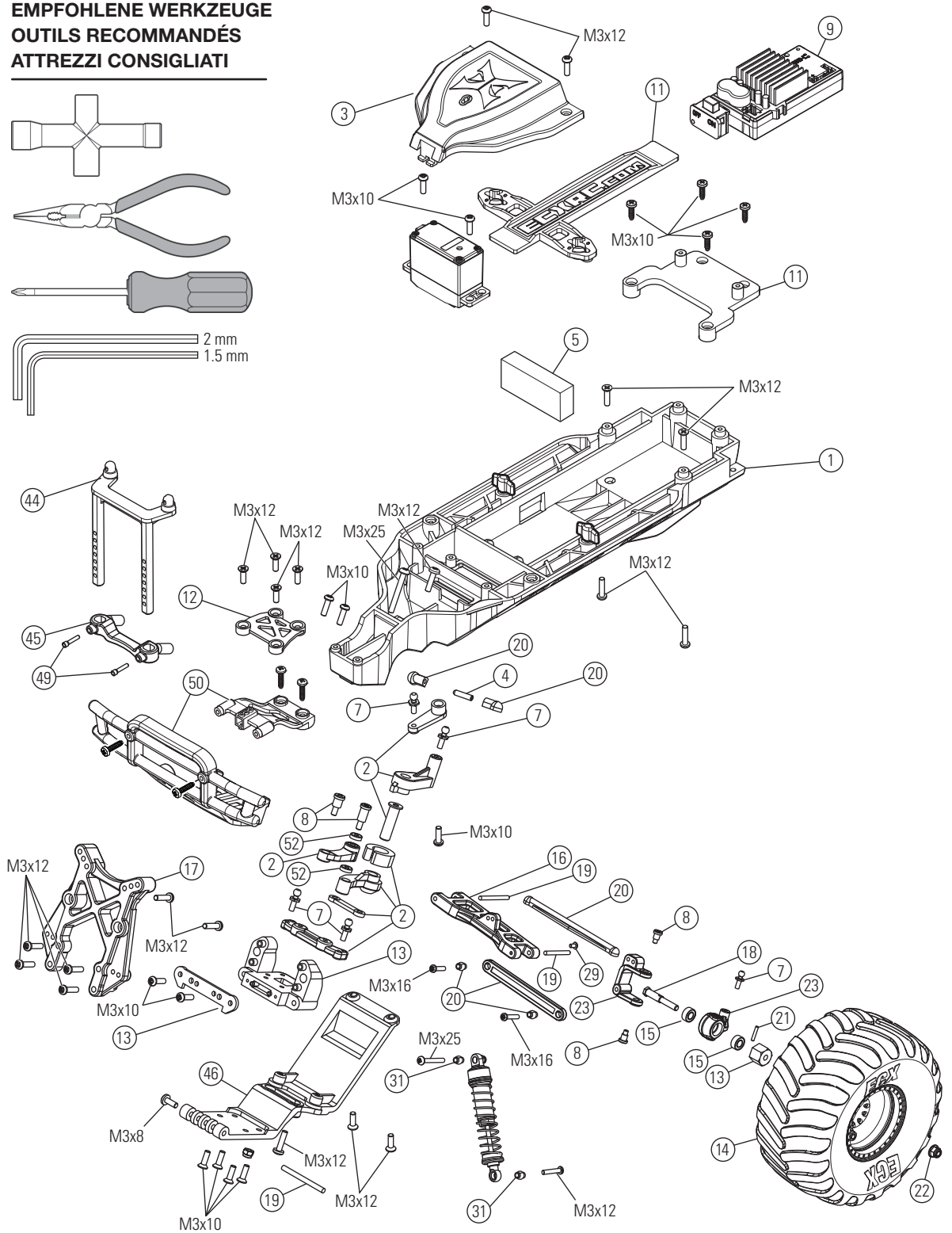
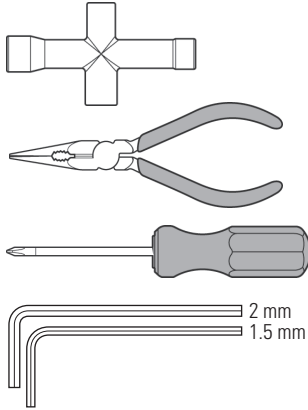


Instructions for disposal of WEEE by users in the European Union

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.

**PARTS DIAGRAM | EXPLOSIONSZEICHNUNG |
VUE ÉCLATÉE DES PIÈCES | ESPLOSO DEL MODELLO CON REFERENZA PEZZI**

**RECOMMENDED ITEMS
EMPFOHLENE WERKZEUGE
OUTILS RECOMMANDÉS
ATTREZZI CONSIGLIATI**



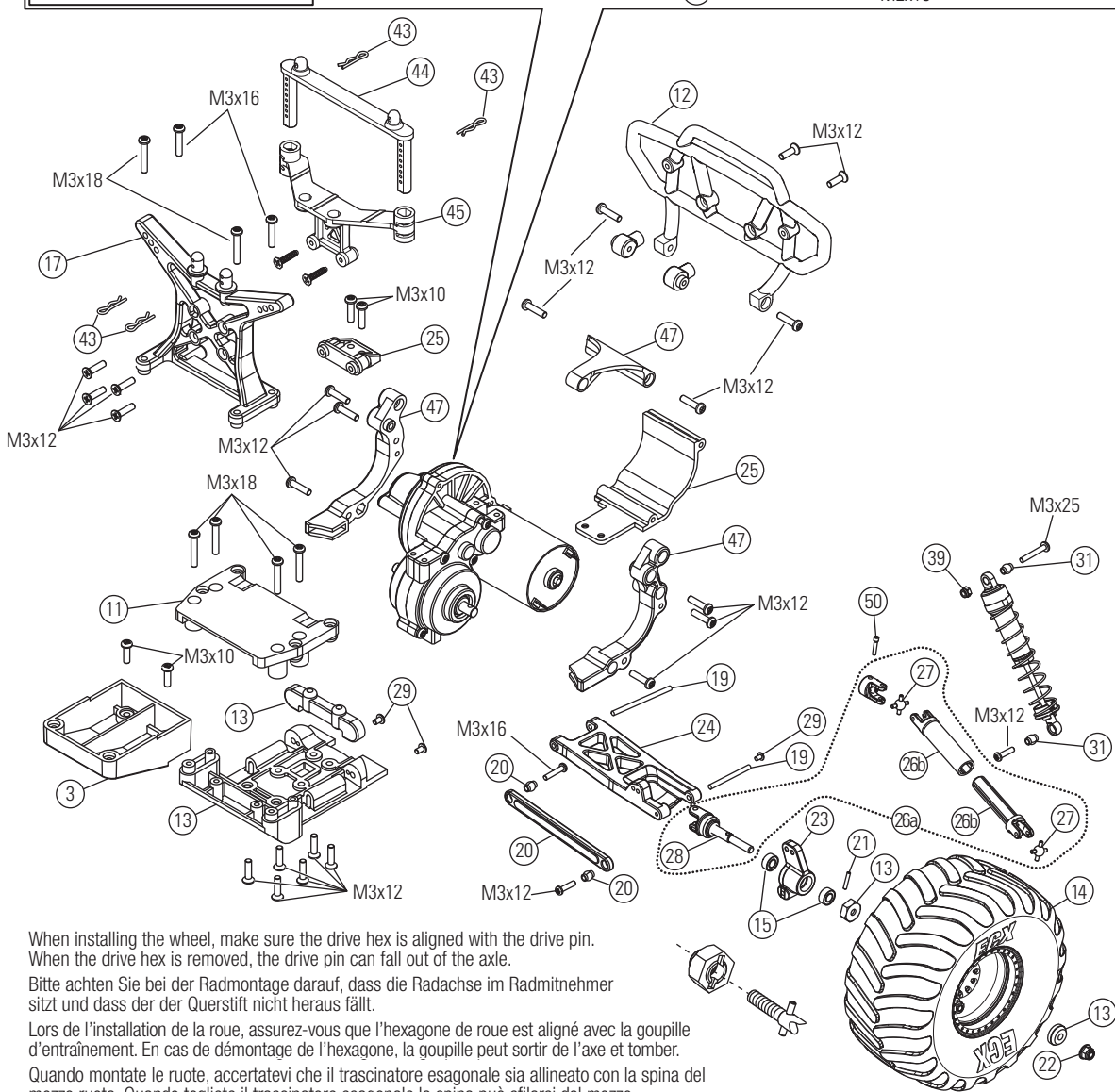
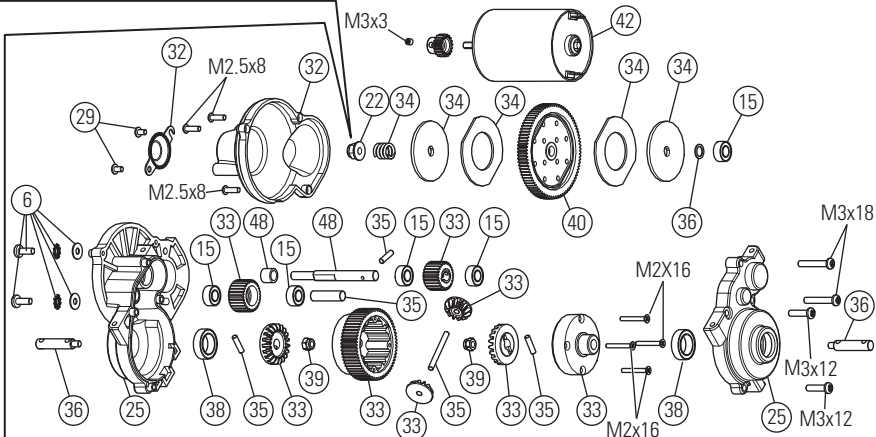
PARTS DIAGRAM | EXPLOSIONSZEICHNUNG | VUE ÉCLATÉE DES PIÈCES | ESPLOSO DEL MODELLO CON REFERENZA PEZZI

The slipper clutch can be adjusted using this locknut (ECX1060). Fully tighten the locknut, then loosen the nut two full turns.

Die Rutschkupplung kann durch diese Stopmutter eingestellt werden (ECX1060). Ziehen Sie die Mutter an und drehen Sie dann volle zwei Umdrehungen zurück.

Il est possible d'ajuster le sliper par action sur cet écrou de blocage (ECX1060). Veuillez à serrer l'écrou de blocage à fond. Ensuite, dévissez l'écrou de deux tours complets.

La frizione può essere regolata con questo dado autobloccante (ECX1060). Prima avvitate completamente il dado, poi svitatelo 2 giri.



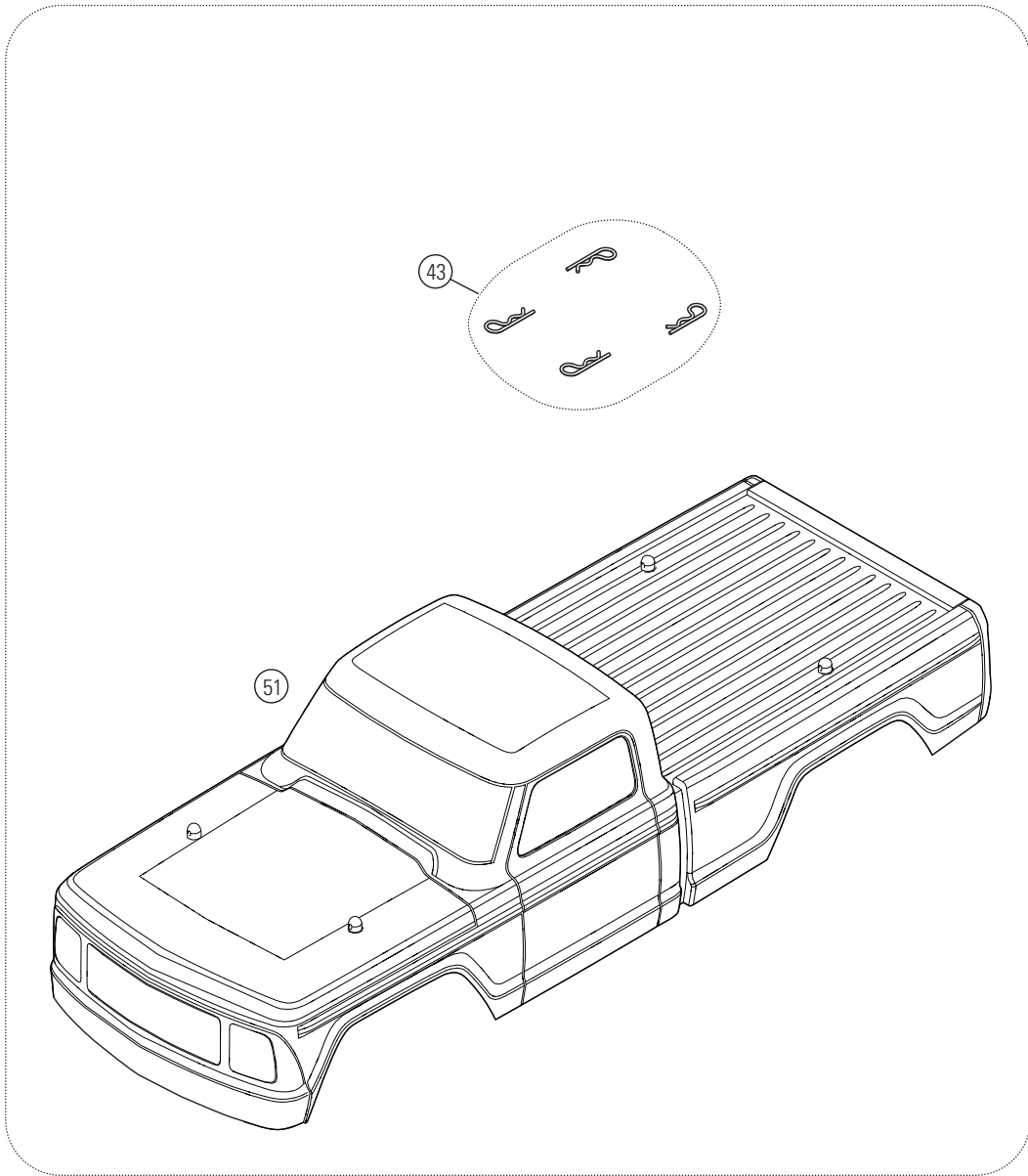
When installing the wheel, make sure the drive hex is aligned with the drive pin. When the drive hex is removed, the drive pin can fall out of the axle.

Bitte achten Sie bei der Radmontage darauf, dass die Radachse im Radmitnehmer sitzt und dass der Querstift nicht heraus fällt.

Lors de l'installation de la roue, assurez-vous que l'hexagone de roue est aligné avec la goupille d'entraînement. En cas de démontage de l'hexagone, la goupille peut sortir de l'axe et tomber.

Quando montate le ruote, accertatevi che il trascinatore esagonale sia allineato con la spina del mozzo ruota. Quando togliete il trascinatore esagonale la spina può sfilarsi dal mozzo.

PARTS DIAGRAM | EXPLOSIONSZEICHNUNG |
VUE ÉCLATÉE DES PIÈCES | ESPLOSO DEL MODELLO CON REFERENZA PEZZI



REPLACEMENT PARTS | ERSATZTEILE | PIÈCES DE RECHANGE | PEZZI DI RICAMBIO

Part #	Description	Beschreibung	Description	Descrizione	
1	ECX231022	Short Chassis	Chassis	Châssis principal	Telaio principale
2	ECX1028	Servo Saver Set	Servo Saver Set	Sauve servo	Set salvaservo
3	ECX2011	Cover and Rear Mount Set	Abdeckung und hinterer Halter Set	Capot et fixations arrières	Copertura e set di montaggio posteriore
4	ECX1050	Setscrew M3 x 12 (4)	Schrauben Set M3 x 12 (4)	Jeu de vis M3 x 12 (4)	Grani M3 x 12 (4)
5	ECX236005	Foam Block	Schaum Block	Bloc de mousse	Spugna distanziale batteria
6	ECX1098	Motor Screw/Washer Set	Motor Screw/Washer Set	Set vis/rondelles moteur	Viti per il motore/set di rondelle
7	ECX1058	Ball Stud (6)	Kugelkopf (6)	Rondelle (6)	Sfere uniball (6)
8	ECX1065	Shoulder Screw Set (8)	Passschrauben Set (8)	Jeu de vis épaulées (8)	Set viti a doppio stadio (8)
9	ECX13010	ESC/RX 2.4GHz V4	ESC/RX 2,4GHz V4	ESC/RX 2,4GHz V4	ESC/RX 2,4GHz V4
11	ECX231024	Battery Strap, ESC Plate	Akkugurt, ESC-Platte	Sangle de batterie, plaque du variateur ESC	Fascetta batteria, piastra ESC
12	ECX231002	Rear Bumper Set	Hintere Stossstange	Pare-choc arrière	Set paraurti posteriore
13	ECX2006	Suspension Arm Mount Set	Querlenker Set hinten	Jeu de renfort de suspension	Supporti braccetti sosp.
14	ECX43016	Right/Left, Premount, Wheel (2)	Rechts/Links, Premount, Rad (2)	Droite/Gauche, Prémontage, Roue (2)	Destra/Sinistra, Premount, Ruota (2)
15	ECX1015	Ball Bearing 5 x 10 x 4mm (8)	Kugellager 5 x 10 x 4 mm (8)	Roulement à billes 5 x 10 x 4 mm (8)	Cuscinetto a sfera, 5 x 10 x 4 mm (8)
16	ECX1018	Front Suspension Arm Set	Querlenker Set vorne	Jeu de bras de suspension avant	Braccetti delle sospensioni anteriori
17	ECX1020	Shock Tower Set	Dämpferbrücke	Jeu de support d'amortisseur	Supporto ammortizzatori posteriori
18	ECX1035	Front Axle (2)	Radachse vorne (2)	Axe de roue avant (2)	Mozi ruota anteriori (2)
19	ECX1044	Hinge Pin Set	Querlenkerbolzen Set	Jeu d'axes de suspension	Set perni sospensioni
20	ECX1046	Camber, Toe Link Set	Spur- Sturzstangenset	Jeu de biellettes de carrossage et de pincement	Set tiranteria Camber e convergenza
21	ECX1049	Wheel Pins (4)	Radmitnehmerstifte (4)	Goupilles d'entraînement (4)	Spine trascinatori ruote (4)
22	ECX1060	M4 Locknut (4)	M4 Stopmutter (4)	Ecrous auto-freïnés M4 (4)	Dadi autobloccanti M4 (4)
23	ECX234000	Caster Block, Steer Block, RR Hub (2)	Radblock, Steuerblock, Hinterradnabe (2)	Blocs de roulettes, Bloc de direction, Corps de fusées arrière (2)	Blocco ruota anteriore, blocco sterzo, mozzo posteriore (2)
24	ECX1019	Rear Suspension Arm Set	Querlenker Set hinten	Jeu de bras de suspension arrière	Braccetti delle sospensioni posteriori
25	ECX232033	Transmission Case Set	Getriebegehäuse	Ensemble carter de transmission	Set scatola trasmissione
26a	ECX232000	Long Driveshaft Set, Complete HD (2)	Lange Antriebswelle, HD (2)	Long arbre de transmission, HD (2)	Albero di trasmissione lungo, HD (2)
26b	ECX232002	Long Driveshaft, Plastic Only HD (2)	Lange Antriebswelle, nur Kunststoff HD (2)	Long arbre de transmission, uniquement en plastique ultra-résistant (2)	Albero di trasmissione lungo, solo plastica HD (2)
27	ECX232005	Driveshaft Pivot Ball (4)	Antriebswellen Kugelkopf (4)	Croisillon de cardan (4)	Attacco a sfera semiassie (4)
28	ECX232001	Rear Axle (2)	Wellenmitnehmer hinten (2)	Axe de roue arrière	Attacco a sfera semiassie (4)
29	ECX1045	Button Head Screw 2.5 x 4mm (8)	Rundkopfschraube 2,5 x 4 mm (8)	Vis à tête bombée, 2,5 x 4 mm (8)	Vite a testa tonda, 2,5 x 4 mm (8)
31	ECX1037	Shock Caps, Pistons, Pivot Ball Set	Stoßkappe, Kolben, Schwenkugel-Set	Ensemble de Capuchons d'amortisseurs, Pistons, Rotule	Set articolazione a rotula, pistoni, tappi ammortizzatore
32	ECX231026	Gear Cover	Gear Cover	Carter de Réducteur	Copertura per ingranaggi
33	ECX1022	Transmission Gear Set	Getriebe	Couronne et pignons intermédiaires, corps et pignons de différentiel	Set ingranaggi trasmissione
34	ECX1024	Slipper Clutch Plates, Pads, Spring	Rutschkupplung Teilesatz	Garnitures, plateaux et ressort de slipper	Piattelli frizione, disco, molla
35	ECX1025	Transmission Idler Shaft, Drive Pins	Haupttriebewelle Set	Arbre secondaire de transmission avec goupilles d'entraînement	Alberino intermedio con spina
36	ECX1026	Transmission Drive Shaft (2)	Getriebeausgangswelle (2)	Axe de sortie de différentiel (2)	Mozi Differenziale (2)
38	ECX1055	Bearings 10 x 15 x 4mm (2)	Lager 10 x 15 x 4 mm (2)	Roulements 10 x 15 x 4 mm (2)	Cuscinetti 10 x 15 x 4 mm (2)
39	ECX1059	M3 Locknut (4)	M3 Stopmutter (4)	Ecrou auto-freiné M3 (4)	Dadi autobloccanti M3 (4)
40	ECX232032	Spur Gear 48P, 93T	Hauptzahnrad 48P, 93T	Couronne 48P, 93T	Corona 48P, 93T
42	DYN1171	Dynamite 20T Brushed Motor	Dynamite-Bürstenmotor mit 20 Turns	Moteur à balais Dynamite 20T	Motore con spazzole Dynamite 20T
43	ECX1048	Body Clip (8)	Body Clip (8)	Clips Carrosserie (8)	Clips per carrozzeria (8)
44	ECX231025	Body Post Set	Körperpfosten-Set	Set Plots Carrosserie	Set di sostegni per la carrozzeria
45	ECX2009	Body Mount Set	Aufnahme Karosseriehälter	Set Montage Carrosserie	Set di montaggio per la carrozzeria
46	ECX2007	Skid Plate Set	Skid Plate Set	Set Plaque Chassis	Set piste di protezione
47	ECX2013	Rear Bumper Mount	Heckstoßstangenhalterung	Support de pare-chocs arrière	Supporto bumper posteriore
48	ECX1023	Top Shaft/Spacer	Top Shaft/Spacer	Set de Goupilles	Set di spessori
49	ECX1033	Setscrew M3 x 10	Feststellschraube M3 x 10	Vis de fixation M3 x 10	Vite di arresto M3 x 10
50	ECX231001	Front Bumper Set	Vordere Stossstange	Pare-choc avant	Set paraurti anteriore
51	ECX230044	Body, Blue	Karosserie, blau	Carrosserie, bleue	Carrozzeria, blu
51	ECX230045	Body, Orange	Karosserie, orange	Carrosserie, orange	Carrozzeria, arancione

REPLACEMENT PARTS | ERSATZTEILE | PIÈCES DE RECHANGE | PEZZI DI RICAMBIO

Part #	Description	Beschreibung	Description	Descrizione
52	ECX1056	3 x 6 x 2.8mm Bushing (2)	3 x 6 x 2,8 mm Hülse (2)	Boccola 3 x 6 x 2,8 mm (2)
	ECX0945	3 x 25mm Machine Screw (8)	3 x 25 mm Maschinenschraube (8)	Vite a ferro 3 x 25 mm (8)
	ECX1051	M3 x 3mm Set Screw (6)	M3 x 3 mm Stellschraube (6)	Vite di fermo M3 x 3 mm (6)
	ECX1057	3mm E-Clip (8)	3 mm E-Clip (8)	3 mm E-Clip (8)
	ECX1062	3 x 8mm Button Head Screw (10)	3 x 8 mm Rundkopfschraube (10)	Vis à tête bombée 3 x 8 mm (10)
	ECX1063	3 x 10mm Self-Tap Button Head Screw (10)	3 x 10 mm selbstschneidende Rundkopfschraube (10)	Vis à tête bombée auto-taraudeuse 3 x 10 mm (10)
	ECX1064	3 x 12mm Self-Tap Button Head Screw (10)	3 x 12 mm selbstschneidende Rundkopfschraube (10)	Vis à tête bombée auto-taraudeuse 3 x 12 mm (10)
	ECX2017	3 x 18mm Self-Tap Button Head Screw (10)	3 x 18 mm selbstschneidende Rundkopfschraube (10)	Vis à tête bombée auto-taraudeuse 3 x 18 mm (10)
	ECX2018	3 x 16mm Button Head Screw (10)	3 x 16 mm Rundkopfschraube (10)	Vis à tête bombée 3 x 16 mm (10)
	ECX2019	3 x 10mm Button Head Screw (10)	3 x 10 mm Rundkopfschraube (10)	Vis à tête bombée 3 x 10 mm (10)

OPTIONAL PARTS | OPTIONALE TEILE | LISTE DES OPTIONS | ELENCO PARTI OPZIONALI

Part #	Description	Beschreibung	Description	Descrizione
DYNT0500	Startup Tool Set	Anfänger-Werkzeugsatz	Jeu d'outils de démarrage	Set attrezzi
ECX1061	Screw Set (64)	Schraubensatz (64)	Jeu de vis (64)	Set viti (64)
ECX1095	Aluminum Shock Set, Front	Aluminium Stoßdämpfersatz, Vordere	Ensemble d'amortisseurs en aluminium, avant	Set ammortizzatori anteriori, alluminio
ECX1096	Aluminum Shock Set, Rear	Aluminium Stoßdämpfersatz, Heck	Ensemble d'amortisseurs en aluminium, arrière	Set ammortizzatori posteriori, alluminio
ECX331000	Front Shock Tower, Aluminum	Vordere Stoßdämpferbrücke, Aluminium	Tour d'amortisseur avant, aluminium	Supporto ammortizzatore anteriore, alluminio
ECX331001	Rear Shock Tower, Aluminum	Hintere Stoßdämpferbrücke, Aluminium	Tour d'amortisseur arrière, aluminium	Supporto ammortizzatore posteriore, alluminio
ECX331008	Steering Servo Saver, Aluminum	Steuerservo-Saver, Aluminium	Économiseur de servo de direction, aluminium	Salvaservo sterzo, alluminio
ECX332000	Wheel Hex Set, Aluminum	Sechskantnadsatz, Aluminium	Jeu d'écrous hexagonaux pour roues, aluminium	Set trascinatori esagonali, alluminio
ECX334000	Rear Hubs, Aluminum	Hintere Nabe, Aluminium	Moyeux arrière, aluminium	Mozzi posteriori, alluminio
ECX334001	Caster Block, Aluminum	Radblock, Aluminium	Bloc de rondelle, aluminium	Caster block, alluminio
ECX334002	Steering Block, Aluminum	Steuerblock, Aluminium	Bloc de direction, aluminium	Fusello sterzo, alluminio
ECX9001	Metal Gear Set	Metallgetriebebesatz	Ensemble de boîte métallique	Set ingranaggi in metallo
RPM70462	Rear A-Arms, Black (2)	Hintere A-Arms, schwarz (2)	Bras de commande A arrière, noir (2)	A-arm posteriori, nero (2)
RPM70582	Front A-Arms, Black (2)	Vordere A-Arms, schwarz (2)	Bras de commande A avant, noir (2)	A-arm anteriori, nero (2)
RPM73292	Front Spindle Blocks, Black (2)	Vordere Spindelblöcke, schwarz (2)	Bloc d'axe avant, noir (2)	Blocchi albero anteriori, nero (2)
RPM73442	HD Caster Blocks, Black	HD Radblock, Schwarz	Blocs de roulettes ultra-résistants, noirs	Caster block HD, nero
RPM73492	SX-Saver Bellcrank, Black	SX-Saver-Umlenkhebel, Schwarz	Levier coudé SX-Saver, noir	Leva a squadra SX-Saver, nero
RPM73572	Rear Axle Carriers, Black	Hinterachsträger, Schwarz	Supports d'essieu arrière, noirs	Porta asse posteriori, nero

RECOMMENDED PARTS | EMPFOHLENE TEILE | PIÈCES RECOMMANDÉES | PARTI RACCOMANDATE

Part #	Description	Beschreibung	Description	Descrizione
DYN1501	Powerstage Bundle - Stage 1	Leistungsteilpaket – Stufe 1	Lot à étage de puissance, étape 1	Powerstage Bundle-Stage 1



ECX03048T1/T2
ECX03048IT1/T2
www.ecxrc.com

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