

FORCE RC®



NORTHWOOD™

**1/10 4WD SCALER
FCES03003**

**INSTRUCTION MANUAL
MANUEL D'UTILISATION**

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.

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.

TABLE OF CONTENTS

Water Resistant Vehicle with Waterproof Electronics.....	3	Component Specifications.....	10
Box Contents	4	Binding	10
Specifications	4	Failsafe.....	10
Vehicle Preparations	4	Shock Cleaning.....	10
Charging the Vehicle Battery	4	Shock Parts Diagram.....	10
CHARGING WARNINGS.....	4	Troubleshooting Guide	11
Installing Transmitter Batteries	5	Limited Warranty	12
Transmitter Battery Safety Precautions.....	5	Contact Information.....	13
Removing and Installing The Vehicle Body.....	5	FCC Information.....	13
Installing The Battery In The Vehicle	5	IC Information.....	13
Transmitter Controls.....	6	Replacement Parts	26
Getting Started.....	7	Optional Parts	26
Motor Care	7	Recommended tools.....	27
Operation.....	8	Parts Diagram (Center Chassis).....	27
When You Are Finished	8	Parts Diagram (Front and Rear Ends).....	28
Maintenance	9	Parts Diagram (Drivetrain).....	29
2-in-1 Electronic Speed Control (ESC)/Receiver	9	Parts Diagram (Body).....	29
Electrical Layout.....	9		

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.

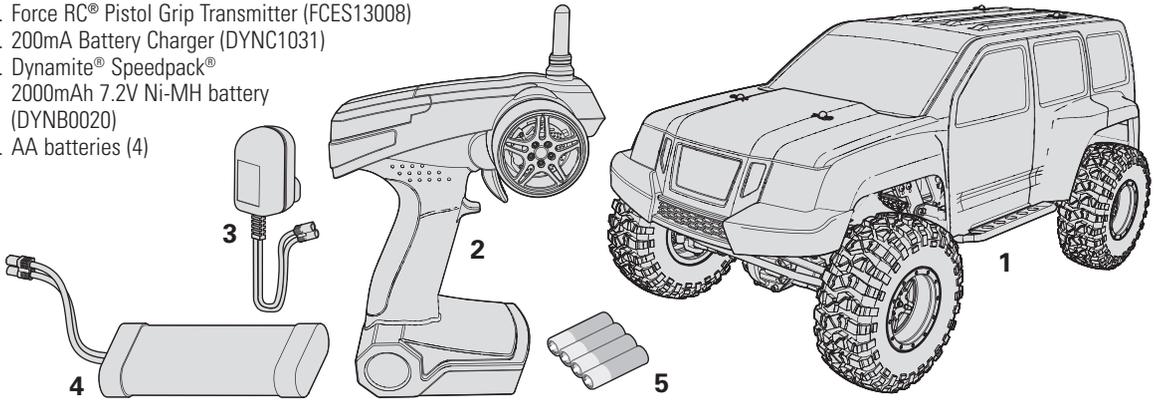
- Remove the battery pack(s) and dry the contacts. If you have an air compressor or a can of compressed air, blow out any water that may be inside the recessed connector housing.
- Remove the tires/wheels from the vehicle and gently rinse the mud and dirt off with a garden hose. Avoid rinsing the bearings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

BOX CONTENTS

1. Force RC® Northwood™ 1/10 4WD Scaler (FCES03003)
2. Force RC® Pistol Grip Transmitter (FCES13008)
3. 200mA Battery Charger (DYNC1031)
4. Dynamite® Speedpack®
2000mAh 7.2V Ni-MH battery
(DYNB0020)
5. AA batteries (4)



SPECIFICATIONS

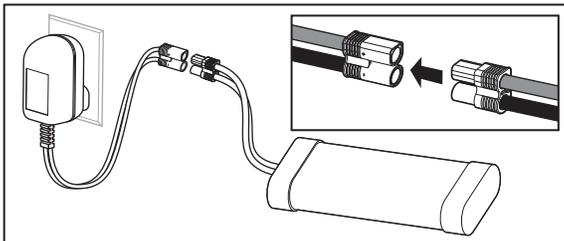
Frequency	2.4GHz
Run time	10-12 minutes
Included Battery	7.2V, 2000mAh NiMH
Charge Time	10 hours
Compatible Batteries	6 -7 cell NiCad/NiMH and 2 cell LiPo

VEHICLE PREPARATIONS

CHARGING THE VEHICLE BATTERY

1. Connect the battery pack to the charger.
2. Connect the charger to an AC power source.
3. Allow the battery pack to charge for 10 hours.

⚠ CAUTION: If at any time during the charge process the battery pack(s) becomes hot to the touch, unplug the battery immediately and discontinue the charge process.



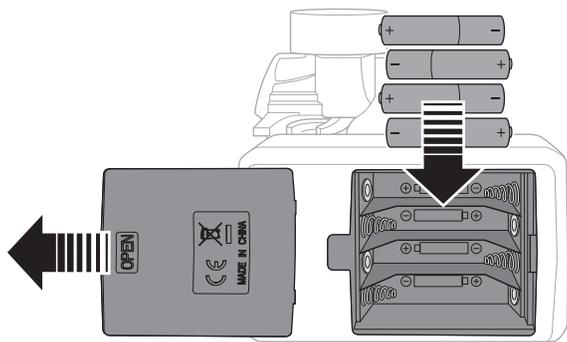
The vehicle battery charger produces 200 milliAmps per hour. Divide the mAh capacity on the label of a battery by 200 to know how long battery charging will require. For example, a fully discharged 2000mAh battery requires 10 hours to charge.

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 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.
- **NEVER LEAVE CHARGING BATTERIES UNATTENDED.**
- **NEVER CHARGE BATTERIES OVERNIGHT.**
- Read all safety precautions and literature prior to use of this product.

INSTALLING TRANSMITTER BATTERIES



1. Remove the battery cover from the bottom of the transmitter.
2. Obey the battery plus (+) and minus (-) diagram in the transmitter to install 4 AA batteries.
3. Install the battery cover.

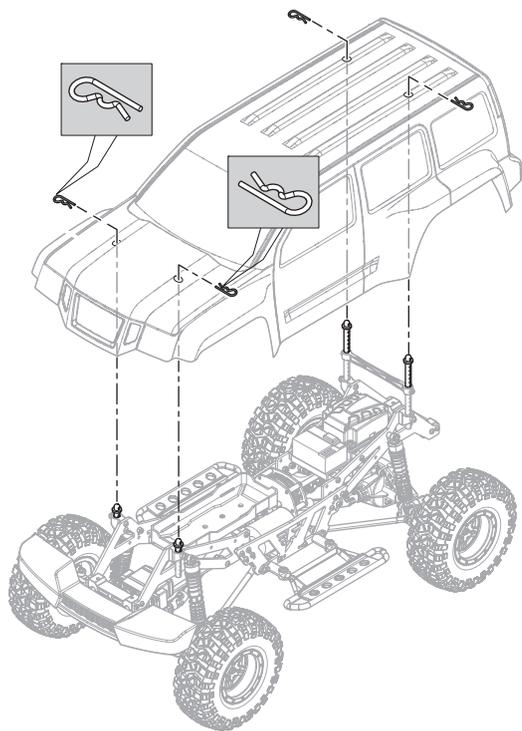
We recommend using only alkaline AA batteries in the transmitter.

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.

TRANSMITTER BATTERY SAFETY PRECAUTIONS

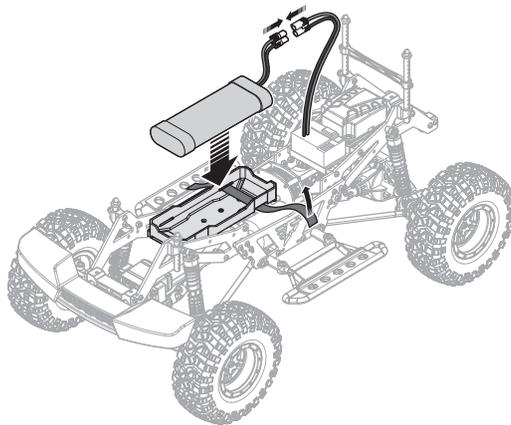
- Never install damaged batteries.
- Never install batteries of mixed types or of different ages in the transmitter.
- Always remove exhausted batteries.
- Always remove batteries before storing the transmitter.
- Low battery power can result in loss of control of the RC vehicle.

REMOVING AND INSTALLING THE VEHICLE BODY



INSTALLING THE BATTERY IN THE VEHICLE

1. Install a fully charged battery into battery tray.
2. Secure with hook and loop strap.
3. Connect battery to ESC.



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

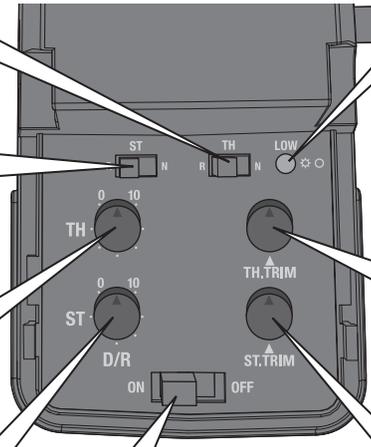


Adjusts the maximum amount of throttle the model can be given

Steering Rate



Adjusts the amount the front wheels move when the steering wheel is turned left or right



Battery Level Indicator

  Solid Red: Battery voltage is good (above 4V)
  Flashing Red: Battery voltage is critically low (below 4V). Replace transmitter batteries

Throttle Trim



Adjusts the neutral point of the electronic speed control

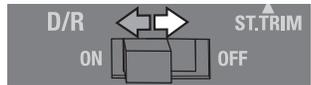
Steering Trim



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

Power Switch

Power ON or OFF the transmitter



Steering Wheel



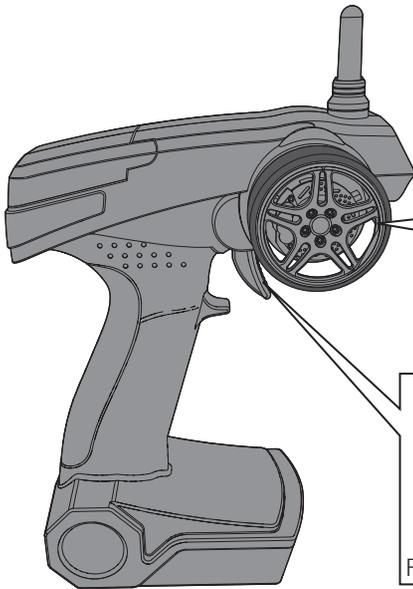
Controls RIGHT and LEFT steering

Throttle Trigger



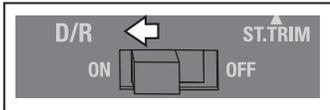
Controls power to the motor for forward or reverse

Forward Stop Reverse

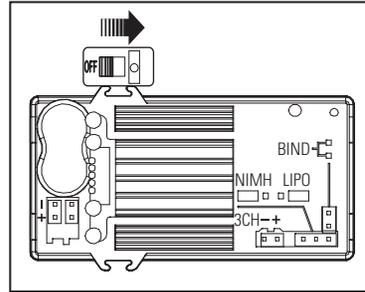
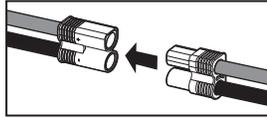


GETTING STARTED

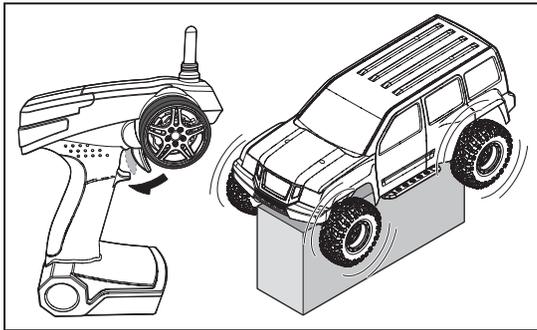
1. Power on the transmitter.



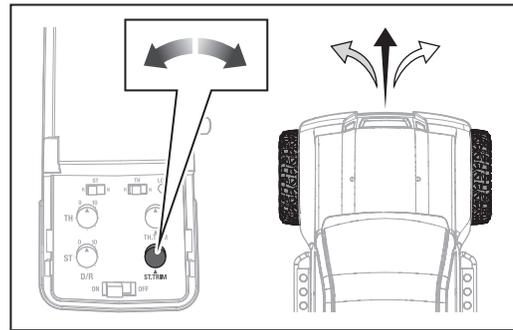
2. Connect the battery to the ESC then power ON the ESC.



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



4. Start driving slowly, if the vehicle does not go straight, adjust the steering trim buttons 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.

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 water and tall grass, and driving continuously up hill.
- Over-temperature protection is installed on the ESC to prevent circuit damage, but cannot protect the motor from driving against heavy resistance.

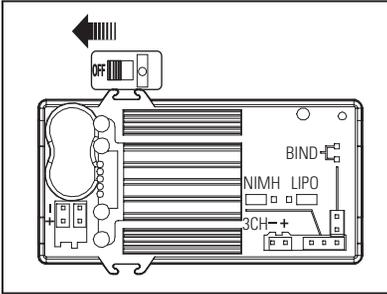
OPERATION

- ALWAYS turn on your transmitter before you turn on the receiver in the vehicle. Always power off the receiver before turning your transmitter off.
- NEVER operate your vehicle in a crowded parking lot.

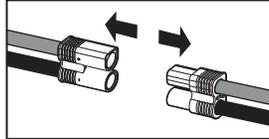


WHEN YOU ARE FINISHED

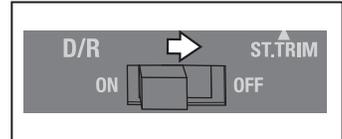
1. Power off the Electronic Speed Control (ESC).



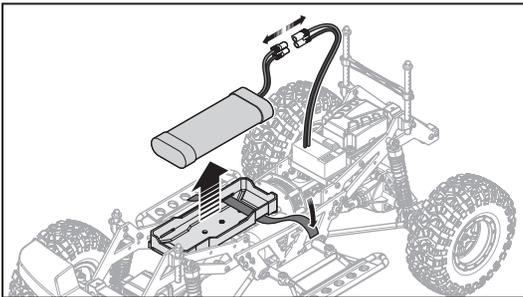
2. Disconnect the battery.



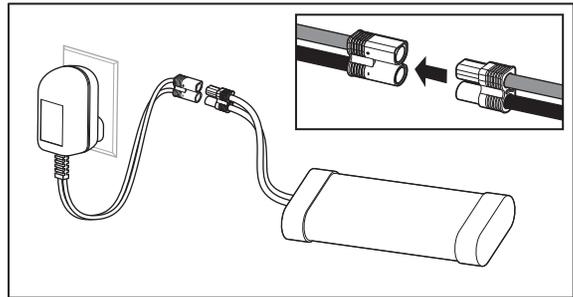
3. Power off the transmitter.



4. Remove the battery from the vehicle.



5. Recharge the battery.



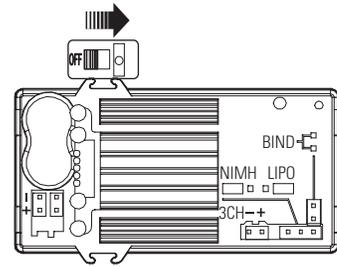
MAINTENANCE

2 IN 1 ELECTRONIC SPEED CONTROL (ESC) / RECEIVER

Programming: The ESC comes with a jumper pre-installed in the BATT: Ni-MH configuration.

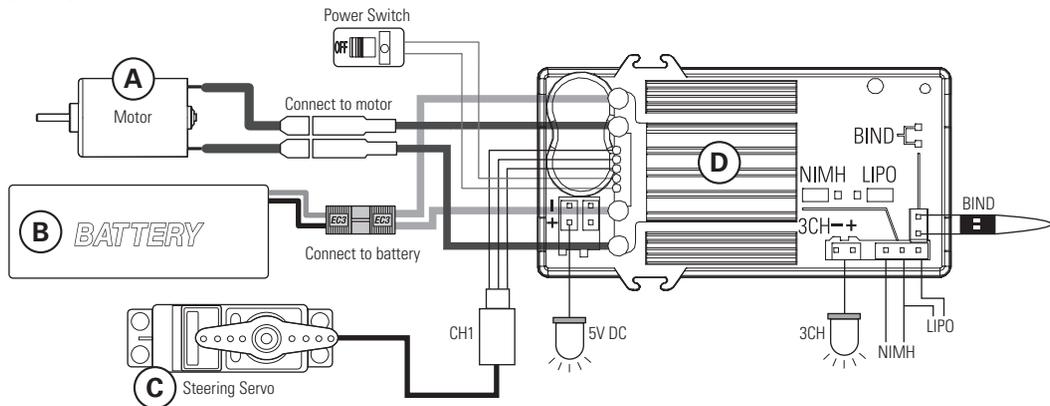
To change battery type to Li-Po, disconnect the jumper from the default port and connect it to the desired port. Power off the ESC, then power it back on.

If the jumpers are lost or not installed, the ESC will default to BATT: Li-Po.



Operation	LED Status	Sound at Power UP
Stop	ON Solid	
Forward	ON Solid	
Forward (full speed)	ON Solid	
Reverse	ON Solid	
Brake	ON Solid	
Brake (full brake)	ON Solid	
Ni-MH/Ni-Cd Battery		3 beeps
2S Li-Po Battery		3 beeps
ESC Ready		3 beeps
Battery Low Voltage	Blinks	
No reception from transmitter	Blinks	
Overheat	Blinks	

ELECTRICAL LAYOUT



	Included Part #	Replacement Part #	Description
A	DYN1171	DYN1171	Motor
B	DYNB0020	DYNB0020	7.2V Battery
C	SPMS605	SPMS605	Steering Servo
D	FCES13002	FCES13002	Receiver/ Electronic Speed Control (ESC)
	DYNC1031	DYNC0500	Battery Charger

COMPONENT SPECIFICATIONS

Transmitter

Frequency	2.4GHz
Channels	2
Power supply	4 AA cells

2 in 1 Electronic Speed Control (ESC)/Receiver

Input Voltage	6.0–8.4 V DC
Electric Capacity (FET)	Forward 20A/320A
Electric Capacity (FET)	Reverse 20A/320A
PWM Frequency	1kHz
BEC Voltage	6V/2A
Weight	50 g
Size	63.7 × 36.1 × 23.5mm

Servo

Voltage	4.8V–6V
Output Torque	161 oz/in @ 6.0V
Operating Speed	.24 sec/60 degrees @ 6.0V
Size	40.2 × 20.1 × 38.1mm

Battery

Type	Ni-MH
Capacity	2000 mAh

Motor

Type	540 Brushed
Turns	20 turn

BINDING

Binding is the process of programming the receiver to recognize the GUID (Globally Unique Identifier) code of a single specific transmitter. The FCES1308 transmitter and FCES13002 2-in-1 receiver/ESC are bound at the factory. If you need to rebind, follow the instructions below.

1. Connect power to the ESC/receiver unit.
2. Turn power on. The red LED will begin to blink slowly.
3. Insert the bind plug into the 2 pin bind port on the ESC/receiver unit. The red LED will begin to flash quickly.
4. Power up the transmitter. Once the red LED turns solid, binding is complete, Remove the bind plug from the ESC/receiver unit.

SHOCK CLEANING

Oil-filled shocks will require regular maintenance due to the oil breaking down or getting dirty. This maintenance should be performed after about every 3 to 5 hours of use, depending on the conditions that the vehicle is used in.

- Remove the shock from the vehicle.
- Remove the cap from the shock body and dispose of fluid.
- Disassemble the shock. Clean thoroughly with DYN5505. 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.

Item #	Part #	Description
23	FCES234007	Linkage Ball Cup and Shock Plastics Set, Hammerjaw, Northwood
27	FCES233005	Shock absorber set, Hammerjaw, Northwood
28	FCES233006	Shock spring set, Hammerjaw, Northwood

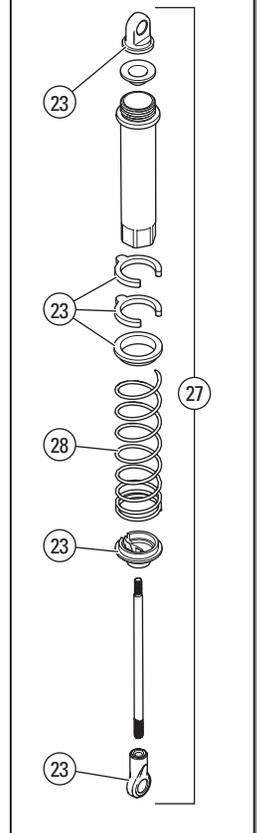
FAILSAFE

In the unlikely event that the radio link is lost during use, the receiver will set the throttle to its pre-programmed failsafe position. 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 throttle control is resumed.

To set failsafe, begin with the throttle at neutral, then press and hold the button on the receiver until the LED begins to flash quickly. When the LED changes to be steadily lit, the failsafe position is set.

Failsafe must be set every time the system is bound. Binding will reset the failsafe setting.

SHOCK PARTS DIAGRAM



TROUBLESHOOTING GUIDE

Problem	Possible Cause	Solution
Short Run Time	<ul style="list-style-type: none"> • Battery damaged/not charged • Motor dirty or brushes worn 	<ul style="list-style-type: none"> • Check/change battery • Check/clean/replace
Sluggish Action	<ul style="list-style-type: none"> • Motor dirty or brushes worn • Bind in drivetrain • Vehicle battery is not charged 	<ul style="list-style-type: none"> • Check/clean/replace • Clean/adjust • Replace/recharge
Controls Reversed	<ul style="list-style-type: none"> • ST. REV or TH. REV 	<ul style="list-style-type: none"> • Change switch position
Motor/ESC overheat	<ul style="list-style-type: none"> • Running conditions putting a high strain on the power system 	<ul style="list-style-type: none"> • Avoid overly tall grass and muddy conditions
Doesn't Operate	<ul style="list-style-type: none"> • Transmitter batteries low • Transmitter powered off • ESC powered off • Vehicle battery is not charged 	<ul style="list-style-type: none"> • Replace/recharge • Power On • Power On • Replace/recharge
Poor Range	<ul style="list-style-type: none"> • Transmitter batteries low • Receiver antenna damaged 	<ul style="list-style-type: none"> • Replace/recharge • Check/repair/replace
The system will not connect	<ul style="list-style-type: none"> • Transmitter and receiver too near each other • Transmitter and receiver too near large metal objects (vehicles, etc.) • Receiver accidentally put in bind mode so receiver is no longer bound 	<ul style="list-style-type: none"> • Move transmitter 8–12 feet (2.4–3.6m) from receiver • Move away from large metal objects (vehicles, etc.) • Rebind transmitter and receiver
The receiver goes into failsafe mode a short distance away from the transmitter	<ul style="list-style-type: none"> • Check the receiver antenna to be sure it is not cut or damaged 	<ul style="list-style-type: none"> • Contact Horizon Product Support • Make sure receiver antenna is in an antenna tube and is above vehicle
The receiver quits responding during operation	<ul style="list-style-type: none"> • Low battery voltage • Loose or damaged wires or connectors between battery and receiver 	<ul style="list-style-type: none"> • Completely recharge battery • Do a check of the wires and connection between battery and receiver. Repair or replace wires and/or connectors
Receiver loses its bind	<ul style="list-style-type: none"> • Transmitter accidentally put in bind mode, ending bind to receiver 	<ul style="list-style-type: none"> • Bind transmitter to receiver

LIMITED WARRANTY

DATE OF PURCHASE LIMITED WARRANTY

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, (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 horizonhobby.com, submit an inquiry to productsupport@horizonhobby.com 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. 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.

NOTICE: Do not ship LiPo batteries to Horizon. If you have any issue with a LiPo 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.

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.

CONTACT INFORMATION

Country of Purchase	Horizon Hobby	Contact Information	Address
North America	Horizon Service Center (Repairs and Repair Requests)	servicecenter.horizonhobby.com/ RequestForm/	2904 Research Rd Champaign, Illinois, 61822 USA
	Horizon Product Support (Product Technical Assistance)	productsupport@horizonhobby.com 877-504-0233	
	Sales	websales@horizonhobby.com 800-338-4639	

FCC INFORMATION

FCC ID: XNZEEX13008

FCC Statement

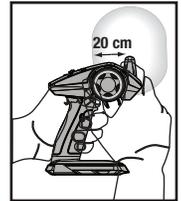
This equipment has been tested and found to comply with the limits for Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed 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 between the equipment and receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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.

Note: Modifications to this product will void the user's authority to operate this equipment.



RF Radiation Exposure Statement:

1. This Transmitter must not be co located or operating in conjunction with any other antenna or transmitter.
2. This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.

IC INFORMATION

IC: 20264-ECX13008

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.

REPLACEMENT PARTS / PIÈCES DE RECHANGE

Pièce	Référence	Description	Description
1	FCES13002	2.4 GHz ESC/Receiver Unit	2,4 GHz Variateur de vitesse électronique (ESC)/Récepteur
2	FCESS230009	Body, Blue, 1:10, Northwood	Carrosserie, bleu, 1:10, Northwood
3	FCESS230010	Body, Clear, 1:10, Northwood	Carrosserie, transparente, 1:10, Northwood
4	FCESS231014	Chassis Plate Set, Aluminum, Northwood	Châssis, ensemble de plaques, Northwood
5	FCES43002	Front and Rear Tire Set, Premount (2) , Northwood	Ensemble de pneus avant/arrière, prémonté, Northwood
6	FCESS232016	Spur Gear Set, 87T, Hammerjaw, Northwood	Engrenage, 87T, Hammerjaw
7	FCESS232023	Wheel Hub Set, 12mm, Hammerjaw, Northwood	Moyeux, 12 mm, Hammerjaw
8	ECX1055	10 × 15 × 4mm Ball Bearing (2)	Roulement à billes 10 × 15 × 4 mm (2)
9	ECX1015	5 × 10 × 4mm Ball Bearing (8)	Roulement à billes 5 × 10 × 4 mm (8)
10	DYN1171	Dynamite 20-turn Brushed Motor	Moteur à balais Dynamite 20 T
11	FCESS234008	Ball Stud Set, Hammerjaw	Piton à rotule, Hammerjaw, Northwood
12	FCESS231009	Chassis Brace and Battery Tray Set, Hammerjaw, Northwood	Support du châssis et support de batterie, Hammerjaw, Northwood
13	FCESS231011	Front/rear Upper and Lower Link Mounts, Hammerjaw, Northwood	Supports de liaison supérieur et inférieur avant / arrière, Hammerjaw, Northwood
14	FCESS235001	Fastener Set A, Hammerjaw, Northwood	Fixations A, Hammerjaw, Northwood
15	FCESS232011	Front and Rear Axle Housing, Hammerjaw, Northwood	Carter d'essieu avant/arrière, Hammerjaw, Northwood
16	FCESS232014	Front and Rear Universal Main Driveshaft Set, Hammerjaw, Northwood	Arbre de transmission principal universel avant et arrière, Hammerjaw, Northwood
17	FCESS232021	Front and Rear Ring and Pinion Set, Hammerjaw, Northwood	Ensemble d'anneaux et pignons avant et arrière, Hammerjaw, Northwood
18	FCESS232020	Front Axle Set, Hammerjaw, Northwood	Jeu d'essieux avant, Hammerjaw, Northwood
19	FCESS232018	Front Driveshaft Set, Hammerjaw, Northwood	Arbre de transmission avant, Hammerjaw, Northwood
20	FCESS230006	Interior Set, 1/10, Hammerjaw, Northwood	Intérieur, 1/10, Hammerjaw, Northwood
21	FCESS232024	Differential Case, Aluminum, Hammerjaw, Northwood	Boîtier différentiel, aluminium, Hammerjaw, Northwood
22	FCESS234006	Link Set, Hammerjaw, Northwood	Ensemble de tringlerie, Hammerjaw, Northwood
23	FCESS234007	Linkage and Shock Plastic Set, Hammerjaw, Northwood	Tringlerie et plastiques de l'amortisseur, Hammerjaw, Northwood
25	FCESS232019	Rear Driveshaft Set, Hammerjaw, Northwood	Arbre de transmission arrière, Hammerjaw, Northwood
26	FCESS231015	Side Guards and Mounts, Northwood	Protections latérales et montures, Northwood
27	FCESS233005	Shock Absorber Set (2), Hammerjaw, Northwood	Amortisseurs (2), Hammerjaw, Northwood
28	FCESS233006	Shock Spring Set (4), Hammerjaw, Northwood	Ressorts d'amortisseur (4), Hammerjaw, Northwood
29	FCESS232012	Steer Spindles, Hubs, Shocks Mount, Axle Extension, Hammerjaw, Northwood	Broches de direction, moyeux, amortisseurs, extension d'essieu, Hammerjaw, Northwood
30	FCESS232015	Transfer Case and Motor Mount Plate, Hammerjaw, Northwood	Boîte de transfert et plaque de support du moteur, Hammerjaw, Northwood
31	FCESS232017	Transmission Gear Set, Hammerjaw, Northwood	Jeu de pignons de transmission, Hammerjaw, Northwood
32	FCESS231013	Front Bumper and Body Post Set, Northwood	Pare-choc avant et ensemble carrosserie, Northwood
33	SPMS605	Steering Servo	Servo de direction
34	FCESS235002	Fastener Set B, Hammerjaw, Northwood	Fixations B, Hammerjaw, Northwood

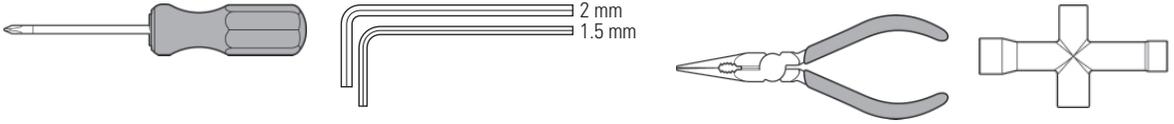
NOTE: All self-tapping screws, nuts, clips, and pins are included in item number 14, FCESS235001 Fastener Set A. All machine screws are included in item number 34, FCESS235002 Fastener Set B.

REMARQUE: Toutes les vis autotaraudeuses, les écrous, les pinces et les goupilles sont inclus dans le numéro d'article 14, FCESS235001 Ensemble de fixations A. Toutes les vis mécaniques sont incluses dans le numéro d'article 34, FCESS235002 Ensemble de fixation B.

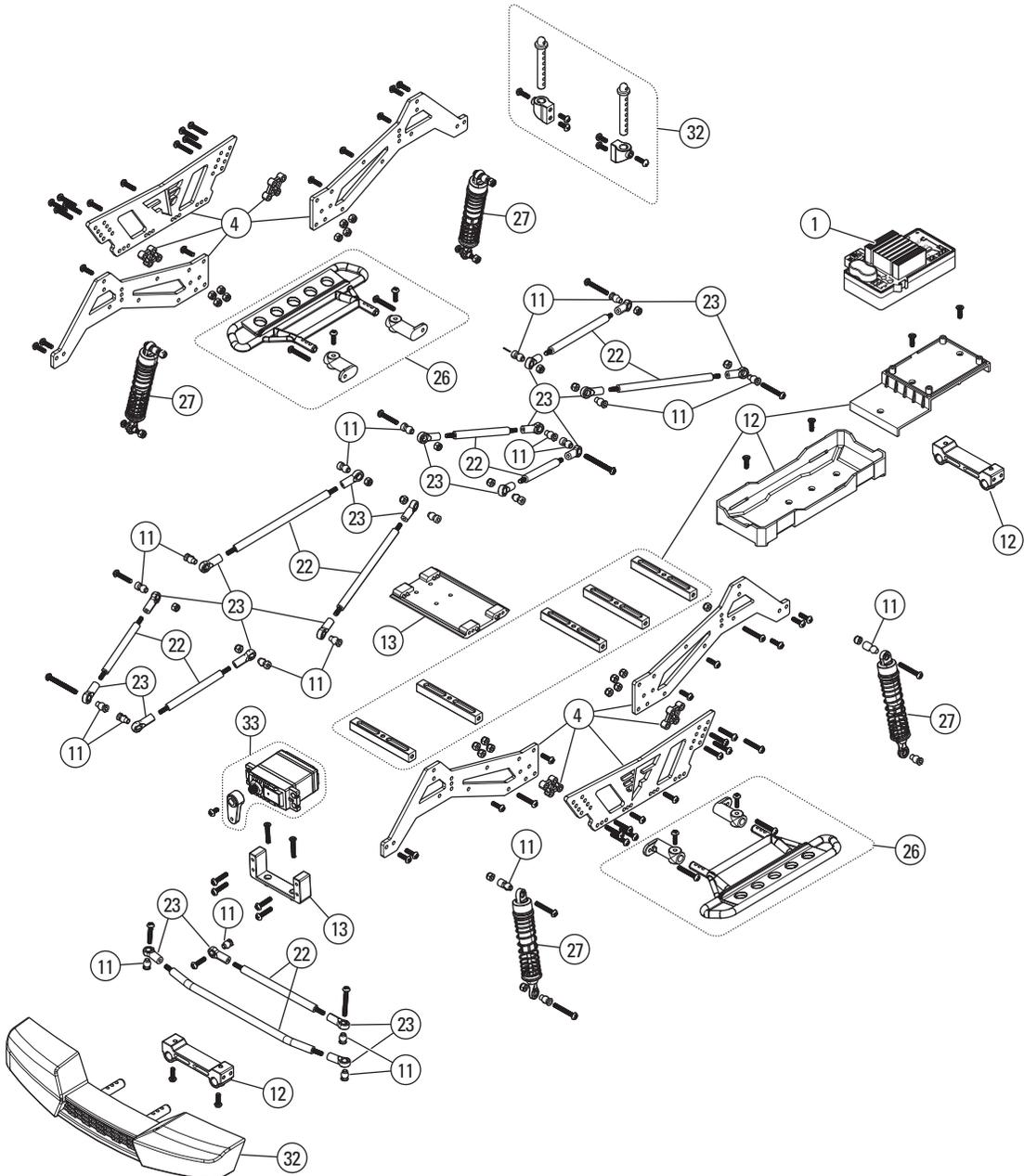
OPTIONAL PARTS / PIÈCES OPTIONNELLES

Pièce	Référence	Description	Description
	FCESS232022	Transmission Gear Set, Metal: Hammerjaw, Northwood	Jeu de pignons de transmission, Métal: Hammerjaw, Northwood
	FCESS23024	Differential Case, Aluminum, Hammerjaw, Northwood	Boîtier différentiel, aluminium, Hammerjaw, Northwood

RECOMMENDED TOOLS / OUTILS RECOMMANDÉS

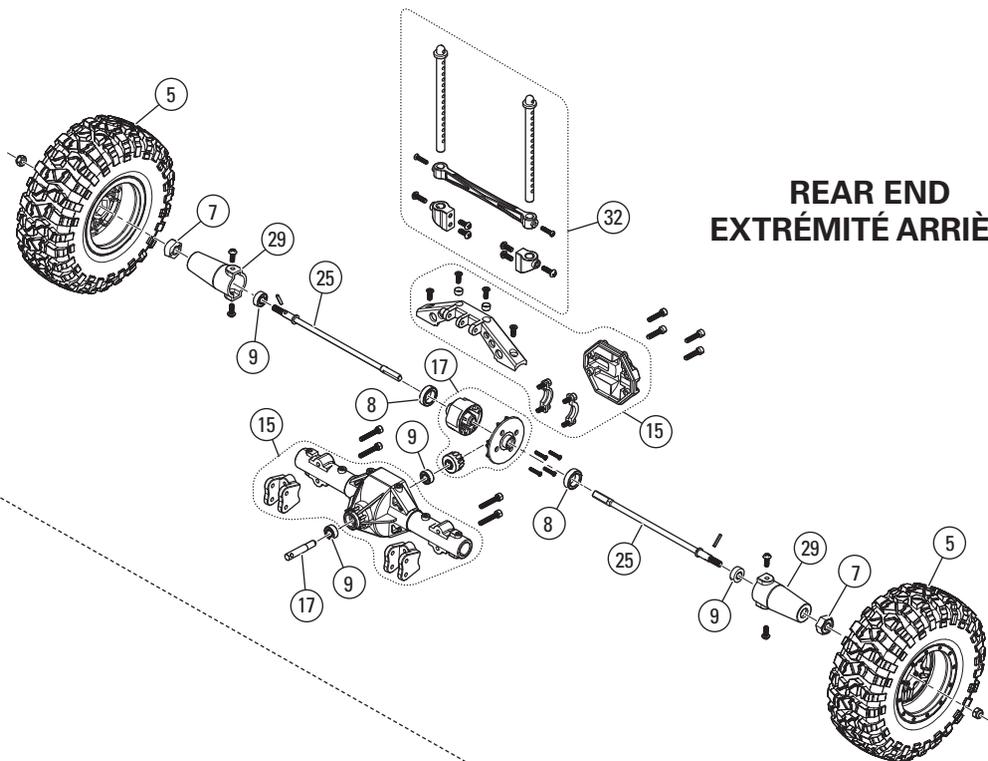


PARTS DIAGRAM (CENTER CHASSIS) VUE ÉCLATÉE DES PIÈCES (CHÂSSIS CENTRAL)

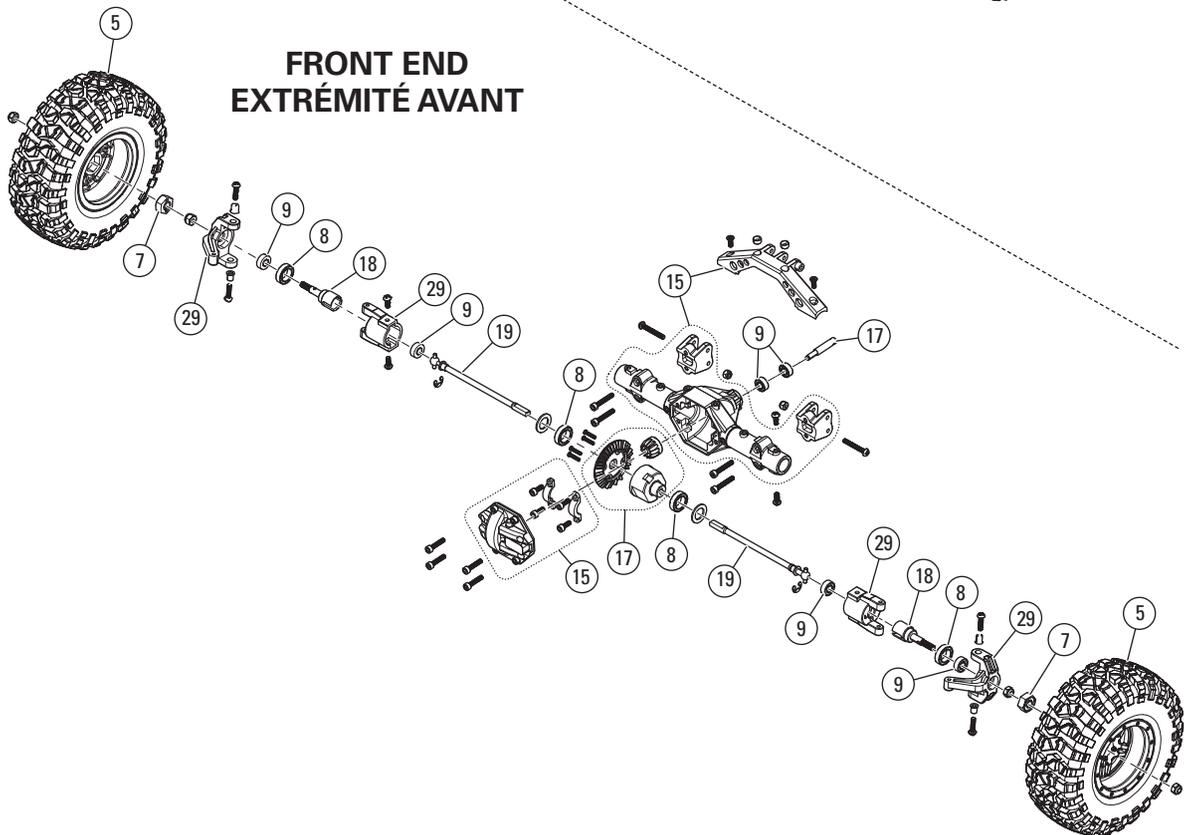


PARTS DIAGRAM (FRONT AND REAR ENDS)
VUE ÉCLATÉE DES PIÈCES (EXTRÉMITÉS AVANT ET ARRIÈRE)

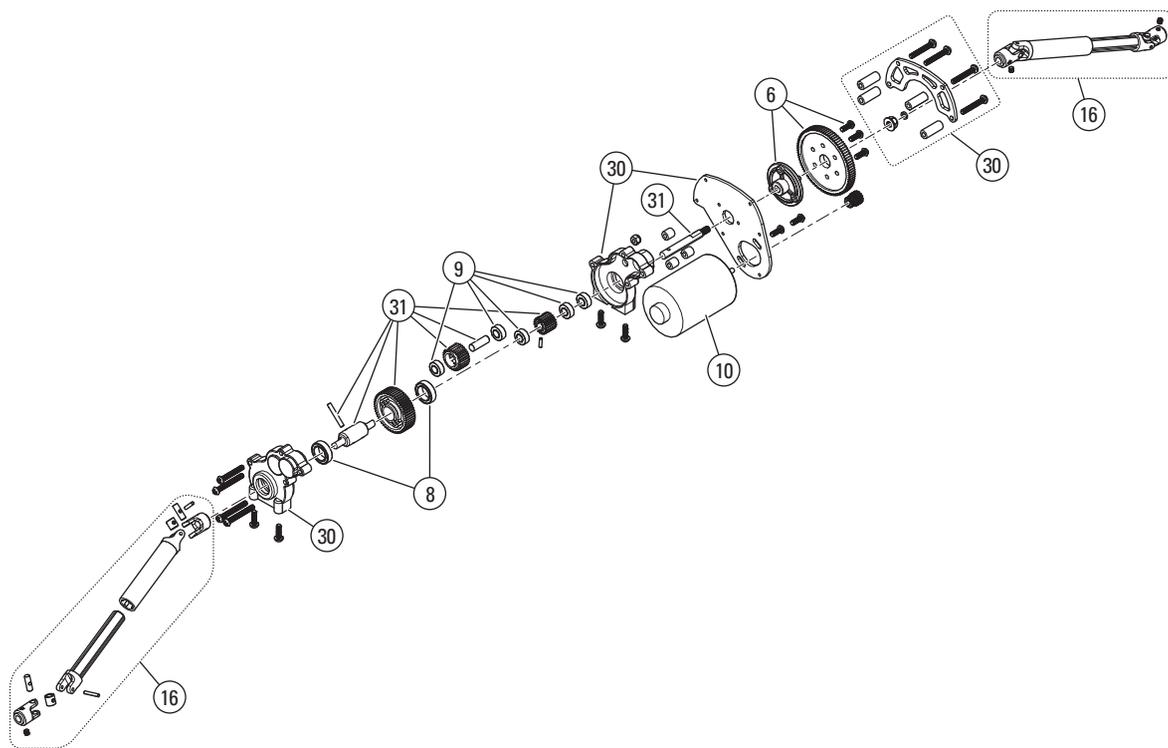
REAR END
EXTRÉMITÉ ARRIÈRE



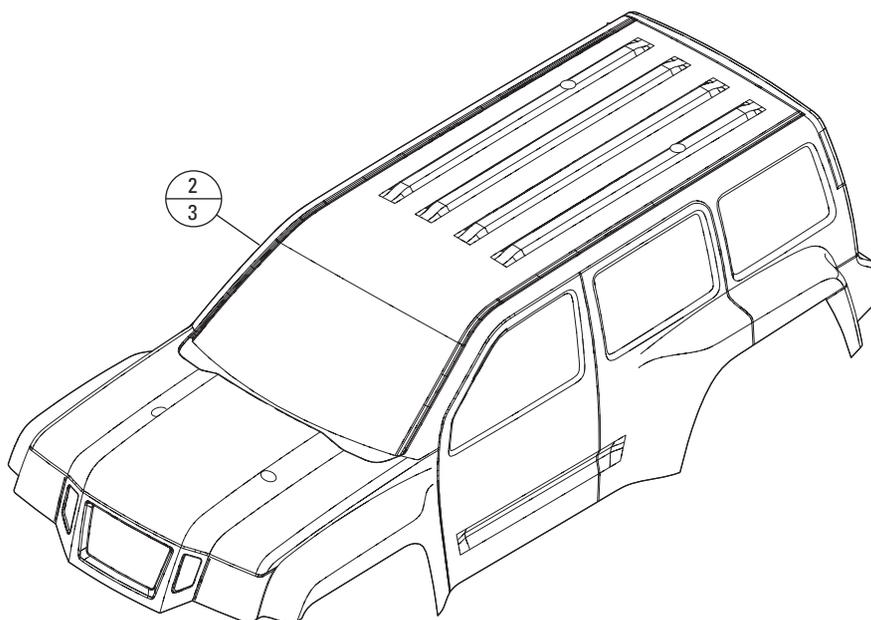
FRONT END
EXTRÉMITÉ AVANT



**PARTS DIAGRAM (DRIVETRAIN)
VUE ÉCLATÉE DES PIÈCES (GROUPE MOTOPROPULSEUR)**



**PARTS DIAGRAM (BODY)
VUE ÉCLATÉE DES PIÈCES (CORPS)**



FORCE RC®



FCES03003

57632

Created 10/2018

© 2018 Horizon Hobby, LLC.

Force RC, the Force RC logo, Northwood, Dynamite, Speedpack and the Horizon Hobby logo are trademarks or registered trademarks of Horizon Hobby, LLC. The Spektrum trademark is used with permission of Bachmann Industries, Inc. All other trademarks, service marks and logos are property of their respective owners.