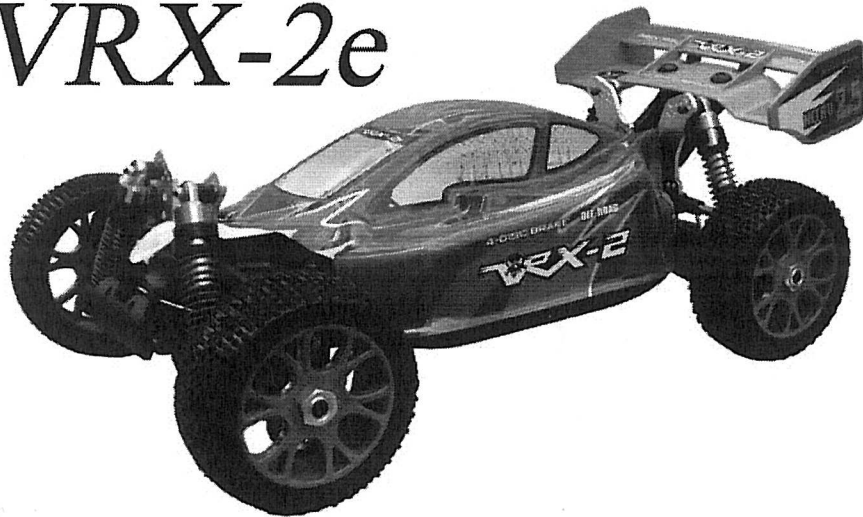


Instruction Manual

**1/8 SCALE 4WD RADIO CONTROLLED
BRUSHLESS CARS**

Model No.: RH812

VRX-2e



VRX-1e

Model No.: RH811

Note:

- ▶ This radio controlled racing model is not a toy. It is suited for experienced operators.
 - ▶ Read and understand the instructions carefully before operating or assembling your racing model.
 - ▶ Specifications are subject to change without prior notice, and actual received model may vary from the images and/or descriptions in this manual.
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Introduce your model...

Congratulations on your purchase of this racing model. This model represents a new generation of 1/8 scale off-road brushless buggy.

This manual contains all the basic instructions for assembly, operation, and maintenance. Please read and understand all instructions thoroughly before operating and building your model.

Good luck and much enjoyment from running your model.

RH812 VRX-2E Features:

- One-piece ESC/battery tray for 7.4V/11.1V/14.8V Lipo battery fastened by hook-and-loop straps.
- Durable machined 14T pinion gear and 46T spur gear.
- Rigid motor mounts securing the motor to chassis tightly
- 80A brushless speed control with cooling fan designed for 7.4V-14.8V Lipo
- Light Solid 6061/T6 anodized alum. chassis
- Three differentials and four wheel drive system
- Blacked universal joint, dogbones and fully ball bearings
- Front/rear metal sway bar system
- Good quality wheel rims & cube-nailed tread tyres providing a long period of service
- Oil filled shock absorber
- High impact durable lexan body
- Brushless motor & speed control included
- 11.1V 2700mAh Lipo battery one pack included

RH812 VRX-2E Technical Data:

Overall Length.....	505mm	Weight.....	3.5kgs
Overall Width.....	305mm	Gear Ratio.....	1:11.35
Height.....	175mm	Wheel Diameter.....	115mm
Wheelbase.....	330mm	Wheel Width.....	42mm
Front Wheel Track.....	258mm	Ground Clearance.....	35mm
Rear Wheel Track.....	261mm	Pinion gear.....	14T
ESC.....	80A	Motor.....	2230KV
Motor Shaft.....	5.0 mm	Battery.....	11.1V Lipo

These data are subject to change without prior notice as a result of our Product continual improvement.

RH811 VRX-1E Features:

- Two One-piece ESC/battery trays for 2 packs of 7.4V Lipo battery fastened by hook-and-loop straps.
- Durable machined 14T pinion gear and 52T spur gear.
- Rigid motor mounts securing the motor to chassis tightly
- 120A brushless speed control with cooling fan designed for 7.4V-14.8V Lipo
- Light Solid 6061/T6 anodized alum. chassis
- Three differentials and four wheel drive system
- Blacked universal joint, dogbones and fully ball bearings
- Front/rear metal sway bar system
- Good quality wheel rims & cube-nailed tread tyres providing a long period of service
 - Oil filled shock absorber
 - High impact durable lexan body
 - Brushless motor & speed control included
 - 7.4V 2700mAh Lipo battery 2 packs included

RH811 VRX-1E Technical Data:

Overall Length.....	550mm	Weight.....	4.5kgs
Overall Width.....	440mm	Gear Ratio.....	1:12.83
Height.....	205mm	Wheel Diameter.....	140mm
Wheelbase.....	365mm	Wheel Width.....	81mm
Front Wheel Track.....	359mm	Ground Clearance.....	42mm
Rear Wheel Track.....	359mm	Pinion gear.....	14T
ESC.....	120A	Motor.....	2230KV
Motor Shaft.....	5.0 mm	Battery.....	7.4V Lipo*2

These data are subject to change without prior notice as a result of our Product continual improvement.

Important Safety Precautions

This is a high performance radio controlled model which needs to be operated with caution and common sense. Failure to follow the safety instructions could result in personal injuries and/or property damage.

- Always run your vehicle after the body shell is mounted.
- Do not abruptly alter the speed during running.
- Do not run your vehicle around crowded people.
- Carefully check whether all screws or nuts are loose or not after running.
- Do not put your finger or any object into the rotating or moving parts.

Important Safety Precautions

- To avoid damage of burn, do not touch the motor as soon as they are stopped running.
- Always check battery power. You may lose of control of your model due to low battery power.
- In the event that the model behaves abnormally, stop running it and check. The model is not allowed to be used until all problems have been settled.
- Use the neutral cleaner and soft clothes to clean the model surface.

Lipo Battery Warnings

Stop using or charging the battery immediately whenever a battery damages, gives off an odor, becomes discolored or deformed, starts to balloon or swell up, leaks, its temperature reaches over 160°F (71°C) or anything else abnormal occurs. Disconnect the battery and observe it in a safe place. This abnormal problem may cause the battery to leak, and the reaction with air may cause the chemical materials inside to ignite and even result in fire. Since delayed chemical reaction may occur—a battery can still ignite even after 10 minutes, you should keep observing the battery for at least 15 minutes as a safety precaution. Battery observation should be taken in a safe area outside of any building or vehicle and away from any combustible material.

Do charge Li-Po battery only with qualified charger specifically designed for Li-Po battery. Do not use a Ni-MH or Ni-Cd charger. Failure to do so may cause a fire which may result in personal injury and property damage. Some Li-Po chargers in the market may have technical deficiencies, which may cause to charge the Li-Po batteries incorrectly or at an improper rate. It is your responsibility solely to assure that the charger you purchased works properly. Always charge batteries through balancer or use the charger with balance function. Overcharge may occur to the unbalance cell in the pack if you use the series charger, that may lead to shorten the battery life, and may even cause a fire which may result in personal injury and property damage.

Never charge batteries unattended. During the whole charging Li-Po batteries process, you should always remain in constant observation to monitor the charging process and react to any problems occurring to assure that batteries are being charged properly all the time.

Do not discharge the batteries with the current exceeding the max. continuous discharge current specified for them, otherwise, it will cause the batteries overheat and result in battery deterioration, burst, balloon or may even cause fire or explosion.

Never store or charge battery pack inside your car or in extreme temperature, since extreme temperature might ignite the battery and cause fire.

Store the battery at a place where infants/kids can not reach. Make sure children not to take the battery from the charger or equipment.

Handling and Caring for Battery

Never disassemble, modify, puncture, mechanical shock, crash and/or short the battery, it may cause leakage, smoke emission, ignition, explosion and even fire, which may result in personal injury and property damage.

Short circuit may cause fire and injury! If you need to cut the terminal wires of the battery, it is necessary to cut each wire separately, ensuring the wires not to touch each other,

Important Safety Precautions

otherwise, a short may occur and potentially cause a fire. To solder a connector, remove insulating tape of Red wire and solder to positive terminal of a connector, then remove insulating tape of Black wire and solder to the negative terminal of the connector.

Be careful not to short the wire lead. If you accidentally cause the battery to short, place it in a safe open space and observe the battery for at least 15 minutes. A battery may swell or even possibly catch fire after a short time. Additionally, if a short occurs and contact is made with metal (such as rings on your hand), severe injuries may occur due to the conductivity of strong electric current.

Dispose the used or damaged Li-Po batteries at your local Hazardous Waste Facility or return them to the place of purchase.

Charging Process and Precautions

Never charge batteries unattended. Use specific qualified Lithium Polymer charger only.

Do not let the temperature exceed the range from 32 to 113°F (0°C to 45°C).

Always charge the batteries in an isolated safe area away from any flammable/combustible materials. Never charge a Li-Po battery on a wooden workbench, inside an automobile, or on any flammable surface. We recommends charging Li-Po batteries on a concrete surface where there are no flammable objects within 10 feet (3 meters) of the charging area.

Always remove your Li-Po battery from your equipment using Li-Po battery and cool down the battery to ambient temperature before charging.

Check the voltage of the pack or cells before charging. Do not attempt to charge any pack if the open voltage is lower than the Lowest Open Voltage (Please refer to Chart 1). We recommends checking the voltage of each cell before charging with the balance connector. If the open voltage of any cell is less than 3.0V/cell, stop charging the battery, remove the battery from service and dispose it properly.

Reverse Charging is prohibited! You must check the polarity before connecting the battery to the charger. Do not reverse the positive (+) and negative (-) terminals when charging. Otherwise, the battery pack will be reverse-charged, abnormal chemical reactions will occur, and the excessively high current will cause damage, overheating, smoke emission, bursting and/or fire.

When selecting the cell count or voltage for charging purposes, select the cell count and voltage as it appears on the battery label. As a safety precaution, please confirm that the information printed on the battery or label is correct. (Please refer to Chart 1). Selecting a wrong cell count or charging voltage may cause fire.

Never charge the battery with the current exceeding 1C (one times the capacity of the battery). A higher setting may cause fire. (Please refer to Chart 2)

If charging operation fails to complete even when a specified recharging time has elapsed, immediately stop further recharging.

Usage and Discharge Warnings

Please check cell voltage after the first charge to make sure the voltage not to exceed the range specified in Chart 1. We recommend to check the voltage of each cell with the balance

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connector to make sure the voltage of each cell keeps within 4.15-4.22V.

The range of discharge temperature is between 32 to 113°F (0 to 45°C). For optimum performance of our R/C batteries, 68 to 86°F (20 to 30°C) is recommended.

During discharging and handling the batteries, keep the temperature not to exceed 160°F (71°C), otherwise, the battery may be damaged and may even result in fire.

For the first discharge, use low discharging current and keep the discharging time into every 6-minute session with 15-minute breaks.

Do not discharge the battery with the current over the designed maximum continuous discharging current specified in Chart 2. A higher discharging current may cause overheat which will lead to balloon and swell up or even result in fire. For example, a 1000mAh battery with a designed max. 25C discharge current must not have a maximum discharge rate or load of more than 25 Amps. The maximum discharge rate or load must never be exceeded. For longer cycle life, a continuous discharging current of 70%-80% of the designed maximum discharging current is acceptable and recommended.

Never discharge Li-Po battery below the Lowest Discharge Voltage (Please refer to Chart 1), as it may cause irreversible damage which will deteriorate the battery performance and cycle life. Caution must be taken so that your Li-Po batteries do not discharge lower than the Lowest Discharge Voltage when using Electronic Speed Controls (ESCs that use a set battery elimination circuit (BEC) cut-off value created for use with Ni-Cd or Mi-MH batteries). When using ESCs with BEC designed for use with Ni-Cd or Ni-MH batteries where the cut-off voltage would be lower than the Lowest Discharge Voltage, you should stop flying and land immediately after you notice any drop of power.

Chart 1

Battery packing	1SxP (single cell)	2SxP (2 cells connected in series)	3SxP (3 cells connected in series)	4SxP (4 cells connected in series)	5SxP (5 cells connected in series)	6SxP (6 cells connected in series)
Nominal Voltage (V)	3.7	7.4	11.1	14.8	18.5	22.2
Lowest Open Voltage (V)	3.0	6.2	9.3	12.8	16.5	19.8
Max. Charging Voltage (V)	4.2	8.4	12.6	16.8	21.0	25.2
Voltage after Charging(V)	4.15-4.22	8.32-8.44	12.48-12.66	16.64-16.88	20.80-21.10	24.90-25.50
Lowest Discharging Voltage(V)	2.75	6.0	9.0	12.0	15.0	18.0

Chart 2

Battery Series	XT series	XT series	XT series	XT series	XT series	XT series	XT series	Racing Car Packs	Racing Car Packs	TX series	TX series	RX series	RX series
Capacity (mAh)	800	1200	1700	2200	2500	3700	4500	3700	5400	3000	3050	3000	5000
Max. Charging Current (mA)	1600	2400	3400	4400	5000	7400	9000	7400	10800	3000	3050	3000	5000
Max.Conti Discharging Current	35C(28A)	35C(42A)	35C(60A)	35C(77A)	35C(88A)	35C(130A)	35C(158A)	25C(92.5A)	20C(108A)	1C(3A)	1C(3.05A)	10A	10A
Burst Current	60C(16A)	60C(72A)	60C(119A)	60C(154A)	60C(175A)	60C(259A)	60C(315A)	50C(185A)	40C(216A)	2C(6A)	2C(6.1A)	15A	15A

Battery Series	XP series	XP series	XP series	XP series	XP series	XP series	XP series	XP series	XP series	XP series	XP series	XP series
Capacity (mAh)	450	600	850	1000	1300	1800	2200	2500	3300	3700	4500	5300
Max. Charging Current (mA)	900	1200	1700	2000	2600	3600	4400	5000	6600	5400	9000	10600
Max.Conti Discharging Current	25C(11.3A)	25C(15A)	25C(21.3A)	25C(25A)	25C(32.5A)	25C(45A)	25C(55A)	25C(62.5A)	25C(82.5A)	25C(92.5A)	25C(112.5A)	25C(132.5A)
Burst Current	50C(22.5A)	50C(30A)	50C(42.5A)	50C(50A)	50C(65A)	50C(90A)	50C(110A)	50C(125A)	50C(165A)	50C(185A)	50C(225A)	50C(265A)

Battery Series	HP series	HP series	HP series	HP series	HP series	HP series	HP series	HP series	HP series
Capacity (mAh)	450	600	850	1000	1200	1300	1500	1800	2200
Max. Charging Current (mA)	900	1200	1700	2000	2400	2600	3000	3600	4400
Max.Conti Discharging Current	20C(9A)	20C(12A)	20C(17A)	20C(20A)	20C(24A)	20C(26A)	20C(30A)	20C(36A)	20C(44A)
Burst Current	40C(18A)	40C(24A)	40C(34A)	40C(40A)	40C(48A)	40C(52A)	40C(60A)	40C(72A)	40C(88A)

Important Safety Precautions

In the case of Li-Po Battery powered model crash

Whenever a Li-Po battery pack is subjected to a crash, immediately do the following:

- 1) Remove the Li-Po battery pack from the model in which it is used.
- 2) Place the Li-Po battery pack in a safe open area away from any flammable/combustible materials and monitor the pack for at least 30minutes. Watch for swelling of the pack and/or unnatural heat build-up. These are signs of internal damage.
- 3) Damage of your Li-Po battery pack may not be readily apparent upon visual inspection. Check the battery to find if any shorts and other damages occur carefully. You should inspect them thoroughly for damage before attempting to use them again.

Storage & Transportation

- 1) Never leave your Li-Po batteries installed in your model when not in use. Do store your Li-Po batteries in an airtight and flame resistant container when not in use.
- 2) Do store battery at a place with low humidity and free from corrosive gas & combustible materials within the temperature range from 14°F to 104°F (-10°C to 40°C). Storage at temperature from 41°F to 77°F (5°C to 25°C) is recommended for best results.
- 3) Do not expose Li-Po batteries to direct sunlight for extended period of time or leave it at any heat place such as in a car in hot weather.
- 4) When batteries are transported or temporarily stored in a vehicle, temperature should be higher than 14°F (-10°C) but not over 140°F(60°C).
- 5) Storing battery at temperatures higher than 170 °F(76°C) for more than 2 hours may cause damage to battery and may even cause fire.
- 6) A higher cell voltage during storage will accelerate the self-discharge of the battery which may lead to over-discharge and deteriorate the battery performance, it is recommended to keep the cell at a lower voltage (about 3.8V/cell) throughout the period of storage. If the battery is to be storied for longer than one year, the user should charge the battery at least once a year to about 3.8V/cell so as to prevent over-discharge.

Battery Life

Batteries that lose 20% of their capacity must be removed from service. Discharge the battery to 3.0V/cell and make sure the output wires are insulated, and then wrap the battery in a bag for proper disposal.

Before Starting Your Vehicle

- Verify that all retainers are well fastened (screws, nuts, bolts and clips)
- Verify proper function of steering, drive-line and motor/braking control.
- Lubricate appropriately all bearings, bushings and maintain proper shock performance.
- Operate radio system with fully charged io frequency/range check.
- Inspect terrain for hard/non-movable objects that may become a hazard for your vehicle.
- Provide adequate clearance between your vehicle and your observers.

- Do not operate in the presence of domestic animals (dogs and/or cats)
- Do not operate vehicle on public roads, or obtain adequate authorisation to permit usage.

Before assembling or operating your model...

Carefully read and understand all instructions before operating the vehicle.

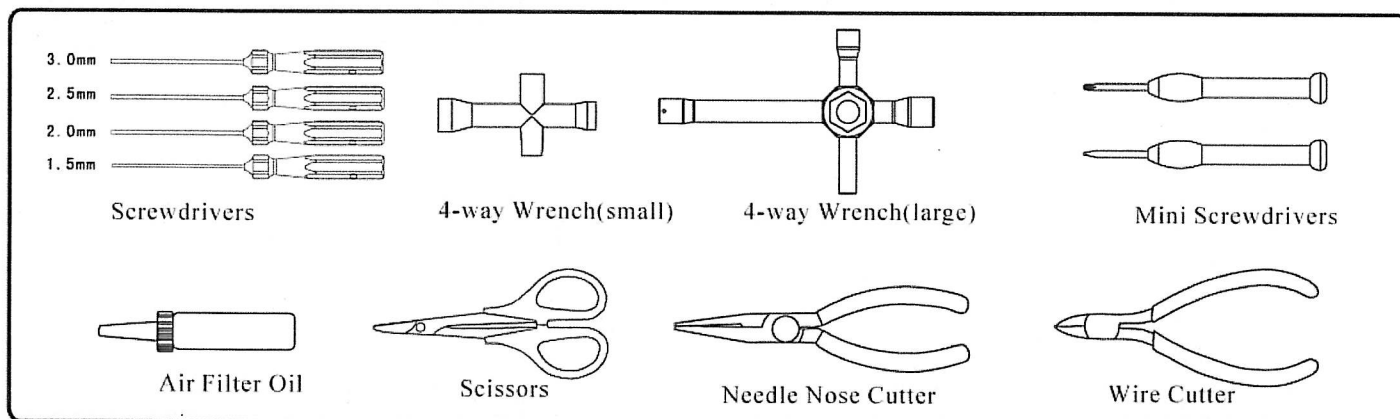
Check the items from your package:

1. Buggy chassis fully assembled with printed lexan body
2. 1pc 2000KV motor assembled
3. 1pc 120A brushless ESC included
4. 1set of 2.4GHz 2CH radio system with 9kg steering servo

Items that you will need for your vehicle:

1. 8pcs "AA" size batteries for transmitter
2. A balance charger can be used for 3cell Lipo battery

Tools Required for Assembling Your Model

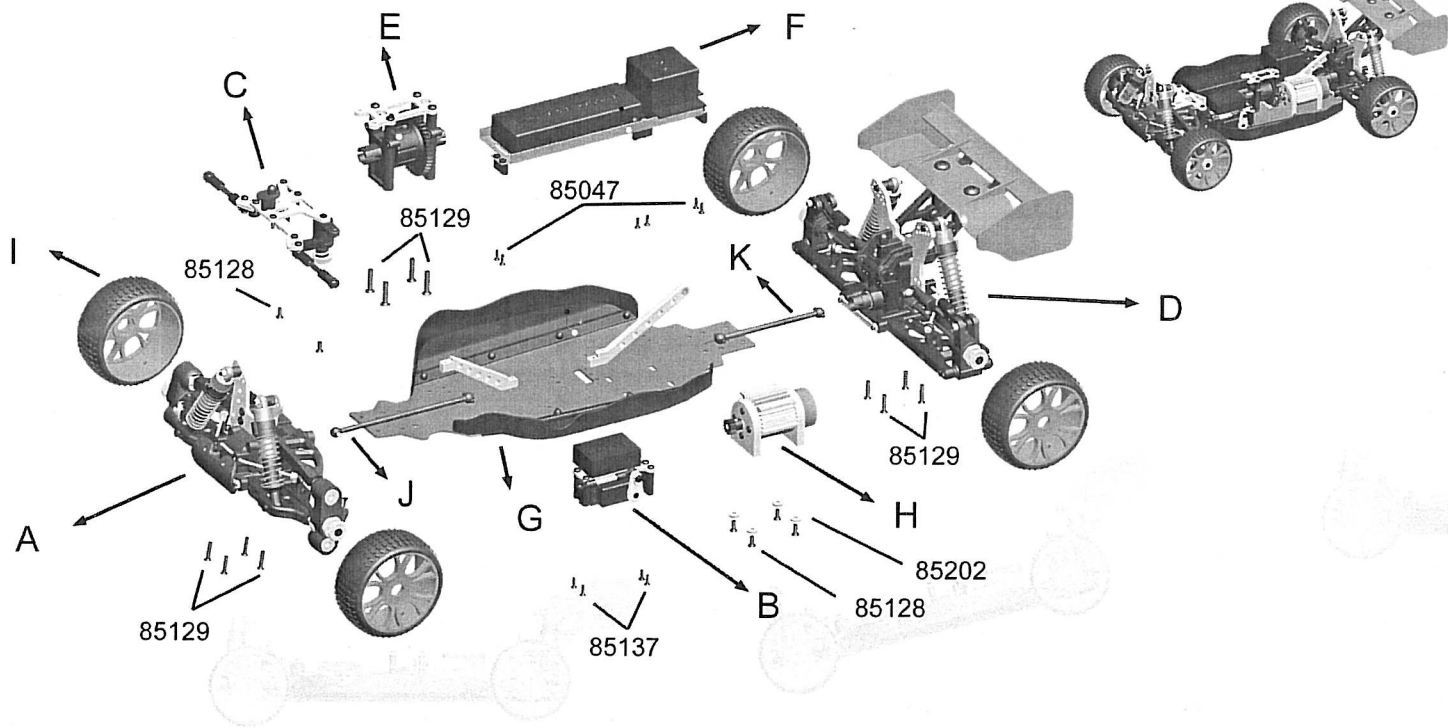


The above accessories available from your model dealer are for optional purchase to facilitate your operations.

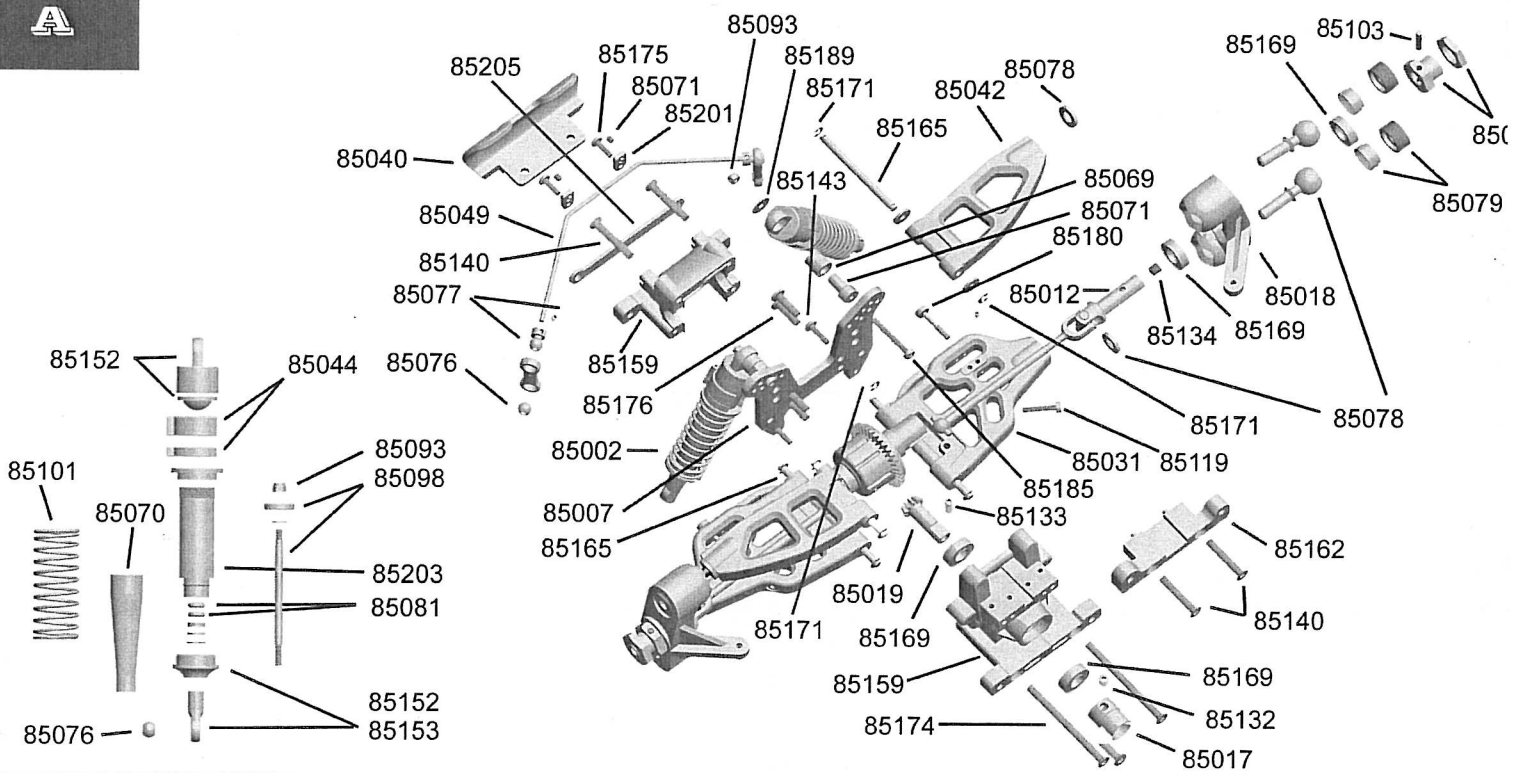
Radio/Motor/ESC Instructions

Please read the Radio/ESC/Motor Manual attachment before you operating the vehicle to make sure fully understanding the proper operation.

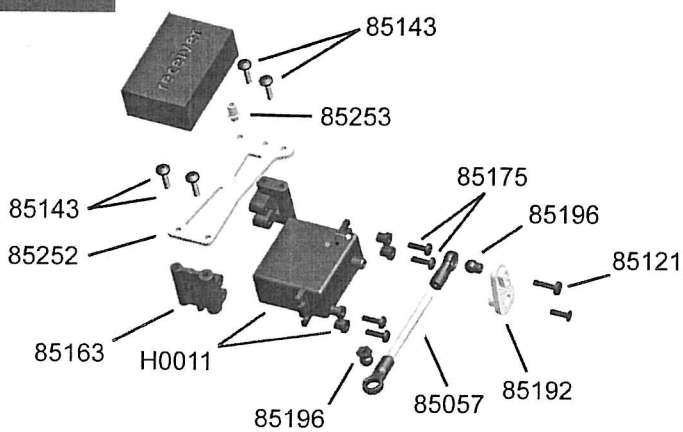
EXPLODED VIEW



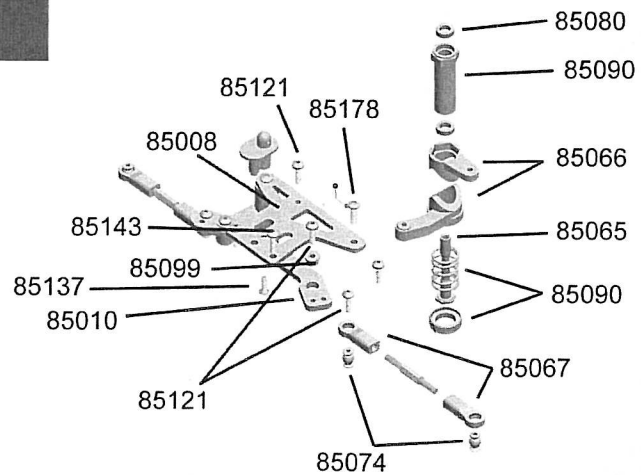
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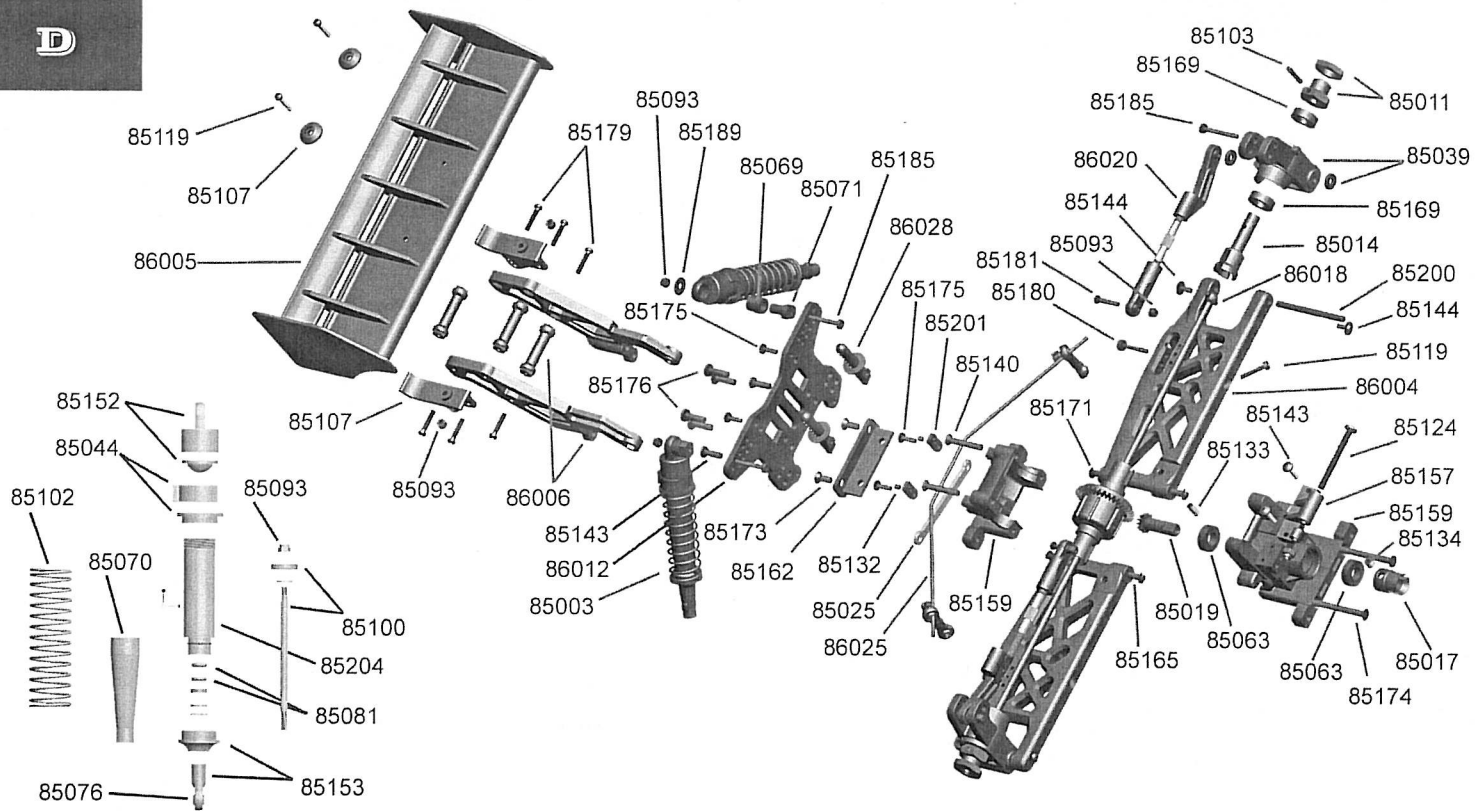
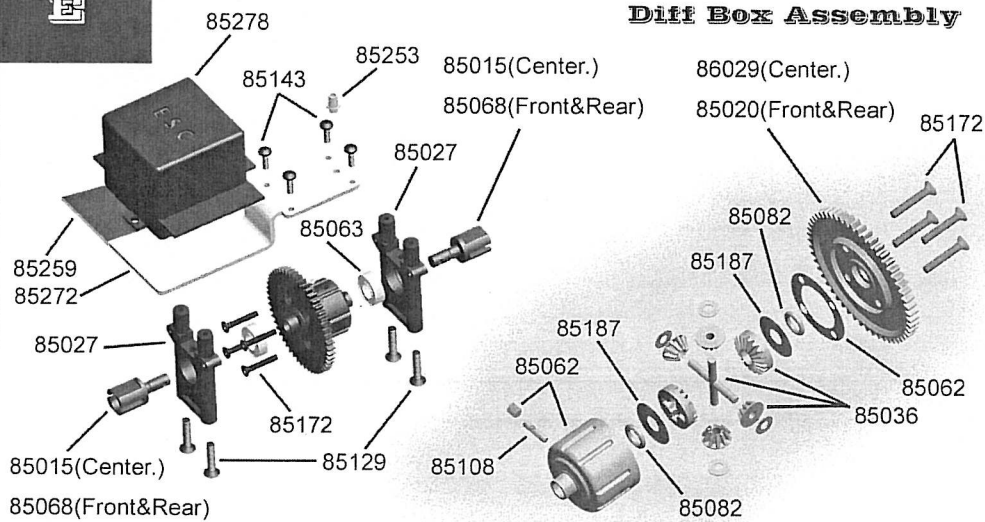
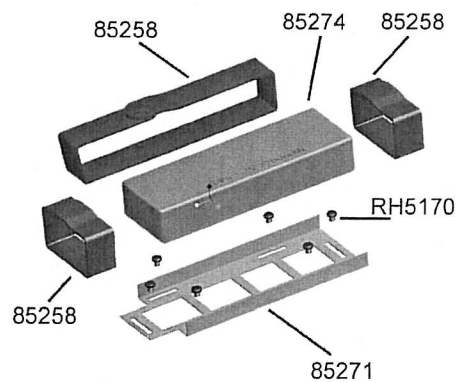
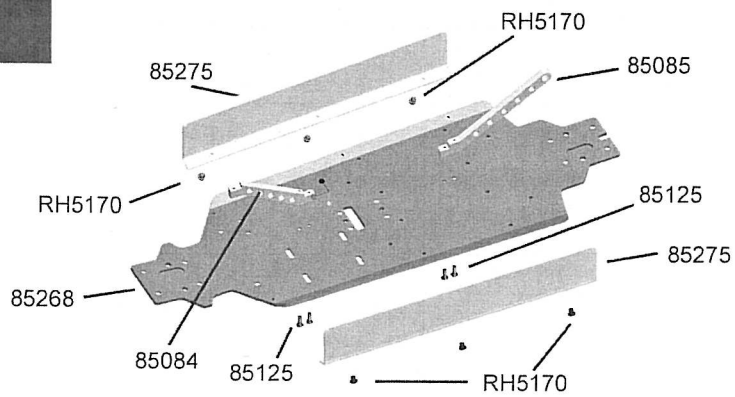
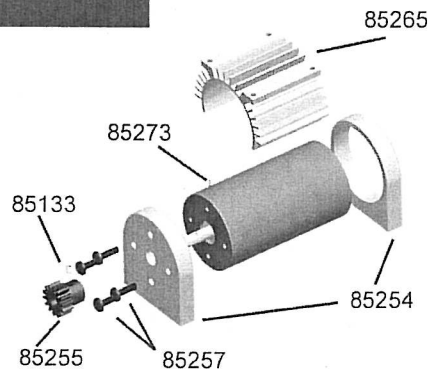
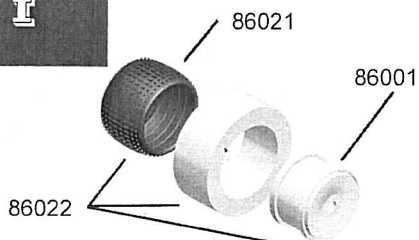
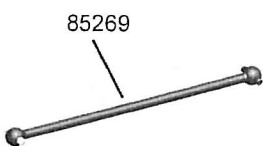


B



C



D**E****Diff Box Assembly****F****G****H****I****J****K**