

USER MANUAL OFF-ROAD CRAWLER NO.:EX86020



RETURN RETURN

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- 🖈 Read and understand the instructions carefully before operating or assembling your racing model.
- \Rightarrow Specifications are subject to change without prior notice, and actual received model may vary from the images and/or descriptions in this manual.

The product has conducted IQC (Input Quality Control) and full inspection before delivery. The manufacturer is responsible for quality assurance. Remote Control model is assembled manually, and then there may have some defects in the production process. Once the product is modified or incorrect operation, it cannot apply for replacement and return services, for the parts and accessories may be damaged. Please contact the retail seller for after-sales service when needed.

The product conforms to technical requirements of export safety regulations.



Please read and follow all the instructions in the manual before use.

Factory Address: Huang Jiang Town, Dong Guan City, Guang Dong Province, China Production Date: refer to packing instruction

Introduction

We would like to welcome you to the world of remote control cars. What are RC cars? The simple answer is that they are radio controlled cars that respond precisely to your command. The more complete answer is that they can be a great addition to your lifestyle. RC car building and racing teach valuable mechanical and electrical skills, promote teamwork and encourage racers to test their skills with other racers from around the world. Whether you are just having fun racing your car in your backyard or racing at the world competition contest, radio controlled car racing is a great hobby.

We has been making RC products aimed at making our hobby fun and exciting with an affordable price. We are confident that your experience with our products will be positive. Of all the radio controlled models out there, no question about it, RC cars are the hardest to operate. This user manual covers a wide range of topics from nitro powered remote control cars to electrical powered remote control cars. We highly recommend that you read this user manual throughly and carefully before assembling and operating. Please follow all precautions and recommendations located within the manual. Be sure to retain the manual for future reference, routine maintenance, and tuning.

This product is not a toy. It is not recommended for children under 14 years old and any minor should be accompanied by an adult when operating. This product is a precision machine that requires proper assembly and setup to avoid accidents. Failure to take caution when operating this product may result in serious injury or property damage. It is the owner's responsibility to operate this product in a safe manner. Manufacturer and its distributors are not responsible in any way for any and all bodily injury(s) and/or property damage that may occur from the use of or caused by in any way or this product.

Warnings

- The product is not intended for those under 14 years of age without proper adult supervision. The product is not a toy. It is a precision machine requiring proper assembly and setup to avoid accidents and it is the responsibility of the owner to operate this product in a safe manner as it can cause serious personal injury and damage to property due to carelessness or misuse.
- Do not attempt to disassemble or modify any of the product components without the assistance of an experienced RC user.
- Only use the correct type of battery to operate. Using any wrong type of battery will damage the product and possibly make it dangerous to operate.
- The motor(s) may get hot during use. Always allow 10-15 minutes between each operation for the motor to cool down. This will prolong the life of your product.
- Choose an appropriate operating site consisting of flat, smooth ground, and clear open field. Do not operate near buildings, high voltage cable lines, or trees to ensure safety operation. Operate in safe area only, away from other people. RC models are prone to accidents, failures, and crashes due to a variety of reasons including, lack of maintenance, user error, and radio interference. Users are responsible for their actions and damage or injury occurring during the operation.
- Do not operate in inclement weather, such as rain, wind, snow or darkness.
- The product is composed of precision electrical components. It is critical to keep the product away from moisture and other contaminants. Do not allow them to get wet. Electrical damage may occur that could affect safe operation.
- You should complete a successful pre-run check of your radio equipment and model prior to each run.
- Use replacement parts from the original manufacturer to ensure safe operation.
- Operate this product within your ability. Do not operate under tired condition

- After each use, always allow the battery to cool down before recharging. When charging the battery pack, do not overcharge! If batteries get hot during charging, discontinue charging immediately and disconnect the battery from the charger. Never leave battery unattended while charging. If you are unsure of how to charge this battery, please seek the advice of experienced RC users. Never let children charge the battery without adult supervision.
- Always turn on the transmitter before connecting the battery on the model. When turning off the model, always disconnect the battery first, and then turn off the transmitter. If the order is reversed, the model may become uncontrollable and cause serious damage.
- If you are in doubt of your ability to operate the model, we strongly recommend that you seek assistance from experienced RC users or join your local modeling club to gain the required knowledge and skill. As the manufacturer and distributor, we assume no liability for the use of this product.
- Before turning on your model and transmitter, please check to make sure no one else is operating under the same frequency. Frequency interference can cause your model, or other's models to crash. The guidance provided by experienced RC users will be valuable for the assembly, tuning, trimming, and actual first flight.
- Never allow batteries to run low or you might lose control of the model.
- Plastic is very susceptible to damage or deformation due to extreme heat and cold climate. Do not store the model near any source of heat such as oven or heater. Store the model indoors, in a climate-controlled, room temperature environment.
- Never shorten the receiver antenna; or this might affect the transmitting range of the radio system.
- This product is a RC hobby model, do not use for other purpose.

Safety

Pay close attention to the following symbols and their meanings. Failure to follow these warnings could cause damage, injury or death.

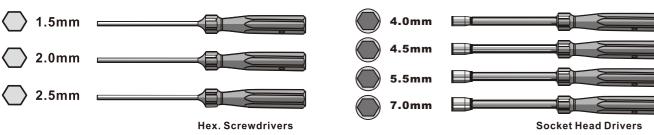
cause damage, injury or death.					
<u> </u>	Not following these instructions may lead to serious injuries or death.				
Warning	Not following these instructions may lead to major injuries.				
Attention	Not following these instructions may lead to minor injuries.				
	Do not use the product at night or in bad weather like rain or thunderstorm. It can cause erratic operation or loss of control.				
	 Do not use the product when visibility is limited. Do not use the product on rain or snow days. Any exposure to moisture (water or snow) may cause erratic operation or loss of control. 				
	Interference may cause loss of control. To ensure the safety of you and others, do not operate in the following places:				
Prohibited	 Near any site where other radio control activity may occur Near power lines or communication broadcasting antennas Near people or roads On any body of water when passenger boats are present 				
	 Do not use this product when you are tired, uncomfortable, or under the infuence of alcohol or drugs. Doing so may cause serious injury to yourself or others. 				
	■ The 2.4GHz radio band is limited to line of sight. Always keep your model in sight as a large object can block the RF signal and lead to loss of control.				
	Do not touch any part of the model that may generate heat during operation, or immediately after use. The engine, motor or speed control, may be very hot and can cause serious burns.				
	Misuse of this product may lead to serious injury or death. To ensure the safety of you and your equipment, read this manual and follow the instructions.				
	Make sure the product is properly installed in your model. Failure to do so may result in serious injury.				
Mandatory	Make sure to disconnect the receiver battery before turning of the transmitter. Failure to do so may lead to unintended operation and cause an accident.				
	Ensure that all motors operate in the correct direction. If not, adjust the direction first.				
	Makesurethemodelstayswithinthesystemsmaximumrangetopreventlossof control.				

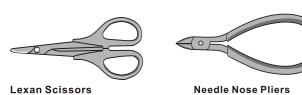
Thanks for purchasing our RC car. The power system for RC model can be very dangerous, so please read this manual carefully. In that we have no control over the correct use, installation, application, or maintenance of our products, no liability shall be assumed nor accepted for any damages, losses or costs resulting from the use of the product. Any claims arising from the operating, failure of malfunctioning etc. will be denied. We assume no liability for personal injury, consequential damages resulting from our product or our workmanship.

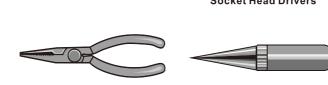


START GUIDE

1. Please read the manual carefully and prepare the following things before use.











Batteries: 4x 1.5 V "AA"

2. The items inside the box.

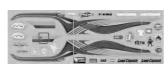






Manual

Curve Nose Pliers



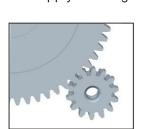
Body Reamer

Transmitter

Decal Sheet

3. Please check the whole product condition when open the package.

- 3-1. After each day of running, you should check your shocks for adequate fluid. If the fluid is low, or it is getting dirty, you should change the fluid in the shocks. To achieve better performance, you may also want to change the shock fluid and or the pistons.
- 3-2. Gear mesh is the clearance between the pinion and spur in an electric car or clutch bell and spur in a nitro car. It has impact on the vehicles performance. If the gear mesh is not set properly you may also damage the clutch bell and spur or the pinion gear and spur gear as soon as the vehicle starts running.
- 3-3. Please check if the screw is tight enough before use. Screw it tight (or apply the screw glue if necessary)
- 3-4. Reguarly check and verify he tires are intact. No breach should be observed. Please apply the CA glue if needed.

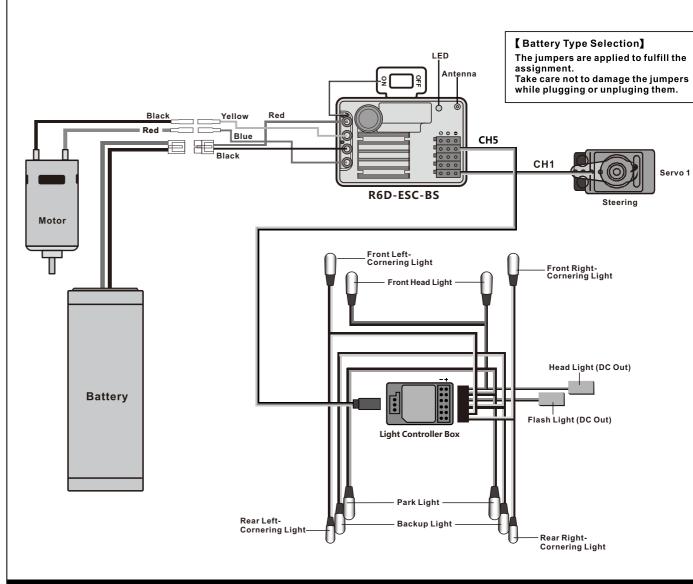




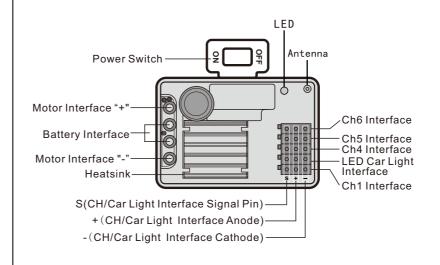




4-1. Scheme of installation



4-2.R6D-ESC-BS



1.Receiver LED

The LED status indicates the power supply state of the receiver

- ▲ Off: The receiver is not powered on.
- ▲ Solid ON: The receiver works normally.
- ▲ Fast Flashing: The receiver is in the binding mode
- Slow Flashing: The transmitter bound is powered off, or it has been not bound with a transmitter, or the receiver does not receive any signal.

2.Interface

All channel interfaces are 2.54mm*3 Pin standard pins, and the battery interface is T-plug interface, and the spec of motor interface is a 4.0 mm bullet female connector. Interfaces are used to connect the receiver to the various components of the model.

3.Antenna

It is an external antenna



Do not pull the antenna of the receiver. Do not tie the antenna and the servo cable together.



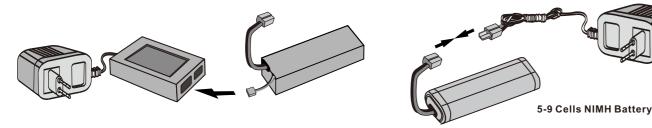
Do not put the antenna close to the metal materials, because this will affect the signal strength of the receiver. Keep the receiver's antenna at least 1cm away from conductive materials such as carbon or metal.

4-3. Battery Specifications for Product

WARNING

NO battery includes in factory. Recommend? battery: 2S~3S LIPO battery or 5-9 cells NIMH battery (please match the ESC mode with the corresponding battery type)Pay attention to the battery size and plug specification when purchasing. The maximum battery measurement is 142*48*55mmJLxWxH).

This product can use the 2S or 3S Li-Po battery.



NOTICE

Please check the battery voltage before use. Please use a qualified charger to charge the newly purchased battery. (please read the charging steps in manual when necessary)

Charge the vehicle battery

- Connect charger plug with mains jack and then connect with connector of battery.
- Please be care of safety while charging, please remove charger plug from the mains jack once finish charging. Will be over heat if it is too long to be charging or incorrect charging way. must stop charging if over 45 degree for the battery temperature.
- Do not charge for battery at once when you take it away from your car. Please make sure battery in cool condition before recharge battery to keep battery performance running well and get a longer use life.

NiMH Battery Instructions

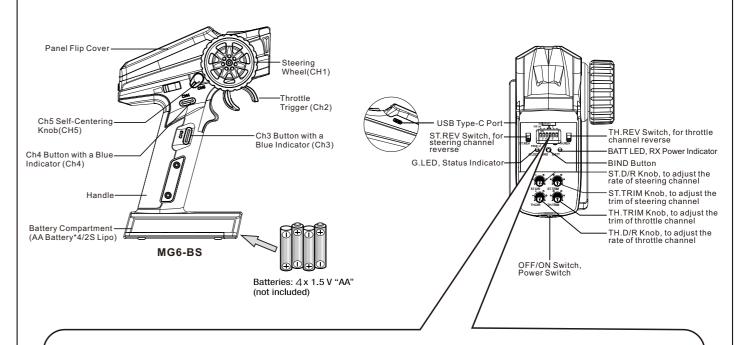
- Never dispose of NiMH batteries in a fire or store near sources of heat.
- Only use the supplied NiMH charger to charge the NiMH battery. Using another charger may permanently damage the battery and surrounding components and may also lead to injury.
- Batteries should only be charged on a fireproof surface, away from any flam-mable materials.
- Never leave the battery unattended when charging or discharging.
- Batteries must be discharged or fully exhausted before being disposed of. Cover exposed poles with adhesive tape to prevent short-circuiting!
- Never disassemble or alter the battery contacts. Do not damage or puncture battery cells. Doing so would result in an explosion hazard!
- Keep the NiMH battery away from children.

Lithium Polymer (LiPo) Battery Warnings

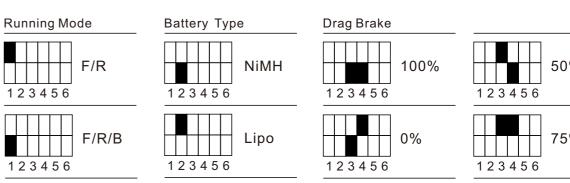
- Never charge a lithium polymer battery with a charger designed for NiCd, NiMH, or any other type of battery chemistry. Use ONLY charger designed for LiPo battery.
- Do not leave LiPo battery unattended during charging.
- Do not overcharge the battery.
- Always place the battery on a heat resistant surface alone when charging.
- Always put the LiPo battery inside a charging protection coatner while charging.
- Do not allow LiPo cells to overheat at any time. Cells which reach greater than 140 Fahrenheit (60C) will usually become damaged and will catch fire.
- Do not charge LiPo cells on or near combustible materials including paper, plastic, carpets, vinyl, leather, and wood. inside an R/C modl or full size automobile.
- Do not discharge LiPo; doing so will damage the battery.
- Do not expose LiPo cell to water or moisture at any time.

- Do not store battery near open flame or heater.
- Do not assemble LiPo cells or pre-assembled packs together with other LiPo cells or packs.
- Always store LiPo battery in a secure location away from children.
- Always remove the LiPo battery if model is involved in any kind of crash. Carefully inspect the battery and connectors for even the smallest damage. CAUTION: cells may be hot!
- Do not allow the electrolyte to get into eyes or on skin. Wash affected areas immediately if they come into contact with electrolyte. Do not alter or modify connectors or wires of a LiPo battery pack.
- Always inspect the condition of the battery before charging and operating.
- Do not short circuit the LiPo battery.
- Do not have contact with a leaky/damaged battery directly.
- Do not charge battery out of recommended temperature range (0C - 45C).

5-1. 2.4GHZ Radio System



6-bit DIP Switch



The ESC parameters can be set by the 6-bit DIP Switch of the transmitter, that is, the DIP switch is located at different positions and the corresponding parameter values are different. There are three parameters can be set for the ESC, which are "Running Mode", "Battery Type" and "Drag Brake".

Running Mode

- Forward/Reverse/Brake(F/B/R): This mode adopts "double click" reverse mode, that is, when the throttle trigger is pushed from neutral range to the reverse area for the first time, the motor is only braking and will not reverse; when the throttle trigger is moved back to the neutral range and pushed to the reverse area for the second time, it will reverse. This mode is applicable to general models.
- Forward/Reverse(F/R): This mode adopts "one click" reverse mode, that is, when the throttle trigger is pushed from neutral range to the reverse area, the motor immediately generates reverse action, which is generally applied to rock crawler.
- The switch marked 1 of the 6-bit DIP switch is used to set the ESC running mode. The switch on the upper positionindicates that the running mode is Forward/Reverse; and the switch on the lower position indicates that the running mode is Forward/Reverse/Brake.

Setup

Toggle the switch 1 to the upper position, the buzzer will have one beep. Toggle the switch to the lower position, the buzzer will have two beeps.

Battery Type

- There are LiPo and NiMH cells. It can be set according to the actual use.
- The switch 2 of the 6-bit DIP switch is used to set the battery type.
 The switch on the upper side indicates that the battery type is LiPo;
 and the switch on the lower side indicates that the battery type is NiMH cells.

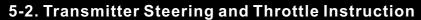
Toggle the switch 2 to the upper position, the buzzer will have one beep. Toggle the switch to the lower position, the buzzer will have two beeps.

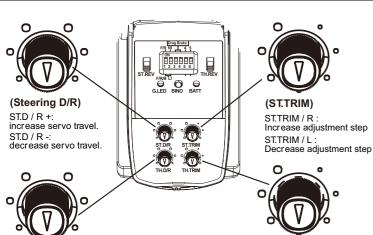
Drag Brake

- The drag brake means that when the throttle trigger moves from the forward or reverse area to neutral range, it will produce certain braking force to the motor, the larger the value is, the greater the drag brake force is. And this is applicable to decelerate into a turn and model crawler applications. Select proper braking force according to the actual situation.
- The switches 3 and 4 of the 6-bit DIP switch are used to set the ESC drag brake force. The drag brake force can be set to 0%, 50%, 75% or 100%.

Setup:

- Toggle the switch 3 to the lower position and switch 4 to the upper position, then the drag brake force is set to 0%.
- Toggle the switch 3 to the upper position and switch 4 to the lower position, then the drag brake force is set to 50%.
- Toggle both the switch 3 and 4 to the upper position, then the drag brake force is set to 75%.
- Toggle both the switch 3 and 4 to the lower position, then the drag brake force is set to 100%.





RightJclockwiseJ

(Throttle D/R)

TH.D / R +: increase throttle travel.

TH.D / R -: decrease throttle travel.

Not

- Please trim the Throttle Trim (TH. Trim) until the vehicle stops in case the vehicle goes forwards or backwards itself just after it is turned on.
- If the front wheels are not aligned, please trim"steering trim" (ST.TRIM) until they are aligned.
- The ST.TRIM is the trims for Ch1(steering), You can trim the Steering Trim until it fulfills your desired steering angles.
- ST.D / Ris for servo travel adjustment, which can be multiplexed as CH2 (throttle).



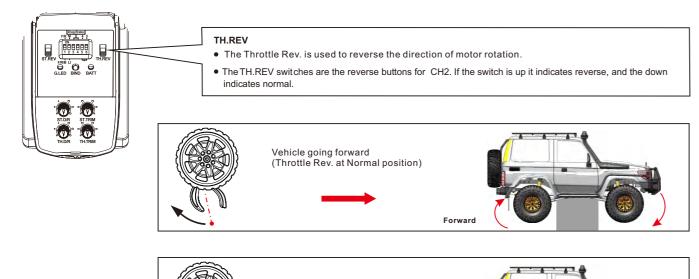
(TH.TRIM)

TH.TRIM / R:

TH.TRIM / L:

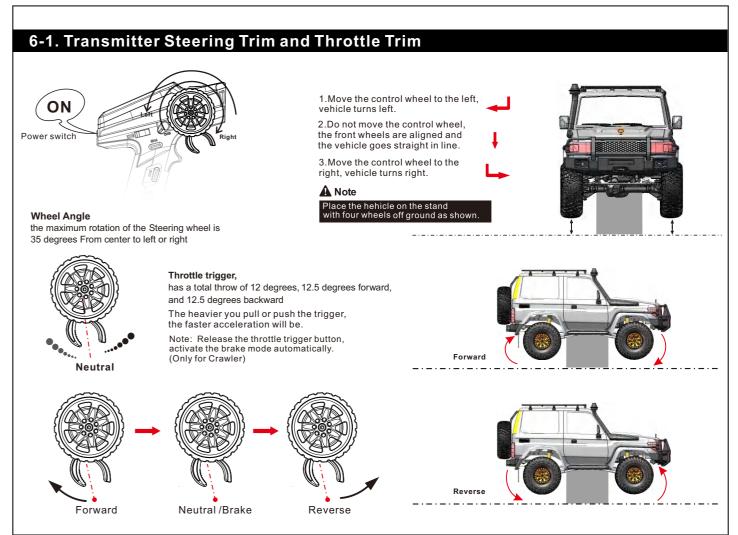
Increase adjustment step

- Vehicle turning left when the control wheel is turned to the left (Steering Rev. At Normal position)
- $^{\bullet} \ \text{Vehicle turning right when the control wheel is turned to the right (Steering \, Rev. \, at \, Reverse \, position)}$

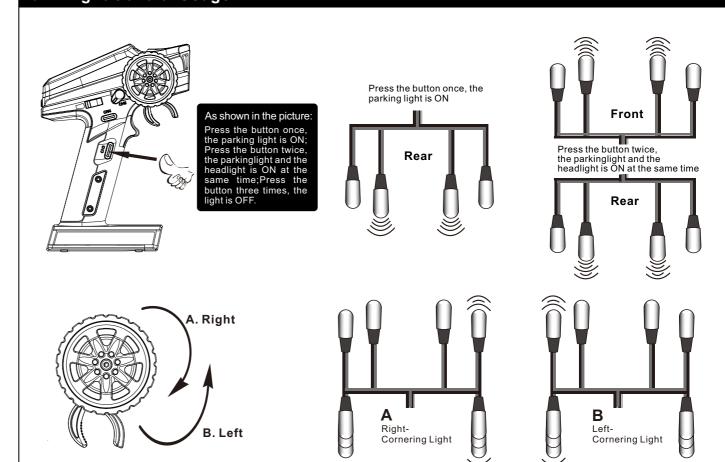


Vehicle going backwards (Throttle Rev. at Reverse position)

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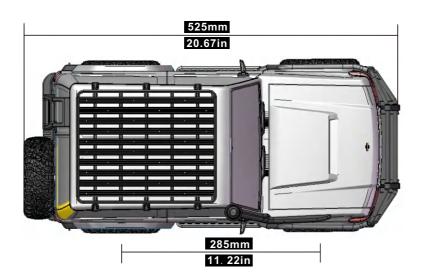


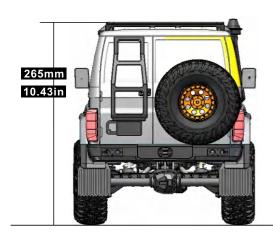
6-2. Light Control Usage



7. Ex86020 Challenger Specifications









Item No	Ex86020	
Item Name	Intruder	
Scale	1/10	
Desciption	Crawler/Off-Road	
Drive Mode	4WD	
Length	525mm	
Width	245mm	
Height	265mm	

Wheel Base	285mm		
Wheel	115*42mm		
Clearance	75mm (chassis) 40mm (steel)		
Weight	2. 98kg		
Radio	2.4G/6CH		
ESC/RX	60A 2-in-1		
Battery	2S Lipo/7. 4V2000Mah		
Steering Servo	Digit Metal Gear-25KG		

6235-RC550/35T		
31°		
51°		
47°		
580*275*305mm		
PC Soft		
Red / Silver / Yellow		
1P		

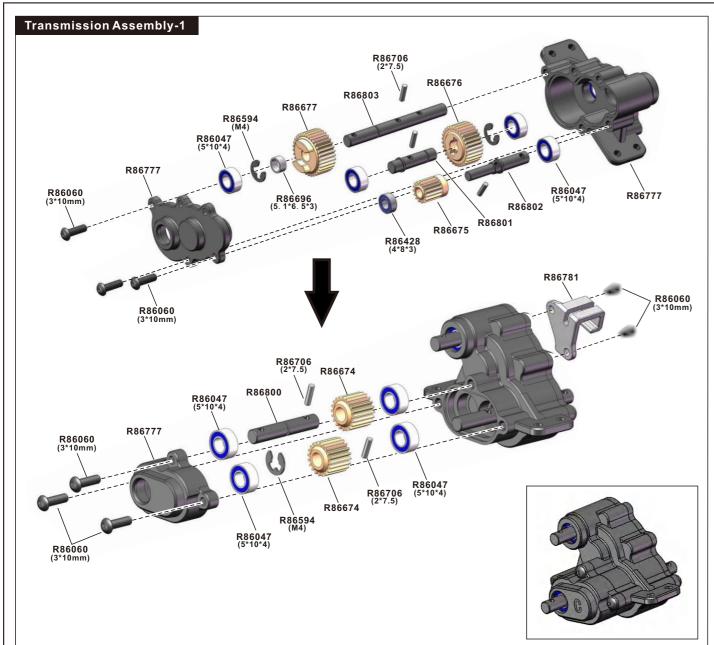
8. All the ways done, your car is ready to run. Hope you enjoy the fun in driving it.

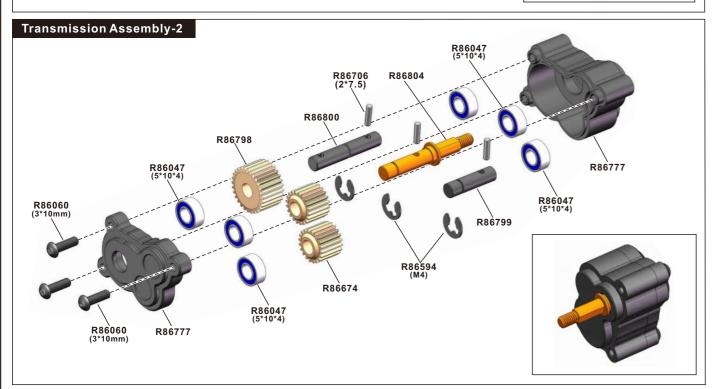
Tip: Always turn off the receiver and then the transmitter when not in use. Clean the car before storage.

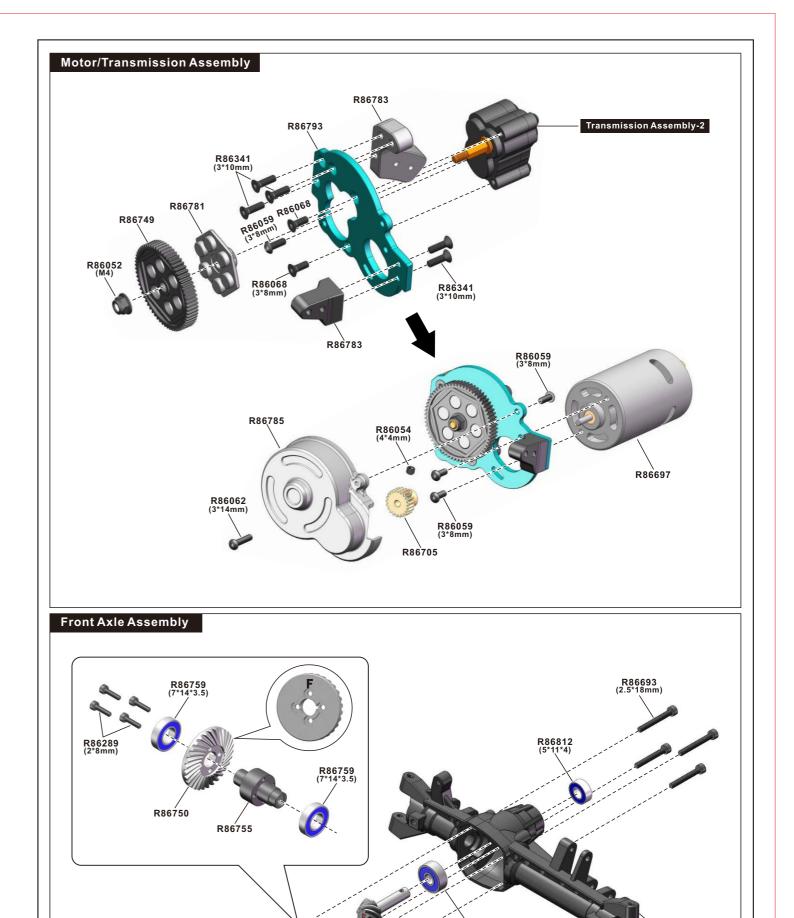
Vehicle Maintenance:

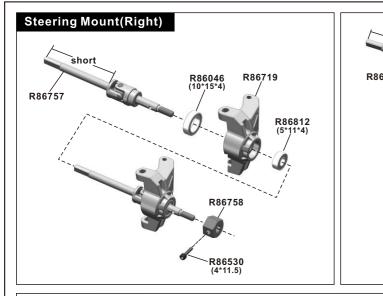
- 1). Please remove the battery pack plug or take it out, when the car is out of use.
- 2). Before each use, please redo the above steps and check all the parts condition if over wear.
- 3). Ensure the unused battery pack over-discharge (recommended to be above 40%), and keep in a dry and cool place, out of reach of children.
- 4). After each use, please carefully check all the parts condition, and repair or replace the worn part. Use a fine brush to sweep the sand, marl and other dirt inside the model, then wipe it cleanly by a soft cloth.

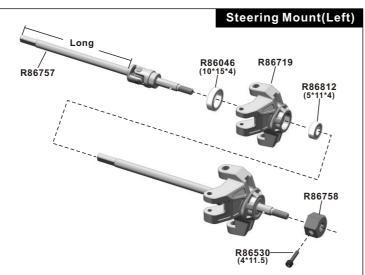
Problem F	Possible Cause	Solution	
E	Electronic plugs loose or fall off	Switch off and reconnect	
a	Vehicle battery not charged, activating the ESC low voltage cut-off to protect the battery	Replace/recharge the vehicle battery	
	Motor or ESC dirty or damaged	replace new Motor (recommend to purchase facoty Motor)	
respond during	ESC failed	replace new ESC (recommend to purchase facoty ESC)	
operation	ESC power off by overheated Motor	Stop operation and cool the ESC or Motor	
N	Motor overheated, demagnetized or damaged	replace new Motor (recommend to purchase facoty Motor)	
	Transmitter batteries low or beyond the remote control distance	Replace the transmitter batteries, adjust the remote control distance	
Т	Transmitter damaged	Relace or contact seller	
	ESC "operation mode" setting error	Refer to manual "ESC", set "operation mode" into "forward and backward reverse with brake"	
No Backward, forward normally	ESC damaged	Relace or contact seller	
	Throttle damaged or transmitter throttle not centered	Refer to manual "Transmitter", and reset	
Car operate automatically,	Throttle trim out of center on transmitter	Refer to manual "Transmitter", and reset	
with no control	Neutral throttle is in incorrect position	Adjust ESC in neutral point	
	Error Operation	Ensure to operate in stop status, more refer to the Manual	
Normal operation, speed shift failure	Gear Cable damge or loose	Replace the accessory or Readjust	
\$	Servo wire inserts in wrong Receiver slot	Refer to the manual, Readjust	
E	Battery damaged / not charged	Check, change or recharge	
Sluggish Action	Throttle trim out of center on transmitter	Adjust (refer to manual "transmitter")	
	Motor dirty/ damaged	Clean/ replace	
	Drivetrain dirty / damaged	Check and clean	
Light Function	Light Plug is not connected or in wrong postion	Check the plug connection	
Failure after Battery properly	Transmitter Set Error or Light Control Panel Damage	eet the Transmitter. Otherwise, please check the t control panel is damaged or not.	
installed	Light Cable in wrong installation and connection	Readjust the installation and Connection	
Lack of streering	ESC power off by overheat	Stop operation, cool the ESC	
	Transmitter too near interfere electronical objects	Check and rebind transmitter and receiver, refer to manual	
Vehicle moves	Steering accessories damaged	Check and replace	
left / right without steering input	Wheel loose	Check and replace	
	Drivetrain dirty / damaged	Check and replace	
Controls Reversed	ST. REV or TH. REV	Change switch position, refer to manual	
	Check the wires between ESC and Motor correct or not	Switch the motor black and red wire	
Clicking noise in operation	Check the bodyshell damaged or fall off	Retrim or replace	
	Loose or tight between motor gear and main gear	Reset gear mesh	
	Gear damaged or rocked	Remove gear cover and inspect. If necessary, replace gear	
Only steering, no forward	ESC failed or abnormal	Reset the neutral point or replace	
	Transmitter failed or abnormal	Relace or contact seller	

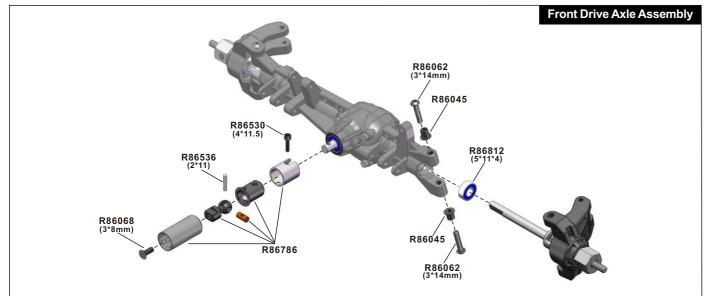


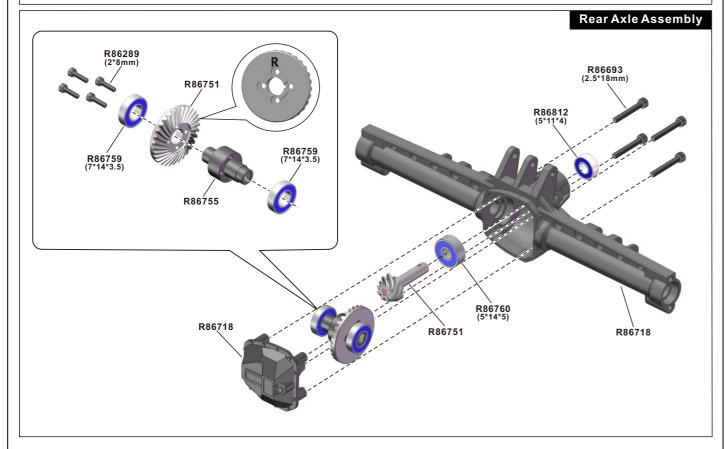


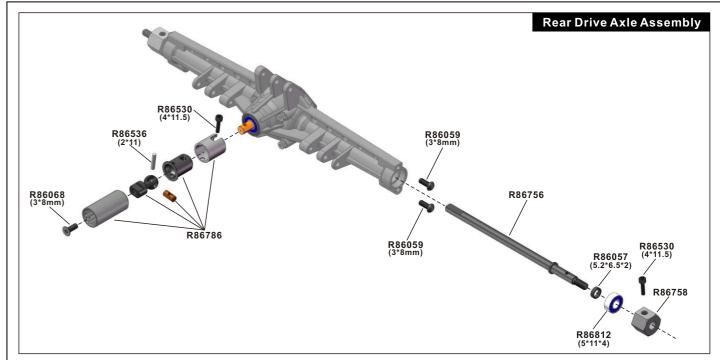


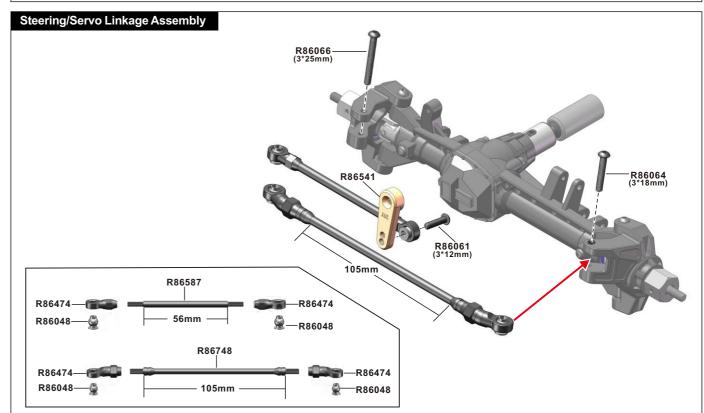


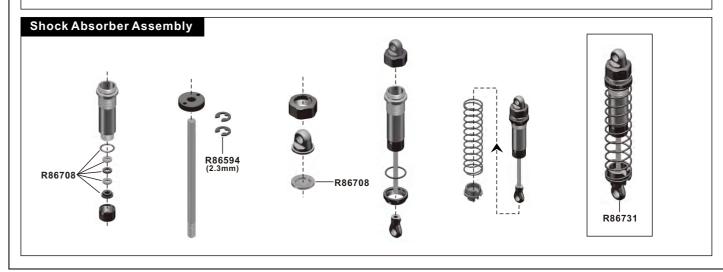


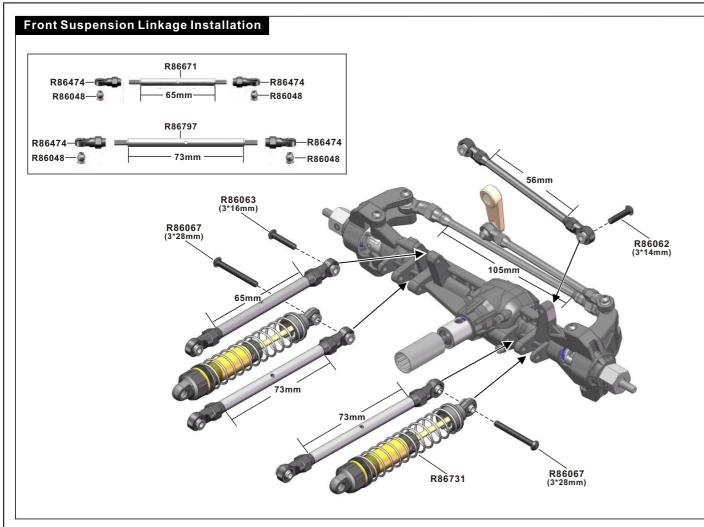


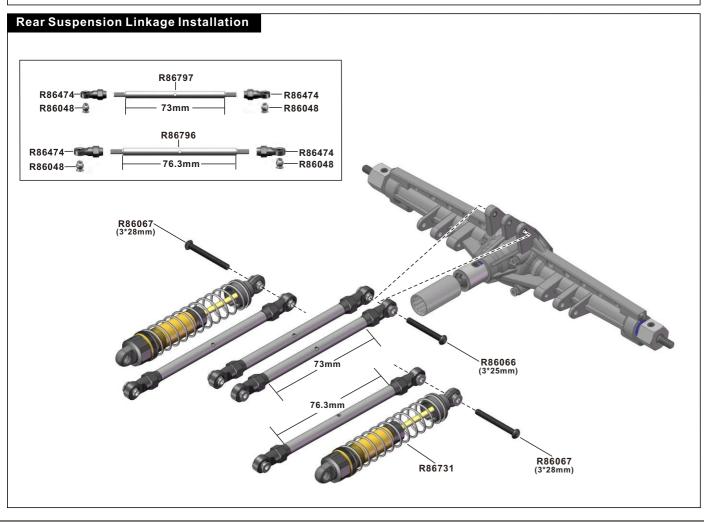


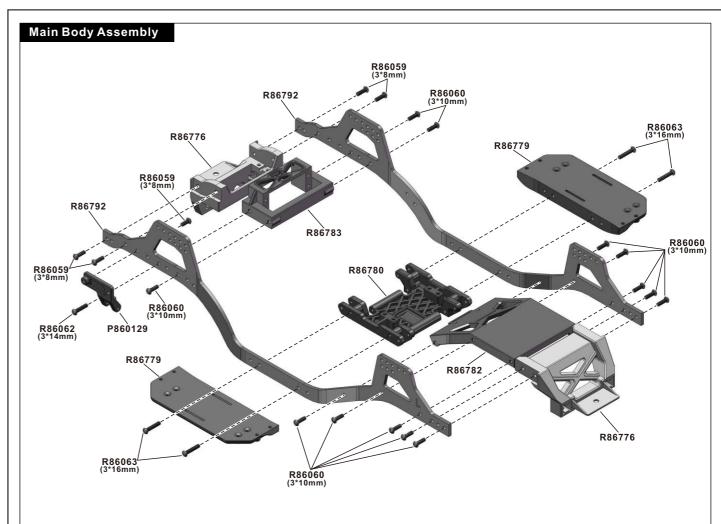


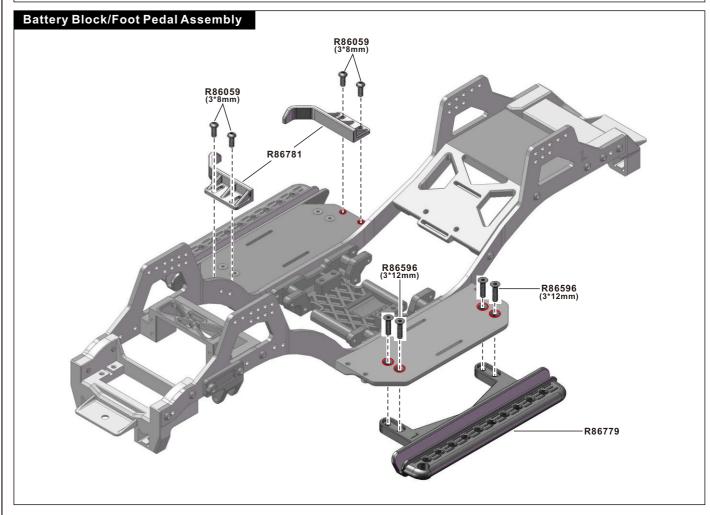


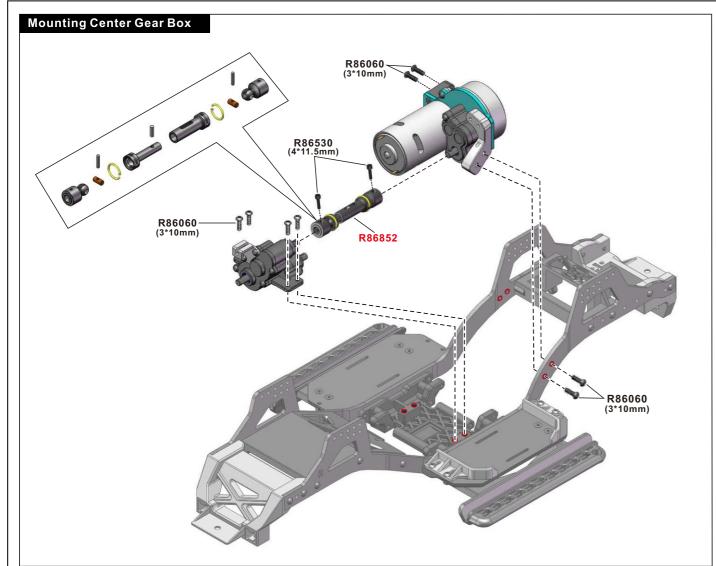


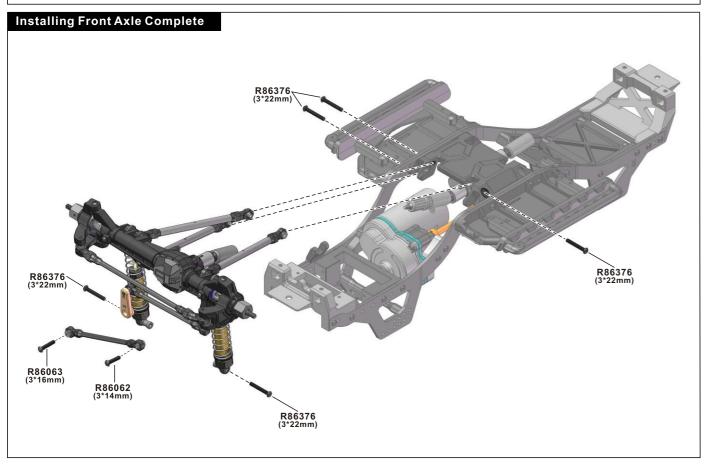


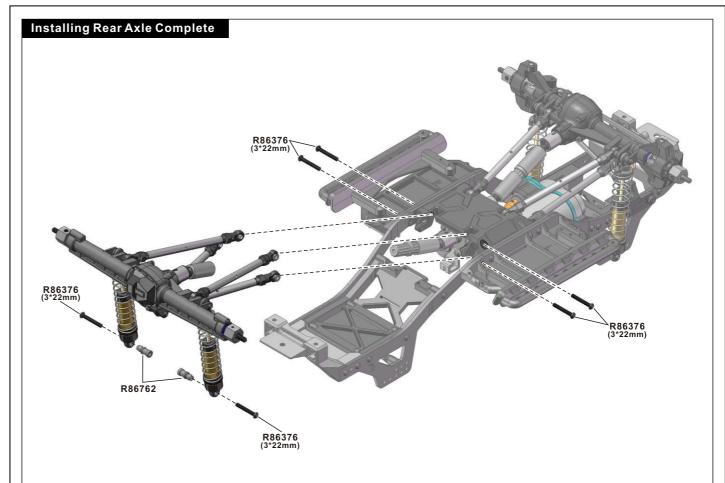


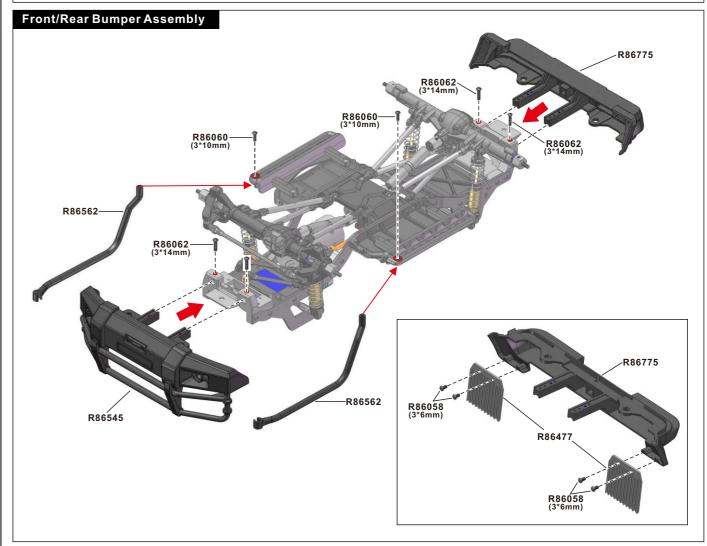


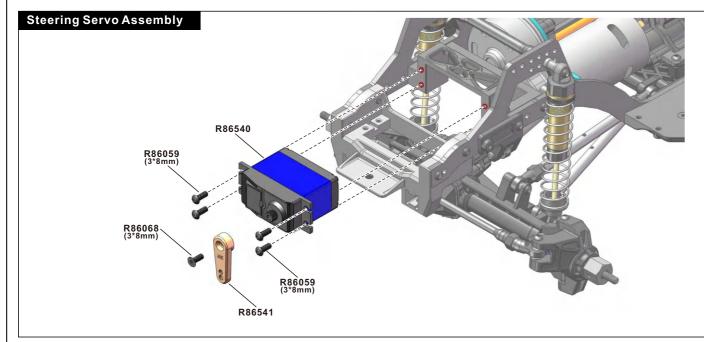


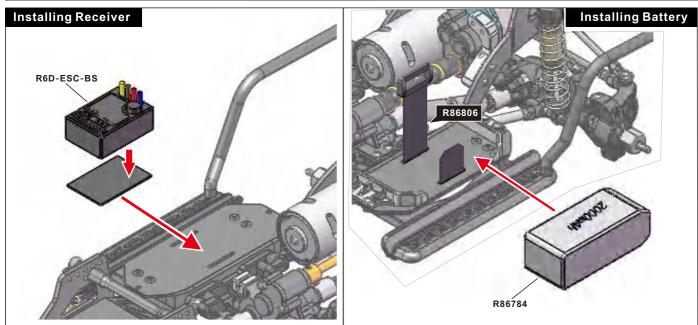


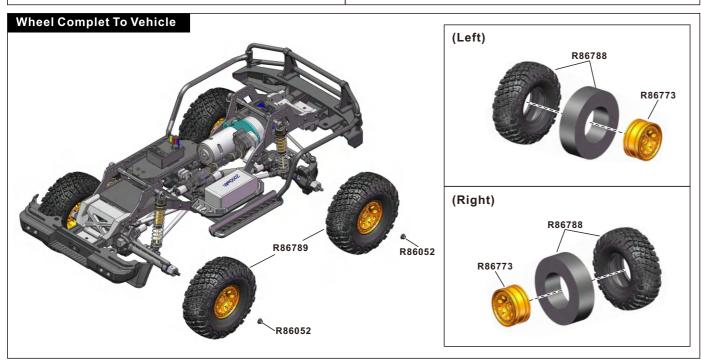


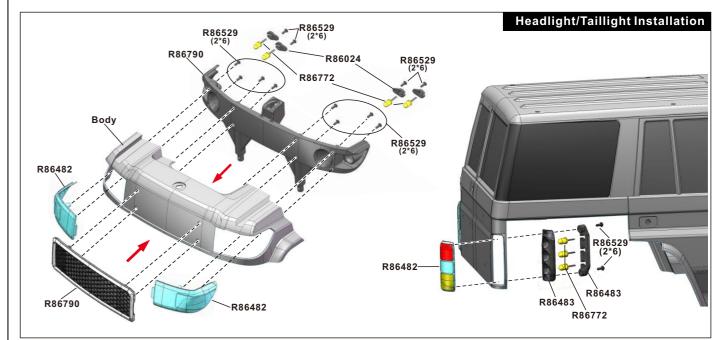


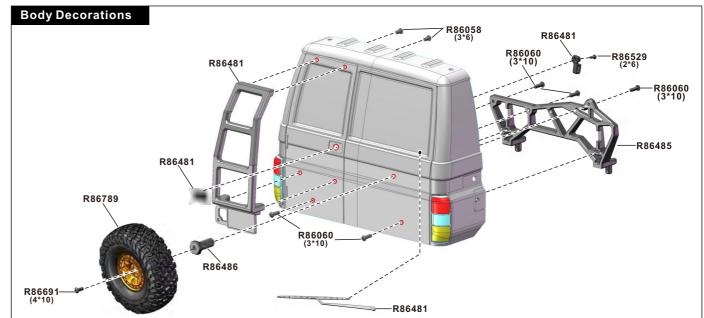


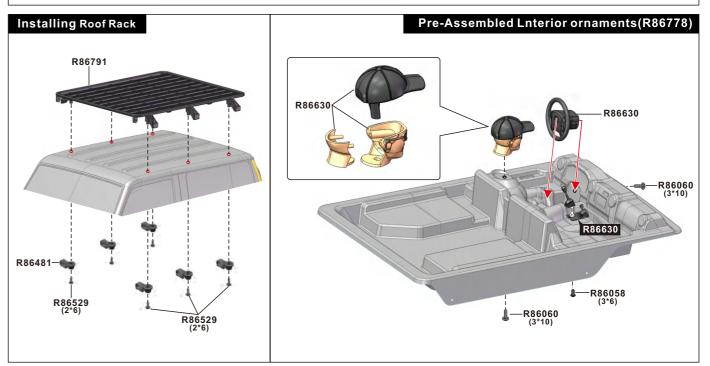


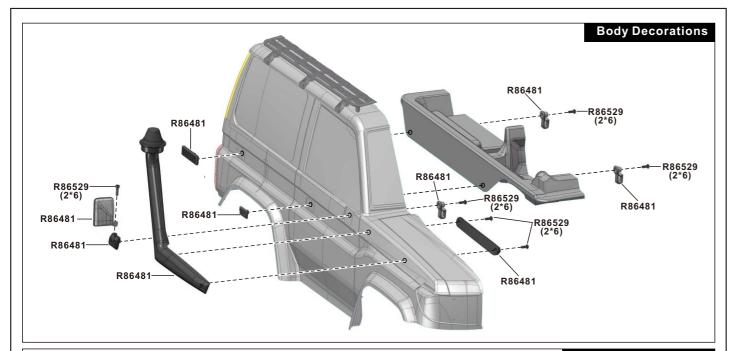






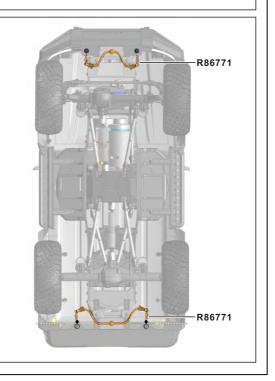






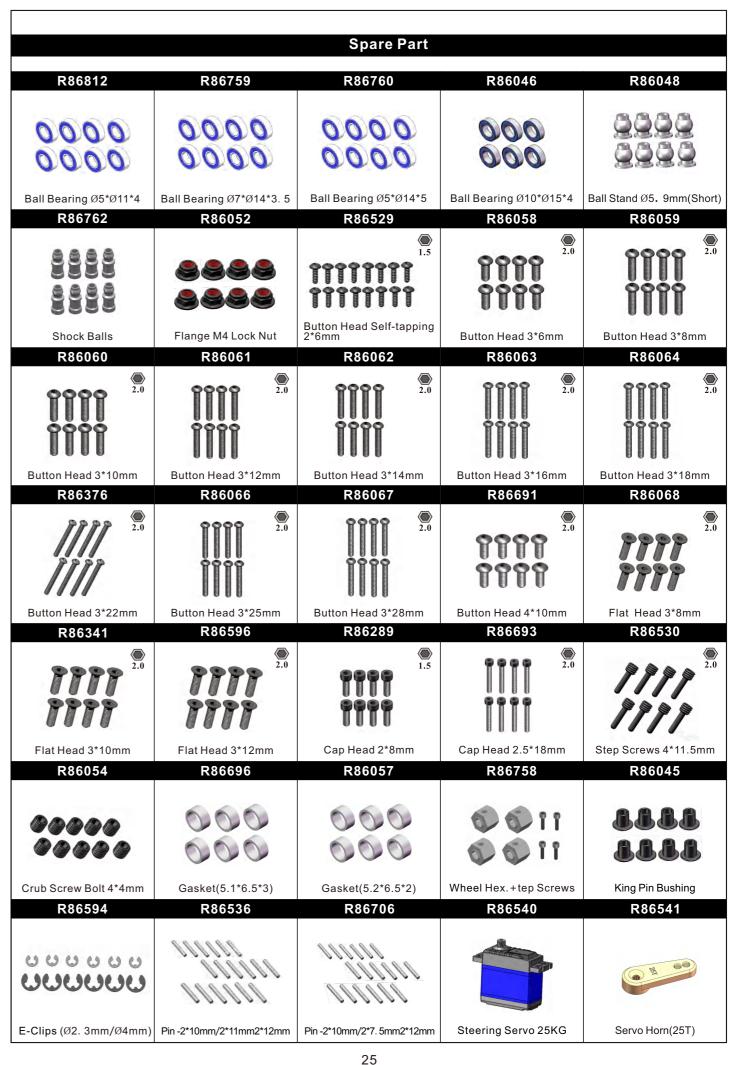








		Spare Part						
R86485	R86486	R86487	R86790	R86791				
	M4 4*25mm	33		40 40 40 40 40 40 40 40 111				
Rear Body Plate	SpareTire Mount	Hood Switch	Air Grill/Lamp-Socket(Front)	Roof Rack				
R86	5792	R86793	R86796	R86797				
		Co						
	is Rails	Motor Mount	Link 76. 3mm	Link 73mm				
R86587	R86671	R86748	R86585	R86749				
Servo link 56mm	Front Upper Link 65mm	Steering Link 105mm	Joint Link	Crown Gear (64T)				
R86750	R86751	R86675	R86674	R86798				
	R							
Spiral Bevel Gear 8T+30T(F)	Spiral Bevel Gear 8T+30T(R)	Gear(15T)	Gear(20T)	Gear(28T)				
R86676	R86677	R86705	R86755	R86756				
00		⊕ —4*4MM						
Gear(30T)	Gear(32T)	Pinion Gear(21T)	Straight Shaft Holder	Rear Shaft				
R86757	R86799	R86800	R86801	R86802				
Long								
Joint Rotation Driveshaft	Gear Shaft(19mm)	Gear Shaft(20T)	Gear Shaft(21.9mm)	Gear Shaft(30.1mm)				
R86803	R86804	R86852	R86428	R86047				
Gear Shaft(50.6mm)	Gear Shaft(M4)	CVD Driveshaft	Ball Bearing Ø4*Ø8*3	Ball Bearing Ø5*Ø10*4				
	24							







PRODUCT QUALIFICATION CERTIFICATION

The product has conducted IQC (Input Quality Control) and full inspection before delivery. The manufacturer is responsible for quality assurance. Remote Control model is assembled manually, and then there may have some defects in the production process. Once the product is modified or incorrect operation, it cannot apply for replacement and return services, for the parts and accessories may be damaged.

Please contact the retail seller for after-sales service when needed.

The product conforms to technical requirements of export safety regulations.

Factory Address: Huang Jiang Town, Dong Guan City, Guang Dong Province, China Website: www. RGT-RACING. Com

Production Date: refer to packing instruction