ROCK CRAWLER

CE ROHS

USER MANUAL

OFF-ROAD CRAWLER
NO.EX86170 PRO

Notes:

- 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.

Remote control models are specialized and high-value products. If you identify any quality defects upon receipt, please do not use the product and contact the seller immediately to arrange a replacement or return. Please note that we cannot provide any after-sales guarantee for damages which are caused by improper use.
The product conforms to technical requirements of export safety regulations.

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

MADE IN CHINA
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 have 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 of 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 the motor 10 - 15 minutes to cool down between each operation. 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, composed of precision electrical components, must be kept 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 the model prior to each run.

● Use replacement parts from the original manufacturer to ensure safe product 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 about 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.

Danger	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.

Prohibited

- 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:
  - 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 the 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.

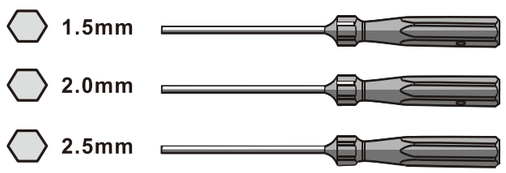
Mandatory

- 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.
- Make sure to disconnect the receiver battery before turning of the transmitter. Failure to do so may lead to unintended battery issues or an accident.
- Ensure that all motors operate in the correct direction. If not, adjust the direction first.
- Make sure the model stays within the radio maximum signal range to prevent loss of control during operation.

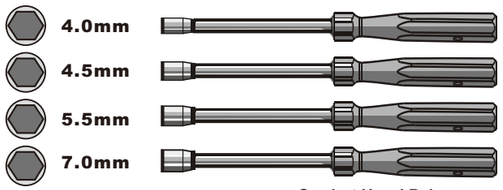
Thanks for purchasing our RC car. Since the power system of the RC model can be very dangerous, please read this manual carefully. Since we have no control over the correct use, installation, application, or maintenance of our products, we shall assume no liability for any damages, losses or costs resulting from the use of this 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

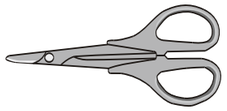
1. Please read the manual carefully and prepare the following things before use.

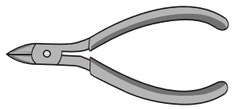


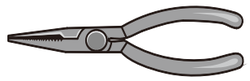
Hex. Screwdrivers



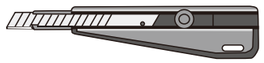
Socket Head Drivers

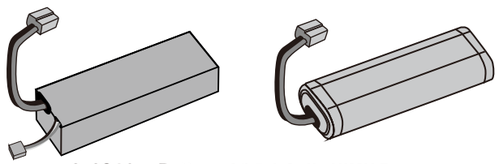

Lexan Scissors


Needle Nose Pliers


Curve Nose Pliers


Body Reamer


Hobby Knife


2~3S Lipo Battery or 5-9 Cells NIMH Battery


Batteries: 4 x 1.5 V “AA”

2. The items inside the box.

One car


Transmitter


Factory Certificate

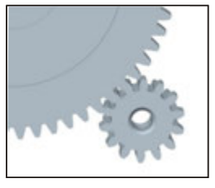
3. Please check the whole product condition when open the package.

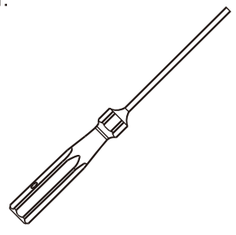
3-1. After each day of running, you should check your shocks for adequate fluid. If the fluid is low, or it is getting dirty, you should change the fluid in the shocks. To achieve better performance, you may also want to change the shock fluid and or the pistons.

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)

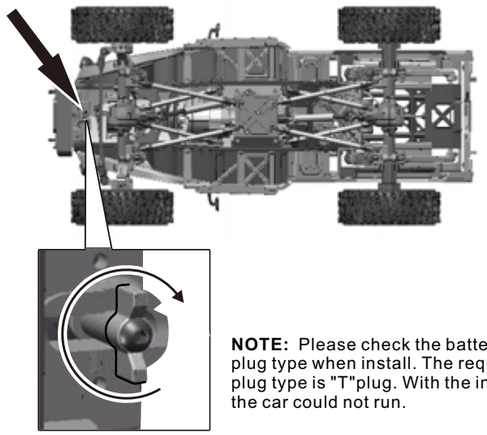
3-4. Reguarly check and verify he tires are intact . No breach should be observed. Please apply the CA glue if needed.

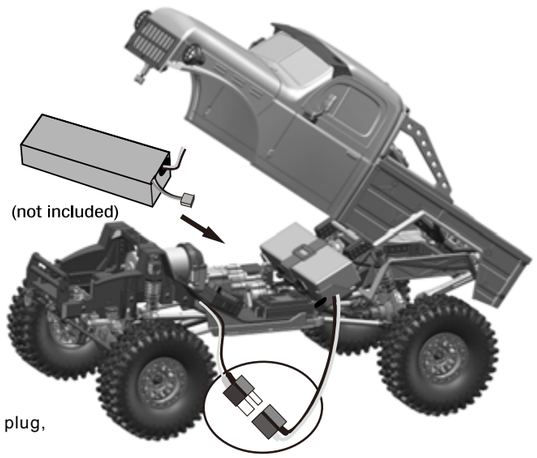




4-1. Install Charged Batteries In Car.

Please turn the button in clockwise(90 degree) as shown, then install the prepared battery pack.



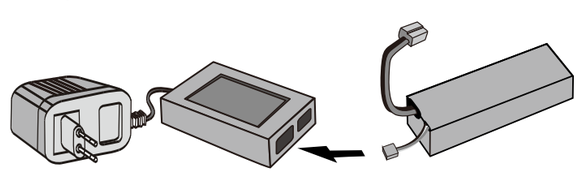


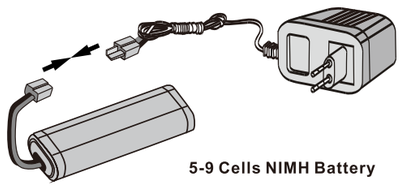
NOTE: Please check the battery plug type when install. The required plug type is "T"plug. With the incorrect plug, the car could not run.

4-2. 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*55mm(LxWxH).

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




5-9 Cells NIMH 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)

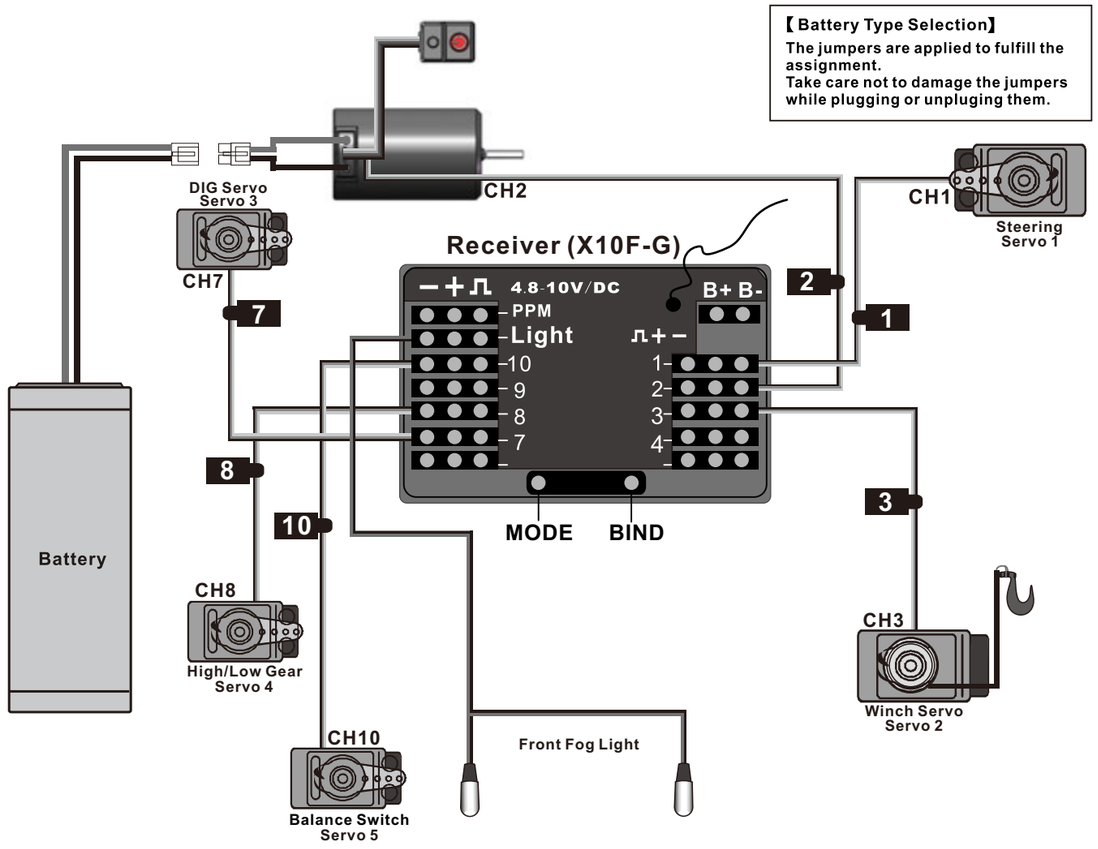
Charge the vehicle battery

- **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.**

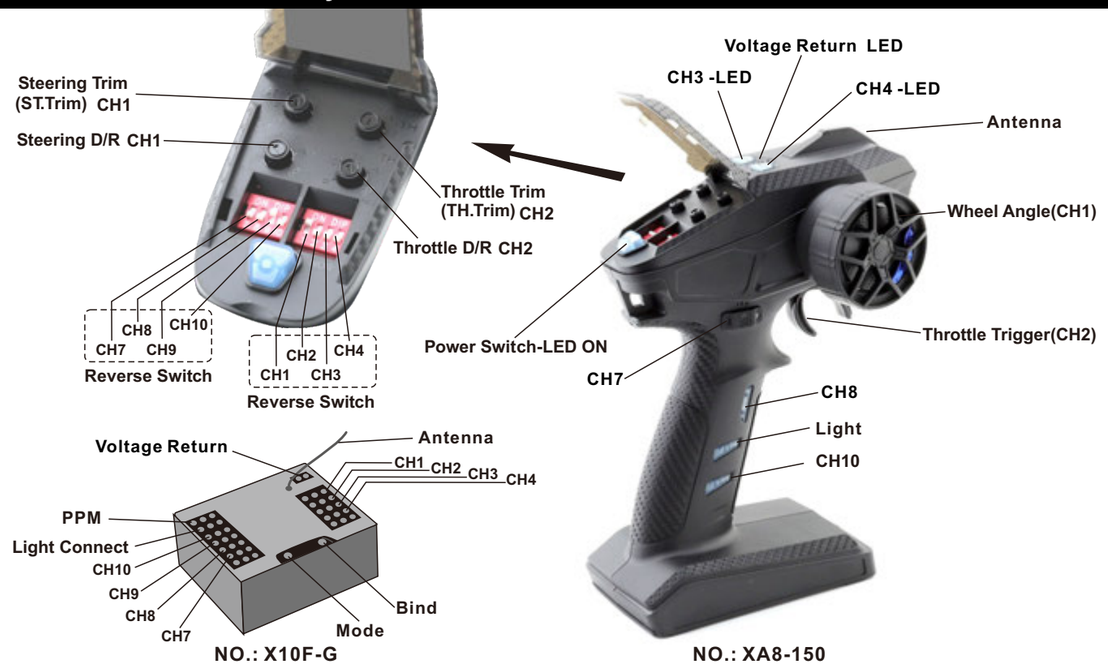
Lithium Polymer (LiPo) Battery Warnings

- 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 container 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 model 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).

4-3. Scheme of installation



5-1. XA8 2.4GHZ Radio System

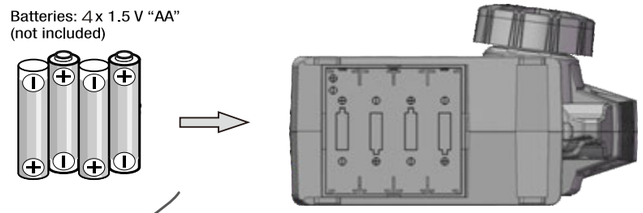


Install The Transmitter Batteries

Battery Installation:

1. Open the battery compartment cover.
2. Insert 4 AA fully charged batteries or 2S Li-Po batteries in correct polarity. (No response if battery polarity reversed.)
3. Close battery compartment cover.

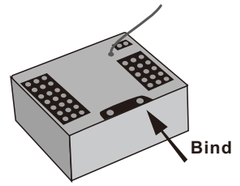
Batteries: 4 x 1.5 V "AA" (not included)



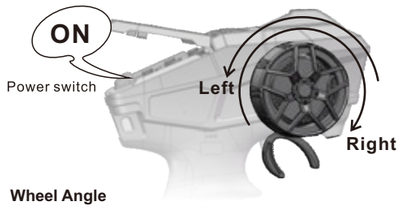
Binding Process:

1.Press receiver button, LED indicator fast flas hing means entering into binding mode, the receiver will automatically looking for the nearest transmitter signal.

2.The indicator will always ON after successful bond.



5-2. Transmitter Steering Trim and Throttle Trim



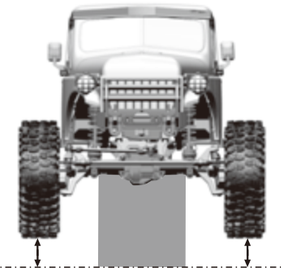
Wheel Angle
the maximum rotation of the Steering wheel is 35 degrees From center to left or right

1.Move the control wheel to the left, vehicle turns left.

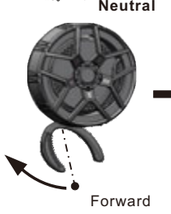
2.Do not move the control wheel, the front wheels are aligned and the vehicle goes straight in line.

3.Move the control wheel to the right, vehicle turns right.

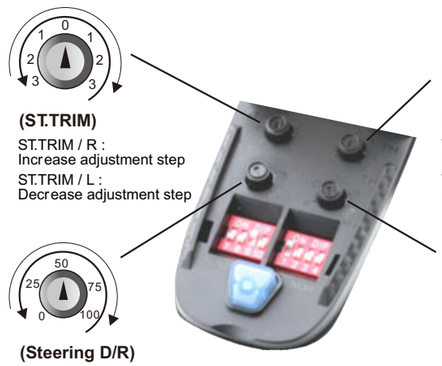
Note
Place the hehicle on the stand with four wheels off ground as shown.



Throttle trigger,
has a total throw of 12 degrees, 12.5 degrees forward, and 12.5 degrees backward
The heavier you pull or push the trigger, the faster acceleration will be.
Note: Release the throttle trigger button, activate the brake mode automatically. (Only for Crawler)



5-3. Transmitter Steering and Throttle Instruction



(ST.TRIM)
ST.TRIM / R :
Increase adjustment step
ST.TRIM / L :
Decrease adjustment step

(TH.TRIM)
TH.TRIM / R:
Increase adjustment step
TH.TRIM / L:
Decrease adjustment step

(Steering D/R)
ST.D / R +: increase servo travel.
ST.D / R -: decrease servo travel.

(Throttle D/R)
TH.D / R +: increase throttle travel.
TH.D / R -: decrease throttle travel.

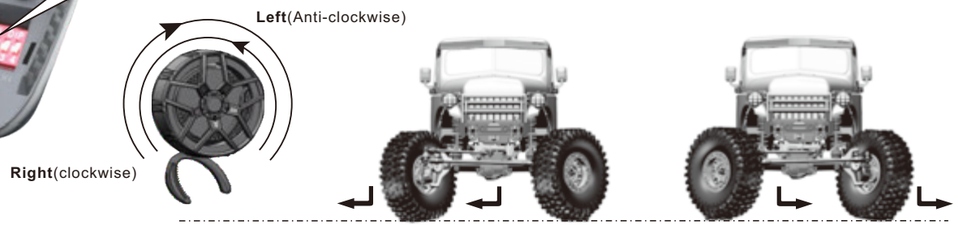
Note:

- Please trim the throttle (TH.Trim) until the vehicle does not move forward or backward automatically when first activated.
- ST.TRIM is the trims for CH1 (Steering), and use it to achieve the desired steering angle.
- ST.D/R is for servo travel adjustment and can be multiplexed as trims of CH1 (Steering).
- TH.D/R is for throttle travel adjustment and can be multiplexed as trims of CH2 (Throttle).

ST.REV

- Steering Trim(ST. Rev) is used to reverse the direciton of servo movement.
- The ST.REV switches are the reverse buttons for Ch1. If the switch is up it indicates reverse, and the down Indicates normal.

CH1



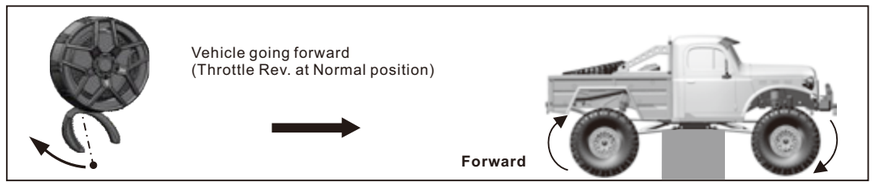
- Vehicle turning left when the control wheel is turned to the left (Steering Rev. At Normal position)
- Vehicle turning right when the control wheel is turned to the right (Steering Rev. at Reverse position)

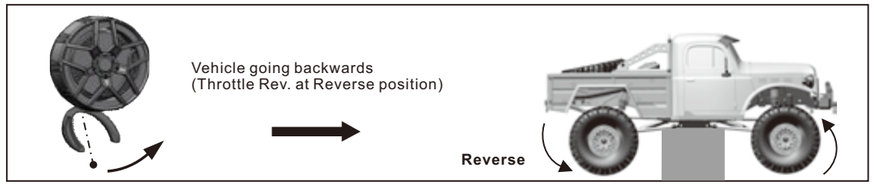
Channel Reverse

TH.REV

- The Throttle Rev. is used to reverse the direction of motor rotation.
- The TH.REV switches are the reverse buttons for CH2. If the switch is up it indicates reverse, and the down indicates normal.

CH2





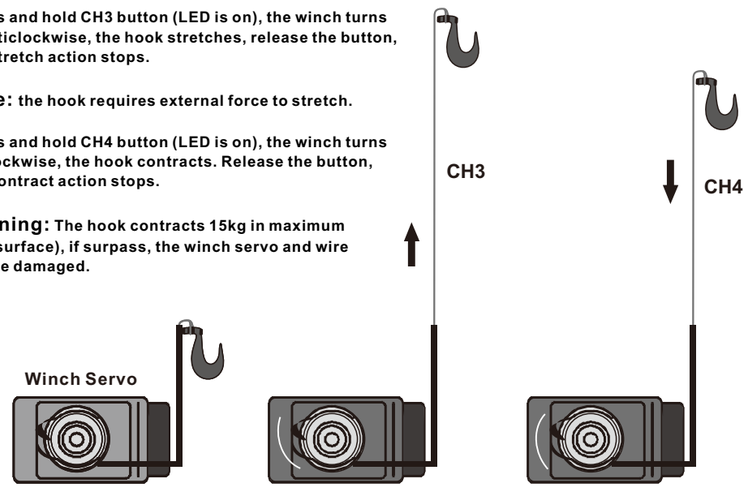
5-4 Servo Winch Hook Function

1. Press and hold CH3 button (LED is on), the winch turns in anticlockwise, the hook stretches, release the button, the stretch action stops.

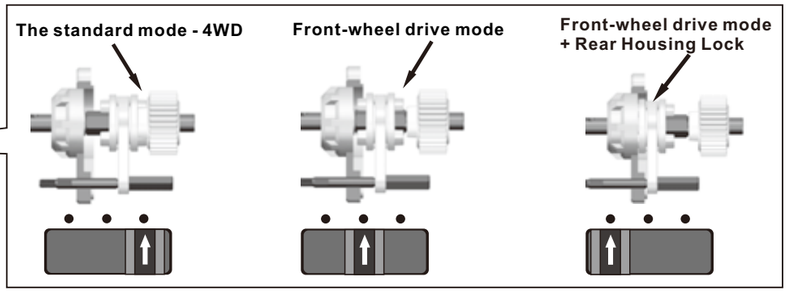
Note: the hook requires external force to stretch.

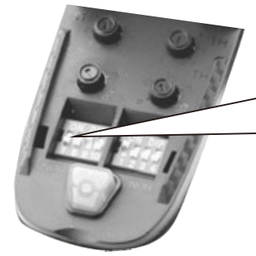
2. Press and hold CH4 button (LED is on), the winch turns in clockwise, the hook contracts. Release the button, the contract action stops.

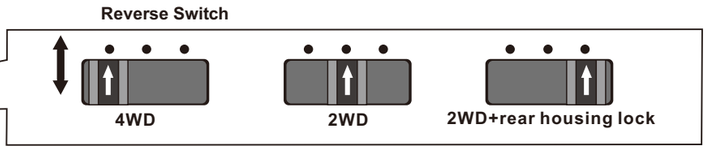
Warning: The hook contracts 15kg in maximum (flat surface), if surpass, the winch servo and wire will be damaged.



5-5. DIG Function instruction

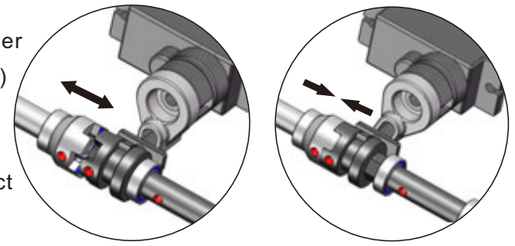






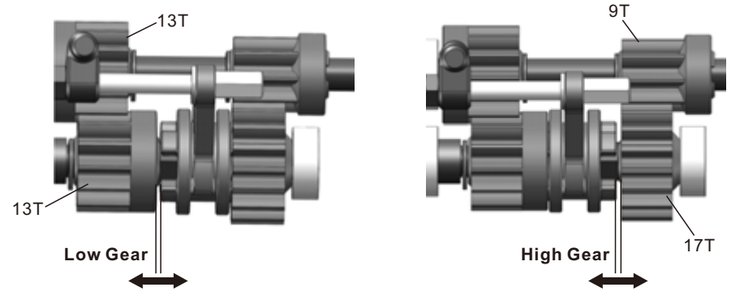
5-6. Rear Sway Bar Function

1. Stardard Factory Setting is Crawler Mode(without Sway Bar Function)
2. Press CH10 key, connect to Rear Sway Bar Function.
3. Press CH10 key again, disconnect to Rear Sway Bar Function.



Disconnect Panhard Bar Connect Panhard Bar

5-7. Shifting the High-Low Transmission

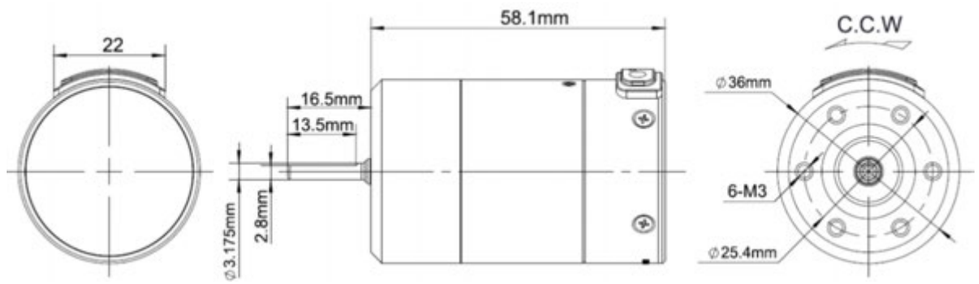


- Press CH8 button, the button light is on, switch to high-speed gear
- Press CH8 button again, the button light is off, switch to low-speed gear

Please stop or slow down the vehicle when shifting gear, from low-speed to high-speed or from high-speed to low-speed, in order to make the shift operation more smoother and protect the gear.

6. WP Fusion BL SYS for Crawler-540 Spec-RTR

6-1.Specification:



Continuous peak current	40A/160A	**Parameter setting**	Independent programming interface(switch position)
Main applications	1/10 rock crawler	**Motor KV**	1200KV , 1800KV
LiPo/NiMH Cells	2-3S Lipo,6-9 Cells NiMH	**Diameter/length of Motor**	36mm / 58.1mm
BEC output	6V/4A (Switch mode)	**Shaft diameter / exposed shaft length**	3.175mm / 16.5mm
Motor Poles	4 poles	**Size/Weight(entirety)**	36mm(diameter)x58.1mm(length) / 204g(including wires)

6-2. Indication for LED of ESC

1. Startup phase

1) In the normal state after startup, the red light is always on.
2) The red light flashes continuously and rapidly: No throttle signal is detected by the ESC or the neutral position of the ESC does not match with the radio.
3) The green light flashes N times: The number of Lipo Cells detection, flashes N times indicates there are N Lipo.

2. Driving stage

1) The throttle trigger is in neutral range, and the green light goes out.
2) When forwarding, the green light flashes; when the throttle is at the end position of forward, the green light is always on.
3) When reversing, the green light flashes; when the throttle is at the end position of backward and the max. reverse force is set to 100%, the green light is always on.

3. When relevant protection functions are triggered, the LED status means:

1) The red light flashes continuously(single flashing, “?,?,?”): The ESC enters low-voltage protection status.
2) Green light flashes continuously(single flashing, “?,?,?”): The temperature of ESC is too high, and enters overheat protection status.

6-3. Troubleshooting

Trouble	Possible Reason	Solution
The indicator light is not on after power on and the motor cannot start.	The battery voltage is not input to the esc.	Check the battery and connection.
	The switch of esc is damaged.	Replace the switch.
Power on and finish inspecting the number of Lipo cells(Green light flashed N times), red light flashes quickly.	Throttle signal is not detected by the esc.	Check whether the throttle cable is inserted reversely, whether the channel is wrongly and whether the radio is on.
	The neutral position of esc does not match with the radio.	Set the throttle trim, calibrate the esc(set the throttle range).
The vehicle run reverse when you pull the throttle trigger towards you.	The rotation direction of the frame is different from the mainstream.	Set the motor rotation to another direction via LED program box.
The motor suddenly stops or reduce the power in running.	The receiver is influenced.	Check radio/receiver system, connection, and check the battery voltage of radio.
	The esc enters the low voltage protection.	The red light keeps flashing indicating the LVC protection is activated, please change the fully charged battery.
	The esc enters the overheat protection.	The green light keeps flashing indicating the overheat protection is activated, please let the esc/motor cool down (or reduce the load).
When you do not move the throttle trigger, the motor will run slowly.	The neutral position of esc does not match with the radio.	Calibrate the esc(set the throttle range).
	The neutral throttle signal is unstable.	Change the radio system to have a test.
Unable to complete esc calibration.	The esc does not receive the correct throttle signal.	Check whether the receiver channel is connected incorrectly or reversely,
		Check whether the receiver is damaged, you can connect the throttle cable to the steering channel for test, or change the radio system for test.

7. ESC Setup

1. Set the Throttle Range – ESC Calibration

1: turn on the transmitter/radio first, in the power off state of esc, and then press the power button and hold it continuously, the red light on the ESC’s switch will flash, then release the button immediately (If the button is not released within 8 seconds, the ESC will enter other modes), and the motor will beep at the same time.

2: At this time, three points need to be set: the neutral position, the end position of forward and the end position of reverse.

A: The throttle trigger stays at the neutral position, press the button, the green light will flash once, and the motor will beep once at the same time, indicating that the neutral position has been stored;

B: Move the throttle trigger to the end position of forward, press the button, the green light will flash twice, and the motor will beep twice, indicating that the end position of forward has been stored;

C: Push the throttle trigger to the end position of reverse, press the button, the green light will flash three times, and the motor will beep three times, indicating that the end position of reverse has been stored.

3: After calibrating, the system can be operated normally.

2. Instruction for power on/off and Tones

Instruction for power on/off: Short press the switch button to start in off state; long press the switch button to shut down in on state.
Instruction for sound: Start in normal condition (Not setting throttle range), the times of beep emitted by motor indicates the number of Lipo Cells, for example, “Beep, Beep” indicates 2S Lipo; “Beep, Beep, Beep” indicates 3S Lipo.

3. Instruction for programmable items

The column of white words on black background in the following table are the default values of programmable items.

Item	Option 1	Option 2	Option 3	Option 4	Option 5	Option 6
Cutoff Voltage	**Disabled**	**Low**	**Intermediate**	**High**		
Motor Rotation	**CCW**	**CW**				
Drag Brake Force	**Disabled**	**Level 1**	**Level 2**	**Level 3**	**Level 4**	**Level 5**
Drag Brake Rate	**Level 1**	**Level 2**	**Level 3**	**Level 4**	**Level 5**	

1> Cutoff Voltage:

This function is mainly to prevent the irrecoverable damage caused by over discharge of Lipo battery. If the voltage protection is turned on, the ESC will monitor the battery voltage all the time during operation. When the voltage is lower than the set threshold value, the power output will reduce to 50% of the normal power, and the power will be completely closed after about 10 seconds. When entering the low-voltage protection, the red LED will blink in the way of “ ” in single cycle. When set to no protection, the ESC will not cut off power due to low voltage. When using Lipo Cells, it is not recommended to set to (Disabled), otherwise the battery may be damaged due to over discharge. For NiMH batteries, it is recommended to set this parameter to no protection. The low, medium and high options correspond to 3.0v/3.2v/3.4v respectively.

2> Motor Rotation:

The front of the motor shaft faces the user's face (i.e. the tail of the motor is far away from the user's face), when the radio is increasing the throttle in the forward direction, if it is set to CCW, the motor shaft rotates counterclockwise; if it is set to CW, the motor shaft rotates clockwise. Due to the structure difference of car frame, the rotation direction would not correct. If the rotation direction is wrong, change to the reverse direction.

3> Drag Brake Force:

Drag brake means a brake force on the motor when the throttle trigger moves from the non-neutral range to the neutral range. There are 6 levels of drag brake force to adjust, "Disabled" means the drag brake force is 0; the corresponding drag brake force increases from level 1 to level 5. Select the appropriate drag brake force according to the actual situation.

4> Drag Brake Rate:

It means the rate when drag brake force increases from zero to the set value when the throttle trigger enters the neutral range, commonly called as slow brake. This value has 5 levels to adjust. The higher the level is, the greater the drag brake rate is. Reasonably set this value can make the vehicle stop more stably.

4. Parameter setting method

Use LED program box to set ESC

The ESC is in off state, connect the 3pin programming port on the switch of 2 in 1 system with the port marked with on the upper right corner of the LED program box according to the polarity with a separate cable with JR plug at both ends. Then power on the ESC, after a few seconds, the parameter of the ESC can be displayed. The "ITEM" and "VALUE" button on the program box can quickly select the programming items and parameter values, press “OK" key to save the new parameters in ESC.

5. Factory reset

Use LED program box to restore factory settings. The method is as follows:
After connect LED program box and the ESC, press “RESET” key and then press “OK” key to save, the factory settings can be restored.

6. Automatic Motor Pairing(Optional)

If the motor has been subjected to severe impact or has abnormal heating and abnormal power output during operation, need to do the following automatic motor pairing. The operation method is as follows:

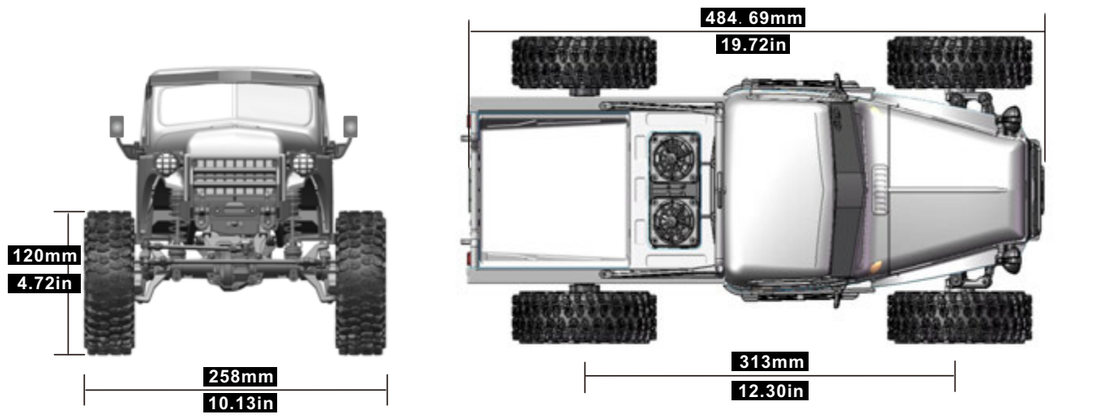
Step 1: Pull out the throttle cable from the receiver and remove the motor gear.

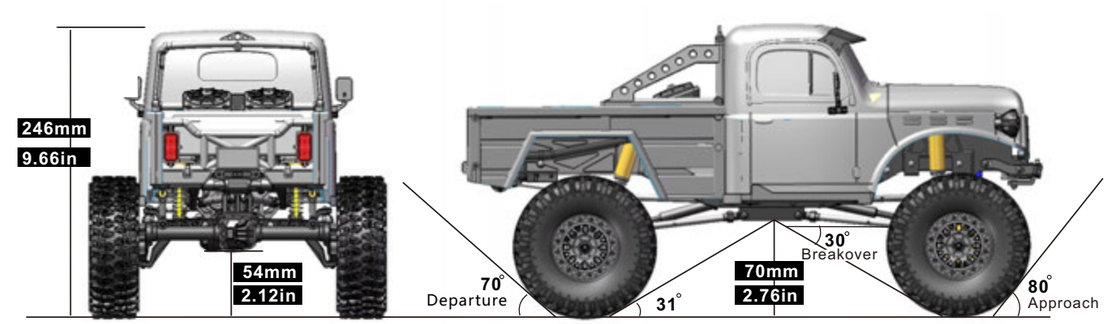
Step 2: Connect the battery, long press and start key, the switch of ESC will flash the red light first, and then switch to green light flashing after about 8 seconds, now you can release the button, the motor will automatically rotate, wait for the motor to end the rotation and the red light starts flashing, indicating that the automatic motor pairing is completed.

Step 3: After the automatic motor pairing is completed, the ESC will self-check (report Lipo Cells). Reconnect the throttle cable to run normally.

Note: Please remove the motor gear before operation, otherwise it may lead to incorrect matching and unknown risk.

8. Challenger Specifications





ItemNo	Ex86170PRO	Clearance	54mm (steel) 70mm (chassis)	Gear Ratio/Low	49.8:1(F), 53:1(R)
Item Name	CHALLENGER	Weight	3.20kg(No battery)	Gear Ratio/High	26.3:1(F), 28:1(R)
Desciption	Crawler/Off-Road	Radio/Rx	2.4G/8CH(XA8)	Breakover	30°
Drive Mode	Front-Wheel Drive +4WD	ESC	FOC/40A	Approach	80°
Length	485mm	Battery Recommendations	2S or 3S Lipo, 5-9 Cells NIMH Battery	Departure	70°
Width	258mm	Steering servo	Digit Metal -HV35KG	Body Type	PC Soft With Roll-cage
Height	246mm	Winch Servo	360'Digit Metal Gear-25KG	Body Color	Green / Gray
Wheel Base	313mm	Function servo	7.4V/9G*3P(Metal Gear)	Gift Box Size	575*275*282(H)mm
Wheel	120*45mm	Motor	FOC/1800KV	Piece per Carton	1P

9. 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 batteries from both the vehicle and the transmitter, when the car is out of use for a long time,

2). Before each use, please carefully check whether the circuit wires of the model are tight and free of loose connectors. Also, please carefully inspect if the wheels are securely fastened—loose wheels can cause excessive wear to parts such as the drive shaft, wheel cups, or wheel hubs.

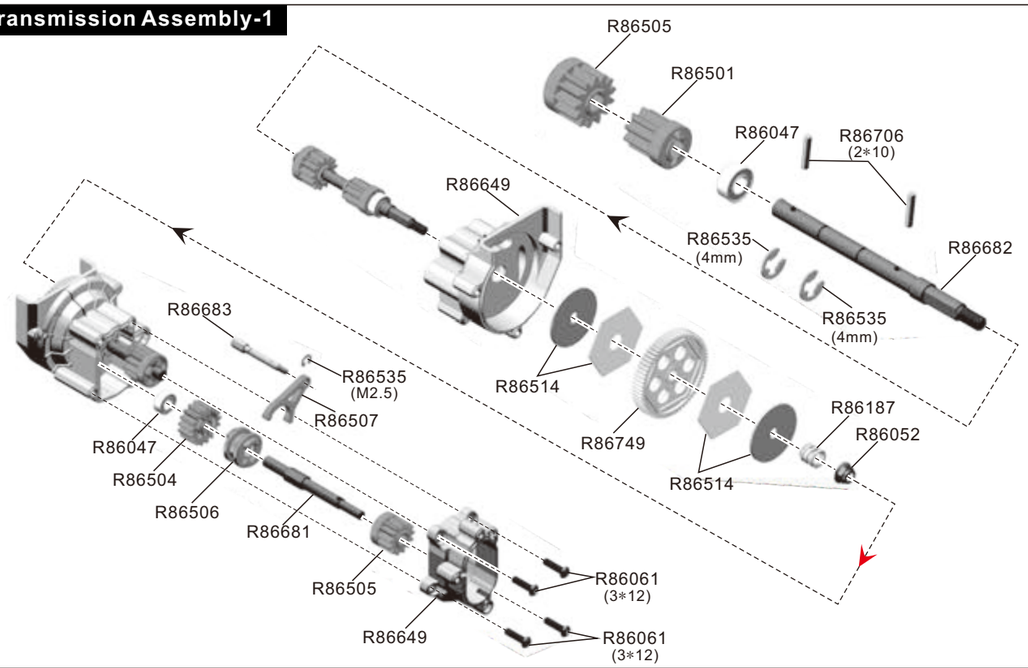
3). Ensure the unused battery pack should be charged to 50-60% capacity before being stored in a dry and cool place, out of the reach of children.

4). After each use, please carefully check if all parts are intact, and repair or replace the worn parts. Use a fine brush to sweep the sand, marl and other dirt inside the model, then wipe it cleanly by a soft cloth.

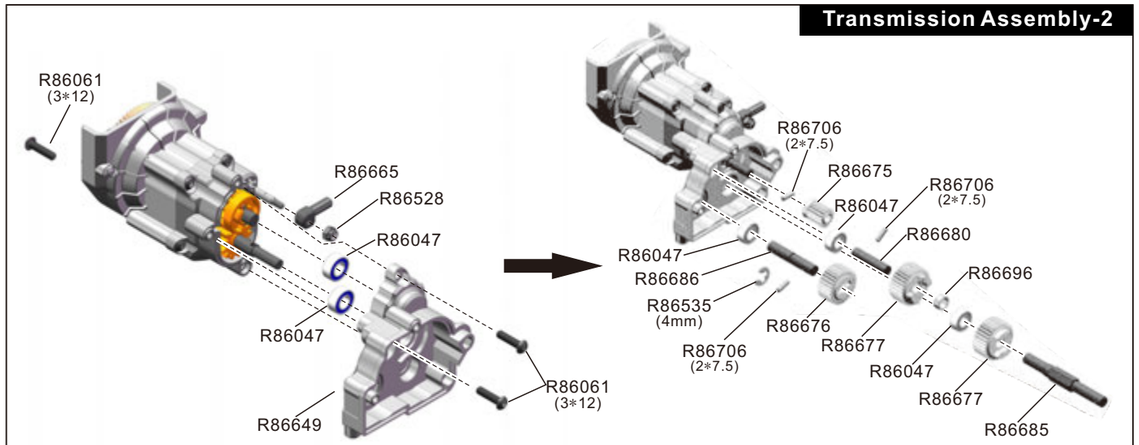
10. Troubleshooting

Problem	Possible Cause	Solution
Car does not respond during operation	Electronic plugs loose or fall off	Switch off and reconnect
	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 factory Motor)
	ESC failed	replace new ESC (recommend to purchase factory ESC)
	ESC power off by overheated Motor	Stop operation and cool the ESC or Motor
	Motor overheated, demagnetized or damaged	replace new Motor (recommend to purchase factory Motor)
	Transmitter batteries low or beyond the remote control distance	Replace the transmitter batteries, adjust the remote control distance
	Transmitter damaged	Relace or contact seller
No Backward, forward normally	ESC "operation mode" setting error	Refer to manual "ESC" , set "operation mode" into "forward and backward reverse with brake"
	ESC damaged	Relace or contact seller
	Throttle damaged or transmitter throttle not centered	Refer to manual "Transmitter", and reset
Car operate automatically, with no control	Throttle trim out of center on transmitter	Refer to manual "Transmitter", and reset
	Neutral throttle is in incorrect position	Adjust ESC in neutral point
Normal operation, speed shift failure	Error Operation	Ensure to operate in stop status, more refer to the Manual
	Gear Cable damge or loose	Replace the accessory or Readjust
	Servo wire inserts in wrong Receiver slot	Refer to the manual, Readjust
Sluggish Action	Battery damaged / not charged	Check, change or recharge
	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 Failure after Battery properly installed	Light Plug is not connected or in wrong postion	Check the plug connection
	Transmitter Set Error or Light Control Panel Damage	Reset the Transmitter. Otherwise, please check the light control panel is damaged or not.
	Light Cable in wrong installation and connection	Readjust the installation and Connection
Lack of streering and throttle	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 left / right without steering input	Steering accessories damaged	Check and replace
	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 and backward	ESC failed or abnormal	Reset the neutral point or replace
	Transmitter failed or abnormal	Relace or contact seller

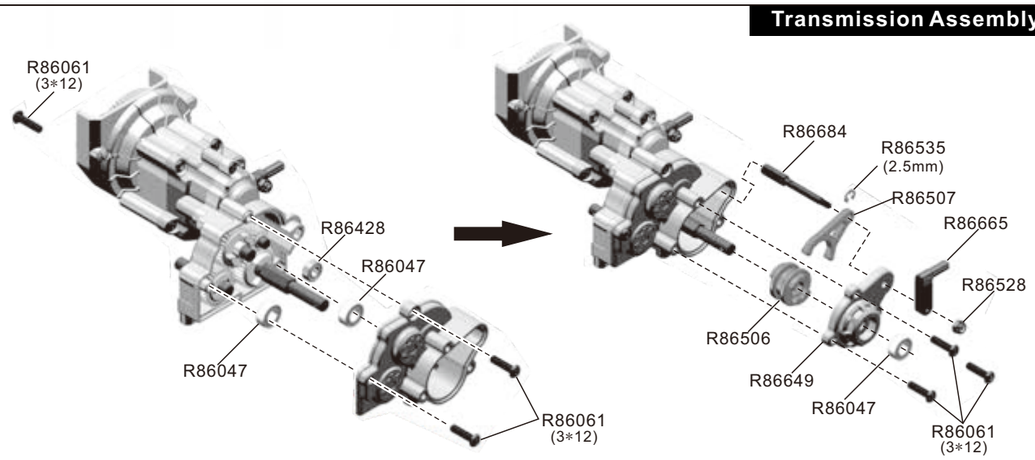
Transmission Assembly-1



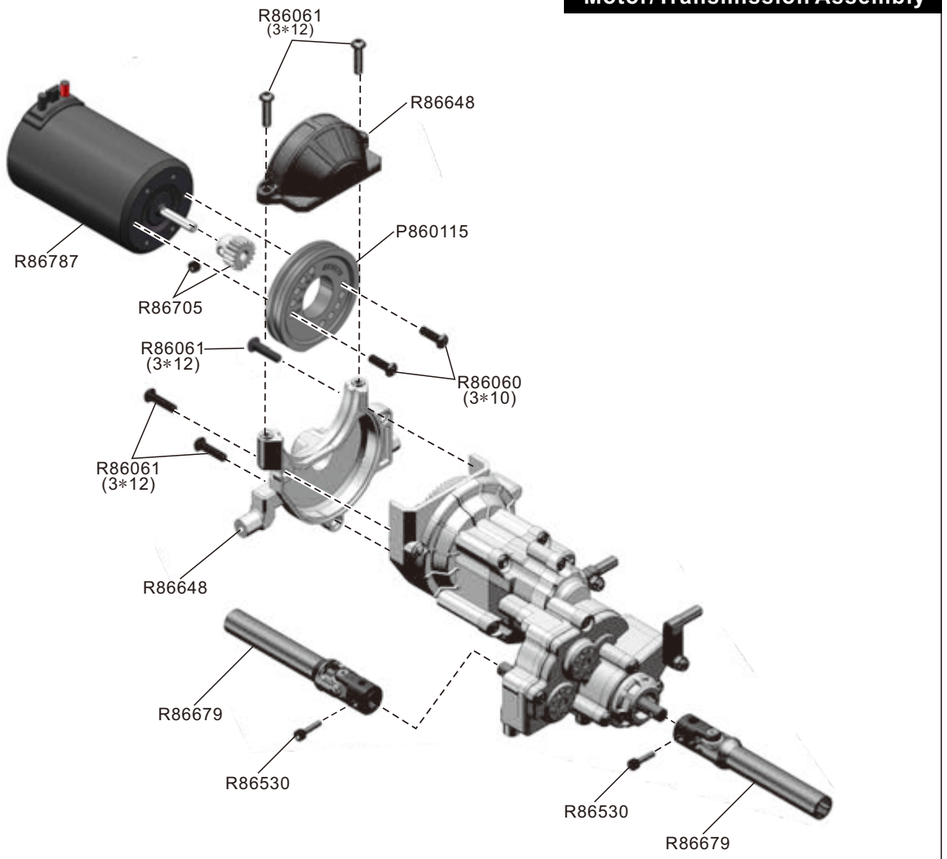
Transmission Assembly-2



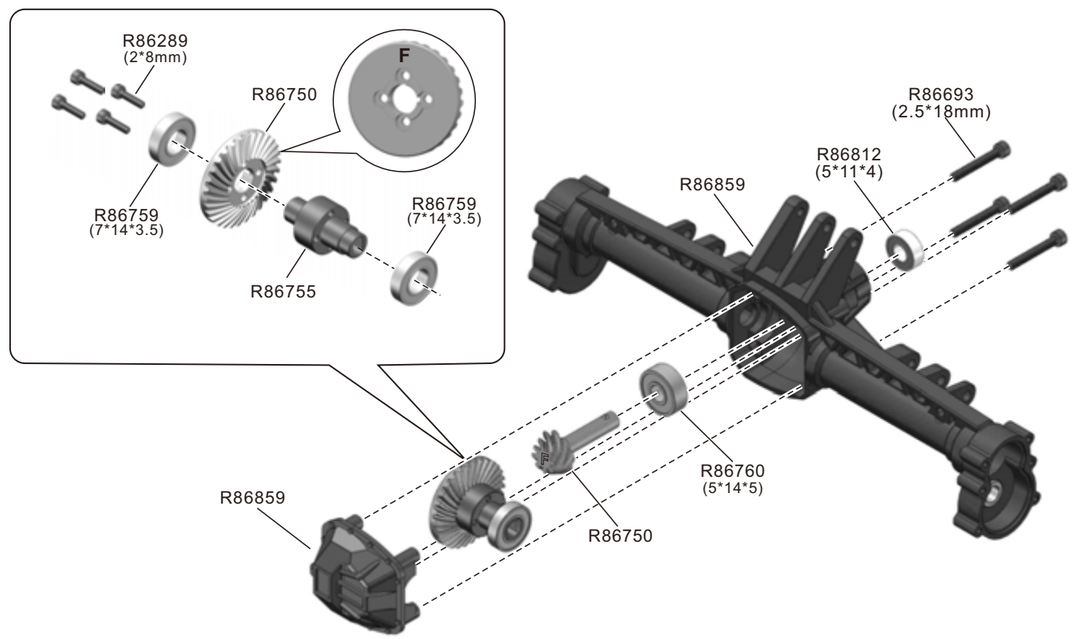
Transmission Assembly-3



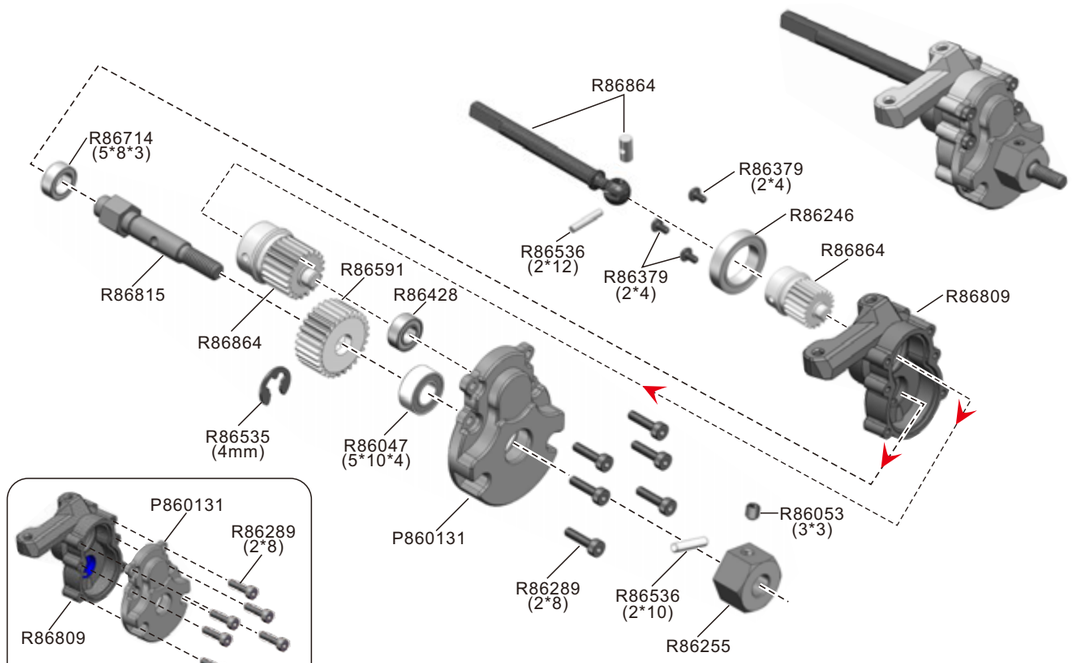
Motor/Transmission Assembly



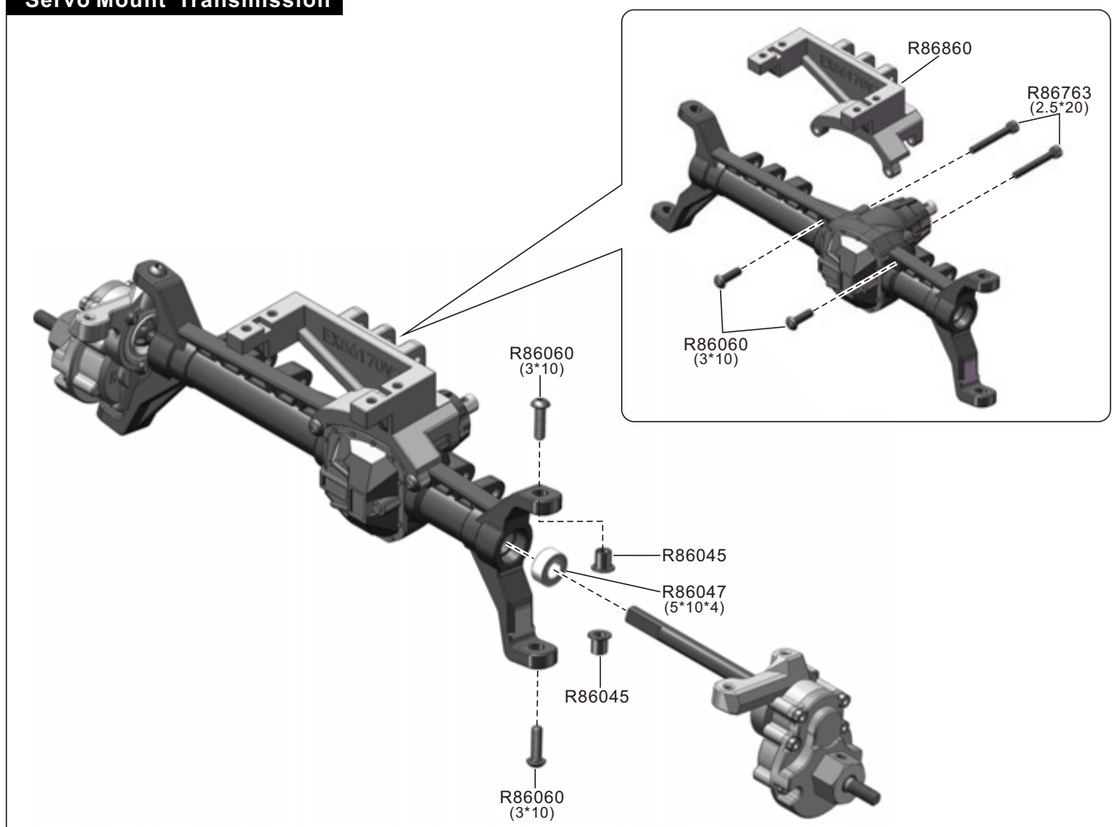
Front Axle Assembly



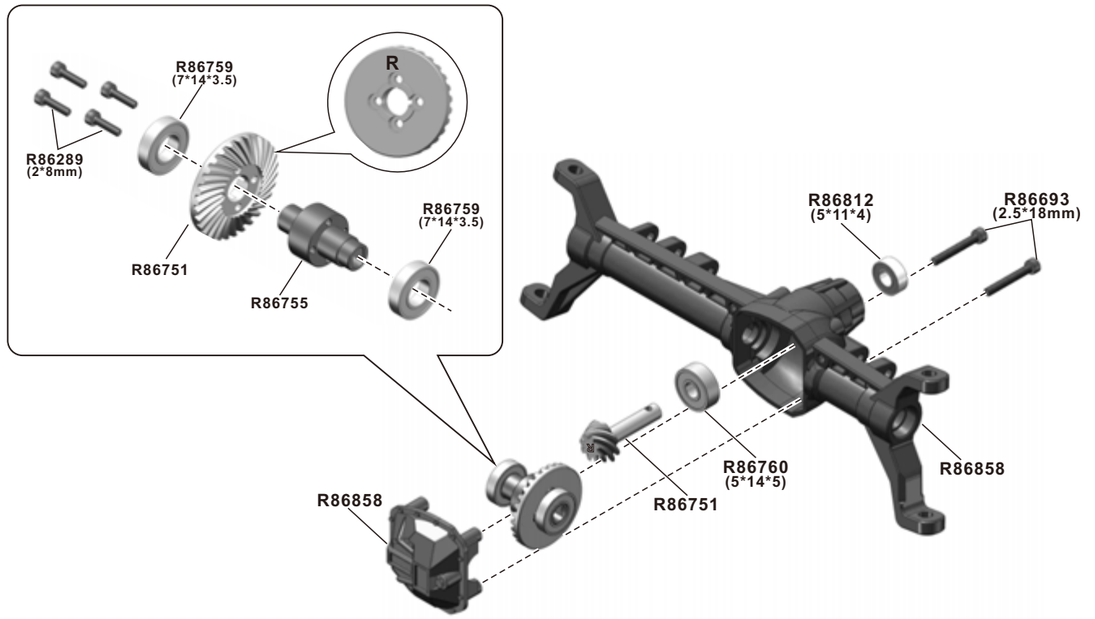
Front Gear Transmission (Left)



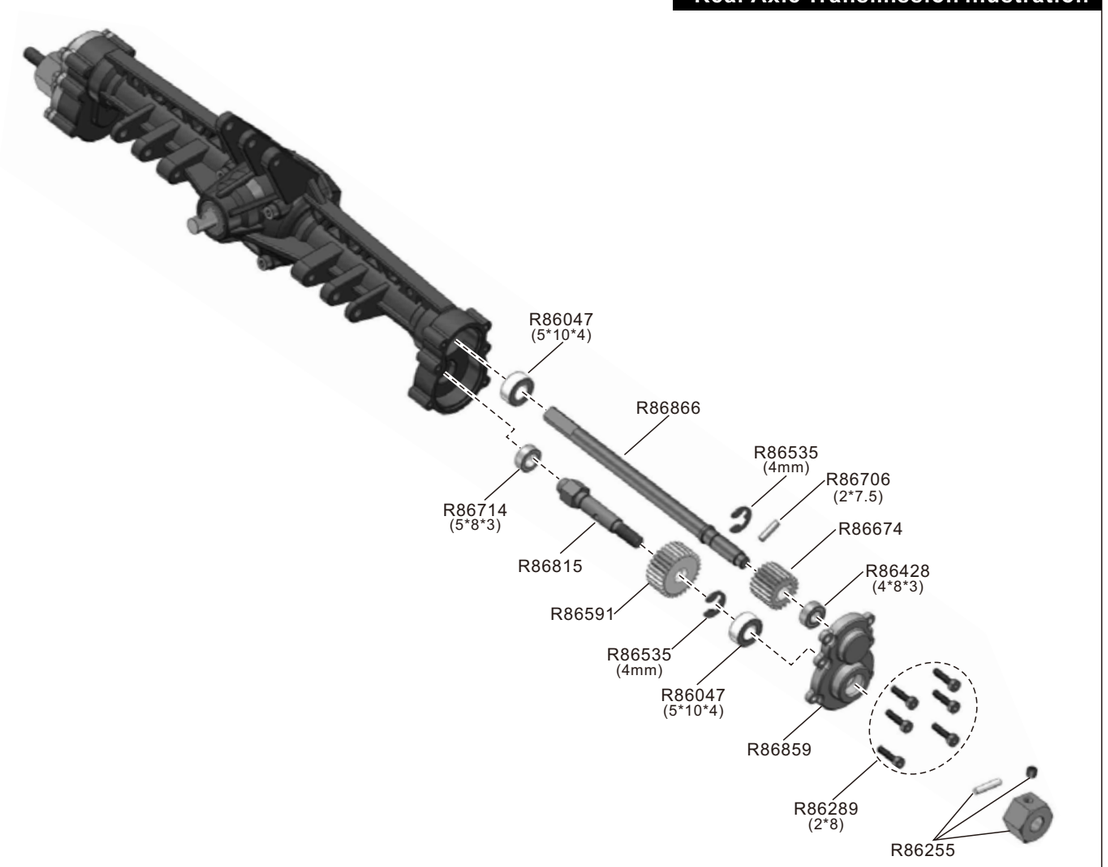
Servo Mount Transmission



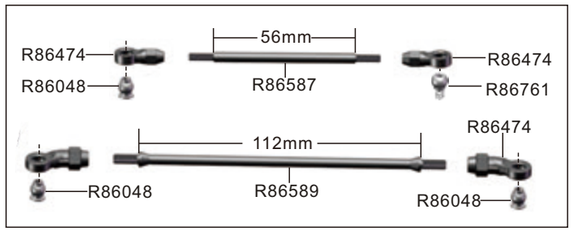
Rear Axle Assembly

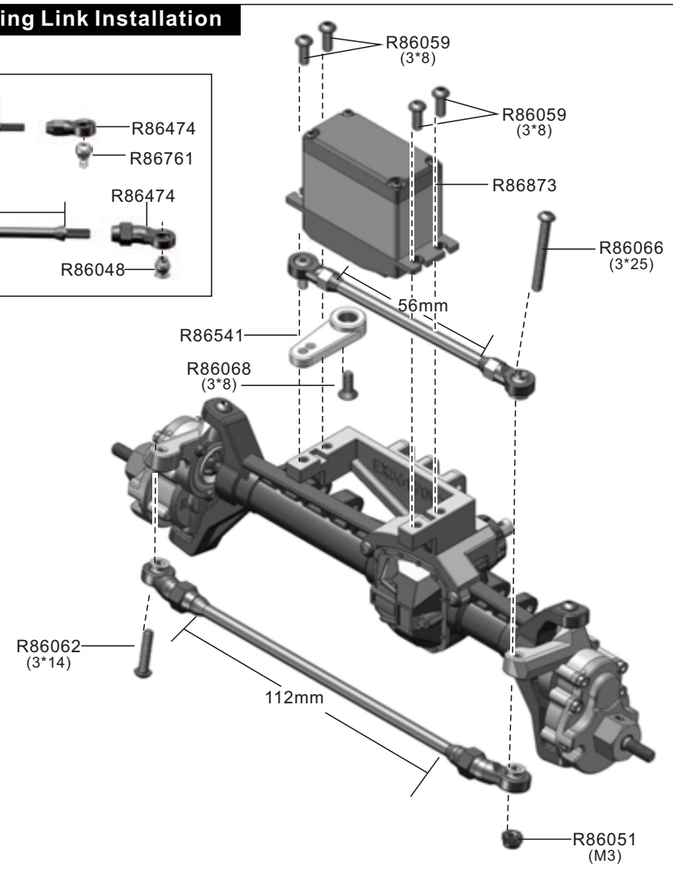


Rear Axle Transmission illustration

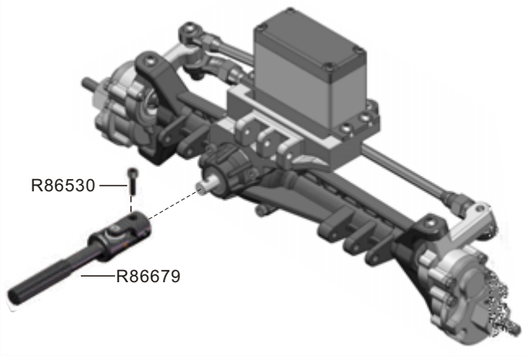


Steering Servo/Servo link/Steering Link Installation



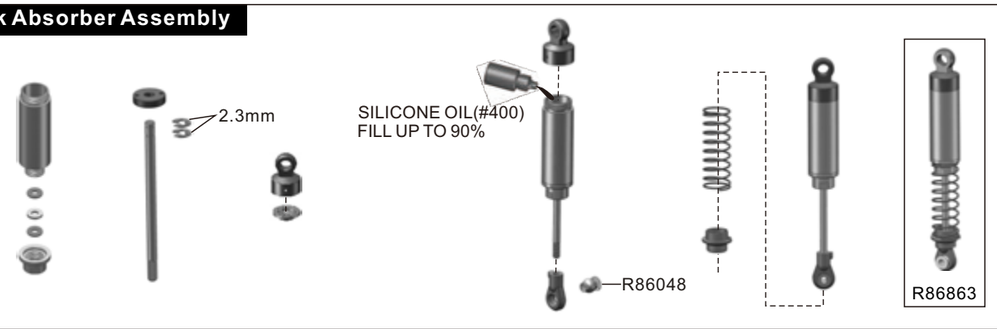


Front Drive Tube Installation

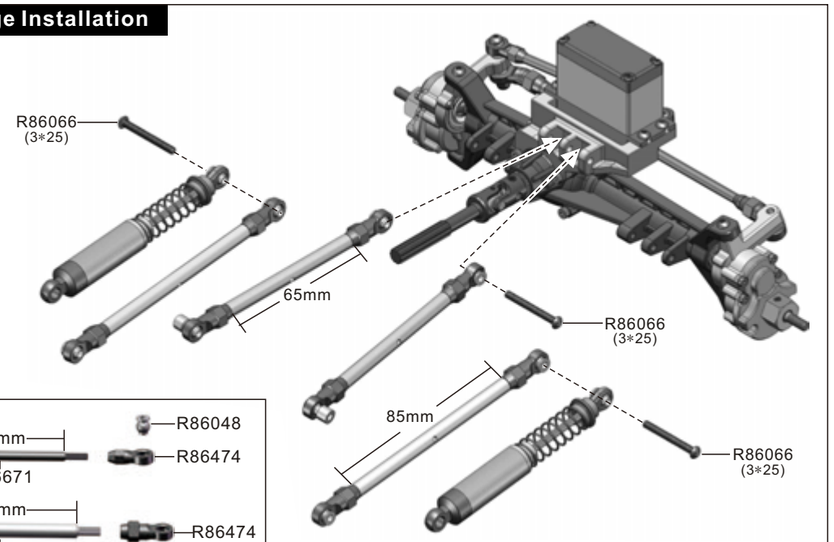


Rear Drive Tube Installation

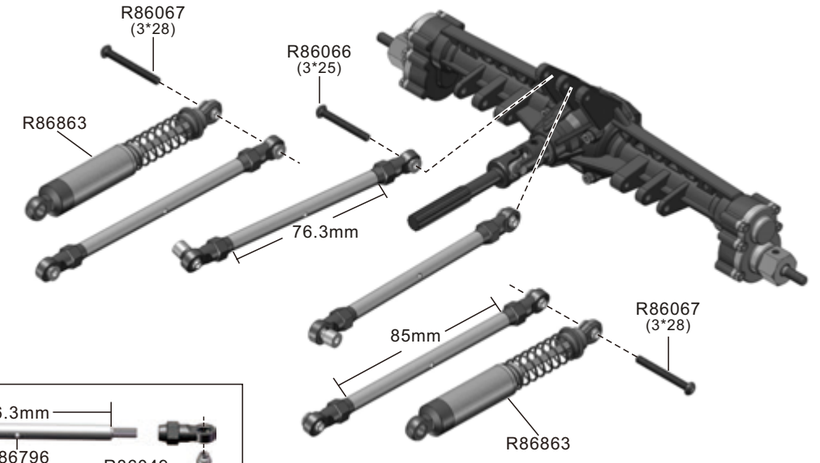
Shock Absorber Assembly



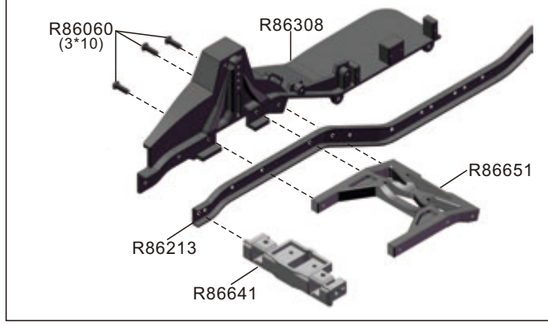
Front Suspension Linkage Installation



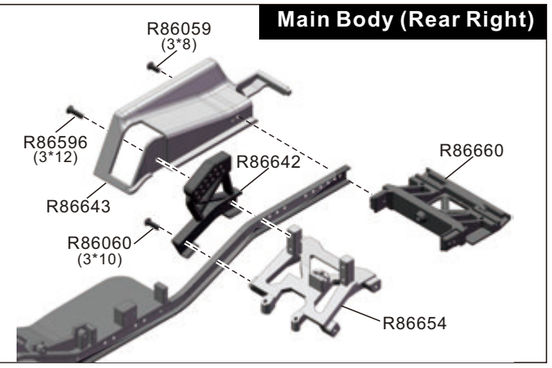
Rear Suspension Linkage Installation

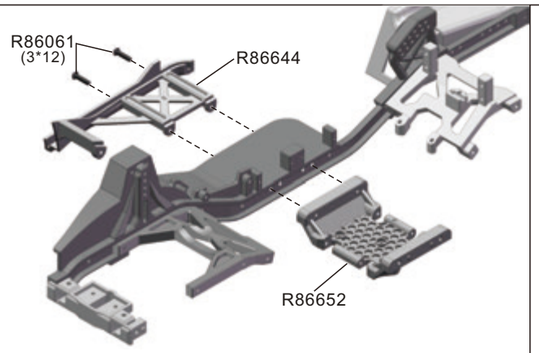


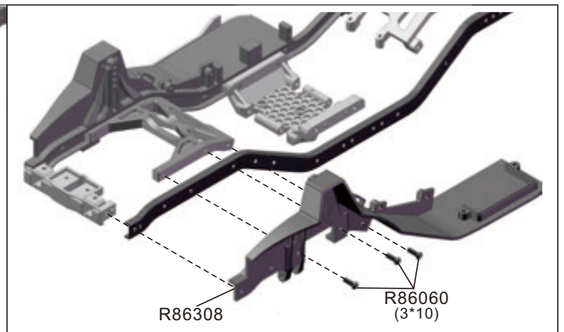
Main Body (Front Right)



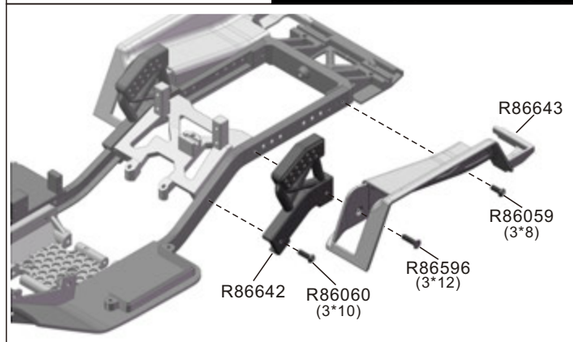
Main Body (Rear Right)

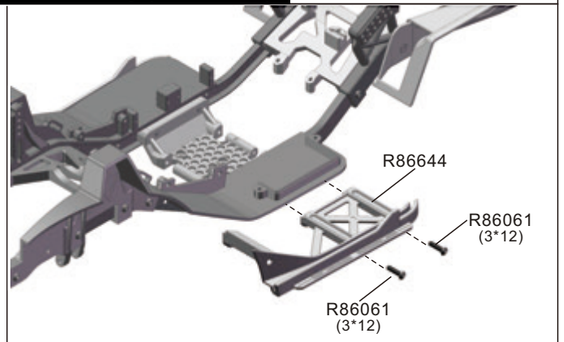






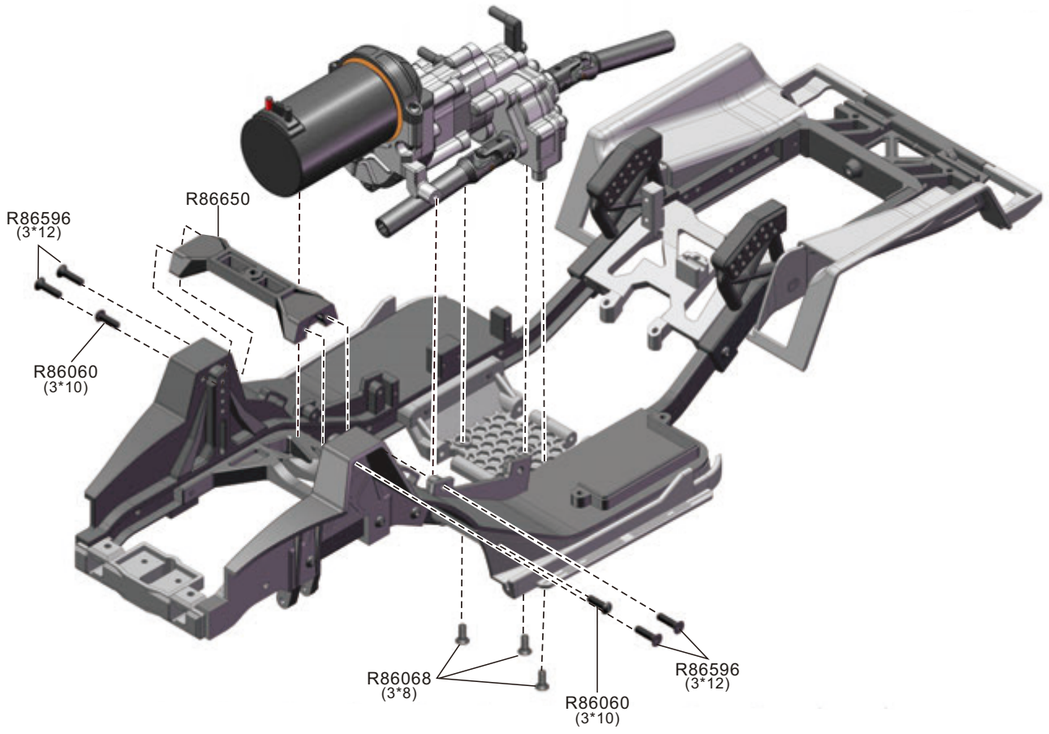
Main Body (Center Right) **Main Body (Front Left)**



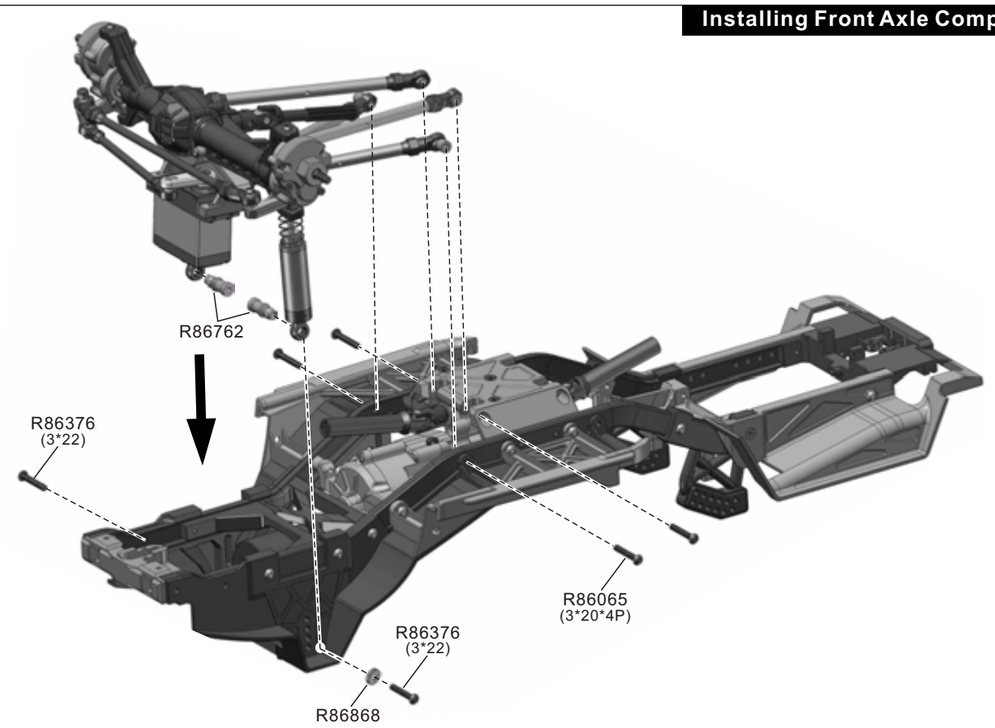


Main Body (Rear Left) **Main Body (Center Left)**

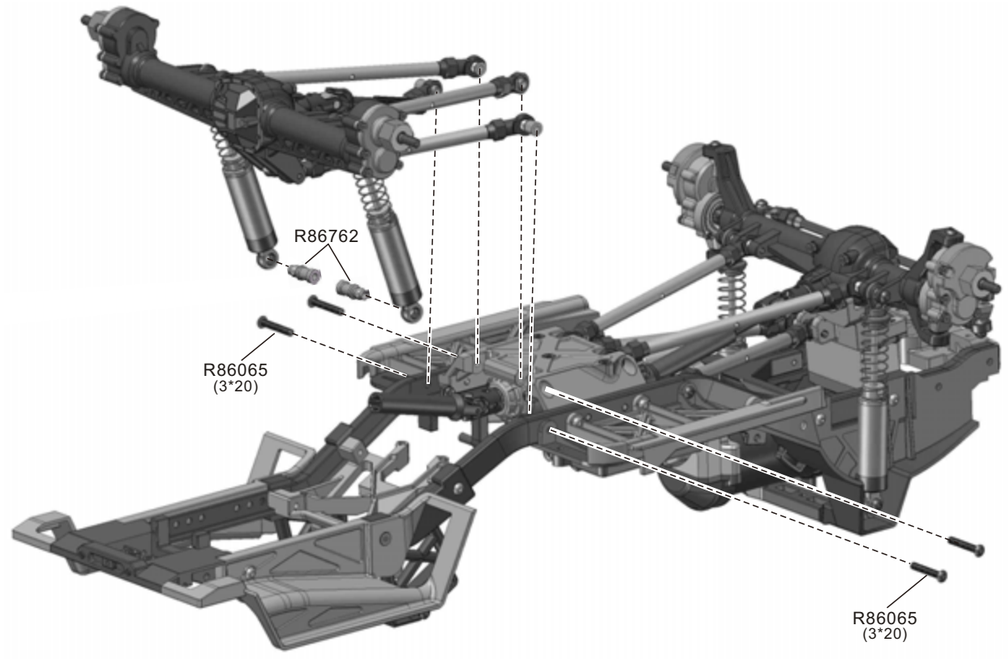
Mounting Center Gear Box Installation



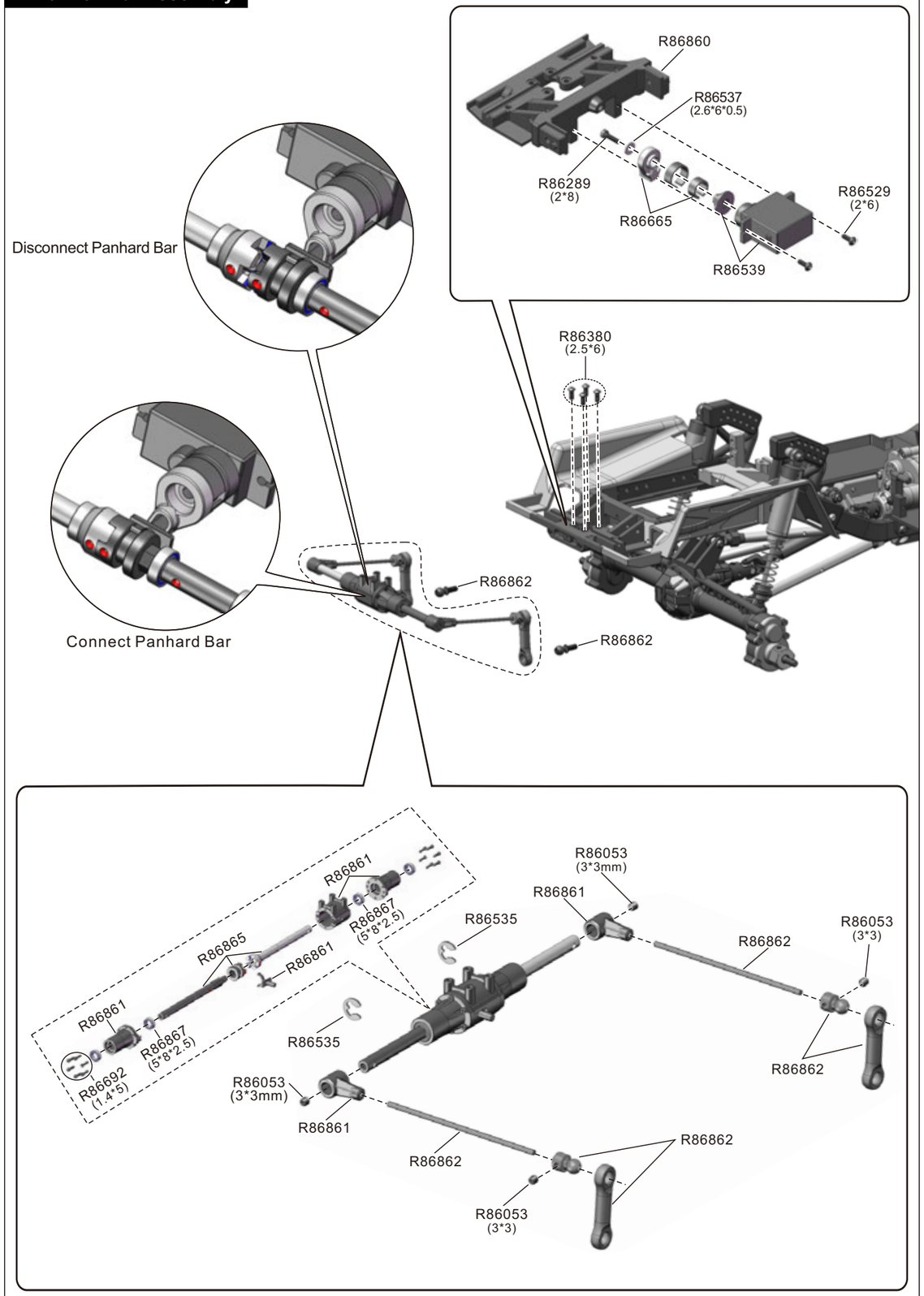
Installing Front Axle Complete



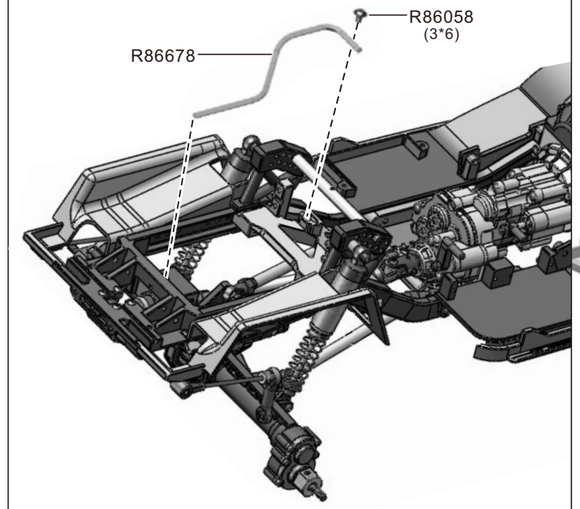
Installing Reer Axle Complete



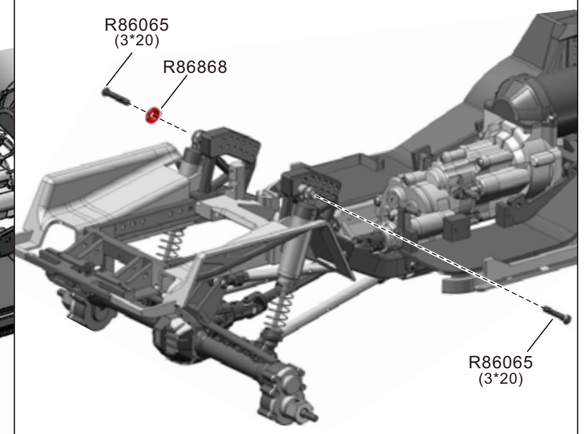
Anti-Roll Bar Assembly



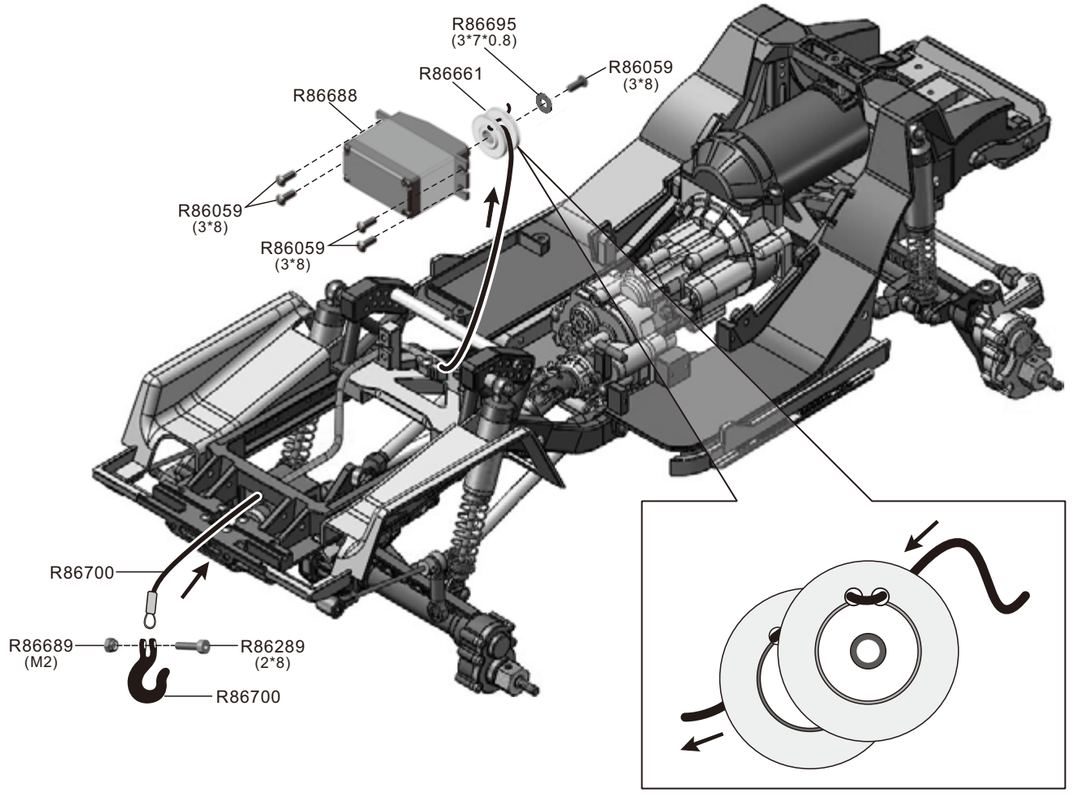
Winch Tube Installation



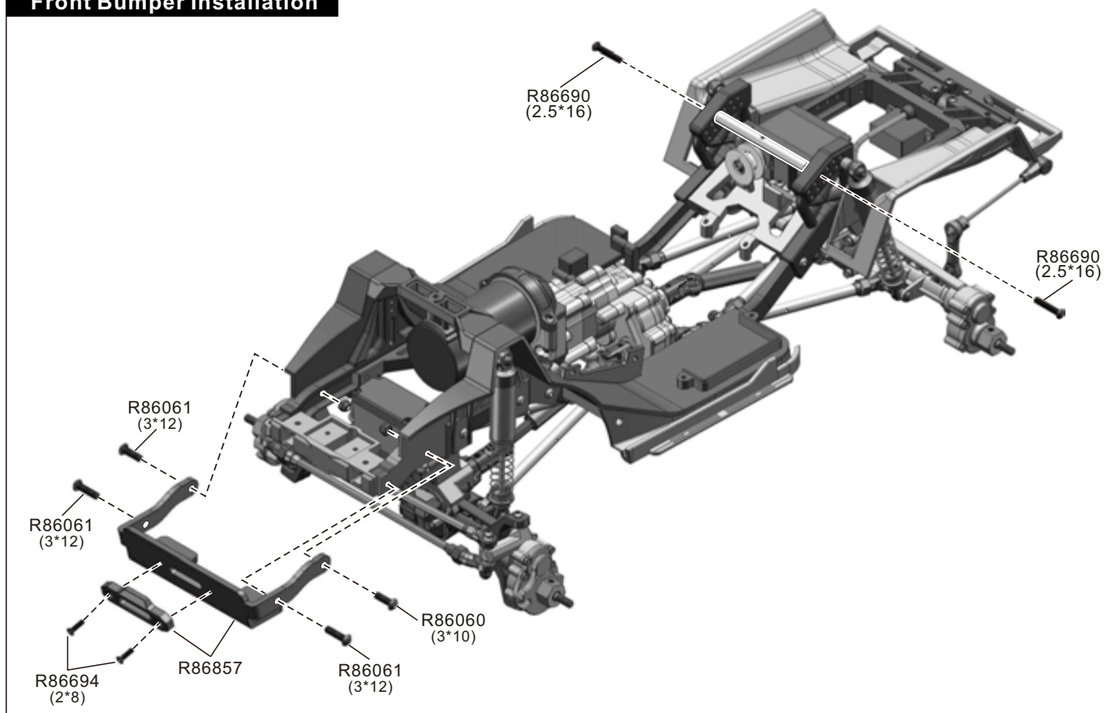
Rear Shock Absorber Installation



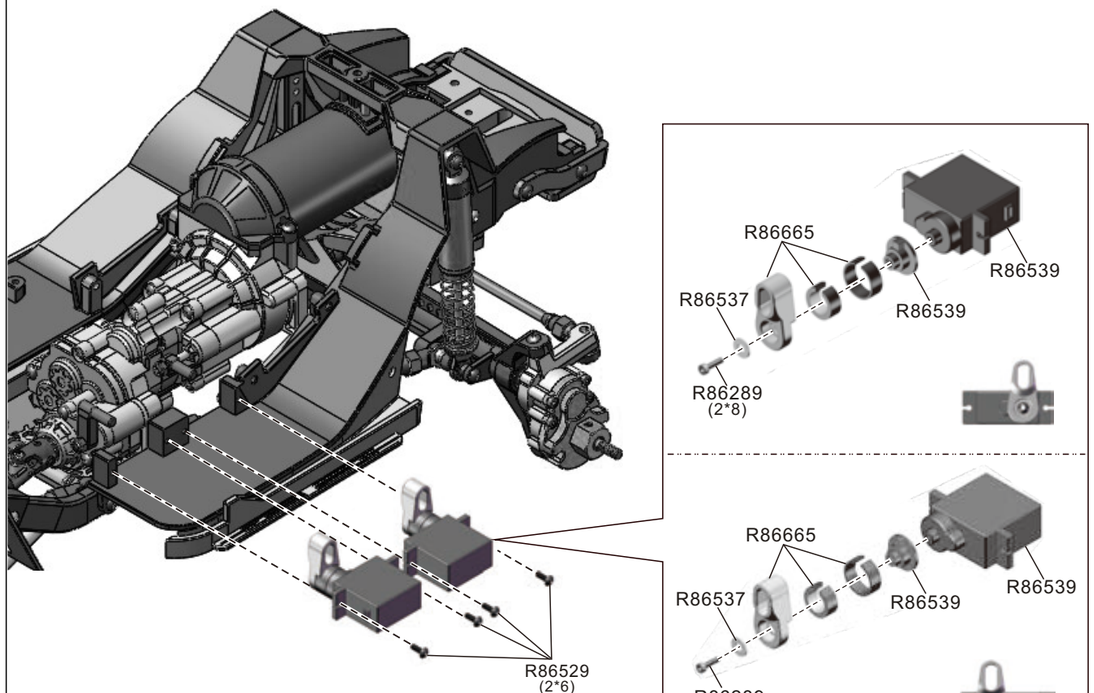
Winch Servo Installation



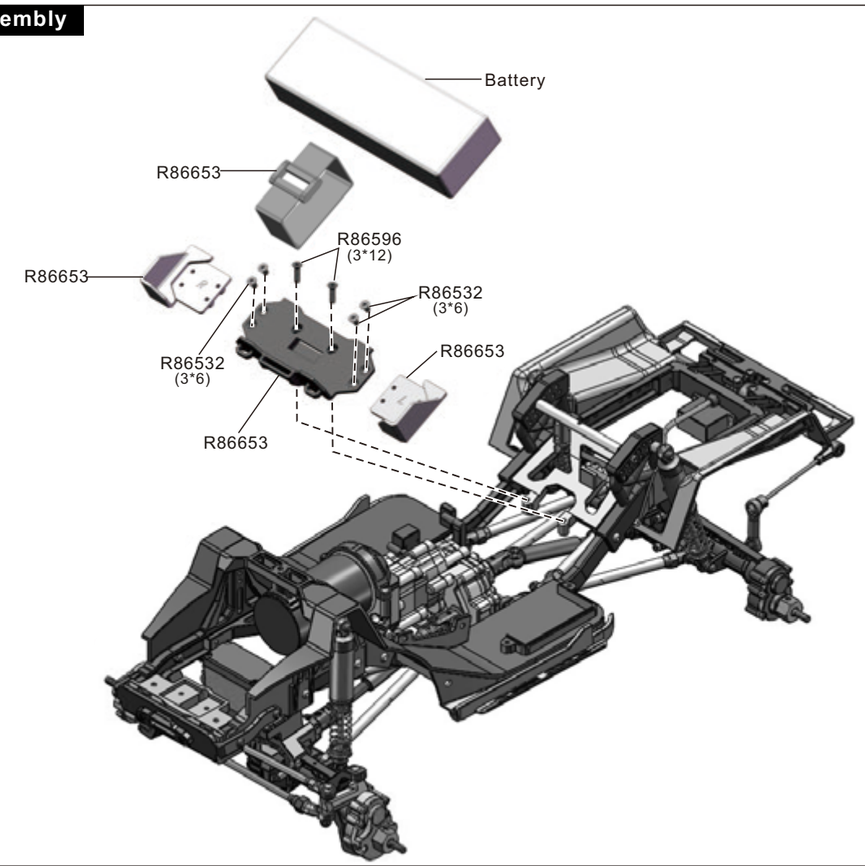
Front Bumper Installation



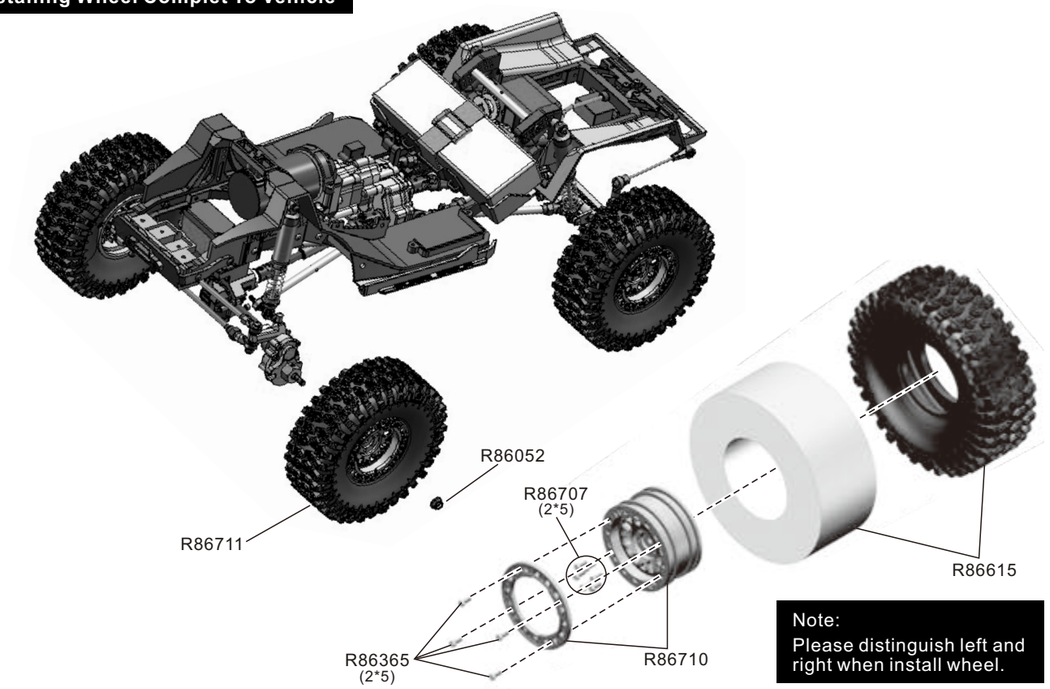
Speed Servo Assembly



Battery Assembly

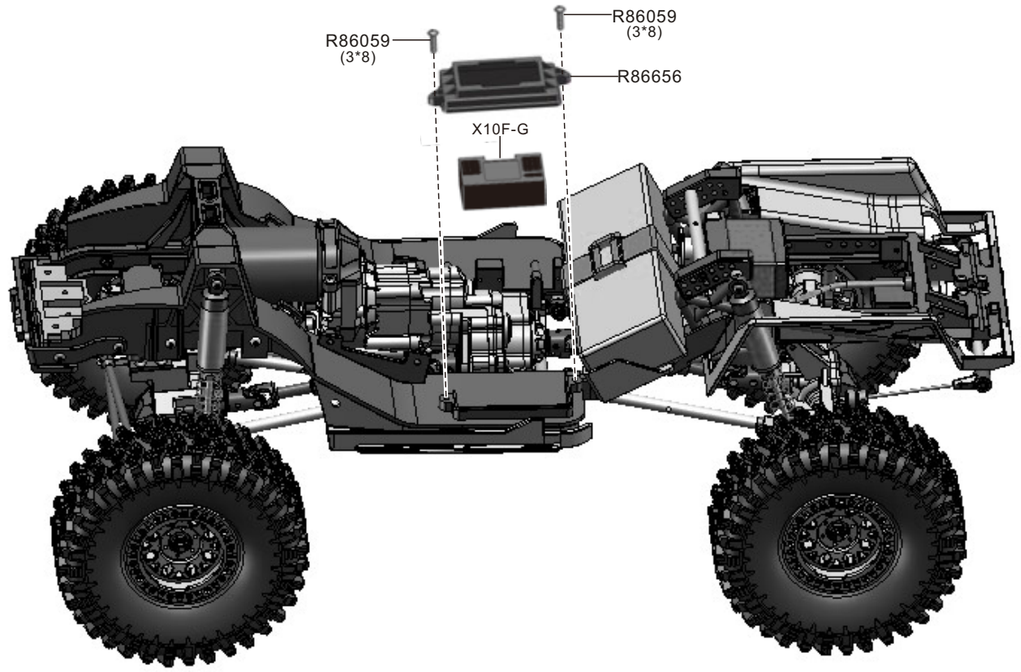


Installing Wheel Complet To Vehicle

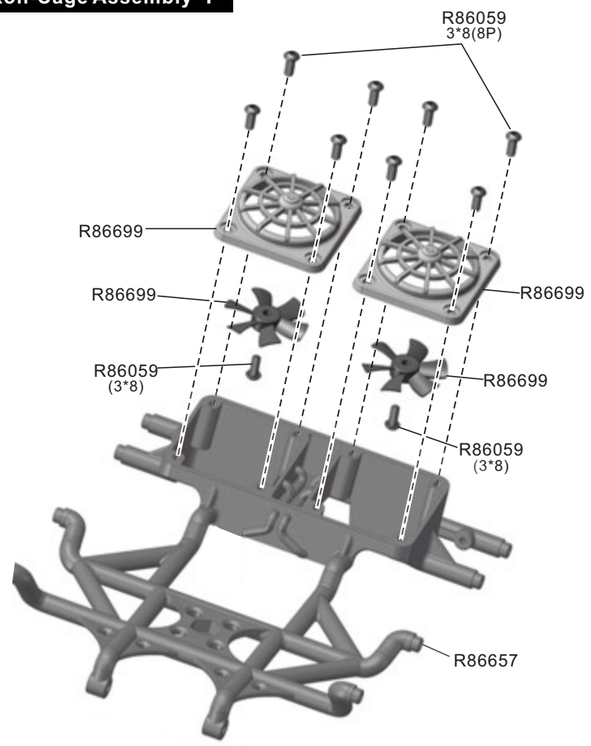


Note:
Please distinguish left and right when install wheel.

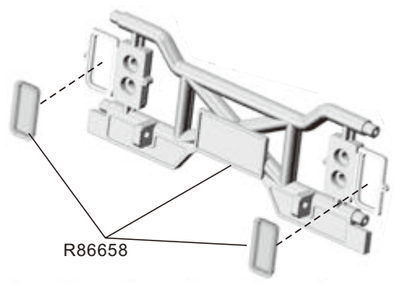
Installing Receiver



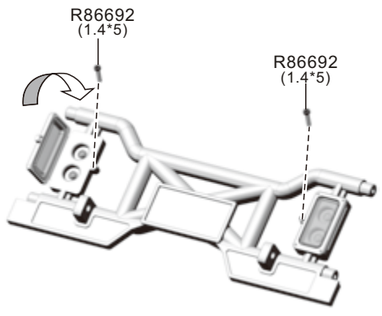
Roll-Cage Assembly-1



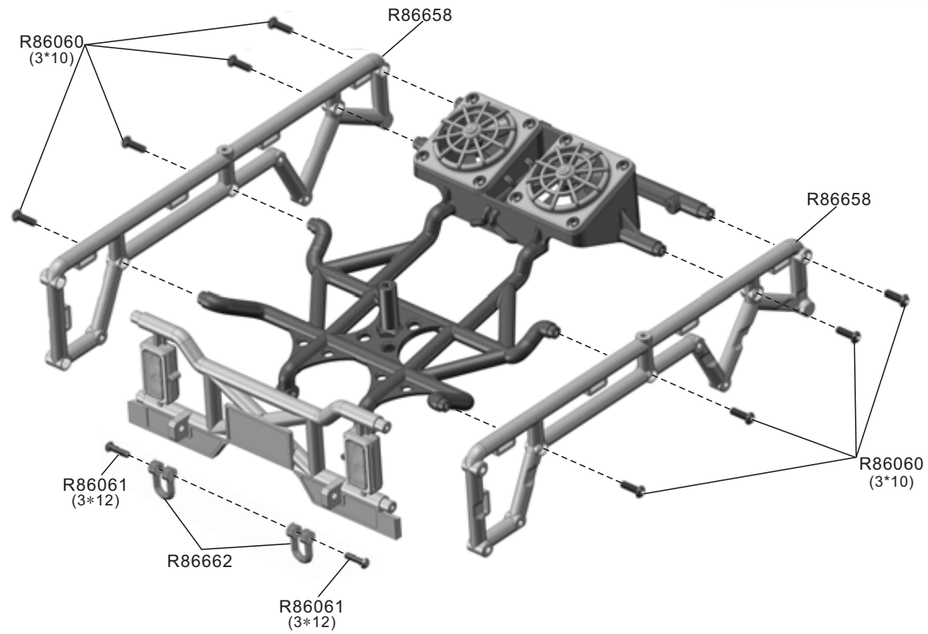
Roll-Cage Assembly-2



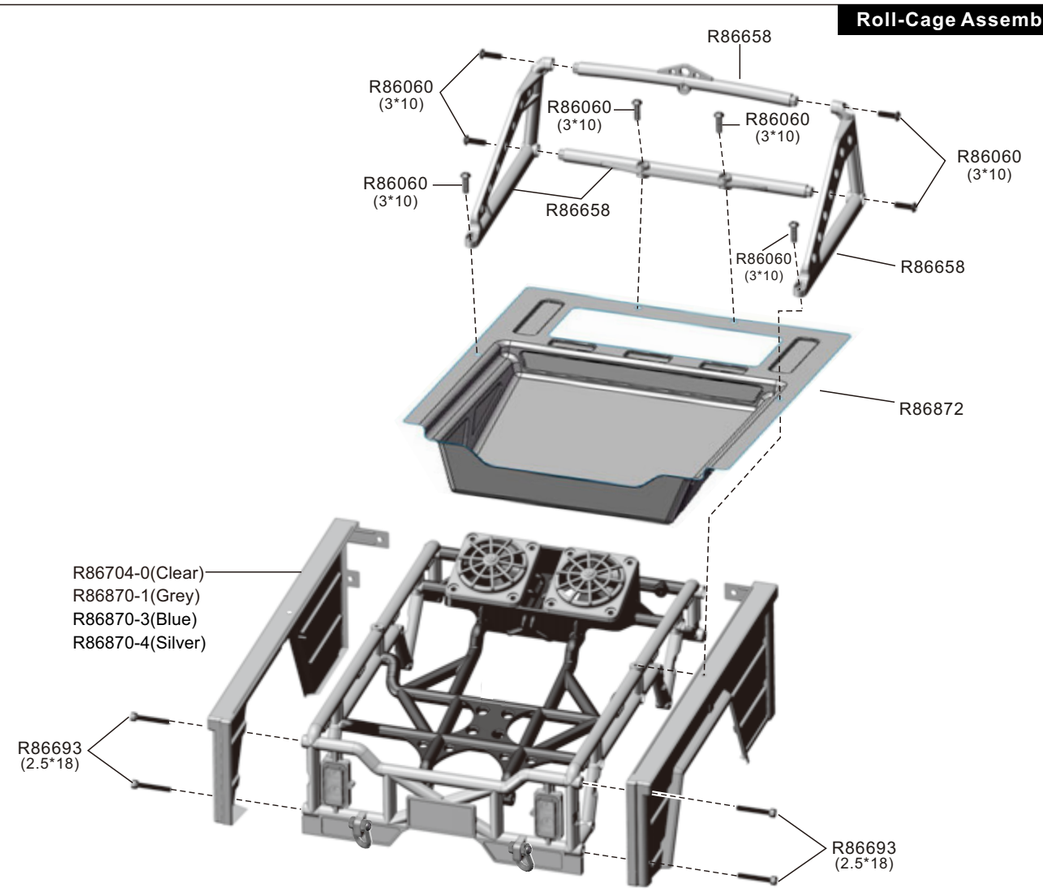
Roll-Cage Assembly-3



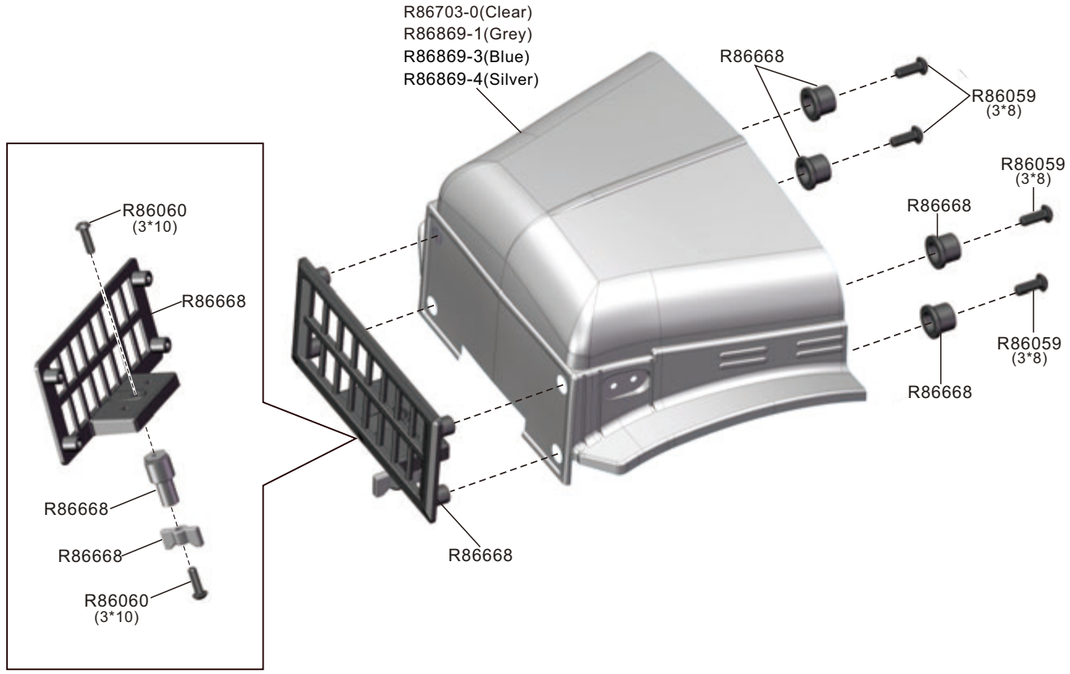
Roll-Cage Assembly-4



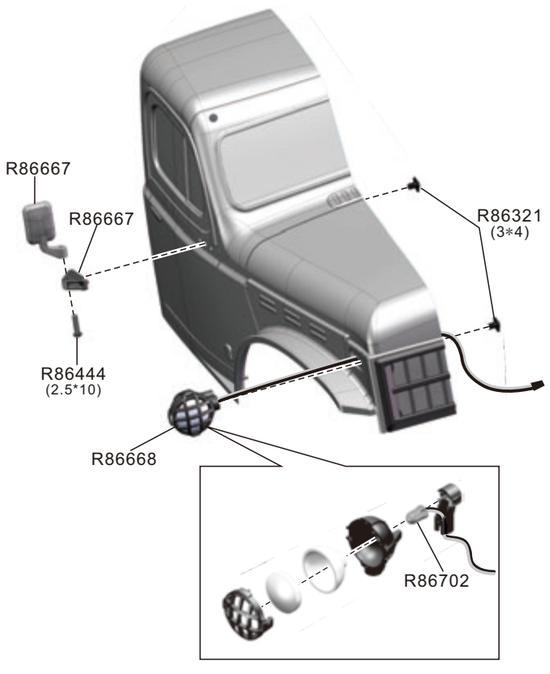
Roll-Cage Assembly-5



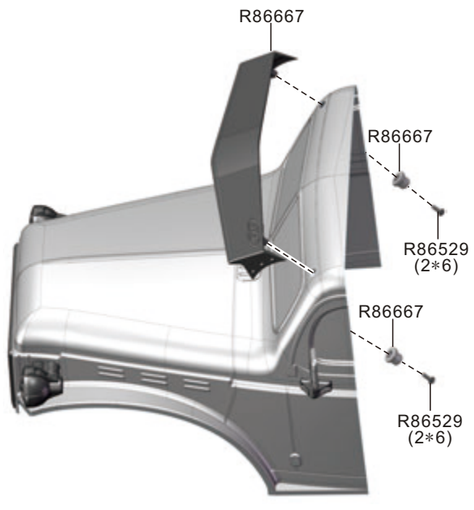
Body Assembly-1



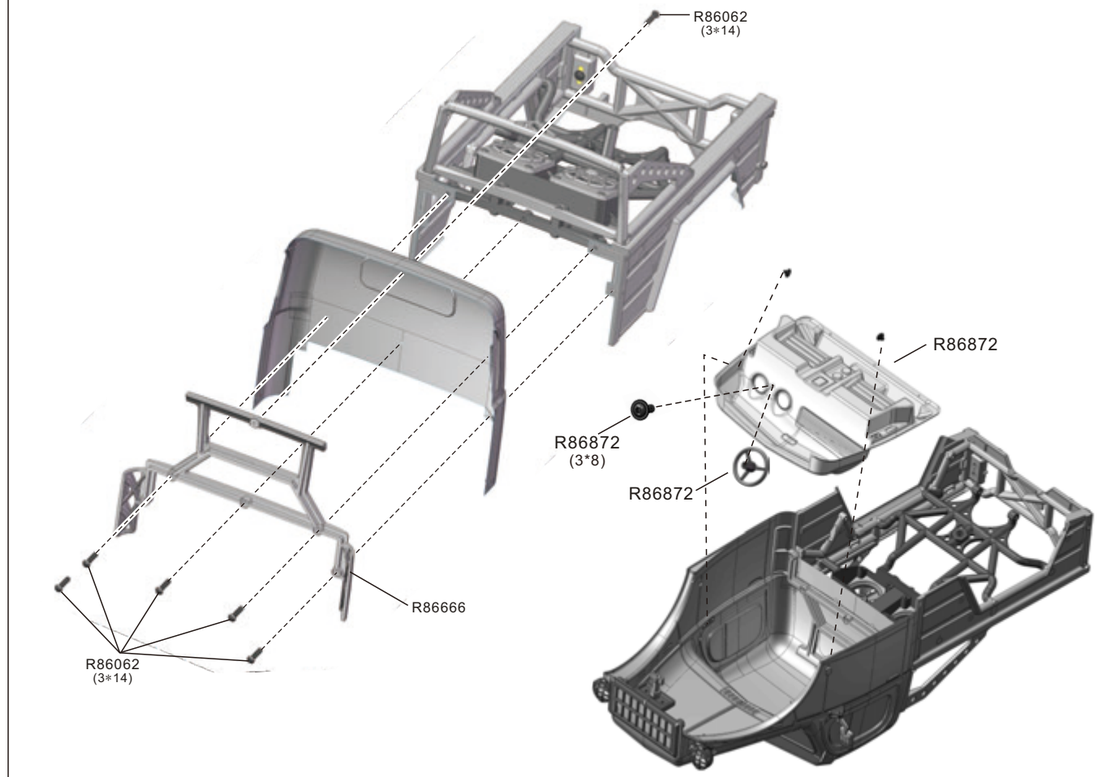
Body Assembly-2



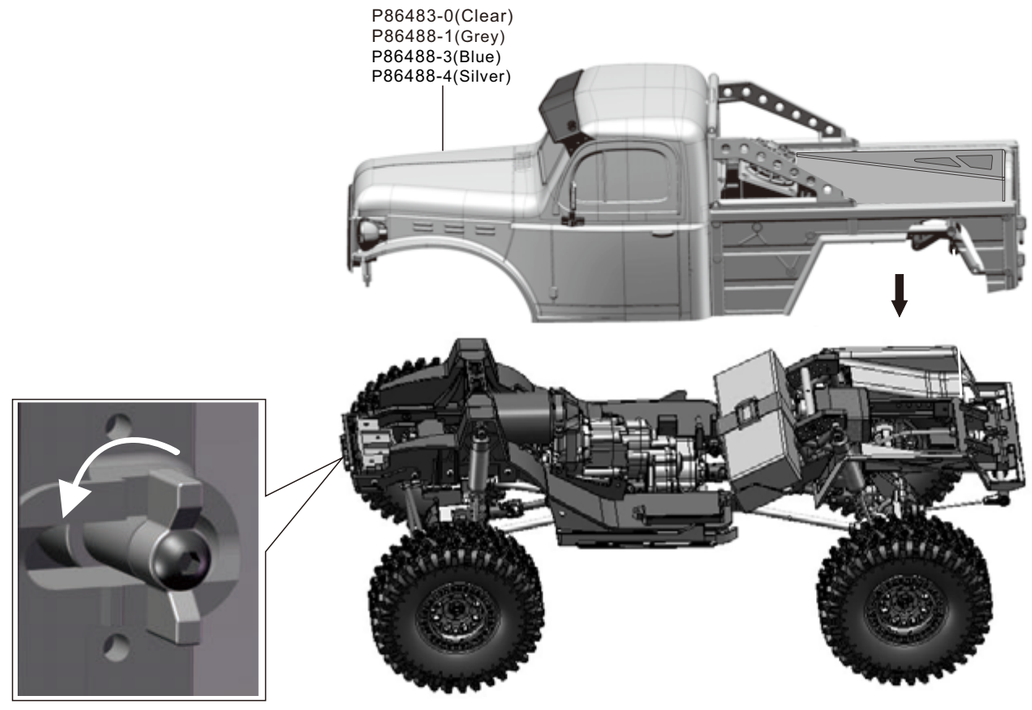
Body Assembly-3



Body Assembly-4



Body Assembly-5



Spare Part

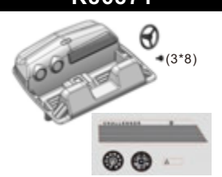
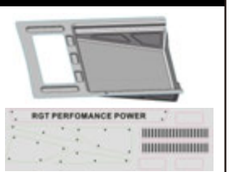
R86857	R86641	R86642	R86643	R86644
				
Front Bumper	Bumper Mount	Rear Shock Tower L/R	Rear Wheel Dust Guard L/R	Pedal L/R

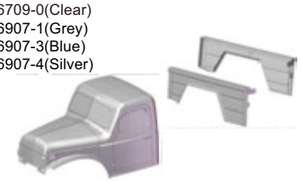
R86809	R86648	R86649	R86858	R86859
				
Steering Mount L/R Steering Mount Case	transmission case A+E+F	transmission case B+D+H	Front Axle Box	Rear Axle Box

R86308	R86650	R86651	R86652	R86653
				
Baffle L/R	Upper Holder	Connect Plate	Gearbox Plate	Battery Case Battery Plate L/R

R86654	R86656	R86860	R86662	R86861
				
Battery Mount	Receiver Mount	Servo Mount Rear Upper Link Mount	Winch Hook	Panhard bar parts: servo horn +cover A/B+shell+ link Rod+ clutch

R86862	R86863	R86474	R86665
			
Panhard Bar Set	Shock Absorbers	Link Ends	Dig Servo Parts

R86710	R86615	R86711	R86871	R86872
				
Wheel Rim(Matte Silver)	Tire W/Foam	Wheel Complete L/R	Cockpit+Sticker	Bodyshell Rear Bed+Sticker

Front-PC body+Sticker	Rear-side PC body L/R+Sticker	PC Body	Pre-Assembled PC Body
R86703-0(Clear) R86869-1(Grey) R86869-3(Blue) R86869-4(Silver)	R86704-0(Clear) R86870-1(Grey) R86870-3(Blue) R86870-4(Silver)	R86709-0(Clear) R86907-1(Grey) R86907-3(Blue) R86907-4(Silver)	P86483-0(Clear) P86488-1(Grey) P86488-3(Blue) P86488-4(Silver)
			

Spare Part

R86666	R86667	R86658	R86657
			
Body Reinforced plate	Window Eaves Rear-view Mirror	Roll-Cage B+C/E(L/R)+ F+D+L/R	Roll-Cage A +Spare Tyre post

R86668	R86699	R86213	R86671
			
Roof Rack Lamp cover lamp cup	Fan Fin +Fan Case	Chassis Rails	Link 65mm

R86796	R86672	R86587	R86589	R86749
Link76.3mm	Link 85mm	Servo link 56mm	Steering Link 112mm	Crown Gear (64T)

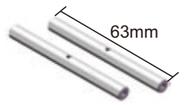
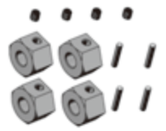
R86750	R86751	R86501	R86504	R86505
Spiral Bevel Gear 8T+30T(F)	Spiral Bevel Gear 8T+30T(R)	Transmission Gear(9T)	Transmission Gear(17T)	Transmission Gear(13T)

R86591	R86674	R86675	R86676	R86677
Transmission Gear(28T)	Gear(20T)	Gear(15T)	Gear(30T)	Gear(32T)

R86705	R86506	R86507	R86187	R86514
Pinion Gear(21T)	Transmission Slider	Gear Stick	Sping	Slipper Spacer/Plate

R86678	R86864	R86865	R86679	R86680
Winch Tube	CVA Drive shaft	Panhard Bar shifter gear +shift shaft	Drive Axle	Gear Shaft

Spare Part

R86755	R86866	R86681	R86682	R86683
				
Straight Shaft Holder	Rear Shaft	Transmission Axle	Torque limit shaft	Transmission Block Axle
R86684	**R86685**	**R86686**	**R86687**	**R86815**
				
Dig Block Axle	Dig Axle	Distributor Axle	Rear Shock Tower Bar	Wheel Hub
R86255	**R86045**	**R86428**	**R86867**	**R86714**
				
Wheel Hex. W/Pins(2*10)	King Pin Bushing	Ball Bearing Ø4*Ø8*3	Ball Bearing Ø5*Ø8*2. 5	Ball Bearing Ø5*Ø8*3
R86047	**R86812**	**R86760**	**R86759**	**R86246**
				
Ball Bearing Ø5*Ø10*4	Ball Bearingφ5*φ11*4	Ball Bearingφ5*φ14*5	Ball Bearingφ7*φ14*3.5	Ball Bearing Ø12*Ø18*4
R86048	**R86049**	**R86761**	**R86762**	**R86689**
				
Ball Stand Ø5.9mm(Short)	Ball Stand Ø5.9mm (Long)	Ball Standφ5.8mm	Shock Balls	Nylon Nut M2
R86528	**R86051**	**R86052**	**R86379**	**R86380**
				
Nylon Nut M2.5	Nylon Nut M3	Flange M4 Lock Nut	Button Head 2*4mm	Button Head 2. 5*6mm
R86444	**R86690**	**R86058**	**R86059**	**R86060**
				
Button Head 2. 5*10mm	Button Head 2. 5*16mm	Button Head 3*6mm	Button Head 3*8mm	Button Head 3*10mm

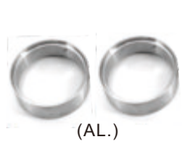
Spare Part

R86061	R86062	R86065	R86376	R86066
				
Button Head 3*12mm	Button Head 3*14mm	Button Head 3*20mm	Button Head 3*22mm	Button Head 3*25mm
R86067	**R86529**	**R86694**	**R86532**	**R86068**
Button Head 3*28mm	Button Head Self-tapping 2*6mm	Flat Head 2*8mm	Flat Head 3*6mm	Flat Head 3*8mm
R86596	**R86692**	**R86365**	**R86707**	**R86289**
Flat Head 3*12mm	Cap Head 1.4*5mm	Cap Head 2*5mm(Silver)	Cap Head 2*5mm(Black)	Cap Head 2*8mm
R86693	**R86763**	**R86530**	**R86321**	**R86053**
Cap Head 2.5*18mm	Cap Head 2.5*20mm	Step Screws 4*11.5mm	Flange Head Screws3*4	Crub Screw Bolt 3*3mm
R86054	**R86537**	**R86695**	**R86868**	**R86696**
Crub Screw Bolt 4*4mm	Metal Washer Ø2.6*Ø6*0.5	Metal Washer(3*7*0.8)	M3 Taper Gasket	Gasket(5.1*6.5*3)
R86535	**R86536**	**R86706**	**R86661**	**R86700**
E-Clips-φ2.5mm*6P E-Clips-φ4mm*6P	Pin -2*10mm*6P Pin -2*11mm*6P Pin -2*12mm*6P	Pin -2*10mm*6P Pin -2*7. 5mm*6P Pin -2*12mm*6P	Winch Spool	Alloy Wire Clip Steel Wire+Wire Hook
R86539	**R86688**	**R86873**	**R86541**	**XA8-150**
Dig Servo 9G /7.4V	Winch Servo 25KG(360°)	Steering Servo 35KG	Servo Horn(25T)	Radio/Rexeiver

Spare Part

R86787	R86702	R86701		
 Fusion Brushless System (1800KV)	 Light set	 Pipe		

Optionals Part

R86571	R86770	P860065	P860066	P860067
 Crawler Battery (7.4V6200mAh/Plug:T)	 9g/7.4v servo with metal gear	 Wheel (AL.)	 Wheel (AL.)	 (AL.) Aloy Wheel Weigh Set 132g
P860115	**P860119**	**P860096**	**P860131**	**R86466**
 Motor Mount(AL.)	 Gearbox Plate(AL.)	COPPER  Copper Distributionc Housing Weight Set 146g	COPPER  Steering Mount Case Housing Weight Set 30g	 Tire W/Foam
R86659				
 Wheel Complete L/R				

PRODUCT QUALIFICATION CERTIFICATION

Remote control models are specialized and high-value products. If you identify any quality defects upon receipt, please do not use the product and contact the seller immediately to arrange a replacement or return. Please note that we cannot provide any after-sales guarantee for damages which are caused by improper use.

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