Please completely read and understand the entire manual before using, assembling and/or disassembling your remote controlled car.

## 1/8TH SCALE ELECTRIC POWERED 2WD DUNE BUGGY

## INSTRUCTION MANUAL READY TO RUN

# TWO WHEEL DRIVE DUNE BUGGY



#### Technical Data:

LENGTH	WIDTH	HEIGHT	WHEELBASE	WHEEL DIA.	WHEELSPAN	GEAR RATIO
490MM	310MM	158MM	345MM	106MM	42MM(F) 52MM(R)	1:11.17

This data is subject to change without prior notice.

#### Features:

- Two Wheel Drive System
- Full Aluminum Oil Filled Shocks
- Heavy-duty 6KGs Steering Servo
- Factory-Assembled with Factory-Printed Body
- 2.4GHz Radio System
- Aluminum Framework Configuration

- Ball Bearings Throughout Whole Dune Buggy
- Adjustable Camber, Front And Rear
- Adjustable Bump Steer, Shock Mounting Positions And Droop
- Adjustable Differentials With The Use Of Differntial Grease
- High-Grip, All-Terrain Tires Mounted On Spoke Type Wheels

 $This \ product \ is \ not \ a \ toy. \ It \ is \ not \ intended \ for \ persons \ under \ 14 \ years \ of \ age, \ unless \ closely \ supervised \ by \ an \ adult.$ 

This manual is subject to change without notice.

All pictures, descriptions, and specifications found in this instruction manual are subject to change without notice. We maintain no responsibility for inadvertent errors in this manual.

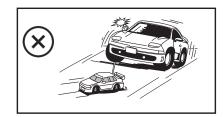
#### **GENERAL INFORMATION**

- This user's manual contains the instructions you will need to assemble, operate and maintain your vehicle. We know you are anxious to start driving, but it is very important that you take time to read the manual even if you are an experienced R/C driver.
- Carefully read and follow all instructions in the manual. Failure to follow the instructions will be considered abuse and/or neglect and may void the warranty.
- Your vehicle is designed to run on uneven or rough terrain. However, dust, sand, water and carpet fibers can lodge in any moving parts and can damage your vehicle if not removed promptly. Your warranty does not cover damage due to outside elements including sand, dirt, water or any other debris. You are responsible for the maintenance and safe operation of this vehicle.
- This product is not a toy. It is not suitable for users under 14 years old unless supervised by an adult.
- Never attempt to re-assemble any electronic components. These have been carefully calibrated at the factory.
- Only use factory manufactured parts to upgrade your car. If you perform a drive train upgrade, replace the entire system (Such as motor, ESC/receiver unit and the like) so that all components are properly matched. Any malfunction incurred by custom modification will void your warranty.
- Before driving your vehicle, please read this manual completely and examine your vehicle for any defects. Test your remote control to make sure it functions properly and at the range you plan to run your vehicle.
- For best performance, some adjustments may be necessary.
- This vehicle requires one battery pack, which is included with the car. The radio controller requires three AA size batteries (not included). Make sure the vehicle's batteries have a sufficient charge before driving or possible loss of control may result.
- Always remove batteries from the vehicle and the radio controller when not in use.
- Please operate your vehicle in an open area free of obstacles. Never operate your vehicle in crowded street.
- This product is fully assembled at factory. factory is not responsible for damage and/or accidents that occur as the result of custom modifications and/or incorrect operation.

#### **SAFETY INFORMATION**

We want you to enjoy your R/C vehicle and to operate it with care. Failure to operate your vehicle in a safe and responsible manner may result in injury to yourself and others and may cause damage to property.

- Read and understand all instructions carefully before use and assembly/disassembly.
- Do not run your vehicle on public roads or any area where
   you may encounter pedestrian or vehicle traffic.
- Do not operate in a congested area or in crowds.
- Do not operate your vehicle with obstructed line of sight,
   at night, or near water.
- Your vehicle is radio controlled. Radio waves are subject to interference. Radio interference can cause loss of control of your vehicle.
- Take care not to injure yourself while using tools to adjust or upgrade your vehicle.
- Since the model contains many small parts, keep out of reach of children while assembling and/or disassembling.
- When turning off your model, always turn off the receiver first,
   before turning off the remote control.
- Always remove the batteries from your vehicle and the remote control when not in use.
- If your vehicle becomes stuck, release the throttle, then retrieve it by hand.
- Do not continue to apply the throttle or you may damage the motor and/or the ESC/receiver unit.
- Turn off your vehicle and discontinue use if it runs erratically. Do not run it again until the issue has been found and resolved.









#### FAMILIARIZING YOURSELF WITH YOUR 2.4GHz RADIO SYSTEM

Your car is equipped with the new 2.4GHz radio system. Please read and understand all instructions below before operating.



A: Steering Wheel1: Steering Trim4: Power Switch7: Throttle ReverseB: Trigger2: Steering Reverse5: Steering Dual Rate8: Green IndicatorC: Battery Case3: Red Indicator6: Throttle Trim9: Bind(Pair) button

**Steering Wheel:** Proportionally operates the models right and left steering control.

Battery Case: Requires 3pcs of AA size batteries.

Power Switch: Used to turn the radio controller ON/OFF

**Steering Dual Rate Dial:** Allows you to change the amount of steering servo travel compared to the amount of physical movement of the steering wheel.

Throttle /Steering Trims: Used to adjust the center trim of the throttle/steering channel.

**Steering Reverse:** Allows you to electronically switch the direction of steering servo travel.

For example, if you move the steering wheel to the right and the steering servo moves to the left, flip the Steering Reverse Switch to make the steering servo move to the left.

**Throttle Reverse:** Allows you to electronically switch the direction that the motor operates in relation to the throttle trigger. For example, if you pull the throttle trigger to accelerate forward, but the model goes in reverse,

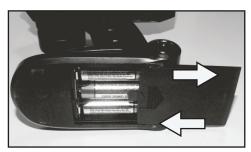
flip the Throttle Reverse Switch to make the model accelerate forward.

**Trigger:** Controls the speed and braking ability of your car. Pull it to accelerate, release it to decelerate, and push it to brake. Pushing it a second time activates the reverse feature.

**Indicators:** Shows battery power level. Green indicator flashing means battery power is low. If both red and green indicators are flashing then the radio controller battery is too low to control the model and you must replace with fresh batteries immediately.

**Bind(Pair) button:** It is used to bind your 2.4GHz radio system.

#### **BATTERY INSTALLATION**



- 1) Slide the battery cover as shown and install 3pcs of AA size batteries, positioning the polarity as indicated.
- 2) Replace the battery cover after batteries are installed.

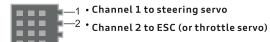
#### NOTES:

- -Use batteries of same type.
- -Remove batteries from the case if not in use.
- -Always check the battery power.
- -Dispose of exhausted batteries properly.

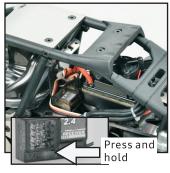
#### TO BIND THE RECEIVER TO THE RADIO CONTROLLER

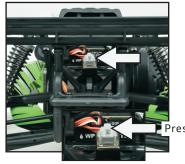
Before running, make sure that the radio controller is bound with the receiver. This has been done at the factory, but if the model is not responding to the controller, it is possible that the controller and receiver are not bound, and you must perform the binding procedure following the instructions below.

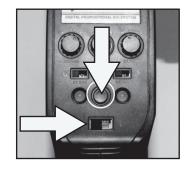




Press the BIND button a second time to activate FAIL SAFE feature by the time the binding process is completed.







 Press and hold the Bind Button on the receiver as shown in the picture, while turning on the power switch on the car. (The power switch is located on the rear as shown in the picture.)



3) The green indicator should flash, meaning that the binding process is being performed.

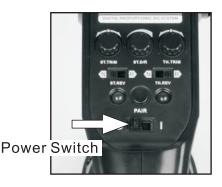
2) Hold the Bind(Pair) key and switch on the power on the radio controller. You must hold the Bind(Pair) within 5 seconds of turning on the receiver on the car.



4) Once both red and green indicator are lit and not flashing, then your receiver is bound to your radio controller. The binding process is complete.

#### **RUNNING YOUR CAR**

1) TURN ON THE RADIO CONTROLLER 2) TURN ON THE RECEIVER ON YOUR CAR





#### NOTES:

- --Before using your car, make sure the radio controller has sufficient battery power. If the battery power is too low it can lead to the loss of control of your car.
- --Always turn on the remote controller FIRST, and then the receiver.

#### 3 CHECK STEERING PERFORMANCE

• Ensure good steering performance.



1) To keep the car running in a straight line, do not move the control wheel. (Keep it centered)

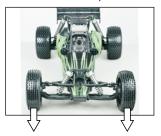


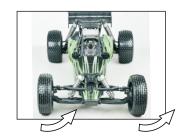
**TURN LEFT** 

2) Turn the control wheel left to allow your vehicle to turn left.

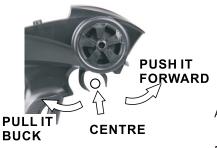


3) Turn the control wheel right to allow your vehicle to turn right.





#### 4) CHECK TRIGGER RESPONSE



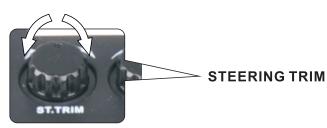






- A. Pull the trigger back to accelerate, release it to decelerate and push it forward to brake.
- B. To stop accelerating your car, release the trigger to Neutral.
- C. Pushing the trigger forward a second time activates the reverse feature.

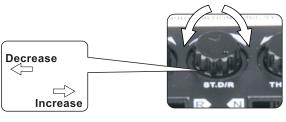
#### 5 TO TUNE THE STEERING TRIM





Gently pull the trigger to allow your car to accelerate slowly. Meantime, tune the steering trim to align the front wheels.

#### 6 TO TUNE THE STEERING DUAL RATE CONTROL DIAL



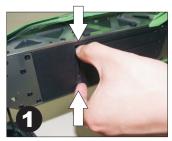




This dial adjusts the overall travel of the steering servo. Push the dial forward for maximum steering. Pull the dial back to reduce the steering level.

- Set the Steering Dual Rate Control Dial to Minimum first. To set the desired steering level increase it again whilst decelerating your vehicle.

## **BATTERY INSTALLATION**









Follow the illustrations above to install the Li-po battery pack in your car. The battery cover is located on the bottom of the chassis.

- 1) Pinch the battery cover blocks as shown to open the battery cover. (See Figure 1)
- 2) Lift the battery cover. (See Figure 2)
- 3) Connect the battery to the ESC as shown. Note: The car uses banana plugs--make sure to connect black to black and red to red.. (See figure 3)
- 4) Install the battery foam and replace the battery cover. (See Figure 4)

Note: Battery is not provided unless separately purchased.

#### **CHARGING THE BATTERY PACK**

Note: The Li-Po pocket battery charger is not provided unless separately purchased.

Input Voltage: 110-240 V AC

Output Current: 1.0 A

Indicator: 3 LED

Max. Charging Current: 1.0 A Size: 100 mm \* 60mm \* 35 mm

Weight: Approx. 180g



Charging Indicators

Slot A for 2S li-po (7.4V)

Slot A for 3S li-po

Power Supply Slot (11.1V)

 Connect the pocket balance charger to power supply by using the power supply cord provided in the package.
 The indicator lights will turn green meaning that the charger is ready.



2) Connect the battery to the corresponding slot. (If it is 3S(11.1V) battery, please connect it to 3S slot)
When the battery is initially connected, the indicator lights will turn Red meaning that charging has begin.
Once the battery is fully charged, the indicator lights will turn green again.



Note: The batteries use banana plugs--make sure to connect black to black and red to red.



## 📉 Warning

- Ensure all cords are connected firmly during charging.
- Never touch the charger with wet hands.
- Never charge battery unattended.
- Store the charger in a dry place away from direct sunlight.
- Never use it near any source of heat and water.
- Children must not handle the charger without adults' supervision.

#### STOPPING YOUR CAR

#### 1 TURN OFF THE RECEIVER ON YOUR CAR









• Always switch off the receiver , and then the radio controller.

#### 3 REMOVE BATTERIES

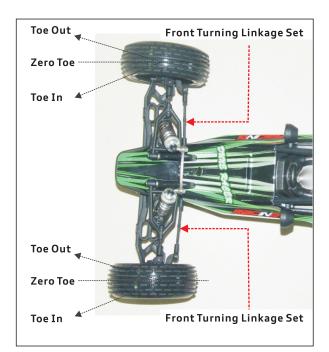
• Do not forgot to remove batteries from your car and radio controller when not in use.

#### **CHASSIS TUNING GUIDE**

Your model can be customized to enhance speed and performance. Simple adjustment and easily maintained setting will assure optimum operation and performance. When making adjustments, do so only in small increments and always check for other parts of the vehicle that are affected. Many after market options are available to make your R/C vehicle faster and stronger. Please read the section carefully and it always make sure you write down your base settings in case you need to refer to them at a later date.

#### Front Steering Toe Angles

The front steering toe angle has a dramatic on how your car performs and how your tires wear. You can have toe-in, zero toe or toe-out. This can be adjusted by turning the front turning linkage set with an adjustable wrench.



Toe-in will be less reactive and cause the vehicle to under steer(the front wheels push straight on while turning).

This can be advantageous for operators struggling to get to grips with the driving of the vehicle.

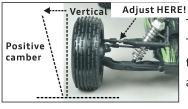
Toe-out will be more aggressive on the steering response especially on small steering inputs. This will make the car want to over steer(rear wheels slide on small steering inputs). This is useful as a race tuning aid to gain extra steering.

Zero toe will make the front wheels run straight and make the car very neutral. Tire wear will also be reduced and the vehicle will feel easier to drive.

#### Camber Adjustment

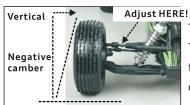
Camber can be adjusted on all 4 wheels of the car. You can have negative camber or positive camber which will affect the contact patch of the tire both statically and while cornering.

Camber is mainly used to control the wear of the tire. You should adjust the camber to equal the wear all across the surface of the tire. Camber is adjusted by the upper link turnbuckle linking the wheel to the chassis front and rear.



This is an example of positive camber.

This is when the bottom of the wheel is closer to the centre of the car compared to the top of the wheel. Positive camber will give less contact area in the corner and less grip. Excessive amounts will cause less grip and uneven wear.

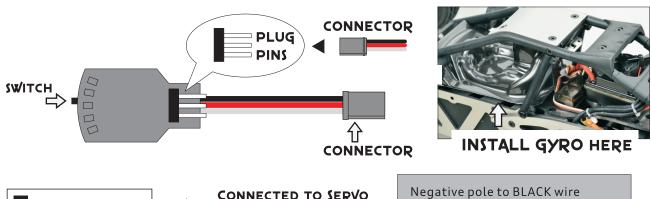


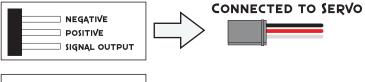
This is an example of negative camber.

This is when the top of the wheel is closer to the centre of the car compared to the bottom of the wheel. Negative camber will give more contact area in the corner and more grip. Excessive amounts will cause less grip and uneven wear.

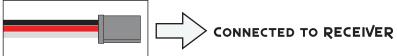
## **GYRO**

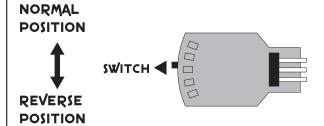
Gyro, which is an optional part, can be installed under the driver patch to your car with the help of a piece of adhesive tape. (See the pictures below.)



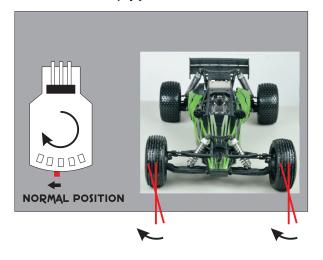


Negative pole to BLACK wire Positive pole to RED wire Signal output to WHITE wire

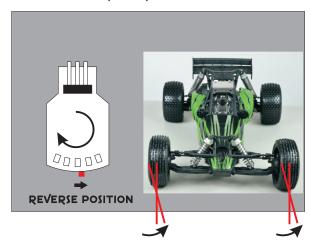




#### NORMAL POSITION



#### REVERSE POSITION



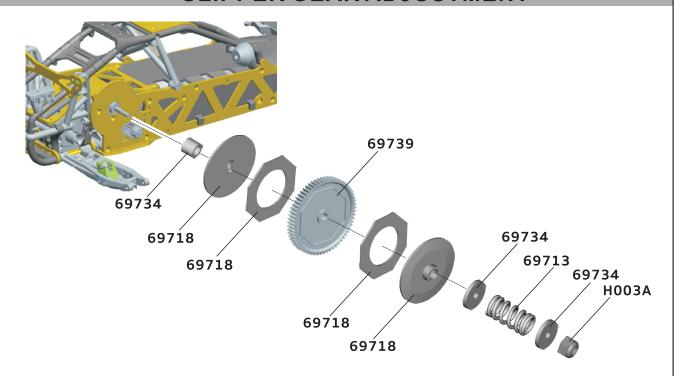
#### **MAINTAINING YOUR CAR**

After running your car, perform the following procedures regularly to maintain your car's performance.

- Inspect your car for any obvious damage.
- Check the gears for wear, debris or broken/slipping teeth.
- Check the wheels and tighten the wheel screws properly.
- Check for loose screws in the chassis.
- Check the wiring for frayed or damaged wires or connectors.
- Check the steering servo which will wear out over time and require replacement.
- Check all batteries.
- Keep the chassis clean and free of sand, dust, moisture and any other debris.
   Remove and clean the motor if necessary. (Never attempt to re-assemble the motor, you will damage it and void the warranty).
- Clean the car body with a soft lint-free cloth.
- Remove all batteries from the car when not in use.

TROUBLESHOOTING						
		1. Check to see if radio controller and car are on.				
A. The vehicle does		2. Check to see if radio controller and receiver are properly bound.				
not work at all.		3. Adjust throttle trim on the radio controller				
		4. Replace batteries.				
		1. Replace or charge the battery pack and/or the radio batteries.				
B. The vehicle runs		2. Make sure the vehicle is geared properly and the pinion and spur gear are over tightened.				
slow.		3. Clean all bushings or ball bearings.				
		4. Check for stripped or dirty gears.				
C. The throttle works,		1. Check if the servo feels jammed, try centering carefully it by hand.				
but not the steering.		2. Check all the steering linkage for any damage.				
D. It steers, but no		1. Adjust the throttle trim.				
throttle control.		2. Replace or charge the battery pack and/or the radio batteries.				
		1. Check gear mesh between spur gear and pinion.				
E. The vehicle runs		2. Check for stripped and/or dirty gears.				
noisily.		3. Clean and oil bushings or ball bearings.				

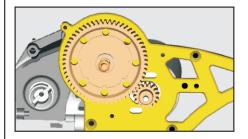
#### **SLIPPER GEAR ADJUSTMENT**



Install the spur gear and slipper clutch as shown. Tighten the lock nut with a cross wrench once installed. You will need to test the car to make sure the slipper clutch is set correctly.

A) If you find that the slipper clutch slips too much (Buggy goes slowly but the electric motor is running fast.), you will need to tighten the lock nut. For high traction surfaces and coming of jumps, you should have the slipper clutch slip a little.

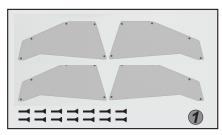
B) Never over tighten the lock nut to make the slipper clutch not to slip. If too tight you can damage the gear box. The amount of slippage can affect the performance of your buggy.



Make sure the gear mesh is set properly.

Double-check the motor pinion screw and the spur gear nut are tightened firmly.

#### **INSTALLING THE SIDE WINDSHIELDS**







- 1) Find in the pack inside the box where it contains two pieces of side windshields and 12pcs of Round Head Self Tapping Screws 2.6\*8mm (S018). See Figure 1
- 2) Install the side windshields to your cars with the screws as shown in Figure 2 and 3.

#### 69700



Chassis Side Plates(L/R), Aluminum

#### 69701



Motor/Gear Box Plates (L/R), Aluminum

69702



Front Bottom Plate, Aluminum

69704



Motor Guard Plate, Aluminum

#### 69705



Rear Bottom Plate, Aluminum

69706



Steering Top Plate, Aluminum

69707



Roof Plate, Aluminum

69708



Shock Towers+ Suspension Front Upper Mount, Aluminum

69709



Suspension Lower Mount (Front & Rear), Aluminum

69710



Front Axles

69711



Rear Axles

69533



Full Aluminum Oil Filled Shocks (Front)

69534



Full Aluminum Oil Filled Shocks (Rear)

69712



Steering Springs

69713



Slipper Springs

69714



Steering Linkage Set

69715



Servo Linkage Set

69716



Diff. Outdrives

69717



Battery Door Blocks/ Spring

69718



Slipper Gear Plates& Fibre Pads

NOTES: THE IMAGES OF THE PARTS MAY VARY FROM YOUR ACTUALLY RECEIVED PARTS.

#### 69719



Steering Posts

#### 69720



**Battery Door Pins** 

69721



Rear Drive Shafts 3.8\*90.5mm

69722



Steering Mount 

69545



Steering Knuckle Bushinges  $\Phi$  6\*6.7mm

69723



3.2\*10\*0.2mm Diff. Pins+Washers+ **O-Rings** 

69724A



Suspension Arm Hinge Pins ∮3\*45mm +E-Clip (2mm) 4P

69538



Hinge Pins  $\phi$  3\*30.9mm+ +E-Clip (2mm) 4P

3318-T012



Diff. Pinions

69547



Ball Stud. **4.8\*6.8** 

69727

69724B



Suspension Arm Hinge Pins  $\Phi$  3\*52.2mm+ +E-Clip (2mm) 8P

69724C



Suspension Arm Hinge Pins ♦3\*56.5mm

69726





Roll Cage

Car Bottom

69728



Gear Cover+Skid Plate Set

69729



Battery Door+ Battery Door Tabs+Servo Cover Set

69508



Suspension Arms (Lower Front)

69510



Steering Knuckles / Rear Hub Carriers

69511



Front Hub Carriers

69730



Suspension Arms (Lower Rear)





Gear Case+Shock Tower Brace+Shock Retainers

69732



Braces

69733



Ott Road Wing +Wing Mount

69734



Steering Assembly+ Servo Arm + Mount-Plastic Part

69735



Rear Stays+Mount+Light Mounts Set

69736



Rear Brace Mounts

69737



Suspension Arms(Upper) +Braces+Side Body Posts

69738



Bead Lock Rings (Front 4P& Rear 4P)

69739



Spur Gear+ Diff. Gear Assembly

69740



Gear Cover Seals

69741



Wheels-Front

69742



Wheels-Rear

69743



Tires (Front)+ Sponge Insert

69744



Tires (Rear)+ Sponge Insert

69745



Wheels Complete-Front

69746



Wheels Complete-Rear

69747



Sand Tires Optional Part (Front) + Sponge Insert

69748



Sand Tires Optional Part (Rear)+Sponge Insert

69749



Sand Wheels Optional Part Complete-Front

69750



Sand Wheels Optional Part Complete-Rear

NOTES: THE IMAGES OF THE PARTS MAY VARY FROM YOUR ACTUALLY RECEIVED PARTS.

#### 69751



GRYO

69752



**Brushed Motor** 

69753



Brushless Motor (3650 TYPE , KV 2750) 69549



8P

Shock Inner Oil Bowls

#### 69550



\_

69559



Splash Resistant
Brushed ESC (w/banana plug)

69559T



Splash Resistant Brushed ESC (w/T plug) 69754T



Brushless Motor Pinion (16T)+Grub Screw 4\*4mm

### 69755

Shock O-Rings



Body Assembly (Green)

69756



Body Assembly (Blue)

69563R



Splash Resistant Brushless ESC w/banana plugs 69579



Splash Resistant Brushless ESC w/T plug

#### 69557



Servo (6Kgs)

69568



Li-po Battery 11.1V,30c, 3000mAH (w/banana plug) 69568T



Li-po Battery 11.1V,30c, 3000mAH (w/T plug) 69569



Li-po Battery Charger+ U.S. Standard Plug

#### 69573



Li-po Battery Charger+ European Standard Plug

#### 69574



Li-po Battery Charger+ Australia Standard Plug

#### 69578



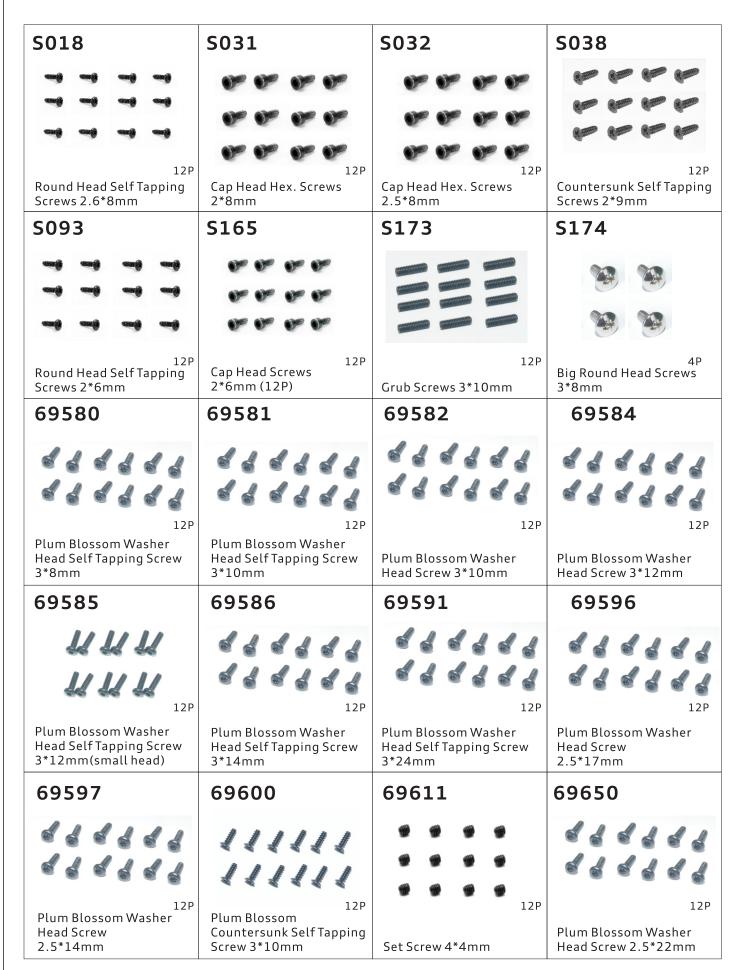
Li-po Battery Charger+ UK Standard Plug

#### E710



Receiver 2.4Ghz

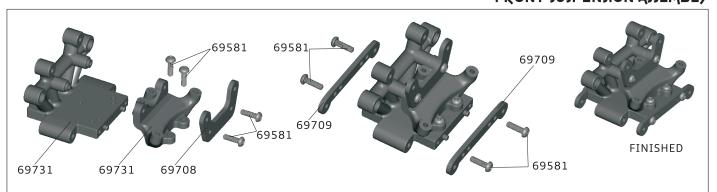


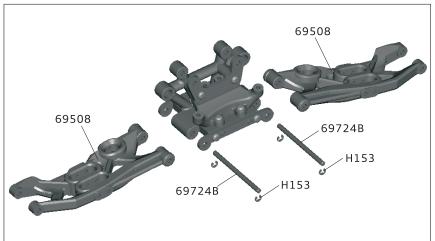


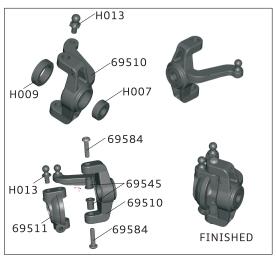
NOTES: THE IMAGES OF THE PARTS MAY VARY FROM YOUR ACTUALLY RECEIVED PARTS.

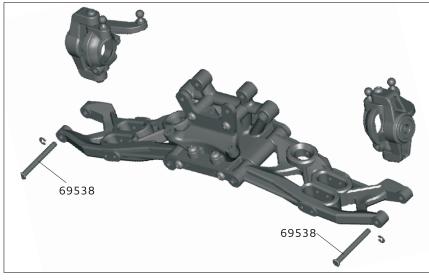
69652	69653	69654	69655
494999	44444	49999	49499
12P Plum Blossom Washer Head Screw 3*18mm	12P Plum Blossom Washer Head Screw 3*4mm	12P Countersunk Blossom Self Tapping Screw 3*8mm	12P Countersunk Blossom Self Tapping Screw 3*17mm
Strongly recommended for SAND WHEELS			
Alum. Wheel Hex			

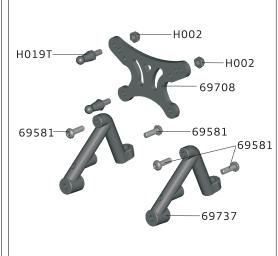
#### FRONT SUSPENSION ASSEMBLY -

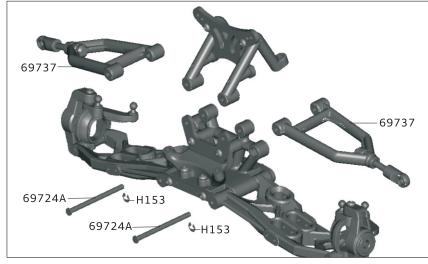


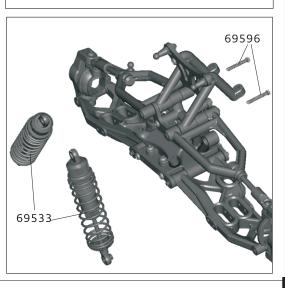




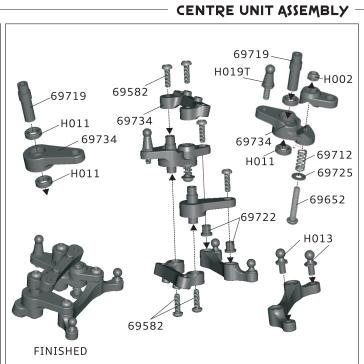




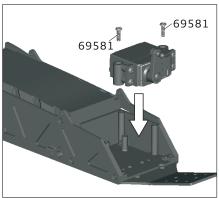


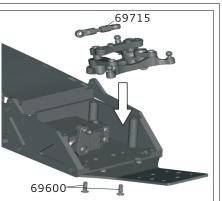


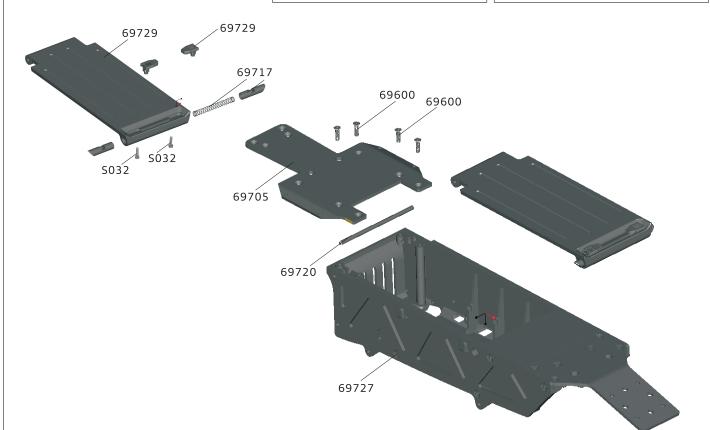
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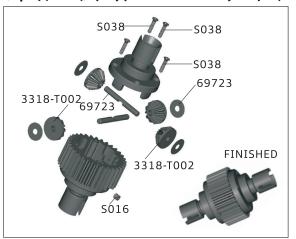


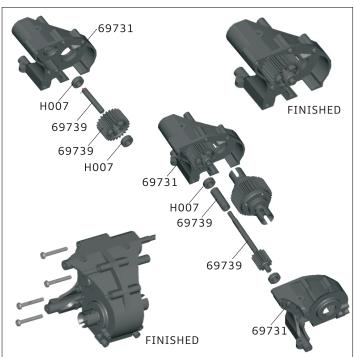


## DIFF./GEAR BOX/REAR SUSPENSION ASSEMBLY

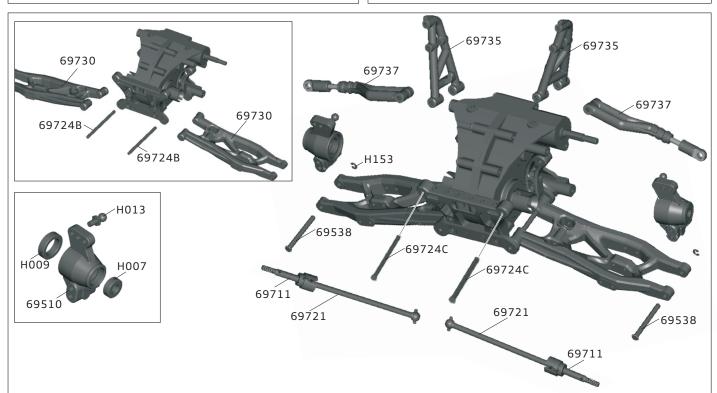


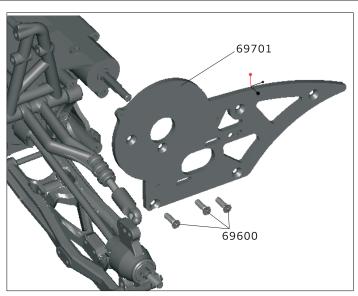


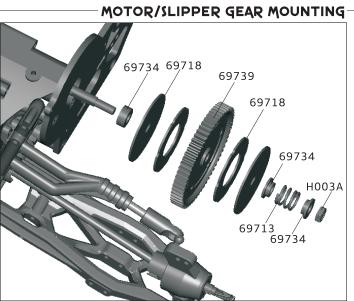


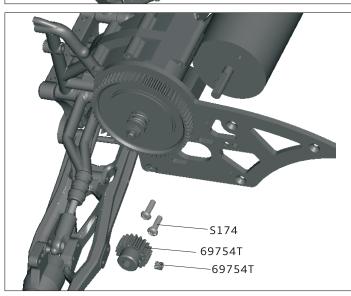


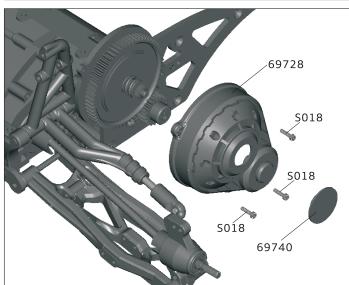


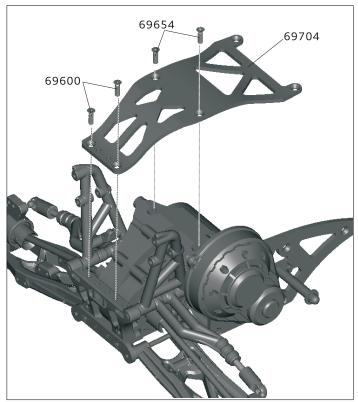


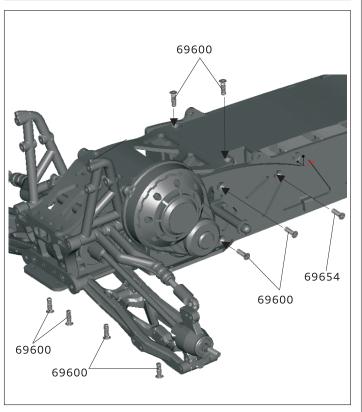


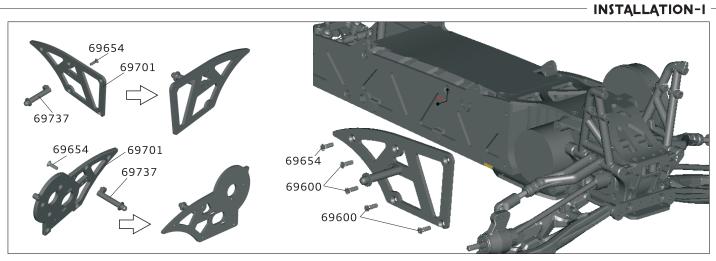


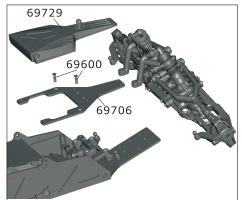


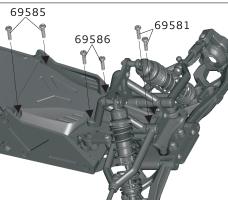


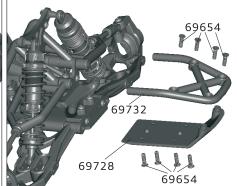


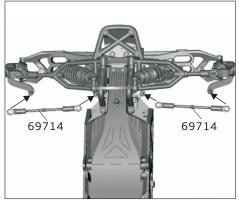


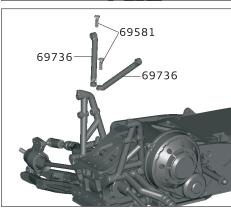


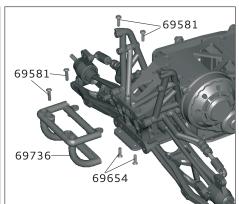


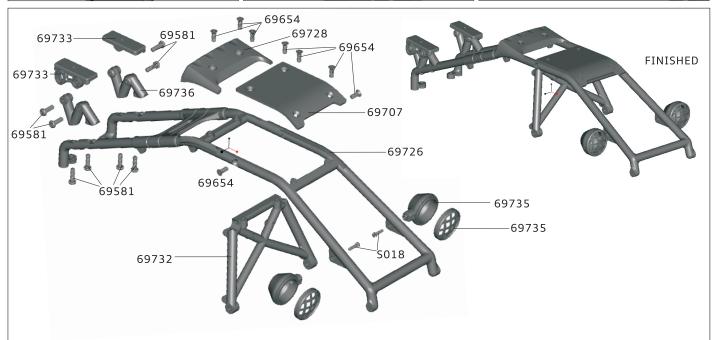




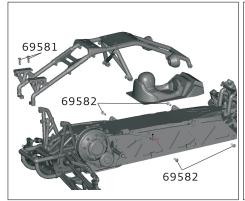


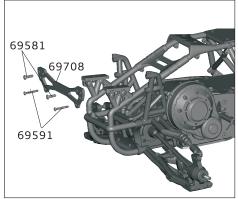


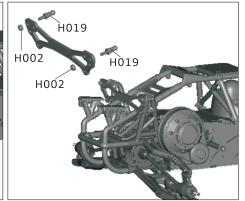


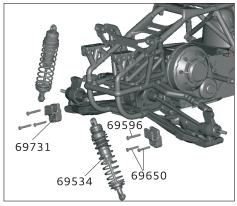


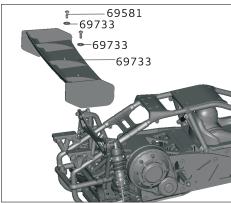
#### INSTALLATION-2



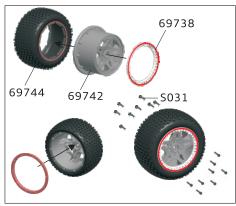


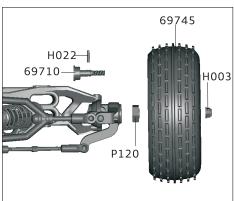


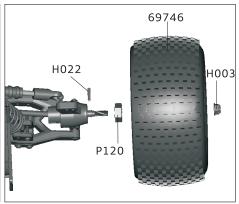


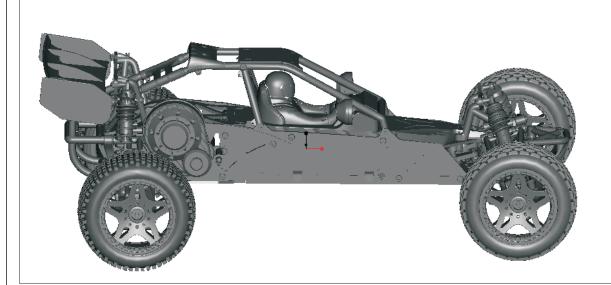












Please completely read and understand the entire manual before using, assembling and/or disassembling your remote controlled car.

This product is not a toy. It is not suitable for users under 14 years old unless supervised by an adult. Never attempt to re-assemble any electronic components. These have been carefully calibrated at the factory.

## 1/8TH SCALE ELECTRIC POWERED 2WD DUNE BUGGY

## **WARNINGS**

- -Read and understand all instructions carefully before use and assembly/disassembly.
- -Do not run your vehicle on public roads or any area where you may encounter pedestrian or vehicle traffic.
- -Do not operate in a congested area or in crowds.
- -Do not operate your vehicle with obstructed line of sight, at night, or near water.
- -Your vehicle is radio controlled. Radio waves are subject to interference. Radio interference can cause loss of control of your vehicle.
- -Take care not to injure yourself while using tools to adjust or upgrade your vehicle.