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

1/8TH SCALE ELECTRIC POWERED 4WD SAND RAIL BUGGY

INSTRUCTION MANUAL





Technical Data:

.59

This data is subject to change without prior notice.

Features:

- Four Wheel Drive System
- Full Aluminum Oil Filled Shocks
- 6KGs Steering Servo
- Factory-Assembled with Factory-Printed Body
- 2.4GHz Radio System
- Bevel Differentials, Front And Rear

- Adjustable Camber, Front And Rear
- Adjustable Bump Steer, Shock Mounting Positions And Droop
- Adjustable Differentials With The Use Of Differential Grease
- High-Grip, All-Terrain Tires Mounted On Spoke Type Wheels
- Uses Li-po Battery (11.1V, 3000mAH) and Li-po Pocket Charger (Battery and charger need to be separately purchased)

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.

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 our 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. our 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 Wheel	1: Steering Trim	4: Power Switch	7: Throttle Reverse
B: Trigger	2: Steering Reverse	5: Steering Dual Rate	8: Green Indicator
C: Battery Case	3: Red Indicator	6: Throttle Trim	9: 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

 Slide the battery cover as shown and install 3 pcs of AA size batteries, positioning the polarity as indicated.
 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.



BIND BUTTON

ON RECEIVER



· Channel 1 to steering servo Channel 2 to ESC (or throttle servo)

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





1) Press and hold the Bind Button on the receiver by 2) Hold the Bind (Pair) key and switch using a screwdriver as shown, while turning on the power switch on the car . (The power switch is located on the rear indicated by label.)



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



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



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





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.



TURN RIGHT



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.



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 vehicle 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)

CHARGING THE BATTERY PACK

Your RTR vehicle is equipped without battery and charger unless individually purchased. Here is our practical pocket Li-po battery charger which you might use with your vehicle.

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 (11.1V)

Power Supply Slot

 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.



- 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

2) TURN OFF THE RADIO CONTROLLER





CAUTION

• 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.

TO ACCESS THE MOTOR AND ESC

This vehicle is fully assembled at factory. The following illustrations facilitates replacement. (Note: For these plum/star head screws, you can use either Standard Hex Screw drivers (1.5mm, 2mm, 2.5mm) or Plum/Star Head screwdrivers.). First remove the roll cage:



1)Remove the eight screws (69586) from the chassis as shown in the figure one by one.



2)Remove the four screws (69580) from the hood as shown in the figure one by one.



3) Remove the screw (69590) from the rear unit on the one side as shown in the figure.



4)Remove the screw(69590) from the rear unit on the other from one side using needle side as shown in the figure.



5) Remove the rear shock nose pliers.



6) Remove the rear shock from the other side using needlenose pliers.



7)Hold the rear suspension, side.



8) Push gently on the other remove the roll cage from one side to remove the roll cage as shown in the figure.

The roll cage is removed from vehicle. You are now ready to check motor and ESC if possible. To replace the roll cage follow the steps again in reverse.

Tip: Before re-installing the roll cage, check all parts carefully and make sure they have not come loose and are properly secured.

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.

INSTALLING OFF-ROAD LIGHT LENSES(FRONT/REAR)



GLUE THE OUTER PERIMETER OF THE LENS AND INSTALL

The off-road light lenses are optional parts.

1.Remove the five off-road light grills. (fig.2)

2.Apply a small bead of glue (CA) around the outer perimeter of the first lens.(fig.2)

3.Carefully line up the notches in the lenses with the tabs inside the light housing and install.

4.Repeat steps 2-3 for remaining four front lenses.

5.Reinstall off-road light grills. (fig.4)



6.Apply a small bead of glue (CA) around the outer perimeter of the first rear lens. (fig. 5)

7.Align the lens with the rear light housing and push into place.

8.Repeat steps 6-7 for the remaining three rear lenses.

RADIATOR ASSEMBLY AND INSTALLATION









The radiator is an optional part.

1.Gather all five parts of the radiator assembly. (fig.1)

2.Align the fan and shroud onto the radiator shaft. (fig.2)

3. Using a torque driver, insert the (69600) torque screw into the end of the shroud and tighten.

4.Repeat steps 2-3 to complete the radiator assembly. (fig.3)



- 5. Using a torque driver, remove the rear light assembly by removing the two screws securing it from the underside of the roll cage. (fig.5)
- 6. Fasten the radiator assembly from the top using two (69593) screws. (fig.6)
- 7. Reinstall the rear light assembly. (fig.7)



The cockpit is an optional part.

1.Uninstall the roll cage from the chassis.

2.Remove all 14 screws securing the hood and remove from roll cage.(fig.1)

- 3.Insert the cockpit into the underside of the roll cage(fig.2), be sure the front of the dashboard is on top of the roll cage. (fig.3&5)
- 4.Secure the cockpit from the underside using the included(69610) screws.(fig.4)
- 5.Reinstall the front hood and secure in place. Be sure the two rear holes of the hood line up with two holes in the dashboard.(fig.5-6)

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

A. The vehicle does not work at all.	1. Check to see if radio controller and car are on.
	2. Check to see if radio controller and receiver are properly bound
	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.
noisity.	3. Clean and oil bushings or ball bearings.

69500R	69501R	69502	69503
	A		Ń
Chassis	Roll Cage Side Units	Roll Cage Front Unit Roll Cage Top Unit	Roll Cage Rear Unit+ Spare Tire Post+Retainer
69504R	69505R	69506	69507R
Front Bumper Brace	*XX	Ä	20
& Roll Cage Side Rails Assembly	Roll Cage Rear Rails Assembly	Shock Towers (Fr.&Rr.)	Gear Box Assembly
69508	69509	69510	69511
Suspension Arms (Lower Front)	Suspension Arms (Lower Rear)+Shock Retainers	PFFFFFFFFFFFFF	Left/Right
69512R	69513	69514R	69515
Suspension Arms (Lower Rear)+Shock Retainers	Spur Gear (56T)	Centre Diff. Mount Set+ Suspension Mount Set+Servo Retainers+Centre Diff. Retainer	Servo Saver Assembly A + Bumper Lowe Mount Set+ Servo Arm
69516R	69517RA	69517RB	69518
		** '!! ••••	
Battery Guard+ESC Bottom Mount	assembly	Screws	Off Road Buggy

69519	69520	69521	69522
	29	29	
Wheels -Spoke Style	Tires/Sponge Insert	Wheels Complete	Centre Diff. Complete
69523	69524R	69525	69526
Battery Cover	69.6mm (front) 161.6mm(rear) 2P Center Drive Shafts	2P Rear Drive Shafts	29
(assembled)	(Front and rear)	(91.2mm)	Rear Wheel Shafts
69527	69528	69529	69530
		2P	2P
Motor Guard Set	Front CVD Drive Shafts	Front Upper Linkage Set	Rear Upper Linkage Set
09551 	09332	2P	2P
Steering Linkage Set	Servo Linkage Set	Full Aluminum Oil Filled Shocks (Front)	Full Aluminum Oil Filled Shocks (Rear)
69572	69536	69537	69538
	2P	2P	Hinge Pins-Lower 4P
Front Skid Plate (Aluminum)	Rear Shock Upper Retainer	Diff. Shafts +E-Clip (2mm) (Front/Rear)	Outer+E-Clip (2mm) \$\overline{3}\$30.9mm

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

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69539	69540	69541	69542
49	0144000	29	2P Front / Contro Diff
4 3*60.3mm	Servo Saver Assembly B +Ackerman Plate	Steering Posts	Outdrives
69543	69544	69545	69546
2P Centre Outdrives+ Set Screws 3*3-2*7)	Step Ball Stud. ϕ 4.8*16.6	BP Steering Knuckle Bushinges	Front CVD Shaft Clips
69547	69548	69549	69550
0000 0000 8P	9999 9999 9999 89	0000 0000 8P	0 0 0 0 0 0 0 0 0 0 0 0 12P
Ball Stud. ϕ 4.8*6.8	Ball Stud. 04.8*8.5	Shock Inner Oil Bowls	Shock O-ring
69551 0000 0000 12P Washers	69552 000 8P	69553 0000 0000 8P Steering Plate	69554 O O O O O O O O O BP Flange Ball Bearings
(\$3.1*6*0.5mm)	Diff. Paper Washers	Bushinges	(3*6*2.5mm)
69555 2*10mm 2.5*22mm 5*6.8*1.3mm 0 0 0 0 0 0 0 0 0 0 0 0 0	69556	69557	69558
Diff. Pinions+Pins+ Washers+O-ring+ Diff. Case	Front/rear Diff. Complete	Servo (6Kgs)	Brushed Motor

69559	69560	69561	69562
			0
Splash Resistant Brushed ESC (w/banana plugs)	Mounting Hole: Smm (brushless only) Motor Pinion (13T) +Set Screw 4*4	Mounting Hole: 5mm (brushless only) Motor Pinion (20T) +Set Screw 4*4	Brushless Motor (KV 2574)
69563R	69564	69576	69577
Splash Resistant	0000		
w/banana plugs	Light lenses(front/rear) +gear lever	Body Assembly (Blue)	Body Assembly (green)
69568	69573	69574	P010
Li-po Battery 11.1V,30c, 3000mAH (w/banana	Li-po Battery Charger+	Li-po Battery Charger+	DODD DODD BP
plug)	European Standard Plug	Australia Standard Plug	Zip Tie (Big)
P011	P120	P019	P101
6666	00		00
8P	4P	2P	4P
Zip Tie (Small)	Wheel Hex.	Receiver Antenna Pipe	Motor Pad
HUU/	H009	HUU2	HUU3
000	00	000	
000	00	000	
6P	4P	6P	6P
Ball Bearing 5*11*4	Ball Bearing 10*15*4	Lock Nut M3	Flange Lock Nut M4

H013	H022	H153	H100
		0000	annun,
# # # # 8P	88	nnnn	
Ball Stud.	Wheel Hex. Pin (2*10mm)	E Clip (2mm)	Motor Heat Sink
6538-H005	3338-T010	E710	69571
Diff Main Coart Pinion	Bevel Gears(Large+ Small) (Front/rear/	Pagaiyas 2 4Chz	Caskait
69580	69581	69582	69583
12P Plum Blossom Washer Head Self Tapping Screw 3*8mm	12P Plum Blossom Washer Head Self Tapping Screw 3*10mm	12P Plum Blossom Washer Head Screw 3*10mm	12P Plum Blossom Washer Head Self Tapping Screw 3*12mm
69584	69585	69586	69587
44444	<i>UUU</i> <i>UUU</i> 12P	129	44444
Plum Blossom Washer Head Screw 3*12mm	Plum Blossom Washer Head Self Tapping Screw 3*12mm(small head)	Plum Blossom Washer Head Self Tapping Screw 3*14mm	Plum Blossom Washer Head Self Tapping Screw 3*16mm
69588	69589	69590	69591
44444 44444	44444 44444	44444 44444	44444 44444
12P Plum Blossom Washer Head Self Tapping Screw 3*18mm	12P Plum Blossom Washer Head Screw 3*14mm	12P Plum Blossom Washer Head Self Tapping Screw 3*21mm	12P Plum Blossom Washer Head Self Tapping Screw 3*24mm





UNITS ASSEMBLY-I





20

UNITS ASSEMBLY-2





ROLL CAGE ASSEMBLY





EXPLODED VIEW

69519



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1/8TH SCALE ELECTRIC POWERED 4WD SAND RAIL BUGGY

WARNINGS

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- 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.