

*Please read the manual carefully before assembling or handling your model.*

## **1/10TH SCALE NITRO POWERED 4WD OFF ROAD BUGGY**

### **INSTRUCTION MANUAL**

**ITEM NO. 3378** >>>>>>



*Available on...*

- ☐ **Single Speed Transmission**
- ☐ **Two Speed Transmission**

**Fully assembled RTR Off Road Buggy**

This is our 1/10th scale fuel powered off road buggy which is coming with fantastic speed and splendid off road performance.

A sophisticated high performance model should be treated with careful assembly and maintenance. We know you will have great fun with our model.

**For further performance improvement, this manual is subject to change without prior notice!**

Thank you for purchasing our product.

This product is an authentic controlled vehicle(RC vehicle) and it is not a toy. Read and understand this instruction manual thoroughly before the model. If you are not familiar with RC vehicles, we recommend that you ask RC experts for advice.

Never run RC models near crowded people or animals, or on public streets or highways. This could cause serious accidents, personal injuries, and/or property damage.

## Technical Data

Length	Width	Height	Wheelbase	Tread(F/R)	Ground Clearance	Wheel Width	Wheel Diameter	Gear Ratio
415mm	225mm	150mm	278mm	210mm(F) 215mm(R)	25mm	34mm(F) 42mm(R)	89mm	1:11.69

## Main Features

- Four wheel drive system
- 15cpx engine provides quick start for your model.
- High performance muffler & High flow element foam air filter
- Durable front/rear differential gears
- Strong front/rear suspension system
- Aluminum lightweight flywheel / Metal manifold
- Aluminum capped oil filled shocks
- Aluminum front/rear shock tower
- Compact fuel tank
- Off road knobby tyres / off road beam rims
- Stylish off road wing with cool decals

Off road buggy gets ready to drive!



Large capacity fuel tank with spring loaded fill cover offers quick re-fueling.



Aluminum front shock tower & Oil filled aluminum capped shocks & Compact front bumper



Deft front steering hubs/ High quality dog bone/ Strong suspension system



Powerful 15cpx engine/ High flow duty foam element air filter/High quality exhaust pipe & manifold



Reasonable speed testing metre plate allows for your metres installation.



Smooth centre drivetrain/ High quality servo link/ Aluminum front steering top plate



High quality centre gear/ High quality centre out-drives/Lightweight flywheel

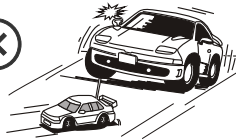


Stylish off road wing/ Solid wing stay/ Solid rear bumper/ Durable off road knobby tyres

- ★ This product is not a simple toy. It is an authentic R/C model.
- ★ For better performance, some adjustment and correct assembly are necessary.
- ★ Use the battery properly. Incorrect battery will damage your model and/or radio system.
- ★ This product is strongly recommended for the user over 14 ages .Children should handle this model with adult's supervision.



Read and understand all instructions.  
We warmly recommend a novice user to get help with experienced operator.



Never operate your model on any public streets. This could cause traffic accidents, personal injury and /or property damage.



Since the model contains many small parts, keep away from children's reach while assembling and/ or disassembling.



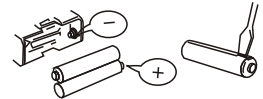
Painting your vehicle body in an open area .



Take care not to cut yourself while applying a knife or a screwdriver to your model.

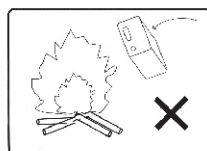


Keep away from someone else using the radio system of the same frequency. Otherwise, it may cause signal confusion.



Incorrect battery insertion could lead to leakage and/ or damage.

- Use model fuel ONLY!
- Never close to open fire or any source of heat!
- Never swallow the fuel! Store the fuel in cool and dark place and keep it away from the reach of children.
- Never throw empty fuel bottle into fire. Otherwise, it may explode.



- Never put your finger or any object into the rotating/ moving parts.
- It is very dangerous that you touch an heat engine or exhaust pipe immediately just after it stops running. It will burn your body.



- Once the vehicle runs erratically you should stop running and check it. The vehicle would not be used until all problems had been settled.

Note: To stop running is a must as long as it goes wrong with your vehicle or radio system.

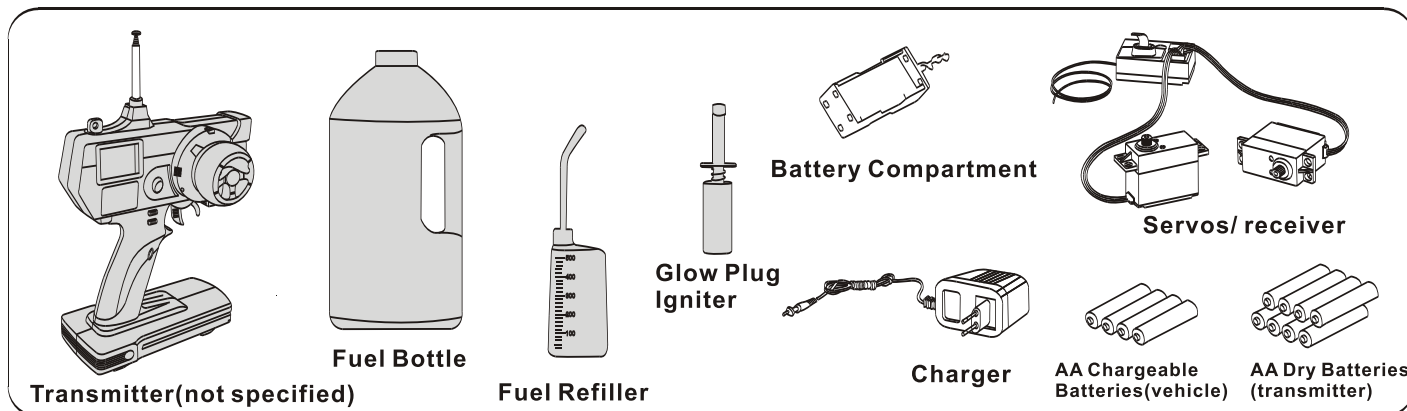


Carefully read and understand all instructions before operating your vehicle.

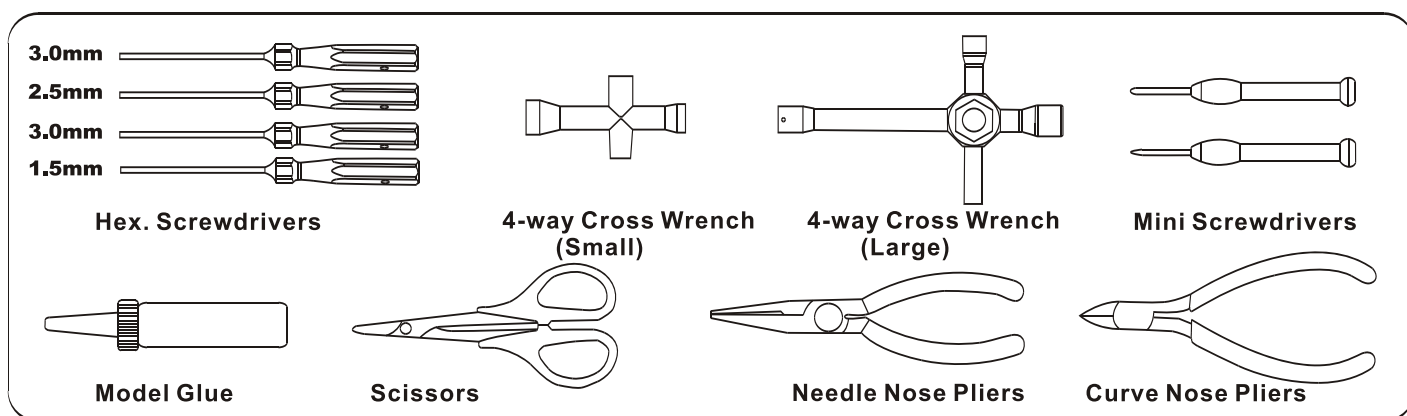
Correct adjustment of your engine is required before driving your vehicle. Refer to an experienced operator before performing the adjustment to your engine.

The following items(not included unless specified)are required to operate your vehicle and are available from your model dealer or the local hobby shop.

## — Items for operating your model:



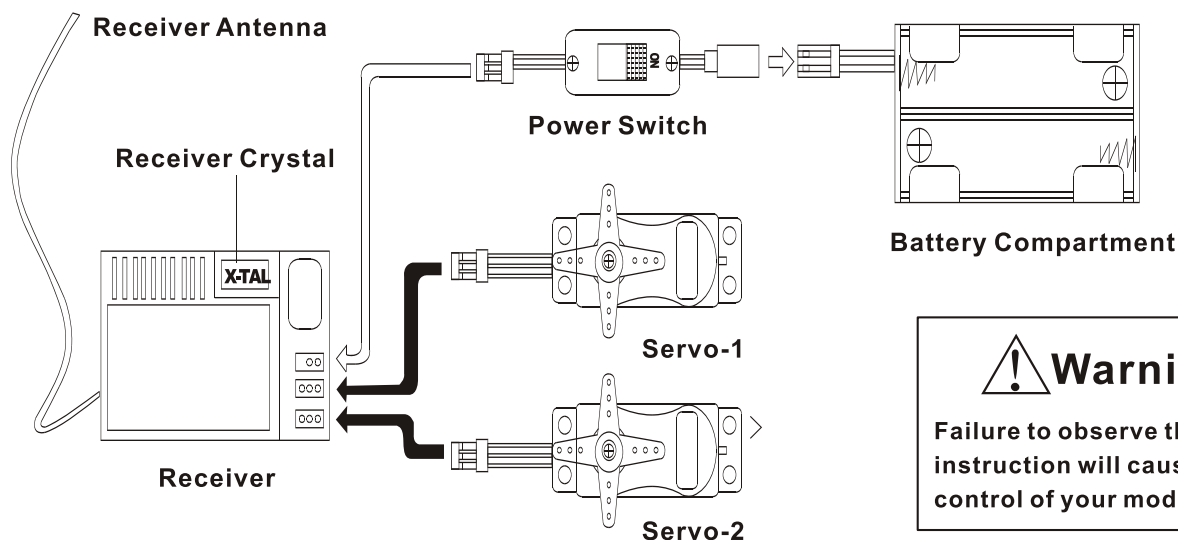
## — Items for assembling or disassembling your model:



# Radio System

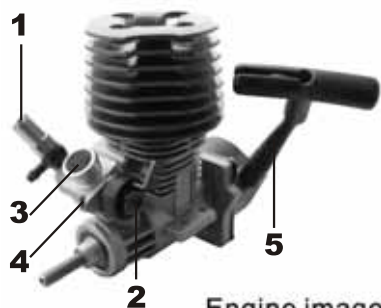
Please read and understand all instructions before switching on your radio system.

You should turn on the transmitter and then the receiver to center your servo first. Turn off the receiver and then the transmitter after the servo is centered properly.



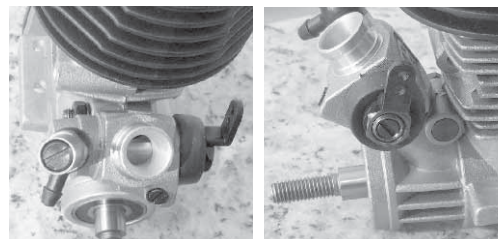
## Warning

Failure to observe the above instruction will cause lose of control of your model.



1. High end mixture valve
2. Low end mixture valve
3. Carburetor inlet
4. Idle adjustment screw
5. Pull starter

Engine image is represented for reference only. It may vary from the actual received engine.



The engine includes many high precision parts. Incorrect operation or rash assembly and disassembly will compromise the proper performance of your engine.

## A. High end mixture valve

To measure the fuel inflow and provide high end mixture. If screwing it further in, the high end mixture volume will decrease. Once you unscrew it in, the high end mixture volume will increase.

## C. Idle adjustment screw:

To control the air and fuel mixture which flows into the carburetor while the engine is at Idle. It will be an essential adjustment that prevents your engine from stalling at an extremely low speed running position.

## B. Low end mixture valve

To measure the fuel inflow and provide low end mixture. You are required to adjust low end mixture valve to provide an even process for running your engine from low speed to high speed.

## D. Carburetor inlet:

To mix the air and fuel to permit a proper running of your engine. After attached with an air filter, it is used to ensure a good proportion of air and fuel.

# Engine Break In Period

New engines require a break in period to exercise a final adjustment of internal parts after manufacturing. For our models, we have already perform this procedure before putting them on the market. However, you will use your own engine to drive our models. This procedure is required and must be completed by you/the user. To prevent excessive initial wear on internal engine parts a rich air/glow fuel mixture is required to perform a break in procedure for your engine.

## Important notes:

Break-in period 2 and 1/2 turns from full closed position(4-5 tanks of 10-15% fuel/ 20% oil content) must be used to perform break in.

Please do not run engine full throttle for long periods during break-in. Once break-in procedure has been performed lean out engine to best performance (2 turns to 1 and 1/2 turns from full closed position) you must always observe a trace amount of oil smoke from exhaust pipe, if you hardly see any smoke please stop immediately and re-adjust high end mixture valve till smoke is observed.

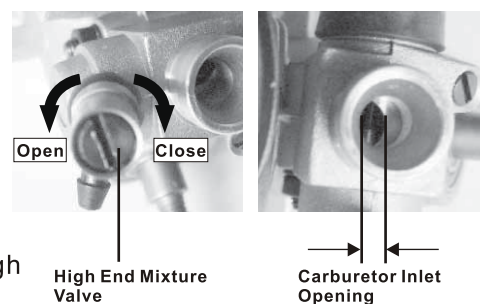
Always perform high end mixture valve adjustment firstly, and then perform idle adjustment on a warmed-up engine.

Clean-out engine and exhaust system by applying high throttle(3/4 throttle) for 2 seconds after adjustment to permit effectiveness of adjustment to be observed.

It is of normal occurrence during the break-in procedure that minuscule particles of metal adhere to the glow element. The particles of metal isolate the glow element and affect overall engine performance.

Lubrication: We highly recommend a Premium glow fuel with a Synthetic/Castor blend of a minimum of 16% and maximum of 20% combined lubricant content.

**Did you perform break in procedure for your new engine before running at the first time?**



This transmitter is an advanced controller for the beginner to be easy to use and tune. You should follow the steps below to ensure the correct usage of your transmitter.

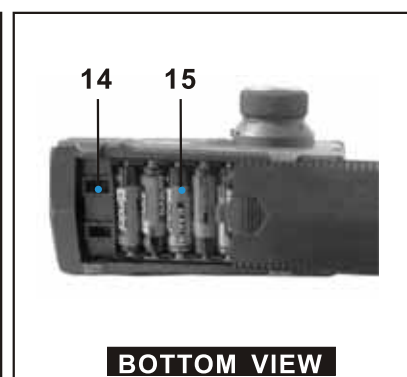
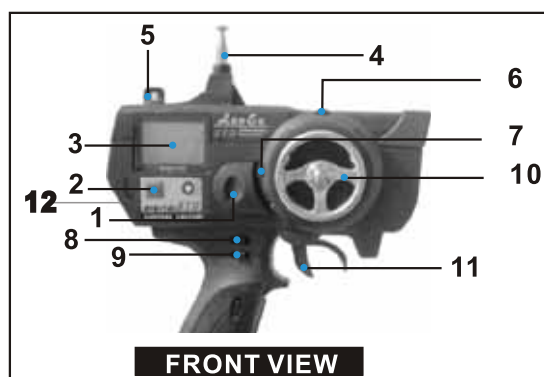
#### Preparing your transmitter:



Slide out the battery holding tray to expose the empty battery compartment. Insert eight AA size batteries into the marked spaces. Please note the correct direction of the batteries.



Insert the antenna into the hole and turn clockwise until it is tightly secured. Make sure you never over extend the antenna as this will cause it to break. Extend the antenna while using.

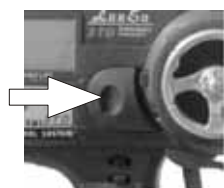


- |                       |                      |  |
|-----------------------|----------------------|--|
| 1. Power Switch       | 7. Digital Switch -2 | 13. Crystal Slot   |
| 2. (SEL)Select Button | 8. Digital Switch -3 | 14. Spare Crystal Slot (Two slots included, you can reserve two different crystals into them.) |
| 3. LCD Display        | 9. Digital Switch -4 | 15. Battery Compartment  |
| 4. Antenna            | 10. Control Wheel    |  |
| 5. Tie Hook           | 11. Trigger          |  |
| 6. Digital Switch -1  | 12. Charging slot    |  |

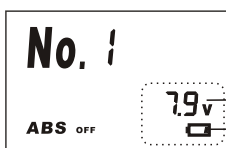
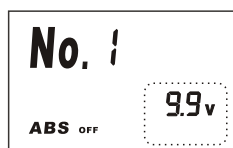
#### Notes:

1. Verify the voltage on LCD display of your transmitter. Normal voltage range should be around 9.6V-12V. Replace with new batteries or charge batteries if necessary.
2. Please use batteries of same types. Never mix new and old batteries.
3. Please remove batteries from the compartment if not in use a long period of time.
4. Incorrect battery installment will cause leak. Dispose of exhausted batteries into a recycle bin.
5. Verify that you should use the crystals of same frequency for your transmitter and receiver.
6. Please clean the rust and/or the dirt with a knife if they are founded on the battery contacts.
7. You can charge your rechargeable batteries by using a matched charger(DC9.6V 250mA). Insert the charger plug into transmitter charging slot to charge . Switch off transmitter power first before performing charging. Never charge your batteries unattended.

Switch on the power



LCD display turns into:

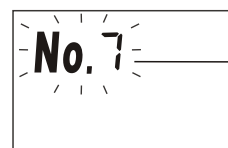


Once the voltage indicator is actually low at 8.0V, the transmitter will let out an alert that you should replace with new batteries or charge the battery.  
Low battery indicator

## Note:

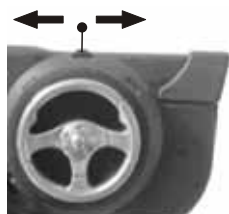
This transmitter is a versatile radio product. We had already permitted a default mode (NO.1) at factory. Once you break off the default mode, please switch on your transmitter with holding (SEL) button five seconds. This will bring your transmitter to SETUP mode with the current mode indicator winking. To confirm your desired mode(from NO.0-NO.9) or revert to the default mode(NO.1), toggle the digital switch-1.

To erase all of your setup in the current mode, hold (SEL) button for another five seconds when the current mode indicator is winking. Switch off your transmitter, then switch on it again.

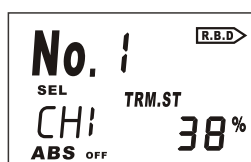
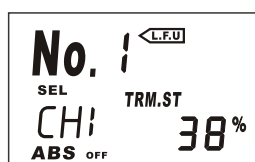


The current mode indicator(NO.7) is winking.

Toggle the digital switch -1 to adjust TRM.ST



LCD display turns into:



Left steering trim



Right steering trim

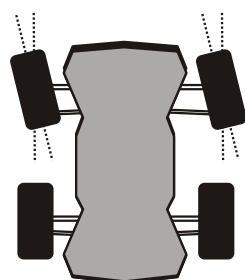
TRM.ST

Steering Trim Setup

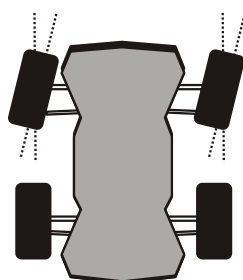
Channel 1 is for steering system.

TRM.ST (Steering Trim) range is around 0% -100%. Figure 0% indicates the left steering trim setup makes ends meet with the right steering trim. Keep toggling Digital Switch-1(Steering Trim) to the left or the right to measure the steering trims.

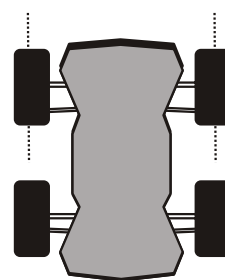
Left Steering Trim



Right Steering Trim



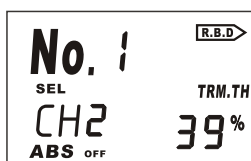
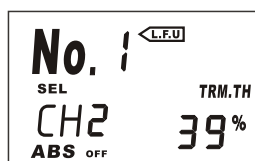
Being aligned in line



Toggle the digital switch -2 to set up Throttle Trim



LCD display turns into:



Accelerating Throttle Trim



Slow-Down Throttle Trim

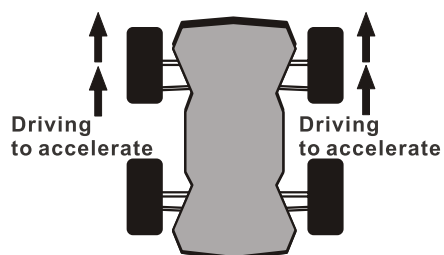
TRM.TH

Throttle Trim Setup

Channel 2 is for throttle.

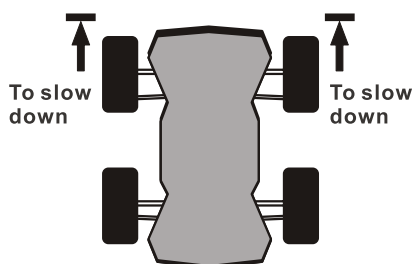
TRM.TH (Throttle Trim) range is around 0% -100%. Keep toggling the Digital Switch-2(Throttle Trim) left/right to increase or decrease throttle trims.

### Throttle Trim(Acceleration)



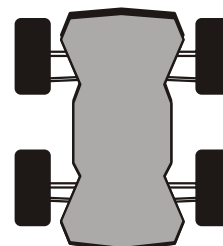
To measure the accelerating level

### Throttle Trim(Deceleration)



To measure the decelerating level

The accelerating throttle level equals the deceleration throttle level.

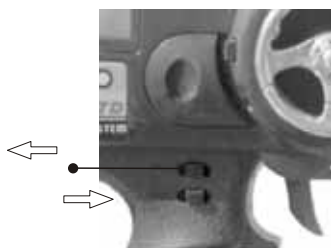


Compromised

## D/R Setup

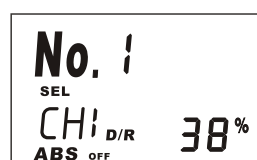
How to provide a perfect D/R volume?

You may meet with some trouble of an extra large or small steering angle while driving your model. If it is the case, you should toggle the Digital Switch-3 to reach your desired level of D/R (Steering D/R Setup).

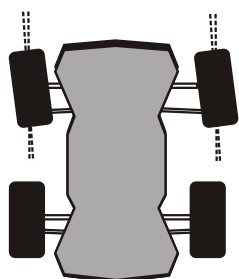


To adjust D/R Volume

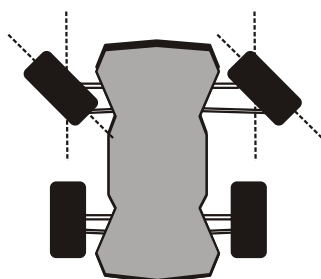
LCD display turns into:



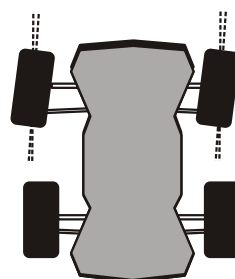
The range in D/R setup is around 5%-100%.



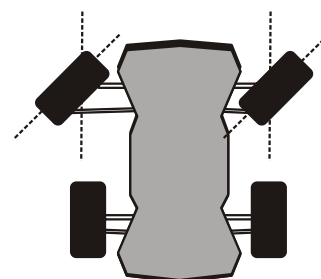
Left D/R Level (5%)



Left D/R Level(100%)



Right D/R Level(5%)

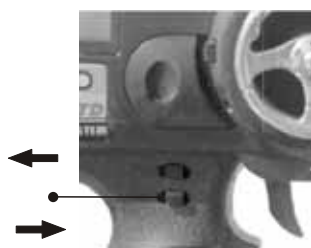


Right D/R Level (100%)

## EPA (brake) Setup

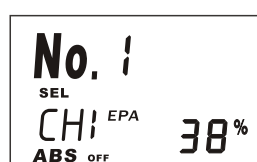
How to measure up to a perfect EPA volume?

You may meet with some trouble of an extra large or small throttle/brake level while driving your model. To toggle the Digital Switch-4(EPA Setup) will help you find it.



To trim EPA(Brake)

LCD display turns into:



The range for EPA setup is around 5%-120%.

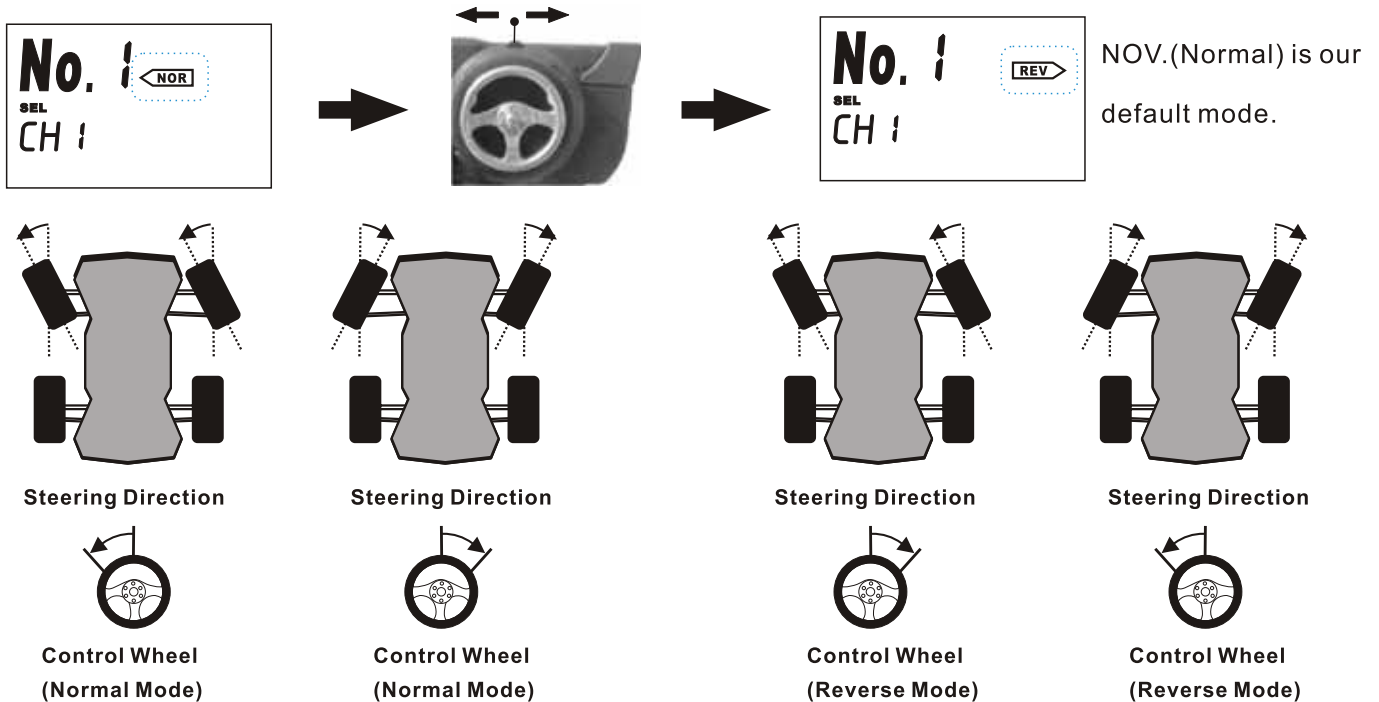
## Steering/Throttle Reverse Function

If you prefer reverse operations please see the following procedure on how to switch to REV..

### How to switch to Steering Reverse System:

Press SEL ( Select Button) on your transmitter once, this LCD display appears Channel 1(NOR.)

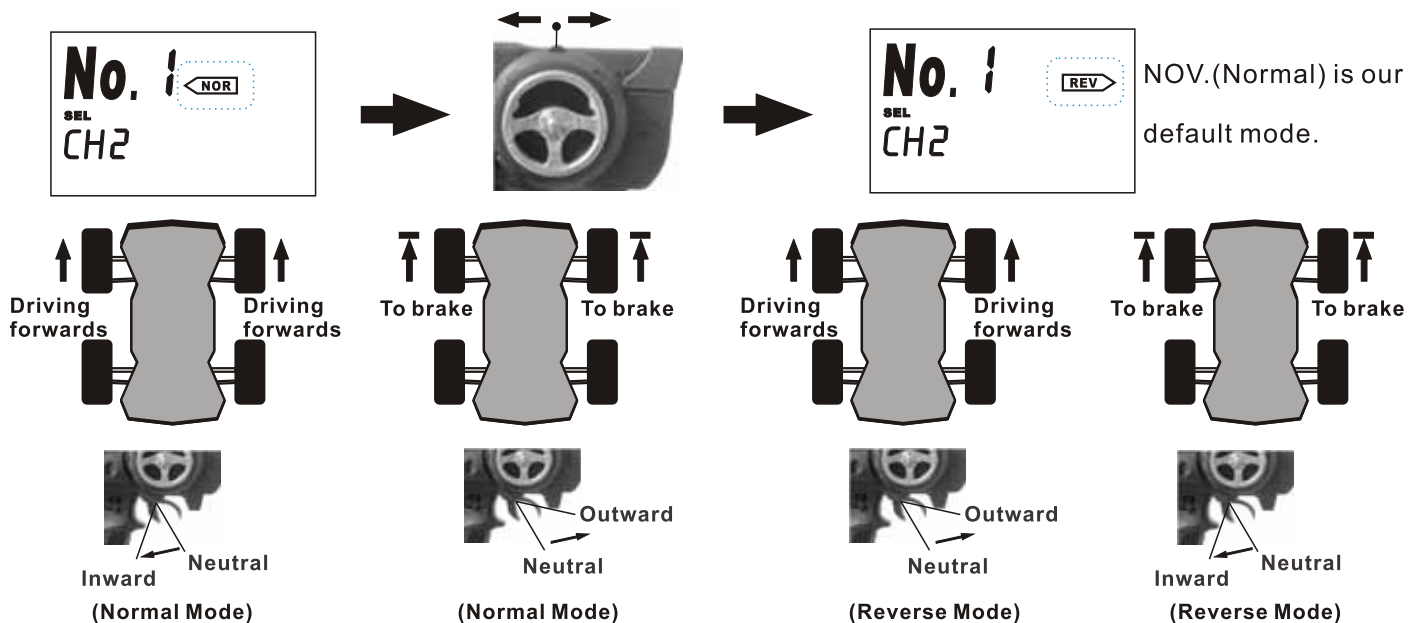
Toggle Digital Switch-1( Steering Trim) to change NOR into REV.



### How to switch to Throttle Reverse System:

Press SEL ( Select Button) on your transmitter twice, this LCD display appears Channel 2 (NOR.)

Toggle Digital Switch-1( Steering Trim) to change NOR into REV.

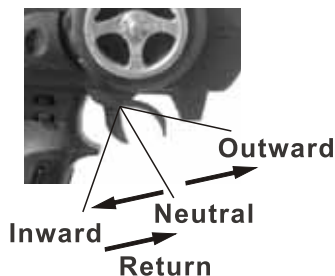


## Select Function(SEL)/ Memory Mode

This transmitter contains a variety of select functions and memory modes which can perform extremely complex operation to your model. Once you press or hold SEL button there are so many selections with the indicators on and /or winking . Follow up the above instructions and you will tune your transmitter well.

## Throttle Trigger

9



How to drive your car to go forward or brake?

1. To drive and accelerate your car pull the trigger back (Pull it inwards). In the course of returning the trigger to Neutral, the vehicle will slow down.
2. To brake your car push the trigger forward (Push it outwards).
3. To stop running your vehicle return the trigger to Neutral.



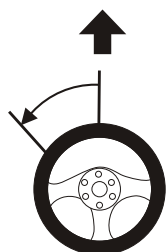
## Steering Practice

You can turn the vehicle right or left while it is running.

Practice turning the vehicle, referring to the following:

Rather than just paying attention to the direction of the control wheel, imagine that you are at the centre of the control wheel, looking ahead of the vehicle, to turn in the direction you like.

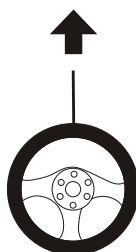
To turn left



Control Wheel

To allow your vehicle to turn left you can turn the control wheel to the left.

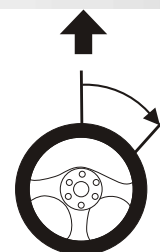
To go straight



Control Wheel

Leave the control wheel unattached or release it to Neutral. This will permit your vehicle to go straight in line.

To turn right



Control Wheel

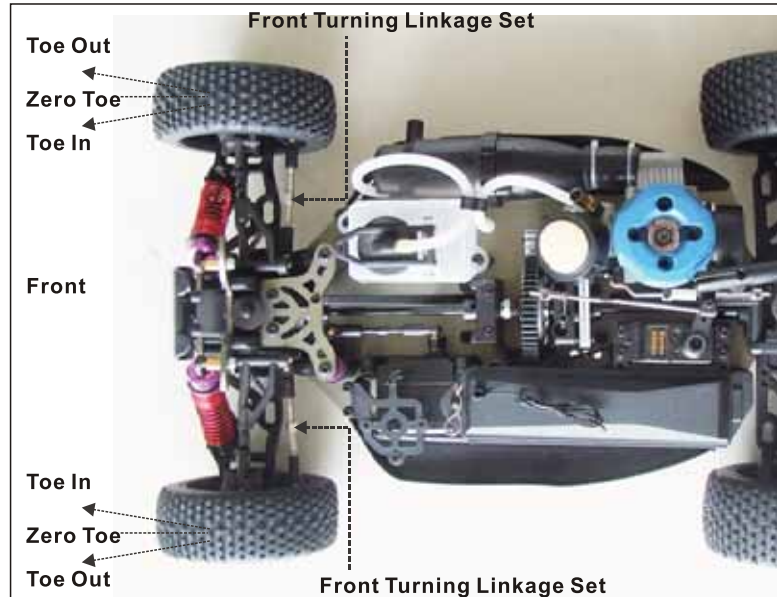
To allow your vehicle to turn right you can turn the control wheel to the right.

**Note:** If you prefer a reverse operation, please switch your transmitter to Reverse Setup. (See Section Transmitter Setup for details)

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.

## Steering toe angle

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.



Front Turning Linkage Set



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.

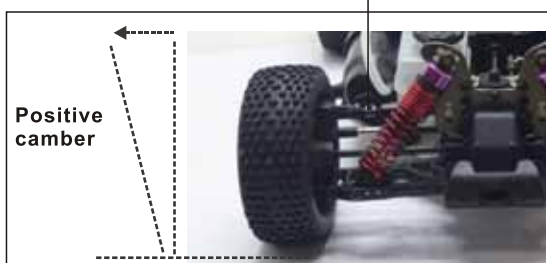
Zero toe will make the front wheels run straight and make the car very neutral. Tire wear will also be reduced and the vehicle will feel easier to drive.

## 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.

Upper Link Turnbuckle

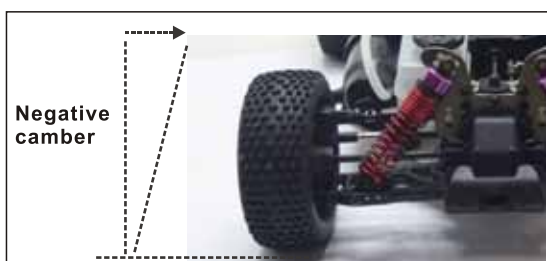


Upper Link Turnbuckle



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.

## Fill up fuel tank

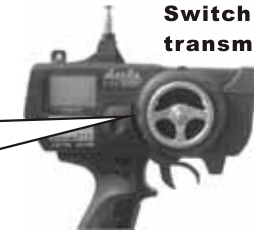
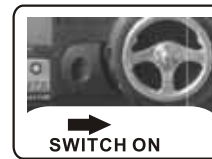


1. Open the spring load fill cover and use the fuel filler to fill up the fuel tank. Keep away from open fire and children's reach while re-fueling.

### Note:

- Please be extremely diligent in preventing fuel spill.

## Switch on the transmitter

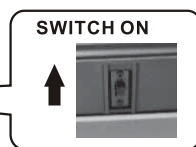


2. Switch on the transmitter as shown in the figure.

### Note:

- Make sure the antenna is properly inserted and screwed in the transmitter. Antenna should be fully extended or else performance and control range of transmitter may be affected.

## Switch on the radio switch



3. Switch on the radio switch as shown in the figure.

### Note:

- Make sure receiver, battery compartment and servos are installed correctly. Check all connectors and wires. Twisted wire is not allowed.

4. Use a cross wrench to remove the glow plug from the engine. Flow 2-3 drops of fuel into the engine.

### Note:

- Verify that you should use a good glow plug or else your engine will not start.

## Remove the glow plug



## Flow 2-3 drops of fuel



## Cover the engine heat sink by tissue paper pulling the pull starter twice



5. Re-install the glow plug and secure it tightly by a cross wrench.

Attach a glow plug igniter to the glow plug on your engine, hold your car securely, and lock onto the glow plug igniter pulling the pull starter several times till your engine starts.

### Notes:

- The glow plug igniter should be fully charged before use.
- Never force hard to your pull starter or else the pull cord will break.

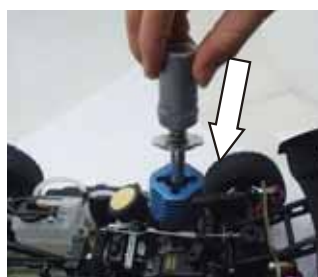
## Re-install the glow plug



## Fasten it by using a cross wrench



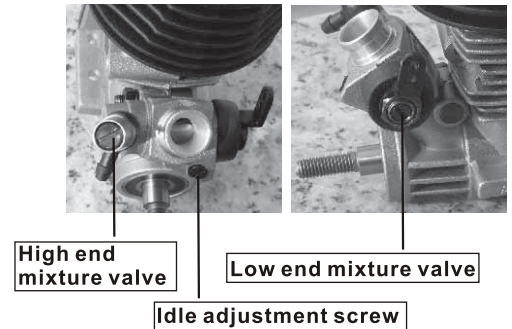
## To attach a glow plug igniter



## To start your engine



1. Verify engine performance after start up. Pay close attention to exhaust smoke and engine sound.
2. Observe the speed of your running car with throttle set to high. Your car will still speed up when you screw in the high end mixture valve at an angle of 10 or 20 degrees.
3. If you screw in the high end mixture valve further, the engine will become overheated and subject to damage.
4. Slow engine response is due to an over rich condition.  
When air and fuel mixture is too rich, lots of smoke and popping sound from exhaust will be observed. You should screw in the high end mixture valve at an angle of approx. 30 degrees(turning clockwise)
5. Hesitation from idle to mid throttle is due to a lean condition.  
When air and fuel mixture is too light, almost no visible smoke is observed and engine may quit for no apparent reason. If it is the case, you should also unscrew in the high end mixture valve at an angle of approx. 30 degrees(turning anti-clockwise)



### The following are some problems you will possibly suffer:

1. The engine is flooded.  
- Remove glow plug. Crank flooded engine several times to evacuate excess fuel. Do not place yourself over the glow plug hole, take care that fuel may splash or flow when cranking.
2. Maybe the engine can be cranked but will not start.  
- Verify if fuel reaches carburetor? Add 2-3 drops of fuel directly in carburetor.  
- Verify if idle adjustment set properly? Remove air filter to check. Adjust opening with screwdriver.(1mm or 0.33 ). Replace air filter before starting.  
- Verify if glow plug is working. Glow plug should be fully charge before use. If element does not glow verify glow stick. If still in doubt please replace glow plug.
3. If you operate in cold outside temperature condition , screw in the high end mixture valve at 60 degrees, and warm up your engine first.
4. If carburetor is blocked dirty, clean with automotive parts cleaner. If air filter is blocking air passage, clean air filter element or replace air filter element.
5. An overheated engine is not allowed. You should permit engine to cool down then gently unscrew the high end mixture at 60 degrees and re-start up the engine.

## To Stop Driving

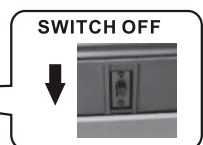


Method 1: Stifle the fuel line with a peg or your fingers with gloves.

Method 2: use soft cloth to stifle the exhaust vent.

Either of two actions is to stop fuel flowing into your engine.

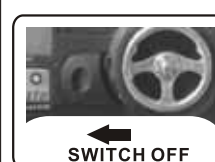
### Switch off the radio switch



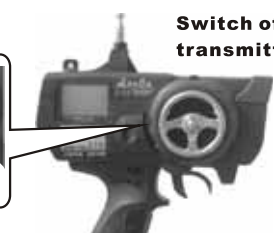
Switch off the radio system then the transmitter in succession.



Engine, exhaust pipe and manifold are hot after driving. It is extremely dangerous that you touch such components immediately after running. Otherwise, it will burn your body. Verify that you should permit them to cool down first.



### Switch off the transmitter



- Proper maintenance is very important. Make sure to always perform appropriate maintenance after driving so that you can enjoy driving without problems next time.
- Completely remove all dirt and debris from the vehicle, especially in the suspension, drive shafts and steering parts. Inspect each part and screw for loosening, missing or damages.
- Use premium "After Run Oil". This lubricant is perfect for maintenance of your engine.
- Correct lubrication of all bearings and moving mechanism is necessary for proper operation.
- You should always make sure your wheels are tight and parts move freely after and before use.

## Troubleshooting

Please read the section if you have any fault trying to operate the vehicle.

The engine fails to start.

Check if fuel tank is empty or the carburetor is not primed correctly.

-Fill the fuel tank up or prime the throttle.

The glow plug is bad or batteries are dead.

-Replace the glow plug or charge the batteries.

Carburetor is not adjusted properly.

-Set the high /slow end mixture valve and idle adjustment screw to basic position.

The fuel lines, the air filter, or the exhaust pipe is clogged.

-Clean or replace the clogged parts.

The engine is flooded.

-Remove the glow plug and discharge excessive fuel.

Servo linkage is not adjustment properly.

-Set the servo to neutral then re-adjust it.

The engine can start but stall immediately.

Fuel tank may run out of fuel.

-Fill up the fuel tank.

The fuel lines, the air filter, or the exhaust pipe is clogged.

-Clean or replace the clogged parts.

The carburetor is not adjusted properly.

-Re-adjust the high /slow end mixture valve and idle adjustment screw.

The engine is flooded.

-Allow the engine to thoroughly cool down and turn the high end mixture valve open at an angle of approx.30 degrees.

Weak response to engine

Carburetor is not adjusted properly.

-Re-adjust high/low end mixture valve

Low fuel pressure level is observed

-Install the pressure line from the exhaust pipe to fuel tank correctly.

Model becomes tough to control.

Batteries are weak.


-Replace or charge them.

Radio antenna is installed incorrectly.

-Extend the transmitter antenna fully to obtain better reception.

Servo linkage is weak to control.

-Centre the servo and perform a due adjustment again.

<b>3378-H001</b>  <b>Aluminum Chassis</b>	<b>3378-H002</b>  <b>Aluminum Front Shock Tower</b>	<b>3378-H003</b>  <b>Aluminum Rear Shock Tower</b>	<b>3378-H004</b> L=79.9mm  <b>2PCS</b> <b>Front/Rear Dogbone</b>
<b>3378-H005</b>  <b>2PCS</b> <b>Front Wheel Shaft</b>	<b>3378-H006</b>  <b>4PCS</b> <b>Steering Hub Bolt+Bush</b>	<b>3378-H007</b> L=Approx. 31.3mm  <b>2PCS</b> <b>Front Upper Arm Inside Hinge Pin+E-clip(2mm)</b>	<b>3378-H008</b>  <b>Front</b> <b>Rear</b> <b>Alum. Front Lower Suspension Mount-Outside</b> <b>Alum. Rear Lower Suspension Mount-Inside</b>
<b>3368-H003</b> L=75.7mm <b>Centre Front</b>  L=63.8mm <b>Centre Rear</b>  <b>Centre Front Dogbone</b> <b>Centre Rear Dogbone</b>	<b>3338-H008</b>  <b>Diff. Pinion Gear Shaft +E-clip(2mm)</b>	<b>3338-H010</b> L=Approx.51.6mm  <b>2PCS</b> <b>Front/rear Lower Arm Inside Hinge Pin+E-clip(2mm)</b>	<b>3338-H011</b> L=Approx.28.3mm  <b>2PCS</b> <b>Front Lower Arm Outside Hinge Pin+E-clip(2mm)</b>
<b>3338-H012</b> L=Approx.32.4mm  <b>2PCS</b> <b>Rear Lower Arm Outside Hinge Pin+E-clip(2mm)</b>	<b>3338-H013</b>  <b>2PCS</b> <b>Steering Post</b>	<b>3338-H014</b>  <b>Brake Post+Brake Block</b>	<b>3338-H015</b>  <b>Brake/Throttle Bars +Spring+Locators</b>
<b>3338-H016</b>  <b>2PCS</b> <b>Centre Outdrive-1</b>	<b>3338-H017</b>  <b>2PCS</b> <b>Centre Outdrive-2</b>	<b>3338-H020</b>  <b>Centre Gear Shaft+ Load Spring</b>	<b>3338-H021</b>  <b>Brake Pads+ Inserts+ Disc Brake</b>

The images may vary from the actual received parts.

<b>3338-H022</b>  Gear Anti-friction Pads /Mount	<b>3338-H023</b>  Bearing Bush Retainer	<b>3338-H025</b>  2PCS Steering Bush-Insert	<b>3338-H027</b>  2PCS Diff. Outdrive
<b>3338-H028</b>  2PCS Copper Bush 5*11*3.5	<b>6538-H005</b>  Front/Rear Diff. Main Gear +Front/Rear Diff. Bevel Pinion Gear	<b>6538-H019</b>  2PCS Rear Wheel Shaft	<b>3378-T001</b>  2PCS Front Upper Arm Assembly
<b>3378-T002</b>  2PCS Rear Upper Arm Assembly	<b>3378-T003</b>  2PCS Front Turning Linkage Assembly	<b>3378-T004</b>  Steering Bush Set-B	<b>3378-T005</b>  Front/rear Diff. Complete
<b>3338-T001</b>  Height:11mm Height:8mm 2PCS Front Aluminum Capped Shocks+Clasps(Two pairs)	<b>3338-T002</b>  Height:11mm Height:8mm 2PCS Rear Aluminum Capped Shocks+Clasps(Two pairs)	<b>3338-T005</b>  Servo Linkage Set	<b>3338-T007</b>  Centre Gear Complete
<b>3338-T009</b>  Exhaust Pipe Retainer/Bar	<b>3338-T010</b>  Bevel Gears(large+small)	<b>3338-T011</b>  2*10mm 2.5*22mm 5*6.8*1.3mm 5*17*0.3mm 2.5*10*0.3mm Diff. Pinions+Pins+Shims +Seals+ Case Assembly	<b>3378-P001</b>  Front/ Rear Bumper

The images may vary from the actual received parts.

<b>3378-P002</b>  2PCS <b>Front Tyre w/sponge</b>	<b>3378-P003</b>  2PCS <b>Rear Tyre w/sponge</b>	<b>3378-P004</b>  2PCS <b>Front Wheel Rim</b>	<b>3378-P005</b>  2PCS <b>Rear Wheel Rim</b>
<b>3378-P006</b>  3378-P002 + 3378-P004 2PCS <b>Front Wheel Complete</b>	<b>3378-P007</b>  3378-P003 + 3378-P005 2PCS <b>Rear Wheel Complete</b>	<b>3378-P008</b>  2PCS <b>Front Lower Arm</b>	<b>3378-P009</b>  2PCS <b>Rear Lower Arm</b>
<b>3378-P010</b>  2PCS <b>Front Steering Hub(L/R)</b>	<b>3378-P011</b>  2PCS <b>Front Upright (L/R)+Bush</b>	<b>3378-P012</b>  2PCS <b>Rear Upright (L/R)</b>	<b>3378-P013</b>  <b>Front/rear Brace</b>
<b>3378-P014</b>  <b>Front Upper Suspension Mount Rear Brace Mount</b>	<b>3378-P015</b>  <b>Speed testing Metre Plate+ Mount</b>	<b>3378-P016</b>  <b>Battery Box Mount</b>	<b>3378-P017</b>  <b>Front Body Post +Rear Body Post +Post Pads</b>
<b>3378-P018</b>  <b>Brake/Throttle Bar Mount +Servo Arms+Servo Retainer</b>	<b>3378-P019</b>  2PCS <b>Steering Post Bush</b>	<b>3378-P020</b>  <b>Fuel Tank</b>	<b>3378-P021</b>  2PCS <b>Fuel Tank Post</b>

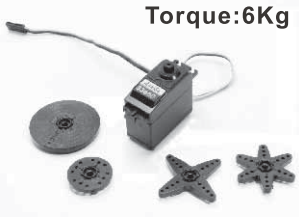












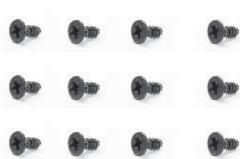






The images may vary from the actual received parts.

<b>3378-P022</b>  Off Road Wing	<b>3378-P023</b>  Wing Post/Wing Mount/ Wing Stay/Wing Retainer	<b>3378-P024</b>  Chassis Side Plate(L/R)	<b>3338-P009</b>  Front Rear Front Lower Suspension Mount-Inside Rear Lower Suspension Mount-Outside
<b>3338-P010</b>  Steering Bush Set-A +Steering Ackerman Plate	<b>3338-P011</b>  Front/rear Bulkhead	<b>3338-P012</b>  Centre Gear Mount	<b>3338-P013</b>  Centre Main Gear
<b>3338-P017</b>  Battery Box	<b>H001</b>  8PCS Shock Ball $\phi 4.8$	<b>H002</b>  6PCS Lock Nut M3	<b>H003</b>  6PCS Flange Lock Nut M4
<b>H007</b>  6PCS Ball Bearing 5*11*4	<b>H008</b>  6PCS Ball Bearing 5*10*4	<b>H009</b>  4PCS Ball Bearing 10*15*4	<b>H013</b>  8PCS Front Turning Linkage Inserted Ball Stud $\phi 4.8$
<b>H017</b>  6PCS Lock Nut M2.5	<b>H018</b>  6PCS Lock Nut M6	<b>H020</b>  12PCS Body Clip A/B- Big	<b>H021</b>  12PCS Body Clip A/B- Small

The images may vary from the actual received parts.

<b>H022</b>  $\phi$ 2*10mm 8PCS Wheel Hex. Pin	<b>H056</b>  Engine Mount(L/R)	<b>H059</b>  Alloy Zinc Clutch Bell(13T)	<b>H060</b>  15CXP Engine
<b>H070</b>  Clutch Shoes(Al.)+Springs	<b>H076A</b>  H=6mm Lightweight Flywheel+ Flywheel Post+ Flywheel Cone	<b>H130</b>  Manifold (Casting Aluminum)	<b>H152</b>  8PCS E-Clip(4MM)
<b>H153</b>  8PCS E-Clip(2MM)	<b>H201</b>  $\phi$ 2.5*11.6mm 6PCS Centre Diff. Pin	<b>P005</b>  2PCS Fuel Pipe	<b>P006</b>  12PCS Fuel Pipe Retainer
<b>P008</b>  Exhaust Pipe	<b>P009</b>  Exhaust Joint(Silicone)+ Small Zip Ties	<b>P010</b>  8PCS Zip Tie(Big)	<b>P011</b>  8PCS Zip Tie(Small)
<b>P012</b>  4PCS Wheel Hex.	<b>P019</b>  2PCS Receiver Antenna Pipe	<b>P040</b>  Air Filter + Foam	<b>E001</b> Torque:3.2Kg  3.2kg Servo (LS-3003) + Mount

The images may vary from the actual received parts.

<b>E002</b>  Torque:6Kg <b>6kg Servo (LS-3660)+ Mount</b>	<b>E003B</b>  <b>Receiver(AM,27MHz)</b>	<b>E004</b>  <b>Battery Compartment (For AA size batteries)</b>	<b>E005</b>  <b>Power Switch-A</b>
<b>S002</b>  12PCS <b>Round Head Self Tapping Screw 3*12</b>	<b>S003</b>  12PCS <b>Round Head Self Tapping Screw 3*8</b>	<b>S007</b>  12PCS <b>Round Head Screw 2*8</b>	<b>S008</b>  12PCS <b>Cap Head Hex. Screw 3*12</b>
<b>S009</b>  12PCS <b>Cap Head Hex. Screw 3*25</b>	<b>S010</b>  12PCS <b>Countersunk Self Tapping Screw 3*12</b>	<b>S015</b>  12PCS <b>Grub Screw 3*3-2*7</b>	<b>S016</b>  12PCS <b>Grub Screw 3*3</b>
<b>S018</b>  12PCS <b>Round Head Self Tapping Screw 2.6*8</b>	<b>S023</b>  12PCS <b>Countersunk Screw 3*8</b>	<b>S024</b>  12PCS <b>Countersunk Self Tapping Screw 3*10</b>	<b>S028</b>  12PCS <b>Round Head Screw 2.5*14</b>
<b>S029</b>  12PCS <b>Round Head Self Tapping Screw 2.6*10</b>	<b>S030</b>  12PCS <b>Round Head Self Tapping Screw 3*10</b>	<b>S059</b>  12PCS <b>Round Head Screw 3*8</b>	<b>S060</b>  12PCS <b>Round Head Screw 2.5*12</b>

The images may vary from the actual received parts.

<b>S063</b>  12PCS Round Head Screw 2.5*17	<b>S064</b>  12PCS Grub Screw 4*10	<b>S084</b>  8PCS Round Head Self Tapping Screw 3*37	<b>S085</b>  12PCS Round Head Self Tapping Screw 3*15
<b>S086</b>  8PCS Countersunk Self Tapping Screw 3*37	<b>E120</b>  Optional Use Crystal - FM 40Mhz (a pair) -for transmitter & receiver	<b>E121</b>  Optional Use Crystal - FM 27Mhz (a pair) -for transmitter & receiver	<b>E122</b>  Optional Use Crystal - AM 27Mhz (a pair) -for transmitter & receiver
<b>T001</b>  Φ 8mm Φ 9mm Φ 10mm Φ 12mm Large Cross Wrench	<b>T002</b>  Φ 2mm Φ 2.5mm Φ 3mm Φ 4mm Small Cross Wrench	<b>P100</b>  12PCS Body Post Pad	<b>E003</b>  Optional Use Receiver(FM, 40MHz)
<b>E003A</b>  Optional Use Receiver(FM, 27MHz)	<b>E200</b>  Optional Use FM LCD transmitter (27MHz/40MHz)	<b>E201</b>  Optional Use AM transmitter	<b>H053</b>  Optional Use Optional Aluminum Manifold
<b>HOP001</b>  Optional Use Optional Metal Exhaust Pipe	<b>3378-B001</b>  Optional Use Off Road Buggy Body(Red)	<b>3378-B002</b>  Optional Use Off Road Buggy Body(Yellow)	<b>3378-B003</b>  Optional Use Off Road Buggy Body(Blue)

The images may vary from the actual received parts.

3378-B004



Optional Use  
Off Road Buggy Body(Green)

The following are the spare parts for upgrading your buggy to two speed buggy.

3378-T10



Two speed gears  
complete

3378-T11



Clutch Bell(Twin gears)

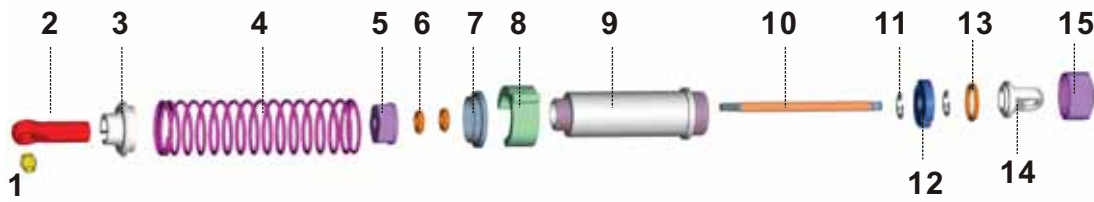
H055



18CXP Engine

The images may vary from the actual received parts.

## Shock Assembly

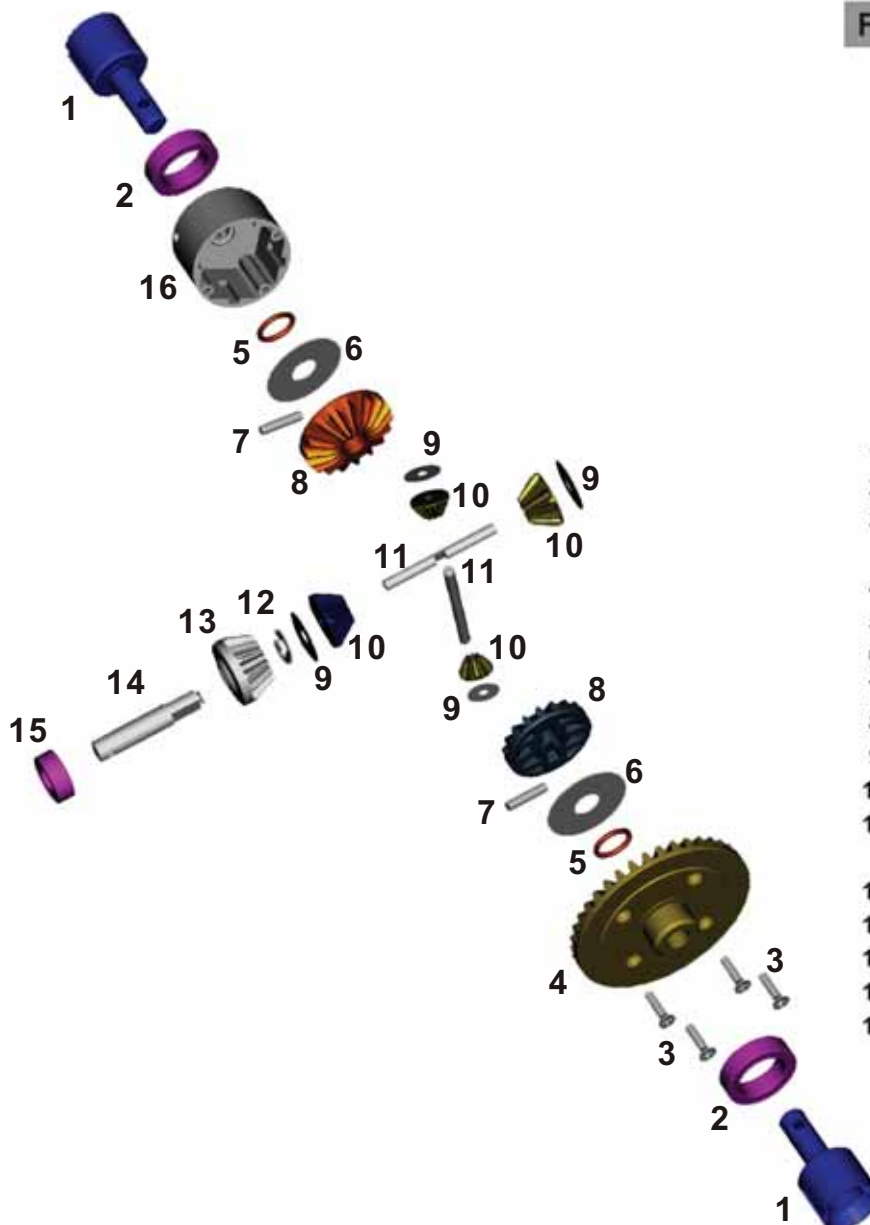


1. Shock Lower Mount Ball  $\phi$  4.8
2. Shock Bottom Mount
3. Shock Spring Retainer(bottom)
4. Shock Spring
5. Shock Body Bush

6. Shock Seal(small)
7. Shock Spring Retainer(upper)
8. Shock Adjustable Clasp
9. Shock Body
10. Shock Shaft

11. E-Clip(2mm)
12. Shock Piston
13. Shock Seal(Large)
14. Shock Cap
15. Shock Upper Mount

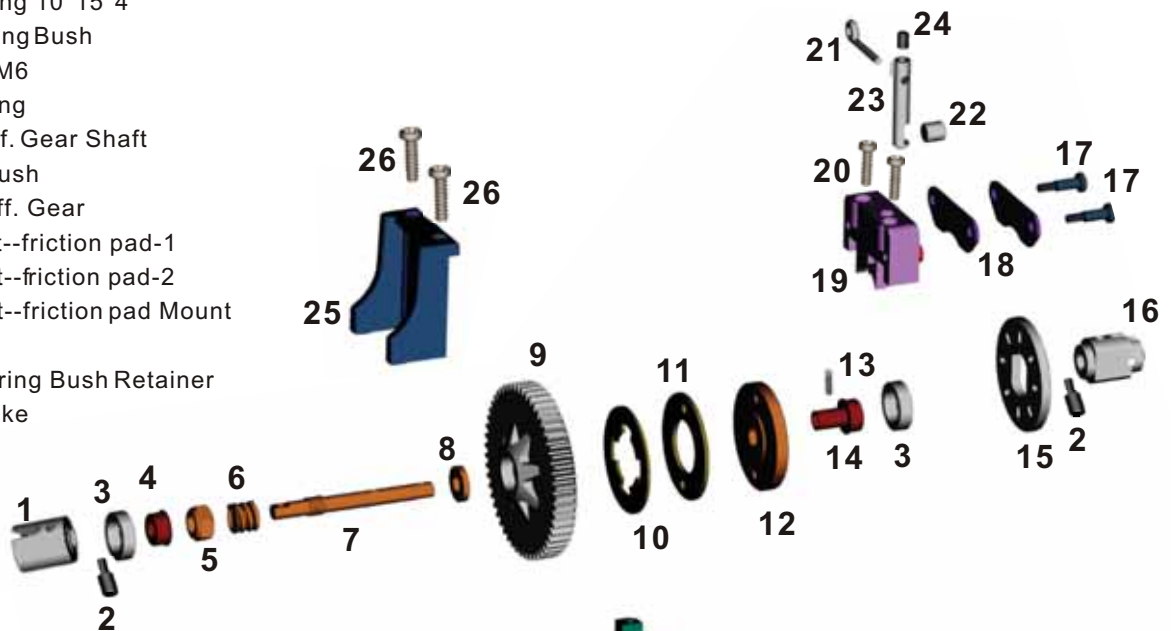
## Front/Rear Diff. Assembly



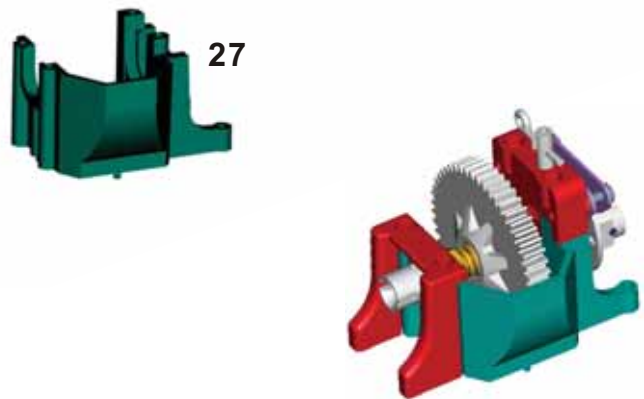
1. Front/rear Diff. Outdrive(L/R)
2. Ball Bearing 10\*15\*4
3. Round Head Self Tapping Screw 2\*9
4. Diff. Main Gear
5. Diff. Seal
6. Diff. Shim-Large
7. Diff. Pin 2\*10
8. Diff. Bevel Gear(Large)
9. Diff. Shim-Small
10. Diff. Bevel Gear(Small)
11. Diff. Small Bevel Gear Open Pin
12. E-Clip
13. Diff. Pinion
14. Diff. Pinion Post
15. Ball Bearing 5\*11\*4
16. Diff. Gear Case

1. Centre Diff. Outdrive-1
2. Grub Screw 3\*3-2\*7
3. Ball Bearing 10\*15\*4
4. Ball Bearing Bush
5. Lock NutM6
6. Load Spring
- 7.Centre Diff. Gear Shaft
8. Copper Bush
9. Centre Diff. Gear
10. Gear Ant--friction pad-1
11. Gear Ant--friction pad-2
12. Gear Ant--friction pad Mount
13. Pin 2\*12
14. Ball Bearing Bush Retainer
15. Disc Brake

## Centre Diff. Assembly



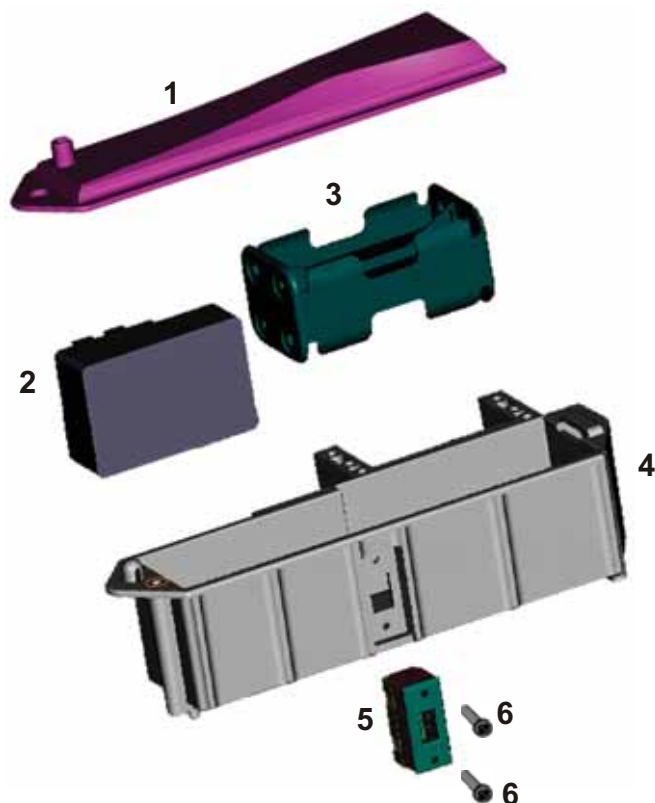
- 16.Centre Diff. Outdrive-1
- 17.Round Head Screw 3\*12
- 18.Brake Pad
19. Centre GearMount-3
- 20.Round Head Self Tapping Screw 3\*12
- 21.Brake Bar
22. Brake Block
23. Brake Post
24. Grub Screw 3\*3
- 25.Centre Gear Mount-1
26. Centre GearMount-2



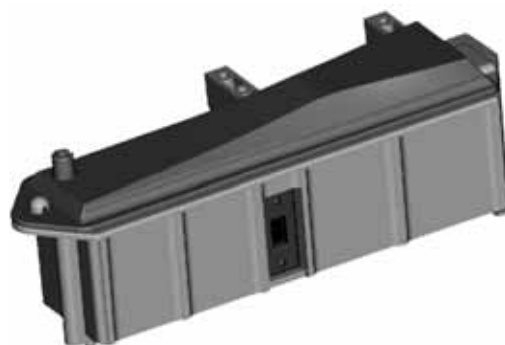
## Steering Assembly

- 1.E-Clip (4mm)
2. Steering Post
3. Steering PlateBush
- 4.Steering AdjustableRing
- 5.Ball Stud Screw  $\phi$  4.8
6. Steering Bush Insert
7. Steering Post Bushing A
8. Steering Bushing Load Spring
9. Steering PostBushing Assembly A-1
- 10.Steering Post Bushing Assembly A-2
11. Steering Post Bore
12. Steering Ackerman Plate
13. Lock NutM2.5
14. Round Head Screw 2.5\*12

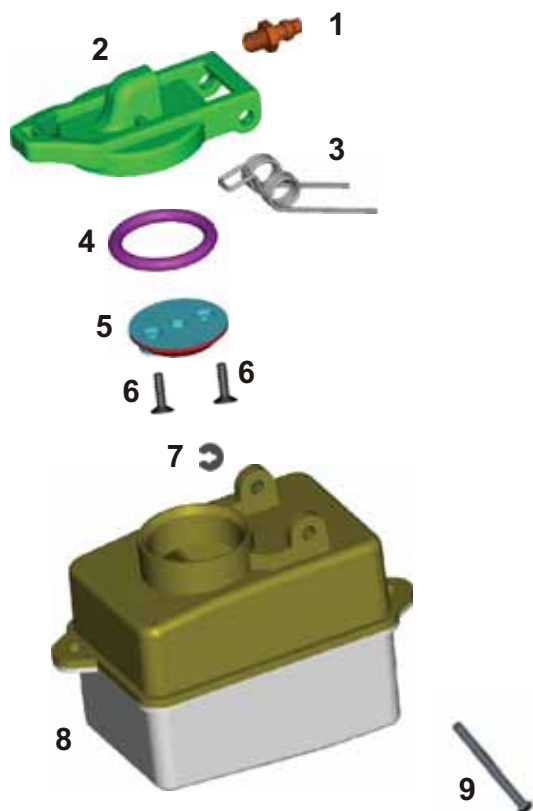
### Battery/Receiver Box Assembly



1. Battery/Receiver Box Cover
2. Battery Compartment
3. Receiver
4. Battery/Receiver Box Mainframe
5. Power Switch
6. Round Head Screw 2\*8



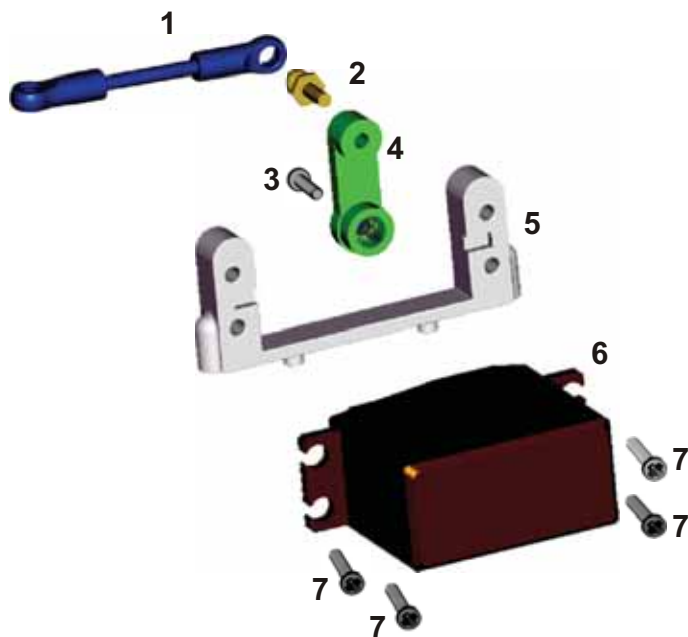
### Fuel Tank Assembly



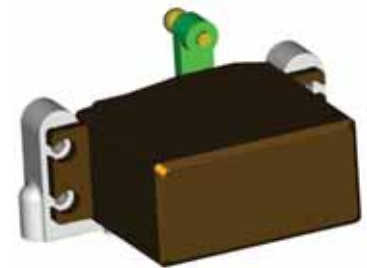
1. Fuel Tank Inlet
2. Fuel Tank Fill Cover
3. Fuel Tank Load Spring
4. Fuel Tank Seal
5. Fuel Tank Insert Filter
6. Round Head Self Tapping Screw 2.3\*6
7. E-Clip (2mm)
8. Fuel Tank Main Body
9. Fuel Tank Lock Pin



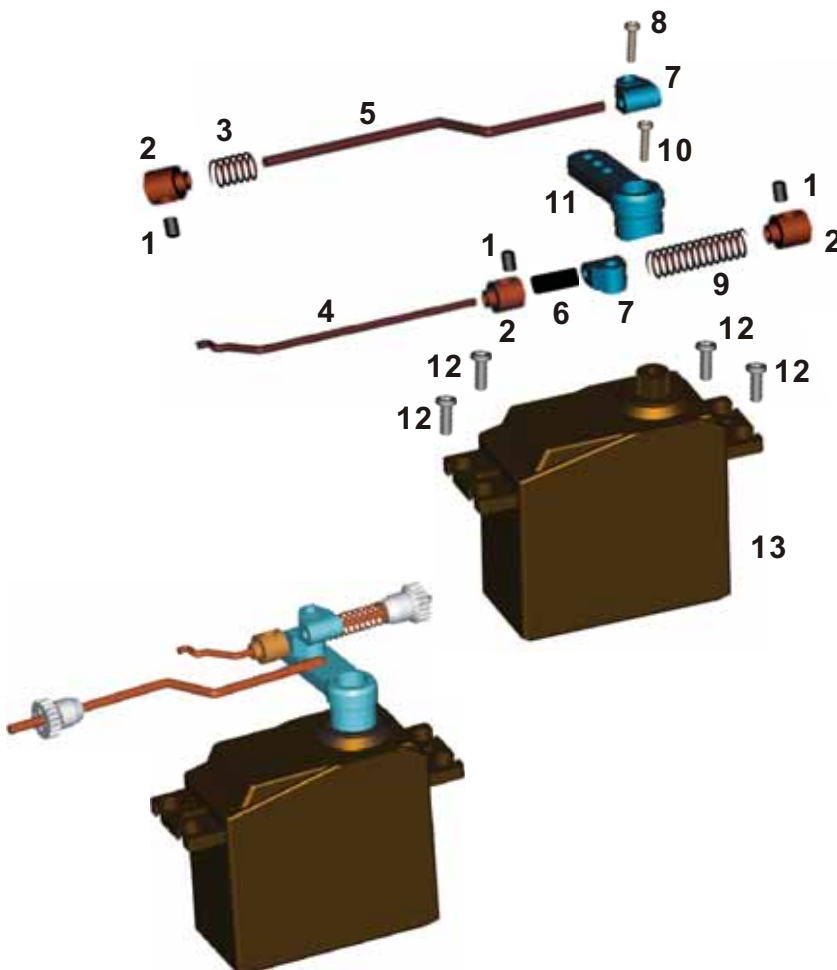
### Steering Servo Assembly



1. Servo Linkage Set
2. Ball Stud.  $\phi 4.8$
3. Round Head Self Tapping Screw 2.6\*8
4. Servo Arm
5. Servo Retainer
6. Servo Unit
7. Round Head Self Tapping Screw 3\*8

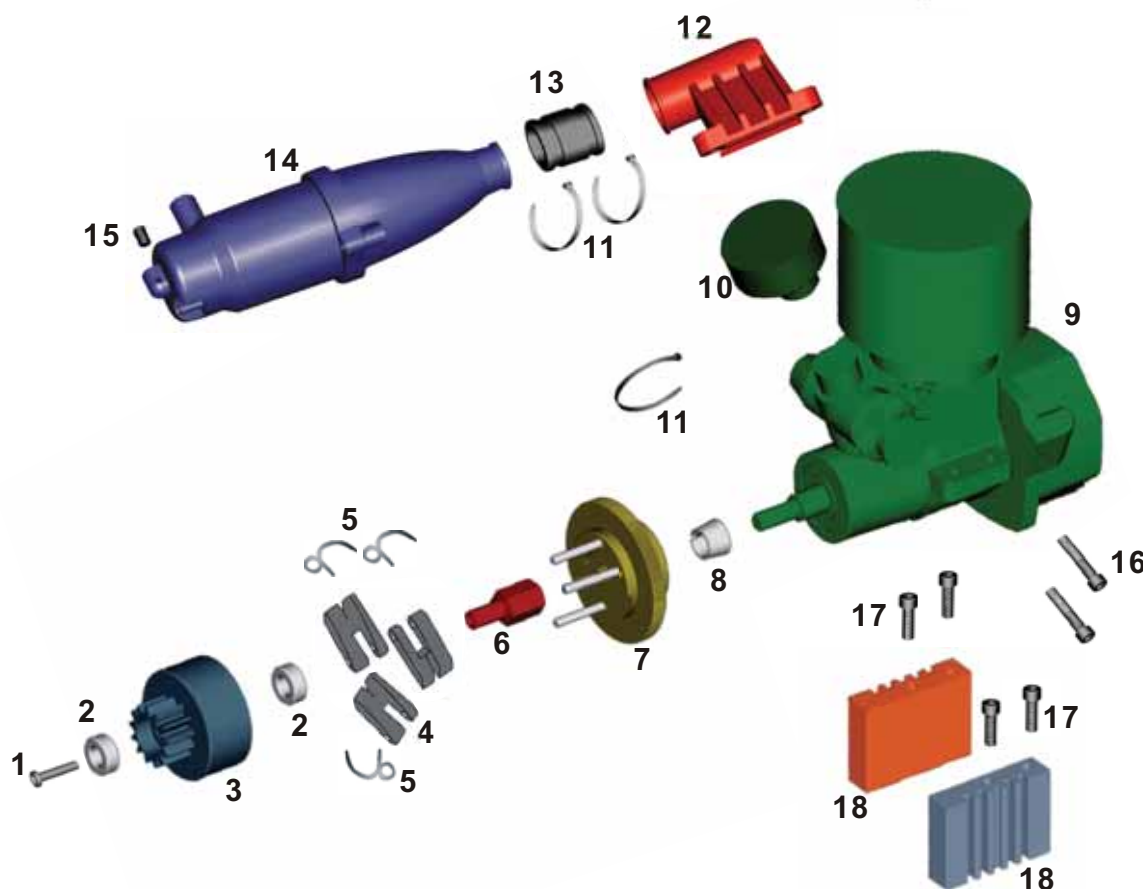


### Throttle Servo Assembly

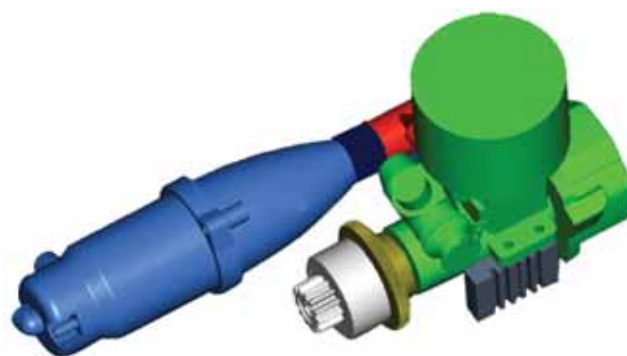


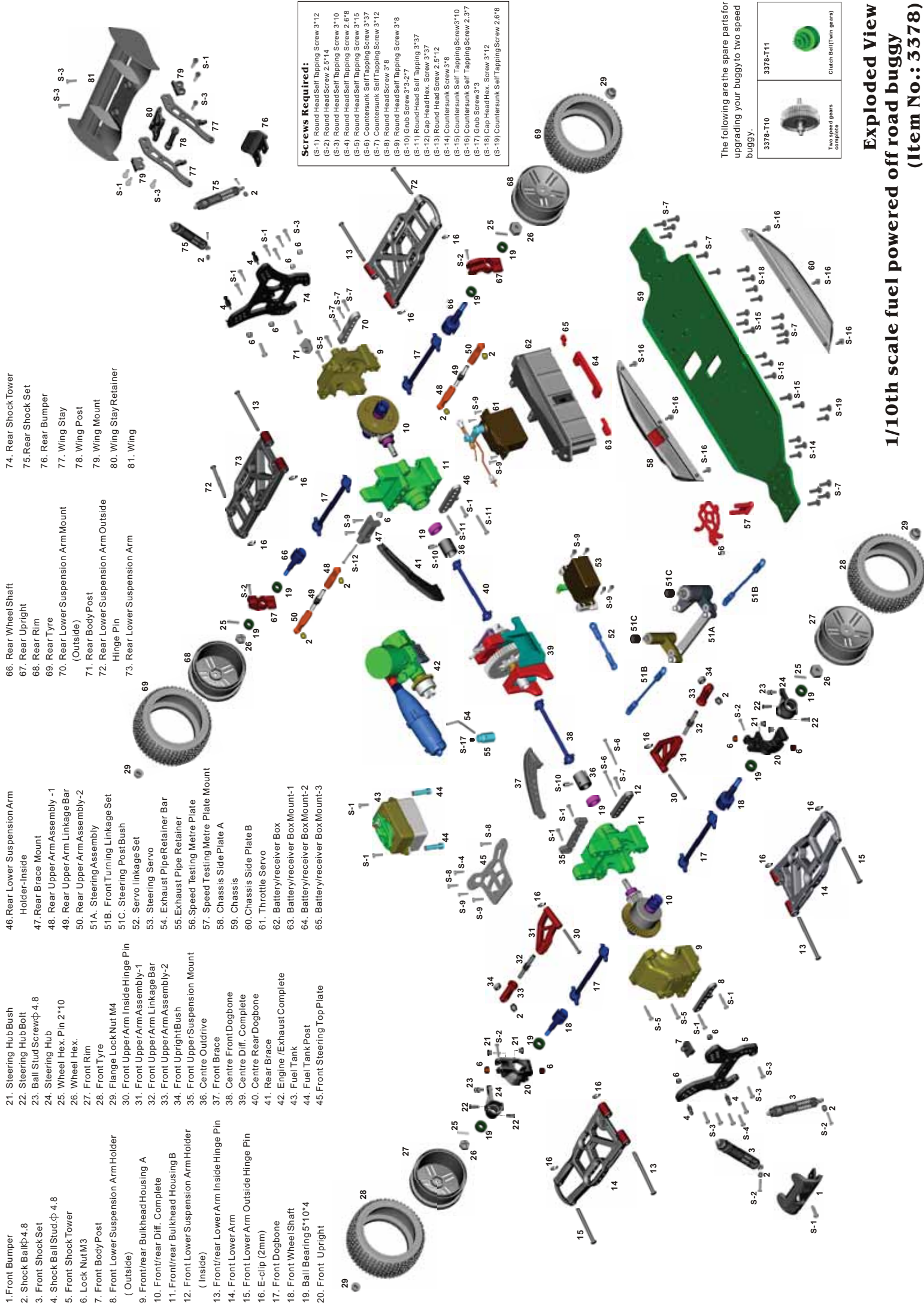
1. Grub Screw 3\*3
2. Throttle/brake Bar Locator
3. Brake Bar Load Spring
4. Throttle Bar
5. Brake Bar
6. Silicon Rubber Tubing
7. Throttle/brake bar retainer
8. Round Head Screw 2.5\*17
9. Throttle Bar Load Spring
10. Round Head Self Tapping Screw 2.6\*8
11. Servo Arm
12. Round Head Self Tapping Screw 3\*8
13. Servo Unit

# Engine Assembly



1. Round Head Screw 3\*8
2. Ball Bearing 5\*10\*4
3. Clutch Bell (13T)
4. Clutch Shoe
5. Clutch Shoe Spring
6. Flywheel Nut
7. Flywheel
8. Cone Cover
9. Engine Main Body
10. Air Filter
11. Zip Tie (Small)
12. Manifold
13. Silicon Joint
14. Exhaust Pipe
15. Grub Screw 3\*3
16. Cap Head Hex. Screw 3\*35
17. Cap Head Hex. Screw 3\*12
18. Engine Mount





1. Front Bumper

2. Shock Ballφ4.8

3. Front Shock Set

4. Shock Ball/Studφ4.8

5. Front Shock Tower

6. Lock NutM3

7. Front BodyPost

8. Front Lower Suspension Arm Holder (Outside)

9. Front/rear Bulkhead Housing A

10. Front/rear Diff. Complete

11. Front/rear Bulkhead Housing B

12. Front Lower Suspension Arm Holder (Inside)

13. Front/rear LowerArm Inside Hinge Pin

14. Front LowerArm

15. Front LowerArm Outside Hinge Pin

16. E-clip (2mm)

17. Front Dogbone

18. Front Wheel Shaft

19. Ball Bearing 5\*10\*4

20. Front Upright

21. Steering Hub Bush

22. Steering Hub Bolt

23. Ball Stud Screwφ4.8

24. Steering Hub

25. Wheel Hex. Pin 2\*10

26. Wheel Hex.

27. Front Rim

28. Front Tyre

29. Flange Lock Nut M4

30. Front UpperArm Inside Hinge Pin

31. Front UpperArm Assembly-1

32. Front UpperArm Linkage Bar

33. Front UpperArm Assembly-2

34. Front Upright Bush

35. Front Upper Suspension Mount

36. Centre Outdrive

37. Front Brace

38. Centre Front Dogbone

39. Centre Diff. Complete

40. Centre Rear Dogbone

41. Rear Brace

42. Engine /Exhaust Complete

43. Fuel Tank

44. Fuel Tank Post

45. Front Steering Top Plate

46. Rear Lower Suspension Arm Holder-Inside

47. Rear Brace Mount

48. Rear Upper Arm Assembly-1

49. Rear Upper Arm Linkage Bar

50. Rear Upper Arm Assembly-2

51A. Steering Assembly

51B. Front Turning Linkage Set

51C. Servo linkage Set

52. Servo linkage Set

53. Steering Servo

54. Exhaust Pipe Retainer

55. Exhaust Pipe

56. Speed Testing Metre Plate

57. Speed Testing Metre Plate Mount

58. Chassis Side Plate A

59. Chassis

60. Chassis Side Plate B

61. Throttle Servo

62. Battery/receiver Box

63. Battery/receiver Box Mount-1

64. Battery/receiver Box Mount-2

65. Battery/receiver Box Mount-3

66. Rear Wheel Shaft

67. Rear Upright

68. Rear Rim

69. Rear Tyre

70. Rear Lower Suspension Arm Mount (Outside)

71. Rear Body Post

72. Rear Lower Suspension Arm Outside Hinge Pin

73. Rear Lower Suspension Arm

74. Rear Shock Tower

75. Rear Shock Set

76. Rear Bumper

77. Wing Stay

78. Wing Post

79. Wing Mount

80. Wing Stay Retainer

81. Wing
21. Steering Hub Bush

22. Steering Hub Bolt

23. Ball Stud Screwφ4.8

24. Steering Hub

25. Wheel Hex. Pin 2\*10

26. Wheel Hex.

27. Front Rim

28. Front Tyre

29. Flange Lock Nut M4

30. Front UpperArm Inside Hinge Pin

31. Front UpperArm Assembly-1

32. Front UpperArm Linkage Bar

33. Front UpperArm Assembly-2

34. Front Upright Bush

35. Front Upper Suspension Mount

36. Centre Outdrive

37. Front Brace

38. Centre Front Dogbone

39. Centre Diff. Complete

40. Centre Rear Dogbone

41. Rear Brace

42. Engine /Exhaust Complete

43. Fuel Tank

44. Fuel Tank Post

45. Front Steering Top Plate

46. Rear Lower Suspension Arm Holder-Inside

47. Rear Brace Mount

48. Rear Upper Arm Assembly-1

49. Rear Upper Arm Linkage Bar

50. Rear Upper Arm Assembly-2

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63. Battery/receiver Box Mount-1

64. Battery/receiver Box Mount-2

65. Battery/receiver Box Mount-3

66. Rear Wheel Shaft

67. Rear Upright

68. Rear Rim

69. Rear Tyre

70. Rear Lower Suspension Arm Mount (Outside)

71. Rear Body Post

72. Rear Lower Suspension Arm Outside Hinge Pin

73. Rear Lower Suspension Arm

74. Rear Shock Tower

75. Rear Shock Set

76. Rear Bumper

77. Wing Stay

78. Wing Post

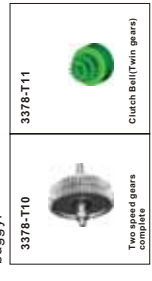
79. Wing Mount

80. Wing Stay Retainer

81. Wing

- Screws Required:**
- (S-1) Round Head Self Tapping Screw 3\*12
  - (S-2) Round Head Screw 2.5\*14
  - (S-3) Round Head Self Tapping Screw 3\*10
  - (S-4) Round Head Self Tapping Screw 2.6\*8
  - (S-5) Round Head Self Tapping Screw 3\*15
  - (S-6) Countersunk Self Tapping Screw 3\*37
  - (S-7) Countersunk Self Tapping Screw 3\*12
  - (S-8) Round Head Screw 3\*6
  - (S-9) Round Head Self Tapping Screw 3\*8
  - (S-10) Grub Screw 3\*2\*7
  - (S-11) Round Head Self Tapping 3\*37
  - (S-12) Cap Head Hex. Screw 3\*37
  - (S-13) Round Head Screw 2.5\*12
  - (S-14) Countersunk Screw 3\*8
  - (S-15) Countersunk Self Tapping Screw 3\*10
  - (S-16) Countersunk Self Tapping Screw 2.3\*7
  - (S-17) Grub Screw 3\*3
  - (S-18) Cap Head Hex. Screw 3\*12
  - (S-19) Countersunk Self Tapping Screw 2.6\*8

The following are the spare parts for upgrading your buggy to two speed buggy.



**Exploded View**  
**1/10th scale fuel powered off road buggy**  
**(Item No.: 33378)**

***Please read the manual carefully before assembling or handling your model.***



- This product is not simply a toy. It is a sophisticated model.
- It is represented for operator over 14+. Children should handle this model with adult's supervision.
- For further performance improvement, the images in this manual may vary from the actual received model.

**Thank you for purchasing our products. We wish you great fun with our model.**