

INSTRUCTION MANUAL

1/16TH SCALE 4WD ELECTRIC POWER VEHICLES

A ☐ On-road racing car B ☐ Powerful truggy



D ☐ Off-road monster truck

C ☐ Off-road buggy



E ☐ Off road ATV



1/16th
ELECTRIC POWER

All optional upgrades available at factory will enhance the performance of your car properly. Please consult a full part list in this manual and find right parts that you want!

Notes:

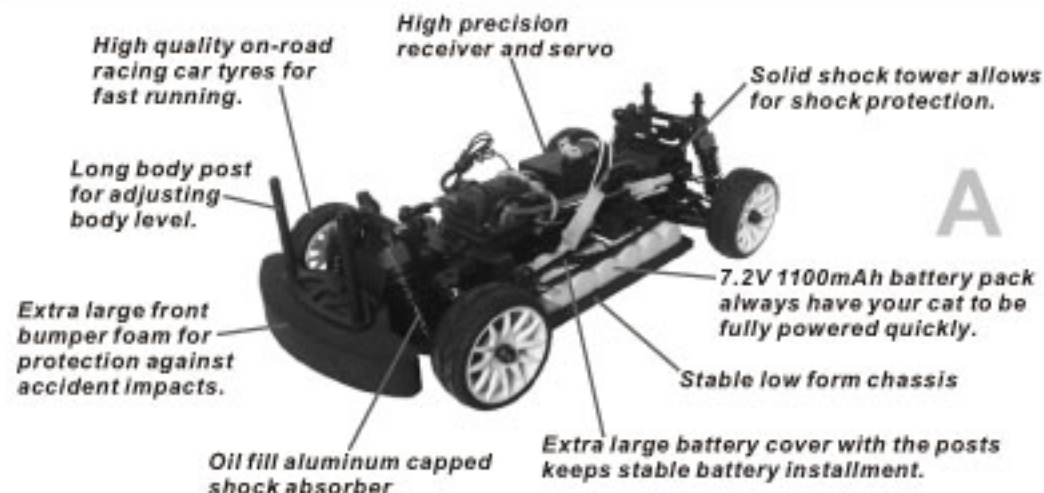
- Read and understand the instructions carefully before operating or assembling your racing model.
- Specifications are subject to change without prior notice, and actual received model may vary from the images and/or descriptions in this manual.

NEW

Specifications are subject to change without notice!

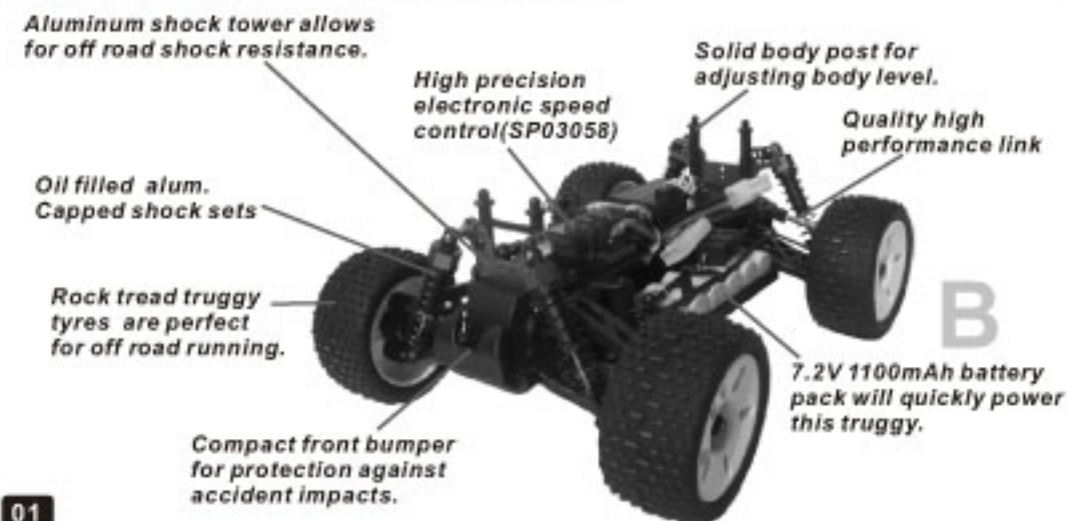
1/16th scale EP On-road racing car

Vehicle Length:265mm	Ground Clearance: 8mm	Motor Brand: RC 380
Vehicle Width:140mm	Gear Ratio:8.9:1	Battery Power: 7.2V 1100mAh
Vehicle Height:80mm	Wheel Width: 18mm	Gross Weight: 0.79Kg
Wheelbase:174mm	Wheel Diameter:49mm	



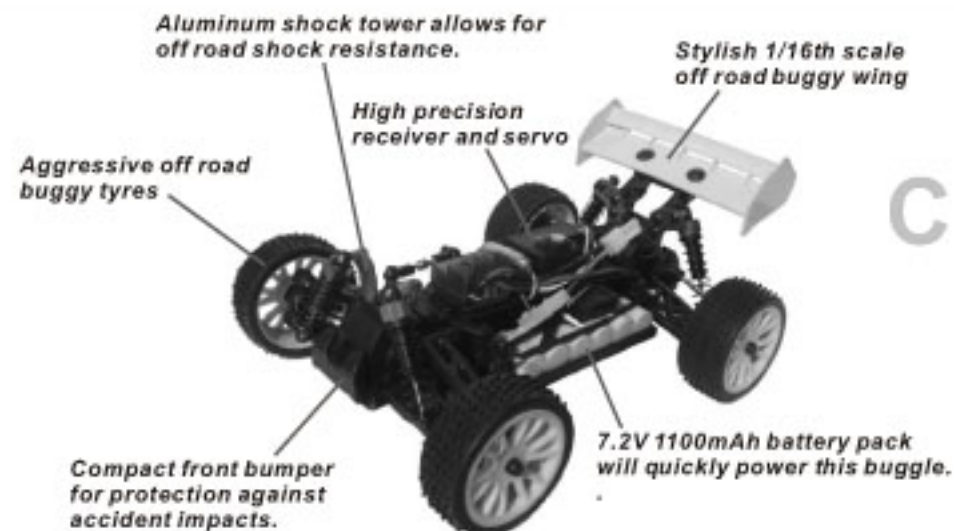
1/16th scale EP truggy

Vehicle Length:250mm	Ground Clearance: 20mm	Motor Brand: RC 380
Vehicle Width:205mm	Gear Ratio:8.9:1	Battery Power: 7.2V 1100mAh
Vehicle Height:88mm	Wheel Width: 36mm	Gross Weight: 0.9Kg
Wheelbase:174mm	Wheel Diameter:75mm	



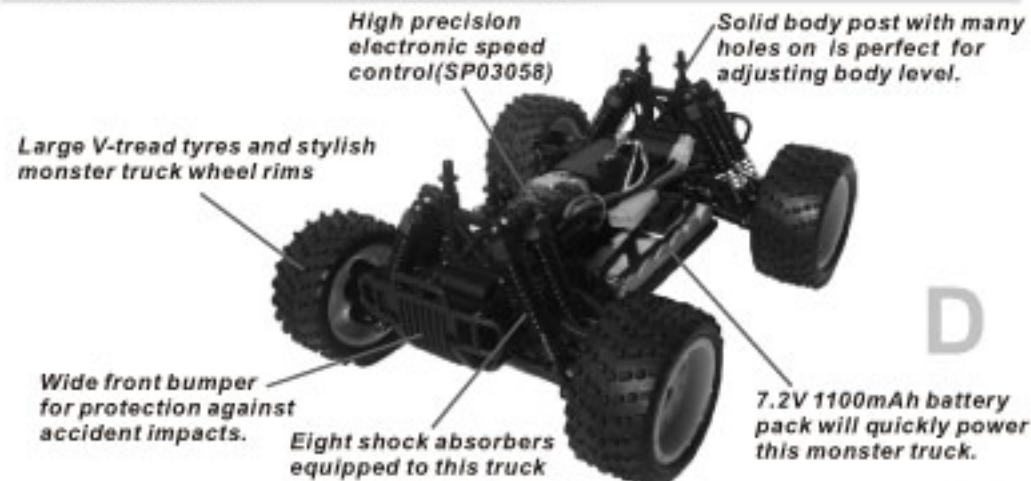
1/16th scale EP Off-road buggy

Vehicle Length:280mm	Ground Clearance: 18mm	Motor Brand: RC 380
Vehicle Width:191mm	Gear Ratio:8.9:1	Battery Power: 7.2V 1100mAh
Vehicle Height:110mm	Wheel Width: 25mm(Front) 29mm(Rear)	Gross Weight: 0.85Kg
Wheelbase:174mm	Wheel Diameter:69mm	



1/16th scale EP monster truck

Vehicle Length:251mm	Ground Clearance: 18mm	Motor Brand: RC 380
Vehicle Width:216mm	Gear Ratio:11.1:1	Battery Power: 7.2V 1100mAh
Vehicle Height:120mm	Wheel Width: 40mm	Gross Weight: 1Kg
Wheelbase:174mm	Wheel Diameter:77mm	



1/16th scale EP Off road ATV

Vehicle Length:251mm
Vehicle Width:216mm
Vehicle Height
(body excluded):120mm
Wheelbase:174mm

Ground Clearance: 18mm
Gear Ratio:11.1:1
Wheel Width: 40mm
Wheel Diameter:77mm

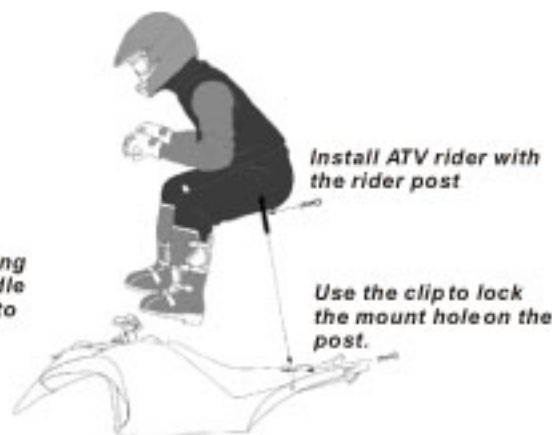
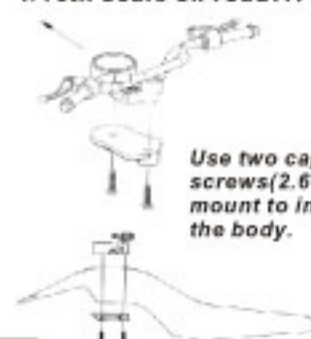
Motor Brand: RC 380
Battery Power: 7.2V 1100mAh
Gross Weight: 1.05Kg



Body required



1/16th scale off road ATV body



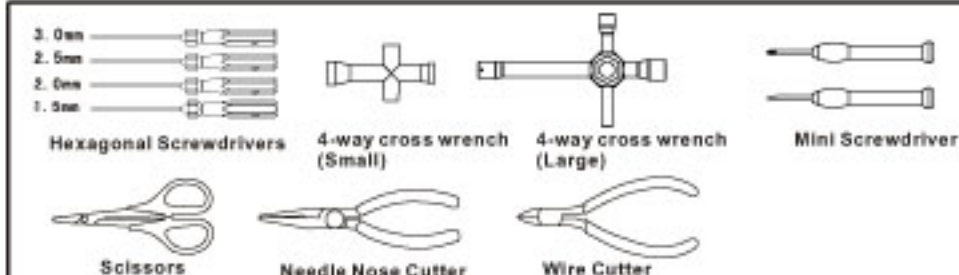
NOTICE FOR ASSEMBLY

Additional Items Needed For Running Your Model



The following items, not included in the kit unless specified, are required for assembling your model. These items are available in local hobby shops. Read and understand all instructions carefully before assembling your vehicle.

Tools Needed To Maintain Your Model



The following tools available at our shops are warmly recommended to you.



Note: Actual received tools may vary from the images.

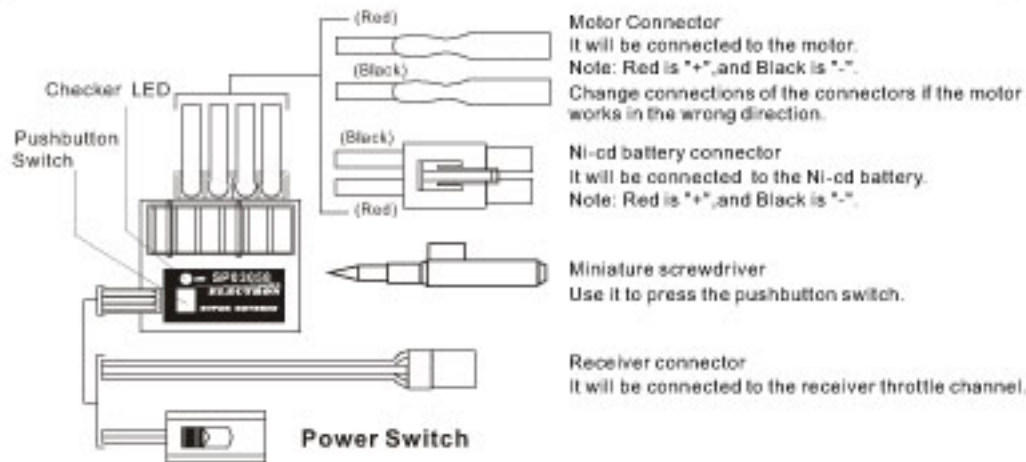
Electronic Speed Controller (SP-03058)

Unlike GP vehicles, good performance of EP vehicles rely on the electronic speed controller and motor. The new style electronic speed controller(SP-03058) works for our 1/16th EP vehicles. The electronic speed controller (SP-03058), developed for the electric car models, is a new kind of drive FET amp with high frequency and reverse function. This device features light weight and compact design including the simple-controlled digital setting system.

Features

- Nicd 6-7 cells (7.2-8.4V) Power Supply
- High frequency drive system
- Forward, reverse, and brake operations are all kept linear.
- Reverse operation cancel function
- One-touch input of neutral, high, and brake MAX points by pushbutton Switch
- Over current protection function
- Heat protector
- Low voltage protection function
- Abnormal input signal indicator
- Checker function with LED display and audible beep
- SP-03058 should be used with 13T motors or above

Connections



Technical Data

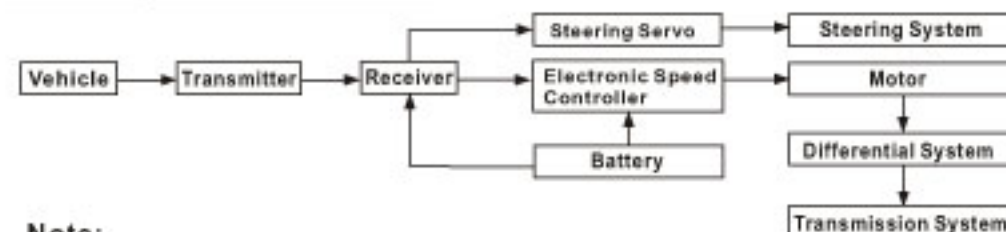
- PWM frequency: 1.5KHz(fixed)
- PWM frequency: 1.5KHz(fixed)
- Current capacity(FET range): Forward=200A, Reverse=100A
- Case dimensions: 33*27*17 mm(excluding the protruding parts)
- Silicon cord gauge size: AWG 12 equivalent
- Weight: 4.5g(Connector and switches included)
- BEC voltage : 3.0V

PROTECTION CIRCUITS

The following protection circuits are built into the SP-03018. SP-03018 will automatically activate the protection circuit when some failure occurred. Please pay close attention to the failure cause before operating again.

Overcurrent Protection	The overcurrent protection circuit will be automatically activated to protect the FET as long as an overcurrent results from certain an output short circuit, etc. ⇒ Remove the cause of the short circuit(etc.)before operating the model again.
Heat Protector	If the FET is found overheated due to high speed running, the heat protector will begin working to gradually reduce the speed. ⇒ The heat protector will automatically reset after the temperature on the FET drops. Please remove the over-heated cause before operating the model again.
Low Voltage Operation	Low voltage operation limits the motor output current and ensure normal steering operations when the voltage on Nicd battery drops.

Radio System Work Flow



Note:

Please keep same frequency both on your transmitter and receiver.
Verify all connections are correct.(CH 1 should be connected to the steering servo, and CH 2 should be connected to Electric Speed Servo.)
7.2 v 1800mAh battery is required for power supply.

Once all connections are completed, turn on the transmitter then the receiver

The signal comes in and will be divided into two different orders from the transmitter to the receiver after the original signal is read through.

- The steering servo connected to the steering/drive system is to transfer movement directions.
Note: Adjusting the steering trim to center the front wheels of the vehicle when the steering wheel control on the transmitter is at center position.
- The electronic speed servo will allow the motor gear to move clockwise or anti-clockwise.
The car will go forwards in response to motor gear anti-clockwise rotation.
The car will go backwards in response to motor gear clockwise rotation.
The electronic speed servo can also reduce the rotating speed of motor gear and provides quick vehicle wheel movements.
Note: For tremendous movement inertia, the vehicle may keep a short while of running before stopping though you release the throttle shortly.

Use of the transmitter to control your vehicle!

This new kind of transmitter is recommended to 1/16th scale EP vehicles.

Please install eight "AA" batteries to the transmitter.



Slide the battery cover to open the battery compartment.

Replace the battery cover after eight AA batteries are installed.

Battery Precautions:

1. In order to maintain good performance, we warmly recommend you to use the 1.5V alkaline batteries instead of the 1.2 V chargeable batteries.
2. The batteries may leak in the event that they are installed with wrong polarities.
3. Do not use batteries of different types.
4. Do not mix the old and new batteries.
5. Do not leave batteries if not in use for a long period.
6. Please replace batteries when power indicators are weak.

Function Switches On This Transmitter



1. Throttle Reverse Switch
2. Steering Reverse Switch
3. Control Wheel
4. Steering Trim
5. Throttle Trim
6. Trigger
7. Crystal (To change please pull out)
8. Power Indicators
9. Trigger Setup Trim
10. Power Switch



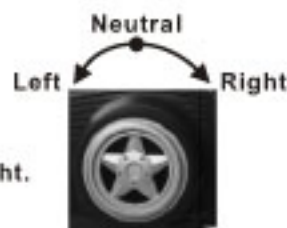
Trigger
Brake
Go Forward
Neutral

Transmitter Trigger

- Pull trigger back to permit your vehicle going forward.
- Push trigger forward to brake your vehicle.
- Trigger Setup Trim is often used to adjust the value of trigger movement.

Transmitter Control Wheel

- To turn your vehicle to the left or right.



Steering Trim (To trim steering setting)

Throttle Trim (To trim throttle setting)

- If you are an active reverse operator, please send steering or throttle reverse switch before running your car.

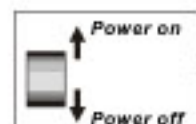


Check your model before each driving!

1 Transmitter Switches

Extend the antenna!

Transmitter Power Switch



Caution!
Make sure antennas properly inserted and screwed in the transmitter. Performance and control range of transmitter may be affected.

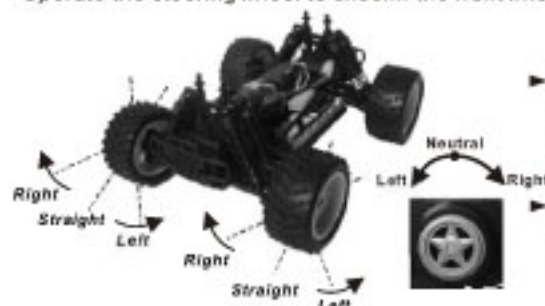
2 Chassis Switch



Turn on the radio system on the vehicle.

3 Check Steering Performance

Operate the steering wheel to check if the front wheels move correctly.

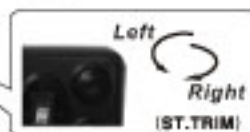


- The front wheel movement can be controlled by the steering wheel. For instance: If moving the steering wheel to the left, the vehicle front wheels will also turn left.
- If the moving direction of the wheel is opposite to the above mentioned, please change the Steering Reverse Switch position.

4 Steering Trim Setting



Gently lift up the front wheels while adjusting the steering trim.



Note:

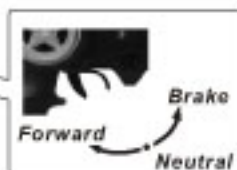
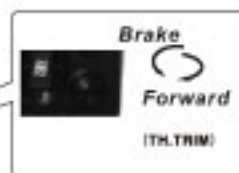
Adjust the steering trim to center the front wheels of the vehicle when the steering wheel is at center position.

5 Throttle Trim Setting



Note:

Adjust the steering trim to center the front wheels of the vehicle when the steering wheel is at center position.



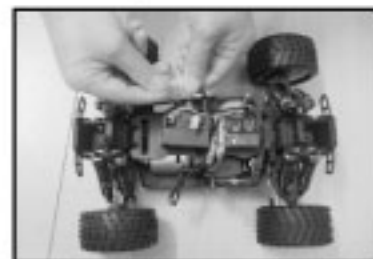
Installing The Battery Pack To Your Vehicle



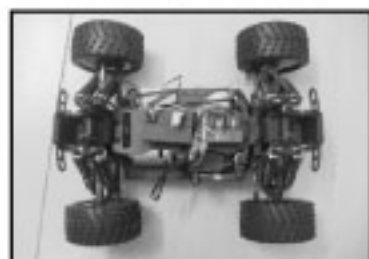
1. Install the battery to the chassis correctly as shown in the picture.



2. Use the clips to lock the battery brace cover after battery pack is installed.



3. Connect the battery connector to the motor connector in order to permit correct radio system operation.



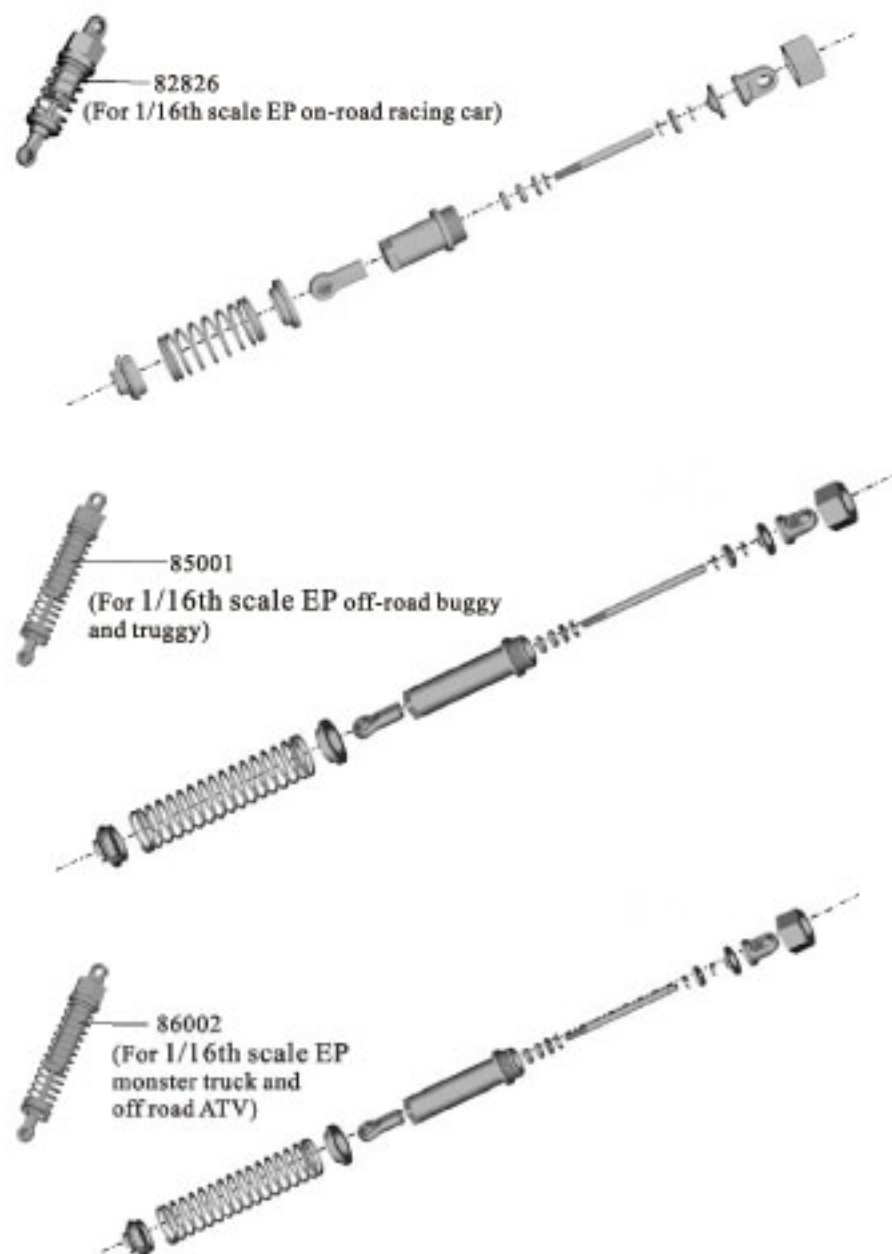
4. In fine please carefully check the wires. Irregular connection of wires should not be observed. You must use the zip ties to fasten them before running.

Important Safety Information

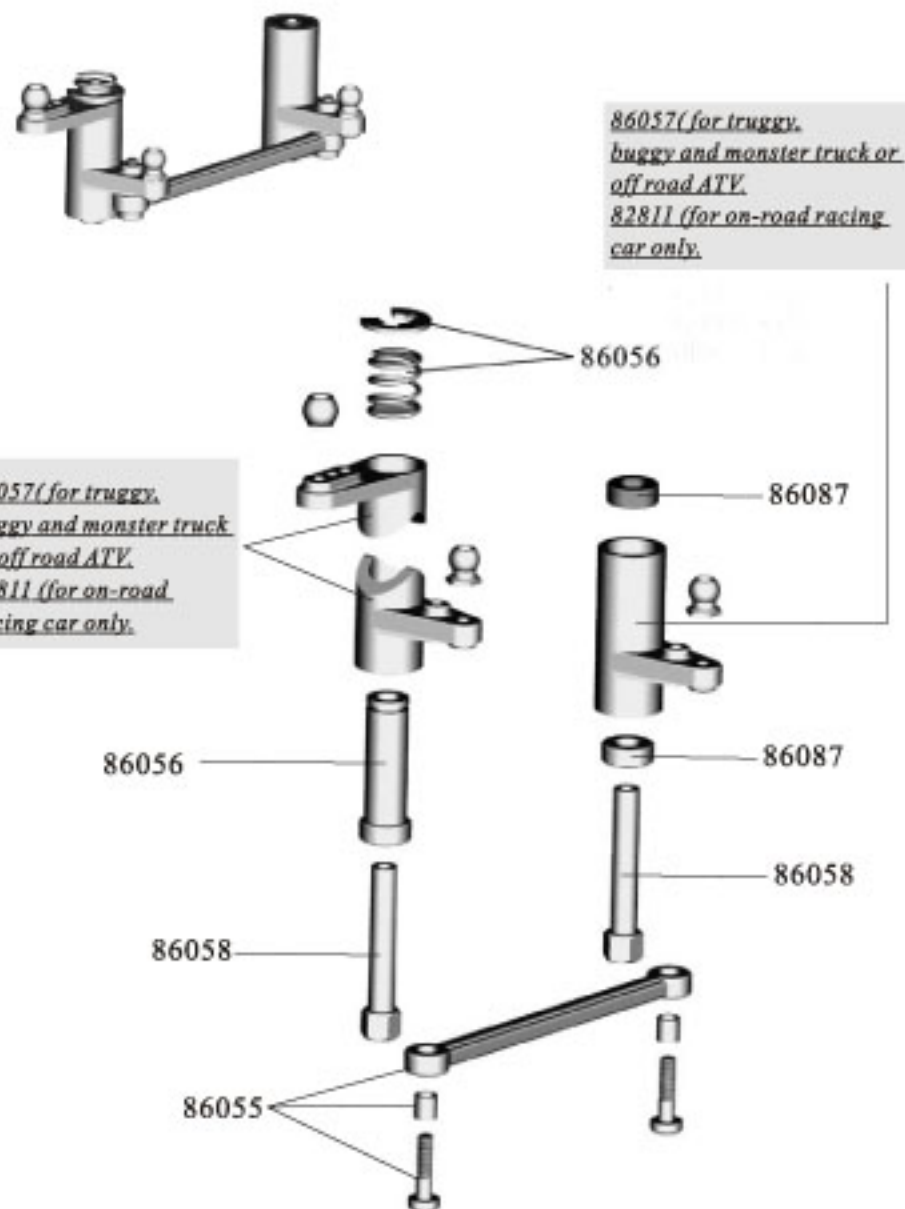
This is a high-performance radio controlled model which needs to be operated with caution and common sense. Failure to follow the safety instructions is most likely to result in personal injuries and/or property damage.

- Always run your vehicle after the shield shell is mounted.
- Do not abruptly alter the speed during running.
- Do not run your vehicle around crowded people.
- Carefully check whether all screws or nuts are loose or not after running.
- Always check for vehicle and transmitter battery level.
- Never throw exhausted batteries into fire! Otherwise, they may explode.
- In the event that the model behaves abnormally, stop running it and check.
- The model is not allowed to be used until all problems have been settled.
- Use the neutral cleaner and soft clothes to clean the model surface.
- Verify that all retainers are well fastened (screws, nuts, bolts and clips) before running your model.
- Verify proper function of steering and braking control.
- Lubricate appropriately all bearings, bushings and maintain proper shock performance.
- Operate radio system with fully charged batteries; perform radio frequency /range check.
- Inspect terrain for hard/non-movable objects that may become a hazard for your vehicle.
- Do not operate in the presence of domestic animals (dogs and/or cats)
- Do not operate vehicle on public roads, or obtain adequate authorisation to permit usage.

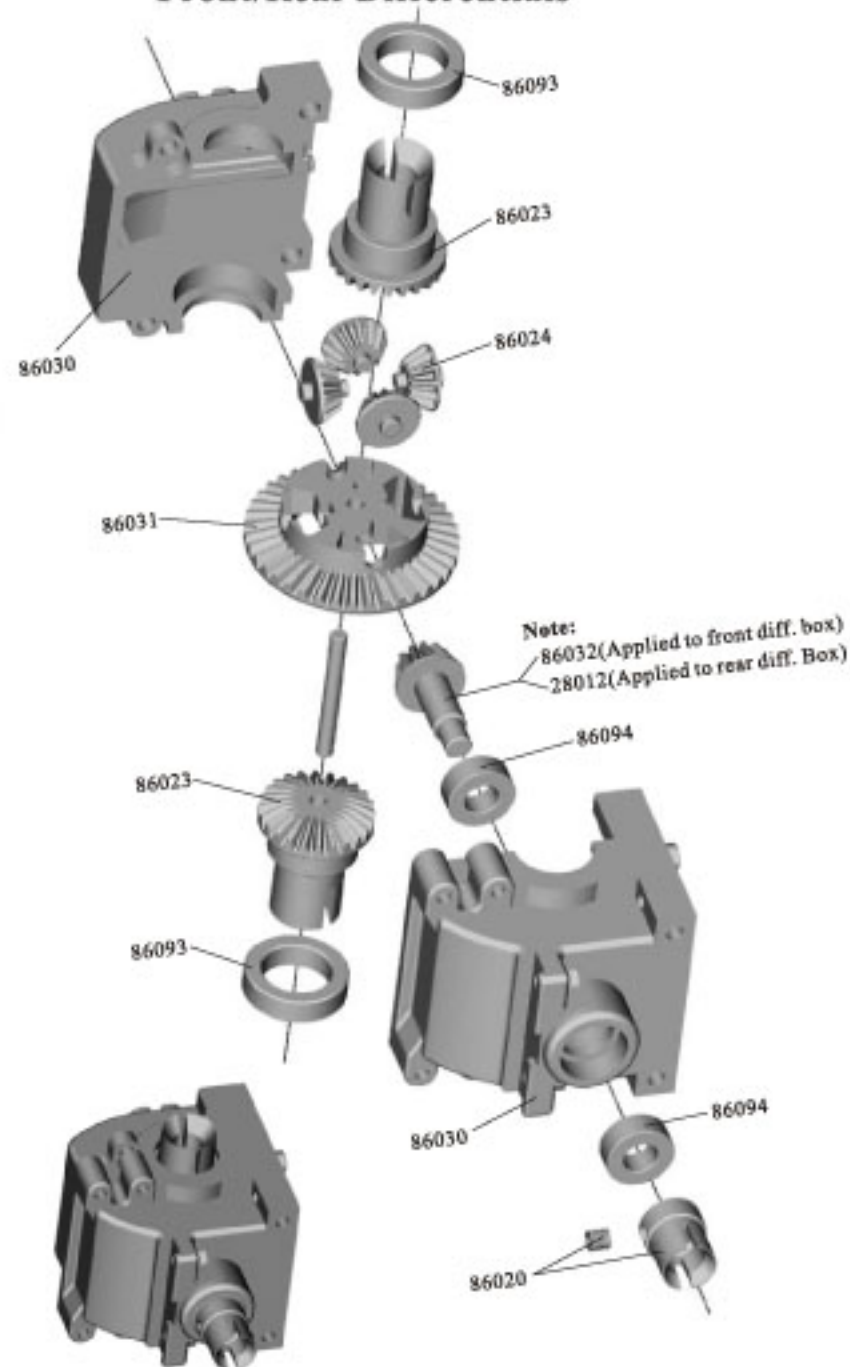
Shock Absorbers Assembly



Steering Assembly



Front/Rear Differentials



Spare Parts-1 (1/16th scale EP On-road racing car)

A

82802- Front Lower Suspension Arms 2P 	82803- Rear Lower Suspension Arms 2P 	82805- Front Steering Links 2P 	82806- Rear Uprights 2P 
82807- Steering Hubs 2P 	82809- Wheel Shafts 2P 	82811- Steering Sway Arm Assembly 	82812- Front/rear dogbones 2P 
82814- Wheel Hex. 4P 	82815- Rear Suspension Pins 2P 	82816- Front Shock Tower 	82817- Rear Shock Tower 
82818- Front upper Suspension Arms 2P 	82819- Body Post Holder 	82820- Front Body Posts 2P 	82821- Rear Body Posts 2P 
82822- Impact Resistant Sponge 	82823- Impact Resistant Sponge Posts 2P 	82824- Impact Resistant Sponge Cover 	82825- Impact Resistant Sponge Holder 
82826- Shock Sets 2P 	82827- Wheel Rims 2P 	82828- Tyres 2P 	82829- Wheels Complete 2P 

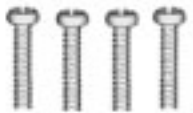
Spare Parts-2 (1/16th scale EP On-road racing car)

A

82830-Steering Screws 4P 	86014-Rear Upper Link 	86020-Universal Joint Cup/with one grub screw (For Drive System) 	86023-Gear(24T) 
86024-Gear (12T) 	86027-Front/rear Lower Suspension Arm Holders 2P 	86028- Rear Lower Suspension Pins 4P 	86030-Gear Box 
86031-Differential Main Gear(39T) 	86032-Drive Gear(11T) 	86033-Differential Gear Complete 	86034-Front Upper Suspension Arm Holder 
86054-Pins 2*10 4P 	86055-Steering Joint Lever 	86056-Servo Saver Assembly 	86058-Steering Posts 2P (Steel) 
86059-Shock Balls 8P 	86069-Cap Head Self Tapping Screws 2.6*6 14P 	86070-Cap Head Self Tapping Screws 2.6*8 10P 	86071-Cap Head Self Tapping Screws 2.6*10 10P 
86072-Cap Head Self Tapping Screws 2.6*12 4P 	86073-Cap Head Self Tapping Screws 3*8 4P 	86074-Cap Head Self Tapping Screws 3*10 4P 	86075-Rounded Head Self Tapping Screws 2.6*8 10P 

Spare Parts-3 (1/16th scale EP On-road racing car)

A

86076-Rounded Head Self Tapping Screws 3*18 4P 	86077-Countersunk Self Tapping Screws 3*8 9P 	86078-Countersunk Self Tapping Screws 2.6*6 9P 	86079-Countersunk Self Tapping Screws 2.6*10 6P 
86080-Countersunk Screws 2.6*6 4P 	86081-M3*3 Grub Hex. Screws 8P 	86082-Rolling Bearing φ 8*φ 4*3 4P 	86083-Copper Bearing φ 12*φ 8*3.5 4P 
86084-Countersunk Self Tapping Screws 2.6*8 10P 	86085-Countersunk Self Tapping Screws 2.6*12 4P 	86087-Copper bearings φ 8 * φ 4 * 3-4pcs 4P 	86089-E-Clips φ 2.0 10P 
86090-Body Clips 8P 	86093-Copper Bearings φ 15*φ 10*4- 4pcs 4P 	86094-Copper Bearings φ 10*φ 5*4- 4pcs 4P 	86096-Rear Upper Suspension Arm Screws 4P 
02055-Nylon Lock Nuts M4 8P 	02057-Antenna Pipes 4P 	02103-Zip Ties 6P 	28001-Radio Tray 
28002-Battery Cover 	28003-Normal Battery Pack (7.2V 1100mAh) 28408-Durable Battery Pack (7.2V 1500mAh) 	28004-Chassis 	28005-Motor Brace 