



# **BLACKOUT<sup>TM</sup> SC**

1/10 SCALE SHORT COURSE TRUCK  
OWNERS MANUAL

## **IMPORTANT LINKS:**

Link to the most recent version of this manual with exploded views and parts lists: [www.redcatracing.com/pages/manuals](http://www.redcatracing.com/pages/manuals)



# WARNING!

READ ALL INSTRUCTIONS INCLUDED WITH VEHICLE BEFORE OPERATING



## AGE WARNING!

This radio controlled (RC) vehicle is not a toy! You must be 14 years of age or older to operate this vehicle. Adult supervision is required.



## RISK OF RUNAWAY VEHICLE OR INJURY!

Never turn on the vehicle or plug in the battery pack without first having the controller turned on.



## RISK OF FIRE! / RISK OF EXPLOSION!

There is a risk of fire and explosion when dealing with batteries. Rechargeable batteries may become hot and catch fire if left unattended or charged too quickly. Use extra caution when charging LiPO batteries. Use only LiPO specific chargers. Use a LiPO safe charging pouch when charging LiPOs. Charge away from flammable materials. Never charge at a rate higher than 1C. {2000Mah pack= 2amps charge rate). Overcharging can lead to fire and explosion. Always store battery packs in a cool dry place.



## RISK OF BURNS!

The batteries, electronic speed controller (ESC), electric motor, and other areas of the vehicle can get hot. Burns can occur if touched after vehicle operation. Allow adequate time to cool before handling.



## RISK OF ELECTRICAL SHOCK!

Use caution when charging batteries. Do not touch positive and negative leads together. Do not lay battery on metal. Use only chargers specified for the battery type being charged. Keep batteries and chargers away from water.



## RISK OF INJURY!

Hobby grade RC vehicles can cause serious injury or death if not operated correctly. Never use vehicle in crowds. Never chase people or animals. Drive in safe open areas only. Keep body parts away from moving parts.



## RISK OF DAMAGE!

Never operate RC vehicles on public roads. Damage of vehicle and property can occur. Only operate on open private property. Never charge the battery pack while it is still plugged into the RC vehicle. Always unplug the battery pack from the electronic speed controller (ESC) and remove the battery from the RC vehicle before charging. Failure to do so will result in damage to the vehicle's electronics.



## WARNING!

Do not mix old and new batteries. Do not mix alkaline, lithium, standard (carbon zinc), or rechargeable (nickel cadmium) batteries. Do not charge or charge batteries in a hazardous location.



**FCC Compliance Statement!** The radio included with your vehicle complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operations. Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

Reorient or relocate the receiving antenna.

Increase the separation between the equipment and receiver.

Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

Consult the dealer or an experienced radio/TV technician for help.

**WARNING:** Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

**WARNING:** While operating the Radio, a separation distance of at least 20 centimeters must be maintained between the radiating antenna and the body of the user or nearby persons in order to meet the FCC RF exposure guidelines.

# FEATURES & SPECIFICATIONS

- 4 Wheel Drive
- Forward & Reverse
- Brushed Electric Motor
- Waterproof Brushed ESC
- Waterproof Steering Servo
- Oil Filled Shocks
- 7.2v NIMH Battery
- NIMH Battery Charger
- 2.4GHz Radio System
- Scale: 1/10
- Length: 465mm
- Width: 285mm
- Height: 140mm (Without Body)
- Wheelbase: 290mm

## VEHICLE OVERVIEW

A: Oil Filled Shocks

B: Steering Servo

C: Battery

D: Chassis Brace

E: On/Off Switch

F: 2.4GHz Receiver

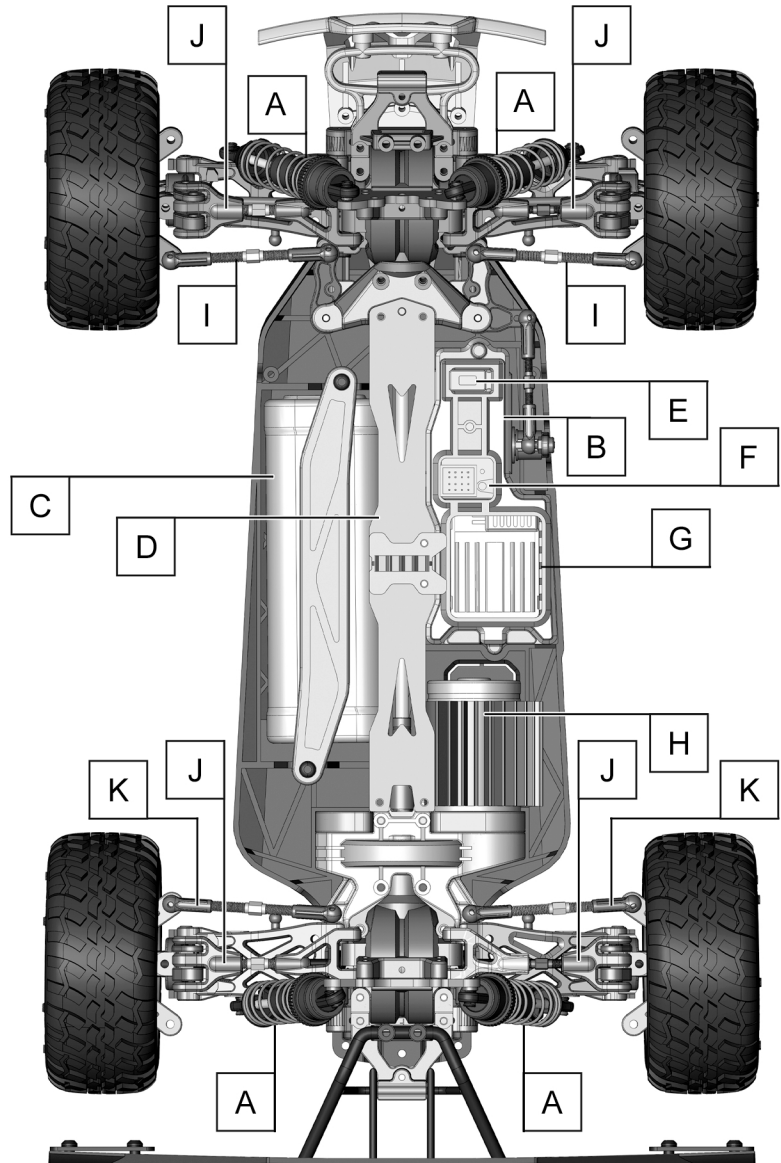
G: ESC

H: Electric Motor

I: Steering Linkage

J: Upper Suspension Link

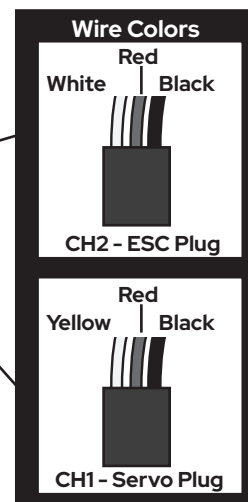
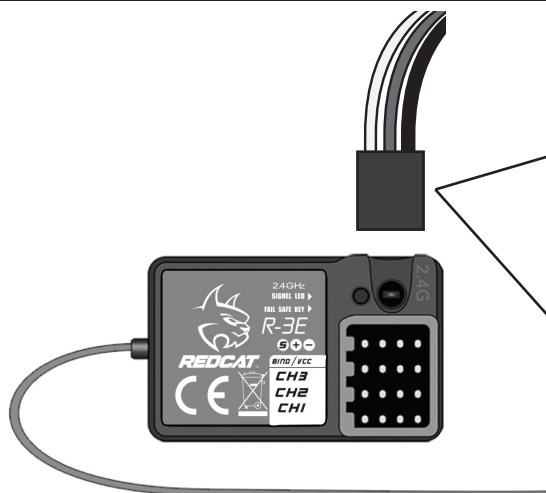
K: Rear Toe In/Out Link



## RADIO GUIDE



### RADIO



## Warnings and Compliance

CE: GTS202210000212EV1  
FCC ID: N4ZFLYSKYGT2E  
IC: 24025-RCR2CE

**Warning:** The antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other transmitter. End-users and installers must be provided with antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance.

**FCC** This equipment has been tested and found to comply with the limits for a Class B digital device pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

To assure continued compliance, any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This equipment complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference and (2) This device must accept any interference received, including interference that may cause undesired operation.

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

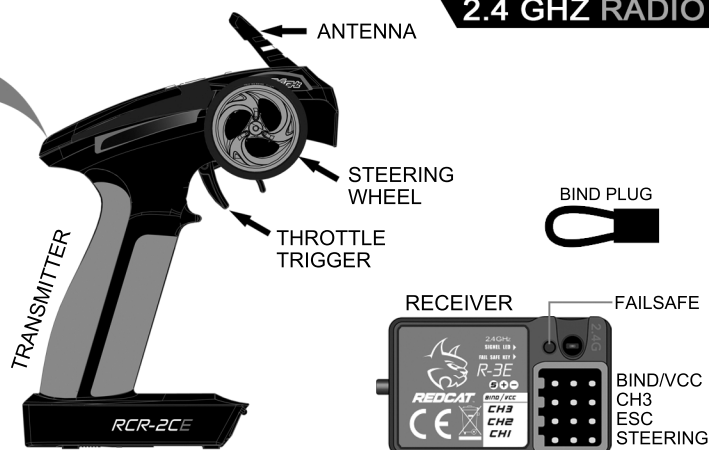
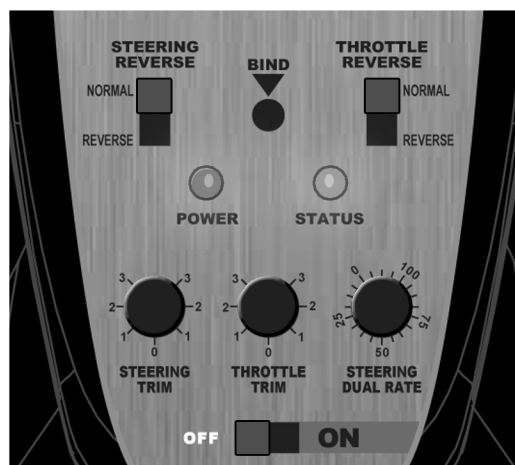
- (1) This device may not cause interference.
- (2) This device must accept any interference, including interference that may cause undesired operation of the device.

### Caution!

- The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user authority to operate the equipment.
- The 2.4GHz radio band is limited to line of sight. Always keep your model in sight as a large object can block the RF signal and lead to loss of control.
- To ensure the best signal quality make sure that the receiver antenna is mounted perpendicular to the model body in an upright position. Be sure the receiver antenna is not touching or right next to conductive materials, such as metal or carbon fiber.
- Low battery alarm: When the battery is lower than 4.2v, the G.LED on the transmitter panel will flash slowly. Turn off the vehicle and stop operation immediately when the batteries are low. Replace the transmitter batteries with (4) new AA batteries before further use.
- Do not cut, kink, damage or alter the antennas at any time. If an antenna is damaged, stop use immediately.

# RADIO GUIDE

## CONTROL PANEL



## 2.4 GHZ RADIO

### RADIO:

**Steering Reverse Switch:** Top left switch. Used to change steering orientation. If the car turns right when you steer left, flip this switch.

**Throttle Reverse Switch:** Top right switch. Used to change throttle trigger orientation. If the car goes in reverse while you pull the throttle trigger, flip this switch.

**Power LED:** Left LED light. Lights up when the transmitter is turned on.

**Status LED:** Right LED light. Lights up green when transmitter batteries are full. Flashes when transmitter batteries are low and need replacing.

**Bind Button:** Used to bind the transmitter to the receiver. See binding instructions.

**Steering Trim:** Left knob. Used to set the steering neutral point. If the vehicle veers in one direction while the steering wheel is centered, turn this knob in the opposite direction until the car drives straight.

**Throttle Trim:** Middle knob. Used to set the throttle neutral point. If the vehicle moves forward or reverse while the throttle trigger is centered, turn this knob until the vehicle remains still. For maximum setting, turn slowly until the vehicle creeps forward, then turn the knob the opposite direction until the car stops.

**Steering Dual Rate:** Right knob. Used to limit the amount of steering. 0= little/no steering & 100= maximum steering. Set the knob to the amount of steering you feel comfortable with. If the vehicle has a tendency to spin out, lower the steering rate.

**On/Off Switch:** Bottom switch. Turns transmitter On and Off.

### RECEIVER:

**BIND/VCC:** Used when binding to transmitter.

**Ch3:** Used for 3rd channel when needed.

**Ch2:** Used for electronic speed controller (ESC).

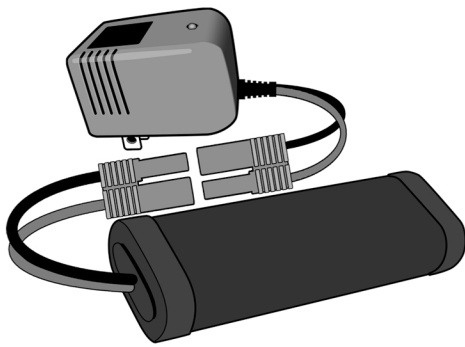
**Ch1:** Used for steering servo.

**Failsafe Button:** Used to set failsafe.

### BINDING:

1. Insert the BIND PLUG into the receiver BIND port.
2. Make sure your ESC is plugged into CH2, and insert the bind plug into BIND/VCC. Now, power the vehicle on and the receiver light should begin to blink red.
3. Press the BIND button in the center of the transmitter's Control Panel and turn on radio.
4. Release the bind button when you see the green light on the radio flashing. At this point, your receiver's LED light should pause for approximately 1 second and then blink slowly. Turn off the power to your vehicle, as well as the radio.
5. Remove the BIND PLUG from the receiver. Make sure the servos and ESC are attached as described above.
6. First turn your radio on, then your vehicle as normal. Your radio and receiver should be bound together and communicating with each other.

# CHARGING THE NIMH BATTERY



## ATTENTION



Before attempting to charge your NiMH battery, be sure to remove it from the vehicle and place it on a nonflammable surface away from hazards, such as curtains, couches, or clothing.

Warning! Batteries can potentially catch fire if over charged or charged incorrectly.

### NIMH Charging:

Charging NiMh battery packs with the included charger is simple.

1. Unplug and remove the battery from the RC vehicle.
2. Plug the charger into a 110v wall receptacle.
3. Plug the battery pack into the charger.

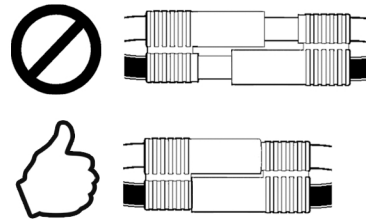
When plugging the battery into the charger, ensure the red (POS+) wire on the battery is connected to the red (POS+) wire of the charger. Also ensure the black (NEG-) wire on the battery is connected to the black (NEG-) wire of the charger.

Charge times vary according to charger current and battery mAh. **Battery mAh ÷ Charger mA = Approximate charge time**

Ex. 2000mAh battery ÷ 500 mA charger = ~4 hours charge time.

BATTERY CHARGER	2000mAh	2200mAh	3000mAh	3800mAh
250mA	8 hrs	8.8 hrs	12 hrs	15.2 hrs
500mA	4 hrs	4.4 hrs	6 hrs	7.6 hrs
650mA	3 hrs	3.4 hrs	4.6 hrs	5.8 hrs

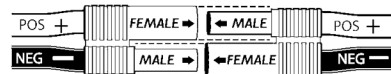
## ATTENTION



### BATTERY CONNECTION INSTRUCTIONS:

Make sure battery connectors are fully pushed in when charging and connecting to the vehicle.

## ATTENTION



Be sure the wires are correctly orientated when plugging the battery into the vehicle.

When plugging the battery into the vehicle, Ensure the red (POS+) wire on the battery is connected to the red (POS+) wire of the ESC. Also ensure the black (NEG-) wire on the battery is connected to the black (NEG-) wire of the ESC.

Improper connection may damage electronics.

STOP

# WARNING

STOP

### UNPLUG THE BATTERY PACK FROM THE VEHICLE!

BEFORE CHARGING YOUR BATTERY PACK, YOU MUST FIRST UNPLUG IT FROM THE ESC. FAILURE TO UNPLUG THE BATTERY FROM THE VEHICLE'S ESC BEFORE CHARGING MAY PERMANENTLY DAMAGE SOME OR ALL ELECTRONICS IN THE VEHICLE.

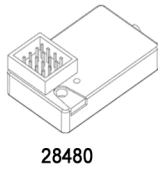
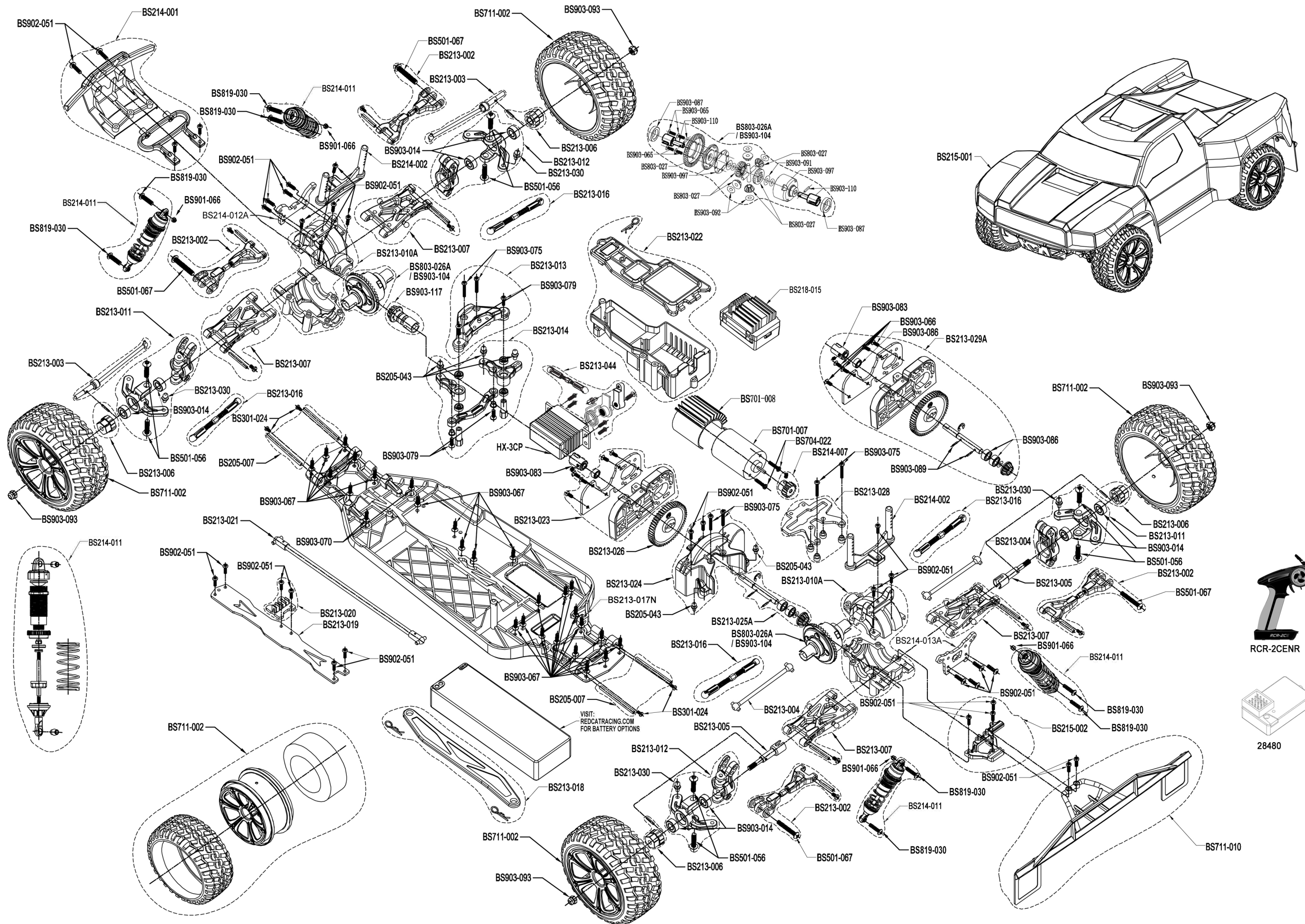
### NEVER LEAVE BATTERY PACKS

**UNATTENDED WHILE CHARGING!** Leaving a battery unattended while charging may result in fire and damage / injury.

### NEVER ALLOW A BATTERY PACK TO GET

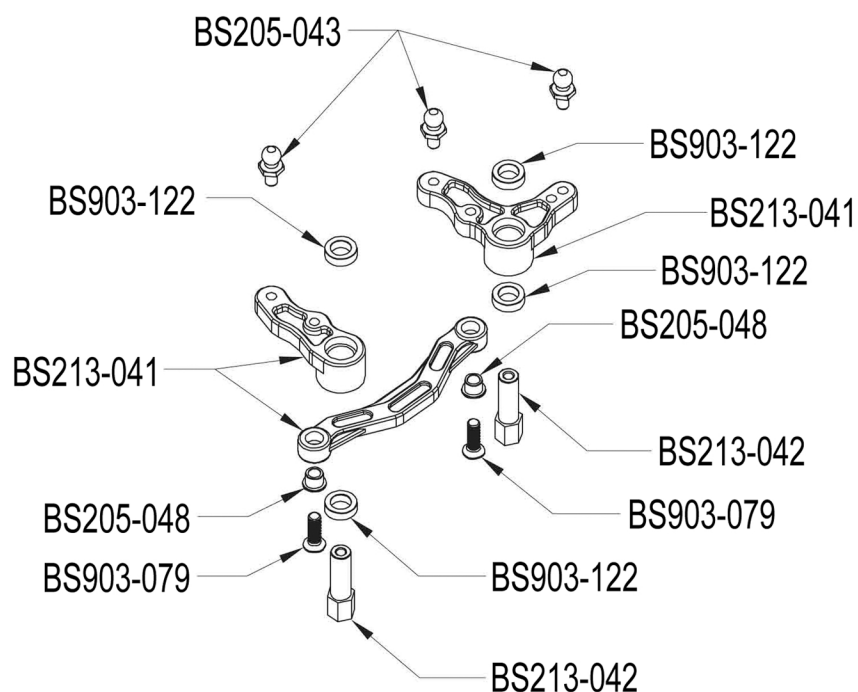
**HOT!** It's normal for the battery pack to get warm, but it should never get hot! Monitor batteries during charging and unplug to let cool if the battery gets hot.

**WHEN CHARGING LIPOs, A LIPO SAFE CHARGING BAG SHOULD BE USED TO HELP PREVENT FIRES.**



# PARTS IDENTIFICATION

## BS213-014 Steering System Unit



BS205-043 Ball head screw  
4.8\*12.3



6

BS903-122 Copper bush  
5.1\*8\*2.5



12

BS205-048 Spacer bush  
3.05\*3.7



12

BS903-079 B-Head Cross  
Screw(BM3\*10)



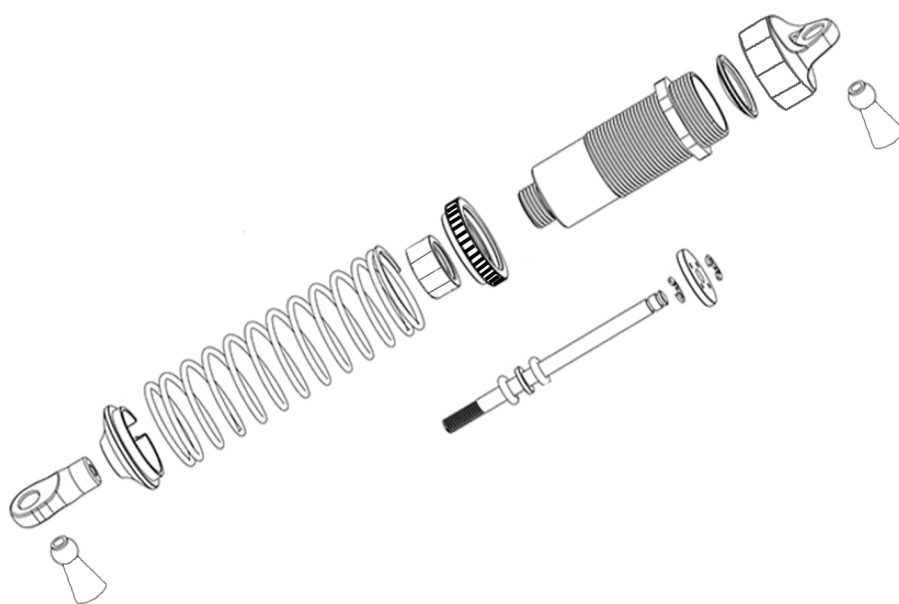
12

BS213-039 Steering Axis  
(5\*20.9)



2

## BS214-011 Big Bore Shock



## BS903-110 Joint B



----- 2

\_\_\_\_\_ 12

○ ----- 12

○ ----- 12

○ ----- 12



\_\_\_\_\_ 12

 \_\_\_\_\_ 6

## BS903-091 Washer A (5.2\*10\*0.2)



12

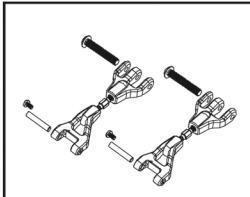
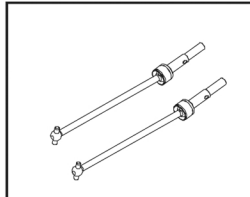
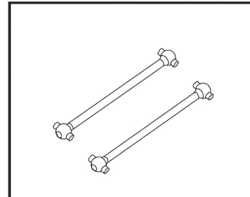
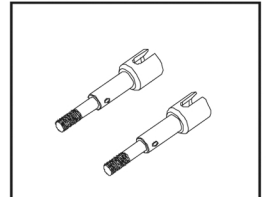
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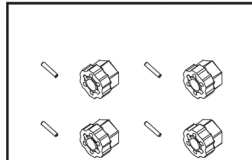
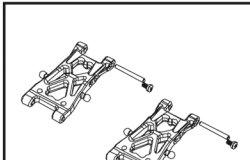
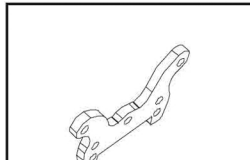
# PARTS IDENTIFICATION



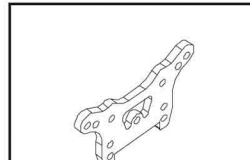
BS214-011 Big Bore Shock (2pcs)

BS213-002 Upper Susp. Arm Unit  
2pcsBS213-003 Front Transverse Drive  
Shaft 2pcsBS213-004 Rear Transverse  
Drive Shaft 2pcs

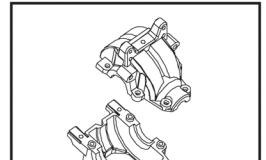
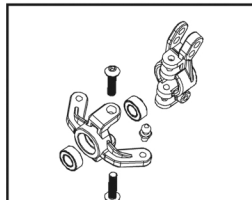
BS213-005 Rear Axle 2pcs

BS213-006 Rim Hub With Pin  
4pcsBS213-007 Lower Susp. Arm Unit  
2pcs

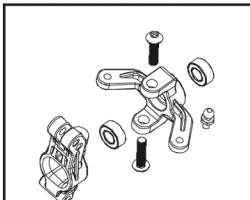
BS214-012A Front Shock Tower



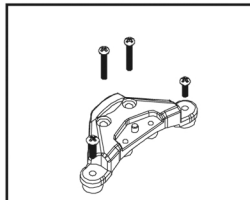
BS214-013A Rear Shock Tower

BS213-010A Diff. Gearbox Bulkhead  
Upper/Lower

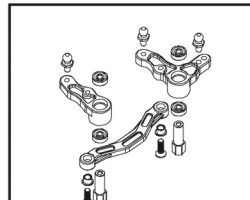
BS213-011 C Hubs Unit L



BS213-012 C Hubs Unit R



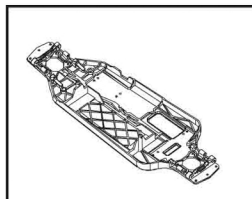
BS213-013 Front case



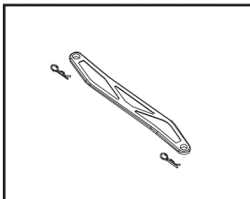
BS213-014 The steering assembly



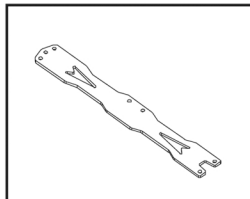
BS213-016 Steering Link 4pcs



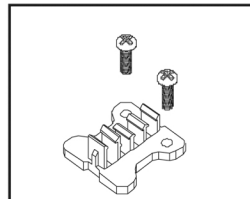
BS213-017N Chassis



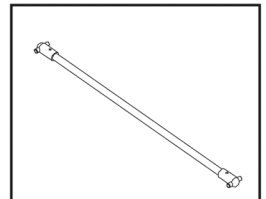
BS213-018 Battery Cover



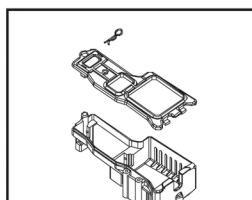
BS213-019A Fr.Upper Desk



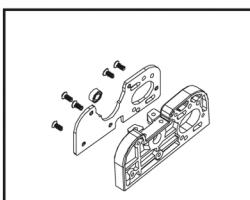
BS213-020 Wire Mount



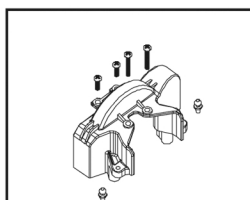
BS213-021 Drive shaft unit



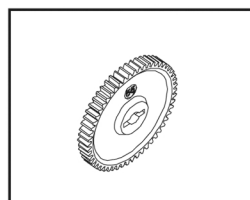
BS213-022 Esc Case



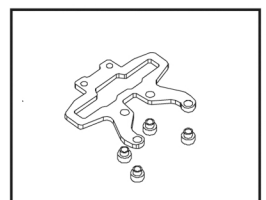
BS213-023A Motor Mount



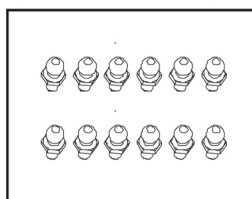
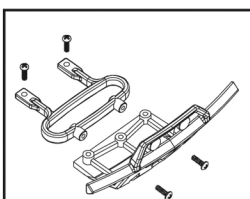
BS213-024 Gear Case



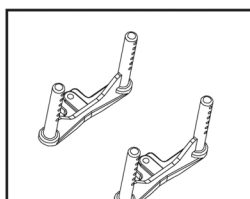
BS213-026 Spur Gear 55T



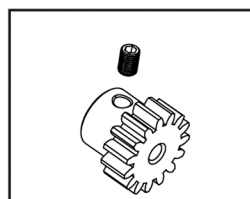
BS213-028A Rr . Upper Desk

BS213-030 Ball Head Screw  
12pcs

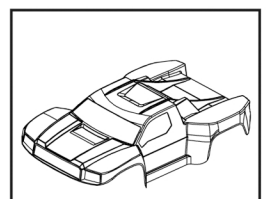
BS214-001 Bumper Unit



BS214-002 Body Mount 2pcs

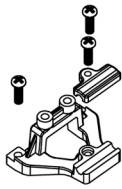


BS214-007 Motor gear



BS215-001 Body

# PARTS IDENTIFICATION



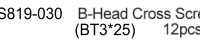
BS215-002 Mud Flap Mount



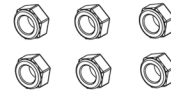
BS711-002 Tire 2pcs



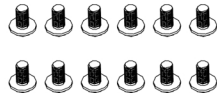
BS902-051 B-Head Cross Screw (BT3\*10) 12pcs



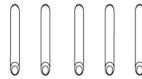
BS819-030 B-Head Cross Screw (BT3\*25) 12pcs



BS903-093 Nylon Self-lock Nut(M4\*4) 6PCS

BS501-056 B head hex fine pitch screws HM4\*12 12 pcs  
BS501-067 B head hex fine pitch screws HM4\*22 12 pcsBS903-014 Ball Bearing (φ6\*φ12\*4) 2pcs  
BS903-086 Ball Bearing (5\*10\*4) 2pcs

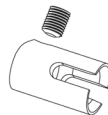
BS301-024 PWB2.5\*5.7\*5.5 Screw 12pcs



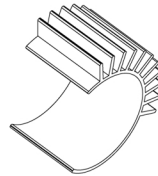
BS205-007 Pin 3\*45 5pcs

BS903-067 (TPF3\*10) Flat Cross Screw 12pcs  
BS903-070 (ISO3\*10) Flat Cross Screw 12pcs  
BS903-066 (TPF3\*8) Flat Cross Screw 12pcs

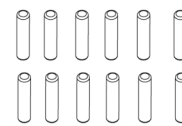
BS205-043 Ball Head Screw 6pcs

BS903-079 B-Head Cross Screw (BM3\*10) 12pcs  
BS903-075 B-Head Cross Screw (BT3\*16) 12pcs

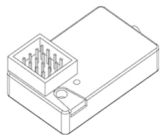
BS903-083 Diff. Outdrive D/set Screw



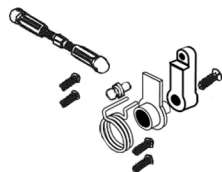
BS701-008 Motor heat sink



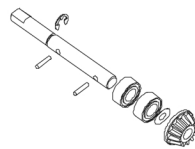
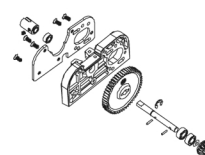
BS903-089 Pin(2\*9.5) 12pcs

RCR-2CENR 2.4GHz Radio.  
Includes Radio, and Manual only.  
No receiver

28480 2.4Ghz 2ch Splash Proof Receiver



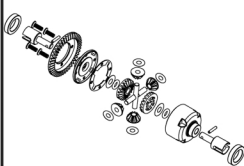
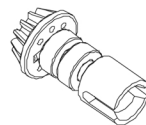
BS213-044 Servo Saver

BS213-025 Gear Shaft Unit  
Optional: BS213-025 A

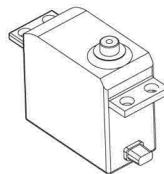
BS213-029A Spur Gear Unit



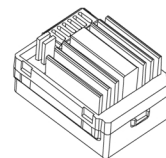
BS214-006 18T Motor gear

BS903-104 Diff. Unit  
Optional: BS803-026A (hardened)

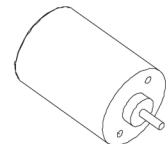
BS903-117 Master Gear Unit (Zinc Alloy)



HX-3CP 3kg Waterproof Steering Servo



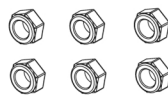
BS218-015 1/10 Waterproof Brushed ESC



BS701-007 550 Motor



HX-01003B Charger for 7.2V NiMH Battery



BS901-066 M3 Locknut



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#### **IMPORTANT LINKS:**

Link to the most recent version of this manual with exploded views and parts lists: [www.redcatracing.com/pages/manuals](http://www.redcatracing.com/pages/manuals)