

MODEL: BLACKOUT™ SC PRO



BLACKOUTTM SC PRO

1/10 SCALE SHORT COURSE TRUCK
OWNERS MANUAL



FAST ▯ AFFORDABLE ▯ FUN

MAN-BLACKOUTSCPRO-2017.5.29

- To ensure that you are using the most recent version of this manual:
<http://www.redcatracing.com/manuals/BLACKOUTSCPROMANUAL.pdf>
- To ensure that you have the most recent version of the Electronic Vehicles Manual:
www.redcatracing.com/manuals/ELECTRIC-MANUAL.pdf

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 change 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

- Brushless Electric Motor
- Waterproof Brushless ESC LIPO Ready
- Forward & Reverse
- 4 Wheel Drive
- Oil Filled Shocks
- 7.4v LIPO Battery
- LIPO Battery Charger
- 2.4GHz Radio System
- Waterproof Steering Servo
- Scale: 1/10
- Length: 465mm
- Width: 285mm
- Height: 140mm (Without Body)
- Wheelbase: 290mm

VEHICLE OVERVIEW

A: Oil Filled Shocks

B: Waterproof Steering Servo

C: 7.4v LIPO Battery

D: Chassis Brace

E: On/Off Switch

F: 2.4GHz Receiver

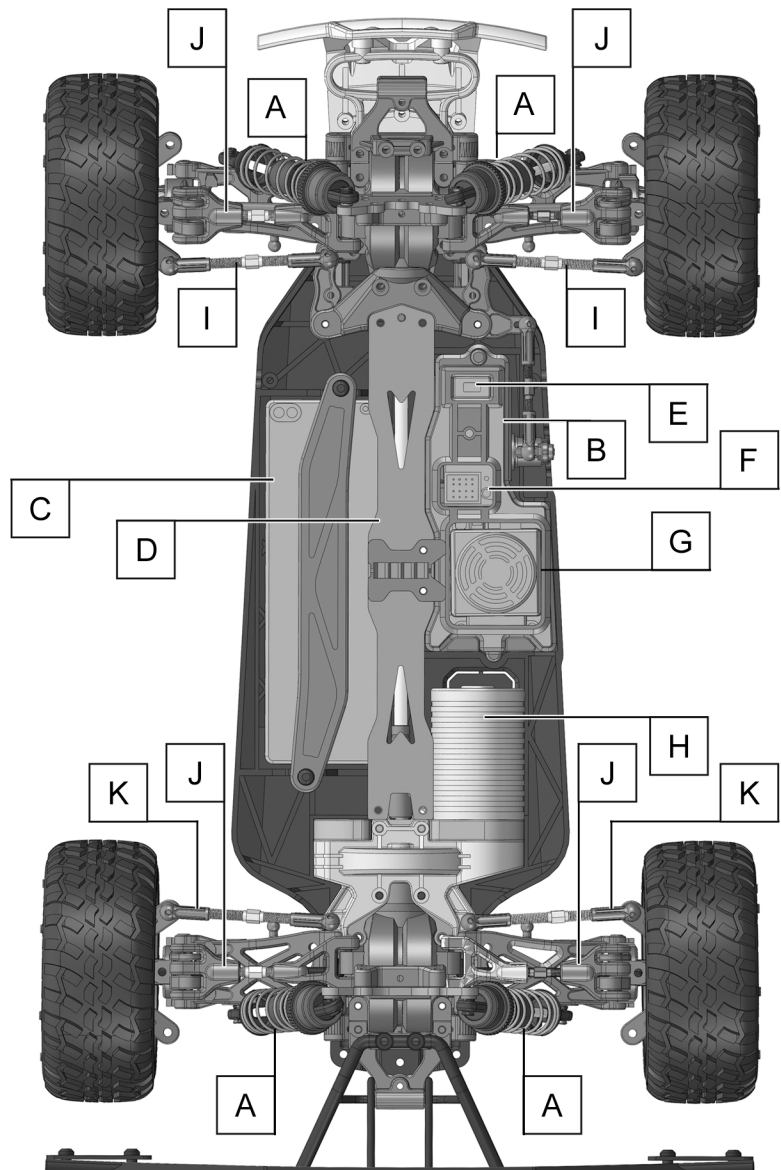
G: Waterproof Brushless ESC

H: Brushless Electric Motor

I: Steering Linkage

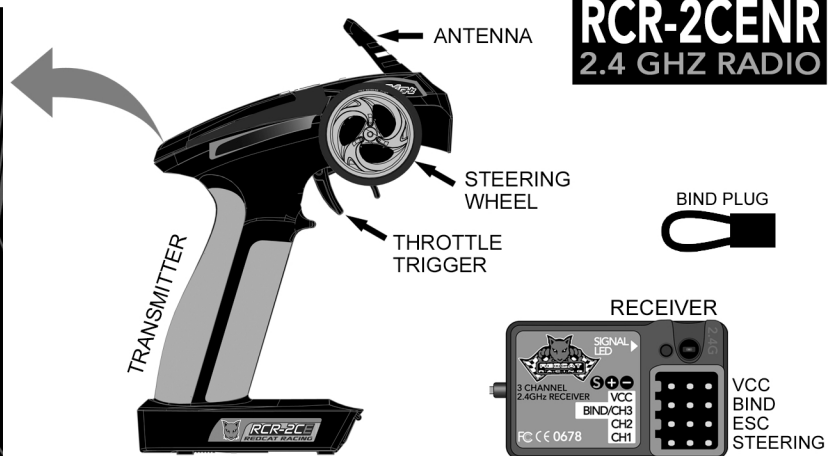
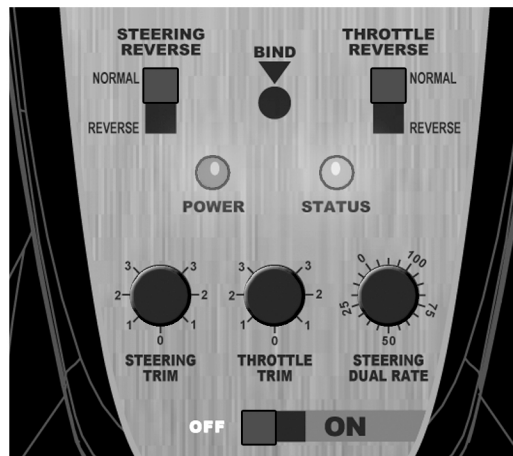
J: Upper Suspension Link

K: Rear Toe In/Out Link



RADIO GUIDE

CONTROL PANEL



RCR-2CENR
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:

VCC: Not used.

Bind/Ch3: Used when binding to transmitter. Used for 3rd channel when needed.

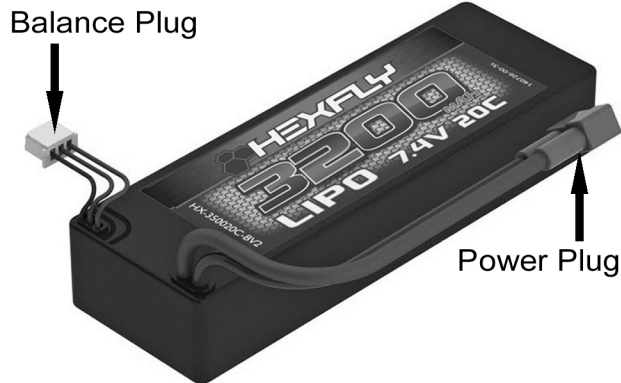
Ch2: Used for Electronic Speed Controller.

Ch1: Used for steering servo.

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/CH3. 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 should now be solid red. 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 BATTERIES



ATTENTION:

It is important to read all instructions included before attempting to charge a battery. Follow all instructions and warnings included with your battery and charger when using batteries.

LIPO Balance Plug: This plug MUST be plugged into a LIPO balance charger to charge your LIPO battery. Never attempt to quick charge LIPO batteries using the power plug.

Power Plug: This plug is used to power the vehicle and gets plugged into the ESC. On a LIPO battery, Make sure to unplug this plug from the ESC BEFORE plugging the Balance Plug into a charger.

Battery Connection Instructions:

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

and chargers like Hexfly batteries and chargers in Redcat vehicles.

Recommended Charger Upgrade:

HX-403 - LIPO balance charger

Recommended Battery Upgrade:

HX-580030C-D - Hexfly 5800MAH 7.4V 30C LIPO battery.

Charge Times:

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.

To convert milliamps (mA) to amps (A):
Divide the mA number by 1000.

ex. 900mA ÷ 1000 = 0.9A

BATTERY CHARGER	3200mAh	3500mAh	5000mAh	5800mAh
0.9 A	3.55 hrs	3.88 hrs	5.55 hrs	6.44 hrs
1.5 A	2.13 hrs	2.33 hrs	3.33 hrs	3.87 hrs
3.0 A	1.07 hrs	1.17 hrs	1.67 hrs	1.93hrs

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.

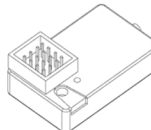
NEVER LEAVE BATTERY PACKS UNATTENDED WHILE CHARGING! Leaving a battery unattended while charging may result in fire and damage / injury.

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.



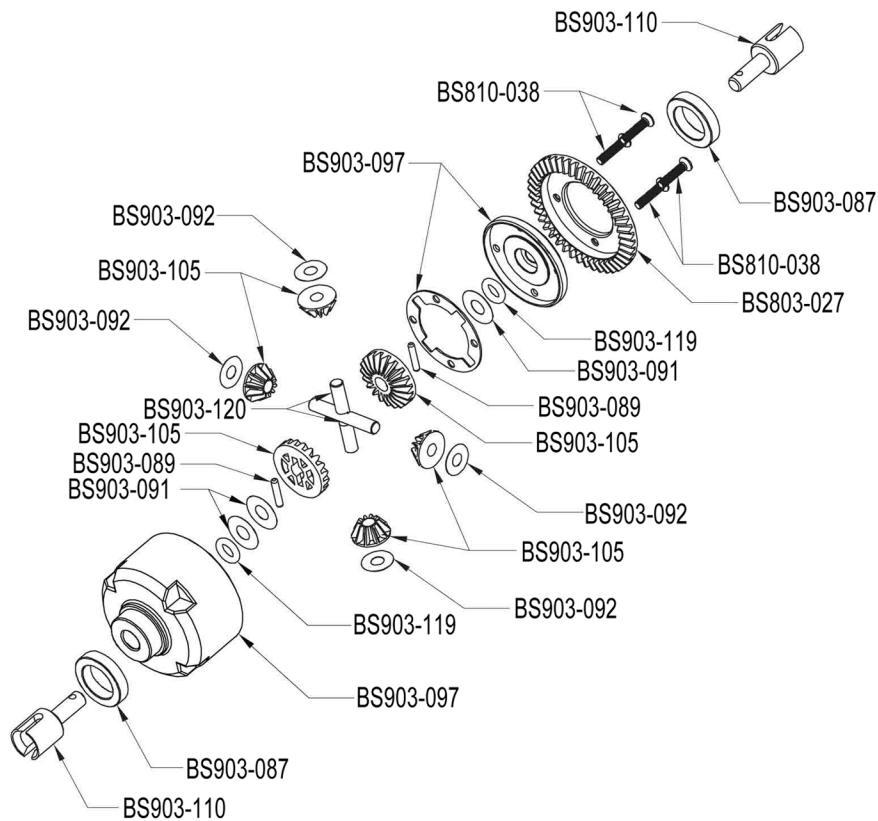
RCR-2CENR



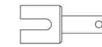
28480

PARTS IDENTIFICATION

BS803-026 Diff Gear box unit



BS903-110 Joint B



----- 1

BS903-087 Ball Bearing(12*18*4)



----- 2

BS810-038 B head hex fine pitch screws HM2.5*12



----- 12

BS903-119 O ring 5*9*2



----- 12

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



----- 12

BS903-092 Washer B(4.2*8*0.2)



----- 12

BS903-089 Pin(2*9.8)



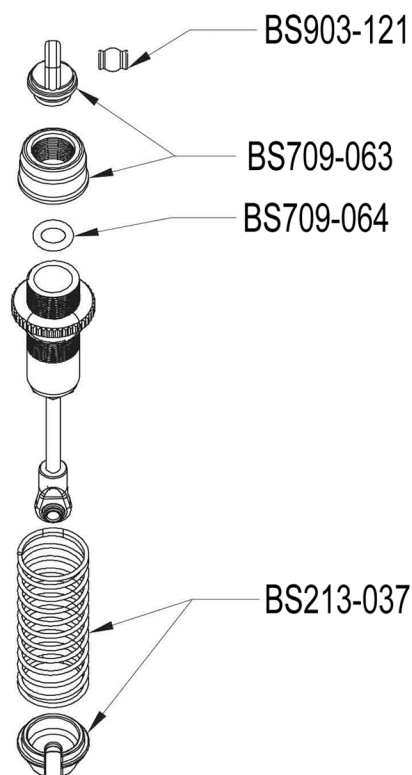
----- 12

BS903-120 Diff Gear Shaft (4*26.2)



----- 6

BS213-001 Shock Unit



BS709-059 Spacer bush 3.6*5.9*1



----- 4

BS709-059 Shock Low Cylinders



----- 4

BS709-060 O Ring 6.5*3.5*1.5



----- 12

BS709-061 O Ring 5*8*1.5



----- 12

BS709-062 Shock Ball end



----- 6

BS903-121 Shock ball head



----- 12

BS709-064 O Ring 6*10*2



----- 12

BS903-105

BS903-091

BS903-086

BS213-038

BS810-047

BS213-039

BS213-040A

BS903-086





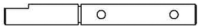


BS903-066

BS903-083

BS903-083






BS213-026

BS903-089

- | | | | |
|-----------|-----------------------------|---|----------|
| BS903-091 | Washer A
(5.2*10*0.2) |  | ----- 12 |
| BS903-086 | Ball Bearing
5*10*4 |  | ----- 2 |
| BS903-089 | Pin 2*9.8 |  | ----- 12 |
| BS810-047 | E Clip |  | ----- 12 |
| BS213-038 | Gear shaft |  | ----- 1 |
| BS903-066 | Flat Cross
Screw(TPF3*8) |  | ----- 12 |
| BS903-083 | Joint D |  | ----- 1 |

Exploded view diagram of a mechanical assembly. The components are labeled as follows:

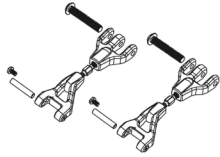
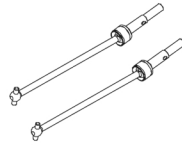
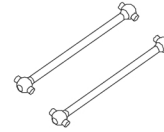
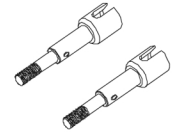
- BS205-043
- BS903-122
- BS213-041
- BS205-048
- BS213-042
- BS903-079
- BS903-122
- BS213-042
- BS903-122
- BS213-041
- BS205-048

- | | | | |
|-----------|-------------------------------|---|----------|
| 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 |

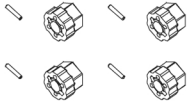
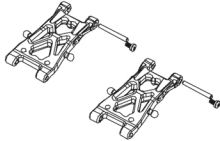
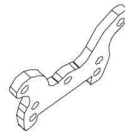
PARTS IDENTIFICATION



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

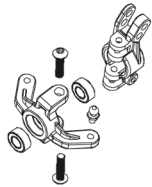
BS213-005 Rear Axle 2pcs

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

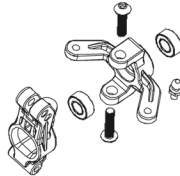
BS214-012A Front Shock Tower



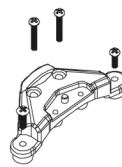
BS214-013A Rear Shock Tower

BS213-010 Diff. Gearbox Bulkhead-
Upper/Lower

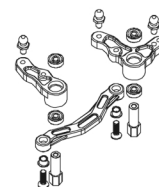
BS213-011 C Hubs Unit L



BS213-012 C Hubs Unit R



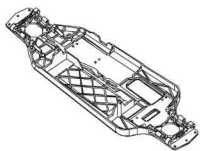
BS213-013 Front case



BS213-014 The steering assembly



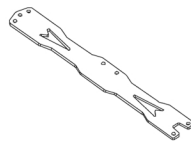
BS213-016 Steering Link 4pcs



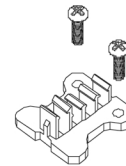
BS213-017N Chassis



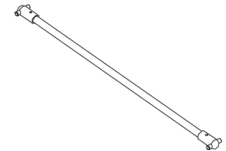
BS213-018 Battery Cover



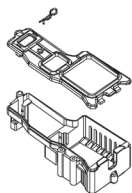
BS213-019A Fr.Upper Desk



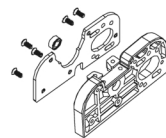
BS213-020 Wire Mount



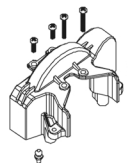
BS213-021 Drive shaft unit



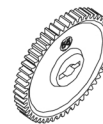
BS213-022 Esc Case



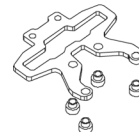
BS213-023A Motor Mount



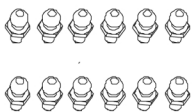
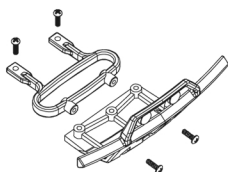
BS213-024 Gear Case



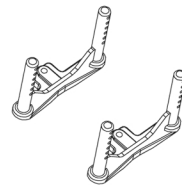
BS213-026 Spur Gear 55T



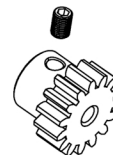
BS213-028A Rr . Upper Desk

BS213-030 Ball Head Screw
12pcs

BS214-001 Bumper Unit



BS214-002 Body Mount 2pcs

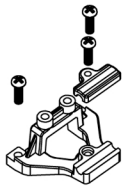


BS214-007 Motor gear



BS215-001 Body

PARTS IDENTIFICATION



BS215-002 Mud Flap Mount

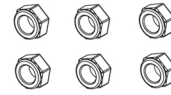


BS711-002 Tire 2pcs

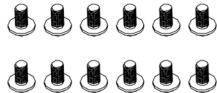


BS902-051 B-Head Cross Screw (BT3*10) 12pcs

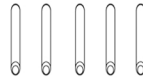
BS903-075 B-Head Cross Screw (BT3*16) 12pcs



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



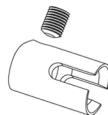
BS903-067 (TPF3*10) Flat Cross Screw 12pcs

BS903-070 (ISO3*10) Flat Cross Screw 12pcs

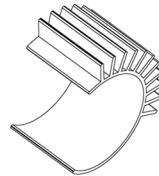
BS903-066 (TPF3*8) Flat Cross Screw 12pcs



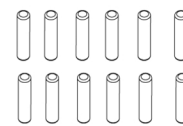
BS205-043 Ball Head Screw 6pcs

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

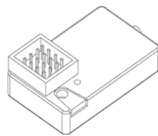
BS903-083 Diff. Outdrive D/set Screw



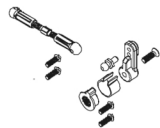
BS701-008 Motor heat sink



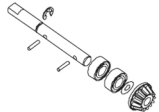
BS903-089 Pin(2*9.5) 12pcs

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

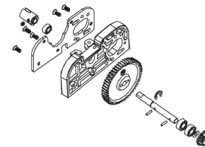
28480 2.4Ghz 2ch Splash Proof Receiver



BS213-044 Servo Mount



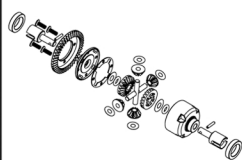
BS213-025A Gear Shaft unit



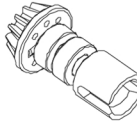
BS213-029A Spur Gear Unit (steel)



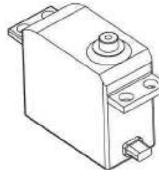
BS214-005 17T Motor gear



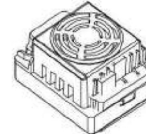
BS803-026 Diff. Gear Box Unit (steel)



BS903-117 Master Gear Unit (AB powder)



HX-15CC 15kg Servo



HW-WP-10BL60-RTR-D ESC Hobbywing 60A



BS214-008 540 Brushless Motor KV3800



HX-A3 LIPO Balance Charger 2S/3S



HX-320020C-D 7.4V 3200 mAh LIPO battery w/ T-Plug



ST-4BTOTF 4.0 Banana Plug to Female T-Plug



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