用户使用说明书

User's Instruction Manual

OPTIMUS

1/8 Scale 4WD Brushless Electric Buggy

Introduction

Thank you for choosing DHK's Optimus! This model is designed in thorough research and assembled with utmost craftmanship. It is easy to drive and it uses quality parts and accessories to achieve best performance. It will bring you a lot of joy and fun when you drive this model.

Before starting to run the model, you are kindly requested to take some time to review this instruction manual for a better operation. This easy to follow instruction manual aims to provide a general guideline for end-users. Kindly note that a good understanding of the model , its relevant parts together with other accessories packed in this consumer box will enable you to have fun in driving. Meanwhile, users are recommended to conduct regular maintenance for a smooth performance. Failure to do so might shorten the lifespan of your model. You are cordially advised that DHK Hobby makes all necessary parts and accessories to support you for any problem during and after your driving.

Before you operate this radio controlled model, you must understand the following:

1.Make sure that all screws and nuts are tightened securely.
2.Make sure that the batteries are fresh or fully charged so the vehiche won't lose control.
3.Do not drive the model in the following places/areas to avoid injury of people and damage to the public property. Drive your model in open areas.
> On public streets or parks. Cause injury or death of pedestrians, young children, animals and pets.
> On highways. Cause accidents or damage of the model.
> In water. Cause damage to electronic components and parts, or direct failure of the model.
4.Check all signals and electronic parts are working properly.

After running, battery, ESC, and motor can be very hot. Make sure not to touch with bare hands.

⚠ **Warning:**
This high performance model can run very fast. It is designed and produced for people of 14+ years of age to operate. Players under that age should be guided by adult supervision. Entry level players should seek guidance and supervision from experienced model players. Players are responsible for any/all accidental occurrences (human or animal injury, damage to property and possessions, breakage of the model itself) due to improper operation of this model.

Model specifications

Overall length	: 19.4" (493.3mm)
Width	: 12.1" (307.7mm)
Height	: 6.76" (171.9mm)
Wheelbase	: 12.98" (330.1mm)
Ground clearance	: 1.36" (34.6mm)
Weight (net)	: 2920g
Front track/rear track	: 10.23" (260.0mm)/10.43" (265.0mm)
Front tyres/rear tyres	: Φ118,45mm/Φ118,45mm
Front wheels/rear wheels	: Φ81,42mm/Φ81,42mm
Gear ratio	: 10.68:1

Articles required to operate the model

8 pcs AA batteries (Ni-Mh or Ni-Cd rechargable batteries, or non-rechargable alkaline batteries) for 2.4GHz transmitter. Please refer to the 2.4GHz transmitter Instruction Manual.

Lipo balance charger (#P109) (for 2S/3S Lipo battery) 1,000mAh output with AC input.

2 Channel 2.4GHz radio system
Optimus comes with a full function 2 channel 2.4GHz radio transmitter and receiver. Please refer to the 2.4GHz User's Instructions Manual for detail.

Brushless electronic speed control (ESC)
Optimus comes with 60A brushless electronic speed controller. Please refer to the instructions manual of the ESC for detail.

Brushless electric motor

Motor KV(RPM)	: 2260
Power	: 7.4V
Empty load current	: 3.2A
Resistance(Ω)	: 17.5-19.2Ω
Length(including motor shaft)	: 75mm
Diameter	: 36mm
Weight	: 291g
Shaft diameter	: 5mm

9kgs Servo

Features	: Metal gears, ball bearings
Working voltage	: 6.0V
Speed (seconds/60˚C)	: 0.16sec
Torque	: 9kg/cm (88.3Ncm)
Net weight	: 60g
Size(LxWxH)	: 55x21x43mm

Note:
When the motor temperature is over 120˚C(248˚F), please add a fan over the motor for better ventilation. Please refer to the parts list for the optional part motor cooling fan (Part#: P101).

Lipo Batteries

This model comes with single 11.1V 3200mAh Lipo battery pack. Handling Lipo batteries should be very careful. Please read the following points with regard to charging and discharging Lipo batteries.

Charging the Lipo battery

Important warnings:
Be sure to follow these important warnings regarding the charging of Lipo batteries.
> Never leave a Lipo battery unattended at any time while being charged.
> Never charge a Lipo battery while it's inside the model. A hot pack could ignite wood, foam, plastic, etc.
> Never charge Lipo battery with Ni-Mh or Ni-Cd peak charger. Only use a charger designed specifically for Lipo batteries which can apply the constant current/constant voltage charge technique.
> Never charge Lipo battery at currents greater than the "1C" rating of the battery.
> Never allow Lipo cells to overheat at any time. Cells which exceed 60˚C (140˚F) during charge can and usually will become damaged physically and possibly catch fire. Always inspect a battery which has previously overheated and do not re-use if you suspect it has been damaged in any way.
> Always discontinue charging a Lipo immediately if at any time you witness smoke or see the battery starting to swell up. This may cause the battery to rupture and/or lead, and the reaction with air may cause the chemicals to ignite, resulting in fire. Disconnect the battery and leave it in a safe fireproof location for approximately 15 minutes.
> Always charge a Lipo battery in a fireproof location, which could be a container made of metal, ceramic tile, or a bucket of sand.
> Never allow a battery's positive and negative leads to accidentally touch each other. This will result in a short circuit and cause permanent damage to your battery and charger.
> Always monitor the battery and charger during the entire charge process. Never leave the battery and charger unattended during charge!
> Never continue to charge the Lipo batteries if the charger fails to recognize full charge. Overheating or swelling of the Lipo cells is an indication that a problem exists and the batteries should be disconnected from the charger immediately and placed in a fireproof location.

Discharging the Lipo battery

> Never leave a Lipo battery unattended at any time while being discharged.
> Always discharge Lipo batteries in a fireproof location, which could be a container made of metal or on ceramic tile.
> Always connect the battery's lead marked "Discharge" or "TO ESC" to the electronic speed controller. Never attempt to connect the battery's "CHARGE" lead to the ESC.

> It is strongly recommended to use an ESC which is designed to handle the low voltage cutoff points or Lipo batteries (Always follow the instructions provided with the ESC for proper operation). Discharging Lipo batteries below 2.5V per cell (Norm is 3.7V per cell, at 4.2V once fully charged) can cause permanent damage and limit the number of times the battery can effectively be used again.
> Never discharge Lipo batteries at currents which exceed the discharge current rating of the battery as this can often cause a cell to overheat. Do not allow a Lipo cell to exceed 60˚C (140˚F) during discharge.

Caution!
Cells may be hot. Do not allow the battery's internal electrolyte to get in the eyes or on skin. Wash affected areas with soap and water immediately if they come in contact with the electrolyte. If electrolyte makes contact with the eyes, flush with large amounts of water for 15 minutes and seek medical attention immediately.

Carefully inspect Lipo batteries which have been involved in a crash for even the smallest of cracks, splits, punctures or damage to the wiring and connectors.

Disposal of Lipo batteries
Unlike Ni-Cd batteries, Lithium-polymer batteries are environmentally friendly. For safety reasons, it's best that Lipo cells be fully discharged before disposal (however, if physically damaged it is not recommended to discharge Lipo cells before disposal). The batteries must also be cool before proceeding with disposal instructions. To dispose of Lipo cells and packs:

> If any Lipo cell in the pack has been physically damaged, resulting in a swollen cell or a split or tear in a cell's foil covering, do not discharge the battery.
> Place the Lipo battery in a fireproof container or bucket of sand.
> Connect the battery to a Lipo discharger. Set the discharge cutoff voltage to the lowest possible value. Set the discharge current to a C/10 value, with "C" being the capacity rating of the pack.
> Discharge the battery until its voltage reaches 1.0V per cell or lower. For resistive load type dischargers, discharge the battery for up to 24 hours.
> Submerse the battery into bucket or tub of salt water. This container should have a lid, but it does not need to be air-tight. Perhaps a bucket or tub containing 3 to 5 gallons of cold water, and mix in 1/2 cup of salt per gallon of water. Drop the battery into the salt water. All the battery to remain in the tub of salt water for at least 2 weeks.
> Remove the Lipo battery from the salt water and place it in the normal trash.

Terminology

Electronic speed control (ESC)
An electronic circuit with the purpose to vary an electric motor’s speed, its direction and possibly also to act as a dynamic brake. ESCs are often used on electrically-powered radio controlled models.

An ESC can be a stand-alone unit which plugs into the receiver's throttle control channel or incorporated into the receiver itself, as is the case in most toy-grade R/C vehicles. Some R/C manufacturers that install proprietary hobby-grade electronics in their entry-level vehicles, vessels or aircraft use onboard electronics that combine the two on a single circuit board.

Brushless DC motors (BLDC motors, BL motors)
Also known as electronically commutated motors (ECMs, EC motors). BLDC motors are synchronous electric motors powered by direct-current (DC) electricity and having electronic commutation systems, rather than mechanical commutators and brushes. The current-to-torque and voltage-to-speed relationships of BLDC motors are linear.

BLDC motors may be described as stepper motors, with fixed permanent magnets and possibly more poles on the rotor than the stator, or reluctance motors. The latter may be without permanent magnets, just poles that are induced on the rotor then pulled into alignment by timed stator windings. However, the term stepper motor tends to be used for motors that are designed specifically to be operated in a mode where they are frequently stopped with the rotor in a defined angular position.

RC servos

Servos are hobbyist remote control devices typically employed in radio-controlled models, where they are used to provide actuation for various mechanical systems such as the steering of a car, the control surfaces on a plane, or the rudder of a boat.

Due to their affordability, reliability, and simplicity of control by microprocessors, RC servos are often used in small-scale robotics applications.

RC servos are composed of an electric motor mechanically linked to a potentiometer. A standard RC receiver sends Pulse-width modulation (PWM) signals to the servo. The electronics inside the servo translate the width of the pulse into a position. When the servo is commanded to rotate, the motor is powered until the potentiometer reaches the value corresponding to the commanded position.

RC servos use a three-pin 0.1" spacing jack (female) which mates to standard 0.025" square pins (which should be gold-plated, incidentally). The most common order is Signal, +voltage, ground. The standard voltage is 6VDC, however 4.8V and 12V has also been seen for a few servos. The control signal is a digital PWM signal with a 50Hz frame rate. Within each 20ms timeframe, an active-high digital pulse controls the position. The pulse nominally ranges from 1.0ms to 2.0ms with 1.5ms always being center of range. Pulse widths outside this range can be used for "overtravel" -moving the servo beyond its normal range. This PWM signal is sometimes (incorrectly) called Pulse Position Modulation (PPM).

The servo is controlled by three wires: ground, power, and control. The servo will move based on the pulses sent over the control wire, which set the angle of the actuator arm. The servo expects a pulse every 20 ms in order to gain correct information about the angle. The width of the servo pulse dictates the range of the servo's angular motion.

A servo pulse of 1.5 ms width will typically set the servo to its "neutral" position or 45°, a pulse of 1.25 ms could set it to 0° and a pulse of 1.75 ms to 90°. The physical limits and timings of the servo hardware varies between brands and models, but a general servo's angular motion will travel somewhere in the range of 90° - 120° and the neutral position is almost always at 1.5 ms. This is the "standard pulse servo mode" used by all hobby analog servos.

A hobby digital servo is controlled by the same "standard pulse servo mode" pulses as an analog servo. Some hobby digital servos can be set to another mode that allows a robot controller to read back the actual position of the servo shaft. Some hobby digital servos can optionally be set to another mode and "programmed", so it has the desired PID controller characteristics when it is later driven by a standard RC receiver.

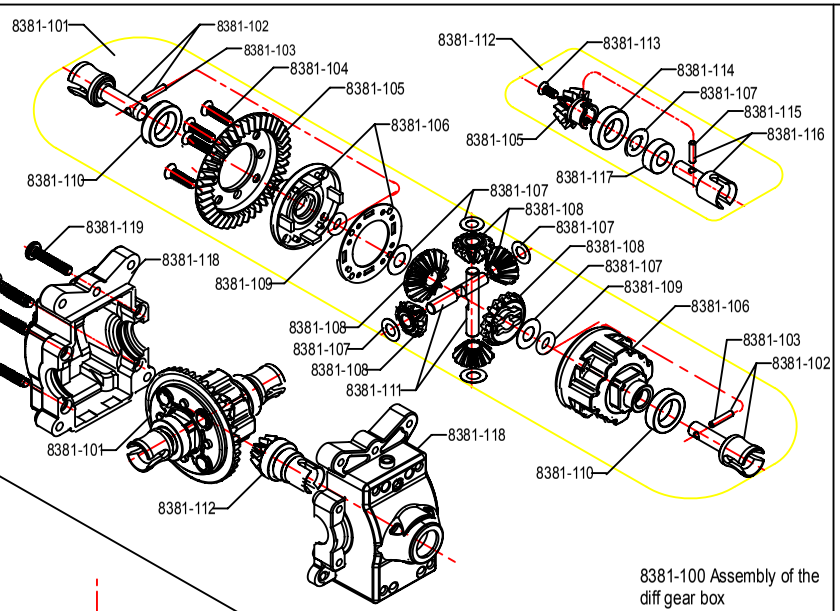
RC servos are usually powered by the receiver which in turn is powered by battery packs or an Electronic speed controller (ESC) with an integrated or a separate Battery eliminator circuit (BEC). Common battery packs are either NiCd, NiMH or Lithium-ion polymer battery (LiPo) type. Voltage ratings vary, but most receivers are operated at 5V or 6V.

Parts List

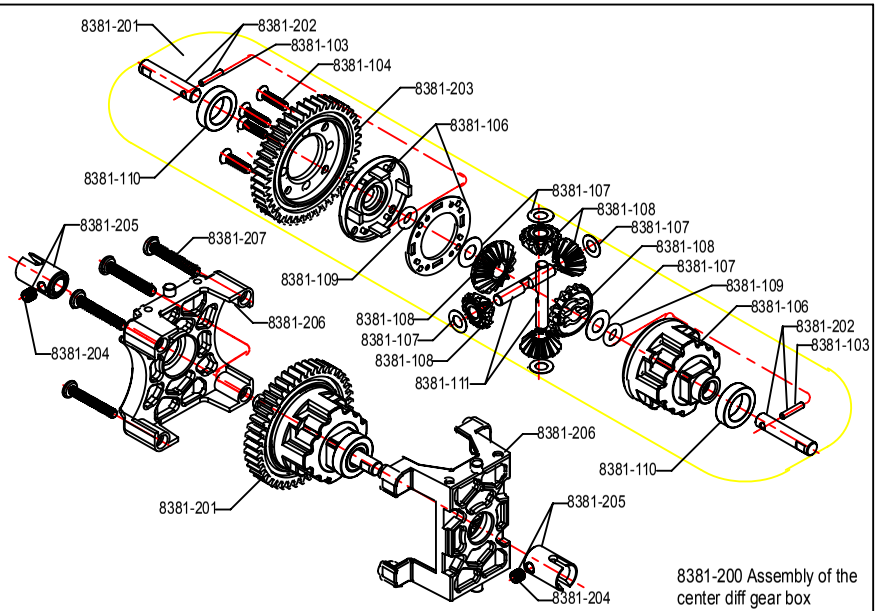
Number	Desc
8381-100	Assembly of diff gear box
8381-101	Diff set
8381-102	Diff outdrive/pins (dia 2*10mm)
8381-103	Pins(dia 2*10mm) (16 pcs)
8381-104	Flathead screw-coarse thread(KB2.6*10mm) (16 pcs)
8381-105	Crown gear-41T (large)/pinion gear-11T (small)
8381-106	Diff case set/diff case cover/diff gasket
8381-107	Washer-A/washer-B (8 pcs each)
8381-108	Gear-18T (2 pcs)/gear-12T (4 pcs)
8381-109	O Ring(dia 8mm * dia 2mm) (16 pcs)
8381-110	Ball bearing(dia 10mm * dia 15*4mm) (2 pcs)
8381-111	Diff pins(dia 4*25.8mm) (4 pcs)
8381-112	Assembly of the pinion gear
8381-113	Flathead screw(KM2.6X6mm) (16 pcs)
8381-114	Ball bearing(dia 8mm * dia14*4mm) (2 pcs)
8381-115	Pins(dia 2*8mm) (16 pcs)
8381-116	Pinion gear outdrive/pins(dia 2*8mm)
8381-117	Ball bearing(dia 5 mm * dia 11*4mm) (2 pcs)
8381-118	Diff gear box-F/R
8381-119	B head screw-coarse thread(BB3*16mm) (16 pcs)
8381-200	Central diff gear box(complete)
8381-201	Central diff set
8381-202	Center diff pins/pins(dia 2*10mm)
8381-203	Spur gear-43T(plastic) (2 pcs)
8381-204	Lock nut (M4*4mm) (16 pcs)
8381-205	Center diff outdrive/lock nut(M4*4mm)
8381-206	Center diff gear box/center diff gear box plate
8381-207	B head screw-coarse thread(BB3*20mm) (16 pcs)
8381-300	Shock absorber complete (2 pcs)
8381-301	Shock cap (2 pcs)
8381-302	Shock connecting rod-upper/lower/O ring (dia 12mm * dia 2mm)
8381-303	Shock adjust ring /O ring (dia 18.5mm * dia 1.5mm) (2 pcs)
8381-304	Shock body (2 pcs)
8381-305	Shock ball (8 pcs)
8381-306	M3 nylon nut (8 pcs)
8381-307	Lower shock mount/piston/O ring(dia 13mm * dia 1.5mm)
8381-308	O ring (16 pcs)
8381-309	Shock shaft (4 pcs)
8381-310	Shock spring (4 pcs)
8381-400	Anti-roll bar assembly
8381-40L	Assembly of anti-roll bar linkage-Left
8381-40R	Assembly of anti-roll bar linkage-Right
8381-401	Anti-roll bar rod end (8 pcs)
8381-402	Anti-roll bar linkage (4 pcs)
8381-403	Anti-roll bar pivot ball-upper/lower (4 sets)
8381-404	Lock nut(M3*3mm) (8 pcs)
8381-405	Anti-roll bar(dia 2.2mm) (2 pcs)
8381-50L	Assembly of upper sus.arm-Left
8381-50R	Assembly of upper sus.arm-Right
8381-501	Upper sus.arm ball (4 pcs)
8381-502	Upper sus.arm/rod end (2 sets)
8381-503	Upper sus.arm linkage (2 pcs)
8383-600	Assembly of buffer set
8381-601	Brass washer (4 pcs)

Number	Desc
8381-602	Buffer bushing/adiustment ring
8381-603	Buffer spring (4 pcs)
8381-604	Buffer sus.arm-upper/lower/steering sus.arm
8381-605	B head screw-coarse thread(BB3*12mm) (16 pcs)
8381-606	Screw bushing (16 pcs)
8381-601	Steering plate
8381-608	Shaft (2 pcs)
8381-6Z0	Assembly of steering linkage (2 pcs)
8381-6Z1	Steering linkage (2 pcs)
8381-6Z2	Plastic rod end (8 pcs)
8381-6Z3	Double way ball end (8 pcs)
8381-701	Upper sus.arm mount-rear/suspension mount
8381-702	B head screw-coarse thread(BB3*14mm) (16 pcs)
8381-703	B head screw-coarse thread(BB3*10mm) (16 pcs)
8381-704	Sus.arm long axle/short axle (2 sets)
8381-705	E-Clip(dia 2*0.4mm) (16 pcs)
8381-706	Lower sus.arm-front (2 pcs)
8381-707	Drive shaft set/revolving shaft (2 sets)
8381-708	Wheel axle (2 pcs)
8381-709	Steering arm (2 pcs)
8381-710	Ball bearing(dia 5mm * dia 10*4mm) (2 pcs)
8381-711	Hex adapter/nut-M12
8381-712	Pins(dia 2*16mm) (16 pcs)
8381-713	B head screw(BM3*12mm) (16 pcs)
8381-714	C-hub (2 pcs)
8381-715	B head screw(BM3*20mm) (16 pcs)
8381-716	Lock nut(M4*10mm) (16 pcs)
8381-717	Brace (2 pcs)
8381-718	Pivot ball mount (4 pcs)
8381-719	Upper sus.arm shaft (4 pcs)
8381-720	Front bumper/upper sus.arm mount-front
8381-721	Lower sus.arm plate-front
8381-726	B head screw-coares thread(BB3*18mm) (16 pcs)
8383-001	Tire complete (black rims) (2 pcs)
8381-801	Lower sus.arm-rear (2 pcs)
8381-802	Rear hub-L/F
8381-803	B head screw(BM3*18mm) (16 pcs)
8381-804	Wing mount/wing brace-L/R
8381-805	B head screw(BM3*10mm) (16 pcs)
8381-806	Rear wing rod-long/short
8381-807	Pin-A(dia 1.5mm) (16 pcs)
8383-002	Rear wing (black)
8381-9M1	Motor mount-Upper/Lower
8381-9M2	Motor gear-15T/Lock nut(M4*4)
8381-9S0	Assembly of 9kgs servo (with servo horns)
8381-9S1	Servo mount
8381-9S2	Servo steering plate (2 pcs)
8381-9S3	B head screw(BM3*6mm) (16 pcs)
8381-9Z0	Assembly of steering tie rod
8381-9Z1	Steering tie rod (2 pcs)
8383-003	Chassis
8381-002	Side guard-L/R
8382-003	Battery mount-A/B
8381-004	Upper deck mount-F/R

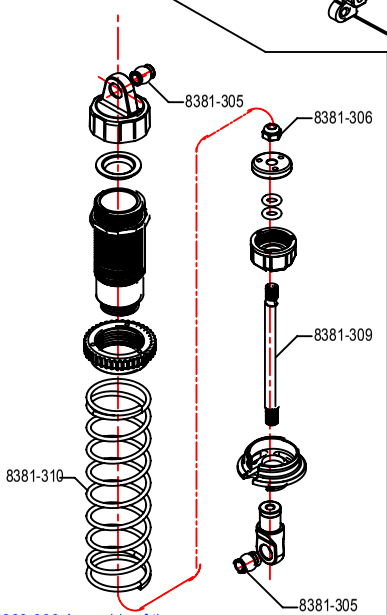
Number	Desc
8381-005	Central drive shaft-A
8381-006	Central drive shaft-B
8381-007	Receiver cover-upper/lower
8381-008	Antenna tube (3 pcs)
8381-009	Pin-B(dia 1.2mm) (16 pcs)
8381-010	Screw washer
8381-011	Flathead screw(KM3X10mm) (16 pcs)
8381-012	Flathead screw-coarse thread(KB3*10mm) (16 pcs)
8381-013	Flathead screw-coarse thread(KB3*12mm) (16 pcs)
8381-014	Flathead screw (KM3*5mm) (16 pcs)
8381-015	Flathead screw(KM3X18mm) (16 pcs)
8381-016	Upper deck-A
8381-017	Upper deck-B
8381-018	Body post-F/R/wire mount-A
8383-003	Battery cover
8381-020	Hex driver H17
8381-021	Painted body
H104	Brushless ESC (60A)
H105	Brushless motor (KV:2260)
H106	LiPo battery (11.1V, 20C, 3200mAh)
D302	2 channel 2.4GHz transmitter complete (with receiver)
D302H	2 channel 2.4GHz LCD transmitter w/ receiver (Optional)
D302R	4 channel 2.4GHz receiver



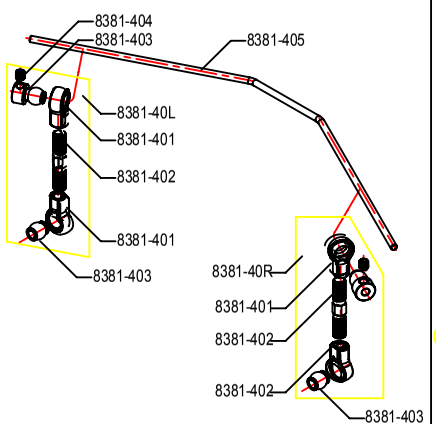
8381-100 Assembly of the diff gear box



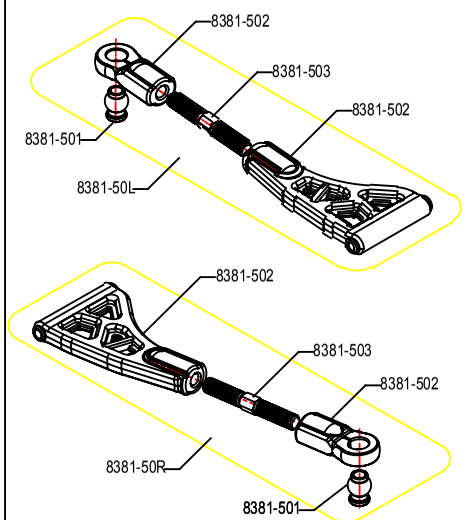
8381-200 Assembly of the center diff gear box



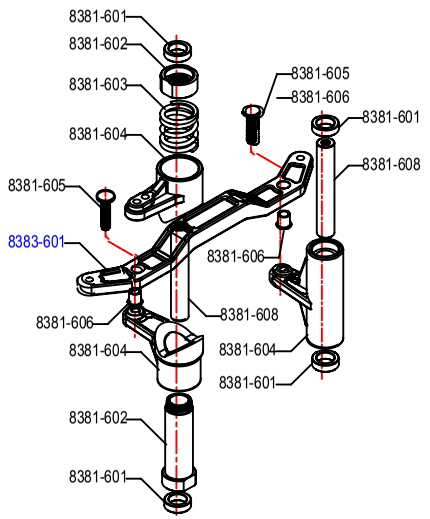
8383-300 Assembly of the shocks



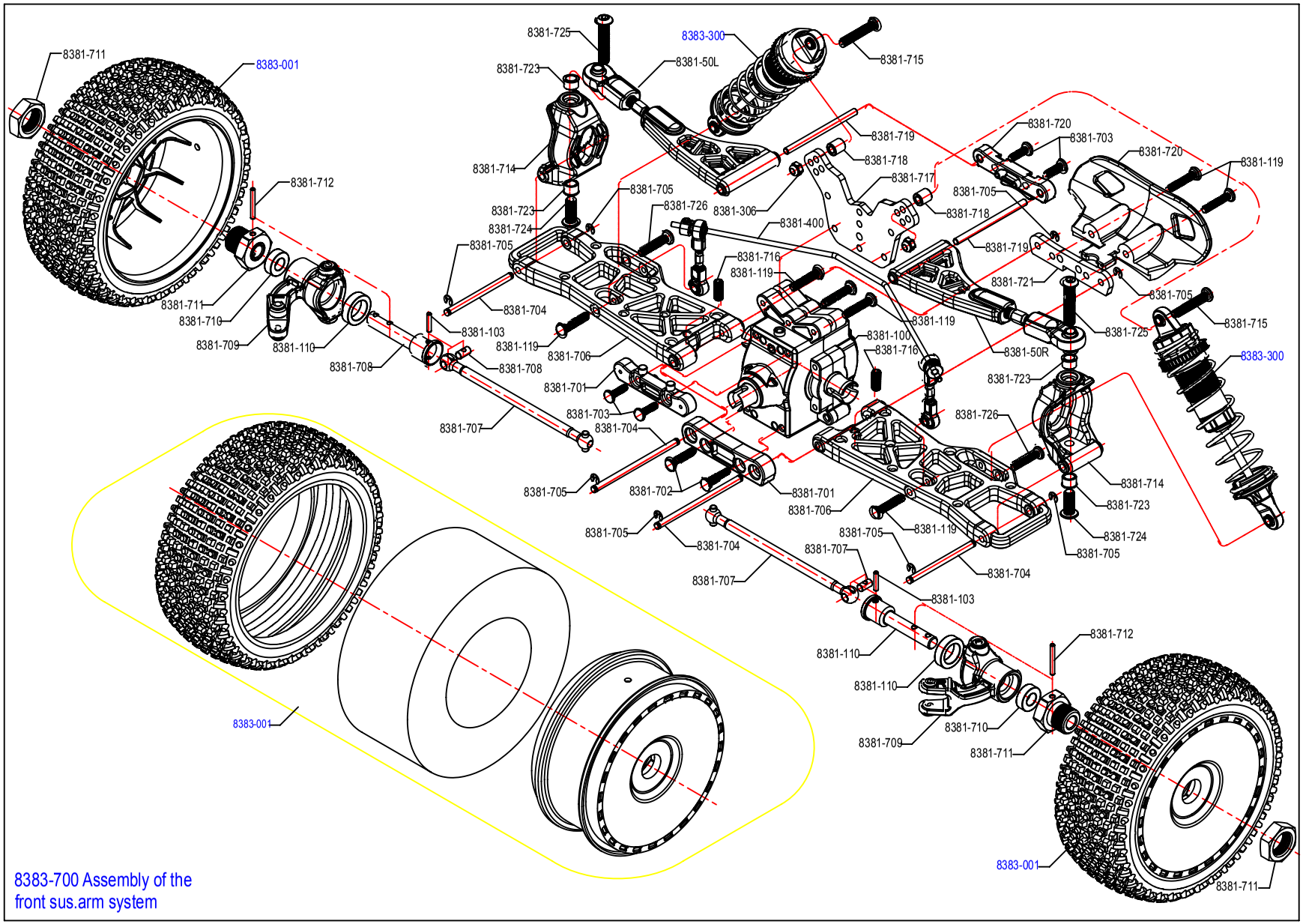
8381-400 Assembly of the sway bar



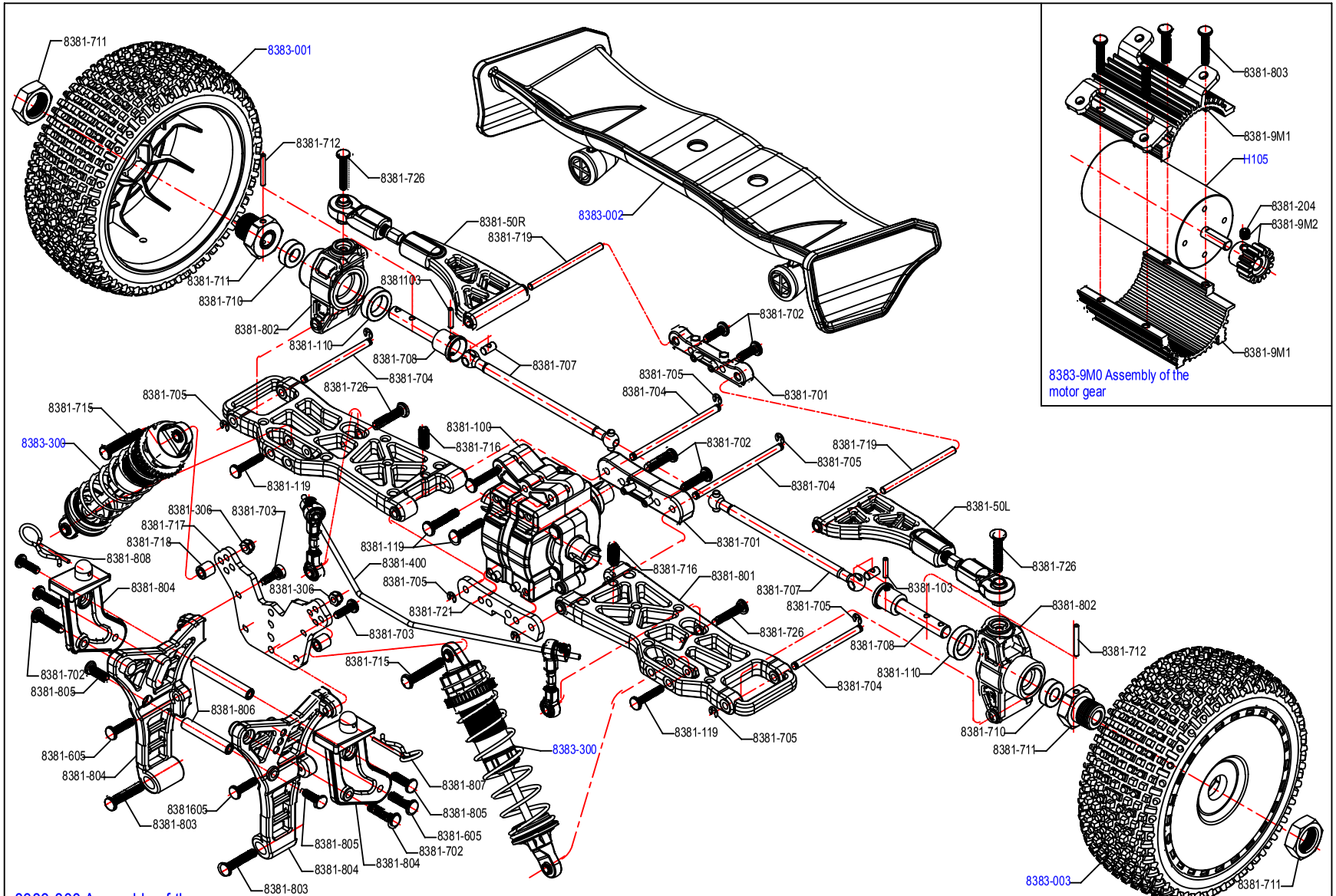
8381-50L Assembly of upper sus.arm-Left
8381-50L Assembly of upper sus.arm-Right



8383-600 Assembly of the buffer set

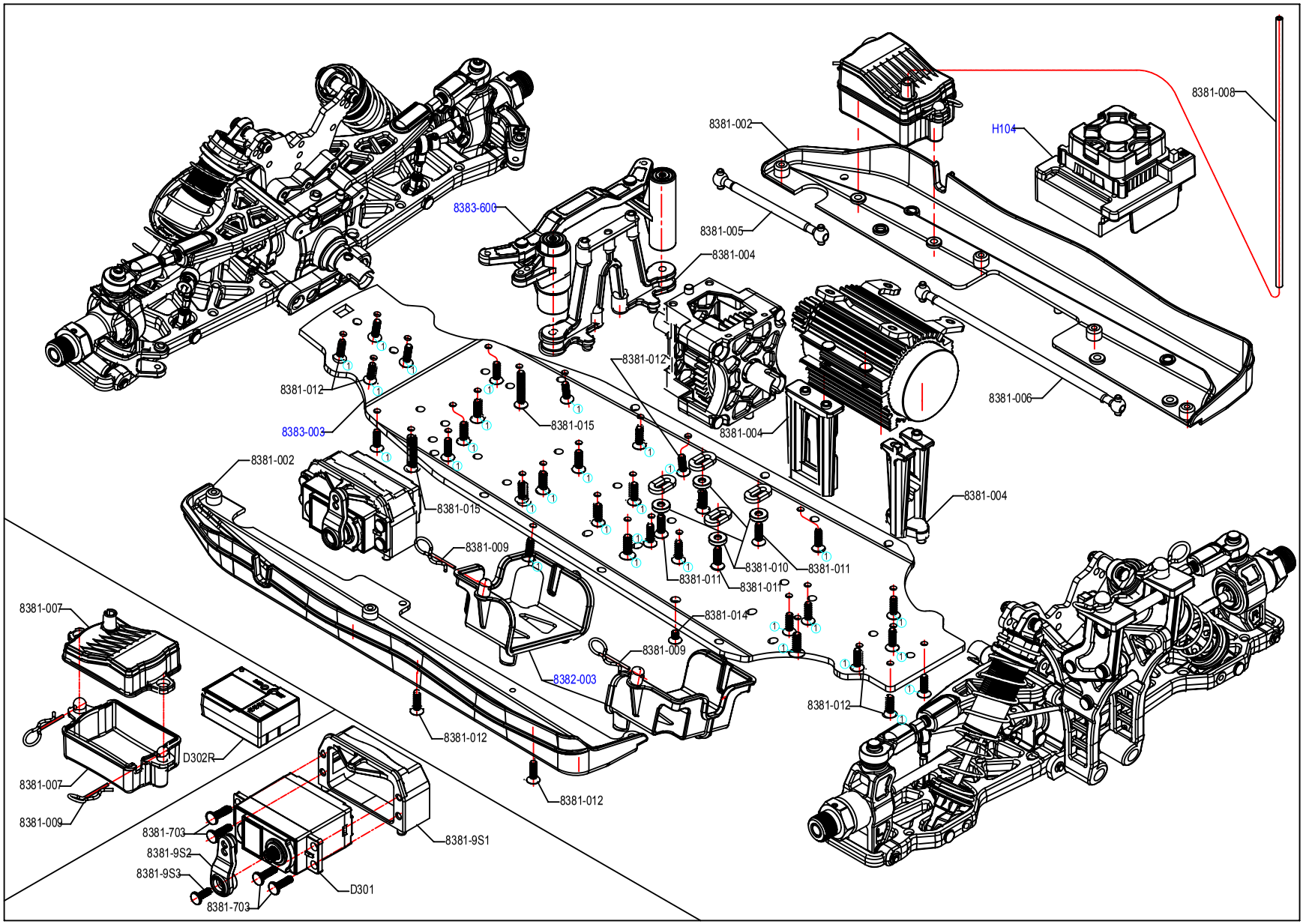


8383-700 Assembly of the front sus.arm system



8383-800 Assembly of the rear sus.arm system

8383-9M0 Assembly of the motor gear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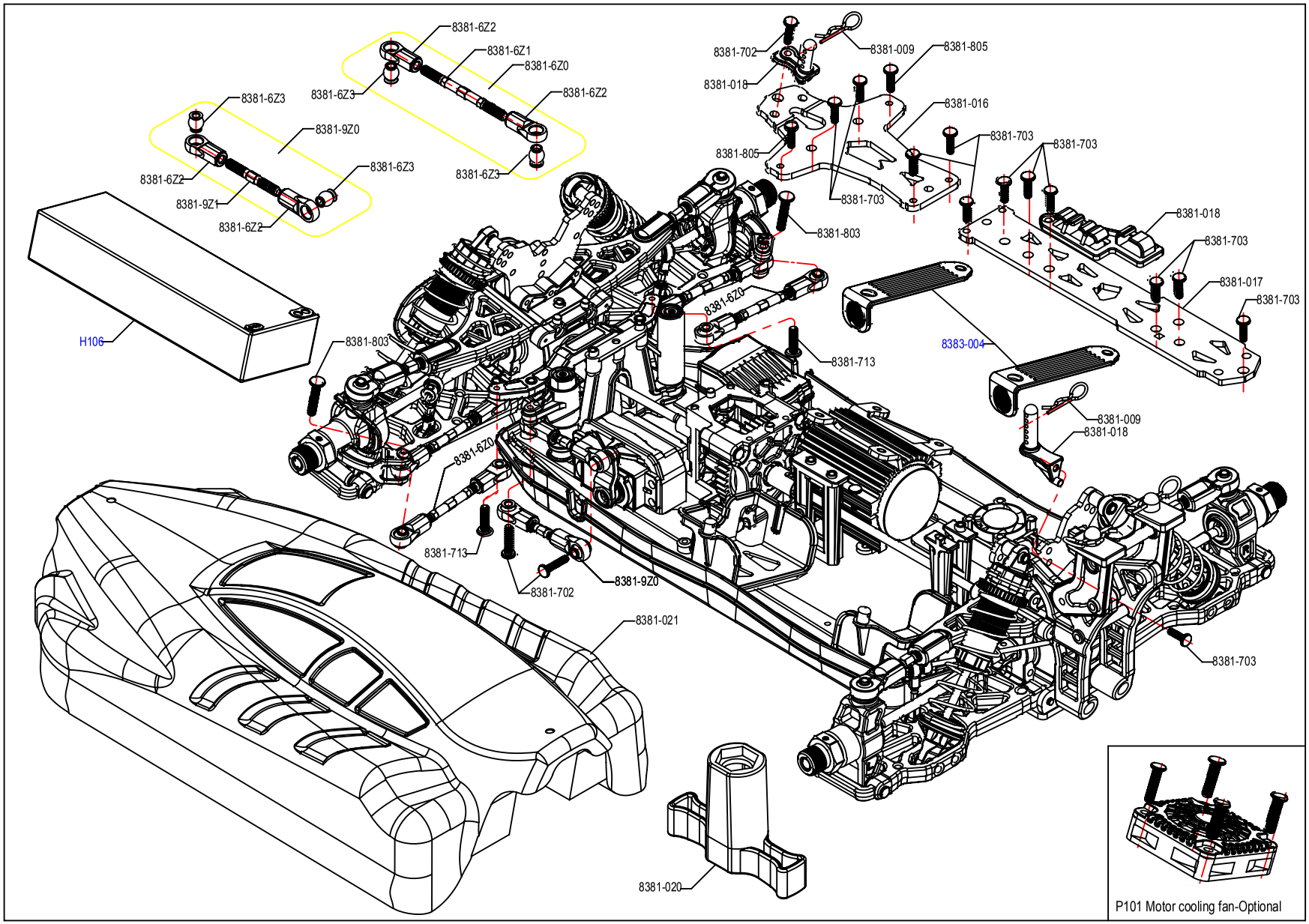
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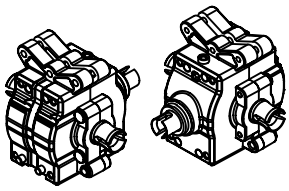
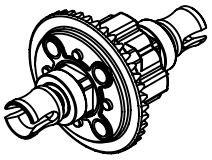
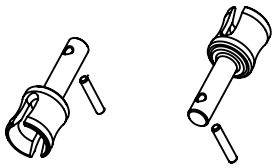
P101 Motor cooling fan-Optional



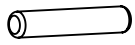
8381-100 Assembly of diff gear box



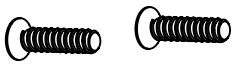
8381-101 Diff set



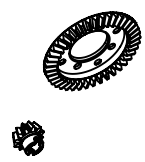
8381-102 Diff outdrive/pins (dia 2*10mm)



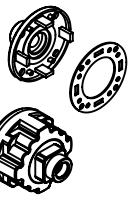
8381-103 Pins(dia 2*10mm) (16 pcs)



8381-104Flathead screw-coarse thread (KB2.6*10mm) (16 pcs)



8381-105 Crown gear-41T (large)/ pinion gear-11T (small)

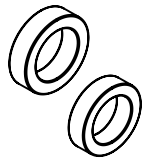


8381-106 Diff case set/diff case cover/diff gasket

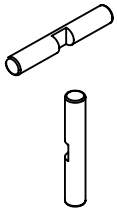
8381-107 Washer-A/washer-B (8 pcs each)

8381-108 Gear-18T (2 pcs)/gear-12T (4 pcs)

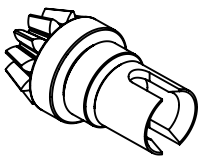
8381-109 O Ring(dia 8mm * dia 2mm) (16 pcs)



8381-110 Ball bearing(dia 10mm * dia 15*4mm) (2 pcs)

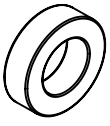


8381-111 Diff pins (dia 4*25.8mm) (4 pcs)

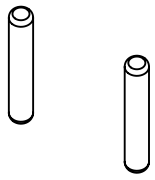


8381-112 Assembly of the pinion gear

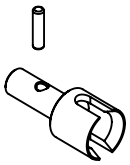
8381-113 Flathead screw (KM2.6X6mm) (16 pcs)



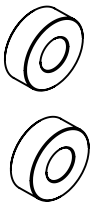
8381-114 Ball bearing (dia 8mm * dia14*4mm) (2 pcs)



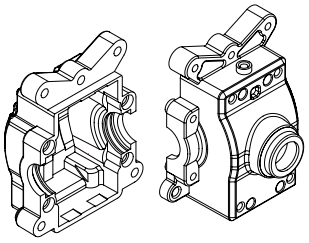
8381-115 Pins (dia 2*8mm) (16 pcs)



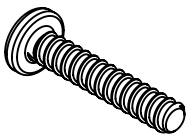
8381-116 Pinion gear outdrive/pins (dia 2*8mm)



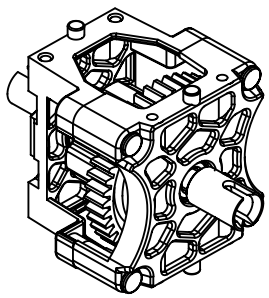
8381-117 Ball bearing (dia 5 mm * dia 11*4mm) (2 pcs)



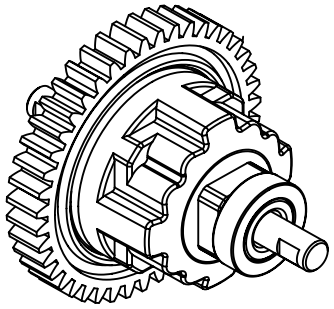
8381-118 Diff gear box-F/R



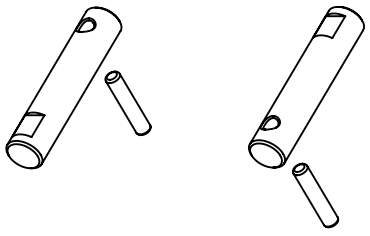
8381-119 B head screw-coarse thread (BB3*16mm) (16 pcs)



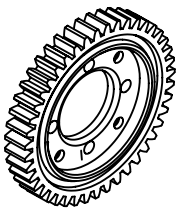
8381-200 Central diff gearbox (complete)



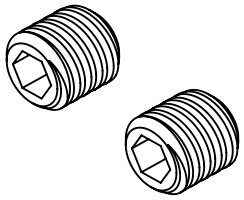
8381-201 Central diff set



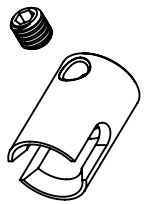
8381-202 Center diff pins/pins (dia 2*10mm)

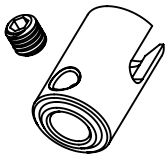


8381-203 Spur gear-43T (plastic) (2 pcs)

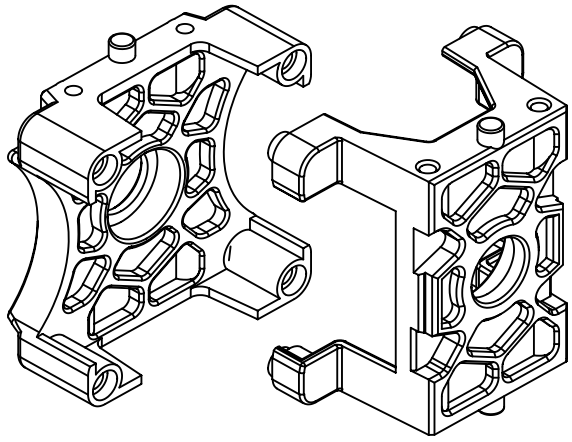


8381-204 Lock nut (M4*4mm) (16 pcs)

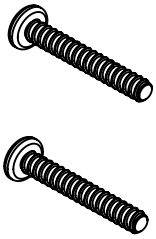




8381-205 Center diff outdrive/lock nut (M4*4mm)



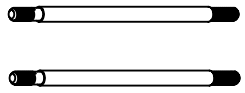
8381-206 Center diff gear box/center diff gear box plate



8381-207 B head screw-coarse thread (BB3*20mm) (16 pcs)

8381-300 Shock absorber complete (2 PCS)

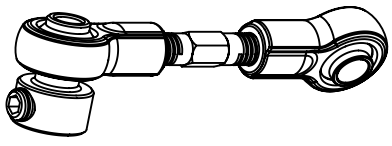
8381-305 Shock ball (8 pcs)



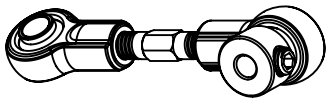
8381-309 Shock shaft (4 pcs)

8381-310 Shock spring (4 pcs)

8381-306 M3 nylon nut (8 pcs)

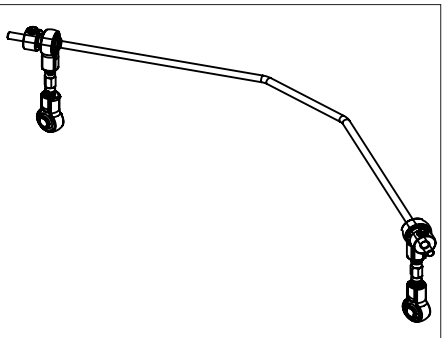


8381-40L Assembly of anti-roll bar linkage-Left



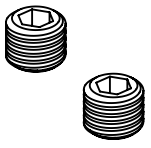
8381-40R Assembly of anti-roll bar linkage-Right

8381-402 Anti-roll bar linkage (4 pcs)



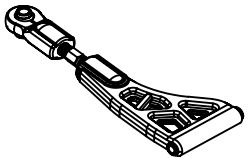
8381-400 Anti-roll bar assembly

8381-403 Anti-roll bar pivot ball-upper/lower (4 sets)

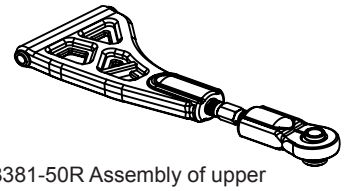


8381-404 Lock nut (M3*3mm) (8 pcs)

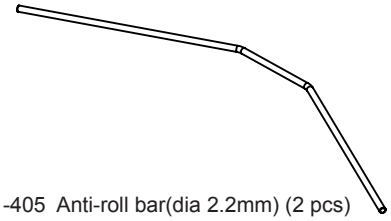
8381-401 Anti-roll bar rod end (8 pcs)



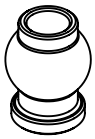
8381-50L Assembly of upper sus.arm-Left



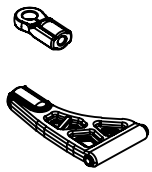
8381-50R Assembly of upper sus.arm-Right



8381-405 Anti-roll bar(dia 2.2mm) (2 pcs)



8381-501 Upper sus.arm ball (4 pcs)

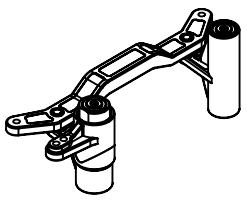


8381-502 Upper sus.arm/rod end (2 sets)

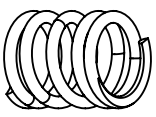
8381-602 Buffer bushing/adiustment ring

8381-503 Upper sus.arm linkage (2 pcs)

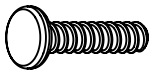
8381-601 Brass washer (4 pcs)



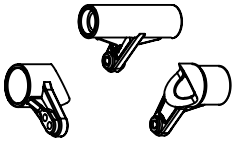
8381-600 Assembly of buffer set



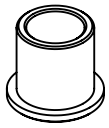
8381-603 Buffer spring (4 pcs)



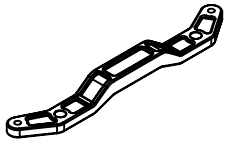
8381-605 B head screw-coarse thread (BB3*12mm) (16 pcs)



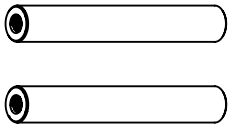
8381-604 Buffer sus.arm-upper/ lower/steering sus.arm



8381-606 Screw bushing (16 pcs)

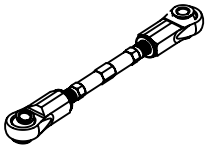


8381-607 Steering plate

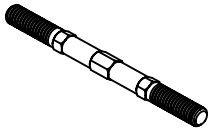


8381-608 Shaft (2 pcs)

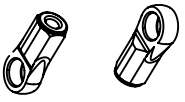
8381-6Z3 Double way ball end (8 pcs)



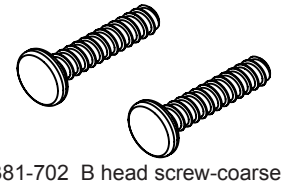
8381-6Z0 Assembly of steering linkage (2PCS)



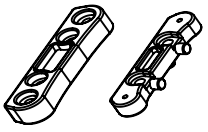
8381-6Z1 Steering linkage (2 pcs)



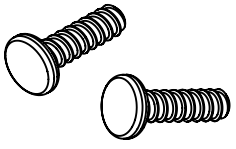
8381-6Z2 Plastic rod end (8 pcs)



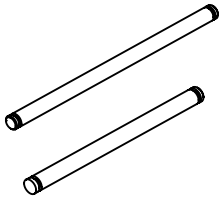
8381-702 B head screw-coarse thread(BB3*14mm) (16 pcs)



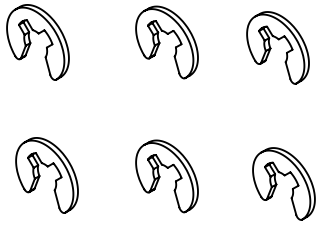
8381-701 Upper sus.arm mount-rear/suspension mount



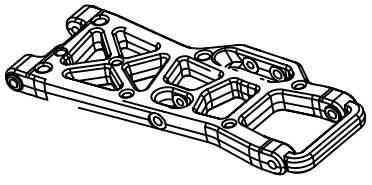
8381-703 B head screw-coarse thread (BB3*10mm) (16 pcs)



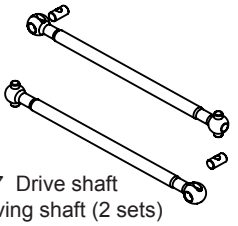
8381-704 Sus.arm long axle/short axle (2 sets)



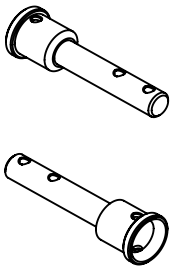
8381-705 E-Clip (dia 2*0.4mm) (16 pcs)



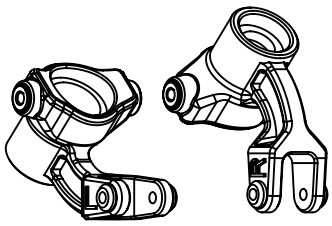
8381-706 Lower sus.arm-front (2 pcs)



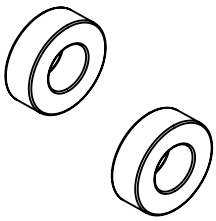
8381-707 Drive shaft set/revolving shaft (2 sets)



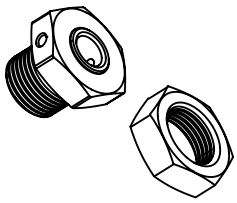
8381-708 Wheel axle (2 pcs)



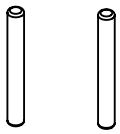
8381-709 Steering arm (2 pcs)



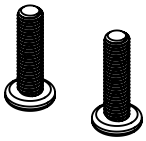
8381-710 Ball bearing(dia 5mm * dia 10*4mm) (2 pcs)



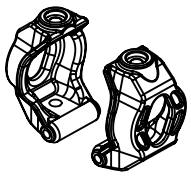
8381-711 Hex adapter/nut-M12



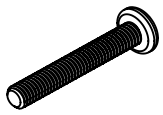
8381-712 Pins (dia 2*16mm) (16 pcs)



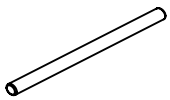
8381-713 B head screw (BM3*12mm) (16 pcs)



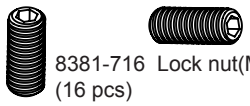
8381-714 C-hub (2 pcs)



8381-715 B head screw (BM3*20mm) (16 pcs)

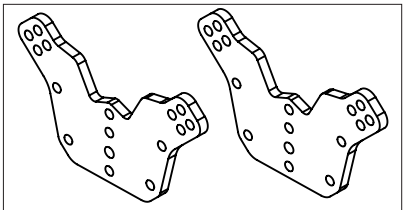


8381-719 Upper sus.arm shaft (4 pcs)

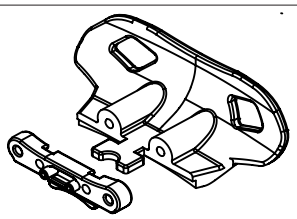


8381-716 Lock nut(M4*12mm) (16 pcs)

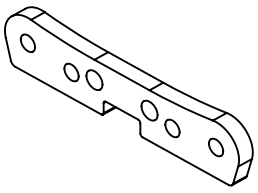
8381-718 Pivot ball mount (4 pcs)



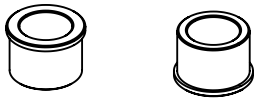
8381-717 Brace (2 pcs)



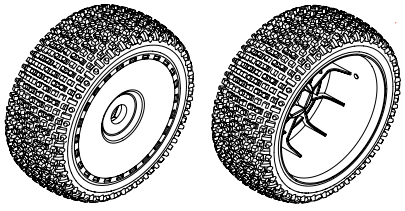
8381-720 Front bumper/upper sus.arm mount-front



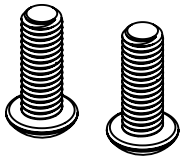
8381-721 Lower sus.arm plate-front



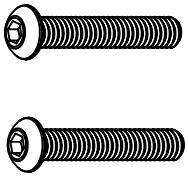
8381-723 C-hub screw bushing (16 pcs)



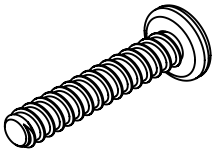
8383-001 Tire complete (black rims) (2 pcs)



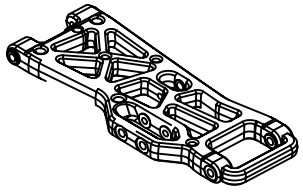
8381-724 T head screw (TM4*12mm) (16 pcs)



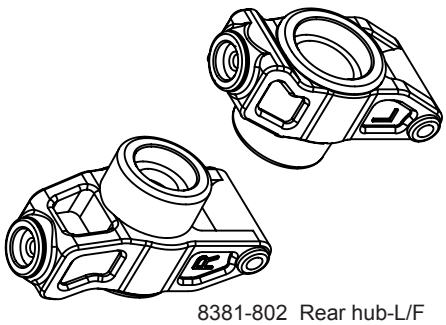
8381-725 T head screw (TM4*22mm) (16 pcs)



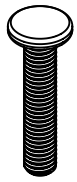
8381-726 B head screw-coarse thread (BB3*18mm) (16 pcs)



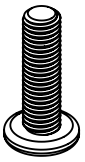
8381-801 Lower sus.arm-rear (2 pcs)



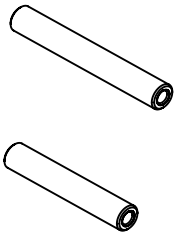
8381-802 Rear hub-L/F



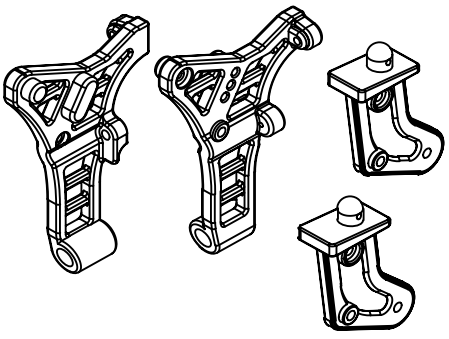
8381-803 B head screw(BM3*18mm) (16 pcs)



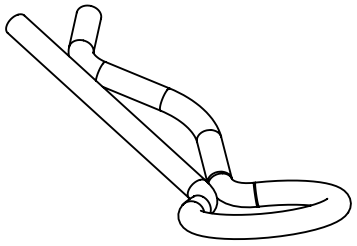
8381-805 B head screw(BM3*10mm) (16 pcs)



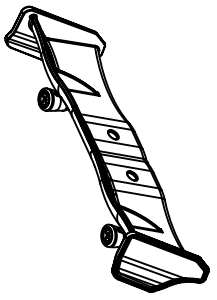
8381-806 Rear wing rod-long/short



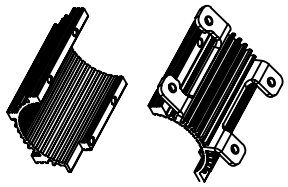
8381-804 Wing mount/wing brace-L/R



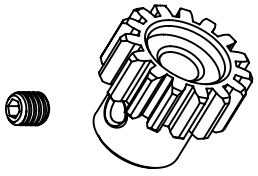
8381-807 Pin-A(dia 1.5mm) (16 pcs)



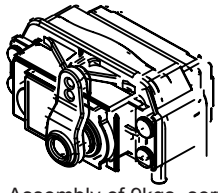
8383-003 Rear wing (black)



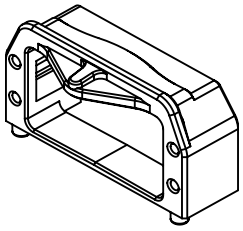
8381-9M1 Motor mount-Upper/ Lower



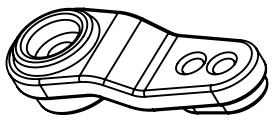
8381-9M2 Motor gear-15T/Lock nut(M4*4)



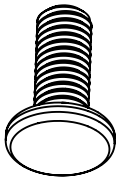
8381-9S0 Assembly of 9kgs servo (with servo horns)



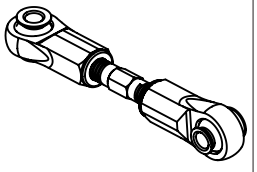
8381-9S1 Servo mount



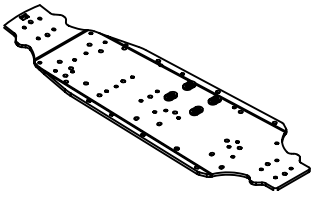
8381-9S2 Servo steering plate (2 pcs)



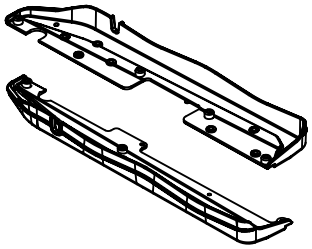
8381-9S3 B head screw (BM3*6mm) (16 pcs)



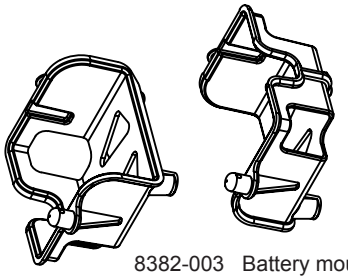
8381-9Z0 Assembly of steering tie rod



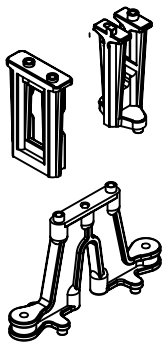
8383-003 Chassis



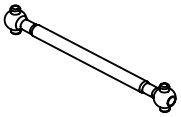
8381-002 Side guard-L/R



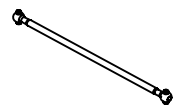
8382-003 Battery mount-A/B



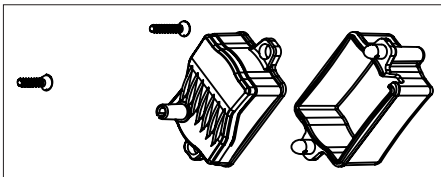
8381-004 Upper deck mount-F/R



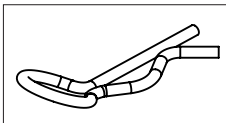
8381-005 Central drive shaft-A



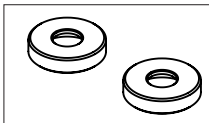
8381-006 Central drive shaft-B



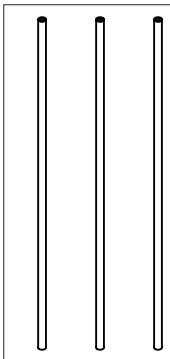
8381-007 Receiver cover-upper/lower



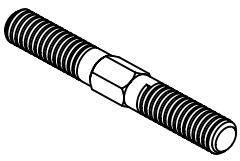
8381-009 Pin-B(dia 1.2mm) (16 pcs)



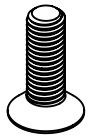
8381-010 Screw washer (4 pcs)



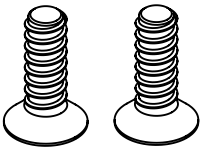
8381-008 Antenna tube (3 pcs)



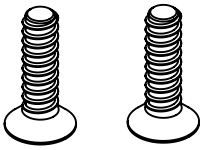
8381-9Z1 Steering tie rod (2 pcs)



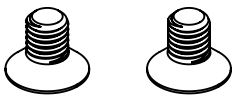
8381-011 Flathead screw (KM3X10mm) (16 pcs)



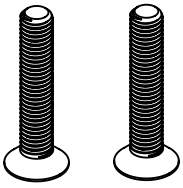
8381-012 Flathead screw-coarse thread (KB3*10mm) (16 pcs)



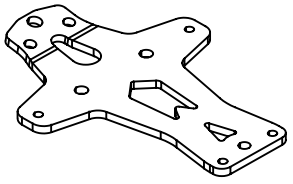
8381-013 Flathead screw-coarse thread (KB3*12mm) (16 pcs)



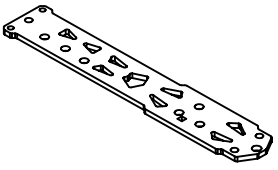
8381-014 Flathead screw (KM3*5mm) (16 pcs)



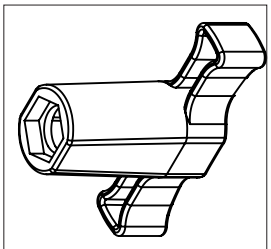
8381-015 Flatheadscrew (KM3X18mm)(16 pcs)



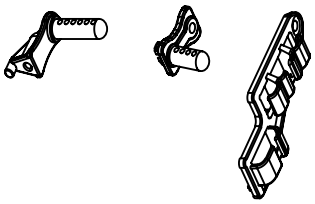
8381-016 Upper deck-A



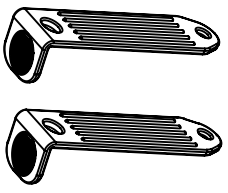
8381-017 Upper deck-B



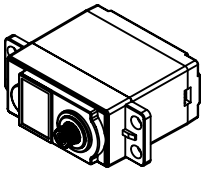
8381-020 Hex driver H17



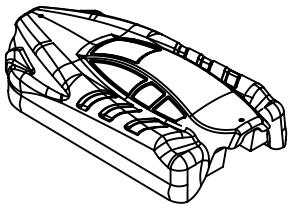
8381-018 Body post-F/R/wire mount-A



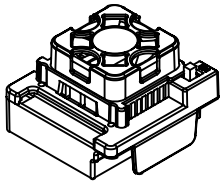
8383-003 Battery cover



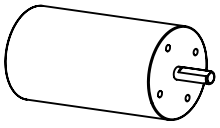
D301 Servo (9kg metal gears)



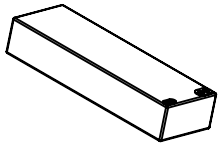
8381-021 Painted body



H104 Brushless ESC (60A)



H105 Brushless motor (KV:2260)



H106 LiPo battery (7.4V, 20C, 3200mAh)

2.4GHz Transmitter D302

2.4GHz Transmitter
with LCD Display D302H

4 channel 2.4GHz receiver

Note:
Images are for easy track of the parts, they don't alway srepresent the actual quantity of parts packs.

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