

【組み立てに必要な物】

ACCESSORIES AND TOOLS NEEDED FOR [MR-4TC SD CM] ASSEMBLY

■ 走行の為に別にお買い求め頂く物 ■

ADDITIONAL ITEMS REQUIRED FOR USE (NOT INCLUDED IN KIT)

- 2チャンネルプロポ (1サーボ 1アンプ仕様)
TWO CHANNEL R/C SURFACE RADIO SYSTEM
AND ELECTRONIC SPEED CONTROL
- 走行用 7.2V バッテリーパック
7.2V BATTERY PACK
- 走行用バッテリー充電器
BATTERY CHARGER
- 走行用モーター
MOTOR
- タイヤ(タイヤ付キットは不要)
TIRES
- 走行用ボディー(ボディー付キットは不要)
BODY
- ボディー塗装用カラー
BODY SPRAY PAINT

■ 袋以外の箱に入っている物 ■

PARTS INCLUDED IN KIT

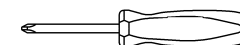
- | | |
|-----------|--------------|
| ● バンパー | BUMPER |
| ● ホイール | WHEELS |
| ● タイヤ | TIRES |
| ● メインシャーシ | MAIN CHASSIS |

[MR-4TC SD CM]の性能を十分に発揮させる為にイラストを良く参照し説明の順番に従って確実に組み上げて下さい。

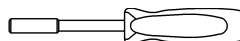
For assembly, follow the figures and the instructions closely so that your [MR-4TC SD CM] will perform at its best!!

■ 別途用意する工具 ■

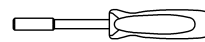
ASSEMBLING TOOLS REQUIRED (NOT INCLUDED IN KIT)



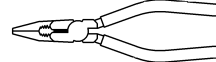
ドライバー (大,小)
SCREW DRIVER (SMALL & LARGE)



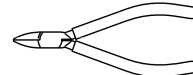
ボックスレンチ (7.0mm)
NUT DRIVER (7.0mm)



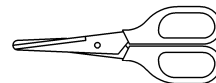
ボックスレンチ (5.5mm)
NUT DRIVER (5.5mm)



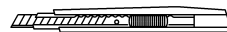
ラジオペンチ
NEEDLE NOSE PLIERS



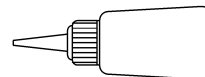
ニッパー
SIDE CUTTER



ハサミ
SCISSORS

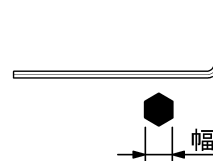


カッター
HOBBY KNIFE



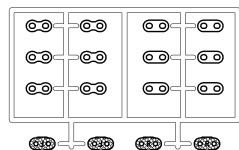
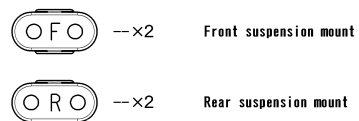
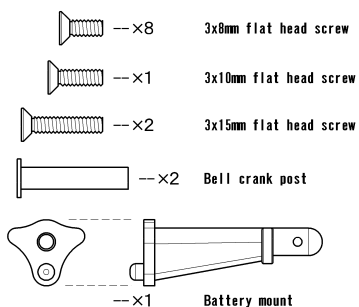
瞬間接着剤
QUICK DRYING GLUE

■ キットに入っている工具 ■ TOOLS (INCLUDED)



六角レンチ
ALLEN WRENCH
(2.0mm)
(1.5mm)

[Bag-1 Contents]

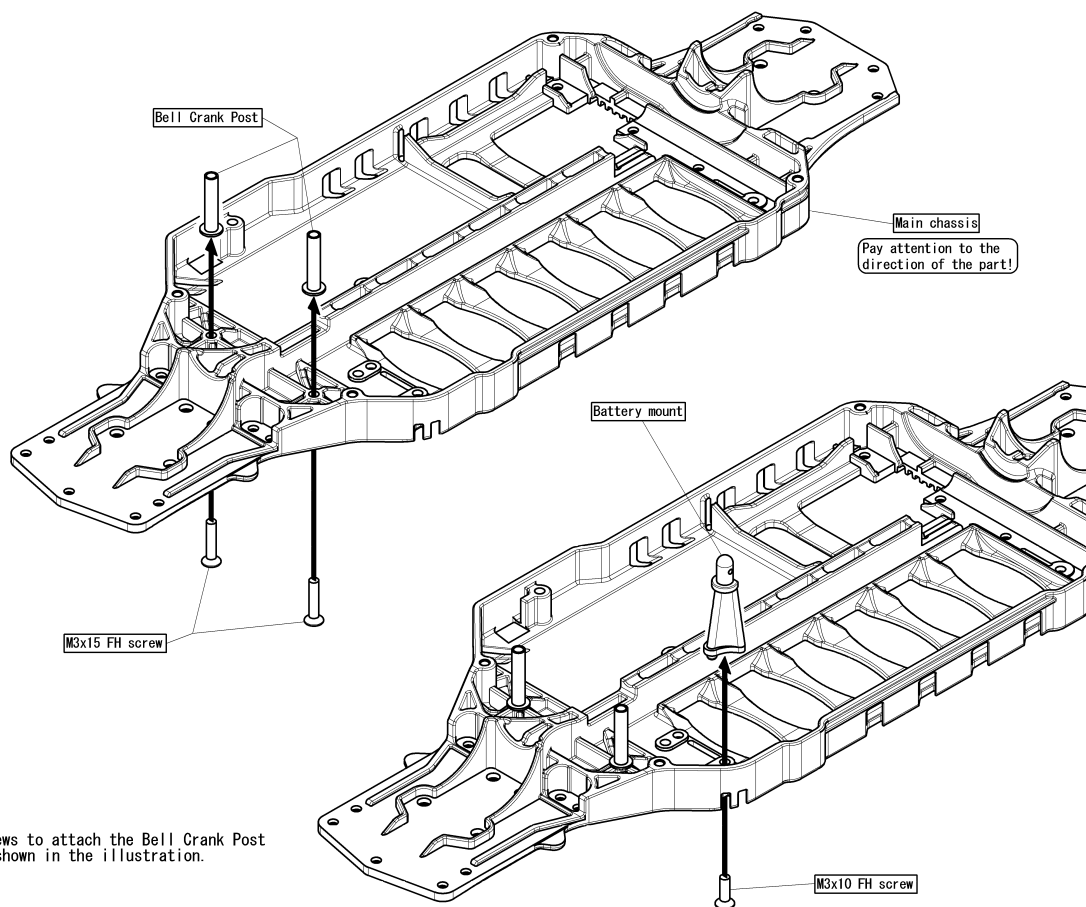


Shaded parts are used for this step.

2 types of spacers are included.

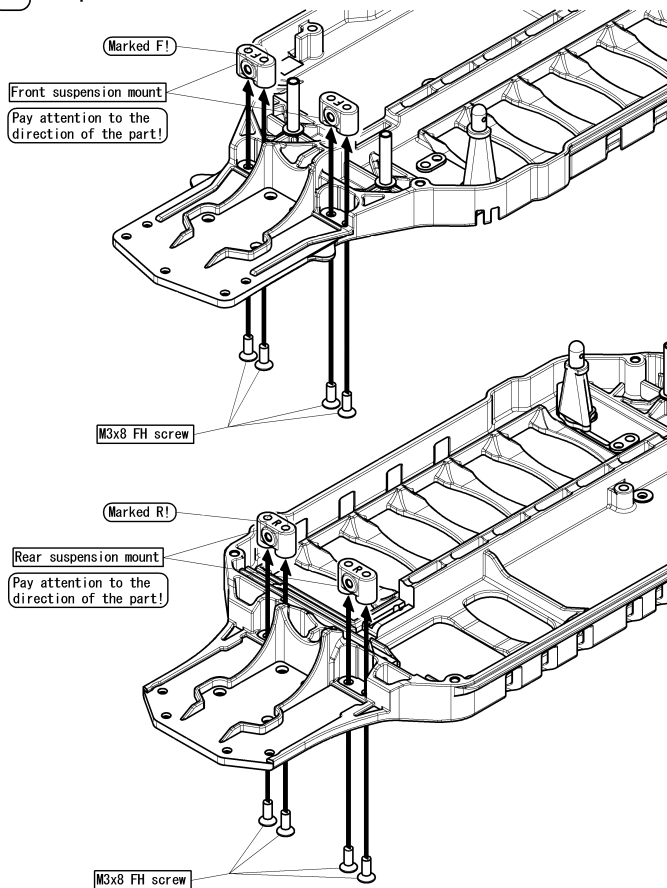
Oval shaped = For ride height adjustments, 1mm thick (1 ea)
Figure-8 shaped = For kick-up/anti-squat adjustments, 1 deg (1 ea)

1 Bell Crank Post, Battery Mount Installation



Use the specified screws to attach the Bell Crank Post and Battery Mount as shown in the illustration.

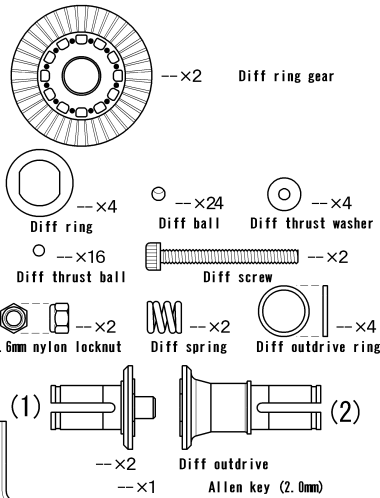
2 Suspension Mount Installation



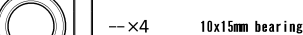
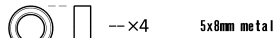
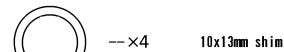
Important!— Pay attention to the direction of the front and rear suspension mounts when installing.

[Bag-2 Contents]

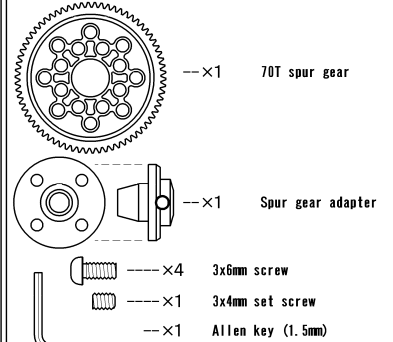
[BALL DIFF PARTS]



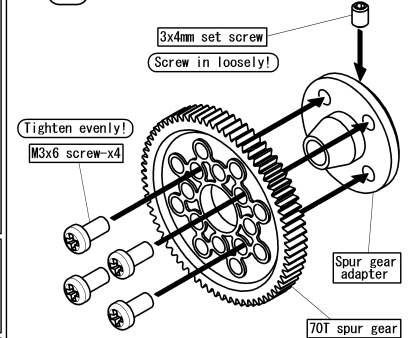
The front and rear ball differentials included in the kit come pre-assembled, but may require some adjustments. Please read [Ball Differential Assembly] on the following page to become familiar with how the ball differential works. When replacing parts or disassembling the differential for maintenance, [Diff Lube CS-SDL] and [Black Grease CS-SBG] are required in addition to the parts listed above. (Handling performance will be affected when the action of the ball differential becomes rough, so periodic maintenance is recommended.)



[SPUR GEAR PARTS]

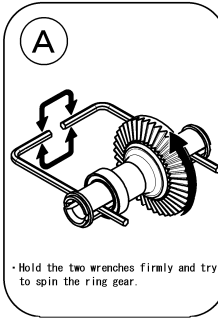
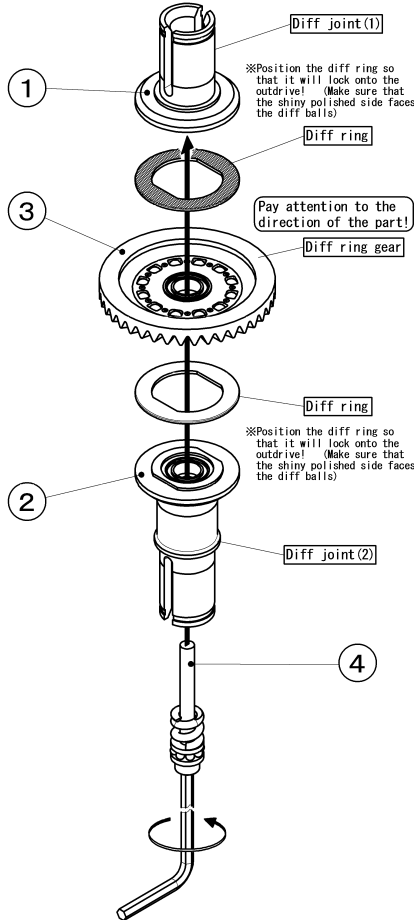
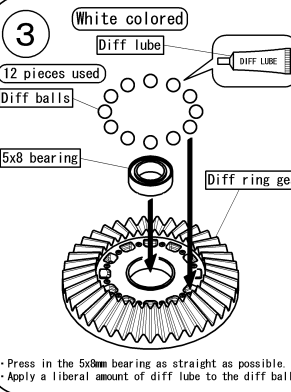
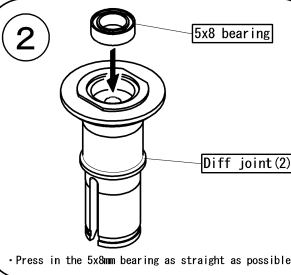
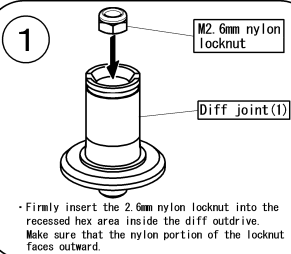


3 Spur Gear Assembly



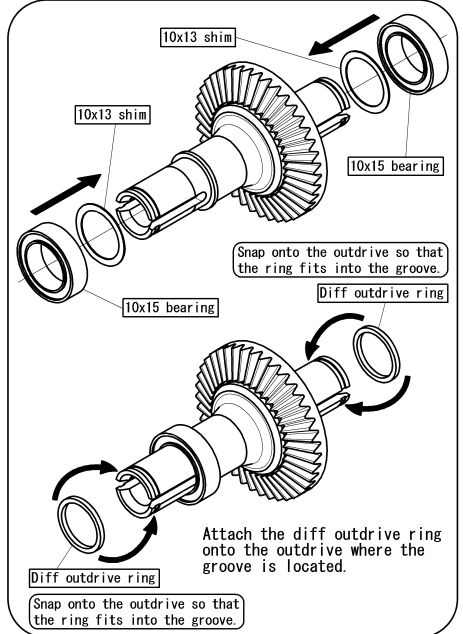
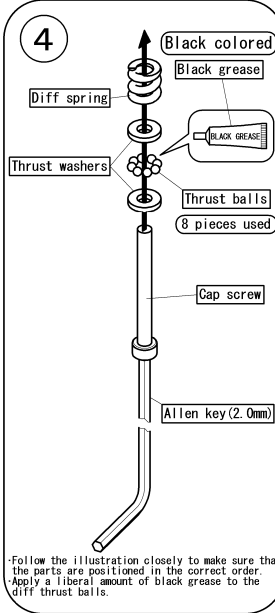
Important!—When tightening the 3x6mm screws to secure the 70T spur gear to the gear adapter, make sure to line up the holes on the spur gear with the gear adapter and tighten the four screws slowly, and as evenly as possible. Tightening the screws unevenly may distort the spur gear, causing it to spin unevenly.

4 Front & Rear Ball Diff Assembly (assemble 2) ※Carefully read the following instructions prior to assembling the ball differential.

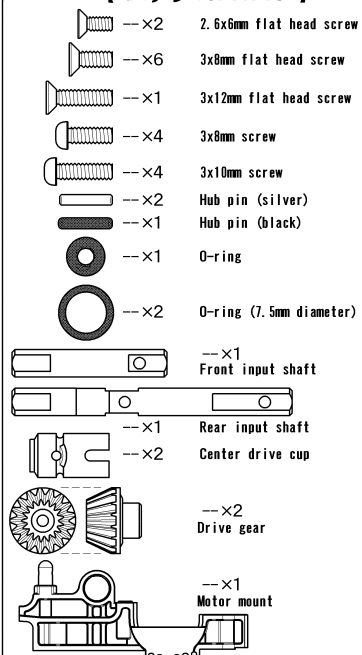


Important!

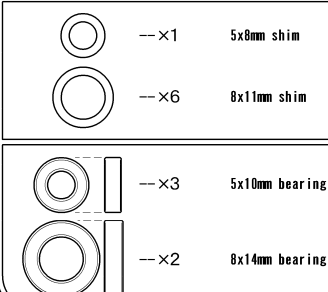
- ① The diff rings and diff balls are coated with oil to prevent rust during shipment. To help prevent the diffs from slipping, make sure to clean the diff rings and diff balls with motor spray prior to assembly.
- ② Be aware of the top and bottom sides of the diff rings. The top side of the diff ring is polished and faces the diff balls. The bottom side has a matte finish and faces the outdrive.
- ③ Always apply diff lube to the diff balls, and black grease to the diff thrust balls.
- ④ When tightening the diff, use two allen keys to test the tightness of the diff (as shown in illustration A). Slowly tighten the diff screw until the ring gear cannot be turned by hand. (Tighten the diff screw until the diff does not slip when the car is run.)



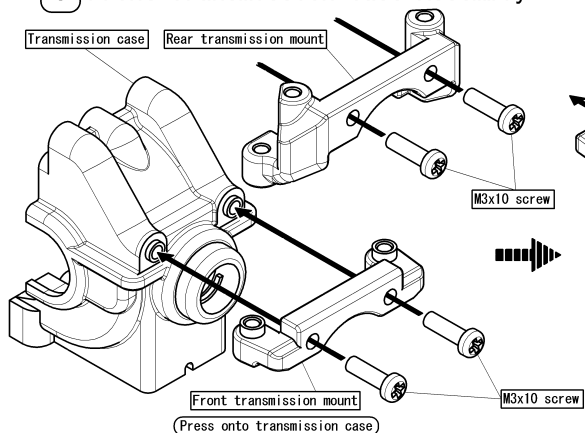
[Bag-3 Contents]



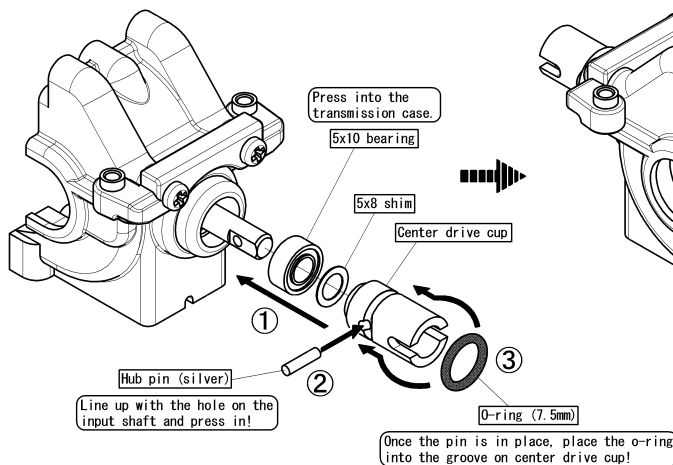
Other transmission case and chassis brace parts



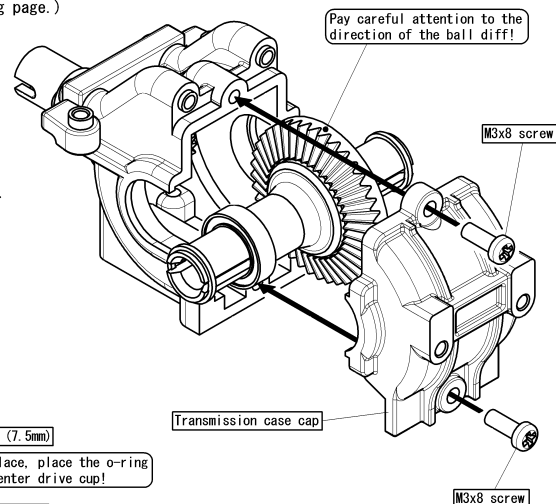
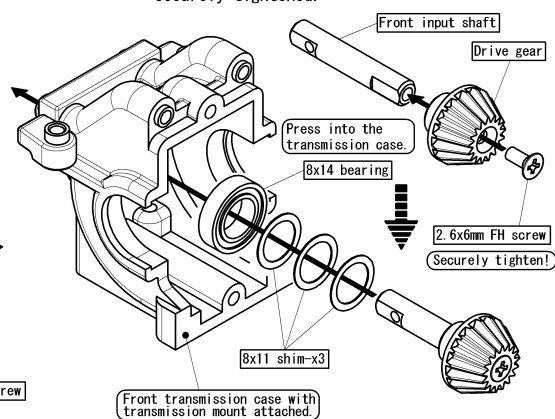
5 Front Transmission Case Assembly



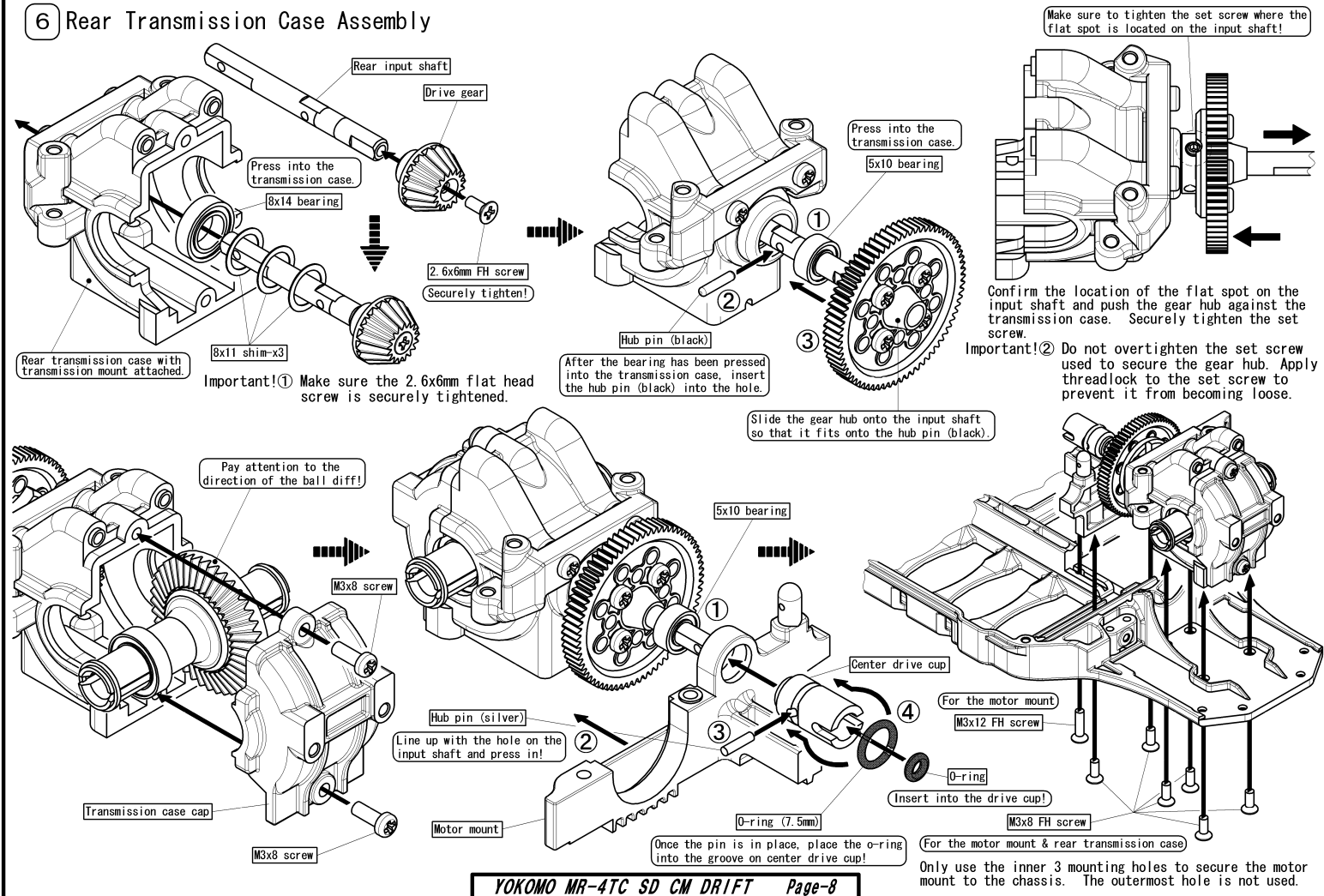
Attach the front transmission mount to the transmission case using the 3x10mm screws. Also attach the rear transmission mount to the other transmission case in the same way (to be used on the following page.)



Important!— Make sure the 2.6x6mm flat head screw is securely tightened.

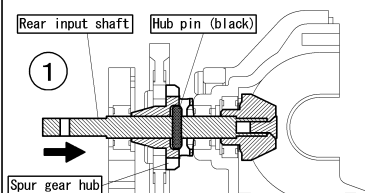


6 Rear Transmission Case Assembly

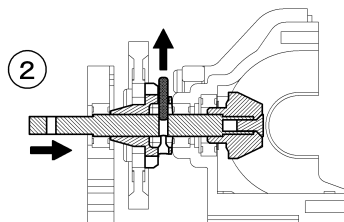


Maintenance Tip!

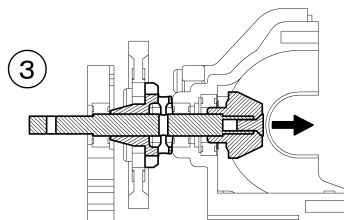
Spur Gear Hub Removal



Loosen the spur gear hub set screw and slide the rear input shaft towards the back of the chassis. (Having the center drive cup removed from the rear input shaft may simplify this step.)

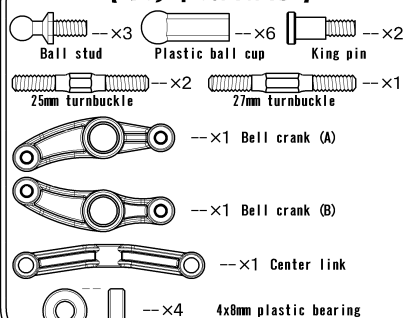


Slide the rear input shaft back until the hub pin becomes visible through the hole in the spur gear hub and remove the hub pin. (If the hub pin easily falls out, apply a thin coat of rubber cement to the pin.)



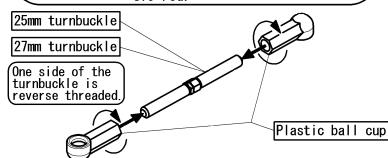
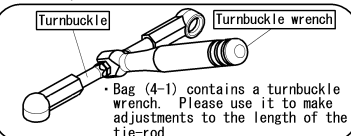
Slide the rear input shaft further back to allow the spur gear hub to be removed. (When re-assembling, follow these steps in reverse order.)

[Bag-4 Contents]

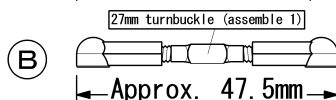
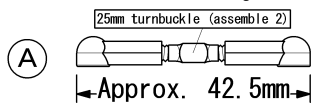


Tie-rod Assembly

• Assemble the tie-rod by attaching a plastic ball cup to both ends of the turnbuckle.

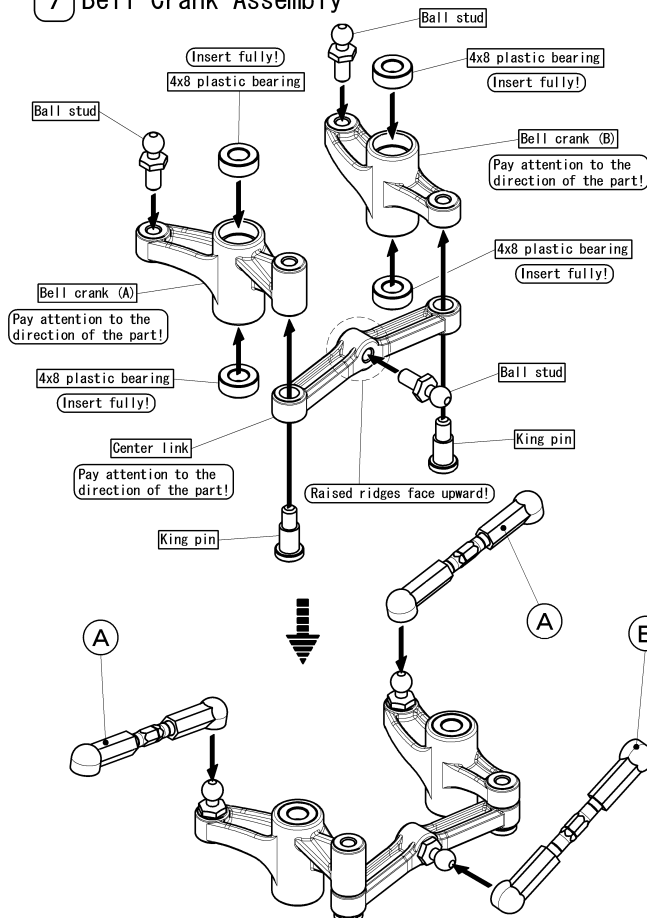


• Assemble each tie-rod to the lengths shown below.



This length may vary depending on the servo used. Adjust accordingly.

7 Bell Crank Assembly



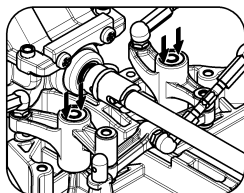
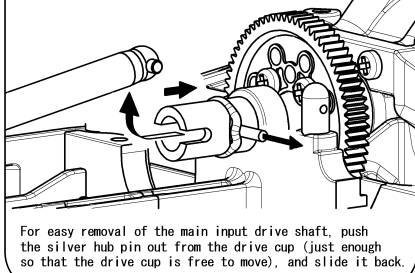
Attach each of the 2 tie-rods to the ball studs as shown above. (Pay careful attention to the where each tie-rod is placed. By attaching the tie-rods so that the reverse threaded portion of the turnbuckle is on the same side will make it easier to adjust them later.)

[Bag-5 Contents]

- x4 3x8mm flat head screw
- x4 3x8mm screw
- x4 3x12mm screw
- x2 3x22mm screw
- x1 Main drive shaft

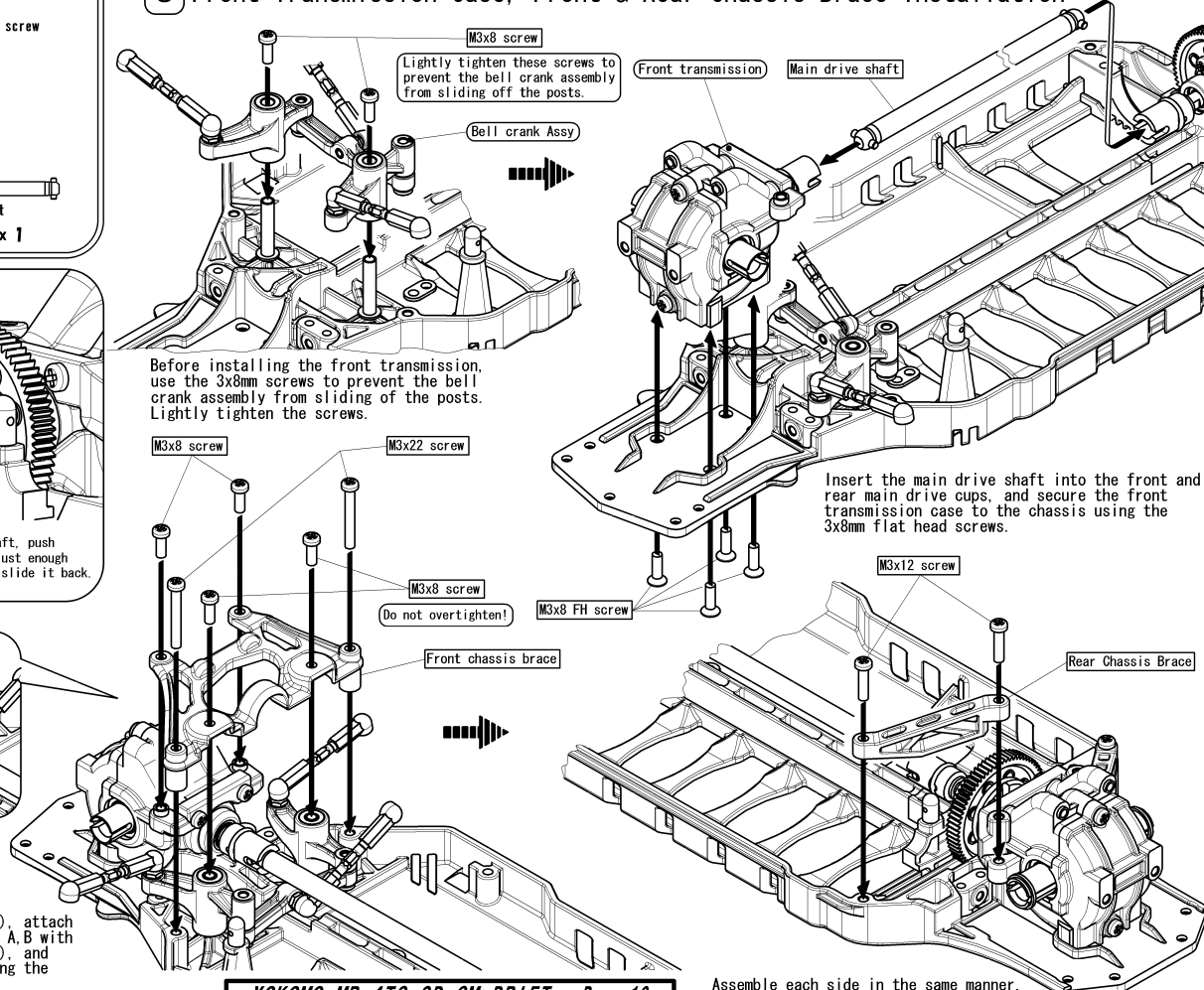
Also included: antenna tube x 1

Maintenance Tip!

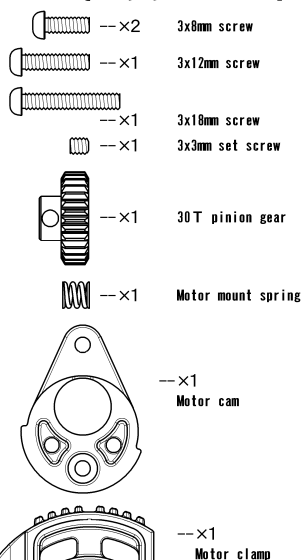


Unscrew the (M3x8 Button Head Screws), attach the (Bell Crank Assembly: Bell Crank A, B with the 4x8mm plastic bushings installed), and secure the (Front Chassis Brace) using the indicated screws.

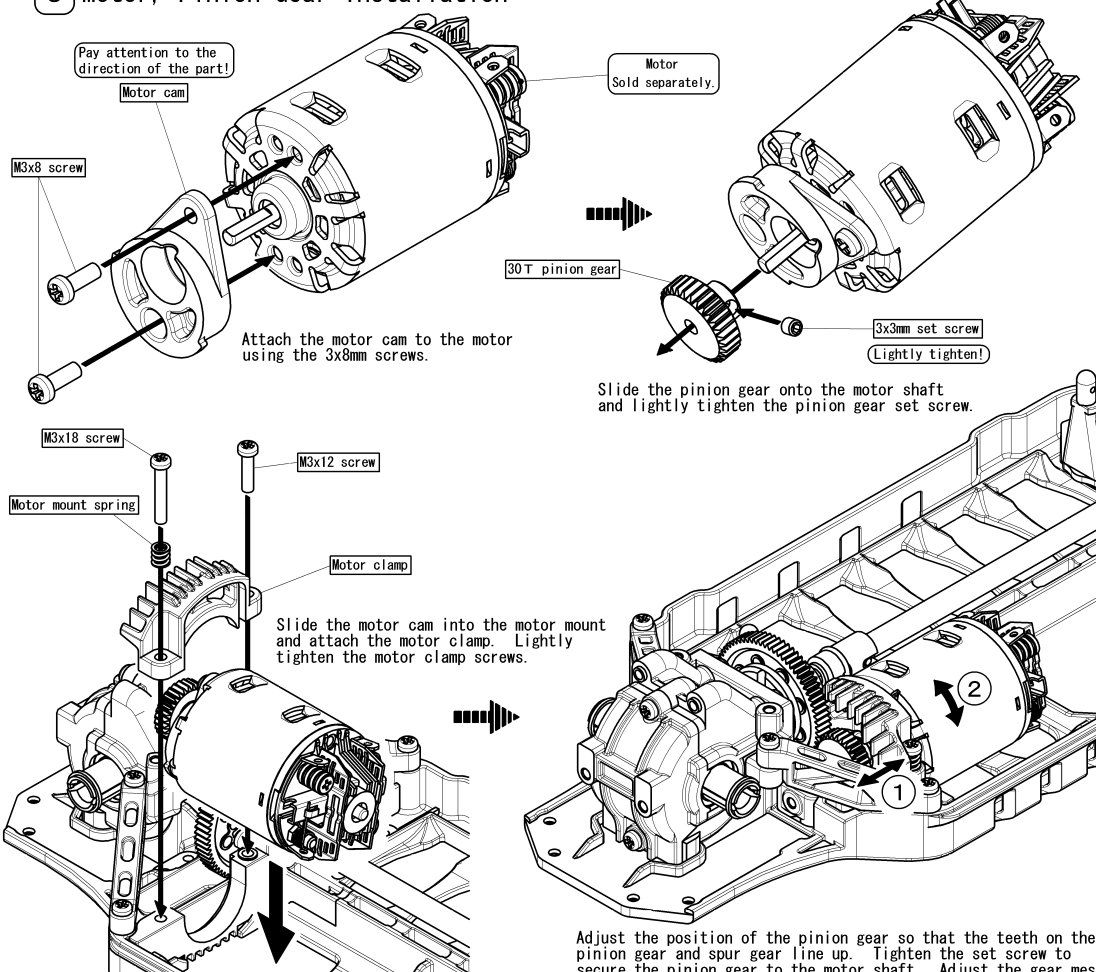
8 Front Transmission Case, Front & Rear Chassis Brace Installation



[Bag-6 Contents]



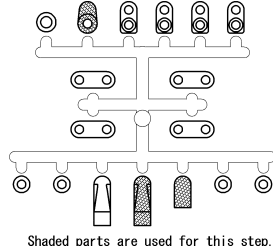
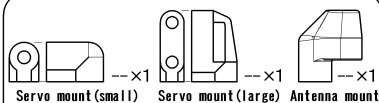
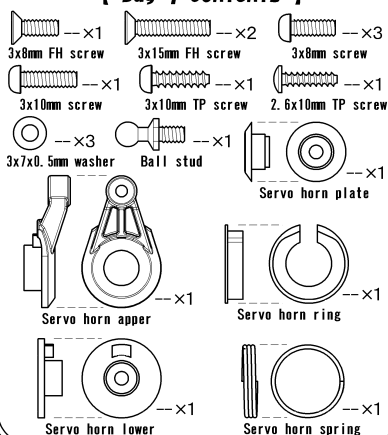
9 Motor, Pinion Gear Installation



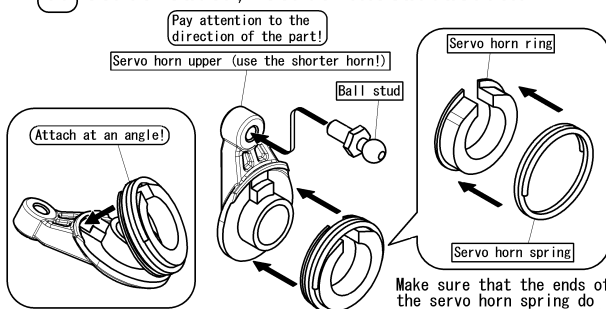
Important!

- ① Motor not included in kit. Please purchase separately.
- ② Install the pinion so that the set screw is tightened onto the flat portion of the motor shaft.
- ③ Adjust the gear mesh to allow a very small gap between the teeth of the pinion and spur gear.
 (Improper adjustment of the pinion and spur gear may result in damage to the gears.)
- ④ Continuous running of the motor will result in shorter motor life. Allow the motor to cool between runs.

[Bag-7 Contents]

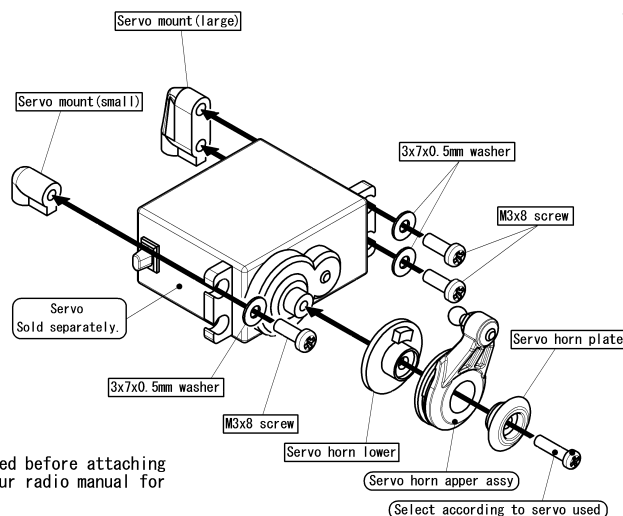


10 Servo Saver, Servo Installation



2 servo horns are provided. Use the shorter servo horn. As shown in the illustration, attach the servo horn ring at an angle.

Make sure that the ends of the servo horn spring do not catch on the edges of the servo horn ring.



Important!② Make sure that the servo is centered before attaching the servo horn lower. (Refer to your radio manual for more information.)

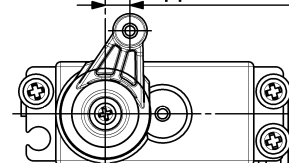
③ Kit includes 3 servo horns. Select the servo horn designated for use with the servo being used. (Using an incorrect servo horn may result in damage to the servo.)



Mark	Manufacturer
F	Futaba
H	Hitec
J K S	JR, KO, Sanwa

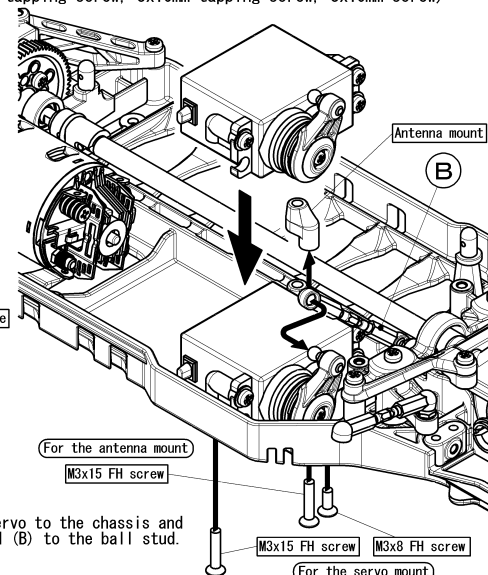
The included servo horn lower are marked with a letter designating servo compatibility. Select the servo horn matching the servo being used.

Approx. 5mm



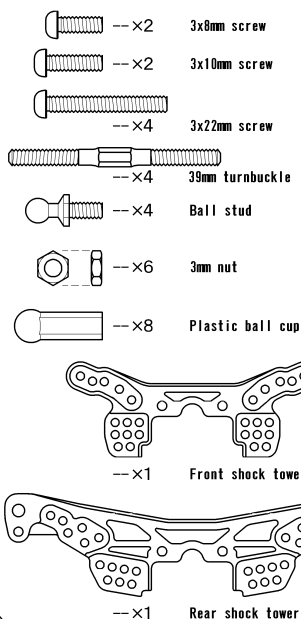
After the servo has been centered, attach the servo horn so that the hole on arm is 5mm off center (or about 1 notch).

Important!① Attach the servo horn to the servo using the same (or similar) screw included with the servo unit. (3 different screws are included in the kit: 2.6x10mm tapping screw, 3x10mm tapping screw, 3x10mm screw)

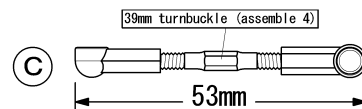
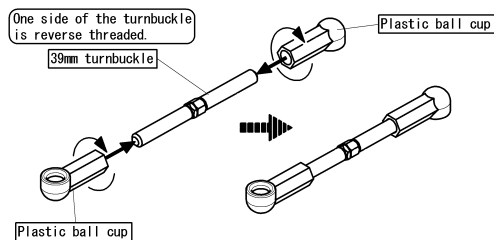


Install the servo to the chassis and attach tie-rod (B) to the ball stud.

[Bag-8 Contents]

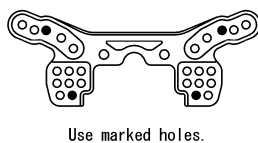


11 Front & Rear Upper Camber Link Assembly

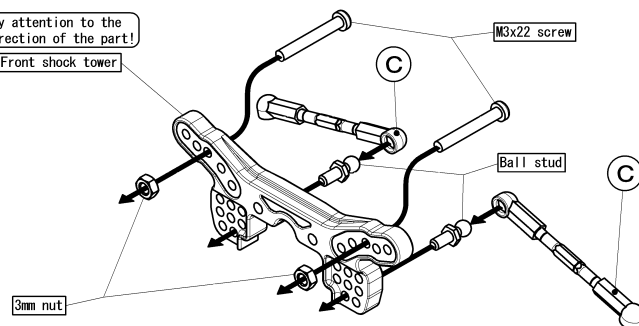


Adjust the direction of the plastic ball cups when installing.

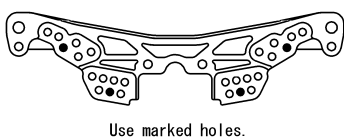
Installing on front shock tower



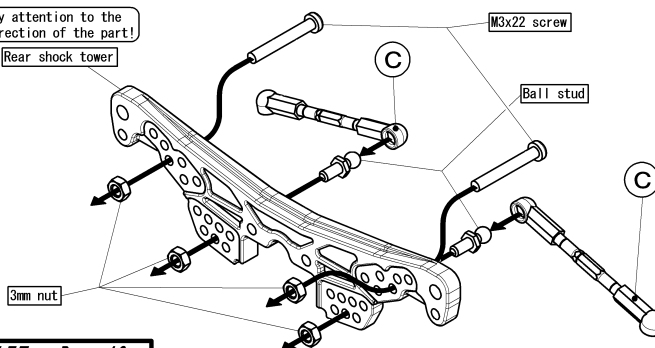
Pay attention to the direction of the part!
 Front shock tower



Installing on rear shock tower



Pay attention to the direction of the part!
 Rear shock tower



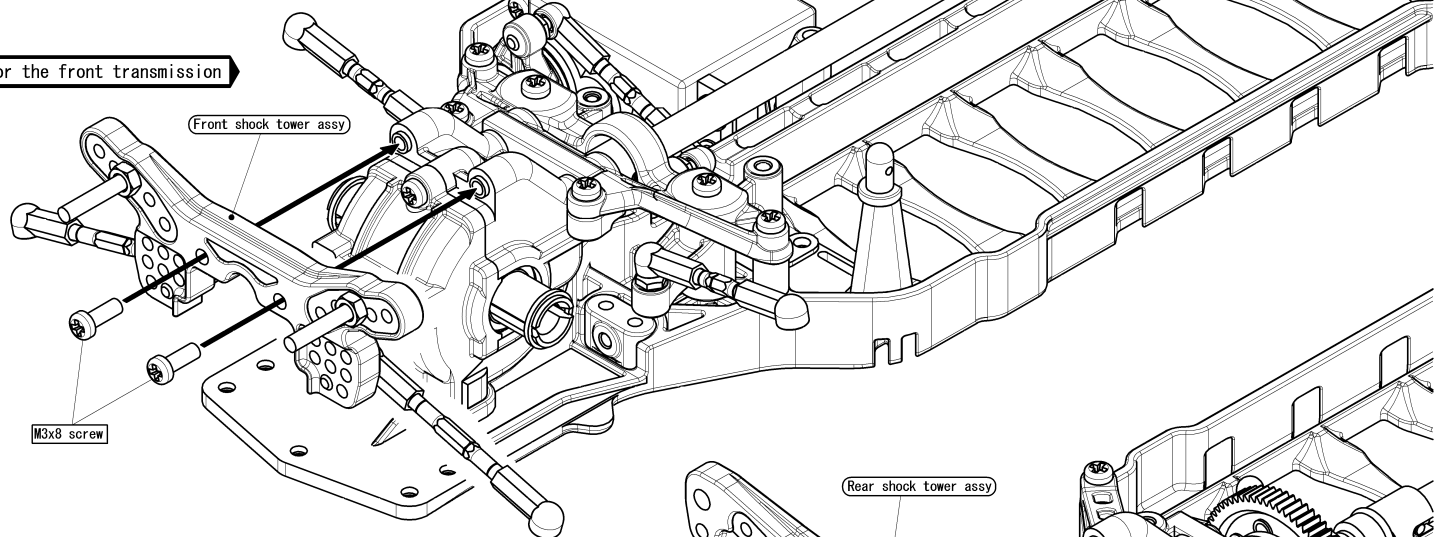
Attach the front and upper camber links after the ball studs have been installed onto the shock towers. (By attaching the camber links so that the reverse threaded portion of the turnbuckle is on the same side will make it easier to adjust later.)

Important!

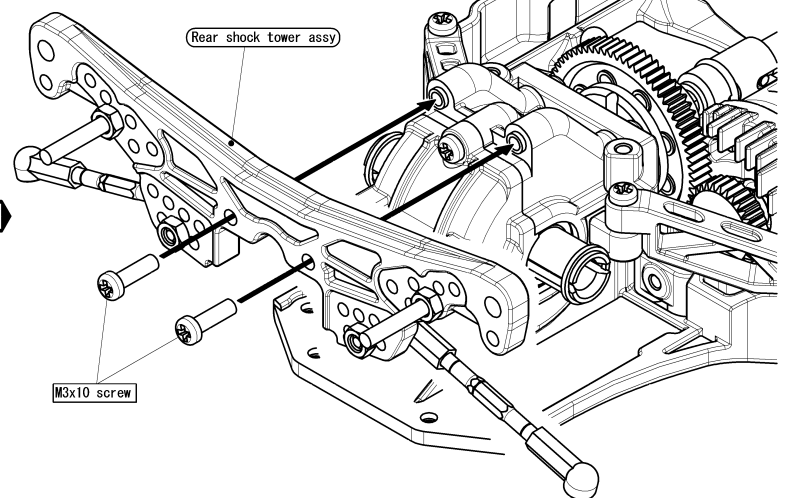
Pay close attention to the direction both front and rear shock towers.

12 Front & Rear Shock Tower Installation

For the front transmission

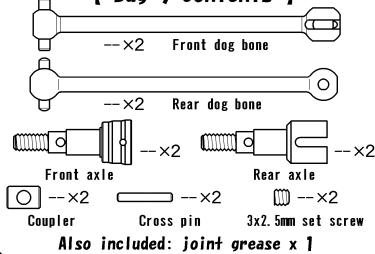


For the rear transmission

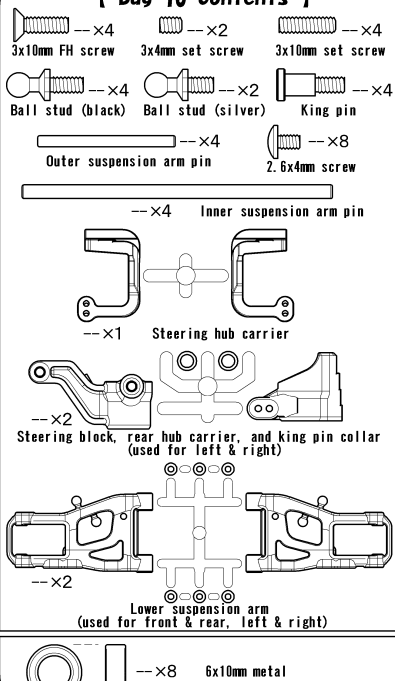


Important!— Make sure that the shock towers fit onto the keyed holes on both front and rear transmission cases. Use the specified screws to secure the shock towers.

[Bag-9 Contents]

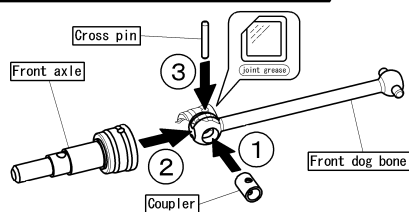


[Bag-10 Contents]



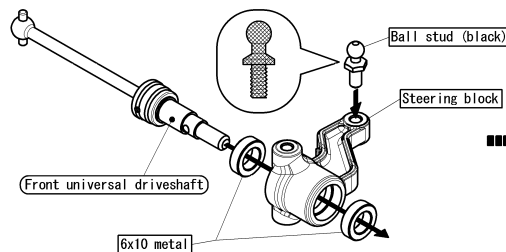
13 Front & Rear Hub Carrier Assembly

Front Universal Driveshaft Assembly Assemble 2 sets.



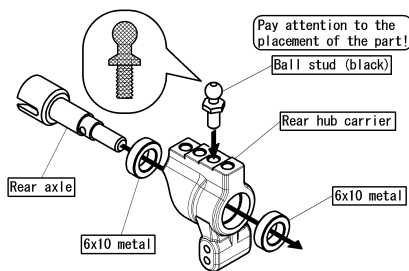
Front Hub Carrier Assembly

Assemble 2 sets.
(The steering hub carriers are different left and right.)



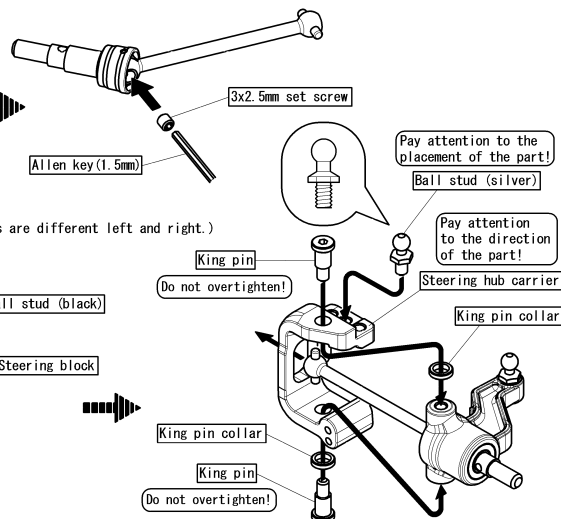
Rear Hub Carrier Assembly

Assemble 2 sets.



Important!

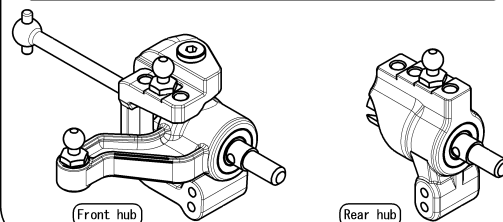
① Apply joint grease to the dog bone when assembling.
(Black grease (sold separately) can also be used.)



Important! ② The left and right steering hub carriers are different.

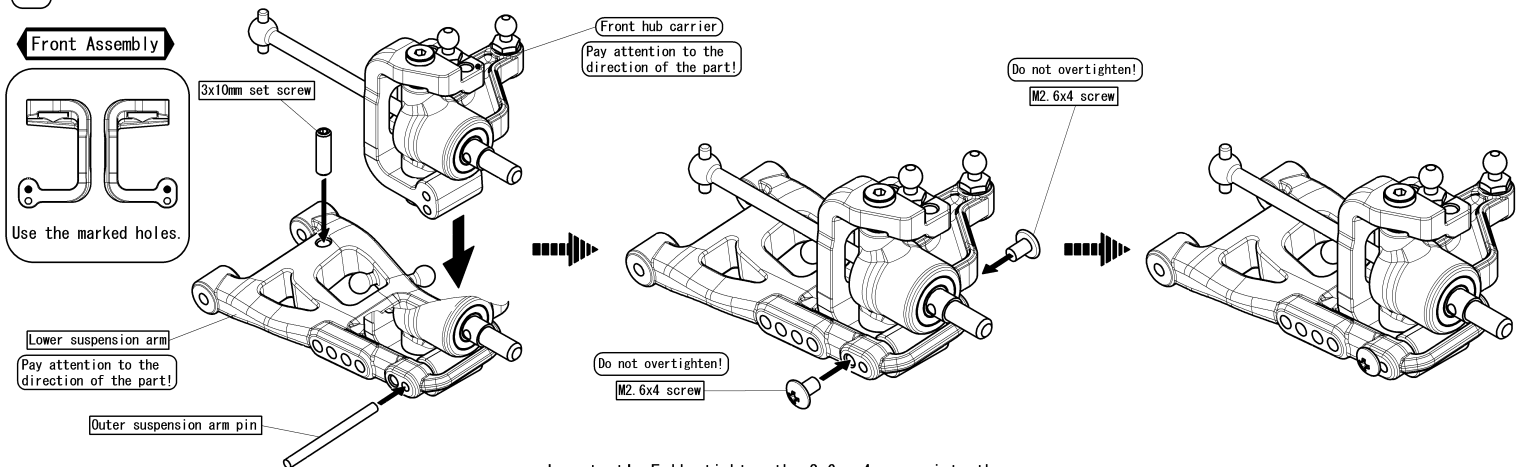
③ Slowly tighten the upper king pin. Overtightening the king pin may cause the king pin collar to be squished, preventing the steering block from moving freely.

[Assemble each side in the same manner.]



14 Lower Suspension Arm Assembly

Front Assembly

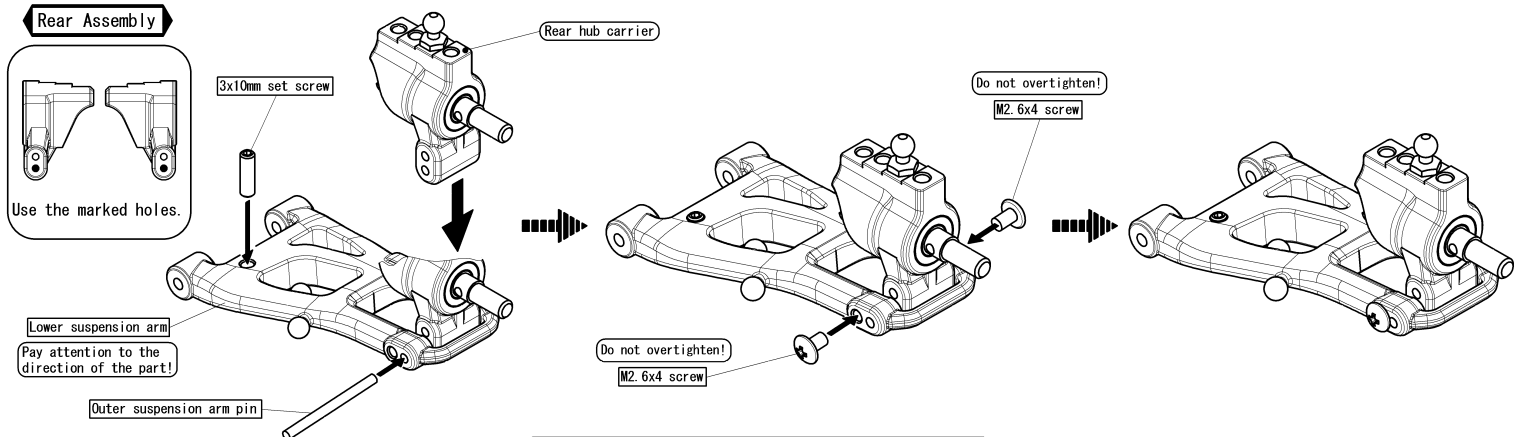


In the front, tighten the M3x10 Set Screw until approximately 2mm of screw thread are show beneath the lower suspension arm. In the rear, tighten the screw so that the threads do not show beneath the lower suspension arm.

Important!—Fully tighten the 2.6mmx4 screw into the arm, then unscrew 1/4 turn. (Overtightening this screw may cause the suspension to bind.)

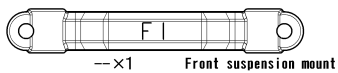
【 Assemble each side in the same manner. 】

Rear Assembly

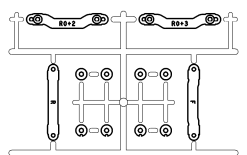


15 Front Lower Suspension Arm Installation

○ --x4 spacer thin (1mm)
○ --x2 spacer thick (2mm)

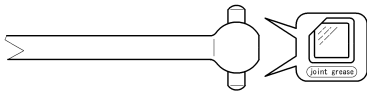


--x1 Front suspension mount



Shaded parts are used for this step.

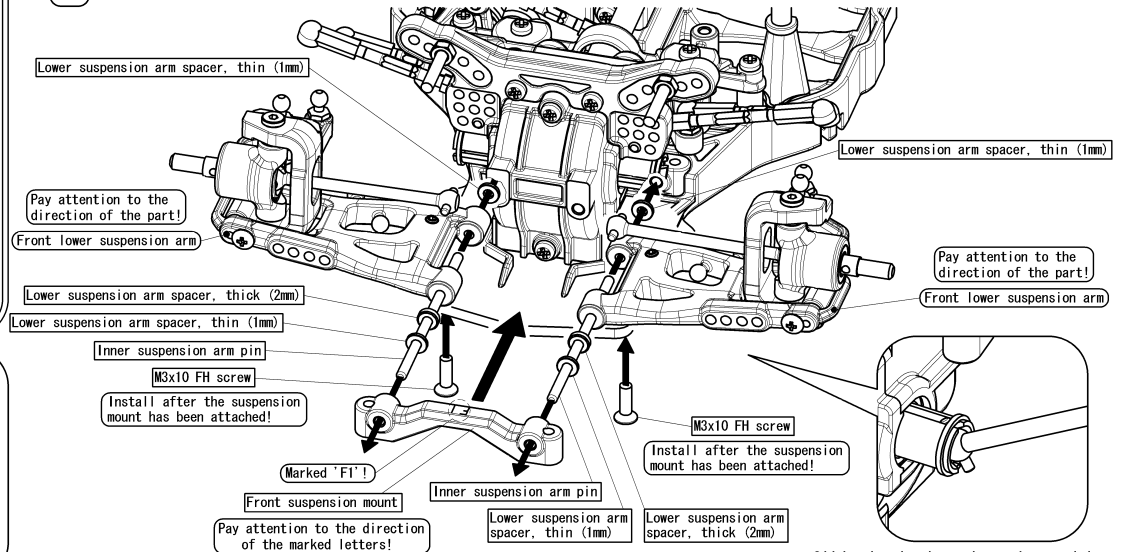
【Read before assembly!】



Apply (joint grease) to the front and rear dog bone pins.

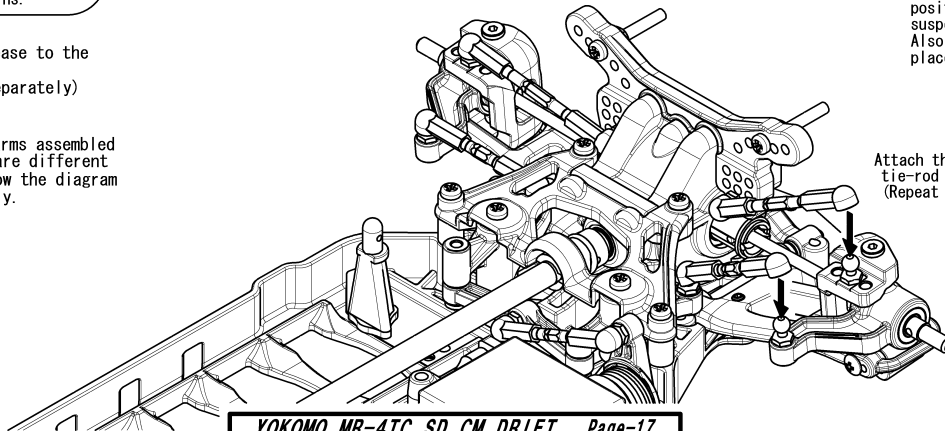
Important! ① Always apply joint grease to the front dog bone pins.
(Black grease (sold separately) can also be used.)

② The front suspension arms assembled in the previous step are different left and right. Follow the diagram closely during assembly.

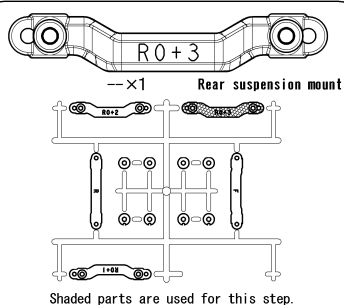


Slide the dog bone into the outdrive, position the arm and insert the suspension arm pin into the mount. Also pay close attention to the placement of the spacers.

Attach the upper camber link and steering tie-rod to the ball studs.
(Repeat on the opposite side.)



- --x4 spacer thin (1mm)
 ○ --x2 spacer thick (2mm)



Suspension mount marking reference

The markings are defined as follows:

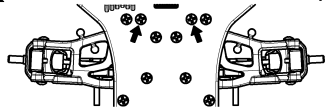
F1 = front skid angle, 1 degree
 R0+1 = rear toe-in, 1 degree
 R0+2 = rear toe-in, 2 degrees
 R0+3 = rear toe-in, 3 degrees

0 degrees

2 types of spacers are included.

Unkeyed shim = for height adjustments, 1mm thick (1 shim)
 Keyed shim = for skid angle adjustments, 1 degree (1 shim)

【Confirm after installation!】

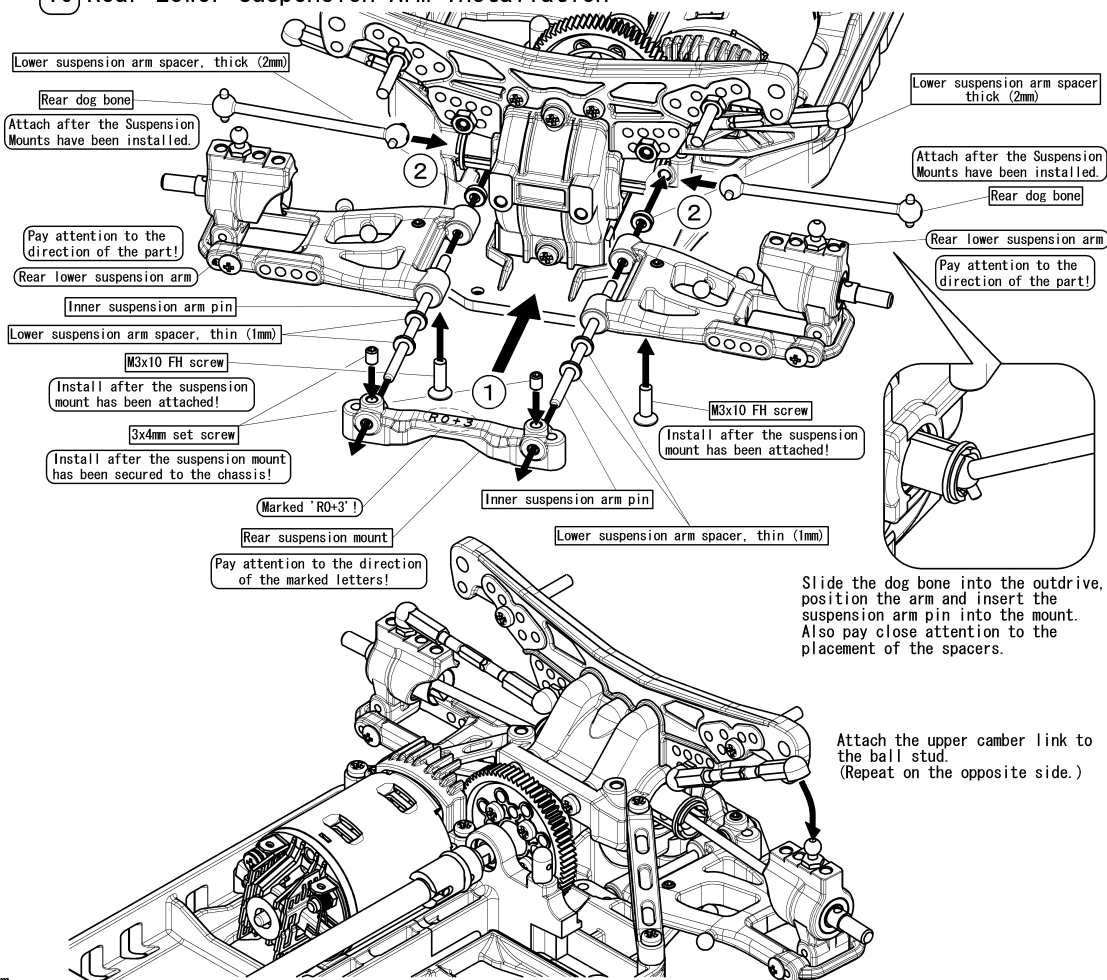


After the suspension arms have been installed, check to see that the suspension arms move freely. If the suspension arms do not move freely, check the suspension mount screws to see if they are overtightened. Overtightening the suspension mount screws may cause the suspension hinge pins distort. During assembly, check the movement of each arm and loosen the screws as necessary. If loosening the screws does not seem to work, remove the indicated screws as shown on the right. (Removing the indicated screws will not affect the handling characteristics of the chassis. Follow these instructions for the front also.)

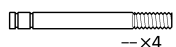
Important! ① Always apply joint grease to the rear dog bone pins.
 (Black grease (sold separately) can also be used.)

② The rear suspension arms assembled in the previous step are different left and right. Follow the diagram closely during assembly.

16 Rear Lower Suspension Arm Installation



[Bag-11 Contents]



--x4

Shock shaft



----x8

2mm E-ring



--x4

Shock spring



----x8

O-ring



--x4

O-ring (10mm diameter)



--x4

Shock cap



--x4

3x15mm screw



--x4

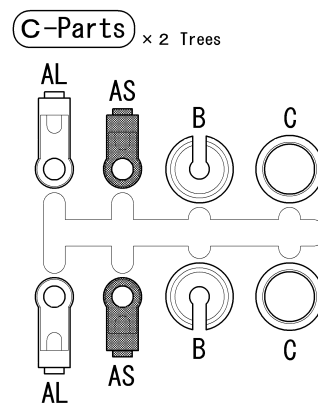
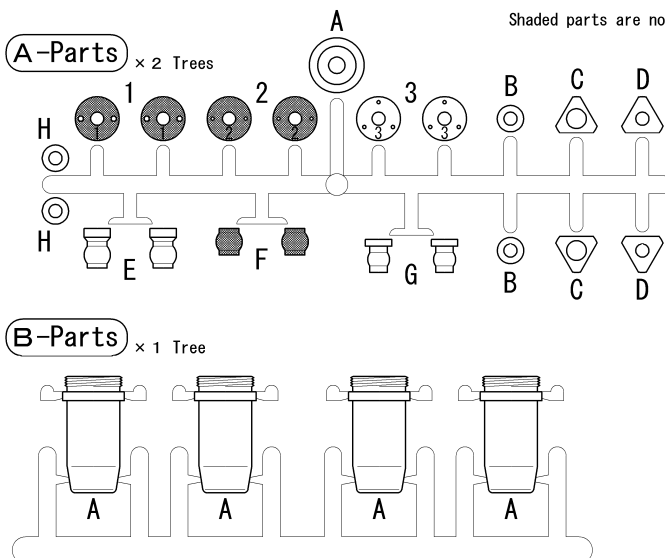
3mm nylon locknut



--x1

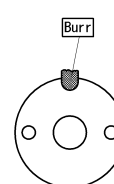
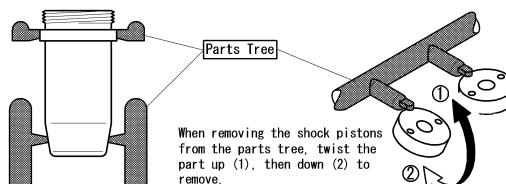
Shock grease

(Green Slime C-1105 (sold separately) can also be used.)



[Remove the required parts from each parts tree.]

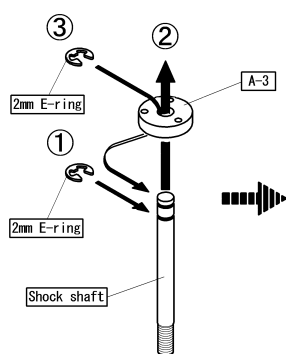
[Use a hobby knife to remove any burrs remaining on the shock pistons.]



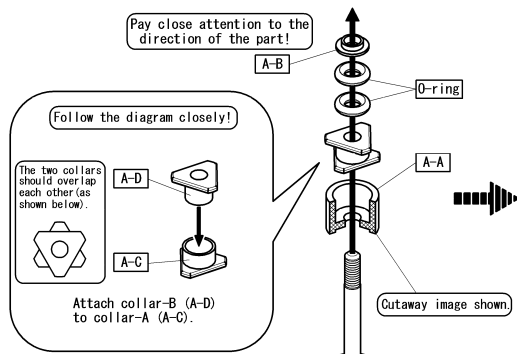
Caution!

When removing the parts from the parts tree, twist the part up then down to remove. Parts can also be removed by using a pair of cutters. Use a hobby knife to remove any burrs remaining on the parts.
(It is important that the parts removed from the A-Parts tree do not have any burrs remaining on them. Burrs remaining on the parts will prevent the shock from operating smoothly.)

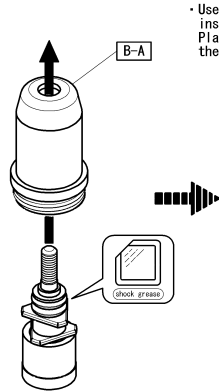
17 Shock Assembly (Assemble 4 shocks.)



• Attach the 2mm e-rings and A-3 piston to the shock shaft in the order shown above.



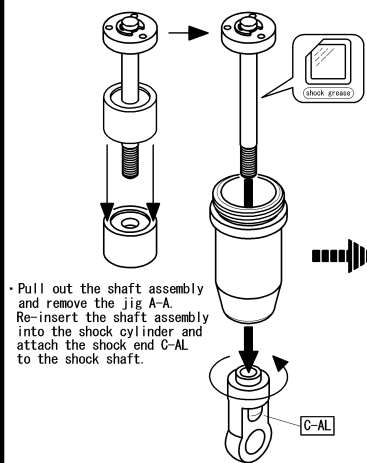
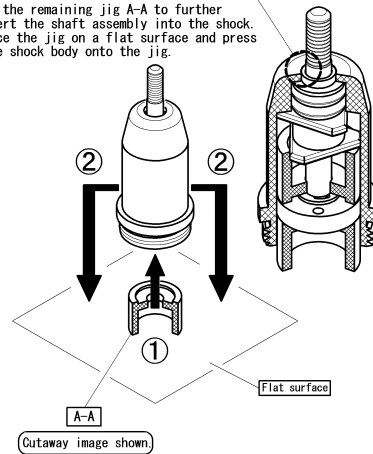
• Slide the above parts onto the assembled shock shaft as shown. (Pay attention to the direction of the parts!)



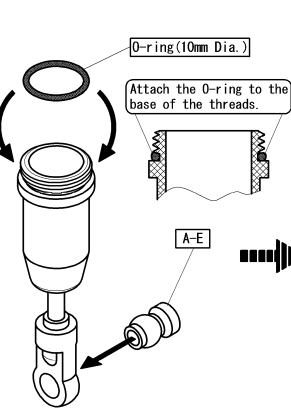
• Apply a small amount of shock grease to the O-Ring. Insert the shaft assembly into the shock until the piston fits into the shock body.

Insert the shaft assembly into the shock body so that the shaft guide is flush with the shock cylinder.

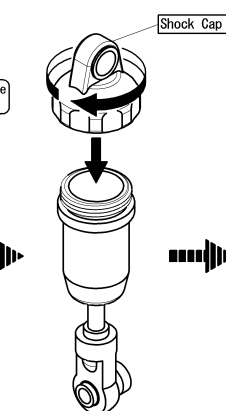
• Use the remaining jig A-A to further insert the shaft assembly into the shock. Place the jig on a flat surface and press the shock body onto the jig.



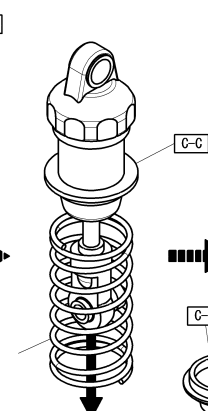
• Pull out the shaft assembly and remove the jig A-A. Re-insert the shaft assembly into the shock cylinder and attach the shock end C-AL to the shock shaft.



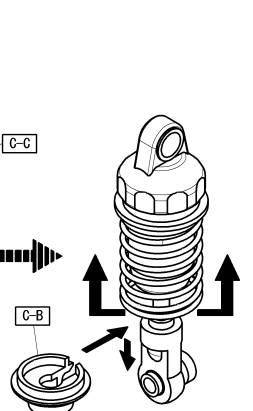
• Install the shock bushings A-E to the shock ends as shown.



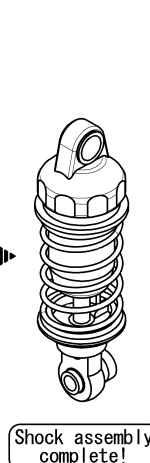
• Attach the shock cap onto the shock body.



• First install the spring collar C-C, followed by the spring.

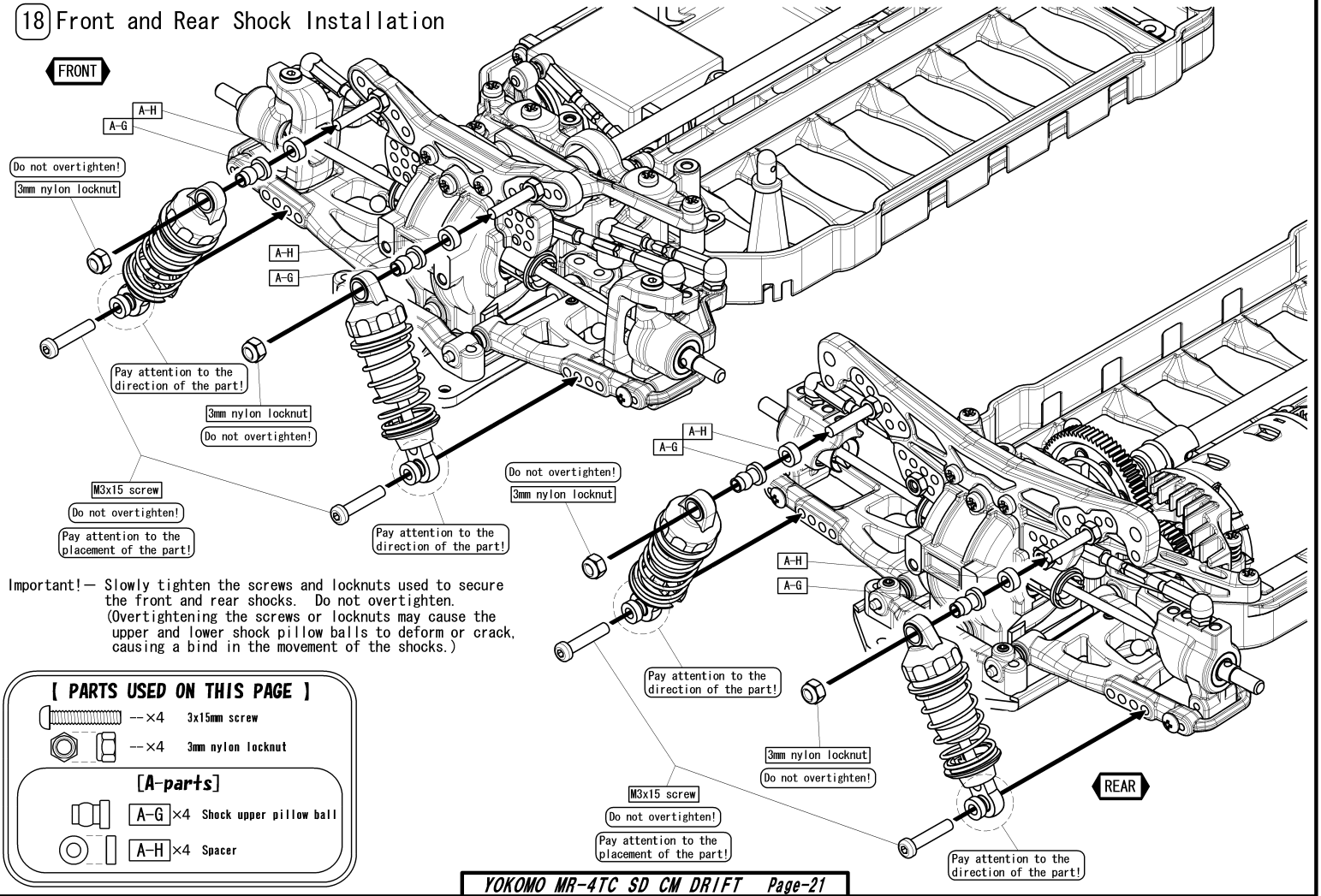


• Push the spring upwards and attach the spring retainer C-B.

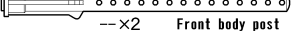
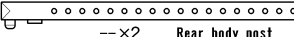
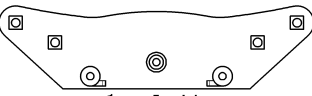
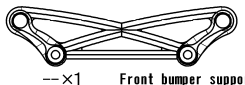
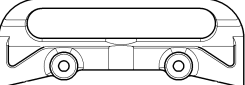
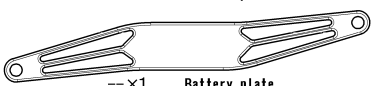


Shock assembly complete!

18 Front and Rear Shock Installation

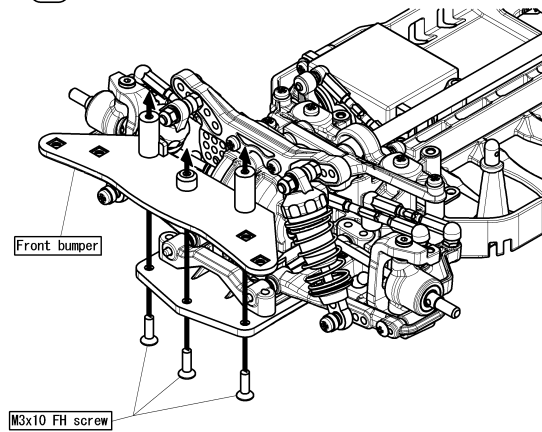


[Bag-13 Contents]

-  --x2 3x8mm flat head screw
-  --x5 3x10mm flat head screw
-  --x2 3x15mm flat head screw
-  --x2 3x10mm screw
-  --x10 Body clips
-  --x2 Front body post
-  --x2 Rear body post
-  --x4 Body mount
-  --x1 Front bumper
-  --x1 Front bumper support
-  --x1 Rear bumper
-  --x1 Battery plate

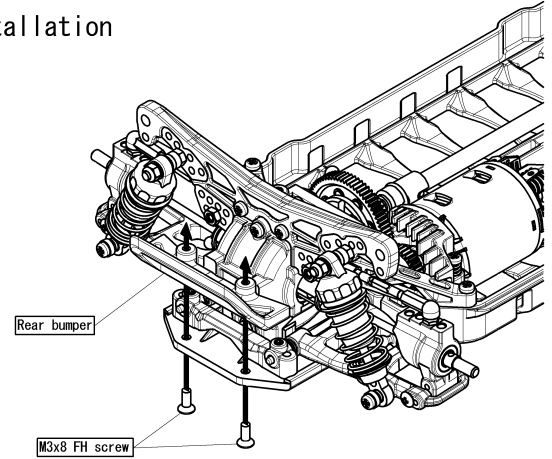
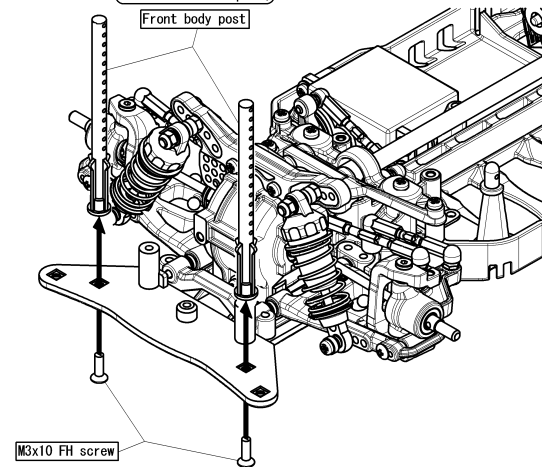
Also included: antenna cap, double-sided tape, height & droop gauge x 1 ea.

19 Front & Rear Bumper, Body Post Installation



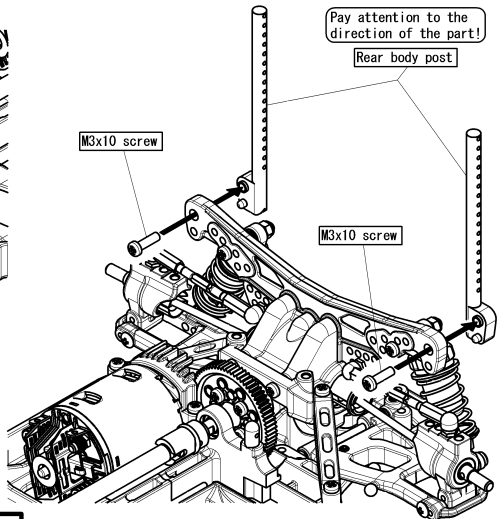
Pay attention to the direction of the part!

Front body post

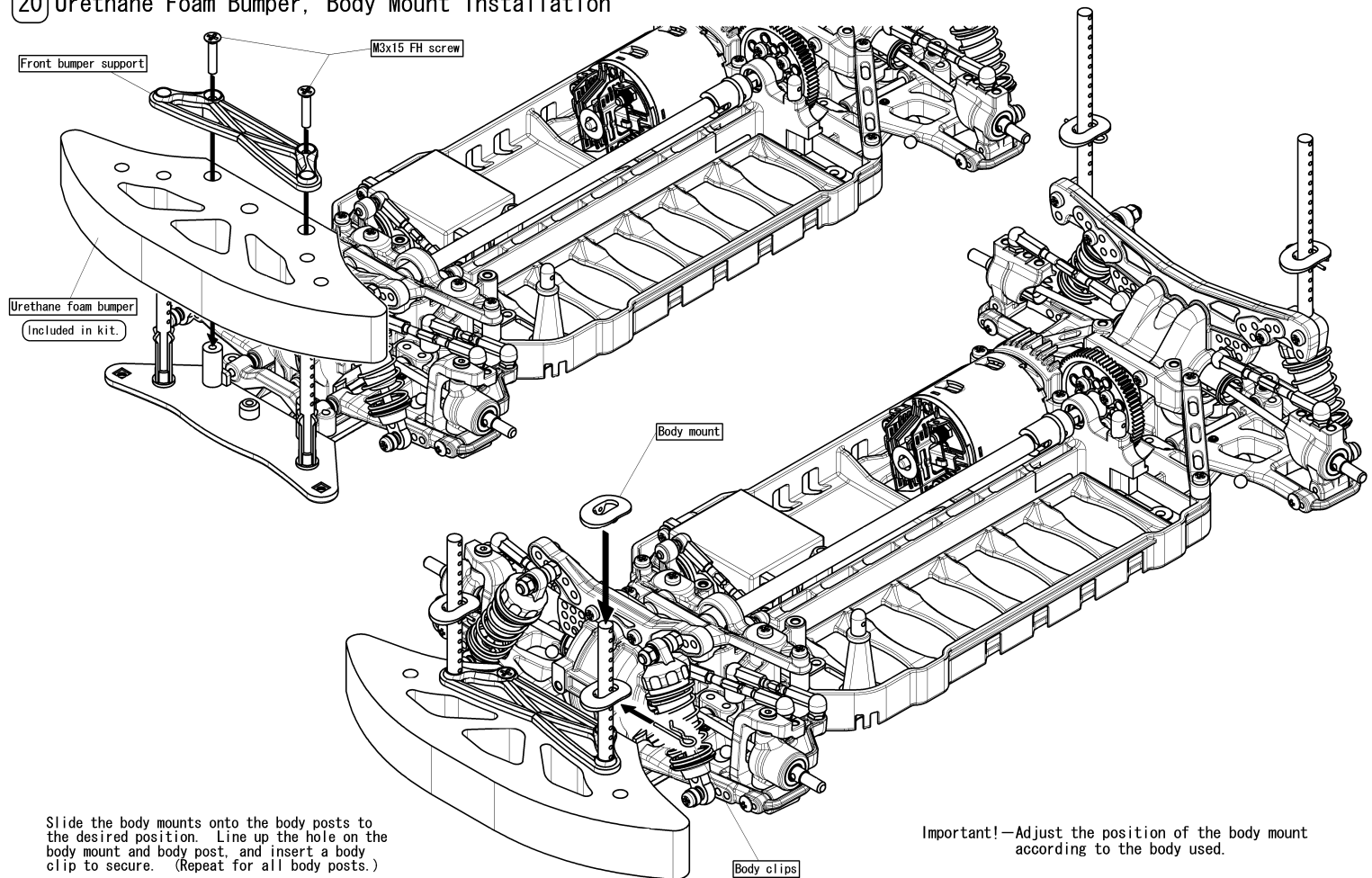


Pay attention to the direction of the part!

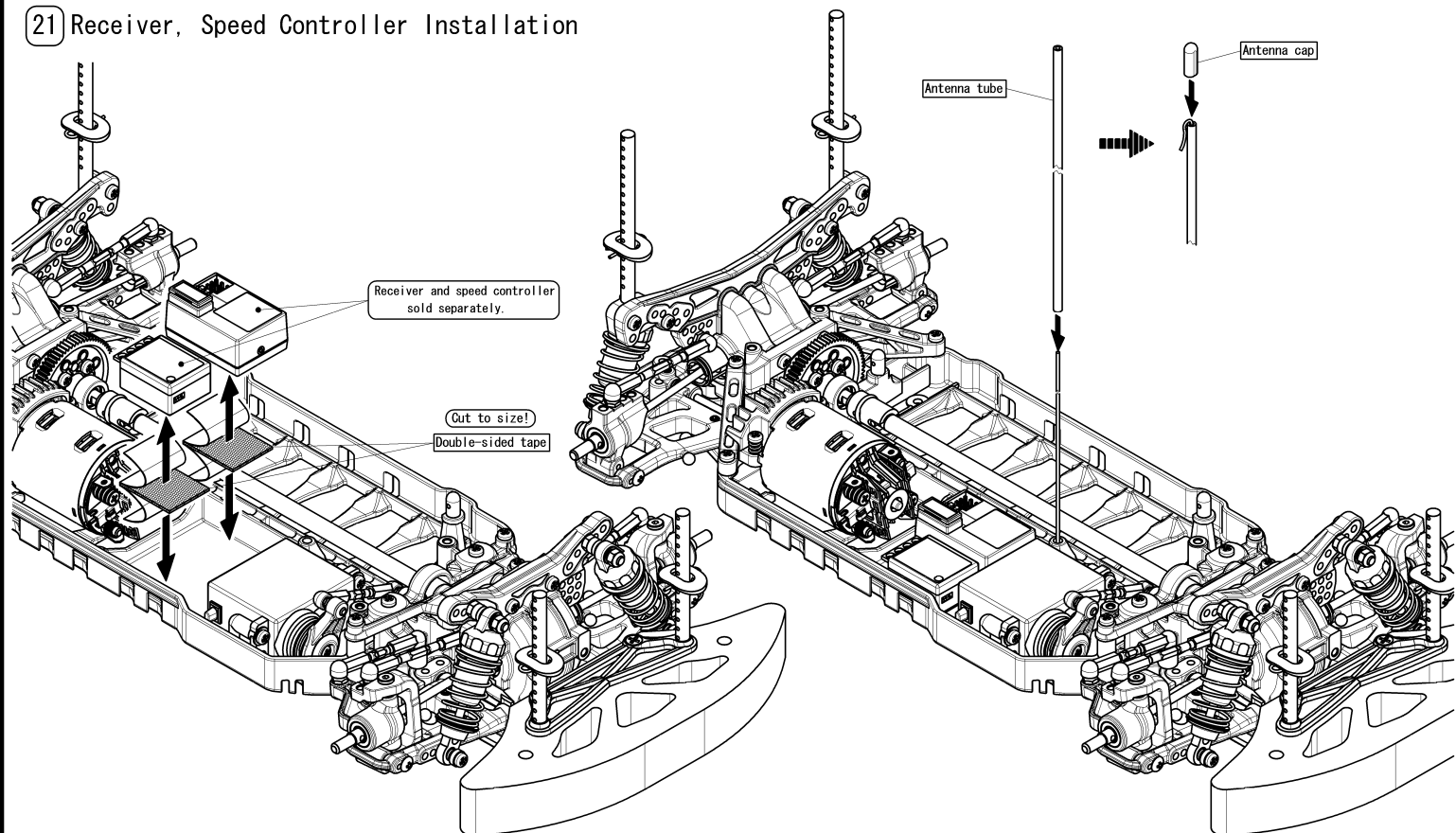
Rear body post



20 Urethane Foam Bumper, Body Mount Installation



21 Receiver, Speed Controller Installation

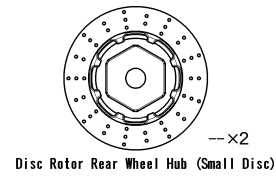
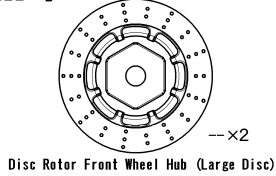


Important!① Secure the receiver and speed controller to the chassis using double-sided tape. (Cleaning the surface with motor spray will ensure better adhesion.)

Slide the antenna wire through the bottom of the antenna mount and insert into the antenna tube. Leave about 2cm of wire at the top of the tube and attach the antenna cap. Insert the antenna tube into the antenna mount.

Important!② Make sure to bundle any remaining antenna wire so that it does not interfere with the drivetrain.

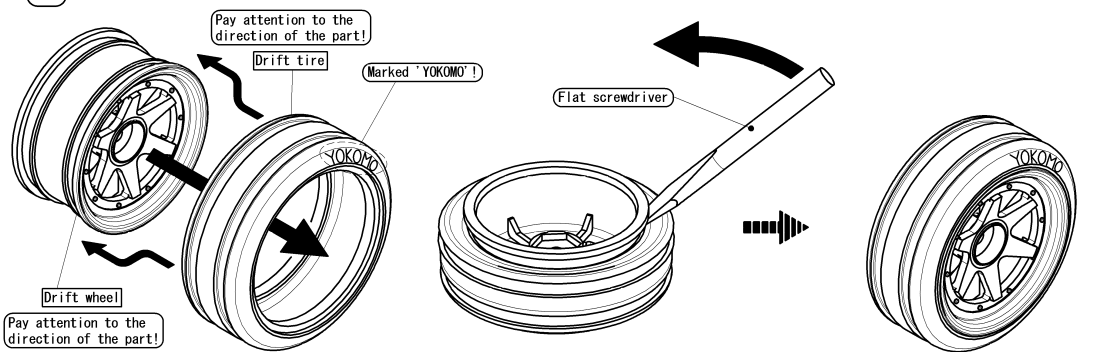
[Wheel Bag Contents]



Other items including four Drift Wheels and one Disc Rotor Decal sheet.

(The spoke design of the wheels will vary depending on the kit, and may differ from what is shown in the illustration.)

22 Tire Assembly (Assemble 4 pieces.)

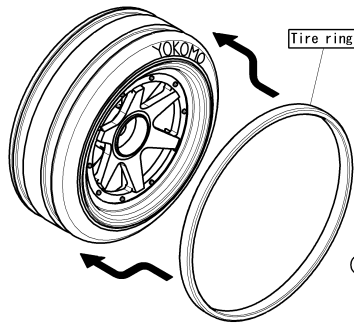


Confirm that the [YOKOMO] logo on the tire and spoke side of the wheel face the same direction, and mount the tire onto the wheel. If the tire is difficult to mount completely, use a flat screwdriver to pull the bead of the tire towards the edge of the wheel. (Warming the tires in hot water will soften the tires, making them more flexible and easier to mount.)

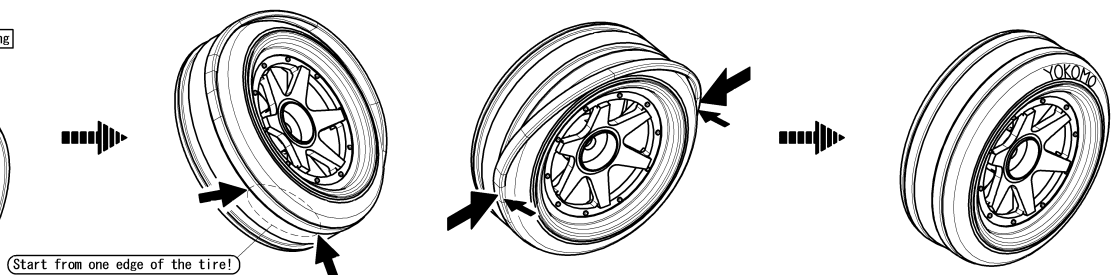
Massage the entire tire to help the bead settle onto the wheel.

Important!① To avoid burns, please use extra caution when handling items in hot water.

② When using a flat screwdriver as shown in the illustration, gently work the tire around the wheel to prevent cracks or scratches on the surface of the wheel.



Install the tire rings by fitting them into the grooves.



Start from one edge of the tire!

Align the tire ring along the groove and apply pressure to both sides of the ring as shown above. (Once the ring is placed into the groove on one side of the tire, repeat on the opposite side.) After both rings have been installed, massage the tire to help the rings settle into the grooves. (If the tire rings are difficult to install, dip them in soapy water to help them slide onto the tire easier.)

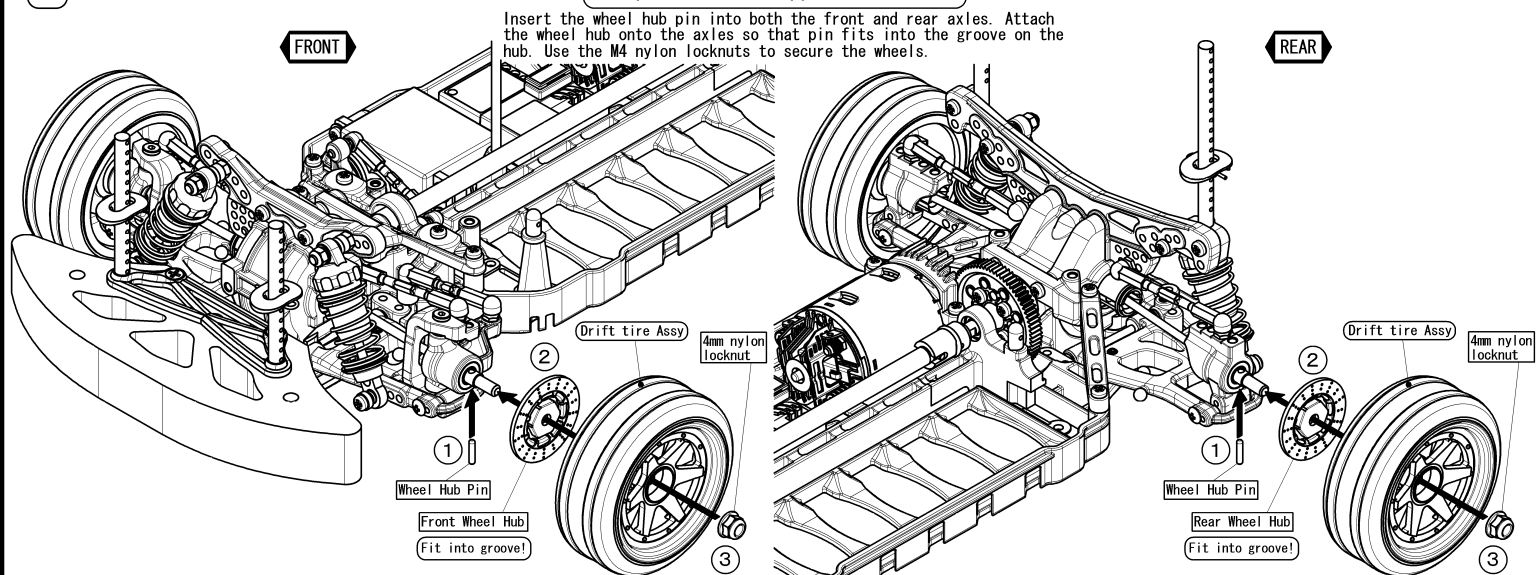
Important!③ Do not warm the tire rings. Warming the tire rings may cause them to deform out of shape.

④ Rushing the assembly process by forcing the parts to fit may cause accidents.

Drift tire assembly complete!

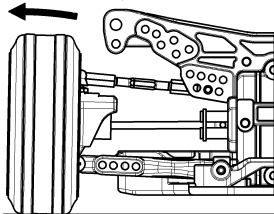
23 Wheel Hub & Tires Installation

[Repeat for the opposite side.]



Maintenance Tip! These tires allow grip.

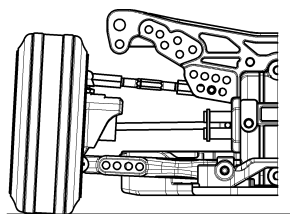
◀■■■■■ [Easy to drift] ■■■■■▶ [Difficult to drift] ▶■■■■■



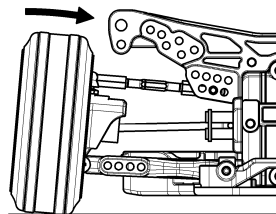
Less negative camber will increase the contact patch of the ring, reducing the amount of grip.

※ Rear portion shown in illustration. Adjust for the front in the same manner.

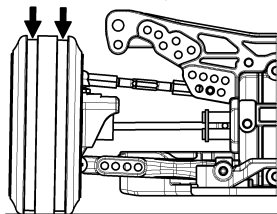
※ Handling characteristics may vary depending on the running surface conditions. Adjust the front and rear to achieve the desired handling characteristics.



< Stock configuration >

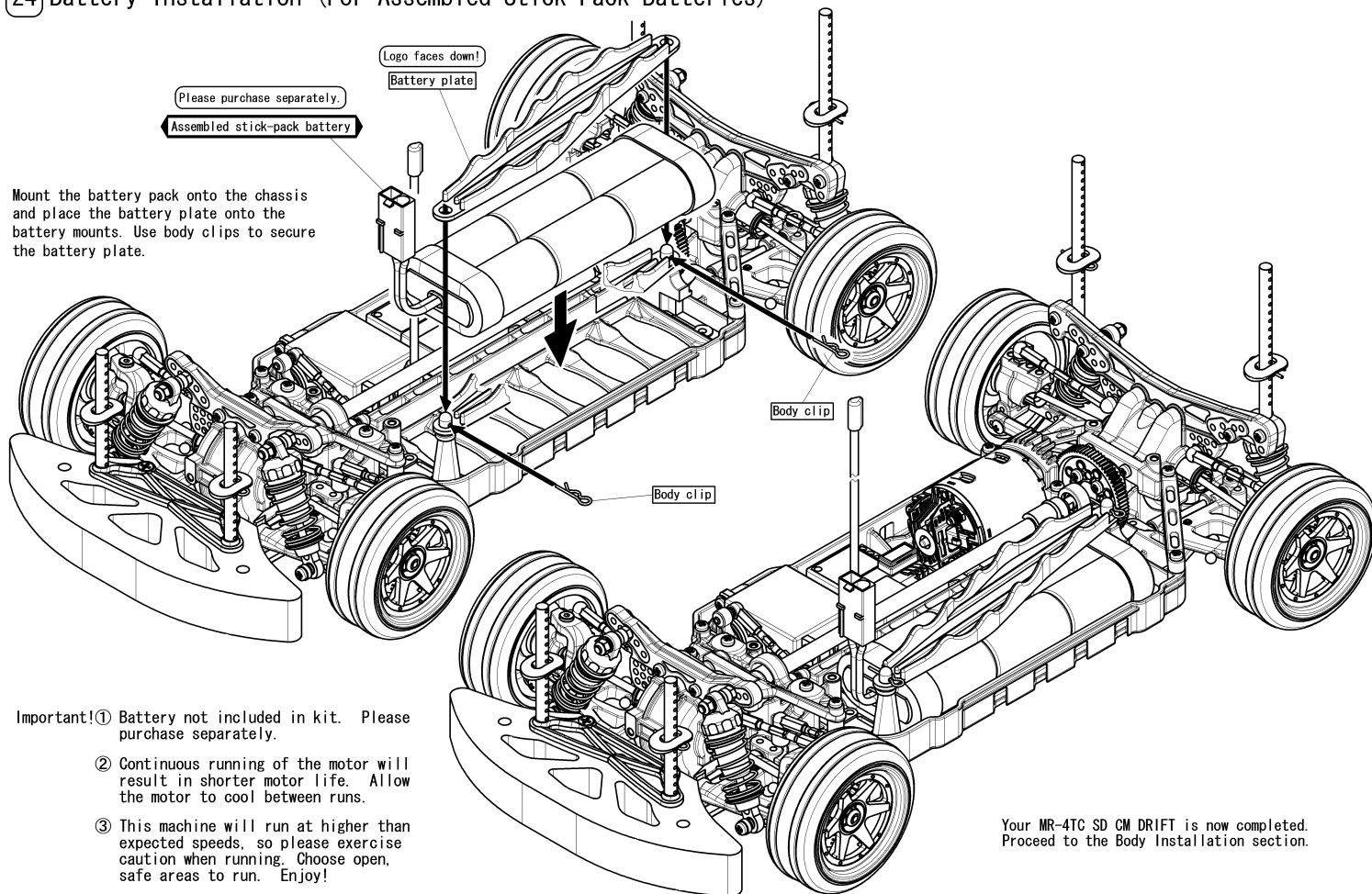


Adding negative camber will allow the rubber portion of the tire to have a larger contact patch, increasing the amount of grip.

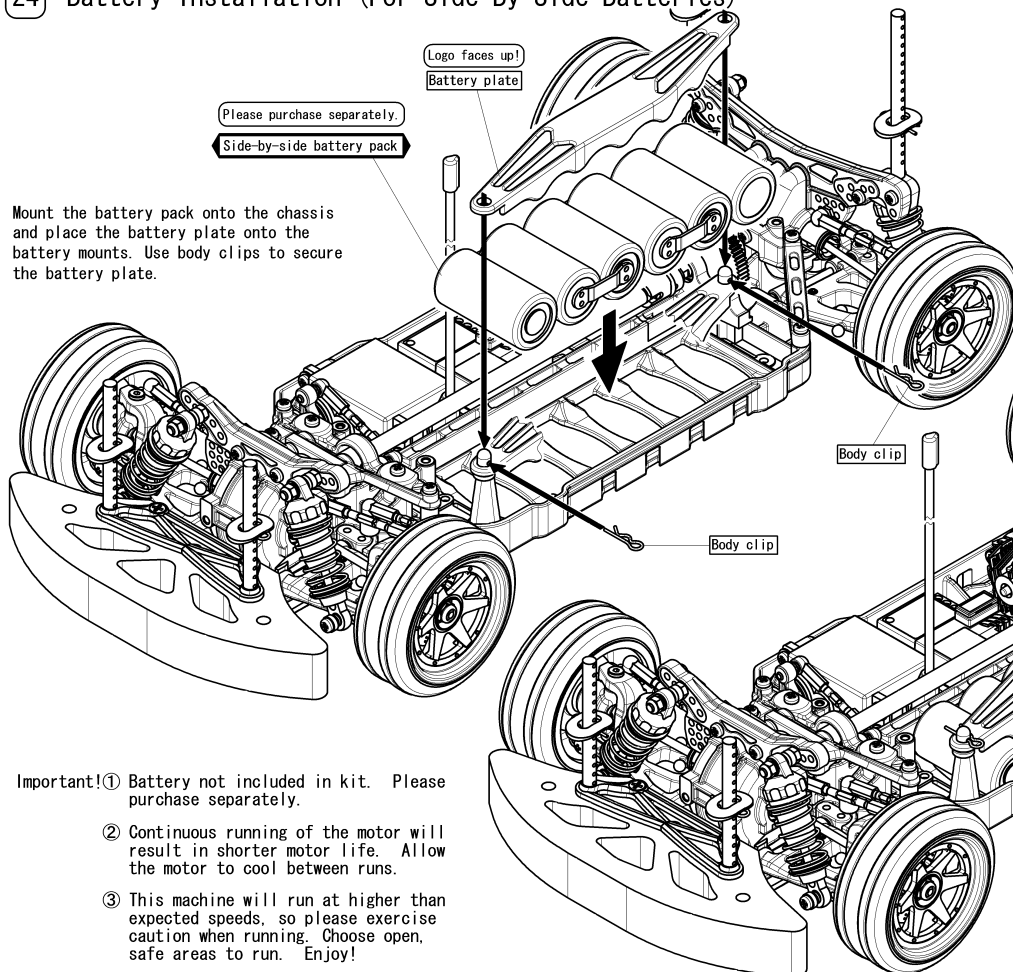


Removing the rings will also allow the rubber portion of the tire to have a larger contact patch, increasing the amount of grip.

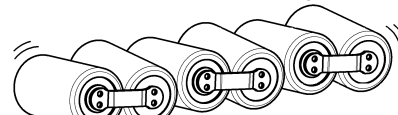
24 Battery Installation (For Assembled Stick-Pack Batteries)



24 Battery Installation (For Side-By-Side Batteries)



【Read before assembly!】



Always make sure that the cells of the battery pack lie flat, and are aligned correctly. Replace any battery bars that may have been bent from a hard crash. Using battery packs distorted in shape may cause the chassis to twist or bend, resulting in an ill-handling chassis. Always make sure that all of the cells lie flat, allowing the battery plate to be installed with a slight amount play. If the battery plate is tightly pressed against the battery pack when installed, check the battery pack to make sure it is flat and installed properly.

Important!① Battery not included in kit. Please purchase separately.

② Continuous running of the motor will result in shorter motor life. Allow the motor to cool between runs.

③ This machine will run at higher than expected speeds, so please exercise caution when running. Choose open, safe areas to run. Enjoy!

Your MR-4TC SD CM DRIFT is now completed. Proceed to the Body Installation section.

