



SAFETY PRECAUTION AND WARNING

Thank you for purchasing AMR SCUD 09R

SCUD 09R is NOT a toy. It is a high performance radio controlled model. Before assembling and operating, please must read the instruction manual carefully, understand fully and follow correctly. Improper use can be very dangerous and result in damage or injury.

In General

- 1.Small and sharp parts are included in SCUD 09R. Only assemble, operate, and store this product in the place out of children's reach.
- 2.During the assembly, be careful of the tools and parts for which may have sharp edge, such as cutter and screwdrivers, to avoid any injury. Always wear protective glasses and gloves.
- 3.If paints are used (not included in kit), always read and follow the instruction supplied with. Only paint in the place with good ventilation.
- 4.Beginner should seek the advice from well-experienced builders before starting the assembly and operation.
- 5.SCUD 09R is designed for the user who is over 14 years old.
- 6.Before assembling and operating SCUD 09R, must take necessary and enough safety precaution. You are fully responsible and liable for SCUD 09R's assembly and safety operation. AMR shall not be liable for damage, injury or loss caused by the use of
- 7. For keeping the performance, regular maintenance is necessary.
- 8. Check and make sure that screws and nuts are properly tightened before operating.
- 9. Save this instruction manual for future reference.

Nitro Fuel

- 1. The exhausts and fuel vapors are poisonous to health. Only use fuel outdoors.
- 2. Fuel is highly inflammable, explosive and noxious. Never use fuel indoors, near the source of heat, in any place with a fire, or sparks.
- 3.Do not leave the empty fuel container in a fire. It may explode.
- 4.Store fuel in a safe place. The place should be dry, dark, and cool. Keep it away from children's reach, heating devices or batteries. Also, keep the fuel container cap shut tightly always.
- 5. Fuel is not allowed to drink. If fuel was accidentally drank, induce vomiting right away and see a doctor.
- 6.Do not let fuel get into your eyes. If fuel gets into your eyes, rinse your eyes right away, and see a doctor.
- 7.Please choose a good quality named branded fuel designed for R/C model car.

 Do not use gasoline or kerosene in this product, as it might cause a fire or explosion.

 For long engine life and best performance, we recommend the fuel with 18% lubricant content and 20%~30% Nitro content.
- 8. When R/C car is not used, do not leave any fuel in fuel tank and engine.
- 9. Using fuel with caution. If the fuel tank overflows or leaks, it might cause a fire or explosion. Wipe up with a dry cloth once overflowed.



SAFETY PRECAUTION AND WARNING

Battery

- 1.Low battery power will result in loss of control. Loss of control can happen due to a weak battery in either the transmitter or the receiver. Always check the battery power in transmitter and receiver before operating.
- 2.SCUD 09R fuel tank capacity is 50c.c. After using 12 tanks, please recharge the receiver battery or change the receiver battery to a new one.
- 3. When R/C car is not used, always remove the battery, and turn off the receiver switch.
- 4.Do not disassemble battery, cut battery cables and use the damaged battery.
- 5.Recharge the battery by following the instruction manual correctly. Only recharge battery when necessary. Do not continual recharging for which may damage battery or could lead to fire
- 6. When you finish the recharging, unplug the charger.
- 7.Do not recharge the battery when the battery is still warm. During the recharging, if the battery became hot, disconnect the battery from the charger right away.
- 8.Be responsible for disposing the battery. Do not throw batteries in fire.

Electrical

- 1. Cables should be connected safely always. Do not use damaged wires.
- 2.Do not modify the charger, as it is dangerous. It may cause short-circuit or over-charging.

Engine

- 1.Do not run R/C car without the air filter. If running without the air filter, it will shorten the engine life-time, or even damage the engine. Apply proper filter oil to air filter.
- 2.Keep your hands and objects away from the rotating parts, such as engine parts or gears, as they can cause injury.
- 3. During running and after running, parts around the engine, engine, and battery will be extremely hot. Before they cool down, do not touch them for avoiding getting burn.
- 4.Please refer to the instruction manual supplied with the engine for proper run-in. For run-in, recommend to use the fuel with no more than 20% Nitro content.

Transmitter

- 1. For operating, firstly, turn on transmitter, and then extend the transmitter antenna fully. In the end, turn on the receiver. For turning off, turn off the receiver first, and then the transmitter. In the end, collapse the transmitter antenna.
- 2. Make sure that no one is using the same frequency as yours at the same time.
- 3.Do not point the antenna toward your or anyone's face, as the front end may hurt people.

Environment

- 1.Do not run the R/C car on the road, or near railroads.
- 2.Do not run the R/C in a crowded place where many people gather, or near small children or animals.
- 3.Do not run in the rain or through the puddle. During running, if your R/C car or radio system get wet, stop right away as it may cause short circuit.
- 4.Do not run indoors or in narrow space.
- 5.Do not run at night or anytime that your line of sight to SCUD 09R is limited or impaired

Car storage

- 1.Do not store R/C car in the heat, near the fire, or in direct sunlight.
- 2.Keep the wheel off the ground.
- 3. Keep away from children.



SYMBOLS & TOOLS





Part bags used



Apply C.A glue

Apply silicon oil



Assemble left and right side the same way



Apply thread locking glue



Pay attention here



Symbols used



Assemble two times

True-to-scale diagram



Apply Diff. Grease



Check out nonbinding movement

Assemble in right

order



Tentatively tighten

Equipment



No.JR0204 Diff. Grease



No.JR0205 Silicon Oil



No.JR0075 Receiver Battery Pack Engine 09



No. IR0077 Plug(#3)



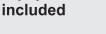
Manifold



No.JR0088 Muffler



Air Filter





Hex Wrench (1.5mm)



Hex Wrench (2.0mm)



Hex Wrench (2.5mm)



Hex Wrench (4.0mm)

Additional items needed for completion



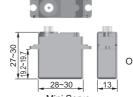
2 Channel Transmitter



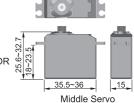
Switch



Receiver



Mini Servo For steering and throttle



AA-Size **Batteries** Only for steering 8 pcs

Additional items needed for starting engine



Model Car Fuel (With 20%~30% Nitro Content)



Fuel Bottle



No.JR0206 Air Filter Oil



Glow Igniter



Battery Pack



Starter Box



No.T1002(PHO) Phillips Screwdriver



No.T1006(SL3) Flat Screwdriver



Hex Wrench

No.T1015(2.0mm) Hex Ball Wrench



No.T1020(5.0mm) No.T1021(5.5mm) No.T1022(6.0mm) No.T1029(8.0mm) **Nut Driver**



Tools required



Round Cutter



Wire Cutter

Needle Nose Pliers



Pliers





Hobby Knife Locking Jig & Wrench



Wrench

Equipment required



C.A Glue



Threadlock Glue



Paint

ZIMR:

FRONT GEAR DIFFERENTIAL

BAG

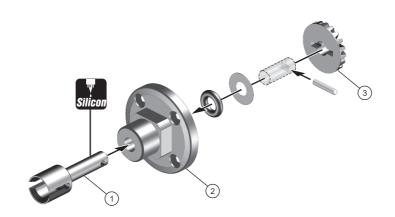


Oring ϕ 3.8x1.9mm.....2

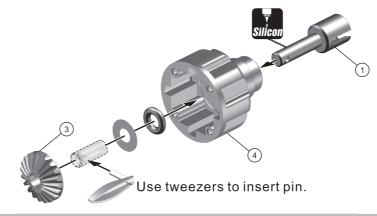


Shim $\phi 4x \phi 9x0.1$ mm....2

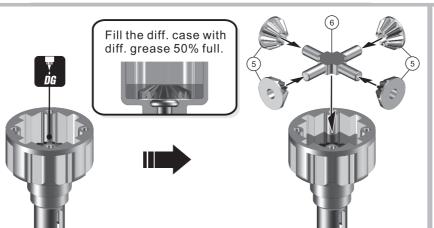
Pin *φ* 1.5x8mm.....2













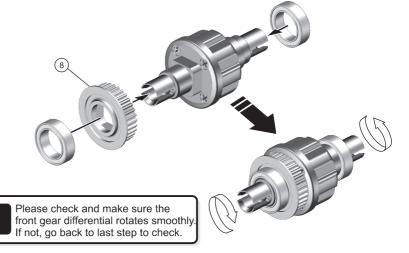


Ball bearing $\phi 10x \phi 15x4mm...2$



Screw 2x6mm......4







REAR GEAR DIFFERENTIAL





Oring

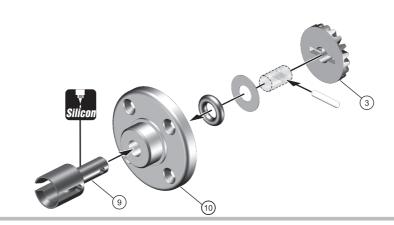
 ϕ 3.8x1.9mm.....2



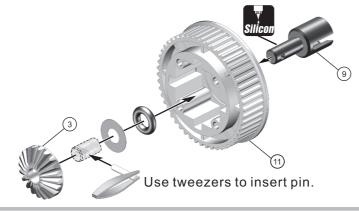
 ϕ 4x ϕ 9x0.1mm....2



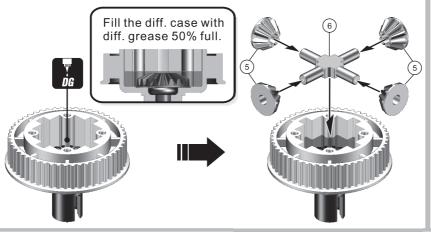
 ϕ 1.5x8mm.....2















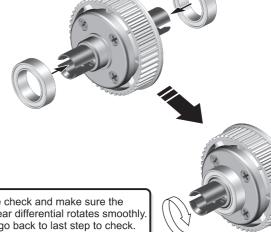
Ball bearing ϕ 10x ϕ 15x4mm...2



Screw

2x6mm.....4



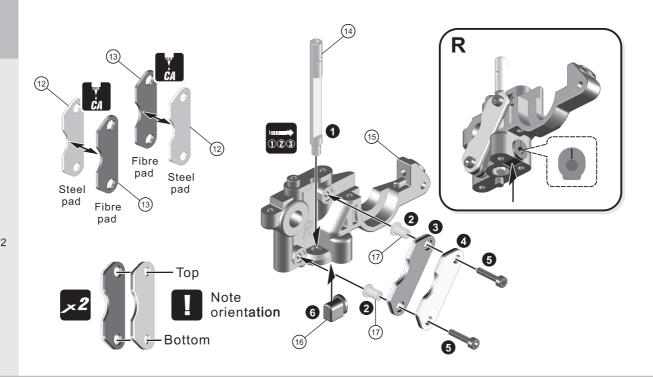




BRAKE SYSTEM





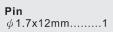


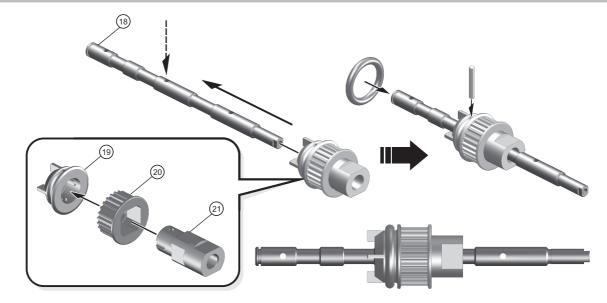


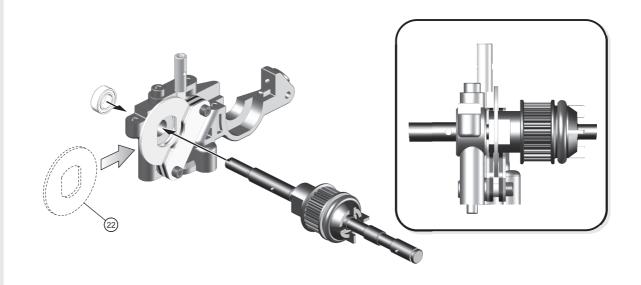
Ball bearing $\phi 5x \phi 9x3mm.....1$



Oring φ 11x2.4mm.....1









REAR BULKHEAD





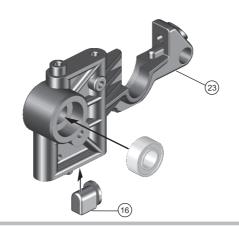
Ball bearing $\phi 5x \phi 10x4mm....1$

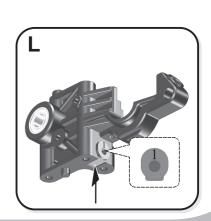


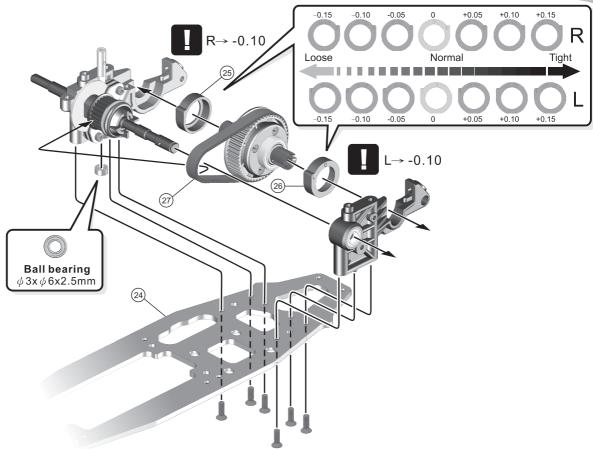
Screw 2.5x8mm......6



Ball bearing $\phi 3x \phi 6x2.5$ mm...1

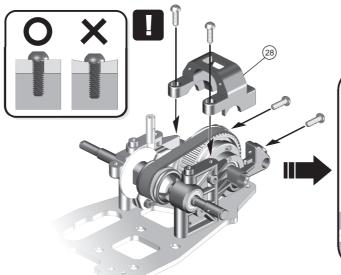


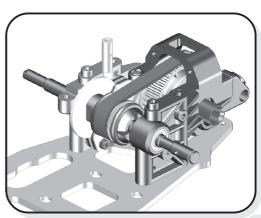






Screw 2.5x8mm.....4





ZIMIR

REAR HUB





Pivot ball L=9mm.....4

Rear hub upper pivot ball L=7.5mm.....2



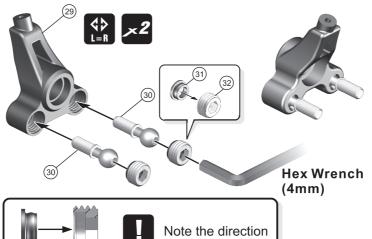
Ball bearing $\phi 8x \phi 12x3.5$ mm...2



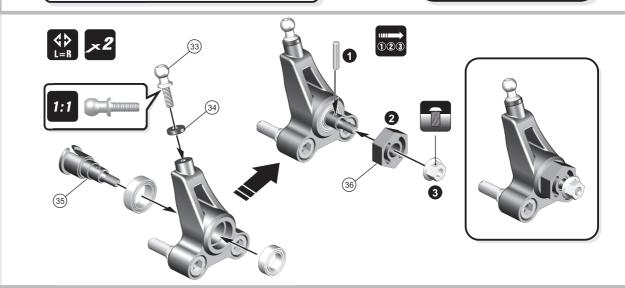
Ball bearing $\phi 6x \phi 10x3mm.....2$



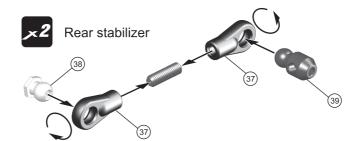
Flanged nylon nut 3mm.....2

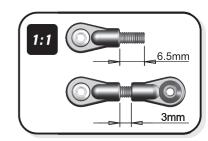




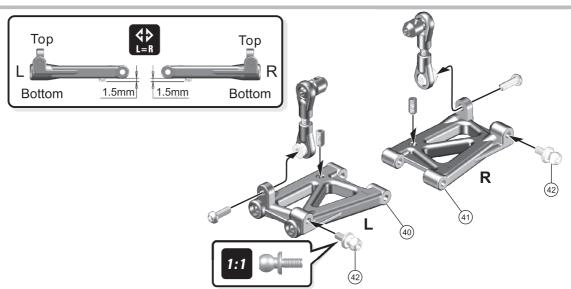






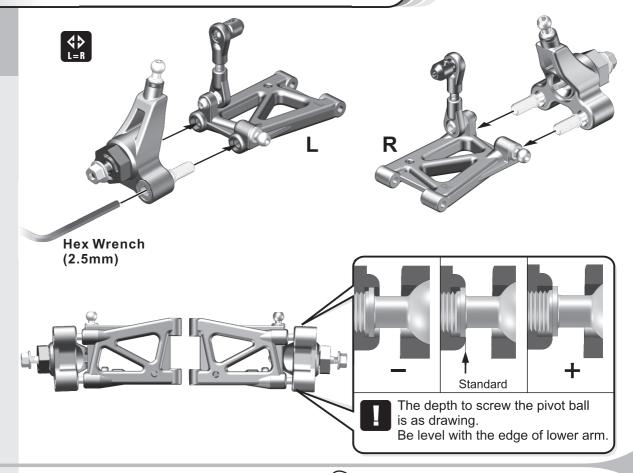






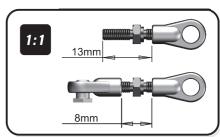


REAR LOWER SUSPENSION ARM

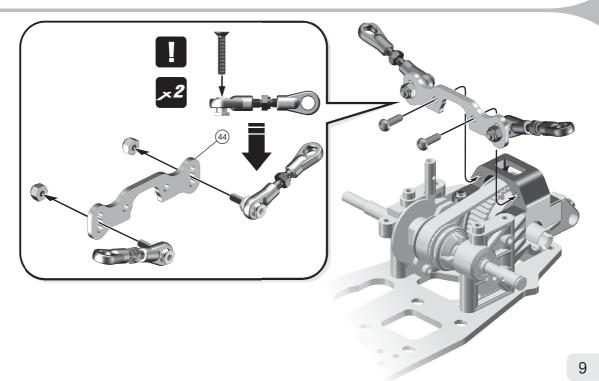










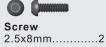


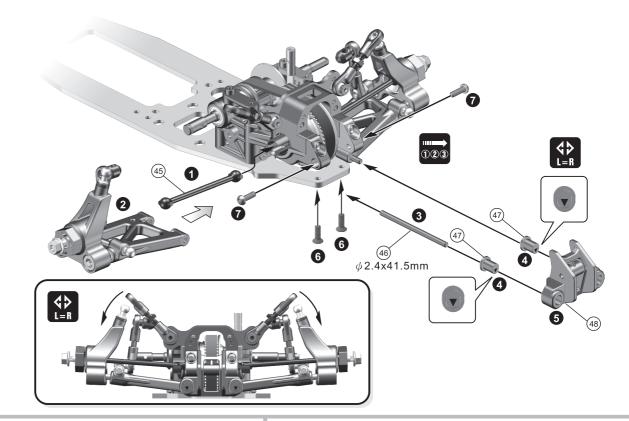


REAR LOWER SUSPENSION ARM









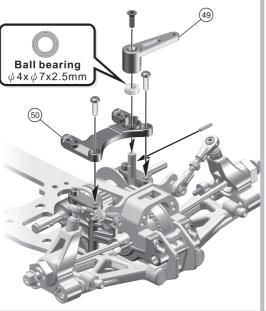


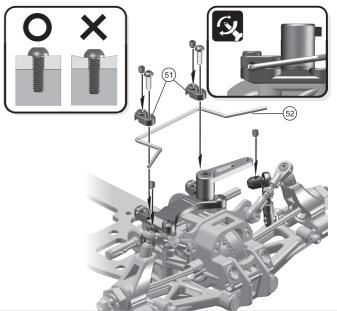


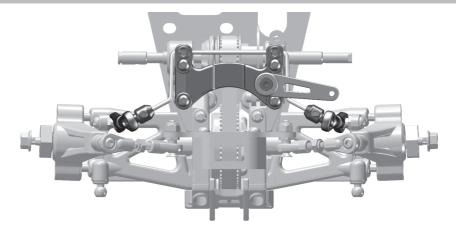












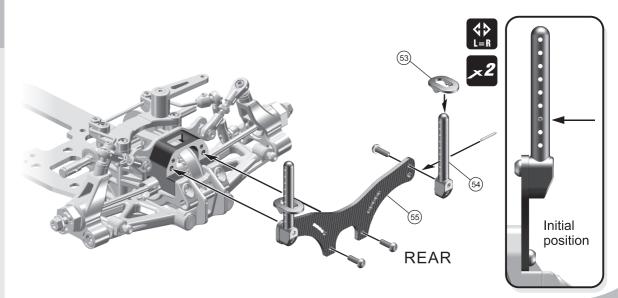


BODYMOUNT & REAR TRANSMISSION



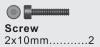
Screw 2.5x8mm.....4

Pin φ 1x10mm.....2

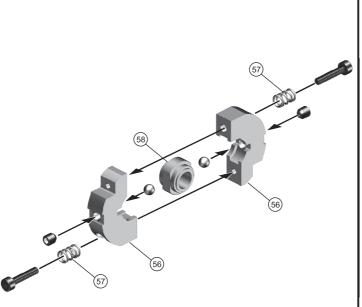


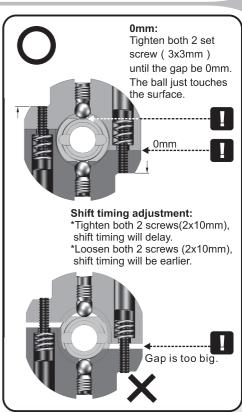


Set screw 3x3mm......2

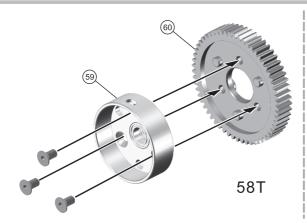


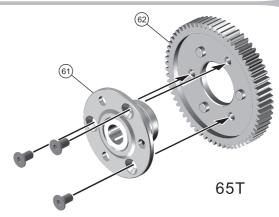
Ball 3mm.....2







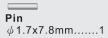




ZIMIR:

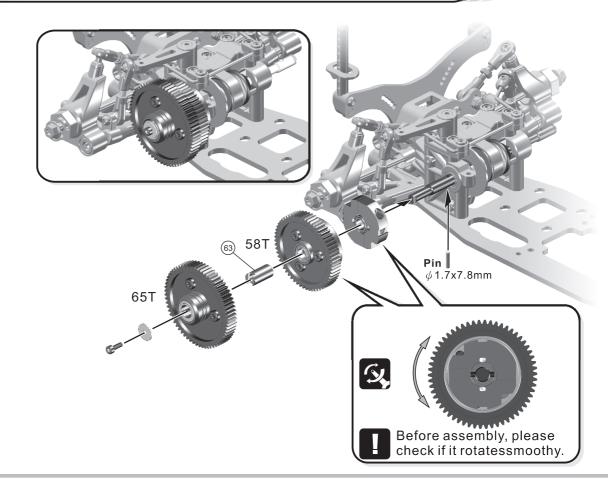
REAR TRANSMISSION & FRONT SUSPENSION







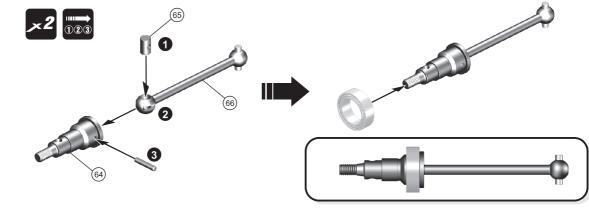




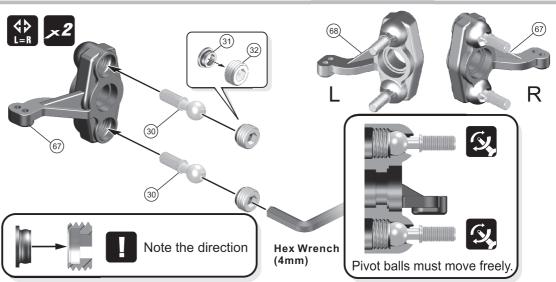


Ball bearing $\psi 8x \psi 12x3.5$ mm..2

Pin φ 1.5x8mm......2

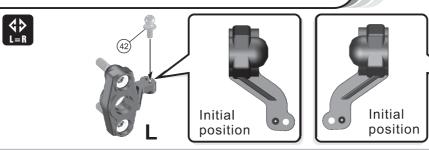








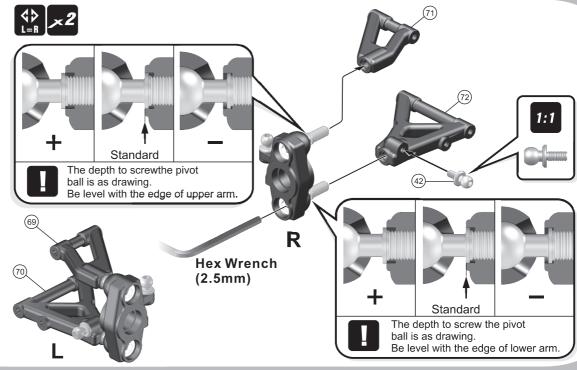
FRONT SUSPENSION





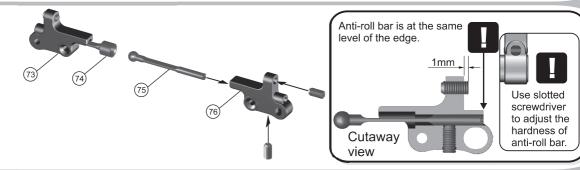


Flange ball joint L=5.5mm.....4





Set screw 3x6mm.....4

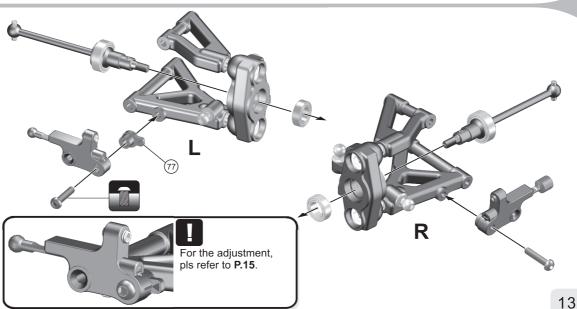




Ball bearing ϕ 6x ϕ 10x3mm.....2



Screw 2.5x12mm.....2



ZIMIR

FRONT SUSPENSION



AG

Pin φ 2x10mm.....2

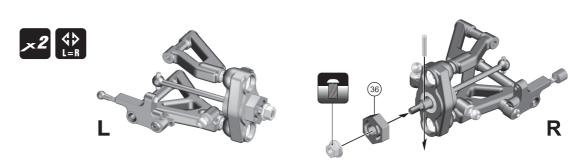


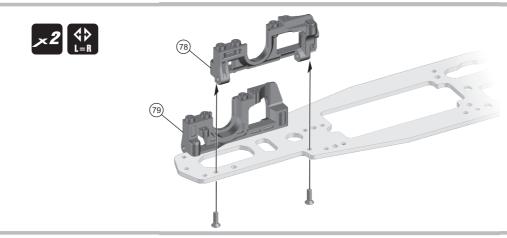
Flanged nylon nut

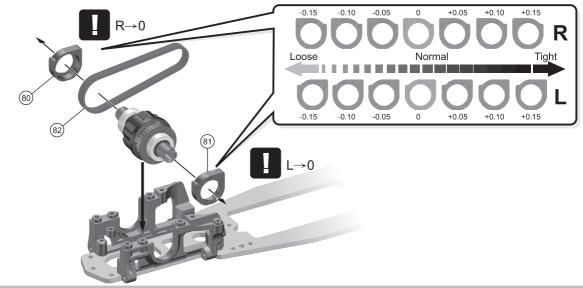




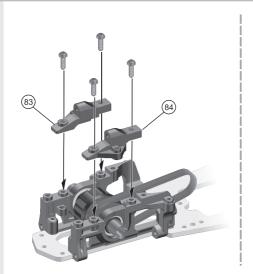
Screw 2.5x8mm.....4

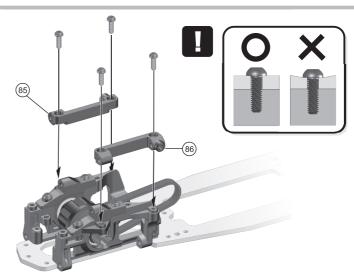












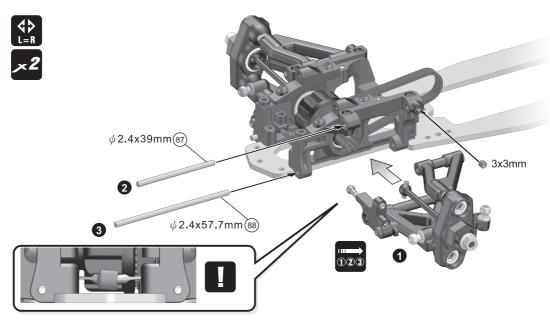


FRONT SUSPENSION

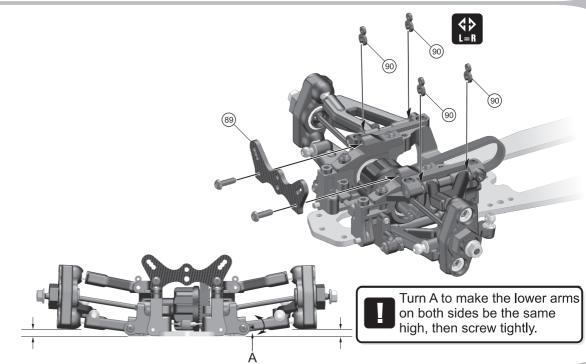


Set screw

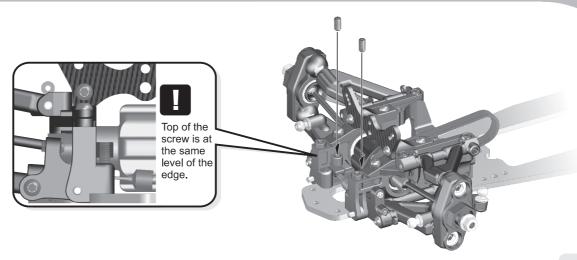
3x3mm.....2











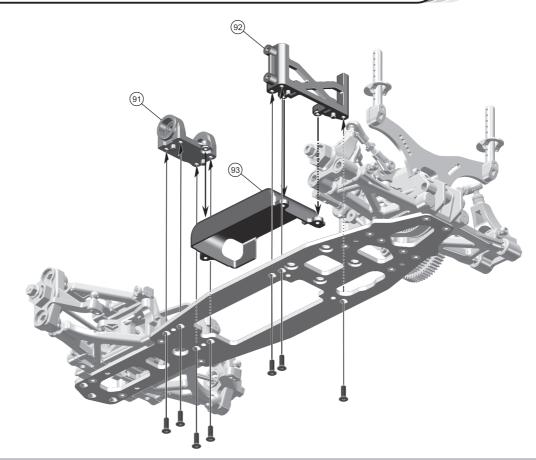


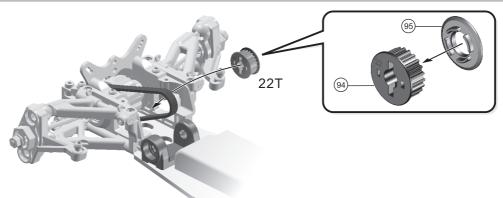
FRONT TRANSMISSION





Screw 2.5x8mm......7







Ball bearing φ 5x φ 9x3mm......1

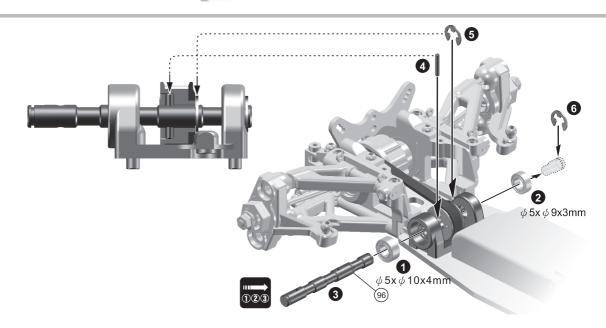


Ball bearing $\phi 5x \phi 10x4mm....1$



E-clip E4.....2

Pin φ 1.7x10mm.....1







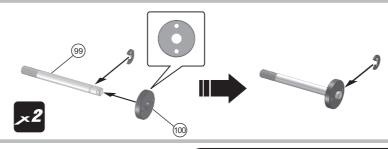


Oring ϕ 2x1.5mm.....4



E-clip E1.5.....4











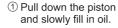






- 1. Screw the ball joint into the shock rod until level with the edge.
 2 Do not screw too deep, because the
 - 2.Do not screw too deep, because the ball joint might crack or the plastic thread might strip.







② Slowly move the piston up and down to get rid of air bubbles.

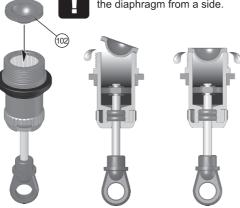


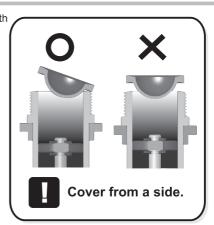
3 Add oil one more time up to the brim.





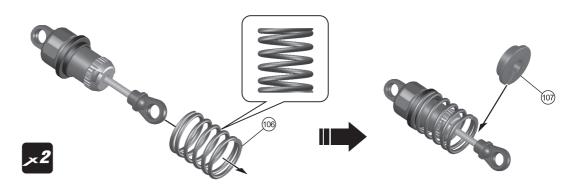


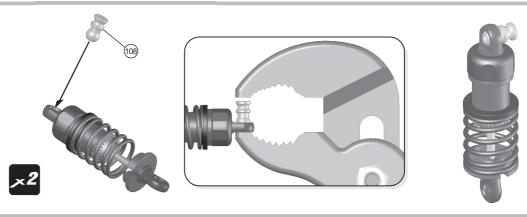








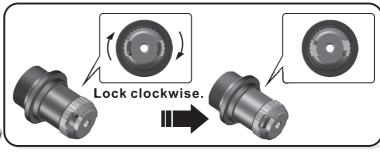




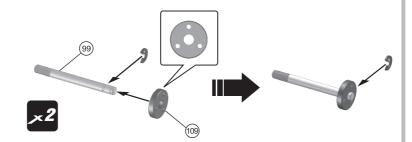










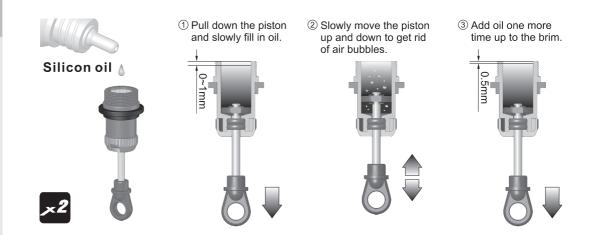


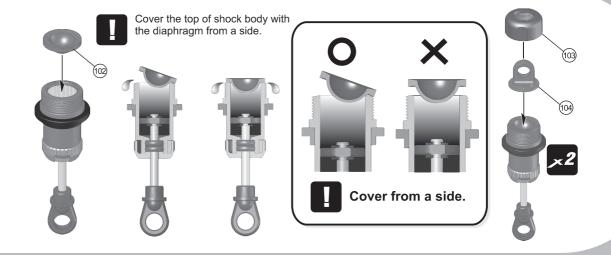


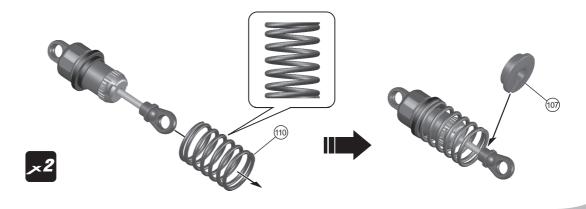


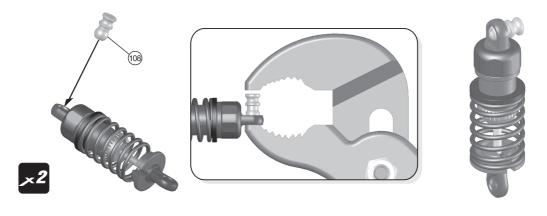
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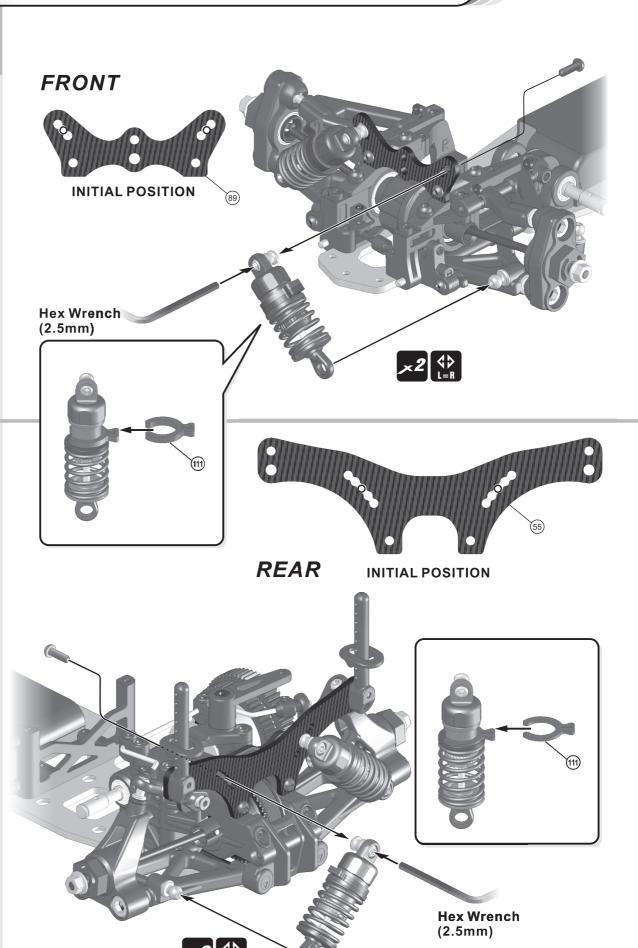








2.5x8mm.....2







BUMPER & BODYMOUNTS

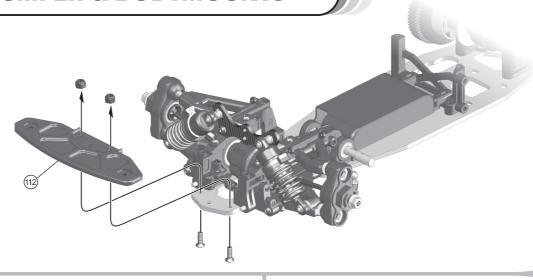


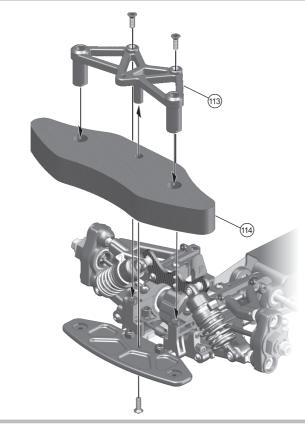


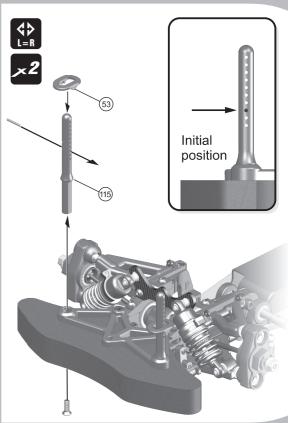


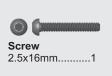


Pin φ 1x10mm.....2

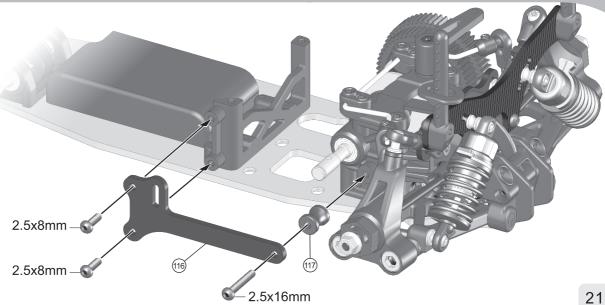










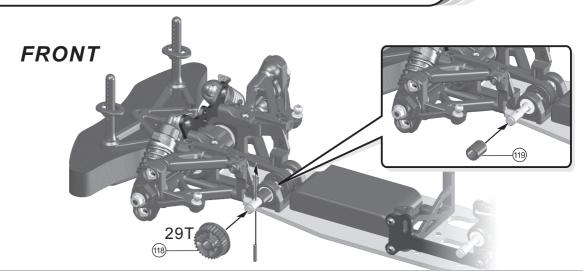


ZIMR

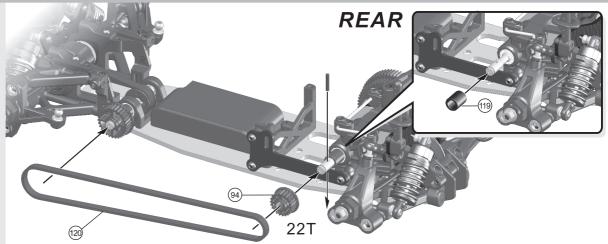
TRANSMISSION



Pin *φ* 1.7x10mm.....1

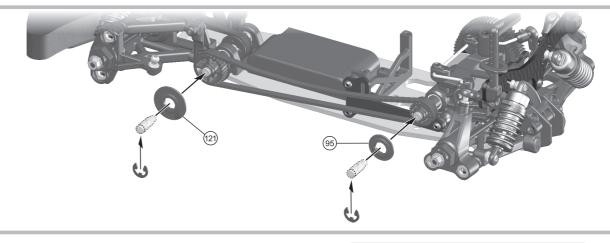


Pin φ 1.7x10mm.....1





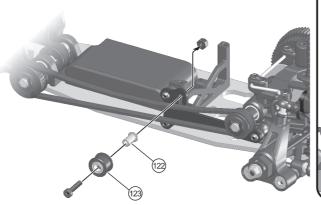
E-clip E4......2

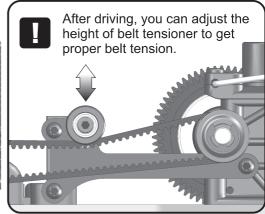




Screw 2.5x14mm.....1









SERVO SAVER



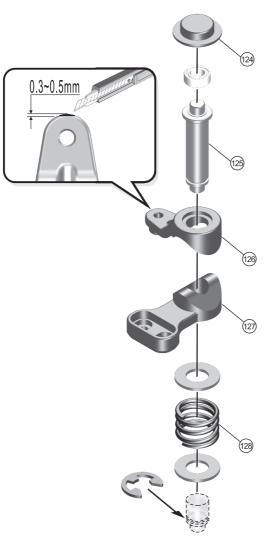


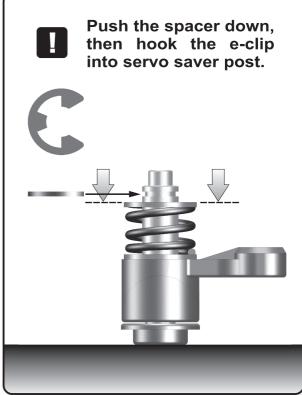


E-clip E5.....1



Shim $\phi 6x \phi 12x0.8$ mm..2



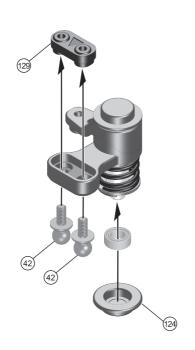


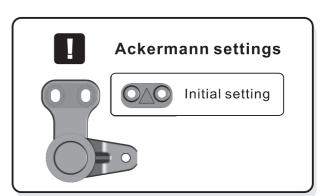


Ball bearing $\phi 4x \phi 7x2.5$ mm....1



Flange ball joint L=5.5mm.....2

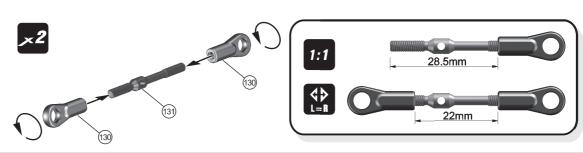


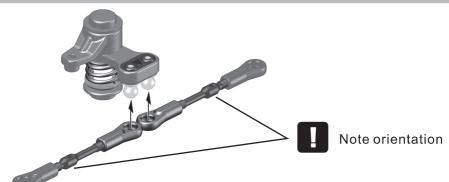


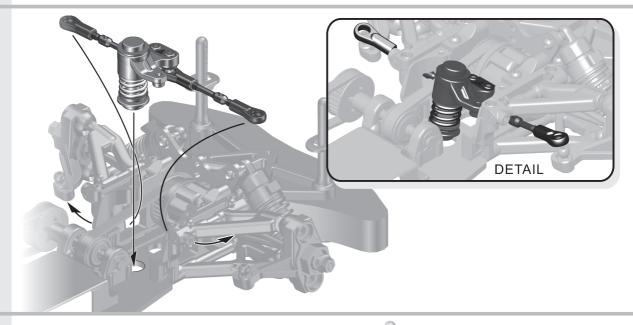


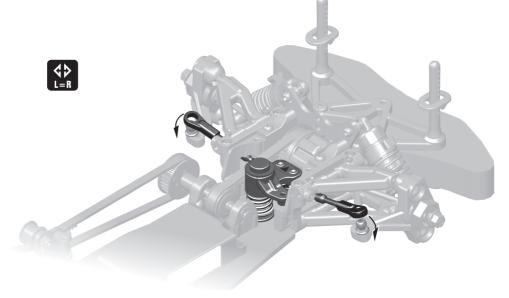
STEERING ROD













ELECTRONICS





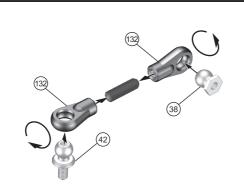


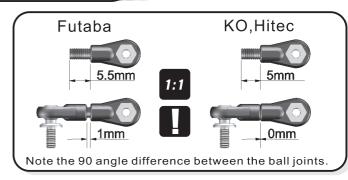


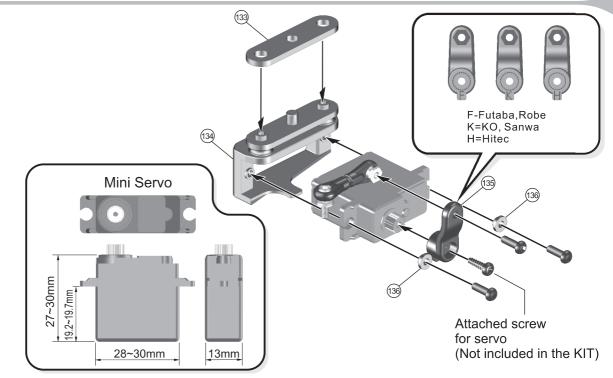
Flange ball joint L=5.5mm.....1



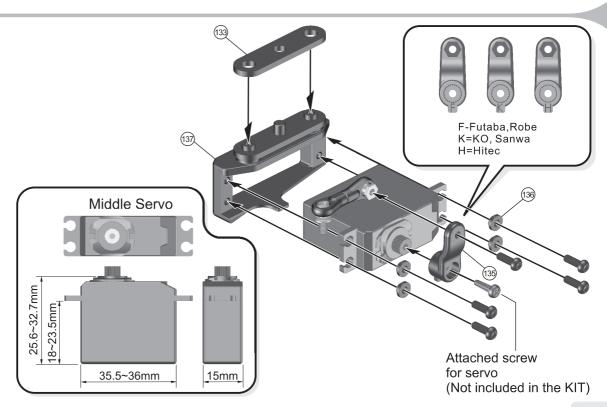
Screw 2.5x8mm.....3





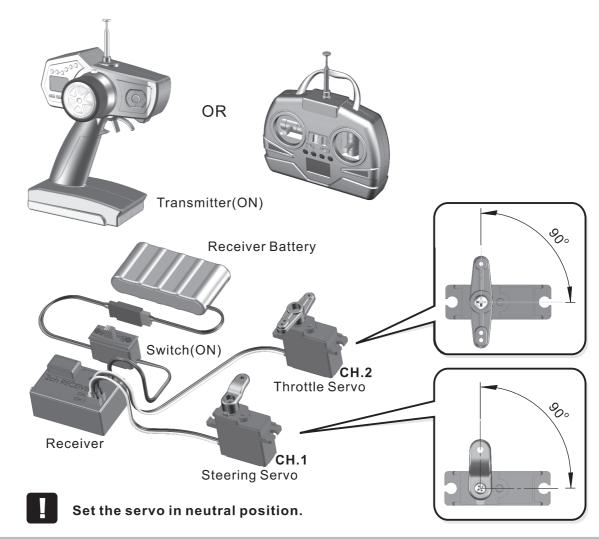


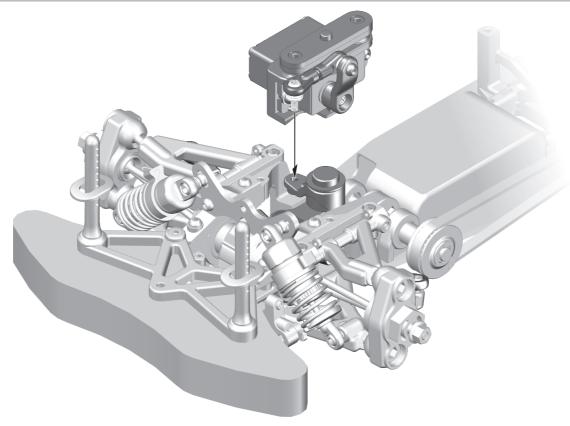






ELECTRONICS

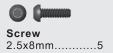


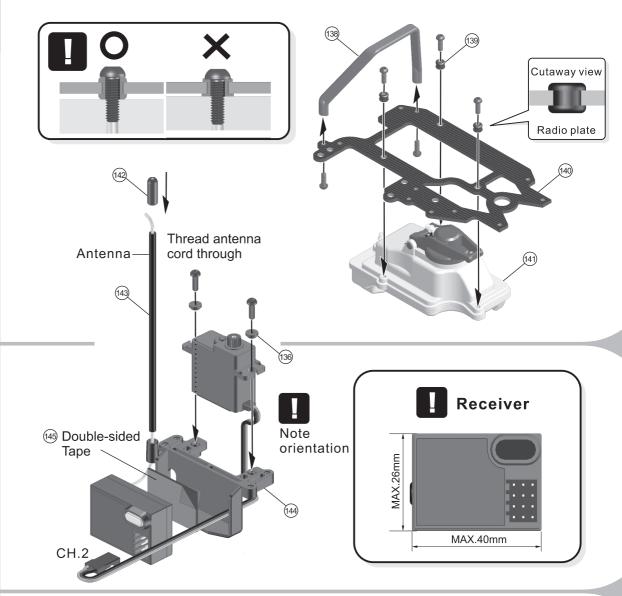




FUEL TANK & RECEIVER

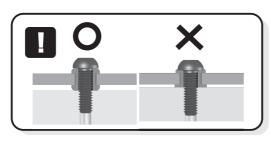


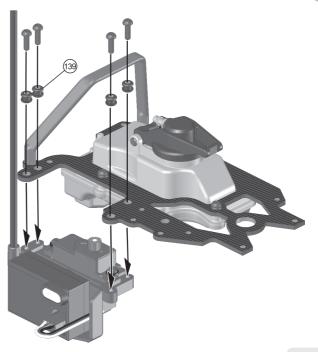












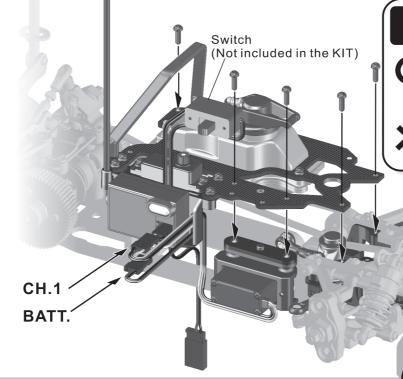


FUEL TANK & ELECTRONICS



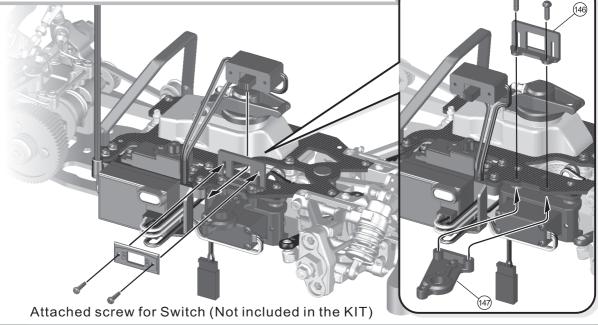


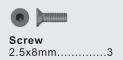
2.5x8mm.....5

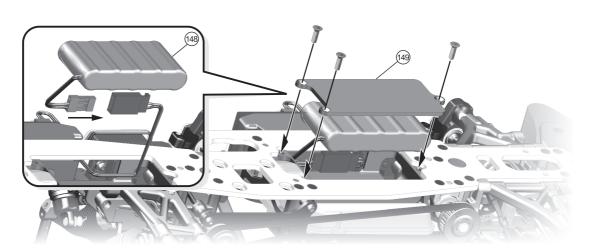




Screw 2.5x8mm.....2



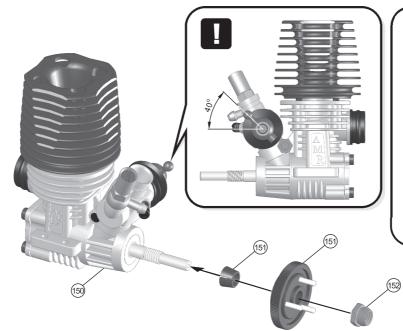


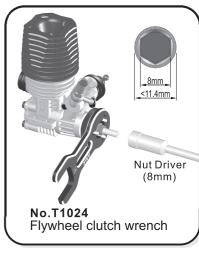




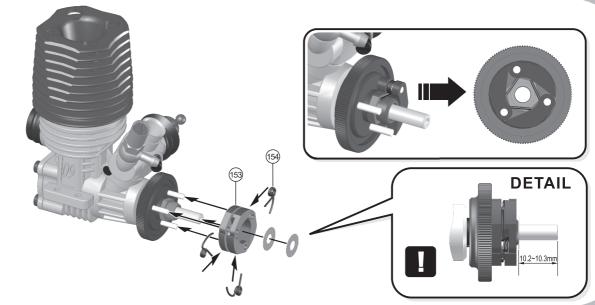
ENGINE & CLUTCH

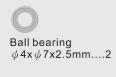






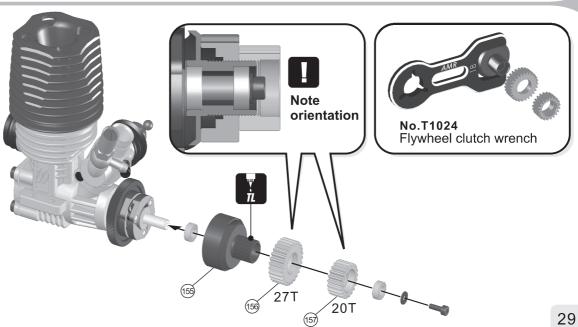










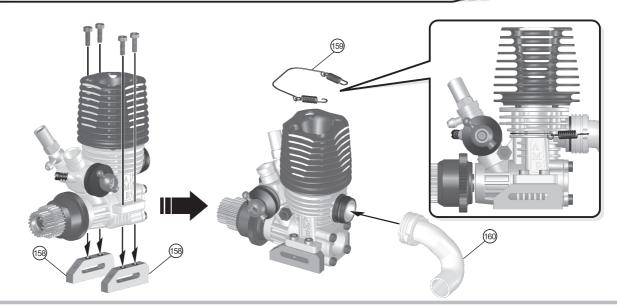




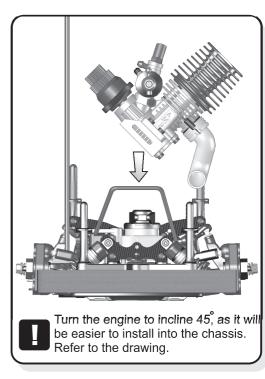
ENGINE & CLUTCH





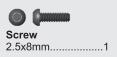


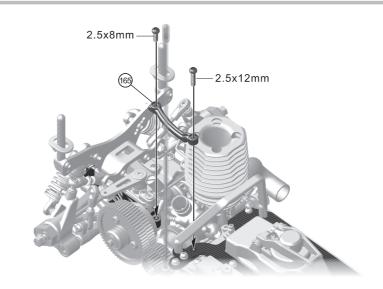










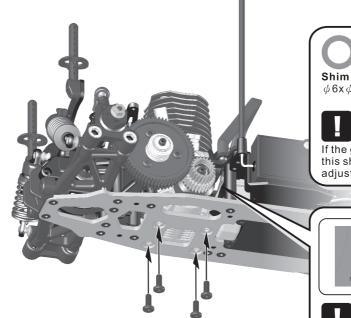


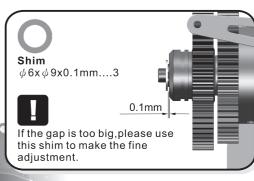


MUFFLER & THROTTLE LINKAGE









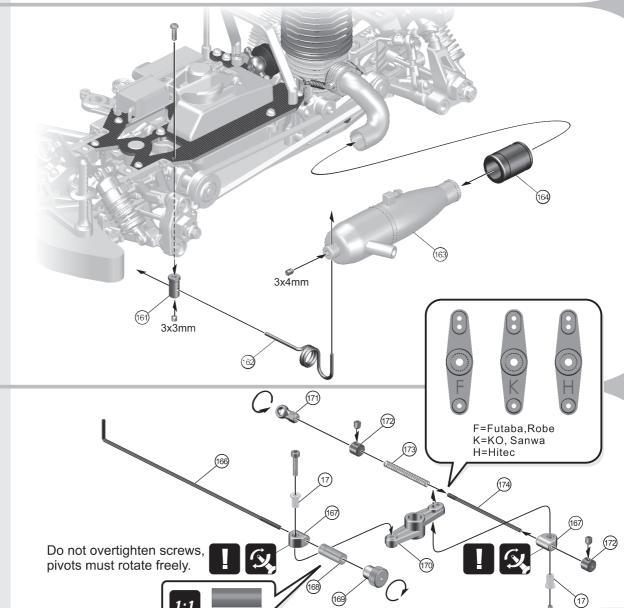


Adjust gear mesh so there is minimal play between the gears.

31















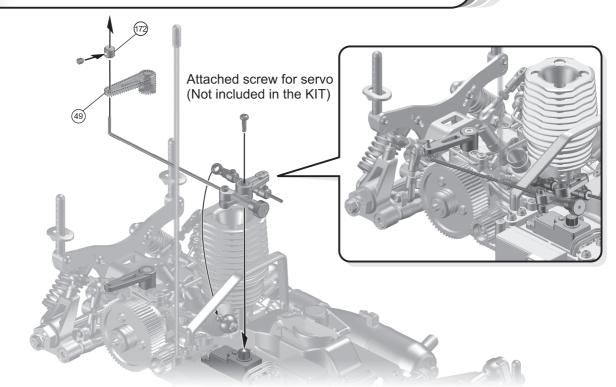


THROTTLE LINKAGE

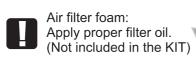




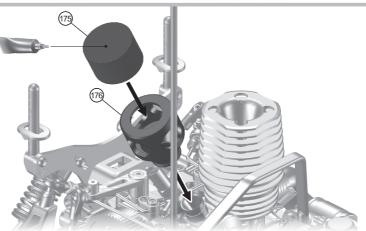
Set screw 3x3mm.....1

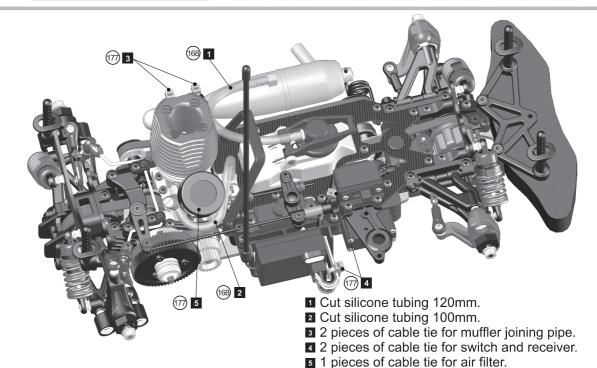


BAG Q







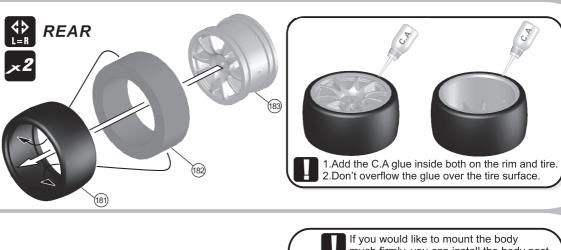


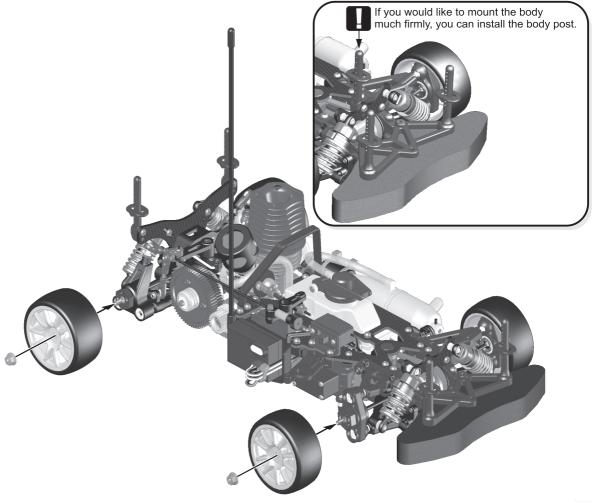


WHEELS





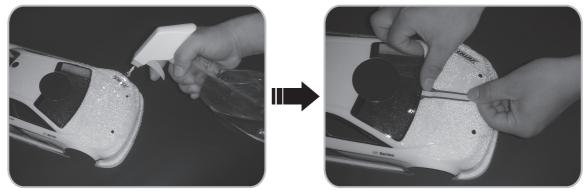




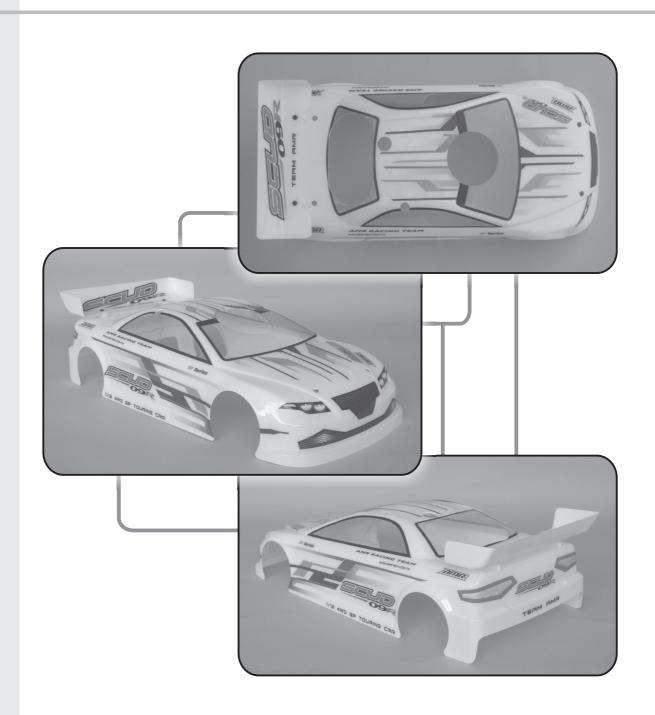


DECAL

TIP:



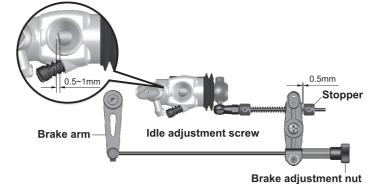
You can spray water or suds on the body for easier adjusting the decal.





ADJUST THE ENGINE CONTROL LINKAGE





- 4. Adjust the idle adjustment screw to open approx. 0.5~1mm.

1. Turn on the power in transmitter and then

2.Adjust the transmitter and throttle servo

3. Adjust the stopper to make the gap be

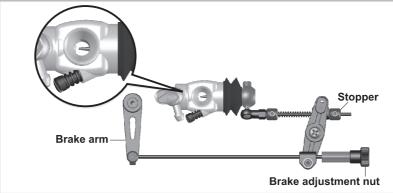
trim to the neutral position.

in receiver.

approx. 0.5mm.

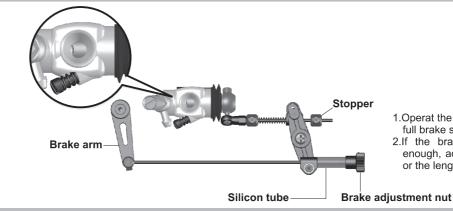
- 5. Adjust the brake adjustment nut until you feel the brake starts to become slightly

Full throttle



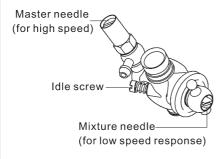
- 1. Operate the forward side of the transmitter in full high state for the carburetor to be fully open.
- 2.Be sure that the throttle linkage does not apply excessive force to the servo and carburetor.
- 3.In case the carburetor is not fully open or open excessively, follow the below:
 - a.If your transmitter is equipped with EPA(End Point Adjustment) function, please adjust the forward side of throttle EPA to be 70%~80%.
- b.If your transmitter is not equipped with EPA fuction, please adjust the gap for Stopper.

Brake



- 1. Operat the brake side of the transmitter in full brake state.
- 2.If the brakes apply too much or not enough, adjust the brake adjustment nut or the length of the silicon tube.

Adjustments in carburetor



Master needle(for high speed)adjustment

Function: adjust the fuel mixture to get the max. rpm and max. power. Adjusting method:

- 1. If you turn the master needle clockwise, rpm and power will increase when the throttle is at full open. Also, the fuel mixture will be leaner, the engine temperature will become higher, and smoke from the exhaust pipe will be fewer (thinner and lighter).
- 2. If you turn the master needle counter-clockwise, rpm and the power will reduce when the throttle is at full open. Also, the fuel mixture will be richer and the engine temperature will become lower. The smoke and un-burned fuel from the exhaust pipe will be a lot.
- 3. Each adjustment for master needle should not over 45°.

Idle screw adjustment

Function: set the min. idle speed while the throttle valve is closed.

Adjusting method:

- 1. Idle speed will increase by turning the idle screw clockwise.
- 2. Idle speed will reduce by turning the Idle screw counter-clockwise.

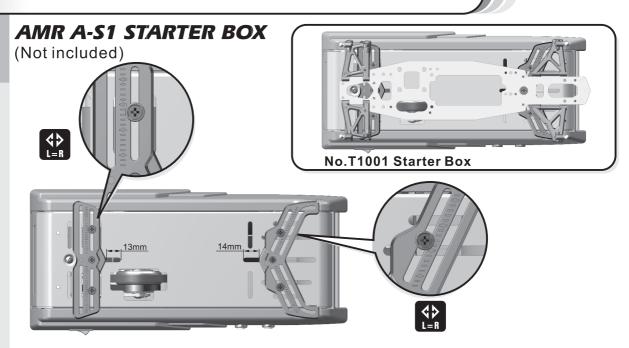
Mixture needle(for low speed response)adjustment Function: adjust the throttle response to transit rapidly without delay.

Adjusting method:

- 1. Turn the mixture needle clockwise, the throttle response will be quicker, the air/fuel mixture will be leaner, and the engine temperature will get higher.
- 2. Turn the mixture needle counter-clockwise, the throttle response will be slower, the air/fuel mixture will be richer, and the engine temperature will get lower.
- 3. Each adjustment of the master needle should not over 45°.
- 4. If the air/fuel mixture is too rich, idle speed will be very low or even getting stall. Under this, please turn the idle screw clockwise for raising the idle speed.



STARTER BOX ADJUSTMENT

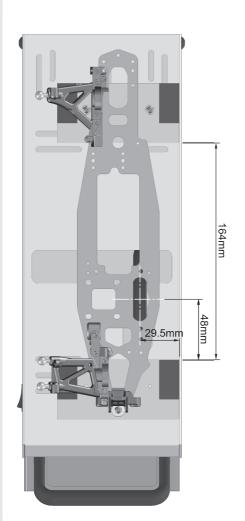




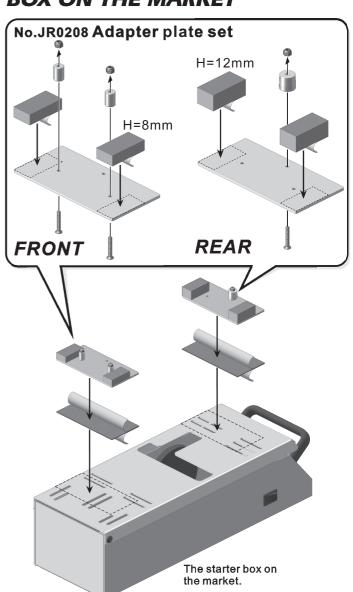




NO.JR0208 USED FOR:THE STARTER BOX ON THE MARKET



You can mount this included adapter plate set on you own starter box to start SCUD 09R.

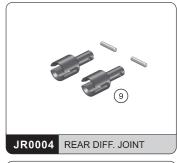




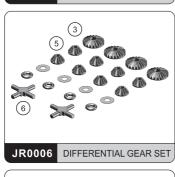


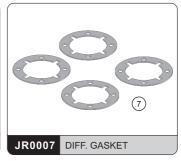












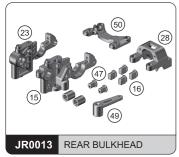


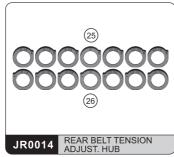








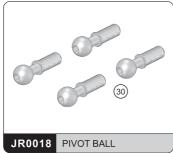






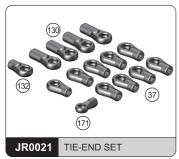


























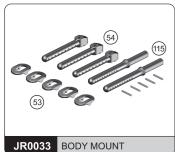
















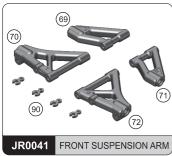




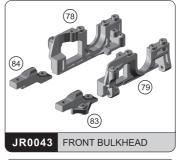


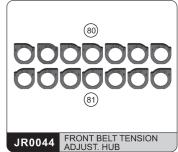


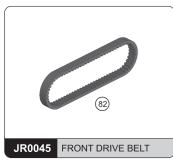




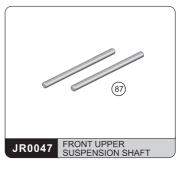


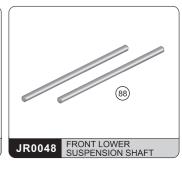








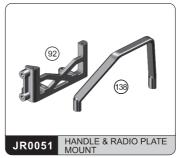








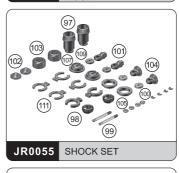


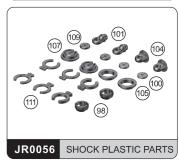
















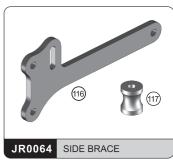




















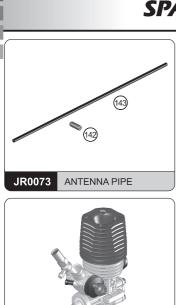
















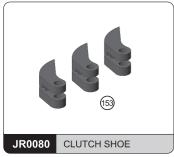










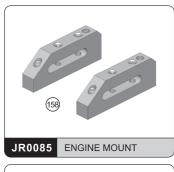


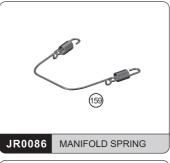












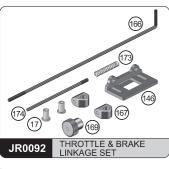










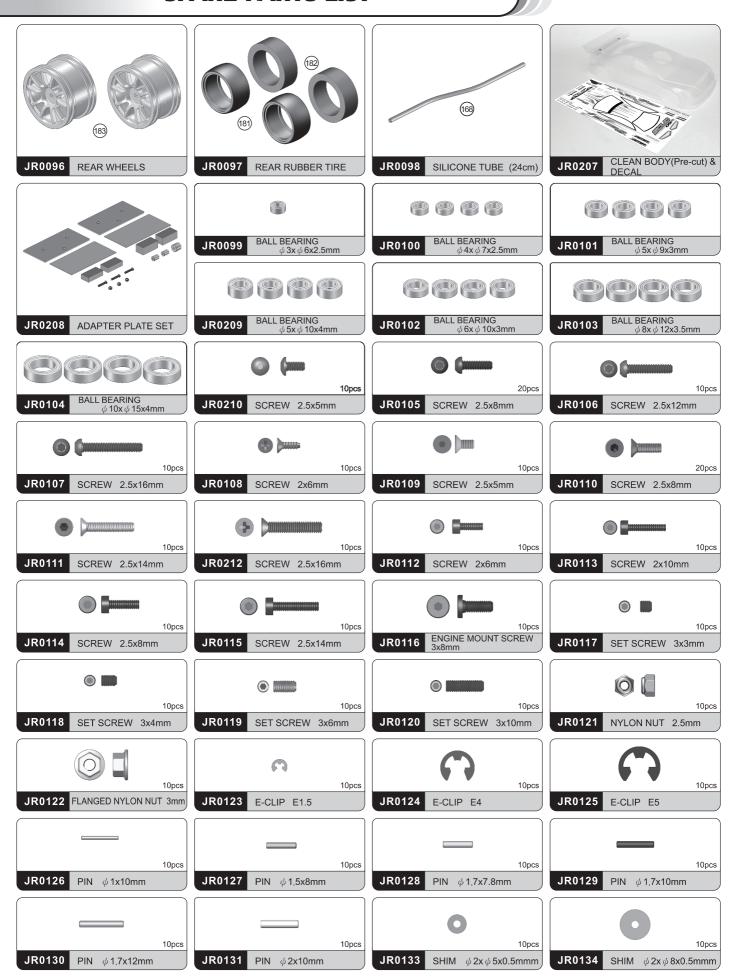












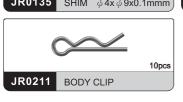














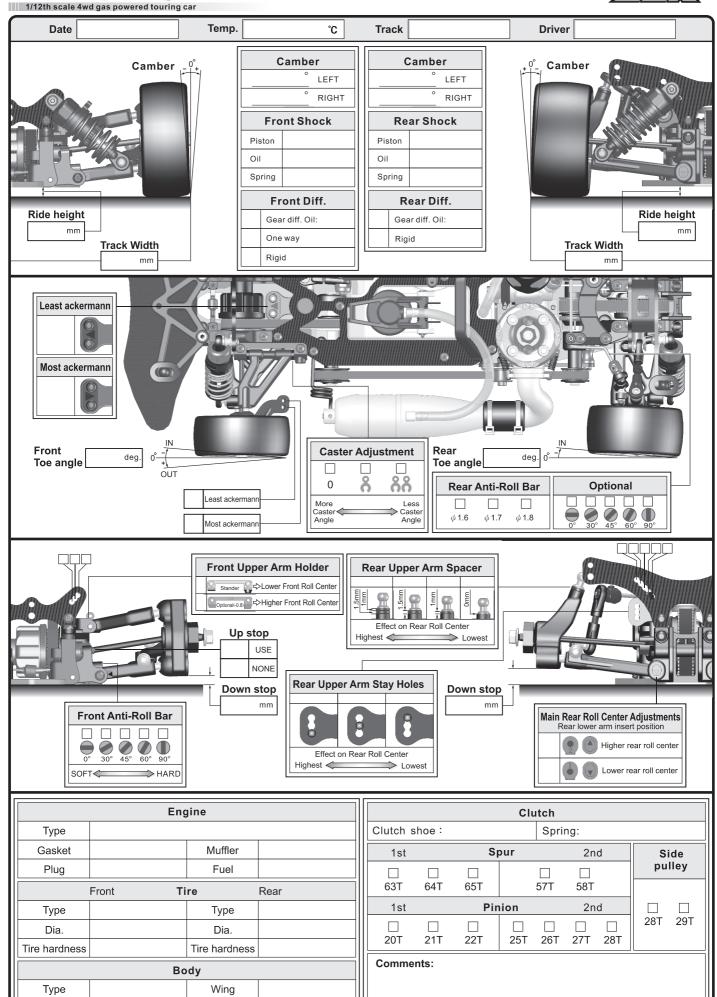
TOOLS





SET UP SHEET









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