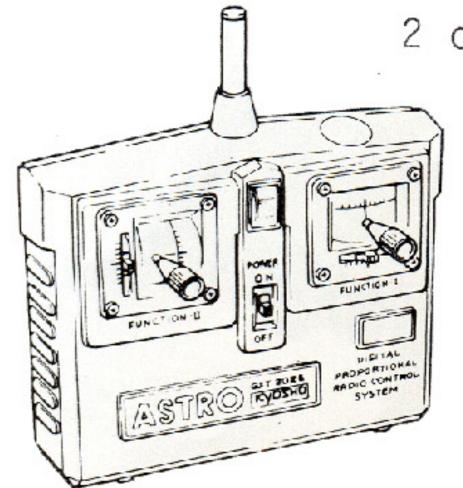
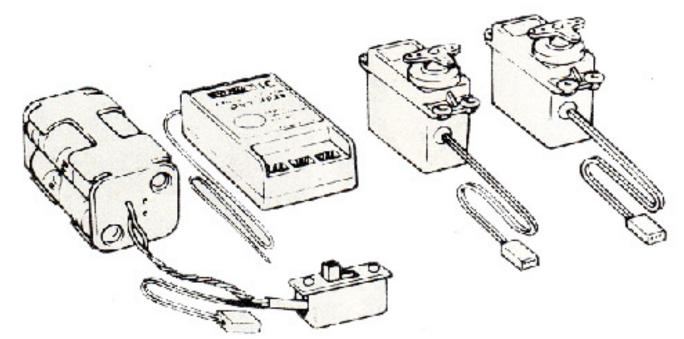
RACING BUGG KIT NO. 2136 Offs-Road Racing
World

BEFORE ASSEMBLY

[Items in need separately from the kit]

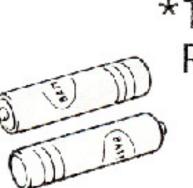


2 channel Radio Control System



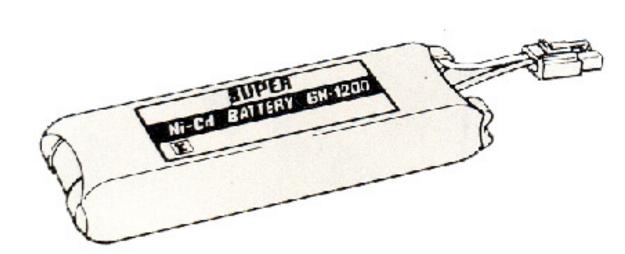
Battery for Radio

*Transmitter UM3 8 pcs.
Receiver UM3 4 pcs.

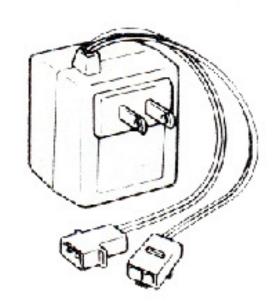


*The radio control units should be handled with care. Read the instruction close which is attached to your radio control set.

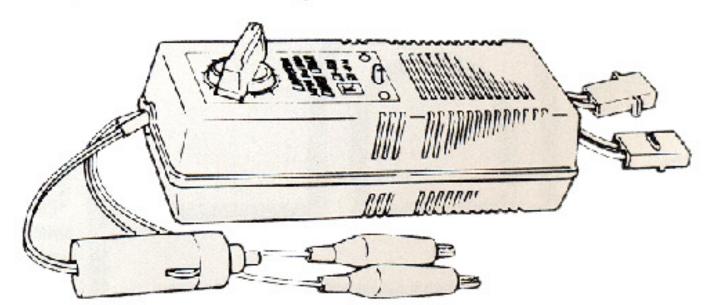
Home Charger or Quick charger



*Super Ni-Cad 6N-1200 *The 7.2V Racing Battery can also be employed.

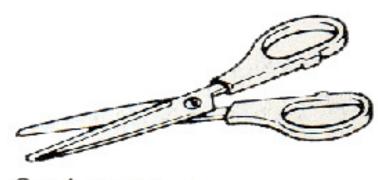


*Super Ni-Cad Home Charger Will charge a battery in 12 to 15 hours from a 100V household outlet.

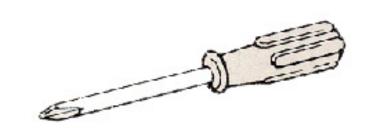


*Super Ni-Cad Quick Charger Will charge it in only 15 minutes from a car cigarette lighter or from a 12V car battery.

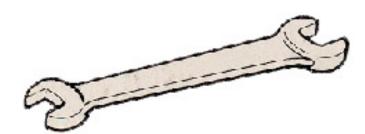
ARTICLES REQUIRED FOR ASSEMBLY



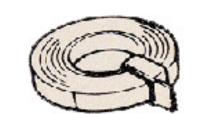
Scissors



+ Screw Driver



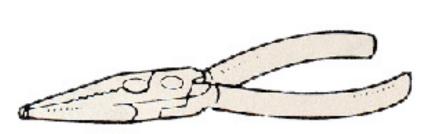
Wrench



Aninsulation Vinyl Tape



Cutter Knife



Radio Plier



Aw1



Round File

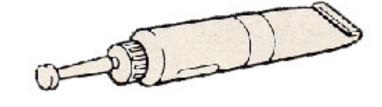
[CEMENT]



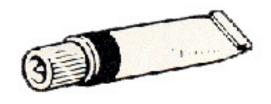
Instant drying Cement

53

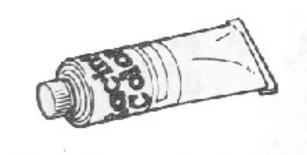
Rubber Cement



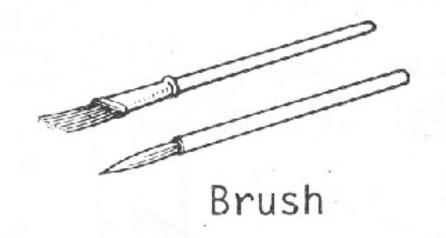
Bolt and nut locking agent (such as "Thread Lock")



Silicon Compouns (such as "Bathtub coark")



Racing Color





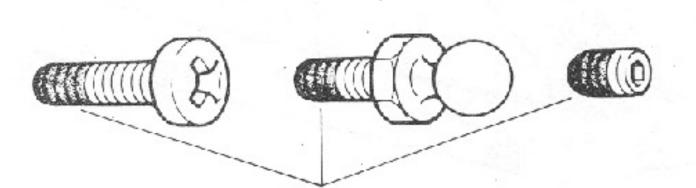
Masking Tape

Racing Colors is the best paints for finishing car bodies of poly-carbonate. Easy and safe to use as it is water soluble. Seven different colors are available.

[Please read it before assembly]

*In the assembly drawings, some threaded parts are printed in black as shown below. It indicated that the portion should be applied with thread locking agent and should be tightened firmly so that the bolt and nut will not get loose.

*(Note) There are some components also printed in black, but only threaded part of bolts and nuts requires thread locking agent.



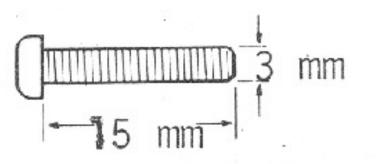
Apply it on the blacken portion.



Apply inside.

*Definition

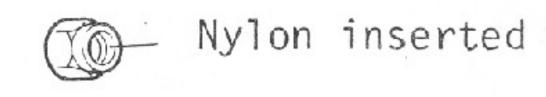
*Length of Bolt: A bolt indicated as 3mm dia. x 15 mm is ...



*Size of Washer: A washer shown as 3 mm dia. is ...

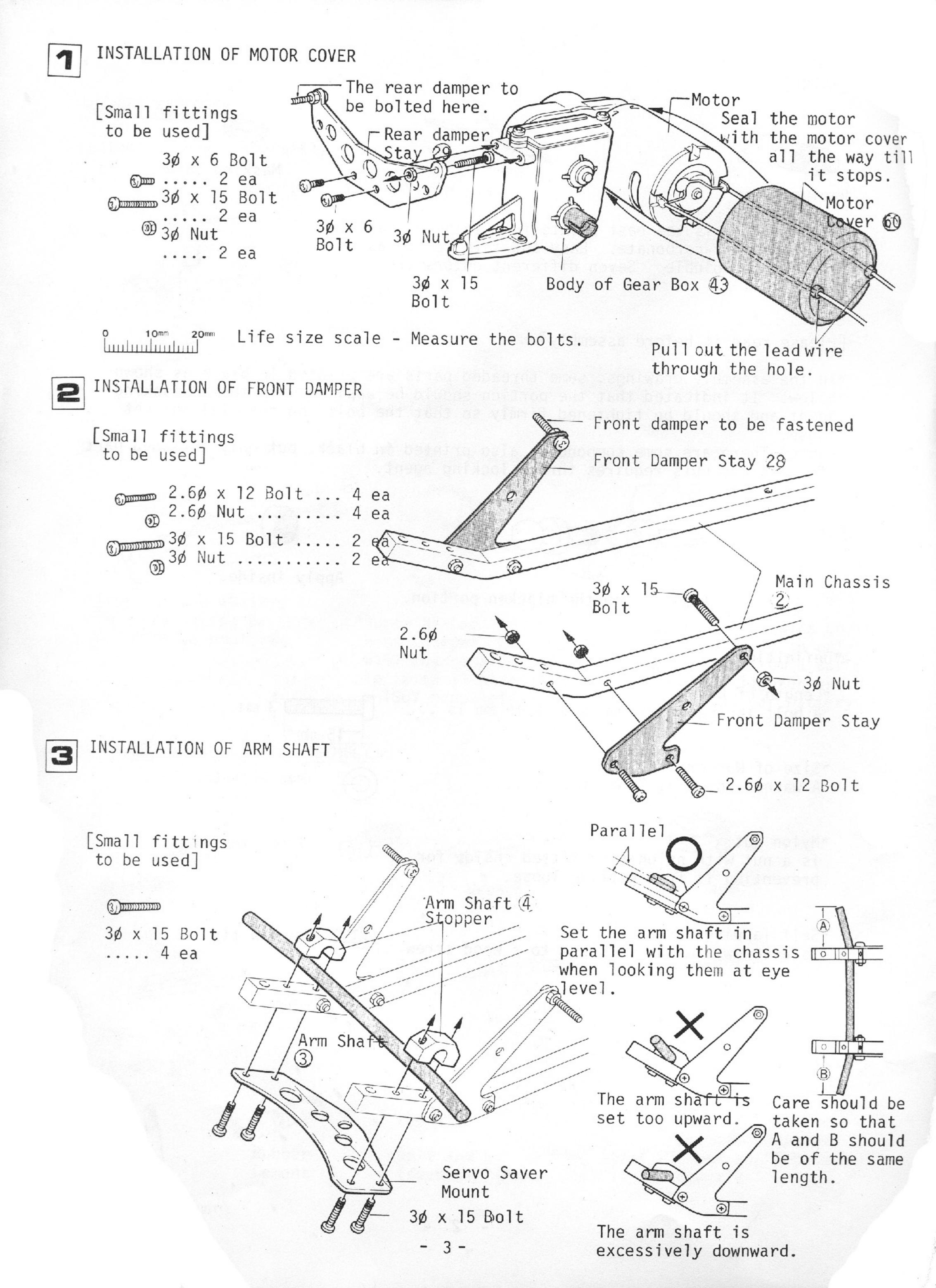


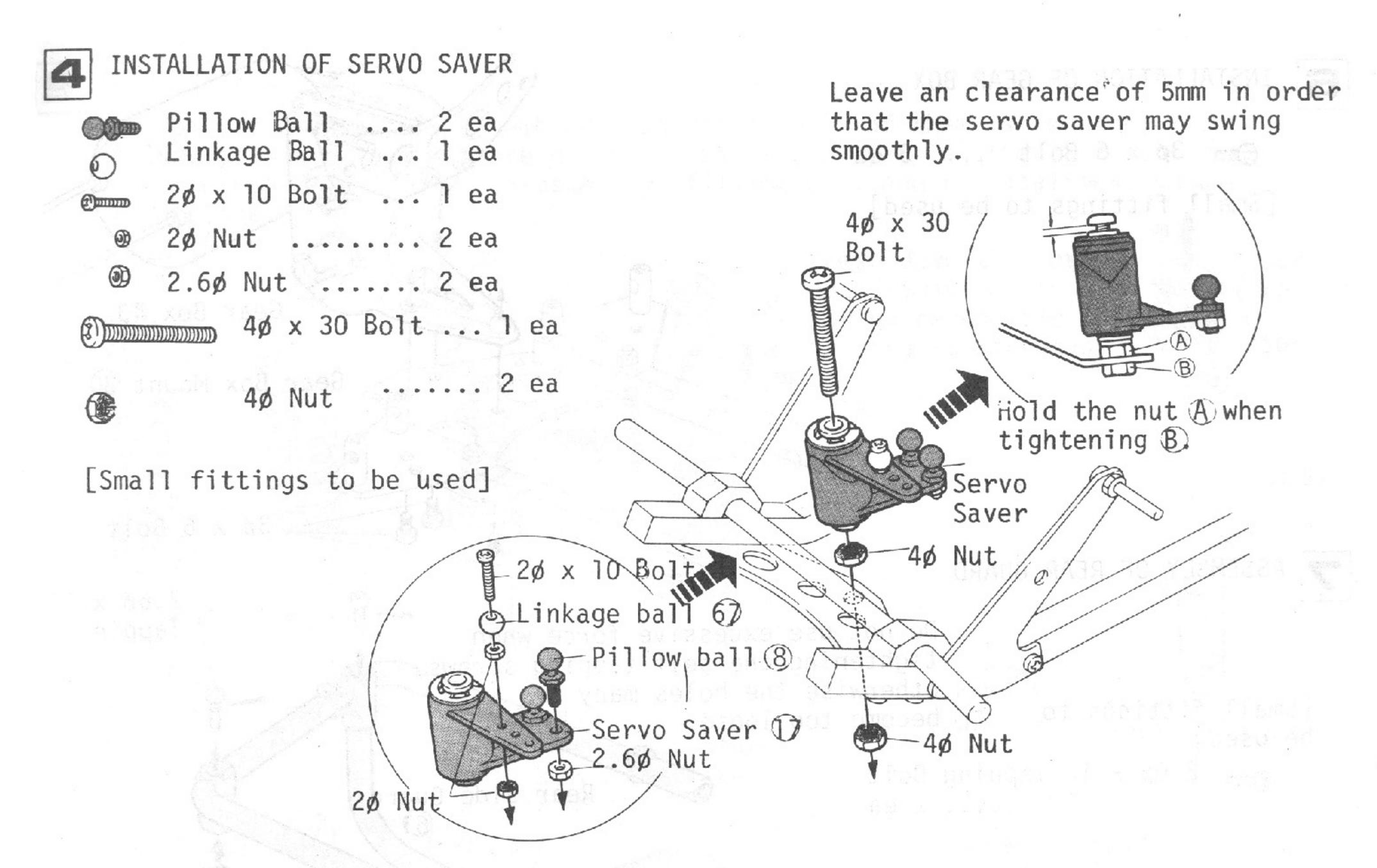
*Nylon Nut: is a nut with nylon ring fitted inside for preventing it from getting loose.



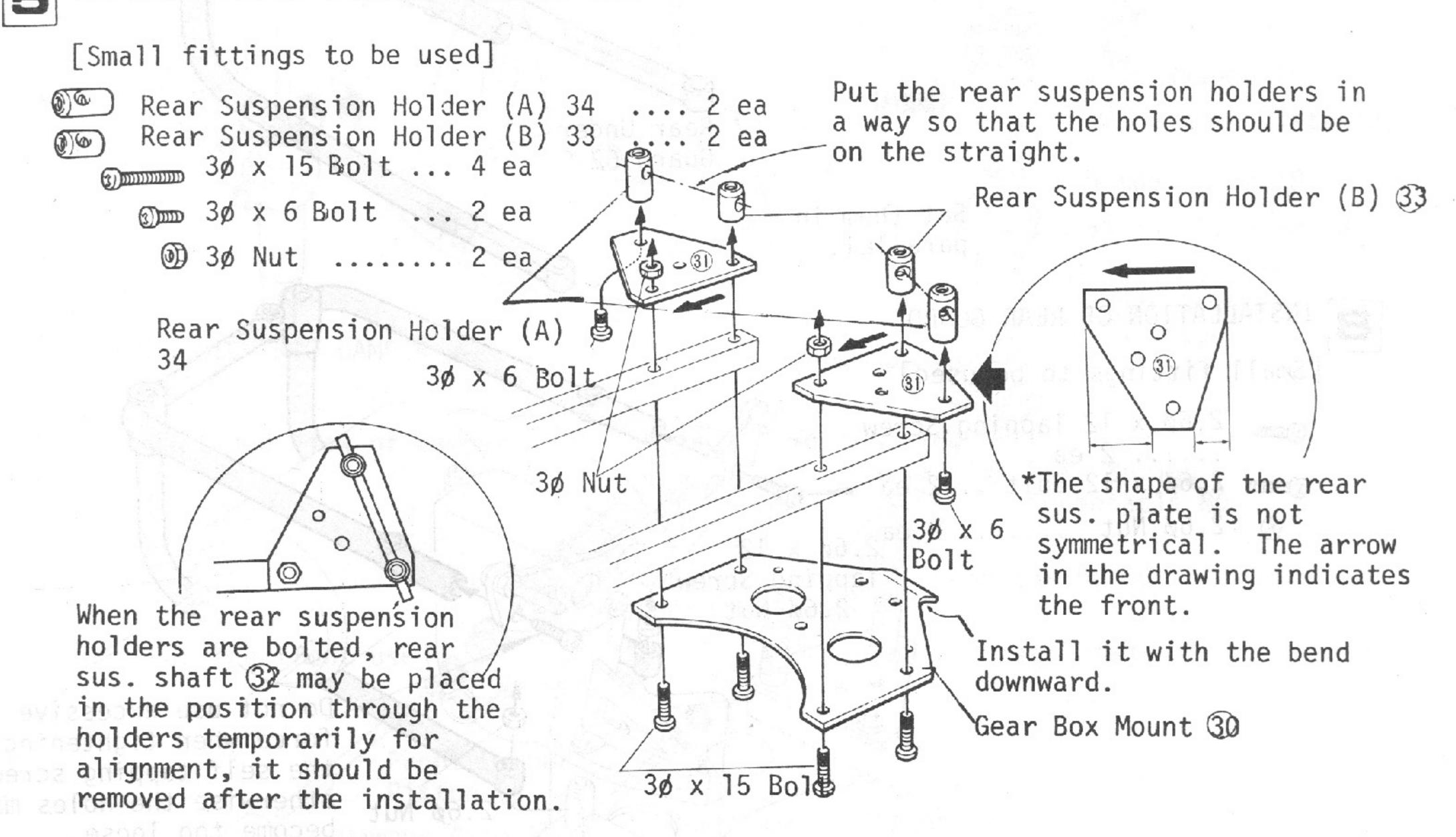
*Self Tapping Screw: is a screw similar in shape to a wood screw.



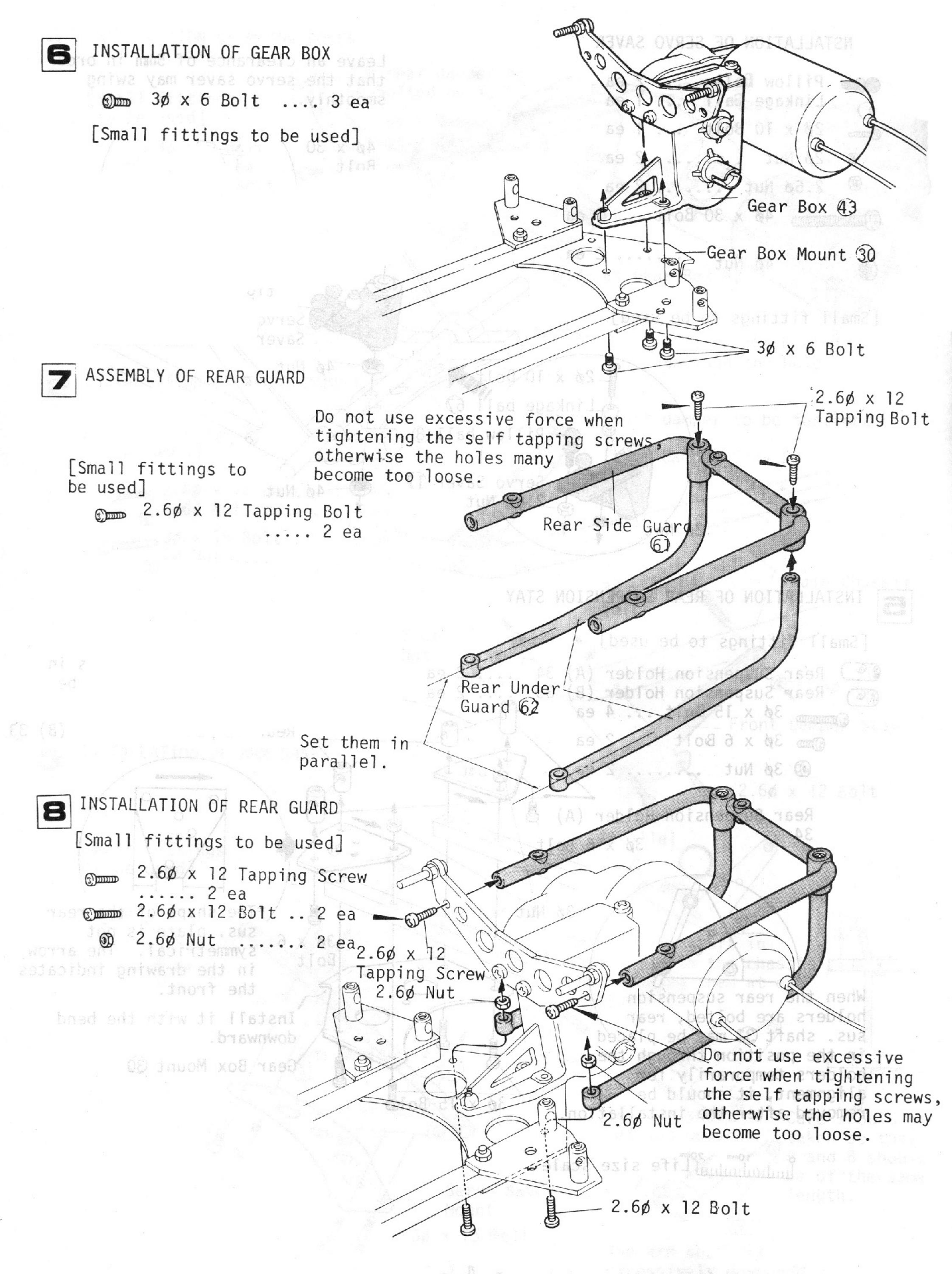




INSTALLATION OF REAR SUSPENSION STAY

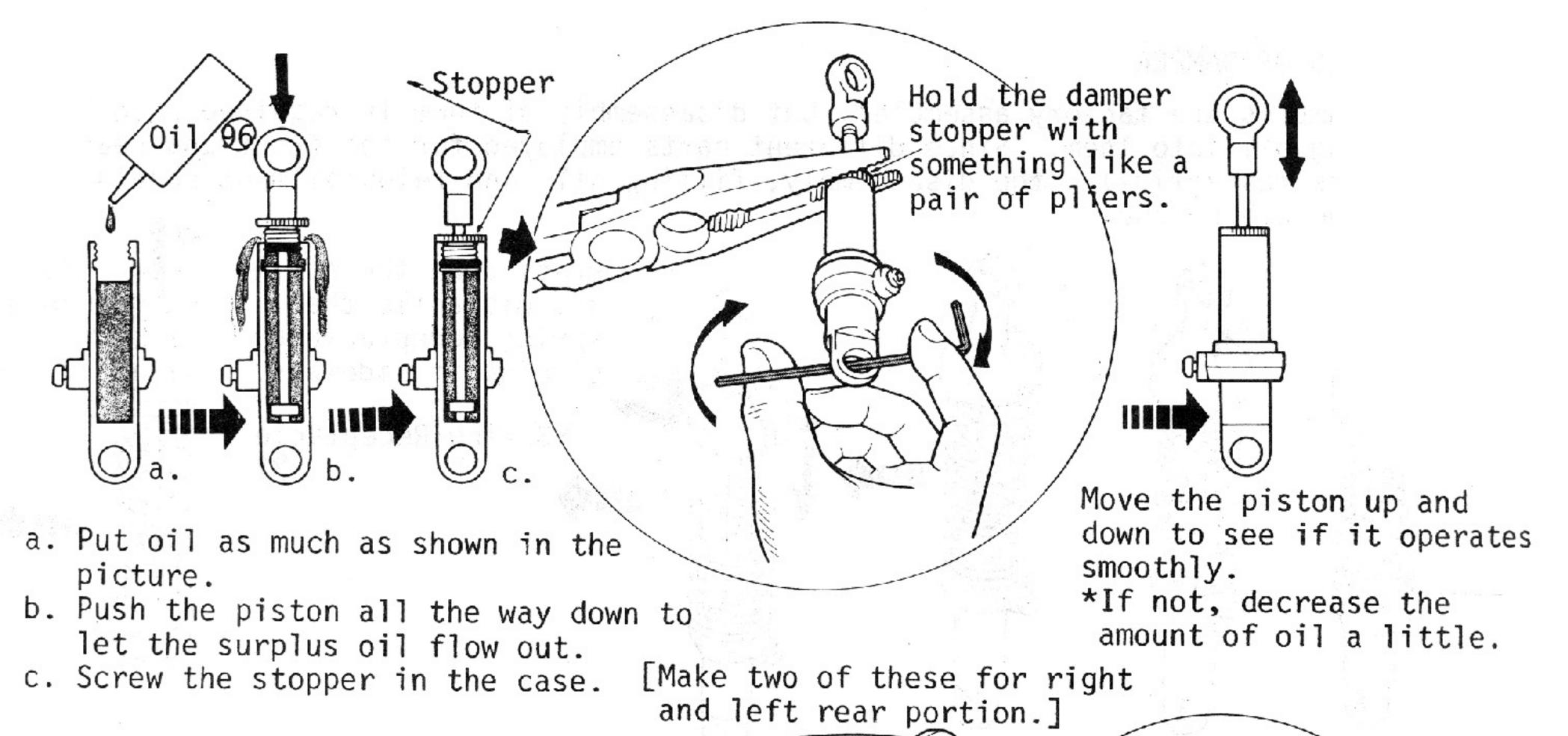


Life size scale



DETAILS OF DAMPER The dampers are factory assembled, but disassembly of them is required when filling oil into them. Since different parts employed for the front and rear dampers respectively; the disassembly, filling oil, and reinstallment should be done one by one. Press down the spring Spring and dismantle the receptacle. spring receptacle by Spring sliding it sideways. -Spring Receptacle HILL 11111 For the For the front use rear use 2 ea Spring Receptacle 2 ea Hold the damper stopper with something like à Spring a pair of pliers. Remove the damper stopper by unscrewing 0 Ring 20 Damper (2) Washer 19 Stopper Damper Piston 26 Damper Case 18 Spring Stopper 38 Disassemble the damper down to this stage. FILLING OIL INTO DAMPER Damper End Exploded View of Damper Front Spring Receptacle Rear Spring Receptacle 86 Front Rear Spring 36 Spring Stopper 2) [For the front use] 0 Ring [For the rear use] Washer 1921 Front Damper Piston 26 Rear Damper Piston 27 Damper Case (8

Spring Stopper

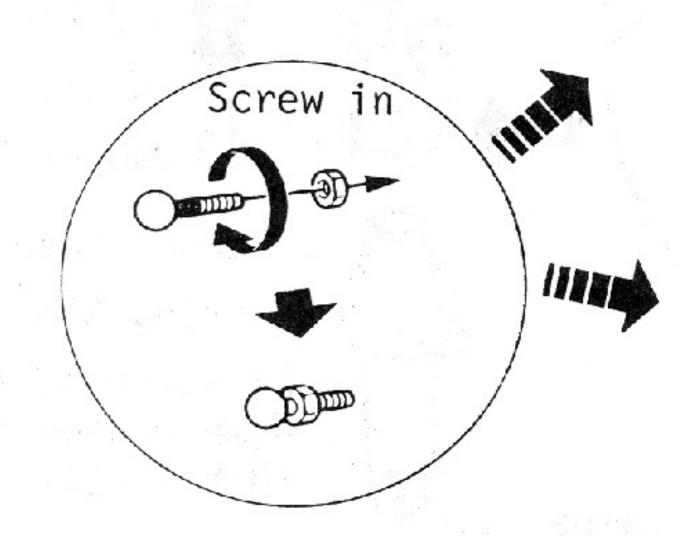


INSTALLATION OF DAMPER BALL

[Small fittings to bu used]

Damper Ball 24 ... 4 ea

(3ø Nut) 4 ea



[Make two of these for right and left front portion

Damper Ball

Rear Sus. Arm 15

Tighten the 3 mm nut with a wrench or pliers to fix the damper ball.

TIPMAD OTNIC CELL

Damper Ball 24

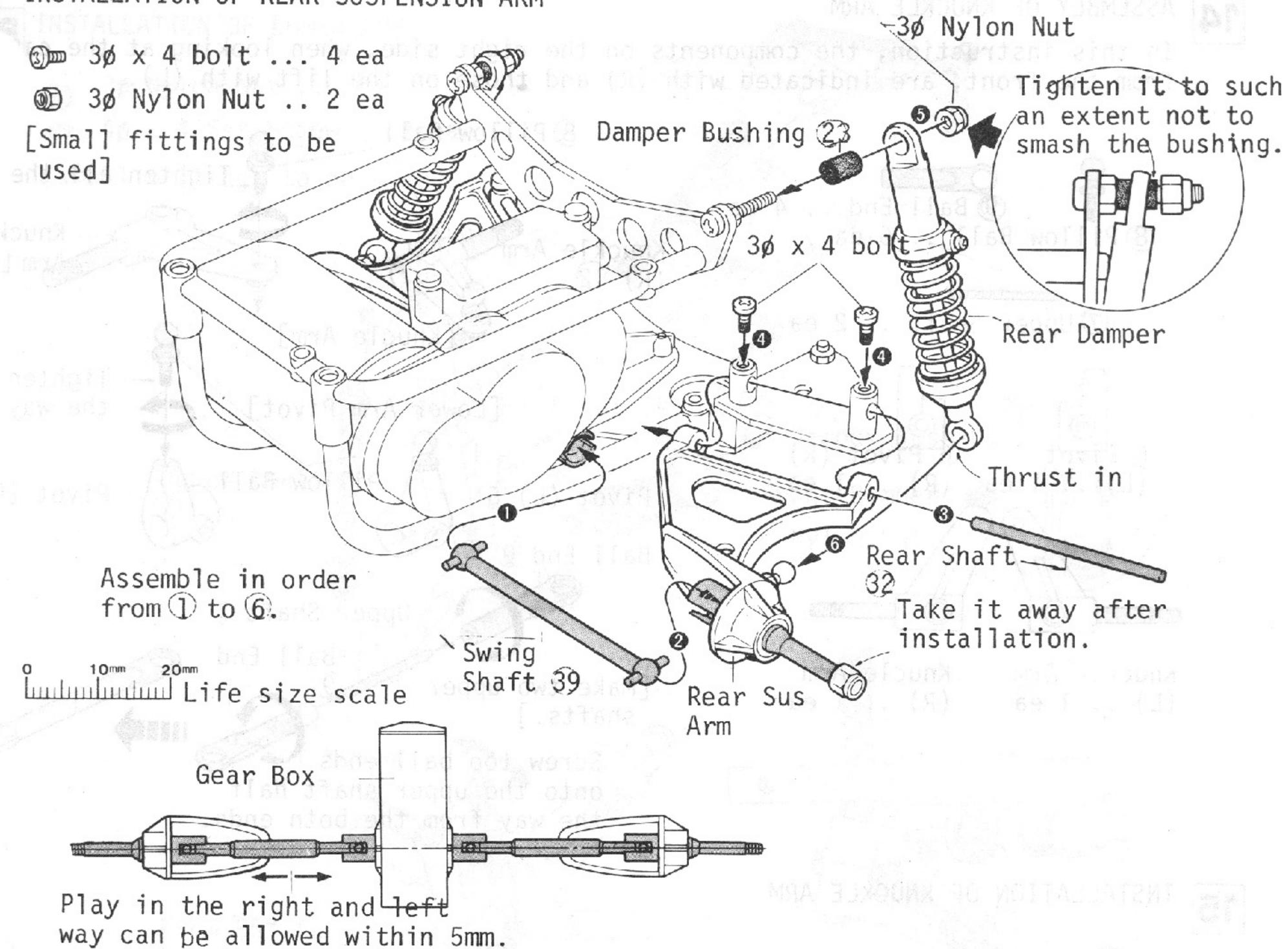
INSTALLATION OF REAR WHEEL SHAFT

This nut should be tight not to excess, but in such a degree sufficient enough to hold the rear wheel in place.

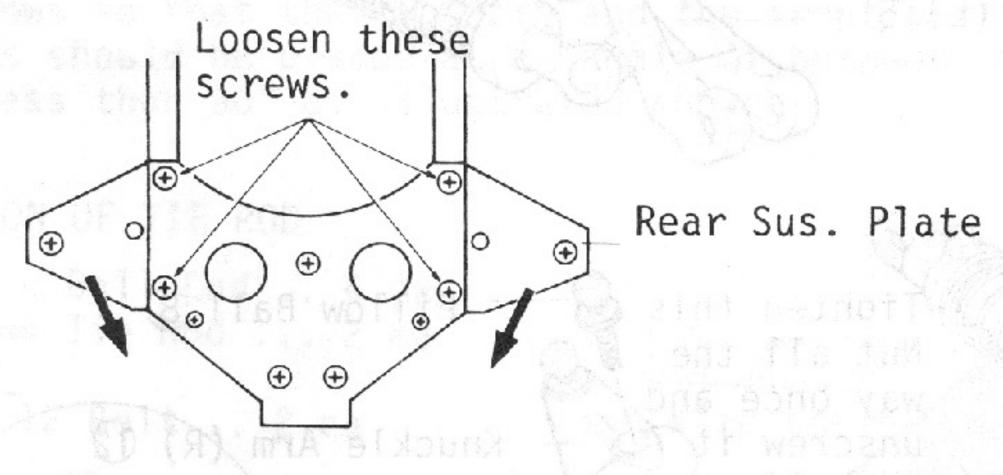
40 Nylon Nut

Rear Wheel Shaft 40





Check whether or not there is play over 5mm in crossways when the swing shafts are kept to be horizontal as shown in the drawing. Excessive play may get the swing shafts out of place. It can be adjusted in a way as shown in the below picture.



Set it with some play so that

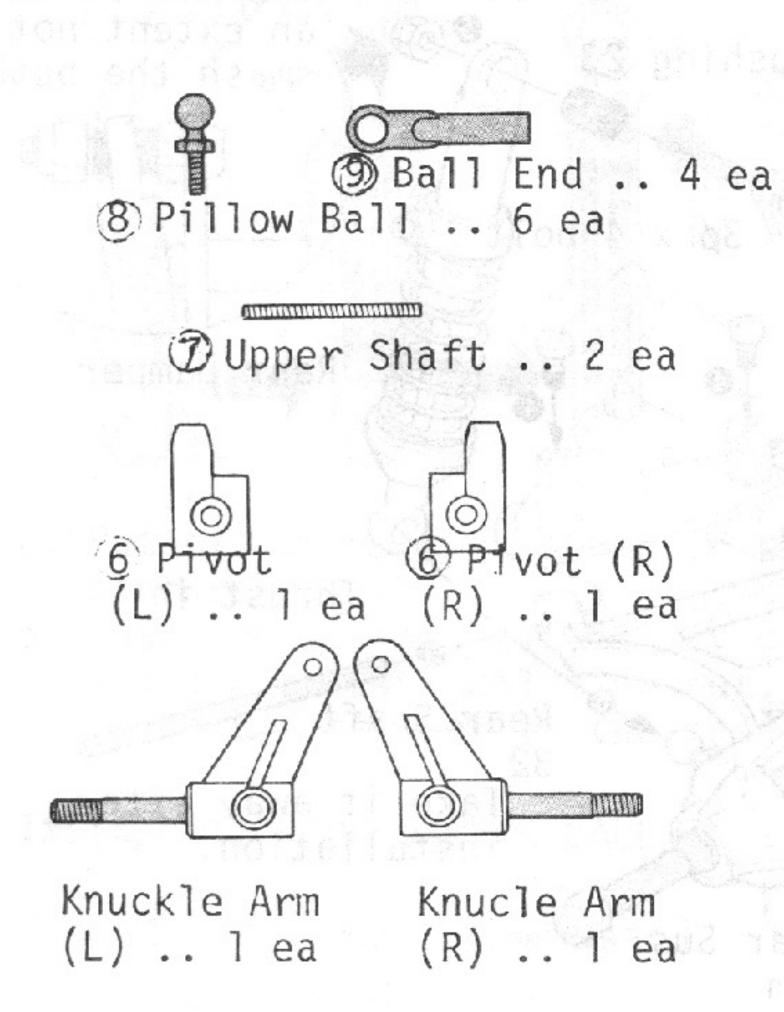
the sed a syon (Fiwhship inquestion

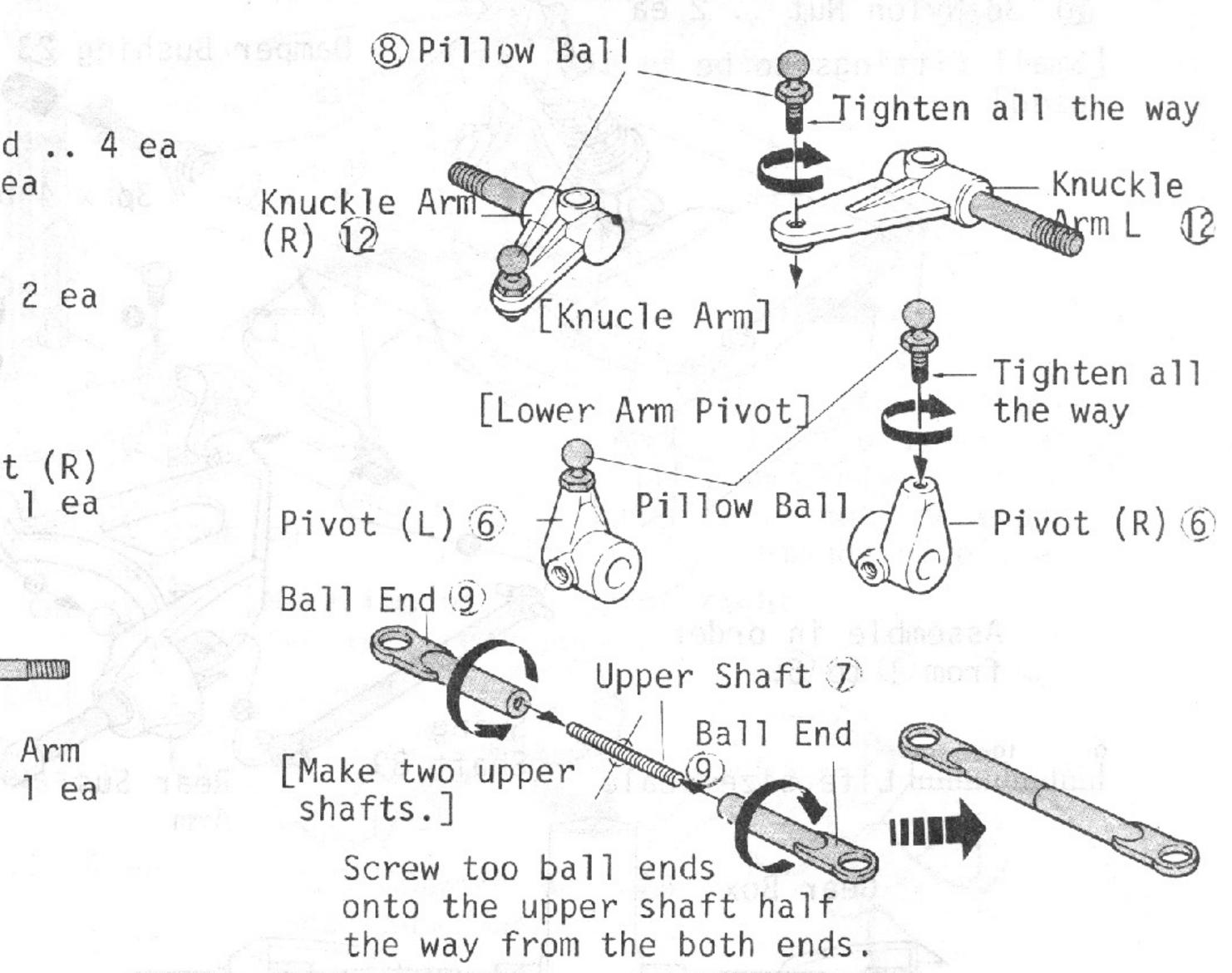
the axial way without binding.

Loosen the four screws fastening the rear suspension of plate, tighten the screws firmly while pushing the rear suspension plate toward the direction pointed by the arrows. When the rear suspension plate getting loose, the swing shafts may come off from the sockets.

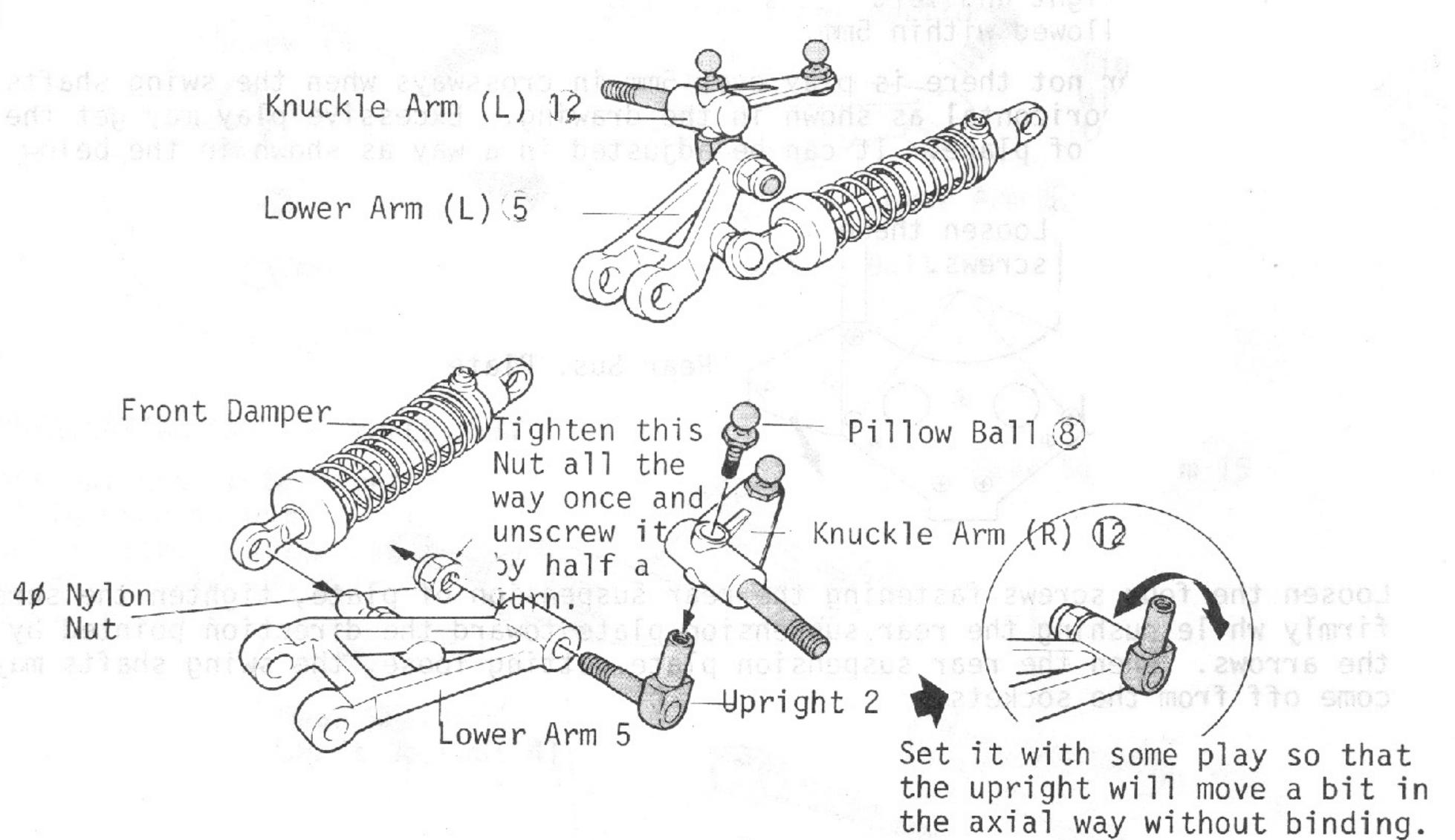
ASSEMBLY OF KNUCKLE ARM

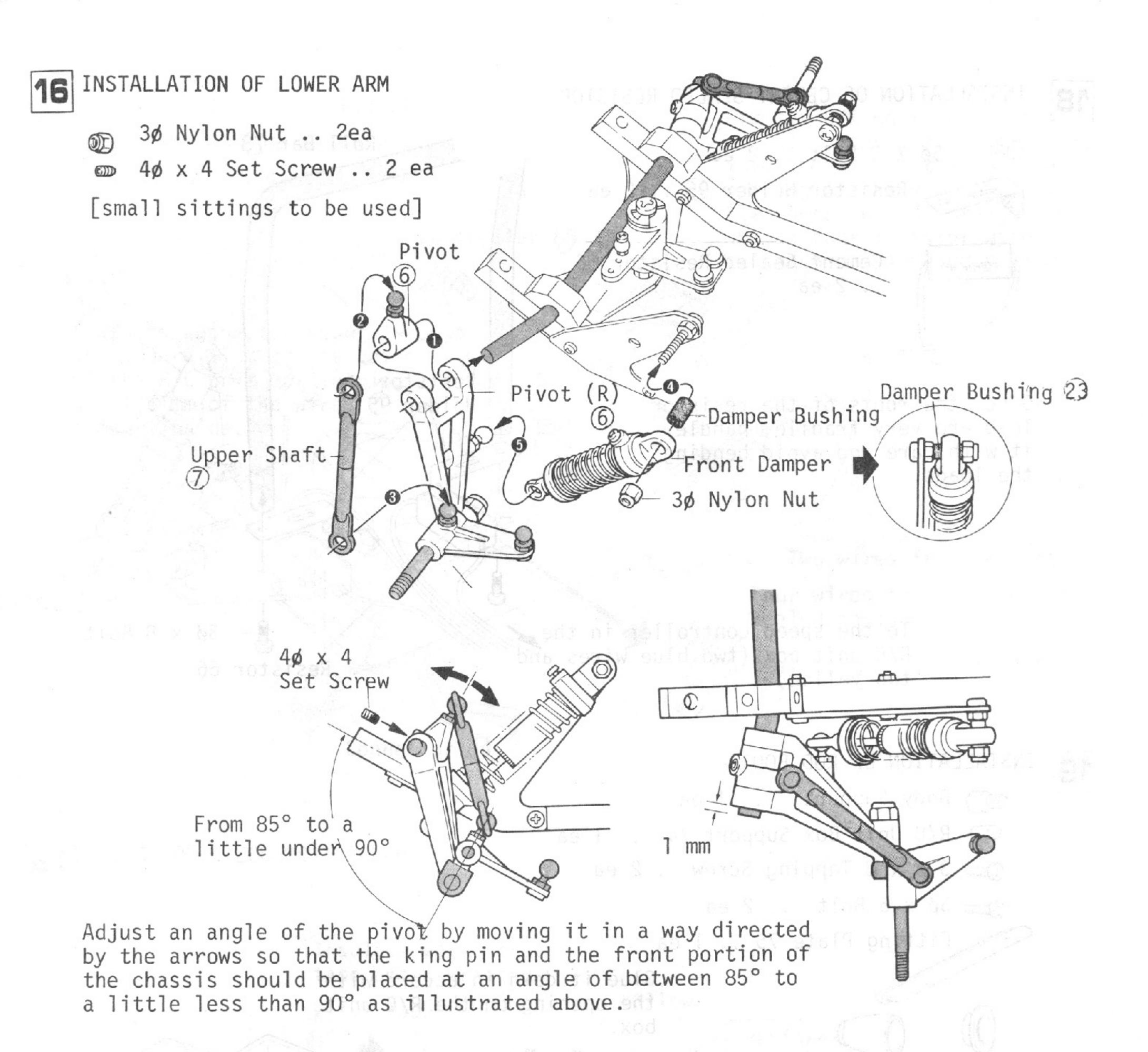
In this instruction, the components on the right side, when looking at the car from the front, are indicated with (R) and those on the lift with (L).

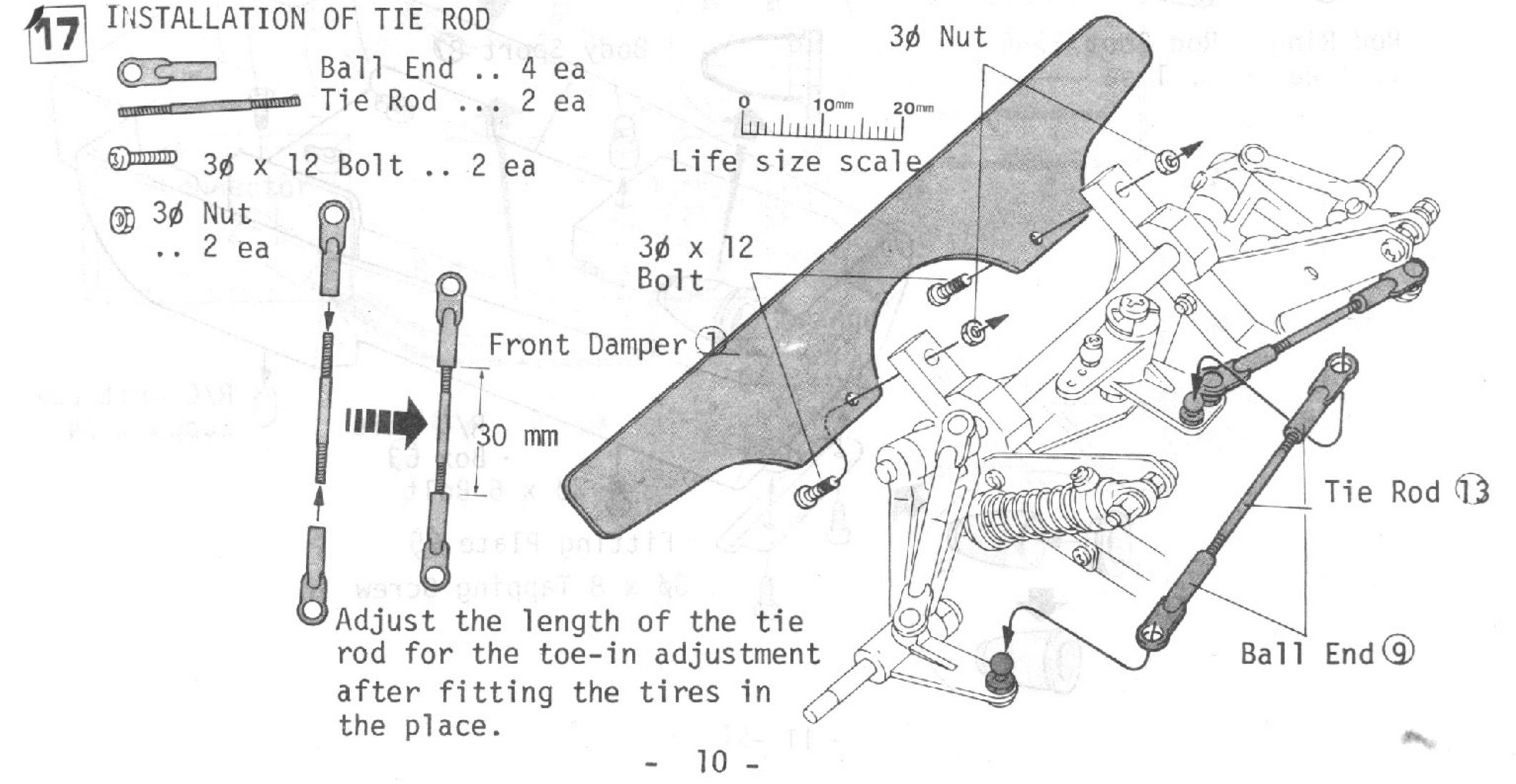


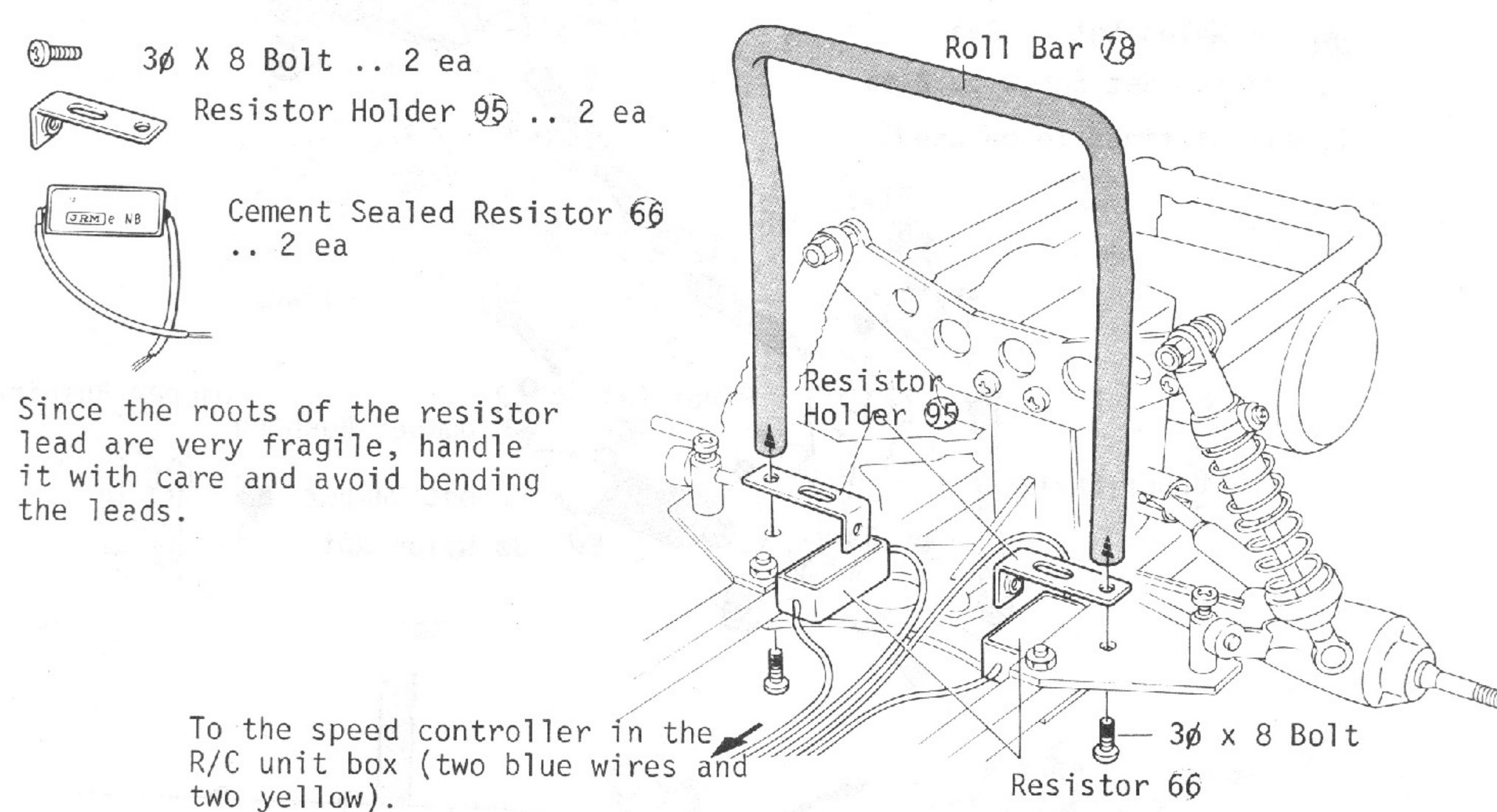


INSTALLATION OF KNUCKLE ARM





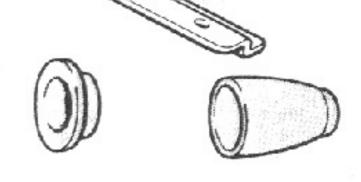






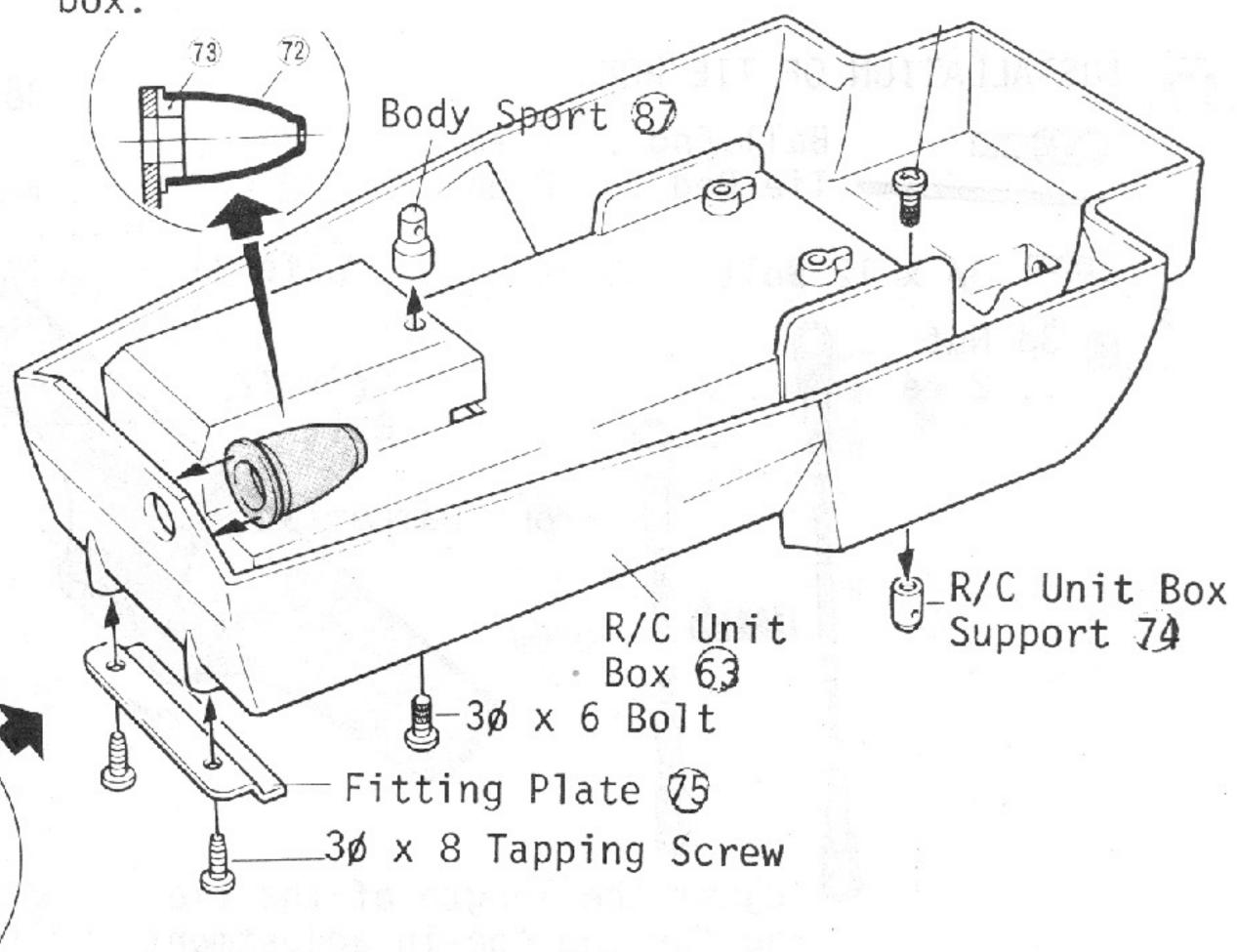
- 回 Body Support .. 1 ea
- R/C Unit Box Support 74 .. 1 ea
- 3 p x 8 Tapping Screw .. 2 ea
- ③ 3ø x 6 Bolt .. 2 ea

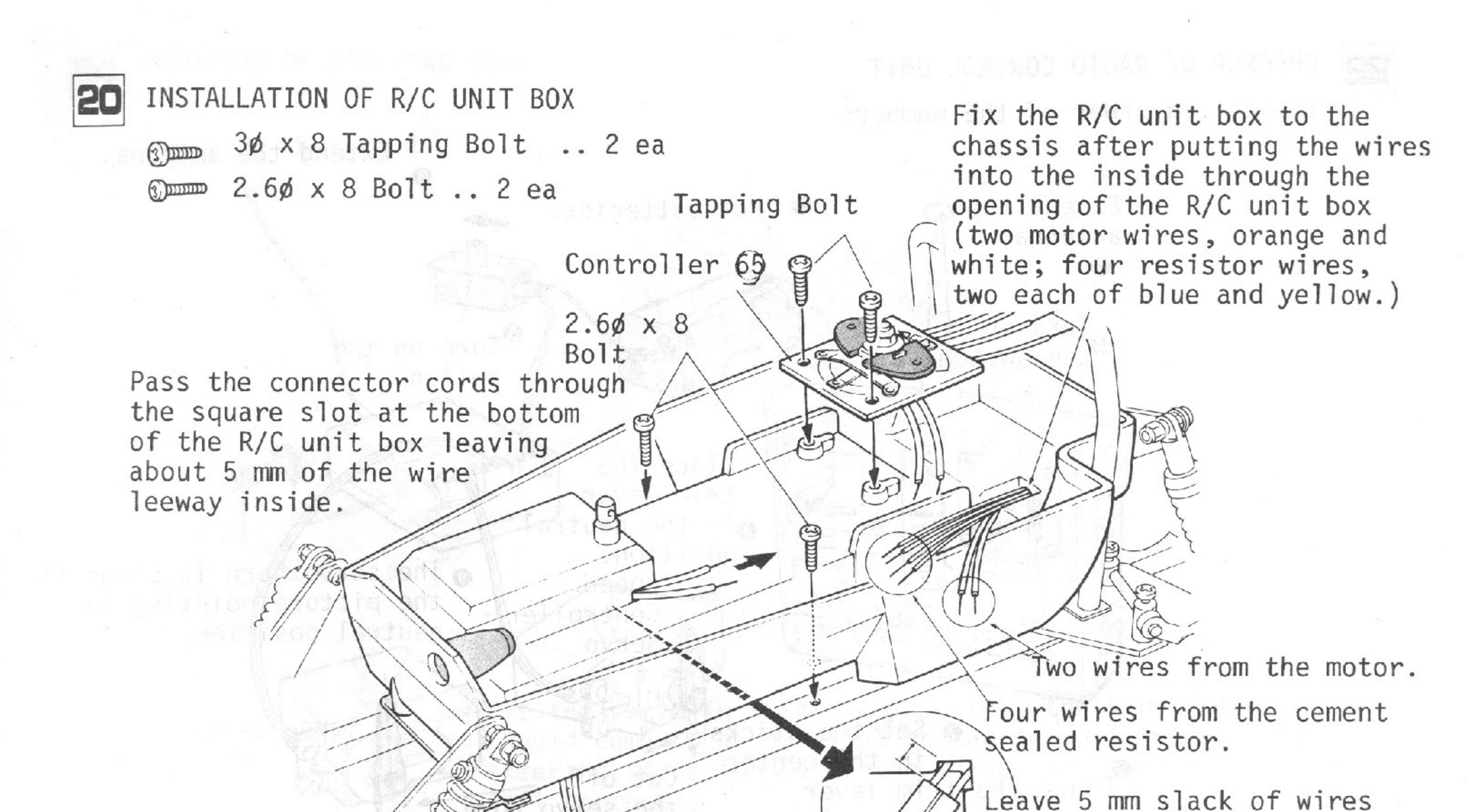
Fitting Plate 75 .. 1 ea



Rod Ring Rod Boot
.. 1 ea .. 1 ea

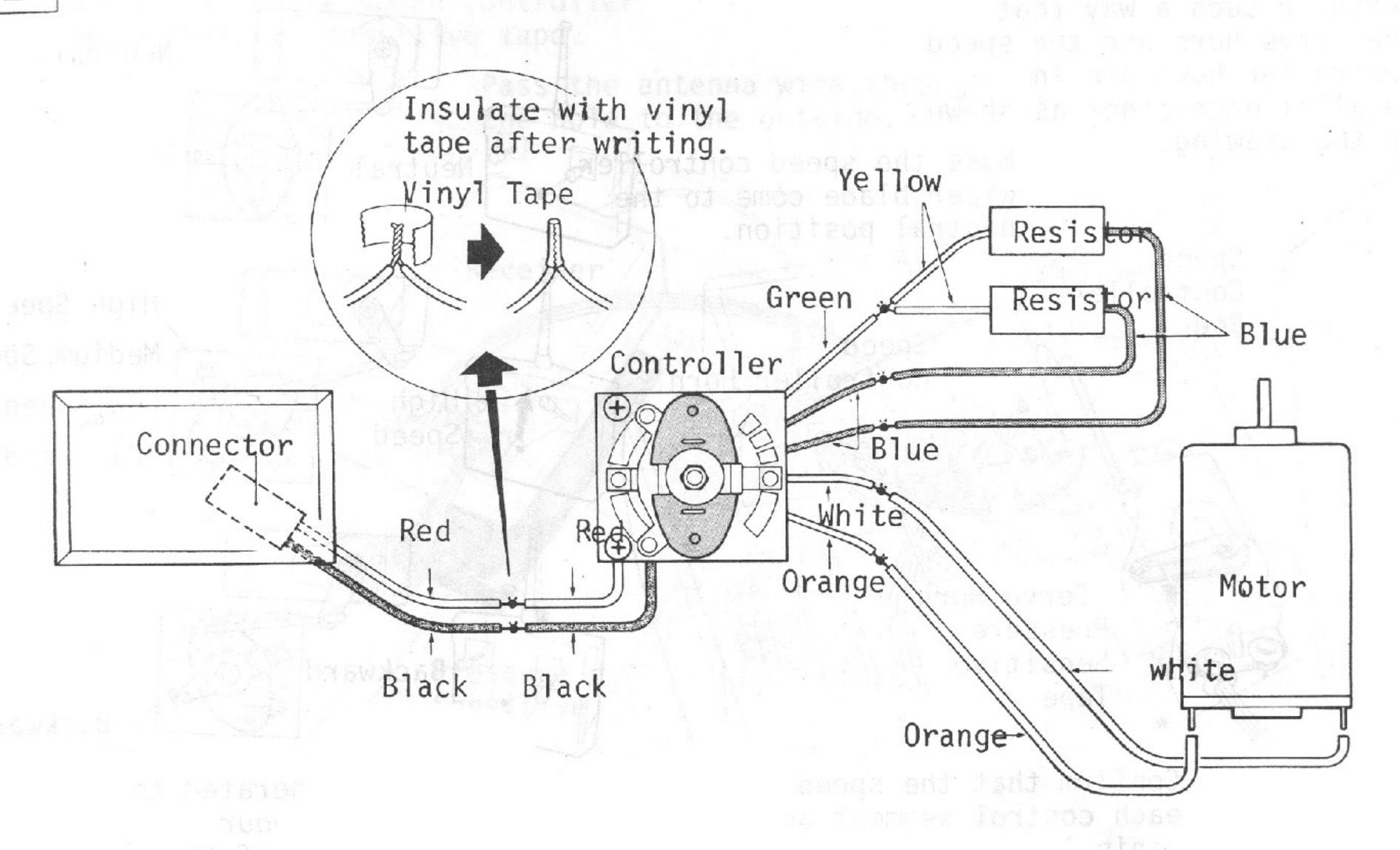
Glue it down in accord with the opening on the R/C unit box.



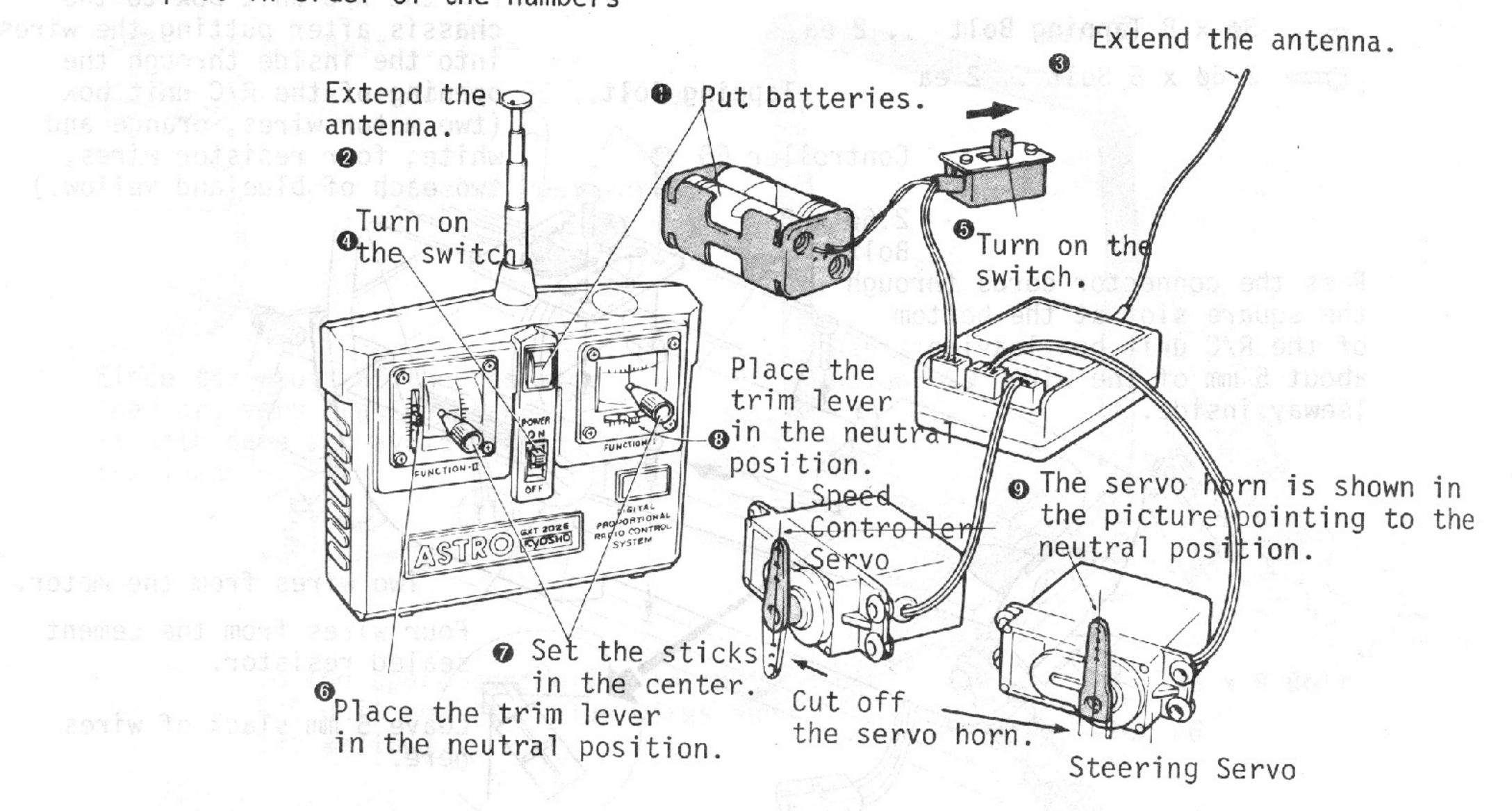


here.

21 WIRING DE SPEED OCNTROLLER



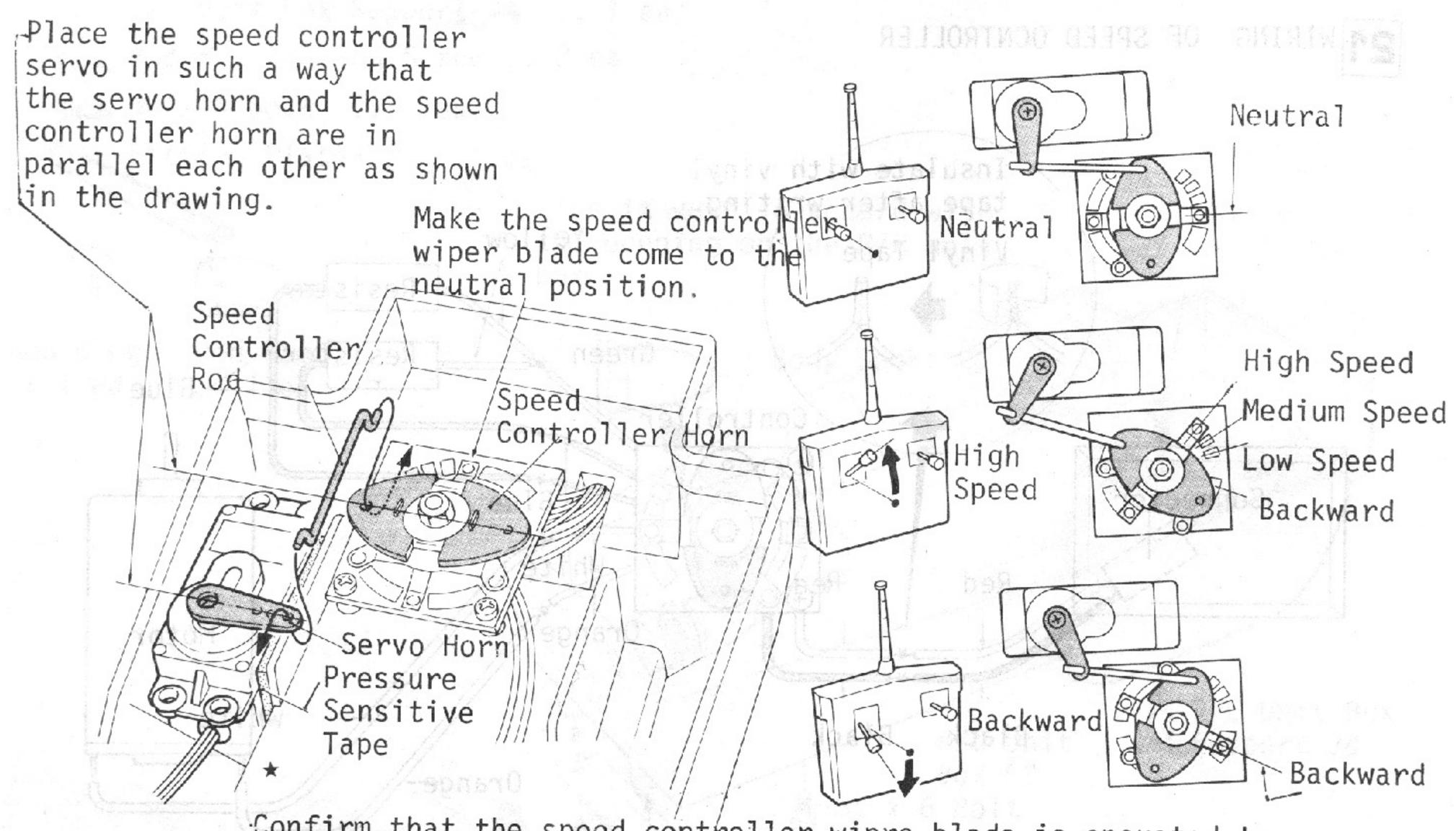
Connector 94



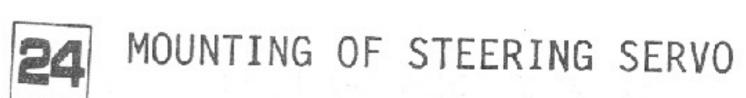
тојозниоб

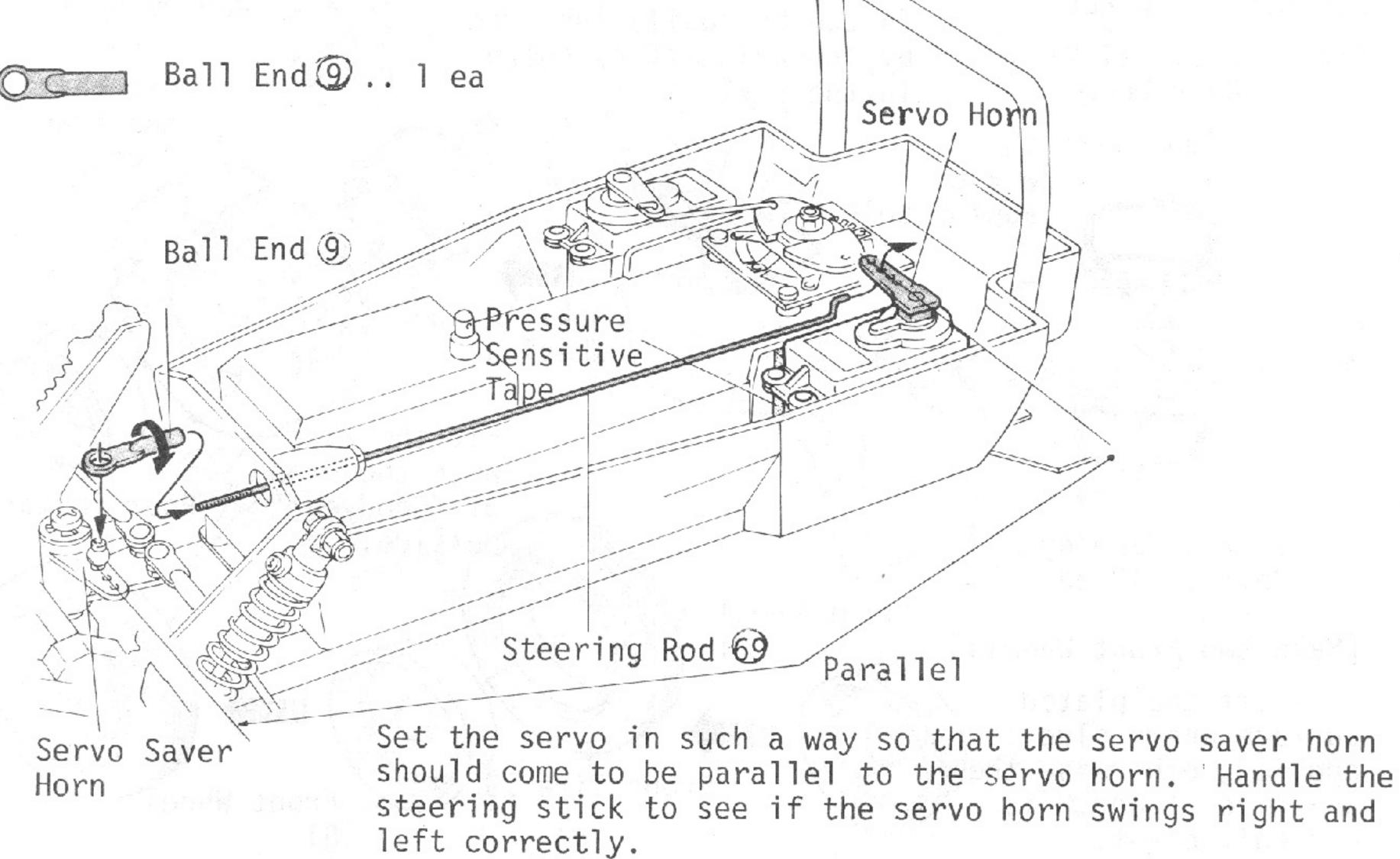
23

MOUNTING OF SPEED CONTROLLER SERVO



Confirm that the speed controller wipre blade is operated to each control segment accurately in accordance with your manipulation of the radio control transmitter stick of the speed control.

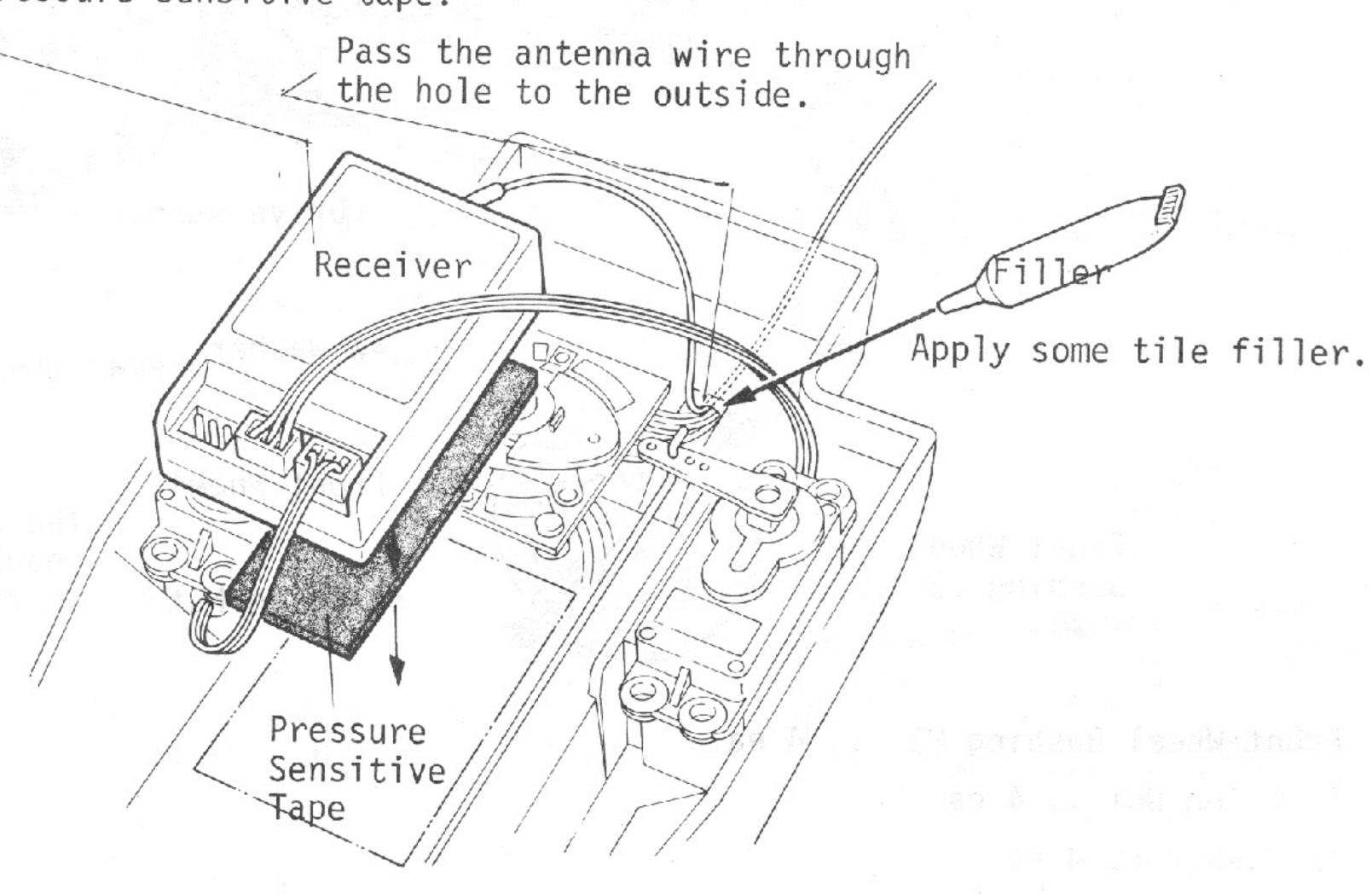


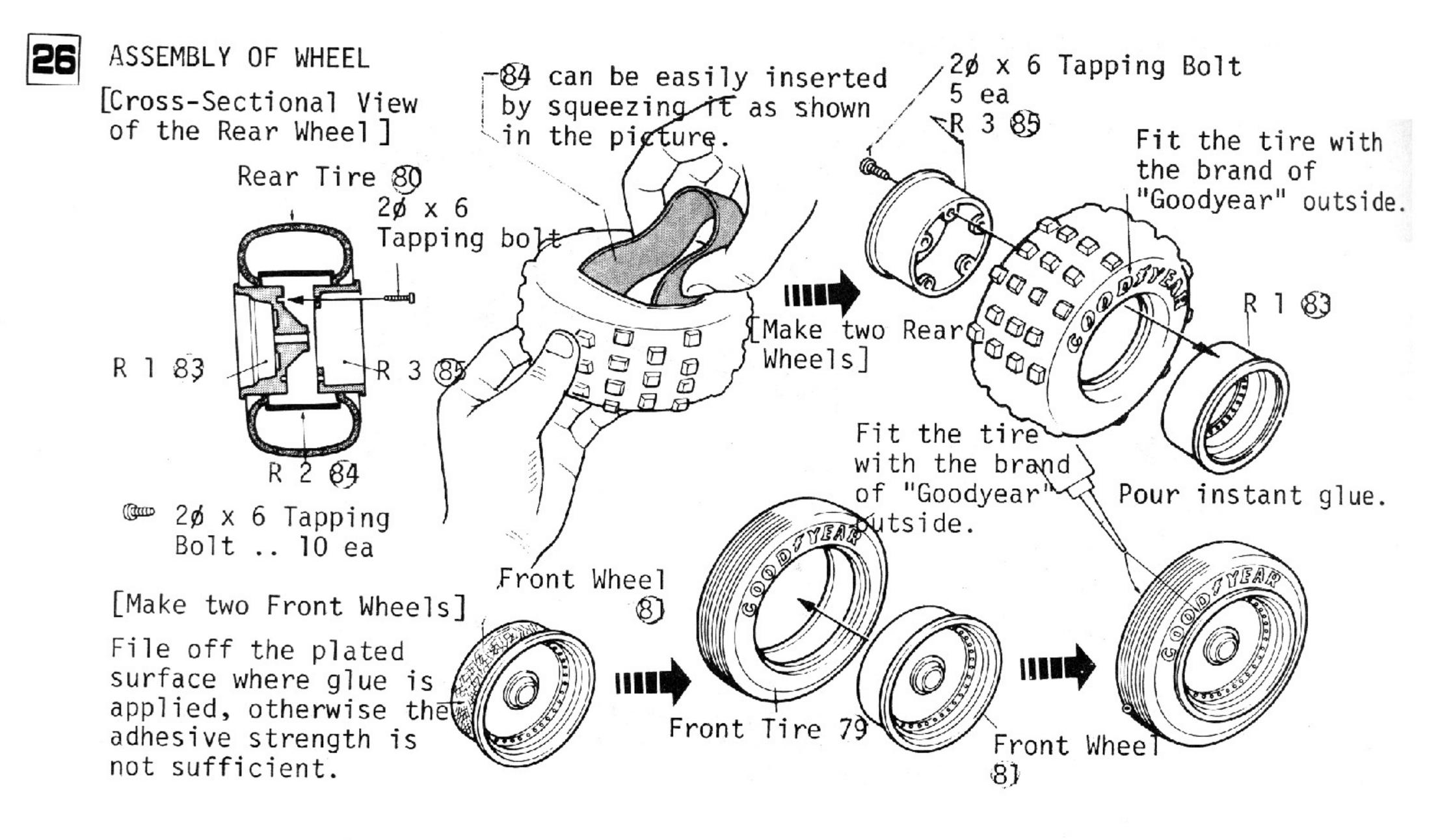


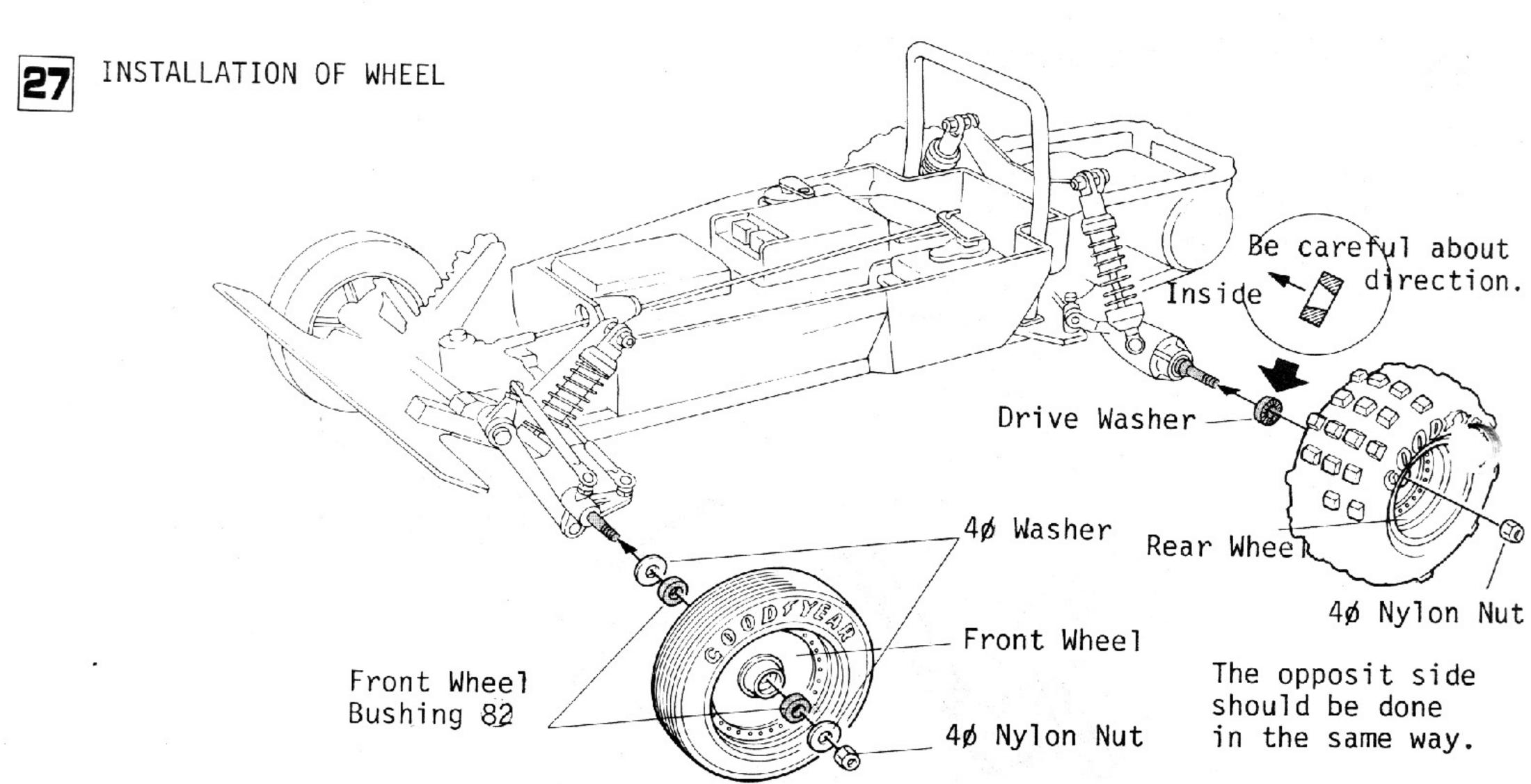
25

MOUNTING OF RADIO CONTROL RECEIVER

Fix the receiver in a place as close as to the speed controller with pressure sensitive tape.

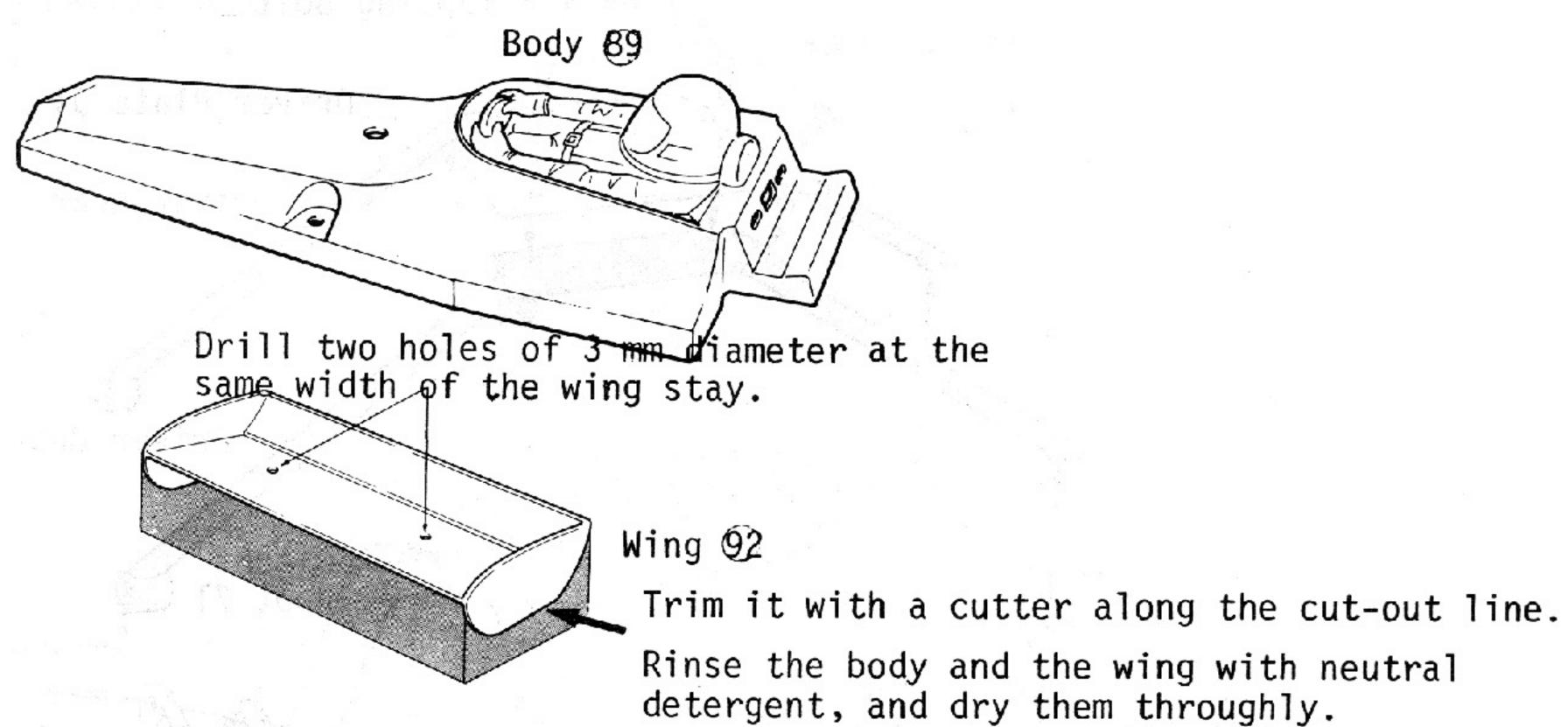






- Front Wheel Bushing 82 .. 4 ea
- 4ø Nylon Nut .. 4 ea
- © 4ø Washer .. 4 ea
- © Drive Washer 42 .. 2 ea





29 PAINTING OF BODY

*Polycarbonate bodies can be finished to be lustrous when painted on the inside. So if you like to make the whole body glossy, paint it all inside. When you want to have partly flat finish, paint the area on the out side. when you apply many colors, put the lightest color first, then to darker colors.

Masking is recommended to avoid color bolt, using something like the Micro-Line-Tape.

Wing should be also painted inside.

1. Paint the driver doll with any colors you like. If you find it hard to paint it inside, you may paint it outside and having flat finish.

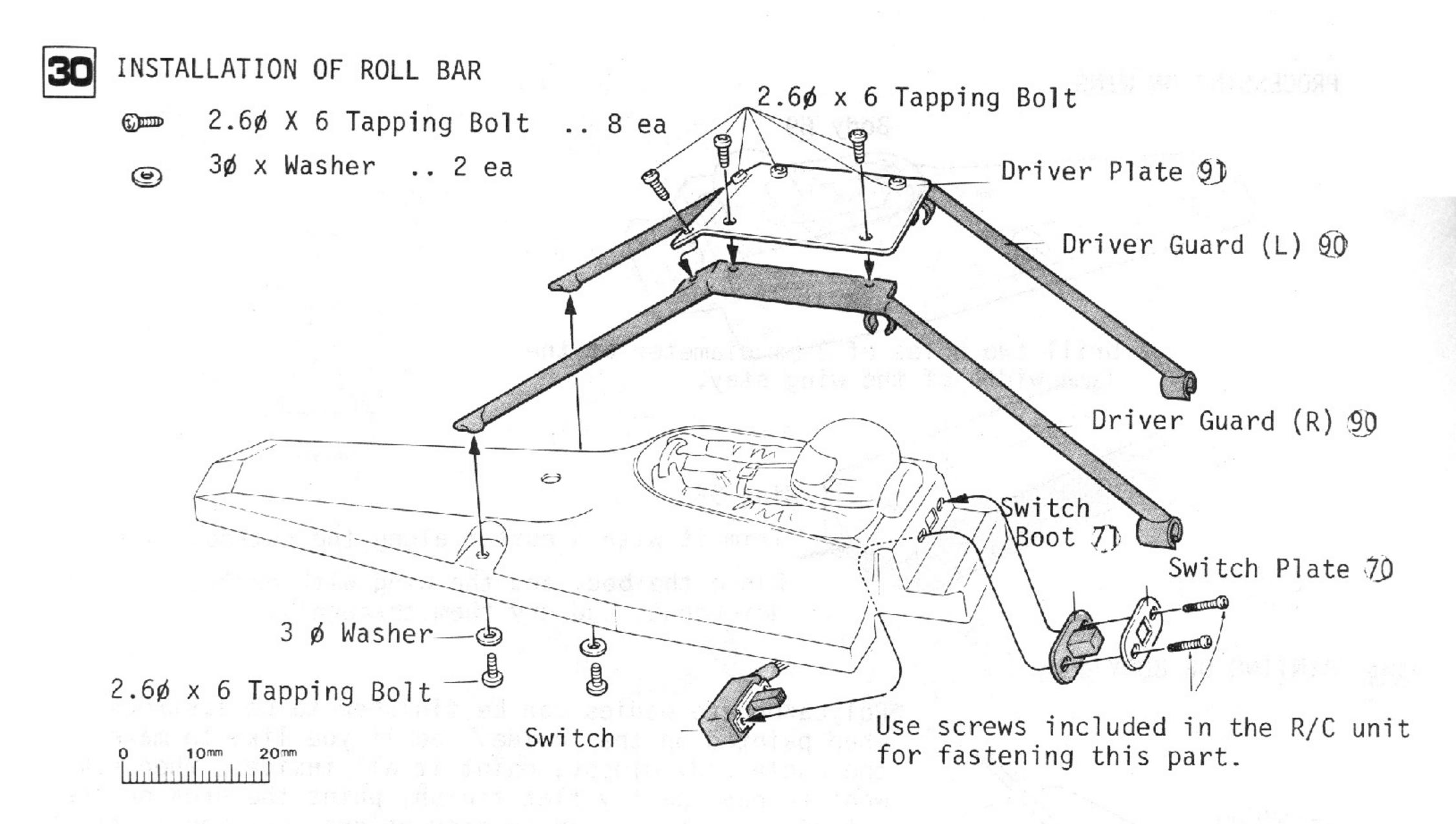
Wind Stay 93

1668 SIN AC

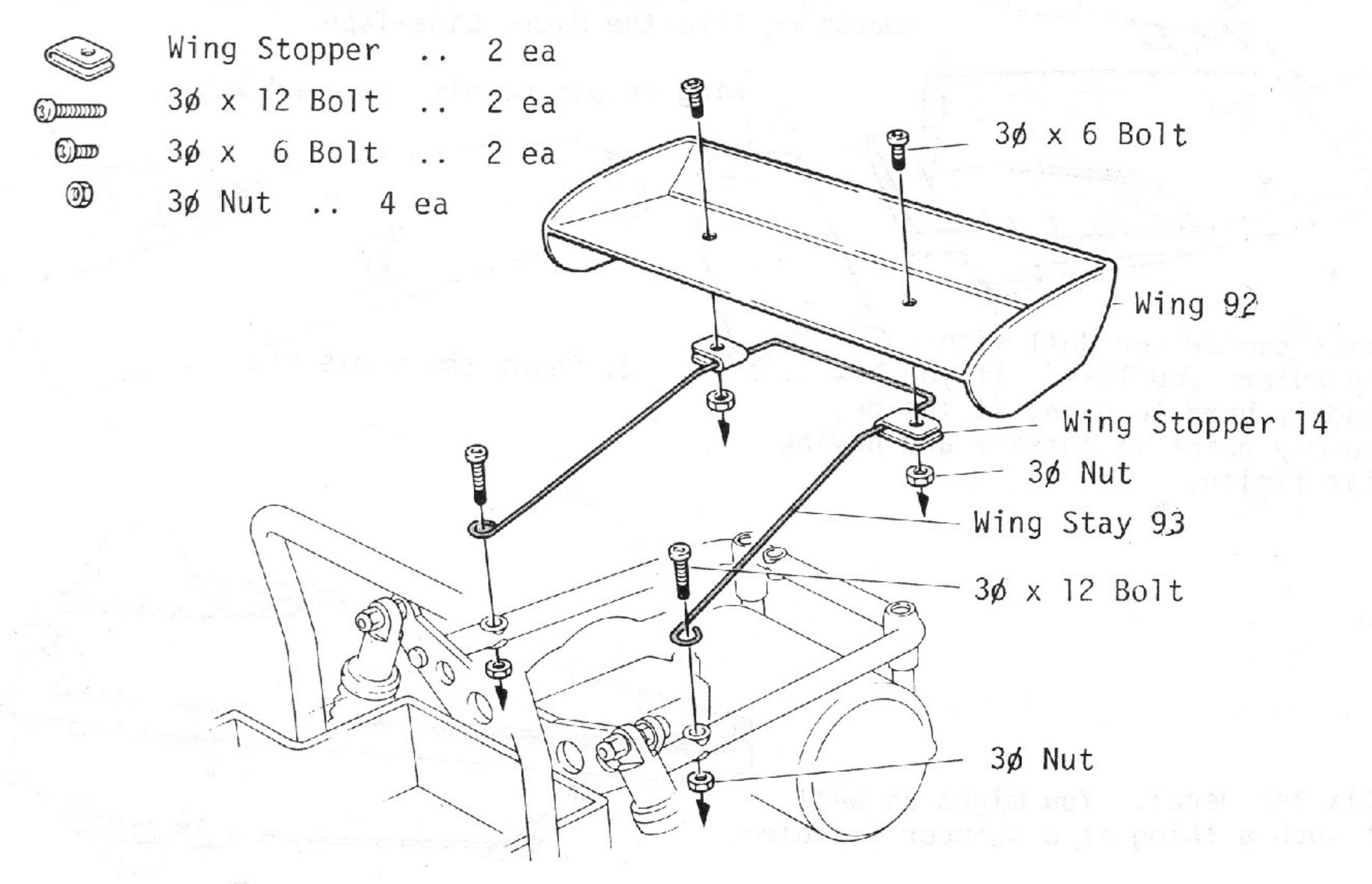
2. Paint the whole body.

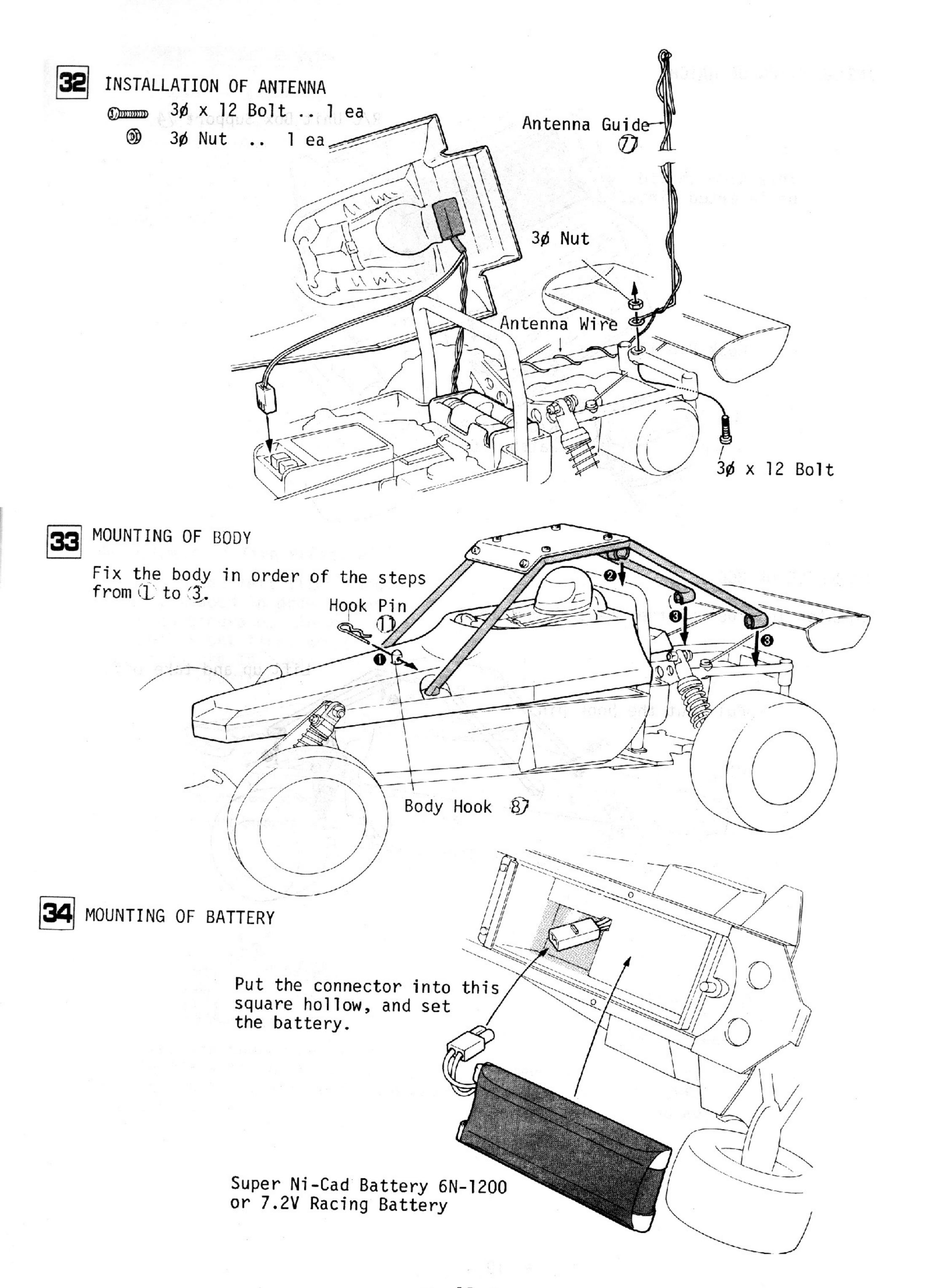
6

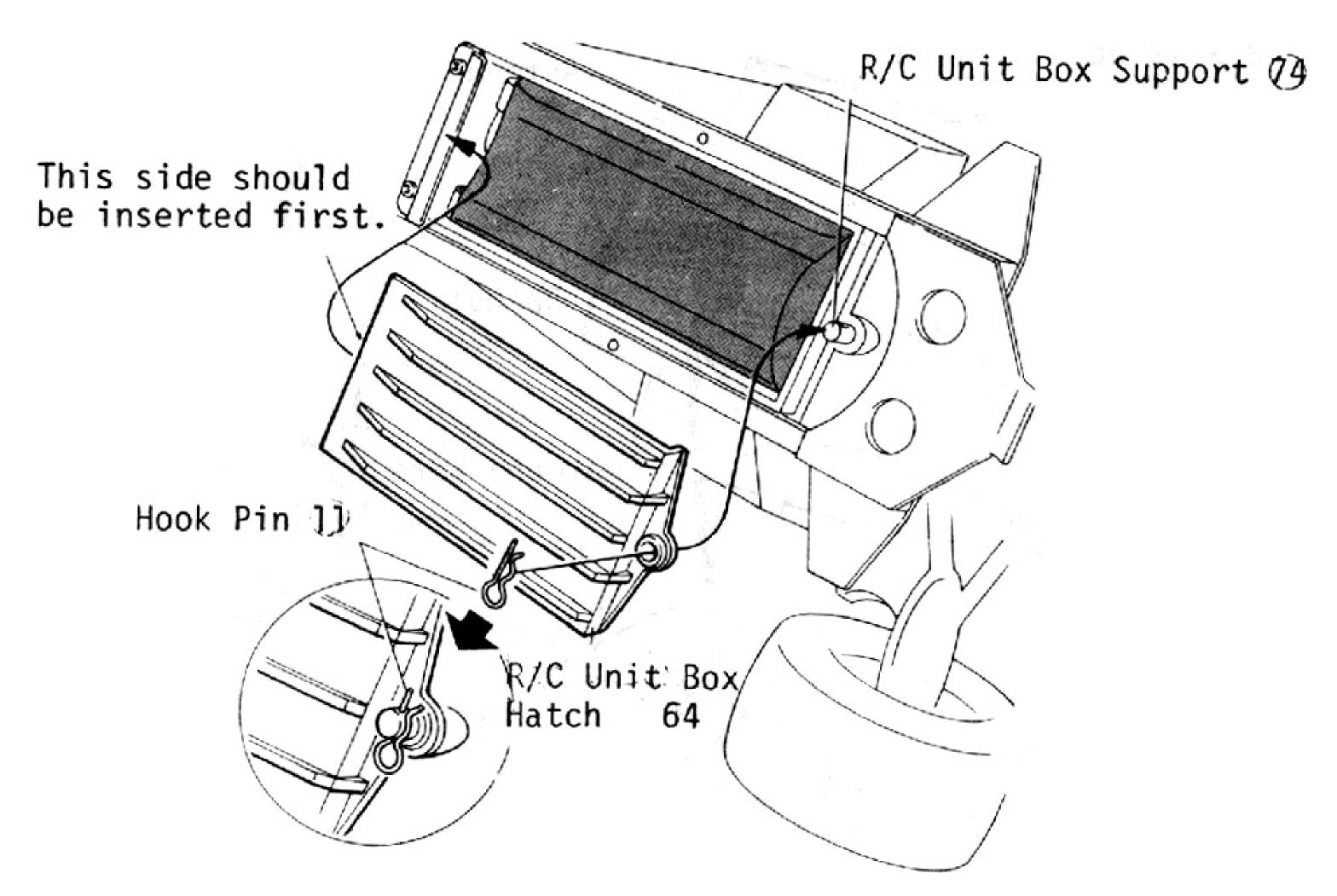
3. Affix the decal. You might as well put such a thing as a sponcer's emblem.



31 INSTALLATION OF WING



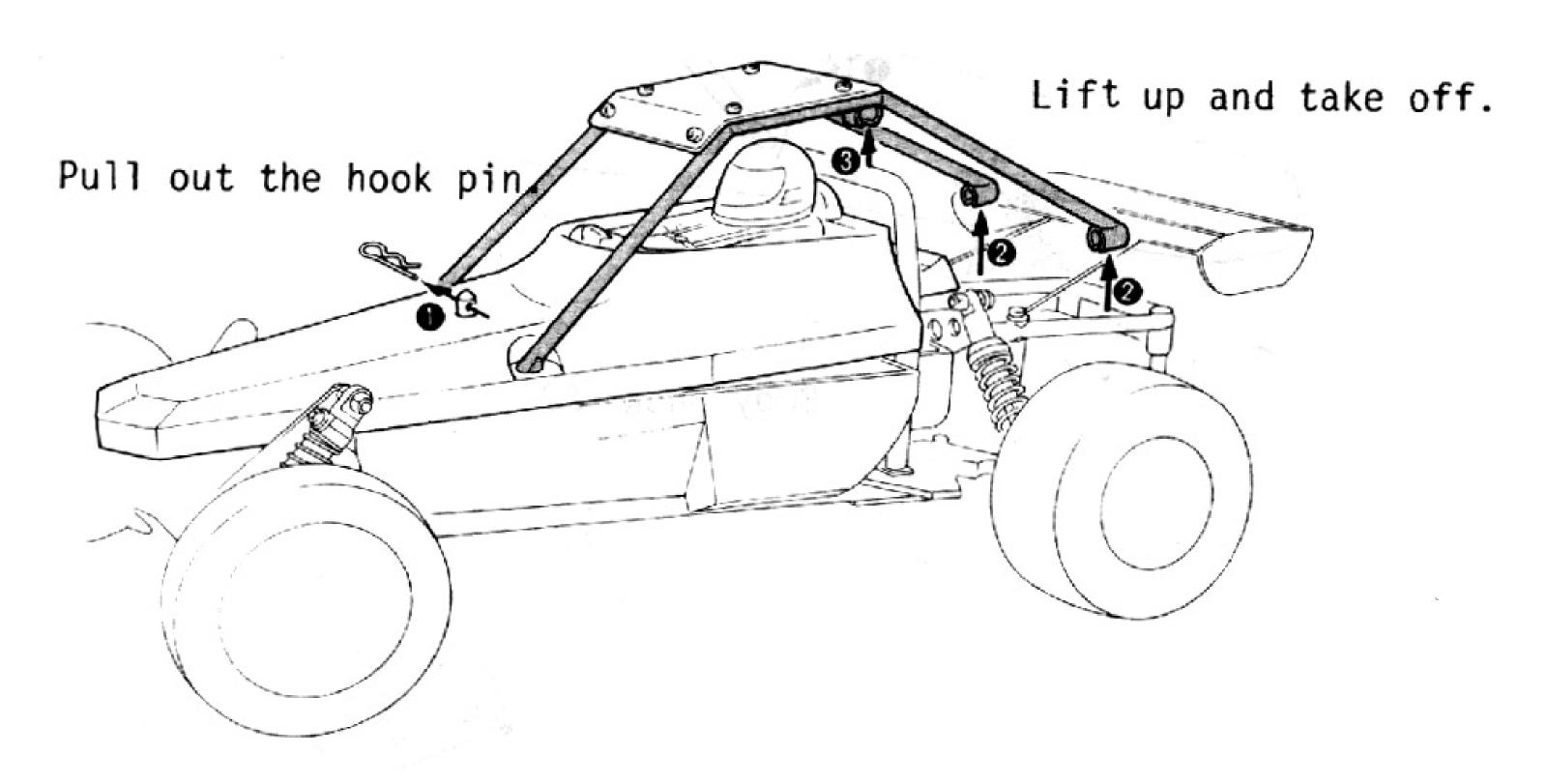




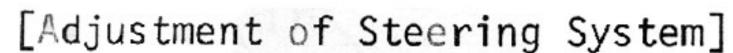
36

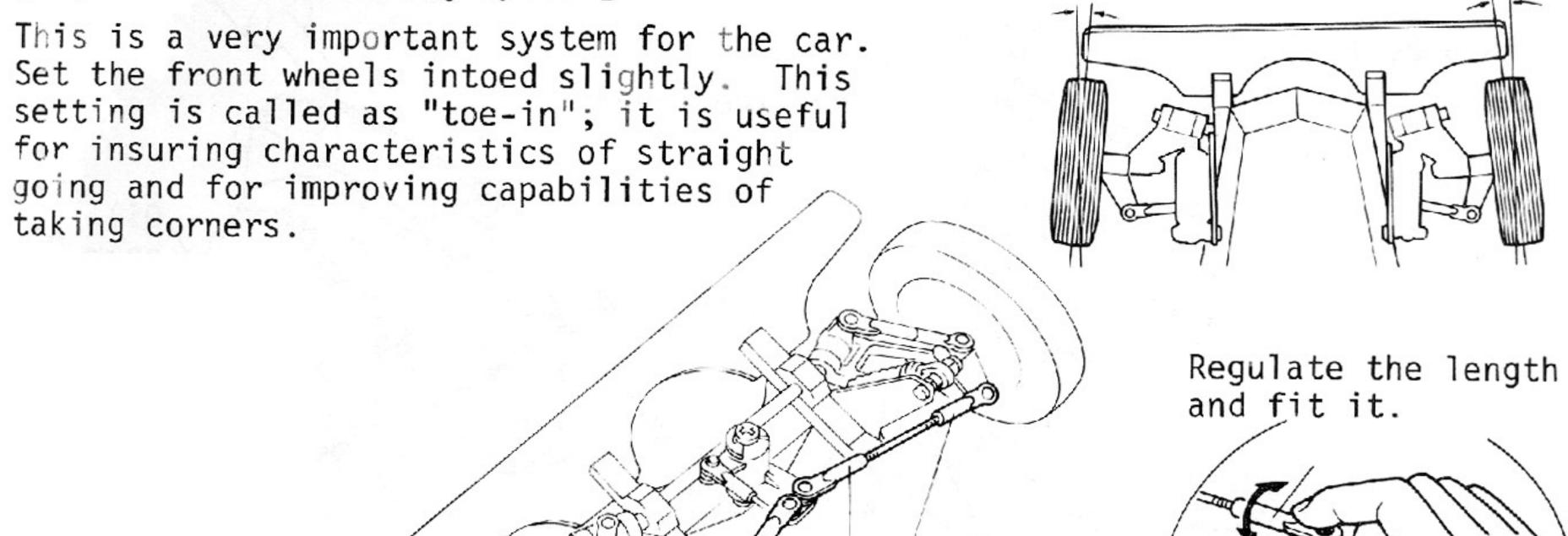
DISMANTLE OF BODY

Unfasten in order of the steps from 1 to 3.



ADJUSTMENT BEFORE RUNNING

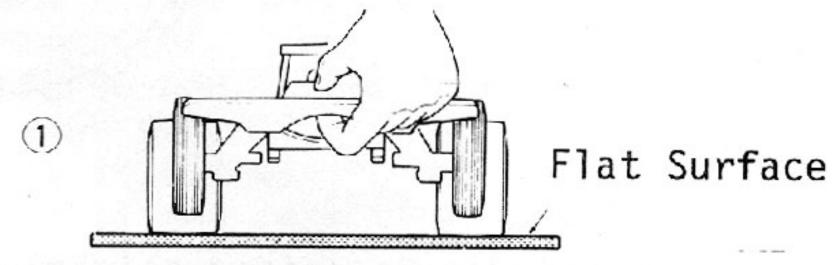




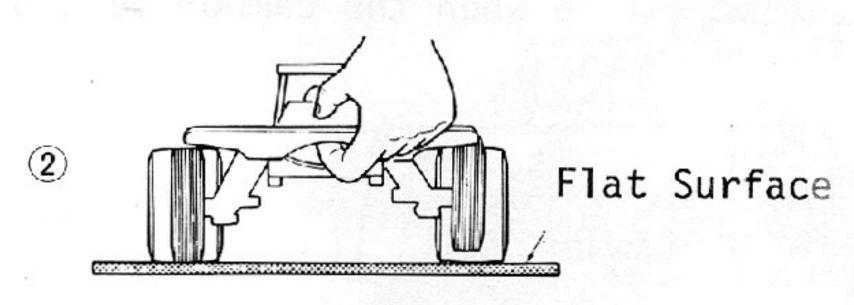
Adjust the neutral and toe-in setting with four ball fitted adjusters of the control rods.

[Adjustment of Tire Pressure]

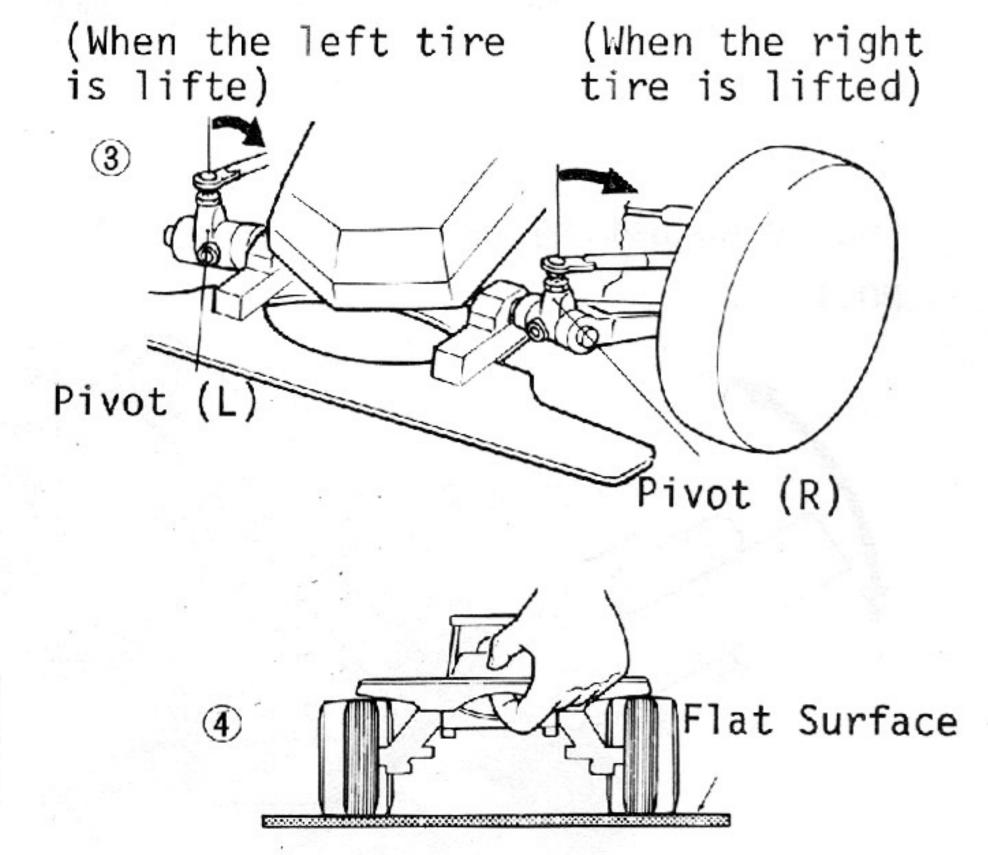
*The right and left tires should be equally loaded in order to assure the balanced steerage. Arrange it so that the both front tires are put upon the same pressure in a way as shown in the following drawings.



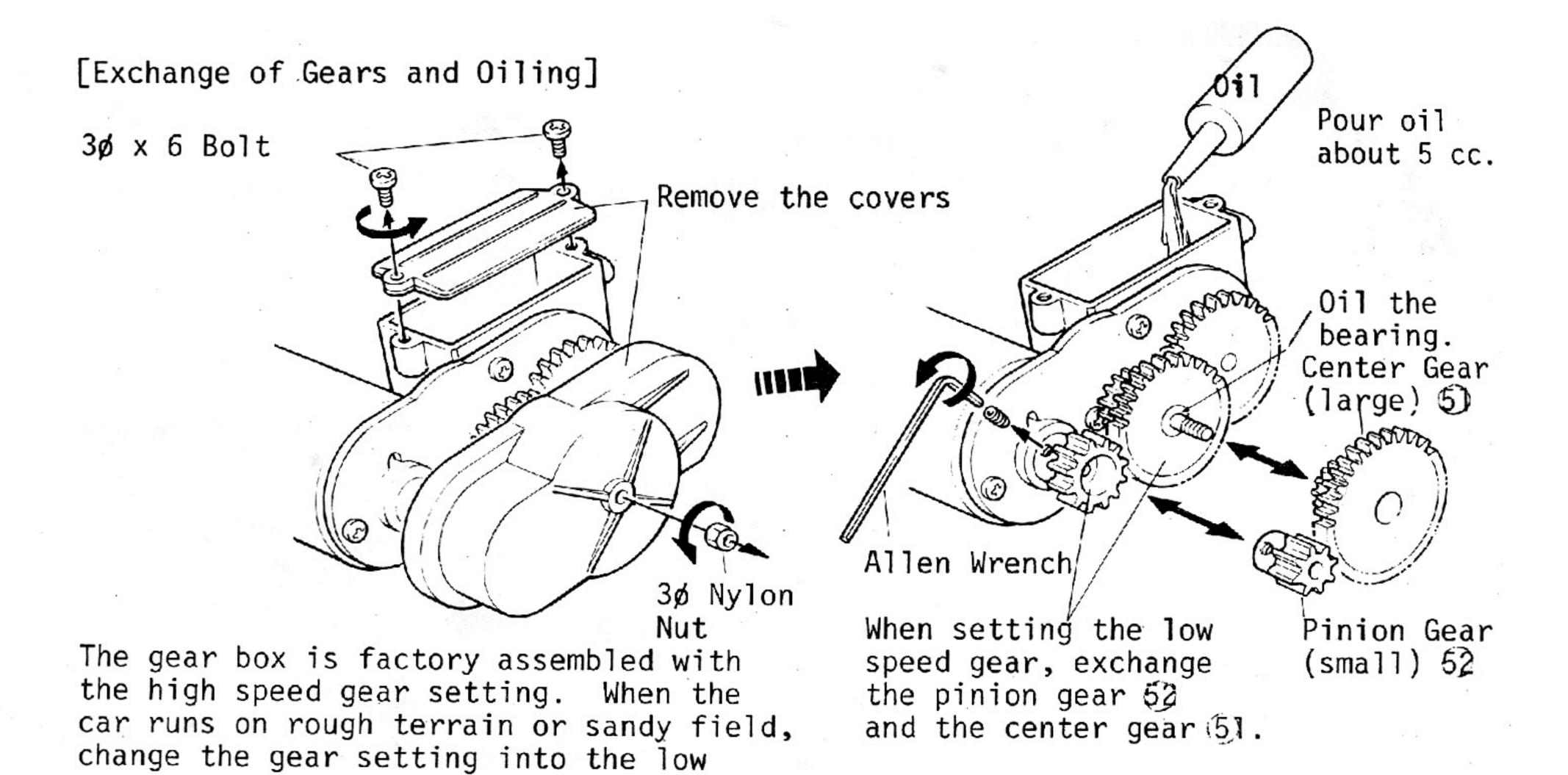
Raise the front bumper with your finger.



Then lower the bumper gently to see if the both tires touch the surface at the same time. If not, more adjustment is required. As shown in the picture ② where the right tire is still afloat in the air, move the pivot (R) toward the rear end of the car little at a time. When the left tire does not touch the ground, shaft the pivot (L) rearward.



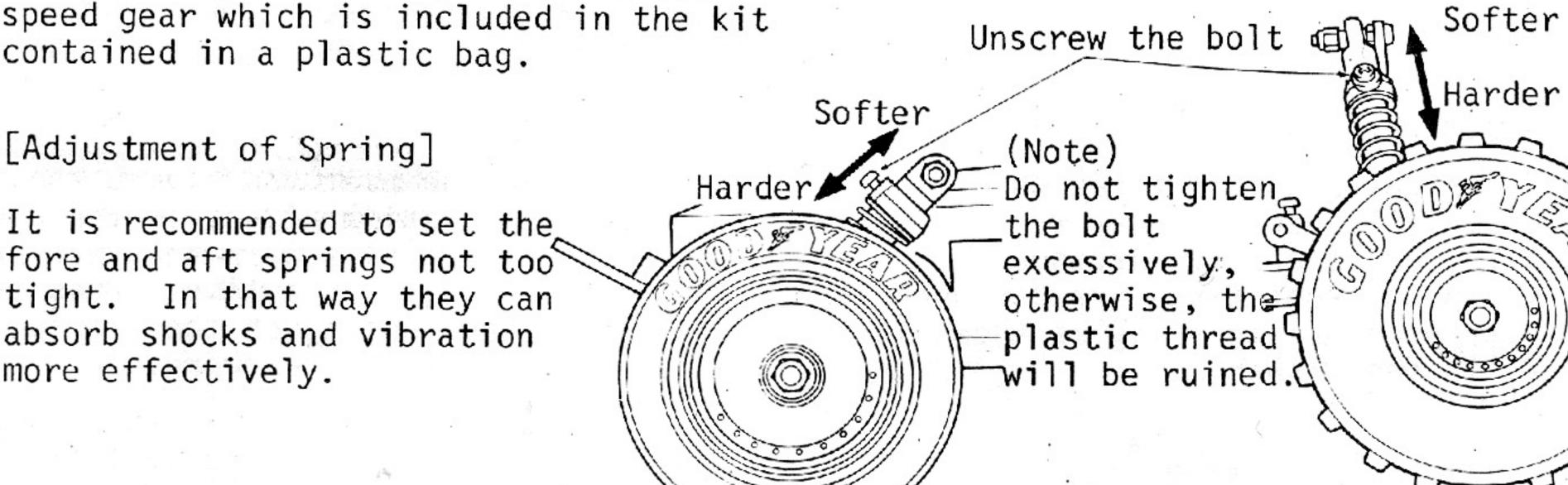
When the both front tires are in touch with the flat surface at the same time, they are in good adjustment.

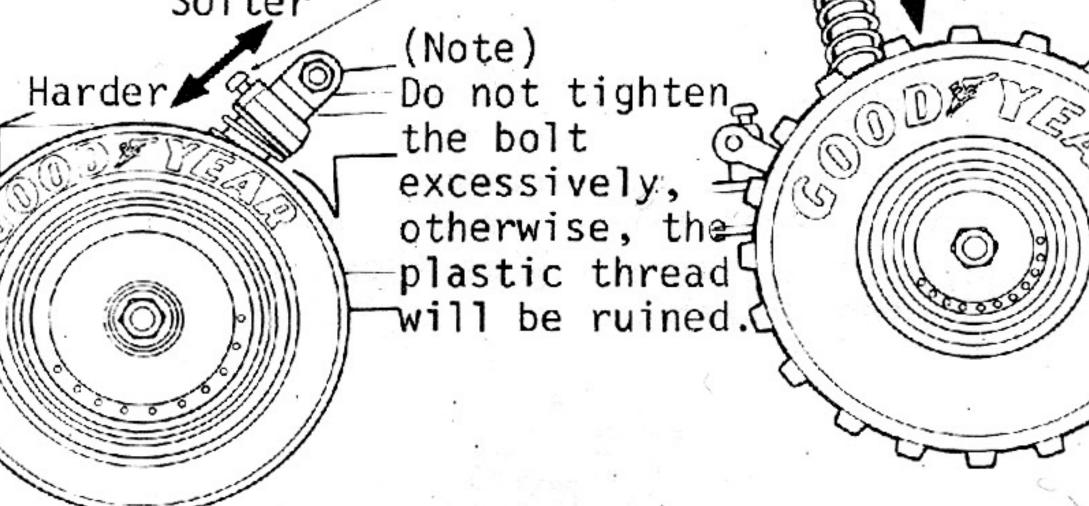


[Adjustment of Spring]

It is recommended to set the fore and aft springs not too tight. In that way they can absorb shocks and vibration more effectively.

contained in a plastic bag.

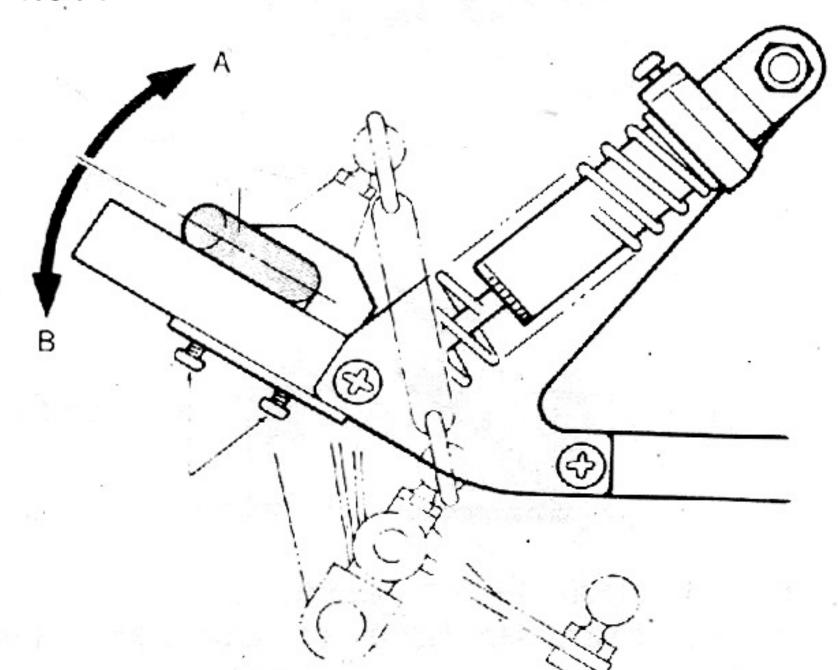




Harder

[Handy Adjusting Way]

NO.1

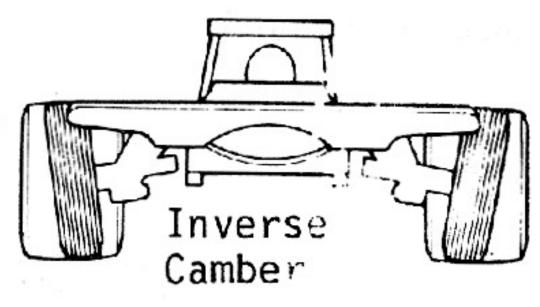


When the arm spindle is raised slightly toward A, the wheels have more camber setting. it is lowered to toward B, the wheels have inverse camber.

(Note) The toe-in setting should be readjusted at the same time when the camber setting is

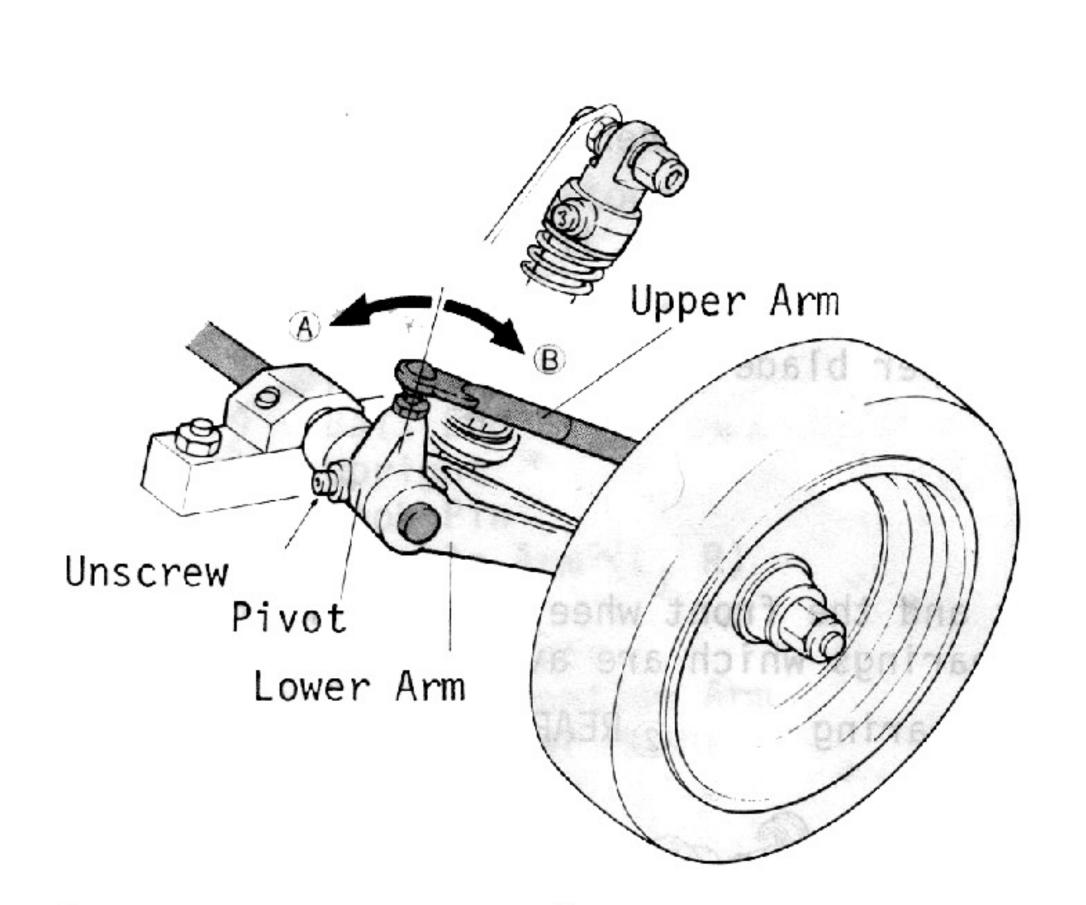
regulated.

*The car performas well when assembled according to the steps of the instruction. Still it is recommended to learn the adjustment method of the front steering and suspension systems for characterising the car in your own way.

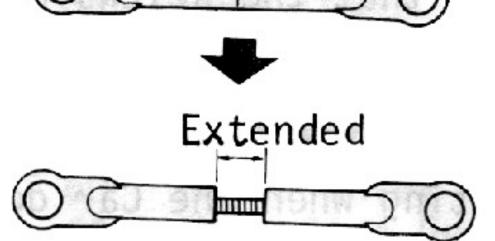


NO.2

① When the pivot is tilted toward A, the caster adjustment is increased; toward B it is decreased.

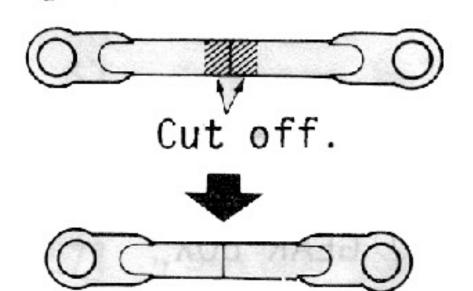


② When the upper arm is lengthened ...



The caster is augmented as the lower arm is being raised.

(3) When the upper arm is shotened ...



The caster is lessened as the lower arm is lowered.

[Check before Running]

Before running the car, check the parts in order of the numbers as shown in the picture.

*At the very first operation, drive the slowly for a period while it consumes electricity of one cycle of charging in the battery and check all the moving portions of the car.

1 Check if all bolts and nuts are tightened firmly.

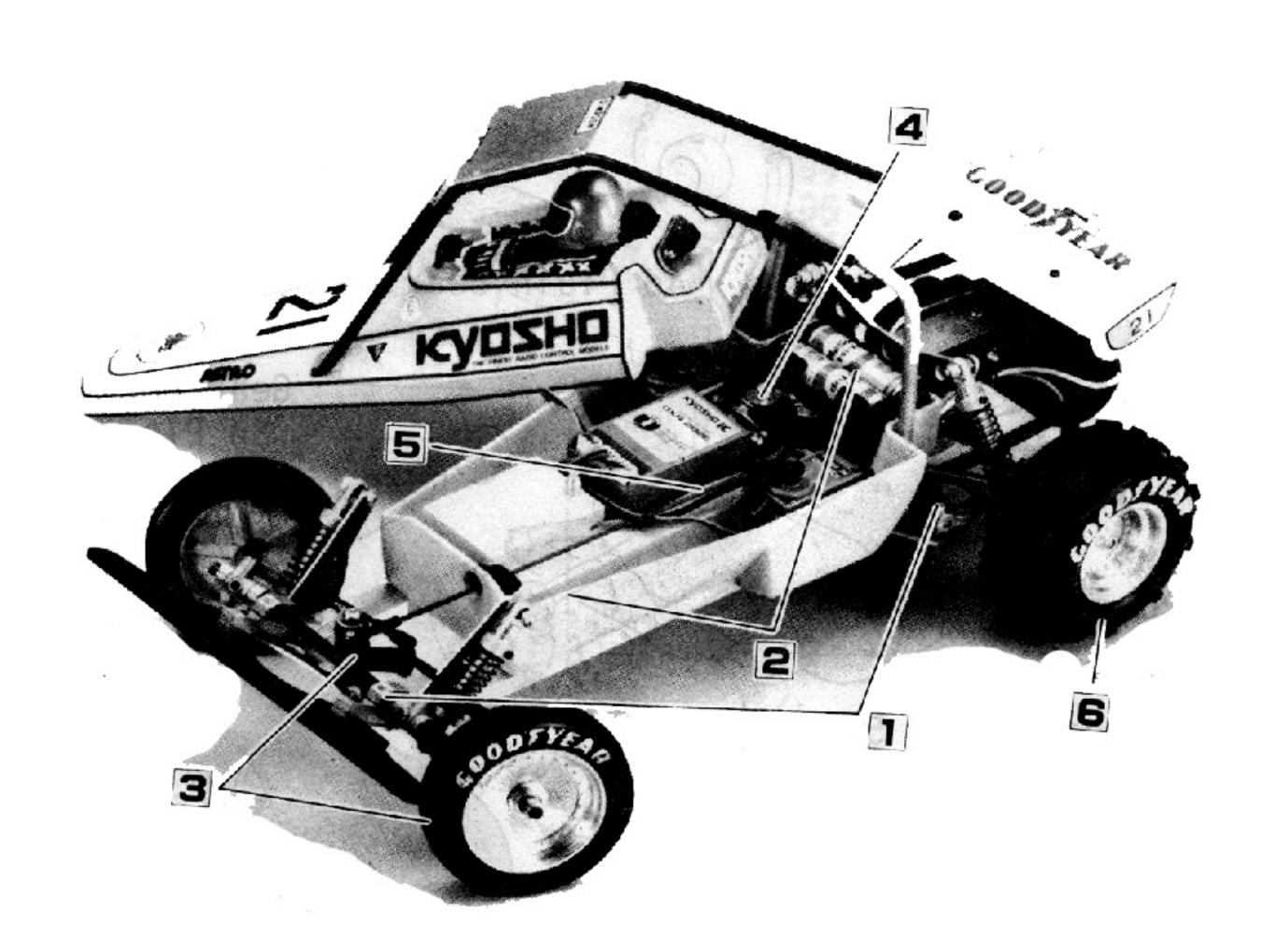
2 Check if batteries for radio control units and the motor are charged fully.

3 Check if the front tires are steered in proportion to your control of the transmitter.

Check to see if the forward and reverse movement of the car responds accurately to your control.

• Check if all wiring are insulated with vinyl tape properly.

6 Check if the rear tires are binded or not by turning them by hand.



[Steps of Operation]

- (1) Put batteries into radio control units and power plant.
- 2 Turn on switch of your transmitter.

(3) Switch on the receiver.

- 4 Check to see that the sticks of your transmitter are in good operation; right and left, up and down.
- * When turning off the switches, the receiver first then transmitter. Otherwise, the car may run haphazardly.

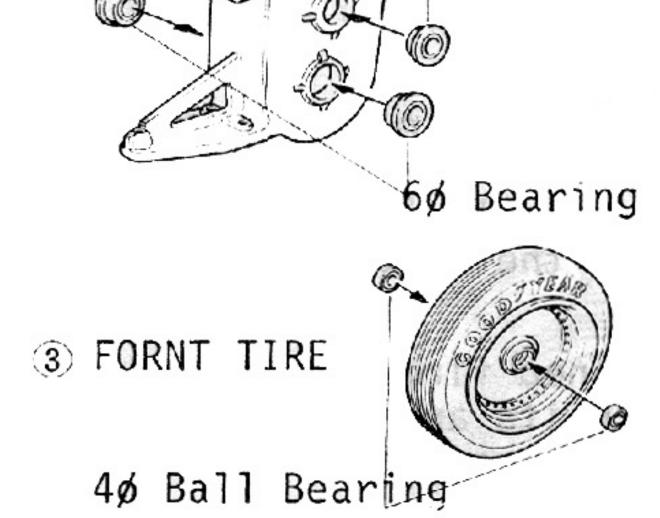
[Trouble Shooting When the Car does not Start]

- 1) Poor contact of connectors of driving systems or of electric wiring.
- 2 Poor contact of the speed controller wiper blade.
- 3 Radio control units are out order.
 4 Signal jamming from other radios.

Option Parts

*Plain bearings are set in the gear box and the front wheels. For more smooth rotation, replace them with the ball bearings which are available as optional parts.

① GEAR BOX 40 Ball Bearing ② REAR SUSPENSION ARM

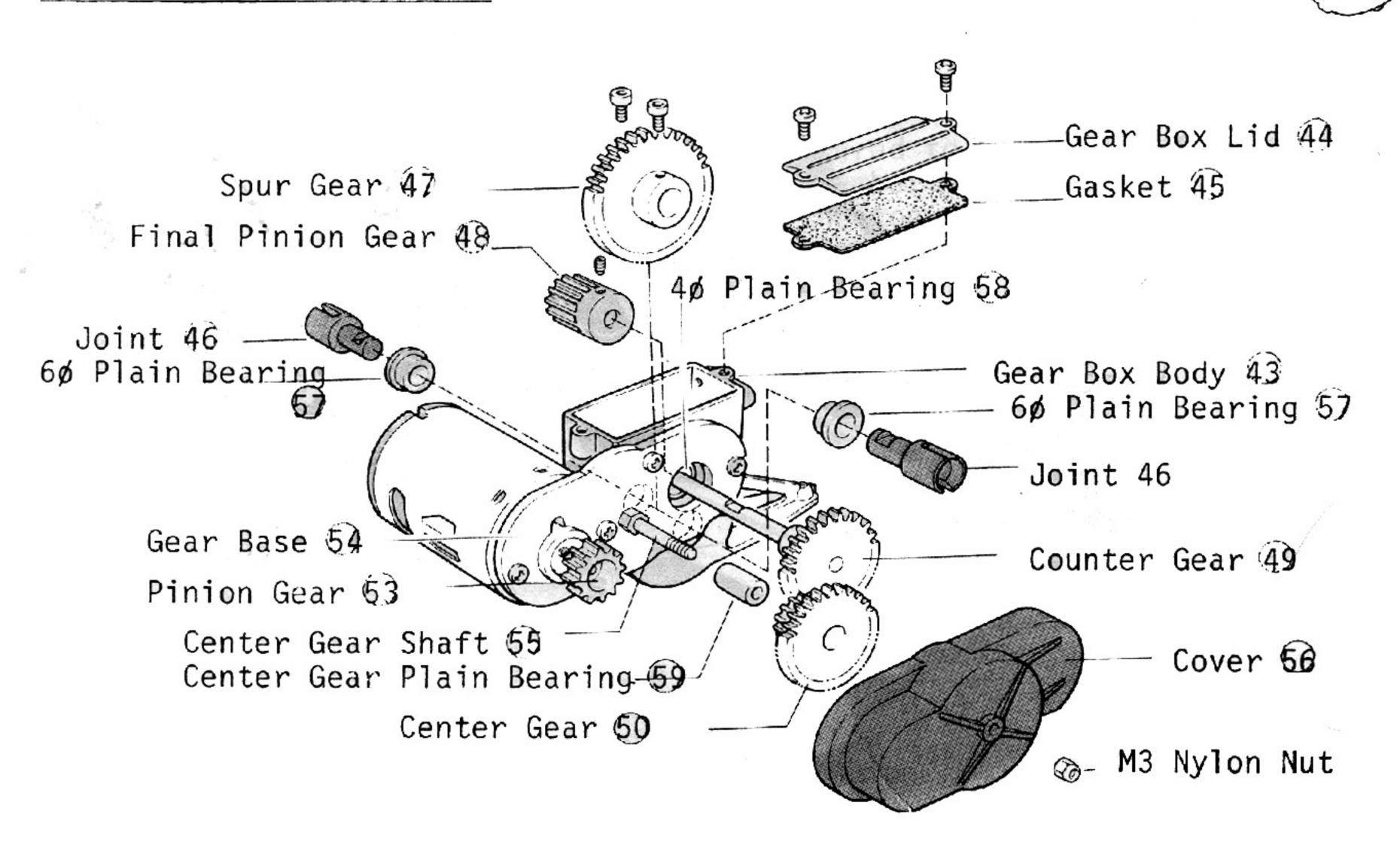


*For increasing maneuverability on sandy course, use the nylon super spike tire which is optionally available for the Circuit 20.

6ø Ball Bearing

60 Ball

EXPLODED VIEW OF GEAR BOX



PARTS LIST

Ke			Key		
No		Qty.	No.	Parts Name	Qty.
00000000000000000000000000000000000000	Front Bumper Main Chassis Arm Shaft Arm Shaft Stopper Lower Arm (L, R) Pivot (L, R) Upper Shaft Pillow Ball Ball End Upright Hook Pin Knuckle Arm (L, R) Tie Rod Wing Stopper Rear Suspention Arm Servo Saver Mount Servo Saver Damper Case Damper Washer Damper Bush Damper Bush Damper Bush Damper Ball Damper Ball Damper Ball Damper Stay Rear Damper Piston Front Damper Piston Front Damper Stay Rear Damper Stay Rear Suspention plate Rear Suspention plate Rear Suspention Front Pamper Swing Shaft Rear Wheel Shaft Cear Box Gasket Gear Gear (w/shaft) Center Gear Counter Gear (myshaft) Center Gear Counter Gear Counter Gear Counter Gear Counter Gear Pinion Gear	12121 set "289221222112222222222222112111111111111	67890123456777777777778901234567890123456	Gear Cover 6ø Plain Bearing 4ø Plain Bearing Center Gear Plain Bearing Motor Cover Rear Side Guard Rear Under Guard R/C Unit Box R/C Unit Box Support Controller Resistor Linkage Ball Controller Rod Steering Rod Switch Plate Switch Boots Rod Boots Rod Boots Rod Boots Rod Boots Rol Bar Front Tire Pressure Sensitive Tape Antenna Guide Roll Bar Front Tire Rear Tire Front Wheel Front Wheel Front Wheel R-1 " R-2 " R-3 Rear Spring Receptacle Body Support Decal Body Driver Guard Driver Plate Wing Wing Stay Connector Resistor Holder Oil	1221121111111111122422211121

No.	Description	Key No. & Consisting of
SC- 1 SC- 2 SC- 3 SC- 4 SC- 5 SC- 6 SC- 7 SC- 8 SC- 9 SC-10 SC-11 SC-12 SC-13 SC-14 SC-15 SC-16 SC-17 SC-18 SC-19 SC-20 SC-21 SC-22 SC-23 SC-24 SC-25 SC-27 SC-28 SC-29 SC-30 SC-31 SC-32 SC-31 SC-32 SC-33 SC-34 SC-35 SC-36 SC-37 SC-38 SC-37 SC-40 SC-41 SC-42 SC-42 SC-45 SC-45 SC-45 SC-45 SC-45 SC-45 SC-45 SC-45 SC-45 SC-45 SC-45 SC-45 SC-45 SC-45	Front Bumper Main Chassis Arm shaft Set Lower Arm Set Upper arm Set Uppright Set Knuckle Arm Tie Rod Servo Saver Mount Front Damper Set Rear Damper Set Rear Damper Stay Rear Damper Stay Gear Box Mount Rear Sus Plate Set Spring Set Swing Shaft Rear Wheel Shaft Journal Drive Washer Rear Guard Set R/C Unit Box Controller Linkage Set Roll Bar Front Tire Rear Tire Front Wheel Rear Wheel Body Support Decal Body Driver Guard Wing Set Joint Gear Base Cover Gear Box Plain Bearing Spur Gear Gear Set B Motor Cover Servo Saver Rear Sus Arm Sealed Resistor Connector Antenna Guide Pressure Sensitive Tape	① x 1 ② x 2 ③ x 1,
RS-16 RS-13	Gear Set A Gear Case	48 49 x 1 43 44 45 x 1
CB-124 CK-30	Linkage Boot Front Wheel Journal	70 71 72 73 x 1 82 x 4
	Optional Part	
CK-63	4ø Ball Bearing (2 pcs.)	Replace with 4ø metal and front
MS-26	6ø Ball Bearing (2 pcs.)	wheel metal 60 metal and replacement bearing
CB-86	Nylon Super Spike	Use when wishing to have more grip of rear tire

