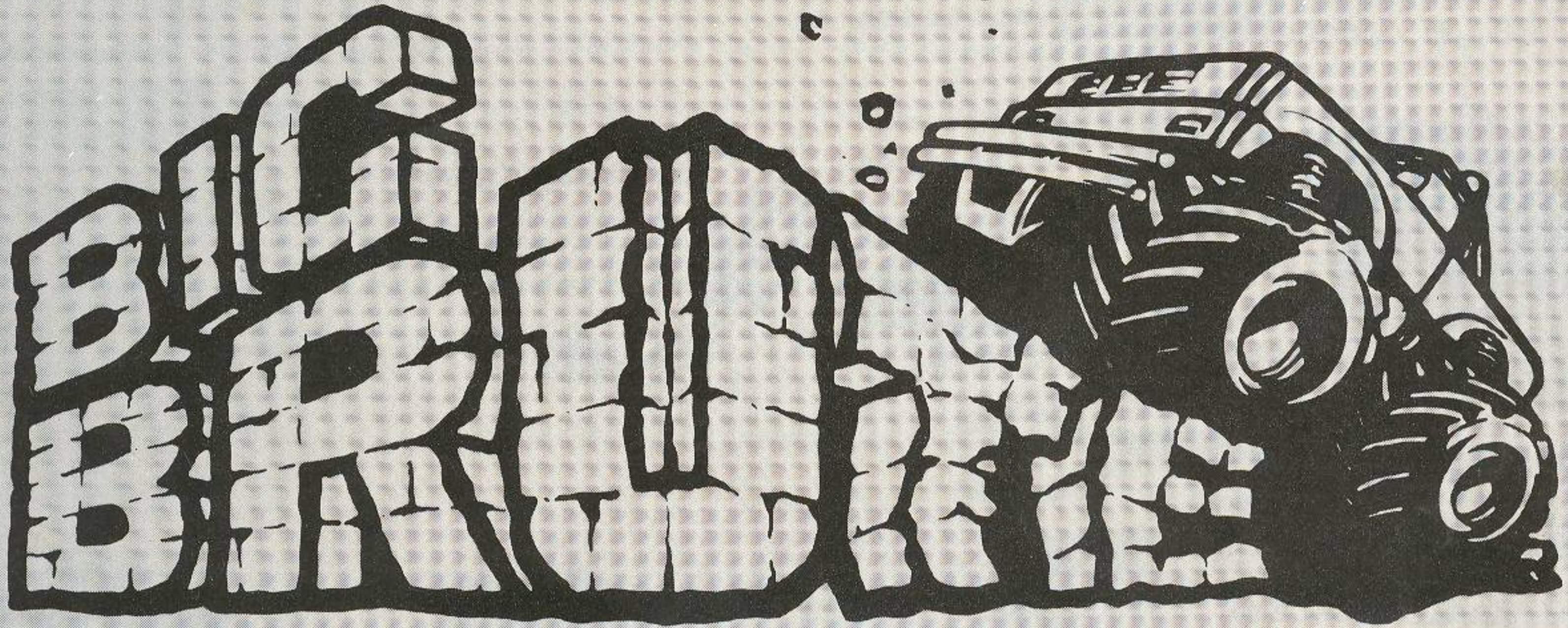


RADIO CONTROLLED ELECTRIC POWERED OFF-ROAD RECREATIONAL VEHICLE



CAR CRUSHER BIG BRUTE

● CAR CRUSHER FUN IN MINIATURE! CLIMBS OVER HIGH OBSTACLES! ● SOPHISTICATED ALL-INDEPENDENT SUSPENSION FOR HIGH-SPEED STABILITY AND GOOD HANDLING. ● HUGE HIGH-GRIP RUBBER TIRES. STRONG ABS WHEELS. ● POWERFUL LeMANS "STOCK 05" MOTOR, 3-SPEED CONTROLLER INCLUDED. ● PROTECTIVE FRONT BUMPER AND MOTOR GUARD CAGE INCLUDED. ● REALISTIC TRUCK BODY. MANY DECORATIVE STICKERS AND FITTINGS. ● HIGH GROUND CLEARANCE. RUGGED ABS BOX-BEAM CHASSIS. ● EASY TO ASSEMBLE. SIMPLE ADJUSTMENT.

1:10 SCALE

BATTERY: 7.2V-1200mAh

RADIO: 2ch

(NOT INCLUDED)

MOTOR: LeMANS "STOCK 05"

(INCLUDED)

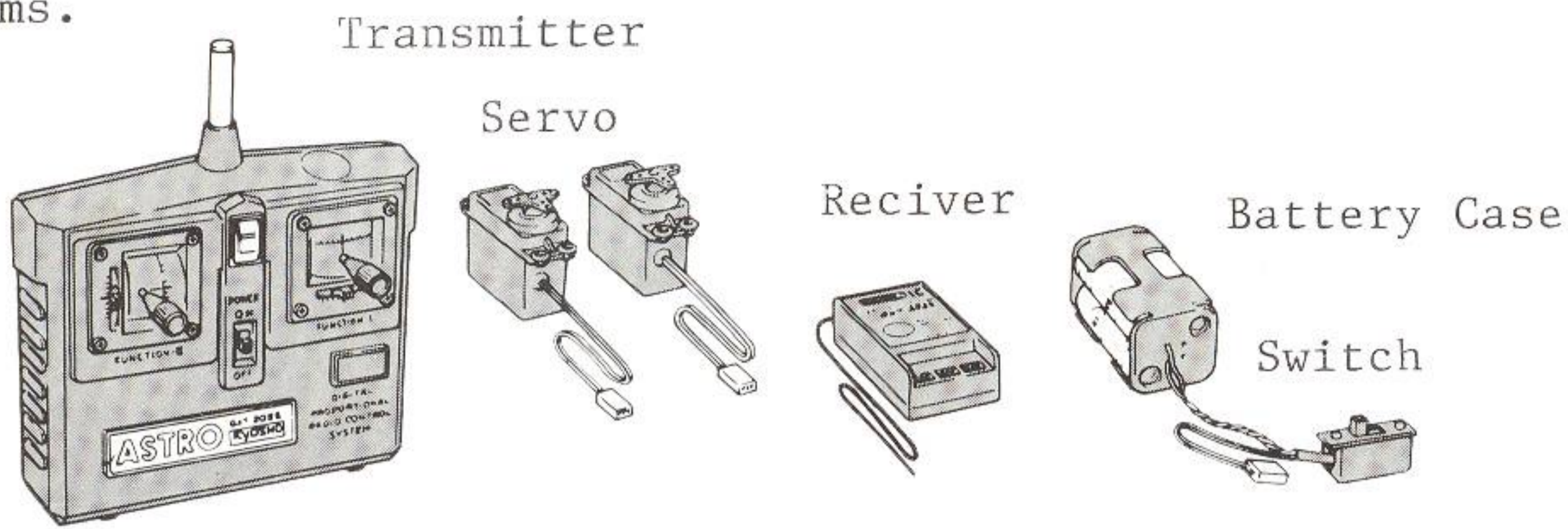


KYOSHO
THE FINEST RADIO CONTROL MODELS

◀ KIT NO. 3105 ▶

RADI CONTROL SET

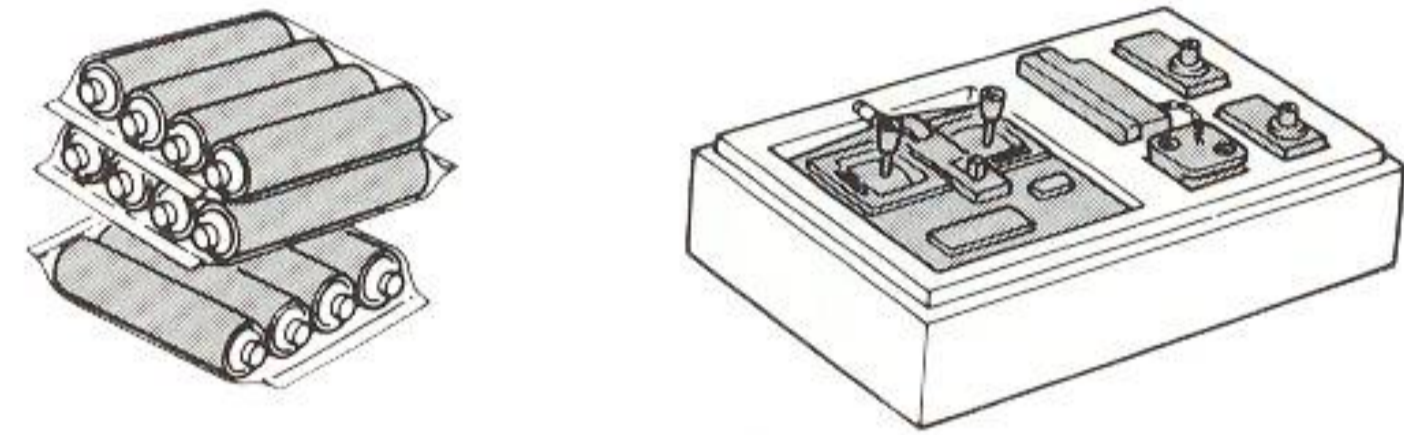
A 2 channel, 2 servo digital proportional radio control unit is required for driving this model car. A unit of such a radio can be used for any models with 2 channel control systems.



THINGS NEEDED BESIDES THE KIT

(2 Channel Radio System)

Two types of radio controlset are on the market, the stick type and the steering wheel type. Choose which ever you like.



Battery for Radio 2 Channel Radio System

(Battery for Propelling the Car)

The "Ni-Cad Battery 7.2V Racing Battery and Power Battery" are ideal the purpose.



7.2 V Power Battery



7.2V Racing Battery

(Charger for Ni-Cad Battery)

The Kyosho's Ni-Cad Battery is of high performance. If it is charged correctly, it will operate for a considerable period of time. There are two ways of charging the battery; one is to charge a household 100V outlet, the other is through a quick charger powered by a car cigarette lighter or a 12V car battery. Use one of the chargers listed below which suits your need.

Model	Name	Charging Time	Charging Rate	Features
No. 2221	Super Ni-Cad Charger (AC100V)	14 to 16hrs.	100%	For beginners
No. 2326	7.2V Power Charger (DC12V)	15 minutes	about 70%	For beginners; timer built in
No. 1846	Multi Charger (DC12V)	20 minutes	100%	Timer, Ammeter built in
No. 1845	Lambda Quick Charger (DC12V)	about 20 minutes	100%	Trickle charging automatic cut-off at peak of charge
No. 2232	Super Ni-Cad AC Rapid Charger (AC100V)	about 40 minutes	about 80%	Chargable from Household outlet, Electronic Timer built in

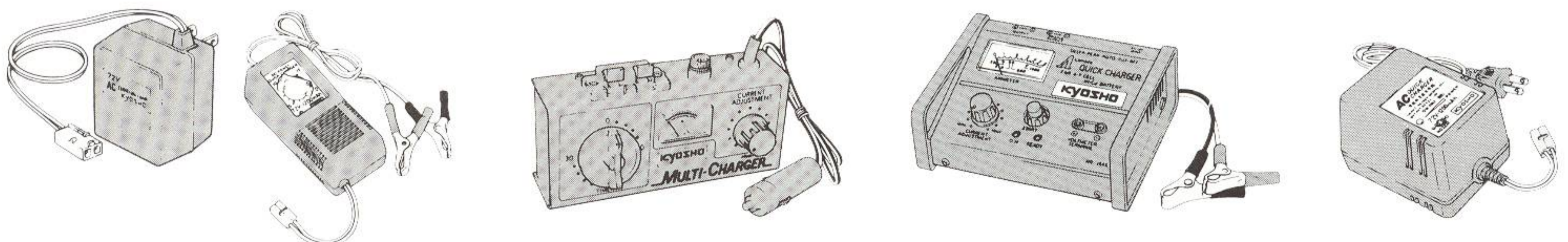
No. 2221

No. 2326

No. 1846

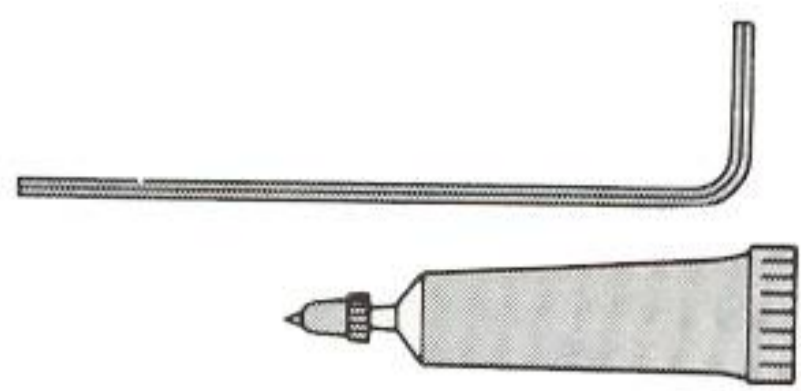
No. 1845

NO. 2232



TOOLS REQUIRED

(The following tools are included in kit)



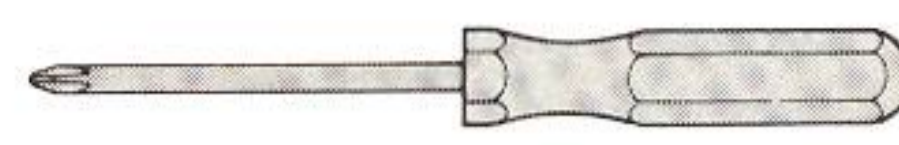
1.5mm
Allen Wrench

Greases (2)

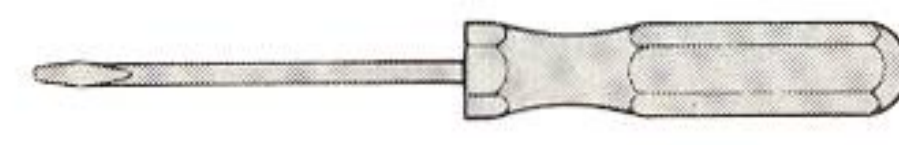


Instant Glue

(The following tools are Required for Assembly)



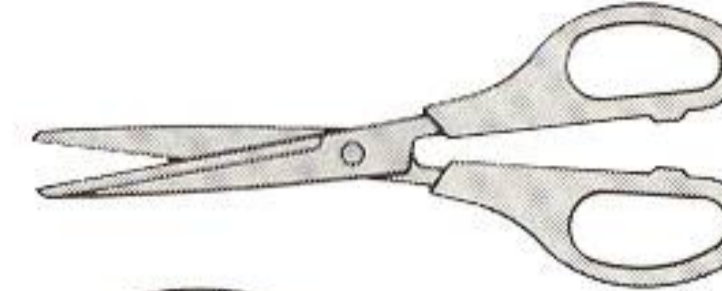
Philips Screw Driver
(L, M, S)



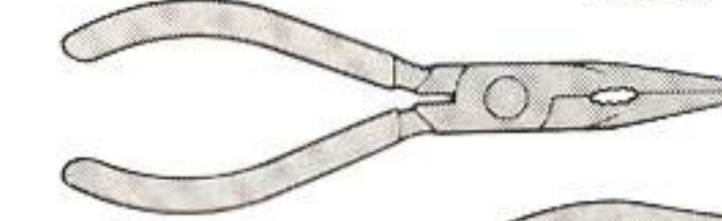
Solt Screw Driver
(M)



Box Driver
(5.5 & 7mm)



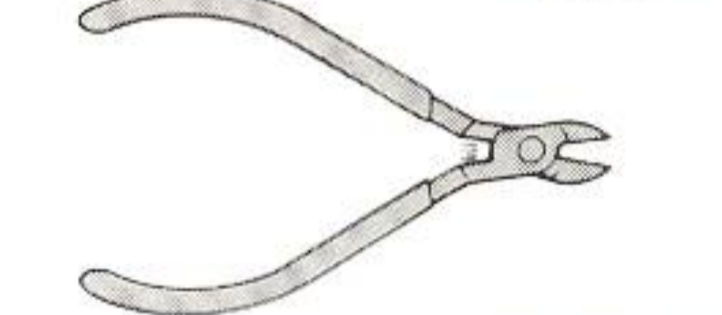
Scissors



Needle Nose Pliers



Wire Cutter



Sharp Hobby Knife



Awl



Polyca Paint



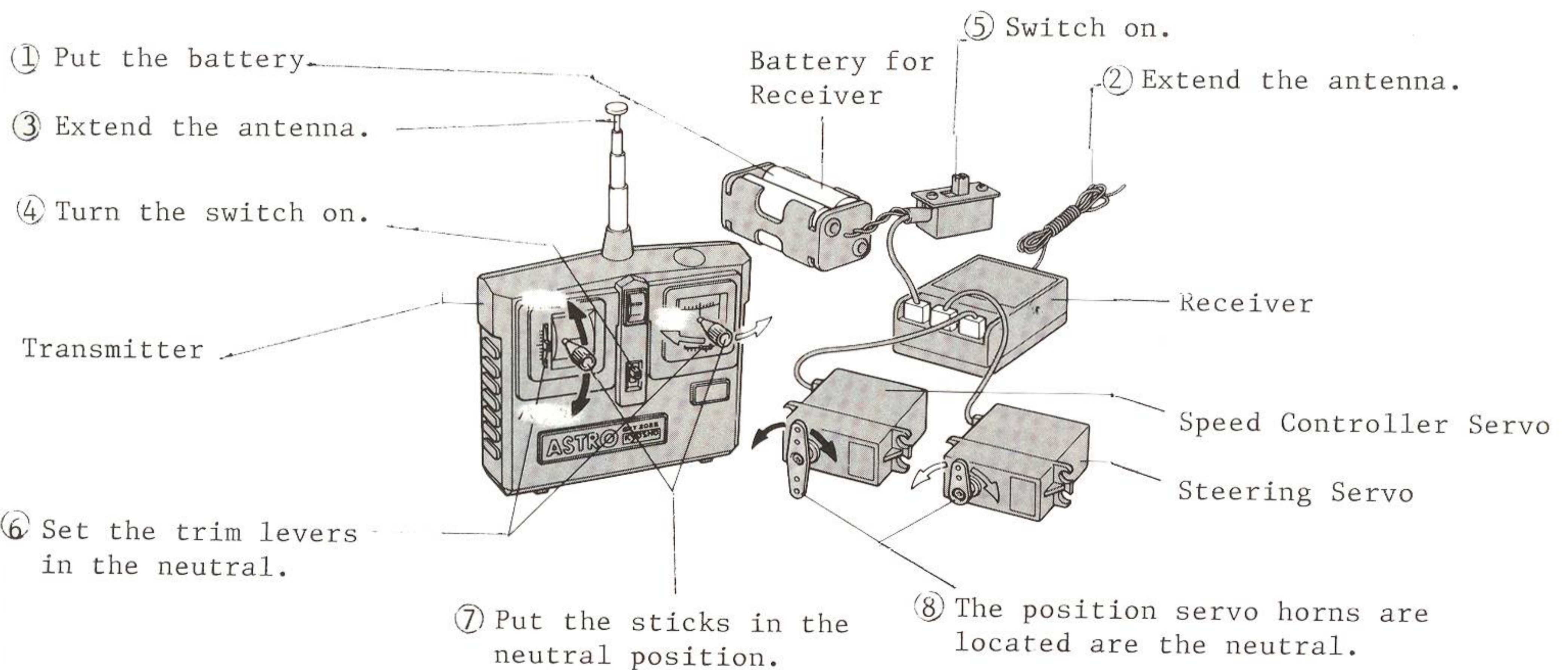
Micron Line Tape



Brush

HOW TO CHECK THE RADIO CONTROL UNIT

Manipulate the radio in order of the number 1 to 8.

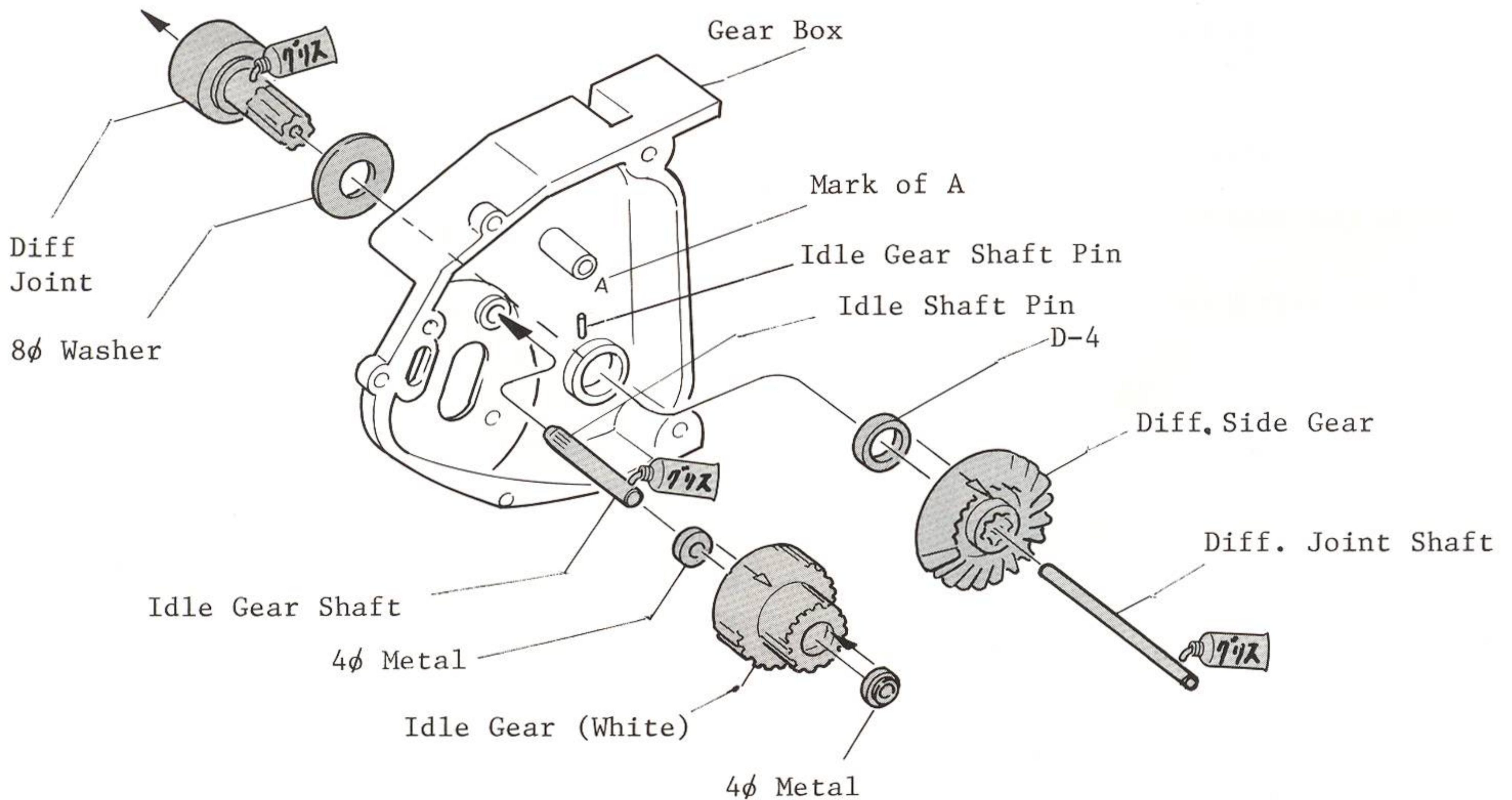


*When turning the switch on, get the switch of the transmitter first, then that of the receiver.

A 2 channel radio control set is composed of a transmitter, a receiver, two servos, and a battery box.

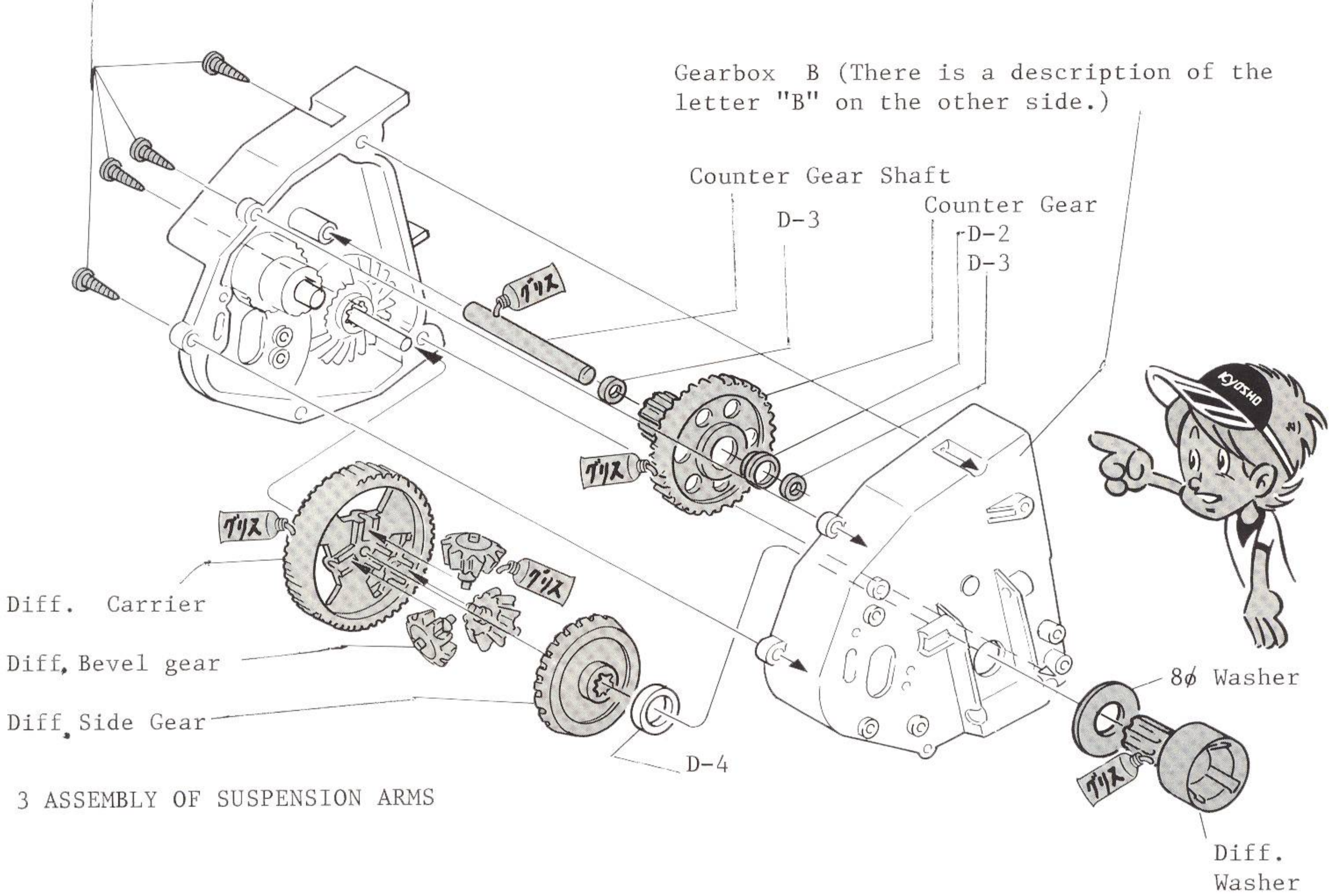
- *Transmitter This is to control the models. The manipulation of the control sticks is signaled from an antenna in the form of electric waves.
- *Receiver Transmits the wave signals received to the servos.
- *Servos Operate the controls by means of motor and gears according to signals provided from the receiver.
- *Antenna Plays an important role of emitting the wave signals from the transmitter antenna, and the receiver antenna catches them. They must be fully extended when in operation.
- *Trim Levers Adjust the neutral position of the servos and fine tuning of Steering, and of the speed controller to control forward or backward advancement.
- *Lever Meter This is to detect the amount of electricity left in the battery, and how distinctly the signal waves are emitted.
- *Servo Horn This is to transfer the movements of the servo to a controlled component. There are several types in shape to be selected depending upon the use.

1 ASSEMBLY OF GEAR BOX

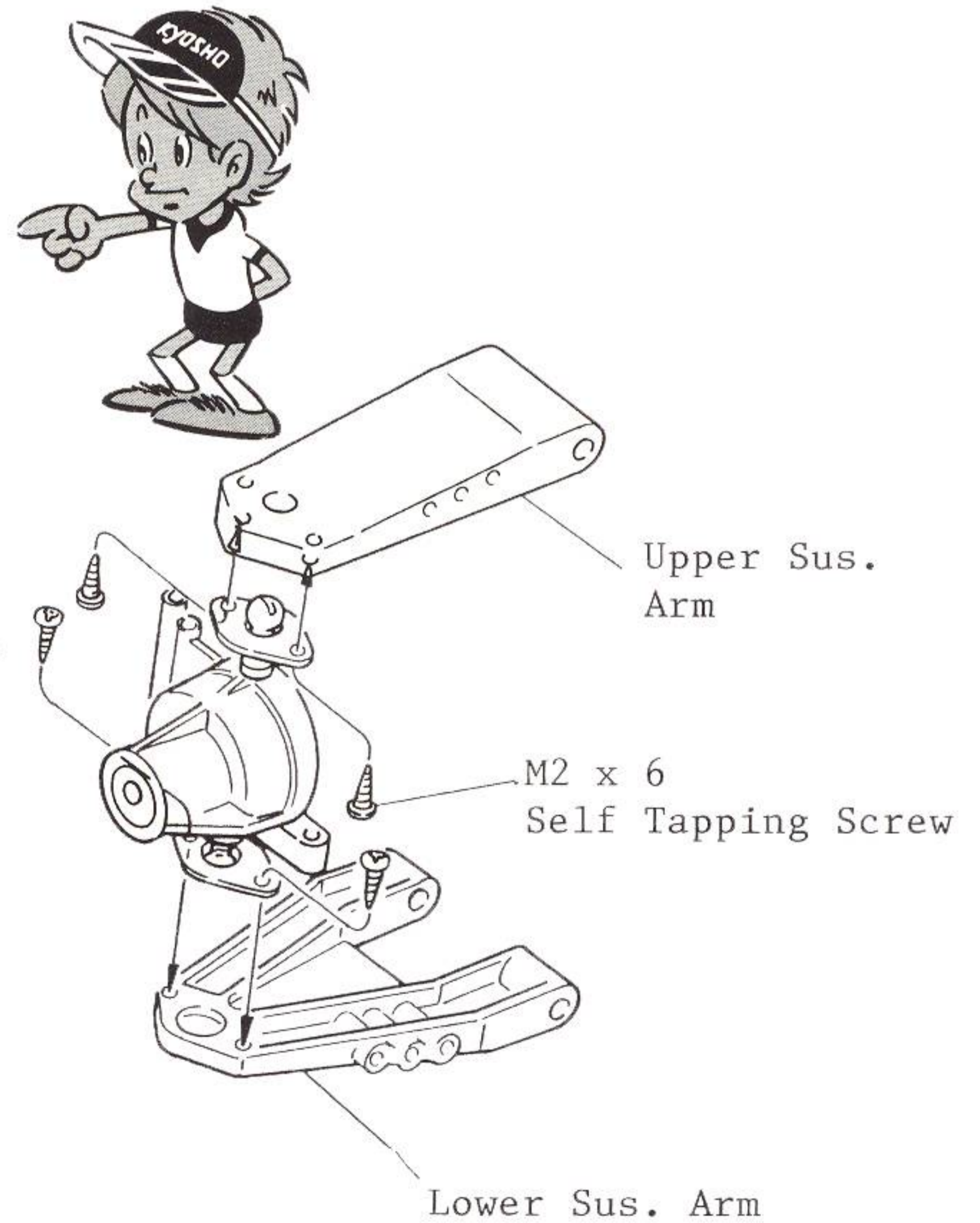
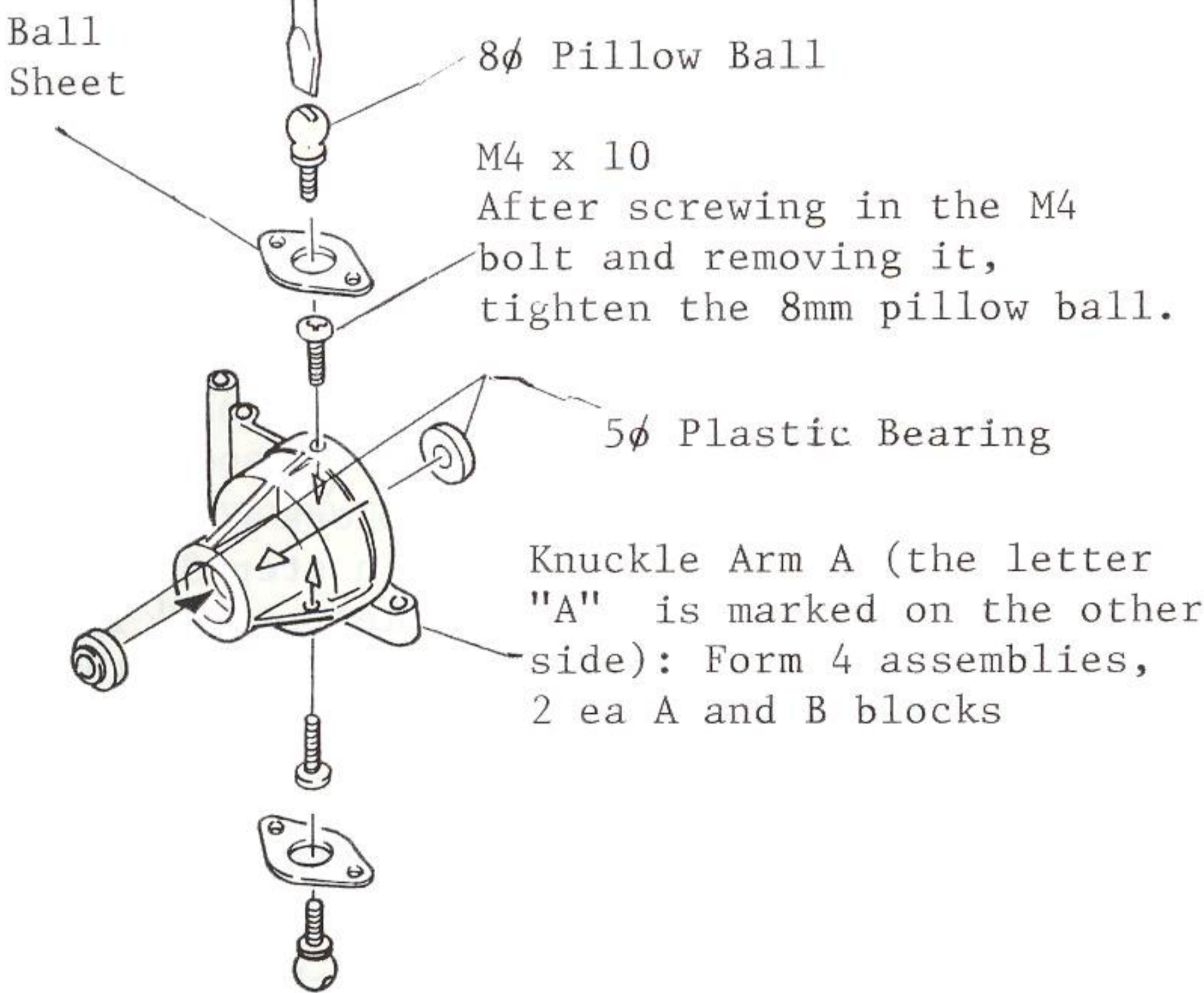


2 ASSEMBLY OF GEAR BOX

M3 x 12
Self Tapping
Screw

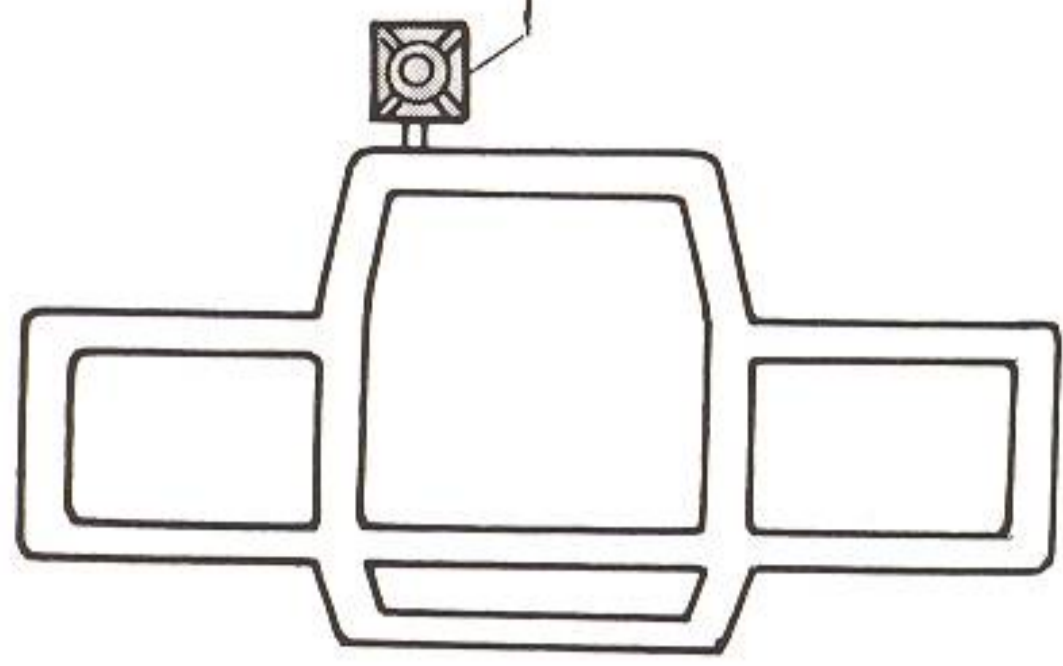


3 ASSEMBLY OF SUSPENSION ARMS

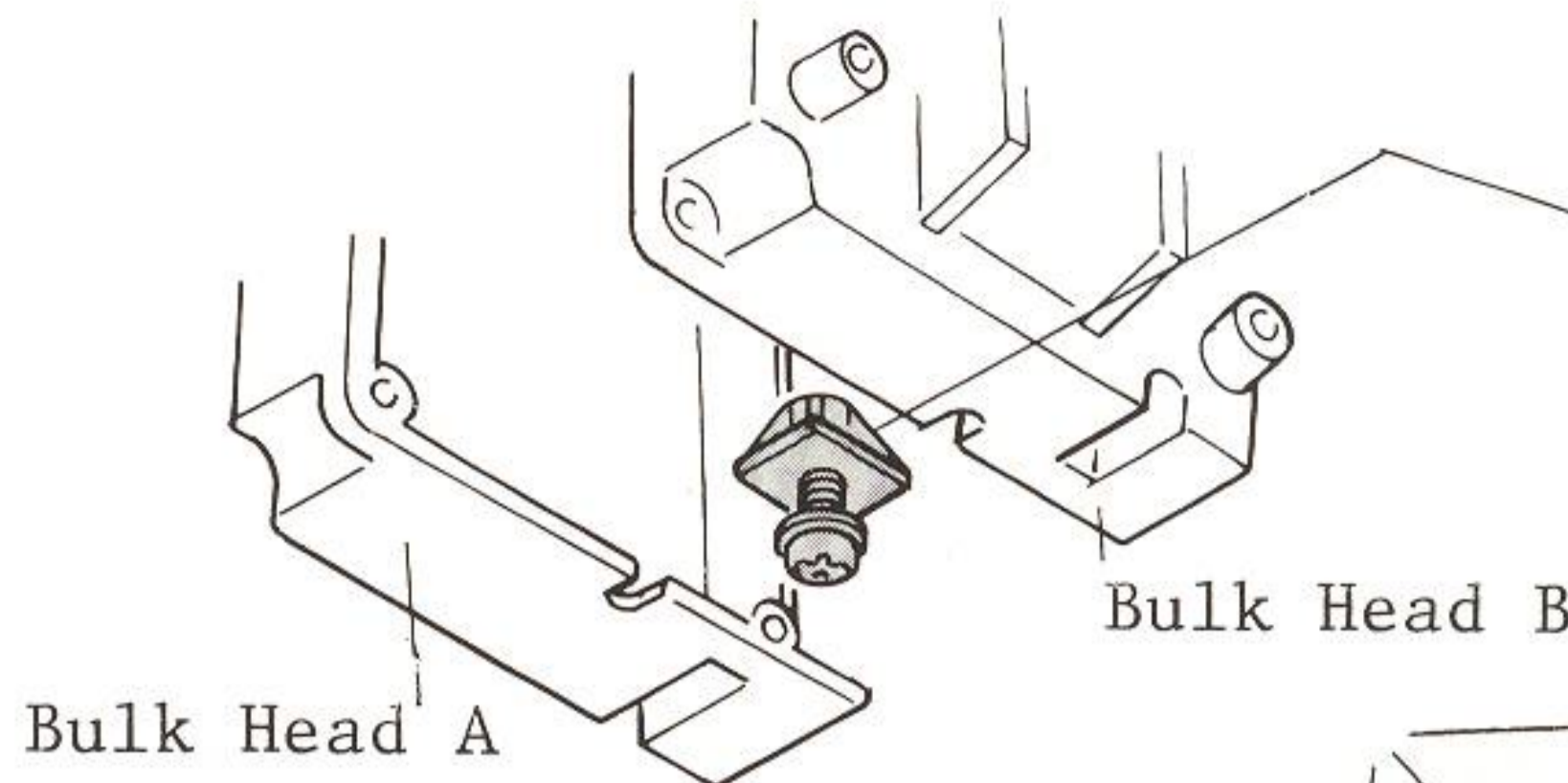
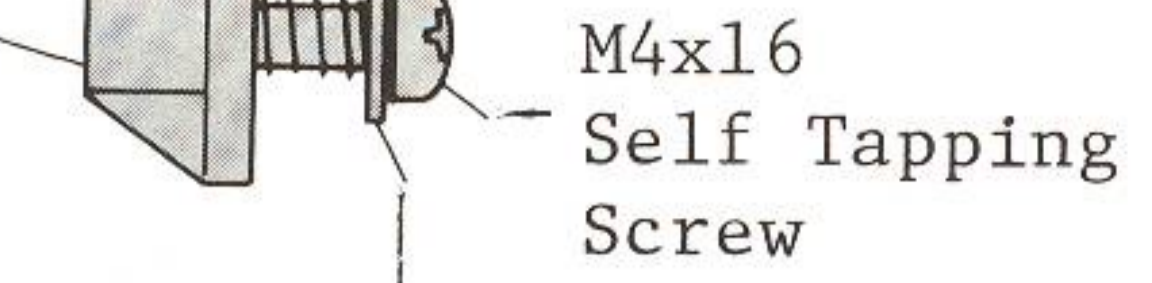


4 ASSEMBLY OF MAIN FRAME

Stopper
Remove it from the front guard.



2 - 3mm
Fix M4x16 Self Tapping screw and washer on the stopper previously.



Bulk Head A

Bulk Head B

M4 Washer

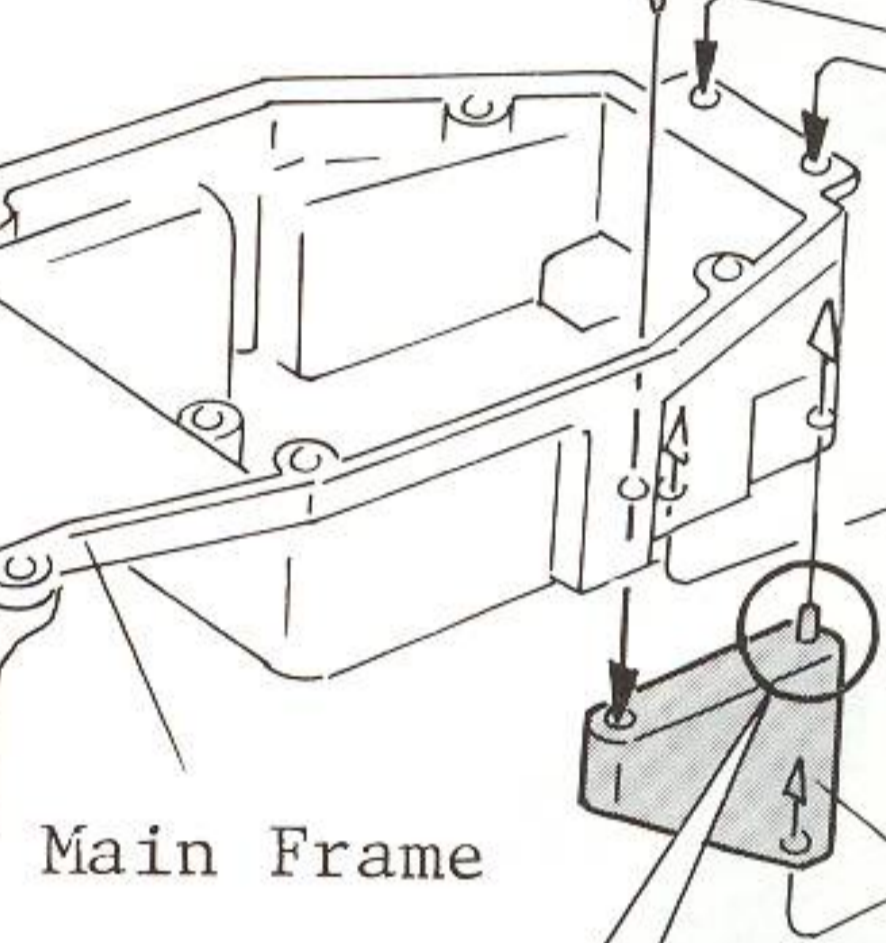
M3 x 12 Self Tapping Screw

Bulk Head A

Bulk Head B

M3 x 12 Self Tapping Screw

M3 Flange Nut

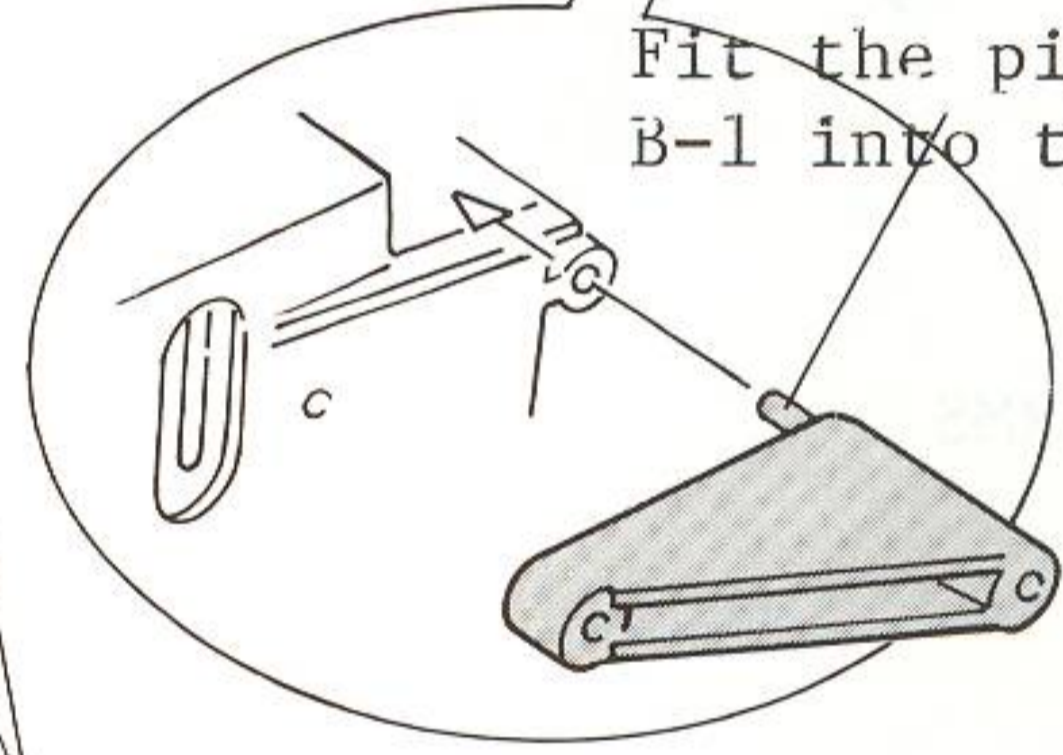


Main Frame

B-1 Part (2ea.)

M3 x 12 Self Tapping Screw

Fit the pin on the B-1 into the hole.



B-2

M3x12 Tapping Screw

M3 Washer
M3x12 Self Tapping Screw

Fix this B-3 in the same way as done with B-2 temporarily.

Gearbox assembled in step 2.

M3x12 Self Tapping Screw



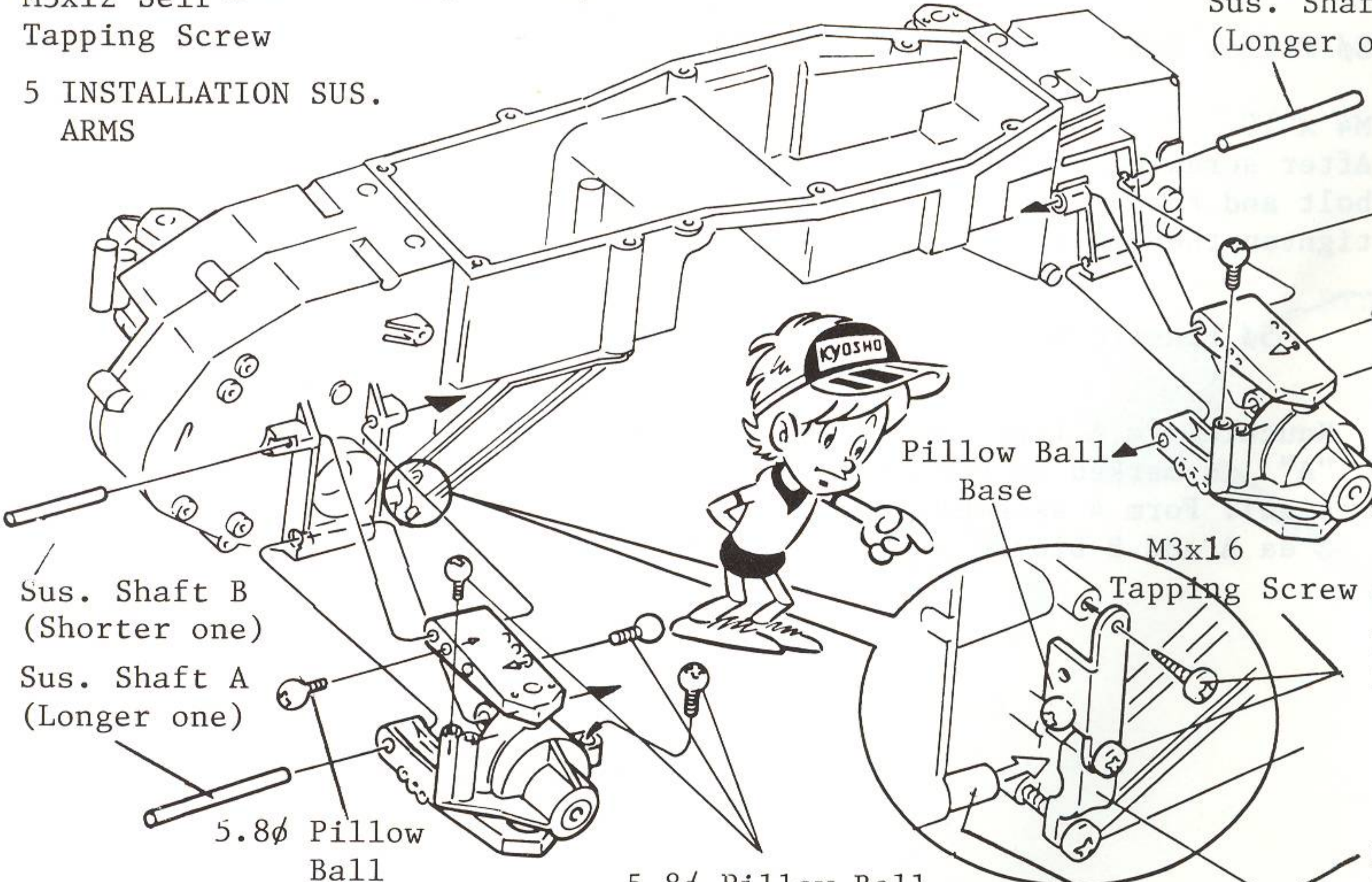
5 INSTALLATION SUS. ARMS

Sus. Shaft A (Longer one)

5.8φ Pillow Ball

Sus. Shaft A (Longer one)

Block A assembled in step 3. (The letter "A" is marked on the other side.)



Sus. Shaft B (Shorter one)

Sus. Shaft A (Longer one)

5.8φ Pillow Ball

5.8φ Pillow Ball

Pillow Ball Base

M3x16 Tapping Screw

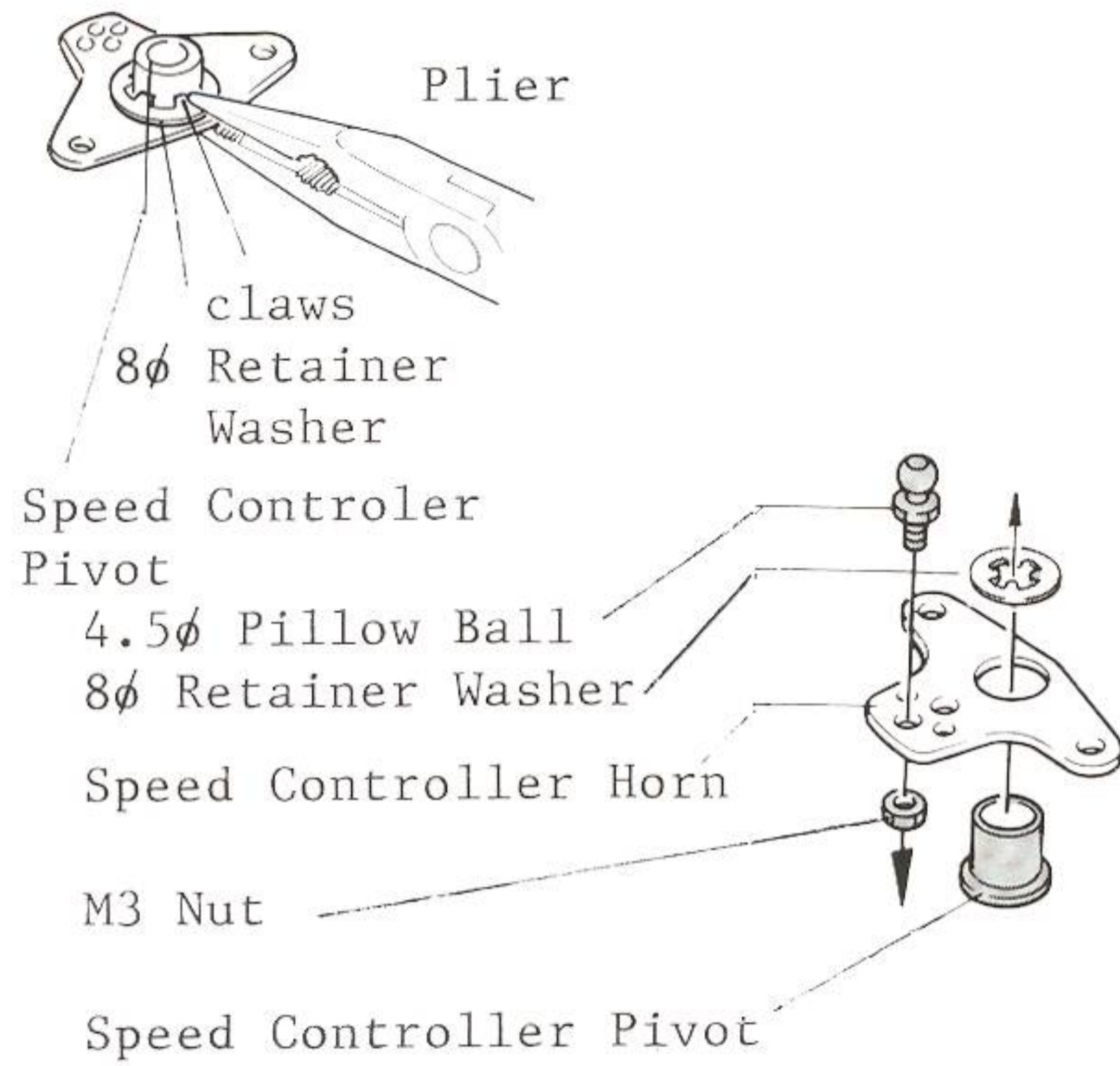
Tighten the screw finally, which has fixed temporarily in step 4m after putting the suspension shaft through.

Put it through all the way.

Suspension Shaft A

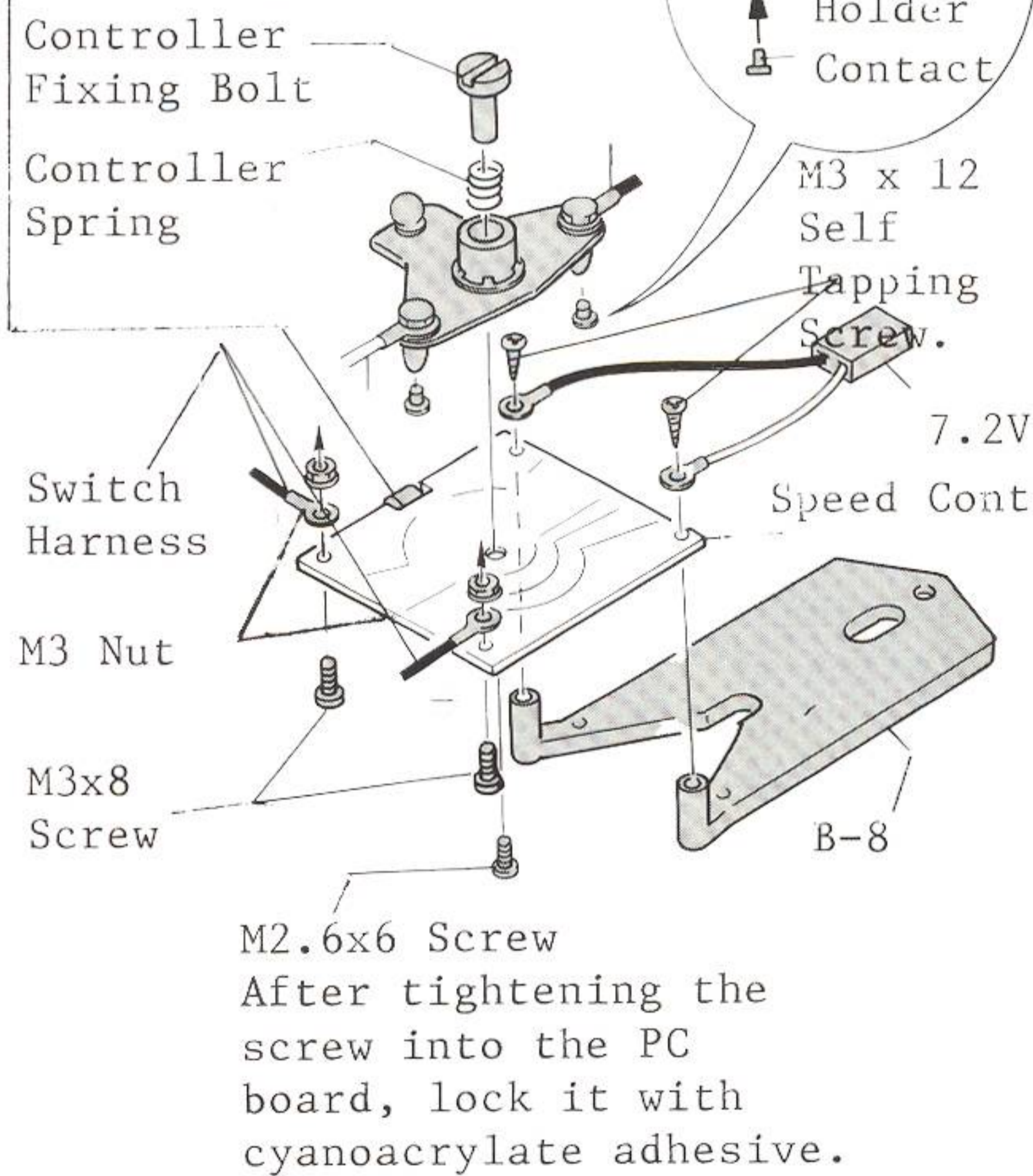
6 ASSEMBLY OF SPEED OCNTROLLER

Put the controller horn onto the controller pivot and clamp down the clawa with pliers.

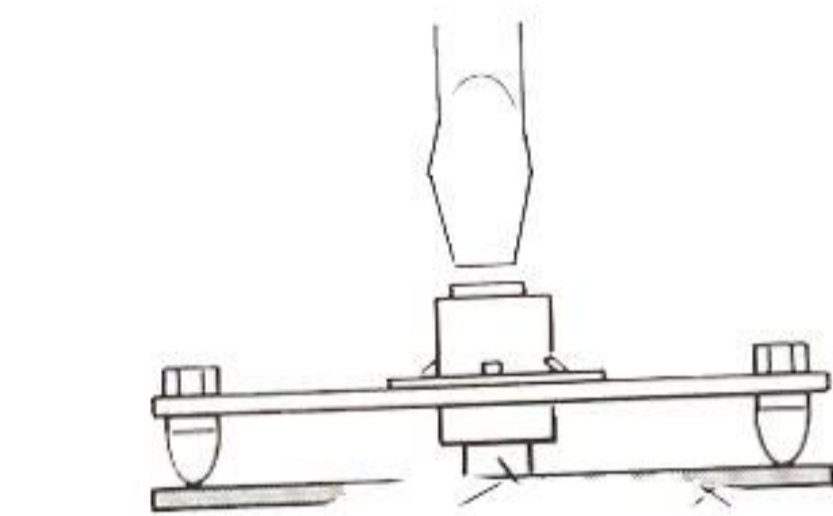
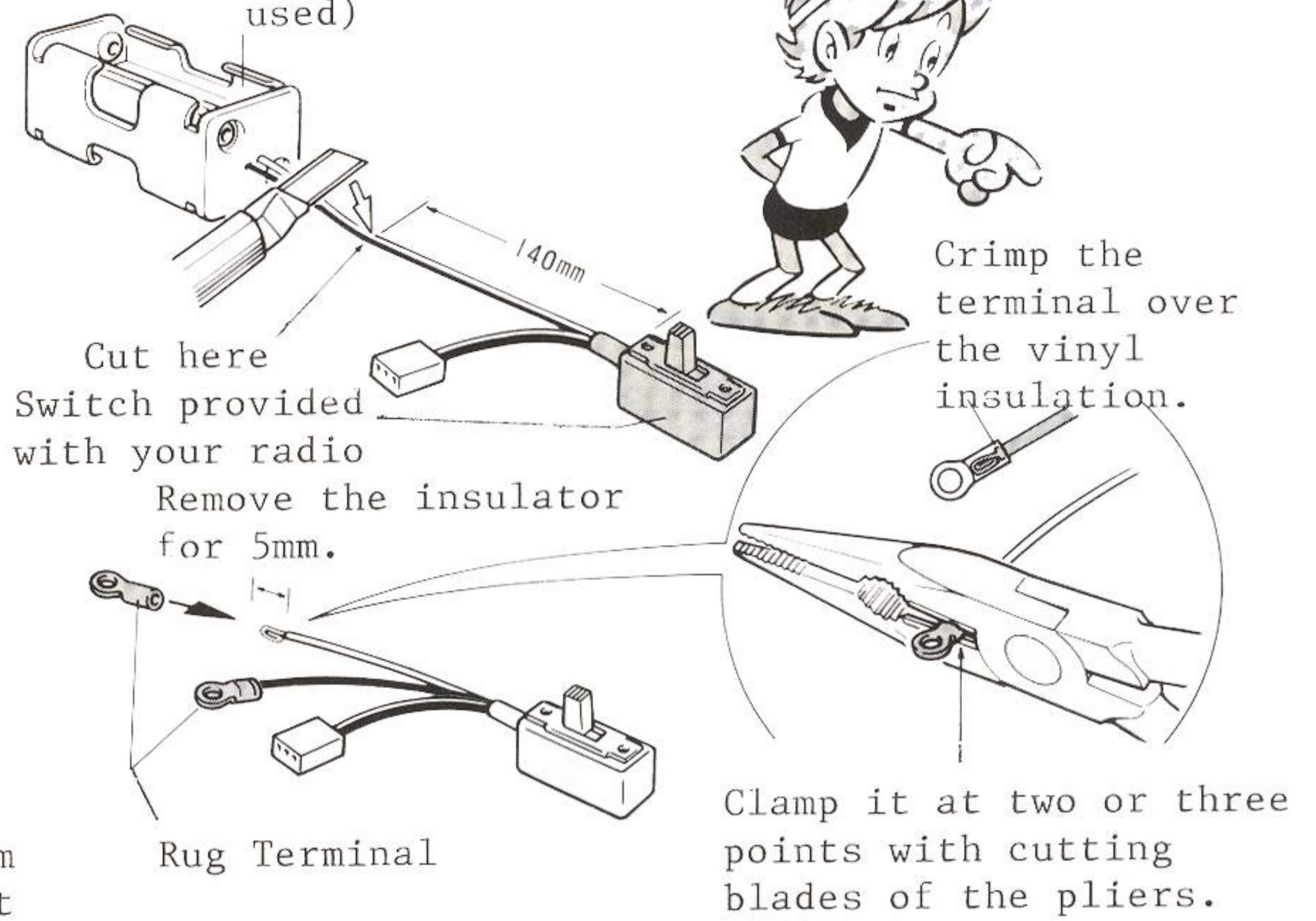


*The contact is easy to come off from the contact holder, so do not fit it until the process as shown in the left side drawing.

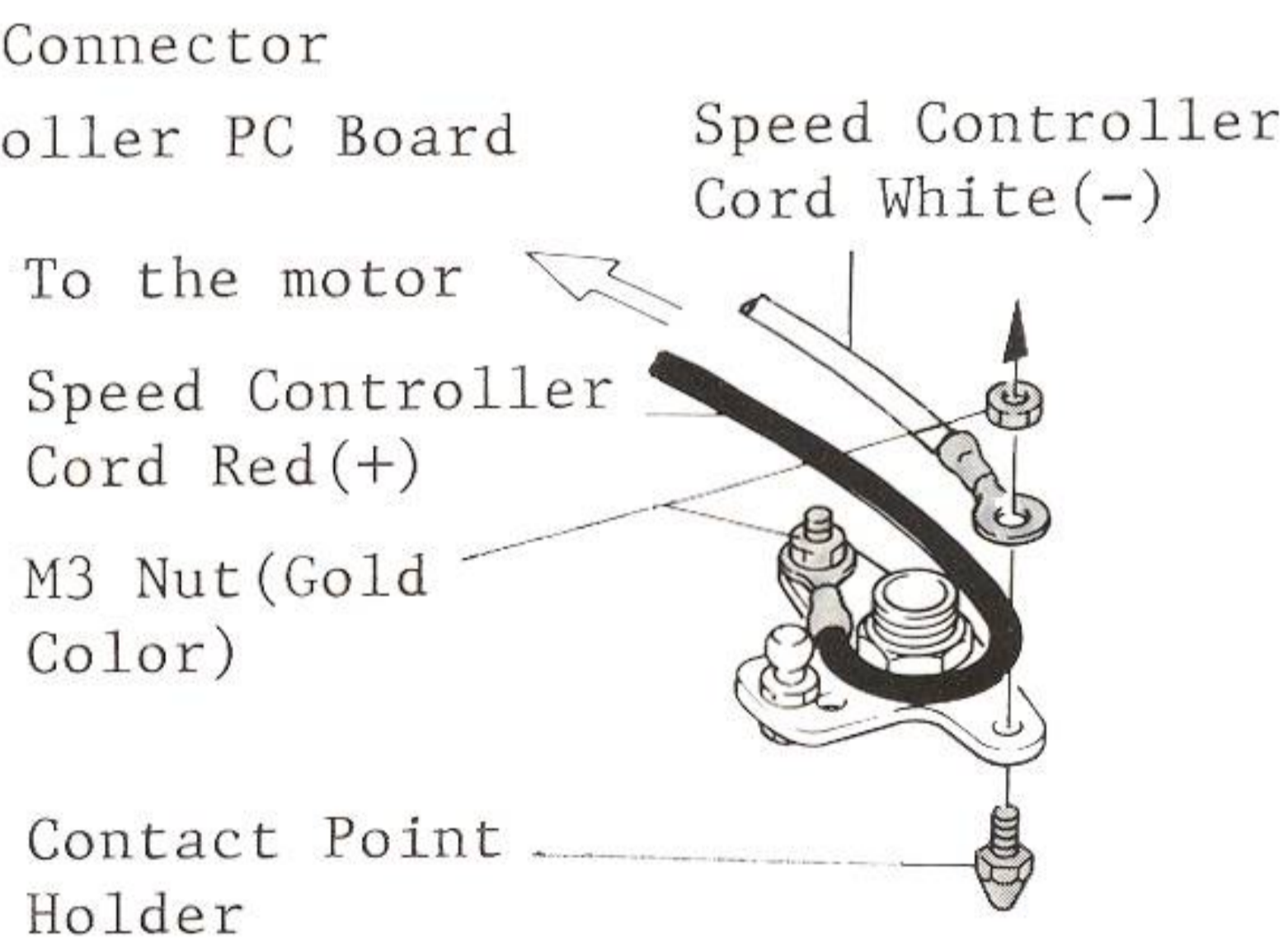
Confirm the position of the diode before installing it.



Battery Box (will not be used)

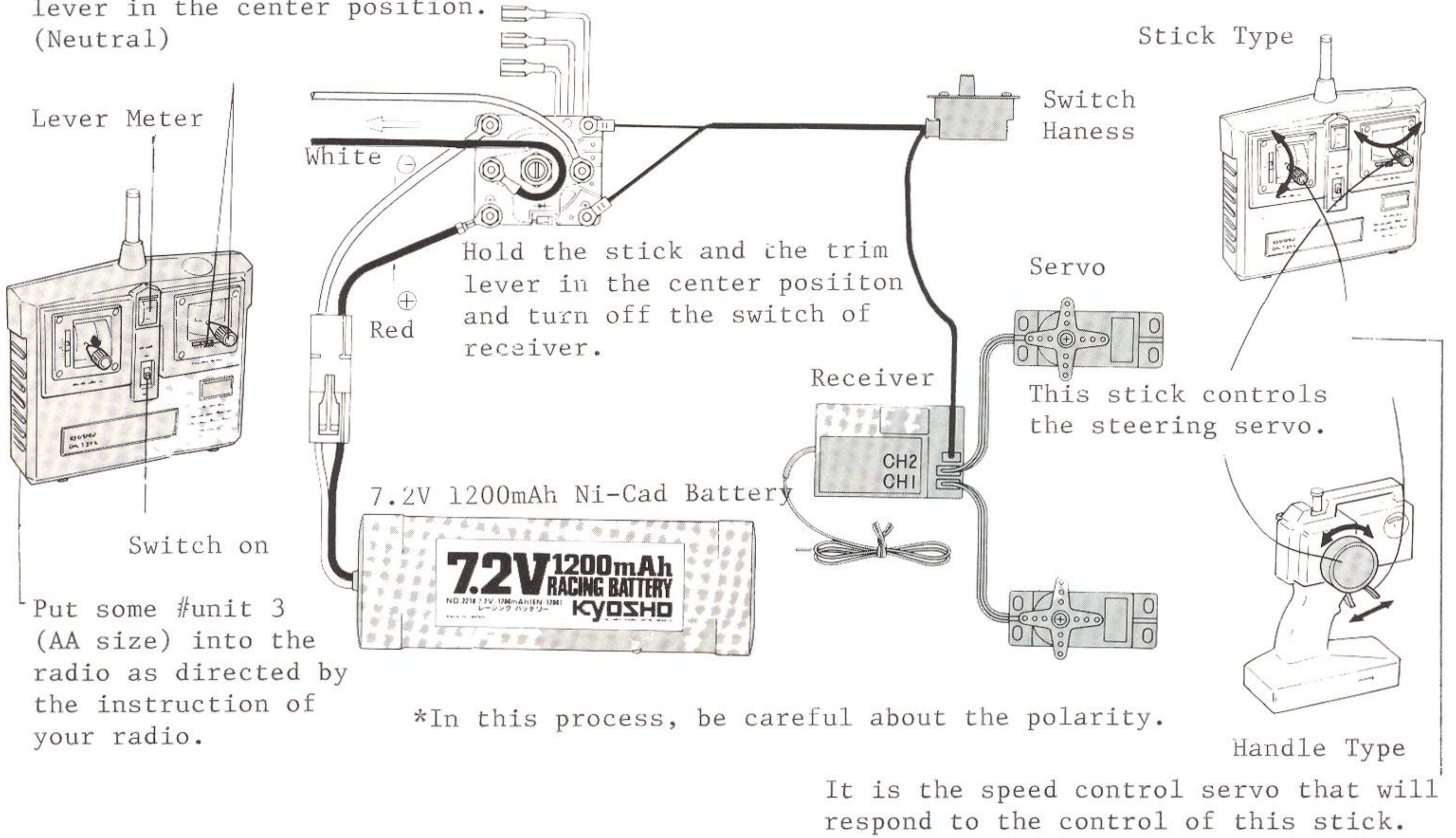


*After having attached the terminal, handle the cord with care since the lead is thin and easy to snap.



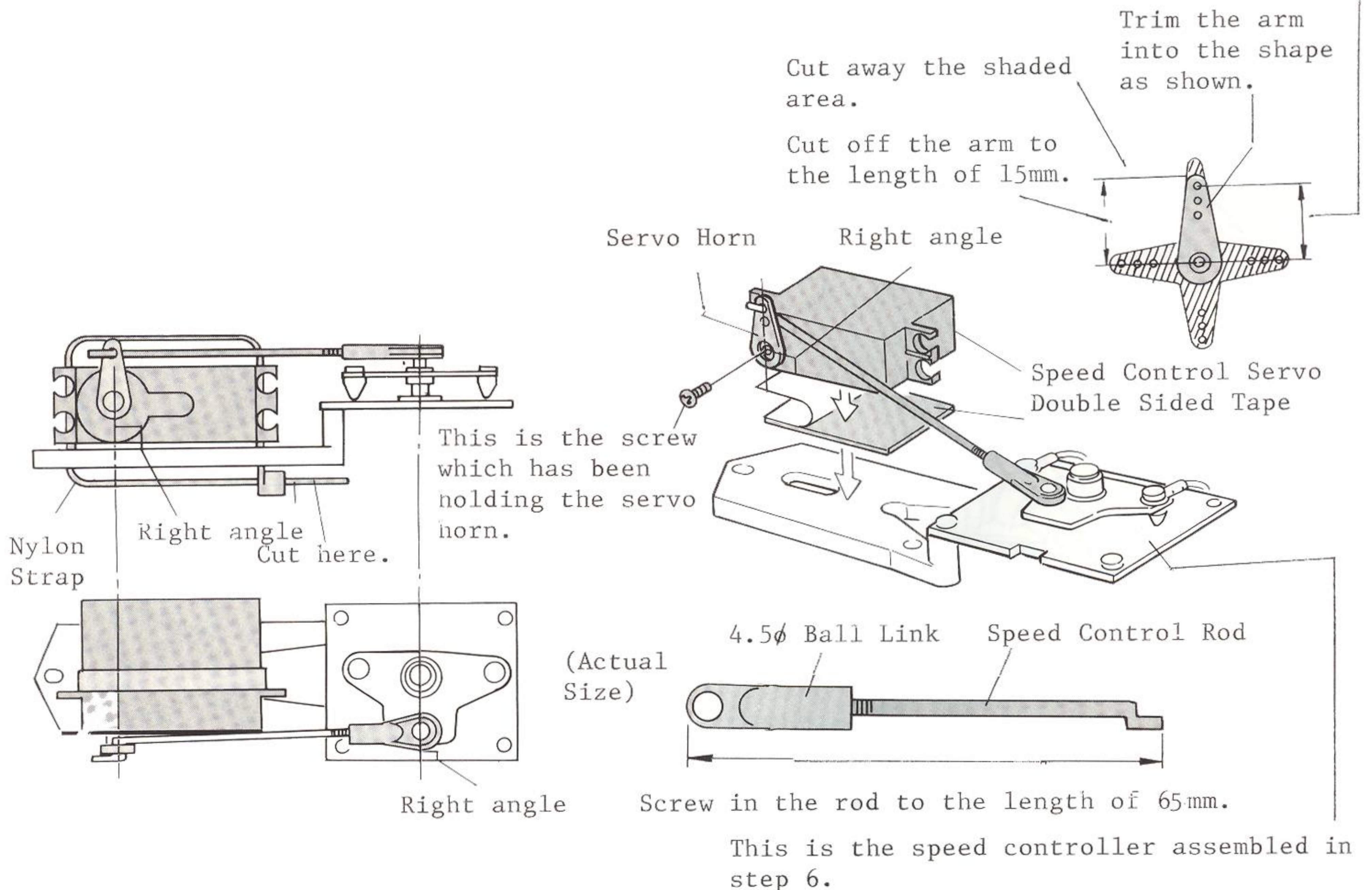
7 ADJUSTMENT OF RADIO

Keep both the stick and trim lever in the center position. (Neutral)

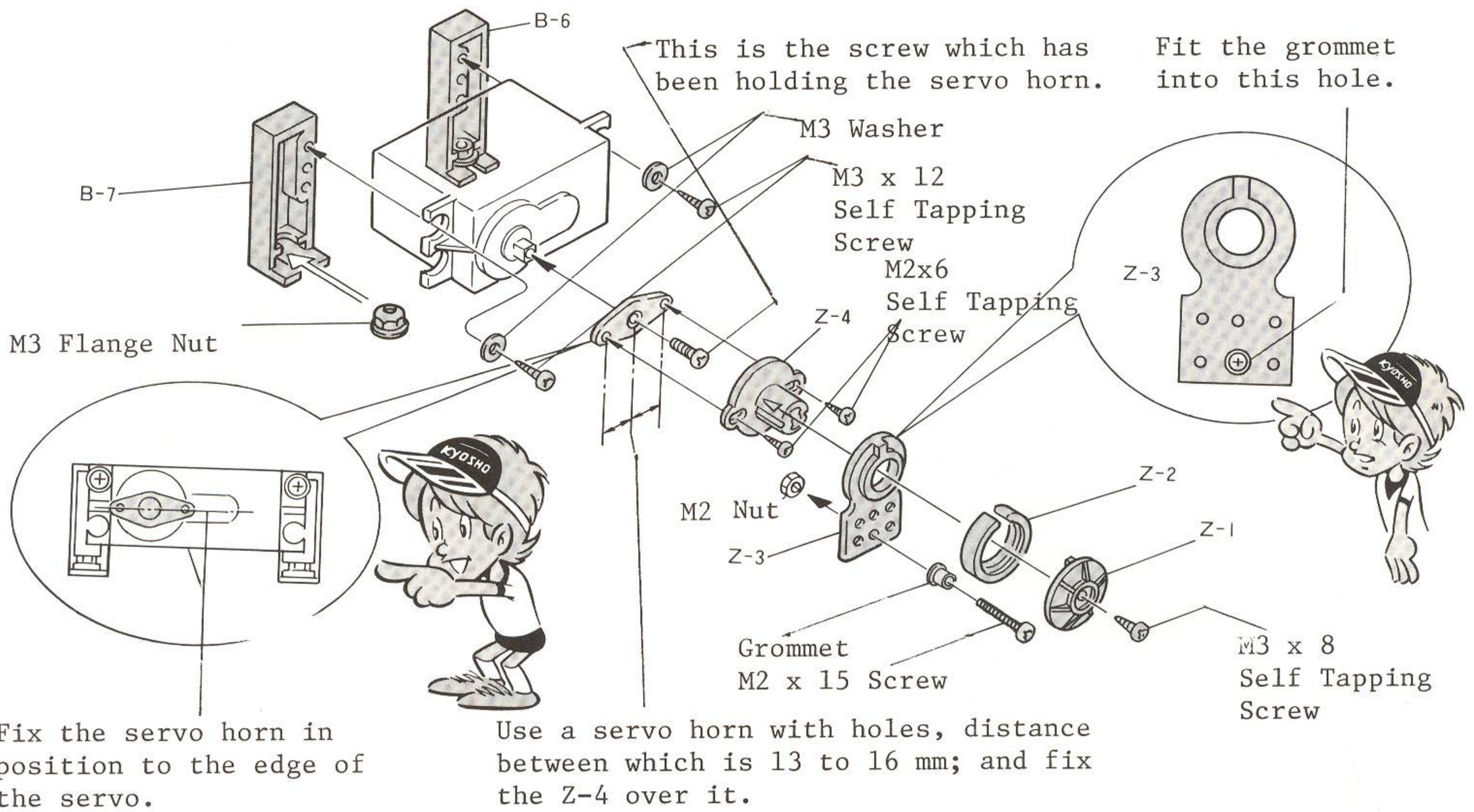


8 MOUNTING OF SPEED CONTROL SERVO

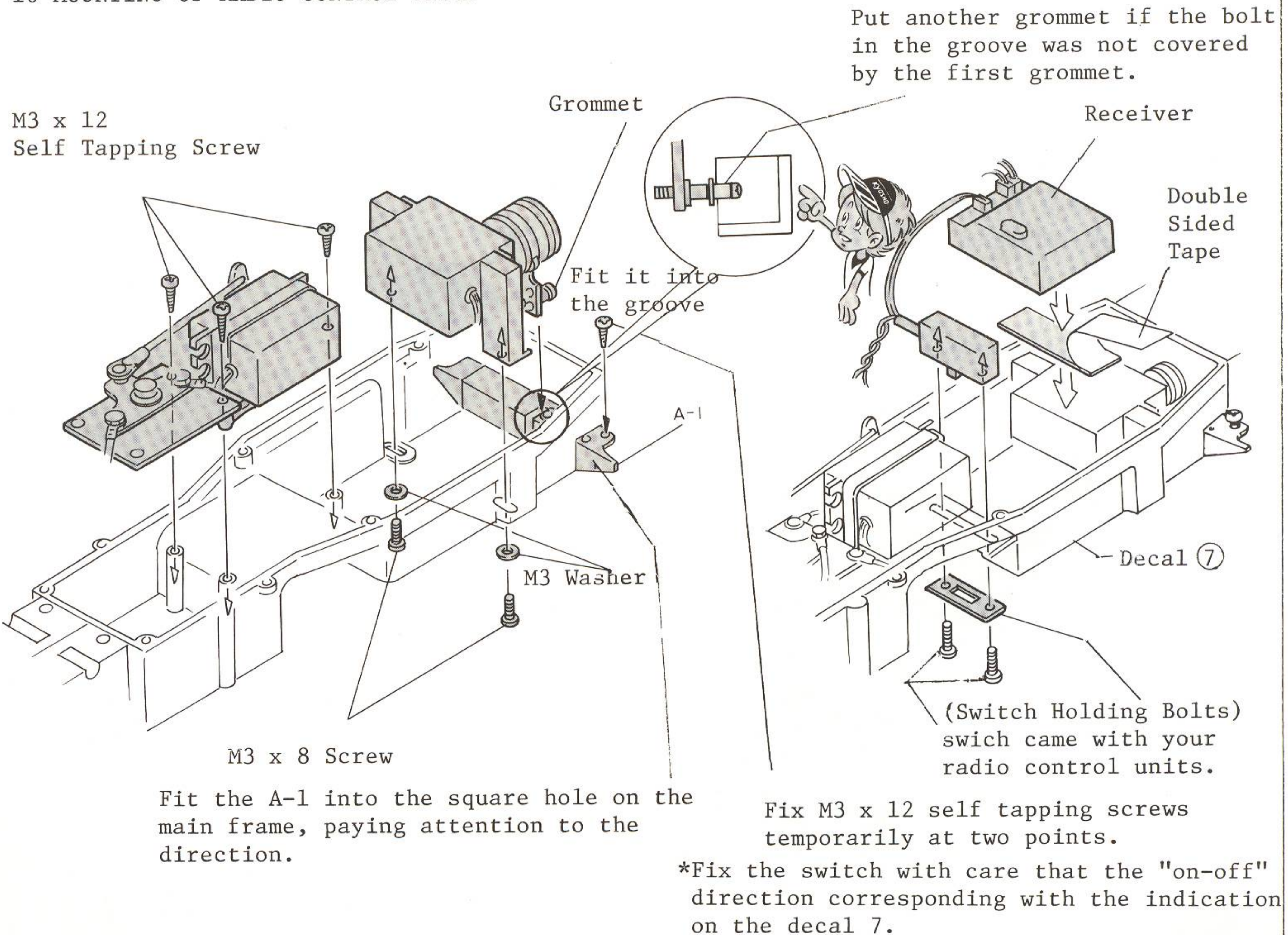
Connect the speed control rod to the hole which is 13mm away from the center.



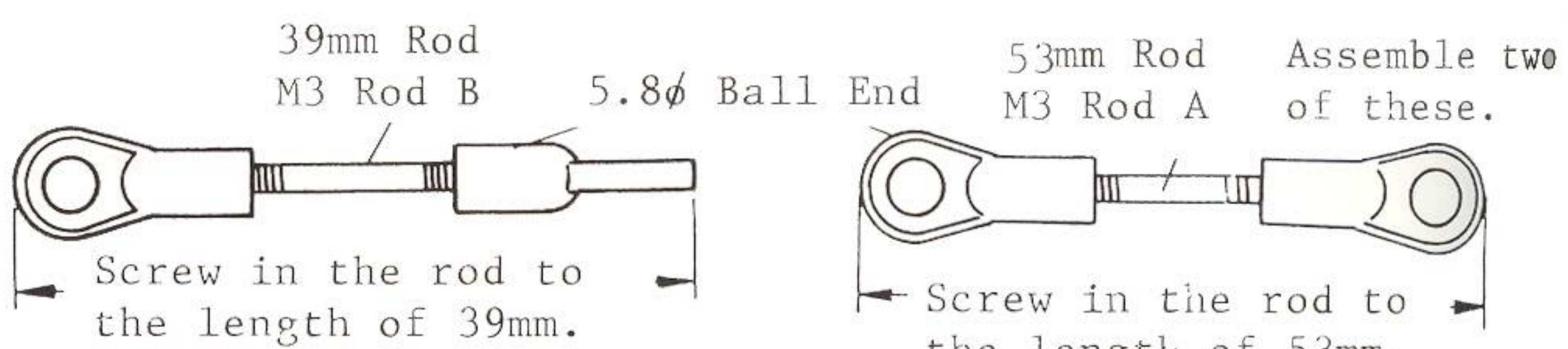
9 PREPARATION OF STEERING SERVO



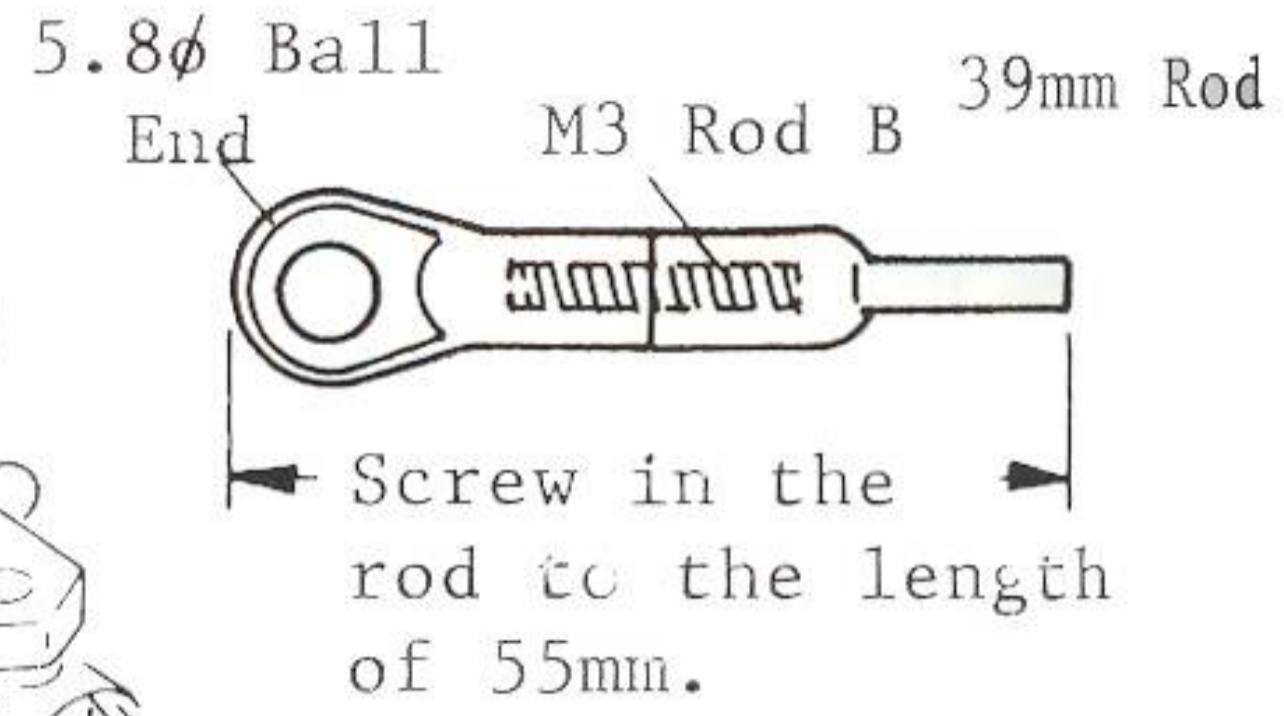
10 MOUNTING OF RADIO CONTROL UNITS



11. INSTALLATION OF TIE ROD



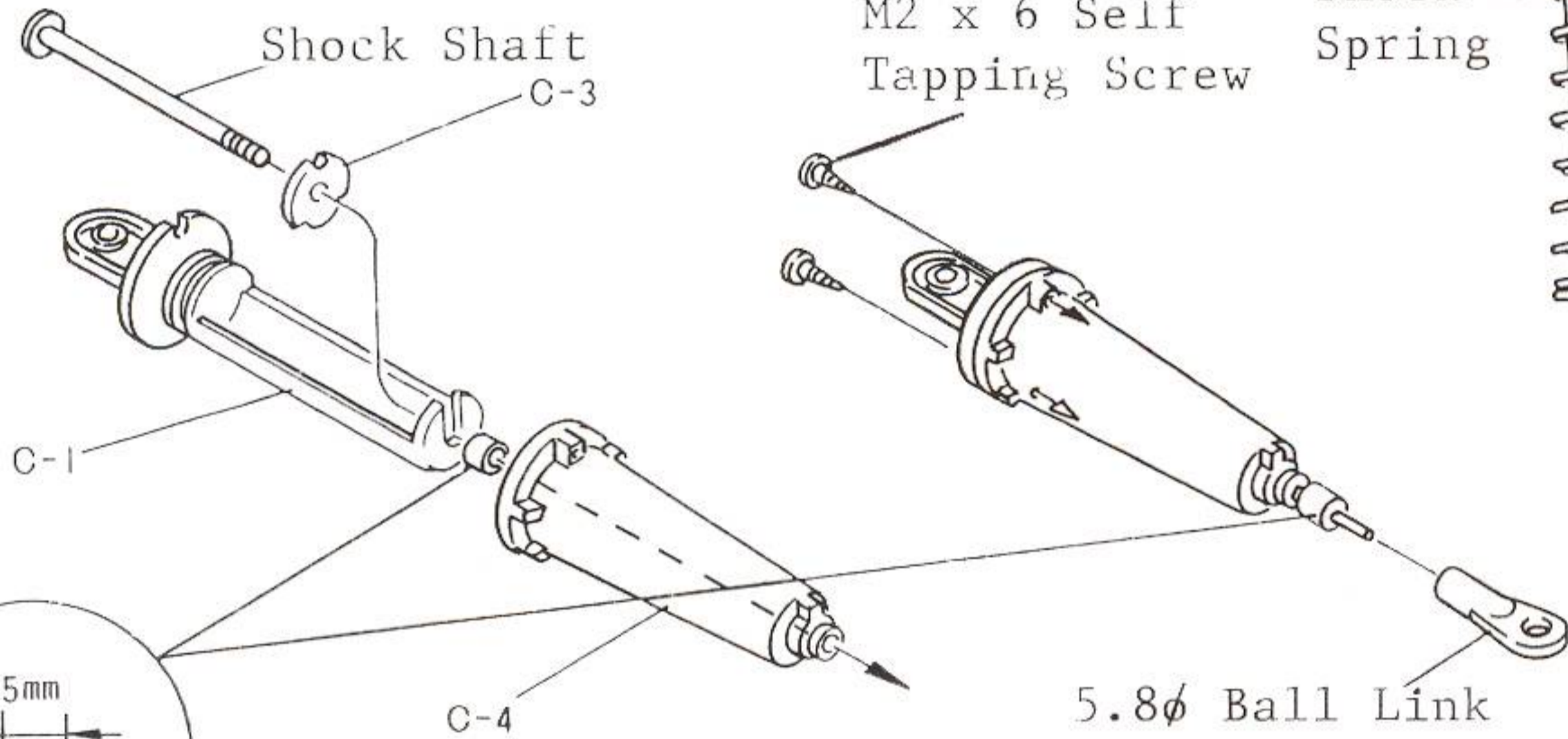
Take off the screw which has been fixed temporarily in step 10.



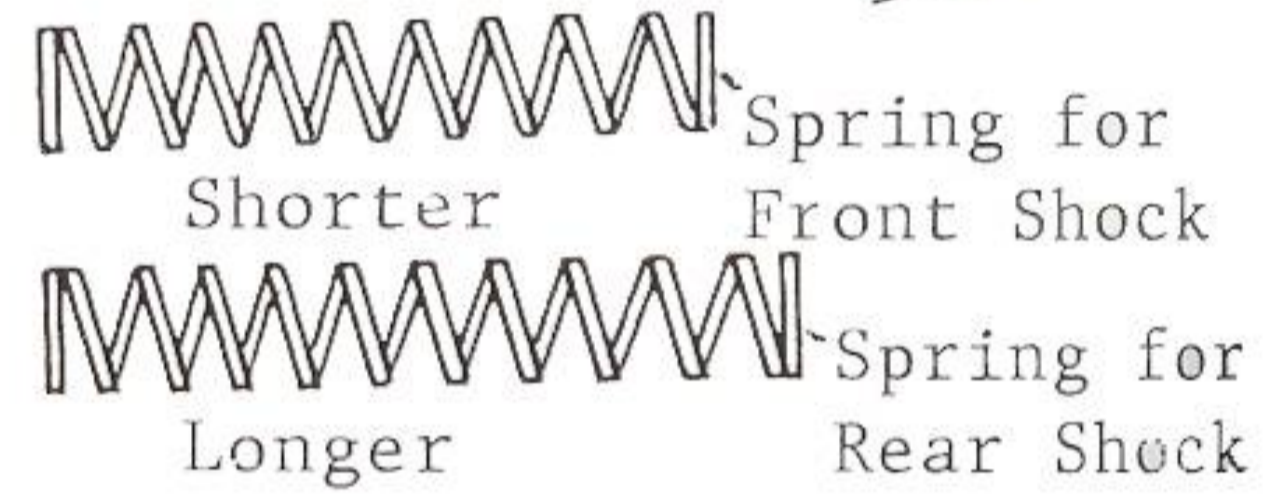
D-5
Rear Wheel Shaft
5φ Washer

Fix these for the right and left sides

12. ASSEMBLY OF SHOCK



Fix these for the right and left sides.



13. FIXING OF SHOCK

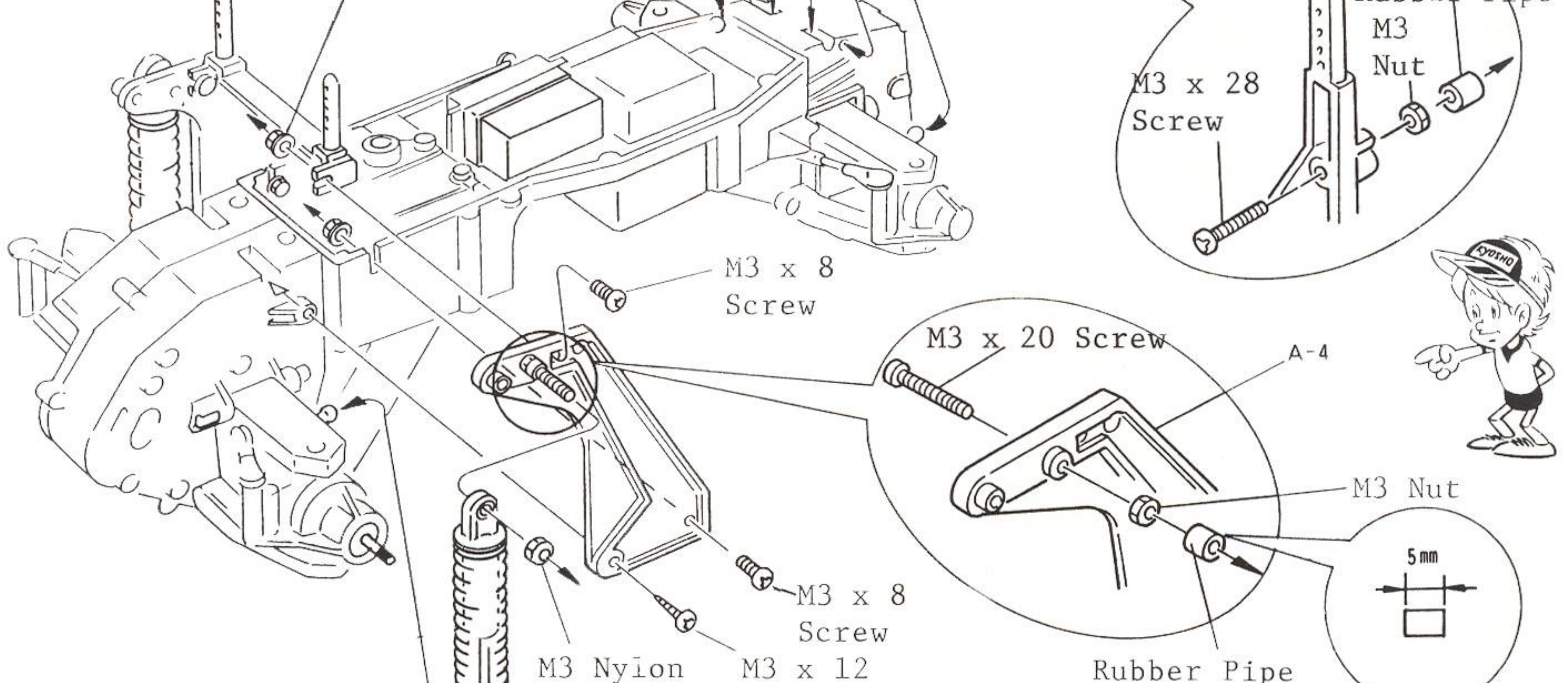
M3 x 12 Self Tapping Screw

M3 Washer

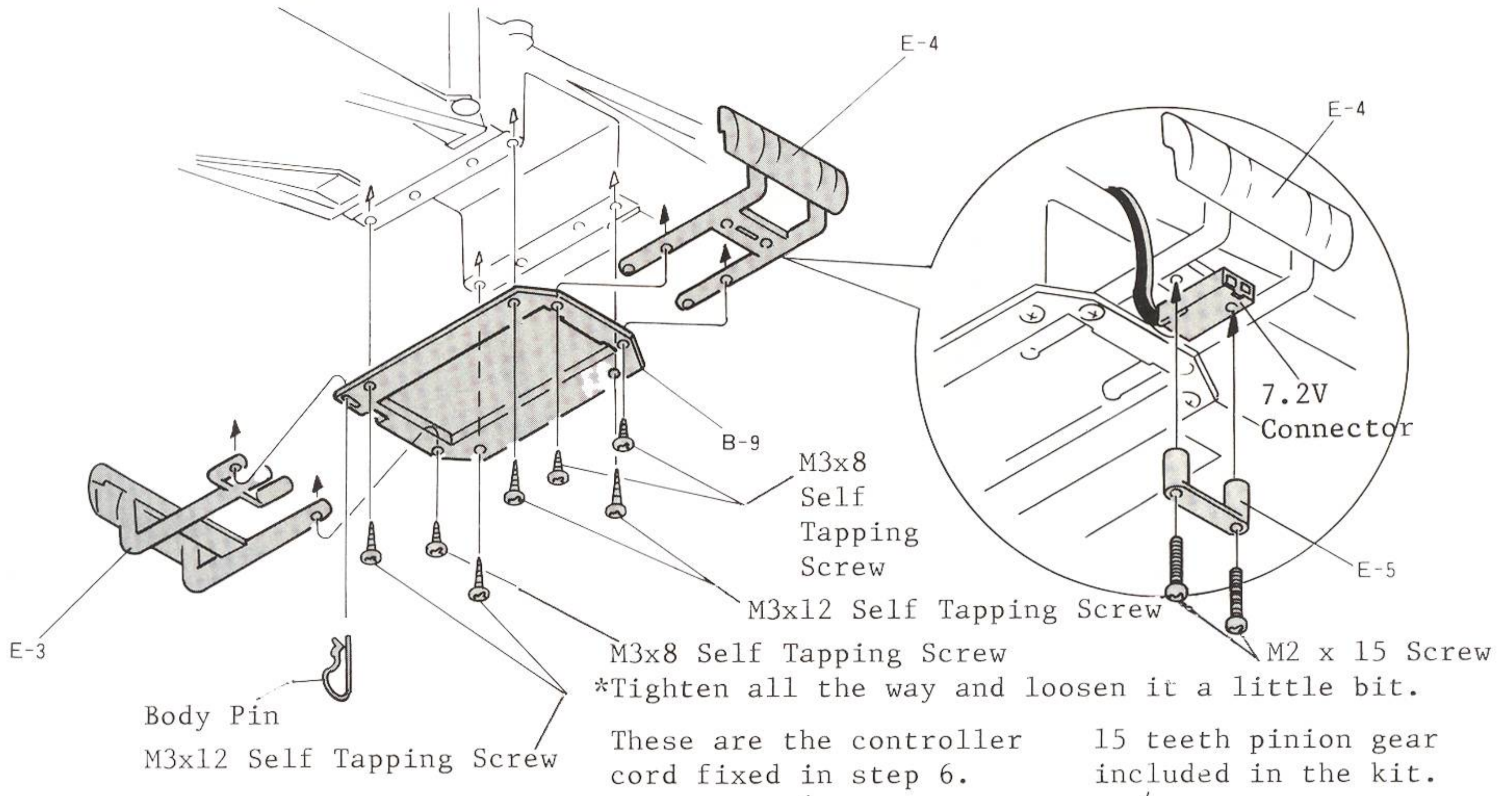
*Fit it as widening it.

M3 Nylon Nut

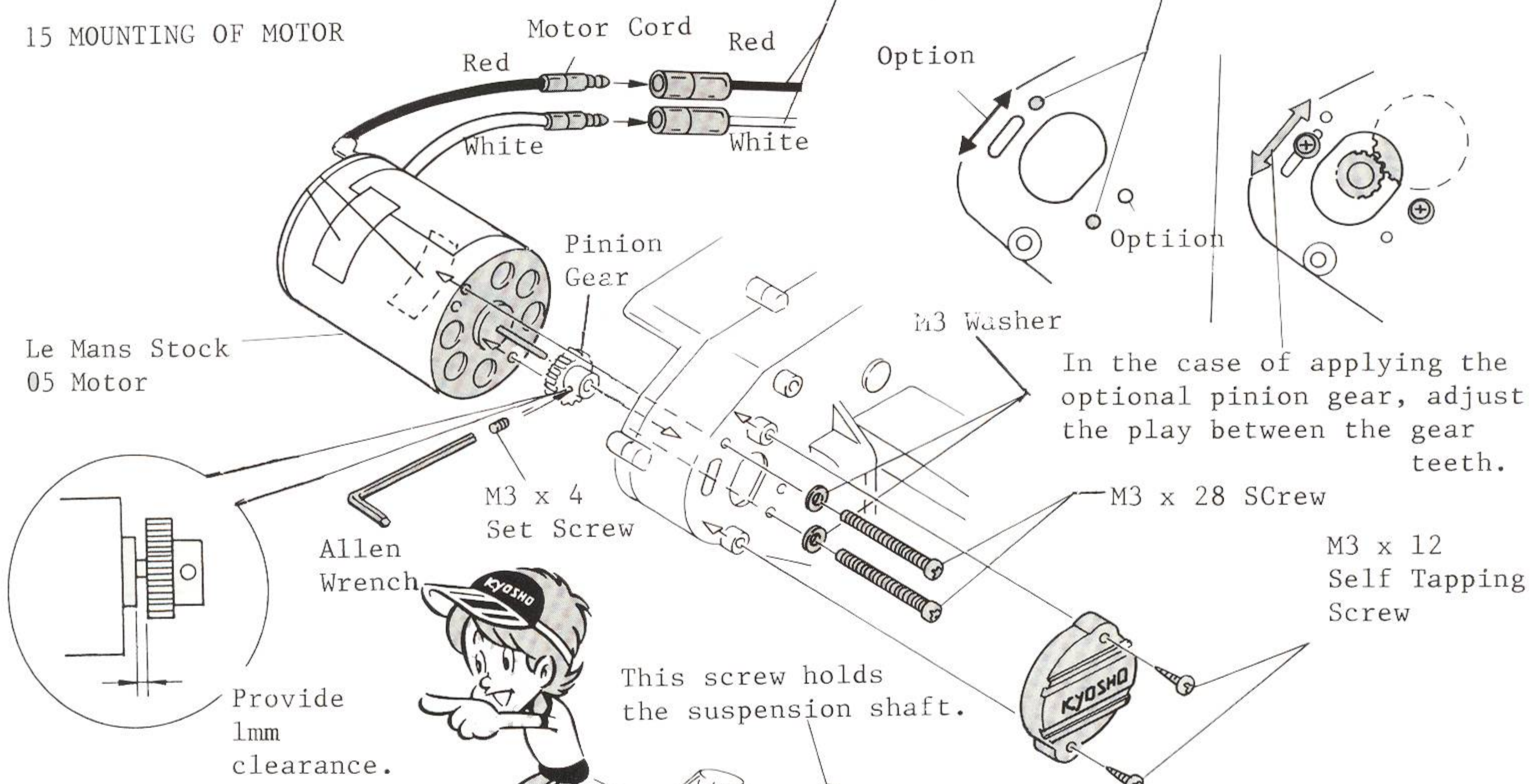
M3 Flange Nut



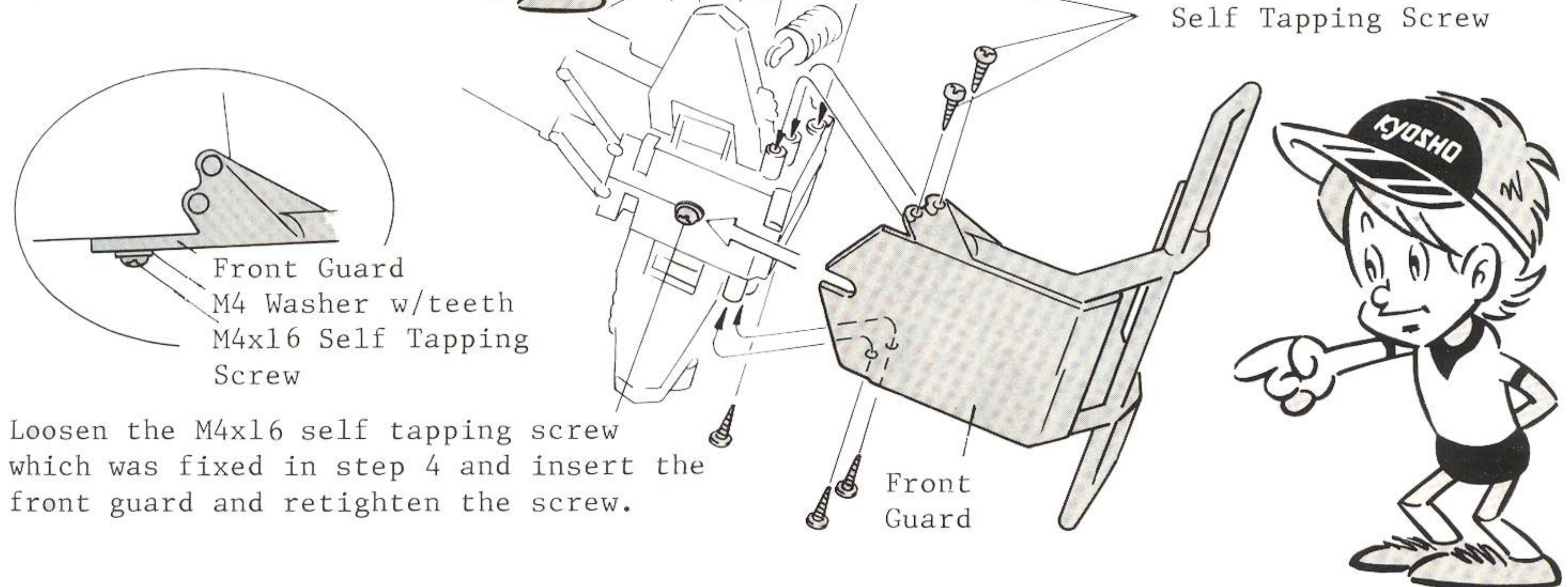
14 INSTALLATION OF BATTERY GUARD



15 MOUNTING OF MOTOR



16 FIXING OF FRONT GUARD



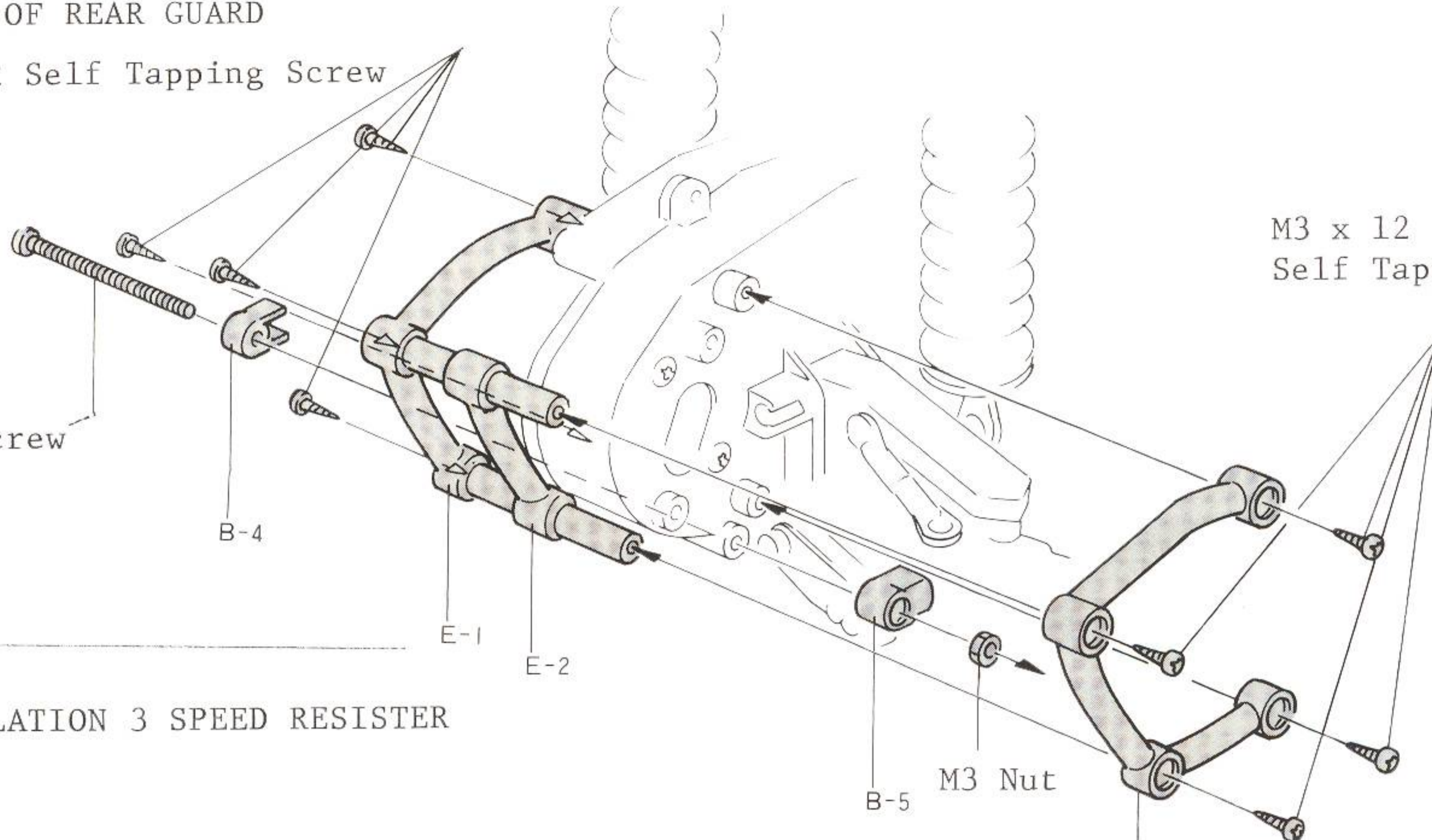
Loosen the M4x16 self tapping screw which was fixed in step 4 and insert the front guard and retighten the screw.

17 FIXING OF REAR GUARD

M3 x 12 Self Tapping Screw

M3 x 60 Screw

M3 x 12 Self Tapping Screw



18 INSTALLATION 3 SPEED RESISTER

M3 x 16 Screw

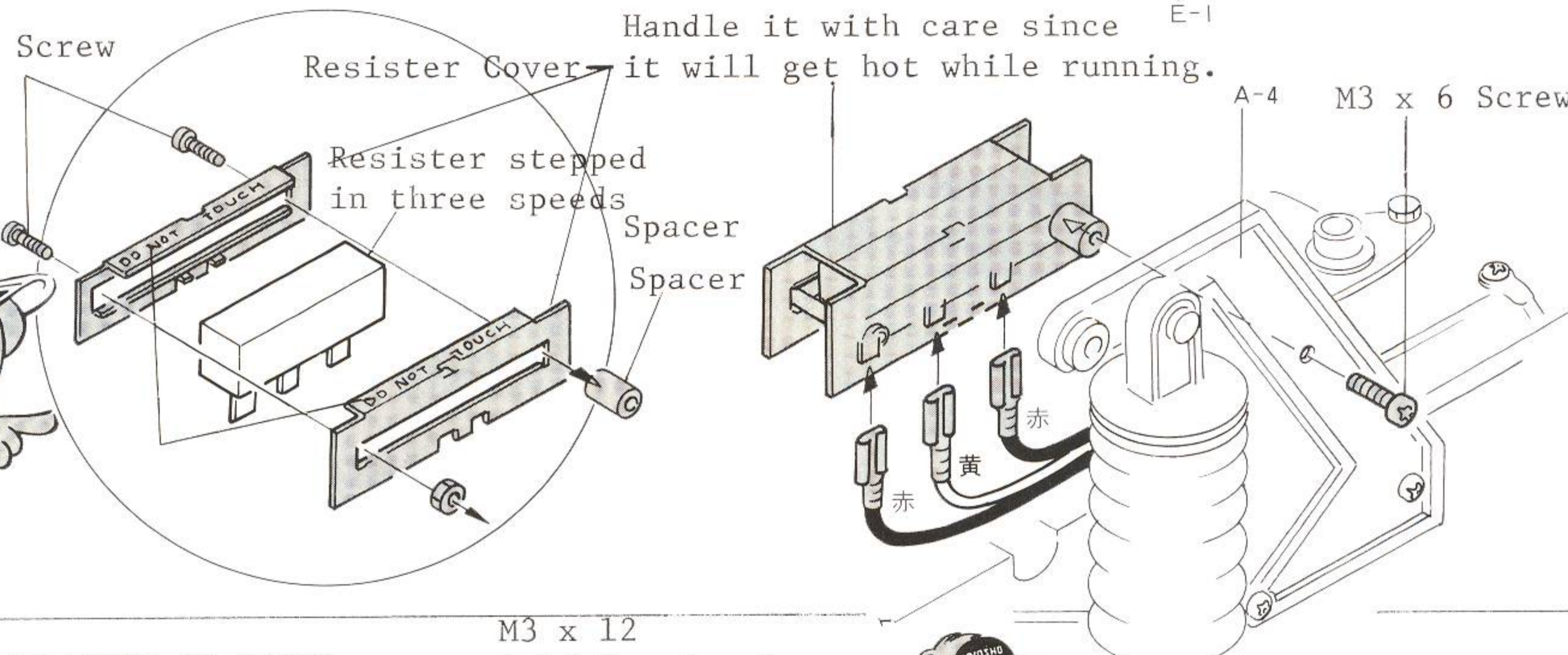
Handle it with care since it will get hot while running.

Resister Cover

Resister stepped in three speeds

Spacer
Spacer

M3 x 6 Screw



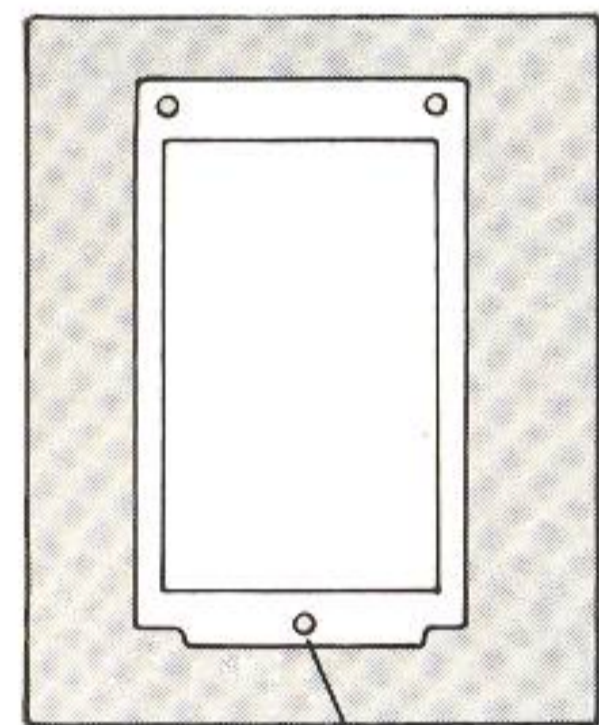
19 INSTALLATION OF COVER

M3 x 12 Self Tapping Screw

Window

M3 x 8 Screw

Cover



Cut out along the marked line and drill three holes, about 3mm diameter.

Rubber Pipe

15mm

5mm

M3 Nut



Rubber Pipe

Antenna Pipe

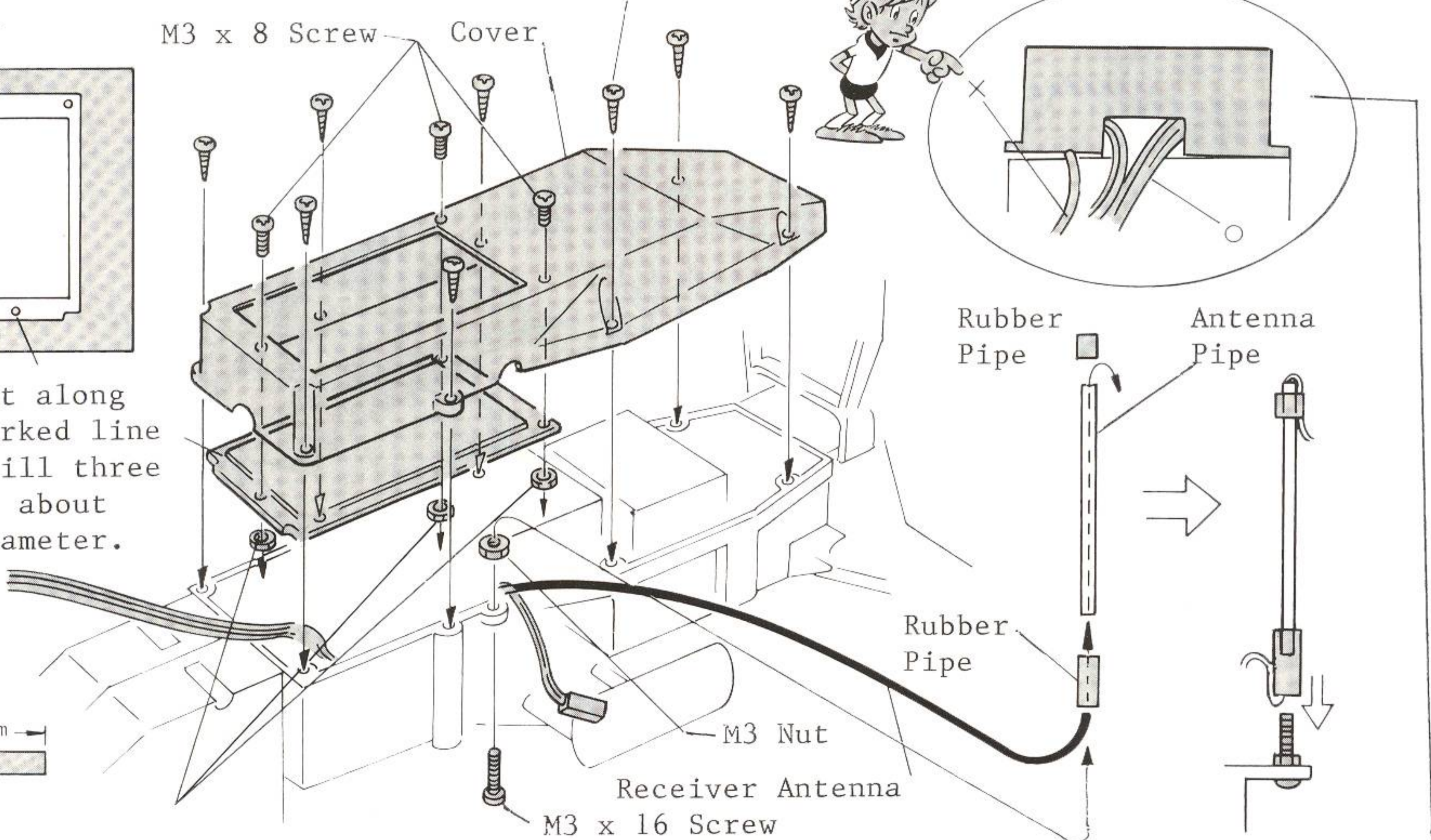
Rubber Pipe

M3 Nut

Receiver Antenna

M3 x 16 Screw

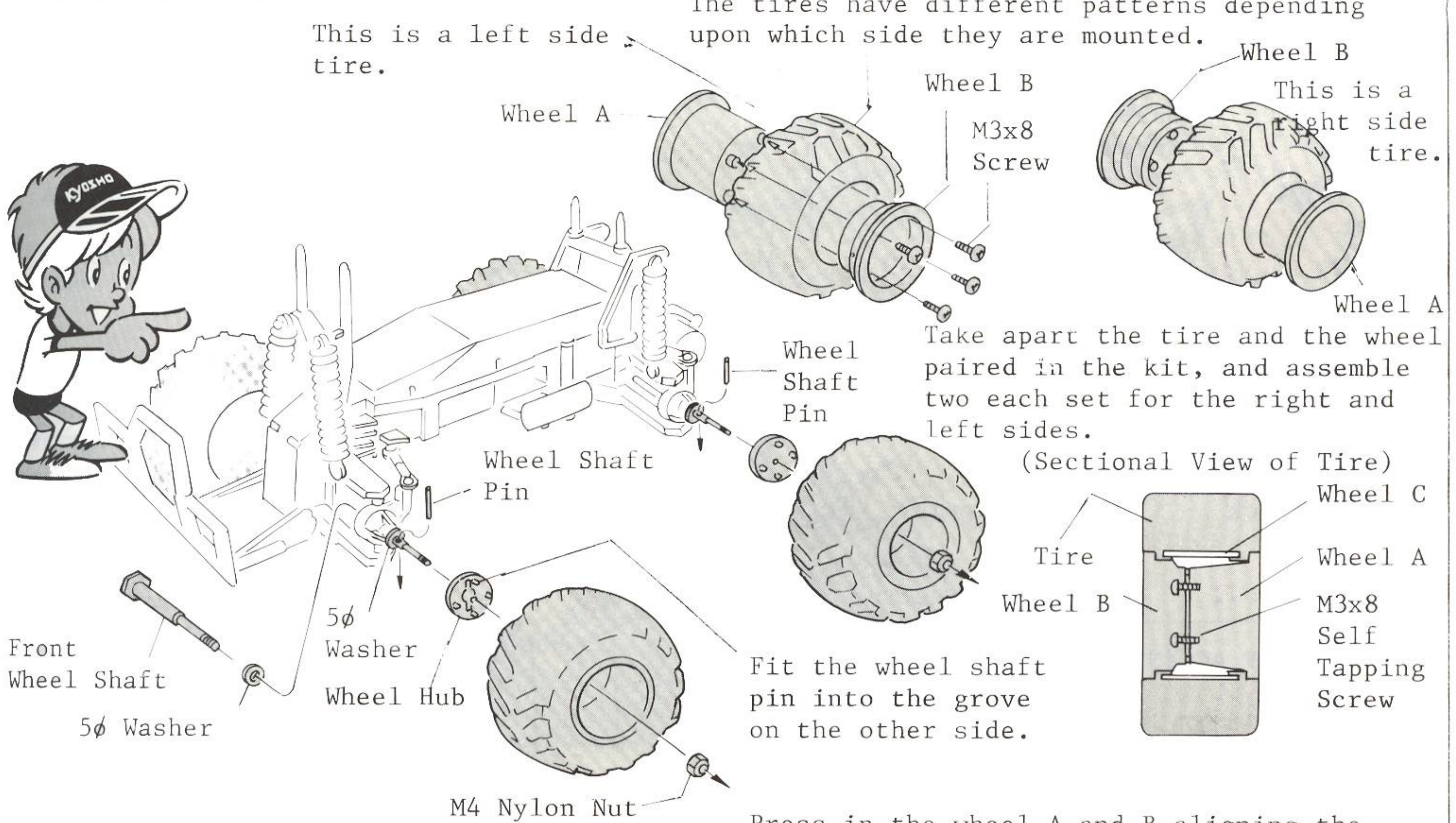
Route the bundle of cords through the notch on the cover, be careful if any cord is not caught between the cover and the main frame.



20 MOUNTING OF TIRES

This is a left side tire.

The tires have different patterns depending upon which side they are mounted.




Take apart the tire and the wheel paired in the kit, and assemble two each set for the right and left sides.

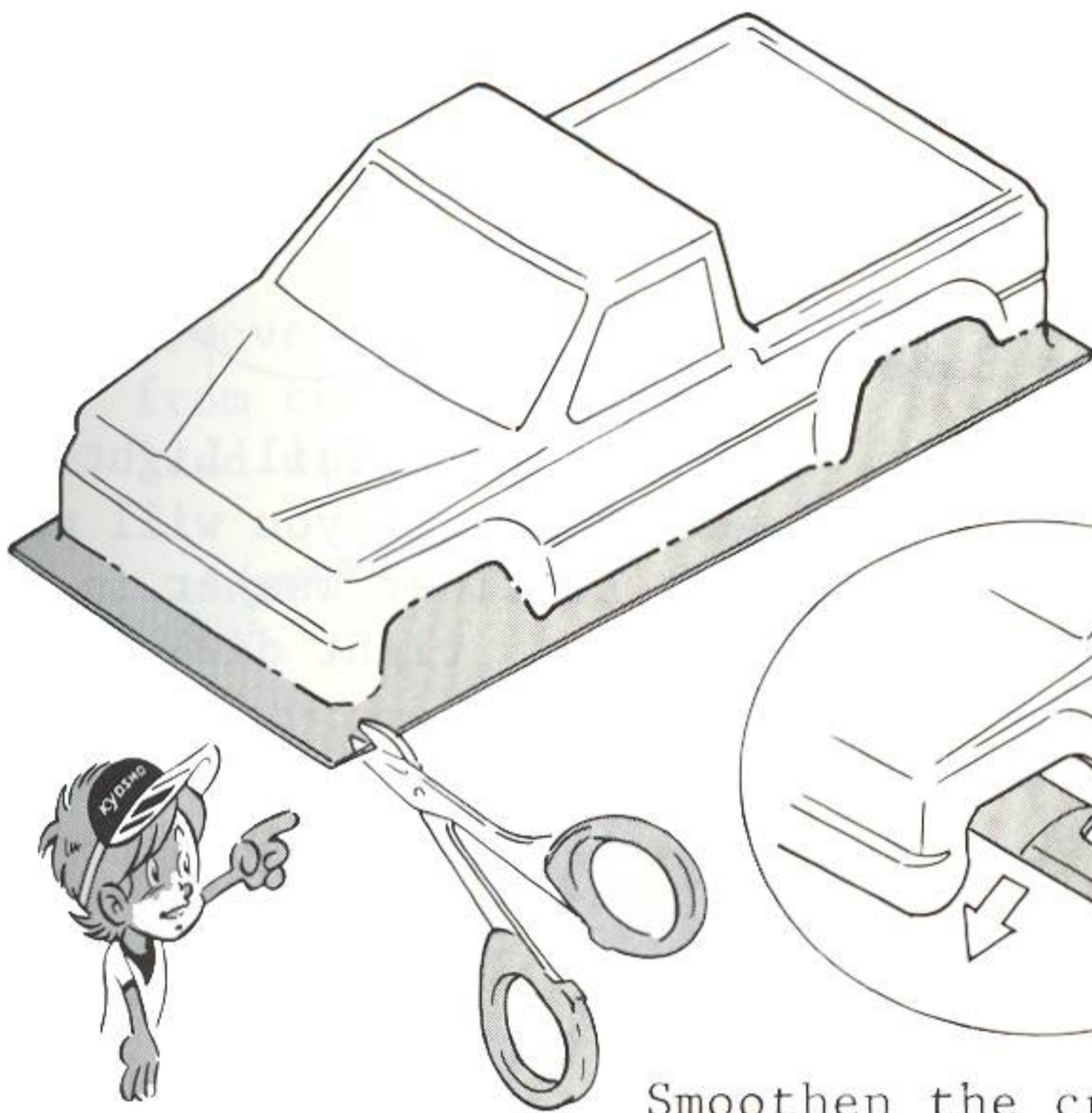
(Sectional View of Tire)

Fit the wheel shaft pin into the groove on the other side.

Press in the wheel A and B aligning the screw holes. (Applying soapy water may make it easier.)

21 PAINTING OF BODY

Cut off the portion marked with  with a hobby cutter or scissors.



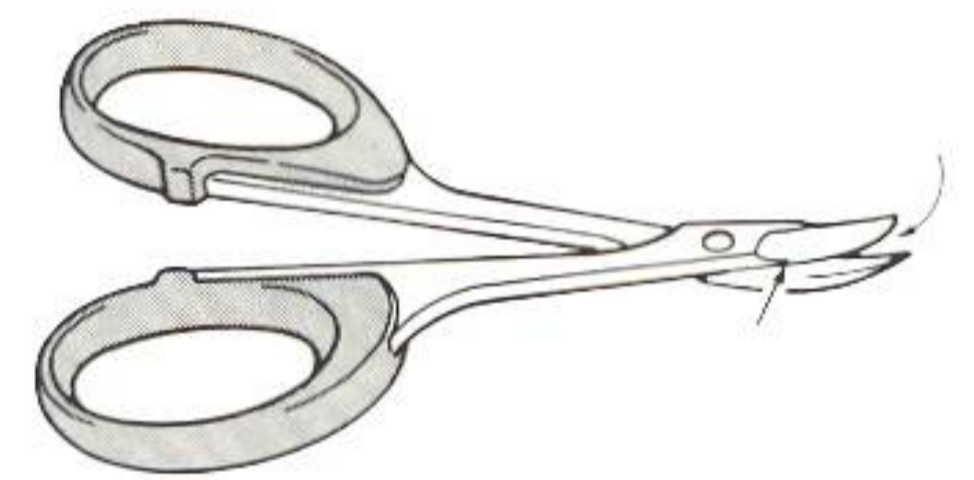
Smoothen the cuts with a sander or a file.



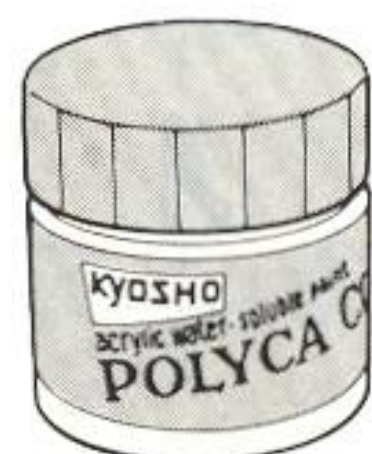
Make the window frame on the body with the Micron Tape and paint the inside of the body.

A pair of scissors which is made to cut polycarbonate material "Round Cutter" is available at Kyosho.

Use the tip of the blade for cutting curved lines.



For straight lines, use the root of the blades.



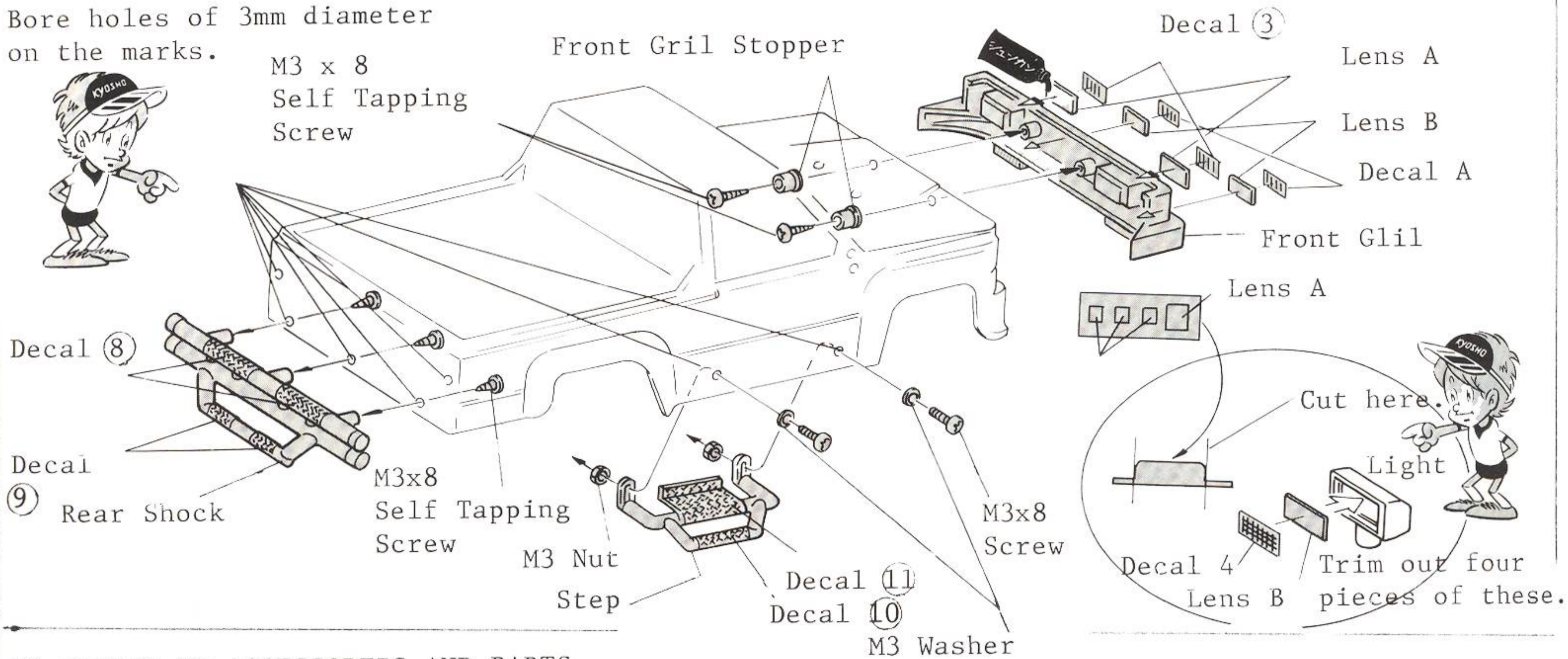
The polyca Colors are paints composed exclusively for painting polycarbonate resin. It is very easy to use. There are 12 different colors.



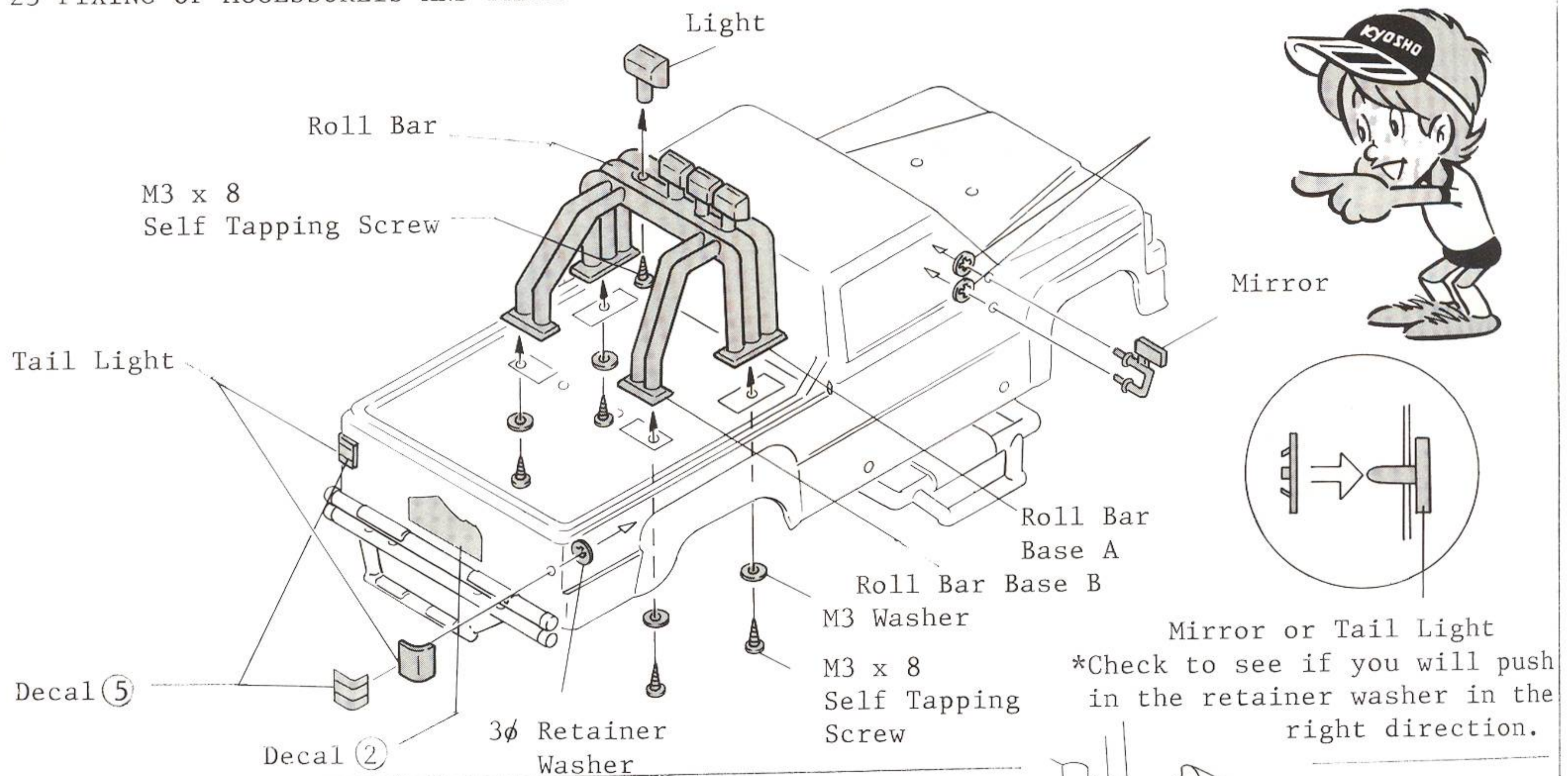
The Micron Line Tape can be used as masking tape and as a material to draw patterns. They are available in 6 different colors and 3 widths.

22 FIXING OF ACCESSORIES AND PARTS

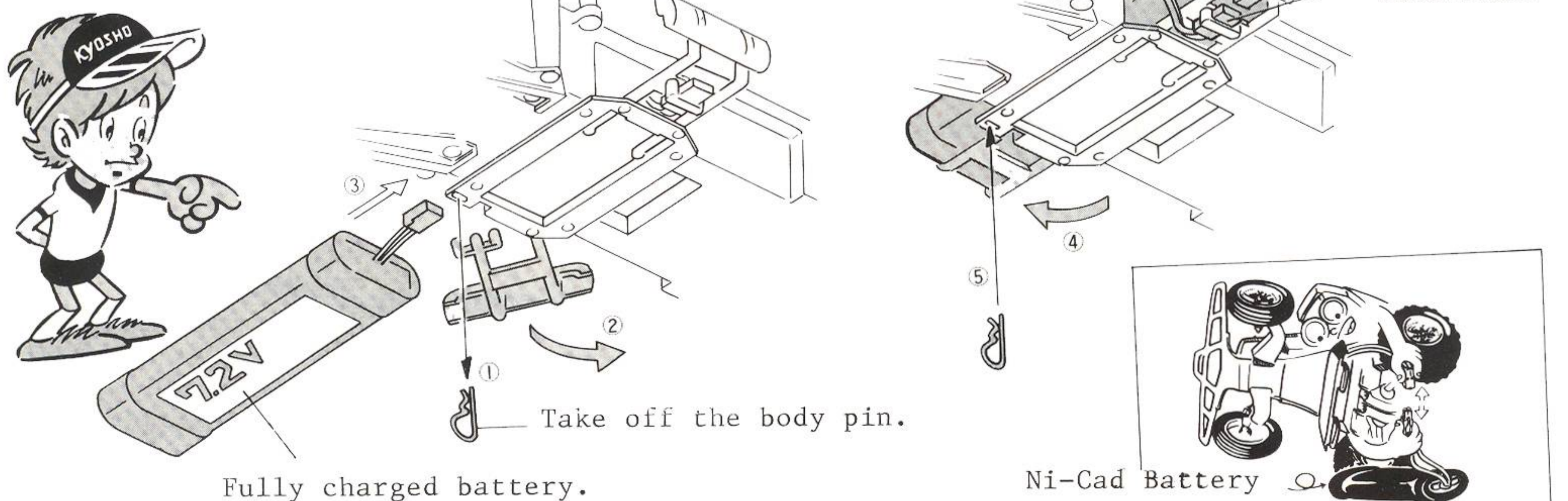
Bore holes of 3mm diameter on the marks.



23 FIXING OF ACCESSORIES AND PARTS



24 MOUNTING OF BATTERY

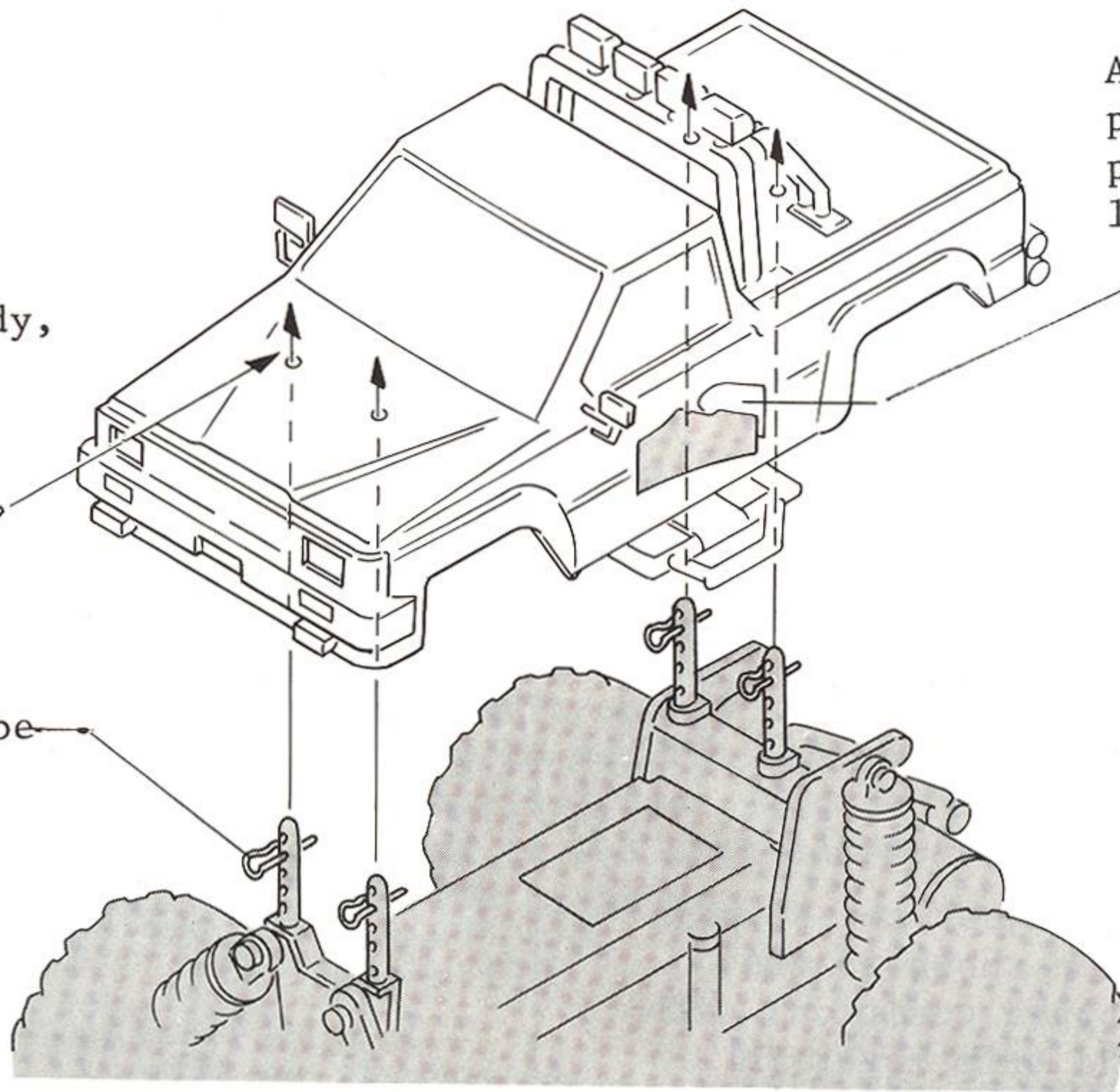


*You have to take away the battery pack when you keep your car not running or store it.

25 MOUNTING OF BODY

After mounting the body, fix the body pin.

The hook pins should be attached previously.



Apply the decal ① as peeling off the backing paper on both right and left side of the body.



HOW TO OPERATE THE BEC TYPE RADIO CONTROL UNIT

What is the BEC Type?

It is a system in which a connector is provided to power the receiver and servos from the propelling 7.2V mAh Ni-Cad battery. When you use a BEC type radio, you are required just to plug the connector (female) on the car chassis into the BEC connector (male) from the switch harness; then all the connection between the battery, receiver, and servos is complete.

*With a BEC type radio connect the lug terminals, used in step 6, to the BEC connector and fix them onto the speed controller PC board at the terminal bolts as shown in the drawing below.

1. Remove the vinyl insulator from the BEC connector lead wires.

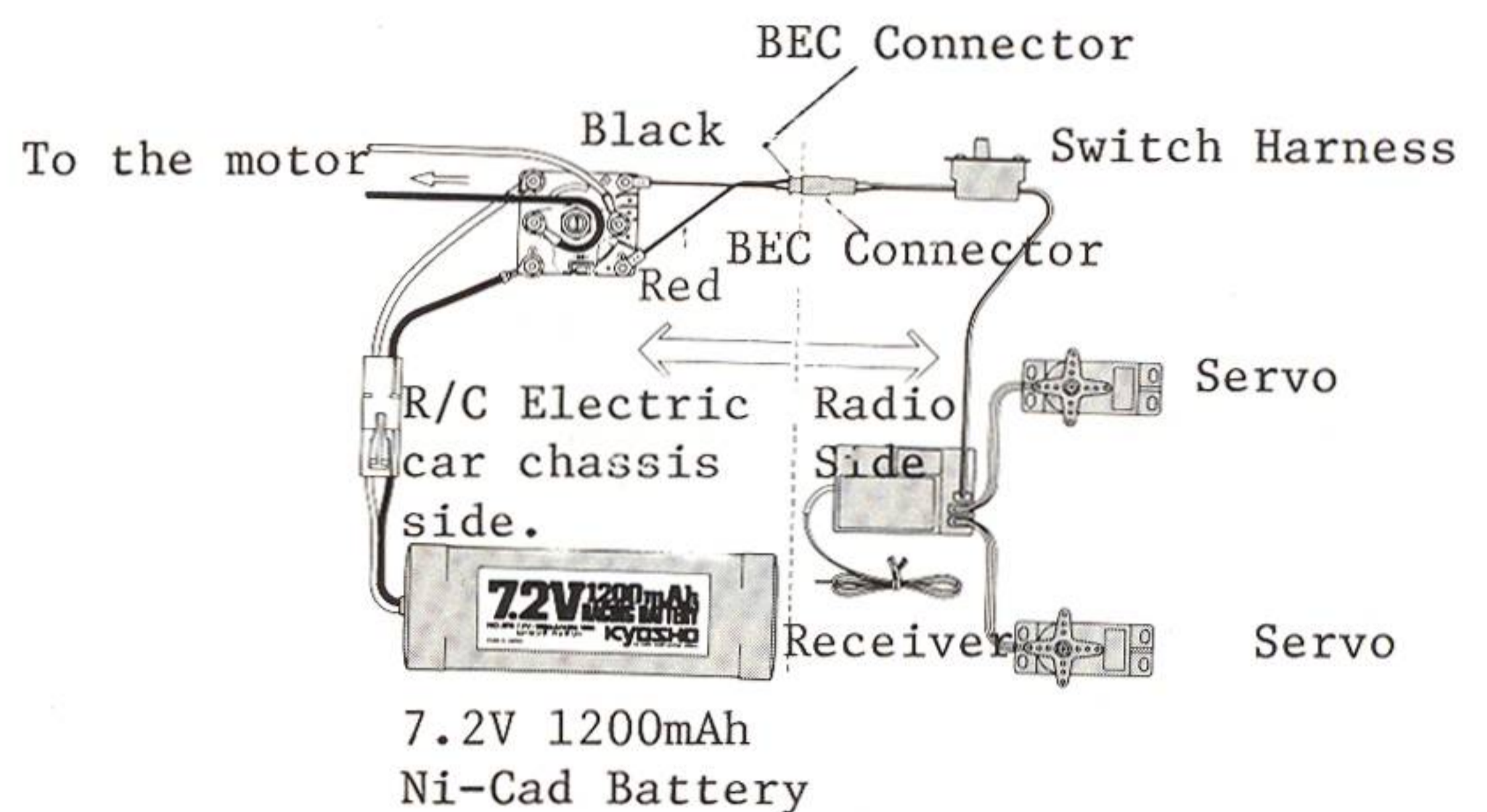
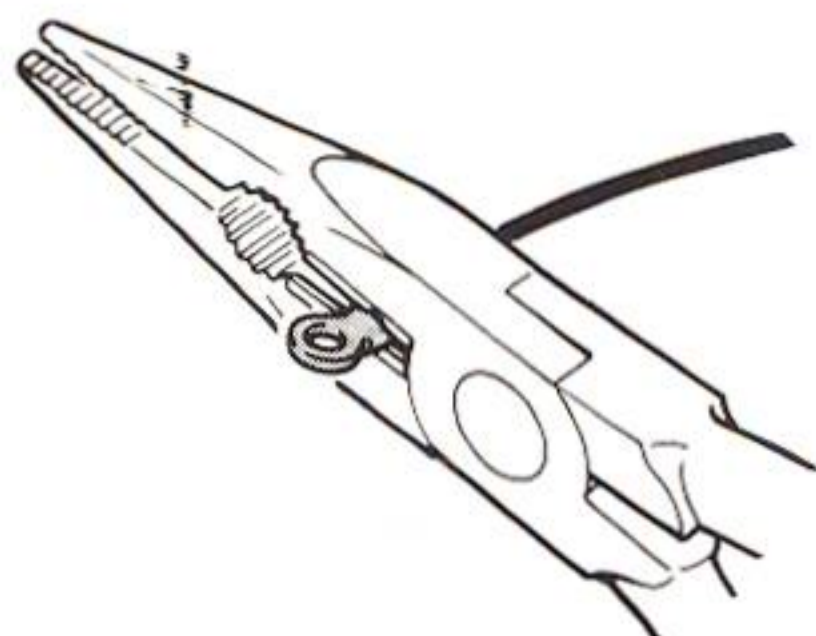
(Fixing Lug Terminal)



2. Insert the ends of wires into the lug terminals.



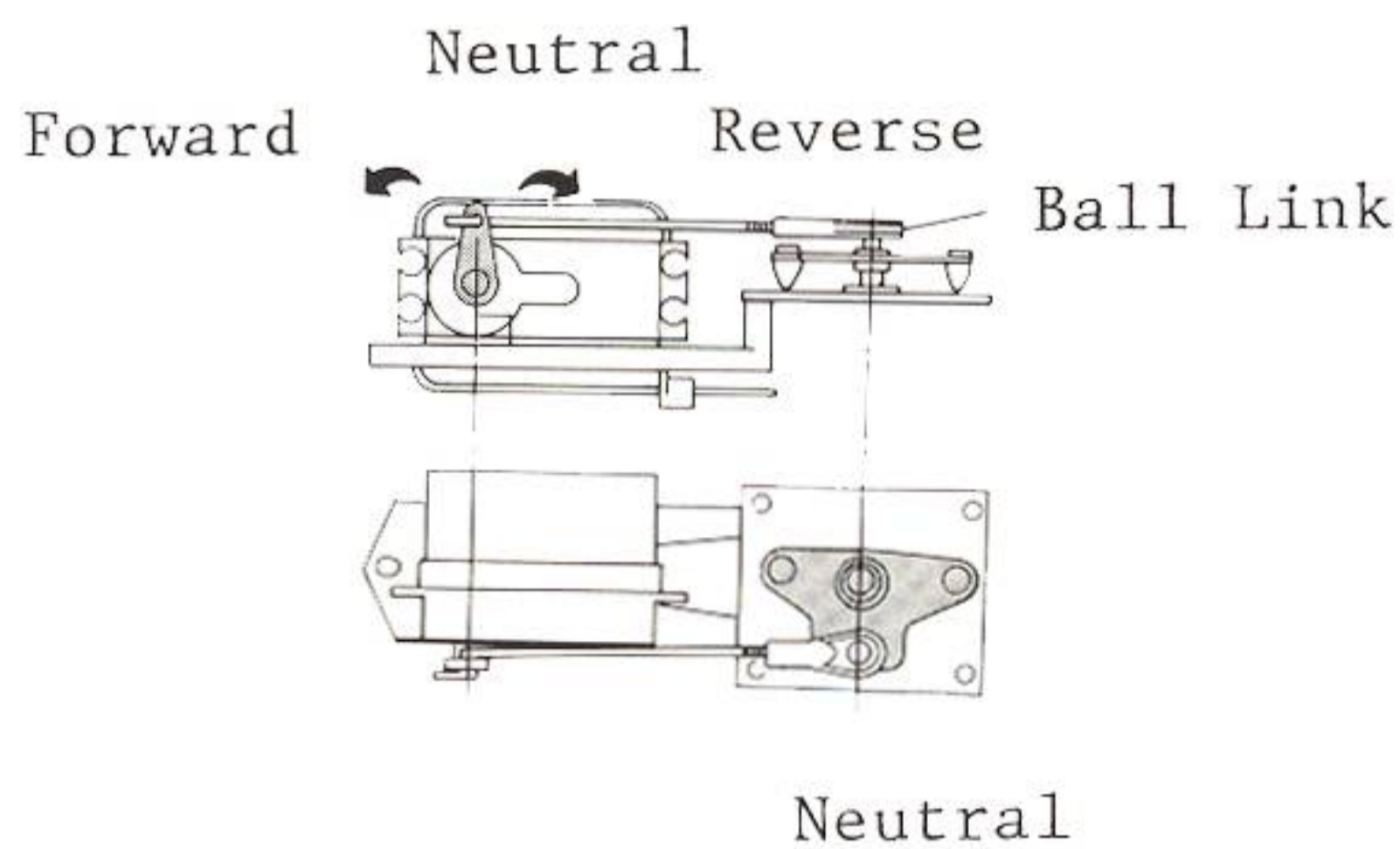
3. Crimp the lugs with pliers



GUIDANCE TO CHARACTERIZING THE CAR CRUSHER "BIG BRUTE"

(Adjusting of Speed Controller)

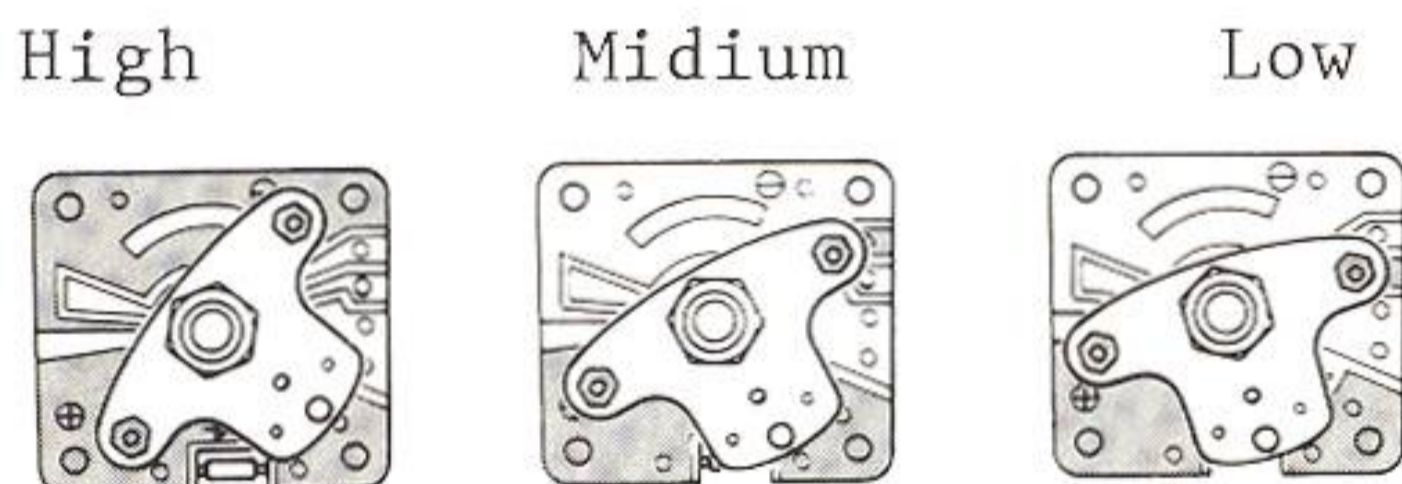
Plug in the connector from the speed controller to the 7.2V Ni-Cad battery and operate your radio. While adjusting, the wheel of car may start to run, so keep your model upon a small box to make the wheels aloof from the ground.



By turning the ball end, adjust the speed controller to the position shown in the drawing above (motor stopped position) with the control stick and the trim lever in neutra.

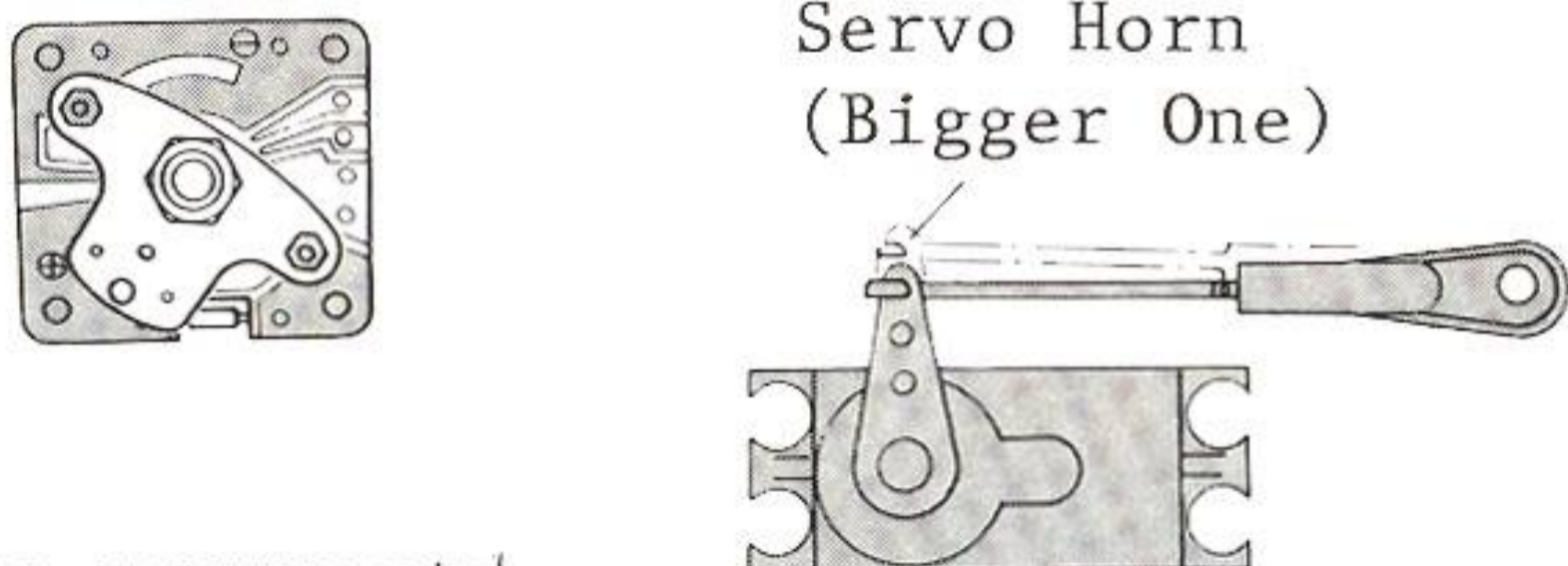
1. Adjustment of High Speed

When the control stick on your radio is pushed forward all the way, the controller should be activated and the motor should run at a high speed. By the motor sound, you can tell if the motor is running high, medium, or low speed.



2. Adjustment for Reverse

Pull the control stick and the controller horn should operate as illustrated in the diagram below. The motor should run in reverse.

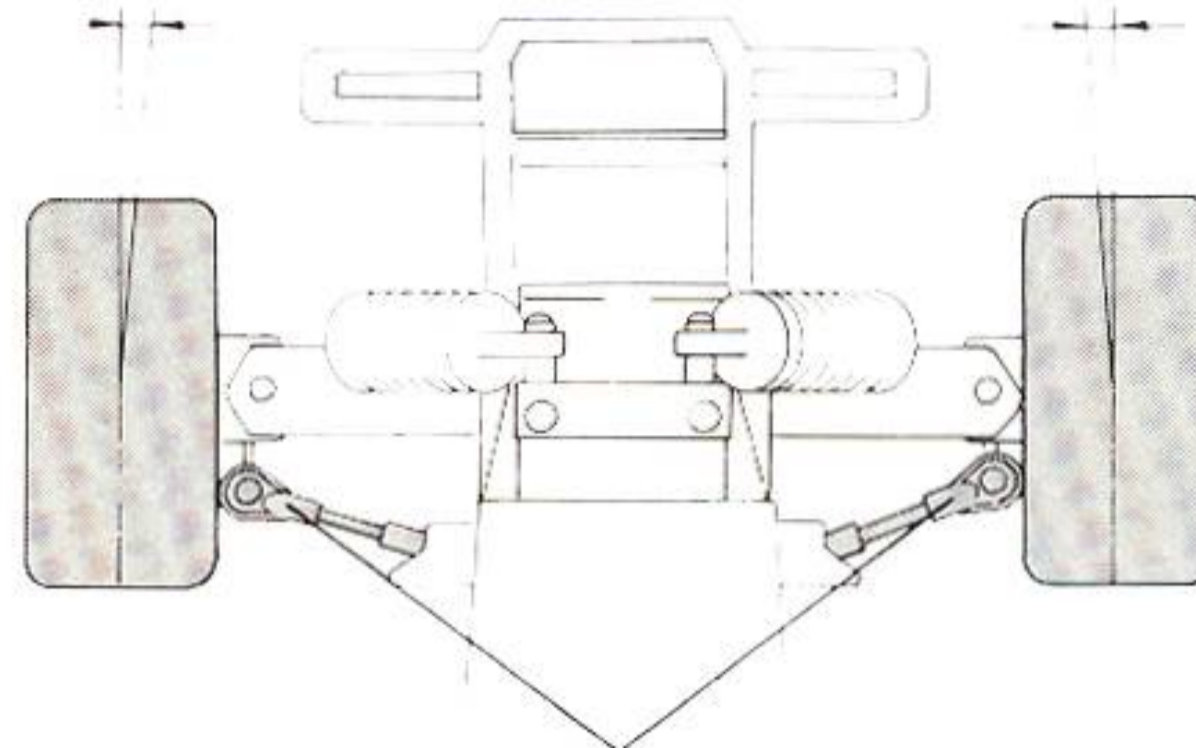


If the movement described in 1 and 2 are not achieved, replace the servo horn with a bigger one.

(Toe-in Adjustment)

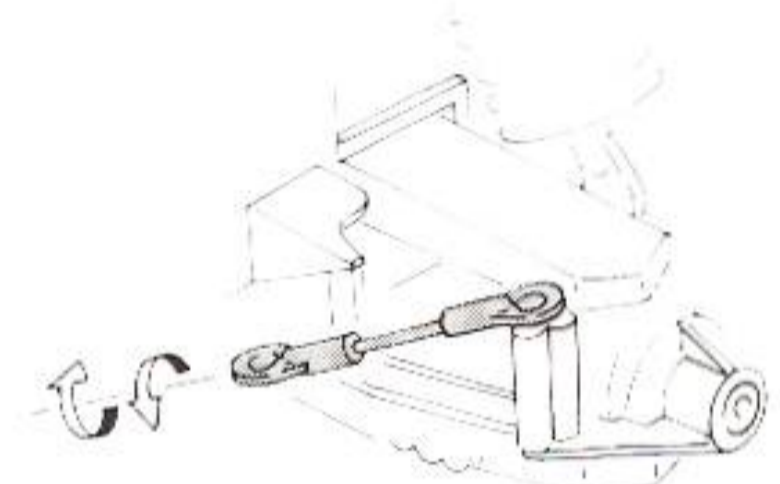
This is important for controlling a car. Set the front wheels converge a little toward the front. This adjustment helps the model run in an straight line and enhances the steering response.

about 1°



Adjust the neutral position and the toe-in angles with two ball links attached to the tie-rod.

Snap it on after acquiring the correct length.



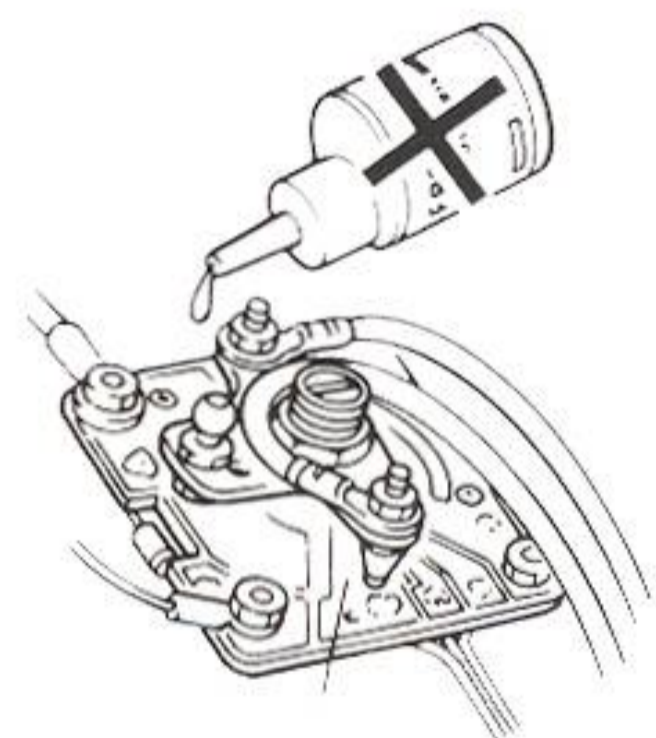
(Oiling)

No.1883 Frontier Hobby Oil

1. Apply a little amount of light oil, such as Frontier Hobby oil, to the shaft, bearings and joints. Wipe off any excessive oil with cloth. Do not use heavy oil as it attracts mud and during a running of the car.



2. Do not oil to the speed controller directly. Electric sparks may burn the oil. Whenever you feel that the speed controller needs lubrication, wipe the PC board lightly with a piece of cloth dampened with the Frontier Hobby Oil.

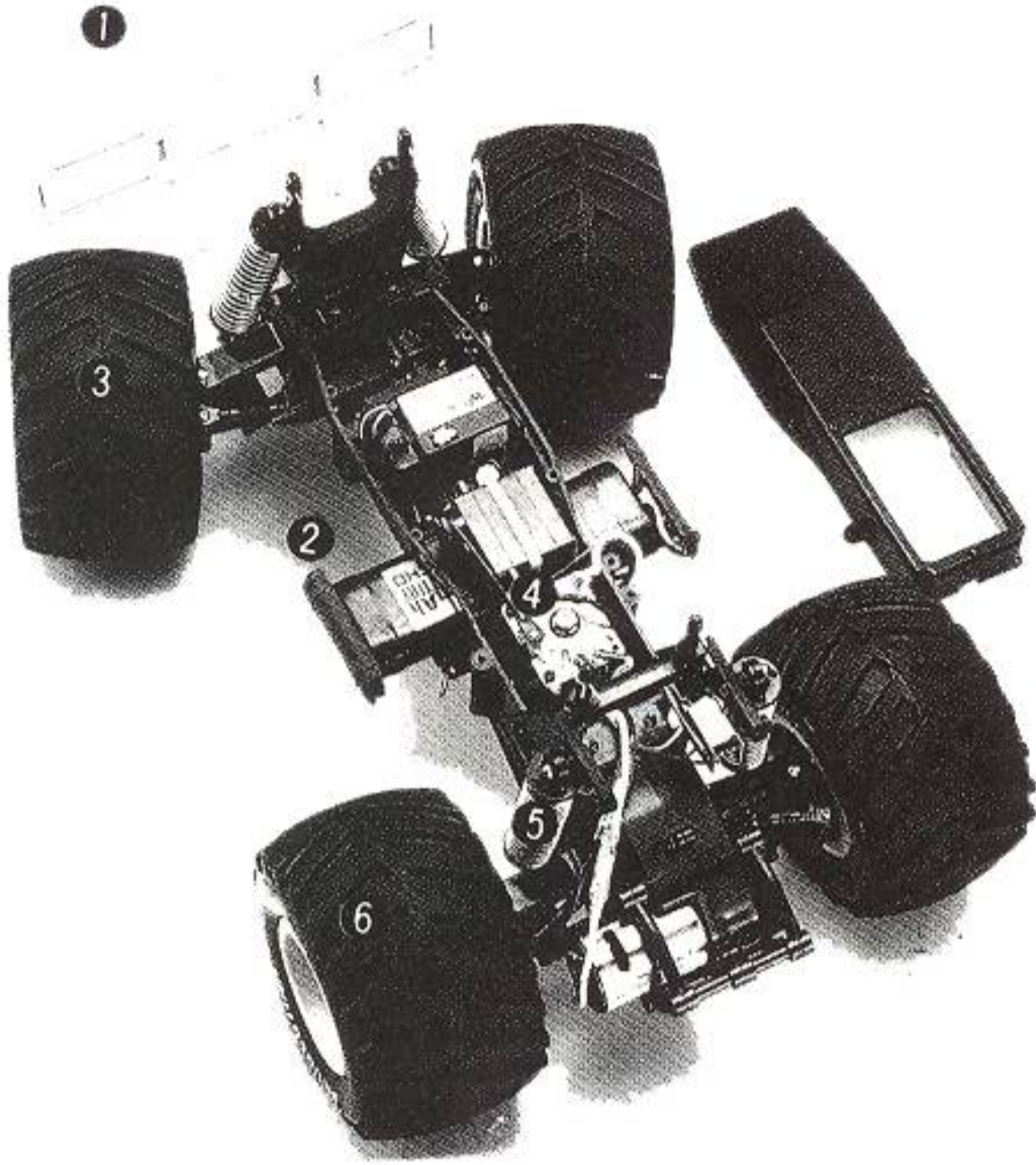


Speed Controller

CHECKING BEFORE RUNNING

(Checking Before Running)

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



*Drive slowly the first time the car is run. Continue driving slowly until the battery needs recharging. Check all moving parts on the car,

1. Check to see if all bolts, screws and nuts are tightened firmly.
2. Check to see if batteries for radio control units and the motor are charged fully.
3. Check to see if the front wheels steer in proportion to your control of the transmitter.
4. Check to see if the forward and reverse movement of the car responds accurately to your control.
5. Check to see that all wiring is properly insulated with vinyl tape.
6. Check to see that the rear wheels are free and can be turned by hand.

(Operating Steps)

1. Put batteries into radio control units. Install main Ni-Cad running battery.
2. Turn transmitter switch on.
3. Switch on the receiver.
4. Check to see that the sticks of your transmitter operate correctly, right and left for steering, and up and down for throttle.

*When turning off the switches, turn off the receiver first then transmitter. Otherwise, the car servos may be left in a position other than neutral.

(Trouble Shooting when the Car does not Start)

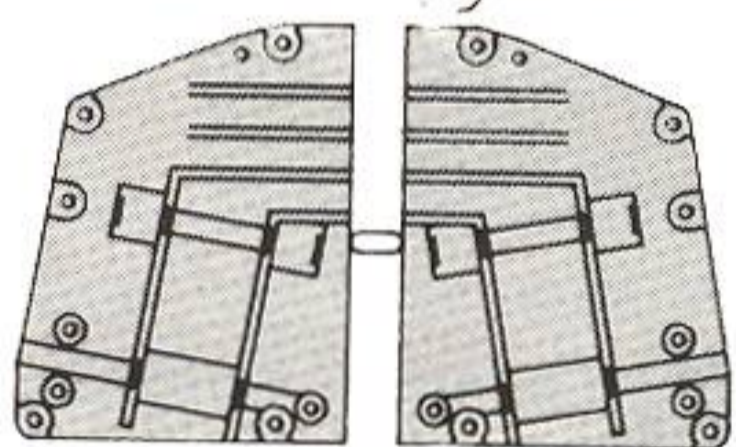
1. Poor contact of connectors of receivers, servos, batteries or of electric wiring.
 2. Poor contact of the speed controller wiper blade.
 3. Radio control units are out of order.
 4. Signal jamming from other radios.
- * The radio control units in the Big Brute is powered by the same battery which drives the motor. So, during a run, if you notice any drop of speed, retrieve the car at once and turn the switch off. The battery discharged below a certain limit cannot operate the radio control units and the car will be out of control.

LIST OF PARTS

- 18 Front Grille(1) 20 Front Wheel Shafts(2) Blister 58 Speed Controller PC Boad(1) 62 8φ Pivot Balls(8)
- 59 Le Mans Stock 05(1) 61 Rear Wheel Shafts(2) 63 5.8φ Pivot Balls(16)
- 75 Shock Springs(2) (for front) 76 Shock Springs (2)(for rear) 64 Pinion Gear (15T)(1)
- 56 Motor Cords(2) 65 3 way register(1)

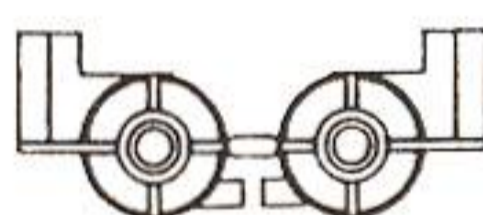
(Big-1)

- 3 Bulk Head A (1) 4 Bulk Head B (1)



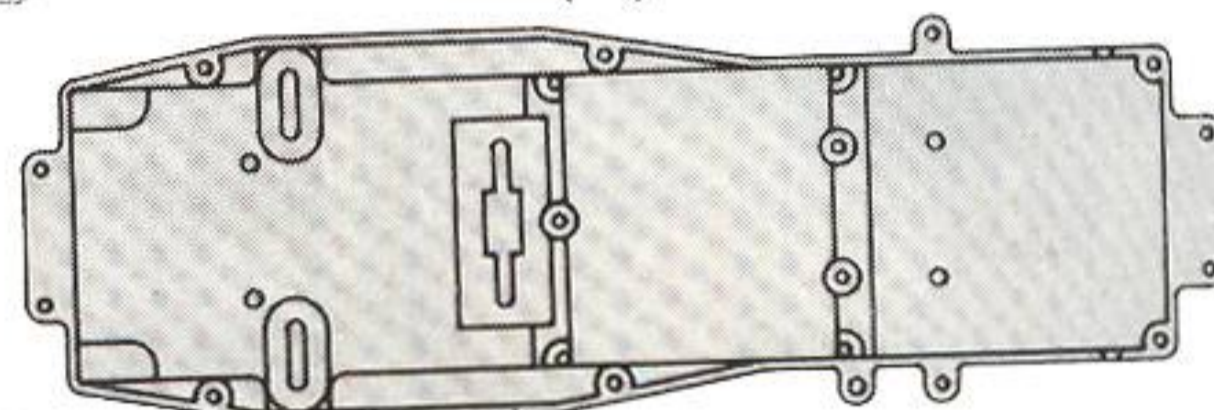
(Big-2)

- 7 Knuckle Arms A(2) 8 Knuckle Arms B(2)

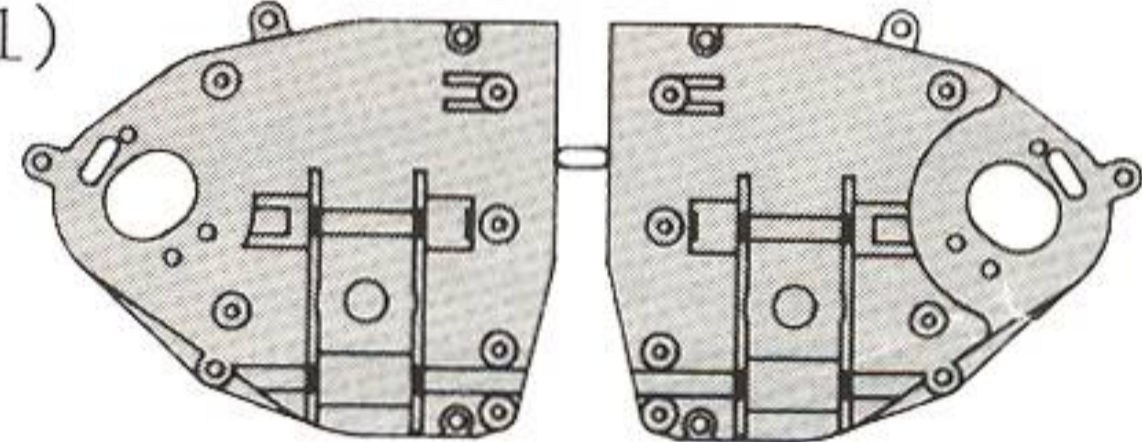


(Big-3)

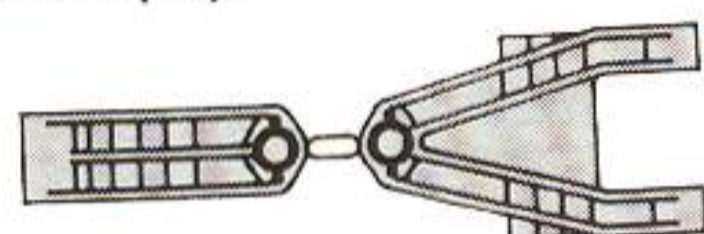
- 1 Main Frame(1)



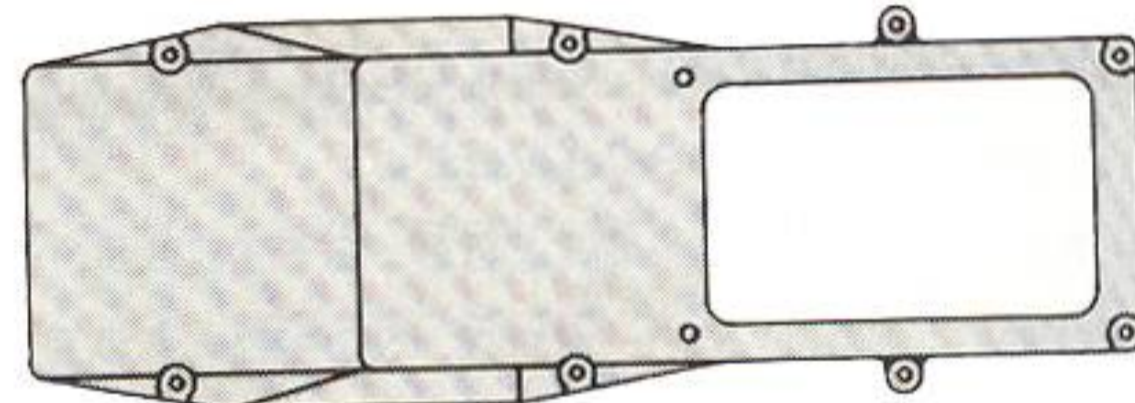
- 6 Gear Box B (1) 5 Gear Box A(1)



- 9 Upper Sus. Arms(4) 10 Lower Sus. Arms(4)

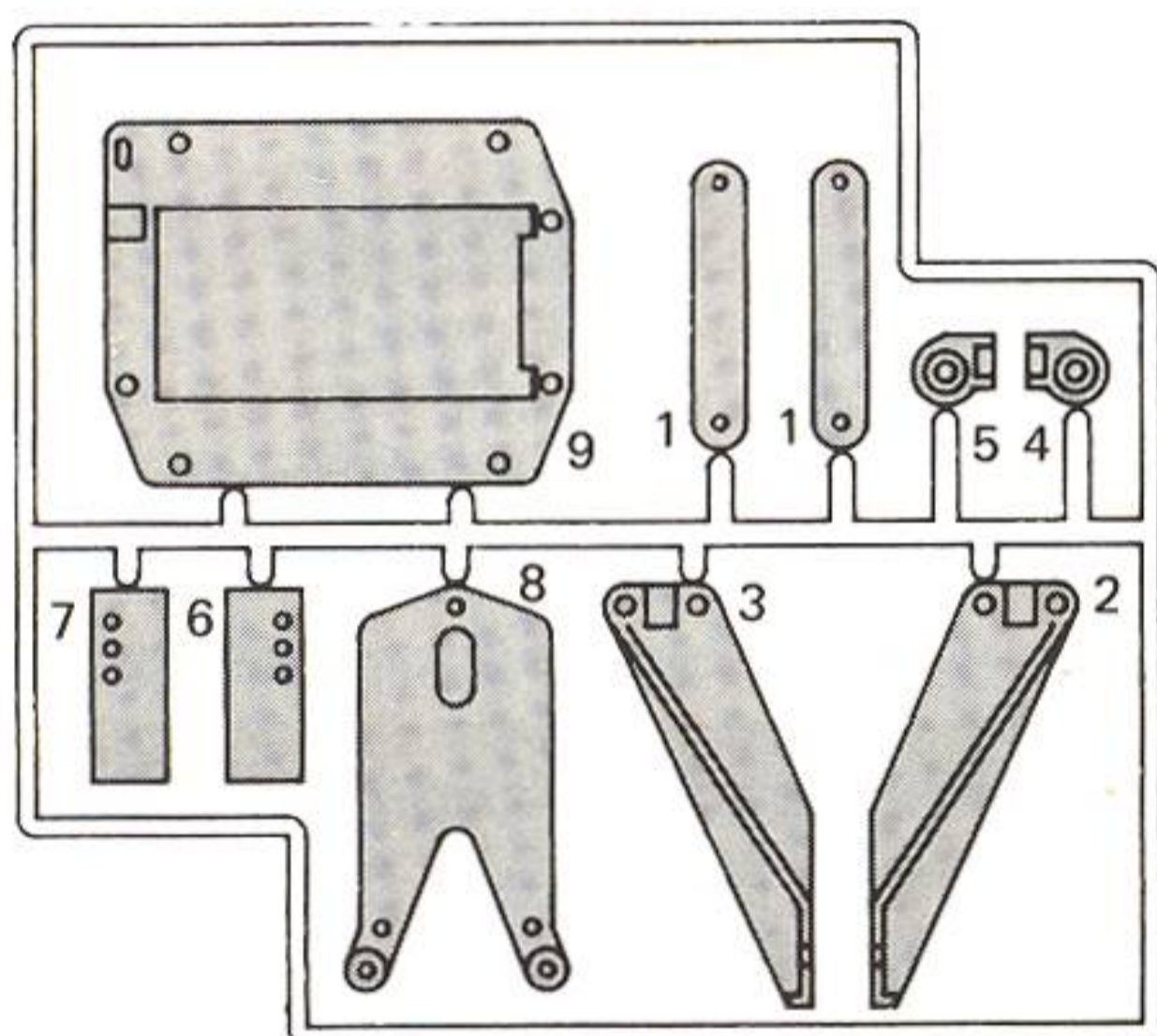


- 2 Cover(1)



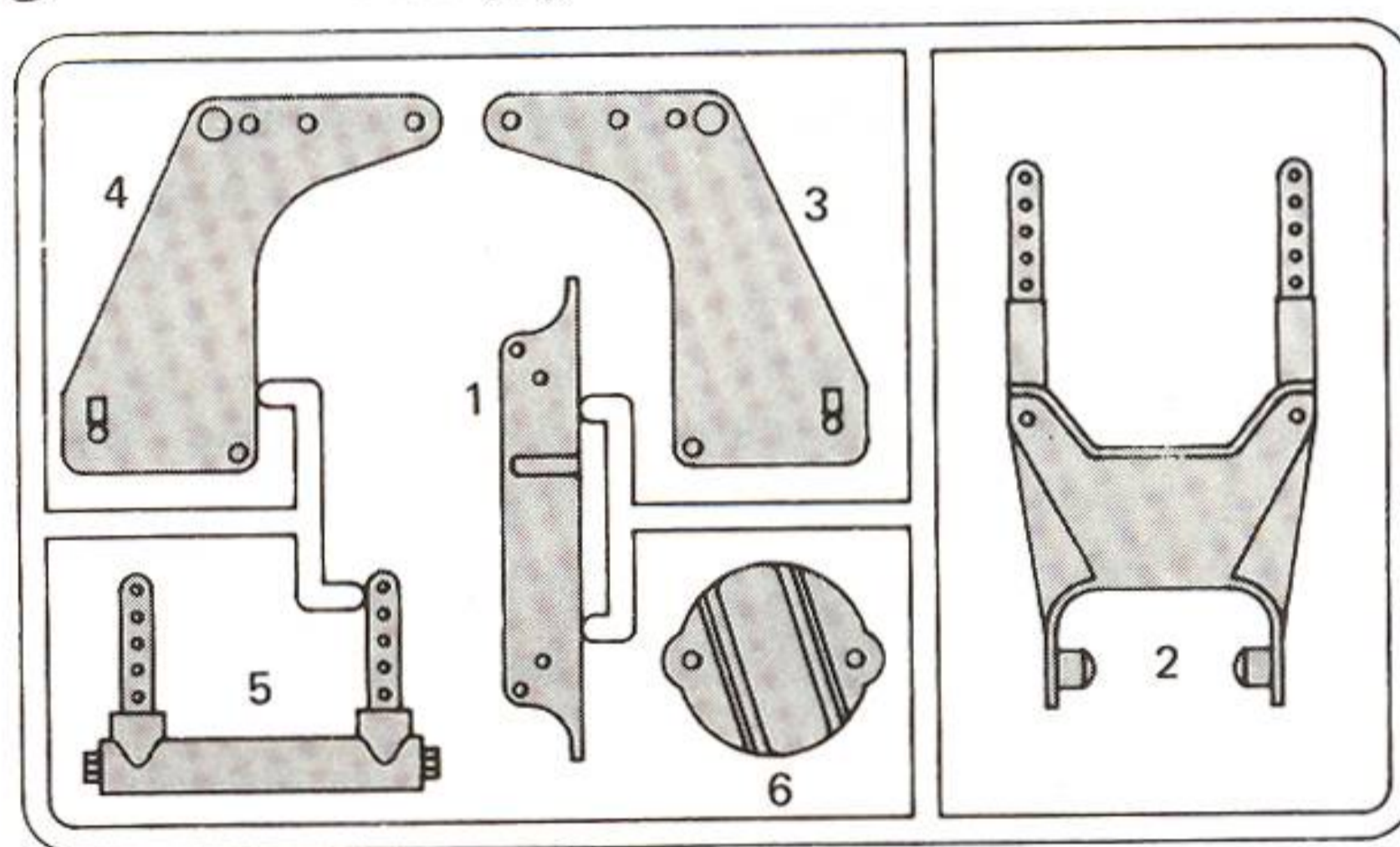
(Big-4)

- B Block Part(1)



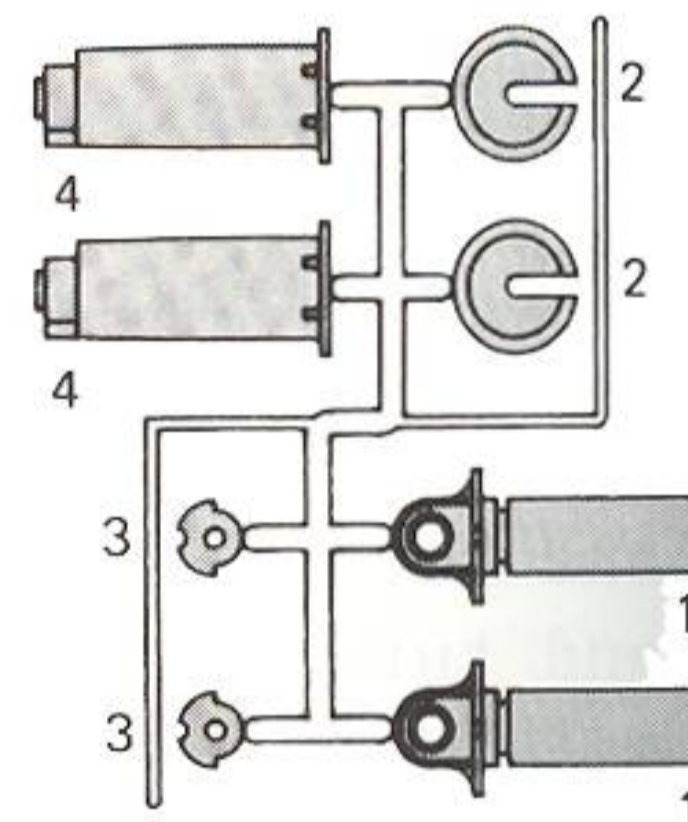
(Big-5)

- A Block Part(1)



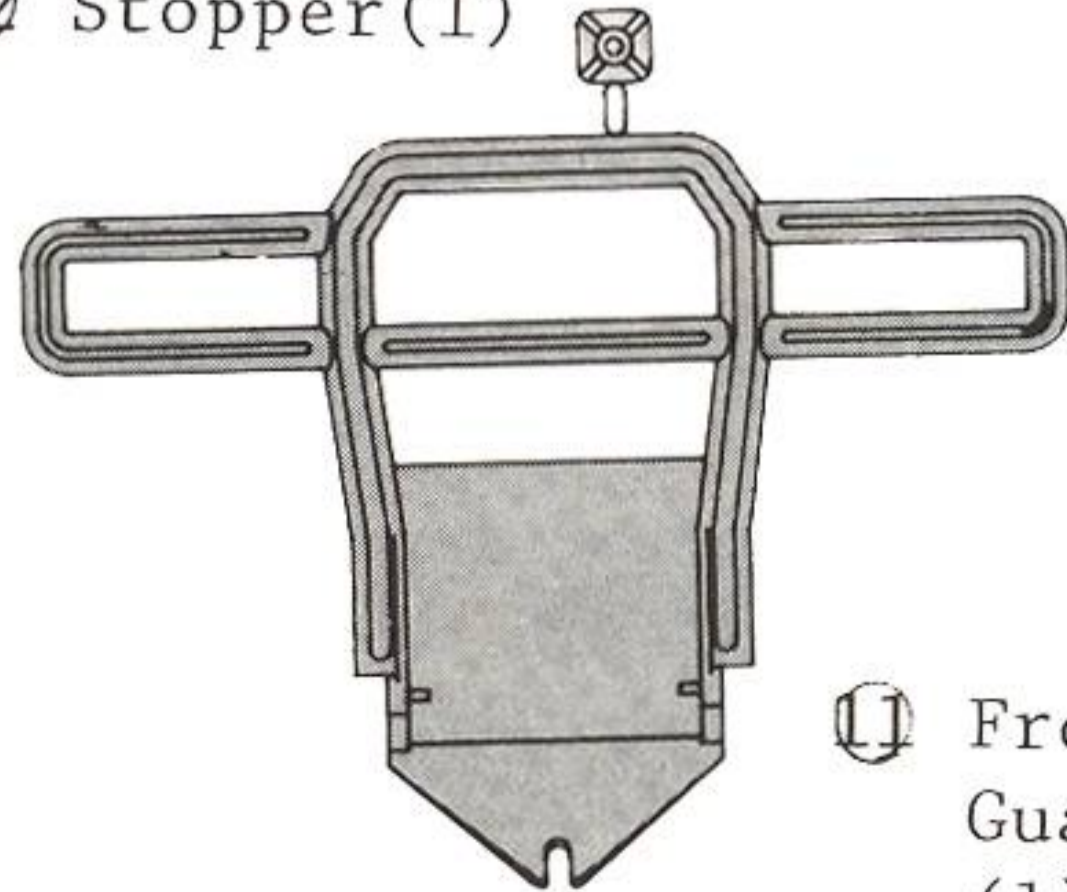
(Big-6)

- C Block Parts(2)



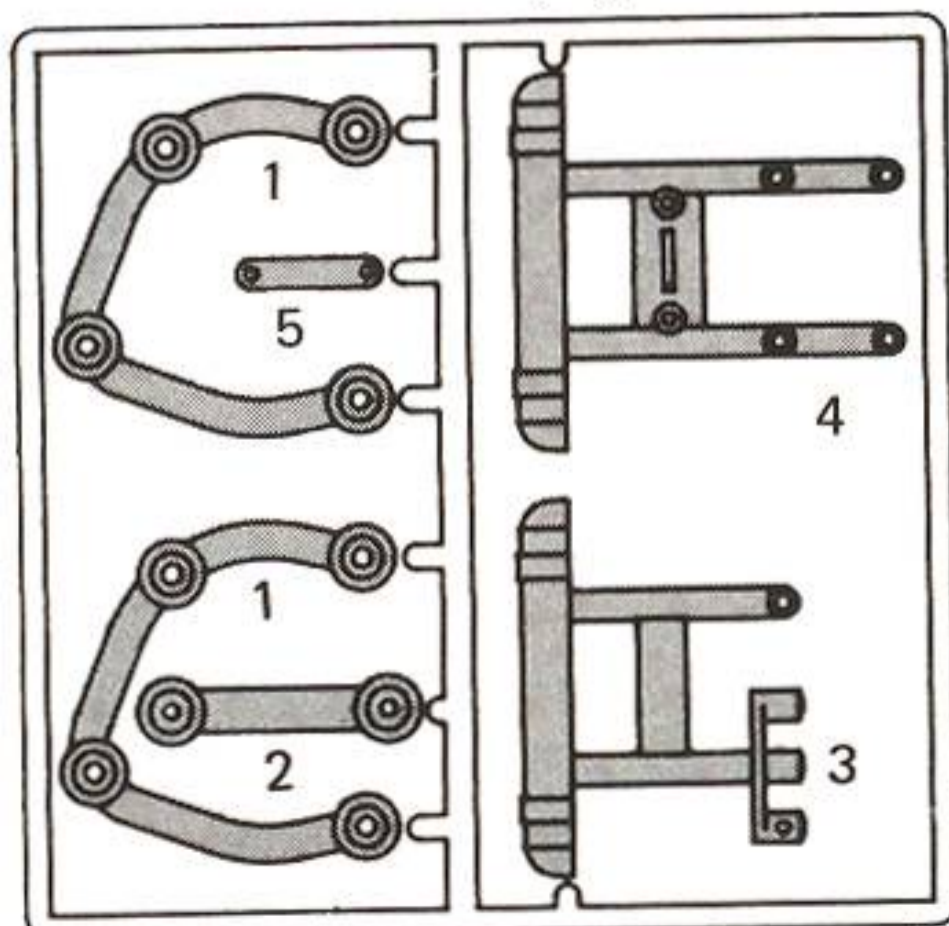
(Big-7)

- 12 Stopper(1)



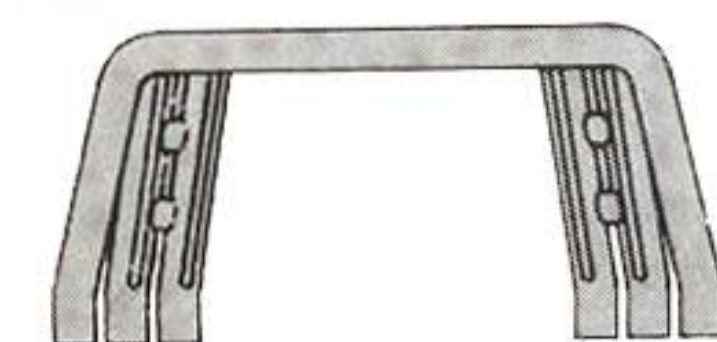
- 11 Front Guard (1)

- E Block Part(1)



(Big-8)

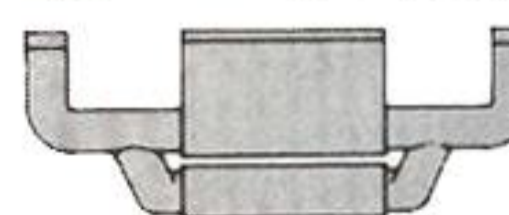
- 13 Roll Bar(1)



- 15 Rear Shock(1)



- 14 Steps(2)

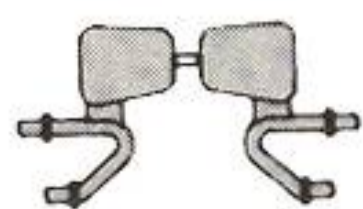


- 17 Roll Bar Bases B(2)

- 16 Roll Bar Bases A(2)

Big-9

- 19 Front Grille Stoppers (2)



- 20 Mirror A(1) 21 Mirror B(1)

- 22 Lights(4)




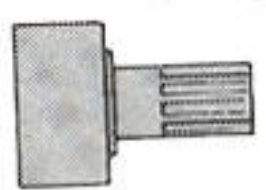
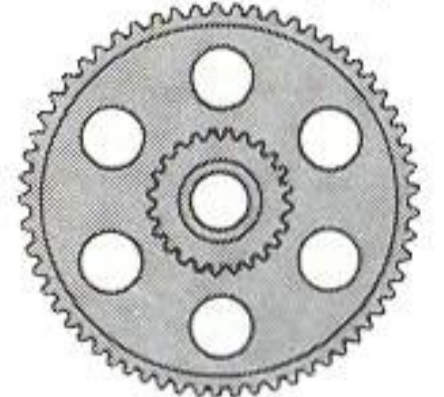


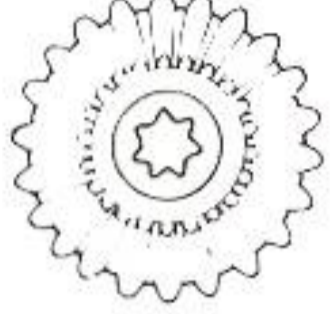
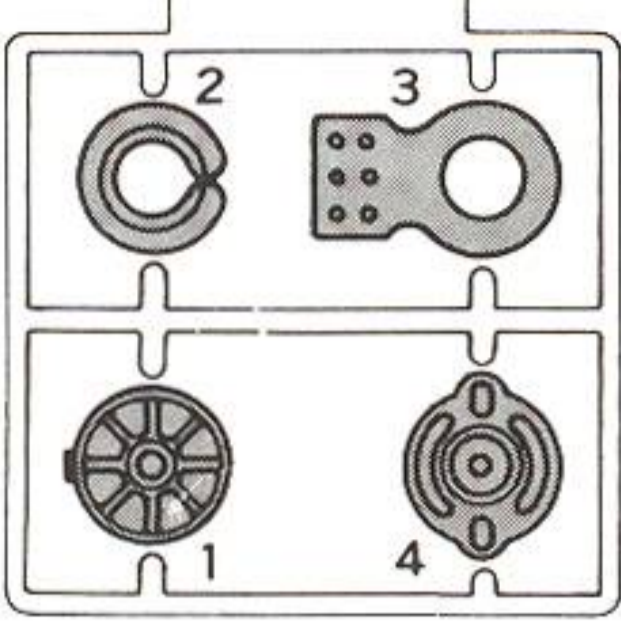
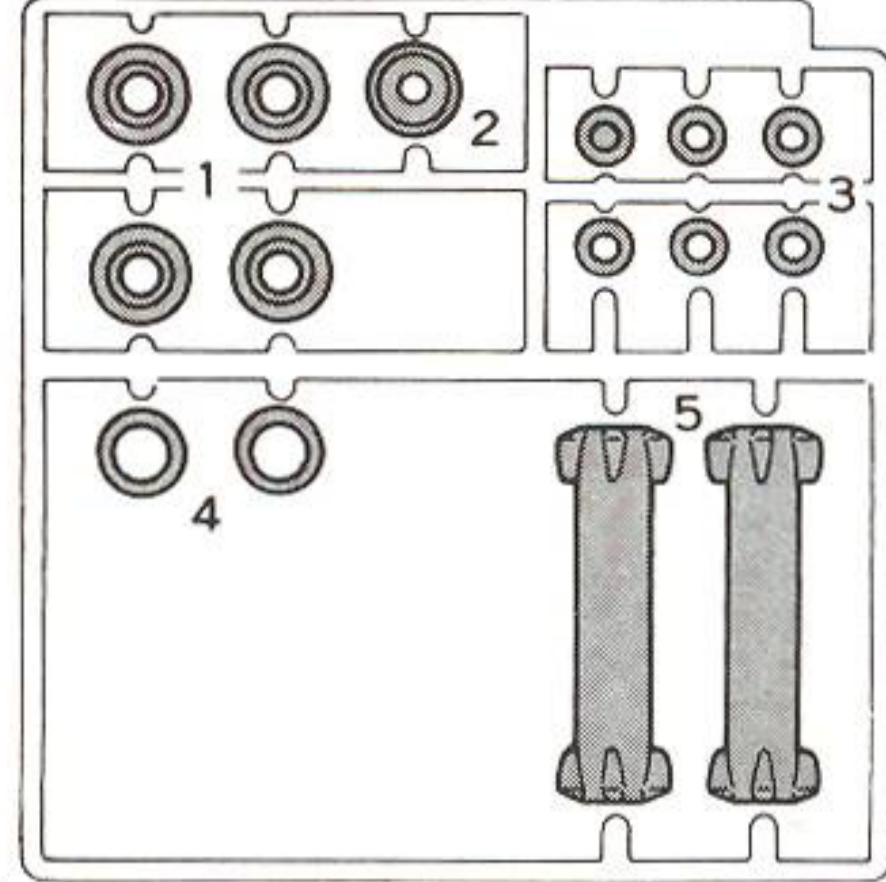

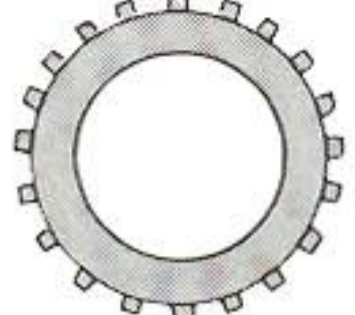



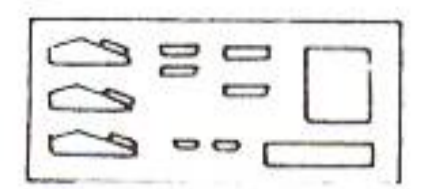
- 23 Tail Lights (2)




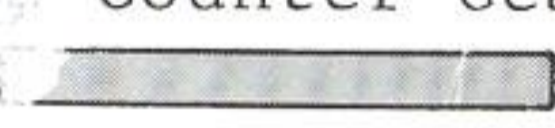










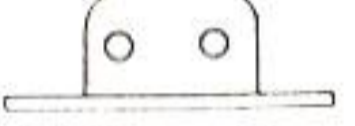




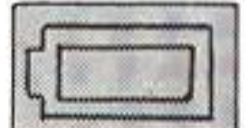
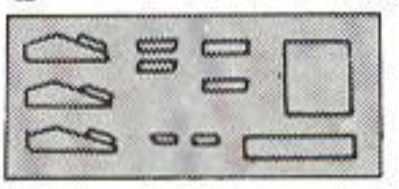
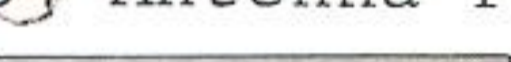
LIST OF PARTS

(Big-10)



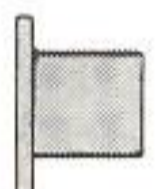










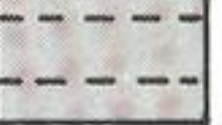






(Others)

- 26 Diff. Bebel Gears (3) 
- 27 Diff. Joints (2) 
- 28 Counter Gear (1) 
- 29 Idle Gear (1) 
- 24 Diff. Carrier (1) 
- 25 Diff. Gears (2) 
- 2 Block Part (1) 
- 3 Block Part (1) 
- 66 Body (1) 
- 67 Tires (4) 
- 68 Wheels A (4) 
- 69 Wheels B (4) 
- 70 Wheels C (4) 
- 81 Decal (1) 





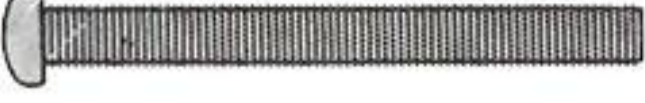




(Big-11)

- 31 Idle Gear Shaft (1) 
- 32 Counter Gear Shaft (1) 
- 33 Diff. Joint Shaft (1) 
- 35 Sus. Shafts A (6) 
- 36 Sus. Shafts B (2) 
- 30 5φ Plastic Bearing 
- 34 8φ Ball Seats (8) 
- 37 M3 Rods A (4) 
- 38 M3 Rods B (2) 
- 39 Shock Shafts (4) 
- 41 Wheel Shaft Pins (4) 
- 40 5.8φ Ball Links (16) 
- 85 Pillow Ball Base (2) 
- 86 Idle Gear Shaft Pin (1) 
- 87 4φ Metal (2) 
- 72 Lenses A (2) (Big-14) 
- 73 Lenses B (6) (Big-14) 
- 74 Window (1) (Big-14) 
- 81 Decal (1) 
- 84 Antenna Pipe (1) 


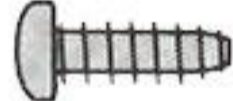


(Big-12)

- 45 Speed Controller Horn (1) 
- 47 Speed Controller Spring (1) 
- 46 Speed Controller Pivot (1) 
- 49 Contact Point Holders (2) 
- 48 Speed Controller Stud (1) 
- 50 Contact Points (2) (For Big Brute) 
- 42 7.2V Connector (1) 
- 54 Rug Terminals (2) 
- 57 Speed Control Rod (1) 
- 53 BEC Connector (1) 
- 56 Speed Controller Cords (2) 
- 51 4.5φ Pivot Ball (1) 
- 52 4.5φ Ball Link (1) 
- 43 Resister Covers (2) 
- 71 Wheel Hubs (4) 
- 49 Nylon Strap (1) 
- 80 Hobby Grease (1) 
- 76 Rubber Pipe (1) 
- 82 Body Pins (5) 
- 77 Double Sided Tape (1) 





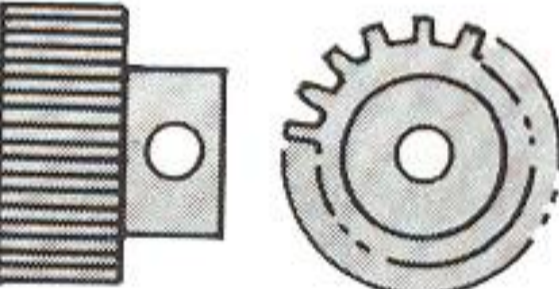
13 INSTALLATION OF SHOCK

- M3 Washers(2) 
- M3 Nuts(4) 
- M3 Nylon Nuts(4) 
- M3x12 Self Tapping Screws(4) 
- M3x28 Screws(2) 
- M3x20 Screws(2) 
- M3x8 Screws(4) 
- M3 Flange Nuts(4) 
- 76 Rubber Pipes(4) (Big-12) 

14 INSTALLATION OF BATTERY

- M3x12 Self Tapping Screws(4) 
- M3x8 Self Tapping Screws(3) 
- M3x15 Screws(2) 
- 82 Body Pin(1) (Big-12) 

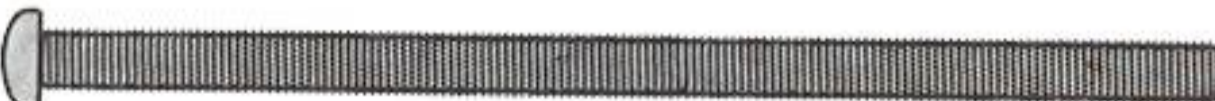


15 INSTALLATION OF MOTOR

- M3x12 Self Tapping Screws(6) 
- M3x28 Screws(2) 
- M3 Washers(2) 
- M3x4 Set Screw(1) 
- 64 Pinion Gear (15T)(1) (Blister) 


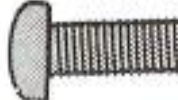


16 INSTALATTION OF FRONT GUARD

- M3x12 Self Tapping Screws(6) 



17 INSTALLATION OF REAR GUARD

- M3x55 Screw(1) 
- M3x12 Self Tapping Screws(8) 
- M3 Nut(1) 

18 INSTALLATION OF 3 WAY REGISTER


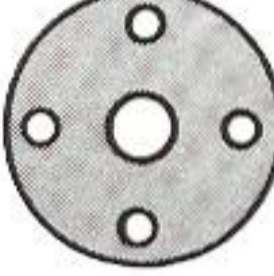
- M3x16 Screws(2) 
- M3x6 Screw(1) 
- M3 Nut(1) 
- Spacer(1) (Big-12) 

19 INSTALLATION OF COVER

- M3x12 Self Tapping Screws 
- M3x8 Scerws(3) 
- M3x16 Screw(1) 
- M3 Nuts(4) 
- 76 Rubber Pipes(2) (L & S) (Big-12) 

20 INSTALLATION OF TIRE

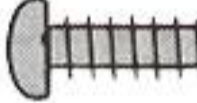

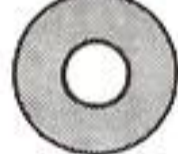
- M3 x 8 Self Tapping Screws(16) 
- 5φ Washers(6) 
- M4 Nylon Nuts(4) 
- 60 Front Wheel Shfats(2) (Blister) 

- 41 Wheel Shafts(4) (Big-11) 
- 71 Wheel Hubs(4) (Big-12) 



22 INSTALLATION OF TIRE

- M3x8 Self Tapping Screws(5) 
- M3x8 Screws(4) 
- M3 Nuts(4) 
- M3 Washers(4) 

23 INSTALLATION OF ACCESSORIES

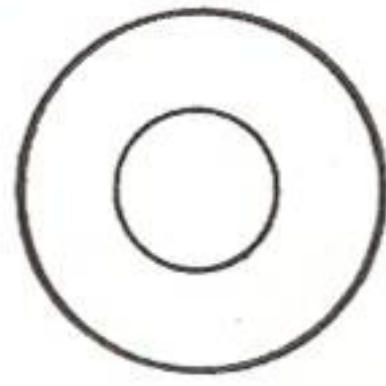
- M3 x 8 Self Tapping Screws(8) 
- 8φ Retainer Washers(6) 
- M3 Washers(4) 

25 APPLYING DECALS

- 82 Body Pins(4) (Big-12) 
- 83 Hook Pins(4) (Big-12) 

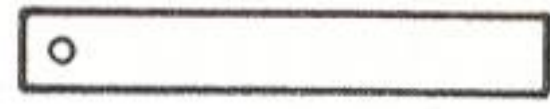
① INSTALLATION OF GEAR BOX

8φ Washer(1)



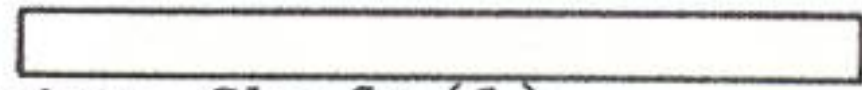
(Big-11)

③① Idle Gear Shaft(1)



(Big-11)

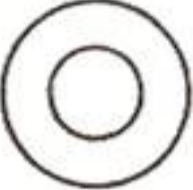
②⑦ Diff. Joint Shaft(1)



⑧⑥ Idle Gear Shaft Pin(1)

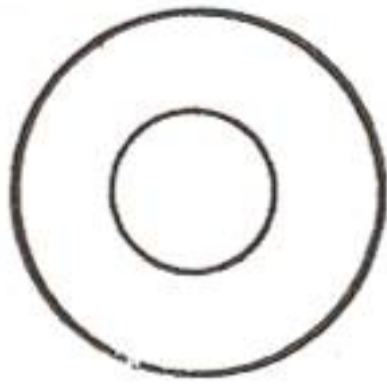


⑧⑦ 4φ Metal(2) (Big-11)

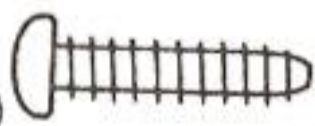


2 ASSEMBLY OF GEAR BOX

8φ Washer(1)

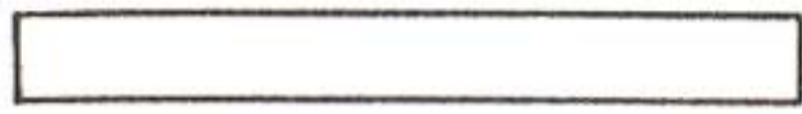


M3 x 12 Self Tapping Screws(4)



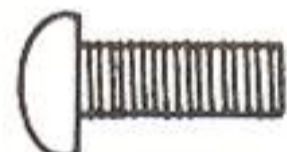
(Big-11)

③② Counter Gear Shaft(1)

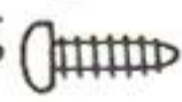


3 ASSEMBLY OF SUSPENSION ARM

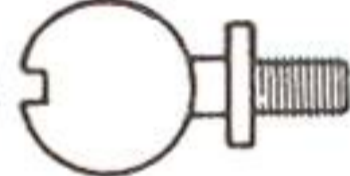
M4 x 10 Screw(1)



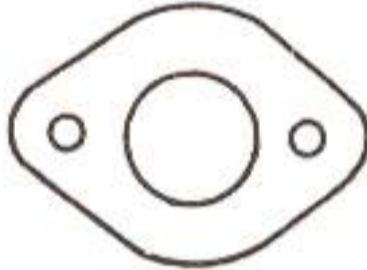
M2 x 6 Self Tapping Screw(16)



⑥② 8φ Pillow Ball(8) (Blister)



③④ 8φ BALL Seats(8) (Big-11)



③⑩ 5φ Plastic Bearings(8) (Big-11)

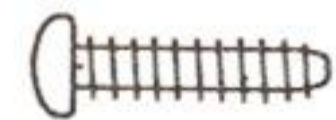


4 ASSEMBLY OF MAIN FRAME

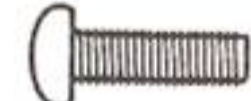
M4x16 Self Tapping Screw(1)



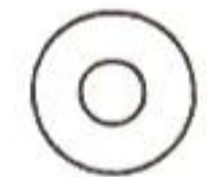
M3x12 Self Tapping Screw(18)



M3 x 8 Screw(2)



M3 Washer(4)



M3 Flange Nuts(2)



M4 Washer (1)



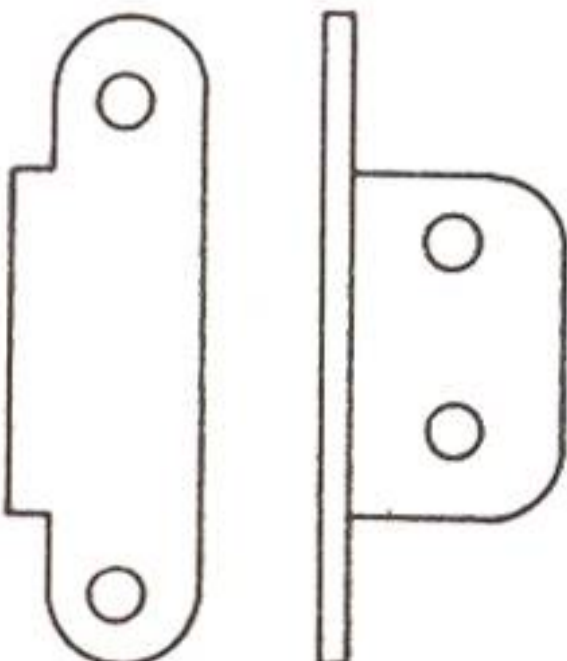
M3 Nut(2)



⑥③ 5.8φ Pillow Ball(2) (Blister)

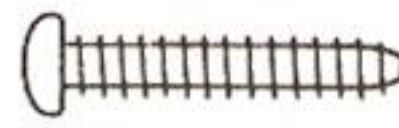


⑧⑤ Pillow Ball Base(2) (Big-11)



⑤ INSTALLATION OF SUS. ARM

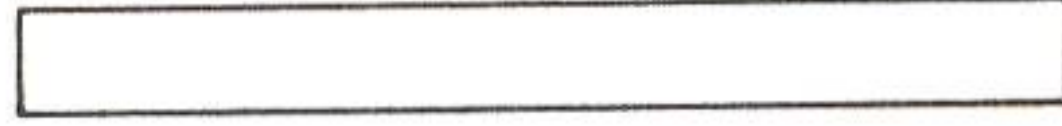
M3x16 Self Tapping Screw(4)



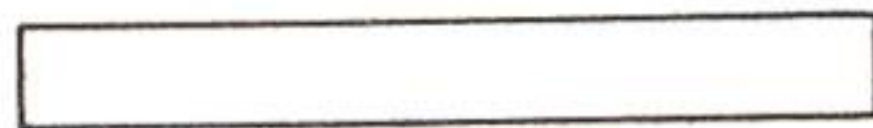
⑥③ 5.8φ Pillow Ball(12) (Blister)



③⑤ Sus. Shaft A(6) (Big-11)



③⑥ Sus. Shaft B(2) (Blister)

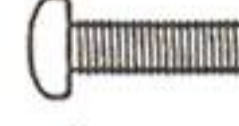


6 ASSEMBLY OF SPEED CONTROLLER

M3x12 Self Tapping Screw(2)



M3 x 8 Screw(2)



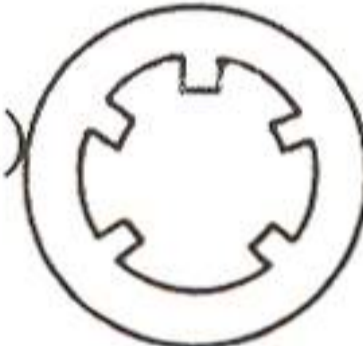
M3 Nut(3)



M2.6 Screw(1)



8φ Retainer Washer(1)



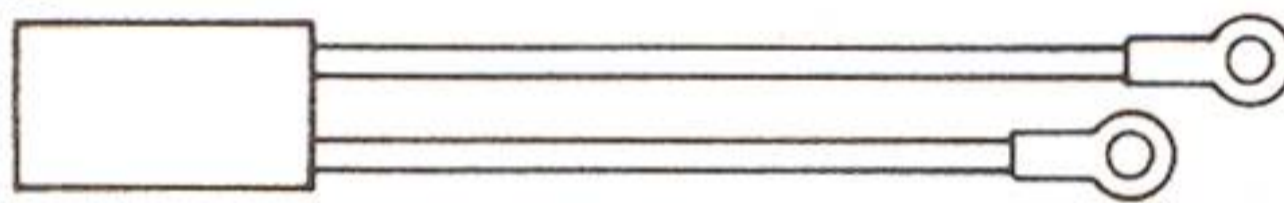
M3 Nuts(Gold Color) (2)



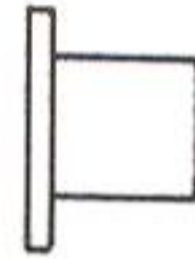
⑤⑤ Speed Controller Cord Red(1), White(1) (Big-12)



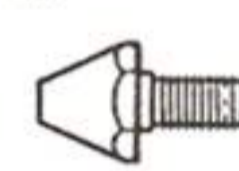
④② 7.2V Connector(1) (Big-12)



④⑥ Speed Controller Pivot(1) (Big-12)



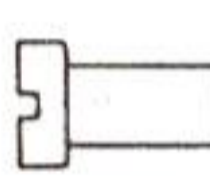
④⑨ Contact Point Holders(2) (Big-12)



⑤⑩ Contact Points(2) (Big-12)



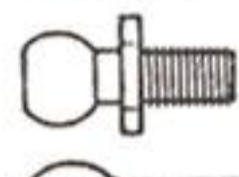
④⑧ Speed Controller Stud(1) (Big-12)



④⑦ Speed Controller Spring(1) (Big-12)



⑤① 4.5φ Pivot Ball(1) (Big-12)



⑤④ Rug Terminals(2) (Big-12)



8 ASSEMBLY OF SERVO

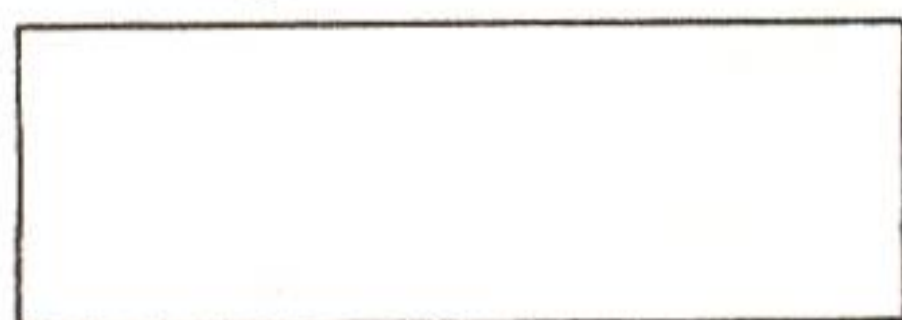
⑤① 4.5φ Ball Ling(1) (Big-12)



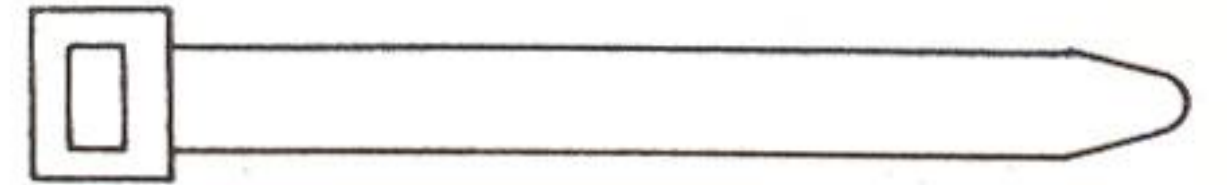
⑤⑦ Speed Controller Rod(1) (Big-12)



②⑦ Double Sided Tape(1) 20x150 (Big-12)

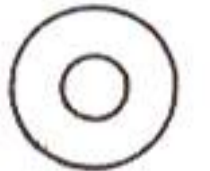


⑦⑨ Nylon Strap(1) (Big-12)



9 ASSEMBLY OF STEERING SERVO

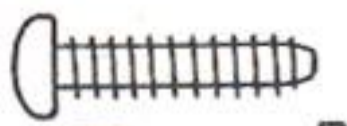
M3 Washer(2)



M3x8 Self Tapping Screw(1)



M3x12 Self Tapping Screw(2)



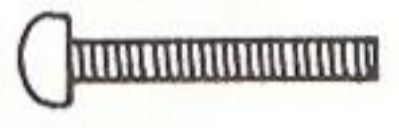
M3 Flange Nut(2)



M2x6 Self Tapping Screw(2)



M2x15 Screw(1)



Grommet(1)

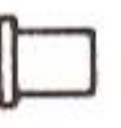


M2 Nut(1)

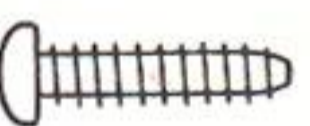


10 MOUNTING OF RADIO

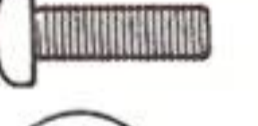
Grommet(1)



M3x12 Self Tapping Screws(5)



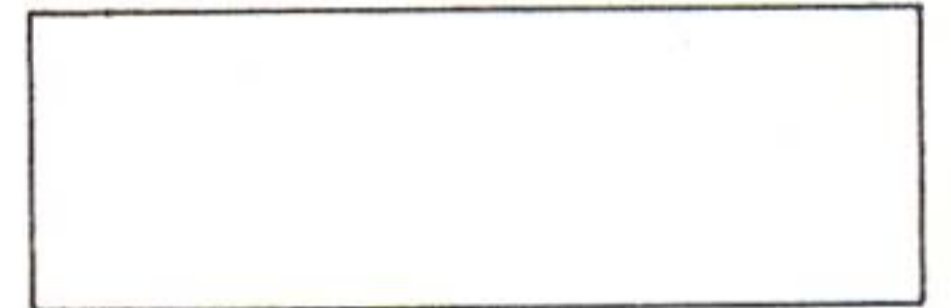
M3 x 8 Screws(2)



M3 Washers(2)

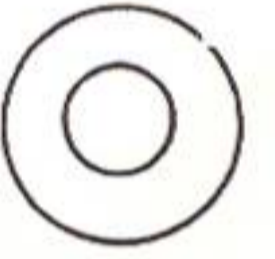


⑦⑦ Double Sided Tape(1) (Big-12)

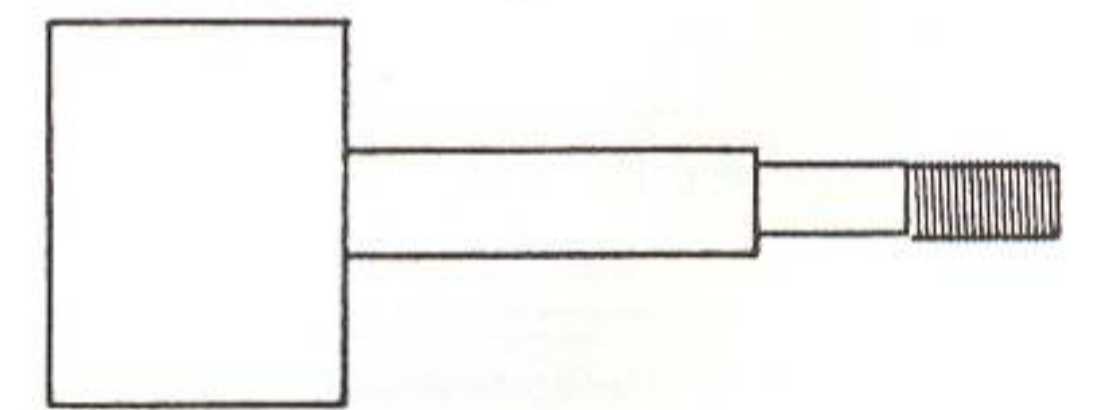


11 INSTALLATION OF TIE ROD

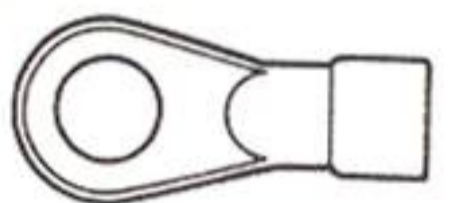
5φ Washers(2)



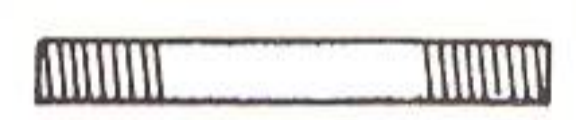
⑥① Rear Wheel Shafts(2) (Blister)



④⑩ 5.8φ Ball Links(12) (Big-11)



③⑦ M3 rods A(4) (Big-11)



③⑧ M3 Rods B(2) (Big-11)

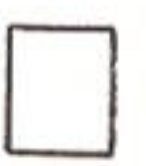


12 ASSEMBLY OF SHOCK

M2x6 Self Tapping Screws(8)



⑦⑧ Rubber Pipes(4) (Big-12)










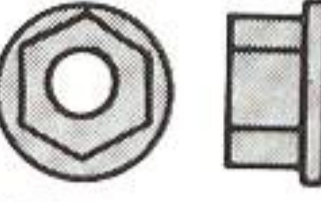

③⑨ Shock Shafts(4) (Big-11)




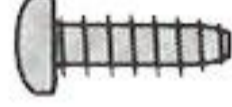


④⑩ 5.8φ Ball Lings(4) (Big-11)







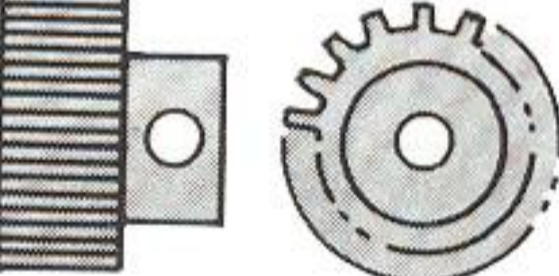
13 INSTALLATION OF SHOCK

- M3 Washers(2) 
- M3 Nuts(4) 
- M3 Nylon Nuts(4) 
- M3x12 Self Tapping Screws(4) 
- M3x28 Screws(2) 
- M3x20 Screws(2) 
- M3x8 Screws(4) 
- M3 Flange Nuts(4) 
- 76 Rubber Pipes(4) (Big-12) 

14 INSTALLATION OF BATTERY

- M3x12 Self Tapping Screws(4) 
- M3x8 Self Tapping Screws(3) 
- M3x15 Screws(2) 
- 82 Body Pin(1) (Big-12) 




15 INSTALLATION OF MOTOR

- M3x12 Self Tapping Screws(6) 
- M3x28 Screws(2) 
- M3 Washers(2) 
- M3x4 Set Screw(1) 
- 64 Pinion Gear (15T)(1) (Blister) 

16 INSTALATTION OF FRONT GUARD

- M3x12 Self Tapping Screws(6) 






17 INSTALLATION OF REAR GUARD

- M3x55 Screw(1) 
- M3x12 Self Tapping Screws(8) 
- M3 Nut(1) 

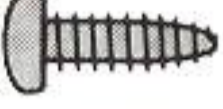
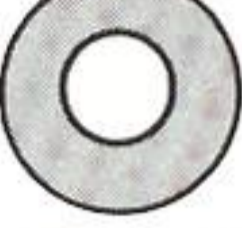

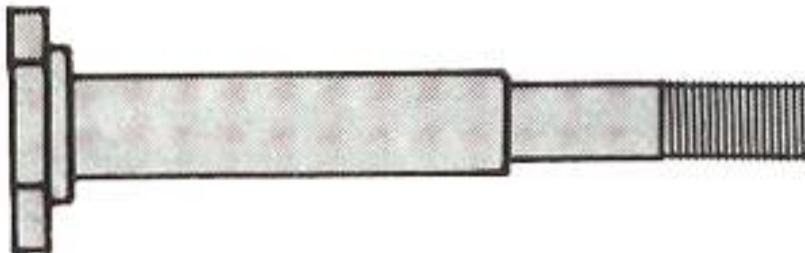

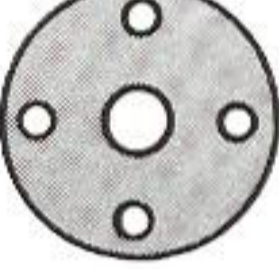
18 INSTALLATION OF 3 WAY REGISTER

- M3x16 Screws(2) 
- M3x6 Screw(1) 
- M3 Nut(1) 
- Spacer(1) (Big-12) 

19 INSTALLATION OF COVER

- M3x12 Self Tapping Screws 
- M3x8 Scerws(3) 
- M3x16 Screw(1) 
- M3 Nuts(4) 
- 76 Rubber Pipes(2) (L & S) (Big-12) 




20 INSTALLATION OF TIRE

- M3 x 8 Self Tapping Screws(16) 
- 5φ Washers(6) 
- M4 Nylon Nuts(4) 
- 60 Front Wheel Shfats(2) (Blister) 
- 41 Wheel Shafts(4) (Big-11) 
- 71 Wheel Hubs(4) (Big-12) 

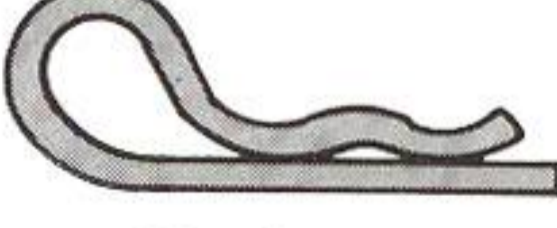

22 INSTALLATION OF TIRE

- M3x8 Self Tapping Screws(5) 
- M3x8 Screws(4) 
- M3 Nuts(4) 
- M3 Washers(4) 

23 INSTALLATION OF ACCESSORIES

- M3 x 8 Self Tapping Screws(8) 
- 8φ Retainer Washers(6) 
- M3 Washers(4) 

25 APPLYING DECALS

- 82 Body Pins(4) (Big-12) 
- 83 Hook Pins(4) (Big-12) 

SPARE PARTS LIST

Parts No.	Description	Includes These Key Numbers
BB- 1	Frame Set	① x 1, ② x 1
BB- 2	Bulk Head Gear Box Set	③ x 1, ④ x 1, ⑤ x 1, ⑥ x 1
BB- 3	Suspension Arm Set	⑦ x 1, ⑧ x 1, ⑨ x 2, ⑩ x 2, ⑩ x 4, ⑩ x 4, ⑩ x 4, ⑩ x 2
BB- 4	Front Guard Set	⑪ x 1, ⑫ x 1, ⑬ x 1
BB- 5	Accessory Part	⑬ x 1, ⑭ x 2, ⑮ x 1, ⑯ x 2, ⑰ x 2, ⑱ x 1, ⑲ x 2, ⑳ x 1, ㉑ x 1, ㉒ x 4, ㉓ x 2, ㉔ x 2, ㉕ x 6, ㉖ x 1
BB- 6	Gear Set	㉗ x 1, ㉘ x 2, ㉙ x 3, ㉚ x 2, ㉛ x 1, ㉜ x 1
BB- 7	Shaft Set	㉝ x 1, ㉞ x 1, ㉟ x 1, ㊱ x 6, ㊲ x 2, ㊳ x 2, ㊴ x 2, ㊵ x 4, ㊶ x 4, ㊷ x 2, ㊸ x 2, ㊹ x 2, ㊺ x 1, ㊻ x 2, ㊼ x 2
BB- 8	5.8φ Ball Link Set	㊽ x 12, ㊾ x 12, ㊿ x 2, ㋀ x 1
BB- 9	Cord Set	㋁ x 1, ㋂ x 1, ㋃ x 1, ㋄ x 2, ㋅ x 2, ㋆ x 1, ㋇ x 1, ㋈ x 1, ㋉ x 1, ㋊ x 1
BB-10	Speed Controller Set	㋋ x 2, ㋌ x 1, ㋍ x 1, ㋎ x 1, ㋏ x 1, ㋐ x 2, ㋑ x 2, ㋒ x 1, ㋓ x 2, ㋔ x 1, ㋕ x 1, ㋖ x 1, Nut (Gold Color) x 2, M3 Nut x 1, 8φ Retainer Washer
BB-11	A, B Block Parts	㋗ x 1, ㋘ x 1
BB-12	C Block Part	㋙ x 1
BB-13	Tire Set	㋚ x 2, ㋛ x 2, ㋜ x 2, ㋝ x 2, ㋞ x 2
BB-14	Rear Wheel Shaft	㋟ x 2
BB-15	Body	㋠ x 1
BB-16	Decal	㋡ x 1
BB-17	Screw Set	㋢ Set
PI- 4	DZ Block Part	D x 1, Z x 1
1889	Body Pin	㋣ x 5
EP- 22	Hook Pin	㋤ x 5

** Optional Parts List **

1903	Ball Bearing (4φ x 8φ)	2 pcs. (Instead of D-3 & 4φ Metal)
1901	" (5φ x 10φ)	2 pcs. (Instead of 5φ Plastic Bearing)
PI-15	" (8φ x 12φ)	2 pcs. (Instead of D-4)
W-5002	Pressure Shock (L)	Constant Volume Type Shock x 2 set
W-5004	Adjustable Oil Shock	
1895	Racing Motor Le Mans 360PT	High Torque Type Motor w/bearing
1925	" 360 Gold	"
OT-23	Pinion Gear (12T)	End Bell (Metal) For high torque speed
OT-50	Pinion Gear (13T)	For high torque speed
OT-52	" (16T)	For high speed low torque