# OFF-ROAD RACER

# PEGASUS

## RADIO CONTROLLED ELECTRIC POWERED RACING BUGGY

★*IDEAL ENTRY LEVEL ELECTRIC OFF-ROAD RACER*

★*EASY ASSEMBLY WITH SIMPLE ADJUSTMENTS AND MAINTENANCE*

★*SOPHISTICATED SUSPENSION SYSTEM FOR TOP HANDLING*

★*"BIG LEAGUE" POWERFUL MABUCHI 540S MOTOR INCLUDED*

★*DOUBLE WISHBONE FRONT SUSPENSION*

★*SWING ARM REAR SUSPENSION*

★*FRICTION-TYPE SHOCK ABSORBERS*

★*TRUE GEAR-TYPE DIFFERENTIAL*

★*LIGHTWEIGHT ABS THREE-PIECE RACING WHEELS*

★*SPACIOUS CHASSIS BOX ACCEPTS ANY TYPE OF SERVO*

★*INFINITE-FLEX PIVOT SYSTEM FOR TROUBLE-FREE SUSPENSION*

★*LARGE FRONT BUMPER FOR MAXIMUM CRASH PROTECTION*

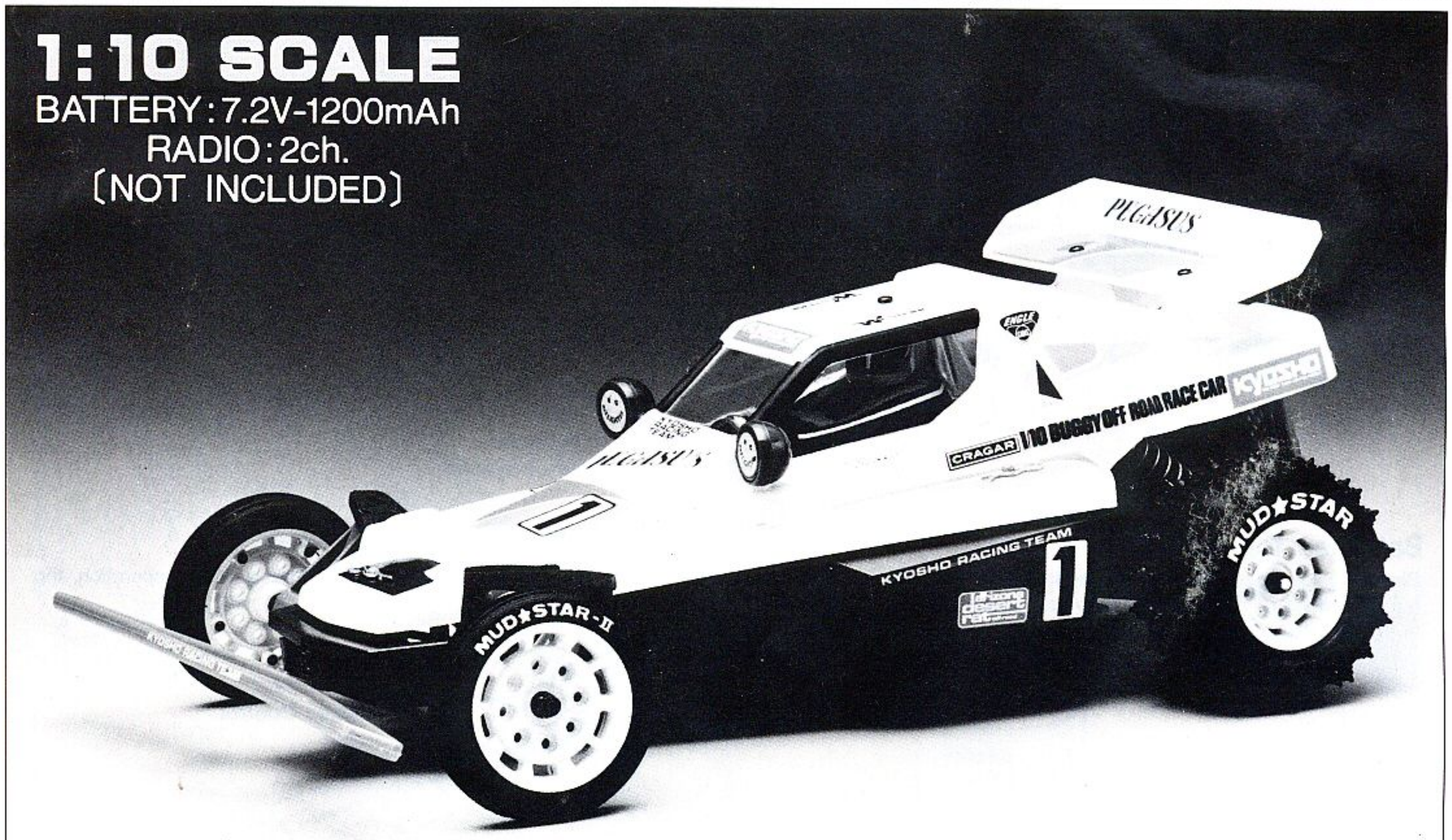
★*ALL PNEUMATIC RUBBER TIRES*

**1:10 SCALE**

BATTERY : 7.2V-1200mAh

RADIO : 2ch.

〔NOT INCLUDED〕




KYOSHO

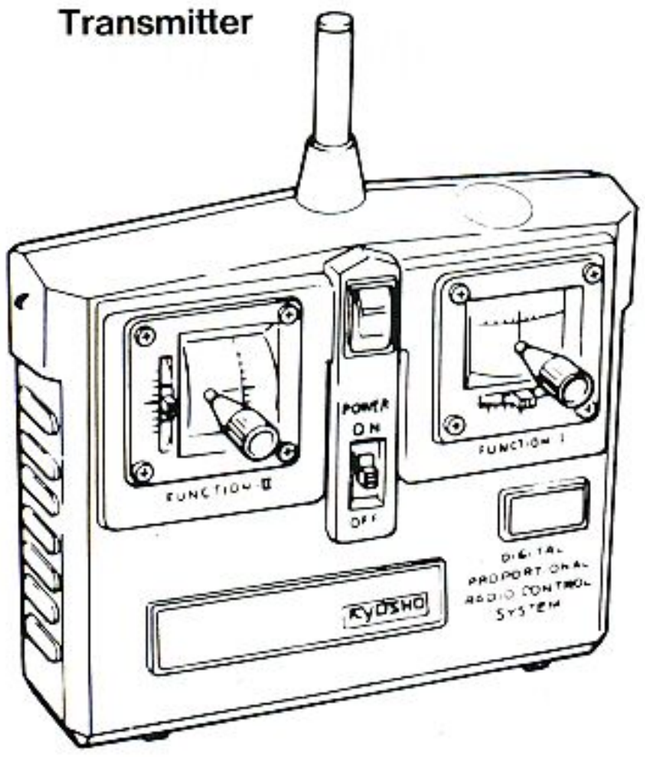
THE FINEST RADIO CONTROL MODELS

KIT No.3082

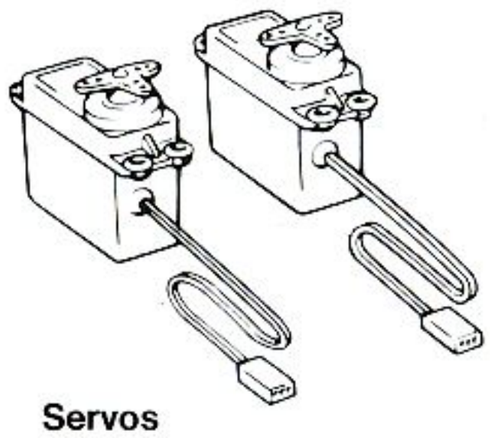
# PEGASUS

## NOTES ON RADIO CONTROL SETS

A digital proportional radio control set is required for operating this car. Two servos (standard or mini size) are required. The transmitter and receiver may be a 2-channel type, although a 3- or 4-channel set may be used with only two servos.

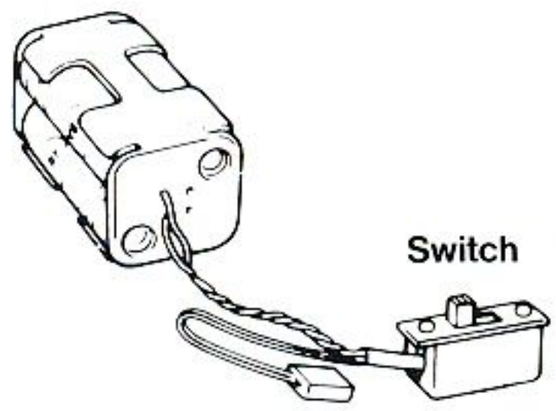



Transmitter



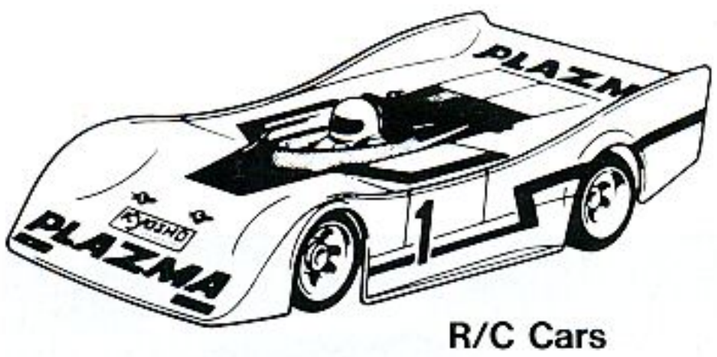
Servos

Receiver

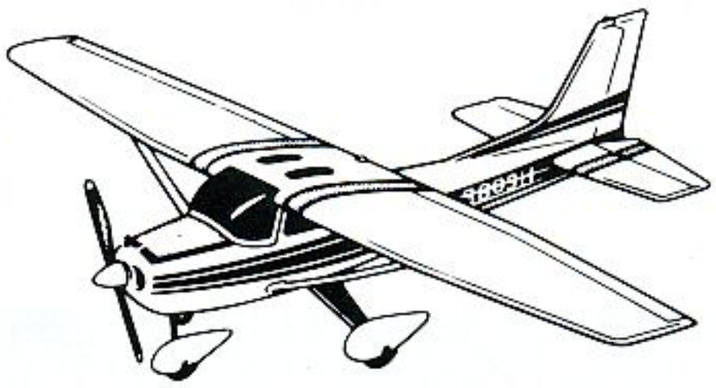


Battery Case

Switch




R/C Cars



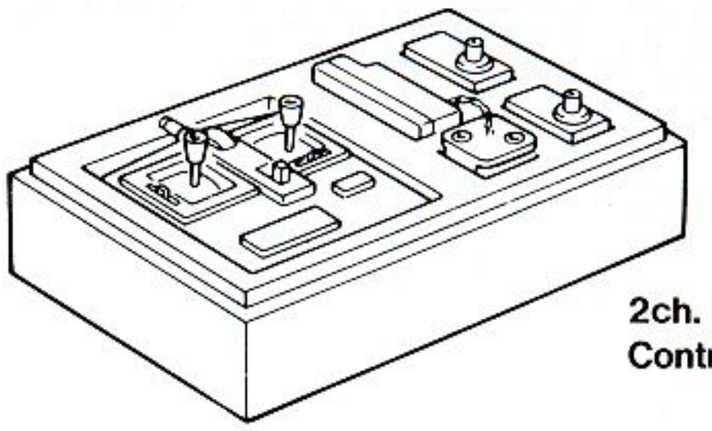
Airplanes

Boats

## THINGS TO BE PROCURED BESIDES THE KIT

### [2 channel Radio Control System]

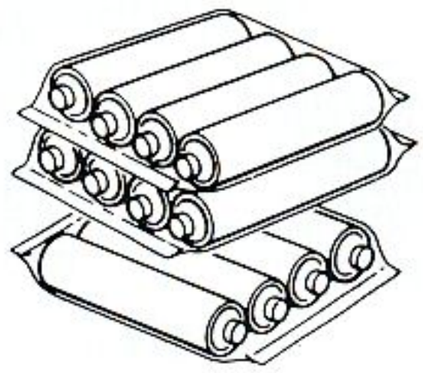
Two types of transmitter are available. One uses a wheel for controlling the direction of the vehicle, while the other uses two "sticks" that control direction and speed when pushed sideways or backward/forward. The choice is yours, and depends on cost and comfort using it.



2ch. Radio Control System

### Batteries for radio set

Simple radio control sets use penlight dry cells for power. While such sets are the least expensive way to begin radio control operation, the batteries must be replaced regularly at appreciable cost. In the long run it is more economical to purchase a radio set that is supplied with nickel-cadmium (NiCd) batteries, or to substitute NiCd pencells for the disposable type.



Battery for Radio Control Unit

### CAR BATTERY

Pegasus is designed to use a rechargeable 7.2V 1200mAh NiCd battery pack. A Kyosho Racing Battery, part number 2218 (and some other brands) may be recharged at a wide range of rates. The charging rate depends on the type of charger used.

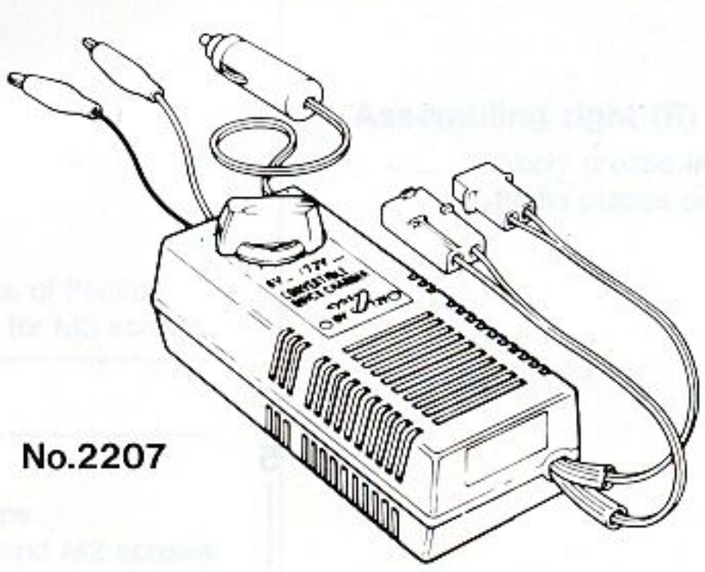
## BATTERY CHARGER

The simplest charger supplies a low current, and the battery is charged for 14-16 hours. This type of charger operates on household AC power. Faster chargers are available, all operated from a well-charged 12V car battery. Using these, the battery pack can be recharged in 15-20 minutes. With two or three battery packs, it is possible to run the car almost continuously. Kyosho offers three types of fast charger.

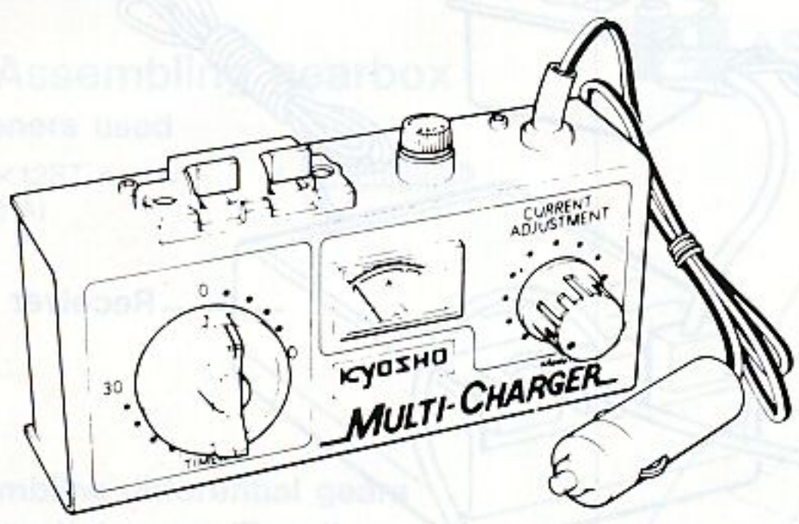
Type 2207 charges at a constant current for a time set by a timer.

Type 1846 allows adjusting the current using a built-in ammeter, and a timer shuts off the current at the time set by the user. Type 1848 also allows adjusting the current with a built-in ammeter, but a circuit in it monitors the voltage of the cells and cuts off the charging current when the cells are fully charged. The latter two can charge a battery pack to 100% of its capacity, while the first gives about 70% of full charge safely.

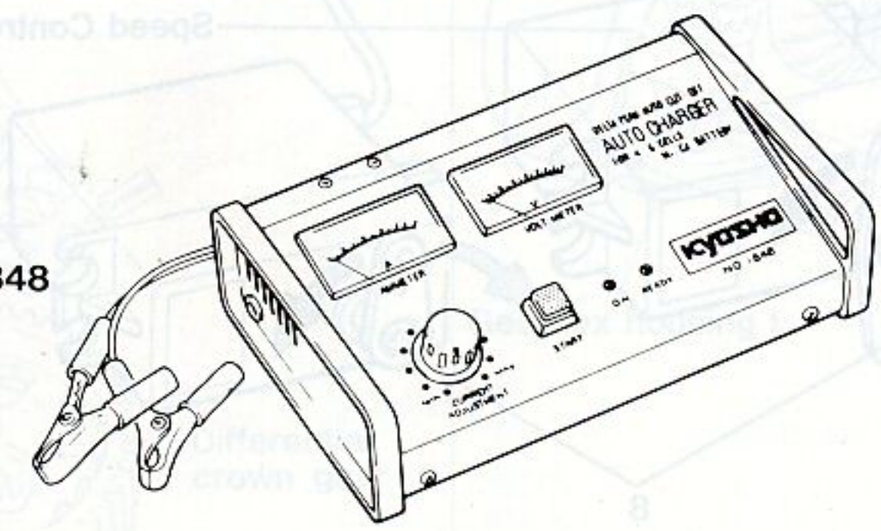
| Item No. | Name of Charger | Charging time | Charging Rate | Features |
|---|---|---|---|---|
| No. 2207 | Super Ni-Cd Rapid Charger (DC-12V) | 15 minutes | about 70% | For beginners; timer built in |
| No. 1846 | Multi Charger (DC 12V) | 20 minutes | 100% | Timer, ammeter built in |
| No. 1848 | Auto Charger (DC 12V) | about 20 minutes | 100% | Ammeter, voltmeter built in; automatic cut-off at peak of charge |



No.2207




NO.1846



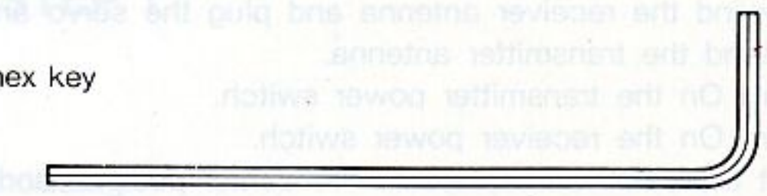

No.1848

## REQUIRED TOOLS

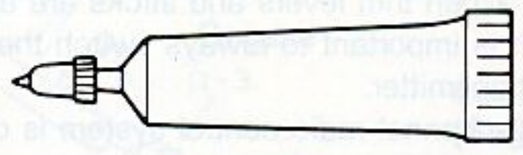
Several tools are required for assembling Pegasus.

The following are included with the kit:

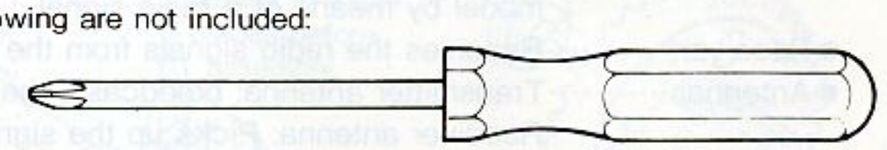
1.5mm hex key



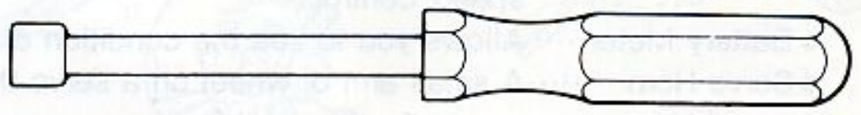
Grease



The following are not included:

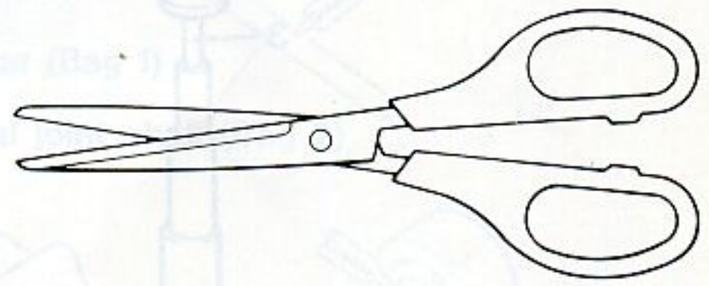


Phillips-head screwdriver (medium size)



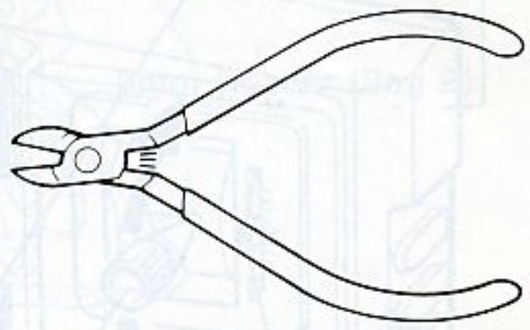
5 and 7mm nutdrivers or socket wrenches

Scissors

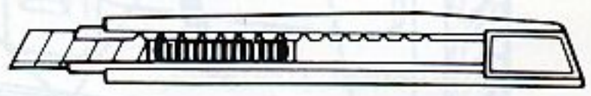


Awl or 3mm and 4mm drills

Wire cutter



Hobby "cutter" knife



Cyanoacrylate adhesive


The following items are useful for finishing the body attractively:

Polyca (or similar) acrylic paint



Micron-line tape

Small paint brush

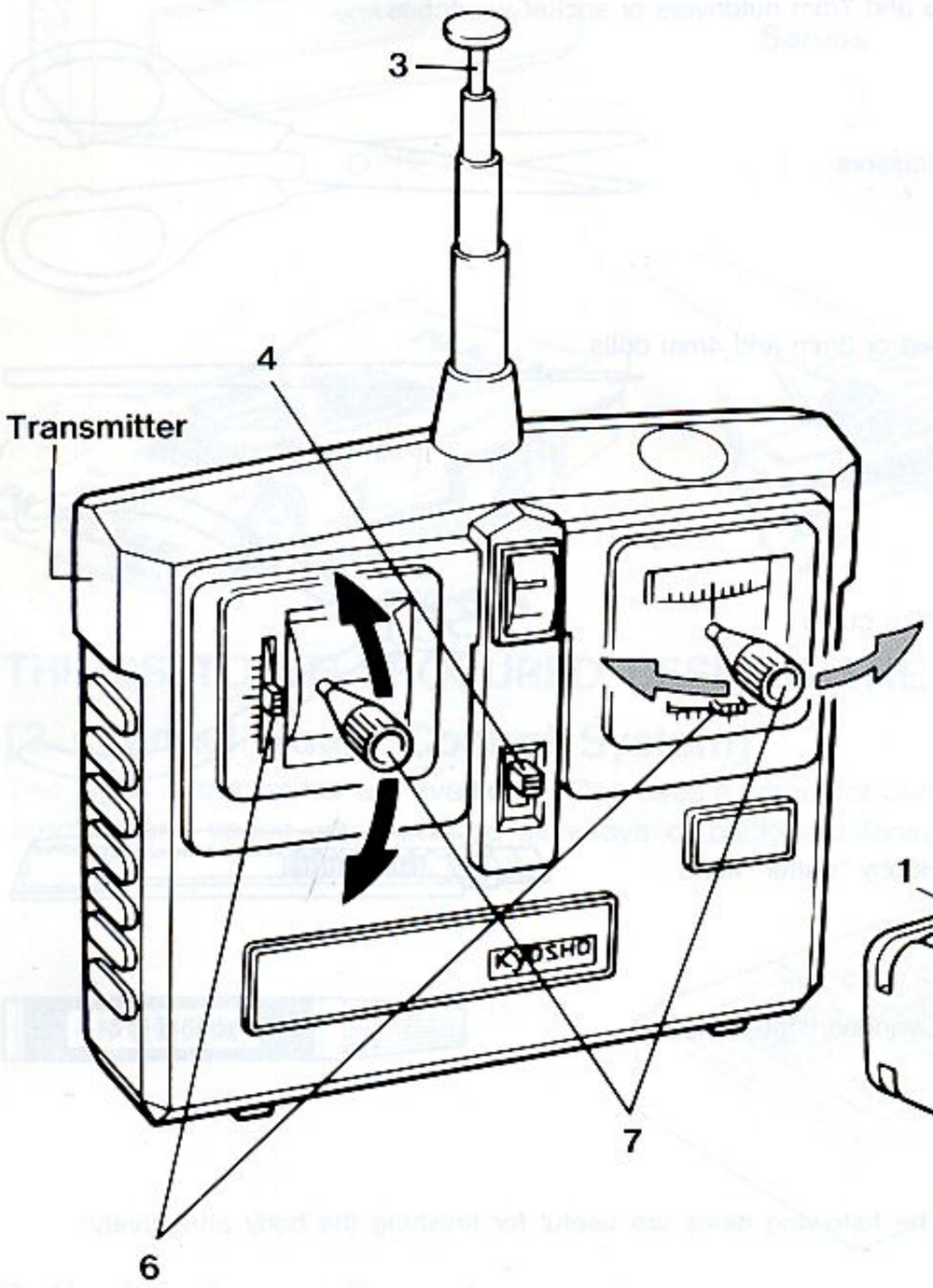
## CHECKING YOUR RADIO SYSTEM

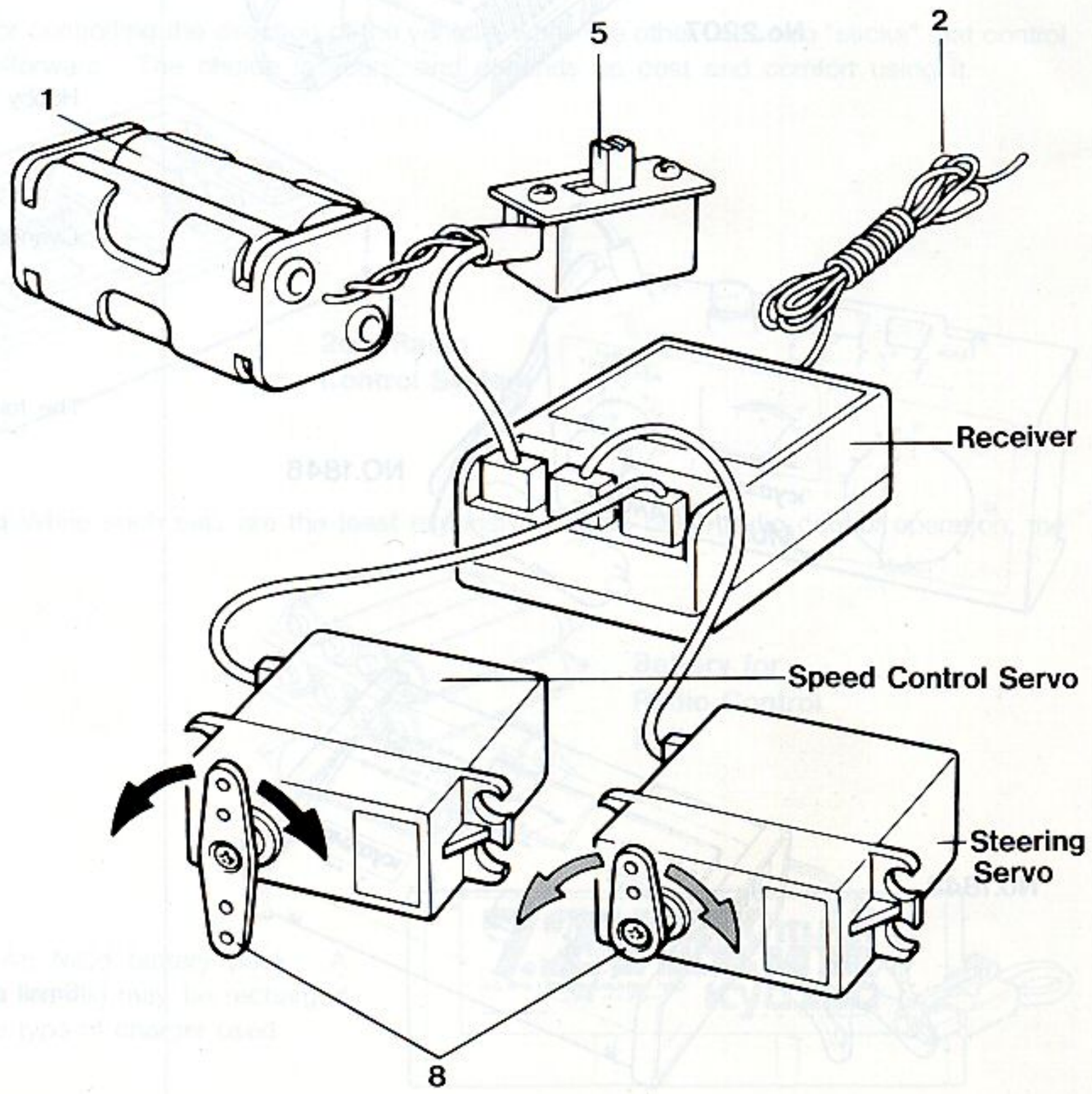
1. Install the batteries into both the transmitter and receiver. If your radio uses rechargeable batteries, charge it as outlined in the manual that came with your set.
2. Unwind the receiver antenna and plug the servo and battery connectors into the receiver.
3. Extend the transmitter antenna.
4. Turn On the transmitter power switch.
5. Turn On the receiver power switch.
6. Set the small trim levers to the center position and make sure that both main control sticks are also centered.
7. Move both main control sticks slowly through their full travel. The servo horns should move in proportion to the movement of your sticks.
8. When trim levers and sticks are at their neutral positions, the servo horns should be centered. Switch off the transmitter, then the receiver.

●It is important to always switch the transmitter on first····· then the receiver. When turning off the system, turn off the receiver first, then the transmitter.

A 2-channel radio control system is composed of a transmitter, receiver, two servos, and a battery holder (for the receiver.)

- Transmitter·····A "box" with external controls ("sticks" or a wheel and trigger, for example) that can be moved by the operator to control the model by means of a radio signal.
- Receiver·····Receives the radio signals from the transmitter and operates the required servo(s).
- Antennas·····Transmitter antenna: broadcasts the radio signal produced by the transmitter.
  Receiver antenna: Picks up the signals from the transmitter and conducts them to the receiver.
- Servos·····Electric motor units that move the controls of the model in response to the movements of the controls of the transmitter.
- Trim Levers·····Adjust the neutral position of the servos from the transmitter. Trim levers provide fine tuning of the steering and speed control.
- Battery Meter····· Allows you to see the condition of your transmitter batteries.
- Servo Horn·····A small arm or wheel on a servo that transfers the movement of the servo.



## BEFORE ASSEMBLY

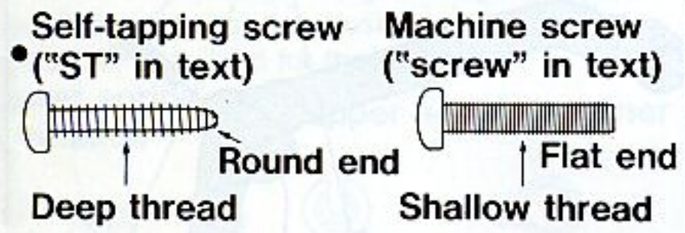
Please read through these instructions before assembly. Your thorough understanding of the assembly will enable you to build the kit without difficulty. Check the components in the kit prior to starting assembly. Any claim for replacement or refund for a model in the process of assembly will not be accepted.

Apply "GREASE" to points indicated with "Grease" mark.

Assembly is simple and straightforward. Just follow each of the following instructions, step by step, and refer to the drawings for an illustration of the appearance of each assembly.

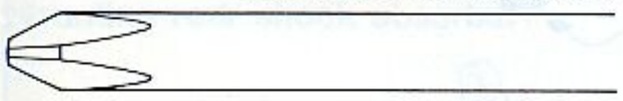
Large parts are identified individually. Small parts, like screws and washers, are identified by the parts bag in which they are packed.

Note: Every screw, etc., has a specific place in which it is to be used. Please refer to the text and drawings to find a description and illustration of the part required.

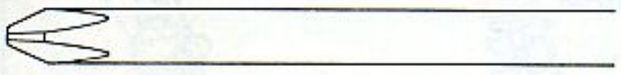



Screws are shown full size in these sections. Match the actual screw with the drawing to be sure of having the right part for each place.

Use this size of Phillips screwdriver for M3 screws.

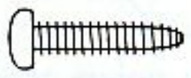


Use this size of Phillips screwdriver for M2.6 and M2 screws.



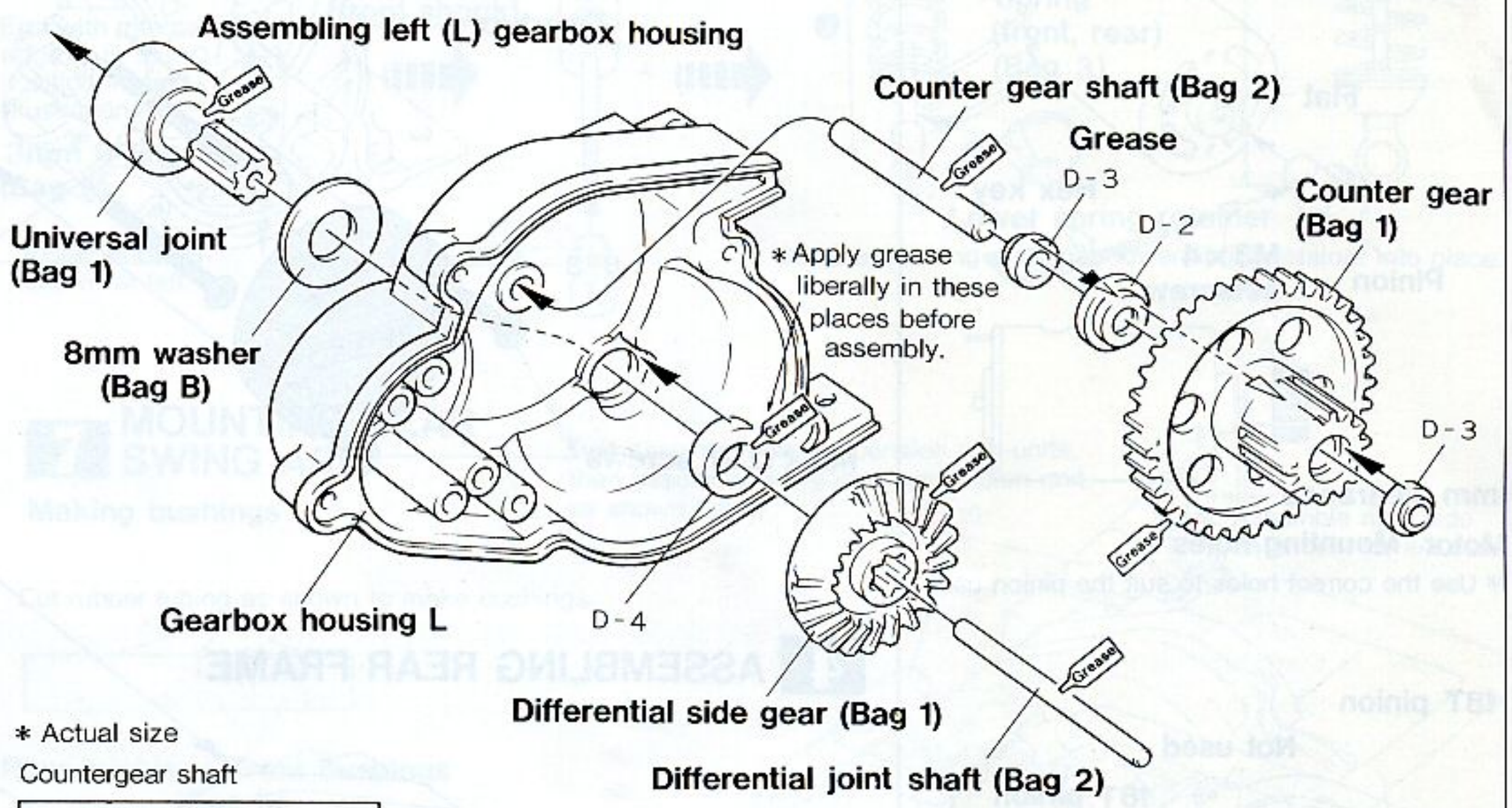
## 2 Assembling gearbox

**Fasteners used**

M3×12ST screw ····· 5 
(Bag A)

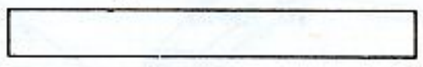
## 1 ASSEMBLING GEARBOX-STEP 1

* Assemble countergear and shaft first.

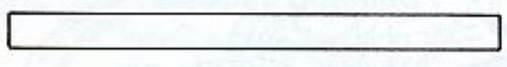


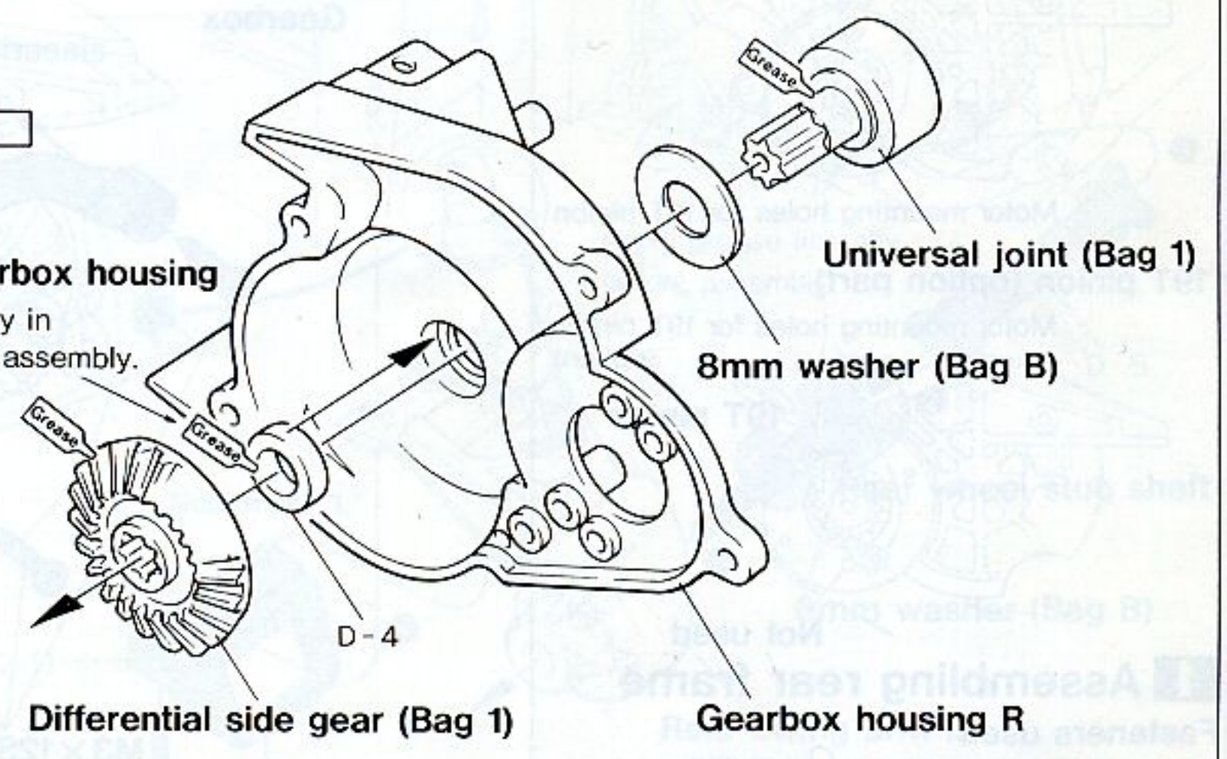

* Actual size

Countergear shaft

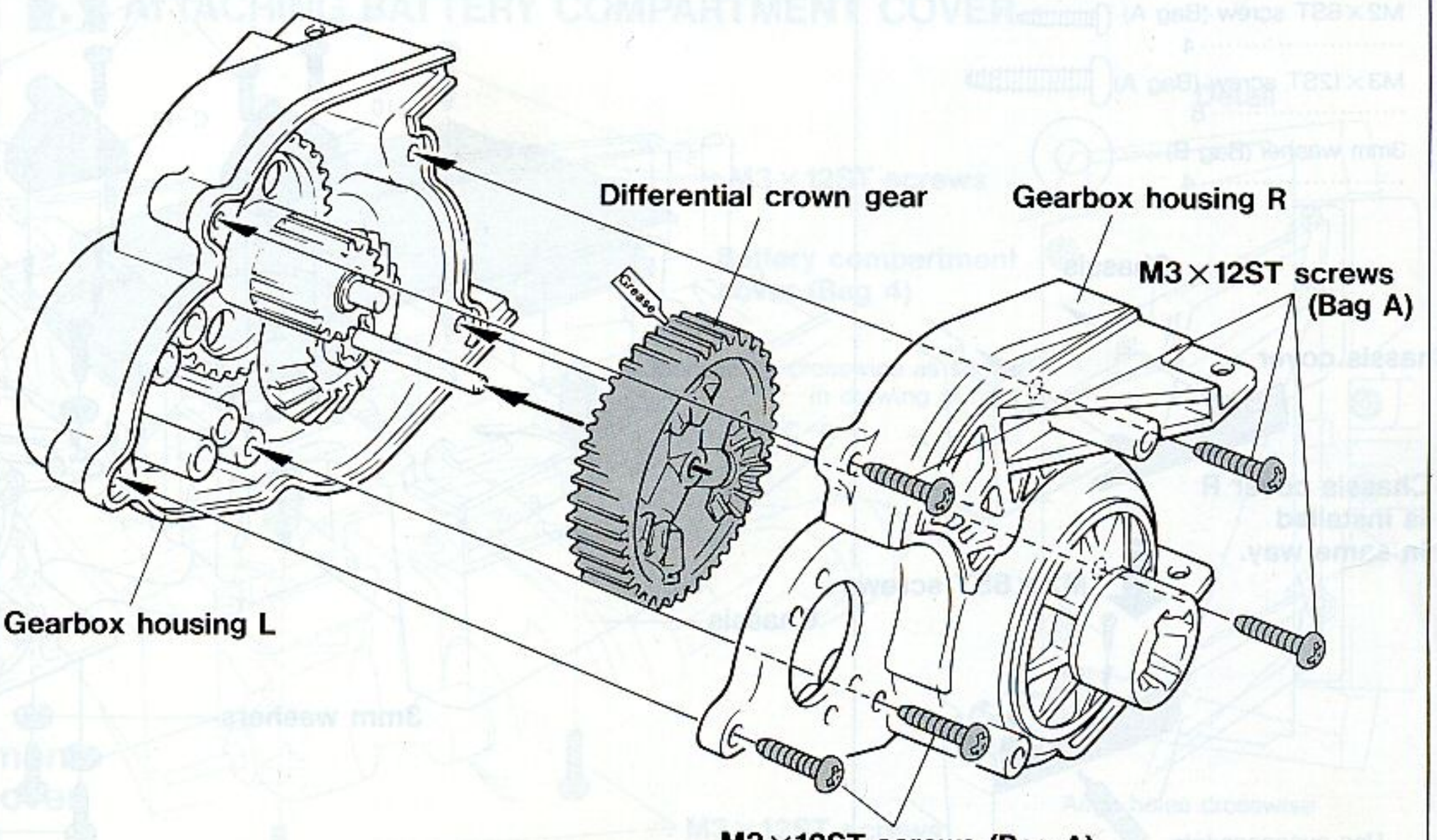


Differential joint shaft



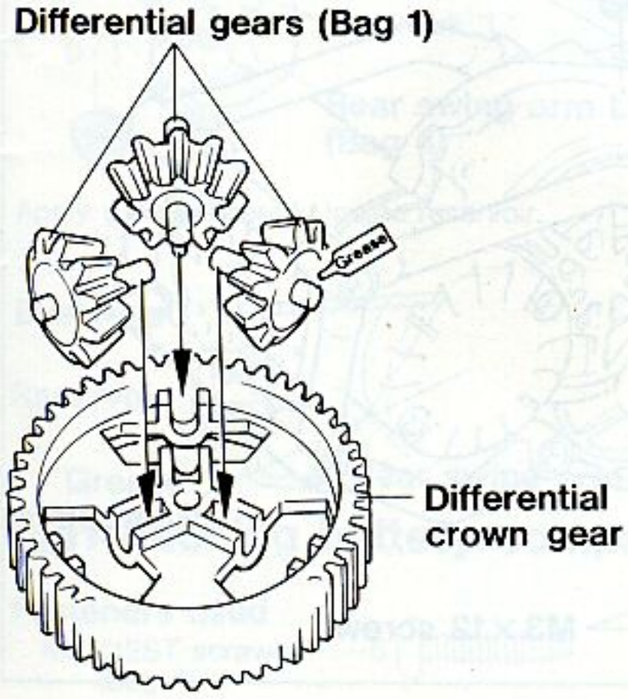



## 2 ASSEMBLING GEARBOX-STEP 2




Assembling differential gears

Differential gears (Bag 1)



## 3 Installing motor

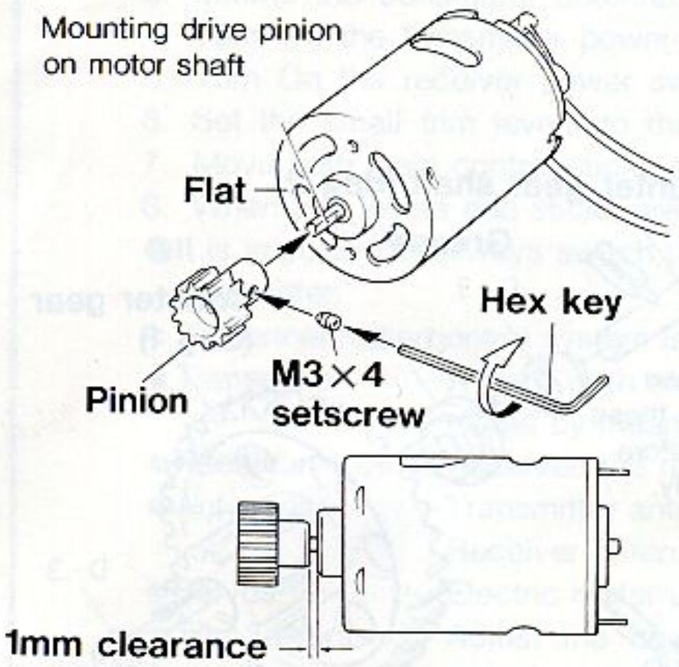
**Fasteners used**

M3×12ST screw (Bag A) ..... 2

M3×30 screw (Bag B) ..... 2

M3×4 setscrew (Bag B) ..... 1

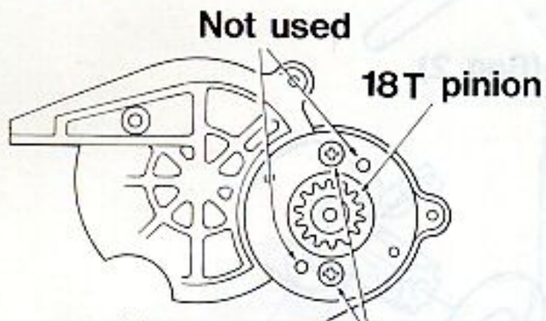
Mounting drive pinion on motor shaft



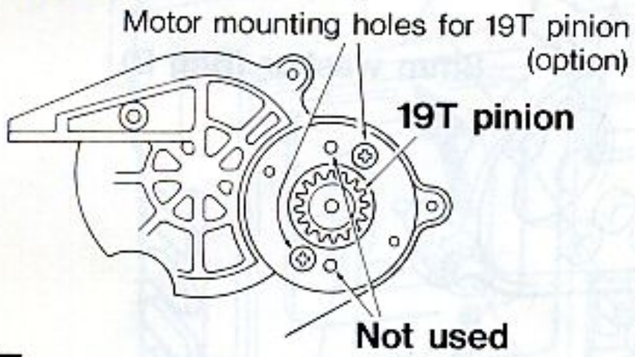

**Motor Mounting holes**

* Use the correct holes to suit the pinion used.

**18T pinion**




**19T pinion (option part)**




## 4 Assembling rear frame

**Fasteners used**

M3×12ST screw (Bag A) ..... 8

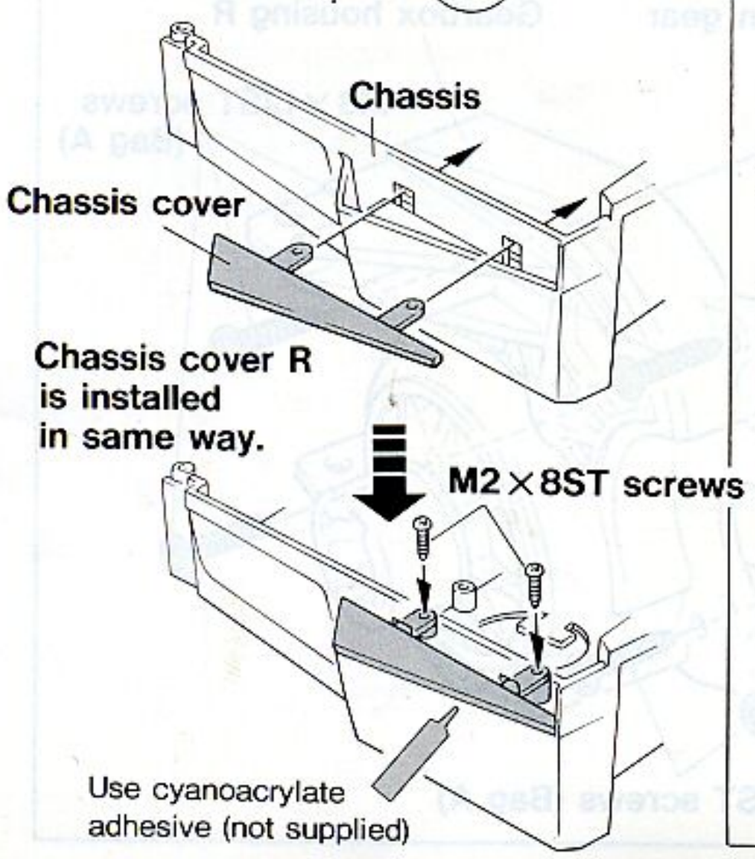
## 5 Mounting gearbox

**Fasteners used**

M2×8ST screw (Bag A) ..... 4

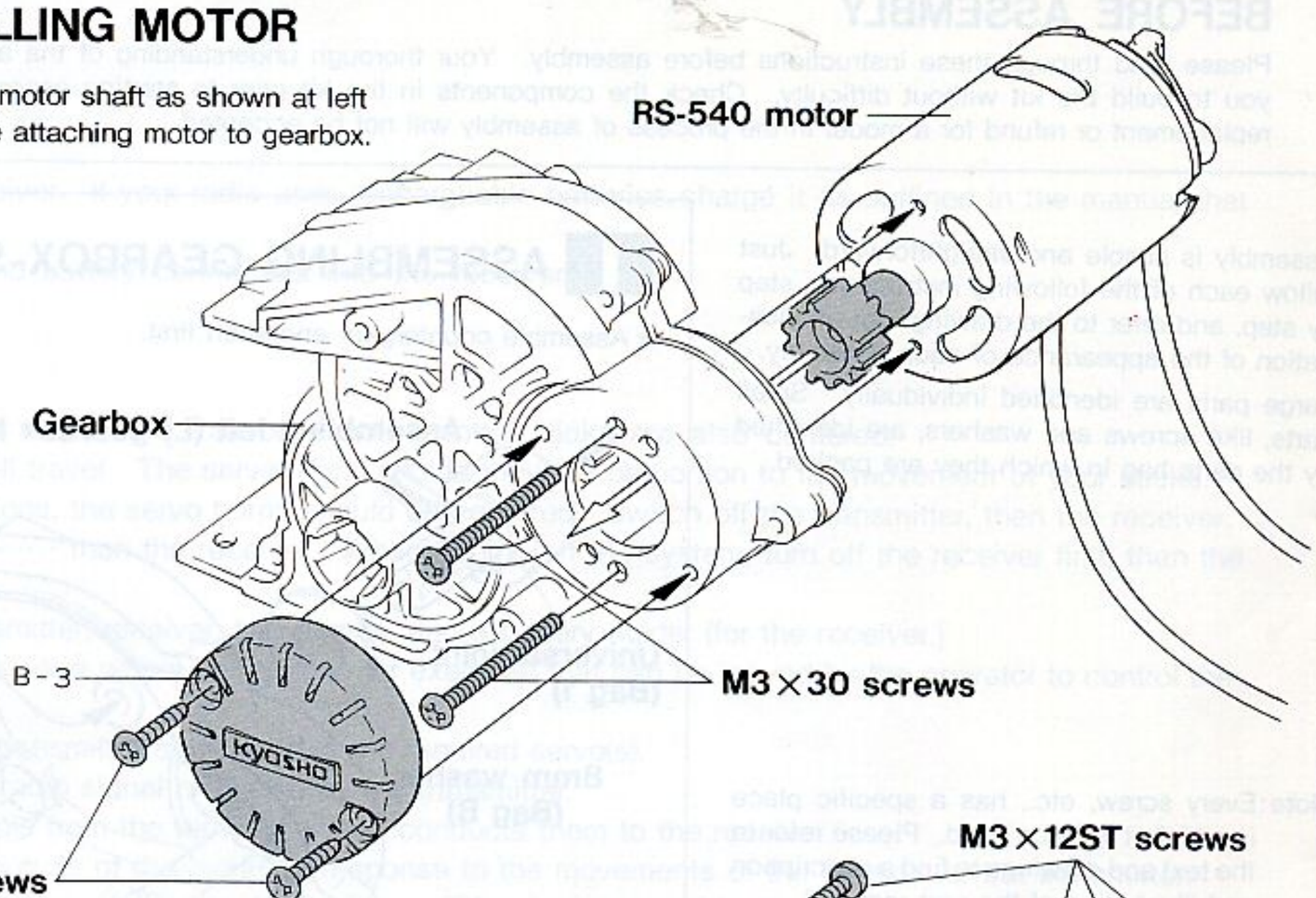
M3×12ST screw (Bag A) ..... 8

3mm washer (Bag B) ..... 4

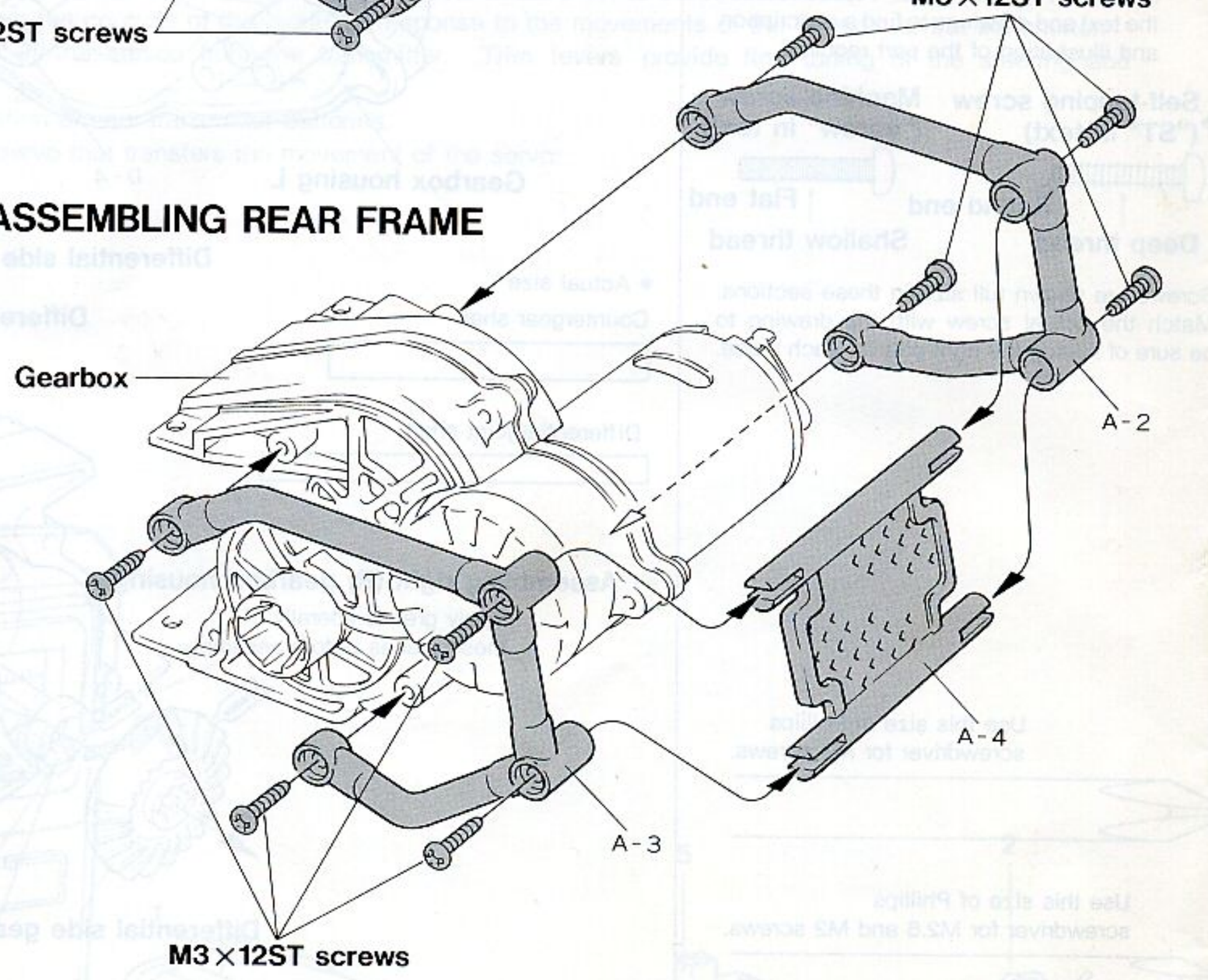



## 3 INSTALLING MOTOR

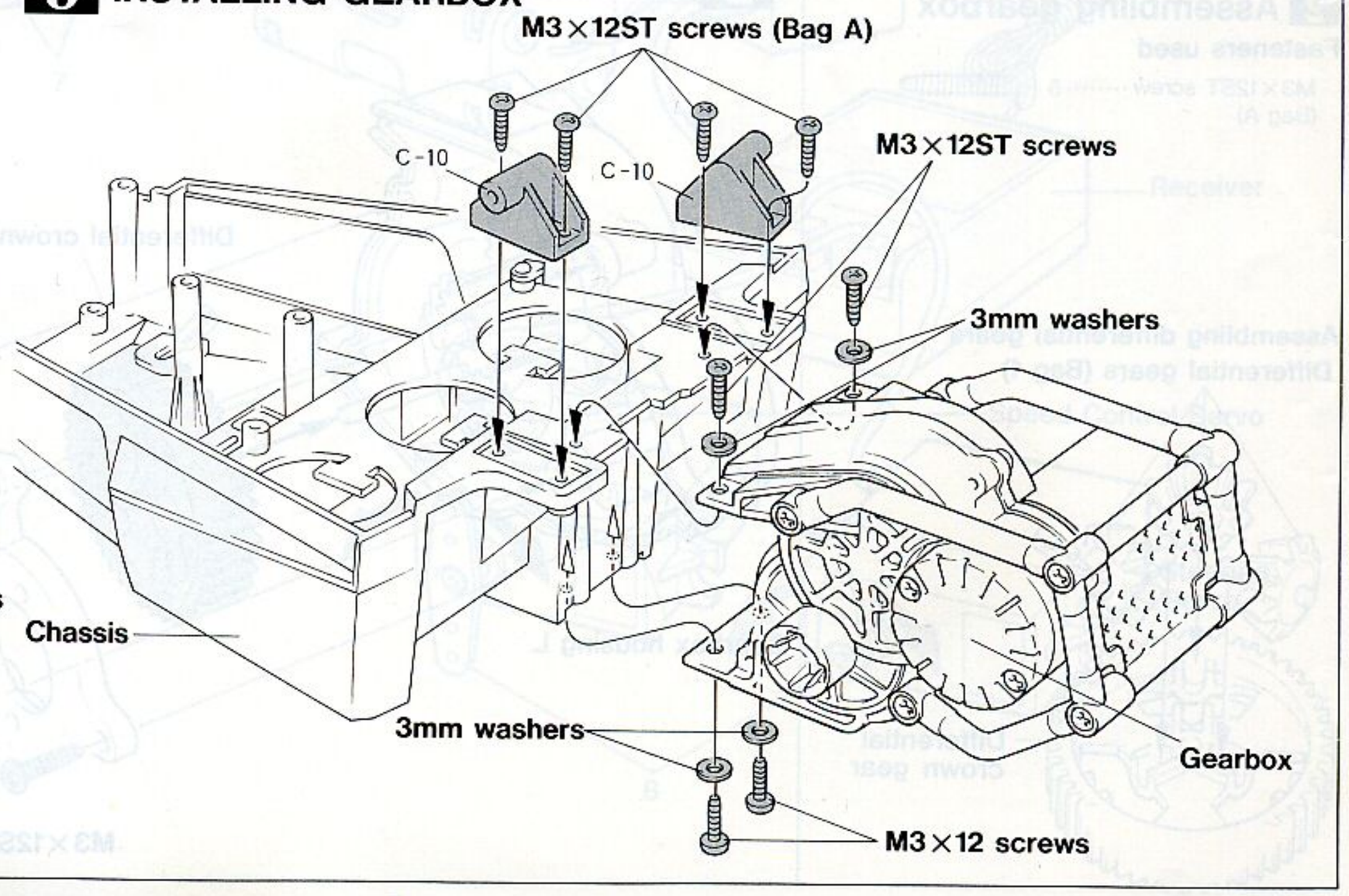
Install pinion on motor shaft as shown at left before attaching motor to gearbox.




## 4 ASSEMBLING REAR FRAME




## 5 INSTALLING GEARBOX



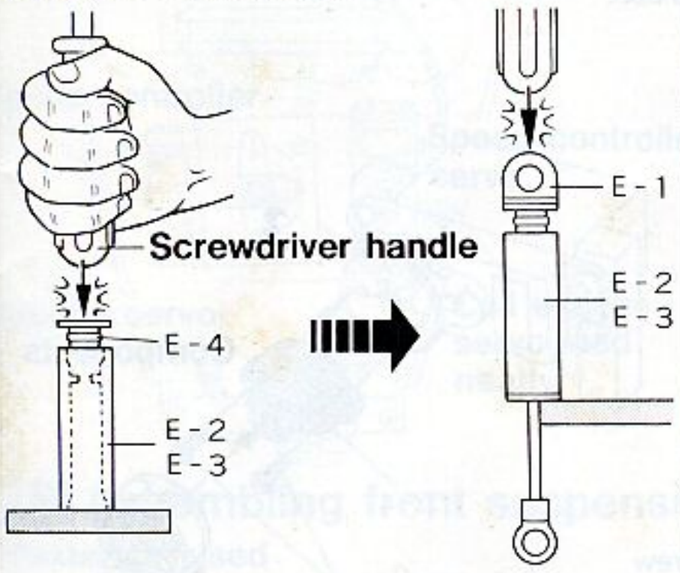
## 6 Assembling shock absorbers

**Fasteners used**

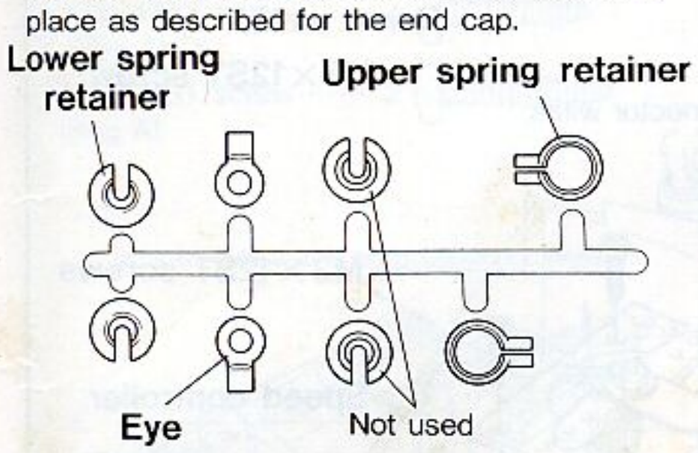
M2×8ST screw·····4 (Bag A)

The two front shock absorbers are shorter than the rear pair.

Place the cylinder on a hard surface, put the 0-ring into place, then tap the end cap into place with a screwdriver handle or similar firm (but not hard) object.




Place shock absorber body on edge of a hard surface and tap the bushing-end cap into place as described for the end cap.




## 7 Assembling rear swing arms

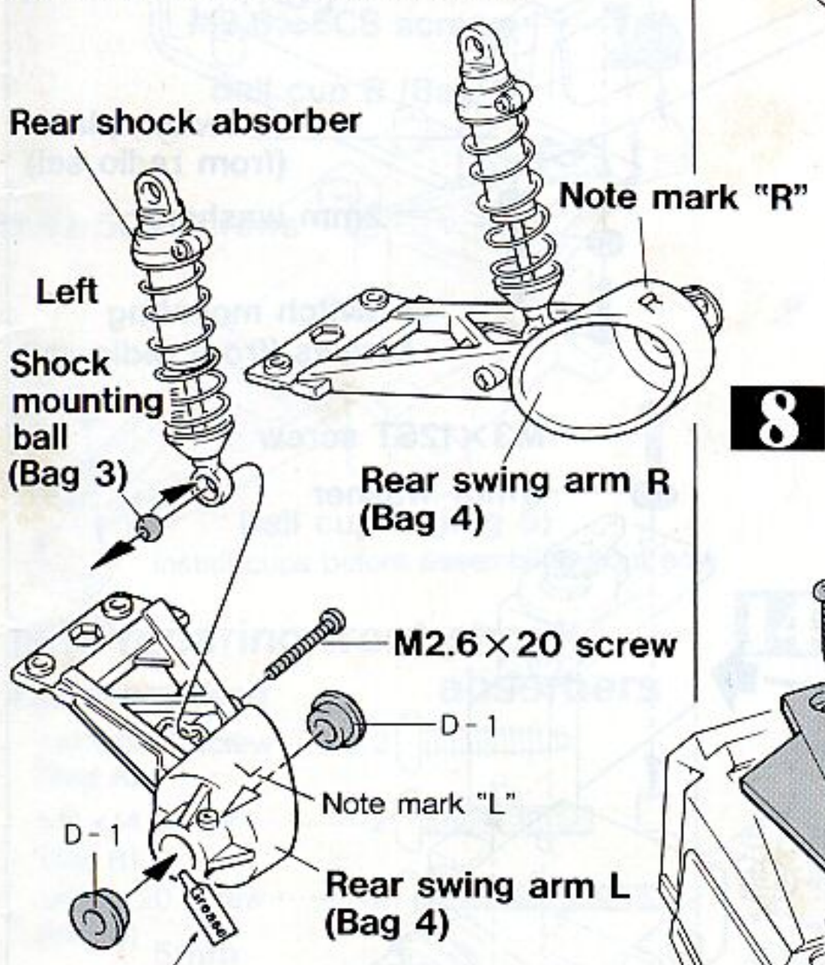
**Fasteners used**

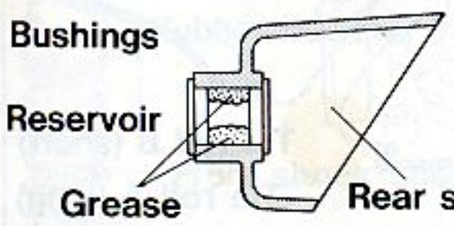
M2.6×20 screw·····2 (Bag B)

M3×14ST screw·····4 (Bag A)

3mm washer·····2 (Bag B)

**Mounting rear shock absorber**



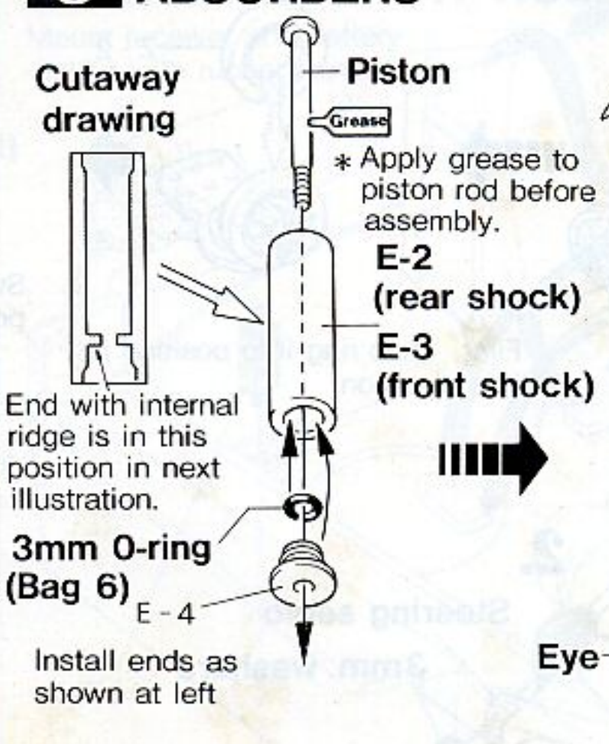



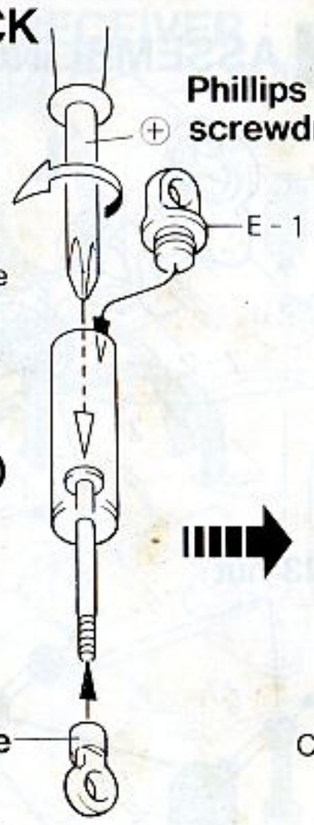

## 8 Attaching battery compartment cover

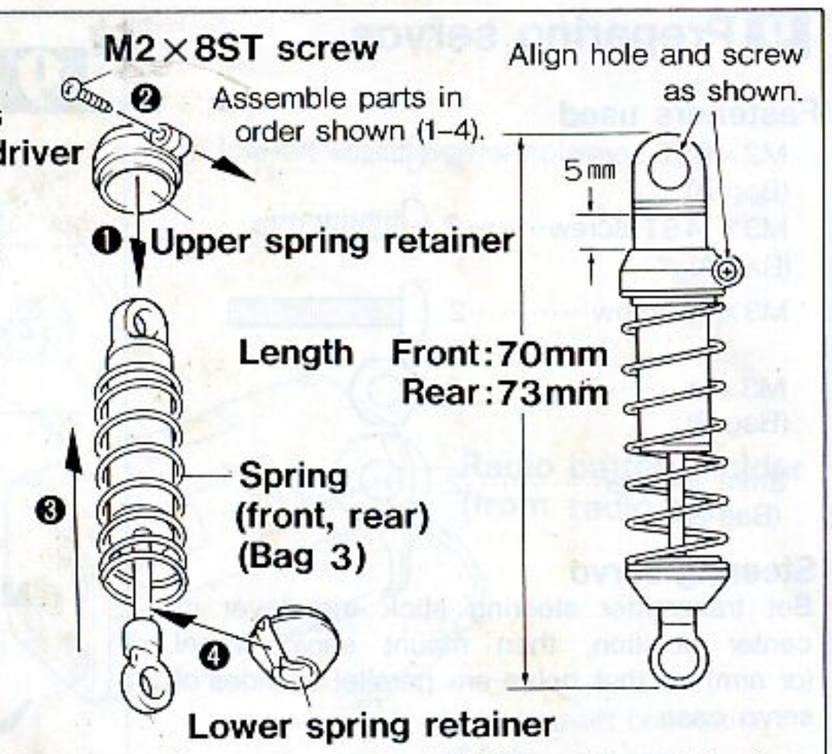
**Fasteners used**

M3×12ST screw·····5 (Bag A)

## 6 ASSEMBLING SHOCK ABSORBERS



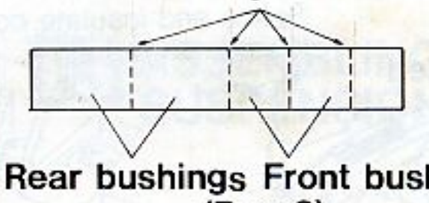




Compress spring and snap lower spring retainer into place.

## 7 MOUNTING REAR SWING ARM

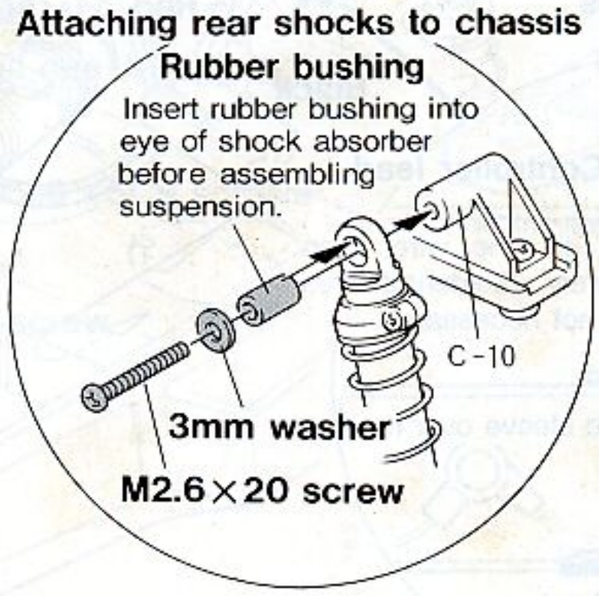
**Making bushings**

Cut rubber tubing as shown to make bushings.

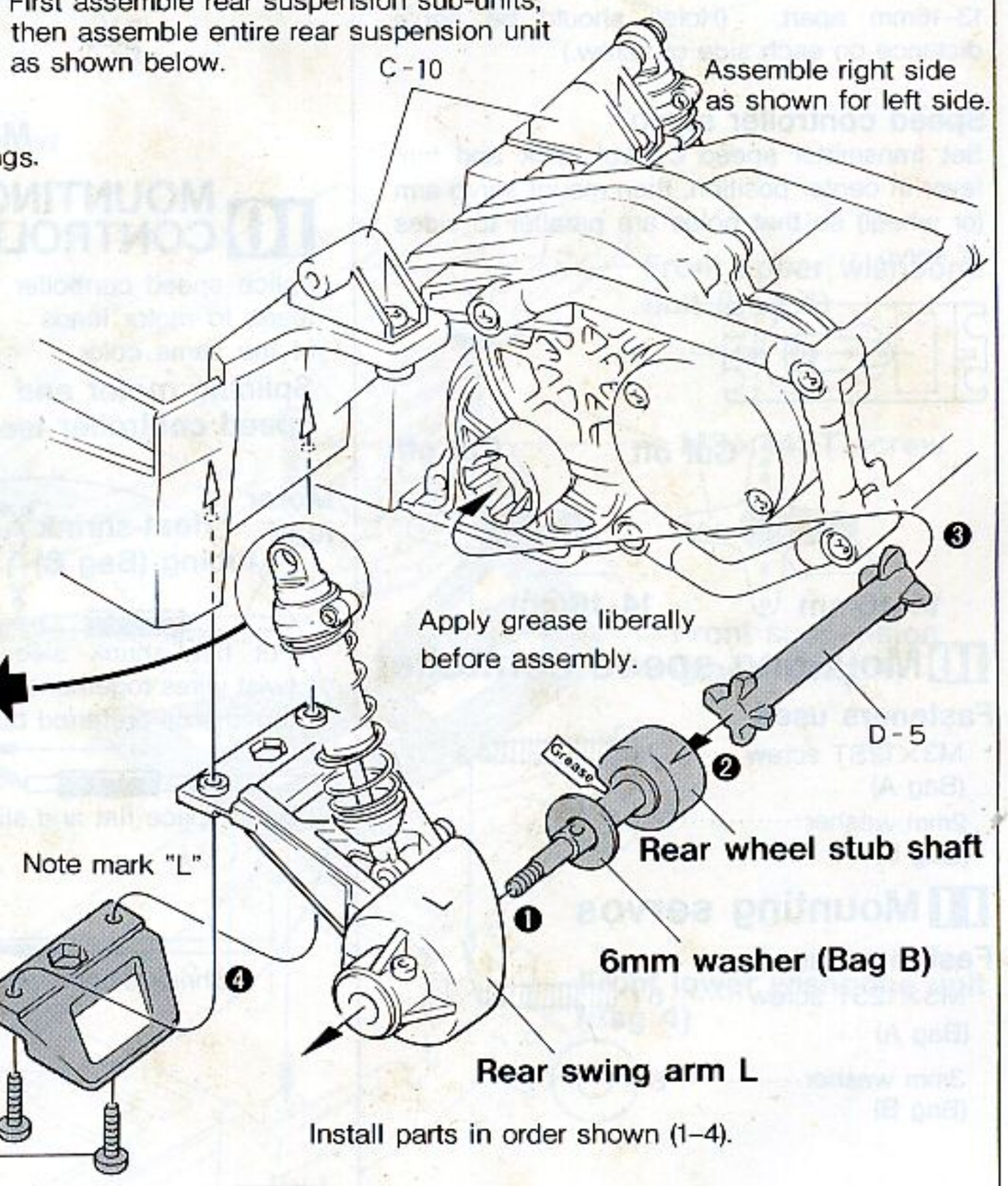


Rear bushings Front bushings (Bag 6)

**Attaching rear shocks to chassis**

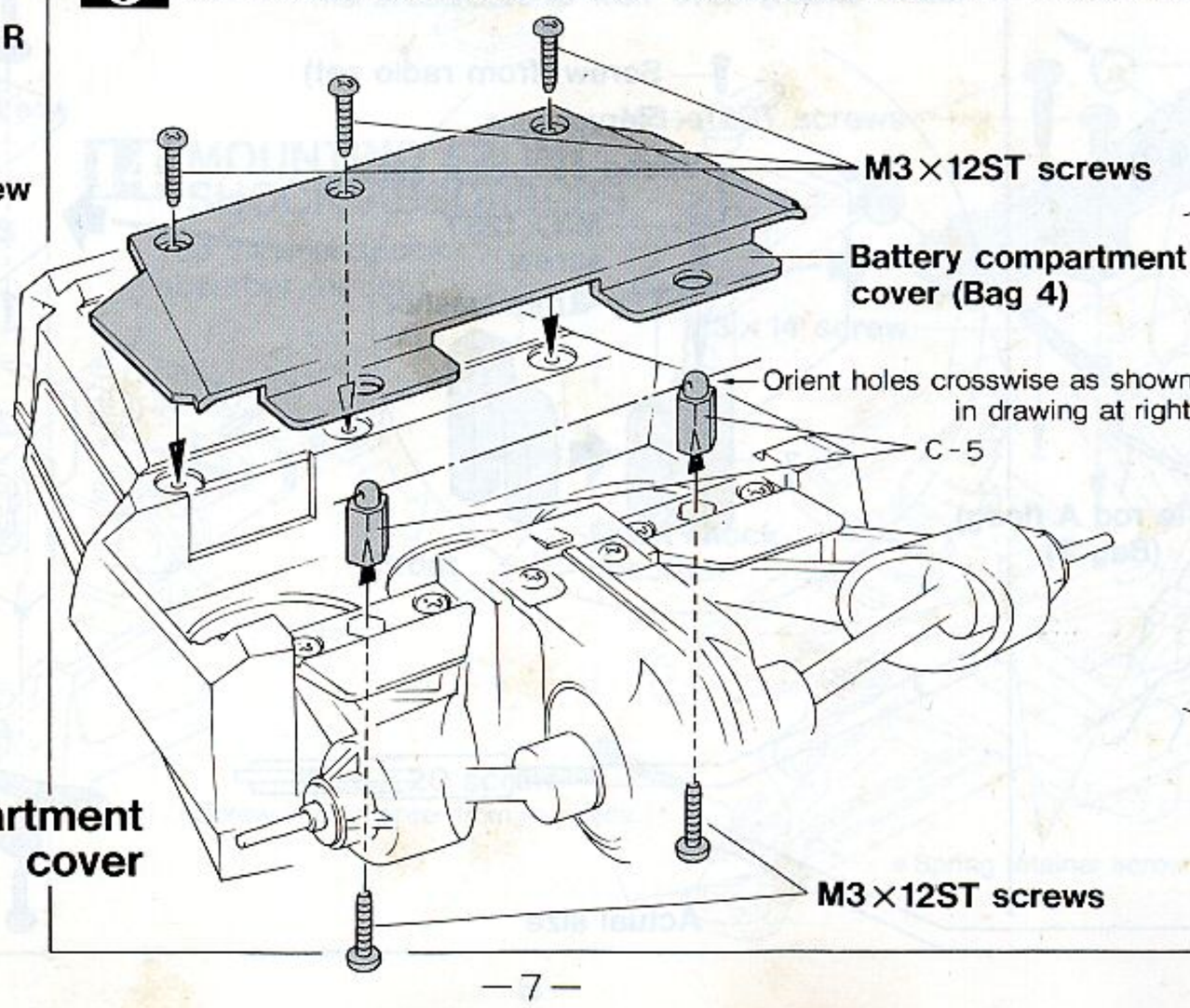


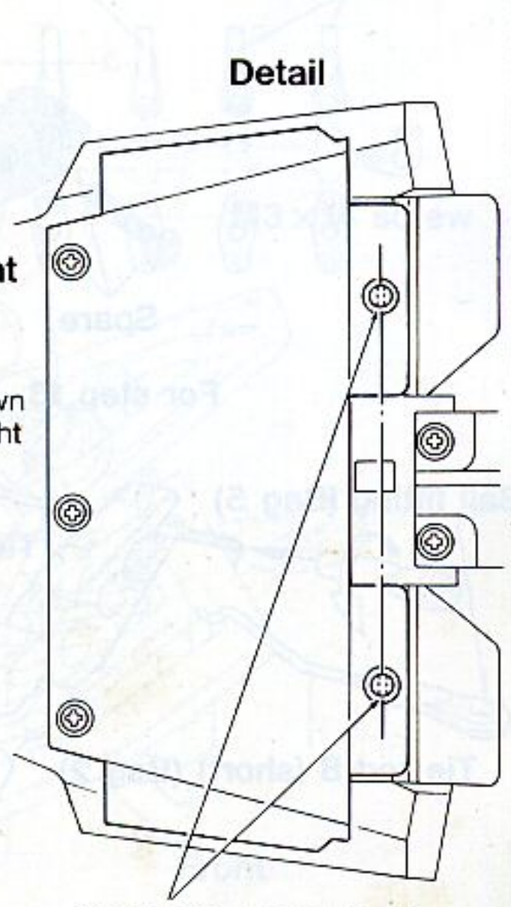

First assemble rear suspension sub-units, then assemble entire rear suspension unit as shown below.




Install parts in order shown (1–4).

## 8 ATTACHING BATTERY COMPARTMENT COVER

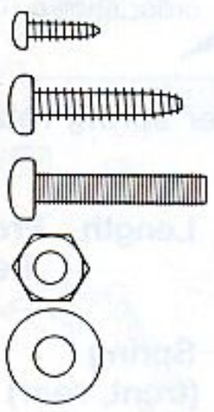


## 9 Preparing servos

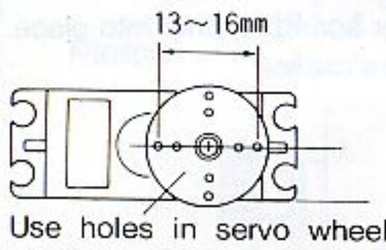
### Fasteners used

M2×6ST screw ····· 2 (Bag A)
M3×14ST screw ····· 2 (Bag A)
M3×14 screw ····· 2
M3 nut ····· 2 (Bag B)
3mm washer ····· 2 (Bag B)



### Steering servo

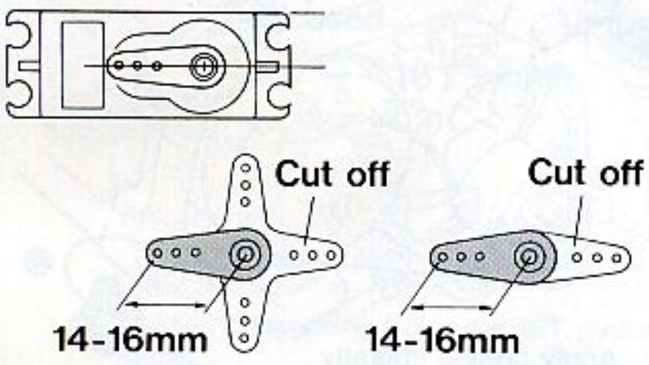
Set transmitter steering stick trim lever in center position, then mount servo wheel (or arm) so that holes are parallel to sides of servo case.




Use holes in servo wheel (or arm) that are 13–16mm apart. (Holes should be equal distance on each side of screw.)

### Speed controller servo

Set transmitter speed control stick and trim lever in center position, then mount servo arm (or wheel) so that holes are parallel to sides of servo.




## 10 Mounting speed controller

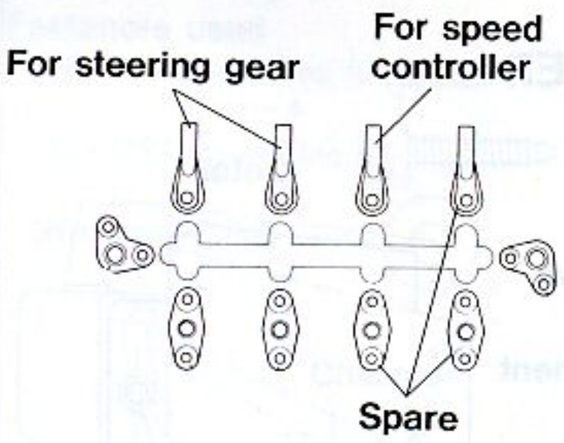
### Fasteners used

M3×12ST screw ····· 2 (Bag A)
2mm washer ····· 2 (Bag B)

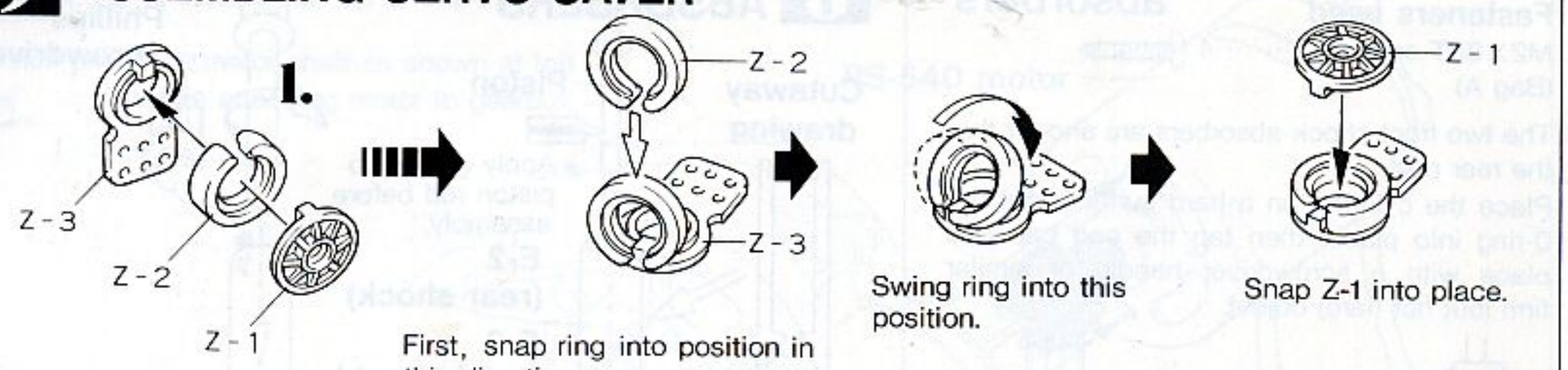
## 11 Mounting servos

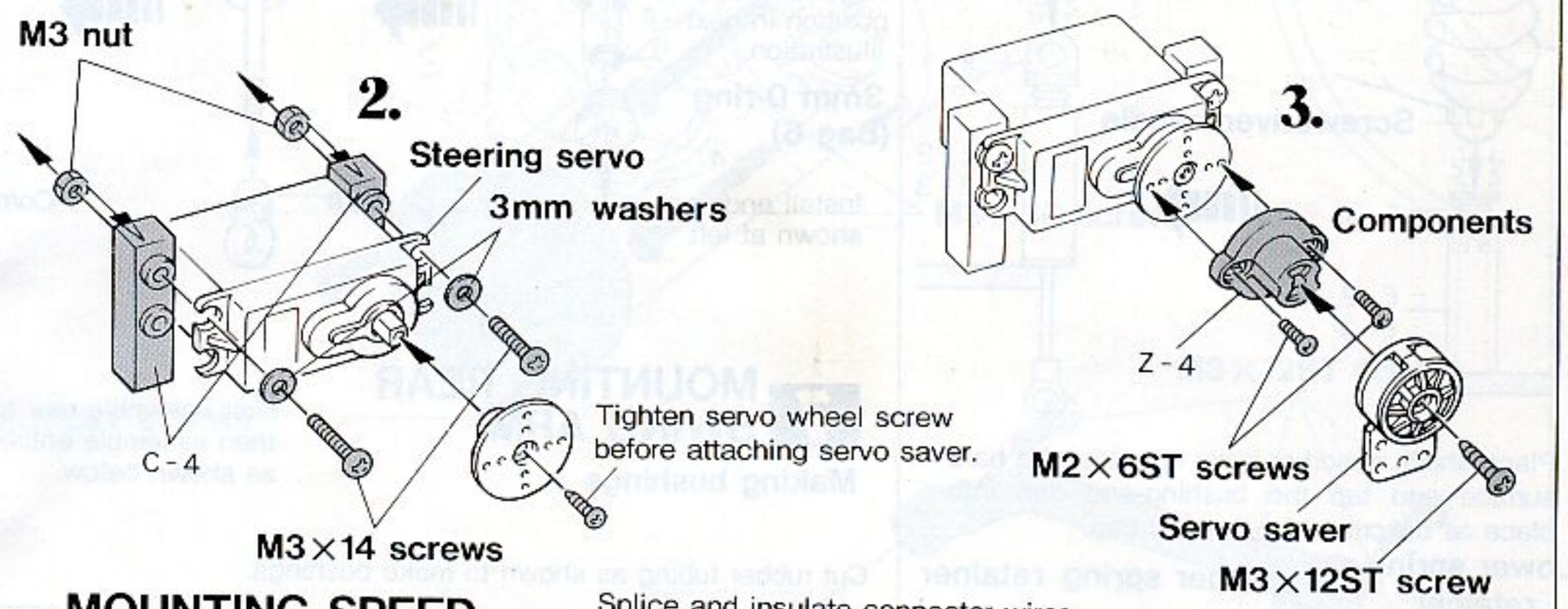
### Fasteners used

M3×12ST screw ····· 6 (Bag A)
3mm washer ····· 6 (Bag B)




## 9 ASSEMBLING SERVO SAVER

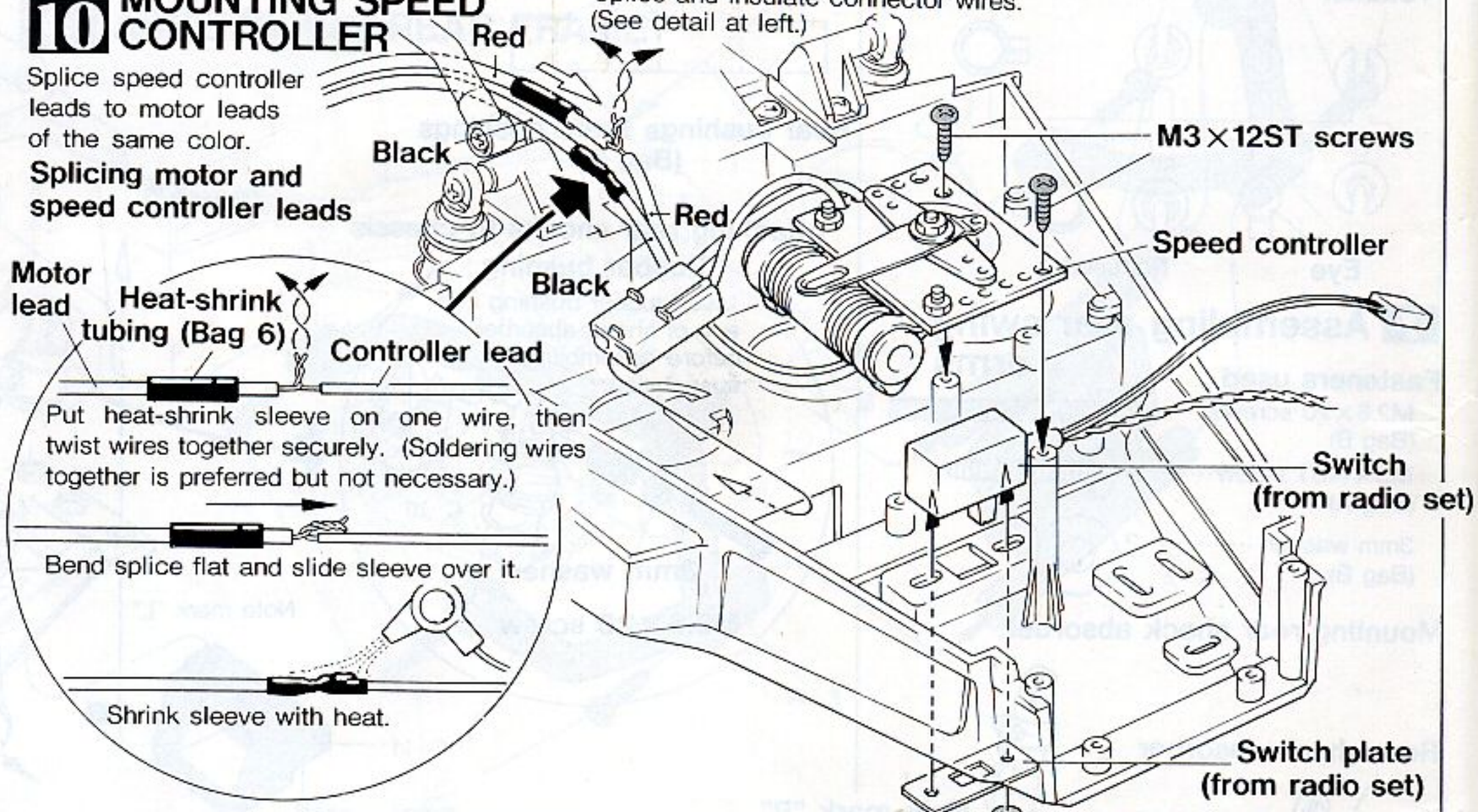



## 10 MOUNTING SPEED CONTROLLER

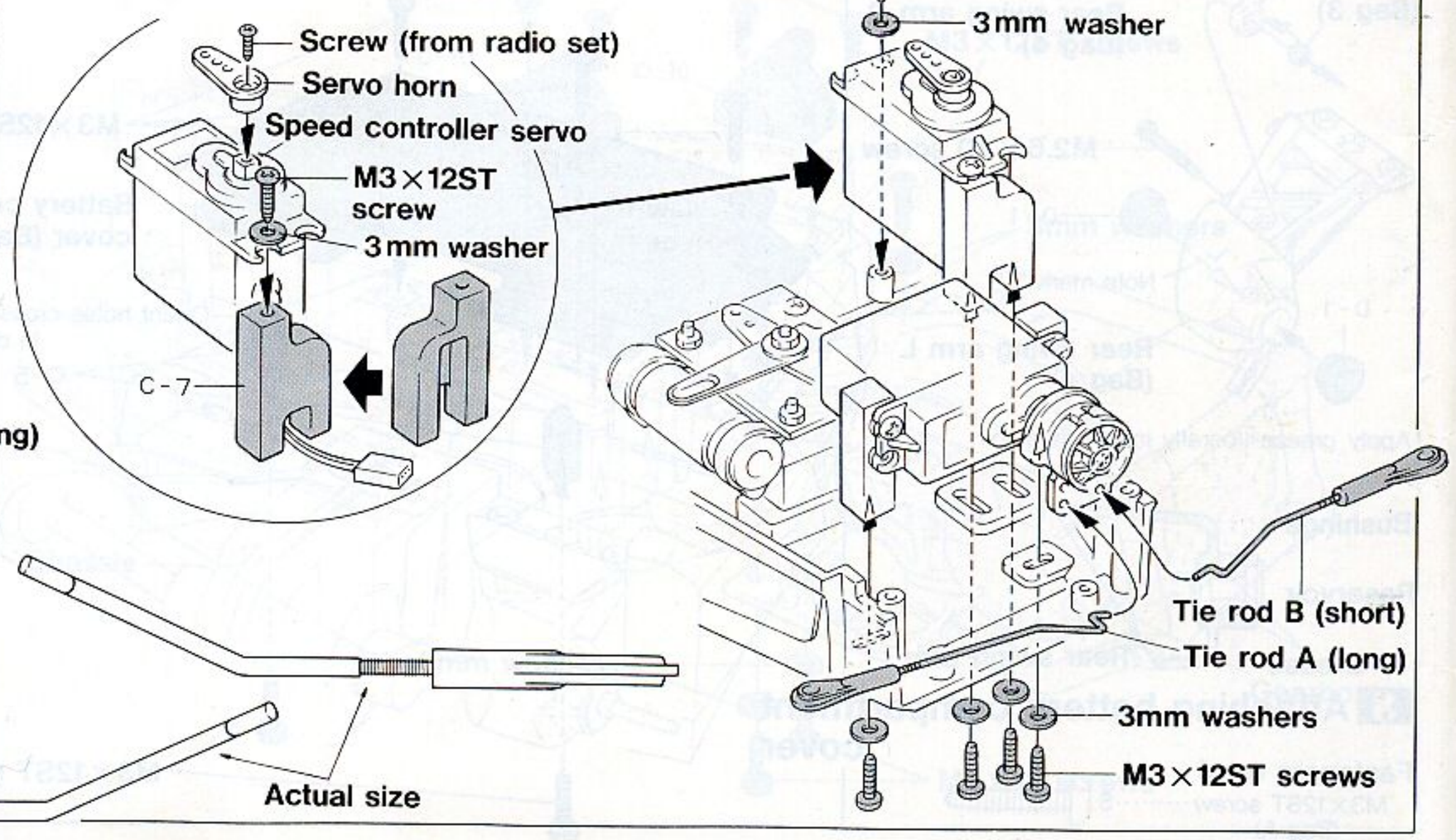
Splice speed controller leads to motor leads of the same color.

**Splicing motor and speed controller leads**




## 11 MOUNTING SERVOS

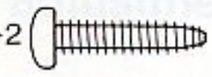
Mount steering servo horn as described at left.

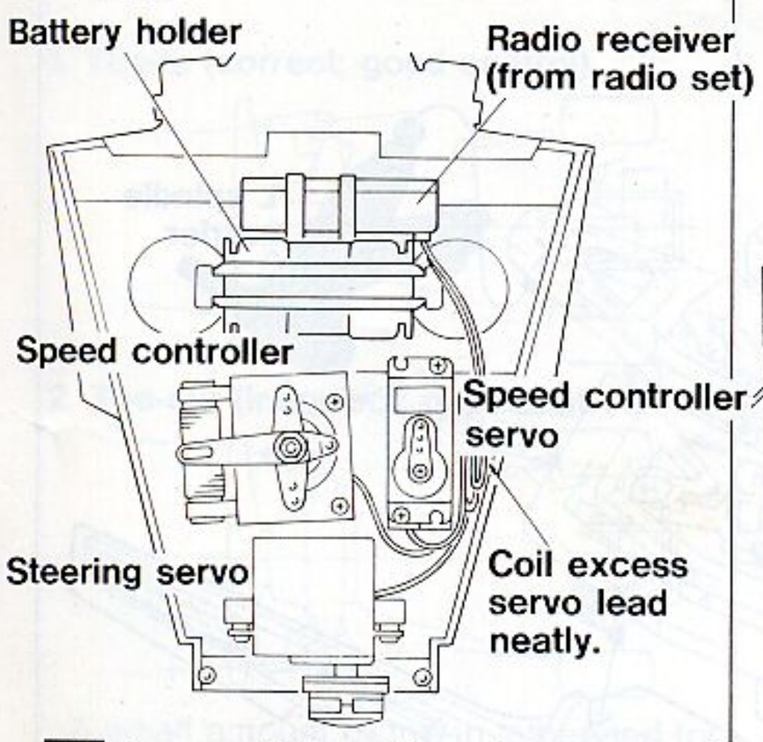


## 12 Installing radio equipment

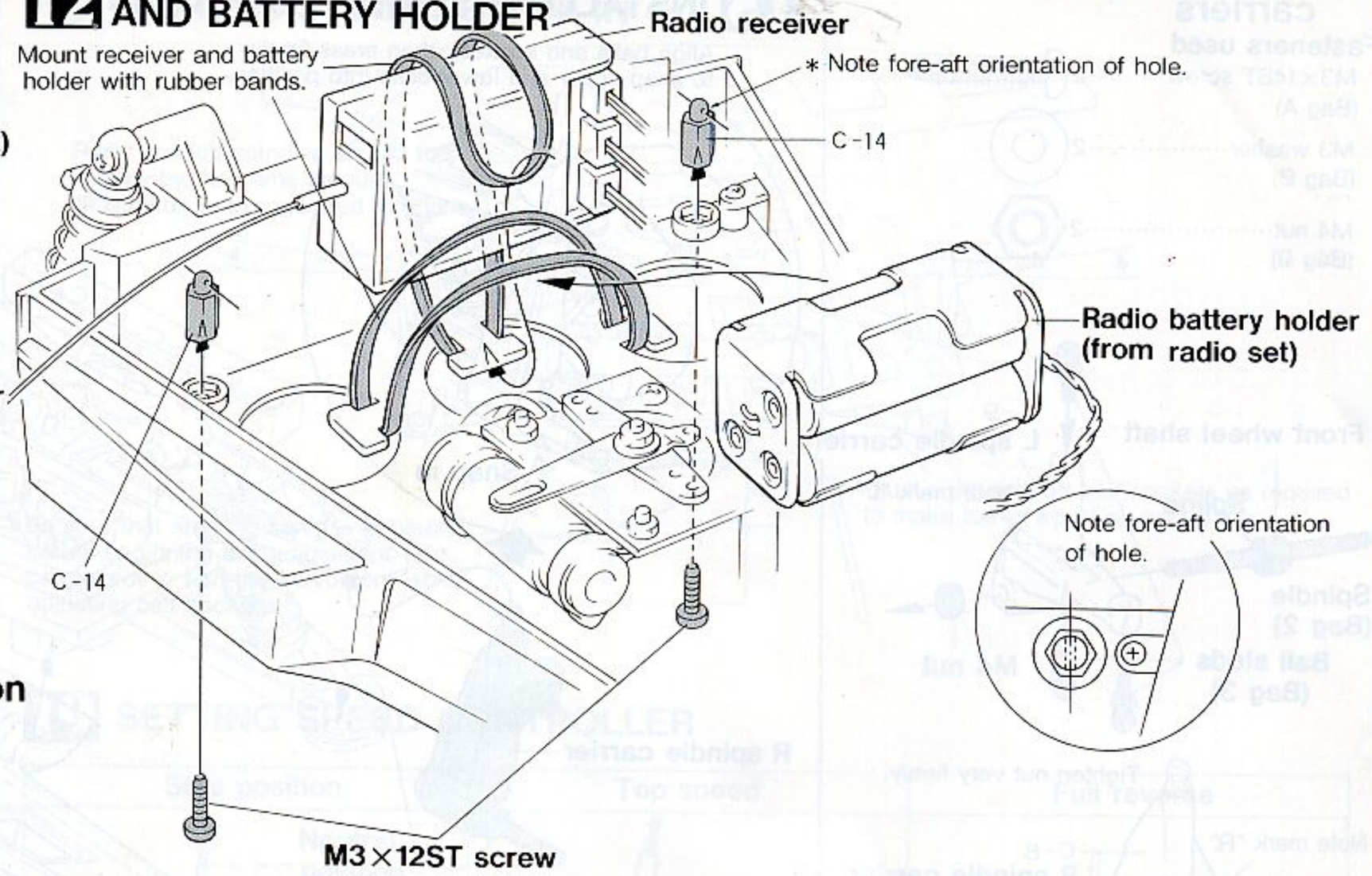
Fasteners used

M3×12ST screw·····2
(Bag A)






## 12 INSTALLING RADIO RECEIVER AND BATTERY HOLDER



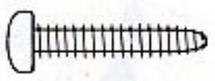

## 13 Assembling front suspension

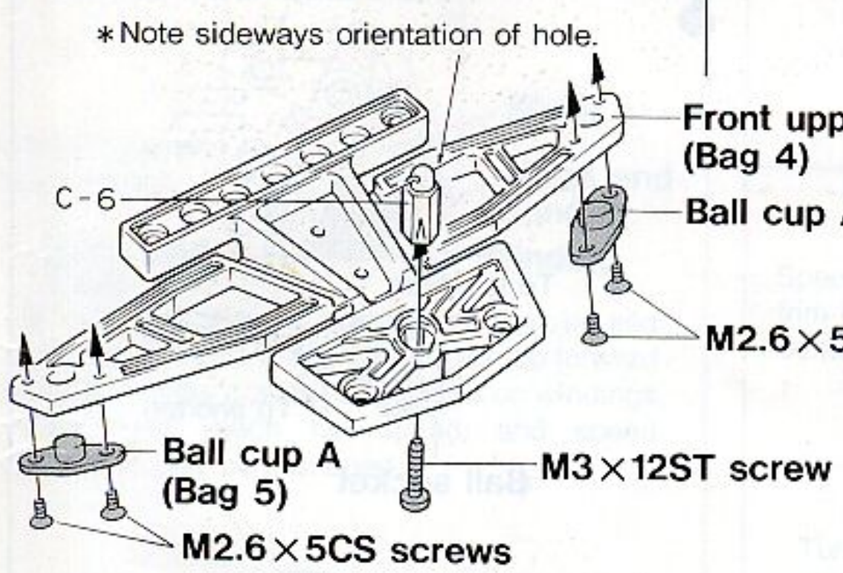
Fasteners used

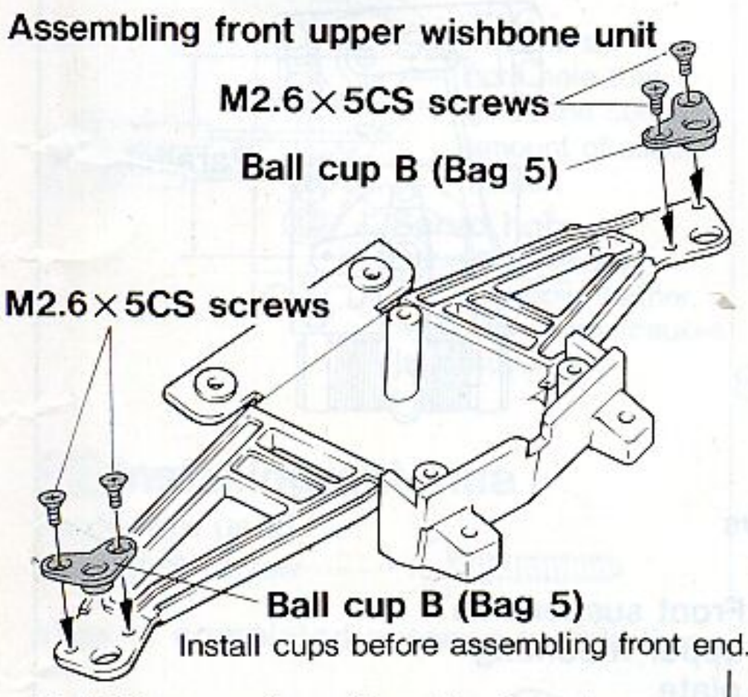
M2.6×5CS screw·····8
(Bag B)

M3×12ST screw·····1
(Bag A)

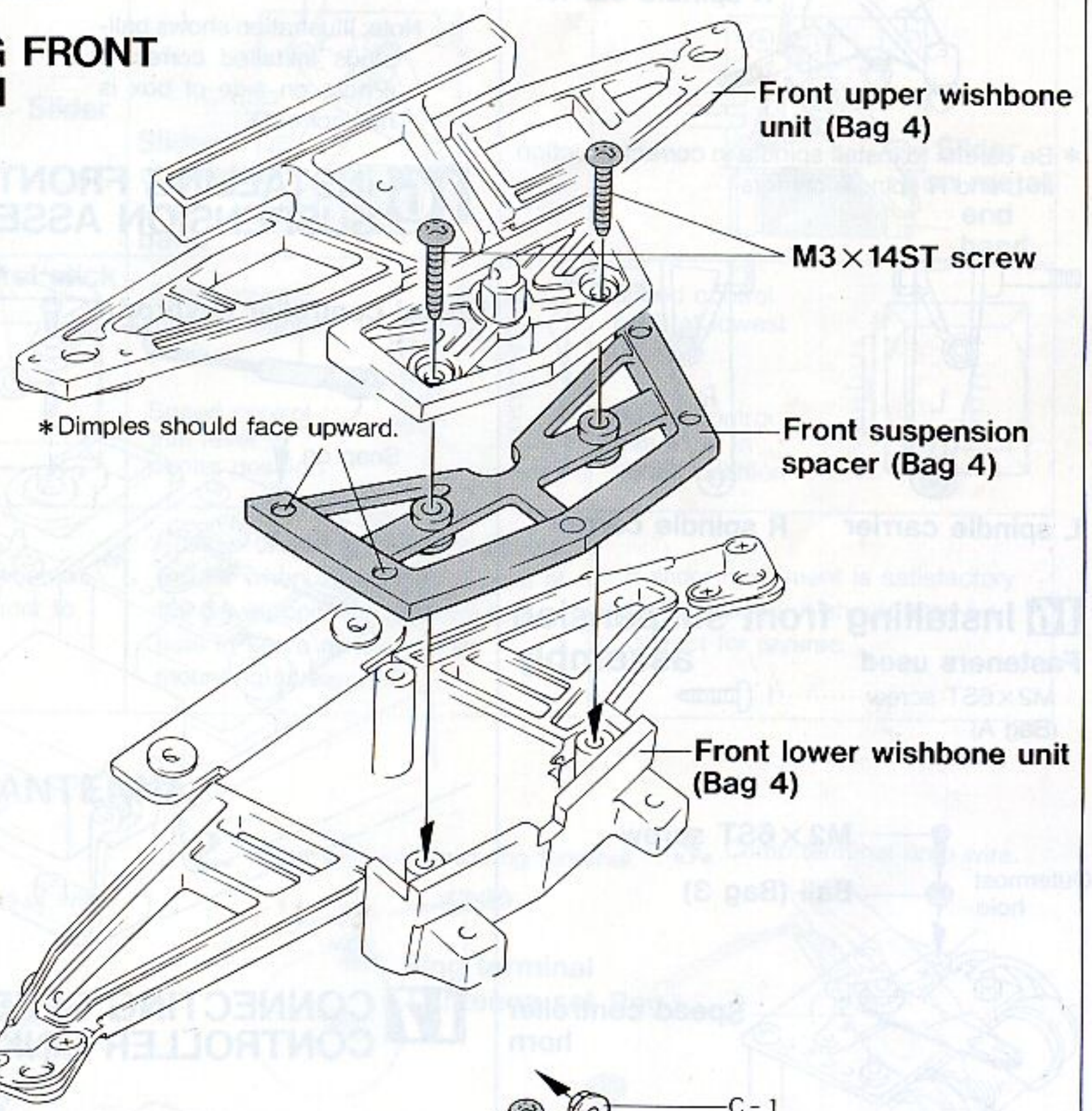
M3×14ST screw·····2
(Bag A)






## 13 ASSEMBLING FRONT SUSPENSION



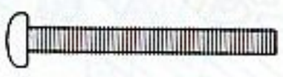

## 14 Preparing front shock absorbers

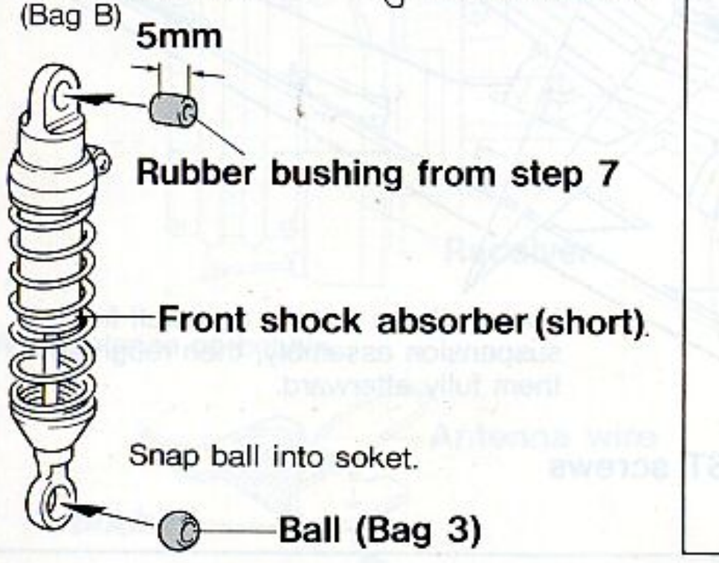
Fasteners used

M3×12ST screw·····2
(Bag A)

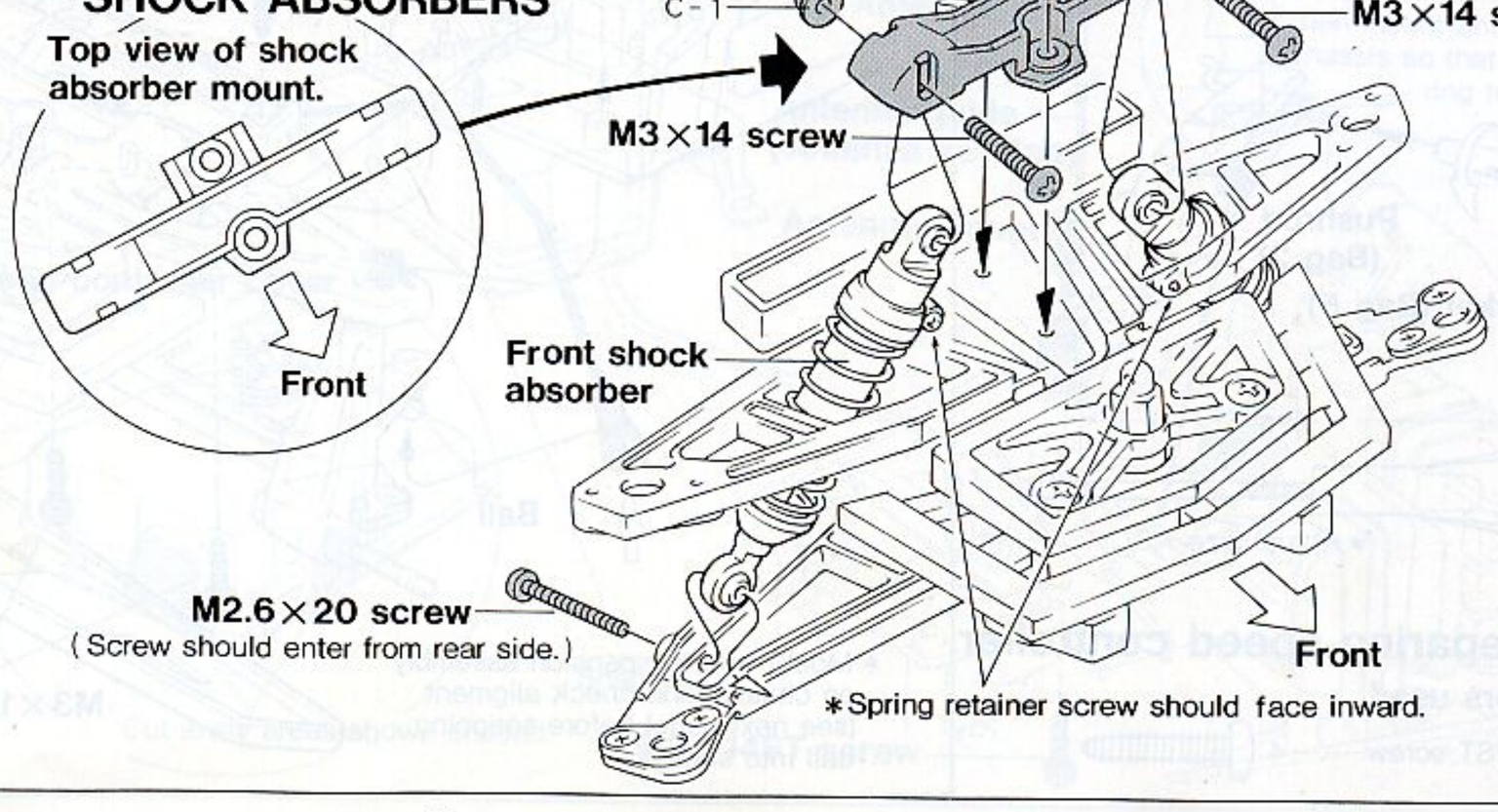
M3×14 screw·····2
(Bag B)

M2.6×20 screw·····2
(Bag B)





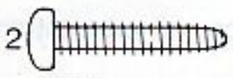

## 14 MOUNTING FRONT SHOCK ABSORBERS



## 15 Assembling spindle carriers

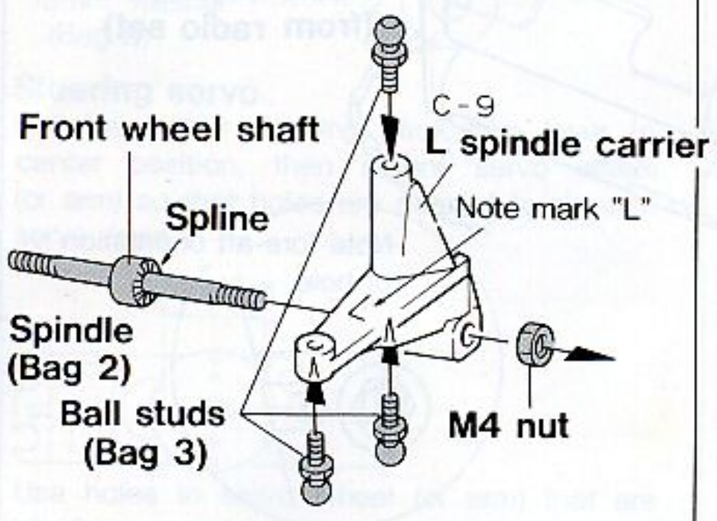
**Fasteners used**

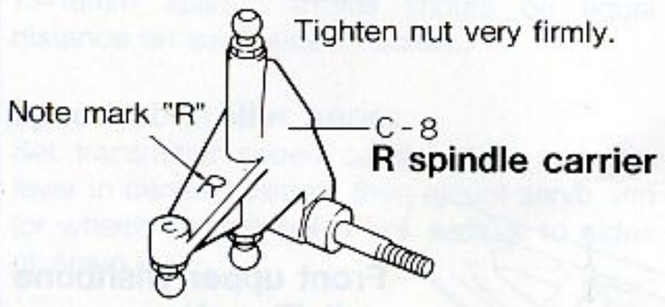
M3×14ST screw ····· 2
(Bag A)



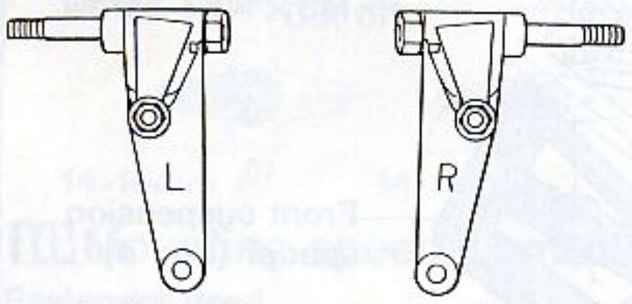
M3 washer ····· 2
(Bag B)

M4 nut ····· 2
(Bag B)




* Be careful to install spindle in correct direction in L and R spindle carriers.

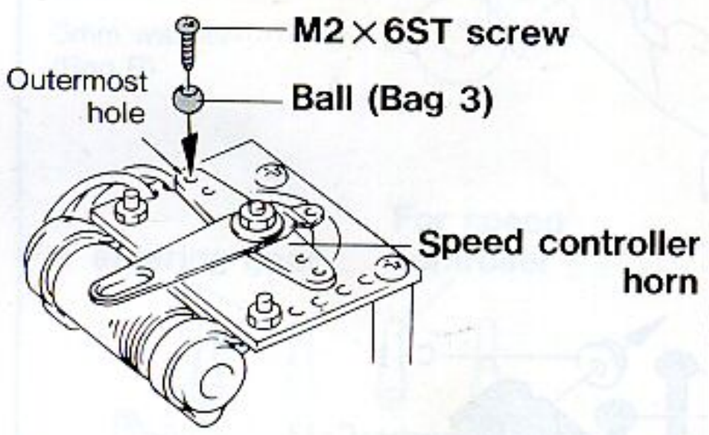



L spindle carrier  R spindle carrier

## 16 Installing front suspension assembly

**Fasteners used**

M2×6ST screw ····· 1
(Bag A)








* Actual size

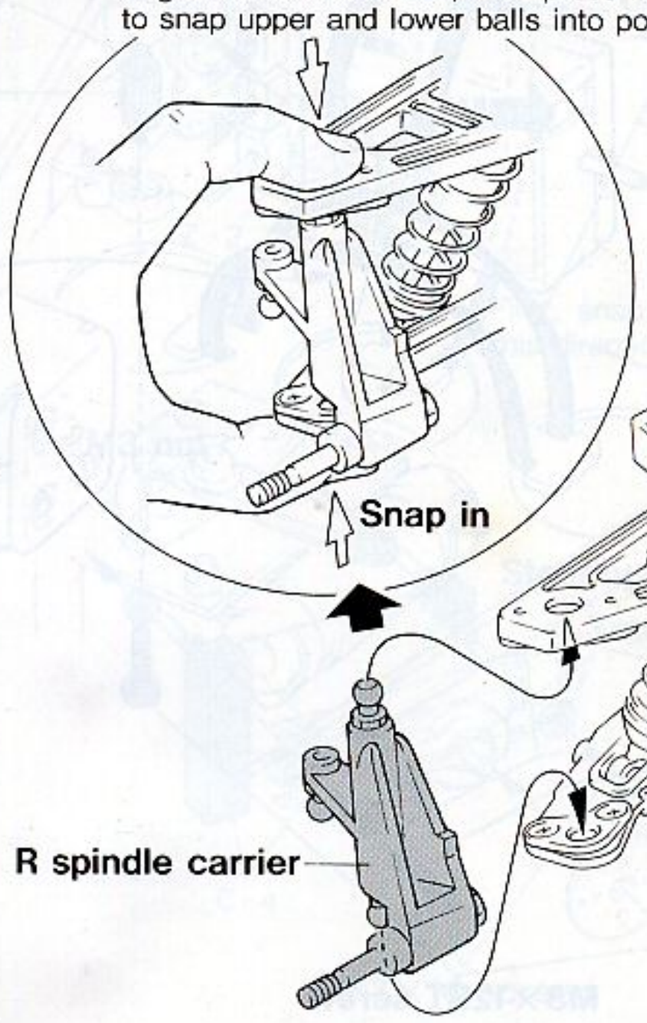
## 17 Preparing speed controller

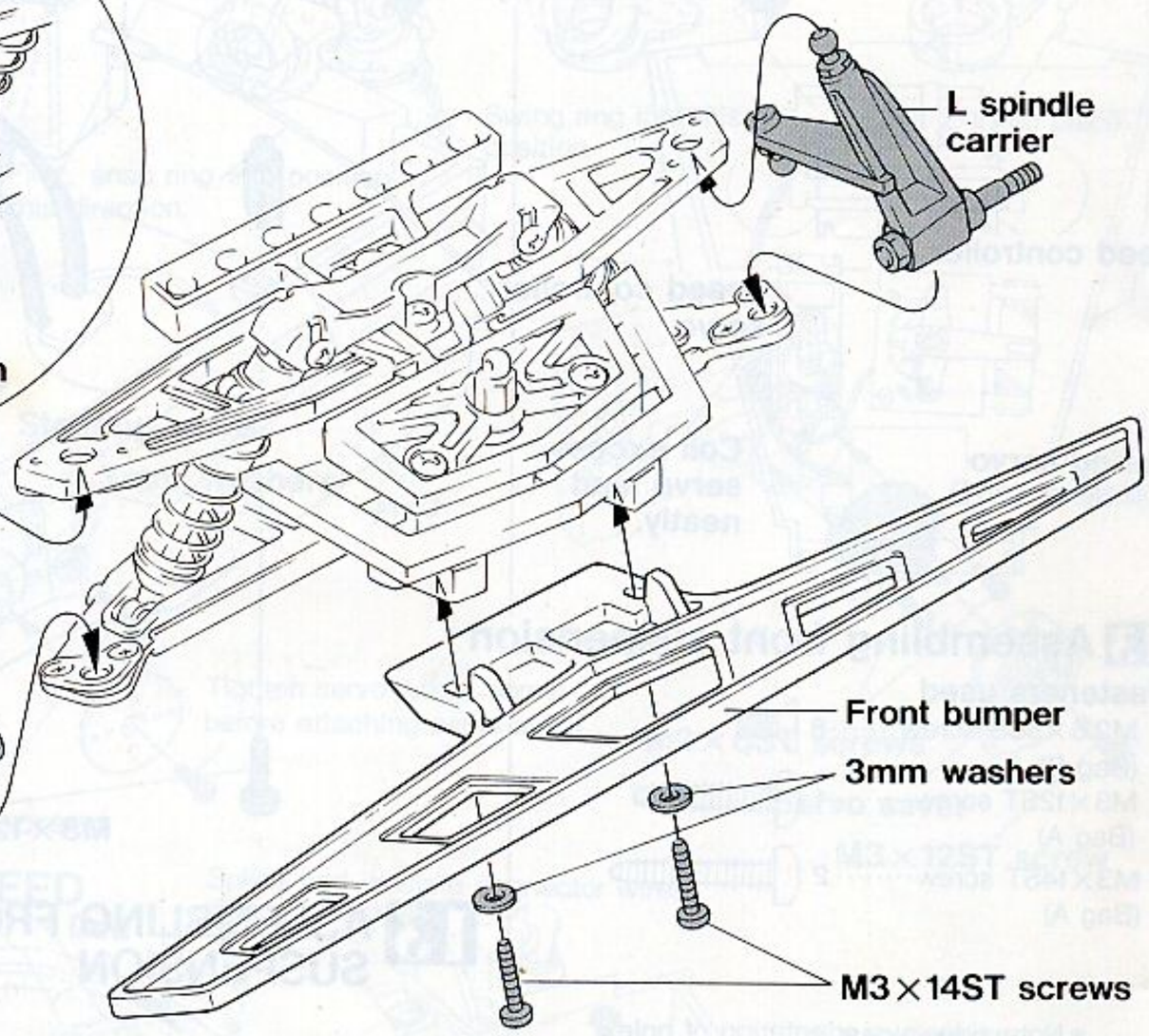
**Fasteners used**

M3×12ST screw ····· 4
(Bag A)

## 15 INSTALLING SPINDLE CARRIERS

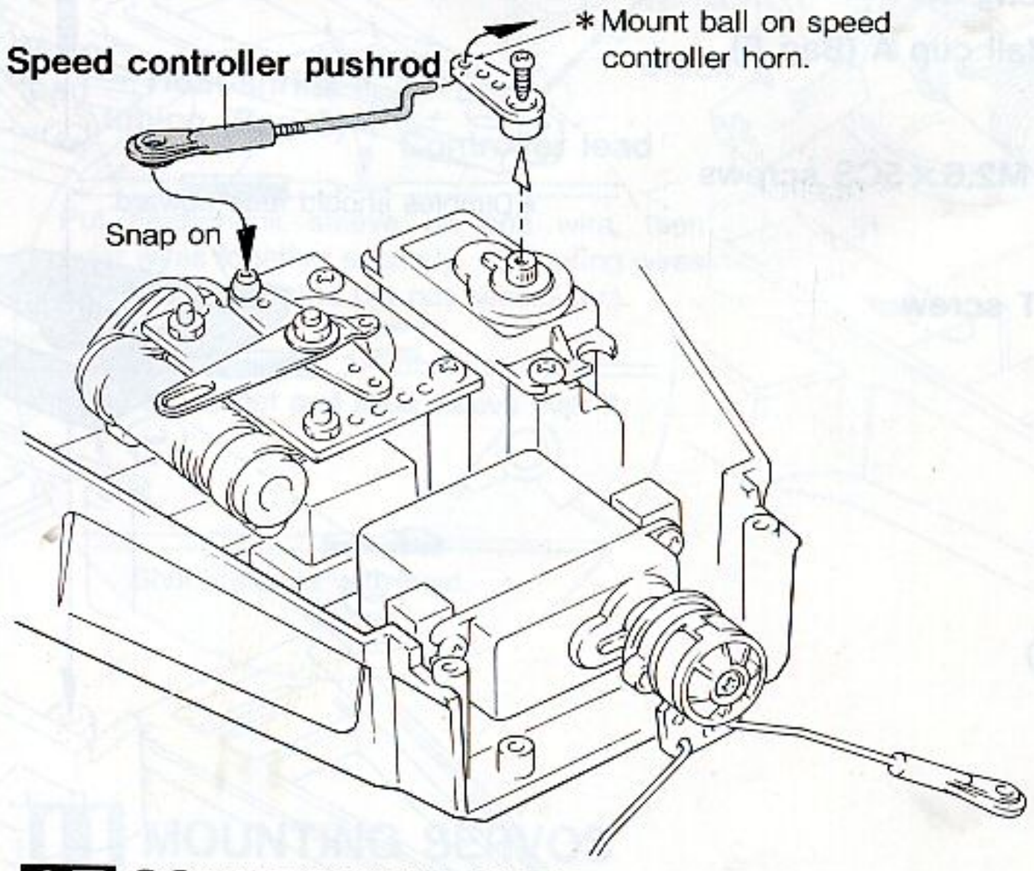
Align balls and sockets, then press firmly to snap upper and lower balls into position.

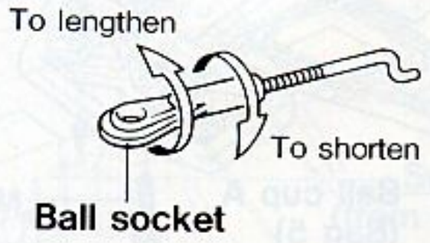


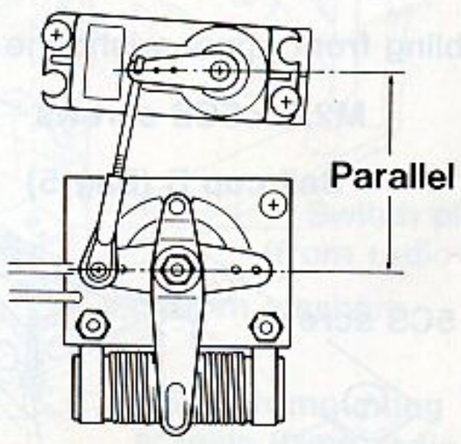




Note: Illustration shows ball-studs installed correctly. (Photo on side of box is not correct.)

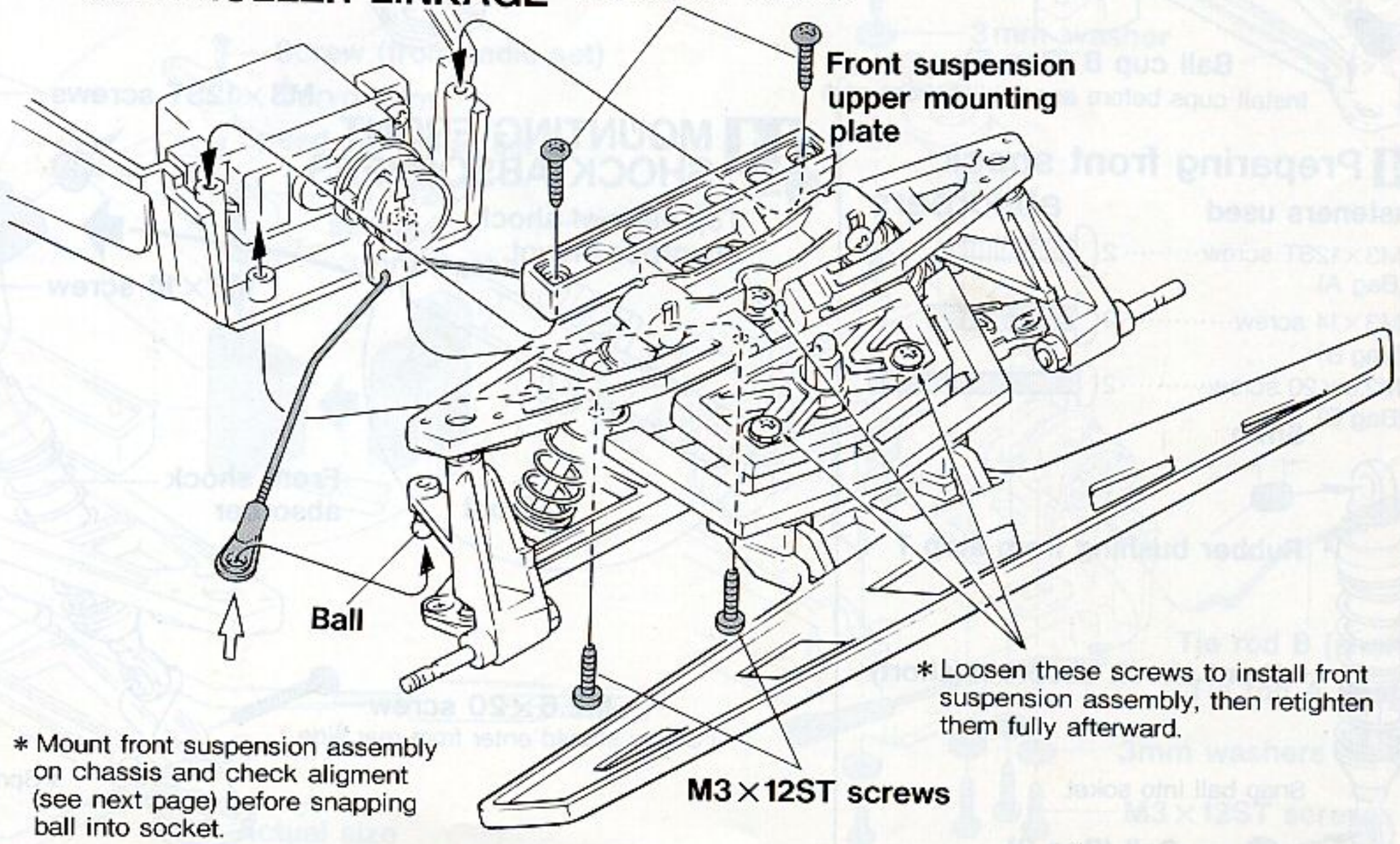
## 16 INSTALLING FRONT SUSPENSION ASSEMBLY



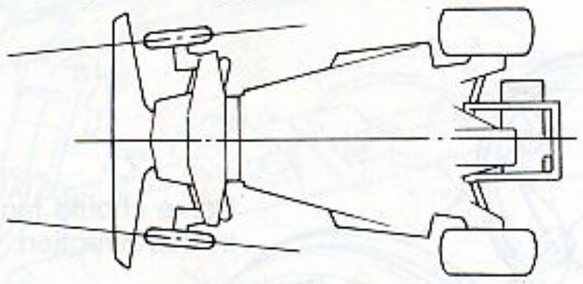

## 17 CONNECTING SPEED CONTROLLER LINKAGE



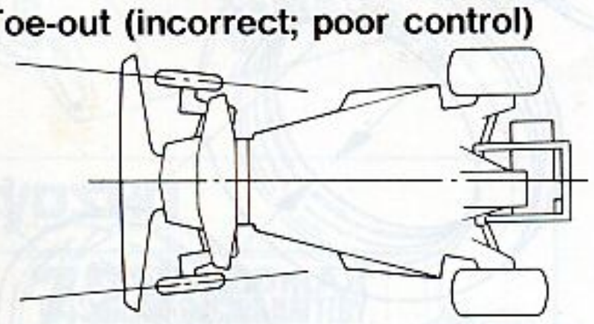

* Mount front suspension assembly on chassis and check aligment (see next page) before snapping ball into socket.

## 18 Notes on steering adjustments

1. Toe-in (correct; good control)

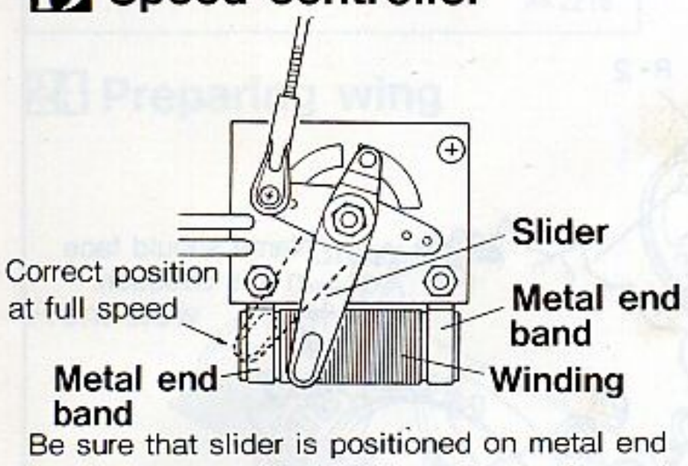


2. Toe-out (incorrect; poor control)

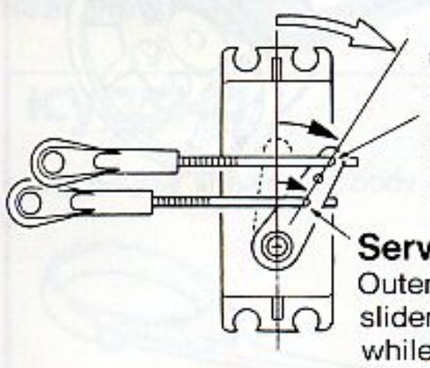


A small amount of toe-in is needed for directional stability.

## 19 Speed controller




Be sure that slider is positioned on metal end band when servo is at full travel for top forward speed. If slider constantly remains on windings, car cannot reach full speed, and speed controller may be damaged.



Use the servo horn hole that gives the correct amount of slider travel.

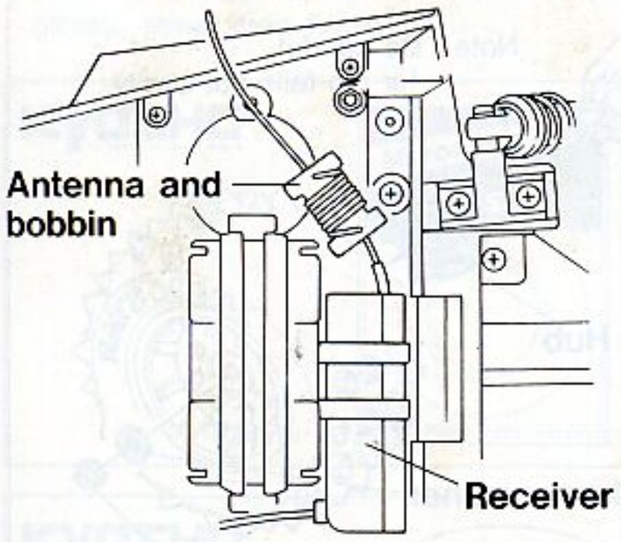
**Servo horn**
Outer hole causes slider to move farther, while inner hole causes less movement.

## 20 Installing antenna

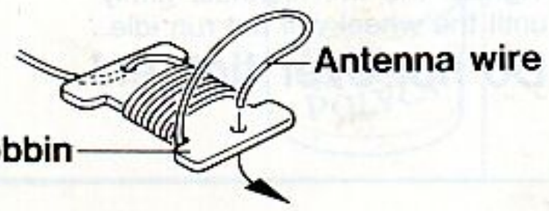
**Fasteners used**

M3×14ST screw····· 1

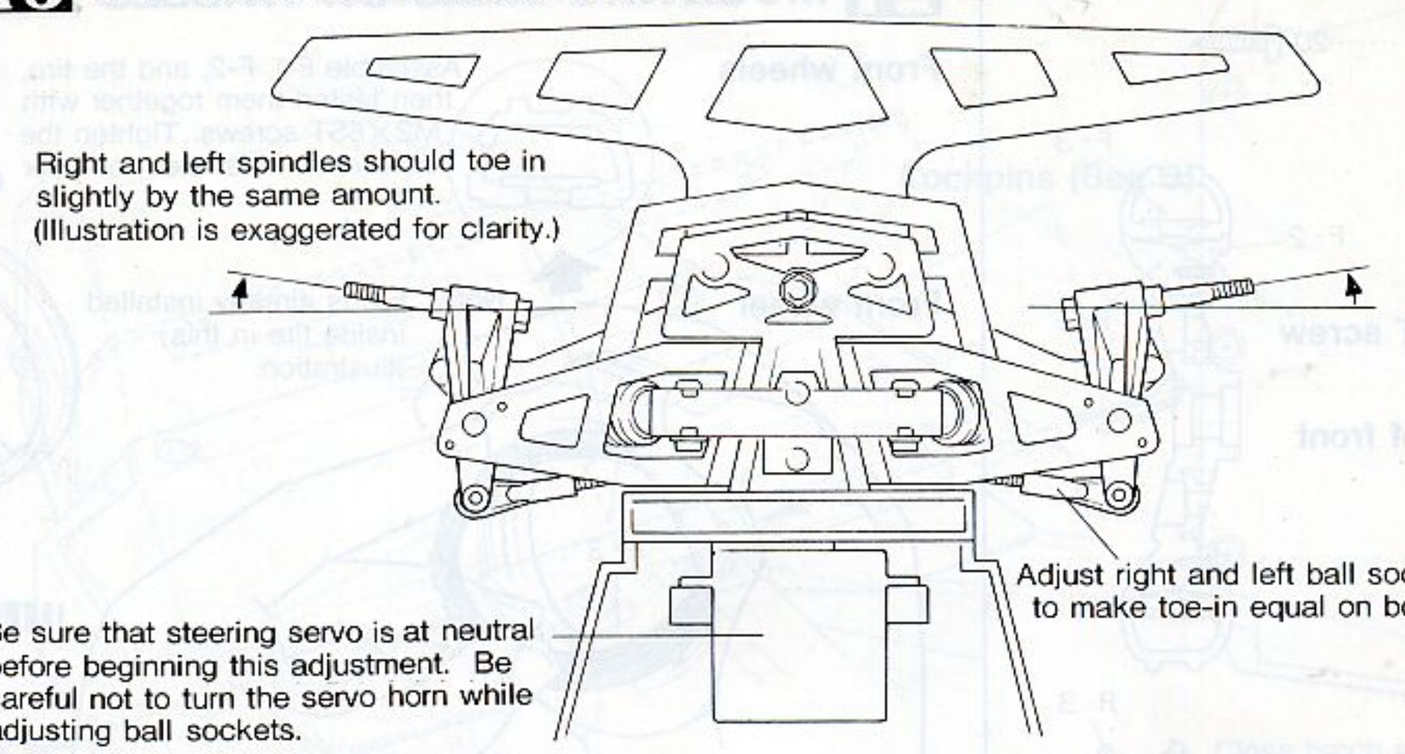
**View of completed antenna installation**




Wind antenna on bobbin.

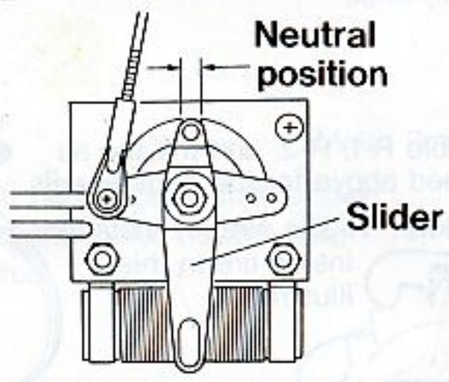
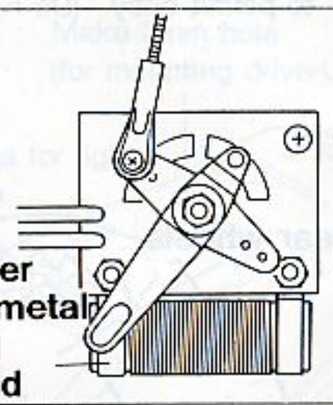
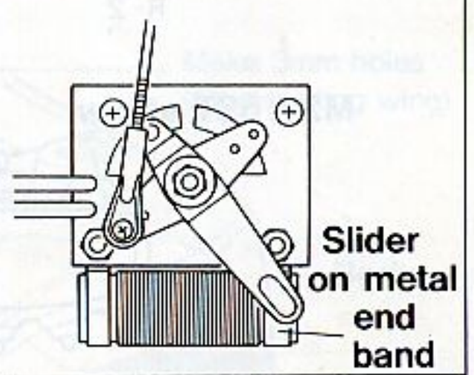
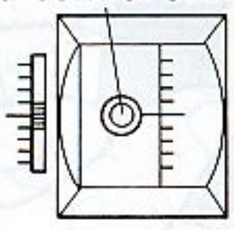
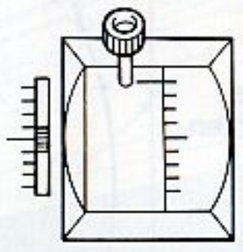
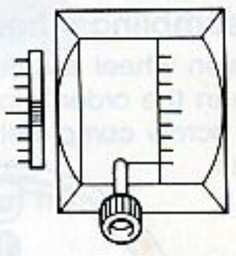



## 18 SETTING STEERING TOE-IN



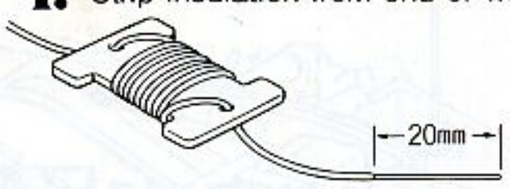

*Be sure that steering servo is at neutral before beginning this adjustment. Be careful not to turn the servo horn while adjusting ball sockets.

## 19 SETTING SPEED CONTROLLER

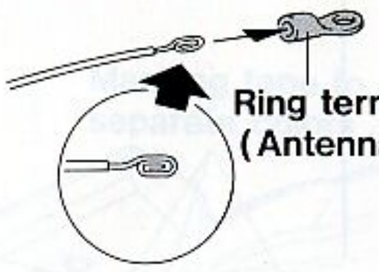
| Stop position | Top speed | Full reverse |
|---|---|---|
|   |   |   |
| Speed control stick<br>Speed control trim lever in center position  | Speed control stick at highest position<br>Speed control trim lever in center position  | Speed control stick at lowest position<br>Speed control trim lever in center position  |
| Turn on transmitter and receiver, then set stick and trim slider to center position. | If slider of speed controller travels too far when transmitter stick is at full travel, connect pushrod to a hole in servo arm closer to mounting screw. | If slider movement is satisfactory for top speed, it should also be correct for reverse. |

## 20 INSTALLING ANTENNA

**1.** Strip insulation from end of wire.

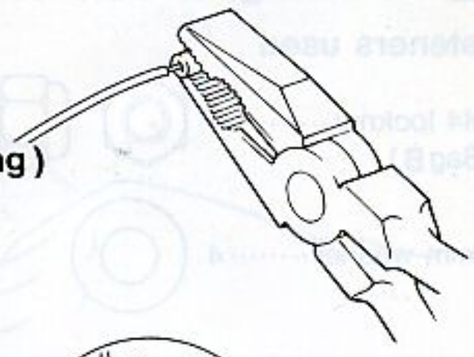


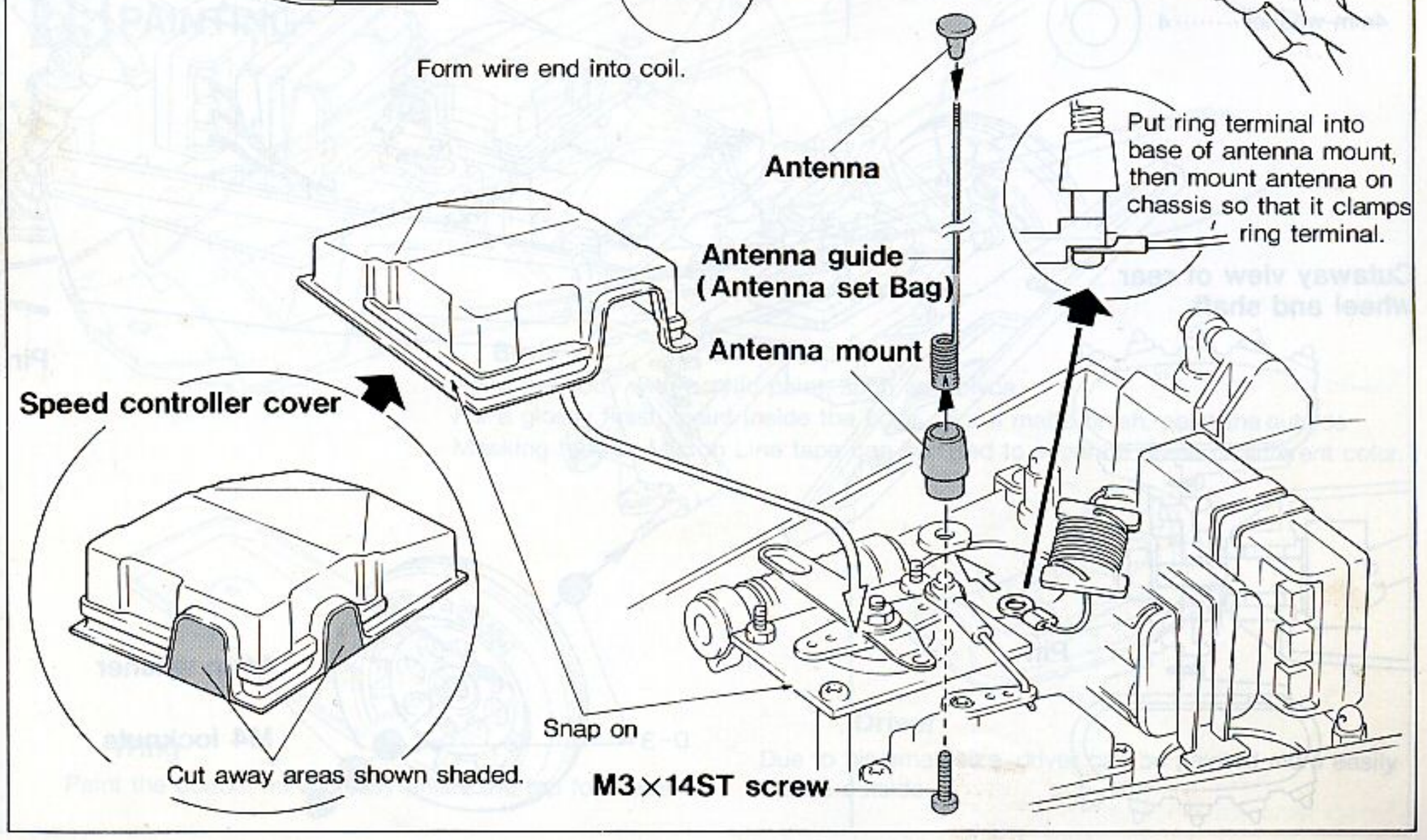

**2.** Insert wire end into ring terminal.




Form wire end into coil.

**3.** Crimp terminal onto wire.

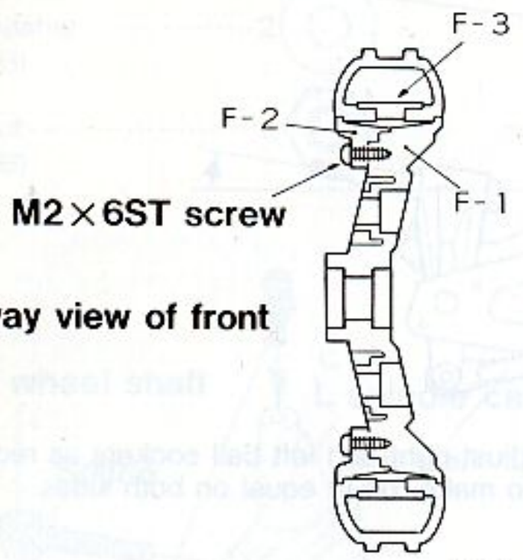




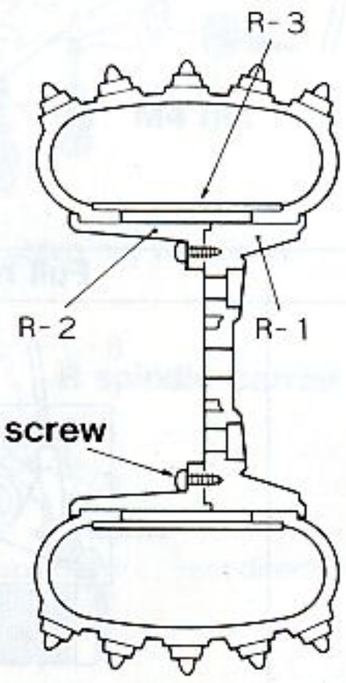
## 21 Assembling wheels

**Fasteners used**

M2×6ST screw: ·····20
(Bag A)



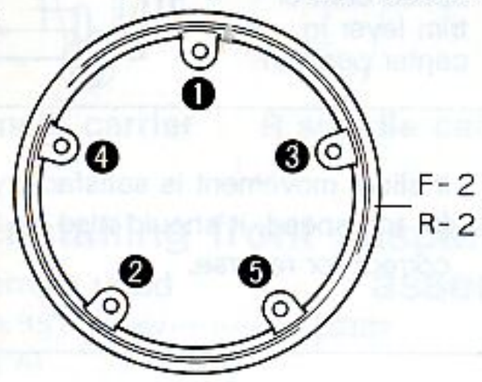

**Cutaway view of front wheel**




**Cutaway view of rear wheel**

**Assembling wheels**

Tighten wheel assembly screws a little at a time in the order shown below. Do not tighten one screw completely while the others are loose.




## 22 Mounting wheels on buggy

**Fasteners used**

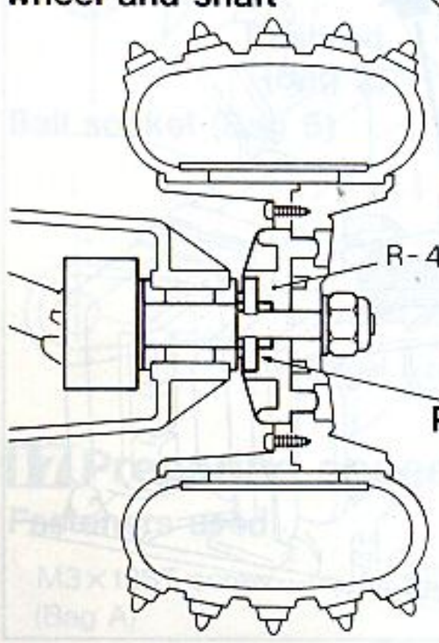
M4 locknut ·····4
(Bag B)



4mm washer ·····4



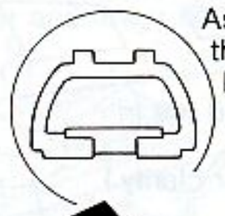
**Cutaway view of rear wheel and shaft**




## 21 MOUNTING TIRES ON WHEELS

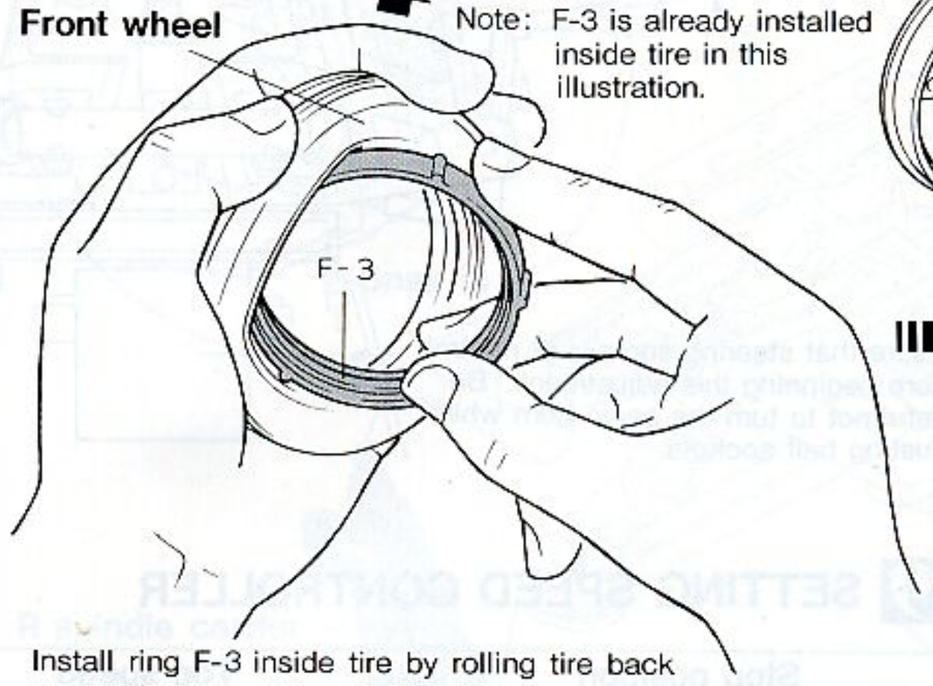
**Front wheels**

Assemble F-1, F-2, and the tire, then fasten them together with M2×6ST screws. Tighten the screws as illustrated to lower left.

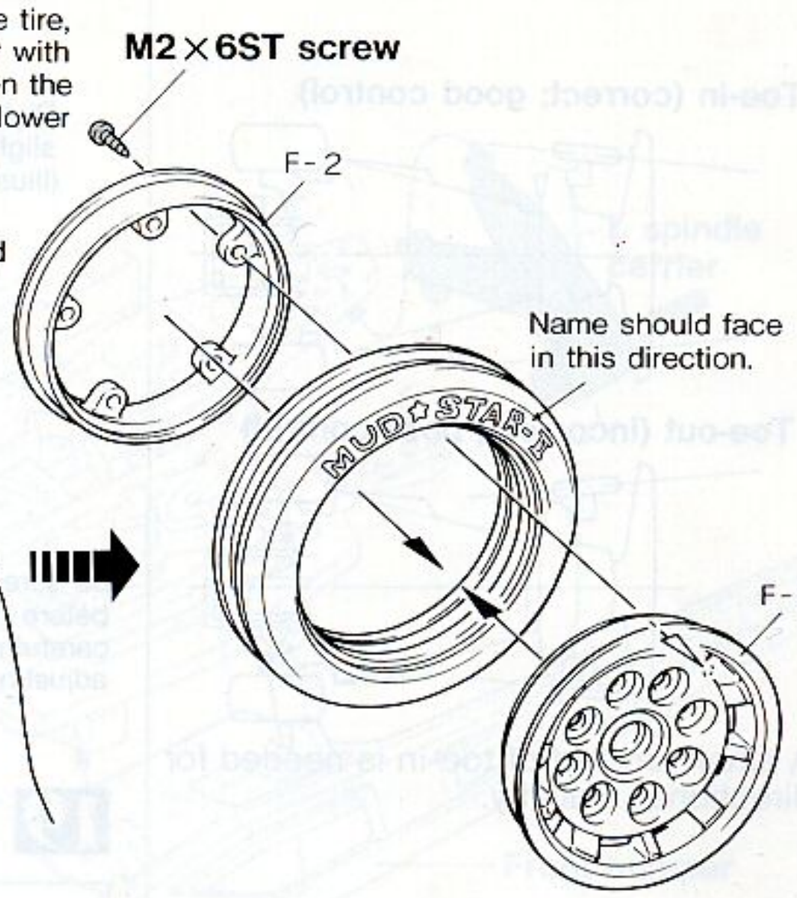


**Front wheel**

Note: F-3 is already installed inside tire in this illustration.



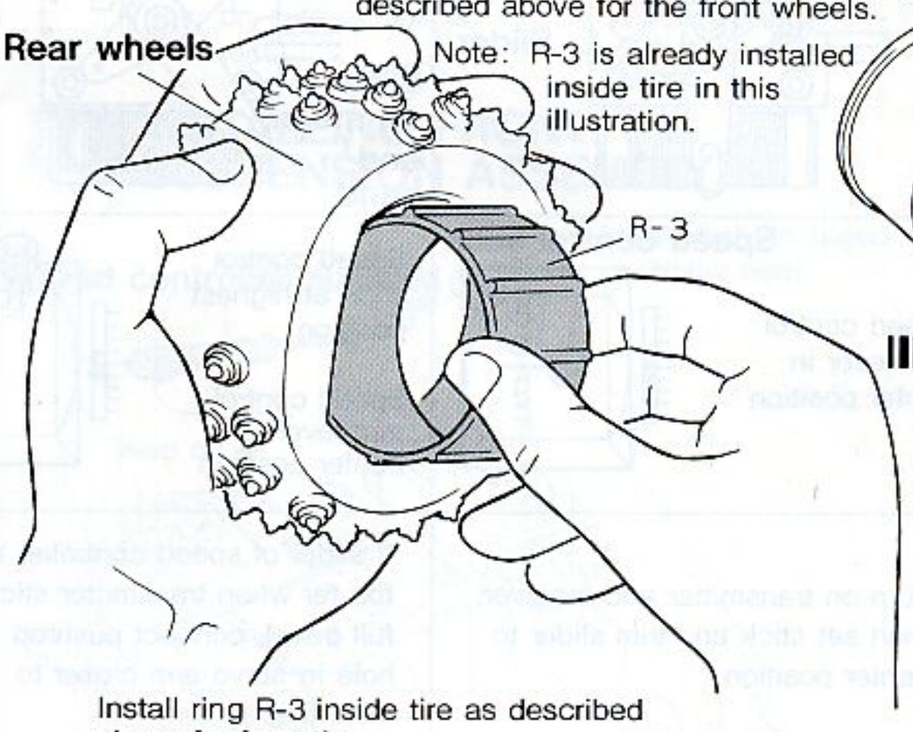

Install ring F-3 inside tire by rolling tire back to permit entry. (Do not distort ring.)



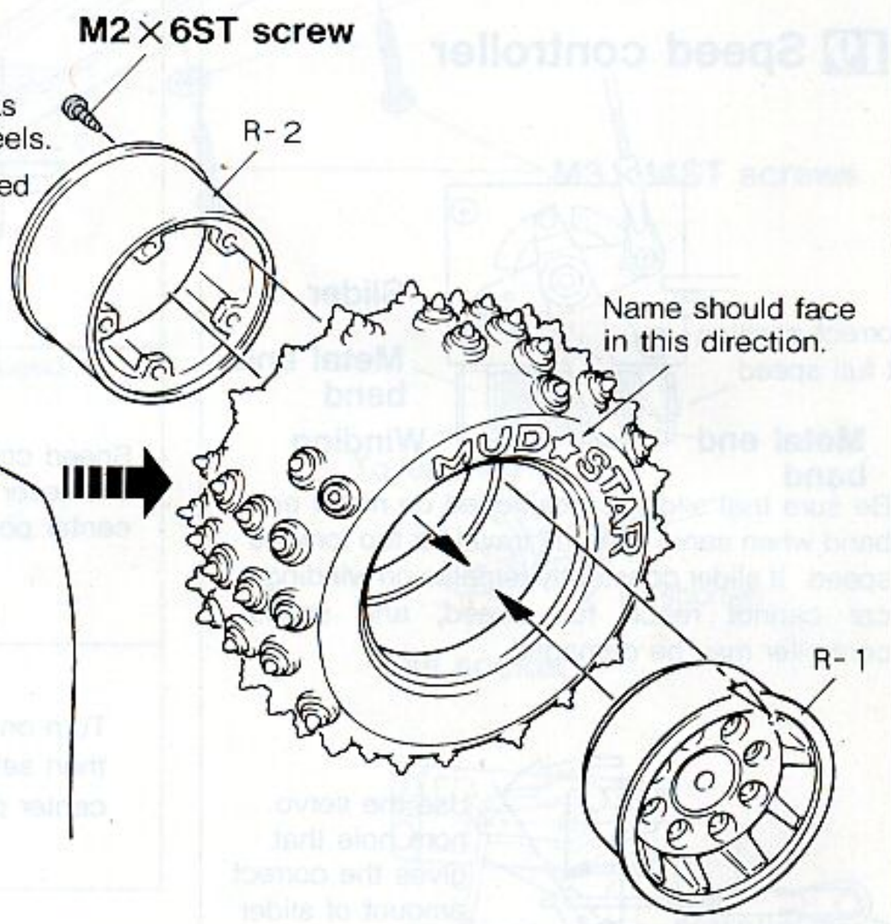

**Rear wheels**

Assemble R-1, R-2, and the tire as described above for the front wheels.

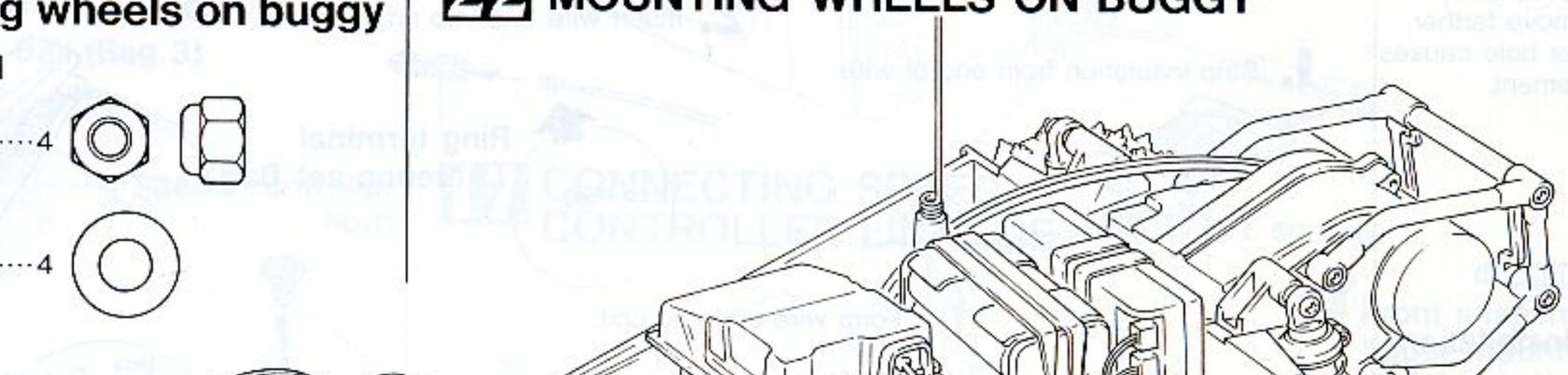
Note: R-3 is already installed inside tire in this illustration.




Install ring R-3 inside tire as described above for front tire.




## 22 MOUNTING WHEELS ON BUGGY



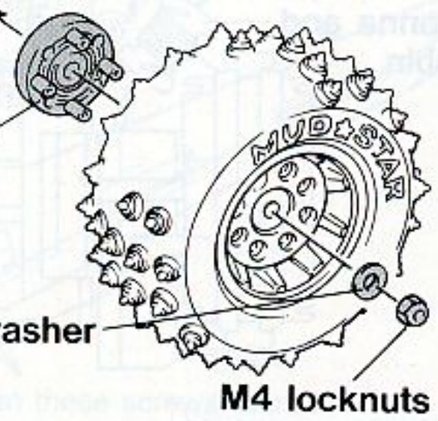
Note: Be careful, for pin falls out easily.

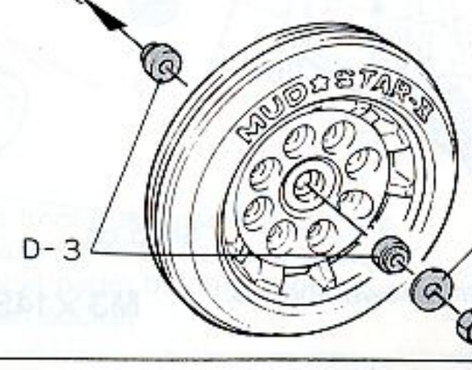
Pin

Hub

4mm washer

M4 locknuts




4mm washer

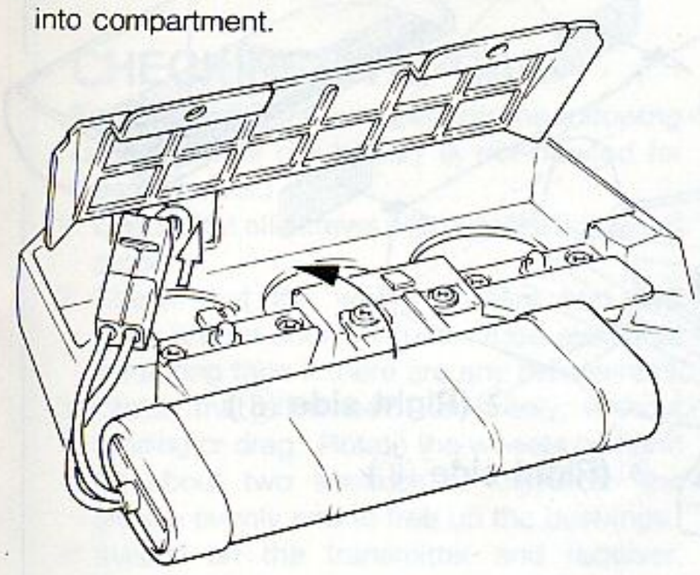
M4 locknuts

Tighten the M4 locknuts firmly until the wheel will not run idle.

**Do not over tighten!**

## 23 Installing battery pack

Join connector halves, then fit battery into compartment.

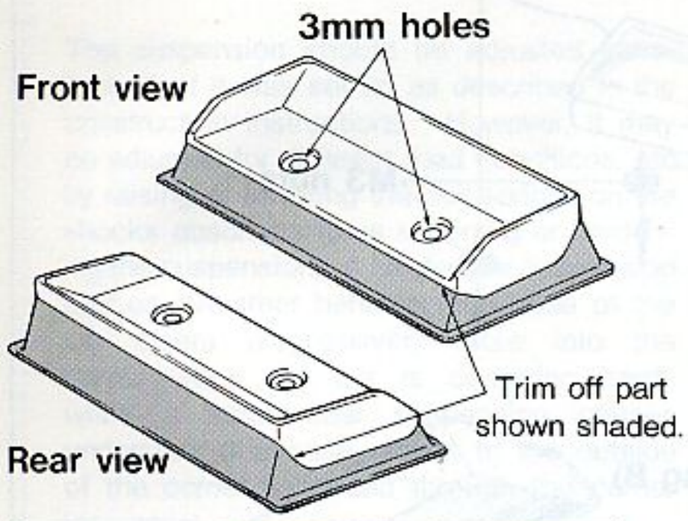


KYOSHO


7.2-1200mAh NiCd racing battery pack (obtained separately; not included in kit)

No. 2218

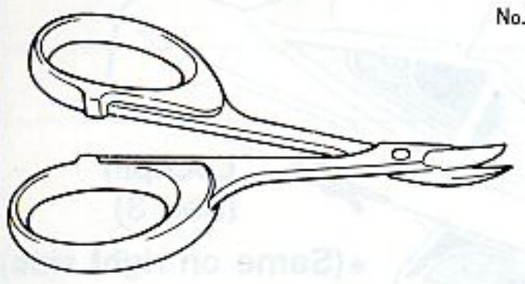
## 24 Preparing wing




KYOSHO

Curved-jaw shears cut body shell neatly.

No.1828



## 25 Notes on painting

* The body shell, wing, and driver are polycarbonate and may be painted using acrylic paint, such as Kyosho Polyca. Applying the paint to the inside surface will result in a glossy, streak-free finish.

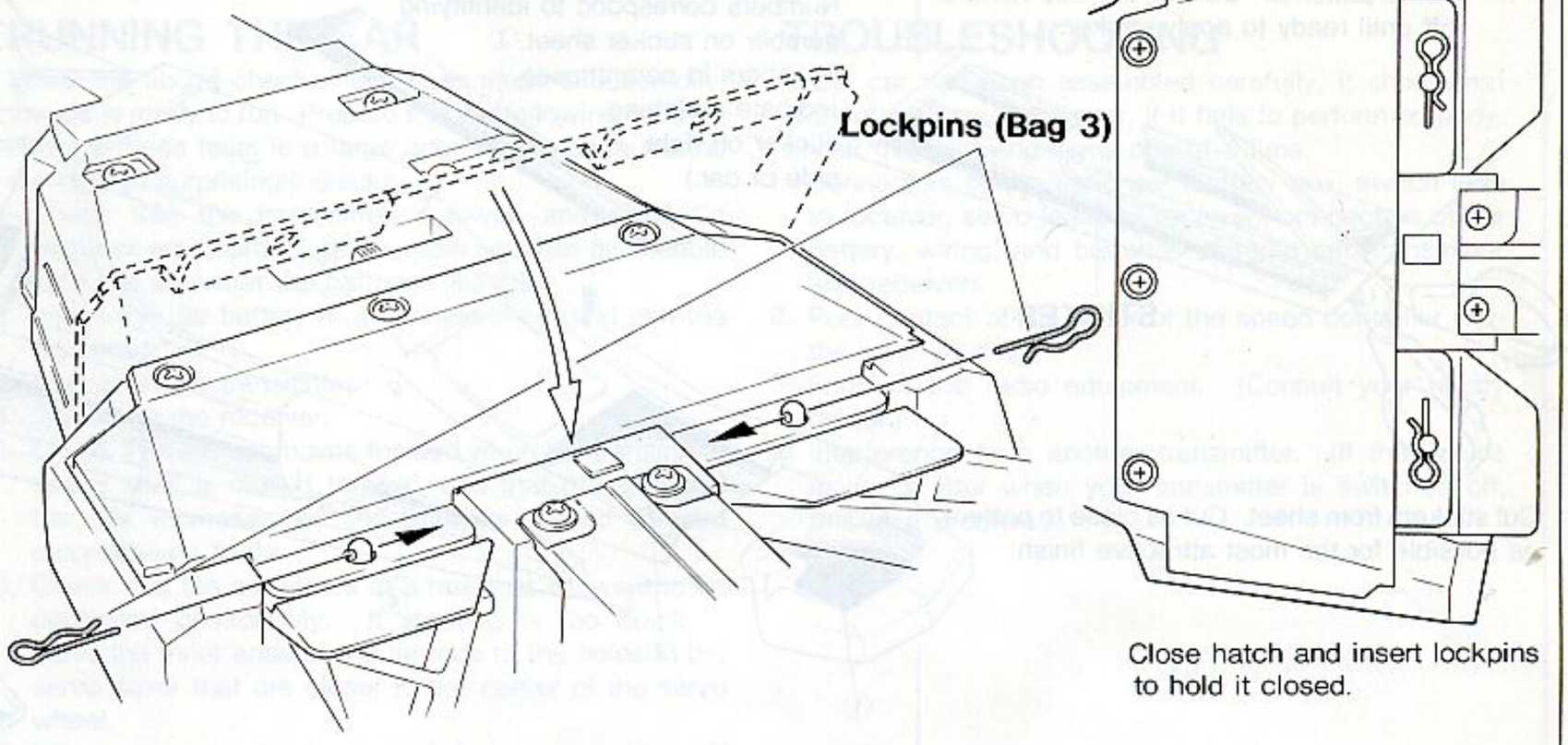
KYOSHO


No.1841～3

KYOSHO

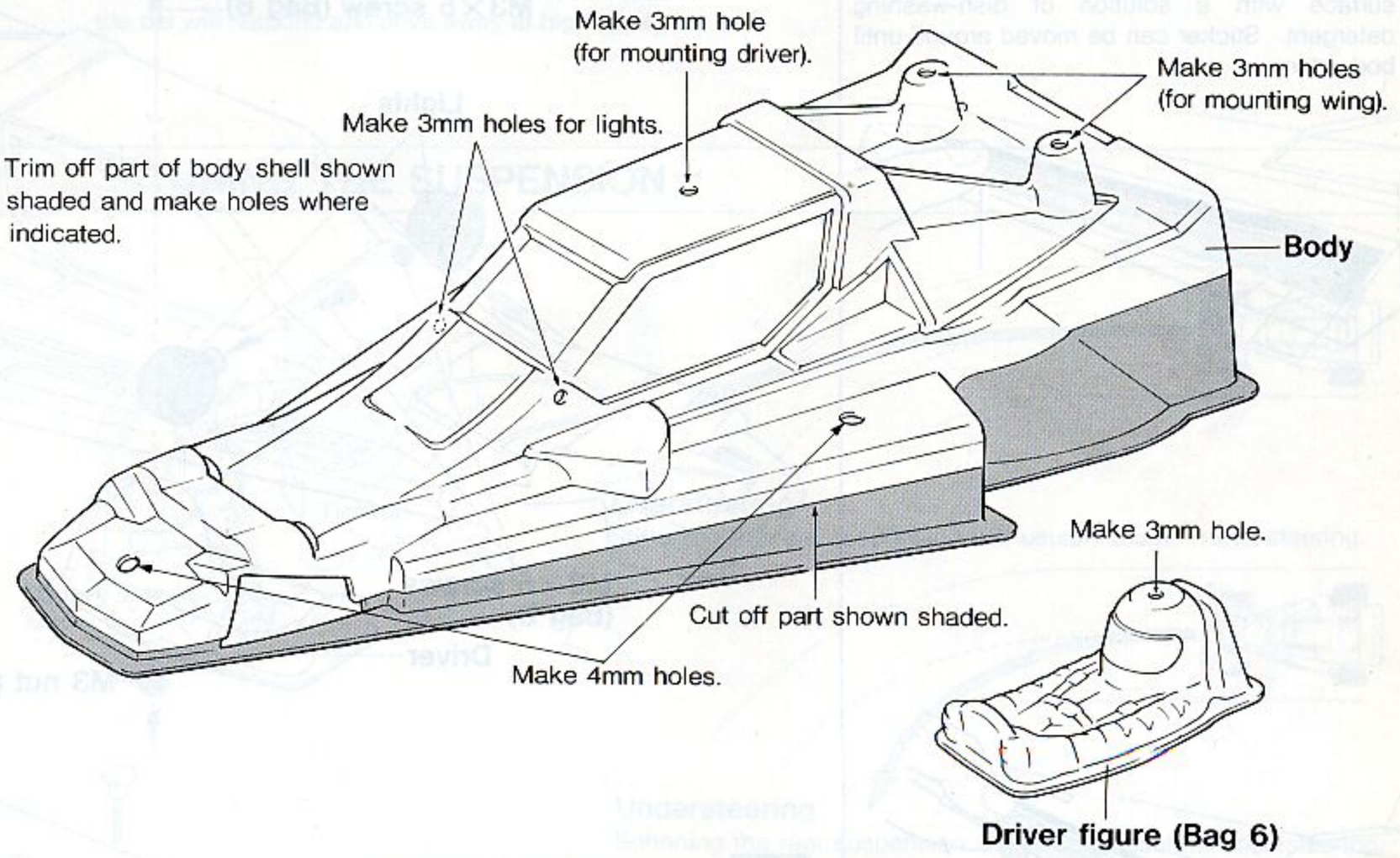

No.2230

## 23 INSTALLING BATTERY PACK



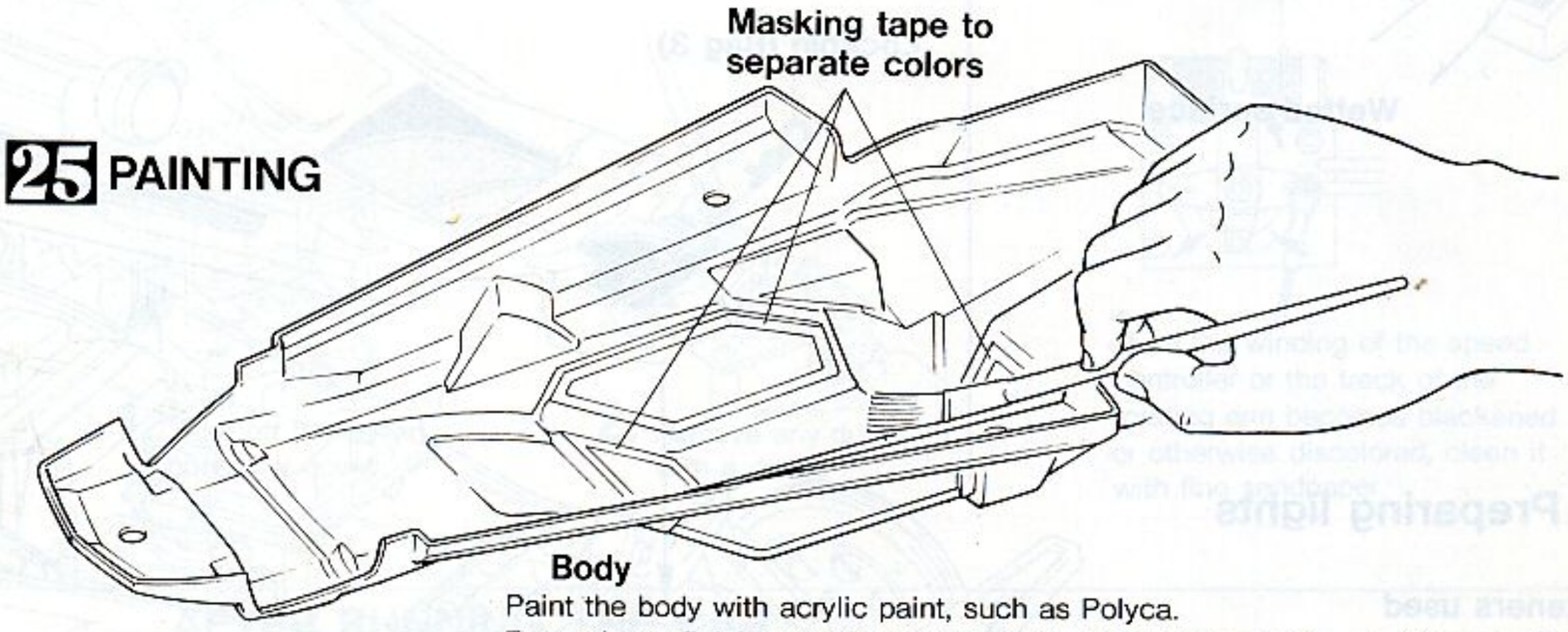

Close hatch and insert lockpins to hold it closed.

## 24 PREPARING BODY



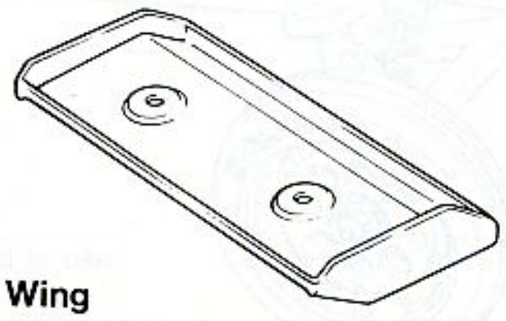

Driver figure (Bag 6)

## 25 PAINTING




**Body**

Paint the body with acrylic paint, such as Polyca.
For a glossy finish, paint inside the body. For a matte finish, paint the outside
Masking tape or Micron Line tape can be used to separate areas of different color.



**Wing**

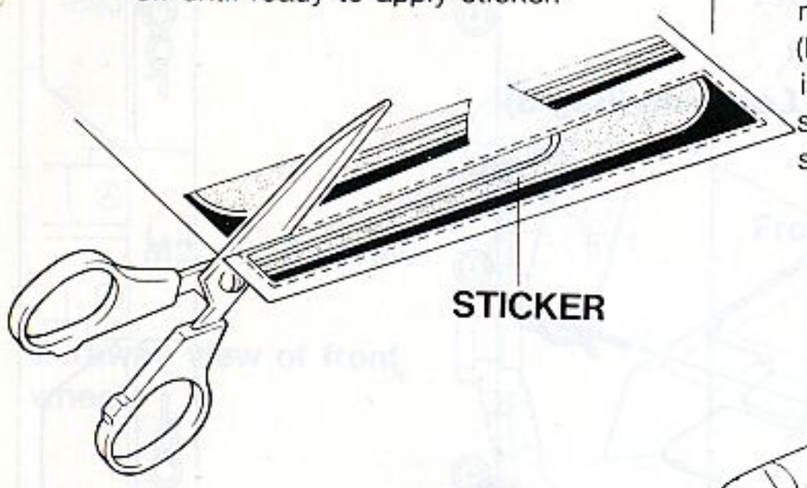
Paint the bottom for a glossy finish, the top for matte.

**Driver**

Due to his small size, driver can be painted more easily on the outside.

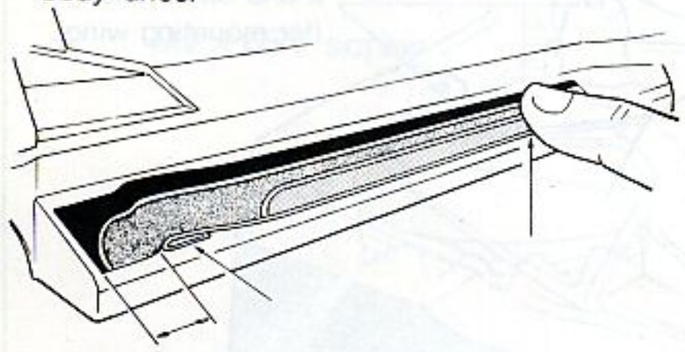
## 26 Applying stickers

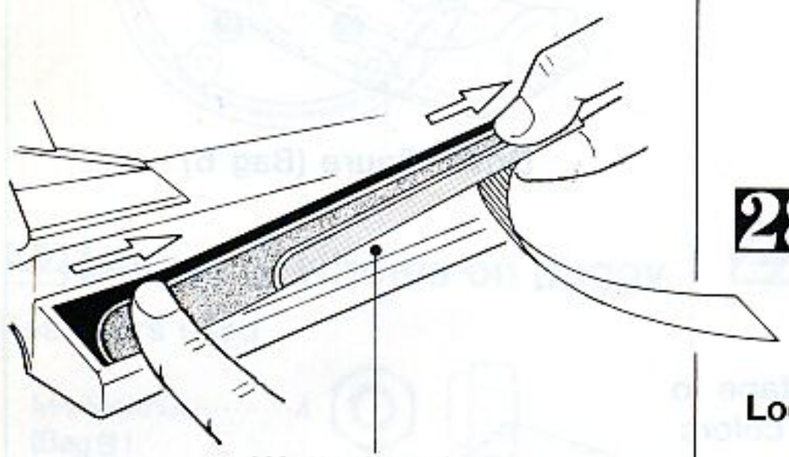
* Note: There is an identifying number beside some patterns. Do not cut this number off until ready to apply sticker.




Cut stickers from sheet. Cut as close to pattern as possible for the most attractive finish.

Before applying large stickers, wipe body surface with a solution of dish-washing. detergent. Sticker can be moved around until body dries.



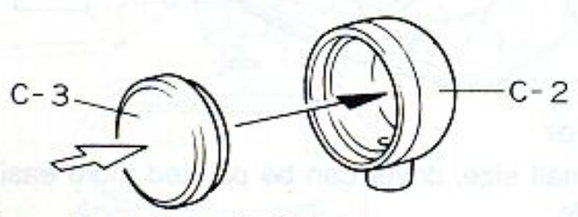



## 27 Preparing lights

**Fasteners used**

M3×5 screw·····5

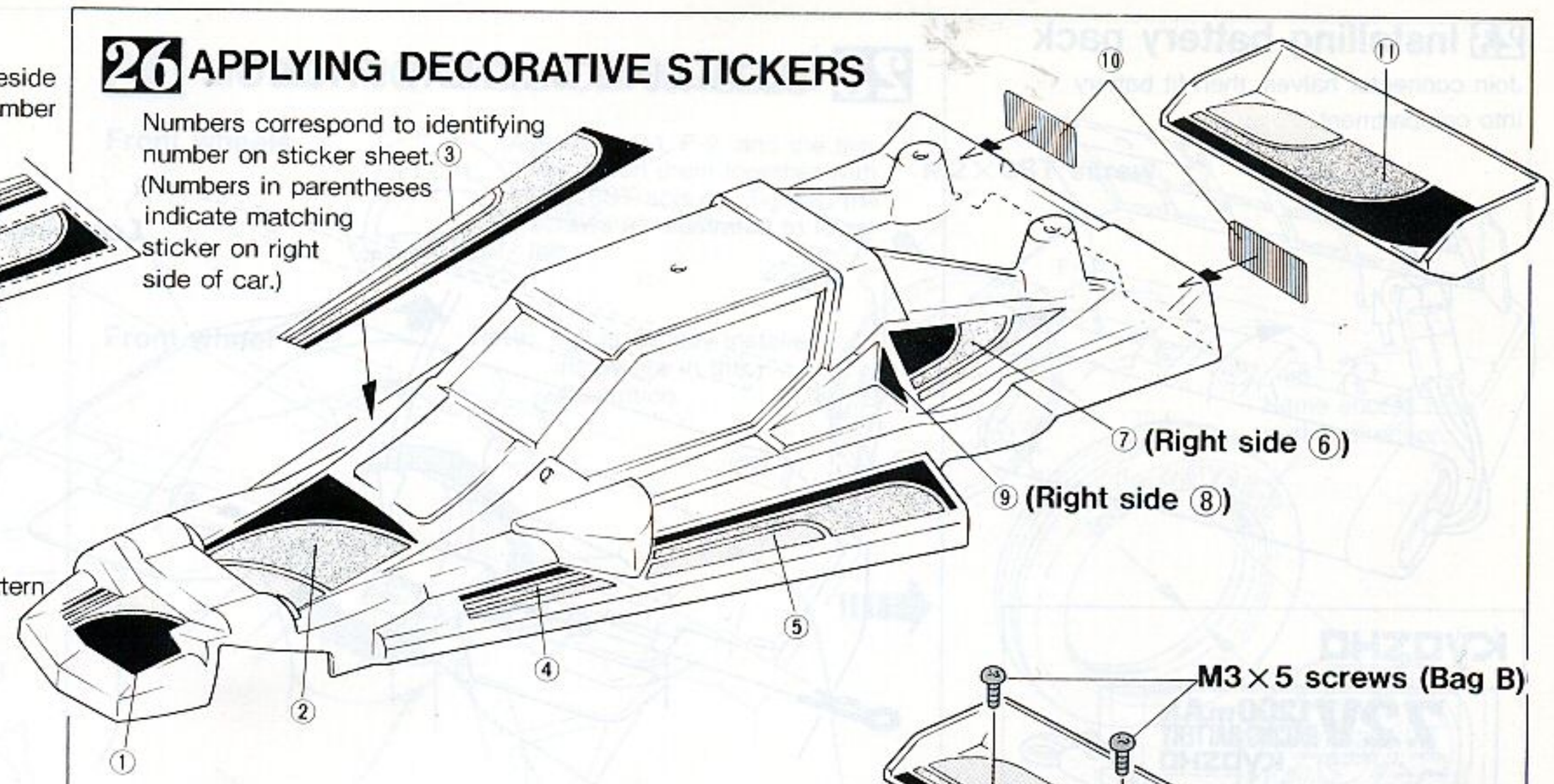
M3 nut·····3



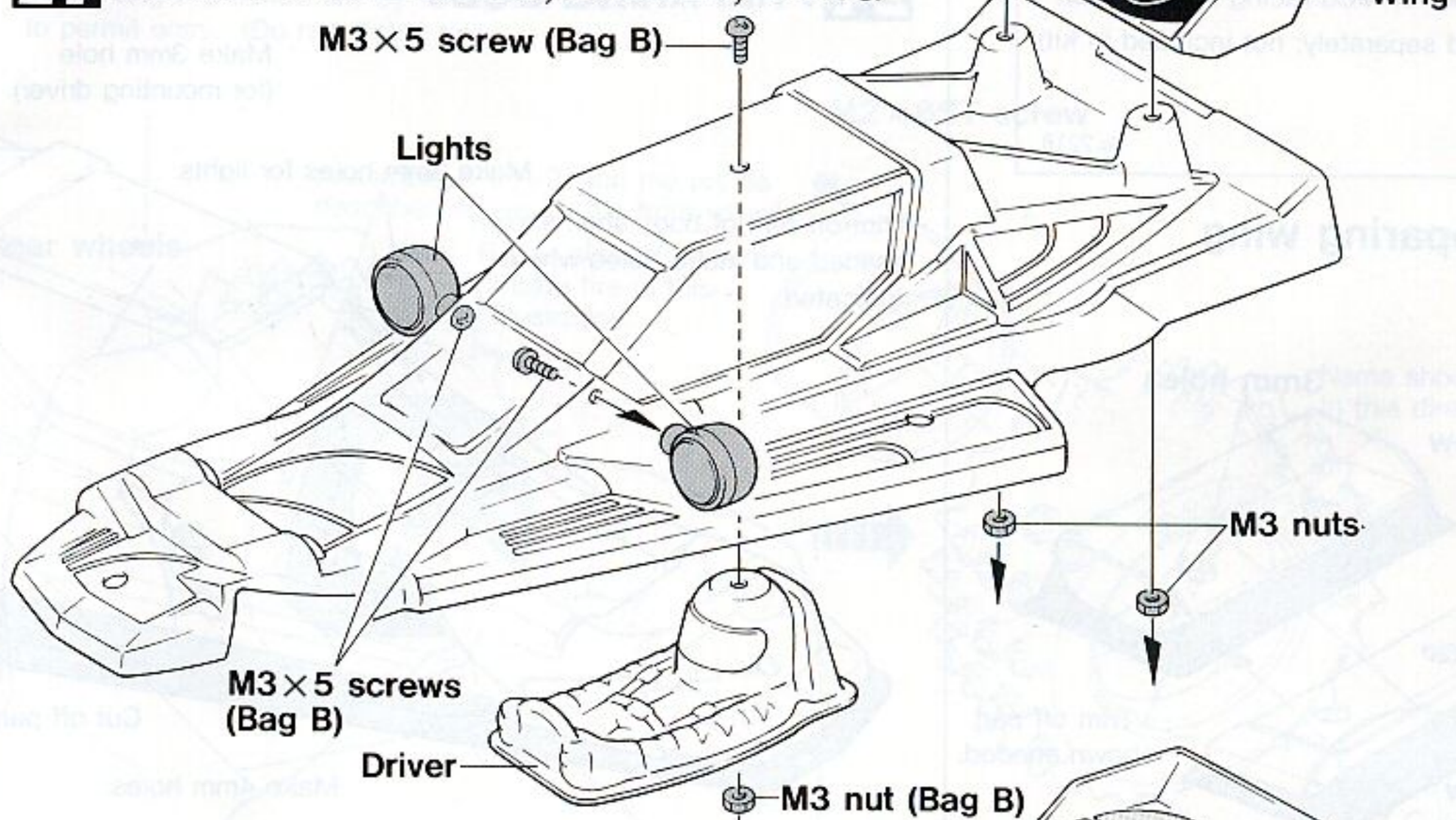

**Snap lens into holder.**

## 26 APPLYING DECORATIVE STICKERS

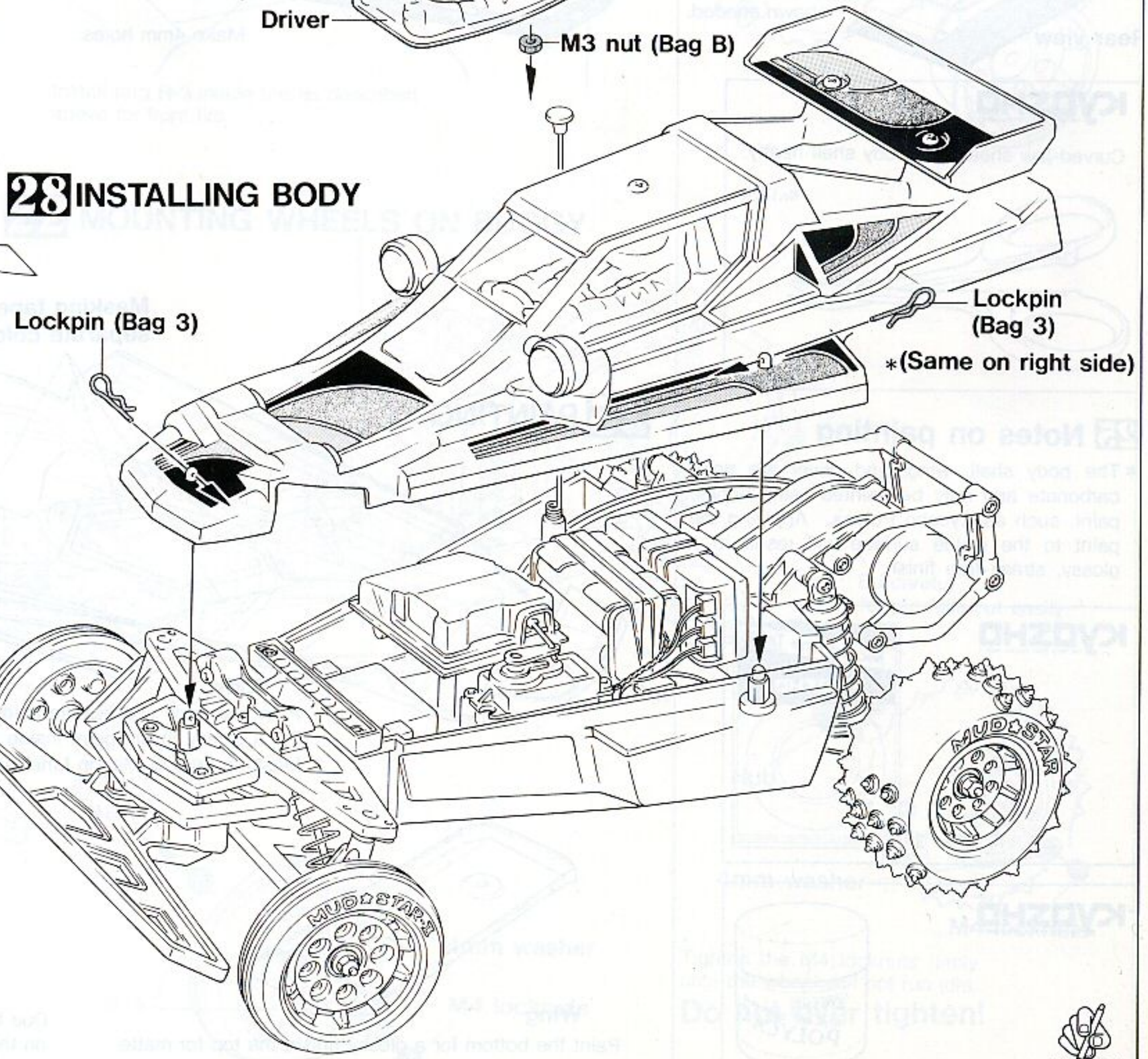
Numbers correspond to identifying number on sticker sheet. ③ (Numbers in parentheses indicate matching sticker on right side of car.)




## 27 INSTALLING LIGHTS, DRIVER, WING




## 28 INSTALLING BODY



## CHECKING THE CAR

Before running the car, perform the following checks. (The car battery is not needed for these checks.)

1. Check that all screws and nuts are tightened properly.
2. Check that the wiring is neat and that there are no short circuits. (Use electrical insulating tape if there are any bare wires.)
3. Check that all wheels turn freely, without binding or drag. Rotate the wheels by hand for about two seconds to distribute the grease evenly and to free up the bushings.
4. Switch on the transmitter and receiver, then check that the wheels turn right when the steering control is operated for a right turn. Check that the wheels turn an equal distance right and left. If they do not, adjust the linkage.
5. Check that the speed controller slider moves the full distance and in the right direction when the transmitter speed control stick is moved fully forward, then check the same for reverse by moving the stick backward. If slider movement is not correct, adjust the linkage.

After the check, switch off the receiver, then the transmitter, in that order.

## RUNNING THE CAR

When the above checks have been made successfully, the car is ready to run. Prepare it in the following manner. Perform these tests is a large open space because the car can go surprisingly quickly.

1. Check that the transmitter, receiver, and car NiCd batteries are charged. (If the radio set uses disposable cells, be sure that the batteries are fresh.)
2. Install the car battery in its compartment and join the connector.
3. Switch on the transmitter.
4. Switch on the receiver.
5. Check that the car moves forward when the transmitter speed stick is moved forward, and that the speed of the car increases as the stick is moved forward progressively farther.
6. Check that the car steers at a rate that allows it to be controlled comfortably. If steering is too quick, move the inner ends of the tie rods to the holes in the servo saver that are closer to the center of the servo wheel.
7. When you have finished running the car, switch off the receiver, then the transmitter.

NOTE: Never switch off the transmitter before the receiver. If there is radio interference, there is the risk that the car will respond and drive away at high speed.

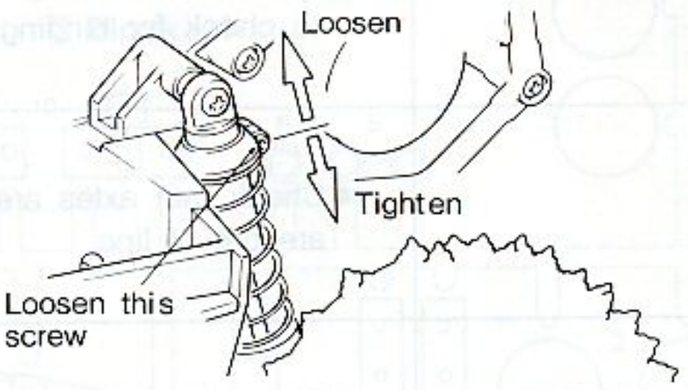
## TROUBLESHOOTING

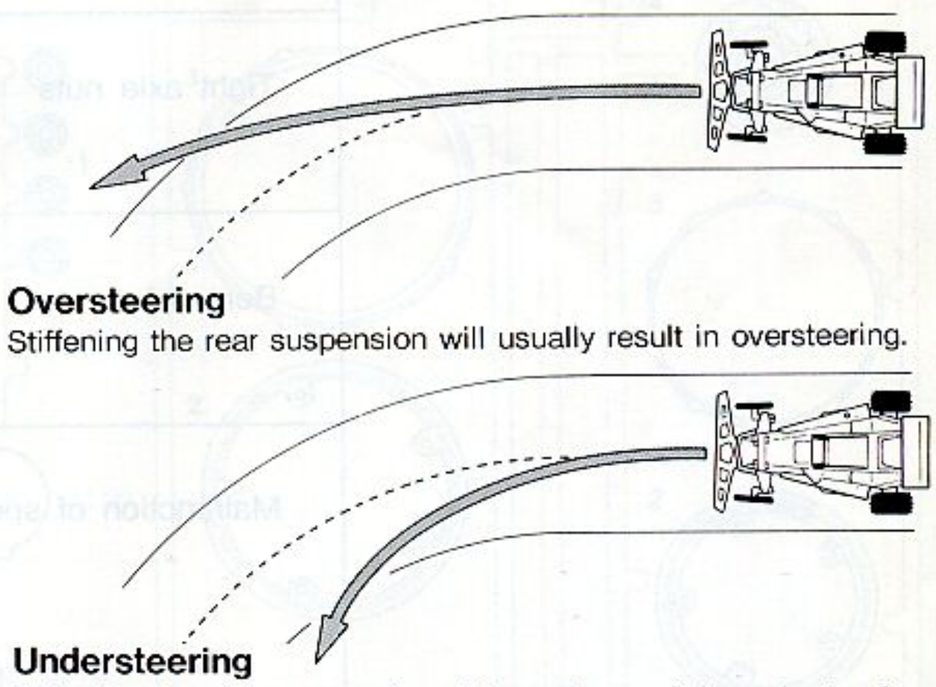
If the car has been assembled carefully, it should run without problem. However, if it fails to perform properly, check the following items one at a time.

1. Connectors of the radio set (battery box, switch lead to receiver, servo leads to receiver), connectors of car battery, wiring, and batteries of radio set (transmitter and receiver).
2. Poor contact of the slider of the speed controller with the wire winding.
3. Fault in the radio equipment. (Consult your hobby dealer.)
4. Interference from another transmitter. (If the servos move or jitter when your transmitter is switched off, this is a problem.)

## TUNING THE SUSPENSION

The suspension should be adjusted satisfactorily if it was set up as described in the construction instructions. However, it may be adjusted for different road conditions, etc., by raising or lowering the coil springs on the shocks absorbers (thus softening or hardening the suspension). A harder rear suspension causes oversteer behavior (the nose of the car steers progressively more into the corner when the car is cornering hard), while a softer rear suspension causes understeer (the nose moves to the outside of the corner as speed through the corner increases).



**Oversteering**
Stiffening the rear suspension will usually result in oversteering.

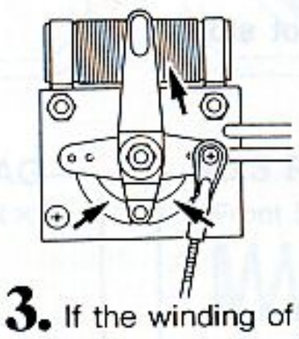
**Understeering**
Softening the rear suspension will usually result in understeering.

## MAINTENANCE OF SPEED CONTROLLER

The cover of the speed controller is designed to keep out dirt. However, after running Pegasus in dusty conditions, some dust may have entered and may affect operation (intermittent, unsmooth, etc.). It is advisable to remove the cover regularly and clean off the windings and to oil the pivot of the slider if it becomes stiff and difficult to turn.

**1.** Take off the speed controller cover.

**2.** Remove any dust with a drush.



**3.** If the winding of the speed controller or the track of the rotating arm becomes blackened or otherwise discolored, clean it with fine sandpaper.

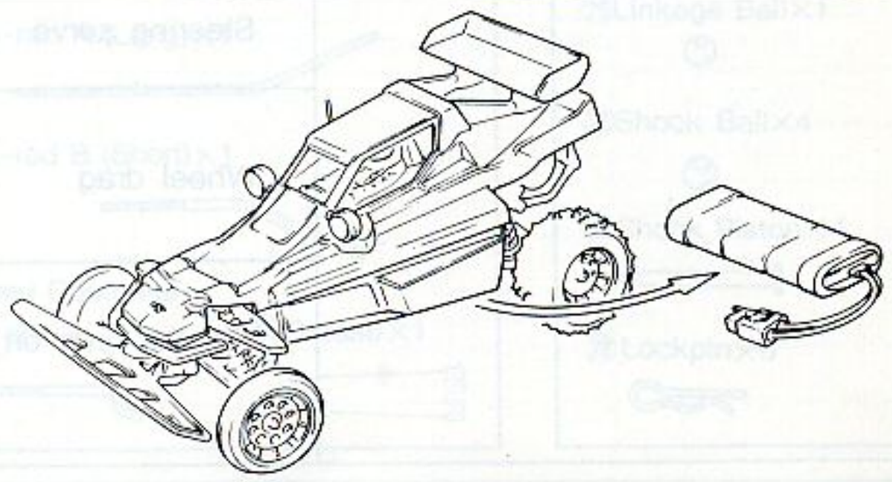
## AFTER RUNNING THE CAR

①Remove NiCd battery.

②Clean dirt off car and motor.

③Check that screws are tight.

* Remove the NiCd battery from the car when it is not in use.



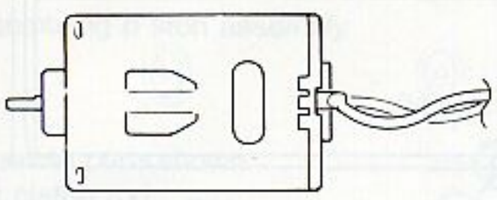
# TROUBLE SHOOTING

| Probrem | Probable cause | Remedy |
|---|---|---|
| **Servo does not operate** | ● Weak transmitter or receiver battery<br>● Fault in radio control set | ● Change/recharge transmitter and receiver batteries.<br>● Have radio control set checked. |
| **Car stops while running** | Discharged car battery | ● Recharge battery. |
| **Car stops while running** | Bad wiring | ● Check all splices and wiring. |
| **Car runs but does not gain speed** | Loose pinion on motor shaft (motor spins but car does not move) | ● Tighten setscrew of motor pinion. |
| | Malfunction of speed controller | ● Clean the slider and winding of controller.<br>● Check wiring on back of controller. |
| | Loose connectors | ● Check that all connectors are joined securely. |
| | Tight axle nuts | ● Check nuts holding wheels on axles. (Turn front and rear wheels to check for binding.) |
| | Bent axles, etc. | ● Check that axles are straight and that no other important parts are out of line. |
| | Malfunction of speed controller | ● Check that slider of speed controller moves fully to end of winding when transmitter is set for full speed.<br>● Check that speed controller slider and winding are free of dirt and corrosion. |
| | Deterioration of motor, battery | ● Replace faulty item. |
| **Car does not stop** | Speed controller linkage | ● Eliminate free play in speed controller linkage.<br>● Check that transmitter speed control stick is in center position when released (not offset by trim lever).<br>● Adjust speed controller linkage so that slider is in center when transmitter stick is in neutral position. |
| | Dirty speed controller | ● Check that speed controller slider and winding are free of dirt and corrosion. |
| **Car does not run straight** | Insufficient toe-in | ● Adjust length of tie rods as described in instructions. |
| | Steering servo | ● Horn on steering servo not centered.<br>● Trim lever on transmitter not centered. |
| | Wheel drag | ● Check if a wheel is binding, scraping, or dragging. |
| | Smaller tires on one side | ● Tires may have worn more on one side of car. Check diameter of tires and fit new ones if this is the cause of the problem. |

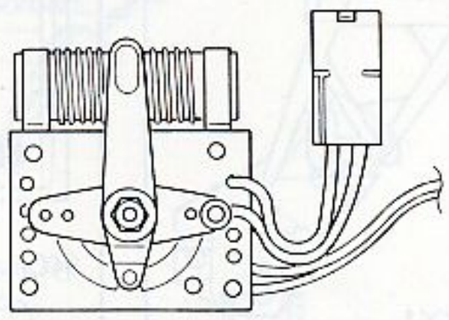
# PARTS LIST FOR 2WD RACING BUGGY "PEGASUS"

## BLISTER PACK

③RS-540 Motor×1

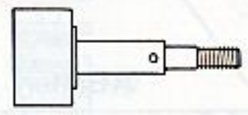


④Speed Controller×1



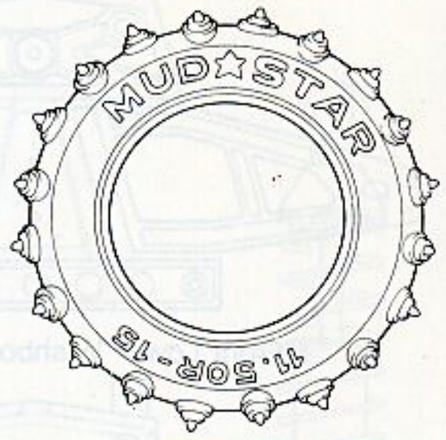
⑤Pinion Gear (18 Teeth)×1

⑥Rear Stub Shaft×2

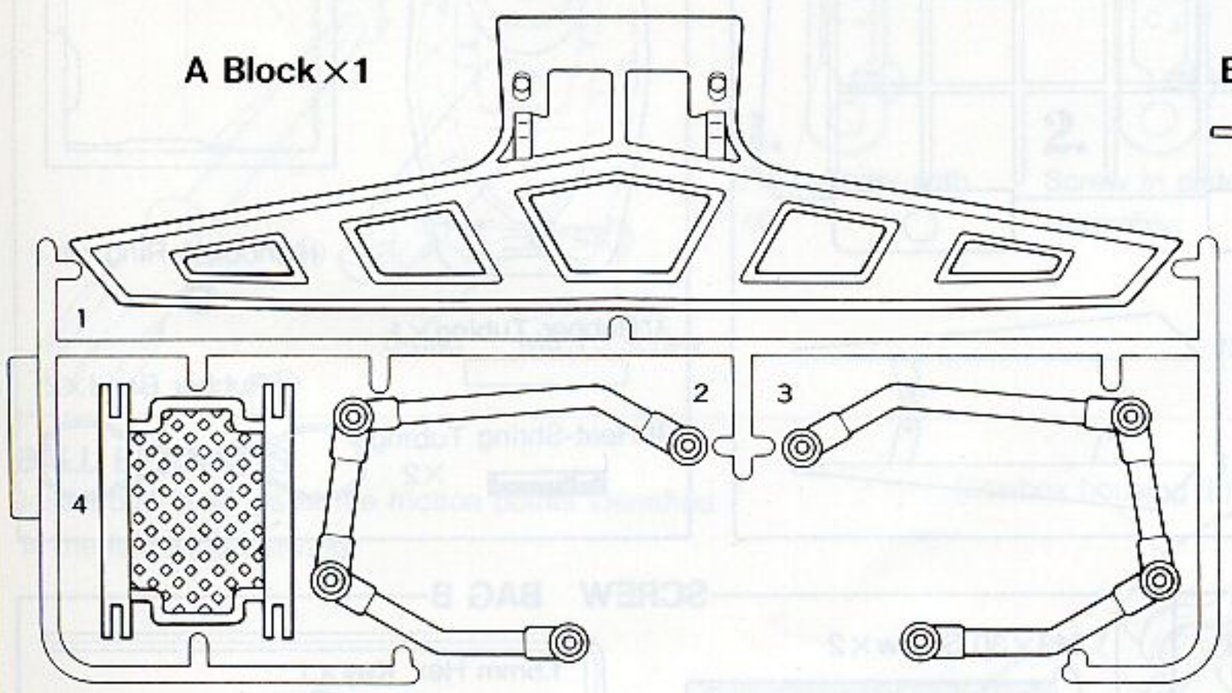


⑦Front Tire×2

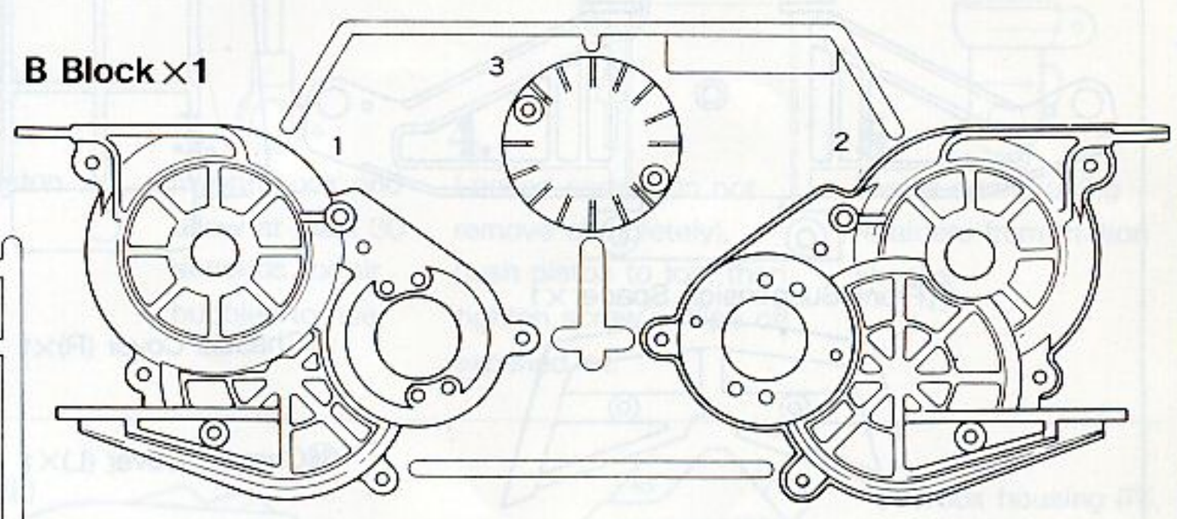

⑧Rear Tire×2



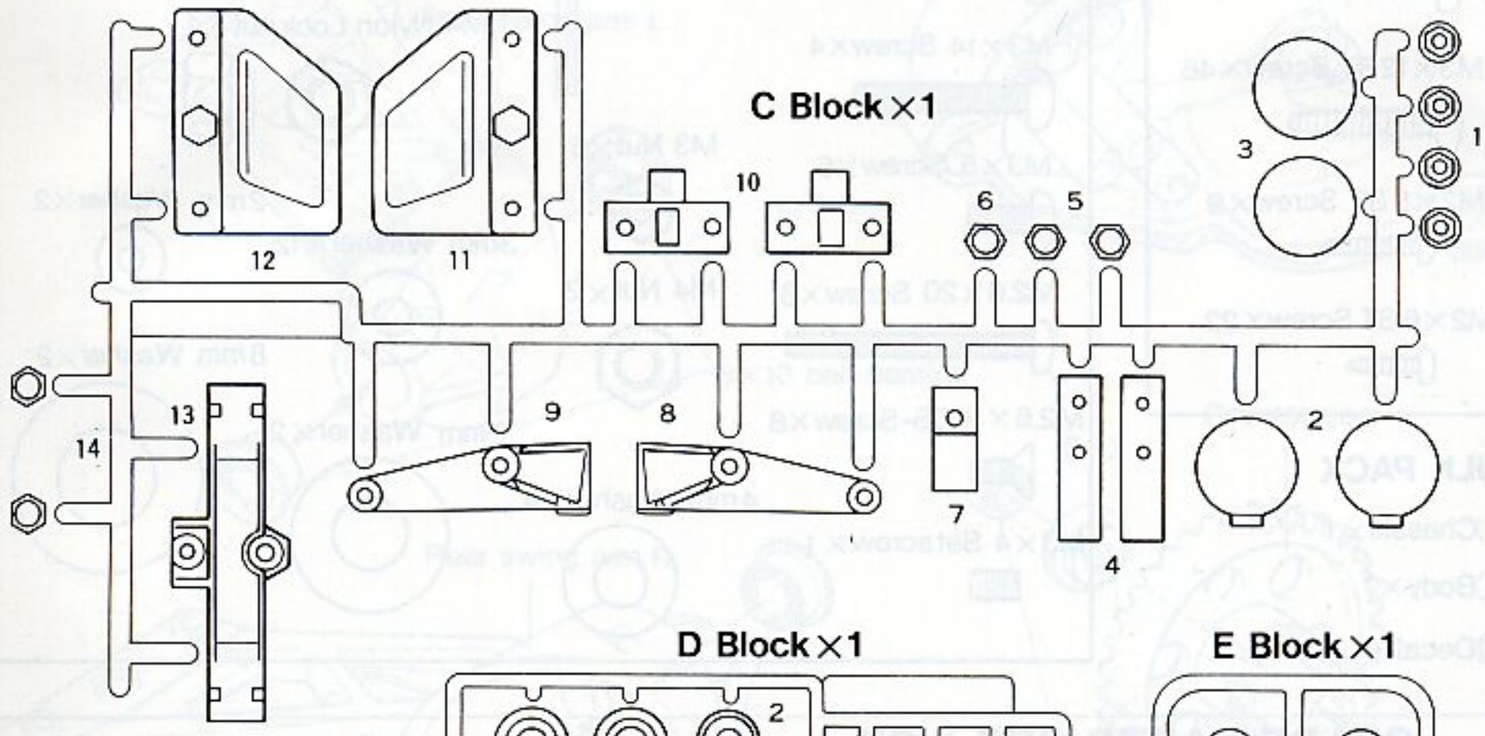

A Block×1




B Block×1

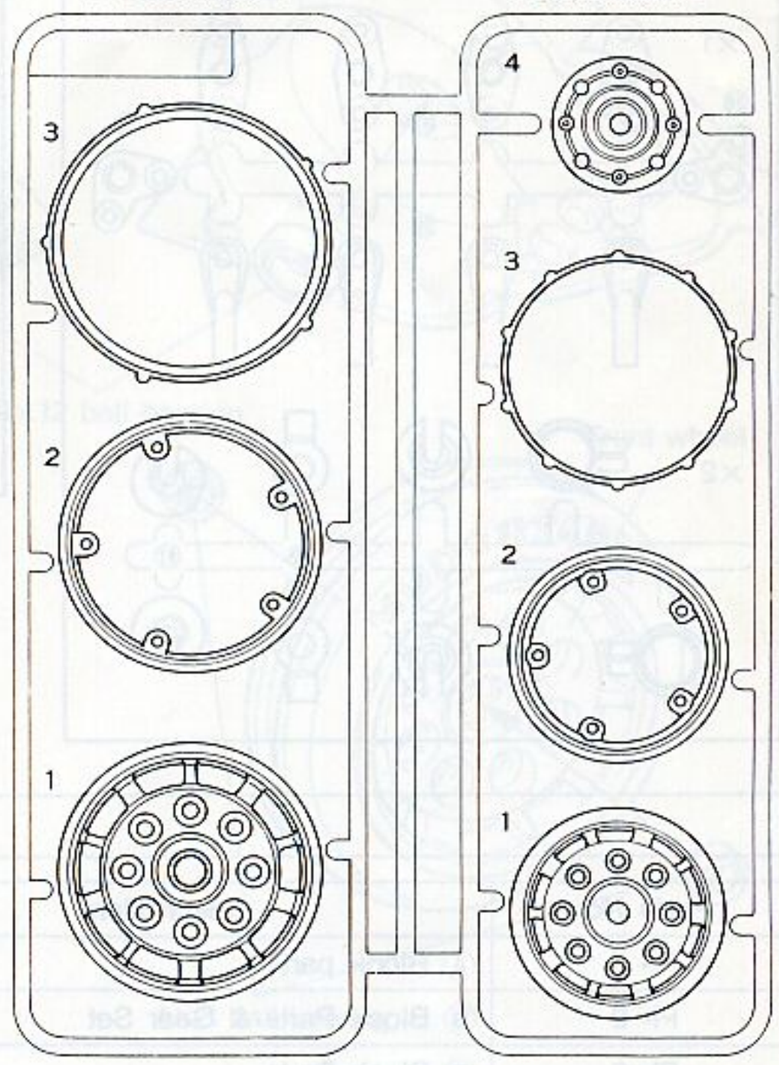



C Block×1

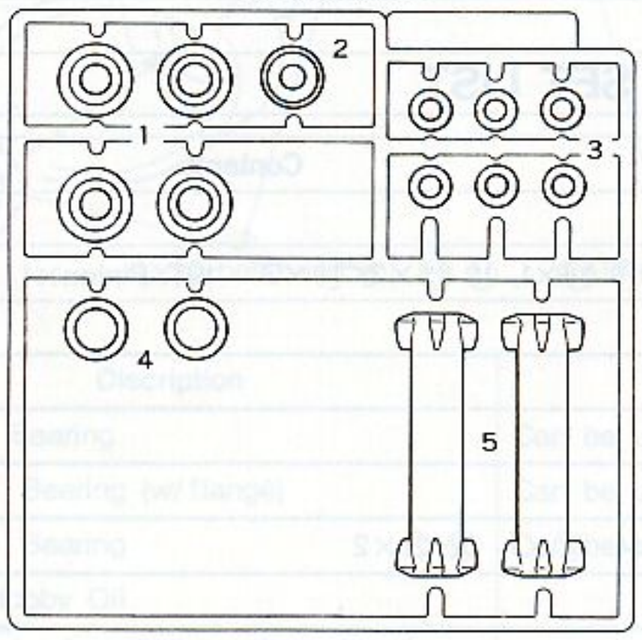



F Block×2

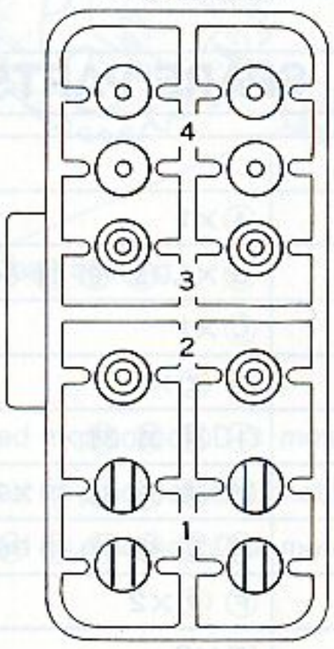
R Block×2



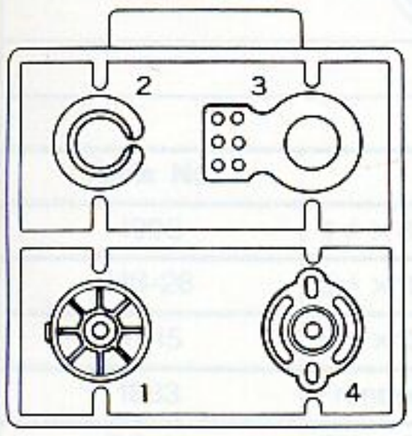

D Block×1




E Block×1




Z Block×1




### NO.2 PARTS BAG

⑭Counter Gear Shaft×1



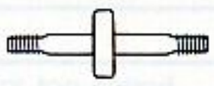
⑮Diff. Joint Shaft×1



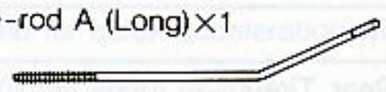
⑯Wheel Shaft Pin×2



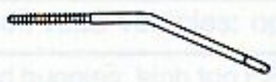
⑰Front Stub Shaft×2



⑱Tie-rod A (Long)×1



⑲Tie-rod B (Short)×1



⑳Speed Controller Pushrod×1

㉑Grease×1

### No.3 PARTS BAG

㉒Front Spring×2

㉓Rear Spring×2

㉔Ball Stud×6

㉕Linkage Ball×1

㉖Shock Ball×4

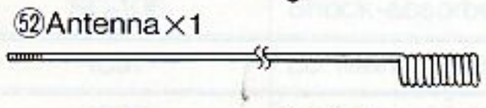
㉗Shock Piston×4

㉘Lockpin×5

### ANTENNA SET

㉛Antenna Top×1

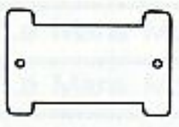
㉜Antenna×1



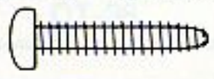
㉝Antenna Bottom×1

㉞Ring Terminal

㉟Antenna Bobbin



(M3×14 ST Screws)



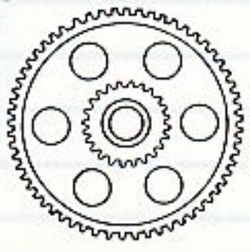
### NO.1 PARTS BAG

⑨Diff. Crown Gear×1

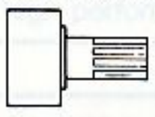
⑩Diff. Side Gear×2

⑪Diff. Gear×3

⑬Diff. Counter Gear×1



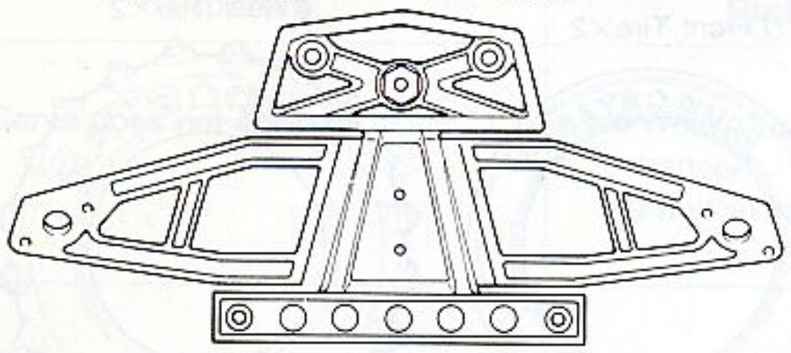
⑫Univ. Joint×2



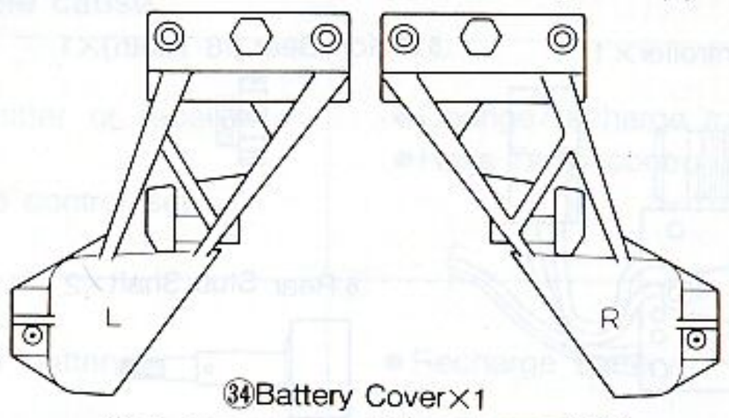
# PARTS LIST (2)

## No.4 PARTS BAG

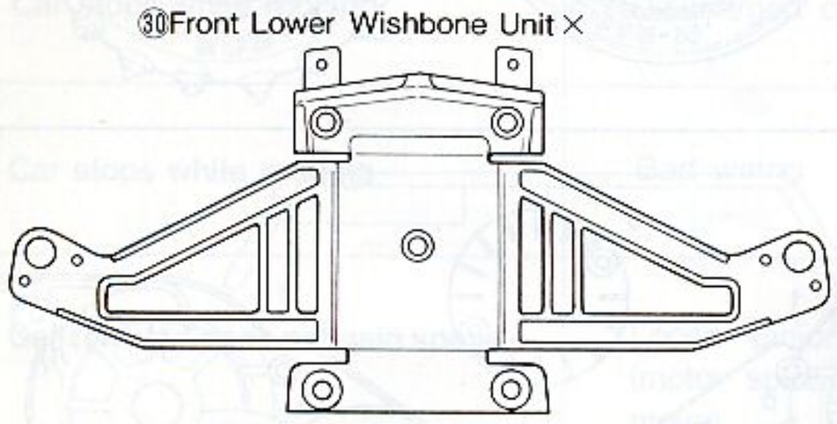
㉙Front Upper Wishbone Unit×1



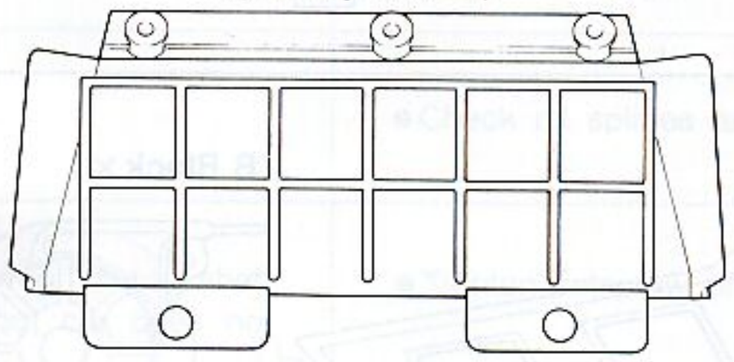
㉜Rear Swing. Arm (R)×1 ㉝Rear Swing. Arm (L)×1



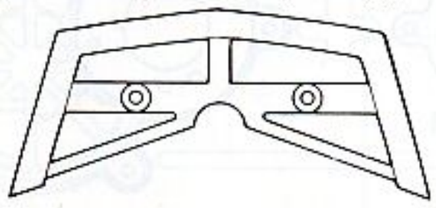

㉚Front Lower Wishbone Unit×



㉞Battery Cover×1

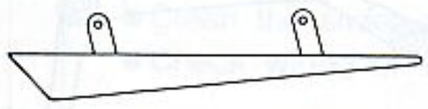


㉛Front Suspension Spacer×1



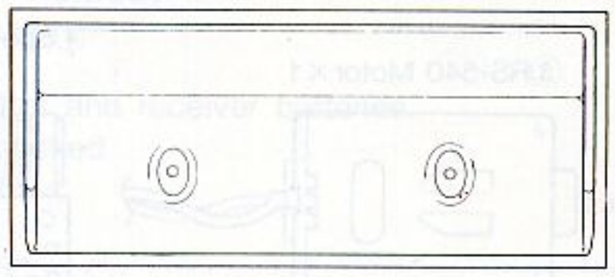
㉟Chassis Cover (R)×1

㊱Chassis Cover (L)×1

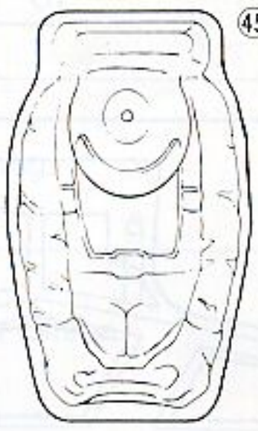


## NO.6 PARTS BAG

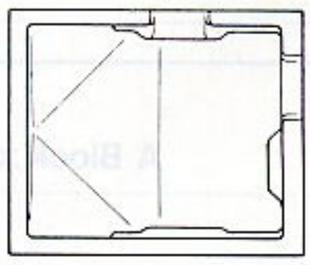
㊸Wing×1



㊹Driver Doll×1

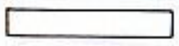


㊺Speed Controller Cover×1

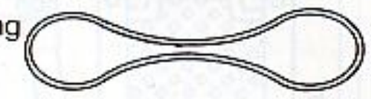


㊻Shock 0 Ring×4

㊼Rubber Tubing×1



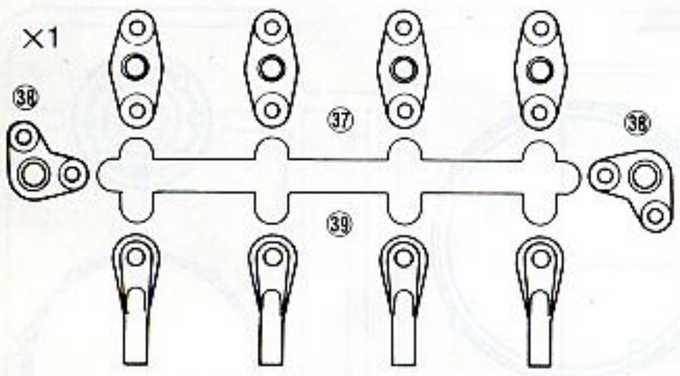
㊾Rubber Band×2



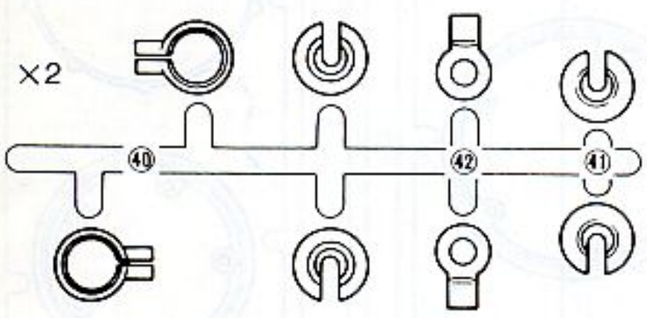
㊽Heat-Shring Tubing ×2

## NO.5 PARTS BAG

×1

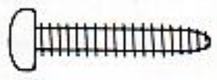



×2

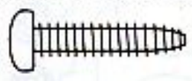



## SCREW BAG A

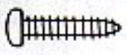
M3×14 ST Screw×9



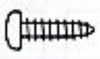
M3×12ST Screw×46



M2×8ST Screw×9



M2×6ST Screw×22



## BULK PACK

①Chassis×1

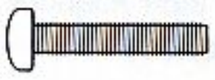
②Body×1

㊿Decal×1

## SCREW BAG B

M3×30 Screw×2

M3×14 Screw×4



M3×5 Screw×5

M2.6×20 Screw×6

M2.6×5 CS-Screw×8

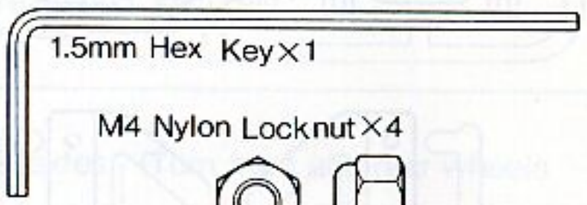
M3×4 Setscrew×1

M3 Nut×5

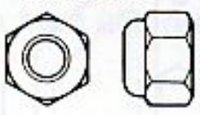
M4 Nut×2

4mm Washer×4

1.5mm Hex Key×1



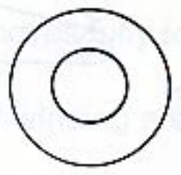
M4 Nylon Locknut×4



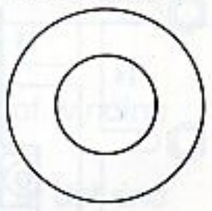
3mm Washer×12

2mm Washer×2

6mm Washer×2



8mm Washer×2

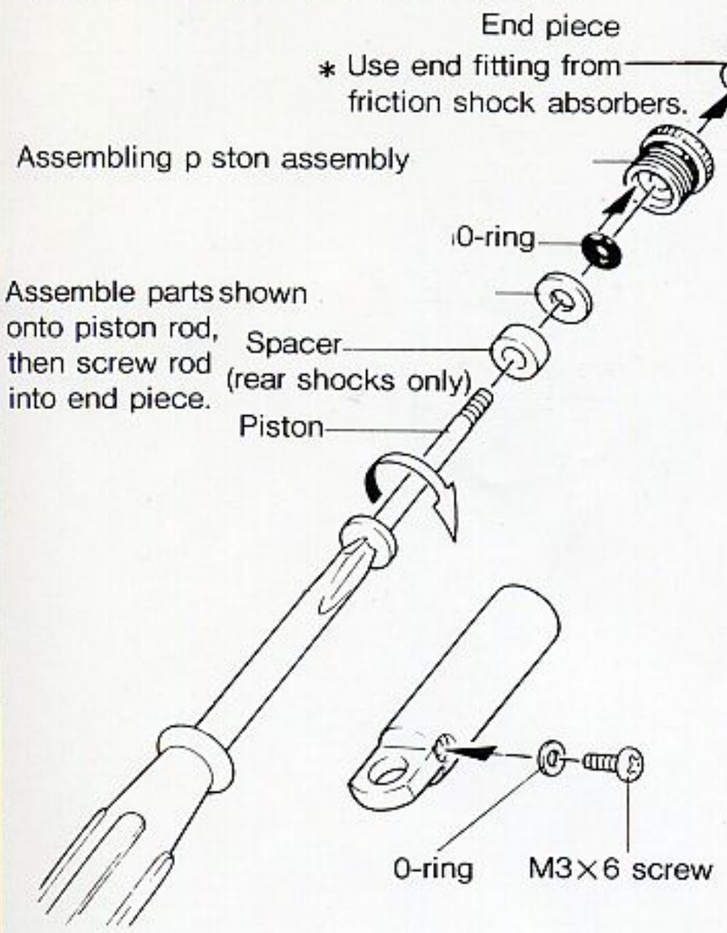


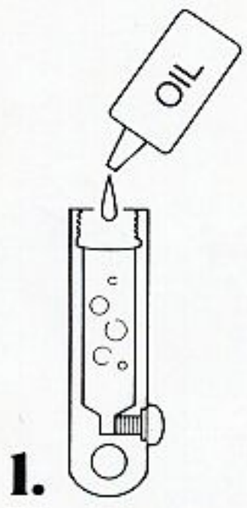
## SPARE PARTS SET LIST

| Parts No. | Description | Contents |
|---|---|---|
| PI- 1 | Ⓐ Block parts | ⒶX1 |
| PI- 2 | Ⓑ Block Parts & Gear Set | ⒷX1, ⑤ ⑨ ⑬ ⑭ ⑮ ㉑X1, ⑩ ⑫X2, ⑪X3 19T. PinionX1 |
| PI- 3 | Ⓒ Block Parts | ⒸX1 |
| PI- 4 | Ⓓ Ⓩ Block Parts | Ⓓ ⓏX1 |
| PI- 5 | Chassis Set | ① ㉞ ㉟ ㊱X1 |
| PI- 6 | Suspension Set | ㉙ ㉚ ㉛ ㉜ ㉝X1 |
| PI- 7 | Friction Shock Set | ㉖ ㉗ ㊵ ㊶ ㊷ ㊻X4 ⒺX1 ㉒ ㉓X2 |
| PI- 8 | Wheel Set | Ⓕ ⓇX2 |
| PI- 9 | "MUD" STAR-II Front Tire | ⑦X2 |
| PI-10 | Wheel Shaft Set | ⑥ ⑯ ⑰X2 |
| PI-11 | Ball end & Tierod | ㊲ ㊴X④, ㊳ ㊾X2, ⑱ ⑲ ⑳ ㉕X1, ㉔X6 |
| PI-12 | Speed Controller | ④ ㊺X1, ㊽X2 |
| PI-13 | Screw & Nut Set | Screw, Nut |
| PI-14 | Body Set | ② ㊸ ㊹ ㊿X1, ㉘X5 |
| PG-22 | "MUD" STAR Rear Tire | ⑧X2 |
| 1885 | Antenna Set | ㊶ ㊷ ㊸ ㊹ ㊺X1 |
| | | |
| | | |
| | | |
| | | |
| | | |

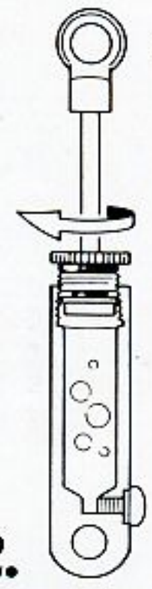
# OPTIONAL PARTS

## OIL-FILLED SHOCK ABSORBERS

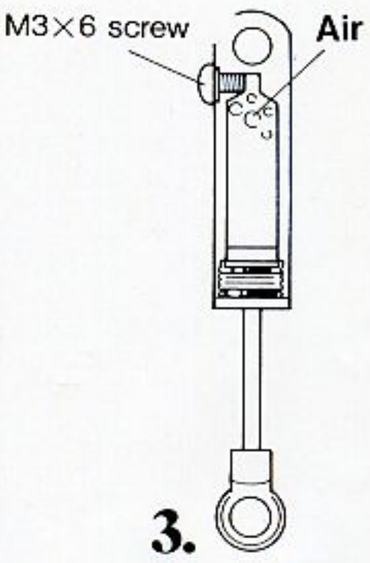


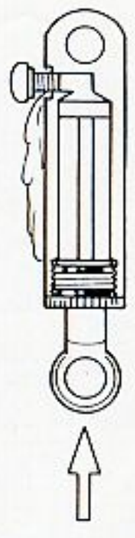

**1.** Fill cylinder with oil.



**2.** Screw in piston assembly.




**3.** Invert shock and allow at least 30 seconds for air bubbles to rise.

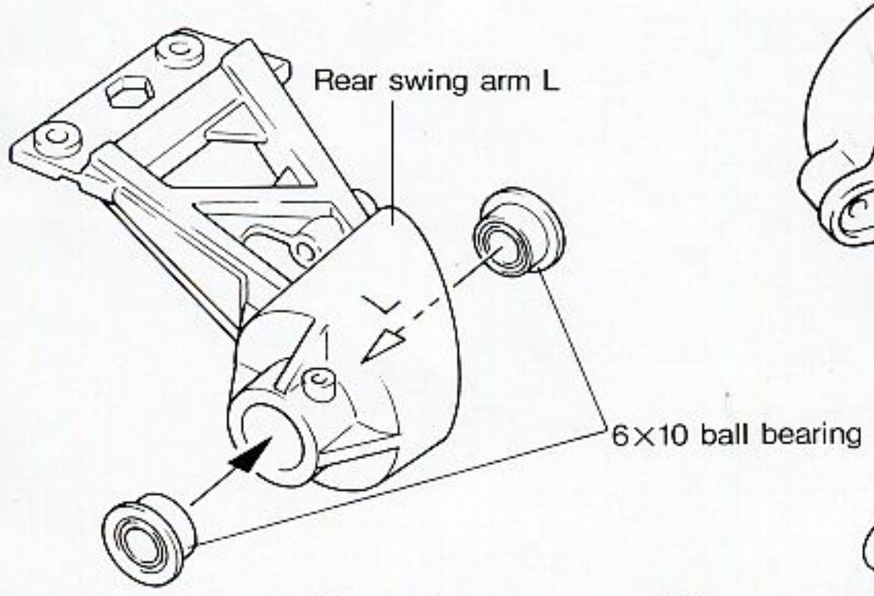


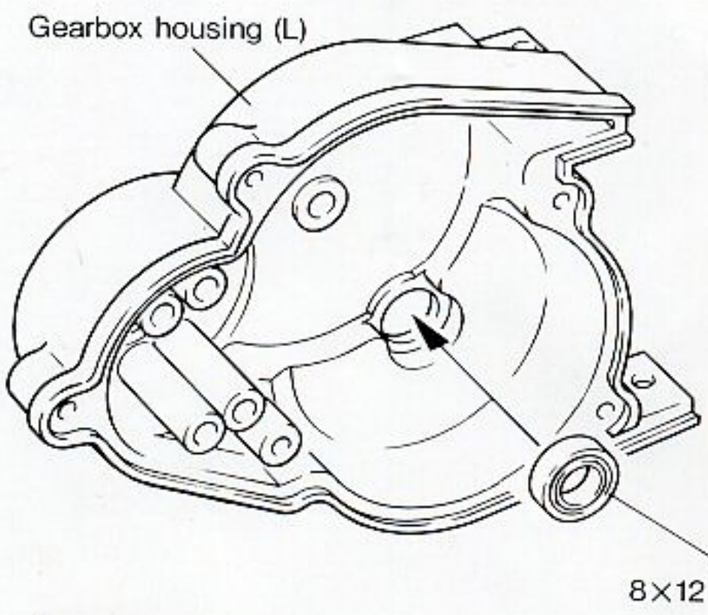
**4.** Loosen screw (do not remove completely), push piston to top, then tighten screw. Wipe off expelled oil.

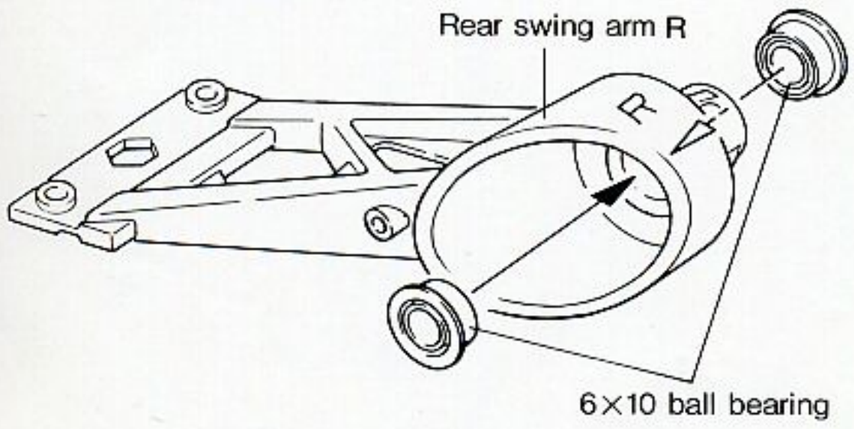
**5.** Mount spring using retainers from friction shocks.

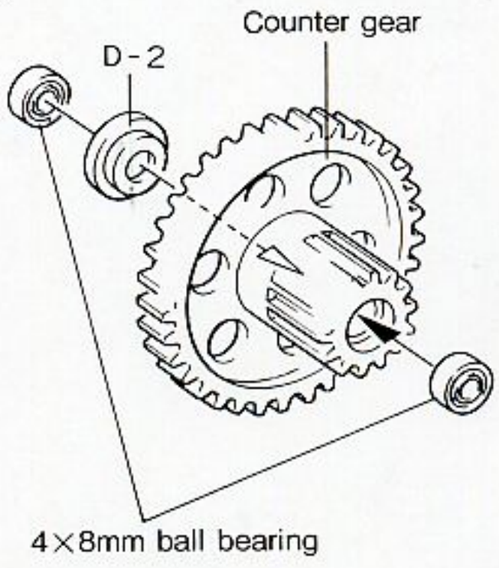
## BALL BEARINGS

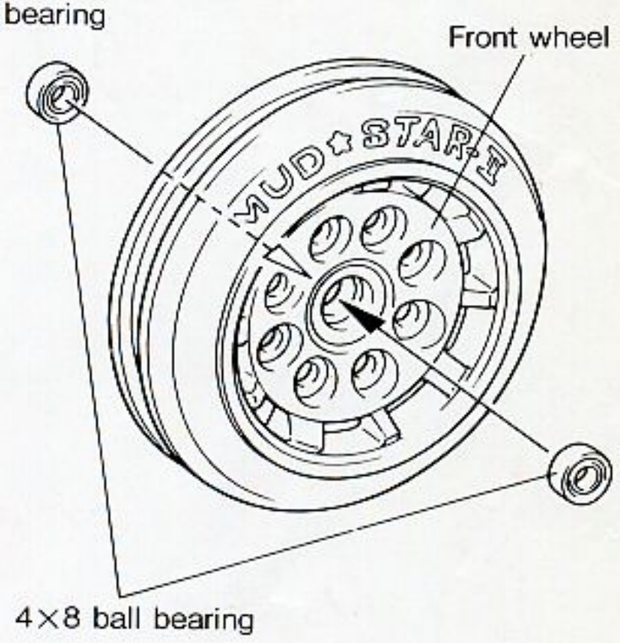
Install ball bearings at the friction points identified in the following drawing.



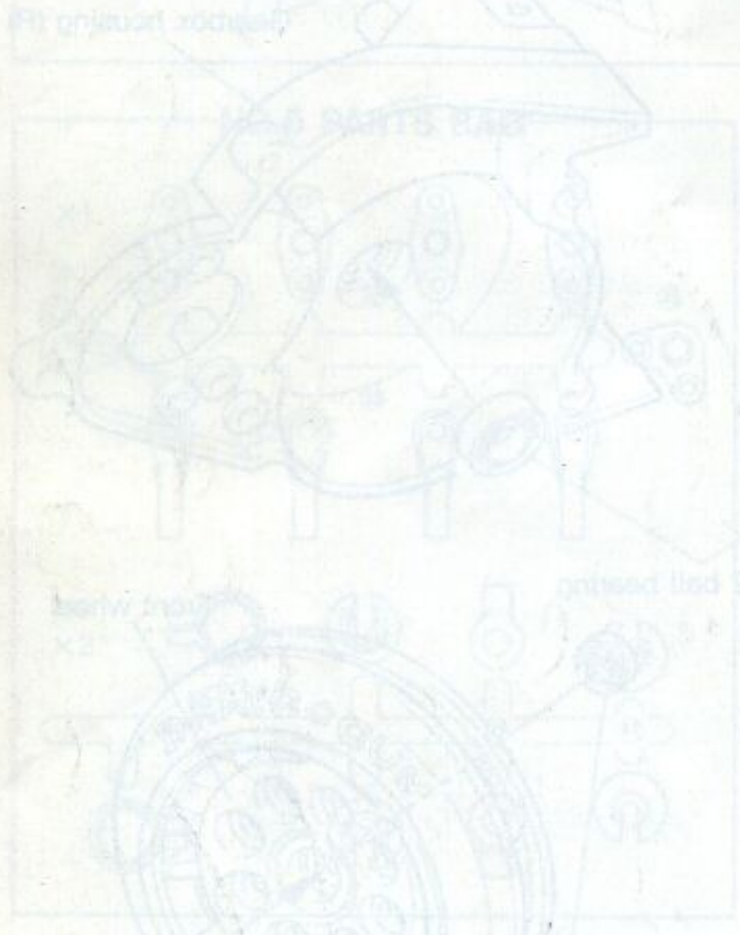



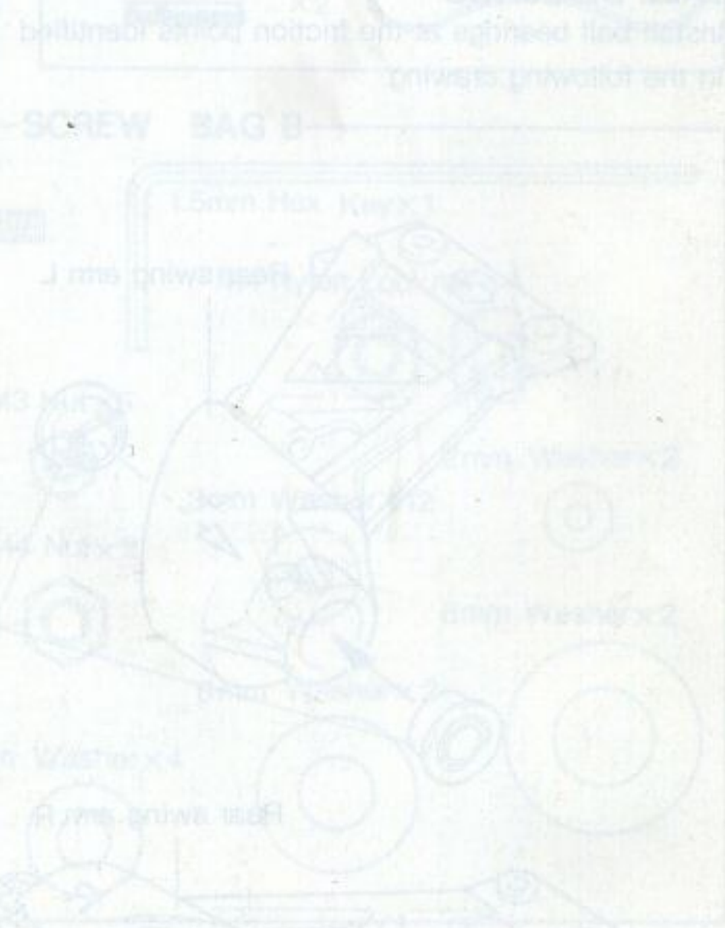




| Parts No. | Discription | Contents |
|---|---|---|
| 1903 | 4φ×8φ Bearing | Can be used in place of D-3 metal (2 pcs. required) |
| MS-26 | 6φ×10φ Bearing (w/flange) | Can be used in place of D-1 metal (2 pcs. required) |
| PI-15 | 8φ×12φ Bearing | Can be used in place of D-4 metal (2 pcs. required) |
| 1883 | Frontier Hobby Oil | |
| PG-63 | Shim Set for Bearings | |
| PG-65 | Front Oil-filled Shocks | Can be used in place of friction shocks |
| PG-14 | Rear Oil-filled Shocks | // |
| SC-106 | Shock-absorber Oil | Oil for shocks |
| 1891 | Le Mans Motor 480S | For 1/12 scale track cars; optimized for top speed. |
| 1892 | Le Mans Motor 480T | For 1/12 scale track cars; optimized for quick acceleration with high top speed. |
| 1893 | Le Mans Motor 240S | For highest possible speed in 4-minute sprint racing. |
| 1894 | Le Mans Motor 600E | For all off-road vehicles; performs better than stock RS-540S with good endurance. |
| 1895 | Le Mans Motor 360PT | The most powerful motor for 1/10 scale off-road vehicles; optimized for high torque. |
| 1897 | Le Mans Motor 480G | The ultimate motor for racing and high-speed buggies; high top RPM and high torque. (w standard duration). |
| 1898 | Le Mans Motor 360ST | For high performance in off-road vehicles without high cost of "ultimate" motors. |
| OT-38 | Silicone Grease | |







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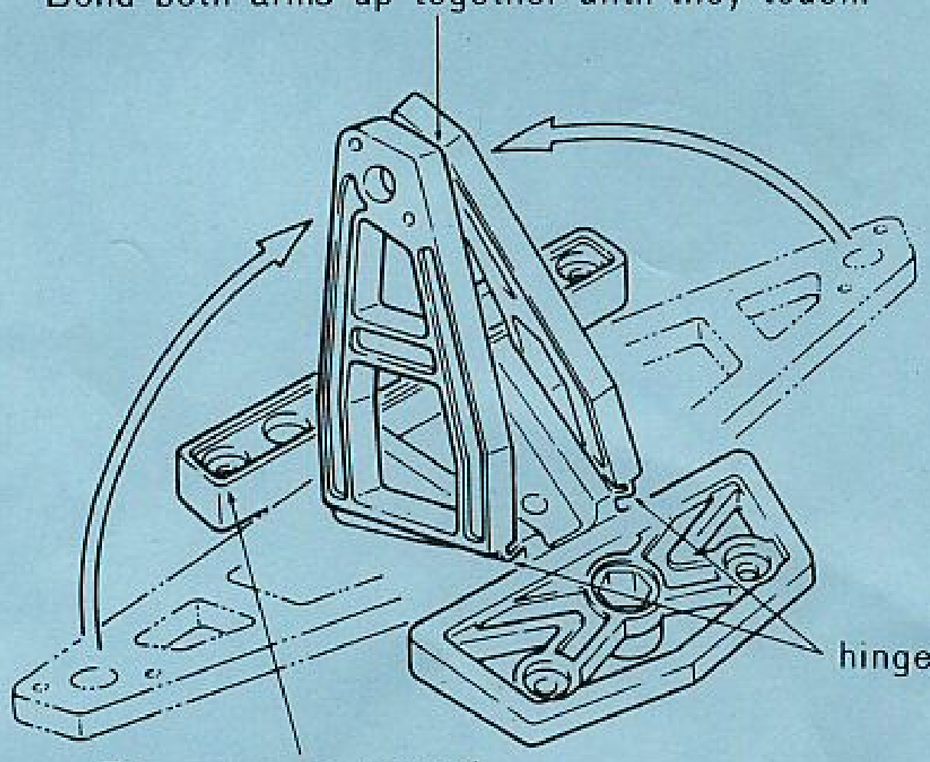
# BEFORE ASSEMBLY

- Before assembly flex the hinges of the front suspension arms up and down at least five times as shown below.

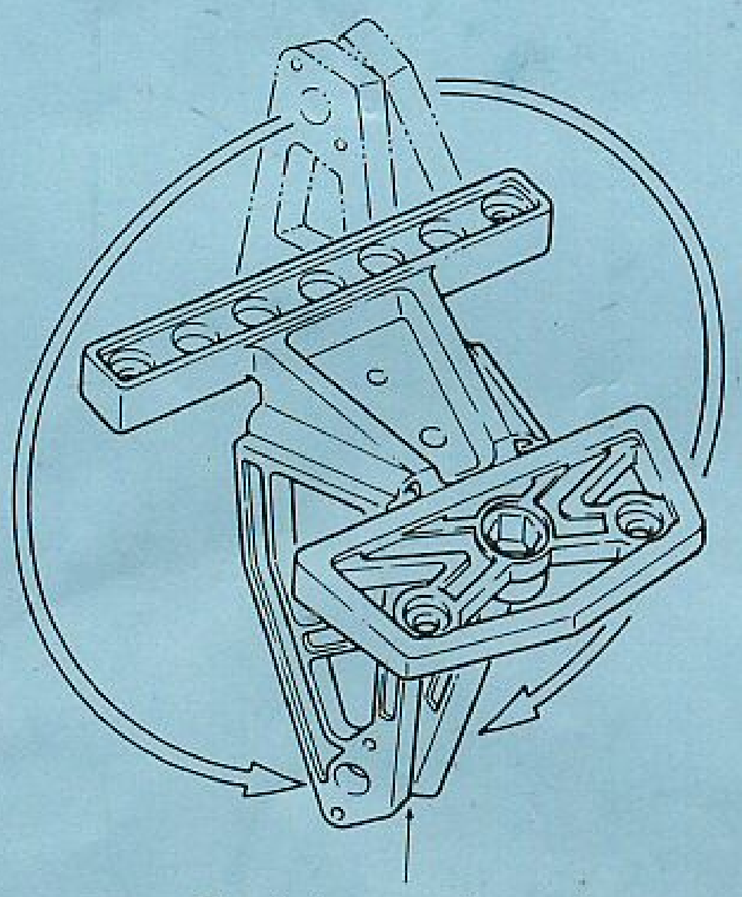
## ❶Front Upper Arm

Bend both arms up together until they touch.




The same as upward.

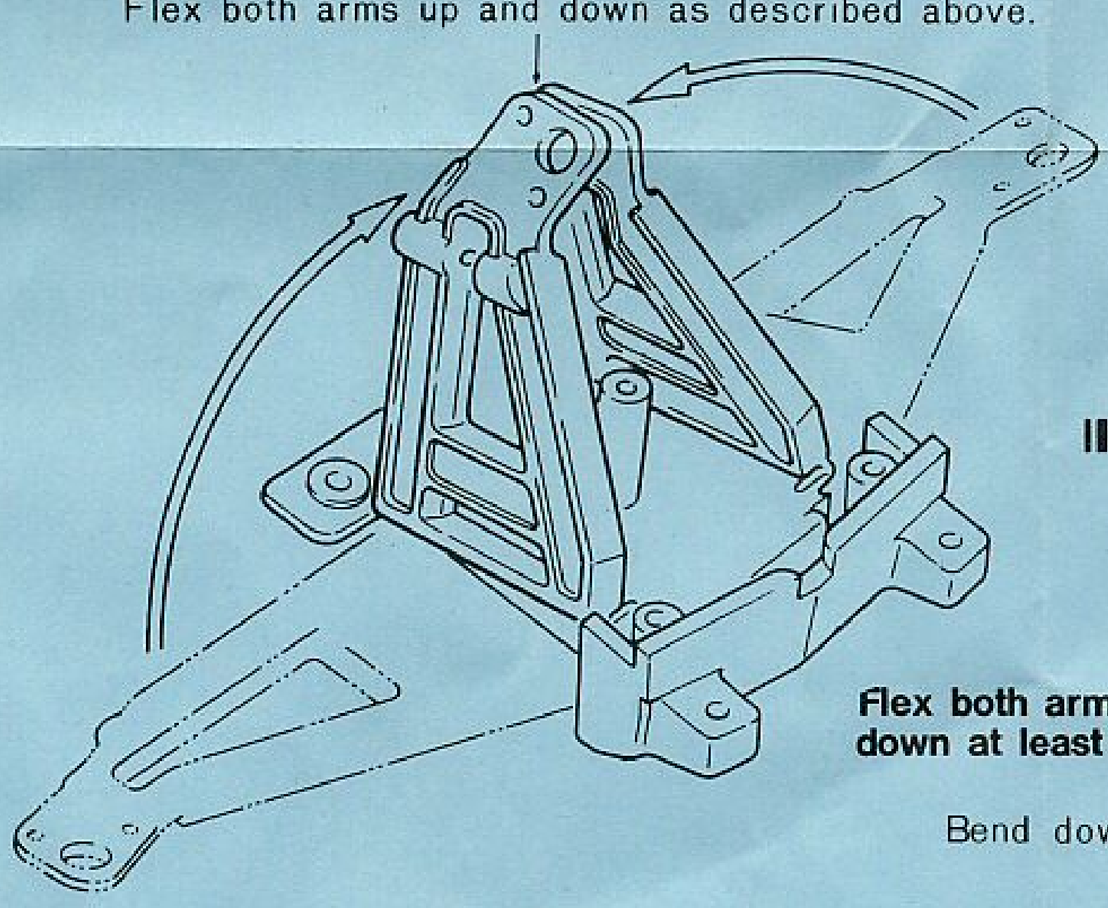
**Flex both arms up and down at least 10 times.**



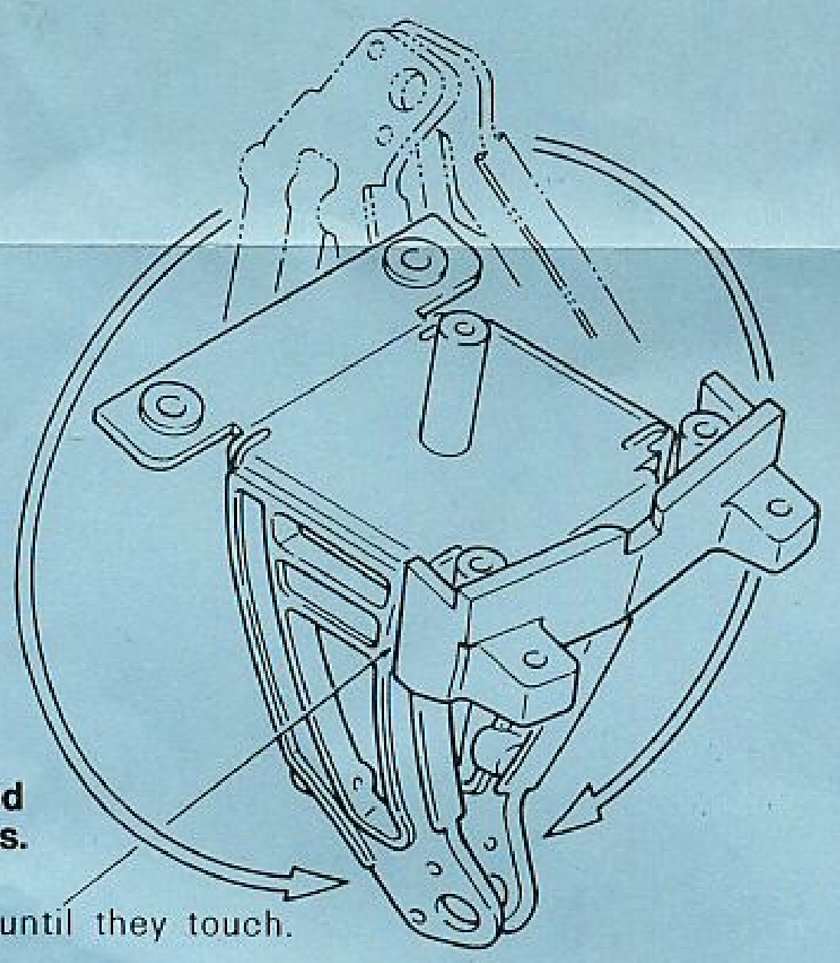
Bend downward as shown.

## ❷Front Lower Arm

Flex both arms up and down as described above.



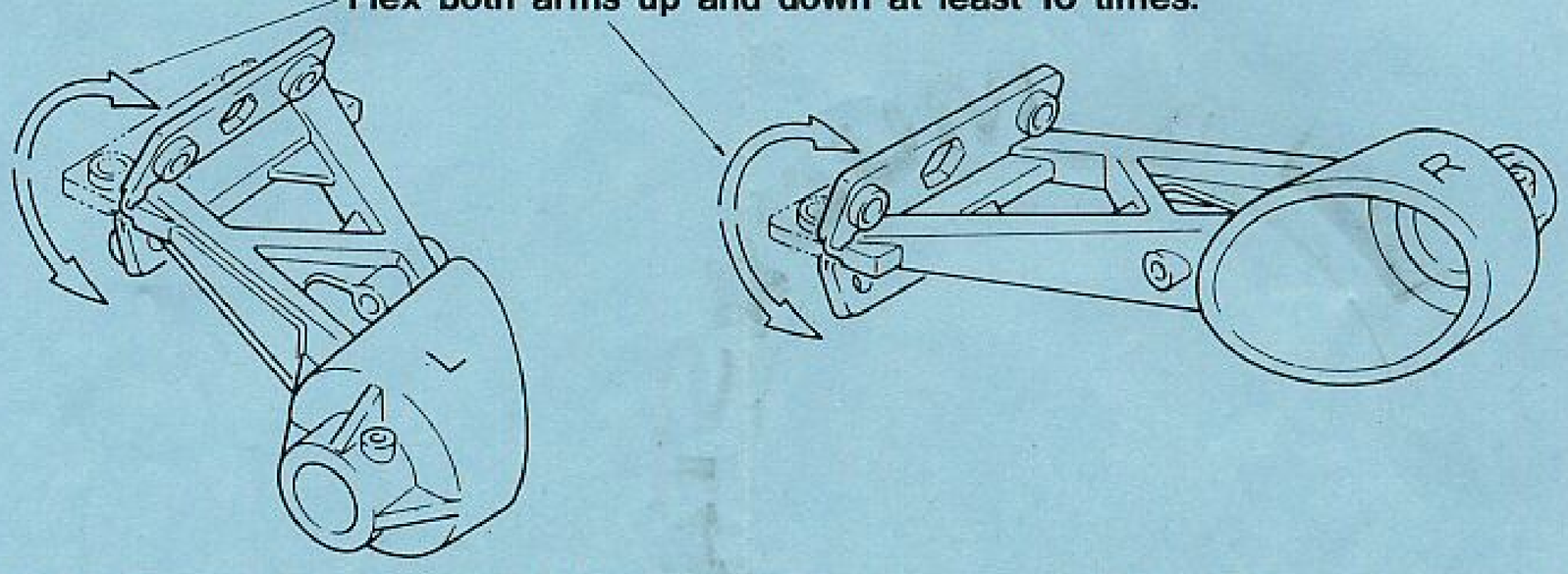
**Flex both arms up and down at least 10 times.**



Bend downward until they touch.

## ❸Rear Suspension Arm

**Flex both arms up and down at least 10 times.**



- The plastic at the hinge joint will become lighter in color as a result of this flexing and the hinge will become more flexible.

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