RADIO CONTROLLED ELECTRIC POWERED RACING BUGGY

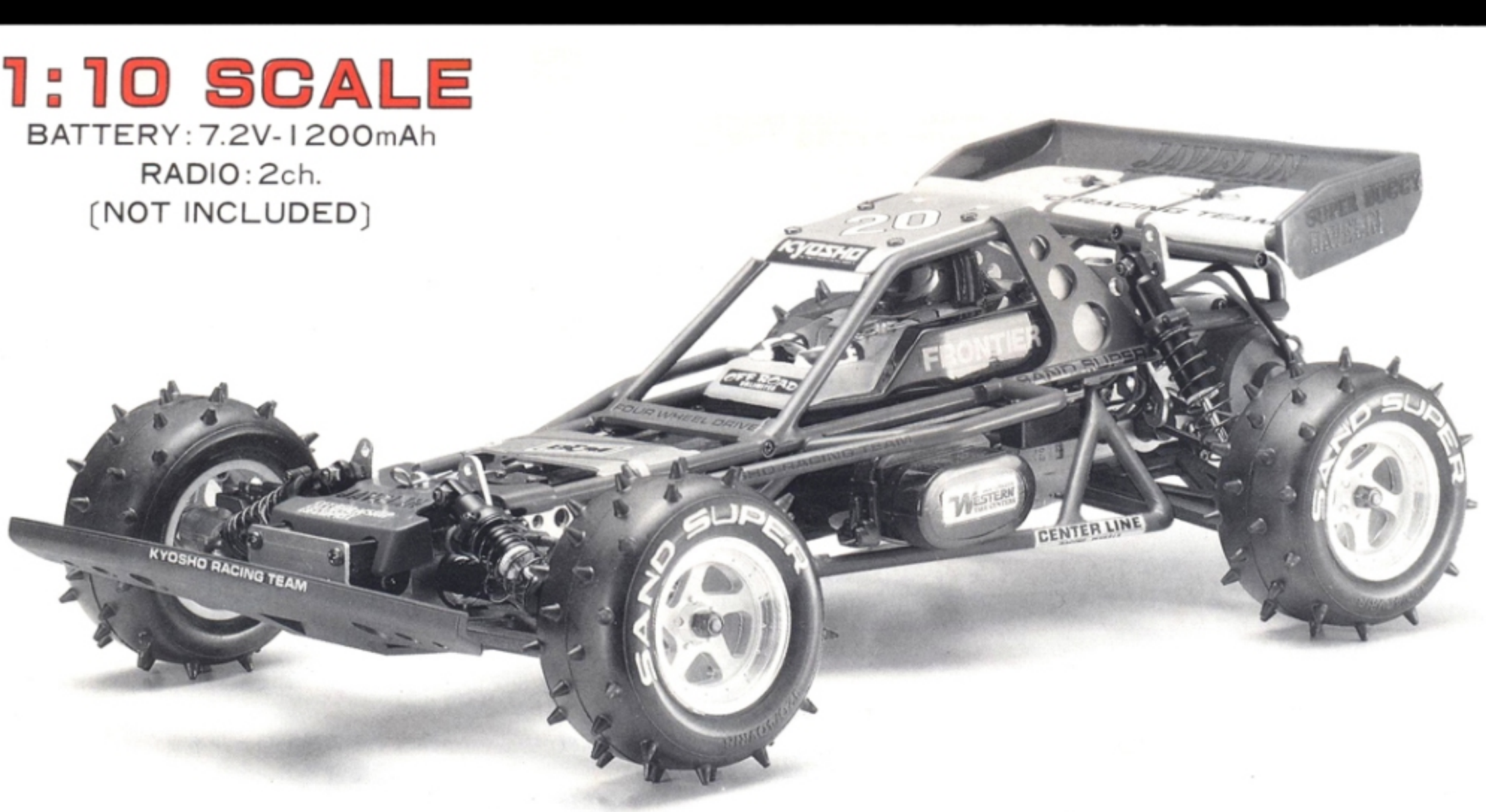
4WD OFF-ROAD RACER

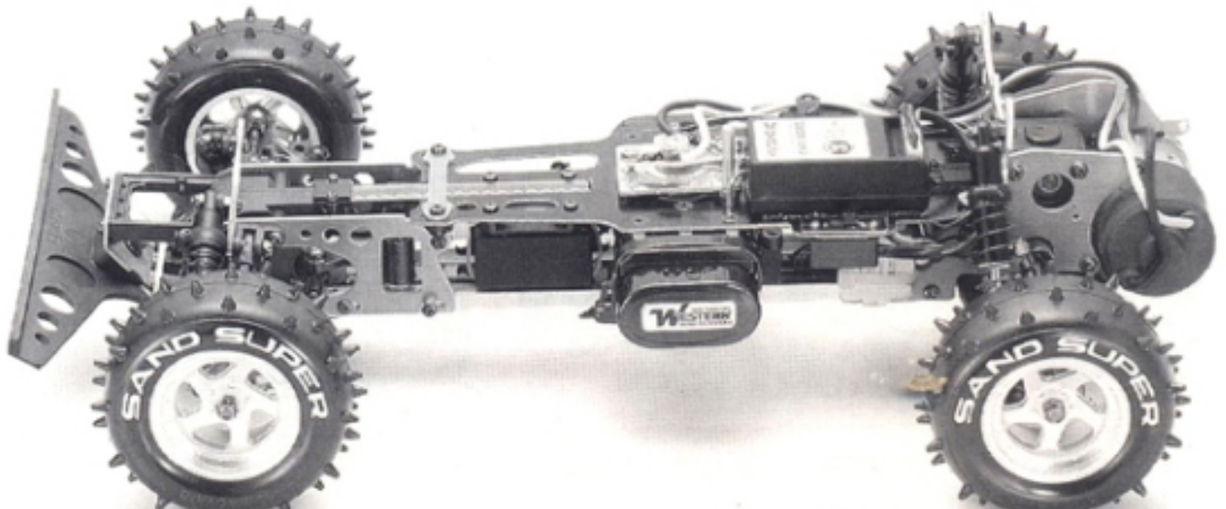
JAVELIN

- DESIGNED FOR HIGH PERFORMANCE
- FOUR-WHEEL DRIVE FOR MAXIMUM TRACTION
- SELECTABLE FRONT/REAR POWER BIAS
- EXTRA-LONG WISHBONES TO ELIMINATE BUMP STEERING
- SPIKE TIRES OPTIMIZED FOUR-WHEEL DRIVE
- LIGHT WEIGHT FOR QUICKEST ACCELERATION
- SHIELDED DRIVE CHAIN FOR LONGEST LIFE
- TRUE GEAR-TYPE DIFFERENTIALS FRONT AND REAR
- PRECISION-MOLDED DRIVETRAIN GEARS FOR SMOOTH POWER DELIVERY
- LOW-RESISTANCE SPEED CONTROLLER FOR LOW POWER LOSS
- HIGH GROUND CLEARANCE AND LONG SUSPENSION TRAVEL
- OIL-FILLED SHOCK ABSORBERS ON ALL WHEELS
- HIGH-STRENGTH ALUMINUM AND GLASS-FILLED NYLON PARTS
- PERFECT 50-50 WEIGHT DISTRIBUTION
- TRUE-GEOMETRY ACKERMAN STEERING LINKAGE
- SHOCK ABSORBER MOUNTS SUITABLE FOR OVERSIZE SHOCKS

1:10 SCALE

BATTERY: 7.2V-1200mAh
RADIO: 2ch.
(NOT INCLUDED)





KYOSHO
THE FINEST RADIO CONTROL MODELS

KIT No.3031

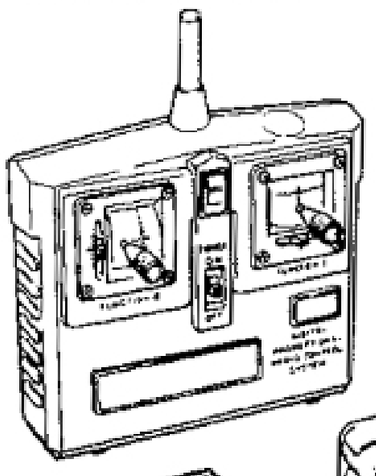
4WD OFF-ROAD RACER JAVELIN

THINGS YOU WILL NEED BESIDES THIS KIT

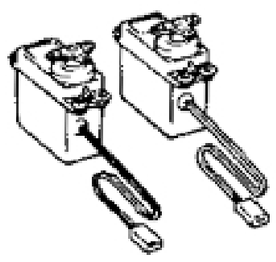
2 CHANNEL RADIO SYSTEM

A two channel two servo radio control system is required for running the Javelin The various components are pictured below

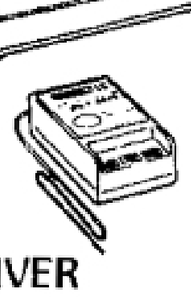
TRANSMITTER

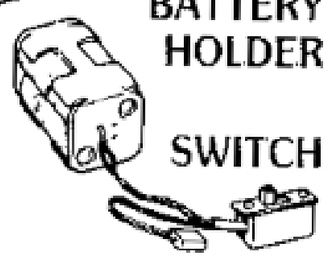


SERVOS



BATTERY HOLDER



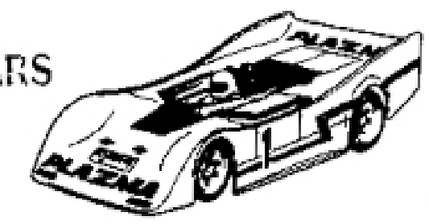


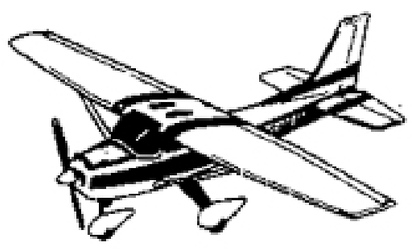
SWITCH

RECEIVER

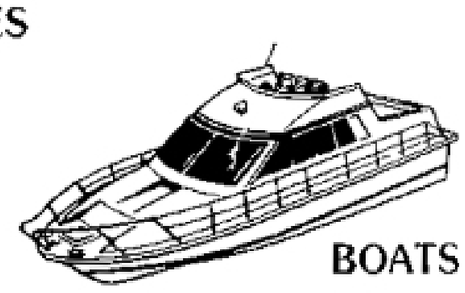
This type of radio system can also be used for other models requiring only two channels of control

CARS





AIRPLANES

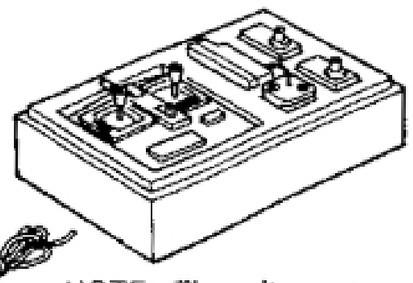


BOATS

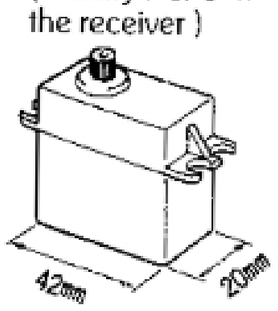
CHECK YOUR RADIO SYSTEM

Follow the instructions that came with your radio system to check out its operation

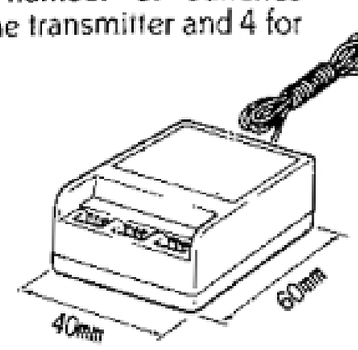
You will also need to supply your radio with the proper number of batteries (usually 7 or 8 in the transmitter and 4 for the receiver)



- NOTE: The dimensions shown are the maximum sizes which will fit



SERVO



RECEIVER

BATTERY PACK

A 6-cell 7 2V battery similar in shape to the one shown here is required The Kyosho #2218 is a good choice

CHARGER

You ll need a charger to charge your battery Kyosho offers three types:

Model	Name	Time	Rate %	Features
No 2207	Quick Charger (DC 12V)	20 Min	70%	Inexpensive OK for sport use
No. 1846	Multi-Charger (DC 12V)	20 Min	100%	Full charge wide range of batteries
No. 1848	Auto Charger (DC 12V)	20 Min	100%	The best fully automatic operation Easy to use suitable for competition

No. 2207 Quick Charger

No. 1848 Auto Charger

REQUIRED TOOLS

These ARE included with the Javelin

1.5mm Allen Wrench

2mm Allen Wrench

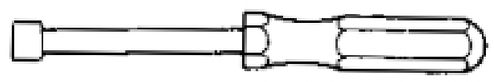
Silicone Grease

Screw Locking Compound

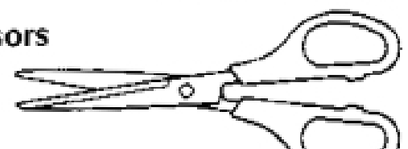
These ARE NOT included with the Javelin

Phillips Screwdriver

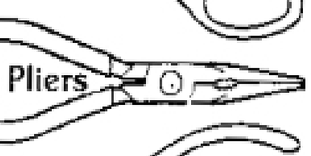
5/16 Nut Driver



Scissors



Needle Nose Pliers



Wire Cutters

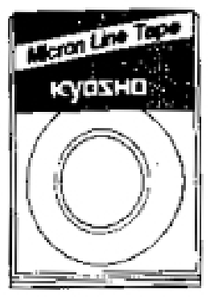
Awl

Sharp Hobby Knife

Cyanoacrylate glue (such as Jet CA, Hot Stuff or Krazy Glue).

Masking Tape

Paint



Paint Brush

OPTIONAL MOTORS

480G

The Javelin comes with a Mabuchi RS-540 motor as stock. You may wish to upgrade the performance by purchasing a Kyosho LeMans motor. We have found the best ones to be the 480G, 360PT and 360ST.

BALL-BEARINGS

Ball Bearings greatly improve performance and reduce maintenance. The Kyosho #H-001 is a complete set of optional bearings for your Javelin.

IMPORTANT! BEFORE YOU BEGIN

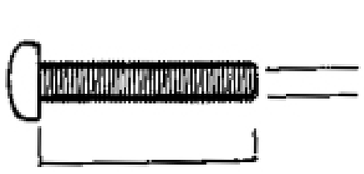
This is a sophisticated model with a large number of moving parts. Before you begin assembly take a look through the box and these instructions carefully to decide whether or not you are ready for this challenge! If you do not feel that this type of model is for you, it may be returned to the dealer as long as it is NEW and UNUSED UNDER NO CIRCUMSTANCES CAN YOUR DEALER ACCEPT A KIT FOR RETURN IF ASSEMBLY HAS ALREADY BEGUN! If this is not what you bargained for then go no further and return this kit to the dealer immediately. BUT, if a little maintenance doesn t bother you and the thrill of high performance driving is for you, then don't hesitate another minute! Read through this entire manual thoroughly to familiarize yourself with the parts and methods of construction used before actually starting to build

KYOSHO®
THE FINEST RADIO CONTROL MODELS

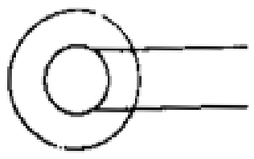
METRIC NUTS AND BOLTS

All nuts and bolts used throughout this kit are metric size Therefore, some of the notations may not be familiar to you An M3 nut is a 3 millimeter (3mm) nut. An M3 × 15 screw is 15mm long and 3mm in diameter Some round parts may be labeled as a "4 Ø Washer" (this would be a washer with a 4mm inside

M3 × 15 SCREW



4 Ø WASHER



diameter) or a 3 Ø Bushing (a bushing with a 3mm inside diameter). At various points throughout the manual these parts are labeled and pictured in their actual size on the left hand side of the page For your reference 1

In addition to the shock oil (red liquid) you will also find a small tube labeled "screw cement". This bluish-green locking compound may be used on all nuts and bolts in the car to ensure reliability. We have labeled those parts of the car where it is ESPECIALLY IMPORTANT to apply the compound with this symbol . Use this type of cement only on the nuts and bolts. When it calls for cement in the manual, use an "instant" type of glue such as Jet, CA, Hot Stuff or Krazy Glue. Another small tube of "silicone grease" (lubricant) is also included. Use it where you see the symbol.

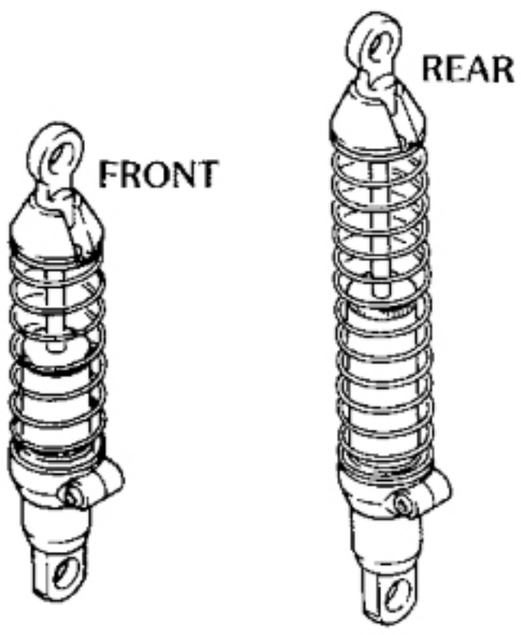
Two types of screw threads are used in construction of your model. Machine screws have machine threads and are indicated by the label "Screw"

MACHINE SCREW

SELF-TAPPING SCREW

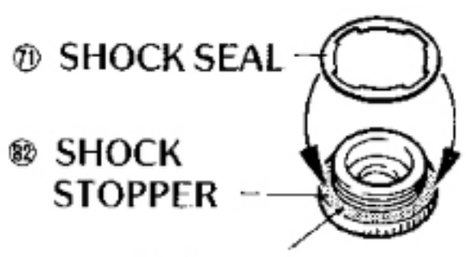
Self-tapping screws have different threads and a more tapered shape and are indicated by "S/T screw"

1 VIEW OF ASSEMBLED SHOCKS

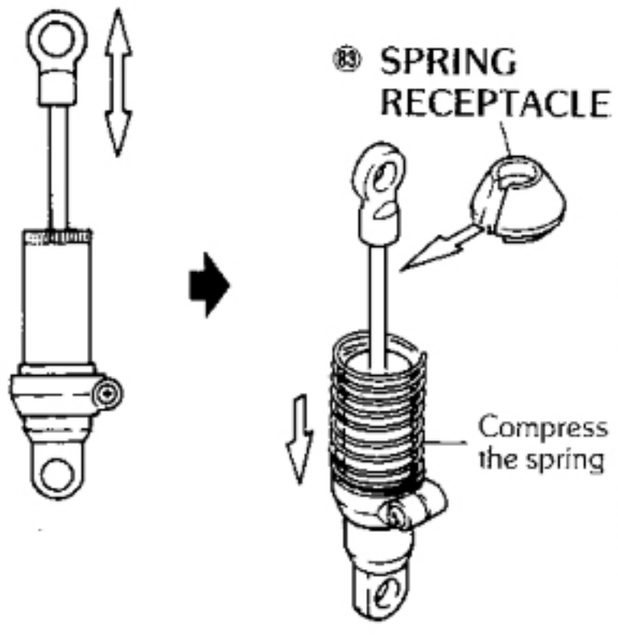


3 FILLING SHOCK WITH OIL

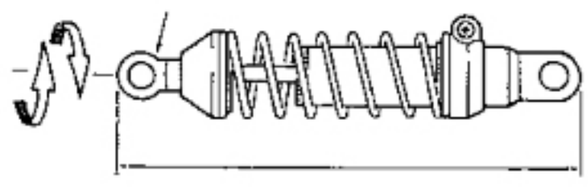
Make sure Shock Seal is in place on shoulder of Shock Stopper when ready to reassemble



When reassembled move piston up and down to see if shock operates smoothly If not decrease amount of oil

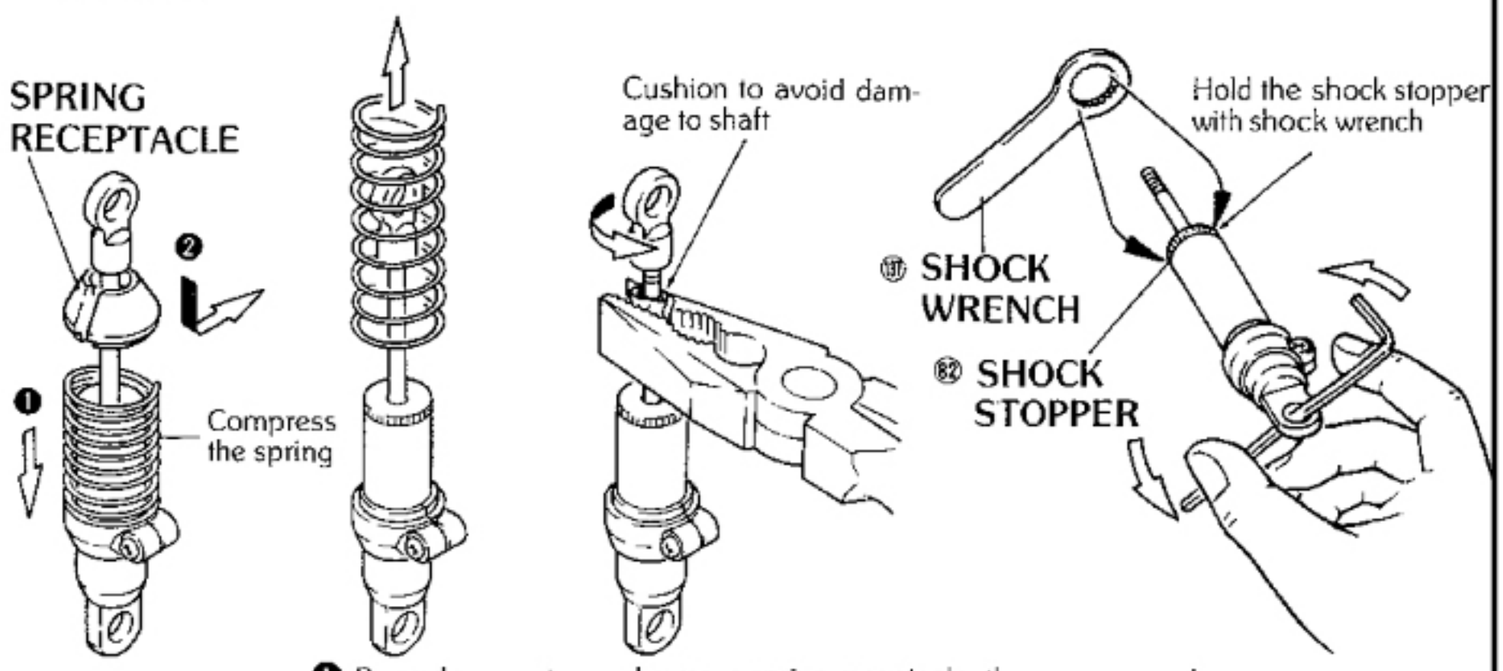


Adjust length of shock by screwing the shock end in and out



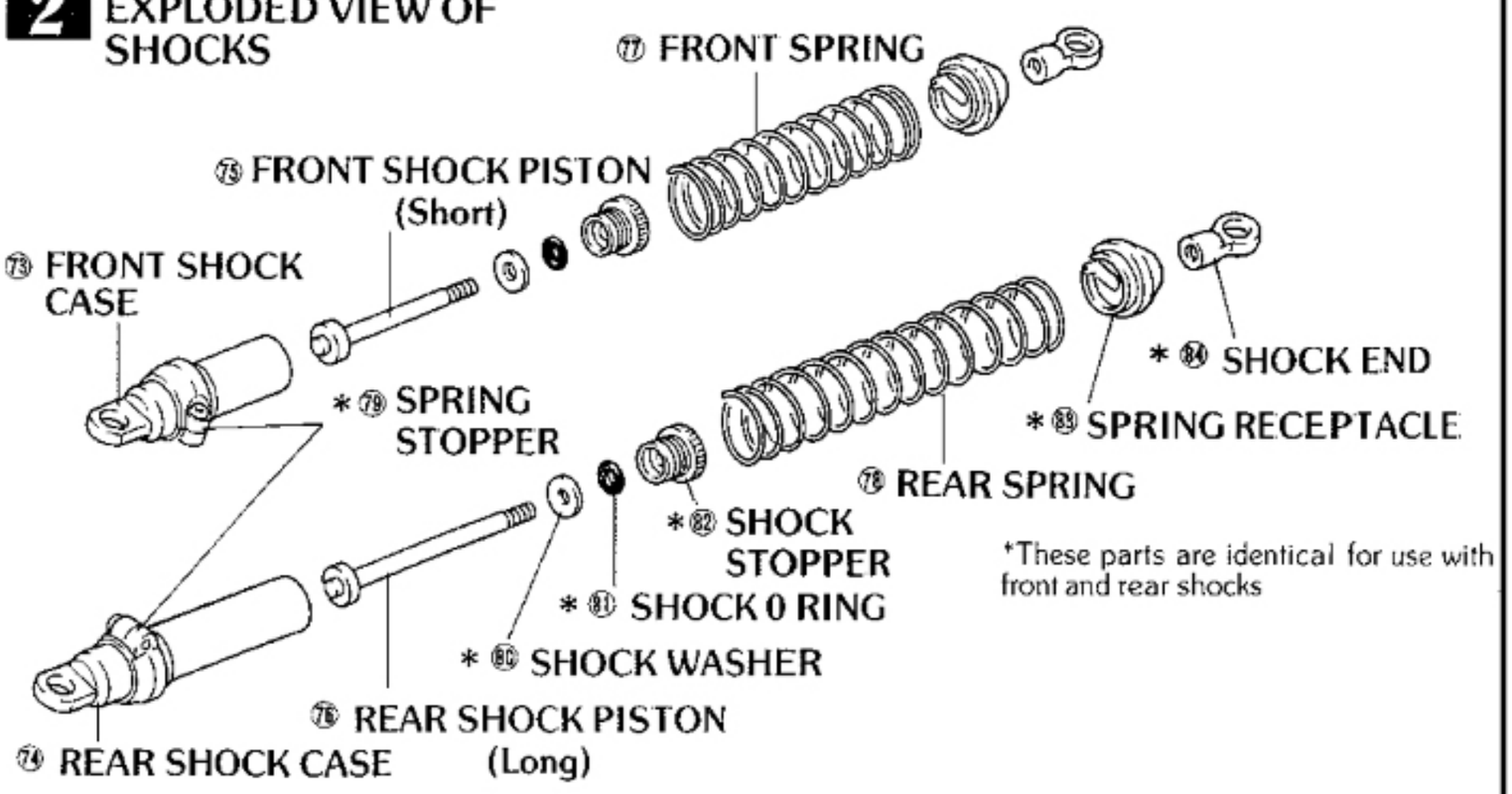
1 DISASSEMBLY OF SHOCKS

The shocks come assembled but disassembly is required to install dampening oil. Front and Rear Shocks are different so disassemble shocks one at a time to avoid mixing parts Disassemble fill with oil then reassemble.



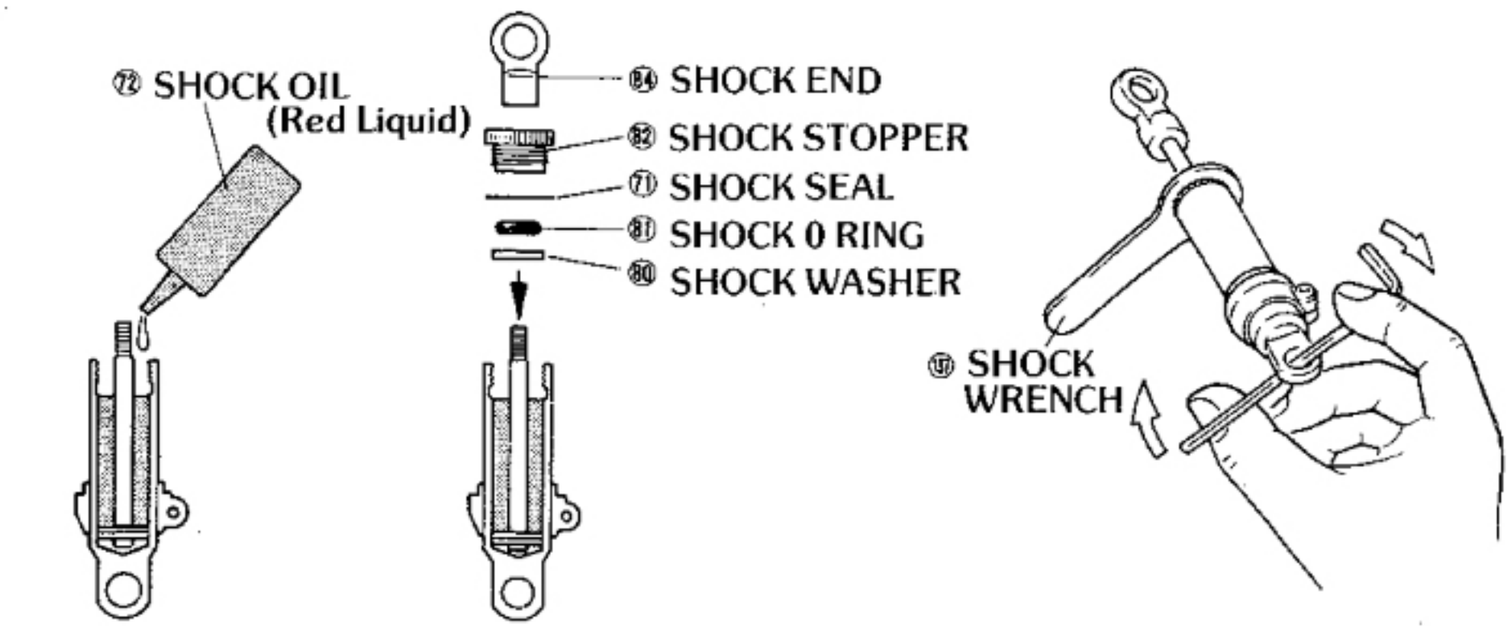
❶ Press down spring and remove spring receptacle then remove spring
❷ Hold shock shaft and remove shock end as shown in drawing
❸ Remove shock stopper by unscrewing

2 EXPLODED VIEW OF SHOCKS



*These parts are identical for use with front and rear shocks

3 FILLING SHOCK WITH OIL



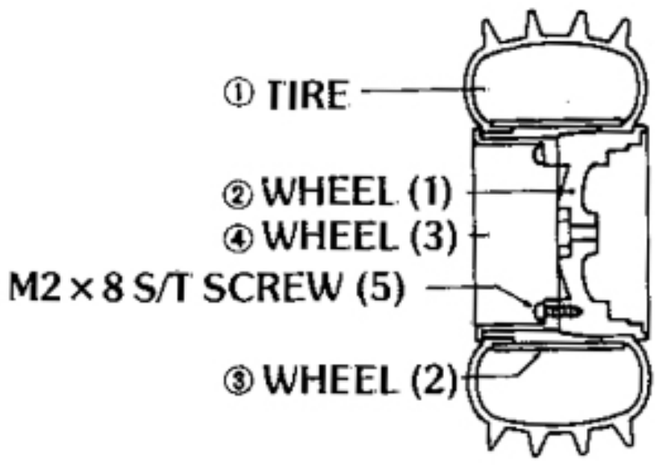
1. Press Piston to the bottom Pour oil to level shown in drawing . Make sure there are no bubbles in oil

2. Assemble shock in the sequence shown

3. Tighten stopper firmly as illustrated

4 CROSS-SECTIONAL VIEW OF TIRE AND WHEEL

M2 × 8 S/T SCREW (20)



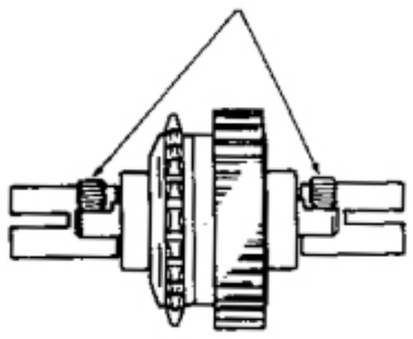
5 INSTALLATION OF JOINT

M4 × 4 SET SCREW (4)

8 0 × 14 BEARING (4)

⑥ JOINT (4)

Set the M4 × 4 set screw to the flat on the shaft and tighten



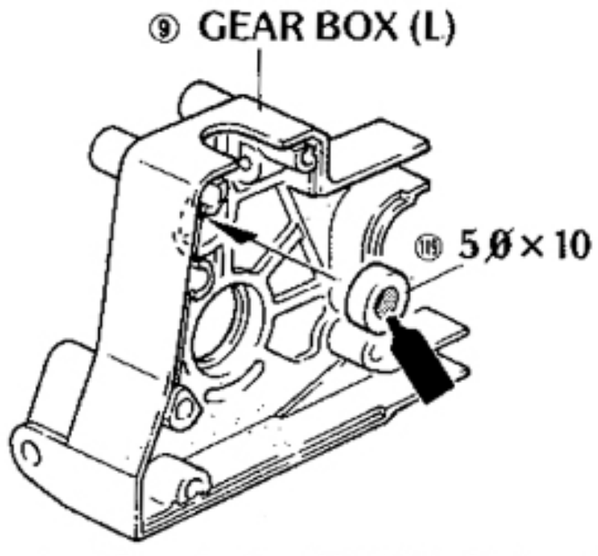
6 ASSEMBLY OF GEAR BOX

M3 × 18 S/T SCREW (3)

M4 × 4 SET SCREW (1)

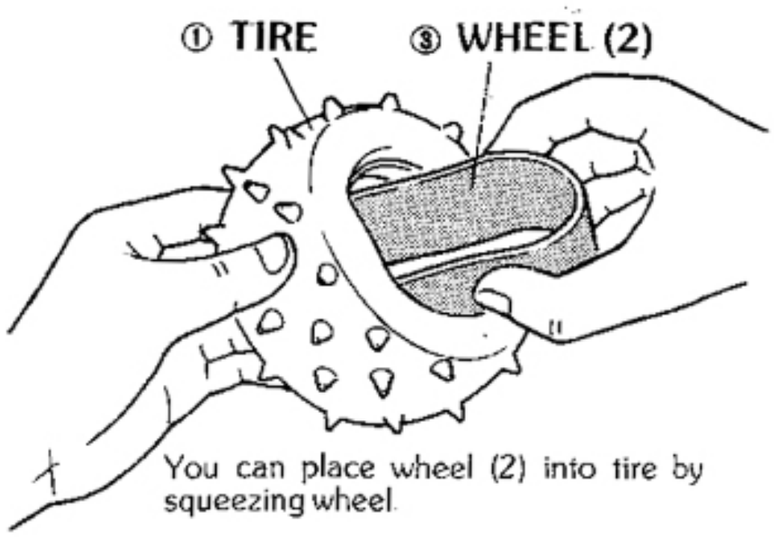
⑲ 5 Ø × 10 BUSHING (1)

NOTE! This bushing can be replaced with an optional bearing (see page 20 for details)

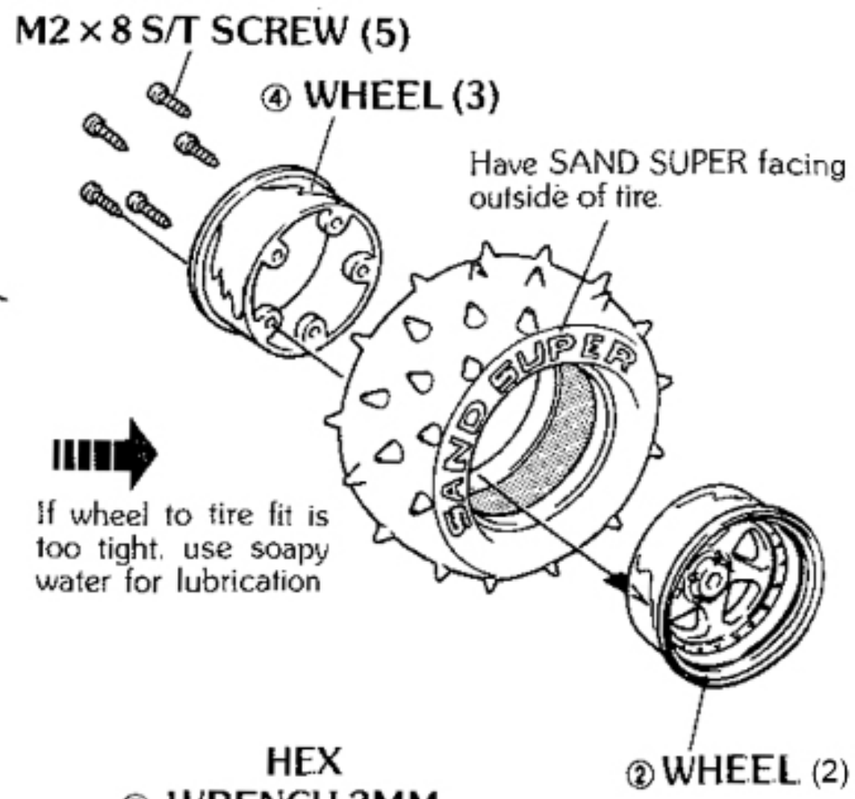


Insert 5 mm Bushing (Metal) into Gearbox (L)

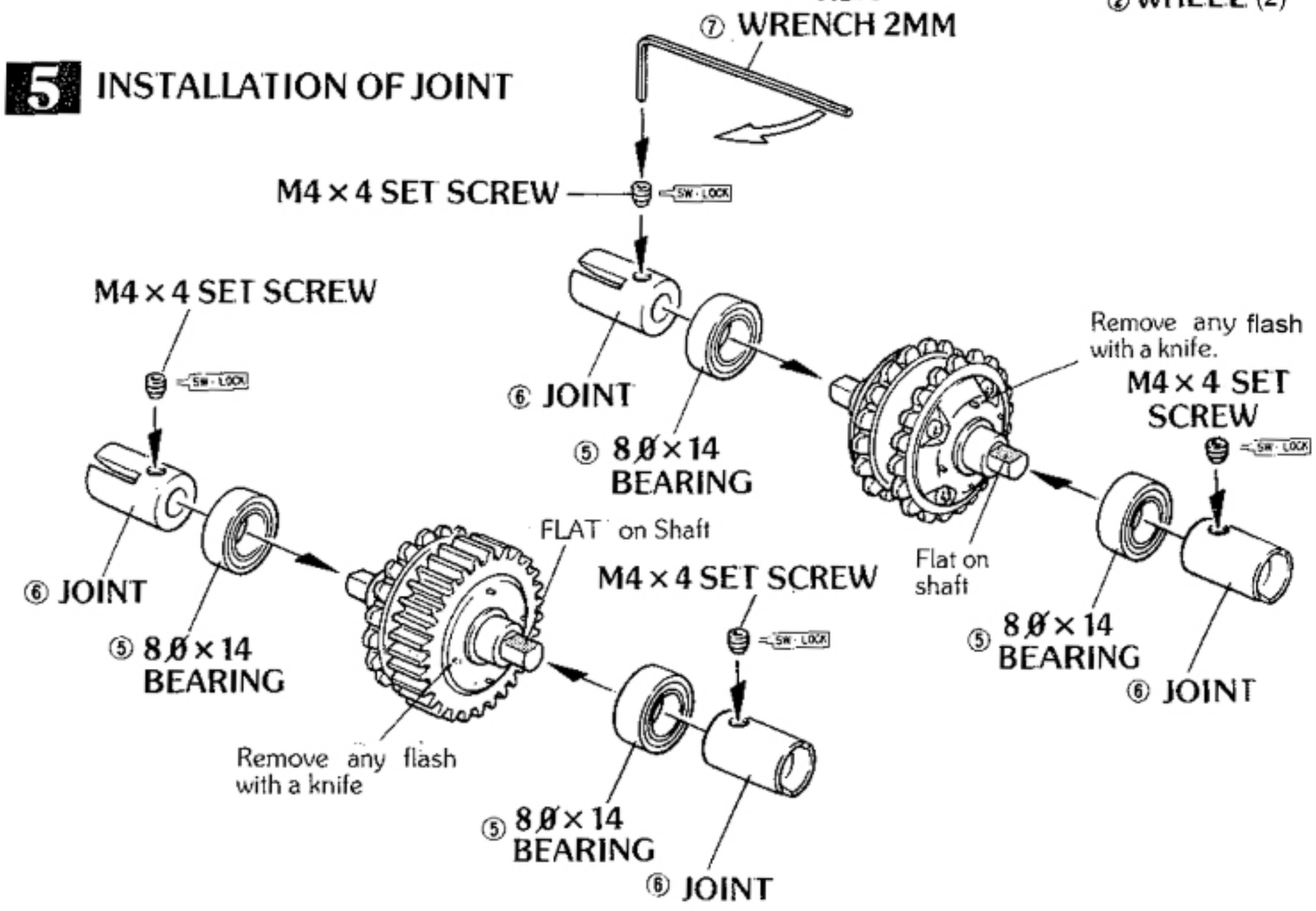
4 ASSEMBLY OF TIRE AND WHEEL



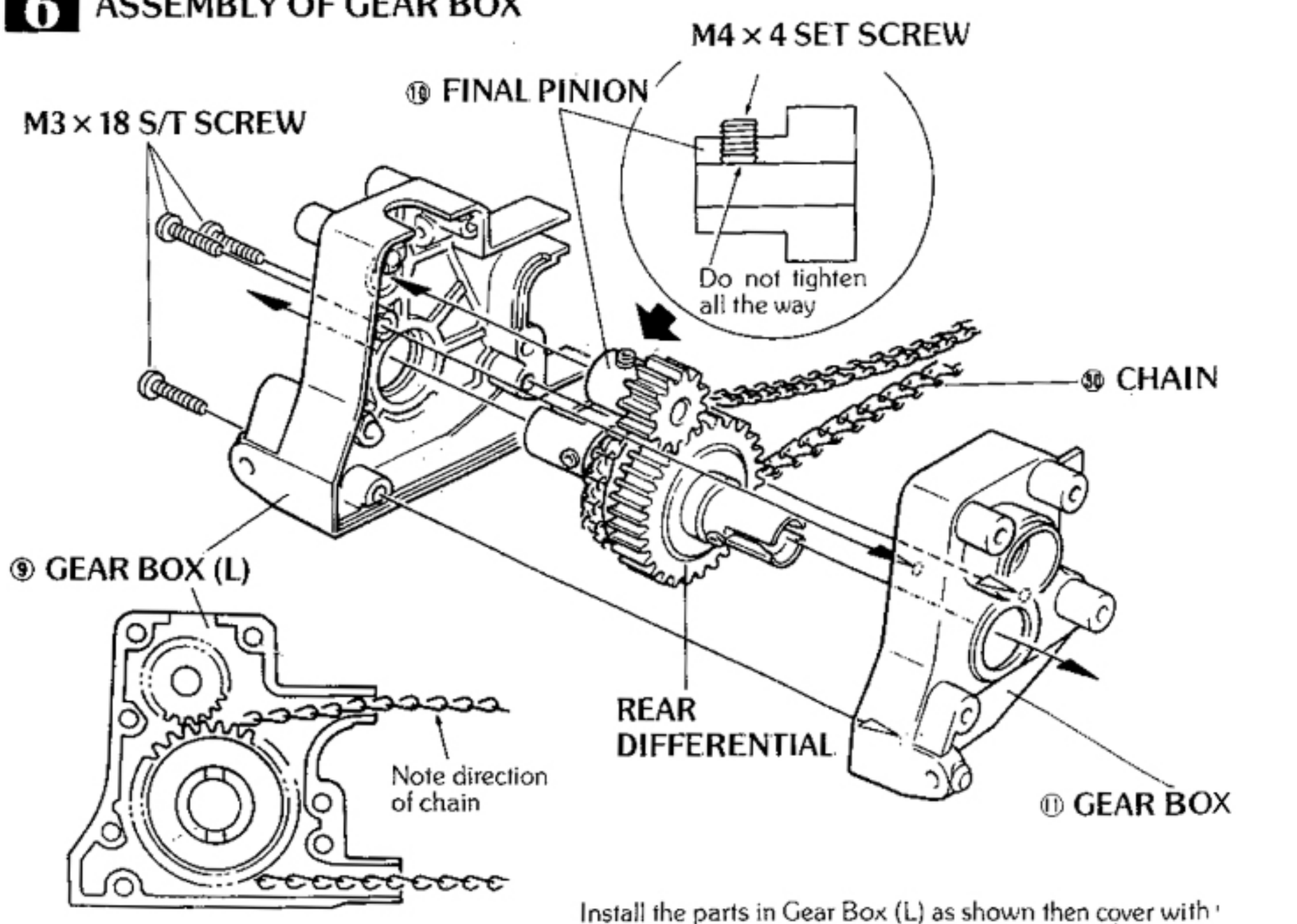
You can place wheel (2) into tire by squeezing wheel.



5 INSTALLATION OF JOINT



6 ASSEMBLY OF GEAR BOX



Install the parts in Gear Box (L) as shown then cover with Box (R) Install M3 × 18 S/T Screws and tighten

7 INSTALLATION OF GEAR BOX

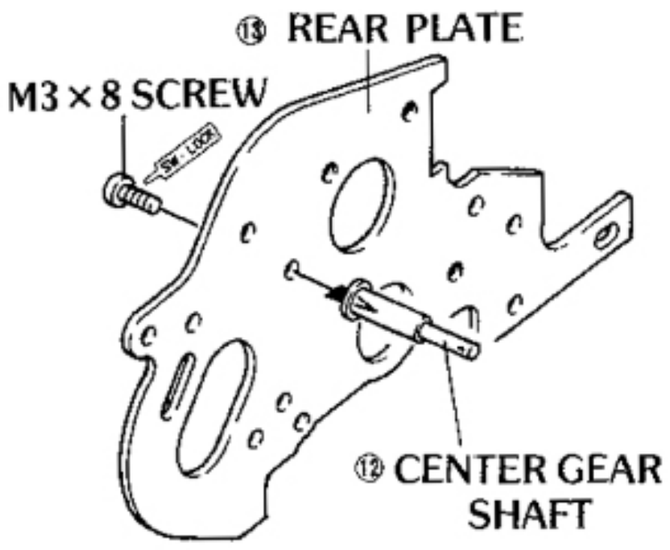
M3 × 8 SCREW (3)

M3 × 45 SCREW (4)

⑫ CENTER GEAR SHAFT (1)

M3 SPRING WASHER (4) ©

INSTALLATION OF CENTER GEAR SHAFT



8 INSTALLATION OF FINAL PINION

⑲ 5Ø × 10 BUSHING (1)

NOTE! This bushing can be replaced with an optional bearing (see page 20 for details)

9 INSTALLATION OF REAR SHOCK STAY

M3 × 12 S/T SCREW (2)

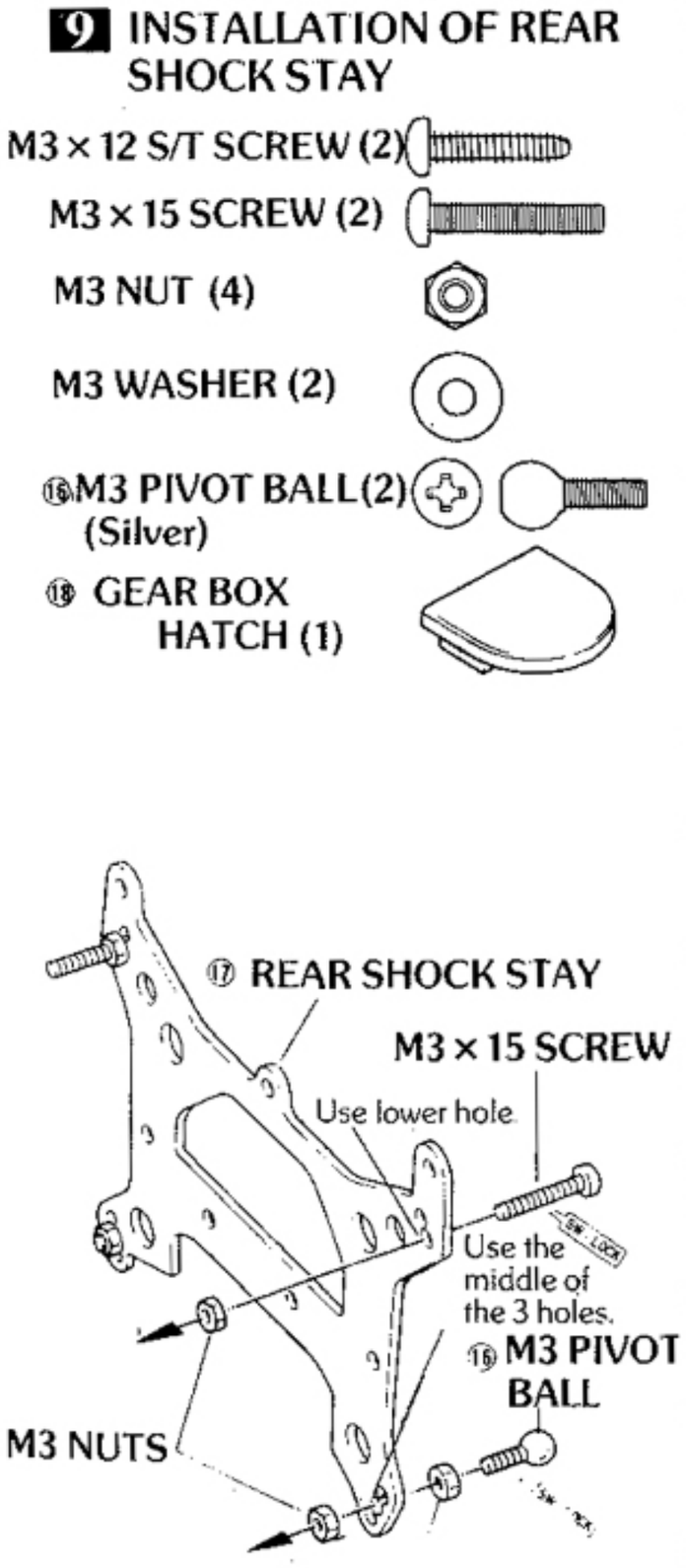
M3 × 15 SCREW (2)

M3 NUT (4)

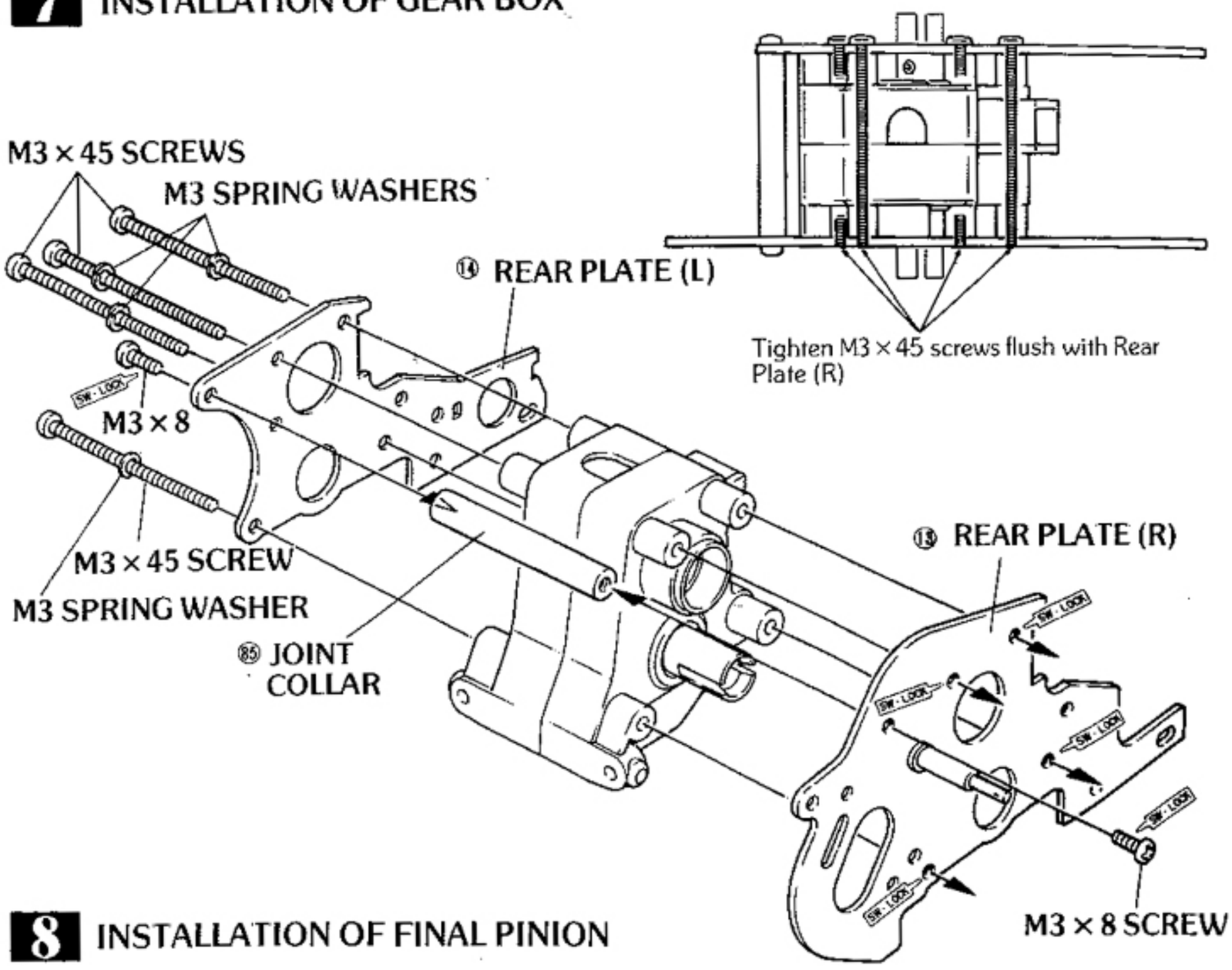
M3 WASHER (2)

⑯ M3 PIVOT BALL (2) (Silver)

⑱ GEAR BOX HATCH (1)

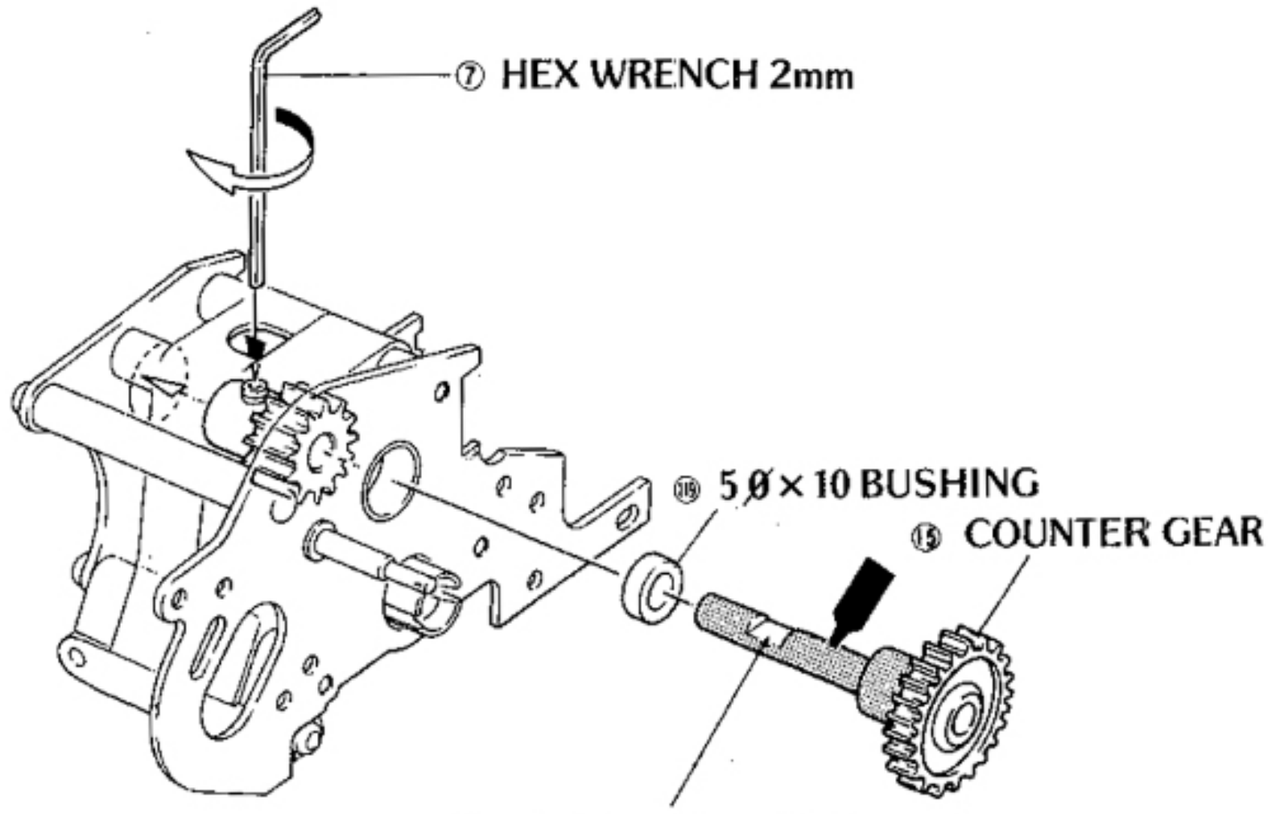


7 INSTALLATION OF GEAR BOX



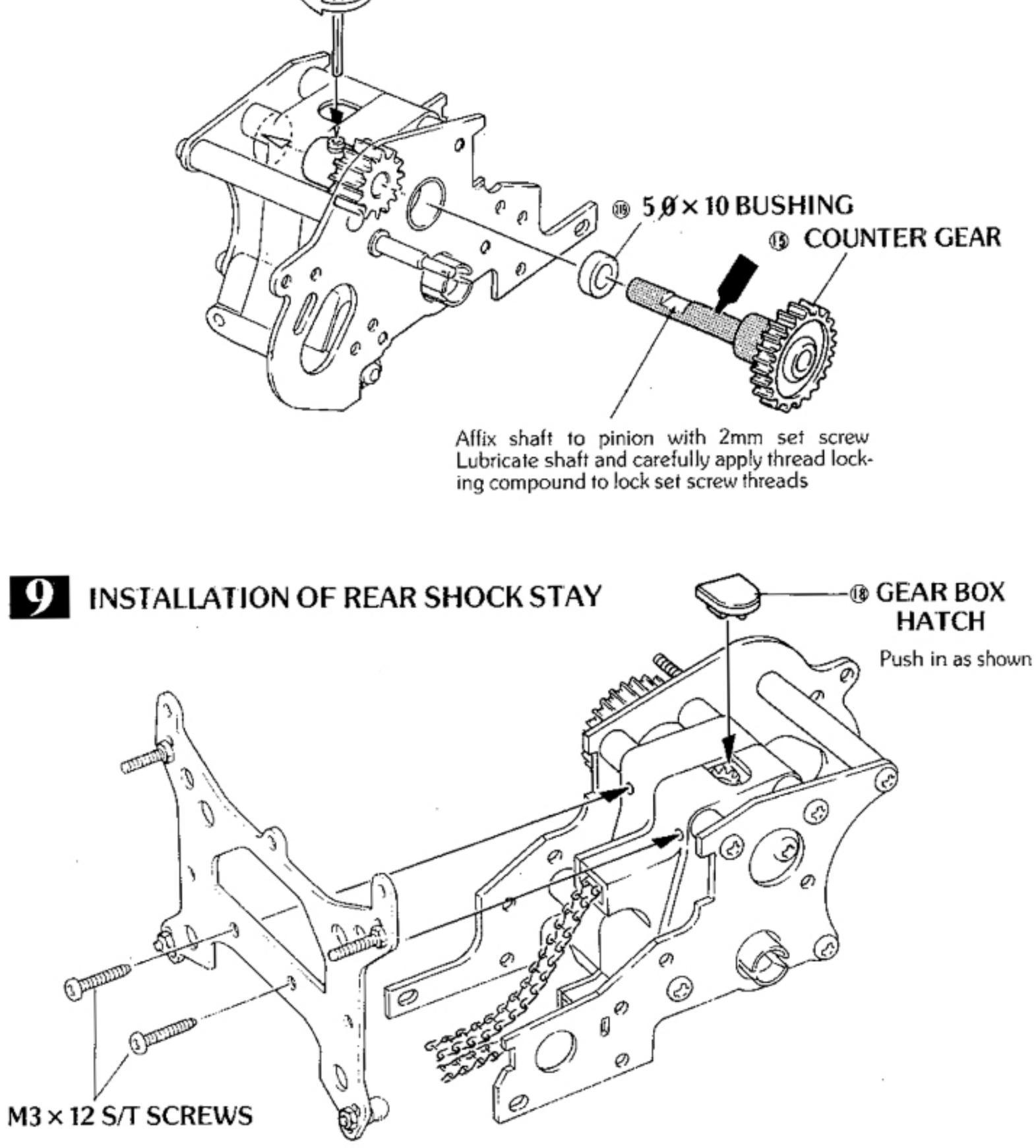
Tighten M3 × 45 screws flush with Rear Plate (R)

8 INSTALLATION OF FINAL PINION



Affix shaft to pinion with 2mm set screw
Lubricate shaft and carefully apply thread locking compound to lock set screw threads

9 INSTALLATION OF REAR SHOCK STAY

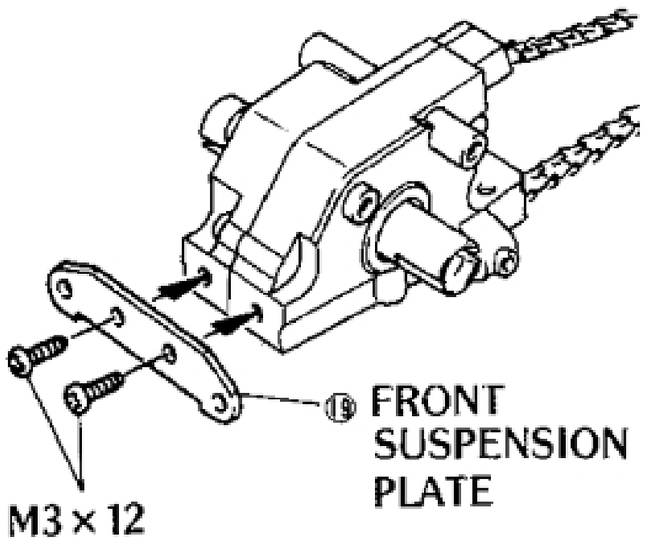


10 ASSEMBLY OF BULKHEAD

M3 × 12 S/T SCREW (3)

M3 × 18 S/T SCREW (1)

After assembling the bulkhead attach front suspension plate (19) as shown

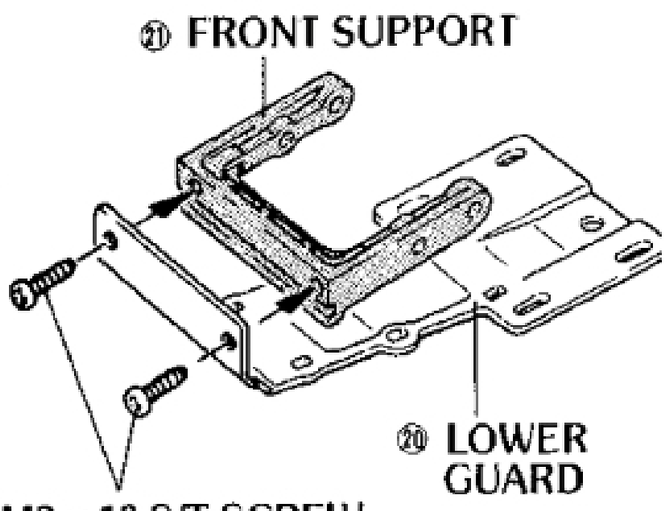


11 INSTALLATION OF LOWER GUARD

M3 × 10 S/T SCREW (4)

M3 × 8 S/T SCREW (2)

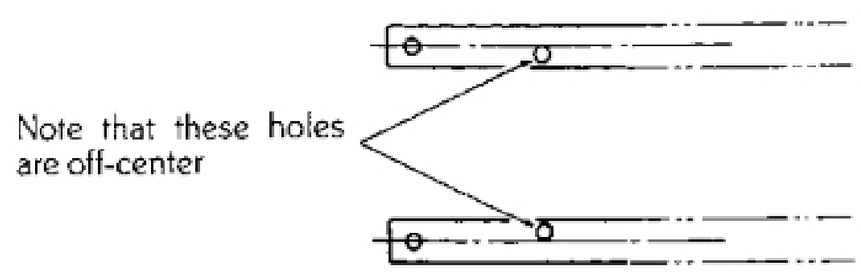
Install Front Support as shown:



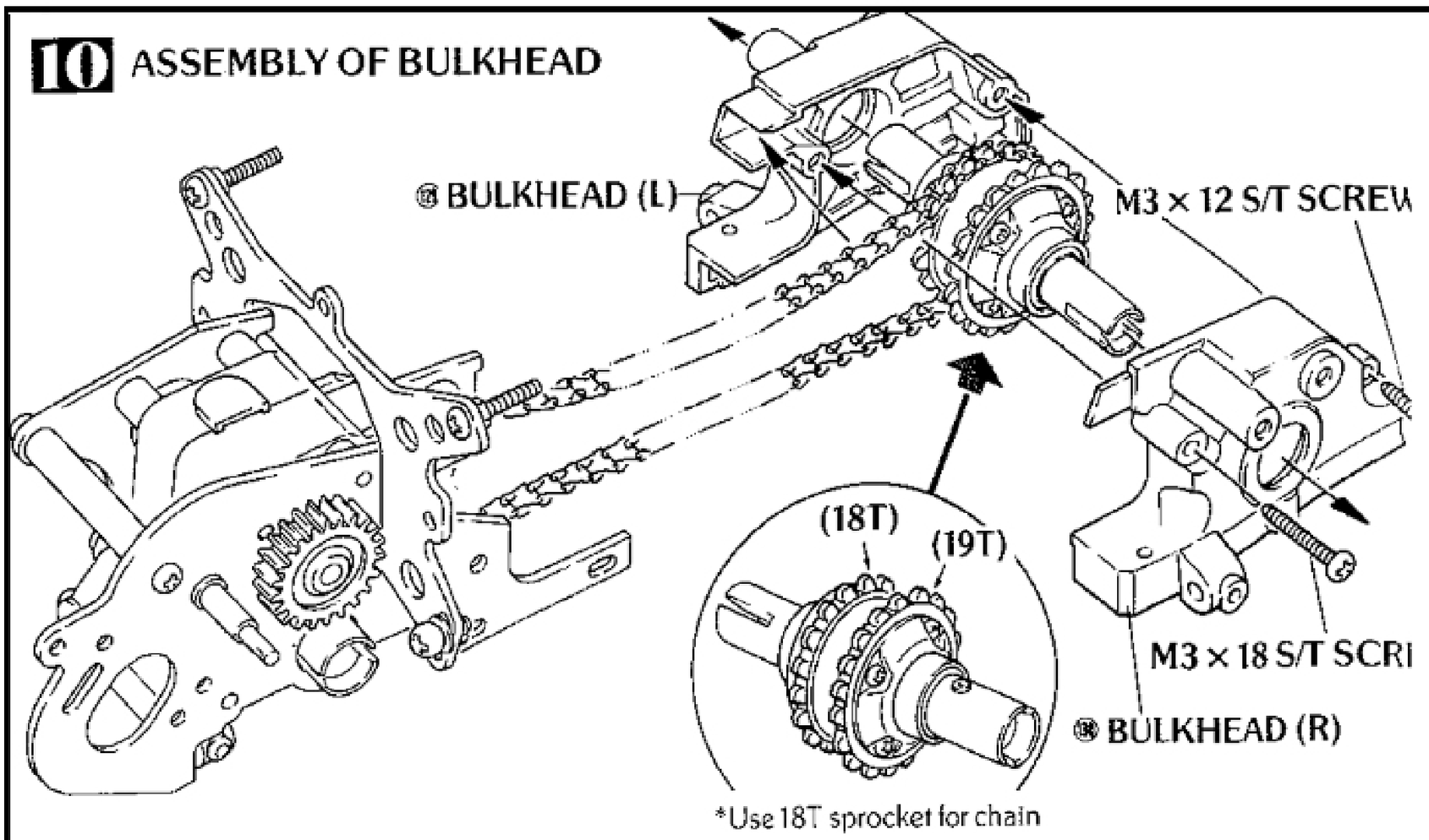
12 INSTALLATION OF REAR PLATE

M3 × 8 SCREW (4)

M3 × 8 S/T SCREW (2)

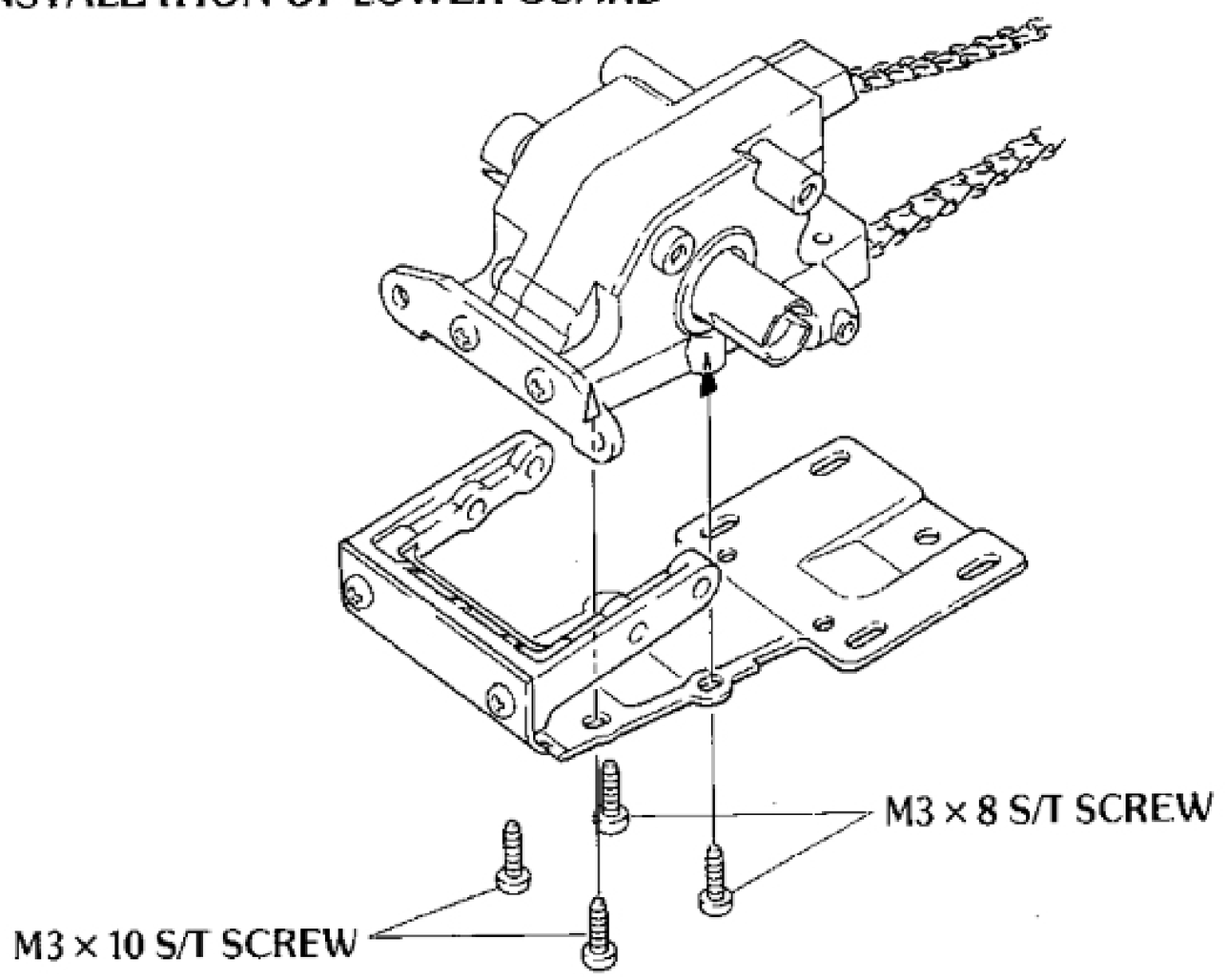


10 ASSEMBLY OF BULKHEAD



*Use 18T sprocket for chain

11 INSTALLATION OF LOWER GUARD



12 INSTALLATION OF REAR PLATE

13 INSTALLATION OF BULKHEAD

M2.6×6 SCREW (2)

14 INSTALLATION OF FRONT SIDE PLATES

M2.6×6 SCREW (4)

M2.6×12 SCREW (2)

M3×8 S/T SCREW (2)

M3×12 S/T SCREW (2)

M3×16 S/T SCREW (2)

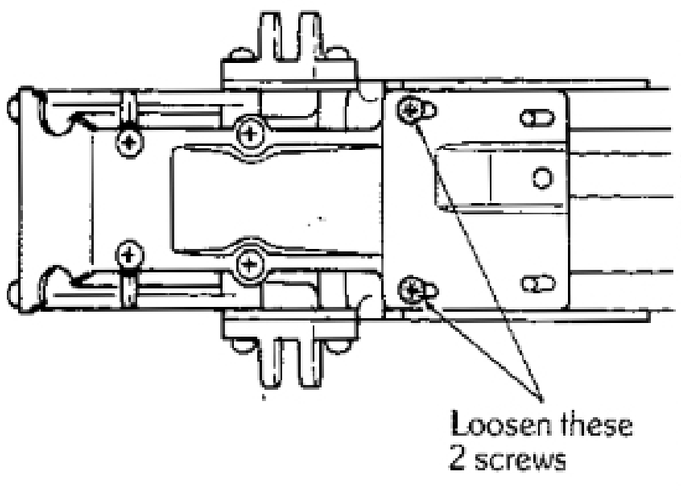
㉔ FRONT UPPER PIVOT (L) (1)

㉕ FRONT RADIO BOX POST (R) (1)

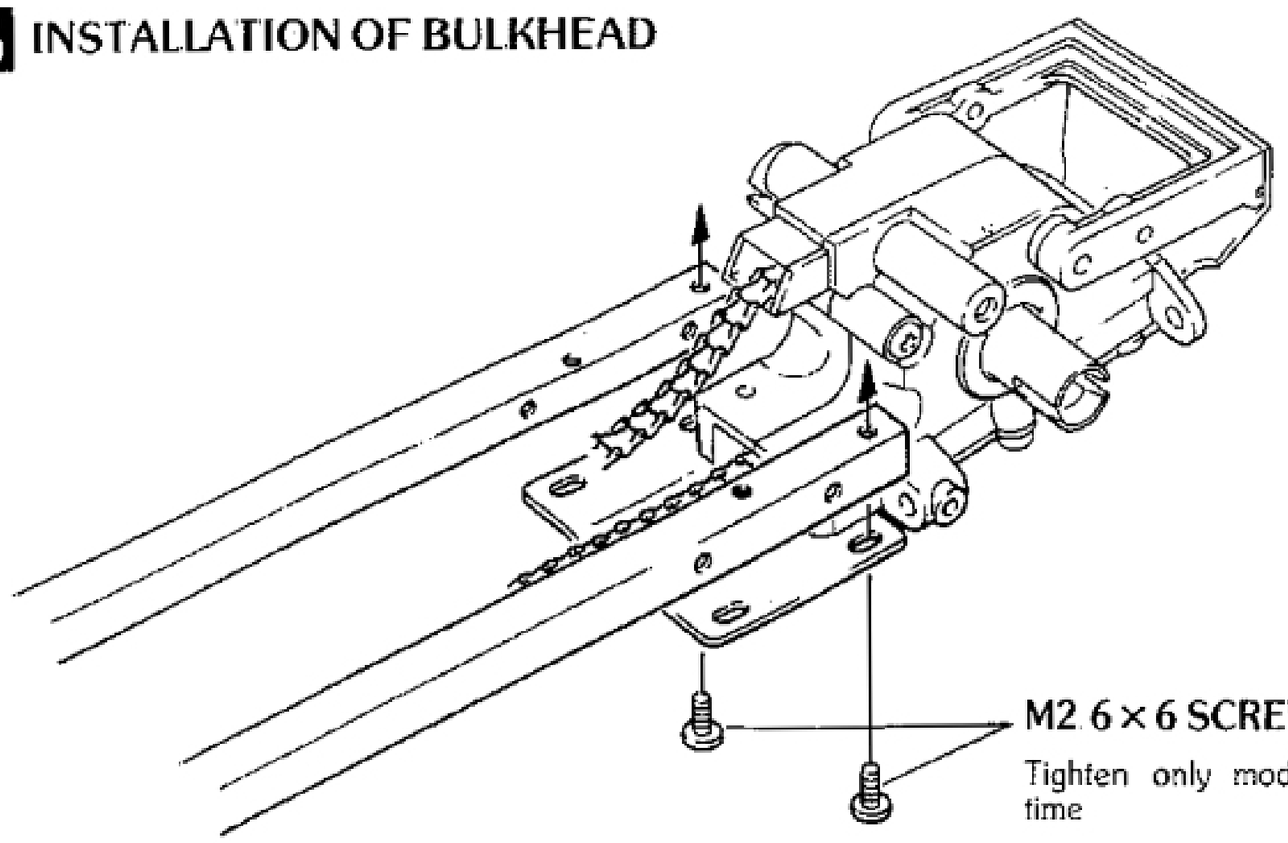
㉗ RADIO BOX POST (F) (2)

⑬ BODY SPACER (2)

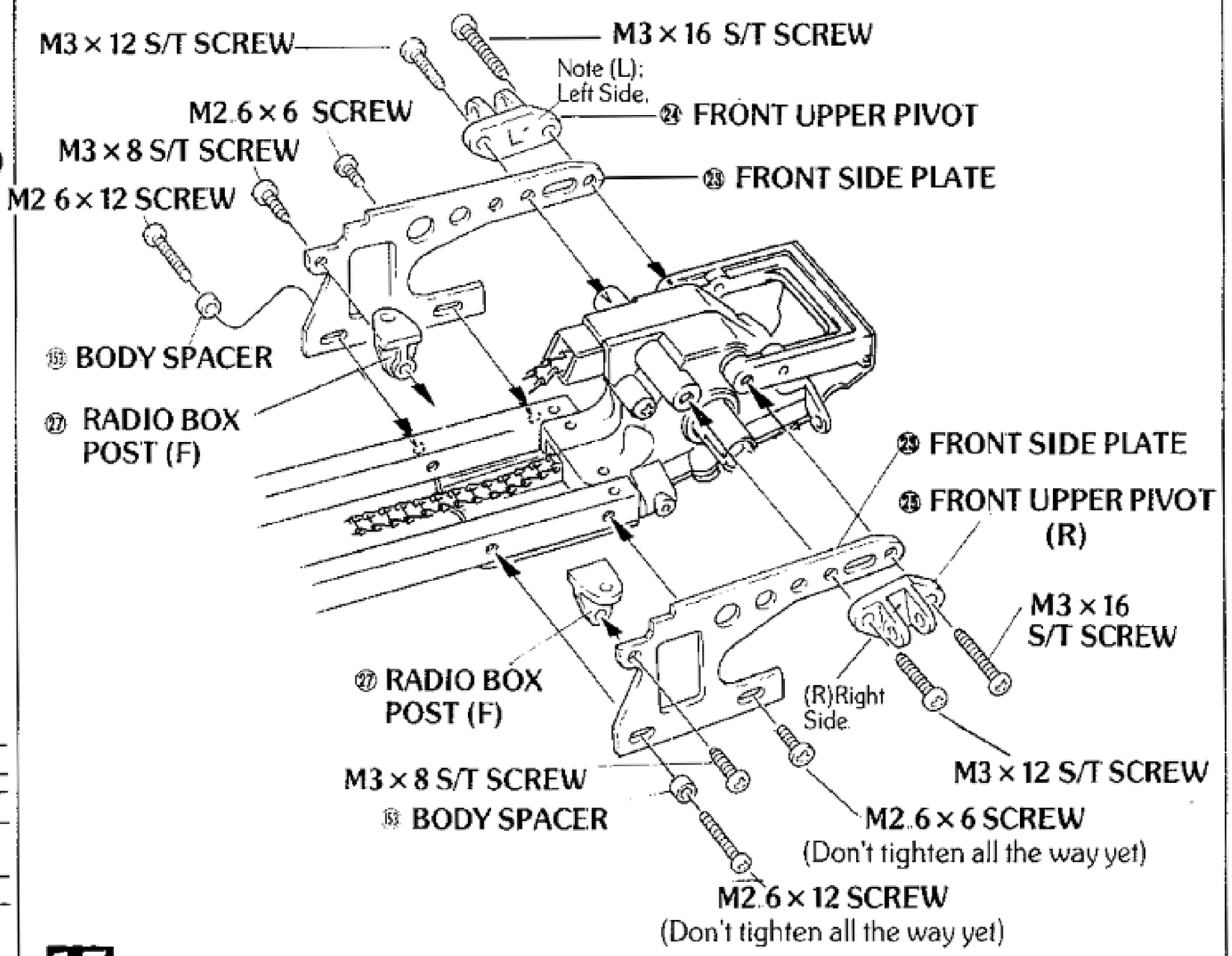
15 ADJUSTMENT OF CHAIN



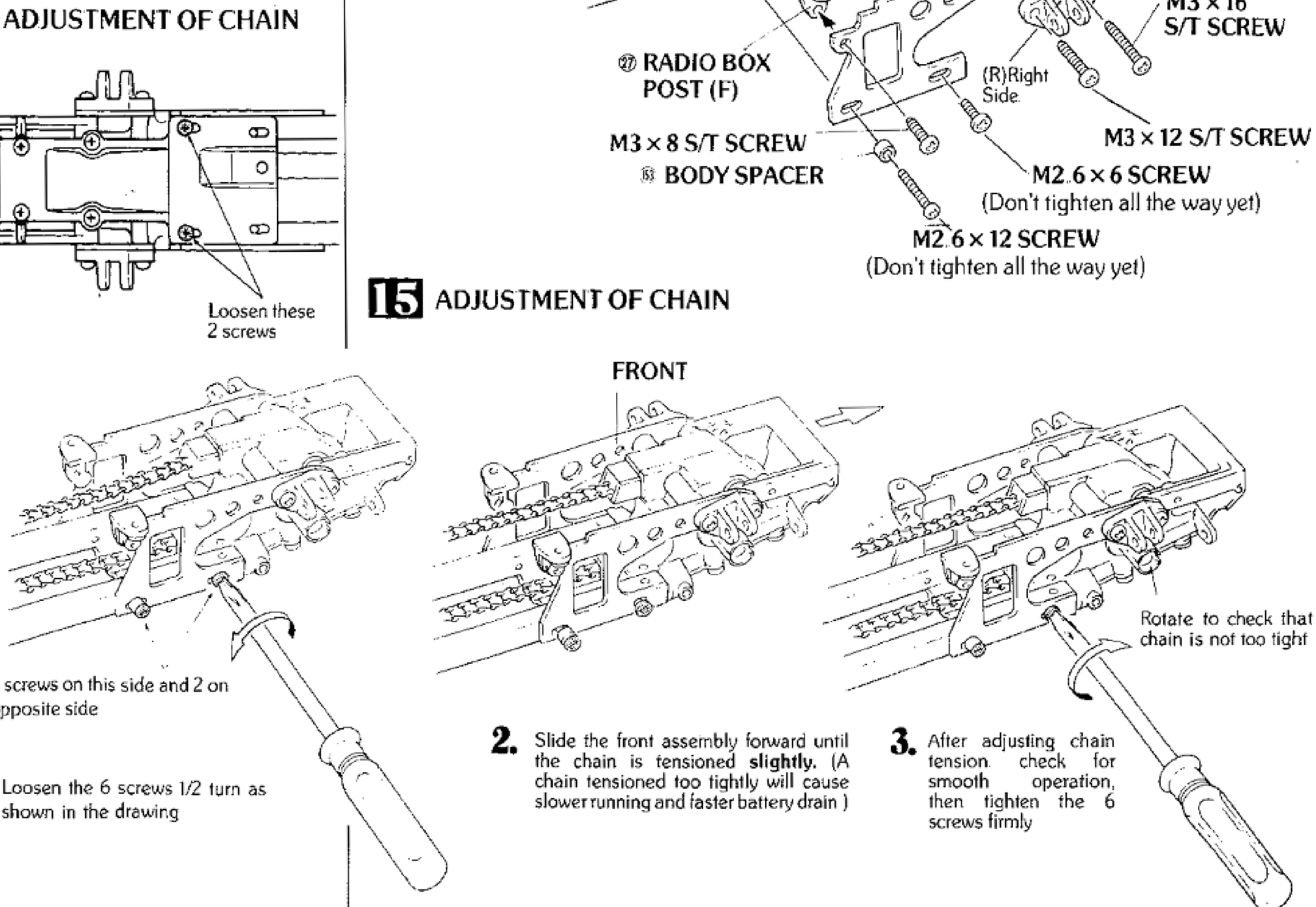
13 INSTALLATION OF BULKHEAD



14 INSTALLATION OF FRONT SIDE PLATES



15 ADJUSTMENT OF CHAIN



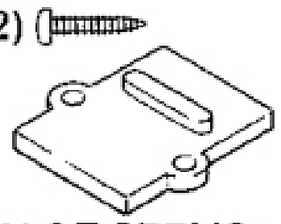
1. Loosen the 6 screws 1/2 turn as shown in the drawing

2. Slide the front assembly forward until the chain is tensioned **slightly.** (A chain tensioned too tightly will cause slower running and faster battery drain)

3. After adjusting chain tension check for smooth operation, then tighten the 6 screws firmly

16 INSTALLATION OF CHAIN GUIDE

M2 × 8 S/T SCREW (2)



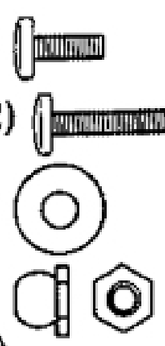
㉙ CHAIN GUIDE (1) (C)

17 INSTALLATION OF SERVO SAVER

M2.6 × 6 SCREW (1)

M2.6 × 15 SCREW (2)

M2 6 WASHER (2)

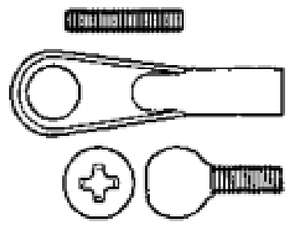


㉛ BALL NUT (3)

㉜ SAVER SHAFT (A) (1)

㉝ SAVER SHAFT (B) (1)

㊱ M2 SHAFT (1)



㊲ BALL END (2)

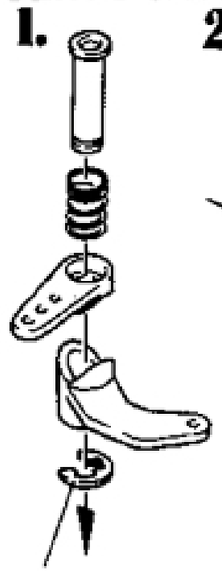
㉘ M2.6 PIVOT BALL (2)

㉞ SERVO SAVER SPACER (1)

ASSEMBLY OF SERVO SAVER

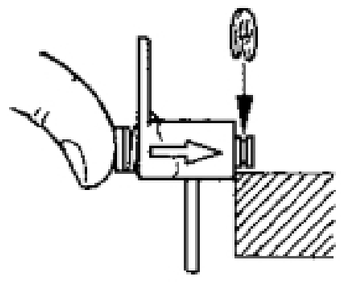
SERVO SAVER (A) 1 Set

1.

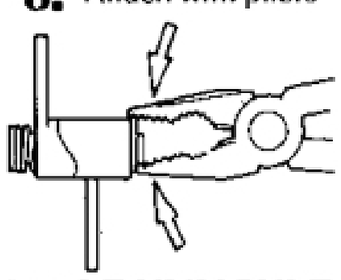


E-RING

2. Push E-Ring into groove



3. Attach with pliers



15 ASSEMBLY OF KNUCKLE ARM

M2.6 NUT (2)

M3 PIVOT BALL (4)

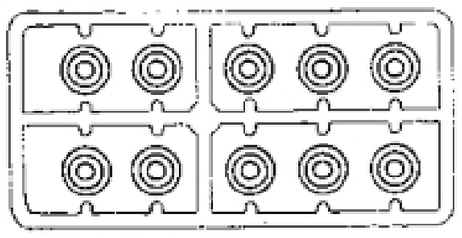
㊴ KING PIN (4)

㉘ M2.6 PIVOT BALL (2)

⑧ PLASTIC BUSHING (4)

NOTE! These bushings can be replaced with optional bearings. (See page 20 for details)

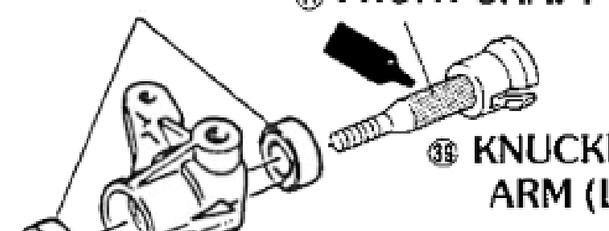
Cut plastic bushings from runner and trim off flashing with a knife



⑧ PLASTIC BUSHINGS

㊶ FRONT SHAFT

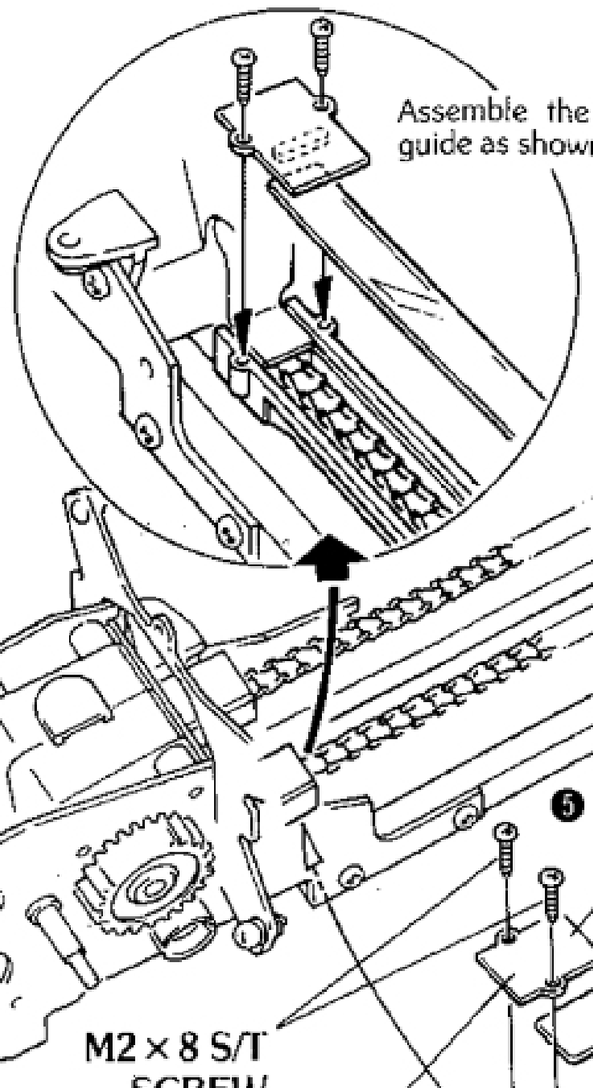
㊴ KNUCKLE ARM (L)



16 INSTALLATION OF CHAIN GUIDE

Assemble steps 1-5 in sequence

Assemble the rear portion of the chain guide as shown.



UPPER CHAIN

㊾ CHAIN COVER (A)

LOWER CHAIN

❹ Install the chain cover

❺ Affix chain guide (C)

⑳ CHAIN GUIDE (B)

❶ House the lower chain here

M2 × 8 S/T SCREW

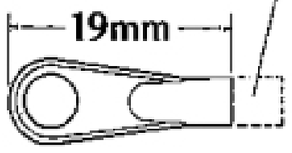
㉓ CHAIN GUIDE (C)

❸

Install this part to the outlet of the lower chain and insert it as shown in the illustration above

17 INSTALLATION OF SERVO SAVER

Remove this portion with knife



19mm

㉛ BALL NUT

㉟ SERVO SAVER (B)

M2.6 WASHER

㉘ M2.6 PIVOT BALL

㊲ BALLEND (5)

㊱ M2 SHAFT

㉜ SAVER SHAFT (A)

㉝ SAVER SHAFT (B)

Connect Ball Ends firmly

㉞ SERVO SAVER (A)

㉟ SERVO SAVER (B)

㉞ SERVO SAVER (A)

㉛ BALL NUT

M2.6 WASHER

㉘ M2.6 PIVOT BALL

M2.6 × 6 SCREW

㉞ SAVER SPACER

M2.6 × 15 SCREWS

18 ASSEMBLY OF KNUCKLE ARM

㊳ KING PIN

㉖ M3 PIVOT BALL (Silver Color)

㉘ M2.6 PIVOT BALL (Black Color)

㊵ KNUCKLE ARM (R)

M2.6 NUT

*Before installing the knuckle arm onto chassis be certain to confirm which is (L) and (R)

㊴ KNUCKLE ARM (L)

Leave a gap of 1mm

㊳ KING PIN

㊸ FRONT HUB

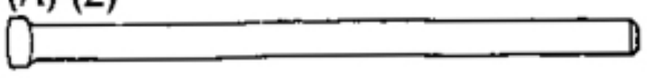
㊷ FRONT HUB (L)

19 INSTALLATION OF FRONT SUSPENSION ARM

M3 × 4 SET SCREW (2)

㊹ E RING (E-2.5) (2)

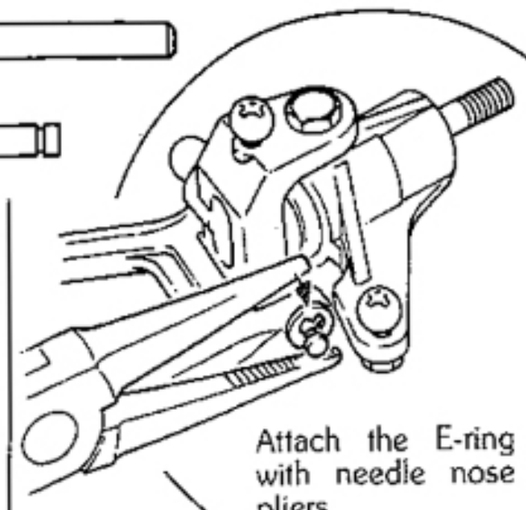
㊺ SUSPENSION SHAFT (A) (2)



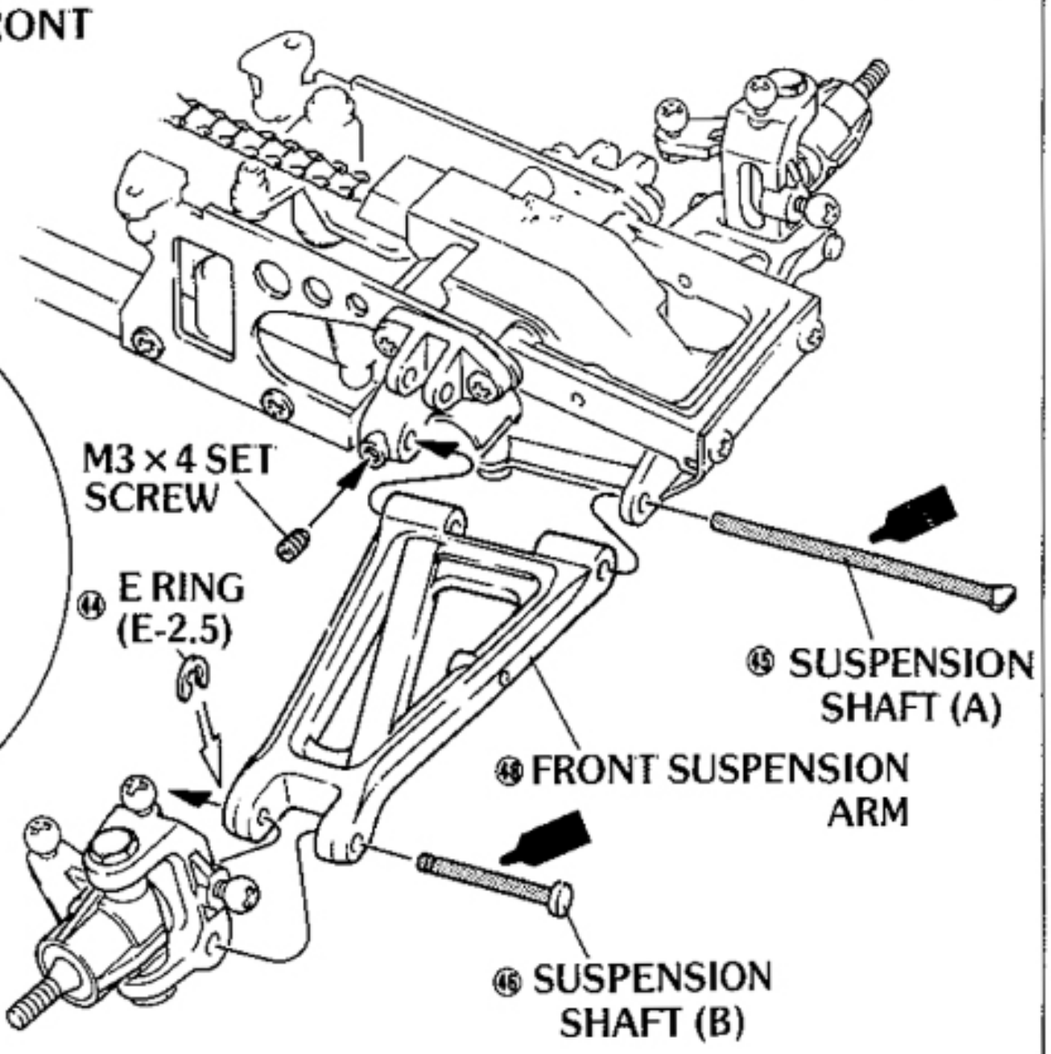
㊻ SUSPENSION SHAFT (B) (2)

19 INSTALLATION OF FRONT SUSPENSION ARM

NOTE! Do not over tighten set screws



Attach the E-ring with needle nose pliers.



20 INSTALLATION OF FRONT UPPER ROD

M3 × 15 SCREW (4)

M3 NUT (2)

M3 NYLON NUT (2)

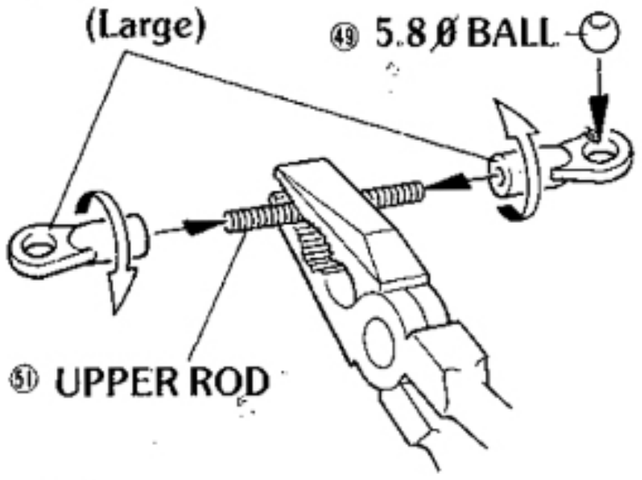
㊾ 5.8ø BALL (2)

㊿ BALL END (4)

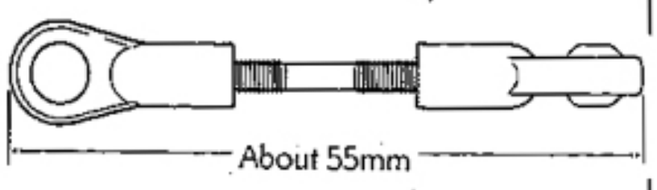
(51) UPPER ROD (2)

㊿ BALL END (Large)

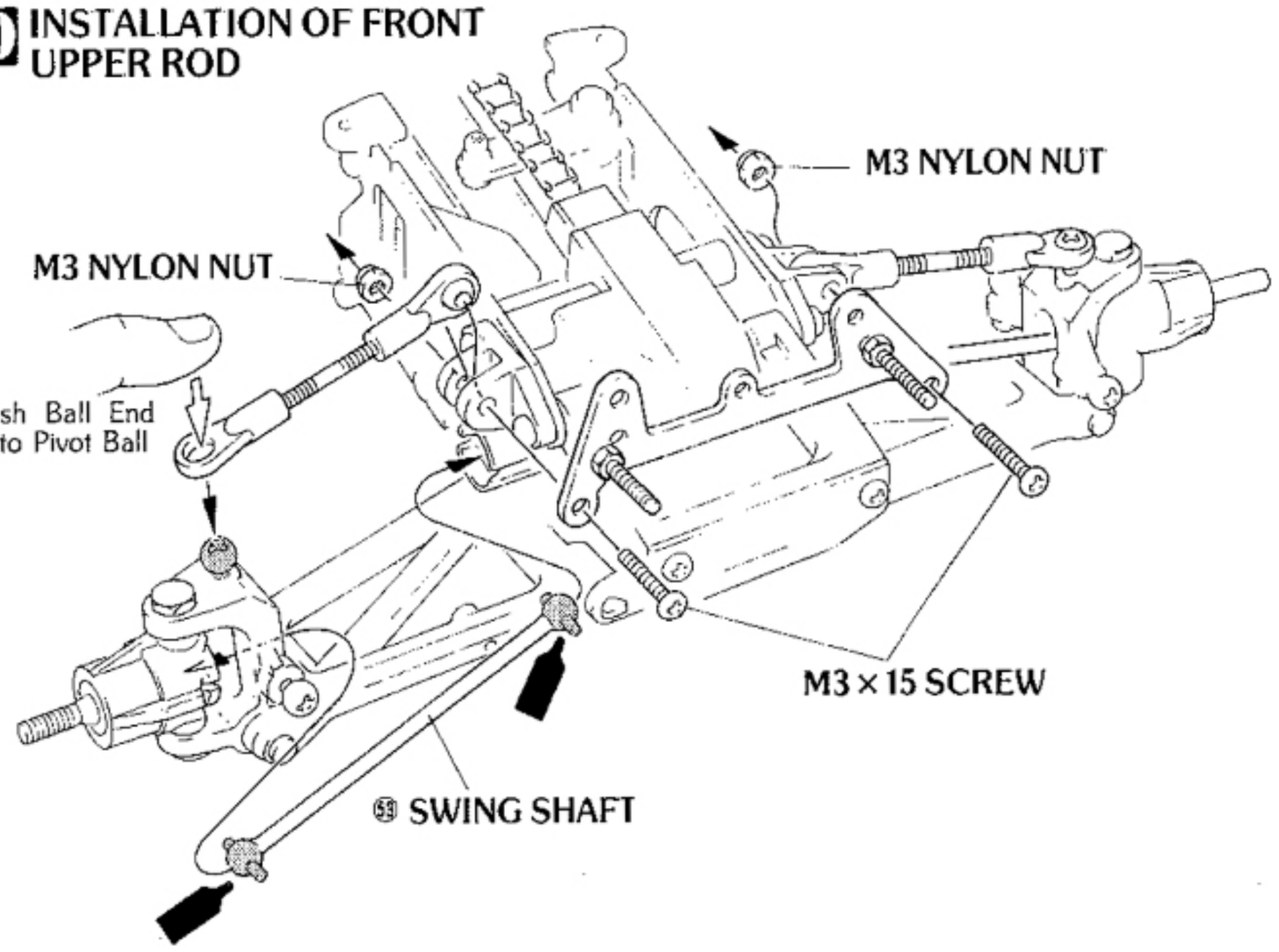
㊾ 5.8ø BALL



(51) UPPER ROD

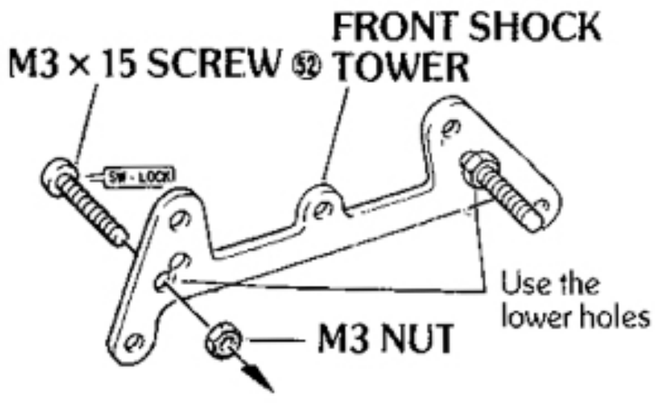


20 INSTALLATION OF FRONT UPPER ROD



21 INSTALLATION OF FRONT SHOCKS

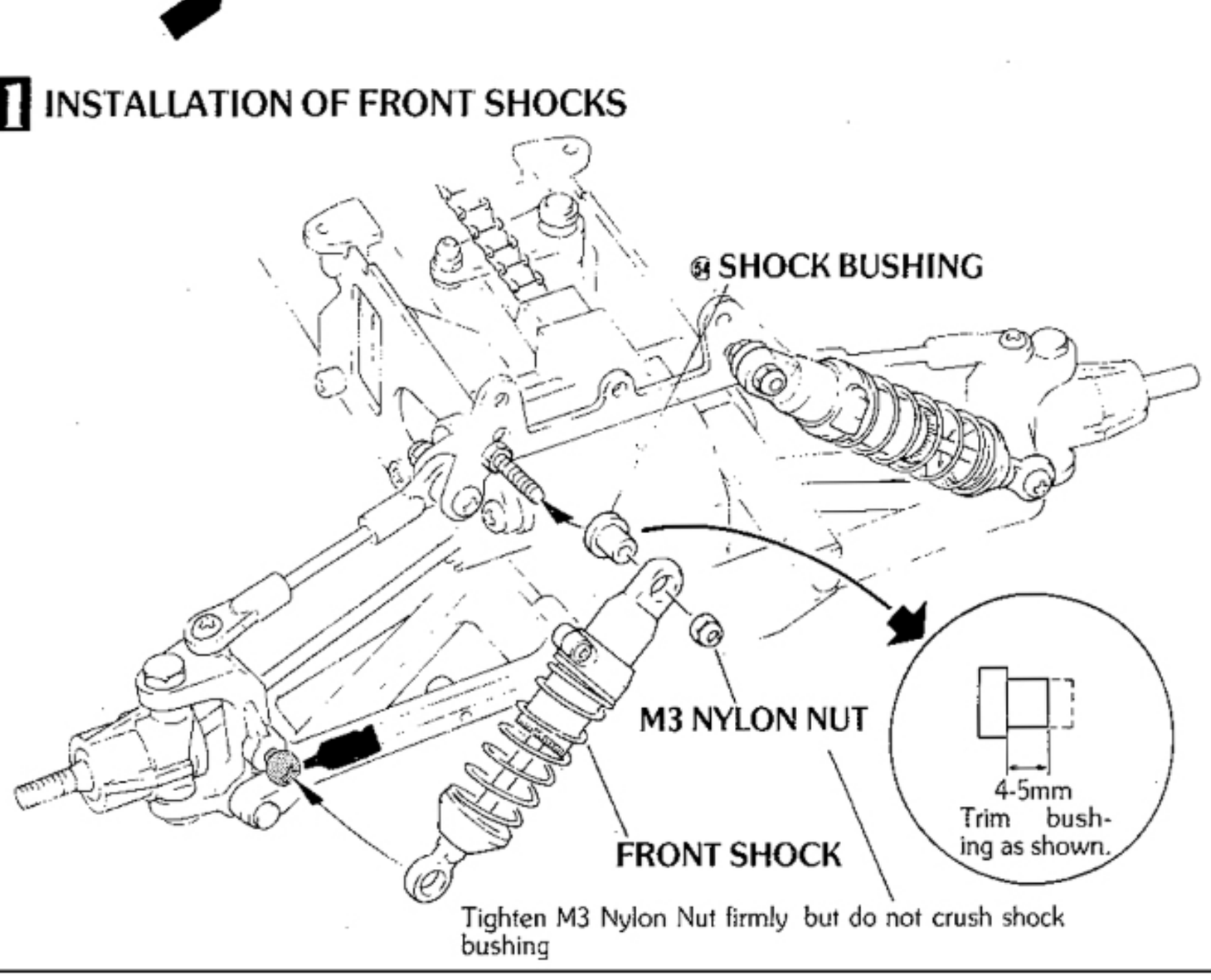
Attach M3 × 15 screws to the front shock stay



21 INSTALLATION OF FRONT SHOCKS

M3 NYLON NUT (2)

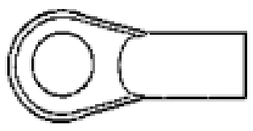
(54) SHOCK BUSHING (Black Rubber) (2)



Tighten M3 Nylon Nut firmly but do not crush shock bushing

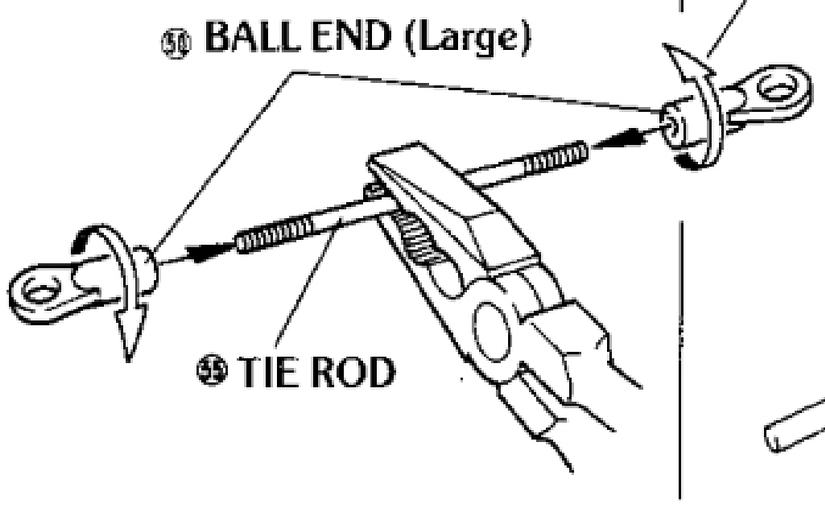
22 ASSEMBLY OF TIE RODS

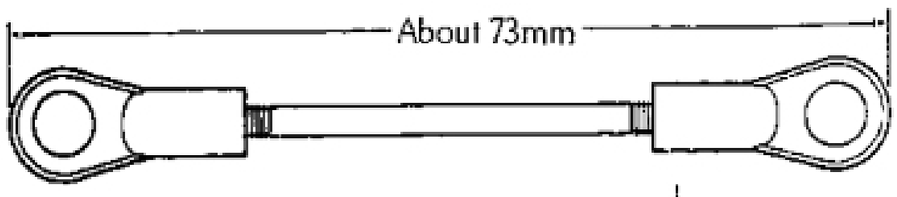
⑩ BALL END (Large) (4)



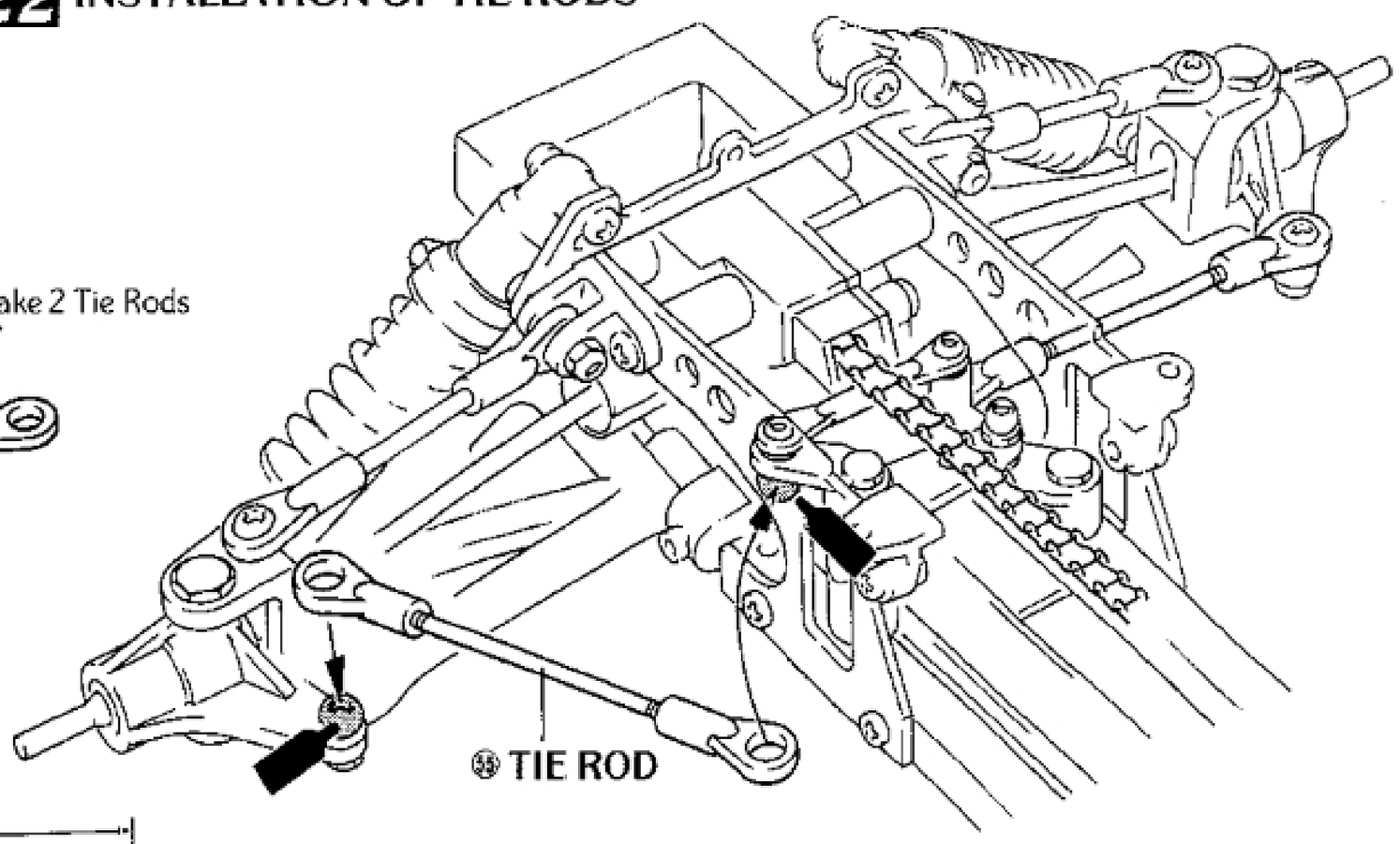
⑯ TIE ROD (2)

Make 2 Tie Rods





22 INSTALLATION OF TIE RODS



23 INSTALLATION OF REAR HUB

⑧ PLASTIC BUSHINGS (4)

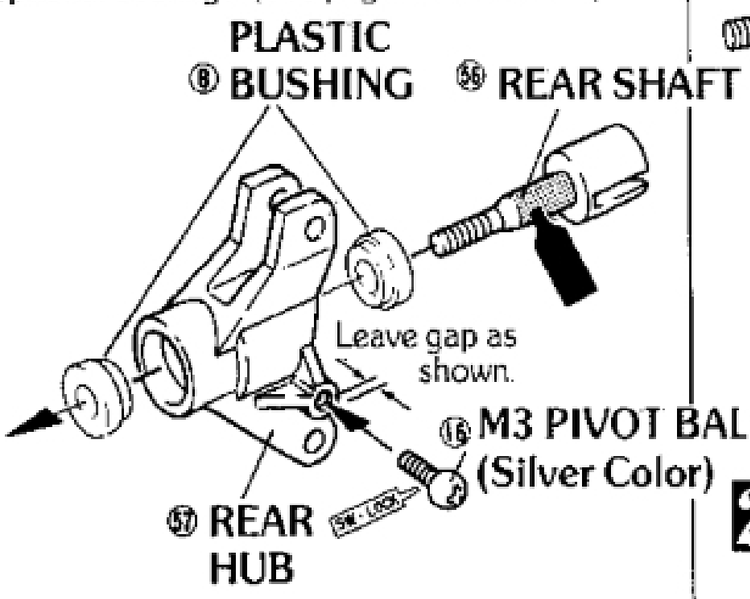
⑲ M3 PIVOT BALL (Silver Color) (2)

㊹ E RING (E-2.5) (2)

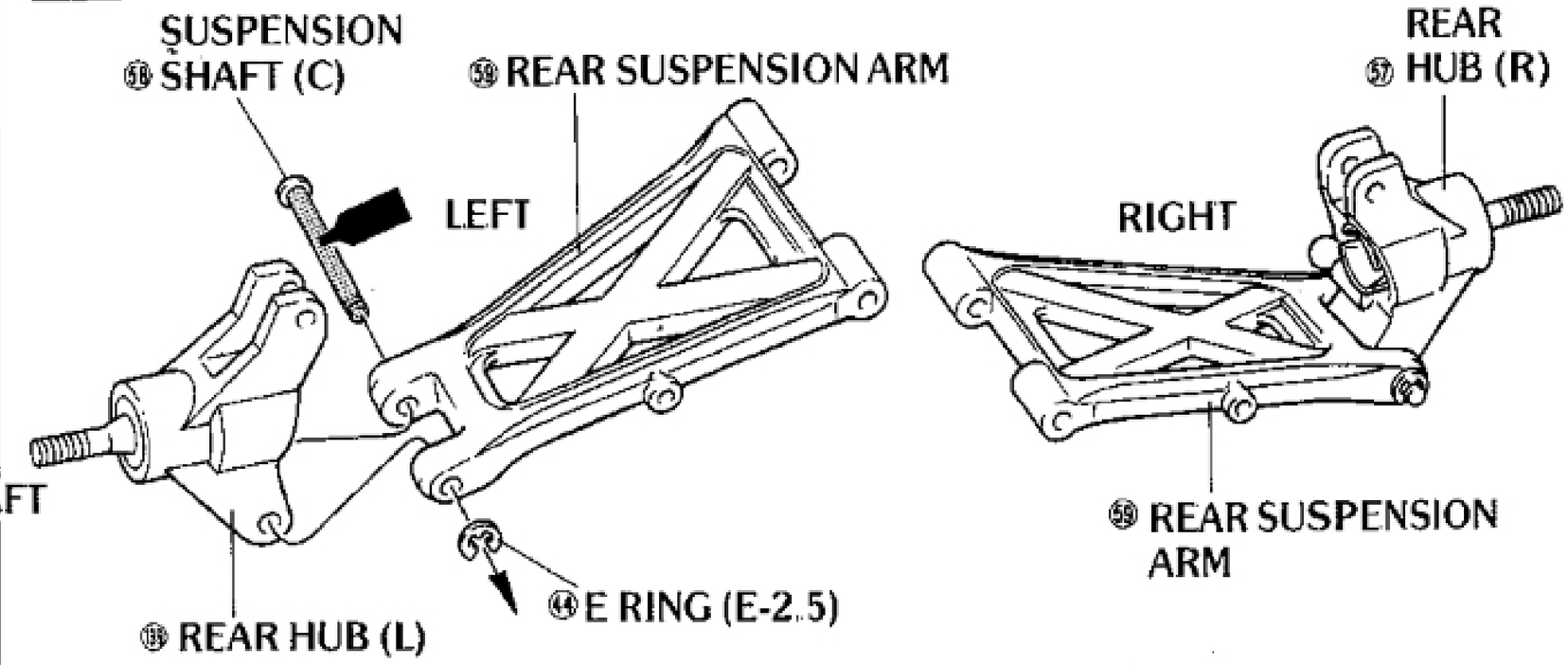
㊾ SUSPENSION SHAFT (C)

(Long, Black Color) (2)

NOTE! These bushings can be replaced with optional bearings (See page 20 for details)



23 INSTALLATION OF REAR HUB



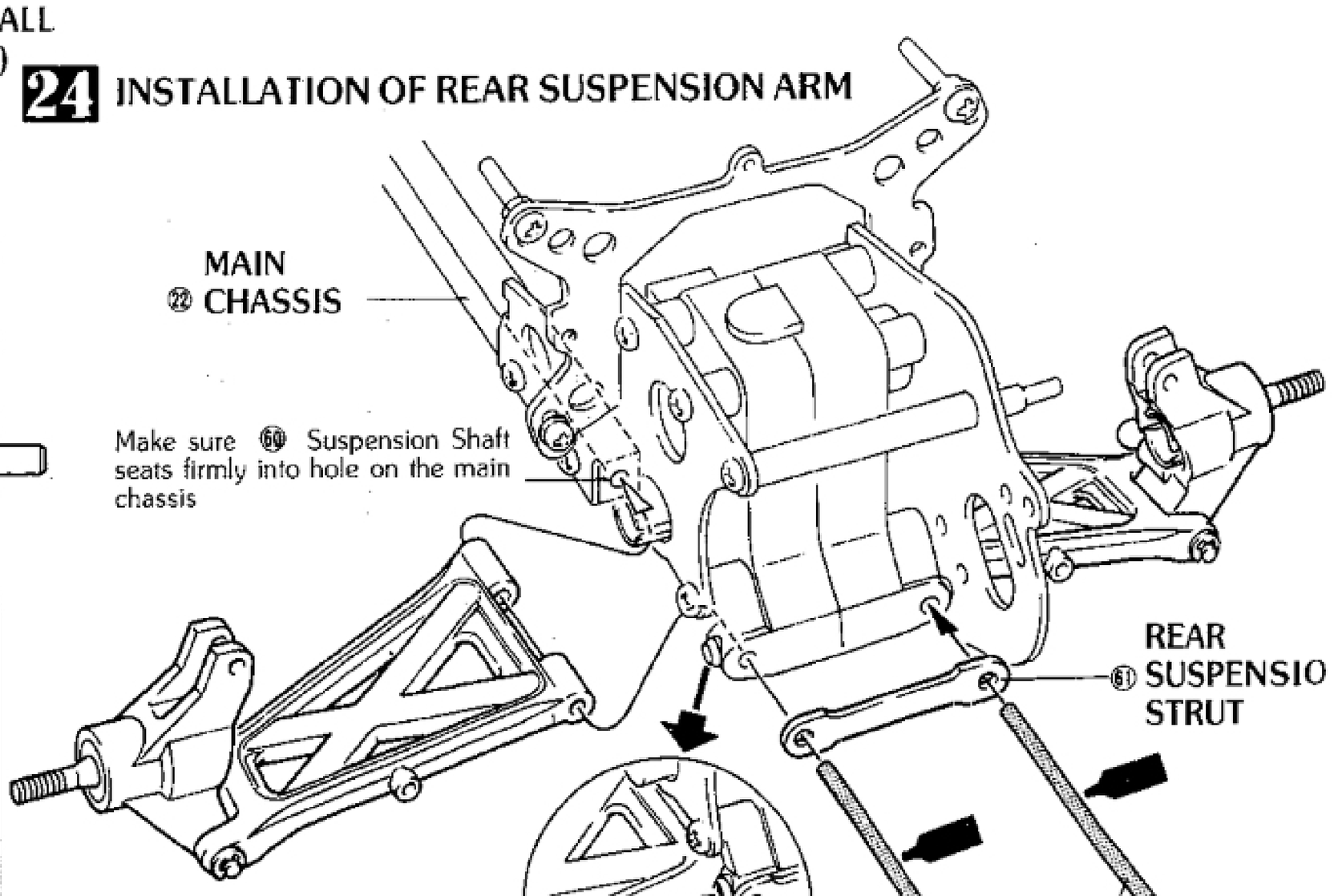
NOTE: Be sure to assemble both right and left sides

24 INSTALLATION OF REAR SUSPENSION ARM

M3 × 8 SCREW (2)

M3 × 4 SET SCREW (2)

㊾ SUSPENSION SHAFT (Long) (2)



25 INSTALLATION OF REAR UPPER ROD

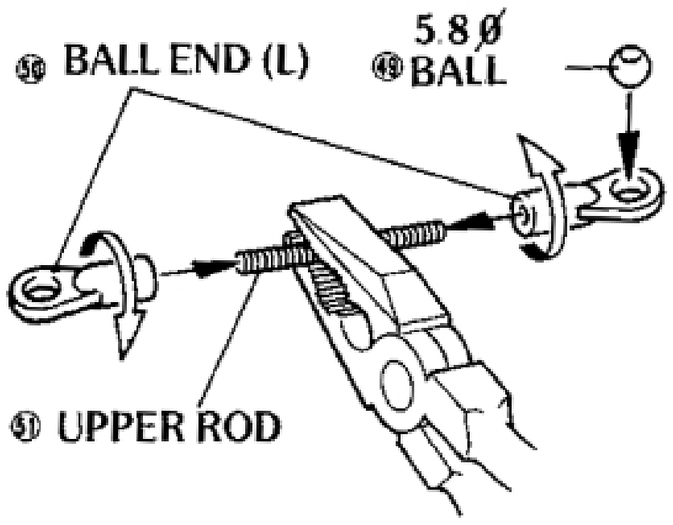
M3 × 10 SCREW (2)

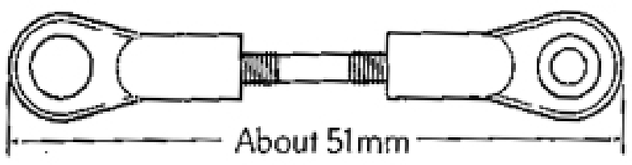
49 5.8ø BALL (2)

50 BALL END (Large) (4)

51 UPPER ROD (2)

Make two Upper Rods





26 INSTALLATION OF REAR SHOCKS

M3 NUT (Nylon Threads) (2)

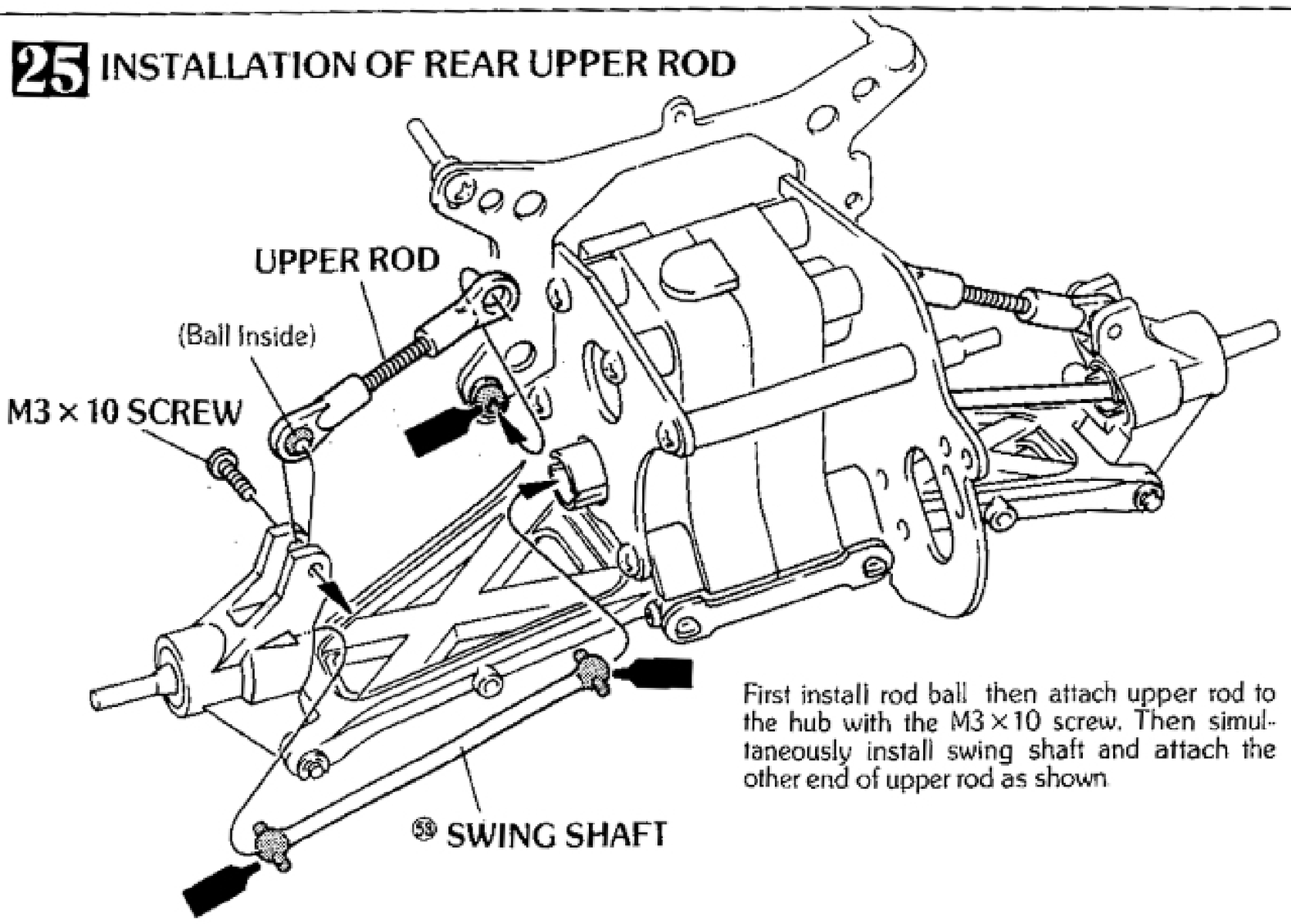
54 SHOCK BUSHING (2)

27 INSTALLATION OF CENTER GEAR

4ø WASHER (2)

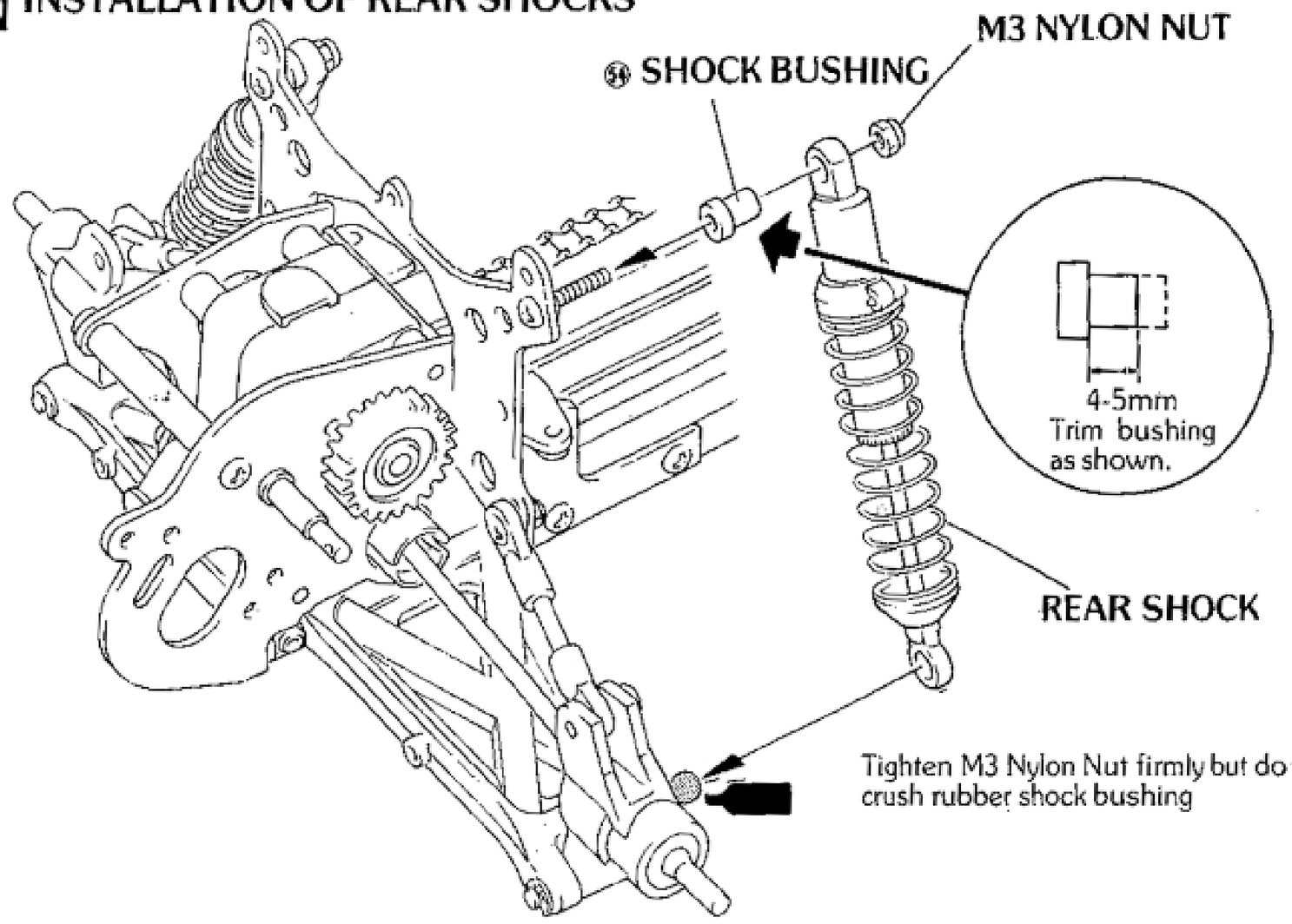
63 CENTER GEAR BUSHING (1)

25 INSTALLATION OF REAR UPPER ROD



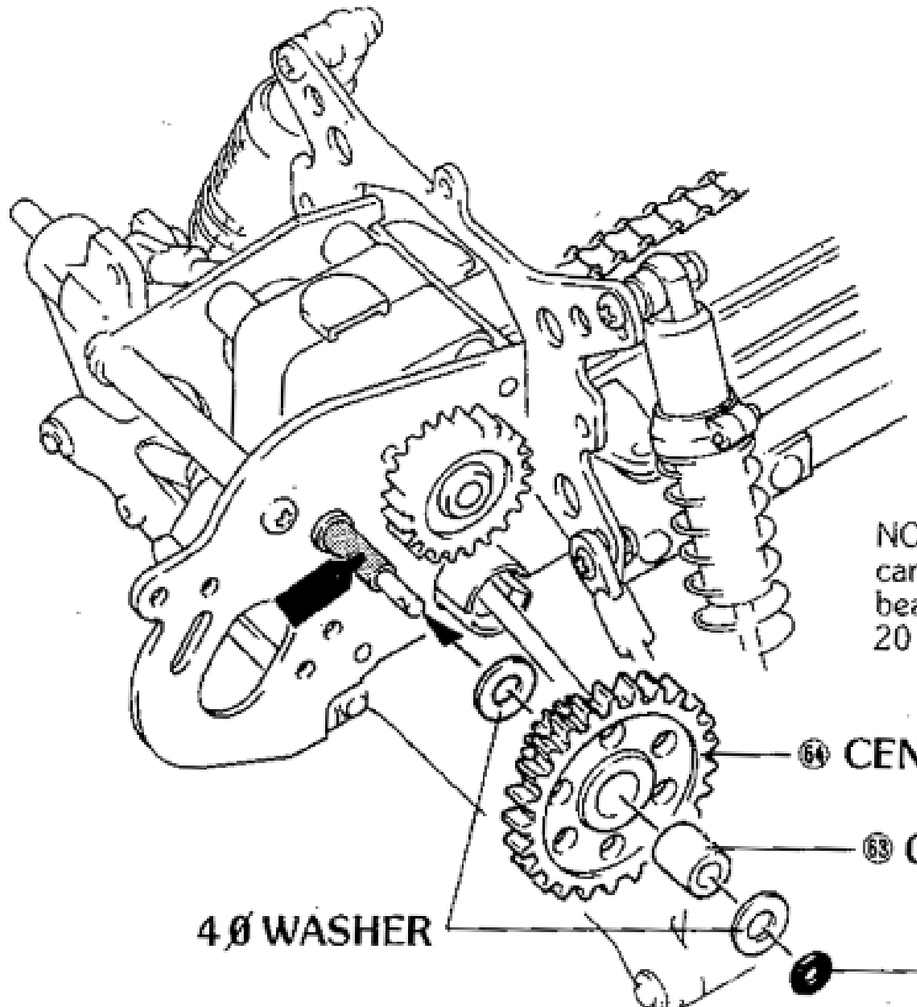
First install rod ball then attach upper rod to the hub with the M3×10 screw. Then simultaneously install swing shaft and attach the other end of upper rod as shown.

26 INSTALLATION OF REAR SHOCKS



Tighten M3 Nylon Nut firmly but do not crush rubber shock bushing

27 INSTALLATION OF CENTER GEAR

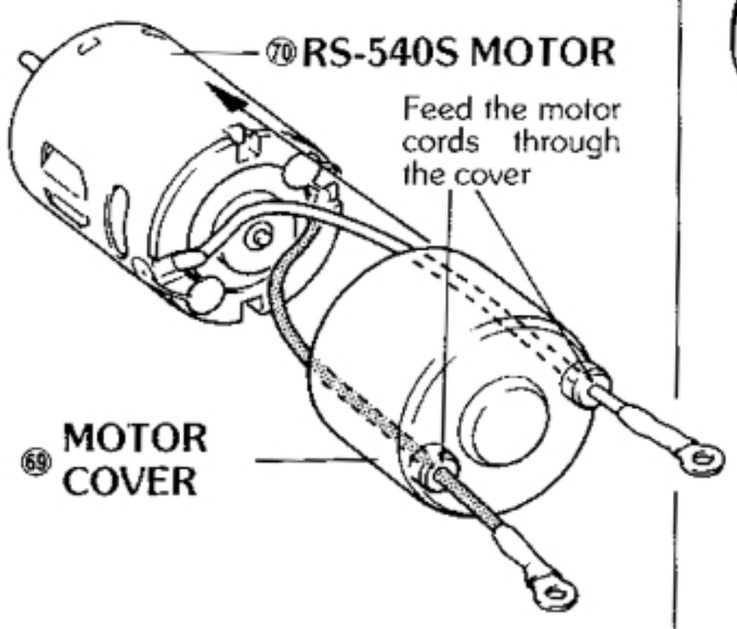


NOTE! The center gear bushing can be replaced with optional bearings and spacer (see page 20 for details)

28 INSTALLATION OF MOTOR

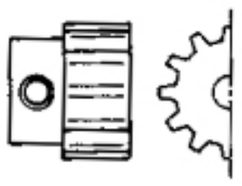
M3 × 3 SET SCREW (1)

M3 × 8 SCREW (2)

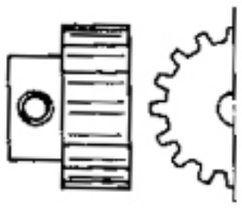


The kit includes 2 sizes of pinion gears: 12 tooth and 15 tooth. Use low gear (12 tooth) until you gain experience. High gear (15 tooth) will give greater speed

⑥⑦ PINION GEAR (Smaller)



⑥⑧ PINION GEAR (Larger)

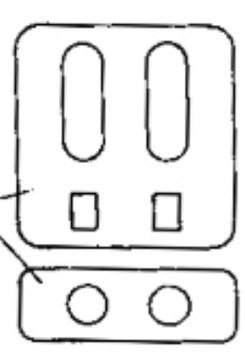


29 INSTALLATION OF GEAR COVER

⑥⑥ HOOK PIN (1)

30 INSTALLATION OF SPEED CONTROL SERVO

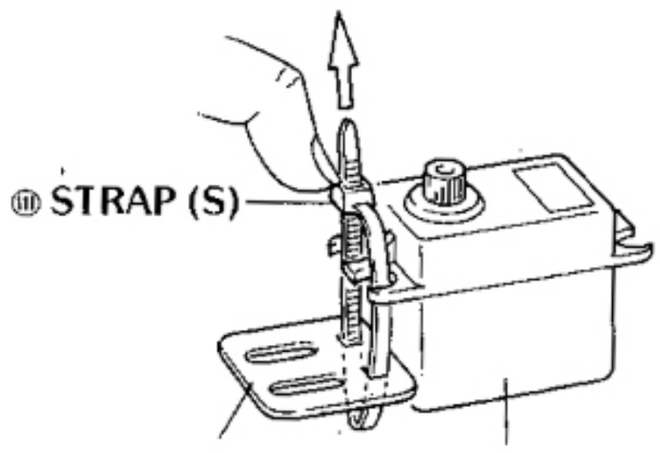
M3 × 6 S/T SCREW (6)



⑧⑧ SERVO SPACER (A) (1)

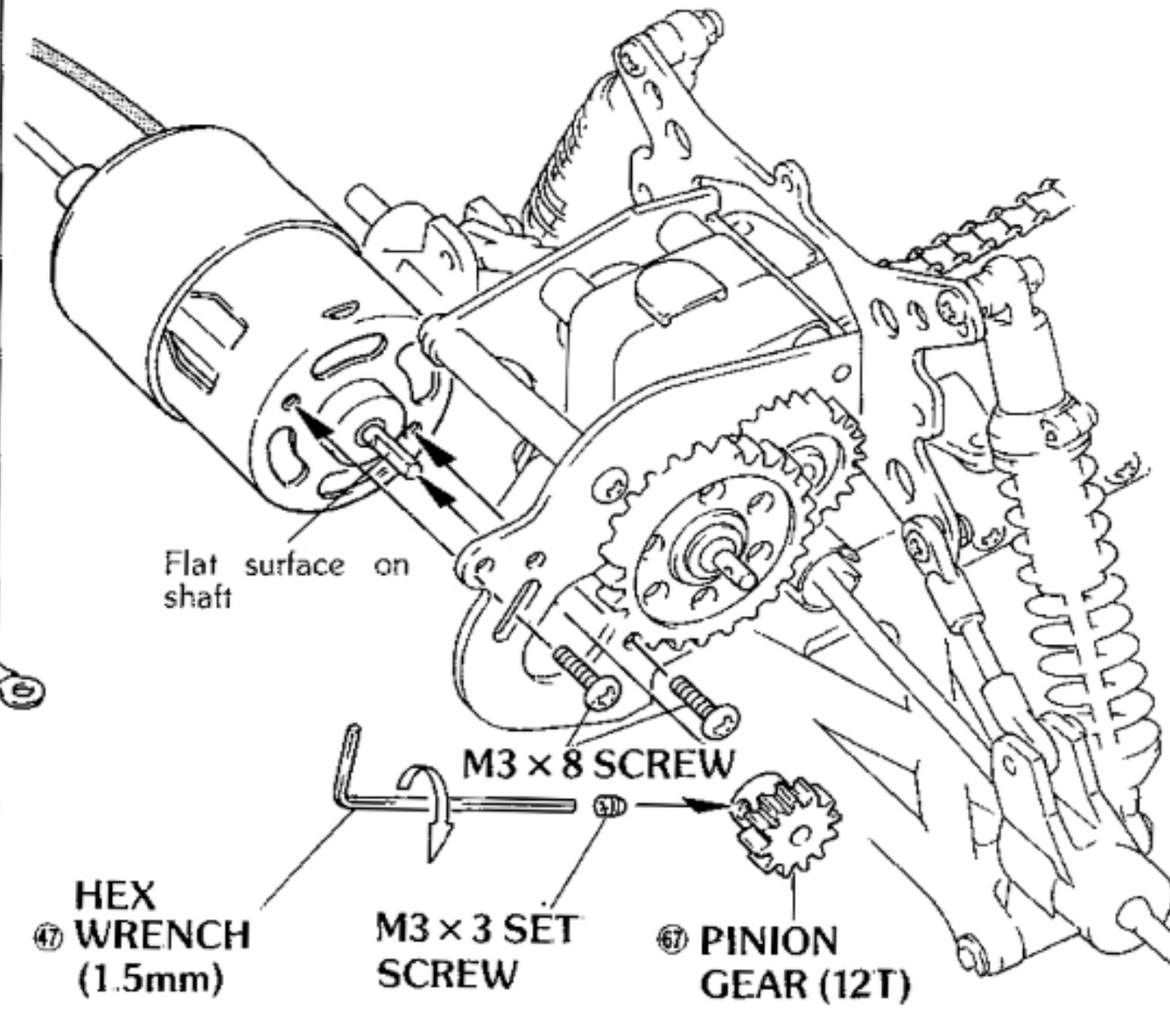
Not needed for mid-size servos

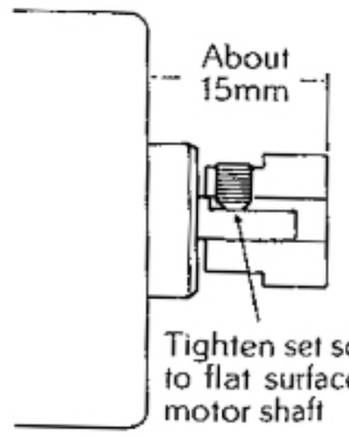
⑧⑨ SERVO SPACER (B) (1)

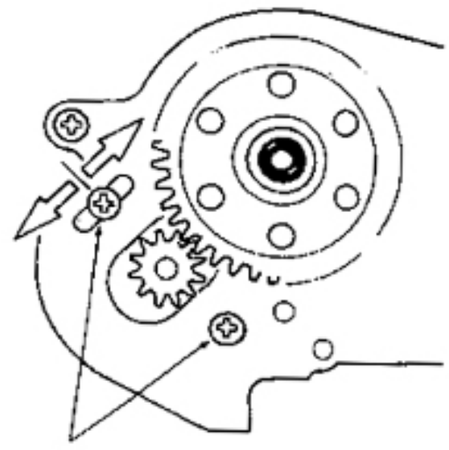


88 Servo Spacer A

28 INSTALLATION OF MOTOR

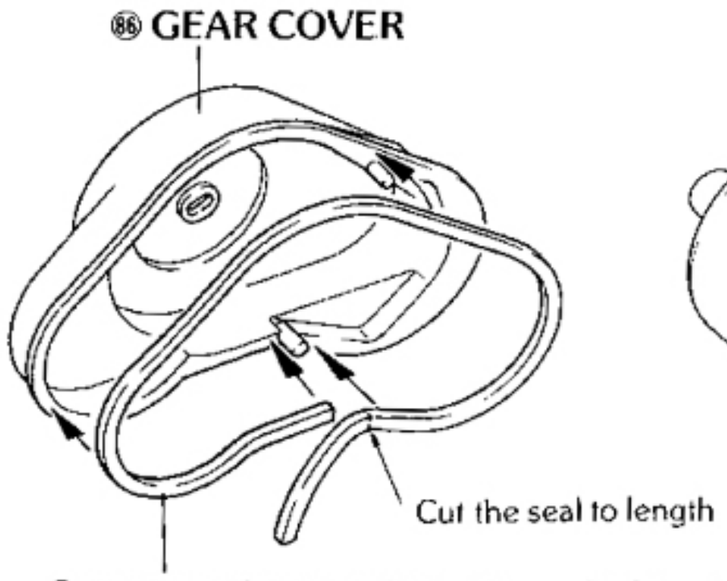




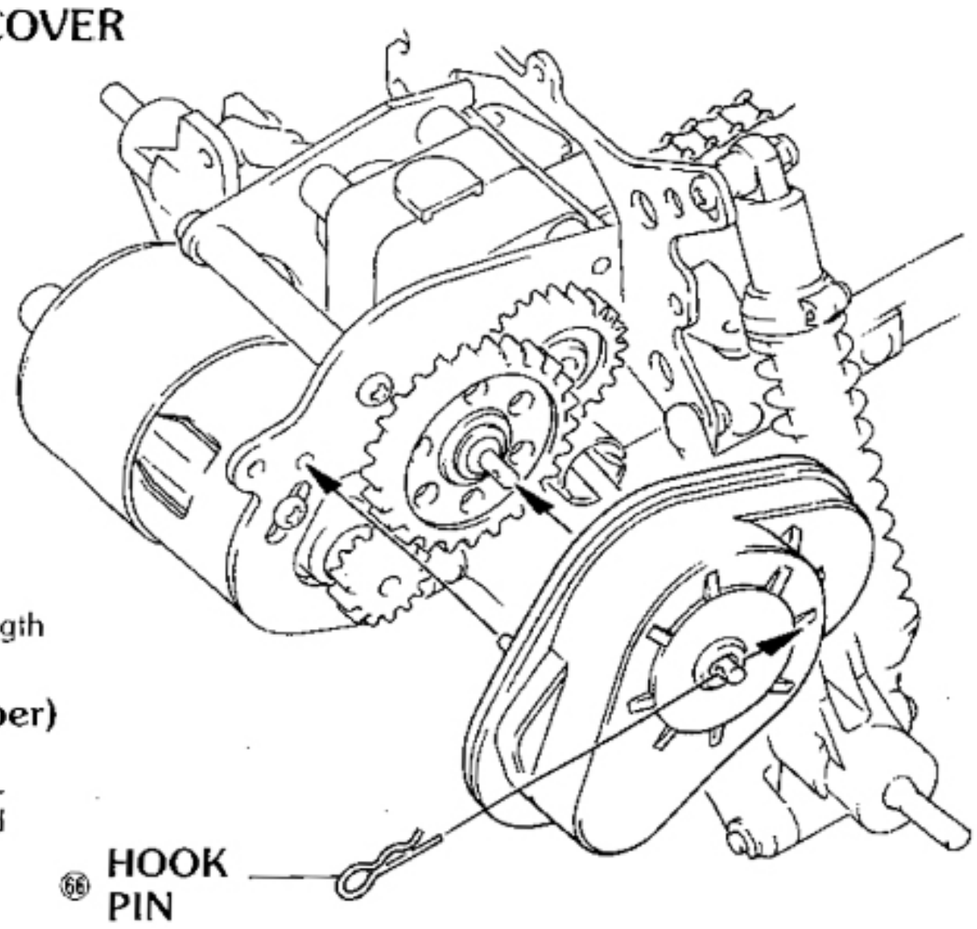


Adjust gear lash by loosening screws and sliding motor back and forth

29 INSTALLATION OF GEAR COVER

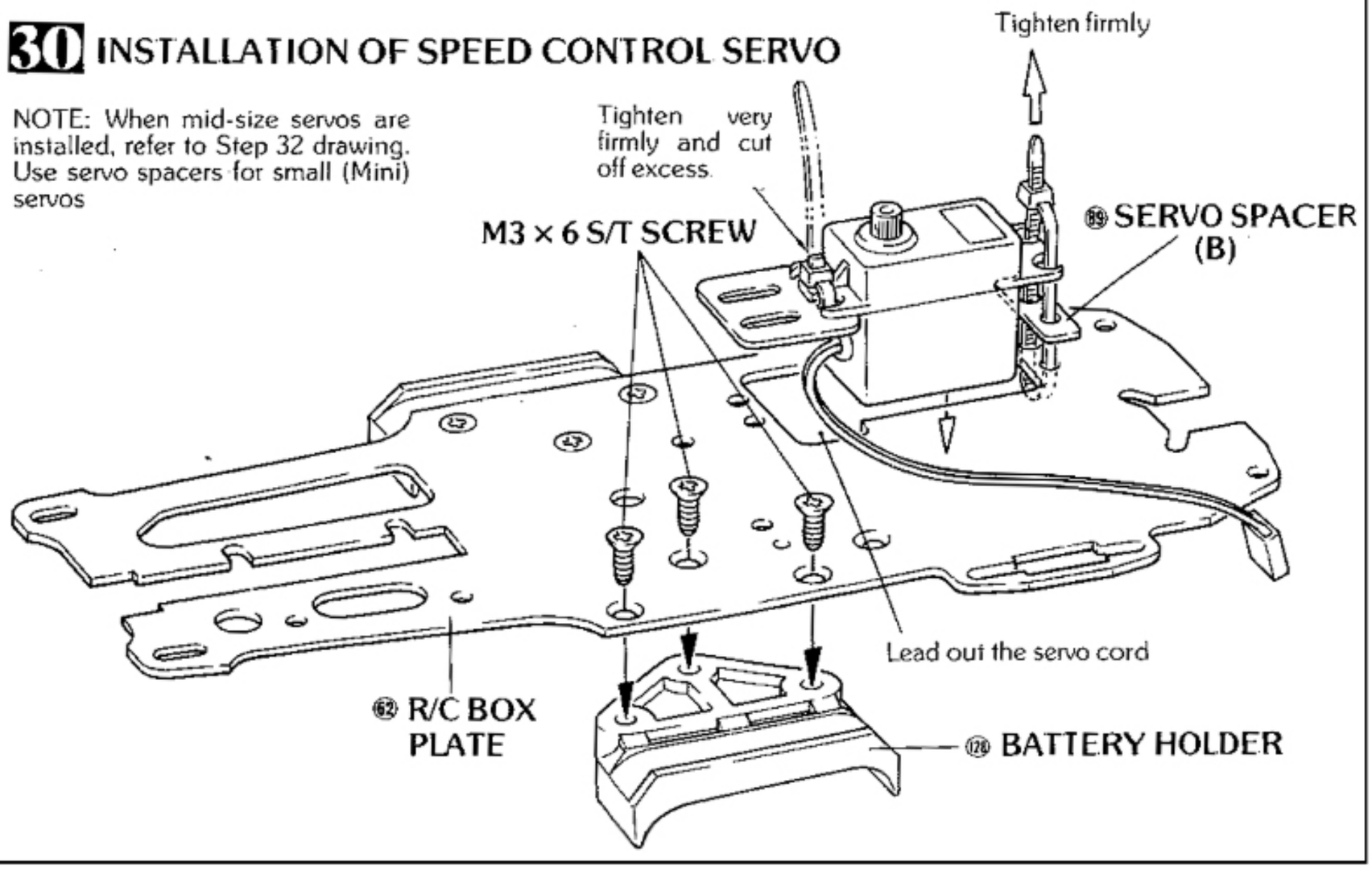


Attach seal to cover with cyanoacrylate adhesive – use only enough adhesive to hold seal



30 INSTALLATION OF SPEED CONTROL SERVO

NOTE: When mid-size servos are installed, refer to Step 32 drawing. Use servo spacers for small (Mini) servos



31 INSTALLATION OF CHAIN GUIDE

M2 × 8 S/T SCREW (2)

CHAIN GUIDE (D) (Plastic) (1)

32 MOUNTING RADIO PLATE

M2 × 8 S/T SCREW (2)

M2.6 × 8 S/T SCREW (4)

M3 × 6 FLAT HEAD S/T SCREW (1)

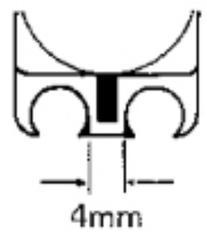
M3 × 8 S/T SCREW (2)

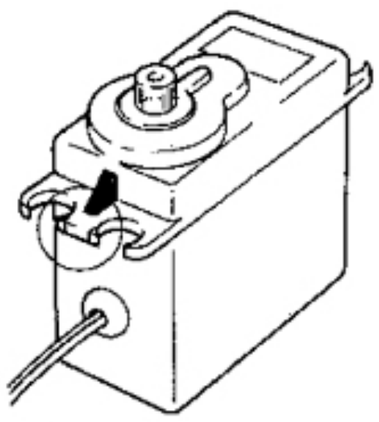
M3 × 10 S/T SCREW (2)

RADIO POST SCREW (2)

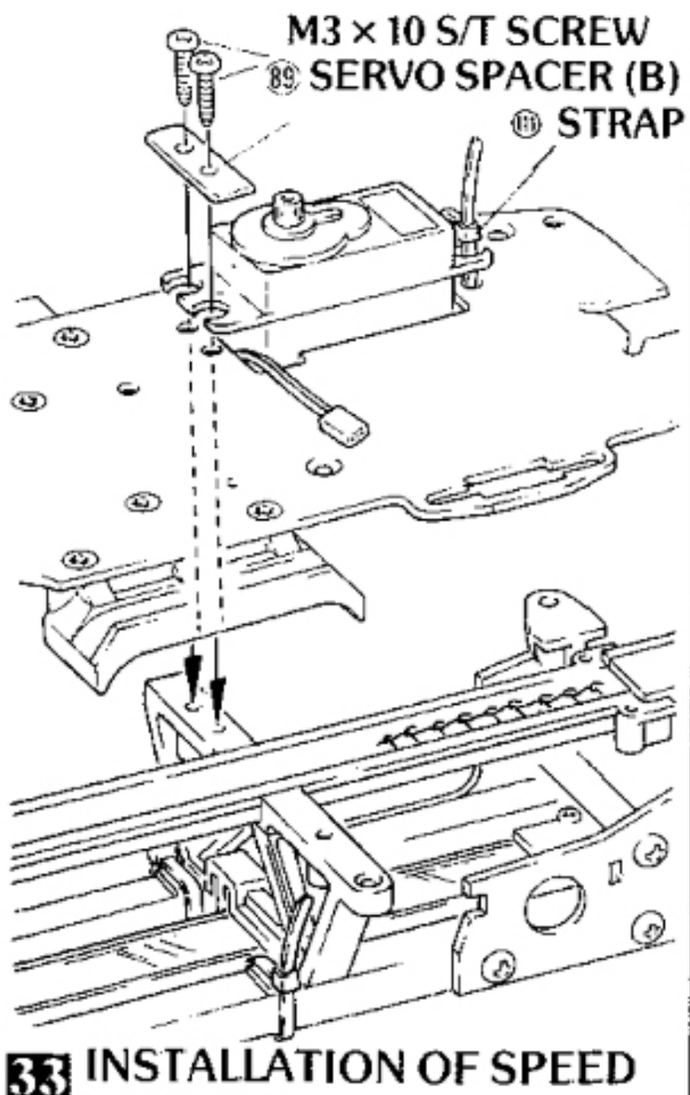
SERVO INSTALLATION

When using some types of servos you may have to trim part of the mounting ears as shown





(2) Mount servo as shown



33 INSTALLATION OF SPEED CONTROL

M2.6 × 6 SCREW (1)

M3 NUT (Gold Color) (2)

BALL NUT (1)

SPEED CONTROL NUT (1)

SPEED CONTROL CONTACT POINT (2)

SPEED CONTROL PIVOT (1)

31 INSTALLATION OF CHAIN GUIDE

Bend the chain guide (A) as shown and install front end first

M2 × 8 S/T SCREW

CHAIN GUIDE (D)

CHAIN GUIDE (A)

TAB

Note Tab

Bind with STRAP (Small)

NOTE: To protect chain from contamination by dirt and dust, caulk between chain guide and cover with silicone caulk or similar sealant

32 MOUNTING RADIO PLATE

RADIO POST SCREW

M3 × 10 S/T SCREW

M2 × 8 S/T SCREW

M3 × 6 F.H. S/T SCREW

M3 × 8 S/T SCREW

M2.6 × 8 S/T SCREW

RADIO POST SCREW

FRONT STRAP PLATE

STRAP (Small)

FLAT

SERVO MOUNT

RADIO PLATE SUPPORT

Bottom View

If fit is too tight bevel corners

❶ Insert (11B) support holding diagonally then, Rotate the support into the upright position

❷ Set support into upright position

33 INSTALLATION OF SPEED CONTROL

Arrange motor cords through rear shock stay

M3 NUT (Gold Color)

MOTOR CORD

WHITE (−)

RED (+)

BALL NUT

SPEED CONTROL NUT

SPEED CONTROL HORN

SPEED CONTROL PIVOT

M2.6 × 6 SCREW

34 WIRING OF RECEIVER BATTERY

NOTE: If your radio is BEC EQUIPPED refer to Page 19

① Cut off wires from radio box as shown then join wires by twisting together

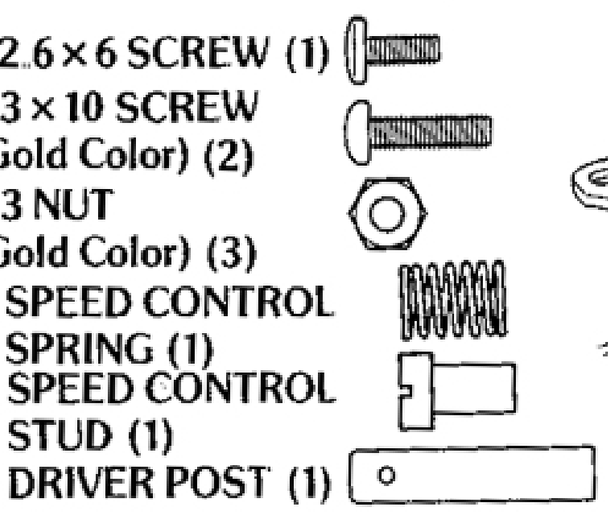
② Insulate with vinyl tape to avoid short circuits

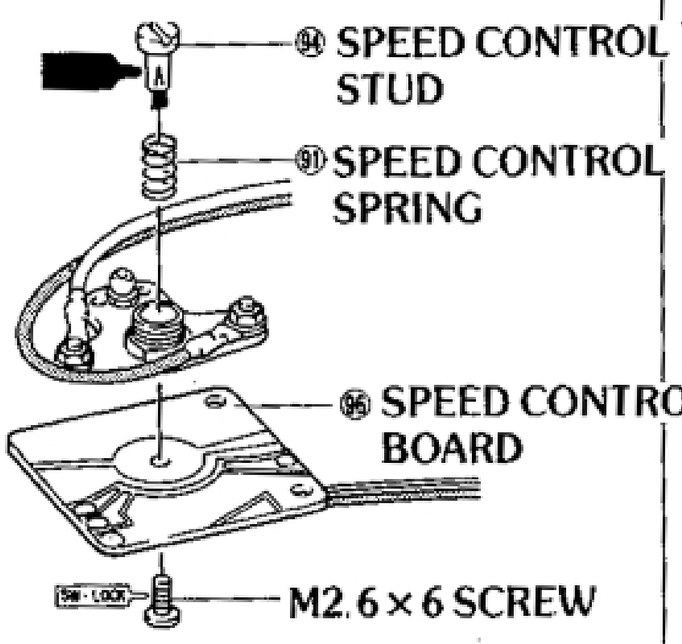
Soldering is strongly recommended

NOTE: The colors of the lead wires are different depending upon radio manufacturer. Most use red for positive (+) and black for negative (−). The exception being Cox and Airtronics (Sanwa) Their (+) lead has a white stripe and the middle lead is (−)

35 INSTALLATION OF SPEED CONTROL PC BOARD

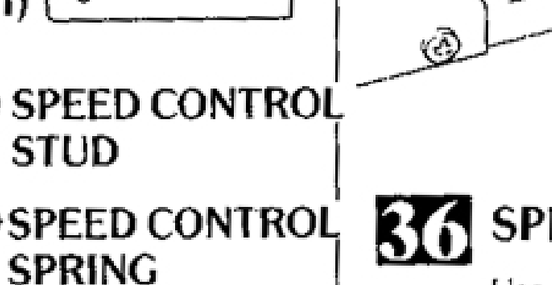
M2.6×6 SCREW (1)
M3×10 SCREW (Gold Color) (2)
M3 NUT (Gold Color) (3)
⑨① SPEED CONTROL SPRING (1)
⑨④ SPEED CONTROL STUD (1)
⑨⑧ DRIVER POST (1)





36 SPEED CONTROL LINKAGE

⑨⑦ BALL END (Small) (1)
⑨⑧ SERVO ROD (1)

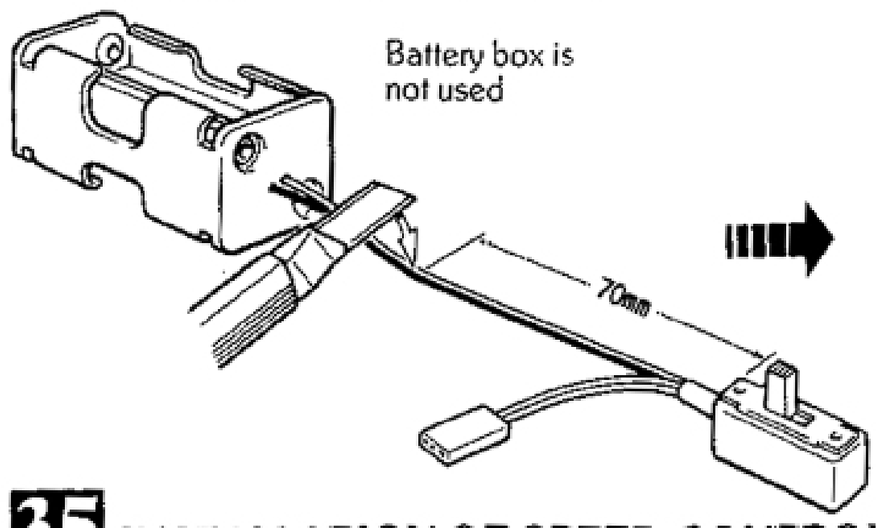


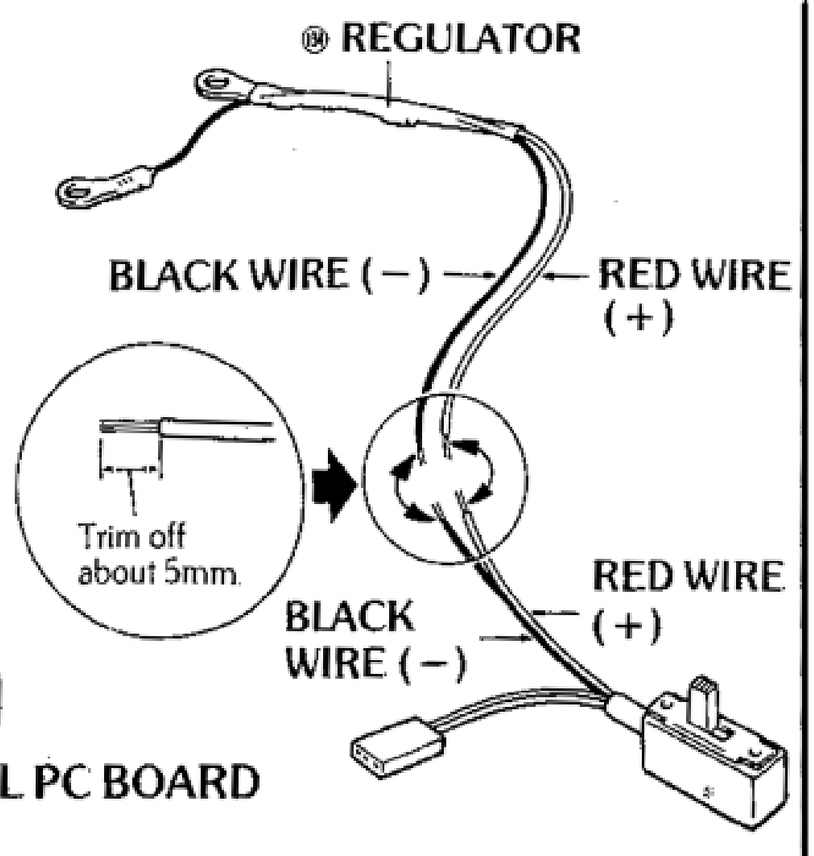
NOTE: Trim the shaded portion from your servo horn

Install ball end onto ⑨④ servo rod

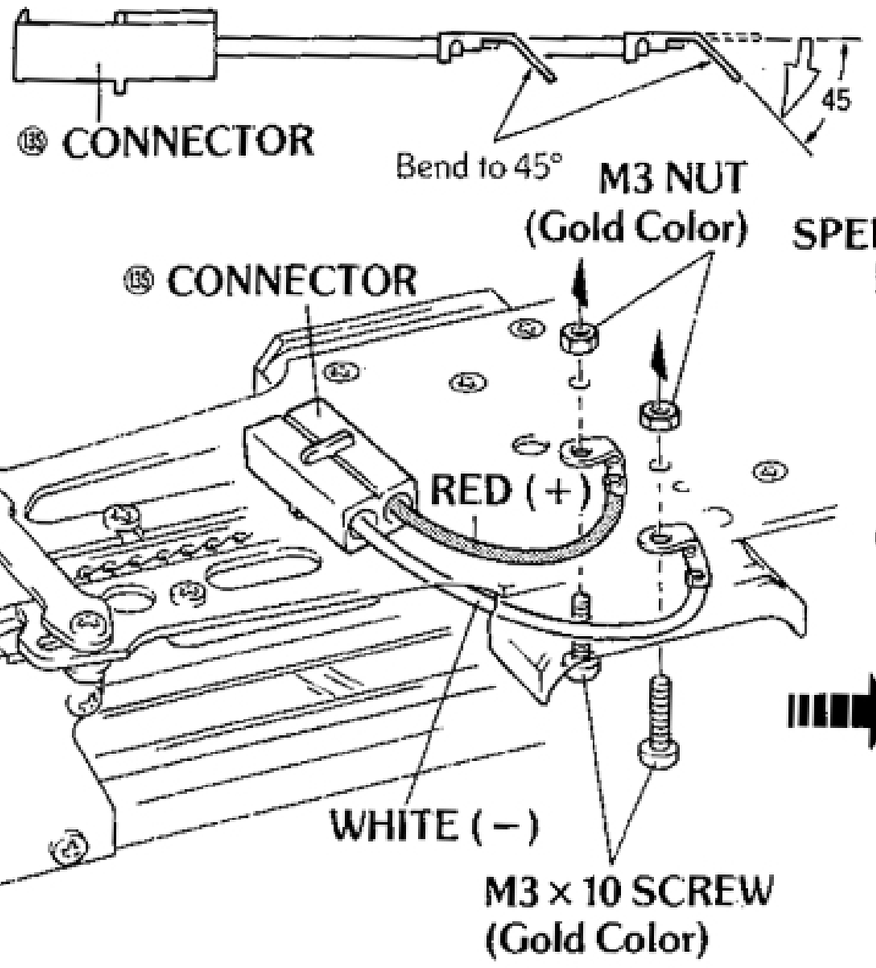
34 WIRING OF RECEIVER BATTERY

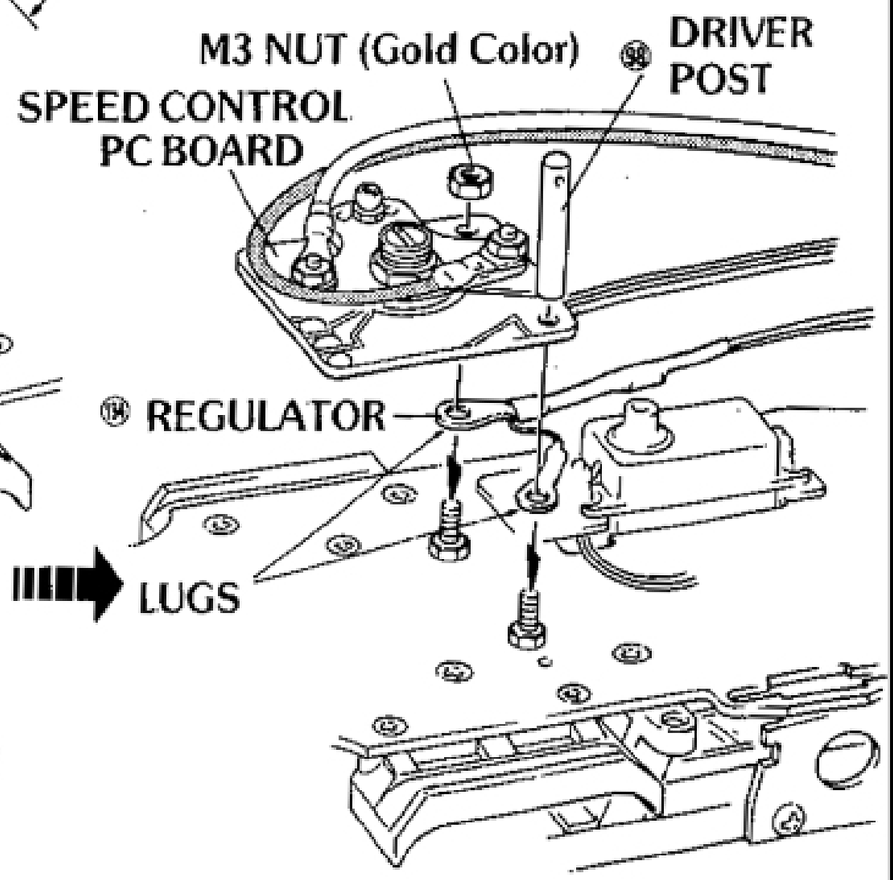
NOTE: The battery that powers the motor also powers the receiver. Use great care and do not allow polarity to be reversed. Also, do not allow 7.2V to flow directly into receiver



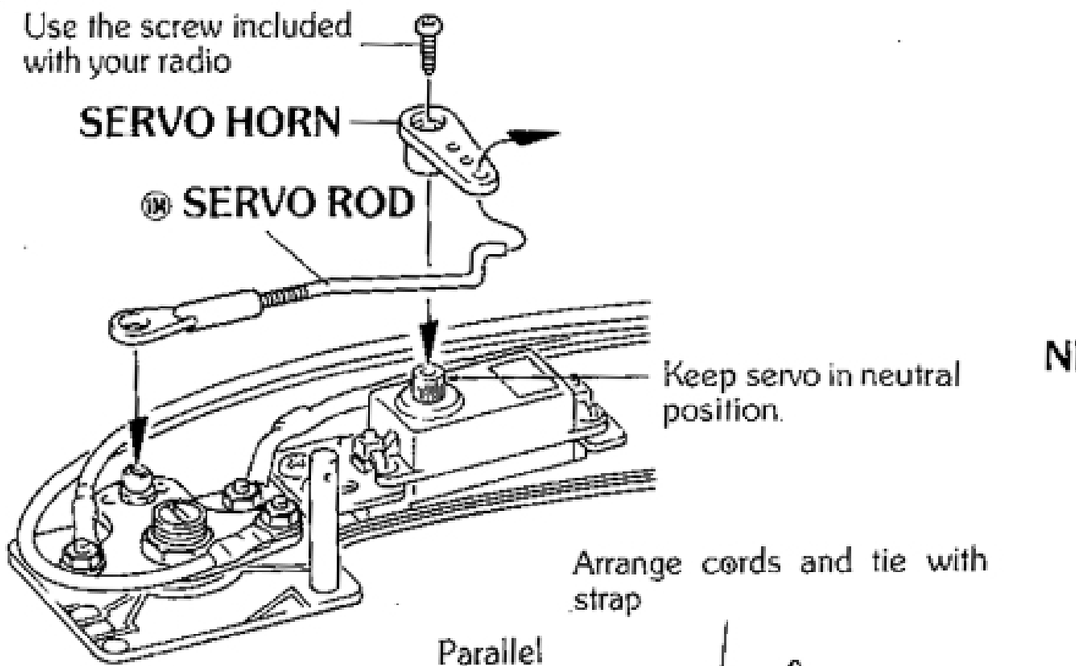


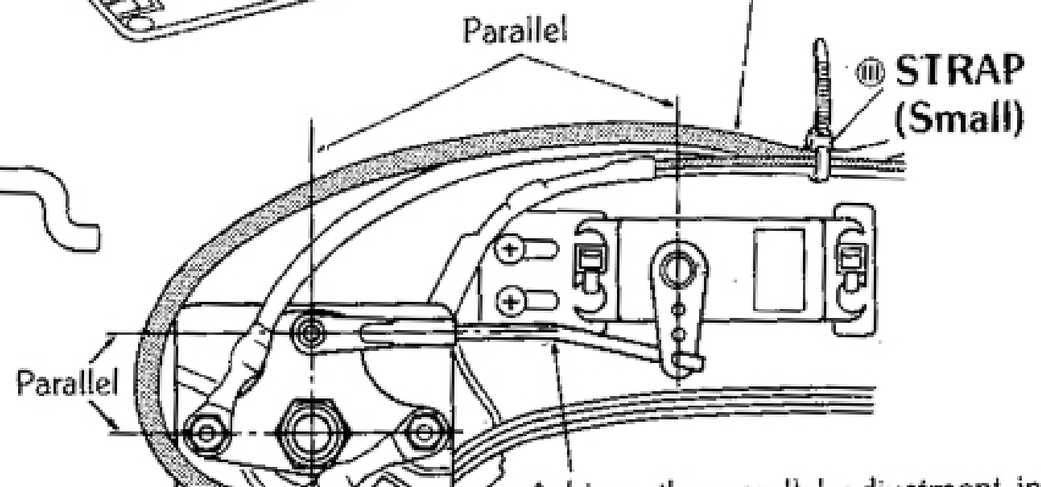
35 INSTALLATION OF SPEED CONTROL PC BOARD

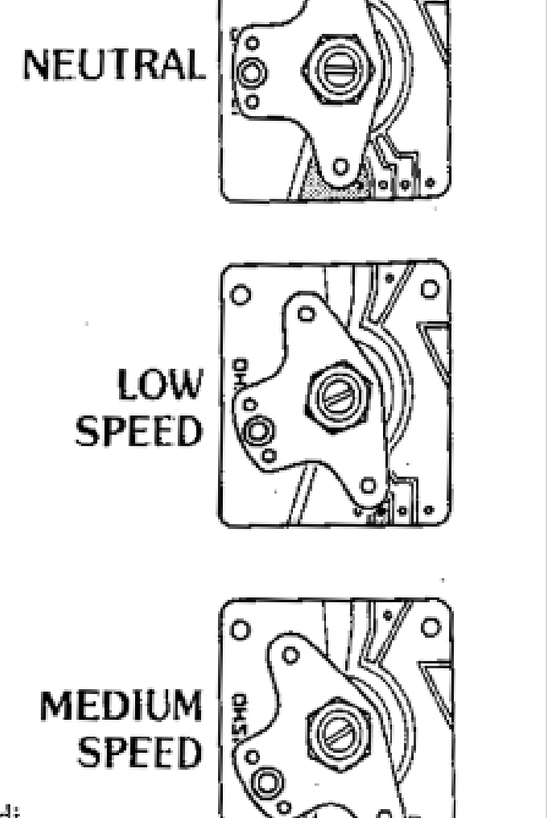


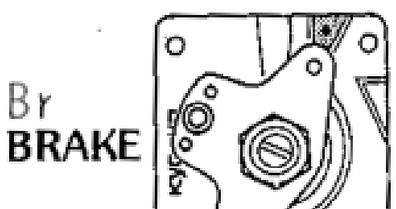


36 SPEED CONTROL LINKAGE





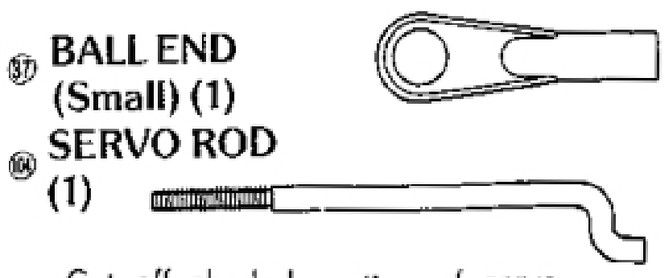




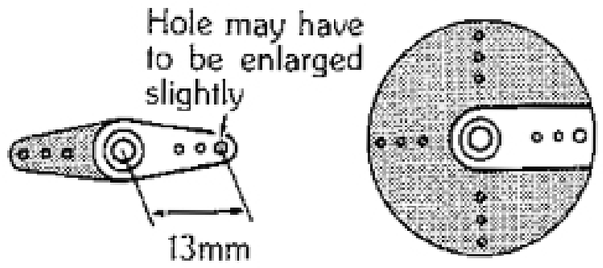
37 STEERING CONTROL LINKAGE

⑰ BALL END (Small) (1)

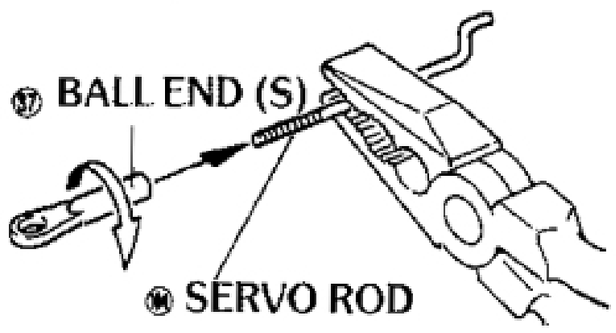
⑭ SERVO ROD (1)



Cut off shaded portion of servo horns included with radio system

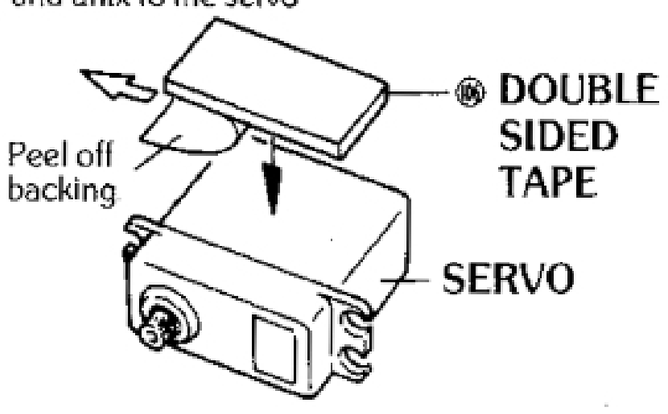


ASSEMBLY OF STEERING ROD



AFFIXING DOUBLE-SIDED TAPE

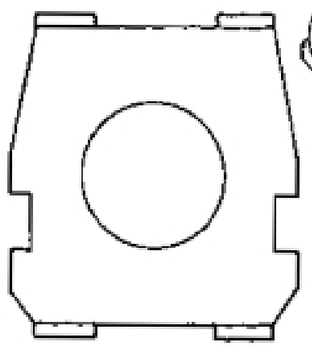
Cut double-sided tape to the size of the servo and affix to the servo



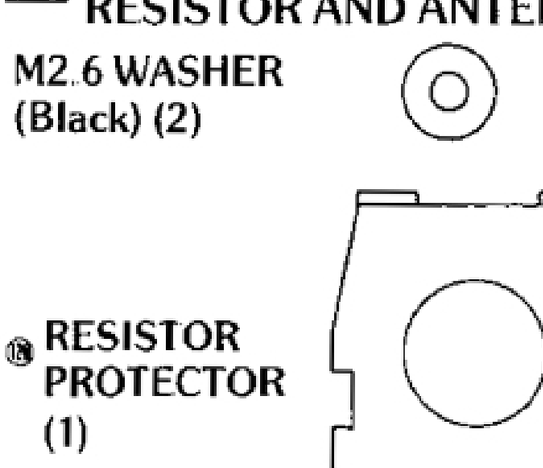
38 INSTALLATION OF RECEIVER, RESISTOR AND ANTENNA

M2.6 WASHER (Black) (2)

⑱ RESISTOR PROTECTOR (1)



RECEIVER



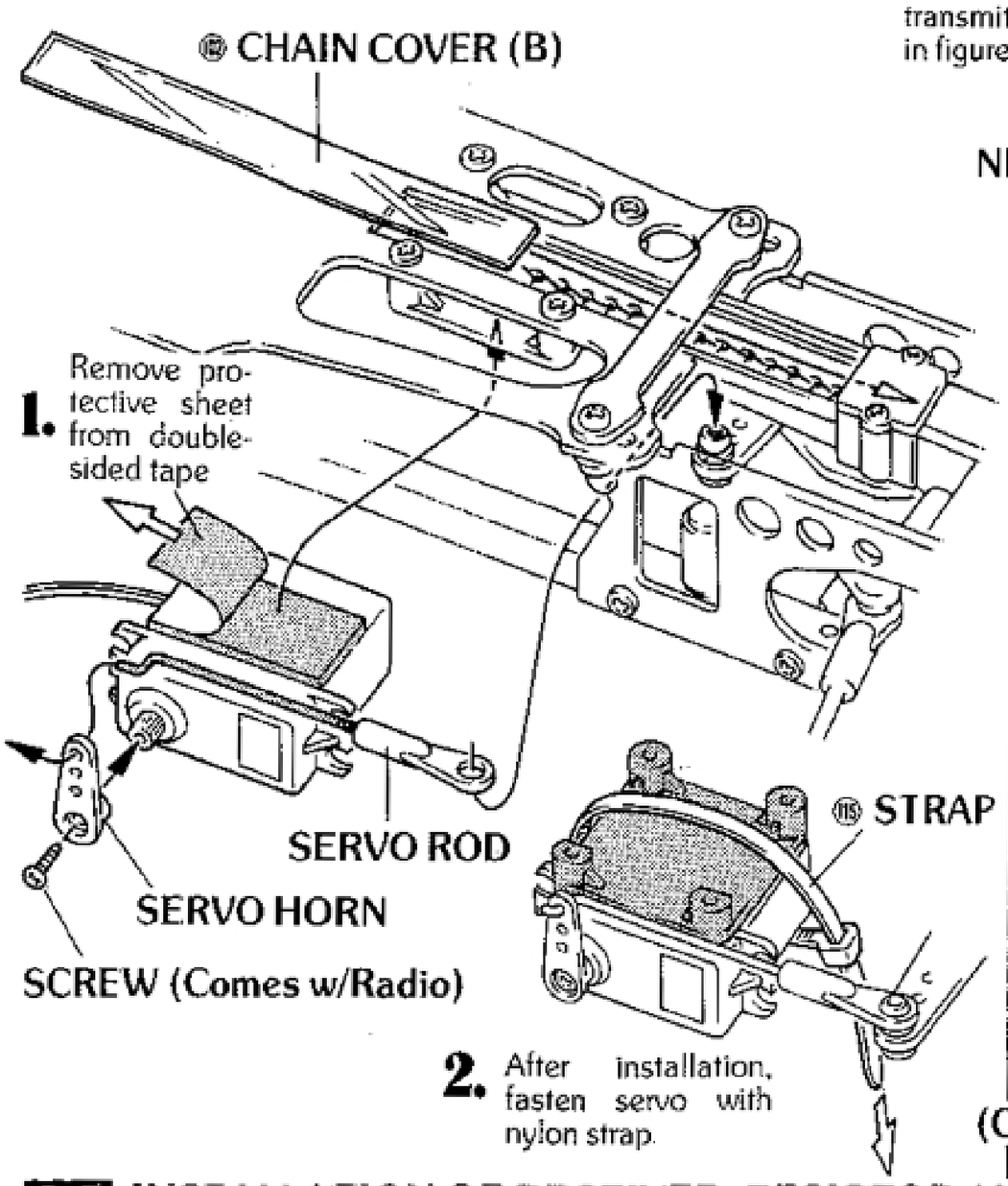
39 INSTALLATION OF FRONT BUMPER

M3 × 12 S/T SCREW (2)

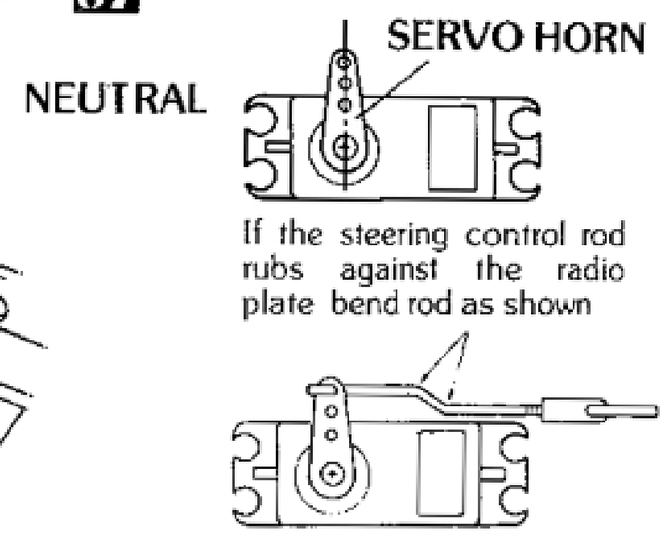
M4 × 8 SCREW (1)

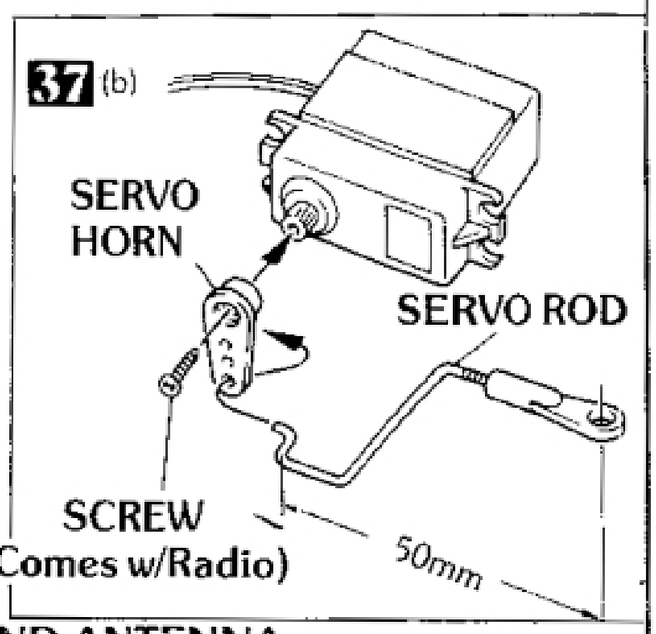
37 STEERING CONTROL LINKAGE

⑫ CHAIN COVER (B)

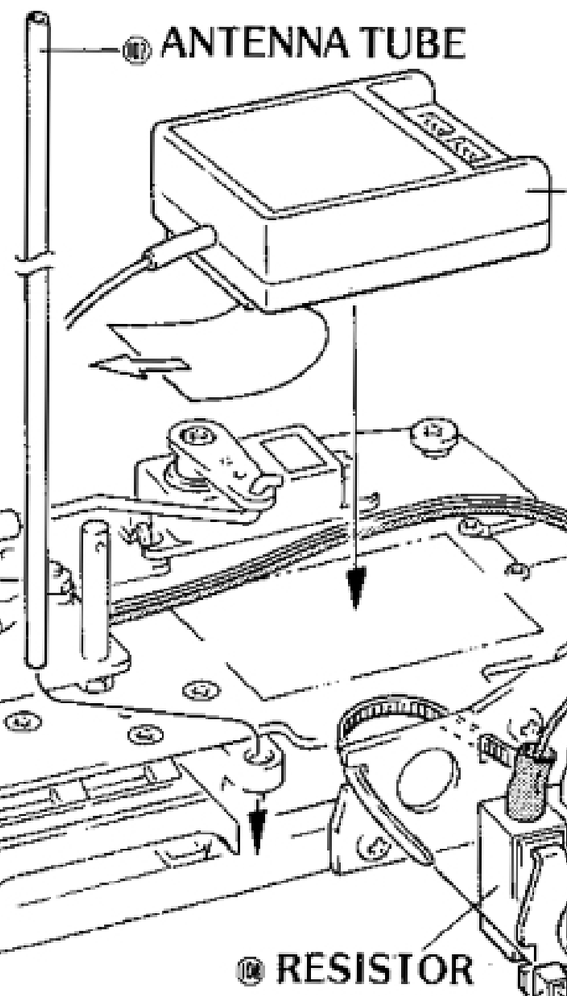


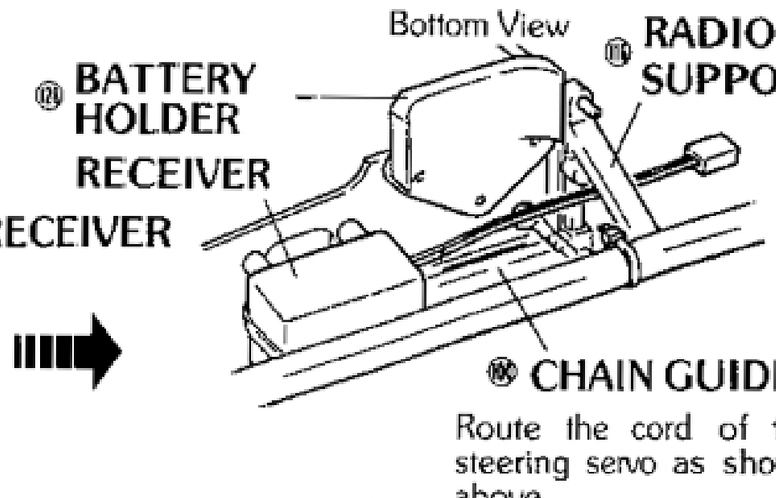
NOTE: For steering, use a reverse servo. Your radio may employ servo reversing, or you will need to reverse the position of the gimbal stick on your transmitter or use the alternate servo rod as shown in figure 37 (b)

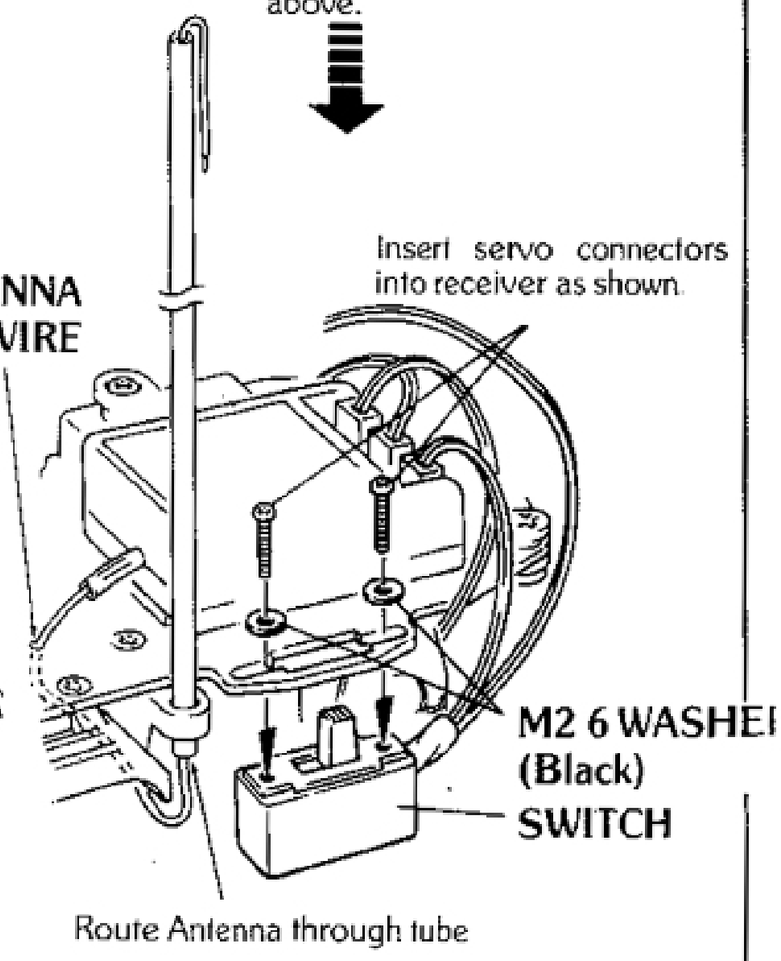




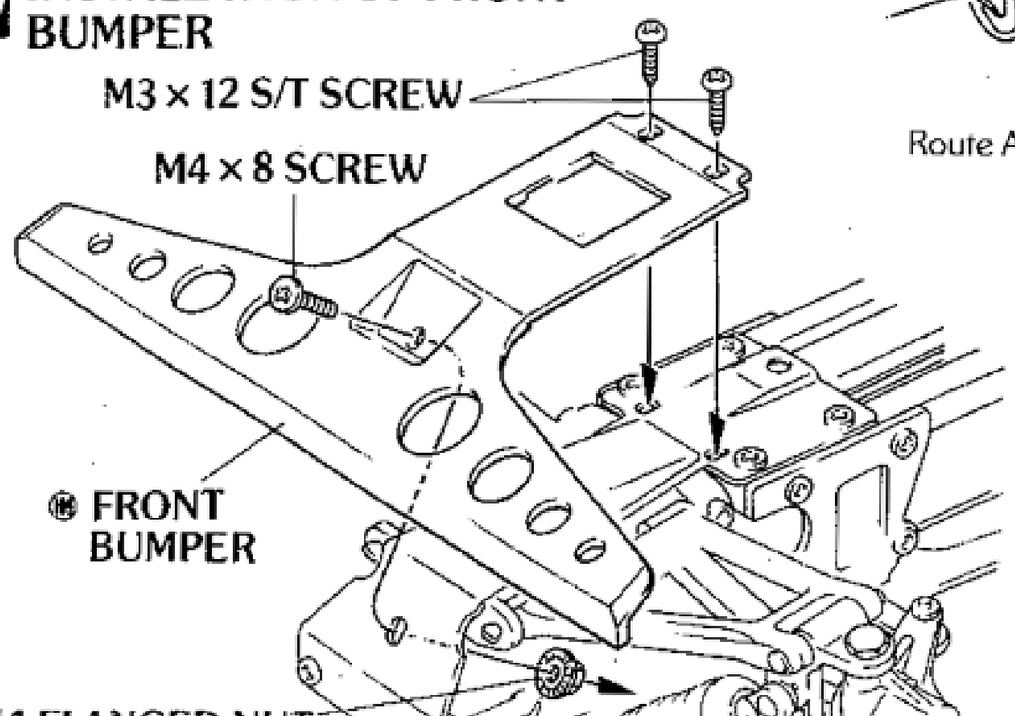
38 INSTALLATION OF RECEIVER, RESISTOR AND ANTENNA







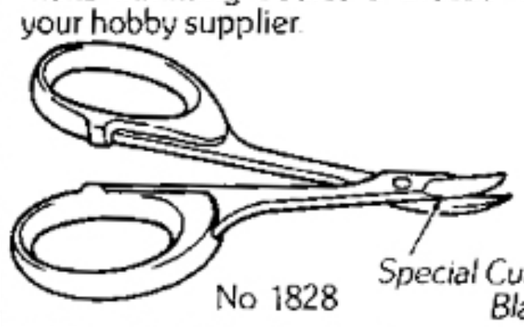
39 INSTALLATION OF FRONT BUMPER



41 CUTTING OUT WING AND DRIVER

KYOSHO®

We offer special *Lexan Scissors* that make trimming bodies a breeze. See your hobby supplier.



No 1828

42 PAINTING WING AND DRIVER

First, wash the body to remove any oil or dirt. Rinse thoroughly. Paint the **inside** of the body. You can obtain a color scheme by masking a portion with tape then removing the tape and painting. Apply the lightest color last.

Apply decals to the outside of the body.

KYOSHO®

Micro-Line tape enhances the appearance of any model

No 1841-3

KYOSHO®

Polyca Color Paint is available for painting your Lexan Bodies. 12 great looking colors!

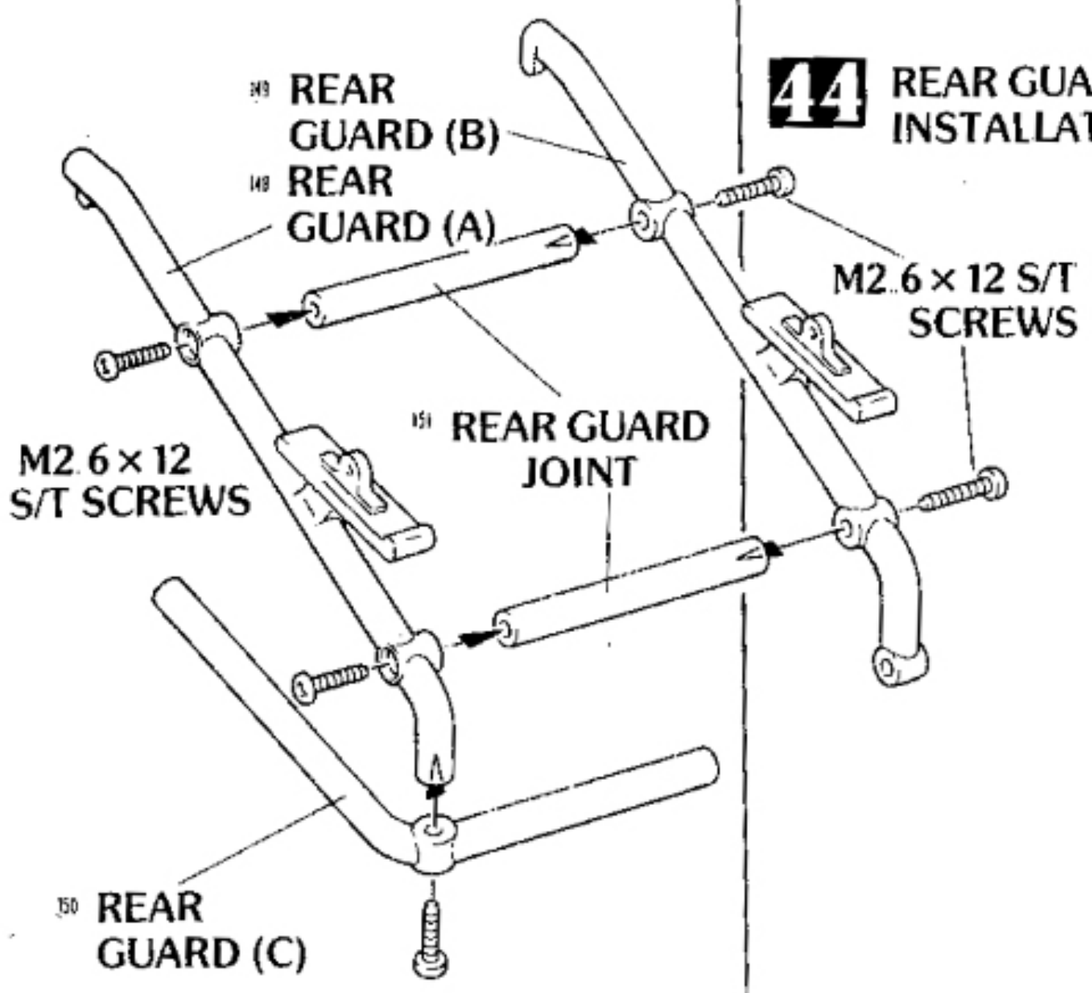
No. 2230

43 ROLL BAR

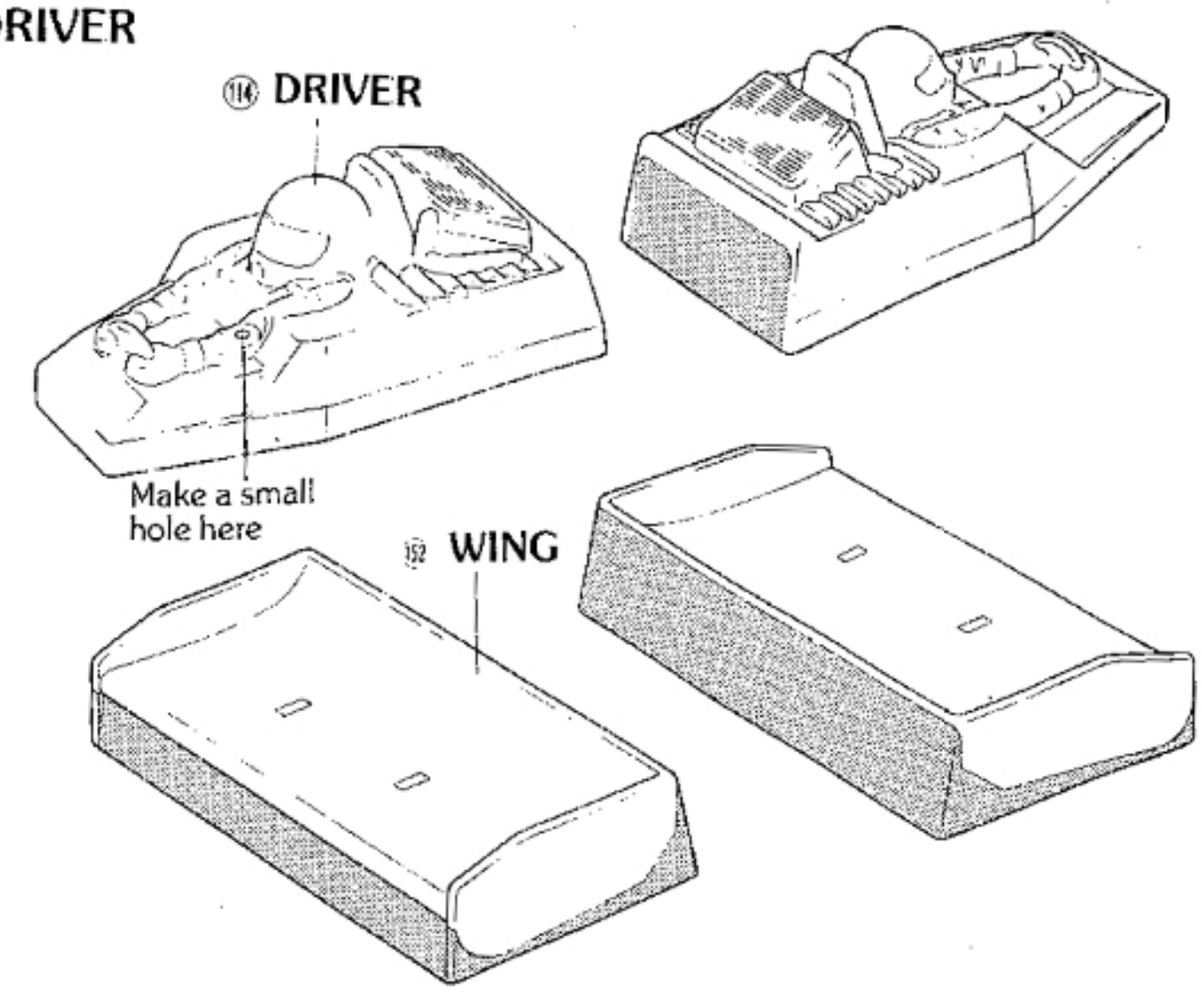
M3 × 6 SCREW (2)

44 REAR GUARD

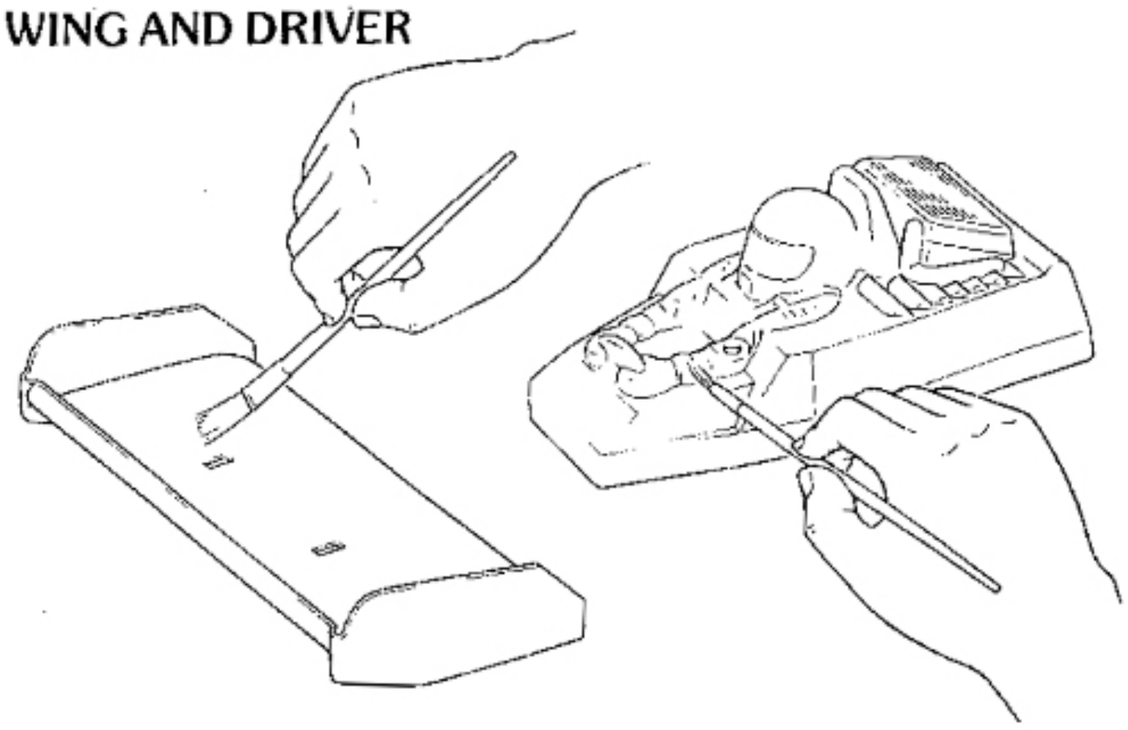
M2.6 × 12 SCREW (7)



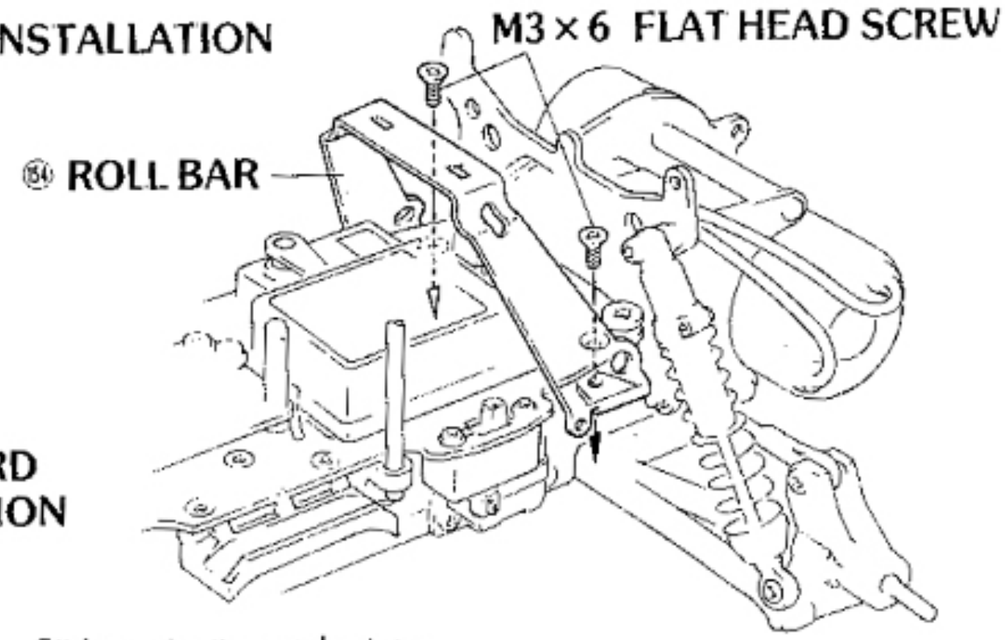
41 CUTTING OUT WING AND DRIVER



42 PAINTING WING AND DRIVER



43 ROLL BAR INSTALLATION



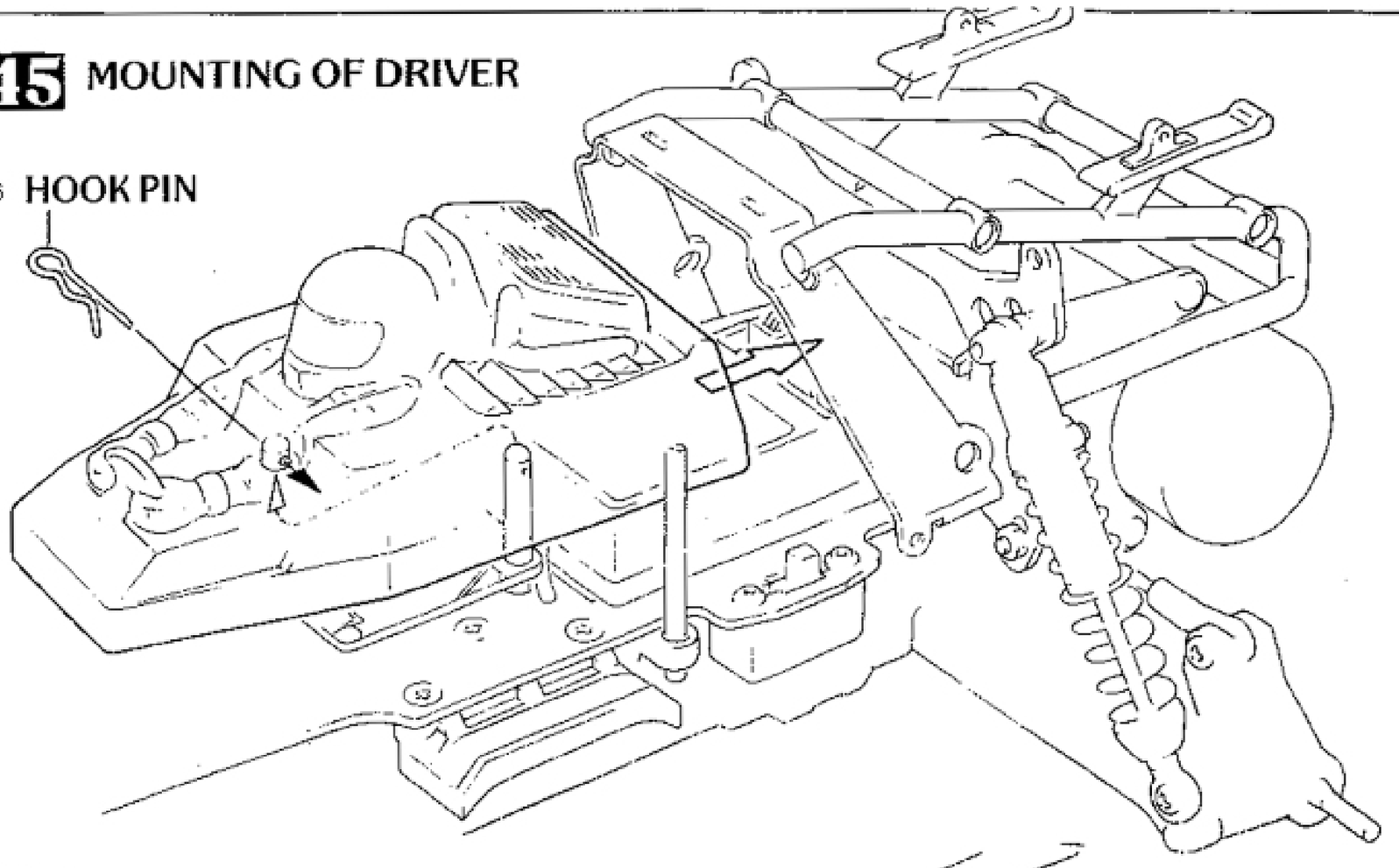
44 REAR GUARD INSTALLATION

45 MOUNTING OF DRIVER

66 HOOK PIN (1)

45 MOUNTING OF DRIVER

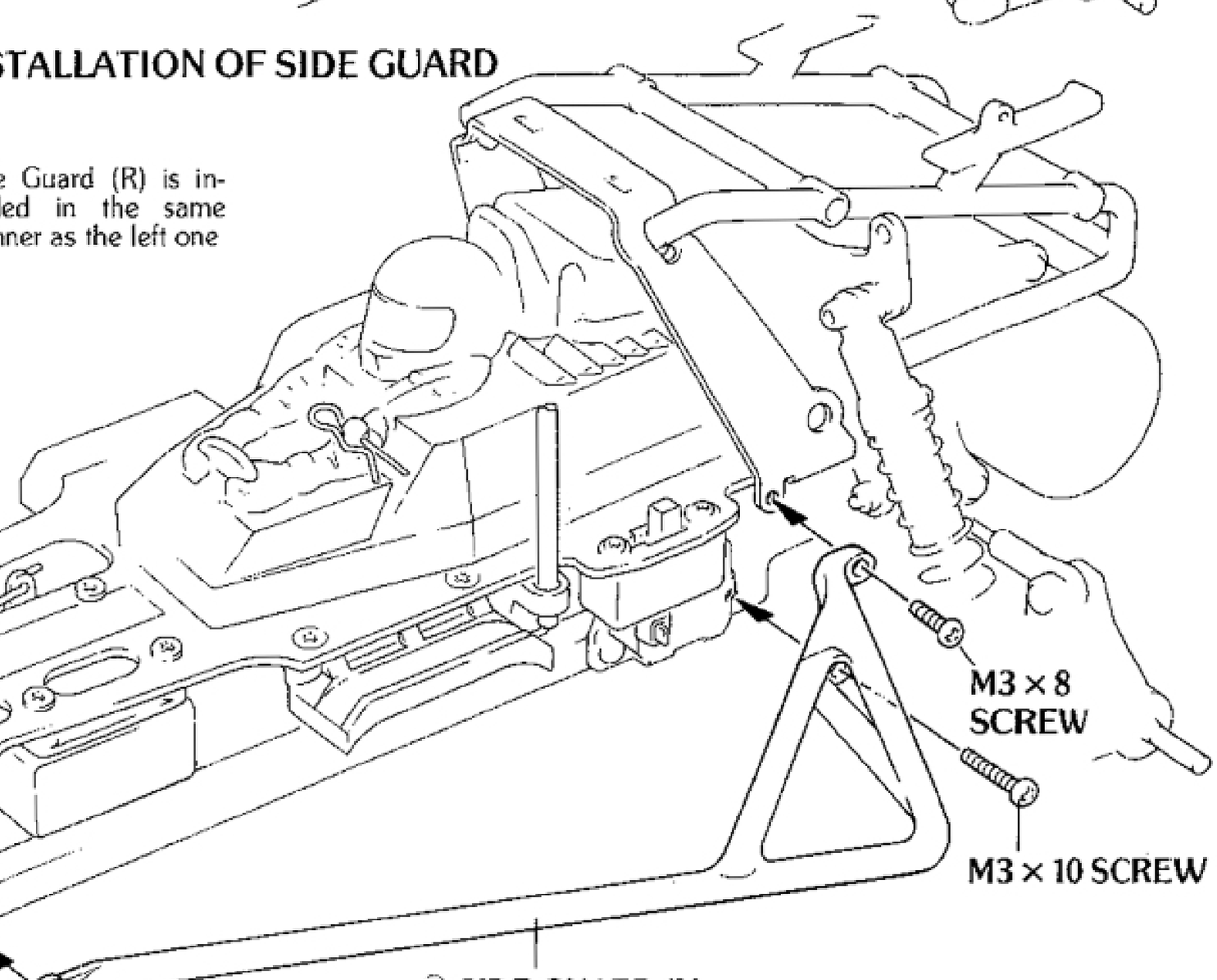
66 HOOK PIN



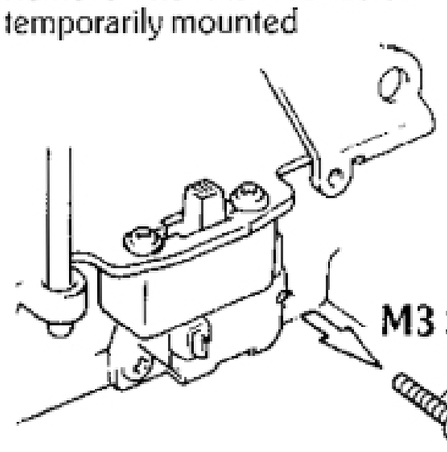
46 INSTALLATION OF SIDE GUARD

M3 × 8 SCREWS (2)

Side Guard (R) is installed in the same manner as the left one

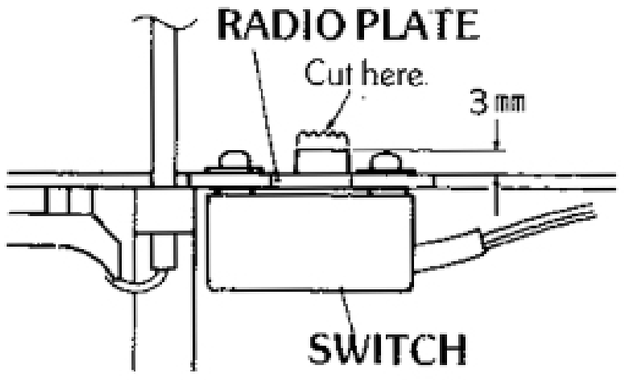


Remove the M3 × 10 screw that had been temporarily mounted

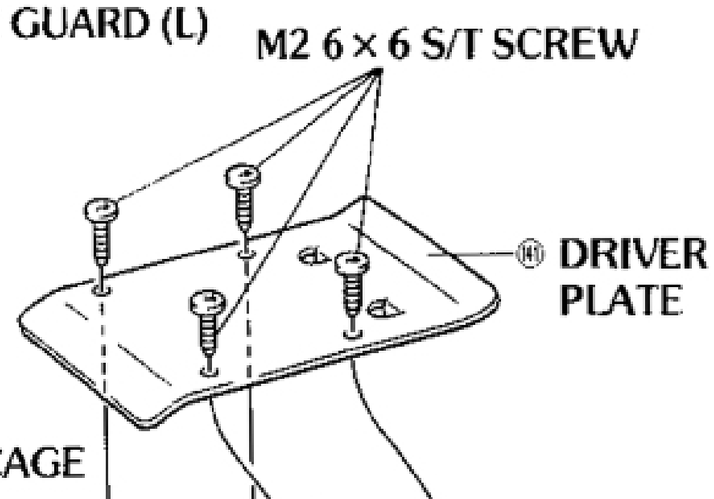


This screw will be used for mounting the side guard

NOTE: Depending on the radio being installed, the switch lever may need to be trimmed to fit under the roll cage



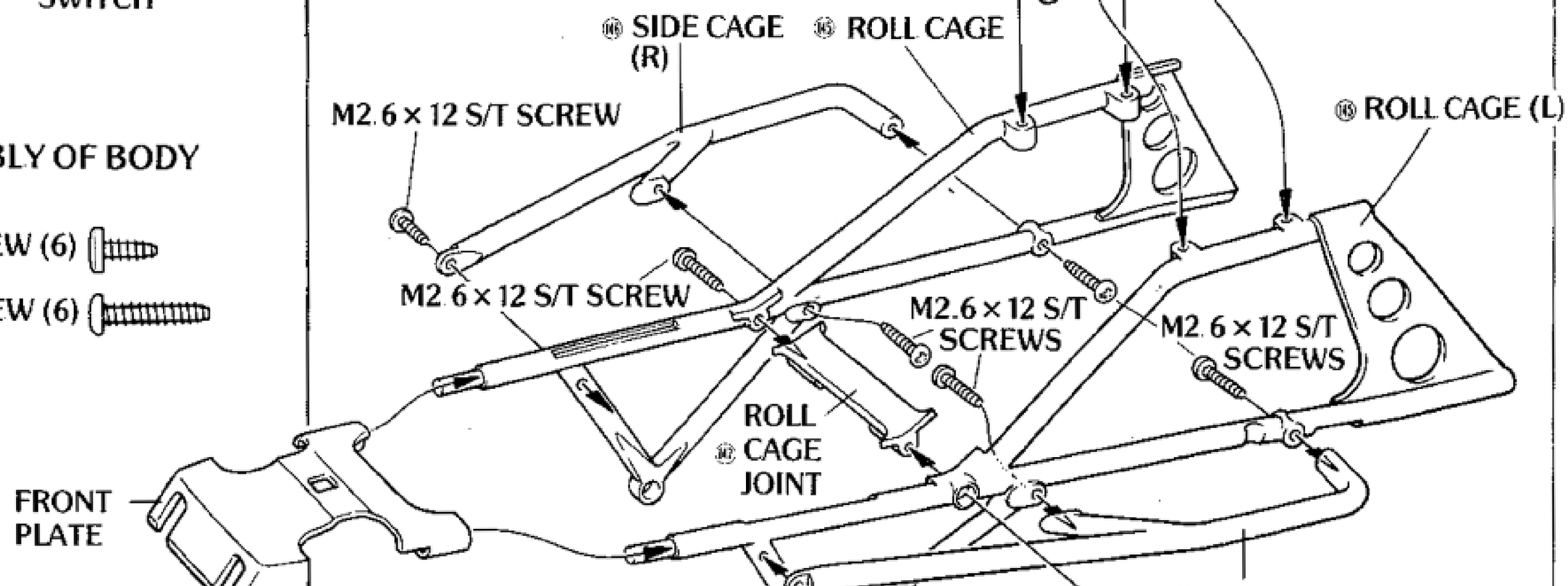
47 ASSEMBLY OF BODY



47 ASSEMBLY OF BODY

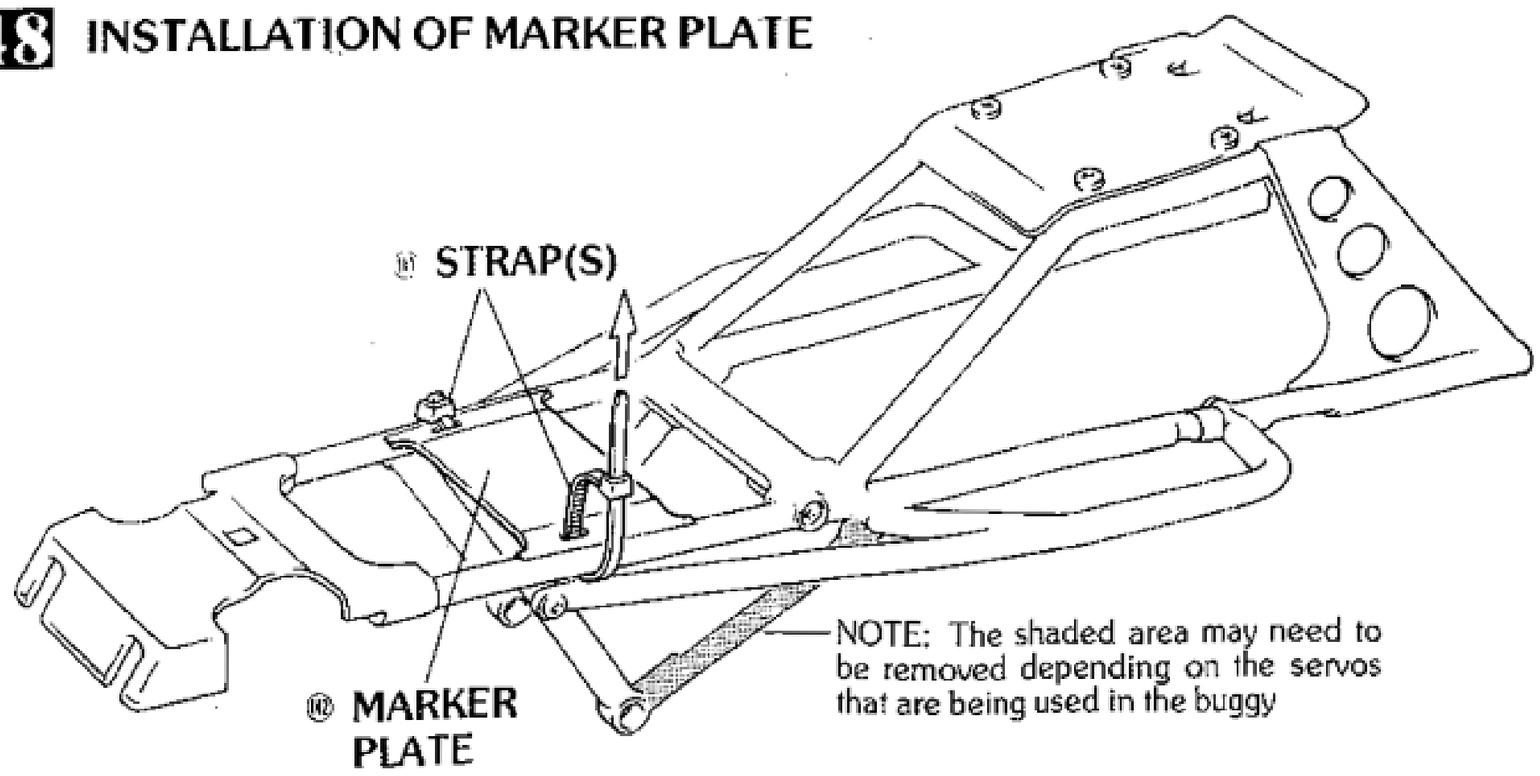
M2.6 × 6 SCREW (6)

M2.6 × 12 SCREW (6)



48 INSTALLATION OF MARKER PLATE

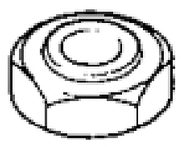
Use the small nylon straps to secure the marker plate between the roll cage sides



49 INSTALLATION OF TIRE

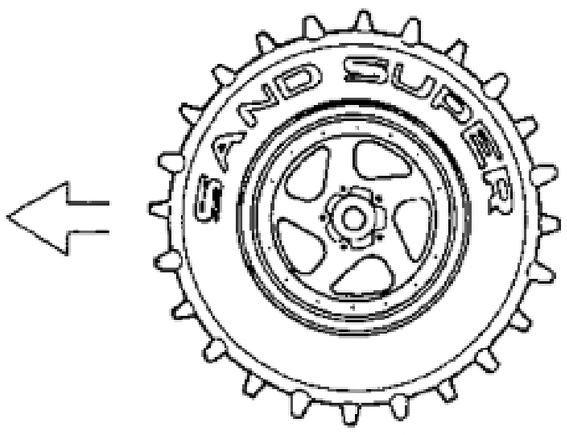
M4 NYLON NUTS (4)

⑭ DRIVE WASHERS (4)

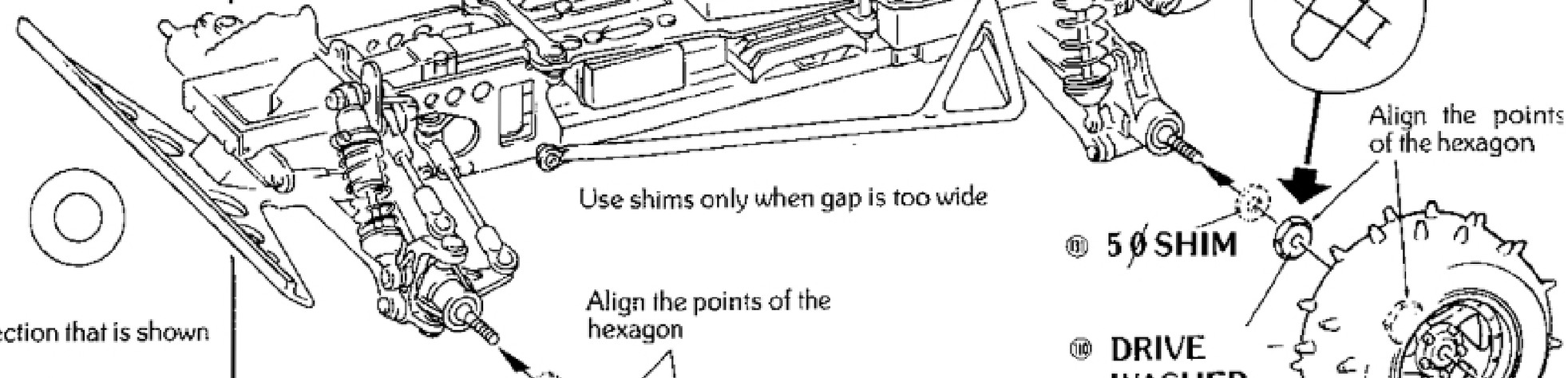


⑪ 5ø SHIMS (4)

Mount the wheels in the direction that is shown



Note there are 2 right wheels and 2 left wheels

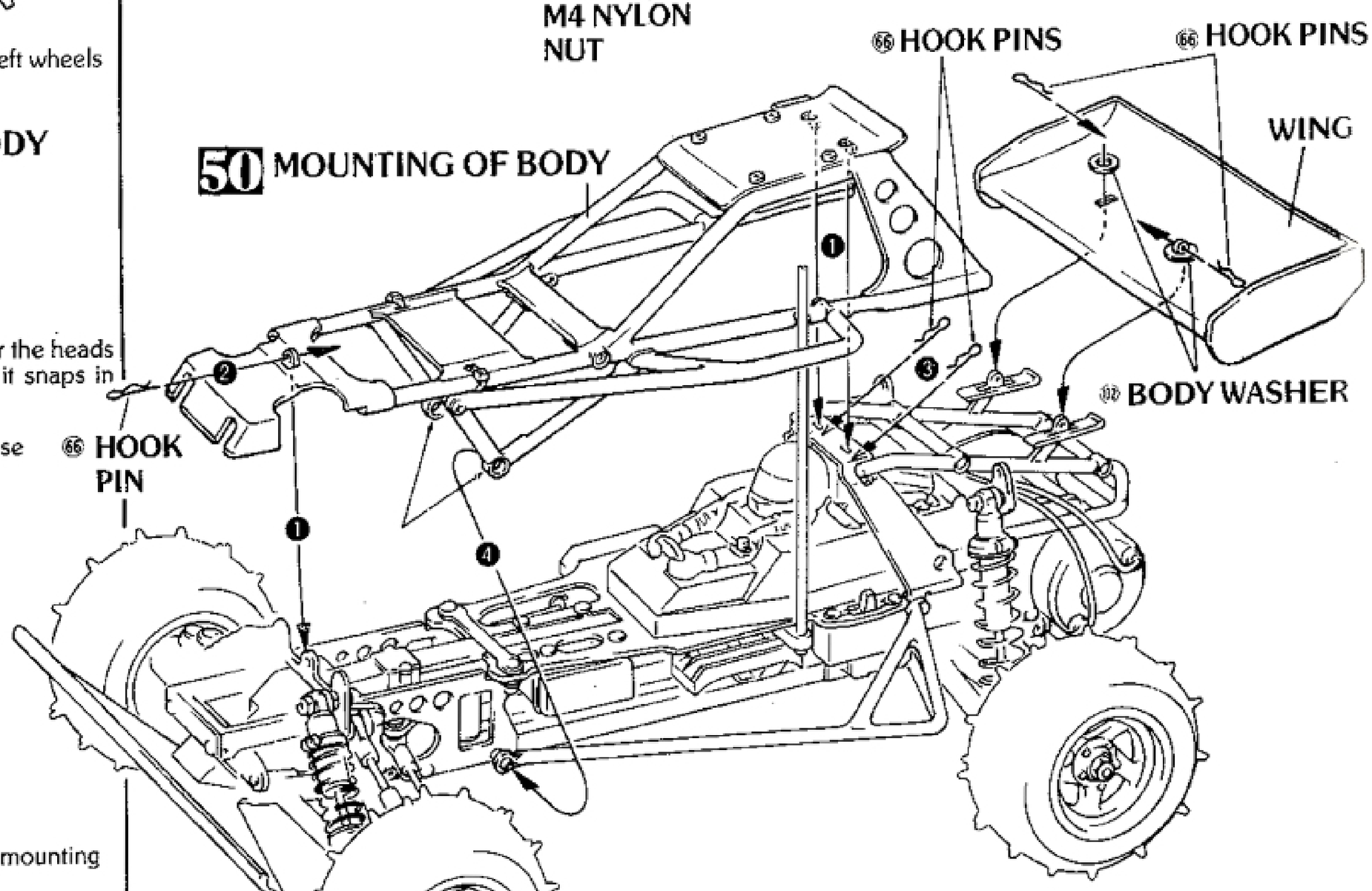


50 MOUNTING OF BODY

❶ Put the cage over the chassis

❷ Fit the Front Hook Pin
❸ Fit the Rear Hook Pins
❹ Push the front cage holes over the heads of the M2.6×12 screws until it snaps in place.

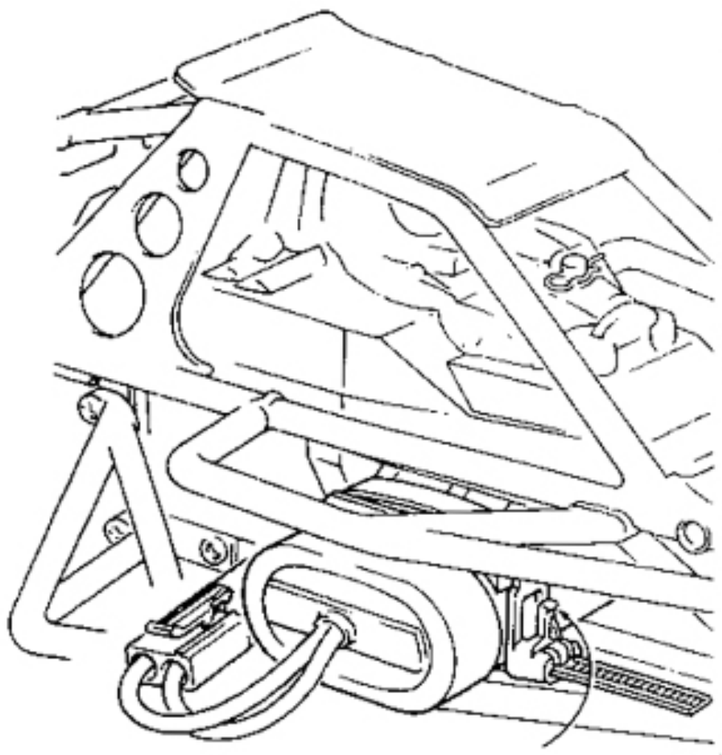
Note when removing the cage use the reverse order of installation



⑥⑥ HOOK PIN (5)

Spread roll cage apart to allow for mounting

51 MOUNTING OF BATTERY

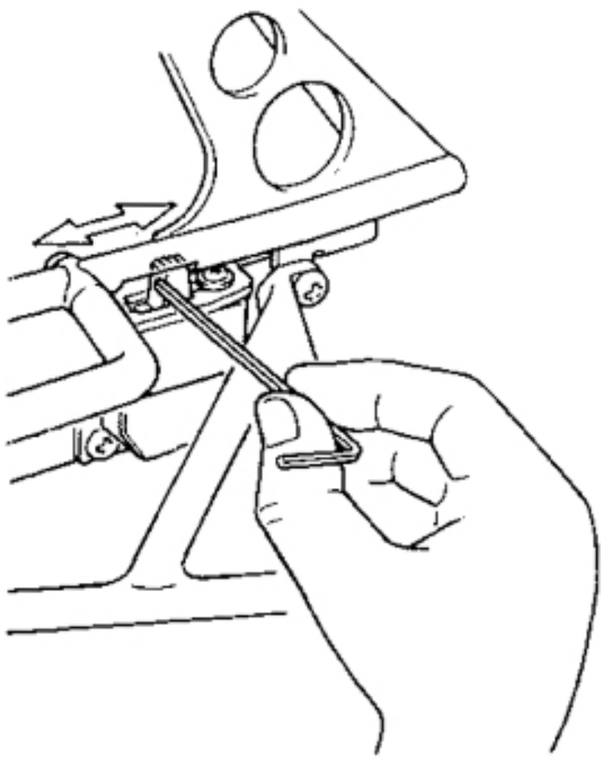


You can release strap tension by pushing here.

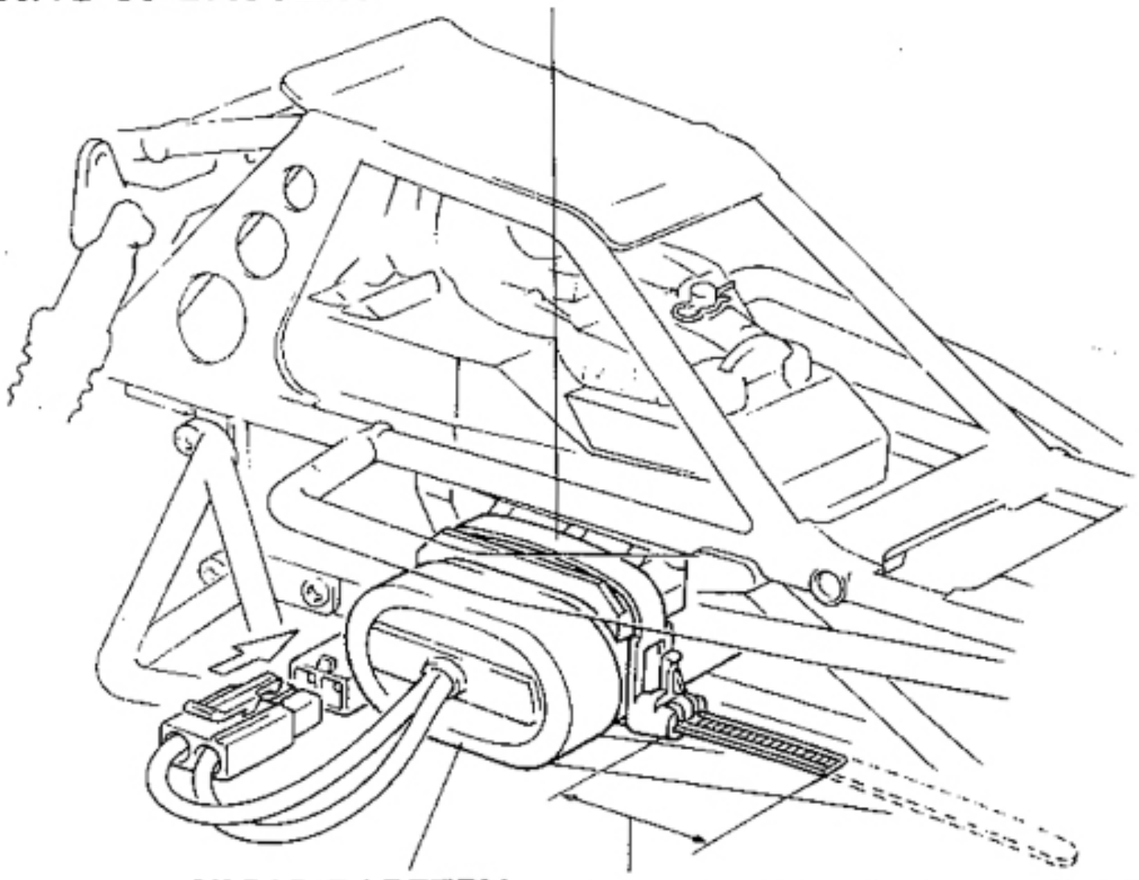
Use a high performance battery. The *Kyosho 7 2V Racing Battery* is recommended

No 2218B

Since the switch for the radio is well protected under the roll cage, an allen wrench or similar type tool will be used to turn the switch on-off



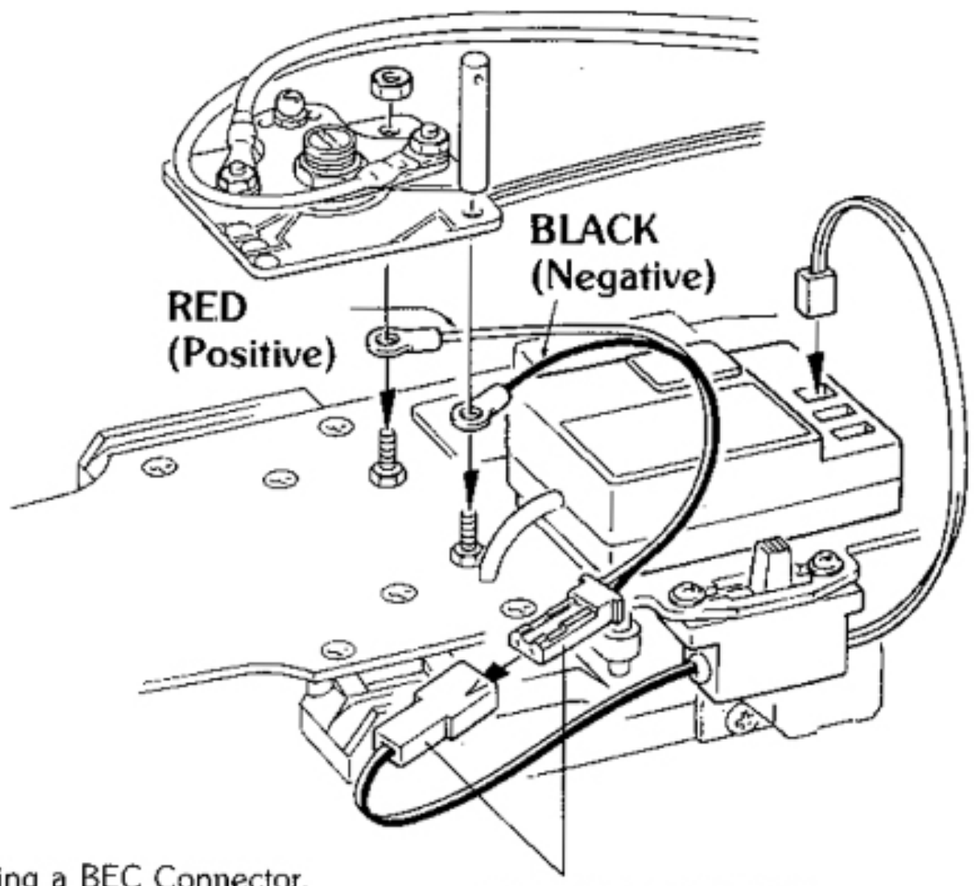
51 MOUNTING OF BATTERY



52 IF YOUR RADIO IS BEC EQUIPPED

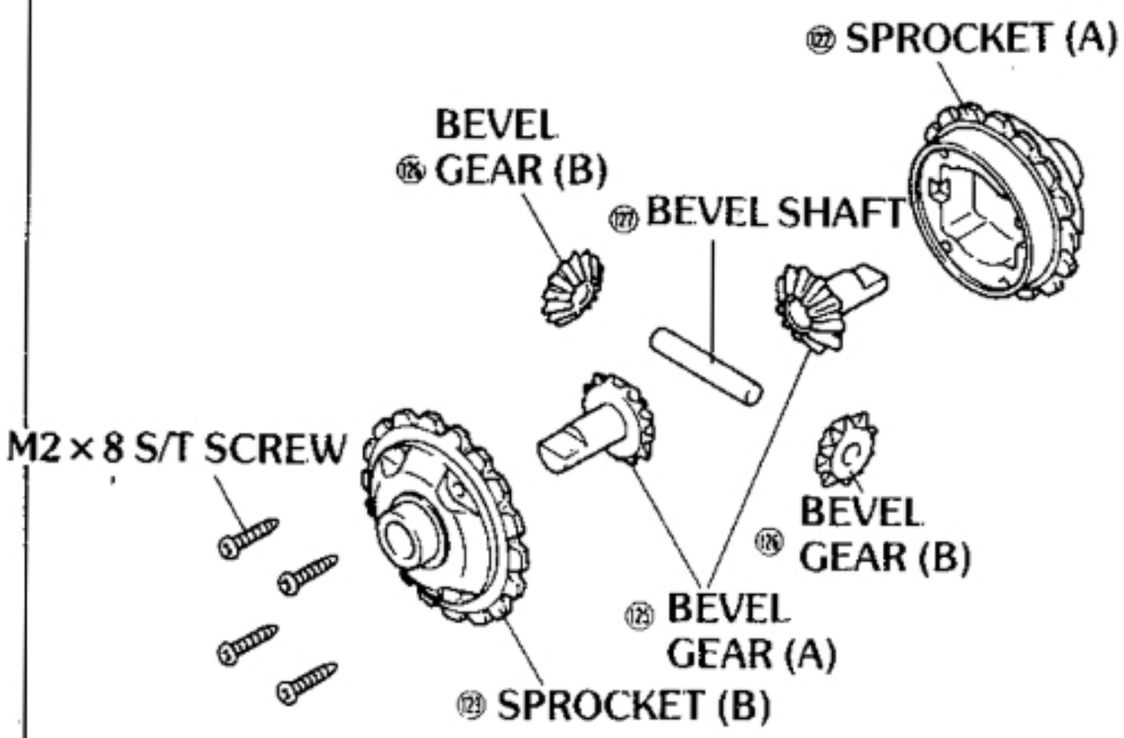
BEC
BATTERY ELIMINATOR CIRCUITRY

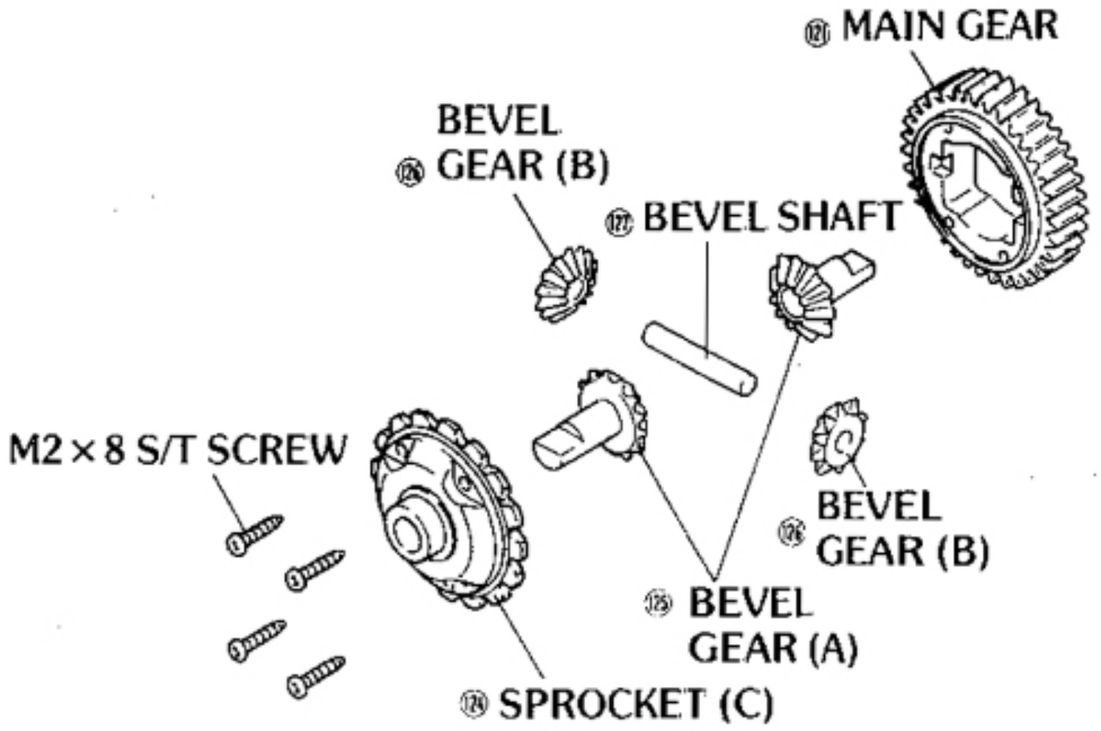
If your radio has this mark the Javelin can take advantage of it!



NOTE! When installing a BEC Connector, pay close attention to the Positive (Red) and Negative (Black) wires. Improper polarity (even for an instant) may damage your radio permanently

EXPLODED VIEW OF FRONT AND REAR DIFFERENTIAL



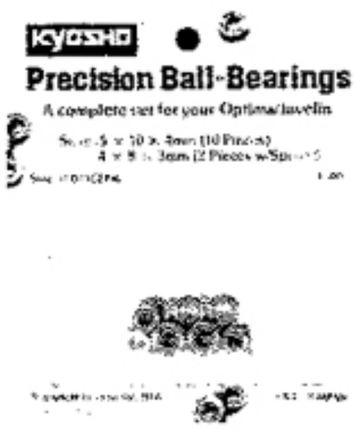


BASIC ADJUSTMENT GUIDE FOR THE JAVELIN

OPTIONAL BALL BEARINGS

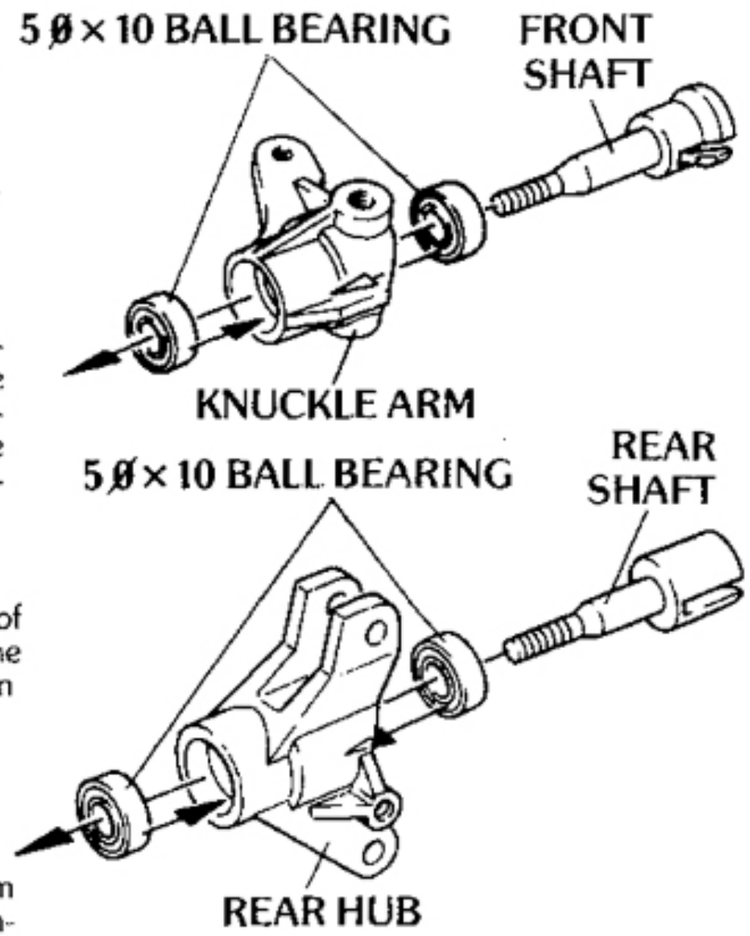
The single most important improvement you can make to your Javelin are ball bearings. They increase performance and reduce maintenance

Kyosho sells a complete set of optional ball bearings for your Javelin (#H-001) It contains ten 5 Ø×10 and two 4 Ø ×8 high quality bearings. We also offer the bearings in pairs! The #1901 contains two 5 Ø×10 (5 pairs required) and the #1903 has two 4 Ø ×8 (1 pair required)

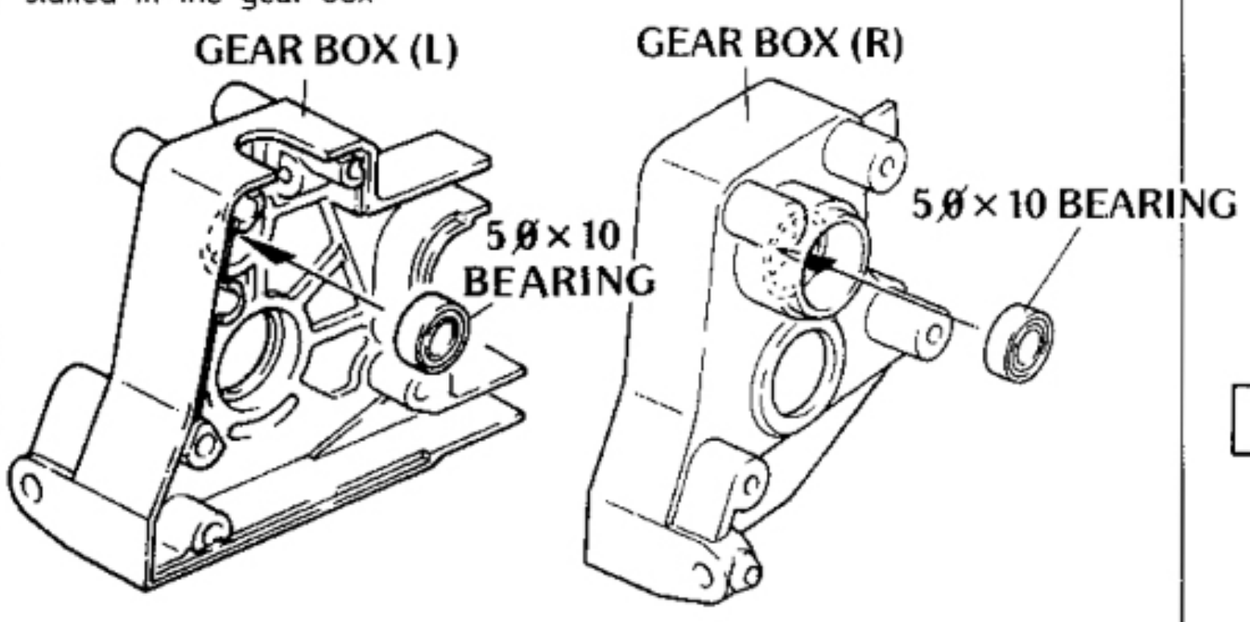


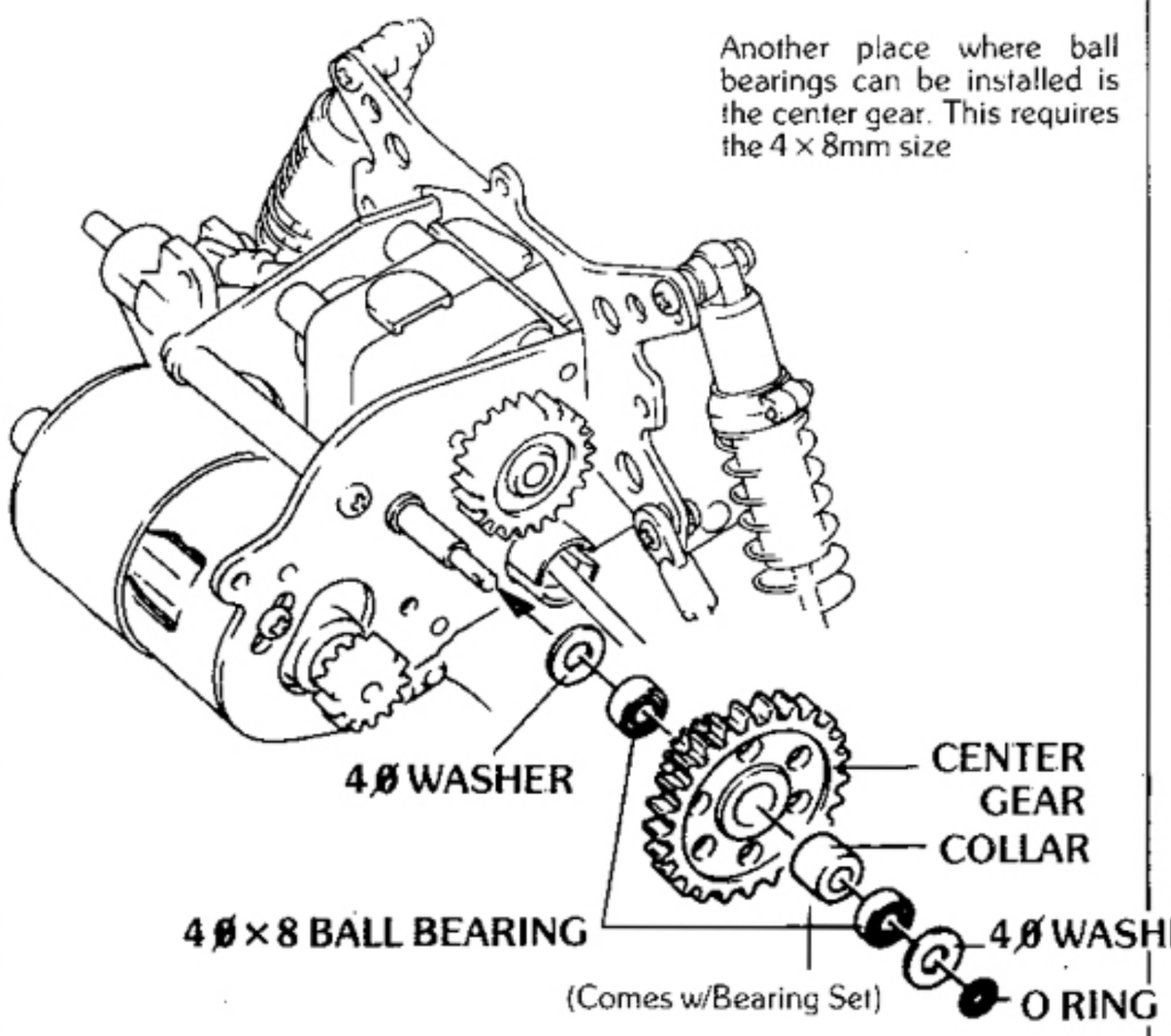
NOTE: The 1mm plastic shim around the #1901 5×10mm bearings will need to be removed before installation

Install two pair of 5×10mm size in the front and rear as shown



Two more 5×10mm bearings may be installed in the gear box

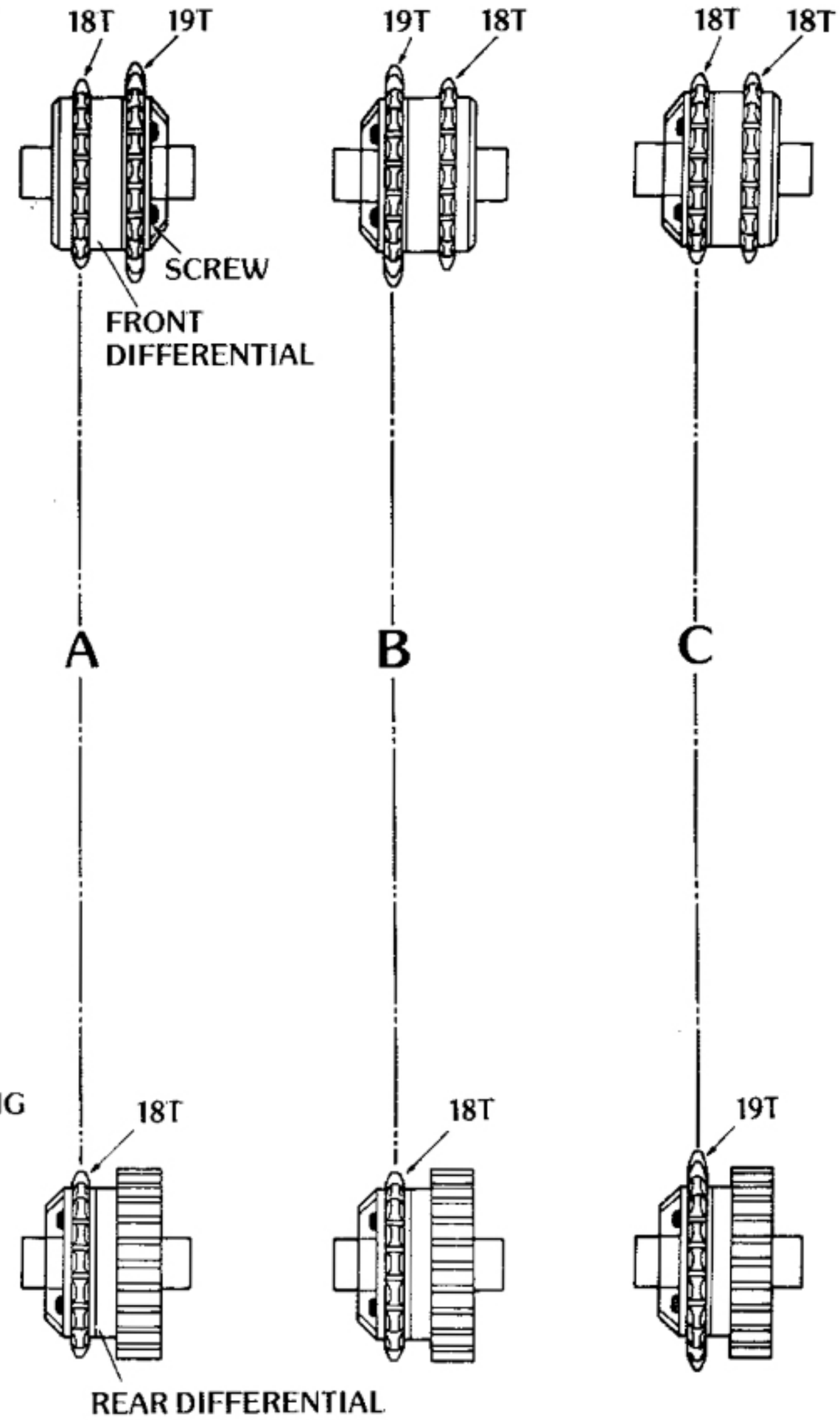




Another place where ball bearings can be installed is the center gear. This requires the 4 × 8mm size

ADJUSTING FRONT/REAR POWER RATIO

By changing the front and rear sprockets you can change the power ratio



A Normal: Front and rear turn at same rate

B Rear wheels have slightly more power

C Front wheels have slightly more power

KEEPING THE CHAIN CLEAN

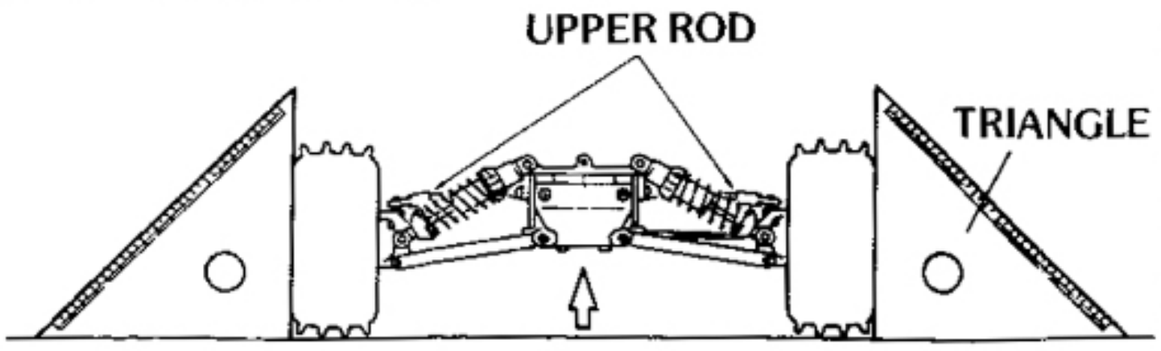
Be careful not to let sand and dust in through the chain cover and chain guide. Seal the openings around the chain cover and guide with cellophane tape or silicone sealer Remove the gearbox hatch cover and hold the car upside down to remove any dirt

REPLACING THE CHAIN

To replace the chain, remove the chain cover (B); and holding the model vertically with the front upward feed the chain from the front sprocket to the rear It may require a few tries to get it right

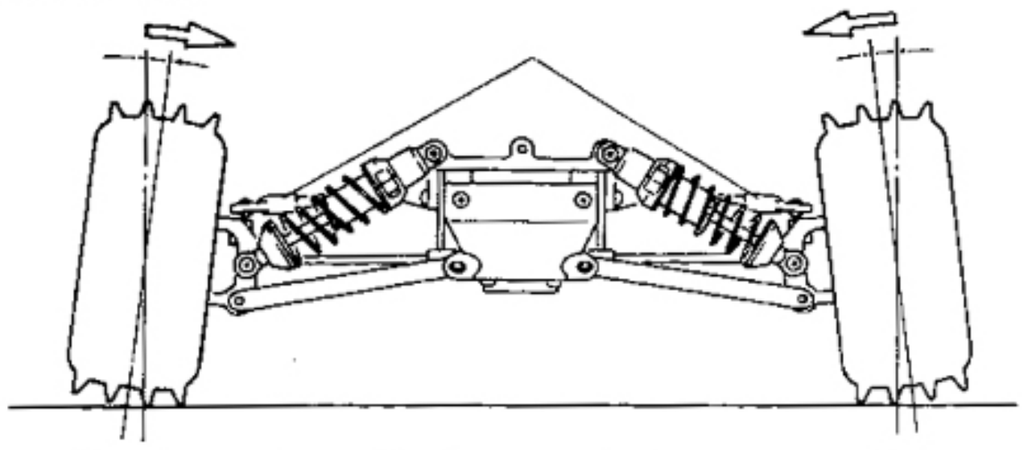
BASIC ADJUSTMENT GUIDE FOR THE JAVELIN

FRONT CAMBER ADJUSTMENT

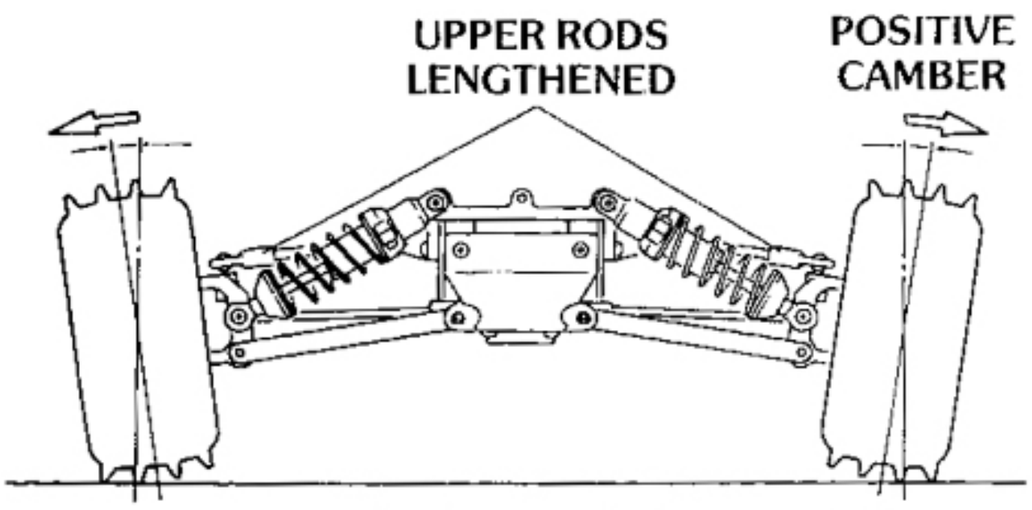


Place the car on a flat surface with the chassis raised as high as possible and adjust the length of the front and rear upper rods in a way so that the tires stand at a right angle to the ground.

NOTE: EVERY TIME YOU SHIFT THE HEIGHT OF THE CHASSIS, DO THE SAME ADJUSTMENT REFERRING TO PAGE 22 OF THE ASSEMBLY INSTRUCTION

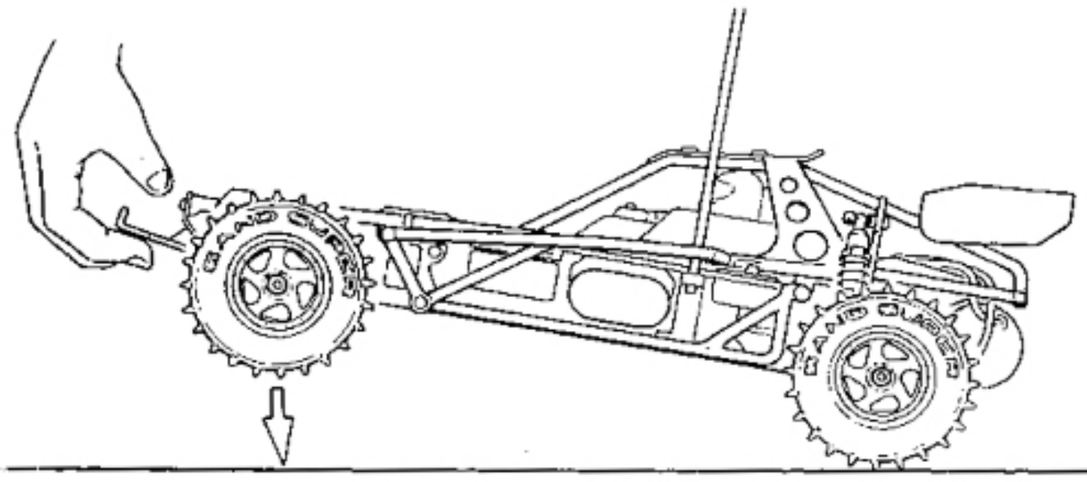


Negative camber results when you make the upper rods shorter

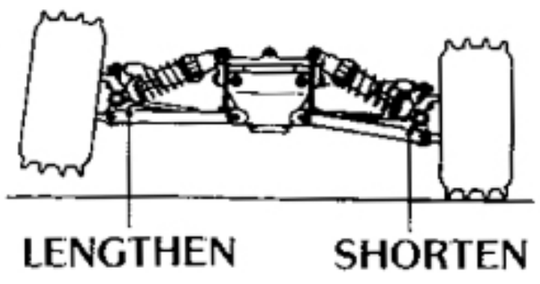


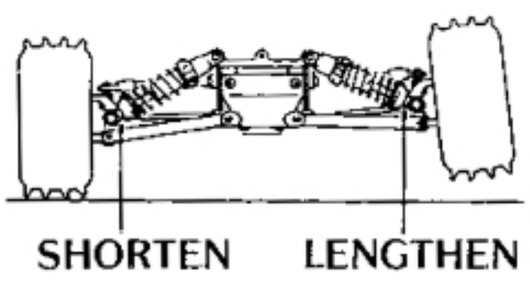
Positive camber results when you make the upper rods shorter

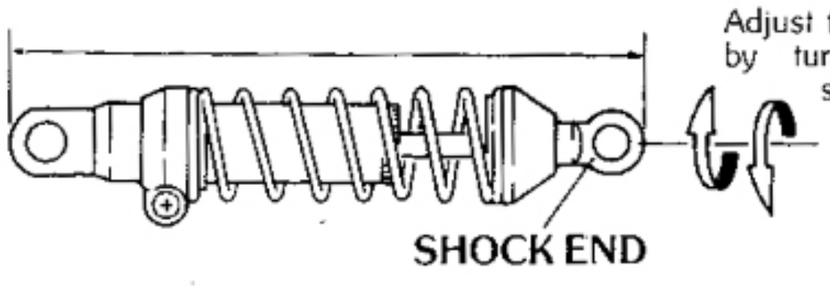
FRONT WHEEL HEIGHT



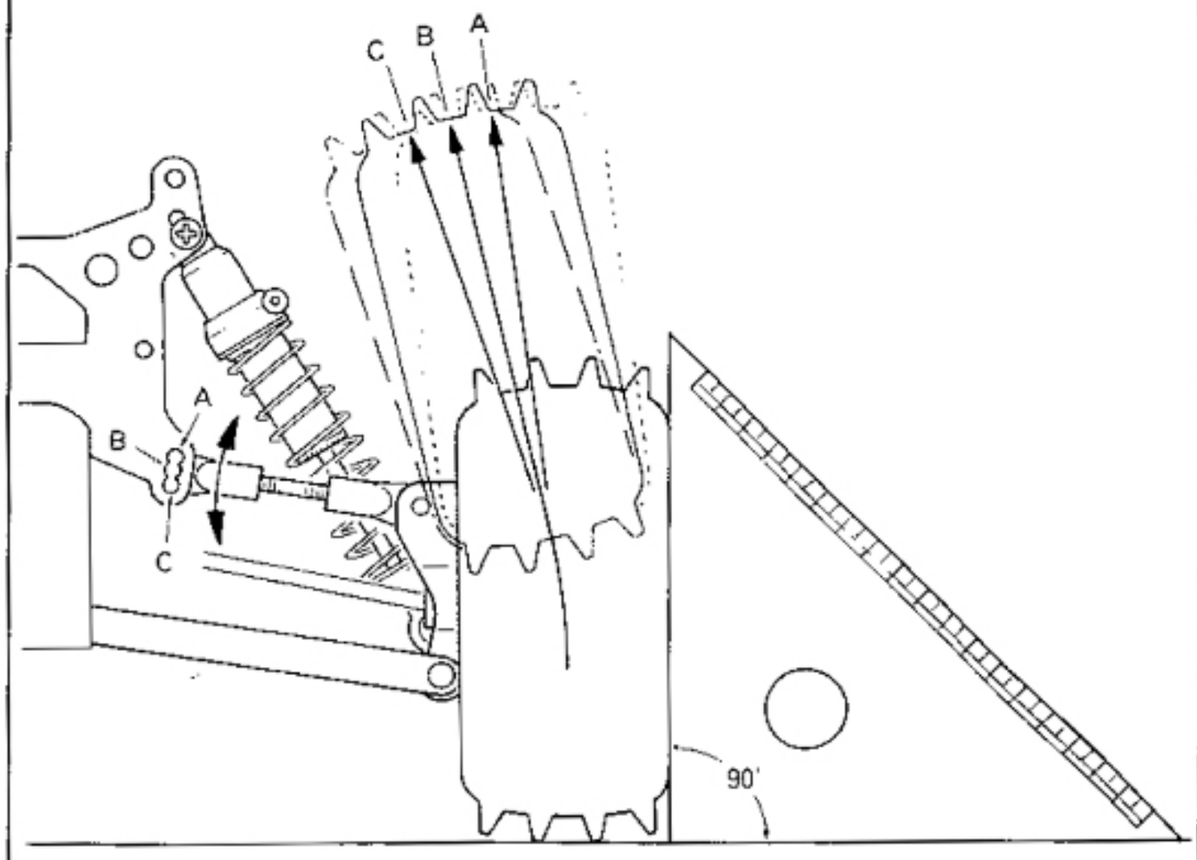
Place the car on a flat area raise the front end and then lower the front wheels slowly to see whether they will touch the ground evenly If not. adjust the length of the shocks If they are uneven steering to the right and left will not be the same







REAR CAMBER ADJUSTMENT

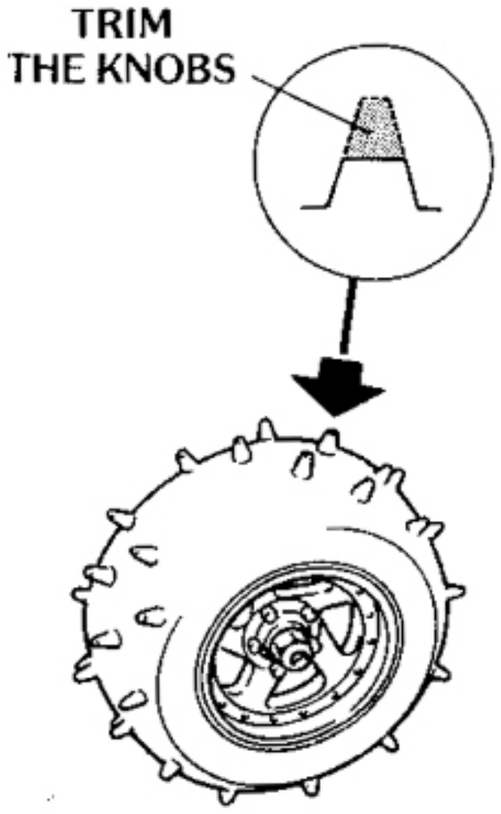


You can alter the rear wheel camber by shifting the bolt hole location of the upper rod. Hole "A" provides more positive camber while hole "C" provides more negative camber The middle hole "B" should be used normally

CUSTOMIZING THE TIRES

You can increase performance for various track conditions by trimming the knobs of the tires Consult the chart below

Track	Amount to Trim
Grass	1/2
Concrete	2/3
Sand	NONE
Hard Dirt	1/3
Soft Dirt	NONE



OPTIONAL TIRES

If you need even more traction on soft surfaces try Kyosho #SC-84 special tires

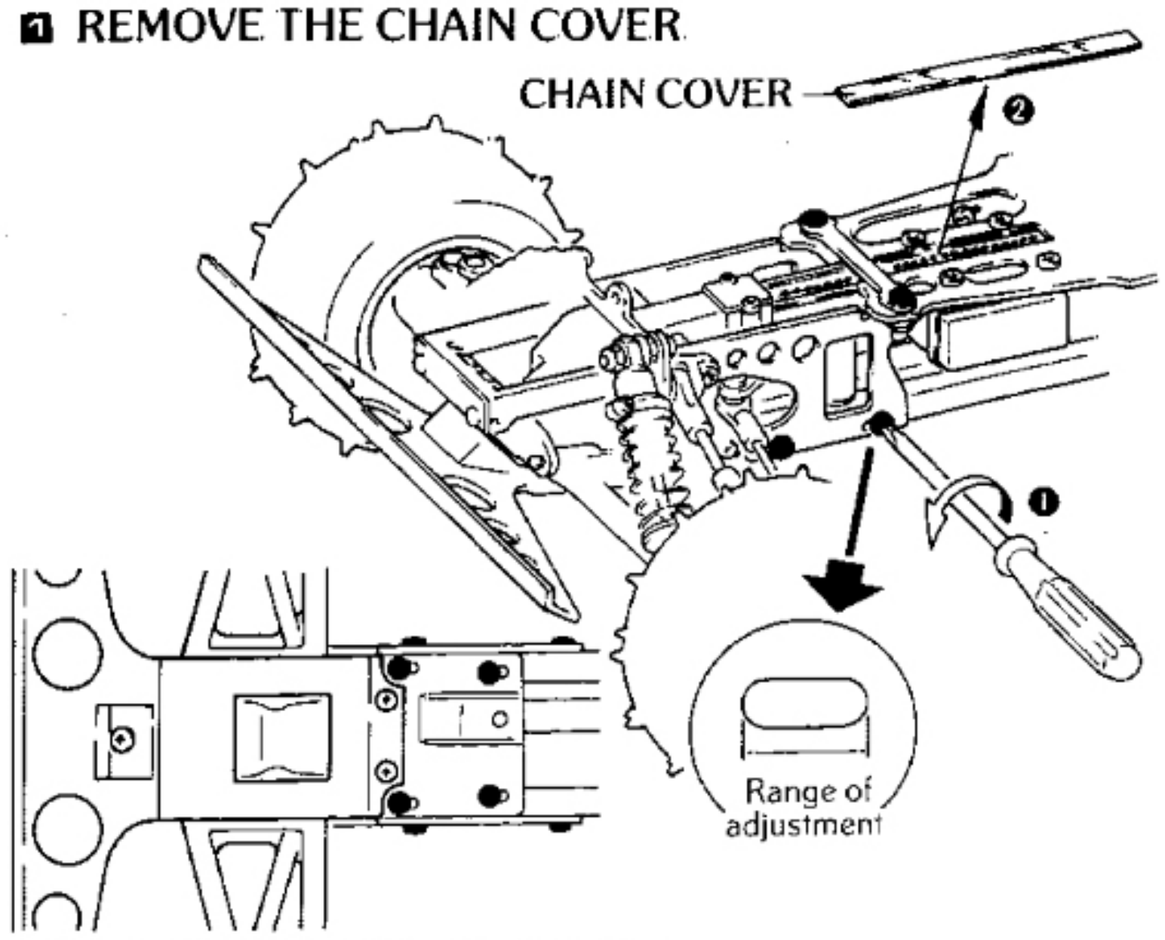
GEAR RATIOS AND OPTIONAL MOTORS

Pinion Gear	12T	13T	14T	15T	16T	17T
Gear Ratio	10.3	9.5	8.8	8.2	7.7	7.3
Motor	LeMans 240S			RS-540S		
			LeMans 360PT/ST			
		LeMans 480 Gold				

ADJUSTING THE CHAIN

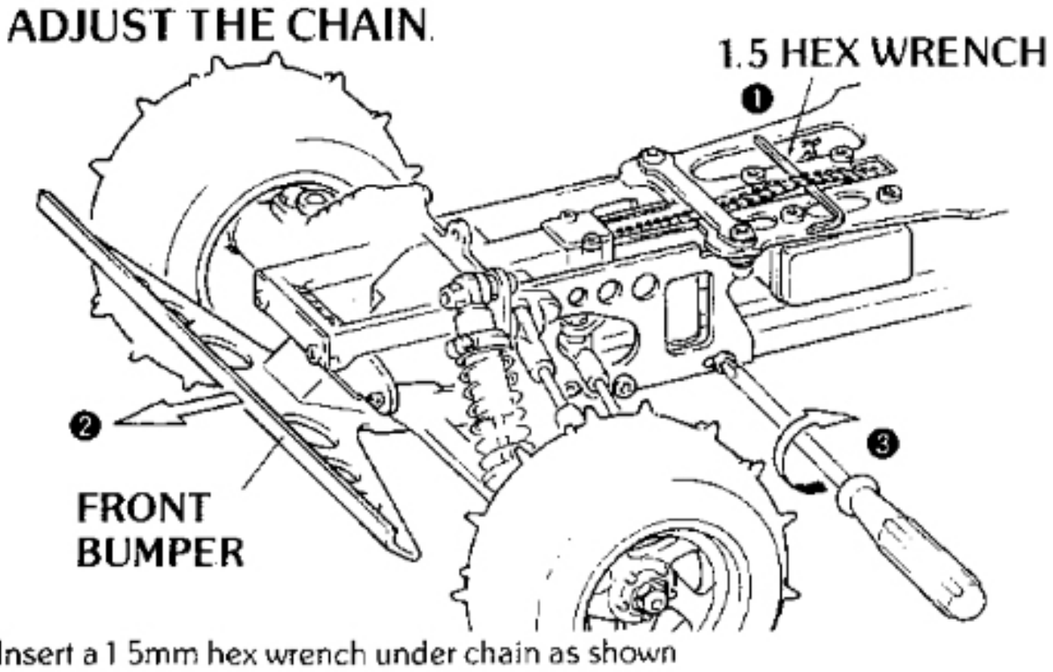
To avoid any damage to sprockets adjust the tension of the chain every 5-6 runs.

1 REMOVE THE CHAIN COVER.



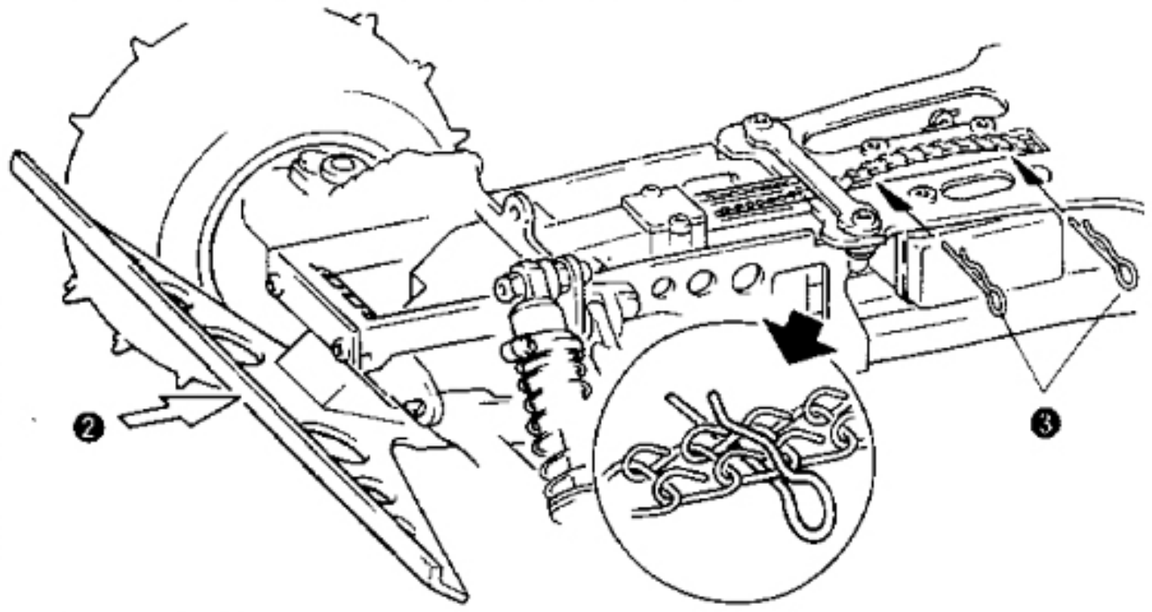
❶ Loosen 10 (darkened) screws 1/2 turn each
❷ Remove the chain cover

2 ADJUST THE CHAIN.

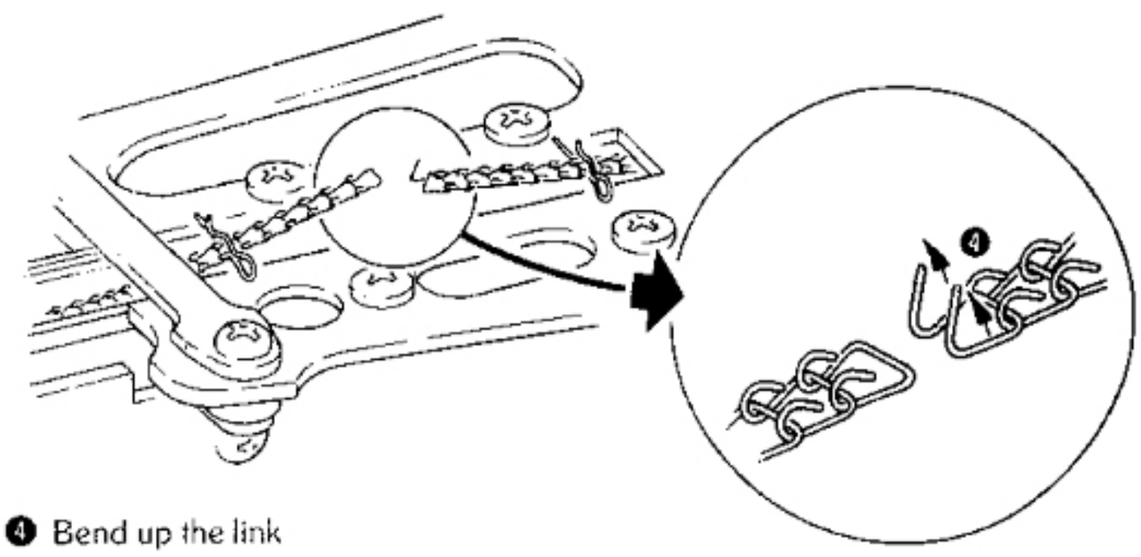


❶ Insert a 1.5mm hex wrench under chain as shown
❷ Pull bumper forward
❸ Keep tension on bumper and tighten the 10 screws firmly

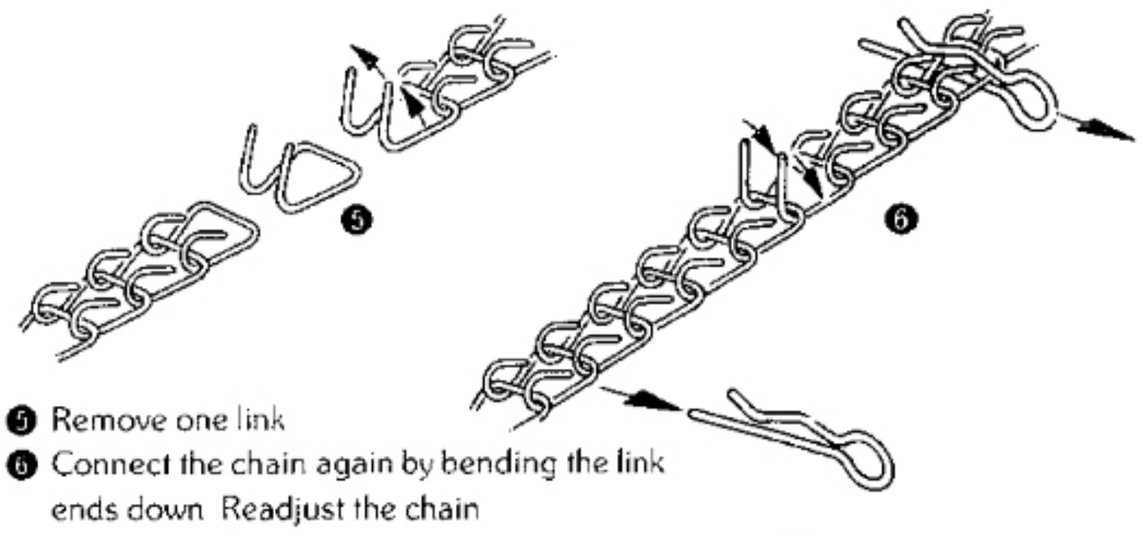
● When chain is stretched beyond range of adjustment:



❶ Loosen the 10 screws
❷ Push bumper rearward to loosen chain fully
❸ Hold the chain with hook pins as shown in inset drawing



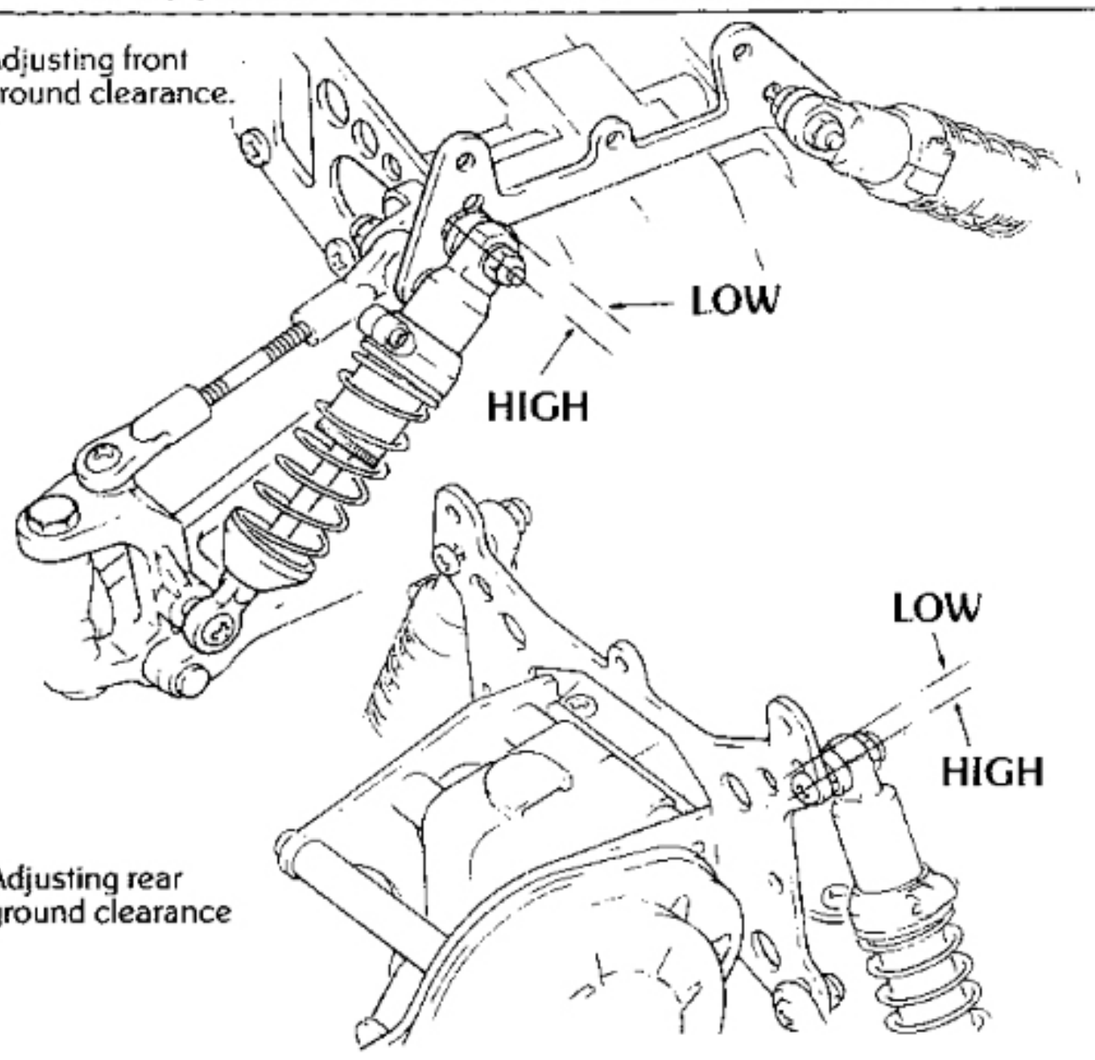
❹ Bend up the link



❺ Remove one link
❻ Connect the chain again by bending the link ends down. Readjust the chain

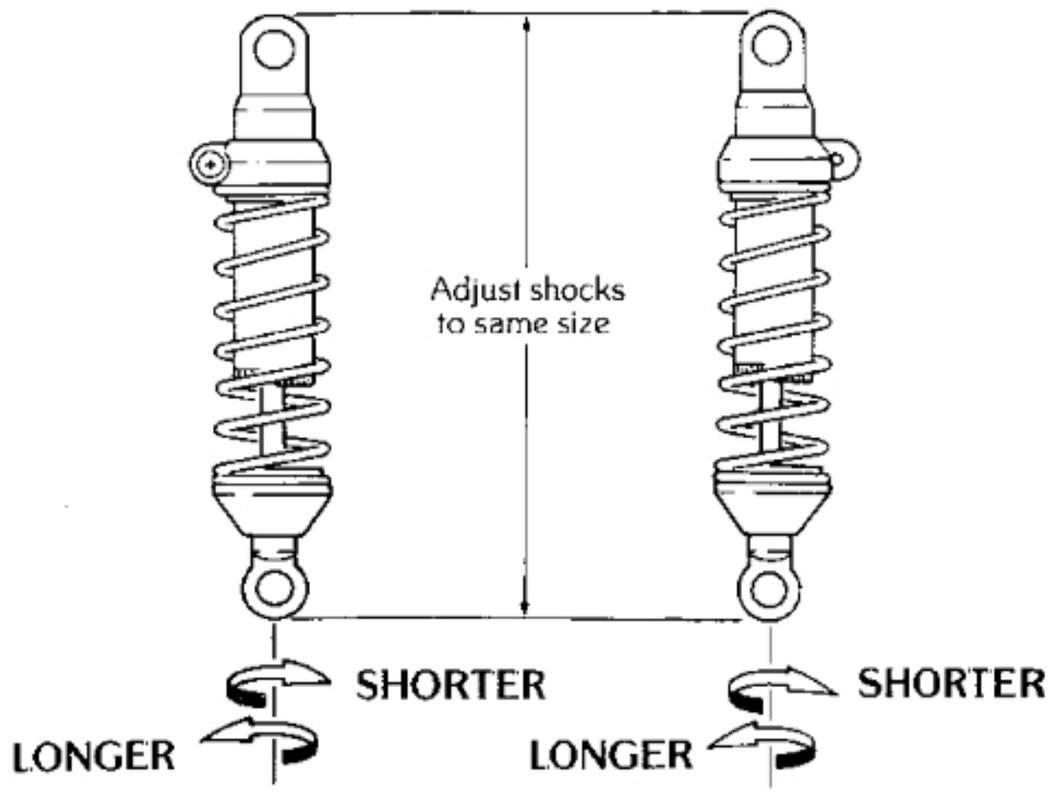
ADJUSTMENT OF GROUND CLEARANCE

(1) Adjusting front ground clearance.



(2) Adjusting rear ground clearance

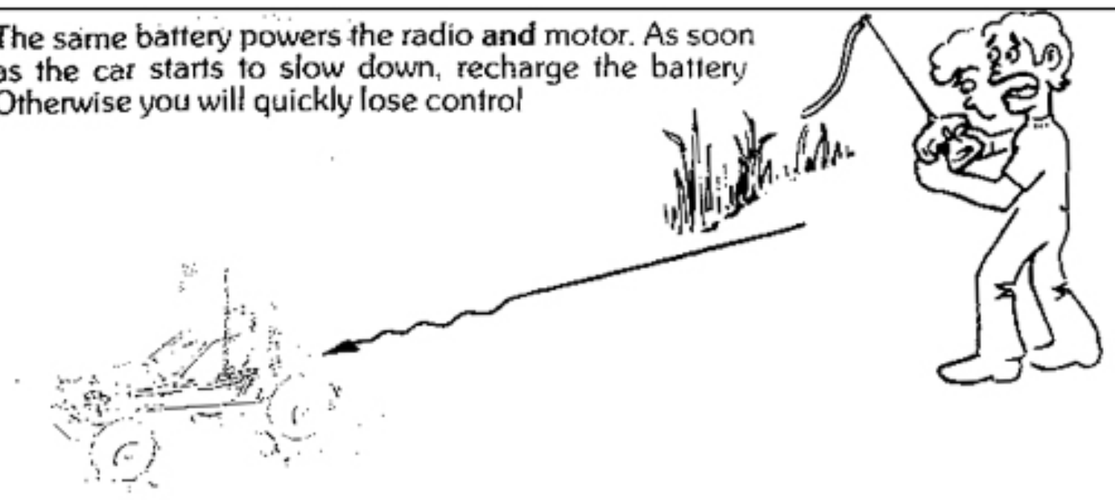
ADJUSTMENT OF SHOCK SIZE



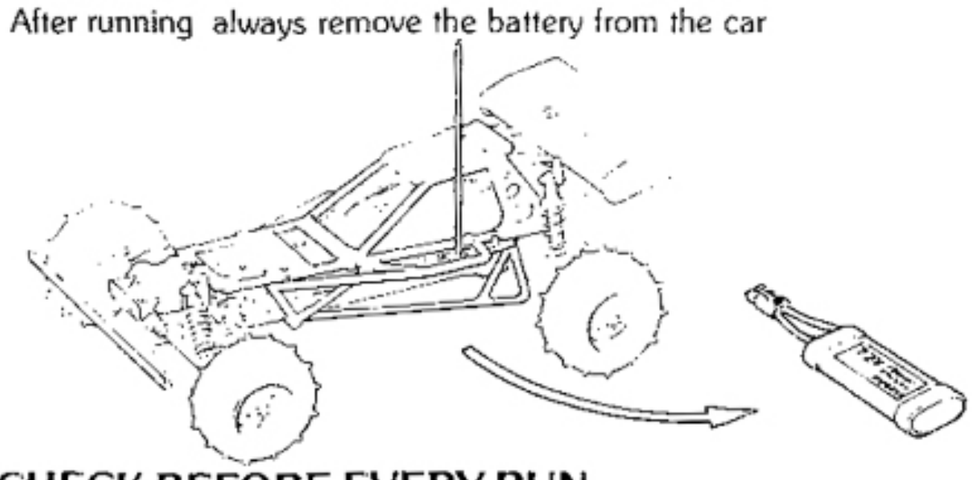
Adjust the shocks so that both front shocks and both rear shocks are exactly the same length

RUNNING THE JAVELIN

The same battery powers the radio **and** motor. As soon as the car starts to slow down, recharge the battery Otherwise you will quickly lose control



After running always remove the battery from the car



CHECK BEFORE EVERY RUN

Check to see if all bolts and nuts are tightened firmly

Check to see Ni-cad battery is fully charged

Check to see if the steering and speed control is in proportion to your control of the transmitter

Check to see that all wiring is properly insulated

Check to see if parts are moving smoothly.

OPERATING PROCEDURES

Turn transmitter switch on

Switch on the receiver

Check to see if the radio system is working properly

NOTE: When turning off the switches turn off the receiver first then transmitter Otherwise the servos may be left in a position other than neutral

TROUBLE SHOOTING IF THE CAR DOES NOT START

Poor contact of connectors of batteries connector and speed control

Check to see if the ni-cad battery is fully charged

Check to see shortage of battery power for the transmitter

Signal jamming from other radios.

SUGGESTED FURTHER READING

A wealth of hints, tips and general information about R/C cars is available at your favorite hobby store We suggest the 'Completely Cars" book by Harry Higley which is packed with hundreds of photos and great 'Tech-Tips" "R/C Car Action" a magazine published quarterly by Air-Age Publications will keep you on top of all the latest developments in the R/C car hobby

KEY NUMBERS FOR PARTS

No	Parts Name	Q'ty	No	Parts Name	Q'ty	No	Parts Name	Q'ty	No	Parts Name	Q'ty
(1)	Tire	4	40	Knuckle Arm (R)	1	79	Spring Stopper	4	(118)	M2 6 Pivot Ball	4
(2)	Wheel Pt (1)	4	41	Front Shaft	2	80	Shock Washer	4	(119)	5 Ø×10 Bushing	2
(3)	Wheel Pt (2)	4	42	Front Hub (L)	1	81	Shock O Ring	4	(120)	Resistor Protector	1
(4)	Wheel Pt (3)	4	43	Front Hub (R)	1	82	Shock Stopper	4	(121)	Main Gear	1
(5)	8 Ø×14 Bearing	4	44	E Ring (E-2 5)	4	83	Spring Receptacle	4	(122)	Sprocket (A)	1
(6)	Joint	4	45	Suspension Shaft (A)	2	84	Shock End	4	(123)	Sprocket (B)	1
(7)	Hex Wrench (2mm)	1	46	Suspension Shaft (B)	2	85	Joint Collar	2	(124)	Sprocket (C)	1
(8)	Plastic Bushing	8	47	Hex Wrench (1 5mm)	1	86	Gear Cover	1	(125)	Bevel Gear (A)	4
(9)	Gear Box (L)	1	48	Front Suspension Arm	2	87	Gear Cover Seal	1	(126)	Bevel Gear (B)	4
(10)	Final Pinion	1	49	5 8 Ø Ball	4	88	Servo Spacer (A)	1	(127)	Bevel Shaft	2
(11)	Gear Box (R)	1	50	Ball End (Large)	12	89	Servo Spacer (B)	1	(128)	Battery Holder	2
(12)	Center Gear Shaft	1	51	Upper Rod	4	90	Servo Mount	1	(129)	Bulk Head (L)	1
(13)	Rear Plate (R)	1	52	Front Shock Stay	1	91	Speed Control Spring	1	(130)	Bulk Head (R)	1
(14)	Rear Plate (L)	1	53	Swing Shaft	4	92	Speed Control Nut	1	(131)	5 Ø Shim	4
(15)	Counter Gear	1	54	Shock Bushing	4	93	Speed Ctrl Con Pnt	2	(132)	Body Washer	2
(16)	M3 Pivot Ball	8	55	Tie Rod	2	94	Speed Ctrl Hold Metal	1	(133)	Decal	1
(17)	Rear Shock Stay	1	56	Rear Shaft	2	95	Speed Control Pivot	1	(134)	Regulator	1
(18)	Gear Box Hatch	1	57	Rear Hub (R)	1	96	Speed Control PC Board	1	(135)	Connector	1
(19)	Front Suspension Plate	1	58	Suspension Shaft (C)	2	97	Speed Control Horn	1	(136)	Silicon Grease	1
(20)	Lower Guard	1	59	Rear Suspension Arm	2	98	Driver Post	1	(137)	Shock Wrench	1
(21)	Front Support	1	60	Suspension Shaft (D)	2	99	Chain Cover (A)	1	(138)	Strap (Medium)	1
(22)	Main Chassis	2	61	Rear Suspension Strut	1	100	Chain Guide (A)	1	(139)	Rear Hub (L)	1
(23)	Front Side Plate	2	62	Radio Plate	1	101	Chain Guide (D)	1	(140)	Motor Cord	1
(24)	Front Upper Pivot (L)	1	63	Center Gear Bushing	1	102	Chain Cover (B)	1	(141)	Driver Plate	1
(25)	Front Upper Pivot (R)	1	64	Center Gear	1	103	Front Strap Plate	1	(142)	Marker Plate	1
(26)	Radio Post (R)	2	65	O Ring	1	104	Servo Rod	2	(143)	Side Guard (L/R)	1 Set
(27)	Radio Post (F)	2	66	Hook Pin	4	105	Servo Saver Spacer	1	(144)	Front Plate	1
(28)	Chain Guide (B)	1	67	Pinion Gear (12T)	1	106	Double Sided Tape	1	(145)	Roll Cage	1 Set
(29)	Chain Guide (C)	1	68	Pinion Gear (15T)	1	107	Antenna Tube	1	(146)	Side Cage	2
(30)	Chain	1	69	Motor Cover	1	108	Resistor	2	(147)	Roll Cage Joint	1
(31)	Ball Nut	4	70	RS-540S Motor	1	109	Front Bumper	1	(148)	Rear Guard (A)	1
(32)	Saver Shaft (A)	1	71	Shock Seal	4	110	Drive Washer	4	(149)	Rear Guard (B)	1
(33)	Saver Shaft (B)	1	72	Shock Oil	1	111	Strap (Small)	6	(150)	Rear Guard (C)	1
(34)	Servo Saver (A)	1 Set	73	Front Shock Case	2	112	Ni-Cad Strap	2	(151)	Rear Guard Joint	2
(35)	Servo Saver (B)	1	74	Rear Shock Case	2	113	Steering Rod	1	(152)	Wing	1
(36)	M2 Shaft	1	75	Front Shock Piston	2	114	Driver	1	(153)	Body Spacer	2
(37)	Ball End (Small)	4	76	Rear Shock Piston	2	115	Strap (Large)	1	(154)	Roll Bar	1
(38)	King Pin	4	77	Front Spring	2	116	Radio Plate Support	1			
(39)	Knuckle Arm (L)	1	78	Rear Spring	2	117	Radio Post Screw	2			

PURCHASING PARTS FOR YOUR KIT

You can purchase replacement and optional parts for your kit. All of the parts identified by key numbers (see above) are usually not available singularly, but we offer these parts in convenient parts "packs" which can be purchased separately. To figure out which parts pack you need, find the key number for that part within the manual. Then consult our parts pack guide, below. When referring to the parts you need, always use the **Parts Pack Numbers.** For instance, if you need **a Center Gear Shaft (Key #12) ask your dealer for Kyosho Part Pack # OT-7 (Rear Plate Set)**

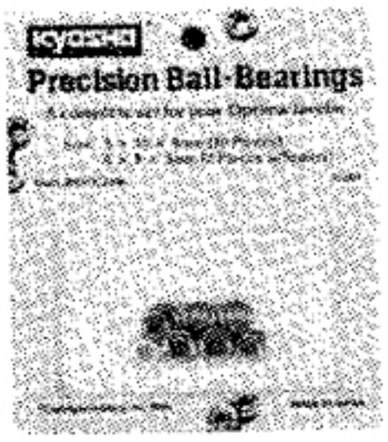
Parts Pack #	Description	Key Numbers
OT-01	Gear Box	9 11 129 130 x 1
OT-02	Chain	30 x 1
OT-04	King Pin	38 x 4
OT-05	Joint - 2	6 x 2
OT-06	Swing Shaft - 2	53 x 2
OT-07	Rear Suspension Plate Set	12 13 14 x 1 85 x 2
OT-08	Front Side Plate Set	23 x 2
OT-10	Bushing Set	63 x 1 119 x 2 8 x 10
OT-11	Suspension Shaft - 4	45 46 58 60 x 2
OT-12	Radio Plate	62 x 1
OT-13	Suspension Arm Set - 4	48 59 x 2
OT-14	Lower Guard	20 x 1
OT-15	Bumper	109 x 1
OT-16	Knuckle Arm (R&L)	39 40 x 1
OT-17	Shaft - 2 (Front)	41 x 2
OT-18	Shaft - 2 (Rear)	56 x 2
OT-19	Drive Washer - 4	110 x 4
OT-20	Main Chassis	22 x 2
OT-22	Body Washer - 10	132 x 10
OT-23	Pinion Gear (12T)	67 x 1
OT-24	Pinion Gear (15T)	68 x 1
OT-27	Sprocket Gear Set	15 64 121 122 123 124 x 1
OT-28	Differential Gear Set	127 x 2 125 126 x 4
OT-29	O-Ring - 10	65 x 10
OT-30	Tires - 2	1 x 2
OT-31	Pivot Ball - 10 (3MM)	16 x 10
OT-32	Ball - 10 (5.8MM)	49 x 10
OT-33	Ball Receptacle - 10 (2.6)	31 x 10
OT-34	Plate Set	19 61 88 89 103 105 120 x 1
OT-35	Upper Rod Set	36 x 1 104 x 2 37 51 x 4 50 x 8
OT-36	Pivot Ball - 10 (2.6MM)	118 x 10
OT-37	Cord Set	134 x 1 140 x 1 Set
OT-38	Silicon Grease - 2	136 x 2
OT-39	E-Ring - 10 (#-2.5)	44 x 10
OT-40	Strap - 6	138 x 6
OT-41	Final Pinion	10 x 1
OT-42	Servo Saver Set	32 33 35 x 1 34 x 1 Set
OT-43	Shocks - 2 (Rear)	137 x 1 49 54 71 74 76 78 79 80 81 82 83 84 x 2
OT-45	Hub (Rear)	57 139 x 1
OT-46	Chain Guide Set	28 99 100 102 x 1
OT-55	Hub Set (Front - Std)	24 25 42 43 x 1
OT-48	Battery Holder Set	18 29 101 x 1 26 27 128 x 2
OT-49	Gear Cover Set	21 86 87 90 116 x 1
OT-57	Shock Stay	17 52 x 1
OT-58	Wing	152 x 1
OT-59	Driver	98 114 x 1

Parts Pack #	Description	Key Numbers
OT-60	Decal	133 x 1
OT-61	Screw Set w/Wrenches	Screw, Nut, Wrench Set
OT-62	Wheels - 4	2 3 4 x 4
OT-63	Body Set	141 142 144 147 148 149 150 154 x 111 143 145 146 151 153 x 2 w/Screw
SC-040	Motor Cover	69 x 1
SC-046	Tape (2 Sided)	106 x 1
SC-067	Speed Control w/o Resist	91 92 94 95 96 97 x 1 93 x 2
SC-078	Speed Control PC Board	96 x 1
SC-079	Speed Control Contacts - 2	93 x 2
SC-105	Speed Control Resistors - 2	108 x 1
EF-026E	Connector	135 x 1
SC-089	Tie Rod Set	55 x 2 50 118 x 4
SC-101	Rear Shaft Shim - 10	131 x 10
EF-037	Strap - 6 (3/32 × 2)	111 x 6
EF-038	Strap - 6 (1/4 × 12)	115 x 6
EF-039	Strap - 6 (3/16 × 8)	112 x 6
EP-22	Body Hook Pins - 5	66 x 5
LD-76	Shock Rubber Bushing - 10	54 x 10
SD-79	Antenna Set	107 x 5
1911	Ball Bearing - 2 (8 × 14 × 4)	5 x 2
AB-30	Front Shock Set - 2	49 54 71 74 75 77 79 80 81 82 83 84 X2 137 x 1

OPTIONAL PARTS

Parts Pack #	Optional Parts	
OT-50	Pinion Gear (13T)	Gear Ratio (9.56 : 1)
OT-51	Pinion Gear (14T)	Gear Radio (8.87 : 1)
OT-52	Pinion Gear (16T)	Gear Ratio (7.76 : 1)
OT-53	Pinion Gear (17T)	Gear Ratio (7.31 : 1)
OT-54	Stabilizer Set (F&R)	Front & Rear Stabilizer Set
OT-56	Screw Set (Lt. Weight)	Tapping (Aluminum), Nylon Nut Set
SC-080	Speed Control Resistors - 3	4 Forward Speeds
H-001	Ball Bearing Set Complete	Ten 5mm & Two 4mm Bearings
1901	Ball Bearing - 2 (5 × 10 × 4)	2 Pcs.
1903	Ball Bearing - 2 (4 × 8 × 3)	2 Pcs.
1951	Shock Oil Set - 3 (S-M-H)	Soft, Medium, Hard 60cc x3
OT-47	Hub Set (Low Caster)	Front Hub Set (Low Caster)
1846	Multi-Charger	Good quality, fast.
1848	Auto Charger	Excellent, Kyosho's Best.
1891	Motor - LeMans 480S	24,500 RPM Ball Bearing
1892	Motor - LeMans 480T	23,600 RPM Ball Bearing
1893	Motor - LeMans 240S	28,000 RPM Ball Bearing
1894	Motor - LeMans 600 E	18,500 RPM Plain Bearing
1895	Motor - LeMans 360PT	23,500 RPM Ball Bearing
1897	Motor - LeMans 480G	23,600 RPM Ball Bearing
1898	Motor - LeMans 360ST	22,000 RPM Plain Bearing
2218B	Battery 6N-1200S-Nicad	Matched cells, perfect for Javelin

LeMans Motors



Ball Bearing Set

Pinion Gear

Auto Charger

Shock Oil Set

Battery