

1/10 SCALE RADIO CONTROLLED ELECTRIC POWERED DIRT RACER

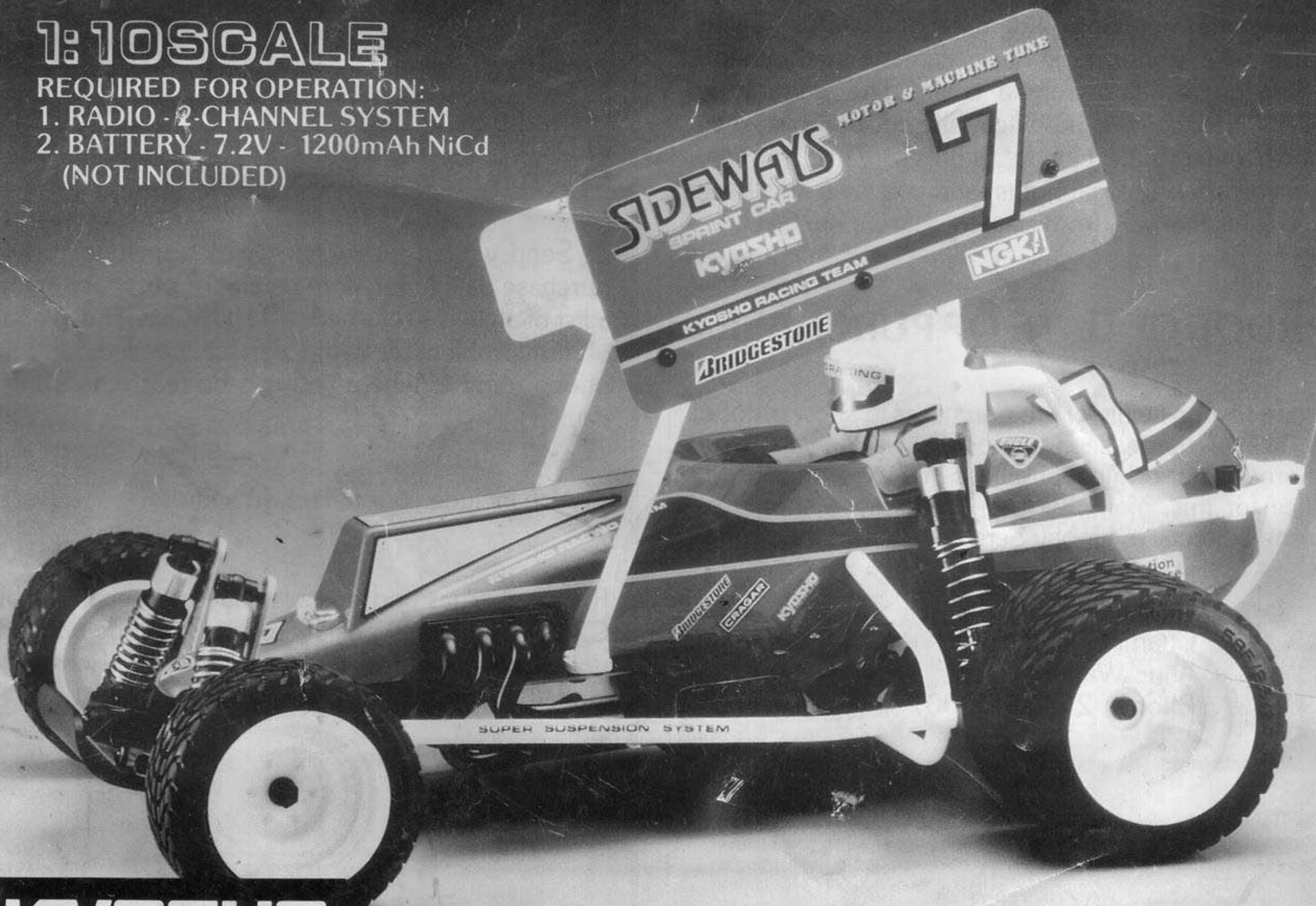
SIDEWAYS™

SPRINT CAR

- SUPER LIGHTWEIGHT FOR QUICK ACCELERATION.
- LONG SUSPENSION TRAVEL FOR TOP HANDLING ON EVEN THE ROUGHEST TRACKS.
 - ALUMINUM PLATE/TRUSS CHANNEL-TYPE CHASSIS FOR HIGH STRENGTH AND LIGHT WEIGHT.
 - PERFECT COMBINATION OF SUSPENSION DESIGN AND WEIGHT DISTRIBUTION FOR TOP HANDLING.
- INDEPENDENT SUSPENSION ON ALL FOUR WHEELS AND NEW RACE-TESTED GEOMETRY.
 - OIL-FILLED SHOCK ABSORBERS ON ALL FOUR WHEELS.
 - STRONG ALUMINUM AND NYLON PARTS.
- MANY HIGH PERFORMANCE OPTIONAL PARTS ARE AVAILABLE.
 - BASED ON THE WINNING ULTIMA CHASSIS.
 - ATTRACTIVE, HIGHLY DETAILED SPRINT CAR BODY.

1:10 SCALE

REQUIRED FOR OPERATION:
1. RADIO - 2-CHANNEL SYSTEM
2. BATTERY - 7.2V - 1200mAh NiCd
(NOT INCLUDED)



KYOSHO
THE FINEST RADIO CONTROL MODELS

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WARRANTY INFORMATION

90 Day Limited Warranty

It is expressly understood that the standard replacement warranty of the seller, a copy of which is annexed to and made part of this agreement, shall be in lieu of any and all other warranties, including the warranties of merchantability and fitness for use. The sole responsibility of the seller shall be in its replacement obligations contained in this standard warranty.

Kyosho's "Sideways" is warranted to the original owner to be free of defects in parts or workmanship for a period of 90 days from the date of purchase. During this time Kyosho's authorized U.S. repair facility, Hobby Services, will repair and replace at their option any defective parts without charge.

Limit of our liability: Our liability under this warranty is limited to the repair or replacement of defect or defective parts by Hobby Services and does not include shipping expense.

Exclusion and/or Voidance of Warranty: This warranty does not apply to damage or defects resulting from misuse, abnormal service, damage in shipment, or damage resulting from a crash. The warranty is voided if the model is modified, altered, or repaired by anyone other than Hobby Services. This warranty gives you specific legal rights, and you may also have other rights that vary from state to state within the U.S.

PROOF OF DATE OF PURCHASE

It is the responsibility of the purchaser to show proof of the date of purchase if a model's warranty is to be honored. Your original purchase invoice or receipt will suffice for this. Your Kyosho "Sideways" should be returned directly to Hobby Services for warranty work.

Hobby Services
1610 Interstate Drive
Champaign, IL 61821
Attn: Warranty Dept.
Phone: 217-398-0007

SHIPPING INFORMATION

Please follow steps 1 through 4 in "Repair Service" when returning a model to Hobby Services. (See Below).

We are sorry, but we cannot be responsible for crash damage and/or loss of kits, engines, accessories, etc.

REPAIR SERVICE

Should your model be past the 90 day warranty period, or should your kit be voided or excluded from warranty coverage, repairs are available for a nominal cost through Kyosho's authorized U.S. repair facility, Hobby Services. Since we want you to be happy with your purchase for a long time, Hobby Services employs a full time in-house service staff. They have the professional knowledge and the sophisticated equipment and parts available to service your model for years to come. When returning your model, whether for warranty or repair service, please be sure to follow the instructions listed below. This will help the technician troubleshoot the system, repair it, and return it to you as quickly as possible.

- 1) Under all circumstances, return the ENTIRE system.
- 2) Disconnect the receiver battery switch harness, and make sure the transmitter is turned off.
- 3) Send written instructions which include: proof of purchase date (your store receipt or purchase invoice), a list of all items returned, a THOROUGH explanation of the problem and the service needed, and your phone number where you can be reached during the day.
- 4) Also include your full return address.

Repair charges and postage may be prepaid or billed C.O.D. Additional postage charges will be applied for non-warranty returns. All repairs shipped outside the United States must be prepaid in U.S. funds only.

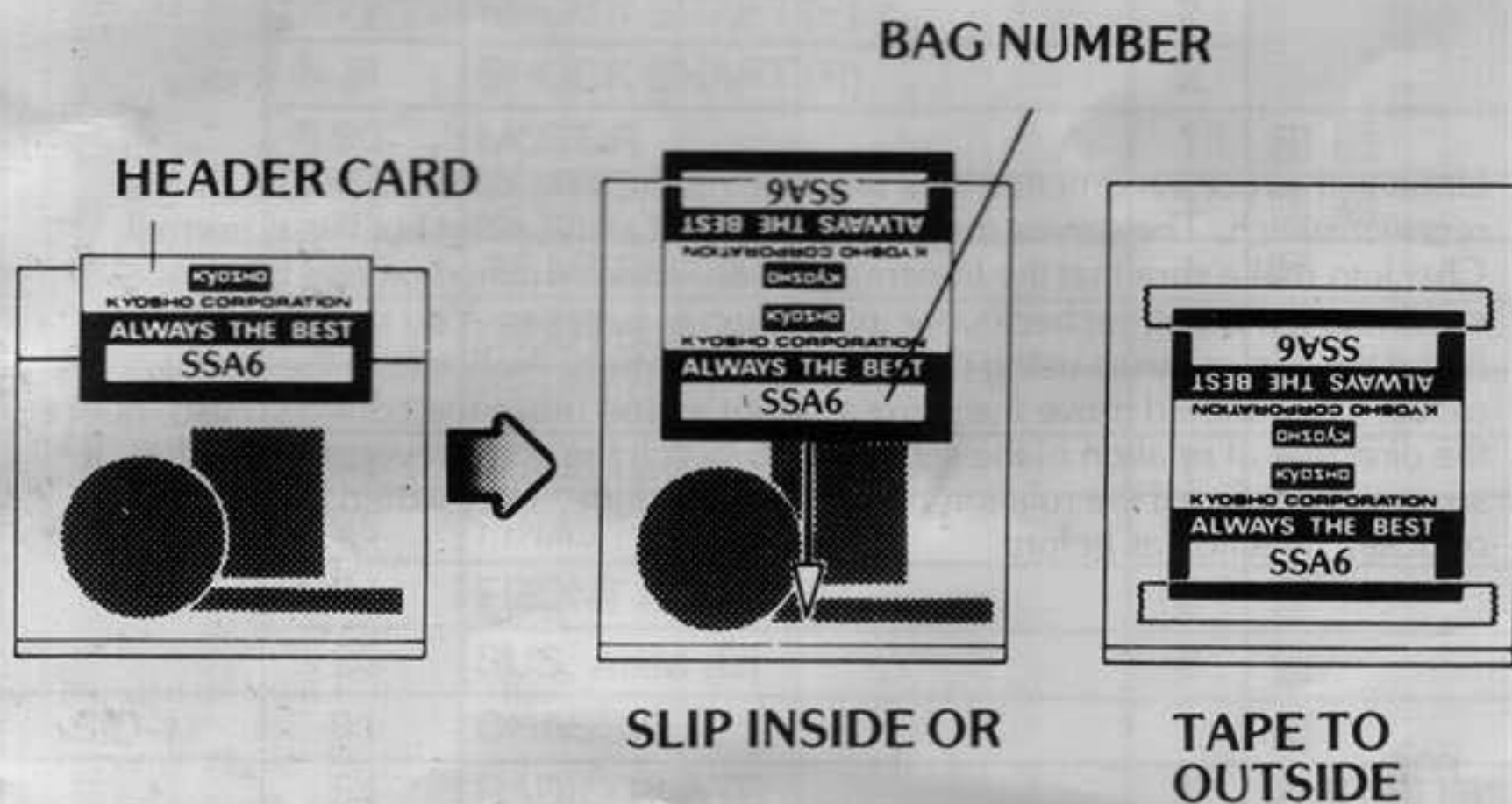
SIDEWAYS™

IMPORTANT! BEFORE YOU BEGIN

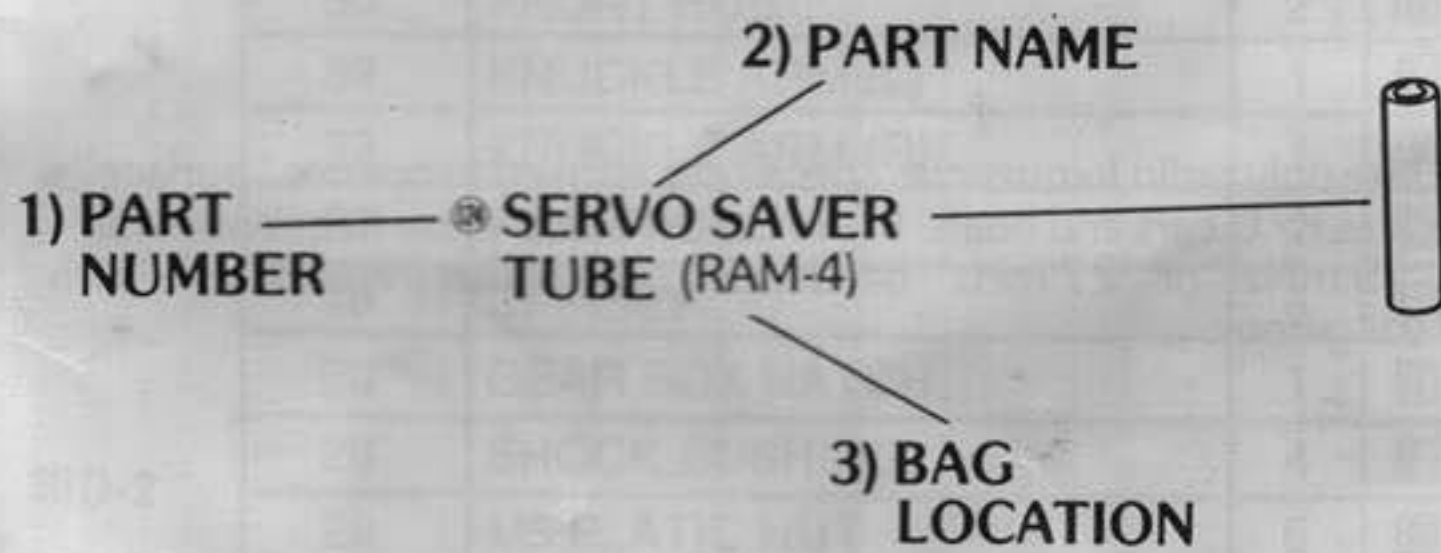
This is a sophisticated model with a large number of moving parts. Before you begin assembly, take a look through the box and these instructions carefully to decide whether or not you are ready for this challenge! If you do not think that this type of model is for you, it may be returned to the dealer 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! IT IS VERY IMPORTANT TO read through this entire manual thoroughly to familiarize yourself with the parts and methods of construction used BEFORE actually starting to build.

HOW TO USE THIS MANUAL

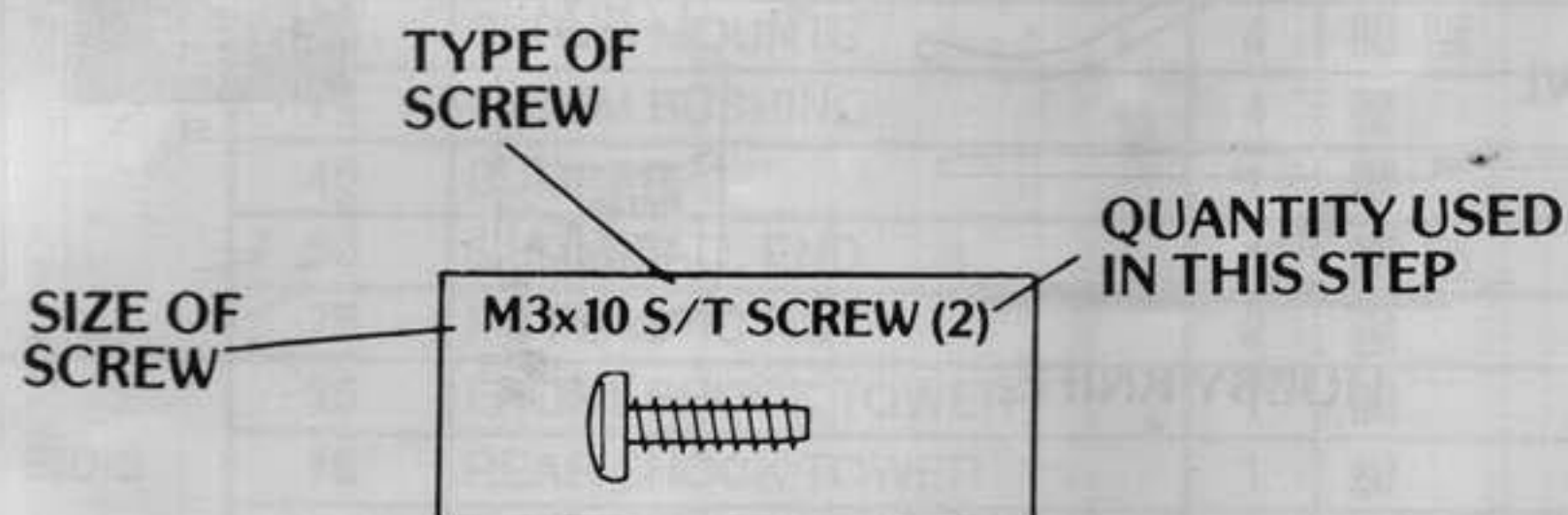
This Kyosho instruction manual uses a unique cross reference system to help you locate all of the bagged parts. DO NOT open each bag and dump out the parts. Carefully remove the header card from the bag and discard the staple. Slip the header card into the bag or tape it to the outside of the bag so that the bag number shows. These bag numbers will be used throughout the assembly process and will prove invaluable when locating parts.



In each step of assembly each part will be labeled with 1) The part number, 2) Part name, and 3) Bag location.



In the left margin of each page you will find a directory of small parts that will be used in each step. For ease of identification, these parts are shown actual size enabling you to place a screw directly on the picture to ensure you have selected the appropriate size.

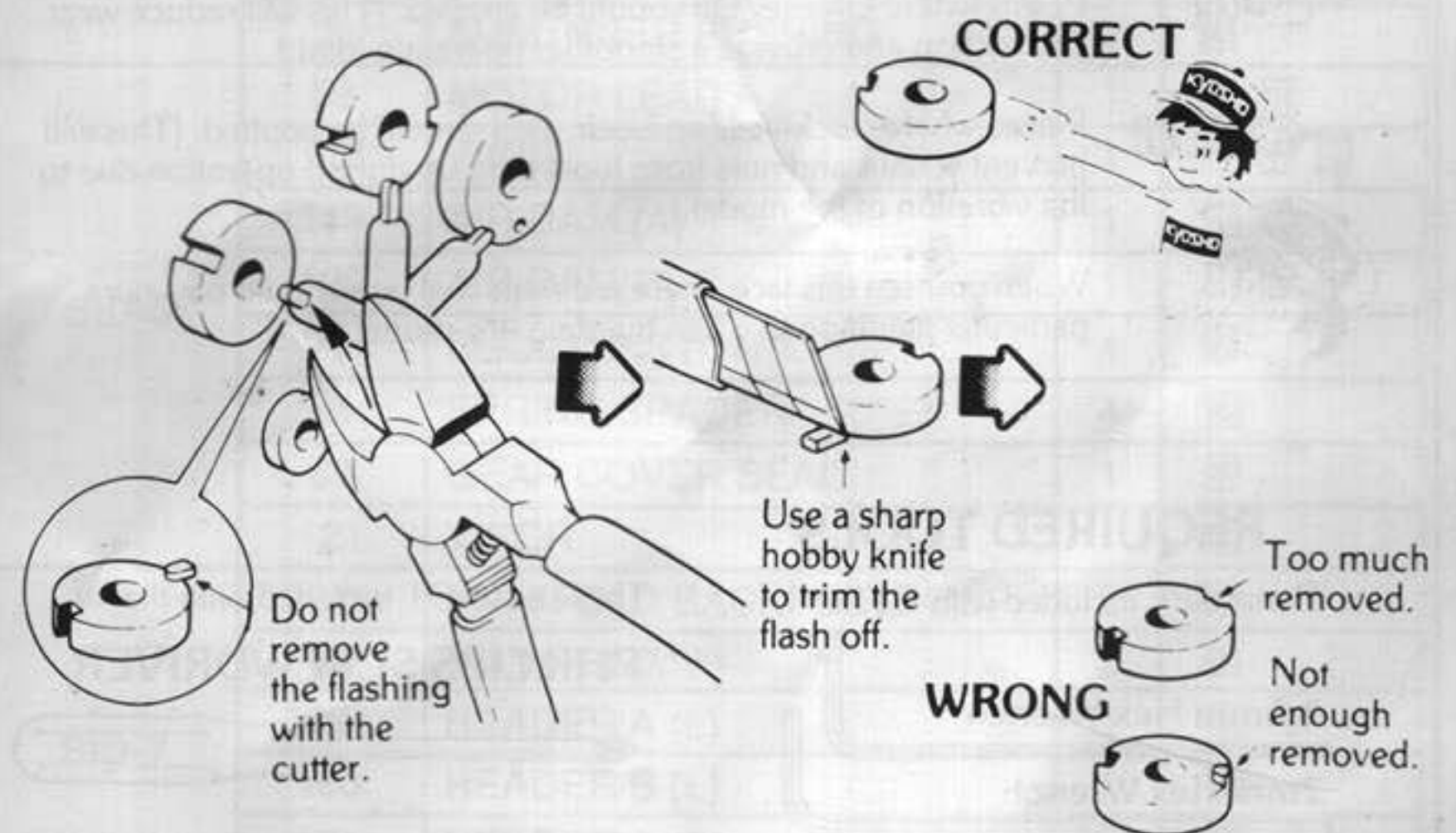


On page 27 you will find a complete list of parts used in this kit including the part number and total quantity supplied in the kit. On page 5 you will find an inventory of how each part is bagged in this kit and which step it is used. When ordering replacement or optional parts, see page 28 for a complete listing of parts and stock numbers.

HELPFUL TIPS & PRECAUTIONS

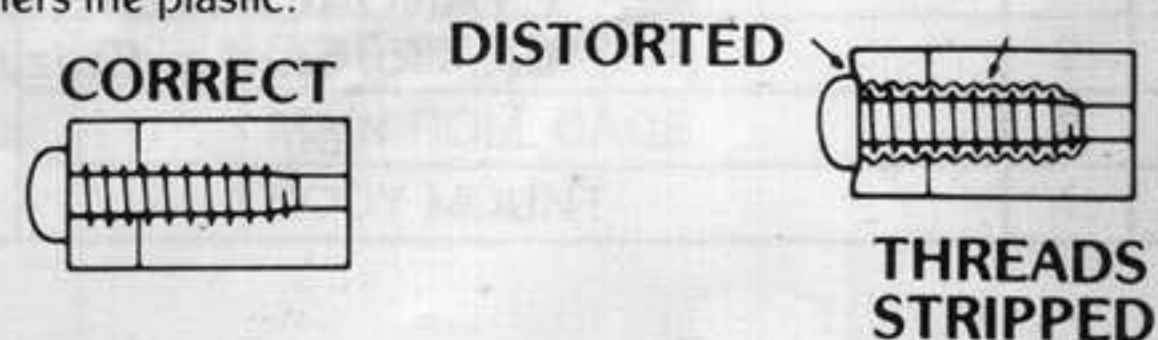
Some precautions need to be observed when building "Sideways" to avoid problems.

- 1.) Use a muffin tin or egg carton to separate screws, nuts, washers, etc. This will make it easier to locate the correct part.
- 2.) Place a mat or towel on the work surface where you will be building the kit. This will prevent parts from rolling off and will protect the work surface at the same time.
- 3.) Try to avoid working over a shag carpet. In the event that a small part or screw should fall onto the carpet, it will be difficult to find.
- 4.) Avoid getting products like engine cleaner or screw lock on the plastic parts. They can have a serious effect on your model.
- 5.) Avoid running the "Sideways" in very cold temperatures. Both plastic and metal parts become brittle at low temperatures. In addition, grease and oil become very thick causing premature wear and deficient performance.
- 6.) Remove all flashing from parts before assembly as shown in the example below.



7.) Trial fit all parts to ensure proper fit before attaching them permanently.

8.) Do not use excessive force when tightening self tapping type screws into plastic. Overtightening will cause the threaded portion of the plastic to strip. It is recommended to stop tightening when some resistance is felt after the threaded portion enters the plastic.



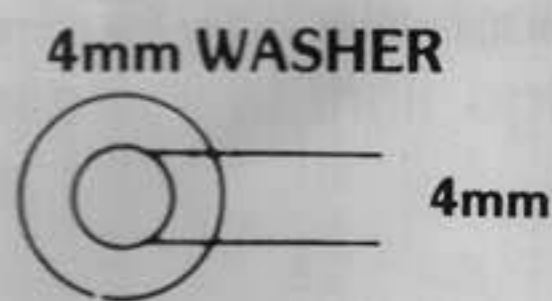
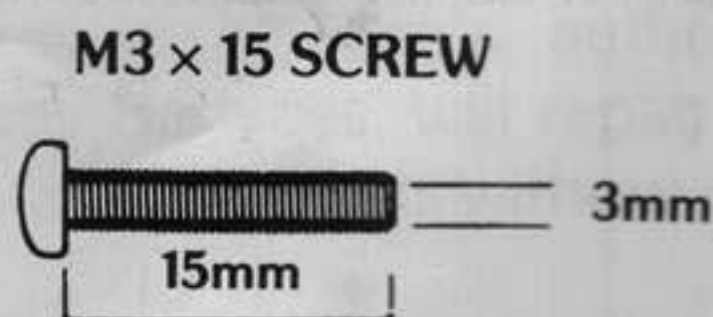
9.) Ensure that all parts are well lubricated where the instructions indicate the use of grease.

10.) Avoid using power screwdrivers when assembling your kit. They tend to overtighten screws.

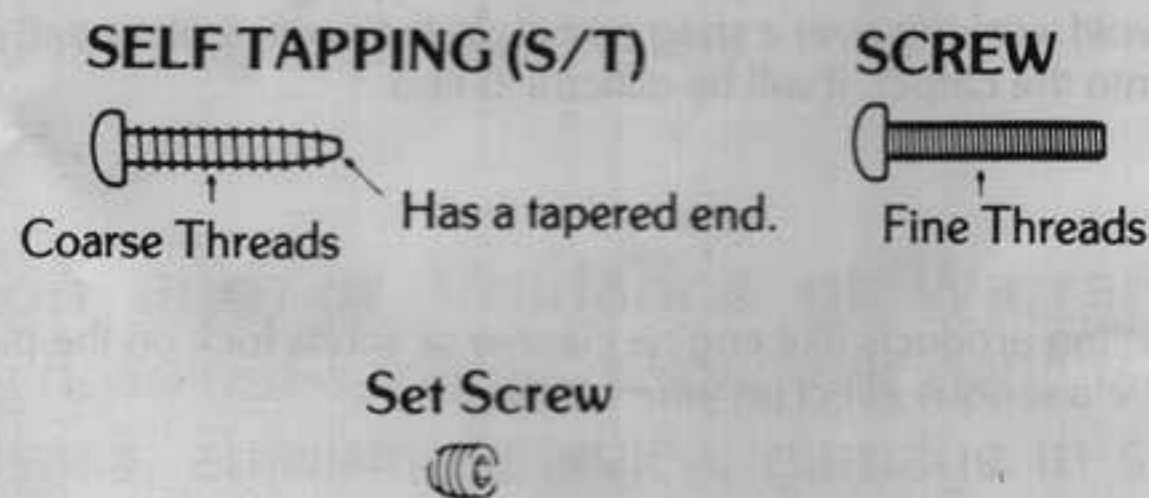
11.) Take your time and read the directions thoroughly. It's not how fast you can assemble the kit but how fast it goes once it is assembled.

METRIC NUTS AND BOLTS

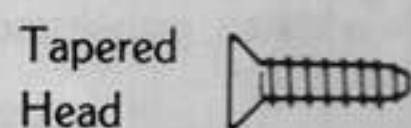
All nuts and bolts used throughout this kit are metric size. Therefore, some of the notations may not be familiar to you. An M3 nut is a 3 millimeter (3mm) nut. An M3x15 screw is 3mm diameter and 15mm long. Some round parts may be labeled as a "4mm Washer" (a washer with a 4mm inside diameter) or a "3mm 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 millimeter equals approximately .039 inches.



A few different types of screws are used in the construction of your model. Here are some examples and how they will be indicated in the instructions. For example, Self Tapping will simply be S/T screw.



FLAT HEAD SCREW (F/H)



Certain symbols are used throughout the instructions. Pay attention to their location.

GREASE Points where Grease/Oil should be applied. (This will reduce wear and friction and provide a smoother operating joint.)

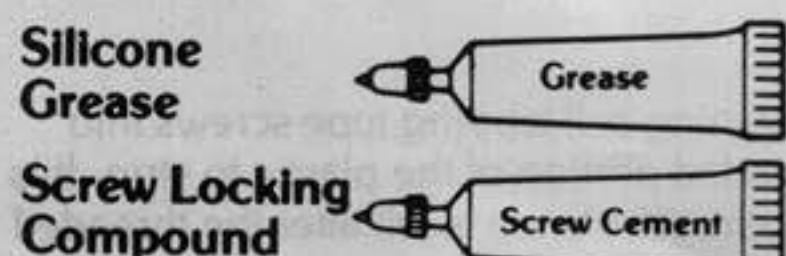
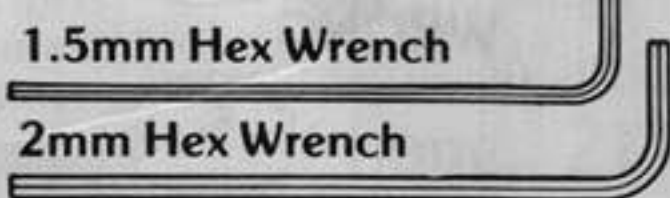
SW CEMENT Places where Loctite (Zap Lock, etc.) should be applied. (This will prevent screws and nuts from loosening up during operation due to the vibration of the model.)



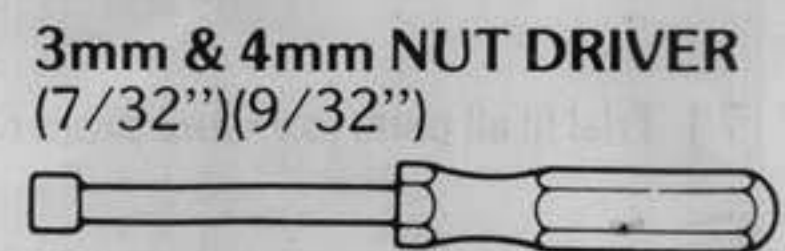
When you see this face, there are steps that you should pay extra particular attention to when building this model.

REQUIRED TOOLS

These ARE included with the kit.



These are NOT included with the kit.



RADIO OPERATIONAL CHECK

Thoroughly read and follow the instructions supplied with your radio system. The following instructions are a general procedure for testing the operation of your radio system.

An operational check of your complete radio system prior to installation is a must. This check will locate possible defective components BEFORE they are installed in your model.



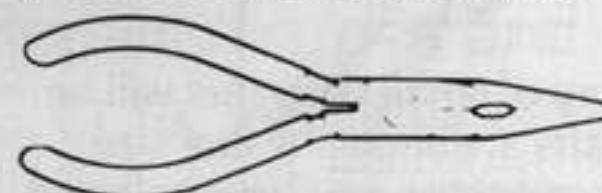
Gently plug the switch harness and servo connectors into the proper receptacles on the receiver. The connectors are polarized and will fit only one way. If they do not plug in easily, turn them around and try again. (DO NOT FORCE.) Install the batteries into the battery holders for both the transmitter and receiver.

Unravel the receiver antenna wire and turn on the transmitter, then turn on the receiver switch. The servos may move a little bit at this point but this is normal. Check to make sure that the transmitter is on when switched on and if it is, continue. If it is not, recheck your installation of batteries. You should be able to move the servos' arms using the transmitter controls. Notice how the servos move. They should move the same amount as you move the controls. Also, notice the direction of rotation of the servos, then switch the servo reversing switches, if so equipped. See if the rotation of the servos change. They would operate in the opposite direction as before.

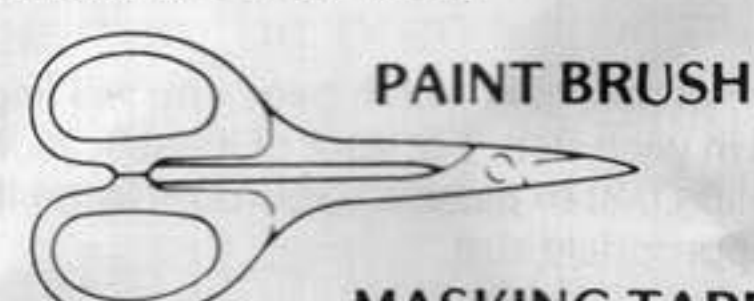
Decide whether your radio is in proper working order. If you decide that it is defective, check the warranty procedures described in the radio instruction manual. When turning off the system, always turn the receiver off first, then the transmitter. This will prevent the receiver from responding to stray signals which can cause the servos to react erratically and move to the extreme of their rotation which can cause damage.

NOTICE: Use only radio frequencies specifically allowed to operate "surface" models such as R/C cars and boats. In the United States those frequencies fall within the "75 MHz" or "27 MHz" bands. Use of any other frequencies is both illegal and dangerous.

NEEDLE NOSE PLIERS



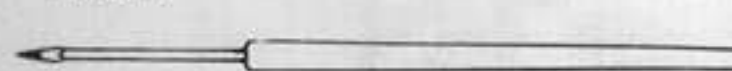
LEXAN SCISSORS



WIRE CUTTERS

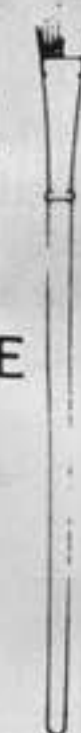


AWL



HOBBY KNIFE

PAINT BRUSH



MASKING TAPE



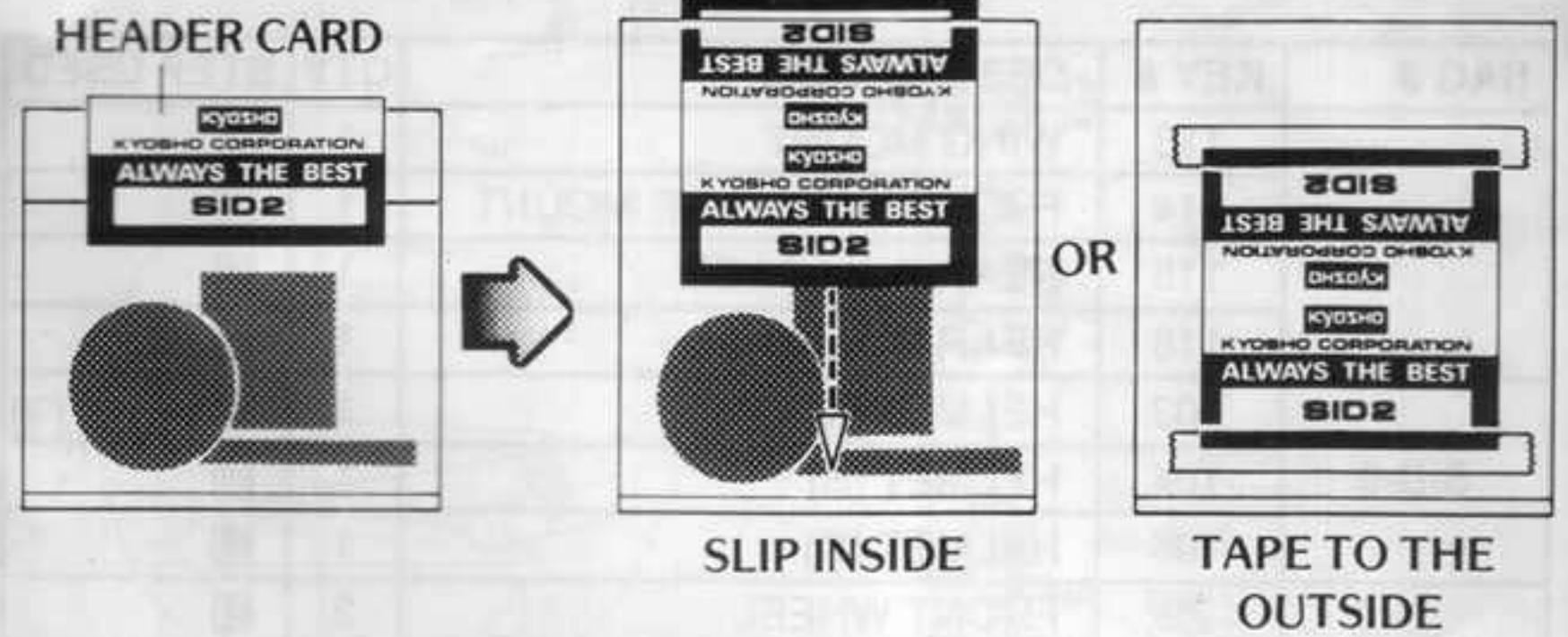
PAINT



LIST OF BAGGED PARTS

● Before assembly make sure that you are not missing any parts. Use the listing below to check.

● Keep the header card with each bag. This will help you find parts during assembly.



BAG #	KEY #	DESCRIPTION	QTY	STEP USED	
BLISTER PACK	1	DIFF. CASE (A)	1	3	
	2	DIFF. CASE (B)	1		
	4	BEVEL GEAR (A)	2		
	5	BEVEL GEAR (B)	2		
	6	DIFF. PIN	1		
	79	SHOCK CASE (F)	2		1 2 12 17
	80	SHOCK CASE (R)	2		
	81	SHOCK END	4		
	82	SHOCK DIAPHRAGM	2		
	83	SHOCK CAP	4		
	84	SHOCK CAP RETAINER	4		
	85	SPRING RETAINER	4		
	87	FRONT SPRING	2		
	88	REAR SPRING	2		
	77	SHOCK SHAFT (F)	2		
	78	SHOCK SHAFT (R)	2		
	90	MOTOR	1	21 30	
	57	SPEED CONTROL	1	21 24	
	14	GEAR BOX (L)	1	7	
	9	GEAR BOX (R)	1	5	
64	CENTER GEAR	1	32		
94	COUNTER GEAR	1	5		
95	FINAL PINION GEAR	1	6		
38	FRONT SUS. ARM	2	15		
25	SUS. ARM (R)	2	10		
SID-1	91	CHASSIS	1	9	
SID-2	54	RADIO PLATE	1	24 25 27 31	
	36	FRONT BULKHEAD	1	14	
	17	REAR BULKHEAD	1	9	
	96	REAR SUS. STOPPER	1	11	
	68	GEAR COVER	1	33	
	30	FRONT HUB	2	13	
	33	KNUCKLE ARM (L)	1	13	
	32	KNUCKLE ARM (R)	1	13	
	21	REAR HUB	2	10	
	18	UPPER ROD	4	8 11 14 16	
	20	GEAR BOX HATCH	1	9	
	28	SHOCK BUSHING	4	12 17	
	29	M3 PLATIC NUT	6	12 17 31	
	42	SERVO SAVER (A)	1	18	
	43	SERVO SAVER (B)	1	18	
	44	SERVO SAVER (C)	1	18	
	45	SERVO SAVER (D)	1	18	
	49	SERVO SAVER COLLAR	2	19	
	55	ANTENNA MOUNT	1	33	
	56	SERVO MOUNTS	4	21 25	
	74	4X8MM BUSHING	4	35	
	40	BUMPER	1	16	
	50	5.8MM BALL END	4	22 23	
	75	M4 PLASTIC NUT	2	35	
	SID-3	35	FRONT SHOCK TOWER	1	14
		16	REAR SHOCK TOWER	1	8
		10	MOTOR PLATE	1	5

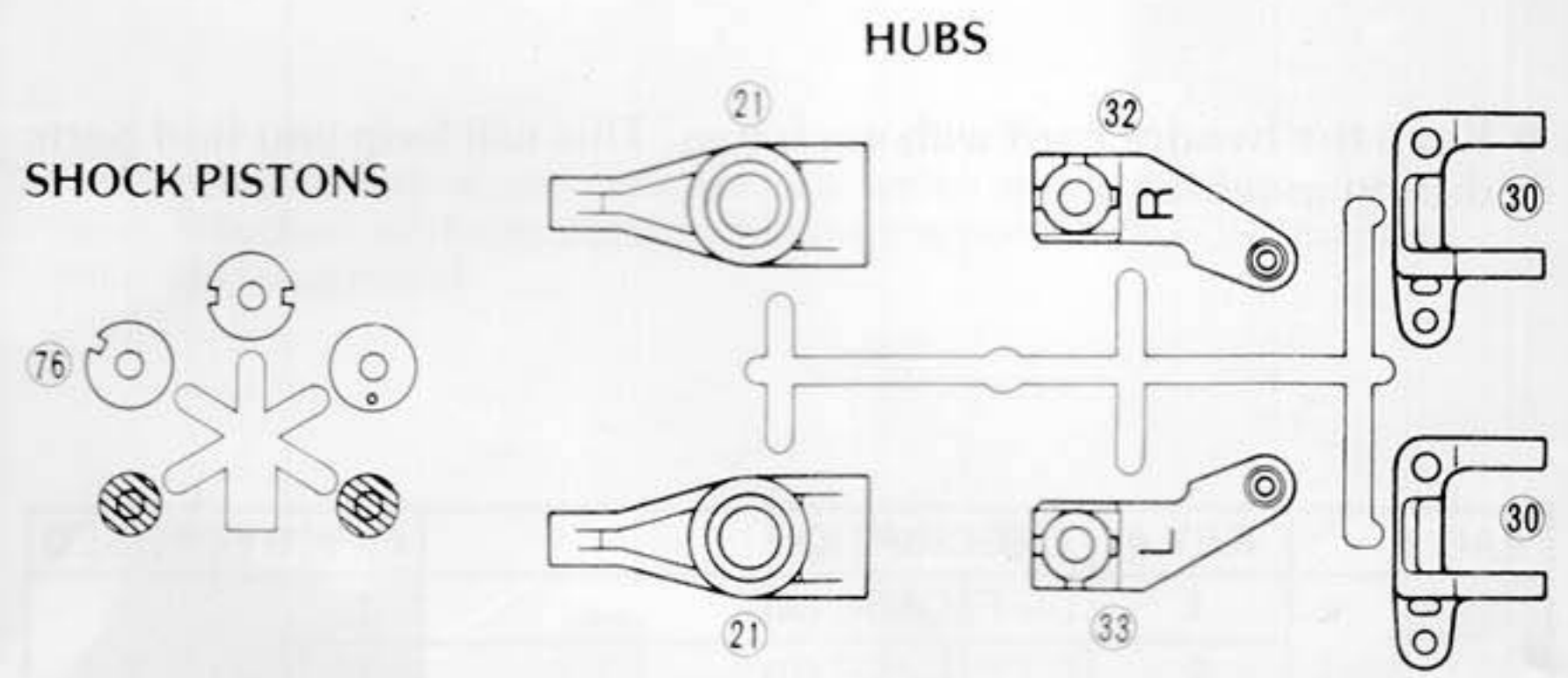
BAG #	KEY #	DESCRIPTION	QTY	STEP USED	
SID-3	61	HEAT SINK (A)	1	28	
	62	HEAT SINK (B)	1	28	
SID-4	7	JOINT	2	4	
	31	KING PIN	2	13	
	34	FRONT WHEEL SHAFT	2	13	
	22	REAR WHEEL SHAFT	2	10	
	26	SWING SHAFT	2	11	
	11	COUNTER GEAR SHAFT	1	5	
	12	2X11MM PIN	2	5 6	
	63	CENTER GEAR SHAFT	1	28	
	23	SUS. SHAFT (A)	2	10	
	27	SUS. SHAFT (B)	2	10	
	37	SUS. SHAFT (C)	2	15	
	39	SUS. SHAFT (D)	2	15	
	48	SERVO SAVER SHAFT	2	19	
	53	STEERING ROD	1	22	
	47	CENTER ROD	1	18	
	89	SPEED CONTROL ROD	1	26	
	93	STABILIZER BAR	1		
	51	TIE ROD	2	20	
	67	PINION GEAR (15T)	1	30	
	92	DRIVE WASHER	2	35	
	41	BALL NUT	1	18	
	58	4.5MM BALL	1	24	
	46	M2.6 PIVOT BALL	4	13 18	
	19	5.8MM BALL	12	2 8 14	
	52	4.8MM BALL END	1	22	
	60	BALL END	1	26	
	8	8X14MM BUSHING	2	4	
	13	5X10MM BUSHING	6	5 7 10	
	65	4X8MM CENTER BUSHING	1	29	
	3	8MM INNER BUSHING	2	3	
	SID-5	59	MOTOR LEADS	1	21 30
		118	WING	1	36 40 41
		119	AIR DAM (A)	1	40 41
		120	AIR DAM(B)	1	40 41
76		SHOCK PISTON	4	1	
86		SPRING SPACER	4	2	
SID-7	69	GEAR COVER SEAL	1	33	
	121	VISOR		39	
	97	MANIFOLD BACKPLATE	2	39	
	98	MANIFOLD	2	39	
	99	HEADER A (L)	1	39	
SID-8	100	HEADER B (L)	1	39	
	101	HEADER A (S)	1	39	
	102	HEADER B (S)	1	39	
SID-8	106	SIDE GUARD MOUNT (A)	2	31	
	107	ROLLCAGE MOUNT	2	8	
	108	SIDE GUARD MOUNT (B)	2	31	
	109	SIDE GUARD (FR)	2	31	
	110	SIDE GUARD (RR)	2	31	
	111	MAIN ROLL CAGE	2	41	
	112	BODY MOUNT	1	24	

LIST OF BAGGED PARTS (CONT.)

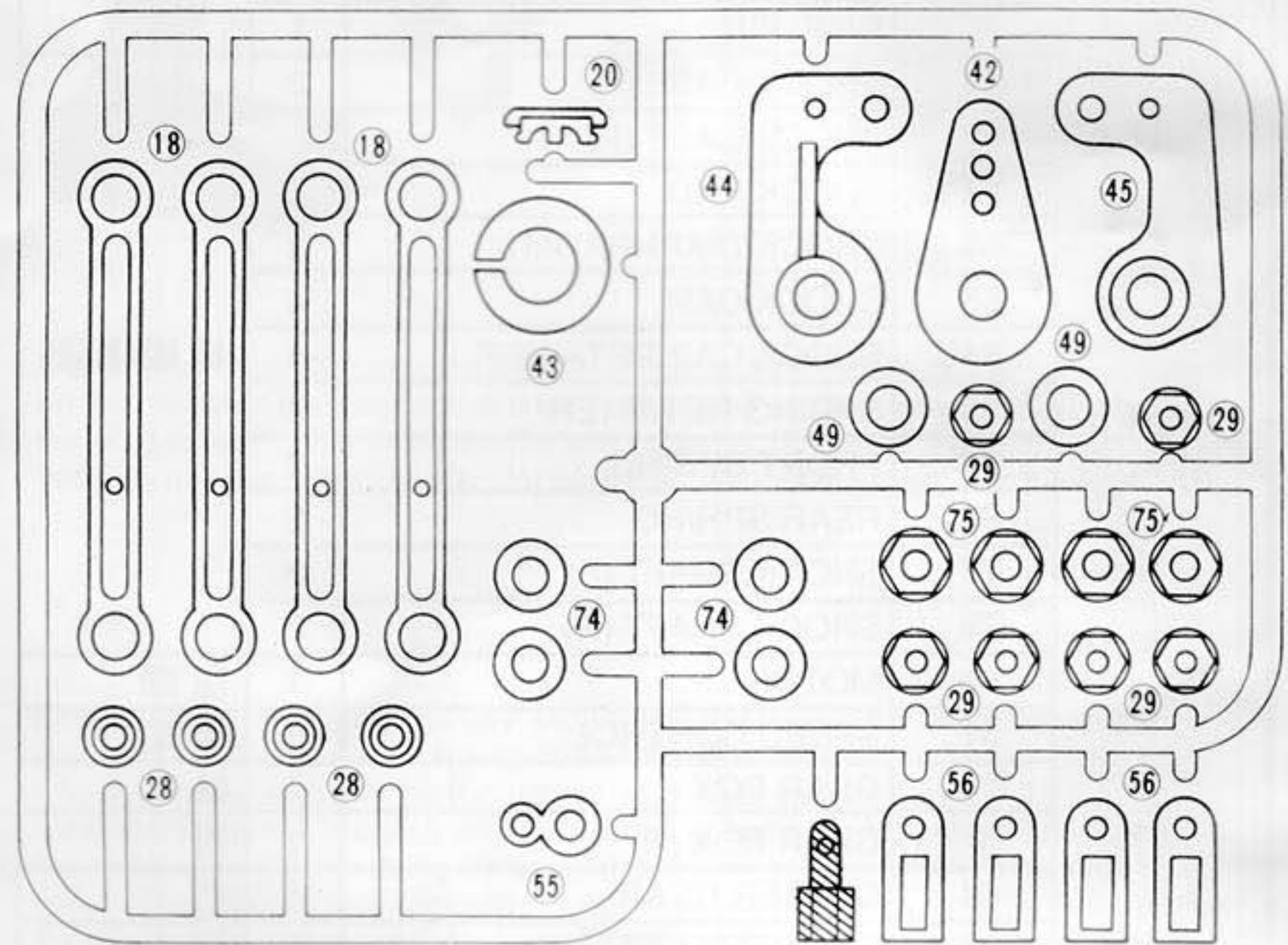
BAG #	KEY #	DESCRIPTION	QTY	STEP USED
SID-8	113	WING MOUNT	1	40
	114	FRONT ROLLCAGE MOUNT	1	32
	115	REAR ROLLCAGE	1	33
	116	REAR GUARD	1	11
SID-9	103	HELMET (A)	1	39
	104	HELMET (B)	1	39
	105	HELMET (C)	1	39
SID-10	72	FRONT WHEEL	2	34
	73	REAR WHEEL	2	34
SID-11	70	FRONT TIRE	2	34
SID-12	122	SHOCK OIL	1	2
	123	DOUBLE SIDED TAPE	1	27
	126	STRAP (S)	2	41
	133	GLUE	1	
	134	4-WAY WRENCH	1	
	129	SCREW LOCK	1	
SID-6	117	BODY	1	36
	132	DECAL SHEET	1	38
	124	ANTENNA	1	41
	125	NiCd STRAP	2	42
	71	REAR TIRE	2	34
SID-6	24	E-CLIP (E-2.5)	16	1 10 15
	131	E-CLIP (E-3)	2	13
	15	E-CLIP (E-4)	1	7
	127	HEX WRENCH (1.5)	1	30
	128	HEX WRENCH (2.0)	1	4
	66	O-RING	1	29
	130	BODY PIN	2	33 41
		M2.6X6 SCREW	1	
		M3X6 SCREW	4	
		M3X35 SCREW	3	
		M2X6 SCREW	6	
		M2.6X14 SCREW	1	
		M3X10 SCREW	6	
		M3X12 SCREW	2	
		M3X16 SCREW	4	
		M3X22 SCREW	2	
		M3X33 SCREW	3	
		M3X12 F/H SCREW	6	
		M3X15 F/H SCREW	4	
		M4X10 F/H SCREW	4	
		M4X8 SCREW	12	
		M3X8 S/T SCREW	16	
		M2X10 S/T SCREW	1	
		M2.6X6 S/T SCREW	6	
		M2.6X10 S/T SCREW	25	
		M3X18 S/T SCREW	1	
		M2 NUT	6	
		M2.6 NUT	5	
		M3 NUT	23	
		M4 NUT	2	
		M2 WASHER	16	
		M3 WASHER	8	
	M4 WASHER	2		
	M5 WASHER	2		
	M3X3 SET SCREW	1		
	M4X4 SET SCREW	2		

PLASTIC PARTS TREE GUIDE

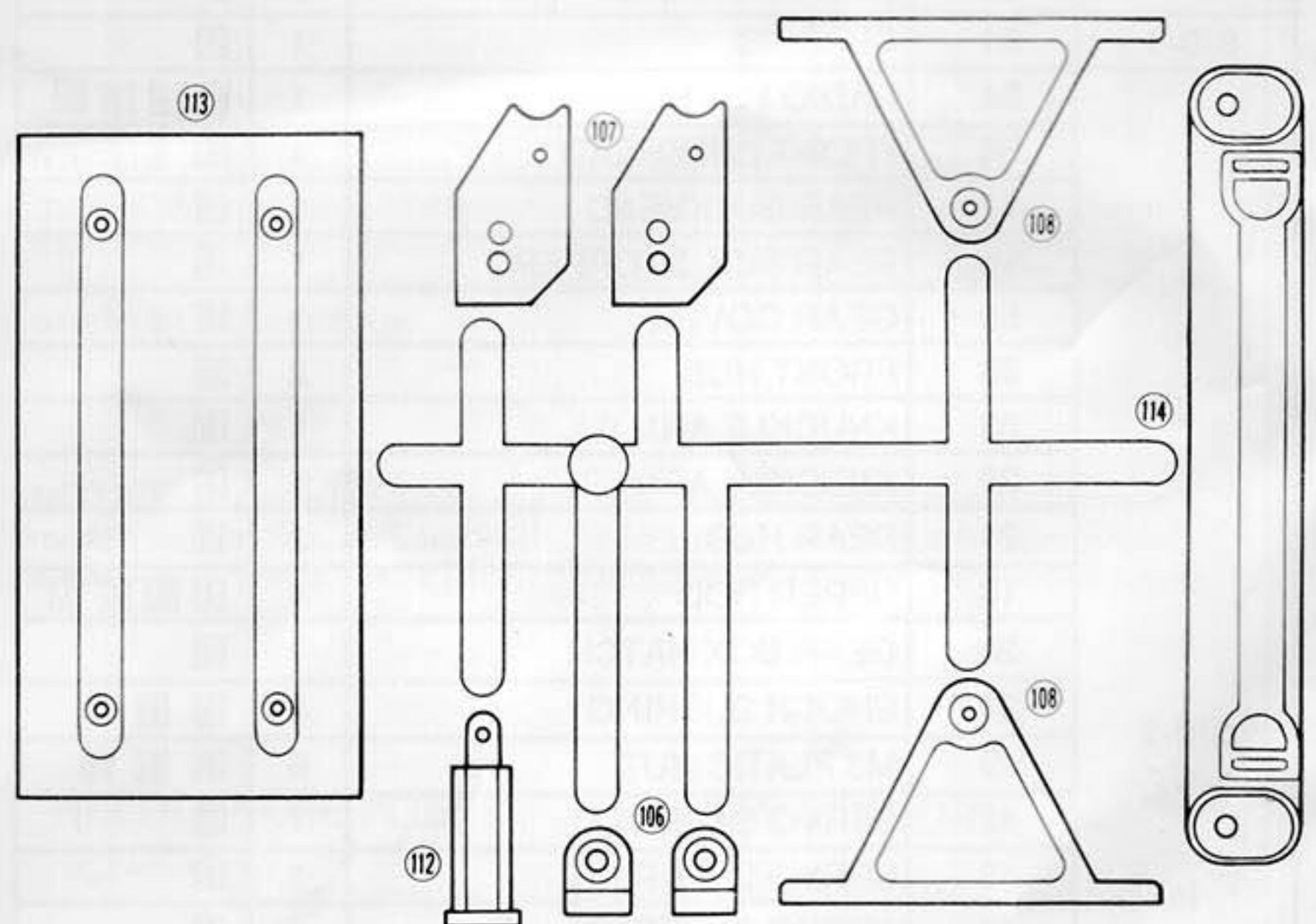
SHADED PARTS AREN'T USED



MISCELLANEOUS PARTS

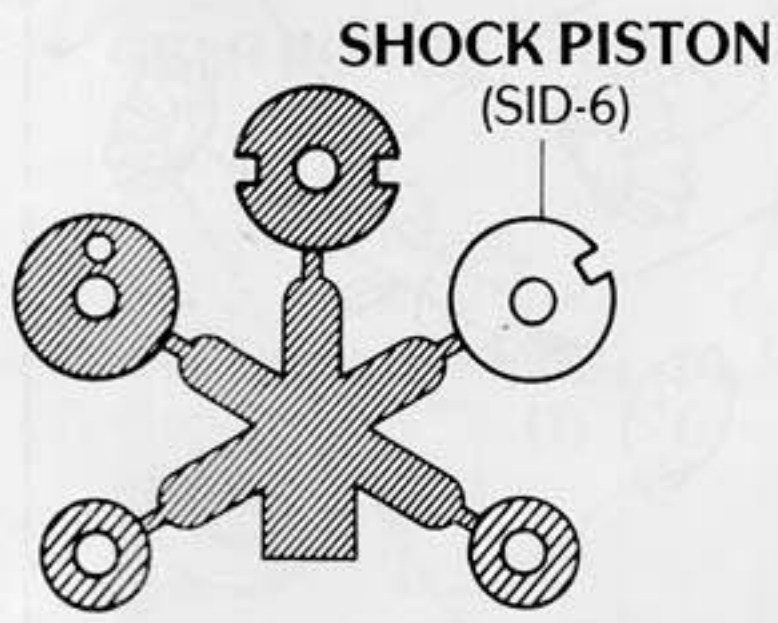


ROLL CAGE



1 SHOCK ASSEMBLY

Step 1



24 E-Clip (E-2.5) (8)

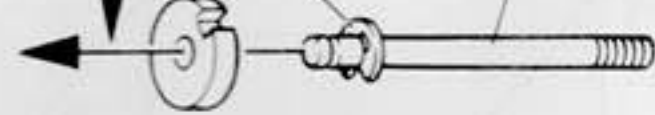


E-CLIP (E-2.5)

24 (SID-6)

77 SHOCK SHAFT (F)

FRONT

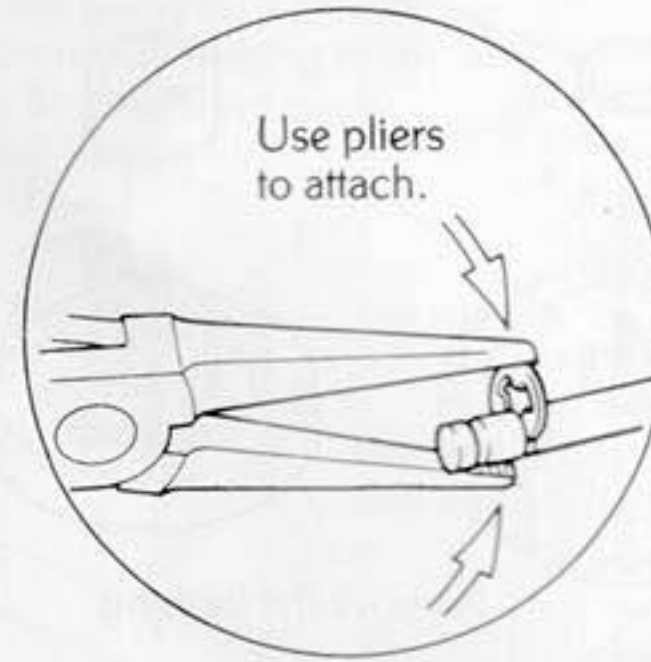
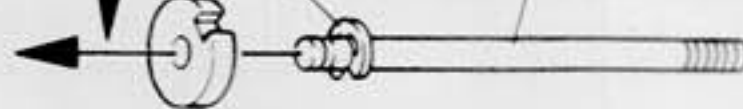


E-CLIP (E-2.5)

24 (SID-6)

78 SHOCK SHAFT (R)

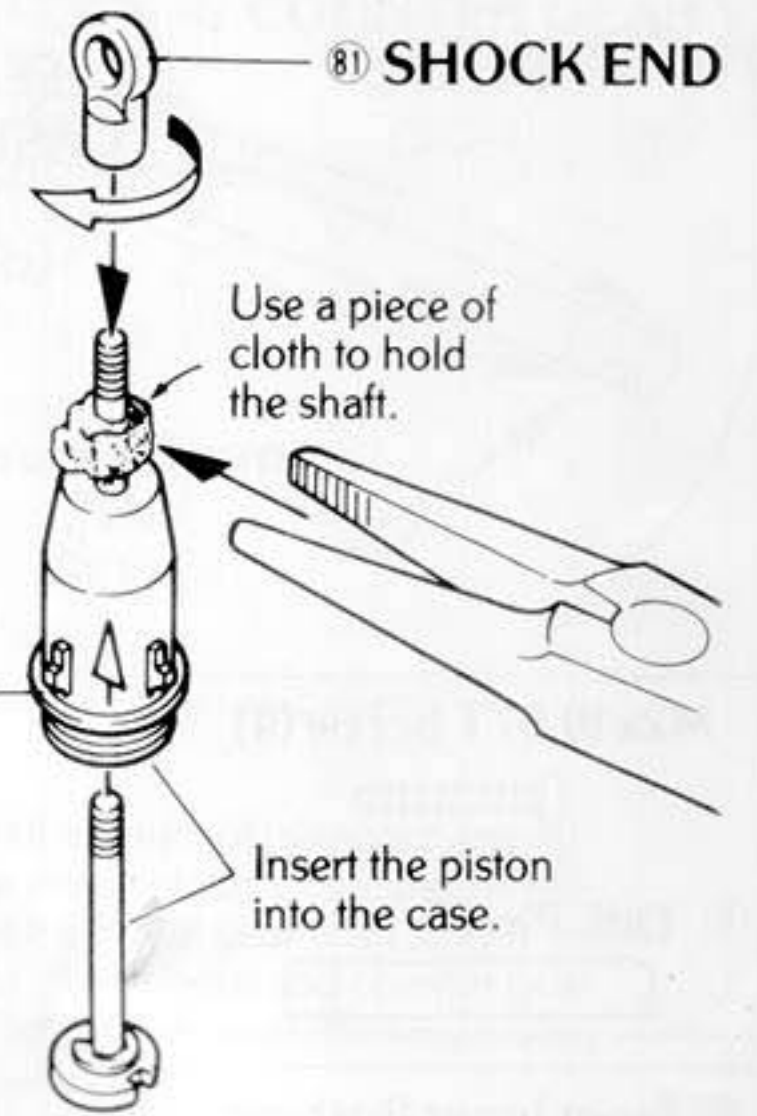
REAR



Step 2

79 SHOCK CASE (F)

80 SHOCK CASE (R)

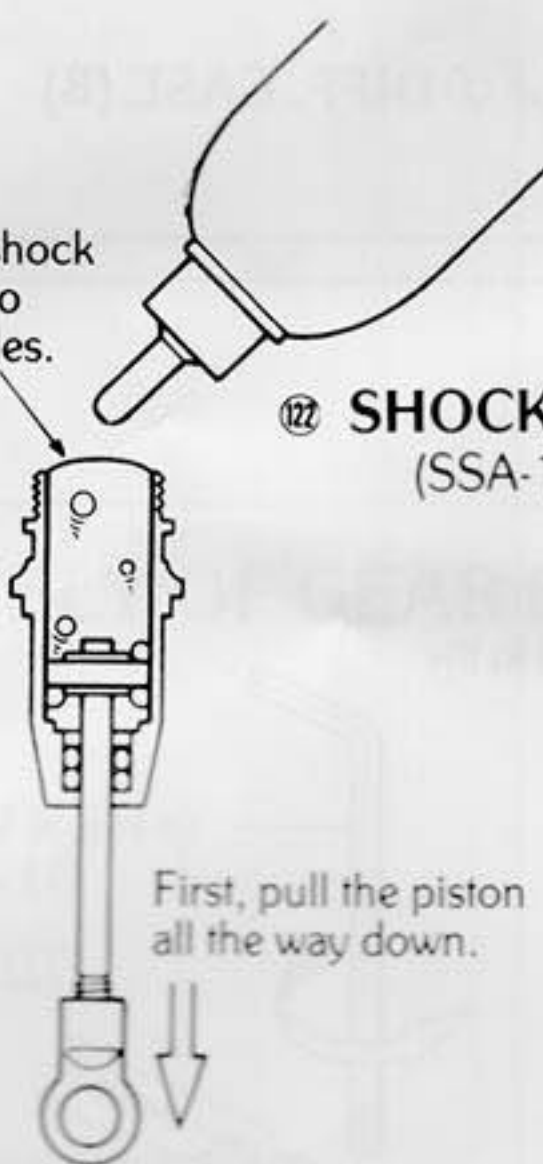


2 FILLING THE SHOCKS WITH OIL

Step 1

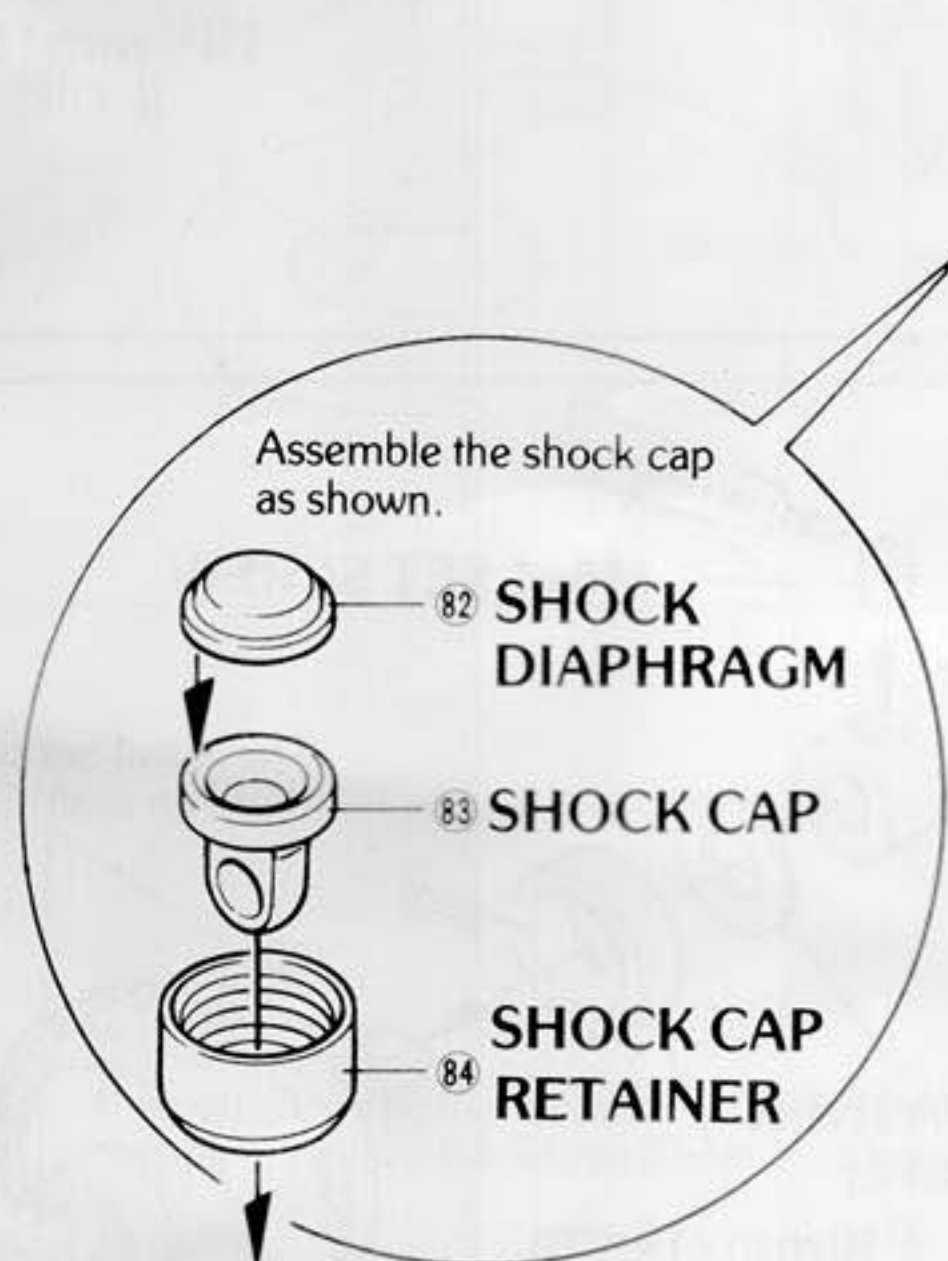
Push the piston all the way down and put the oil in little by little while moving the piston slowly up and down. This will help remove air bubbles. Fill the shock full of oil.

Put oil into the shock a little at a time to reduce air bubbles.



Step 2

Keeping the piston at the bottom, gently screw the shock cap on while allowing the excess oil to overflow out of the shock.

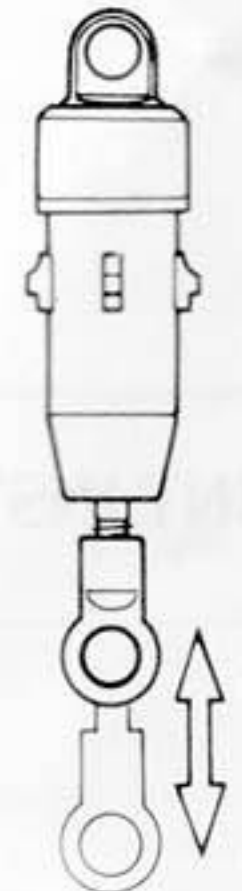


Tighten the shock cap onto the shock case.

If you hear a "squishing" sound, there is air in the oil. Take the cap off and let the bubbles rise. Next, add a few more drops of oil and reinstall the cap.

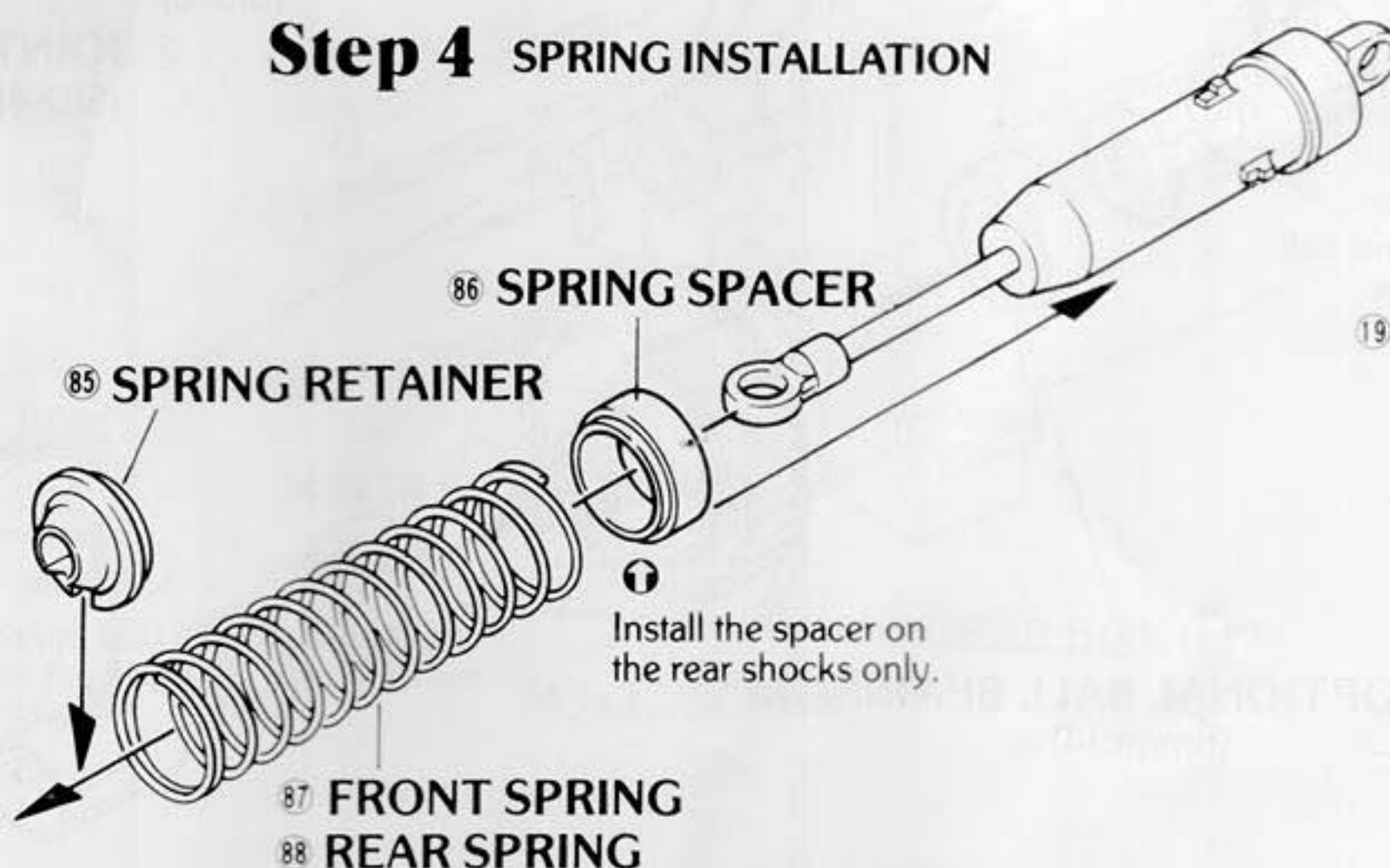
Step 3

Check to see if the shock piston will move correctly by operating the shock.



Step 4 SPRING INSTALLATION

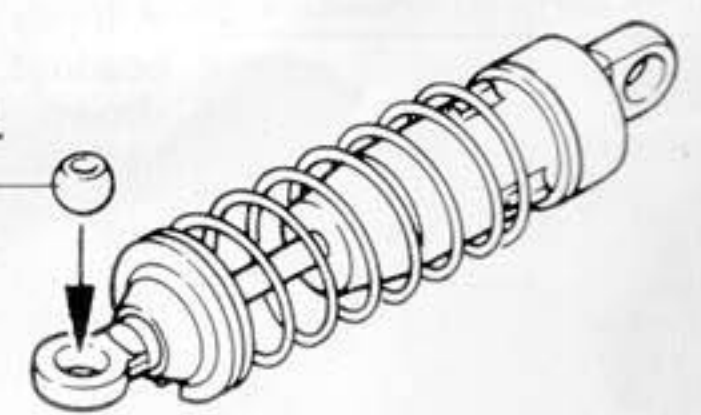
19 5.8mm Ball (4)



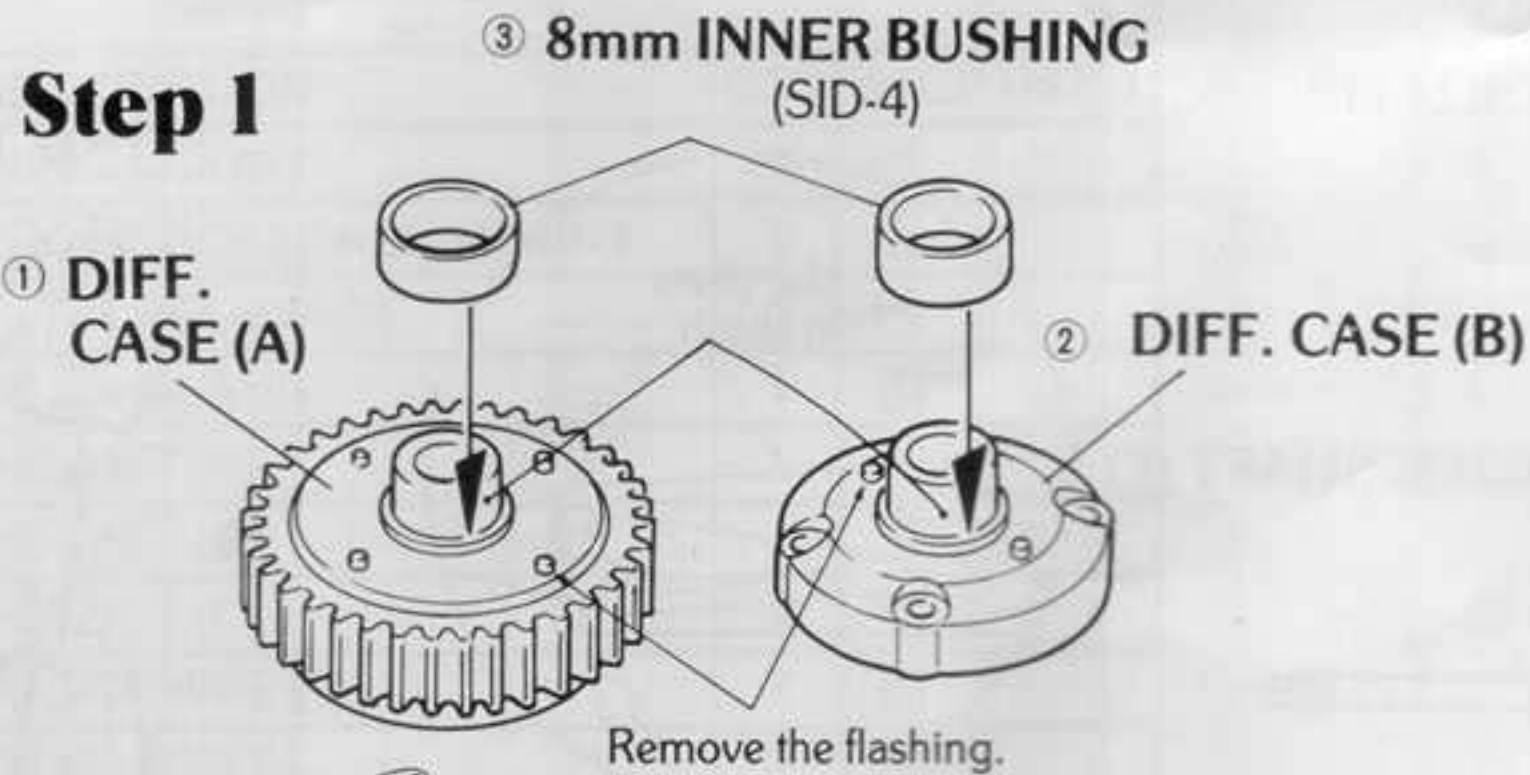
Step 5

INSTALL THE 5.8mm BALLS.

19 5.8mm BALL (SID-4)



3 DIFFERENTIAL ASSEMBLY



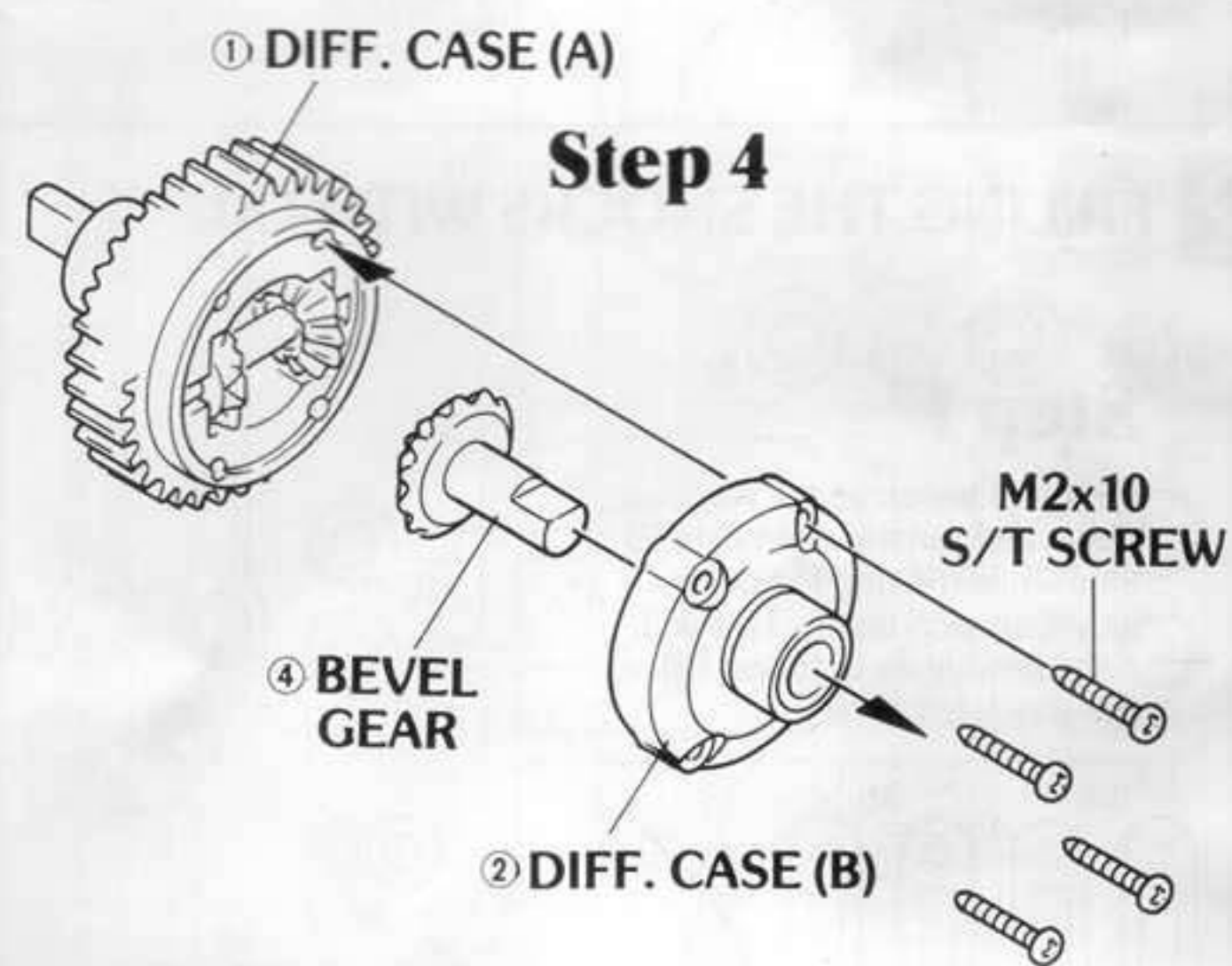
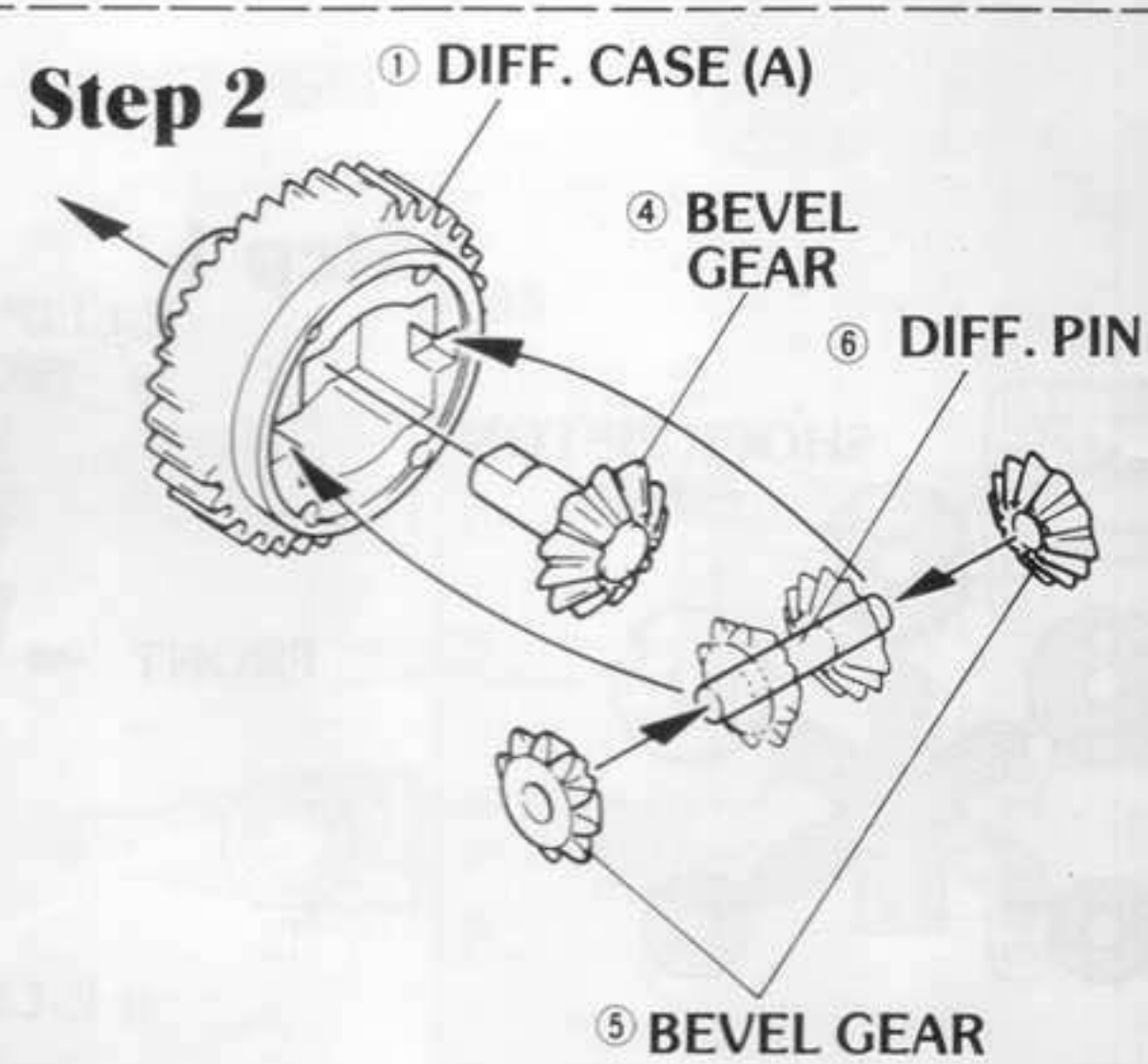
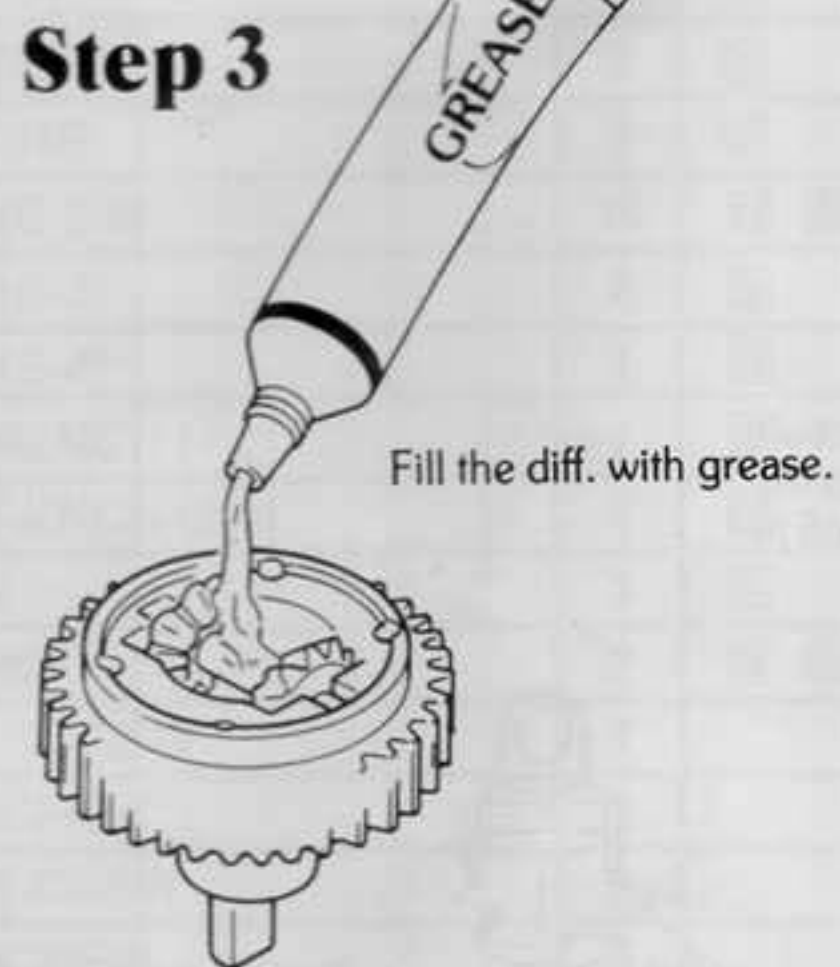
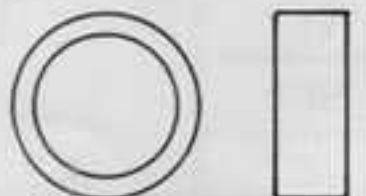
M2x10 S/T Screw (4)



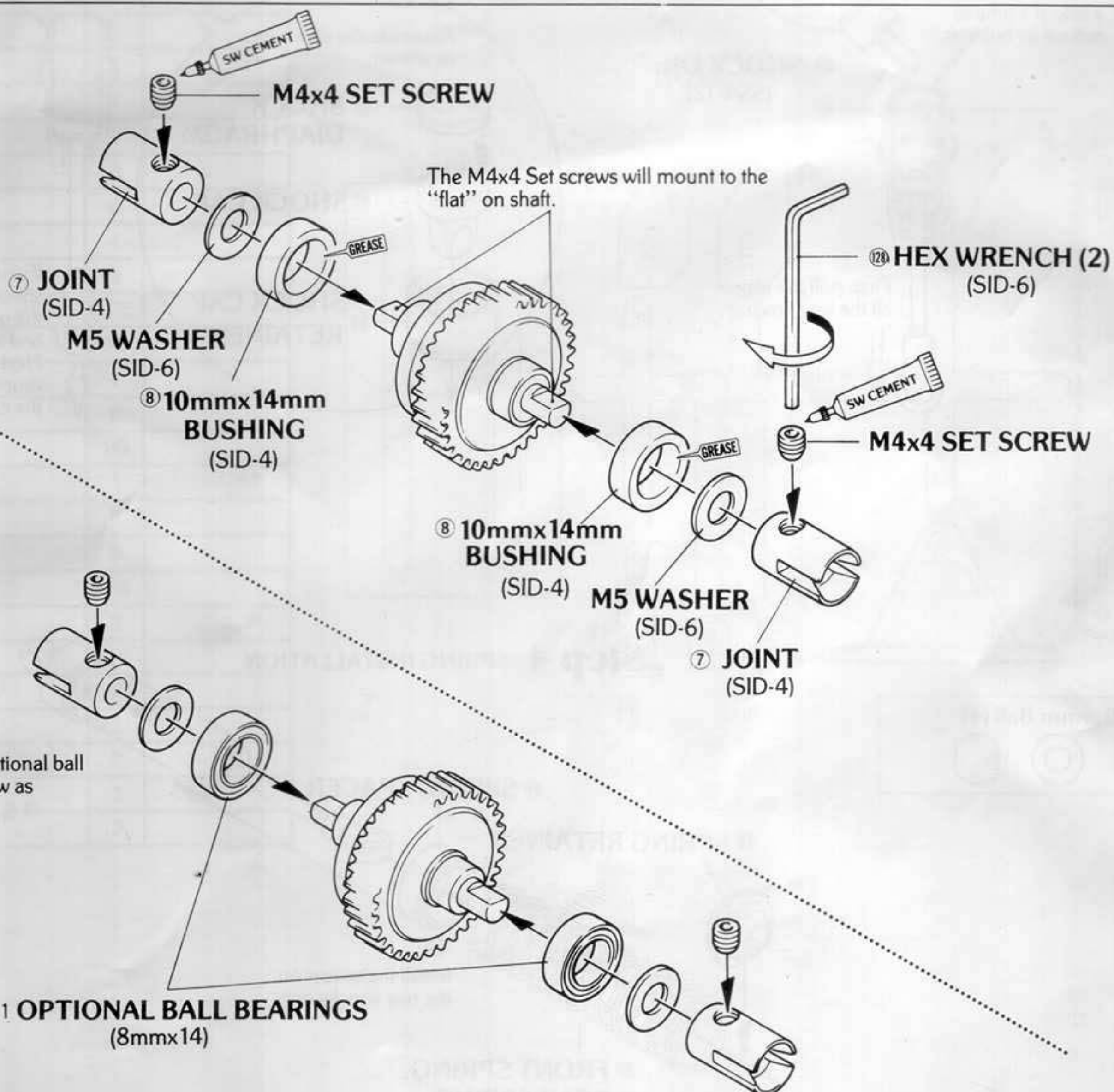
⑥ Diff. Pin (1)



③ 8mm Inner Bushing (2)



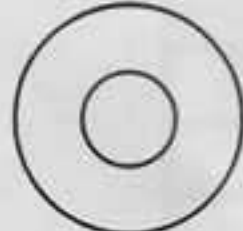
4 JOINT INSTALLATION



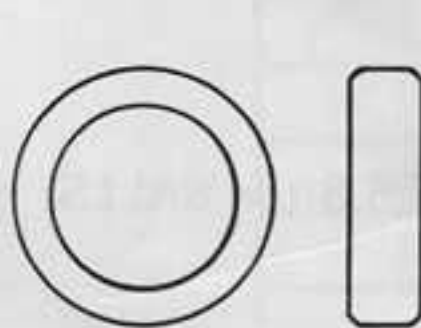
M4x4 Set Screw (2)



M5 Washer (2)

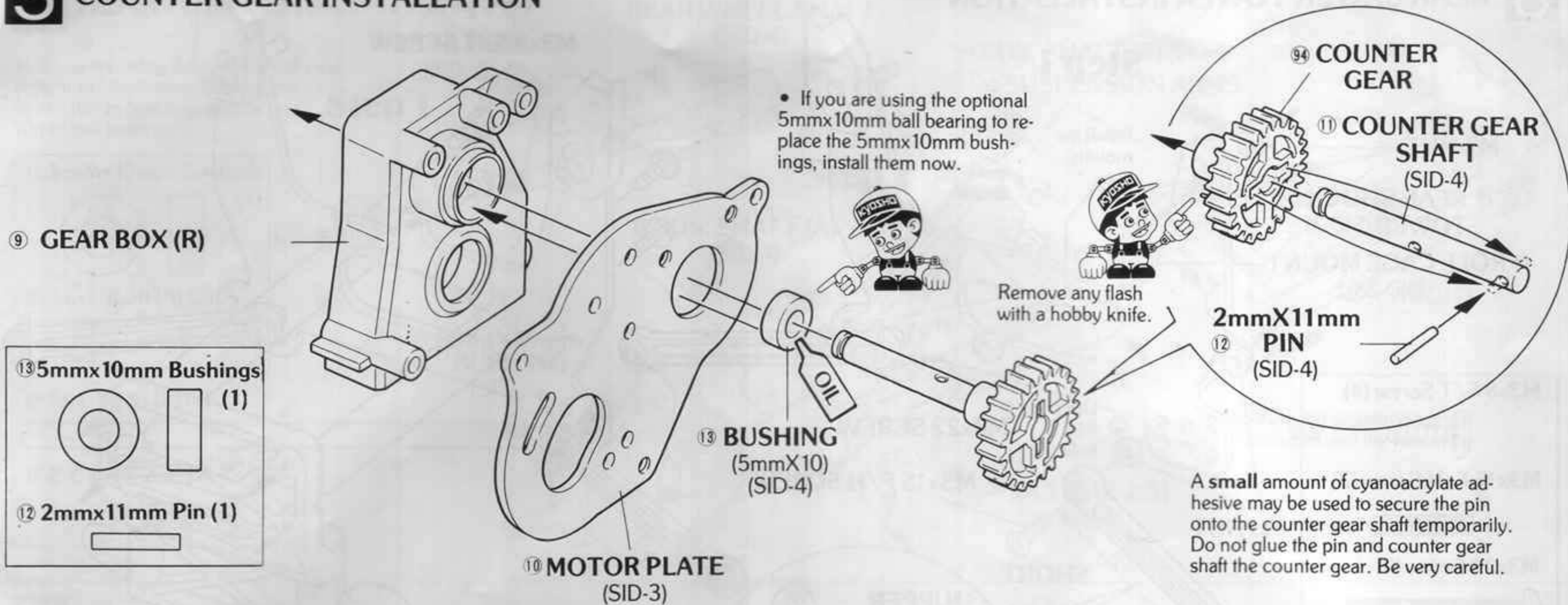


⑧ 10mmx14mm Bushing (2)

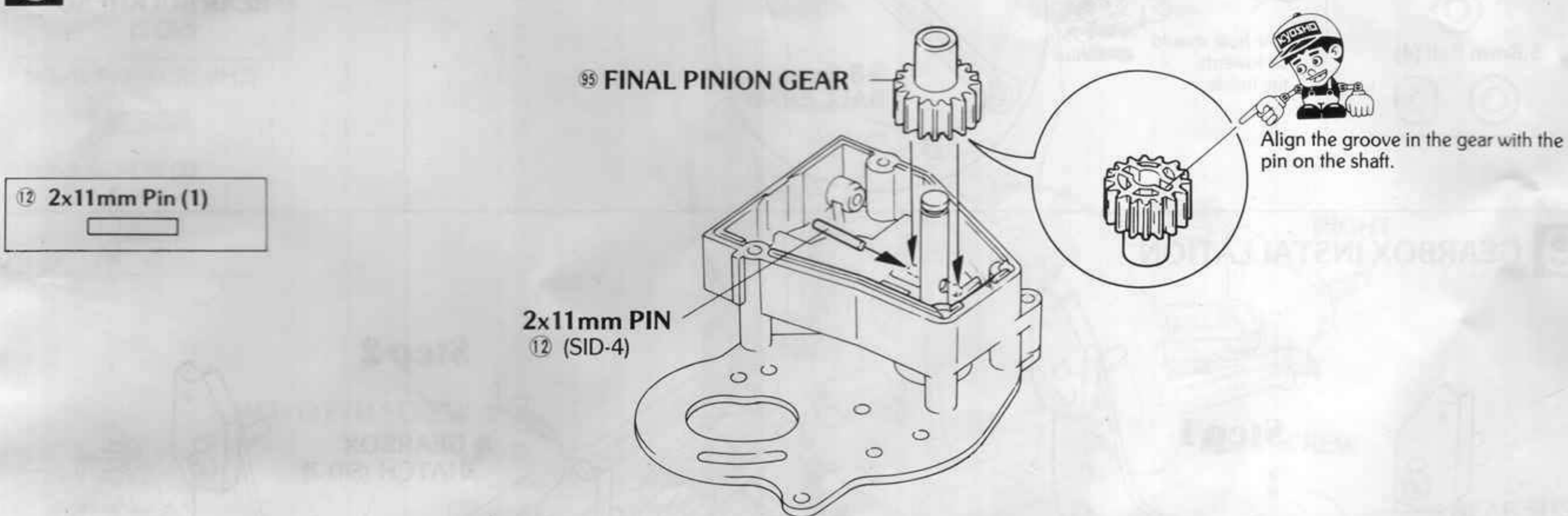


• If you are using the optional ball bearings, install them now as shown.

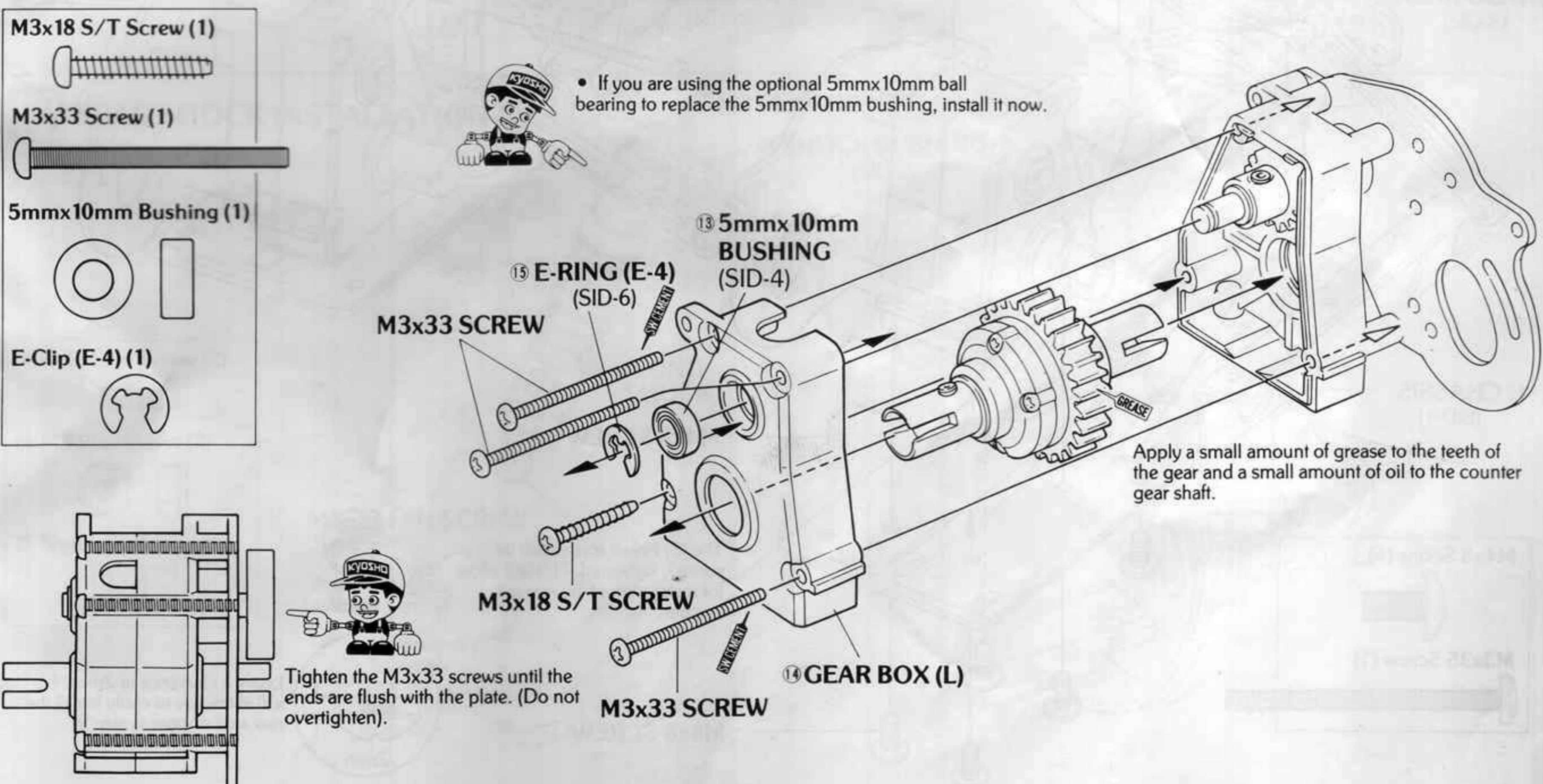
5 COUNTER GEAR INSTALLATION



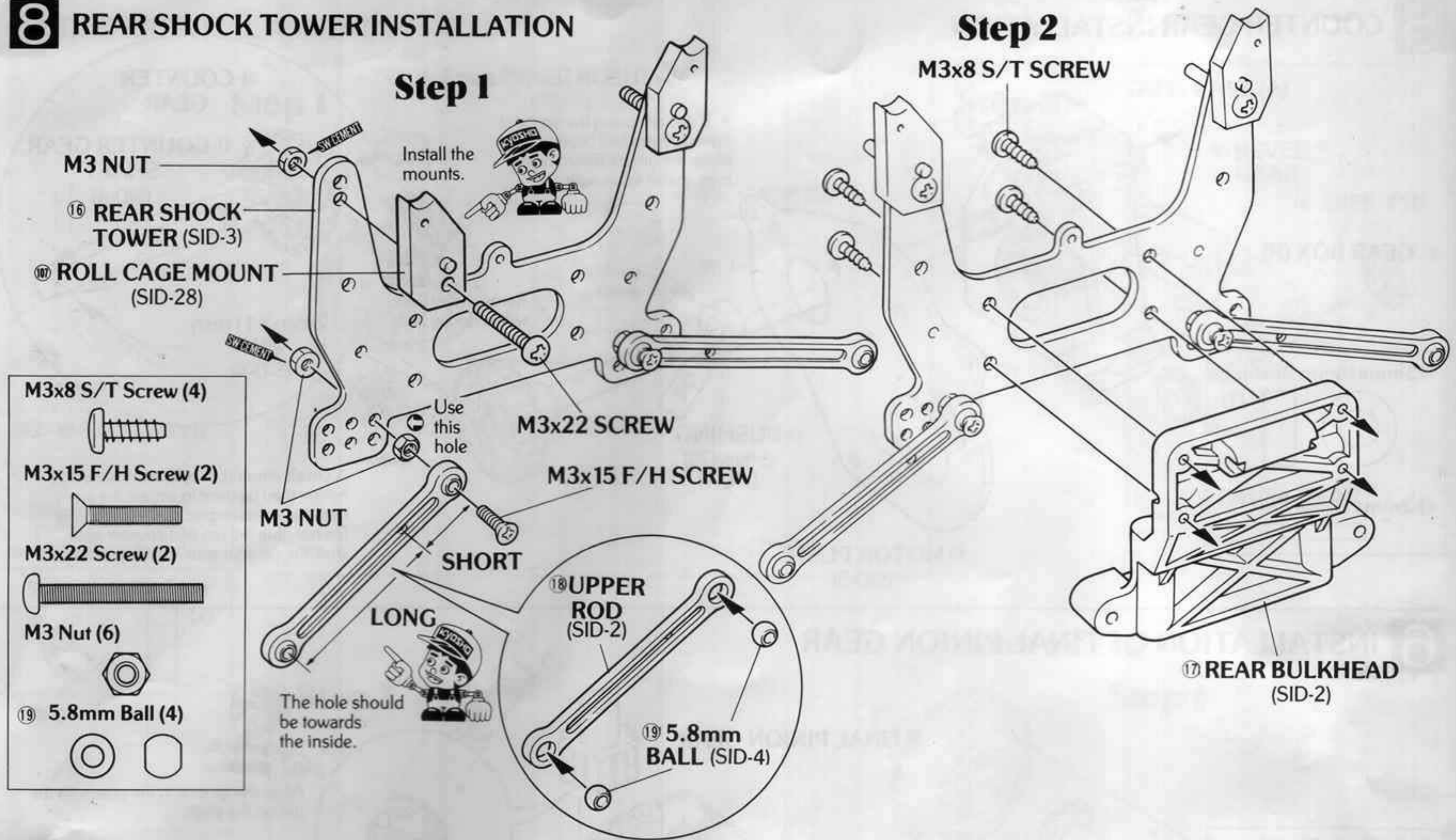
6 INSTALLATION OF FINAL PINION GEAR



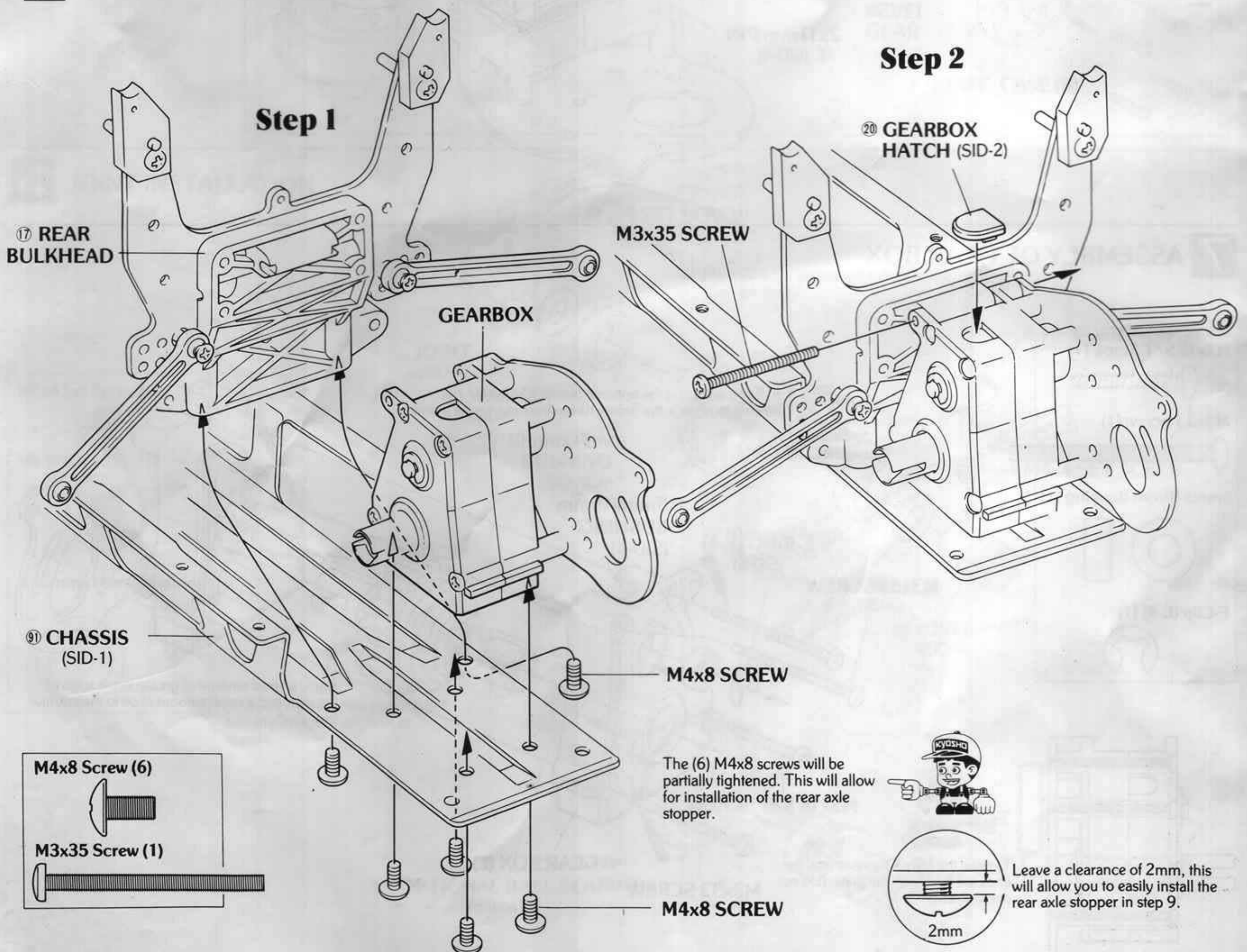
7 ASSEMBLY OF GEAR BOX



8 REAR SHOCK TOWER INSTALLATION



9 GEARBOX INSTALLATION

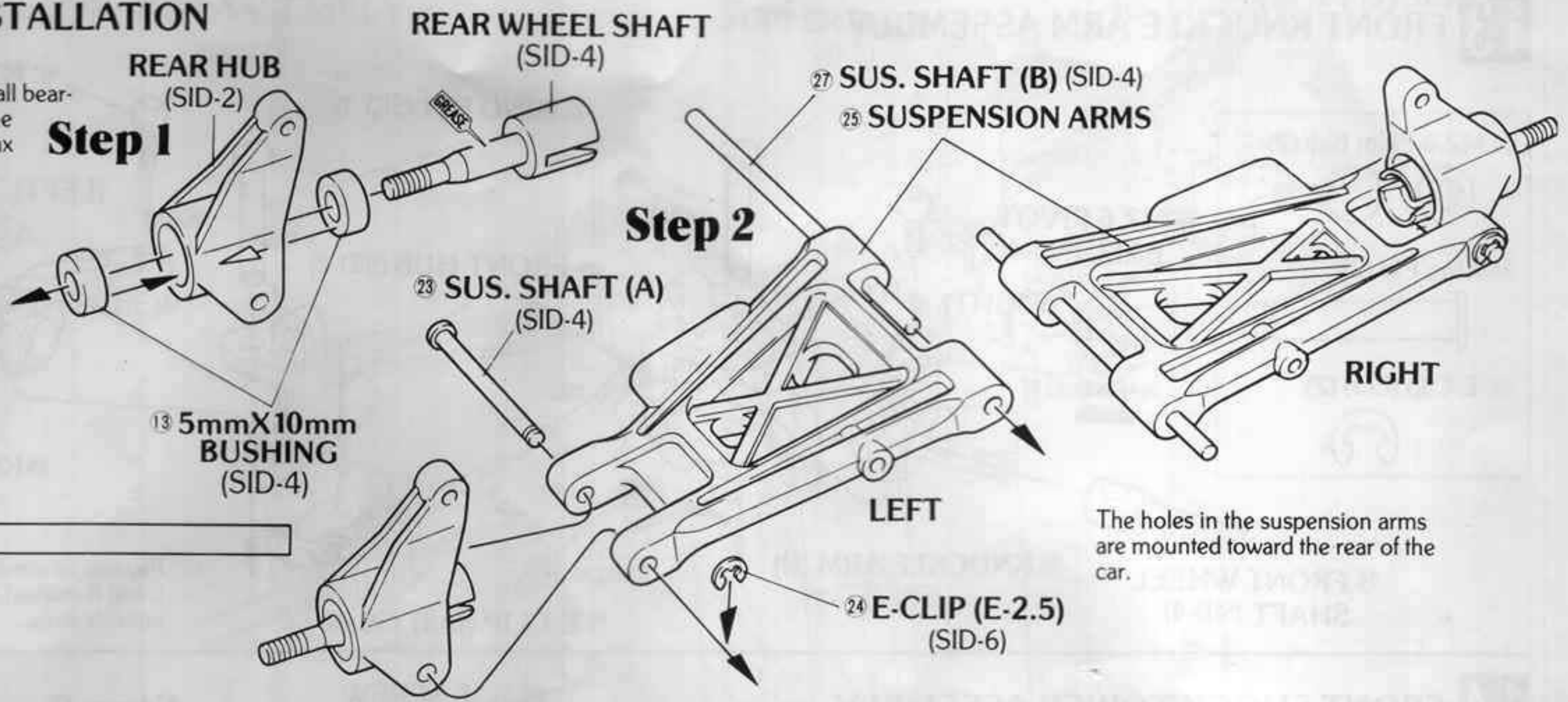


10 REAR HUB INSTALLATION

• If you are using the optional ball bearings, install them now. Replace the 5mmx10mm bushings with 5mmx10mm ball bearings.

Step 1

- 13 5mmx10mm Bushing (4)
- 23 Sus. Shaft (A) (2)
- 27 Sus. Shaft (B) (2)
- 24 E-Clip (E-2.5) (2)



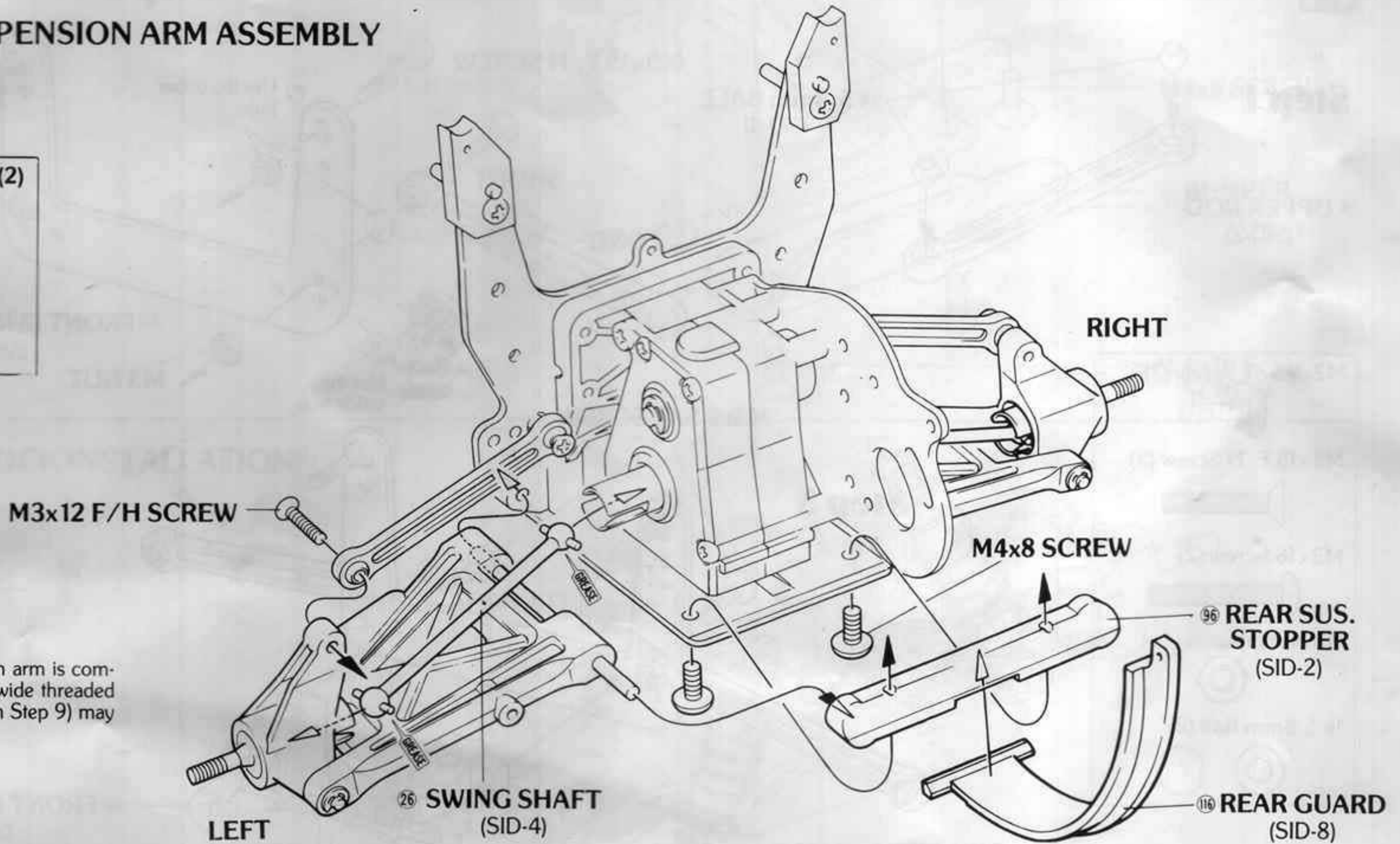
The holes in the suspension arms are mounted toward the rear of the car.

11 REAR SUSPENSION ARM ASSEMBLY

- M3x12 F/H SCREW (2)
- M4x8 SCREW (2)



Once the rear suspension arm is completely installed, the six wide threaded M4x8 screws (installed in Step 9) may be completely tightened.

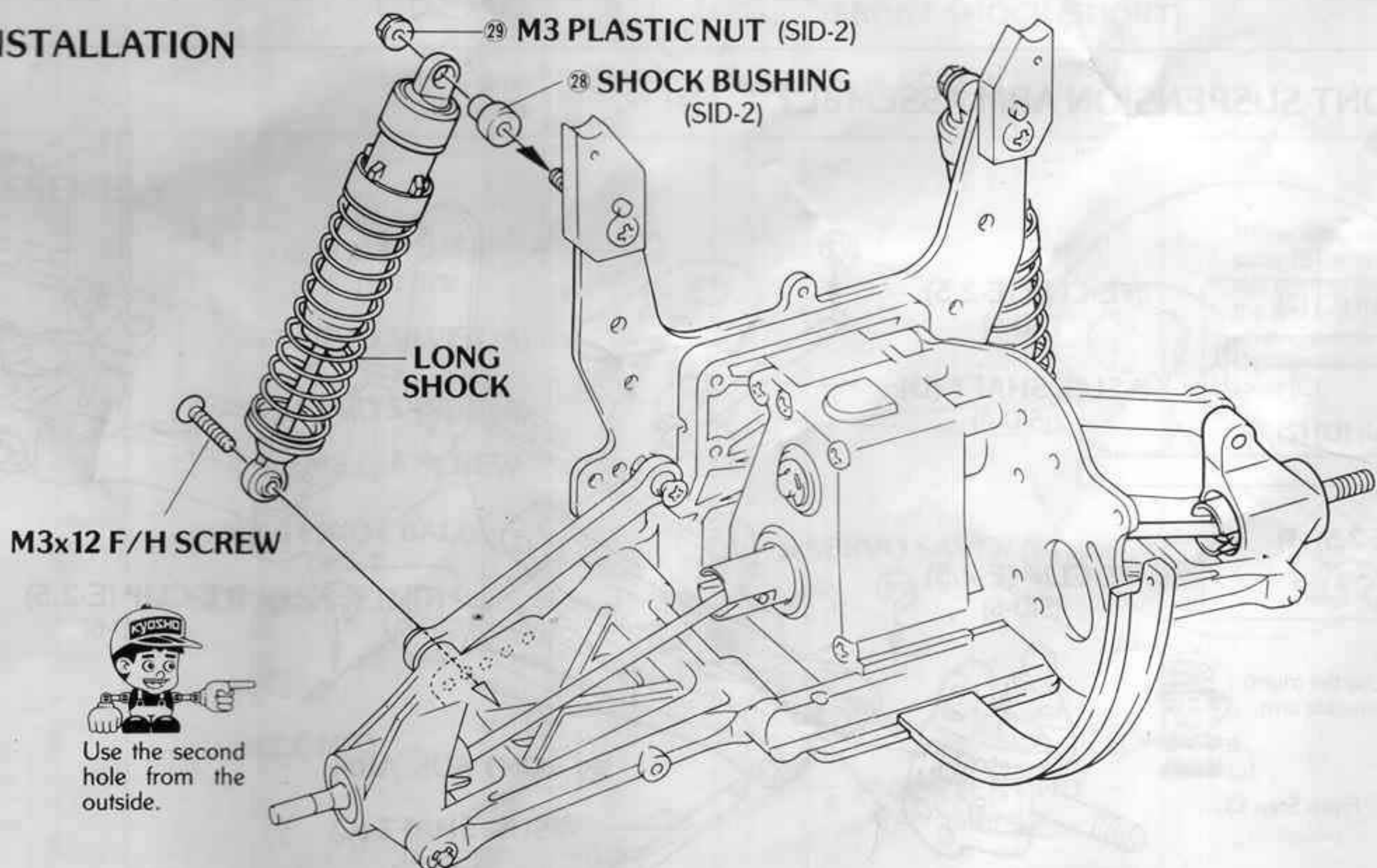


12 REAR SHOCK INSTALLATION

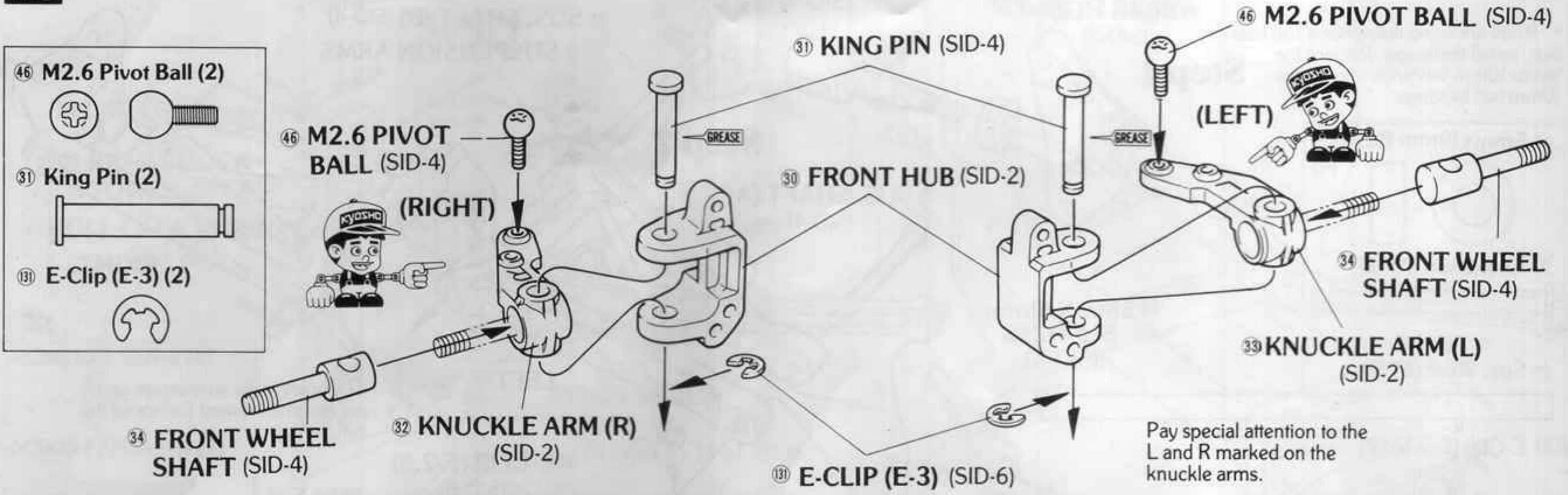
- M3x12 F/H Screw (2)
- 29 M3 Plastic Nut (2)
- 28 Shock Bushing (2)



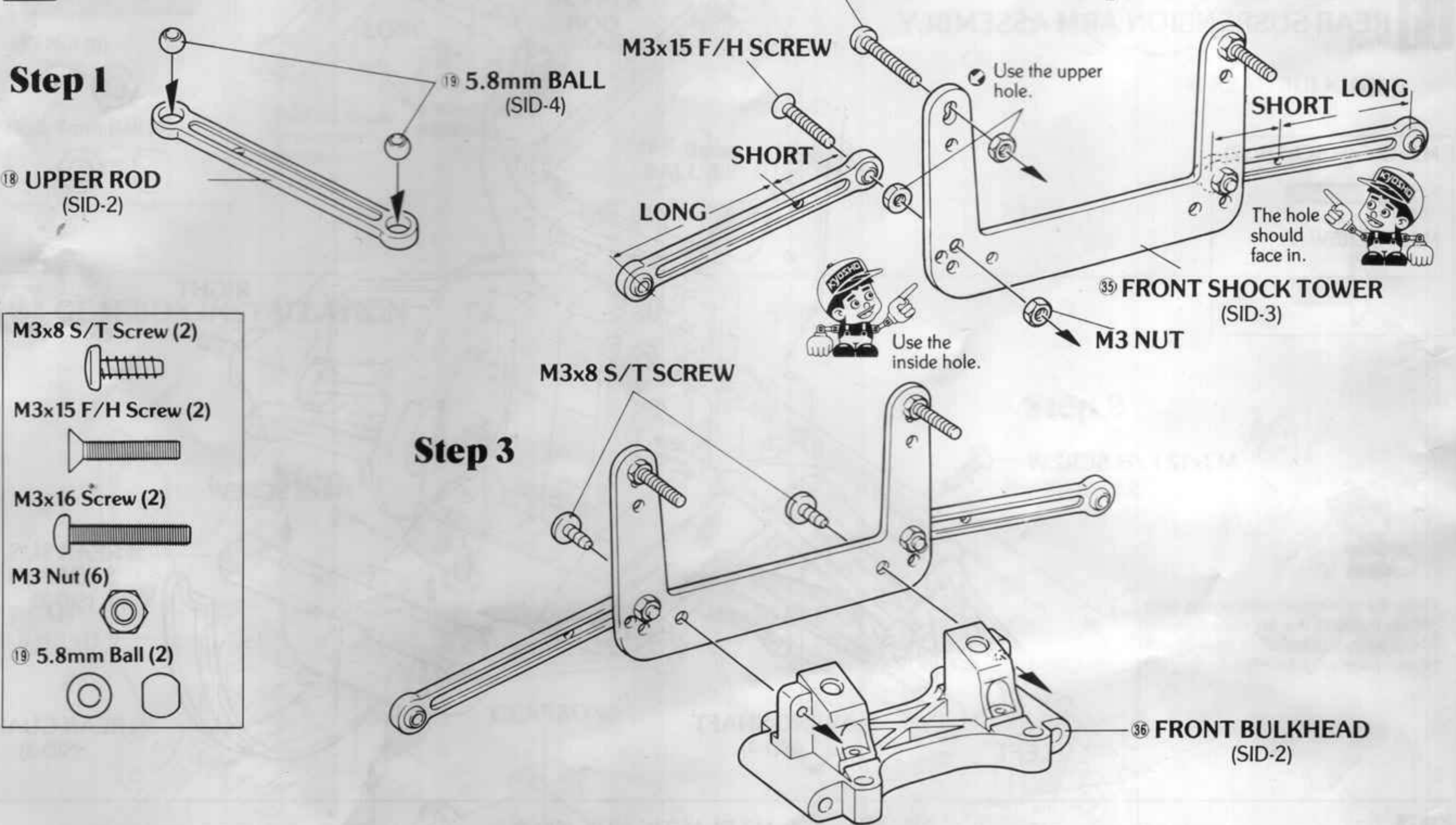
Use the second hole from the outside.



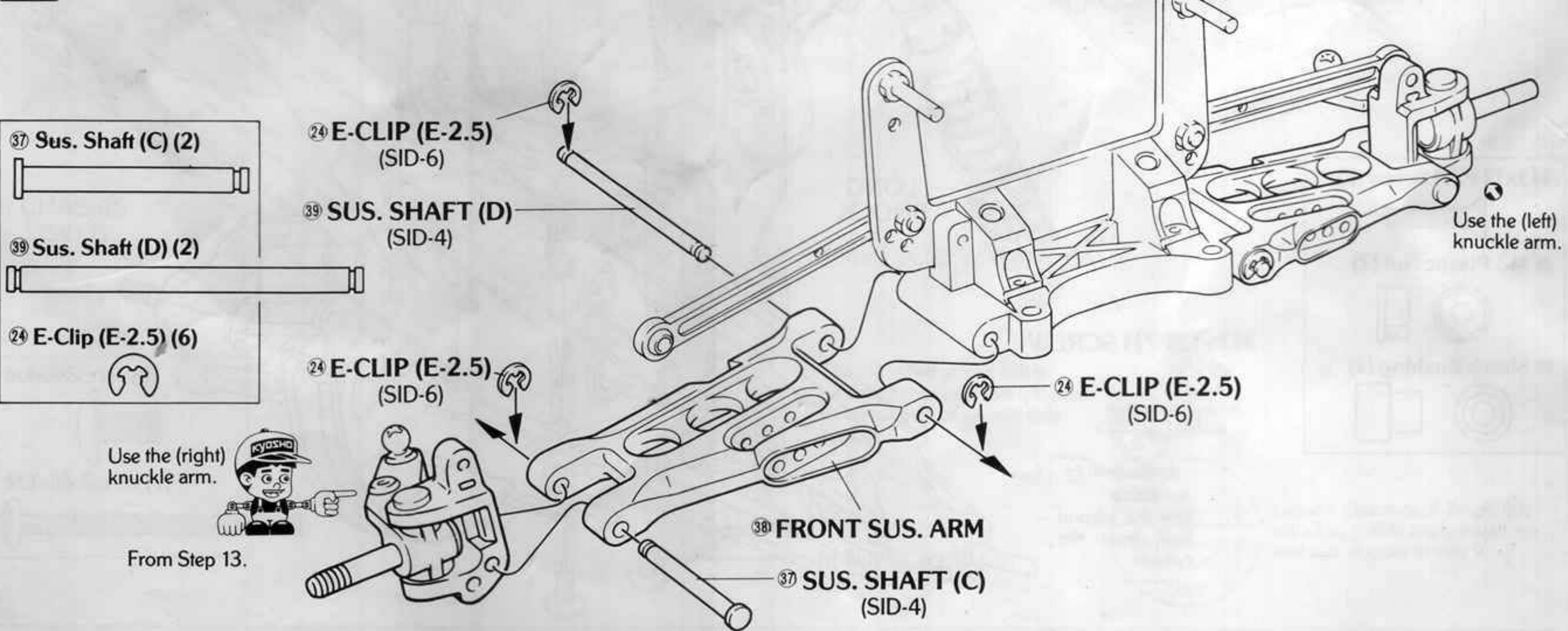
13 FRONT KNUCKLE ARM ASSEMBLY



14 FRONT SHOCK TOWER ASSEMBLY

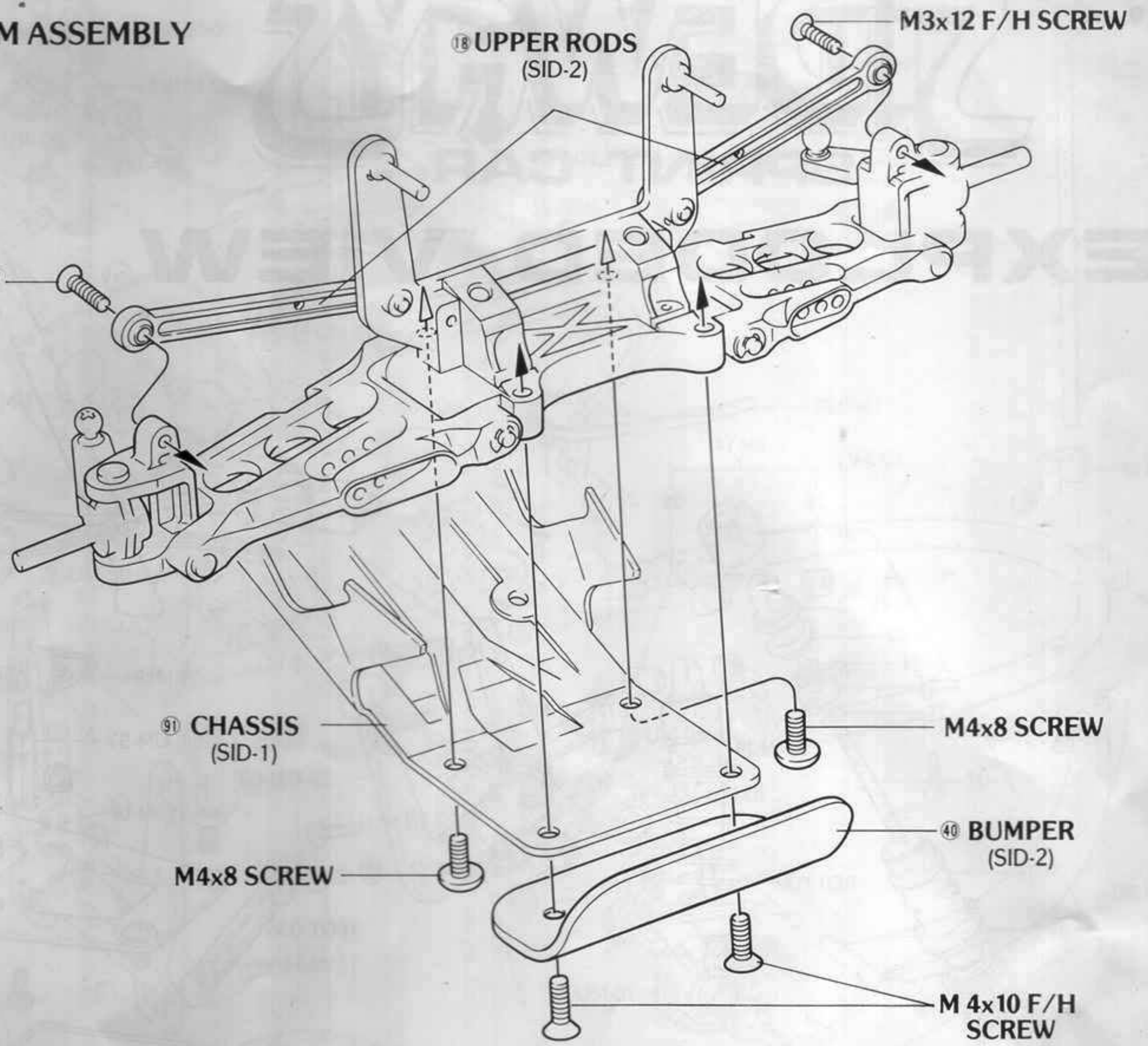


15 FRONT SUSPENSION ARM ASSEMBLY



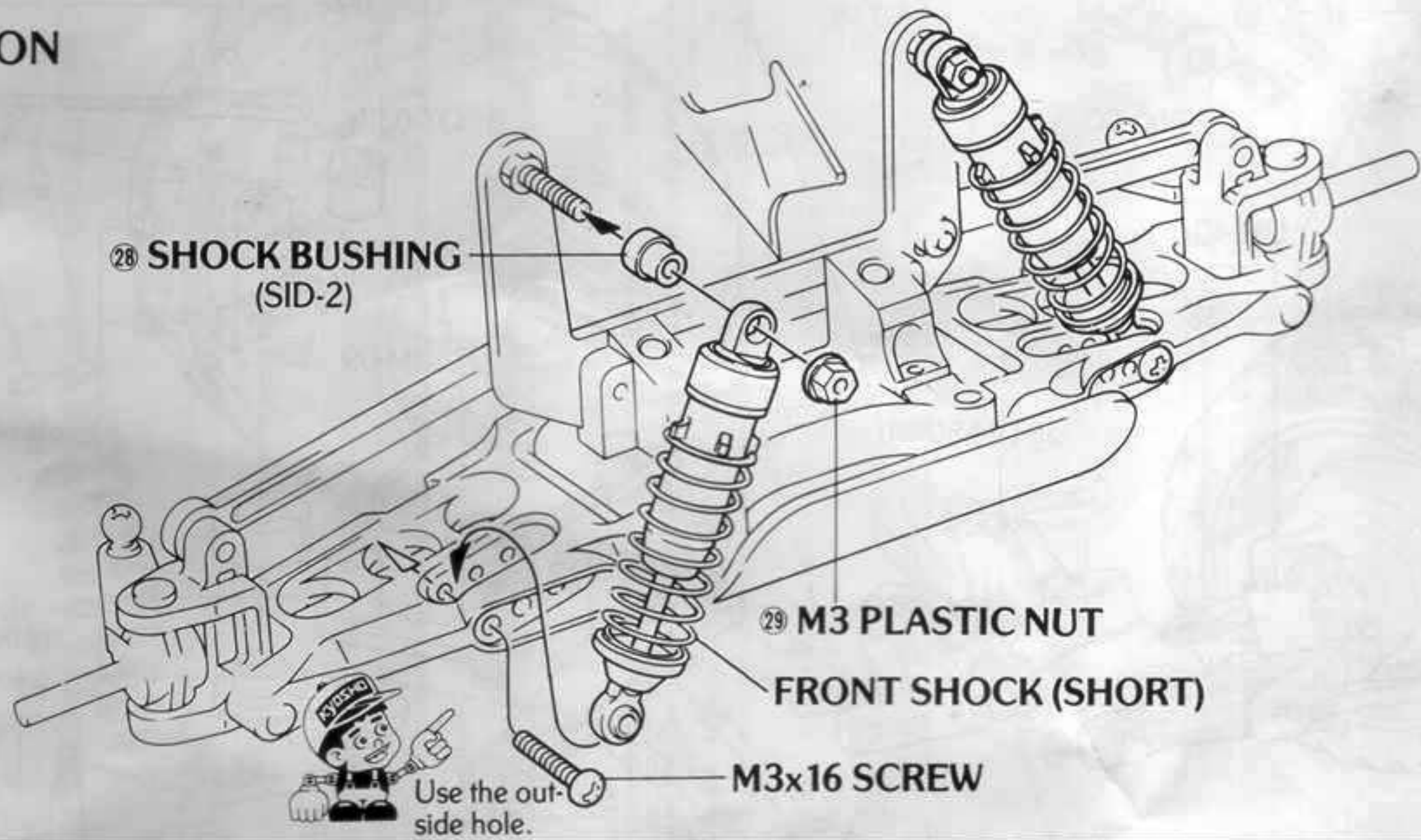
16 FRONT SUSPENSION ARM ASSEMBLY

- M3x12 F/H Screw (2)
- M4x8 Screw (2)
- M4x10 F/H Screw (10)



17 FRONT SHOCK INSTALLATION

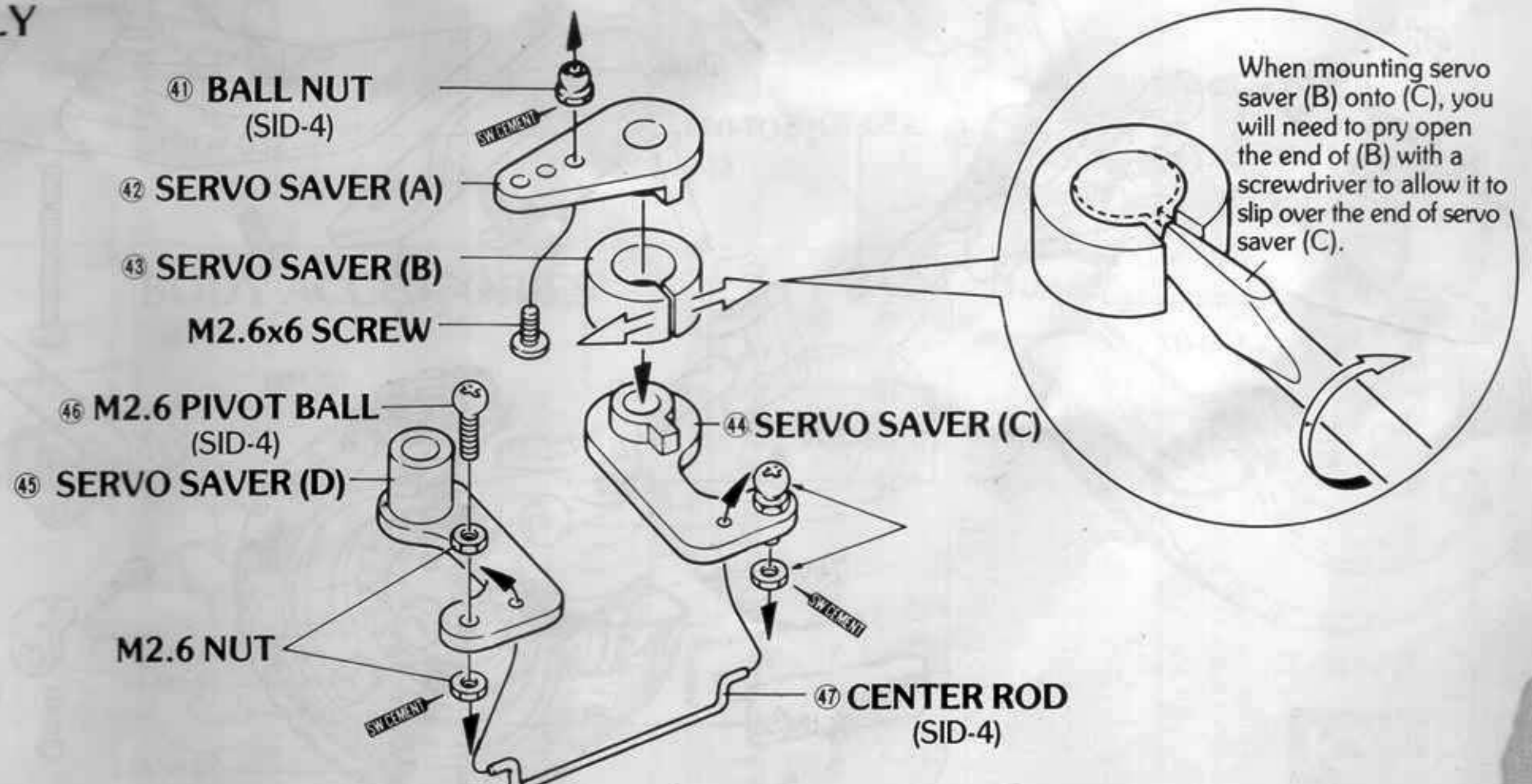
- M3x16 Screw (2)
- Shock Bushing (2)
- M3 Plastic Nut (2)



18 SERVO SAVER ASSEMBLY

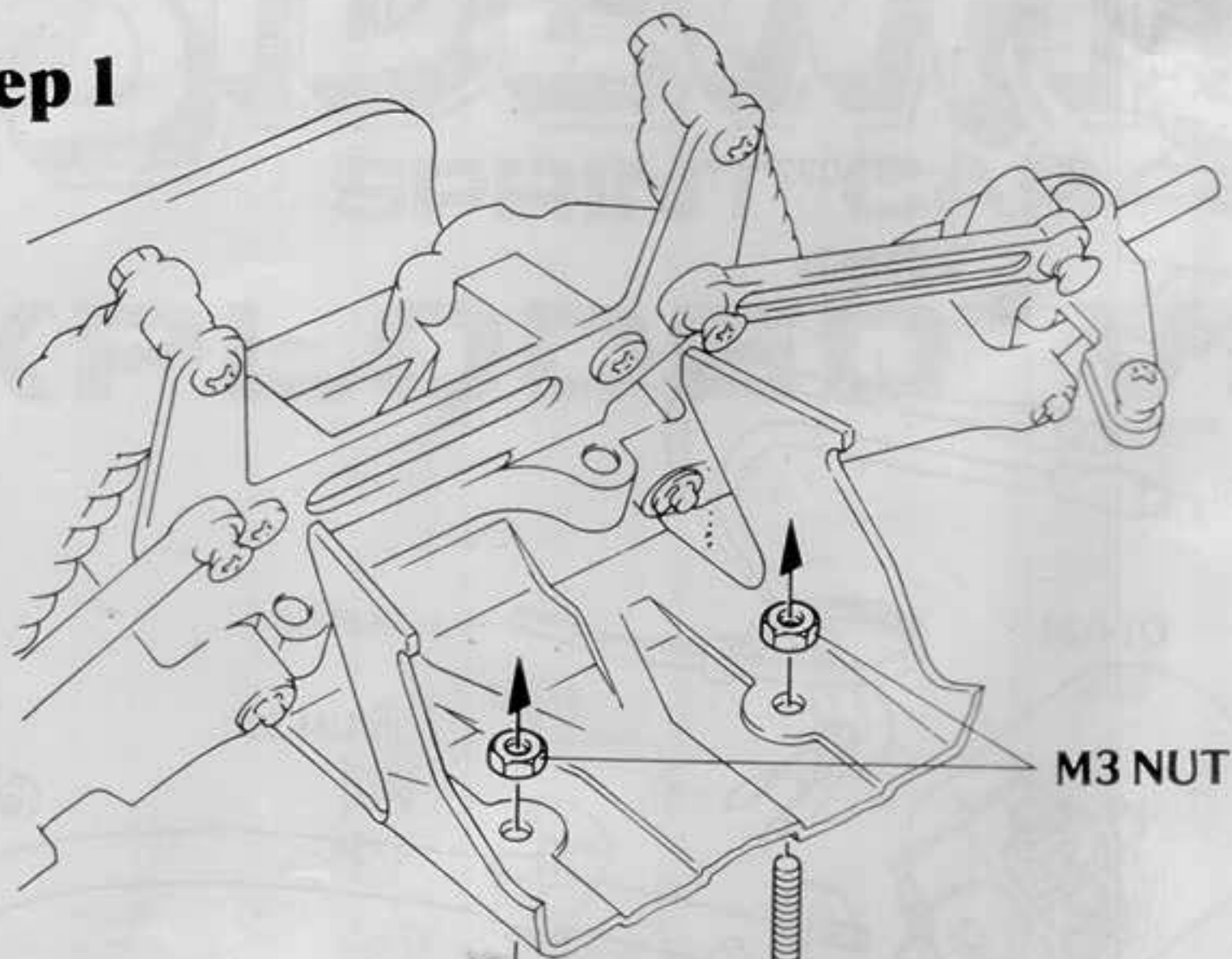
Parts 42 - 45 from (SID-2)

- M2.6x6 Screw (1)
- M2.6 Nut (4)
- Ball Nut (1)
- M2.6 Pivot Ball (2)

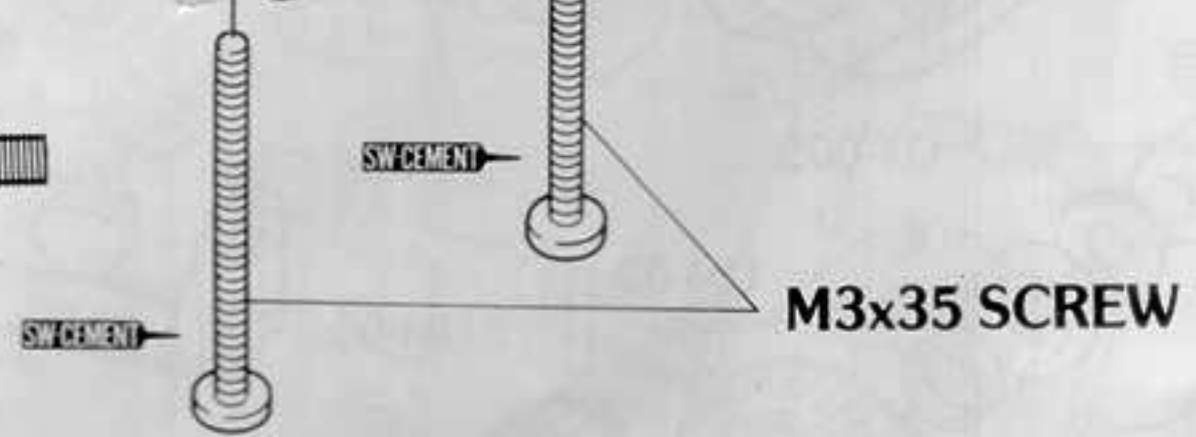


19 SERVO SAVER INSTALLATION

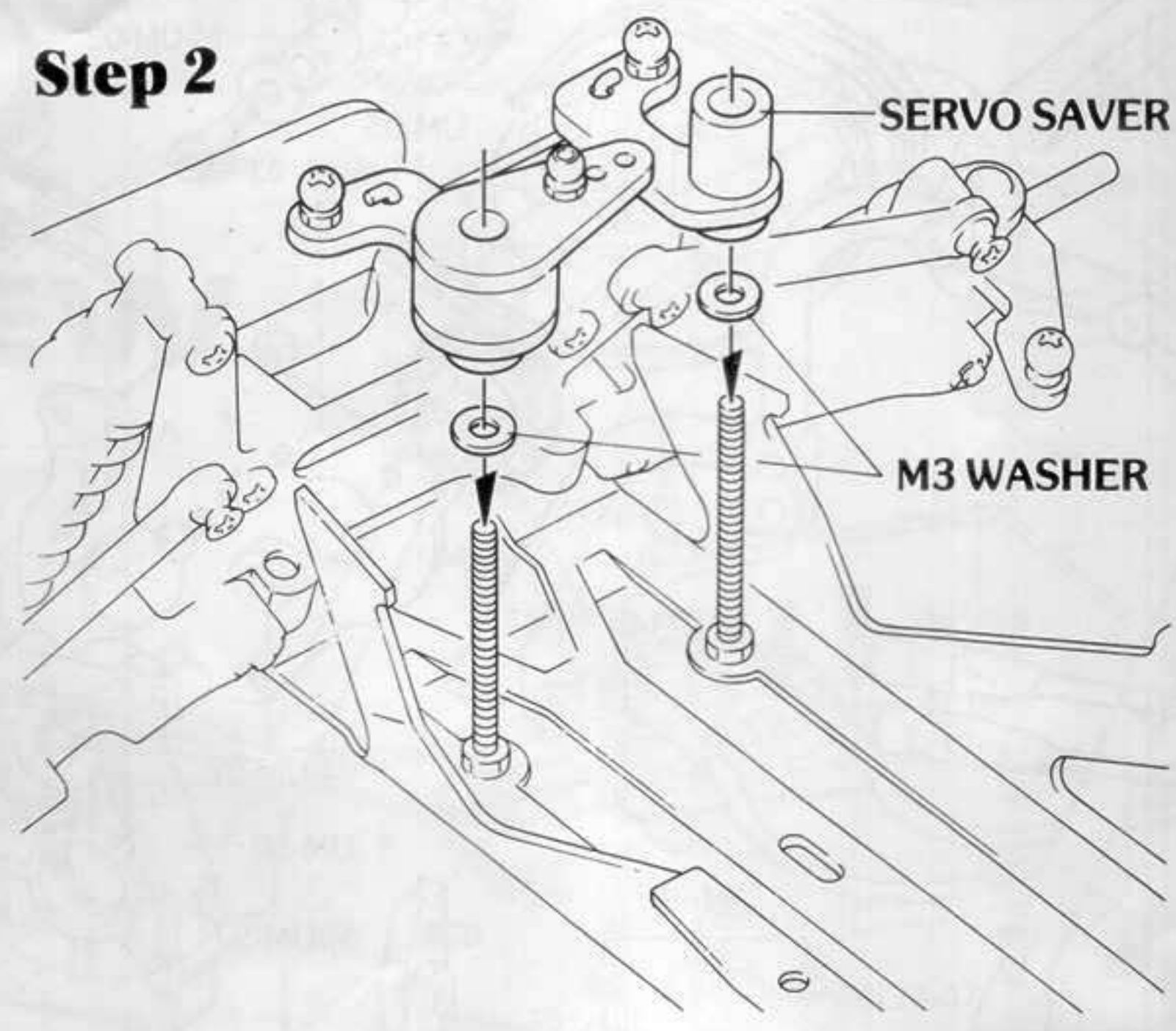
Step 1



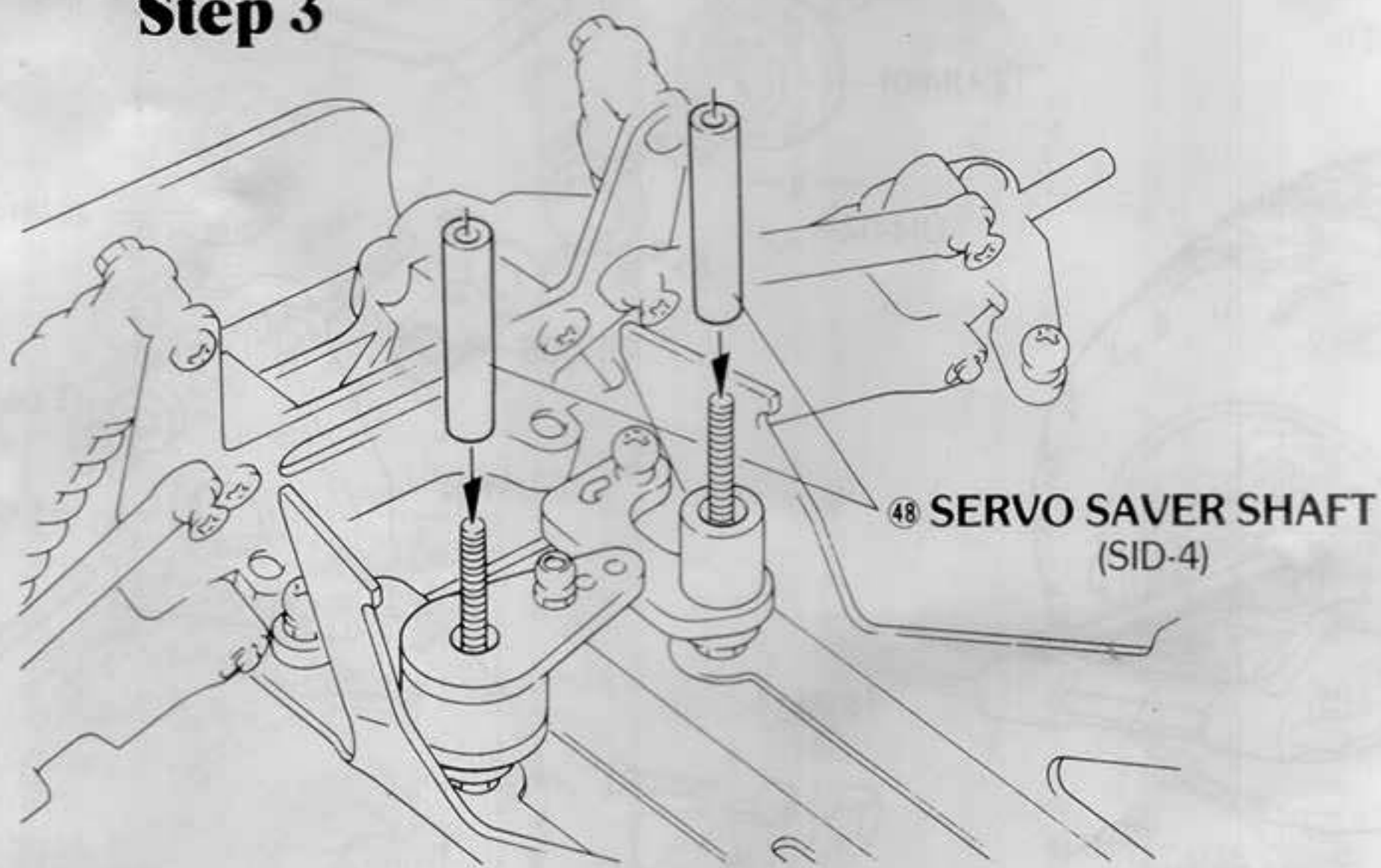
- M3x35 Screw (2)
- M3 Nut (2)
- M3 Washer (2)



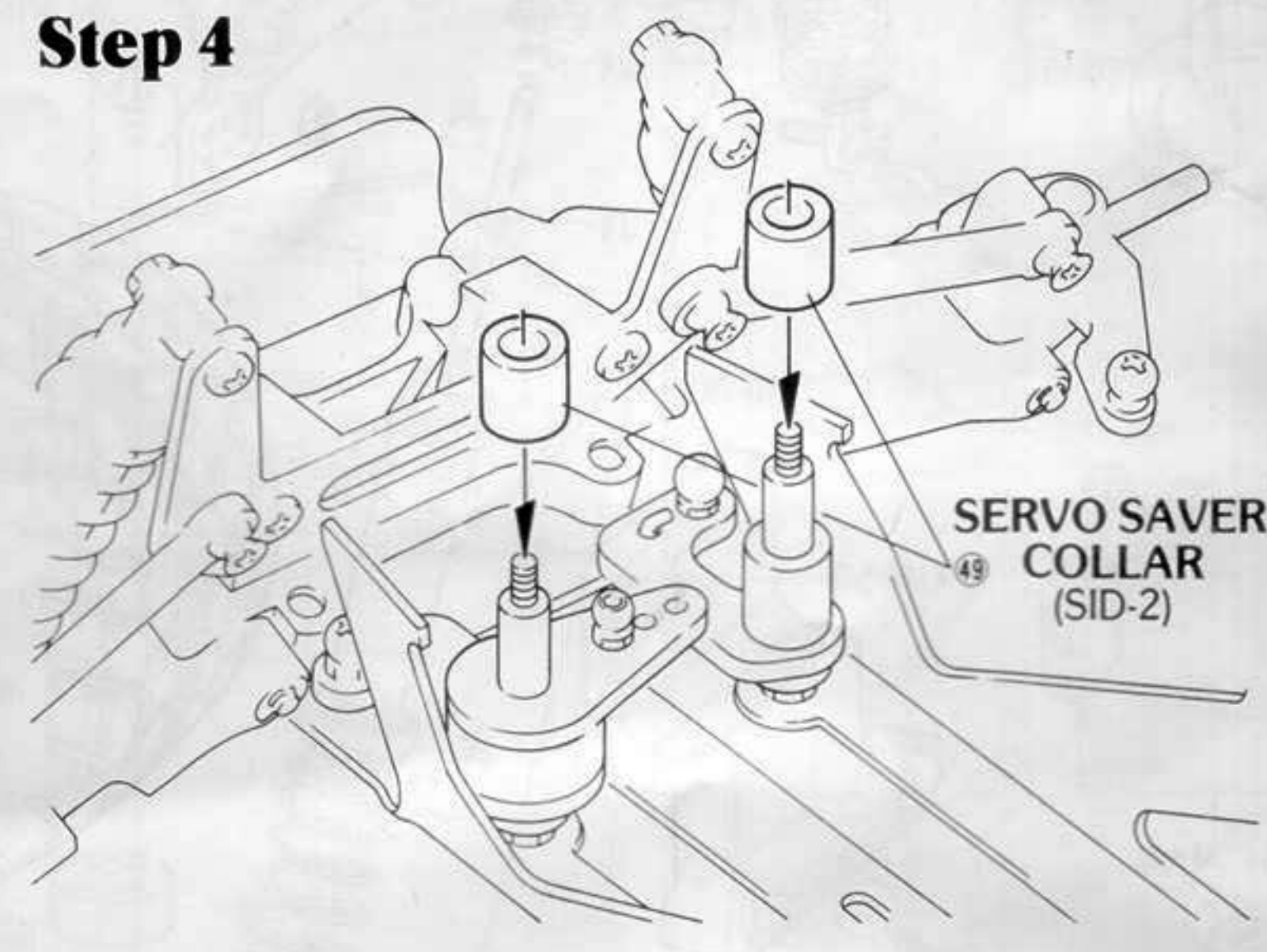
Step 2



Step 3



Step 4



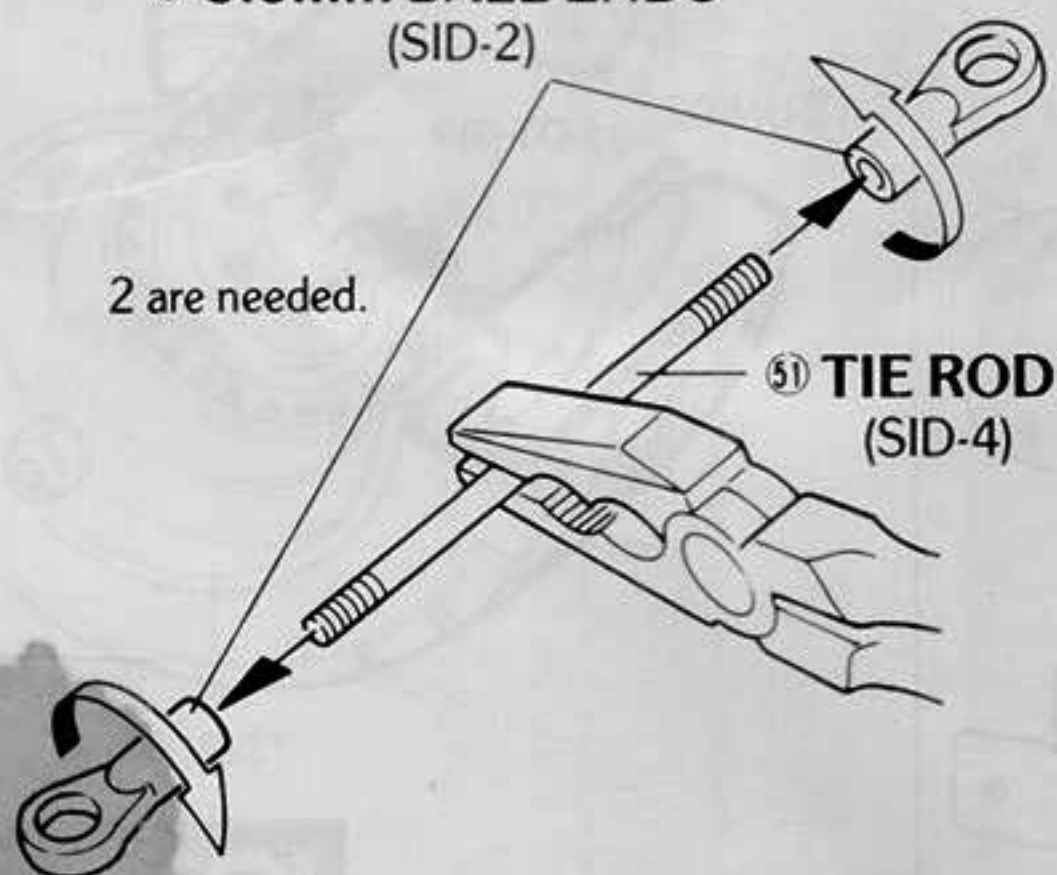
20 TIE ROD INSTALLATION

- 50 5.8mm Ball End (4)

Step 1 ASSEMBLE THE TIE RODS

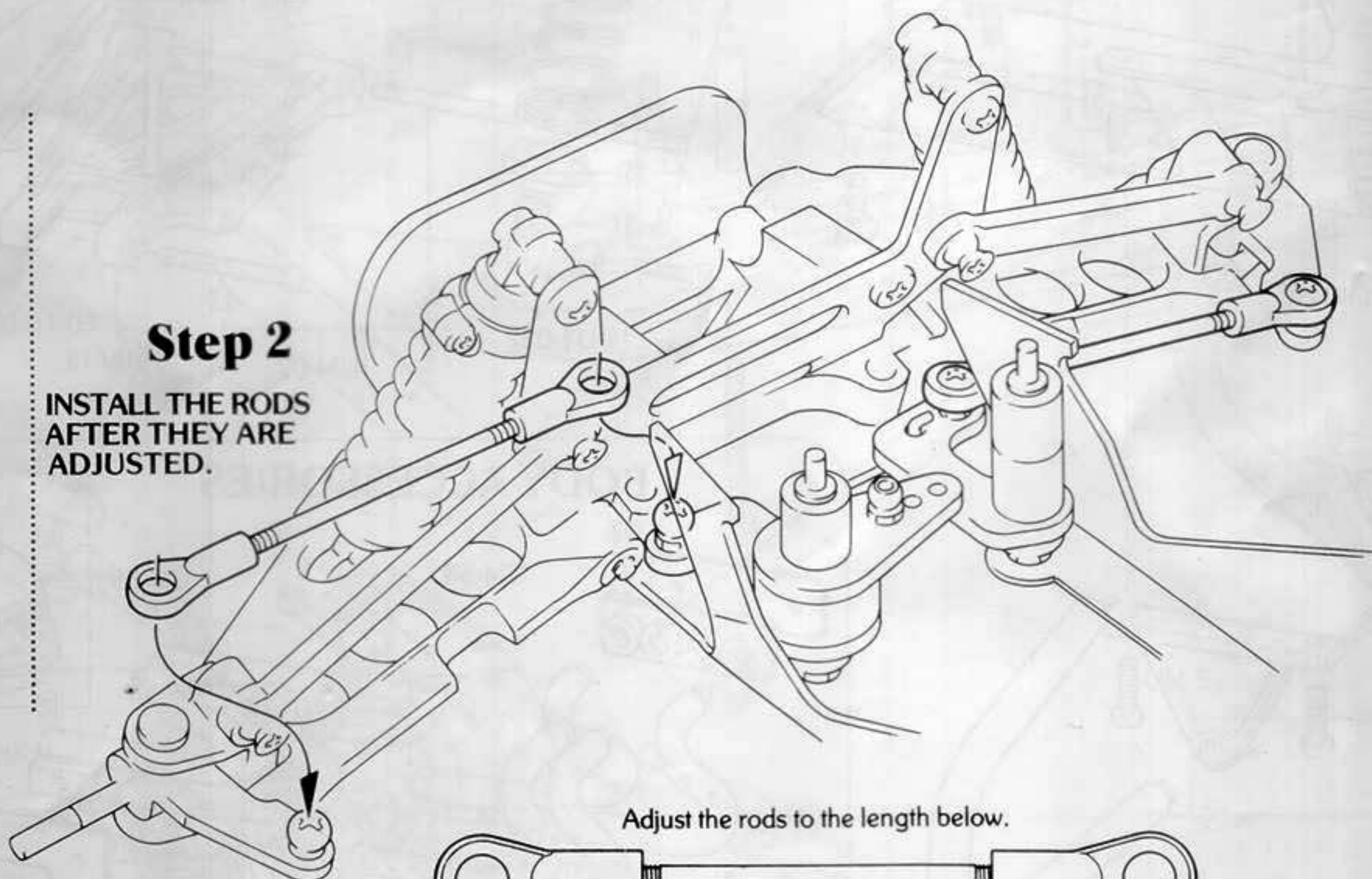
50 5.8mm BALL ENDS (SID-2)

2 are needed.

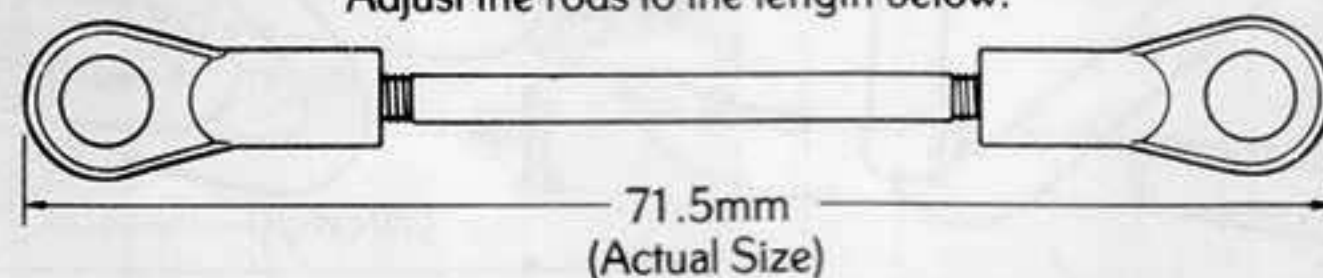


Step 2

INSTALL THE RODS AFTER THEY ARE ADJUSTED.



Adjust the rods to the length below.



26 CHECKING THE RADIO SYSTEM

Operate the components in sequence 1 thru 6

2 Extend the Tx Antenna

6 Set trim levers to neutral.

3 Turn transmitter on.

4 Plug 7.2V battery in.

RESISTOR

Fully charged 7.2V battery pack.

SPEED CONTROL SERVO

SWITCH

5 Turn the receiver switch on. When turning the rotor, the motor will run.

Set the speed control on the "N" mark.

Hold on to the motor and rotate the speed control. The motor should run.

STEERING SERVO

RECEIVER

1 Extend the receiver antenna.

MOTOR



The R/C car is designed for BEC type receiver only.

- **Transmitter** It is a control box that produces a signal according to the stick movement.
- **Receiver** It receives the signal from the transmitter and sends a signal to the servo.
- **Servo** They move the mechanism of the car in accordance with the signal from the receiver.
- **Antenna** The antenna on the transmitter transmits the signal and the receiver antenna receives the signal. Both antennas must be fully extended.
- **Trim Lever** It adjusts the neutral position of the servo and allows fine tuning of the servo position.
- **Battery Meter** It allows you to monitor the battery power.
- **Servo Horn** It transmits the mechanical power of the servo to the control rod.

22 STEERING ROD ASSEMBLY

M3x8 S/T Screw (2)

M3 Washer (2)

4.8mm Ball End (1)

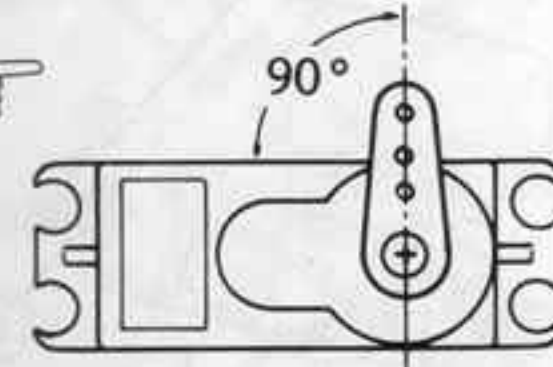
Step 1 Remove the unnecessary (shaded) portion of the servo arm/wheel to obtain the proper shape needed.

This hole may have to be enlarged slightly with an awl.

Use a hole that is 13mm from the center of the arm/wheel.



In the neutral position the servo arm should be at 90° to the servo.



Step 3

56 SERVO MOUNTS (SID-2)

Step 2 52 4.8mm BALL END (SID-4)

53 STEERING ROD (SID-4)

M3 WASHER
M3x8 S/T SCREW
CONTROL HORN

Use the screw that is included with your radio.

23 STEERING SERVO INSTALLATION

The length of the control rod is adjusted by turning the ball end in one direction or the other.

LENGTHEN

SHORTEN

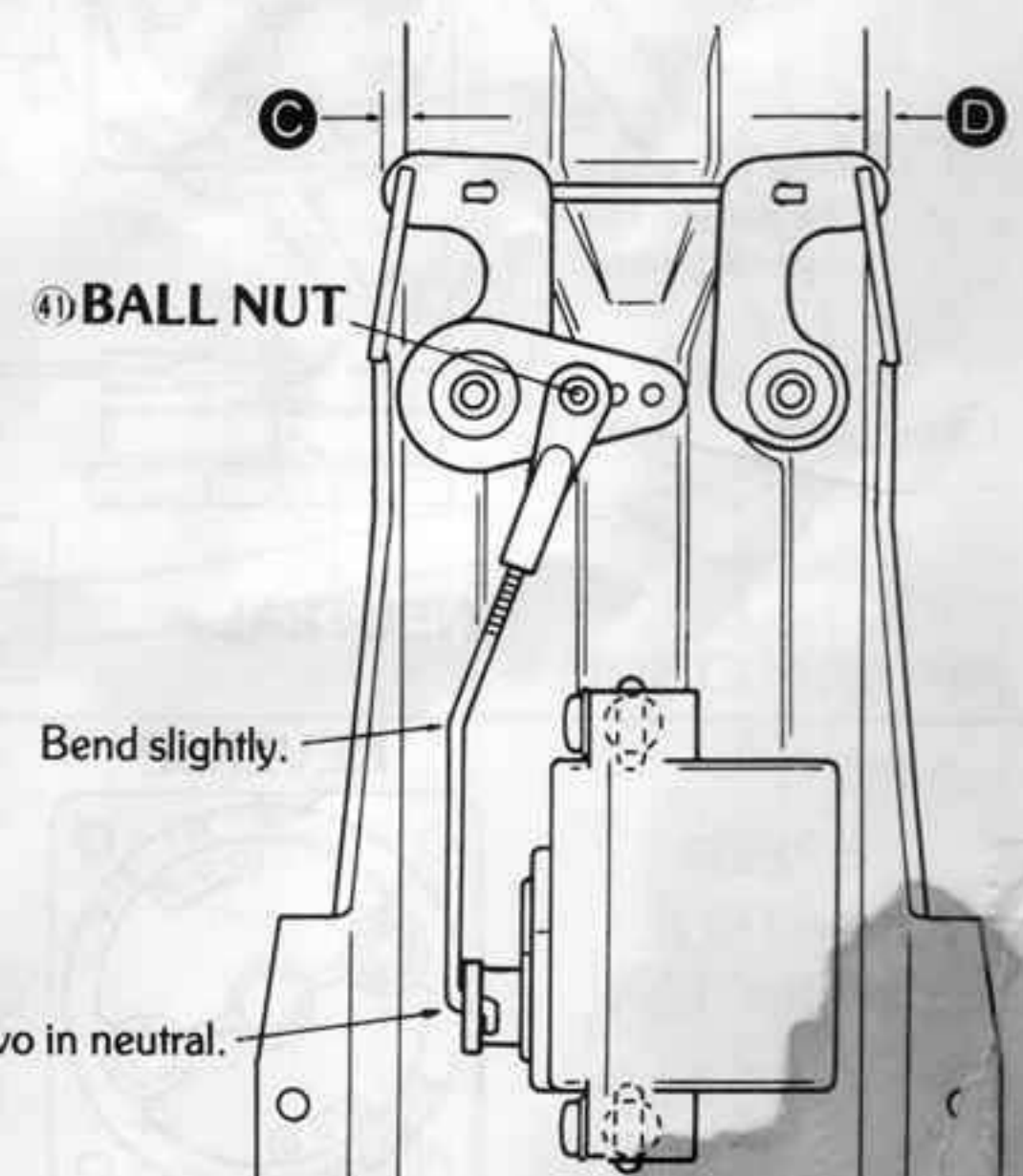
53 STEERING ROD

54 Install the servo.

M3x8 S/T Screw (2)

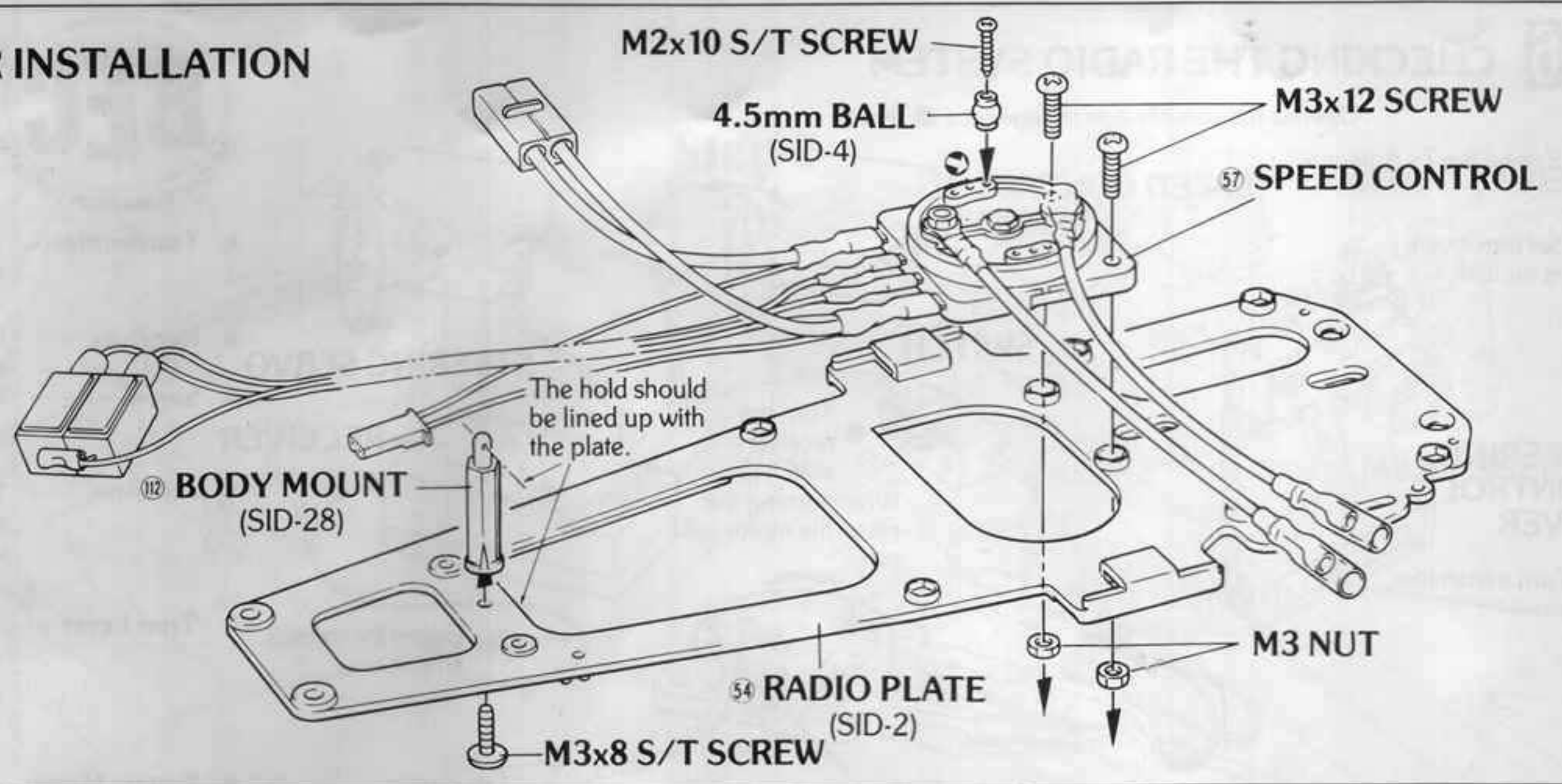
M3x8 S/T SCREW

The control rod should be adjusted so that the distances C and D are equal when the servo is in the neutral position.



24 SPEED CONTROLLER INSTALLATION

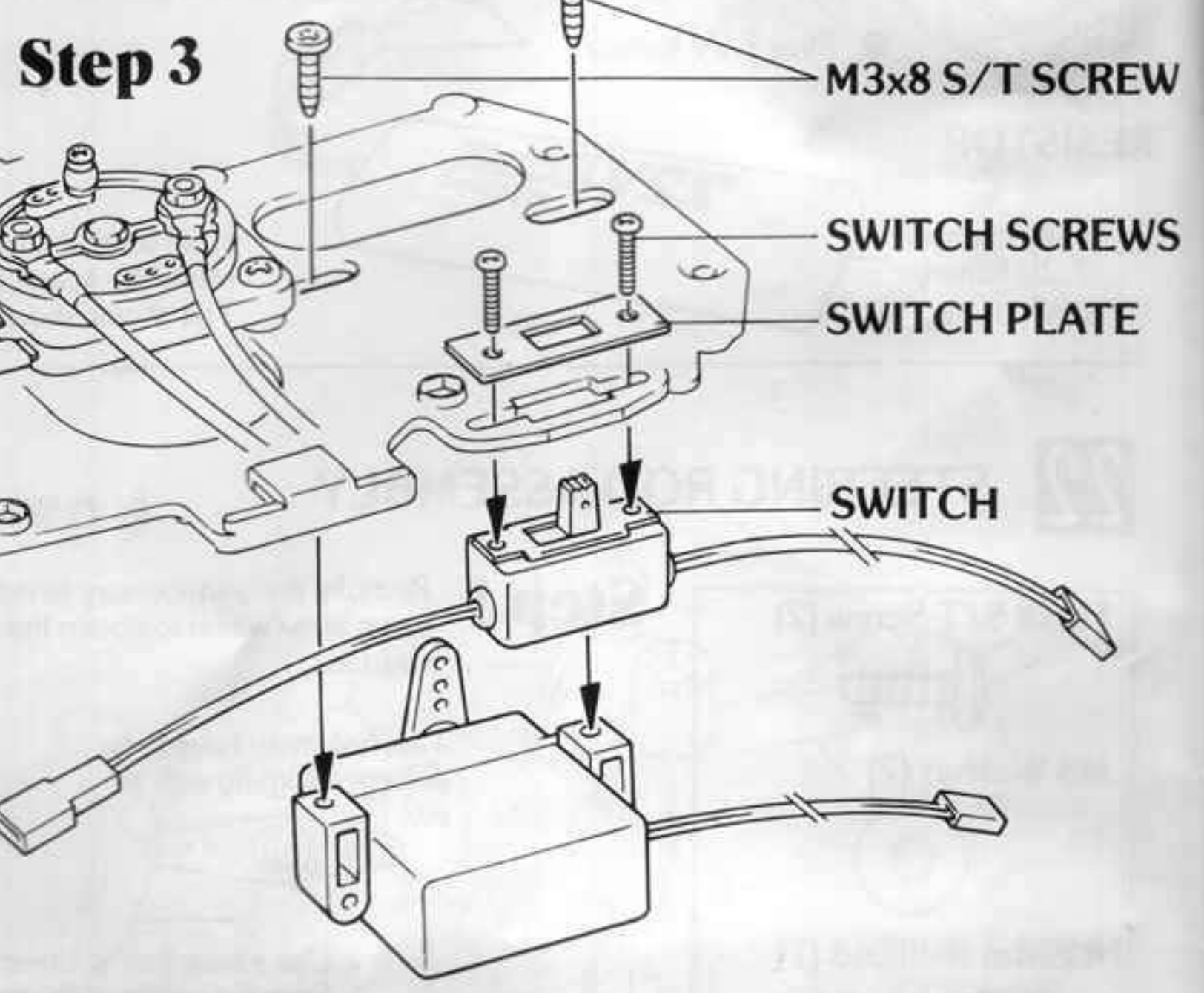
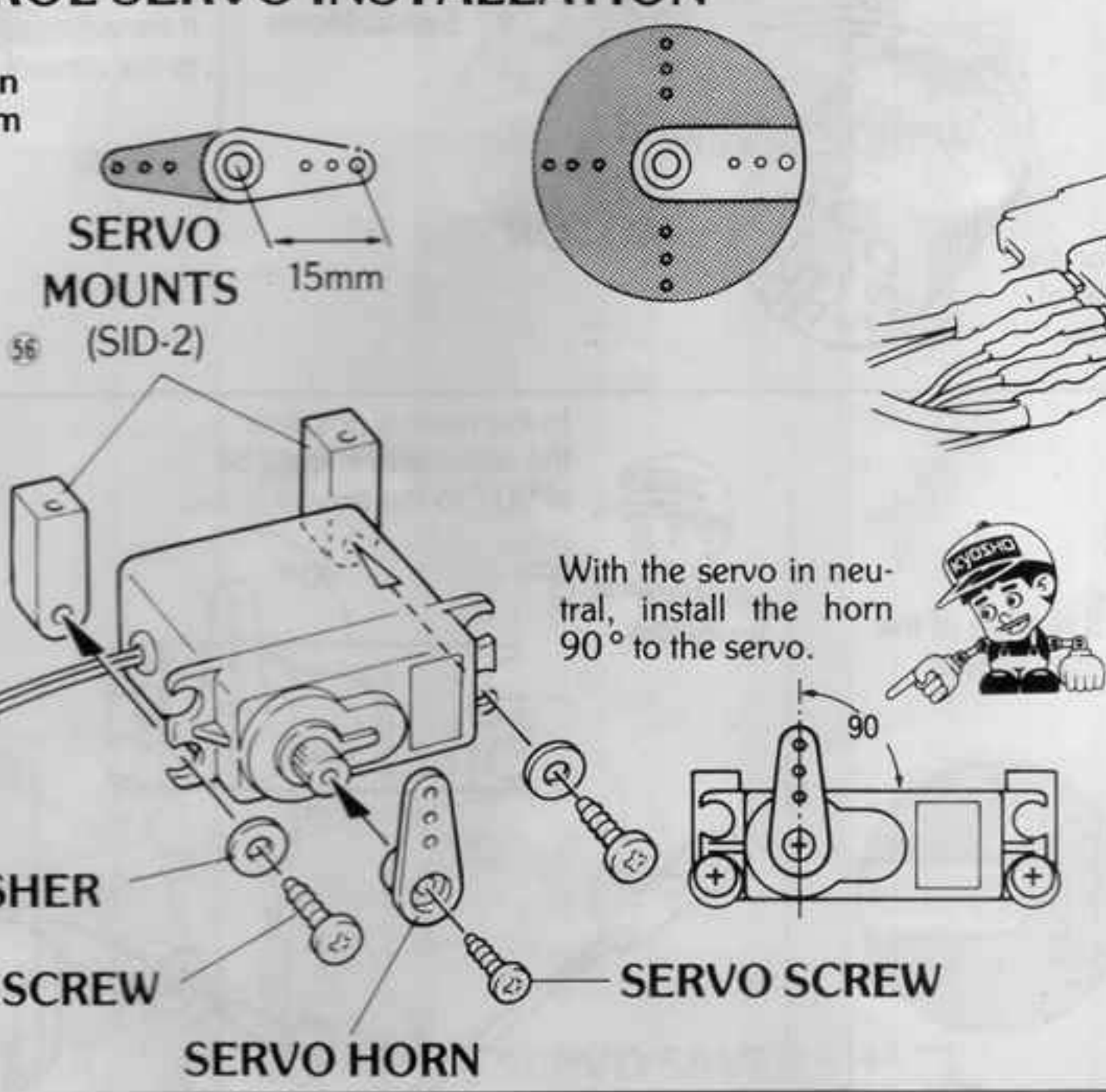
- M2x10 S/T Screw (1)
- M3x8 S/T Screw (1)
- M3x12 Screw (2)
- M3 Nut (2)
- 58 4.5mm Ball (1)



25 SPEED CONTROL SERVO INSTALLATION

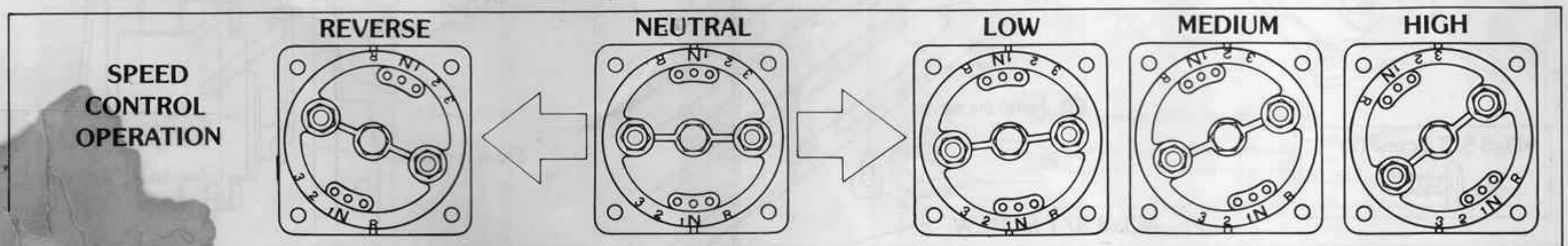
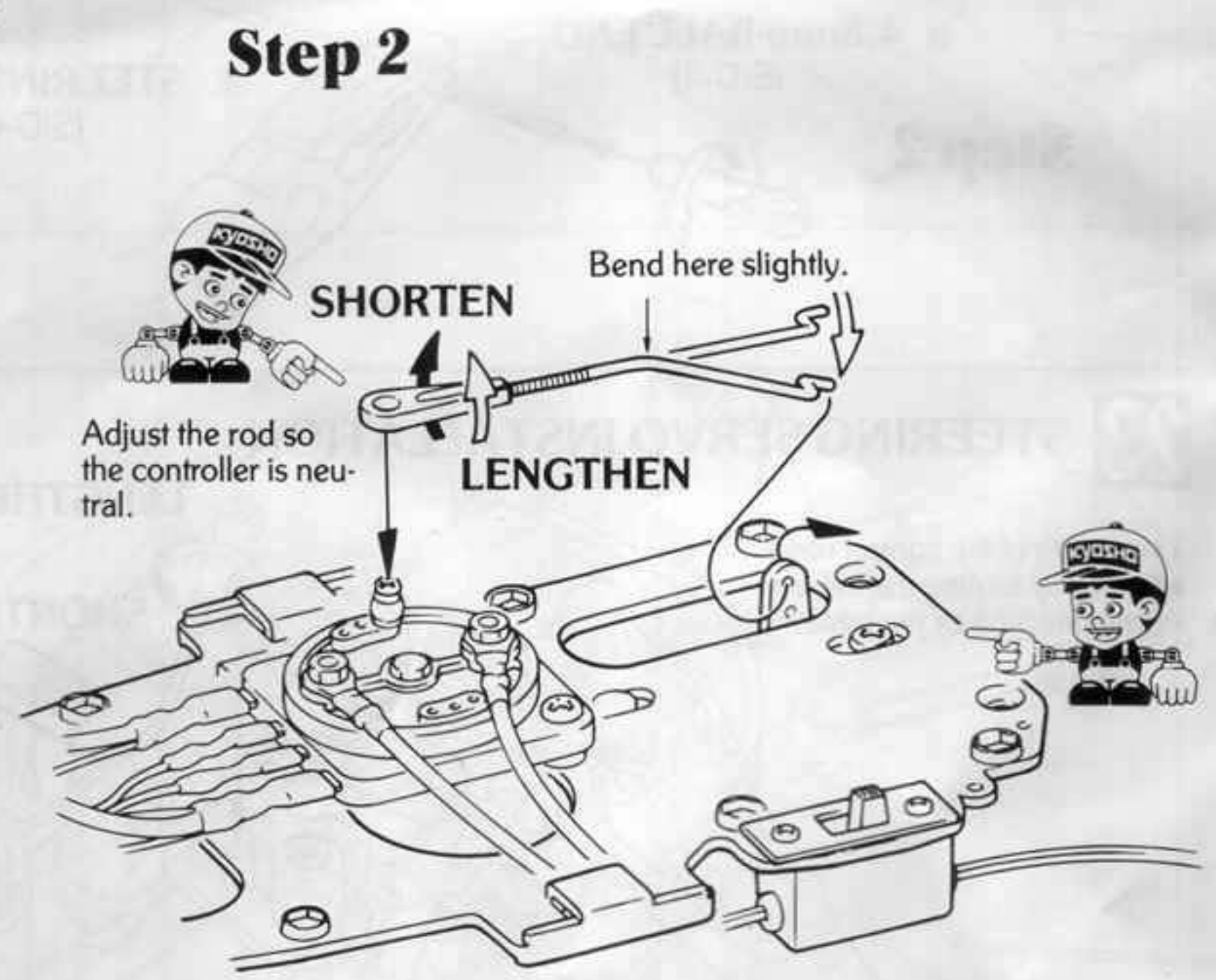
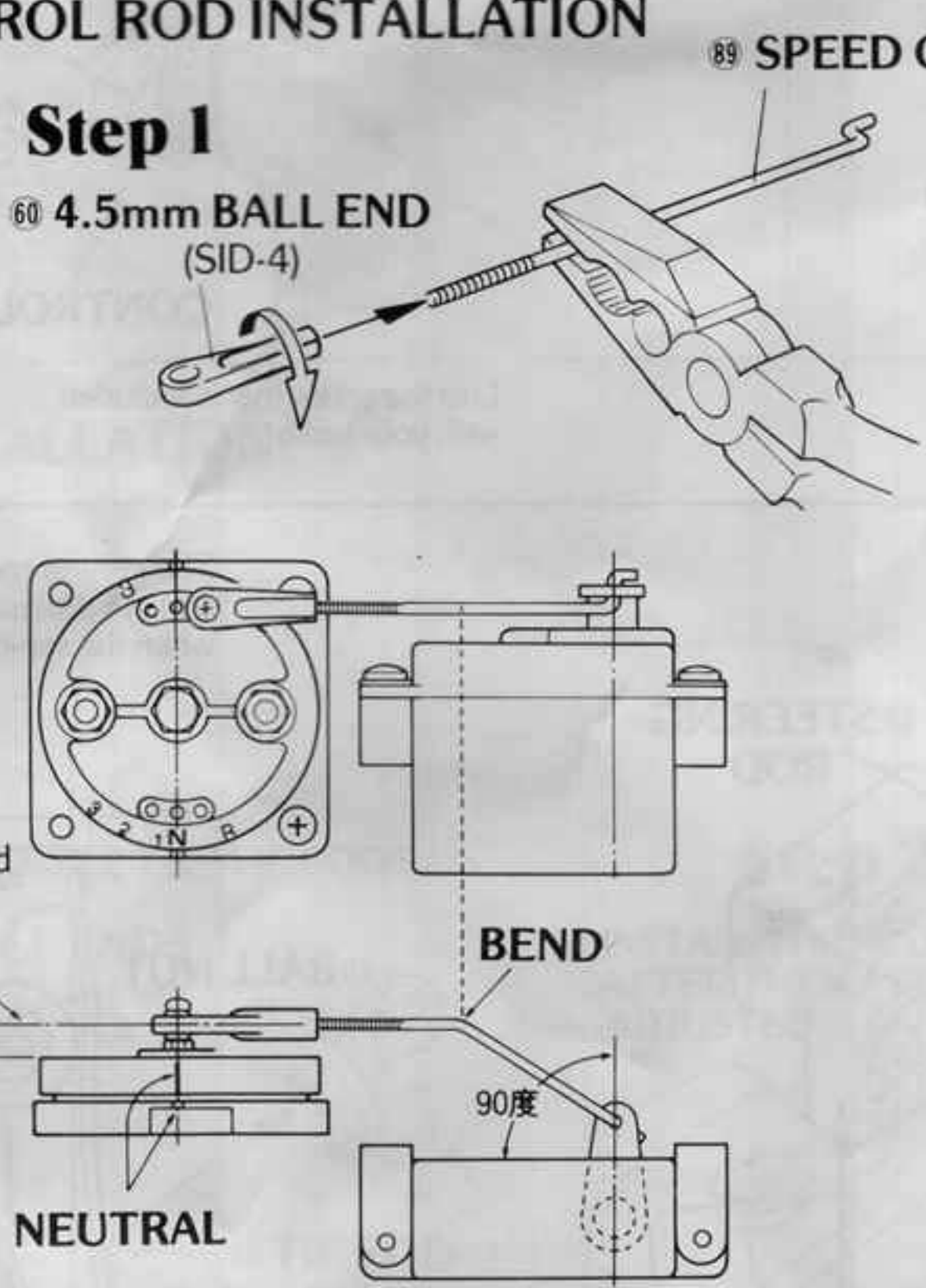
Step 1 Find a servo horn with a hole 15mm from the center.

- M3x8 S/T Screw (4)
- M3 Washer (2)



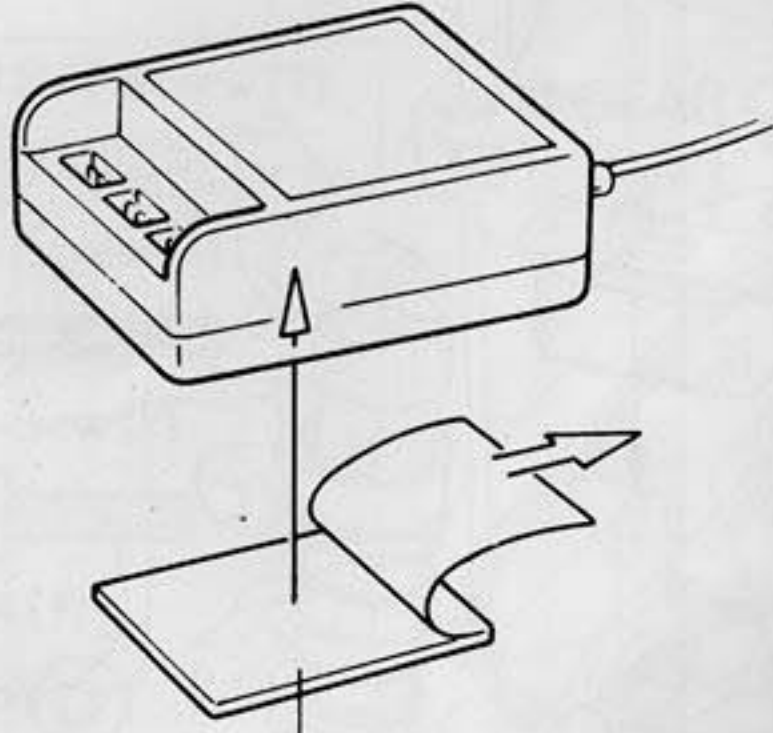
26 SPEED CONTROL ROD INSTALLATION

- 60 4.5 Ball End (1)

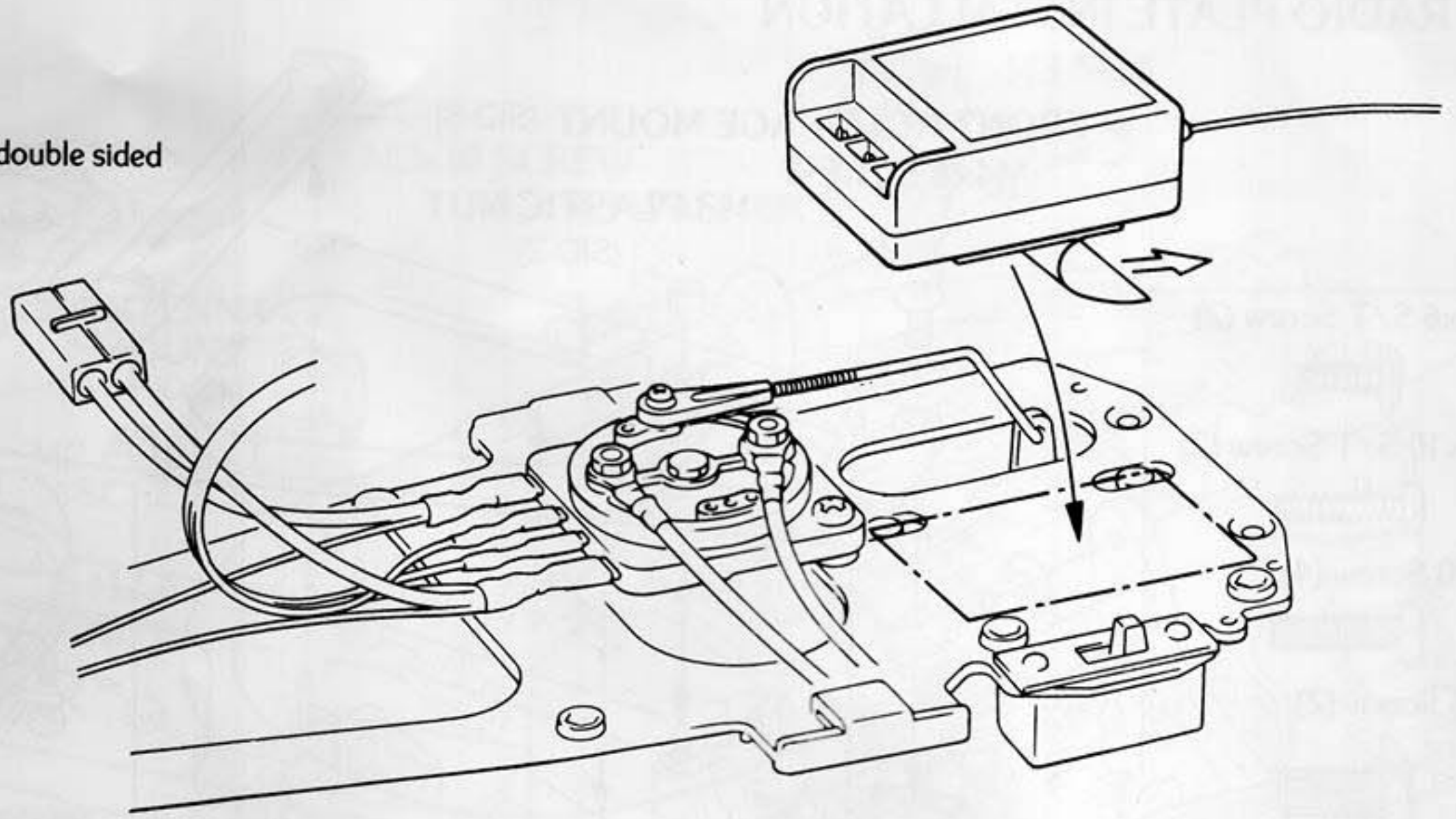


27 RECEIVER INSTALLATION

Install the receiver with double sided tape to the radio plate.

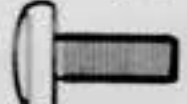


62 DOUBLE SIDED TAPE (SSA-12)



28 RESISTOR MOUNTING

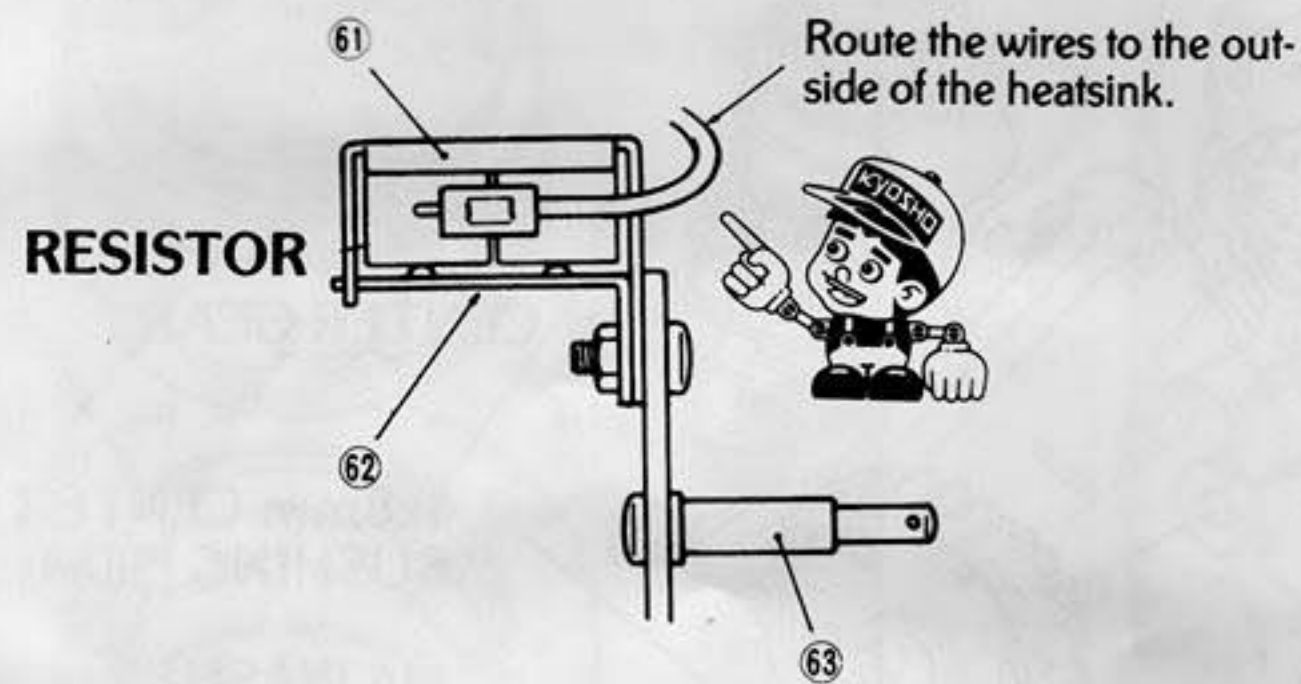
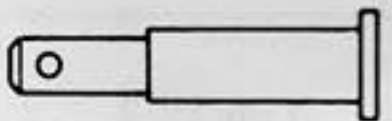
M3x6 Screw (2)



M3 Nut (1)



63 Center Gear Shaft (1)



HEATSINK (A) (SID-3)

RESISTOR

62 HEATSINK (B) (SID-3)

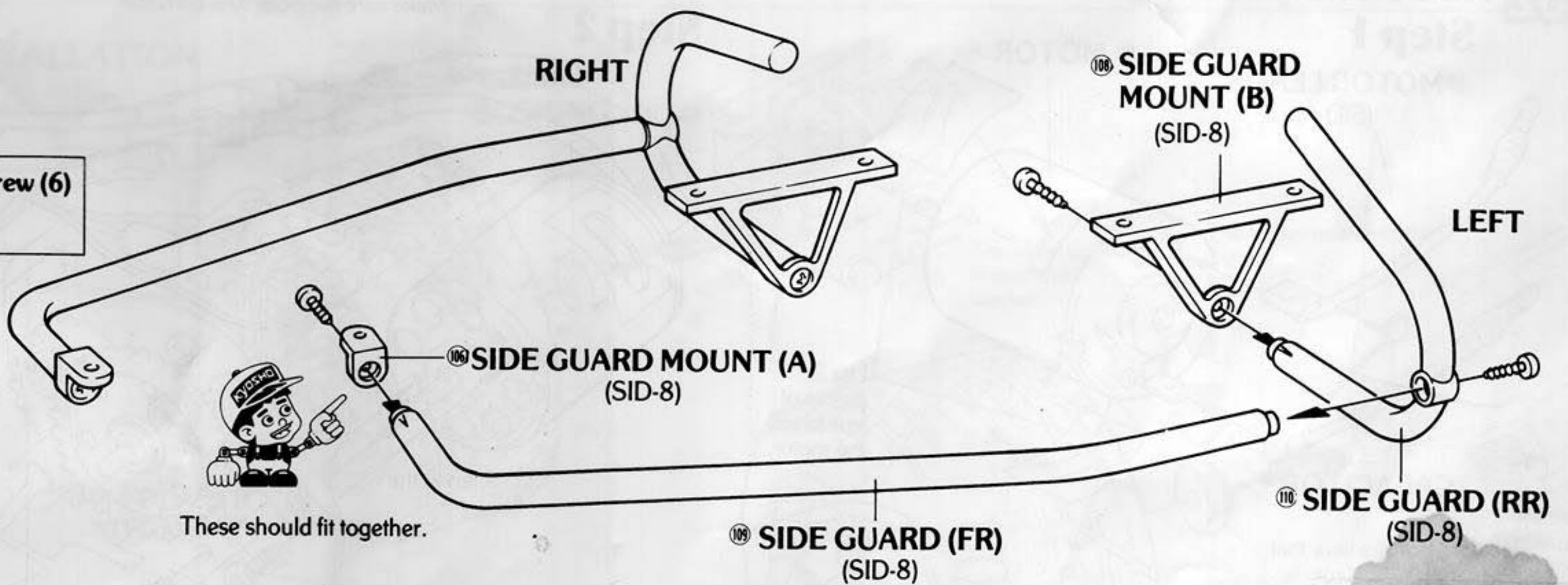
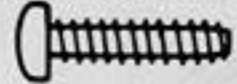
M3 NUT

M3x6 SCREW

63 CENTER GEAR SHAFT (SID-4)

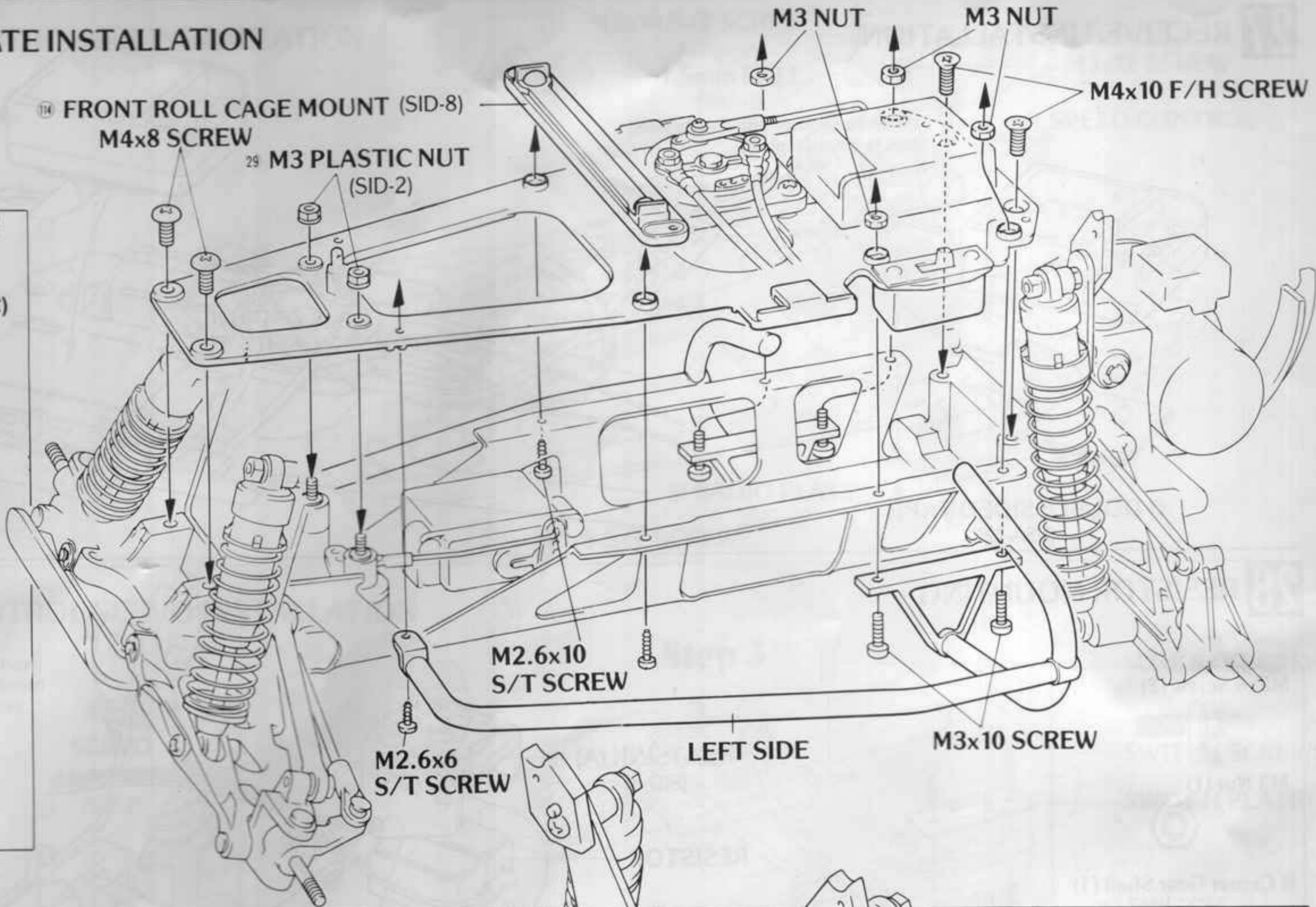
29 SIDE GUARD ASSEMBLY

M2.6X10 S/T Screw (6)



30 RADIO PLATE INSTALLATION

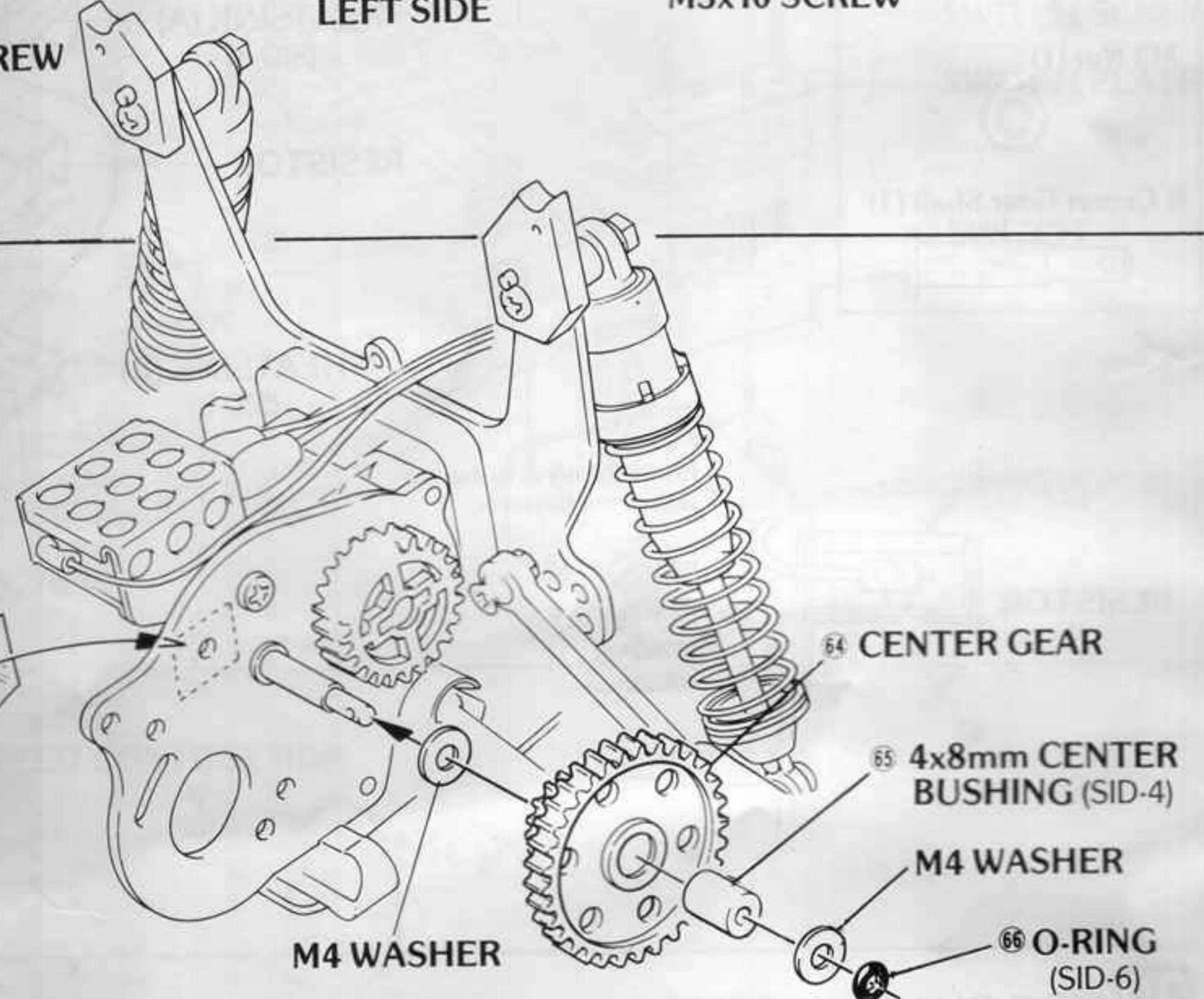
- M2.6x6 S/T Screw (2)
- M2.6x10 S/T Screw (2)
- M3x10 Screw (4)
- M4x8 Screw (2)
- M4x10 F/H Screw (2)
- M3 Nut (4)
- 29 M3 Plastic Nut (2)



31 CENTER GEAR INSTALLATION

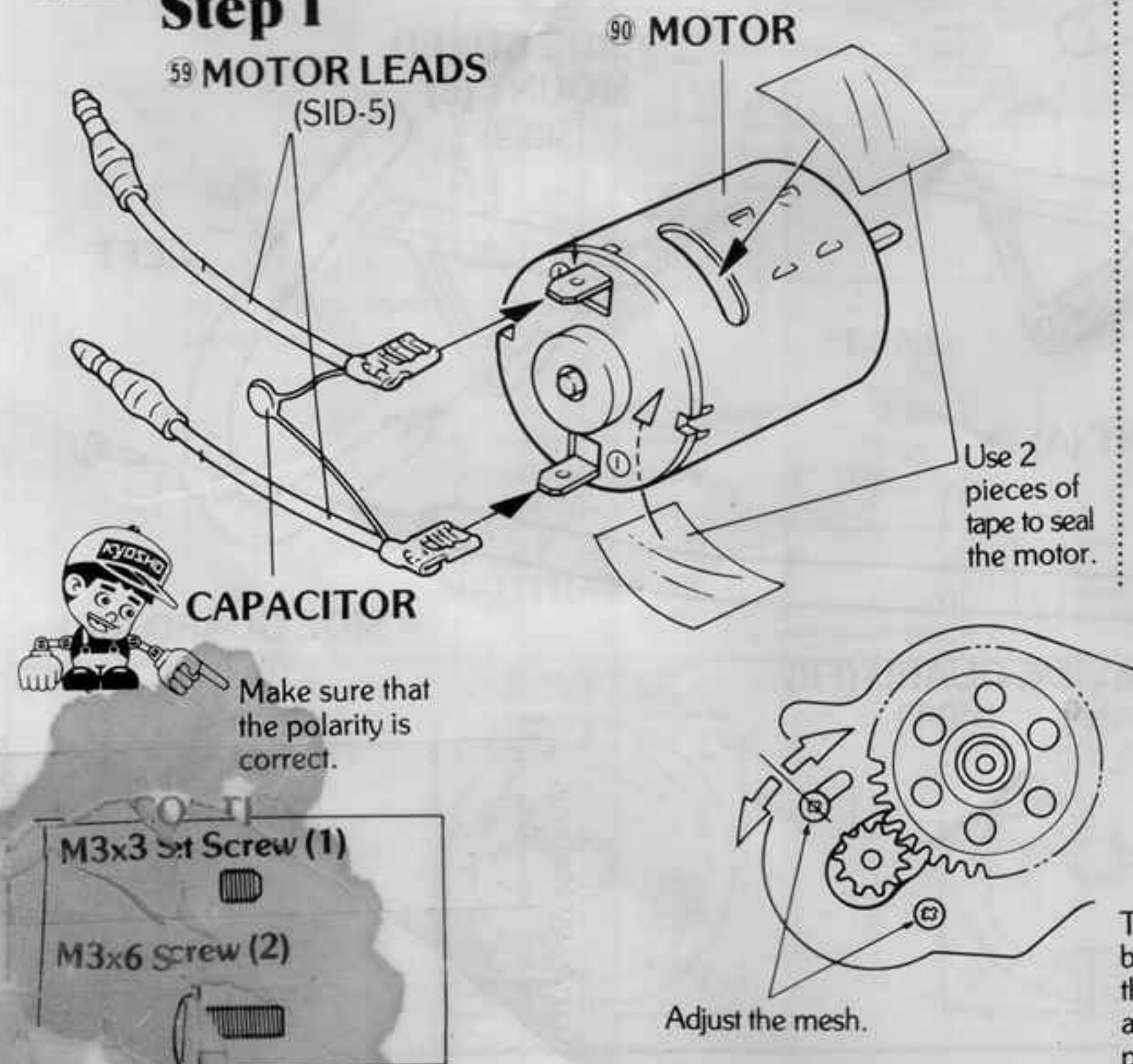
- M4 Washer (2)
- 66 O-Ring (1)
- 65 4x8mm Center Bushing (1)

Cover this hole with a piece of tape.

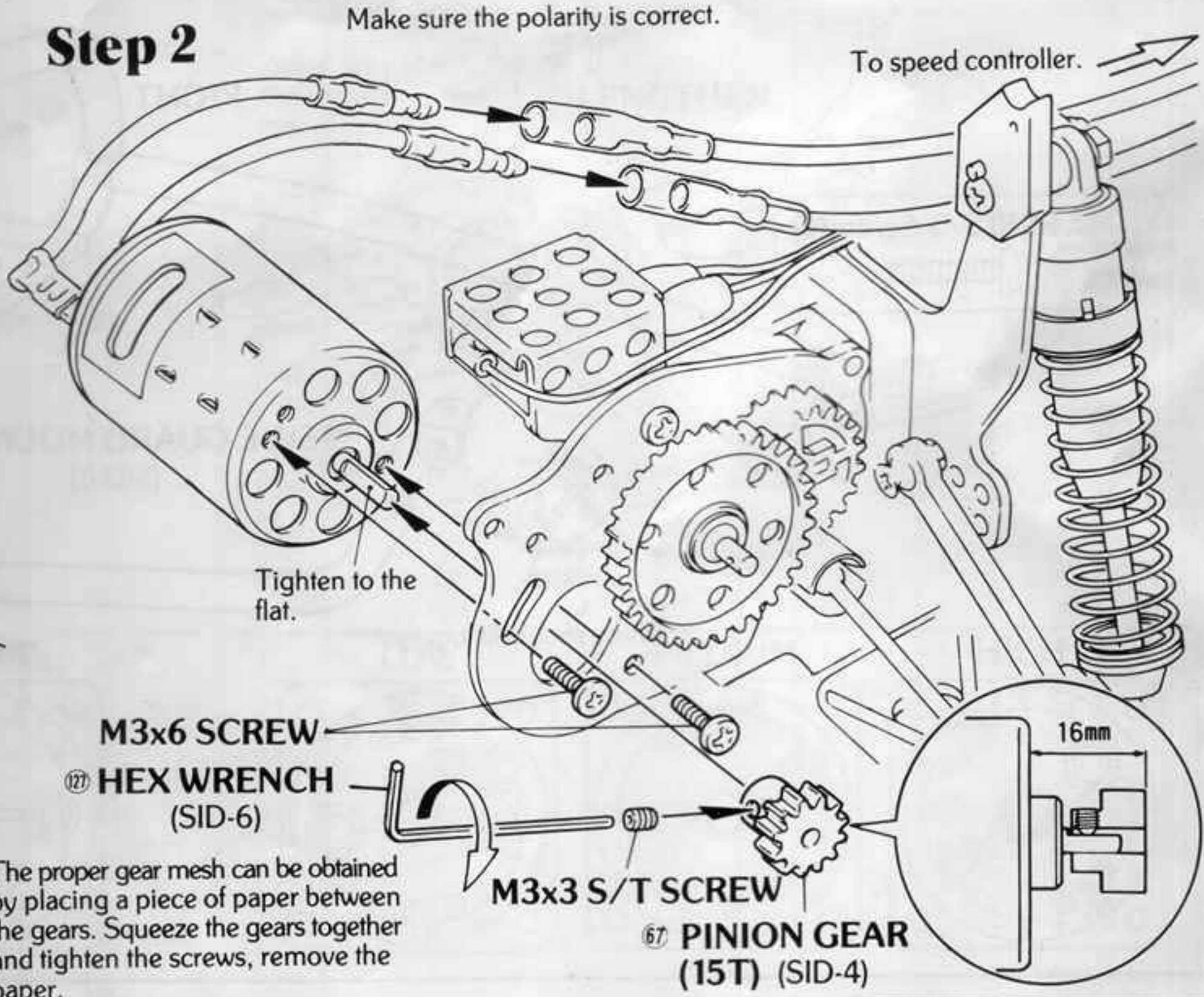


32 MOTOR INSTALLATION

Step 1



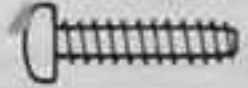
Step 2



The proper gear mesh can be obtained by placing a piece of paper between the gears. Squeeze the gears together and tighten the screws, remove the paper.

33 GEAR COVER INSTALLATION

M2.6x10 S/T Screw (1)



M2.6x14 Screw (1)



M3x10 Screw (2)



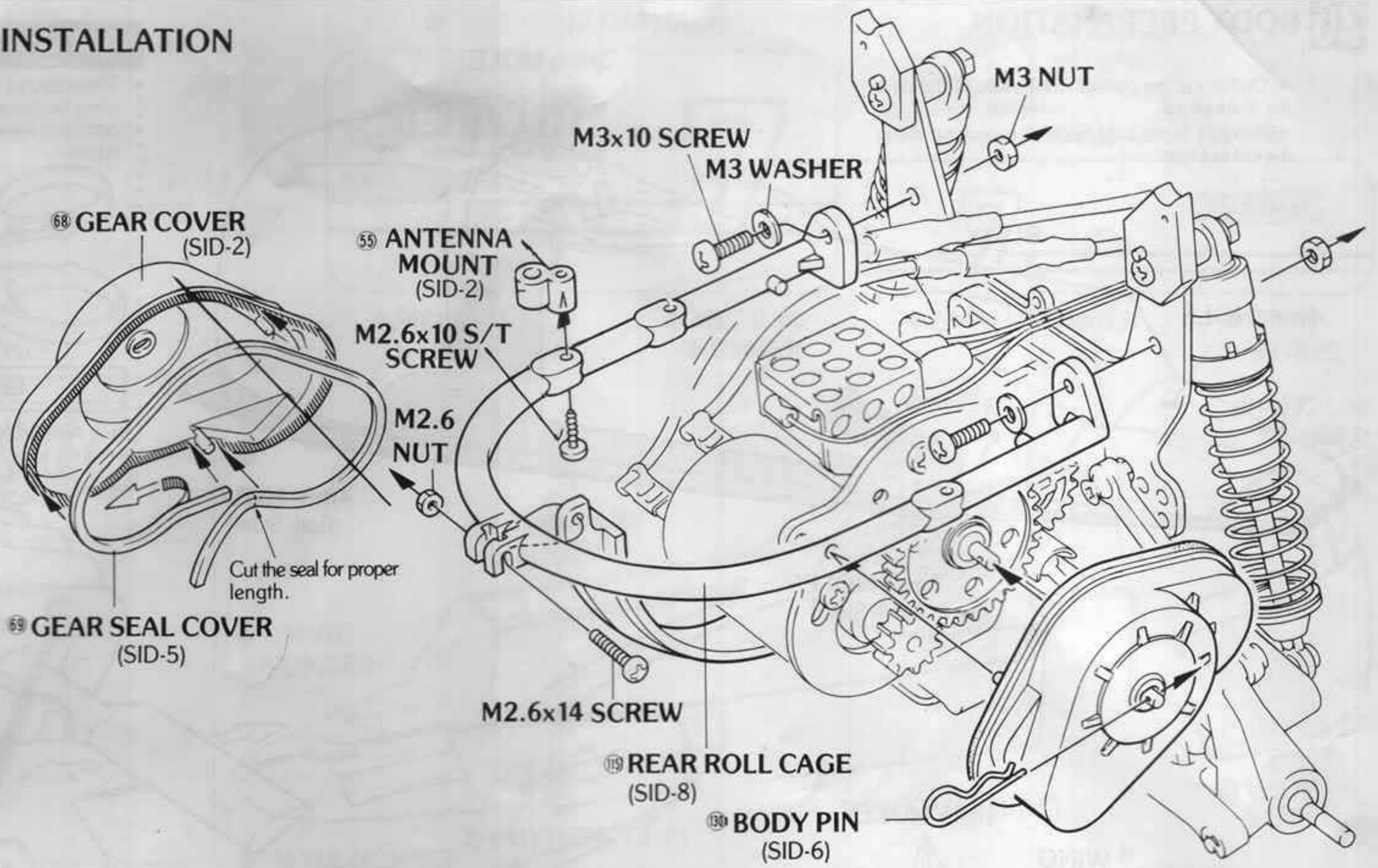
M2.6 Nut (1)



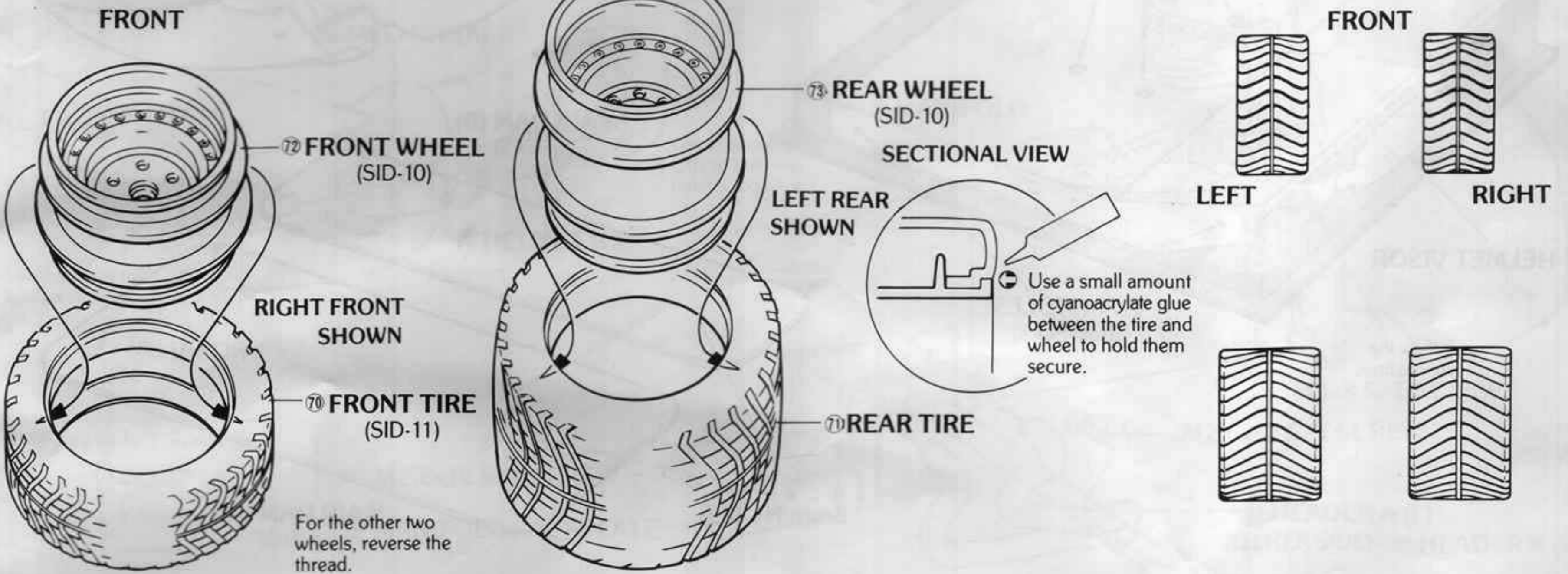
M3 Nut (2)



M3 Washer (2)



34 TIRE AND WHEEL ASSEMBLY



35 WHEEL INSTALLATION

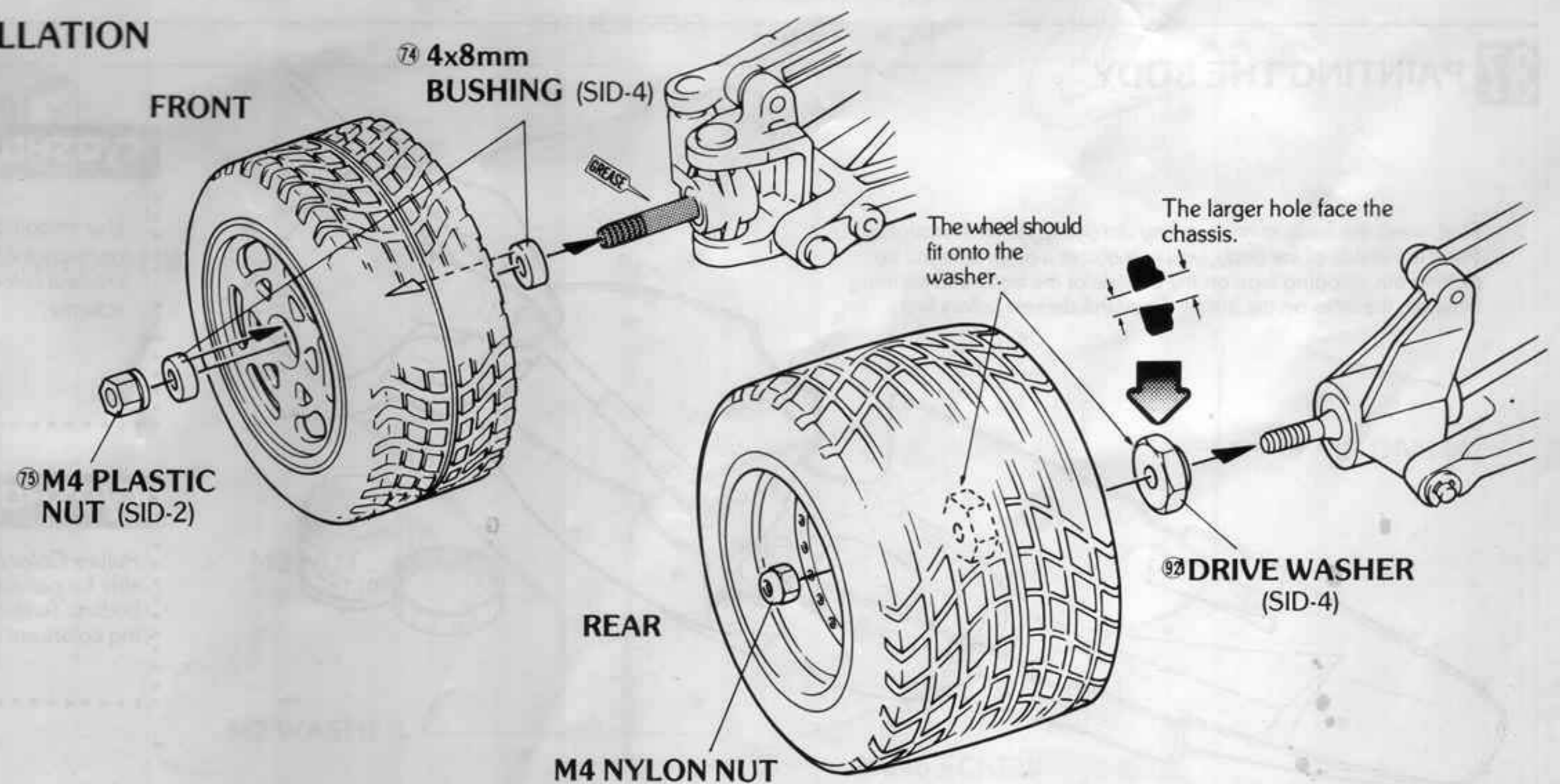
M4 Nylon Nut (2)



75 M4 Plastic Nut (2)

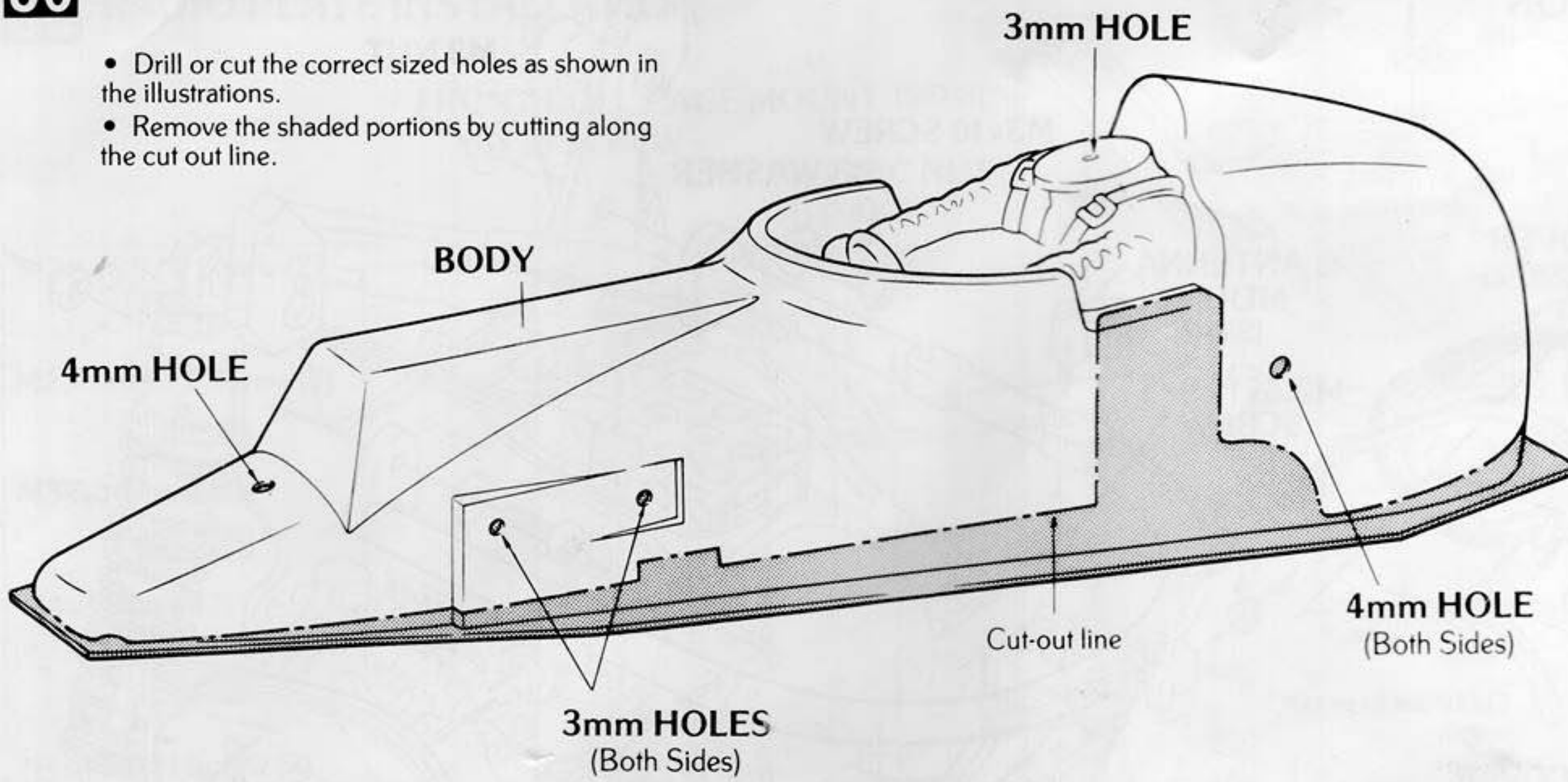


74 4x8mm Bushing (2)



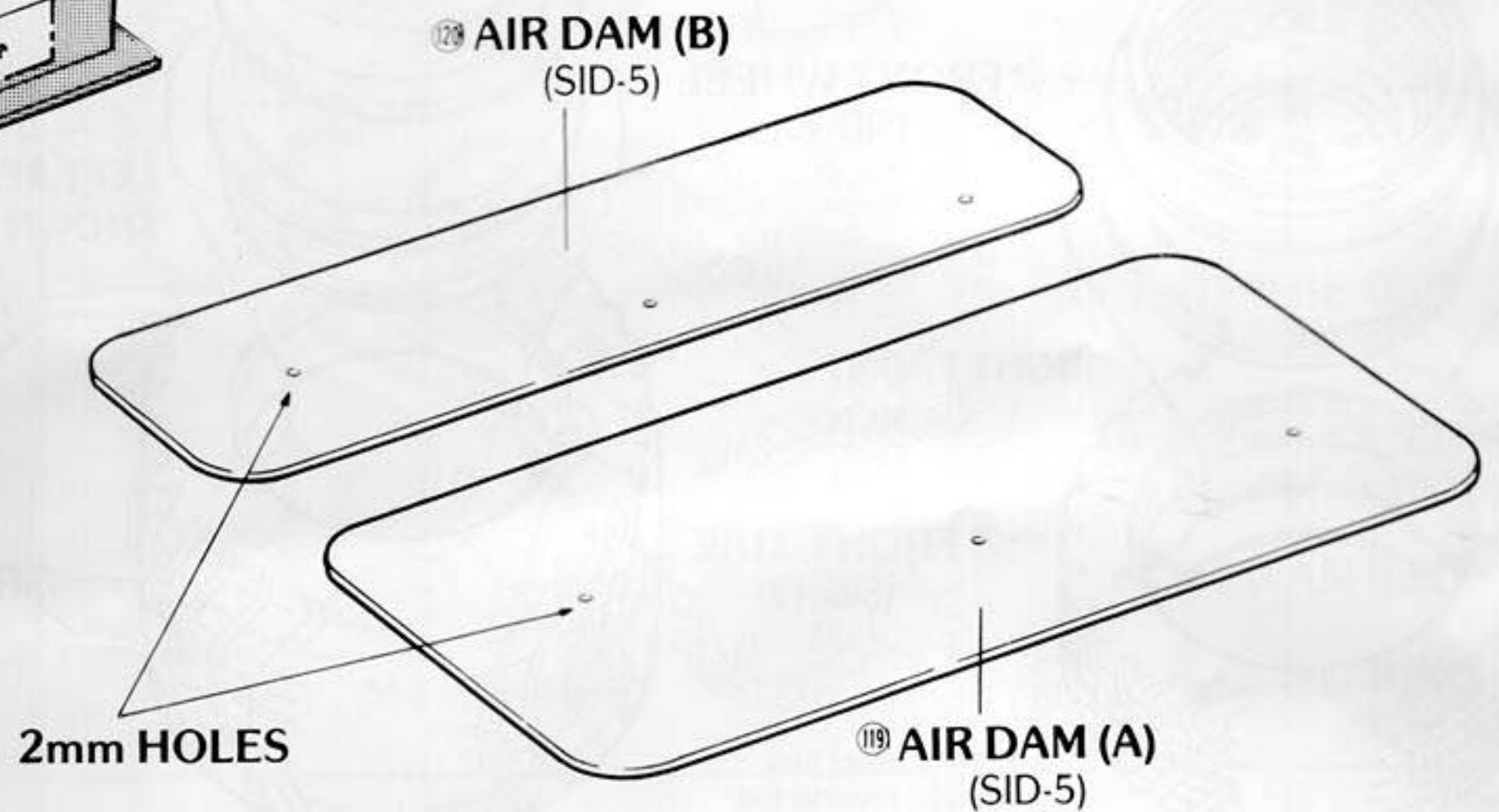
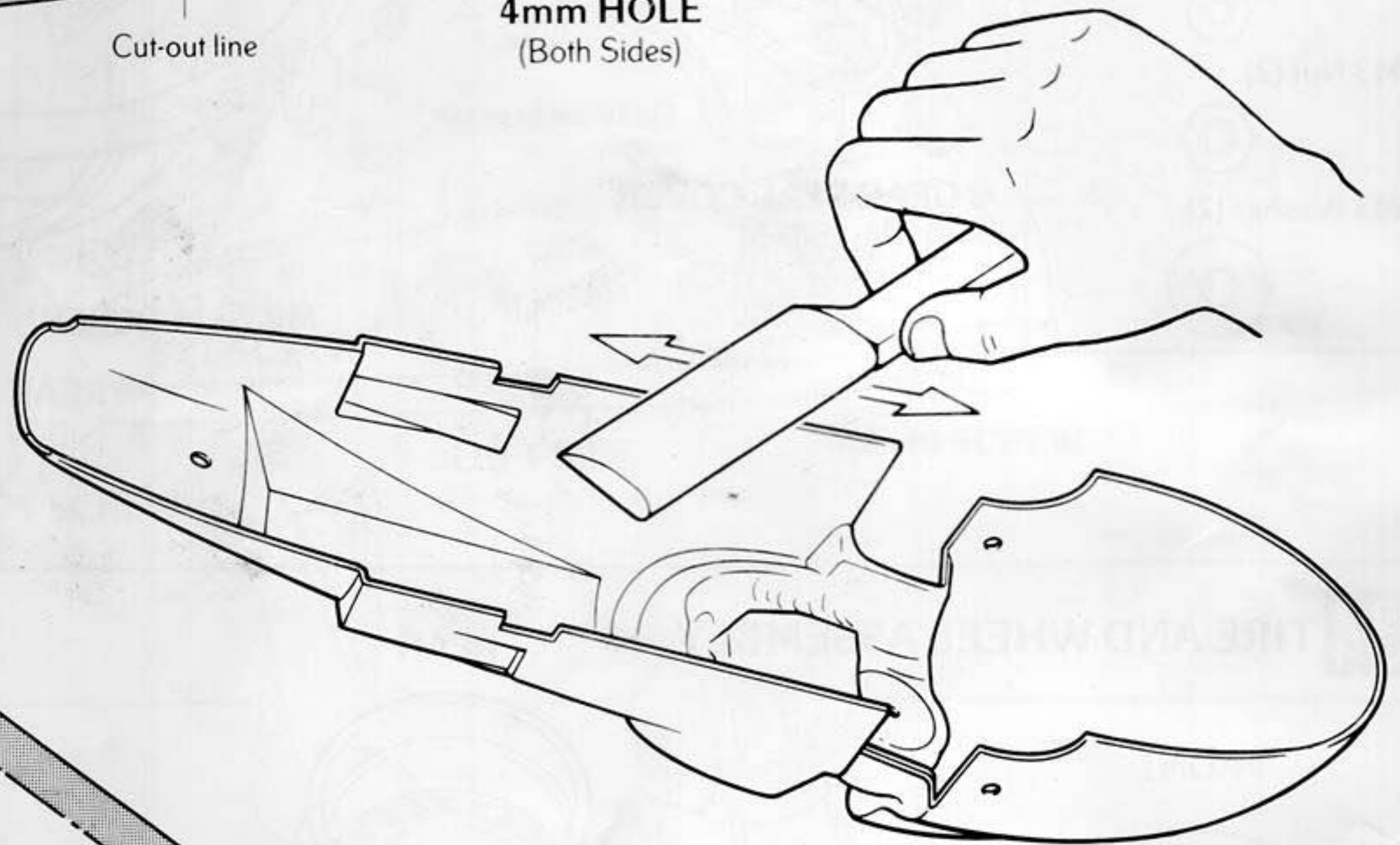
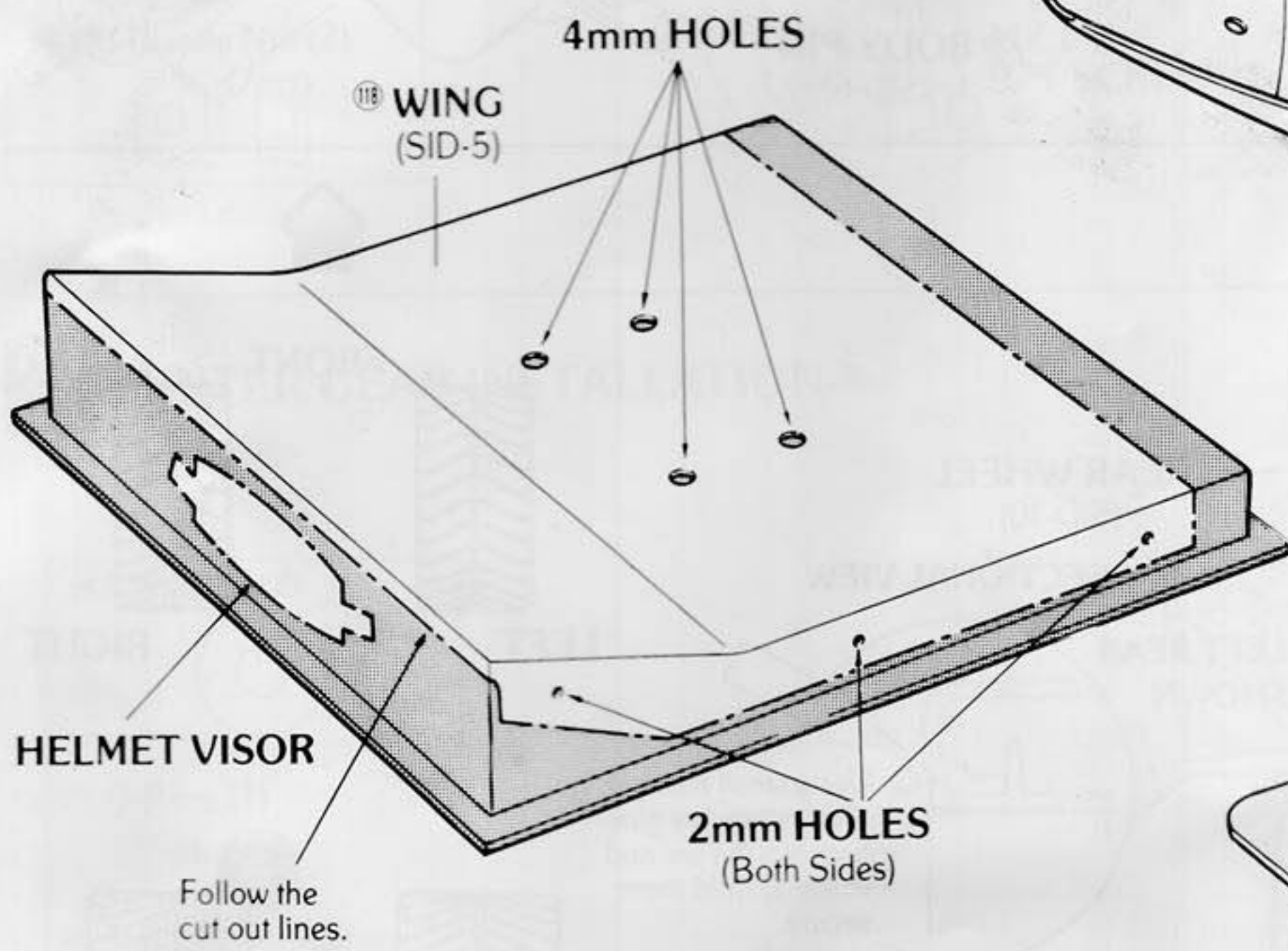
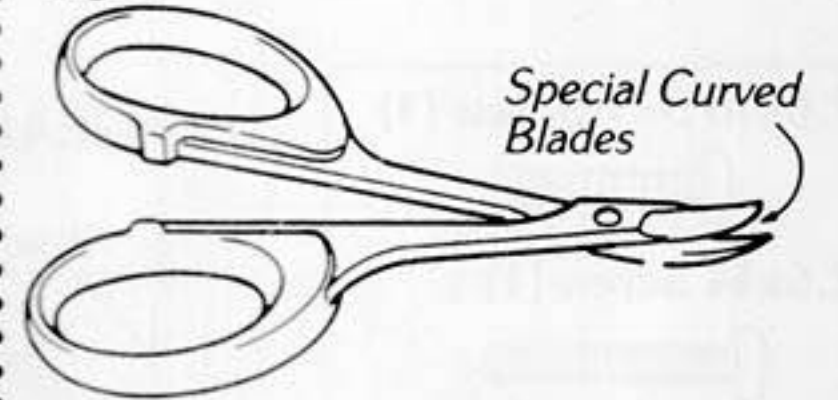
36 BODY PREPARATION

- Drill or cut the correct sized holes as shown in the illustrations.
- Remove the shaded portions by cutting along the cut out line.



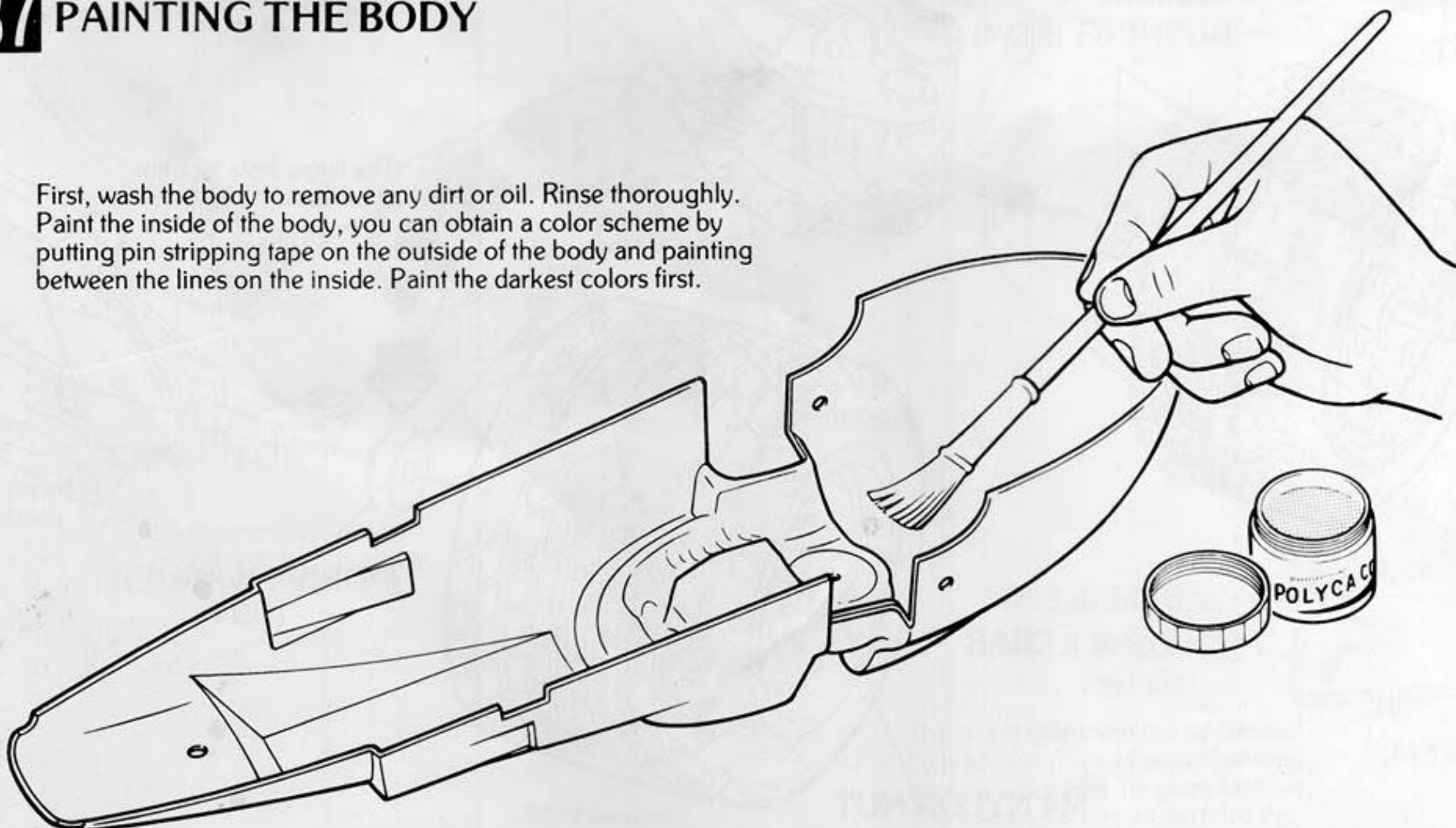
KYOSHO

- These special *Lexan Scissors* make trimming bodies a breeze and the sander comes in handy for finishing the rough edges.



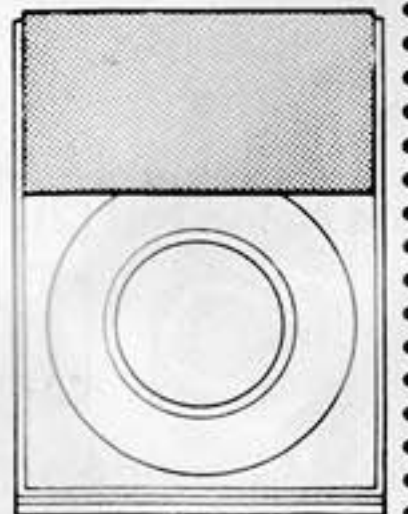
37 PAINTING THE BODY

First, wash the body to remove any dirt or oil. Rinse thoroughly. Paint the inside of the body, you can obtain a color scheme by putting pin stripping tape on the outside of the body and painting between the lines on the inside. Paint the darkest colors first.



KYOSHO

- Use stripping tape on the outside of the body to create a color scheme.

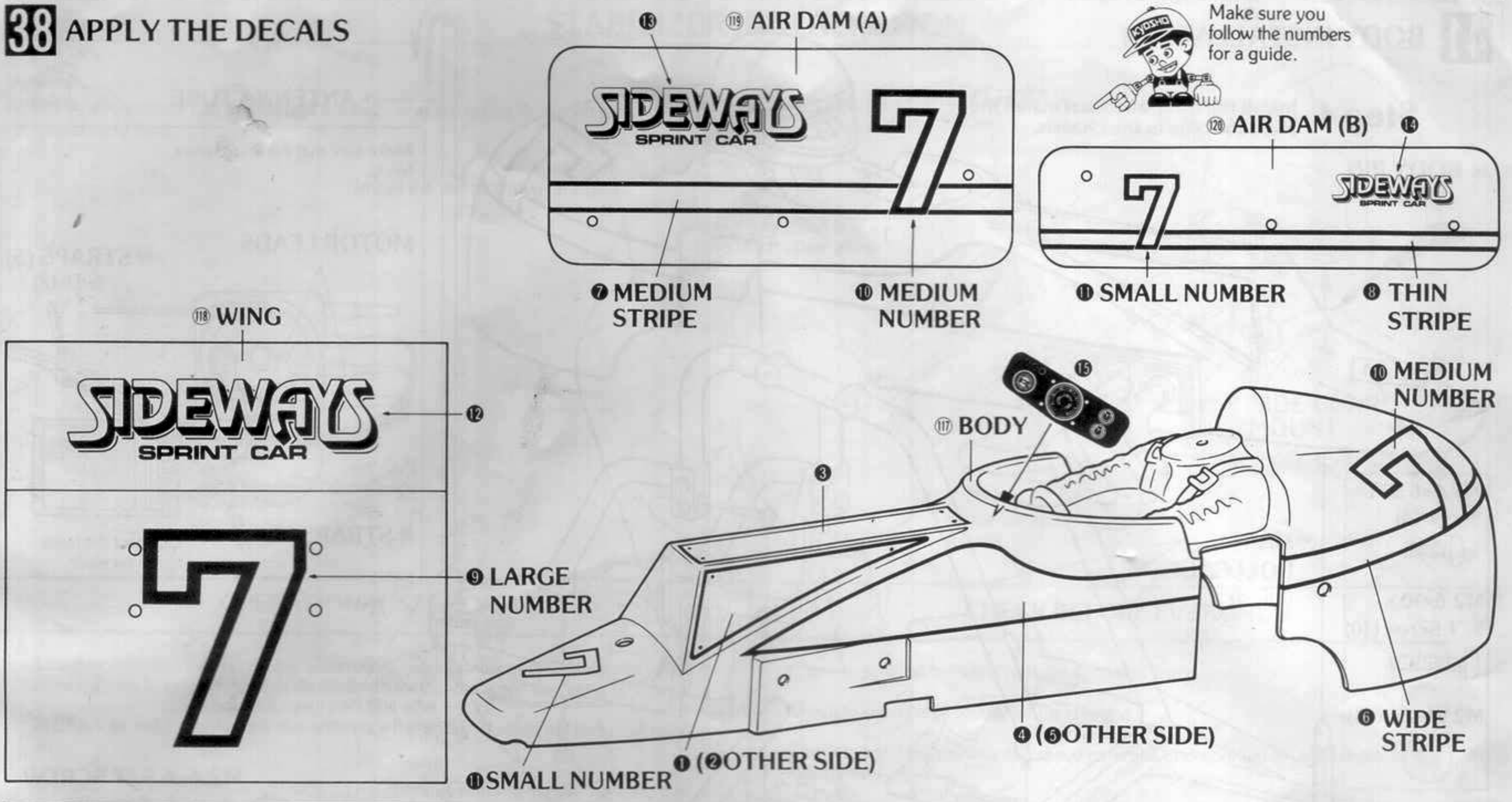


KYOSHO

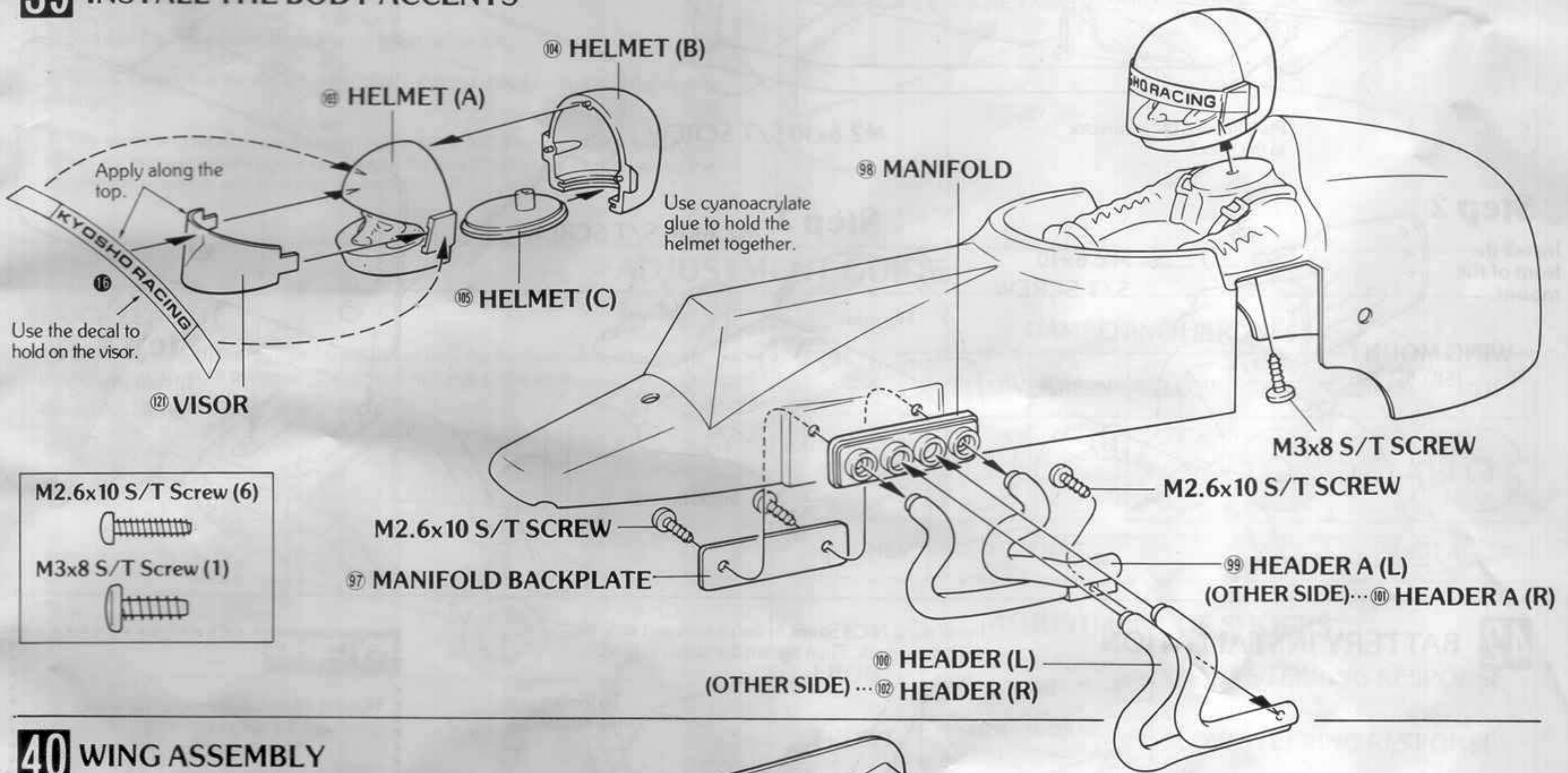
- *Polyca Color Paint* is available for painting your Lexan bodies. Twelve great looking colors are available.



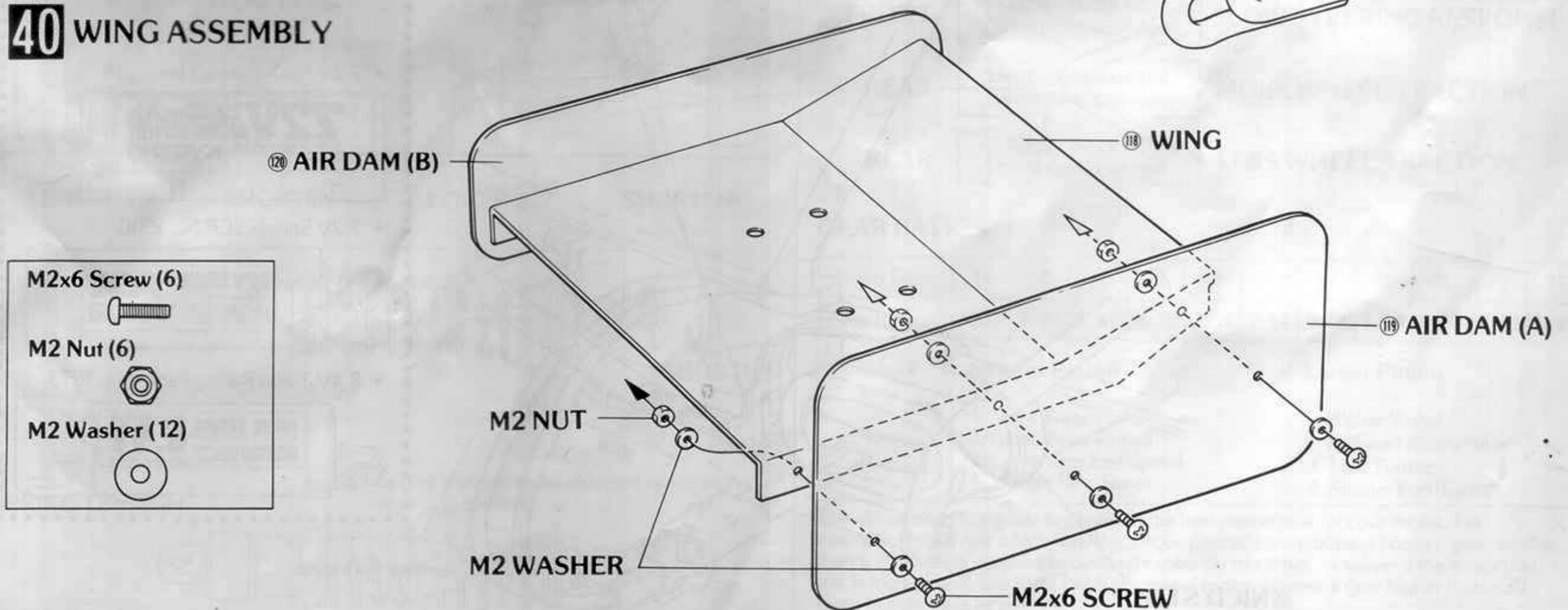
38 APPLY THE DECALS



39 INSTALL THE BODY ACCENTS



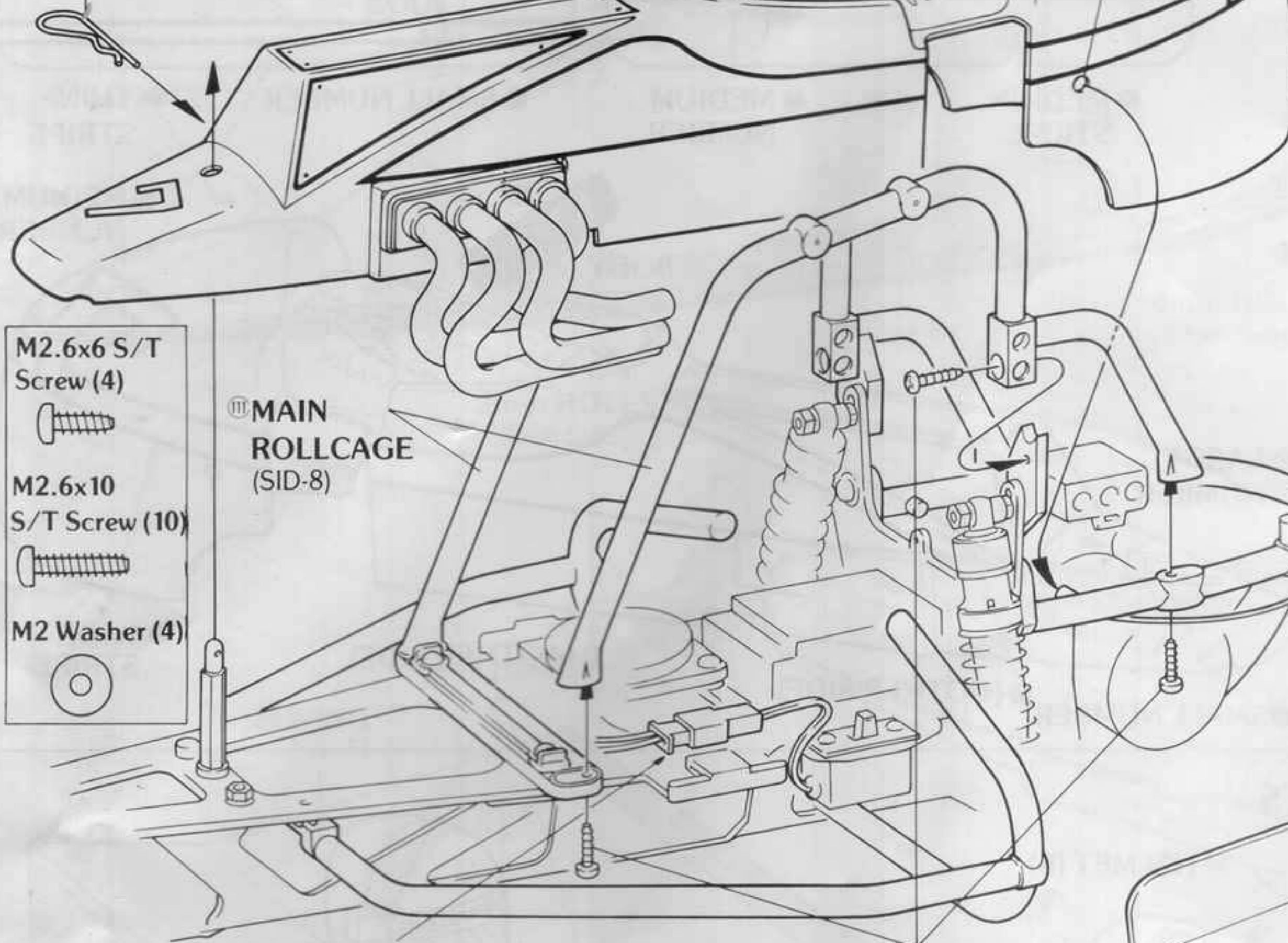
40 WING ASSEMBLY



41 BODY INSTALLATION

Step 1 Install the body and then install the main rollcage to the chassis.

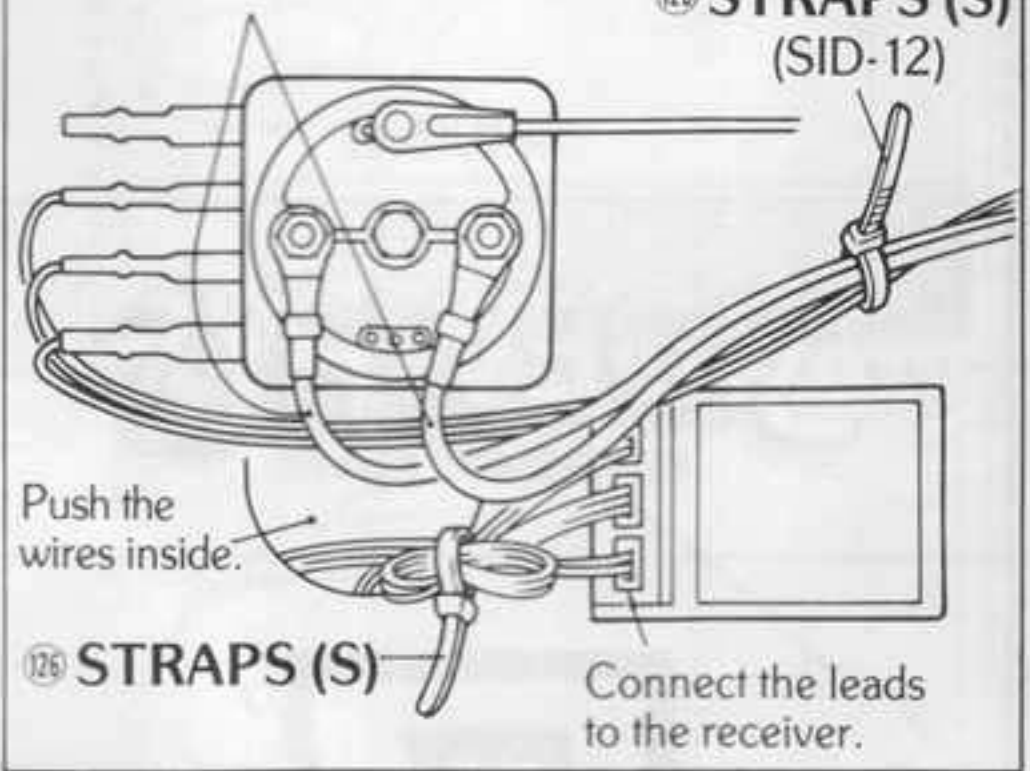
130 BODY PIN (SID-6)



Snap the body on the peg.

Make sure that the leads move freely.

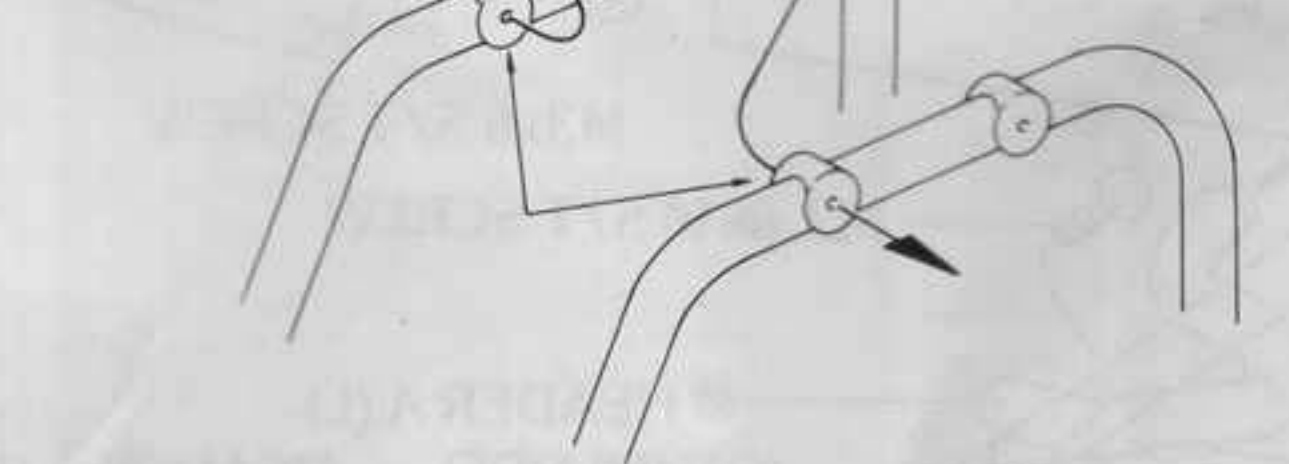
MOTOR LEADS



Step 2

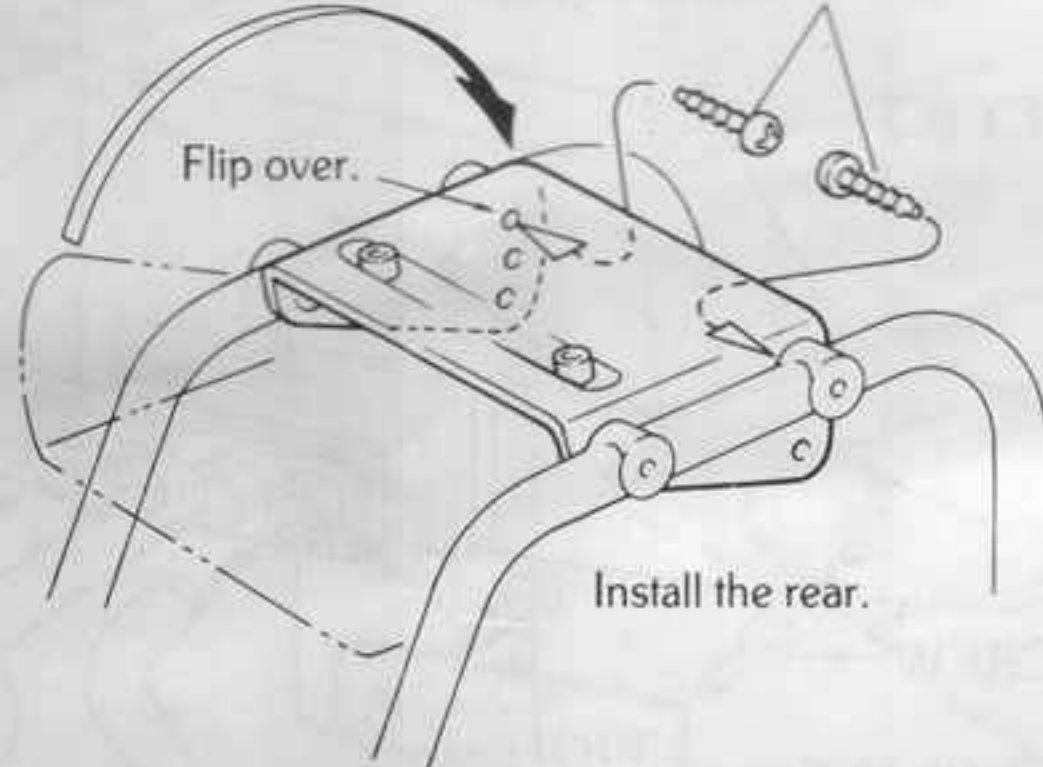
Install the front of the mount.

118 WING MOUNT (SID-8)



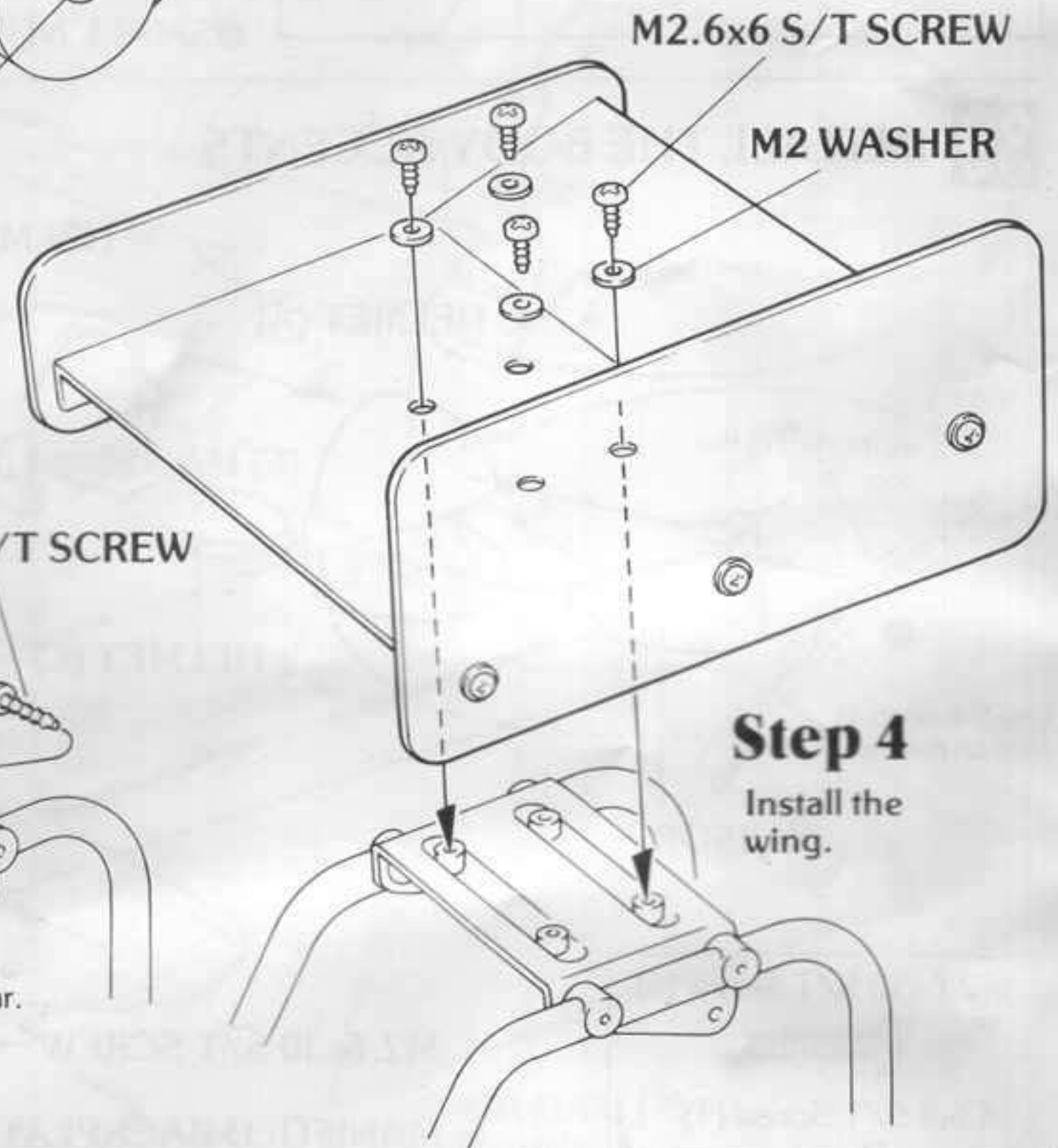
Step 3

M2.6x10 S/T SCREW



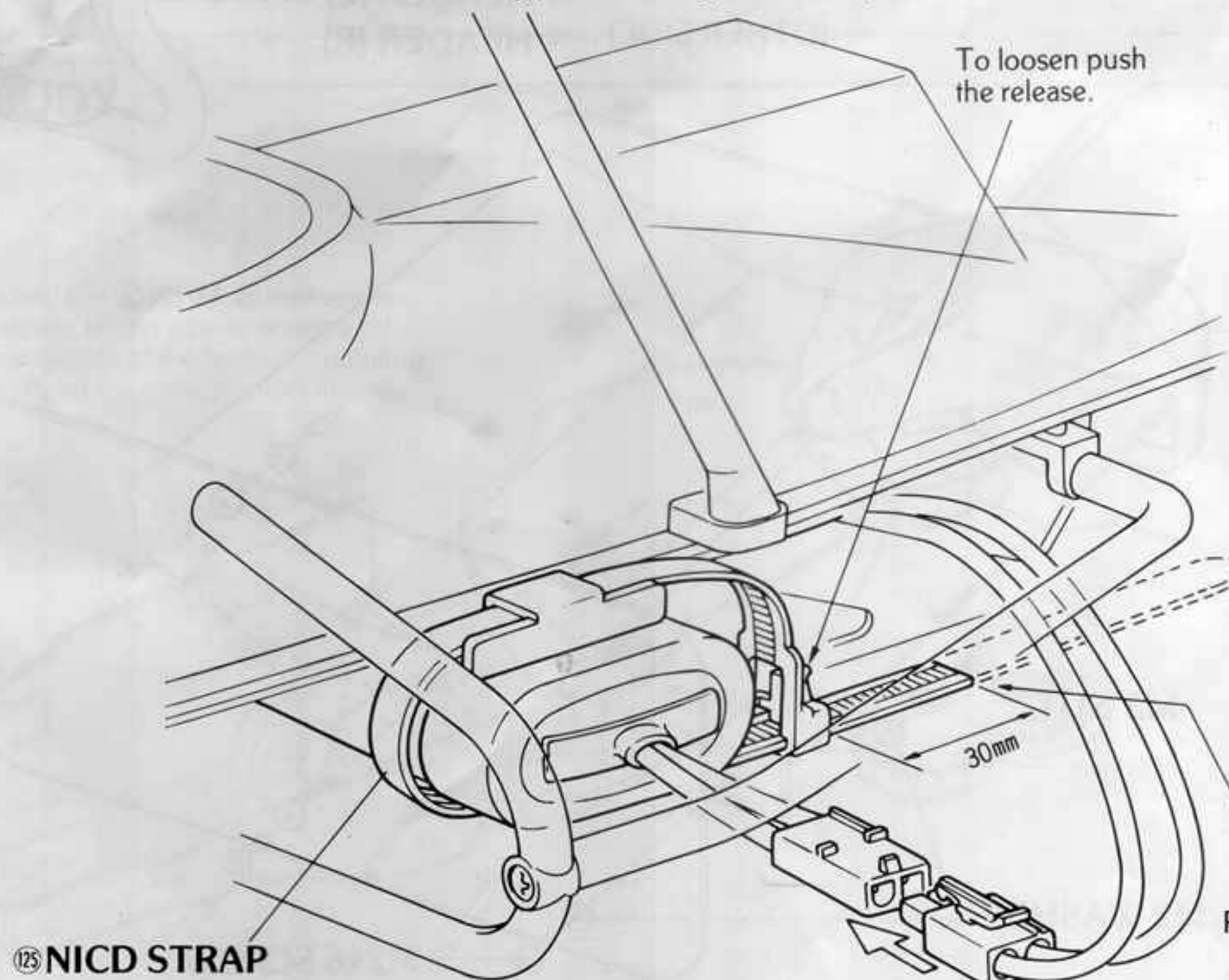
Step 4

Install the wing.



42 BATTERY INSTALLATION

Install the 2 NiCd Straps to the chassis and slide in the battery pack. Then tighten the straps to hold.



KYOSHO

Kyosho offers battery packs that work great with the Sideways.

- 7.2V Sport Battery - No. 2218



- 7.2V Sprint - SCR No. 2310



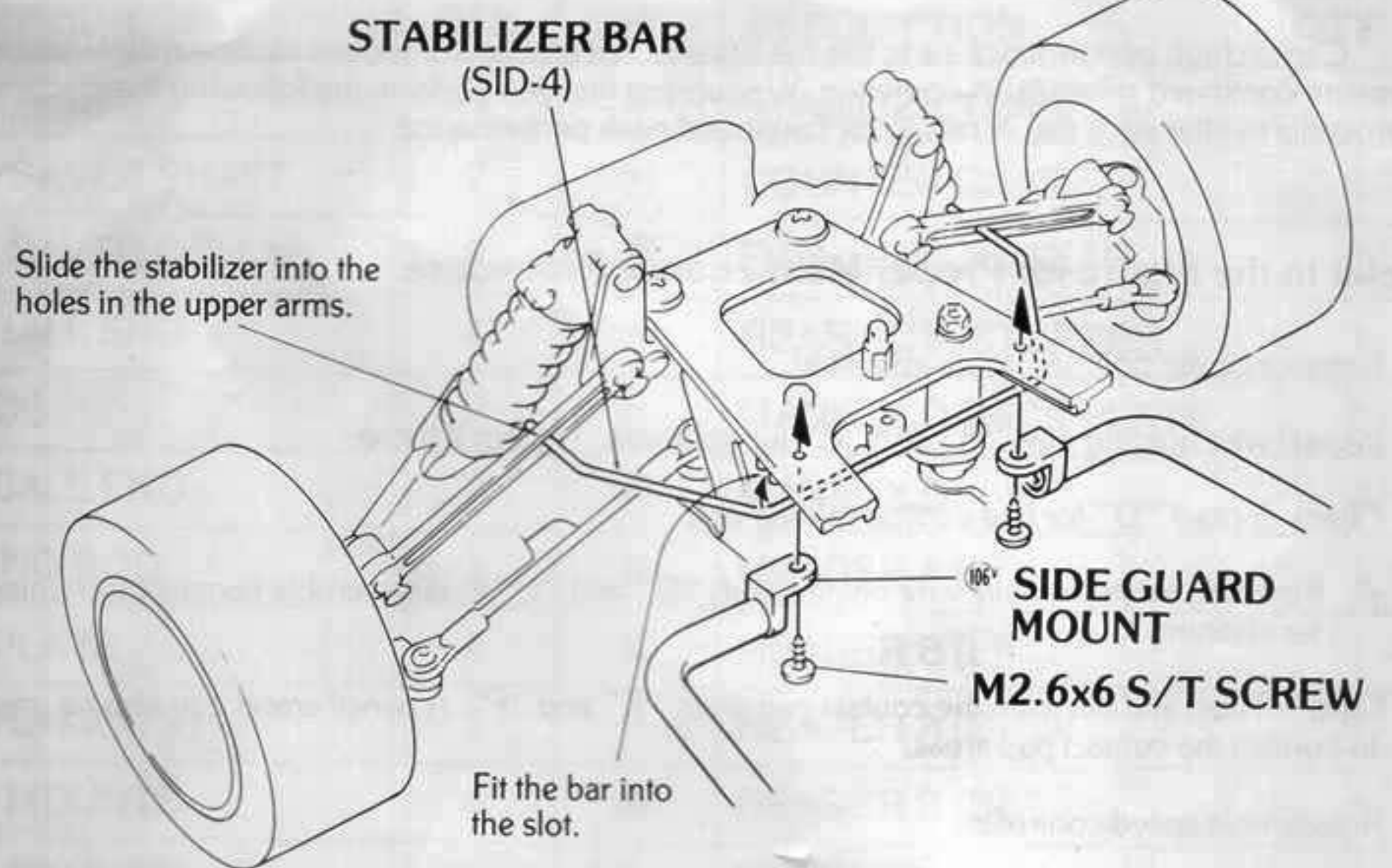
- 8.4V Turbo Racing Pack - No. 1973



STABILIZER INSTALLATION

The front stabilizer can be added if the track you are going to run on is smooth and hard.

Install the bar as shown at right.



OPERATIONAL SAFETY

- 1) Radio controlled model cars are powered by quick discharge NiCd batteries which allow the cars to obtain high speeds. **Caution** is required when operating R/C cars.
- 2) Check to make sure no one else is on your frequency. If so do not turn your radio on.
- 3) If your car is stopped by an obstacle do not continue running the car. Remove the car manually. Failing to do so may ruin the motor wiring.
- 4) Do not grab the tires while they are rotating.
- 5) Remove the NiCd battery from the car when not in use.
- 6) Before connecting the NiCd battery, check that the speed control is in the neutral position.
- 7) The motor and receiver are powered by the same NiCd battery. As the battery lowers the receiver loses power resulting in the loss of control of the car. When the car slows down, stop, and recharge the battery.

CHECK BEFORE EVERY RUN

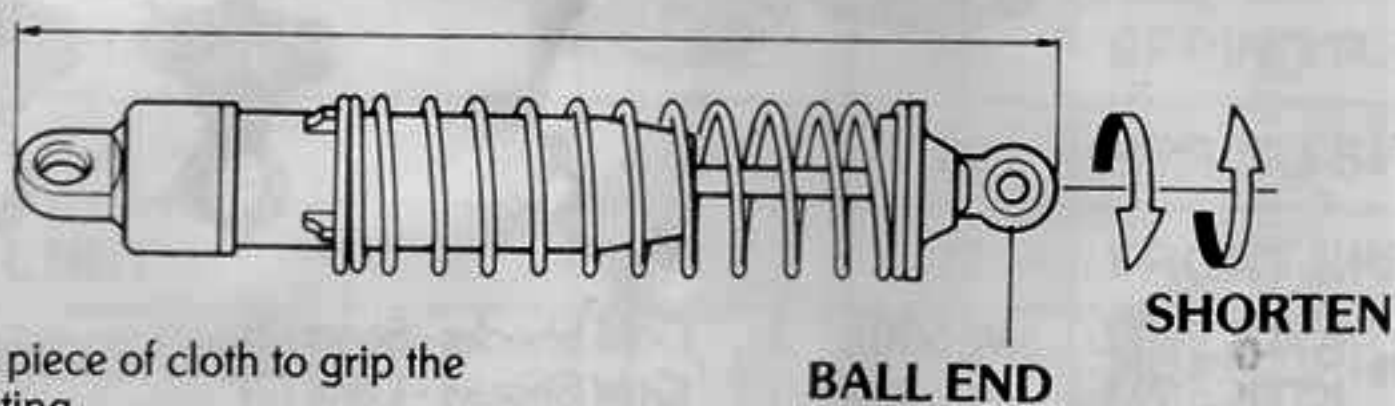
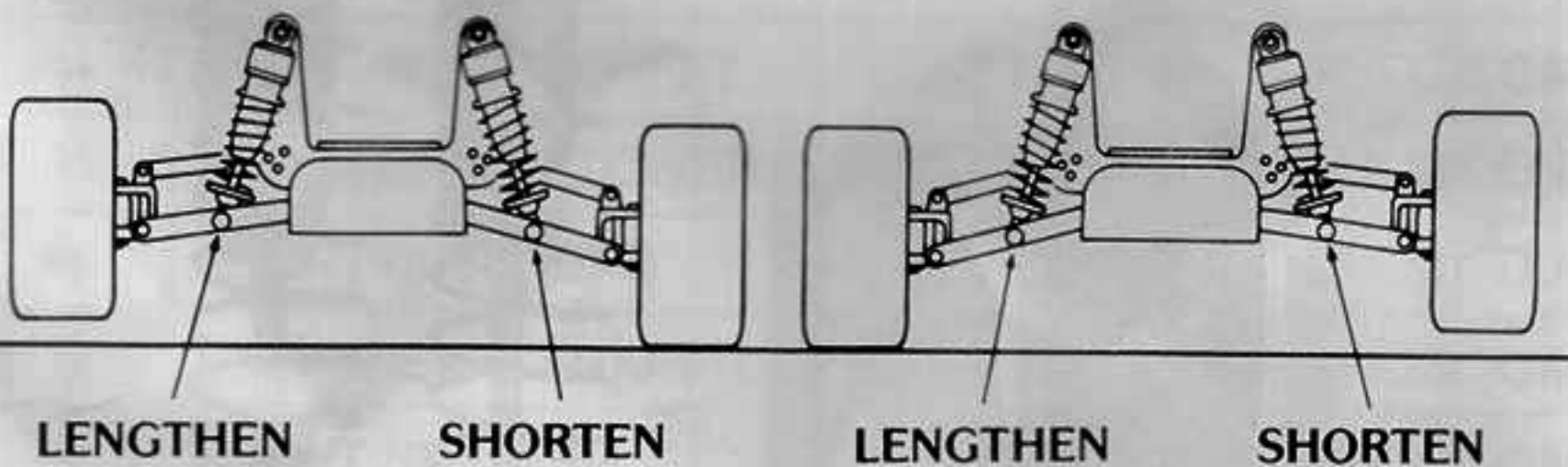
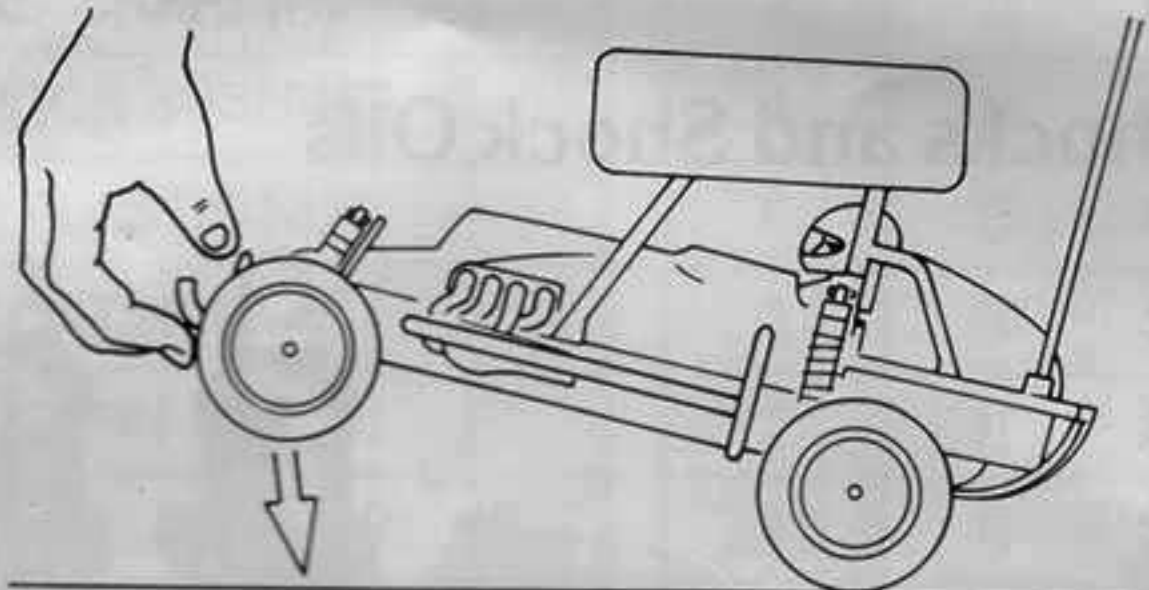
- Check to see if all bolts and nuts are tightened firmly.
- Check to see if NiCd battery is fully charged.
- Check to see if the steering and speed control is in proportion to your control of the transmitter.
- Check to see that all wiring is properly insulated.
- Check to see if parts are moving smoothly.

ADJUSTMENT GUIDE

SHOCK LENGTH

On a level surface, lift the front and gently lower until the front wheels just touch the surface. If they touch at the same time great, if not, adjust til they do.

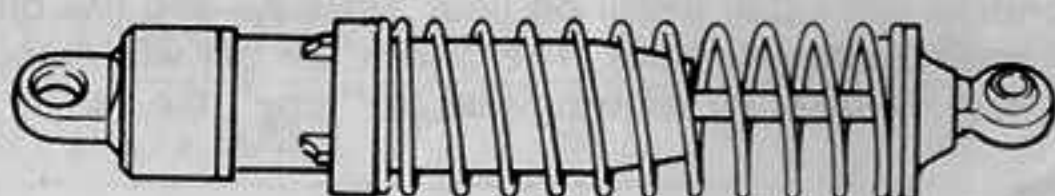
Repeat this also for the rear



Use pliers and a piece of cloth to grip the shaft while adjusting.

Spring tension can be changed by removing or adding spacers.

SPRING TENSION



DAMPENING HARDNESS

OIL	YELLOW	GREEN	YELLOW	RED	GREEN	RED
PISTON						
HARDNESS	← HARDER			SOFTER →		

ADJUSTMENT OF SHOCKS

FRONT	Lightweight shock oil Weak spring tension	SHARP STEERING RESPONSE
FRONT	Heavy shock oil Strong spring tension	SLOW STEERING RESPONSE
REAR	Lightweight shock oil Weak spring tension	MORE WHEEL TRACTION
REAR	Heavy shock oil Strong spring tension	LESS WHEEL TRACTION

GEAR RATIOS

Pinion Gear	15	16	17	18	19	20	21	22	23	24	25
Gear Ratio	10.06	9.43	8.87	8.38	7.94	7.54	7.18	6.86	6.56	6.29	6.03
EFFECTS	Smaller Pinion					Larger Pinion					
	1. More Torque 2. Better Acceleration 3. Lower Top End Speed 4. Longer Run Times					1. Higher Speed 2. Reduced Acceleration 3. Less Torque 4. Shorter Run Times					

The above chart is a guide in choosing the best pinion gear for your motor. For example, if you have a high rim, low torque (less efficient) motor, choose a gear smaller than a 20 tooth to increase torque and especially run times. However if the motor you use is high torque, low RPM (high efficiency) motor, choose a gear higher than a 20 tooth to maximize its potential.

KYOSHO SPEED CONTROL MAINTENANCE PROCEDURE

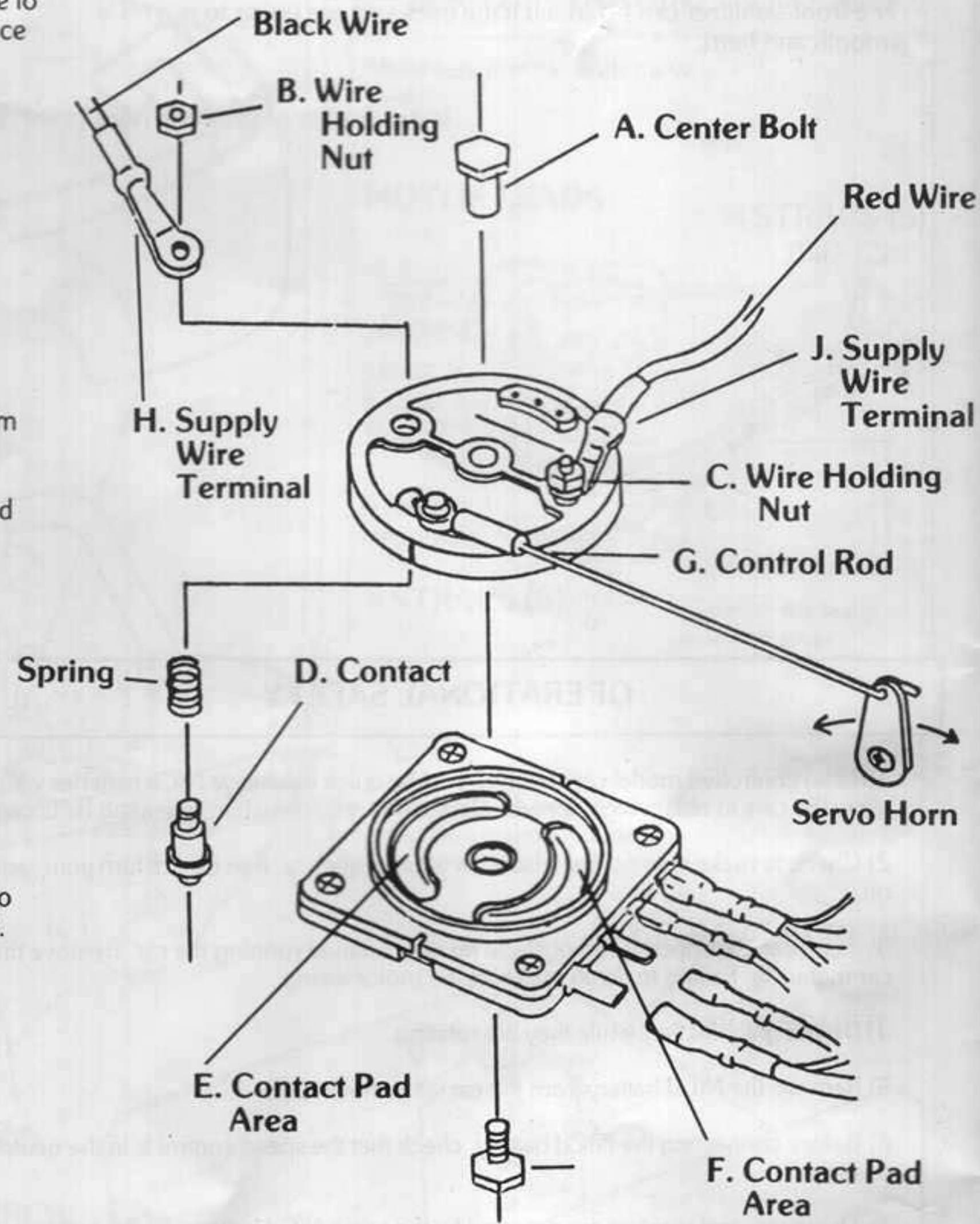
Certain high performance parts like the Kyosho Speed Control require routine maintenance to ensure continued reliability in operation. We suggest that you perform the following maintenance procedures after each day of racing for continued peak performance.

Refer to the Figure for Proper Maintenance Procedure.

1. Remove center bolt "A" to disassemble.
2. Inspect wire holding nuts "B" and "C" for tightness. Tighten if loose.
3. Check contact "D" for free vertical movement.
 - A. If binding exists, remove wire holding nuts "B" and "C" to disassemble contact mechanism for cleaning.
4. Clean all dust and dirt from the contact pad areas "E" and "F". A pencil eraser can also be used to burnish the contact pad areas.
5. Reassemble speed controller.
6. After assembly, rotate speed controller through its full movement cycle.
 - A. Make sure the control rod "G" does not strike one of the wire nuts "B" and "C." If this occurs, the control rod must be repositioned.
 - B. Check that the supply wire terminals "H" and "J" turn freely in the rotor when it is moved through its full duration.

The Kyosho Speed Control comes with an extended warranty. If it should require repair or fail to operate, please contact Kyosho's authorized U.S. repair facility for warranty repair or replacement.

Kyosho U.S.A.
1610 Interstate Drive
Champaign, IL 61821
Phone #217-398-0007



KYOSHO

Option House Hop-Up Parts and Accessories

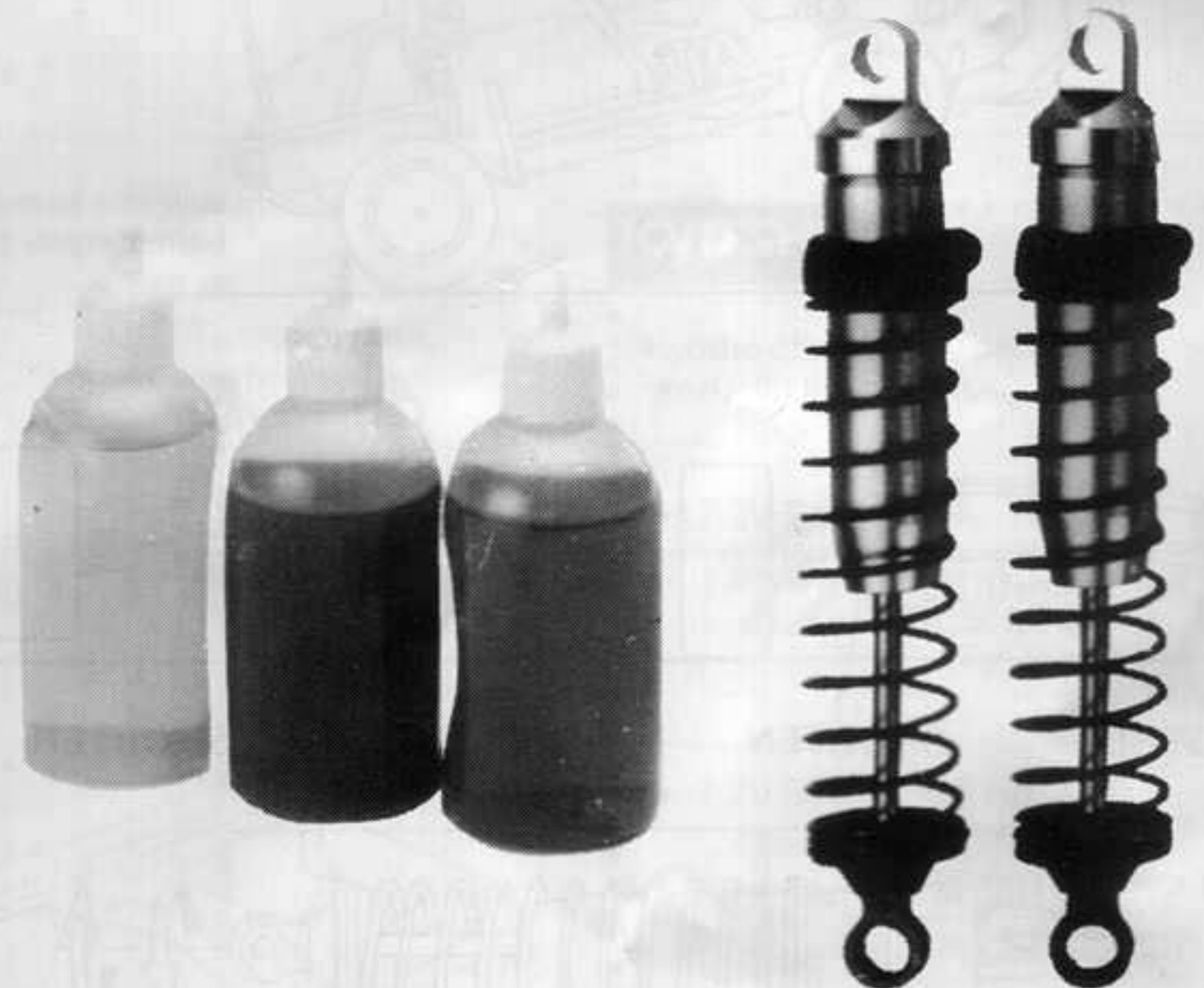


Ball Bearings

KYOC2194 1974 Complete Bearing Set

The addition of ball bearings to your kit will reduce friction and wear, create faster speeds and longer running times.

Gold Shocks and Shock Oils



KYOC5692 W-5001 Gold Shocks - Short (2)
 KYOC5693 W-5002 Gold Shocks - Long (2)
 KYOC5681 1951 Shock Oil Set (L-M-H)

Kyosho Gold Shocks will easily install on your Sideways and will greatly increase your handling characteristics. The Shock Oil Set will make the "Golds" even more versatile by allowing you to "tune" the car for any track surface.

PARTS LIST

KEY #	DESCRIPTION	QTY	KEY #	DESCRIPTION	QTY	KEY #	DESCRIPTION	QTY
①	DIFF. CASE (A)	1	④⑦	CENTER ROD	1	⑨③	STABILIZER BAR	1
②	DIFF. CASE (B)	1	④⑧	SERVO SAVER SHAFT	2	⑨④	COUNTER GEAR	1
③	8MM INNER BUSHING	2	④⑨	SERVO SAVER COLLAR	2	⑨⑤	FINAL PINION GEAR	1
④	BEVEL GEAR (A)	2	⑤⑩	5.8MM BALL END	4	⑨⑥	REAR SUS. STOPPER	1
⑤	BEVEL GEAR (B)	2	⑤①	TIE RODS	2	⑨⑦	MANIFOLD BACK PLATE	2
⑥	DIFF. PIN	2	⑤②	4.8MM BALL END	2	⑨⑧	MANIFOLD	2
⑦	JOINT	2	⑤③	STEERING ROD	1	⑨⑨	HEADER A (L)	1
⑧	8X14MM BUSHING	2	⑤④	RADIO PLATE	1	⑩①	HEADER B (L)	1
⑨	GEAR BOX (R)	1	⑤⑤	ANTENNA MOUNT	1	⑩②	HEADER A (S)	1
⑩	MOTOR PLATE	1	⑤⑥	SERVO MOUNTS	4	⑩③	HEADER B (S)	1
⑪	COUNTER GEAR SHAFT	1	⑤⑦	SPEED CONTROL	1	⑩④	HELMET (A)	1
⑫	2X11MM PIN	2	⑤⑧	4.5MM BALL	1	⑩⑤	HELMET (B)	1
⑬	5X10MM BUSHING	6	⑤⑨	MOTOR LEADS	1	⑩⑥	HELMET (C)	1
⑭	GEAR BOX (L)	1	⑥①	BALL END	1	⑩⑦	SIDE GUARD MOUNT (A)	2
⑮	E-CLIP (E-4)	1	⑥②	HEATSINK (A)	1	⑩⑧	ROLL CAGE MOUNT	2
⑯	REAR SHOCK TOWER	1	⑥③	HEATSINK (B)	1	⑩⑨	SIDE GUARD MOUNT (B)	2
⑰	REAR BULK HEAD	1	⑥④	CENTER GEAR SHAFT	1	⑩⑩	SIDE GUARD (FR)	2
⑱	UPPER ROD	4	⑥⑤	CENTER GEAR	1	⑩⑪	SIDE GUARD (RR)	2
⑲	5.8MM BALL	12	⑥⑥	4X8MM CENTER BUSHING	1	⑩⑫	MAIN ROLL CAGE	2
⑳	GEAR BOX HATCH	1	⑥⑦	O-RING	1	⑩⑬	BODY MOUNT	1
㉑	REAR HUB	2	⑥⑧	PINION GEAR (15T)	1	⑩⑭	WING MOUNT	1
㉒	REAR WHEEL SHAFT	2	⑥⑨	GEAR COVER	1	⑩⑮	FRONT ROLL CAGE MOUNT	1
㉓	SUS. SHAFT (A)	2	⑦①	GEAR COVER SEAL	1	⑩⑯	REAR ROLL CAGE	1
㉔	E-CLIP (E-2.5)	16	⑦②	FRONT TIRE	2	⑩⑰	REAR GUARD	1
㉕	SUS. ARMS (R)	2	⑦③	REAR TIRE	2	⑩⑱	BODY	1
㉖	SWING SHAFT	2	⑦④	FRONT WHEEL	2	⑩⑲	WING	1
㉗	SUS. SHAFT (B)	2	⑦⑤	REAR WHEEL	2	⑩⑳	AIR DAM (A)	1
㉘	SHOCK BUSHING	4	⑦⑥	4X8MM BUSHING	4	⑩㉑	AIR DAM (B)	1
㉙	M3 PLASTIC NUT	6	⑦⑦	M4 PLASTIC NUT	2	⑩㉒	VISOR	1
㉚	FRONT HUB	2	⑦⑧	SHOCK PISTON	4	⑩㉓	SHOCK OIL	1
㉛	KING PIN	2	⑦⑨	SHOCK SHAFT (F)	2	⑩㉔	DOUBLE SIDED TAPE	1
㉜	KNUCKLE ARM (R)	1	⑦⑩	SHOCK SHAFT (R)	2	⑩㉕	ANTENNA	1
㉝	KNUCKLE ARM (L)	1	⑦⑪	SHOCK CASE (F)	2	⑩㉖	NiCd STRAP	2
㉞	FRONT WHEEL SHAFT	2	⑧①	SHOCK CASE (R)	2	⑩㉗	STRAP (S)	2
㉟	FRONT SHOCK TOWER	1	⑧②	SHOCK END	4	⑩㉘	HEX WRENCH (1.5)	1
㊱	FRONT BULKHEAD	1	⑧③	SHOCK DIAPHRAGM	4	⑩㉙	HEX WRENCH (2.0)	1
㊲	SUSPENSION SHAFT (C)	2	⑧④	SHOCK CAP	4	⑩㉚	SCREW LOCK	1
㊳	FRONT SUS. ARM	2	⑧⑤	SHOCK CAP RETAINER	4	⑩㉛	BODY PIN	3
㊴	SUS. SHAFT (D)	2	⑧⑥	SPRING RETAINER	4	⑩㉜	E-CLIP (E-3)	2
㊵	BUMPER	1	⑧⑦	SPRING SPACER	4	⑩㉝	DECAL SHEET	1
㊶	BALL NUT	1	⑧⑧	FRONT SPRING	2	⑩㉞	GREASE	1
㊷	SERVO SAVER (A)	1	⑧⑨	REAR SPRING	2	⑩㉟	4-WAY WRENCH	1
㊸	SERVO SAVER (B)	1	⑨①	SPEED CONTROL ROD	1			
㊹	SERVO SAVER (C)	1	⑨②	MOTOR	1			
㊺	SERVO SAVER (D)	1	⑨③	CHASSIS	1			
㊻	M2.6 PIVOT BALL	4	⑨④	DRIVE WASHER	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 page 27 for complete list) are usually not available singularly, but we offer these 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 parts pack guide below. When referring to the parts you need, always use the **Parts Pack Number**. For instance, if you need a Front Hub (Key 91) ask your dealer for Kyosho Pack UM-20 (Chassis).

STOCK #	KYOSHO	DESCRIPTION	CONTENTS
KYOC4322	OT-005	JOINT	7 X 2
KYOC6122	OT-006	SWING SHAFT	26 X 2
KYOC5658	OT-018	REAR SHAFTS	22 X 2
KYOC3332	OT-019	DRIVE WASHER	92 X 4
KYOC4782	OT-024	PINION (15T)	67 X 1
KYOC3297	OT-028	DIFF. GEAR SET	6 X 2 4 5 X 4
KYOC4707	OT-029	O-RING	66 X 10
KYOC2167	OT-032	5.8MM BALL	19 X 10
KYOC2242	OT-033	2.6MM BALL END	41 X 10
KYOC4822	OT-036	2.6MM PIVOT BALL	46 X 10
KYOC3392	OT-039	E-CLIP (E-2.5)	24 X 10
KYOC4224	OT-072	HEATSINK	61 62 X 1
KYOC6142	SC-046	DOUBLE SIDED TAPE	103 X 1
KYOC6222	SC-089	TIE ROD SET	51 X 2 46 50 X 4
KYOC6020	EF-039	NiCd STRAP	105 X 6
KYOC6025	EF-037	STRAP (S)	106 X 6
KYOC2055	SD-79	ANTENNA TUBE	104 X 5
KYOC3400	KC-20	E-CLIP (E-4)	15 X 4
KYOC2517	1889	BODY PINS	100 X 5
KYOC4182	UM-01	GEAR SET	1 2 64 94 95 X 1
KYOC2747	UM-02	BUSHING SET	65 X 1 3 8 X 2 13 X 6
KYOC4034	UM-52	GEAR BOX	9 14 X 1
KYOC4622	UM-51	MOTOR PLATE	10 X 1
KYOC4184	UM-05	GEAR SHAFT SET	11 63 X 1 12 X 2
KYOC6078	UM-07	SUS. SHAFT SET	23 27 37 39 X 2
KYOC3737	UM-08	FRONT SHAFT SET	31 34 X 2
KYOC5387	UM-09	ROD SET	47 53 89 93 X 1 52 X 2
KYOC3067	UM-10	COLLAR SET	48 X 2
KYOC6301	UM-49	UPRIGHT SET	32 33 X 1 21 30 X 2
KYOC2626	UM-50	BULK HEAD SET	17 36 68 69 96 X 1
KYOC6069	UM-13	SUS. ARM SET	25 38 X 2
KYOC5653	UM-14	SERVO SAVER	20 42 43 44 45 55 X 1 49 X 2 18 28 56 74 75 X 4 29 X 6
KYOC4924	UM-15	RADIO PLATE	54 X 1
KYOC4537	UM-20	CHASSIS	91 X 1
KYOC2677	UM-21	BUMPER	40 X 1
KYOC5529	UM-22	SCREW SET	
KYOC5754	1817	SPEED CONTROL	57 X 1
KYOC5721	FD-37	SHOCK SET (FR)	76 77 79 81 82 83 84 85 86 87 X 2 24 X 4
KYOC5722	FD-38	SHOCK SET (RR)	76 78 80 81 82 83 84 85 86 88 X 2 24 X 4
KYOC2427	UM-60	BODY	117 X 1

STOCK #	KYOSHO	DESCRIPTION	CONTENTS
KYOC5229	UM-56	RADIAL TIRES (RR)	71 X 2
KYOC6242	W-5053	RADIAL TIRES (FR)	70 X 2
KYOC5421	UM-57	ROLLCAGE SET	106 107 104 105 110 111 X 2 112 113 114 115 116 X 1
KYOC3498	UM-58	EXHAUST HEADER SET	97 98 X 2 99 100 101 102 X 1
KYOC4226	UM-59	HELMET SET	103 104 105 X 1
KYOC6378	UM-55	WHEEL SET	72 73 X 2
KYOC6374	UM-61	WING SET	118 119 120 121 X 1
KYOC3195	UM-62	DECAL	102 X 1
KYOC5769	UM-63	SHOCK STAY SET	16 35 X 1
KYOC3395	CB-072	E-CLIP (E-3)	131 X 4
KYOC4586	BB-26	MOTOR LEADS	59 X 1
KYOC2244	UM-64	BALL ENDS (4.5MM)	58 60 X 2

OPTIONAL PARTS

STOCK #	KYOSHO	DESCRIPTION
KYOC2197	1901	6X10MM BEARING
KYOC2207	1903	4X8MM BEARING
KYOC2217	1911	8X14MM BEARING
KYOC4777	OT-051	PINION (14T)
KYOC4787	OT-052	PINION (16T)
KYOC4792	OT-053	PINION (17T)
KYOC4797	UM-23	PINION (18T)
KYOC4802	UM-24	PINION (19T)
KYOC4807	UM-25	PINION (20T)
KYOC5681	1951	SHOCK OIL SET
KYOC6700	LM-15	MOTOR HEATSINK
KYOC2909	W-5044	RACING CLUTCH (14T)
KYOC2912	W-5046	RACING CLUTCH (16T)
KYOC2914	W-5048	RACING CLUTCH (18T)
KYOC5692	W-5001	GOLD SHOCKS (S)
KYOC5593	W-5002	GOLD SHOCKS (L)
KYOC3518	OT-076	HARD FINAL PINION
KYOC5373	1990	REGULATOR
KYOC3173	1863	SPONSOR DECALS
KYOC5694	UM-26	SPL-SHOCK TOWERS
KYOC2902	UM-27	SPL-CHASSIS
KYOC6127	W-5061	UNI.-SWING SHAFT
KYOC4706	1952	DIFFERENTIAL OIL
KYOC5388	W-5005	ADJUSTABLE RODS

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