RADIO CONTROLLED .60 ENGINE POWERED HELICOPTER

CONCEPT 60™

- **EASY ACCESS REAR CONE STARTING SYSTEM.**
- **NO SPECIAL TOOLS OR PAINTING REQUIRED.**
- **DESIGNED FOR BEGINNER TO EXPERT PILOTS.**
- **EASY TO ASSEMBLE.**
- **INCORPORATES COMPOSITE RESIN STRUCTURE FOR EXTRA STRENGTH AND DURABILITY.**

RADIO: Expert class specialty helicopter system
Gyro Recommended
(Not Included)
ENGINE: Sixty size Heli 2-cycle side exhaust

No. 3506H

KYOSHO®

This Radio Controlled Helicopter is not a toy! It is a complex machine that is capable of serious bodily harm and property damage. IT IS YOUR RESPONSIBILITY AND YOURS ALONE - to complete this kit correctly, properly install all R/C components, and to test fly the helicopter. IF YOU ARE JUST STARTING R/C MODELING, CONSULT YOUR LOCAL HOBBY SHOP OR WRITE TO THE ACADEMY OF MODEL AERONAUTICS TO FIND AN EXPERIENCED INSTRUCTOR IN YOUR AREA.

V1.0

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 "Concept 60" 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 or replace at 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 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 honored. Your original purchase invoice or receipt will suffice for this. Your Kyosho "Concept 60" should be returned directly to Hobby Services for warranty work. The address is:

Hobby Services
1610 Interstate Drive
Champaign, Illinois 61821
Attn: Warranty Department
Phone: 1-217-398-0007

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.

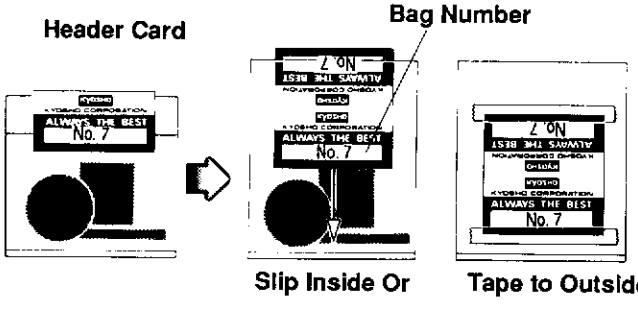
CONCEPT 60 HELICOPTER

IMPORTANT! BEFORE YOU BEGIN

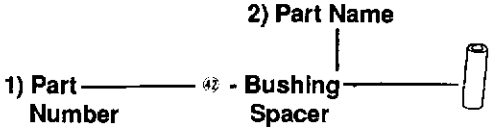
This is a sophisticated model with a large number of moving parts. Before you begin assembly, take a look through the box and these instructions carefully to decide whether or not you are ready for this challenge! If you do not think that this type of model is for you, it may be returned to the dealer 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 heli flying 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 listed on pages 5 and 6 will prove invaluable when locating parts.

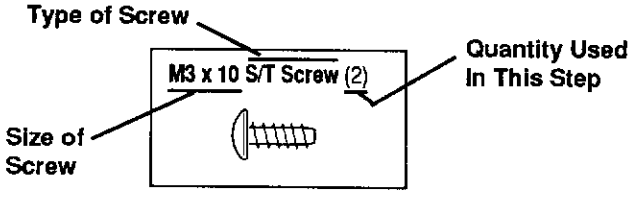


In each step of assembly each part will be labeled with 1) The part number and 2) The part name.



To locate parts easily, use the "List of Bagged Parts" on pages 5 & 6.

On 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 42 you will find a complete list of parts used in this kit including the part number and total quantity supplied in the kit. When ordering replacement or optional parts, see page 43 for a complete listing of parts and stock numbers.

HELPFUL TIPS AND PRECAUTIONS

Some precautions need to be observed when building your "Concept 60" to avoid problems.

1.) **Take your time and read the directions thoroughly.** It's not how fast you can assemble the kit but how well it flies once assembled.

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. Certain brands will react to the material possibly causing damage.

5.) Avoid operating the "Concept 60" in very cold temperatures. Both resin 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 the parts before assembly.

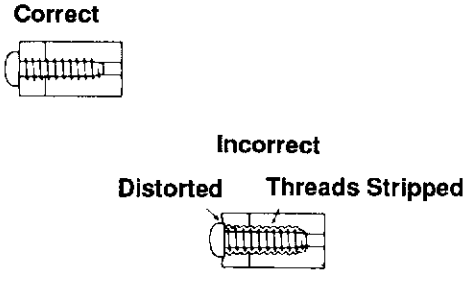
7.) Ensure that all parts are will lubricated where the instructions indicate the use of grease.

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

9.) Use a muffin tin or egg carton to separate screws ,nuts, washers, etc. This will make it easier to locate the correct part.

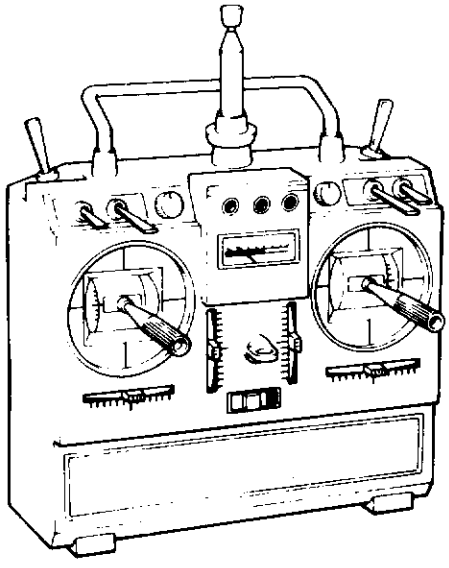
10.) Trial fit all parts to ensure proper fit before attaching them permanently.

11.) 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.

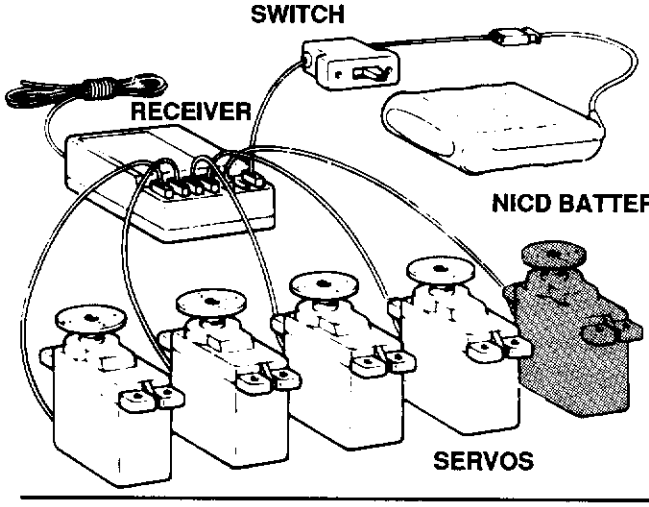


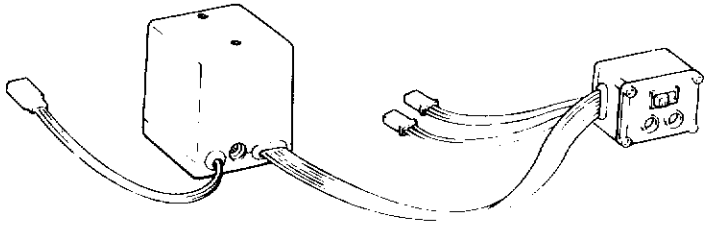
THE RADIO SYSTEM

A competition helicopter radio system is required for the operation of the Concept 60 helicopter. We also strongly suggest the use of a gyrostabilizer system to be used with the tail rotor. Systems are readily available from various manufactures. Some helicopter pilots choose to use two battery packs on board the helicopter. One for the receiver and one for the gyro. Two 1,000 mAh or larger capacity battery packs are recommended.



TRANSMITTER

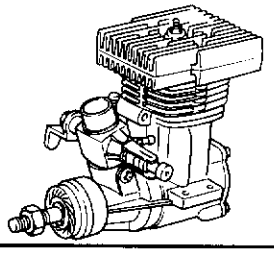




TYPICAL GYRO STABILIZER SYSTEM

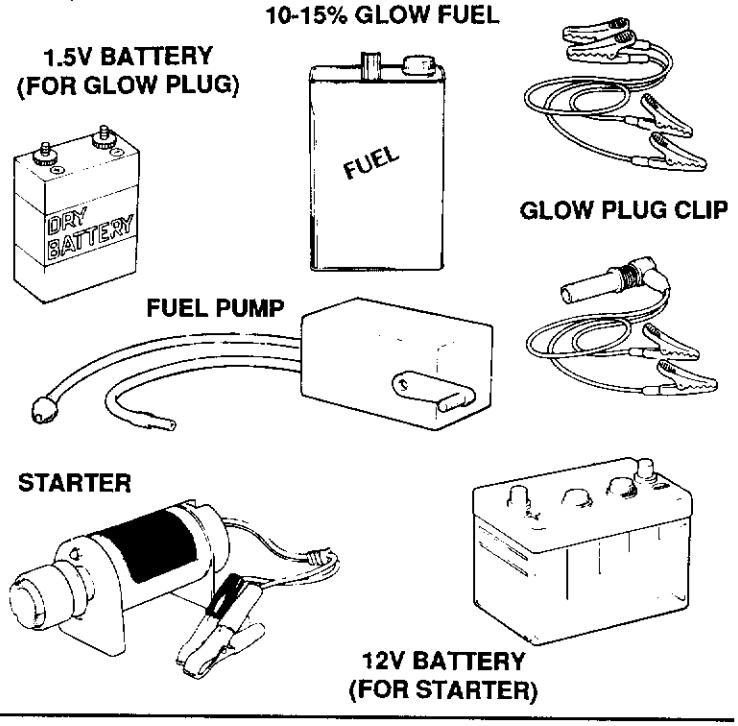
ENGINE

A sixty size side exhaust helicopter engine is required to power the Concept 60. Engines are available through various manufacturers. We also recommend the use of a fuel filter to protect the engines vital internal parts.



FIELD EQUIPMENT

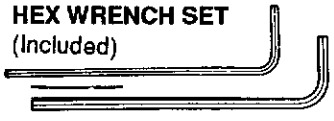
The supplies shown below are necessary to operate the Concept 60.



REQUIRED TOOLS

These ARE NOT included with the kit.

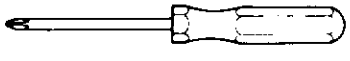
HEX WRENCH SET (Included)



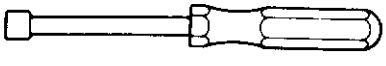
SILICONE GREASE (Included)

SCREW LOCKING COMPOUND (Included)

PHILLIPS SCREWDRIVER

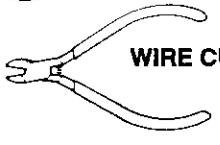


5.5mm, 7mm & 10mm Nut DRIVERS



NEEDLE NOSE PLIERS

WIRE CUTTERS



HOBBY KNIFE

LIST OF BAGGED PARTS (1)

Bag	Key	Description	Qty	Step
	23	Mixing Base	1	1
	29	Pitch Rod	2	1
	31	Swashplate (A)	1	1
	32	Swashplate (B)	1	1
	33	Swashplate (C)	1	1
	34	Swashplate (D)	1	1
	35	Swashplate (E)	1	1
	52	Main Mast	1	1
NO. 1	53	Pitch Rod Guide	1	1
	54	Mast Stopper	1	1
	56	15 x 28 x 7mm Bearing	1	1
	57	Pitch Slider (A)	1	1
	58	12 x 18 x 14mm Bearing	2	1
	59	Pitch Slider (B)	1	1
	60	Pitch Slider (C)	1	1
	24	Mixing Lever	2	1
	25	Cyclic Lever	2	1
	26	Cyclic Lever Link	2	1
	27	Bearing Spacer	4	1
	28	3 x 6 x 2mm Bearing	8	1
	30	Cyclic Pin	2	1
	70	Bevel Gear	1	4
	71	Gear Spacer	1	4
	72	Counter Gear	1	4
	73	Gear Pin (A)	1	4
	74	Tail Coupling	1	4
	75	Coupling Pin	1	4
	78	Coupling Bearing	1	4
	36	Fore/Aft Link	2	2
	37	Fore/Aft Lever	1	2
	38	Link Pin (A)	2	2
NO. 2	39	8 x 12 x 3.5mm Bushing	7	3
	40	Right/Left Cyclic Lever	1	3
	41	3 x 6 x 2.5mm Bushing	2	3
	42	Bushing Spacer	1	3
	43	Collective Lever	1	2
	44	Collective Lever Arm	1	2
	45	Collective Arm	1	4
	46	3 x 6 x 7.5mm Bushing	2	4
	47	Collective Lever Bushing	1	2
	48	Collective Lever Link	1	2
	50	Link Pin (B)	2	2
	51	Link Pin (C)	1	2
	55	Bushing Spacer (FL)	1	4
	61	One-way Housing (A)	1	2
	62	Main Gear	1	2
	63	10 x 19 x 5mm bearing	3	
	64	One-way Housing (B)	1	
	65	Engine Mount	1	4
	76	Bevel Gear Support (A)	1	4
	77	Bevel Gear Support (B)	1	
	66	Upper Frame Left	1	3
	67	Upper Frame Right	1	3
	79	Threaded Insert (L)	3	3
NO. 3	80	Threaded Insert (S)	4	3
	115	Body Post	2	3
	159	5.8mm Pivot Ball	2	3
	140	Pivot Arm	2	23
	141	Rudder Pivot rod	2	4
	142	Pivot Rod Guide	2	4
	49	Round insert	1	3

Bag	Key	Description	Qty	Step
	58	12 x 18 x 4mm Bearing	2	5
	68	Lower Frame (A)	1	7
	69	Lower Frame (B)	1	7
NO. 4	83	Starter Cone	1	5
	84	Cooling Fan	1	5
	85	Clutch	1	5
	86	Washer (O.S.)	1	5
	87	Clutch Bell	1	5
	88	Drive Gear	1	5
	89	Engine Shroud (L)	1	5
	90	Engine Shroud (R)	1	5
	123	Fuel tank	1	8
	124	Clunk	1	8
NO. 5	125	Tank Adapter	1	8
	126	Tank Cap	1	8
	127	Cap Washer	1	8
	128	Cap Nut	1	8
	129	Fuel Tubing (L)	1	8
	130	Fuel Tubing (S)	1	8
	81	Threaded Insert (C)	1	11
	82	Threaded Insert (D)	1	11
	116	Sub Frame	1	9
	117	Servo Mount (B)	2	24
	118	Front Frame Retainer	2	9
NO. 6	119	Front Frame	1	9
	152	Servo Mount	10	24
	153	Switch Mount	1	25
	154	Body Mount (A)	1	9
	155	Body Mount (B)	1	31
	158	Body Grommets	2	31
	167	Double Sided Tape	1	25
	120	Strut	2	12
	121	Skid	2	12
NO. 7	122	Skid Cap	4	12
	131	Horizontal Fin	1	22
	132	Fin Mount (A)	1	22
	133	Fin Mount (B)	1	22
	134	Vertical Fin	1	24
	1	Rotor Head (B)	1	20
	2	Rotor Head (A)	1	13
	3	Stabilizer Blades	2	14
	4	Flybar Weight	2	14
	6	Stabilizer Seesaw	1	13
	7	Seesaw Pivot Balls	2	13
	8	Hiller Control Lever	1	13
	9	Flybar Bushing	1	13
NO. 8	10	Stabilizer control Rod	2	13
	11	8 x 14 x 3.5mm Bearing	2	13
	12	Feathering Shaft	2	16
	14	Flapping Pin	2	16
	15	Flapping Damper	2	16
	16	8 x 16 x 5mm Bearing	4	17
	17	Thrust Bearing	2	17
	18	Bearing Cap	2	17
	19	Shim	2	17
	20	O-ring Seal	2	17
	21	Grip (A)	2	18
	22	Grip (B)	2	18
	143	Hiller Control Rod	2	19
	144	Pitch Control Rod	2	19

LIST OF BAGGED PARTS (2)

Bag	Key	Description	Qty	Step
NO. 9	11	8 x 14 x 3.5mm Bearing	2	20
	41	Bellcrank Spacer	2	22
	42	Bellcrank Bushing	2	22
	95	Tail Drive Joint	1	20
	96	Tail Input Gear	1	20
	97	Tail Output Gear	1	20
	98	Tail Gear Box (R)	1	20
	99	Tail Gear Box (L)	1	20
	100	5 x 13 x 4mm Bearing	2	20
	101	Tail Output Shaft	1	20
	102	Gear Pin (B)	1	20
	103	Slider Ring	1	21
	104	Slider Bushing	2	21
	105	6 x 10 x 3mm Bushing	2	21
	106	Tail Pitch Arm	1	21
	107	Tail Ball End	2	21
	108	Link Pin (D)	2	21
	109	Tail Center Hub	1	21
	110	5 x 10 x 4mm Bearing	4	21
	111	Tail Grip (A)	1	21
	112	Tail Grip (B)	1	21
	113	Tail Blades	2	21
	114	Tail Pitch Bellcrank	1	22
	135	Control Rod Guides	3	20
NO. 10	136	Pivot Balls	22	13 14 16 22 26 27 29
	138	Ball End (S)	2	22
	139	Ball End (L)	20	26
	145	50mm Rod	1	26
	146	85mm Rod	2	26
	147	183mm Rod	1	26
	148	95mm Rod	1	26
	149	120mm Rod	1	26
NO. 11	5	Flybar	1	13
	91	Tail Drive Shaft	1	20
	92	Tail Boom	1	20
	93	Shaft Guide	3	20
	94	Guide Bushing	3	20
	150	Tail Control Rod	1	20
	151	Guide Tube	1	20
	168	Antenna Tube	1	25
	173	Support Struts	2	23
	174	Strut Ends	4	23
NO. 12	161	Main Blades	2	35
	162	Lead Weight	2	35
	163	Root Spacer Bushing	2	37
	164	Root Cover (A)	2	37
	165	Root Cover (B)	2	37
	166	Blade Covering	1	37
NO. 13	160	Decals	1	23
	175	Pitch Gage	1	40
NO. 14	156	Fuselage	1	31
	157	Canopy	1	32

HARDWARE	DESCRIPTION	QTY.
	M2 X 6 S/T SCREW	13
	M2.6 X 10 S/T SCREW	6
	M2.6 X 14 S/T SCREW	20
	M3 X 12 S/T SCREW	18
	M3 X 8 S/T SCREW	8
	M3 X 10 S/T, F/H SCREW	4
	M2.6 X 8 H/H SCREW	4
	M3 X 10 H/H SCREW	14
	M3 X 12 H/H SCREW	24
	M3 X 14 H/H SCREW	6
	M3 X 18 H/H SCREW	16
	M3 X 20 H/H SCREW	11
	M3 X 25 H/H SCREW	4
	M3 X 30 H/H SCREW	2
	M4 X 10 H/H SCREW	2
	M4 X 15 H/H SCREW	4
	M4 X 28 H/H SCREW	2
	M4 X 45 H/H SCREW	2
	M2 X 10 O/H SCREW	22
	M3 X 6 F/H SCREW	6
	M3 X 4 SET SCREW	2
	M3 X 6 SET SCREW	2
	M3 X 14 SET SCREW	2
	M4 X 5 SET SCREW	6
	M2 NUT	6
	M3 NUT	3
	M2.6 NYLON NUT	4
	M3 NYLON NUT	34
	M4 NYLON NUT	4
	M3 X 8 X 1 WASHER	4
	M3 X 6 X .5 WASHER	2
	M3 X 5 X .5 WASHER	8
	M6.8 X 13 WASHER	1
	M5 X 9 X 1 WASHER	2
	1.5mm HEX WRENCH	1
	2.0mm HEX WRENCH	1
	2.5mm HEX WRENCH	1
	3.0mm HEX WRENCH	1

PREASSEMBLY NOTES

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

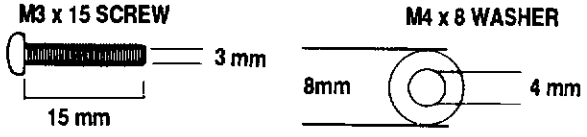
GREASE — Points where Grease/Oil should be applied. (This will reduce wear and friction and provide a smoother operating joint.

S/T CEMENT — Places where Screw Locking Compound 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.

METRIC SCREWS AND NUTS

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 x 15 screw is 3 mm diameter and 15 mm long. Some round parts may be labeled as a "M4 x 8 Washer" (a washer with a 4 mm inside diameter and a 8 mm outside diameter. Throughout the manual these parts are labled and pictured in their actual size. For your reference, 1 millimeter equals approximately .039 inches.



Several 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.


STANDARD METRIC SCREW


SELF-TAPPING SCREW (S/T)

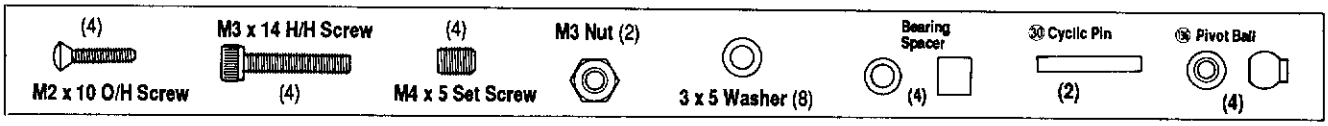

OVAL-HEAD SCREW (O/H)


HEX HEAD SCREW (H/H)

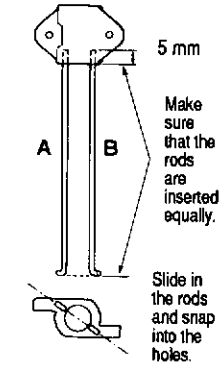

SET SCREW

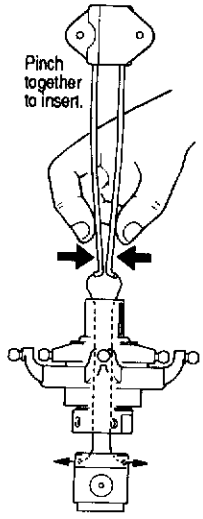
ASSEMBLY

1 SWASHPLATE ASSEMBLY

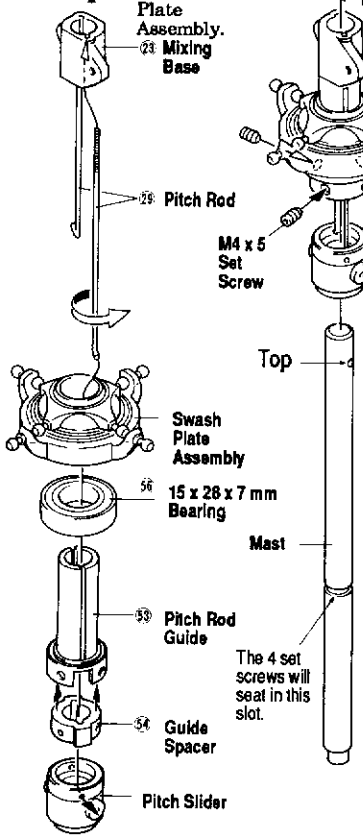


FOLLOW STEPS 1 THROUGH 6.

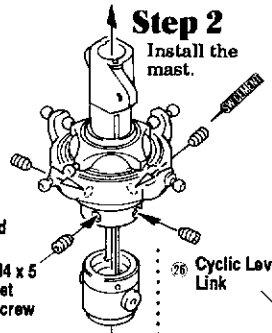




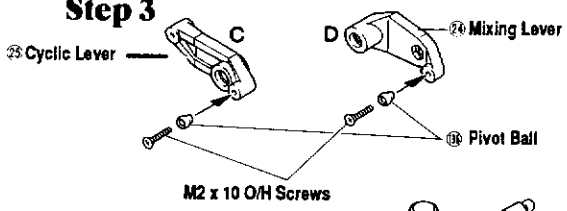
Step 1 Construct the Swash Plate Assembly.



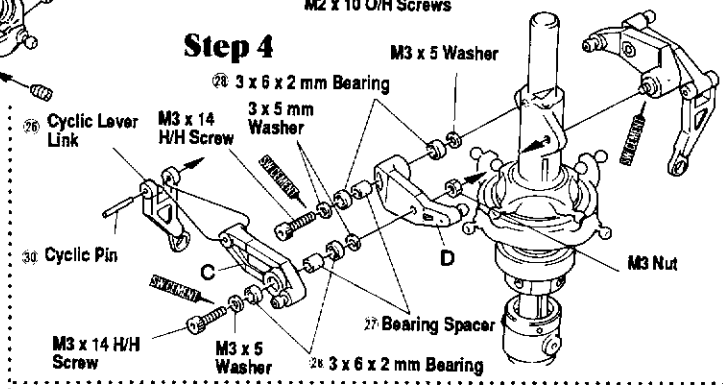
Step 2 Install the mast.



Step 3 Attach the Pivot Balls

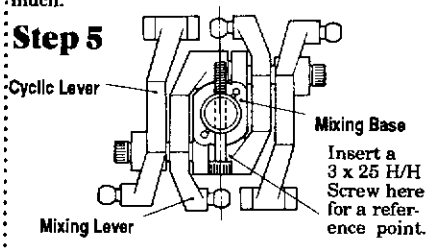


Step 4

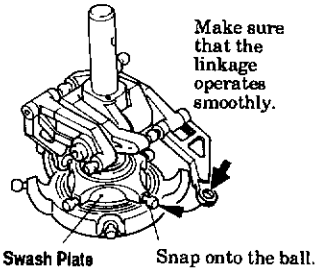


Install the cyclic lever and the Mixing Lever parallel to each other. Be sure not to tighten the Hex Head Screws too much.

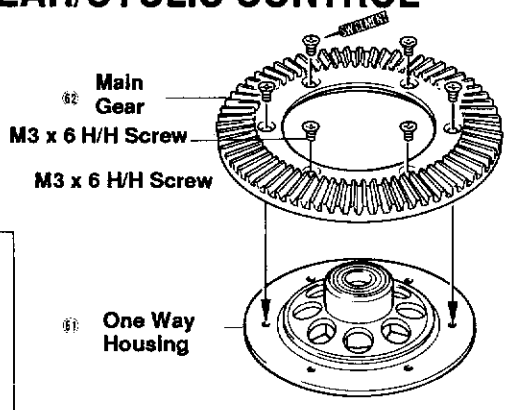
Step 5

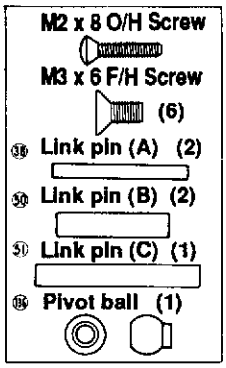


Step 6 Snap on the two cyclic lever links onto the balls.

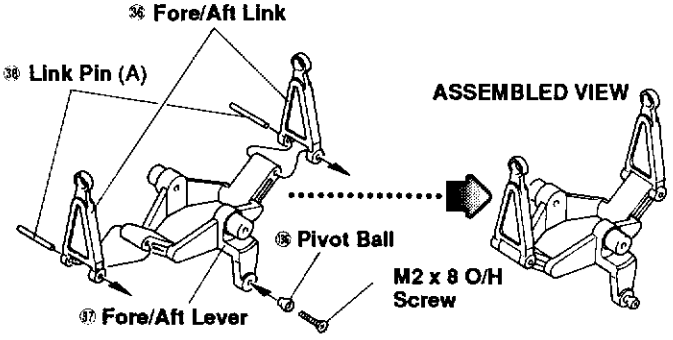


2 MAIN GEAR/CYCLIC CONTROL

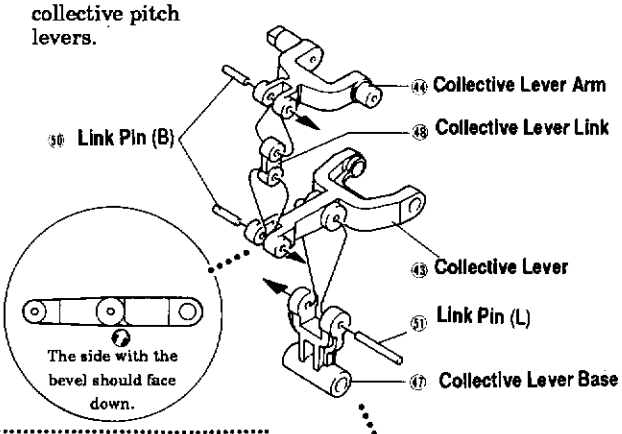


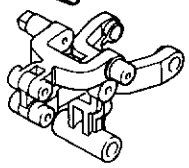


Assemble the fore/aft linkage as shown.



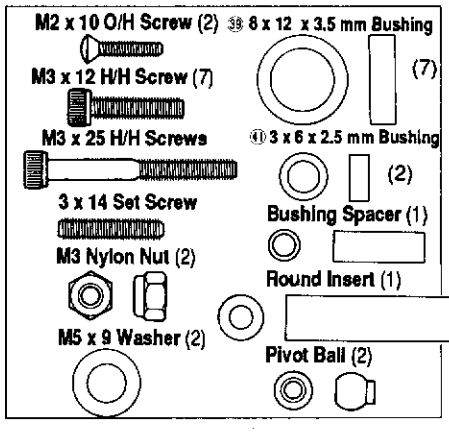
Assemble the collective pitch levers.





ASSEMBLED VIEW

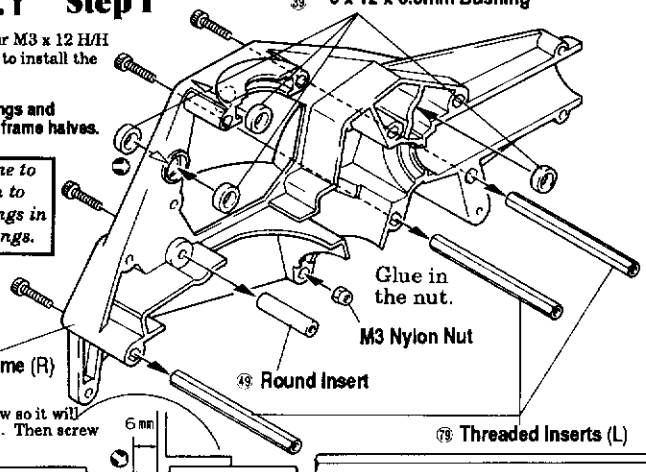
3 UPPER FRAME PREASSEMBLY Step 1



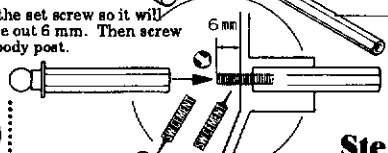
Use four M3 x 12 H/H Screws to install the inserts.

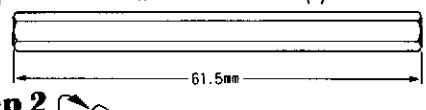
Install the Bushings and inserts into both frame halves.

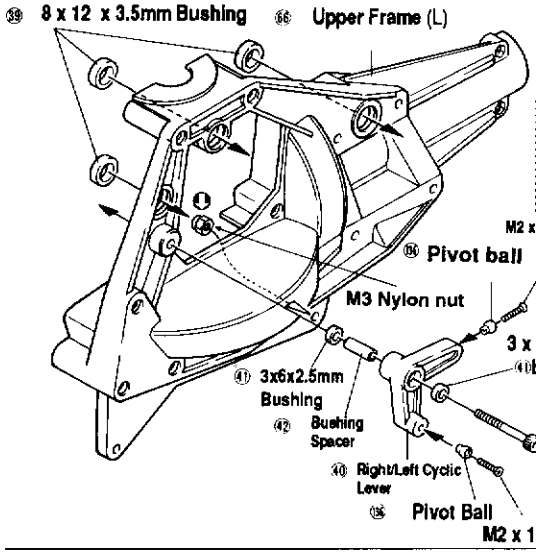
Now is a good time to decide if you wish to install ball bearings in place of the bushings.



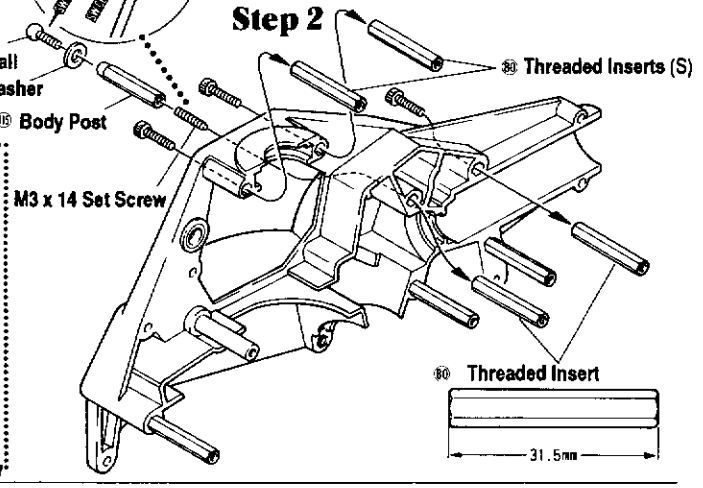
Install the set screw so it will protrude out 6 mm. Then screw on the body post.



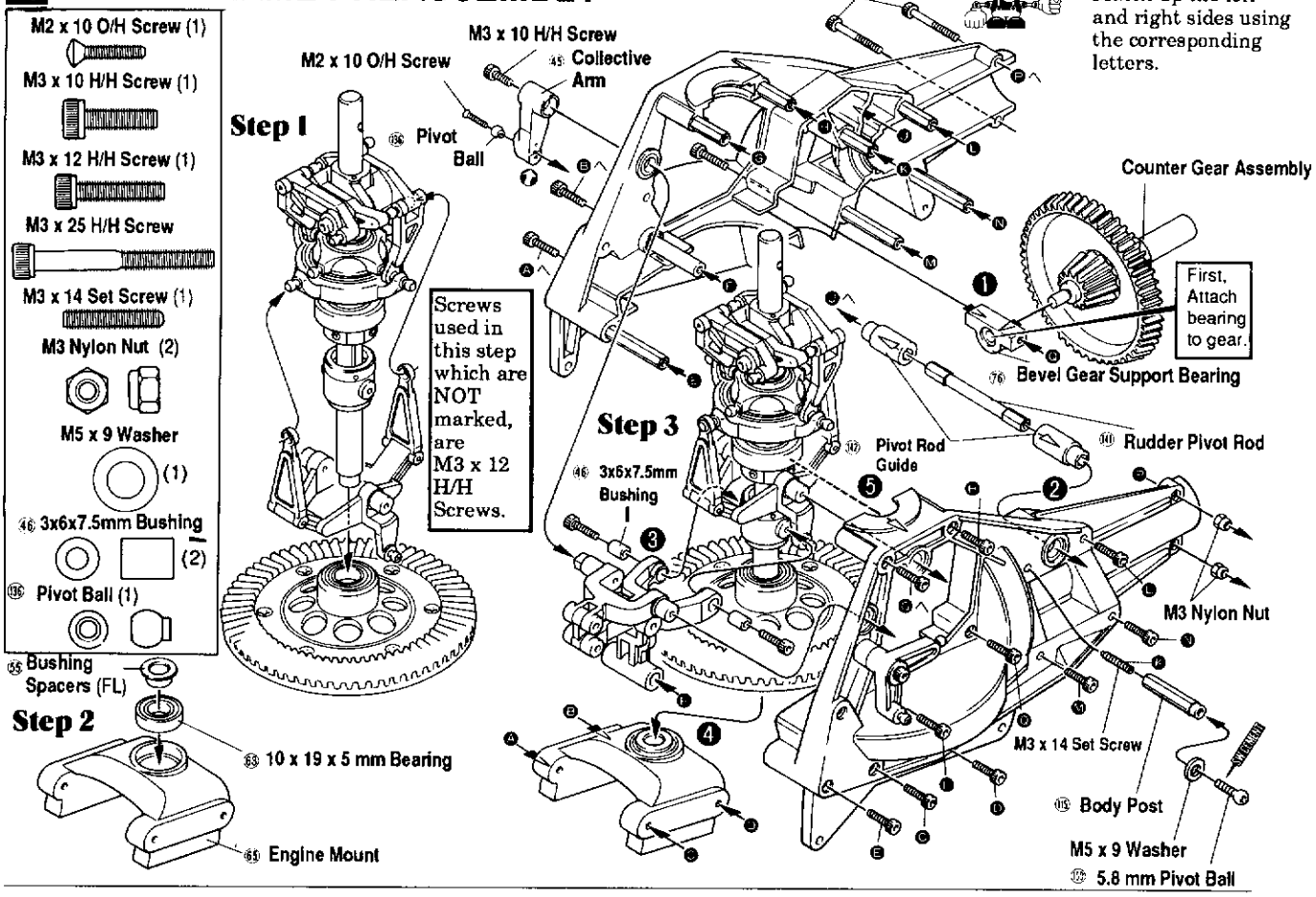




Step 2

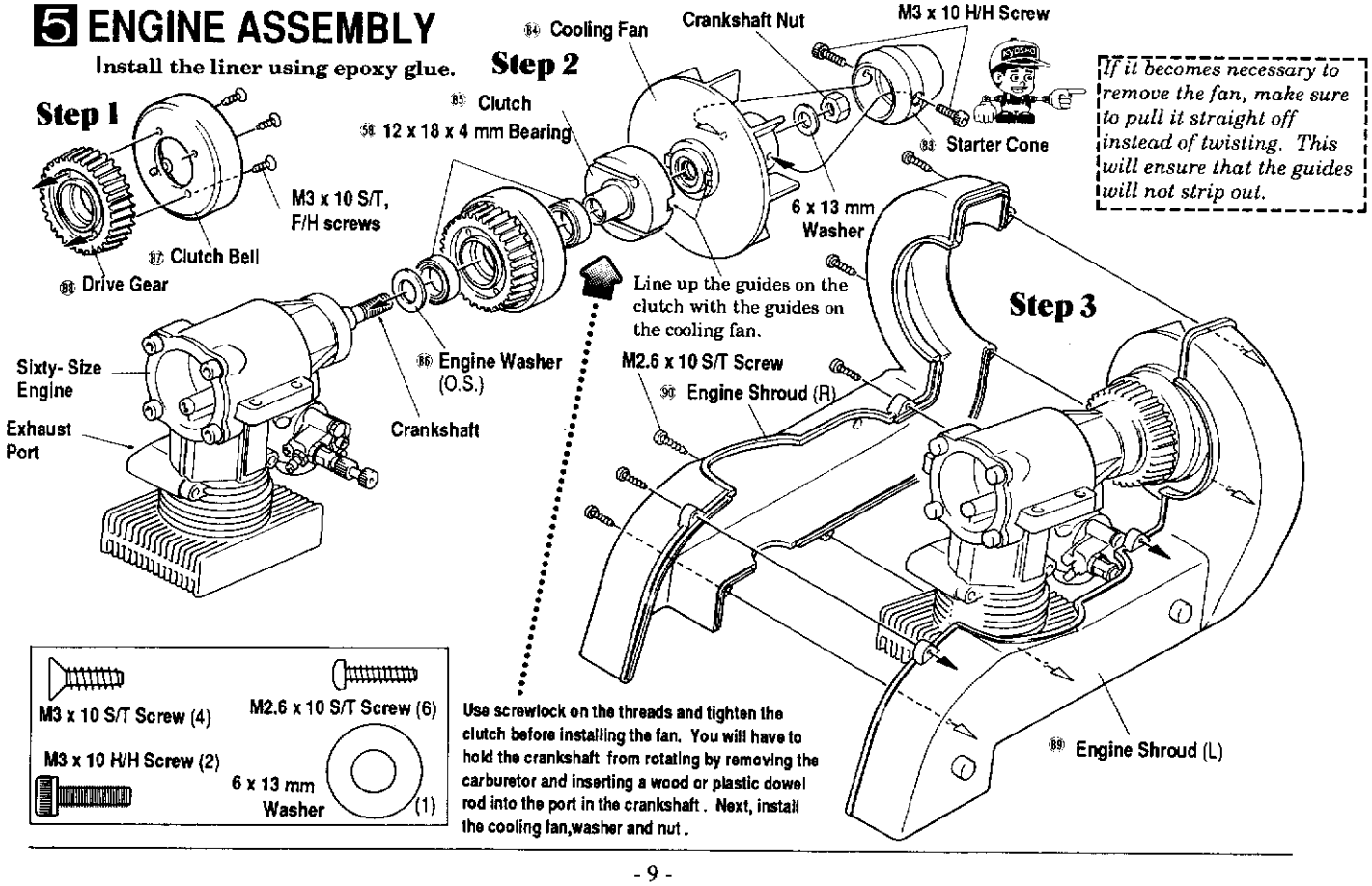


4 UPPER FRAME PREASSEMBLY



5 ENGINE ASSEMBLY

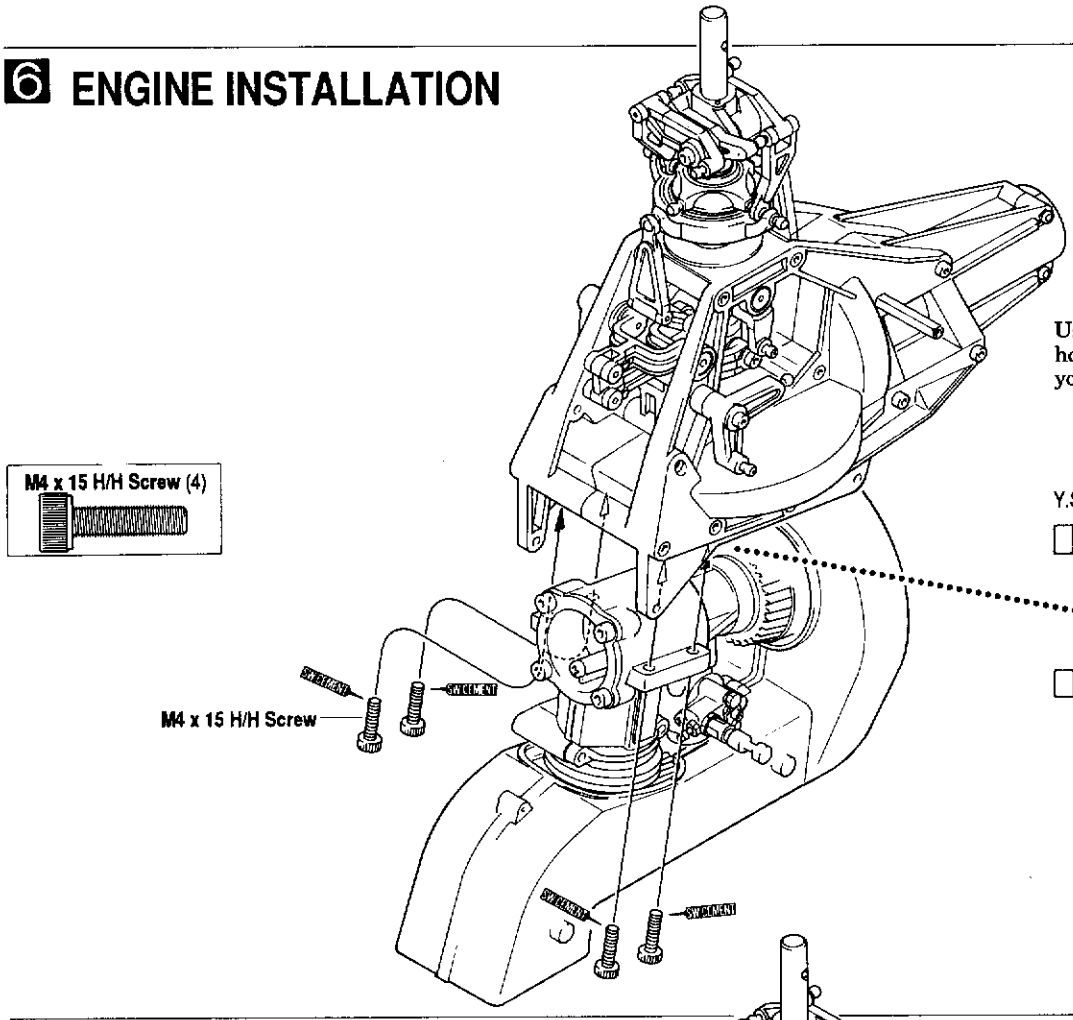
Install the liner using epoxy glue.



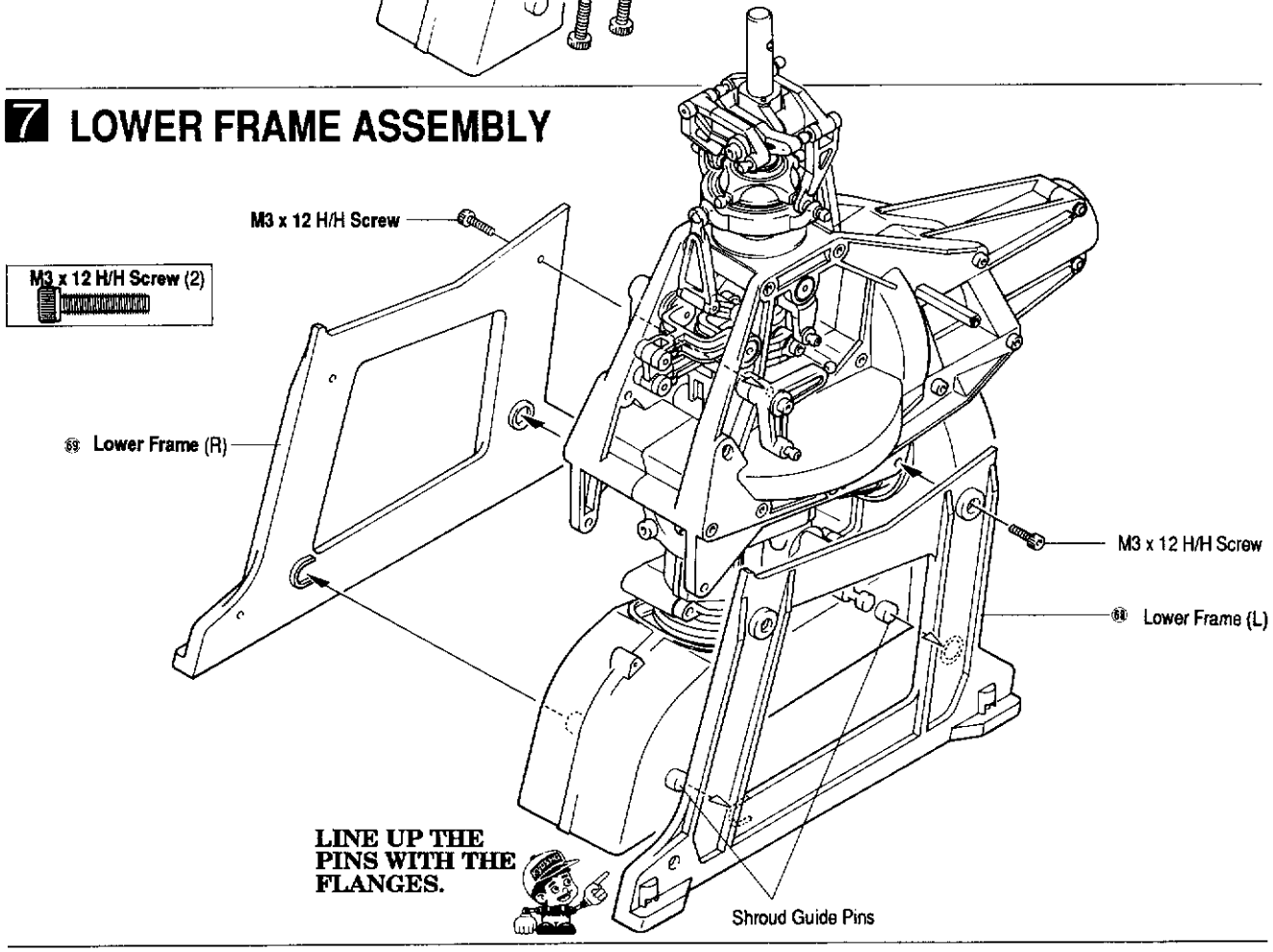
If it becomes necessary to remove the fan, make sure to pull it straight off instead of twisting. This will ensure that the guides will not strip out.

Use screwlock on the threads and tighten the clutch before installing the fan. You will have to hold the crankshaft from rotating by removing the carburetor and inserting a wood or plastic dowel rod into the port in the crankshaft. Next, install the cooling fan,washer and nut.

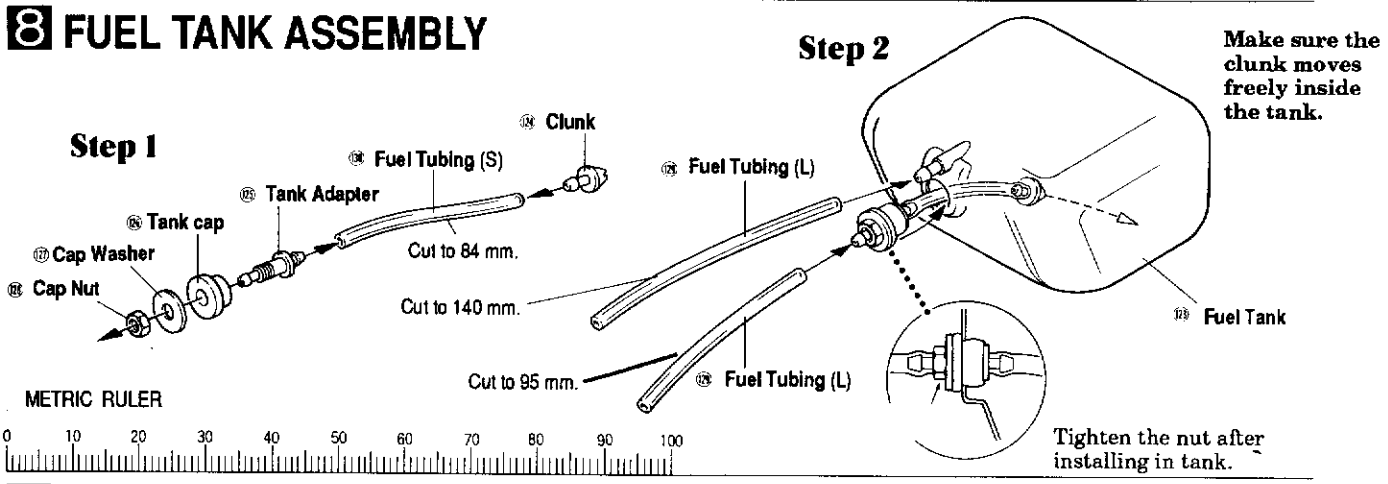
6 ENGINE INSTALLATION



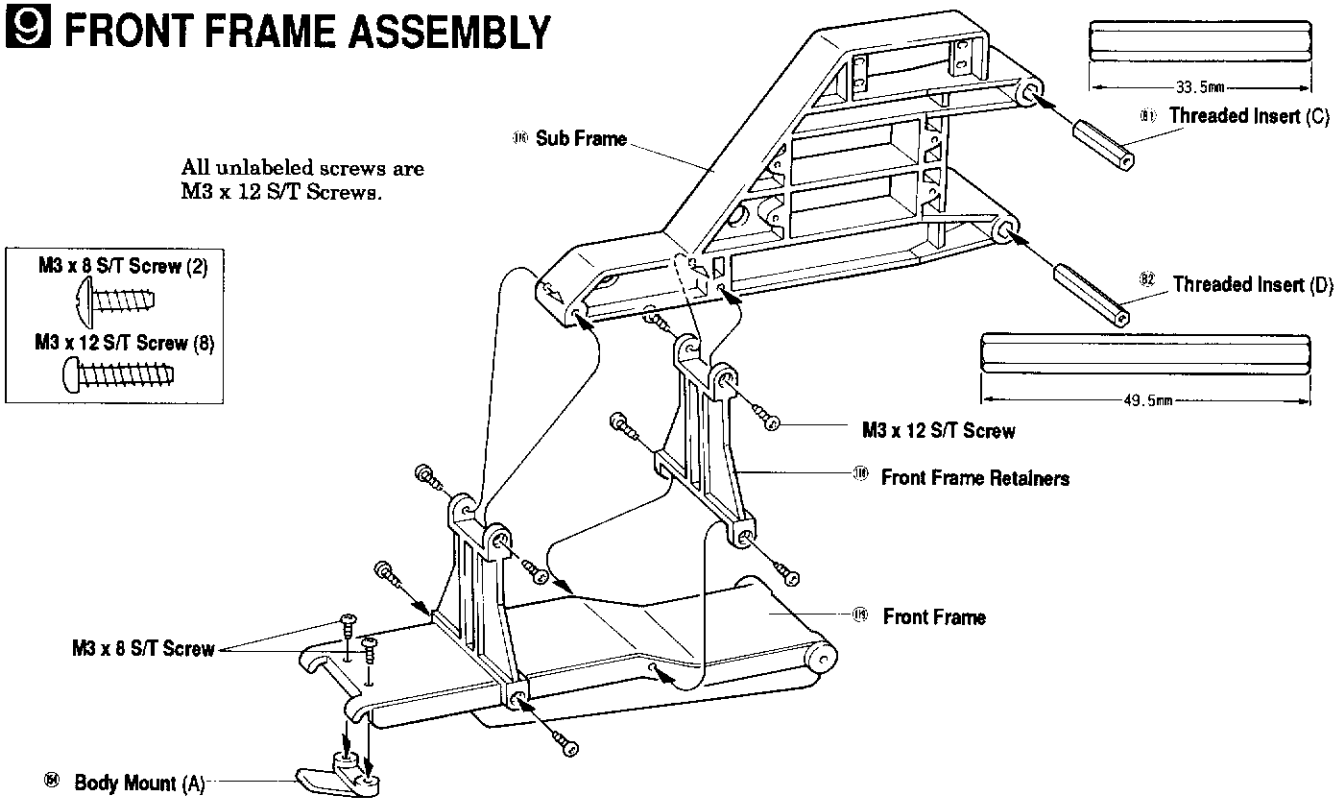
7 LOWER FRAME ASSEMBLY



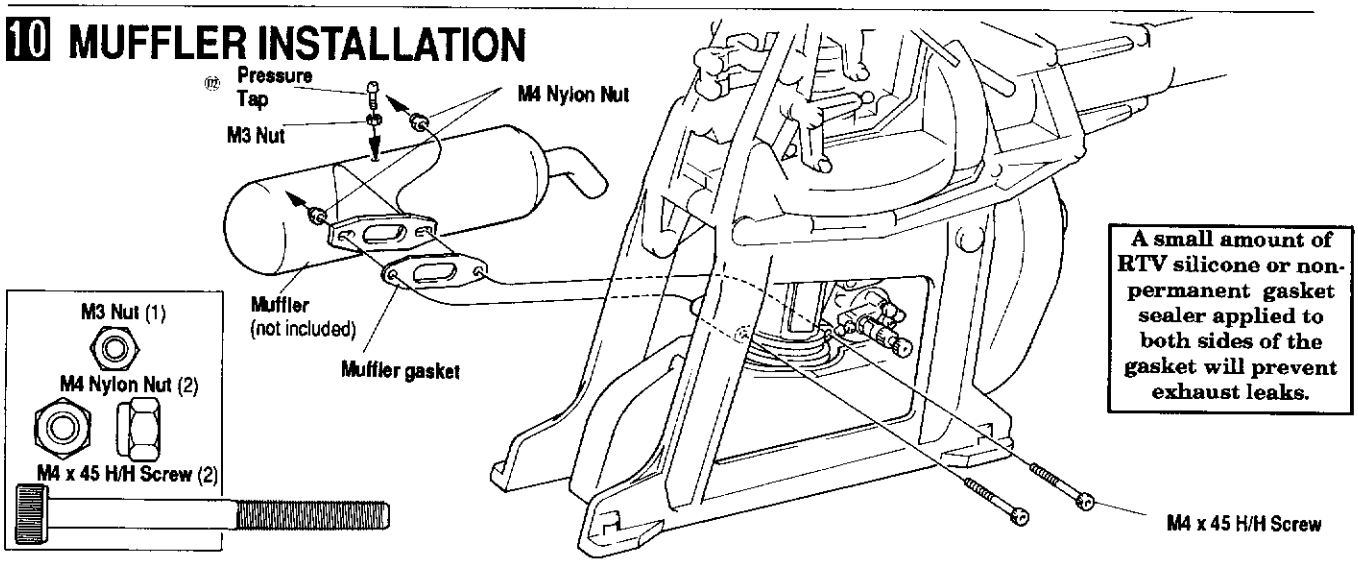
8 FUEL TANK ASSEMBLY



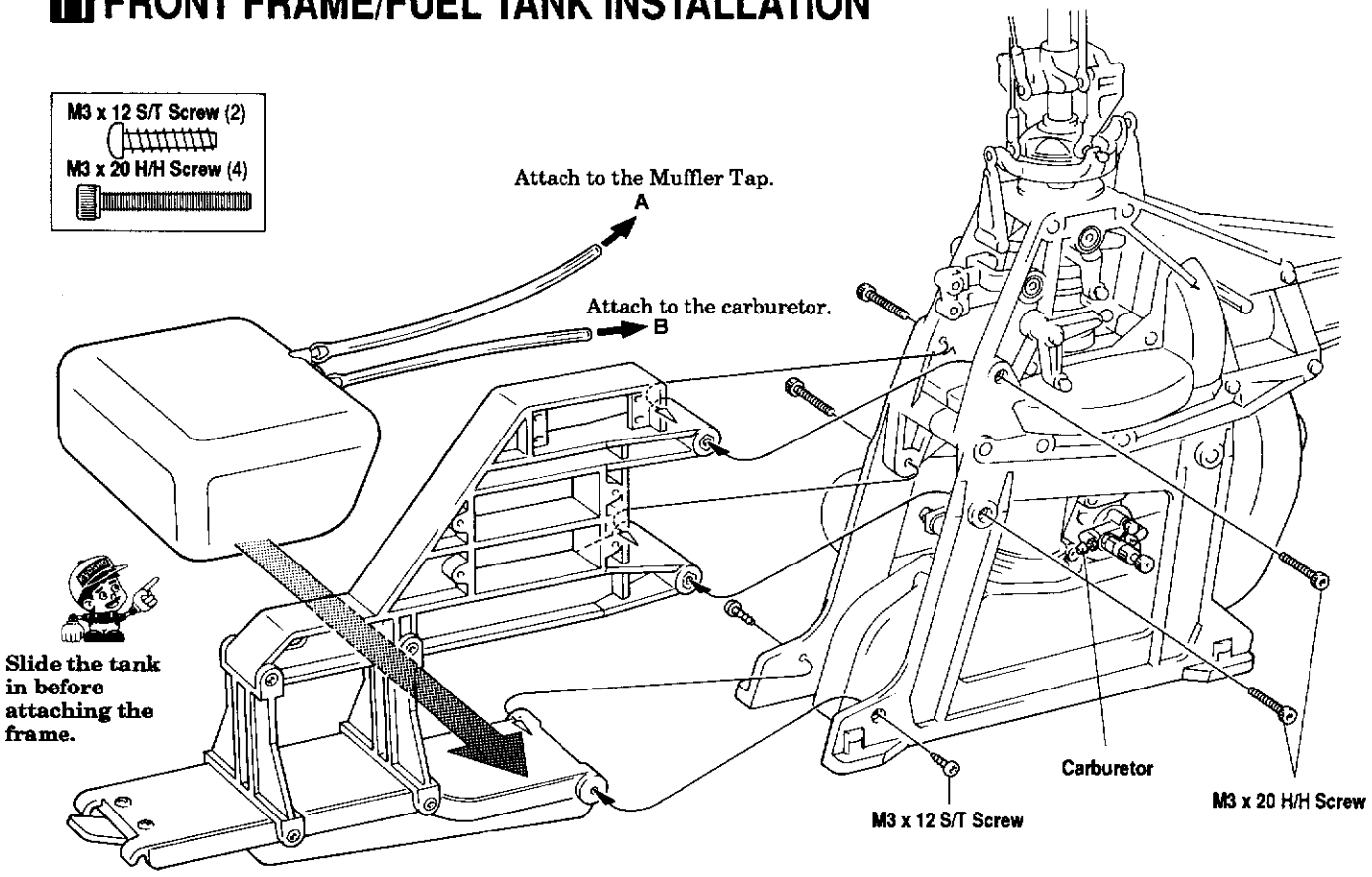
9 FRONT FRAME ASSEMBLY



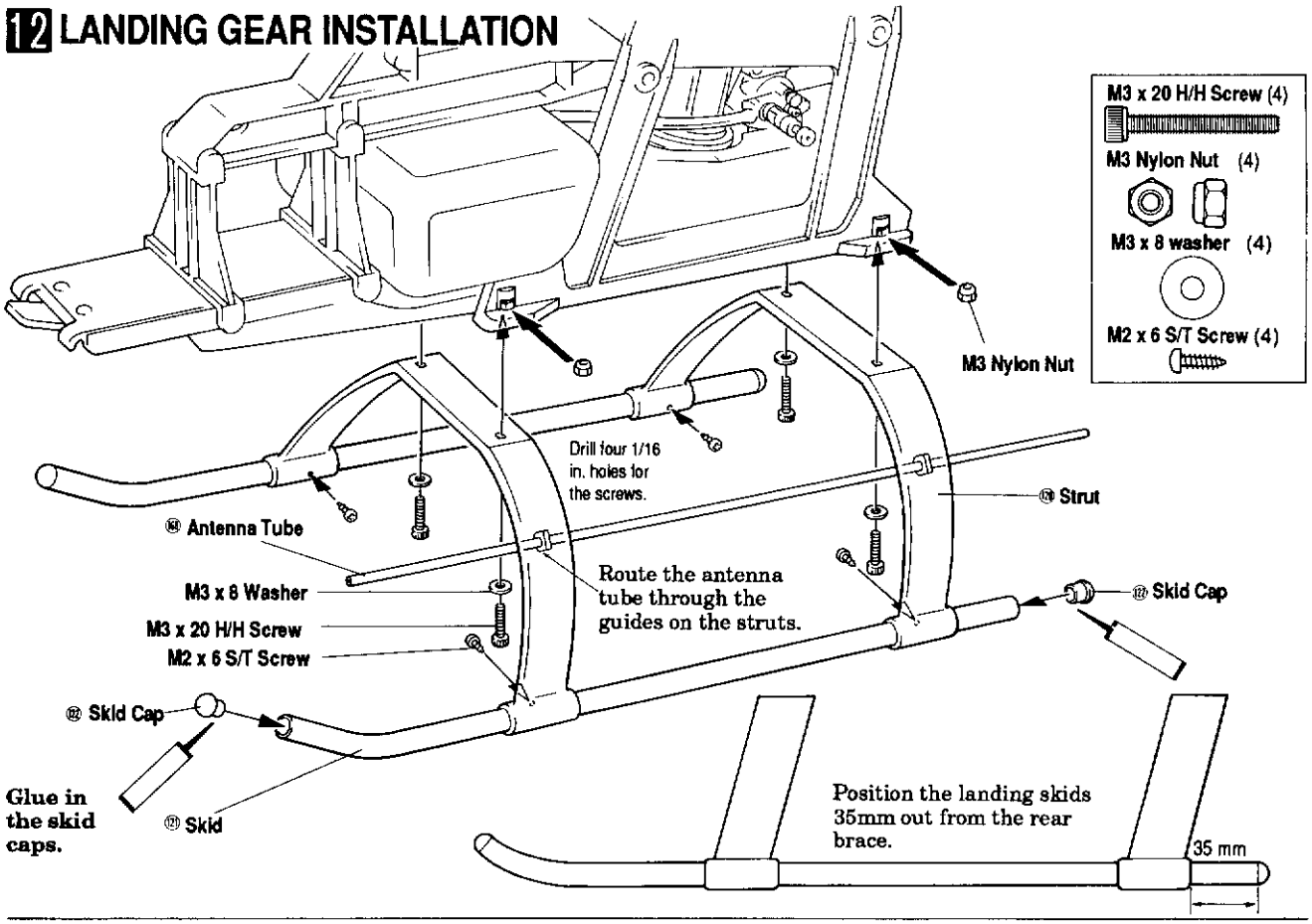
10 MUFFLER INSTALLATION



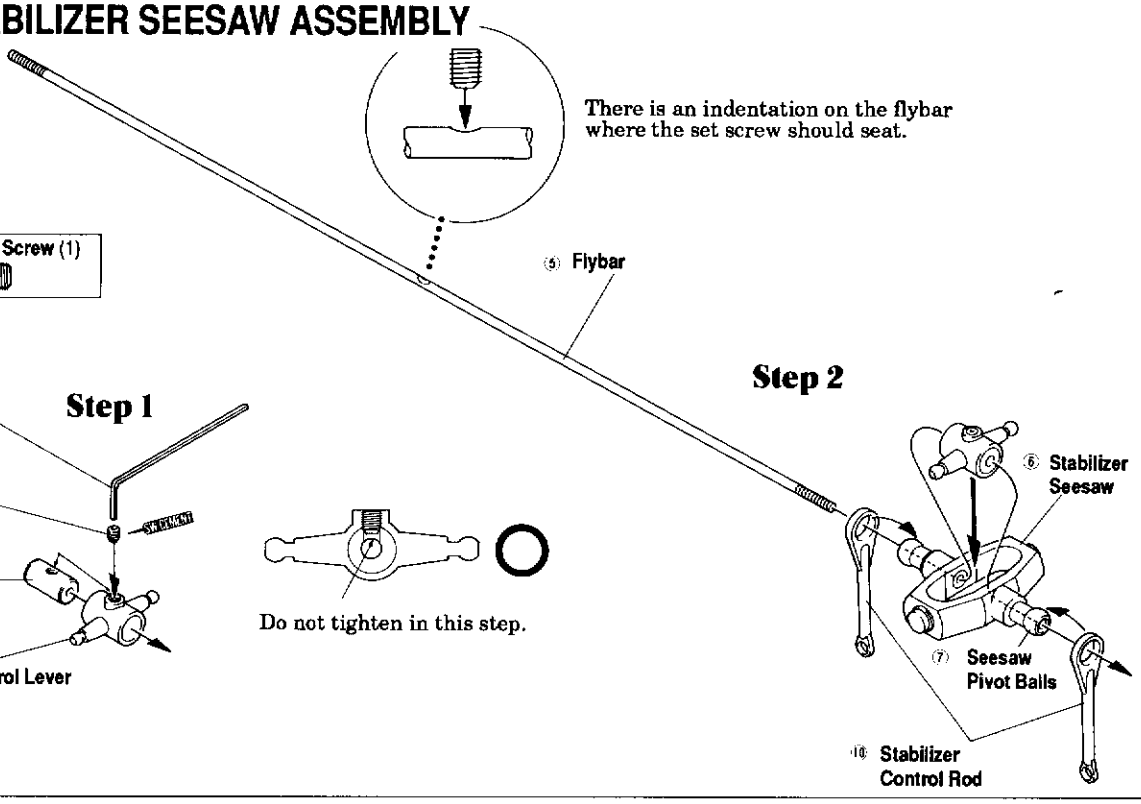
11 FRONT FRAME/FUEL TANK INSTALLATION



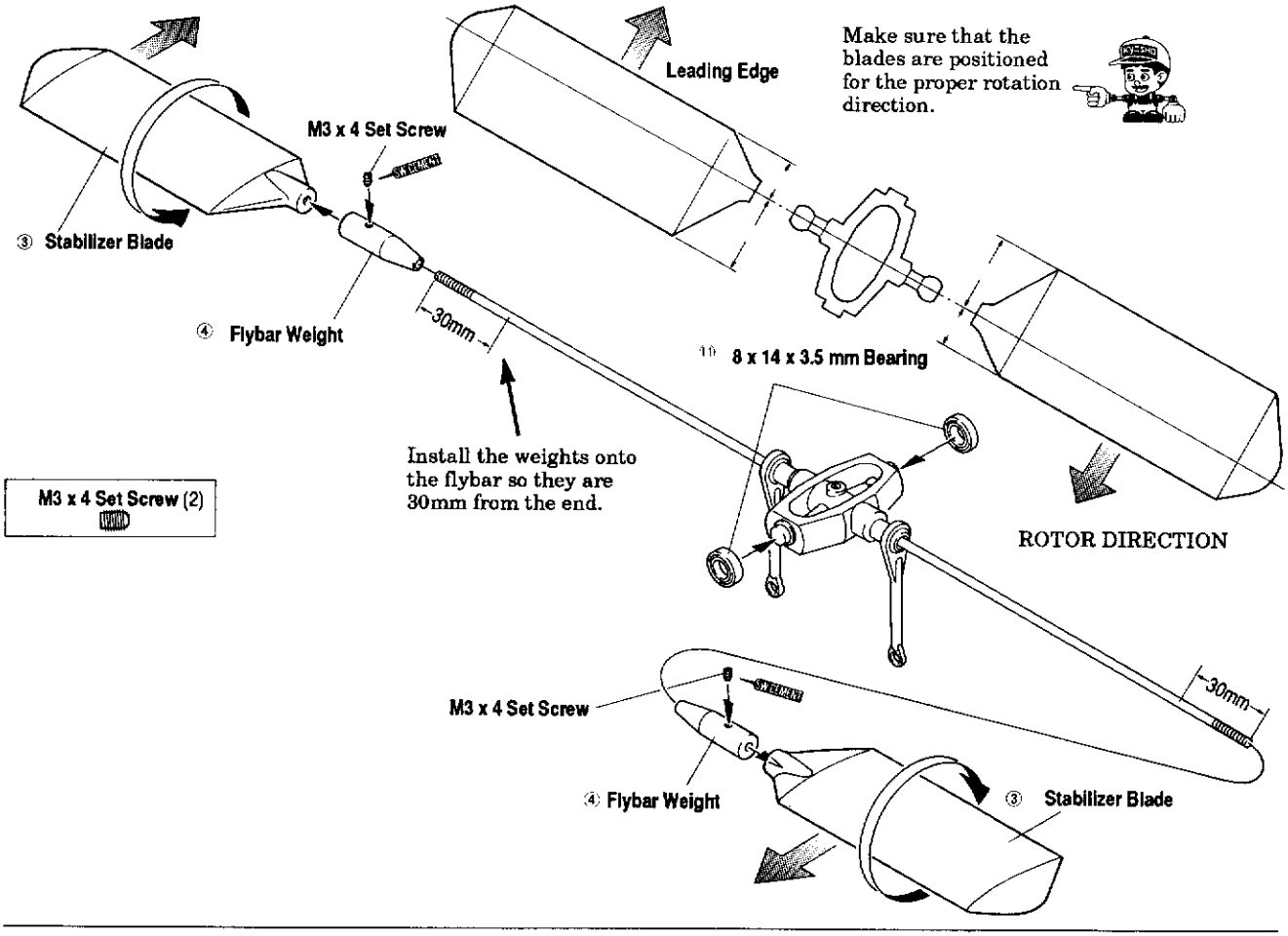
12 LANDING GEAR INSTALLATION



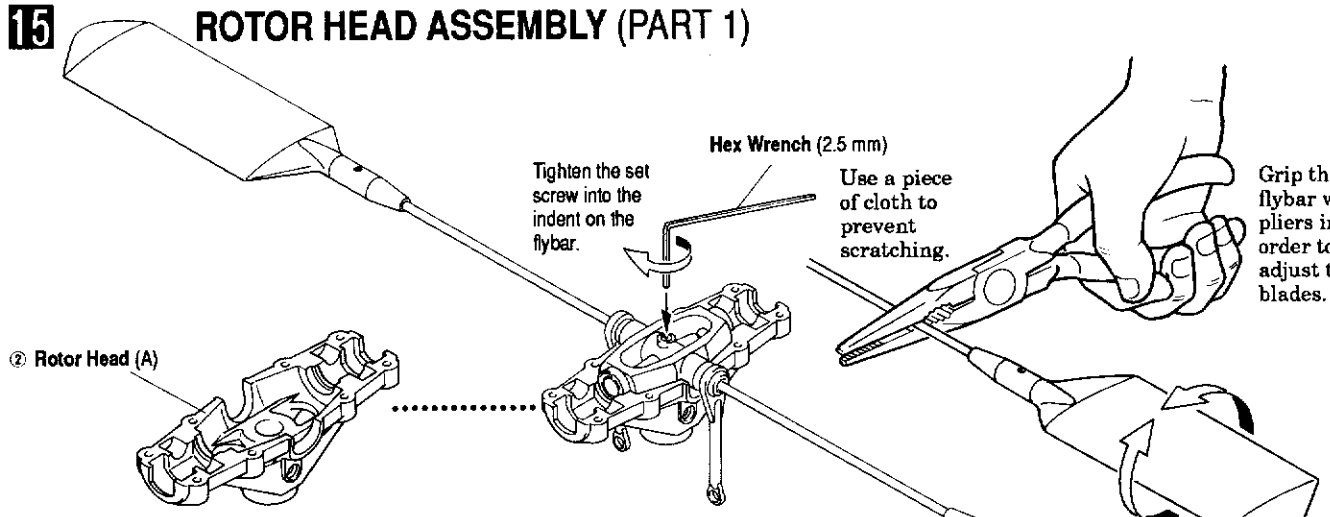
13 STABILIZER SEESAW ASSEMBLY



14 STABILIZER PADDLE INSTALLATION ROTOR DIRECTION

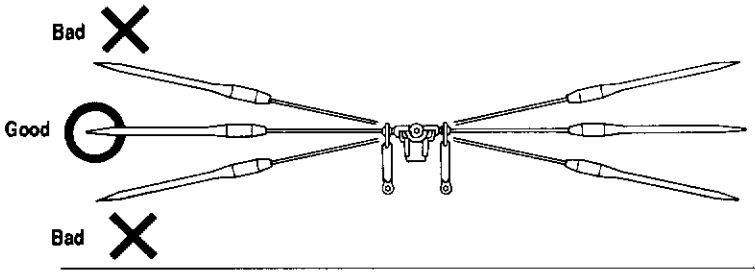


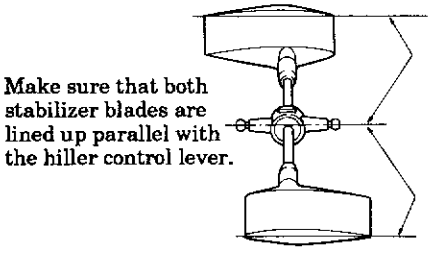
15 ROTOR HEAD ASSEMBLY (PART 1)



Do a preliminary check of the flybar balance. Hold onto the center and check the position of the flybar. It should balance in the center.

If it does not balance, check the distance from the blades to the rotor head. These should be equal distance from the center.





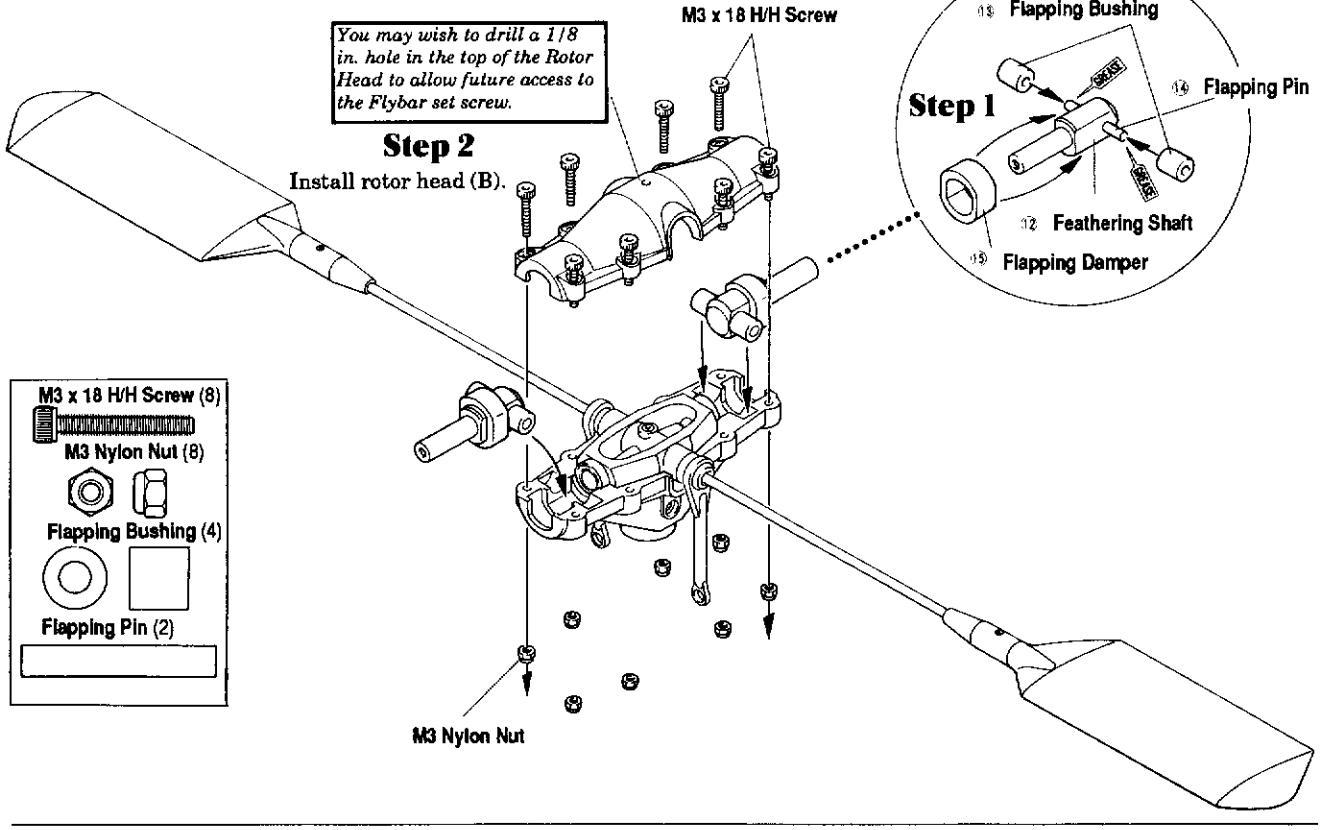
Make sure that both stabilizer blades are lined up parallel with the hiller control lever.

16 ROTOR HEAD ASSEMBLY (PART 2)

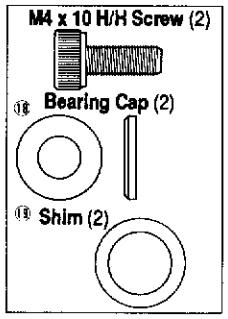
You may wish to drill a 1/8 in. hole in the top of the Rotor Head to allow future access to the Flybar set screw.

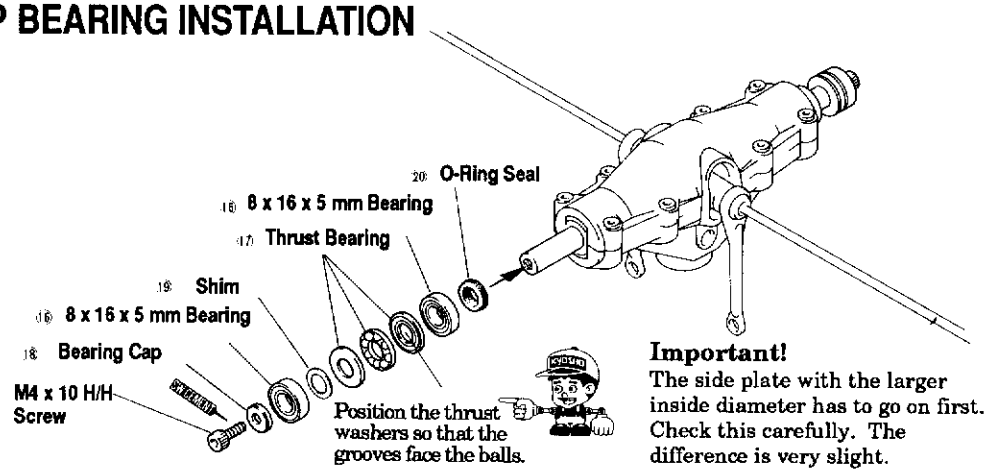
Step 2

Install rotor head (B).



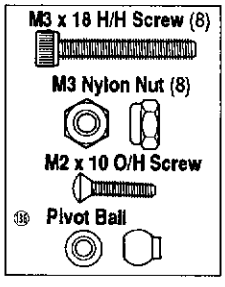
17 ROTOR GRIP BEARING INSTALLATION

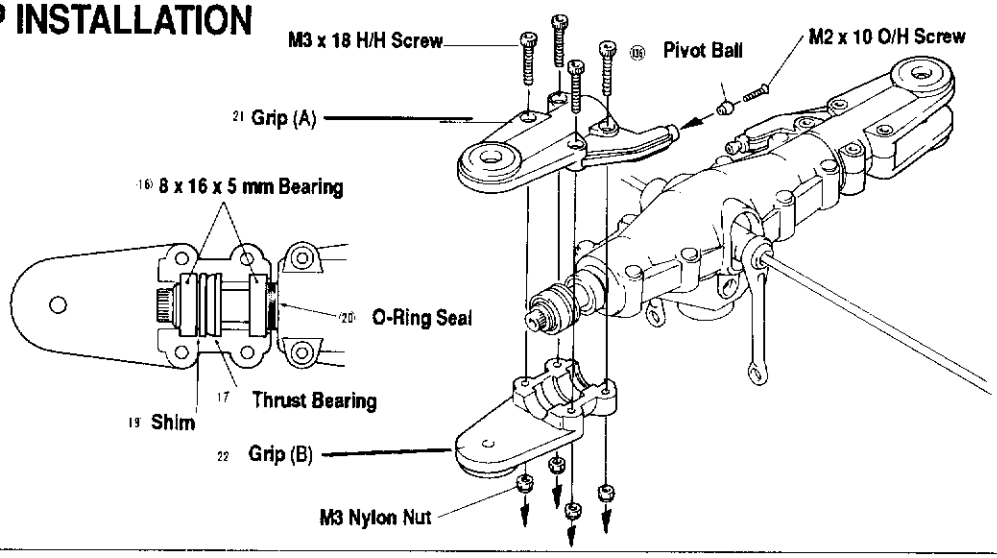




Important!
The side plate with the larger inside diameter has to go on first. Check this carefully. The difference is very slight.

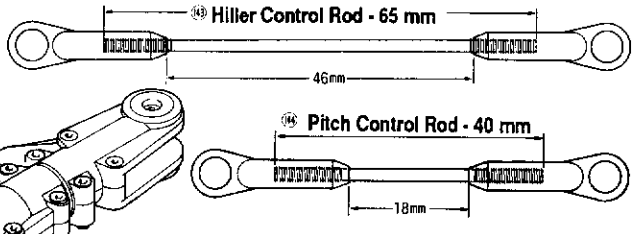
18 MAIN GRIP INSTALLATION



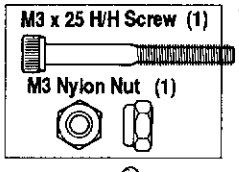


19 ROTOR HEAD INSTALLATION

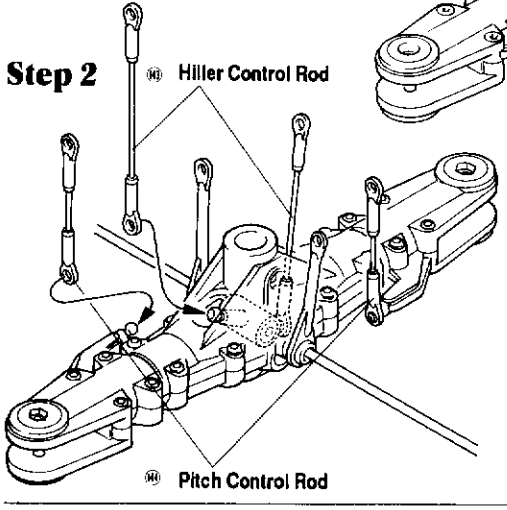
Step 1 Assemble the control rods.



Assemble two each of the above rods.

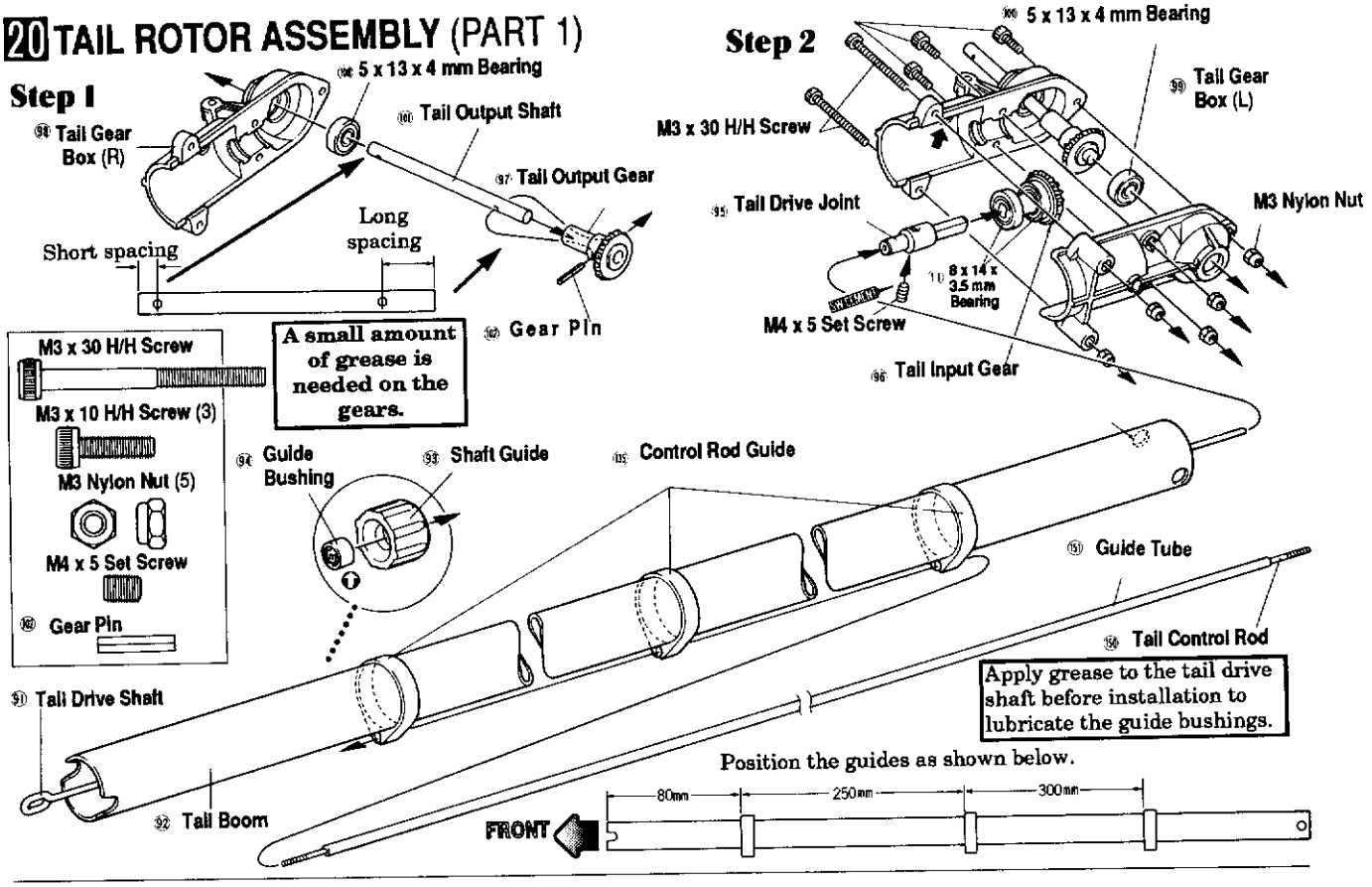


Step 2

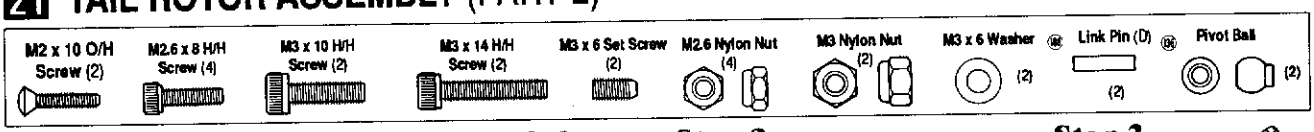


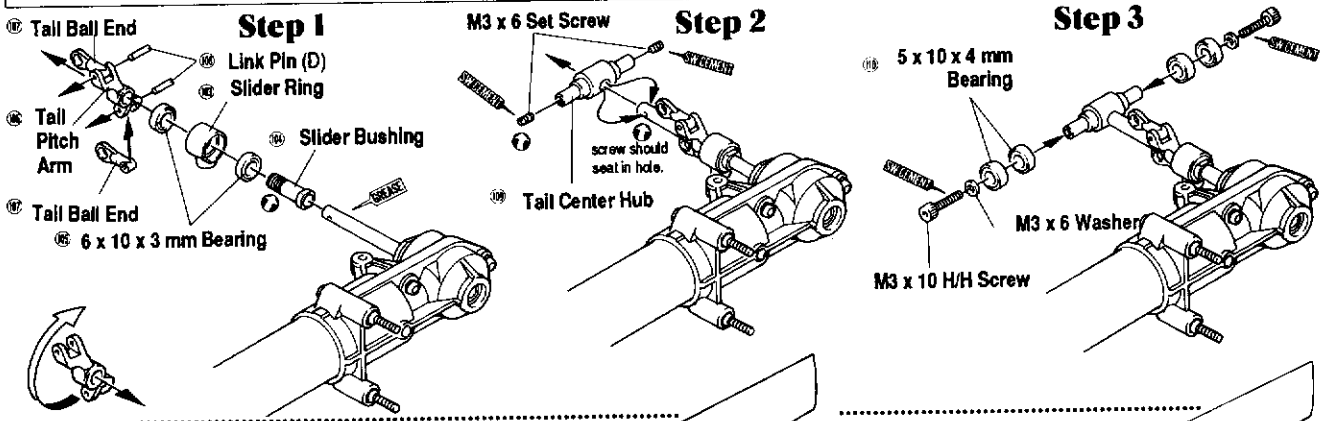
Step 3

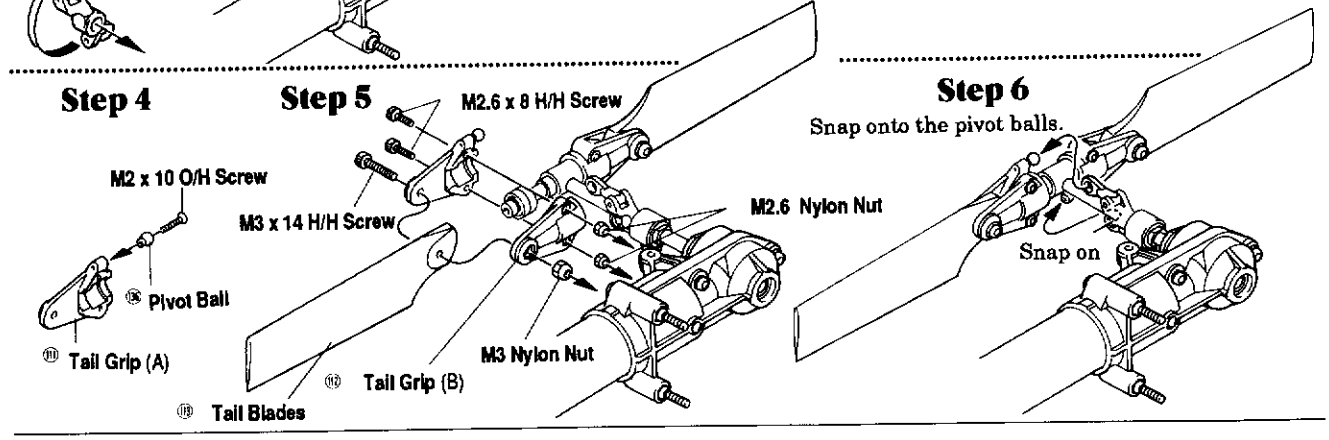
20 TAIL ROTOR ASSEMBLY (PART 1)



21 TAIL ROTOR ASSEMBLY (PART 2)

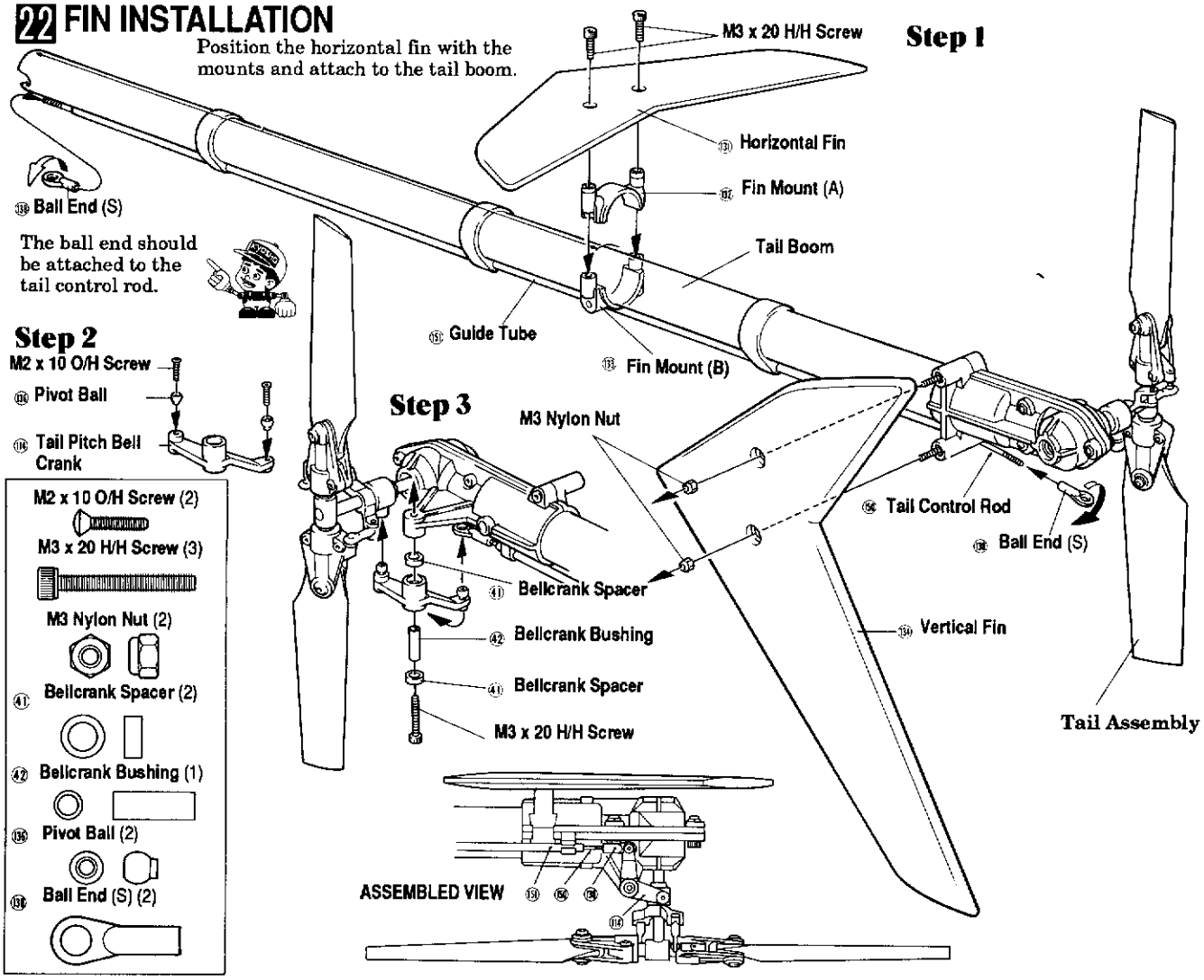




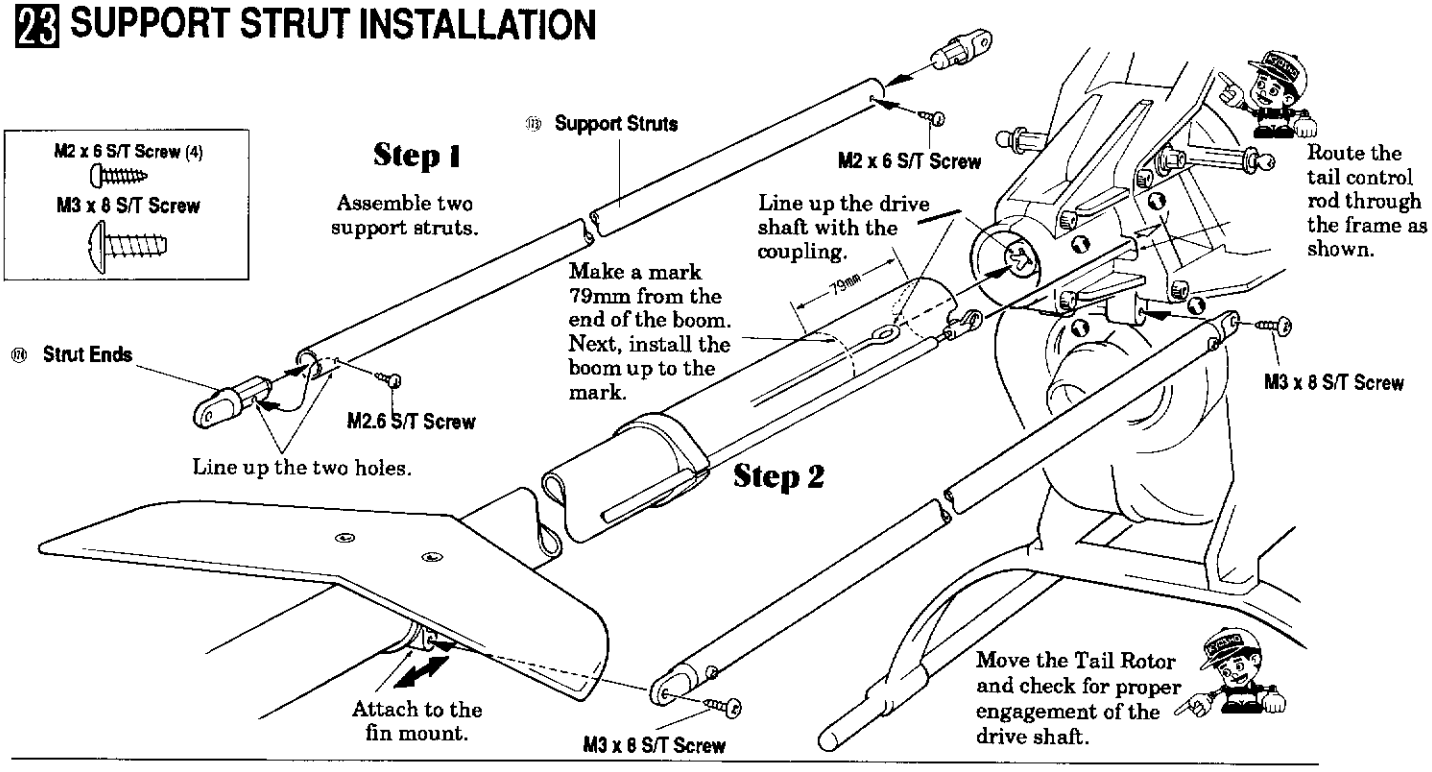


22 FIN INSTALLATION

Position the horizontal fin with the mounts and attach to the tail boom.



23 SUPPORT STRUT INSTALLATION

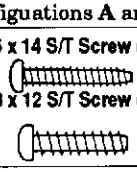


24 SERVO INSTALLATION

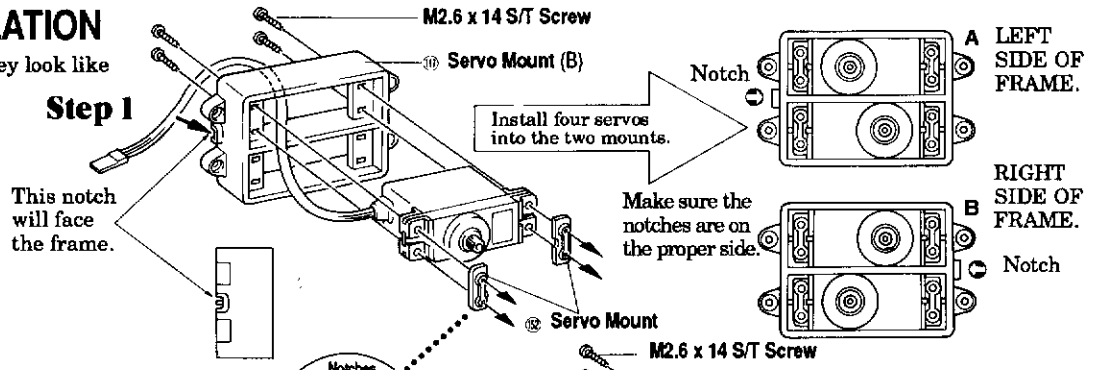
Assemble two servo trays so they look like configuations **A** and **B** at right.

M2.6 x 14 S/T Screw (20)

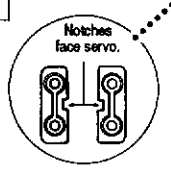
M3 x 12 S/T Screw (8)



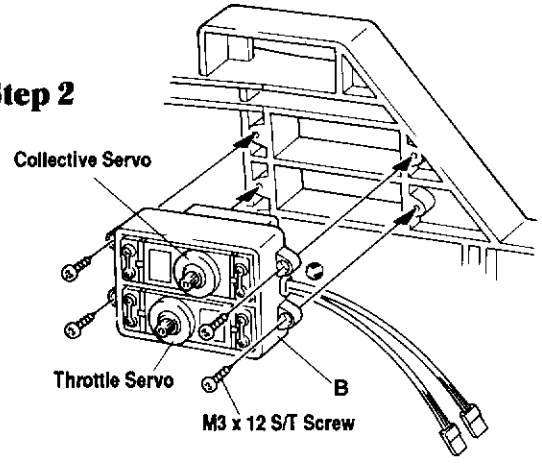
Step 1



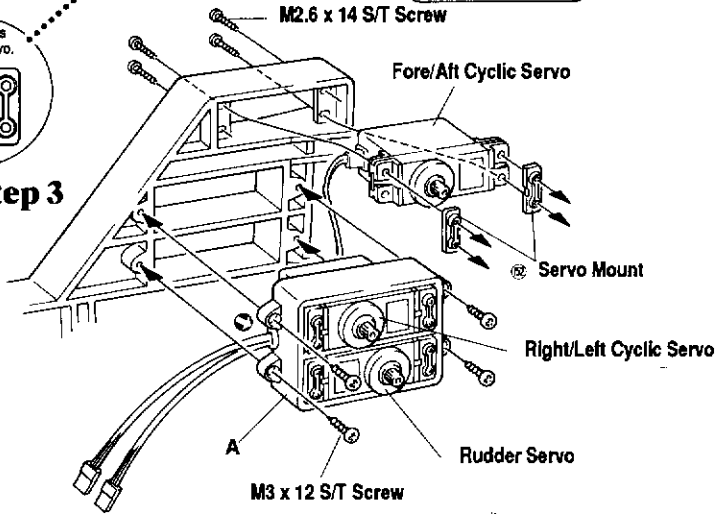
Install grommets onto the servos.



Step 2



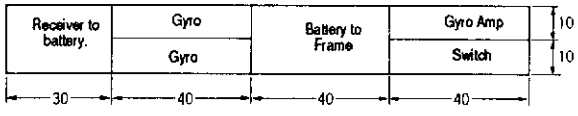
Step 3



25 INSTALLATION OF THE ELECTRONICS

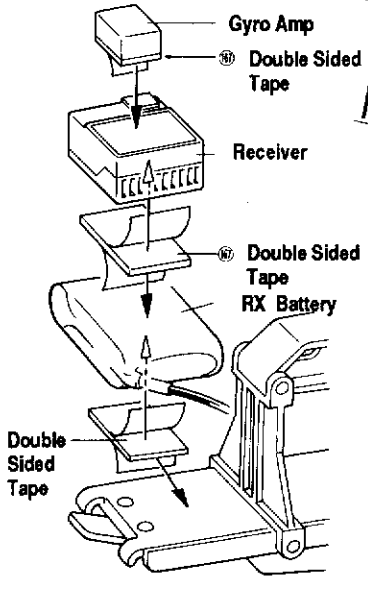
Step 1

Cut the double sided tape to the dimensions shown.

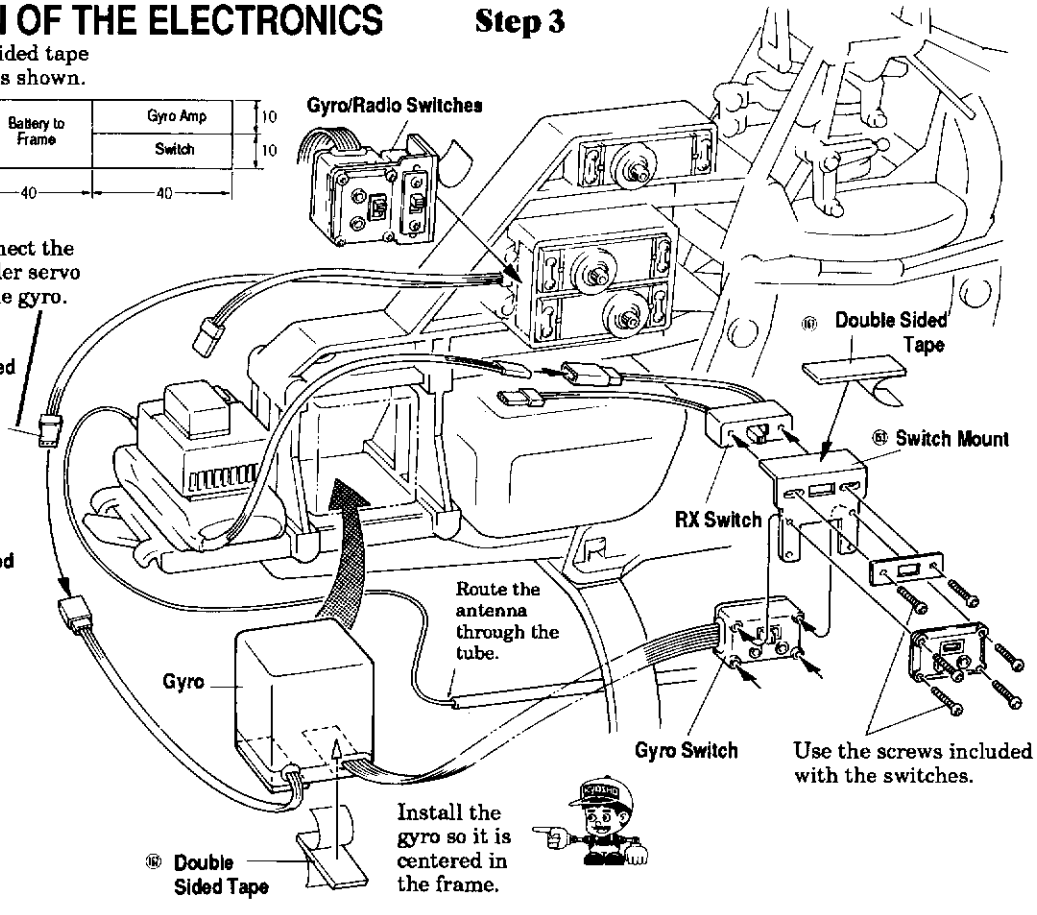


Step 2

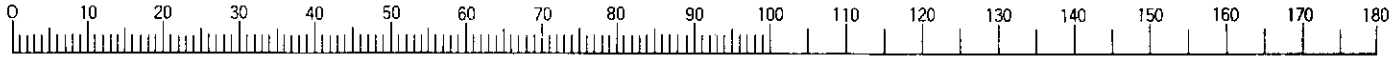
Connect the rudder servo to the gyro.



Step 3



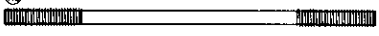
Metric Ruler



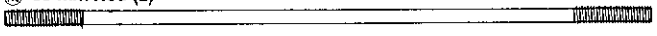
26 CONTROL ROD INSTALLATION Step 1

Assemble the six rods with ball ends.

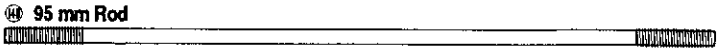
⑮ 50 mm Rod

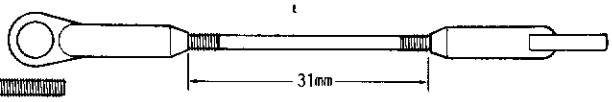


⑯ 85 mm Rod (2)

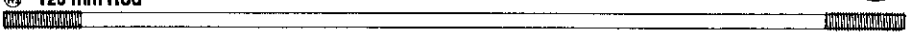


⑱ 95 mm Rod

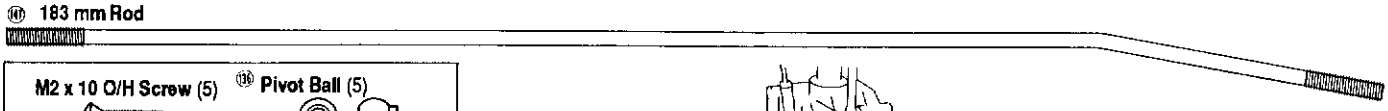




⑰ 120 mm Rod



⑭ 183 mm Rod

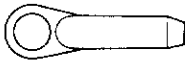


M2 x 10 O/H Screw (5)

⑯ Pivot Ball (5)

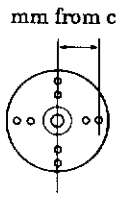
M2 Nut (5)

⑲ Ball End (L) (12)

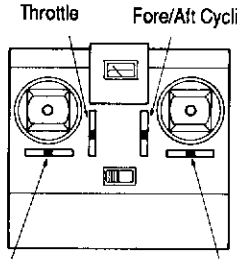


Install pivot balls on five servo wheels.

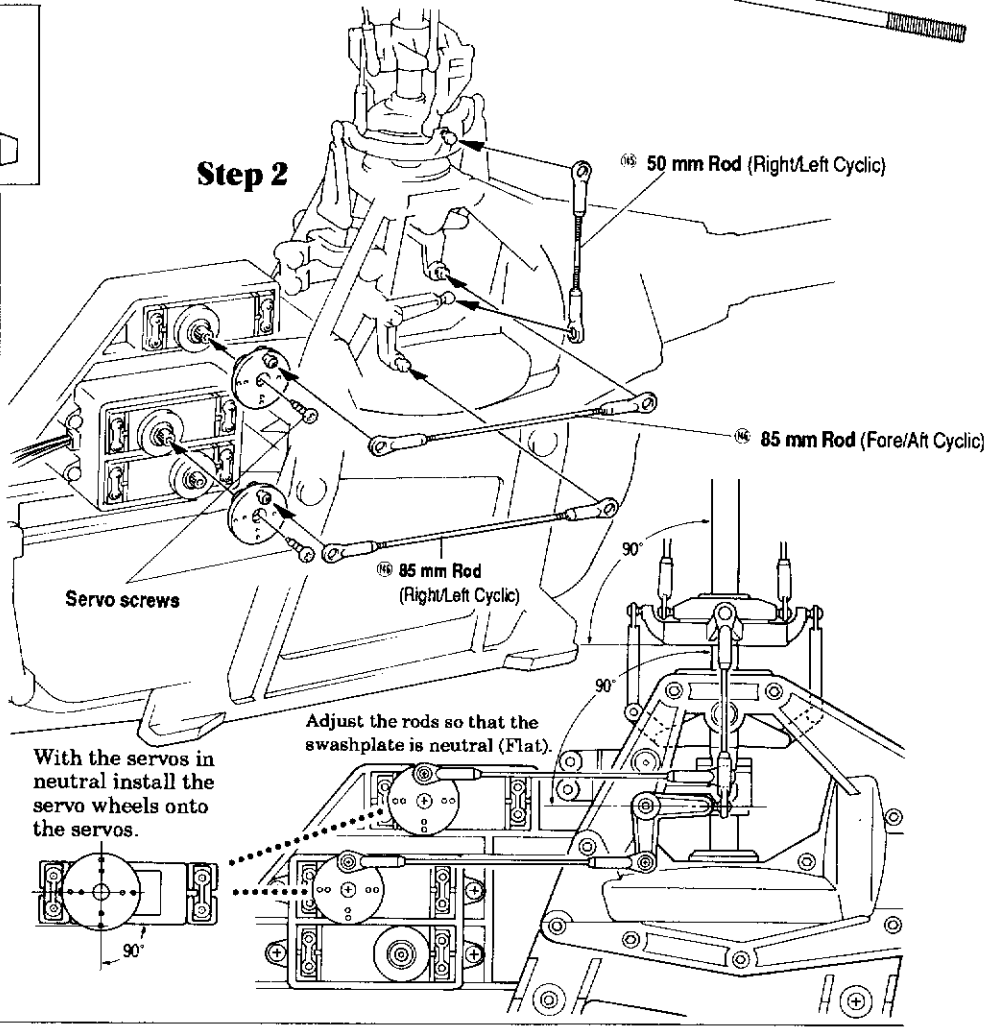
Use a hole 10-13 mm from center.



Turn on the radio system and center all the trims ***before*** installing the servo wheels.

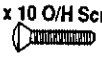


Step 2



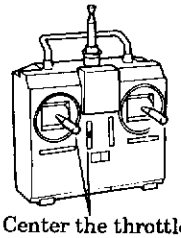
27 THROTTLE CONTROL ROD INSTALLATION

M2 x 10 O/H Screw (1)

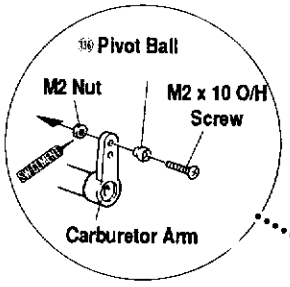


M2 Nut (1)

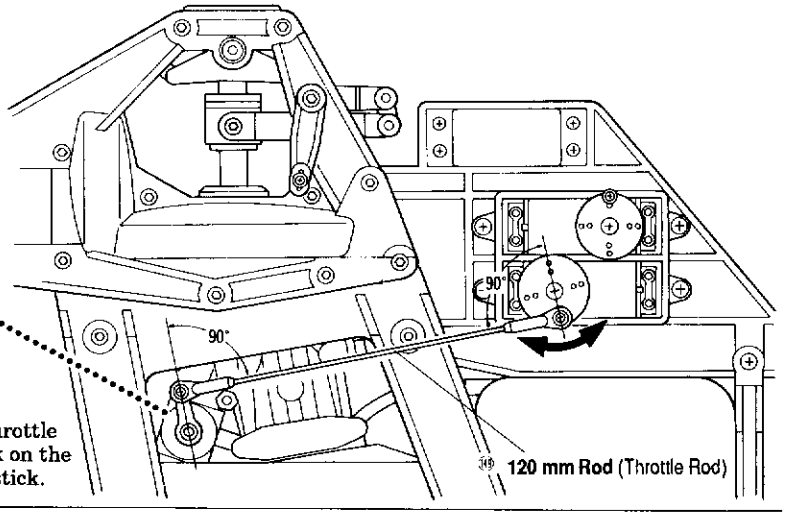
⑯ Pivot Ball (1)



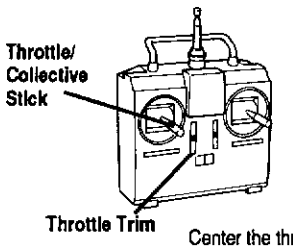
Center the throttle stick and trim.



Adjust the rod so the carburetor is at half throttle when the throttle stick on the transmitter is at half stick.

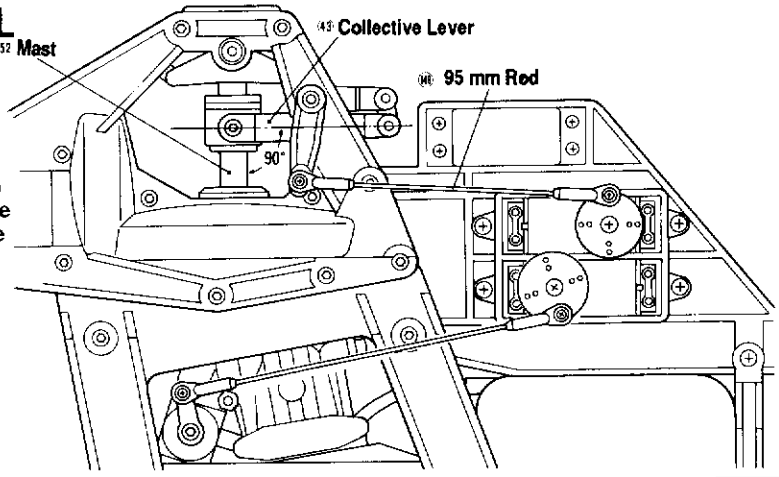


28 COLLECTIVE PITCH CONTROL ROD INSTALLATION



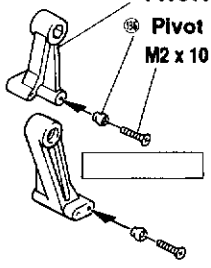
Center the throttle/Collective stick and the trim.

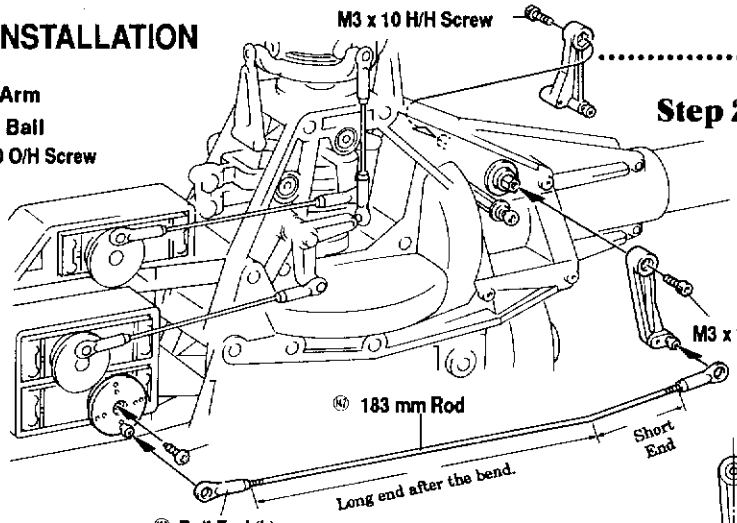
Adjust the rod so that the collective lever is 90° to the mast.



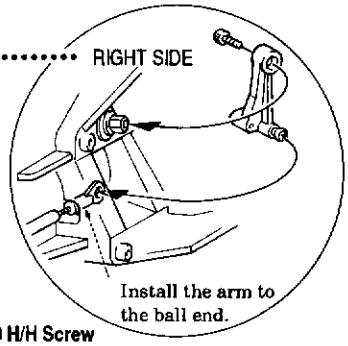
29 PUSHROD INSTALLATION

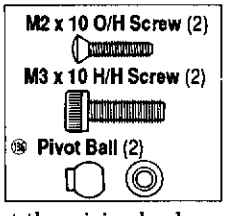
Step 1



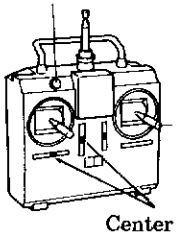


Step 2

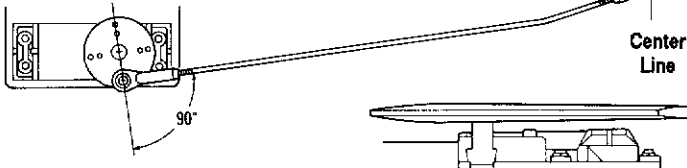


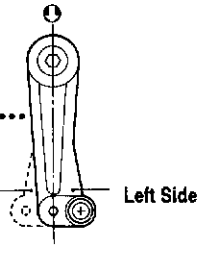


Adjust the mixing knob as needed, following the manufactures instructions.

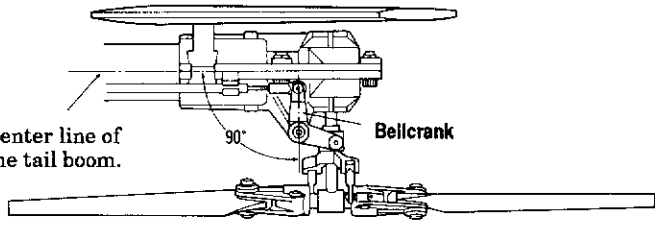


Center the trims



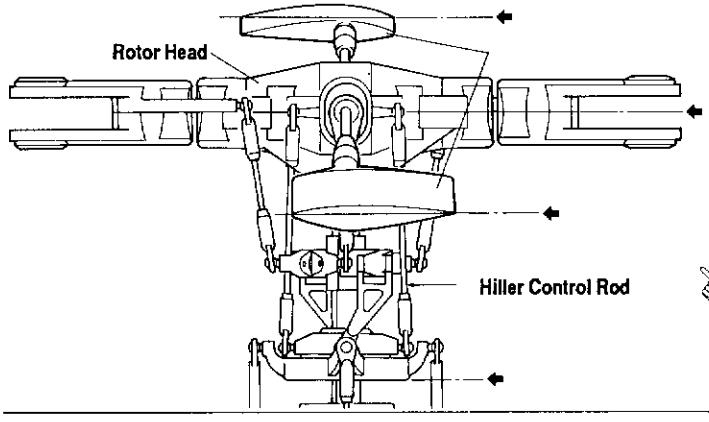


Center Line

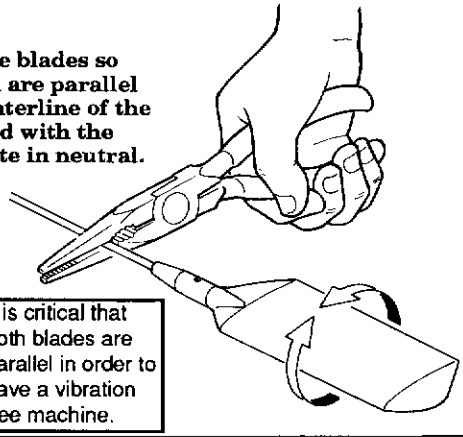


Center line of the tail boom.

30 STABILIZER PADDLE ADJUSTMENT



Adjust the blades so they both are parallel to the centerline of the rotor head with the swashplate in neutral.

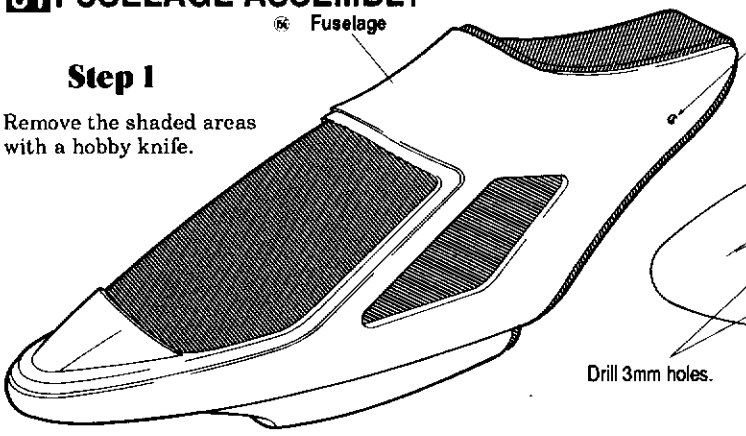


It is critical that both blades are parallel in order to have a vibration free machine.

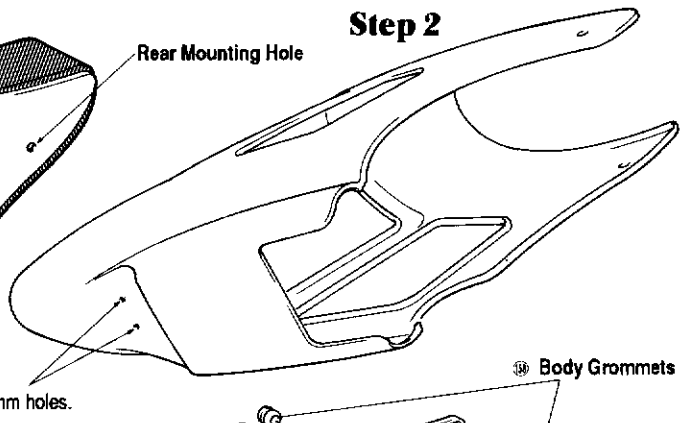
31 FUSELAGE ASSEMBLY

Step 1

Remove the shaded areas with a hobby knife.



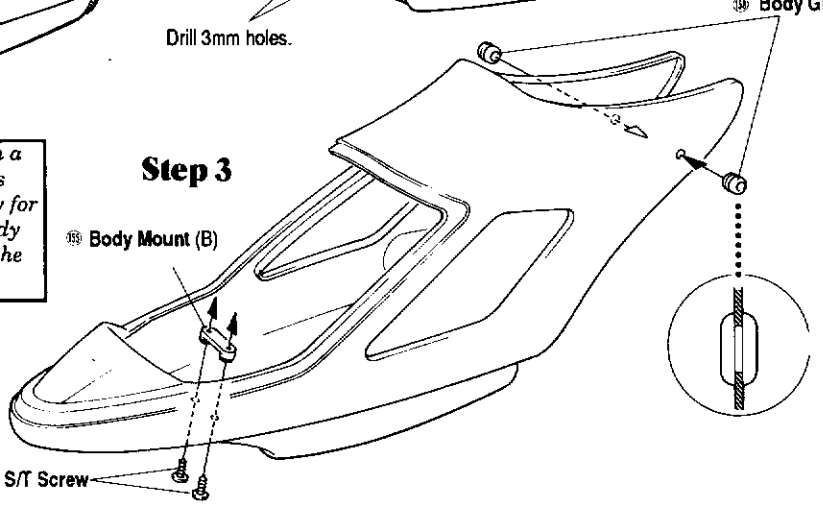
Step 2



A moto tool with a sanding drum is extremely handy for finishing the body after removing the shaded areas.

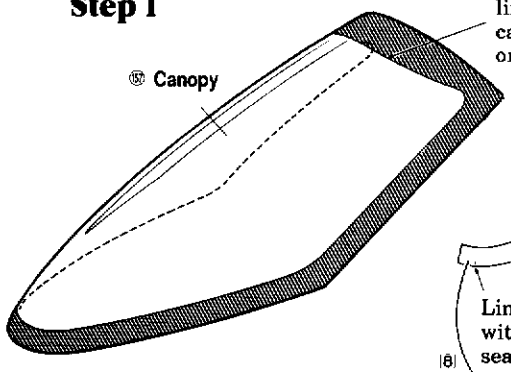
M3 x 8 S/T Screw (2)

Step 3



32 CANOPY INSTALLATION

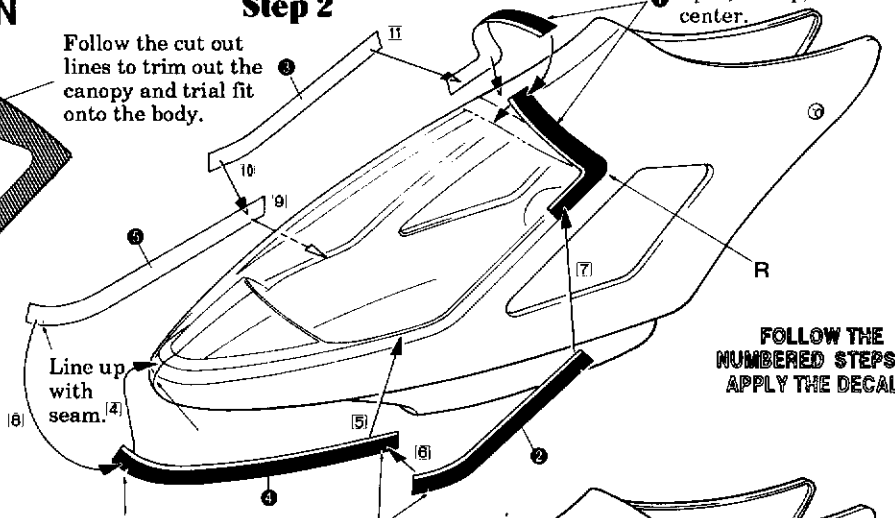
Step 1



Step 2

Follow the cut out lines to trim out the canopy and trial fit onto the body.

❶ Split, line up, and overlap at center.

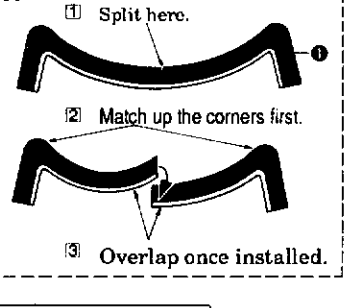


FOLLOW THE NUMBERED STEPS TO APPLY THE DECALS.

Line up the mark with the seam.

Line up the marks.

Split decal #1 into two pieces for easier application.

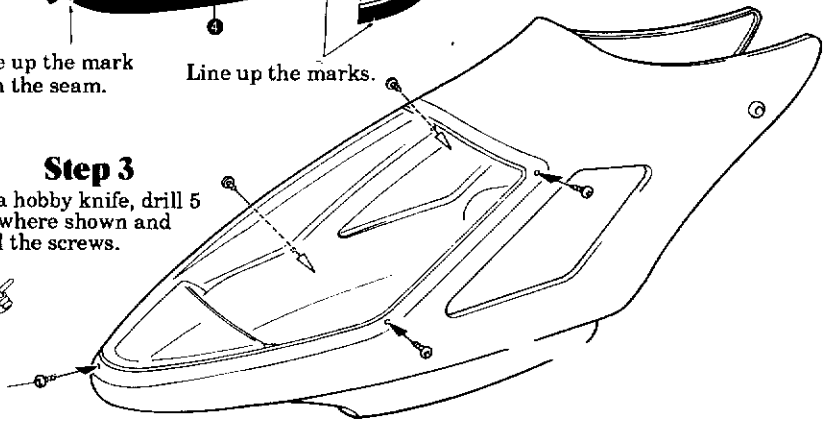


Step 3

With a hobby knife, drill 5 holes where shown and install the screws.

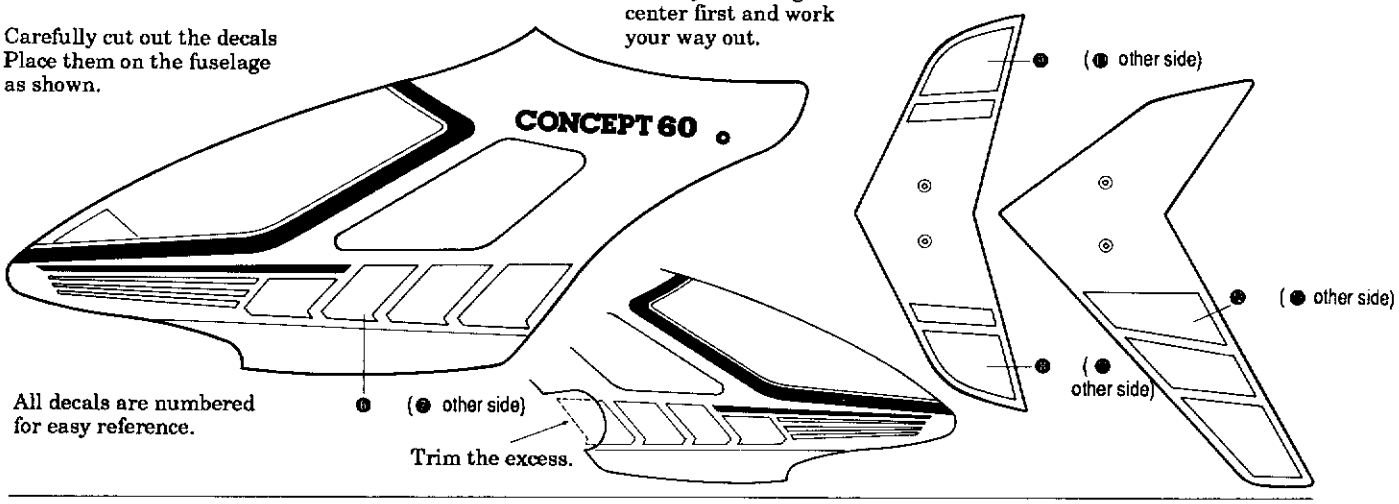
M2 x 6 S/T Screw (5)

M2 x 6 S/T Screw



33 APPLYING THE DECALS

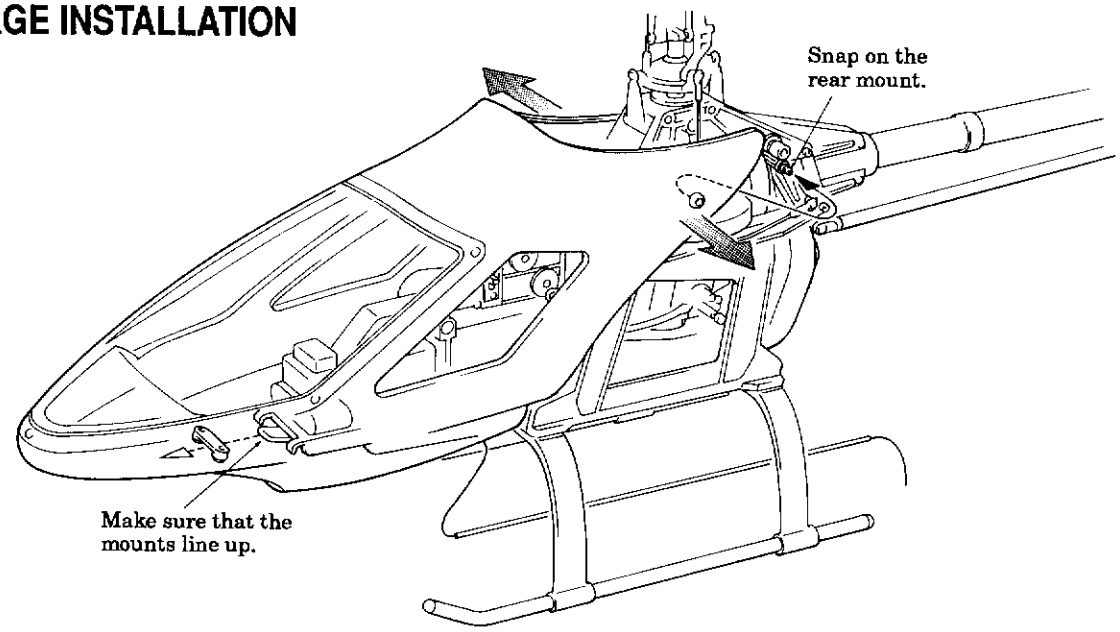
- Carefully cut out the decals
- Place them on the fuselage as shown.
- To avoid air bubbles, start by attaching the center first and work your way out.



- All decals are numbered for easy reference.

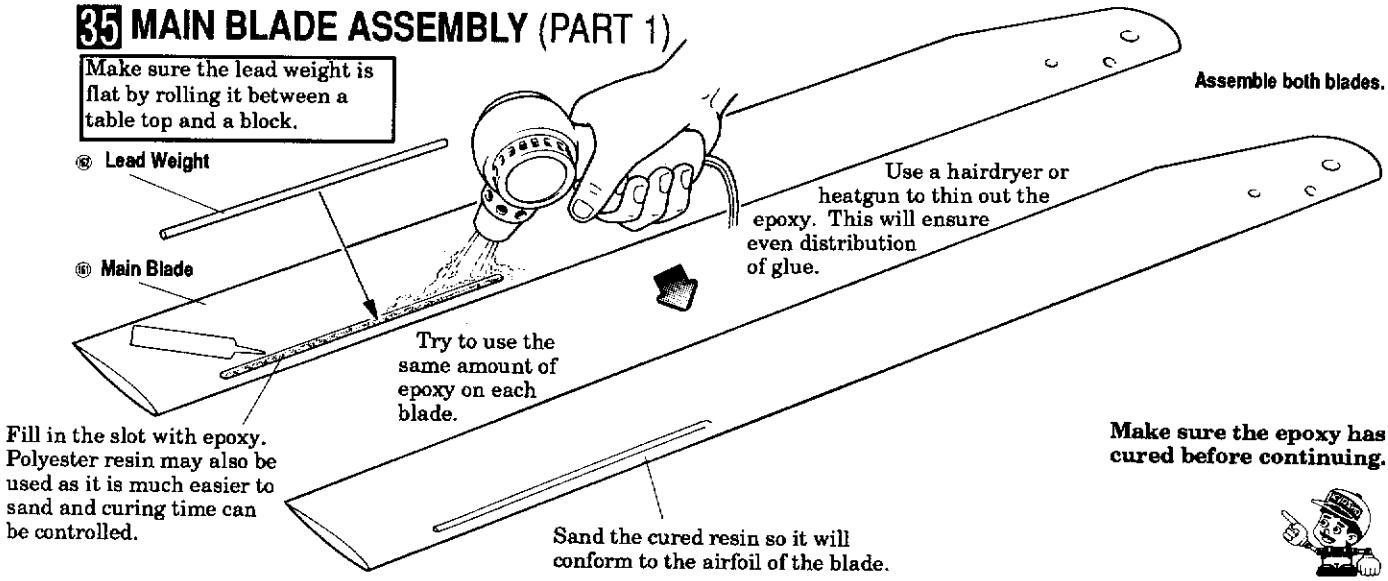
Trim the excess.

34 FUSELAGE INSTALLATION



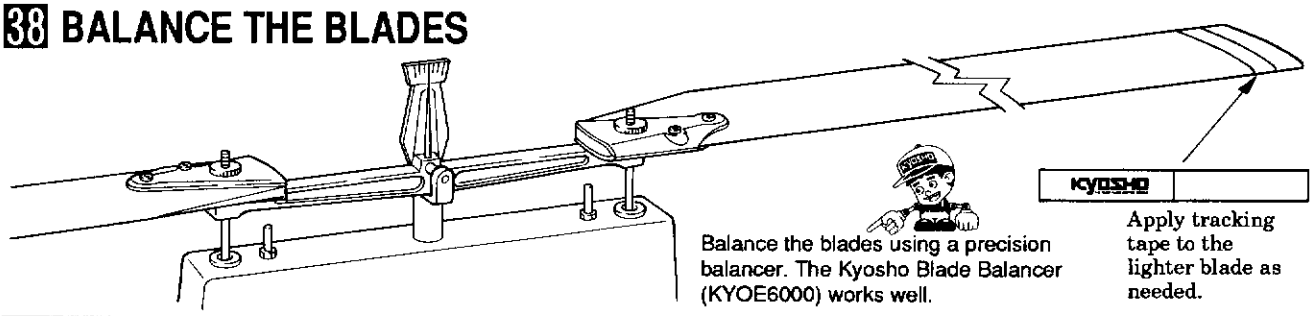
35 MAIN BLADE ASSEMBLY (PART 1)

Make sure the lead weight is flat by rolling it between a table top and a block.



Make sure the epoxy has cured before continuing.

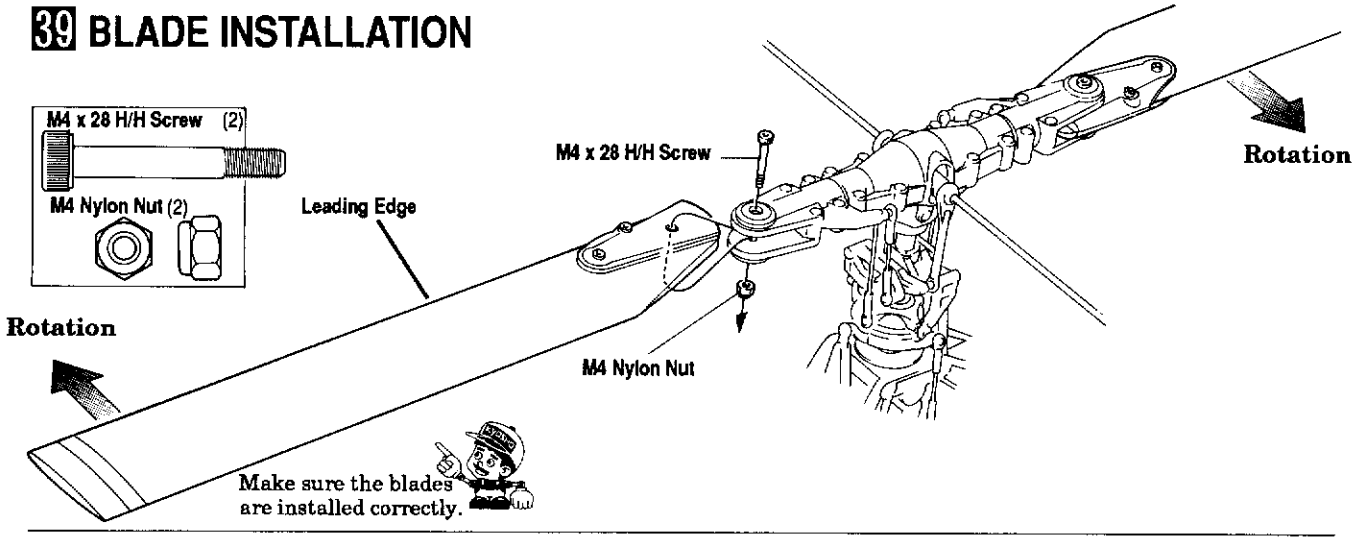
38 BALANCE THE BLADES



Balance the blades using a precision balancer. The Kyosho Blade Balancer (KYOE6000) works well.

Apply tracking tape to the lighter blade as needed.

39 BLADE INSTALLATION

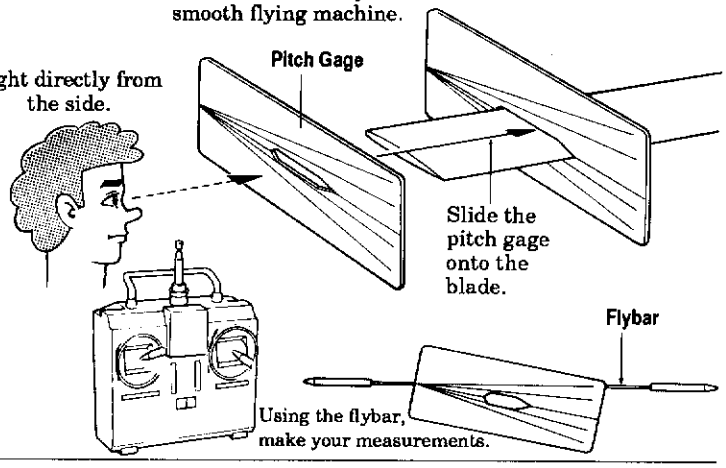


40 SETTING UP THE COLLECTIVE PITCH

For a starting point, we recommend the below settings for different flight conditions.

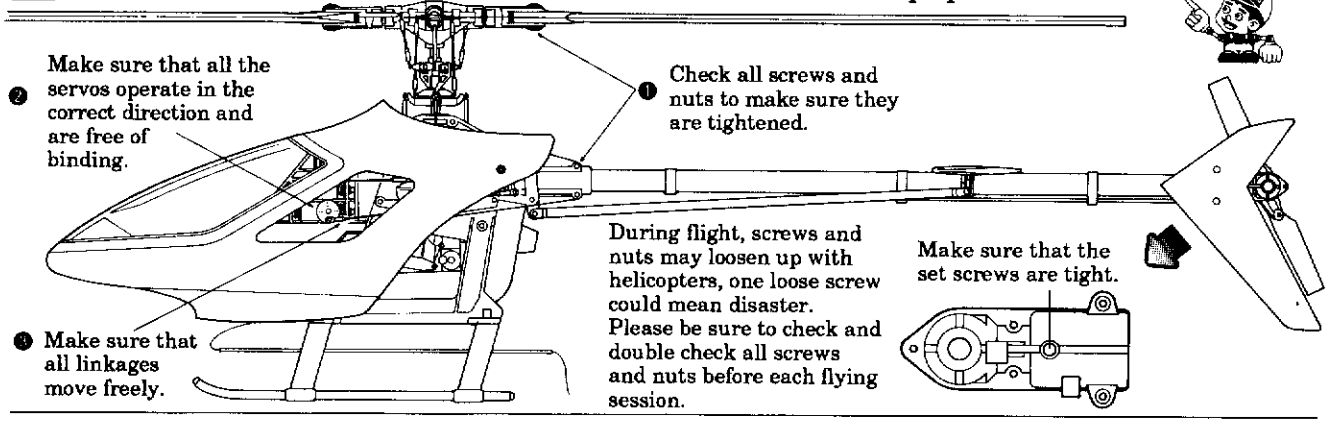
	Low Throttle Pitch	Mid Range	High End
Normal Flight	−2	5.5	10
Auto Rotations	−5	5.5	12
Idle Up 1	−3	4	9
Idle Up 2	−5	2	9
Inverted Flight	−8	0	9

Check both blades. They both must match exactly for a smooth flying machine.



41 FINAL ASSEMBLY INSPECTION

You may notice that the gears seam slightly noisy, but this is normal and proper for this machine.



❷ Make sure that all the servos operate in the correct direction and are free of binding.

❶ Check all screws and nuts to make sure they are tightened.

❸ Make sure that all linkages move freely.

During flight, screws and nuts may loosen up with helicopters, one loose screw could mean disaster. Please be sure to check and double check all screws and nuts before each flying session.

Make sure that the set screws are tight.