# RADIO CONTROLLED ENGINE POWERED HELICOPTER

# CONCEPT 30®

# SR

- ***FLAPPING ROTOR HEAD FOR OUTSTANDING STABILITY AND MANEUVERABILITY.***
- ***MOST DURABLE, 30 SIZE HELICOPTER.***
- ***COMPLETE STEP-BY-STEP INSTRUCTION MANUAL.***
- ***EASY ACCESS CONE START SYSTEM.***
- ***ATTRACTIVE AND AERODYNAMIC BODY DESIGNED FOR OUTSTANDING FLIGHT.***
- ***METAL PIVOT POINTS FOR PRECISION AND SECURITY.***

**REQUIRES:** 5-Channel Helicopter Radio, Gyro, and 30 Class Helicopter Engine


**WARNING**

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.

KYOSHO®

**NO. 3565H**



V1.0

## BEFORE BEGINNING TO BUILD

BEFORE BEGINNING TO BUILD THE CONCEPT 30 SR MAKE SURE IT'S THE RIGHT MODEL FOR YOU!

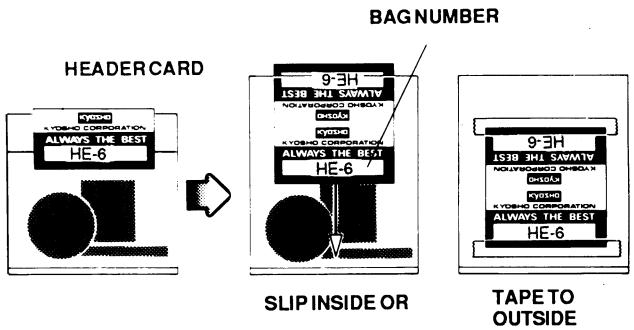
We want your experience at building this model to be a success. So before you remove any parts from their packages and begin assembly:

- Read through the entire manual carefully to make sure that you are thoroughly acquainted with the model and know what you are undertaking.
- If for any reason you think this model may not be for you, **Please Note:** Your hobby dealer cannot accept a model kit for return after assembly has begun. Return it immediately if you have doubts or concerns.

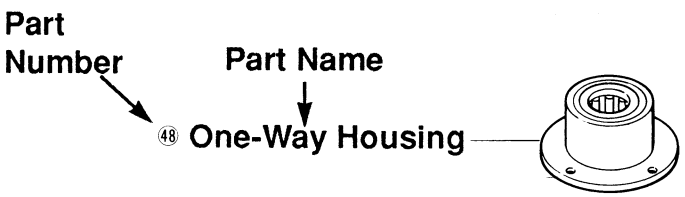
The Kyosho Concept 30 SR is a sophisticated, high-performance gas powered helicopter with many moving parts. Unlike radio-control airplanes, this style kit requires more general maintenance and patience to operate successfully. But if you're ready for exciting flying you're ready for the Concept 30 SR. If you are a beginner, we strongly urge you to install the DX version Heavy Aluminum Stabilizer Blades No. KYOE1140. This will make the Concept 30 SR much more stable and predictable.

## DON'T LOSE YOUR PARTS

This Kyosho instruction manual uses a 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 are listed on pages 4 and 5 and will prove invaluable when locating parts.




In each step of assembly each part will be labeled with 1) The part number, and 2) Part name. To easily locate the part, check the Bagged Parts List on pages 4 and 5.




## PURCHASING PARTS FOR YOUR KIT

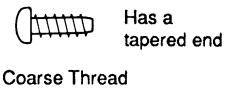
On Page 29-33 you will find a complete list of replacement parts. If by chance you need to replace a part, consult this guide for manufacturer stock numbers and contents.

## FINDING THE CORRECT SCREWS AND WASHERS IN THIS KIT

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 3mm in diameter and 15mm long. Some round partsmay be labeled as a "M4 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 the page. For your reference, 1 millimeter equals approximately .039 inches.

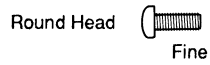

A few different types of screws are used in the construction of your model. Here are some examples and how they will be indicated in the instructions for example, Self Tapping will simply be S/T screw.

**Self Tapping (S/T)**



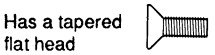

A self tapping screw has a coarse thread and is used to screw into plastic. Be careful not to tighten the screw too much. This may strip the plastic.

**Screw**




Screws have a fine thread and are used with nuts most of the time. They are for high stress joints where strength is required.

**Flat Head Screw (F/H)**




Flat head screws have a fine thread and a tapered head. This allows the head of the screw to be flush with the part it is holding so that the screw does not catch on anything.

**Hex Head Screw (H/H)**


Hex Head Screws have a socket head that takes a hex wrench in order to turn. These are for areas that require tight joints where normal screws may strip out.

**Set Screw**

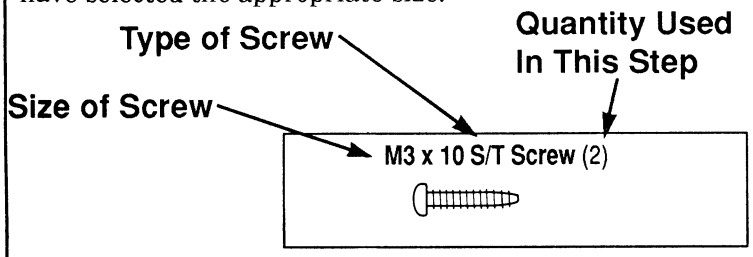
Set Screws have a socket head that takes a hex wrench in order to turn. These are for areas that require flush joints and where the fastener is tightened against a curved surface.

**Oval Head Screw (O/H)**

Oval Head Screws are used on pivot balls to secure the ball but let the ball end pivot.

## FINDING THE SMALL PARTS

The box in the left margin of each page shows the 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.




## HELPFUL HINTS

Some precautions need to be observed when building your Kyosho kit to avoid problems:

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

2.) 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.

3.) 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.

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

5.) Avoid getting products like screw cement on the plastic parts. They can melt the plastic which will damage the model.

6.) Avoid flying the model in very cold temperatures. Both plastic and metal parts become brittle at low temperatures. In addition, grease, oil and fuel become thick causing premature wear and deficient performance

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.) **IMPORTANT!** Note the Grease and Screw cement symbol throughout the manual and apply where shown.

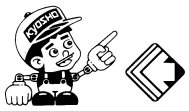
Avoid using power screwdrivers when assembling your kit. They tend to overtighten screws.

## SPECIAL SYMBOLS YOU WILL SEE

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


Points where Grease should be applied. This will reduce wear and friction and provide a smoother operating joint.


Points where Screw Cement must be used. This will prevent the the screws from coming loose from vibration.



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

This symbol is used for trimming decals with a scissors.

This symbol is used when plastic or precise trimming is required with a hobby knife.

This symbol is for a small hole made with an awl or the point of a hobby knife.


This is the symbol for a Hex Wrench that is required to tighten the screw. The wrench has the size required shown.

This symbol is used to show where a pliers is required to hold a part. It is best to wrap a rag around the part so the pliers do not scratch it.


This symbol is used to show where epoxy is required. A 30 minute epoxy is suggested to allow more time to align the parts.

# BAGGED PARTS LIST (1)

Check to see if all the parts are correctly bagged as they are listed in the " List of Bagged Parts." Your thorough understanding of the assembly will enable you to build the kit without any difficulty. Check the components in the kit prior to assembly.

| BAG # | KEY NO. | DESCRIPTION | Qty. | STEP USED |
|---|---|---|---|---|
| | 192 | Rotor Head (A) | 1 | **(4)** |
| | 191 | Rotor Head (B) | 1 | **(5)** |
| | 161 | Stabilizer See-saw | 1 | **(1)** |
| | 7 | Hiller Control Lever | 1 | **(1)** |
| | 6 | Control Lever Bushing | 1 | **(1)** |
| | 12 | Feathering Shaft | 2 | **(3)** |
| | 13 | Flapping Hinge Bushing | 4 | **(3)** |
| | 14 | Flapping Pin (3x18mm) | 2 | **(3)** |
| HE-1 | 202 | Flapper Damper | 2 | **(3)** |
| | 56 | 5mmx13mm Bushing | 4 | **(3)** |
| | 204 | Thrust Bearing | 2 | **(3)** |
| | 203 | Metal Spacer | 2 | **(3)** |
| | 165 | Main Rotor Grip | 2 | **(3)** |
| | 16 | Bearing Spacer | 2 | **(3)** |
| | 128 | 6mmx12mm Bearing | 2 | **(2)** |
| | 212 | Pivot Ball | 2 | **(3)** |
| | 30 | Aileron Link Rod | 1 | **(12)** |
| | 162 | Ball End (Large) | 2 | **(1)** |
| HE-2 | 163 | Stabilizer Control Rod | 2 | **(1)** |
| | 184 | Pitch Control Rod | 2 | **(5)** |
| | 164 | Flybar Control Rod | 2 | **(5)** |
| | 148 | Stabilizer Paddle | 2 | **(2)** |
| | 46 | One-Way Shaft | 1 | Assembled |
| | 150 | Mast Stopper Ring | 1 | **(7)** |
| | 47 | Main Gear | 1 | Assembled |
| | 48 | One-Way Housing | 1 | **(7)** |
| | 49 | 8mmx16mm Bearing | 1 | Assembled |
| | 50 | Engine Mount | 1 | **(10)** |
| | 18 | 5mmx16mm Bearing | 1 | |
| HE-3 | 54 | Counter Gear | 1 | |
| | 55 | Secondary Shaft | 1 | Assembled |
| | 56 | 5mmx13mm Bearing | 1 | **(12)** |
| | 57 | Tail Drive Coupling | 1 | |
| | 58 | 2x10mm Drive Pin | 1 | |
| | 175 | Bevel Pinion | 1 | |
| HE-4 | 62 | Starter Cone | 1 | Assembled |
| | 63 | Cooling Fan | 1 | **(10)** |

| BAG # | KEY NO. | DESCRIPTION | Qty. | STEP USED |
|---|---|---|---|---|
| | 227 | Clutch | 1 | **(10)** |
| | 208 | Clutch Bell | 1 | **(10)** |
| | 209 | Clutch Lining | 1 | **(10)** |
| HE-4 | 151 | Clutch Adapter (ENYA) | 1 | **(10)** |
| | 154 | Washer (ENYA) | 1 | **(10)** |
| | 226 | 12mmx18mm Bearing | 2 | **(10)** |
| | 32 | Elevator Lever | 1 | **(8)** |
| | 31 | Elevator Link Rod | 2 | **(8)** |
| | 120 | Tail Control Link | 1 | **(24)** |
| | 119 | Ball Link | 1 | **(24)** |
| | 33 | Lever Pin | 2 | **(8)** |
| HE-5 | 59 | 2x14mm Link Pin | 2 | **(8)** |
| | | E-Ring (E-2.5) | 4 | **(8)** |
| | 188 | Pitch Lever | 1 | **(8)** |
| | 37 | Lever Bushing (B) | 1 | **(8)** |
| | 170 | Aileron Lever | 1 | **(8)** |
| | 212 | Pivot Ball | 5 | **(8)** |
| | 60 | Threaded Insert (S) | 3 | **(8)** |
| | 61 | Threaded Insert (L) | 1 | **(8)** |
| | 51 | Main Frame (L) | 1 | **(8)** |
| HE-6 | 52 | Main Frame (R) | 1 | **(8)** |
| | 68 | Fan Shroud (L) | 1 | **(10)** |
| | 67 | Fan Shroud (R) | 1 | **(10)** |
| | 171 | Mast | 1 | |
| | 39 | Pitch Rod Guide | 1 | |
| | 40 | 12mmx21mm Bearing | 1 | |
| | 41 | Mast Stopper | 1 | |
| | 216 | Swash Plate Assembly | 1 | |
| | 169 | Pitch Rod | 2 | |
| HE-7 | 166 | Mixing Base | 1 | Assembled |
| | 167 | Mixing Lever | 2 | **(6)** |
| | 168 | Cyclic Lever | 2 | |
| | 24 | Cyclic Lever Link | 2 | |
| | 132 | Bearing Collar | 4 | |
| | 133 | Bearing Washer | 8 | |
| | 28 | Cyclic Pin (2x10mm) | 2 | |

# BAGGED PARTS LIST (2)

| BAG # | KEY NO. | DESCRIPTION | Qty. | STEP USED |
|---|---|---|---|---|
| HE-7 | 129 | 3mmx16mm Bearing | 8 | Assembled (6) |
| | 172 | Pitch Slider | 1 | |
| | 173 | Pitch Slider Link | 1 | |
| | 174 | Stopper Ring | 1 | |
| | 137 | 10mmx15mm Bearing | 2 | |
| HE-8 | 34 | Fore / Aft Cyclic Rod | 2 | (21) |
| | 35 | Left / Right Cyclic Rod | 1 | (21) |
| | 122 | Control Rod (Throttle) | 1 | (22) |
| | 10 | Ball End (Medium) | 13 | (21) |
| | 126 | Clevis | 1 | (22) |
| HE-9 | 72 | Stabilizer Fin | 1 | (17) |
| | 74 | Vertical Fin | 1 | (17) |
| | 73 | Bracket | 1 | (15) |
| | 81 | Tail Gearbox (L) | 1 | (16) |
| | 80 | Tail Gearbox (R) | 1 | (16) |
| | 144 | Tail Grip (A) | 2 | (14) |
| | 143 | Tail Grip (B) | 2 | (14) |
| | 210 | Tail Blade | 2 | (14) |
| | 225 | Guide Bracket | 2 | (15) |
| HE-10 | 142 | Thrust Bearing | 2 | (14) |
| | 88 | 6mmx10mm Bearing | 2 | (14) |
| | 83 | 5mmx10mm Bearing | 2 | (16) |
| | 79 | 2x12mm Gear Pin | 1 | (16) |
| | 75 | Tail Drive Joint | 1 | (16) |
| | 82 | Tail Output Shaft | 1 | (14) |
| | 78 | Tail Output Gear | 1 | (16) |
| | 76 | 8mmx14mm Bearing | 2 | Assembled |
| | 77 | Tail Input Gear | 1 | (16) |
| | 140 | Tail Center Hub | 1 | (14) |
| | 141 | M3x14 Threaded Rod | 2 | (14) |
| HE-11 | 27 | Lever Bushing (A) | 1 | (17) |
| | 84 | Tail Shaft Thrust Collar | 1 | (16) |
| | 85 | Tail Pitch Lever | 1 | (17) |
| | 178 | Tail Pitch Plate | 1 | (14) |
| | 179 | Tail Pitch Ball End | 2 | (14) |
| | 86 | Tail Pitch Ring | 1 | Assembled |
| | 87 | Tail Pitch Ring Pin | 1 | (14) |

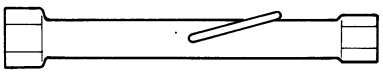
| BAG # | KEY NO. | DESCRIPTION | Qty. | STEP USED |
|---|---|---|---|---|
| HE-11 | 91 | Slide Bushing | 1 | (14) |
| | 180 | 2x8mm Pin | 2 | (14) |
| HE-12 | 107 | Body Mount (A) | 1 | (13) |
| | 108 | Body Mount (B) | 1 | (26) |
| | 106 | Switch Mount | 1 | (20) |
| | 96 | Servo Mounting Plate | 10 | (19) |
| | 94 | Body Mount | 2 | (8) |
| | 146 | Grommet | 2 | (29) |
| | 97 | Wire Holder | 2 | (20) |
| HE-13 | 110 | Tank Weight | 1 | (11) |
| | 111 | Tank Adapter | 1 | (11) |
| | 113 | Seal Washer | 1 | (11) |
| | 112 | Tank Cap | 1 | (11) |
| | 114 | Seal Nut | 1 | (11) |
| | 115 | Silicone Tube | 1 | (11) |
| | 116 | Silicone Tube (L) | 1 | (11) |
| | 109 | Tank | 1 | (11) |
| HE-14 | 99 | Front Frame | 1 | (9) |
| | 95 | Sub Frame | 1 | (9) |
| | 98 | Frame Retainer | 2 | (9) |
| HE-15 | 153 | Double Sided Tape | 1 | (20) |
| | 152 | Rubber Band | 1 | (20) |
| | 102 | Skid Cap | 4 | (13) |
| | 181 | Brace | 2 | (13) |
| | 101 | Skid | 2 | (13) |
| HE-16 | 226 | Shaft Guide | 3 | Assembled |
| | 177 | Tail Boom | 1 | (15) |
| | 182 | Tail Control Guide | 1 | (15) |
| | 183 | Tail Control Rod | 1 | (15) |
| | 121 | Control Rod (Tail) | 1 | (24) |
| | 176 | Tail Drive Shaft | 1 | (16) |
| | 103 | Antenna Tube | 1 | (13) |
| | 4 | Flybar | 1 | (1) |
| HE-17 | 189 | Decal | 1 | (27) (28) |
| | | Pitch Guage | 1 | (33) |

# REQUIRED TOOLS

**THESE ARE INCLUDED IN THE KIT.**

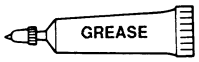
Hex Wrench Set

Plug Wrench



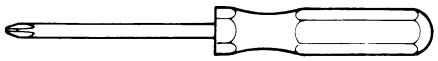
Screw Cement


Grease



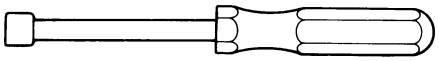

**THESE ARE NOT INCLUDED IN THE KIT.**

Phillips Screwdriver

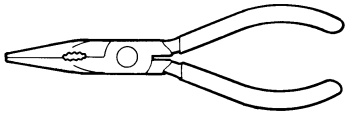


Hobby Knife

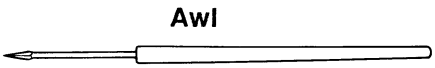
5.5mm Nut Driver



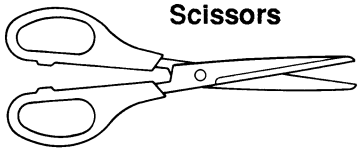
Needle Nose Pliers



Awl

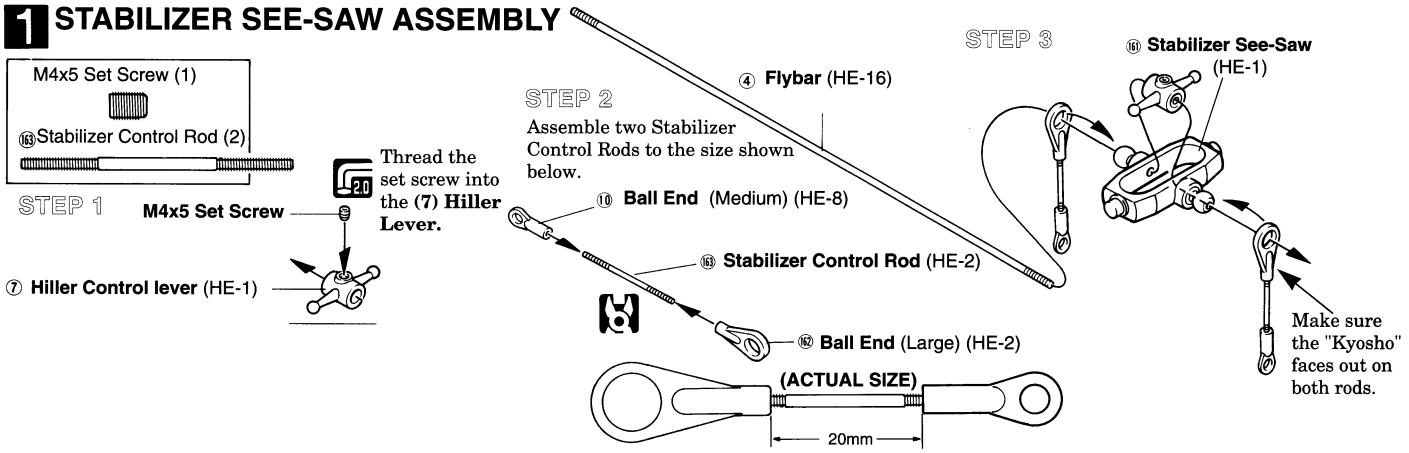


Scissors

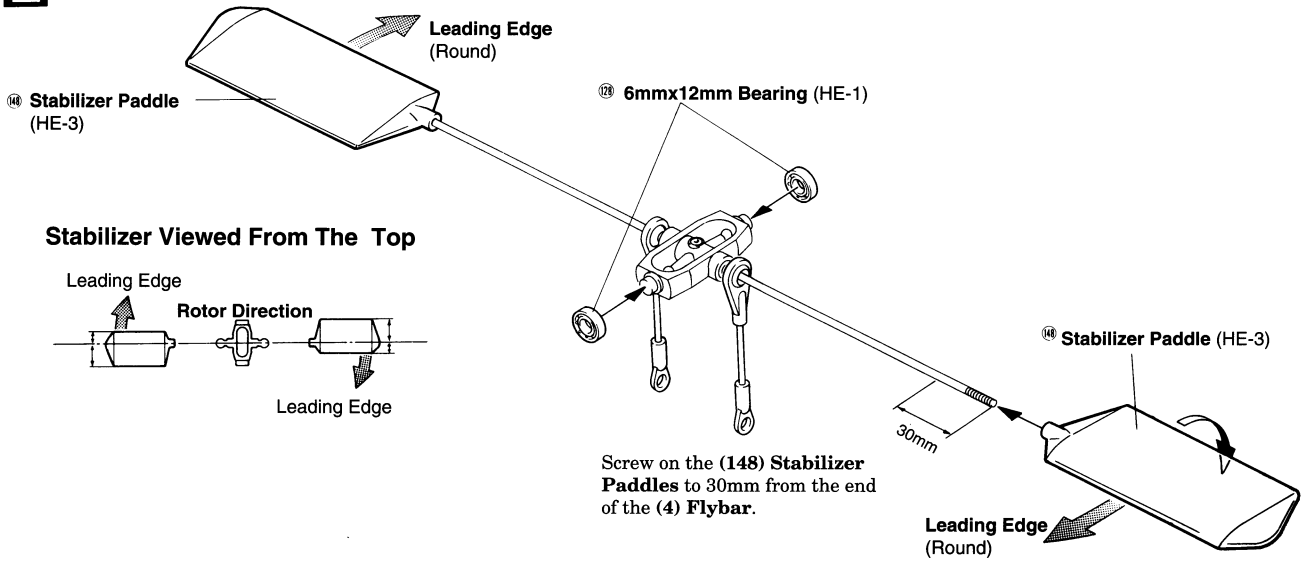


## ASSEMBLY STEPS (ASSEMBLE ALL STEPS IN ORDER AS SHOWN)

### 1 STABILIZER SEE-SAW ASSEMBLY




### 2 INSTALLATION OF STABILIZER PADDLES

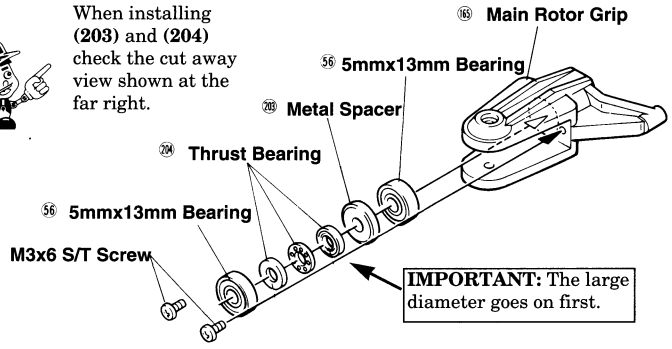


# 3 ASSEMBLY OF MAIN ROTOR GRIPS

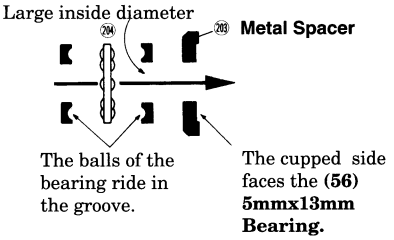
The parts used in this step can be located in bag HE-1.

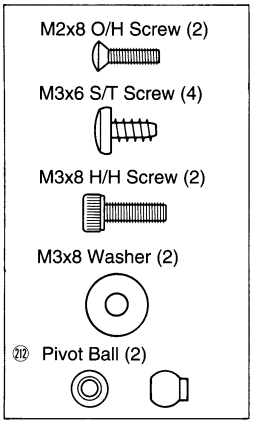
Assemble two of the Main Rotor Grips.

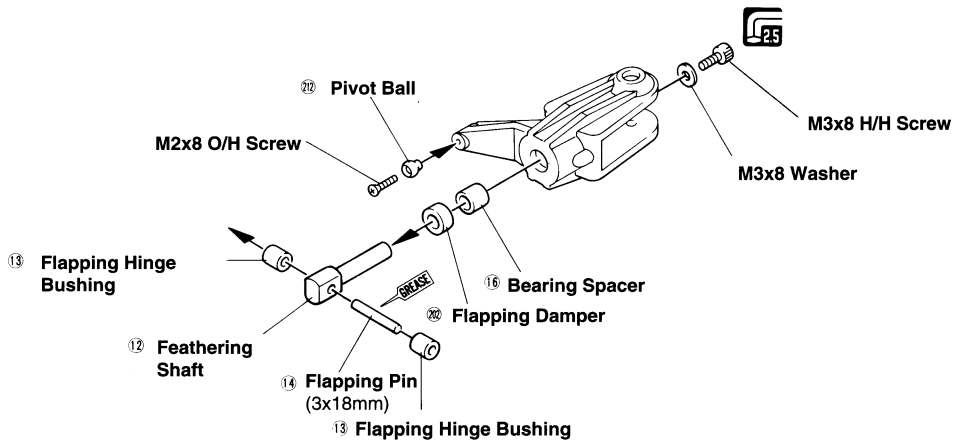
When installing **(203)** and **(204)** check the cut away view shown at the far right.



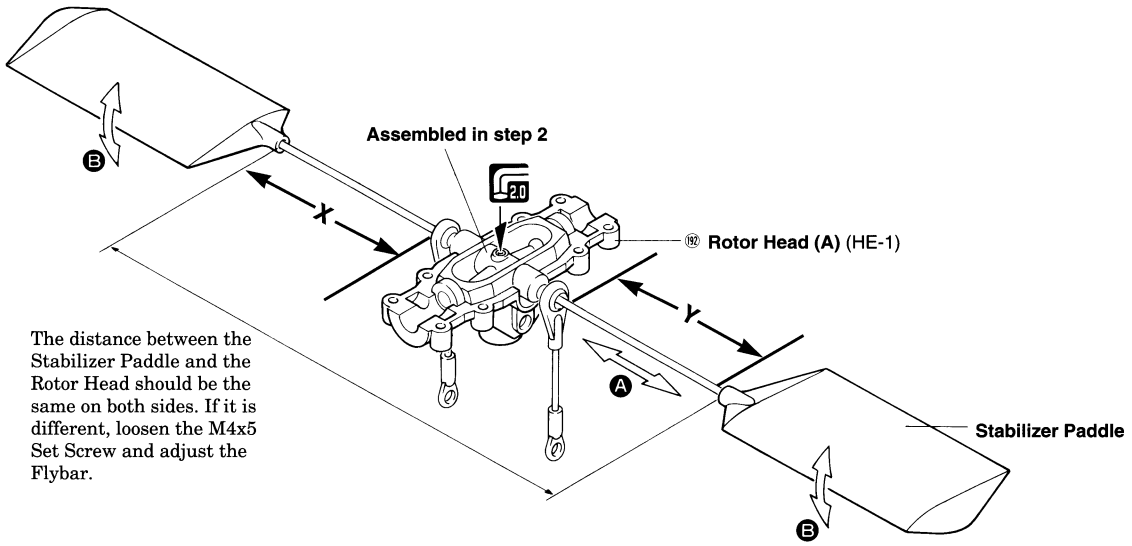

**Cut away View**



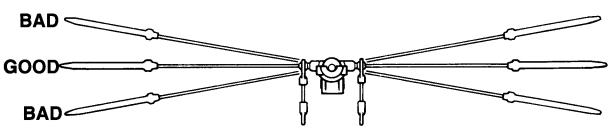

# 4 INSTALLATION OF ROTOR HEAD




The distance between the Stabilizer Paddle and the Rotor Head should be the same on both sides. If it is different, loosen the M4x5 Set Screw and adjust the Flybar.

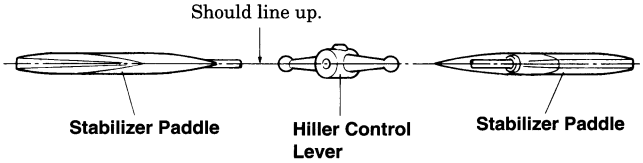
## STEP 1

Move the Flybar so the distances (X) and (Y) (shown above) are equal. Then tighten the center set screw. Hold onto the Rotor Head (A) and balance the Flybar by applying decals or tape on the high paddle until the paddles balance as shown.



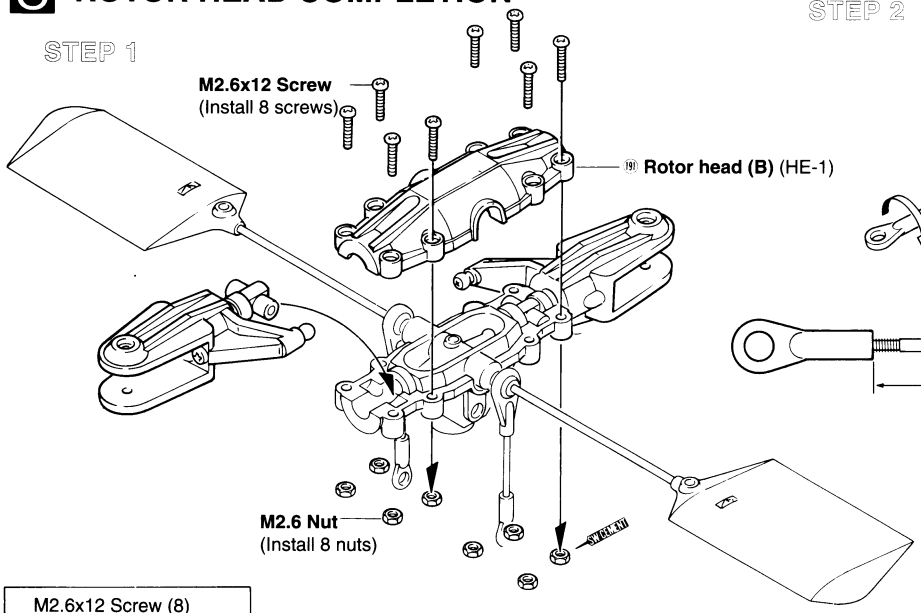

## STEP 2

Make sure that both Stabilizer Paddles and the Hiller Control Lever are lined up in the same plane as shown.

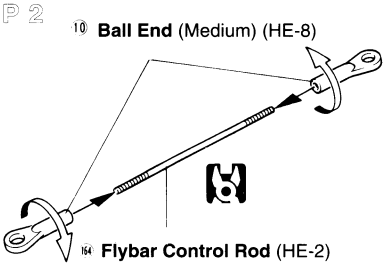


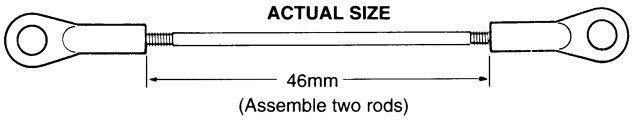
# 5 ROTOR HEAD COMPLETION

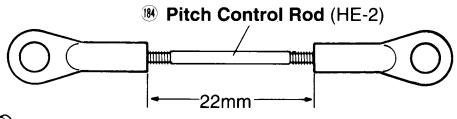
STEP 1

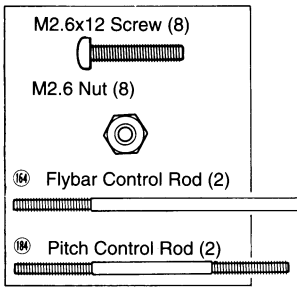



STEP 2

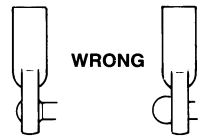


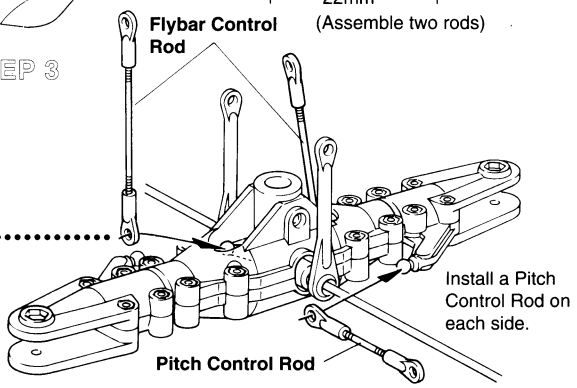




Make sure the "Kyosho" name faces out.

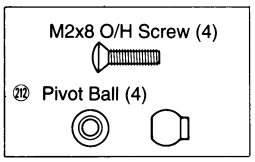



STEP 3



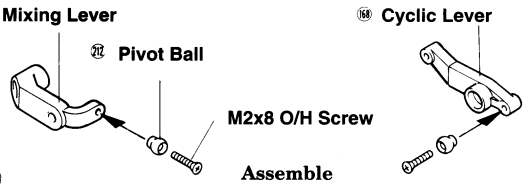

# 6 SWASHPLATE ASSEMBLY

The parts for this step are located in bag HE-7.

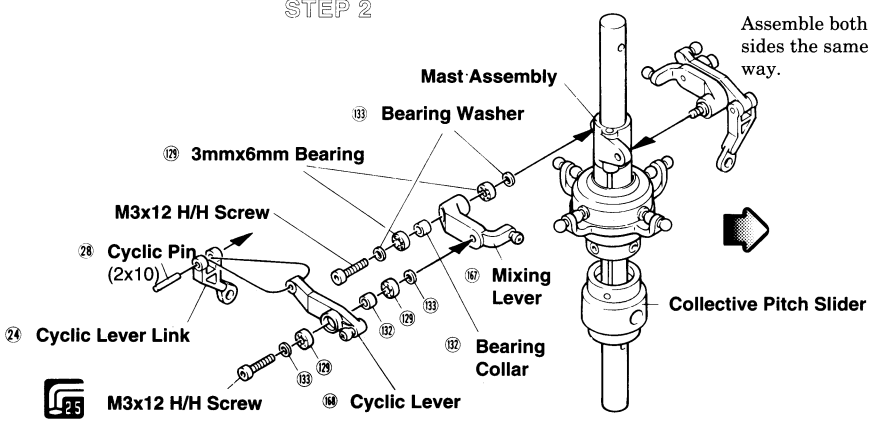



Be very careful not to overtighten any of the screws.

STEP 1

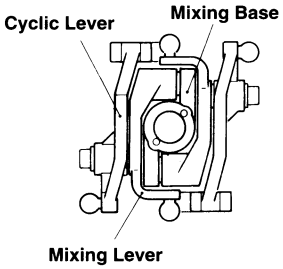



STEP 2



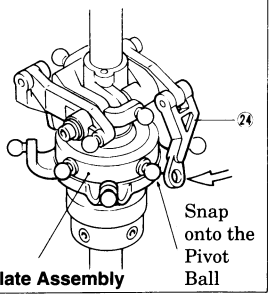

Assemble both sides the same way.

Make sure all the linkages move smoothly.




STEP 3

Snap the **(24) Cyclic Lever Link** onto the **Swashplate** as shown.



## 7 MAIN GEAR INSTALLATION

M3x8 F/H Screw (4)

M3x18 H/H Screw (1)

M3 Nylon Nut (1)

The parts for this step are located in bag HE-3.

STEP 1

M3x8 F/H Screw

Screw lock all four screws.

47 Main Gear

Parts (47) and (48) come pre-assembled.

48 One-way Housing

46 One-way Shaft

150 Mast Stopper Ring

STEP 2

Install the Main Gear Assembly as shown.

M3 Nylon Nut

M3x18 H/H Screw

## 8 MAIN FRAME ASSEMBLY

M2x8 O/H Screw (5)

M3x12 H/H Screw (3)

M3x15 S/T Screw (3)

M3x18 S/T Screw (1)

M3 Nylon Nut (4)

M3x8 Washer (2)

E-Ring (E-2.5) (4)

212 Pivot Ball (5)

These parts are located in bag HE-5.

STEP 1

188 Pitch Lever (HE-5)

212 Pivot Ball (HE-5)

170 Aileron Lever (HE-5)

M2x8 O/H Screw

Install the Pivot Ball in the middle hole.

Press the 2x14mm Link Pin through the Elevator Link and then into the Elevator Lever.

31 Elevator Link

59 2x14mm Link Pin

32 Elevator Lever

212 Pivot Ball

M2x8 O/H Screw

33 Lever Pin (HE-5)

E-Ring (E-2.5)

E-Ring (E-2.5)

M3x12 H/H Screw

M3x15 S/T Screw

The "Kyosho" name faces outward.

94 Body Mount (HE-12)

M3x12 H/H Screw

M3 Nylon Nut

STEP 2

94 Body Mount (HE-12)

M3x18 S/T Screw

M3x8 Washer

61 Threaded Insert (Long) (HE-6)

60 Threaded Insert (Short) (HE-6)

33 Lever Pin (HE-5)

M3x8 Washer

Assembled above

Assembled above

37 Lever Bushing (B) (HE-5)

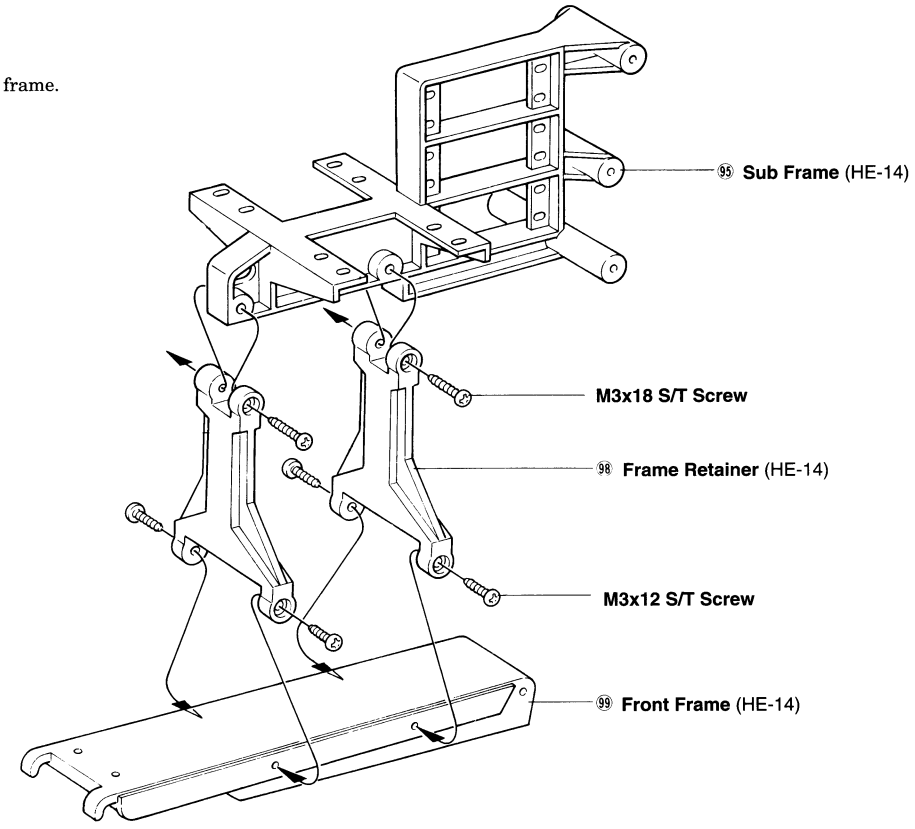
E-Ring (E-2.5)

51 Main Frame (L) (HE-6)

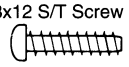
52 Main Frame (R) (HE-6)

## 9 FRAME ASSEMBLY

Join the lower assembly to the sub frame.




M3x12 S/T Screw (4)

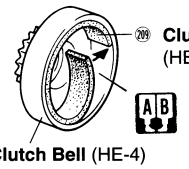


M3x18 S/T Screw (2)

## 10 ENGINE PREPARATION

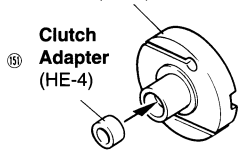
STEP 1

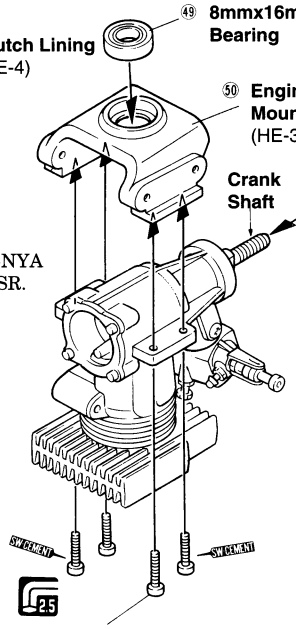
Epoxy the **(209) Clutch Lining** in the **(208) Clutch Bell.**



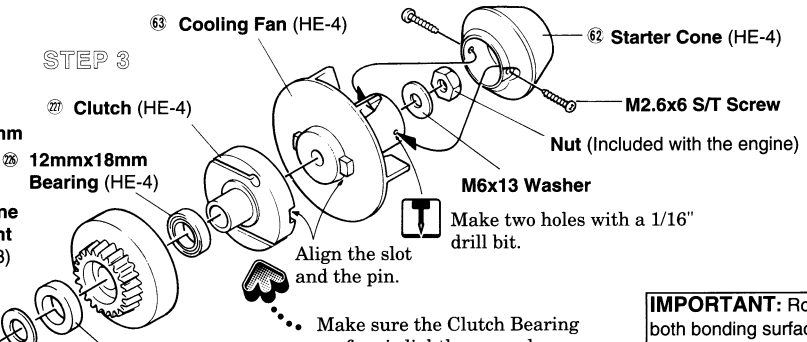

STEP 2

Install the **(151) Clutch Adapter** if installing an ENYA engine in the Concept 30 SR.



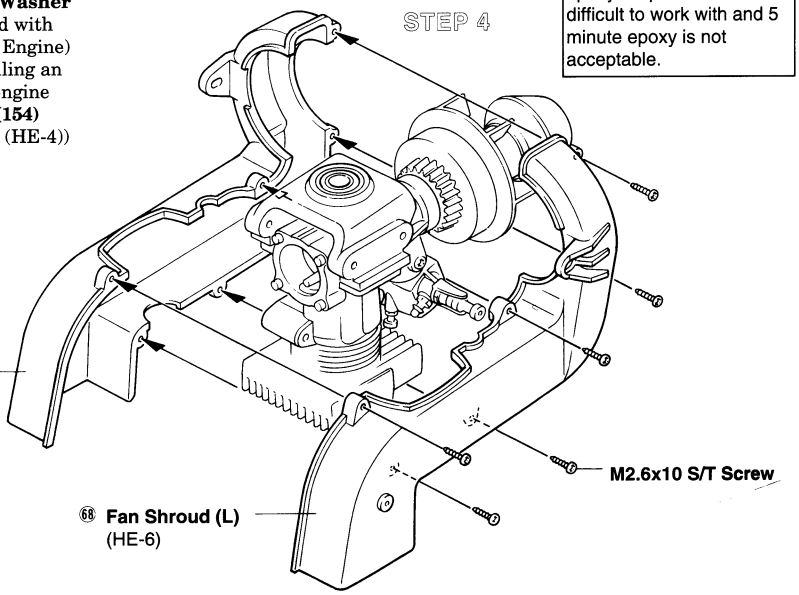




STEP 3




**IMPORTANT:** Roughen both bonding surfaces of the **Clutch Liner** and the **Clutch Bell**. Use only JB Weld or a slow curing epoxy. Super Glue is difficult to work with and 5 minute epoxy is not acceptable.

STEP 4

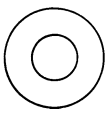



M2.6x6 S/T Screw (2)

M2x10 S/T Screw (6)

M3x16 H/H Screw (4)

M6x13 Washer (1)

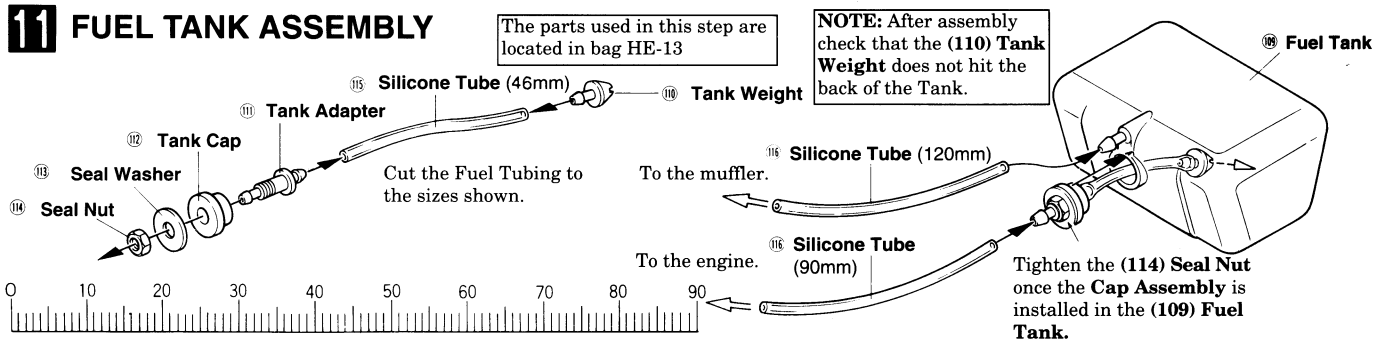


**NOTE:** Carefully remove the back plate and hold the crankshaft with a wood dowel while screwing on the clutch.

## 11 FUEL TANK ASSEMBLY

The parts used in this step are located in bag HE-13

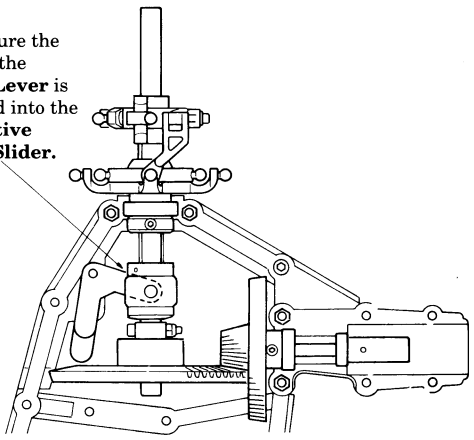
**NOTE:** After assembly check that the **(110) Tank Weight** does not hit the back of the Tank.




Tighten the **(114) Seal Nut** once the **Cap Assembly** is installed in the **(109) Fuel Tank.**

## 12 MAIN FRAME FINAL ASSEMBLY

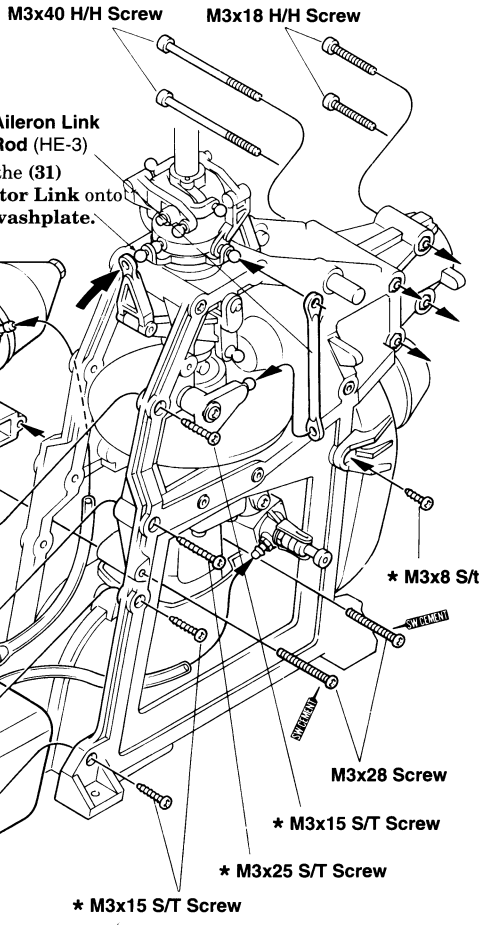
Make sure the ball on the **Pitch Lever** is inserted into the **Collective Pitch Slider.**



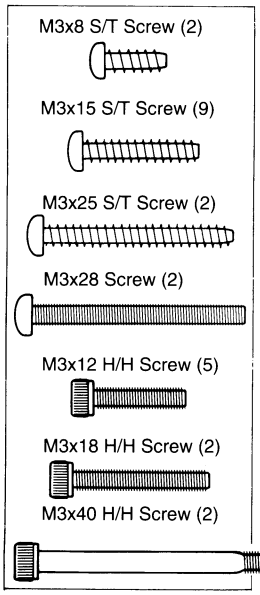
STEP 1

Install the **Main Mast Assembly, Counter Gear Assembly,** and the **Engine Assembly** before putting the **Frame** together.




STEP 2







★ Install the same screws on the other side of the Frame.

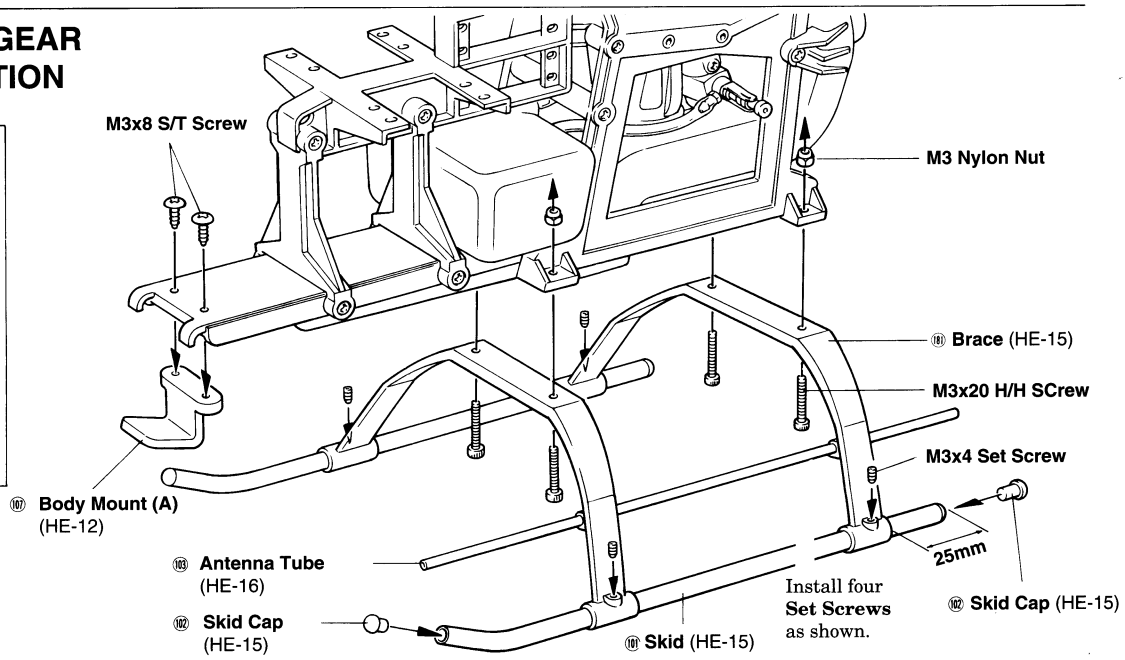
## 13 LANDING GEAR INSTALLATION

M3x20 H/H Screw (4)

M3x8 S/T Screw (2)

M3x4 Set Screw (4)

M3 Nylon Nut (4)




## 14 TAIL ROTOR ASSEMBLY

STEP 1

(141) M3x14 Threaded Rod (HE-10)

Use a hex wrench to tighten the **(141) M3x14 Threaded Rod.**

(82) Tail Output Shaft (HE-10)

(140) Tail Center Hub (HE-10)

small — Tail Center Hub goes on the small end. — large

STEP 2

(142) Thrust Bearing (HE-10)

M3 Nylon Nut

Do not tighten the nylon nuts all the way, the **(142) Thrust Bearings** need to move.

(144) Tail Grip (A) (HE-9)

M3x10 S/T Screw

M3x14 H/H Screw

(143) Tail Grip (B) (HE-9)

(210) Tail Blade (HE-9)

STEP 3

M3 Nylon Nut

M2x10 S/T Screw (4)

M3x14 H/H Screw (2)

M3 Nylon Nut (4)

STEP 4

The parts used in this step are located in bags HE-10 and HE-11.

(180) 2x8mm Pin

(86) Tail Pitch Ring

(88) 6mmx10mm Bearing

(179) Tail Pitch Ball End

(91) Slide Bushing

(178) Tail Pitch Plate

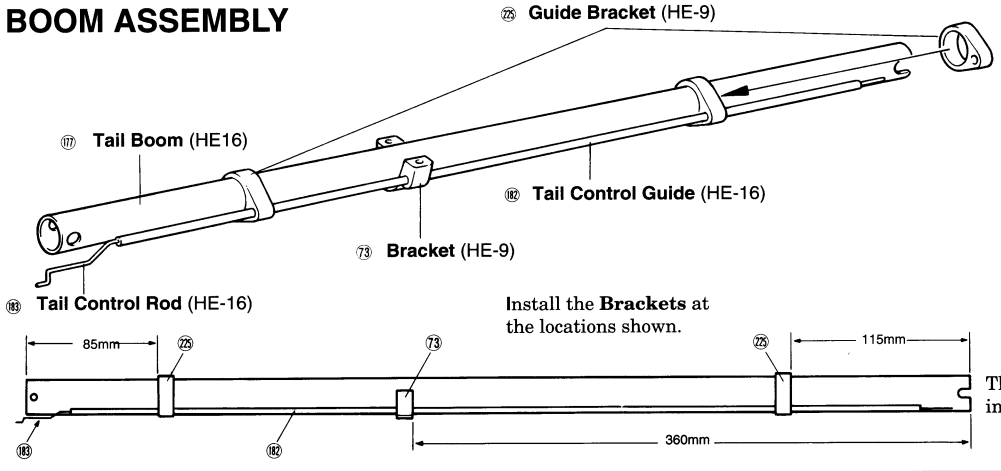
The **(178) Tail Pitch Plate** screws onto the **(91) Slide Bushing.**

(87) Tail Pitch Ring Pin

STEP 5

Slide the **Tail Pitch Assembly** onto the **Tail Output Shaft** and connect the **Tail Pitch Ball End** to the ball on the **Tail Grip.**

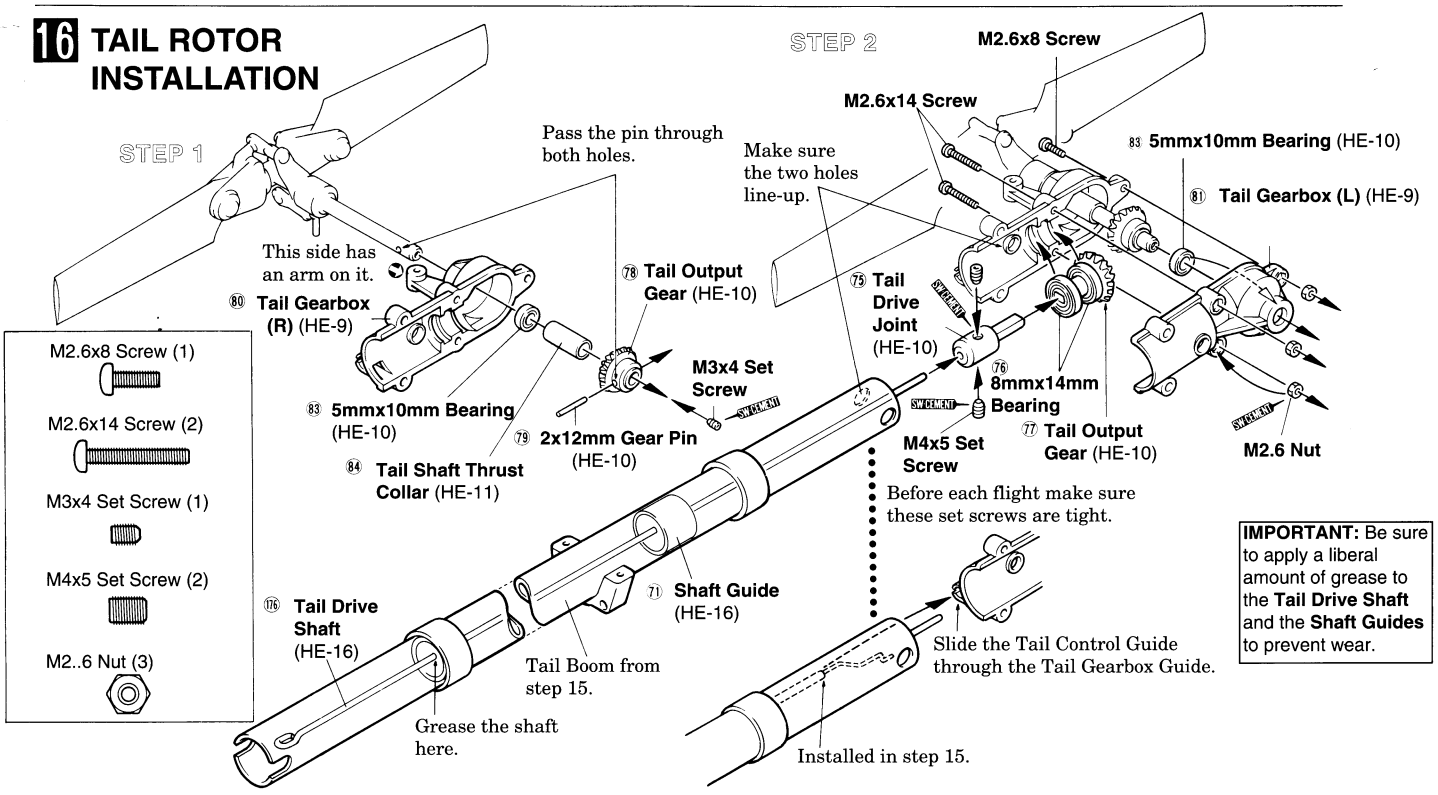
## 15 TAIL BOOM ASSEMBLY




Install the **Brackets** at the locations shown.

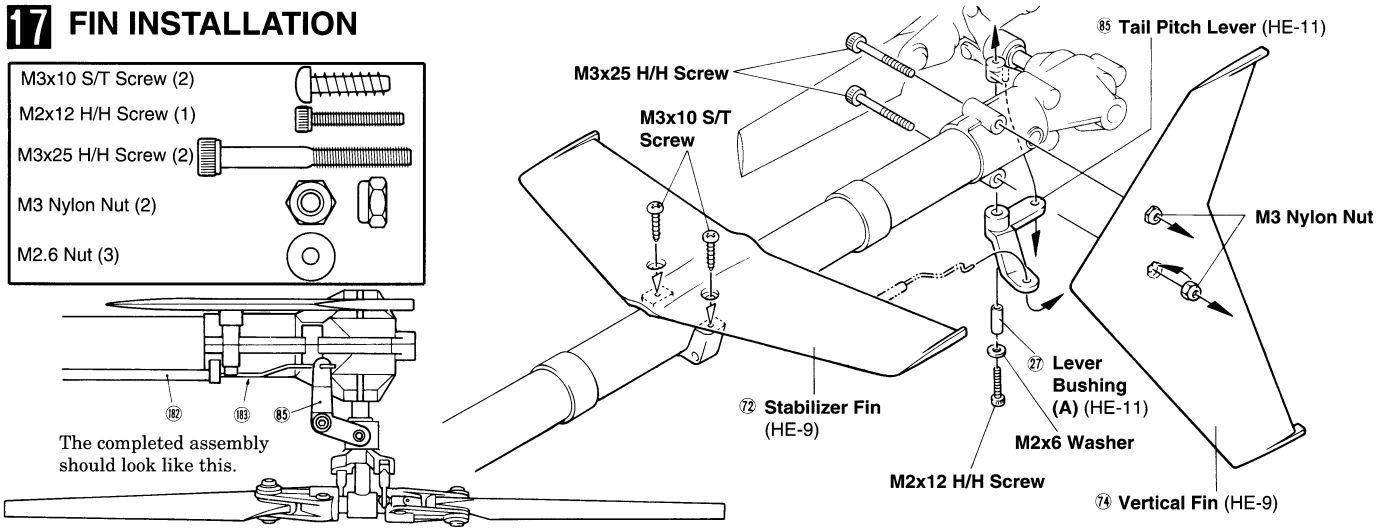
This end will be installed in the Frame.

## 16 TAIL ROTOR INSTALLATION

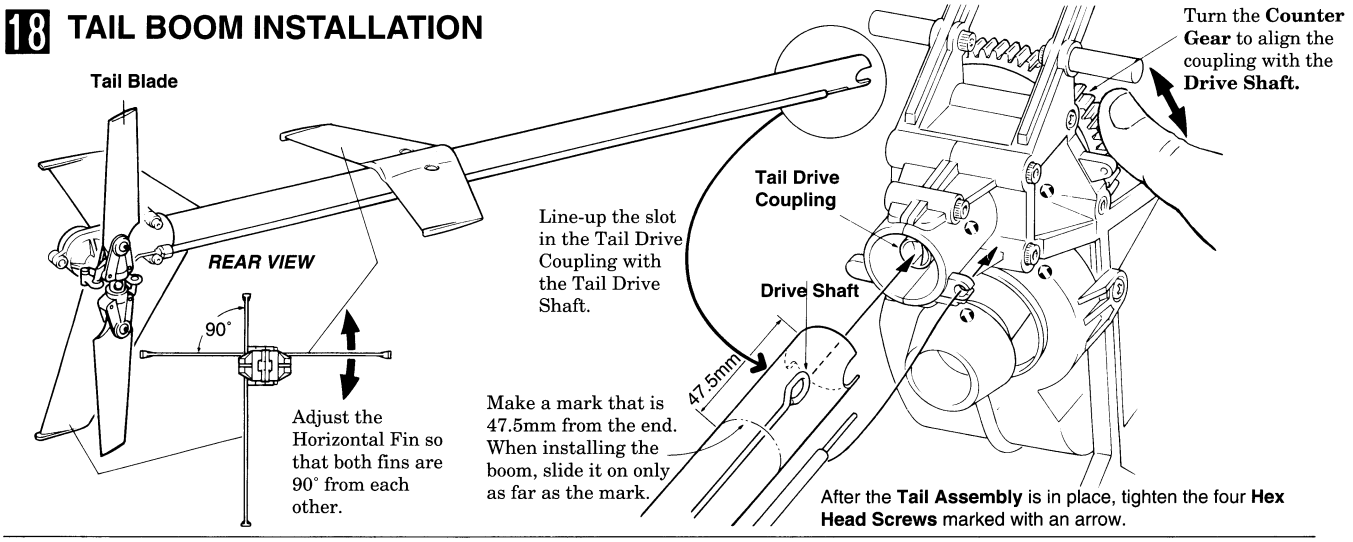



**IMPORTANT:** Be sure to apply a liberal amount of grease to the **Tail Drive Shaft** and the **Shaft Guides** to prevent wear.

## 17 FIN INSTALLATION

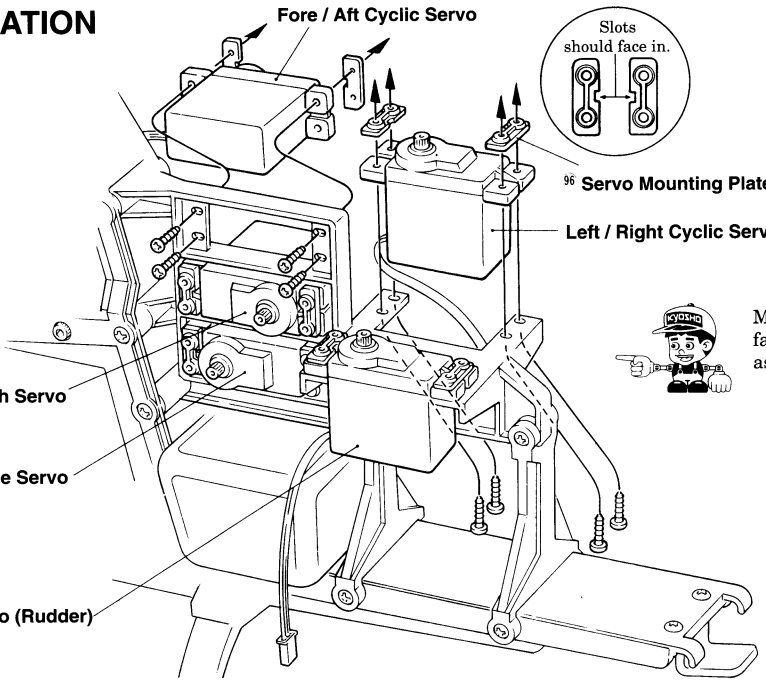



## 18 TAIL BOOM INSTALLATION



## 19 SERVO INSTALLATION

M2.6x15 S/T Screw (20)

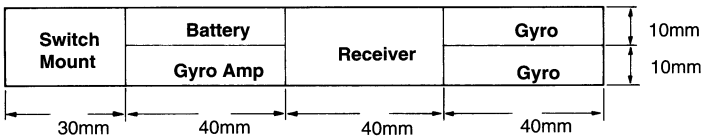




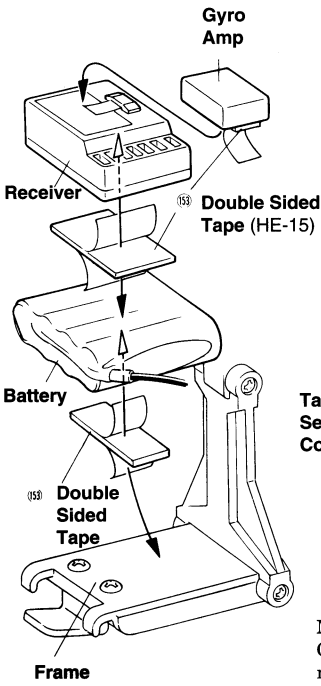

Make sure the servos are facing the right direction as shown.

## 20 INSTALLATION OF THE RECEIVER, BATTERY, AND GYRO

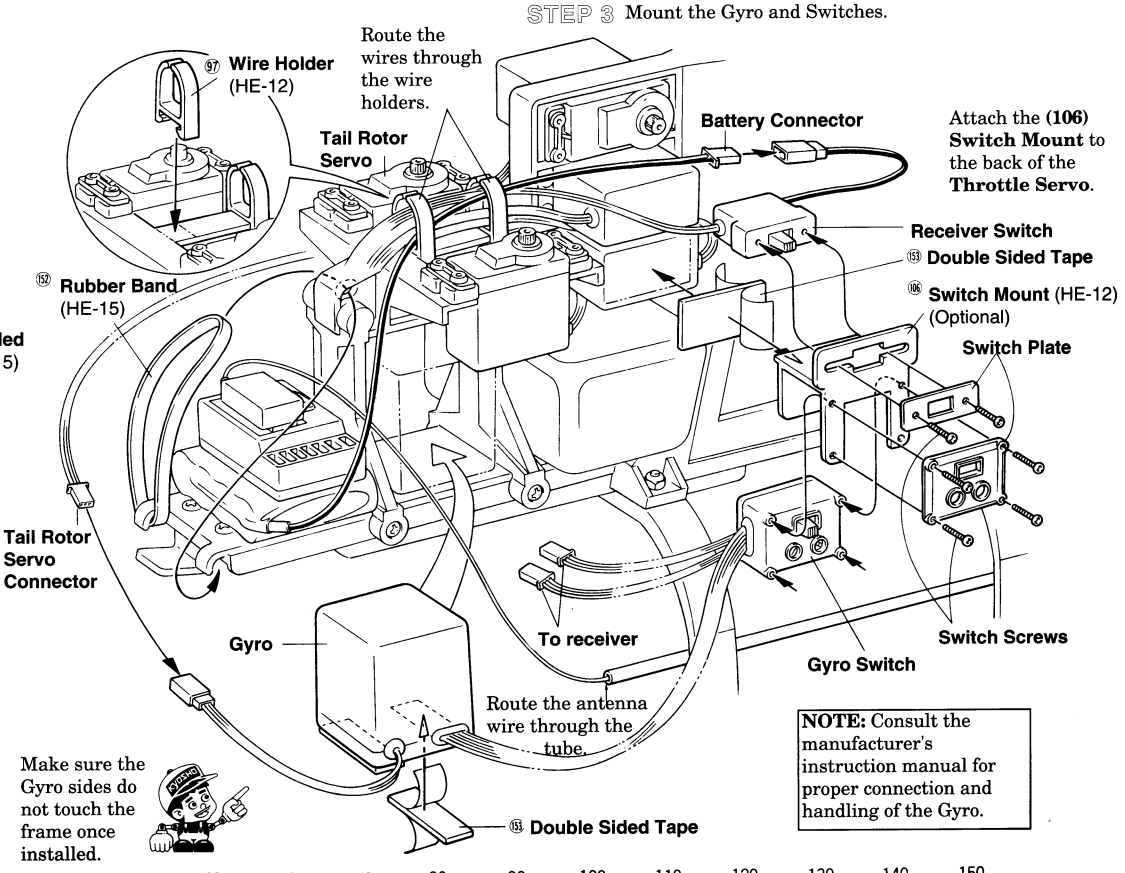
STEP 1 Cut the Double Sided Tape as indicated (use the ruler below).




STEP 2
Install the receiver and battery.



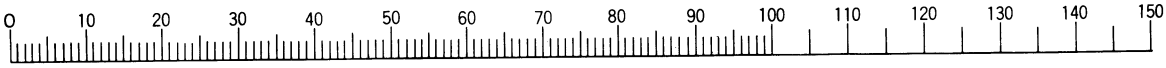

STEP 3 Mount the Gyro and Switches.




Make sure the Gyro sides do not touch the frame once installed.



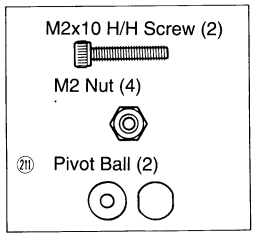
**NOTE:** Consult the manufacturer's instruction manual for proper connection and handling of the Gyro.



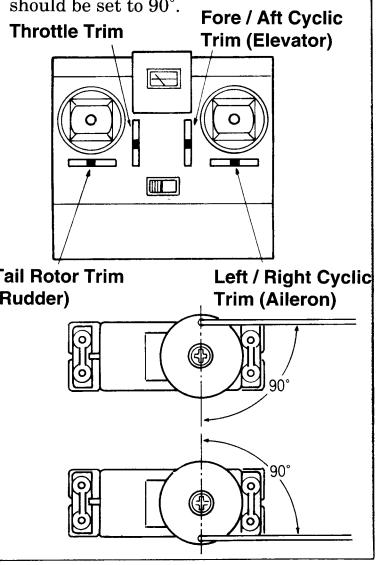
# 21 CYCLIC CONTROL ROD INSTALLATION

**Note:** Depending on servo size, an extra **M2 Nut** between the servo arm and the pivot ball will work as a "stand off." This may or may not be needed to give the control rod a straight path to the given control function.

### STEP 1
Install the **(10) Ball End** on two of the **(34)** and **(35)** Rods.

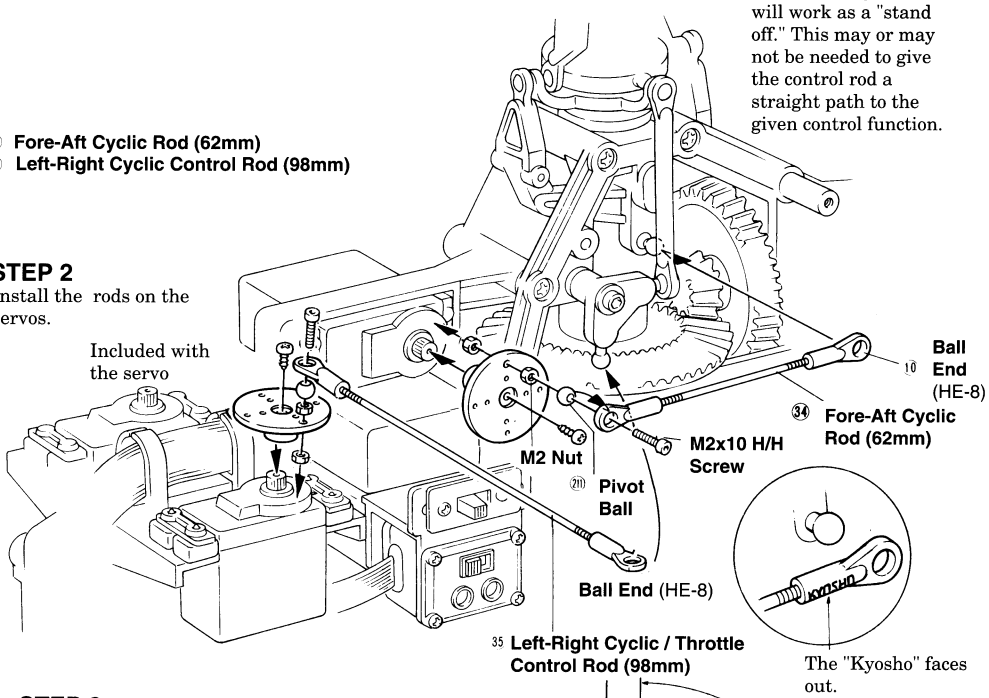



- Turn the radio on.
- With the trims centered and the servos in the neutral position, the servo horns should be set to 90°.

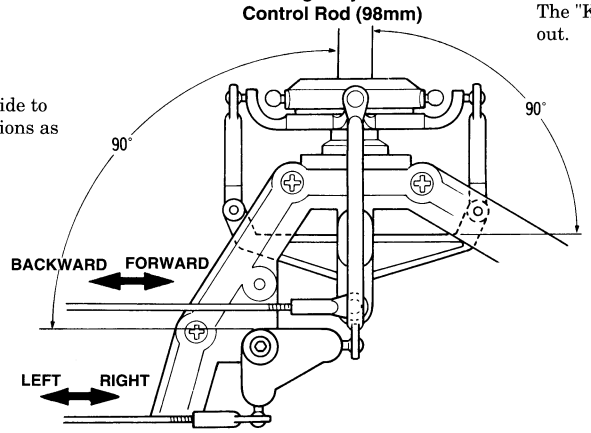



(34) **Fore-Aft Cyclic Rod (62mm)**
(35) **Left-Right Cyclic Control Rod (98mm)**

### STEP 2
Install the rods on the servos.

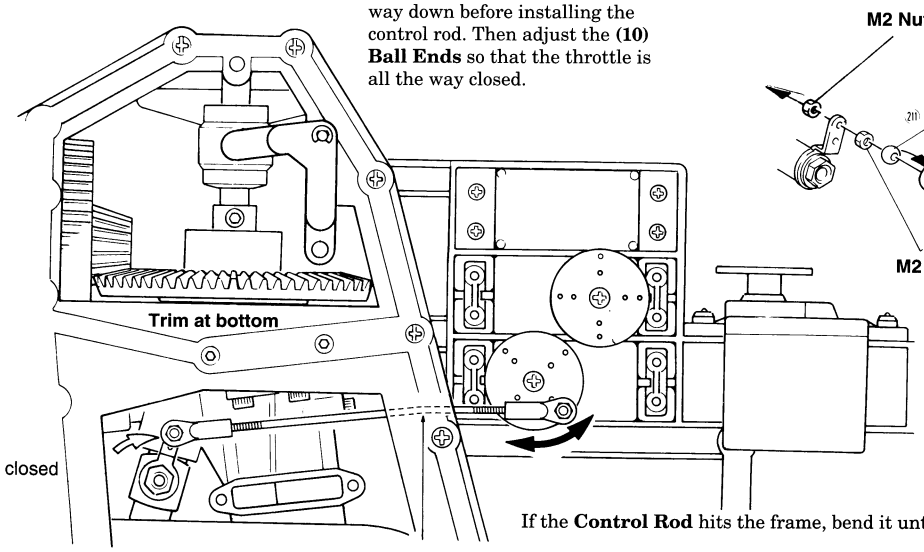


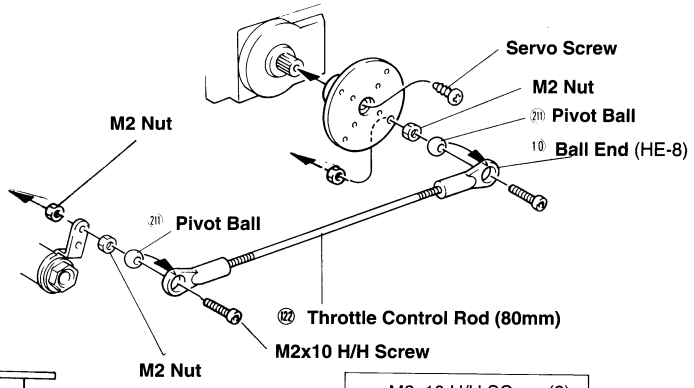

### STEP 3
Adjust the linkages so the swashplate is level in both side to side and front to back directions as shown.

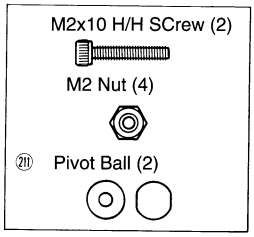



# 22 THROTTLE CONTROL ROD INSTALLATION

With the radio on, position the throttle stick and trim all the way down before installing the control rod. Then adjust the **(10) Ball Ends** so that the throttle is all the way closed.

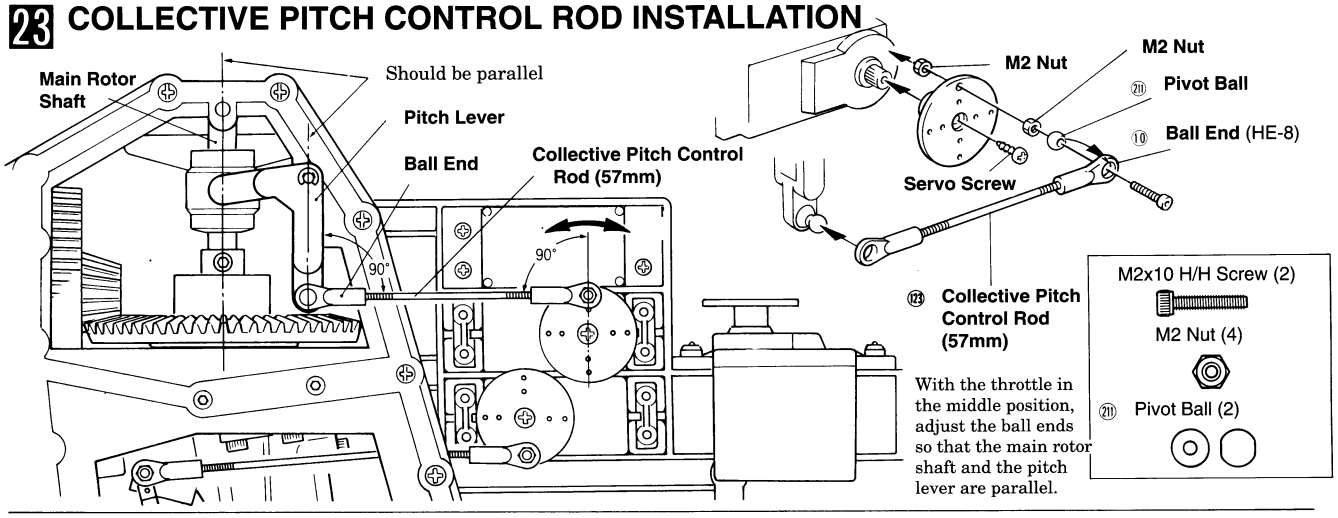



If the **Control Rod** hits the frame, bend it until it clears.

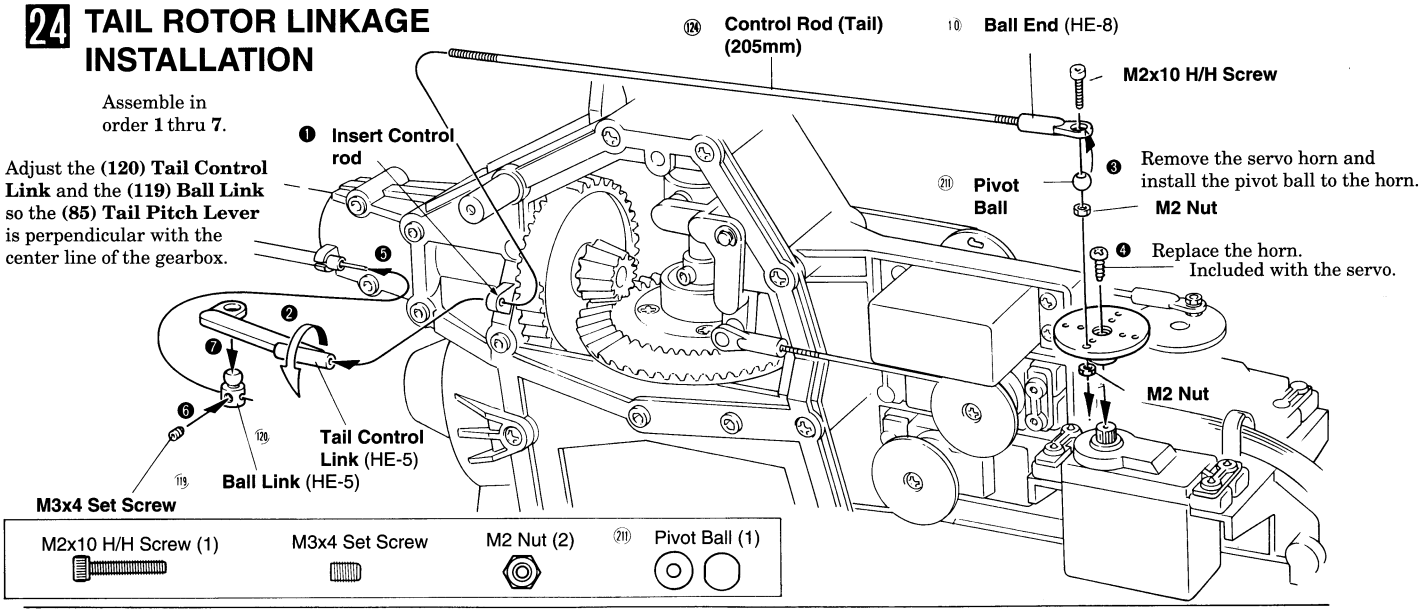
## 23 COLLECTIVE PITCH CONTROL ROD INSTALLATION




## 24 TAIL ROTOR LINKAGE INSTALLATION

Assemble in order **1** thru **7**.

Adjust the **(120) Tail Control Link** and the **(119) Ball Link** so the **(85) Tail Pitch Lever** is perpendicular with the center line of the gearbox.




## 25 SETTING UP YOUR RADIO

The chart is a starting point for adjusting a Futaba FP-T7UHF Super Radio.

| Radio Set-up Chart | | 1 Aileron | 2 Elevator | 3 Throttle | 4 Rudder | 5 Gyro | 6 Pitch | 7 Auxiliary |
|---|---|---|---|---|---|---|---|---|
| ATV | R/U | 100 | 100 | 100 | 100 | | 100 | |
| | L/D | 100 | 100 | 100 | 100 | | 100 | |
| D/R | R/U | 70 | 70 | | 100 | | | |
| | L/D | 100 | 100 | | 80 | | | |
| EXP (Pilot Preference) | | | | | | | | |
| REV (For Super 7) | | •Nor Rev | •Nor Rev | •Nor Rev | •Nor Rev | Nor Rev | •Nor Rev | Nor Rev |

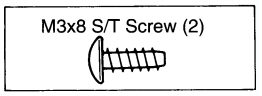
| Hovering Pitch and Throttle Curve | | | | | |
|---|---|---|---|---|---|
| T-NR (Hovering) | (1) 0% | (2) 25% | (3) 50% | (4) 75% | (5) 100% |
| P-NR (Hovering) | (1) 0% | (2) 25% | (3) 50% | (4) 75% | (5) 100% |

Gyro switch (on the gyro amp.) should also be in the reverse position.

# BODY PREPARATION

## 26 INSTALLATION OF BODY MOUNT

M3x8 S/T Screw (2)

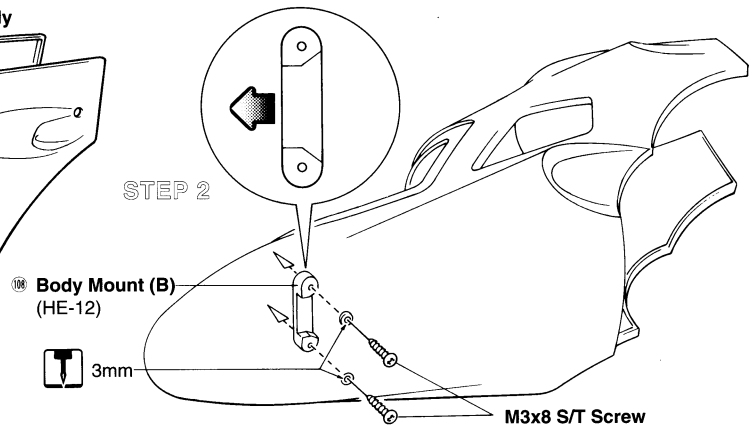


STEP 1

Carefully trim out the window area with a sharp hobby knife.



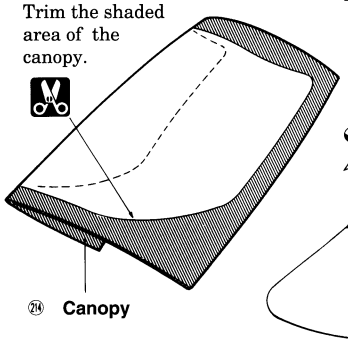

STEP 2




## 27 INSTALLATION OF THE CANOPY

STEP 1

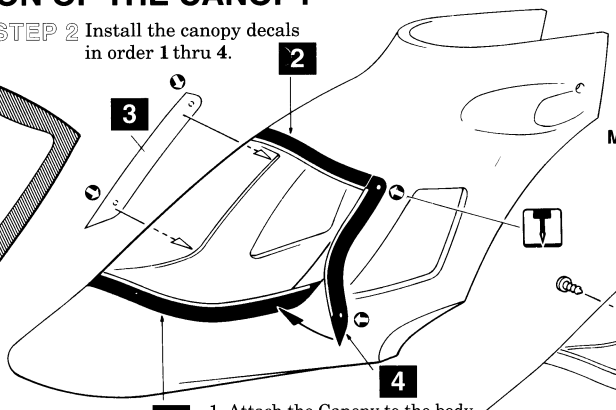
Trim the shaded area of the canopy.




M2x5 S/T Screw (4)



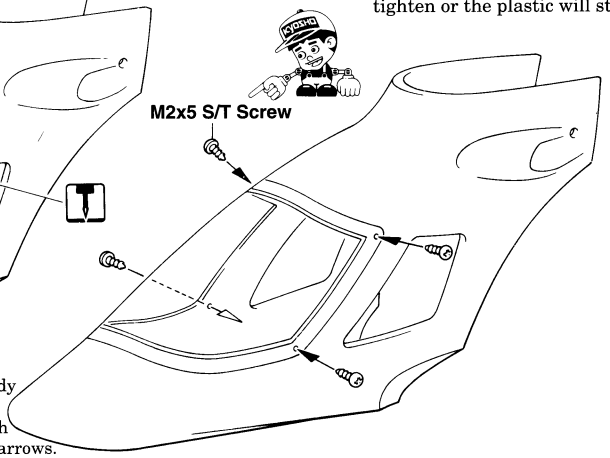
STEP 2 Install the canopy decals in order **1** thru **4**.




1. Attach the Canopy to the body with the decals provided.
2. Make two 1mm holes on each side where indicated by the arrows.

STEP 3

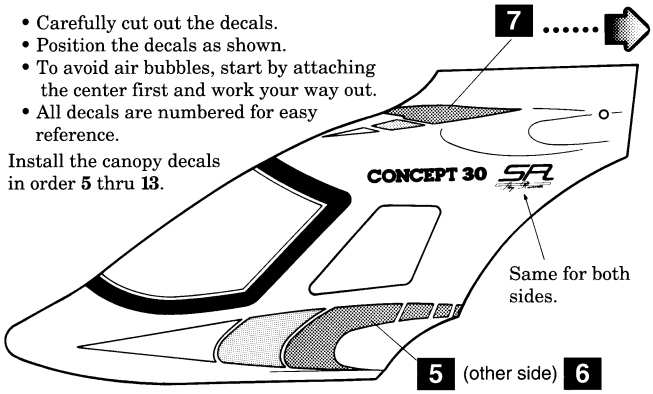
Install the screws. Do not over tighten or the plastic will strip out.

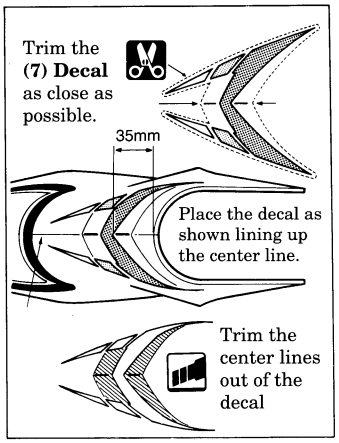


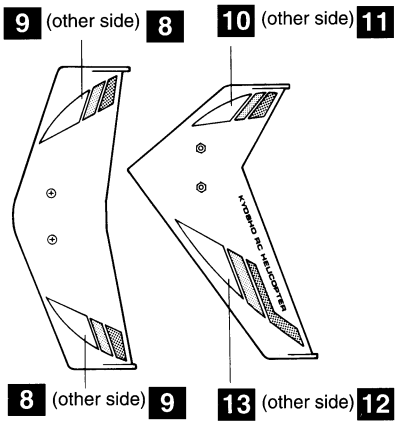

## 28 APPLYING THE DECALS

- Carefully cut out the decals.
- Position the decals as shown.
- To avoid air bubbles, start by attaching the center first and work your way out.
- All decals are numbered for easy reference.

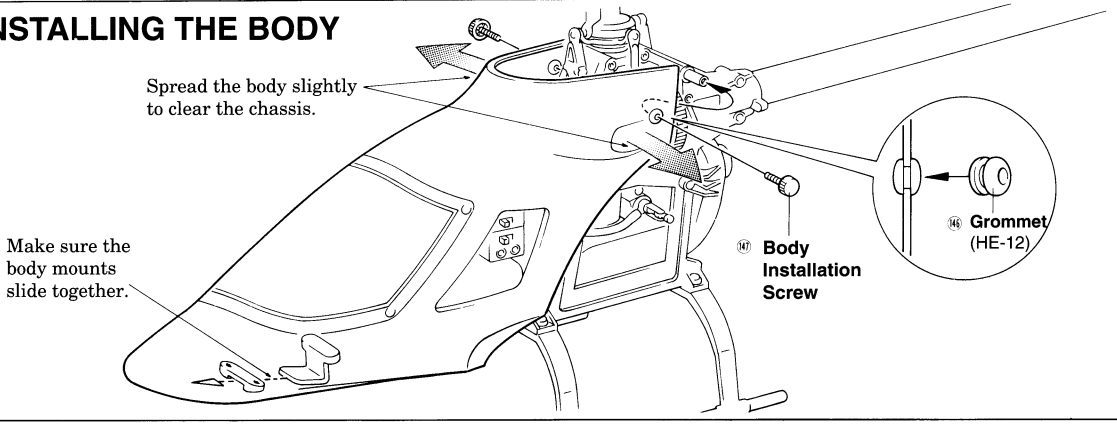
Install the canopy decals in order **5** thru **13**.



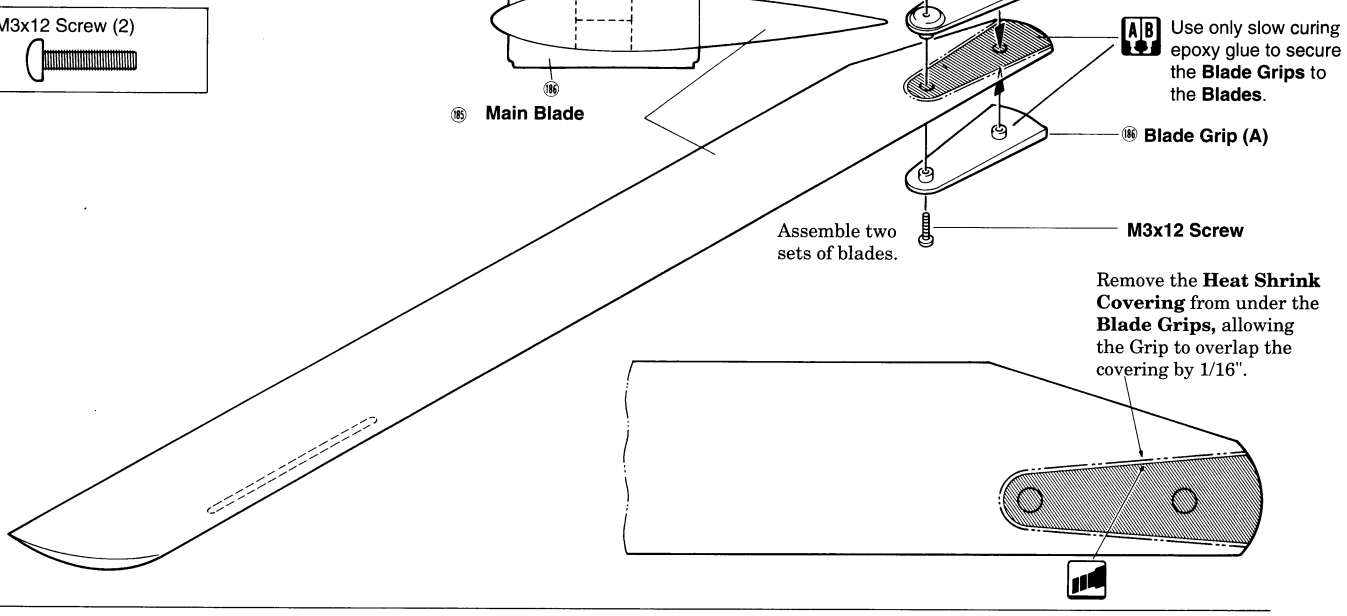




## 29 INSTALLING THE BODY



## 30 MAIN BLADE ASSEMBLY

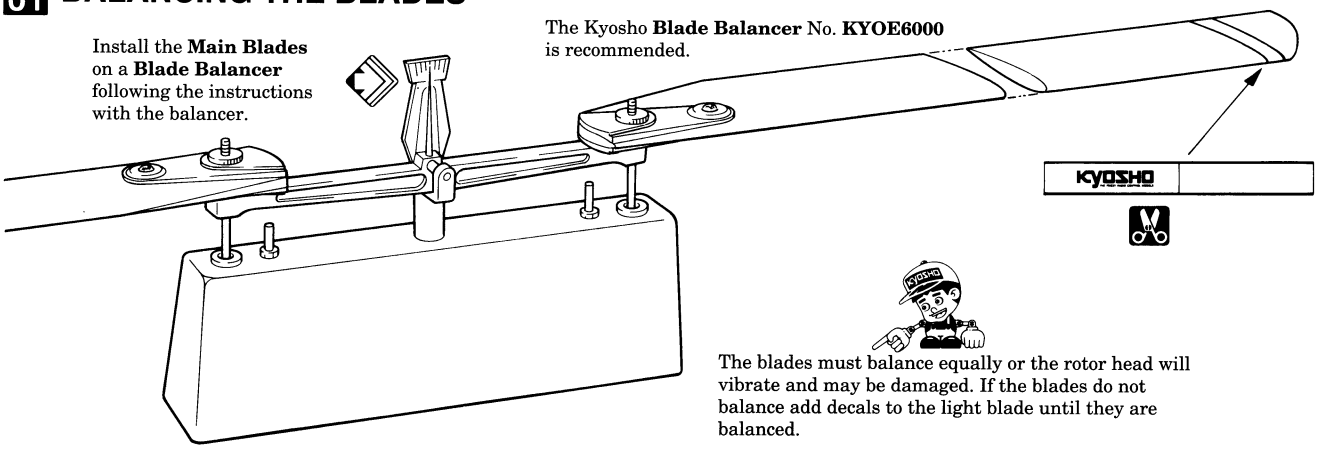
M3x12 Screw (2)




## 31 BALANCING THE BLADES

Install the **Main Blades** on a **Blade Balancer** following the instructions with the balancer.

The Kyosho **Blade Balancer** No. **KYOE6000** is recommended.



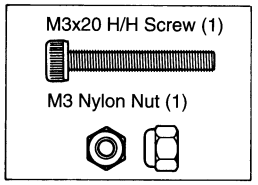


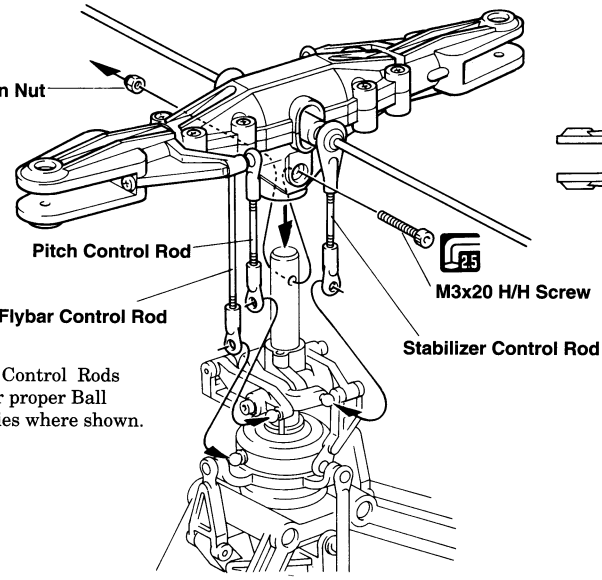

The blades must balance equally or the rotor head will vibrate and may be damaged. If the blades do not balance add decals to the light blade until they are balanced.

## 32 ROTOR HEAD INSTALLATION

M3x20 H/H Screw (1)

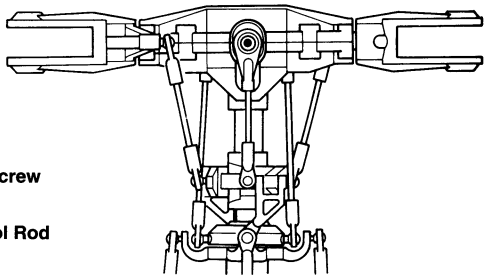
M3 Nylon Nut (1)



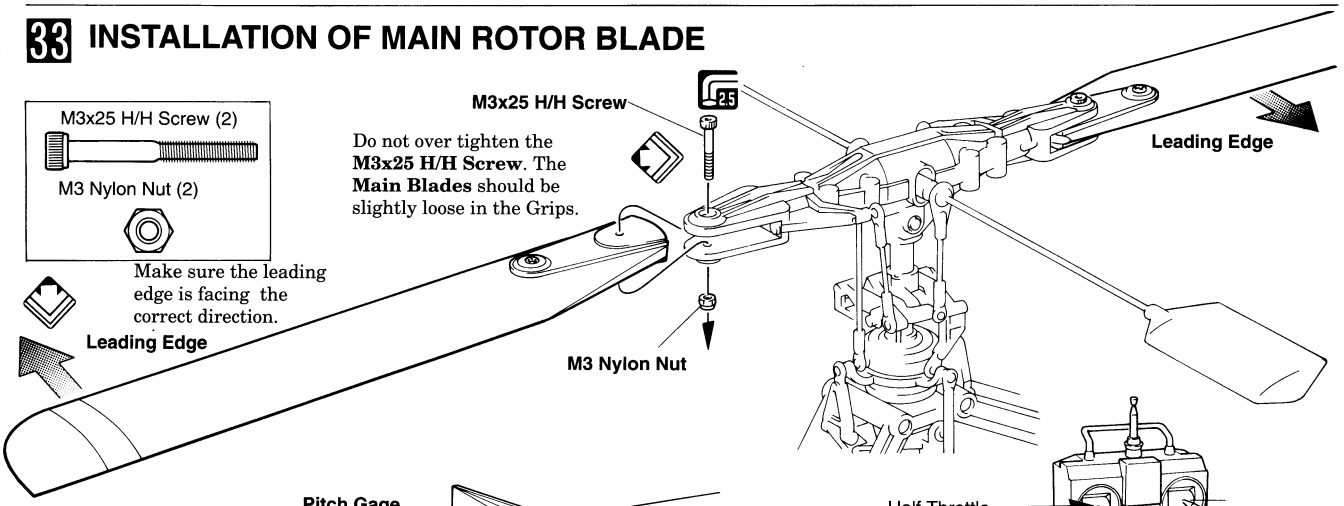


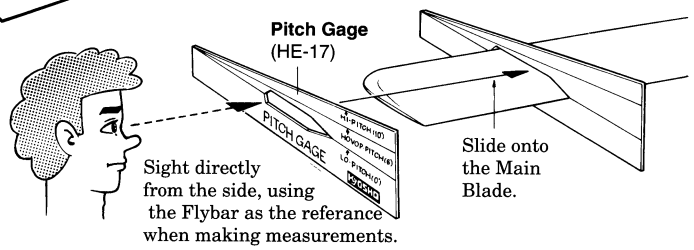

Snap the Control Rods onto their proper Ball Receptacles where shown.

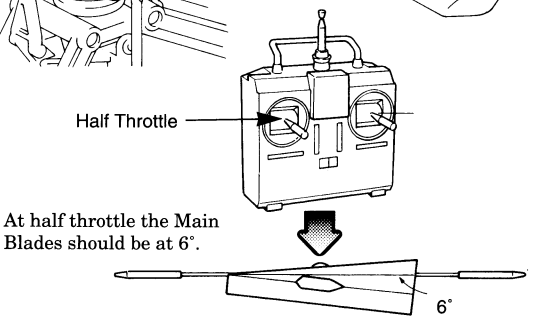
Assembled View



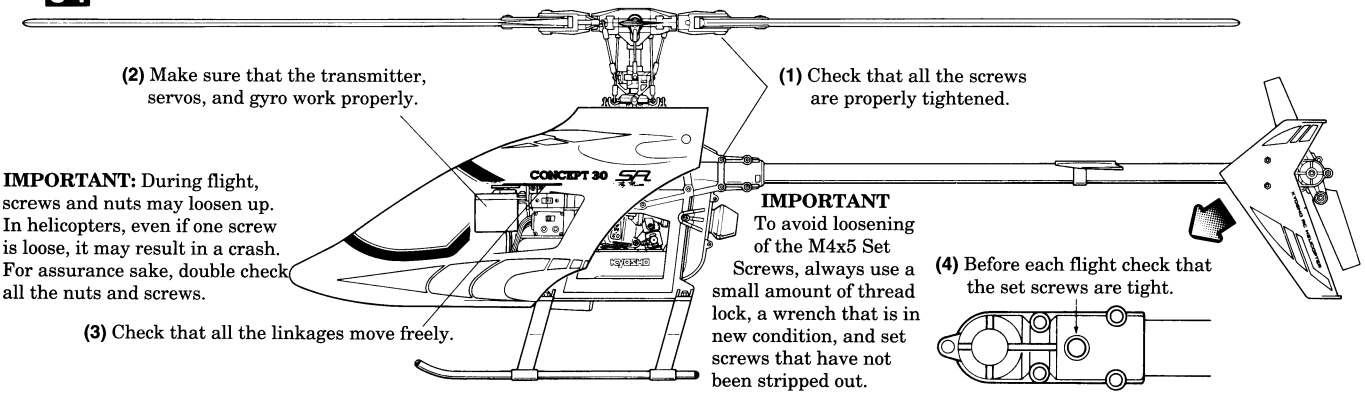
## 33 INSTALLATION OF MAIN ROTOR BLADE



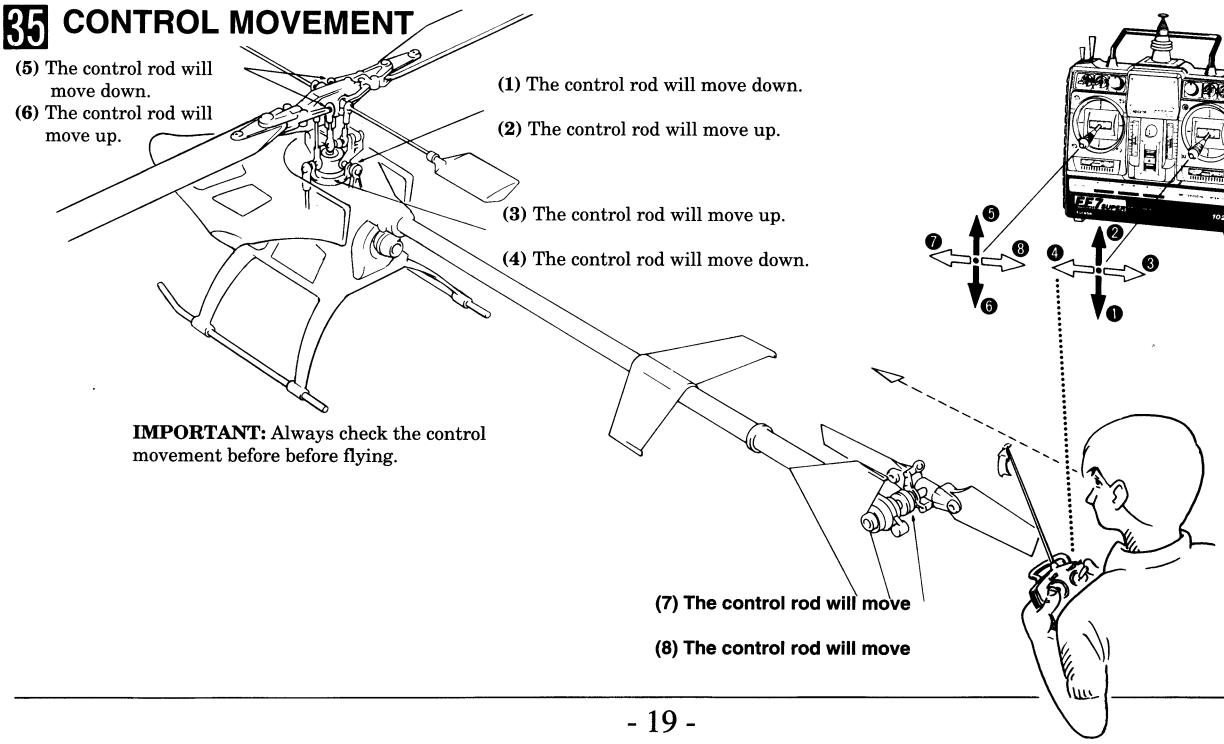




## 34 FINAL ASSEMBLY INSPECTION

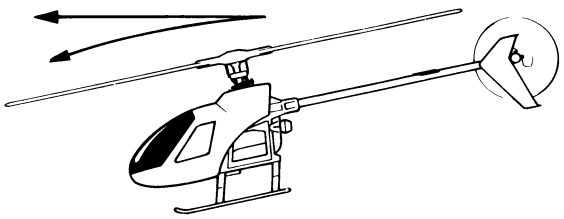
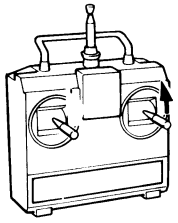
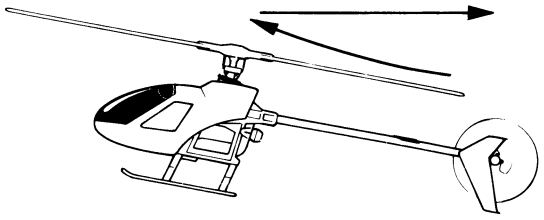
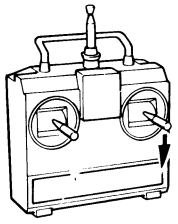
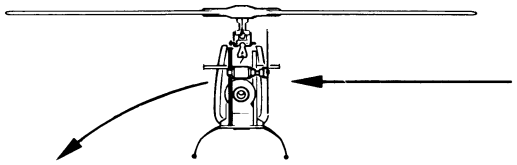
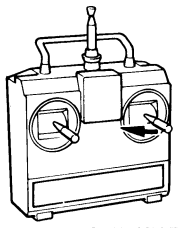
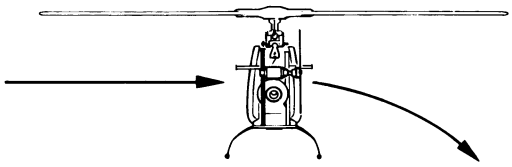
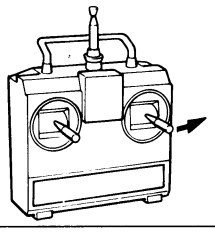
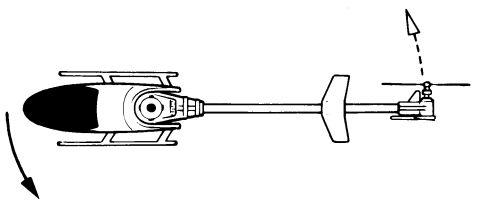
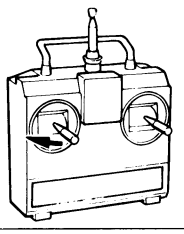
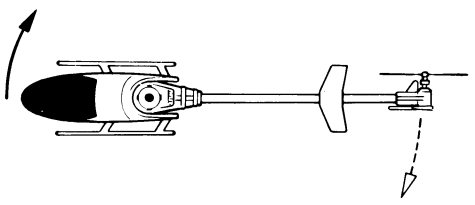
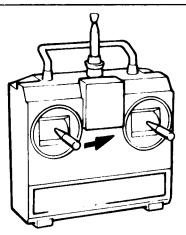
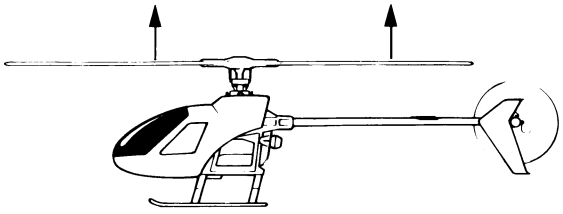
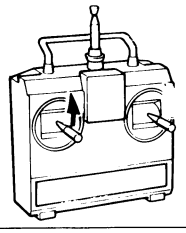
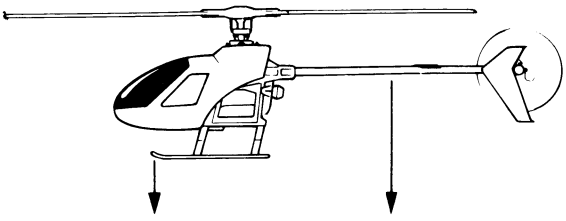
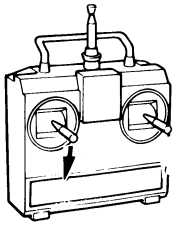



## 35 CONTROL MOVEMENT



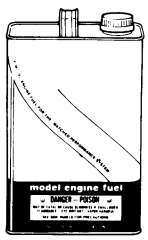
## CONCEPT 30 CONTROL REACTIONS

The Concept 30 will respond with these reactions to each signal from the radio.

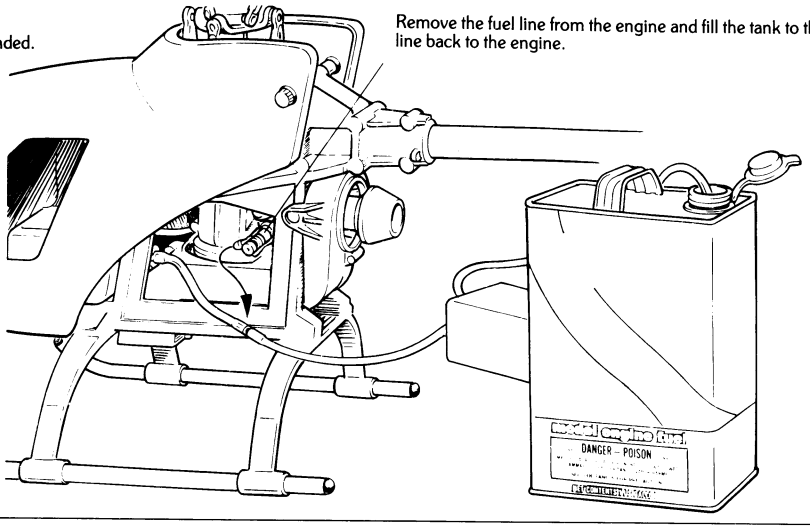
| HELICOPTER RESPONSE | | RADIO STICK POSITION | |
|---|---|---|---|
| TILTS AND MOVES FORWARD |  |  | ELEVATOR STICK PUSHED FORWARD |
| TILTS AND MOVES BACKWARD |  |  | ELEVATOR STICK BACK |
| TILTS AND MOVES LEFT |  |  | AILERON TO THE LEFT |
| TILTS AND MOVES RIGHT |  |  | AILERON TO THE RIGHT |
| THE NOSE MOVES LEFT.<br><br>COUNTERCLOCKWISE ROTATION. |  |  | RUDDER STICK TO THE LEFT |
| THE NOSE MOVES RIGHT.<br><br>CLOCKWISE ROTATION. |  |  | RUDDER TO THE RIGHT |
| AS THE ENGINE'S RPMS INCREASE THE BLADE PITCH ALSO INCREASES AND THE HELICOPTER LIFTS UP. |  |  | ENGINE THROTTLE STICK HIGH |
| AS THE ENGINE'S RPMS DECREASE THE BLADE PITCH DECREASES AND THE HELICOPTER DESCENDS. |  |  | ENGINE THROTTLE STICK LOW |

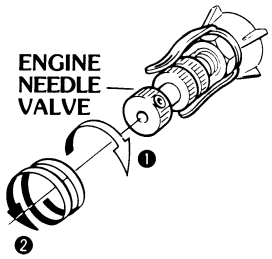
## FUELING

A fuel of 10% or 15% nitro is recommended.




Remove the fuel line from the engine and fill the tank to the top. Reinstall the fuel line back to the engine.




1 Close the needle valve all the way.

2 Then, reopen one and a half turns.

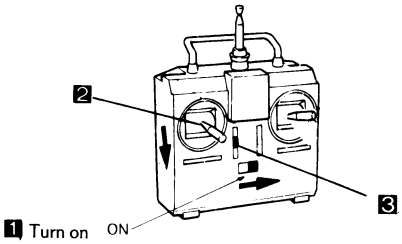
## STARTING THE ENGINE

This starting procedure is set up so that the main rotor head will not suddenly turn.
Please follow it carefully.

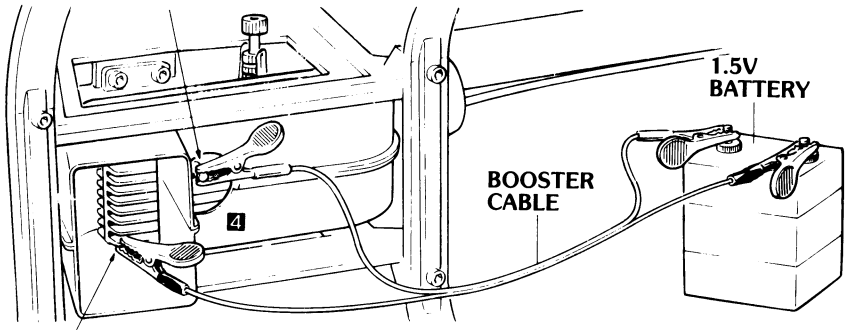
1 Turn on the radio system. (In sequence-transmitter, receiver and gyro).

2 Keep the engine control stick in the low position.

3 Set the engine control trim in the neutral position. Low stick and partial trim will allow the engine to start without engaging the clutch.

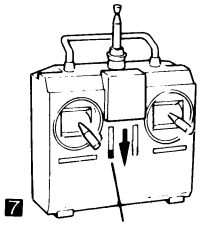



4 Connect a booster cable or glow plug clip to the glow plug and then to a 1.5V battery.



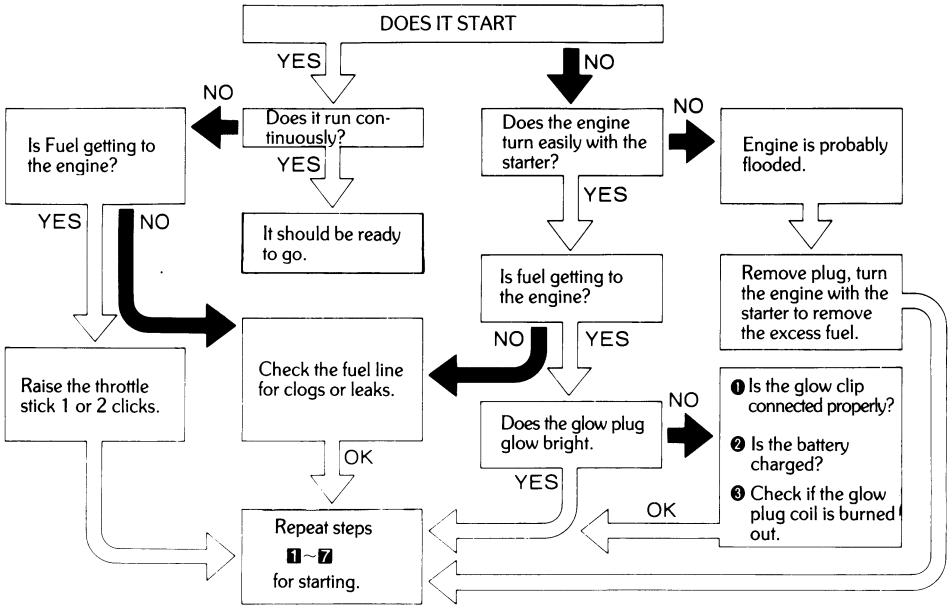

5 Hold the rotor head firmly in your left hand.

6 The starter should turn in the direction of the arrow. If not switch the battery leads. Press the starter against the starter cone and start the engine. Remove when it fires.

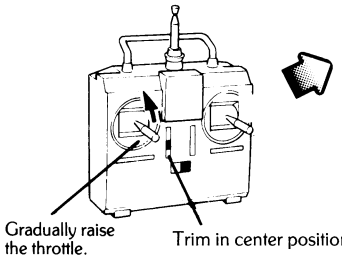



7 When the throttle trim is set low the engine should stop. (See step 22 if it doesn't, readjust the linkage). This is an important safety adjustment.

# ENGINE TROUBLESHOOTING DIAGRAM



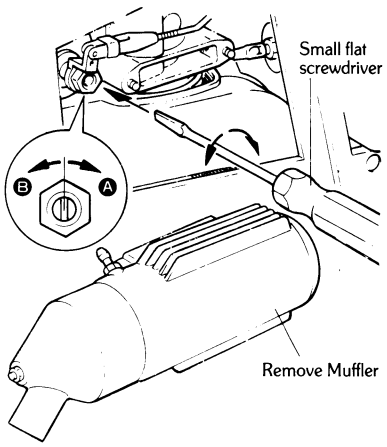

- If the engine does not start check the above chart.
- The engine should start if there is good fuel flow and the plug glows bright.




## IDLE SPEED ADJUSTMENT

A If the engine sputters and stops, the idle fuel mixture is to rich. Turn 1/8 turn toward A (below)

B If the engine stops abruptly with a dry sound, the idle fuel mixture is to lean. Turn 1/8 turn toward B (below)

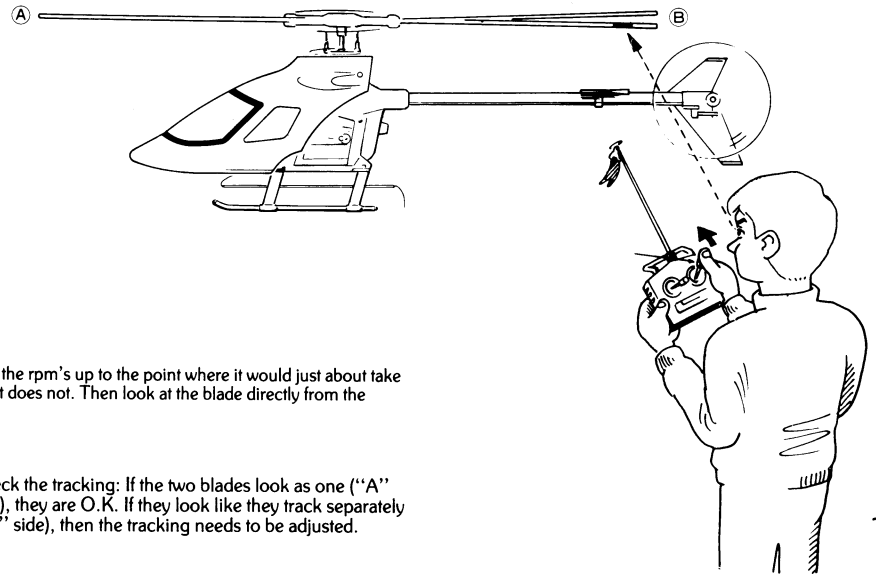



**Note:** Stop the engine when making adjustment.

# FLYING STEP 1: CHECKING THE TRACKING

Adjust the tracking to line up the pitch angles of the main blades.

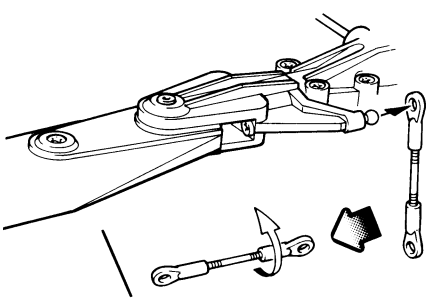
- Start the engine and set the helicopter on a smooth surface well away from any obstacles (preferably at a flying field).
- Stand no closer than 5 meters from the helicopter.




1 Raise the rpm's up to the point where it would just about take off but does not. Then look at the blade directly from the side.

2 Check the tracking: If the two blades look as one ("A" side), they are O.K. If they look like they track separately ("B" side), then the tracking needs to be adjusted.

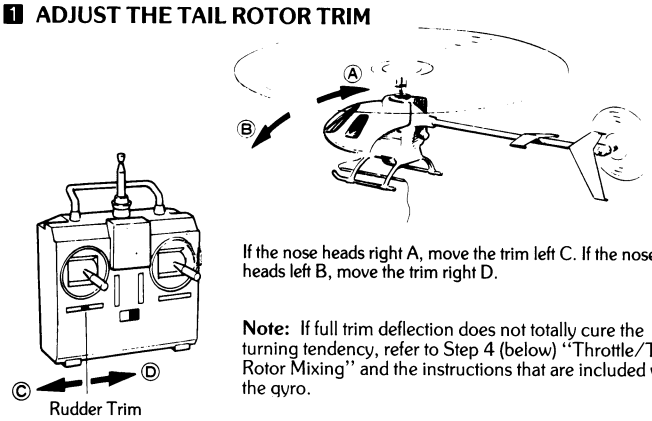
3 To Adjust: Remove the pitch control rod of the low blade and shorten it one or two turns at a time. This increases the angle of attack of the low blade which will cause it to fly in the same plane as the high blade. Recheck the tracking again and repeat this step as necessary.



## FLYING STEP 2: ADJUSTING THE TRIM

As the engine speed increases and the helicopter is close to take off, you may notice a tendency for the helicopter to tip or rotate instead of wanting to lift straight up. If this happens, slow the copter and adjust the trim so it lifts straight.

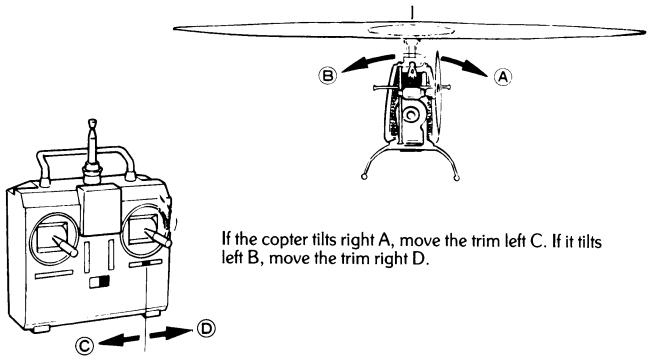
### 1 ADJUST THE TAIL ROTOR TRIM




If the nose heads right A, move the trim left C. If the nose heads left B, move the trim right D.

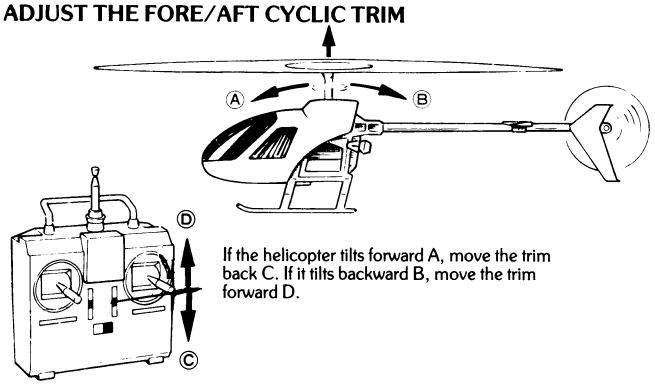
**Note:** If full trim deflection does not totally cure the turning tendency, refer to Step 4 (below) "Throttle/Tail Rotor Mixing" and the instructions that are included with the gyro.

### 2 ADJUST THE LEFT/RIGHT CYCLIC TRIM




If the copter tilts right A, move the trim left C. If it tilts left B, move the trim right D.

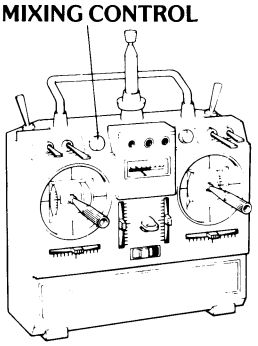
### 3 ADJUST THE FORE/AFT CYCLIC TRIM




If the helicopter tilts forward A, move the trim back C. If it tilts backward B, move the trim forward D.

### 4 ADJUST THE THROTTLE/TAIL ROTOR MIXING

MIXING CONTROL

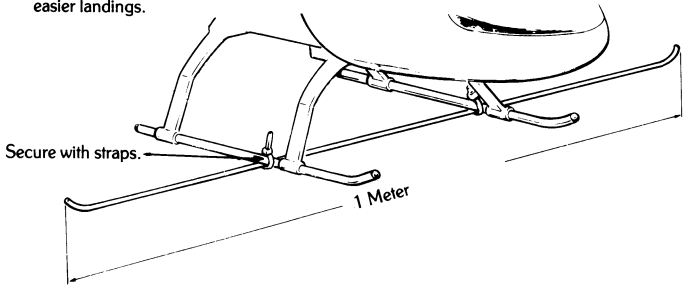


As the helicopter speeds up the relative torque on the helicopter chassis causes it to rotate. This rotation can be controlled with the throttle/tail rotor (rudder) mixing function. See the radio manufacturer's instructions for proper adjustment.

## FLYING STEP 3: BEFORE YOU BEGIN TO HOVER

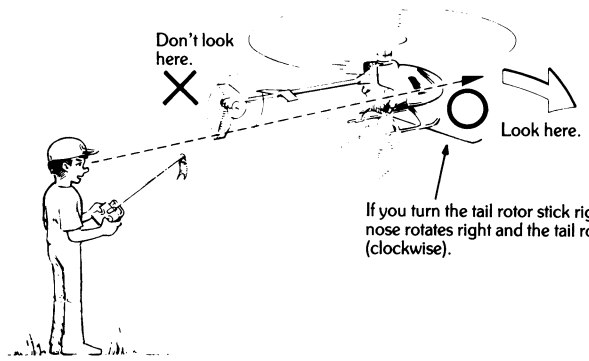
The main fundamental flying technique of a helicopter is hovering. If you cannot hover you will be unable to fly or land. Therefore, spend plenty of time practicing this technique. Before flying observe the following:

1 If you are a beginner, it is helpful to install a safety bar or training gear for easier landings.



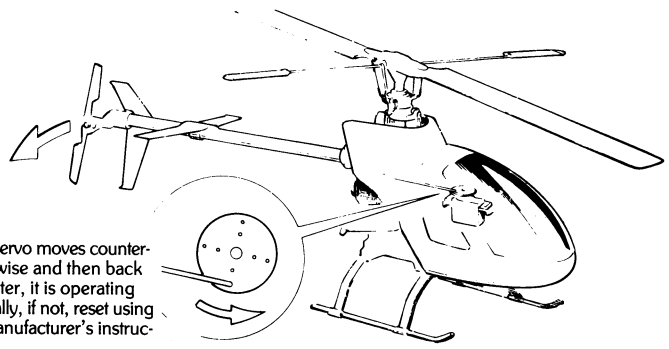

2 When your practicing the hover always face the wind. This will keep the tail rotor more stable.


3 When flying, always look at the nose of the helicopter and not the tail because it is the nose that turns in the direction of your command. See below.




4 Check the Gyro Direction.

Turn on the transmitter, receiver and gyro. With your hand, quickly move the helicopter in the direction of the arrow and stop. At the same time watch the tail rotor servo.

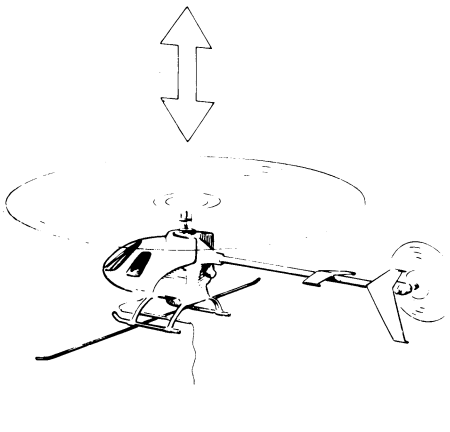


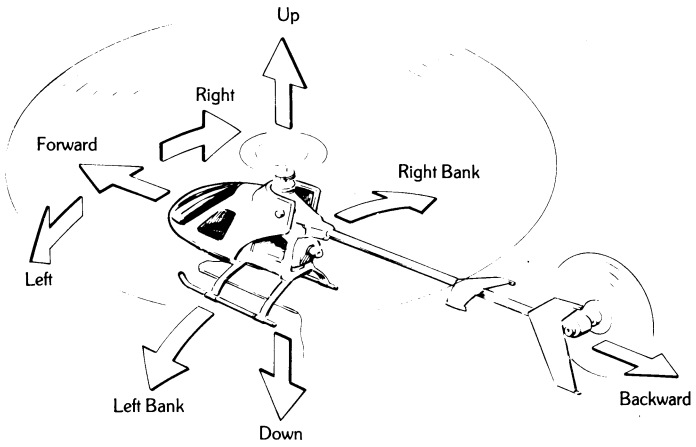
If the servo moves counter-clockwise and then back to center, it is operating normally, if not, reset using the manufacturer's instructions.

## FLYING STEP 4: PRACTICE HOVERING

1. Stand about 5 meters from the helicopter and attempt a smooth lift off up to a height of 3" to 4" and then slow the engine, and carefully land the helicopter. Repeat this process until you can smoothly take off and land consistently. Then practice raising the helicopter higher.

2. A hovering helicopter will never stay in one spot by itself. You must constantly "read" which direction the helicopter will want to drift and move the control sticks on the transmitter so that the helicopter will stay stationary. Try not to go to high until you can keep the helicopter stationary.



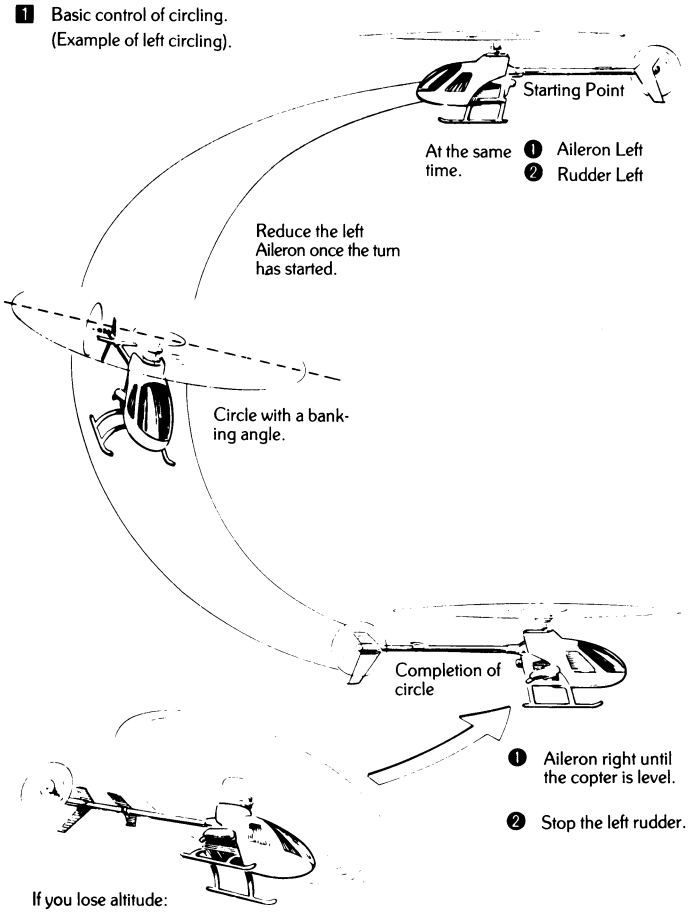



Once hovering is mastered you will have learned the most important and most common flight technique.

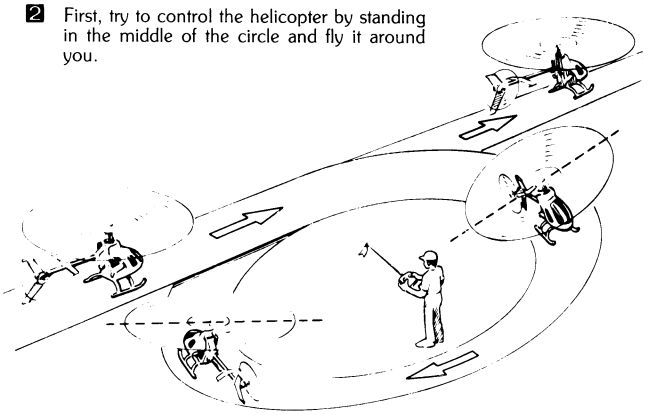
## FLYING STEP 5: FLYING A CIRCLE

After you have mastered hovering, you may try flying a circle around yourself slowly trying to keep the nose facing the direction of the flight. At slow speed you should be able to clearly see the flight attitude of the helicopter.

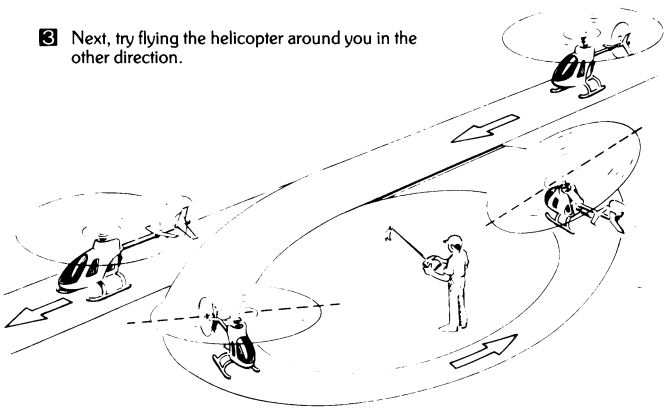
1. Basic control of circling.
(Example of left circling).




2. First, try to control the helicopter by standing in the middle of the circle and fly it around you.



3. Next, try flying the helicopter around you in the other direction.



If you lose altitude:

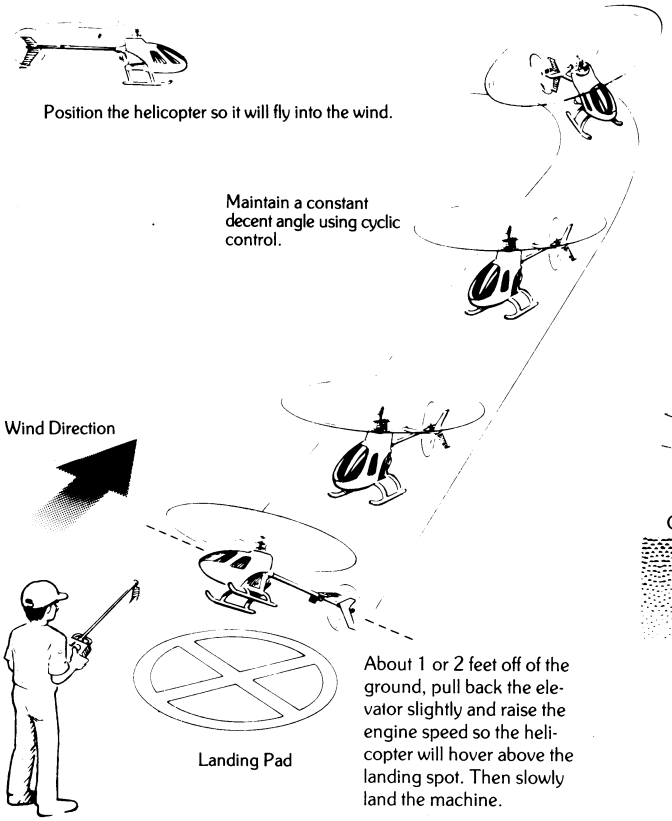
- Slowly raise the engine speed enough to maintain height
- Give slight backward cyclic (elevator).

* Doing one or both of these should raise the height.

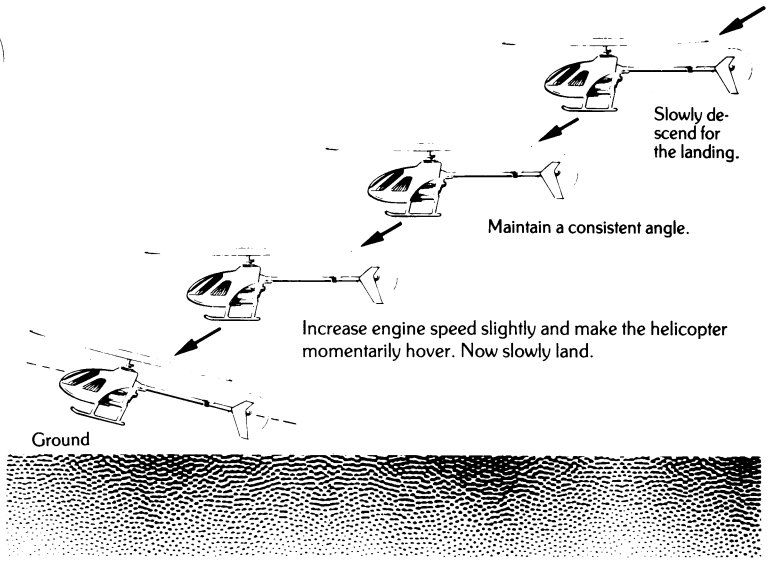
## FLYING STEP 6: LANDING

Landing is performed by flying into the wind and gradually guiding the helicopter towards the landing spot. Once you have started forward flight, the most common mistake is forgetting that you must return to hovering before landing. Landing requires more power as you near the ground.

**1** Basic landing control.




**2** Landing approach angle.




In order to perform a smooth decent, very delicate engine speed changes are necessary. Practice landings until you can do them well.

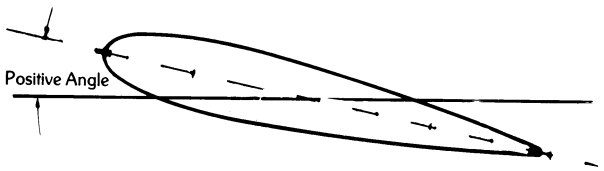
## FLYING STEP 7: AUTO ROTATION

The Concept 30 SR is equiped with an auto rotation system to minimize the damage of the helicopter in case the engine should stop during flight.

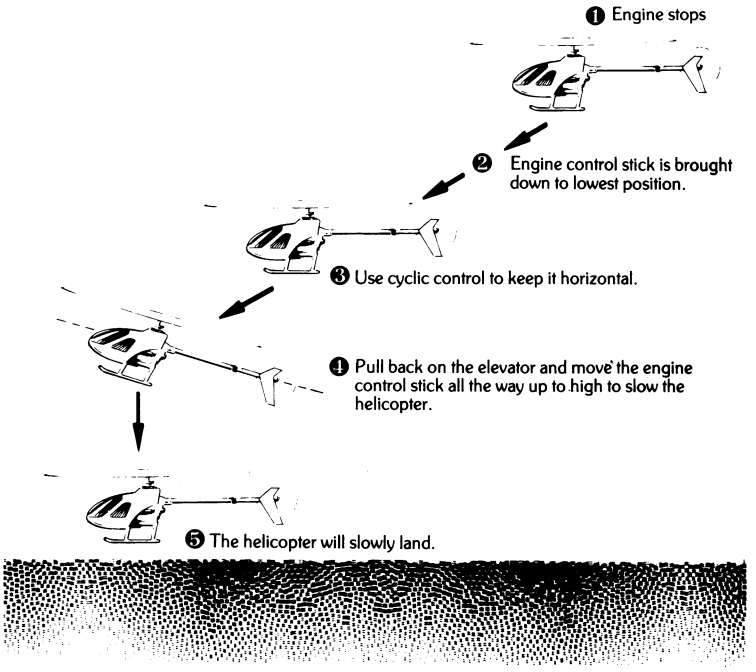
### AUTO ROTATION:

By making the main rotor pitch negative at low throttle, if the engine quits, the blades would continue to spin as the helicopter descends. Just before touching the ground the engine control is moved to the high position to slow the helicopter so it can land safely.

- For normal flights the pitch is positive.

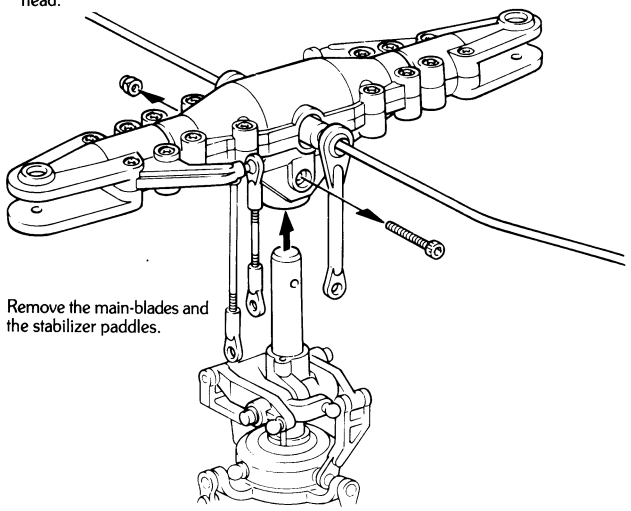



- For auto rotation capabilities set the low end pitch to -2~3° angle.



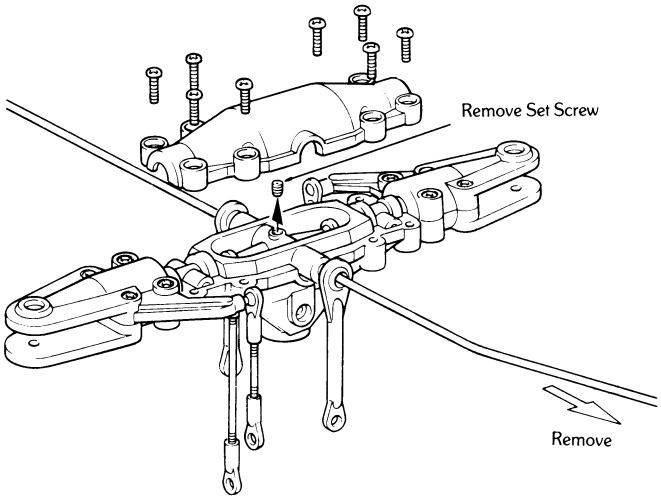
## REPLACEMENT OF THE STABILIZER BAR (FLYBAR)

1 Disconnect the linkages and remove the rotor head.

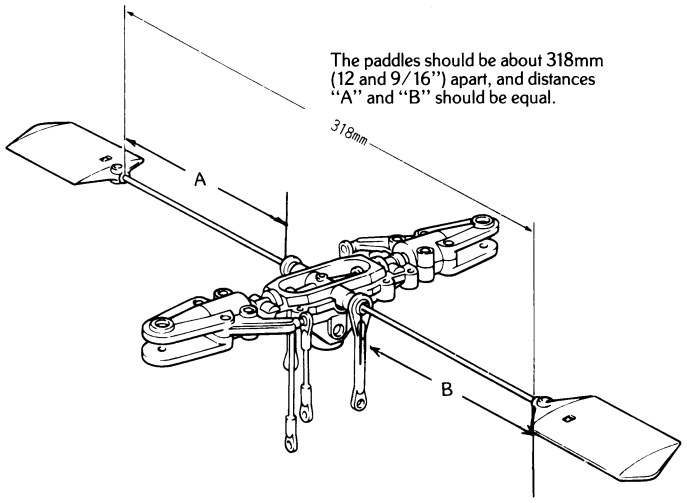


Remove the main-blades and the stabilizer paddles.

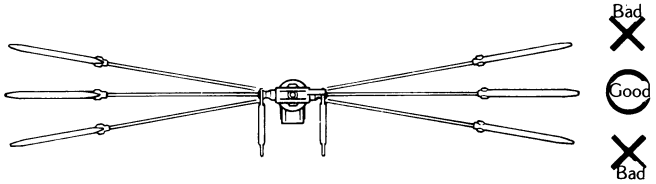
2 First remove the top cover and then the set screw. Next, pull the bar out. If you have drilled a small hole in the top (Step 6) you will not have to remove it.



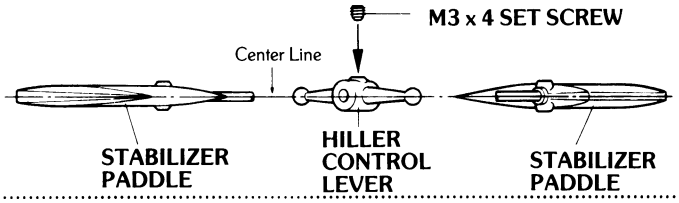

3 Insert the new stabilizer bar and reinstall the stabilizer paddles.




4 Slide the bar so that the head is balanced.

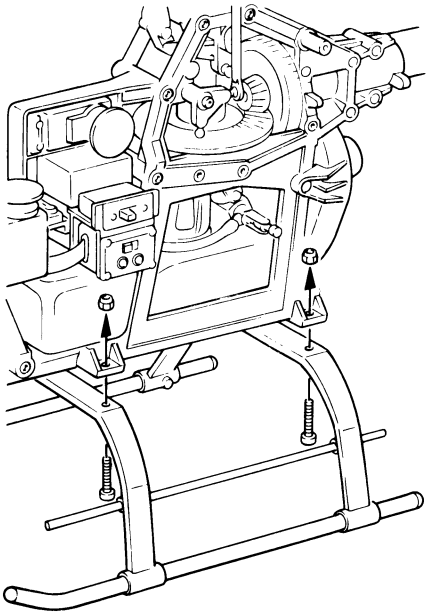



Tighten the Set Screw

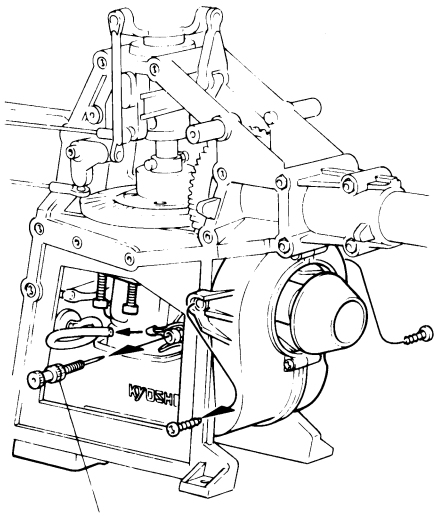



## REMOVING THE ENGINE (INSTALL IN THE REVERSE ORDER)

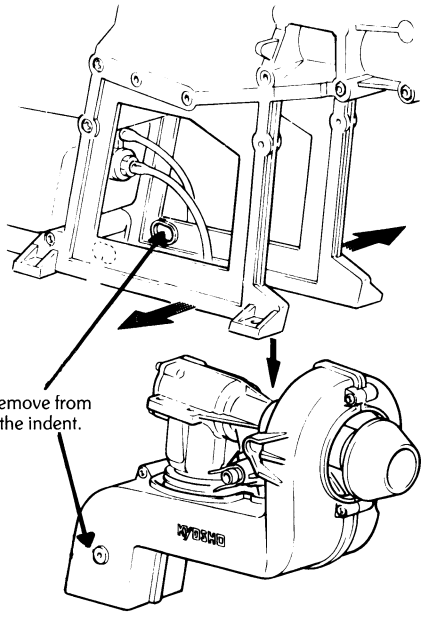
1 Remove the landing skids.



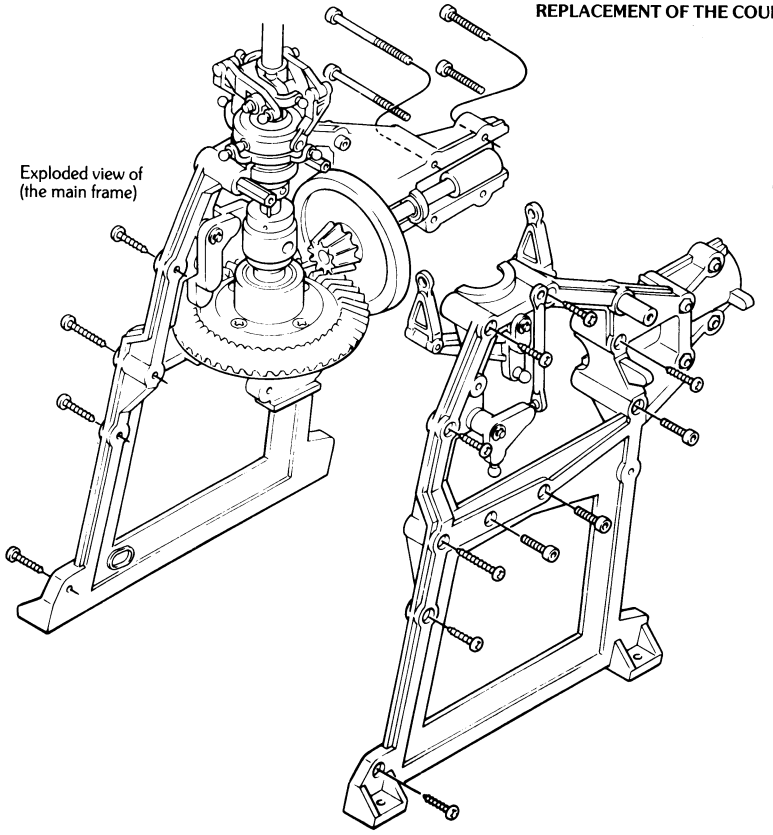
2 Next, remove the muffler, fuel line, linkage rod, and the needle valve. Then remove the engine mounting and shroud screws.

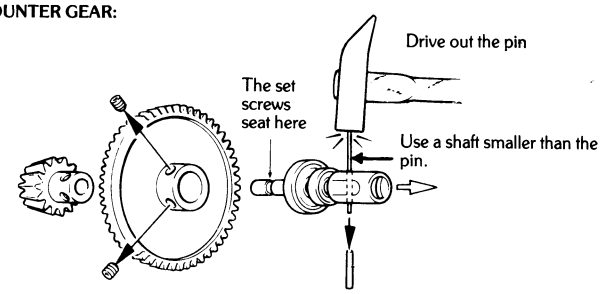



3 Spread the lower frame outward, lower the engine together with the fan shroud.

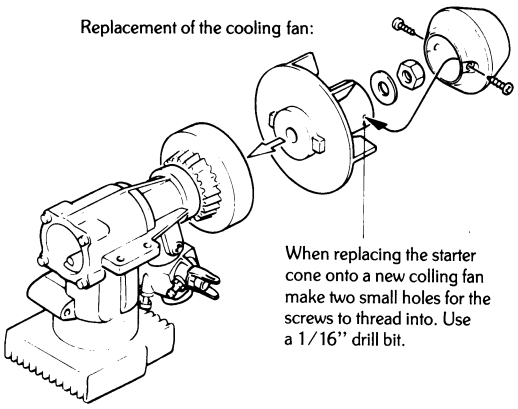


**REPLACEMENT OF THE COUNTER GEAR:**



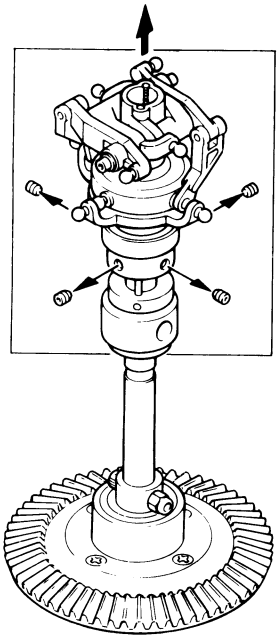




Replacement of the cooling fan:

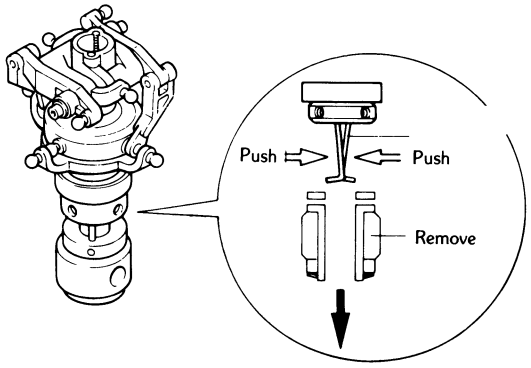



## REMOVING THE MAIN SHAFT

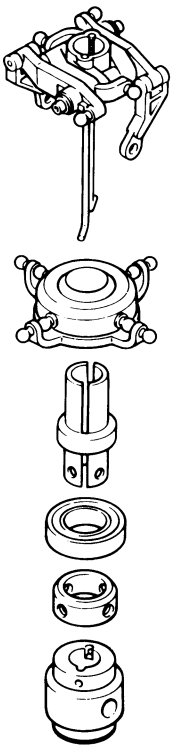
**1** Loosen the 4 set screws two turns and pull the assembly off the mast.



**2** Push in the wire rods and remove the parts as shown.

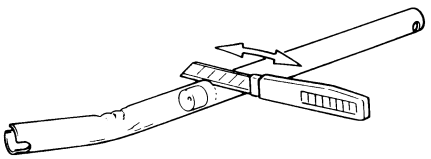



**3** Disassembled Parts

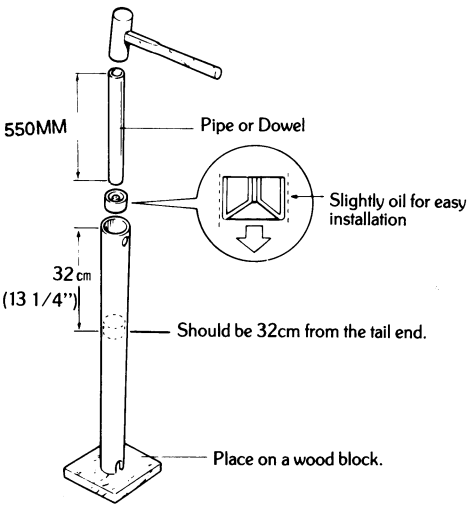


## REPLACEMENT OF THE DRIVE SHAFT GUIDE.

**1** Cut the boom on both sides of the guide and then carefully tap it out with a hammer and dowel rod (or pipe).



**2** To insert, drive the guide in its proper direction using a short pipe or dowel. Two or three guides is best.

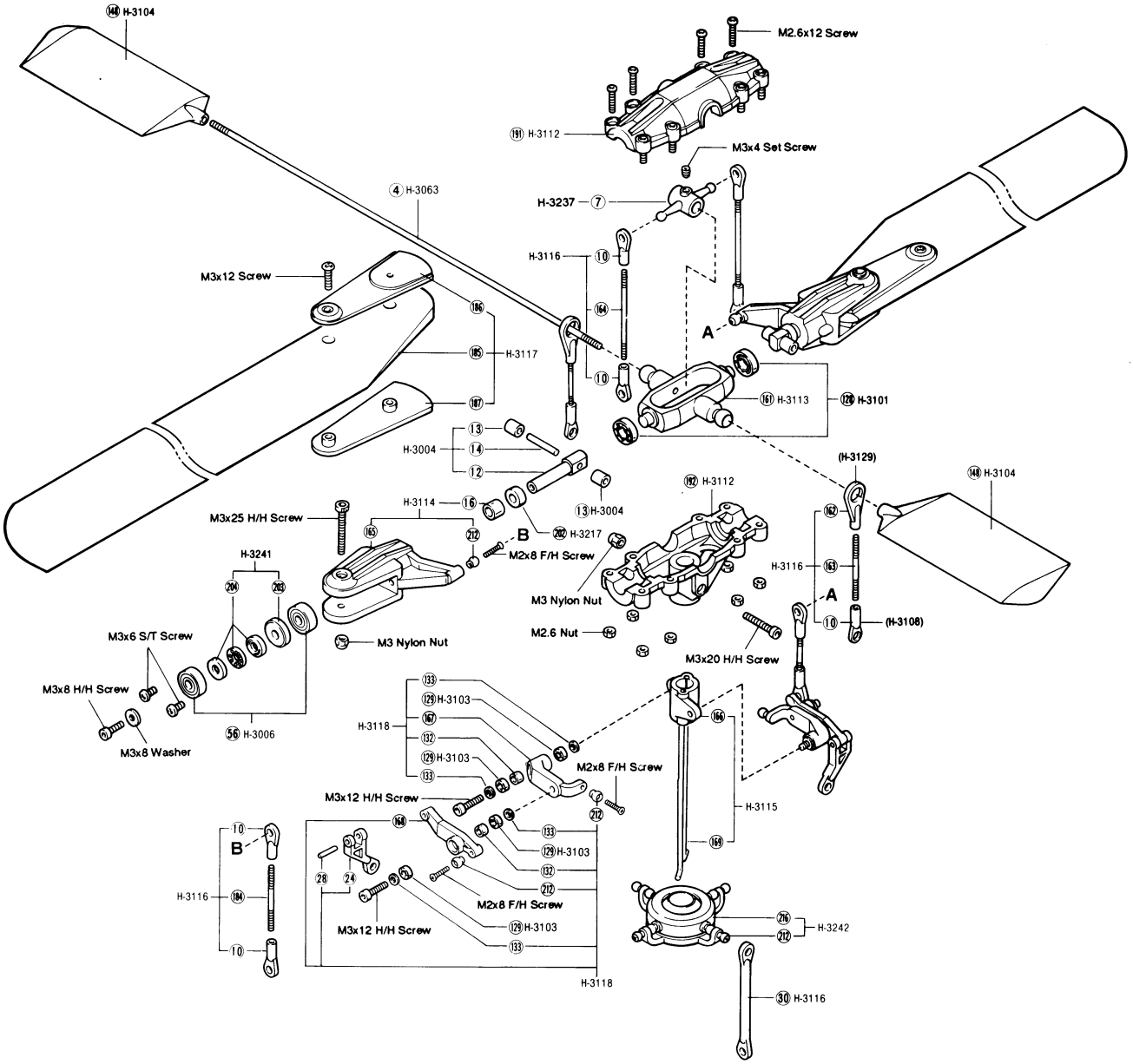


# CONCEPT 30 SR PARTS LIST

| KEY# | DESCRIPTION | Qty. |
|---|---|---|
| 4. | Flybar | 1 |
| 6. | Control Lever Bushing | 1 |
| 7. | Hiller Control Lever | 1 |
| 10. | Ball End (Medium) | 18 |
| 12. | Feathering Shaft | 2 |
| 13. | Flapping Hinge Bushing | 4 |
| 14. | Flapping Pin (3x18mm) | 2 |
| 16. | Bearing Spacer | 4 |
| 18. | 5mmx16mm Bearing | 1 |
| 24. | Cyclic Lever Link | 2 |
| 27. | Lever Bushing (A) | 1 |
| 28. | Cyclic Pin (2x10mm) | 2 |
| 30. | Aileron Link Rod | 1 |
| 31. | Elevator Link Rod | 2 |
| 32. | Elevator Lever | 1 |
| 33. | Lever Pin | 2 |
| 34. | Fore / Aft Cyclic Control Rod | 1 |
| 35. | Left / Right Cyclic Control Rod | 1 |
| 37. | Lever Bushing (B) | 1 |
| 39. | Pitch Rod Guide | 1 |
| 40. | 12mmx21mm Bearing | 1 |
| 41. | Mast Stopper | 1 |
| 46. | One-way Shaft | 1 |
| 47. | Main Gear | 1 |
| 48. | One-way Housing | 1 |
| 49. | 8mmx16mm Bearing | 1 |
| 50. | Engine Mount | 1 |
| 51. | Main Frame (L) | 1 |
| 52. | Main Frame (R) | 1 |
| 54. | Counter Gear | 1 |
| 55. | Secondary Shaft | 1 |
| 56. | 5mmx13mm Bearing | 5 |
| 57. | Tail Drive Coupling | 1 |
| 58. | 2x10mm Drive Pin | 1 |
| 59. | 2x14mm Link Pin | 2 |
| 60. | Threaded Insert (S) | 3 |
| 61. | Threaded Insert (L) | 1 |
| 62. | Starter Cone | 1 |
| 63. | Cooling Fan | 1 |
| 67. | Fan Shroud (R) | 1 |
| 68. | Fan Shroud (L) | 1 |
| 226. | Shaft Guide | 1 |
| 72. | Stabilizer Fin | 1 |
| 73. | Bracket | 1 |
| 74. | Vertical Fin | 1 |
| 75. | Tail Drive Joint | 1 |
| 76. | 8mmx14mm Bearing | 2 |
| 77. | Tail Input Gear | 1 |
| 78. | Tail Output Gear | 1 |
| 79. | 2mmx12mm Gear Pin | 1 |
| 80. | Tail Gearbox (R) | 1 |
| 81. | Tail Gearbox (L) | 1 |
| 82. | Tail Output Shaft | 1 |
| 83. | 5mmx10mm Bearing | 2 |
| 84. | Tail Shaft Thrust Collar | 1 |
| 85. | Tail Pitch Lever | 1 |
| 86. | Tail Pitch Ring | 1 |
| 87. | Tail Pitch Ring Pin | 1 |
| 88. | 6mmx10mm Bearing | 2 |
| 91. | Slide Bushing | 1 |
| 94. | Body Mount | 2 |
| 95. | Sub Frame | 1 |
| 96. | Servo Mounting Plates | 10 |
| 97. | Wire Holder | 2 |
| 98. | Frame Retainer | 2 |
| 99. | Front Frame | 1 |
| 101. | Skid | 2 |
| 102. | Skid Cap | 4 |
| 103. | Antenna Tube | 1 |
| 106. | Switch Mount | 1 |
| 107. | Body Mount (A) | 1 |
| 108. | Body Mount (B) | 1 |
| 109. | Tank | 1 |
| 110. | Tank Weight | 1 |
| 111. | Tank Adapter | 1 |
| 112. | Tank Cap | 1 |
| 113. | Seal Washer | 1 |
| 114. | Seal Nut | 1 |
| 115. | Silicone Tube | 1 |
| 116. | Silicone Tube (L) | 1 |
| 119. | Ball Link | 1 |
| 120. | Tail Control Link | 1 |
| 121. | Control Rod (Tail) | 1 |
| 122. | Control Rod (Throttle) | 1 |
| 123. | Control Rod (Pitch) | 1 |
| 126. | Clevis | 1 |
| 128. | 6mmx12mm Bearing | 4 |
| 129. | 3mmx16mm Bearing | 8 |
| 132. | Bearing Collar | 4 |
| 133. | Bearing Washer | 8 |
| 137. | 10mmx15mm Bearing | 2 |
| 140. | Tail Center Hub | 1 |
| 141. | M3x14 Threaded Rod | 2 |
| 142. | Thrust Bearing | 2 |
| 143. | Tail Grip (B) | 2 |
| 144. | Tail Grip (A) | 2 |
| 146. | Grommet | 2 |
| 147. | Body Installation Screw | 2 |
| 148. | Stabilizer Paddle | 2 |
| 150. | Mast Stopper Ring | 1 |
| 151. | Clutch Adapter (ENYA) | 1 |
| 152. | Rubber Band | 1 |
| 153. | Double Sided Tape | 1 |
| 154. | Washer (ENYA) | 1 |
| 161. | Stabilizer See-Saw | 1 |
| 162. | Ball End (Large) | 2 |
| 163. | Stabilizer Control Rod | 2 |
| 164. | Flybar Control Rod | 2 |
| 165. | Main Rotor Grip | 2 |
| 166. | Mixing Base | 1 |
| 167. | Mixing Lever | 2 |
| 168. | Cyclic Lever | 2 |
| 169. | Pitch Rod | 2 |
| 170. | Aileron Lever | 1 |
| 171. | Mast | 1 |
| 172. | Pitch Slider | 1 |
| 173. | Pitch Slider Link | 1 |
| 174. | Stopper Ring | 1 |
| 175. | Hard Bevel Pinion | 1 |
| 176. | Tail Drive Shaft | 1 |
| 177. | Tail Boom | 1 |
| 178. | Tail Pitch Plate | 1 |
| 179. | Tail Pitch Ball End | 2 |
| 180 | 2x8mm Pin | 2 |
| 181. | Brace | 1 |
| 182. | Tail Control Guide | 1 |
| 183. | Tail Control Rod | 1 |
| 184. | Pitch Control Rod | 2 |
| 185. | Main Blade | 2 |
| 186. | Blade Grip (A) | 2 |
| 187. | Blade Grip (B) | 2 |
| 188. | Pitch Lever | 1 |
| 189. | Decal | 1 |
| 191. | Rotor Head (B) | 1 |
| 192. | Rotor Head (A) | 1 |
| 202. | Flapper Damper | 2 |
| 203. | Metal Spacer | 2 |
| 204. | Thrust Bearing | 2 |
| 208. | Clutch Bell | 1 |
| 209. | Clutch Lining | 1 |
| 210. | Tail Blade | 2 |
| 211 | Pivot Ball | 6 |
| 212. | Pivot Ball | 17 |
| 213. | Body | 1 |
| 214. | Canopy | 1 |
| 216. | Swash Plate Assembly | 1 |
| 225. | Guide Bracket | 2 |
| 226. | 12mmx18mm Bearing | 2 |
| 227. | Clutch | 1 |

# PURCHASING PARTS FOR YOUR CONCEPT 30SR

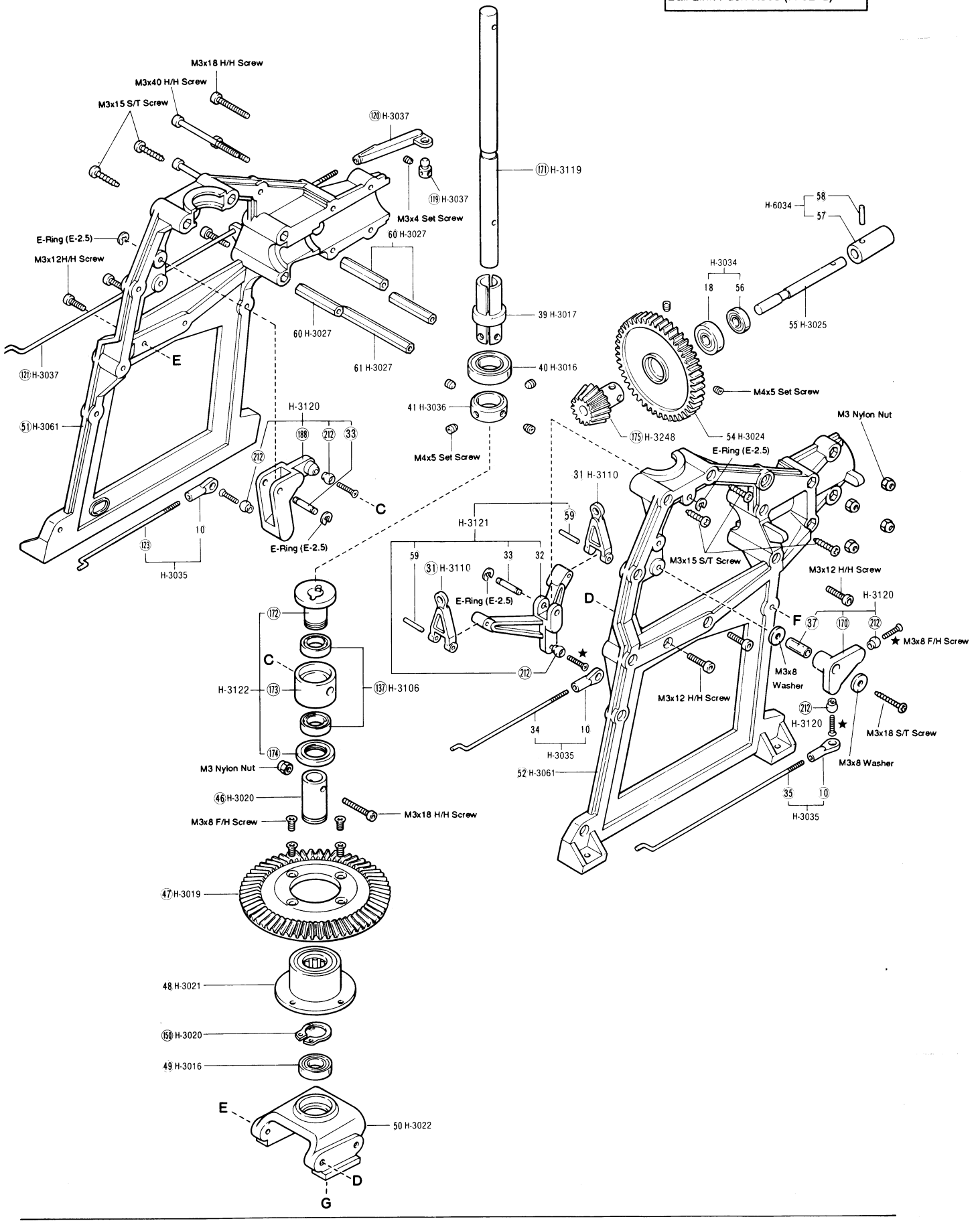
You can purchase replacement and optional parts for your kit. The parts are usually not available singularly, but we offer these parts in convenient parts "packs" which can be purchased separately. To figure out which parts pack you need, find the key number for that part within the manual. Then consult our parts pack guide below. When referring to the parts you need, always use the parts pack number. For instance, if you need a **Rotor Head (B) (key # 191)** ask your dealer for Kyosho parts Pack **H-3112.**

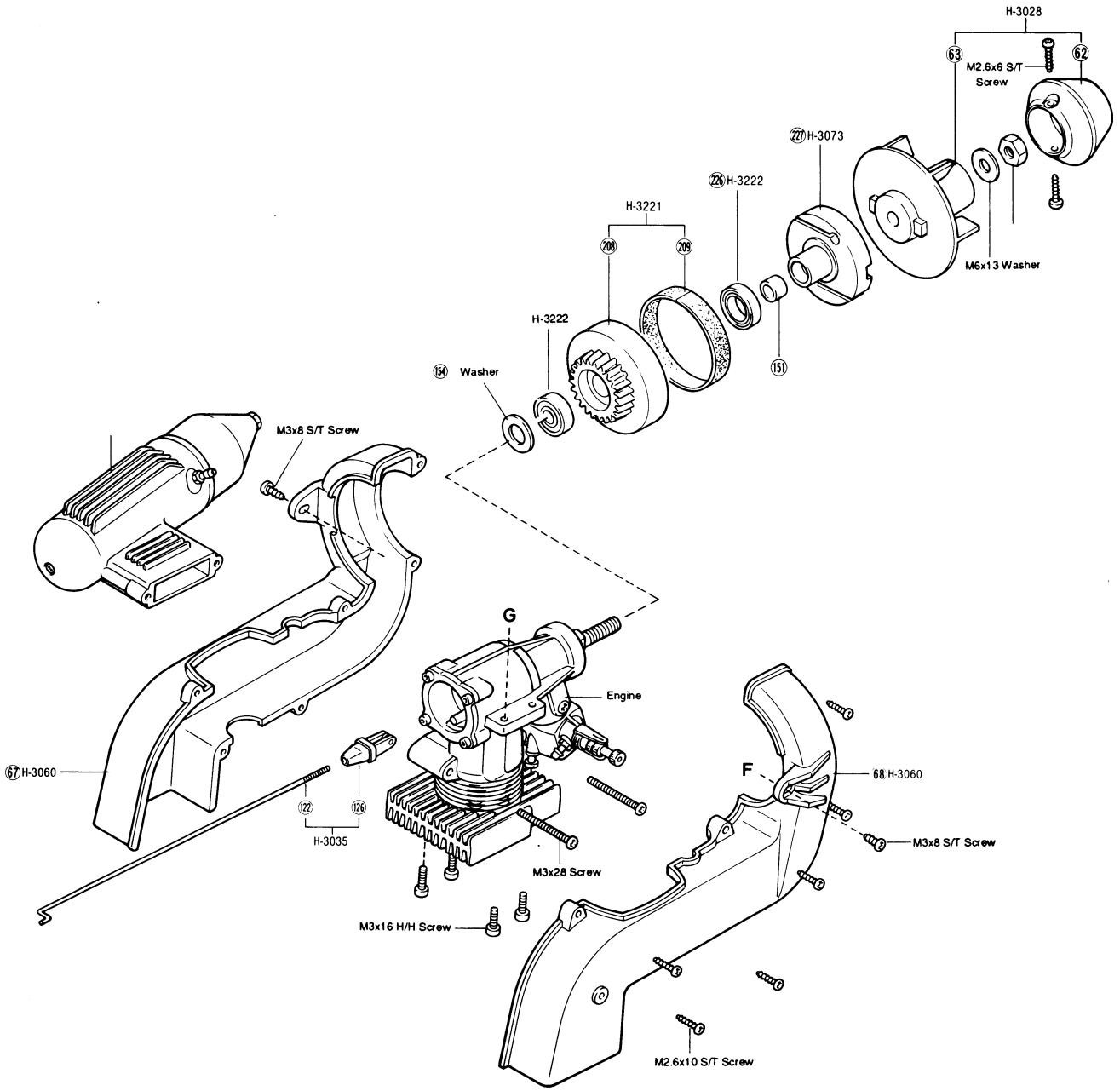



| Stock # | Parts Pack | Description | Contains |
|---|---|---|---|
| KYOE6100 | H-3112 | Rotor Head | (191) (192) x1 |
| KYOE6110 | H-3113 | See-Saw | (161) x1 |
| KYOE1030 | H-3003 | Hiller Control Set | (6) (7) x1 |
| KYOE1040 | H-3004 | Feathering Shaft Set | (12) (14) x2 (13) x4 |
| KYOE5015 | H-3217 | Hard Dampers Red | (202) x10 |
| KYOE1060 | H-6006 | 5x13x4mm Bearing | (56) x2 |
| KYOE6120 | H-3114 | Main Rotor Grip | (16) (165) (212) x2 |
| KYOE6130 | H-3115 | Mixing Base | (166) x1 (169) x2 |
| KYOE6140 | H-3116 | Linkage Set (A) | (162) (163) (164) (184) x2 (10) x10 (30) x1 |
| KYOE1125 | H-3242 | Swash Plate | (216) x1 (212) x7 |

| Stock # | Parts Pack | Description | Contains |
|---|---|---|---|
| KYOE1150 | H-3063 | Stabilizer Bar | (4) x2 |
| KYOE6150 | H-3117 | Main Rotor Set | (185) (186) (187) x2 |
| KYOE1300 | H-3101 | Stabilizer See-Saw Bearing | (128)x2 |
| KYOE6160 | H-3118 | Mixing Lever Set | (24) (28) (167) (168) x2 (132) (212) x4 (133) x8 |
| KYOE1320 | H-3103 | Mixing Lever Bearing | (129) x4 |
| KYOE1330 | H-3104 | Stabilizer Blade | (148) x2 |
| KYOE5055 | H-3108 | Ball End Set | (10) x10 |
| KYOE5060 | H-3109 | Cyclic Lever Link | (24) x2 |
| KYOE6270 | H-3129 | Stabilizer Ball End | (162) x6 |
| KYOE1135 | H-3241 | Thrust Bearing Set | (203) (204) x2 |

**NOTE:** The "Z-Bend" servo pushrods shown are not included. The Concept 30 SR Kits come with Ball Link Push Rods (H-3212)

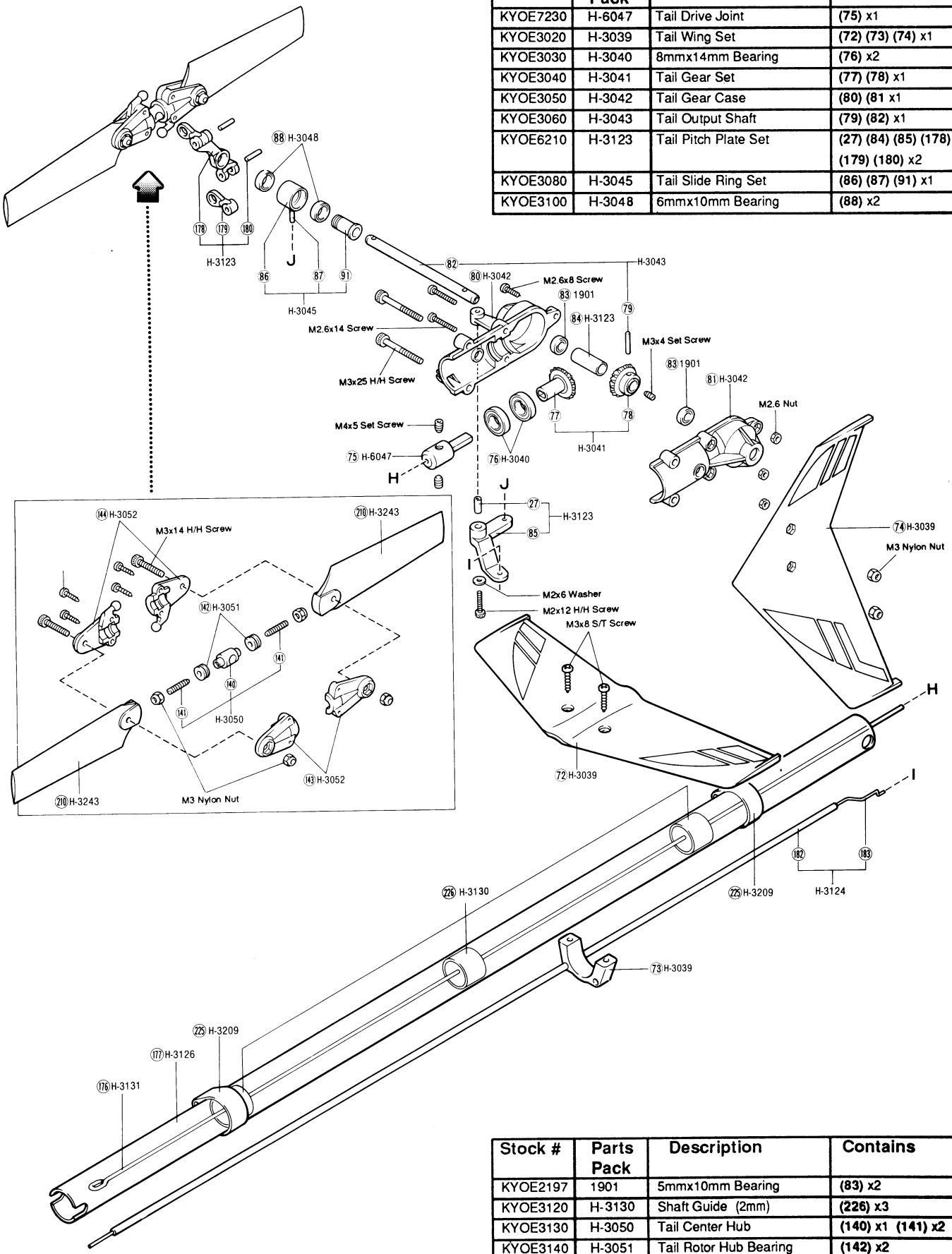




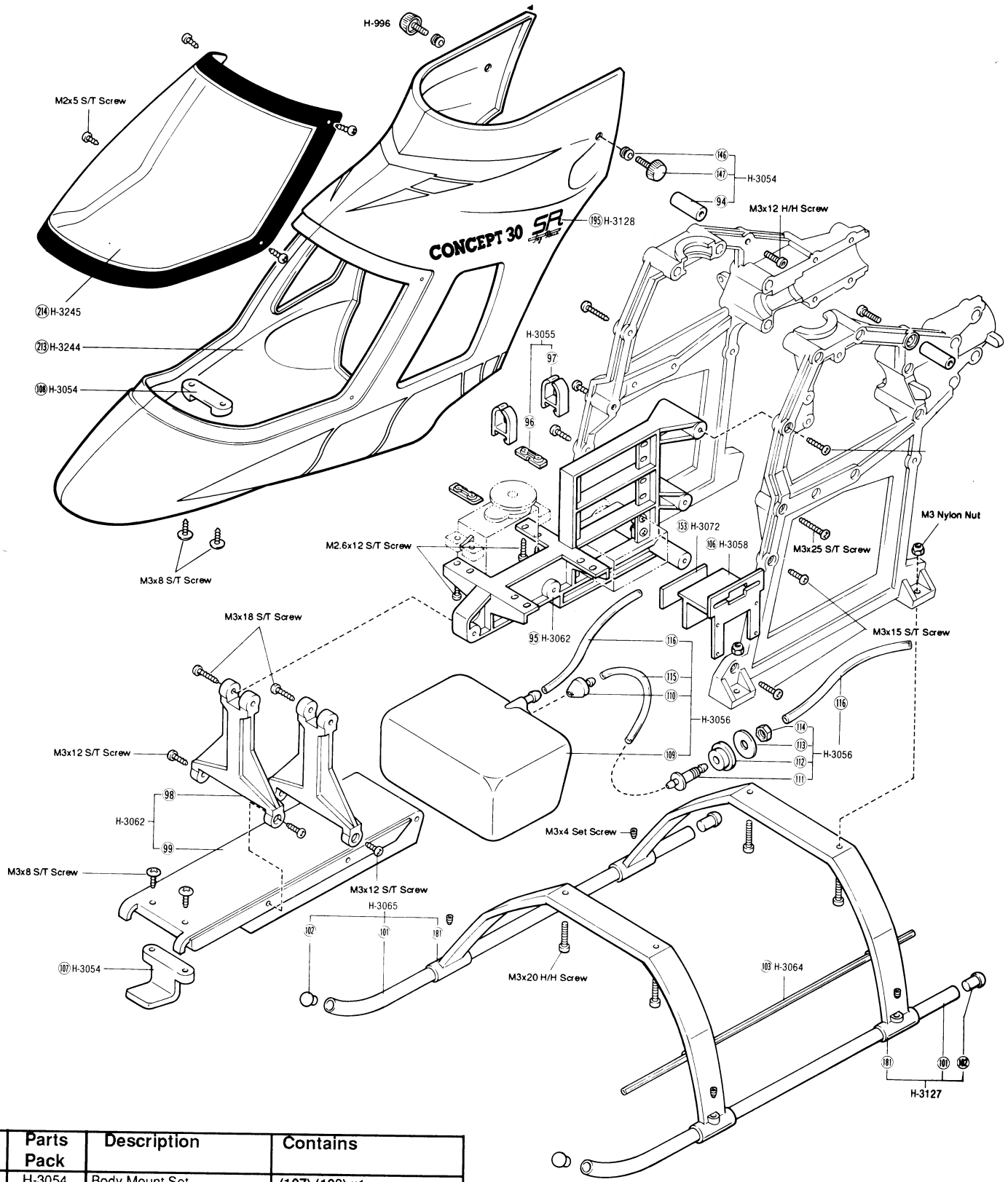

| Stock # | Parts Pack | Description | Contains |
|---|---|---|---|
| KYOE6170 | H-3119 | Main Mast | **(171)** x1 |
| KYOE2020 | H-3016 | Main Mast Bearing | **(40) (49)** x1 |
| KYOE2030 | H-3017 | Pitch Rod Guide | **(39)** x1 |
| KYOE2050 | H-3019 | Main Gear | **(47)** x1 |
| KYOE2060 | H-3020 | One-Way Shaft | **(46) (150)** x1 |
| KYOE2070 | H-3021 | One-Way Housing | **(48)** x1 |
| KYOE2080 | H-3022 | Engine Mount | **(50)** x1 |
| KYOE6055 | H-3248 | Hard Bevel Pinion | **(175)** x1 |
| KYOE2100 | H-3024 | Counter Gear | **(54)** x1 |
| KYOE2110 | H-3025 | Secondary Shaft | **(55)** x1 |
| KYOE7165 | H-6034 | Tail Drive Coupling | **(57) (58)** x1 |
| KYOE2130 | H-3027 | Threaded Inserts | **(61)** x1 **(60)** x3 |
| KYOE2140 | H-3028 | Starter Cone Set | **(62) (63)** x1 |
| KYOE2155 | H-3073 | One Piece Clutch | **(227)** x1 |
| KYOE5042 | H-3221 | Drive Gear | **(208) (209)** x1 |
| KYOE6190 | H-3121 | Elevater Lever Set | **(32) (33) (212)** x1 **(59)** x2 |

| Stock # | Parts Pack | Description | Contains |
|---|---|---|---|
| KYOE6180 | H-3120 | Aileron Pitch Lever Set | **(33) (37) (170) (188)** x1 **(212)** x4 |
| KYOE2200 | H-3034 | Secondary Shaft Bearing | **(18) (56)** x1 |
| KYOE2210 | H-3035 | Linkage Set (B) | **(34) (35) (122) (123) (126)** x1 **(10)** x3 |
| KYOE2220 | H-3036 | Mast Stopper | **(41)** x1 |
| KYOE2230 | H-3037 | Rudder Linkage Rod | **(119) (120) (121)** x1 |
| KYOE2240 | H-3060 | Fan Shroud | **(67) (68)** x1 |
| KYOE2250 | H-3061 | Main Frame | **(51) (52)** x1 |
| KYOE6200 | H-3122 | Pitch Slider Set | **(172) (173) (174)** x1 |
| KYOE2270 | H-3106 | 10mmx15mm Bearing | **(137)** x2 |
| KYOE5044 | H-3222 | 12mmx18mm Bearing | **(226)** x2 |
| KYOE5070 | H-3110 | Elevator Link Rod | **(31)** x2 |
| KYOE7325 | H-6066 | Linkage Ball | **(212)** x10 |
| KYOE2156 | H-997 | Clutch Liner | **(209)** x3 |

| Stock # | Parts Pack | Description | Contains |
|---|---|---|---|
| KYOE7230 | H-6047 | Tail Drive Joint | **(75)** x1 |
| KYOE3020 | H-3039 | Tail Wing Set | **(72) (73) (74)** x1 |
| KYOE3030 | H-3040 | 8mmx14mm Bearing | **(76)** x2 |
| KYOE3040 | H-3041 | Tail Gear Set | **(77) (78)** x1 |
| KYOE3050 | H-3042 | Tail Gear Case | **(80) (81** x1 |
| KYOE3060 | H-3043 | Tail Output Shaft | **(79) (82)** x1 |
| KYOE6210 | H-3123 | Tail Pitch Plate Set | **(27) (84) (85) (178)** x1 **(179) (180)** x2 |
| KYOE3080 | H-3045 | Tail Slide Ring Set | **(86) (87) (91)** x1 |
| KYOE3100 | H-3048 | 6mmx10mm Bearing | **(88)** x2 |




| Stock # | Parts Pack | Description | Contains |
|---|---|---|---|
| KYOE2197 | 1901 | 5mmx10mm Bearing | **(83)** x2 |
| KYOE3120 | H-3130 | Shaft Guide (2mm) | **(226)** x3 |
| KYOE3130 | H-3050 | Tail Center Hub | **(140)** x1 **(141)** x2 |
| KYOE3140 | H-3051 | Tail Rotor Hub Bearing | **(142)** x2 |
| KYOE3150 | H-3052 | Tail Rotor Grip | **(143) (144)** x1 |
| KYOE3095 | H-3243 | Tail Rotor | **(210)** x1 |
| KYOE6220 | H-3124 | Tail Linkage Set | **(182) (183)** x1 |
| KYOE6230 | H-3131 | Tail Drive Shaft (2mm) | **(176)** x2 |
| KYOE6240 | H-3126 | Tail Boom | **(177)** x1 |
| KYOE5050 | H-3209 | Tail Link Guide | **(225)** x2 |
| KYOE3155 | ENS-04 | Tail Rotor Grip Axle | **(141)** x4 |




| Stock # | Parts Pack | Description | Contains |
|---|---|---|---|
| KYOE4010 | H-3054 | Body Mount Set | (107) (108) x1<br>(94) (146) (147) x2 |
| KYOE4020 | H-3055 | Servo Plate / Wire Holder | (97) x2 (96) x10 |
| KYOE4030 | H-3056 | Fuel Tank Set | (109) (110) (111) (112) (113)<br>(114) (115) (116) x1 |
| KYOE4040 | H-3057 | Screw Set | |
| KYOE4050 | H-3058 | Switch Mount | (106) x1 |
| KYOE4060 | H-3128 | SR Decal | (195) x1 |
| KYOE4070 | H-3062 | Front Frame Set | (95) (99) x1 (98) x2 |
| **KYOE4080** | H-3064 | Antenna Tube | (103) x5 |
| **KYOE6250** | H-3127 | Landing Gear Set | (101) (181) x2 (102) x4 |

| Stock # | Parts Pack | Description | Contains |
|---|---|---|---|
| KYOE4105 | H-3244 | Body | (213) x1 |
| KYOE4107 | H-3245 | Canopy | (214) x1 |
| KYOE4115 | H-3072 | Double Sided Tape | (153) x1 |
| KYOE6071 | H-996 | Canopy Screw | (147) x8 |

## OPTIONAL PARTS LIST

**KYOE1140** **H-3014** Aluminum DX Stabilizer Blades. Can be used on the Concept 30 SR for beginners for a more stable flight.

**KYOE5025** **H-3205** Rotor Blade Case for safe storege and transpertation.

**KYOE2052** **H-3210** Main Gear Shims. Use to raise the Main Gear.

**KYOE5038** **H-3211** Metal Joint Set. Are used with Hex Head Screws to hold the Main Frame together.

**KYOE5052** **H-3220** Tracking Tape for tracking and balancing blades.

**KYOE5085** **H-3226** Muffler for optional bodies or regular 'Pod and Boom' configuration.

**KYOE0321** **H-3208** Hughes 300 Scale Fuselage

**KYOE0300** **H-3213** Jet Ranger Scale Fuselage

**KYOE0310** **H-3214** Hughes 500 Scale Fuselage

**KYOE0327** **H-3252** Bell 222 Scale Fuselage (without retracts)

**KYOE0328** **H-3253** Retracts for the Bell 222 Fuselage

**KYOE5010** **H-3201** Flapping Hinge Bearing

## FLIGHT RECORD

# WARRANTY INFORMATION

## WHAT THE CONCEPT 30SR WARRANTY MEANS TO YOU

- For 90 days after you purchase your CONCEPT 30SR, Kyosho will either repair or replace, at no charge, any incorrectly made part.

- Make sure you SAVE THE RECEIPT OR INVOICE you were given when you bought your model! It's your proof of purchase - and we must see it before we can honor the warranty.

- To send your CONCEPT 30 SR in for repairs covered under warranty, you should send your Helicopter to Kyosho's authorized U.S. repair facility:

Hobby Services
1610 Interstate Drive
Champaign, Illinois 61821
Attn. Service Department
Phone: (217) 398-0007

- For details on your return, be sure to follow Steps 1-4 under the "Repair Service Available Anytime" section.

**Limit of our Liability:**
Our liability under this warranty is limited to the repair or replacement of defective parts by Hobby Services and does not include cost of shipping to us. Hobby Services does pay the shipping expense to return warranty items to you.

**Exclusion and/or Voidance of Warranty:**
This warranty does not apply to damage or defects resulting from misuse, abnormal service, damage in shipment, damage resulting from a crash, or damage to the car caused by the batteries. 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. We are sorry, but we cannot be responsible for crash damage and/or resulting loss of kits, engines, accessories, etc.

# REPAIR SERVICE AVAILABLE ANYTIME

- After the 90-day warranty has expired, you can still have your CONCEPT 30 SR repaired for a small charge by the experts at Kyosho's authorized U.S. repair facility.

Hobby Services
1610 Interstate Drive
Champaign, Illinois 61821
Attn. Service Department
Phone: (217) 398-0007

- To speed up the repair process, please follow the instructions listed below:

1.) Under all circumstances, return the ENTIRE system: Helicopter and Radio.

2.) Disconnect the receiver battery switch harness, and make sure the transmitter is turned off. Make sure all batteries are disconnected and any fuel drained.

3.) Send written instructions which include: 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. If you expect your repair to be covered under warranty, be sure to include proof of date of purchase (your store receipt or purchase invoice).

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.