RC SUPER MINI HELICOPTER RC電動ミニヘリコプター

EH-550

INSTRUCTION MANUAL

MADE IN JAPAN

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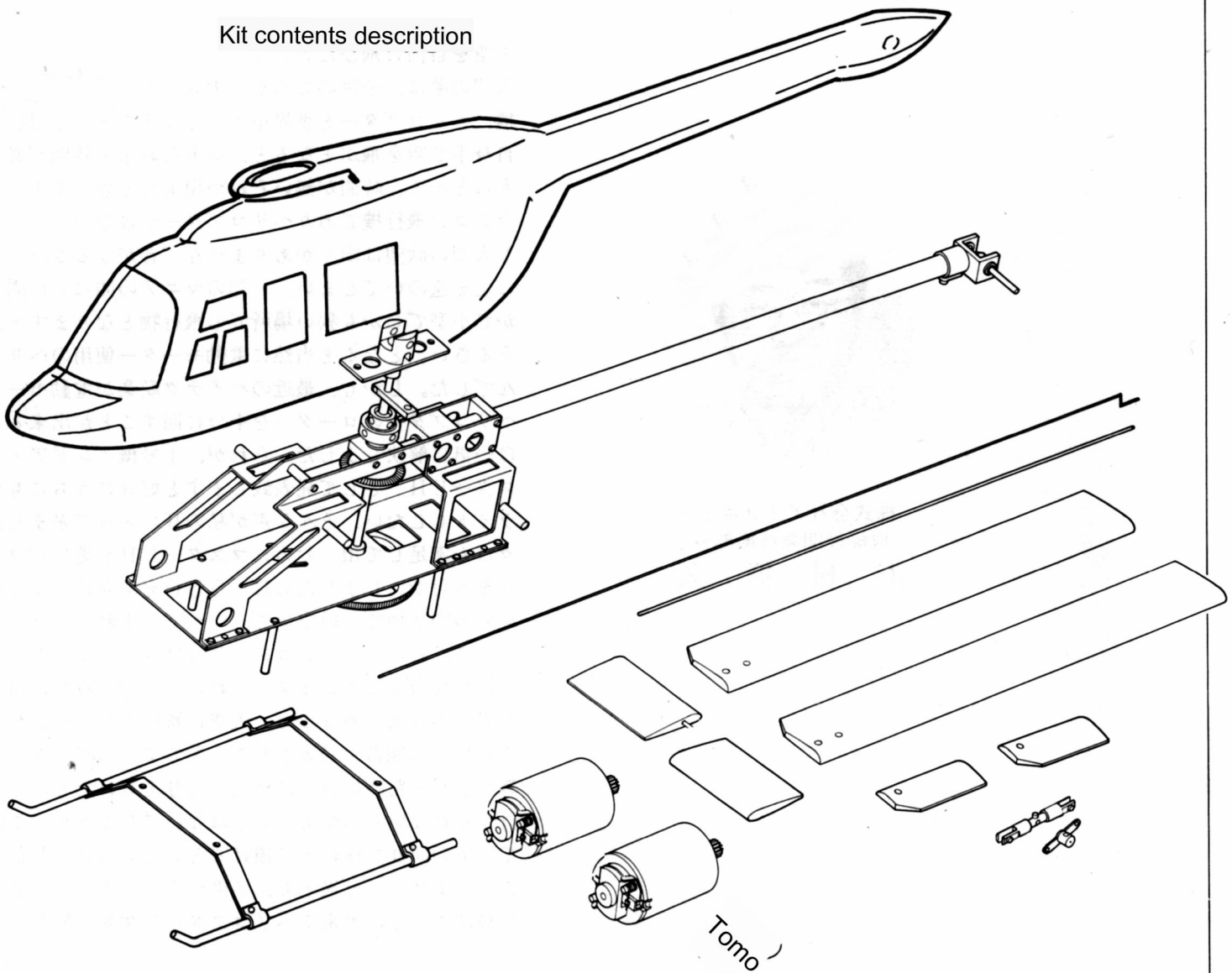
Development Technology Department,
Isonic Co., Ltd.

I want to fly freely in the sky!'
Dreams are something that people carry on from childhood to adulthood. It is true that they fly around the sky on airplanes and helicopters all over the world. However, flying in the sky with your own hands requires a huge amount of money and time. Isn't it a radio-controlled airplane and a helicopter to substitute such a wish? Even in such a boom, human desires are limitless. When it comes to flying objects that are quiet, small, and can fly in confined spaces, naturally the only thing we can think of is a helicopter that uses an electric motor if the engine is noisy. Moreover, the recent high-tech industry has made great strides in developing electric motors, making it possible to fully turn the rotors of helicopters, and these problems have been solved at once. We will announce the Master EH developed for the first indoor flight, and it has been well received. In order to satisfy such people, we have developed the EH-550, which is a more powerful Master EH that can be used outdoors. You can easily fly from a parking lot at any time.However, there are some differences between a radio-controlled helicopter and a car or a ship. It is necessary to practice a certain amount of practice in order to soar in the sky and fly freely. If this joy can be felt in your home and around your home, it would be such a pleasure for me, as a designer. No. I would like to continue to make efforts to develop a helicopter that can be easily flown by children, adults, and even women.

※ The specifications of this machine are subject to change without notice for performance improvement.

Kit contents description

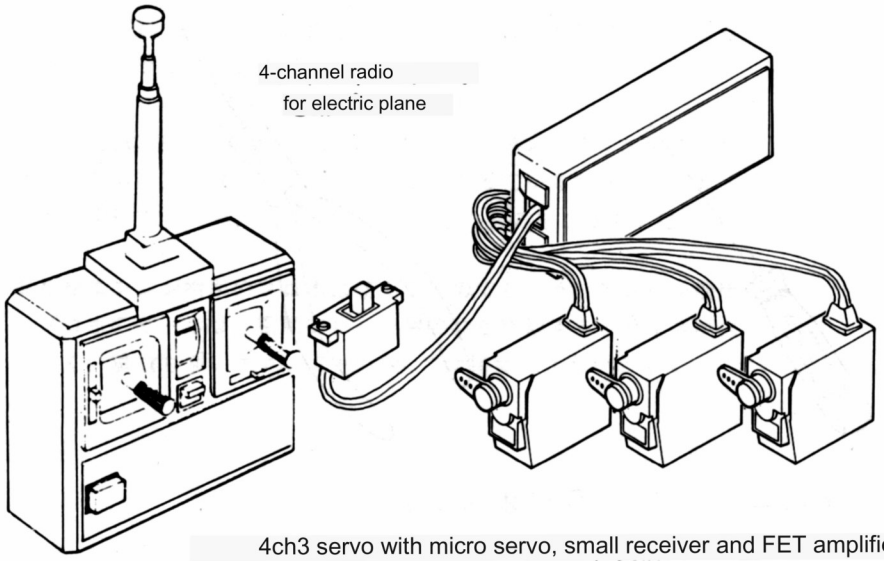
- clear body	1 set
•Main body assembly	1 set
• Rotor set	set
•Motor	2 pieces
•2 noise killer capacitors	
•Rod set	set
• Landing Gear	1 piece
-Tail PC set	set
● code	1
•Double-sided tape	1 sheet
• Screw set	set



what you need to fly

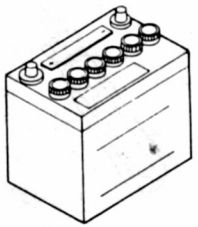
Items to be Purchased Separately

4-channel radio
for electric plane



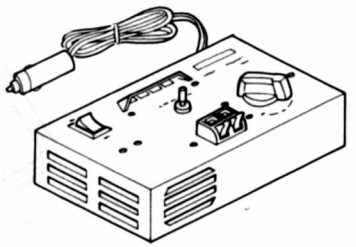
4ch3 servo with micro servo, small receiver and FET amplifier

12V battery
for starter



fast charger

For electric cars
(8.4V chargeable,
current adjustable)

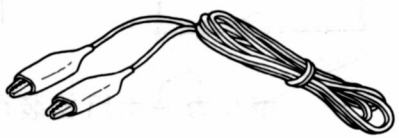


<For long flight practice indoors...>

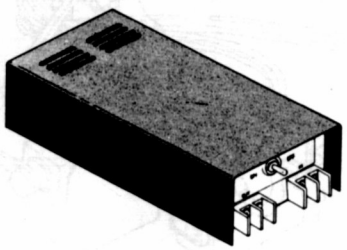
★ Manufacturer's genuine option

practice code

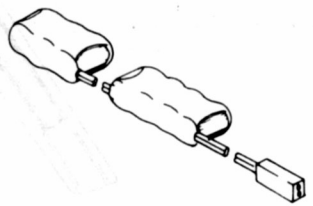
Input battery cord



DC-DC
converter

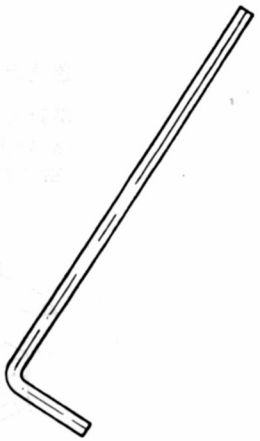


Ni-Cd battery
7N-600AE

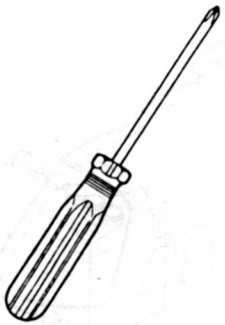


What you need for assembly)

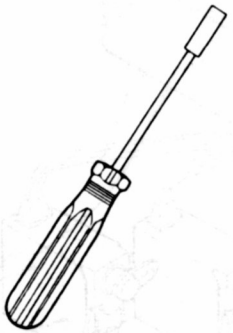
★ Tools to prepare



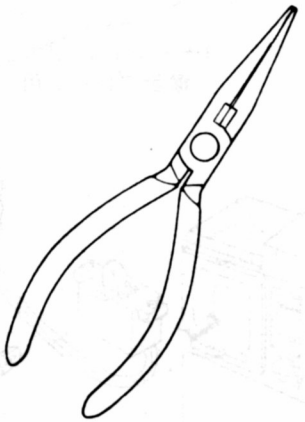
1.5mm hex wrench



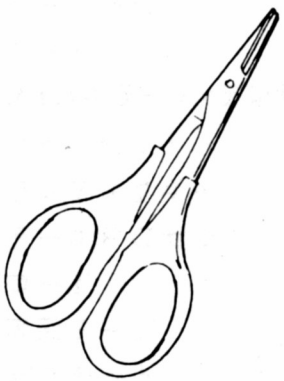
+ screwdriver (small)



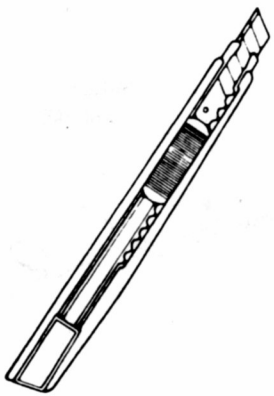
BOX driver for 2mm



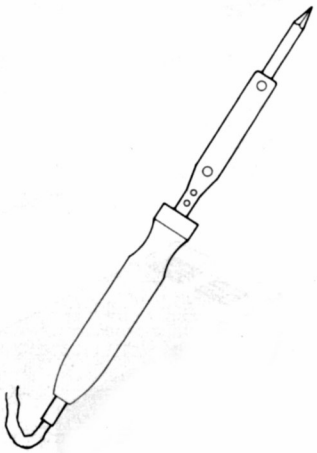
needle nose pliers



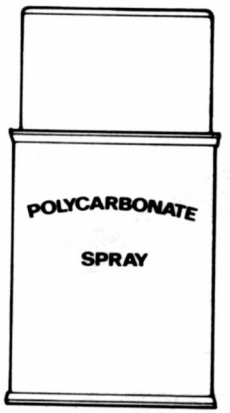
scissors



cutter knife



soldering iron



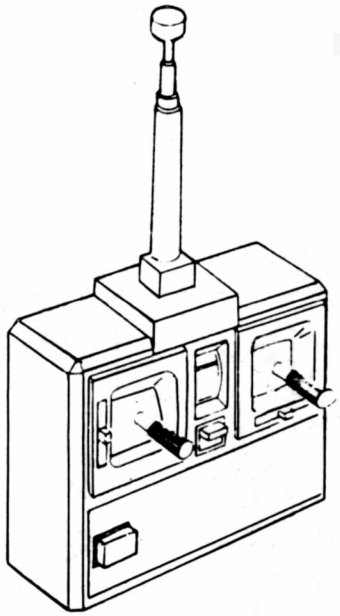
Paint for Polycarbonate

EH-550 radio

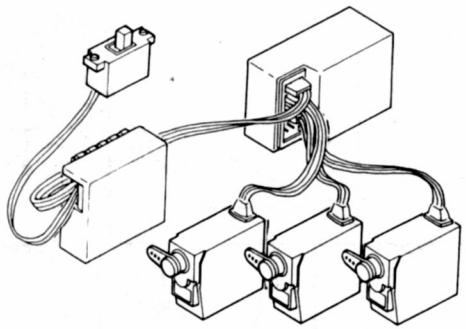
The EH-550 is exclusively for 4-channel electric plane radios.
Propo for engine machine cannot be used.

The number of servos used for the EH-550 is 3 servos and 1 amp, but it is convenient to use a receiver and amp integrated in order to reduce the weight of the aircraft. Please use an amplifier that supports 8.4V.

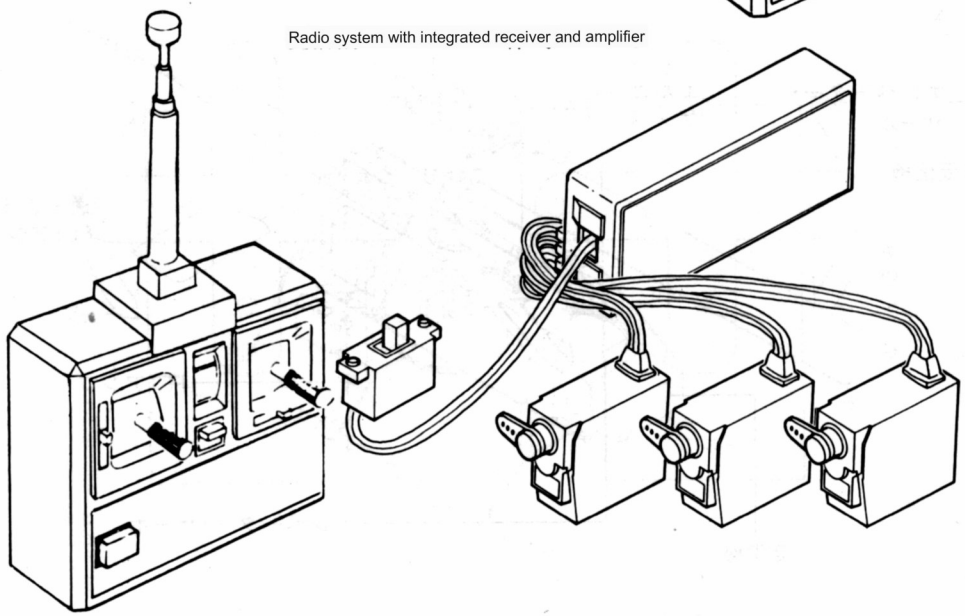
* Why can't I use the engine-type radio system? The servo for the engine-type system is larger and heavier than the one for the electric plane, so it cannot be installed on the EH-550.



Propo for general electric plane

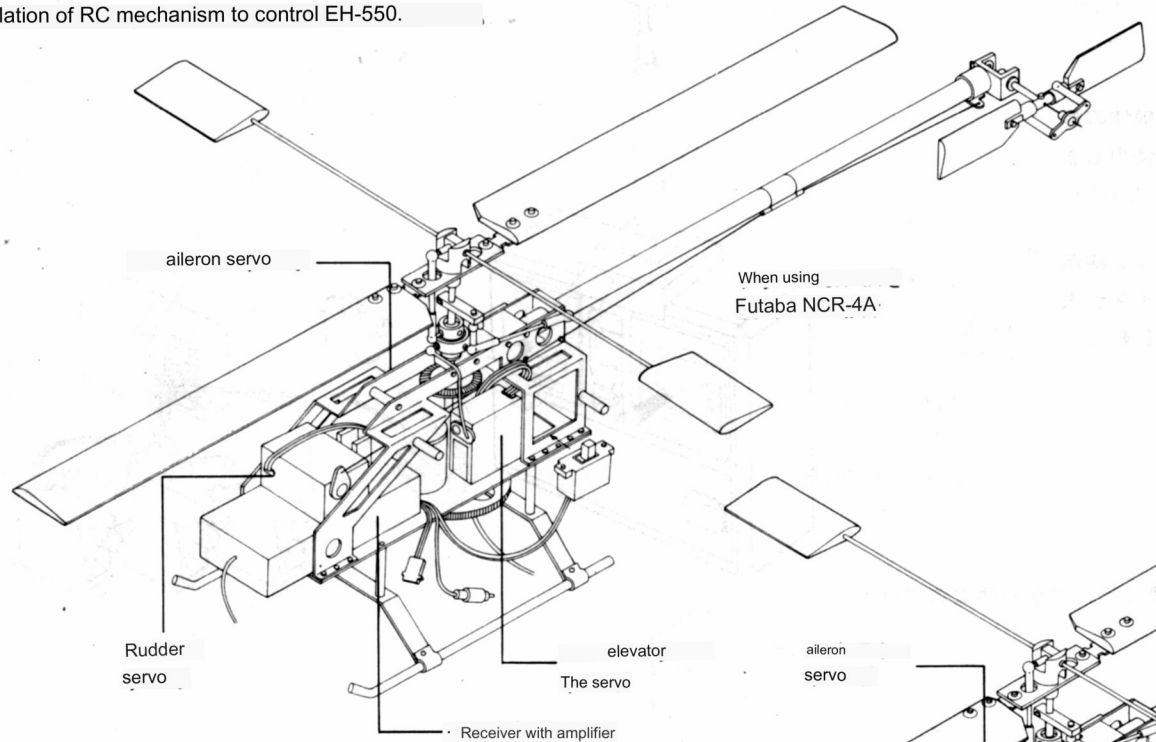


Radio system with integrated receiver and amplifier

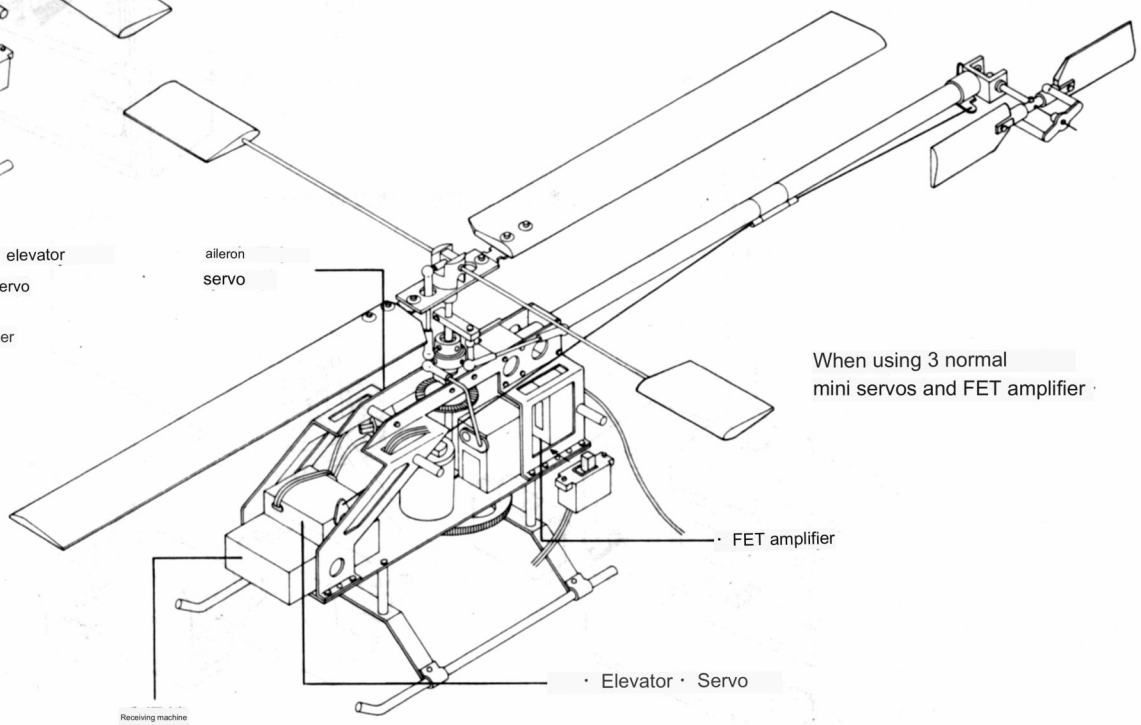


2 ways

Installation of RC mechanism to control EH-550.



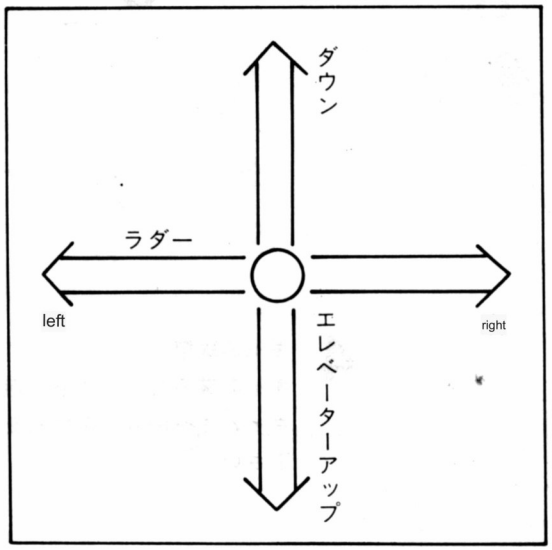
When using
Futaba NCR-4A

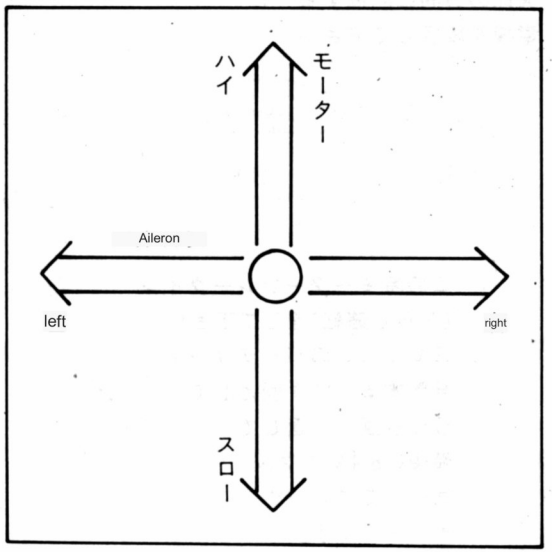


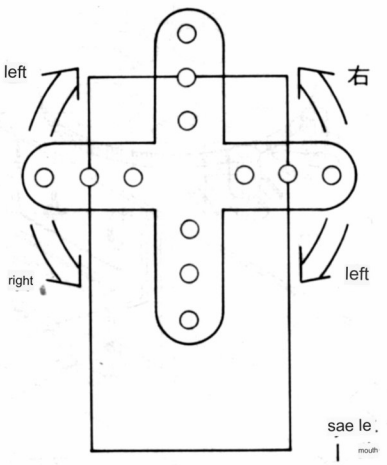
When using 3 normal
mini servos and FET amplifier

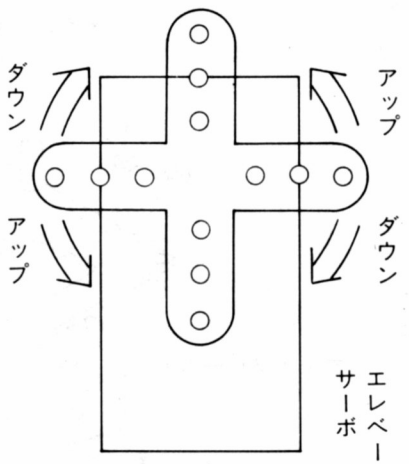
Plug in the transmitter, connect the battery to the receiver, switch on the transmitter, then switch on the receiver and check if it works as shown on the right.

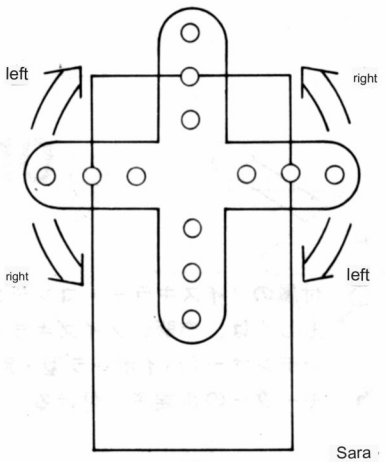
Also, for the reverse dynamic dimension CL, put the transmitter's) ッ 1 (reverse) メ丶 side to the side where it moves normally.











※Movement of one evening

here

Seer. ”

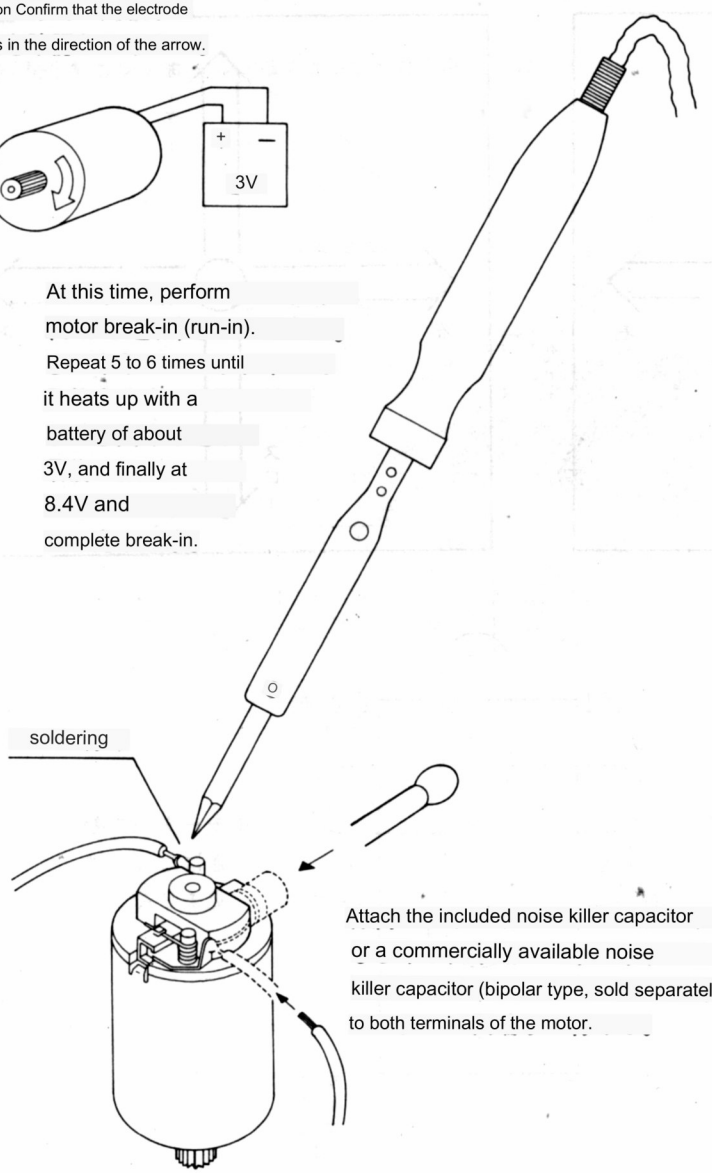
motor mounting

1 Confirmation of rotation

■ direction Confirm that the electrode rotates in the direction of the arrow.

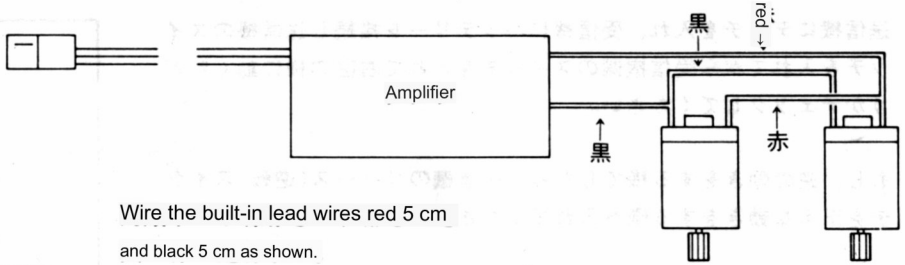
At this time, perform motor break-in (run-in). Repeat 5 to 6 times until it heats up with a battery of about 3V, and finally at 8.4V and complete break-in.

2



Attach the included noise killer capacitor or a commercially available noise killer capacitor (bipolar type, sold separately) to both terminals of the motor.

3 Connect the 8.4V connector.

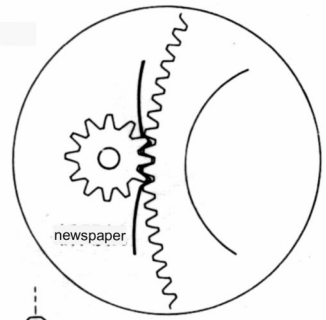


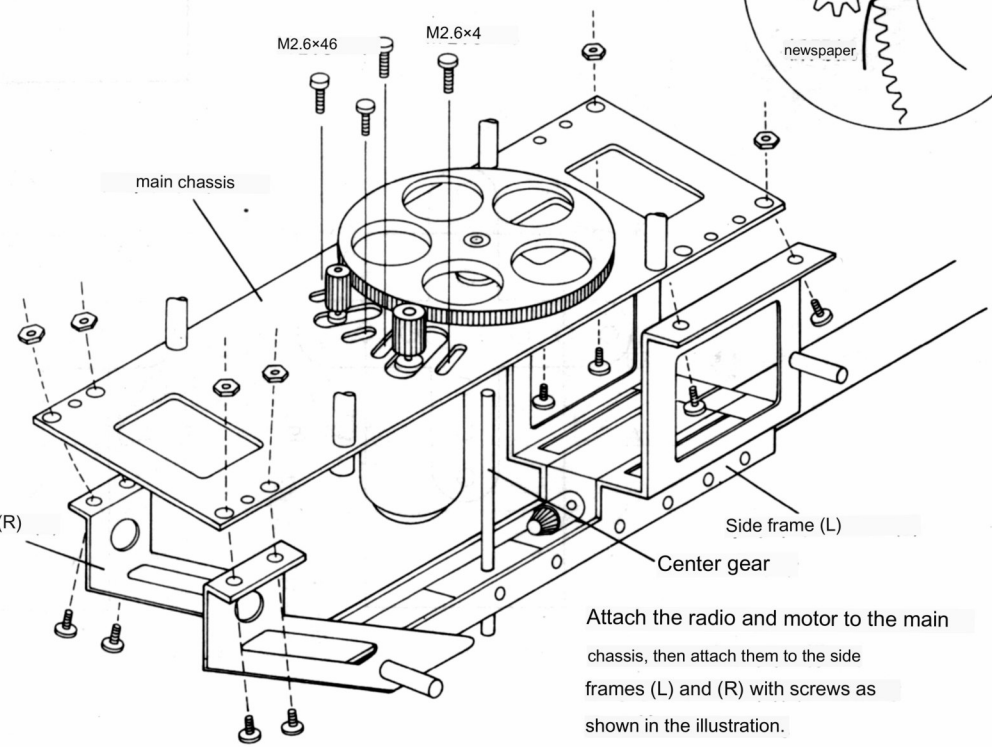
Wire the built-in lead wires red 5 cm and black 5 cm as shown.

*Keep the length of the lead wire as short as possible.

4 Adjusting

■ the gear Allow some play in the engagement of the gear. Please insert a sheet of newspaper between the gaps.

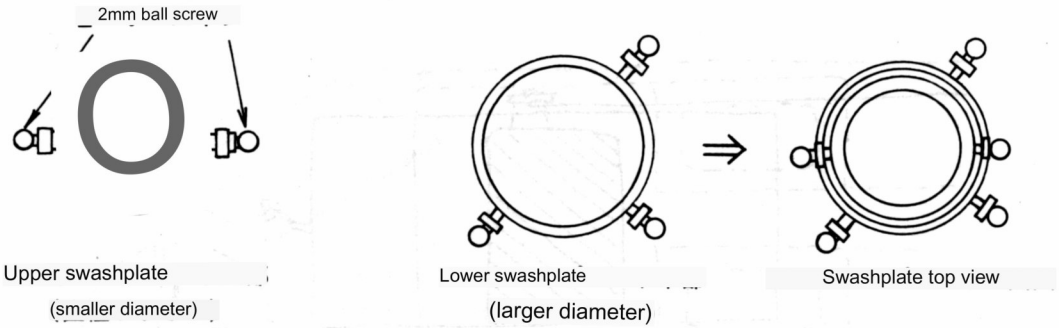




Attach the radio and motor to the main chassis, then attach them to the side frames (L) and (R) with screws as shown in the illustration.

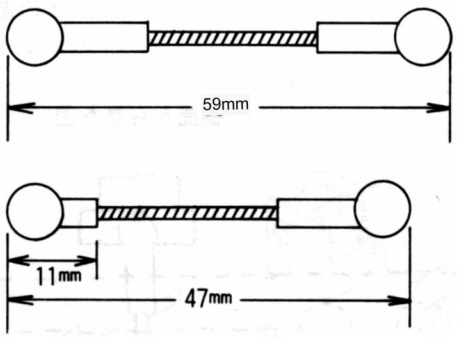
Assembling the rod

5 Assembling the swashplate

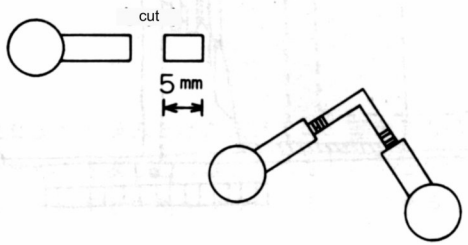


6 Assembling the ball joint

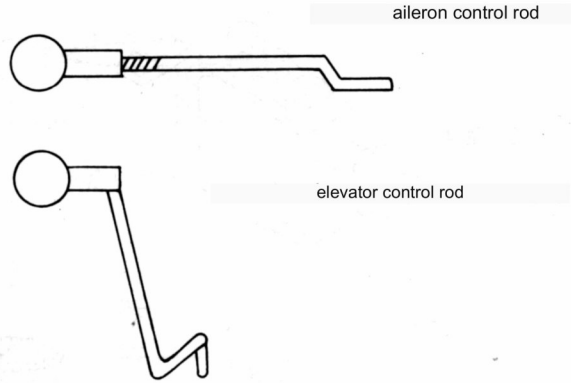
Screw Pihot into both ends of the 2mm x 40mm screw and the 2mm x 33mm screw in the aluminum metal fittings bag.



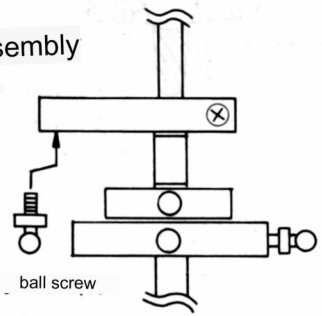
7 Assembling the pull bar



8 Assembling the linkage rod



9 bullrod assembly



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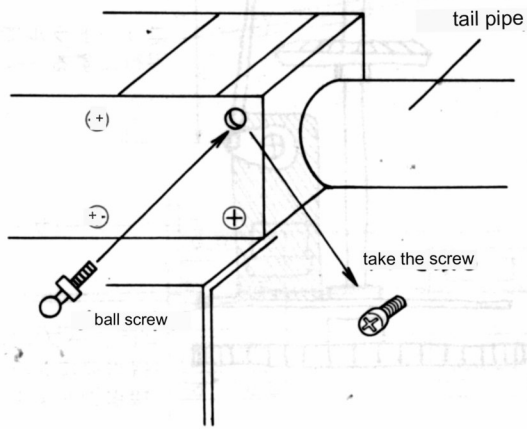

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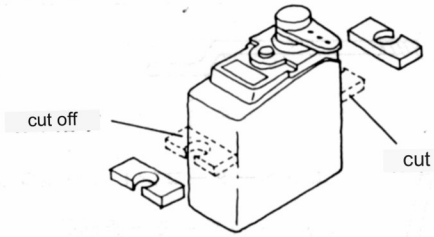
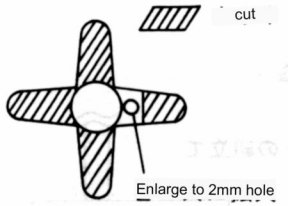
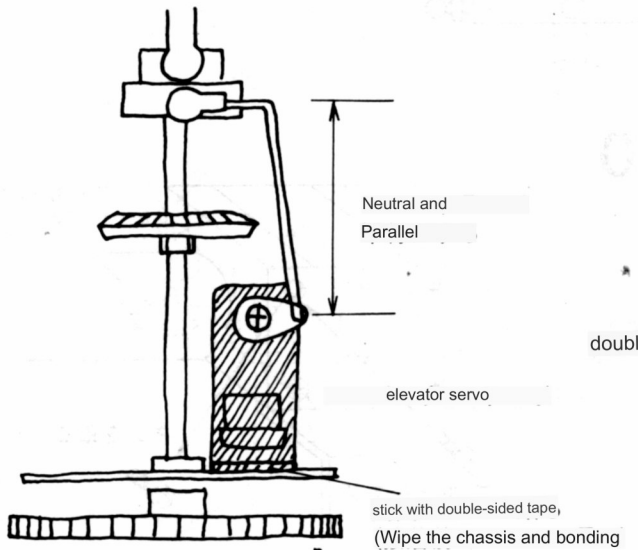




Excluding rudder and servo Horn

12

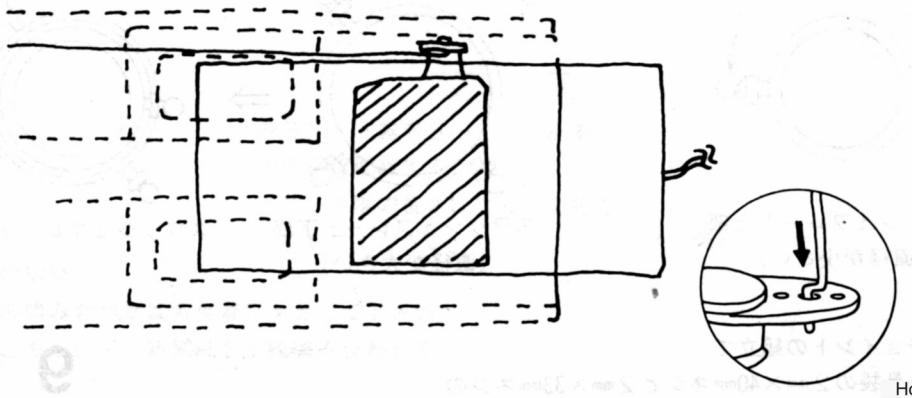
front view



13

3

Top view

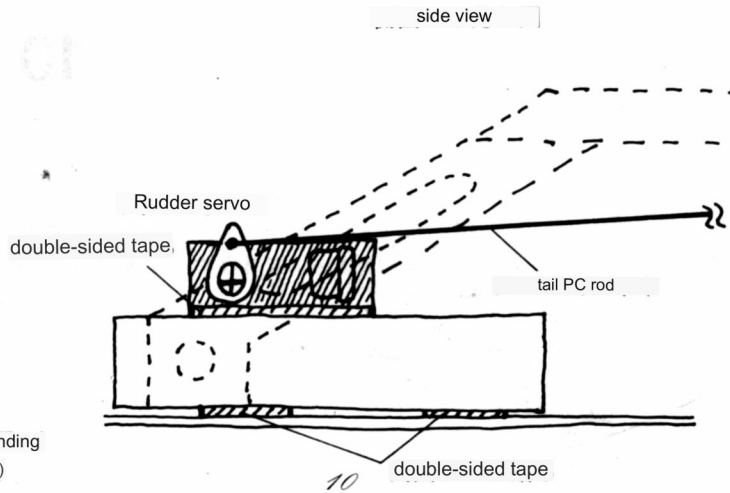


Hold the rod as shown.
Make sure that there is
as little play as possible
with the hole to be bent.

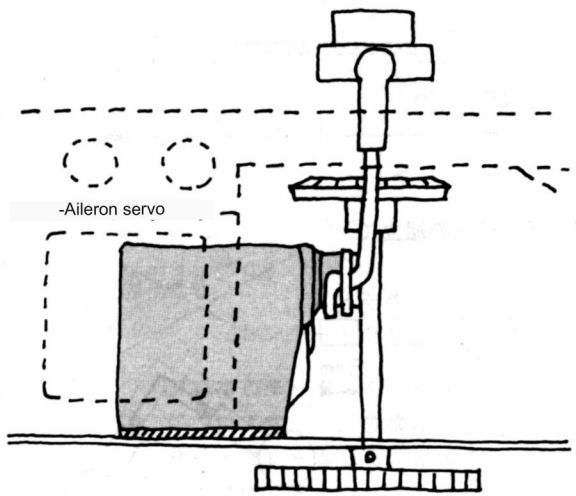
rod

Align the height of the tail PC so that it moves smoothly.

side view

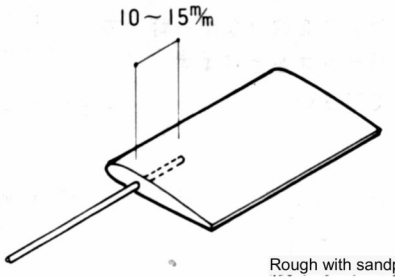


side view



Stabilizer and rod assembly

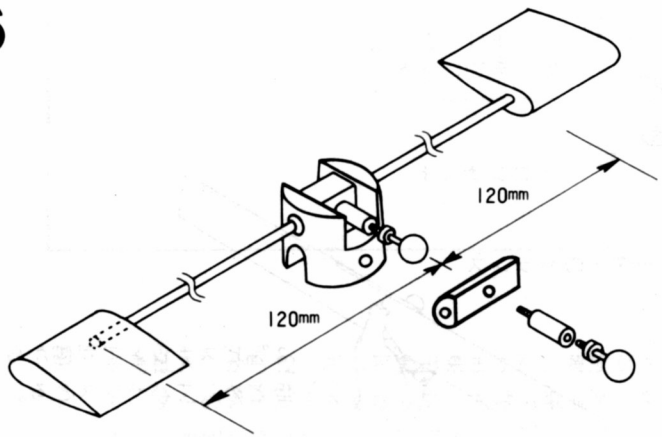
15 Stabilizer blade assembly



Rough with sandpaper

Glue with epoxy adhesive.

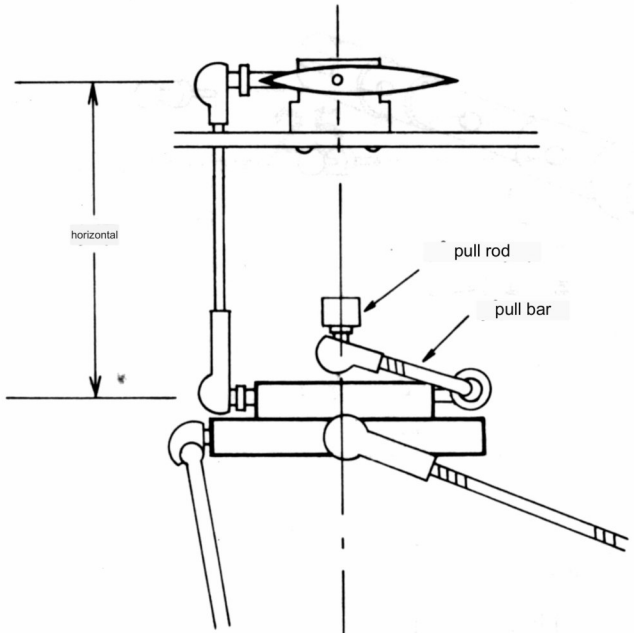
16



An RC model cannot be said to be complete just by assembling it.

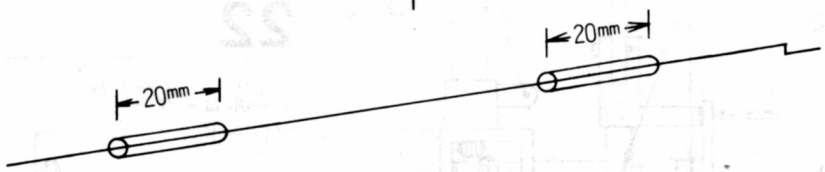
Good flight enjoyment requires some adjustment, and correct assembly and proper adjustment are the keys to successful flight.

17 Stabilizer control rod, pull bar assembly

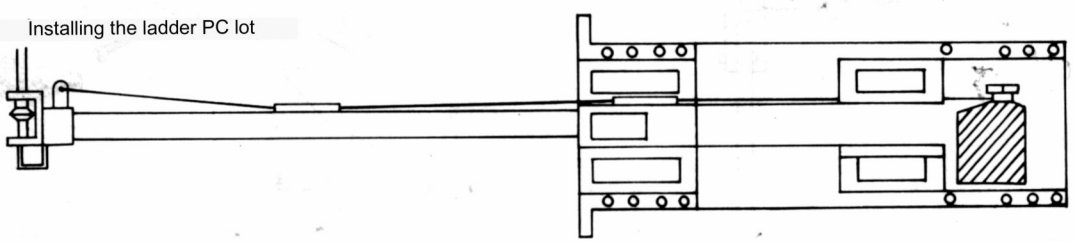


Lot Ladder PC

18 Tube cut



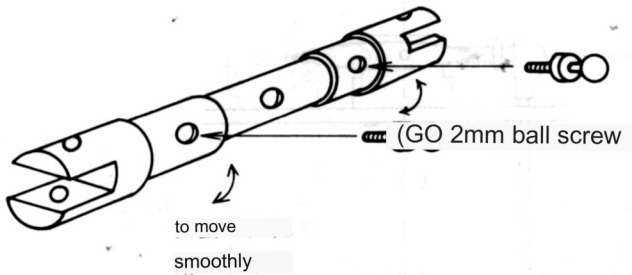
19 Installing the ladder PC lot



Assembly of main rotor and teller rotor

20

Assembling the tail PC housing assembly.



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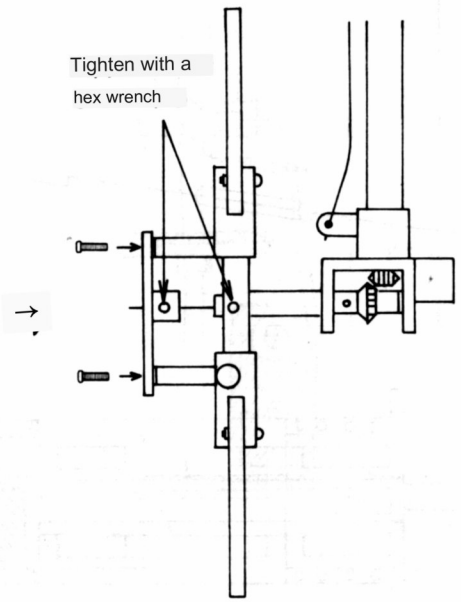

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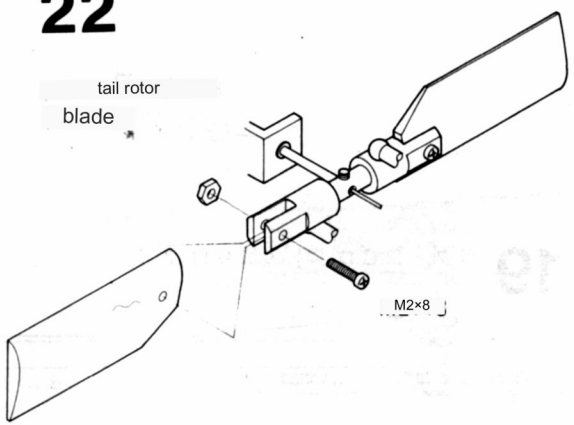
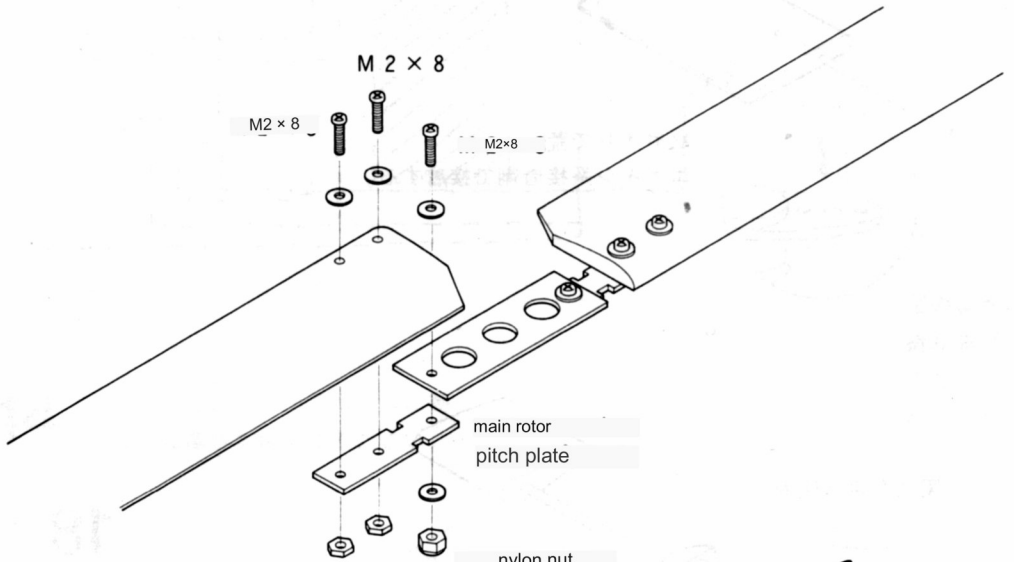
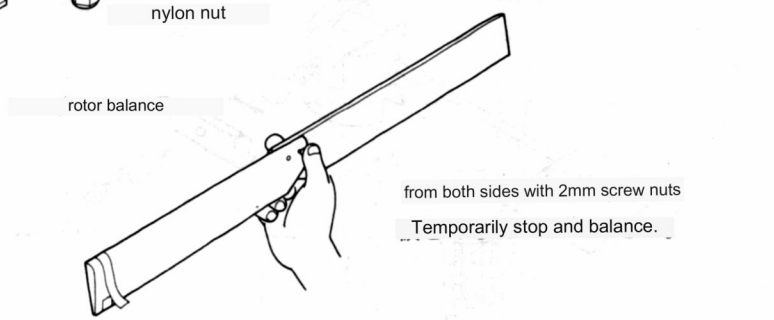


23 Adjusting the main rotor

For the rotor balance, combine the two rotor mounting holes with a long 2mm screw nut, and while maintaining balance around the screw, wrap vinyl tape around the tip of the lighter rotor to achieve balance.

Also, follow the same procedure for the tail rotor.





Wrap sellotape around the lighter side for balance.

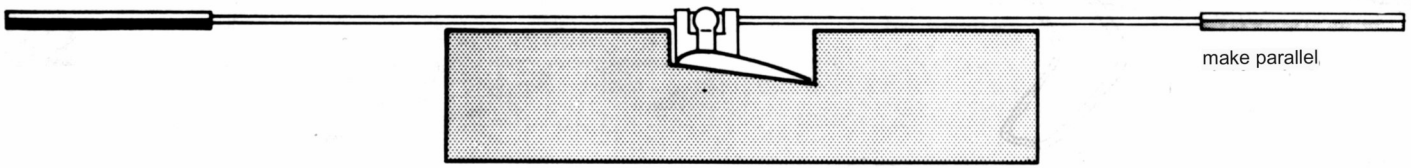
Red vinyl tape is good for rotor rotation adjustment.

pitch gauge and adjustment

pitch adjustment

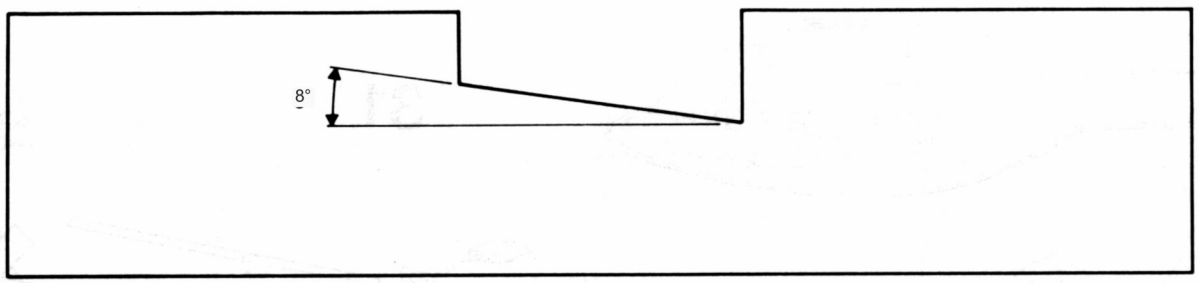
Make sure that the top surface of the pitch gauge and the stabilizer bar are in line. If they are not parallel, twist and bend the rotor pitch plate with needle nose pliers so that both sides are the same.

24



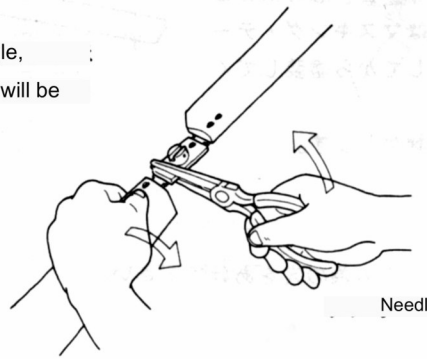
pitch gauge

Main rotor pitch gauge actual size drawing



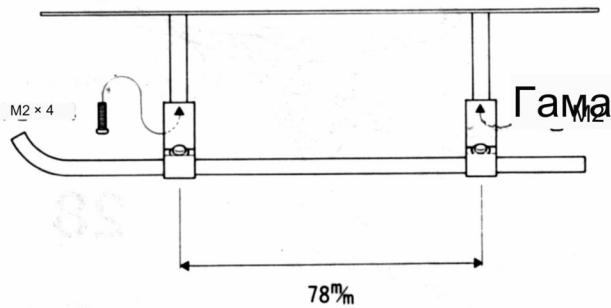
★Make a piece of cardboard that is the same size as this one.

The pitch angle can be varied from 8° to 12°, but the larger the angle, the greater the load on the motor and the faster the charge battery will be consumed, so please adjust the angle between these.

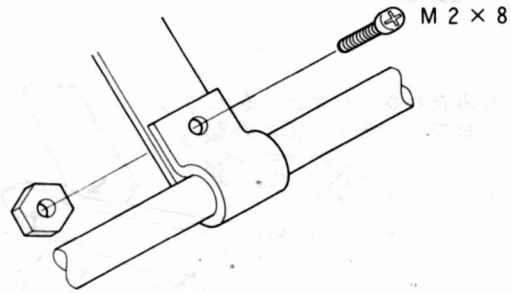


Needle-nose pliers, or a vise.

25 leg brace, skid assembly



26



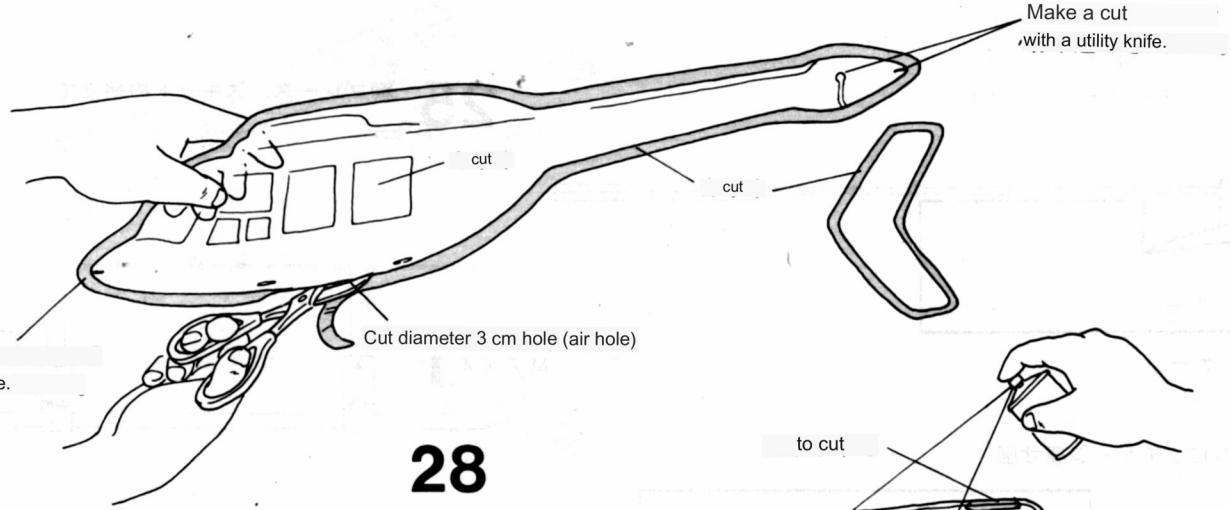
body cut and paint

Cut out the blackened parts in the figure and drill the designated holes.

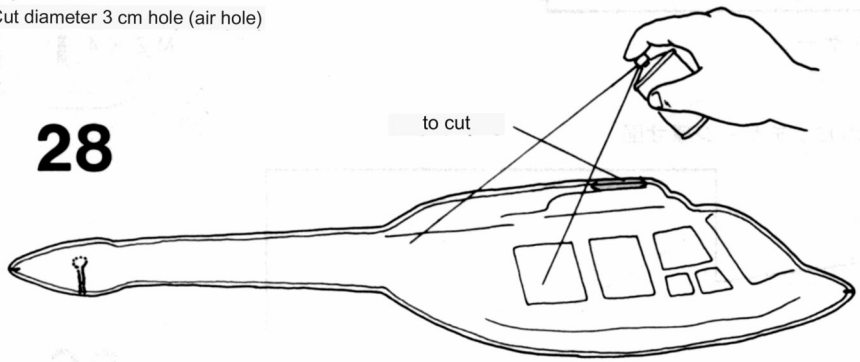
Before painting, use a neutral detergent to remove dirt and oil from your hands.

please do it.

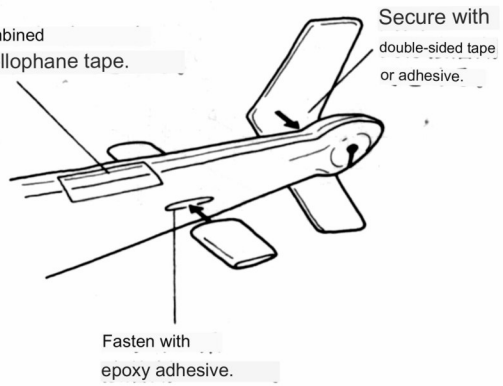
27



28



29



When painting the body, mask
the windows with sellotape
or masking tape before
painting.
Remove the tape after it dries.

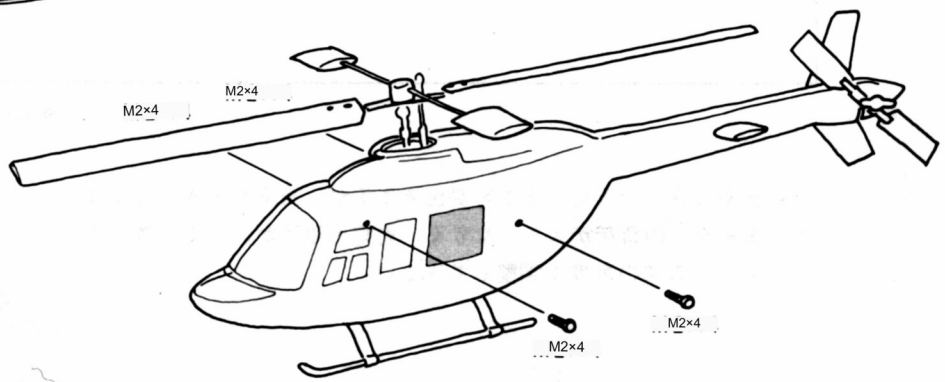
*Drill holes for connectors and antennas.

30

fit left and right

Place the notched left and
right bodies on top of each
other and fit.

31



When installing a battery, please refer to 32
on the next page before stacking the bodies.

Battery installation and flight method

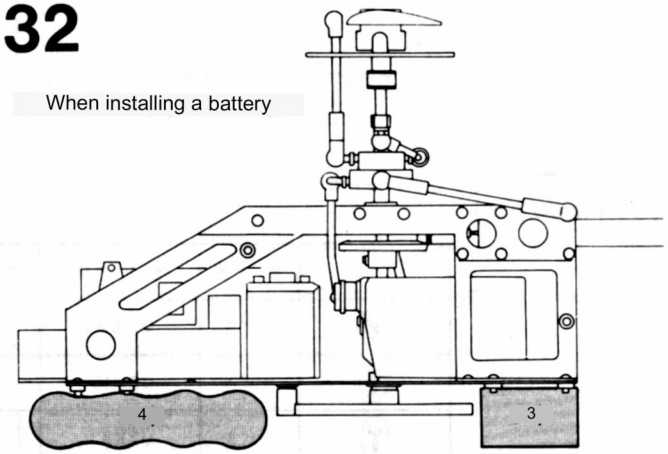
tracking adjustment

When the rotor is rotated and the rotating surface is viewed from the side,

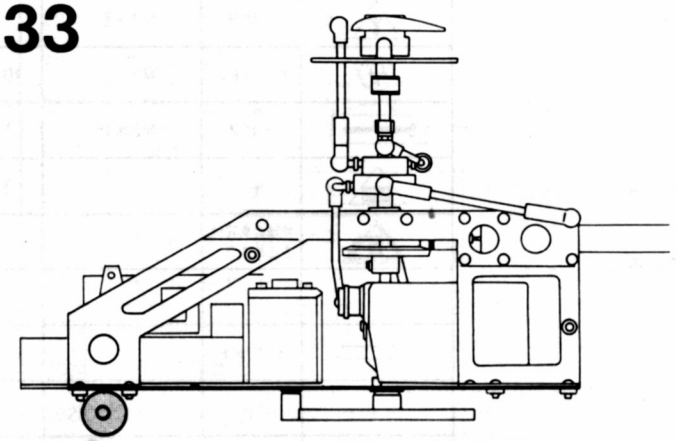
If it looks doubled, it means that the two rotors are rotating vertically. Increase the pitch of the underlying rotor without straying too far from the pitch gate angle, or vice versa to align the plane of rotation.

32

When installing a battery



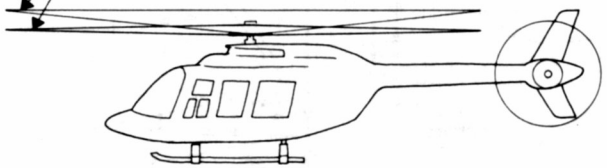
33



single battery

In the wired case, add a weight of about the same weight as an old AA battery for balance.

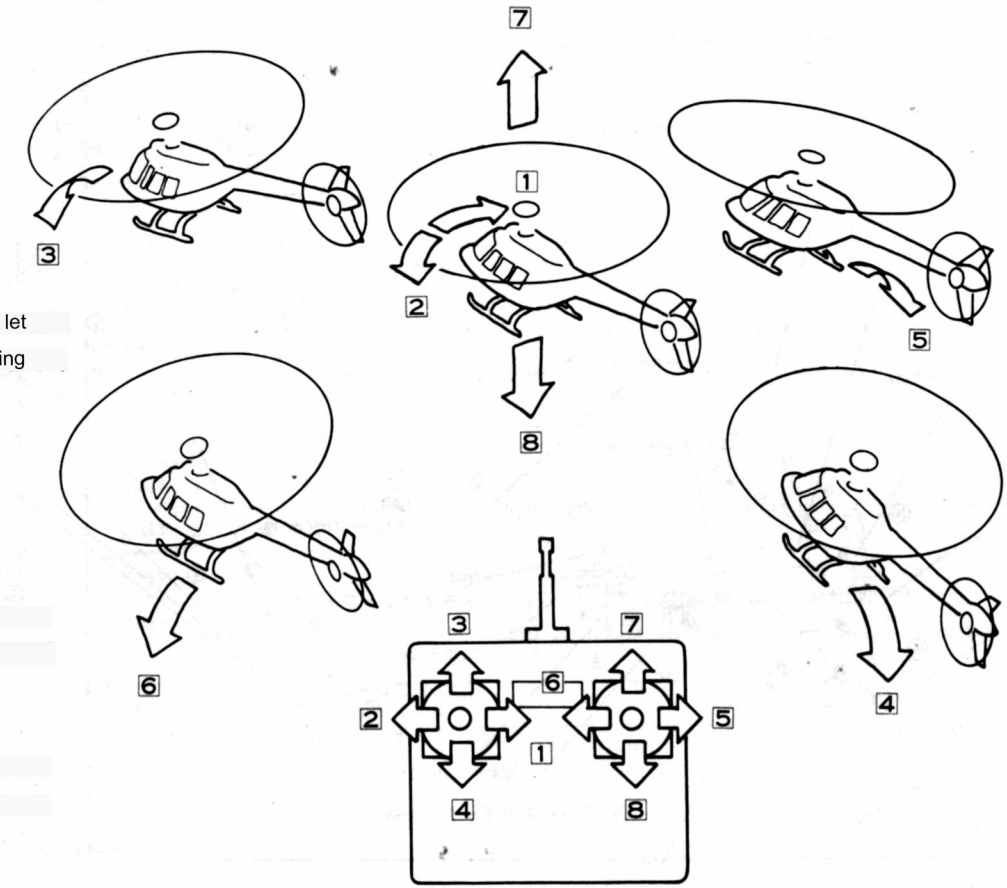
34



*Please try to check and adjust the tracking every time you fly.

When adjusting the rotation of the rotor, be careful of your surroundings and choose a day with little wind. Before connecting the power supply, be sure to turn on the transmitter/receiver switch, move the throttle lever to the slowest position, and confirm that the power is cut off by the controller. Plug in the power connector only when energizing, and remove the connector before touching the aircraft for safety.

Flight method



After flying for about 5 minutes, let the motors cool down and try flying again.

① Rudder right

② Rudder left

③ Elevator down

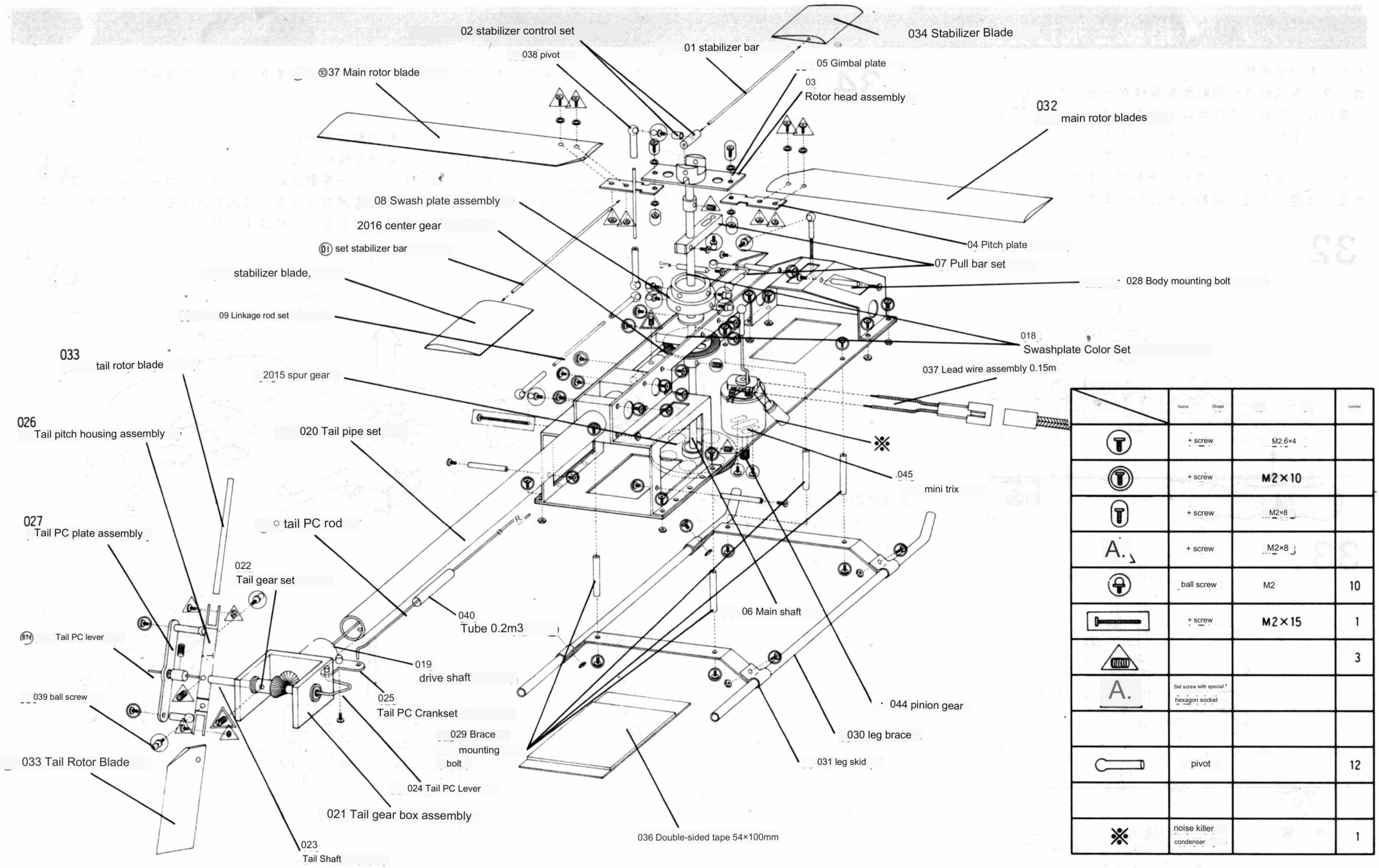
4 Elevator up

⑤ Aileron

6 left aileron

right 77 Throttle Hi-Lo

8 Throttle Hi-Lo



	Name Shape		number
	+ screw	M2.6×4	
	+ screw	M2×10	
	+ screw	M2×8	
A.	+ screw	M2×8	
	ball screw	M2	10
	+ screw	M2×15	1
			3
A.	Set screw with special hexagon socket		
	pivot		12
※	noise killer condenser		1

spare parts list

Part no.	product	set content	Price (yen)
2001	stabilizer bar	Stabilizer bar x 2	150
2002	stabilizer control set	Stabilizer stopper Stabilizer PC bolt	200
2003	Rotor head assembly		2,000
2004	pitch plate	Pitch plate x 2	150
2005	gimbal plate	gimbal plate	250
2006	main shaft	main shaft	200
2007	pull bar set	pull bar pull lot	400
2008	Swash plate assembly		5,000
2009	linkage rod set	Threaded rod AXI Linkage rod AX1 BXI	200
2010	side frame set	Side frame (L/R)	2,000
2011	Main frame assembly		1,200
2012	Bearing case A assembly		1,000
2013	Bearing case B assembly		1,200
2014	tail pipe retainer	Tail pipe retainer M2×15M2 Nut	550
2015	spur gear	Spur gear Hex socket set screw M3×3	2,500
2016	center gear set	Center gear AB. Center gear B collar Special hexagon socket set screw	3,500
2017	cross member		50
2018	swashplate color set	Swashplate color A/B	100
2019	Drive shaft		150
2020	tail pipe set	tail pipe tail pipe color	500
2021	Tail gearbox assembly		3,200
2022	tail gear set	Tail gear AB. Tail gear A collar Set screw with slot	3,000
2023	tail shaft		500
2024	tail PC lever		300
2025	tail PC crankset	Tail PC crank link bush	200
2026	Tail pitch housing assembly		2,500

Part no.	product	set	Price (yen)
2027	Tail PC plate assembly		1,000
2028	Body mounting bolt	Body mounting bolt x 4	350
2029	brace mounting bolt	Brace mounting bolt x 4	400
2030	leg braces	Leg brace x 2	600
2031	leg skid	Leg skid x 2	600
2032	main rotor blades	Main rotor blade x 2	900
2033	Tail rotor blade	Tail rotor blade x 2	400
2034	stabilizer blade	Stabilizer blade x 2	300
2035	Jet Ranger Body Set	body tail	4,000
2036	Bell 222 Body Set	body tail	4,000
2037	Double-sided tape 54 × 100mm		250
2038	connector	Lead wire 0.15m	450
2039	pivot	10 pivots	500
2040	ball screw	Ball screw x 5	500
2041	tube 0.2m		100
2042	Special Hex Socket Set Screw	3 special hexagon socket setscrews	250
2043	Bind machine screw M2×10	Bind machine screw x 5	100
2044	Set screw with slot M2 x 2	Set screws with slots x 5	100
2045	pinion gear		750
2046	Minitrix (for EH-550)	Condenser with pinion lead wire red x black x 1	2,400
2047	Tail PC Rod		300
	OP 101 DC-DC converter		13,000
	102 Ni-cd battery	7N-600AE	5,500th
	103 Practice Chords 3m		2,500

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