

Futaba®

SkyLeaf

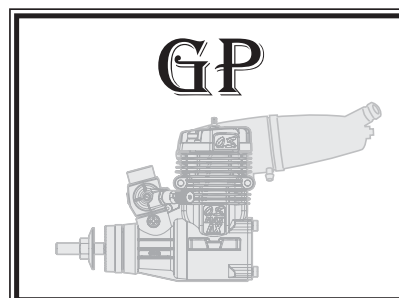
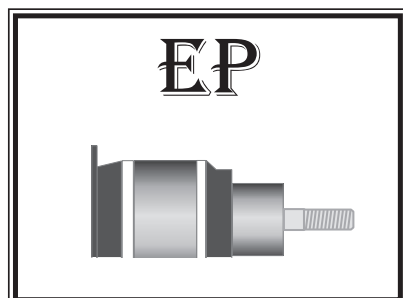
Classic

R/C model Trainer Plane

EP: 55 in. motor / GP: Two-Stroke 45-55 / GP: Four-Stroke 62-72



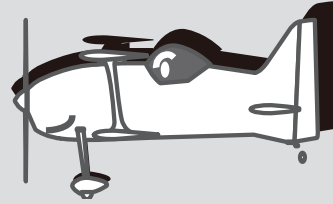
Instruction Manual



1M23Z06702

Thank you for purchasing Futaba Sky Leaf R/C airplane.

To maximize your enjoyment, and to ensure proper flying, please read through this assembly instruction manual.



Futaba guarantees this kit to be free from defects in both material and workmanship at date of purchase. This warranty does not cover any component parts damaged by use or modification. In no case shall Futaba liability exceed the original cost of the purchased kit. Further, Futaba reserves the right to change or modify this warranty without notice.

In that Futaba has no control over the final assembly or material used for final assembly, no liability shall be assumed nor accepted for any damage resulting from the use by the user of the final user-assembled product. By the act of using the user-assembled product, the user accepts all resulting liability. If the buyer is not prepared to accept the liability associated with the product, the buyer is advised to return this kit immediately in new and unused condition to the place of purchase.

Precautions

Application and Modification Precautions.

1. This product is only designed for use with radio control models. Use of the product described in this instruction manual is limited to radio control models.
2. Modification, adjustment, and parts replacement:
Futaba is not responsible for unauthorized modification, adjustment, or replacement of parts on this product.
3. Your Sky Leaf should not be considered a toy, but rather a sophisticated, working model that functions very much like a full-size airplane. Because of its performance capabilities, this airplane, if not assembled and operated correctly, could possibly cause injury to yourself or spectators and damage to property.
4. You must assemble the model according to the instructions. Do not alter or modify the model, as doing so may result in an unsafe or unflyable model. In a few cases the instructions may differ slightly from the figures. In those instances the written instructions should be considered as correct.
5. You must take time to build straight, true and strong.
6. You must use an R/C radio system that is in good condition, a correctly sized motor/engine, and other components as specified in this instruction manual. All components must be correctly installed so that the model operates correctly on the ground and in the air. You must check the operation of the model and all components before every flight.
7. If you are not an experienced pilot or have not flown this type of model before, we recommend that you get the assistance of an experienced pilot in your R/C club for your first flights. If you're not a member of a club, your local hobby shop has information about clubs in your area whose membership includes experienced pilots.
8. While this kit has been flight tested to exceed normal use, if the plane will be used for extremely high stress flying, such as racing, or if a motor larger than one in the recommended range is used, the modeler is responsible for taking steps to reinforce the high stress points and/or substituting hardware more suitable for the increased stress.

- No part of this manual may be reproduced in any form without prior permission.
- The contents of this manual are subject to change without prior notice.
- Futaba is not responsible for the use of this product by the customer.
- Company and product names in this manual are trademarks or registered trademarks of the respective company.

For safe use

Please observe the following precautions to ensure safe use of this product at all times.

Meaning of Special Markings:

The parts of this manual indicated by the following marks require special attention from the standpoint of safety.

- ⚠ DANGER** - Procedures which may lead to dangerous conditions and cause death/serious injury if not carried out properly.
- ⚠ WARNING** - Procedures which may lead to a dangerous condition or cause death or serious injury to the user if not carried out properly, or procedures where the probability of superficial injury or physical damage is high.
- ⚠ CAUTION** - Procedures where the possibility of serious injury to the user is small, but there is a danger of injury, or physical damage, if not carried out properly.

⊘ = Prohibited

❗ = Mandatory

WARNING: Always keep R/C components away from small children.

Assembly Precautions

⚠ DANGER

❗ We, as the manufacturer, provide you with a good quality, thoroughly tested kit and instructions, but ultimately the quality and flyability of your finished model depends on how you build it; therefore, we cannot in any way guarantee the performance of your completed airplane, and no representations are expressed or implied as to the performance or safety of your completed airplane.

❗ Take your time and follow the instructions to end up with a well-built model that is straight and true.

❗ First-time builders should seek the advice of experienced modellers before beginning assembly and if they do not fully understand any part of the construction.

❗ Installing a more powerful motor/engine than specified or flying the hi-speed aggressively may lead to serious damage and accidents.

❗ Make the assembly correct with this manual.

■ If the assembly manual is not followed, in flight failure or danger to model and property could occur.

⊘ Do not fly before confirming the correct location of the C.G.

■ If the CG is incorrect, the model will be difficult to fly and could lead to a crash.

❗ Since the direction of the servos of an airplane can be easily mistaken, be very careful.

■ Double check that all directions are correct.

⊘ Do not use an overpowered motor/engine or too large of propeller on this airframe.

■ When not equipped properly, the performance might not be as described by the manufacturer.

❗ Make sure that all surfaces are level before flying.

■ If the surfaces are not level, the airplane will not fly straight and will be hard to control.

❗ Assemble this airplane only in places out of children's reach.

■ A small child may accidentally operate the system. This could cause a dangerous situation and injuries. Each part can be very dangerous when mishandled and cause chemical damage.

⊘ Use glues and adhesives that are needed for assembly in a well ventilated area.

■ Poor ventilation could lead to toxic fumes being inhaled.

Storage and Disposal Precautions

⚠ CAUTION

⊘ Do not store devices in the following places:

- Where it is extremely hot (30°C [86°F] or higher) or cold (0°C [32°F] or lower)
- Where the equipment will be exposed to direct sunlight
- Where the humidity is high
- Where vibration is prevalent
- Where it is very dusty
- Where the device may be exposed to steam and heat

❗ When the device will not be used for a long time, remove the battery from the transmitter and aircraft and store them in a dry place where the temperature is between 0 and 30°C [32°F and 86°F].

■ Leaving batteries inside your model and radio when they are not being used for long periods will result in battery deterioration, liquid leakage and other damage.

Other Precautions

⚠ CAUTION

⊘ Do not directly expose model to fuel, oil, exhaust gas, etc.

■ If left in such an environment, the model may be attacked and damaged.

⊘ Do not add any extra devices that are not suggested by the factory on the airplane.

■ If the airplane is changed too much, the manufacture cannot promise correct performance.

❗ Join the Academy of Model Aeronautics.

■ The Academy of Model Aeronautics (AMA) provides guidelines and liability protection should the need arise.

❗ Always use genuine Futaba products such as transmitter, receiver, servo, etc.

■ Futaba is not responsible for damage sustained by combination with other than Futaba Genuine Parts. Use the parts specified in the instruction manual and catalog.

Flying Precautions

⚠ DANGER

❗ Take enough safety precautions prior to operating this model. You are responsible for this model's assembly and safe operation.

❗ First-time fliers should seek advice for hints in pre-flight adjustments and assembly from experienced fliers. Be reminded that flying a badly assembled or badly adjusted airplane is very dangerous.

❗ In the beginning, first-time fliers should always be assisted by an experienced flier and never fly alone.

❗ Before flying your airplane, ensure the airfield is spacious enough. Always fly it outdoors in safe areas with no debris or obstacles.

❗ Ensure the propeller are securely installed.

⊘ Do not fly your airplane on days with strong winds or side winds.

⊘ Do not allow a bystander to get too close to the propeller.

❗ Do not use defective propellers.

⊘ Never grasp the transmitter antenna while flying.

■ The transmitter output may drop drastically.

❗ Always make sure that all transmitter stick movements operate all servos properly in the model prior to flight. Also, make sure that all switches, etc. function properly as well. If there are any difficulties, do not use the system until all inputs are functioning properly.

❗ While operating, never touch the transmitter with, or bring the transmitter near, another transmitter, a cell phone, or other wireless devices.

■ Doing so may cause erroneous operation.

⊘ Do not point the antenna directly toward the aircraft during flight.

■ The antenna is directional and the transmitter output is weakest. (The strength of the radio waves is greatest from the sides of the antenna.)

⊘ Never fly on a rainy day, when the wind is strong, and at night.

■ Water could lead to failure or improper functionality and poor control of the aircraft which could lead to a crash.

⊘ Never turn the power switch on and off during flight or while the motor is running.

■ Operation will become impossible and the aircraft will crash. Even if the power switch is turned on, operation will not begin until transmitter and receiver internal processing is complete.

⊘ Do not fly when you are physically impaired as it could pose a safety hazard to yourself or others.

⊘ Do not fly at the following places:

- Near another radio control flying field.
- Near or above people.
- Near homes, schools, hospitals airports, roads or other places where people congregate.
- Near high voltage lines, high structures, or communication facilities.

❗ When setting the transmitter on the ground during flight preparations, do not stand it upright.

■ The transmitter may tip over, the sticks may move and the propeller may rotate unexpectedly and cause injury.

⊘ Do not touch the motor, motor controller, engine, exhaust silencer, during and immediately after use.

■ These items may become hot during use.

❗ For safety, fly so that the aircraft is visible at all times.

■ Flying behind buildings or other large structures will not only cause you to lose sight of the aircraft, but also degrade the RF link performance and cause loss of control.

❗ From the standpoint of safety, always set the fail safe function.

■ In particular, normally set the throttle channel to idle.

❗ When flying, always return the transmitter setup screen to the Home screen.

■ Erroneous input during flight is extremely dangerous.

❗ Always check the remaining capacity of the transmitter and receiver batteries before each flying session prior to flight.

■ Low battery capacity will cause loss of control and a crash.

❗ Always check operation of each control surface and perform a range test before each flying session.

■ Even one transmitter setting or aircraft abnormality can cause a crash.

❗ Before turning on the transmitter:

1. Always move the transmitter throttle stick position to the minimum (idle) position.
2. Turn on the transmitter first and then the receiver.

❗ When turning off the transmitter's power switch after the motor/engine has stopped (state in which it will not rotate again):

1. Turn off the receiver power switch.
2. Then turn off the transmitter power switch.

■ If the power switch is turned on/off in the opposite order, the propeller may rotate unexpectedly and cause a serious injury.

■ Also always observe the above order when setting the fail safe function.

■ Maximum low throttle: Direction in which the motor runs at the slowest speed or stops.

❗ When adjusting the transmitter, stop the motor/engine, disconnect the motor wiring that allows it to continue operation. When doing so, please exercise extreme caution. Ensure that the aircraft is secured and that it will not come into contact with anything or anyone. Ensure that the motor will not rotate prior to making any adjustments.

■ Unexpected high speed rotation of the motor/engine may cause a serious injury.

⊘ This airframe is not designed to fly at excessively high speeds.

■ The airplane could become damaged.

Battery and Charger Handling Precautions

⚠ DANGER

⊘ **Do not recharge a battery that is damaged, deteriorated, leaking electrolyte, or wet.**

⊘ **Do not allow the charger or battery to become wet.**

■ Do not use the charger when it or your hands are wet. Do not use the charger in humid places.

⊘ **Do not short circuit the battery.**

⊘ **Do not repair, deform, modify, or disassemble the battery and/or battery charger.**

⊘ **Do not drop the battery into a fire or bring it near a fire.**

⊘ **Do not charge and store the battery in direct sunlight or other hot places.**

⊘ **Do not charge the battery if it is covered with any object as it may become very hot.**

⊘ **Do not use the battery in a combustible environment.**

■ The gas could ignite and cause an explosion or fire.

❗ **Always charge the battery before each flying session.**

■ If the battery goes dead during flight, the aircraft will crash.

■ Charging the battery past the specified value may cause a fire, combustion, rupture, or liquid leakage.

■ Do not charge the battery while riding in a vehicle. Vibration will prevent normal charging.

⊘ **When using the Lithium battery, do not connect the charger to the balance charge connector and the power connector at the same time.**

■ Doing so could cause a fire, combustion, generation of heat, rupture, or liquid leakage.

❗ **Insert the power cord plug firmly into the receptacle up to its base.**

❗ **Always use the charger with the specified power supply voltage.**

■ Use the special charger by connecting it to a proper power outlet.

❗ **If the battery liquid should get in your eyes, do not rub your eyes, but immediately wash them with tap water or other clean water and get treated by a doctor.**

■ The liquid can cause blindness.

⚠ WARNING

⊘ **Do not touch the charger and battery for any length of time during charging.**

■ Doing so may result in burns.

⊘ **Do not use a charger or battery that has been damaged.**

⊘ **Do not touch any of the internal components of the charger.**

■ Doing so may cause electric shock or a burn.

⊘ **If any abnormalities such as smoke or discoloration are noted with either the charger or the battery, remove the battery from the transmitter or charger and disconnect the power cord plug and do not use the charger.**

■ Continued use may cause fire, combustion, generation of heat, or rupture.

⊘ **Do not subject the batteries to impact.**

■ Doing so may cause fire, combustion, generation of heat, rupture, or liquid leakage.

❗ **Use and store the battery and battery charger in a secure location away from children.**

■ Not doing so may cause electric shock or injury.

❗ **If the battery leaks liquid or generates an abnormal odor, immediately move it to a safe place for disposal.**

■ Not doing so may cause combustion.

❗ **If the battery liquid gets on your skin or clothing, immediately flush the area with tap water or other clean water.**

■ Consult a doctor. The liquid can cause skin damage.

❗ **After the specified charging time has elapsed, end charging and disconnect the charger from the receptacle.**

❗ **When recycling or disposing of the battery, isolate the terminals by covering them with tape.**

■ Short circuit of the terminals may cause combustion, generation of heat or rupture.

⚠ CAUTION

⊘ **Do not place heavy objects on top of the battery or charger. Also, do not place the battery or charger in any location where it could fall.**

■ Doing so may cause damage or injury.

⊘ **Do not store or use the battery and charger where it is dusty or humid.**

■ Insert the power cord plug into the receptacle only after eliminating the dust.

⊘ **After the aircraft/transmitter has been used for a long time, the battery may become hot. Immediately remove it from the aircraft/transmitter.**

■ Not doing so may cause a burn.

⊘ **Do not charge the battery in extreme temperatures.**

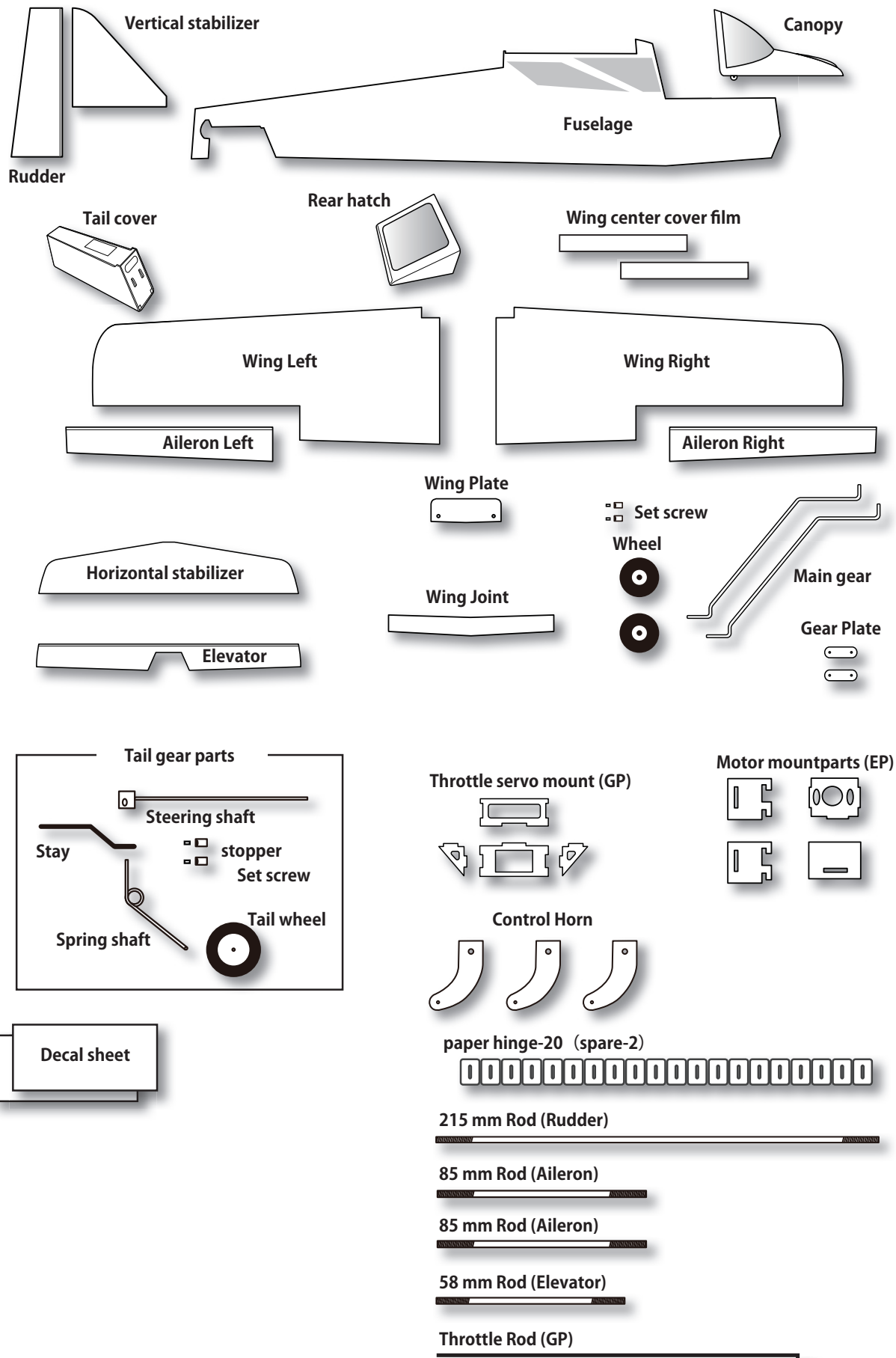
■ Doing so will degrade the battery performance. An ambient temperature of 10°C to 30°C (50F to 86F) is ideal for charging.

⊘ **Unplug the charger when not in use.**

⊘ **Do not bend or pull the cord unreasonably and do not place heavy objects on the cord.**

■ The power cord may be damaged and cause combustion, generation of heat, or electric shock.

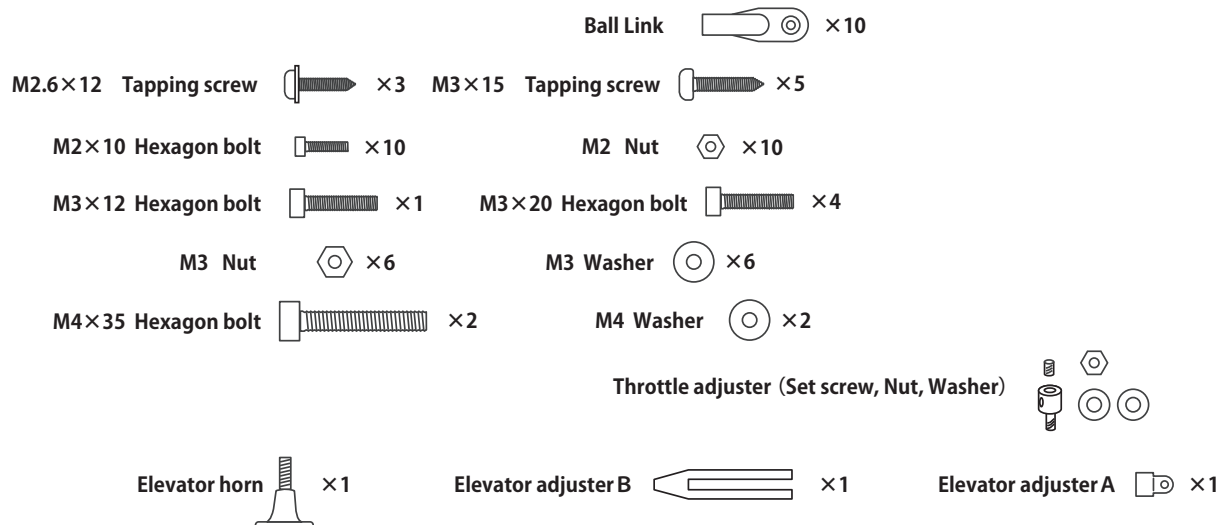
✂ 1 SET Contents



Screw•Nut•Washer•Parts, etc.

*Screw nut washer may be included extra.

*ALL parts are subject to change without prior notice.



Additional items by each set

EP-10J-FULLSET

- Transmitter, Receiver Futaba 10J (R3008SB) × 1
- Servo Futaba S3175HV × 4
- Motor O.S. OMA-5010-810 × 1
- Motor controller Futaba MC970A × 1
- Spinner nuts (O.S. OMA-5010-810) × 1
- Receiver LiFe battery × 1
- Receiver LiFe battery Charger LBC-4E5 × 1
- S.BUS package (Terminal box TB16PP, Extension cord 200J × 2, Extension cord HUB 800-200, SSW-J)

GP-10J-FULLSET

- Transmitter, Receiver Futaba 10J (R3008SB) × 1
- Servo Futaba S3175HV × 5
- Engine O.S. MAX-46AX II × 1
- O.S. Spinner nuts(L) × 1
- O.S. Silencer EX adaptor × 1
- O.S. Radial mount × 1
- Receiver LiFe battery × 1
- Receiver LiFe battery Charger LBC-4E5 × 1
- S.BUS package (Terminal box TB16PP, Extension cord 200J × 2, Extension cord HUB 800-200, SSW-J)

EP-Motor-ESC-Servo-SET

- Servo Futaba S3175HV × 4
- Motor O.S. OMA-5010-810 × 1
- Motor controller Futaba MC970A × 1
- Spinner nuts (O.S. OMA-5010-810 用) × 1
- Receiver LiFe battery × 1
- Receiver LiFe battery 用 Charger LBC-4E5 × 1
- S.BUS package (Terminal box TB16PP, Extension cord 200J × 2, Extension cord HUB 800-200, SSW-J)

GP-O.S.46-Servo-SET

- Servo Futaba S3175HV × 5
- Engine O.S. MAX-46AX II × 1
- O.S. Spinner nuts(L) × 1
- O.S. Silencer EX adaptor × 1
- O.S. Radial mount × 1
- Receiver LiFe battery × 1
- Receiver LiFe battery Charger LBC-4E5 × 1
- S.BUS package (Terminal box TB16PP, Extension cord 200J × 2, Extension cord HUB 800-200, SSW-J)

EP-Four Servo-SET

- Servo Futaba S3175HV × 4
- S.BUS package (Terminal box TB16PP, Extension cord 200J × 2, Extension cord HUB 800-200, SSW-J)

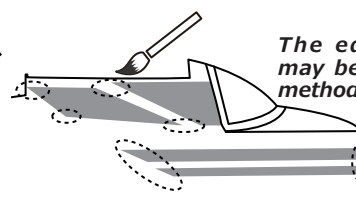
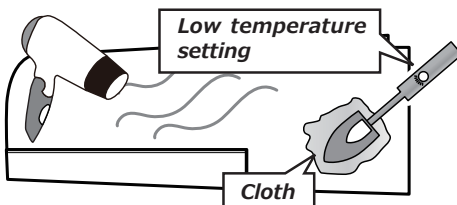
GP-Five Servo-SET

- Servo Futaba S3175HV × 5
- S.BUS package (Terminal box TB16PP, Extension cord 200J × 2, Extension cord HUB 800-200, SSW-J)



Sky Leaf Tip

The covered film may become wrinkly due to variations of temperature. Smooth out as explained right.



The edge of the film may be peeled off. One method is to coat with a small amount of clear-paint resistant paint.

Use an iron covered with a cloth. Start at low temperature setting. If it is too high temperature, you may damage the film.

2 Required for flight (Purchase separately)

EP In case of electric motor

EP-10J-FULLSET

- Lithium polymer battery (4 cell 3,000 ~ 4,000 mAh)
- Lithium polymer Charger
- Propeller (14 × 7)

EP-Motor-ESC-Servo-SET

- Transmitter, Receiver (More than 4 channels) (e.g. Futaba 6LC, 6K, 8J, 10J, 12K)
- Lithium polymer battery (4cell 3,000 ~ 4,000 mAh)
- Lithium polymer Charger
- Propeller (14 × 7)

EP-Four Servo-SET

- Transmitter, Receiver (More than 4 channels) (e.g. Futaba 6LC, 6K, 8J, 10J, 12K)
- Receiver battery (e.g. Futaba FR2F900)
- 55 inch class Motor (e.g. O.S. OMA-5010-810)
- Motorcontroller (e.g. Futaba MC970A)
- Lithium polymer battery (4 cell 3,000 ~ 4,000 mAh)
- Lithium polymer Charger
- Propeller (14 × 7)
- Spinner

Standard kit

- Transmitter, Receiver (More than 4 channels) (e.g. Futaba 6LC, 6K, 8J, 10J, 12K)
- Receiver battery (e.g. Futaba FR2F900)
- Servo extension cord
- 55 inch class Motor (e.g. O.S. OMA-5010-810)
- Motorcontroller (e.g. Futaba MC970A)
- Lithium polymer battery (4 cell 3,000 ~ 4,000 mAh)
- Lithium polymer Charger
- Propeller (14 × 7)
- Spinner
- Servo × 4

GP In case of engine

GP-10J-FULLSET

- Fuel tank 150 cc
- Glow fuel
- Fuel tube (Nipple, Fuel stopper)
- Engine starting tool (plug heat battery, booster code, starter etc.)
- Propeller (11 × 6 ~ 14 × 7)

GP-O.S.46-Servo-SET

- Transmitter, Receiver (More than 4 channels) (e.g. Futaba 6LC, 6K, 8J, 10J, 12K)
- Fuel tank 150 cc
- Glow fuel
- Fuel tube (Nipple, Fuel stopper)
- Engine starting tool (plug heat battery, booster code, starter etc.)
- Propeller (11 × 6 ~ 14 × 7)

GP-Five Servo-SET

- Transmitter, Receiver (More than 4 channels) (e.g. Futaba 6LC, 6K, 8J, 10J, 12K)
- Receiverbattery (e.g. Futaba FR2F900)
- Two stroke engine (46 - 55) or, Four stroke engine (62 - 72)
- Radial mount
- Fuel tank 150 cc
- Glow fuel
- Fuel tube (Nipple, Fuel stopper)
- Engine starting tool (plug heat battery, booster code, starter etc.)
- Propeller (11 × 6 ~ 14 × 7)
- Spinner

Standard kit

- Transmitter, Receiver (More than 4 channels) (e.g. Futaba 6LC, 6K, 8J, 10J, 12K)
- Receiverbattery (e.g. Futaba FR2F900)
- Servo extension cord
- Two stroke engine (46 - 55) or, Four stroke engine (62 - 72)
- Radial mount
- Fuel tank 150 cc
- Glow fuel
- Fuel tube (Nipple, Fuel stopper)
- Engine starting tool (plug heat battery, booster code, starter etc.)
- Propeller (11 × 6 ~ 14 × 7)
- Spinner
- Servo × 5

Tools

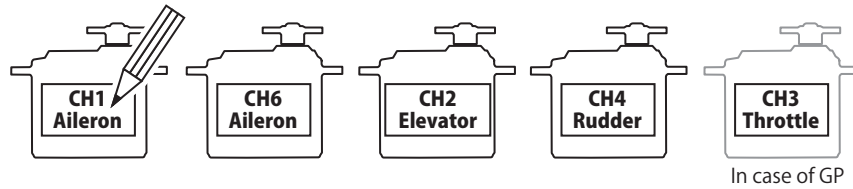
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|----------------------|---------------|-------------------|----------------------|
| ● Exacto Knife | ● Screwdriver | ● Tape | ● Iron |
| ● Wire cutter | ● Hex key | ● CA glue | ● Hook-and-Loop Tape |
| ● Needle nose pliers | ● Hand drill | ● Epoxy Adhesives | ● Sandpaper etc. |
| ● Scissors | ● Drill | ● Magic Marker | |



✂ 3 Example of setting S.BUS servo with T10J

When using S.BUS system It is necessary to store channels in Servo beforehand. This is an example of T10J. This page is unnecessary when S. BUS is not used.

1. Label on the servo.



Put the name on the label and paste it on each servo.

2. Select [SBUS LINK] and access the setup screen shown below by press the jog key.

① Turn ON

② Pressing the + key for 1 second.

Sky Leaf Tip

The Sky Leaf has two Servos mounted on the tail. S.BUS is recommended because wiring process is cleaner!

③ Move the JOG key to the right and call 2 page of the MENU.

④ Select SBUS LINK. And pressing the JOG key.

⑤ Press the JOG key for 1 second.

MENU 1 2 3

- ▶TELEMETRY
- ▶SENSOR
- ▶**SBUS LINK**
- ▶MDL-TRANS
- ▶TRAINER
- ▶AIL-DIFF
- ▶AIL→RUD
- ▶V-TAIL
- ▶GYRO SENS
- ▶ELEVON
- ▶AILVATOR
- ▶THR→NEEDL

S.BUS SX

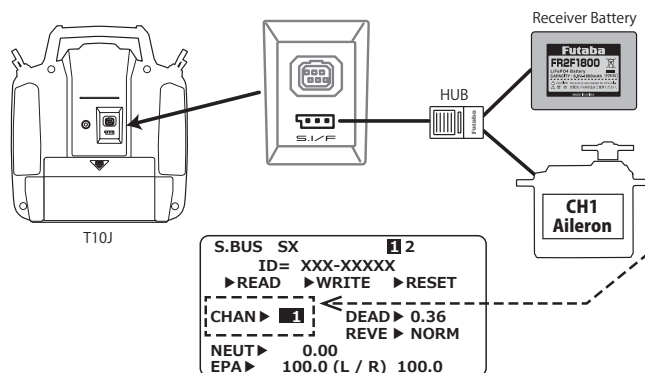
MODE IN

PLEASE DO NOT YET CONNECT A SERVO

S.BUS SX (NO LINK)

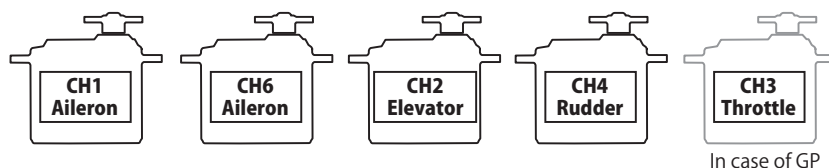
READ

3. Connect the aileron servo (CH1) to T10J and set the channel.



- ① Connect the **Aileron servo (CH1)** as shown.
- ② With the cursor on "**READ**", press and hold the **JOG key**.
- ③ Select "**READ**" and press and hold the **JOG key**.
- ④ Select "**CHAN**" and set it to "**1**" with the + - key.
- ⑤ Select "**WRITE**" and press and hold the **JOG key**.
- ⑥ Turn off the power of T10J.

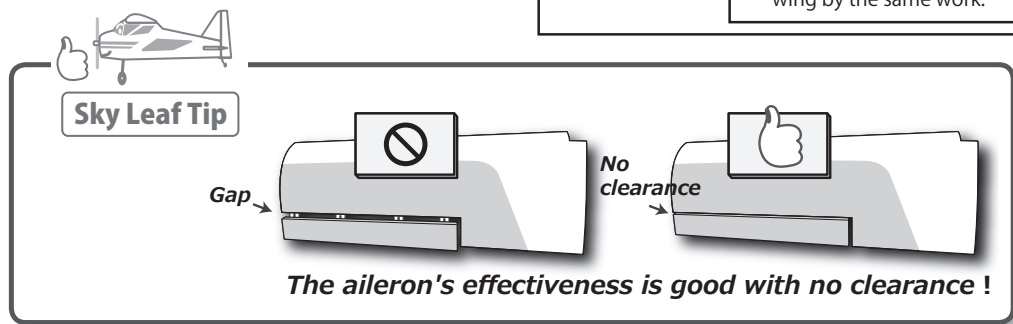
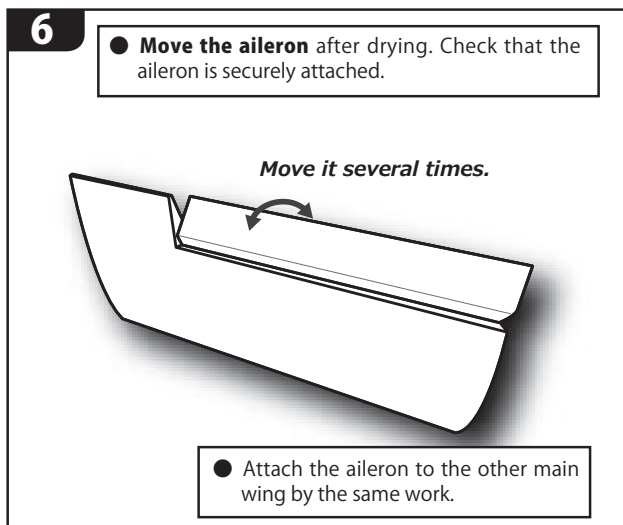
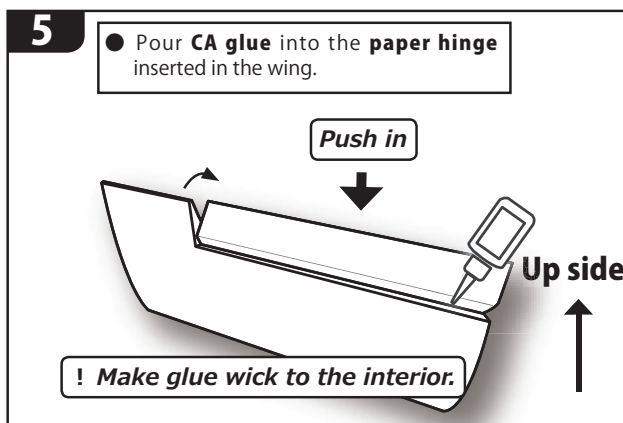
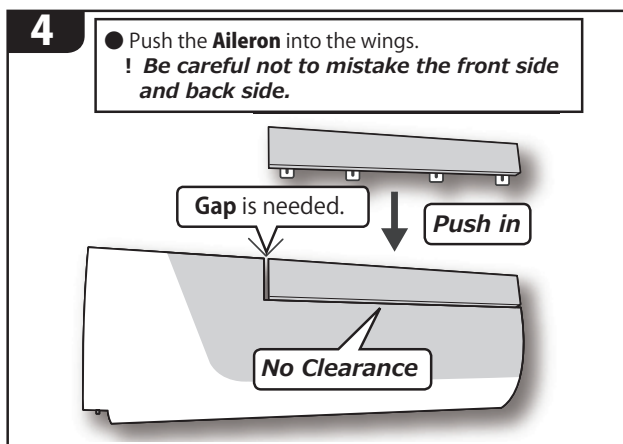
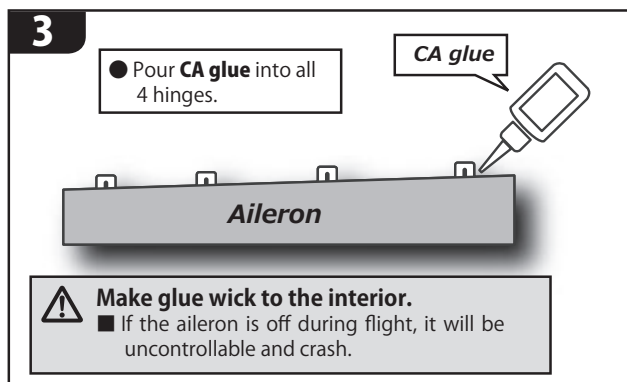
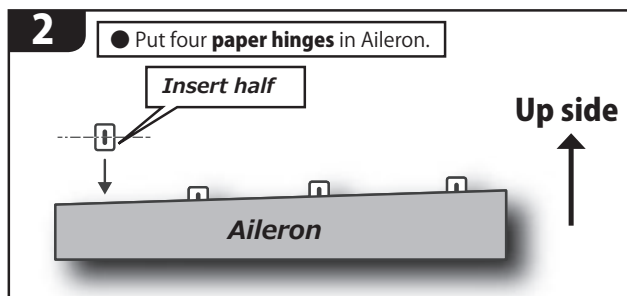
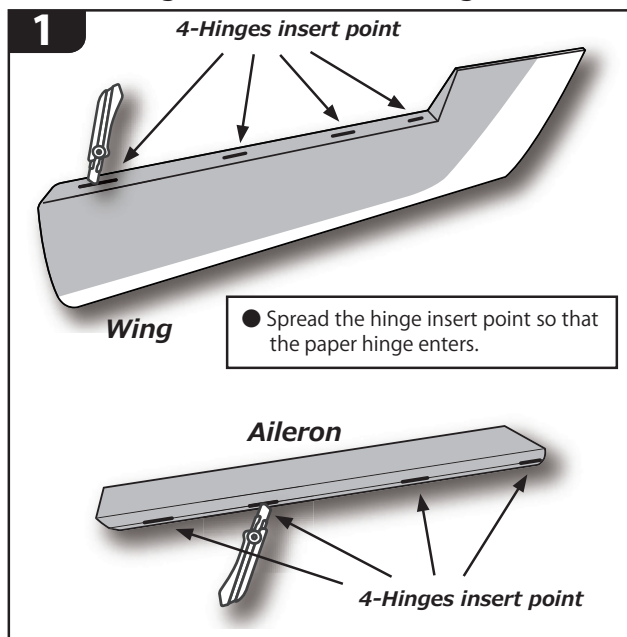
4. Follow the same procedure to set the channels according to the label of each servo.



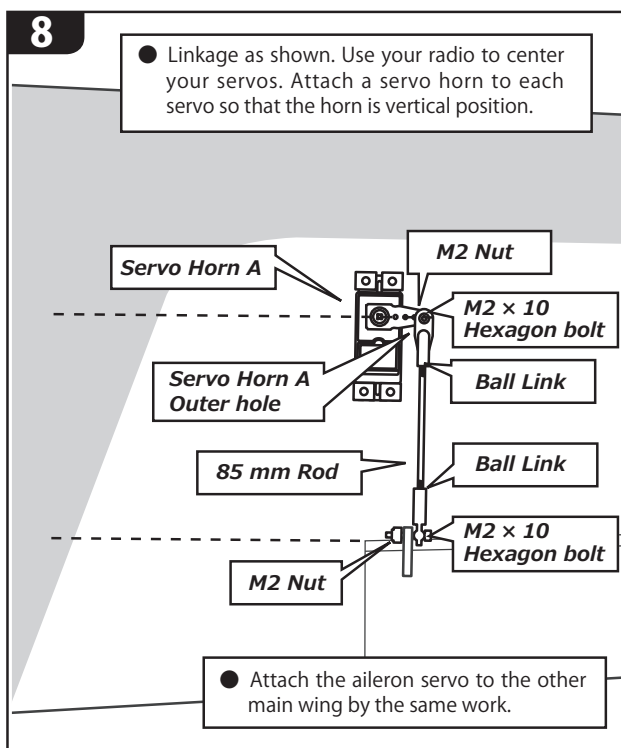
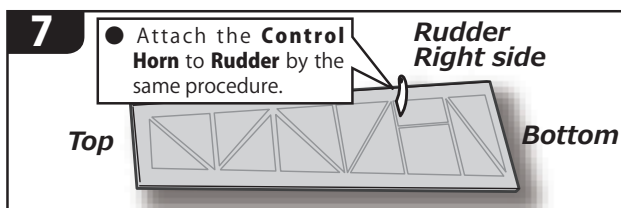
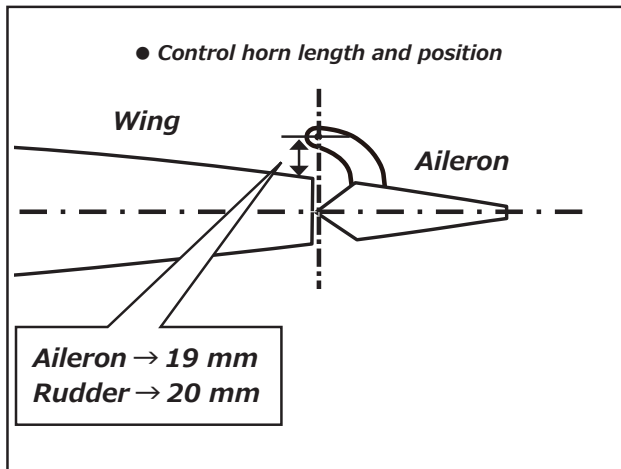
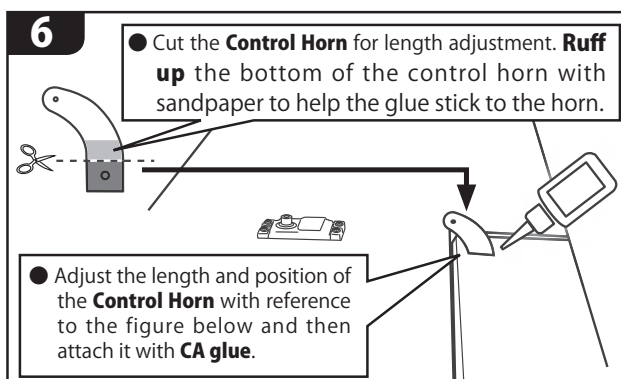
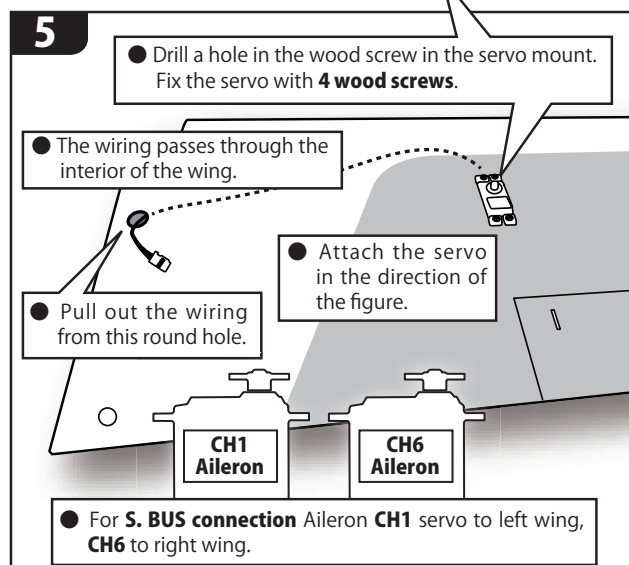
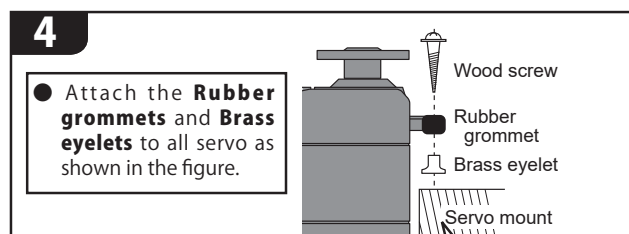
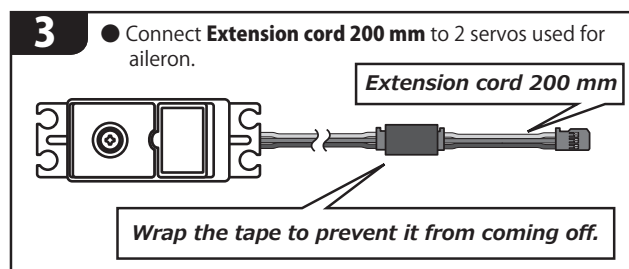
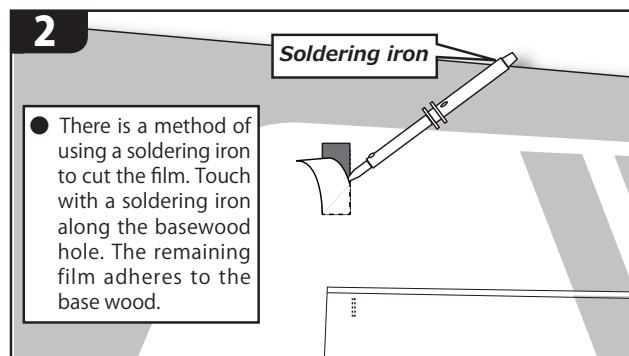
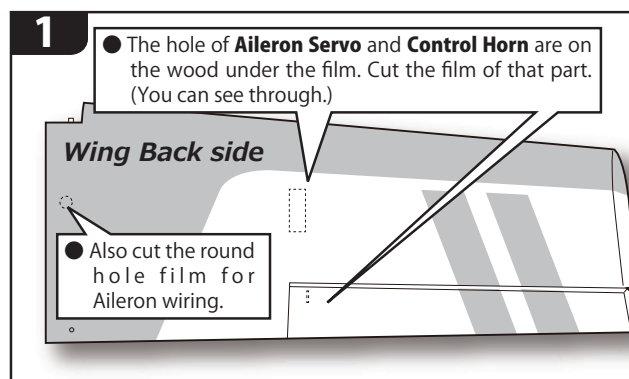
This will remember the channel labeled on each Servo. Then we will load the Servo on the airplane according to the label.

✂ 4 Wing Assembly

1. Attaching aileron to left and right main wing.



2. Installation of Aileron Servos



3. Joining left and right main wings

1

- Insert a wing joint which is painted thinly on both sides with epoxy adhesive on one side of Wing. Notice up and down side.

Epoxy Adhesives.
Mix the base and curing agent well, and thinly.

(Up-side)

Wing Joint (Wood)

Wing Up-side

2

- Apply thin epoxy adhesive to the surface of the figure.

Epoxy Adhesives.
Mix the base and curing agent well, and thinly.

3

- Insert **Wing**. Wipe off the protruding adhesive.

(Up-side)

Dihedral angle is attached to the main wing.

4

- Temporarily fix with tape to completely cure the epoxy adhesive. Peel off the temporary fixing tape after curing.

Temporary fixing tape

5

- Attach the **Wing Plate** to the main wing.

Wing Up-side

- Draw a tear line along the wing plate with a marker.

Wing Plate

- Match the hole positions.

6

- Cut the film of Wing Plate attachment part and peel off.

Do not cut balsa of the wing.

7

- Adhere the **Wing Plate** with **CA glue**.

8

- Cover the central junction of the wing with the **Wing Center Cover Film**.

Wing Center Cover Film

Low temperature setting

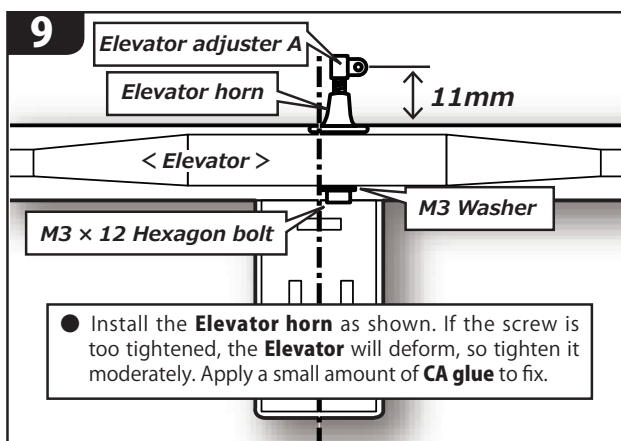
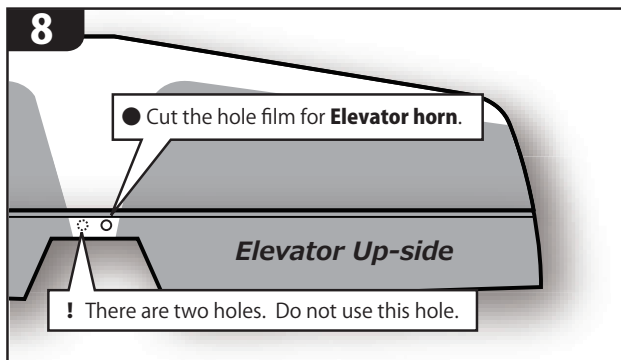
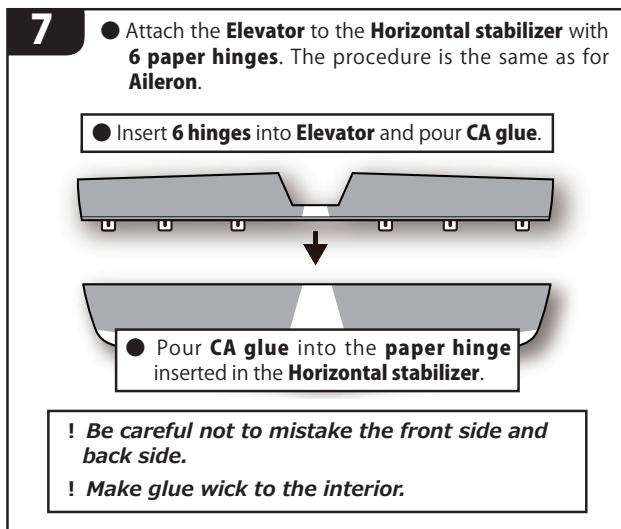
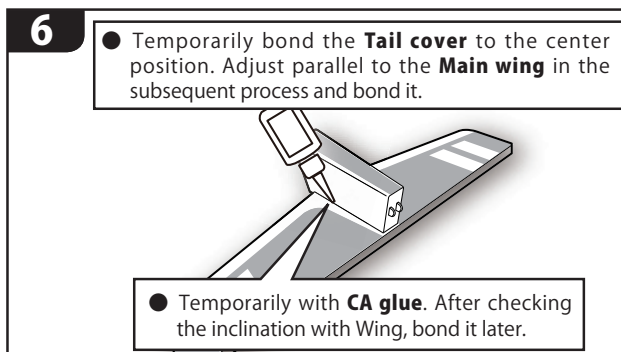
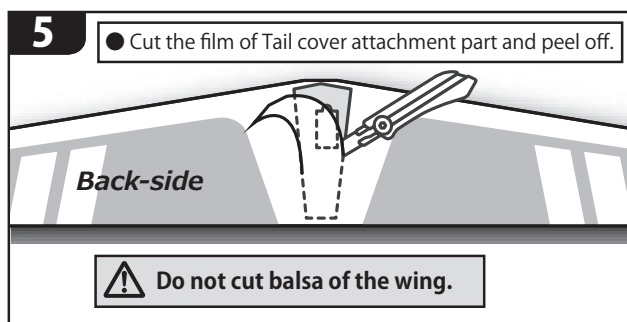
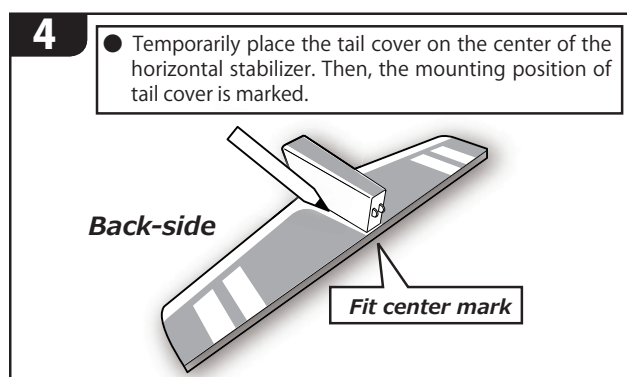
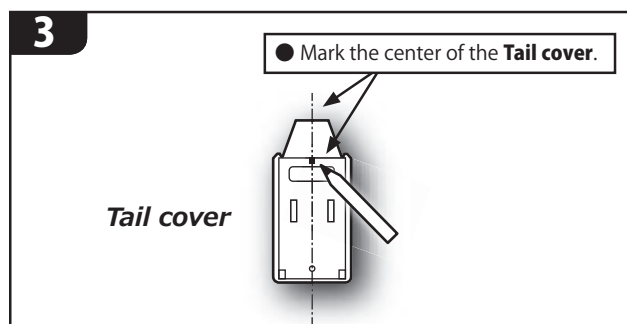
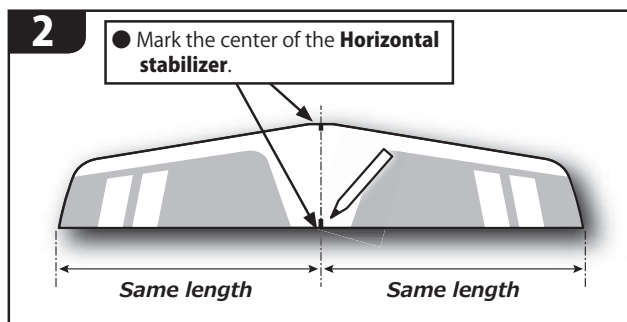
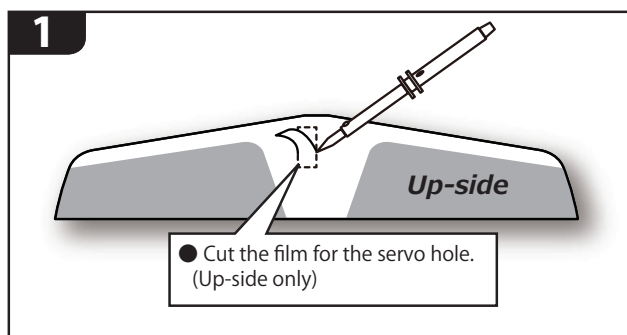
Iron

The film peels off the transparent sheet and its side is the adhesive side.

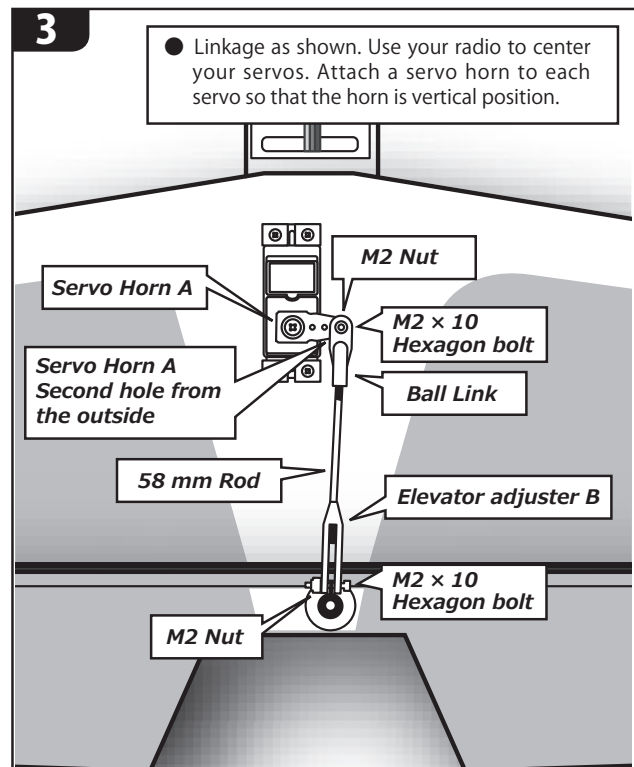
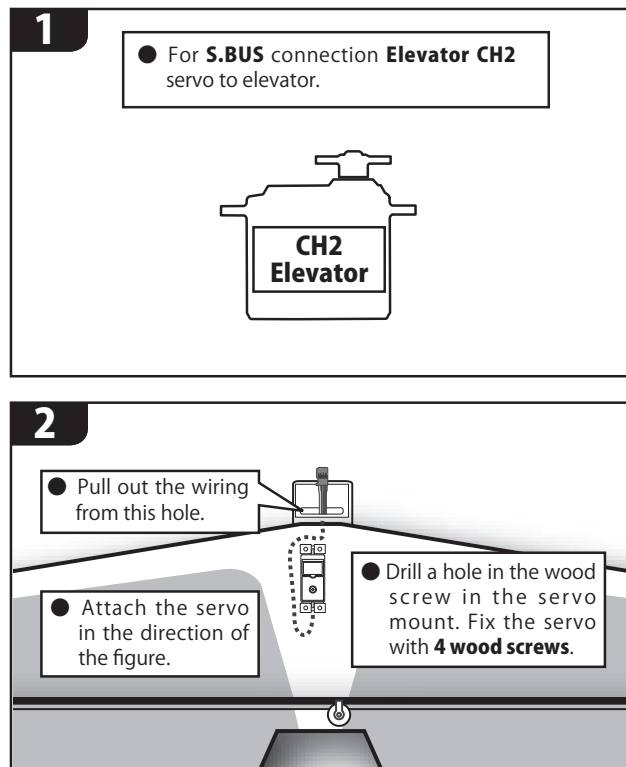
Also paste the **back side**.

✂ 5 Horizontal stabilizer

1. Installation of Tail cover · Elevator to the horizontal stabilizer.

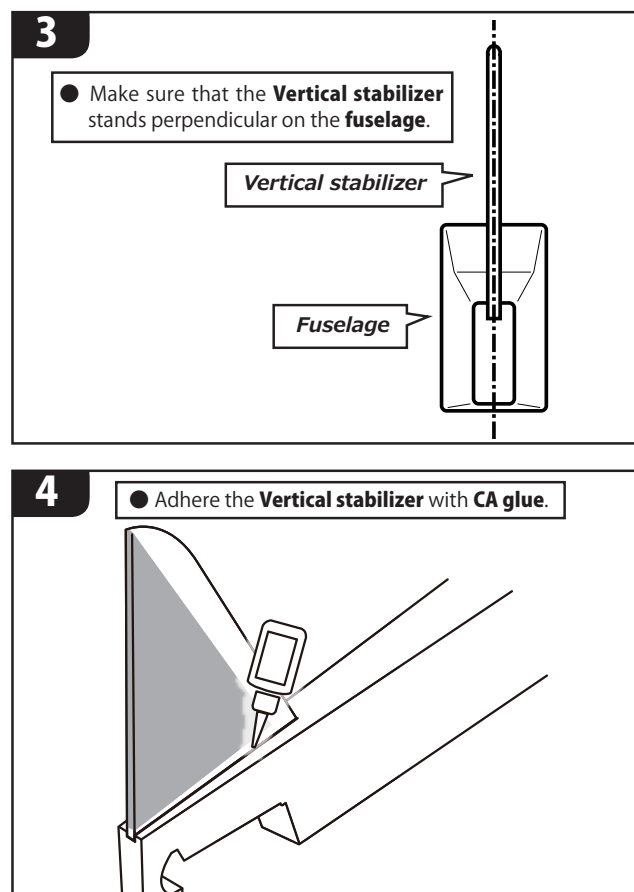
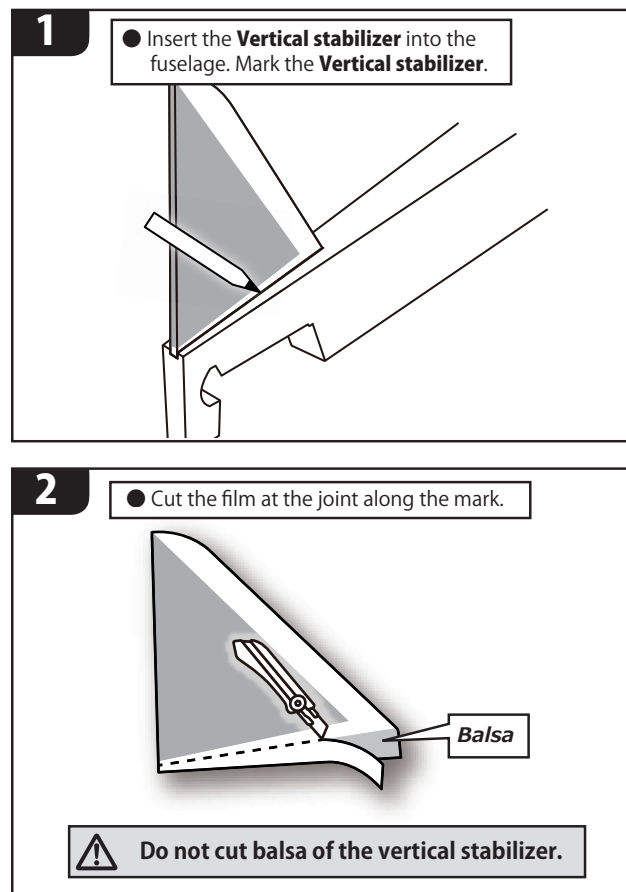


2. Installation of Elevator Servo

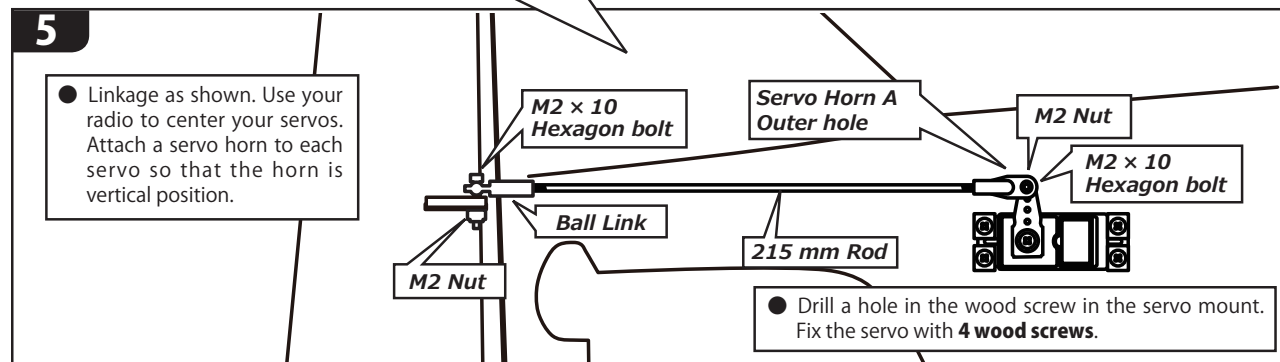
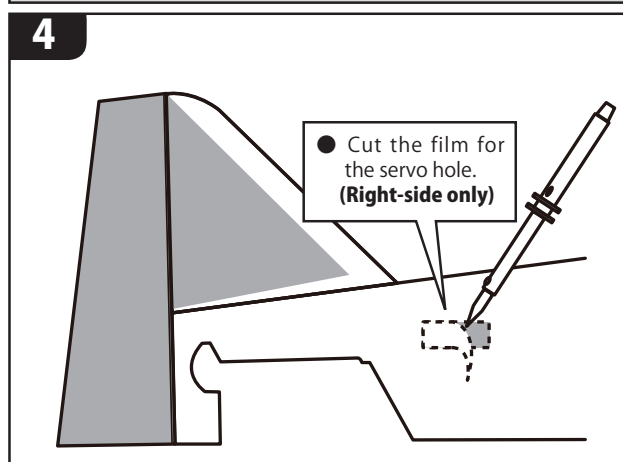
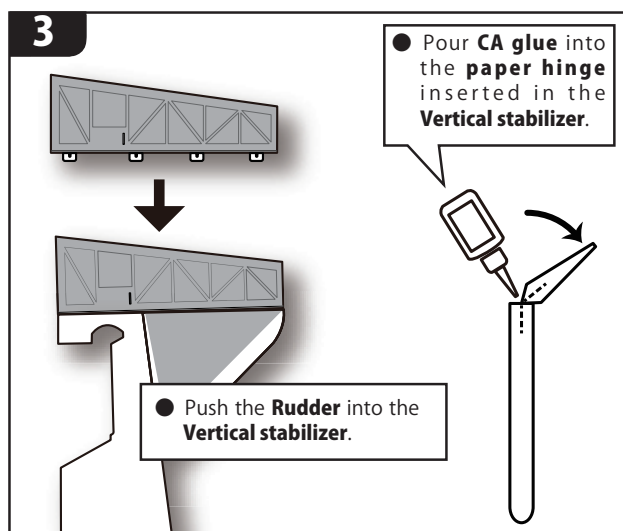
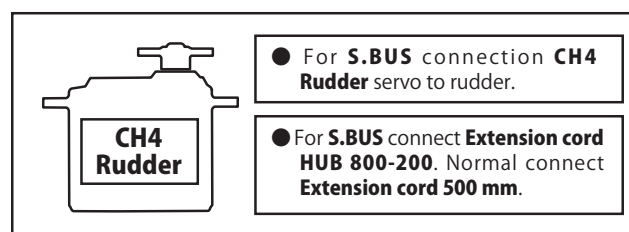
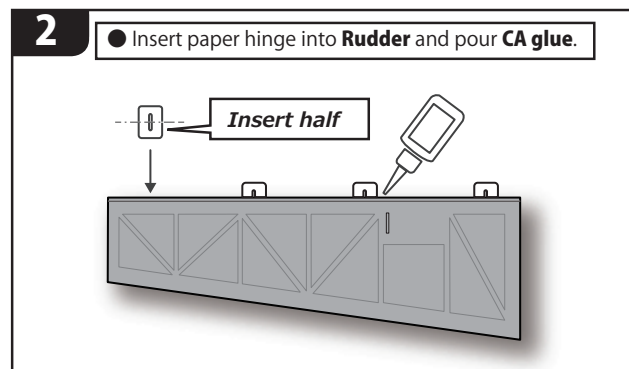
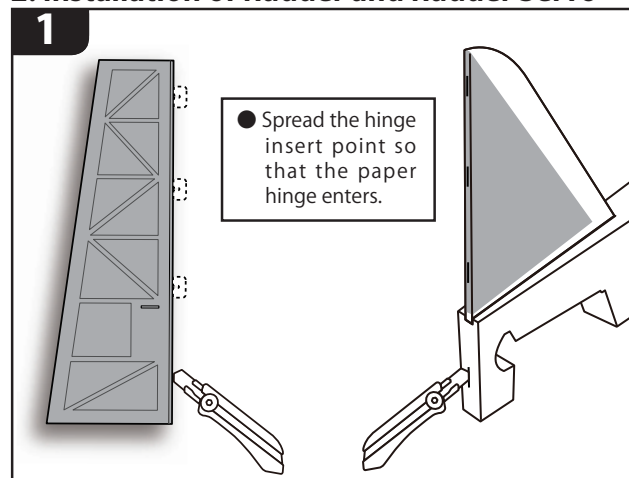


6 Vertical stabilizer

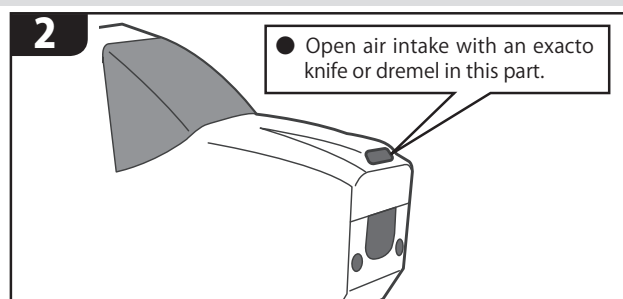
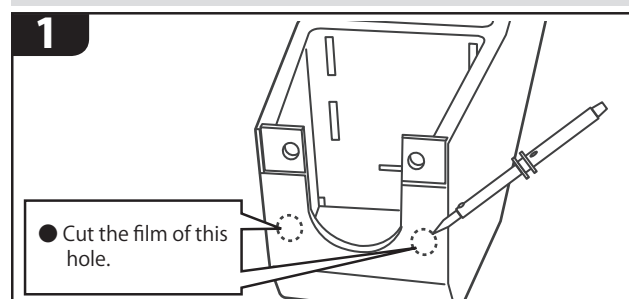
1. Installation of Vertical stabilizer



2. Installation of Rudder and Rudder Servo



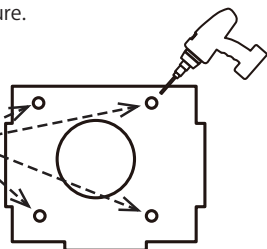
✂ 7 Air Intake



8-1 Installation of Motor : EP kit only

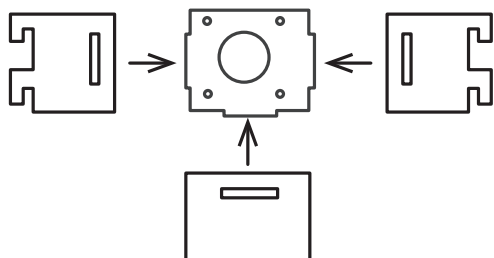
- 1** ● Drill four holes with a **3 mm drill** in the position of the **Motor mount** figure.

- There is a mark of the hole position according to **O.S. OMA-5010-810**.



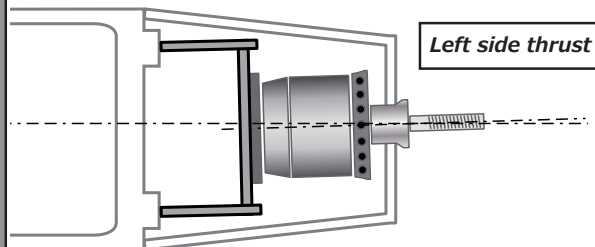
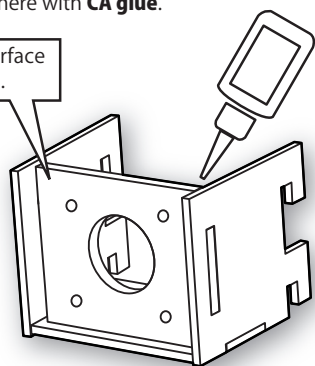
- When using motors other than **O.S. OMA-5010-810**, decide the hole position according to motor used and drill a hole.

- 2** ● Assemble the **Motor mount**.



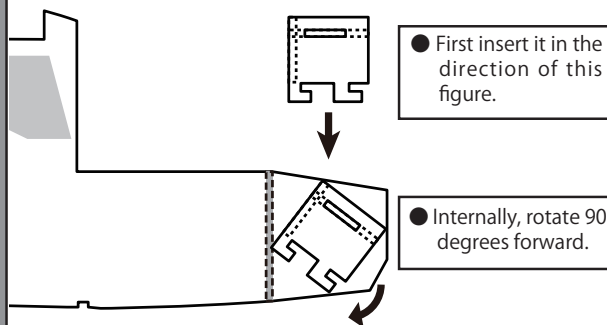
- 3** ● Adhere with **CA glue**.

- Plastic surface is forward.



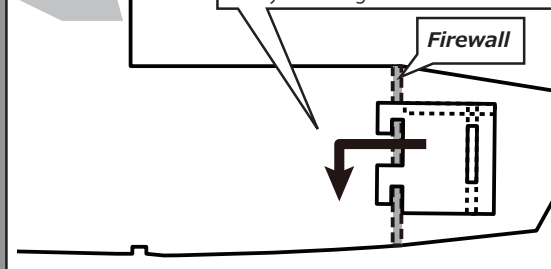
In a typical airplane the propeller axis is offset to the right. However, this plane is offset to the left. Resolve the peculiar habit of this airplane with a left offset.

- 4** ● Attach the **Motor mount** to the fuselage.

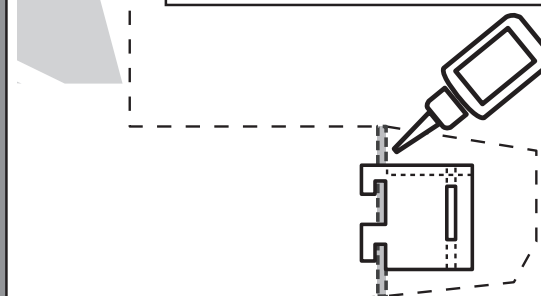


- 5** ● Fit the **Motor mount** into the groove of the firewall.

- Insert it **backwards**, then lock it by thrusting **downwards**.



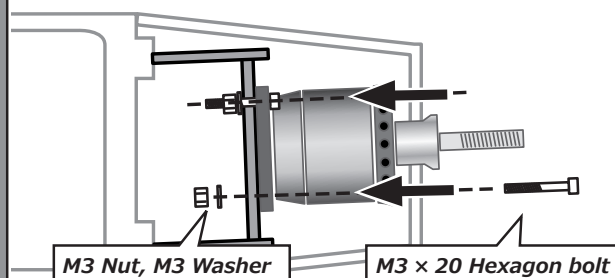
- 6** ● Adhere the **Motor mount** firmly with **CA glue**.



 This page is an explanation of the case of electric motor. (It is unnecessary in the case of engine.)

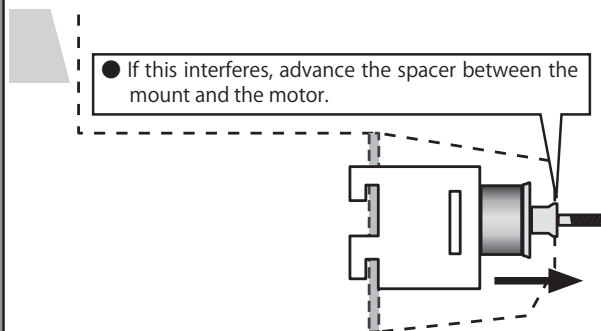
7

- Fix the Motor with four **M3 Nut**, **M3 Washer** and **M3 × 20 Hexagon bolt**.



8

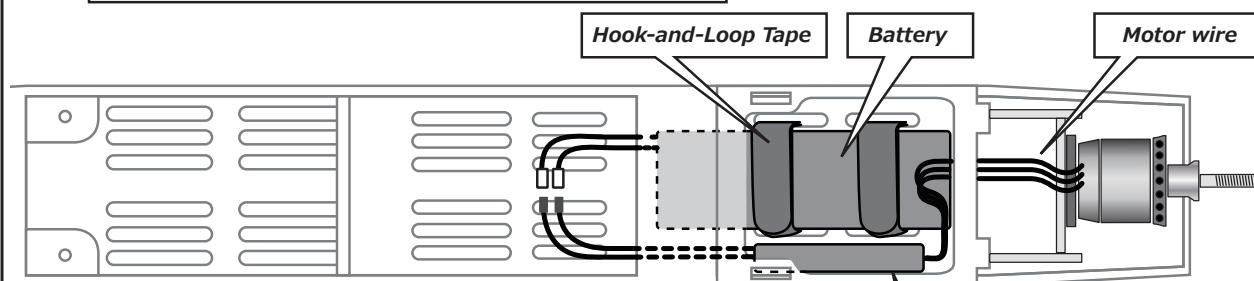
- If this interferes, advance the spacer between the mount and the motor.



8-2 Installation of Battery and Motor controller : EP kit only

1

- Install the **Battery · Motor controller** using **Hook-and-Loop Tape** inside the fuselage as shown.



Sky Leaf Tip

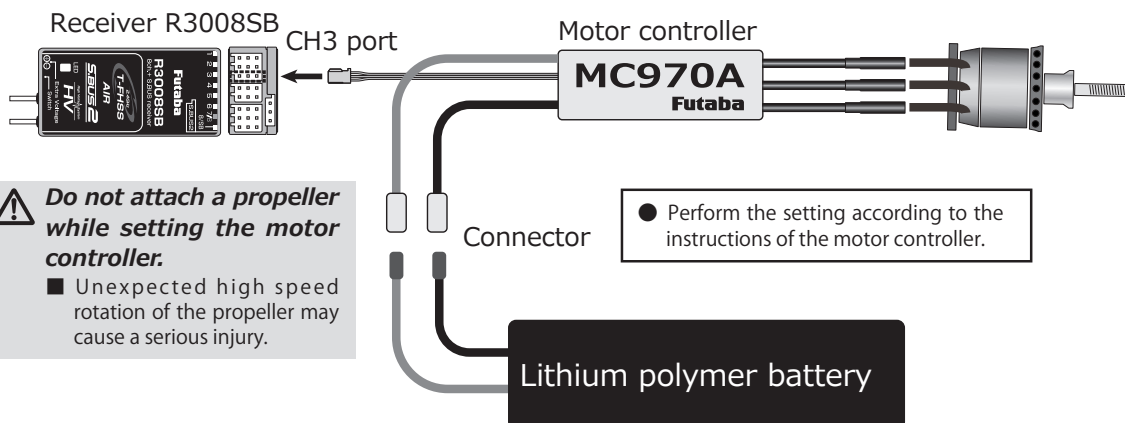
To adjust the weight balance, slide the heavy battery back and forth.



- **Motor controller** is mounted on the side plate of the fuselage using **Hook-and-Loop Tape**.

2

- Connect the wiring of the **Motor controller** to **CH3** of the Receiver.



Do not attach a propeller while setting the motor controller.

- Unexpected high speed rotation of the propeller may cause a serious injury.

- Perform the setting according to the instructions of the motor controller.

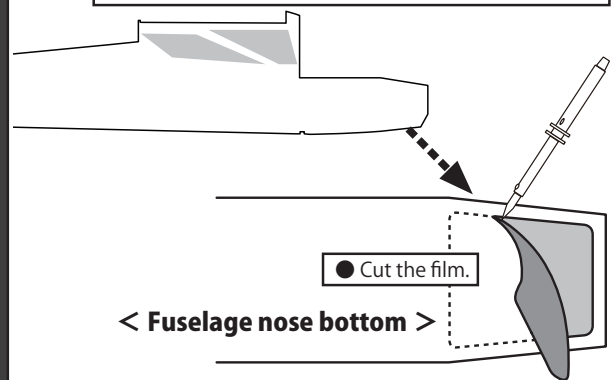


This page is an explanation of when to make it into an engine. (It is unnecessary in case of EP.)

✂ 8-1 Installation of Engine : GP kit only

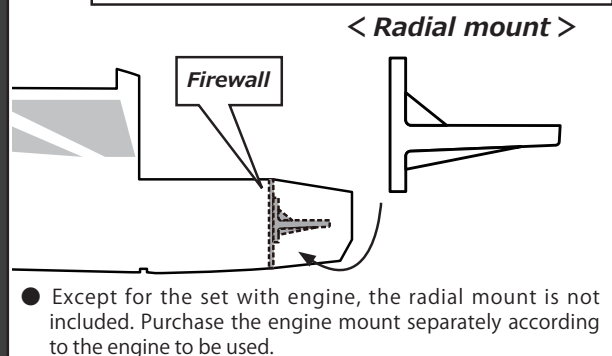
1

- Cut the nose bottom film for engine cooling and waste oil discharge.



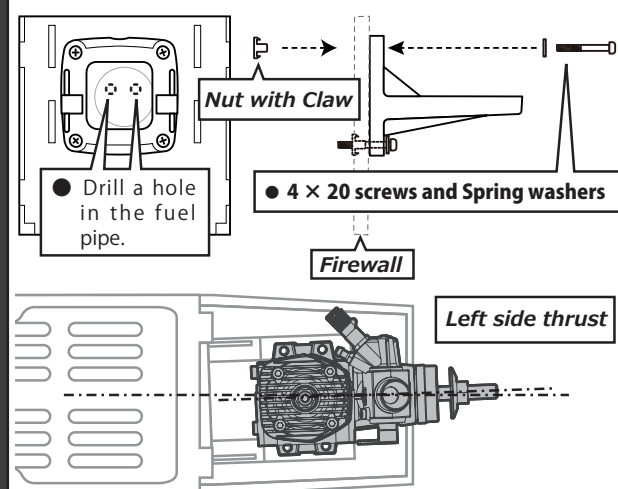
2

- Screw the **Radial mount** to the firewall with a screw.



3

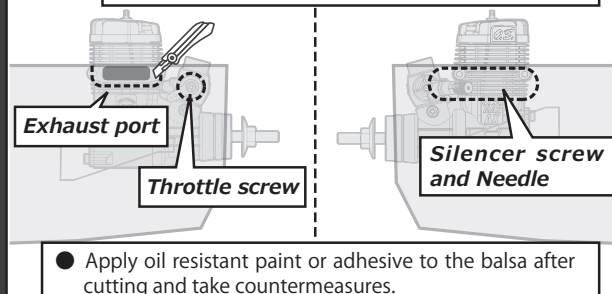
- Fix the **Radial mount** securely with **4 × 20 screws** on the firewall, **Spring washers** and **Nut with Claw**.



In a typical airplane the propeller axis is offset to the right. However, this plane is offset to the left. Resolve the peculiar habit of this airplane with a left offset.

4

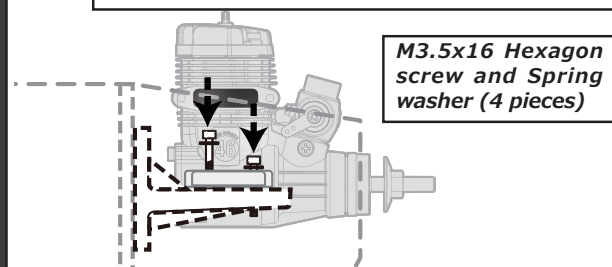
- Place the engine and cut the interfering side plate parts such as silencer and needle.



! Dust and shavings must not enter inside the engine.

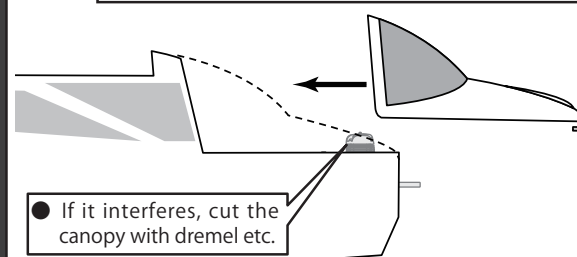
5

- Fix the **Engine** using a **M3.5 x 16 hexagon screw** (4 pieces) and a **Spring washer** attached to the radial mount.

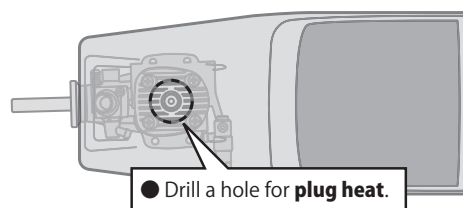


6

- Place the canopy on the fuselage and cut it if there is a part interfering with the engine.



7



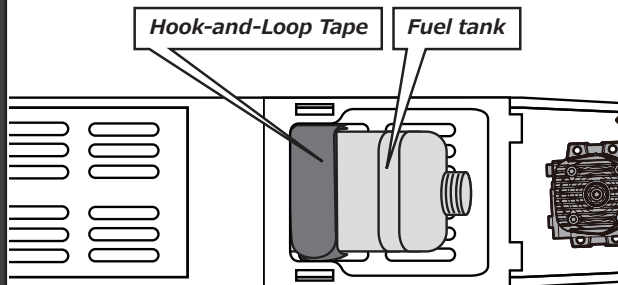
- The hole position varies depending on the engine used. The figure is an example of an **0.5. two cycle engine**.



This page is an explanation of when to make it into an engine. (It is unnecessary in case of EP.)

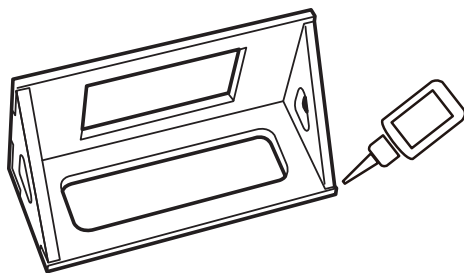
8

- Install the **Fuel tank** to the fuselage with **Hook-and-Loop Tape**.



9

- Assemble the mount for **Throttle Servo** with **CA glue**.



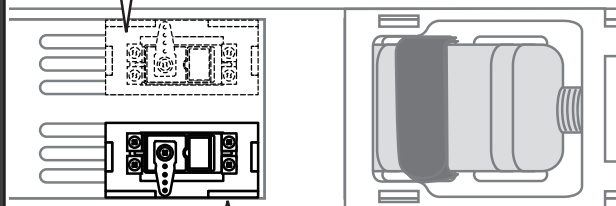
10

- Depending on the position of the throttle of the engine to be used, install **Throttle Servo**.



- For **S.BUS** connection **Throttle CH3** servo to throttle.

- Depending on the engine you have chosen, there are also cases here.

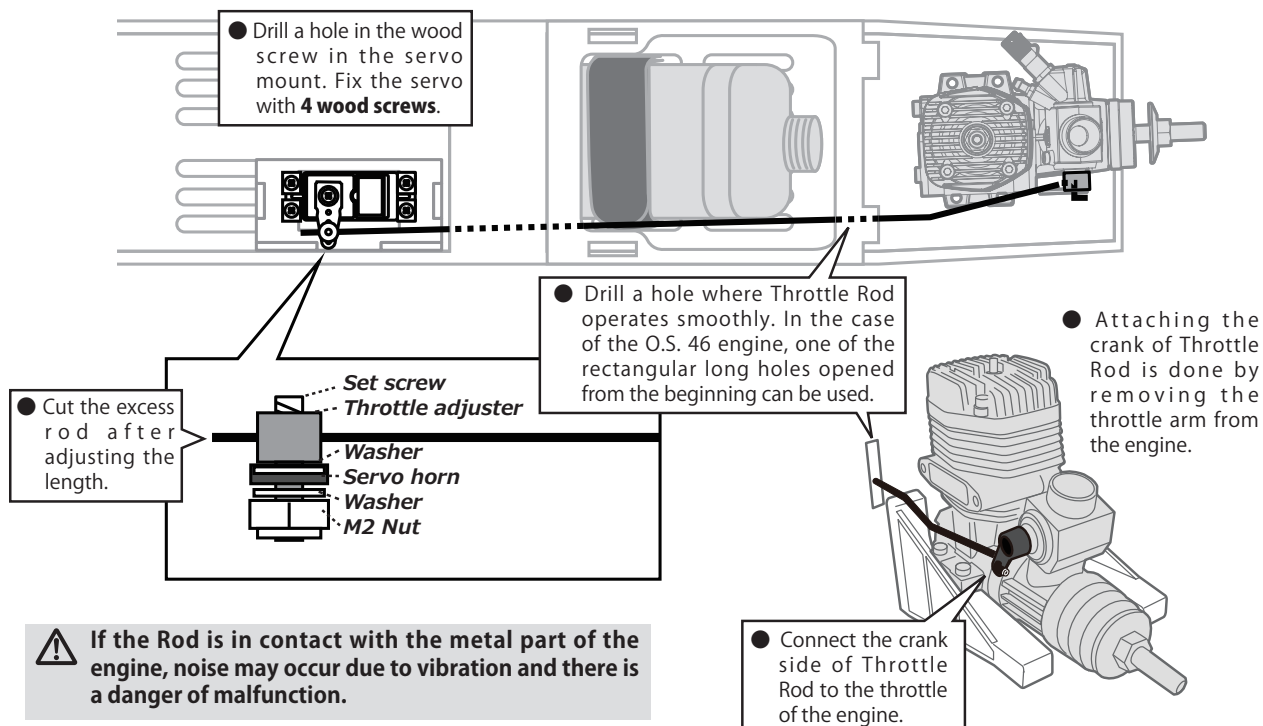


- Adhere the **Servo mount** to the side plate with **CA glue**.

- The height of the servo mount is adjusted so that the rod operates smoothly.

11

- Link servo and engine throttle. Make it work **smoothly**.



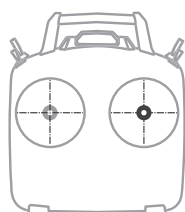


This page is an explanation of when to make it into an engine. (It is unnecessary in case of EP.)

✂ 8-2 Throttle setting : GP kit only

1

- Connect the **Throttle Servo** to the **Receiver**. For **S.BUS** connection, connect to **S.BUS port**, otherwise connect to **3CH port**.

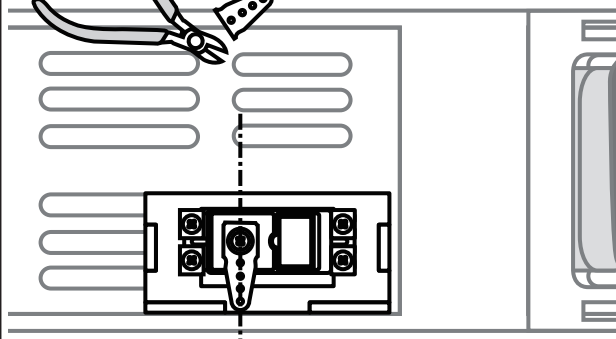
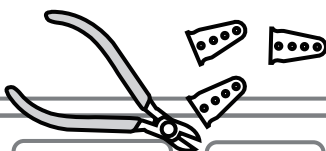


Neutral

- Turn on the transmitter and receiver and throttle stick to the neutral position.

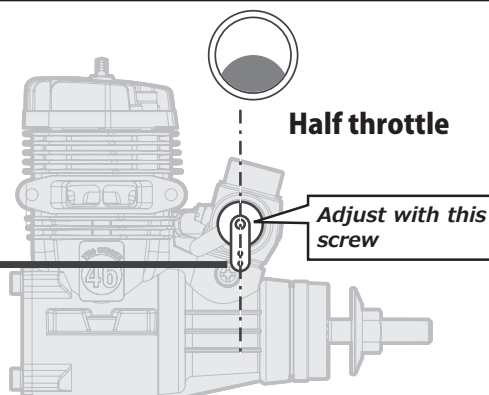
2

- Attach the **Servo horn** to the **vertical position**. Choose the arm to be vertical and cut the others.



3

- Adjust with the **throttle arm adjustment screw** of the engine so that the carburetor is in the middle speed position and the throttle arm is vertical.

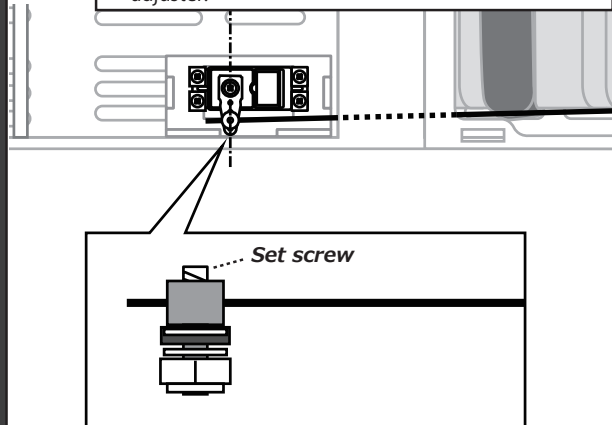


Half throttle

Adjust with this screw

4

- Both the engine and servo are fixed in the **neutral position** by clamping the **set screw** of the throttle adjuster.

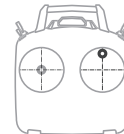


5

- Adjust with the transmitter **END POINT**(ATV, EPA) function so that the throttle stick is **high** (upper side) and the carburetor is **fully opened**.



Carburetor full open



High

END POINT

1 2

CH3 : THR	1: AIL 100 / 100
↑ 82	2: ELE 100 / 100
→ 82	3: THR 82 / 100
↓ 100	4: RUD 100 / 100
	5: GER 100 / 100

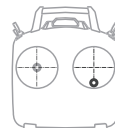
! Adjust so that there is no load on the servo.

6

- Adjust with the transmitter **END POINT**(ATV, EPA) function so that the throttle stick is **low** (bottom side) and the carburetor is **fully closed**.



Carburetor full close



Low

END POINT

1 2

CH3 : THR	1: AIL 100 / 100
↑ 82	2: ELE 100 / 100
→ 82	3: THR 82 / 82
↓ 82	4: RUD 100 / 100
	5: GER 100 / 100

! Fine adjustment of idling is done with throttle trim.

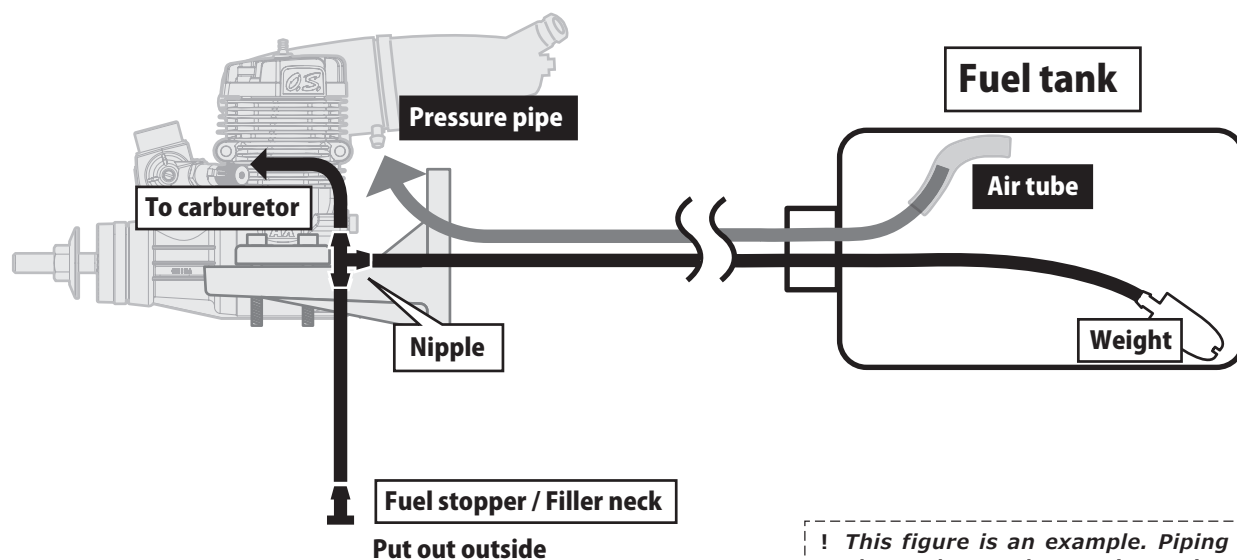


This page is an explanation of when to make it into an engine. (It is unnecessary in case of EP.)

✂ 8-3 Fuel piping and silencer : GP kit only

1

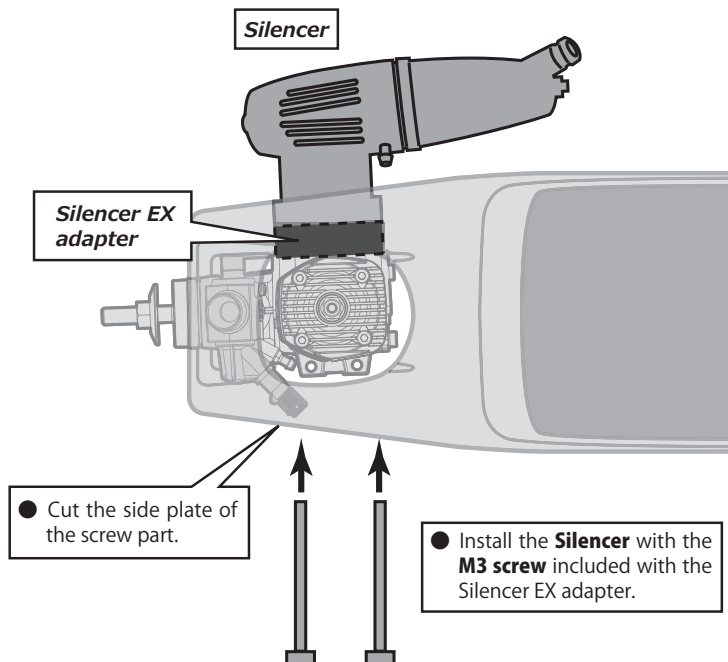
- Piping of fuel is done.



! This figure is an example. Piping depends on the engine. Pipe according to the instruction manual of the engine.

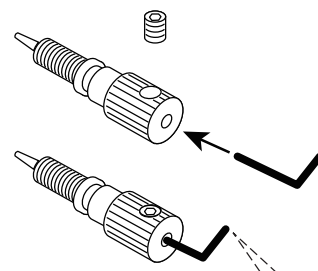
2

- Install the **Silencer**. For **O.S. two-cycle engines**, extend with the **O.S. Silencer EX adapter**.



3

- Attach the L-shaped bent wire to the needle.



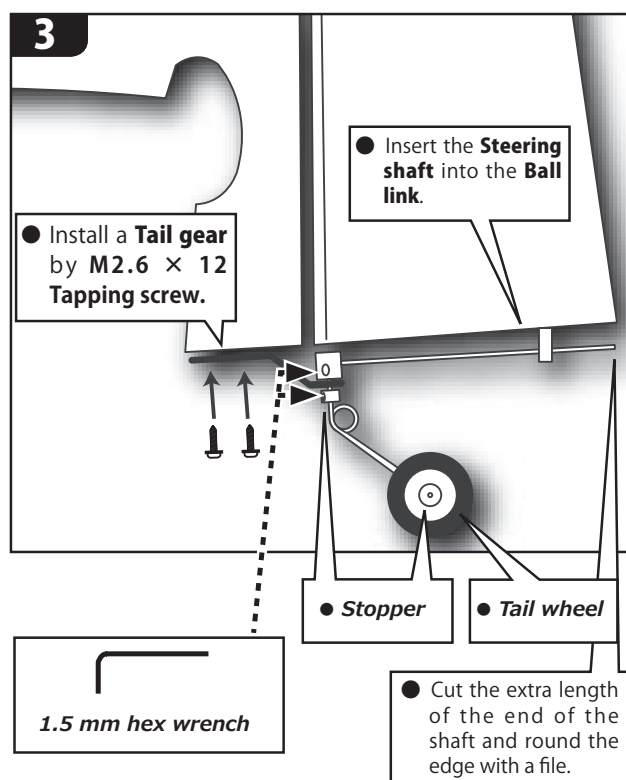
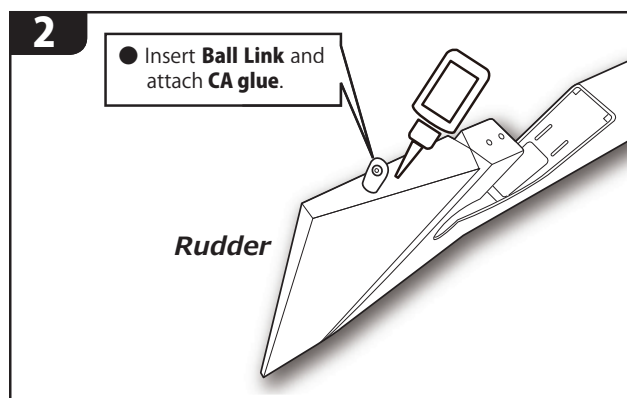
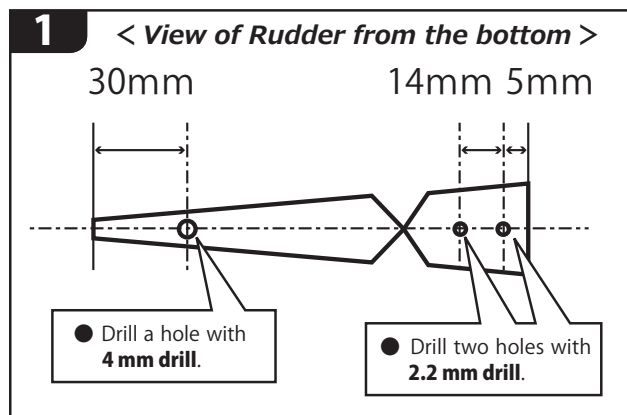
! Round the edge with a file.



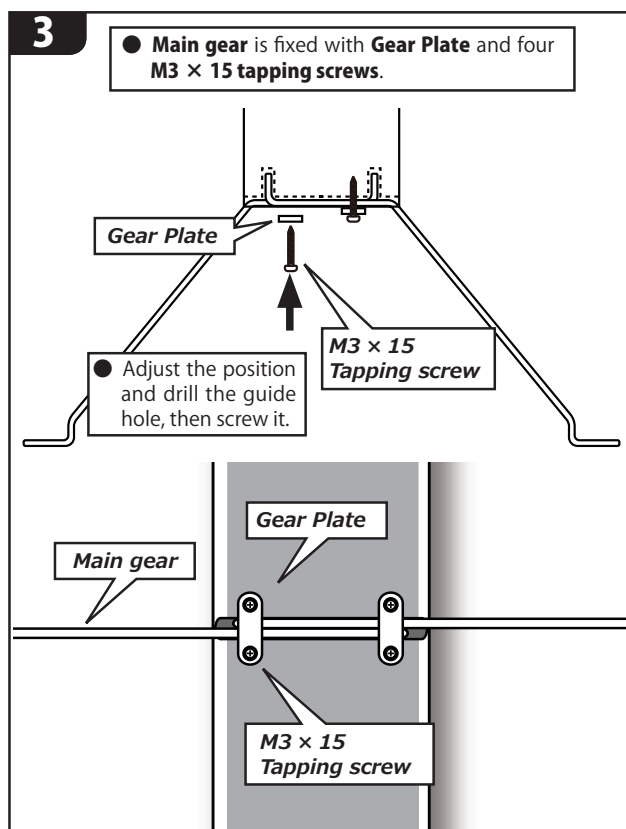
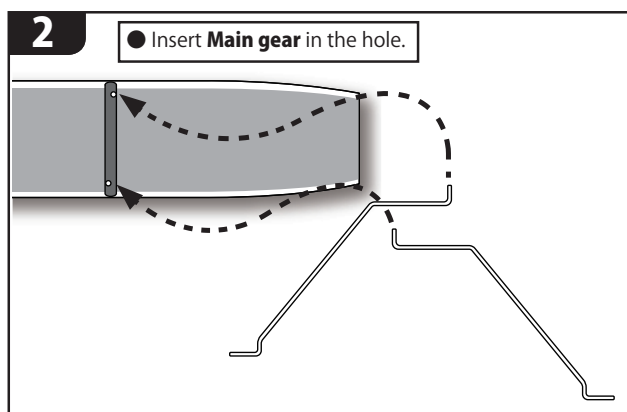
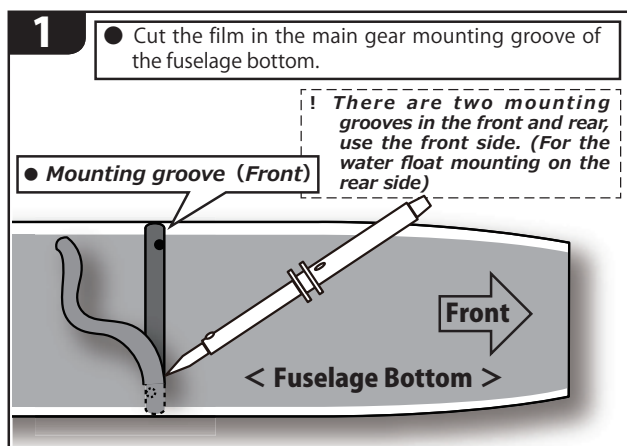
Sky Leaf Tip

As the engine vibrates, tighten each screw tightly.

✂ 9 Tail gear

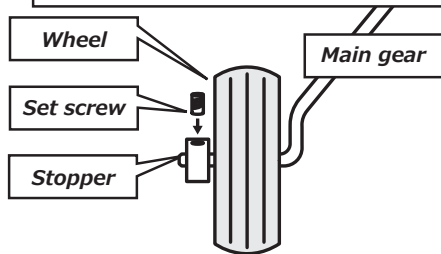


✂ 10 Main gear

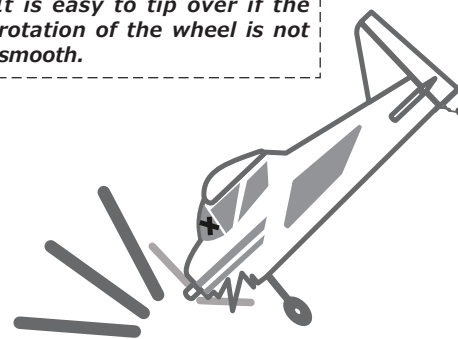


4

- Install the left and right **Wheels** as shown. Mount the **Stopper** with a **hexagonal wrench** and adjust at the position of the stopper so that the wheel moves smoothly.



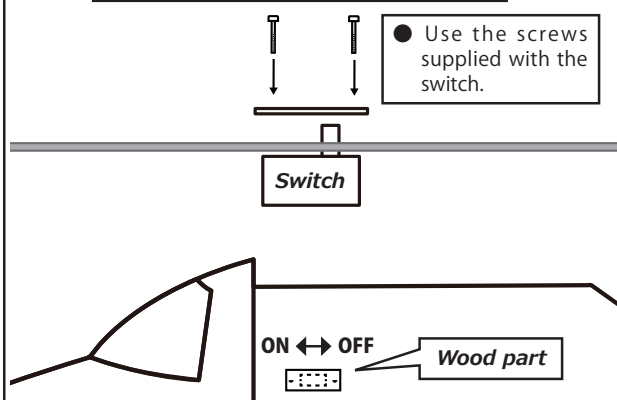
! It is easy to tip over if the rotation of the wheel is not smooth.



✂11 Switch • Receiver • Battery

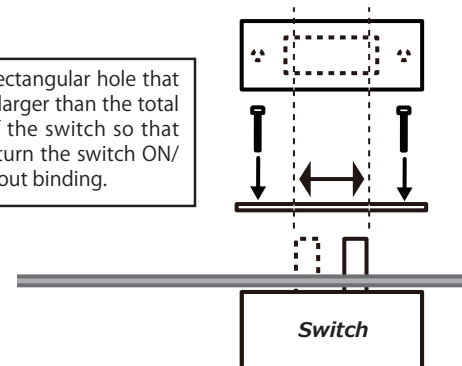
1

- Install the **Receiver Switch** on side plate.



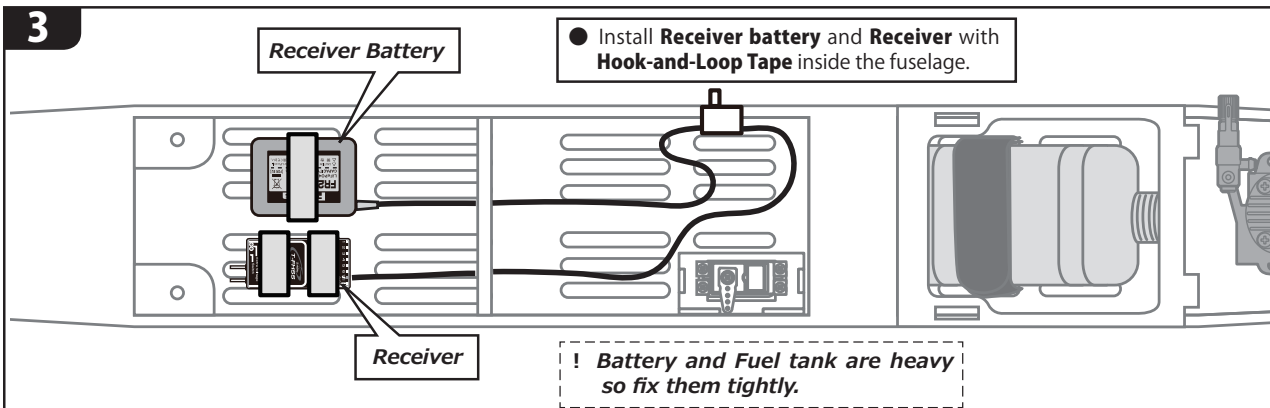
2

- Make a rectangular hole that is a little larger than the total stroke of the switch so that you can turn the switch ON/OFF without binding.



3

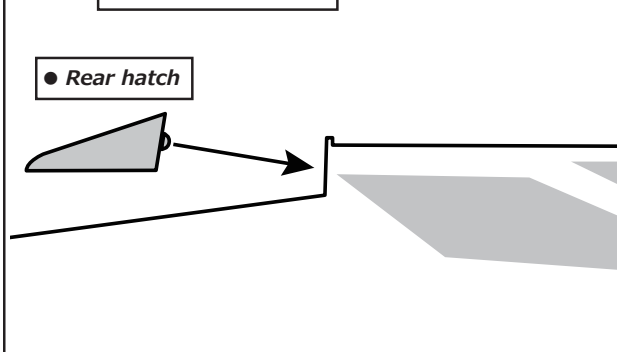
- Install **Receiver battery** and **Receiver** with **Hook-and-Loop Tape** inside the fuselage.



✂12 Rear hatch

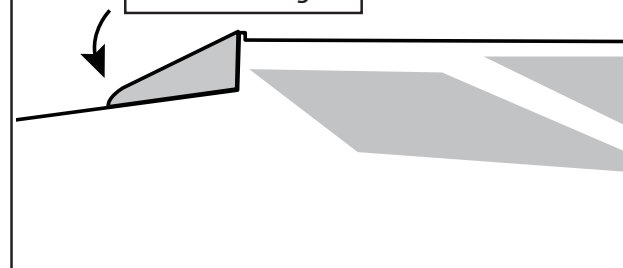
1

- Attach the rear hatch.

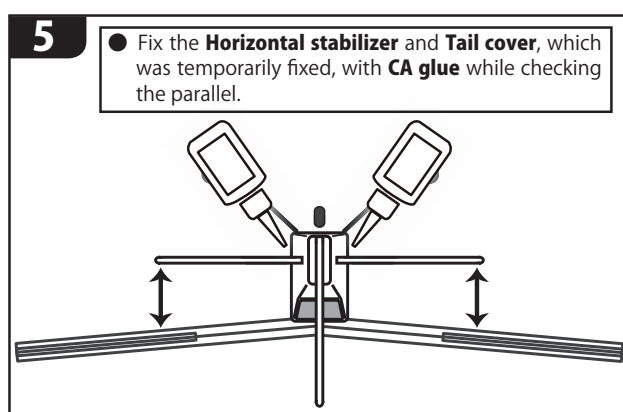
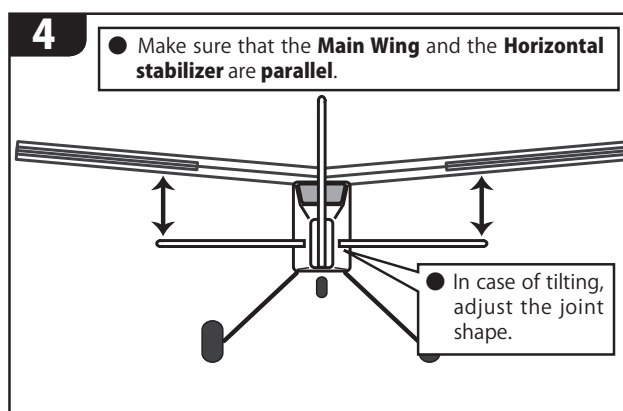
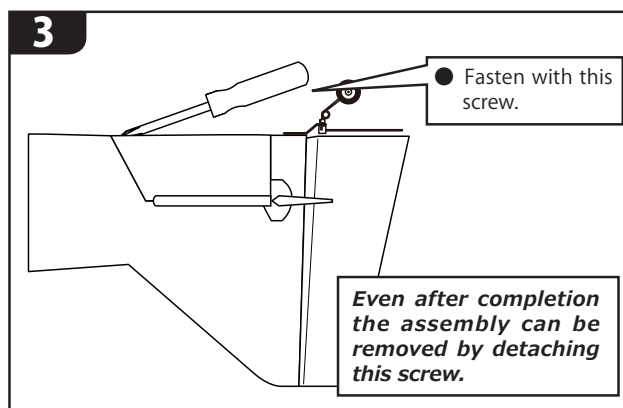
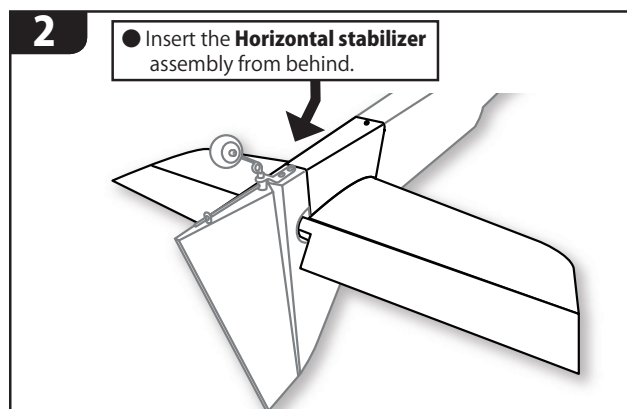
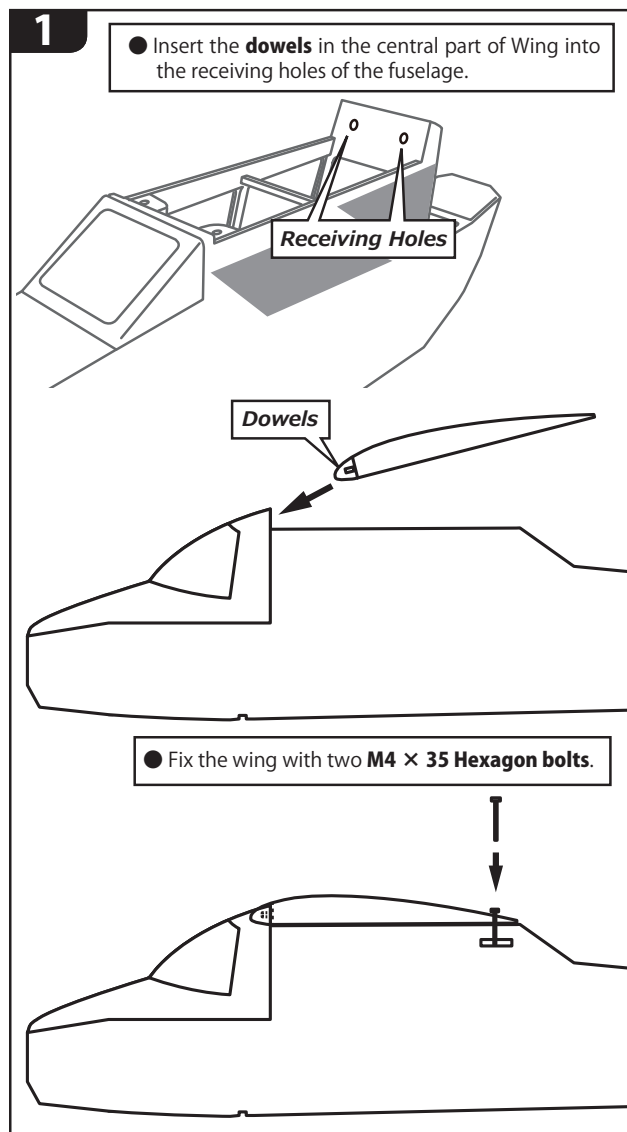


2

- Lock with magnet



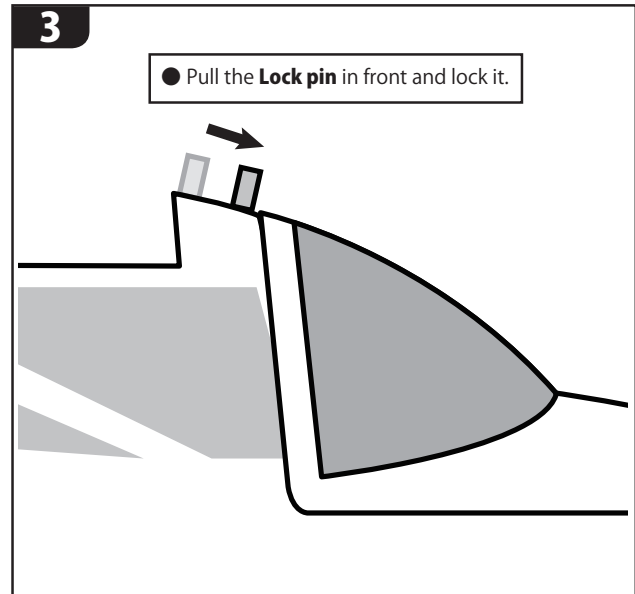
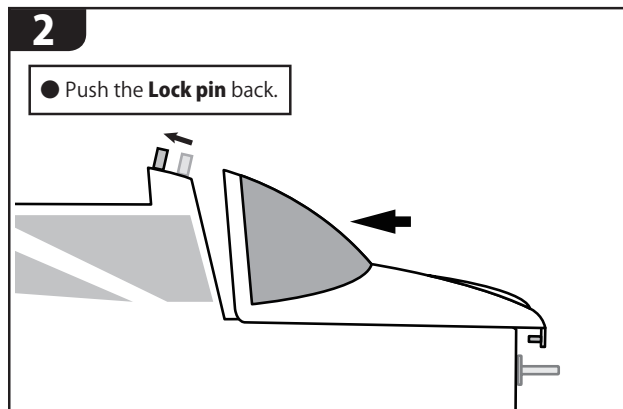
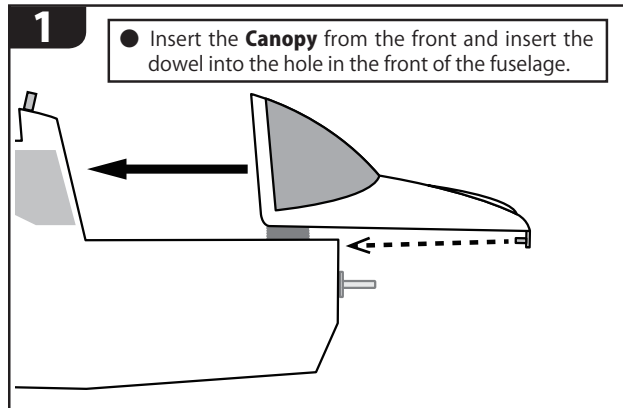
✂️ 13 Assembly the Main Wing and Horizontal stabilizer



Sky Leaf Tip

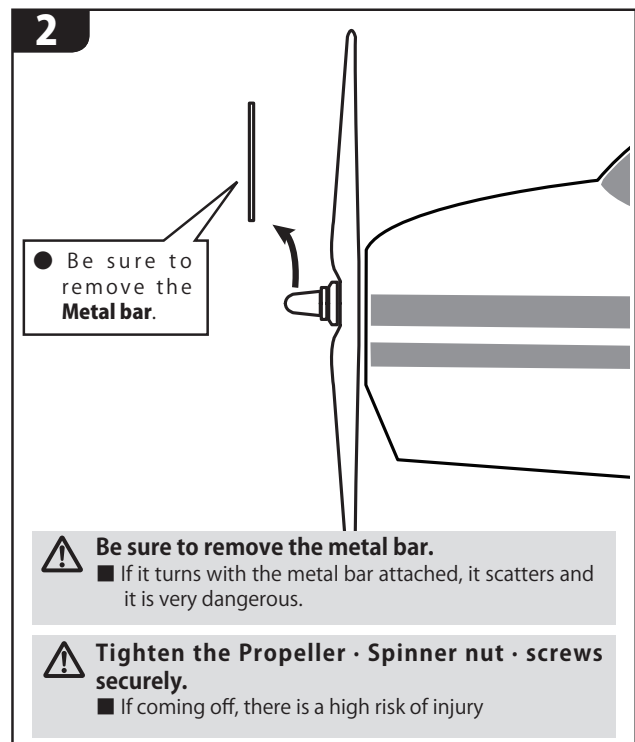
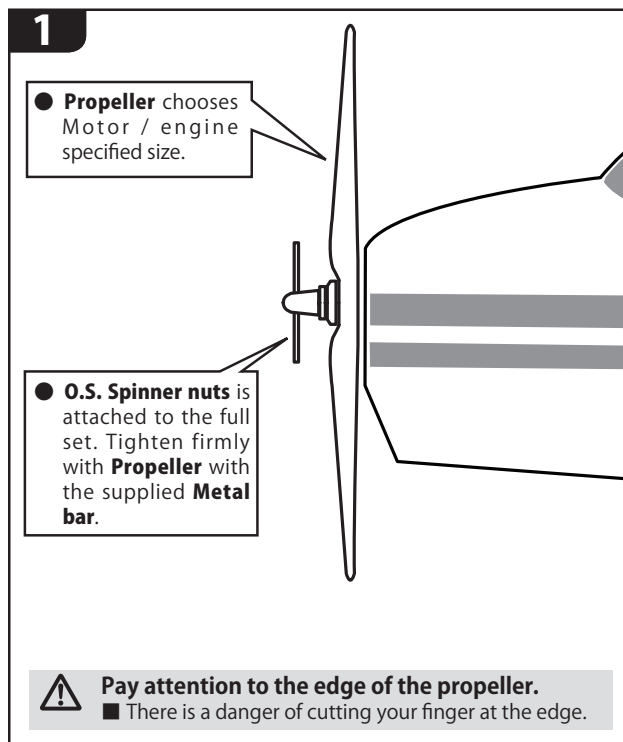
When storing or transporting, it is convenient to remove Wing and attach Wing at airfield! If you store more compactly, let's also remove the tail assembly!

✂14 Canopy



✂15 Propeller • Spinner

Propeller is sold separately. Follow each instruction manual to ensure installation.

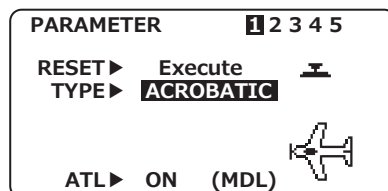


✂16 Transmitter setting example (example of using Futaba T10J)

I will explain the basic transmitter set as an example of Futaba T10J. As it explains what kind of setting it is, please refer to the manual of the transmitter for detailed input method. Be especially careful in Servo reverse.

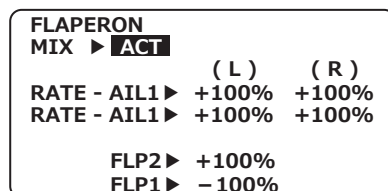
1. Model Type

- ① The airplane transmitter T10JA can be left at its initial setting "ACROBATIC".
- ② When helicopter transmitter T10JH. First select a new model which is not currently used in "MDL-SEL" and enter the aircraft name with "MDL-NAME" so that you can know the name.
- ③ Set "TYPE" in "PARAMETER" to "ACROBATIC".



2. Flaperon

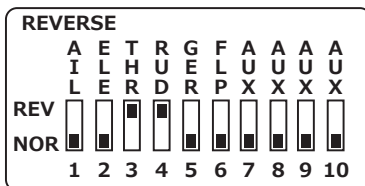
- ① Aileron is 2 Servo on this plane. Use "Flaperon" to make the left and right Aileron work together with the Aileron stick.
- ② Call the "FLAPERON" function and set MIX ► INH to ACT.
- ③ This will allow Aileron to work right and left simultaneously. The values of each setting item of the Flaperon function are not changed.



! 18MZ and 14SG are not "Flaperon", set the Wing Type to "2 AILERON".

3. Reverse

- ① Refer to "#19 Operation" in the next section, and adjust the direction of each servos with "REVERSE" function.
- ② Here is an example of normal linkage case. However, as the direction changes depending on how the linkage works and the engine, check carefully.



4. D/R, EXPO

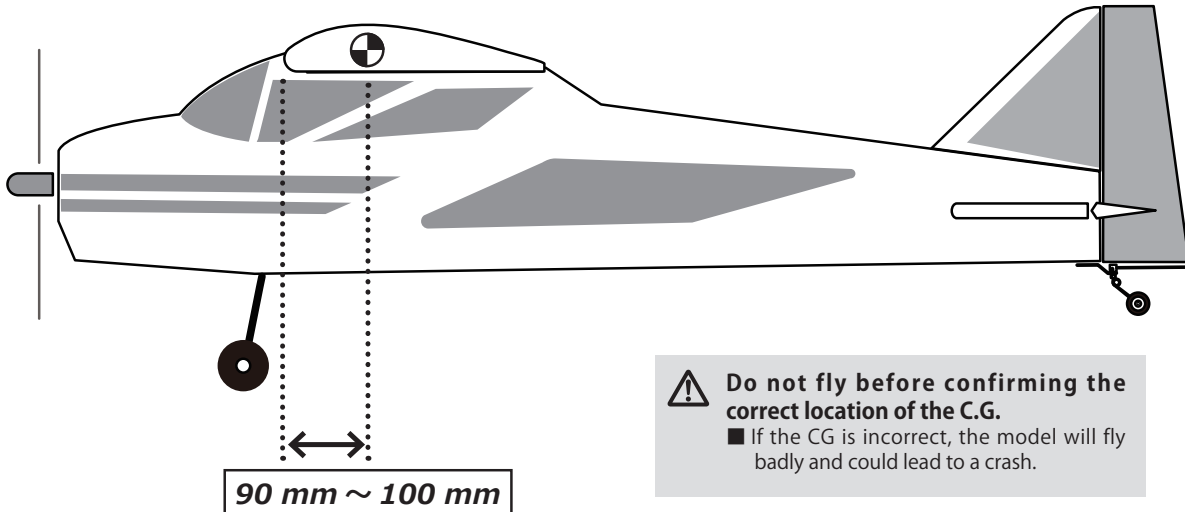
- ① Reduce the operation amount with D/R, make operation near neutral mild in EXP, making it easier to operate.

	D/R	EXP
Aileron(CH1)	50%	-35%
Elevator(CH2)	70%	-20%
Throttle(CH3)	—	0%
Rudder(CH4)	70%	-30%

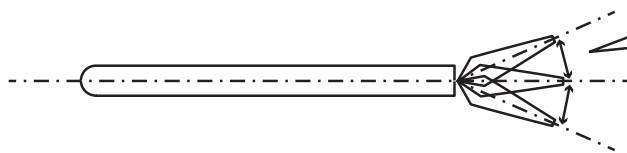
✈️ 17 C.G. Position

● With the wing attached to the fuselage, all parts of the model installed (ready fly) and installed battery.

● If the tail drops, the model is "tail heavy" and the battery and/or receiver must be shifted forward or weight must be added to the nose to balance. If the nose drops, the model is "nose heavy" and the battery and/or receiver must be shifted aft or weight must be added to the tail to balance.



✈️ 18 Set the Control Throws



● Use a ruler, an inclinometer, or a protractor to accurately measure and set the control throw of each control surface in left/right or up/ down same throw.

● Make sure that the overload won't be added to each servo at the time of max operation. In case of an overload, reduce the travel adjustment in the transmitter.



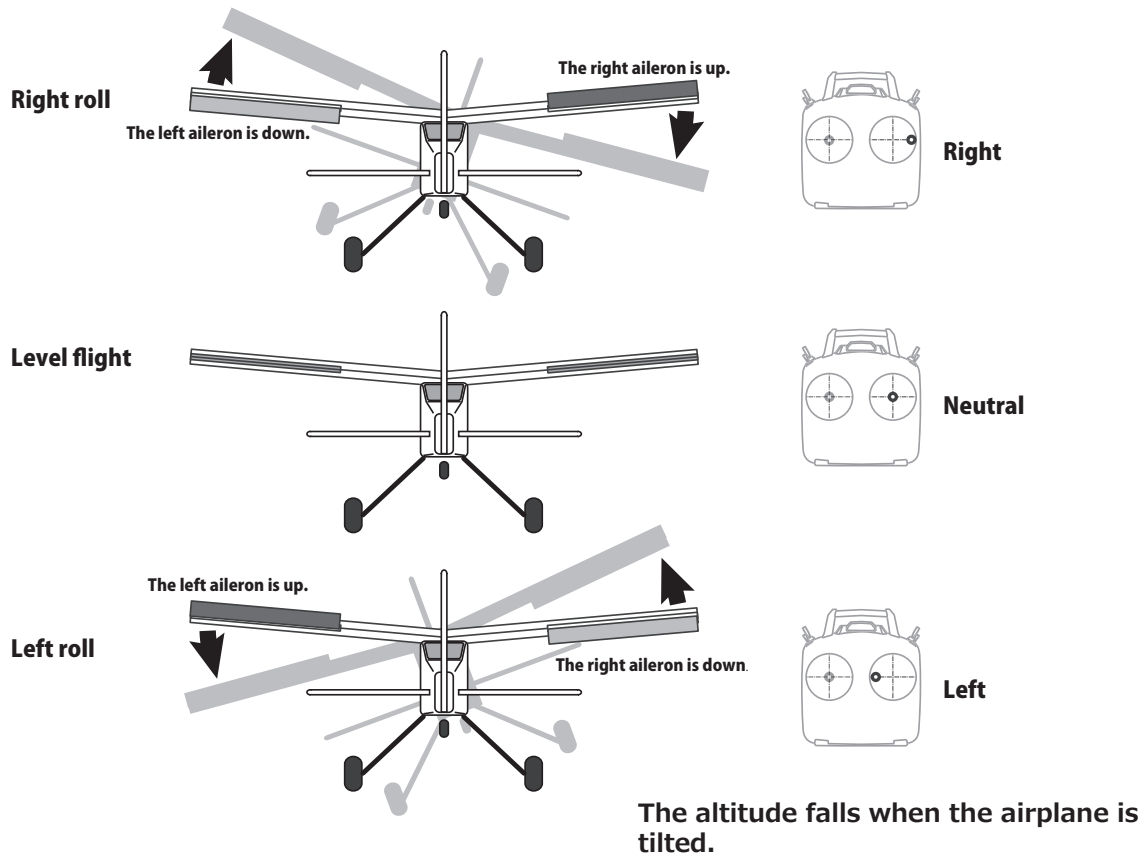
Do the first flight in low rate.

■ High Rates are aggressive, so ease into using low rates for general flying.

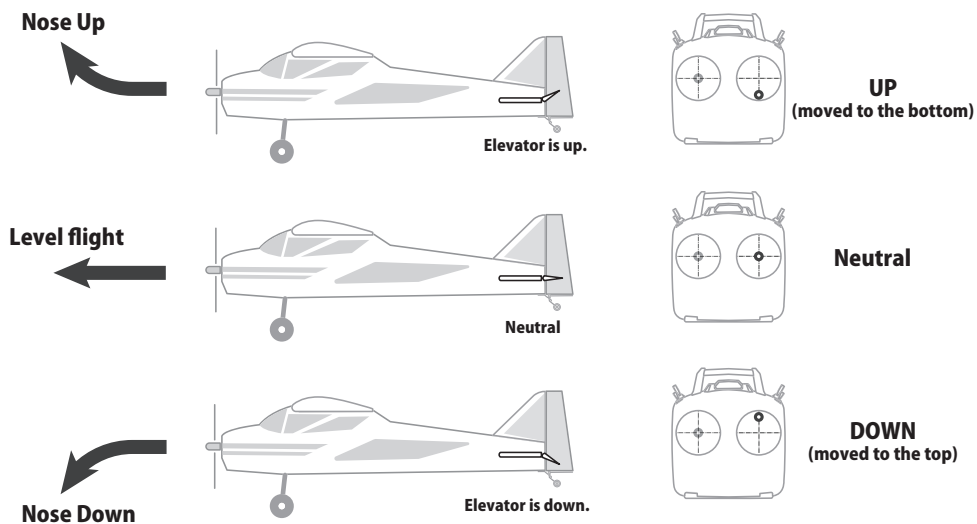
✈️ 19 Operation

It is movement when Aileron stick is operated.

- Use the reverse function of the transmitter to adjust each servo so that it moves in the same direction as the figure.

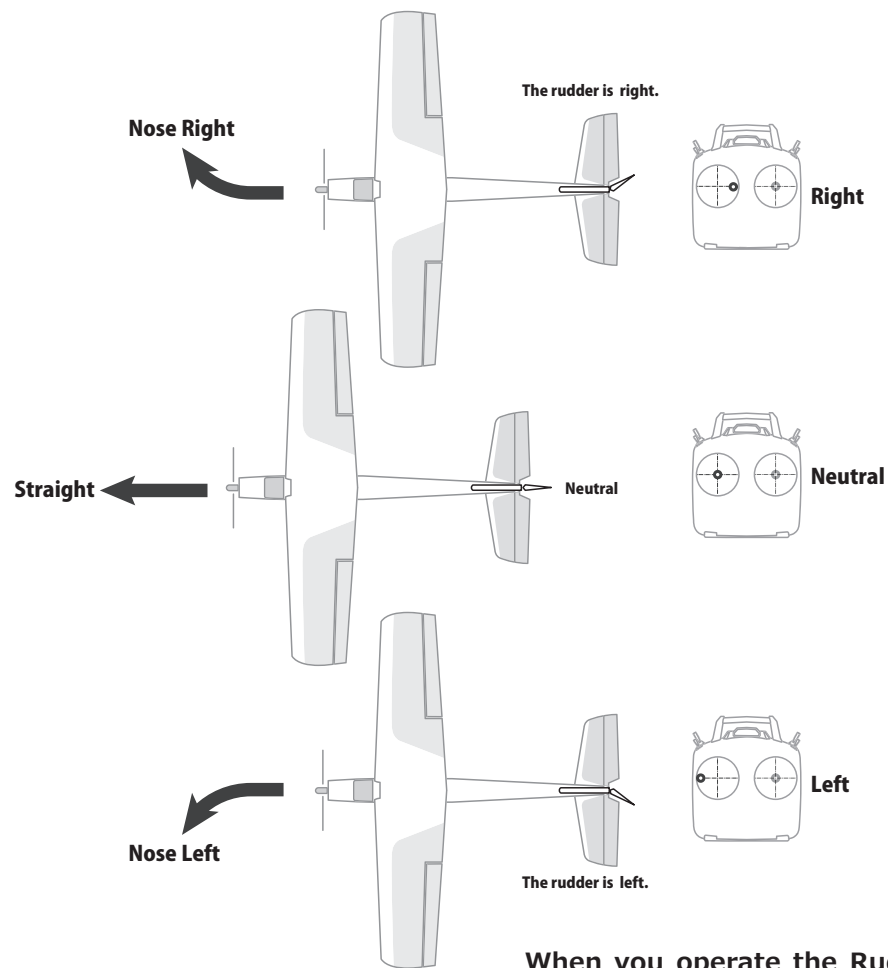


It is movement when Elevator stick is operated.



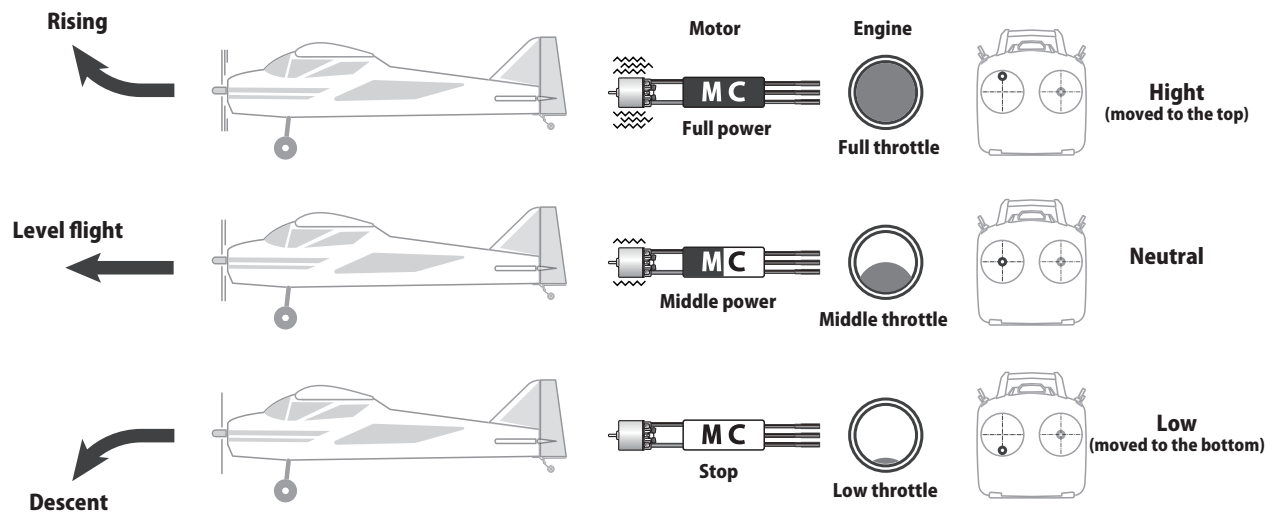
The speed decreases as the airplane noses up. Speed increases as the airplane noses down.

It is movement when Rudder stick is operated.

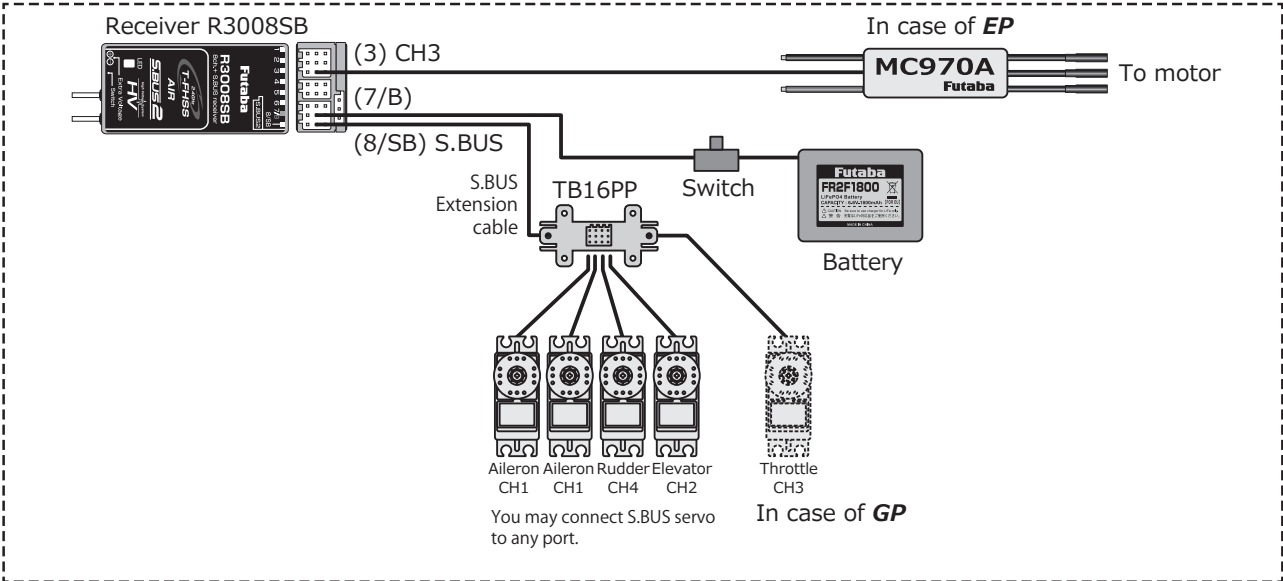
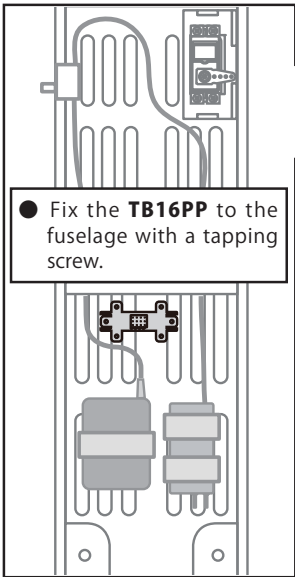


When you operate the Rudder during flight, the nose changes direction first. Next roll it in the operating direction.

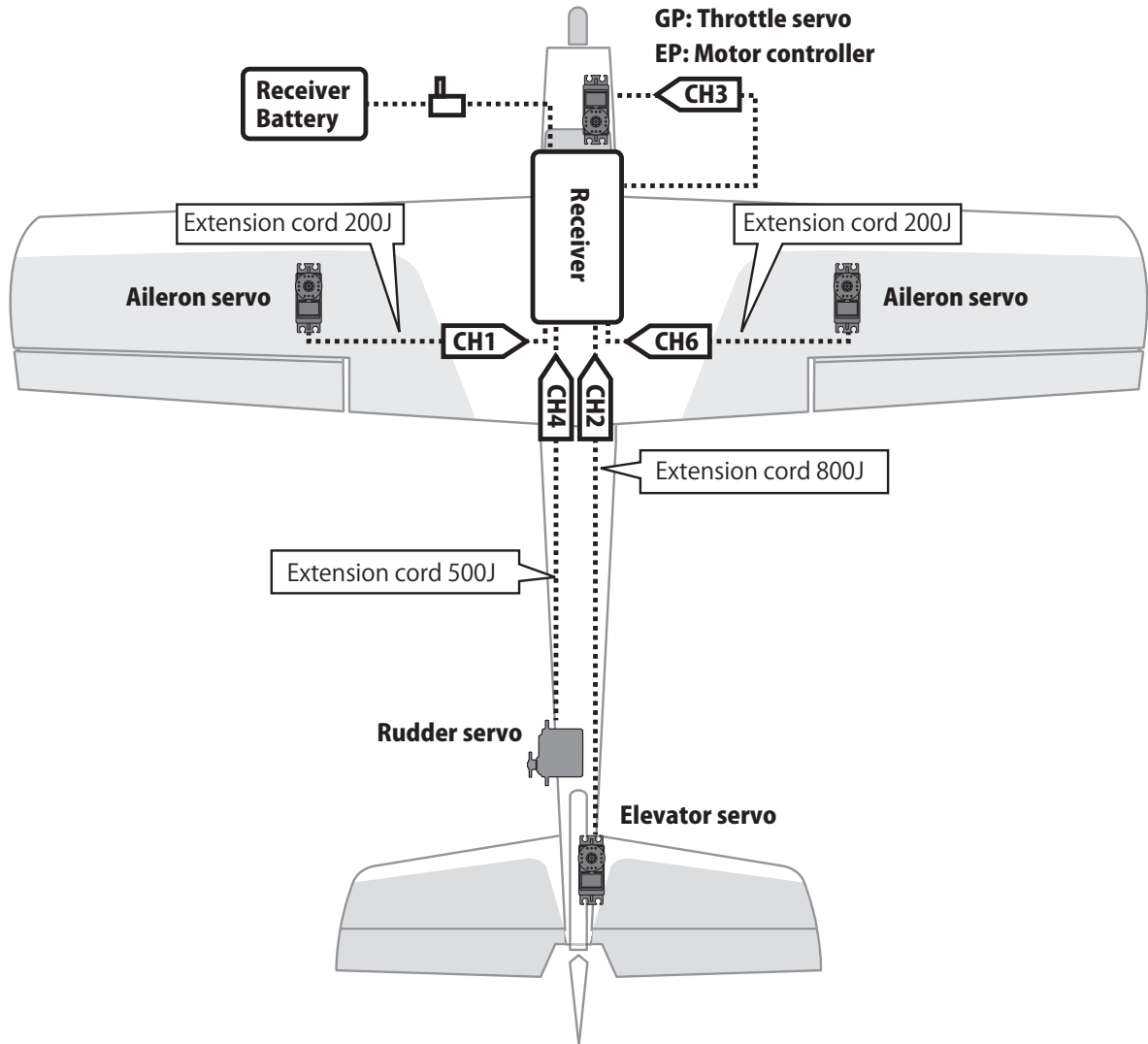
It is movement when Throttle stick is operated.



e.g. S.BUS connection



**e.g. Connection other than S. BUS
(Transmitter with 6 or more channels)**



Sky Leaf Tip

You should use the transmitter function [Aileron differential, Frappelon, Model type 2AIL mode, etc.] to run Aileron with two Servos.

Required Extension

- Extension cord 200J × 2
- Extension cord 500J × 1
- Extension cord 800J × 1

✂️ 21 Decal sheet

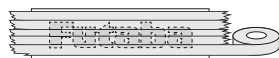
● How to paste



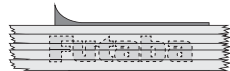
① Cover with masking tape.



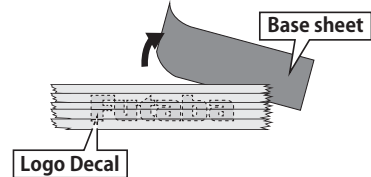
② Cover all of the logo.



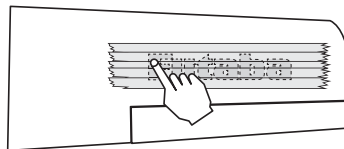
③ Peel off the base sheet.



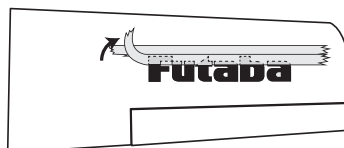
④ Leave the logo on the masking tape and remove all base sheet.



⑤ Put the masking tape together with the position on the airplane. Lay the decal from one side to another preventing air bubbles. Rub the logo decal part and crimp it.



⑥ Carefully peel off only the masking tape so that the logo decal will not peel off.



⑦ Completed by closely attaching the logo decal with a soft cloth.



22 Specification

Airplane : Sky Leaf Classic
Overall Length : 55 in (1400 mm)
Wing Span : 62 in (1570 mm)
Wing Area : 645 in² (41.6 d m²)
Wing Thickness : 14%
Weight : 81.1 oz ~ 91.7 oz (2300 g ~ 2600 g)
Design • Test flight : Futaba's Pilots

S3175HV (S.BUS/High Voltage servo) :

- Speed
0.17 sec/60° (6.6 V)
- Torque
4.5 kgf • cm (6.6 V)
- Size/Weight
1.41 × 0.77 × 0.98 in / 0.88 oz
(35.9 × 19.5 × 24.9 mm / 25 g)
- Operating Voltage
6.0 V ~ 7.4 V **! No dry battery use**

Futaba's Pilots

Tetsuo Onda :



2017 F3A World Championship 1st
2003 ~ 2018 F3A Japan Championship 16 Wins
2004 ~ 2014 F3A Asia-Oceania Championship 6 Wins
2005/11/13/15 F3A World Championship 2nd
2007, 2009 F3A World Championship 3rd
2013 World R/C Indoor EP Championship 3rd

Koji Suzuki :

2000 F3A Asia-Oceania Championship 1st
2013 F3A World Championship 7th
2015 F3A World Championship 9th
2013 ~ 2018 F3A Japan Championship 2nd

The product is not repairable by Futaba service center if damaged.



Futaba®

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