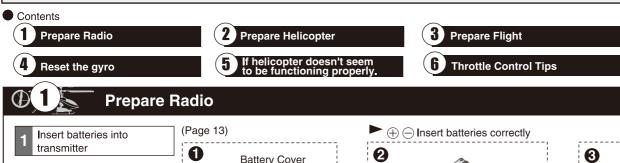
Minium CALIBER 120 Type R Type S

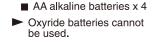
Quick Start Guide





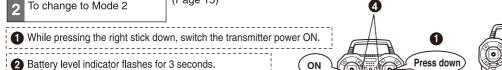
This guide explains how to prepare the model & transmitter for flight and how to reset the gyro, and also provides basic troubleshooting and explanation of throttle control for beginners to experts. For other instructions, please refer to the manual included with the model.



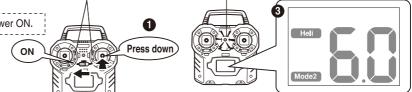


4 Input the trim values.

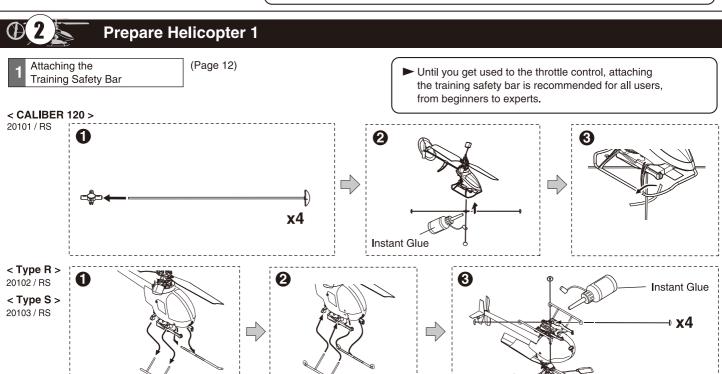




(Page 15)



- 3 When LCD screen shows the mode, change is complete.
- - The model is set to Mode 1 at time of shipment.
- Elevator and throttle trim values do not change.
 - Check the trim values and set throttle trim to 0 and set elevator trim to the value it had when shipped.

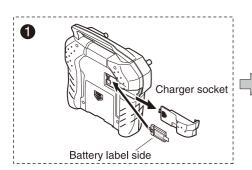


Prepare Helicopter 2

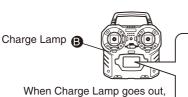
Charge the

3.7V-150mAh Lithium Polymer battery

(Page 13)



2



charging is complete.

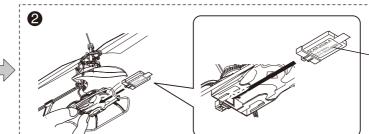
will be displayed only if the transmitter is turned ON.

 Battery can be charged whether the transmitter is ON or OFF. ➤ The battery will not charge if the transmitter voltage is less than 5.0V or the 3.7V-150mAh lithium polymer battery is still more than 80% charged. (Recharge after use).

Prepare Flight

Switch transmitter ON and connect the battery. (Page 17)





Note direction of label.



- About 7 seconds after battery has been connected, the gyro detects neutral and helicopter control and flight are possible. (Page 34).
- Try to get the helicopter ready for takeoff within the 7 seconds.

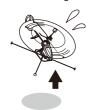


 Moving the helicopter while the gyro is finding neutral can cause the rudder neutral to deviate.
In this case, follow the steps below in (4) and reset the gyro.

F45

Reset the gyro

In the following cases, reset the gyro. (Page 36)



If helicopter moves while finding neutral.



If tail is spinning before takeoff.



If rudder trim slips during flight.

- Resetting the gyro
- Reset the helicopter on a flat surface





Lift the throttle stick slightly to slowly rorate the main and tail rotors.







Move throttle sticks to neutral to stop rotation of main and tail rotors.

After 3 seconds, the gyro's neutral will be reset.



If helicopter doesn't seem to be functioning properly.

➤ This section covers basic troublesheeting. For more comprehensive troubleshooting, parts replacement and maintenance, please refer to P41~53 of the main instruction manuals.

1 Oscillation

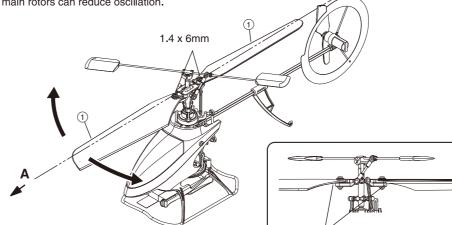
Helicopter rocks back and forth and side to side





(Page 50)

► Loosening or tightening the screws holding the main rotors can reduce oscillation.



Tighten 1.4 x 6mm screws so \bigcirc can move smoothly.

Make sure gap is not too large.

If both rotors are unbalanced, there may be some vibration in the direction of the elevator. If balance is not easy to adjust and there is vibration in the direction of the elevator, firmly fix \bigcirc so they are in a straight line.

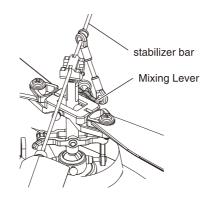
▶ In the event of a crash, the main mast may bend and cause vibration or oscillation.

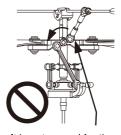
2 Helicopter suddenly loses height.

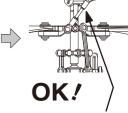


(Page 42)

➤ The mixing lever may be facing in the wrong direction as a result of the shock from a crash. Lift the stabilizer bar up and rotate the lever to the left to return it to its proper position.





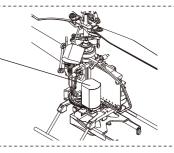


It is not normal for the rod to drop to vertical.

Angle of rod is

In addition to motor life, motor performance can be affected by damage to the motor brushes in a crash. (In this case, main motor replacement is required).

(Page 46)



3 If tail is spinning before takeoff.



Reset the gyro



If tail continues to spin after gyro has been reset, the tail motor may be worn out. (In this situation, replace the tail motor).

(Page 47~48)

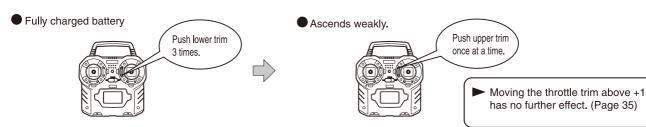
Throttle

Throttle Control Tips

1 For first time users

(Page 37)

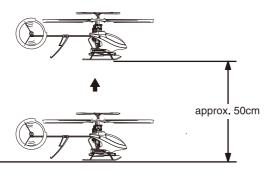
► For first time users, set the throttle trim to -3 for mild throttle control. After 1-2 minutes, the helicopter's ability to ascend will deteriorate. When this occurs, move the throttle trim up 1 value at a time.



2 For Experts

(Page 37)

➤ Gradually increase main rotor speed until the helicopter starts to lean to the left. Then while increasing the throttle further, use the right aileron slightly and lift off and hold steady at about 50cm. (Use throttle control so the helicopter hangs in the air).



➤ Why 50cm?

The characteristics of fixed pitch mean main rotor speed governs the helicopter's ascent and descent. Even when trying to keep the helicopter low and stable for indoor flight, the helicopter can easily rise to about 1m. Practice throttle control at a low altitude until you get an improved sense of control.

Reduce throttle input slowly when hovering or landing.

As the throttle sticks on the transmitter have springs, always remember to reduce throttle slowly to maintain stability.

After mastering the ability to maintain height, if you can move the ailerons left or right while maintaining height, you can make banking turns.







- After flight, remove the 3.7V 150mAh lithium polymer battery and switch the transmitter OFF.
- Transmitter uses standby power even when switched off. Remove batteries when not in use.