UH-1D Scale Helicopter
User Manual

E190 PRO

MADE IN CHINA

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Introduction

This model is a 1:34 scale replica of the UH-1D helicopter, featur-ing highly realistic detailed appearance, cool lighting effects, andequipped with intelligent flight control, Optical fow positioning module,and altitude hold module. With its dual brushless motor drive, it isespecially suitable for beginners. It can also serve as an excellentstatic display model.

Before operating the helicopter, please read this user manual carefully. This manual provides detailed instructions to help you understand the product. Incorrect operation may result in damage to the aircraft model, wasting your valuable time and money.

Contents List

No.	Spare parts	Quantity
1	Blister Packaging	1
2	User Manual	1
3	Helicopter	1
4	Transmitter	1
5	USB Cable	1
6	Battery 1200mAh 7.4V	1
7	Main Rotor Blade	2
8	Tail Rotor	1

Notice

Our company reserves the right to change all specifications, warranties, and other accompanying documents. Please contact us for the latest product information.

Warning

Please read the entire user manual before operating the product to familiarize yourself with its functions. Failure to operate the product correctly may result in product damage, personal and property losses, and cause serious injury. This is a complex hobby product that requires careful and sensible operation, as well as some basic mechanical skills. Failure to operate this product responsibly and in a safe manner may result in personal injury, damage to the product, or other property. This product is not intended for use by children without direct adult supervision. This manual contains safety, operational, and maintenance instructions. It is essential to read and follow all instructions and warnings in the manual before assembly or use to ensure proper operation and to avoid damage or serious injury.

Additional Safety Precautions and Warnings

1. Age Recommendation: Not suitable for children under 14 years old. This is not a toy.
2. Always operate your model in an open space away from vehicles, traffic, and people.
3. Follow operating notices, warnings, and any supporting equipment instructions (charger, batteries, etc.) carefully.
4. Keep away from any chemicals; keep small parts and electrical components away from children.
5.Always stay away from water, especially as this product is not waterproof; it will be damaged by moisture.
6.Do not put any part of the model in your mouth, as it may cause serious injury or even death.
7. Do not operate your model using low–voltage transmitter batteries.

Helicopter Parameters

Length	385 mm
Height	125 mm
Weight	290 g
Length of Main Propeller	375 mm
Diameter of Tail Propeller	70 mm
Battery Specification	7.4V 1200mah 25C
Flight Time	10–12 Min
Main Brushless Motor	2511
Brushless Tail Motor	1204

Warning and the Guide of Battery Usage

To ensure safety, please use the included supplied standard charger.

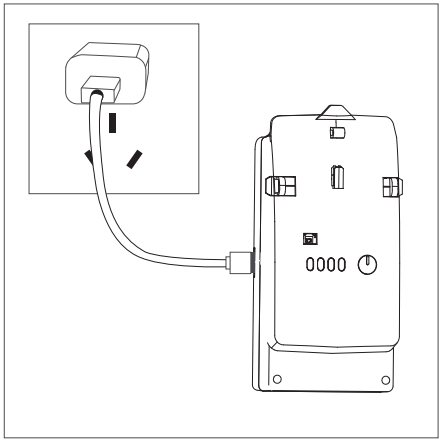
Warning: It is strongly recommended to use the included charger for battery charging.

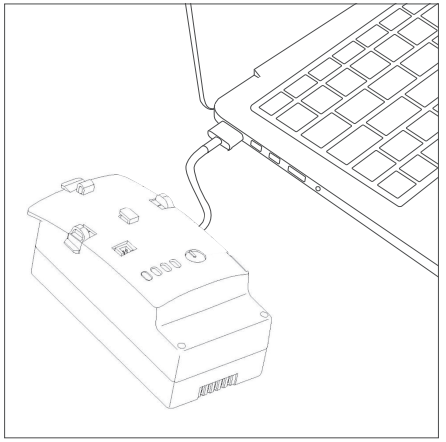
Caution: Lithium batteries may be damaged and may not charge properly when the voltage drops below 7.4V.

Battery Charging

1.Connect the USB cable to a computer USB port or a power adapter
2.Connect the USB 's other end (Type–C plug for Android) to the battery for charging.
3.During charging, the current battery level indicator will flash, and all four lights will remain solidwhen charging is complete.
4.Disconnect the charging connection after charging is complete.

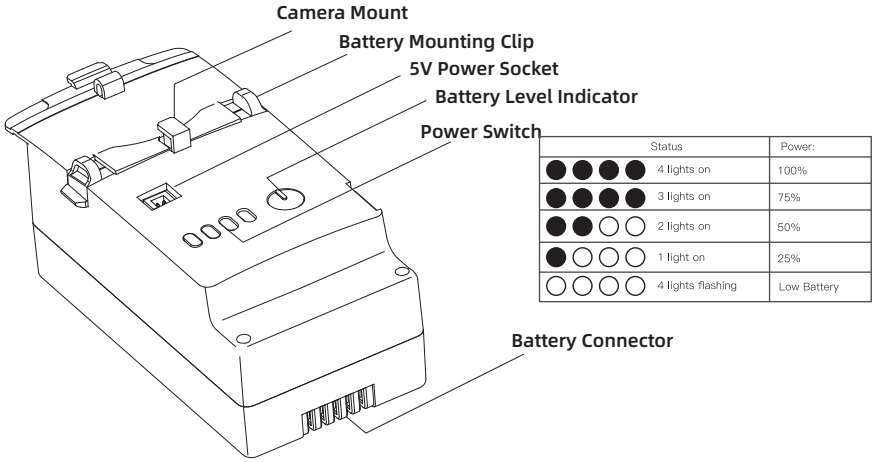
Note: It is recommended to use a 5V 2A adapter for charging, as it will enable faster charging.





1.To ensure maximum safety, monitor the battery while it is charging.
2.Do not allow children to charge the battery on their own, but ensure that an adult supervises the entire process.

Battery functions and indicators:



Status	Power:
4 lights on	100%
3 lights on	75%
2 lights on	50%
1 light on	25%
4 lights flashing	Low Battery

Warning:

After use, please turn off the battery as prolonged power–on time may shorten the battery lifespan.
After flying, remove the battery from the cabin to prevent damage due to over–discharge.

Notice Before Flight

1.Ensure the batteries for both the tx and helicopter are fully charged.
2.Before turn on the TX, please make sure the throttle control is at the lowest position and the TH.HOLD and 3D mode switches are in the back position (back cover direction).
3.Make sure the TX has paired with helicopter. If not or please carry out the pairing process.
4.Please turn on the TX first, then connect the battery to the helicopter and wait until it paired with TX. When turn off, please unplug the power from the helicopter first, and then turn off the TX.
5.Keep away from people, cars, high-tension power lines and water sources such as ponds, lakes, rivers etc.

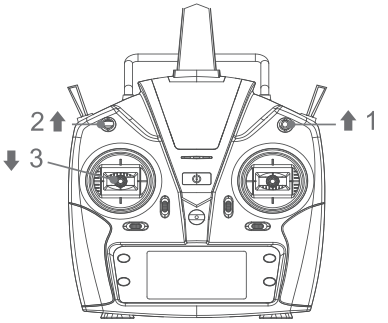
Bind With Transmitter

If you have the RTF package, the helicopter ia already paired by the factory. However, if you need to pair again, please follow the following steps.

1.First turn on the transmitter and make sure the throttle stick is at the bottom position, 3D IDLE switch is in the OFF position.
2.Remove the canopy for activating the binding switch.
3.Apply power to the helicopter, the red led flashes slowly, press the code button for 1 second, then the red lamp will go out and get ready for pairing.
4.When the red and blue lights turn on solid, the pairing has been successful.
5.While carrying out the pairing, ensure there are no other transmitters are operating nearby to avoid unintended pairing.

Tips: This product is compatible with all FUTABA 2.4GHZ S-FHSS transmitter.

Notice:
1.When the transmitter is turned on and the throttle hold switch is in the ON position, the transmitter will beep as a warning. The switch should be switched to the OFF position.
2.When the transmitter is turned on and the 3D switch is in the ON position, and the transmitter will beep. The switch should be switched to the OFF position.
3.When transmitter is turned on and the throttle stick is not in the lowest position the transmitter will beep as a warning. The throttle stick should then be pulled down to the lowest position.



Throttle Curve and Pitch Curve

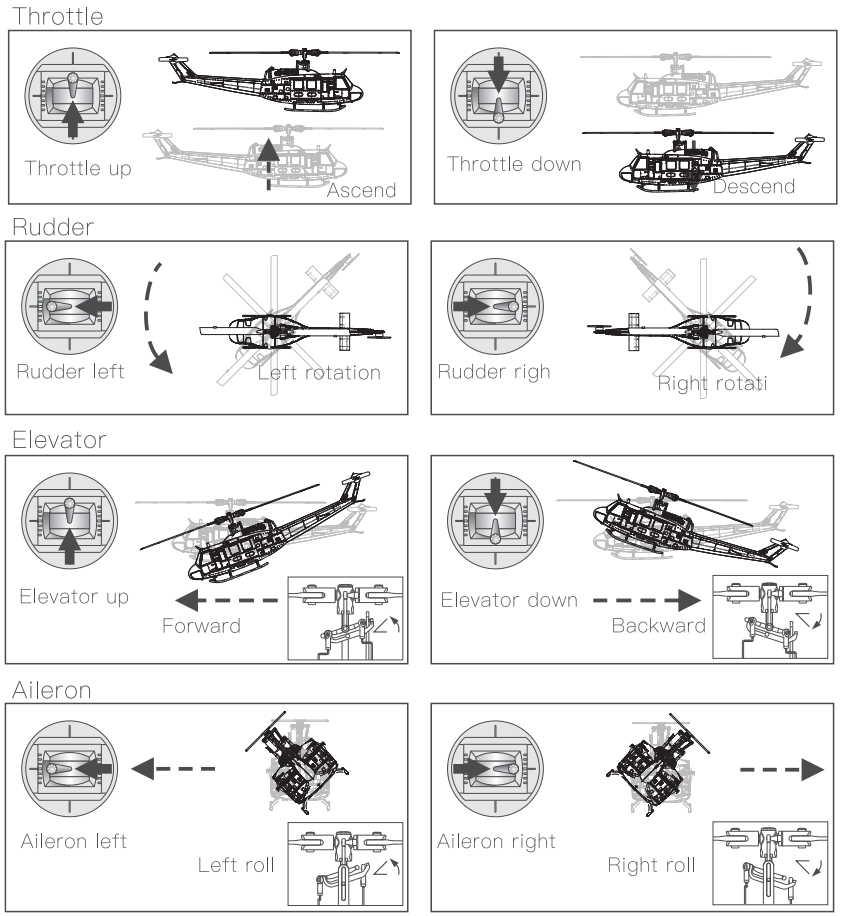
	Position	Normal	3D Idle
Throttle Curve	1	0	70
	2	65	70
	3	65	70
	4	65	70
	5	65	70

	Position	Normal	3D Idle
Pitch Curve	1	40	20
	2	45	35
	3	50	50
	4	65	65
	5	80	80

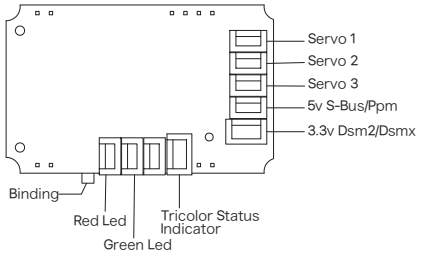
The above information is for your reference only, you can set the parameters to your demand.

Initial Flight

If you are not familiar with the controls of the E190 Pro, please take a few minutes to get familiar with them and then try your first flight.

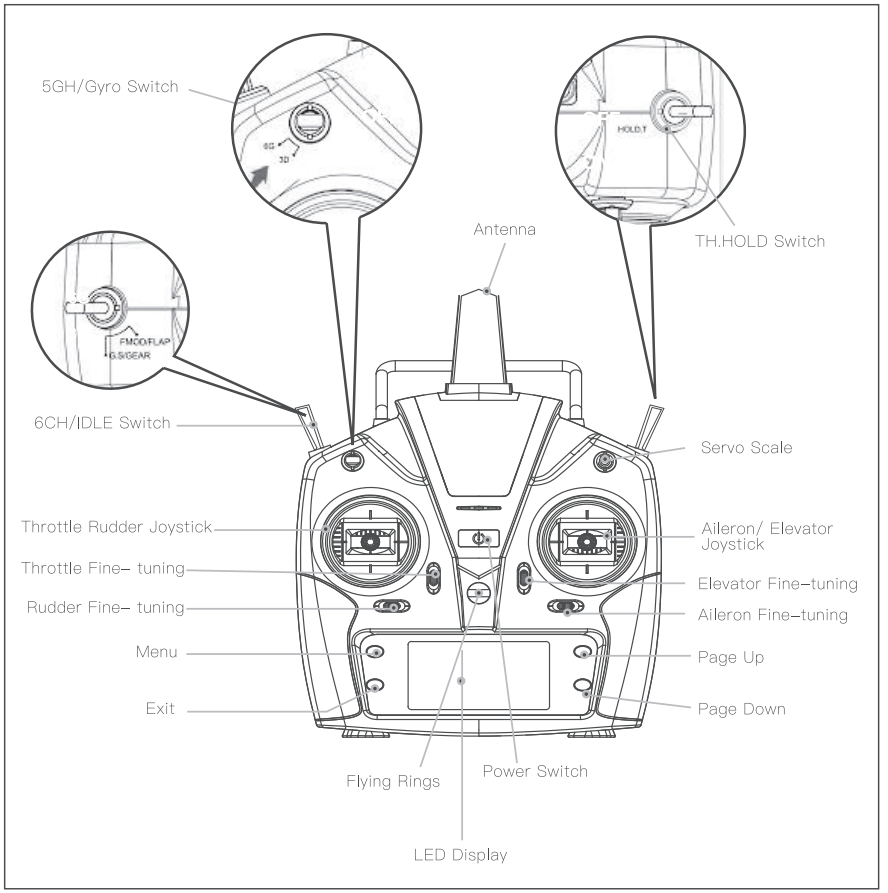


Flight Control Board Interface Diagram

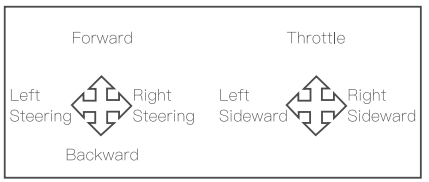


Notes: 3.3V is suitable for DSM receiver and 5V is suitable for FUTABA (S-BUS) J receiver.

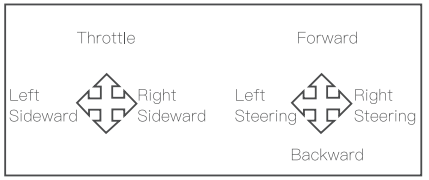
About the Transmitter



Right hand throttle



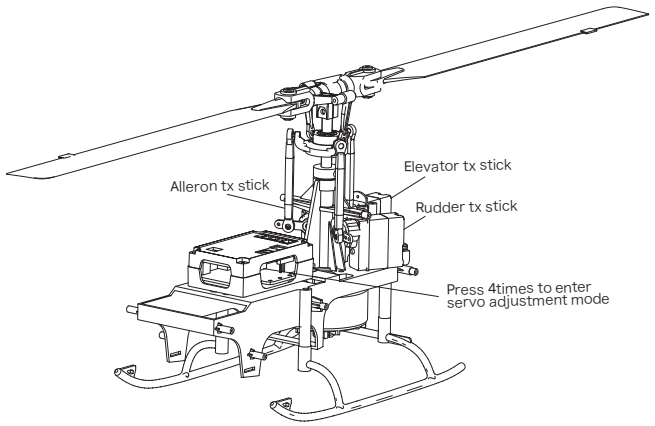
Left hand throttle



This transmitter supports CCPM **9**0 degree helicopter dedicated transmitter, with 3D 6G switching high/low rudder capacity for two joystick modes, main cutout switch (TH.HOLD) and other modes, large screen LCD display multi-function transmitter.

Flight Battery Installment

1)Debugging pitch of thread
Explanation: The product has passed the inspection before leaving the factory, the user needs tore–adjust the pitch of thread after replacing the steering gear or related accessories.
To ensure safety, disconnect the main motor power cord during commissioning to avoid personalinjury caused by motor rotation during commissioning.
The user comes with a special pitch of thread ruler for helicopters that can be adjusted more accurately.First, bind the aircraft to the code, and the transmitter in 6G self–stabilization mode.
Press the code matching key on the flight control board 4 times, the mainboard will flash red quickly and enter the debugging mode.
Use the transmitter to control the aileron rocker, lift rocker, and direction rocker for debugginguntil the swashplate is balanced and the blades are at 0 pitch of thread
After the debugging is completed, press the motherboard link key to exit the debugging, themotherboard will resume the red light and the blue light will be on, then you can fly.



Troubleshooting

	Problem	Cause	Solution
1	LED on receiver flashes constantly with no responses after connecting batteries to	Transmitter is not bound to receiver Pairing of the transmitter and receiver failed.	Re-pair(Refer to P.5,Programming your Transmitter).
2	The helicopter has no response after connecting batteries to receiver	Check whether the transmitter and receiver connecting to power;check the voltage of transmitter andreceiver; Battery pole flake contact is not good	Open the transmitter, make sure the batteries connecting is good Replace and charge transmitter batteries.Make sure the battery pole flake contact is good.
3	When increasing throttle, the main motor does not start and the LED on the Receiver flashes constantly.	Low battery voltage, batteries connection is not good	Replace and charge the batteries reconnect the batteries to the receiver board.
4	Helicopter takes off immediately,once the batteries and receiver connected.	Didn't put the throttle to the lowest	Put the throttle pole at thelowest position before open the transmitter
5	Helicopter vibrates or shakes in flight.	Damaged rotor blades, bent main and FS shafts or blade grips too tight causing the main rotor movement not smoothly.	Replace the main rotor blades, bent main or feathering shafts, loosen the blade grips.
6	Main rotor blades shake during flight.	Feathering shaft or main shaft is bent.S screw is not tight enough.possible broken gear in the servo,causing shakes. The loose between the swashplates.	Replace the lateral axis. Tighten the lateral axis screw. Change the Bearing.Remove the servo, and clear debris.Compress the swash plates. change the tail rotor blades.
7	The sound of the main rotor becomes softer or drop in head speed.	Low battery voltage of helicopter.	Land the helicopter immediately and charge the battery or change to a fully charged battery.
8	Helicopter has no reaction or does not fly smoothly.	Failure of binding.	Rebind the helicopter and transmitter,make sure you place the helicopter at a steady level close to the transmitter.
9	3D/6G model helicopter appeared yaw.	Swashplate servos do not go back in to mid-position or	Recenter the servo arms.Replace the servo.
10	Tail does not lock in 6G mode.	Helicopter requires to calibrate in 6G mode.	Refer to 6G mode calibration procedure.
11	Helicopter took off spin to the left.	Tail motor power shortage loose blades Tail motor damage.	Check with the tail rotor blades and the motor shaft, If loose replacement tail rotor blade. Motor damage Replacethe tail
12	Helicopter power is turned supreme speed governor electric sound.	Brushless speed governor fault or poor contact.	Check the connectors replace speed governor.