



# EMAX E8 FPV Racing Drone Instruction Manual

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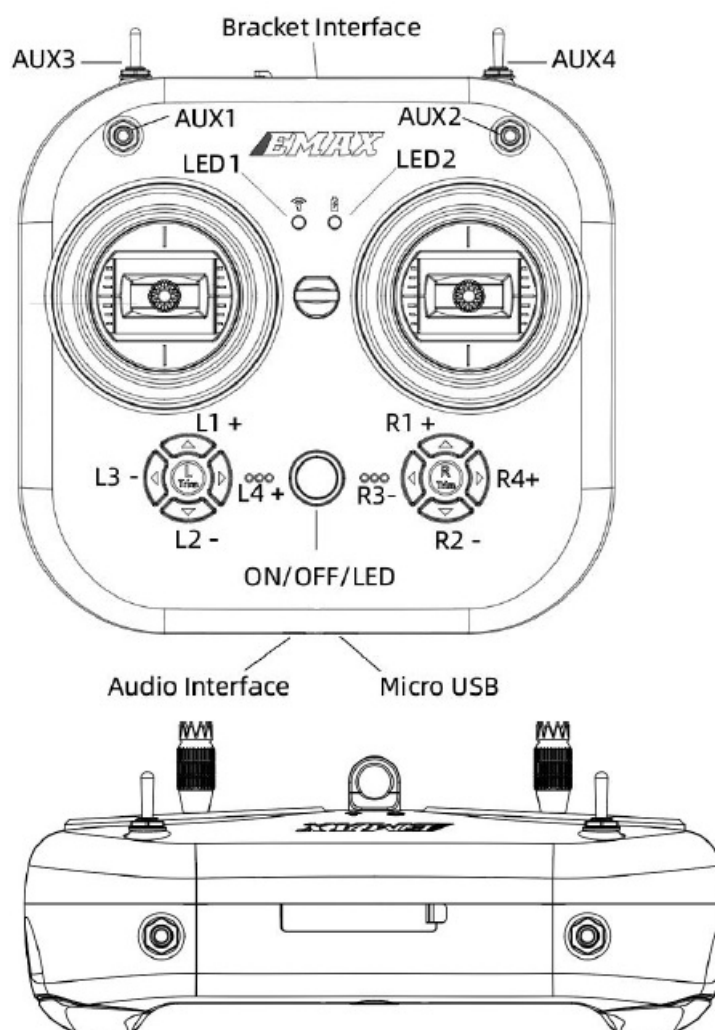


**EMAX E8 FPV Racing Drone**



E8 Transmitter is a new wireless controller released by EMAX. It has a built-in 2.4GHz dualband antenna and 2.4GHz RF module. The RF module supports 8 channels. The channel range is configurable and compatible with most receivers on the market. It is equipped with a wired trainer interface and simulation. The Mode of the device can switch between left and right hand modes, and the ergonomic design can bring a good user experience paired together with a built in battery which can be charged via USB.

### Structure diagram



### Specifications

- Product model: EMAX E8 Transmitter
- Weight: 260g (without battery)
- Size: L\*W\*H=150x140x45mm
- Working voltage: 3.3V-4.2V
- Channel: 8 channels, all channels can be configured
- External interface: Micro USB interface, 3.5mm audio interface (wired trainer interface)
- Transmitting module: built-in 2.4GHz dual-frequency FPC antenna, 2.4GHz RF transmitting module
- Working frequency band: 2.4GHz (2400MHz-2483.5MHz) Maximum output power: 22dbm
- Charging system: Built-in USB 5V–1A linear lithium-ion battery charging system

## Use operation

### 1. Toggle switch operation instructions (factory default)

**Toggle switch AUX1:** 3 sections: unlocking

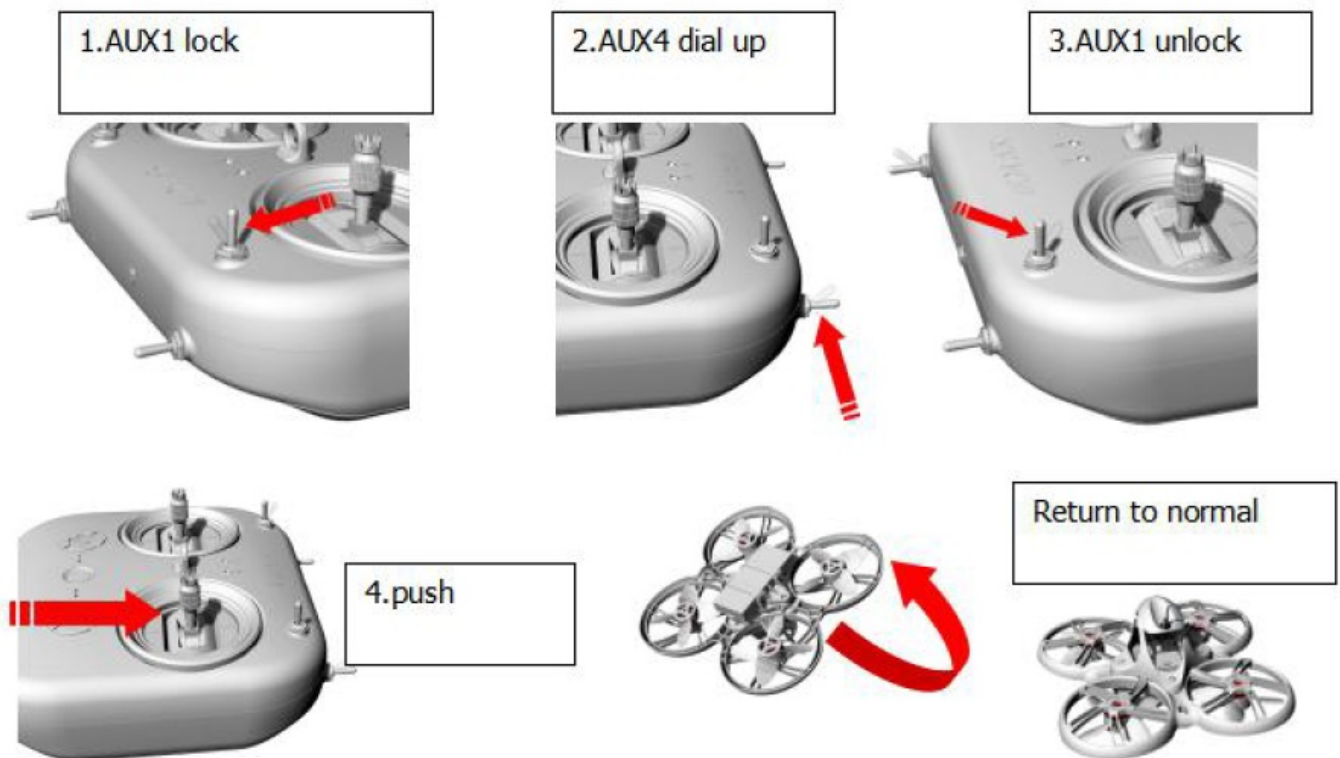
**Toggle switch AUX2:** 3 sections: flight mode

**Toggle switch AUX3:** 2 stages: buzzer

**Toggle switch AUX4:** 2 stages: anti-turtle mode

### Description of Turtle mode (as an example in the left-hand mode):

Sometimes the drone falls to the ground while flying. Turtle mode can be used to reverse the drone upright. First Disarm switch AUX1, turn the Turtle Mode AUX4 switch up, then Rearm, then shake the pitch and roll sticks to turn the aircraft over.



### Key operation instructions

### Trim Buttons

When in left-hand mode (left-hand throttle):

1. L1+, L2- are the parameters "+, -" of the throttle [T]
2. L3-, L4+ are the parameters "-", "+" of the direction [R]
3. R1+, R2- are the parameters "+, -" of the pitch [E]
4. R3 -, R4+ are the parameters "-", "+" of the roll [A]

## Mode switching

**D8 mode:** press the power switch and the "L1+" button at the same time: turn on and enter D8 mode, then the mode indicator will turn solid red.

**D16 mode:** press the power switch and the "L2-" button at the same time: turn on and enter D16 mode, then the mode indicator light will turn solid green.

**D16 LBT mode:** Press the power switch and the "L4+" button at the same time: Turn on the controller and enter D16 LBT mode, then the mode indicator light will turn solid yellow.

## Charging system and battery installation instructions

Power charging indicator status:

When Red LED is solid: charging is in progress.

When Green LED is solid: charging is finished.

**Note:** Use a 5V-1A adapter to charge. When the voltage is low, it will alarm. Please recharge when low.

## Battery & Charging

The E8 Transmitter is compatible with a 18650 battery, with a working voltage of 4.3V-3.3V. When you need to reinstall the battery, remove the battery compartment cover and install the battery according to the correct polarity (the negative pole is on the spring side of the battery compartment). Confirm that the battery compartment cover and the battery compartment are perfectly matched then push forward until locked. If the battery is not installed correctly, charging and starting cannot be performed correctly. The remote control is charged with the micro USB at the bottom. After the USB cable is inserted, the power charging indicator status: When the indicator light is solid red: charging Solid green indicator light: charging is full

**Note:** Use 5V-1A adapter for charging and micro USB cable for charging. When the voltage is low (3.3V), it will alarm. Please charge when battery is low.



**Note:** It can be turned on and charged only when the battery polarity is correct, it will not turn on or charge. Instructor port and simulator operation Trainer Port for Simulators Insert one end of 3.5mm male to male into the trainer port (3.5mm audio interface), and plug the other end into the simulator (sold separately) to output the

corresponding channel value. Plug the micro USB cable into the remote control to output the corresponding channel value.

## **Gimbal Trim**

Each joystick has a corresponding Trim button. Each Trim button adjusts the direction of the corresponding joystick control. Each time it is adjusted, a beep will sound. When it is adjusted to the center position, it will make a longer beep. Please pay attention to the sound. With joysticks centered, use the Trim buttons until the drone is steadily hovering in place.

## **Calibration of joystick**

The E8 Transmitter is pre-calibrated, but recalibration can help solve some common issues:

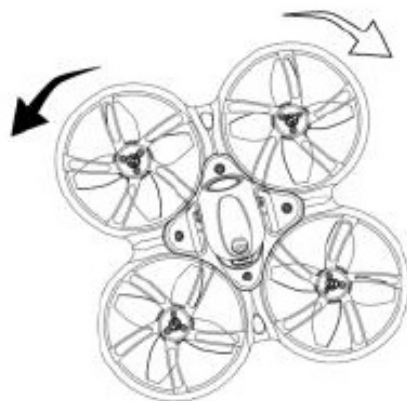
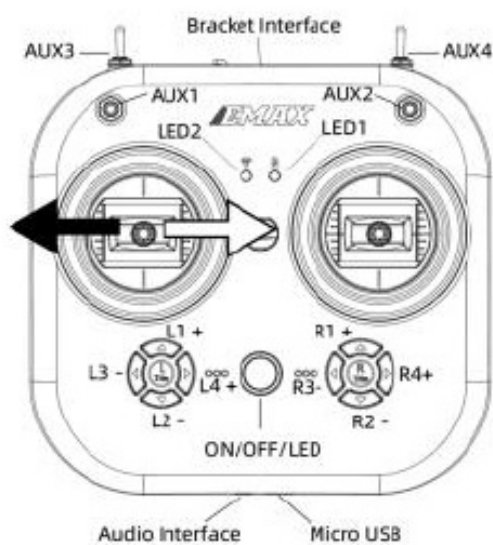
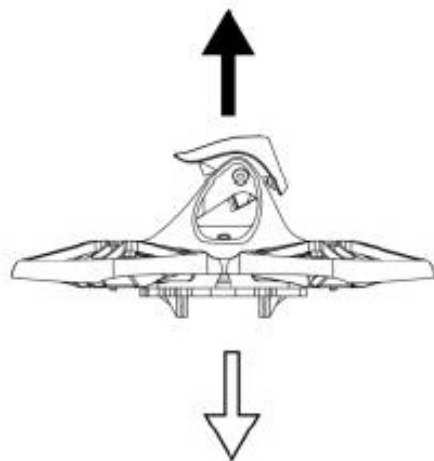
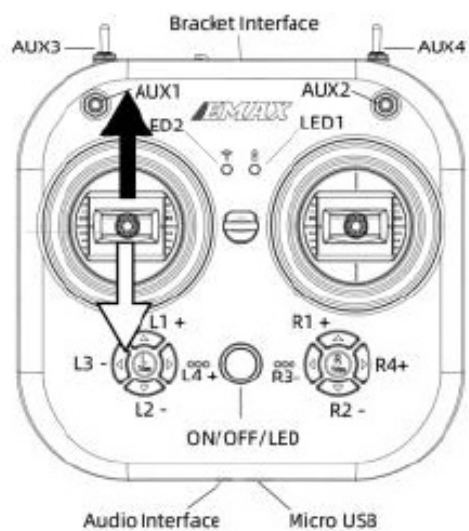
1. With the E8 Transmitter turned off, press the “L3-” button and the power button at the same time as the controller turns on.
2. Wait for the center indicator to light up and change from fast flashing to slow flashing, and push the joysticks of E8 Transmitter to the maximum travel in the four directions up, down, left, and right.
3. Press the “L3-” button, the prompt will sound, exit the calibration mode, and the E8 Transmitter will then boot up. Regarding the Mode change and switching between left and right hand operation instructions.

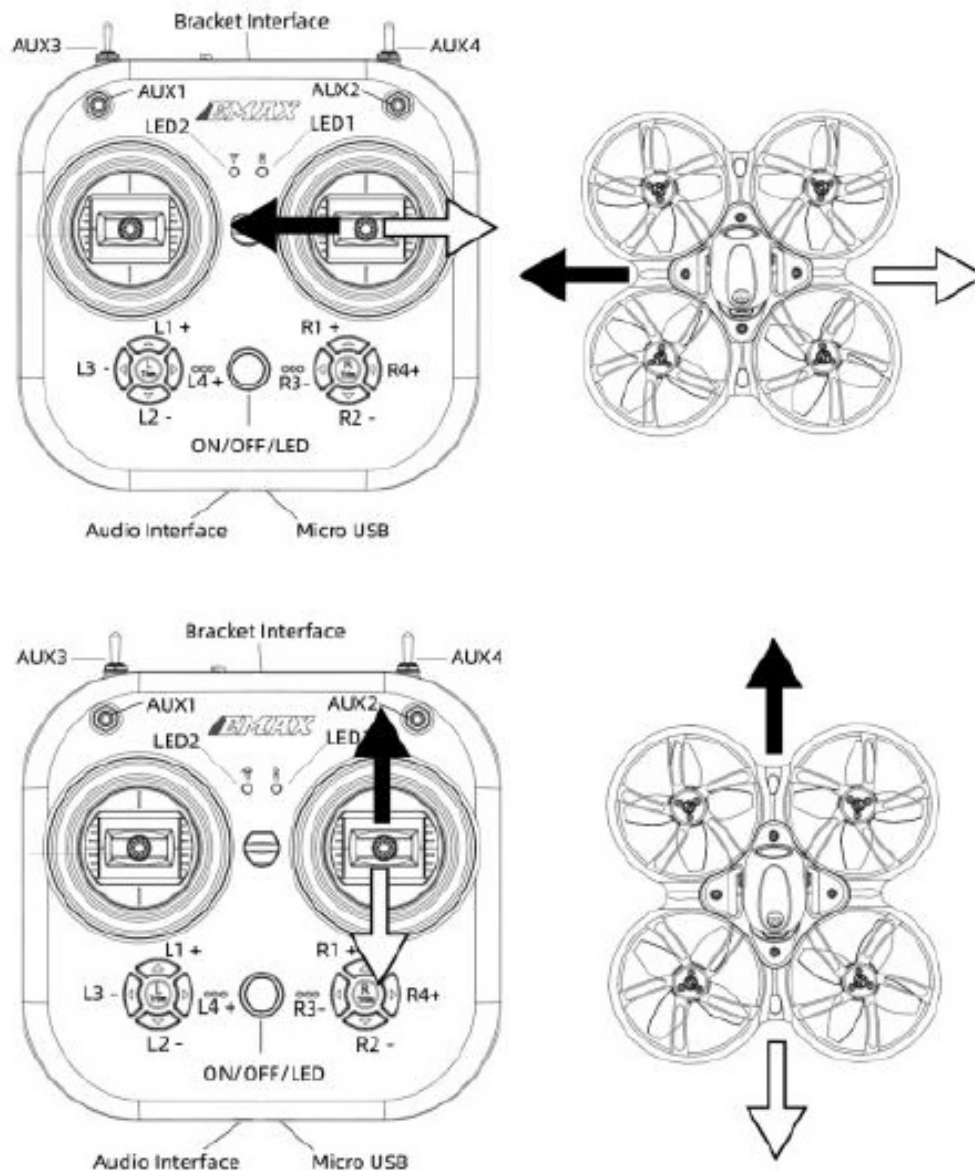
## **Changing Modes:**

**Left-handed mode:** the left-hand joystick, up and down for throttle adjustment, left and right for direction adjustment; the right joystick, up and down for pitch adjustment, and left and right for roll adjustment.

**Right-handed mode:** the left joystick, up and down for pitch adjustment, left and right for roll adjustment; the right joystick, up and down for throttle adjustment, and left and right for direction adjustment.

**Schematic diagram of the left and right-handed joysticks (the picture shows the left handed mode, and of the joystick control reversed in the right-handed mode)**





## Switch left and right hands

Remove the screw and open the back cover of the E8 Transmitter housing. There is a toggle switch on the left side of the board. Set the toggle switch to “L” (left-hand throttle mode) or “R” (right-hand throttle mode), and swap the positions of the levers (the 6Pin cable connecting the joystick to the main board does not need to change positions).

**Left-handed mode:** E8 Transmitter left stick, controls the throttle and yaw direction of Tinyhawk III; E8 Transmitter right stick, controls Tinyhawk III's pitch and roll.

**Right-handed mode:** E8 Transmitter left stick controls the pitch and roll of Tinyhawk III; E8 Transmitter right stick controls the throttle and yaw direction of Tinyhawk III.

## support

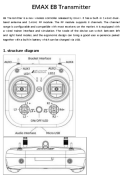
EMAX will continue to add and improve functions, users can check through the EMAX official website, and look forward to your good experience using this product.

More information about EMAX can be found on the following official website:

[www.emax-usa.com](http://www.emax-usa.com)

[www.emaxmodel.com](http://www.emaxmodel.com)

## Documents / Resources



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E8, FPV Racing Drone