# DU4 Loudspeaker and Spotlight Combo User Manual

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#### Release Record

**Doc Version** 

V1.0.1

#### **Release Date**

2024/07/31

## **Update Record**

- Added specifications of DU4 loudspeaker and spotlight combo.
- Adjusted the firmware update method of DU4 loudspeaker and spotlight combo.

# **Access URL**

This manual will be updated from time to time. Please click **here** or scan the QR code below to obtain the latest manual



# **Product Overview**

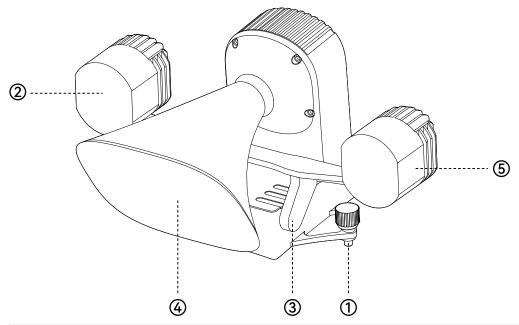
# **Brief Introduction**

DU4 loudspeaker and spotlight combo is a functional payload for EVO Max series multirotor aircrafts, integrating speaking and lighting functions, which serves as a high-quality speaking/lighting solution in nighttime searching, emergency broadcasting and other application scenarios.

Attribute	Specification
Appearance	
Dimension	145×117×83 mm
Weight	195g
Working Temperature	-10°C to +50°C
Port	Payload SDK Port Based on USB-C port
Installation Method	Screw Quick Disassembly
Spotlight	
Rated Power	30W Max

Attribute	Specification
FOV	14°
Brightness	30Lux@50 meters 7Lux@100 meters 3Lux@150 meters
Lighting Method	Strong Light/Solid on
Pitch Angle Adjustment	Support Remote Manual Adjustment: +30°to -90° Follow Gimbal Auto Adjustment
Brightness Adjustment	Support
Colorful Strong Light Group	Support, Color: Red, Green, Blue, Yellow and White
Loudspeaker	
Rated Power	10W
Sound Weight	114dB@1 meter
Broadcasting Distance	≥300 meters Actual effect may be subject to environment noise interference and the broadcasting distance is only for reference.
Speaking Latency	< 300ms
Features	Support voice recording and sound playback, TTS text speaking function.

# **Component Description**



No	Component	Description
1	Mounting Screw	Mount the DU4 loudspeaker and spotlight combo to the expansion port at the head of the EVO Max series aircraft

No	Component	Description
2	Spotlight	Offer distance lighting
3	Spotlight gimbal	To adjust the spotlight's lighting angle
4	Loudspeaker	Offer distance speaking and sound playback
5	Colorful Strong Light Group	In emergency, turn on the strong light function to provide visual warning

#### Install and Use the Combo

#### **Precautions**

DU4 loudspeaker and spotlight combo features high lighting/speaking power, which may cause harm to human body. Please strictly follow the safety precautions below when you are using the combo:

- Do not stare directly at the light when the spotlight or the strong light group is turned on.
- Do not interfere with the gimbal of the spotlight and hinder its rotation or calibration.
- Wear hearing protection when using the loudspeaker in near distance.
- Do not cover the rear heat sink or deform its structure.
- There will be strong heat on the surface of the device in use. Do not touch the device with your bare hands when it is working, otherwise, you may get burned.
- Do not use this device in extreme environments for a continuous log time so as to extend its service life.
- After use, please wipe the surface of the spotlight with a dry and soft cloth.
- After use, please put the device into the designated safety box, avoiding damage to the device casued by scratch or bumping with hard objects.

#### Install the Combo

- 1. Remove the rubber protective cover on the expansion port at the head of the EVO Max series multirotor aircraft.
- 2. Insert the connector of the DU4 loudspeaker and spotlight combo into the expansion port of the aircraft in the right direction, and tighten mounting screws into screw holes at the both sides of the expansion port.

#### Note

- Before installing the DU4 loudspeaker and spotlight combo, please make sure the aircraft is turned off.
- When installing the DU4 loudspeaker and spotlight combo, please make sure the installation direction is right and spotlight/loudspeaker is in the direction of the aircraft heading.

- After installing the DU4 loudspeaker and spotlight combo, please turn on the remote controller before turning on the aircraft.
- Before each flight, please ensure the mounting screws of the DU4 loudspeaker and spotlight combo are tightened firmly.

#### **Use the Combo**

#### **Connection and Identification**

- 1. Turn on the aircraft and the remote controller.
- 2. After the frequency matching is successful, the PSDK device types will be displayed in the shortcut toolbar of the flight application (Autel Enterprise) on the remote controller.



# Note

- The gimbal will have a slight amplitude of swing or levelness is not enough, which is a normal phenomenon, and it will return to normal after power on or attitude synchronization.
- When the gimbal shaft has a high-frequency abnormal sound and vibration or shock, and
  is overheating, please stop using it and contact the after-sales personnel to return the
  product to the factory for maintenance.

#### **Loudspeaker Function Menu**

1. **Instant shout**: play the audio recorded by the remote controller microphone in real time.



2. Adjust the volume: set the loudspeaker volume.

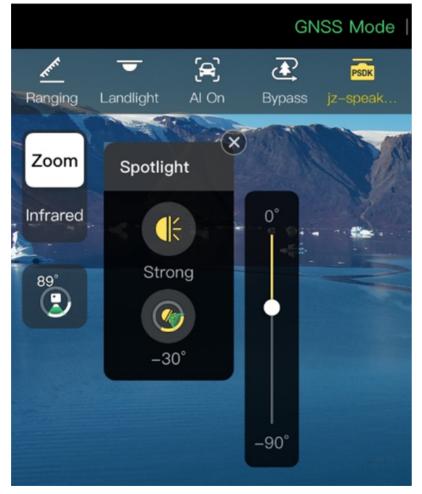


**Spotlight Function Menu** 

1. Adjust brightness: quickly set spotlight brightness.



2. Adjust angle: adjust the spotlight irradiation (gimbal) angle.



# **Firmware Update**

Firmware is updated to improve device stability and add new functions. Please keep the firmware version of the DU4 loudspeaker and spotlight combo the latest one.

Before using the following method to update the firmware of the DU4 loudspeaker and spotlight combo, please ensure the following requirements are met:

Firmware Type	Earliest Version Requirement
Aircraft Firmware	V1.8.2.x or later
DU4 Loudspeaker and Spotlight Combo Firmware	V02.00.04.00 or later

#### **Note**

- In current version, online update identification is not supported. It is recommended to
  manually check the firmware version of the DU4 loudspeaker and spotlight combo through
  the link in the manual.
- Generally speaking, we do not demand you to update relevant firmware. After the new
  firmware is released, you still can pause update and use the early version, which does not
  affect existing functions. However, if you want to experience new functions, please update
  the firmware to the latest version.
- In some cases, you may need to update the aircraft and the remote controller to the versions required before updating the firmware of the DU4 loudspeaker and spotlight combo.

#### Tip

- If the aircraft firmware version meets the above requirement (V1.8.2.x or later) and the
  DU4 loudspeaker and spotlight combo cannot be updated through the following update
  method using microSD card, the firmware version of the combo is earlier than the one
  required above.
- If the aircraft firmware version and DU4 loudspeaker and spotlight combo firmware version
  are earlier than the one required above, please refer to official instructions to update the
  aircraft firmware to the latest version and refer to <u>Loudspeaker and Spotlight Combo</u>
   <u>Firmware Update Instructions</u> to update DU4 loudspeaker and spotlight combo firmware.

#### **Firmware Access**

Click <u>here to download AutelPsdk</u> to access the latest firmware of the DU4 loudspeaker and spotlight combo.

#### **Update Method**

- 1. Prepare a microSD storage card with sufficient storage, insert it in a computer and download the firmware update package from the link above and save it under the root directory of the microSD storage card.
- 2. Remove the microSD storage card from the computer, turn on the aircraft to be updated, and then insert the microSD storage card into the aircraft. The system will automatically update.



3. In the process of update, the smart battery indicators and the arm indicators of the aricraft will flash at the same time.



4. After the update is completed, the rear arm indicators of the aircraft will remain solid green. Please re-start the aircraft.



5. If the update fails, the rear arm indicators of the aircraft will flash red. Please try to update again.



## Note

- Before update, please ensure the smart battery power level of the aircraft is no less than 25 percent so as to avoid update failure caused by insufficient power.
- If update fails many times, please contact after-sales personnel to get technical support.