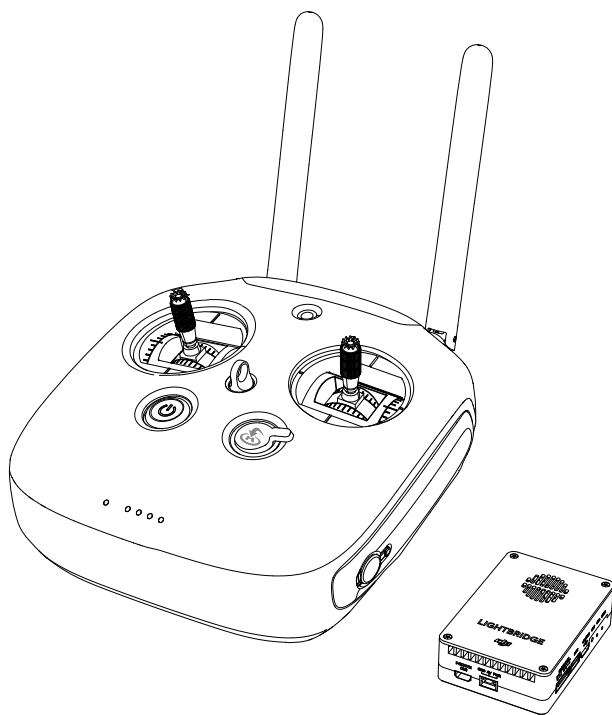


DJI LIGHTBRIDGE 2

User Manual V1.2

2015.12



Searching for Keywords

Search for keywords such as “battery” and “install” to find a topic. If you are using Adobe Acrobat Reader to read this document, press Ctrl+F on Windows or Command+F on Mac to begin a search.

Navigating to a Topic

View a complete list of topics in the table of contents. Click on a topic to navigate to that section.

Using this Manual

Legends

 Warning

 Important

 Hints and Tips

 Reference

Before Flight

The following tutorials and manuals have been produced to ensure you make full use of your DJI LIGHTBRIDGE 2.

1. *DJI LIGHTBRIDGE 2 In the Box*
2. *DJI LIGHTBRIDGE 2 User Manual*

Check to see that you have all of the components listed in the DJI LIGHTBRIDGE 2 In the Box manual. Complete the assembly with the help of this manual and the video tutorial on the DJI website.

Watch the Video Tutorials

Please watch the tutorial video below to learn how to install the DJI LIGHTBRIDGE 2 correctly:
<http://www.dji.com/product/lightbridge-2/video>



Download the DJI GO App

Download and install the DJI GO app before use. Scan the QR code or visit “<http://m.dji.net/djigo>” to download the app.



DJI GO supports Android 4.1.2 (or later) or iOS 8.0 (or later).

Disclaimer

Thank you for purchasing the DJI Lightbridge 2 (abbreviated as "Lightbridge 2"). Users must comply with local radio transmission laws and regulations when using this product. By using this product, you hereby agree to this disclaimer and signify that you understand all points completely. Please use this product in strict accordance with the manual and be sure to pay attention to the warnings. When assembling and using this product, follow all instructions carefully. SZ DJI TECHNOLOGY CO., LTD. and its affiliated companies assume no liability for damage(s) or injuries incurred directly or indirectly from improper use of this product.

DJI is the registered trademark of SZ DJI TECHNOLOGY CO., LTD. (abbreviated as "DJI"). Names of products, brands, etc., appearing in this manual are trademarks or registered trademarks of their respective owner companies. This product and manual are copyrighted by DJI with all rights reserved. No part of this product or manual shall be reproduced in any form without the prior written consent or authorization of DJI.

This disclaimer is produced in various languages. In the event of divergence among different versions, the Chinese version shall prevail when the product in question is purchased in Mainland China, and the English version shall prevail when the product in question is purchased in any other region.

Caution

Installation

1. Install the Air System antennas before powering on the Lightbridge 2 system.
2. To attain optimal signal transmission, point the Air System antennas downwards and avoid obstruction from other onboard equipment.
3. DO NOT twist or bend the Air System antennas.
4. Keep the Air System antennas as far apart as possible and away from metal objects to attain optimal transmission.
5. Only use official DJI antennas for the Air System and Ground System.
6. Connect the HDMI cable to the gimbal camera after gimbal initialization is complete to avoid damaging the HDMI cable.
7. Keep the HDMI cable away from the onboard GPS module.
8. DO NOT disassemble or modify the Air System or Ground System. Contact DJI or your local dealer if you have any problems.
9. Maintain an appropriate distance between electronic components to reduce electromagnetic interference to the minimum.

Before Use

1. Ensure that all connections are secure and there are no signs of malfunction.
2. Ensure that self-testing is completed successfully after the devices are turned on.
3. Ensure that the surrounding area does not have other 2.4GHz transmitting devices that may cause interference.
4. Ensure that the Ground System battery is above 25% to avoid losing control over the Air System in mid-flight.
5. Switch your mobile device to Airplane mode to avoid distractions from incoming calls or messages.
6. Turn up your mobile device's volume until you can hear warning alerts from the DJI GO app clearly.
7. If the video breaks up, adjust the orientation of the Ground System antennas.
8. Ensure your onboard camera is fully charged.
9. Choose anti-EMI (electromagnetic interference) cables or an HDMI monitor for optimal connection quality.

Contents

Using this Manual	2
Legends	2
Before Flight	2
Watch the Video Tutorials	2
Download the DJI GO App	2
Disclaimer	3
Caution	3
Installation	3
Before Use	4
Profile	7
In the Box	7
Overview	10
Air System	10
Ground System	12
Installation	15
Installing the Air System on Your Aircraft	15
Connecting the Ground System to Your Display Device	15
Standard Configurations	17
Ground System	19
Ground System Operations	19
Dual Ground Systems Mode	23
Linking the Ground System	24
Ground System Compliance	25
DJI GO App	26
Launching DJI GO App	26
Camera View	27
Image Transmission Settings	29

How to Upgrade the Firmware	32
Upgrading the Air System Firmware	32
Upgrading the Ground System Firmware	32
Appendix	33
Specifications	33
Supported DJI Products	34
Supported Video Inputs	34
Supported Video Outputs	34
FCC Compliance	34

Profile

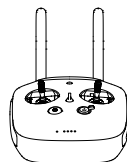
DJI Lightbridge 2 is a long range video downlink capable of transmitting 1080p60 full HD video at distances up to 3.1 miles (5 km). Lightbridge 2 integrates the remote controller module into the Ground System, which comes with a number of aircraft and gimbal controls as well as some customizable buttons. Support for multiple Ground Systems allows one operator to control aircraft movement, while the other operator focuses on video capturing. Real-time video and flight telemetry can be viewed on your mobile device through the DJI GO app or live broadcast to an SDI or HDMI display device.

In the Box

Modules

Air System × 1

Ground System × 1



Air System Components

Air System Antennas × 2

Transmits the Air System signal to the Ground System.



DBUS Cable I × 1

Connects the Air System to the DJI A2 or WooKong-M Flight Controller.



DBUS Cable II × 1

Connects the Air System to the DJI flight controller.



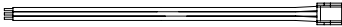
Gimbal Cable × 1

Connects the Air System to the DJI HD gimbal and DJI flight controller.



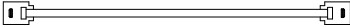
AV Cable × 1

Sends video data from the camera to the Air System.



HDMI Cable × 1

Sends HD video data from the camera to the Air System.



USB Cable × 1

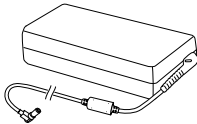
Used to upgrade the Air System firmware through your PC.



Ground System Components

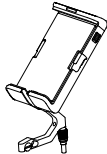
Battery Charger × 1

Used to charge the Ground System.



Mobile Device Holder × 1

Used to mount your mobile device onto the Ground System.



Optional Packets (Purchased Separately)

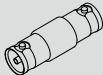
Optional Packet 1 HDMI
Screen Holder × 1



SDI Cable × 1



Optional Packet 2 BNC Adapter × 1



Wire Clip × 1

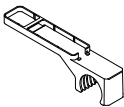


Air System Antenna
Extension Cables × 2



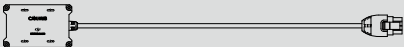
Optional Packet 3

Air System Antenna
Mounts × 2



Optional Packet 4

CAN Hub × 1



Optional Packet 5

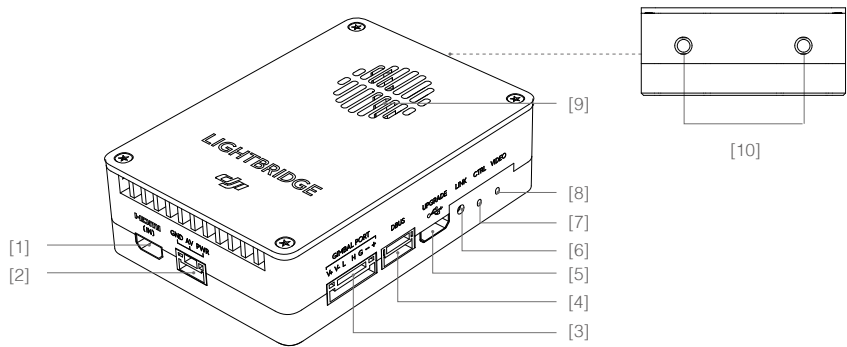
Air System Cable Set × 1

Includes all Air System components.

Overview

Air System

Overview



[1] HDMI IN

Supports up to 1080p60 input resolution.

[2] AV IN

Receives AV input from the camera. The PWR pin supplies power to the camera. PWR is used to provide power supply to the AV input.

[3] Gimbal Port

Connects to both the DJI HD gimbal and DJI flight controller.

- a) V₊ V₋: Receives power from the DJI HD gimbal.
- b) L H: Transmits data to the DJI flight controller through the CAN port. (CAN 2 port on the DJI A2 Flight Controller).
- c) G - + : Receives DVSB video input from the DJI HD gimbal.

[4] DBUS Port

Sends the Ground Sytem control signal to the DJI flight controller (X2 port on the DJI A2 or WooKong-M Flight Controller).

[5] Upgrade Port






Connects to your PC for firmware upgrades through the DJI Lightbridge 2 Assistant.

[6] Link Button

Used to link the Air System with the Ground System.




[7] Control Indicator

Indicates the status of the Air System and Ground System.

LED Pattern	Description
 Blinks Red	Link button pressed. Air System is attempting to link with the Ground System.
 Blinks Green	Signal detected but not linked to the Ground System.
 — Solid Green	Successfully linked to the Ground System.
 — Solid Red	No signal detected. Check the cable connections and ensure the Ground System is powered on.
 Blinks Yellow and Green alternately	Air System and Ground System have different firmware versions. Ensure you have the latest firmware installed on both devices.

[8] Video Indicator

Indicates the video transmission status.

LED Pattern	Description
 — Solid Green	AV/HDMI signal detected.
 Blinks Green	AV/HDMI signal detected but transmission failed. Reconnect the Air System power supply and check the cable connections.
 — Solid Red	No supported video source is detected. Check that your camera's output format is supported. Refer to the Appendix for a list of supported video formats.

[9] Air Vents


Keep clear of obstruction to ensure maximum cooling efficiency.

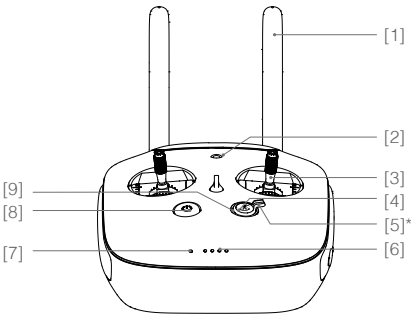
[10] Antenna Port

Used to attach the Air System antennas.

Ground System







The Ground System uses the same interfaces as the remote controller for the DJI Inspire 1, which is used as an illustration below. The interfaces marked with an asterisk (*) can be mapped to the channels of the A2 Flight Controller. Refer to the A2 Flight Controller's user manual for details.

 The remote controller for the Inspire 1 is not compatible with Lightbridge 2. DO NOT substitute any other remote controller for use with the Lightbridge 2 Ground System.



- [1] Antennas**
Transmits the aircraft's control and video signals.
- [2] Mobile Device Holder Screw Hole**
Used to mount the Mobile Device Holder.

- [3] Control Sticks**
Controls the aircraft movement.
Customizable in the DJI GO app and DJI Flight Controller Assistant.
- [4] Return-to-Home (RTH) Button**
Press and hold to initiate the RTH procedure.
- [5] Transformation Switch***
Customizable switch in the DJI Flight Controller Assistant.
- [6] Battery Level Indicator**
Displays the current battery level.
- [7] Status Indicator**
Indicates the connection status between the Air System and Ground System.

Indicator Pattern	Sound	Air System Status
 — Solid Red	 chime	Ground System is set as Master but is not connected to the Air System.
 Blinks Blue	D-D-D-.....	Ground System is set as Master and is attempting to connect to the Air System.
 — Solid Green	None	Ground System is set as Master and is connected to the Air System
 — Solid Purple	D-D-	Ground System is set as Slave but is not connected to the Air System.
 — Solid Cyan	None	Ground System is set as Slave and is connected to the Air System.



..... Blinks Red

D-D-D.....




Ground System error, enter DJI GO app for more details.

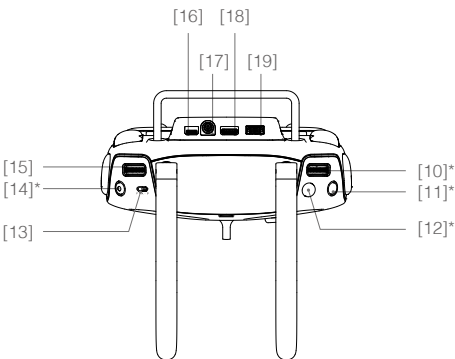
[8] Power Button

Used to turn on/off the Ground System.

[9] Return-to-Home (RTH) Indicator

Circular LED around the RTH button that displays the RTH status.

Indicator Pattern	Sound	Aircraft Status
 — Solid White	♪ chime	Return-to-Home procedure is initiated.
 Blinks White	D . . .	Sending Return-to-Home command to the aircraft.
 Blinks White	DD	The aircraft is returning to the Home Point.



[10] Camera Settings Dial*

Customizable dial in the DJI Flight Controller Assistant.

[11] Playback Button*

Customizable button in the DJI Flight Controller Assistant.

[12] Shutter Button*

Customizable button in the DJI Flight Controller Assistant.

[13] Flight Mode Switch

Switches between P-mode (Positioning), Atti mode (Attitude) and F-mode(Function). F-mode can be customized in the DJI Flight Controller Assistant.

[14] Record Button*

Customizable button in the DJI Flight Controller Assistant.

[15] Gimbal Dial

Used to control the pitch of the gimbal.

[16] Reserved Port

Do not connect any cables to this Micro USB port.

[17] SDI OUT

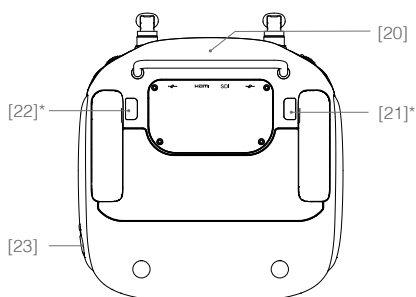
Outputs video data to an SDI monitor.

[18] HDMI OUT

Outputs video data to an HDMI monitor.

[19] USB Port

Connects to your mobile device. Live HD video and flight telemetry can be viewed in the DJI GO app.



[20] GPS Module

Pinpoints the position of the Ground System.

[21] C1 Button*

Customizable button in the DJI Flight Controller Assistant.

[22] C2 Button*

Customizable button in the DJI Flight Controller Assistant.

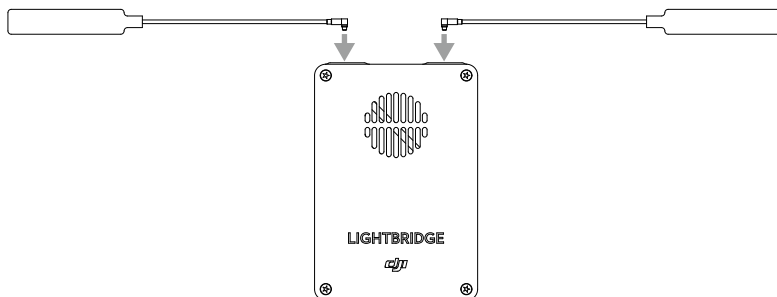
[23] Power Port

Used to charge the Ground System's internal battery.

Installation

Installing the Air System on Your Aircraft

1. Prepare the two Air System antennas and some double-sided foam tape.
2. Insert the antennas into the ports on the side of the Air System and snap into place.



3. Use the foam tape to mount the Air System onto the reserved space of your aircraft or other suitable flat surfaces.



- Install the antennas before powering on the Air System.
- For optimal transmission quality, point the antennas downwards and avoid obstruction from other onboard equipment.
- Only use official DJI antennas and ensure they are installed correctly.
- When connecting the antennas, ensure the connector pin is aligned with the port hole, and DO NOT apply excessive force to avoid damaging the pin.
- Only remove the antennas from the Air System unless it is absolutely necessary. When removing the antennas, use pliers to grip the metal connector, and DO NOT apply force to the wire.
- For larger aircrafts, use an extension cable to connect the antennas to the Air System. The DJI Spreading Wings series come with an antenna mount which is used to position the antennas perpendicular to the landing gear. Watch the video tutorials on the official DJI website for more details.

Connecting the Ground System to Your Display Device

Select one of the video ports on the Ground System to output to your display device:

- SDI – Connect your SDI monitor to the Ground System using an SDI cable.
- HDMI – Connect your HDMI monitor to the Ground System using an HDMI cable.

- USB – Mount your mobile device onto the Mobile Device Holder and connect it to the Ground System using a USB cable. Launch the DJI GO app to access video and flight telemetry.

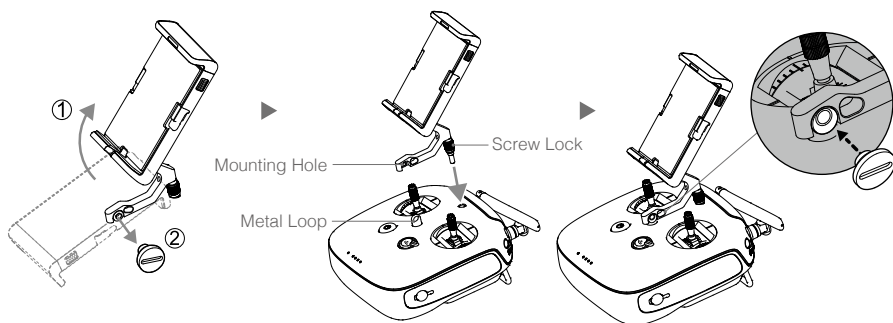
⚡ The SDI or HDMI cable can be attached to the Ground System handle using the Wire Clip (optional accessory).

⚠ The SDI and HDMI ports on the Ground System cannot be used together.

Below is an illustration using the USB video output. Please prepare a slotted screwdriver.

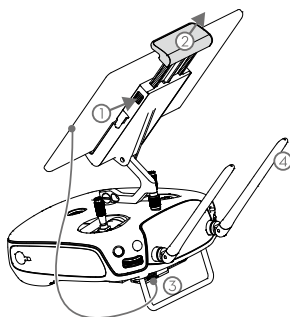
Install the Mobile Device Holder:

1. Unfold the Mobile Device Holder ①. Remove the screw using the slotted screwdriver ②.
2. Plug the Mobile Device Holder into the Ground System and tighten the Screw Lock.
3. Line up the hole on the Mobile Device Holder with the metal loop on the Ground System. Insert and tighten the screw.



Mount Your Display Device:

1. Press the button on the side of the Mobile Device Holder to release the clamp.
2. Place your mobile device inside the clamp and adjust it to secure.
3. Connect your mobile device to the remote controller via a USB cable.
4. Adjust the antennas to the desired position.



Standard Configurations

This section provides examples and way to configure Lightbridge 2. Choose the configuration that best fits your needs.

Air System - DJI HD Gimbal + DJI Flight Controller

When used with a DJI HD gimbal, you can select either single or dual video source mode in the DJI GO app. In single video source mode, the Air System transmits either the gimbal camera video or FPV camera signal to the Ground System. In dual video source mode, both signals are transmitted by the Air System.

Connect the system as follows:

1. Connect the gimbal port on the Air System to the G7 port on the DJI HD gimbal and the CAN BUS port on the flight controller.
2. Connect the HDMI or AV port on the Air System to the FPV camera.
3. Connect the DBUS port on the Air System to the DBUS port (X2 port) on the flight controller with the DBUS cable.
4. Refer to the user manuals for the gimbal and flight controller for details.

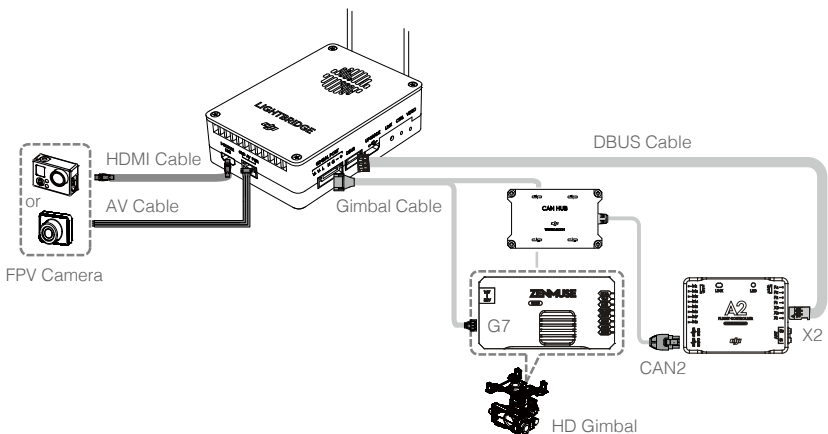


- Only use the DJI HD gimbal and DJI flight controller with the latest firmware.
- If you are using the DJI A2 Flight Controller, connect the gimbal cable to the CAN 2 port on the controller unit.



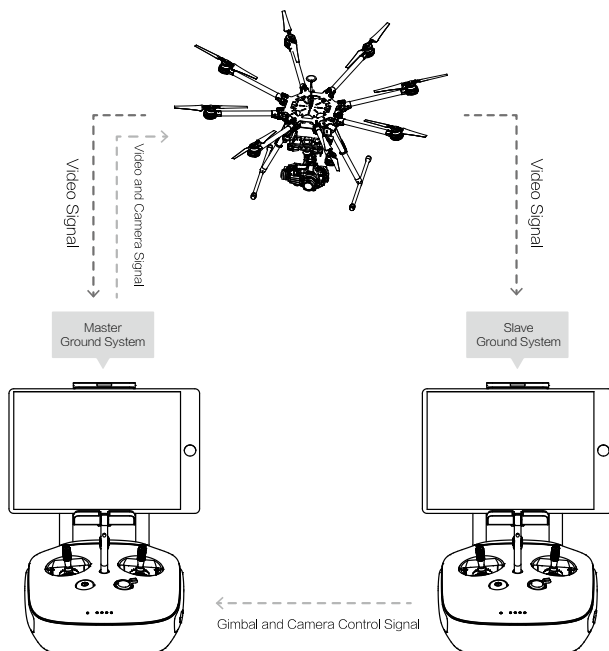
- A CAN-HUB is recommended to provide extra CAN ports, if there is not enough CAN port.

Below is an illustration of the DJI HD gimbal connected to the DJI A2 Flight Controller.



Ground System - Dual Ground Systems Mode

More than one Ground System can connect to the same aircraft in Dual Ground System Mode. In Dual Ground System Mode, the Master Ground System controls the movement of the aircraft, while the Slave Ground System controls the movement of the gimbal and camera. When multiple Slave Ground Systems (max of 3) are connected to the aircraft, only the first connected Slave Ground System is able to control the gimbal. The remaining slave Ground System can view the live feed video from the aircraft, but they cannot control the gimbal.



- ⚠ The gimbal dial on the Master Ground System controls the pitch motion of the camera. In Dual Ground System Mode, the Slave Ground System can be used to control the roll and yaw motions of the camera.

Ground System

The Ground System features a number of standard interfaces intended for aircraft and camera control, which are explained below with their most typical functions. However, you can remap these interfaces to the flight controller channels using the DJI Flight Controller Assistant.



- Compliance: The Ground System is compliant with both CE and FCC regulations.
- Control Stick Modes: Mode 1, Mode 2, or a customized mode.
- Mode 1: The right stick serves as the throttle.
- Mode 2: The left stick serves as the throttle.

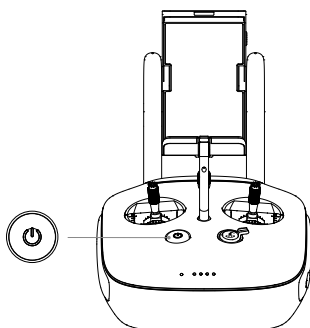


- DO NOT operate more than 3 aircraft within in the same area (size equivalent to a soccer field) to prevent signal interference.

Ground System Operations

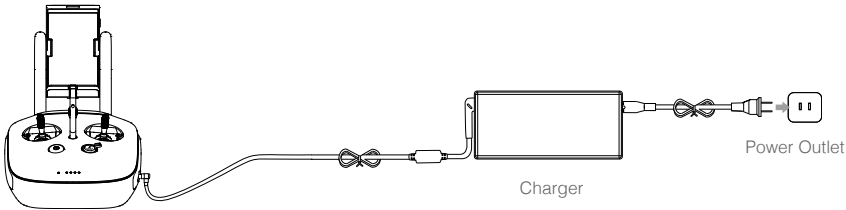
Using the Power Button

1. Press the power button once to display the current battery level.
2. Press again and hold to power on the Ground System.
3. The Status Indicator will blink green (blink purple for Slave Ground Systems) rapidly when the Ground System is linking to the Air System, and become solid green when the link is established.
4. Press the power button once, again, and hold to power off the Ground System.



Charging the Ground System

Only use the official DJI battery charger to charge the Ground System's 6000mAh 2S built-in battery.





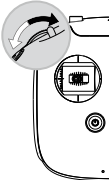
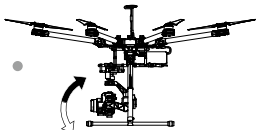


Controlling the Aircraft

The following table describes the functions of the Ground System for the default settings - Mode 2.

- Stick Neutral/mid point: Control sticks of the Ground System are placed at the central position.
- Move the Stick: The control stick is pushed away from the central position.




Ground System (Mode 2)	Aircraft (● indicates nose direction)	Description
		<p>Vertical movement of the left stick controls the aircraft's elevation. Push up to ascend and press down to descend.</p> <p>Use the left stick to take off when the motors are spinning at idle speed. The aircraft will hover in place if the stick is in the neutral position.</p>
		<p>Horizontal movement of the left stick controls the aircraft's heading. Move left to rotate the aircraft anticlockwise and move right to rotate the aircraft clockwise.</p>

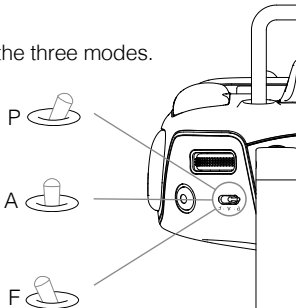
		<p>Vertical movement of the right stick controls the aircraft's pitch. Push up to fly forwards and press down to fly backwards.</p> <p>Move the stick further for a larger pitch angle and faster flight.</p>
		<p>Horizontal movement of the right stick controls the aircraft's roll. Move the stick left to fly left and right to fly right.</p> <p>Move the stick further for a larger roll angle and faster flight.</p>
		<p>Turn the Gimbal Dial to the right to tilt the camera up, and to the left to tilt the camera down.</p>

- ⚠ • Always push the control sticks gently to prevent sudden and unexpected movement of the aircraft.
- The aircraft can be stabilized when the control sticks are at mid point in P-mode or Atti mode.
- The aircraft cannot stabilize itself automatically in Manual mode, operate with caution.

Flight Modes

Toggle the Flight Mode Switch on the Ground System to one of the three modes.

Figure	Flight Mode
	P-mode
	Atti mode
	F-mode



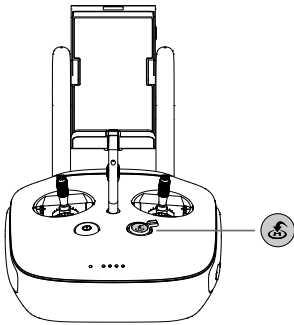
P-mode (Positioning): The aircraft uses GPS for positioning. This mode works best when the GPS signal is strong.

Atti mode (Attitude): GPS is not used for positioning, and the aircraft only uses its barometer to maintain altitude. If a GPS signal is present, the aircraft will still return to the last recorded Home Point if the Ground System signal is lost.

F-mode (Function): Acts as A-Mode (default) or Manual Mode for Lightbridge 2. Select the desired mode in the DJI Flight Controller Assistant.

Return-to-Home (RTH)

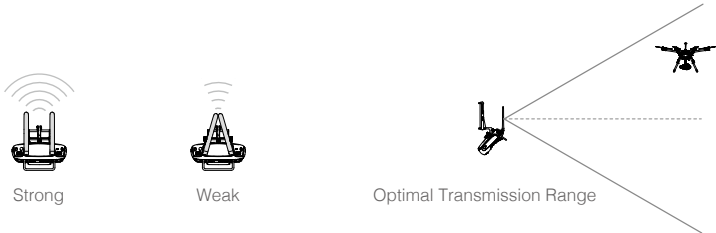
Press and hold the RTH Button to bring the aircraft back to the last recorded Home Point. The LED around the RTH Button will blink white during the RTH procedure. Refer to the flight controller user manual for more information on how to regain control during RTH.



 The DJI WooKong-M Flight Controller does not support the RTH feature.

Optimal Transmission Range

To achieve optimal transmission, separate the two antennas and adjust their positions so that the flat side faces the aircraft.




If the transmission signal is weak, adjust the positions of the antennas and fly the aircraft closer to you.

Dual Ground Systems Mode

The Dual Ground Systems Mode is disabled by default. To enable this feature, connect your mobile devices to the desired Master and Slave Ground Systems, launch the DJI GO app and then following the steps below for each Ground System.

Master Ground System:

- 1. Go to Camera View >  to enter RC Settings.
- 2. Next to 'Set RC Status', select 'Master'.
- 3. Enter the connection password.

RC Settings

RC Control Settings

Master and Slave

Set RC Status

OFFMasterSlave

RC Name


T12254

Connection Password

1234

Slave RC List

Slave Ground System:

- 1. Go to Camera View >  to enter RC Settings.
- 2. Next to 'Set RC Status', select 'Slave'.

RC Settings

RC Control Settings

Master and Slave

Set RC Status

OFFMasterSlave

RC Name

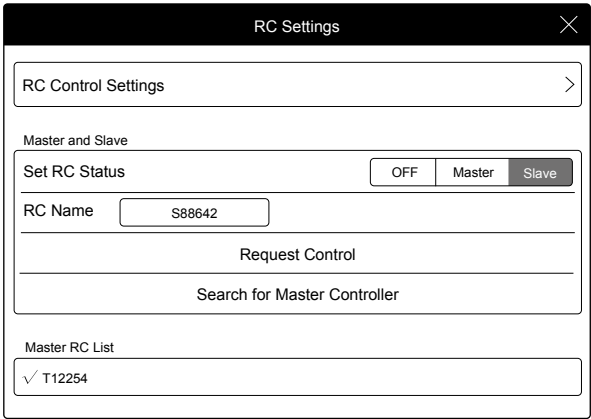
S88642

Request Control

Search for Master Controller

Master RC List

3. Tap 'Search for Master Controller' to register the Master Ground System.



4. Select the Master Ground System from the Master RC List and input the connection password.

✓ T12254

Connection Password

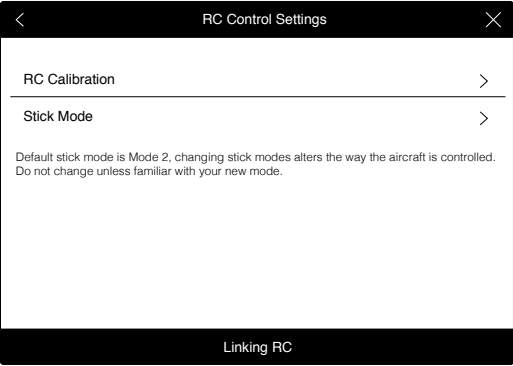
1234

⚠ The Slave Ground System cannot link to the Air System and control aircraft movement. To do so, set the Ground System as 'Master'.

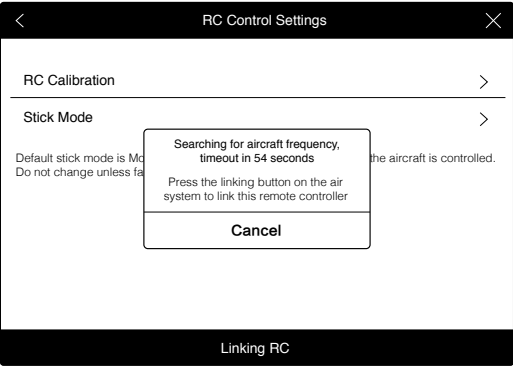
Linking the Ground System

The Ground System is linked to the Air System by default, and linking is only required if a new Ground System is used for the first time. Follow these steps to link a new Ground System:


1. Place the Air System and Ground System at roughly 1.5 meters from each other.
2. Turn on the Ground System and connect your mobile device.
3. Launch the DJI GO app, and go to Camera View > > RC Control Settings. Click 'Linking RC'.



4. The Ground System Status Indicator will blink blue and emit a beep sound when the Ground System is ready to link.



5. Press the Link Button on the Air System to begin linking. The Ground System Status Indicator will glow solid green if linking is successful.

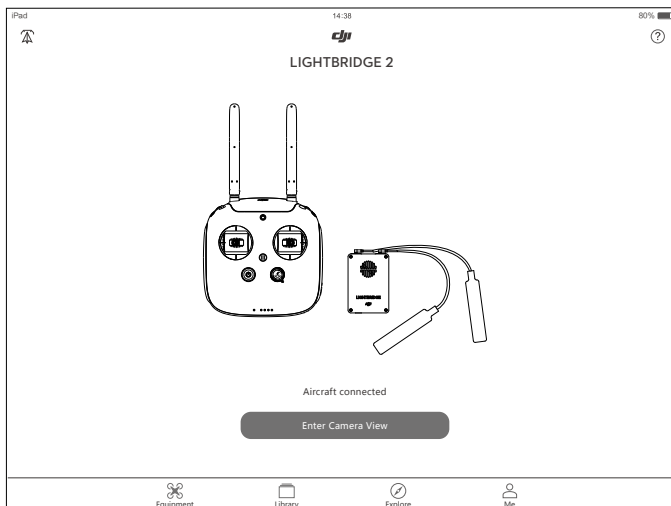
 The linked Ground System will disconnect from the Air System if another Master Ground System attempts to link to the same Air System.

Ground System Compliance

The Ground System is compliant with the CE and FCC standards.

DJI GO App

DJI GO is an essential hub to operate your DJI equipment, share your artwork, explore the community, and manage your DJI account, all at once. Use DJI GO app with Lightbridge 2 to select channel, change the video output device and configure the transmission settings. It is recommended that you use a tablet for the best experience.



Launching DJI GO App

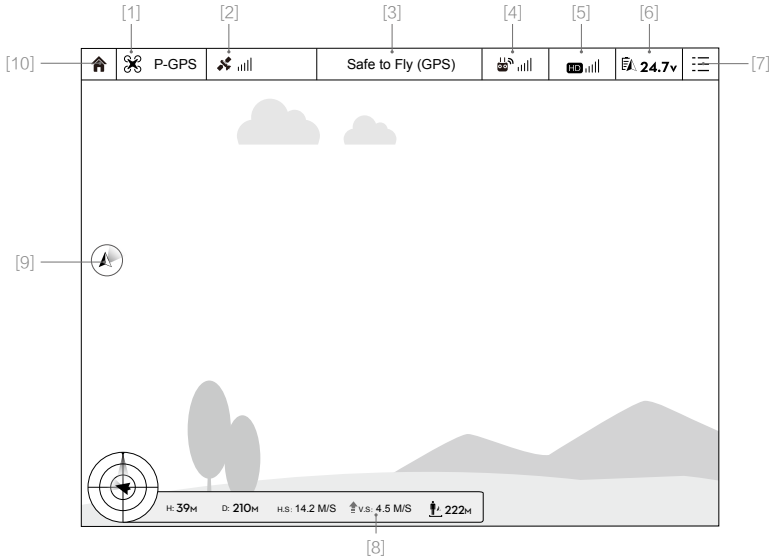
1. Power on the Ground System and then the Air System. The Status Indicator on the Ground System will glow solid green (solid cyan for Slave Ground System).
2. The Control Indicator and the Video Indicator on the Air System will glow solid green if the Air System and Ground System are communicating normally.
3. Launch the DJI GO app on your mobile device. You will see a live video feed after you enter Camera View if the Lightbridge 2 system is working normally.
4. Real-time flight telemetry will be displayed if the flight controller is working normally.



Position the Air System antennas downwards and the Ground System antennas upwards. Ensure that the antennas are not obstructed by other onboard devices.

Camera View

On the Equipment page, you can enter Camera View, operate Lightbridge 2 settings or view your flight records. The screen contains a live HD video feed from the camera.



[1] Flight Mode

: The current flight mode is displayed next to this icon.

[2] GPS Signal Strength

: Shows the current GPS signal strength. Green bars indicate an adequate signal.


[3] System Status Bar

: Indicates the current aircraft system status and displays warning messages.


[4] Ground System Signal

: Shows the signal strength of the Ground System. Tap to bring up the Remote Controller settings.

[5] Video Downlink Signal

: Shows the signal strength of the video downlink between the Air System and Ground System. Tap to enter Image Transmission Settings.

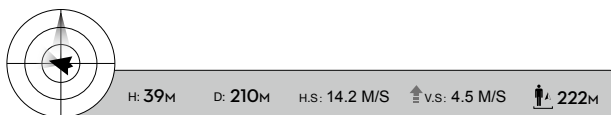
[6] Battery Level

 **24.7v**: Shows the current battery level.

[7] General Settings

: Tap to view settings for the unit of measurement, flight route display and live streaming.

[8] Flight Telemetry



Flight Attitude and Radar Function

The aircraft's flight attitude is indicated by the target-like icon.

- (1) The red arrow indicates the aircraft's heading.
- (2) The ratio between the blue and gray areas indicates the aircraft's pitch.
- (3) The horizontal level of the blue-gray boundary indicates the aircraft's roll angle.

Flight Parameters

Height: Vertical distance from the Home Point.

Distance: Horizontal distance from the Home Point.

Vertical Speed: Movement speed across a vertical distance.

Horizontal Speed: Movement speed across a horizontal distance.

Aircraft Distance

The horizontal distance between the aircraft and the operator.

[9] Gimbal Operation Mode

: Tap to switch between Gimbal Operation Modes.

[10] Back


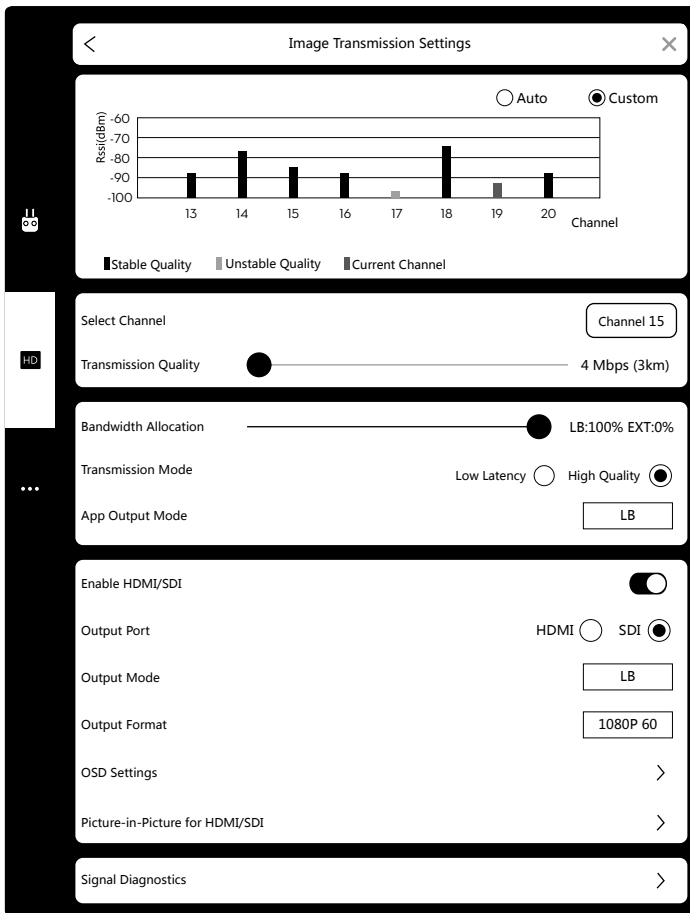
: Tap to return to the main menu.

Image Transmission Settings


Go to Camera View and tap  to open up the image transmission settings.



[1] Select Channel

The interference levels for available channels are shown in the bar chart. You can choose "Auto" or "Custom" configuration.

- Auto (default): The channel with the best transmission is automatically selected and the transmission quality is dynamically adjusted according to transmission distance.
- Custom: Manually select a channel and adjust the image transmission quality.

 Selecting "Custom" will disable dynamic channel switching even when there is strong interference. Use with caution.

[2] Transmission Quality

Higher transmission quality will occupy more bandwidth and provide a shorter transmission distance.

[3] Bandwidth Allocation

Distribution of the transmission bandwidth between the "LB" and "EXT" video sources. The system is in single source mode if LB = 100% or EXT = 100%, and in dual source mode for any other combination.

[4] Transmission Mode

This option is only available in LB single source mode (LB = 100%).

- Low Latency: Optimized for stable image transmission. The channel latency is about 50ms in an interference-free environment.
- High Quality: Optimized for high quality image transmission.

[5] App Output Mode

Select the video source to display in the app. Ensure that adequate bandwidth has been allocated to that video source.

- LB: FPV camera (HDMI or AV input)
- EXT: HD gimbal

[6] Enable HDMI/SDI

Enable or disable HDMI and SDI video output.

[7] Output Port

Select HDMI or SDI as your video output.

[8] Output Mode

Select the video source to output to your HDMI or SDI device.

- LB: FPV camera (HDMI or AV input)
- EXT: HD gimbal
- PIP_LB: HD gimbal in the main window and FPV camera in a mini window
- PIP_EXT: FPV camera in the main window and HD gimbal in a mini window

[9] Output Format

Select the HDMI/SDI video output format.

[10] OSD Settings

Enable on-screen display and adjust the display margins on your HDMI or SDI device.

[11] Picture-in-Picture for HDMI/SDI

Adjust the PIP position on your HDMI or SDI device. This option is only available in dual source mode.

[12] Signal Diagnostics

Run signal diagnostics to test for an antenna malfunction.

How to Upgrade the Firmware

Upgrading the Air System Firmware

Step 1 – Download the DJI Assistant 2

1. Go to the Lightbridge 2 product page and download:
 - a) DJI Assistant 2 package
 - b) DJI WIN driver (if you use Windows 7 or 8)<http://www.dji.com/product/lightbridge-2/download>
2. Extract the DJI Assistant 2 package to the desired directory. No installation is required.
3. Run the DJI WIN driver and complete the installation if needed.

 The DJI Assistant 2 supports Windows 7 (or later) or Mac OS X 10.9 (or later).

Step 2 – Upgrade with the DJI Assistant 2

1. Launch the DJI Assistant 2.
2. Connect the Air System's upgrade port to your computer and then power on the Air System.
3. Choose "Lightbridge 2" from the list of connected devices, then sign in with your DJI account.
4. Choose the desired firmware version from the firmware list and click "Upgrade".
5. After reading the popup notice, click "Start Upgrade". The text "Upgrade Successful!" will be displayed when the upgrade is complete. If the upgrade fails, try again or contact DJI Support.

Upgrading the Ground System Firmware

The System Status Bar in Camera View in the DJI GO app will flash several times if a firmware upgrade is available. Follow these steps to upgrade the firmware.

Step 1 – Checklist

1. You have the latest version of the DJI GO app installed.
2. Your mobile device has internet access.
3. There is at least 30 MB of free space on your mobile device.
4. The Ground System has at least 50% battery.

Step 2 - Download and Upgrade the Firmware

1. Go to the DJI GO App > Camera View > System Status Bar > Overall Status.
2. Tap "Download Firmware" and wait for the download to complete. Then, ensure your devices are ready and click "Start Upgrade".
3. A progress bar will indicate the upgrade status. The status LED on the ground system will blink blue while the upgrade is in progress and blink green when the upgrade is complete.

 The System Status Bar is the colored rectangle located at the top center of Camera View.

Appendix

Specifications

General	
Max Transmission Distance (unobstructed, free of interference)	FCC Compliant: 3.1 miles (5 km) CE Compliant: 2.1 miles (3.5 km)
EIRP	100 mW @2.4 GHz
Operating Frequency	920.6 MHz to 928 MHz (Japan)
	5.725 GHz to 5.825 GHz
	2.400 GHz to 2.483 GHz
Air System	
Dimensions (excluding antennas)	68 mm × 48 mm × 21 mm (L-W-H)
Weight (excluding antennas)	70 g
Antenna Gain	2 dBi @2450 MHz
Operating Voltage	9-12 V
Operating Current	650 mA @12 V
Operating Temperature	14° to 104° F (-10° to 40° C)
Antenna Connector	MMCX Male
Ground System	
Dimensions	182 mm × 167 mm × 104 mm (L-W-H)
Weight	810 g
Antenna Gain	3.5 dBi @2450 MHz
Built-in Battery	7.4 V, 6000 mAh
Operating Current	900 mA
Operating Temperature	14° to 104° F (-10° to 40° C)
Charging Temperature	32° to 104° F (0° to 40° C)
Video Output Port	HDMI, SDI, USB
Battery Charger	
Output Voltage	17.4 V
Rated Power	57 W

Supported DJI Products

Only use these products with the latest firmware.

HD Gimbals	Z15-GH4, Z15-5D III, Z15-A7, Z15-BMPCC
Flight Control Systems	A2, WooKong-M
Flying Platforms	S1000+, S1000, S900, S800 EVO, F550, F450

Supported Video Inputs

Source	Video Formats
AV	PAL25, NTSC30
HDMI	480p60, 576p50, 720p24, 720p30, 720p50, 720p60, 1080i50, 1080i60, 1080p24, 1080p25, 1080p30, 1080p50, 1080p60

Supported Video Outputs

Source	Video Formats
HDMI	720p24, 720p25, 720p30, 720p50, 720p60, 1080i50, 1080i60, 1080p24, 1080p25, 1080p30, 1080p50, 1080p60
SDI	720p25, 720p30, 720p50, 720p60, 1080i50, 1080i60, 1080p24, 1080p25, 1080p30, 1080p50, 1080p60

FCC Compliance

This equipment must be installed and operated in accordance with provided instructions and the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. End-users and installers must be provided with antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance.



This content is subject to change.

Download the latest version from
<http://www.dji.com/product/lightbridge-2>

If you have any questions about this document, please contact DJI by sending a message to DocSupport@dji.com.