









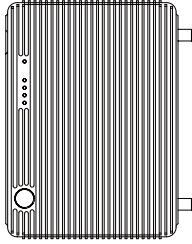


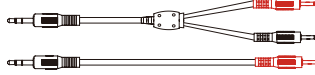




DJI LIGHTBRIDGE





Quick Start Guide V1.03

IN THE BOX

Standard packet

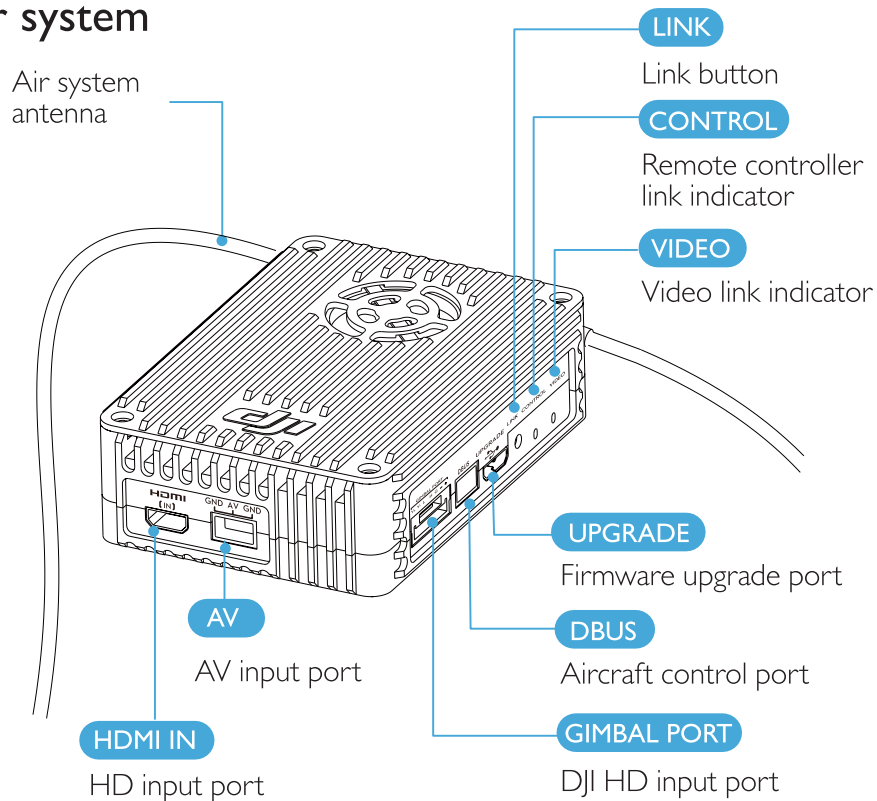
Air system x1 		Air system panel antenna x2
		Air system antenna x3
		GIMBAL cable x1 (A)
		HDMI cable(D-D)x1
		DBUS cable x1
		Air System Power & CAN cable x1
		AV cable x1
Ground system x1 		Ground system antenna x2
		Charger x1
		Remote controller cables x2
		Rectangle headed training port cable x2
		Micro-USB cable x1

Optional packet

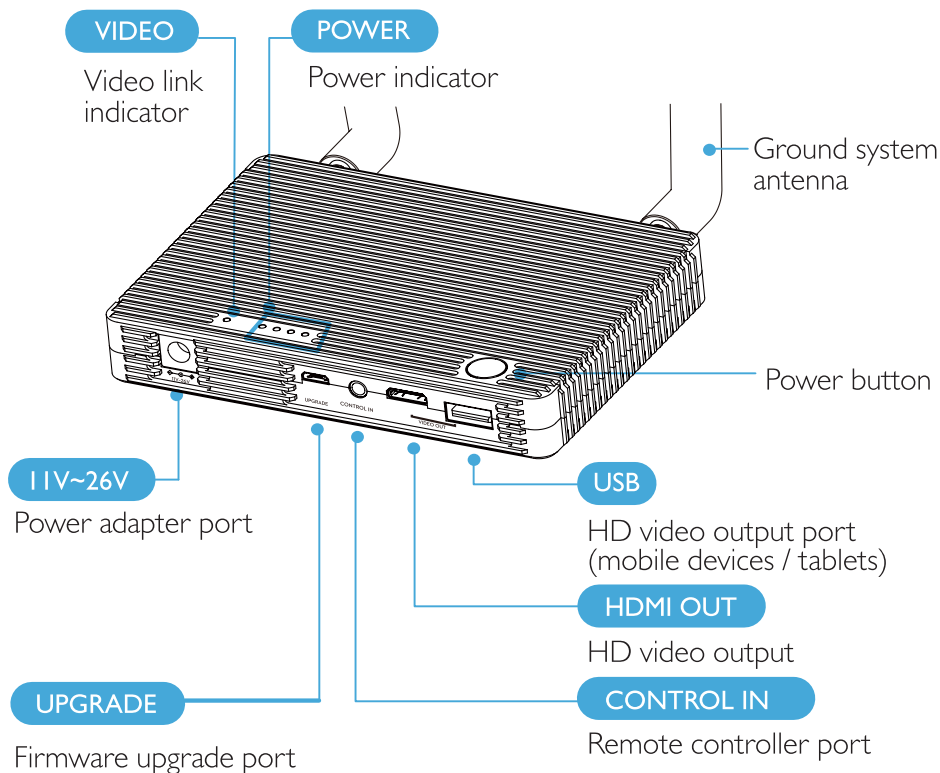
Optional packet(1)		HDMI cable(D-D)x1
		Ground system holder x1
		Smart phone holder x1
Optional packet(2)		HDMI cable for Zenmuse x1

INTRODUCTION

Air system



Ground system

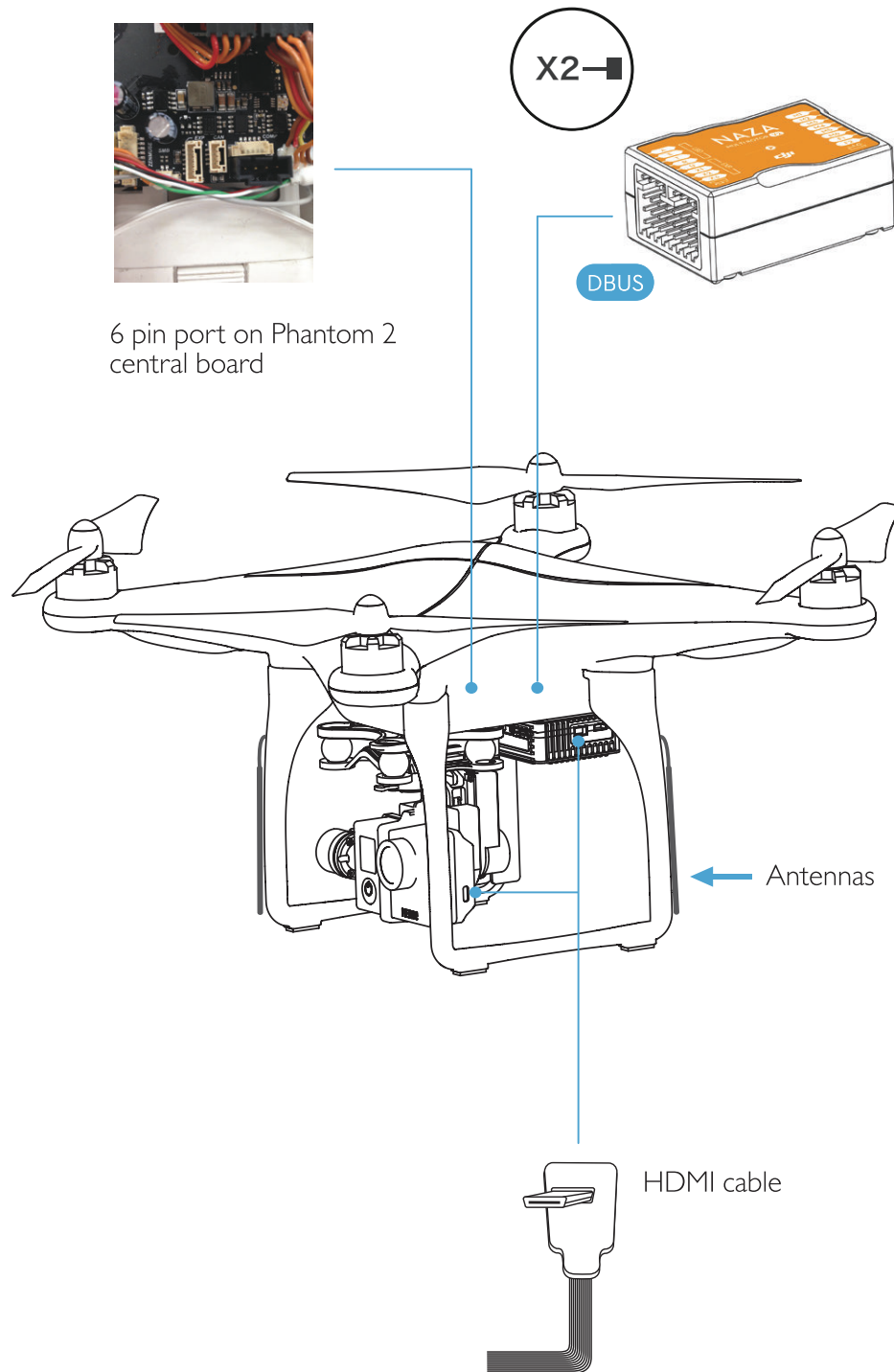


Cables

	<p>GIMBAL cable: 7PIN → 6PIN(A)</p> <p>If used with PHANTOM 2, connect cable to reserved 6-PIN port on central board for air system power supply and OSD info input.</p>
	<p>DBUS cable:</p> <p>The air system's DBUS receiver outputs control signals. Connect to flight control system DBUS to receive these signals.</p>
	<p>AV cable:</p> <p>Connect a camera's AV output to AV input port.</p>
	<p>Remote controller cable:</p> <p>For remote controller training port connection. Connect red port 1 to a remote controller for aircraft control and black port 2 to a remote controller for gimbal control.</p>
	<p>Remote controller training cable:</p> <p>Connect the red jack to the aircraft remote controller to control.</p>
	<p>Air system antenna:</p> <p>Use for connecting the Air system.</p>
	<p>Training port cable:</p> <p>For remote controller training port and remote controller cable connection.</p>
	<p>Air System Power & CAN cable:</p> <p>Connect to Air system GIMBAL port, one end for power, the other for CAN port.</p>

INSTALLATION

Phantom 2 and GoPro Gimbal Connection



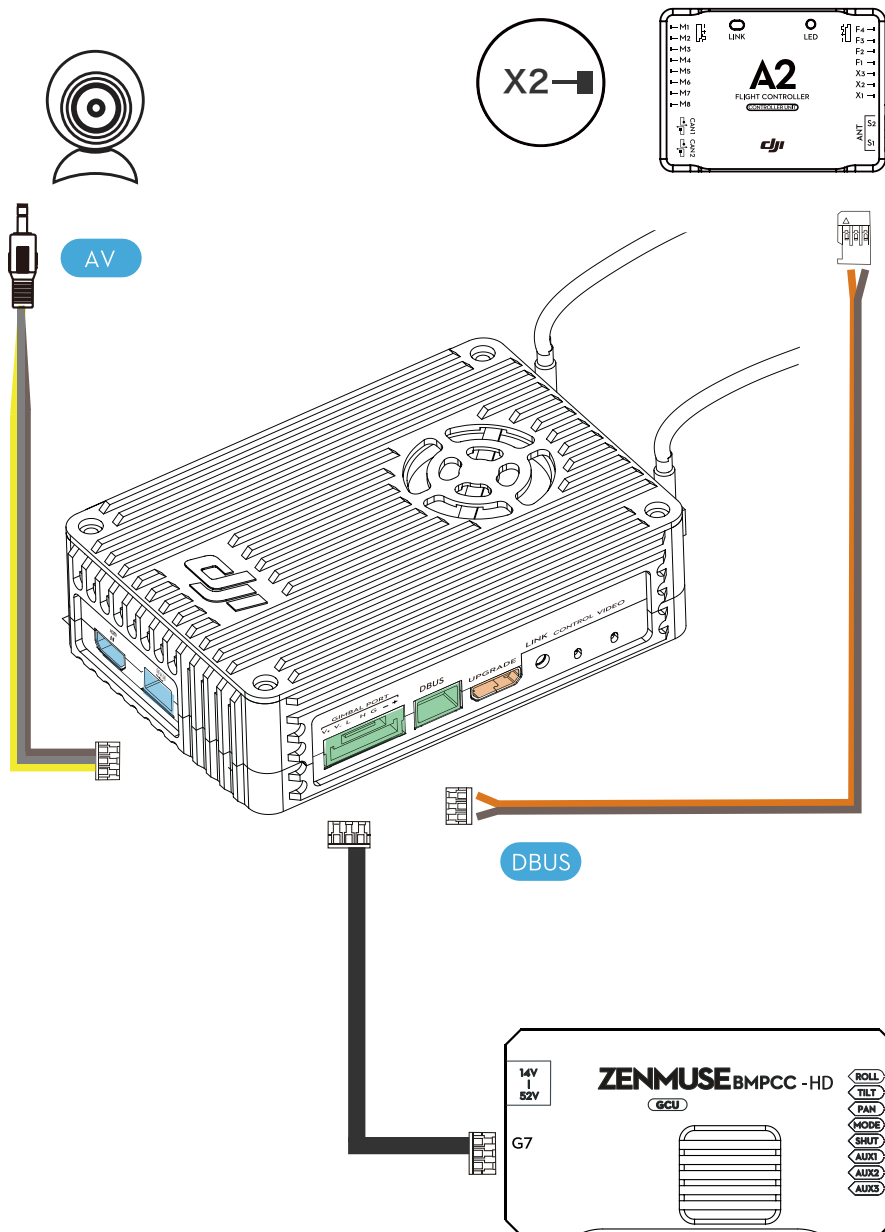
1. Attach air system to the bottom of Phantom 2 as shown above.
2. Install antennas diagonally on landing skids. Ensure both of the antennas point downward.
3. Connect HDMI port on GoPro with HDMI(In) port on air system with supplied HDMI cable.
4. Remove Phantom 2 shell, connect the X2 port on Phantom 2 with DBUS port on air system. Re-install Phantom 2 shell.
5. Connect 6 pin port on Phantom 2 with GIMBAL port on air system with supplied GIMBAL cable(A).

DJI HD Gimbal Connection (BMPCC)

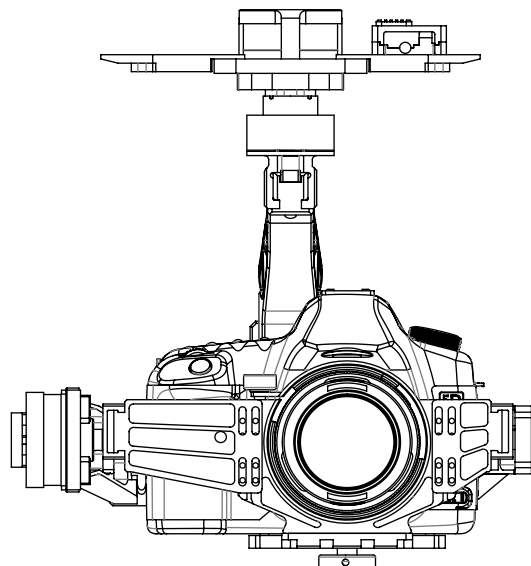
Compulsory

Mutually Exclusive

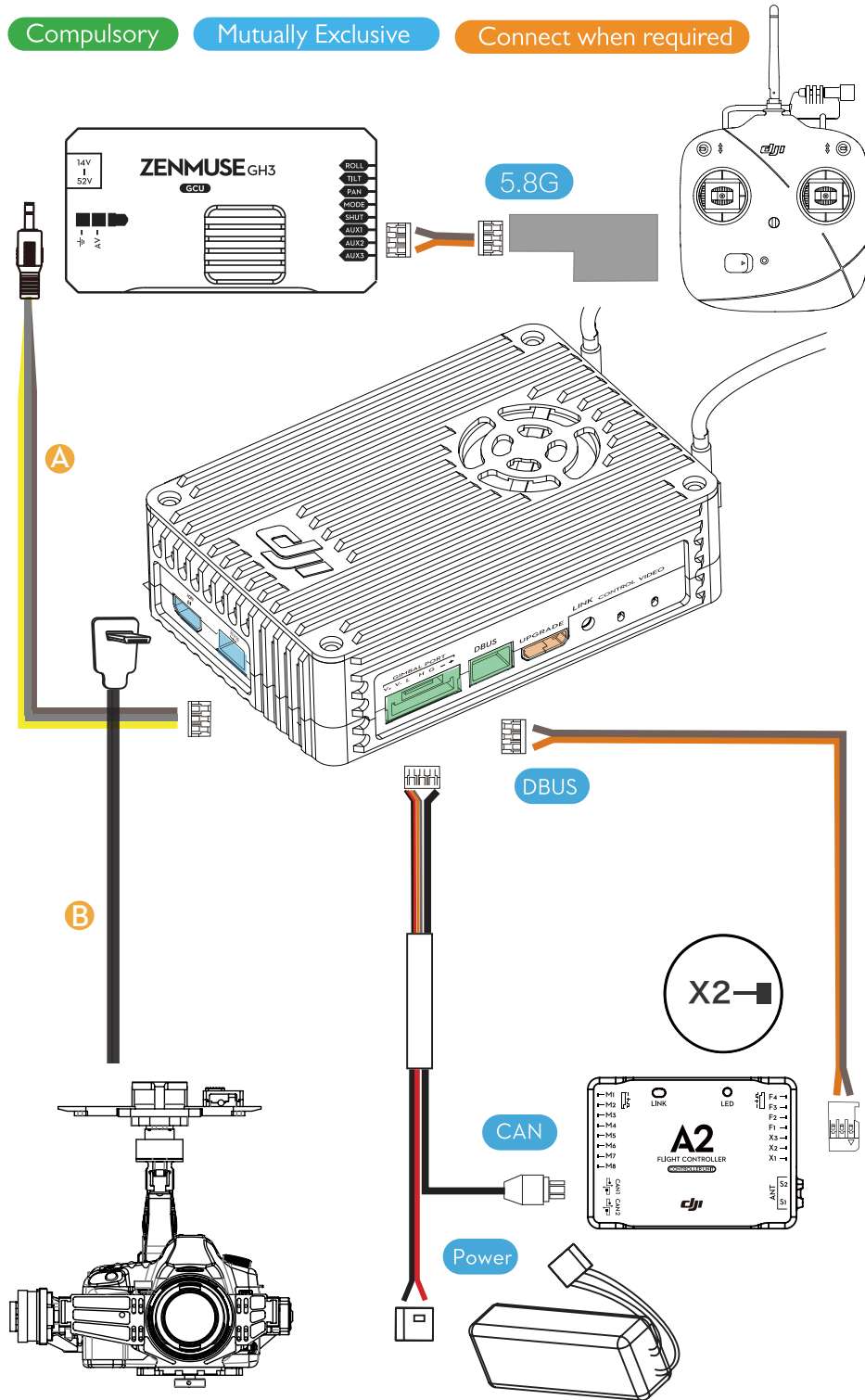
Connect when required



1. Fix the antennas at the unobstructed position with the antenna extension cable.
2. Connect DBUS port with X2 port with supplied DBUS cable.
3. Connect air system GIMBAL port with DJI HD gimbal G7 port with GIMBAL cable(B).
4. Select either HDMI(IN) or AV(IN) when using DJI HD gimbal.



DJI SD Gimbal Connection (GH3 for demo)



1. Attach the air system antenna to the unobstructed position on the aircraft via the extension cable.
2. Connect DJI LIGHTBRIDGE DBUS port to flight controller X2 port via DBUS cable.
3. Connect GIMBAL port to the power source through DIY power cord. Attach CAN connector to the CAN port on the flight controller (CAN1 port for A2).
4. To link the 5.8GHz transmitter, connect GCU AUX2 port to the 5.8GHz receiver.
5. **A** Connect DJI LIGHTBRIDGE AV port with GCU video port via AV cable.
B Connect DJI LIGHTBRIDGE HDMI input port with camera HDMI output port with HDMI cable.

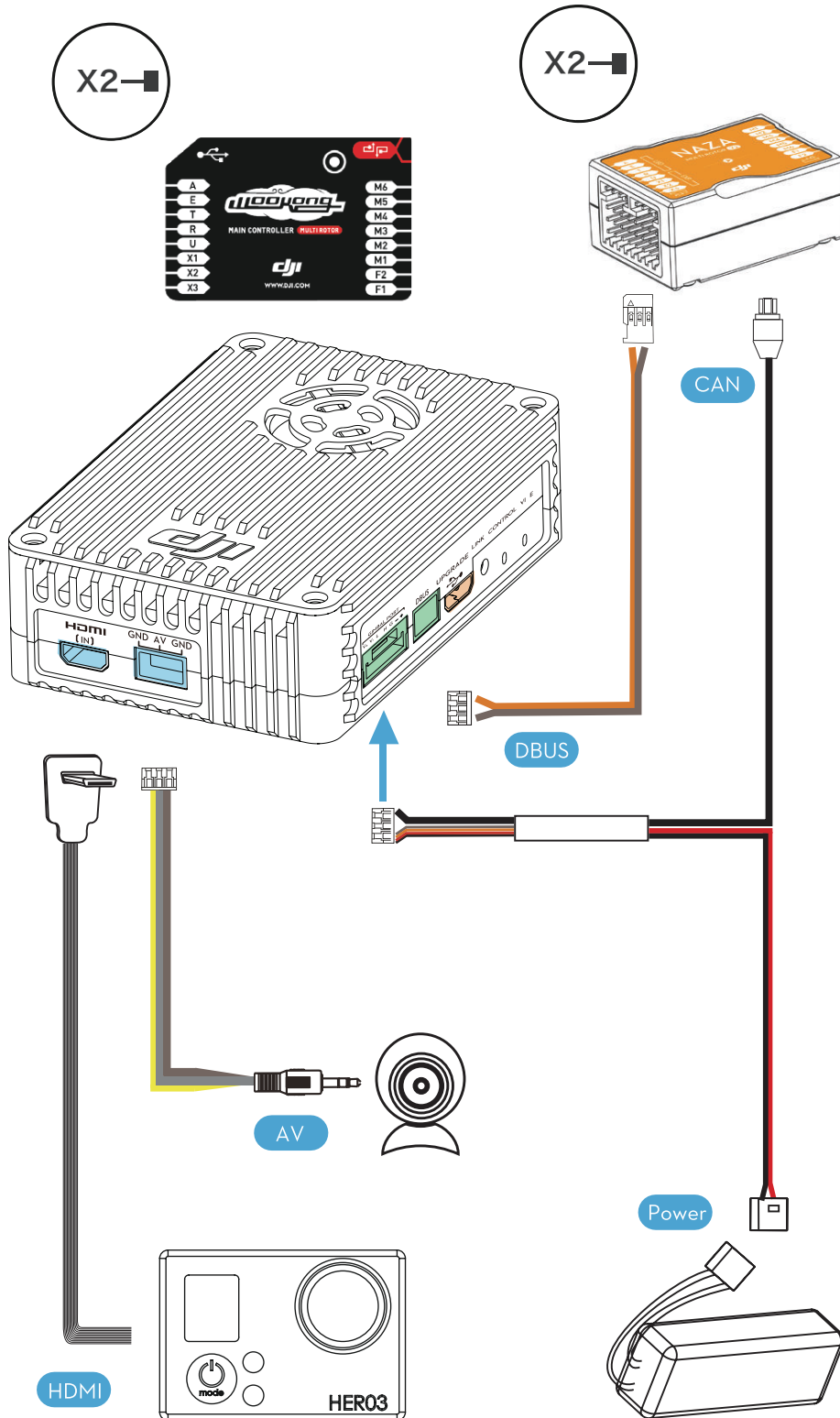
⚠ Disconnect HDMI from the gimbal before powering, allow time for the gimbal to perform self-check procedure. Failure to do so may damage the HDMI cable. Re-connect the HDMI to the gimbal when self-check is finished.

DIY Connection

Compulsory

Mutually Exclusive

Connect when required



1. AV and HDMI video input is mutually exclusive.
2. Connect air system DBUS port with X2 port on WK-M or NAZA-M.
3. Power air system with the power cords extracted from GIMBAL cable.
4. Connect GIMBAL cable to the CAN bus on NAZA-M or WK-M.

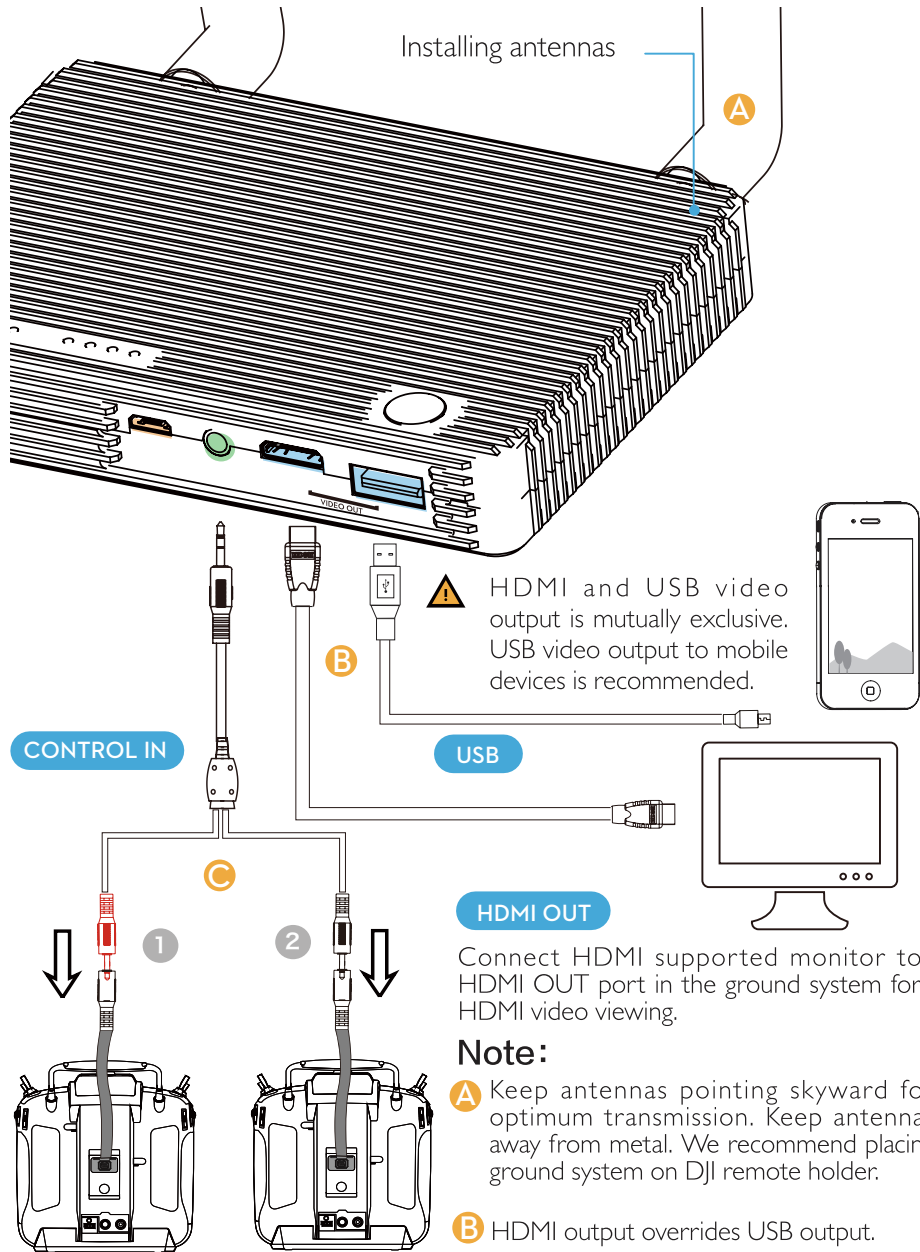
Ground system installation

Compulsory

Mutually Exclusive

Connect when required

- ⚠️ Connect the training port and the Control In port on the ground system using the training port cable and remote controller cable. Disable RF function of the remote control before connecting the remote control to the ground system by following the instruction below (based on Futaba remote control): Hold the "RTN" button and power on the remote control. Enter "POWER MODE". Select "RF OFF" mode and press "RTN button" to confirm.



C Support single or dual remote control mode.

Control Mode	Connection	Channel Mapping on Ground System	Channel Mapping on Air System	Note
Single Remote Control Mode	Connect the red port	Output all 16 channels from remote control to air system.	Output all 16 channels through DBus.	
Dual Remote Controls Mode	Connect the red port to control aircraft and black port to control gimbal.	Output 8 channels from each remote controls to air system.	Output all 16 channels through DBus. Output 8 gimbal control channels through Gimbal port	For DJI HD gimbal only.

Ground System and Remote Controller Installation

Illustration 1

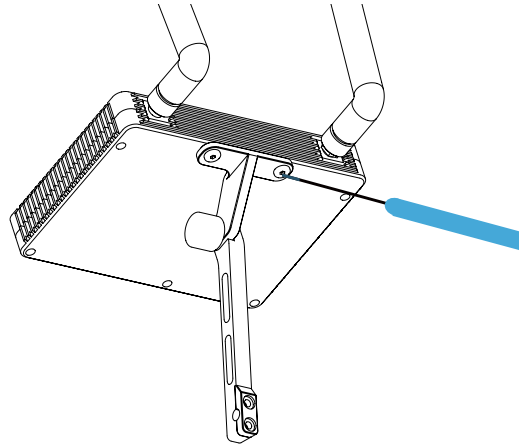


Illustration 2

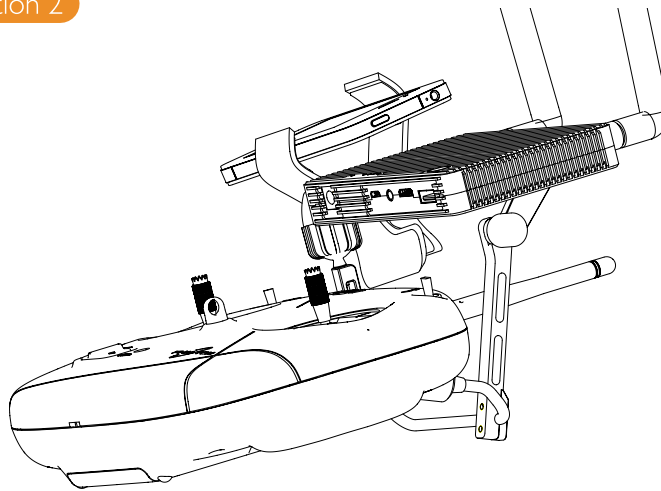


Illustration for installing mobile device holder and ground system holder.
(Base on DJI remote controller [side view])

Illustration 3

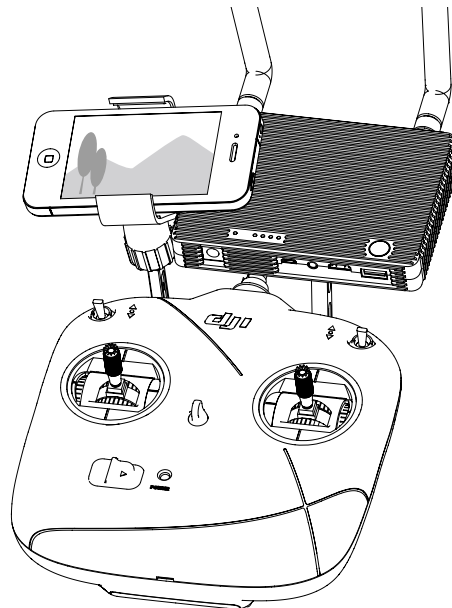



Illustration for installing mobile device holder and ground system holder.
(Base on DJI remote controller [top view])

 Be aware of the antenna angle while in flight, adjust ground system antenna angle to improve signal quality.

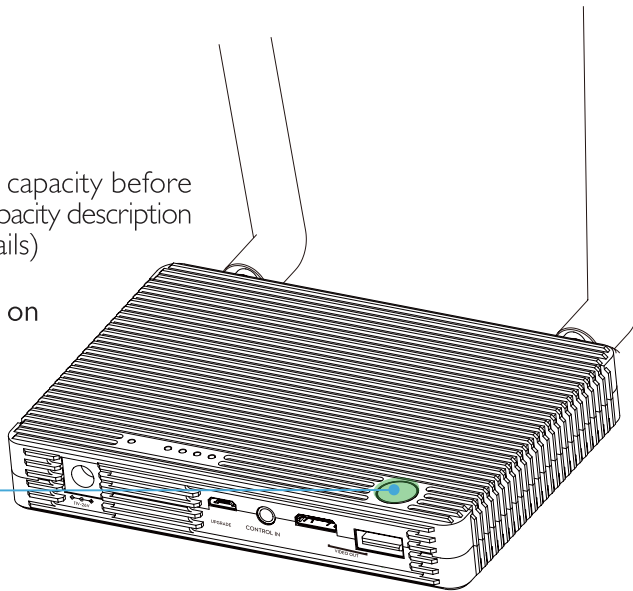
POWER ON

1. Maintain a distance of 0,5 m to 1m between the air and ground systems, then power on the air system.
2. Power on ground system.

Press button once to display battery capacity. Press again and hold 2 seconds to power on / power off.

Make a note of battery capacity before use. (Read the battery capacity description in manual for more details)

Ground system: Power on

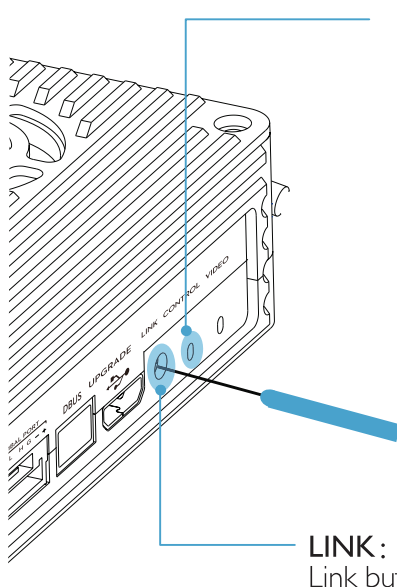


LINK

Use a pin to press [LINK] button on the air system. Press and hold on for 5 seconds then release. When link is finished, the [CONTROL] indicator on air system will turn a solid green. (See the following table for indicator details)

⚠ Notes:

Linking is completed when the Lightbridge is shipped. [CONTROL] indicator light will show a solid green when powered on. If re-linking is necessary, [CONTROL] indicator light will blink green, then follow the above steps.



CONTROL:
Remote controller link indicator





Indicator	Description
●●●●●	Linking in progress.
●●●●●	Signal detected but not linked.
▬	Successful link.
▬	No detected signal.

INDICATOR DESCRIPTION




	Solid green		Flashing green		Solid red		Flashing red		Off
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Air system indicator

[1] CONTROL link indicator





































Indicator	Description	Action
	Link in progress.	Air system is attempting to link with ground system after the LINK button has been pressed.
	Signal is detected but not linked.	Link required.
	Successfully linked.	Normal.
	No signal.	Power on ground system, check distance between ground and air systems.

[2] VIDEO link indicator



Indicator	Description	Instruction
	AV/HDMI signal detected and functioning normally.	Normal.
	AV/HDMI signal detected but transmission failed.	Air system and ground system power cycle required.
	No detected signal or signal detected but not supported.	Check camera and connection, or camera HDMI output format setting. Refer to DJI website for format details.

Ground system indicator

[1] POWER indicator

LED1	LED2	LED3	LED4	Battery Capacity
				87.5%~100%
				75%~87.5%
				62.5%~75%
				50%~62.5%
				37.5%~50%
				25%~37.5%
				12.5%~25%
				0%~12.5%
				= 0%

[2] VIDEO link indicator

Indicator	Description
	No signal from air system. Ground system working normally.
	Signal detected from air system. Ground system working normally.

USING DJI LIGHTBRIDGE

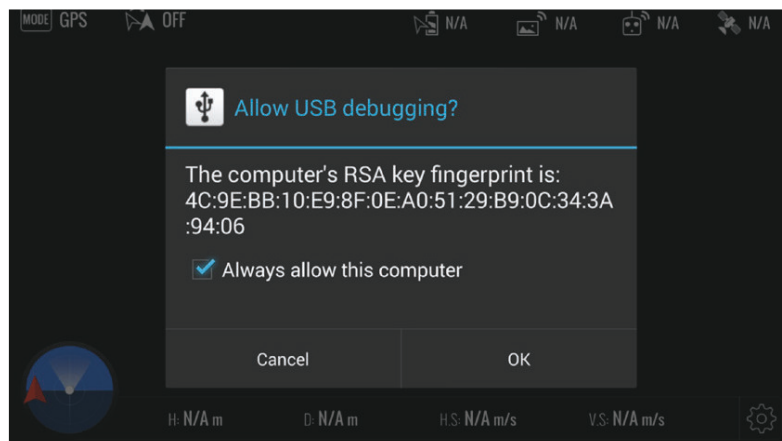
1. Search "DJI Lightbridge" in Google Play and install it onto your mobile device.
Or scan the two-dimension code below to download.



2. Ensure "Developer options" is enabled and "USB debugging" is on. Otherwise, follow below steps to operate or surf the Internet for a solution.

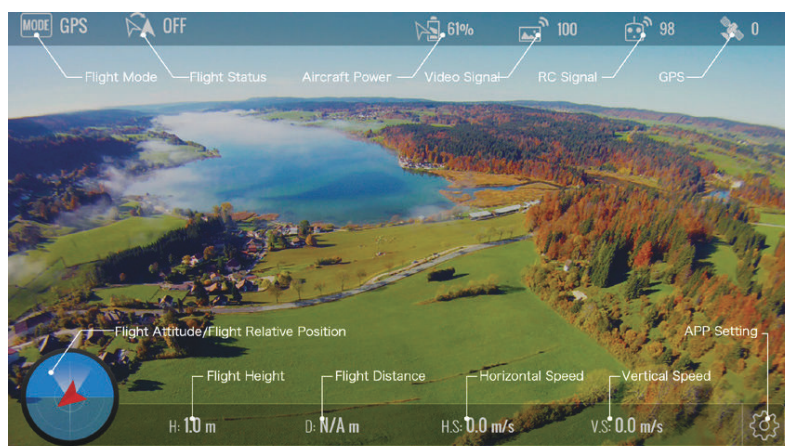
⚠ How to enable developer options on Android (Samsung note3 used as demonstration)

- (1) Tap "Settings" -> "About phone" -> "Build number". Tap "Build number" 7 times.
 - (2) Toast message will change to "No need, you are already a developer."
 - (3) Return to "Settings" and you will see that "Developer options" is enabled.
 - (4) Tap "Developer options" then tap "USB debugging".
3. Connect ground system and mobile device using a USB cable. When "Allow USB debugging" popup is displayed, tick "Always allow this computer" and tap "OK".



4. Enter DJI Lightbridge setting menu, tap "Video Source Setting" and select either "HD gimbal" or "HDMI/AV" as video source base on your camera profile.

5. Or connect to a monitor using the HDMI output.



- ⚠ Note that 1st level voltage warning is disabled now when using with NAZA-M V2.**

APP SETTINGS



[1] Channel Setting

Mode	Description
Auto	Automatically select the least interfered channel among the 32 channels. [Recommended]
Manual	Manually select the channel. [Use cautiously]

! Manually select the channel when the performance of auto-selected channel is not optimum. Shorter yellow bar indicates better channel signal quality. Once the channel is selected manually, it cannot auto switch, use this function cautiously.



[2] Resolution Setting

Resolution	Quality	Distance	Remark
HD Distance Priority	★	★★★★★	720p60
HD Quality Priority	★★	★★★★	720p60-Recommended option
Full HD Distance Priority	★★★	★★	1080i60
Full HD Quality Priority	★★★★★	★	1080i60

It is recommended to select HD Quality Priority regardless of choosing mobile device or HDMI monitor as output. However, this option is not available in dual video sources mode.

[3] Master-Slave Mode Setting

When single air system is pairing with more than one ground system. Master-Slave setting is required. Master ground system can display video and relay control signal to the aircraft; slave ground system can only display video. Steps to setup: A) Tap "Master-Slave" option in DJI Lightbridge app of the master ground system, make a note of the master ID; B) Tap "Master-Slave" option in slave ground system, enter master ID to connect.



[4] Video Source Setting

Dual video source input mode is available when connecting air system to a DJI HD gimbal. An extra video source input (HDMI / AV) can be selected as video input. Ground system can select either of the video source to display.

Single / Dual Video Source Setting	Video Source Input	Remark
Single Video	DJI HD gimbal	Only DJI gimbal video signal will be transmitted to the ground system.
	HDMI/AV	Only HDMI/AV video signal will be transmitted to the ground system.
Dual Video Source	DJI HD gimbal	Both DJI HD gimbal and HDMI/AV video signals are transmitted to the ground system. But only DJI HD gimbal video will be displayed.
	HDMI/AV	Both DJI HD gimbal and HDMI/AV video signals are transmitted to the ground system. But only HDMI/AV will be displayed.

⚠ Transmission distance will be reduced in Dual Video Source mode.

SUPPORTED VIDEO INPUT RESOLUTION

Camera	Resolution / Format	Support	Remark
GOPRO HERO3+	1080S-48	N	Air system restart is required when switching between the resolution settings.
	1080S-30	N	
	1080S-24	N	
	1080-24	N	
	1080-30	Y	
	1080-48	N	
	1080-60	Y	
	720S-48	N	
	720S-60	N	
	720S-100	N	
	720-60	Y	
	720-120	Y	
	GOPRO HERO3	1080-24	
1080-30		Y	
1080-48		N	
1080-60		Y	
720-60		Y	
720-120		Y	

The above supported list is non-exhausted. Your device may be supported if it can output the supported format above.

Support HD gimbal and AV input.

SUPPORTED REMOTE CONTROLLER

Brand	Model
FUTABA	T8FG
	T14SG
	T10CHG
	T10CG
	T8J
JR	DSX9
	DSX11
SPEKTRUM	DX61
	DX18
DEVENTION	DEVO-10

The above supported list is non-exhausted. Your device may be supported if it follows the same PPM signal standard as the devices above.

www.dji.com