

# CRYSTALSKY

**CS785/CS785U/CS550**

User Manual

V1.0 2018.08



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## Disclaimer

Congratulations on purchasing your new DJI™ product. The information in this document affects your safety and your legal rights and responsibilities. Read this entire document carefully to ensure proper configuration before use. Failure to read and follow instructions and warnings in this document may result in serious injury to yourself or others, damage to your DJI product, or damage to other objects in the vicinity. This document and all other collateral documents are subject to change at the sole discretion of DJI. For up-to-date product information, visit <http://www.dji.com> and click on the product page for this product.

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## Warning

1. The Charging Hub is only compatible with the DJI specified Charger. DO NOT attempt to use the Charging Hub with any other battery charger.
2. The Charging Hub is only compatible with the DJI specified Intelligent Battery. DO NOT attempt to use the Charging Hub with any other battery.
3. Ensure to press the Battery Release Button before remove the battery.
4. DO NOT attempt to touch the metal terminals on the Power Adapter.
5. Clean the metal terminals with a dry, clean cloth if there is any noticeable buildup of dirt.

## Introduction

CrystalSky™ is designed specifically for aerial photography and can display a clear image under different lighting conditions with built-in light-sensitive sensor. Support DJI MAVIC™, OSMO™ series (Osmo Mobile excluded), INSPIRE™ series, PHANTOM™ 4 series, Phantom 3 series (Phantom 3 Professional, Phantom 3 Advanced) and MATRICE™ series.\* Use the built-in DJI GO™/DJI GO 4 app to control the gimbal, camera and other features of your flight system. The app also comes with a map, a store, and a user center for configuring your aircraft and sharing your content.

\* Support for DJI devices will be added as testing and development continues. Visit the DJI CrystalSky product page on [dji.com](http://dji.com) for a complete list.

## In the Box

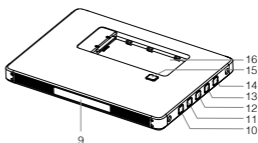
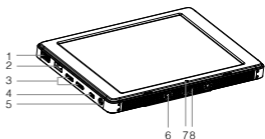
- CrystalSky Monitor ×1
- Intelligent Battery ×2 (CS785/CS785U) or ×1 (CS550)
- Intelligent Battery Charging Hub (WCH2) ×1
- CrystalSky User Guide ×1
- Intelligent Battery Safety Guidelines ×1
- Mounting Bracket (Optional) ×1
- Hood (Optional) ×1

\* Optional parts can be purchased separately at the official DJI Online Store.

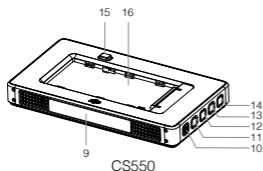
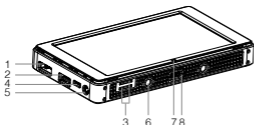
## Overview

### CrystalSky Monitor

- HDMI Port**  
Output HDMI video signal.
- USB Port**  
Supported extended device, e.g. U disk.
- Micro SD Card Slot**  
Provides extra storage space for the display device, maximum card size is 128 GB.
- Micro USB Port**  
Use a Micro USB cable to connect to the remote controller when in use, or to the PC to configure parameters via DJI ASSISTANT™ 2. To update aircraft firmware, please use the USB OTG cable.



CS785 (Highlight version) /  
CS785U (Ultra-bright version)



CS550

- Headphone Jack**
- Mounting Screw Hole**
- Light-sensitive Port**  
Built-in light-sensitive sensor.
- Type-C USB2.0 HS Port**
- Built-in GNSS**
- Power Button**
- Custom Button**
- Setting Button**
- Custom Button**
- Back Button**
- Battery Release Button**
- Battery Slot**

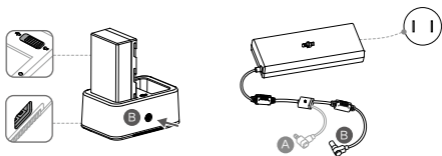
## Usage

### Charging the Battery

Use the Inspire 2 charger for illustration.\*

Place the battery into the standard charging hub, and connect connector B of the battery charger to the charging hub, then connect the battery charger to a power outlet (100-240V, 50/60Hz). The Charging Hub will intelligently charge batteries in sequence according to battery power levels from high to low. The buzzer will begin beeping when charging is complete. Remove the battery or turn off the Buzzer Switch to stop it.


The Status LED blinks green when charging and turns solid green when fully charged.



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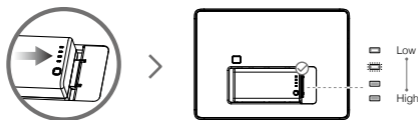
**!** DO NOT charge the Intelligent Flight battery together with the Intelligent Battery when using the Inspire 2, Phantom 4 charger or Inspire 2 Car Charger .

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-  • USB power supply port can be used to charge a mobile device of 5V/2A.
  - Refer to the Charging Hub (WCH2) User Guide for more details.
- 

### Mounting the Battery

Put the battery into the Battery Slot, then slide it to the end until you hear a click.

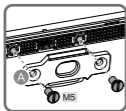


Press the Battery Level Button once to check the battery level.

- 
- !** • Press the Battery Release Button before removing the battery.
  - The Intelligent Battery can charge the built-in battery after mounting, which may reduce the operation time of the Intelligent Battery. The built-in battery can keep the monitor standby for a short period without the Intelligent Battery, so you can start the monitor fast once get the Intelligent Battery mounted.
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\*Use the CrystalSky CS785 for installation illustration.

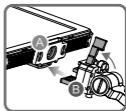
## Mounting the Monitor



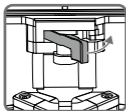
Mount Part A of the Mounting Bracket's to the Monitor.



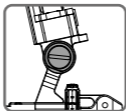
Mount Part B to the Remote Controller.



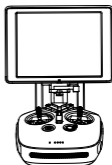
Ensure that Part B is unlocked. Install Part B into Part A.




Lock the Mounting Bracket.



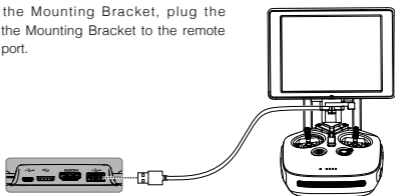
Use a coin to adjust the tightness of the pitch axis.



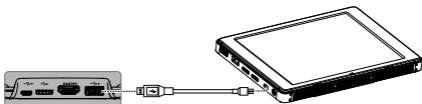
 DO NOT obstruct the built-in GNSS during use.

## Connect the Monitor

When using the Mounting Bracket, plug the connector on the Mounting Bracket to the remote controller USB port.



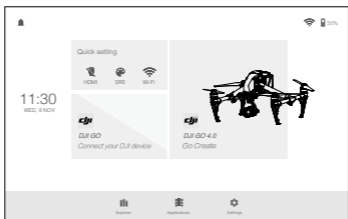
When using without the Mounting Bracket, connect the Monitor to the remote controller via a Micro USB cable.



 DO NOT use the Type-C USB 2.0 HS port and Micro USB ports as the Micro USB port will not work.

## DJI GO/GO 4 App

Press the Power Button until the Monitor powers on, then enter the DJI GO/GO 4 app. Use the built-in DJI GO/DJI GO 4 app to control the gimbal, camera and other features of your flight system. The app also comes with a map, a store, and a user center, for configuring your aircraft and sharing your content.



\* This image is for reference only. Please refer to the actual user interface.

## Specifications

Monitor		
Model	CS785/ CS785U	CS550
Weight	Approx. 425 g	Approx. 228 g
Dimensions (without battery)	208.6x147.8x17 mm	153.76x84.94x19 mm
Dimensions (with battery)	208.6x147.8x34.75 mm	153.76x84.94x39.6 mm
Touch Screen	7.85", IPS screen, supporting multi-point touch	5.5", IPS screen, supporting multi-point touch
Resolution	2048x1536	1920x1080
Brightness	CS785: 1000 cd/m <sup>2</sup> CS785U: 2000 cd/m <sup>2</sup>	1000 cd/m <sup>2</sup>
Storage	CS785: ROM 64GB CS785U: ROM 128GB	ROM 32GB
Built-in App	DJI GO, DJI GO 4	
Operating System	Android 5.1	
Ports	HDMI (Supported 3840x2160 output), Dual SD card slots, USB, Micro USB, Type-C USB2.0 HS	
Network	WIFI frequency band: 2400-2483.5MHz; 5150-5250MHz*; 5725-5850MHz* Protocol: 802.11b, 802.11g, 802.11n (HT20), 802.11a Supports 4G dongle	
EIRP (dBm)	2400-2483.5MHz: CE< 20dBm, FCC<30dBm, SRRC<20dBm; 5150-5250MHz: CE<23dBm, FCC<30dBm; 5725-5850MHz: CE< 14dBm,FCC<30dB, SRRC<30dBm	
GNSS	GPS/GLONASS	
Built-in Modules	Gyroscope, Compass, Speaker, Light-sensitive Sensor, Microphone	

Built-in Battery	980 mAh, 3.7 V
4K Decoding Capability	H.264: 4K30p, H.265: 4K60p
Operating Temperature Range	-4° to 104° F (-20° to 40°C)
Compatible DJI Products**	Mavic, Osmo series (Osmo Mobile excluded), Inspire, Matrice, Phantom 3 (Phantom 3 Professional, Phantom 3 Advanced) and Phantom 4 series
<b>Intelligent Battery</b>	
Model	WB37-4920mAh-7.6V
Capacity	4920 mAh
Voltage	7.6 V
Battery Type	LiPo battery
Energy	37.39 Wh
Max Charging Power	55 W
Operating Temperature Range	-4° to 104° F (-20° to 40°C)
Storage Temperature	Less than 3 months: -18.4° to 104° F (-28°C to 45°C) More than 3 months: 71.6° to 86° F (22°C to 30°C)
Charging Temperature	41° to 104° F ( 5° to 40°C)
Net Weight	Approx. 170 g
Dimensions	90x45x26 mm
<b>Charging Hub</b>	
Model	WCH2
Input Voltage	17.3 - 26.2 V
Output Voltage and Current	8.7 V, 6 A; 5 V, 2 A
Compatible Battery Charger	Inspire 2 Battery Charger (IN2C180) Inspire 2 Battery Charger (ADE018) Inspire 2 Car Charger (C6S90-2) Inspire 1 Battery Charger (A14-100P1A) Inspire 1 Battery Charger (ADE018) Inspire 1 Car Charger (C6S90) Phantom 4 Series Battery Charger (PH4C100) Phantom 4 Car Charger (C6S90) Phantom 3 Professional Battery Charger (ADE019) Phantom 3 Car Charger (C4S90) Phantom 3 57W Battery Charger (A14-057N1A) *** Osmo 57W Battery Charger (A14-057N1A) ***
Weight	138 g
Operating Temperature	41° to 104° F ( 5° to 40°C)
Charging Time	71 min (Single)

\* To comply with local regulations, the operation frequencies of both 5150-5250MHz and 5725-5850MHz are not available in some countries.

\*\* All Mavic and Osmo series products require a Mounting Bracket (purchased separately from the official DJI Online Store) to be compatible with CrystalSky. Note that only CS550 is compatible with Mavic and Osmo series products..

\*\*\*The 57 W battery charger does not supply enough power to charge batteries and other devices connected to the USB port simultaneously. DO NOT use the USB port to charge another device when charging batteries.







## Appendix

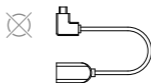
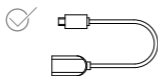
### Mounting the Remote Controller Bracket for Mavic/Spark

#### In the Box

This bracket must be mounted to the remote controller to use CrystalSky with a Mavic or Spark \*. The parts below are included in the box.

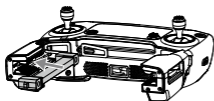
			
Part A x1	Part B x1	Part C x1	M5x2

\* For Spark, a USB OTG cable (not included) is required for connection.

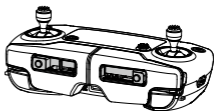


#### Mounting the CrystalSky on to the Remote Controller

A DJI Mavic remote controller and CrystalSky 5.5 inch monitor have been used in the illustration below as an example.



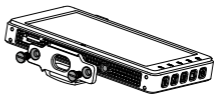
Unfold the remote controller's handles and attach Part C.



Fold the remote controller's handles.



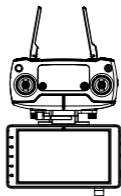
Mount Part B and connect the cable to the USB port on the remote controller.



Mount Part A to the CrystalSky.



Ensure that Part B is unlocked.  
Mount Part B to Part A.

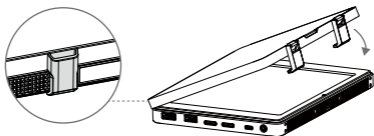


Lock the Mounting Bracket.

### Mounting the CrystalSky Monitor Hood (For CS785/CS785U)

This hood shields your CrystalSky monitor screen from direct sunlight to give you a clearer view.

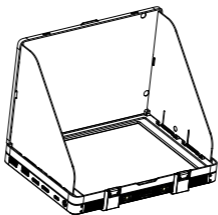
1. Install the CrystalSky Monitor Hood onto the monitor making sure it fits and attaches to the screen correctly.



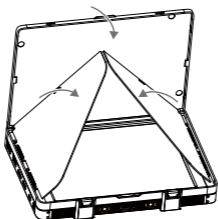
2. Close the lock and make sure it is securely tightened.



3. Open the cover to access the screen.



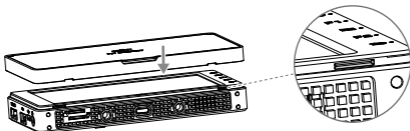
4. Close the cover after use.



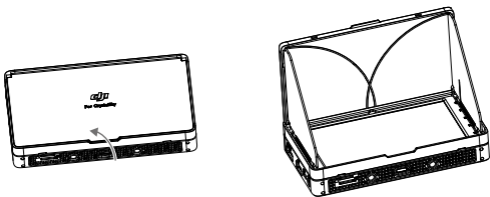
### Mounting the CrystalSky Monitor Hood (For CS550)

This hood shields your CrystalSky monitor screen from direct sunlight to give you a clearer view.

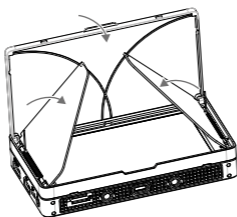
1. Install the CrystalSky Monitor Hood onto the monitor making sure it fits and attaches to the screen correctly.



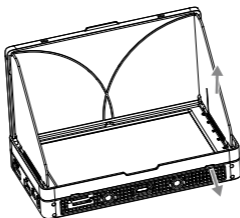
2. Open the cover to access the screen.



3. Close the cover after use.



4. The monitor hood must be open before you remove it. Apply gentle force in the direction of the arrows below when removing the monitor.



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<http://www.dji.com/support>

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