

SONY**< FX3 CINEMA LINE FULL-FRAME CAMERA****FULL SPECIFICATIONS & FEATURES**

General	CAMERA TYPE Interchangeable lens digital camera	LENS MOUNT E-mount
Size & Weight	WEIGHT (MAIN UNIT ONLY) (APPROX.) 715 g (1 lb 9.3 oz) (with battery and memory card included), 640 g (1 lb 6.6 oz) (body only) WEIGHT (INCLUDING SUPPLIED ACCESSORIES) (APPROX.) 1.015 kg (2 lb 3.8 oz) (with XLR Handle, battery pack, SD card)	DIMENSIONS (W X H X D) (INCLUDING SUPPLIED ACCESSORIES) (APPROX.) 1.015 kg (2 lb 3.8 oz) (with XLR Handle, battery pack, SD card) DIMENSIONS (W X H X D) (BODY WITHOUT PROTRUSIONS) (APPROX.) 129.7 mm x 77.8 mm x 84.5 mm (5 1/8 x 3 1/8 x 3 3/8 inches) (body without protrusions)
Power	POWER CONSUMPTION [Movie] Approx. 7.3W (with FE 28-70mm F3.5-5.6 OSS lens attached), [Still image] Approx. 3.4W (with FE 28-70mm F3.5-5.6 OSS lens attached)	BATTERY OPERATING TIME Approx. 95 min (Actual recording, CIPA standard) , Approx. 135 min (Continuous recording, CIPA standard), Approx. 580 shots (still images, CIPA standard)
Operation	OPERATING TEMPERATURE 0°C to 40°C, 32°F to 104°F	STORAGE TEMPERATURE -20°C to +55°C, -4°F to +131°F
Recording Format (Video)	XAVC HS [XAVC HS 4K] XAVC HS 4K 59.94p/50p 200Mbps 4:2:2 10bit MPEG-H HEVC / H.265, XAVC HS 4K 59.94p/50p 150Mbps 4:2:0 10bit MPEG-H HEVC / H.265, XAVC HS 4K 59.94p/50p/23.98p 100Mbps 4:2:2 10bit MPEG-H HEVC / H.265, XAVC HS 4K 59.94p/50p 75Mbps 4:2:0 10bit MPEG-H HEVC / H.265, XAVC HS 4K 59.94p/50p 45Mbps 4:2:0 10bit MPEG-H HEVC / H.265, XAVC HS 4K 23.98p 100Mbps 4:2:0 10bit MPEG-H HEVC / H.265, XAVC HS 4K 23.98p 50Mbps 4:2:2 10bit MPEG-H HEVC / H.265, XAVC HS 4K 23.98p 50Mbps 4:2:0 10bit MPEG-H HEVC / H.265, XAVC HS 4K 23.98p 30Mbps 4:2:0 10bit MPEG-H HEVC / H.265, XAVC HS 4K 119.88p/100p 280Mbps 4:2:2 10bit MPEG-H HEVC / H.265, XAVC HS 4K 119.88p/100p 200Mbps 4:2:0 10bit MPEG-H HEVC / H.265 XAVC S [XAVC S 4K] XAVC S 4K 59.94p/50p 200Mbps 4:2:2 10bit MPEG-4 AVC / H.264, XAVC S 4K 59.94p/50p 150Mbps 4:2:0 8bit MPEG-4 AVC / H.264, XAVC S 4K 29.97p/25p 140Mbps 4:2:2 10bit MPEG-4 AVC / H.264, XAVC S 4K 23.98p 100Mbps 4:2:2 10bit MPEG-4 AVC / H.264, XAVC S 4K 29.97p/25p/23.98p 100Mbps 4:2:0 8bit MPEG-4 AVC / H.264, XAVC S 4K 29.97p/25p/23.98p 60Mbps 4:2:0 8bit MPEG-4 AVC / H.264, XAVC S 4K 119.88p/100p 280Mbps 4:2:2 10bit MPEG-4 AVC / H.264, XAVC S 4K 119.88p/100p 200Mbps 4:2:0 8bit MPEG-4 AVC / H.264, [XAVC S HD] XAVC S HD 59.94p/50p/29.97p/25p/23.98p 50Mbps 4:2:2 10bit MPEG-4 AVC / H.264, XAVC S HD 59.94p/50p/29.97p/25p/23.98p 50Mbps 4:2:0 8bit MPEG-4 AVC / H.264, XAVC S HD 59.94p/50p 25Mbps 4:2:0 8bit MPEG-4 AVC / H.264, XAVC HD 29.97p/25p 16Mbps 4:2:0 8bit MPEG-4 AVC / H.264, XAVC S HD 119.88p/100p 100Mbps 4:2:0 8bit MPEG-4 AVC / H.264, XAVC S HD 119.88p/100p 60Mbps 4:2:0 8bit MPEG-4 AVC / H.264.	XAVC S-I [XAVC S-I 4K] XAVC S-I 4K 59.94p 600Mbps 4:2:2 10bit MPEG-4 AVC / H.264, XAVC S-I 4K 50p 500Mbps 4:2:2 10bit MPEG-4 AVC / H.264, XAVC S-I 4K 29.97p 300Mbps 4:2:2 10bit MPEG-4 AVC / H.264, XAVC S-I 4K 25p 250Mbps 4:2:2 10bit MPEG-4 AVC / H.264, XAVC S-I 4K 23.98p 240Mbps 4:2:2 10bit MPEG-4 AVC / H.264, [XAVC S-I HD] XAVC S-I HD 59.94p 222Mbps 4:2:2 10bit MPEG-4 AVC / H.264, XAVC S-I HD 50p 185Mbps 4:2:2 10bit MPEG-4 AVC / H.264, XAVC S-I HD 29.97p 111Mbps 4:2:2 10bit MPEG-4 AVC / H.264, XAVC S-I HD 25p 93Mbps 4:2:2 10bit MPEG-4 AVC / H.264, XAVC S-I HD 23.98p 89Mbps 4:2:2 10bit MPEG-4 AVC / H.264.
Recording Format (Audio)	RECORDING FORMAT (AUDIO) LPCM 2ch (48kHz 16bit), LPCM 2ch (48kHz 24bit), LPCM 4ch (48kHz 24bit), MPEG-4 AAC-LC 2ch	
Recording Frame Rate	XAVC HS [XAVC HS 4K] 3840x2160/119.88p, 100p, 59.94p, 50p, 23.98p XAVC S [XAVC S 4K] 3840x2160/119.88p, 100p, 59.94p, 50p, 29.97p, 25p, 23.98p, [XAVC S-I HD] 1920x1080/59.94p, 50p, 29.97p, 25p, 23.98p	XAVC S-I [XAVC S-I 4K] 3840x2160/59.94p, 50p, 29.97p, 25p, 23.98p, [XAVC S-I HD] 1920x1080/59.94p, 50p, 29.97p, 25p, 23.98p,

Recording/Playback Time	<p>XAVC HS</p> <p>[XAVC HS 4K] 59.94p/50p 200M When using CEA-G160T (160 GB) Approx. 85 minutes, When using CEA-G80T (80GB) Approx. 40 minutes, 59.94p/50p 150M When using CEA-G160T (160 GB) Approx. 110 minutes, When using CEA-G80T (80GB) Approx. 55 minutes, 59.94p/50p 100M When using CEA-G160T (160 GB) Approx. 170 minutes, When using CEA-G80T (80GB) Approx. 80 minutes, 59.94p/50p 75M When using CEA-G160T (160 GB) Approx. 220 minutes, When using CEA-G80T (80GB) Approx. 100 minutes, 59.94p/50p 45M When using CEA-G160T (160 GB) Approx. 340 minutes, When using CEA-G80T (80GB) Approx. 160 minutes</p>	<p>PROXY AUDIO</p> <p>XAVC Proxy: AAC-LC, 128kbps, 2 channels</p>
RAW Output	<p>RAW OUTPUT</p> <p>HDMI: 4264 x 2408 (59.94p/50p/29.97p/25p/23.98p), 16bit</p>	<p>PROXY VIDEO</p> <p>1280 x 720 (Approx. 6Mbps), 1920 x 1080 (Approx. 9Mbps), 1920 x 1080 (Approx. 16Mbps)</p>
Other Video Function	<p>VIDEO FUNCTIONS</p> <p>Audio Level Display, Audio Rec Level, TC/UB, Creative Look, Gamma Display Assist, PAL/NTSC Selector</p>	
Camera Section	<p>SENSOR TYPE</p> <p>35mm full frame (35.6 x 23.8 mm), Exmor R CMOS sensor</p> <p>PIXELS</p> <p>Approx. 10.2 megapixels (effective) for movies, Approx. 12.1 megapixels (effective) for Still images, Approx. 12.9 megapixels (total)</p>	<p>SENSITIVITY</p> <p>[Movie] ISO 80-102400 equivalent (ISO numbers up to ISO 409600 can be set as expanded ISO range.), AUTO (ISO 80-12800, selectable lower limit and upper limit), [Still image] ISO 80-102400 (ISO numbers up from ISO 400 to ISO 409600 can be set as expanded ISO range.), AUTO (ISO 80-12800, selectable lower limit and upper limit)</p> <p>SHUTTER SPEED</p> <p>Movie: 1/8000 to 1/4 (1/3 steps), up to 1/60 in AUTO mode (up to 1/30 in Auto slow shutter mode) Still image: 1/8000 to 30 sec, Bulb</p>
Slow & Quick Motion	<p>XAVC HS</p> <p>XAVC HS 4K: [NTSC mode] 1fps, 2fps, 4fps, 8fps, 15fps, 30fps, 60fps, 120fps, [PAL mode] 1fps, 2fps, 3fps, 6fps, 12fps, 25fps, 50fps, 100fps</p> <p>XAVC S</p> <p>XAVC S 4K: [NTSC mode] 1fps, 2fps, 4fps, 8fps, 15fps, 30fps, 60fps, 120fps, [PAL mode] 1fps, 2fps, 3fps, 6fps, 12fps, 25fps, 50fps, 100fps, XAVC S HD: [NTSC mode] 1fps, 2fps, 4fps, 8fps, 15fps, 30fps, 60fps, 120fps, 240fps, [PAL mode] 1fps, 2fps, 3fps, 6fps, 12fps, 25fps, 50fps, 100fps, 200fps</p>	<p>XAVC S-I</p> <p>XAVC S-I 4K: [NTSC mode] 1fps, 2fps, 4fps, 8fps, 15fps, 30fps, 60fps, 120fps, [PAL mode] 1fps, 2fps, 3fps, 6fps, 12fps, 25fps, 50fps, 100fps, XAVC S-I HD: [NTSC mode] 1fps, 2fps, 4fps, 8fps, 15fps, 30fps, 60fps, 120fps, 240fps, [PAL mode] 1fps, 2fps, 3fps, 6fps, 12fps, 25fps, 50fps, 100fps, 200fps</p>
White Balance	<p>WHITE BALANCE MODES</p> <p>Auto / Daylight / Shade / Cloudy / Incandescent / Fluorescent / Flash / Underwater / Color Temperature (2500 to 9900K) & color filter / Custom</p>	
Gamma	<p>GAMMA CURVE</p> <p>Off / PP1-PP11, Parameters: Black level, Gamma (Movie, Still, S-Cinetone, Cine1-4, ITU709, ITU709 [800%], S-Log2, S-Log3, HLG, HLG1-3), Black Gamma, Knee, Color Mode, Saturation, Color Phase, Color Depth, Detail, Copy, Reset</p>	
Latitude	<p>LATITUDE</p> <p>15+ stop (S-Log3)</p>	

Focus System	<p>TYPE</p> <p>Fast Hybrid AF (phase-detection AF / contrast-detection AF)</p> <p>FOCUS POINT</p> <p>[Movie] 627 points, [Still image] 35mm full frame: 759 points (phase-detection AF)</p> <p>SENSITIVITY RANGE</p> <p>EV-6 to EV20 (ISO100 equivalent with F2.0 lens attached)</p>	<p>FOCUS MODE</p> <p>[Movie] AF-C, MF, [Still image] AF-A (Automatic AF), AF-S (Single-shot AF), AF-C (Continuous AF), DMF (Direct Manual Focus), Manual Focus</p> <p>FOCUS AREA</p> <p>[Movie] Wide / Zone / Center / Flexible Spot / Expanded Flexible Spot, [Still image] Wide / Zone / Center / Flexible Spot / Expanded Flexible Spot / Tracking</p> <p>OTHER FOCUS FEATURES</p> <p>Eye AF ([Movie] Human (Right/Left Eye Select), ([Still image] Human (Right/Left Eye Select) / Animal), Face detection (Face Priority in AF, Face Priority in Multi Metering, Regist. Faces Priority), [Movie] AF Subj. Shift Sensitivity, [Movie] AF Transition Speed, [Still image] Focus Magnifier (35mm full frame: 2.1x / 4.1x, APS-C: 1.5x / 3.0x)</p>
Exposure Control	<p>METERING SENSITIVITY</p> <p>EV-3 to EV20 (at ISO100 equivalent with F2.0 lens attached)</p>	<p>EXPOSURE MODES</p> <p>[Movie] Programmed AE (P) / Aperture priority (A) / Shutter-speed priority (S) / Manual (M) / Flexible Exp. Mode, [Still images] AUTO (iAuto), P, A, S, M</p>
Recording (Still image)	<p>RECORDING FORMAT</p> <p>JPEG (DCF Ver. 2.0, Exif Ver. 2.32, MPF Baseline compliant), HEIF (MPEG-A MIAF compliant), RAW (Sony ARW 4.0 format compliant)</p>	<p>IMAGE SIZE</p> <p>Image size [3:2] 35mm full frame L: 12M, M: 5.1M, S: 3.0M, APS-C L: 5.1M, M: 3.0M, S: 1.3M, Image size [4:3] 35mm full frame L: 11M, M: 4.6M, S: 2.7M, APS-C L: 4.6M, M: 2.7M, S: 1.1M Image size, [16:9] 35mm full frame L: 10M, M: 4.3M, S: 2.6M, APS-C L: 4.3M, M: 2.6M, S: 1.1M, Image size [1:1] 35mm full frame L: 8M, M: 3.4M, S: 2.0M, APS-C L: 3.4M, M: 2.0M, S: 0.8M</p>
Playback	<p>PLAYBACK FUNCTIONS</p> <p>Index view, Folder selection (Date / Still / Movie), Photo capture, 4Ch audio monitoring, Auto Review (stills), Image orientation (stills), Protect (stills), Rating (stills), Display as Group (stills)</p>	
Interface	<p>AUDIO INPUT</p> <p>3.5 mm Stereo minijack, XLR handle: [INPUT1][INPUT2] XLR/TRS-type 3-pin (female) (x2), line/mic/mic +48V selectable, Mic Reference -40 to -60 dBu / [INPUT3] 3.5 mm Stereo minijack</p> <p>USB</p> <p>USB Type-C (x1, SuperSpeed USB 5Gbps (USB 3.2) compatible), Multi/Micro USB (x1)</p> <p>HEADPHONE OUTPUT</p> <p>Yes (3.5 mm Stereo minijack)</p> <p>SPEAKER OUTPUT</p> <p>Built-in, monaural</p>	<p>HDMI OUTPUT</p> <p>HDMI jack (Type-A), YCbCr 4:2:2 10bit / RGB 8bit</p> <p>MULTI INTERFACE SHOE</p> <p>With Digital Audio Interface</p> <p>BLUETOOTH</p> <p>Bluetooth Standard Ver. 5.0 (2.4GHz band))</p>
Media	<p>MEDIA TYPE</p> <p>CFexpress Type A / SD card (x2), Simult. Rec, Sort, Auto Switch Media, Copy</p>	
Monitoring	<p>LCD</p> <p>7.5cm (3.0-type) type, approx. 1.44M dots, Opening Angle: Approx. 176 deg., Rotation Angle: Approx. 270 deg.</p>	
Built-in Microphone	<p>BUILT-IN MICROPHONE</p> <p>Built-in, stereo</p>	
File System	<p>FILE SYSTEM</p> <p>FAT12, 16, 32, exFAT</p>	
Zoom	<p>ZOOM FUNCTION</p> <p>Zoom ring rotate, Clear Image Zoom ([Movie] Approx. 1.5x (4K), Approx. 2x (HD) [Still image] Approx. 2x), Digital zoom ([Movie] 35mm full frame: approx. 4x, APS-C: approx. 4x, [Still image] 35mm full frame: L: approx. 4x, M: approx. 6.1x, S: approx. 8x, APS-C: L: approx. 4x, M: approx. 5.2x, S: approx. 8x), Smart zoom ([Still image] 35mm full frame: M: approx. 1.5x, S: approx. 2x, APS-C: M: approx. 1.3x, S: approx. 2x)</p>	

Still image function**SHUTTER**

Mechanical shutter / Electronic shutter

DRIVE MODES

Single Shooting, Continuous shooting (Hi+/Hi/Mid/Lo selectable), Self-timer, Self-timer (Cont.), Bracket: Single, Bracket: Cont., White Balance bracket, DRO bracket

CONTINUOUS SHOOTING SPEED

Hi+: 10 fps, Hi: 8 fps, Mid: 6 fps, Lo: 3 fps

NOISE REDUCTION

Long exposure NR: On/Off, available at shutter speeds longer than 1 sec., High ISO NR: Normal / Low / Off

FLASH CONTROL

Sony α System Flash compatible with Multi Interface Shoe, attach the shoe adaptor for flash compatible with Auto-lock accessory shoe, Flash sync speed 1/250 sec.

OTHER STILL IMAGE FUNCTION

Electronic Front Shutter Curtain, Silent Shooting, Anti-flicker Shoot

Image Stabilization**TYPE**

Image Sensor-Shift mechanism with 5-axis compensation (Compensation depends on lens specifications)

MODE

[Movie] Active / Standard / Off, [Still image] On / Off

COMPENSATION EFFECT (STILL IMAGES)

5.5 stops (based on CIPA standard. Pitch/yaw shake only. With Planar T* FE 50mm F1.4 ZA lens mounted. Long exposure NR off.)

Custom Function**CUSTOM FUNCTION**

Custom key settings, My Menu, My Dial Settings, Reg. Custom Shoot Set

Lens Compensation**LENS COMPENSATION**

Peripheral Shading, Chromatic Aberration, Distortion

Wi-Fi/NFC**SUPPORTED FORMAT**

IEEE 802.11a/b/g/n/ac

FREQUENCY BAND

2.4GHz band/5GHz band¹

SECURITY

WEP/WPA-PSK/WPA2-PSK

NFC

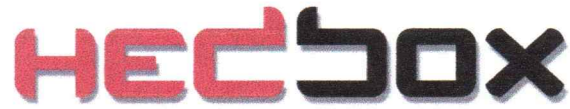
NFC Forum Type 3 Tag compliant

FTP Transfer**FTP TRANSFER**

Wired LAN (USB-LAN), USB Tethering, Wi-Fi

Supplied Accessories**SUPPLIED ACCESSORIES**

Accessory shoe cap, Accessory shoe kit, Battery Charger BC-QZ1, Body cap, Handle shoe cap, Power cord, Rechargeable Battery NP-FZ100, USB-A to USB-C cable (USB 3.2), XLR handle unit



RP-DC50

HEDBOX RP-DC50 DIGITAL DUAL BATTERY CHARGER

OVERVIEW:

The Hedbox RP-DC50 Dual Battery Charger features a large backlit LCD screen with readouts that give you a clear understanding of the status information of any connected battery, USB output and DC 12V input.

Dual charging plates allow for either one or two batteries to be charged simultaneously, while an Intelligent Control MCU can automatically identify the voltage and number of batteries fitted to the charger and prevent overcharging regardless of the operating mode selected. Fully interchangeable battery plates allow the RP-DC50 to be used to charge virtually any type of battery. No plates are included with the RP-DC50 but Hedbox have an extensive array comprising no less than 37 different plate types supporting hundreds of types of batteries.

Please note: Battery Plate not included in the box and sold separately. Please check Battery Plate compatibility using the Hedbox Battery Plate Finder on www.hedbox.com.

FEATURES:

Implemented Back-light

With an implemented back-light in the large LCD screen, the readout function is enabled in the dark, giving you the possibility to use the charger at any place and at any time.

Large LCD Display Screen

A large LCD screen provides clear, accurate, and precise display of the charging status. The USB output and DC 12V input display charge mode provide a clear insight into the way in which the charging mode is used to charge your professional battery. With an implemented backlight, the readout function is enabled in the dark.

Dual Bay Charging Option

The charger have possibility to charge One or Two Batteries Simultaneously in the same time. Intelligent Control MCU can automatically identify the voltage and number of Batteries that is put on the charger, going intelligent charge when being charging, and prevent overcharge, depending if you chose Boost or standard charging mod on Boost push button.

Charging Technologies

Intelligent charging systems integrate the control systems within the charger and the electronics within the battery to allow precision control over the charging process. As a safety precaution with high-capacity batteries, a pre-charging stage is used. The charging cycle is initiated with a low current. If there is no corresponding rise in the battery voltage, it indicates that there is possibly a short circuit in the battery (zero volt activation). Constant current/constant voltage (CC/CV) charging mode is an effective way to charge lithium batteries. When a lithium battery is nearly empty, we take constant current to charge it. Charger CPU automatically adjusts charging current to be lower than the max charging current that the battery can accept. With constant charging, the voltage of the battery rises slowly until it reaches a maximum voltage at which point the charger switches the charging method to "constant voltage" and reduces the charging current. When the battery is fully charged, this state is stopped.

Charging Time

Intelligent Control MCU can automatically identify the voltage and number of batteries that are on the charger, and prevent overcharge depending of the charging mode that is selected. In HIGH charging mode, one professional battery like the HED-BP75D with 74.88 Wh will be charged in approximately 3.5 hours. Two HED-BP75D will be charged in approximately 6.5 hours. In LOW mode, the charging time for a single battery is 5.2 hours or 10.2 hours for two batteries.

Boost Charging Mode

Boost Charging Push button provide HIGH speed Charging Mode. In High speed charging Mode, charger provide 1.5A current Power per one battery Slot or 0.8A per two Battery Slots. In standard Charging Mode the current power is 1A per one slot and 0.5A per two slots. When Boost Charging mode is active it will be displayed (with boost charge ico) on the Charger LCD Display, in this charging mod, you can faster charge your battery pack, that will save you time, when you need it, on the field.

In Car Use

With 12V-24V DC power source (a DC 12V Car charger need to order separately) you can use charger and charge your batteries in the Car, Airplane, Bus or any other place where 12V-24V DC power is supplied.

Interchangeable Battery Plates

With easily Interchangeable Battery Plates (They are designed to use only with Digital Chargers model RP-DC50, RP-DC40 and RP-DC30.) Intelligent Charger can be used for all World Brand Battery Models. This Economic Option allows you to Charge many different Batteries, all with one Charger according to the plate model. Charger automatically sets Charging Voltage and the Charging Current for the designed Battery Pack. That leaves no space for charging error! Please note: battery plate sold separately.

For more informations about our complete product range please visit our web site at www.hedbox.com

HECBOX

INCLUDED IN BOX:

- 1 X RP-DC50 DUAL CHARGER
- 1 X 12V IN CAR CABLE
- 1 X 110V ~ 240 POWER SUPPLY CABLE
- 1 X USER MAUNAL (ENGLISH)
- 1X 2 YEAR LIMITED MANUFACTURER'S WARRANTY

SPECIFICATION:

Model :	RP-DC50 Intelligent Dual Digital LCD Battery Charger
AC Power In :	AC 110 – 240V , 50/60Hz
DC Power In :	DC 12 – 24V
Power Consumption :	Max 55W
Standard Power Charging Out :	DC 8.4V – 16.8V 1000mA / Total 500mA / Chanel (auto-change the voltage according to the installed optional charging plate)
Boost Power Charging Out :	DC 8.4V – 16.8V 1500mA / Total 800mA / Chanel (auto-change the voltage according to the installed optional charging plate)
DC Power Input :	DC 12V – 24V / 45W
USB Output :	5V, 10W / 2.1A (Max)
Charging Type :	Ni-CD , Ni-MH , Li-Ion
Operating Temperature :	-20°C to +45°C (-4°F to +113°F)
Dimensions (WxDxH) :	124 x 114 x 445 mm
Weight :	218 g
Charging Method :	RP-DC50 use optional changing plates according to the Battery Pack Manufacturer and Model



For more informations about our complete product range please visit our web site at www.hedbox.com

Li-Ion Battery Pack



HED-FZ100H



**HIGH
LOAD**

HEC50X

User Manual

Compliance Statements

EUROPEAN UNION COMPLIANCE STATEMENTS

Hedbox declares that the radio equipment described in this document comply with the EMC Directive 2014/30/EU & RoHS 2011/65/EU and the amendment directive (EU) 2015/863



European standards:

- EN 55032:2015: Electromagnetic Interference (Emission)
- EN 55035:2017: Electromagnetic Susceptibility (Immunity)

This product is intended for use in the following

Electromagnetic Environments:

- E1 (residential),
- E2 (commercial and light industrial),
- E3 (urban outdoors),
- E4 (controlled EMC environment, ex. TV studio).



WASTE ELECTRICAL AND ELECTRONIC EQUIPMENT (WEEE)

The Waste Electrical and Electronic Equipment (WEEE) mark applies only to countries within the European Union (EU). This symbol on the product means that used electrical and electronic products should not be mixed with general household waste. For proper treatment recovery and recycling, please take this product to designated collection points where it will be accepted.

Ensuring that these batteries are disposed of correctly will help prevent potentially negative consequences for the environment and human health, which could otherwise be caused by inappropriate battery waste handling. The recycling of the materials will help to conserve natural resources. To ensure that the battery will be treated properly, hand over the product at the end of its life to the applicable collection point to recycle electrical and electronic equipment.



- Hand the battery to the applicable collection point to recycle waste batteries.
- For more detailed information about recycling this product or battery, please contact your local Civic Office, your household waste disposal service, or the shop where you purchased the product.

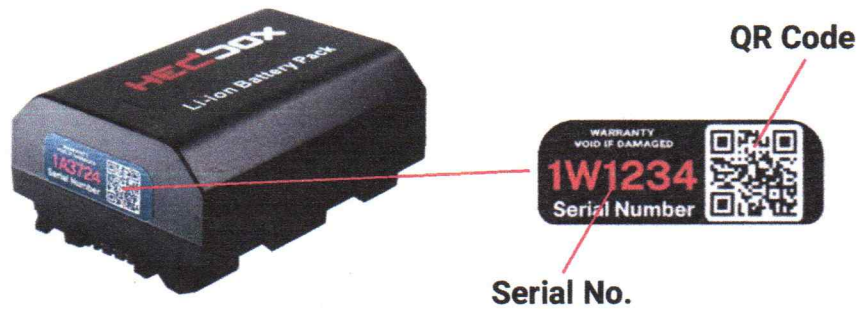
UN38.3 CERTIFICATION FOR SAFE BATTERY TRANSPORTATION

The Li-ion Battery Pack had passed the UN 38.3 test and is classified as non-dangerous goods and also complies with the UN Recommendations on the Transport of Dangerous Goods; IATA Dangerous Goods regulations, and applicable U.S. DOT regulations for the safe transport of Li-ion Battery Pack. The Li-ion Battery Pack is transported according to the PACKING INSTRUCTION 965 Section B of IATA DGR 65rd edition (Proper shipping name and UN ID number: LITHIUM ION BATTERIES, UN No.: UN3480).



Related laws and regulations are, however, subject to change. For detailed conditions regarding the transport of battery packs, please consult your chosen shipping transport company.

Security QR Holo Serial Number Label



Multy level High Security QR Hologram product authentication Label

- The product is marked with the Security QR Holo serial number label on the bottom of the battery.
- The QR Holo Label serves as the primary means for confirming the product's authenticity and originality.
- The label incorporates multi-layer high-definition protection including 365 Nm mark.
- It features a distinctive security holographic protection.
- The product has a unique serialization linked to the global Hedbox database.
- Durable, robust, self-adhesive label material; kindly refrain from attempting to peel off the label.

NOTE:

Attempting to remove the security label will cause it to self-destruct, resulting in the forfeiture of the product warranty in this particular case.

Product registration and verification

To verify your product and proceed with registration, please follow the next steps

- Go and visit the verification section on the Hedbox web page at www.hedbox.com/verification.
- Follow the verification procedure



Specification

Model:	HED-DZ100H
Mount Type:	Sony FZ-100
Battery Capacity (mAh):	2600 mAh
Battery Capacity (Wh):	19,2 Wh
Maximum Load:	Up to 2A / 16W (Max)
Nominal Voltage:	7.4V
Cell Chemistry:	Li-Ion
IATA Transportation:	UN38.3 / UN3480, Class 9
Internal Protection:	Cells Framing Construction System
Recomend Charging On:	RP-DC50, HED-DC55, HED-DC45
Operating Temperature:	-20°C to +45°C (-4°F to +113°F)
Dimensions (W/H/D):	38,7 x 22,7 x 51,7 mm 1.52 x 0.89 x 2.04 "
Net Weight:	95 g 3.15 oz

No reimbursement for the recorded content.

- Compensation for the recording content is not feasible in the event of a malfunction in the battery pack on other devices, preventing shooting or reproduction.
- Please note that design and specifications may change without prior notice.

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Sony FE PZ 16-35mm f/4 G Lens



Caracteristici Tehnice:

Montura Obiectiv : Sony E

Format Obiectiv : Full Frame

Constructie : 13 elemente in 12 grupuri

Distanța minima de focus : 0.28(W)-0.24(T)

Filet filtru : 72mm

Tip Obiectiv : Wide

Gama Obiectiv : Sony G

Obiectiv Fix / Zoom

Zoom : Focala Zoom

16-35mm

Unghi de cuprindere : 107° - 63°

Raport marire : 0.23x

Nr. lamele diafragma : 7, rotunjita

Diafragma Maxima : f/4.0

Plaja diafragme : f/4 -f/22

Tip Focalizare: Autofocus

DIMENSIUNE / GREUTATE:

Diametru maxim : 80.5 mm

Lungime : 88.1 mm

Greutate : 353 g

Cod producator : SELP1635G.SYX

Sony FE PZ 28-135mm f/4 G OSS



Sony FE PZ 28-135mm f/4 G OSS are o constructie solida, este **izolat impotriva prafului si umezelii** si incorporeaza cele mai bune tehnologii optice si mecanice de la Sony.

- Constructia optica avansata aranjeaza **18 elemente in 12 grupuri**. Pentru a atinge un nivel de rezolutie maxim, fara aberatii cromatice vizibile, Sony FE PZ 28-135mm f/4 G OSS include **5 elemente asferice**, **3 elemente cu dispersie scazuta (ED)** si tratamente optice multi-strat.
- **Diafragma cu 9 lamele circulare** produce un bokeh placut, ideal pentru productiile la standarde cinema.
- Sony FE PZ 28-135mm f/4 G OSS dispune de **mecanism de zoom automat** cu functie de reglare a vitezei (8 viteze disponibile) si optiune de a selecta directia inelului. **Motorul SSM** (Super Sonic Wave Motor) asigura precizie si operare silentioasa. Mecanismul diafragmei este cursiv si silentios, perfect pentru cerintele industriei cinema. Sony FE PZ 28-135mm f/4 G OSS pastreaza planul de focalizare in momentul in care modificati distanta focala.
- Alaturi de **diafragma maxima f/4**, constanta pe intreaga plaja focala, mecanismul de **stabilizare de imagine OSS** (Optical SteadyShot) reduce tremuratul camerei cu pana la patru trepte de expunere, un avantaj major pentru filmarile din mana in conditii de lumina scazuta.

SPECIFICATII:

MONTURA Sony E

FORMAT Full Frame de 35 mm

DISTANTA FOCALA 28-135 mm

DISTANTA FOCALA ECHIVALENTA CU 35 MM (APS-C) 42-202,5 mm

GRUPURI/ELEMENTE DE OBIECTIV 12/18

UNGHI DE VIZUALIZARE (35 MM) 75°-18°

UNGHI DE VIZUALIZARE (APS-C) 54°-12°

DIAFRAGMA MAXIMA F4

DIAFRAGMA MINIMA F22

DISCURI DIAFRAGMA 9

DIAFRAGMA CIRCULARA Da

DISTANTA MINIMA DE FOCALIZARE

0,4 (Panoramic)-0,95 m (Teleobiectiv) (FA/FM)/0,95 m (FM completa) (1.31 (Panoramic)-3,12 ft (Teleobiectiv) (FA/FM)/3,12 ft (FM completa))

RAPORT MAXIM AL FACTORULUI DE MARIRE 0,15x

DIAMETRU FILTRU 95mm

STABILIZARE A IMAGINII (STEADYSHOT) Stabilizare optica SteadyShot

SISTEM ZOOM Power zoom / Manual zoom

DIMENSIUNI (ADANCIME X LUNGIME) 105 x 162,5 mm (4 x 6-1/2 in.)

GREUTATE 1215 g (fara suport trepied)

Lexar 256GB Professional GOLD CFexpress 4.0 Type A Memory Card



Specifications

Capacity : **256GB** | 512GB | 640GB | 1TB | 2TB

Interface : PCIe 4.0

Performance : Maximum Read/Write: Up to 1800MB/s/ read, 1650MB/s max speeds

Sustained Write: 1400MB/s sustained write speed1

Operating Temperature : -12°C to 72°C (-10.4°F to 161.6°F)

Storage Temperature : -25°C to 85°C (-13°F to 185°F)

Dimensions (W x L x H) : 20 x 28 x 2.8mm / 0.07"x 0.09"x 0.009"

Weight : 2.5g / 0.005lbs

Form Factor : CFexpress 4.0 Type A

Xcellon CFexpress Type A and UHS-II SD Card Reader



Specifications

Media Card Reader	1x CFexpress Type A 1x SDXC (UHS-II [312 MB/s])
Host Connection	USB-C 3.1/3.2 Gen 2 via Detachable Cable, USB-A Cable Included
Power Source	Bus Powered
Enclosure Material	Aluminum
Cable Length	8.1" / 20.5 cm
Dimensions	3 x 1.9 x 0.5" / 7.62 x 4.83 x 1.27 cm
Weight	2.8 oz / 80 g

Manfrotto 502AH Video Head & MT055XPRO3 Aluminum Tripod Kit



Specifications

Head

Camera Mounting 1/4"-20 & 3/8"-16 Screws (Quick Release Plate: 504PLONG)

Head Type Fluid Head

Base Mount Flat Base with 3/8"-16 Female

Counter Balance Fixed (8.82 lb / 4 kg)

Dimensions Base Diameter: 2.95" / 7.49 cm
Height: 5.12" / 13.00 cm

Pan & Tilt

Drag Control Yes

Vertical Tilt +90° to -80°

General

Load Capacity 22 lb / 10 kg

Accessory Mounting 1x 3/8"-16 Female Thread
2x Pan Handle Fitting

Bubble Level Yes

Weight 3.73 lb / 1.69 kg

DJI RS 5 Combo Gimbal Stabilizer 3 kg Payload



Specificatii

Periferice

Port pentru accesorii

Accesorii seria Ronin (RSA) / Porturi NATO

Orificiu de montare 1/4"-20

Cold Shoe

Port de control al camerei (USB-C)

Port multifunctional (USB-C)

Baterie

Model: BHX715-2150-15.48

Tip: LiPo 4S

Capacitate: 2150 mAh

Energie: 33.29 Wh

Voltaj: 11.2 V - 17.8 V

Intrare USB: 5 V/3 A, 9 V/3 A, 12 V/3 A, 15 V/3 A, 20 V/3 A

Durata maxima de standby: 14 ore*

Timp de incarcare: Aprox. 1 ora**

Temperatura de incarcare recomandata: 5° pana la 40° C

* Timpul de standby de 14 ore este obtinut folosind manerul cu baterie DJI RS BG33. Aceste date au fost masurate cu gimbalul echilibrat, in pozitie orizontala si stationara. Cand gimbalul este in miscare, timpul de functionare va fi redus.

** Masurat la o temperatura ambientala de 25 °C folosind un incarcator de 65 W compatibil cu protocolul PD pentru a incarca complet manerul cu baterie DJI RS BG33.

Conexiuni

Bluetooth 5.0

Port de incarcare (USB-C)

Cerinte pentru aplicatia Ronin

iOS 14.0 sau mai recent; Android 9.0 sau mai recent

Limbi acceptate de ecranul tactil

Engleza, chineza simplificata, chineza traditionala, germana, franceza, coreeana, japoneza, spaniola, portugheza, rusa, thailandeza

Performanta de lucru

Sarcina utila testata

3 kg

Viteza maxima de rotatie controlata

Pan: 360°/s

Inclinare: 360°/s

Roll: 360°/s

Interval mecanic

Axa Pan: rotatie continua de 360°

Axa Roll: -95° pana la +240°

Axa de inclinare: -112° pana la +214°

Blocare axe: Automata

Filmarea verticala: Acceptata

Proprietati mecanice si electrice**Frecventa de operare**

2.400 - 2.4835 GHz

Puterea emitorului Bluetooth

< 8 dBm

Temperatura de functionare

-20° pana la 45° C

Greutate

Gimbal: aprox. 1193 g (inclusiv placile de eliberare rapida superioara si inferioara si suruburile)

Grip: aprox. 274 g

Trepied cu deschidere rapida: aprox. 149 g

Placi superioare si inferioare cu eliberare rapida: aprox. 96 g (inclusiv suruburile)

Dimensiuni

Pliat: 247.4 x 115.7 x 258.7 mm (LxLxH, excluzand camera, grip-ul si Quick-Open Tripod)

Desfasurat: 223.2 x 192.2 x 418.8 mm (LxLxH, include grip-ul si exclude Quick-Open Tripod)

Blackmagic Video Assist 5" 3G



Blackmagic Video Assist 5" 3G is a portable monitor, a professional recorder, a portable scope and a fantastic camera viewfinder solution! You can also add better quality record codecs and a larger monitor to any SDI or HDMI camera! The new design has innovations such as 4 built in scopes, enhanced focus assist features, a tally indicator and built in 3D LUTs. The Video Assist 5" 3G support formats up to 1080p60 and the new design also has L-Series batteries for longer life. Blackmagic Video Assist 5" 3G really is 4 products in one!

\$399

Connections

SDI Video Inputs

1 x Micro BNC

SDI Video Outputs

1 x Micro BNC

SDI Rates

270Mb, 1.5G, 3G

HDMI Video Inputs

1

HDMI Video Outputs

1

Analog Audio Inputs

None, embedded audio only.

Analog Audio Outputs

1 x 3.5mm headphone jack.

Built in Speaker

Mono

Screen Dimensions

5 inch 1920 x 1080.

Screen Brightness

300nits

SDI Audio Inputs

16 channels embedded via SDI

SDI Audio Outputs

16 channels embedded via SDI

HDMI Audio Inputs

8 channels embedded via HDMI

HDMI Audio Outputs

8 channels embedded via HDMI

Remote Control

None

SD Interface

1 x UHS-I SD slot.

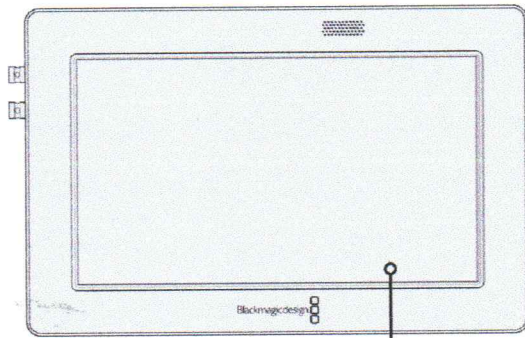
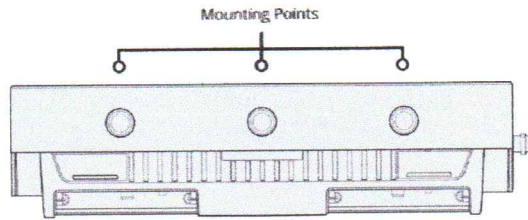
Storage Type

SDXC UHS-I and SDHC UHS-I SD cards.

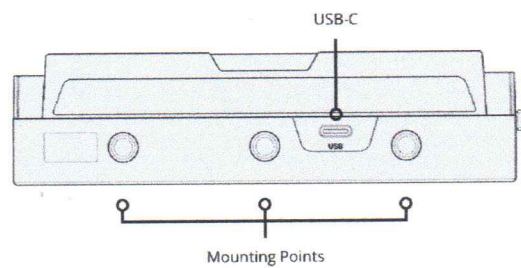
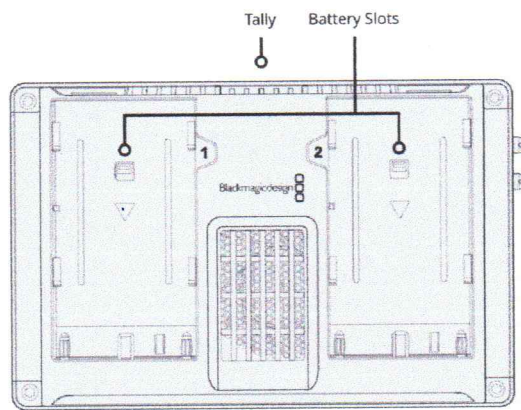
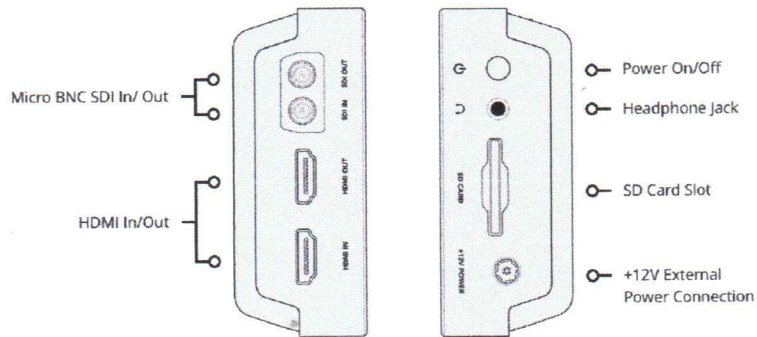
Supports DS, HS, SDR12, SDR25, DDR50, SDR50 and SDR104 SD cards.

Computer Interface

1 x USB Type-C for webcam out, initial setup, software updates and Video Assist Utility software control.



5 Inch 1080p60 Touchscreen



SDI Video Standards

SD Video Standards

525i59.94 NTSC, 625i50 PAL

HD Video Standards

720p50, 720p59.94, 720p60
1080p23.98, 1080p24, 1080p25,
1080p29.97, 1080p30, 1080p50,
1080p59.94, 1080p60
1080PsF23.98, 1080PsF24,
1080PsF25, 1080PsF29.97, 1080PsF30
1080i50, 1080i59.94, 1080i60

2K Video Standards

2Kp23.98 DCI, 2Kp24 DCI,

2Kp25 DCI
2KPsF23.98 DCI, 2KPsF24 DCI,
2KPsF25 DCI

SDI Compliance

SMPTE 259M, SMPTE 292M,
SMPTE 296M, SMPTE 425M

SDI Metadata Support

HD RP188

Audio Sampling

Television standard sample rate of
48 kHz and 24-bit.

Video Sampling

4:2:2 YUV

Color Precision

10-bit

Color Space

REC 601, REC 709

Multiple Rate Support

SDI and HDMI switches between
270 Mb/s, 1.5 Gb/s and 3 Gb/s.

HDMI Video Standards

SD Video Standards

525i59.94 NTSC, 625i50 PAL

HD Video Standards

720p50, 720p59.94, 720p60
1080p23.98, 1080p24, 1080p25,
1080p29.97, 1080p30, 1080p50,
1080p59.94, 1080p60
1080i50, 1080i59.94, 1080i60

HDMI Color Precision

10-bit

Copy Protection

HDMI input is unable to capture from
copy protected HDMI sources. Always
confirm copyright ownership before
capture or distribution of content.

Media

Media

1 x UHS-I SD for HD recording.

Media Type

SDXC UHS-I and SDHC UHS-I
SD cards.

Supported Codecs

ProRes 422 HQ, ProRes 422, ProRes
422 LT, ProRes 422 Proxy, DNxHD
220x, DNxHD 145, DNxHD 45, DNxHD
220x MXF, DNxHD 145 MXF, DNxHD
45 MXF.

Control

Recorder Control

Integrated capacitive touchscreen LCD with Blackmagic OS onscreen controls for settings and navigating menus.

External Control

SDI and HDMI start/stop, timecode run.

Software

Software Included

Blackmagic OS

Scopes

Scopes

Waveform, RGB Parade, Vector, Histogram.

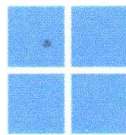
Viewing Modes

Scopes with picture in picture or picture overlay and opacity control.

Operating Systems



Mac 13.0 Ventura,
Mac 14.0 Sonoma or later.



Windows 11

Power Requirements

Power Supply

1 x External 12V power supply.
Compatible with Sony NP-F style
batteries.
(batteries not included)

Physical Specifications



Environmental Specifications

Operating Temperature

0° to 40° C (32° to 104° F)

Storage Temperature

-20° to 45° C (-4° to 113° F)

Relative Humidity

0% to 90% non-condensing

What's Included

Blackmagic Video Assist 5" 3G
Universal power supply with international adapters
NP-F series battery USB charger

Warranty

1 Year Limited Manufacturer's Warranty.

Specification

Model:	RP-NPF770
Mount Type:	Sony NP-F
Battery Capacity (mAh):	4400 mAh
Battery Capacity (Wh):	32.6 Wh
Maximum Load:	Up to 6A / 45W (Max)
Nominal Voltage:	7.4V
Cell Chemistry:	Li-Ion
IATA Transportation:	UN38.3 / UN3480, Class 9
Internal Protection:	Cells Framing Construction System
Recomend Charging On:	RP-DC50, HED-DC55, HED-DC45
Operating Temperature:	-20°C to +45°C (-4°F to +113°F)
Dimensions (W/H/D):	70 x 38 x 40 mm 2.75 x 1.5 x 1.57"
Net Weight:	204 g 7.19 lb

No reimbursement for the recorded content.

- Compensation for the recording content is not feasible in the event of a malfunction in the battery pack on other devices, preventing shooting or reproduction.
- Please note that design and specifications may change without prior notice.

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Tenba Axis V2 Backpack (Black, 16L)



- Camera/Tablet Gear Capacity: 1-2 Mirrorless or DSLR cameras with 4-6 lenses, up to attached 70-200mm 2.8, plus a tablet up to 11 inches (28 cm). Also fits DJI Mavic and other compact drones.
- Hidden Bluetooth Tracker Pocket Compatible with AirTag and Tile: Special neoprene sleeve securely fits AirTag or Tile Bluetooth trackers so you can always find your camera bag.
- Secure Rear Camera Access: Camera gear is secured up against the user's back so that nothing can be removed from the front or sides of the pack while traveling. Rear access also allows the pack to be swung around to the front to exchange gear without ever removing the pack from your body.
- Airflow Harness with Dual Sternum Straps: The Airflow harness combines ventilating 3D airmesh and Tenba's Pivot-Fit™ auto-adjusting straps to ensure a comfortable fit. Unique dual sternum straps significantly improve the load balancing across the chest, with significant benefits for female and male customers alike. Bottom sternum strap can be removed if desired. Rear panel also includes a trolley strap for secure piggyback travel through airports.
- Reflective MOLLE Webbing: Allows limitless expandability with Tenba Tools Lens Capsules, Battery Pouches and Memory Card Wallets, as well as military-standard pouches and accessories. Tenba's MOLLE webbing includes a subtle thread that is highly reflective to ensure safety when walking or riding a bike near cars at night.

Color	Black
Camera Compatibility	Universal
Carry/Transport Options	Backpack Straps with Sternum Strap, Handle, Waist Belt
Type of Closure	Zipper
Interior Type	Main Compartment: Adjustable Dividers (Hook & Loop)
Laptop/Tablet Compatibility	Single Compartment: Fits 11" Tablet •Up to 11.5 x 7.5 x 5" / 29.2 x 19.1 x 12.7 cm
General	

Water Resistance : Water Resistant (Material), Rain Cover Included

Maximum Volume : 4.2 gal / 16 L

Padded Interior : Yes

Materials : **Exterior:** Nylon

Dimensions

Exterior : 18.5 x 10 x 8" / 47 x 25.4 x 20.3 cm

Interior : 17 x 9 x 5.25" / 43.2 x 22.9 x 13.34 cm

Weight : 2.8 lb / 1.3 kg

Sony FE 24-50mm f/2.8 G Lens (Sony E)



Lens mount

Sony E-mount

Format : 35mm full frame

Focal-length (mm) : 24-50

35mm equivalent focal-length (APS-C) (mm)
36-75

Lens construction (groups-elements) : 13-16

Angle of view (APS-C) *1 : 61°-32°

Angle of view (35mm) : 84°-47°

Maximum aperture (F) : +2.8

Minimum aperture (F) : 22

Number of aperture blade : 11

Circular aperture : Yes

Minimum focus distance (m)

0.19(W)-0.30(T) (AF)

0.18(W)-0.29(T) (MF)

Minimum focus distance (ft)

0.63(W)-0.99(T) (AF)

0.59(W)-0.96(T) (MF)

Maximum magnification ratio (x)

0.30 (AF)

0.33 (MF)

Filter diameter (mm) : 67

Image stabilization (SteadyShot)

- (body- integrated)

Zoom system

Manual

Teleconverter compatibility (x1.4)

Incompatible

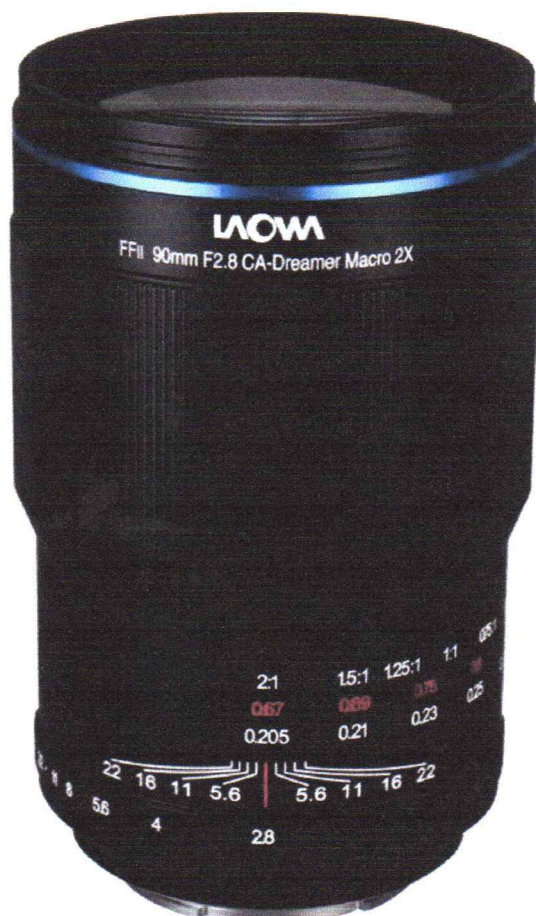
Teleconverter compatibility (x2.0)

Incompatible : Hood type

Petal shape, bayonet type

Dimensions dia. x length (mm) : 74.8 x 92.3

Venus Optics Laowa 90mm f/2.8 2x Ultra Macro APO Lens for Sony E



Focal Length	90mm (35mm Equivalent: 135mm)
Aperture	Maximum: f/2.8 Minimum: f/22
Lens Mount	Sony E
Lens Format Coverage	Full-Frame
Angle of View	27°
Minimum Focus Distance	8.1" / 20.5 cm
Magnification	2:1 Macro Reproduction Ratio 2x Magnification
Optical Design	13 Elements in 10 Groups
Aperture/Iris Blades	13
Focus Type	Manual Focus
Image Stabilization	No
Filter Size	67 mm (Front)
Dimensions	ø: 2.9 x L: 4.7" / ø: 74 x L: 120 mm
Weight	21.8 oz / 619 g

Foreword

Thank you for purchasing!

RING72 is a compact and portable LED ring light, whose light body can be installed on the camera lens, and the controller can be installed on the camera hot shoe. The brightness of the L left half and the R right half can be individually adjusted to accurately obtain the required brightness by adjusting the buttons and knobs of the controller. It is ideal for portrait shooting, jewelry shooting, insects and plants shooting, and dental photography etc.

Please read this manual carefully before using to make sure the correct operation and exert the optimum function. Please keep the instruction manual for future reference.

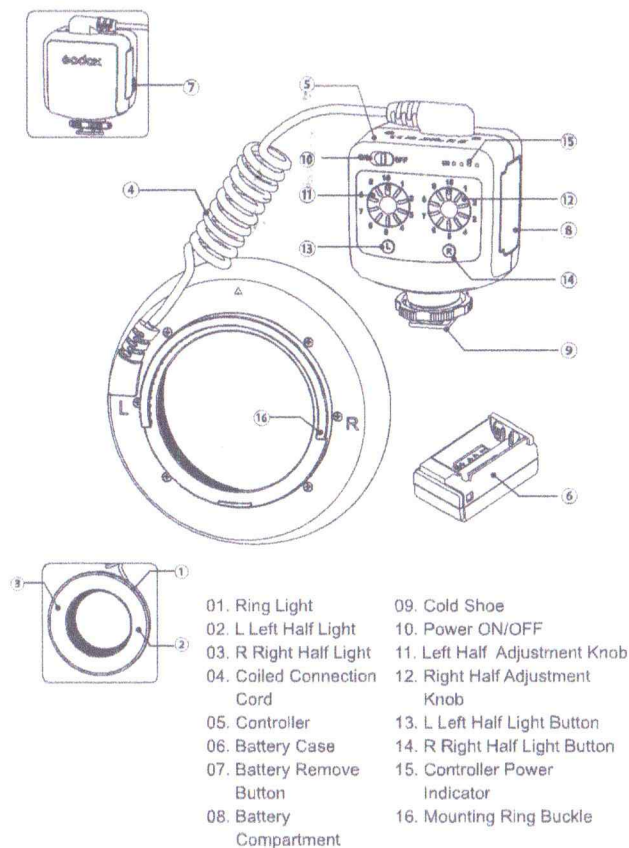
Main Features

- Adopt 72 pieces premium LED beads ensure sufficient high-brightness light.
- Eight different adapter rings are included to fit a range of lens diameters from 49mm to 82mm (82mm adapter ring is not included).
- Separately control the brightness of the left/right half to create side-lite effects.
- Coiled cord connects the ring light to the controller to provide extra convenience.

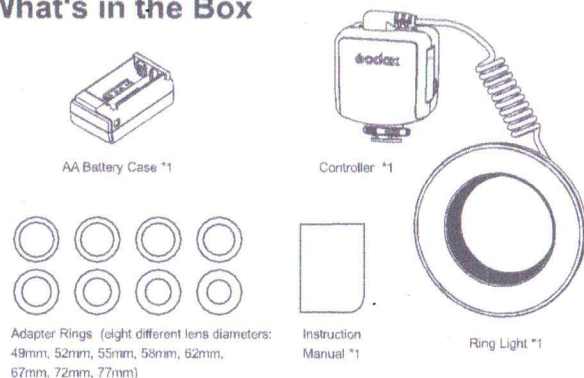
Warning

- ⚠ Be careful while using to protect it from crashing or falling.
- ⚠ Do not use in the too high or too low temperature environment. And Do not use in rain or in damp conditions.
- ⚠ Do not use thinner, benzene or other cleaning agents to clean. It is recommended to use a soft, moisturized cloth for wiping and cleaning this product.
- ⚠ Store it in a dry, cool and well-ventilated place, if don't not use this product for long time.

Names of Parts



What's in the Box



Types of power supply

2 types power supply following for this macro LED ring light:

- 4 pieces size-AA large capacity alkaline batteries or 4 rechargeable Ni-MH batteries.
- 7.2V/2600mAh lithium battery supports 450 times of repeated charging and discharging, and has a long using life span.

* Note: Batteries are sold separately and you can purchase it from us Godox. 2 types Godox lithium battery(7.2V/2600mAh or 7.2V/3200mAh) following can be applied to this Ring 72.

- Godox lithium battery VB26(shared with Godox TTL Li-ion Round Head Camera Flash V1).
- Godox lithium battery WB100(shared with Godox Pocket Flash AD100Pro).

Precautions for using AA alkaline batteries

1. Keep the batteries connection clean and dry to maintain good contacts.
2. Use a new set of four batteries of the same brand. When replacing the batteries, replacing all four at one time.
3. Do not disassemble or short-circuit the batteries. And do not put aside or into fire or water.
4. Take the batteries out from the battery slot, if the light is not used for a long time.

Precautions for using lithium battery

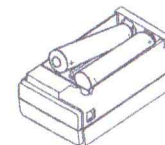
1. Avoid short-circuiting the positive and negative poles.
2. As the batteries do not have waterproof function, please take measures of waterproof in rainy or damp environment.
3. Keep the product out of reach of children.
4. No over 24 hours' continuous charging.
5. Store in dry, cool, ventilated places.
6. Do not put the battery aside or into the fire.
7. Dead batteries should be disposed according to local regulations.
8. Please charge the battery to approx. 60% before being placed for long time.
9. If the battery had ceased using for over 3 months, please make a full recharge.
10. It's normal that the battery will be degraded after a period's usage for the battery life limitation.

Installation tutorial

Install the battery

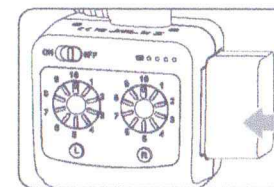
1.1 Use AA alkaline batteries or rechargeable Ni-MH batteries

- 1.1.1 Put 4 pieces batteries into the battery case.
- 1.1.2 Align the battery case with the battery compartment, and insert the battery case into the battery compartment until the it be locked with a click sound.



1.2. Use lithium battery(Lithium battery is not included and you can purchase it separately)

- 1.2.1 Align the battery with the battery compartment, and insert the battery into the battery compartment until the it be locked with a click sound.



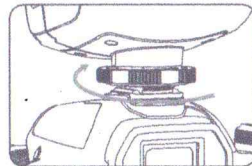
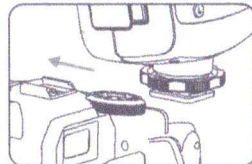
How to install the LED light controller on the camera

2.1 Rotate and loosen the knob at the bottom of the ring light controller.

2.2 Slide the ring light controller base mount and insert it into the hot shoe socket of the camera.

2.3 Tighten the knob at the bottom of the controller until it is completely fixed.

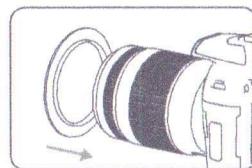
Note: If you remove the LED light controller, first loosen the knob and then slide it out of the camera hot shoe.



How to install the ring LED head on the camera

3.1 This product is equipped with 8 different types of adapter rings, which can fully match the camera diameter of: 49mm, 52mm, 55mm, 58mm, 62mm, 67 mm, 72mm and 77mm.

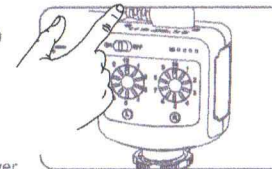
3.2 Choose the corresponding adapter ring and install it on the camera lens, and then buckle the ring LED head on the adapter ring.



Use LED lights

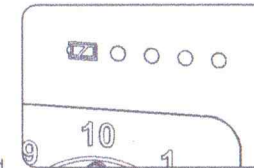
1. Turn on

Slide the power switch to "ON" and the LED light will light up.



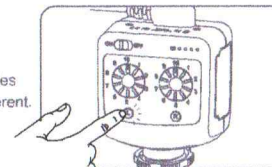
2. Controller power indicator display

The green light indicates the remaining power, the four green lights indicate the remaining 100% power, the three green lights indicate the remaining 75% power, the two bright green lights indicate the remaining 50% power, and the one green light indicates the remaining 25% power.



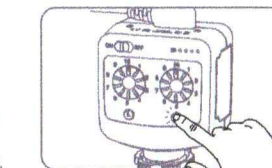
Low battery reminder: When the first indicator on the left flashes (on for one second and off for one second), it indicates that the battery is low. Please replace the battery in time.

Note: The above power display is based on the testing data of Godox. Different brands of batteries will cause the battery indicator display to be different.



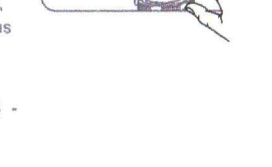
3. L left half ON/OFF

L left half light button lights up green, indicating that the L left half light is turned on; short press can turn off the L left half light, short press again to restore the previous brightness value.



4. R right half ON/OFF

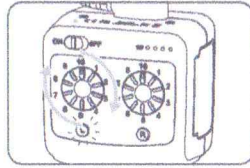
The R right half light button lights up green, indicating that the R right half light is on; short press can turn off the R right half light, and short press again to restore the previous brightness value.



5. Left half brightness adjustment

Power on ring light, L left half light button lights up green indicating the L left half brightness is on, turn the left half adjustment knob to adjust the brightness of the L left half light.

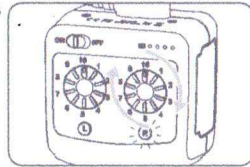
Adjustment range: 10%-100%, 10 levels to switch, and each level is incremented by +10%.



6. Right half brightness adjustment

Power on ring light, R right half light button lights up green indicating the R right half brightness is on, turn the right half adjustment knob to adjust the brightness of the R right half light.

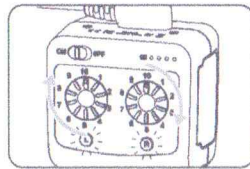
Adjustment range: 10%-100%, 10 levels to switch, and each level is incremented by +10%.



7. Left half and Right half brightness adjustment

Power on ring light, the L and R half light buttons light up green indicating both the left and the right half light brightness are on. And then switch the Left half adjustment knob and the Right half adjustment knob to set their brightness freely.

Note: This ring light is divided into L left half light and R right half light. The L and R rights' brightness can be adjusted separately according to user specific needs.



Technical Data

Model	RING72	
Output Power	8W	
Brightness Display	Separate control on the left / right half	
Dimming Range	10% - 100% adjustment in 10 levels	
Power Supply	AA Size large capacity alkaline battery or rechargeable NI-MH battery (sold separately)	1.5V*4 pieces
	Lithium Battery (sold separately)	7.2V/2600mAh
Color Temperature	5600K	
Number Of LED	72 pcs	
Lamp Beads		
TLCI	≥97	
CRI	≥96	
Volume	Ring Light: ϕ 132*30 mm	
	Controller: 84*71.5*50.5 mm	
Net Weight	245g (ring light+controller) (battery not included)	

* Product design and specifications are subject to change without notice.

Sony HVL-F28RMA External Flash



Specifications

- **Basic Information**

- **Dimensions (approx.)**
W 2.63" x H 3.38" x D 3.75" (65.1 mm x 83.5mm x 94.4 mm)
- **Weight (approx.)**
8.0 oz (226 g) (only main unit)

- **Type**

- **Type**
Auto electronic flash (clip-on type) with pre-flash metering
- **Shoe type**
Multi Interface Shoe.

- **Flash head (light-emitting unit)**

- **Built-in wide panel**
Yes (24 mm)
- **Continuous flash performance**
40 flashes at 10 flashes per second ¹
- **Color Temperature (Approx.)**
5,500 K
- **Power level switching**
25 levels (1/1-1/256) 1/3 steps
- **Bounce angle**
Up 120 ° (0 °/20 °/40 °/60 °/80 °/120 °)
- **Repetition (approx.)**
More than 110 times (Alkaline battery) / More than 130 times (Ni-MH battery) ²
- **Flash compensation**
Yes ³
- **Built-in bounce sheet**
Yes
- **Flash control**
Flash control using pre-flash (P-TTL/ADI)
- **Flash Duration (Approx.)**
Within 1.6 ms (1/1 MANUAL)
- **Maximum guide number**
28 (Flash coverage setting 50 mm, ISO 100 m)
- **Frequency (Approx.)**
0.1–6.4 seconds (Alkaline battery) / 0.1–4.1 seconds (Ni-MH battery) ⁴
- **Test flash**
Yes
- **Bounce flash : Yes**

- **Flash coverage**
50 mm, Angle of view at 24-mm focal length is also covered with the wide panel
 - **Flash mode**
TTL/MANUAL/MULTI
 - **High-speed sync (HSS)**
Yes
 - **Modeling flash**
Yes
 - **Frequencies**
2.4 GHz band
 - **Groups**
3 groups (TTL/MANUAL), 5 groups (group flash photography)
 - **RADIO-CONTROLLED WIRELESS FLASH**
Yes (commander/receiver) ⁵
 - **Channels**
14 channels (Auto/Manual)
 - **Communication Distance (Approx.)**
114.83 ft ^{6,7}
 - **Lighting ratio control**
3 groups (TTL)
 - **Maximum flash units : 15 units**
 -
- **Optical Control Wireless Function**
 - **Channels**
 - **Groups**
 - **Communication Distance (Approx.)** ⁷
 - **Lighting ratio control**
 - **Optical Controlled Wireless Flash**
- **LED Light Function**
 - **Power level switching**
 - **Focal length supported**
 - **Continuous Lighting Time (Approx.)**
 - **Center Luminance Intensity (Approx.)**
 - **Lighting Distance (Approx.)**
 - **Color Temperature (Approx.)**
- **Display**
 - **Charge progress indicator**
 - **LCD panel**
- **External Connectors**
 - **Sync terminal**
 - **Multi/Micro USB terminal : Yes**
- **Power source**
 - **External Battery Adaptor**
 - **Power source**
Two AA-size alkaline or Ni-MH batteries
- **Other Features**
 - **Dust and moisture-resistant design**

OBEN CQL-13 Compact Carbon Fiber Travel Tripod with Ball Head

Introduction

The Oben CQL-13 Compact Carbon Fiber Travel Tripod with Ball Head is engineered for photographers who require a lightweight, portable, and stable support system. Its advanced 8x carbon fiber construction ensures durability and a robust load capacity of 13 lb, accommodating various camera and lens configurations. This manual provides comprehensive instructions for setting up, operating, maintaining, and troubleshooting your Oben CQL-13 tripod, ensuring optimal performance and longevity.



Image: The Oben CQL-13 Compact Carbon Fiber Travel Tripod with its included ball head.

What's in the Box

Verify that all components are present upon unboxing:

- Oben CQL-13 Compact Carbon Fiber Travel Tripod with Ball Head
- Short Center Column
- 3 x Hex Key
- Carrying Case



Image: All items included in the Oben CQL-13 package: the folded tripod, the short center column, and the carrying case.

Setup

1. Unfolding the Tripod

1. Grasp the tripod legs and gently pull them outwards until they click into their initial locked position.
2. To extend each leg section, twist the internal twist locks counter-clockwise to loosen, pull the section to the desired length, and then twist clockwise to secure. The 5-section legs can be unlocked simultaneously with one twist at the end of each leg.
3. Ensure all leg sections are fully extended and locked for maximum stability, or partially extended and locked for lower heights.



Image: The Oben CQL-13 tripod with all leg sections and the center column fully extended.

2. Attaching the Camera

1. Locate the Arca-type quick release plate on the ball head.
2. Loosen the quick release clamp knob on the ball head and slide the plate out.
3. Attach the quick release plate to the 1/4"-20 tripod socket on the bottom of your camera. Ensure it is securely tightened, preferably with a coin or the provided hex key if necessary.
4. Slide the camera with the attached quick release plate back into the ball head clamp. Tighten the clamp knob firmly to secure the camera.



Image: A detailed view of the Oben CQL-13 ball head, showing the Arca-type quick release plate detached and the bubble level.

Operating Instructions

1. Adjusting Leg Angles

The CQL-13 features independent leg spread with three locking angles to adapt to various terrains and shooting requirements:

- **Standard Angle:** For general use and maximum height.

- **Medium Angle (52°):** Provides increased stability and a lower shooting position.
- **Low Angle (82°):** Ideal for macro photography or shooting from very low perspectives.

To adjust, press the angle lock tab at the top of each leg and move the leg to the desired position until it clicks securely into place.

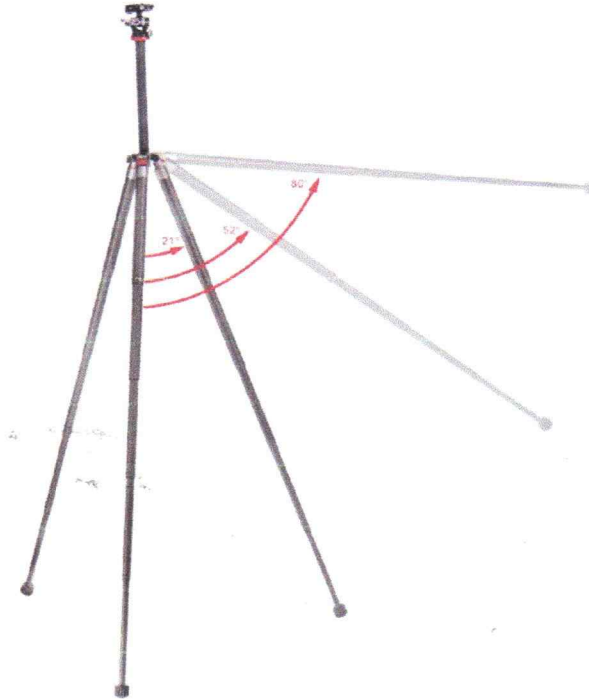


Image: A visual representation of the Oben CQL-13 tripod's three adjustable leg angles: 21°, 52°, and 82°.

2. Adjusting Height and Center Column

The tripod's height can be adjusted by extending the leg sections and by raising or lowering the center column. To adjust the center column, loosen the center column lock knob, raise or lower the column to the desired height, and then tighten the knob firmly.

3. Reversible Center Column for Low-Angle Shots

For extreme low-angle or macro photography, the center column can be reversed:

1. Loosen the center column lock knob and fully extend the center column.
2. Pull the center column completely out of the tripod chassis.
3. Flip the center column upside down and reinsert it into the tripod chassis from below.
4. Tighten the center column lock knob to secure it. Your camera can now be mounted inverted for ground-level shooting.



Reversible Center Column

Image: The Oben CQL-13 tripod demonstrating the reversible center column feature, allowing the camera to be positioned very close to the ground.

4. Using the Short Center Column

The included short center column allows for even lower camera positioning, down to 5 inches off the ground. To use it, remove the standard center column and replace it with the short center column. This is particularly useful for macro photography or achieving unique low-angle perspectives.



Image: The Oben CQL-13 tripod configured for extreme low-angle photography, utilizing the short center column.

5. Ball Head Operation

The double-action ball head provides precise control over camera positioning:

- **Ball Lock Knob:** Loosen this knob to adjust the camera's tilt and pan freely. Tighten it to lock the camera in position.
- **Panoramic Lock Knob:** This independent knob allows the ball head to rotate horizontally (pan) while keeping the tilt locked. Loosen to pan, tighten to lock.
- **90° Notch:** The ball head features a 90° notch, allowing for quick and effortless switching from landscape to portrait orientation. Simply tilt the camera into the notch and secure the ball lock knob.
- **Bubble Level:** Use the integrated bubble level to ensure your camera is perfectly aligned with the horizon.



Image: The Oben CQL-13 tripod's ball head tilted 90 degrees into its dedicated notch, enabling quick transition to portrait orientation.

6. Using the Ballast Hook

A spring-loaded ballast hook is located at the bottom of the center column. In windy conditions or on uneven terrain, you can attach a weight (e.g., a sandbag, camera bag) to this hook to increase the tripod's stability and reduce vibrations.



Image: The Oben CQL-13 tripod with a weight bag attached to its spring-loaded ballast hook for enhanced stability.

Maintenance

Proper maintenance will extend the life and performance of your Oben CQL-13 tripod:

- **Cleaning:** After use, especially in dusty, sandy, or wet environments, wipe down the tripod with a soft, damp cloth. Avoid harsh chemicals.
- **Leg Sections:** Periodically extend all leg sections and wipe them clean to remove any grit that might interfere with smooth operation of the twist locks.
- **Ball Head:** Keep the ball head clean and free of dust. Do not lubricate the ball or locking mechanisms, as this can attract dirt and impair performance.
- **Storage:** Store the tripod in its carrying case in a dry, cool place when not in use.

- **Screws and Joints:** Occasionally check all screws and joints for tightness. Use the provided hex keys if any adjustments are needed.

Troubleshooting

Problem: Tripod legs do not extend or retract smoothly.

Solution: Ensure the twist locks are fully loosened. Clean the leg sections thoroughly to remove any dirt, sand, or debris that may be obstructing movement. Do not force the legs.

Problem: Ball head does not hold camera securely or drifts.

Solution: Ensure the quick release plate is securely attached to your camera and fully seated in the ball head clamp. Tighten the ball lock knob firmly. If the issue persists, check the load capacity of the tripod (13 lb) to ensure your equipment does not exceed it.

Problem: Tripod feels unstable.

Solution: Ensure all leg sections are fully extended and their twist locks are tightened. Verify that the leg angle locks are securely engaged at one of the three positions. On uneven ground, adjust each leg independently. Consider using the ballast hook with added weight for increased stability.

Specifications

Oben CQL-13 Compact Carbon Fiber Travel Tripod Specifications

Feature	Detail
Model Name	CQL-13
Load Capacity	13 lb / 5.9 kg
Maximum Working Height	51.1" / 129.8 cm
Minimum Working Height	5" / 12.7 cm
Closed Length	14.5" / 36.8 cm
Weight	1.5 lb / 0.7 kg
Primary Material	Carbon Fiber
Leg Sections	5
Leg Lock Type	Twist Lock via Leg Rotation
Independent Leg Spread	Yes

Oben CQL-13 Compact Carbon Fiber Travel Tripod Specifications

Feature	Detail
Leg Positions	3 Positions (21°, 52°, 82°)
Head Type	Ball Head (Double-Action)
Quick Release Plate	Arca-Type
Camera Mounting Screw	1x 1/4"-20 Male
Center Column	Y-Tube, Removable, Reversible, Ballast Hook
Bubble Level	Yes

Warranty Information

Oben products are designed for reliability and performance. For specific warranty terms and conditions, please refer to the warranty card included with your product or visit the official Oben website. Keep your proof of purchase for any warranty claims.

THULE backpack with removable camera case



Scope of delivery THULE set:

- backpack with label and chest strap
- camera case with label and divider, shoulder strap

Data backpack:

- Dimensions: width approx. 35 cm, height approx. 52 cm, depth approx. 20 cm
- Dimensions extended: width approx. 35 cm, height approx. 70 cm, depth approx. 20 cm
- Padded laptop compartment dimensions: width approx. 26 cm, height approx. 36 cm, depth approx. 2.5 cm
- Dimensions padded tablet compartment: width approx. 23 cm, height approx. 34 cm, depth approx. 1 cm
- Weight: approx. 1585 g
- Volume: approx. 32 l
- Color: Black (black)
- 1 reinforced carrying handle: approx. 16 cm
- 2 shoulder straps padded, ergonomically shaped, breathable, infinitely adjustable: approx. 50 cm - 90 cm
- 1 chest strap removable, infinitely adjustable, elastic: approx. 14 cm - 40 cm
- 2 pelvic fin with waistbelt stowable, infinitely adjustable: approx. 28 cm - 110 cm
- 2 pelvic fins padded, stowable: approx. 14 cm
- Material: Polyester
- Scope of supply: THULE backpack with label, 1 x chest strap

Equipment backpack:

- backpack closes with push-button, roll closure and infinitely adjustable hook
- In the main compartment 1 sewn-on divider with two way zipper

- On the front 1 sewn-on zipped compartment and 4 fastening loops
- Also on the front 1 concealed zipped compartment with flap and magnetic closure, in which there is 1 elastic mesh slip pocket
- In addition, on the front 1 zipped compartment with concealed two way zipper, in which there is 1 zipped compartment, 1 key finder with carabiner, 2 slide-in compartments, 2 pen holders and 1 mesh zipper compartment
- On the right and left side 1 zipped compartment in which there is 1 mesh compartment
- Also on the right and left side 1 compression straps with infinitely adjustable hook, 2 attachment loops for hooks, 1 slide-in compartment and 1 zipped compartment
- On the back, 1 zipped compartment with two way zipper, which contains 1 removable camera case, 1 mesh pocket, 1 padded laptop compartment with hook-and-loop fastener, 1 padded tablet compartment with hook-and-loop fastener and 1 mesh zipper compartment
- Also on the back 1 trolley holder
- Additionally on the back 1 slide-in compartment in which there is 1 pull-out waistbelt
- Back is padded and ergonomically shaped
- Equipped with reinforced floor and further opening
- Equipped with height-adjustable chest strap, load control belts on the shoulder straps, stowable pelvic fin and stowable waistbelt
- Equipped with attachment option to shoulder strap
- Is large enough for folders
- Owns spacious main compartment
- The THULE logo is clearly visible

Data camera case:

- Dimensions: width approx. 35 cm, height approx. 23 cm, depth approx. 14 cm
- Weight: approx. 589 g
- Color: Black (black)
- 1 carrying handle: approx. 16 cm
- 1 shoulder strap removable, infinitely adjustable, padded: approx. 90 cm - 138 cm
- Material: Polyester
- Scope of delivery: THULE camera case with label, 4 x dividers, 1 x shoulder strap

Equipment camera case:

- camera case is closed with two way zipper
- In the main compartment 4 removable dividers with hook-and-loop fastener
- On the top 1 zipped compartment
- On the right and left side 1 extra access to the main compartment with zipper
- On the back, 4 attachment loops for shoulder strap
- Equipped with extra access to the main compartment
- The THULE logo is clearly visible

Sachtler Tripod 75/2 AL Mk II (S2172-0001)



- 2-stage carbon fibre 75mm tripod
- Ultra-lightweight: only 1.8kg (4lbs)
- 3/8" accessory mounting points on the bowl
- Carry handle included

This lightweight and compact Sachtler 75 mm aluminium tripod is perfect for ultra-light camcorders and DSLR cameras. Requires a spreader (sold separately).

In The Box

- Tripod 75/2 AL Mk II (S2172-0001)
- Carry Handle (S2051-1063)

Specifications

Bowl Size

75 mm

Height With Ground Spreader

43 cm to 158 cm

Height With Mid Spreader

63 cm to 154 cm

Material

Aluminium

Payload

20 kg

Temperature Range

-40 °C to 60 °C

Transport Length

71 cm

Weight

1.8 kg

Sachtler Set Mid-level Spreader 75/2 Mk II (7015)



Sachtler Set Mid-level Spreader 75/2 Mk II (7015)

- Mid-level spreader and rubber feet for 75/2 Mk II tripods
- Provides maximum stability on uneven terrain

Detachable mid-level spreader and rubber feet for tripods 75/2 Mk II. The spreader allows for a small footprint in narrow spaces and stability on uneven terrain.

In the Box

- Mid-level Spreader flowtech75 (S2082-1000)
- 3× Rubber Feet 75 (ssp12p0150)

Blackmagic Videohub 40x40 12G



Blackmagic Videohub 40x40 12G is an advanced zero latency video router that supports any combination of SD, HD and Ultra HD on the router at the same time. It has 40 12G-SDI inputs and 40 12G-SDI outputs, redundant power and reference connections in two rack units size. The large full HD LCD lets you see video before routing and clearly displays routing labels and video standards. Routing can be performed by direct button selection and using the large spin knob control that has an electronic clutch. It also features SDI re-clocking, external Ethernet control and supports all SDI video standards up to 2160p60.

£3,215

Connections

SDI Video Inputs

40

Video Input Re-Sync

None

Reference Outputs

Reference terminating loop output.

SDI Video Outputs

40

SDI Reclocking

On all SDI outputs.

Ethernet

Supports 10/100/1000 BASE-T.

SDI Rates

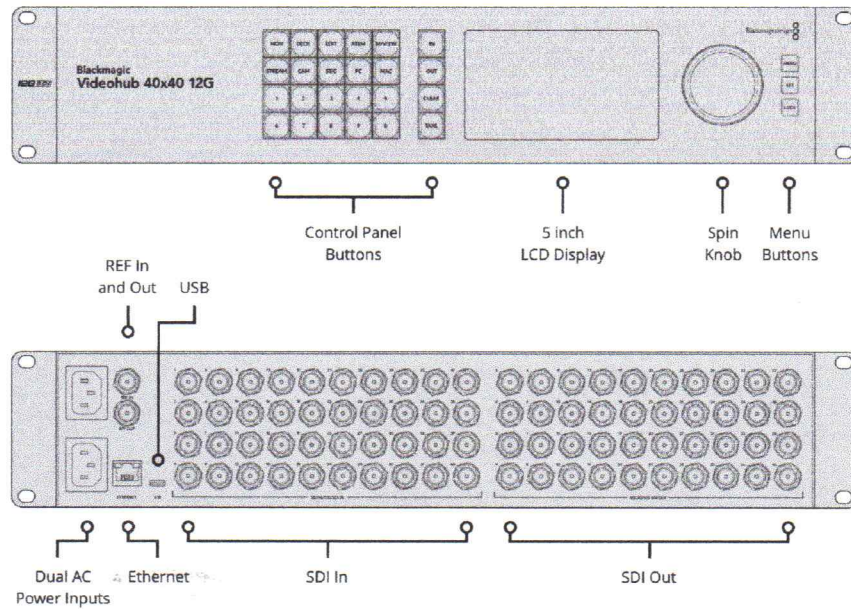
DVB-ASI, 270Mb, 1.5G, 3G, 6G, 12G.

Reference Inputs

Tri-Sync or Black Burst.

Computer Interface

USB-C



Standards

SD Video Standards

525i59.94 NTSC, 625i50 PAL

HD Video Standards

720p50, 720p59.94, 720p60
 1080i50, 1080i59.94, 1080i60
 1080p23.98, 1080p24, 1080p25,
 1080p29.97, 1080p30, 1080p47.95,
 1080p48, 1080p50, 1080p59.94,
 1080p60
 1080PsF23.98, 1080PsF24,
 1080PsF25, 1080PsF29.97, 1080PsF30

2K Video Standards

2Kp23.98 DCI, 2Kp24 DCI, 2Kp25 DCI,
 2Kp29.97 DCI, 2Kp30 DCI, 2Kp47.95
 DCI, 2Kp48 DCI, 2Kp50 DCI, 2Kp59.94
 DCI, 2Kp60 DCI
 2KPsF23.98 DCI, 2KPsF24 DCI,
 2KPsF25 DCI, 2KPsF29.97 DCI,
 2KPsF30 DCI

Ultra HD Video Standards

2160p23.98, 2160p24, 2160p25,
 2160p29.97, 2160p30, 2160p47.95,
 2160p48, 2160p50, 2160p59.94,
 2160p60

4K Video Standards

4Kp23.98 DCI, 4Kp24 DCI, 4Kp25 DCI,
 4Kp29.97 DCI, 4Kp30 DCI, 4Kp47.95
 DCI, 4Kp48 DCI, 4Kp50 DCI, 4Kp59.94
 DCI, 4Kp60 DCI

SDI Compliance

SMPTE 259M, SMPTE 292M, SMPTE
 296M, SMPTE 372M, SMPTE 424M,
 SMPTE 425M level A and B
 SMPTE 2081-1, SMPTE 2081-10,
 SMPTE 2082-10, ITU-R BT.656
 and ITU-R BT.601

SDI Audio Sampling

Television standard sample rate of
 48kHz and 24-bit.

SDI Video Sampling

YUV 4:2:2 and RGB 4:4:4

SDI Color Precision

10, 12-bit RGB 4:4:4 in all HD and 2K
 modes, Ultra HD modes up to
 2160p30 and 4K modes up to 4Kp30
 DCI. 10-bit YUV 4:2:2 in all modes.

SDI Color Space

REC 601, REC 709, REC 2020

SDI Auto Switching

Automatically selects between 270Mb
 SD-SDI, 1.5G HD-SDI, 3G level A and
 level B HD-SDI, 6G HD-SDI, 12G-SDI
 on each input so that each input can
 be running a different television
 standard.

SDI Metadata Support

Video payload identification ancillary
 data as per SMPTE 352M.

Control

Built in Control Panel

24 buttons for local control of Videohub with 3 buttons and search dial for menu control. 5 inch color display.

External Control Panel

Includes Blackmagic Videohub software control panel for Mac and Windows. Supports Videohub Smart Control Pro and Videohub Master Control Pro hardware panels. Includes Blackmagic Videohub SDK and Ethernet Videohub Control Protocol.

Control Panel Connection

Ethernet

Software

Software Control

Router control included free for Windows™ and Mac™.

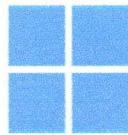
Internal Software Upgrade

Via included updater application.

Operating Systems



Mac 13.0 Ventura,
Mac 14.0 Sonoma or later.



Windows 10, 64-bit.
Windows 11.

Display

Displays

Built in 5 inch LCD for video and menu settings.

Power Requirements

Power Supply

2 x Internal 100 - 240V AC 50/60Hz.
IEC power cables required.

Power Fail Protection

Crosspoint connections preserved
and restored instantly at power on.

Power Usage

46.5 W max.

Physical Installation

2 rack units height.

Physical Specifications



Environmental Specifications

Operating Temperature

0° to 40° C (32° to 104° F)

Storage Temperature

-20° to 60° C (-4° to 140° F)

Relative Humidity

0% to 90% non-condensing

What's Included

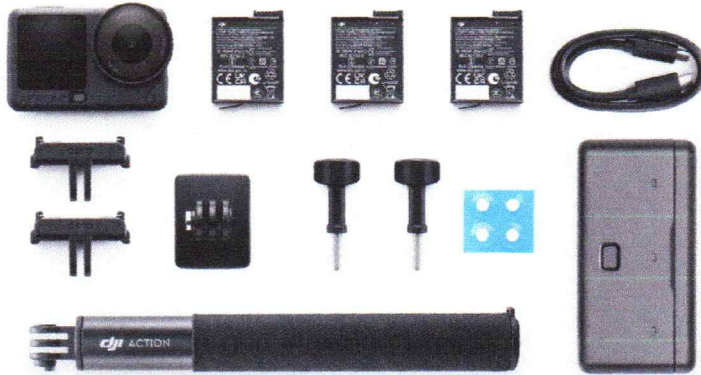
Blackmagic Videohub 40x40 12G

Welcome wallet with QR code for software download

Warranty

3 Year Limited Manufacturer's Warranty.

DJI Osmo Action 6 Adventure Combo



Imaging

Image Sensor	1/1.1"-Type CMOS
Effective Sensor Resolution	38 Megapixel (7168 x 5376)
Image Stabilization	Digital
Optics per Lens	
Maximum Aperture	f/2 to 4
Minimum Focus Distance	0.7' / 0.2 m
Field of View	155°
Zoom	Digital: 2x

Video Capture

MP4 via H.265/HEVC

3840 x 3840 at 23.98/25/29.97/47.95/50/59.94/100/120 fps

3840 x 2880 at 23.98/25/29.97/47.95/50/59.94/100/120 fps

Internal Recording 3840 x 2160 at 23.98/25/29.97/47.95/50/59.94/100/120 fps

2688 x 2016 at 23.98/25/29.97/47.95/50/59.94/100/120 fps

2688 x 1512 at 23.98/25/29.97/47.95/50/59.94/100/120 fps

1920 x 1080p at 23.98/25/29.97/47.95/50/59.94/100/120/200/240 fps

Still Image Support **JPEG / Raw**
38 MP (7168 x 5376)

Audio Recording AAC: 16 -Bit at 48 kHz

Built-In Mic Yes

IP Streaming No

Internal Storage 50 GB

Exposure Control

Shutter Speed 1/8000 to 30 Seconds

ISO/Gain Sensitivity **Photo**
Native: 100 to 25,600

Video
Native: 100 to 51,200

Exposure Modes Auto

White Balance	Presets: Auto
Connectivity	
Wireless	Wi-Fi 6 (802.11ax) / Bluetooth 5.1
Mobile App Compatible	Yes: Android & iOS App Name: Mimo App
Media/Memory Card Slot	Single Slot: microSD/microSDHC/microSDXC [1 TB Maximum]
Inputs/Outputs	1x USB-C Power Input/Output
Power	
Battery Type	Rechargeable Lithium-Ion Battery Pack (3.87 VDC, 1950 mAh)
Charging Time	52 Minutes
Estimated Battery Life	240 Minutes
Environmental	
Environmental Resistance	Water-Resistant to 65.6' / 20 m (Unrated)
Operating Conditions	-4 to 113°F / -20 to 45°C
Impact Resistance	No
General	
Display Type	2x Fixed Touchscreen OLED
Built-In Light	No
Built-In Speaker	Yes
Creative Effects	Bullet Time (Slow-Mo) Horizon Lock RockSteady 3.0 SuperNight Mode
Dimensions (W x D x H)	2.9 x 1.3 x 1.9" / 72.8 x 33.1 x 47.2 mm
Weight	5.3 oz / 149 g