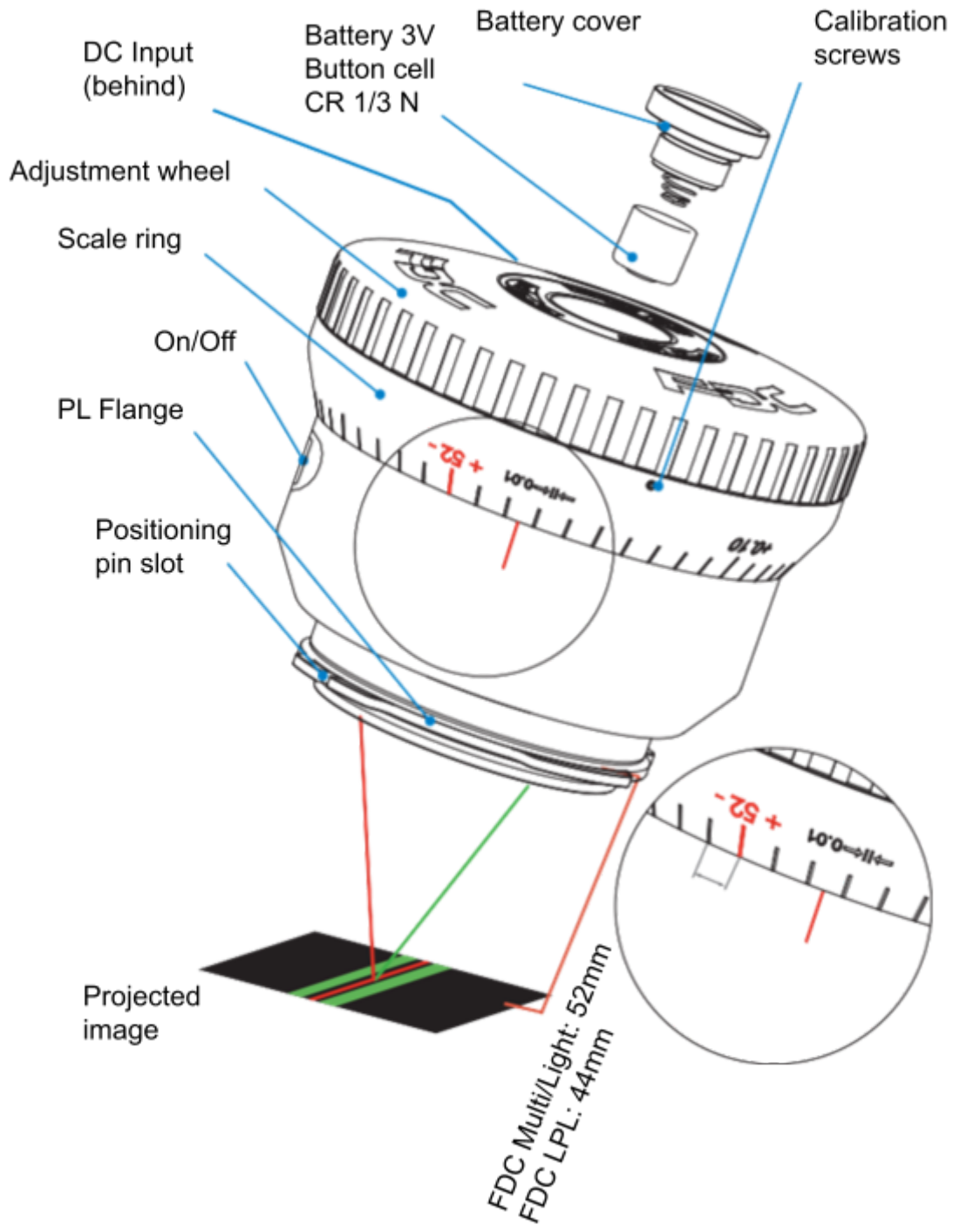
USER MANUAL

Flange Depth Controller

FDC Multi	FDC Light	FDC LPL
C0100003	C0100166	C0100167

Product overview



Scope of Delivery

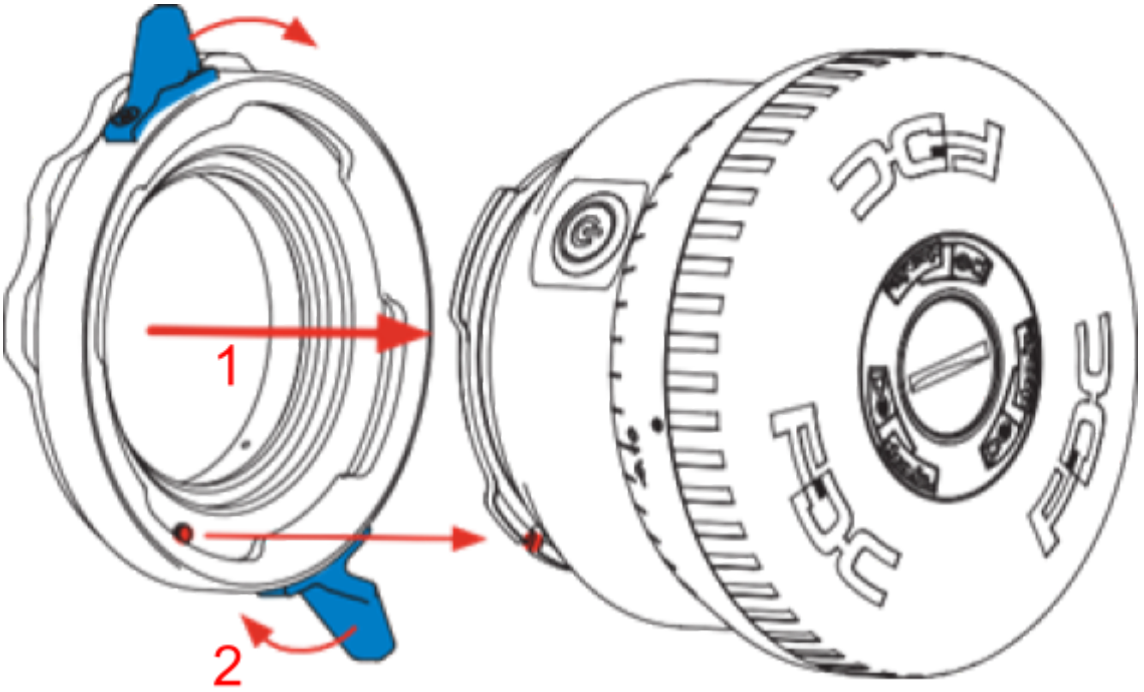
- ☐ Carrying Case
- ☐ FDC Light/Multi/LPL
- ☐ Battery
- ☐ Power Cable
- ☐ Protection Cap

Specifications

Flange focal distance	Multi/Light: 52.00mm LPL: 44.00mm
Accuracy	± 3µm
Ref. Measuring Temp.	21°C
Measurement Range	± 0,2mm (± 200µm)
DC-In	5V
Battery	3V Button Cell CR 1/3 N

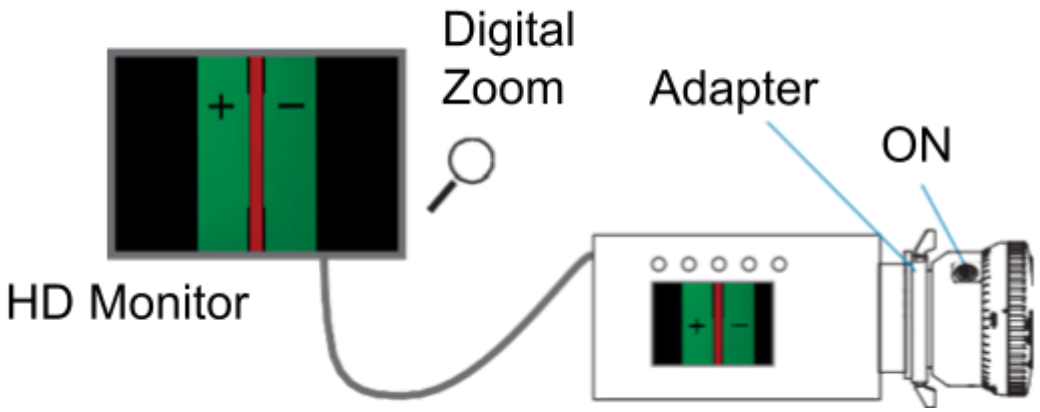
Device setup

1. Adjust at a surrounding temperature of 21 ± 2°C, 70 ± 4°F.
2. Clean flange of FDC, adapter and camera only with suitable tools (e.g. lint-free cloth and alcohol).
3. Dust and hair leads to inaccurate measurement.
4. Mount adapter to FDC Multi/Light/LPL. Align positioning pin (1). Lock the FDC Multi/Light/LPL in place with handles (2).
5. Next mount the adapter with FDC Multi/Light/LPL attached on the camera.

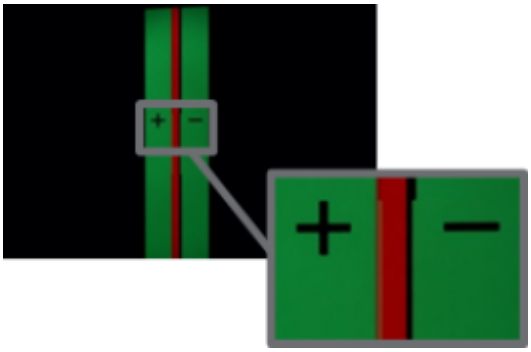


6. Switch on FDC Multi/Light/LPL. If the FDC Multi/Light/LPL is connected to a power source, please remove the battery before switching on.

7. Connect the camera to a HD Monitor for a live output. Use the camera display as an alternative if HD Monitor is not available.

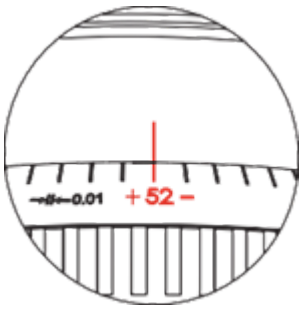


8. Adjust camera exposure and zoom in to the relevant part of the display.

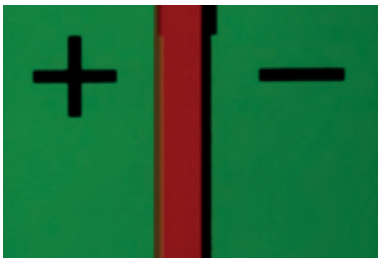


Performing measurement

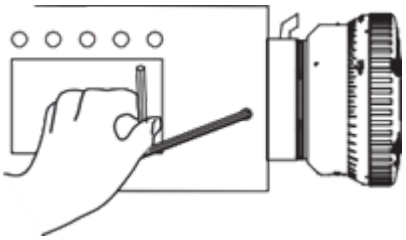
Method 1: Fixed value setting



Set the adjustment wheel to designated target value.
FDC Multi/Light: 52.00mm
FDC LPL: 44.00mm



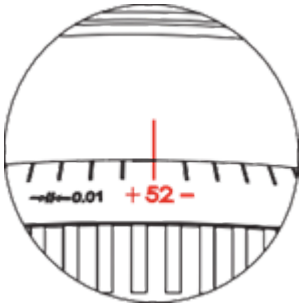
The offset of the red line indicates the deviation from the targeted value.



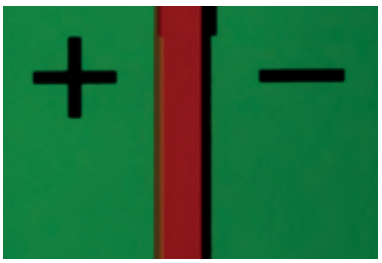
Adjust the position of the camera sensor until the red bar appears exactly between the green bars.

Correct flange focal distance.

Method 2: Differential value adjustment

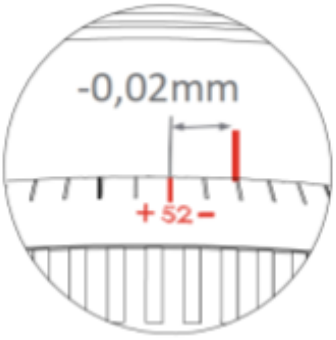


Set the adjustment wheel to designated target value.
FDC Multi/Light: 52.00mm
FDC LPL: 44.00mm

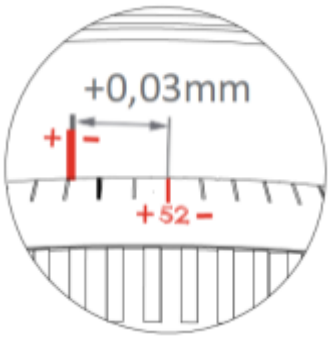


The offset of the red line indicates the deviation from the targeted value.

Turn the adjustment wheel until the red bar appears exactly between the green bars.



Obtained value: -0.02mm
The measured flange focal distance has to be decreased by 0.02mm by removing shims.



Obtained value: +0.03mm
The measured flange focal distance has to be increased by 0.03mm by adding shims.

Tolerable deviations

1. The image projected by the FDC Multi/Light/LPL might have a slight tilt or shift. This error is insignificant for the measurement of the flange focal distance.
2. The red bar with a skewed angle of ± 0.2° in relation to the green bars is tolerable.
3. Axial misalignment between the image sensor and the flange might move the adjustment image away from the centre point.
4. Small visible particles on the projected image do not affect measurement.

Maintenance

1. Annual service is recommended. (Contact link)

Available Adapters for FDC Multi

Adapter	Adapter height (mm)	Article number
EF-Mount	44.00	C0100016
Sony E-Mount	18.00	C0100028
XPL-52mm (Vantage)	52.00	C0100034
Nikon F-Mount	46.50	C0100042
MFT-Mount	19.25	C0100043
RF-Mount	20.00	C0100135
LPL-Mount	44.00	C0100137
ARRI XPL-Mount	60.00	C0100277
Leica L-Mount	20.00	C0100304
Leica M-Mount	27.80	C0100320

Available Adapters for FDC Light

Adapter	Adapter height (mm)	Article number
LPL-Mount	44.00	C0100137

Further Measurement Devices

FDC Master MKII for PL-Mount	C0100264
FDC Master MKII for LPL-Mount	C0100156

Disclaimer

1. The FDC is sensitive to shocks and vibrations.
2. The FDC is not to be exposed to extreme temperatures, direct sunlight and humidity.
3. Customers are advised not to disassemble the FDC.
4. Only use the power supply provided by DENZ.
5. Repairs and services are to be performed only by authorised personnel.
6. Mistreatment may lead to misalignment, inaccurate results, damage to device or short-circuit.
7. Any violation on the disclaimer mentioned above results in void of warranty.