Let the FDC guarantee your camera's Back Focus – a pre-condition for perfect images.

TECHNICAL DETAILS

- For use with all single chip digital video cameras fitted with 54 mm PL-Mount such as RED One, Sony F35, Panasonic, Phantom HD, Weisscam HS-2, Arri D-20/21 etc.
- High Precision – Accuracy to 1 Micron
- Power Supply:
- DC 4 V Battery (Type DL 1/3 N) 22 mA -
  Operating time of the battery: 1400 measurements
  or
  Mains Adapter AC/DC 90-264 VAC/5VDC/1A
- Weight: 620 gGewicht: 620g
- Temperature Range between –10°C to +50°C

ATTENTION: Unauthorised opening of the unit will invalidate the warranty and could compromise the continued accuracy of FDC measurements

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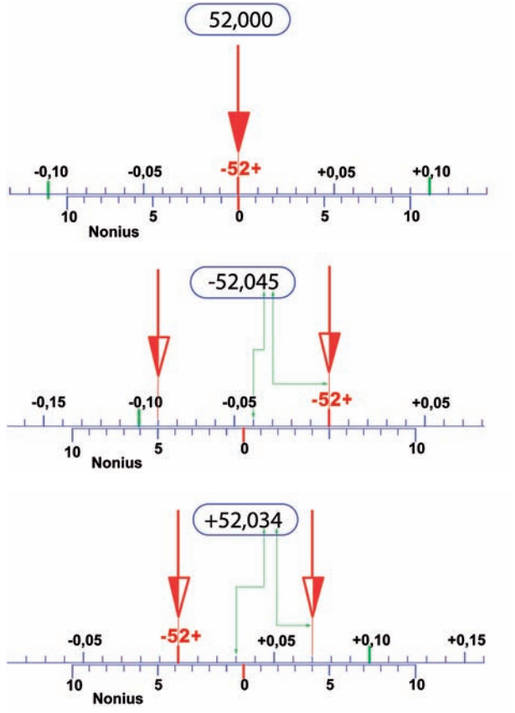
HF-02-E-2009 (BA)

NONIUS

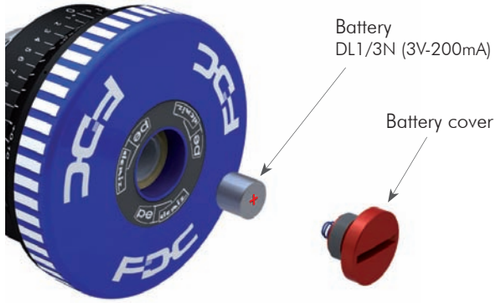


REPLACEMENT OF THE BATTERY

ATTENTION

Please take care when installing a new battery the positive battery terminal has to face upwards, as shown in the picture.

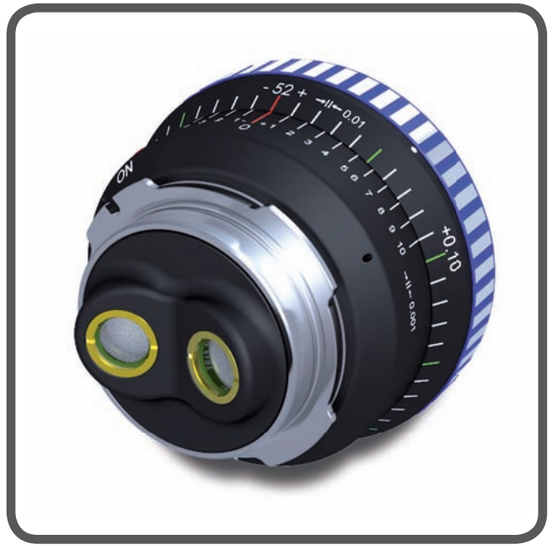
The using of a battery Type DL1/3N 200 mA is recommended alternative
CR1/3N, CN1/3N



The FDC can also be powered via the optional Mains Adapter – use of this device via the attached jack plug will by-pass the battery supply automatically.

FLANGE DEPTH CONTROLLER

INSTRUCTION MANUAL



GENERAL

When using lenses with ∅ 54 PL Mount the camera's back-focus must be set to an exact focal distance of 52,00 mm in order to obtain optimum sharpness.

With professional motion picture cameras the focal distance to the film plane was controlled either by using a test gauge with an accuracy of 0.001 mm or by using a collimator in the workshop.

Today's video cameras with full format sensors do not allow a mechanical measurement of the focal distance as the focal distance of 52,00 mm refers to the plane of the sensor and most cameras such as these have a protection filter fitted in front of the sensor. The FDC allows optical measurement with an accuracy to 0.001 mm.

Measurement can be made by battery or mains adapter. The battery will switch-off automatically after 5 minutes—protection purposes!

Battery power allows a convenient use of the FDC on set.

OPERATION

By means of two lenses two different masks are projected onto the sensor. By turning the adjustment wheel (blue) the focal position of the Flange Depth Controller FDC to the sensor will be changed. This change of the focal position affects the projected masks on the sensor. When the position of the red bar is exactly between the two green bars you can read out the precise flange depth on the index of the adjustment wheel.

1 Adjustment wheel
2 ON-switch
3 Graduated collar
4 Index
5 Battery cover

CONTROL METHOD1

- Adjusting the FDC to your camera
- Switching on the FDC
- Turning the adjustment wheel until the red bar on the monitor is exactly between the two green bars (Pict. 2)
- Reading out the difference to 52.00 mm via the graduated collar and index (Pict. 4)
- Adjustment can be made either by changing the position of the sensor in the video camera or by adding or removing appropriate shims from behind the camera lens mount
- Check your adjustment with a control measurement

Pict. 1

The focal distance of 52.00 mm is too long

Pict. 2

The accurate focal distance (The red bar is exactly between the two green bars)

Pict. 3

The focal distance of 52,00 mm is too short

CONTROL METHOD2

- Adjusting the FDC to your camera
- Adjust the FDC exactly to 52,00 mm via the blue adjusting wheel and the index
- Switching on the FDC
- For the controlling you will need a monitor, maybe the on-board monitor or the standby monitor of the video camera or the studio monitor. A link of the video signal of the camera to the monitor is necessary
- If you can see on the monitor that the red bar is exactly between the two green bars, you have the exact focal distance of 52,00 mm (Pict. 2)
- In case the position of the red bar is on the positive side of the green bars the position of the sensor has to be moved to the lens until the red bar is exactly between the two green bars (Pict. 1)
- In case the position of the red bar is on the negative side of the green bars the sensor has to be moved away from the lens until the red bar is exactly between the two green bars (Pict. 3)