Nikon Coolpix 4300 & Microscope Setup

Please refer to the **Nikon Coolpix 4300** User's Manual for the page numbers indicated below. Your Nikon digital camera uses CompactFlash™(CF) memory cards to store pictures (p.133).

KEY FEATURES:

4.0 MEGAPIXEL RESOLUTION

3X OPTICAL ZOOM-NIKKOR LENS

12 SCENE MODES

EASY SELF-TIMER

ONE-TOUCH UPLOAD™

WHEN USING A TRINOCULAR PORT OR BEAMSPLITTER:

1. Turn the camera off
2. Insert the CompactFlash™(CF) memory card. Slide the card-slot cover out and flip it open. Hold the card with the arrow(s) facing toward you and insert it in the direction of the arrow. Slide it in until it is firmly in place and the eject button pops up. Close the card slot cover. See pp.18-19 for additional details.
3. Carefully thread the UR-E4 Step Down Ring Adapter to the camera lens. Next, thread the MDC-A Relay Lens onto UR-E4 Step Down Ring Adapter. Likewise, thread the C-mount onto the MDC-A Relay Lens securely. Use caution as overtightening components into place may damage the threads of both the adapter and apparatus.
4. Attach the C-mount adapter onto the microscope's trinocular or beamsplitter port. Secure the C-mount into place.
5. Optional: **Connecting to an external monitor via Video I/O Port**. P.68
6. Turn the camera on for camera settings.

WHEN USING A MICROSCOPE EYEPIECE TUBE (30MM DIAMETER ONLY):

1. Turn the camera off
2. Insert the CompactFlash™(CF) memory card. Slide the card-slot cover out and flip it open. Hold the card with the arrow(s) facing towards you and insert it in the direction of the arrow. Slide it in until it is firmly in place and the eject button pops up. Close the card slot cover. See pp.18-19 for additional details.
3. Remove the cover ring from the relay lens by loosening the three setscrews.
4. Carefully thread the UR-E4 Step Down Ring Adapter to the camera lens. Next, thread the MDC-A Relay Lens onto UR-E4 Step Down Ring Adapter. Use caution as overtightening components into place may damage the threads of both the adapter and apparatus.
5. Remove an eyepiece from the microscope and insert the MDC-A Relay Lens adapter as replacement.
6. Optional: Connect the Coolpix 4300 to a Television or VCR using the video cable provided with the camera and the camera's video output connector (p.68).
7. Turn the camera on for camera settings.

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COOLPIX 4300 DIGITAL CAMERA SETTINGS FOR MICROSCOPY

1. Turn the camera mode dial to **Manual [M] Mode** (p.96).
2. Use the **White Balance Preset** to preserve natural colors under different types of lighting (p.98).
   a. Place a white object, such as a white sheet of paper or vacant position of the specimen slide, to measure the lighting that will be used during image capture.
   b. Frame this object so that it fills the square in the center of the White Balance Preset menu.
   c. Highlight **Measure** and press the Multi selector to the right to measure a new value for preset white balance (camera will zoom out and shutter speed will be released, but no picture will be recorded).
3. Press the focus mode button until **Infinity Focus** mode [⛰] icon is shown in the viewfinder (pp.41-45). In this mode, the focus is set at infinity, allowing the camera to focus on distant scenes through the MDC-A Relay Lens. The flash is automatically disabled in this mode.
4. In the **EXPOSURE OPTIONS**, select the **Manual Mode [M].**
   a. Choose an Aperture (p.107):
      Press the ←/→on the Multi selector while holding down the **+/-** button.
      Press ← to set the maximum aperture setting (lowest f number).
   b. Choose a Shutter Speed:
      Press ↑/↓ on the Multi selector while holding down the **+/-** button.
   In manual exposure mode, the amount the picture would be over- or under-exposed at the selected combination of aperture and shutter speed is displayed in the monitor (p.108).
5. Using the Coolpix 4300's **Optical Zoom** of up to 3X zoom, select the [W][T] buttons to fill the viewfinder with the desired full field of view (pp.46-47).
6. Press the shutter release to capture images. Optional: Use the **Self-Timer Mode** (pp.42-32)