



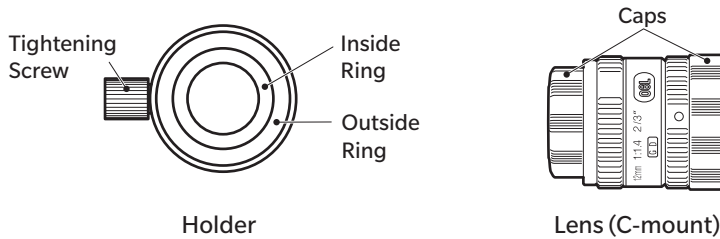
KONICA MINOLTA

# Adapter for CCD Camera CS-A36

The Adapter for CCD Camera CS-A36 is an adapter for attaching an industrial camera to the Spectroradiometer CS-2000series/CS-3000series. The C-mount lens that comes with the adapter should be placed between the finder of the instrument and your industrial camera.

This manual explains how to attach the CS-A36 to the instrument and how to use it.

## ■ Package Contents



## ■ Compatible Cameras

The CS-A36 does not include any camera. Refer to the following items to select a compatible camera.

Weight : 300 g or less

Sensor size : 1 / 2 inch

Additional information : A CCD camera may not have sufficient dynamic range. A CMOS camera is recommended because it has a greater dynamic range and can be used more extensively.

## ■ Note on Use

- Use this product at ambient temperatures of between 5 and 35°C and relative humidity of 80 % or less (at 35°C) with no condensation. Using this product outside specified temperature and humidity range may not satisfy its original performance.
- Make sure that the lens surface is clean. Clear images may not be obtained if there is dirt, dust, fingerprints or unclean areas on the eyepiece lens, adapter lens, or camera lens.
- Do not touch either surface of the lens with your fingers.
- Do not change ambient temperature rapidly under high humidity. This may cause the lens to fog up, resulting in unclear images.

## ■ Note on Storage

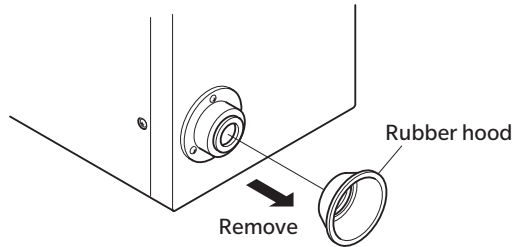
- Do not store this product under direct sunlight or near heater. The internal temperature of this product may become much higher than the ambient temperature, which may damage this product.
- Store this product at ambient temperatures of between 0 and 35°C and relative humidity of 80 % or less (at 30°C) with no condensation. Storage under high temperature and humidity may adversely affect the performance of this product. For added safety, we recommend storage with a drying agent such as silica gel at room temperature.
- Take care that condensation does not form. Avoid rapid changes in ambient temperature when transferring product for storage.
- Put the product in the packaging box supplied when the product was purchased to store it in a safe place.
- For storage, cover both sides of the adapter with the included caps.

## ■ Cleaning

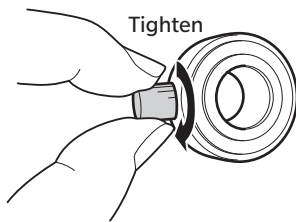
- If this product becomes dirty or dusty, wipe off dirt and dust with a soft, dry cloth or lens cleaning paper. Do not use an organic solvent like benzene or thinner or other chemical agents for cleaning. Should none of these methods be helpful, please contact the nearest **KONICA MINOLTA-authorized service facility**.

## < Attaching the Adapter for CCD Camera >

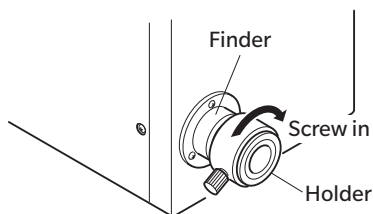
1. Before attaching the adapter, adjust the diopter to obtain a sharp image of the in-viewfinder display, and then adjust the focus of the instrument's objective lens to obtain a sharp image of the subject.
2. Remove the rubber hood from the finder of the instrument.



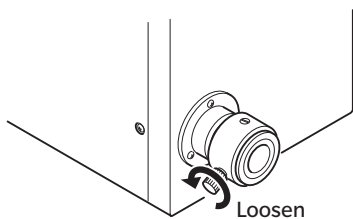
3. Tighten up the tightening screw of the holder.



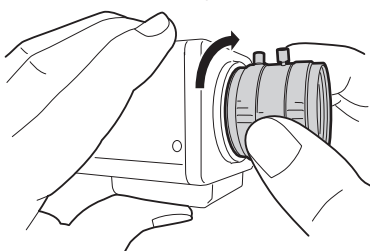
4. Attach the holder to the finder of the instrument. Be sure that the finder does not rotate when you install the holder.



5. Loosen up the tightening screw of the holder.

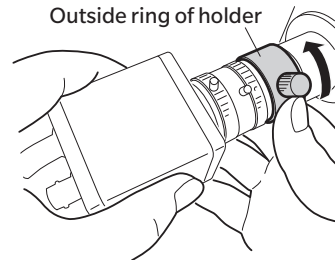


6. Remove the caps from the lens.
7. Attach the lens to your CCD camera.



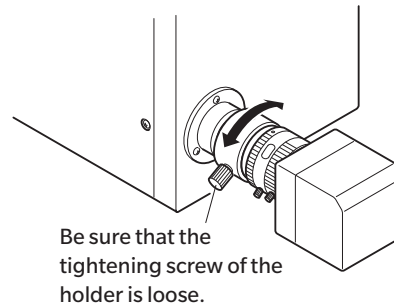
8. Align the threads of the lens and holder, and rotate the outside ring of the holder until it is tight. (Be sure that the tightening screw of the holder is loose.)

Hold the camera and lens, and rotate the holder until the holder is firmly attached to the lens.

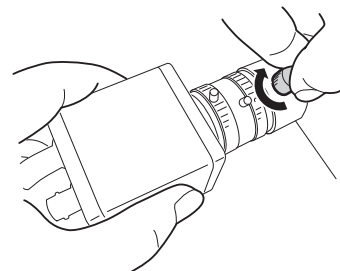


9. While the tightening screw of the holder is still loose, rotate the camera while monitoring the shooting screen to align the rotation direction of the camera.

You can also align the rotation direction by rotating the outside ring of the holder because the camera will rotate when the outside ring of the holder is rotated.

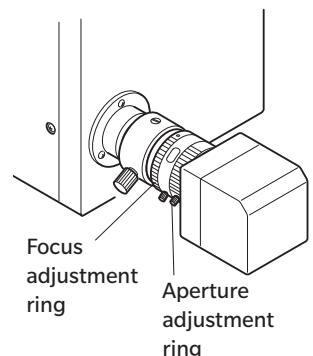


10. Tighten up the tightening screw of the holder.



11. Rotate the focus adjustment ring of the lens while monitoring the shooting screen to obtain a sharp image.

12. Rotate the aperture adjustment ring when the luminance of measuring object is too high and the shooting screen is flooded with bright light.



## < Removing the Adapter for CCD camera >

Remove the adapter for CCD camera by performing the steps in reverse order of installing.