

INSTRUCTIONS

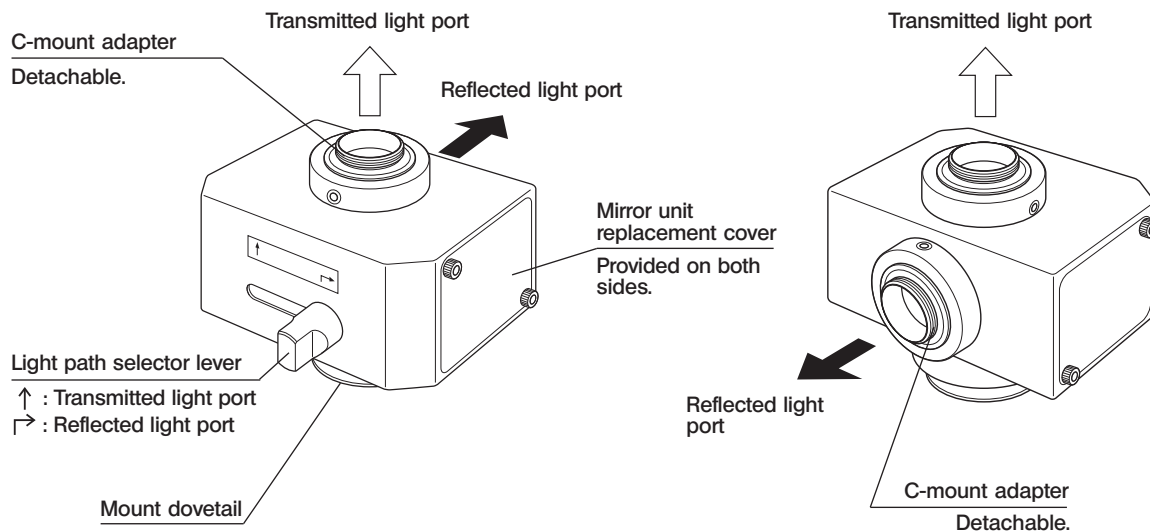
U-DPCAD

DOUBLE PORT ADAPTER

This instruction manual is for the Olympus Double Port Adapter Model U-DPCAD. To ensure the safety and obtain optimum performance and to familiarize yourself full with the use of this equipment, we recommend that you study this manual thoroughly before operating it. Retain this instruction manual in an easily accessible place near the work desk for future reference.

By installing this adapter on the trinocular observation tube of a BX, BX2, BX3 or IX2 series microscope using UIS optics (except for the IX series microscopes) or on the side port of an IX2 series microscope, it will be possible to mount two video cameras on a single microscope. The magnification of this adapter is 1X.

1 Nomenclature



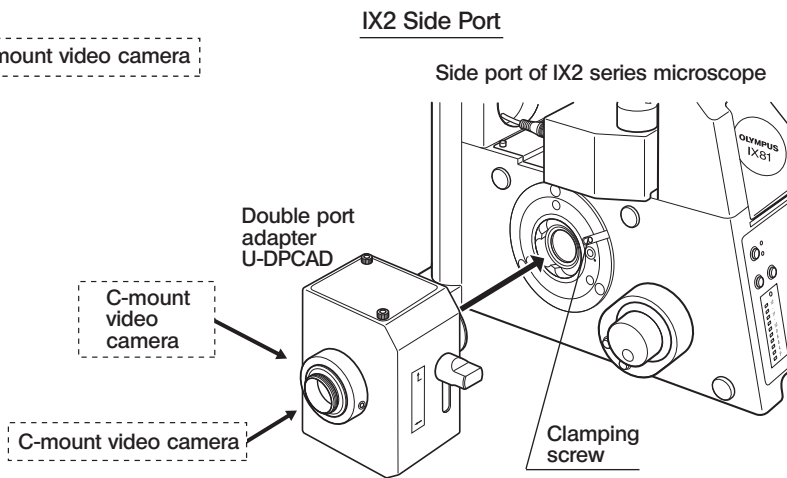
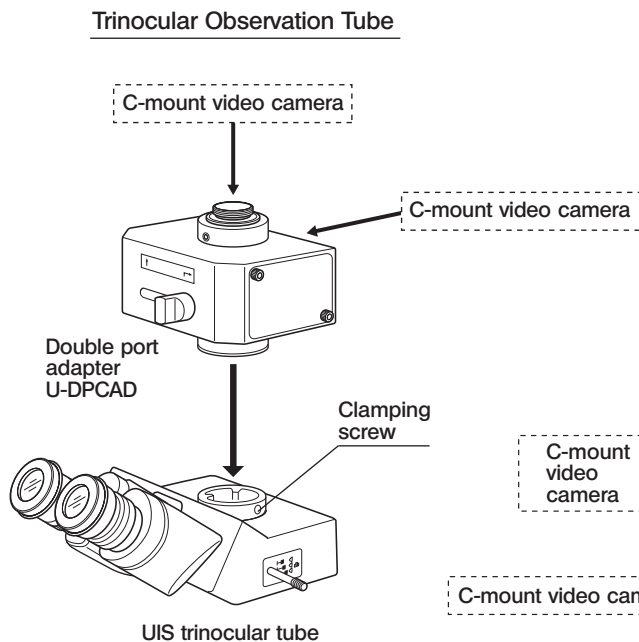
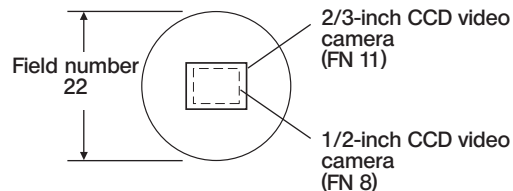
2

Getting Ready

1. When mounting a video camera with horizontal shooting direction, the video camera weight should be no more than 1 kg. When mounting a video camera with vertical shooting direction, its weight should also be no more than 1 kg.
2. The image on the reflected light port is inverted (upside down) because of the mechanism structure.
3. When the adapter is attached to the side port of an IX2 series microscope, the video camera attached to the reflected light port should not exceed 70 mm x 70 mm.
(Recommended video cameras: C2400-77A or C2400-79 by Hamamatsu Photonics, CS-220 by Sony, etc.)
4. When a fluorescence mirror unit is attached, ghosts or double images may be produced due to the dichroic mirror. As the ghosts are particularly noticeable under high intensity in brightfield observation, do not use a fluorescence mirror unit in brightfield observation.
With fluorescence and DIC observations, the fluorescence mirror unit will not pose practical problems.
5. This adapter does not comply with the IEC international standard for laser safety.

3 Assembly

(Note) The image pickup fields of applicable C-mount video cameras are as shown on the right.



Attaching the U-DPCAD

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1. Using the Allen screwdriver provided with the microscope frame, loosen the clamping screw on the trinocular observation tube or side port.
2. Fit the mount dovetail of the U-DPCAD and lightly tighten the clamping screw for temporary clamping.
Rotate the U-DPCAD to collect inclination, then tighten the clamping screw firmly.

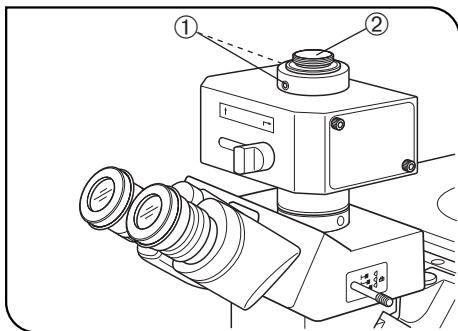


Fig. 1

Attaching the C-Mount Adapters

(Fig. 1)

1. Loosen the two clamping screws ① of the C-mount adapter for the transmitted light port using the Allen screwdriver, then remove the C-mount adapter ②.
- Ⓞ The C-mount adapter for the transmitted light port has an identification groove on the bottom side.
2. Screw the C-mount adapter firmly into the video camera to be used.
 3. Place the C-mount adapter with video camera on the original position and lightly tighten the clamping screws for temporary clamping. After completing the parfocality adjustment, tighten the clamping screws firmly.
- Ⓞ Attach the C-mount adapter for the reflected light port in the same way as above.

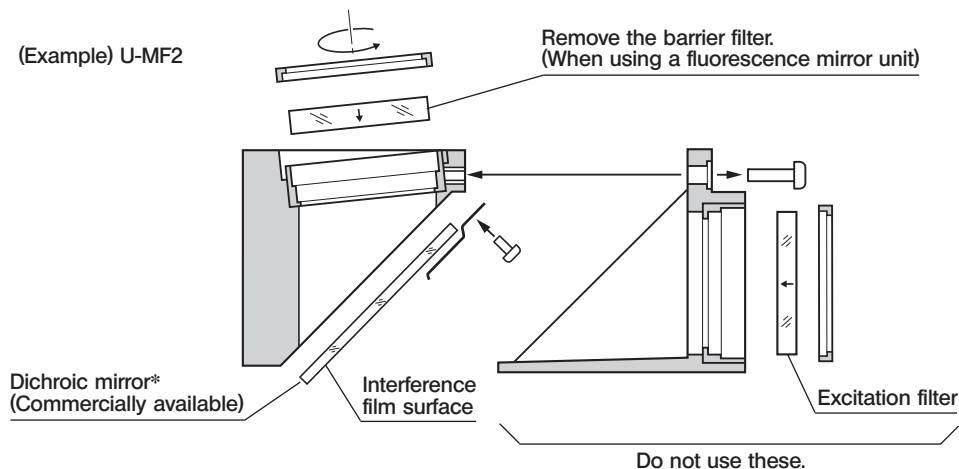
UIS Mirror Unit

©When the built-in full-reflection mirror unit is replaced with a mirror unit with dichroic mirror only, it is possible to lead the light flux obtained by wavelength separation to the transmitted light and reflected light ports.

Applicable UIS Mirror Units

- UIS fluorescence mirror units for BX/BX2 series (Attachable by removing the excitation filter frame and barrier filter)
- UIS mirror unit frame U-MF/U-MF2 (Attach only a commercially available dichroic mirror and do not attach the excitation filter frame.)

The fluorescence mirror unit for BX3 series can't be attached.



* The size of the commercially purchased dichroic filter should be:

$26_{-0.3}^{-0.1} \times 38_{-0.3}^{-0.1}$ mm • Thickness 1 ± 0.05 mm

When using a fluorescence mirror unit, use only a fixed filter.

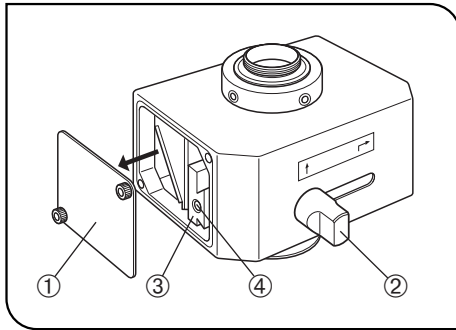


Fig. 2

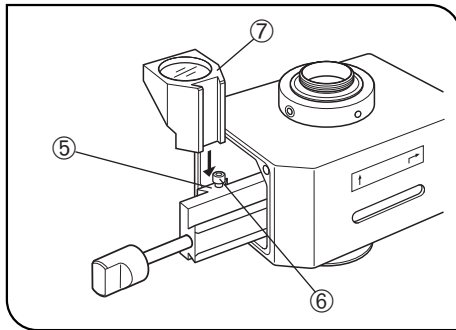


Fig. 3

Attaching the UIS Mirror Unit

(Figs. 2 & 3)

1. Using the Allen screwdriver provided with the microscope frame, loosen the clamping screw of the mirror unit replacement cover ① on the side you want to attach the mirror unit.
 2. Slide the light path selector lever ② to expose the mount dovetail ③.
 3. Remove the light path selector lever ② by turning it in the counter-clockwise direction, screw it into the threaded screw hole ④ on the mount dovetail, and slide out the mount dovetail to expose the mirror unit mount dovetail ⑤.
 4. Slightly loosen the mirror unit clamping screw ⑥ using the Allen screwdriver, fit the dovetail on the mirror unit ⑦ all the way into the mount dovetail ⑤ and tighten the clamping screw ⑥ firmly.
 5. Return the mount dovetail ③ to the original position and remove the light path selector lever ②.
 6. Attach the replacement cover ① and light path selector lever ② to the original positions.
- Ⓞ Perform the same procedure when attaching a UIS mirror unit on the other side of the U-DPCAD.

4 Operation

Adjusting the Microscope

1. Turn on the microscope light source and adjust the parts of the microscope system to make it ready for observation.
2. Pull out the light path selector knob of the trinocular observation tube to select the photomicrography light path. If the side port of an IX2 series microscope is in use, set the light path for the side port path.

Parfocality Adjustment

Ⓞ This adjustment consists of allowing the visually observed image and monitored image to be focused simultaneously. It is recommended to use an objective with as high magnification as possible for this adjustment.

1. Looking into the diopter-adjusted eyepieces, bring the specimen into focus as accurately as possible.
2. Using the Allen screwdriver, lightly loosen the clamping screw ① of the C-mount adapter for the transmitted light port.

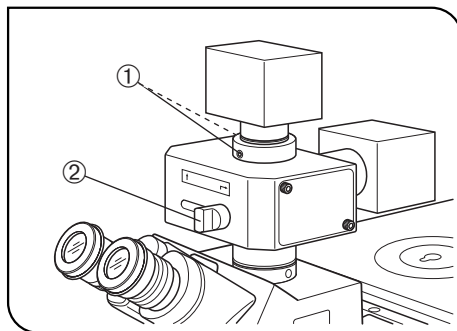


Fig. 4

3. Turn on the video camera and monitor.
 4. Slide the light path selector lever ② to select the light path for the transmitted light port.
 5. Now the observation image is displayed on the monitor. Lift the video camera little by little, and clamp it temporarily by tightening only one of the clamping screws ① at the position where the monitor image is focused.
 6. After performing fine adjustment and confirming that accurate focusing is obtained, tighten both clamping screws ① firmly.
- Ⓞ Perform the same procedure when adjusting the parfocality on the reflected light port.

MEMO

This product is manufactured by **EVIDENT CORPORATION** effective as of Apr. 1, 2022.
Please contact our "Service Center" through the following website for any inquiries or issues related to this product.

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