

8 TURRET INSERTS AND COMPATIBLE OBJECTIVES

Condenser	Observation method	Turret insert	Turret insert replacement	Compatible objectives
IX-LWUCD	Phase contrast (Note 1)	IX-PHL (S)	○	UPlanFI 4XPh CPlan10XPh, LCAch20XPh, CPlanFI10XPh UPlanFI10XPh, UPlanFI20XPh, LCPlanFI20XPh, UPlanApo10XPh UPlanFI40XPh, LCPlanFI40XPh, LCPlanFI60XPh, UPlanApo20XPh LCAch40XPh UPlanFI100XOPh, UPlanApo40XOIPh, UPlanApo100XOIPh, PlanApo60XOPh
		IX-PHC (S)	○	
		IX-PH1 (S)	○	
		IX-PH2 (S)	○	
		IX-PH3 (L)	○	
IX-LWUCD	Differential interference contrast	IX-DP10 (S)	○	UPlanFI10XUPlanApo10X LCPlanFI20X LCPlanFI40X, UPlanApo40X LCPlanFI60X UPlanApo60XWPSF UPlanFI100Xo, UPlanApo100Xo
		IX-DP20 (S)	○	
		IX-DP40 (L)	○	
		IX-DP60 (L)	○	
		IX-DPO60 (L)	○	
		IX-DP100 (L)	○	
Brightfield	—	—	NA 0.13 – 0.9 objectives (Note 2)	
IX-ULWCD	Phase contrast	PHL (built-in)	X	UPlanFI4XPh CPlan10XPh, LCAch20XPh, CPlanFI10XPh UPlanFI10XPh, UPlanFI20XPh, LCPlanFI20XPh, UPlanApo.10XPh UPlanFI40XPh, LCPlanFI40XPh, LCPlanFI60XPh, UPlanApo20XPh, LCAch40XPh
		IX-PHCU	○	
		IX-PH1U	○	
		PH2 (built-in)	X	
Brightfield	—	—	—	Magnification 2.5X or more and NA 0.75 or lower objectives
IX-SLWCD	Phase contrast	PHL (built-in)	X	UPlanFI4XPh CPlan10XPh, LCAch20XPh, CPlanFI10XPh
		PHC (built-in)	X	
Brightfield	—	—	—	Magnification 2.5X or more and NA 0.3 or lower objectives

Note 1: Small diameter turret inserts (S) should be placed in the 30 mm diameter turret opening, and large diameter turret inserts (L) should be placed in the 38 mm diameter turret opening.

Note 2: When combined with an objective of NA 0.3 or higher, the resolution may decrease somewhat. For a well observation, the phase contrast effect can be obtained in a large area of the field of view when the PHC is used.

UIS Series * Usable regardless of the model number (3, 2, none).

*Applicable Objective	DIC Slider	U-DICT	U-DICTS Shift Type	U-DICTHC High Contrast Type	U-DICTHR High Resolution Type
CPlanFI	10X	(IX-DP10)	(IX-DP10)	—	—
LCPlanFI	20X	(IX-DP20)	(IX-DP20)	(IX-DP20HC)	(IX-DP20HR)
	40X	IX-DP40	IX-DP40	IX-DP40HC	IX-DP40HR
	60X	IX-DP60	IX-DP60	—	—
LUCPlanFI	40X	IX-DP40	IX-DP40	IX-DP40HC	IX-DP40HR
SLCPlanFI	40X	IX-DP40	IX-DP40	IX-DP40HC	IX-DP40HR
UPlanFI	10X	(IX-DP10)	(IX-DP10)	—	—
	20X	—	—	—	—
	40X	—	—	—	—
	60XOI3	IX-DPO60 IX-DPO60S	IX-DPO60 IX-DPO60S	—	—
	100XO3	IX-DPO100	IX-DPO100	—	—
UPlanApo	10X 10XO3	(IX-DP10)	(IX-DP10)	—	—
	20X 20XO3	(IX-DPA20)	(IX-DPA20)	—	—
	40X	IX-DP40	IX-DP40	IX-DP40HC	IX-DP40HR
	40XOI3	IX-DPAO40	IX-DPO40S	—	—
	60X	—	—	—	—
	100XOI3	IX-DPO100	IX-DPO100	—	—
PlanApo	60XO3	—	IX-DPO60S	—	—
UPlanApo	10XW3	(IX-DP10)	(IX-DP10)	—	—
	60XW3	IX-DPO60	IX-DPO60	—	—
	60XWPSF 60XW3/1R	IX-DPO60S	IX-DPO60S	—	—
	UApo	20X3/340 20XW3/340	IX-DPUA20	IX-DPUA20	—
UApo	40X3/340	IX-DP40	IX-DP40	IX-DP40HC	IX-DP40HR
	40XW3/340 40XOI3/340	IX-DPAO40	IX-DPO40S	—	—

☐ : To be used in the BFP1 position of the DIC slider.

With the U-UCD8, IX2-MLWCD or IX2-DICD Condenser

© Refer to their separate instruction manuals.

5-3 Differential Interference Contrast Observation (Using the IX2-ILL100 Column)

- ◎ If a plastic petri dish is used, the normal optical performance of DIC observation cannot be manifested due to the polarization characteristic of the petri dish. Use a glass bottom dish.
- ◎ For simultaneous observation with reflected fluorescence observation, refer to the separate instruction manual.
- ◎ DIC optical elements, a DIC slider, analyzer and polarizer are required for DIC observation.

1 DIC Optical Elements, Applicable Objectives and DIC Sliders

With the IX2-LWUCD or IX2-LWUCDA2 Condenser

(Note) The IX-ULWCD condenser cannot be used for DIC observation.

◎ Insert a small optical element (one of the optical elements inside () in the following table) in the 30 mm position and other optical element (large) in the 38 mm position.

UIS2 Series

Applicable Objective	DIC Slider	U-DICT	U-DICTS Shift Type	U-DICTHC High Contrast Type	U-DICTHR High Resolution Type
UPlanSApo	10X2	(IX2-DIC10)	(IX2-DIC10)	—	—
	20X	(IX2-DIC20)	(IX2-DIC20)	(IX2-DIC20HC)	(IX2-DIC20HR)
	20XO				
	40X	IX2-DIC40	IX2-DIC40	IX2-DIC40HC	IX2-DIC40HR
	60XO	—	IX2-DIC60	—	—
	60XW	IX2-DIC60	IX2-DIC60	—	—
	100XO	IX2-DIC100	IX2-DIC100	—	—
PlanApoN	60XO	—	IX2-DIC60	—	—
UPlanFLN	10X2	(IX2-DIC10)	(IX2-DIC10)	—	—
	20X	(IX2-DIC20)	(IX2-DIC20)	(IX2-DIC20HC)	(IX2-DIC20HR)
	40X	IX2-DIC40	IX2-DIC40	IX2-DIC40HC	IX2-DIC40HR
	40XO	—	IX2-DIC40	IX2-DIC40HC	IX2-DIC40HR
	60X	IX2-DIC60	IX2-DIC60	—	—
	60XOI	IX2-DIC60	IX2-DIC60	—	—
	100XO2 100XOI2	IX2-DIC100	IX2-DIC100	—	—
LUCPlanFLN	20X	(IX2-DIC20)	(IX2-DIC20)	(IX2-DIC20HC)	(IX2-DIC20HR)
	40X	IX2-DIC40	IX2-DIC40	IX2-DIC40HC	IX2-DIC40HR
	60X	IX2-DIC60	IX2-DIC60	—	—

□ : To be used in the BFP1 position of the DIC slider.

5-2 Differential Interference Contrast Observation

- ◎ If a plastic petri dish is used, the normal optical performance of DIC observation cannot be manifested due to the polarization characteristic of the petri dish. So use a glass petri dish.
- ◎ For simultaneous observation with reflected fluorescence observation, refer to the separate instruction manual.
- ◎ DIC optical elements, a DIC slider, analyzer and polarizer are required for DIC observation.

1 DIC Optical Elements, Applicable Objectives and DIC Sliders

With the IX2-LWUCD or IX2-LWUCDA2 Condenser

(Note) The IX-ULWCD condenser cannot be used for DIC observation.

- ◎ Insert a small optical element (one of the optical elements inside () in the following table) in the 30 mm position and other optical element (large) in the 38 mm position.

UIS2 Series

Applicable Objective	DIC Slider	U-DICT	U-DICTS Shift Type	U-DICTHC High Contrast Type	U-DICTHR High Resolution Type
UPlanSApo	10X	(IX2-DIC10)	(IX2-DIC10)	—	—
	20X 20XO	(IX2-DIC20)	(IX2-DIC20)	(IX2-DIC20HC)	(IX2-DIC20HR)
	40X	IX2-DIC40	IX2-DIC40	IX2-DIC40HC	IX2-DIC40HR
	60XO	—	IX2-DIC60	—	—
	60XW	IX2-DIC60	IX2-DIC60	—	—
	100XO	IX2-DIC100	IX2-DIC100	—	—
PlanApoN	60XO	—	IX2-DIC60	—	—
UPlanFLN	10X	(IX2-DIC10)	(IX2-DIC10)	—	—
	20X	(IX2-DIC20)	(IX2-DIC20)	(IX2-DIC20HC)	(IX2-DIC20HR)
	40X	IX2-DIC40	IX2-DIC40	IX2-DIC40HC	IX2-DIC40HR
	40XO	—	IX2-DIC40	IX2-DIC40HC	IX2-DIC40HR
	60X	IX2-DIC60	IX2-DIC60	—	—
	60XOI	IX2-DIC60	IX2-DIC60	—	—
	100XO 100XOI	IX2-DIC100	IX2-DIC100	—	—
LUCPlanFLN	20X	(IX2-DIC20)	(IX2-DIC20)	(IX2-DIC20HC)	(IX2-DIC20HR)
	40X	IX2-DIC40	IX2-DIC40	IX2-DIC40HC	IX2-DIC40HR
	60X	IX2-DIC60	IX2-DIC60	—	—

□ : To be used in the BFP1 position of the DIC slider.

UIS Series * Usable regardless of the model number (3, 2, none).

*Applicable Objective	DIC Slider	U-DICT	U-DICTS Shift Type	U-DICTHC High Contrast Type	U-DICTHR High Resolution Type
CPlanFl	10X	(IX-DP10)	(IX-DP10)	—	—
LCPlanFl	20X	(IX-DP20)	(IX-DP20)	(IX-DP20HC)	(IX-DP20HR)
	40X	IX-DP40	IX-DP40	IX-DP40HC	IX-DP40HR
	60X	IX-DP60	IX-DP60	—	—
LUCPlanFl	40X	IX-DP40	IX-DP40	IX-DP40HC	IX-DP40HR
SLCPlanFl	40X	IX-DP40	IX-DP40	IX-DP40HC	IX-DP40HR
UPlanFl	10X	(IX-DP10)	(IX-DP10)	—	—
	20X	—	—	—	—
	40X	—	—	—	—
	60XO13	IX-DPO60 IX-DPO60S	IX-DPO60 IX-DPO60S	—	—
	100XO3	IX-DPO100	IX-DPO100	—	—
UPlanApo	10X 10XO3	(IX-DP10)	(IX-DP10)	—	—
	20X 20XO3	(IX-DPA20)	(IX-DPA20)	—	—
	40X	IX-DP40	IX-DP40	IX-DP40HC	IX-DP40HR
	40XO13	IX-DPAO40	IX-DPO40S	—	—
	60X	—	—	—	—
	100XO13	IX-DPO100	IX-DPO100	—	—
	PlanApo	60XO3	—	IX-DPO60S	—
UPlanApo	10XW3	(IX-DP10)	(IX-DP10)	—	—
	60XW3	IX-DPO60	IX-DPO60	—	—
	60XWPSF 60XW3/1R	IX-DPO60S	IX-DPO60S	—	—
UApo	20X3/340 20XW3/340	IX-DPUA20	IX-DPUA20	—	—
	40X3/340	IX-DP40	IX-DP40	IX-DP40HC	IX-DP40HR
	40XW3/340	IX-DPAO40	IX-DPO40S	—	—
	40XO13/340	—	—	—	—

■ : To be used in the BFP1 position of the DIC slider.

With the U-UCD8 Universal Condenser, IX2-MLWCD Condenser & IX2-DICD Condenser

© Refer to the provided instruction manual.

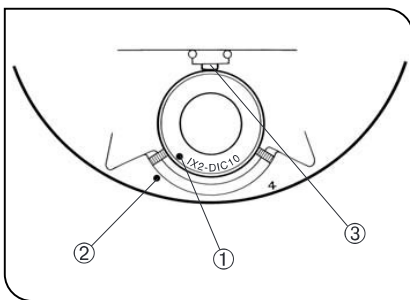


Fig. 44

2 Attaching the DIC Optical Elements (Fig. 44)

- ◎ The attaching method is identical to that for the phase contrast optical elements (page 29 & 30), except that the positioning pin and positioning groove should be aligned when attaching each DIC optical element.
- Align the positioning index ① on the DIC prism with the positioning index ② on a turret position and insert the DIC prism all the way into the turret position so that the DIC prism's frame hits the bottom of the position and the prism's positioning pin fits into the pin hole. When inserting, push the spring ③ inside the turret slightly sideward. (Fig. 44)
- ★ Be careful not to touch the DIC prism area inside the frame.
- ★ Do not tighten the optical element centering knobs too much, for this may deform the frame of the optical element.