

# **ZEISS Compact Prime CP.3 and CP.3 XD**

Mount Change Instructions



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# Introduction

In this manual you learn how to change the mount of a ZEISS Compact Prime CP.3 and CP.3 eXtended Data (abbreviation: ZEISS CP.3 and CP.3 XD) and how to match it to a digital camera. In order to explain the procedure, this manual uses a ZEISS CP.3 XD lens, which is scaled in feet with PL mount.

Proceed in the same sequences to switch from or to any other mount that is available for the ZEISS CP.3 or CP.3 XD (Canon¹ EF, Nikon² F, Sony³ E,MFT and LPL).

Please note that in this instructions the term "CP.3" always refers to both versions: CP.3 and CP.3 XD.

### **Explanation of Symbols**

The information symbol indicates additional information, which is useful for the context.

The skip symbol indicates that under certain circumstances you can skip certain steps.

The result symbol indicates information about the obtained result of a step.

The warning symbol indicates dangerous situations and actions, which might impair the functionality of the product, damage the product or hurt the user.

#### Overview

front lens
focus ring

focus and aperture index mark

aperture ring
 lens foot

lens barrel

small screw

groove of the lens

eXtended Data interface (CP.3 XD only)

electrical interface (CP.3 XD only)

rear lens

12 shims

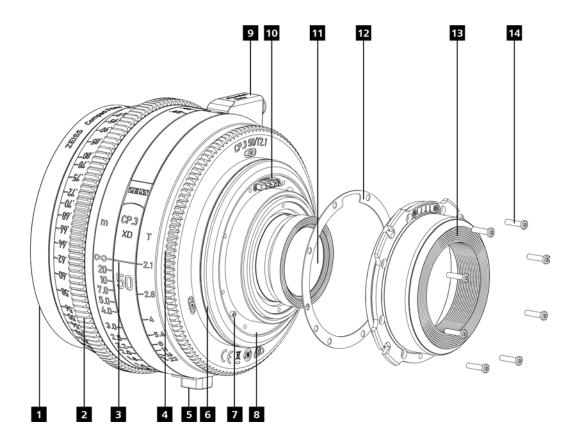
mount including the black inner ring

T6 screws

¹ Canon is a trademark or registered trademark of Canon Inc. and/or other members of the Canon Group.

<sup>&</sup>lt;sup>2</sup> Nikon is a registered trademark of Nikon Corporation

<sup>&</sup>lt;sup>3</sup> Sony and E-mount are registered trademarks of Sony Corporation



### Delivery Contents of a ZEISS CP.3 and CP.3 XD

- 1x ZEISS CP.3 or CP.3 XD
  - 1x Front cap
  - 1x Rear cap
  - 1x Focus lever
- 3x Lens support riser 3/8"

#### **Technical Data**

ZEISS Compact Prime CP.3 and CP.3 XD lenses

Apertur	ose ocus¹	Length <sup>2</sup>	Front diameter	Weight <sup>3</sup>	Horizont	al Angle o	f View		
					Full- Frame <sup>4</sup>	APS-H⁵	Super 35 <sup>6</sup>	Normal APS-C <sup>8</sup> 35 <sup>78</sup>	MFT <sup>9</sup>

<sup>&</sup>lt;sup>1</sup> Close focus distance is measured from the image plane

<sup>&</sup>lt;sup>2</sup> Front to PL mount flange

 $<sup>^{3}</sup>$  The specified weight refers to the ZEISS CP.3 standard lenses. The ZEISS CP.3 XD lenses weigh about 0.01 kg / 0.02 lbs more.

<sup>4</sup> Horizontal angle of view for a full-frame camera (aspect ratio 1:1.5, dimensions 36 mm x 24 mm / 1.42" x 0.94")

<sup>&</sup>lt;sup>5</sup> Horizontal angle of view for an APS-H camera (aspect ratio 1:1.81, dimensions 30.2 mm x 16.7 mm / 1.19" x 0.66")

<sup>&</sup>lt;sup>6</sup> Horizontal angle of view for an ANSI Super 35 Silent camera (aspect ratio 1:1.33, dimensions 24.9 mm x 18.7 mm / 0.98" x 0.74")

<sup>&</sup>lt;sup>7</sup> Horizontal angle of view for a Normal 35 Academy camera (aspect ratio 1:1.37, dimensions 22 mm x 16 mm / 0.87" x 0.63")

 $<sup>^{\</sup>circ}$  Horizontal angle of view for an APS-C camera (aspect ratio 1:1.50, dimensions 22.3 mm x 14.9 mm / 0.88" x 0.59")

<sup>9</sup> Horizontal angle of view for a Micro 4/3 (MFT) camera (aspect ratio 1:1.33, dimensions 17.3 mm x 13 mm / 0.68" x 0.51") 10 CF: Close focus capability

CP.3 & CP.3 XD 15 mm T2.9	T 2.9 to T 22	0.3 m 12"	83.7 mm 3.30"	95 mm 3,7"	0.87 kg 1.9 lbs	100°	90°	79°	73°	73°	60°
CP.3 & CP.3 XD 18 mm T2.9	T2.9 to T22	0.3 m 12"	83.7 mm 3.30"	95 mm 3,7''	0.86 kg 1.9 lbs	89°	80°	69°	63°	64°	51°
CP.3 & CP.3 XD 21 mm T2.9	T 2.9 to T 22	0.24 m 10"	83.7 mm 3.30"	95 mm 3,7''	0.82 kg 1.8 lbs	81°	71°	61°	55°	56°	45°
CP.3 & CP.3 XD 25 mm T2.1	T 2.1 to T 22	0.26 m 10"	83.7 mm 3.30"	95 mm 3,7''	0.82 kg 1.8 lbs	72°	62°	53°	47°	48°	38°
CP.3 & CP.3 XD 28 mm T2.1	T 2.1 to T 22	0.24 m 10"	83.7 mm 3.30"	95 mm 3,7''	0.84 kg 1.9 lbs	65°	57°	48°	43°	43°	34°
CP.3 & CP.3 XD 35 mm T2.1	T 2.1 to T 22	0.3 m 12"	83.7 mm 3.30"	95 mm 3,7"	0.80 kg 1.8 lbs	54°	47°	39°	35°	35°	28°
CP.3 & CP.3 XD 50 mm T2.1	T 2.1 to T 22	0.45 m 18"	83.7 mm 3.30"	95 mm 3,7"	0.77 kg 1.7 lbs	40°	34°	28°	25°	25°	20°
CP.3 & CP.3 XD 85 mm T2.1	T 2.1 to T 22	1 m 3'3"	83.7 mm 3.30"	95 mm 3,7''	0.88 kg 1.9 lbs	24°	20°	17°	15°	15°	12°
CP.3 & CP.3 XD 100 mm CF <sup>10</sup> T2.1	T 2.1 to T 22	0.7 m 2'6"	126.5 mm 4.98"	95 mm 3,7"	1.01 kg 2.2 lbs	20°	17°	14°	13°	13°	10°
CP.3 & CP.3 XD 135 mm T2.1	T 2.1 to T 22	1 m 3′3″	126.5 mm 4.98"	95 mm 3,7''	1.15 kg 2.5 lbs	15°	13°	11°	9°	9°	7°

# **Changing the Mount of a ZEISS CP.3 Lens**

In this chapter you learn how to change the mount of a ZEISS CP.3. The procedure consist of two parts which are both mandatory to successfully change a mount. You learn how to detach the currently attached mount and how to attach a different mount. To make sure the ZEISS CP.3 works properly, additionally complete the subsequent procedure: Adjusting a ZEISS CP.3 to your Digital Camera.

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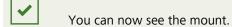
## **Detaching a Mount**

You need
ZEISS CP.3
ZEISS T6 torx wrench with a torque of 0.4 Nm alternatively: regular
T6 torx wrench with a torque of 0.4 Nm ZEISS Interchangeable
☐ Mount Set for ZEISS CP.3
The use of tools offered by ZEISS is highly recommended. You can purchase these tools directly from ZEISS or your trusted ZEISS dealer. See Mount Change Accessories
Requirements
Ensure that your working space is flat and leveled, in order to prevent the lens from tilting and falling over.
Ensure that the environment is clean and free from dust so that no dust particles enter the ZEISS CP.3.
Ensure that the front lens cap sits on your ZEISS CP.3, in order to avoid scratches.

2. Remove the rear lens cap.



- **1.** Place your ZEISS Compact Prime CP.3 on a flat surface with the mount facing up and the serial number facing away from you.
- The serial number is located at the side of the lens foot. The serial number varies.



**3.** With a T6 torx wrench remove the eight torx screws of the mount.



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The black inner ring is securely fastened to the mount at the ZEISS factory and does not need to be removed. This also applies to the electrical interface.



The mount is now loose.

#### 2. Remove the rear lens cap.



**4.** Carefully detach the mount from your ZEISS CP.3.





If you are changing from a PL mount, you can directly see the shims.

If you are changing from any other mount than a PL mount, you can now see the black adapter ring.



The shape and height of the black adapter ring varies according to the different mounts.



The black adapter ring is now loose.



If you are changing from a PL mount, skip step 6 and 7, since the PL mount doesn't have an adapter ring.

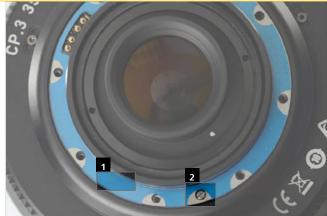
5. With a T6 torque wrench remove the torx screws of the black adapter ring.



**6.** Detach the black adapter ring from your ZEISS CP.3.

When detaching the mount for the first time, do not remove the shims. Never remove the small screw in the groove of the lens.





1 shims 2 small screw in the groove of the lens



Now you see the shim(s) and a small screw in the groove of the lens barrel. You have now successfully detached the mount.

# Screws required in order to attach an interchangeable mount

	PL	LPL	LPL Spacer	EF	EF Spacer	E	E Spacer
Compact Prime 3	M2x8	M2x8	M2x8	M2x8	M2x8 or	M2x8	M2x10
					M2x10		





## **Attaching a Mount**

You need
ZEISS CP.3
ZEISS T6 torx wrench with a torx of 0.4 Nm
ZEISS Interchangeable Mount Set for ZEISS CP.3
The use of tools offered by ZEISS is highly recommended. You can purchase these tools directly from ZEISS or your trusted ZEISS Dealer. See Mount Change Accessories
Requirements
Ensure that your working space is flat and leveled, in order to prevent the lens from tilting and falling over.
Ensure that the environment is clean and free from dust so that no dust particles enter the ZEISS CP.3.
Ensure that the front lens cap sits on your ZEISS CP.3, in order to avoid scratches.
Make sure you successfully completed Part 1: Detaching a Mount

If you are changing to a PL mount, skip step 1 and 2, since the PL mount doesn't have an adapter ring.

1. Carefully place the adapter ring, which came with your ZEISS Interchangeable Mount Set for the ZEISS CP.3. Make sure the small screw in the groove of the ZEISS CP.3 sinks into groove of the adapter ring and the electrical contact fits into the recess.



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The shape and height of the black adapter ring varies according to the different mounts.

2. With the T6 torx wrench tighten the torx screws using a torque of 0.4 N



- **3.** Place the mount on your ZEISS CP.3:
- **3.1** PL mount: Place the PL mount on the ZEISS CP.3 in such a way that the recess of the mount lays on top of the electrical interface. The groove on the other side of the PL mount should then also lay on top of the small screw on the lens barrel.





**3.II** EF mount: Place the silver EF mount on the adapter ring in such a way that the notch aligns with the index mark.



**3.III** F mount: Place the F mount on the adapter ring in such a way that the notch aligns with the index mark.



**3.IV** MFT mount: Place the MFT mount on the adapter ring in such a way that the notch aligns with the index mark.



**3.V** E mount: Place the E mount on the adapter ring in such a way that the blue dot aligns with the index mark.



**3.VI** LPL Mount: Place the LPL mount on the ZEISS CP.3 in such a way that the recess of the mount lays on top of the electrical interface. The groove on the other side of the LPL mount should then also lay on top of the small screw on the lens barrel.





4. With the	e T6 torx wrench tighten the torx screws using a torque of 0.4 N
<b>✓</b>	You have now successfully changed the mount of a ZEISS CP.3.

# Adjusting a ZEISS CP.3 to Your Digital Camera

In the following chapter you learn how to adjust your ZEISS CP.3 to a digital camera. This is necessary to ensure that the ZEISS CP.3 works properly and delivers the maximum image quality. In order to perform this adjustment, ZEISS provides shims in different colors which indicate their thickness.

You nee	ed:					
Trip	boo					
☐ Dig	gital camera with live view					
ZEI	SS CP.3 that needs to be adjusted					
Sie	mens star test chart					
□ Ме	easuring tape or folding ruler					
☐ Flat	t-blade screwdriver					
☐ At	At least 3,5 m or 12 ft of free space					
ZEII Shims se	SS Interchangeable Mount Set for ZEISS CP.3 alternatively: ZEISS et					
i	The use of tools offered by ZEISS is highly recommended. You can purchase these tools directly from ZEISS or your trusted ZEISS Dealer. See Mount Change Accessories					

#### Requirements:

	Make sure that the	he front and	rear lens of	the ZEISS	CP.3 are clean.
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Ensure that the illumination is bright and uniform.

Set your camera to standard settings (cf. work settings)



Smudges and fingerprints on the lens surface can gently be removed with a soft brush and then with a dry and clean cotton cloth. The ZEISS lens cleaning kit will give superior results and is highly recommended for this purpose. For further information, please watch our tutorial on how to clean your lens. 

The https://youtu.be/syOzecbtuwg

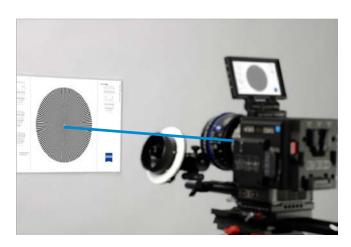


## **Testing the Sharpness**

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Ί.	Fasten	tne	siemens	star	test	cnart	on	а	wali	

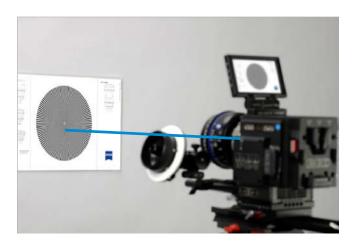
- 2. Mount the ZEISS CP.3 on the camera.
- **3.** Mount the camera on a tripod.
- **4.** Position your camera at the testing distance of 3 m or 10 ft.
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The testing distance is measured from the siemens star test chart to image plane on your camera.



**5.** Level the camera.

6.	Set the aperture of the CP.3 to full speed by rotating the aperture ring.
	The aperture setting must not be changed during the adjustment process.
7.	Activate the live view of your camera.
8.	Select the maximum magnification of the live view.
9.	Make sure that the center of the image aligns with the center of the siemens star test chart.
10	. Set the focus ring according to the testing distance. See Shimming Table.
	The focus setting must not be changed during the adjustment process.
11.	. Obtain maximum image sharpness on the live view by varying the distance between the test chart and the camera.



**12.** Now remeasure the testing distance between the image plane mark on the camera body and the test chart (= the actual distance)



If the testing distance has changed, note the distance. The change indicates that the flange focal distance of the ZEISS CP.3 must be adjusted. Proceed with the steps in Correcting the Flange Focal Distance.

**13.** Do not take down the setup as you will need it again to recheck the sharpness later in the process.

### **Correcting the Flange Focal Distance**

- **1.** Remove the ZEISS CP.3 from the camera.
- **2.** Follow the steps of chapter Detaching a Mount.
- **3.** Determine the total thickness of the shims that already lay in the lens groove.

**4.** Increase or decrease the total shim thickness according to the tables in the appendix by using a flat-bladed screwdriver or a pair of tweezers.



Any combination of shims is possible to achieve the required thickness and therefore the desired flange focal distance. Always use the closest possible combination of shims.

#### Example:

Using a Compact Prime CP.3 35mm/T2.1 lens with an EF mount, scaled in feet and a test chart at a test distance of 4 ft, an actual distance of 4 ft 1' is measured. Due to the table on page 14, you add a silver shim 0.013mm to the total thickness of the shims.

**5.** Use a flat-bladed screwdriver or a pair of tweezers to remove or add shims.



Handle the shims carefully as they can easily kink or tear which makes them unusable.

Ensure that the colored shims lie on top of each other in the groove of the lens barrel and do not cover the screw holes. The shims might otherwise be damaged, while screwing in the screws.

- **6.** Follow the steps of chapter Attaching a Mount to attach a new mount.
- **7.** Recheck the sharpness of the lens. Follow the steps of testing the sharpness once more.

- a. If the testing distance has changed, follow the steps of chapter Correcting the Flange Focal Distance once more.
- b. If you achieve the maximum sharpness at the testing distance proposed in the tables, you successfully tested your Compact Prime CP.3. No further steps are required.

In this chapter you learned how to adjust a Compact Prime CP.3

# **Appendix**

#### **Color Code of the Shims**

## **Shimming Table**

Minus sign: Enlarge the flange focal distance. → Remove Shims

Plus sign: Reduce the flange focal distance. → Add Shims

Shim color	Thickness [mm]	
Silver	0.013	
Gold	0.019	
Purple	0.025	
Light Blue	0.032	
Red	0.038	
Blue	0.051	
White	0.064	
Green	0.076	
Orange	0.102	
Light Purple	0.127	
Clear	0.152	

## Compact Prime CP.3 15mm/T2.9

Meter distance scale		Feet distance scale	
Distance to test chart [mm]	1000	Distance to test chart [ft]	4
Object distance at best focus [mm]	Change of total washer thickness [mm]	Object distance at best focus [ft]	Change of total washer thickness [mm]
860	-0,04	3ft 4'	-0,04
895	-0,03	3ft 6'	-0,03
930	-0,02	3ft 8'	-0,02
965	-0,01	3ft 10'	-0,01
1000	0,00	4ft 0'	0,00
1035	+0,01	4ft 2'	+0,01
1070	+0,02	4ft 4 '	+0,02
1105	+0,03	4ft 6'	+0,03
1140	+0,04	4ft 8'	+0,04

## Compact Prime CP.3 18mm/T2.9

Meter distance scale

Feet distance scale

Distance to test chart [mm]	1000	Distance to test chart [ft]	4
Object distance at best focus [mm]	Change of total washer thickness [mm]	Object distance at best focus [ft]	Change of total washer thickness [mm]
900	-0,04	3ft 8'	-0,03
925	-0,03	3ft 9'	-0,02
950	-0,02	3ft 10'	-0,01
975	-0,01	3ft 11'	-0,01
1000	0,00	4ft 0'	0,00
1025	+0,01	4ft 1'	+0,01
1050	+0,02	4ft 2 '	+0,01
1075	+0,03	4ft 3'	+0,02
1100	+0,04	4ft 4'	+0,03

## Compact Prime CP.3 21mm/T2.9

eter distance scale		Feet distance scale	
Distance to test chart [mm]	1000	Distance to test chart [ft]	4
Object distance at best focus [mm]	Change of total washer thickness [mm]	Object distance at best focus [ft]	Change of total washer thickness [mm]
940	-0,04	3ft 8'	-0,04
955	-0,03	3ft 9'	-0,03
970	-0,02	3ft 10'	-0,02
985	-0,01	3ft 11'	-0,01
1000	0,00	4ft 0'	0,00
1015	+0,01	4ft 1'	+0,01
1030	+0,02	4ft 2 '	+0,02
1045	+0,03	4ft 3'	+0,03
1060	+0,04	4ft 4'	+0,04

## Compact Prime CP.3 25mm/T2.1

ter distance scale		Feet distance scale	
Distance to test chart [mm]	1000	Distance to test chart [ft]	4
Object distance at best focus [mm]	Change of total washer thickness [mm]	Object distance at best focus [ft]	Change of total washer thickness [mm]
960	-0,03	3ft 8'	-0,05
970	-0,02	3ft 9'	-0,04
980	-0,02	3ft 10'	-0,03
990	-0,01	3ft 11'	-0,01
1000	0,00	4ft 0'	0,00
1010	+0,01	4ft 1'	+0,01
1020	+0,02	4ft 2 '	+0,03
1030	+0,02	4ft 3'	+0,04
1040	+0,03	4ft 4'	+0,05

## Compact Prime CP.3 28mm/T2.1

eter distance scale		Feet distance scale	
Distance to test chart [mm]	1000	Distance to test chart [ft]	4
Object distance at best focus [mm]	Change of total washer thickness [mm]	Object distance at best focus [ft]	Change of total washer thickness [mm]
960	-0,04	3ft 10'	-0,03
970	-0,03	3ft 10' 1/2'	-0,03
980	-0,02	3ft 11'	-0,02
990	-0,01	3ft 11' 1/2'	-0,01
1000	0,00	4ft 0'	0,00
1010	+0,01	4ft 1'	+0,01
1020	+0,02	4ft 1' 1/2 '	+0,02
1030	+0,03	4ft 2'	+0,03
1040	+0,04	4ft 2' 1/2'	+0,03

# Compact Prime CP.3 35mm/T2.1

eter distance scale		Feet distance scale	
Distance to test chart [mm]	1000	Distance to test chart [ft]	4
Object distance at best focus [mm]	Change of total washer thickness [mm]	Object distance at best focus [ft]	Change of total washer thickness [mm]
980	-0,03	3ft 10'	-0,05
985	-0,02	3ft 10' 1/2'	-0,04
990	-0,02	3ft 11'	-0,03
995	-0,01	3ft 11' 1/2'	-0,01
1000	0,00	4ft 0'	0,00
1005	+0,01	4ft 1'	+0,01
1010	+0,02	4ft 1' 1/2'	+0,03
1015	+0,02	4ft 2'	+0,04
1020	+0,03	4ft 2' 1/2'	+0,05

## Compact Prime CP.3 50mm/T2.1

eter distance scale		Feet distance scale	
Distance to test chart [mm]	1500	Distance to test chart [ft]	5
Object distance at best focus [mm]	Change of total washer thickness [mm]	Object distance at best focus [ft]	Change of total washer thickness [mm]
1480	-0,03	4ft 11'	-0,03
1485	-0,02	4ft 11' 1/4'	-0,03
1490	-0,01	4ft 11' 1/2'	-0,02
1495	-0,01	4ft 11' 3/4'	-0,01
1500	0,00	5ft 0'	0,00
1505	+0,01	5ft 1/4'	+0,01
1510	+0,01	5ft 1/2'	+0,02
1515	+0,02	5ft 3/4'	+0,03
1520	+0,03	5ft 1'	+0,03

## Compact Prime CP.3 85mm/T2.1

eter distance scale		Feet distance scale	
Distance to test chart [mm]	1500	Distance to test chart [ft]	5
Object distance at best focus [mm]	Change of total washer thickness [mm]	Object distance at best focus [ft]	Change of total washer thickness [mm]
1492	-0,03	4ft 11' 4/8'	-0,05
1494	-0,02	4ft 11' 5/8'	-0,04
1496	-0,02	4ft 11' 6/8'	-0,02
1498	-0,01	4ft 11' 7/8'	-0,01
1500	0,00	5ft 0'	0,00
1502	+0,01	5ft 1/8'	+0,01
1504	+0,02	5ft 2/8'	+0,02
1506	+0,02	5ft 3/8'	+0,04
1508	+0,03	5ft 4/8'	+0,05

## Compact Prime CP.3 100mm/T2.1

ter distance scale		Feet distance scale	
Distance to test chart [mm]	2000	Distance to test chart [ft]	7
Object distance at best focus [mm]	Change of total washer thickness [mm]	Object distance at best focus [ft]	Change of total washer thickness [mm]
1987	-0,04	6ft 11' 4/8'	-0,03
1990	-0,03	6ft 11' 5/8'	-0,02
1993	-0,02	6ft 11' 6/8'	-0,02
1997	-0,01	6ft 11' 7/8'	-0,01
2000	0,00	7ft 0'	0,00
2003	+0,01	7ft 1/8'	+0,01
2007	+0,02	7ft 2/8'	+0,02
2010	+0,03	7ft 3/8'	+0,03
2013	+0,04	7ft 4/8'	+0,03

## Compact Prime CP.3 135mm/T2.1

eter distance scale		Feet distance scale	
Distance to test chart [mm]	2000	Distance to test chart [ft]	7
Object distance at best focus [mm]	Change of total washer thickness [mm]	Object distance at best focus [ft]	Change of total washer thickness [mm]
1992	-0,05	6ft 11 4/8'	-0,06
1994	-0,03	6ft 11 5/8'	-0,05
1996	-0,02	6ft 11 6/8'	-0,03
1998	-0,01	6ft 11 7/8'	-0,02
2000	0,00	7ft 0'	0,00
2002	+0,01	7ft 1/8'	+0,02
2004	+0,02	7ft 2/8'	+0,03
2006	+0,03	7ft 3/8'	+0,05
2008	+0,04	7ft 4/8'	+0,06

## **Mount Change Accessories**

Front Lens Cap CP.3       000000-21         Rear Lens Cap - EF       000000-17         Rear Lens Cap - PL       102160-00         Rear Lens Cap - F       000000-17         Rear Lens Cap - MFT       000000-18         Rear Lens Cap - E       000000-19         IMS PL - XD eXtended Data - T2.9/15; T2.1/50; T2.1/85       000000-22         IMS PL - XD eXtended Data - T2.9/18       000000-22         IMS PL - XD eXtended Data - T2.1/100       000000-22         IMS PL - XD eXtended Data - T2.1/135       000000-22         IMS PL - XD eXtended Data - T2.1/135       000000-22	tification Number
Rear Lens Cap - PL       102160-00         Rear Lens Cap - F       000000-17         Rear Lens Cap - MFT       000000-18         Rear Lens Cap - E       000000-19         IMS PL - XD eXtended Data - T2.9/15; T2.1/50; T2.1/85       000000-22         IMS PL - XD eXtended Data - T2.9/18       000000-22         IMS PL - XD eXtended Data - T2.9/21; T2.1/25; T2.1/28; T2.1/35       000000-22         IMS PL - XD eXtended Data - T2.1/100       000000-22         IMS PL - XD eXtended Data - T2.1/135       000000-22	53-706
Rear Lens Cap - F       000000-17         Rear Lens Cap - MFT       000000-18         Rear Lens Cap - E       000000-19         IMS PL - XD eXtended Data - T2.9/15; T2.1/50; T2.1/85       000000-22         IMS PL - XD eXtended Data - T2.9/18       000000-22         IMS PL - XD eXtended Data - T2.9/21; T2.1/25; T2.1/28; T2.1/35       000000-22         IMS PL - XD eXtended Data - T2.1/100       000000-22         IMS PL - XD eXtended Data - T2.1/135       000000-22	93-167
Rear Lens Cap - MFT       000000-18         Rear Lens Cap - E       000000-19         IMS PL - XD eXtended Data - T2.9/15; T2.1/50; T2.1/85       000000-22         IMS PL - XD eXtended Data - T2.9/18       000000-22         IMS PL - XD eXtended Data - T2.9/21; T2.1/25; T2.1/28; T2.1/35       000000-22         IMS PL - XD eXtended Data - T2.1/100       000000-22         IMS PL - XD eXtended Data - T2.1/135       000000-22	52-000
Rear Lens Cap - E       000000-19         IMS PL - XD eXtended Data - T2.9/15; T2.1/50; T2.1/85       000000-22         IMS PL - XD eXtended Data - T2.9/18       000000-22         IMS PL - XD eXtended Data - T2.9/21; T2.1/25; T2.1/28; T2.1/35       000000-22         IMS PL - XD eXtended Data - T2.1/100       000000-22         IMS PL - XD eXtended Data - T2.1/135       000000-22	93-178
IMS PL - XD eXtended Data - T2.9/15; T2.1/50; T2.1/85       000000-22         IMS PL - XD eXtended Data - T2.9/18       000000-22         IMS PL - XD eXtended Data - T2.9/21; T2.1/25; T2.1/28; T2.1/35       000000-22         IMS PL - XD eXtended Data - T2.1/100       000000-22         IMS PL - XD eXtended Data - T2.1/135       000000-22	89-118
IMS PL - XD eXtended Data - T2.9/18       000000-22         IMS PL - XD eXtended Data - T2.9/21; T2.1/25; T2.1/28; T2.1/35       000000-22         IMS PL - XD eXtended Data - T2.1/100       000000-22         IMS PL - XD eXtended Data - T2.1/135       000000-22	07-145
IMS PL - XD eXtended Data - T2.9/21; T2.1/25; T2.1/28; T2.1/35 000000-22 IMS PL - XD eXtended Data - T2.1/100 000000-22 IMS PL - XD eXtended Data - T2.1/135 000000-22	18-176
IMS PL - XD eXtended Data - T2.1/100 000000-22 IMS PL - XD eXtended Data - T2.1/135 000000-22	16-325
IMS PL - XD eXtended Data - T2.1/135 000000-22	18-392
	18-398
NAC DI TO 0/45 TO 4/50 TO 4/55	18-404
IMS PL - T2.9/15; T2.1/50; T2.1/85 000000-22	18-177
IMS PL - T2.9/18 000000-22	18-175
IMS PL - T2.9/21; T2.1/25; T2.1/28; T2.1/35 000000-22	18-393
IMS PL - T2.1/100 000000-22	18-399
IMS PL - T2.1/135 000000-22	18-405
IMS EF - T2.9/15; T2.1/50; T2.1/85 000000-22	18-389
IMS EF - T2.9/18 000000-22	17-359
IMS EF - T2.9/21; T2.1/25; T2.1/28; T2.1/35 000000-22	18-395
IMS EF - T2.1/100 000000-22	18-401
IMS EF - T2.1/135 000000-22	18-407
IMS MFT - T2.9/15; T2.1/50; T2.1/85 000000-22	18-390
IMS MFT - T2.9/18 000000-22	17-359
IMS MFT - T2.9/21; T2.1/25; T2.1/28; T2.1/35 000000-22	18-396
IMS MFT - T2.1/100 000000-22	18-402
IMS MFT - T2.1/135 000000-22	18-408
IMS E - T2.9/15; T2.1/50; T2.1/85 000000-22	18-388
IMS E - T2.9/18 000000-22	17-326
IMS E - T2.9/21; T2.1/25; T2.1/28; T2.1/35 000000-22	18-396
IMS E - T2.1/100 000000-22	18-402
IMS E - T2.1/135 000000-22	18-408
IMS F - T2.9/15 000000-22	18-391
IMS F - T2.9/18 000000-22	

IMS F - T2.9/21; T2.1/25; T2.1/28; T2.1/35	000000-2218-397
IMS F - T2.1/100	000000-2218-403
IMS F - T2.1/135	000000-2218-409
IMS F - T2.1/50; T2.1/85	000000-2223-503
IMS LPL – T2.1/100	000000-2329-762
IMS LPL – T2.1/135	000000-2329-933
IMS LPL – T2.9/15; T2.1/50; T2.1/85	000000-2329-759
IMS LPL – T2.9/18	000000-2329-760
IMS LPL – T2.1/21; T2.1/25; T2.1/28; T2.1/35	000000-2329-761

## Glossary

Flange focal distance	flange-to-film distance, flange focal depth, flange back distance, flange focal length	
Shim	washer	
Index mark	aperture indicator, aperture line, aperture mark, aperture index	
Flat-blade screwdriver	slotted screwdriver, flathead screwdriver	

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