



## **USER MANUAL**

***#31 Nikon/Confocal Type Microscope Mount Set***

**14-0010**

**Version 2.00**

**2013**

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Version 2.00

2013

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**CYCLE WARRANTY CRITERION:** One "cycle" is considered one open and one closure of the shutter. DSS Shutter must be operated with the ED12DSS driver or equivalent H-Bridge type shutter driver circuit at +10.7VDC across the actuator coil for the specified duration. DSS Shutter must be operated within the defined environmental, electrical and mechanical specifications as listed on the device's data sheet. After one year (WARRANTY PERIOD), the cycle warranty is null and void. If returned, the device must be accompanied by a written statement indicating the approximate number of cycles contained on the device, include all parameters to which the shutter was operated and follow the RETURN MATERIAL AUTHORIZATION PROCEDURE as defined below.

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## Introduction

The #31 mount set allows specific shutter housing types to attach in between NIKON HMX type lamp-houses and a spinning-disk “CONFOCAL” optic device. The housed versions of the VS and LS series shutters, as well as the CS25, CS35, XRS6, and XRS25 can be configured with this mount set type. A clearance cutoff (1.38”/35mm from the aperture center) is provided with the VS series only.

## Assembly Procedure

### Mount Assembly

#### Unpack the Mount Set

As you remove the packing material from the box, check for small items that may be attached to the packing material. Make sure the following parts were included in the box:

(see parts list table and Figure 1)

FRONT MOUNT ADAPTER ASSEMBLY PARTS LIST			
ITEM	PART NAME	QUANTITY	PART NUMBER
1	#21 FRONT MOUNT ADAPTER	1	9003-0225
2	SCREW 2-56x5/16 FLAT HEAD	3	20-0104
REAR MOUNT ADAPTER ASSEMBLY PARTS LIST			
ITEM	PART NAME	QUANTITY	PART NUMBER
1	SCREW 4-40x5/16 F.H.	3	20-0079
2	#27 REAR INNER RING	1	9003-0267
3	SET SCREW 4-40x1/4	3	20-0149
4	#27 REAR OUTER RING	1	9003-0266
5	#27 MOUNT RING ADAPTER	1	9003-0265
6	#100 MOUNTING RING	1	9003-0025
7	#4 ROUND SPACER	4	21-0019
8	SCREW 4-40x1/2 P.H.	4	20-0165

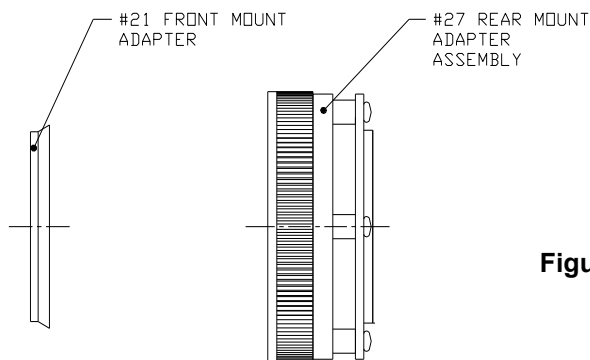


Figure 1

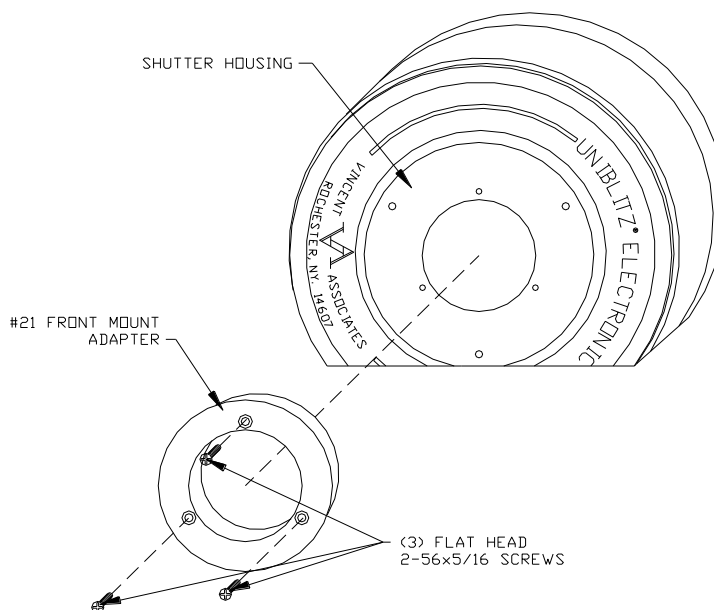
## INSTALL FRONT ADAPTER

### Step One:

Using the (3) 2-56 screws provided, attach #21 front adapter to the front side (with name plate) of the shutter housing (see Figure 2).

If shutter is not equipped with 2.000"X40 TPI thread, attach #135 conversion adapter, and secure with set screw included

Figure 2



## INSTALL REAR ADAPTER

### Step One:

Unscrew (3) 4-40 screws of rear mount adapter, remove inner ring and outer ring (see Figure 3).

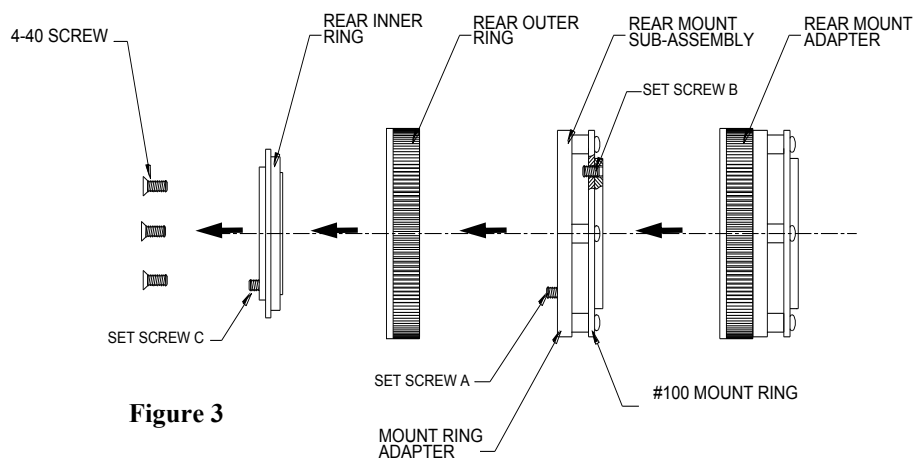


Figure 3

### Step Two:

Screw the rear mount sub-assembly to the back of the housing onto external optical thread, until it stops. Then rotate it back to align the screw hole indicated to the top cover screw of the housing as shown in Figure 4.

**NOTE:** After aligning as above, this set screw A of mount ring adapter must be in this approximate position.

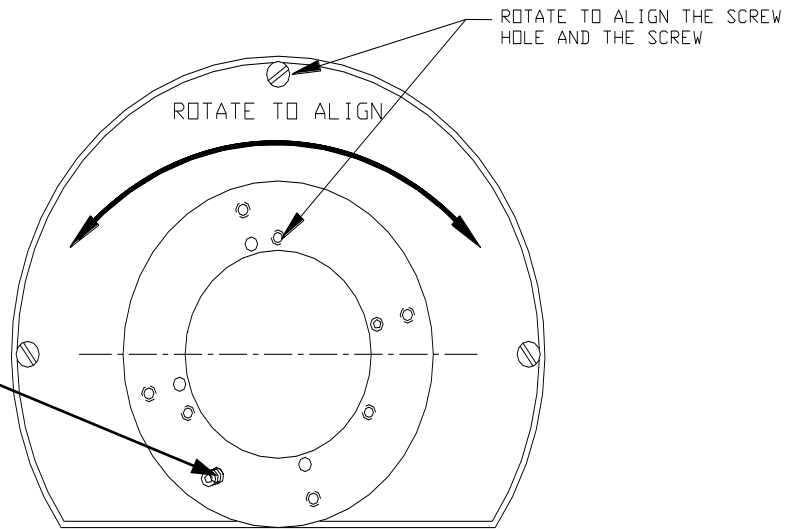


Figure 4

### Step Three:

Through one of the four clearance holes, tighten the set screw B which is installed onto the #100 mounting ring. This will secure the rear mount sub-assembly into place (see Figure 5).

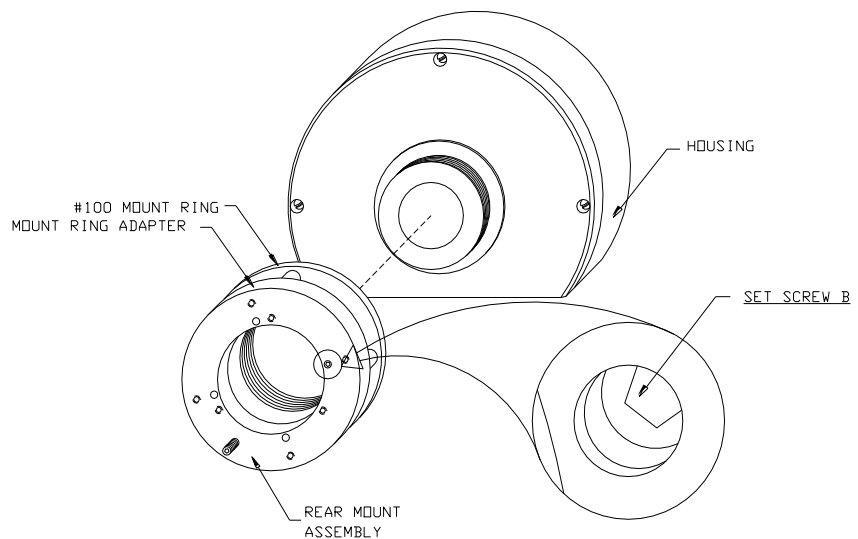


Figure 5

### Step Four:

Align slot of outer ring with the set screw A of rear mount sub-assembly (see Figure 6).

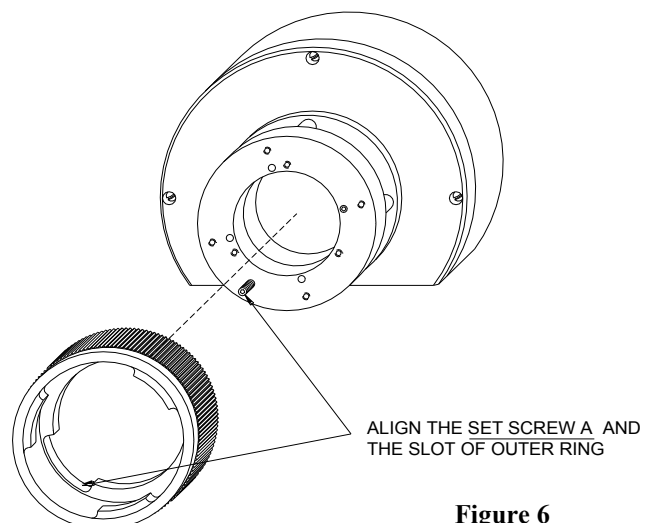


Figure 6

### Step Five:

Attach inner ring , using (3) 4-40 screws. Align the set screw C of the inner ring and the center of flat housing edge (see Figure7, 8).

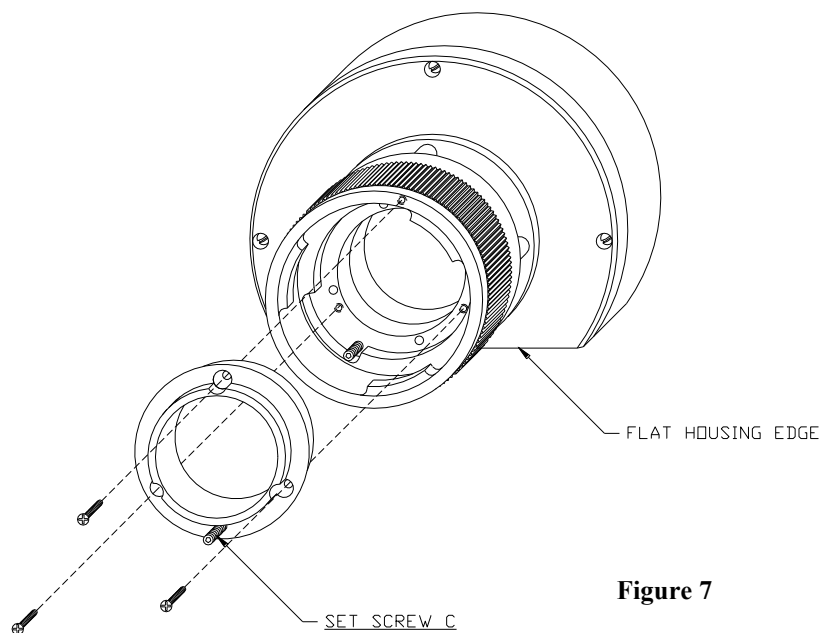


Figure 7

**Final assembly** as shown in Figure 8

**NOTE:** The set screw C, as shown, always aligns in the center of flat edge.

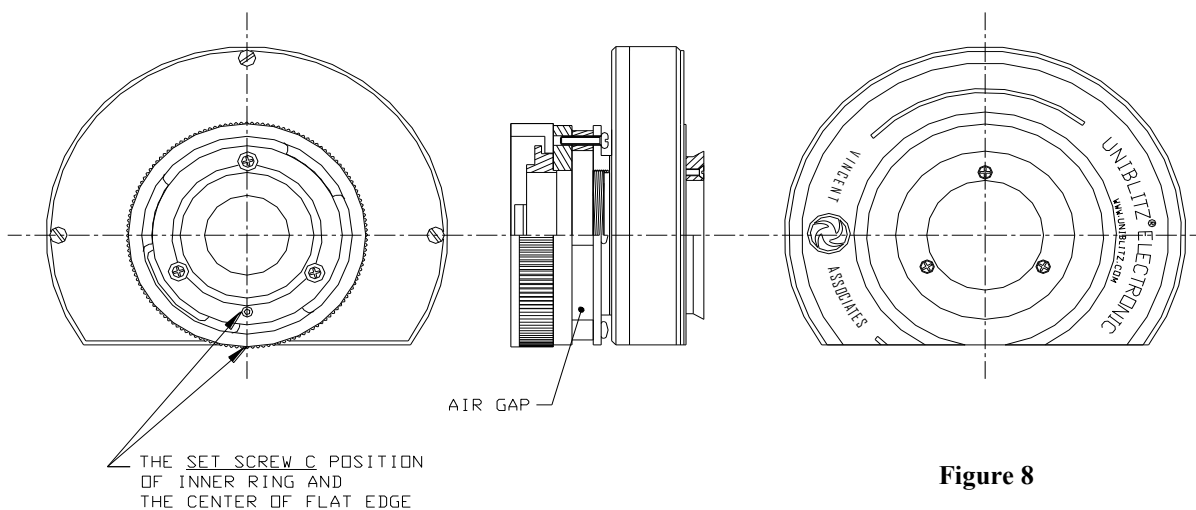
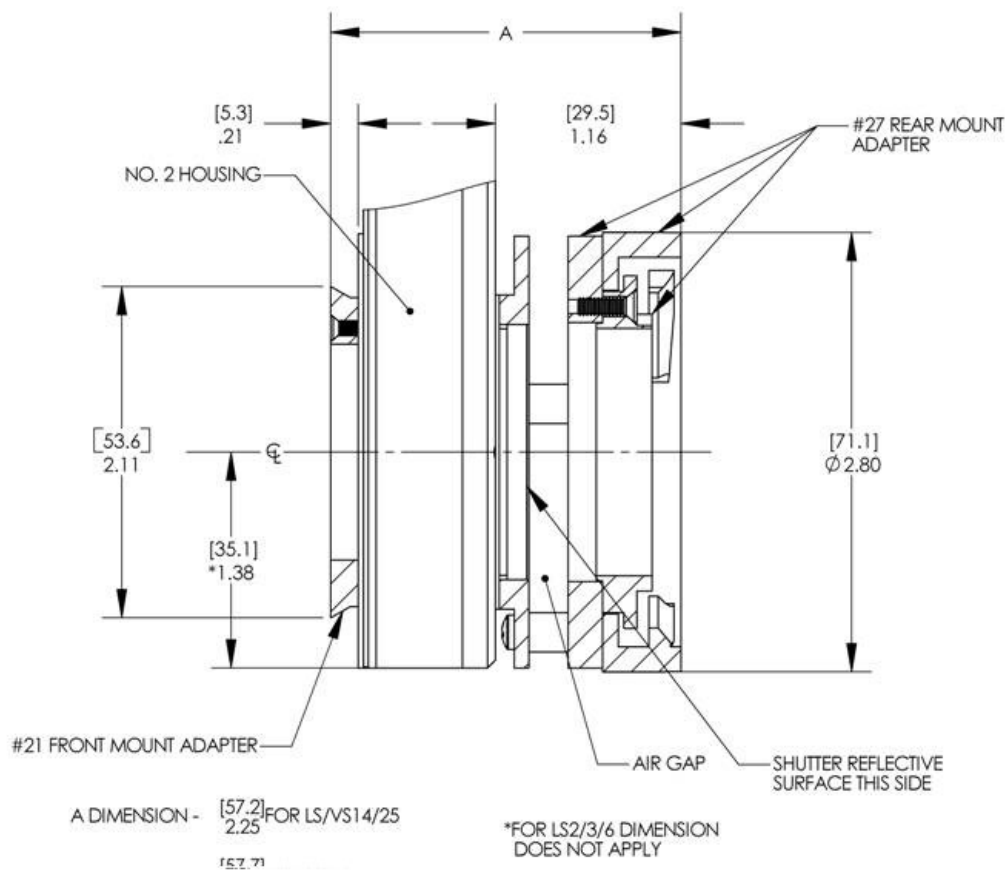


Figure 8



## Specifications



**ALL DIMENSIONS MAX**

**[mm]**

**INCH**

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Drawings shown for illustrative purposed only.

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