THE LENS TUBE IS DESIGNED TO Hold A 9mm DIAMETER LASER DIODE. IN ORDER TO USE IT WITH A 5.6mm LASER, TWO ADAPTERS, PARTS ARE INCLUDED. TO INSTALL THE ADAPTERS FOLLOW THE STEPS BELOW:

1. REMOVE THE RETAINING RING ON THE SIDE OF THE COLLIMATION TUBE, WHERE THE 9.0mm LASER DIODE WILL GO.
2. TAKE THE ADAPTER PART THAT HAS NO OUTER THREADS AND INSERT IT INTO THE TUBE AS FAR AS IT CAN GO SO THAT THE TOP OF ITS TOP-HAT SHAPE IS AIMED TOWARDS THE LENS.
3. PUT IN THE LASER DIODE.

THROUGH THREAD ADAPTER WITH THE SAME ORIENTATION.

Laser Diode, Standard 9mm package sold separately, see Thorlabs Catalog

Identification grooves

LT230A collimation tube

f=4.5mm ASHERIC LENS

C230TM collimation lens sold separately, see Thorlabs Catalog

Retaining ring use spanner wrench Thorlabs item SPW301

Retaining ring use spanner wrench Thorlabs item SPW301

Thorlabs collimation optic item C230TM (f=4.5mm) use spanner wrench Thorlabs item SPW301

0.016" (0.40mm)

0.016" (0.40mm)

Approximate distance at collimation

0.097" (2.47mm)

0.580"

0.75"

NOTES:

1) THE LT230A WAS DESIGNED USING THE TOSHIBA STANDARD 9mm LASER DIODE PACKAGE. THE PRINCIPLE PLANE OF THE C230TM (f=4.5mm) IS NOMINALLY 6.37mm FROM THE LASER MOUNTING SURFACE.

2) THE C230TM LENS CELL HAS 3mm OF ADJUSTMENT RANGE FROM THE POSITION SHOWN IN THE ASSEMBLY DRAWING.

3) THE LT230A DESIGN REQUIRE THE EMITTING SURFACE OF THE LASER TO BE BETWEEN 1.7mm TO 3.2mm FROM THE Ø9mm MOUNTING FlANGE OF THE LASER.

4) THE LT230A DESIGN INCLUDES AN O-RING TO CENTER THE LENS. Since THE BEAM PATH WILL VARY DURING ADJUSTMENT (RETURNING NOMINALLY TO THE SAME POSITION) IT IS RECOMMENDED THAT THE LENS BE ADJUSTED PRIOR TO THE ALIGNMENT OF THE REMAINING OPTICAL SYSTEM. THE LENS MAY BE FIXED IN PLACE WITH AN ADHESIVE AFTER IT IS SET IN POSITION.

LT230P-B COLLIMATION TUBE TYPICAL ASSEMBLY

SECTION VIEW

SECTION VIEW

LT230A COLLIMATION TUBE

NOT TO SCALE

THORLABS PD BOX 366
NEwTON N.J.

TEL: XXXX-XXXX XXXX-XXXX ANGULAR 5.5° SURF. FINISH 32 MICROINCHES UNLESS OTHERWISE NOTED

DRAWN AC ENGINEER AC APPROVED AC

MATERIAL N/A

DATE 05/09/95 REV C SHEET 1 OF 1 WHERE USED ENGINEERING SUPPORT DRAWING

SPE 0897-E01 LT230A