

作成承認印

配布許可印



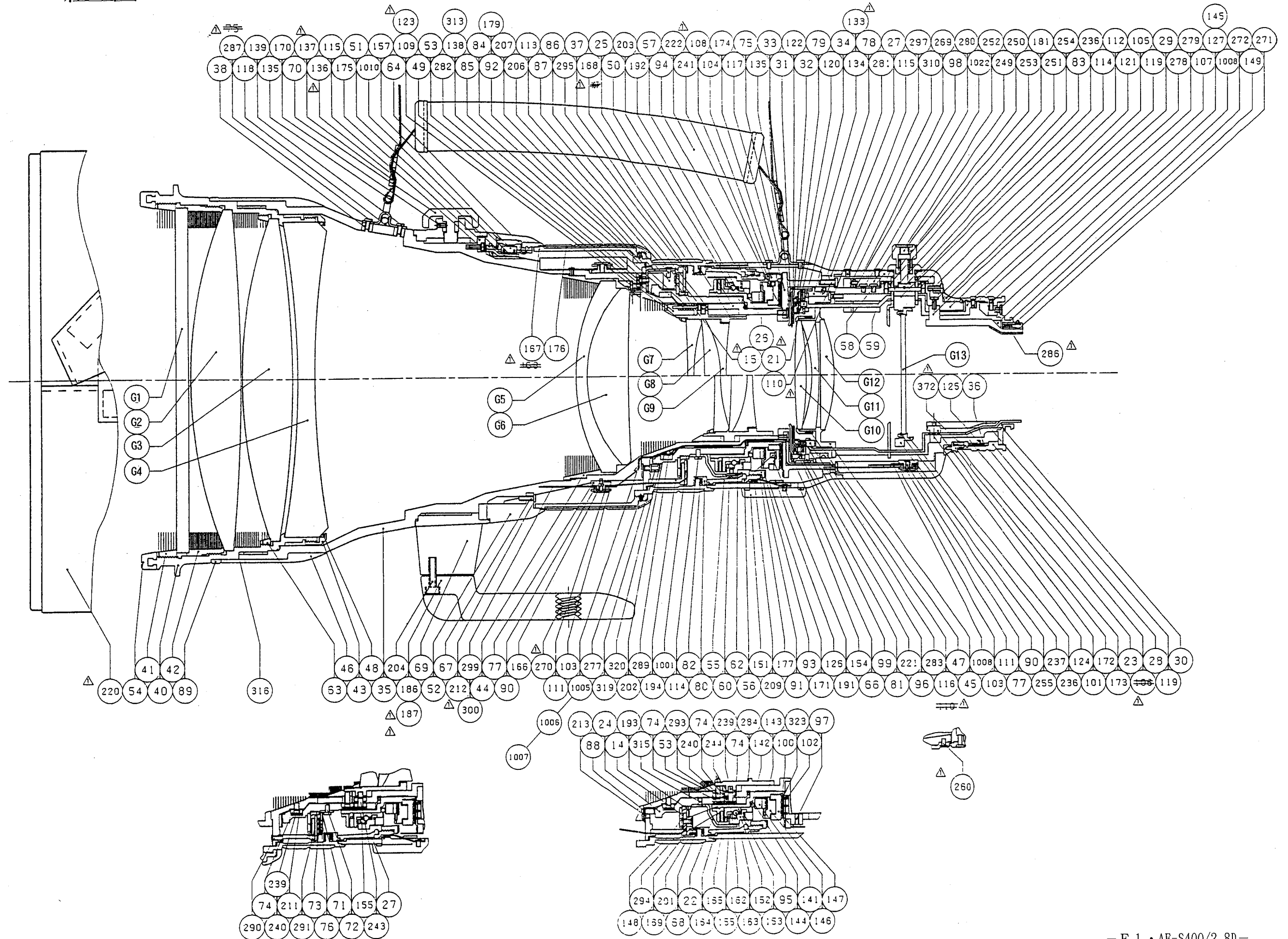
AF-S Nikkor 400mm f/2.8 D IF

REPAIR MANUAL

Nikon | NIKON CORPORATION
Tokyo, Japan

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組立図 Structure of the Lens



DISASSEMBLING / ASSEMBLING / ADJUSTMENT

Note : This applicable lens has fundamentally the same structure as the conventional AF-S lens has other than its exterior or some partial forms.

In this accord, some different items such as the particularly specified standard values or key points alone shall be instructed in these documents.

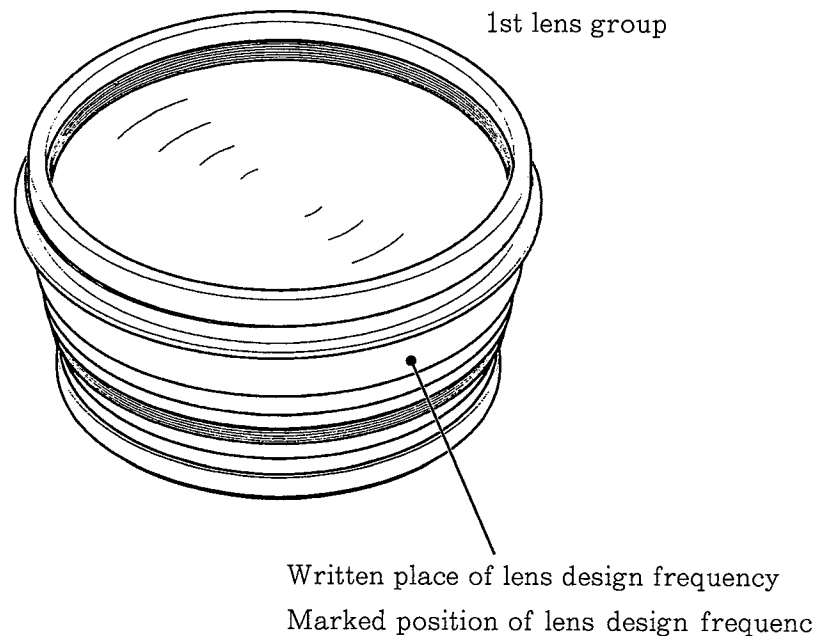
For the normal disassembly and assembly cases, refer to the expanded figures and the repair manual for the AF-S lens.

【Design frequency of lens】

The refractive index of a lens glass is different for every production lot. One glass has almost the same refractive index as the other if they are produced in the same lot. If the production lot of one glass is different from the other, the radius of curvature must be changed according to the change of the refractive index. The optical design for this reason is called “design frequency”.

When a glass produced in a different lot is used for replacement during lens repair, aberration or others are adversely affected and a trouble occurs.

When repairing a part of glass with the design frequency, the glass with the same design frequency must be used.



Note: The number of times of designing the lens shall be stated as follows.

For the first time : No mark

For the first half of second time : No mark

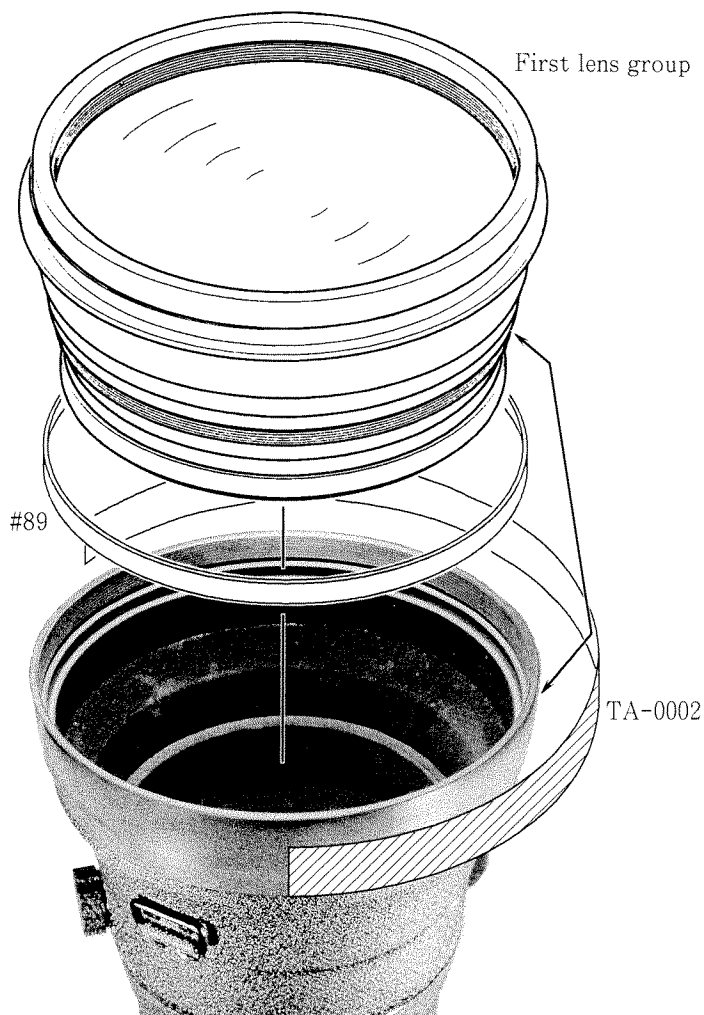
For the latter half of second time : Marking made as '2R'

For the third time : Marking made as '3R'

Followed by '4R', '5R', '6R' and so on.

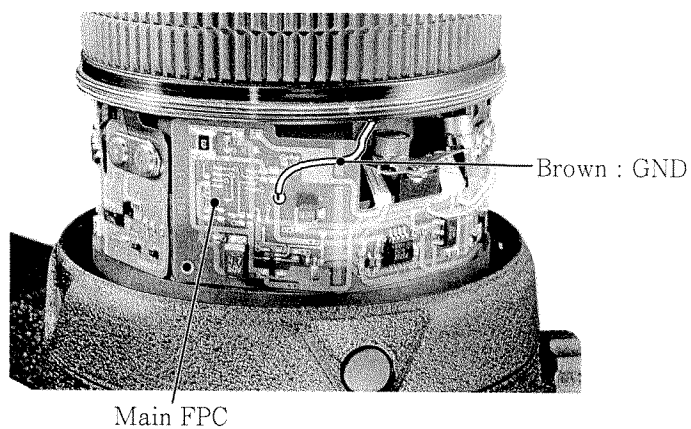
In addition, for the lenses designed particularly for 'the first time' and 'the first half of second time', they shall not be commonly marketed, however, some of them are actually employed and used by the mass media as an exceptional case.

FIRST LENS GROUP

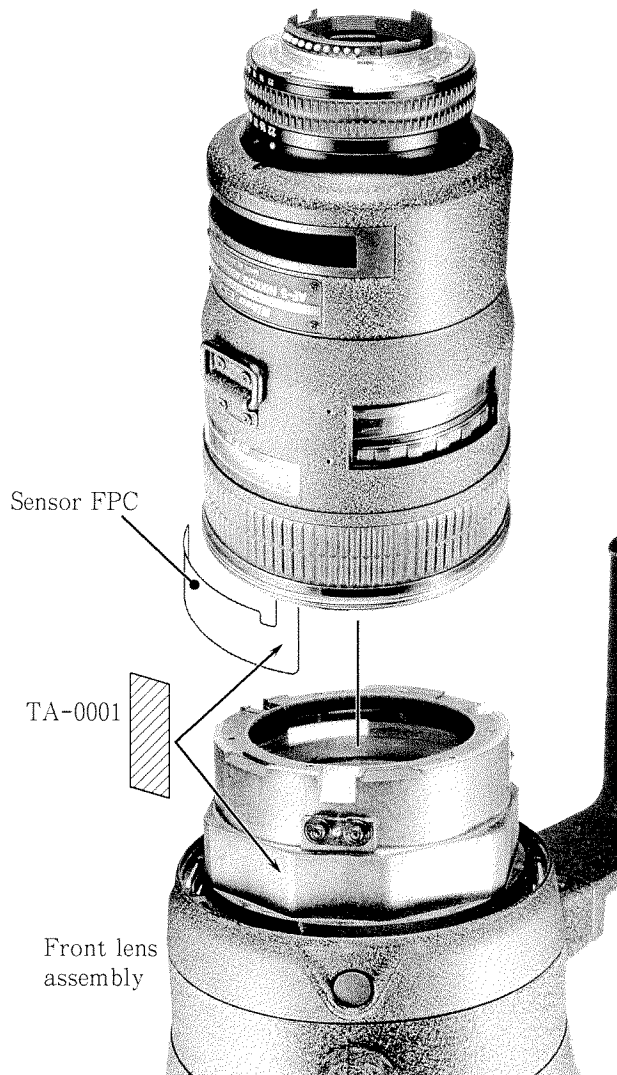


- The first lens group is fixed by an adhesive tape.
In this regard, for assembly, make sure to fix the first lens group with the adhesive tape after mounting it.
Then, be sure to attach the tape fully around it.

MAIN FPC



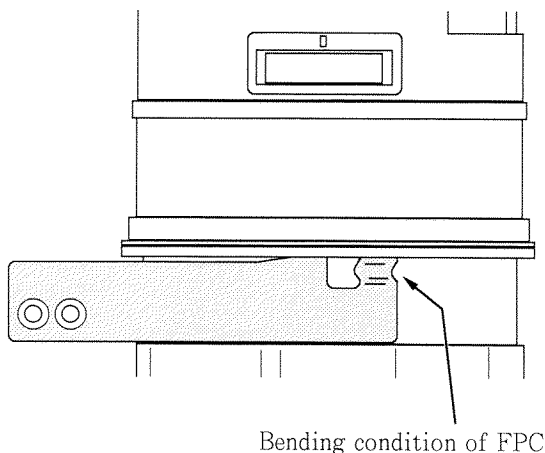
SEPARATION OF THE FRONT LENS ASSEMBLY



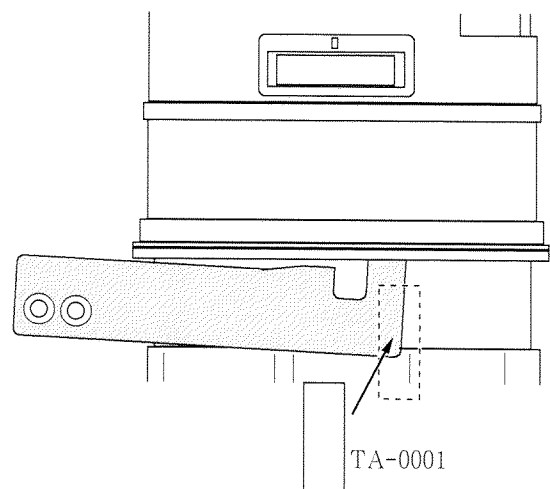
- The sensor FPC used on this applicable lens is also commonly employed on the AF-S lens. Comparing to the conventional AF-S lens's size, this applicable lens' size which shall be applied to mount on the front lens assembly is slightly different so that it accordingly causes such a bending condition between the front lens assembly and the FPC. Then, it may eventually cause to damage the FPC by mutually interfering with the MF, manual focus, ring. As its prevention against such a bending, the sensor FPC is fixed by an adhesive tape. In the event of disassembly, remove the main FPC at first and then peel off the adhesive tape.

Note : For assembly, as can be seen from the figure below, in order to avoid such a bending condition, make sure to set it flat and fix it by an adhesive tape. Then, mount the main FPC.

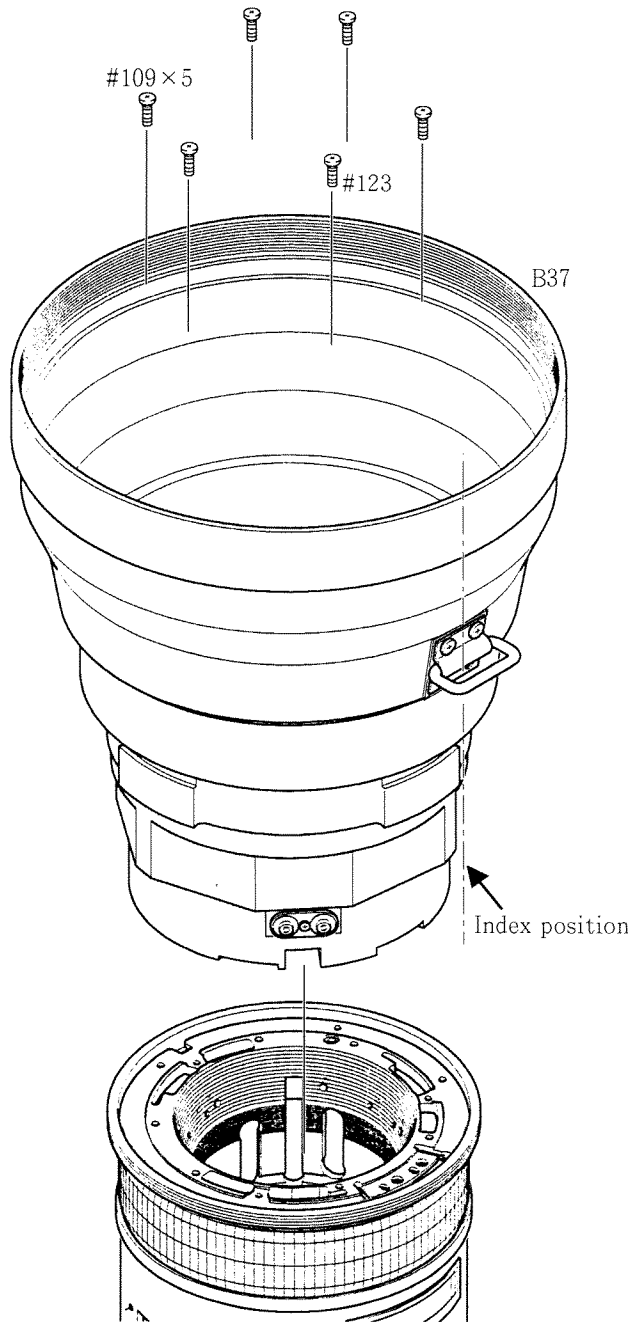
(Failure)



(Pass)



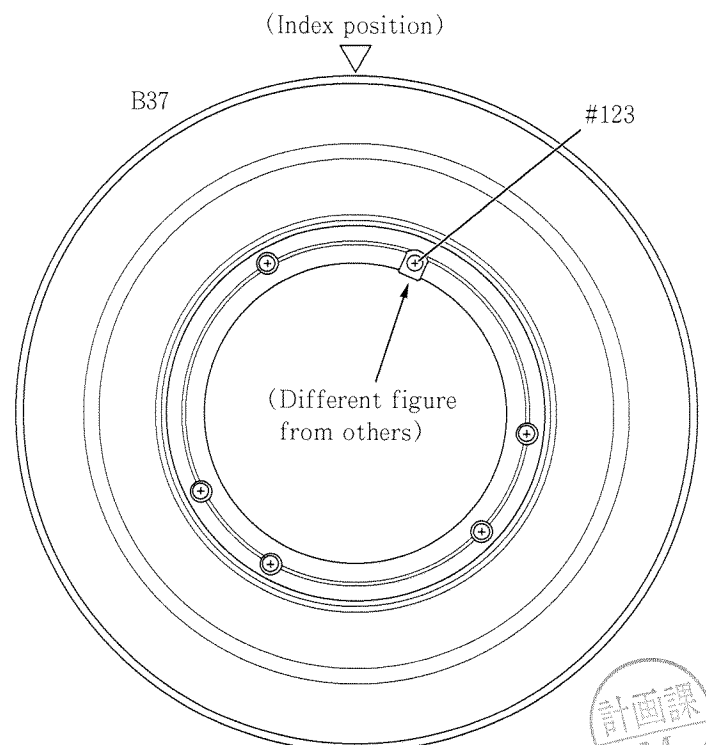
THE STRUCTURE OF B37



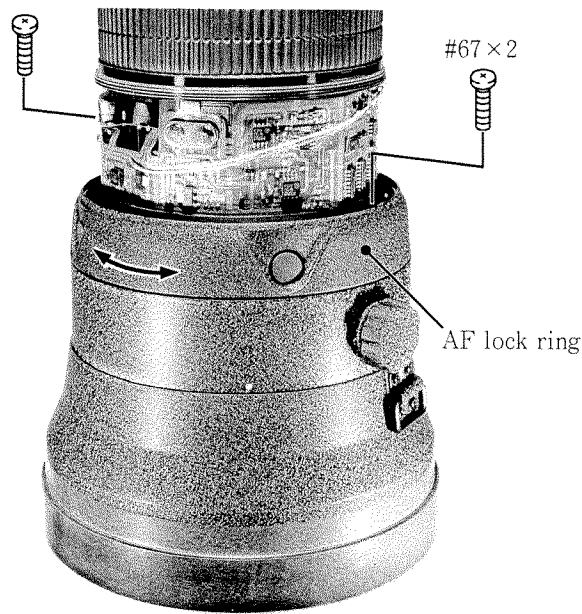
Note : For mounting the B37, make sure to avoid miss position of the screw #123 to be fixed.

If the fixed position is wrong, any malfunction such as interruption mode or so takes place when mounting the 2nd lens group.

For a hint to readily find out its position, as shown in the figure below, only the applicable position to fix the screw #123 has a different front figure from others.



MODIFICATION (ROTATION) OF THE AF LOCK RING POSITION



ADJUSTMENT OF APERTURE OPENING

(Criteria for adjusting the aperture diameter)

Aperture setting	Inscribed circle diameter (mm)	Allowable range (mm)
2.8	40.52	41.92 ~ 39.21
4	29.17	31.51 ~ 27.02
5.6	20.63	23.16 ~ 18.38
8	14.59	16.37 ~ 13.00
11	10.31	12.03 ~ 8.84
16	7.29	8.51 ~ 6.25
22	5.16	6.02 ~ 4.42

- For the adjustment method, what is applied to the AF-S lens shall be also adopted to this applicable lens.

HOW TO ADJUST THE MAIN FPC

- The CPUs with version 5.01 or upgraded have been mounted in this applicable lens since its initially manufactured products.

For its adjustment, refer to the page L28-1 in the repair manual for the AF-S 300 / 2.8 D.

The scanning speed value after adjusting its oscillation circuit : 3.846 ± 0.2 V (17.75 ± 0.88 rpm)

Note : The scanning speed value at its adjustment shall be the same as the AF-S 300's, 500's and 600's.

