

作成承認印

配布許可印



AF Zoom-Nikkor 35-80mm f/4-5.6 D (NEW)



REPAIR MANUAL

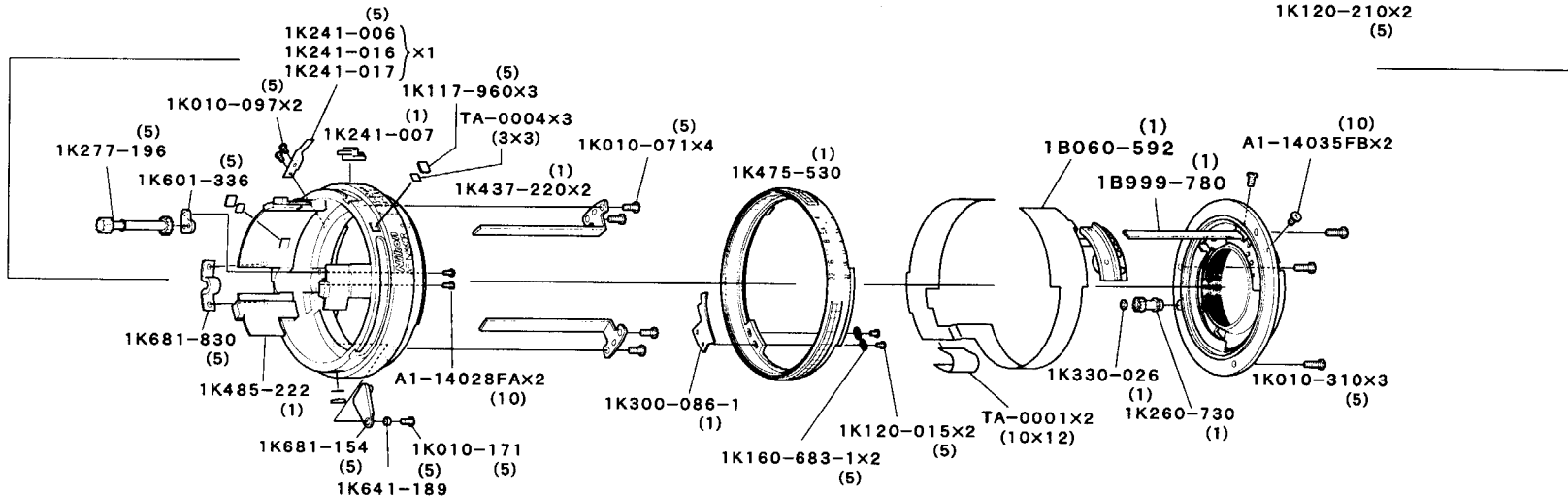
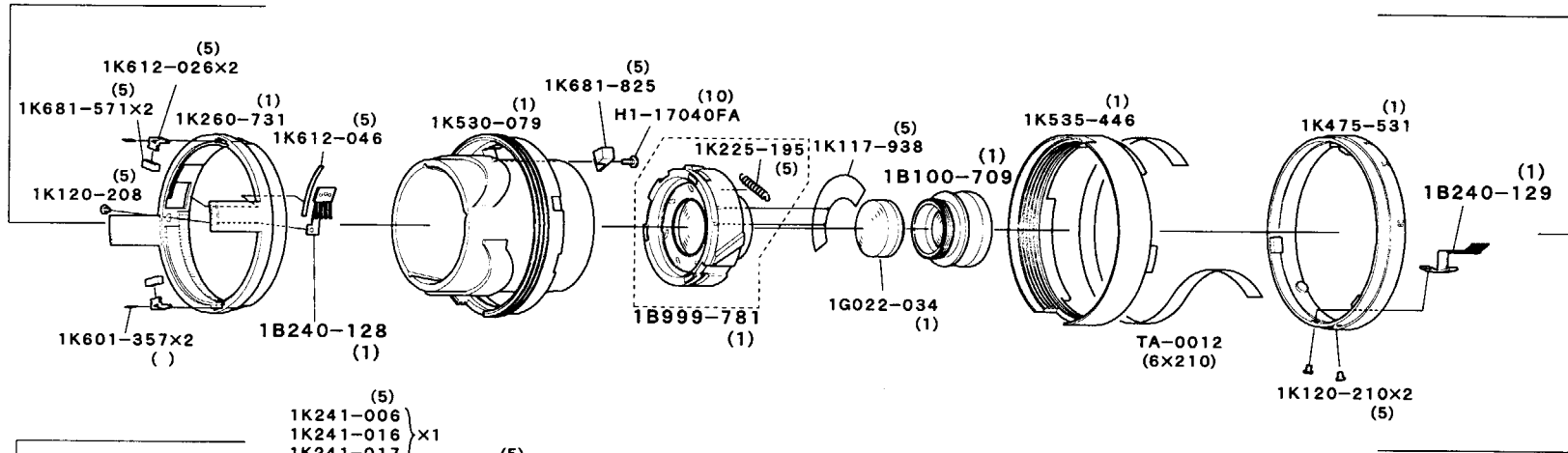
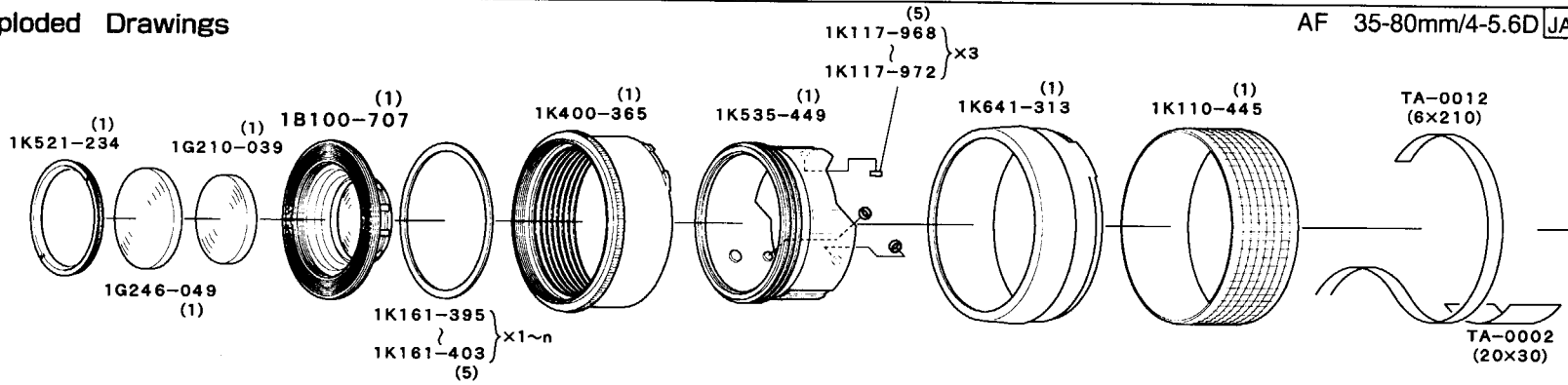
修理指針

Nikon | NIKON CORPORATION
Tokyo, Japan

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展開図 Exploded Drawings

AF 35-80mm/4-5.6D JAA75451-R.3381.A



A

B

C

D

Fig. 1

部品表 Parts List

JAA75451-R. 3381. A

部品番号 Part No.	補助番号 Ckt No.	名称 Name	1台分 個数 Pcs. Per Unit	部組品番号 Assembly	参照 図番 Fig. No.	販売区分 Term of Delivery	備考 Remarks	要求単位 Q'ty per order
* 1K010-071	86	Screw	4		1 B3	○		5
* 1K010-097	92	Screw	2		1 A3	○		5
* 1K010-171	59	Screw	1		1 B3	○		5
* 1K010-310	78	Screw	3		1 D3	○		5
* 1K110-445	62	ゴムリング Rubber ring	1		1 C1	○		1
* 1K110-446	64	ポリエステルテープ Tape 10 x 12	1		1 C3	×	TA-0001	1 roll
* 1K117-162	79	ポリエステルテープ Tape 6 x 210	2		1 C2 D1	×	TA-0012	1 roll
1K117-938	89	マイラーシート Sheet	1		1 C2	○		5
* 1K117-951	90	ポリエステルテープ Tape 20 x 30	1		1 D1	×	TA-0002	1 roll
* 1K117-960	60	ズームゴム Rubber plate	3		1 B3	○		1
* 1K117-968	102	コロ Roller φ3.83	3		1 C1	○		5
* 1K117-969		コロ Roller φ3.84	3		1 C1	○		5
* 1K117-970		コロ Roller φ3.85	3		1 C1	○		5
* 1K117-971		コロ Roller φ3.86	3		1 C1	○		5
* 1K117-972		コロ Roller φ3.87	3		1 C1	○		5

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* 1K117-990	48	ポリエステルテープ Tape 3 x 3	3		1 B3	×	TA-0004	1 roll
* 1K120-015	88	Screw	2		1 C3	○		5
* 1K120-208	82	Screw	1		1 A2	○		5
* 1K120-210	83	Screw	2		1 D2	○		5
* 1K160-683-1	85	Washer	2		1 C3	○		5
1K161-395	100	Washer t=0.05	1~n		1 B1	○		5
1K161-396		Washer t=0.06	1~n		1 B1	○		5
1K161-397		Washer t=0.07	1~n		1 B1	○		5
1K161-398		Washer t=0.08	1~n		1 B1	○		5
1K161-399		Washer t=0.09	1~n		1 B1	○		5
1K161-400		Washer t=0.1	1~n		1 B1	○		5
1K161-401		Washer t=0.2	1~n		1 B1	○		5
1K161-402		Washer t=0.3	1~n		1 B1	○		5
1K161-403		Washer t=0.5	1~n		1 B1	○		5
* 1K225-195	71	Spring	1	1B999-781	1 B2	○△		5

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JAA75451-R. 3381. A

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* 1K241-006	36	板バネ Leaf spring t=0.15	1		1 A3	○		5
* 1K241-016		板バネ Leaf spring t=0.18	1		1 A3	○		5
* 1K241-017		板バネ Leaf spring t=0.2	1		1 A3	○		5
* 1K241-007	74	EEロック釦 EE lock button	1		1 B3	○		1
* 1K260-730	37	カップリング軸 Coupling shaft	1		1 C3	○		1
1K260-731	26	丸環 Ring	1		1 A2	○		1
1K277-196	95	Gear	1		1 A3	○		5
* 1K300-086-1 (1K300-086)	21	絞りカム板 Aperture cam plate	1		1 B3	○		1
* 1K330-026	94	ブッシュ Bush	1		1 C3	○		1
1K400-365	38	フィルター環 Filter ring	1		1 B1	○		1
1K437-220	22	キー Key	2		1 B3	○		1
1K475-530	28	絞り環 Aperture ring	1		1 B3	○	NO. 4000001~	1
1K475-531	51	焦点距離目盛環 Zooming Index ring	1		1 D2	○		1
1K485-222	29	社名環 Name ring	1		1 A3	○		1
1K521-234	41	G1 押さえ環 G1 retaining ring	1		1 A1	○		1
1K530-079	50	カム環 Cam ring	1		1 B2	○		1

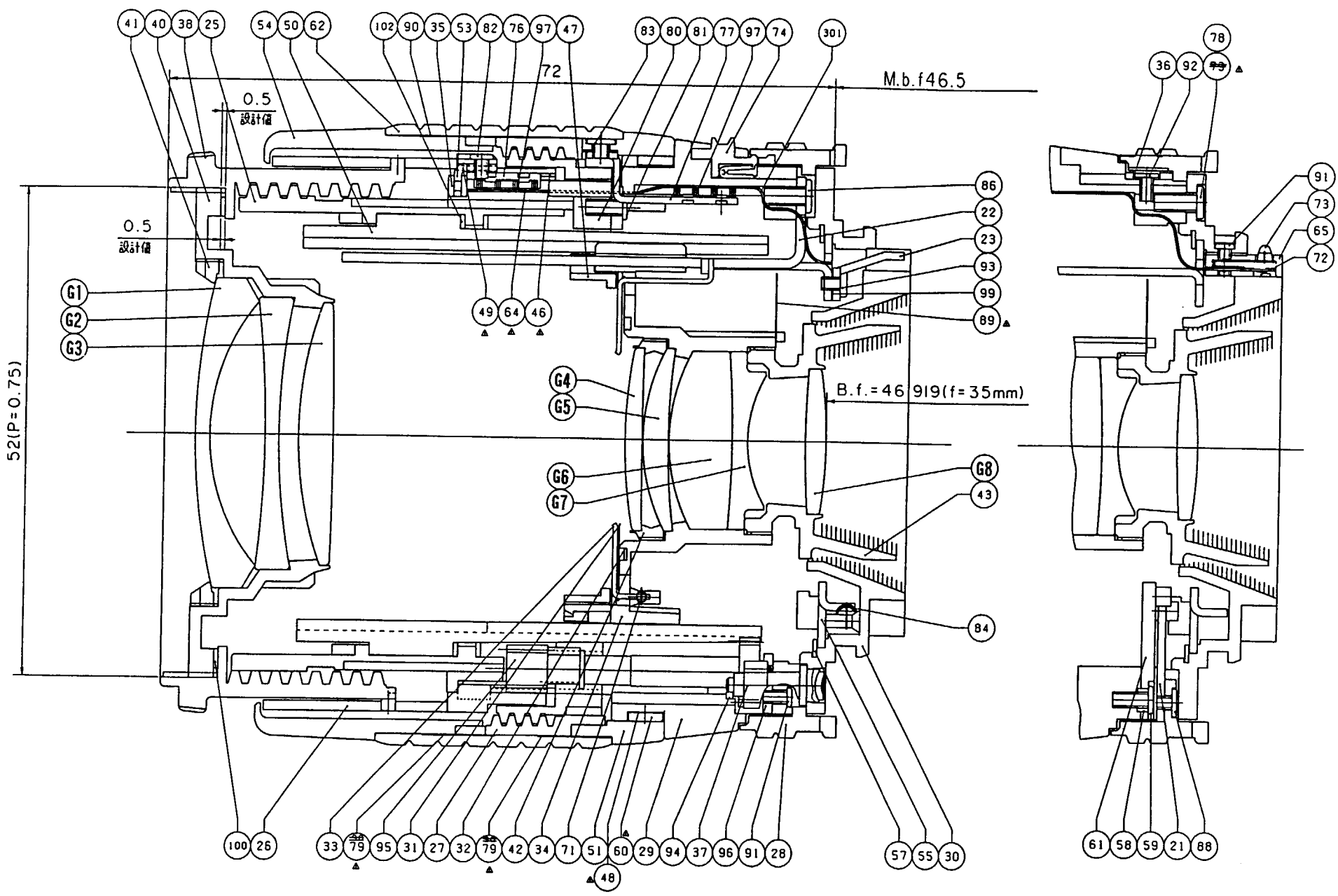
部品表 Parts List

JAA75451-R. 3381. A

部品番号 Part No.	補助番号 Ckt No.	名称 Name	1台分 個数 Pcs. Per Unit	部組品番号 Assembly	参照 図番 Fig. No.	販売区分 Term of Delivery	備考 Remarks	要求単位 Q'ty per order
* 1K535-446	27	ヘリコイド環 Helicoid ring	1		1 C2	○		1
1K535-449	25	内ヘリコイド環 Inner helicoid ring	1		1 B1	○		1
1K601-336	96	軸受板 Shaft mount plate	1		1 A3	○		5
* 1K601-357	49	平板 Plate	2		1 A2	○		5
* 1K612-026	53	制限コマ Stopper coma	2		1 A2	○		5
* 1K612-046	46	補強板 Reinforcement plate	1		1 A2	○		5
* 1K641-189	58	カラー Collar	1		1 B3	○		5
1K641-313	54	丸環 Ring	1		1 C1	○		1
* 1K681-154	61	絞りカムレバー Aperture cam lever	1		1 B3	○		5
* 1K681-571	35	制限ゴム Stopper rubber	2		1 A2	○		5
* 1K681-825	80	ズーム制限ブロック Zooming stopper	1		1 B2	○		5
* 1K681-830	98	カップリング軸保護板 Coupling gear protection plate	1		1 A3	○		5

組立図 Construction of the Lens

JAA75451-R.3381.A

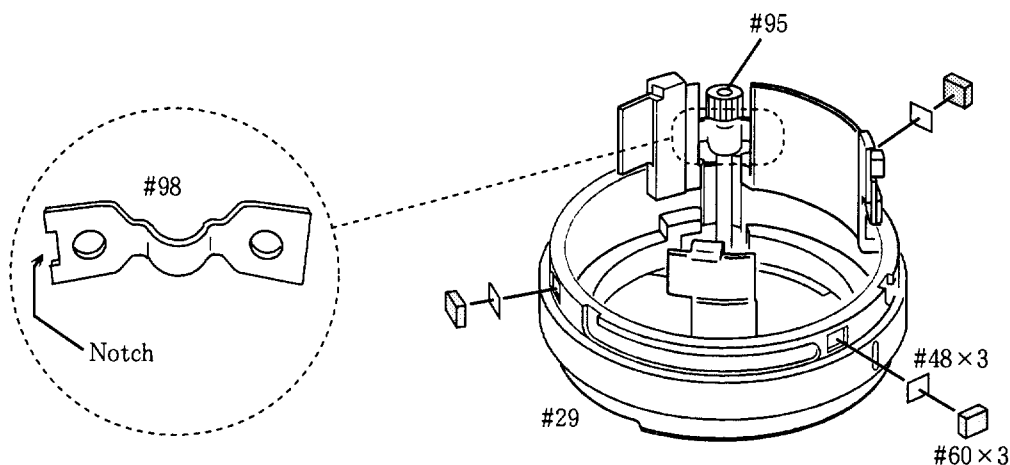


DISASSEMBLING / ASSEMBLING / ADJUSTMENT

Note: As for disassembling, assembling and adjustment, please refer to the exploded diaphragm and the repair manual of JAA75251 (AF28-80/3.5-5.6D).

The following explanation shows only the description which is different from that of JAA75251.

AF GEAR #95, ZOOM RUBBER #60



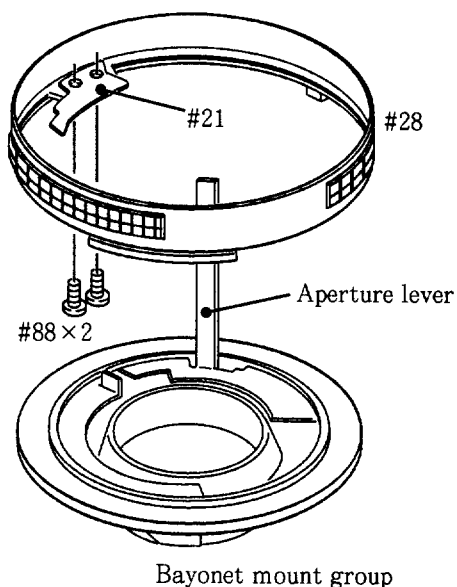
ADJUSTMENT OF APERTURE OPENING

- ① Remove the bayonet mount group.
- ② Loosen the screws #88×2, and move #21, or bend the Aperture Lever and adjustment of aperture opening.
 - Aperture diameter should be within the allowable range when the diaphragm ring is rotated forward and backward.
 - Aperture lever should be within the allowable range when the aperture lever is snapped by your finger.

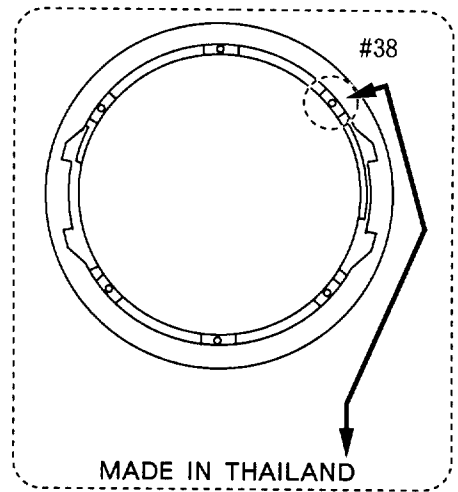
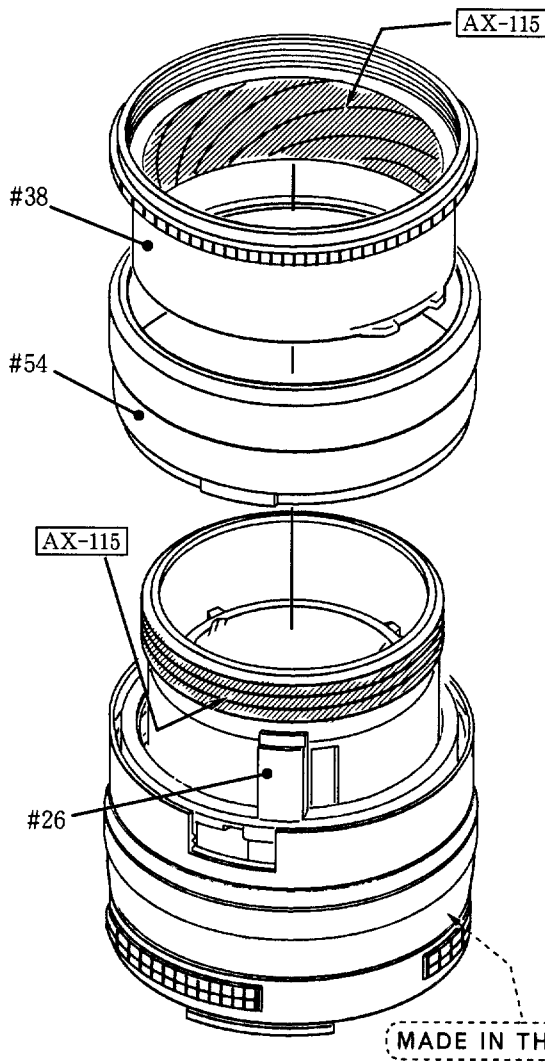
Note: When the aperture lever is wrongly bent, the aperture diameters do not fit on both sides of 35mm and 80mm.

- ③ After adjustment, secure screws #88×2 using Screw Lock.
- ④ Mount the bayonet mount group.

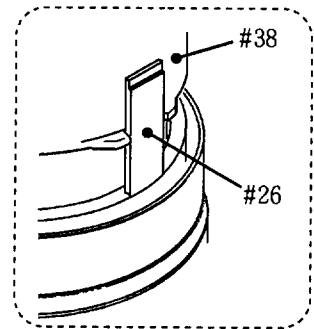
Aperture setting		Inscribed circle diameter (mm)	Tolerance (mm)
35mm	80mm		
4	5.6	17.90	19.16 ~ 16.98
5.6	8	12.37	14.24 ~ 10.75
8	11	8.44	10.01 ~ 7.11
11	16	6.13	7.49 ~ 5.01
16	22	4.33	5.29 ~ 3.54
22	32	3.06	3.74 ~ 2.50



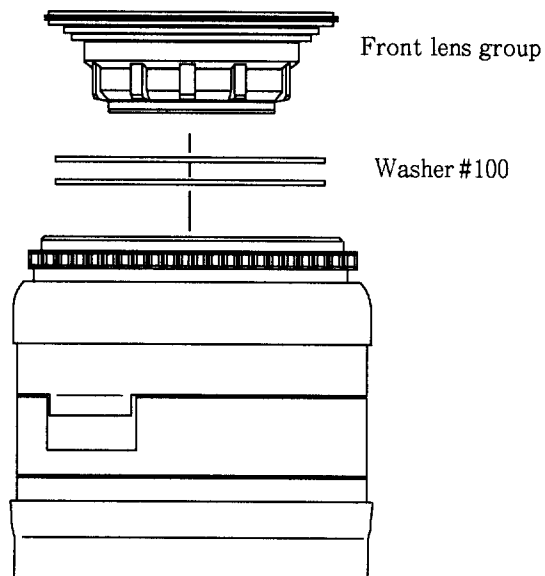
FILTER RING #38, ZOOM RING #54



- Let the both above positions meet together.
- Assemble #38 until it attaches to #26.
(Refer to the figure below)



FRONT LENS GROUP



ADJUSTMENT OF SHIFT FOCUS (TELE AND WIDE)

1. Set focus ring at infinity (∞), and set aperture to full aperture.
2. Read the value on both Wide and Tele sides respectively.
3. Calculate the following equation.

$$(A - B) \div 1.84 = C$$

A=Value of Tele side (mm)

B=Value of Wide side (mm)

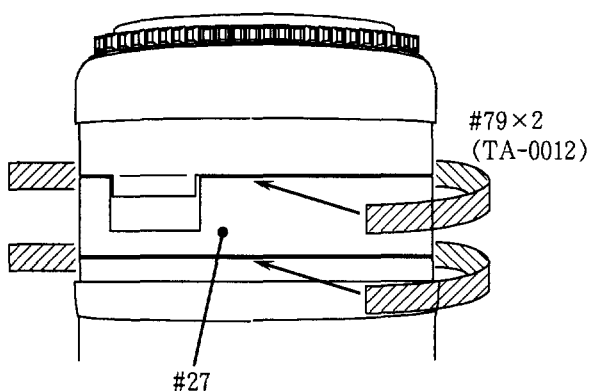
C=Amount (mm) of adjustment of 1st lens group washer #100

4. Adjust the thickness of washer #100 by the value C calculated from the above equation.
If the value C is positive, thicken the washer by the value, and if negative, thin the washer.

Note: Insert thin washer between thick washers when mounting washer #100.

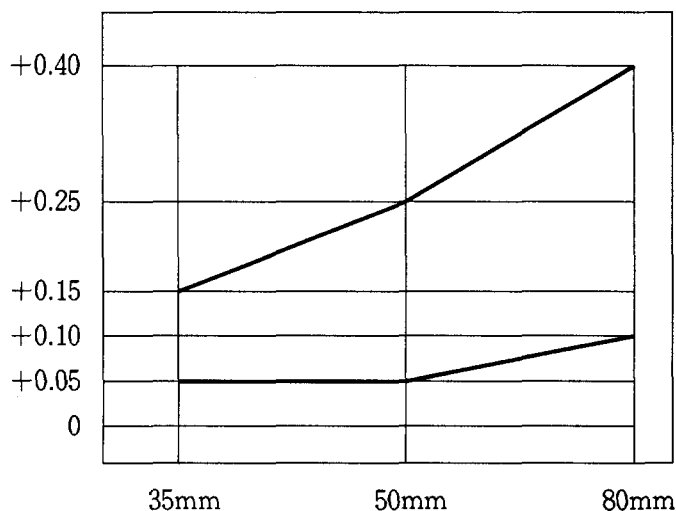
(Refer to page L2)

ADJUSTMENT OF BACK FOCUS



1. Set focus ring at infinity (∞), and set aperture to full aperture.
2. Set the zoom ring to Wide (35mm), read the value.
3. Adjustment moving helicoid ring back and forth while rotating the #27.
4. Read the values of Wide and Tele sides. Check to see if they are within the standard value range.
5. Secure #27 with adhesive tape #79x2 (TA-0002).

Focal length (f)	Standard (mm)
35mm	+0.05 ~ +0.15
50mm	+0.05 ~ +0.25
80mm	+0.10 ~ +0.40



INSPECTION OF ENCODER SIGNAL

※ Use an F90 (N90) camera body and checking & adjustment programs for F90/N90 to display encoder signal on the computer monitor when making an inspection.

Inspection method

- Start the checking & adjustment programs for F90/N90 and select “ E. Checking of AF lens communication ”. Make inspection according to instructions as shown on the display.
- Encoder signals should be as described in the table below when the zoom and distance scale are set to specified positions.

Zoom ring Distance scale position	f = 35 mm			f = 50 mm			f = 80 mm		
	Encoder signal								
	1	2	3	1	2	3	1	2	3
Most infinity position	17 h	16 h	03 h	17 h	17 h	03 h	17 h	9Dh	03 h
Most close distance position							17 h	9Dh	47 h

◎ If encoder signal values are different from those shown in the table, following causes must be considered.

Distance brush is mounted in the wrong position, distance brush or FPC is defective, encoder patterns on the FPC are contaminated, or the FPC is fixed in the wrong position.