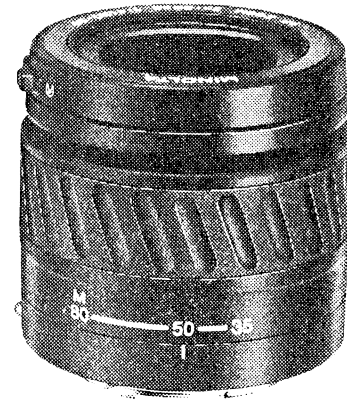
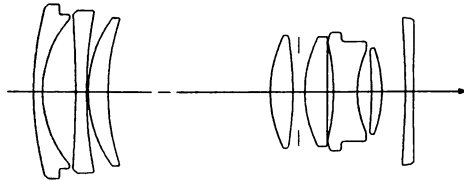


MINOLTA AF ZOOM 35-80mm

F4(22)-5.6 (2605-100)

MINOLTA MAXXUM AF ZOOM 35-80mm F4(22)-5.6 (2605-600)

LENS



Construction : 8 elements in 8 groups
Type : 3-component mechanical-compensation zoom lens
Coating : Minolta Achromatic
Angle of view : 30°-63°
Lens mount : Minolta A mount
Diaphragm : Automatic preset diaphragm
Lens signal contact : 5 contacts
f No. : Maximum···WIDE4
TELE5.6
Minimum···WIDE22
TELE32
Full-stop setting···5 stops
Diaphragm : 7 blades

FOCUSING

Focusing : AF, FA, M
Type : Front focusing
Minimum focusing distance : 0.5m
Macro capability : 1/5.7× (maximum magnification)
(AF, FA or M mode is usable)

ZOOMING

Type : Mechanical-compensation zoom lens, Rotary 2-ring
Zooming scale : M 80 50 35
Zooming ratio : 2.3×

DIMENSIONS & WEIGHT

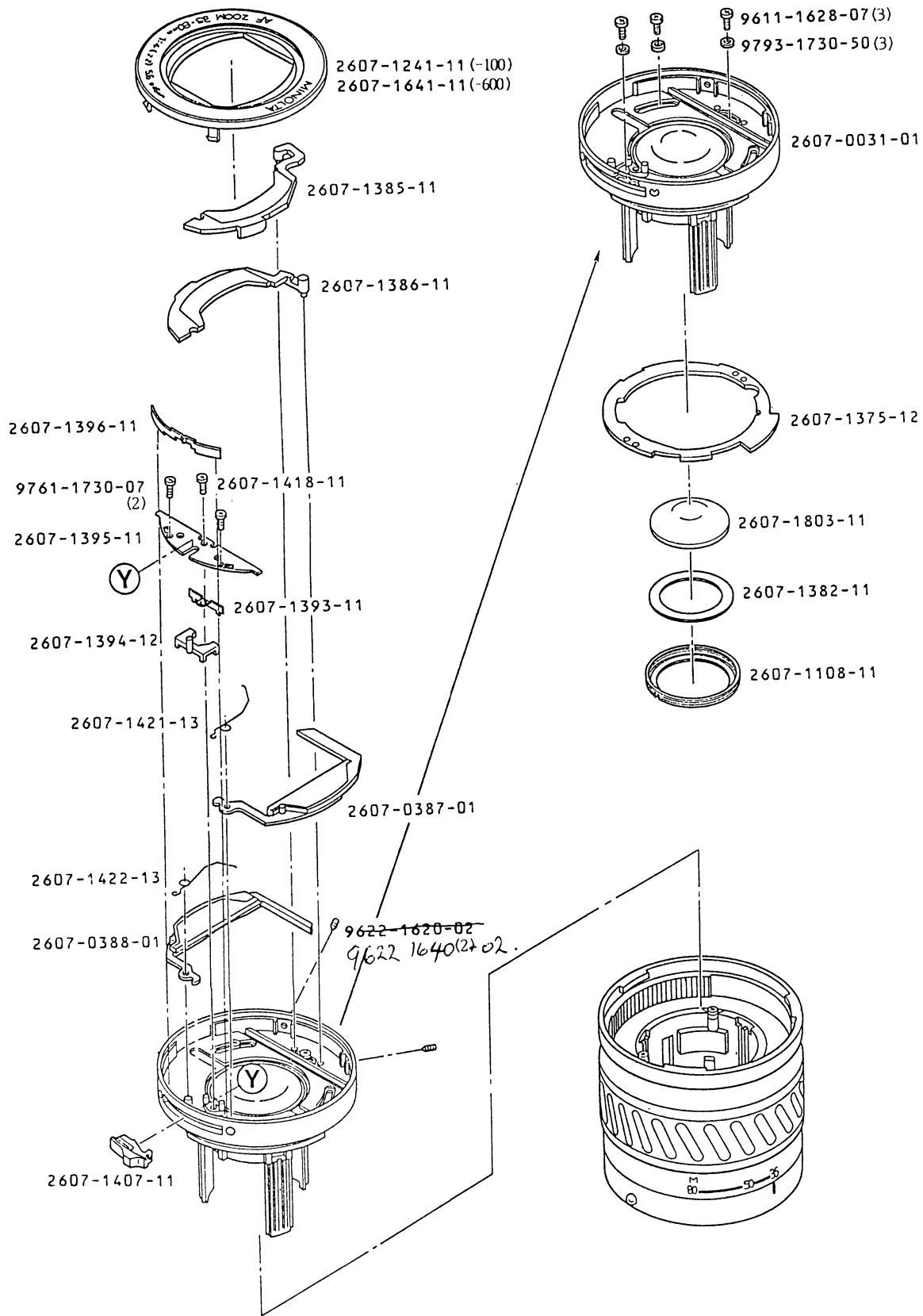
Dimensions : $\phi 65$ (maximum diameter) \times 58mm (maximum length)
Weight : 220 g
Filter-thread diameter : $\phi 46$ mm (P=0.75)

ACCESSORIES

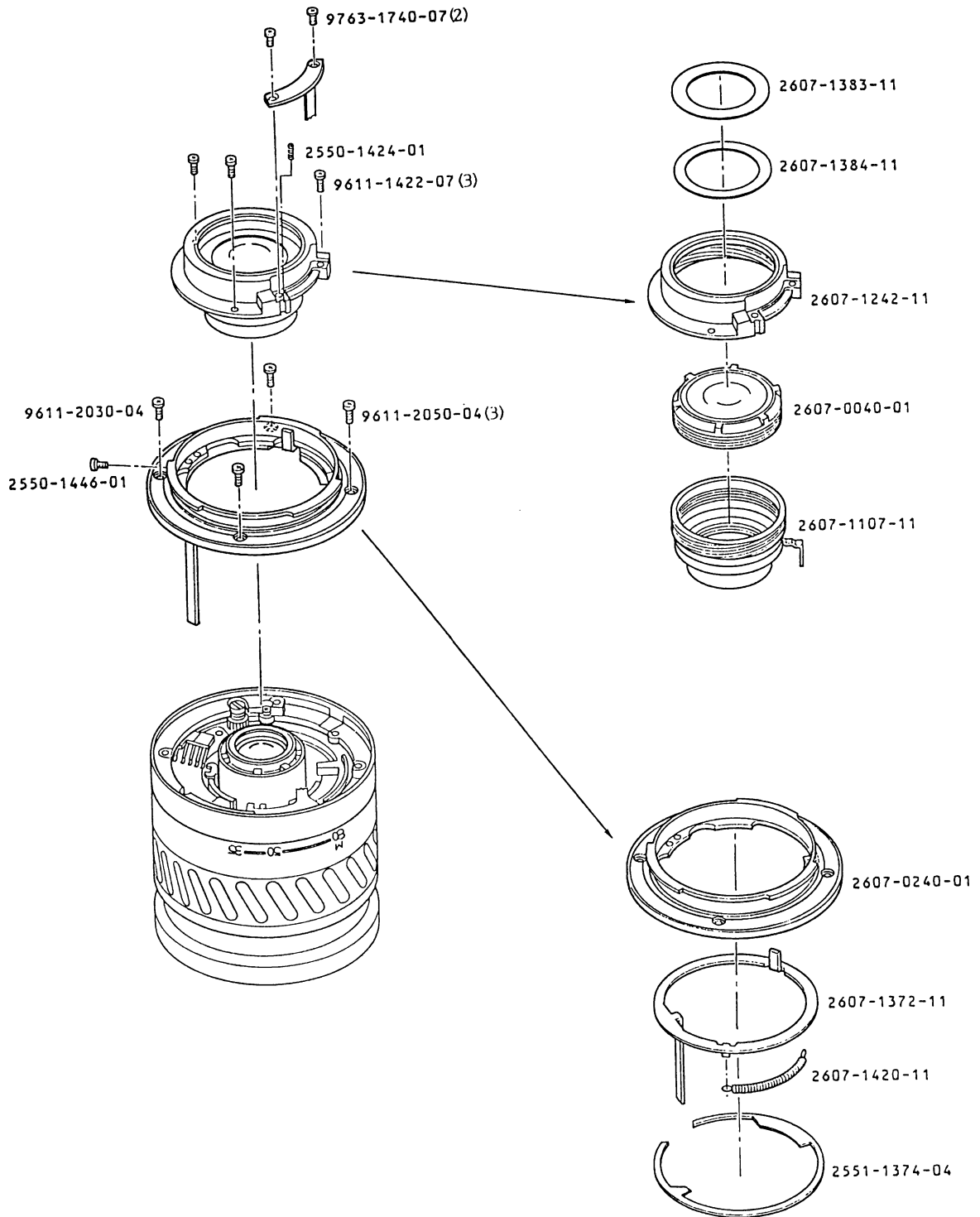
Lens case : LS-1001
Lens hood : LH-1001

I N D E X

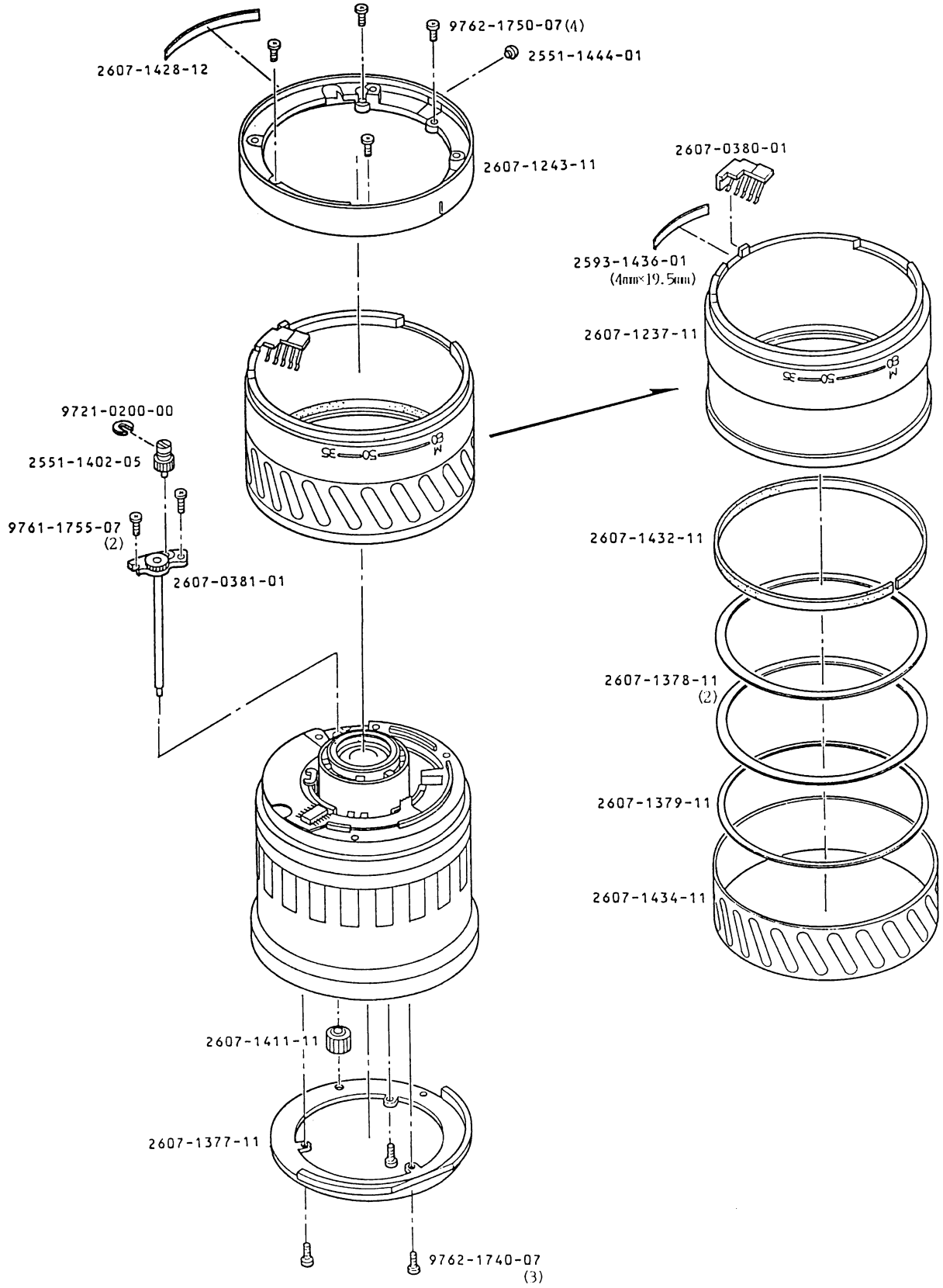
PART NO.	PAGE	PART NO.	PAGE	PART NO.	PAGE
2607-0031	----- 1	2607-1386	----- 1	9622-1620-02	----- 1
2607-0035	----- 4	2607-1393	----- 1		
2607-0040	----- 2	2607-1394	----- 1	9721-0200-00	----- 3
2607-0240	----- 2	2607-1395	----- 1		
2607-0380	----- 3	2607-1396	----- 1	9761-1730-07	----- 1
2607-0381	----- 3	2607-1397	----- 4	9761-1755-07	----- 3
2607-0387	----- 1	2607-1398	----- 4		
2607-0388	----- 1	2551-1402	----- 3	9762-1740-07	----- 3
2607-0501	----- 4	2607-1404	----- 4	9762-1750-07	----- 3
		2607-1407	----- 1		
2607-1107	----- 2	2607-1411	----- 3	9763-1740-07	----- 2
2607-1108	----- 1	2607-1418	----- 1		
2607-1231	----- 4	2607-1420	----- 2	9793-1730-50	----- 1
2607-1232	----- 4	2607-1421	----- 1		
2607-1233	----- 4	2607-1422	----- 1		
2607-1236	----- 4	2550-1424	----- 2		
2607-1237	----- 3	2607-1428	----- 3		
2607-1241	----- 1	2607-1432	----- 3		
2607-1242	----- 2	2607-1434	----- 3		
2607-1243	----- 3	2593-1436	----- 3		
2607-1372	----- 2	2607-1436	----- 4		
2551-1374	----- 2	2551-1444	----- 3		
2607-1375	----- 1	2550-1446	----- 2		
2607-1377	----- 3	2607-1641	----- 1		
2607-1378	----- 3	2607-1803	----- 1		
2607-1379	----- 3				
2607-1382	----- 1	9611-1422-07	----- 2		
2607-1383	----- 2	9611-1628-07	----- 1		
2607-1384	----- 2	9611-2030-04	----- 2		
2607-1385	----- 1	9611-2050-04	----- 2		



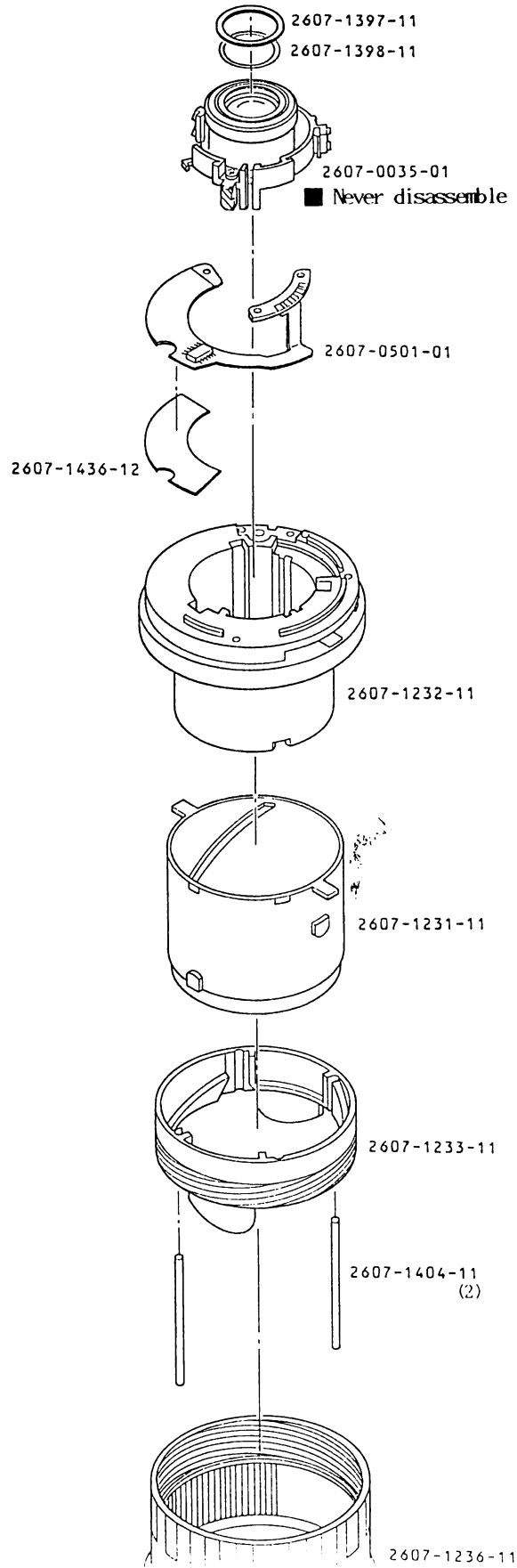
PART NO.	PART NAME		QTY.
2607-0031-01	FRONT LENS GROUP SET	前玉群セット	1
2607-0387-01	BARRIER C SET	バリアCセット	1
2607-0388-01	BARRIER D SET	バリアDセット	1
2607-1108-11	WASHER	G3押えワッシャ	1
2607-1241-11	NAME PLATE	飾り板	1
2607-1375-12	FOCUS STOPPER PLATE	フォーカスストッパー板	1
2607-1382-11	1ST LIGHT SHIELD PLATE	第1群遮光板	1
2607-1385-11	BARRIER A	バリアA	1
2607-1386-11	BARRIER B	バリアB	1
2607-1393-11	BARRIER COVER	バリアカバー	1
2607-1394-12	BARRIER CONNECTING PLATE	バリア連動板	1
2607-1395-11	BARRIER PRESSURE PLATE	バリア押え板	1
2607-1396-11	BARRIER OPERATION COVER	バリア操作部カバー	1
2607-1407-11	BARRIER OPERATION KNOB	バリア操作ノブ	1
2607-1418-11	PIN	バリアカバーピン	1
2607-1421-13	BARRIER MAIN SPRING A	バリアメインSP A	1
2607-1422-13	BARRIER MAIN SPRING B	バリアメインSP B	1
2607-1641-11	NAME PLATE	飾り板	1
2607-1803-11	G3	G3	1
9611-1628-07	PHILLIPS TYPE SCREW	十字穴付なべ小ねじ	3
9622-1620-02	SCREW	とがり先止めねじ	2
9761-1730-07	TAP TITE SCREW	十字穴付タップタイトねじ	2
9793-1730-50	WASHER	薄ワッシャー	3



PART NO.	PART NAME		QTY.
2607-0040-01	G8 SET	G8セット	1
2607-0240-01	LENS MAUNT SET	レンズマウントセット	1
2607-1107-11	BACK ADJUSTMENT RING	バック調整リング	1
2607-1242-11	LIGHT SHIELD RING	遮光筒	1
2607-1372-11	PRESET RING	プリセットリング	1
2551-1374-04	PRESET RING PRESSURE	プリセットリング押え	1
2607-1383-11	3RD LIGHT SHIELD PLATE	第3群遮光板	1
2607-1384-11	TAPE	第3群遮光板セットテープ	1
2607-1420-11	MAIN SPRING	メインスプリング	1
2550-1424-01	SPRING	アーススプリング	1
2550-1446-01	SCREW	ストッパービス	1
9611-1422-07	PHILLIPS TYPE SCREW	十字穴付なべ小ねじ	3
9611-2030-04	PHILLIPS TYPE SCREW	十字穴付なべ小ねじ	1
9611-2050-04	PHILLIPS TYPE SCREW	十字穴付なべ小ねじ	3
9763-1740-07	TAP TITE SCREW	十字穴付タップタイトねじ	2



PART NO.	PART NAME		QTY.
2607-0380-01	BRUSH HOLDER SET	ブラシホルダーセット	1
2607-0381-01	GEAR SET	ギヤ台板セット	1
2607-1237-11	ZOOM RING	ズーム操作環	1
2607-1243-11	ZOOM RING SET RING	取付環	1
2607-1377-11	FIXED PLATE	固定板	1
2607-1378-11	RING	ズーム操作環補強板	2
2607-1379-11	COVER	補強板カバー	1
2551-1402-05	COUPLER	カプラー	1
2607-1411-11	GEAR B	ギヤB	1
2607-1428-12	LENS NUMBER PLATE	レンズナンバー銘板	1
2607-1432-11	FRICTION TAPE	摩擦布	1
2607-1434-11	RUBBER RING	ズーム操作環ゴムリング	1
2593-1436-01	TAPE (PER/ROLL)	テープ	1
2551-1444-01	BAYONET POINT	バヨネット標点	1
9721-0200-00	E-RING	Eリング	1
9761-1755-07	TAP TITE SCREW	十字穴付タップタイトねじ	2
9762-1740-07	TAP TITE SCREW	十字穴付タップタイトねじ	3
9762-1750-07	TAP TITE SCREW	十字穴付タップタイトねじ	4



PART NO.	PART NAME		QTY.
2607-0035-01	2ND MOVING BARREL SET	第2移動枠セット	1
2607-0501-01	FLEXIBLE P.C BOARD SET	フレキセット	1
2607-1231-11	ZOOM CAM RING	ズームカム環	1
2607-1232-11	FIXED BARREL	固定筒	1
2607-1233-11	1ST MOVING BARREL	第1移動枠	1
2607-1236-11	FOCUSING RING	距離環	1
2607-1397-11	2ND LIGHT SHIELD PLATE	第2群遮光板	1
2607-1398-11	TAPE	第2群遮光板セットテープ	1
2607-1404-11	PIN	直進ピン	2
2607-1436-12	TAPE	フレキセットテープ	1

2605 MODIFICATION PARTS LIST

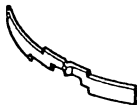

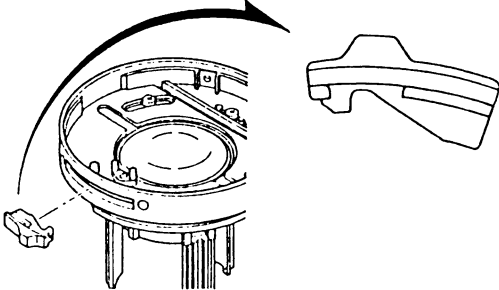
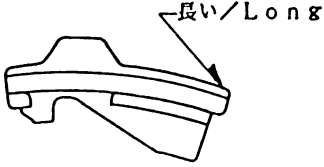
1. 矢印 (⇒, ⇐) は互換性を示しています。
 - ・ ⇒○(×) --- 旧部品を新部品に交換しても良い (いけない)。
 - ・ ×(○)⇐ --- 新部品を旧部品に交換してはいけない (良い)。
2. その部品単独の変更ではなく、関連変更部品がある場合は、表の縦の列で関連変更部品を示しています。
 - ・ 表の最後の (⇒, ⇐) は、関連部品セットでの互換性を示しています。
3. 変更部品には通しNo. を付け、以後変更された場合には通しNo. に補助No. (-2, -3, ...) を付けて示します。変更時期は右上に、また修理情報がある場合は、サブリNo. を上に示します。
4. 新設部品は部品名称を記載します。それ以外の部品名称はパーツリストを参照して下さい。

1. Arrows (⇒, ⇐) show parts interchangeability.
 - ・ ⇒○(×) ---- Previous part is (is not) replaceable by new one.
 - ・ ×(○)⇐ ---- New part is not (is) replaceable by previous one.
2. When part is not replaceable as a single one, vertical column shows the related parts.
 - ・ Arrows (⇒, ⇐) at base of table show interchangeability of parts as a set.
3. Modification parts group is numbered serially. Serial number has auxiliary number(-2, -3, ...), which is renewed when modification is carried out. Modification date and supplementary information No., if any, are shown on the table.
4. Part name of newly added part is shown in the table. Refer to Parts List in Service Manual for other parts.

■ No.1 Parts List P.1

Supplementary information No.2605-001

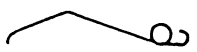
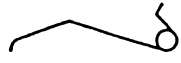
Jul. 1988

Previous	2607-1396-11	⇒×	×⇐	2607-1396-12	New
2607-1396-11 		2607-1396-12 			
Previous	2607-1407-11	⇒×	×⇐	2607-1407-12	New
2607-1407-11 		2607-1407-12 			
⇒○		×⇐			

■ No.2 Parts List P.1

Supplementary information No.2605-001

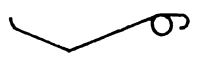
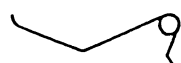
Jun. 1988

Previous	2607-1421-13	⇒○	×←	2607-1421-15	New
<p>2607-1421-13</p> 			<p>2607-1421-15</p> 		

■ No.3 Parts List P.1

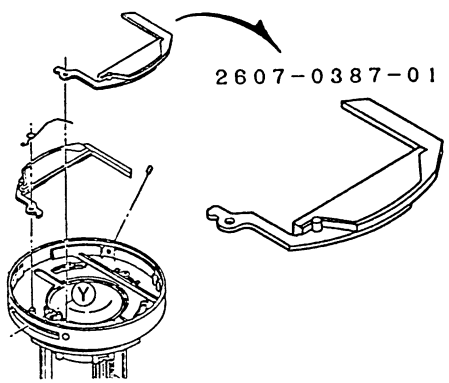
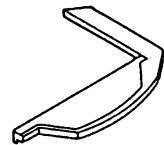

Supplementary information No.2605-001

Jun. 1988

Previous	2607-1422-13	⇒○	×←	2607-1422-15	New
<p>2607-1422-13</p> 			<p>2607-1422-15</p> 		

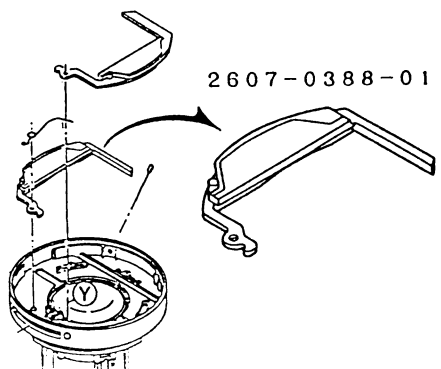


■ No.4 Parts List P.1

Aug. 1988

Previous	2607-0387-01	⇒○	×←	2607-1387-13	New
 <p>2607-0387-01</p>			×←	2607-0391-01	New
			<p>2607-1387-13</p>  <p>2607-0391-01</p> 		

■ No.5 Parts List P.1

Aug. 1988

Previous	2607-0388-01	⇒○	×←	2607-1388-13	New
 <p>2607-0388-01</p>			×←	2607-0392-01	New
			<p>2607-1388-13</p>  <p>2607-0392-01</p> 		

■ No.6 Parts List P.1

Sep. 1988

Previous	9 6 2 2 - 1 6 4 0 - 0 2 (2)	⇒○	○⇐	9 6 2 2 - 1 6 4 0 - 0 2 (2)	New
<p>9 6 2 2 - 1 6 4 0 - 0 2 (2)</p>			<p>9 6 2 2 - 1 6 4 0 - 0 2 (2)</p> <p>■取り外しは、ドライバー等で奥へ押し込む。 Remove by pushing in with screwdriver, etc. ■部品供給は、9 6 2 2 - 1 6 4 0 - 0 2で行います。 Part is supplied as 9 6 2 2 - 1 6 4 0 - 0 2.</p>		

■ No.7 Parts List P.1

Supplementary information No.2605-001

Oct. 1988

Previous	2 6 0 7 - 0 3 9 1 - 0 1	⇒×	×⇐	2 6 0 4 - 0 3 9 1 - 0 2	New
<p>2607-1421-15</p> <p>2607-1422-15</p> <p>2607-0391-01</p> <p>2607-0392-01</p> <p>t=0.6</p>			<p>2604-0391-02</p> <p>t=0.5</p>		
Previous	2 6 0 7 - 0 3 9 2 - 0 1	⇒×	×⇐	2 6 0 4 - 0 3 9 2 - 0 2	New
<p>2607-0392-01</p> <p>t=0.5</p>			<p>2604-0392-02</p> <p>t=0.6</p>		
Previous	2 6 0 7 - 1 4 2 1 - 1 5	⇒×	×⇐	2 6 0 4 - 1 4 2 1 - 1 6	New
<p>2607-1421-15</p> <p>密着 / Close adhesion</p>			<p>2604-1421-16</p> <p>すき間 : 大 / Clearance : big</p>		
Previous	2 6 0 7 - 1 4 2 2 - 1 5	⇒×	×⇐	2 6 0 4 - 1 4 2 2 - 1 6	New
<p>2607-1422-15</p> <p>密着 / Close adhesion</p>			<p>2604-1422-16</p> <p>すき間 : 大 / Clearance : big</p>		

Previous	2 6 0 7 - 1 3 8 5 - 1 1	—	—	2 6 0 4 - 1 3 8 5 - 1 1	New
Previous	2 6 0 7 - 1 3 8 6 - 1 1	—	—	2 6 0 4 - 1 3 8 6 - 1 1	New
Previous	2 6 0 7 - 1 3 8 7 - 1 3	—	—	2 6 0 4 - 1 3 8 7 - 1 3	New
Previous	2 6 0 7 - 1 3 8 8 - 1 3	—	—	2 6 0 4 - 1 3 8 8 - 1 3	New
Previous	2 6 0 7 - 1 3 9 3 - 1 1	—	—	2 6 0 4 - 1 3 9 3 - 1 1	New
Previous	2 6 0 7 - 1 3 9 4 - 1 2	—	—	2 6 0 4 - 1 3 9 4 - 1 2	New
Previous	2 6 0 7 - 1 3 9 5 - 1 1	—	—	2 6 0 4 - 1 3 9 5 - 1 1	New
Previous	2 6 0 7 - 1 3 9 6 - 1 2	—	—	2 6 0 4 - 1 3 9 6 - 1 2	New
Previous	2 6 0 7 - 1 4 0 7 - 1 2	—	—	2 6 0 4 - 1 4 0 7 - 1 2	New
Previous	2 6 0 7 - 1 4 1 8 - 1 1	—	—	2 6 0 4 - 1 4 1 8 - 1 1	New
<p>■ 上記部品の管理コードを2607から2604に変更して下さい。 Modify the model code of parts above from 2607 to 2604.</p>					

REPAIR GUIDE

- The contents of this manual are in accordance with the assembling procedure.
Therefore, follow the reverse procedure when disassembling.

—Description of marks used—

- **B** : Adhesive
- **S** : Solvent
- **A** : Anti-diffusion agent
- **G** : Grease
- **T** : Tool
- : Point of assembling and general caution

■ Assembly and adjustment procedure

	Page
1 2nd moving barrel, fixed barrel, zoom cam ring, 1st moving barrel, focusing ring	1
■ Fixed barrel, zoom cam ring, 1st moving barrel assembling procedure	2
■ Focusing ring assembling procedure	2
2 Light shield ring, lens mount set, zoom ring	3
■ Back adjustment ring assembling procedure	4
■ Light shield ring, lens mount set assembling procedure	4
3 Name plate, front lens group set	5
■ Front lens group set assembling/disassembling procedure	6
■ Focus shift/flange back adjusting	6
■ Lens movement	7
■ Circuit diagram, printed wiring diagram	8

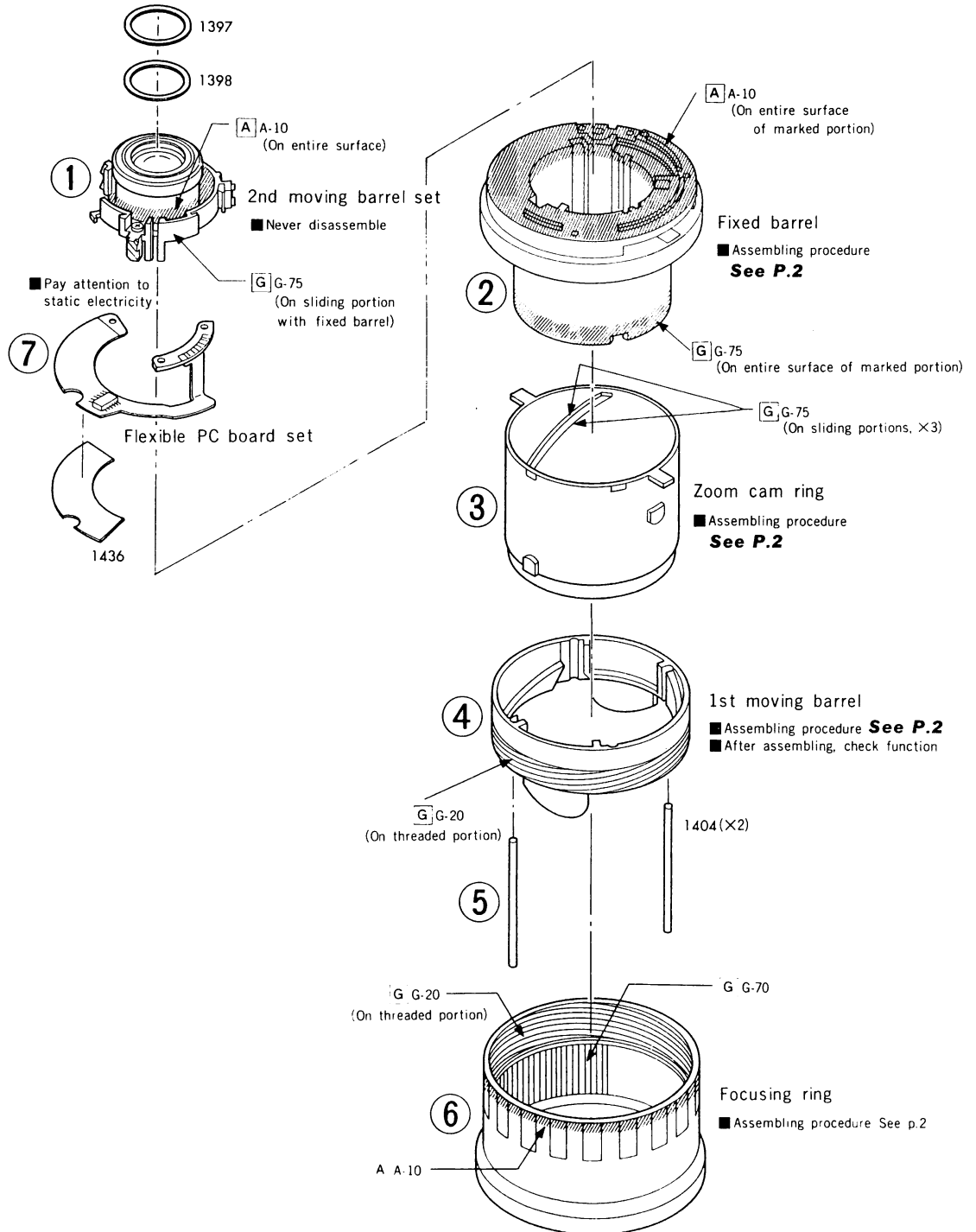
■ Precautions

- Since this lens uses many resin parts, keep the following in mind when assembling and adjusting.
Use liquid freon or alcohol when cleaning.
Never use thinner, ketone or ether.
- Since this lens uses MOS-IC, it is necessary
to take special precautions about static electricity.
When performing repair, use the conductive mat
as shown.
- Use program pack Ver. 6.4 or newer type for camera
I/O tester.

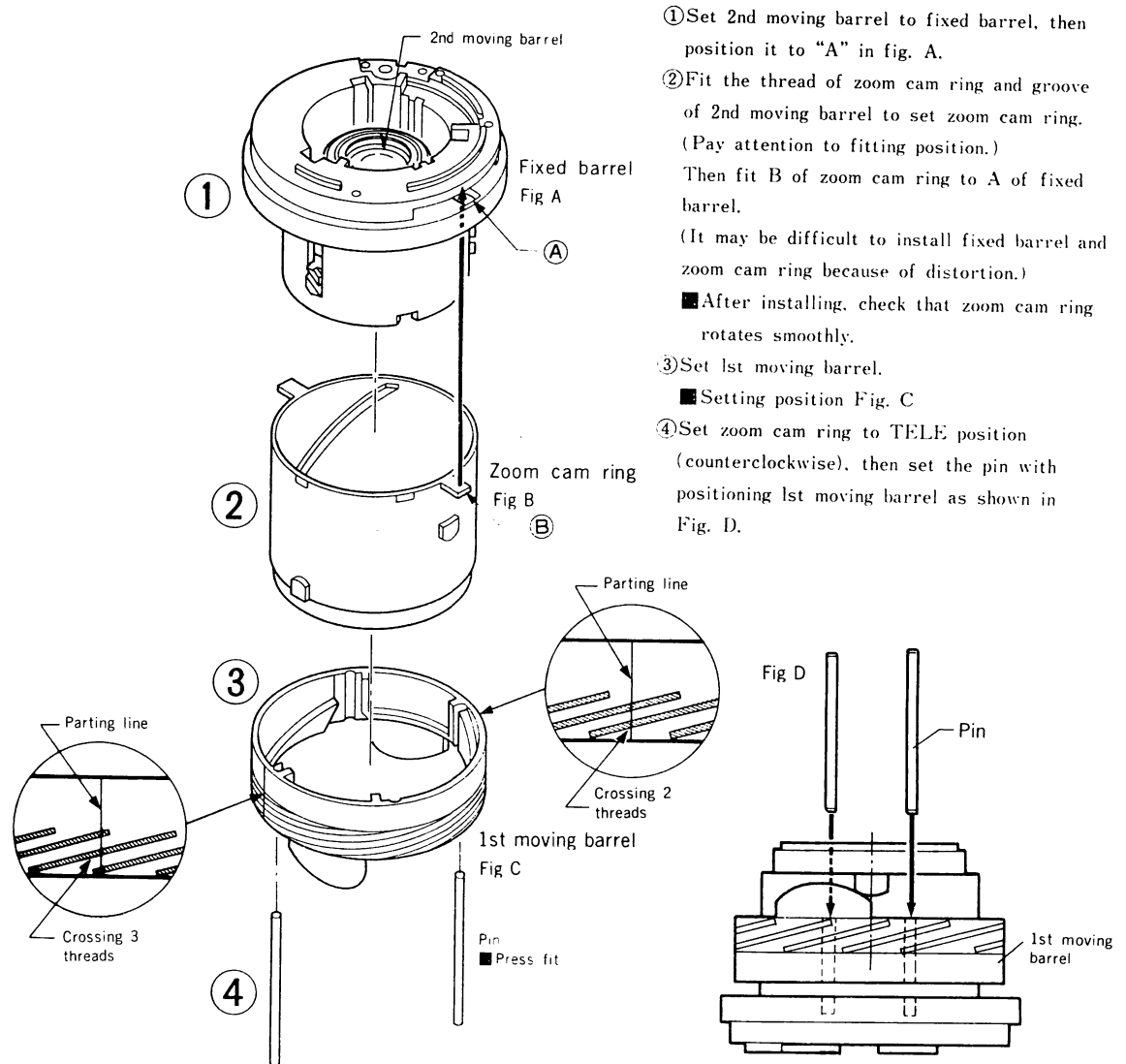


1 2nd moving barrel, fixed barrel, zoom cam ring, 1st moving barrel, focusing ring

Assemble the parts in order of ①-⑦

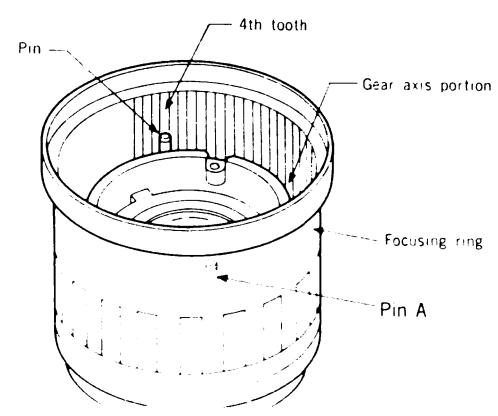


Fixed barrel, zoom cam ring, 1st moving barrel assembling procedure



- ① Set 2nd moving barrel to fixed barrel, then position it to "A" in fig. A.
- ② Fit the thread of zoom cam ring and groove of 2nd moving barrel to set zoom cam ring. (Pay attention to fitting position.) Then fit B of zoom cam ring to A of fixed barrel. (It may be difficult to install fixed barrel and zoom cam ring because of distortion.)
 ■ After installing, check that zoom cam ring rotates smoothly.
- ③ Set 1st moving barrel.
 ■ Setting position Fig. C
- ④ Set zoom cam ring to TELE position (counterclockwise), then set the pin with positioning 1st moving barrel as shown in Fig. D.

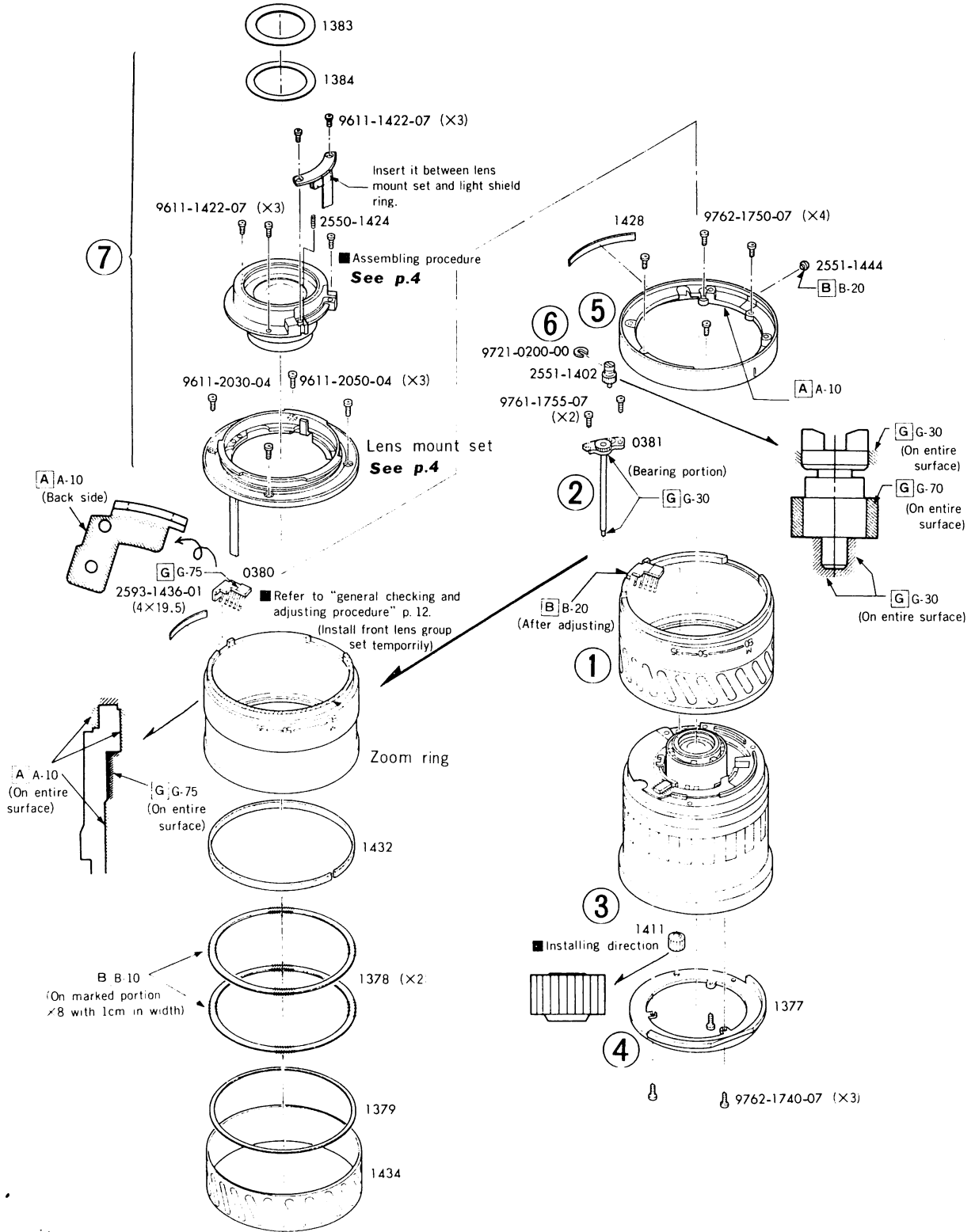
Focusing ring assembling procedure



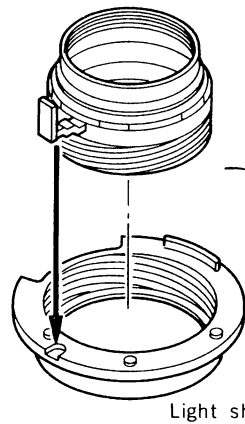
- Assemble helicoid with fitting pin and gear portion (4th) of focusing ring.
- After assembling helicoid, turn focusing ring clockwise to stop position. At that time, Pin A is positioned at inside of gear portion for 2 teeth.

2 Light shield ring, lens mount set, zoom ring

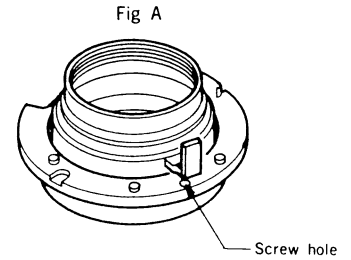
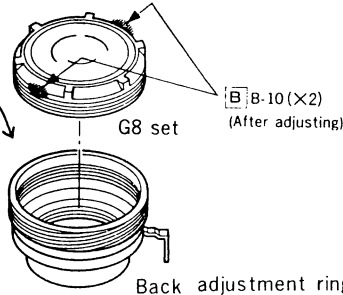
- Assemble the parts in order of (1) - (4).
- After assembling the parts (4), adjust brush position.
- Assemble the parts in order of (5) ~ (7).



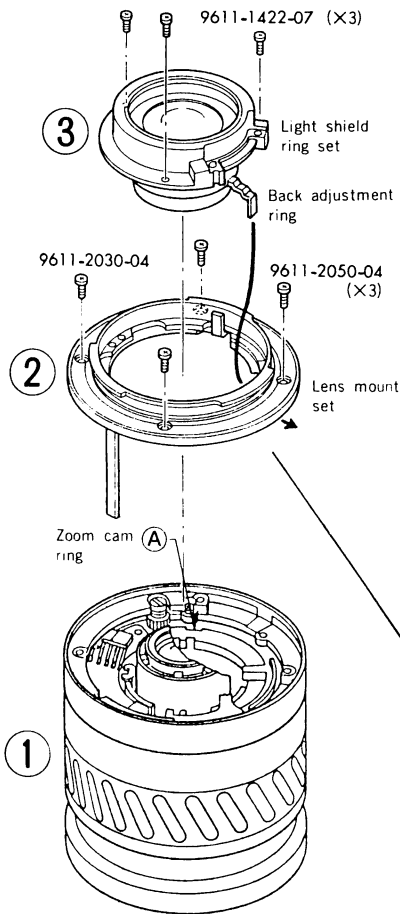
Back adjustment ring assembling procedure



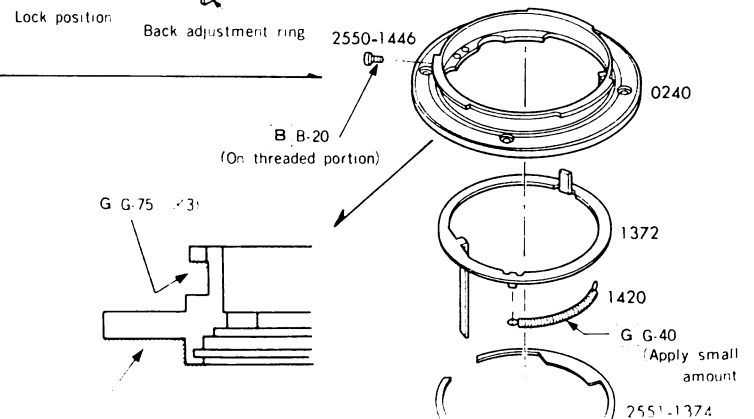
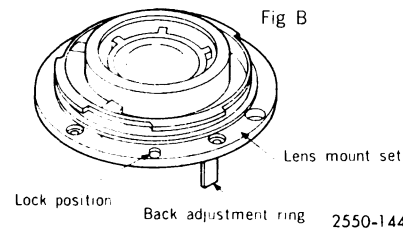
- Fit lever portion of back adjustment ring and positioning groove of light shield ring, then install back adjustment ring.
- After installing it, when back adjustment ring is fastened to the end, make sure that lever portion of back adjustment ring is positioned at screw hole shown in fig. A.



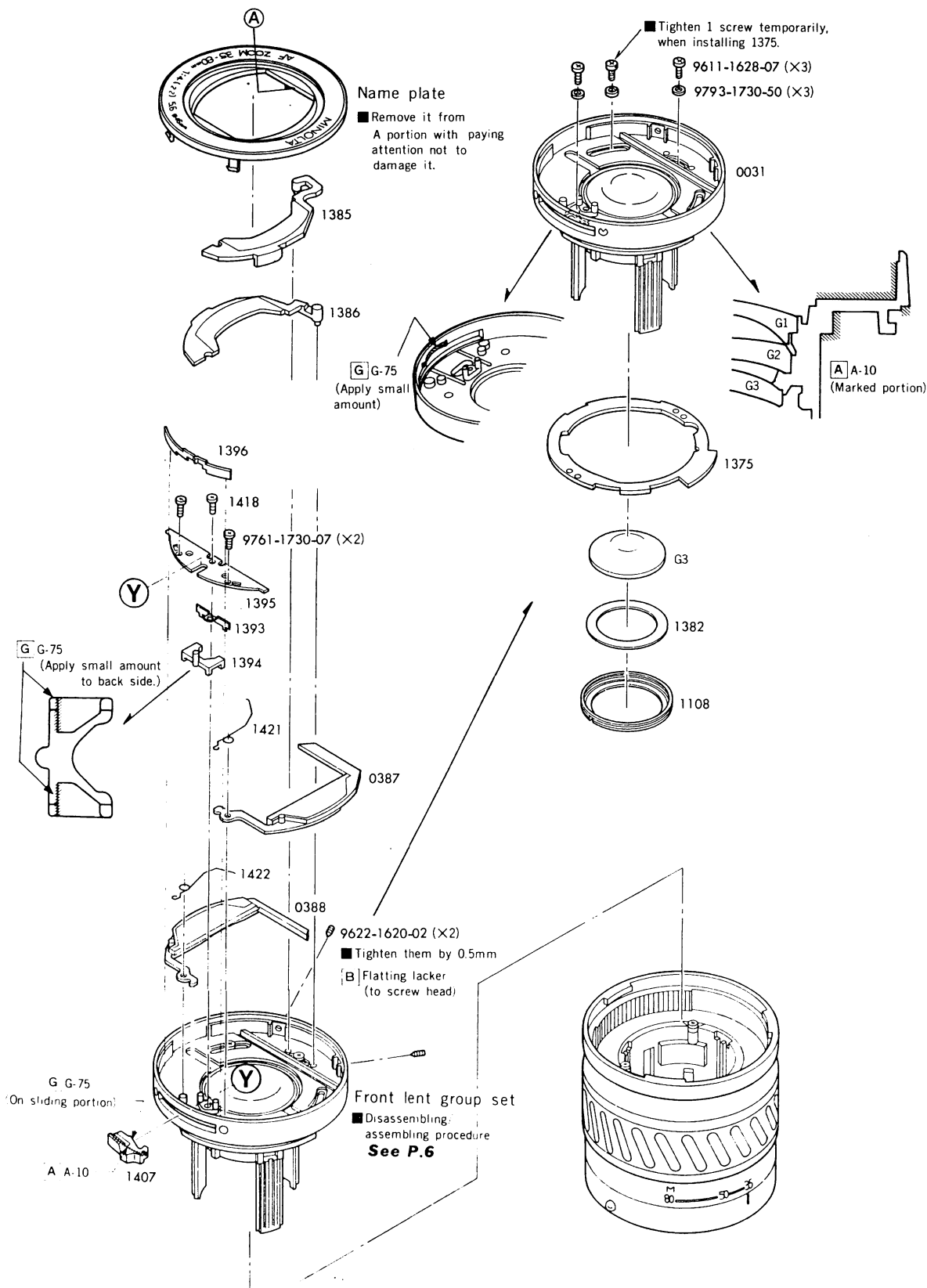
Light shield ring, lens mount set assembling procedure



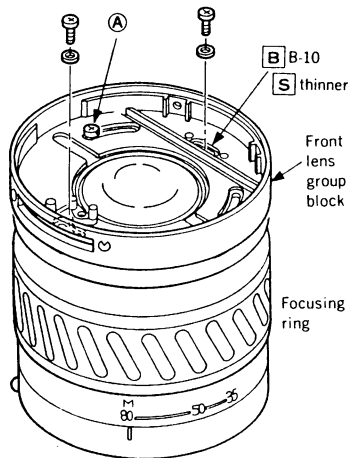
- ① Set zoom cam ring as shown in the (A).
 - ② Install lens mount set temporarily, hold it with up by 1cm. (Hold signal PC board, also.)
 - ③ Set back adjustment ring as shown in the figure, then install light shield ring to lens mount set.
 - ④ Install light shield ring to lens mount set temporarily.
 - ⑤ Set back adjustment ring as shown in figure B.
 - ⑥ Install lens mount set, with paying attention not to move back adjustment ring.
(Make sure not to install forcedly because hook portion of back adjustment ring is easy to break.)
 - ⑦ Tighten it with screw.
- After installing it, make sure that G8 should be turning when zoom cam ring is operated.



3 Name plate, front lens group set



Front lens group set assembling/disassembling procedure



Disassembling

- ① Remove two screws for fastening focus stopper plate.
- ② Loosen screw A. Turn 1375 (focus stopper plate) to counterclockwise until screw A stops to the end.
- ③ Set zoom ring at 80mm.
- ④ Turn zoom ring to close-distance-side completely, then remove front lens group block where focusing ring returns a little to far-distance-side.

Assembling

- ① Follow in reverse order of disassembly for assembling.
- ② After assembling it, set screw A to center, and tighten other screws temporarily.

After assembling, check and adjust as follows.

- Check aperture diameter
(Refer to "general checking/adjusting procedures" p.9)
(Replace 2nd moving barrel, if aperture diameter is not within allowable range)
- Adjust focus shift and flange back

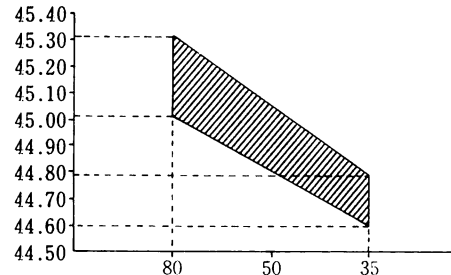
Focus shift/flange back adjusting

Refer to "general checking/adjusting procedures" p.3 on focus shift/flange back adjusting.

Focus shift and flange back

f(mm)	f'F(mm)※
35	44.61~44.78
50	—
80	45.01~45.31

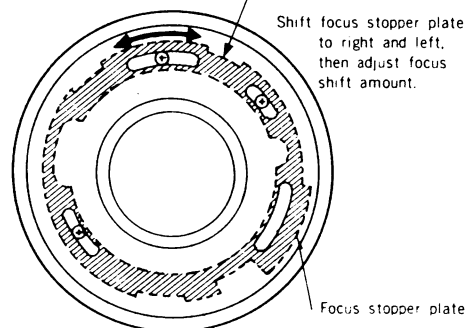
※This table includes compensation value so that ∞ position is adjusted over by 2'30"



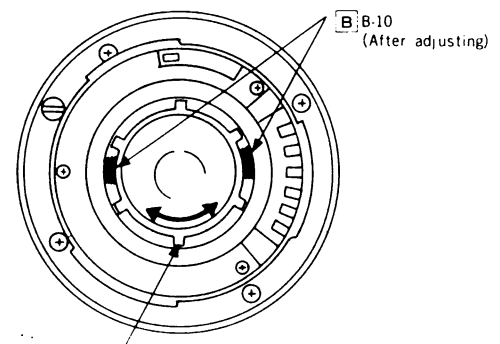
Allowable range for servicing

f(mm)	Distance D(m)	Center (y'=0)	y'=15	
			S	M
35	1.2~1.5	100	32	20
50	1.7~2.1	100	32	20
80	2.0~3.4	80	32	20

Focus shift amount adjusting

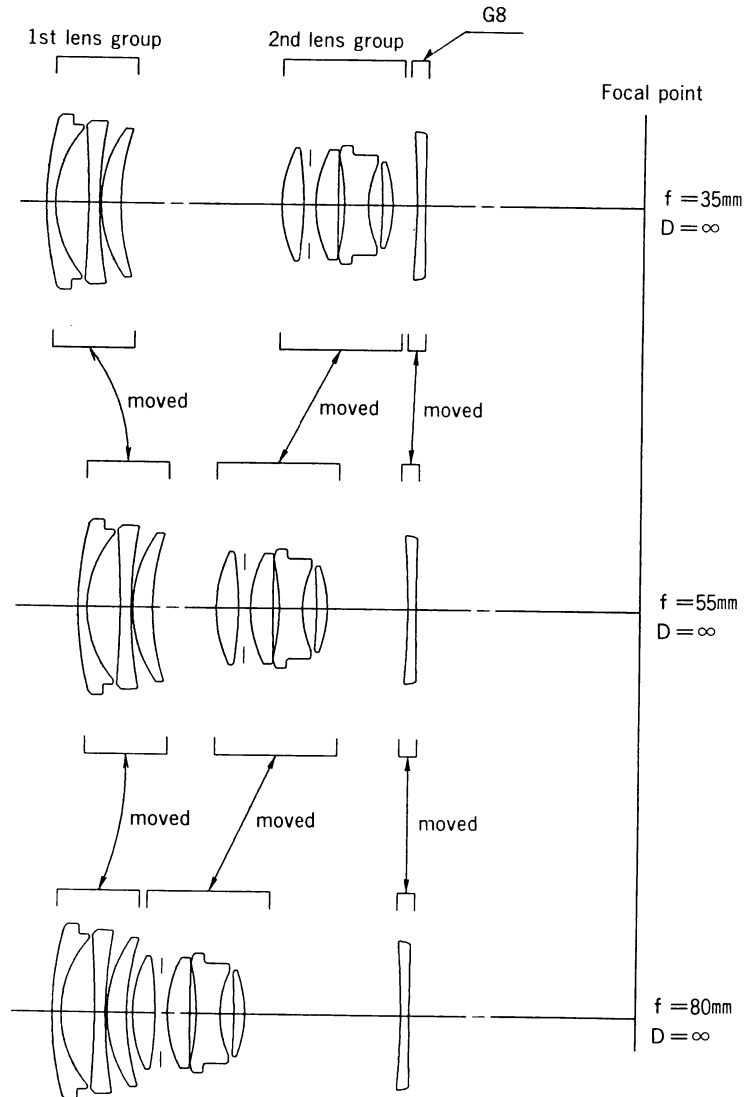


Flange back adjusting

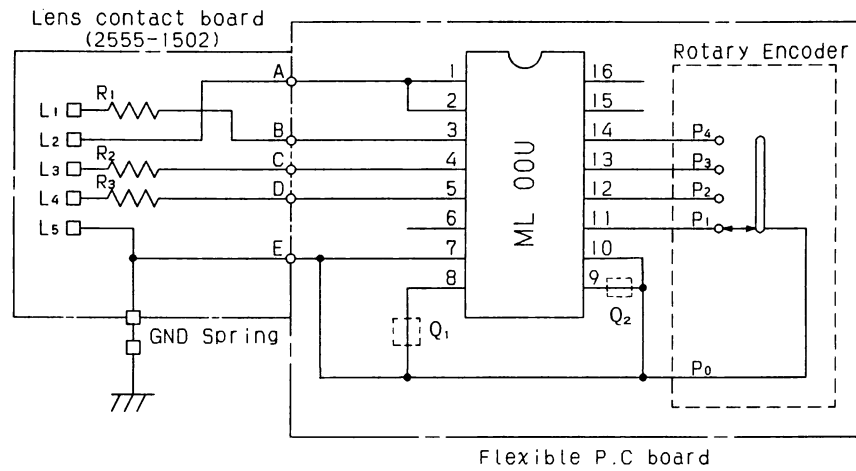


■ Lens movement

- 3-component mechanical-compensation zoom lens (negative, positive, negative). When zooming, by rotating zoom ring, 1st, 2nd and G8 are moved individually.
- Aperture is set in 2nd zoom lens group.



■ Circuit diagram, printed wiring diagram



L₁ ~ L₅ : Lens signal contact
R₁ ~ R₃ : Printed resistor

ML-00U : ROM-IC
A~E : Soldering points of signal PC board and flexible PC board

P₀ ~ P₄ : Rotary encoder pattern SW
(ON/OFF at certain zooming point)

Q₁ ~ Q₂ : OFF by cutting pattern

