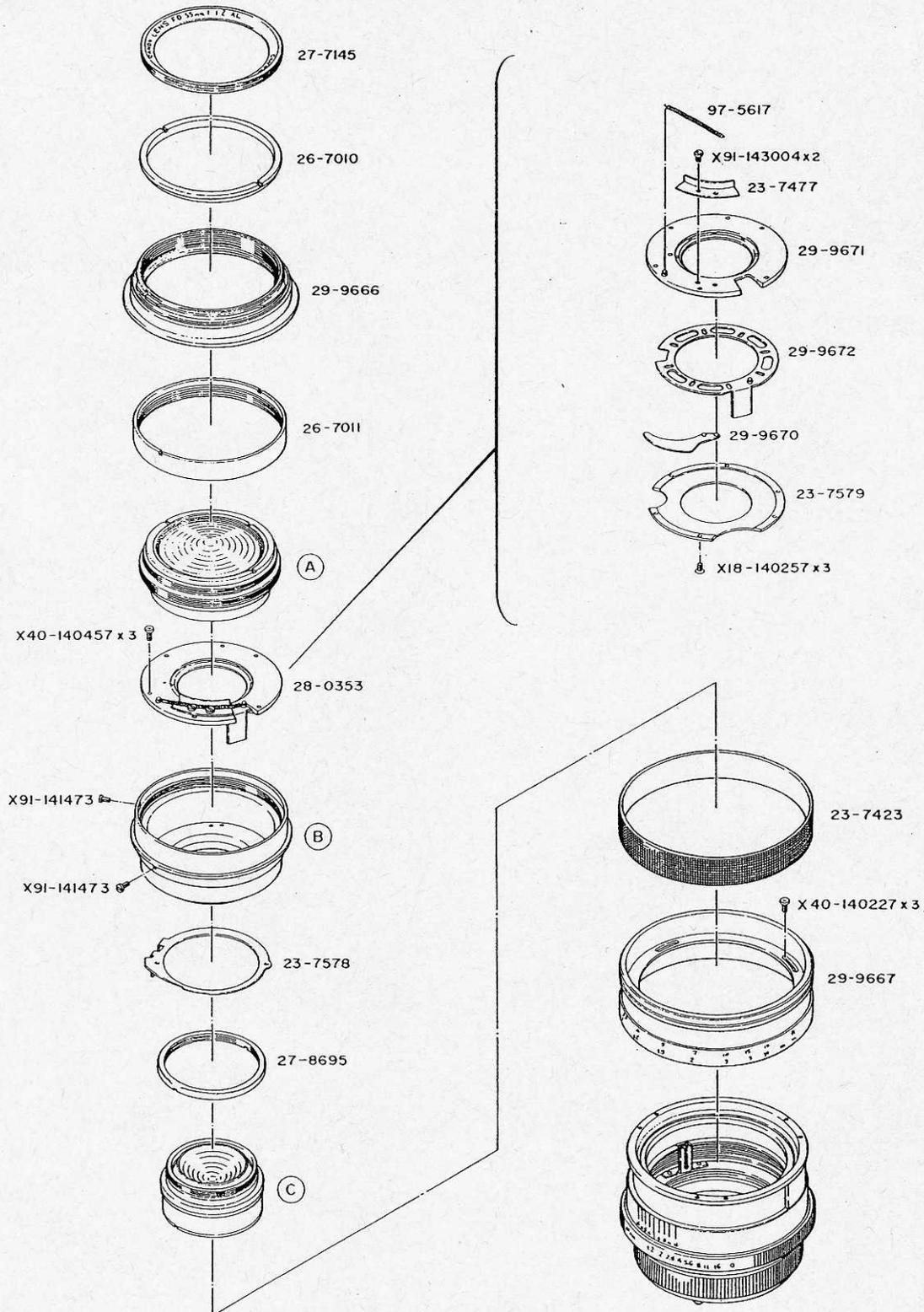


CANON REPAIR GUIDE

FD LENSES



P R E F A C E

This Repair Guide is issued to insure the continued high quality of the CANON FD Lenses through correct repair procedures.

This Guide consists of four sections: Introduction, Disassembly, Replacement and Adjustment and the Appendix.

If any repairs are required, refer to this Guide. Any comments or suggestions concerning this Guide will be appreciated.

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CANON INC., 1971

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Introduction

1. Since more functions have been added to FD Lens than FL Lens (an open aperture metering system and EE photography) the repair and checking procedures have increased accordingly. When repairing FD lenses, extreme care must be exercised to maintain the original precision.

1.1 Aperture diameter

Because this FD lens employs an open aperture metering system, errors in the aperture diameter result in exposure errors. It is, therefore, necessary to control the aperture diameter accuracy much more strictly than previously.

1.2 Aperture signal lever

The accuracy of this lever also has direct effect on that of the exposure meter. A special tool (FD Lever gauge-3) is required to check its position. (As the meter accuracy of the camera is to be measured after the lens is installed, when adjusting the meter the position of the aperture signal lever should be checked.)

1.3 Maximum aperture correction pin

This pin is mounted on the rear cover. Therefore, when replacing the rear cover, the head of the signal pin should be cut to the specified height. (See Para. 2.5)

2. All FD lenses have basically the same construction, and in this repair guide, explanation will be made using the FD 50mm 1:1.4 as the example.
3. A hand fitted lens spacing system is employed for the following lenses, so the lens system must be replaced as a unit:

FD 17mm 1:4	FD 24mm 1:2.8	FD 28mm 1:3.5
FD 35mm 1:2	FD 35mm 1:3.5	

4. For the following lenses, positioning the front lens unit should be carried out because they have the "Full Range Aberration-Free System". This system consists of a second helicoid in the front lens group.

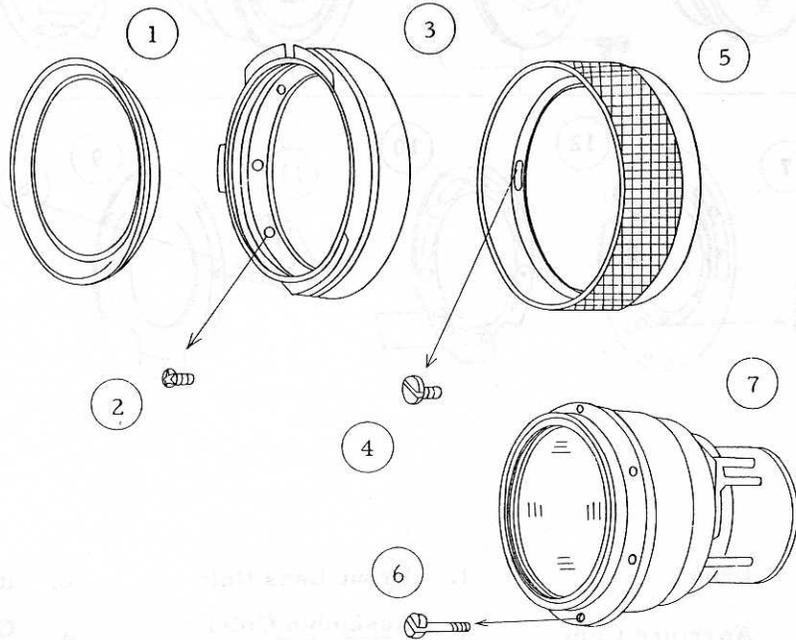
FD 17mm 1:4	FD 24mm 1:28	FD 35mm 1:2
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Note: Hand fitted system:

The individual lens elements are hand fitted and spaced at the factory. The tools and test equipment necessary are extremely costly so these lens systems are supplied as a unit only.

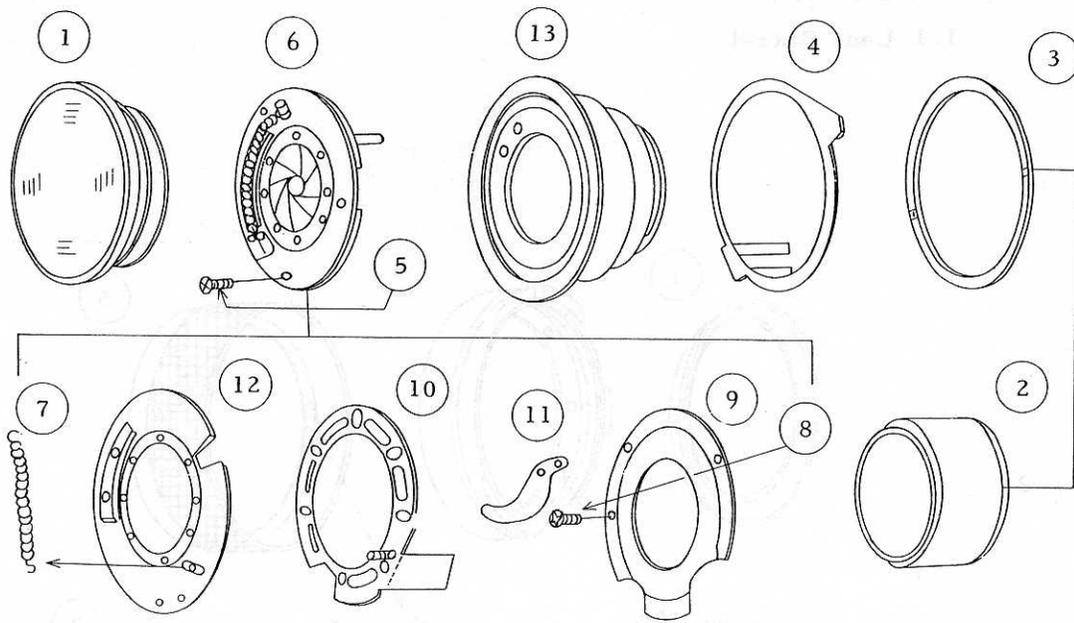
1. Disassembly

1.1 Lens Barrel



- | | | |
|------------------|---|---|
| 1. Front Ring | 1. $\frac{\text{Name Ring}}{27-7122}$ | 2. $\frac{\text{Screw}}{X40-170307} \times 3$ |
| 2. Focusing Ring | 3. $\frac{\text{Front Ring}}{29-9569}$ | 5. $\frac{\text{Focusing Ring}}{29-9663}$ |
| 3. Lens Barrel | 4. $\frac{\text{Screw}}{X40-140257} \times 3$ | 7. Lens Barrel |
| | 6. $\frac{\text{Screw}}{X91-172490} \times 3$ | |

1.2 Lens system and Aperture Unit

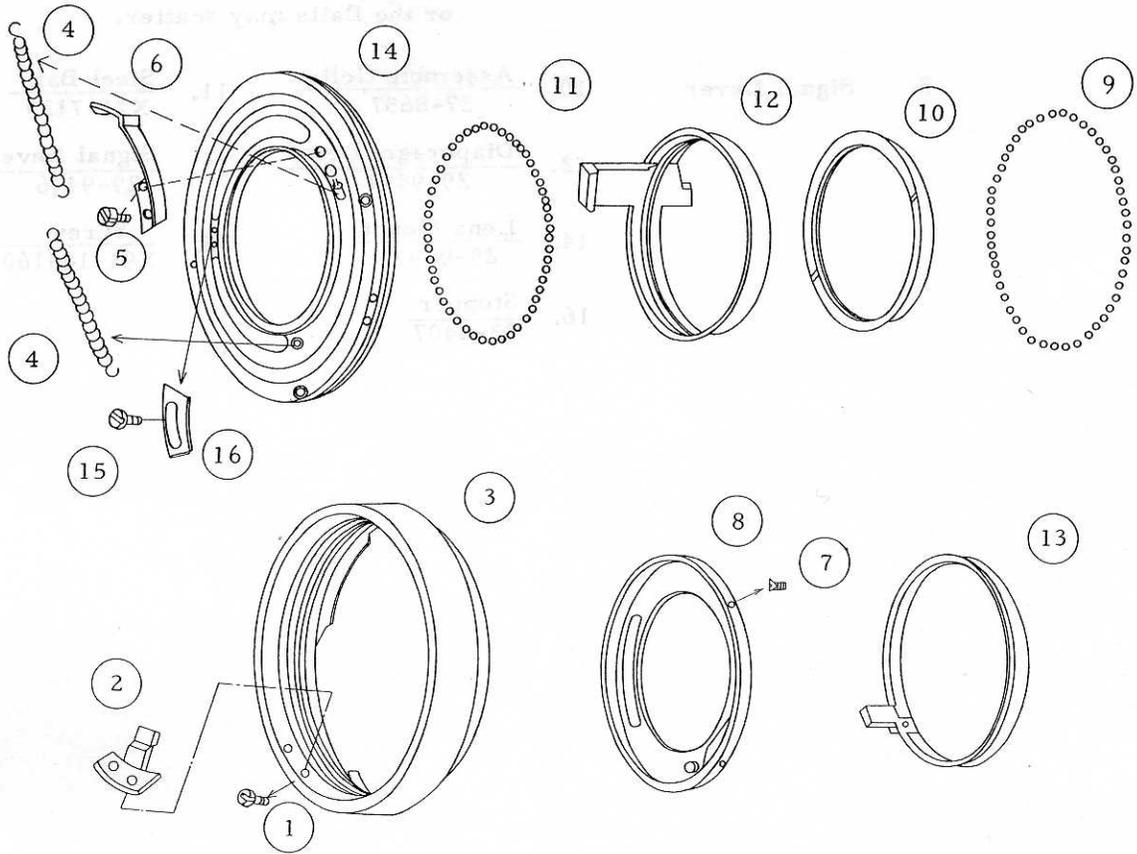


- | | | |
|------------------|--------------------------------------|------------------------------------|
| 1. Lens | 1. Front Lens Unit | 2. Rear Lens Unit |
| 2. Aperture Cam | 3. <u>Assemble Collar</u>
27-8656 | 4. <u>Cam Ring</u>
23-2405 |
| 3. Aperture Unit | 5. <u>Screw</u>
X40-140457 x 3 | 6. <u>Aperture Unit</u>
28-0290 |

(Note) When removing the Aperture Unit, scribe lines on the Aperture Unit and Lens Barrel to facilitate reassembly.

- | | | |
|-------------------------|---------------------------------------|-------------------------------------|
| 4. <u>Aperture Unit</u> | 7. <u>Coil Spring</u>
97-5386 | 8. <u>Screw</u>
X18-140257 x 3 |
| | 9. <u>Diaphragm Cover</u>
23-2403 | |
| | 10. <u>Diaphragm Rotor</u>
29-4992 | 11. <u>Aperture Leaf</u>
29-9623 |
| | 12. <u>Diaphragm Base</u>
29-9493 | 13. <u>Lens Barrel</u>
29-9491 |

1.3 Lens Mount



1. Bayonet Ring

1. $\frac{\text{Screw}}{\text{X19-140226}} \times 2$

2. $\frac{\text{Bayonet Stopper}}{23-2409}$

3. $\frac{\text{Bayonet Ring}}{23-2406}$

(Note) Don't remove the stopper of the Automatic Diaphragm Lever. Don't tighten Bayonet Stopper unnecessarily, because the screw thread is easily damaged.

2. Back Cover

4. $\frac{\text{Coil Spring}}{97-5629}$

5. $\frac{\text{Screw}}{\text{X91-1403078}} \times 2$

6. $\frac{\text{Coil Spring}}{97-7604}$

7. $\frac{\text{Screw}}{\text{X18-140188}} \times 3$

8. Back Cover
29-9495

9. Steel Ball x 114
X71-7129

(Note) Since the Ball bearing are held by the Back Cover, be careful when removing the cover; or the Balls may scatter.

3. Signal Lever

10. Assemble Collar
27-8657

11. Steel Ball x 97
X71-7129

12. Diaphragm Lever
29-9497

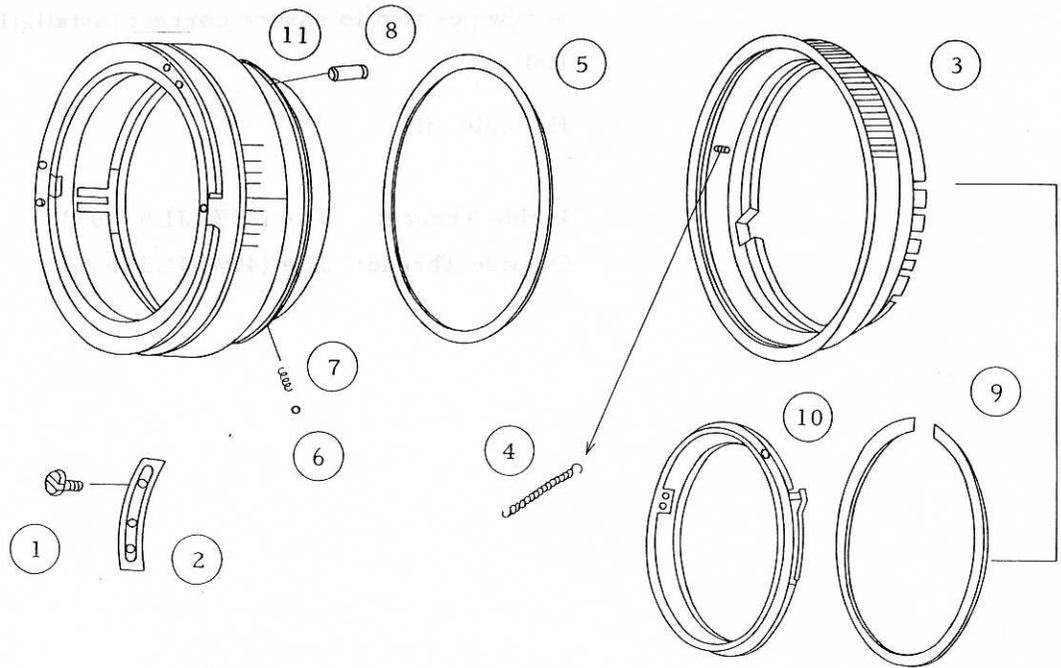
13. Signal Lever
29-9496

14. Lens Mount
29-9497

15. Screw x 2
X91-143160

16. Stopper
23-2407

1.4 Helicoid



1. Stopper

2. Aperture Ring

1. $\frac{\text{Screw}}{\text{X40-140207}} \times 2$

3. $\frac{\text{Aperture Ring}}{29-9625}$

5. $\frac{\text{Adjusting Washer}}{\text{X98-500216}}$

7. $\frac{\text{Coil Spring}}{97-5255}$

2. $\frac{\text{Stopper}}{23-2416}$

4. $\frac{\text{Coil Spring}}{97-5776}$

6. $\frac{\text{Steel Ball}}{\text{X34-100571}} \times 2$

Note: When not removing the Helicoid, don't remove Aperture Ring. It is because difficulty lies in installing the Coil Spring.

- 3. Diaphragm Drum
- 8. Moving Rod
X91-14253
- 9. Snap Washer
26-9076
- 10. Diaphragm Drum
23-2419

(Note) Don't detach Stopper 23-2414.

4. Helicoid

Prior to disassembling, scribe a line on the Helicoid screw position to ensure correct installation of Helicoid.

Helicoid oil:

Inside Thread: JL4 (60%) JL5 (40%)

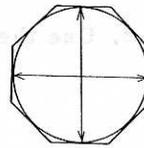
Outside Thread: JL4 (40%) JL5 (60%)

2. Replacement and Adjustment

2.1 Aperture diameter

1. Adjust the aperture diameter after adjustment of the open position of the Aperture signal lever.
2. Remove Name Ring and then Front Lens Unit.
3. Measure the aperture diameter at F8 or F11.
4. Measure the diameter of the aperture.

Tool: Inside Calipers (L-002)



Measure two
arrow-mark positions

Fig. 1

5. Make adjustment by moving the Aperture Unit horizontally, slackening 3 Screws X40-140457.

(Note) For the measurement value, see Table (Para. 3.2)

6. In consideration of back-lash, check the aperture diameter both by closing down from full open and opening from F 16. The aperture diameter must be within the limits.
7. When the aperture is open, the blades must be out of sight.
8. Whenever the Aperture Unit is removed, measure the aperture diameter.

2.2 Replacement of Aperture Unit

1. See Para. 1.2.
2. Check the operation of the Aperture Unit.
3. Measure the aperture diameter referring to the Para. 2.1.
4. Whenever the Aperture blades are replaced, check the aperture diameter.

2.3 Adjustment of Automatic Diaphragm Lever

1. Install Automatic Diaphragm Lever and Signal Lever together in Mount.
2. Put in the Steel Balls and install the Assembly Collar. Number of Balls used for FD 50mm 1:1.4 is 97.

3. Check the operation of Automatic Diaphragm Lever. If it works poorly, loosen the Assembly Collar 27-8657 back 10mm (on the circumference).

Thrust play: Under 0.2 mm

Secure the collar at four spots with lacquer.

4. When the Lever is installed on Mount, the tension of the Lever must be no more than 150 gr.

Tool: Correx Tension gage

(Note) When the force is 130 to 140 gr, smoothest movement of the blades is obtained. If it is 110 gr or below, the blades won't return to the open position occasionally.

5. Use the FD Lever gauge- 3 (SE-105).

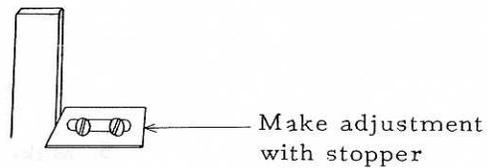


Fig. 2

6. Apply a small quantity of Liquid Molybdenum to the friction face of the spring.

7. The clamp release torque of Diaphragm Lever is 200 to 400 gr. Make adjustment by bending the clamp spring at A.

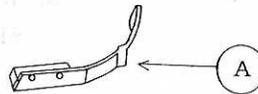


Fig. 3

2.4 Adjustment of Signal Lever

1. The number of Steel Balls used for Signal Lever of FD 50mm 1:1.4 is 114. When the balls are placed in the race, there must be clearance for 4 or 5 balls.

Note: The same Steel Ball is used for all FD lenses.

2. The Signal Lever balls are retained by the Back Cover.

(Note) The screw hole threads may strip easily, so be particularly careful.

3. Measure the released position of Signal Lever.
Correct position: 69 degrees (See Fig. 5)
Note: Use the FD lever gauge 3 (SE-105)

4. If the open position of Signal Lever is incorrect, adjust it as follows.

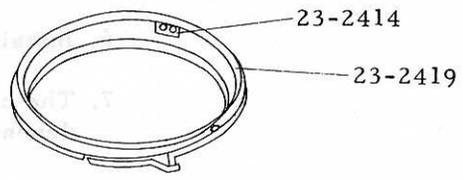


Fig. 4

- 1) Detach the Lens Mount and adjust the position with Stopper 23-2414.
(Note) When the aperture is open, the aperture blades must be completely out of sight.
- 2) Where adjustment is impossible, replace Signal Lever 29-9496.

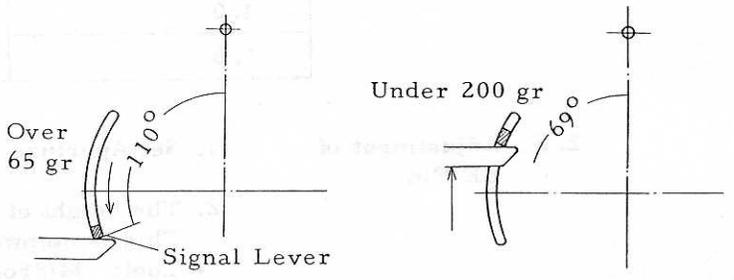


Fig. 5

5. When the aperture is stopped down to minimum, the Signal Lever tension must be 65 gr. or more.
6. The Force required to return the Signal Lever to the released position, with the Aperture Ring set to EE: Under 220 gr.

2.5 Replacement of Rear Cover

1. Remove Signal Lever spring.
2. Remove 3 Screws X18-140188.
3. Replace the Cover paying attention that Steel Balls do not scatter.

4. Measure the height of Maximum Aperture Correction Pin with a microtester or slide calipers.

5. File the Correction Pin of the new cover to the specified height. Determine the correct height from the table.

- (Notes) 1. File the pin before installing the cover.
2. File the Correction Pin so that the top face is parallel to the Mount surface.

6. Install the Coil Spring on the Signal Lever first.

7. The height of the Correction Pin from Mount face differs depending upon the maximum F numbers of the lens.

Max. F No.	Height of Max. Aperture Correction Pin
1.2	8.38 ± 0.1 mm
1.4	8.10 ± 0.1 mm
1.8	7.67 ± 0.1 mm
2.0	7.50 ± 0.1 mm
2.5	7.12 ± 0.1 mm
2.8	6.90 ± 0.1 mm
3.5	6.54 ± 0.1 mm
4.0	6.30 ± 0.1 mm
5.6	5.70 ± 0.1 mm

2.6 Adjustment of EE Pin

1. Set Aperture Ring to EE position.

2. The height of EE Pin is 1.0 ± 0.2 mm above Mount face. This is common to all types of lens.

Tool: Microtester or slide calipers

3. To remove the Diaphragm Drum, refer to Para. 1.4.

4. Adjustment of height of EE Pin

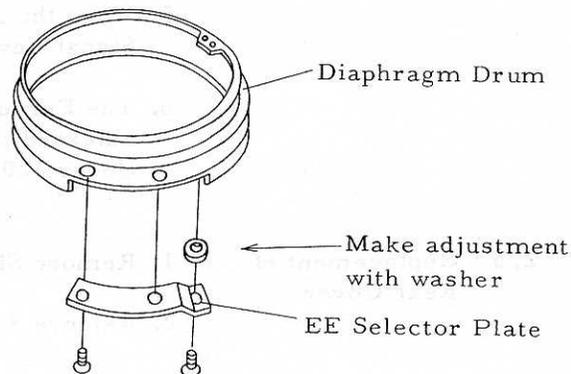


Fig. 6

2.7 Assembly of Mount

1. When installing Mount on Helicoid, stop down the aperture to the minimum and clamp Automatic Diaphragm Lever.
2. Set Bayonet Ring to Open position.
3. Put Signal Lever in the forked part of Cam Ring.
4. Fit three screw holes of Mount to those of the Helicoid.
5. Set the Aperture Ring to EE and check if EE Pin juts out.

Note: Don't take off the Aperture Ring.

2.8 Adjustment of Focus

1. See Para. 1.1.
2. Focus of all lenses can be adjusted by shifting the stopper.

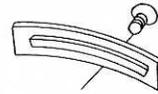


Fig. 8

3. Flange to focusing screen at ∞ : $42.00 \pm 0.03\text{mm}$
4. Use a general purpose focus collimator.

2.9 Positioning of Front Lens Unit

(FD35mm 1:2, FD24mm 1:2.8, FD17mm 1:4)
These three lenses have the "Full Range Aberration Free System" which consists of a second helicoid to change the spacing of lens elements when focusing at close distance. This is in addition to the normal double helicoid which moves the entire lens.

Adjustment of Front Lens Unit position ("S" separation)

1. In the following cases, carry out adjustment of "S" separation.
 - 1) When the lens is out of focus over 0.15mm
 - 2) When the Lens Unit has been replaced
 - 3) When the Helicoid has been replaced
 - 4) When the Front Lens Unit has received a shock
 - 5) When aberration correction is poor at close distance
 - 6) When resolution is poor

2. Measuring instrument: Microtester or height gage
3. Adjust "S" separation with Helicoid set to infinity.
4. Perform focus adjustment after the proper "S" separation has been set.
5. "S" separation of FD 35mm 1:2

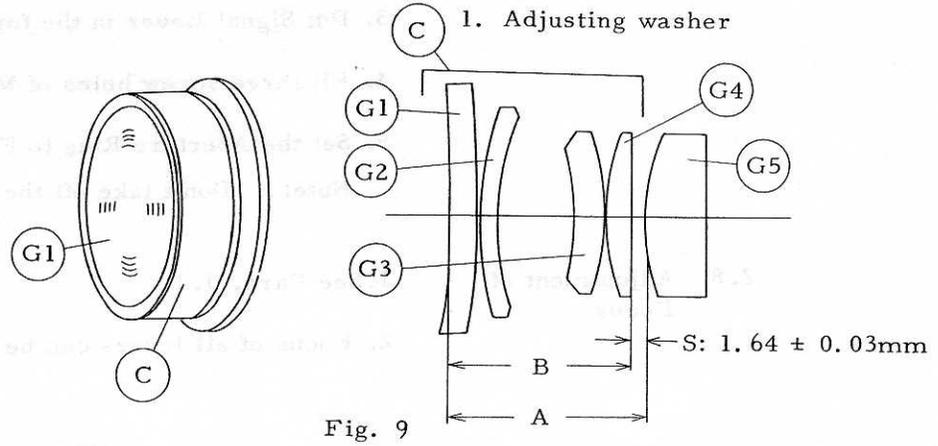


Fig. 9

- 1) There are two types of secondary helicoid used in this lens: Single and Double: In the "Single" the front lens elements rotates and in the "Double" they do not.
- 2) $S = A - B = 1.64 \pm 0.03\text{mm}$
 - a) For the single helicoid, make the adjustment by turning part C.
 - b) For the double helicoid, make the adjustment with Washer 27-9097.

(Note) Types of Adjusting Washer:

1.20 - 1.80 mm thick
in increments of 0.05mm

Standard: 1.50mm thick

6. "S" separation of FD 24mm 1:2.8

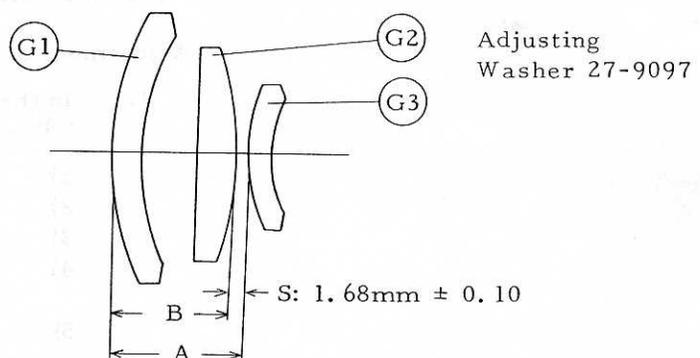


Fig. 10

$$S = A - B = 1.68 \pm 0.10\text{mm}$$

Make the adjustment with Adjusting Washer 27-9097

Note: Types of Adjusting Washer:

1.30 - 1.60mm thick
in increments of 0.05mm

Standard: 1.50mm

7. "S" separation of FD 17mm 1:4

▨ Adjusting washer 27-9095

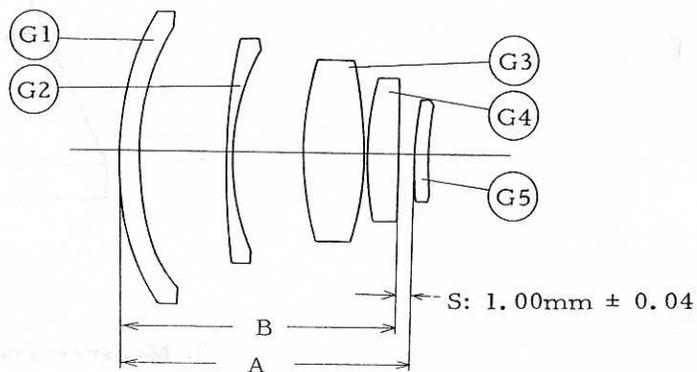


Fig. 11

$$S = A - B = 1.00 \pm 0.04$$

Make adjustment with Adjusting Washer 27-9095

(Note) Types of Adjusting Washer:

1.35 - 1.65mm thick
in increments of 0.05mm

Standard: 1.50mm

3. Appendix

3.1 Measurement of "S" separation with height gage

1. Preparatory Procedures

- 1) Measure the center of the lens.
- 2) Particular care should be exercised since the lens surface is easily scratched.
- 3) Install a dial gage on the top of the height gage.
- 4) To prevent the lens face from being scratched, put a plastic tip on the dial gauge.
- 5) In order to retain the lens perpendicularly, use the angle adjustment of Signal Lever.
- 6) Measure the "S" separation on machine table.

(Note) Where no machine table is available, any truly flat surface may be used.

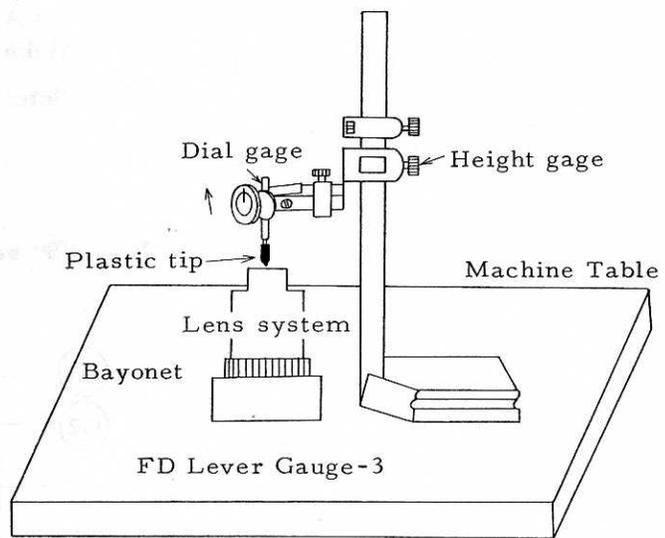


Fig. 12

2. Measurement of "S" separation

1) Measure "D" (F-H)

Measure the heights of "F" and "H" from the K_2 surface.

2) Measure "J"

Measure "J" from the K_1 surface.

3) Measure "B"

$$B = J - D$$

4) Measure "S" separation

$$S = A - B$$

Note: See Fig.s 9, 10 and 11

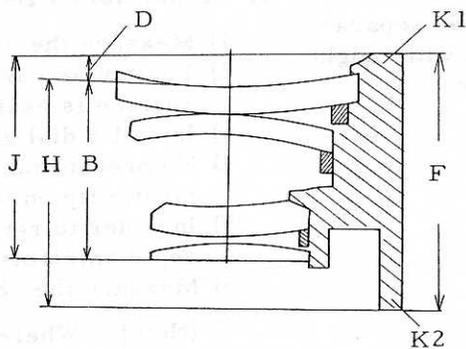


Fig. 13

3.2 Tables of Aperture diameter
(Unit: Millimeters)

FD 28mm 1 : 3.5

F No.	3.5	5.6	8	11	16EE
Upper limit values		7.15	5.01	3.52	2.48
Reference values	10.75	6.54	4.59	3.22	2.27
Lower limit values		5.99	4.20	2.95	2.08

FD 35mm 1 : 2

F No.	2	2.8	4	5.6	8	11	16EE
Upper limit values		15.79	10.95	7.71	5.43	3.83	2.70
Reference values	20.99	14.46	10.03	7.06	4.98	3.51	2.48
Lower limit values		13.24	9.18	6.47	4.56	3.22	

FD 35mm 1 : 3.5

F No.	3.5	5.6	8	11	16EE
Upper limit values		7.81	5.47	3.84	2.70
Reference values	12.16	7.29	5.01	3.52	2.48
Lower limit values		6.54	4.59	3.23	2.27

FD 100mm 1 : 2.8

F No.	2.8	4	5.6	8	11	16	22EE
Upper limit values		15.61	10.97	7.72	5.44	3.84	2.71
Reference values	20.38	14.29	10.05	7.08	4.99	3.52	2.48
Lower limit values		13.08	9.21	6.49	4.57	3.23	2.28

FD 135mm 1 : 2.5

F No.	2.5	4	5.6	8	11	16	22EE
Upper limit values		18.64	13.11	9.23	6.51	4.59	3.24
Reference values	27.80	17.07	12.13	8.46	5.97	4.21	2.97
Lower limit values		15.63	11.00	7.75	5.47	3.86	2.73

FD 50mm 1 : 1.4

F No.	1.4	2	2.8	4	5.6	8	11	16EE
Upper limit values		18.40	12.93	9.10	6.43	4.54	3.19	2.26
Reference values	23.00	16.84	11.84	8.34	5.88	4.15	2.93	2.07
Lower limit values		15.42	10.84	7.64	5.39	3.80	2.64	1.89

FD 55mm 1 : 1.2

F No.	1.2	2	2.8	4	5.6	8	11	16EE
Upper limit values		18.95	13.32	9.38	6.62	4.67	3.30	2.31
Reference values	27.80	17.35	12.21	8.60	6.06	4.28	3.02	2.13
Lower limit values		15.89	11.18	7.88	5.56	3.92	2.77	1.96

FD 50mm 1 : 1.8

F No.	1.8	2.8	4	5.6	8	11	16EE
Upper limit values		13.20	9.24	6.48	4.56	3.21	2.26
Reference values	19.00	12.07	8.45	5.94	4.18	2.94	2.07
Lower limit values		11.04	7.74	5.44	3.83	2.60	1.90

FD 17mm 1 : 4

F No.	4	5.6	8	11	16	22EE
Upper limit values		6.09	4.26	2.99	2.10	1.48
Reference values	7.99	5.57	3.90	2.74	1.93	1.36
Lower limit values		5.09	3.57	2.51	1.77	1.24

FD 24mm 1 : 2.8

F No.	2.8	4	5.6	8	11	16EE
Upper limit values		10.09	7.06	4.95	3.48	2.45
Reference values	13.25	9.22	6.46	4.53	3.19	2.25
Lower limit values		8.43	5.91	4.15	2.92	2.06

FD 135mm 1 : 3.5

F No.	3.5	5.6	8	11	16	22EE
Upper limit values		14.22	10.00	7.05	4.97	3.50
Reference values	21.45	13.02	9.16	6.46	4.55	3.21
Lower limit values		11.92	8.39	5.92	4.17	2.95

FD 200mm 1 : 4

F No.	4	5.6	8	11	16	22EE
Upper limit values		21.37	15.02	10.57	7.45	5.26
Reference values	27.80	19.56	13.75	9.69	6.83	4.82
Lower limit values		17.91	12.60	8.88	6.24	4.42

ED 100 - 200mm 1 : 5.6

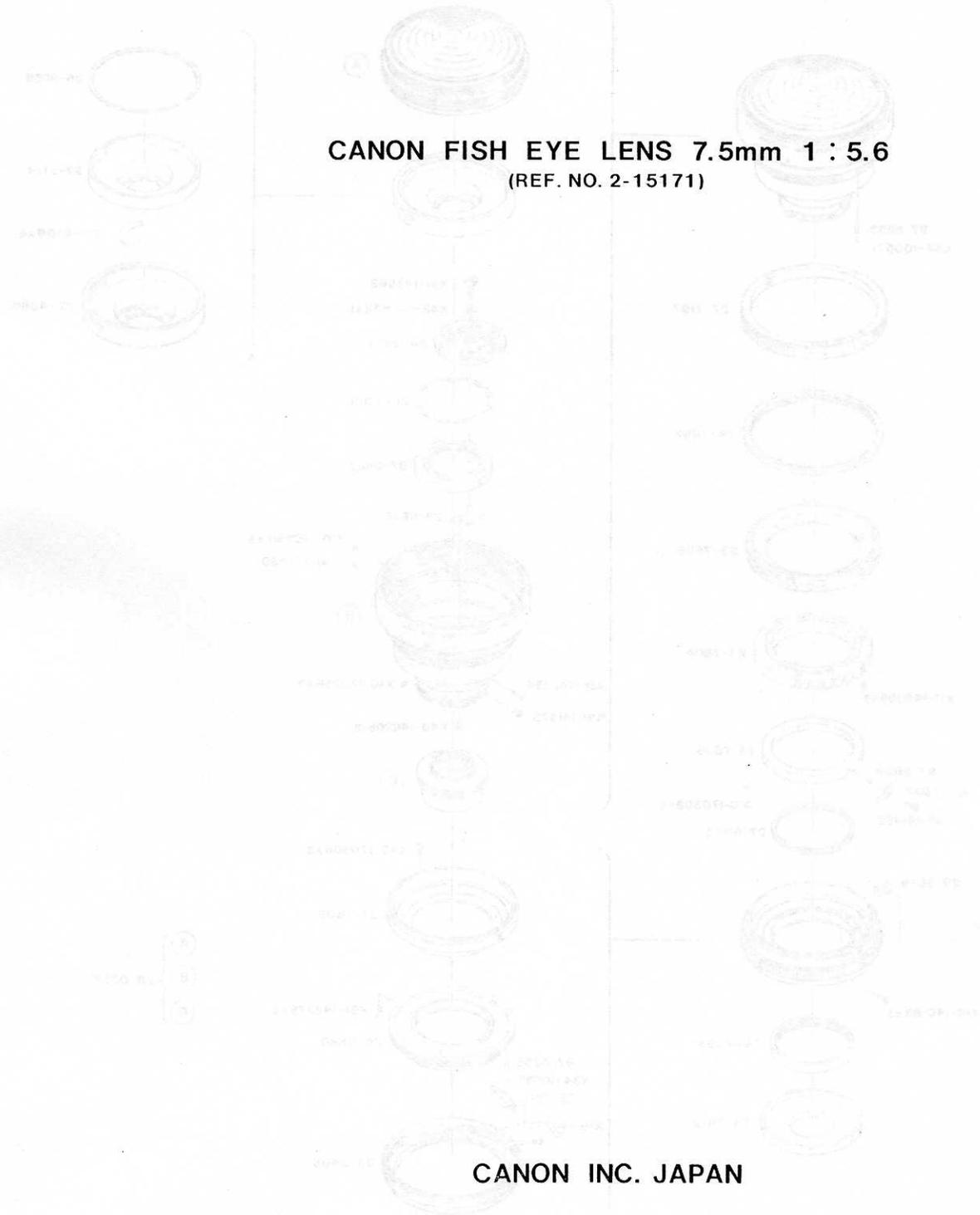
F No.	5.7	8	11	16	22EE
Upper limit values		17.81	12.51	8.81	6.21
Reference values	23.25	16.30	11.46	8.07	5.69
Lower limit values		14.93	10.50	7.40	5.22

EXPLODED VIEW

CANON FISH EYE LENS 7.5mm 1:5.6

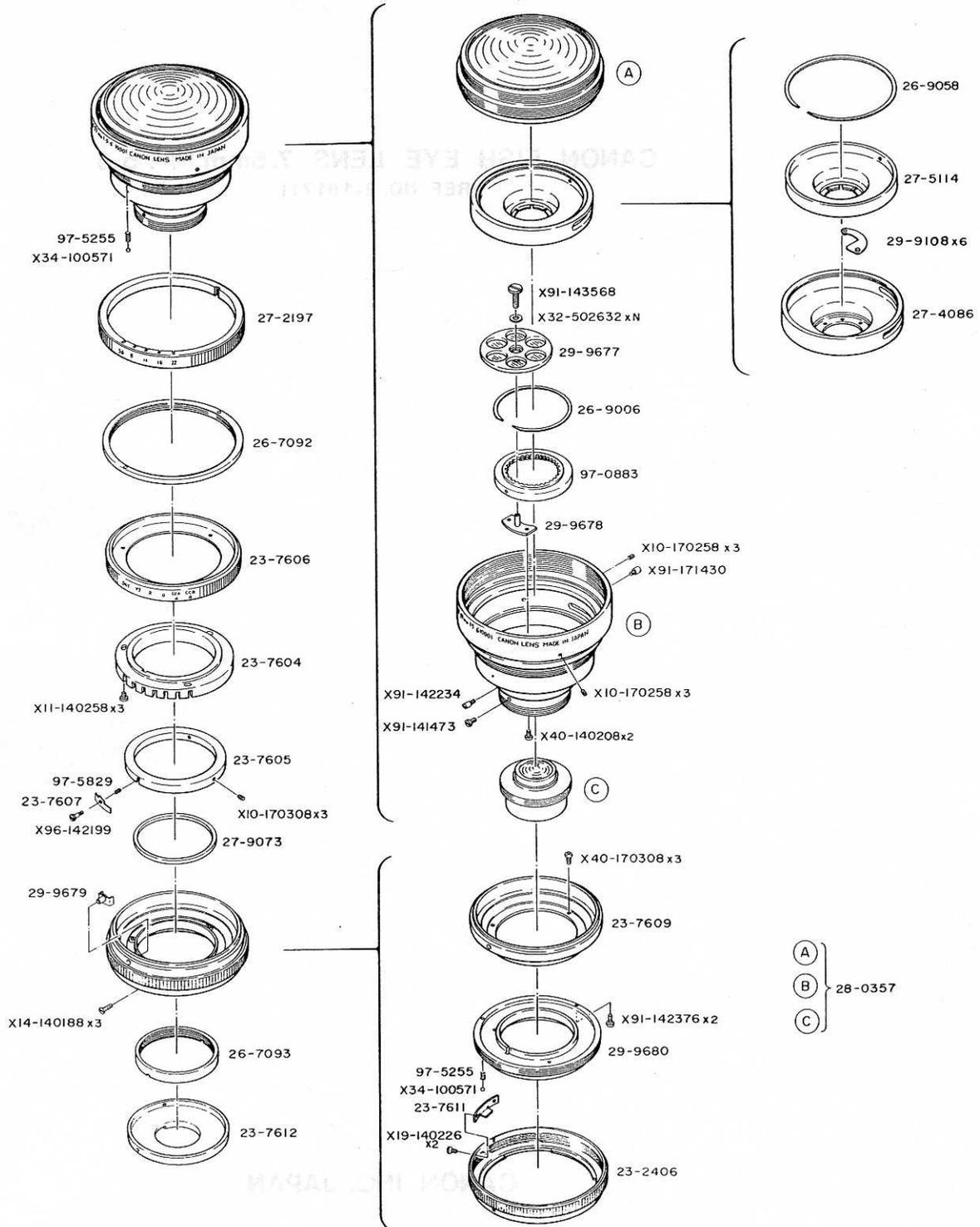
CANON REPAIR MANUAL

CANON FISH EYE LENS 7.5mm 1:5.6
(REF. NO. 2-15171)



CANON INC. JAPAN

EXPLODED VIEW
of
CANON FISH EYE LENS 7.5mm 1:5.6



部 品 名 称	CLASS	PARTS NO.	QTY.	DESCRIPTION
バヨネットリング	C	23-2406	1	Bayonet Ring
クリックリング	D	23-7604	1	Click Ring
押 え 環	D	23-7605	1	Assembly Collar
フィルター指標	D	23-7606	1	Filter Indicator
クリックストッパー	D	23-7607	1	Click Stopper
カバー筒	D	23-7609	1	Cover Collar
バヨネットストッパー	D	23-7611	1	Bayonet Stopper
裏 カバ ー	D	23-7612	1	Back Cover
押 え 環	D	26-7092	1	Assembly Collar
押 え 環	D	26-7093	1	Assembly Collar
割 ワ ッ シ ャ ー ()内の数字は厚さを示す (単位 mm)	D	26-9006 (0.25) 26-9006 (0.3) 26-9006 (0.35)	1	Snap Washer Parenthesized numbers indicate thickness. (Unit : mm)
割 ワ ッ シ ャ ー ()内の数字は厚さを示す (単位 mm)	D	26-9058 (0.25) 26-9058 (0.3) 26-9058 (0.35) 26-9058 (0.4)	1	Snap Washer Parenthesized numbers indicate thickness. (Unit : mm)
絞 り リ ン グ	D	27-2197	1	Aperture Ring
蜂 の 巣	C	27-4086	1	Diaphragm Base
風 車	D	27-5114	1	Diaphragm Rotor
ピントワッシャー ()内の数字は厚さを示す 1.50mmから2.8mmまで 0.05mmとびに27種類	C	27-9073 (1.50) 27-9073 (1.55) } 27-9073 (2.75) 27-9073 (2.80)	N	Adjusting Washer Adjusting Washers are available in thickness from 1.50 to 2.80 mm in 0.05 mm steps.
レンズユニット	D	28-0357	1	Lens Unit
絞 り 羽 根	C	29-9108	6	Aperture Leaf
フィルター盤	D	29-9677	1	Filter Wheel
フィルター盤軸	D	29-9678	1	Filter Wheel Shaft
ストッパー外しピン	C	29-9679	1	Stopper Release Pin
レンズマウント	C	29-9680	1	Lens Mount
内 歯 車	D	97-0883	1	Inside Gear
コイルスプリング	D	97-5255	2	Coil Spring
コイルスプリング	D	97-5829	1	Coil Spring
止 め ビ ス		X10-170258	6	Screw
止 め ビ ス		X10-170308	3	Screw
平 ビ ス		X11-140258	3	Screw
皿 ビ ス		X14-140188	3	Screw
十 字 丸 皿 ビ ス		X19-140226	2	Screw
ワ ッ シ ャ ー		X32-502632	N	Washer
スチールボール	B	X34-100571	2	Steel Ball
十 字 ナ ベ ビ ス		X40-140208	2	Screw
十 字 ナ ベ ビ ス		X40-170308	3	Screw
平 ビ ス		X91-141473	1	Screw
平 ビ ス		X91-142234	1	Screw
平 ビ ス		X91-142376	2	Screw
平 ビ ス		X91-143568	1	Screw
平 ビ ス		X91-171430	1	Screw
段 ビ ス		X96-142199	1	Screw

Printed in Japan, June 1970

CANON REPAIR MANUAL

CANON LENS FD 28mm 1 : 3.5
(REF. NO. 2-15082)

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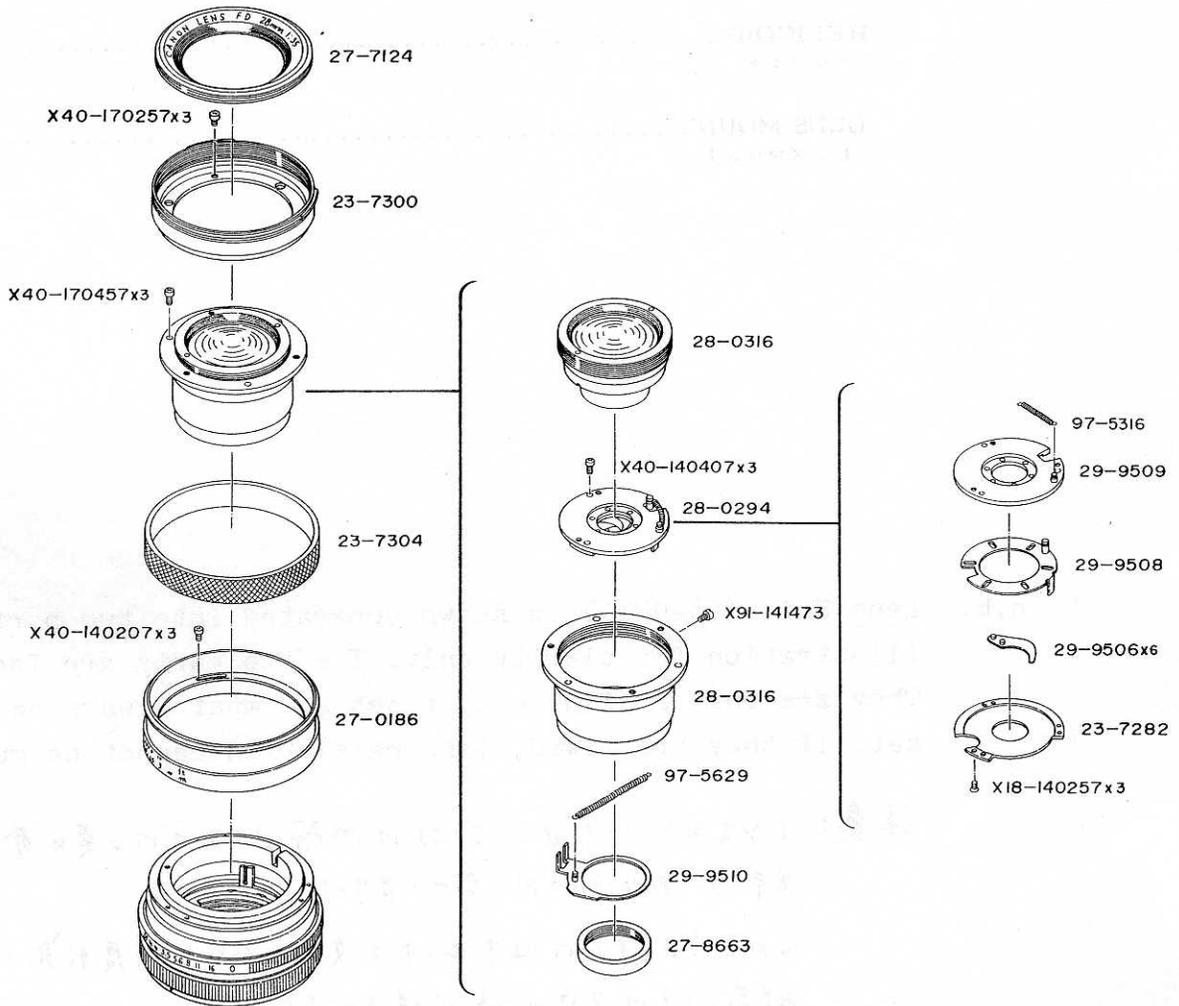
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n.b. Lens Unit (28-0316) is shown separated into two parts in the illustration for clarity only. The two parts are factory matched. They are only available as a set and must always be changed as a set. If they are mixed, lens resolution cannot be guaranteed.

注意: レンズユニット(28-0316)は分解図の上では2点に分解して形で表示されておりそれぞれ同一の番号が付されている。
この2点の部品は必ずセットで交換しないと精度が出ないためサービスマンとして2点セットで供給する。

(2-15082)

EXPLODED VIEW
of
CANON LENS FD 28mm 1 : 3.5



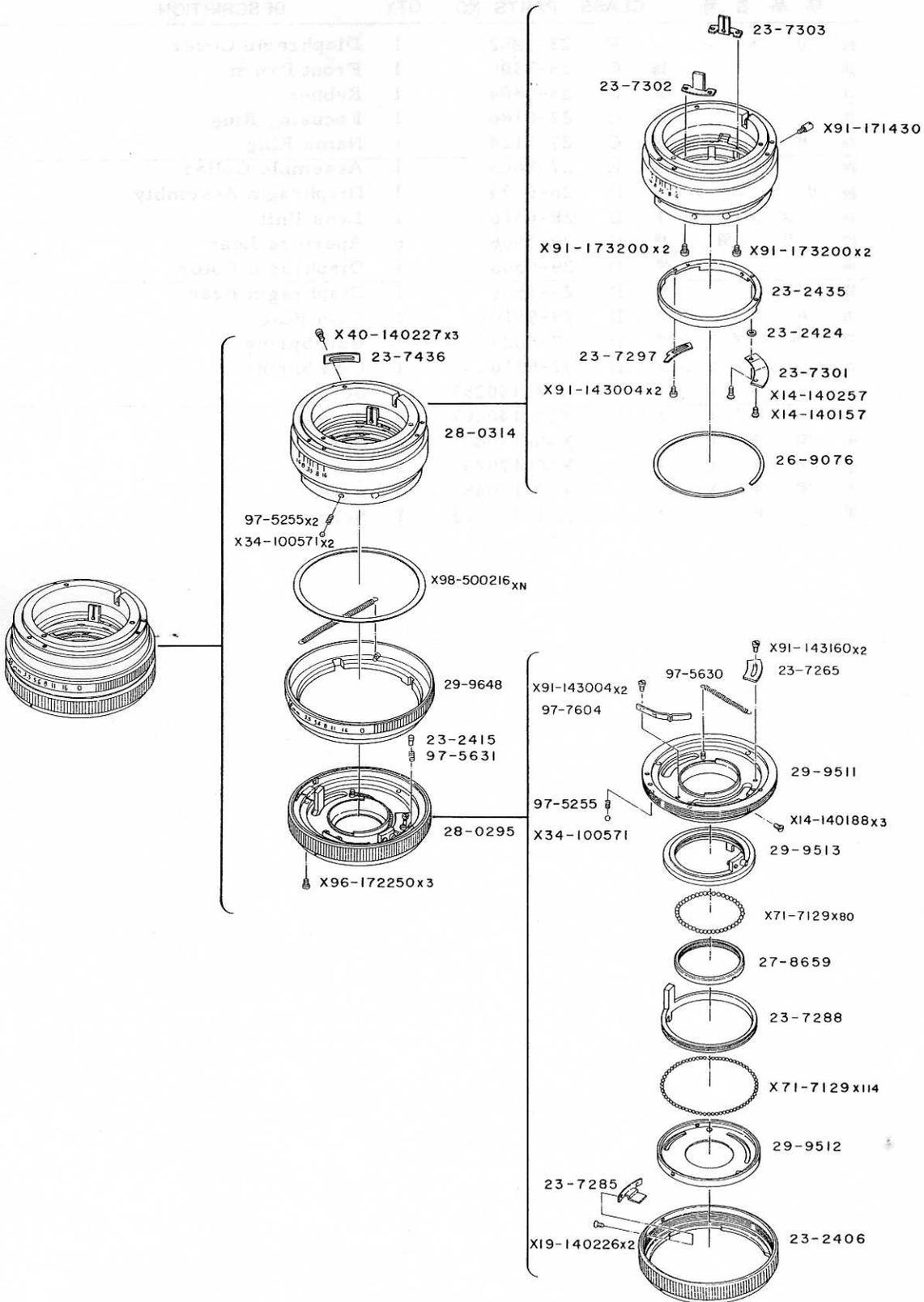
PARTS LIST

LENS GROUP & DIAPHRAGM

レンズ グループ 絞りユニット

部 品 名 称	CLASS	PARTS NO.	QTY.	DESCRIPTION
絞リカバ	E	23-7282	1	Diaphragm Cover
前筒	C	23-7300	1	Front Drum
ゴム	C	23-7304	1	Rubber
距離環	C	27-0186	1	Focusing Ring
飾りリング	C	27-7124	1	Name Ring
押え環	E	27-8663	1	Assemble Collar
絞りユニット	D	28-0294	1	Diaphragm Assembly
レンズユニット	D	28-0316	1	Lens Unit
絞り羽根	C	29-9506	6	Aperture Leaf
風車	D	29-9508	1	Diaphragm Rotor
蜂の巣	D	29-9509	1	Diaphragm Base
カムリング	D	29-9510	1	Cam Ring
コイルスプリング	D	97-5629	1	Coil Spring
コイルスプリング	D	97-5316	1	Coil Spring
十字平ビス		X18-140257	3	Screw
十字平ビス		X40-140207	3	Screw
十字平ビス		X40-140407	3	Screw
十字平ビス		X40-170257	3	Screw
十字平ビス		X40-170457	3	Screw
平ビス		X91-141473	1	Screw

EXPLODED VIEW
 of
CANON LENS FD 28mm 1 : 3.5



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PARTS LIST

HELICOID & LENS MOUNT

ヘリコイド レンズ マウント

部 品 名 称	CLASS	PARTS NO.	QTY.	DESCRIPTION
E E ピ ン	C	23-2415	1	EE Pin
ワ ッ シ ャ ー	E	23-2424	1	Washer
絞 リ ド ラ ム	E	23-2435	1	Diaphragm Drum
ス ト ッ パ ー	C	23-7265	1	Stopper
バヨネットストッパー	C	23-7285	1	Bayonet Stopper
絞リ信号レバー	D	23-7288	1	Signal Lever
ス ト ッ パ ー	E	23-7297	1	Stopper
E E カ ム	E	23-7301	1	EE Cam
ヘリコイドキー	C	23-7302	1	Helicoid Key
ヘリコイドキー	C	23-7303	1	Helicoid Key
ヘリコイドストッパー	C	23-7436	1	Helicoid Stopper
バヨネットリング	C	23-2406	1	Bayonet Ring
割 ワ ッ シ ャ ー ()内の数字は厚さ を示す。(単位:mm)	D	26-9076(0.35) 26-9076(0.4) 26-9076(0.45) 26-9076(0.5)	1	Snap Washer Parenthesized numbers indicate thickness. (Unit: mm)
押 え 環	E	27-8659	1	Assemble Collar
レンズマウントユニット	D	28-0295	1	Lens Mount Unit
ヘリコイドユニット	D	28-0314	1	Helicoid Unit
レ ン ズ マ ウ ン ト	E	29-9511	1	Lens Mount
裏 カ バ ー	D	29-9512	1	Back Cover
自 動 絞 リ レ バ ー	D	29-9513	1	Diaphragm Lever
絞 リ 環	C	29-9648	1	Aperture Ring
コイルスプリング	D	97-5255	2	Coil Spring
コイルスプリング	D	97-5630	1	Coil Spring
コイルスプリング	D	97-5631	1	Coil Spring
コイルスプリング	D	97-5776	1	Coil Spring
ク ラ ン プ バ ネ	D	97-7604	1	Clamp Spring
平 ビ ス		X14-140157	1	Screw
十 字 平 ビ ス		X14-140188	3	Screw
平 ビ ス		X14-140257	1	Screw
十 字 丸 皿 ビ ス		X19-140226	2	Screw
スチールボール	A	X34-100571	2	Steel Ball
十 字 平 ビ ス		X40-140227	3	Screw
スチールボール	A	X71-7129	194	Steel Ball
平 ビ ス		X91-143004	4	Screw
平 ビ ス		X91-143160	2	Screw
平 ビ ス		X91-171430	1	Screw
平 ビ ス		X91-173200	4	Screw
段 ビ ス		X96-172250	3	Screw
調 整 ワ ッ シ ャ ー		X98-500216 X98-500217	N	Adjusting Washer

First Printing, June 1970

CANON REPAIR MANUAL

CANON LENS FD 35mm 1 : 2.0
(REF. NO. 2-15151)

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Printed in Japan

EXPLODED VIEW

of

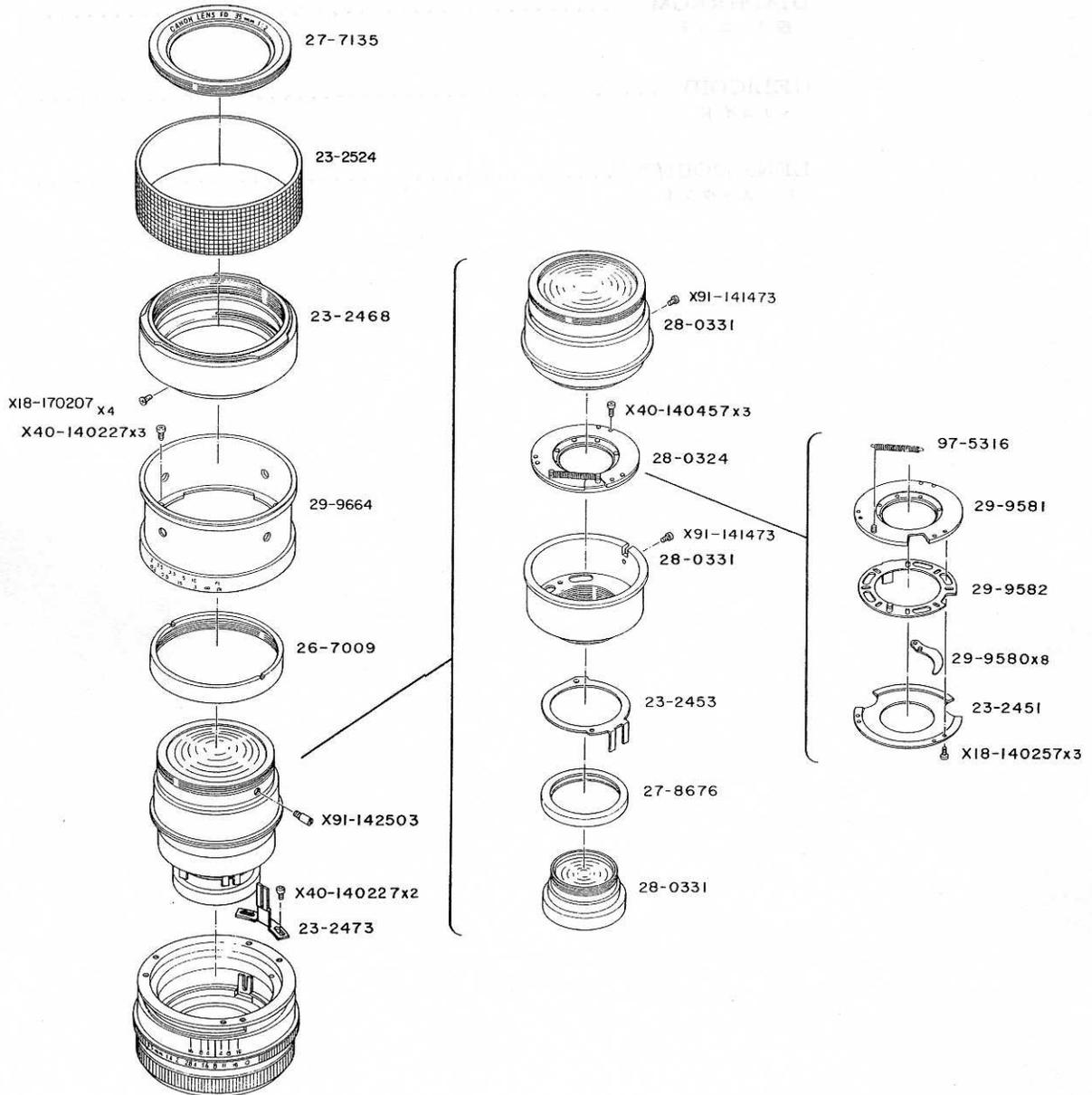
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EXPLODED VIEW
of
CANON LENS FD 35mm 1:2.0



SCALE 1-2.0

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PARTS LIST

LENS GROUP & DIAPHRAGM

レンズ グループ 絞りユニット

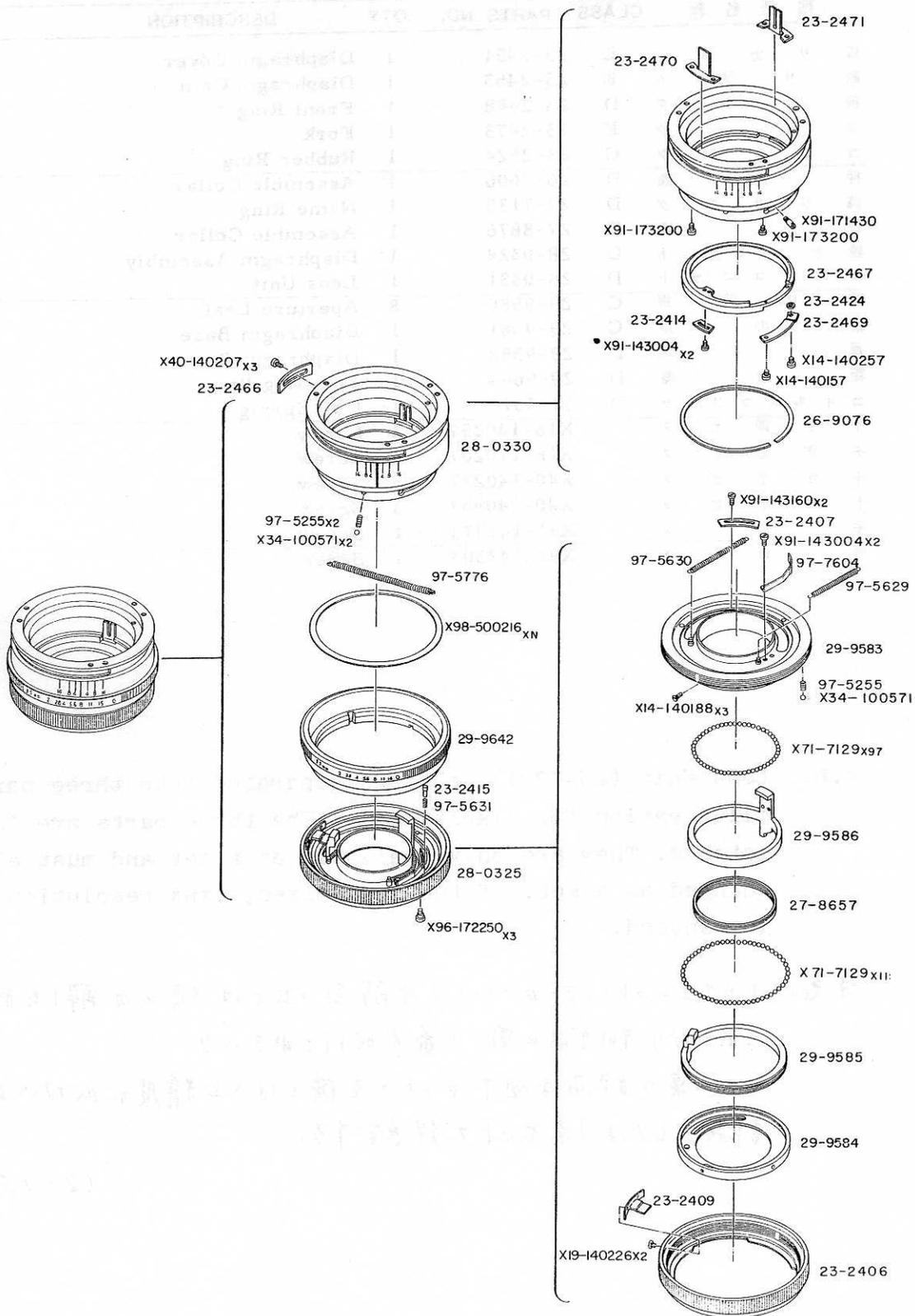
部 品 名 称	CLASS	PARTS NO.	QTY.	DESCRIPTION
絞 リ カ バ ー	E	23-2451	1	Diaphragm Cover
絞 リ カ ム	E	23-2453	1	Diaphragm Cam
前 リ ン グ	D	23-2468	1	Front Ring
フ オ ー ク	E	23-2473	1	Fork
ゴ ム リ ン グ	C	23-2524	1	Rubber Ring
押 え 環	D	26-7006	1	Assemble Collar
飾 リ リ ン グ	D	27-7135	1	Name Ring
押 え 環	D	27-8676	1	Assemble Collar
絞 リ ユ ニ ッ ト	D	28-0324	1	Diaphragm Assembly
レ ン ズ ユ ニ ッ ト	D	28-0331	1	Lens Unit
絞 リ 羽 根	C	29-9580	8	Aperture Leaf
蜂 の 巣	C	29-9581	1	Diaphragm Base
風 車	D	29-9582	1	Diaphragm Rotor
距 離 環	D	29-9664	1	Focusing Ring
コ イ ル ス プ リ ン グ	D	97-5316	1	Coil Spring
十 字 皿 ビ ス		X18-140257	3	Screw
十 字 皿 ビ ス		X18-170207	4	Screw
十 字 平 ビ ス		X40-140227	5	Screw
十 字 平 ビ ス		X40-140457	3	Screw
平 ビ ス		X91-141473	1	Screw
平 ビ ス		X91-142503	1	Screw

n.b. Lens Unit (28-0331) is shown separated into three parts in the illustration for clarity only. The three parts are factory matched. They are only available as a set and must always be changed as a set. If they are mixed, lens resolution cannot be guaranteed.

注意: レンズユニット(28-0331)は分解図の上では3点に分解して形が表示されておりそれぞれ同一の番号が付されている。
この3点の部品は必ずセットで交換し、精度が出ないため必ず部品として3点セットで供給する。

(2-15151)

EXPLODED VIEW
of
CANON LENS FD 35mm 1 : 2.0



SCALE 1-2.0

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PARTS LIST

HELICOID & LENS MOUNT

ヘリコイド レンズ マウント

部 品 名 称	CLASS	PARTS NO.	QTY.	DESCRIPTION
バヨネットリング	C	23-2406	1	Bayonet Ring
ストッパ	E	23-2407	1	Stopper
バヨネットストッパ	D	23-2409	1	Bayonet Stopper
ストッパ	E	23-2414	1	Stopper
E E ピン	E	23-2415	1	EE Pin
ワッシャー	E	23-2424	1	Washer
距離ストッパ	E	23-2466	1	Focusing Stopper
絞りドラム	E	23-2467	1	Diaphragm Drum
E E 切 換 板	E	23-2469	1	EE Cam
ヘリコイドキー	C	23-2470	1	Helicoid Key
ヘリコイドキー	C	23-2471	1	Helicoid Key
割ワッシャー ()内の数字は厚さを示す。(単位: mm)	D	[26-9076(0.35) 26-9076(0.4) 26-9076(0.45) 26-9076(0.5)]	1	Snap Washer Parenthesized numbers indicate thickness. (Unit: mm)
押 え 環	D	27-8657	1	Assemble Collar
レンズマウントユニット	D	28-0325	1	Lens Mount Unit
ヘリコイドユニット	D	28-0330	1	Helicoid Unit
レンズマウント	C	29-9583	1	Lens Mount
裏カバー	D	29-9584	1	Back Cover
絞り信号レバー	D	29-9585	1	Signal Lever
自動絞りレバー	D	29-9586	1	Diaphragm Lever
絞り環	D	29-9642	1	Aperture Ring
コイルスプリング	D	97-5255	2	Coil Spring
コイルスプリング	D	97-5629	1	Coil Spring
コイルスプリング	D	97-5630	1	Coil Spring
コイルスプリング	D	97-5631	1	Coil Spring
コイルスプリング	D	97-5776	1	Coil Spring
クランプバネ	D	97-7604	1	Clamp Spring
皿ビス		X14-140157	1	Screw
皿ビス		X14-140257	1	Screw
皿ビス		X14-140188	3	Screw
十字丸ビス		X19-140226	2	Screw
スチールボール	A	X34-100571	2	Steel Ball
十字平ビス		X40-140207	3	Screw
スチールボール	A	X71-7129	212	Steel Ball
平ビス		X91-143004	2	Screw
平ビス		X91-143160	2	Screw
平ビス		X91-171430	1	Screw
平ビス		X91-173200	4	Screw
調整ワッシャー		[X98-500216] X98-500217]	N	Adjusting Washer

CANON REPAIR MANUAL

CANON LENS FD 35mm 1 : 3.5
(REF. NO. 2-15141)

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EXPLODED VIEW
of

CANON LENS FD 35mm 1:1.8

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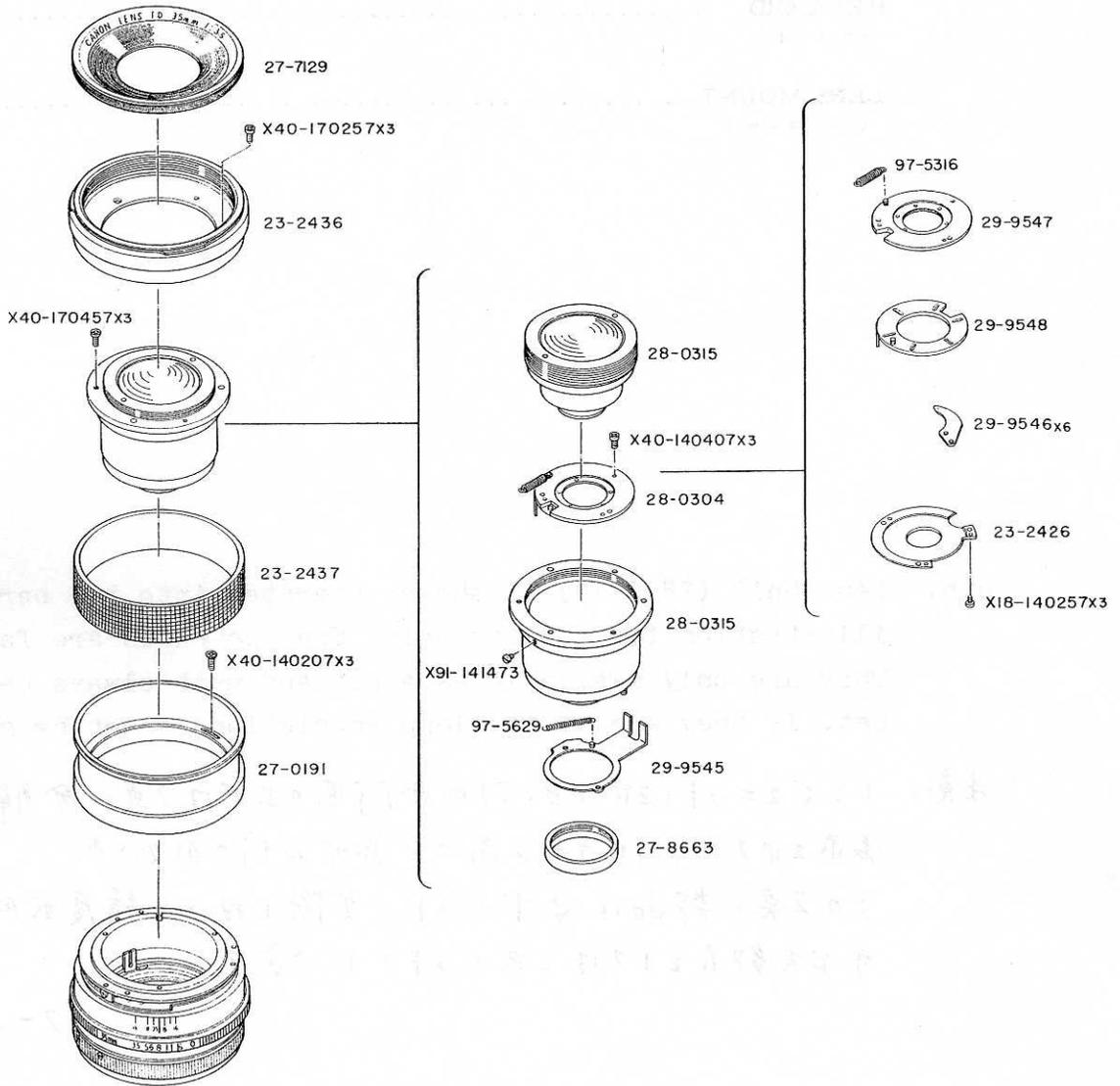
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n.b. Lens Unit (28-0315) is shown separated into two parts in the illustration for clarity only. The two parts are factory matched. They are only available as a set and must always be changed as a set. If they are mixed, lens resolution cannot be guaranteed.

注意: レンズユニット(28-0315)は分解図の上では2点に分解して形で表示されておりそれぞれ同一の番号が付されている。
この2点の部品は必ずセットで交換しないと精度が出ないためサービス部品としては2点セットで供給する。

(2-15141)

EXPLODED VIEW
of
CANON LENS FD 35mm 1 : 3.5



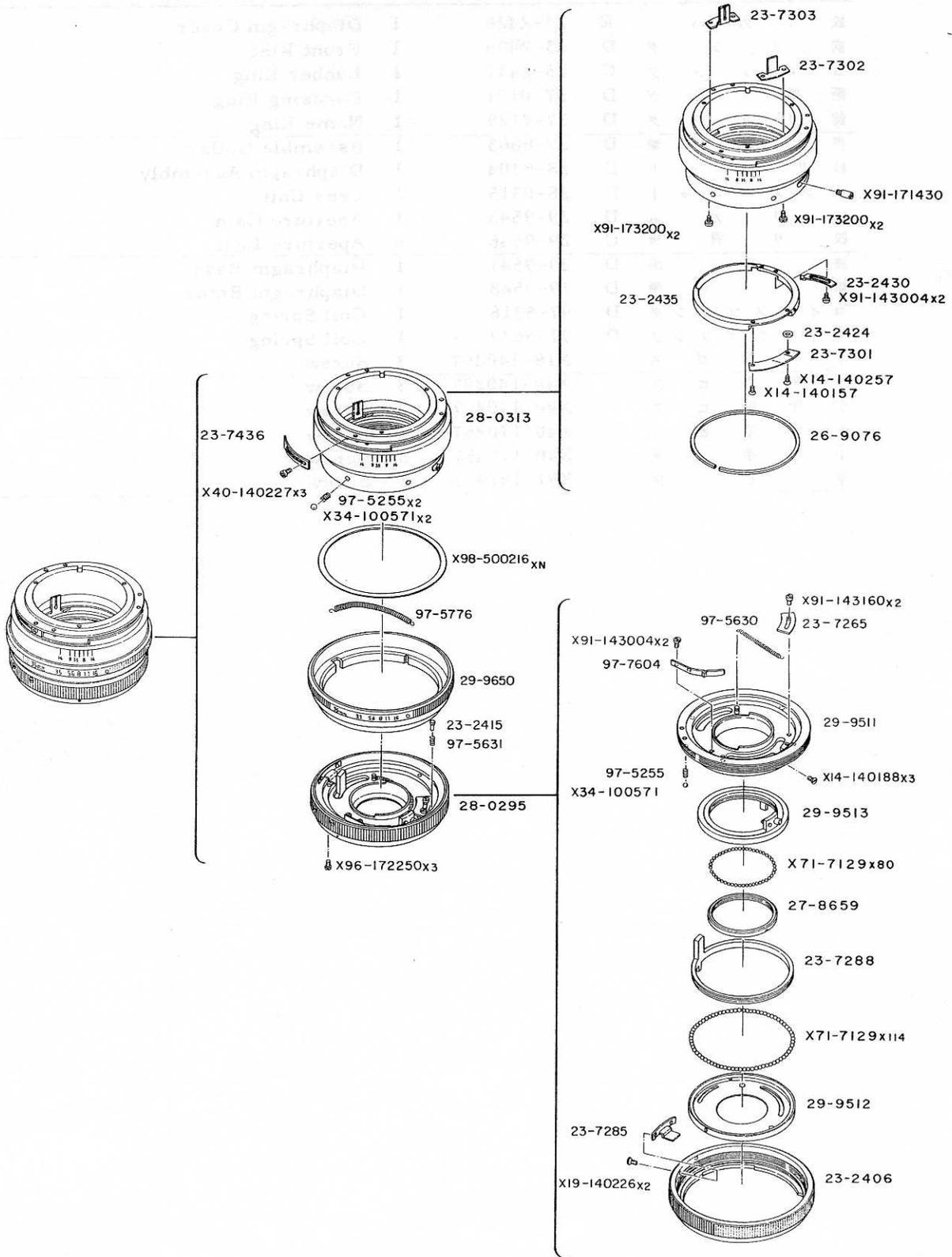
PARTS LIST

LENS GROUP & DIAPHRAGM

レンズ グループ 絞りユニット

部 品 名 称	CLASS	PARTS NO.	QTY.	DESCRIPTION
絞 リ カ バ ー	E	23-2426	1	Diaphragm Cover
前 リ ン グ	D	23-2436	1	Front Ring
ゴ ム リ ン グ	C	23-2437	1	Rubber Ring
距 離 リ ン グ	D	27-0191	1	Focusing Ring
飾 リ リ ン グ	D	27-7129	1	Name Ring
押 え 環	D	27-8663	1	Assemble Collar
絞 リ ユ ニ ッ ト	D	28-0304	1	Diaphragm Assembly
レ ン ズ ユ ニ ッ ト	D	28-0315	1	Lens Unit
絞 リ カ ム	D	29-9545	1	Aperture Cam
絞 リ 羽 根	C	29-9546	6	Aperture Leaf
蜂 の 巣	D	29-9547	1	Diaphragm Base
風 車	D	29-9548	1	Diaphragm Rotor
コ イ ル ス プ リ ン グ	D	97-5316	1	Coil Spring
コ イ ル ス プ リ ン グ	D	97-5629	1	Coil Spring
十 字 皿 ビ ス		X18-140257	3	Screw
十 字 平 ビ ス		X40-140207	3	Screw
十 字 平 ビ ス		X40-140407	3	Screw
十 字 平 ビ ス		X40-170257	3	Screw
十 字 平 ビ ス		X40-170457	3	Screw
平 ビ ス		X91-141473	1	Screw

EXPLODED VIEW
of
CANON LENS FD 35mm 1 : 3.5



SCALE 1-2.0

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PARTS LIST

HELICOID & LENS MOUNT

ヘリコイド レンズ マウント

部 品 名 称	CLASS	PARTS NO.	QTY.	DESCRIPTION
バヨネットリング	C	23-2406	1	Bayonet Ring
EE 切 換 ピ ン	E	23-2415	1	EE Pin
ワ ッ シ ャ ー	E	23-2424	1	Washer
ス ト ッ バ ー	C	23-2430	1	Stopper
絞 リ ド ラ ム	E	23-2435	1	Diaphragm Drum
ス ト ッ バ ー	C	23-7265	1	Stopper
バヨネットストッパー	C	23-7285	1	Bayonet Stopper
絞リ 信号レバー	D	23-7288	1	Signal Lever
EE カ ム	C	23-7301	1	EE Cam
ヘリコイドキー	C	23-7302	1	Helicoid Key
ヘリコイドキー	C	23-7303	1	Helicoid Key
ヘリコイドストッパー	C	23-7436	1	Helicoid Stopper
割 ワ ッ シ ャ ー ()内の数字は厚さ を示す。(単位:mm)	D	[26-9076(0.35)] 26-9076(0.4) 26-9076(0.45) 26-9076(0.5)	1	Snap Washer Parenthesized numbers indicate thickness. (Unit: mm)
押 え 環	D	27-8659	1	Assemble Collar
レンズマウントユニット	D	28-0295	1	Lens Mount Unit
レ ン ズ ユ ニ ッ ト	D	28-0313	1	Lens Unit
レ ン ズ マ ウ ン ト	D	29-9511	1	Lens Mount
裏 ぶ た	D	29-9512	1	Back Cover
自 動 絞 リ レ バ ー	D	29-9513	1	Diaphragm Lever
絞 リ リ ン グ	C	29-9650	1	Aperture Ring
コイルスプリング	D	97-5255	1	Coil Spring
コイルスプリング	D	97-5630	1	Coil Spring
コイルスプリング	D	97-5631	1	Coil Spring
コイルスプリング	D	97-5776	1	Coil Spring
コイルスプリング	D	97-7604	1	Coil Spring
皿 ビ ス		X14-140157	4	Screw
皿 ビ ス		X14-140188	1	Screw
皿 ビ ス		X14-140257	3	Screw
十 字 丸 皿 ビ ス		X19-140226	2	Screw
スチールボール	A	X34-100571	3	Steel Ball
十 字 平 ビ ス		X40-140227	3	Screw
スチールボール	A	X71-7129	194	Steel Ball
平 ビ ス		X91-143004	4	Screw
平 ビ ス		X91-143160	2	Screw
平 ビ ス		X91-171430	1	Screw
平 ビ ス		X91-173200	4	Screw
段 ビ ス		X96-172250	3	Screw
調 整 ワ ッ シ ャ ー		[X98-500216] X98-500217	N	Adjusting Washer

CANON REPAIR MANUAL

CANON LENS FD 50mm 1 : 1.8
(REF. NO. 2-16101)

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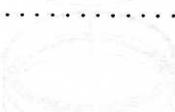
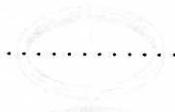
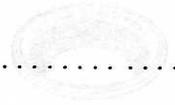
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of

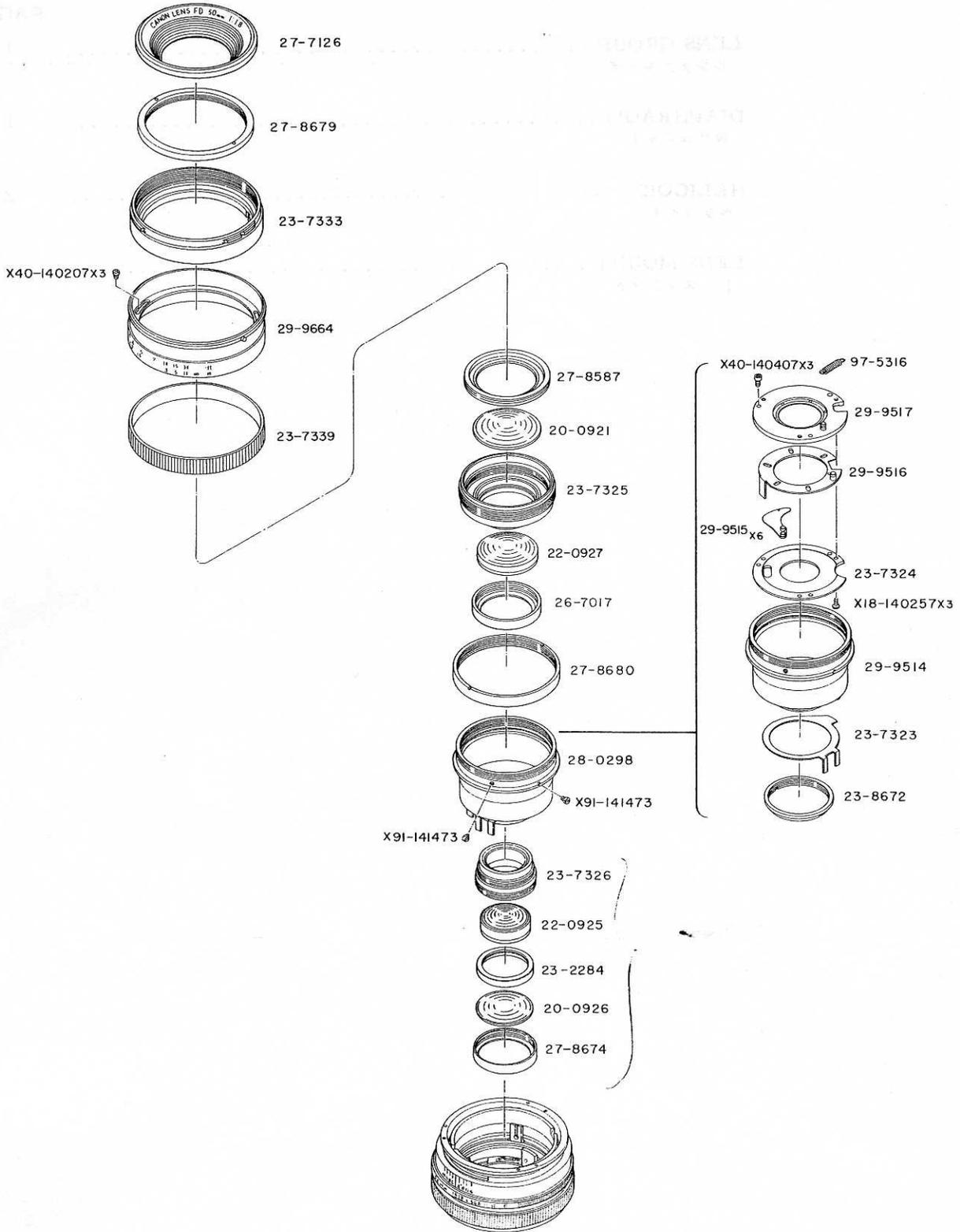
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EXPLODED VIEW
of
CANON LENS FD 50mm 1:1.8



SCALE 1-2.0

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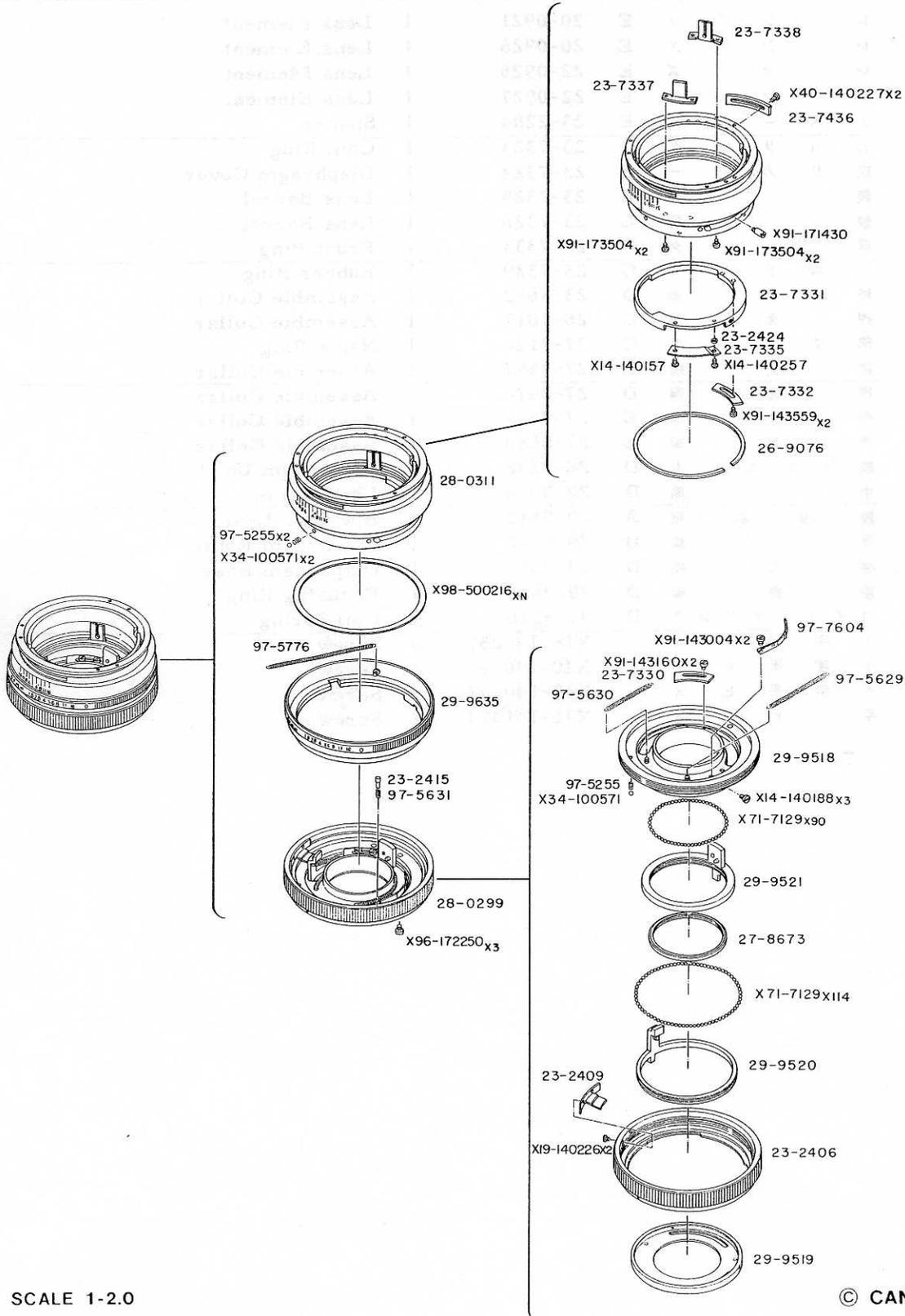
PARTS LIST

LENS GROUP & DIAPHRAGM

レンズ グループ 絞りユニット

部 品 名 称	CLASS	PARTS NO.	QTY.	DESCRIPTION
レ ズ E	20-0921	1	Lens Element	
レ ズ E	20-0926	1	Lens Element	
レ ズ E	22-0925	1	Lens Element	
レ ズ E	22-0927	1	Lens Element	
ス ー E	23-2284	1	Spacer	
カ リ D	23-7323	1	Cam Ring	
絞 リ E	23-7324	1	Diaphragm Cover	
鏡 E	23-7325	1	Lens Barrel	
鏡 E	23-7326	1	Lens Barrel	
前 リ D	23-7333	1	Front Ring	
ゴ ム C	23-7339	1	Rubber Ring	
押 D	23-8672	1	Assemble Collar	
押 D	26-7017	1	Assemble Collar	
飾 リ C	27-7126	1	Name Ring	
押 E	27-8587	1	Assemble Collar	
押 D	27-8674	1	Assemble Collar	
押 E	27-8679	1	Assemble Collar	
押 E	27-8680	1	Assemble Collar	
絞 リ D	28-0298	1	Diaphragm Unit'	
中 D	29-9514	1	Lens Barrel	
絞 リ A	29-9515	6	Aperture Leaf	
風 D	29-9516	1	Diaphragm Rotor	
蜂 D	29-9517	1	Diaphragm Base	
距 D	29-9665	1	Focusing Ring	
コ イ D	97-5316	1	Coil Spring	
十 字 ス	X18-140257	3	Screw	
十 字 ス	X40-140207	3	Screw	
十 字 ス	X40-140407	3	Screw	
平 ス	X91-141473	2	Screw	

EXPLODED VIEW
of
CANON LENS FD 50mm 1 : 1.8



SCALE 1-2.0

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PARTS LIST

HELICOID & LENS MOUNT

ヘリコイド レンズ マウント

部 品 名 称	CLASS	PARTS NO.	QTY.	DESCRIPTION
ス ペ ー サ ー	E	23-2284	1	Spacer
バヨネットストッパー	E	23-2409	1	Bayonet Stopper
EE 切 換 ビ ン	E	23-2415	1	EE Pin
ワ ッ シ ャ ー	E	23-2424	1	Washer
ス ト ッ パ ー	D	23-7330	1	Stopper
絞 リ ド ラ ム	E	23-7331	1	Diaphragm Drum
バヨネットストッパー	C	23-7332	1	Bayonet Stopper
EE 切 換 板	E	23-7335	1	EE Cam
ヘリコイドキー	C	23-7337	1	Helicoid Key
ヘリコイドキー	C	23-7338	1	Helicoid Key
距 離 ス ト ッ パ ー	D	23-7436	1	Focusing Stopper
割 ワ ッ シ ャ ー	D	26-9076(0.35)	1	Snap Washer
()内の数字は厚さを示す。(単位:mm)		26-9076(0.4)		Parenthesized numbers indicate thickness.
		26-9076(0.45)		(Unit: mm)
		26-9076(0.5)		
押 え 環	D	27-8673	1	Assemble Collar
マウントユニット	D	28-0299	1	Mount Unit
ヘリコイドユニット	D	28-0311	1	Helicoid Unit
レンズマウント	D	29-9518	1	Lens Mount
裏 カ バ ー	D	29-9519	1	Back Cover
絞 リ 信 号 レ バ ー	D	29-9520	1	Signal Lever
自 動 絞 リ レ バ ー	D	29-9521	1	Diaphragm Lever
絞 リ 環	D	29-9635	1	Aperture Ring
コイルスプリング	D	97-5255	3	Coil Spring
コイルスプリング	D	97-5629	1	Coil Spring
コイルスプリング	D	97-5631	1	Coil Spring
コイルスプリング	D	97-5776	1	Coil Spring
ク リ ッ ク バ ネ	D	97-7604	1	Click Spring
コイルスプリング	D	97-5630	1	Coil Spring
皿 ビ ス		X14-140157	1	Screw
皿 ビ ス		X14-140188	3	Screw
皿 ビ ス		X14-140257	1	Screw
十 字 丸 皿 ビ ス		X19-140226	2	Screw
スチールボール		X71-7192	204	Steel Ball
スチールボール		X34-100571	3	Steel Ball
十 字 平 ビ ス		X40-140227	3	Screw
平 ビ ス		X91-143004	2	Screw
平 ビ ス		X91-143160	2	Screw
平 ビ ス		X91-143559	2	Screw
平 ビ ス		X91-171430	1	Screw
平 ビ ス		X91-173504	4	Screw
段 ビ ス		X96-172250	3	Screw
調 整 ワ ッ シ ャ ー		X98-500216	N	Adjusting Washer
		X98-500217		

First Printing, June 1970

CANON REPAIR MANUAL

CANON LENS FD 50mm 1 : 1.4
(REF. NO. 2-16062)

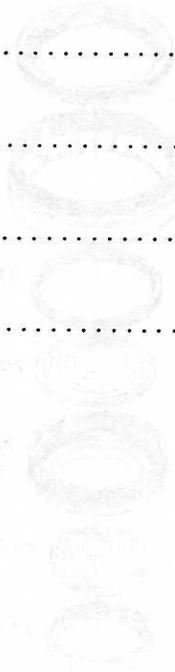
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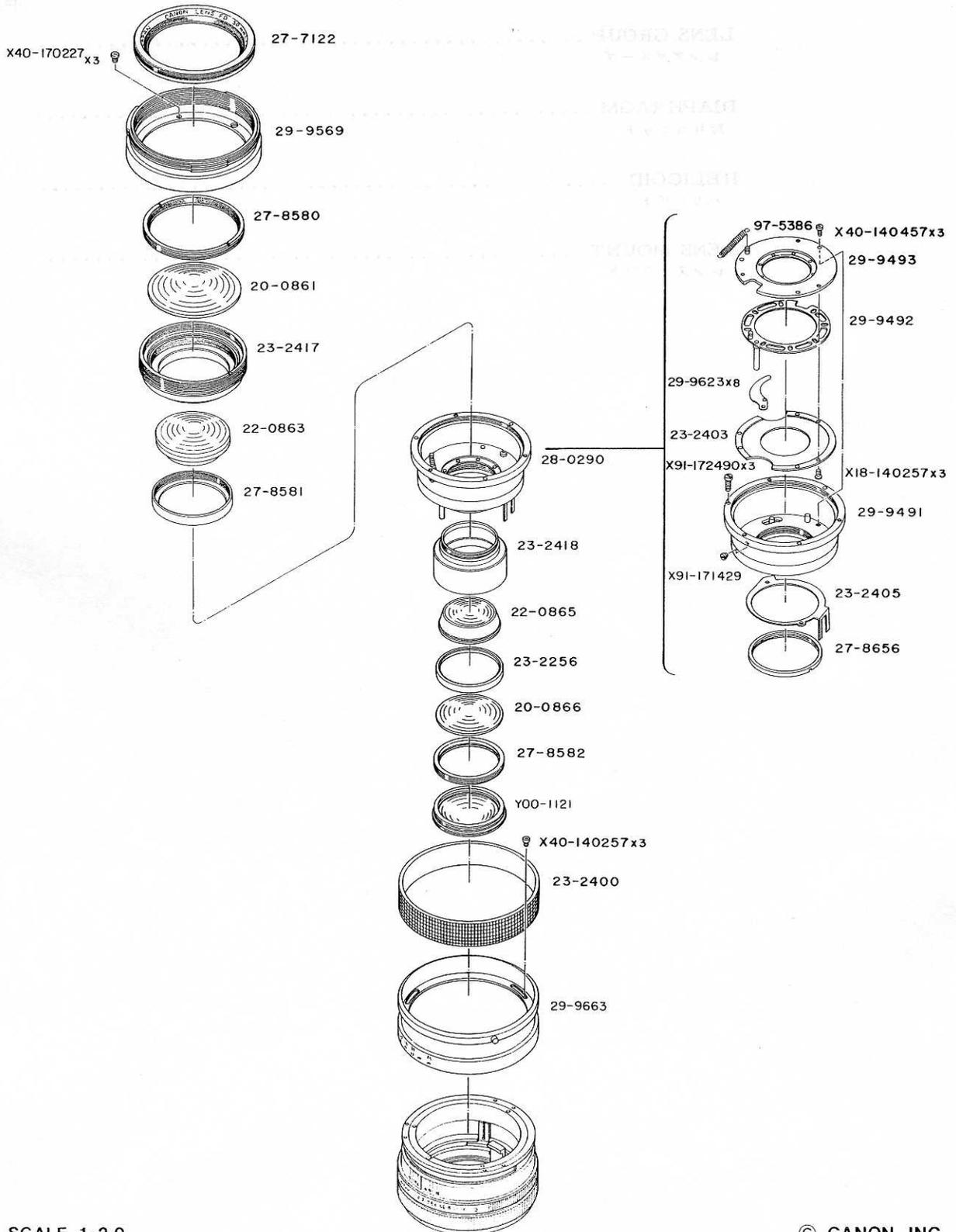
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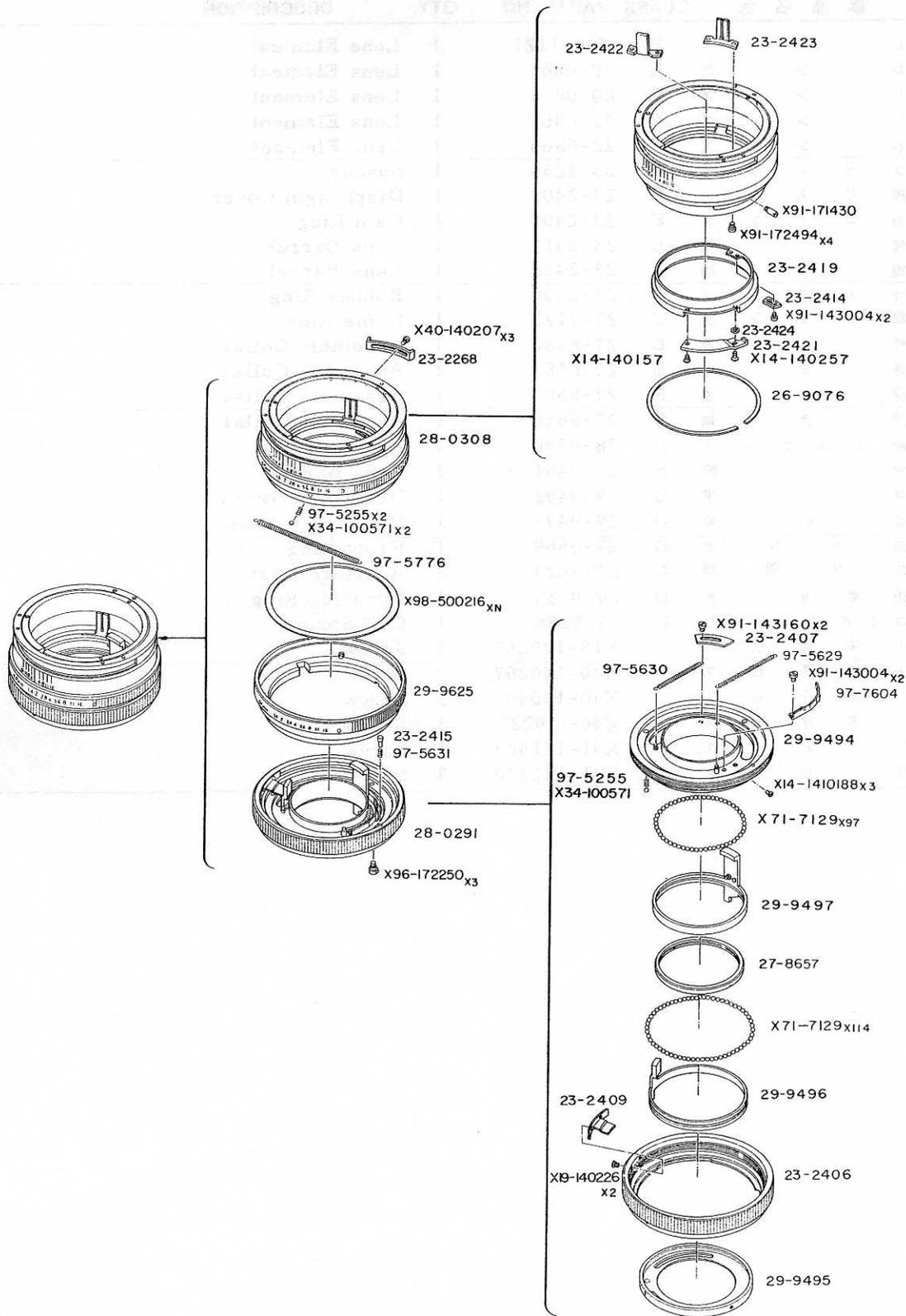
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CANON LENS FD 50mm 1:1.4



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EXPLODED VIEW
of
CANON LENS FD 50mm 1:1.4



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PARTS LIST

HELICOID & LENS MOUNT

ヘリコイド レンズ マウント

部 品 名 称	CLASS	PARTS NO.	QTY.	DESCRIPTION
ヘリコイドストッパー	C	23-2268	1	Helicoid Stopper
バヨネットリング	C	23-2406	1	Bayonet Ring
ストッパー	D	23-2407	1	Stopper
バヨネットストッパー	D	23-2409	1	Bayonet Stopper
ストッパー	E	23-2414	1	Stopper
EE 切 換 ピ ン	D	23-2415	1	EE Pin
絞 り ド ラ ム	E	23-2419	1	Diaphragm Drum
EE 切 換 板	E	23-2421	1	EE Cam
ヘリコイドキー	C	23-2422	1	Helicoid Key
ヘリコイドキー	C	23-2423	1	Helicoid Key
ワッシャー	E	23-2424	1	Washer
割ワッシャー ()内の数字は厚さを示す。(単位: mm)	D	[26-9076(0.35) 26-9076(0.4) 26-9076(0.45) 26-9076(0.5)]	1	Snap Washer Parenthesized numbers indicate thickness. (Unit: mm)
押 え 環	E	27-8657	1	Assemble Collar
レンズマウントユニット	D	28-0291	1	Lens Mount Unit
ヘリコイドユニット	D	28-0308	1	Helicoid Unit
レンズマウント	E	29-9494	1	Lens Mount
裏 カ バ ー	E	29-9495	1	Back Cover
絞 り 信 号 レ バ ー	D	29-9496	1	Signal Lever
自 動 絞 り レ バ ー	D	29-9497	1	Diaphragm Lever
絞 り 環	C	29-9625	1	Aperture Ring
コイルスプリング	D	97-5255	3	Coil Spring
コイルスプリング	D	97-5629	1	Coil Spring
コイルスプリング	D	97-5630	1	Coil Spring
コイルスプリング	D	97-5631	1	Coil Spring
コイルスプリング	D	97-5776	1	Coil Spring
コイルスプリング	D	97-7604	1	Coil Spring
皿 ビ ス		X14-140157	3	Screw
十 字 皿 ビ ス		X14-140188	1	Screw
皿 ビ ス		X14-140257	1	Screw
十 字 丸 皿 ビ ス		X19-140226	2	Screw
スチールボール	A	X34-100571	3	Steel Ball
十 字 平 ビ ス		X40-140207	3	Screw
スチールボール	A	X71-7129	250	Steel Ball
平 ビ ス		X91-143004	4	Screw
平 ビ ス		X91-143160	2	Screw
平 ビ ス		X91-171430	1	Screw
平 ビ ス		X91-172494	4	Screw
段 ビ ス		X96-172250	3	Screw
調 整 ワ ッ シ ャ ー		[X98-500216 X98-500217]	N	Adjusting Washer

CANON REPAIR MANUAL

CANON LENS FD 55mm 1:1.2
(REF. NO. 2-16111)

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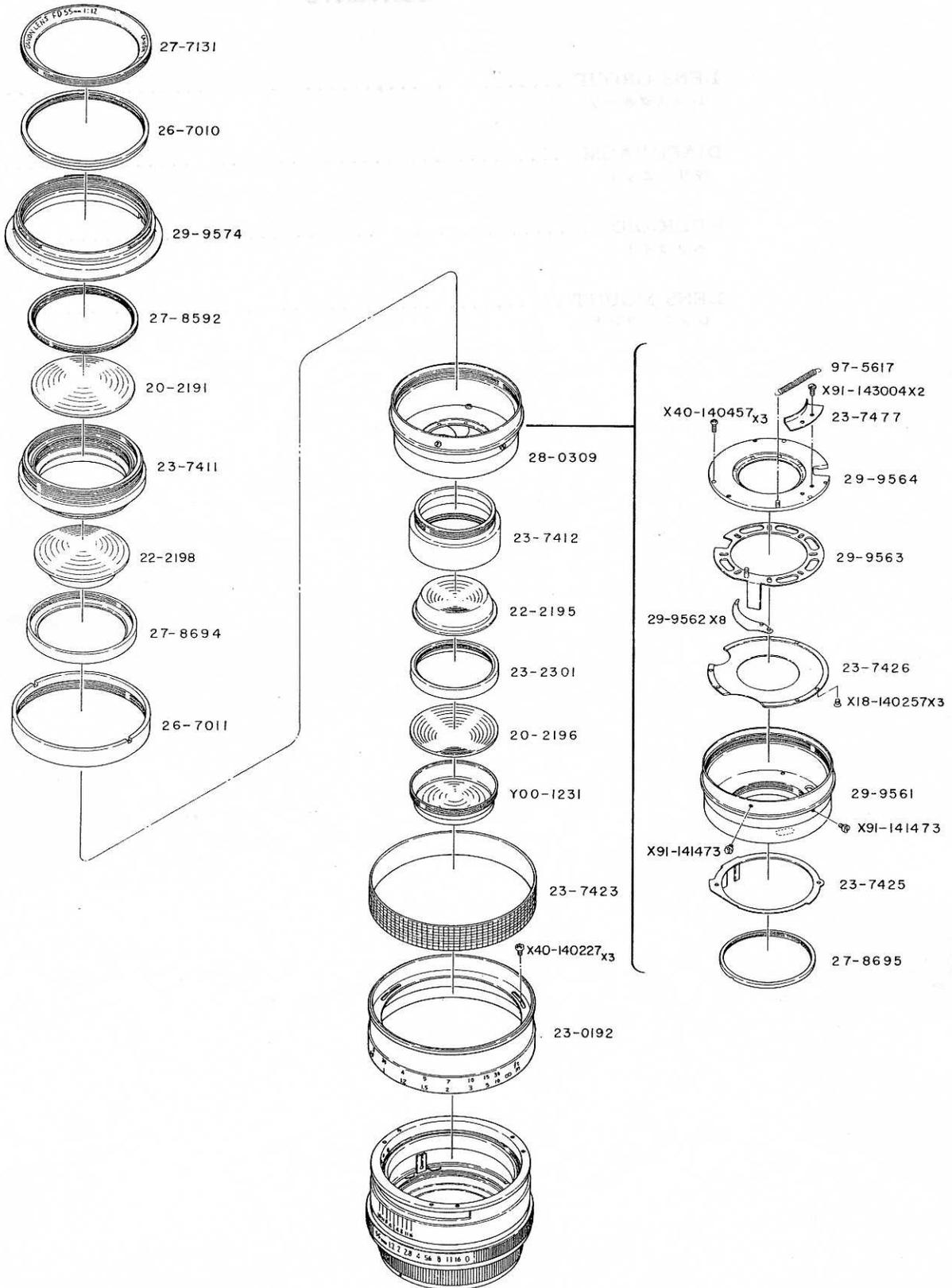
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EXPLODED VIEW
of
CANON LENS FD 55mm 1:1.2



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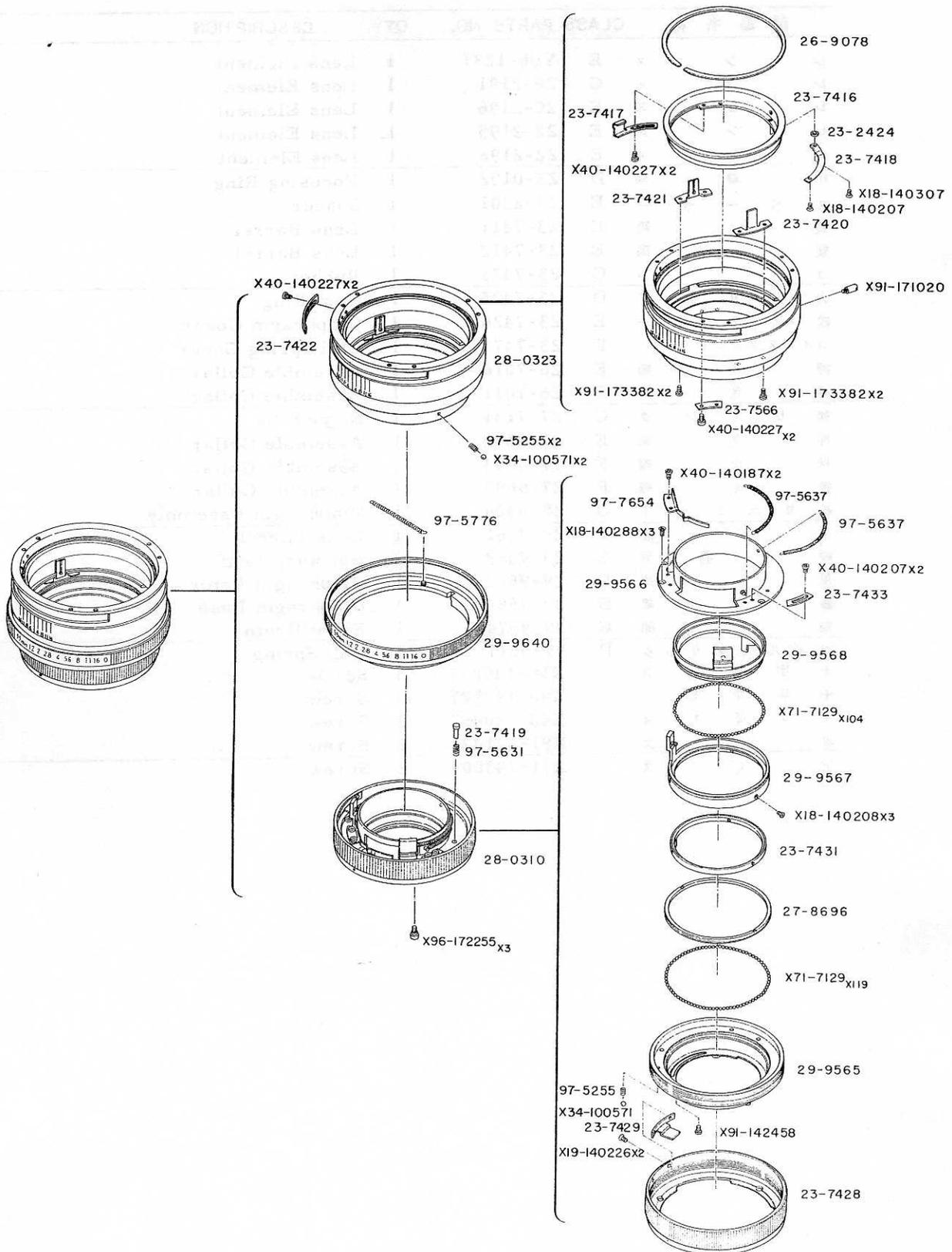
PARTS LIST

LENS GROUP & DIAPHRAGM

レンズ グループ 絞りユニット

部 品 名 称	CLASS	PARTS NO.	QTY.	DESCRIPTION
レ ン ズ	E	Y00-1231	1	Lens Element
レ ン ズ	C	20-2191	1	Lens Element
レ ン ズ	E	20-2196	1	Lens Element
レ ン ズ	E	22-2195	1	Lens Element
レ ン ズ	E	22-2198	1	Lens Element
距 離	D	23-0192	1	Focusing Ring
ス ペ ー サ	E	23-2301	1	Spacer
鏡 筒	E	23-7411	1	Lens Barrel
鏡 筒	E	23-7412	1	Lens Barrel
ゴ ム	C	23-7423	1	Rubber
カ ム リ ン グ	D	23-7425	1	Cam Ring
絞 リ カ バ ー	E	23-7426	1	Diaphragm Cover
コイルスプリングカバー	E	23-7477	1	Coil Spring Cover
押 え 環	E	26-7010	1	Assemble Collar
押 え 環	E	26-7011	1	Assemble Collar
飾 リ リ ン グ	C	27-7131	1	Name Ring
押 え 環	E	27-8592	1	Assemble Collar
押 え 環	E	27-8694	1	Assemble Collar
押 え 環	E	27-8695	1	Assemble Collar
絞 リ ユ ニ ッ ト	D	28-0309	1	Diaphragm Assembly
中 鏡 筒	E	29-9561	1	Lens Barrel
絞 リ 羽	C	29-9562	8	Aperture Leaf
風 車	D	29-9563	1	Diaphragm Rotor
蜂 の 巣	D	29-9564	1	Diaphragm Base
前 鏡 筒	C	29-9574	1	Front Drum
コイルスプリング	D	97-5617	1	Coil Spring
十 字 皿 ビ ス		X18-140257	3	Screw
十 字 平 ビ ス		X40-140227	3	Screw
十 字 平 ビ ス		X40-140457	3	Screw
平 ビ ス		X91-141473	2	Screw
平 ビ ス		X91-143004	2	Screw

EXPLODED VIEW
of
CANON LENS FD 55mm 1:1.2



SCALE 1-2.0

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PARTS LIST

HELICOID & LENS MOUNT

ヘリコイド レンズ マウント

部 品 名 称	CLASS	PARTS NO.	QTY.	DESCRIPTION
ワ ッ シ ャ ー	E	23-2424	1	Washer
絞 リ ド ラ ム	E	23-7416	1	Diaphragm Drum
ス ト ッ パ ー	E	23-7417	1	Stopper
E E カ ム	E	23-7418	1	EE Cam
E E ビ ン	C	23-7419	1	EE pin
ヘ リ コ イ ド キ ー	C	23-7420	1	Helicoid Key
ヘ リ コ イ ド キ ー	C	23-7421	1	Helicoid Key
ヘ リ コ イ ド ス ト ッ パ ー	C	23-7422	1	Helicoid Stopper
バ ヨ ネ ッ ト リ ン グ	C	23-7428	1	Bayonet Ring
バ ヨ ネ ッ ト ス ト ッ パ ー	C	23-7429	1	Bayonet Stopper
絞 リ 信 号 レ バ ー	D	23-7431	1	Signal Lever
ス ト ッ パ ー	C	23-7433	1	Stopper
ヘ リ コ イ ド ス ト ッ パ ー	C	23-7566	1	Helicoid Stopper
割 ワ ッ シ ャ ー ()内の数字は厚さを示す。(単位: mm)	D	26-9078(0.25) 26-9078(0.3) 26-9078(0.35) 26-9078(0.4)	1	Snap Washer Parenthesized numbers indicate thickness. (Unit: mm)
押 え 環	E	27-8696	1	Assemble Collar
レンズマウントユニット	D	28-0310	1	Lens Mount Unit
ヘリコイドユニット	D	28-0323	1	Helicoid Unit
レンズマウント	E	29-9565	1	Lens Mount
レンズマウント地板	E	29-9566	1	Lens Mount Base
絞 リ 信 号 レ バ ー	D	29-9567	1	Signal Lever
自 動 絞 リ レ バ ー	D	29-9568	1	Diaphragm Lever
絞 リ 環	C	29-9640	1	Aperture Ring
コイルスプリング	D	97-5255	3	Coil Spring
コイルスプリング	D	97-5631	1	Coil Spring
コイルスプリング	D	97-5776	1	Coil Spring
ク ラ ン プ バ ネ	D	97-7654	1	Clamp Spring
コイルスプリング	D	97-5637	2	Coil Spring
十 字 皿 ビ ス		X18-140207	1	Screw
十 字 皿 ビ ス		X18-140208	3	Screw
十 字 皿 ビ ス		X18-140288	3	Screw
十 字 皿 ビ ス		X18-140307	1	Screw
十 字 丸 ビ ス		X19-140226	2	Screw
スチールボール	A	X34-100571	2	Steel Ball
十 字 平 ビ ス		X40-140187	2	Screw
十 字 平 ビ ス		X40-140207	2	Screw
十 字 平 ビ ス		X40-140227	5	Screw
スチールボール	A	X71-7129	223	Steel Ball
平 ビ ス		X91-142458	1	Screw
平 ビ ス		X91-171020	1	Screw
平 ビ ス		X91-173382	4	Screw
段 ビ ス		X96-172255	3	Screw

First Printing, Apr. 1971

CANON REPAIR MANUAL

CANON LENS FD 55mm 1:1.2AL
(REF. NO. 2-16131)

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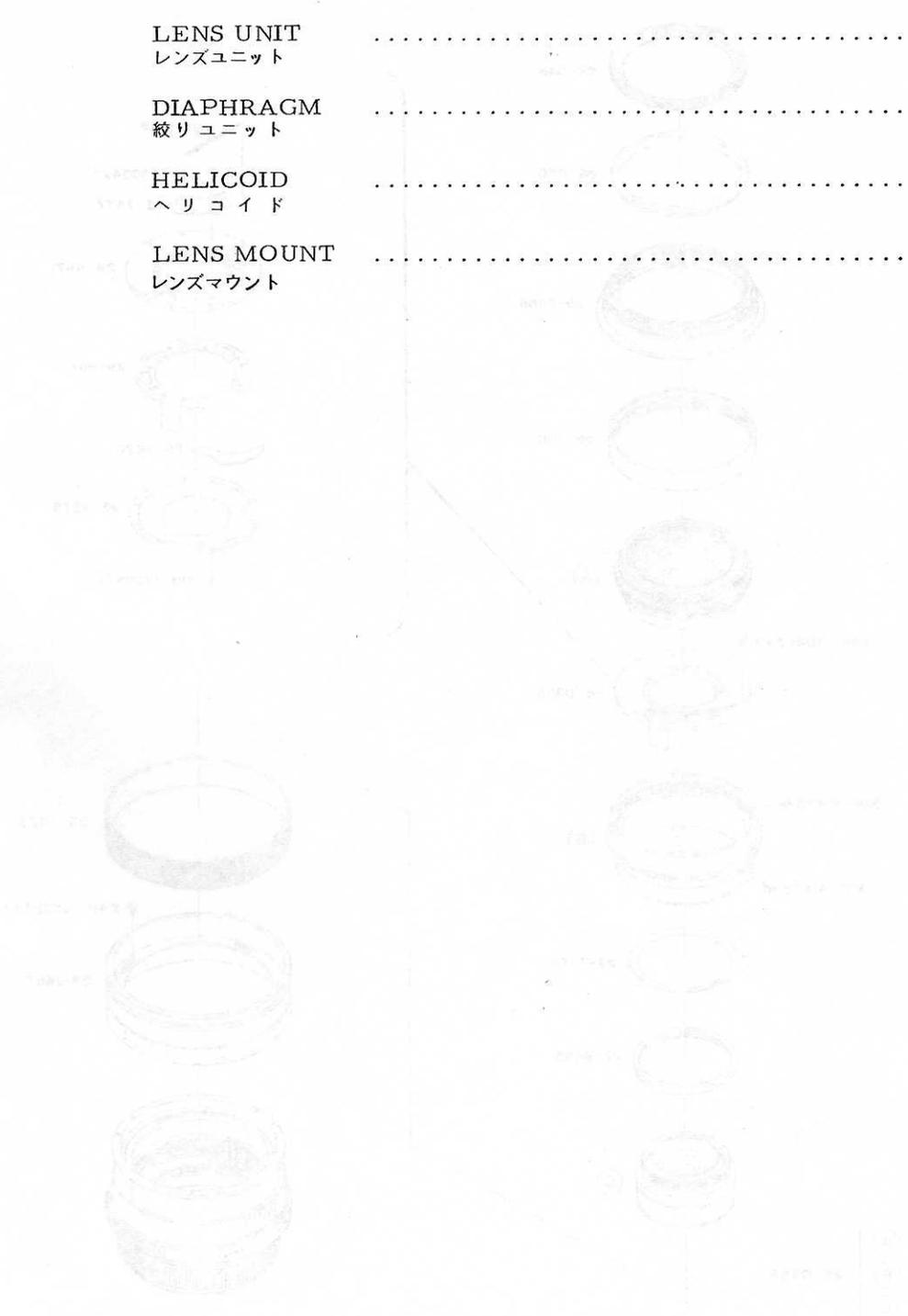
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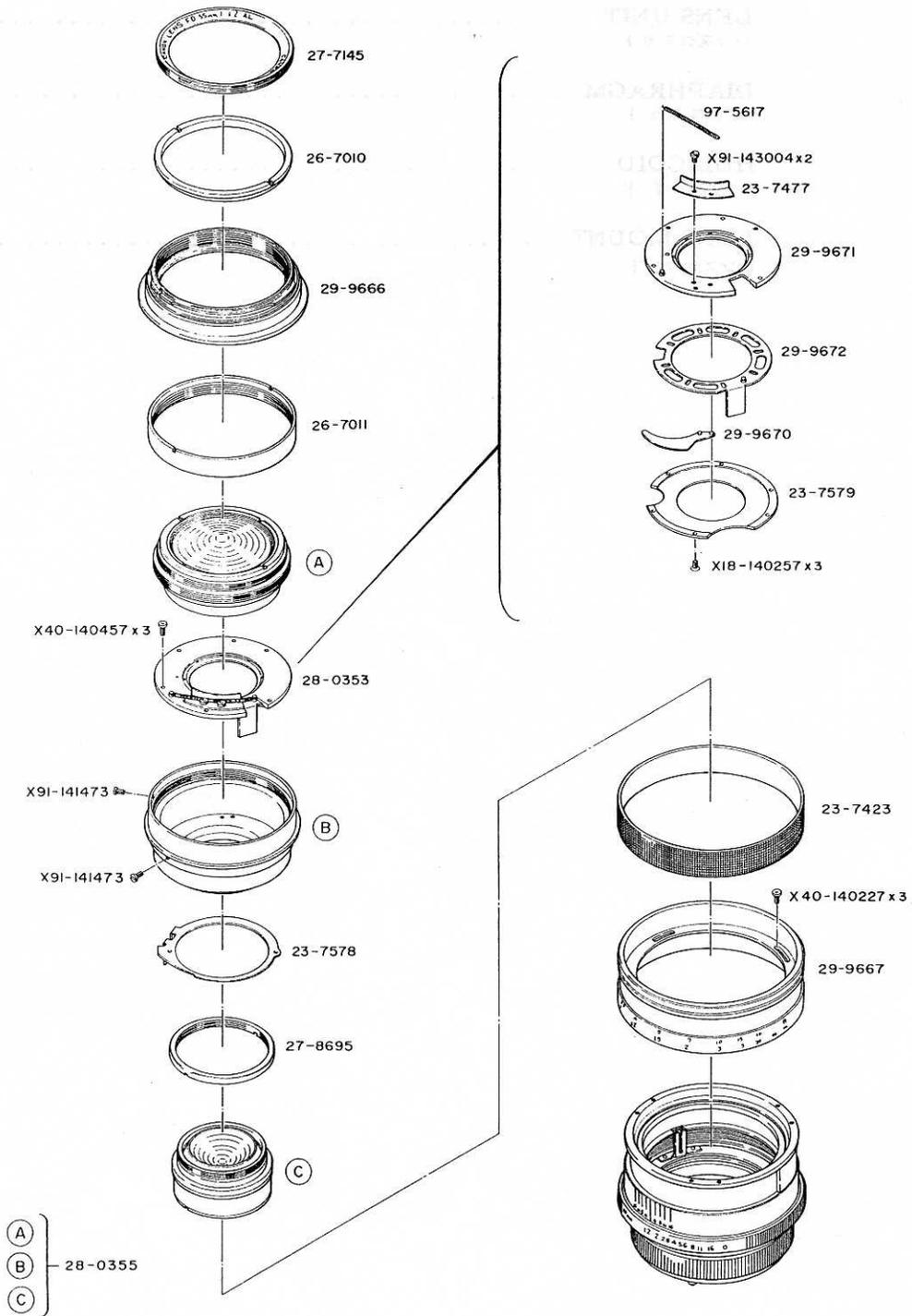
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of
CANON LENS FD 55mm 1:1.2AL

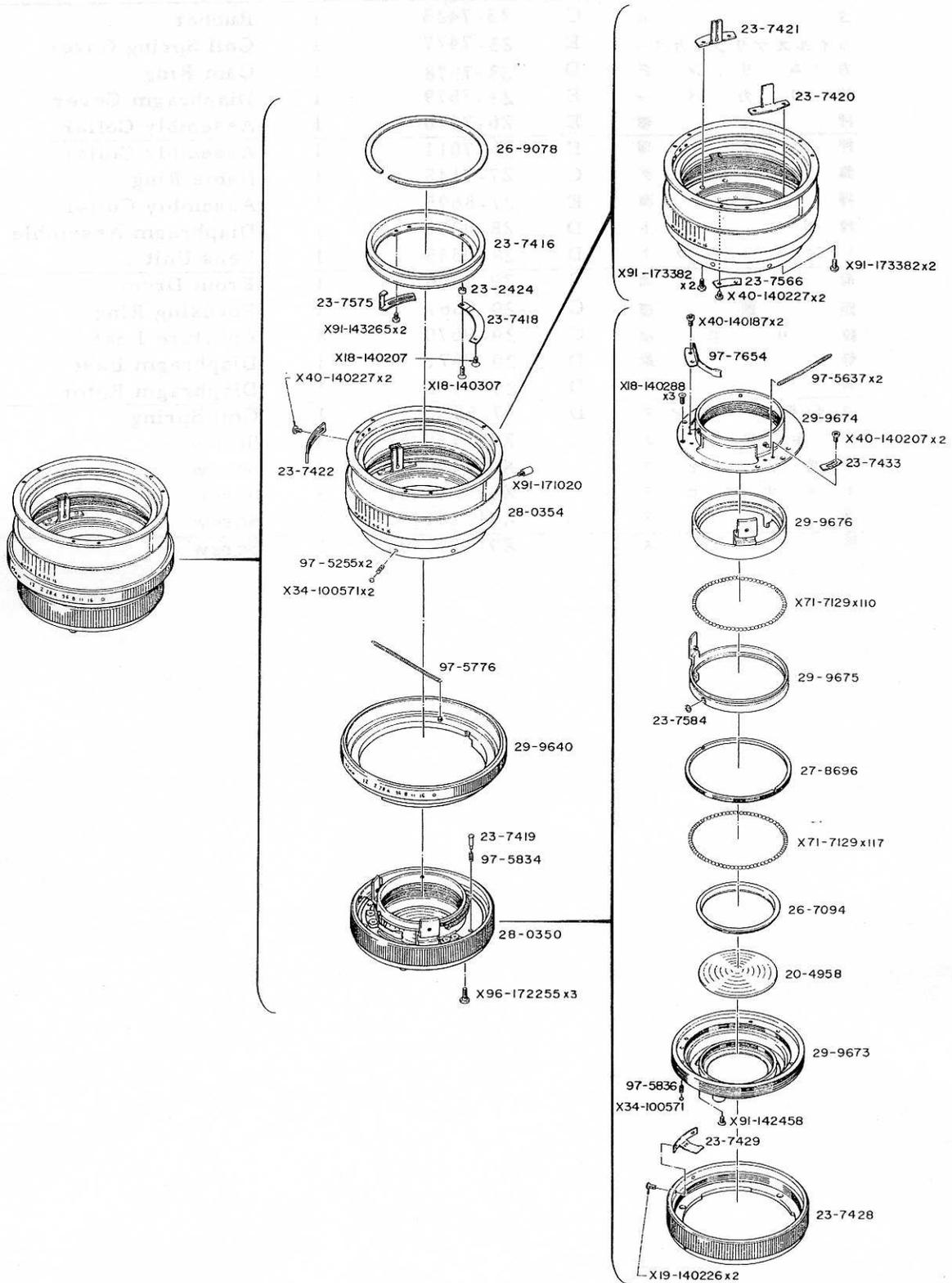


LENS UNIT & DIAPHRAGM

レンズ ユニット 絞りユニット

部 品 名 称	CLASS	PARTS NO.	QTY.	DESCRIPTION
ゴ ム	C	23-7423	1	Rubber
コイルスプリングカバー	E	23-7477	1	Coil Spring Cover
カム リング	D	23-7578	1	Cam Ring
絞り カバ ー	E	23-7579	1	Diaphragm Cover
押 え 環	E	26-7010	1	Assembly Collar
押 え 環	E	26-7011	1	Assembly Collar
飾 リ リング	C	27-7145	1	Name Ring
押 え 環	E	27-8695	1	Assembly Collar
絞り ユニッ ト	D	28-0353	1	Diaphragm Assemble
レンズ ユニッ ト	D	28-0355	1	Lens Unit
前 筒	C	29-9666	1	Front Drum
距 離 環	C	29-9667	1	Focusing Ring
絞 り 羽	C	29-9670	8	Aperture Leaf
蜂 の 巣	D	29-9671	1	Diaphragm Base
風 車	D	29-9672	1	Diaphragm Rotor
コイルスプリング	D	97-5617	1	Coil Spring
十 字 皿 ビ ス		X18-140257	3	Screw
十 字 ナ ベ ビ ス		X40-140227	3	Screw
十 字 ナ ベ ビ ス		X40-140457	3	Screw
平 ビ ス		X91-141473	2	Screw
平 ビ ス		X91-143004	2	Screw

EXPLODED VIEW
of
CANON LENS FD 55mm 1:1.2AL



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PARTS LIST

HELICOID & LENS MOUNT

ヘリコイド レンズ マウント

部 品 名 称	CLASS	PARTS NO.	QTY.	DESCRIPTION
レ ン ズ	E	20-4958	1	Lens Element
ワ ッ シ ャ ー	E	23-2424	1	Washer
絞 リ ド ラ ム	E	23-7416	1	Diaphragm Drum
E E カ ム	E	23-7418	1	EE Cam
E E ビ ン	E	23-7419	1	EE Pin
ヘ リ コ イ ド キ ー	C	23-7420	1	Helicoid Key
ヘ リ コ イ ド キ ー	C	23-7421	1	Helicoid Key
ヘ リ コ イ ド ス ト ッ パ ー	C	23-7422	1	Helicoid Stopper
バ ヨ ネ ッ ト リ ン グ	C	23-7428	1	Bayonet Ring
バ ヨ ネ ッ ト ス ト ッ パ ー	C	23-7429	1	Bayonet Stopper
ス ト ッ パ ー	C	23-7433	1	Stopper
ヘ リ コ イ ド ス ト ッ パ ー	C	23-7566	1	Helicoid Stopper
ス ト ッ パ ー	E	23-7575	1	Stopper
ボ ー ル 押 え 板	E	23-7584	1	Steel Ball Holder
押 え 環	E	26-7094	1	Assembly Collar
割 ワ ッ シ ャ ー	D	26-9078 (0.25)	1	Snap Washer
()内の数字は厚さを示す。 (単位mm)		26-9078 (0.30)		Parenthesized numbers indicate thickness. (Unit : mm)
		26-9078 (0.35)		
		26-9078 (0.40)		
押 え 環	E	27-8696	1	
レンズマウントユニット	D	28-0354	1	Lens Mount Unit
ヘリコイドユニット	D	28-0355	1	Helicoid Unit
絞 リ 環	C	29-9640	1	Aperture Ring
レ ン ズ マ ウ ン ト	E	29-9673	1	Lens Mount
レ ン ズ マ ウ ン ト 板	E	29-9674	1	Lens Mount Base
絞 リ 信 号 レ バ ー	D	29-9675	1	Signal Lever
自 動 絞 リ レ バ ー	D	29-9676	1	Diaphragm Lever
コ イ ル ス プ リ ン グ	D	97-5255	2	Coil Spring
コ イ ル ス プ リ ン グ	D	97-5637	2	Coil Spring
コ イ ル ス プ リ ン グ	D	97-5776	1	Coil Spring
コ イ ル ス プ リ ン グ	D	97-5834	1	Coil Spring
コ イ ル ス プ リ ン グ	D	97-5836	1	Coil Spring
ク ラ ン プ ス プ リ ン グ	D	97-7654	1	Clamp Spring
十 字 皿 ビ ス		X18-140207	1	Screw
十 字 皿 ビ ス		X18-140288	3	Screw
十 字 皿 ビ ス		X18-140307	1	Screw
十 字 丸 皿 ビ ス		X19-140226	2	Screw
ス チ ー ル ボ ー ル	B	X34-100571	3	Steel Ball
十 字 ナ ベ ビ ス		X40-140187	2	Screw
十 字 ナ ベ ビ ス		X40-140207	2	Screw
十 字 ナ ベ ビ ス		X40-140227	4	Screw
ス チ ー ル ボ ー ル	B	X71-7129	227	Steel Ball
平 ビ ス		X91-142458	1	Screw
平 ビ ス		X91-143265	2	Screw
平 ビ ス		X91-171020	2	Screw
平 ビ ス		X91-173382	4	Screw
段 ビ ス		X96-172250	3	Screw

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CANON REPAIR MANUAL

CANON LENS FD 100mm 1 : 2.8
(REF. NO. 2-17141)

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レンズグループ

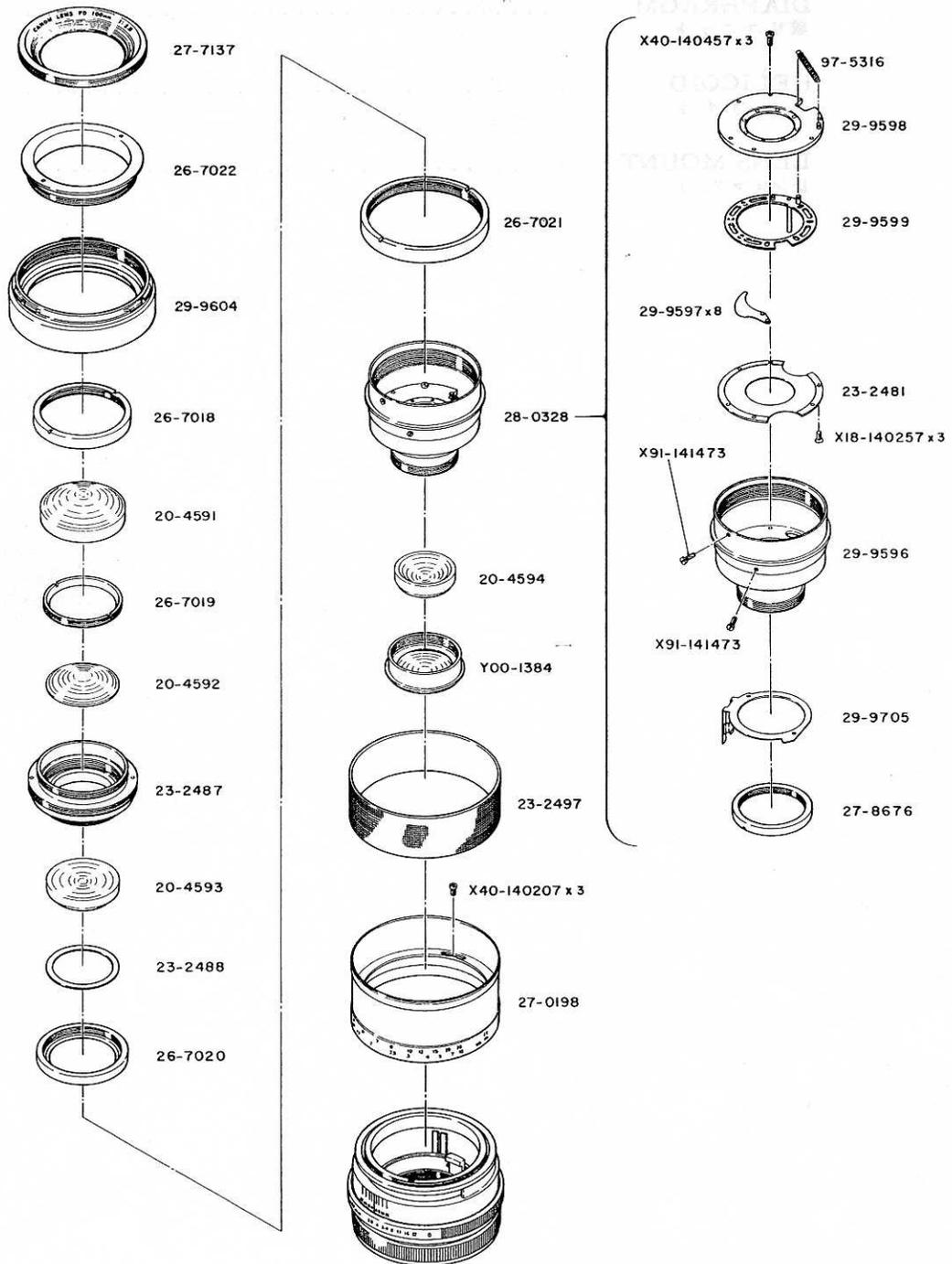
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絞りユニット

HELICOID 2
ヘリコイド

LENS MOUNT 2
レンズマウント



EXPLODED VIEW
of
CANON LENS FD 100mm 1:2.8

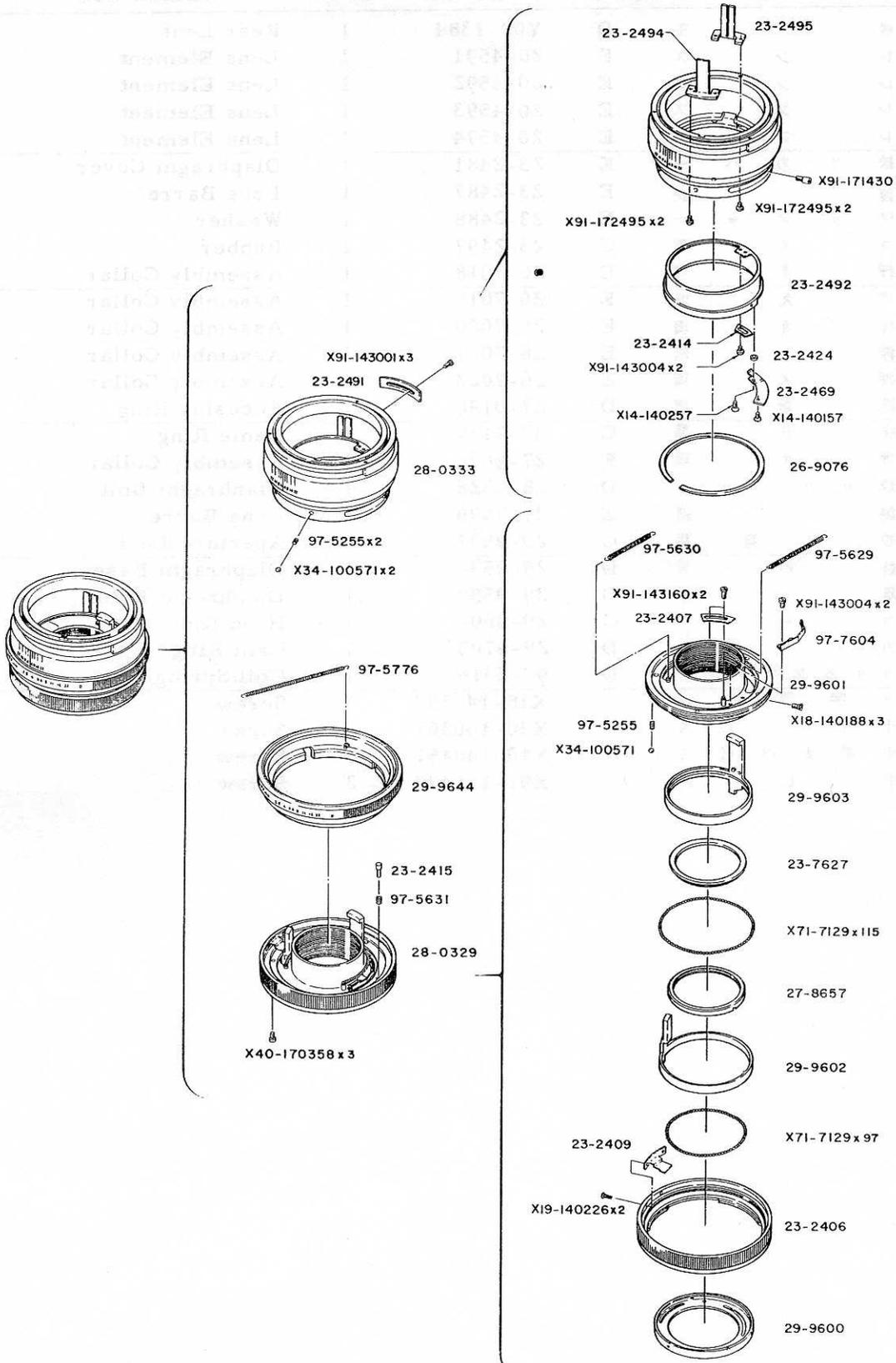


LENS GROUP & DIAPHRAGM

レンズ グループ 絞りユニット

部 品 名 称	CLASS	PARTS NO.	QTY.	DESCRIPTION					
後	玉	D Y00-1384	1	Rear Lens					
レ	ン	ズ E 20-4591	1	Lens Element					
レ	ン	ズ E 20-4592	1	Lens Element					
レ	ン	ズ E 20-4593	1	Lens Element					
レ	ン	ズ E 20-4594	1	Lens Element					
絞	リ	カ	バ	ー	E 23-2481	1	Diaphragm Cover		
鏡				銅	E 23-2487	1	Lens Barrel		
ワ	ッ	シ	ヤ	ー	E 23-2488	1	Washer		
ゴ		ム		環	C 23-2497	1	Rubber		
押		え		環	E 26-7018	1	Assembly Collar		
押		え		環	E 26-7019	1	Assembly Collar		
押		え		環	E 26-7020	1	Assembly Collar		
押		え		環	E 26-7021	1	Assembly Collar		
押		え		環	E 26-7022	1	Assembly Collar		
距		離		環	D 27-0198	1	Focusing Ring		
飾		り		環	C 27-7137	1	Name Ring		
押		え		環	E 27-8676	1	Assembly Collar		
絞	リ	ユ	ニ	ッ	ト	D 28-0328	1	Diaphragm Unit	
鏡				銅	E 29-9596	1	Lens Barrel		
絞		り	羽	根	C 29-9597	8	Aperture Leaf		
蜂		の		巢	D 29-9598	1	Diaphragm Base		
風				車	D 29-9599	1	Diaphragm Rotor		
フ		ー		ド	C 29-9604	1	Hood Ring		
カ	ム	リ	ン	グ	D 29-9705	1	Cam Ring		
コ	イル	ス	ブ	リ	ン	グ	D 97-5316	1	Coil Spring
十	字	皿	ビ	ス		X18-140257	3	Screw	
十	字	ナ	ベ	ビ	ス	X40-140207	3	Screw	
十	字	ナ	ベ	ビ	ス	X40-140457	3	Screw	
平		ビ		ス		X91-141473	2	Screw	

EXPLODED VIEW
 of
CANON LENS FD 100mm 1:2.8



SCALE 1-2.0

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PARTS LIST

HELICOID & LENS MOUNT

ヘリコイド レンズ マウント

部 品 名 称	CLASS	PARTS NO.	QTY.	DESCRIPTION
バヨネットリング	C	23-2406	1	Bayonet Ring
ストッパ	C	23-2407	1	Stopper
バヨネットストッパ	C	23-2409	1	Bayonet Stopper
調整板	C	23-2414	1	Adjusting Plate
EEピン	C	23-2415	1	EE Pin
ワッシャー	E	23-2424	1	Washer
EE切換カム	E	23-2469	1	EE Cam
ストッパ	C	23-2491	1	Stopper
絞りドラム	E	23-2492	1	Diaphragm Drum
ヘリコイドキー	C	23-2494	1	Helicoid Key
ヘリコイドキー	C	23-2495	1	Helicoid Key
押え環	E	23-7627	1	Assembly Collar
割ワッシャー	E	(26-9076 (0.35))	1	Snap Washer
()内の数字は厚さを示す。 (単位mm)		(26-9076 (0.40))		Parentheized numbers indicate thickness. (Unit : mm)
		(26-9076 (0.45))		
		(26-9076 (0.50))		
押え環	E	27-8657	1	
レンズマウントユニット	D	28-0329	1	Lens Mount Unit
ヘリコイドユニット	D	28-0333	1	Helicoid Unit
裏ぶた	E	29-9600	1	Back Cover
レンズマウント	E	29-9601	1	Lens Mount
絞り信号レバー	D	29-9602	1	Signal Lever
自動絞りレバー	D	29-9603	1	Diaphragm Lever
絞り環	C	29-9644	1	Aperture Ring
コイルスプリング	D	97-5255	2	Coil Spring
コイルスプリング	D	97-5629	1	Coil Spring
コイルスプリング	D	97-5630	1	Coil Spring
コイルスプリング	D	97-5631	1	Coil Spring
コイルスプリング	D	97-5776	1	Coil Spring
クランプスプリング	D	97-7604	1	Clamp Spring
皿ビス		X14-140157	1	Screw
皿ビス		X14-140257	1	Screw
十字皿ビス		X18-140188	3	Screw
十字丸皿ビス		X19-140226	2	Screw
スチールボール	B	X34-100571	3	Steel Ball
十字ナベビス		X40-170358	3	Screw
スチールボール	B	X71-7129	212	Steel Ball
平ビス		X91-143001	3	Screw
平ビス		X91-143004	4	Screw
平ビス		X91-143160	2	Screw
平ビス		X91-171430	1	Screw
平ビス		X91-172495	4	Screw

First Printing, Apr. 1971

CANON REPAIR MANUAL

CANON LENS FD 100-200mm 1 : 5.6
(REF. NO. 2-19081)

CANON INC. 1971

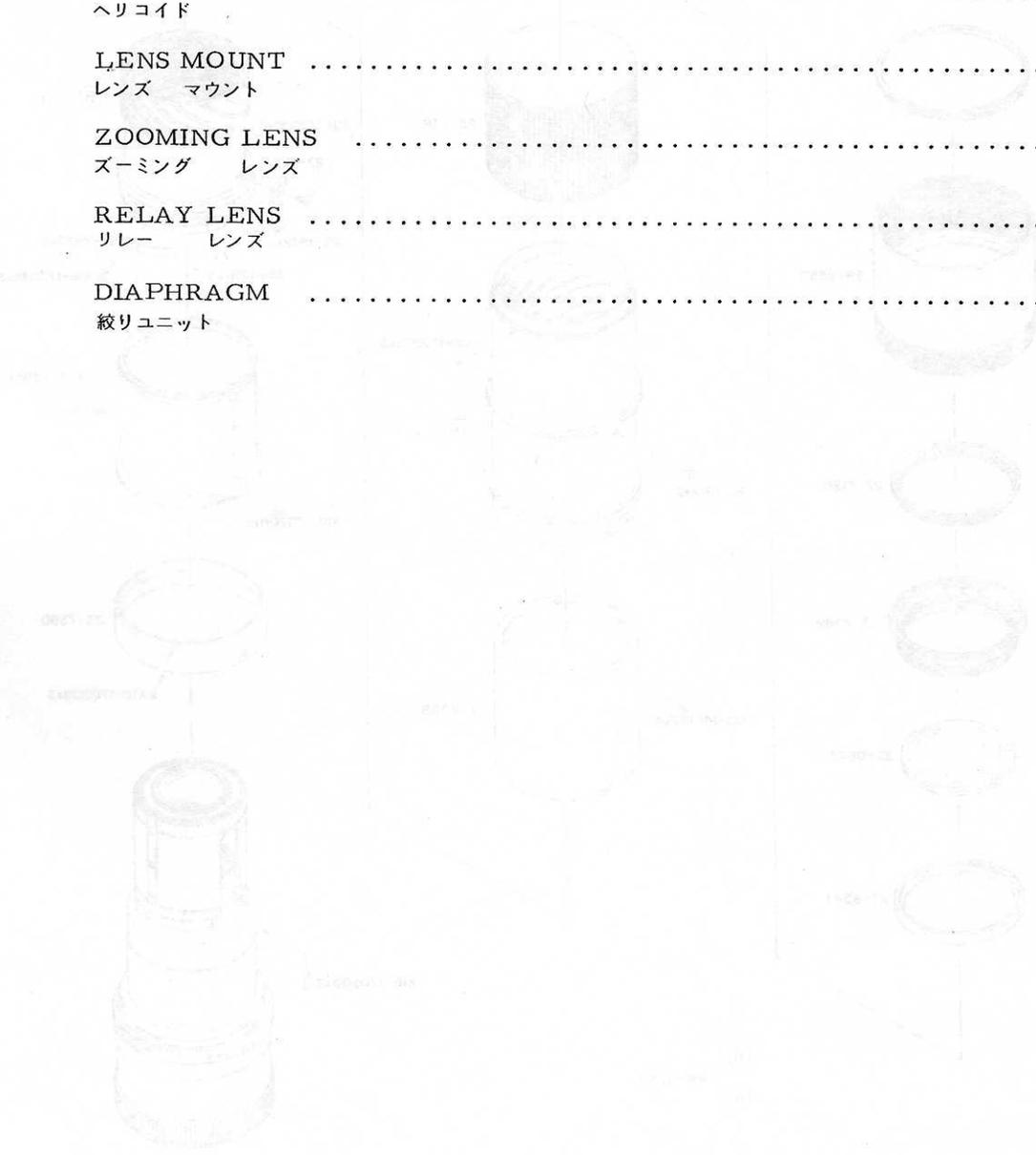
CANON INC. JAPAN

CANON INC.

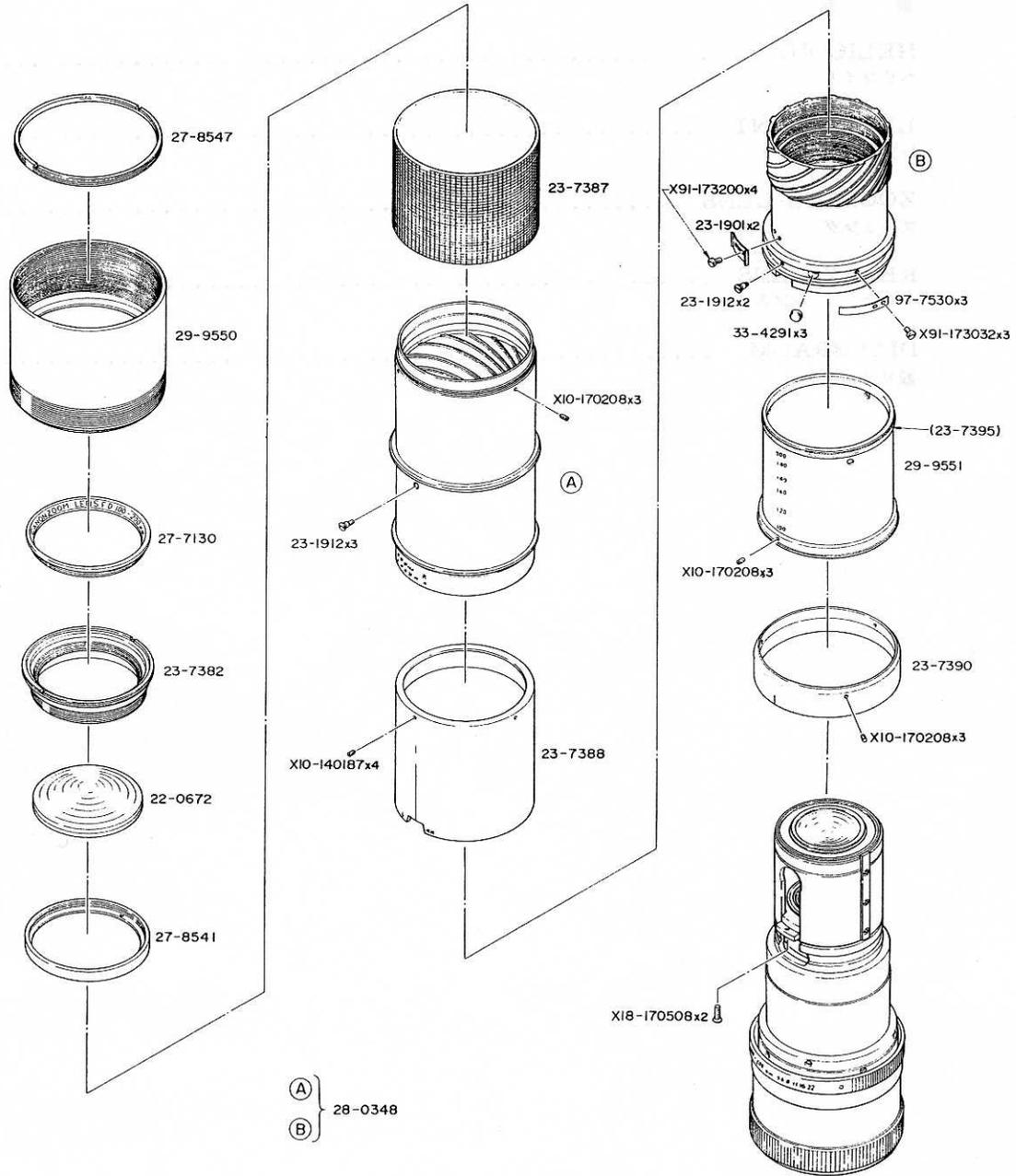
1971

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EXPLODED VIEW
of
CANON LENS FD 100-200mm 1:5.6

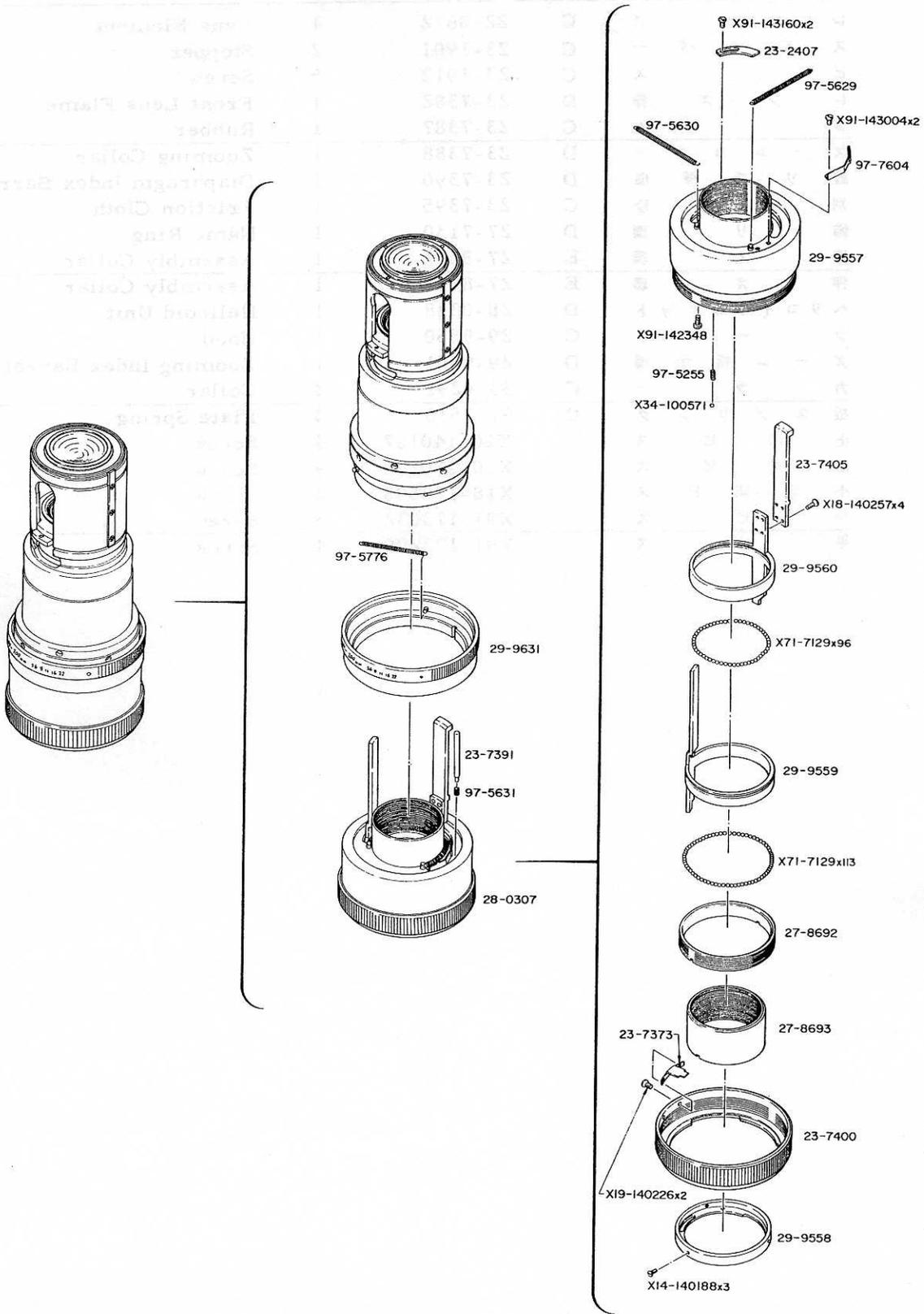


FRONT LENS & HELICOID

前 玉 ヘリコイド

部 品 名 称	CLASS	PARTS NO.	QTY.	DESCRIPTION
レ ン ズ	C	22-0672	1	Lens Element
ス ト ッ パ ー	C	23-1901	2	Stopper
ビ ス	C	23-1912	5	Screw
レ ン ズ 枠	D	23-7382	1	Front Lens Flame
ゴ ム	C	23-7387	1	Rubber
ズ ー ム カ ラ ー	D	23-7388	1	Zooming Collar
絞 リ 指 標 環	D	23-7390	1	Diaphragm Index Barrel
別 珍	C	23-7395	1	Friction Cloth
飾 リ 環	D	27-7130	1	Name Ring
押 え 環	E	27-8541	1	Assembly Collar
押 え 環	E	27-8547	1	Assembly Collar
ヘ リ コ イ ド ユ ニ ッ ト	D	28-0348	1	Helicoid Unit
フ ー ド	C	29-9550	1	Hood
ズ ー ム 指 示 環	D	29-9551	1	Zooming Index Barrel
カ ラ ー	C	33-4291	3	Collar
板 ス プ リ ン グ	D	97-7530	3	Plate Spring
止 め ビ ス		X10-140187	4	Screw
止 め ビ ス		X10-170208	9	Screw
十 字 皿 ビ ス		X18-170508	2	Screw
平 ビ ス		X91-173032	3	Screw
平 ビ ス		X91-173200	4	Screw

EXPLODED VIEW
of
CANON LENS FD 100-200mm 1:5.6



SCALE 1-2.0

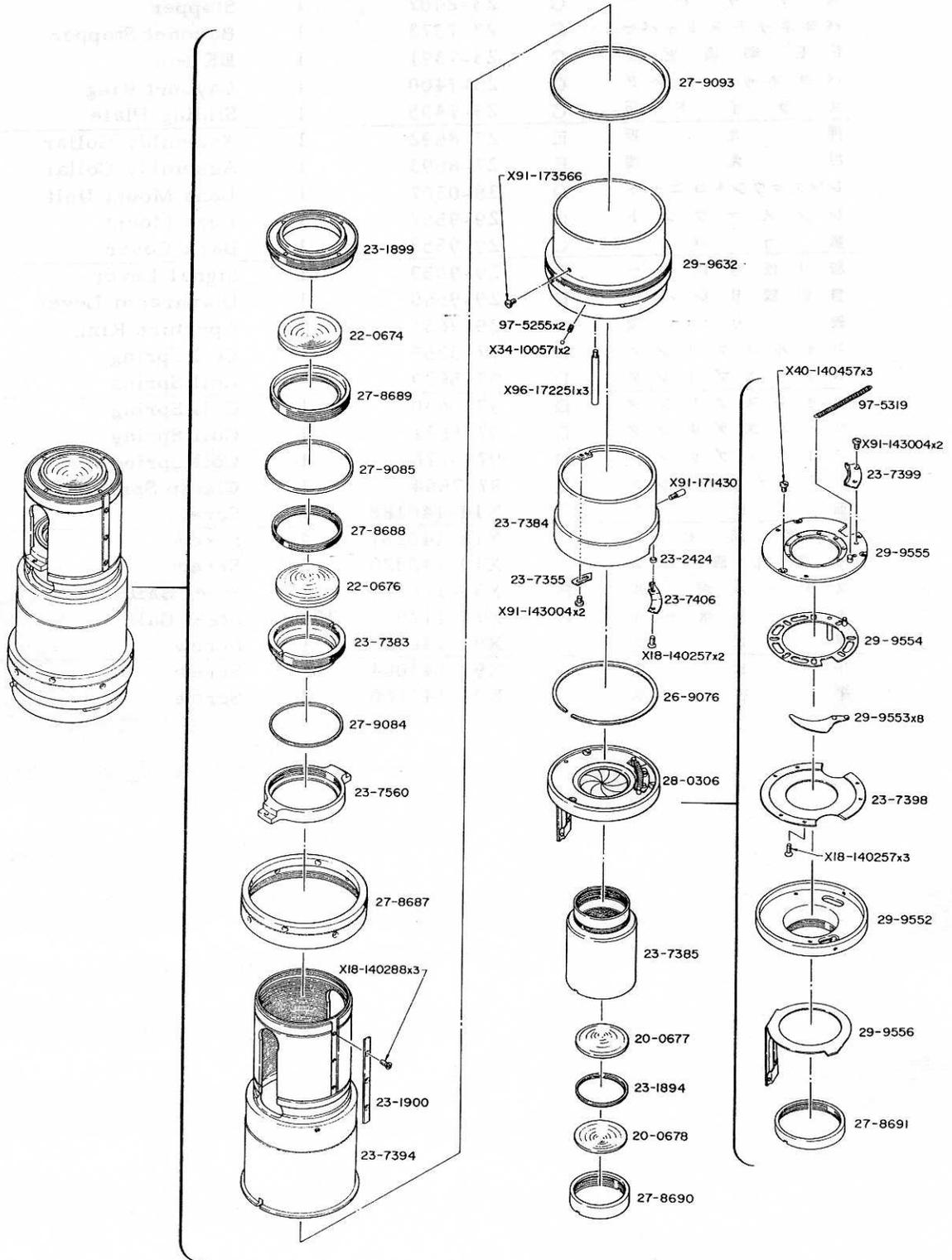
© CANON INC.

LENS MOUNT

レンズ マウント

部 品 名 称	CLASS	PARTS NO.	QTY.	DESCRIPTION
ス ト ッ パ ー	C	23-2407	1	Stopper
バヨネットストッパー	C	23-7373	1	Bayonet Stopper
E E 切 換 ピ ン	C	23-7391	1	EE Pin
バヨネットリング	C	23-7400	1	Bayonet Ring
ス ラ イ ド 板	C	23-7405	1	Sliding Plate
押 え 環	E	27-8692	1	Assembly Collar
押 え 環	E	27-8693	1	Assembly Collar
レンズマウントユニット	D	28-0307	1	Lens Mount Unit
レ ン ズ マ ウ ン ト	E	29-9557	1	Lens Mount
裏 カ バ ー	C	29-9558	1	Back Cover
絞 り 信 号 レ バ ー	D	29-9559	1	Signal Lever
自 動 絞 り レ バ ー	D	29-9560	1	Diaphragm Lever
絞 り 環	C	29-9631	1	Aperture Ring
コイルスプリング	D	97-5255	1	Coil Spring
コイルスプリング	D	97-5629	1	Coil Spring
コイルスプリング	D	97-5630	1	Coil Spring
コイルスプリング	D	97-5631	1	Coil Spring
コイルスプリング	D	97-5776	1	Coil Spring
クランプスプリング	D	97-7604	1	Clamp Spring
皿 ビ ス		X14-140188	3	Screw
十 字 皿 ビ ス		X18-140257	4	Screw
十 字 丸 皿 ビ ス		X19-140226	2	Screw
スチールボール	B	X34-100571	1	Steel Ball
スチールボール	B	X71-7129	209	Steel Ball
平 ビ ス		X91-142348	1	Screw
平 ビ ス		X91-143004	2	Screw
平 ビ ス		X91-143160	2	Screw

EXPLODED VIEW
of
CANON LENS FD 100-200mm 1:5.6



SCALE 1-2.0

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PARTS LIST

ZGOMING LENS & RELAY LENS & DIAPHRAGM

ズームレンズ リレー レンズ 絞りユニット

部 品 名 称	CLASS	PARTS NO.	QTY.	DESCRIPTION
レ ン ズ	E	20-0677	1	Lens Element
レ ン ズ	D	20-0678	1	Lens Element
レ ン ズ	D	22-0674	1	Lens Element
レ ン ズ	E	22-0676	1	Lens Element
ス ペ ー サ ー	C	23-1894	1	Spacer
レ ン ズ 枠	E	23-1899	1	Converter Lens Frame
ヘ リ コ イ ド キ ー	C	23-1900	1	Helicoid Key
カ ラ ー	C	23-2424	1	Collar
ス ト ッ パ ー	C	23-7355	1	Stopper
レ ン ズ 枠	D	23-7383	1	Lens Frame
絞 リ ド ラ ム	D	23-7384	1	Diaphragm Drum
鏡 胴	D	23-7385	1	Lens Barrel
ズ ー ム 環	D	23-7394	1	Zooming Barrel
絞 リ カ バ ー	D	23-7398	1	Diaphragm Cover
ス プ リ ン グ 受 け	C	23-7399	1	Spring Holder
E E カ ム	C	23-7406	1	EE Cam
レ ン ズ 枠	E	23-7560	1	Corrector Lens Frame
割 ワ ッ シ ャ ー	C	26-9076(0.35)	1	Snap Washer
()内の数字は厚さを示す。 (単位: mm)		(0.40)		Parenthesized numbers indicate thickness
		(0.45)		(Unit: mm)
		(0.50)		
ナ ッ ト	D	27-8687	1	Nut
押 え 環	E	27-8688	1	Assembly Collar
押 え 環	E	27-8689	1	Assembly Collar
押 え 環	E	27-8690	1	Assembly Collar
押 え 環	E	27-8691	1	Assembly Collar
調 整 ワ ッ シ ャ ー	C	27-9084(0.50)	1	Adjusting Washer
()内の数字は厚さを示す。 0.50mmから1.50mmまで 0.05mmとびに21種類		(0.55)		Adjusting washer are available in thickness from 0.50 to 1.50 mm in 0.05 mm steps.
		(1.45)		
		(1.50)		
調 整 ワ ッ シ ャ ー	C	27-9085(1.00)	1	Adjusting Washer
()内の数字は厚さを示す。 1mmから2mmまで 0.5mmとびに21種類		(1.05)		Adjusting washer are available in thickness from 1 to 2 mm in 0.05 mm steps.
		(1.95)		
		(2.00)		
調 整 ワ ッ シ ャ ー	C	27-9093(0.50)	1	Adjusting Washer
()内の数字は厚さを示す。 0.5mmから2.5mmまで 0.05mmとびに41種類		(0.55)		Adjusting Washer are available in thickness from 0.5 to 2.5 mm in 0.05 mm steps.
		(2.45)		
		(2.50)		
絞 リ ユ ニ ッ ト	D	28-0306	1	Diaphragm Assembly
中 筒	E	29-9552	1	Lens Barrel
絞 リ 羽 根	C	29-9553	8	Aperture Leaf
風 車	D	29-9554	1	Diaphragm Rotor
蜂 の 巣	D	29-9555	1	Diaphragm Base
カ ム リ ン グ	D	29-9556	1	Cam Ring
続 ぎ 筒	E	29-9632	1	Intermedium Barrel
コ イ ル ス プ リ ン グ	D	97-5255	2	Coil Spring
コ イ ル ス プ リ ン グ	D	97-5319	1	Coil Spring
十 字 皿 ビ ス		X18-140257	5	Screw
十 字 皿 ビ ス		X18-140288	3	Screw
ス チ ー ル ボ ー ル	B	X34-100571	2	Steel Ball
十 字 ナ ベ ビ ス		X40-140457	3	Screw
平 ビ ス		X91-143004	4	Screw
平 ビ ス		X91-171430	1	Screw
平 ビ ス		X91-173566	1	Screw
平 ビ ス		X96-172251	3	Screw

Canon SERVICE MANUAL REPORT

Serial No. AL 7-019 E

Service Manual No. L-007

Issued by Camera Service Department, Canon Inc.

Date 1971 / 10 / 12

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71.10.20
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Canon LENS FD 200mm 1:4 Changes

1. Diaphragm Lever Stopper

1.1 Change

To prevent the diaphragm lever stopper from slipping, it now has two screw holes instead of a slot and the screw diameter has been changed from 1.4 to 1.7mm. The screw holes in Brake Spring(23-7623) have been increased from 1.6 to 1.9 mm for clearance also. Since the stopper is no longer slotted it is now available in several sizes so the diaphragm lever position can be adjusted. Screw holes in Lens Mount(29-9539) for the stopper screws are 1.7mm now and the stopper is made of stainless steel instead of delrin.

Old

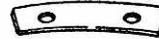
New

 X91-143160 x 2

 X91-173597 x 2



23-2407

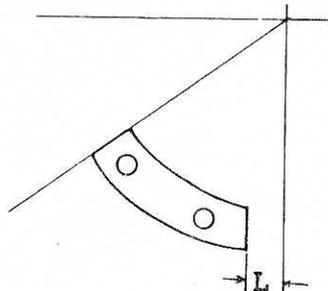


23-2407-040

Material: Delrin → Stainless Steel (SPC)

1.2 Repair

Old and new parts are not interchangeable because of the difference in screw size. Camera Service will stock both old and new parts. New stoppers are made in several sizes to provide different "L" dimensions for diaphragm lever adjustment.



L : 4.4 mm
4.6 mm
4.8 mm (Standard)
5.0 mm
5.2 mm

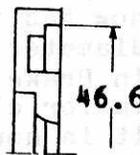
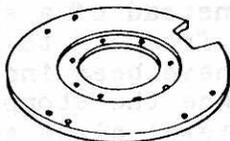
2. Diaphragm Unit Changes

2.1 Changes

To prevent the aperture leaves from sticking when they open fully, the changes pictured below have been made.

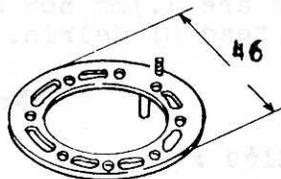
Unit: mm

23-7370



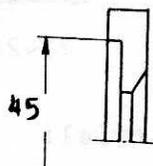
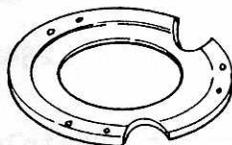
46 → 46.6

29-9537



45.4 → 46

29-9538



44.4 → 45

2.2 Repair

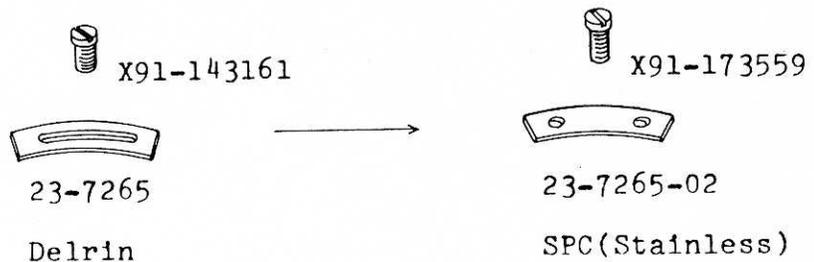
Old and new parts are not interchangeable. Camera Service will stock only new parts. If one of the parts is changed, it is necessary to use all three new parts (29-9538, 29-9537, and 23-7370).



Canon FD 35mm 1:3.5 Wide Angle Lens Diaphragm Stopper Change

1. Change

To prevent the stopper from slipping, it now has two screw holes instead of a slot, the screws are 1.7 instead of 1.4 mm and it is made from stainless steel instead of Delrin.

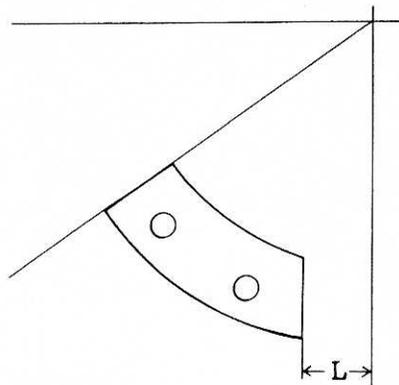


Screw holes in Lens Mount(29-9511) for the stopper screws are 1.7mm instead of 1.4mm also.

2. Repair

Old and new parts are not interchangeable due to the difference in screw size. Camera Service will stock both old and new type parts.

The new Stopper is available in several different sizes to give "L" dimensions as shown in the drawing for adjustment of the diaphragm lever. Order various sizes by adding the "L" dimension to the basic part number as 23-7265-02(4.8).



L: 4.4mm
4.6mm
4.8mm (Standard)
5.0mm
5.2mm



Canon FD 55mm 1:1.2 Diaphragm Lever Stopper Change

1. Change

To prevent the diaphragm stopper from slipping, it now has two screw holes instead of a slot and the screws are 1.7mm instead of 1.4mm. The new stopper is made from steel instead of Delrin plastic also.



X91-143160



X91-173597



23-7433

Delrin



23-7652

SPC(Stainless)

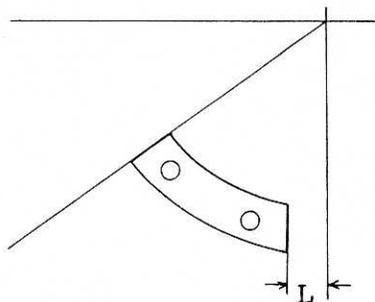
2. Repair

Old and new parts are not interchangeable due to the difference in screw hole size. Camera Service will stock both old and new type parts.

The new Stopper(23-7652) is available in several sizes to give "L" dimensions as shown on the drawing for adjustment of the diaphragm lever. Order various sizes by adding the size to the basic part number as 23-7652(4.8).

Added Parts:

Class	Part No.	Qty.	Description	Price:
D	23-7652	1	Stopper	\$0.05



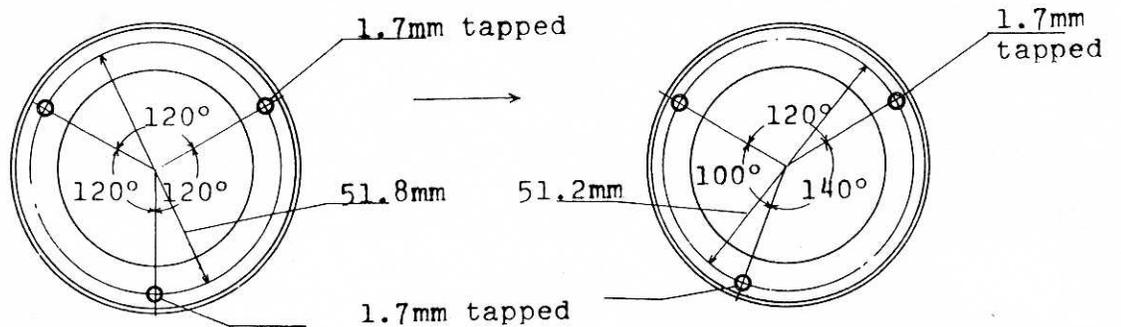
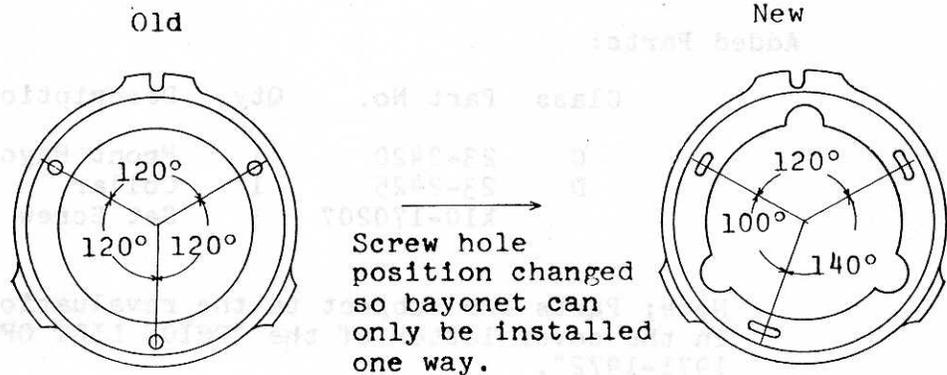
L : 4.4mm
 4.6mm
 4.8mm (Standard)
 5.0mm
 5.2mm



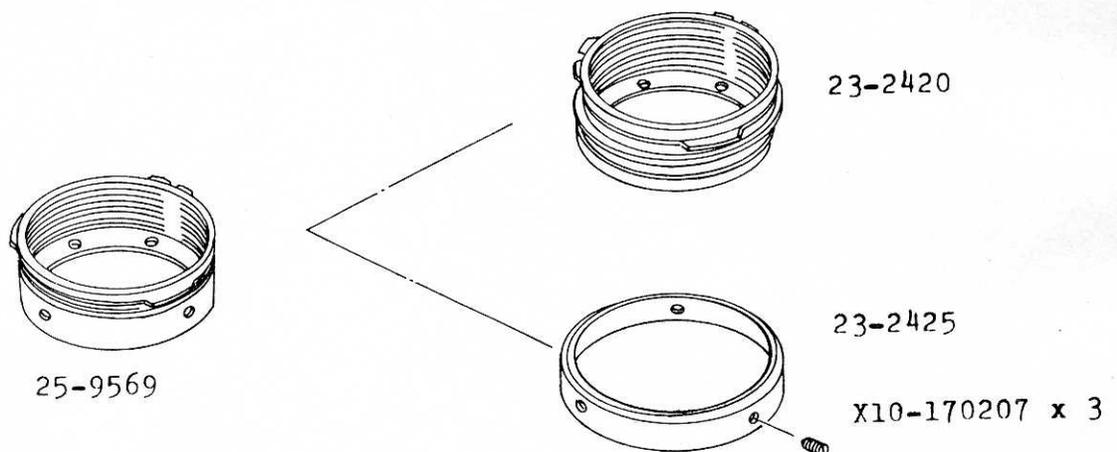
Canon FD 50mm 1:1.4 Flash Coupling Pin Adjustment

1. Change

In order that the coupling pin can be adjusted to $90^{\circ} \pm 1^{\circ}$ from the alignment slot in the front bayonet ring, the following changes have been made.



23-2420 was originally a part of 29-9569, but it is now a separate service part along with 23-2425 and Screws(X10-170207 x 3).



2. Repair

Old and new parts are not interchangeable. Camera Service will stock both old and new 23-2420 but only the new Lens Barrel (29-9491) will be stocked. If the lens barrels is replaced, the new Front Bayonet Ring(23-2420) must be changed also.

When installing the front bayonet ring, be sure the notch in the ring is aligned with the helicoid index mark.

Added Parts:

Class	Part No.	Qty.	Description	Price
C	23-2420	1	Front Bayonet Ring	\$1.15
D	23-2425	1	Collar	0.50
	X10-170207	3	Set Screw	0.01

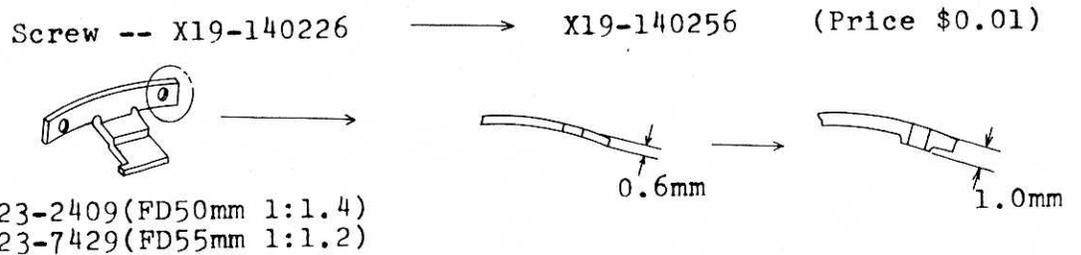
Note: Parts are subject to the revaluation charge as explained in the cover letter of the "PRICE LIST OF CANON PHOTO PRODUCTS 1971-1972".



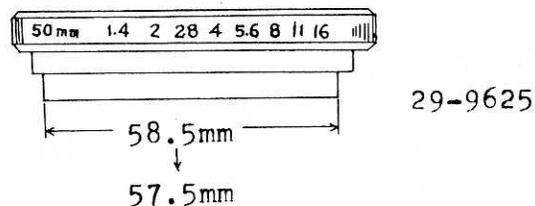
Canon FD 50mm 1:1.4 and 55mm 1:1.2 Bayonet Stopper Change

1. Change

The bayonet stopper had a tendency to chack around the screw holes so the area around the screw holes has been thickened to prevent this problem.



The Aperture Ring (29-9625) of the 50mm 1:1.4 has also been changed to provide clearance for the screw heads.



2. Repair

On the FD 55mm 1:1.2 Lens, the stoppers are interchangeable but the new, longer screws must be used if the new stopper is added. On the 50mm 1:1.4 Lens, the aperture ring must also be changed if the new stopper is added. Camera Service will stock new parts only.

Canon SERVICE MANUAL REPORT

Serial No. AL 6-012 E



Service Manual No. I.-006

Issued by Camera Service Department, Canon Inc.

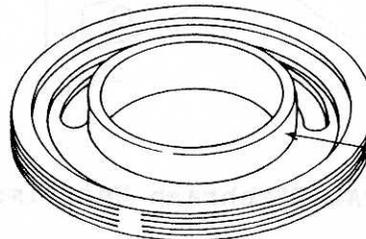
Date 1971 / 9 / 21

Canon FD STANDARD LENSES CHANGES

1. Canon FD 50mm 1:1.4 Lens Mount Change

1.1 Change

To prevent Coil Spring(97-5629) for Signal Lever(29-9496) from slipping over the lip of Lens Mount(29-9494), the lip of the lens mount has been lengthened 2mm.



Lengthened 2mm

29-9494

1.2.Repair

Old and new parts are interchangeable. Camera Service will stock only the new lens mount.

2. FD 50mm 1:1.8 and FD 55mm 1:1.2AL Diaphragm Lever Change

2.1 Change

To prevent the stopper from slipping, it now has two screw holes rather than a slot and the screw diameter has been increased from 1.4 to 1.7 mm. Since the stopper is no longer slotted, it is available in several different sizes for diaphragm lever adjustment. The new stopper is also made of stainless steel instead of delrin.

X91-143160 x 2



23-7330(FD50mm 1:1.8)
23-7433(FD55mm 1:1.2AL)

Delrin

X91-173597 x 2



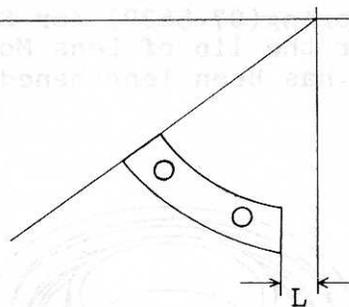
23-7330-020(FD50mm 1:1.8)
23-7652 (FD55mm 1:1.2AL)

Stainless Steel

2.2 Repair

Old and new parts are not interchangeable. Camera Service will stock both old and new parts. .

The new stoppers are available in several sizes to give different "L" dimensions as shown in the drawing below.



L: 4.4 mm
4.6
4.8 (Standard)
5.0
5.2

Part No. Example
FD55mm 1:1.2 AL
23-7652 (4.8) for standard size

3. FD 55mm 1:1.2AL Diaphragm Unit Improvement

The diaphragm unit has been improved by improvement of the finish of all friction surfaces, and by increasing the thickness of the baked-on dry lubricant paint from 5 to 10 μm .

Canon SERVICE MANUAL REPORT

Serial No. AL 7-017 E

Service Manual No. L-007

Issued by Camera Service Department, Canon Inc.

Date 1971 / 9 / 17

Canon FD 135mm 1:2.5 LENS Part Number Consolidation

The first element(G-1)(20-4661) and second element(G-2)(20-4662) were listed as separate Service Parts; but due the critical total spacing of the two elements, they are now available as a factory matched set.

The set has a new part number and the two old numbers are deleted from the Service Parts List.

Deleted Numbers	New Number			Price
	Class	Part Number	Description	
20-4661	D	22-4662	Lens Group	\$7.10
20-4662				

Canon SERVICE MANUAL REPORT

Serial No. AL 7-012 E

Service Manual No. L-007

Issued by Camera Service Department, Canon Inc.

Date 1971 / 9 / 1

Canon FD TELEPHOTO LENS 100mm 1:2.8, 135mm 1:3.5, 100-200mm Zoom
1:5.6 Improvements

1. Diaphragm Unit

To insure smooth action of the diaphragm unit, all friction surfaces have been coated with baked-on dry lubricant paint.

2. Bell Crank

To insure that the bell crank always works smoothly, the part of the lens barrel that it touches has been coated with baked-on dry lubricant paint.

3. Effected Lenses

FD 100mm 1:2.8

FD 135mm 1:3.5

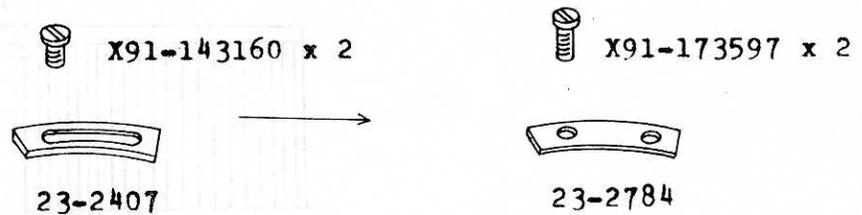
FD Zoom 100 - 200 mm 1:5.6

Canon FD 100-200mm 1:5.6 Zoom Lens Diaphragm Lever and Hood Changes

1. Diaphragm Lever

1.1 Change

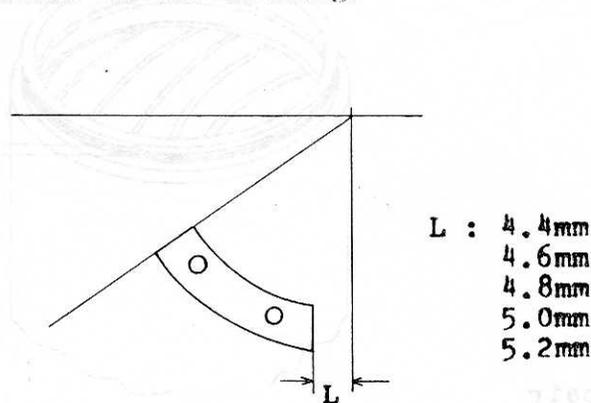
To prevent the diaphragm lever from slipping, the stopper slot has been changed to two screw holes and the screws have been enlarged from 1.4 to 1.7 mm diameter. Since it is no longer slotted, it is available in several sizes for diaphragm lever adjustment. The new stopper is made from stainless steel also.



1.2 Repair

Old and new parts are not interchangeable due to the difference in screw hole diameter. Camera Service will stock both old and new parts.

The new stopper is available in five different sizes to give "L" dimension as shown in the drawing.



2. Hood

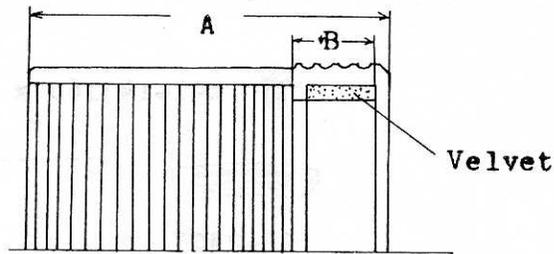
2.1. Change

Because of difficulty of assembly and disassembly of Hood(29-9550) and Assembly Collar(27-8547), the hood stopper ring on Helicoid(28-0348) has been moved 5mm forward. In conjunction with this change, the dimensions of the hood have also been changed.

Hood (29-9550)

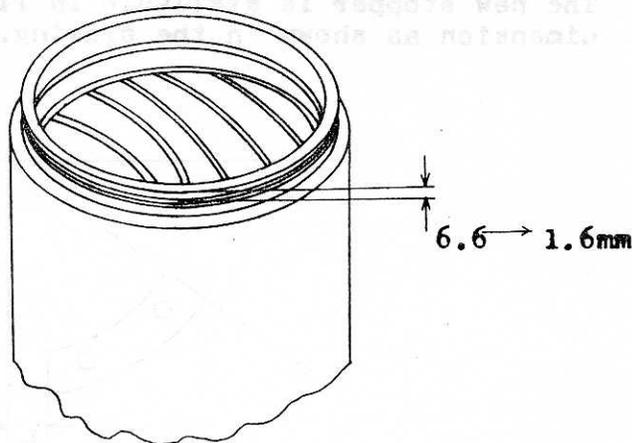
A(old) 46.5mm to A(new) 52mm

B(old) 17mm to B(new) 22mm



Helicoid (28-0348)

The hood stopper ring on part "A" of the helicoid(Repair Manual, page 1) has been moved forward from 6.6 mm back of the front surface to 1.6 mm back of the front surface.



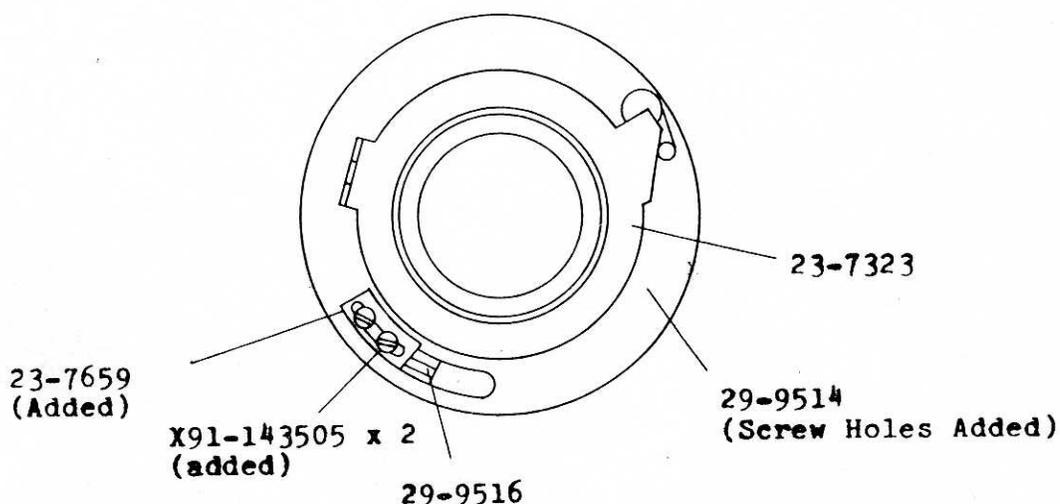
2.2 Repair

Camera Service will stock only new parts. The new hood can be used on the old helicoid. It will retract 5mm less than the old hood. The new hood causes no vignetting on either old or new lenses.

Canon FD 50mm 1:1.8 Lens Change

1. Change

With the Cam Ring and the Diaphragm Rotor set fully open, the aperture leafs sometimes touch the bell crank. To prevent this a stopper has been added. Its part number is 23-7659 and it is held by two Screws (X91-143505).



Added Parts:

Class	Part No.	Qty.	Description	Price
D	23-7659	1	Stopper	0.05
	X91-143505	2	Screw	0.01

2. Repair

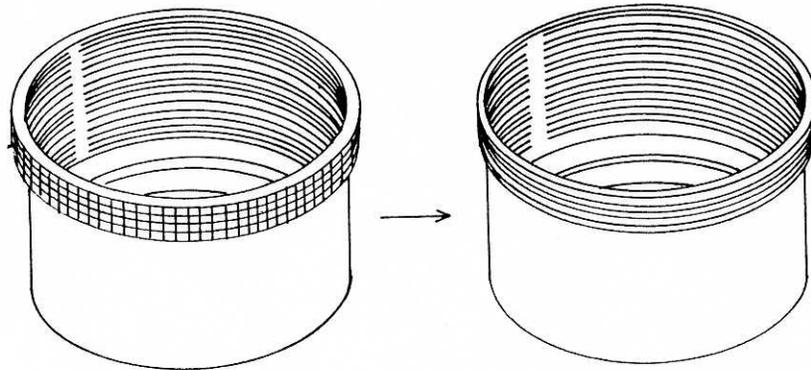
The stopper cannot be installed on old lens barrels. Camera Service will stock new parts.

Canon FD TELEPHOTO Lenses

1. FD 135mm 1:2.5

1.1 Changes

1. The Hood Ring(23-7469) has been deleted and the grip built directly into the Hood(29-9589).



2. The Diaphragm Unit durability has been improved by:
 - 1) Finishing all friction surfaces more smoothly than before.
 - 2) Increasing the thickness of the dry lubricant paint from 5 to 10 micrometers.(0.01mm).

1.2 Repair

The old and new hoods are interchangeable. Camera Service will stock the new hood only.

In the Repair Manual, pg. 1, note on the drawing that 23-7469 has been deleted and is now a part of 29-9589; and delete 23-7469 from the Parts List.

Canon FD 55mm 1:1.2 Diaphragm Unit Improvement

The diaphragm unit durability has been improved by:

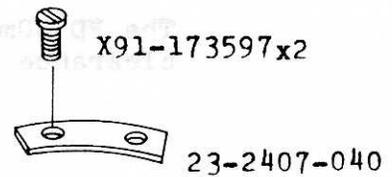
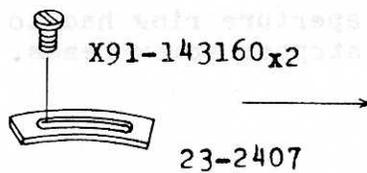
1. Improving the finish of all friction surfaces in the unit.
2. Increasing the thickness of the backed-on dry lubricant paint from 5 to 10 μm (0.010mm).

Canon FD STANDARD Lenses Changes

1. FD 50mm 1:1.4 Diaphragm Lever Stopper

1.1 Change

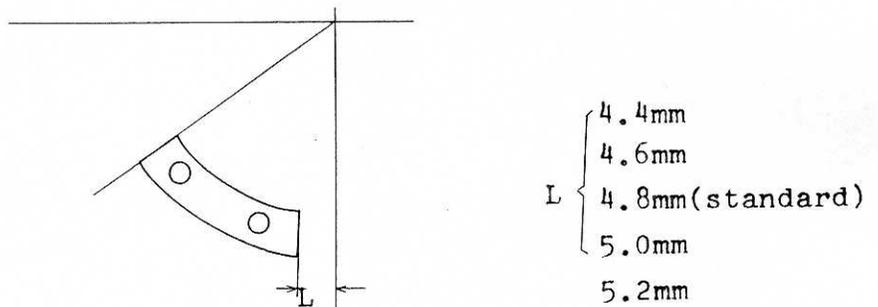
To prevent the stopper from slipping, it now has two screw holes instead of a slot and the screw diameter has been increased from 1.4 to 1.7mm. Since it is no longer slotted, it is available in several sizes for diaphragm lever adjustment. The new stopper is made of stainless steel instead of delrin also.



1.2 Repair

Old and new parts are not interchangeable due to the difference in screw hole size. Camera Service will stock both old and new parts.

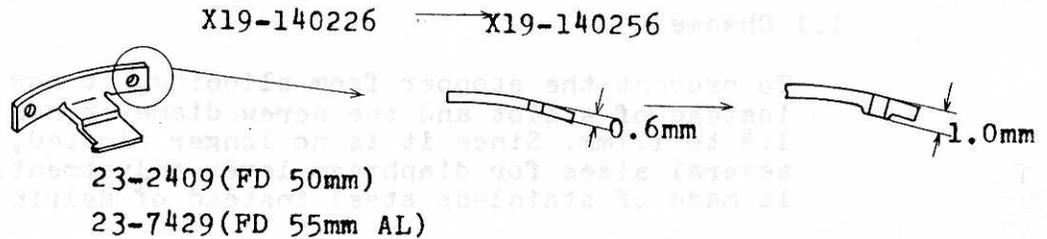
The new Stopper(23-2407-040) is available in five different sizes to give "L" dimension as shown in the drawing.



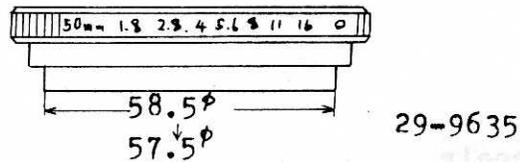
2. FD 50mm 1:1.8 , FD 55mm 1:1.2 Bayonet Stopper

2.1 Change

The bayonet stopper of both these lenses had a tendency to crack around the screw holes, so the ends of the stoppers around the screw holes have been thickened to prevent this problem.



The FD 50mm 1:1.8 aperture ring had to be changed also to give clearance for the stopper screw heads.



2.2 Repair

On the FD 55mm 1:1.2, the stoppers are interchangeable but the new, longer screws must be used with new stopper. On the FD 50mm 1:1.8 the aperture ring must also be changed. Camera Service will stock new parts only.