

Vivitar®

Illustrated Parts List



Series 1
24-48 mm f/3.8 Automatic
Fixed Mount Zoom Lens

Publication No. 3746105 / November 1978

HOW TO USE THIS PUBLICATION

I. CAUTIONS

This publication is intended for use by persons having the skills and equipment needed to service the subject product(s) safely and correctly. Users are cautioned that special tools and/or test equipment may be required for proper disassembly, reassembly, alignment or adjustment of the product.

II. HOW TO FIND PART ORDER NUMBERS

Parts are illustrated on exploded view drawings where each part is identified by a reference number or a designator. These reference numbers appear in sequence in the parts lists where they are cross-referenced to part numbers and descriptions.

When the initials NAS appear in the "Part Number" column, that part is Not Available Separately, and can be obtained only by ordering the assembly containing it. The part number of that assembly may be shown immediately to the right on the same line, in an "Included in Assembly" column, or at the end of the parts list(s).

In parts list for lenses and related products, quantities of each item are listed as used in the different mounts. The mounts are referred as:

| | | | | | |
|---|---|--------------------------|---|---|----------|
| M | = | Minolta MD Series Mount | P | = | Pentax K |
| C | = | Canon FL/FD Series Mount | N | = | Nikon AI |
| O | = | Olympus OM Series Mount | | | |

Note that some parts are common to more than one mount. This commonality is shown in the parts lists so that service centers desiring to stock replacement parts can order economically.

III. HOW TO ORDER PARTS

Please furnish the Model Number and Serial Number of the product for which parts are being ordered. For each part requested, please supply Vivitar part number, description, and required quantity.

Information contained herein is subject to change without notice.

Mail or Phone parts orders to:

**Vivitar Central Parts Service
2700 Pennsylvania Avenue
Santa Monica, California 90406
Telephone: (213) 829-3672
or (213) 870-0181**

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**VIVITAR SERIES 1 LENS
24-48mm f/3.8 AUTOMATIC FIXED MOUNT ZOOM**

GENERAL SPECIFICATIONS

| | |
|-------------------------------------------------------|-------------------------|
| Focal Length | 24mm to 48mm |
| Optical Construction | 10 Elements in 9 Groups |
| Angle of Acceptance | 39°, 23° |
| Minimum Focusing Distance (From Film Plane) | 0.6m |
| Accessory Size | 77mm |
| Maximum Barrel Diameter | 80mm |
| Weight | 557 g |

SERVICE NOTE:

When removing the scale ring locking ring (Ref. No. 11), avoid excessive vertical pressure. This will prevent damage to the outer helicoid and make the ring easier to remove.

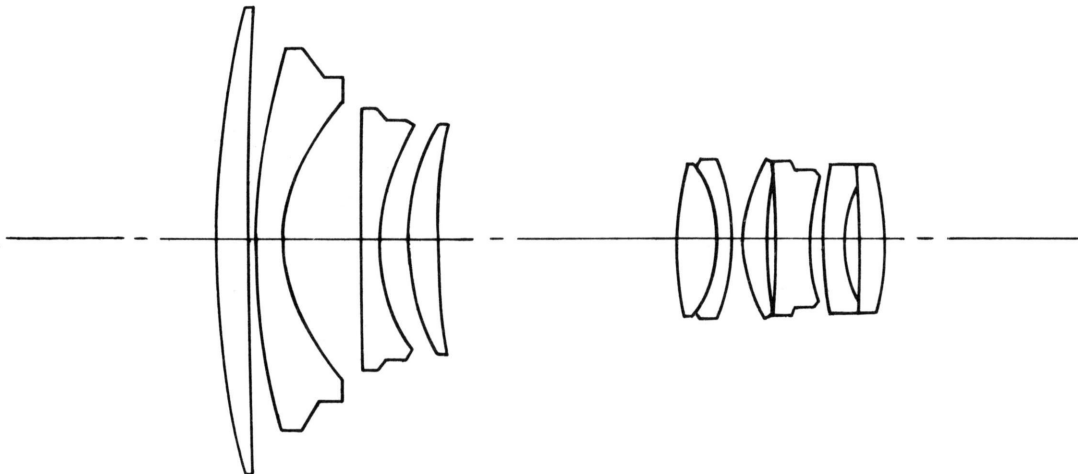


Figure 1. Lens Schematic

IDENTIFICATION AND MOUNT CONFIGURATION

These lenses are furnished in five mount configurations as follows:

| Mount | Marketing Stock Number | Vivitar Part Number |
|-----------------------------|------------------------|---------------------|
| Minolta MD/SRT/SR Series | 0311803 | 3900067-220 |
| Canon FL/FD Series | 0311744 | 3900068-220 |
| Nikon/Nikkormat AI/F Series | 0311799 | 3900069-220 |
| Olympus OM Series | 0311777 | 3900070-220 |
| Pentax K/M Series | 0311788 | 3900071-220 |

VIVITAR SERIES 1
24-48mm f/3.8 AUTOMATIC ZOOM
NIKON-AI MOUNT

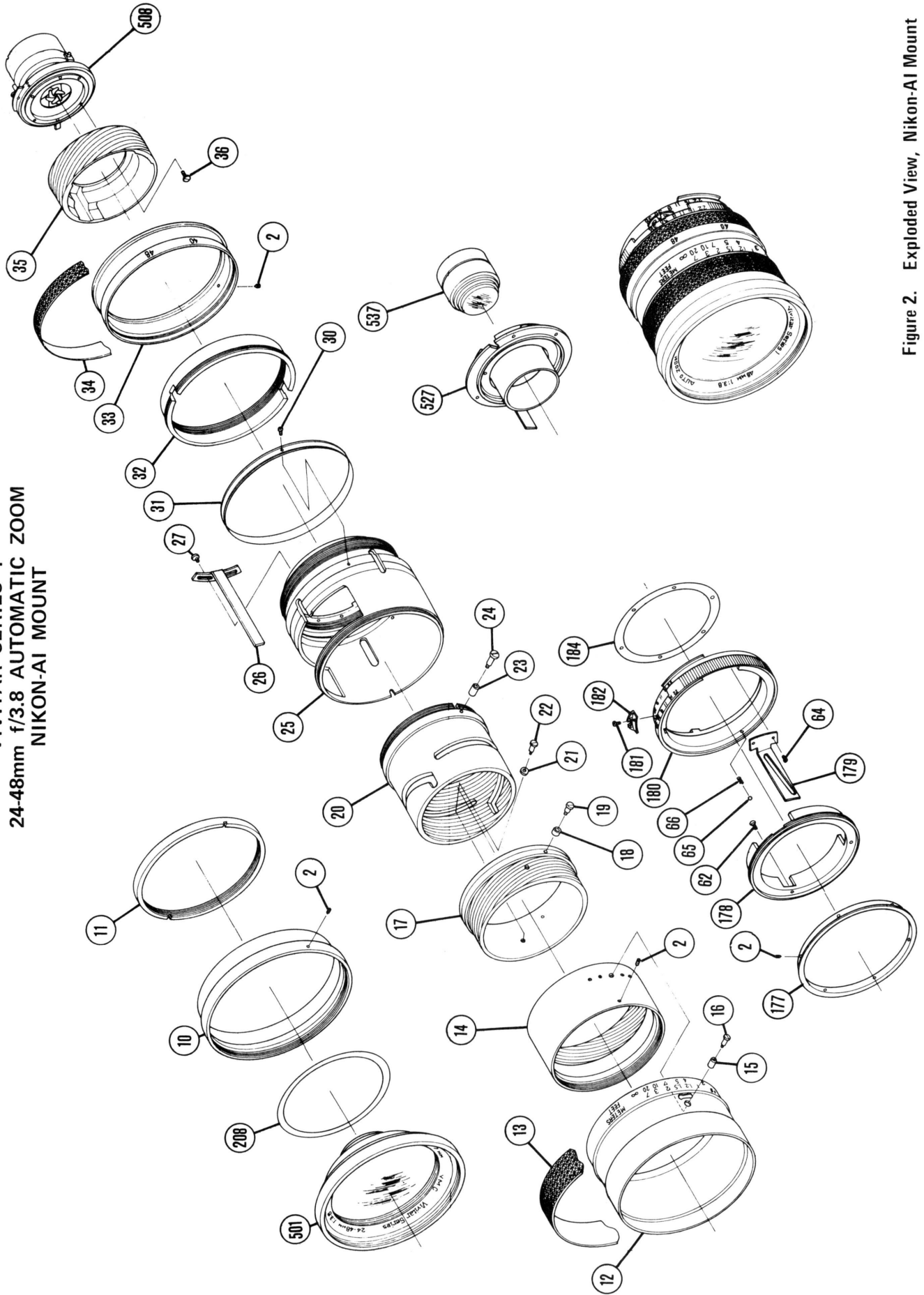


Figure 2. Exploded View, Nikon-AI Mount

VIVITAR SERIES 1
24-48mm f/3.8 AUTOMATIC ZOOM
MINOLTA-MD MOUNT

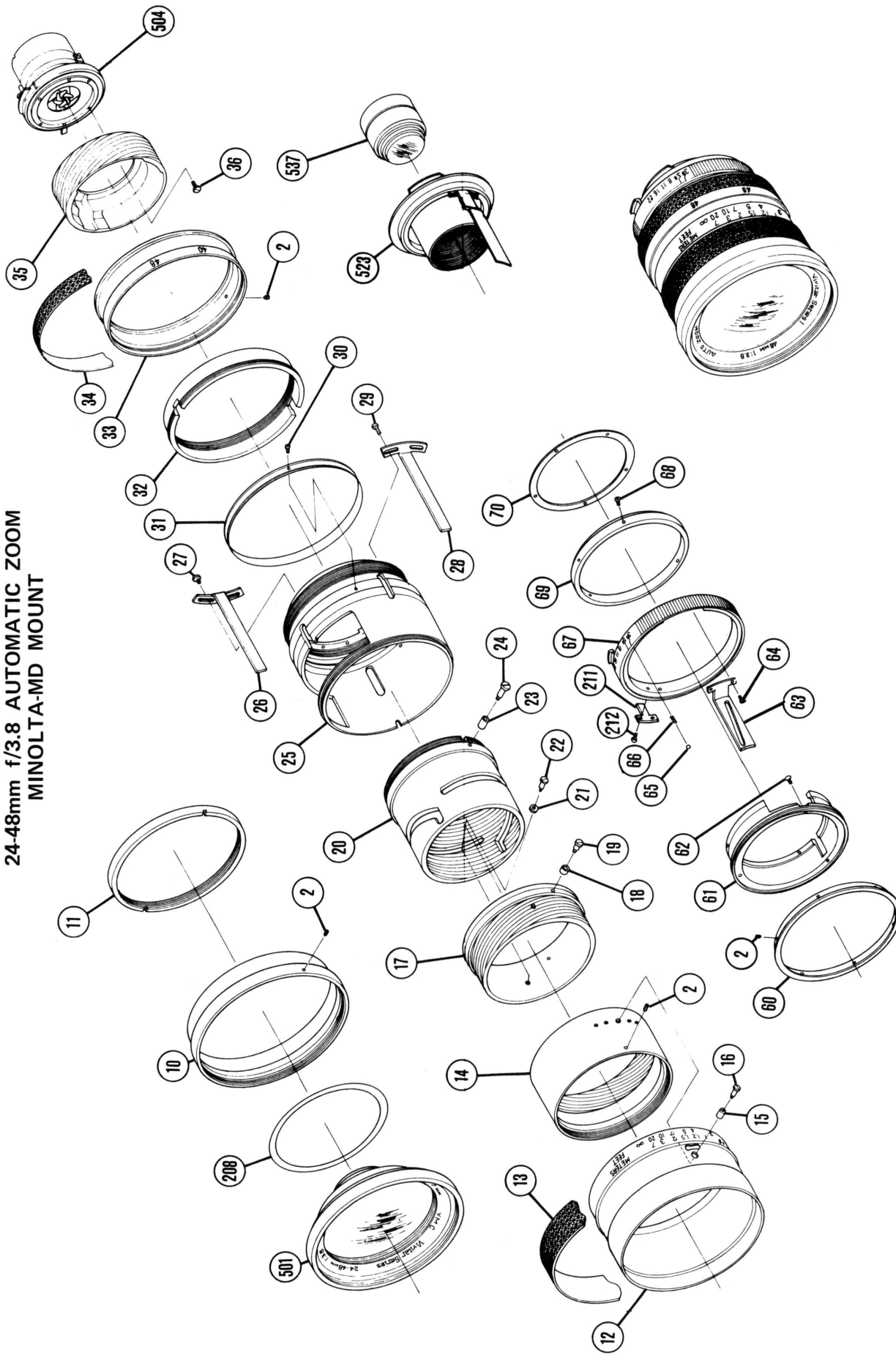


Figure 3. Exploded View, Minolta-MD Mount

VIVITAR SERIES 1
24-48mm f/3.8 AUTOMATIC ZOOM
CANON MOUNT

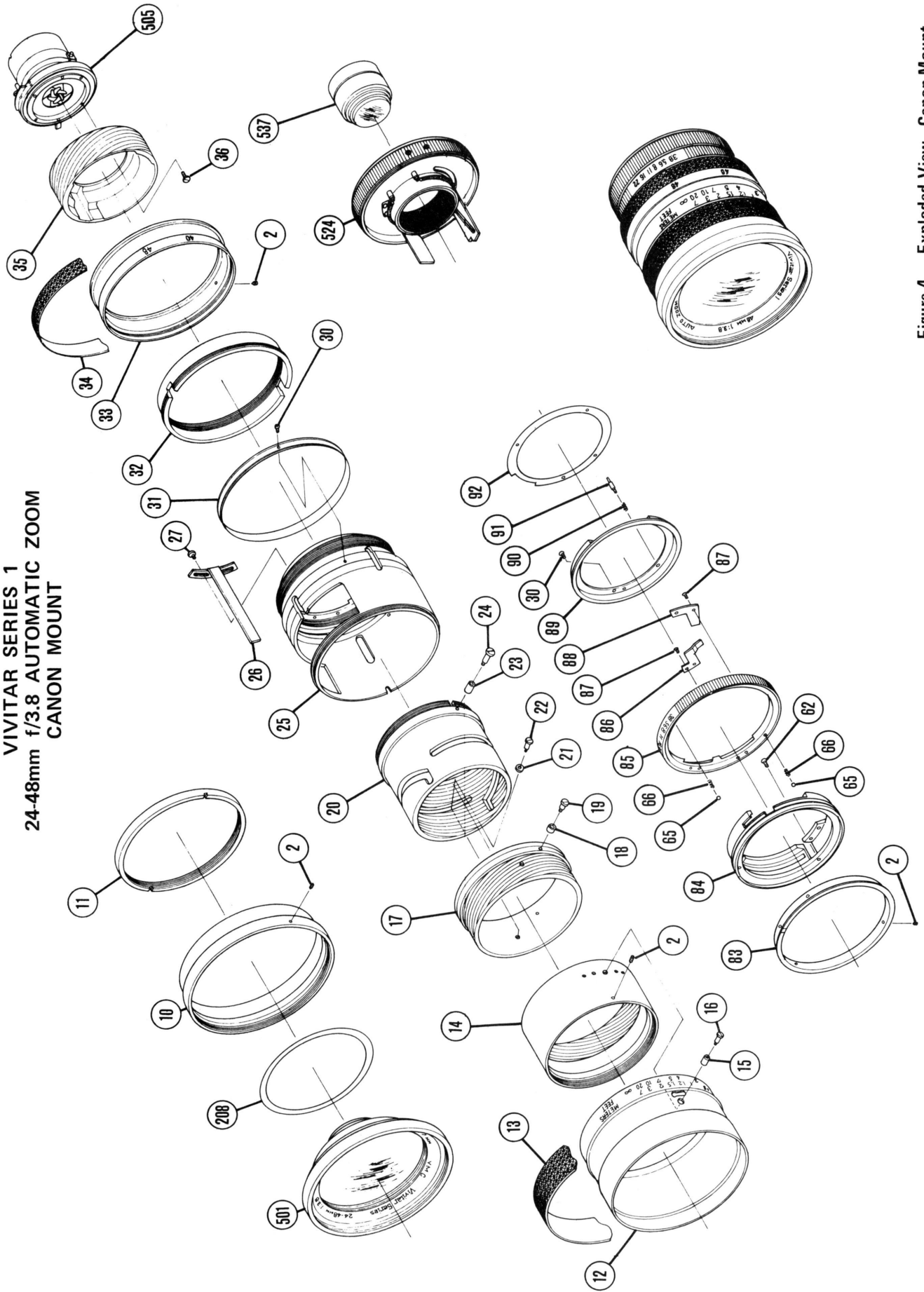


Figure 4. Exploded View, Canon Mount

VIVITAR SERIES 1
 24-48mm f/3.8 AUTOMATIC ZOOM
 OLYMPUS MOUNT

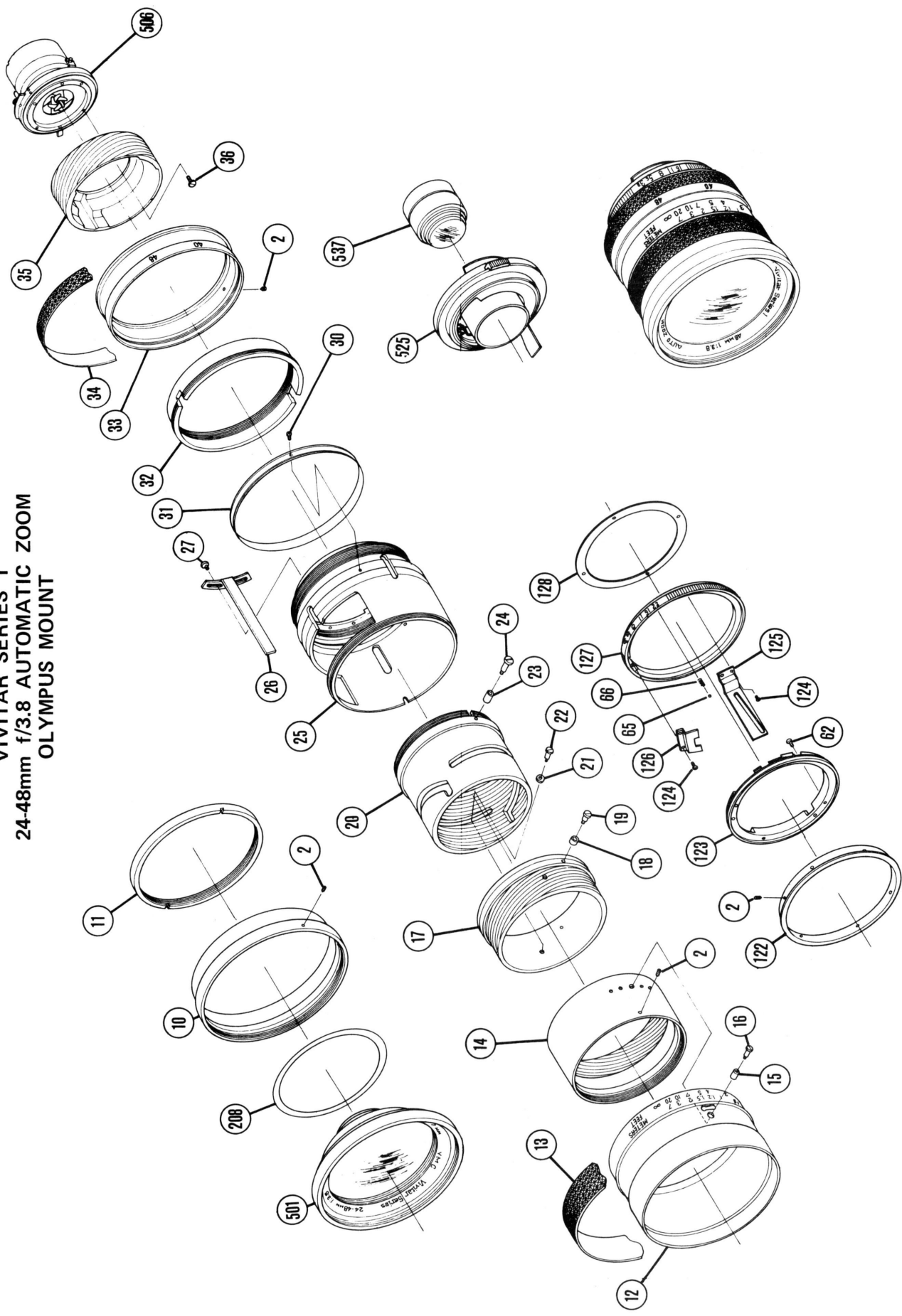


Figure 5. Exploded View, Olympus Mount

VIVITAR SERIES 1
 24-48mm f/3.8 AUTOMATIC ZOOM
 PENTAX-P/K MOUNT

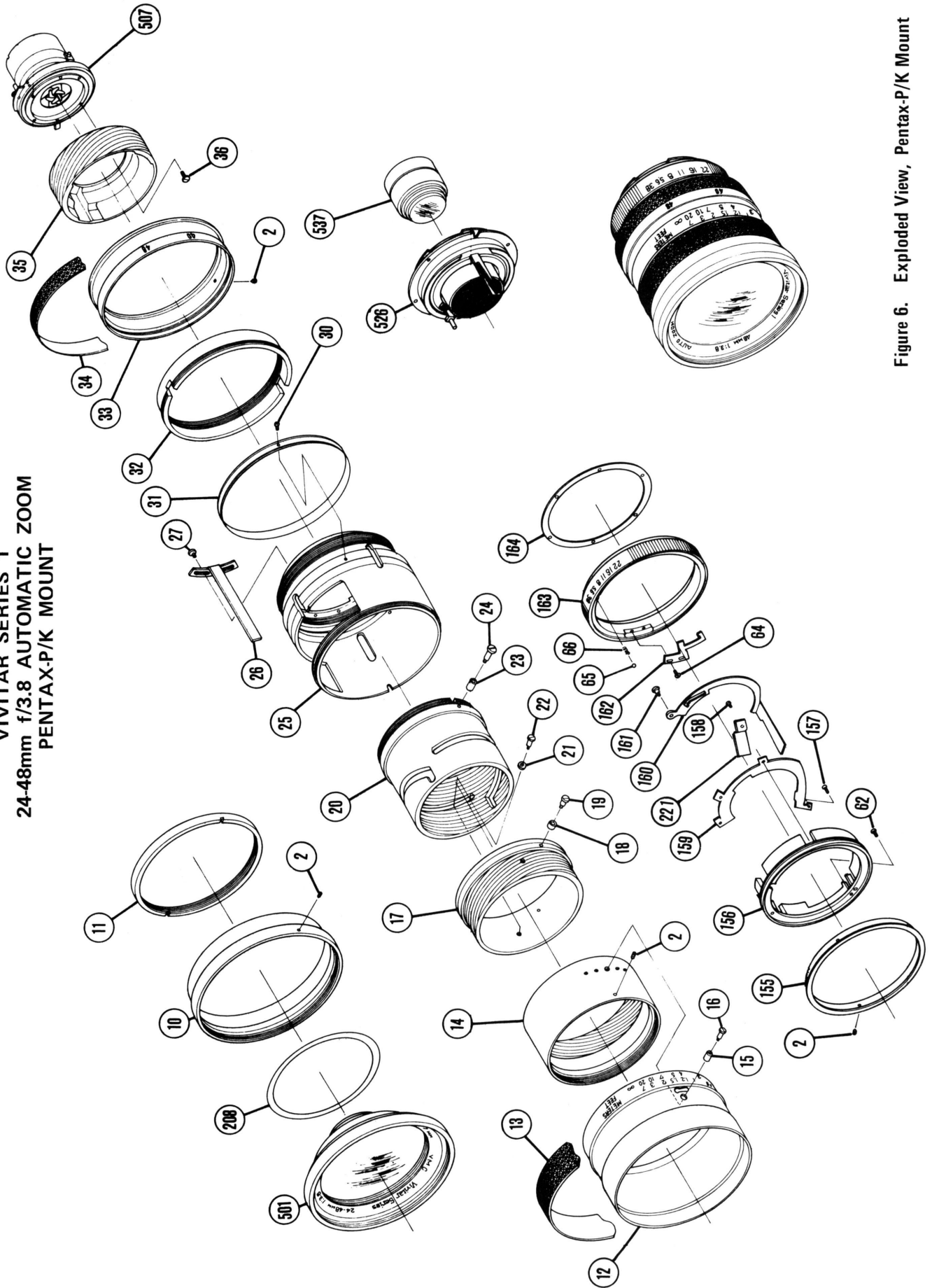
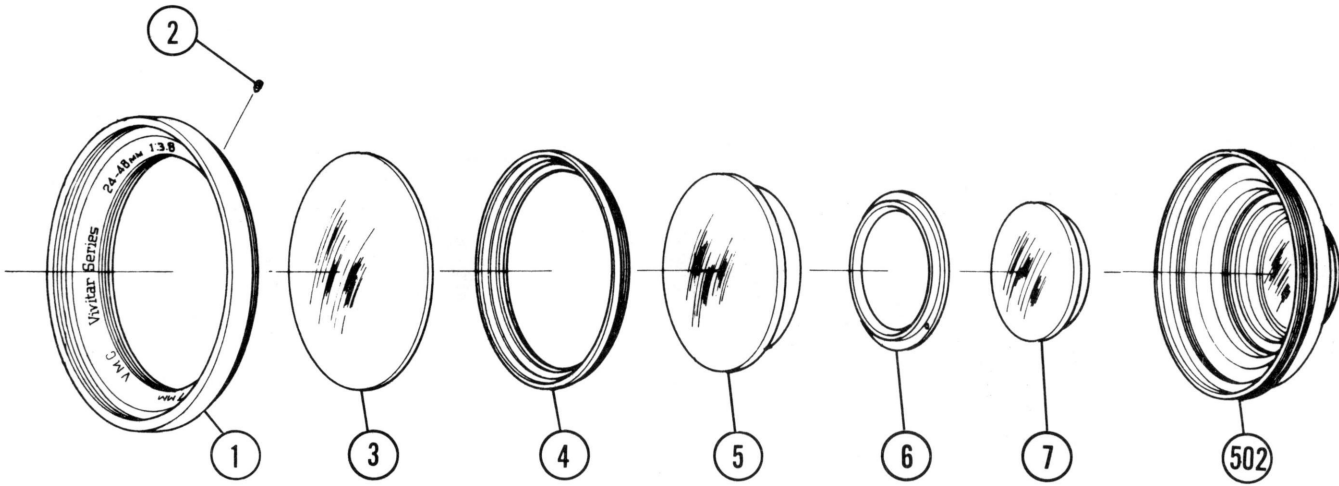
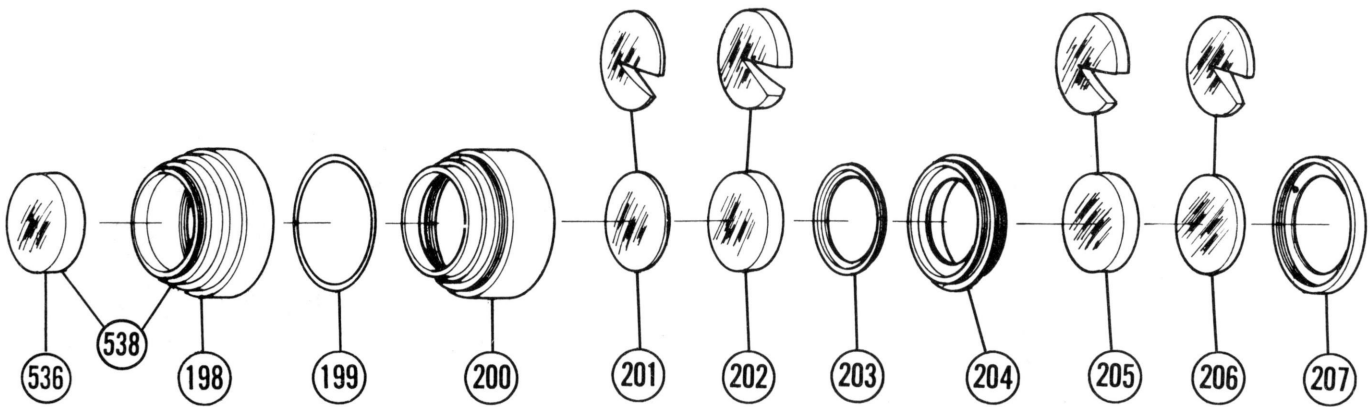


Figure 6. Exploded View, Pentax-P/K Mount



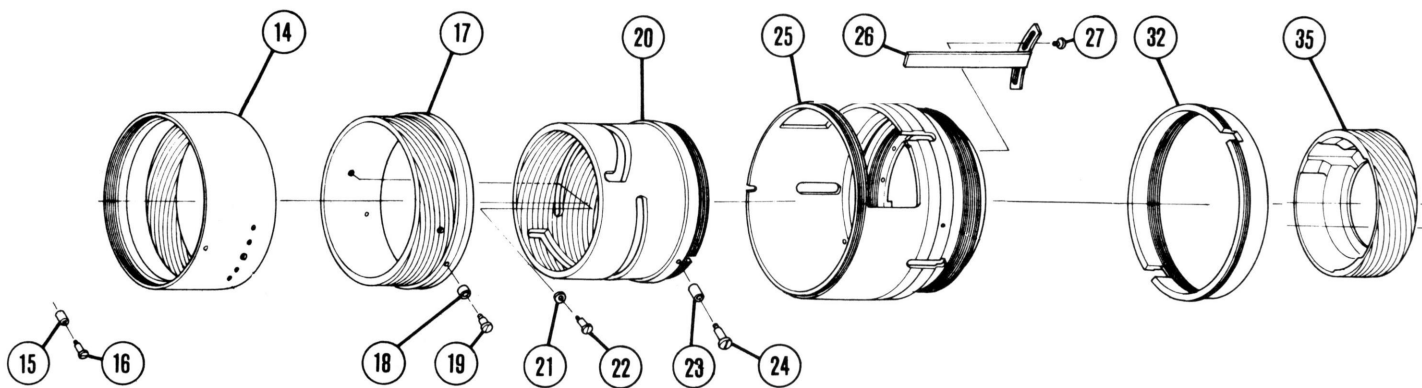
501 – FIRST LENS GROUP ASSEMBLY

Figure 7. First Lens Group Assembly



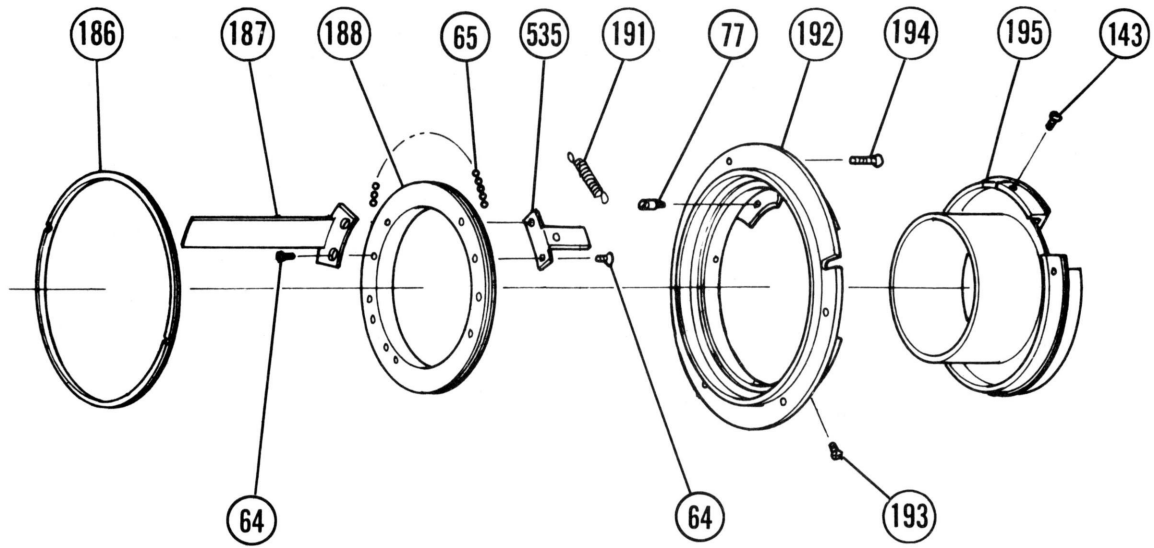
537 – REAR LENS GROUP ASSEMBLY

Figure 8. Rear Lens Group Assembly



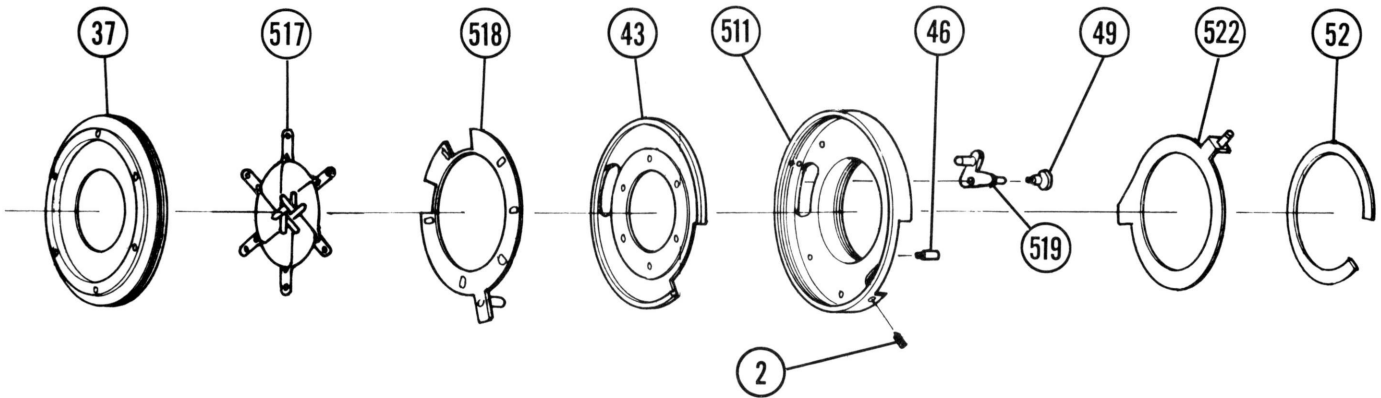
541 – ASSEMBLY, LENS TUBE KIT

Figure 9. Lens Tube Kit Assembly



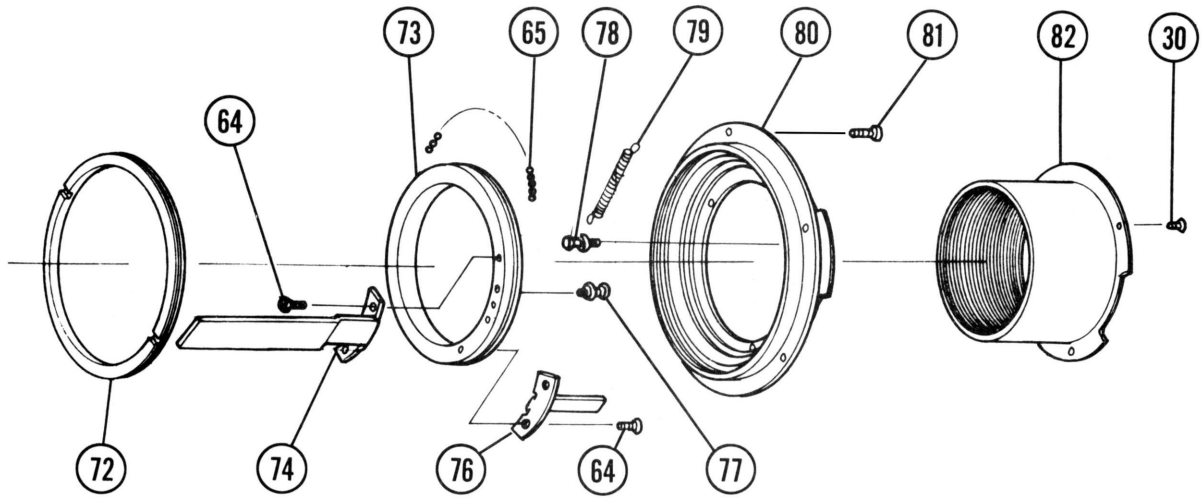
⑤27 – ASSEMBLY, REAR MOUNT, NIKON-AI

Figure 10. Rear Mount Assembly, Nikon-AI Mount



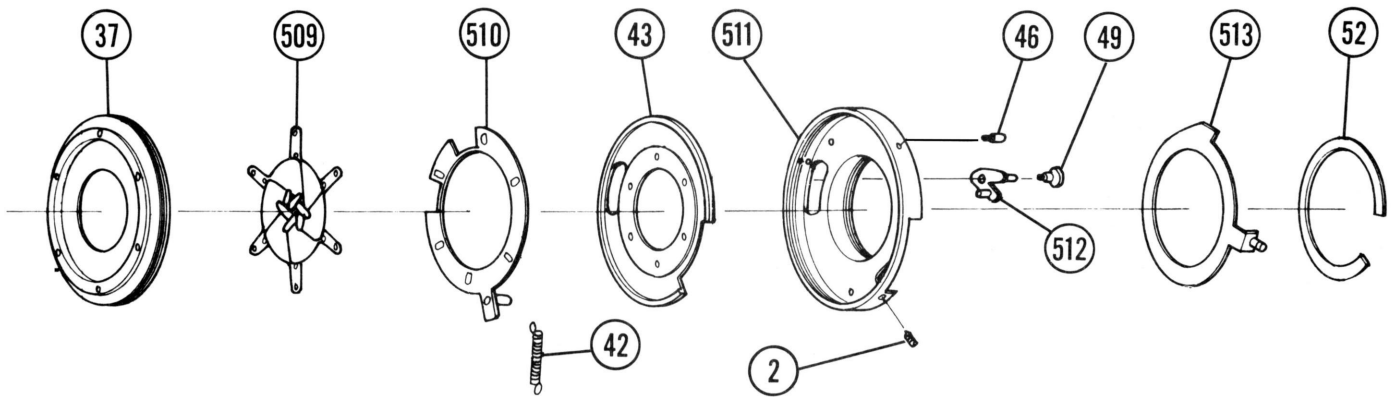
⑤08 – ASSEMBLY, DIAPHRAGM HOUSING, NIKON-AI MOUNT

Figure 11. Diaphragm Housing Assembly, Nikon-AI Mount



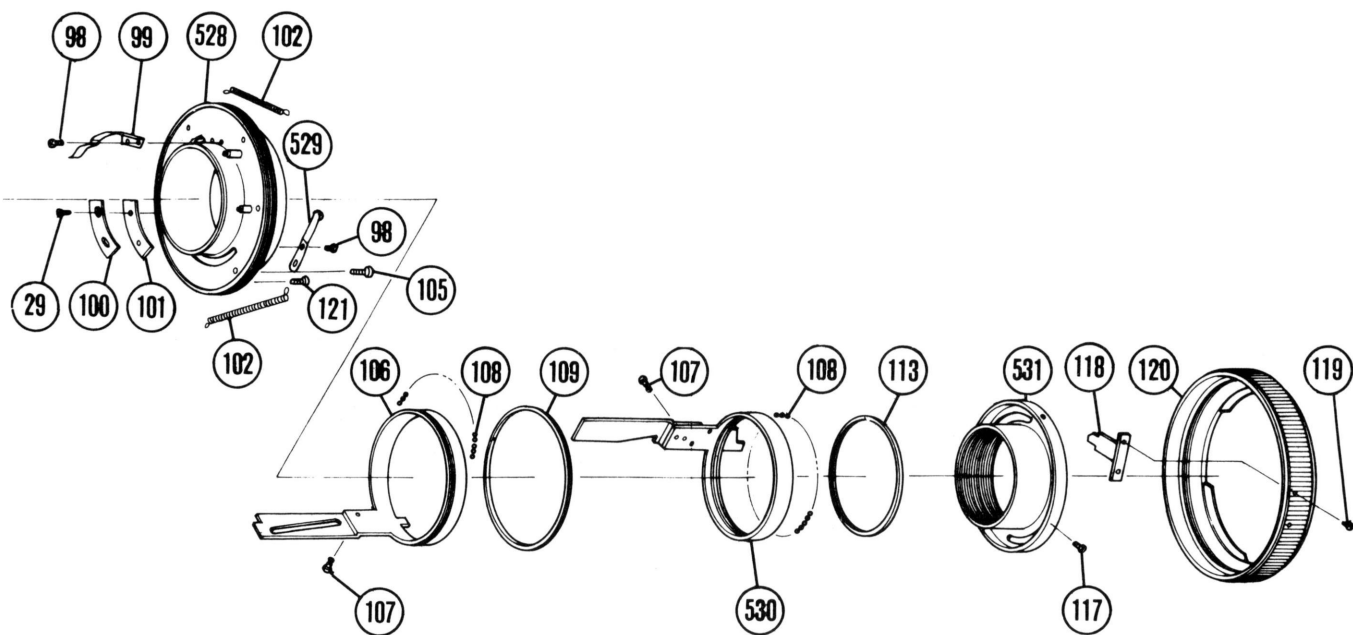
523 – ASSEMBLY, REAR MOUNT, MINOLTA-MD

Figure 12. Rear Mount Assembly, Minolta-MD Mount



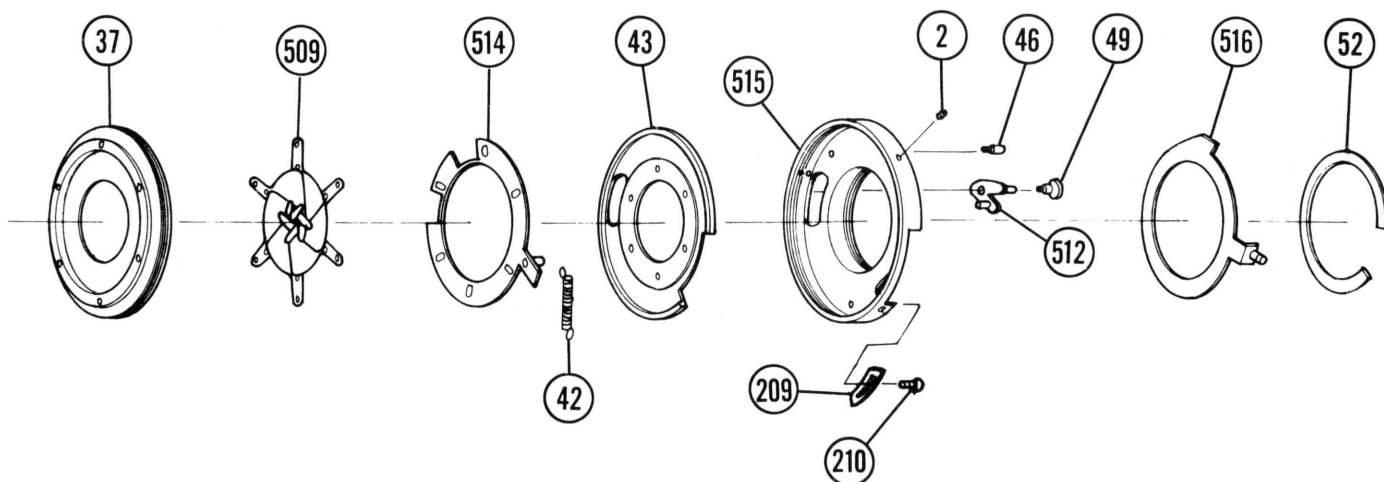
504 – ASSEMBLY, DIAPHRAGM HOUSING, MINOLTA-MD MOUNT

Figure 13. Diaphragm Housing Assembly, Minolta-MD Mount



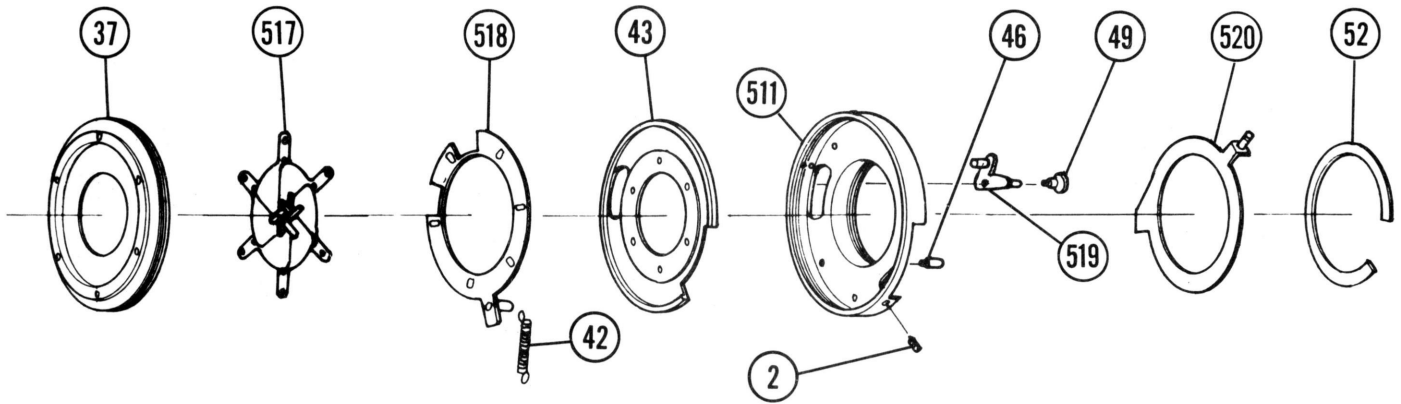
524 – ASSEMBLY, REAR MOUNT, CANON

Figure 14. Rear Mount Assembly, Canon Mount



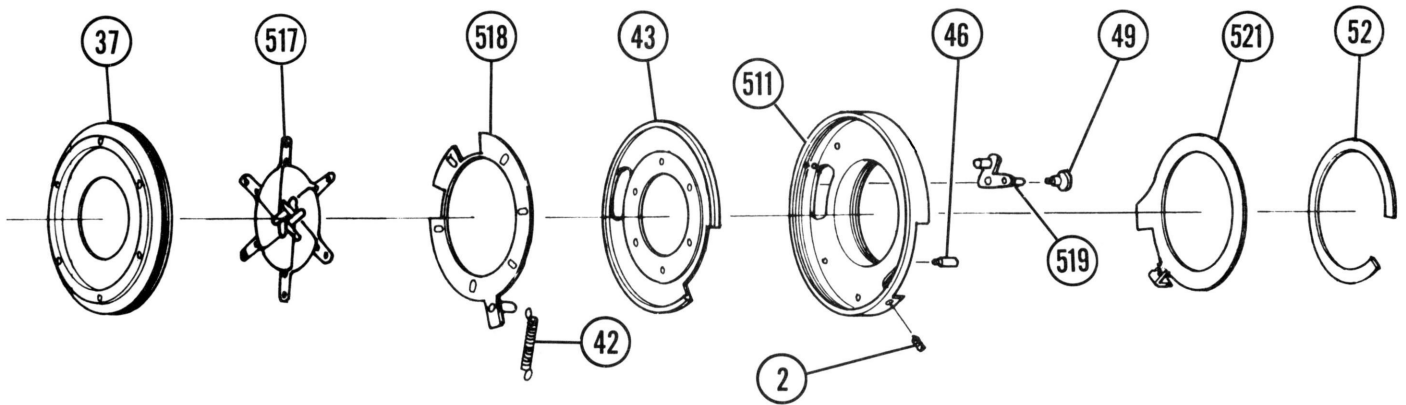
505 – ASSEMBLY, DIAPHRAGM HOUSING, CANON MOUNT

Figure 15. Diaphragm Housing Assembly, Canon Mount



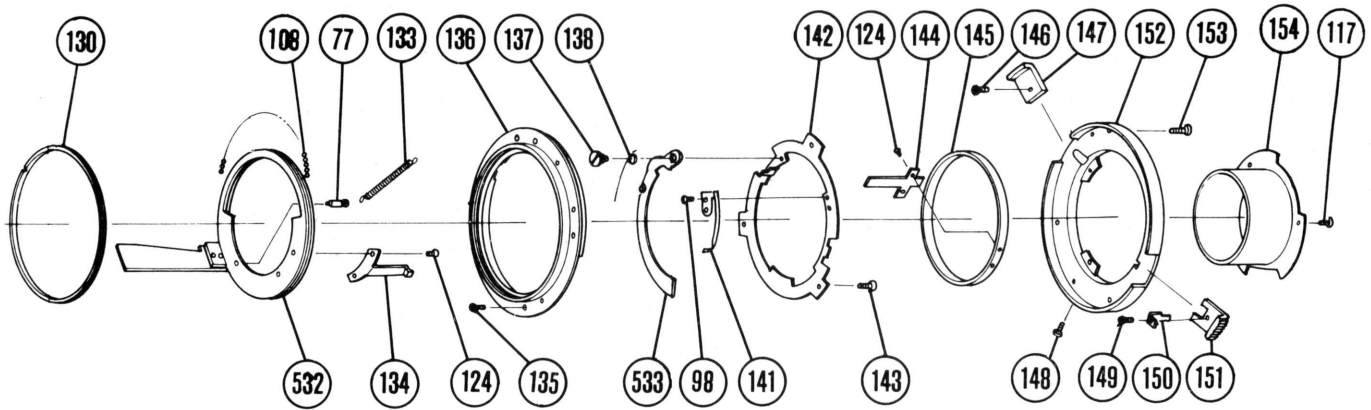
506 – ASSEMBLY, DIAPHRAGM HOUSING, OLYMPUS MOUNT

Figure 16. Diaphragm Housing Assembly, Olympus Mount



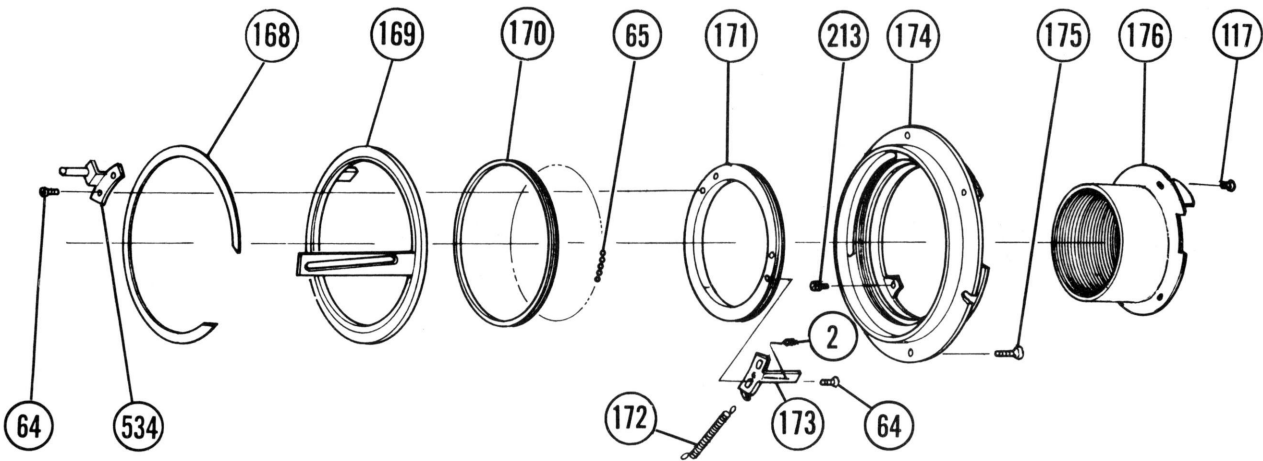
507 – ASSEMBLY, DIAPHRAGM HOUSING, PENTAX-PK MOUNT

Figure 17. Diaphragm Housing Assembly, Pentax-P/K Mount



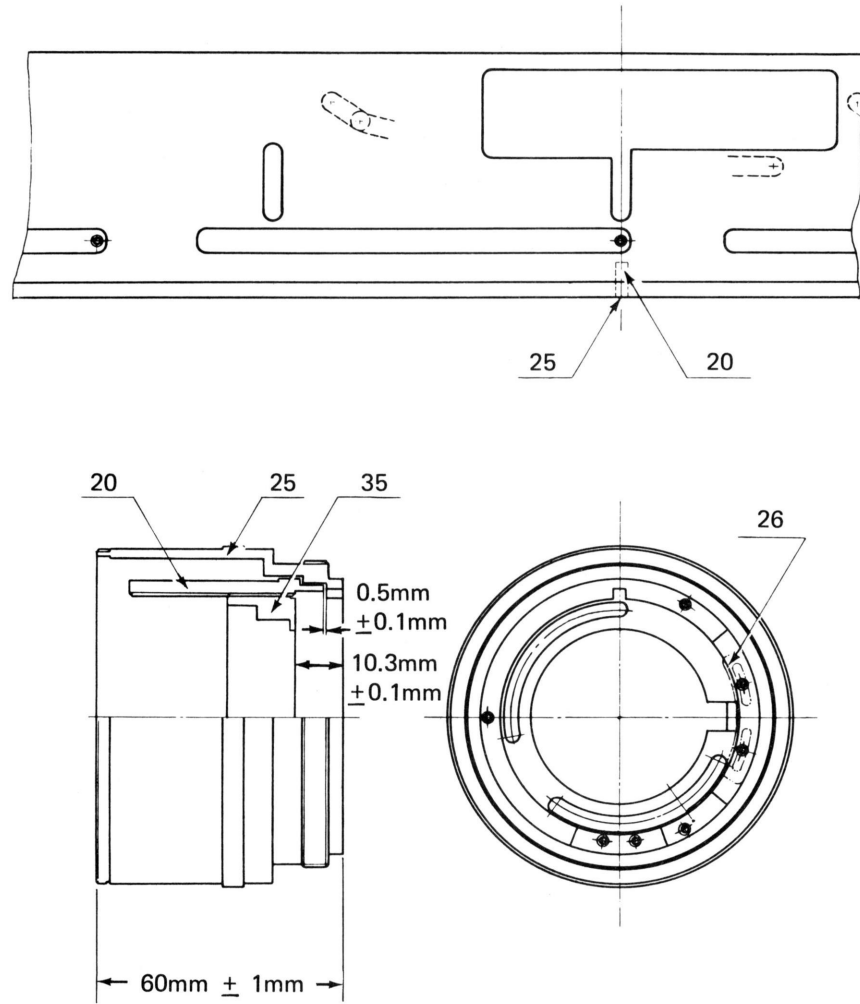
525 – ASSEMBLY, REAR MOUNT, OLYMPUS

Figure 18. Rear Mount Assembly, Olympus Mount



526 – ASSEMBLY, REAR MOUNT, PENTAX-PK

Figure 19. Rear Mount Assembly, Pentax-P/K Mount



SERVICE NOTE:

Critical dimensions for setting Helicoid. Fine adjustment may be performed by sliding the Helicoid Guide (Ref. No. 26) to obtain 10.3mm measurement, with zoom setting at the wide angle (24mm) position.

Figure 20. Helicoid, Critical Dimensions

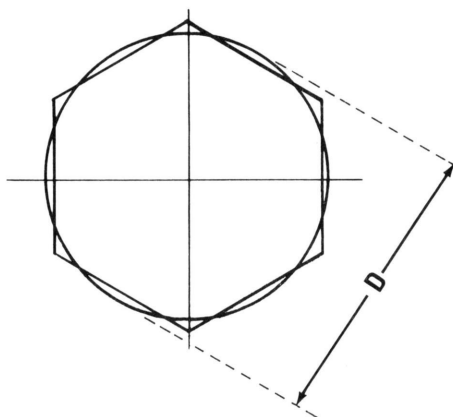
Aperture Diameter Tolerance Table (In Millimeters).

24mm Zoom Position

| Nominal f Number | Lower Limit | Ideal Value | Upper Limit |
|------------------|-------------|-------------|-------------|
| 3.8 | 12.2 | 13.6 | 14.7 |
| 5.6 | 8.4 | 9.6 | 10.6 |
| 8.0 | 5.8 | 6.7 | 7.6 |
| 11.0 | 4.0 | 4.7 | 5.6 |
| 16.0 | 2.8 | 3.3 | 4.0 |
| 22.0 | 2.0 | 2.4 | 2.8 |

48mm Zoom Position

| Nominal f Number | Lower Limit | Ideal Value | Upper Limit |
|------------------|-------------|-------------|-------------|
| 3.8 | — | 18.3 | — |
| 5.6 | 11.0 | 12.8 | 13.8 |
| 8.0 | 7.6 | 8.9 | 10.0 |
| 11.0 | 5.2 | 6.3 | 7.3 |
| 16.0 | 3.7 | 4.5 | 5.2 |
| 22.0 | 2.6 | 3.2 | 3.7 |



SERVICE NOTE:

The 24-48mm Series 1 Lens has a cammed diaphragm, which varies in size as the focal length changes. The above table indicates the correct tolerances for the diaphragm size at various nominal f numbers for the 24mm and the 48mm Zoom positions. The diameters listed are for the circle approximating best fit, as in the figure above.

Figure 21. Tolerances, Diaphragm Size for 24mm and 48mm Zoom Positions

PARTS LIST

VIVITAR SERIES 1 LENS
24-48mm f/3.8 AUTOMATIC FIXED MOUNT ZOOM

| REFERENCE | VIVITAR PART NUMBER | DESCRIPTION | PRODUCT CODE | QUANTITY | | | | |
|-----------|------------------------|----------------------------------|-----------------|----------|----|----|----|----|
| | | | | M | C | O | P | N |
| 1 | 3101467 | RING, NAME | K24032 770720 | 1 | 1 | 1 | 1 | 1 |
| 2 | 3512976 | SETSCREW, 1.4 x 1.5 | Z75905 B760520 | 13 | 13 | 13 | 14 | 13 |
| 3 | 3101468 | LENS ELEMENT, 1ST | G00134 770203 | 1 | 1 | 1 | 1 | 1 |
| 4 | 3101469 | SPACER, 1ST/2ND LENS ELEMENT | K24027 770720 | 1 | 1 | 1 | 1 | 1 |
| 5 | 3101470 | LENS ELEMENT, 2ND | G00135 770203 | 1 | 1 | 1 | 1 | 1 |
| 6 | 3101471 | SPACER, 2ND/3RD LENS ELEMENT | K24028 770720 | 1 | 1 | 1 | 1 | 1 |
| 7 | 3101472 | LENS ELEMENT, 3RD | G00136 770203 | 1 | 1 | 1 | 1 | 1 |
| 10 | 3101475 | RING, DECORATION | K24001 770720 | 1 | 1 | 1 | 1 | 1 |
| 11 | 3101476 | RING, SCALE RING LOCKING | K24004 770720 | 1 | 1 | 1 | 1 | 1 |
| 12 | 3101477 | RING, SCALE | K24005 770720 | 1 | 1 | 1 | 1 | 1 |
| 13 | 3101478 | GRIP, RUBBER, SCALE RING | K24013 770720 | 1 | 1 | 1 | 1 | 1 |
| 14 | NAS | HELICOID, FOCUSING | K24003 770720 | 1 | 1 | 1 | 1 | 1 |
| 15 | 3101480 | ROLLER, FOCUSING HELICOID | K24922 770720 | 1 | 1 | 1 | 1 | 1 |
| 16 | 3101481 | SHAFT, ROLLER, FOCUSING HELICOID | K24923 770720 | 1 | 1 | 1 | 1 | 1 |
| 17 | NAS | HELICOID, MIDDLE | K24002 770720 | 1 | 1 | 1 | 1 | 1 |
| 18 | 3101483 | ROLLER (A) | K24939 770720 | 3 | 3 | 3 | 3 | 3 |
| 19 | 3101484 | SHAFT, ROLLER (A) | K24940 770720 | 3 | 3 | 3 | 3 | 3 |
| 20 | NAS | RING, CAM | K24008 770720 | 1 | 1 | 1 | 1 | 1 |
| 21 | 3101486 | ROLLER (B) | K24938 770720 | 2 | 2 | 2 | 2 | 2 |
| 22 | 3101487 | SHAFT, ROLLER (B) | K24937 770720 | 2 | 2 | 2 | 2 | 2 |
| 23 | 3101488 | ROLLER (C) | K24935 770720 | 2 | 2 | 2 | 2 | 2 |
| 24 | 3101489 | SHAFT, ROLLER (C) | K24936 770720 | 2 | 2 | 2 | 2 | 2 |
| 25 | NAS | HELICOID, OUTER | K24011 770912 | 1 | 1 | 1 | 1 | 1 |
| 26 | 3101491 | GUIDE, HELICOID | K24710 770720 | 1 | 1 | 1 | 1 | 1 |
| 27 | 3101492 | SCREW | K24969 B770720 | 2 | 2 | 2 | 2 | 2 |
| 28 | 3101493 | GUIDE, HELICOID | K24732 770720 | 1 | | | | |
| 29 | 3101494 | SCREW | K24925 B770720 | 2 | 2 | | | |
| 30 | 3513859 | SCREW, FLATHEAD, 1.4 x 2.5 | Z75963 B760520 | 6 | 6 | 3 | 3 | 3 |
| 31 | 3101495 | RING, ZOOM INDEX | K24006 770720 | 1 | 1 | 1 | 1 | 1 |
| 32 | 3101496 | RING, CAM OPERATING | K24009 770720 | 1 | 1 | 1 | 1 | 1 |
| 33 | 3101497 | RING, ZOOM SCALE | K24010 770720 | 1 | 1 | 1 | 1 | 1 |
| 34 | 3101498 | GRIP, RUBBER, ZOOM RING | K24014 770720 | 1 | 1 | 1 | 1 | 1 |
| 35 | NAS | HELICOID, INNER | K24007 771021 | 1 | 1 | 1 | 1 | 1 |
| 36 | 3101500 | SCREW | K24941 770720 | 3 | 3 | 3 | 3 | 3 |
| 37 | 3101501 | RING, BLADE | K24017 770720 | 1 | 1 | 1 | 1 | 1 |
| 42 | 3101504 | SPRING, IRIS RETURN | K24928 770720 | 1 | 1 | 1 | 1 | 1 |
| 43 | NAS | RING, BLADE HOUSING | K24743 770720 | 1 | 1 | 1 | 1 | 1 |
| 46 | 3101505 | SPRING POST, THREADED | K24924 770720 | 1 | 1 | 1 | 1 | 1 |
| 49 | NAS | PIVOT POST | K24934 770720 | 1 | 1 | 1 | 1 | 1 |
| 52 | 3101506 | RING, RETAINING | K24712 770720 | 1 | 1 | 1 | 1 | 1 |
| 60 | 3101507 | RING, ZOOM INDEX M/MD | K24025 MB770720 | 1 | | | | |
| 61 | 3101508 | FRAME, MOUNT, MINOLTA | K24018 770720 | 1 | | | | |
| 62 | 3512971 | SCREW, PANHEAD, 1.7 x 4.0 | W25923 B760817 | 3 | 3 | 3 | 1 | 3 |
| 63 | 3101509 | CAM, IRIS COMPENSATING, M/MD | K24733 770720 | 1 | | | | |
| 64 | 3512990 | SCREW, PANHEAD, 1.4 x 2.5 | Z75952 B760520 | 6 | | | 6 | 6 |
| 65 | 3512898 | BALL, STEEL, 1.6mm | Z75919 760520 | 80 | 2 | 1 | 80 | 80 |
| 66 | 3512857 | SPRING, DETENT | Z75964 760520 | 1 | 2 | 1 | 1 | 1 |
| 67 | 3101510 | RING, APERTURE M/MD | K24019 MB770720 | 1 | | | | |
| 68 | 3101511 | SCREW, FLATHEAD, 1.4 x 4.0 | K24926 B770720 | 3 | | | | |

PARTS LIST

VIVITAR SERIES 1 LENS
24-48mm f/3.8 AUTOMATIC FIXED MOUNT ZOOM

| REFERENCE | VIVITAR PART NUMBER | DESCRIPTION | PRODUCT CODE | | QUANTITY | | | | |
|-----------|------------------------|-----------------------------------|--------------|----------|----------|-----|----|---|---|
| | | | | | M | C | O | P | N |
| 69 | 3101512 | RING, MOUNT M/MD | K24020 | 770720 | 1 | | | | |
| 70 | 3101513 | SHIM, FOCUS, REAR, 0.5mm | K24930 | 770720 | A/R | | | | |
| 70 | 3101514 | SHIM, FOCUS, REAR, 0.2mm | K24931 | 770720 | A/R | | | | |
| 70 | 3101515 | SHIM, FOCUS, REAR, 0.15mm | K24932 | 770720 | A/R | | | | |
| 70 | 3101516 | SHIM, FOCUS, REAR, 0.1mm | K24933 | 770720 | A/R | | | | |
| 72 | 3101517 | RING, RETAINER | K24021 | 770720 | 1 | | | | |
| 73 | 3101518 | RING, BALL RACE | K24022 | 770720 | 1 | | | | |
| 74 | NAS | LEVER, APERTURE TRANSFER | K24721 | 770720 | 1 | | | | |
| 75 | NAS | POST | K24821 | 770720 | | 2 | 2 | | |
| 76 | 3101519 | LEVER, IRIS ACTUATING | K24722 | 770720 | 1 | | | | |
| 77 | 3512835 | SPRING POST | Z75914 | 760520 | 1 | 1 | | 1 | |
| 78 | 3101520 | SPRING POST | K24927 | 770720 | 1 | | | | |
| 79 | 3101521 | SPRING | K24929 | 770720 | 1 | | | | |
| 80 | 3101522 | MOUNT, REAR, MINOLTA MD | K24023 | 770720 | 1 | | | | |
| 81 | 3513742 | SCREW, FLATHEAD, 1.7 x 4.0 + (CH) | Z38922 | W761025 | 5 | | | | |
| 82 | 3101523 | BAFFLE, REAR | K24024 | 770720 | 1 | | | | |
| 83 | 3101524 | RING, ZOOM INDEX, C/FD | K24025 | CB770720 | | 1 | | | |
| 84 | 3101525 | FRAME, MOUNT C/FD | K24034 | 770720 | | 1 | | | |
| 85 | 3101526 | RING, APERTURE C/FD | K24035 | CB771222 | | 1 | | | |
| 86 | 3101527 | PLATE, APERTURE CAM | K24725 | 770720 | | 1 | | | |
| 87 | 3513725 | SCREW, PANHEAD, 1.4 x 2.8 | Z85910 | 770720 | | 4 | | | |
| 88 | 3101528 | LEVER, EE SHIFT | K24724 | 770720 | | 1 | | | |
| 89 | 3101529 | RING, INDEX C/FD | K24036 | 771222 | | 1 | | | |
| 90 | 3512850 | SPRING, EE SIGNAL PIN | Z75940 | 760520 | | 1 | | | |
| 91 | 3101530 | PIN, EE SIGNAL | K24820 | 770520 | | 1 | | | |
| 92 | 3101531 | SHIM, FOCUS, REAR, 0.5mm | K24953 | 771115 | | A/R | | | |
| 92 | 3101532 | SHIM, FOCUS, REAR, 0.2mm | V82913 | 770718 | | A/R | | | |
| 92 | 3101533 | SHIM, FOCUS, REAR, 0.15mm | V82914 | 770718 | | A/R | | | |
| 92 | 3101534 | SHIM, FOCUS, REAR, 0.1mm | V82915 | 770718 | | A/R | | | |
| 98 | 3101536 | SCREW, PANHEAD, 1.4 x 1.5 | Z15918 | W770606 | | 4 | 2 | | |
| 99 | 3101537 | SPRING | K24728 | 770720 | | 1 | | | |
| 100 | 3101538 | PLATE, ADJUSTMENT | K24726 | 770720 | | 1 | | | |
| 101 | 3101539 | SHIM, ADJUSTMENT PLATE | K24727 | 770720 | | 1 | | | |
| 102 | 3101540 | SPRING, BREECH RING | K24952 | 770720 | | 2 | | | |
| 105 | 3101541 | SCREW, FLATHEAD, 1.7 x 7.0 + (B) | K24957 | B770720 | | 3 | | | |
| 106 | 3101542 | RING, IRIS COMPENSATION CAM | K24040 | 771222 | | 1 | | | |
| 107 | 3101543 | SPRING POST | K24951 | 770720 | | 2 | | | |
| 108 | 3512999 | BALL, STEEL, 1.2mm | Z75941 | 760520 | | 120 | 60 | | |
| 109 | 3101544 | RING, RETAINER, BALL | K24041 | 770720 | | 1 | | | |
| 113 | 3101545 | RING, RETAINER, BALL | K24042 | 770720 | | 1 | | | |
| 117 | 3512974 | SCREW, FLATHEAD, 1.4 x 2.0 (B) | Z75912 | B760520 | | 3 | 3 | 3 | |
| 118 | 3101546 | PLATE, INTERLOCK | K24731 | 770720 | | 1 | | | |
| 119 | 3513901 | SCREW, FLATHEAD, 1.4 x 2.5 (CH) | Z75963 | W760520 | | 2 | | | |
| 120 | 3101547 | RING, BREECH | K24043 | 770720 | | 1 | | | |
| 121 | 3512825 | SCREW, REAR COVER | Z75934 | B760520 | | 1 | | | |
| 122 | 3101548 | RING, INDEX, O/OM | K24025 | OB770720 | | 1 | | | |
| 123 | 3101549 | FRAME, MOUNT, O/OM | K24045 | 770720 | | 1 | | | |
| 124 | 3512984 | SCREW, PANHEAD, 1.4 x 1.8 (B) | Z75922 | B760520 | | 8 | | | |
| 125 | 3101550 | CAM, IRIS COMPENSATING O/OM | K24742 | 770720 | | 1 | | | |

PARTS LIST

VIVITAR SERIES 1 LENS
24-48mm f/3.8 AUTOMATIC FIXED MOUNT ZOOM

| REFERENCE | VIVITAR PART NUMBER | DESCRIPTION | PRODUCT CODE | QUANTITY | | | | |
|-----------|------------------------|---------------------------------|-----------------|----------|---|---|-----|-----|
| | | | | M | C | O | P | N |
| 126 | 3101551 | PLATE, LIMIT | K24736 770720 | | | | 1 | |
| 127 | 3101552 | RING, APERTURE | K24046 OB770720 | | | | 1 | |
| 128 | 3101553 | SHIM, FOCUS, REAR, 0.5mm | K24964 770720 | | | | A/R | |
| 128 | 3101554 | SHIM, FOCUS, REAR, 0.2mm | K24965 770720 | | | | A/R | |
| 128 | 3101555 | SHIM, FOCUS, REAR, 0.15mm | K24966 770720 | | | | A/R | |
| 128 | 3101556 | SHIM, FOCUS, REAR, 0.1mm | K24967 770720 | | | | A/R | |
| 130 | 3101557 | RING, RETAINER, BALL RACE | K24047 770720 | | | | 1 | |
| 133 | 3101558 | SPRING, APERTURE COUPLING LEVER | K24961 770720 | | | | 1 | |
| 134 | 3101559 | LEVER, APERTURE COUPLING | K24740 770720 | | | | 1 | |
| 135 | 3101560 | SCREW, FLATHEAD, 1.4 x 5.0 + | K24963 W770720 | | | | 3 | |
| 136 | 3101561 | RING, MOUNT COVER | K24049 770720 | | | | 1 | |
| 137 | 3101562 | PIVOT POST | K24958 770720 | | | | 1 | |
| 138 | 3101563 | SPRING | K24962 770720 | | | | 1 | |
| 141 | 3101564 | SPRING | K24737 770720 | | | | 1 | |
| 142 | 3101565 | CAM, AUTO/MANUAL | K24739 770720 | | | | 1 | |
| 143 | 3514089 | SCREW, FLATHEAD, 1.4 x 2.0 (CH) | Z75912 W760520 | | | | 3 | 2 |
| 144 | 3101566 | LEVER, APERTURE COUPLING | K24741 770720 | | | | 1 | |
| 145 | 3101567 | RING, APERTURE COUPLING LEVER | K24050 770720 | | | | 1 | |
| 146 | 3101568 | SCREW, SPECIAL MANUAL BUTTON | K24960 770720 | | | | 1 | |
| 147 | 3101569 | BUTTON, MANUAL, (METAL) | Z15808 780314 | | | | 1 | |
| 148 | 3512934 | SCREW, STOP | K24979 780206 | | | | 1 | |
| 149 | 3101570 | SCREW, LOCK PLATE ATTACHING | K24959 770720 | | | | 1 | |
| 150 | 3512931 | PLATE, MOUNT LOCKING | Z75741 760520 | | | | 1 | |
| 151 | 3101571 | BUTTON, LOCK (METAL) | Z15807 780314 | | | | 1 | |
| 152 | 3101572 | MOUNT, REAR, OLYMPUS | K24051 770720 | | | | 1 | |
| 153 | 3101573 | SCREW, FLATHEAD, 1.7 x 8.0 (CH) | K24968 W770720 | | | | 3 | |
| 154 | 3101574 | BAFFLE, REAR | K24052 770720 | | | | 1 | |
| 155 | 3101575 | RING, INDEX, P/K | K24025 PB770720 | | | | | 1 |
| 156 | 3101576 | FRAME, MOUNT, P/K | K24057 770720 | | | | | 1 |
| 157 | 3514029 | SCREW, PANHEAD, 1.7 x 2.0 (B) | K25917 B760817 | | | | | 1 |
| 158 | 3512989 | SCREW, PANHEAD, 1.7 x 5.5 (B) | Z75947 B760520 | | | | | 2 |
| 159 | 3101577 | LEVER, APERTURE LIMIT | K24747 770720 | | | | | 1 |
| 160 | 3101578 | LEVER, APERTURE TRANSFER | K24748 770720 | | | | | 1 |
| 161 | 3101579 | PIVOT POST | K24970 770720 | | | | | 1 |
| 162 | 3101580 | PLATE, APERTURE SENSING | K24749 770720 | | | | | 1 |
| 163 | 3101581 | RING, APERTURE | K24058 PB770720 | | | | | 1 |
| 164 | 3101582 | SHIM, FOCUS, REAR, 0.5mm | K24973 770720 | | | | | A/R |
| 164 | 3101583 | SHIM, FOCUS, REAR, 0.2mm | K24974 770720 | | | | | A/R |
| 164 | 3101584 | SHIM, FOCUS, REAR, 0.15mm | K24975 770720 | | | | | A/R |
| 164 | 3101585 | SHIM, FOCUS, REAR, 0.1mm | K24976 770720 | | | | | A/R |
| 168 | 3101586 | RING, RETAINER, BALL RACE | K24753 770720 | | | | | 1 |
| 169 | 3101587 | RING, IRIS COMPENSATING CAM | K24059 770720 | | | | | 1 |
| 170 | 3101588 | RING, BALL RACE | K24062 770720 | | | | | 1 |
| 171 | 3101589 | RING, APERTURE COUPLING LEVER | K24063 770720 | | | | | 1 |
| 172 | 3101590 | SPRING | K24972 770720 | | | | | 1 |
| 173 | 3101591 | LEVER, APERTURE TRANSFER | K24752 770720 | | | | | 1 |
| 174 | 3101592 | MOUNT, REAR, PENTAX K | K24061 770720 | | | | | 1 |
| 175 | 3101593 | SCREW, FLATHEAD, 1.7 x 4.0 (CH) | W25923 W760817 | | | | | 5 |
| 176 | 3101594 | BAFFLE, REAR | K24060 770720 | | | | | 1 |

PARTS LIST

VIVITAR SERIES 1 LENS 24-48mm f/3.8 AUTOMATIC FIXED MOUNT ZOOM

| REFERENCE | VIVITAR PART NUMBER | DESCRIPTION | PRODUCT CODE | QUANTITY | | | | |
|-----------|------------------------|---------------------------------|-----------------|----------|---|---|---|-----|
| | | | | M | C | O | P | N |
| 177 | 3101595 | RING, INDEX, (N/AI) | K24025 FB770720 | | | | | 1 |
| 178 | 3101596 | FRAME, MOUNT, (N/AI) | K24053 770720 | | | | | 1 |
| 179 | 3101597 | CAM, IRIS COMPENSATING | K24745 770720 | | | | | 1 |
| 180 | 3101598 | RING, APERTURE | K24055 FB770720 | | | | | 1 |
| 181 | 3518108 | SCREW, COUPLING FORK | Z15917 770520 | | | | | 1 |
| 182 | 3518107 | FORK, APERTURE COUPLING | Z75747 770520 | | | | | 1 |
| 184 | 3101599 | SHIM, FOCUS, REAR, 0.5mm | V82712 770718 | | | | | A/R |
| 184 | 3101600 | SHIM, FOCUS, REAR, 0.15mm | V82906 770718 | | | | | A/R |
| 184 | 3101601 | SHIM, FOCUS, REAR, 0.2mm | V82907 770718 | | | | | A/R |
| 184 | 3101602 | SHIM, FOCUS, REAR, 0.1mm | V82908 770718 | | | | | A/R |
| 186 | 3101603 | RING, RETAINER, BALL RACE | V82015 770718 | | | | | 1 |
| 187 | 3101604 | LEVER, APERTURE, OPERATING | K24746 770720 | | | | | 1 |
| 188 | 3101605 | RING, BALL RACE | K24054 770720 | | | | | 1 |
| 191 | 3101606 | SPRING, APERTURE COUPLING LEVER | V82910 770718 | | | | | 1 |
| 192 | 3101607 | MOUNT, REAR, NIKON (N/AI) | V82017 770718 | | | | | 1 |
| 193 | 3512825 | SCREW, REAR COVER, (CH) | Z75934 W760520 | | | | | 1 |
| 194 | 3101608 | SCREW, FLATHEAD, 1.7 x 4.5 (CH) | V82909 W770718 | | | | | 5 |
| 195 | 3101609 | BAFFLE, REAR | K24056 770720 | | | | | 1 |
| 198 | 3101612 | HOUSING, 5TH/6TH ELEMENT | K24012 770720 | 1 | 1 | 1 | 1 | 1 |
| 199 | 3101613 | SHIM, LENS CELL, 0.2mm | K24946 770720 | | | | | |
| 199 | 3101614 | SHIM, LENS CELL, 0.25mm | K24947 770720 | | | | | |
| 199 | 3101615 | SHIM, LENS CELL, 0.3mm | K24948 770720 | 1 | 1 | 1 | 1 | 1 |
| 199 | 3101616 | SHIM, LENS CELL, 0.35mm | K24949 770720 | | | | | |
| 199 | 3101617 | SHIM, LENS CELL, 0.4mm | K24950 770720 | | | | | |
| 200 | 3101618 | HOUSING, REAR LENS GROUP | K24029 770720 | 1 | 1 | 1 | 1 | 1 |
| 201 | 3101619 | LENS ELEMENT, 7TH | G00140 770203 | 1 | 1 | 1 | 1 | 1 |
| 202 | 3101620 | LENS ELEMENT, 8TH | G00141 770203 | 1 | 1 | 1 | 1 | 1 |
| 203 | 3101621 | RING, SPACER, 8TH LENS | K24016 770720 | 1 | 1 | 1 | 1 | 1 |
| 204 | 3101622 | RING, HOUSING, 7TH/8TH LENS | K24030 770720 | 1 | 1 | 1 | 1 | 1 |
| 205 | 3101623 | LENS ELEMENT, 9TH | G00142 770203 | 1 | 1 | 1 | 1 | 1 |
| 206 | 3101624 | LENS ELEMENT, 10TH | G00143 770203 | 1 | 1 | 1 | 1 | 1 |
| 207 | 3101625 | RING, RETAINER, 10TH LENS | K24031 770720 | 1 | 1 | 1 | 1 | 1 |
| 208 | 3101626 | SPACER, FOCUS, FRONT, 0.25mm | K24942 770720 | 4 | 4 | 4 | 4 | 4 |
| 208 | 3101627 | SPACER, FOCUS, FRONT, 0.3mm | K24943 770720 | | | | | |
| 208 | 3101628 | SPACER, FOCUS, FRONT, 0.1mm | K24944 770720 | | | | | |
| 208 | 3101629 | SPACER, FOCUS, FRONT, 0.15mm | K24945 770720 | | | | | |
| 209 | 3101630 | PLATE, DIAPHRAGM ADJUSTMENT | K24713 770720 | | 1 | | | |
| 210 | 3513782 | SCREW, PANHEAD, 1.4 x 1.5 + (B) | Z15918 B770606 | | 2 | | | |
| 211 | 3101631 | LUG, MD | Z75748 771215 | 1 | | | | |
| 212 | 3101632 | SCREW, PANHEAD, 1.4 x 2.0 + | Z15921 771215 | 2 | | | | |
| 213 | 3101633 | SPRING POST | W25932 760817 | | | | | 2 |
| 221 | 3103207 | PLATE, GUIDE | K24754 771222 | | | | | 1 |
| | 3871215 | CAP, REAR, MINOLTA | Z85572 760615 | 1 | | | | |
| | 3871190 | CAP, REAR, CANON | Z85573 760615 | | 1 | | | |
| | 3871248 | CAP, REAR, OLYMPUS | Z85575 760615 | | | 1 | | |
| | 3101634 | CAP, REAR, PENTAX P/K | Z75585 770228 | | | | 1 | |
| | 3871204 | CAP, REAR, NIKON | Z85571 770615 | | | | | 1 |
| | 3101635 | CAP, FRONT LENS | K24033 770720 | 1 | 1 | 1 | 1 | 1 |

ASSEMBLY LIST

**VIVITAR SERIES 1 LENS
24-48mm f/3.8 AUTOMATIC FIXED MOUNT ZOOM**

| REFERENCE | VIVITAR PART NUMBER | DESCRIPTION | PRODUCT CODE | QUANTITY | | | | |
|-----------|------------------------|-------------------------------------|----------------|----------|---|---|---|---|
| | | | | M | C | O | P | N |
| 501 | 3101636 | FIRST LENS GROUP ASSEMBLY | K24M98 N770720 | 1 | 1 | 1 | 1 | 1 |
| 502 | 3101637 | 4TH LENS ELEMENT, IN HOUSING | K24M97 N770720 | 1 | 1 | 1 | 1 | 1 |
| 504 | 3101639 | DIAPHRAGM ASSEMBLY, M/MD | K24M95 N770720 | 1 | | | | |
| 505 | 3101640 | DIAPHRAGM ASSEMBLY, C/FD | K24C95 N770720 | | 1 | | | |
| 506 | 3101641 | DIAPHRAGM ASSEMBLY, O/OM | K24O95 N770720 | | | 1 | | |
| 507 | 3101642 | DIAPHRAGM ASSEMBLY, P/K | K24P95 N770720 | | | | | 1 |
| 508 | 3101643 | DIAPHRAGM ASSEMBLY, N/AI | K24F95 N770720 | | | | | 1 |
| 509 | 3101644 | DIAPHRAGM BLADE ASSEMBLY | K24M90 N770720 | 6 | 6 | | | |
| 510 | 3101923 | BLADE OPERATING RING ASSEMBLY (M) | K24M85 N770720 | 1 | | | | |
| 511 | 3101645 | DIAPHRAGM HOUSING ASSEMBLY | K24M80 N770720 | 1 | | 1 | 1 | 1 |
| 512 | 3101646 | IRIS OPERATING LEVER ASSEMBLY | K24M75 N770720 | 1 | 1 | | | |
| 513 | 3101647 | IRIS COMPENSATING RING ASSEMBLY (M) | K24M70 N770720 | 1 | | | | |
| 514 | 3101648 | BLADE OPERATING RING ASSEMBLY (C) | K24C85 N770720 | | 1 | | | |
| 515 | 3101649 | DIAPHRAGM HOUSING ASSEMBLY | K24C80 N770720 | | 1 | | | |
| 516 | 3101650 | IRIS COMPENSATING RING ASSEMBLY | K24C70 N770720 | | 1 | | | |
| 517 | 3101651 | DIAPHRAGM BLADE ASSEMBLY | K24F90 N770720 | | | 6 | 6 | 6 |
| 518 | 3101652 | BLADE OPERATING RING ASSEMBLY | K24F85 N770720 | | | 1 | 1 | 1 |
| 519 | 3101653 | IRIS ACTUATING LEVER ASSEMBLY | K24F75 N770720 | | | 1 | 1 | 1 |
| 520 | 3101654 | IRIS COMPENSATING RING ASSEMBLY | K24O70 N770720 | | | 1 | | |
| 521 | 3101655 | IRIS COMPENSATING RING ASSEMBLY | K24P70 N770720 | | | | | 1 |
| 522 | 3101656 | IRIS COMPENSATING RING ASSEMBLY | K24F70 N770720 | | | | | 1 |
| 523 | 3101657 | REAR MOUNT ASSEMBLY, (M) | K24M68 N770720 | 1 | | | | |
| 524 | 3101658 | REAR MOUNT ASSEMBLY, (C) | K24C68 N770720 | | 1 | | | |
| 525 | 3101659 | REAR MOUNT ASSEMBLY, (O) | K24O68 N770720 | | | 1 | | |
| 526 | 3101660 | REAR MOUNT ASSEMBLY, (P/K) | K24P68 N770720 | | | | | 1 |
| 527 | 3101661 | REAR MOUNT ASSEMBLY, (N/AI) | K24F68 N770720 | | | | | 1 |
| 528 | 3101662 | REAR LENS FLANGE ASSEMBLY (C) | K24C65 N770720 | | 1 | | | |
| 529 | 3101663 | LOCKING SPRING ASSEMBLY (C) | K24C64 N770720 | | 1 | | | |
| 530 | 3101664 | APERTURE TRANSFER RING ASSEMBLY | K24C63 N770720 | | 1 | | | |
| 531 | 3101665 | REAR BAFFLE, ASSEMBLY | K24C62 N770720 | | 1 | | | |
| 532 | 3101666 | APERTURE LEVER ASSEMBLY (O) | K24O60 N770720 | | | 1 | | |
| 533 | 3101667 | MANUAL LEVER ASSEMBLY (O) | K24O59 N770720 | | | 1 | | |
| 534 | 3101668 | APERTURE LEVER ASSEMBLY P/K | K24P57 N770720 | | | | | 1 |
| 535 | 3101669 | APERTURE COUPLING LEVER ASSEMBLY | K24F56 N780202 | | | | | 1 |
| 536 | 3101670 | 5TH/6TH LENS ELEMENT | K24M55 N770720 | 1 | 1 | 1 | 1 | 1 |
| 537 | 3101671 | REAR LENS GROUP ASSEMBLY | K24M54 N770720 | 1 | 1 | 1 | 1 | 1 |
| 538 | 3101672 | 5TH/6TH LENS ELEMENT IN HOUSING | K24M53 N770720 | 1 | 1 | 1 | 1 | 1 |
| 541 | 3103208 | LENS TUBE KIT ASSEMBLY | K24M58 N780607 | 1 | 1 | 1 | 1 | 1 |



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