

# Vivitar®

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## Illustrated Parts List



**Automatic Fixed Mount Lens  
Close Focusing Zoom  
70-150mm f/3.8**

Publication No. 3746064

## 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.

#### SPECIAL CAUTION FOR ELECTRICAL PRODUCTS

If the product herein described is electrically operated, its servicing will require extreme caution. Improper handling could result in serious or fatal personal injury or damage to the product.

### II. HOW TO FIND PART ORDER NUMBERS

Parts are illustrated on "exploded" drawings where each part is identified by a reference number (having three digits or fewer) or a designator. These reference numbers appear in numerical order in the parts lists (designators appear alphabetically), where they are cross-referenced to part order numbers and descriptions.

When the initials N.A.S. 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 lists for optical products, quantities of each item are listed as used in the different mounts. The mounts are referred to as:

<b>U</b>	= Vivitar-Universal Thread Mount	<b>C</b>	= Canon FL/FD Series Mount
<b>N</b>	= Nikon F, Nikkormat Series Mount	<b>K</b>	= Konica Autoreflex Series Mount
<b>M</b>	= Minolta SRT/SR Series Mount	<b>O</b>	= 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 part order number, description, and required quantity.

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**

## OPTICAL SPECIFICATIONS

## Construction

Main Lens . . . . .	15 elements, 10 groups
Effective Focal Length . . . . .	70-150mm
Angle of Acceptance . . . . .	34° at 70mm
. . . . .	16° at 150mm

### Minimum Focusing Distance From Film Plane

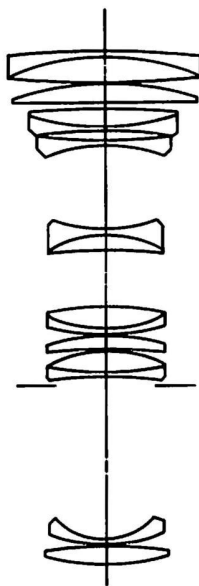
Telephoto Mode . . . . . 1.5m (4'11")

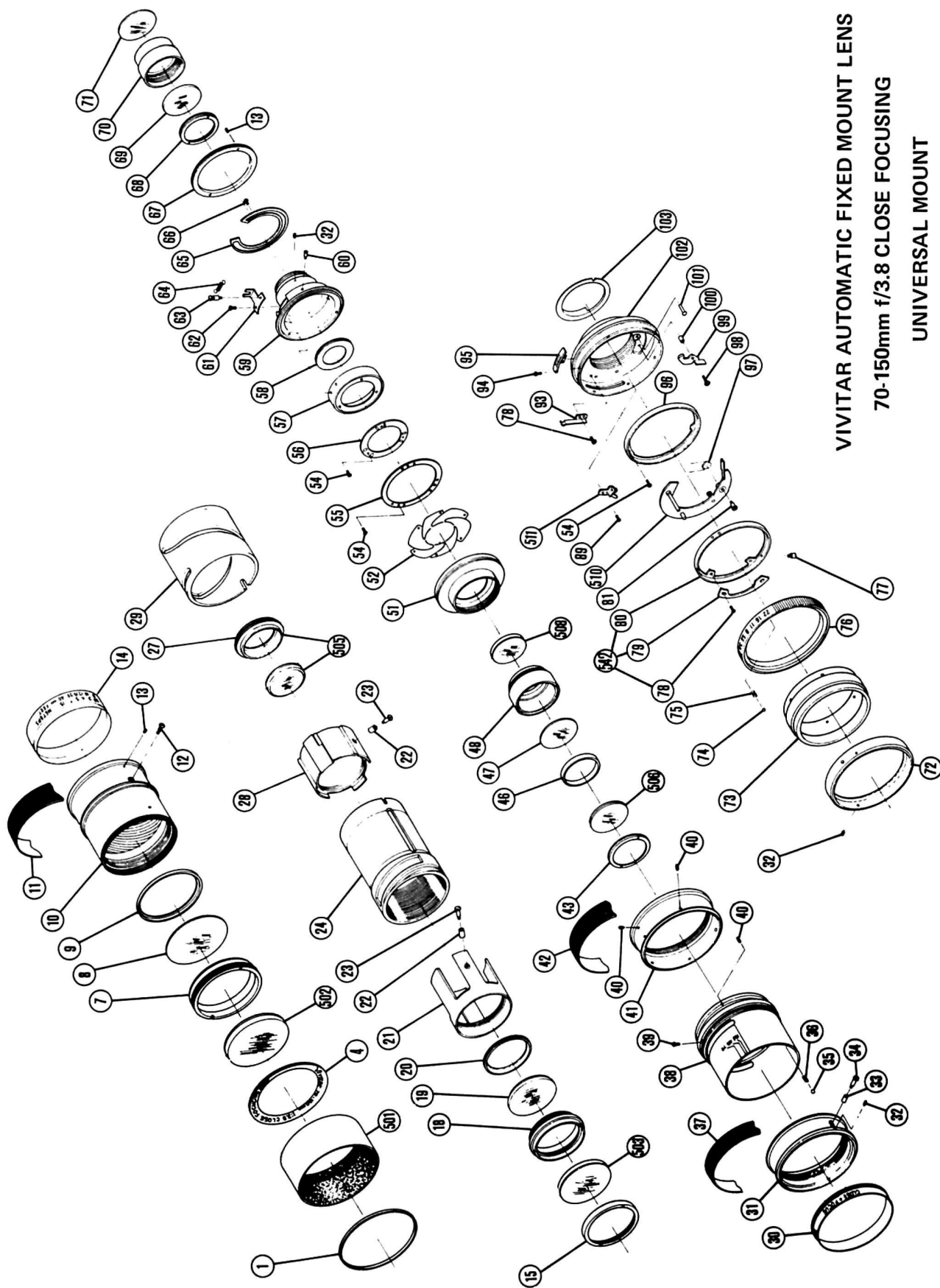
Close Focusing Mode . . . . . 40.5cm (16")

**Maximum Magnification** . . . . . 1:4

## MECHANICAL SPECIFICATIONS

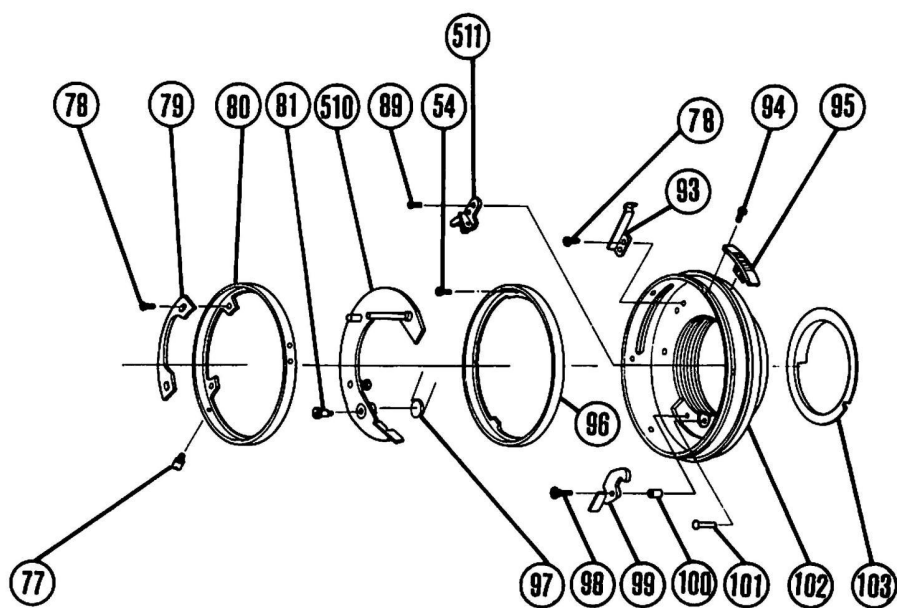
Accessory Size. . . . .	.52mm
Weight. . . . .	550g (19-1/2 oz)
Length at ∞ . . . . .	112mm (4-3/8")
Maximum Barrel Diameter . . . . .	.61mm (2-3/8")
Aperture Range. . . . .	f3.8 - f22
Lens Hood . . . . .	Included
Lens Cap Size . . . . .	59mm



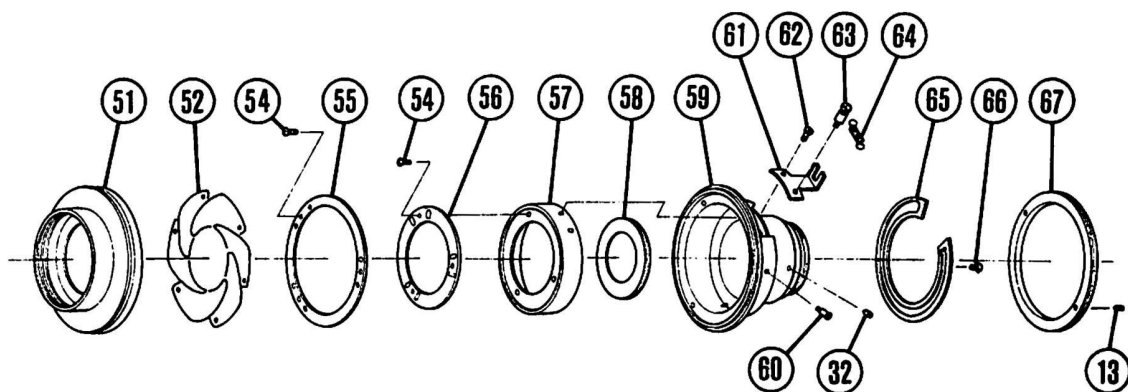


VIVITAR AUTOMATIC FIXED MOUNT LENS  
70-150mm f/3.8 CLOSE FOCUSING  
UNIVERSAL MOUNT

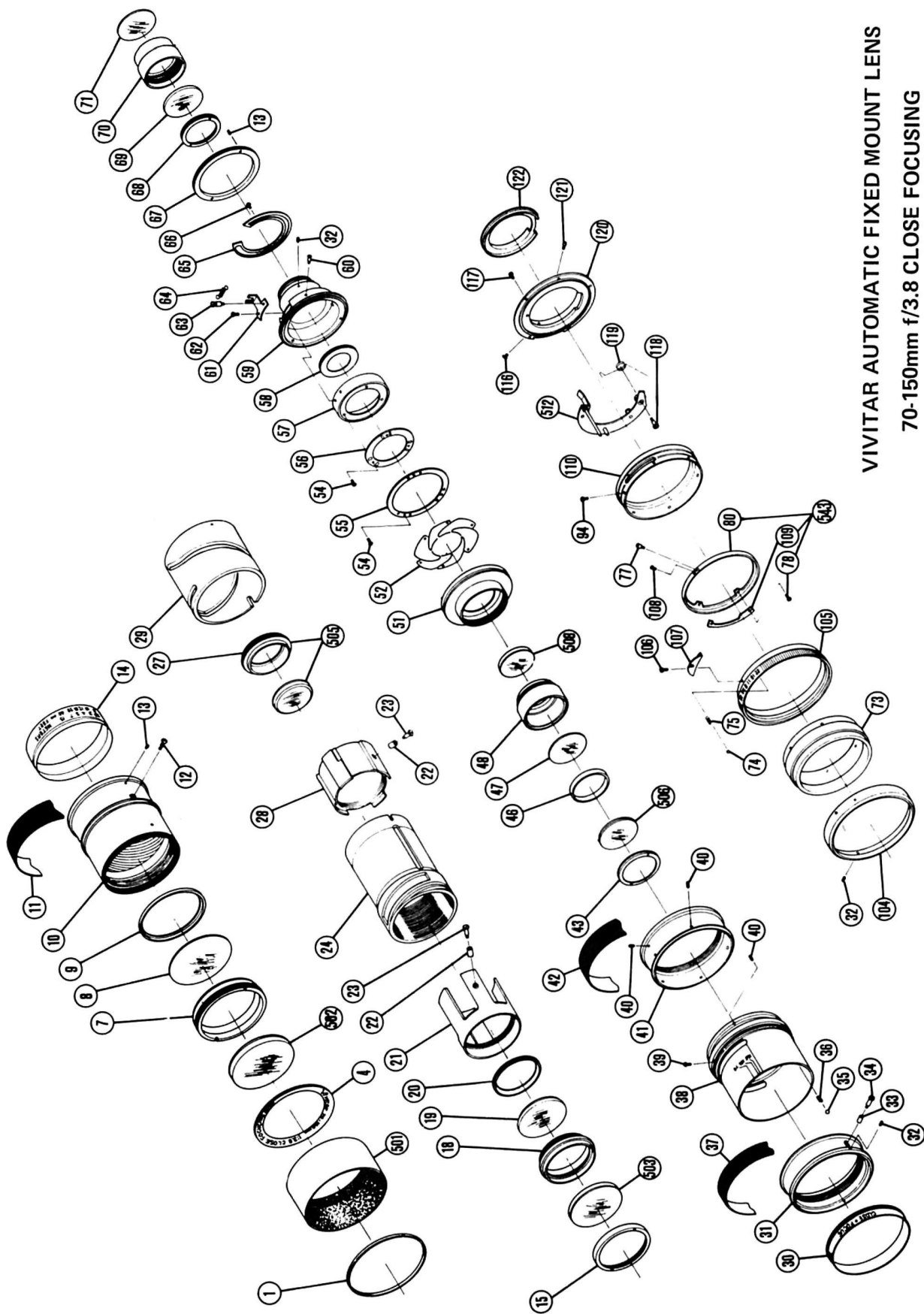




537- ASSEMBLY, REAR MOUNT, UNIVERSAL (SHORT)

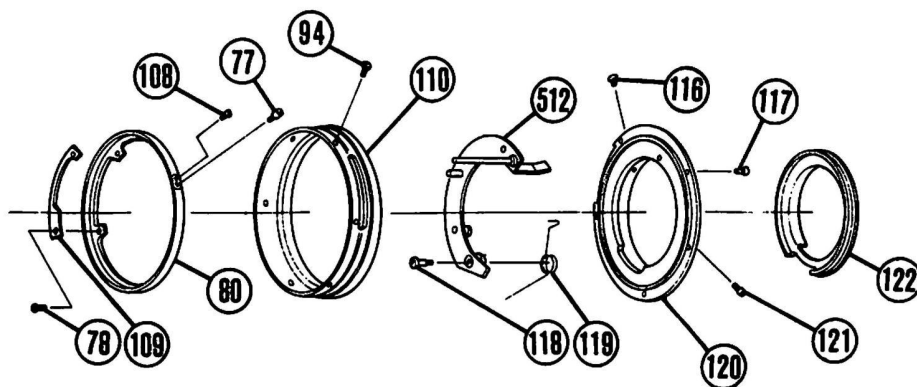


526—ASSEMBLY, DIAPHRAGM HOUSING, UNIVERSAL AND OLYMPUS

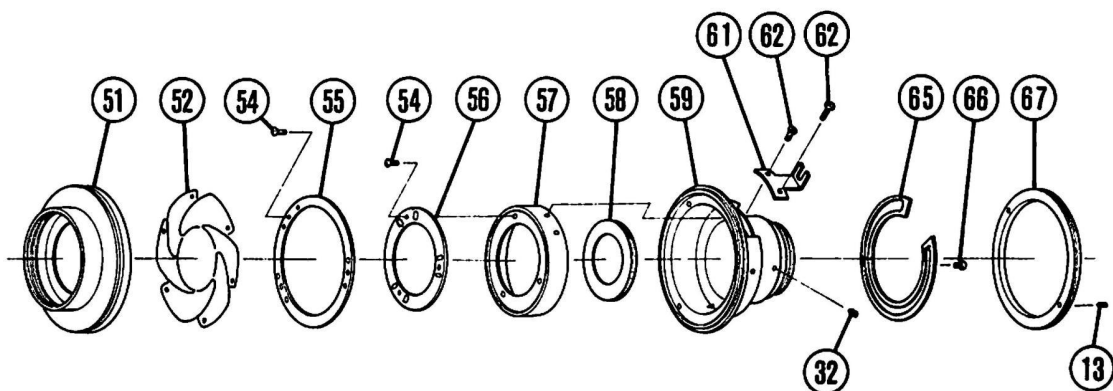


VIVITAR AUTOMATIC FIXED MOUNT LENS  
70-150mm f/3.8 CLOSE FOCUSING

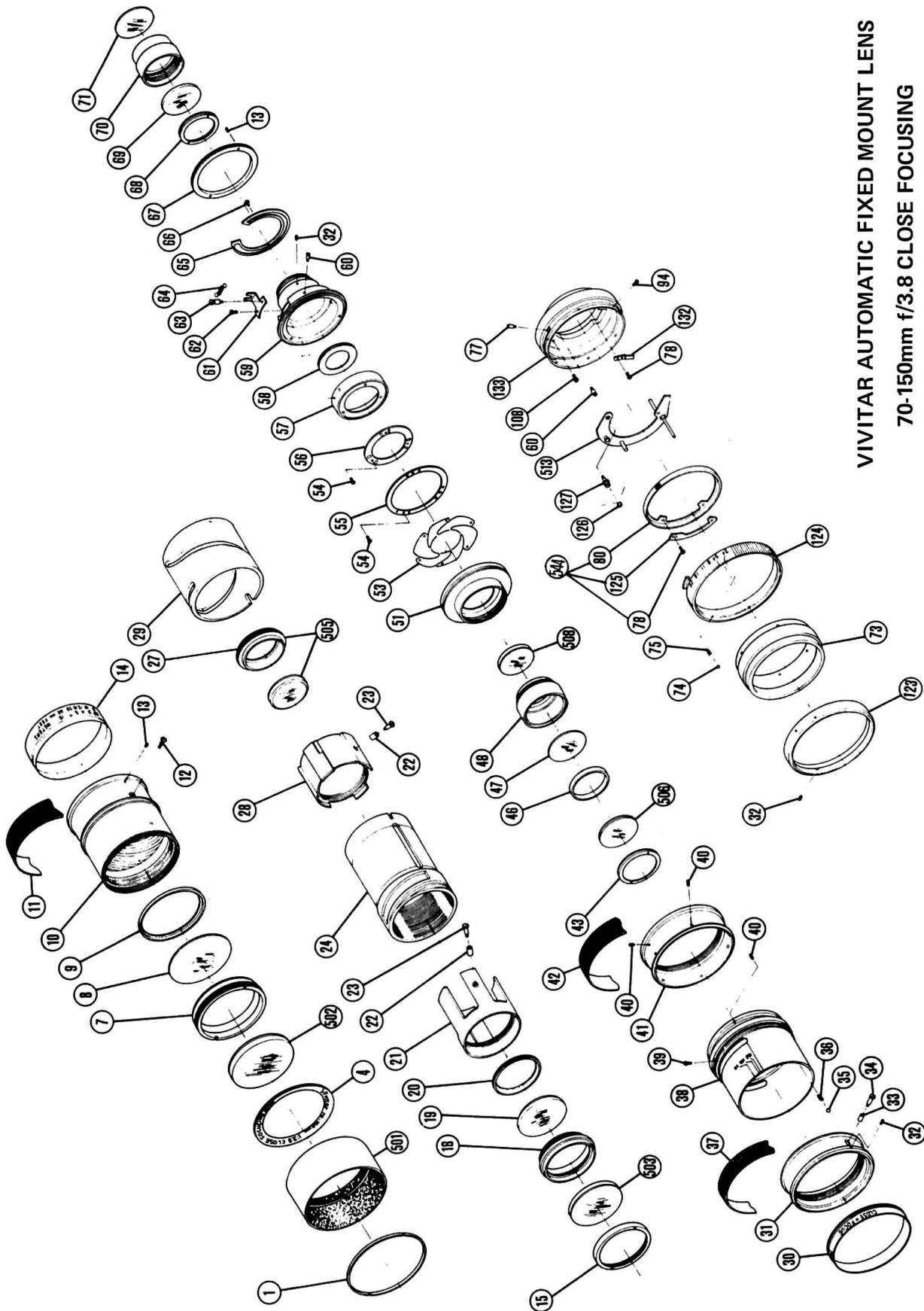
NIKON MOUNT



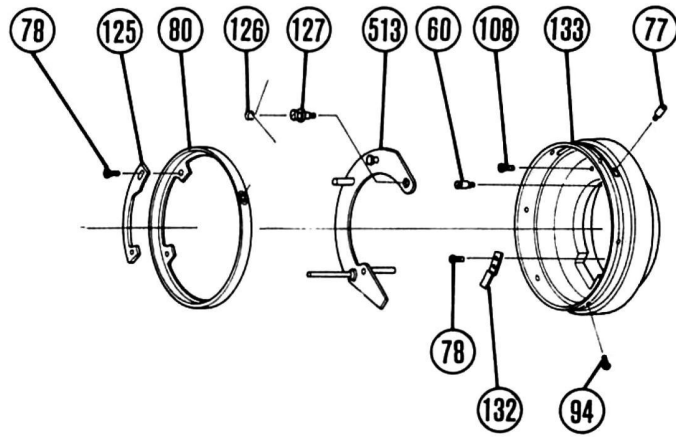
538- ASSEMBLY, REAR MOUNT, NIKON



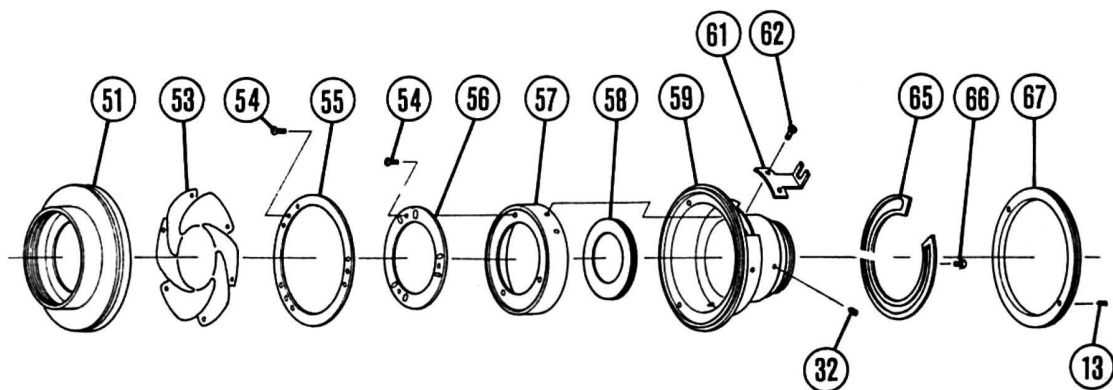
527- ASSEMBLY, DIAPHRAGM HOUSING, NIKON MOUNT



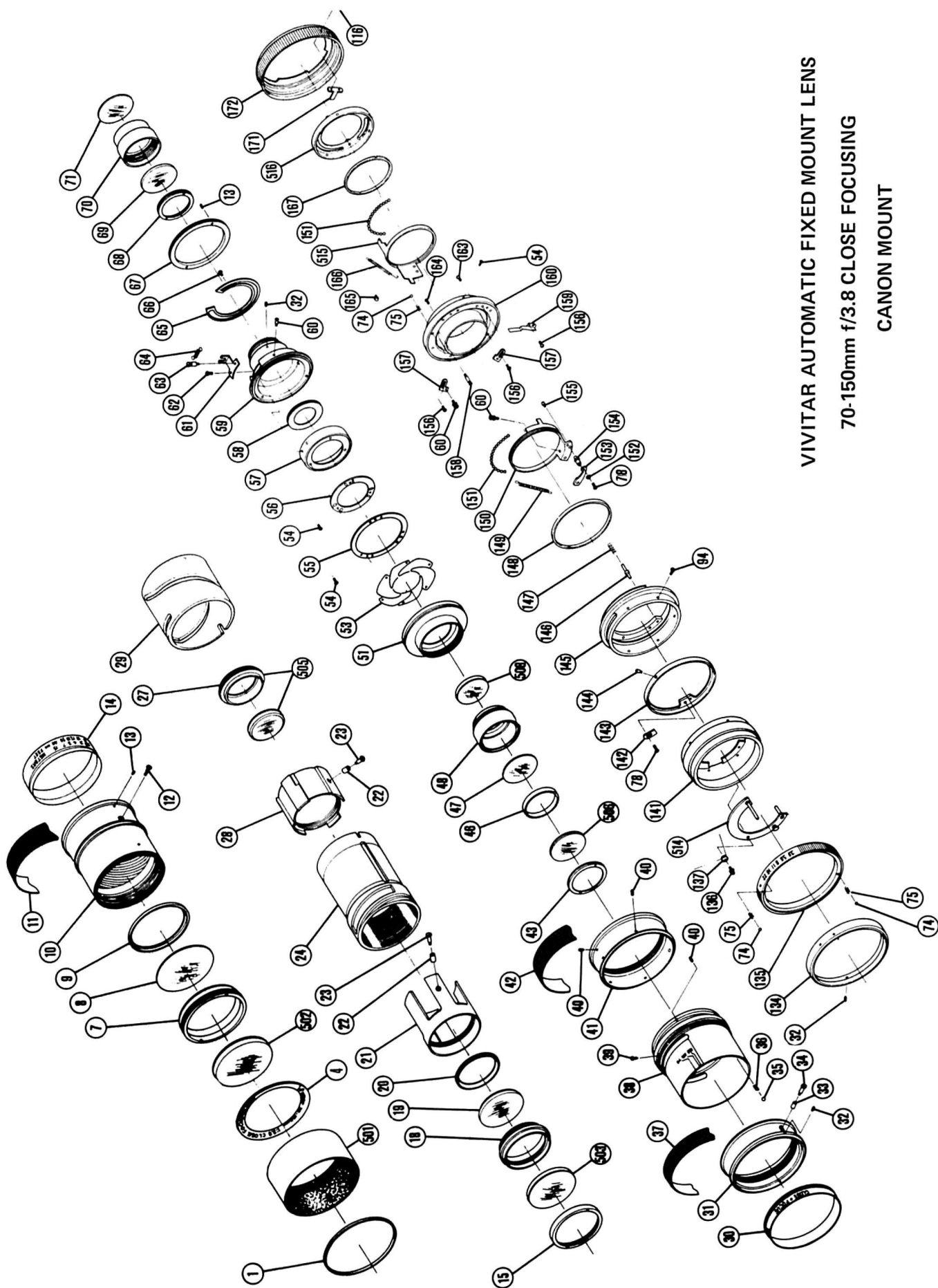
VIVITAR AUTOMATIC FIXED MOUNT LENS  
70-150mm f/3.8 CLOSE FOCUSING  
MINOLTA MOUNT



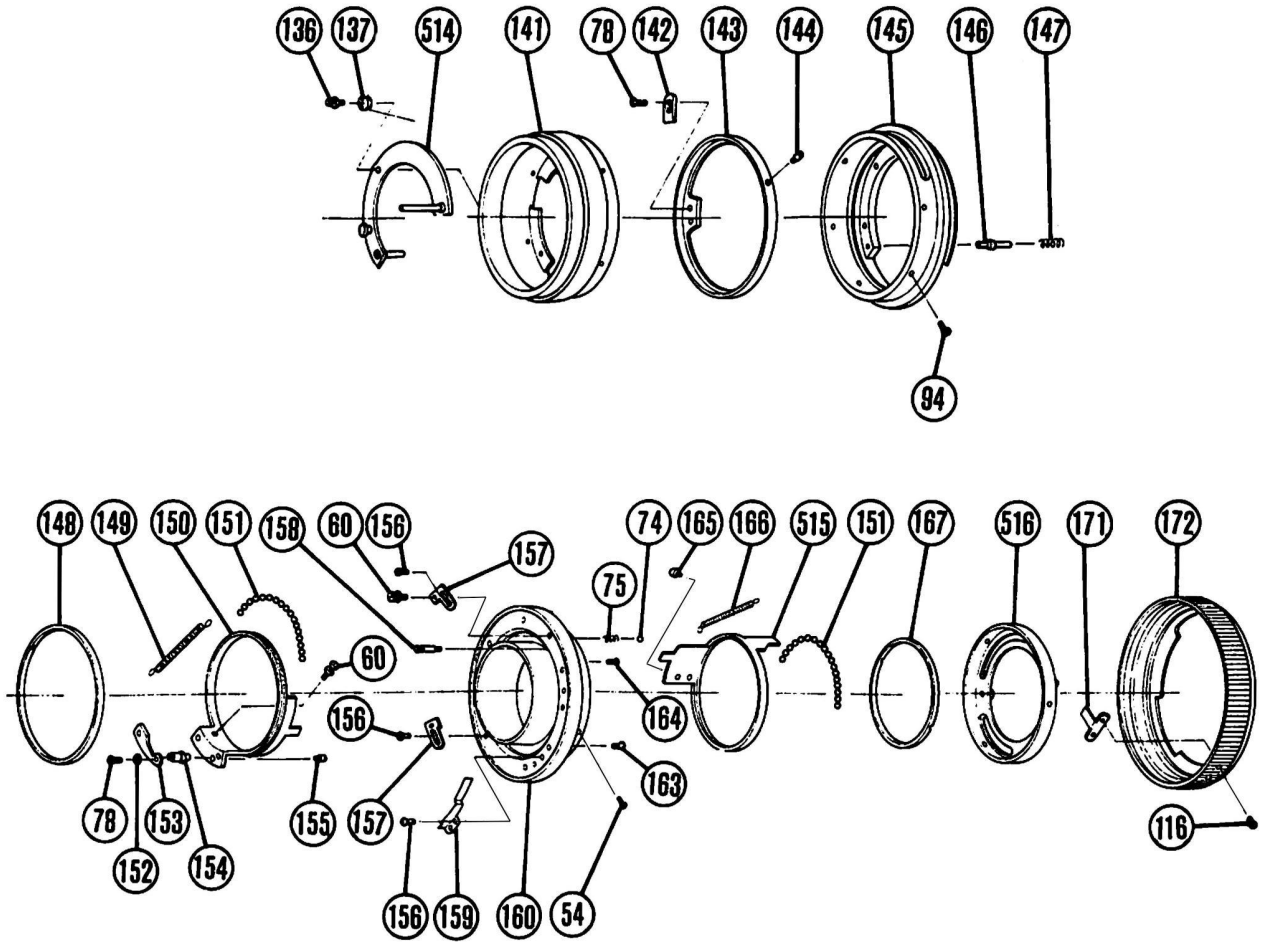
539— ASSEMBLY, REAR MOUNT, MINOLTA



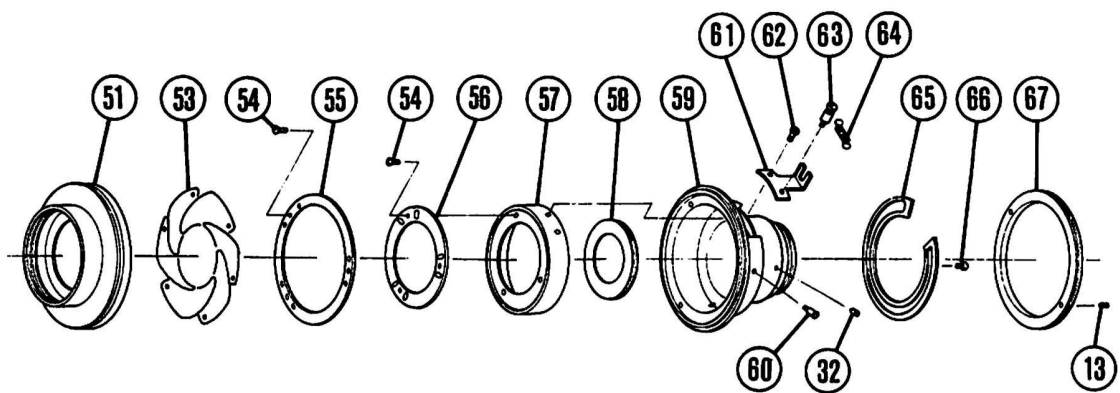
528— ASSEMBLY, DIAPHRAGM HOUSING, MINOLTA MOUNT



VIVITAR AUTOMATIC FIXED MOUNT LENS  
70-150mm f/3.8 CLOSE FOCUSING  
CANON MOUNT

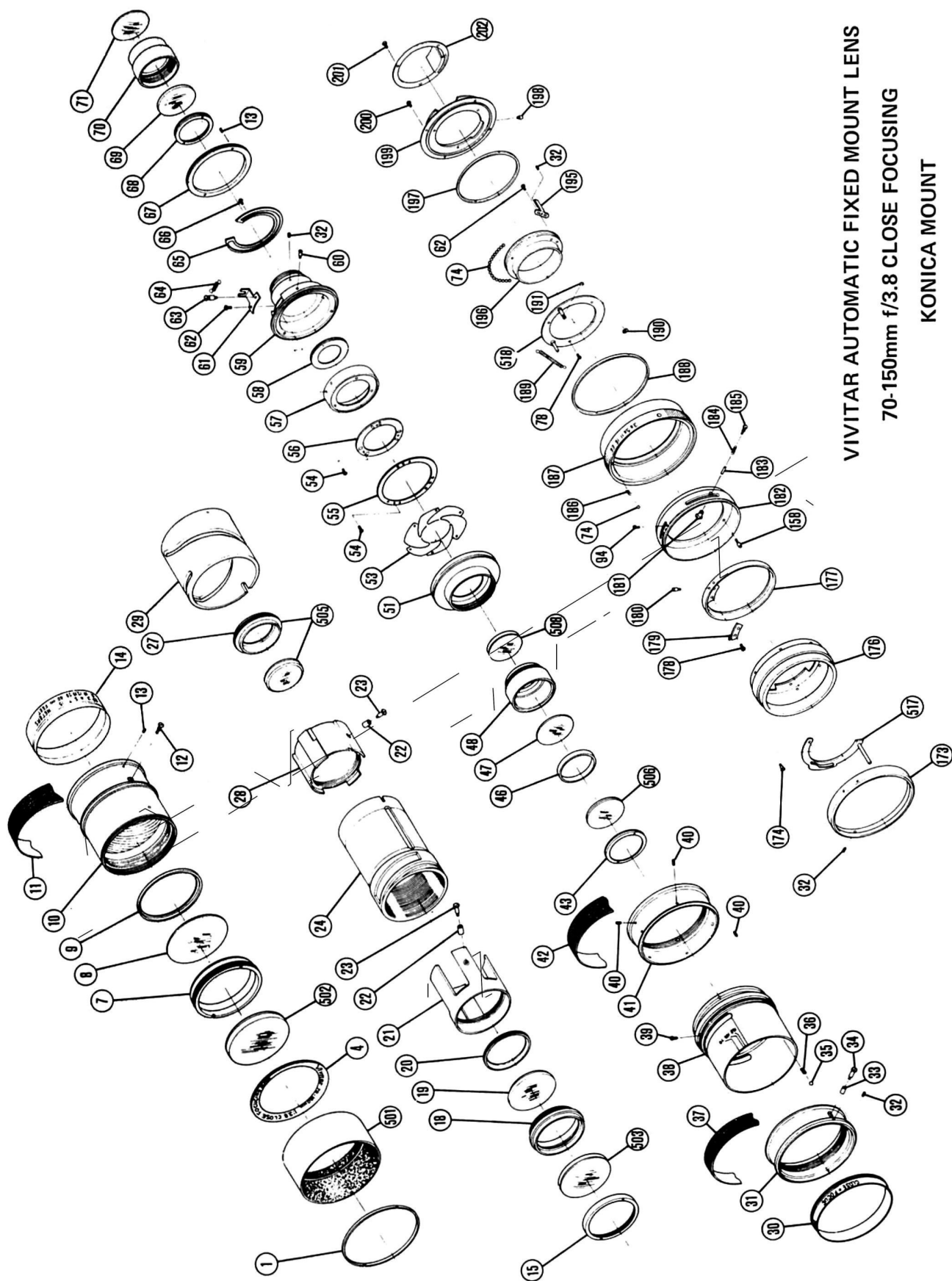


540- ASSEMBLY, REAR MOUNT, CANON

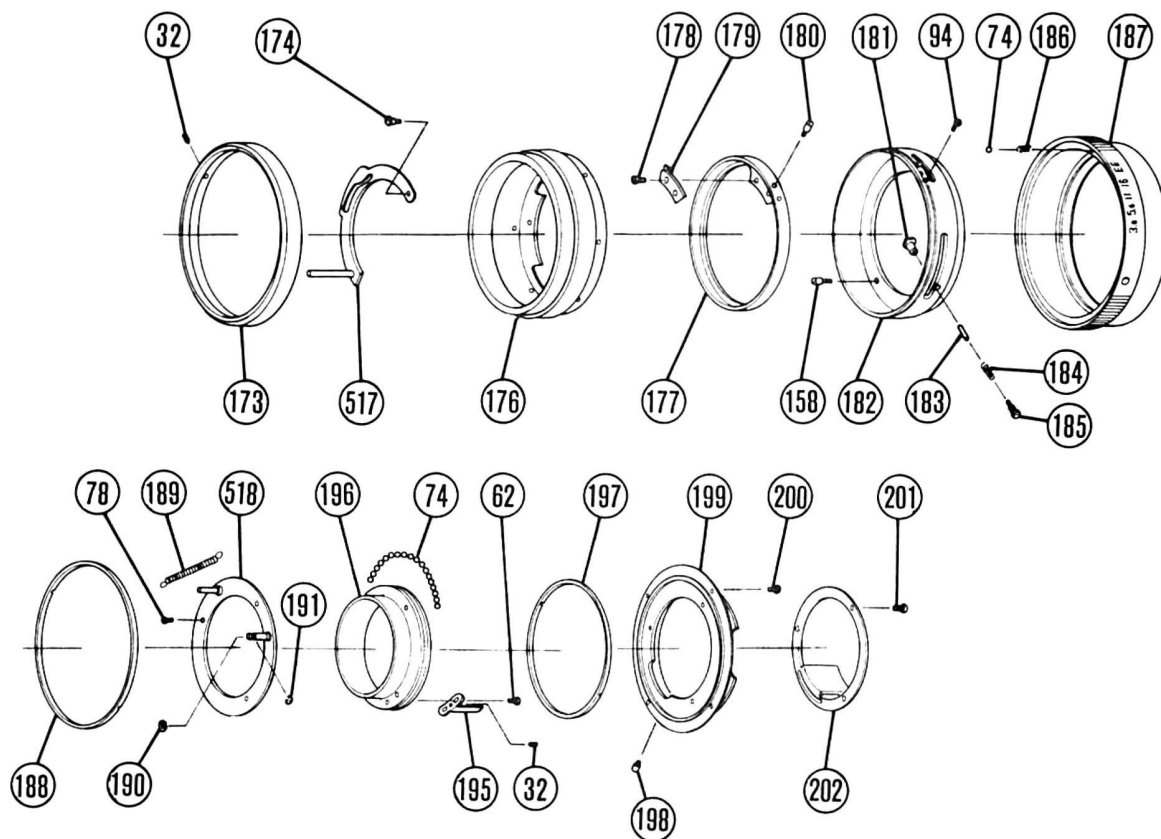


529- ASSEMBLY, DIAPHRAGM HOUSING, CANON MOUNT

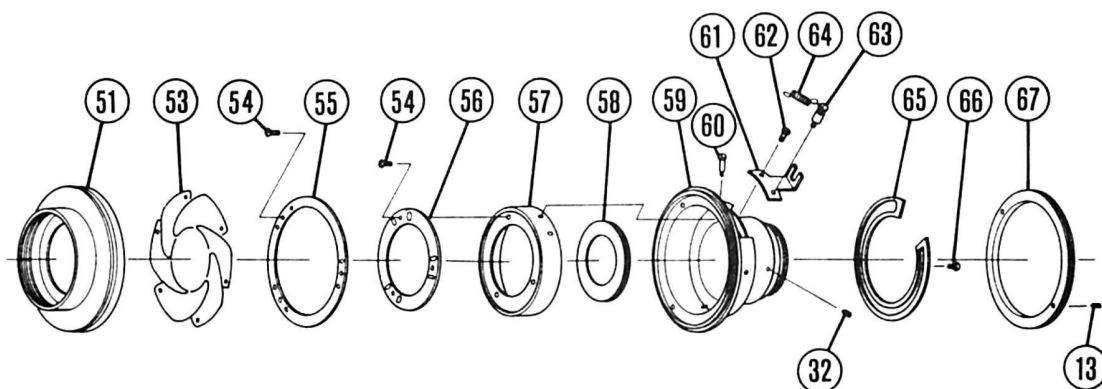




VIVITAR AUTOMATIC FIXED MOUNT LENS  
70-150mm f/3.8 CLOSE FOCUSING  
KONICA MOUNT

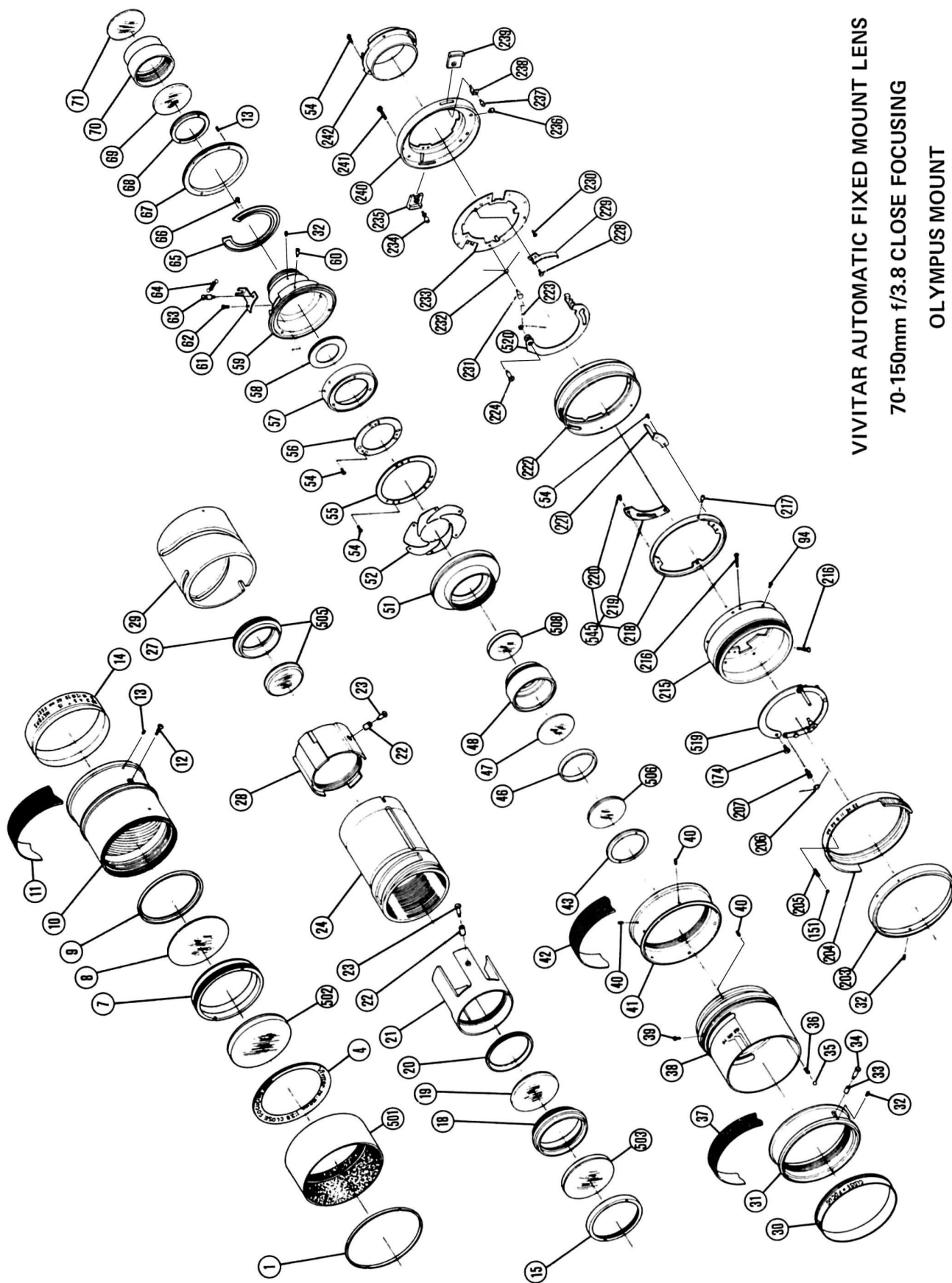


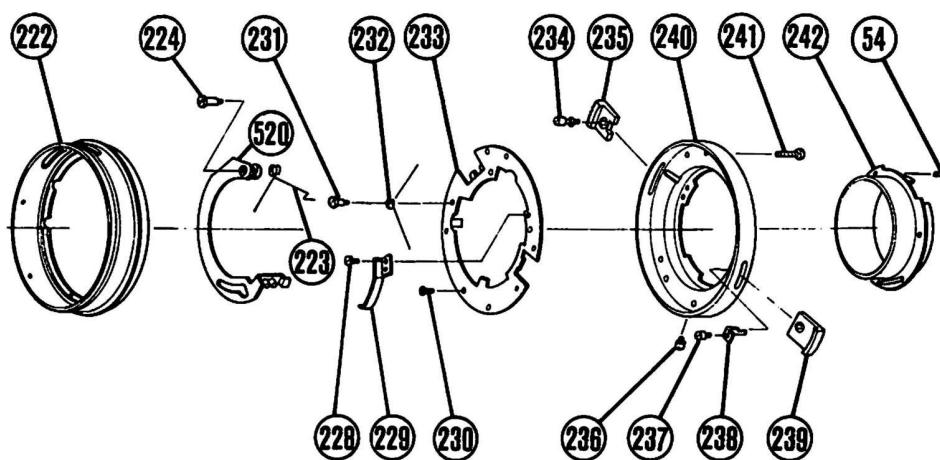
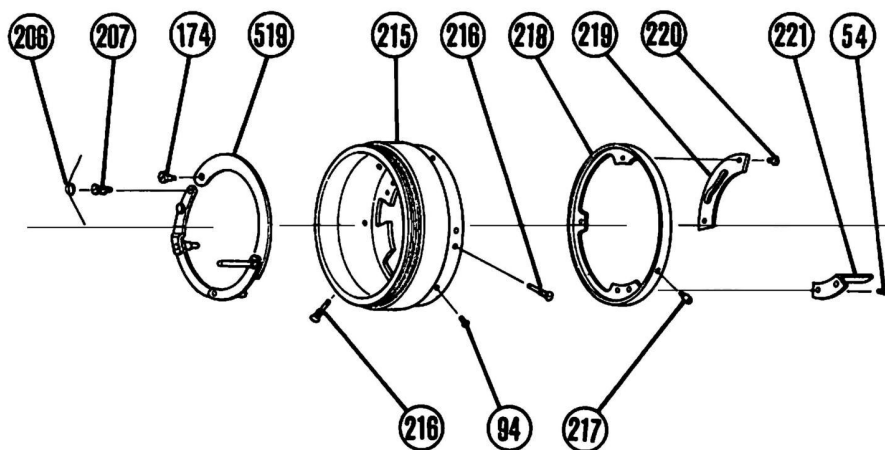
534—ASSEMBLY, REAR MOUNT, KONICA



536—ASSEMBLY, DIAPHRAGM HOUSING, KONICA MOUNT

VIVITAR AUTOMATIC FIXED MOUNT LENS  
70-150mm f/3.8 CLOSE FOCUSING  
OLYMPUS MOUNT





541- ASSEMBLY, REAR MOUNT, OLYMPUS

# PARTS LIST

## VIVITAR AUTOMATIC FIXED MOUNT LENS 70-150mm CLOSE FOCUSING

REFERENCE NUMBER	DESCRIPTION	PART NUMBER	MOUNT & QUANTITY					
			U	N	M	C	K	O
001	RING, HOOD RETAINER	3517460	1	1	1	1	1	1
501	ASSEMBLY, HOOD	3517461	1	1	1	1	1	1
004	RING, NAME	3517462	1	1	1	1	1	1
502	LENS ELEMENT, 1st & 2nd (DOUBLET)	3517463	1	1	1	1	1	1
007	HOUSING, 1ST LENS GROUP	3517464	1	1	1	1	1	1
008	LENS, ELEMENT 3RD	3517465	1	1	1	1	1	1
009	RING, 3RD LENS ELEMENT RETAINING	3517466	1	1	1	1	1	1
010	OUTER HELICOID	3517467	1	1	1	1	1	1
011	GRIP, FRONT	3517468	1	1	1	1	1	1
012	SCREW, HELICOID STOPPER	3512749	1	1	1	1	1	1
013	SETSCREW, 1.7x2.0	3513714	5	5	5	5	5	5
014	RING, DISTANCE SCALE	3517469	1	1	1	1	1	1
015	RING, 4TH & 5TH LENS ELEMENT RETAINING	3517470	1	1	1	1	1	1
503	LENS ELEMENT, 4th & 5th (DOUBLET)	3517471	1	1	1	1	1	1
018	HOUSING, 2ND LENS GROUP	3517472	1	1	1	1	1	1
019	LENS, 6TH LENS ELEMENT RETAINING	3517473	1	1	1	1	1	1
020	RING, 6TH LENS GROUP RETAINING	3517474	1	1	1	1	1	1
021	HOUSING, 2ND LENS GROUP ZOOM	3517475	1	1	1	1	1	1
022	ROLLER (C)	3517476	2	2	2	2	2	2
023	SHAFT, ROLLER	3517477	2	2	2	2	2	2
024	INNER HELICOID	3517478	1	1	1	1	1	1
505	3rd LENS GROUP ASSEMBLY (IN HOUSING)	3517479	1	1	1	1	1	1
028	HOUSING, 3RD LENS GROUP ZOOM	3517481	1	1	1	1	1	1
029	RING, CAM SLOT	3517482	1	1	1	1	1	1
030	RING, ZOOM SCALE	3517483	1	1	1	1	1	1
031	RING, ZOOM DRIVE	3517484	1	1	1	1	1	1
032	SETSCREW, 1.4x2.0	3513843	9	9	9	9	9	9
033	ROLLER (B)	3517485	1	1	1	1	1	1
034	ROLLER SHAFT	3517486	1	1	1	1	1	1
035	BALL, DETENT (2ø )	3514075	3	3	3	3	3	3
036	SPRING, DETENT	3514074	3	3	3	3	3	3
037	GRIP, MIDDLE	3517487	1	1	1	1	1	1
038	RING, MOUNT MIDDLE	3517488	1	1	1	1	1	1
039	SCREW, FLAT HEAD	3513009	3	3	3	3	3	3
040	SETSCREW	3512977	12	12	12	12	12	12
041	RING, MOUNT CONNECTOR	3517489	1	1	1	1	1	1
042	GRIP, REAR	3517490	1	1	1	1	1	1
043	RING, RETAINER, 9/10 ELEMENT	3517491	1	1	1	1	1	1
506	LENS ELEMENT, 9/10 (DOUBLET)	3517492	1	1	1	1	1	1
046	RING, LENS SPACER	3517493	1	1	1	1	1	1
047	LENS ELEMENT, 11TH	3517494	1	1	1	1	1	1
048	HOUSING, 4TH LENS GROUP	3517495	1	1	1	1	1	1
508	LENS ELEMENT 12/13 (DOUBLET)	3517496	1	1	1	1	1	1
051	HOUSING, DIAPHRAGM OUTER	3517497	1	1	1	1	1	1
052	BLADE, DIAPHRAGM	3517498	6	6				6
053	BLADE, DIAPHRAGM	3517499			6	6	6	
054	SCREW, FLAT HEAD, 1.4x2.0	3512974	8	6	6	9	6	11
055	RING, DIAPHRAGM BLADE	3517500	1	1	1	1	1	1
056	RING, BLADE OPERATING	3517501	1	1	1	1	1	1
057	MOUNT, BLADE OPERATING RING	3517502	1	1	1	1	1	1
058	RING, BAFFLE	3517503	1	1	1	1	1	1

# PARTS LIST

## VIVITAR AUTOMATIC FIXED MOUNT LENS 70-150mm CLOSE FOCUSING

REFERENCE NUMBER	DESCRIPTION	PART NUMBER	MOUNT & QUANTITY					
			U	N	M	C	K	O
059	HOUSING, DIAPHRAGM, INNER	3517504	1	1	1	1	1	1
060	SPRING POST	3512835	1			1	1	1
061	LEVER, DIAPHRAGM	3517505	1	1	1	1	1	1
062	SCREW, PAN HEAD	351298	1	1	1	1	1	1
063	HOOK, DIAPHRAGM RING SPACER SPRING	3512788	1	1		1	1	1
064	SPRING, DIAPHRAGM	3512783	1	1		1	1	1
065	STOPPER, DIAPHRAGM	3512786	1	1	1	1	1	1
066	SCREW, DIAPHRAGM STOPPER	3517506	3	3	3	3	3	3
067	RING, DIAPHRAGM RETAINING	3517507	1	1	1	1	1	1
068	RING, 14TH LENS ELEMENT RETAINING	3517508	1	1	1	1	1	1
069	LENS ELEMENT, 14TH	3517509	1	1	1	1	1	1
070	HOUSING 5TH LENS GROUP	3517510	1	1	1	1	1	1
071	LENS ELEMENT, 15TH	3517511	1	1	1	1	1	1
072	RING, INDEX	3514237	1					
073	RING, MOUNT	3517512	1	1	1			
074	BALL, DETENT (1.6 $\phi$ )	3512898	1	1	1	3	60	
075	SPRING, DETENT (1.5 $\phi$ )	3512857	1	1	1	3		
076	RING, APERTURE	3514243	1					
077	SCREW, APERTURE CAM	3512801	1	1	1			
078	SCREW, PAN HEAD	3512984	4	2	4	4	3	
079	CAM APERTURE	3512794	1					
080	RING, APERTURE CAM	3512795	1	1	1			
081	SHAFT, DIAPHRAGM LEVER PIVOT	3500002	1					
510	ASSEMBLY, DIAPHRAM ACTUATOR	3517513	1					
089	SCREW, PAN HEAD, 1.4x1.8	3512986	2					
511	ASSEMBLY, APERTURE CRANK	3512807	1					
093	DETENT SPRING, AUTO-MANUAL	3512804	1					
094	SCREW, FLAT HEAD, 1.7x3.0	3512985	6	6	6	6	6	6
095	LEVER, AUTO MANUAL	3512798	1					
096	RING, AUTO MANUAL	3512797	1					
097	SPRING DIAPHRAGM LEVER	3512799	1					
098	SHAFT, DIAPHRAGM TRANSFER	3512814	1					
099	ARM, AUTO	3512813	1					
100	BOSS, DIAPHRAGM TRANSFER	2512812	1					
101	PIN, DIAPHRAGM ACTUATOR	3512811	1					
102	UNIVERSAL MOUNT	3514229	1					
103	COVER, REAR	3512810	1					
104	RING, INDEX	3514238		1				
105	RING, APERTURE	3514236		1				
106	SCREW, COUPLING PLATE	3512818		1				
107	PLATE, NIKON METER COUPLER	3512817		1				
108	SCREW, STOP	3512820		1	1			
109	CAM, APERTURE	3512819		1				
110	FRAME, NIKON MOUNT	3514228		1				
512	ASSEMBLY, DIAPHRAGM ACTUATOR	3517514		1				
116	SCREW, FLAT HEAD, 1.4x2.0	3514089		2		2		
117	SCREW, PAN HEAD, 1.7x3.0	3512982		5				
118	SCREW, DIAPHRAGM LEVER SHAFT	3512828		1				
119	SPRING, DIAPHRAGM LEVER	3513845		1				
120	MOUNT, NIKON	3512824		1				
121	SCREW, REAR COVER	3512825		1				

# PARTS LIST

## VIVITAR AUTOMATIC FIXED MOUNT LENS 70-150mm CLOSE FOCUSING

REFERENCE NUMBER	DESCRIPTION	PART NUMBER	MOUNT & QUANTITY					
			U	N	M	C	K	O
122	COVER, REAR	3512826	1					
123	RING, INDEX	3514239		1				
124	RING, APERTURE	3514244		1				
125	CAM, APERTURE	3500023		1				
126	SPRING, DIAPHRAGM LEVER	3513905		1				
127	SCREW, SHAFT	3512833		1				
513	ASSEMBLY, DIAPHRAGM ACTUATOR	3517515		1				
132	PLATE, DIAPHRAGM LEVER GUIDE	3512839		1				
133	MOUNT, MINOLTA	3514230		1				
134	RING, INDEX	3514240					1	
135	RING, APERTURE	3514245					1	
136	SHAFT, DIAPHRAGM LEVER	3512843					1	
137	SPRING, DIAPHRAGM LEVER	3512844					1	
514	ASSEMBLY, DIAPHRAGM ACTUATOR	3517516					1	
141	RING, MOUNT	3517512		1				
142	PLATE, APERTURE SETTING STOP	3512852		1				
143	RING, APERTURE SETTING	3512936		1				
144	SCREW, APERTURE CAM POST	3512848		1				
145	FRAME, CANON MOUNT	3514234		1				
146	PIN, EE SWITCH	3512849		1				
147	SPRING, EE SWITCH PIN	3512850		1				
148	RING, BALL RETAINER	3512853		1				
149	SPRING, APERTURE SIGNAL LEVER	3512854		1				
150	LEVER, APERTURE SIGNAL	3500030		1				
151	BALL, DETENT (1.2 ø)	3512899	20					1
152	WASHER, SEAL	3512870	2					
153	CAM, APERTURE	3514252					1	
154	SCREW, APERTURE CAM POST	3512808	2					
155	SCREW, STOP	3512867	1					
156	SCREW, PAN HEAD 1.7x3.0	3512980	6					
157	PLATE, STOP	3512856	2					
158	POST, DIAPHRAGM SPRING	3512782	1	1				
159	SPRING, DETENT	3512866					1	
160	CANON MOUNT	3512865					1	
515	ASSEMBLY, A/M LEVER	3512847					1	
163	SCREW, PAN HEAD 1.7x5.5	3512989					5	
164	SCREW, MOUNT	3512825					1	
165	SCREW, A/M LEVER DETENT LEVER	3512864					1	
166	SPRING AUTOMATIC/MANUAL APERTURE	3512858					1	
167	RING, BALL RETAINER	3512860					1	
516	ASSEMBLY, SENSE PIN RING	3517518					1	
171	LEVER, SIGNAL	3512863					1	
172	RING, LOCKING	3512862					1	
173	RING, INDEX	3514241						1
174	SCREW, SHAFT	3512872					1	1
517	ASSEMBLY, APERTURE CAM	3517519					1	
176	MOUNT, RING	3517520					1	
177	RING, MANUAL APERTURE SETTING	3512876					1	
178	SCREW, PAN HEAD, 1.4x2.5	3512990					2	
179	PLATE, LIMIT	3512874					1	
180	SCREW, MANUAL APERTURE SET. RING	3513935					1	
181	BUTTON, LOCK	3512882					1	

# PARTS LIST

## VIVITAR AUTOMATIC FIXED MOUNT LENS 70-150mm CLOSE FOCUSING

REFERENCE NUMBER	DESCRIPTION	PART NUMBER	MOUNT & QUANTITY					
			U	N	M	C	K	O
182	KONICA MOUNT FRAME	3514232						1
183	GUIDE, LOCK BUTTON SPRING	3513938						1
184	SPRING, LOCK BUTTON	3512880						1
185	CAP, LOCK BUTTON	3512879						1
186	SPRING, DETENT	3512857						1
187	RING, APERTURE	3514246						1
188	RETAINER, DIAPHRAGM	3512884						1
189	SPRING, AUTO LEVER RETURN	3512885						1
190	WASHER, CAM OPERATION SHAFT	3512894						1
191	E RING (1.5 $\phi$ )	3512893						1
518	ASSEMBLY, CAM DRIVE RING	3514309						1
195	ARM, APERTURE COUPLING RING	3512892						1
196	RING, DIAPHRAGM LEVER OPERATING	3512887						1
197	RING, BALL RETAINER	N.A.S.						1
198	SCREW, STOP	3512891						1
199	KONICA MOUNT	3512889						1
200	SCREW, PAN HEAD 1.7x3.0	3513947						4
201	SCREW, FLAT HEAD, 1.4x2.5	3513859						4
202	RING, F/STOP COUPLING	3514235						1
203	RING, INDEX	3514242						1
204	RING, APERTURE	3514247						1
205	SPRING, DETENT	3513713						1
206	SPRING	3517521						1
207	SPRING POST	3517522						1
519	ASSEMBLY, DIAPHRAGM ACTUATOR	3517523						1
215	RING, MOUNT	3517524						1
216	SCREW, DIAPHRAGM LEVER RETAINING	3500048						2
217	SCREW, APERTURE CAM RING	3512909						1
218	RING, APERTURE CAM	3517525						1
219	CAM, APERTURE	3517526						1
220	SCREW, STOP	3513980						2
221	APM, DIAPHRAGM COUPLING	3517527						1
222	FRAME, OLYMPUS OM MOUNT	3517528						1
223	SPRING	3517529						1
224	PIVOT POST	3517530						1
520	ASSEMBLY, APERTURE CAM LEVER	3517531						1
228	SCREW, LOCK BUTTON SPRING	3513782						1
229	SPRING, LOCK BUTTON	3513783						1
230	SCREW, FLAT HEAD, 1.4x2.5	3513901						3
231	SCREW, SHAFT SPRING	3517532						1
232	SPRING, MANUAL LEVER	3517533						1
233	PLATE, GUIDE	3517534						1
234	SCREW, MANUAL BUTTON	3517535						1
235	BUTTON, LOCK	3512932						1
236	SCREW, STOP	3512934						1
237	SCREW, LOCK PLATE	3512925						1
238	PLATE, MOUNT LOCKING	3512931						1
239	BUTTON, MANUAL	3512930						1
240	OLYMPUS OM MOUNT	3517536						1
241	SCREW, MOUNT	3513859						4
242	COVER, REAR	3517537						1
250	SCREW, DIAPHRAGM RING GUIDE	3513856						1



# PARTS LIST

## VIVITAR AUTOMATIC FIXED MOUNT LENS 70-150mm CLOSE FOCUSING

REFERENCE NUMBER	ASSEMBLY DESCRIPTION	PART NUMBER	MOUNT & QUANTITY U N M C K O					
501	HOOD ASSEMBLY	3517461	1	1	1	1	1	1
502	LENS ELEMENTS, 1ST/2ND (DOUBLET)	3517463	1	1	1	1	1	1
503	LENS ELEMENTS, 4TH/5TH (DOUBLET)	3517471	1	1	1	1	1	1
505	LENS GROUP ASSEMBLY, 3RD (IN HOUSING)	3517479	1	1	1	1	1	1
506	LENS ELEMENTS, 9TH/10TH (DOUBLET)	3517492	1	1	1	1	1	1
508	LENS ELEMENTS, 12TH/13TH (DOUBLET)	3517496	1	1	1	1	1	1
509	15TH LENS ELEMENT IN REAR LENS GROUP HOUSING	3517566	1	1	1	1	1	1
510	DIAPHRAGM ACTUATOR LEVER ASSEMBLY-UNIVERSAL	3517513	1					
511	CRANK ASSEMBLY	3512807	1					
512	DIAPHRAGM ACTUATOR LEVER ASSEMBLY-NIKON	3517514		1				
513	DIAPHRAGM ACTUATOR LEVER ASSEMBLY-MINOLTA	3517515			1			
514	DIAPHRAGM ACTUATOR LEVER ASSEMBLY-CANON	3517516				1		
515	AUTOMATIC/MANUAL APERTURE LEVER	3512847				1		
516	SENSING PINRING-CANON MOUNT	3517518				1		
517	APERTURE CAM LEVER ASSEMBLY-KONICA MOUNT	3517519					1	
518	CAM DRIVE RING-KONICA MOUNT	3514309					1	
519	ASSEMBLY, DIAPHRAGM ACTUATOR	3517523						1
520	ASSEMBLY, APERTURE COUPLING LEVER	3517531						1
521	FIRST LENS GROUP	3517538	1	1	1	1	1	1
522	SECOND LENS GROUP	3517539	1	1	1	1	1	1
523	FOURTH LENS GROUP	3517540	1	1	1	1	1	1
524	FIFTH LENS GROUP	3517541	1	1	1	1	1	1
525	HELICOID ASSEMBLY	3517542	1	1	1	1	1	1
526	DIAPHRAGM ASSEMBLY UNIVERSAL AND OLYMPUS	3517543	1					1
527	DIAPHRAGM ASSEMBLY NIKON MOUNT	3517544		1				
528	DIAPHRAGM ASSEMBLY MINOLTA MOUNT	3517545			1			
529	DIAPHRAGM ASSEMBLY CANON MOUNT	3517546				1		
534	REAR MOUNT ASSEMBLY, KONICA, COMPLETE	3517551					1	
536	DIAPHRAGM HOUSING ASSEMBLY KONICA MOUNT	3517553					1	
537	REAR MOUNT ASSEMBLY (UNIVERSAL)	3517554	1					
538	REAR MOUNT ASSEMBLY (NIKON)	3517555		1				
539	REAR MOUNT ASSEMBLY (MINOLTA)	3517556			1			
540	REAR MOUNT ASSEMBLY (CANON)	3517557				1		
541	REAR MOUNT ASSEMBLY (OLYMPIA)	3517558						1
542	APERTURE CAM ASSEMBLY (UNIVERSAL)	3517559	1					
543	APERTURE CAM ASSEMBLY (NIKON)	3517560		1				
544	APERTURE CAM ASSEMBLY (MINOLTA)	3517561			1			
545	APERTURE CAM ASSEMBLY (OLYMPIA)	3517562						1



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