

# Vivitar®

## Series 1 Lens

## 135mm f/2.3

# Parts Manual



ORDER PARTS BY NUMBER  
AND DESCRIPTION FROM:

Central Parts Service  
Ponder & Best, Inc.  
11221 W. Pico Blvd.  
Los Angeles, CA 90064  
Phone: (213) 829-3672

PARTS MANUAL  
VIVITAR SERIES 1 135mm F/2.3  
AUTOMATIC TELEPHOTO LENSES

This Parts Manual contains exploded view drawings and parts lists for the Vivitar Series 1 135mm f/2.3 Automatic Telephoto Lenses.

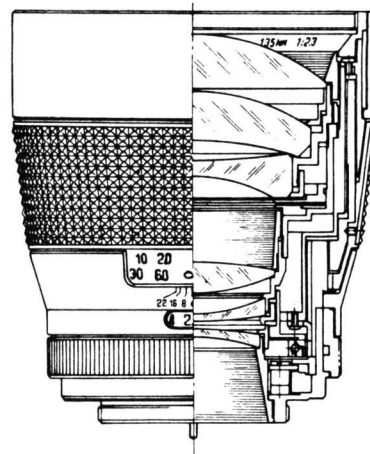
All parts illustrated on the drawings are listed by reference designation only. The parts list shows reference designation, part description, and part number.

PARTS ORDERS

When ordering parts, please order by part number, description, and model number.

# VIVITAR SERIES 1 135mm F/2.3 AUTOMATIC TELEPHOTO LENSES

## GENERAL SPECIFICATIONS



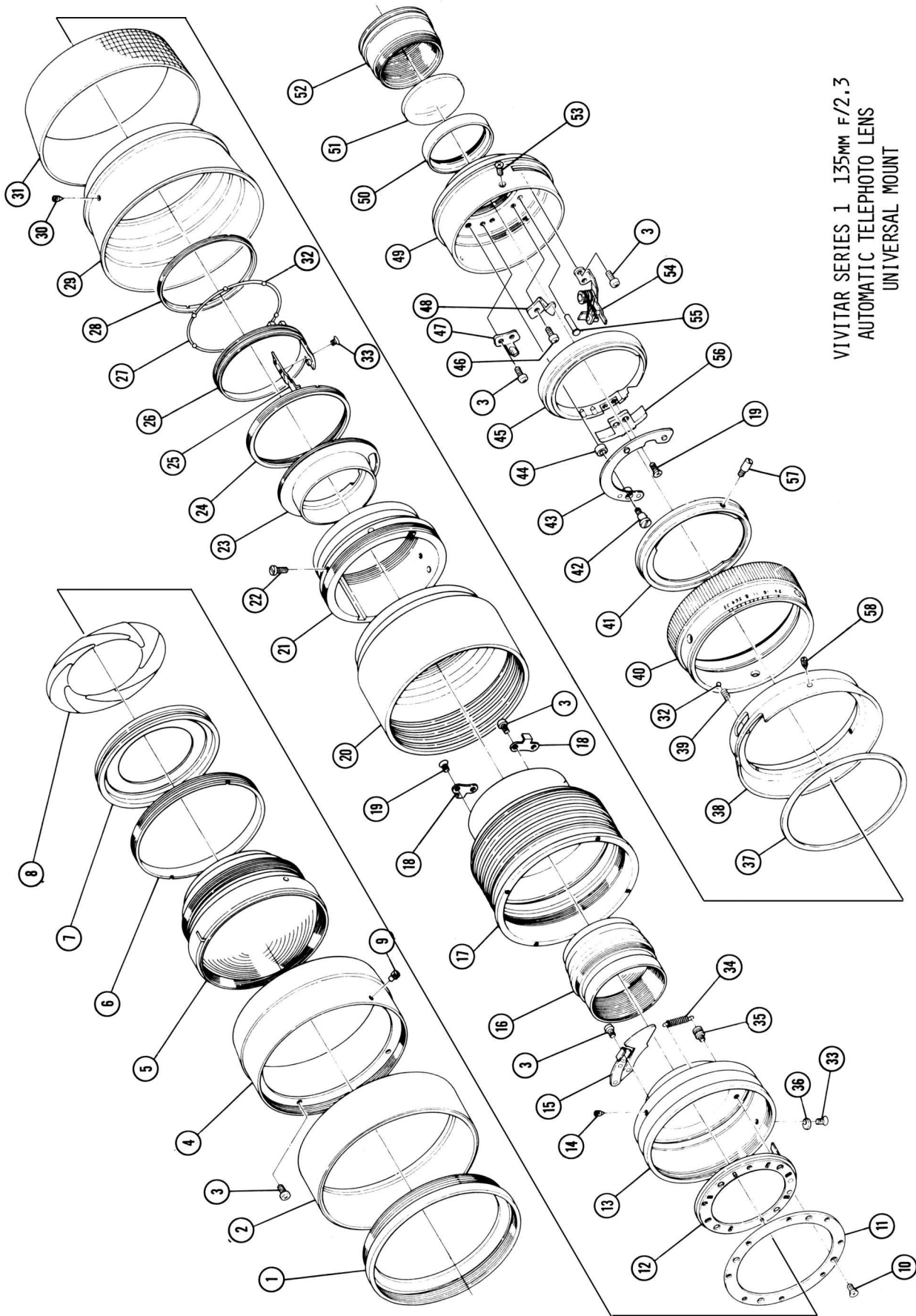
The Vivitar Series 1 135mm f2.3 is one of the fastest automatic telephoto lenses available today. High resolution and contrast are consistent throughout its unusually wide focusing range, a result of the uniquely positioned rear compensating element that automatically corrects aberrations at all points from the closest focusing distance to infinity. Its ideal combination of high speed, 2.5X magnification over a normal lens and ability to focus as close as 3 feet make it one of the most versatile telephoto lenses available.

### Optical Specifications:

Construction: 6 elements, 6 groups  
Effective focal length: 135mm  
Back focal length: 59.78mm  
Angle of acceptance: 18 degrees  
Minimum focus distance: 3' from focal plane  
2'6.2" from front element  
Max. magnification: 1:4.5 normal size

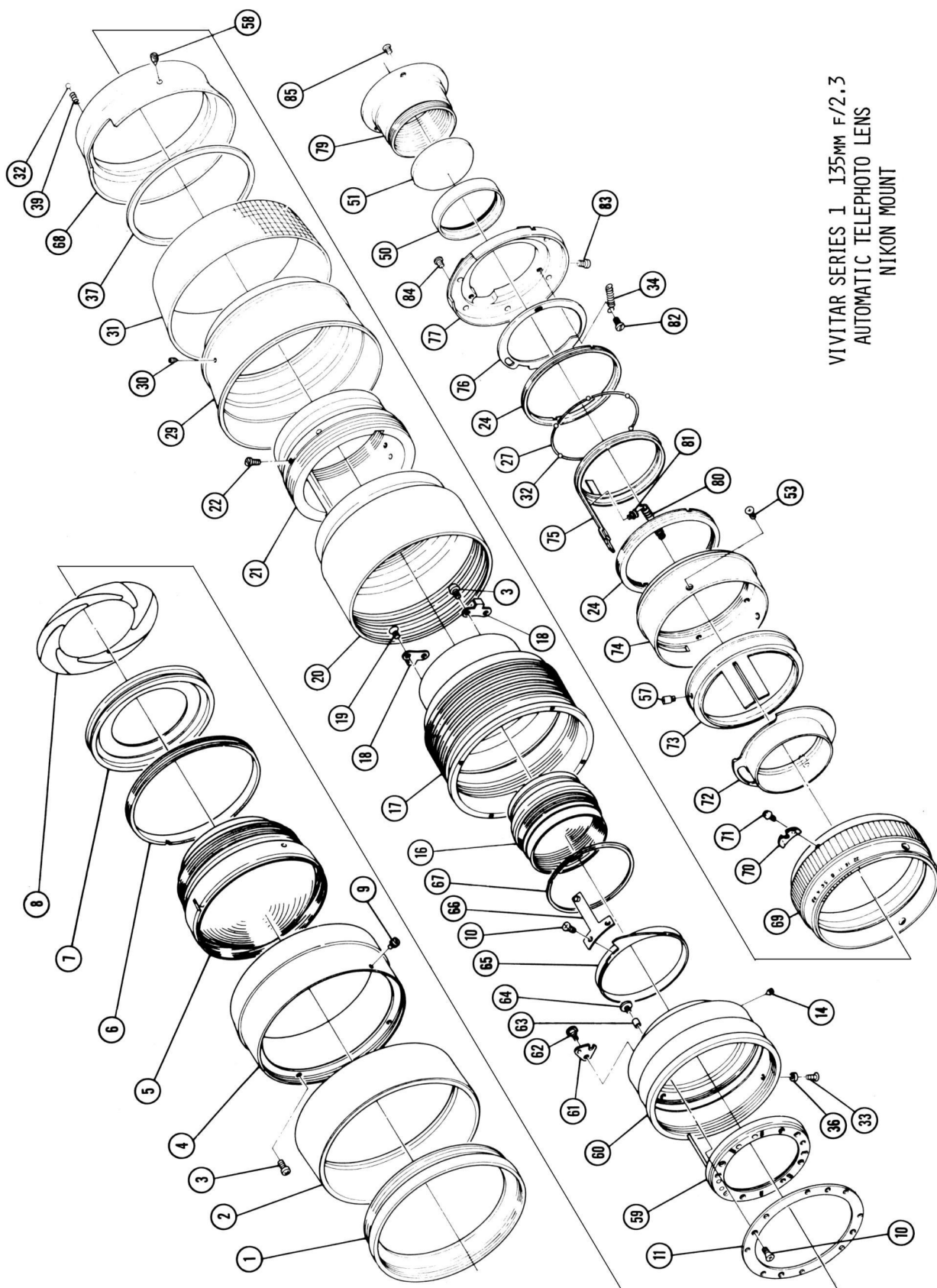
### Mechanical Specifications:

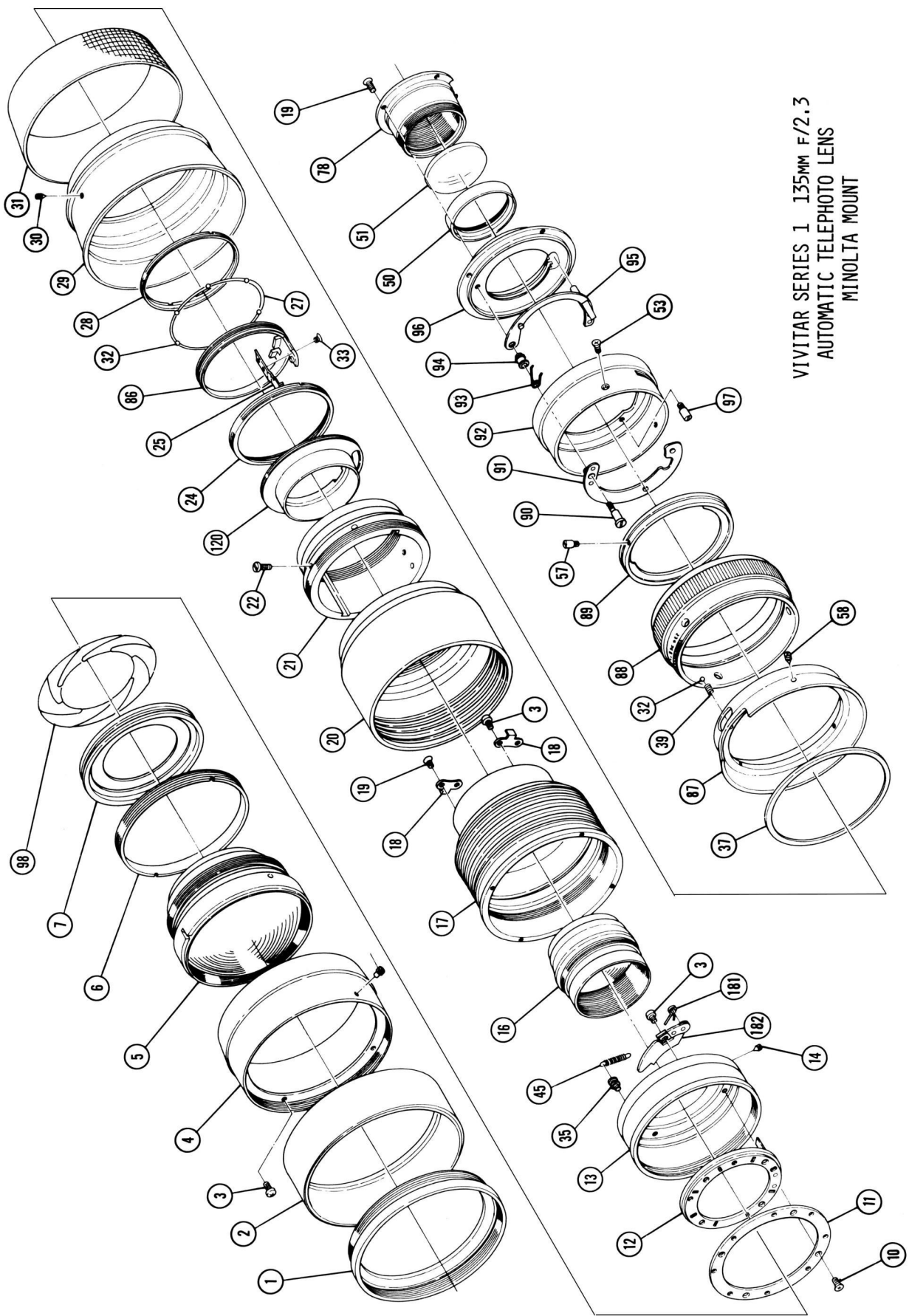
Accessory size: 72mm  
Weight: 22 ounces  
Overall length: 3.6 inches  
Track length: .78 inches  
Maximum barrel diameter: 3 1/8 inches  
Aperture range: f2.3-22  
f2.3-16\*  
Lens hood: Built-in, retractable  
\*EE coupled lenses only



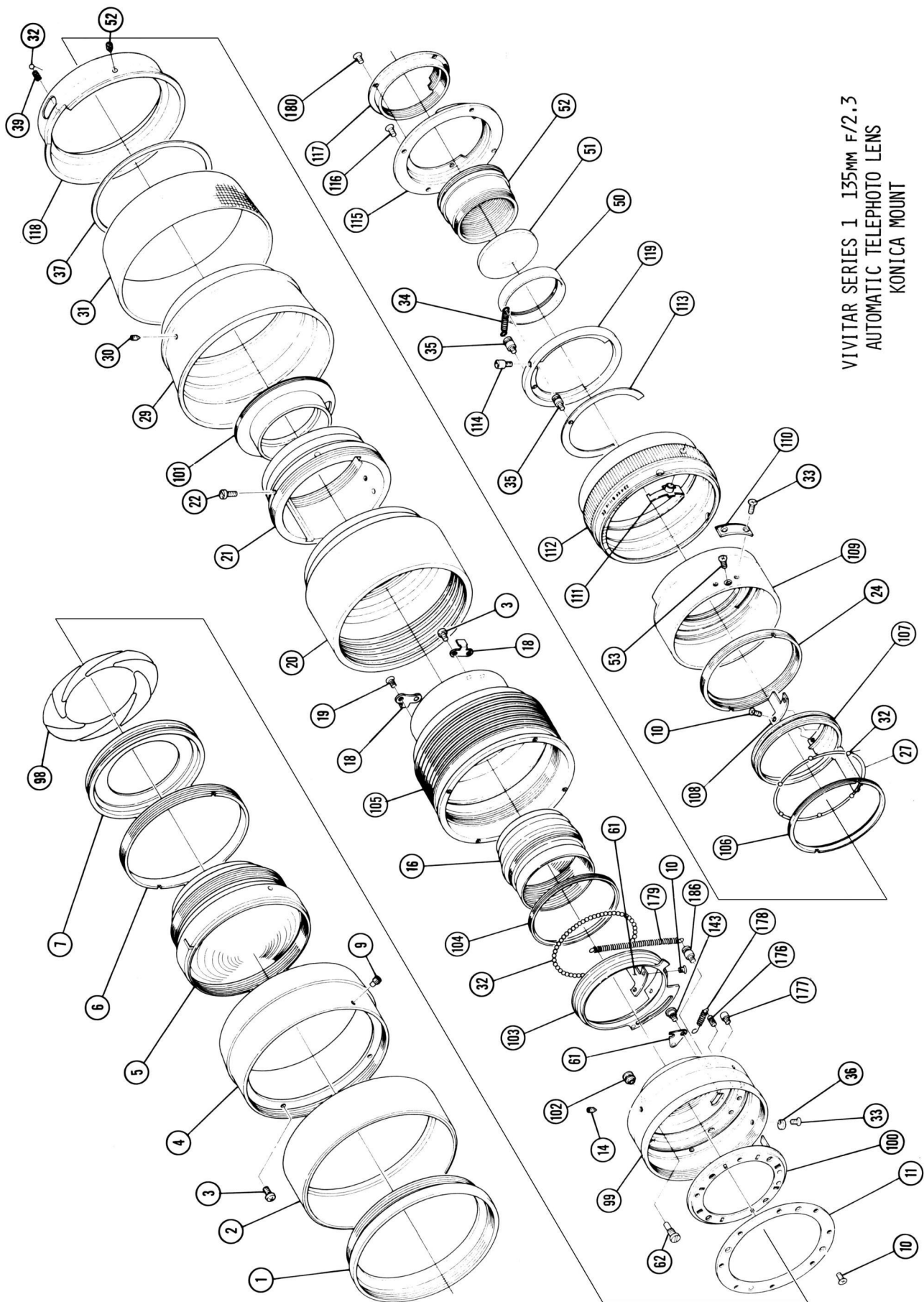
VIVITAR SERIES 1 135mm F/2.3  
AUTOMATIC TELEPHOTO LENS  
UNIVERSAL MOUNT

VIVITAR SERIES 1 135mm F/2.3  
AUTOMATIC TELEPHOTO LENS  
NIKON MOUNT

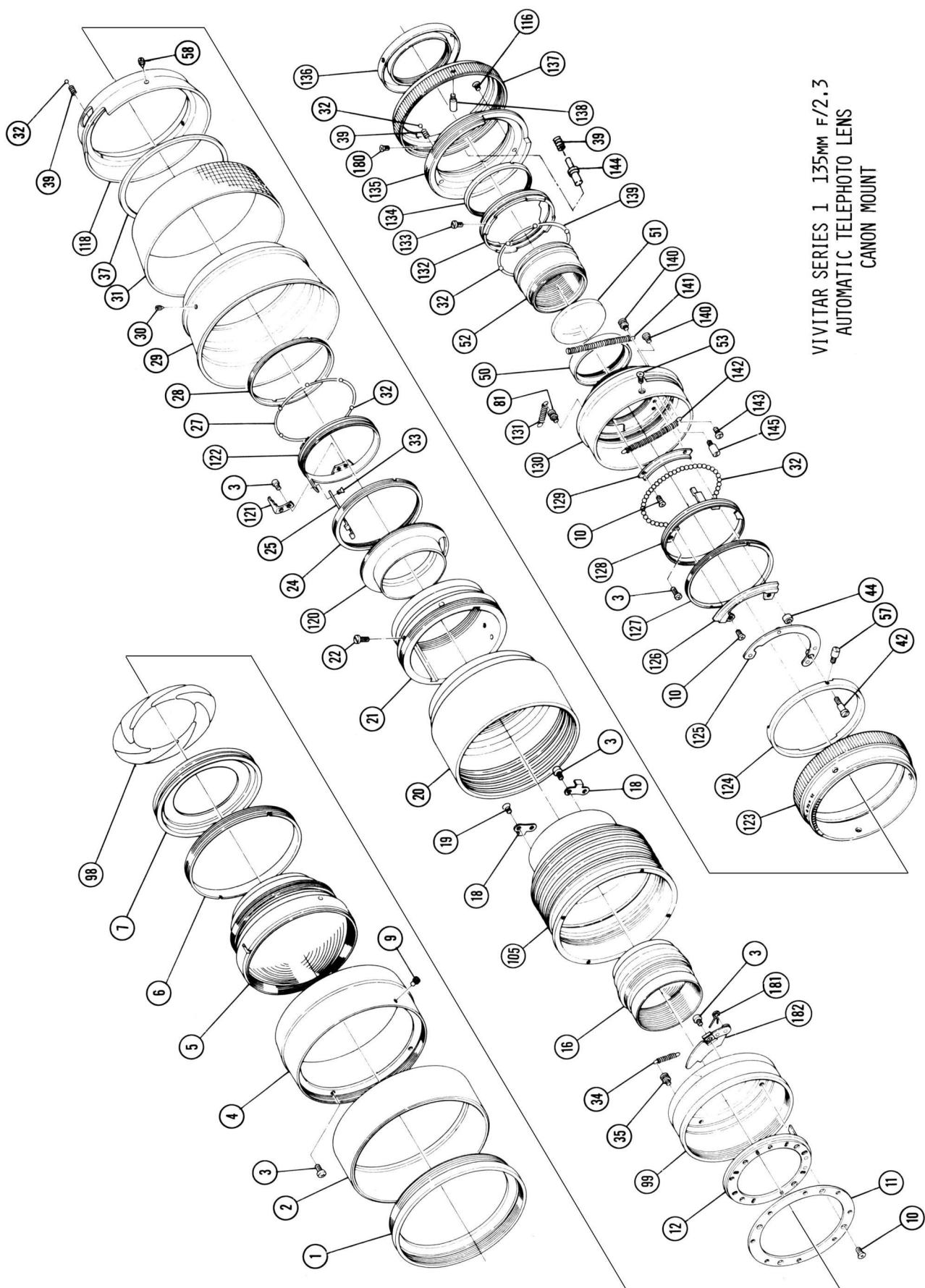




VIVITAR SERIES 1 135mm F/2.3  
AUTOMATIC TELEPHOTO LENS  
MINOLTA MOUNT

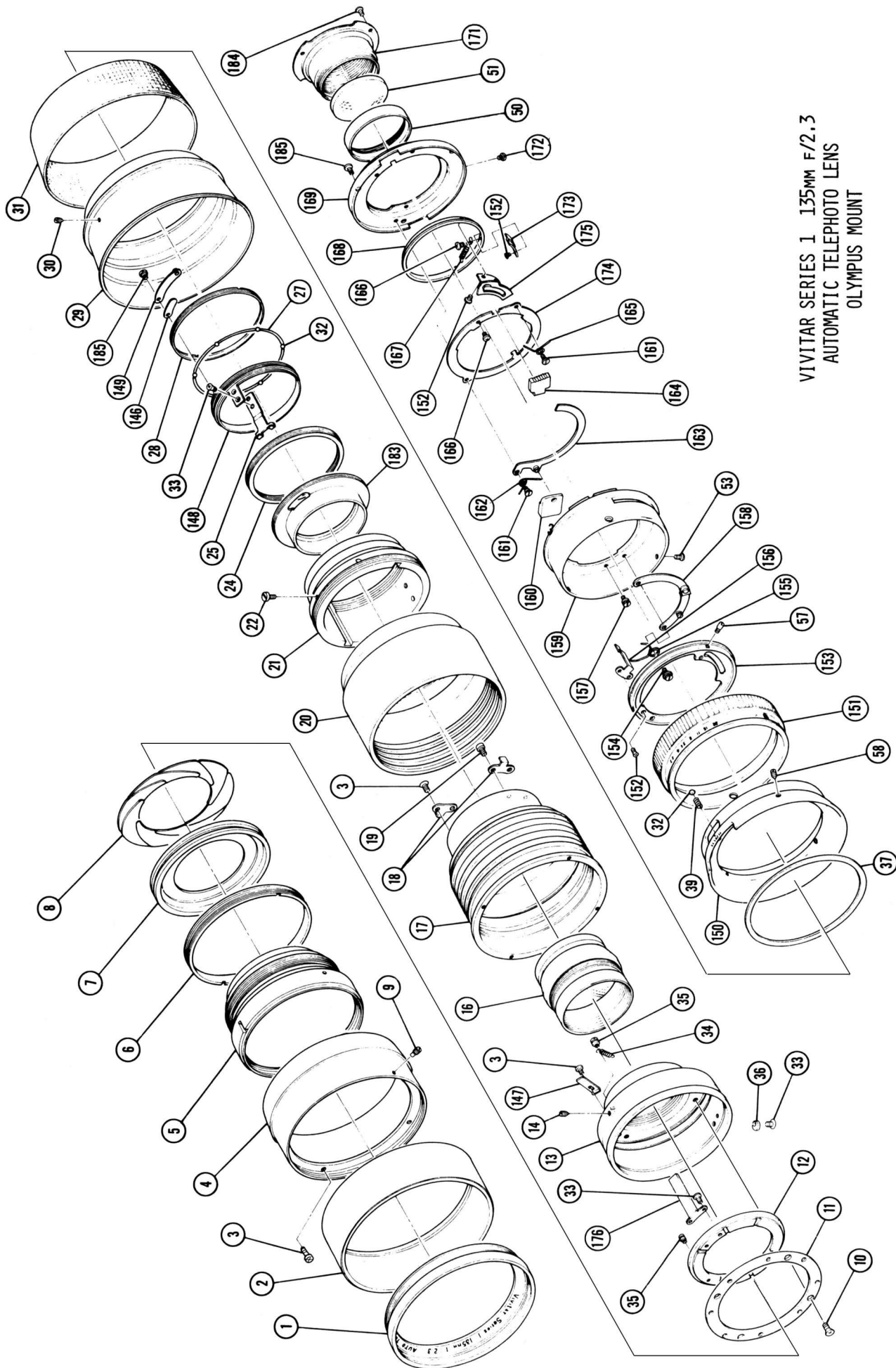


VIVITAR SERIES 1 135mm F/2.3  
AUTOMATIC TELEPHOTO LENS  
KONICA MOUNT



VIVITAR SERIES 1 135mm F/2.3  
AUTOMATIC TELEPHOTO LENS  
CANON MOUNT





VIVITAR SERIES 1 135mm F/2.3  
AUTOMATIC TELEPHOTO LENS  
OLYMPUS MOUNT

PARTS LIST  
VIVITAR SERIES 1 AUTOMATIC TELEPHOTO LENS  
135MM F/2.3

| REFERENCE | DESCRIPTION                     | PART<br>NUMBER | MOUNT & QUANTITY |   |   |    |     |   |
|-----------|---------------------------------|----------------|------------------|---|---|----|-----|---|
|           |                                 |                | U                | N | M | K  | C   | O |
| 1         | RING, NAME                      | 513010         | 1                | 1 | 1 | 1  | 1   | 1 |
| 2         | HOOD                            | 513011         | 1                | 1 | 1 | 1  | 1   | 1 |
| 3         | SCREW                           | 513012         | 10               | 6 | 7 | 6  | 10  | 7 |
| 4         | RING, FRONT                     | 513013         | 1                | 1 | 1 | 1  | 1   | 1 |
| 5         | LENS ASSEMBLY, 1st, 2nd & 3rd   | 513014         | 1                | 1 | 1 | 1  | 1   | 1 |
| 6         | RING, RETAINER                  | 513015         | 1                | 1 | 1 | 1  | 1   | 1 |
| 7         | RING, DIAPHRAGM BLADE RETAINER  | 513016         | 1                | 1 | 1 | 1  | 1   | 1 |
| 8         | BLADE SET, DIAPHRAGM            | 513017         | 8                | 8 |   |    |     | 8 |
| 9         | SETSCREW                        | 513018         | 1                | 1 | 1 | 1  | 1   | 1 |
| 10        | SCREW                           | 513019         | 4                | 6 | 4 | 8  | 8   | 4 |
| 11        | WASHER, DIAPHRAGM BLADE         | 513020         | 1                | 1 | 1 | 1  | 1   | 1 |
| 12        | RING, DIAPHRAGM BLADE OPERATING | 513021         | 1                |   | 1 |    | 1   | 1 |
| 13        | HOUSING, DIAPHRAGM              | 513022         | 1                |   | 1 |    | 1   | 1 |
| 14        | SETSCREW                        | 513023         | 3                | 3 | 3 | 3  | 3   | 3 |
| 15        | RECEPTACLE, BUFFER              | 513024         | 1                |   |   |    |     |   |
| 16        | ELEMENT HOLDER, 4th & 5th LENS  | 513025         | 1                | 1 | 1 | 1  | 1   | 1 |
| 17        | HELICOID, FIRST                 | 513026         | 1                | 1 | 1 |    | 1   | 1 |
| 18        | GUIDE, HELICOID                 | 513027         | 2                | 2 | 2 | 2  | 2   | 2 |
| 19        | SCREW                           | 513583         | 4                | 2 | 2 | 2  | 2   | 4 |
| 20        | HELICOID, SECOND                | 513029         | 1                | 1 | 1 | 1  | 1   | 1 |
| 21        | HELICOID, THIRD                 | 513030         | 1                | 1 | 1 | 1  | 1   | 1 |
| 22        | SCREW, STOP                     | 513031         | 1                | 1 | 1 | 1  | 1   | 1 |
| 23        | RING, BAFFLE                    | 513032         | 1                |   |   |    |     |   |
| 24        | RING, BALL RECEPTACLE           | 513033         | 1                |   | 1 | 1  | 1   | 1 |
| 25        | LEVER, OPERATION                | 513034         | 1                |   | 1 |    | 1   | 1 |
| 26        | RING SET, OPERATION             | 513035         | 1                |   |   |    |     |   |
| 27        | SPACER, BALL                    | 513036         | 6                | 6 | 6 | 6  | 6   | 6 |
| 28        | RING, BALL HOLDER               | 513037         | 1                |   | 1 | 1  | 1   | 1 |
| 29        | RING, FOCUS SCALE               | 513038         | 1                | 1 | 1 | 1  | 1   | 1 |
| 30        | SETSCREW                        | 513039         | 3                | 3 | 3 | 3  | 3   | 3 |
| 31        | GRIP                            | 513040         | 1                | 1 | 1 | 1  | 1   | 1 |
| 32        | BALL, STEEL 1.5ø                | 513041         | 7                | 7 | 7 | 90 | 104 | 7 |
| 33        | SCREW                           | 513042         | 3                | 3 | 3 | 3  | 3   | 3 |
| 34        | SPRING, DIAPHRAGM               | 513043         | 1                | 1 | 1 | 1  | 1   | 1 |
| 35        | SCREW, SPRING HOOK              | 515112         | 1                |   | 1 | 2  | 1   | 1 |
| 36        | CAM, DIAPHRAGM CONTROL          | 513045         | 1                | 1 | 1 | 1  | 1   | 1 |
| 37        | WASHER                          | 513046         | 1                | 1 | 1 | 1  | 1   | 1 |
| 38        | RING, DEPTH OF FIELD            | 513047         | 1                |   |   |    |     |   |
| 39        | SPRING, DETENT                  | 513048         | 1                | 1 | 1 | 2  | 2   | 1 |
| 40        | RING, DIAPHRAGM                 | 513049         | 1                |   |   |    |     |   |

PARTS LIST  
VIVITAR SERIES 1 AUTOMATIC TELEPHOTO LENS  
135MM F/2.3

| REFERENCE | DESCRIPTION                     | PART<br>NUMBER | MOUNT & QUANTITY |   |   |   |   |   |
|-----------|---------------------------------|----------------|------------------|---|---|---|---|---|
|           |                                 |                | U                | N | M | K | C | O |
| 41        | RING, CAM                       | 513050         | 1                |   |   |   |   |   |
| 42        | SCREW, SHAFT                    | 513051         | 1                |   |   |   | 1 |   |
| 43        | METAL SET, CONTROL              | 513052         | 1                |   |   |   |   |   |
| 44        | WASHER, CONTROL METAL SHAFT     | 513053         | 1                |   |   |   | 1 |   |
| 45        | RING, MANUAL DIAPHRAGM          | 513054         | 1                |   |   |   |   |   |
| 46        | SCREW                           | 513055         | 2                |   |   |   |   |   |
| 47        | SPRING, DETENT                  | 513056         | 1                |   |   |   |   |   |
| 48        | STOPPER                         | 513057         | 1                |   |   |   |   |   |
| 49        | MOUNT FRAME, PENTAX             | 513058         | 1                |   |   |   |   |   |
| 50        | LENS HOLDER, 6th                | 513059         | 1                |   |   |   |   |   |
| 51        | LENS ELEMENT, 6th               | 513060         | 1                |   |   |   |   |   |
| 52        | LENS FRAME, 6th                 | 513061         | 1                |   |   |   |   |   |
| 53        | SCREW                           | 513062         | 3                | 3 | 3 | 3 | 3 | 3 |
| 54        | METAL SET, OPERATION            | 513295         | 1                |   |   |   |   |   |
| 55        | PIN, DIAPHRAGM OPERATING        | 513064         | 1                |   |   |   |   |   |
| 56        | DIAPHRAGM LEVER, MANUAL         | 513065         | 1                |   |   |   | 1 |   |
| 57        | SCREW, CAM OPERATING            | 513066         | 1                | 1 | 1 |   | 1 | 1 |
| 58        | SETSCREW                        | 513067         | 3                | 3 | 3 | 3 | 3 | 3 |
| 59        | RING, DIAPHRAGM BLADE OPERATING | 513068         | 1                |   |   |   |   |   |
| 60        | HOUSING, DIAPHRAGM              | 513069         | 1                |   |   |   |   |   |
| 61        | PLATE SET, SECTOR               | 513070         | 1                |   |   | 1 |   |   |
| 62        | SCREW                           | 513071         | 1                |   |   | 1 |   | 1 |
| 63        | NUT, ROUND                      | 513072         | 4                |   |   | 4 |   |   |
| 64        | SCREW, FLAT                     | 513073         | 4                |   |   | 4 |   |   |
| 65        | RING, CAM                       | 513531         | 1                |   |   |   |   |   |
| 66        | LEVER SET, CAM                  | 513075         | 1                |   |   |   |   |   |
| 67        | RING, STOP                      | 513076         | 1                |   |   |   |   |   |
| 68        | RING, DEPTH OF FIELD            | 513077         | 1                |   |   |   |   |   |
| 69        | RING, DIAPHRAGM                 | 513078         | 1                |   |   |   |   |   |
| 70        | PLATE, DIAPHRAGM COUPLER        | 513576         | 1                |   |   |   |   |   |
| 71        | SCREW, COUPLER PLATE            | 513080         | 1                |   |   |   |   |   |
| 72        | RING, INSIDE                    | 513081         | 1                |   |   |   |   |   |
| 73        | RING, CAM                       | 513082         | 1                |   |   |   |   |   |
| 74        | MOUNT FRAME, NIKON              | 513083         | 1                |   |   |   |   |   |
| 75        | RING, OPERATION                 | 513084         | 1                |   |   |   |   |   |
| 76        | RING, BUFFER                    | 513085         | 1                |   |   |   |   |   |
| 77        | NIKON MOUNT                     | 513086         | 1                |   |   |   |   |   |
| 78        | LENS FRAME, 6th                 | 513087         |                  |   | 1 |   |   |   |
| 79        | LENS FRAME, 6th                 | 513088         | 1                |   |   |   |   |   |
| 80        | SPRING                          | 513089         | 1                |   |   |   |   |   |

PARTS LIST  
VIVITAR SERIES 1 AUTOMATIC TELEPHOTO LENS  
135MM F/2.3

| REFERENCE | DESCRIPTION                     | PART<br>NUMBER | MOUNT & QUANTITY |   |   |   |   |   |
|-----------|---------------------------------|----------------|------------------|---|---|---|---|---|
|           |                                 |                | U                | N | M | K | C | O |
| 81        | SCREW, SPRING HOOK              | 513090         | 1                |   |   |   | 2 |   |
| 82        | SETSCREW, BUFFER RING           | 513091         | 3                |   |   |   |   |   |
| 83        | SCREW, FLAT                     | 513092         | 1                |   |   |   |   |   |
| 84        | SCREW, PAN HEAD                 | 513093         | 5                |   |   |   |   |   |
| 85        | SCREW, FLAT HEAD                | 513094         | 3                | 3 |   |   |   |   |
| 86        | RING, OPERATING                 | 513095         |                  |   | 1 |   |   |   |
| 87        | RING, DEPTH OF FIELD            | 513096         |                  |   | 1 |   |   |   |
| 88        | RING, DIAPHRAGM                 | 513097         |                  |   | 1 |   |   |   |
| 89        | RING, CAM                       | 513098         |                  |   | 1 |   |   |   |
| 90        | SCREW, SHAFT                    | 513099         |                  |   | 1 |   |   |   |
| 91        | CONTROL METAL                   | 513100         |                  |   | 1 |   |   |   |
| 92        | MOUNT FRAME, MINOLTA            | 513101         |                  |   | 1 |   |   |   |
| 93        | SPRING, OPERATING LEVER         | 513102         |                  |   | 1 |   |   |   |
| 94        | SPACER, OPERATING LEVER         | 513103         |                  |   | 1 |   |   |   |
| 95        | LEVER, OPERATING                | 513104         |                  |   | 1 |   |   |   |
| 96        | MINOLTA MOUNT                   | 513105         |                  |   | 1 |   |   |   |
| 97        | SCREW, CONTROL METAL            | 513106         |                  |   | 1 |   |   |   |
| 98        | BLADE, DIAPHRAGM (SET)          | 513107         |                  |   | 8 | 8 | 8 |   |
| 99        | HOUSING, DIAPHRAGM              | 513108         |                  |   |   | 1 |   |   |
| 100       | RING, DIAPHRAGM BLADE OPERATING | 513109         |                  |   |   | 1 |   |   |
| 101       | RING, BAFFLE                    | 513110         |                  |   |   | 1 |   |   |
| 102       | ROLLER                          | 513111         |                  |   |   | 1 |   |   |
| 103       | RING SET, CAM                   | 513112         |                  |   |   | 1 |   |   |
| 104       | RING, BALL RETAINER             | 513113         |                  |   |   | 1 |   |   |
| 105       | HELICOID, 1st                   | 513114         |                  |   |   | 1 |   |   |
| 106       | RING, RETAINING                 | 513037         |                  |   |   | 1 |   |   |
| 107       | RING, OPERATING                 | 513116         |                  |   |   | 1 |   |   |
| 108       | LEVER, OPERATING                | 513117         |                  |   |   | 1 |   |   |
| 109       | MOUNT FRAME, KONICA             | 513118         |                  |   |   | 1 |   |   |
| 110       | LOCK TIP                        | 513119         |                  |   |   | 1 |   |   |
| 111       | BUTTON SET, LOCK                | 513120         |                  |   |   | 1 |   |   |
| 112       | RING, DIAPHRAGM                 | 513121         |                  |   |   | 1 |   |   |
| 113       | RING, BUFFER                    | 513122         |                  |   |   | 1 |   |   |
| 114       | SCREW, STOP                     | 513123         |                  |   |   | 1 |   |   |
| 115       | KONICA MOUNT                    | 513124         |                  |   |   | 1 |   |   |
| 116       | SCREW, FLAT HEAD                | 513125         |                  |   | 4 | 4 | 3 |   |
| 117       | RING, MOUNT COVER               | 513126         |                  |   |   | 1 |   |   |
| 118       | RING, DEPTH OF FIELD            | 513127         |                  |   |   | 1 |   |   |
| 119       | RING, STOPPER                   | 513128         |                  |   |   | 1 |   |   |
| 120       | RING, BAFFLE                    | 513129         |                  |   |   |   |   | 1 |

PARTS LIST  
VIVITAR SERIES 1 AUTOMATIC TELEPHOTO LENS  
135mm F/2.3

| REFERENCE | DESCRIPTION                | PART<br>NUMBER | MOUNT & QUANTITY |   |   |   |   |   |
|-----------|----------------------------|----------------|------------------|---|---|---|---|---|
|           |                            |                | U                | N | M | K | C | O |
| 121       | PLATE, OPERATING RING      | 513130         |                  |   |   |   | 1 |   |
| 122       | RING, OPERATING            | 513131         |                  |   |   |   | 1 |   |
| 123       | RING, DIAPHRAGM            | 513132         |                  |   |   |   | 1 |   |
| 124       | RING, STOP                 | 513133         |                  |   |   |   | 1 |   |
| 125       | METAL SET, CONTROL         | 513134         |                  |   |   |   | 1 |   |
| 126       | CAM TIP                    | 513135         |                  |   |   |   | 1 |   |
| 127       | WASHER, MOUNT FRAME        | 513136         |                  |   |   |   | 1 |   |
| 128       | RING, CAM OPERATION        | 513137         |                  |   |   |   | 1 |   |
| 129       | SPRING RECEPTACLE          | 513138         |                  |   |   |   | 1 |   |
| 130       | MOUNT FRAME, CANON         | 513139         |                  |   |   |   | 1 |   |
| 131       | SPRING, OPERATING RING     | 513140         |                  |   |   |   | 1 |   |
| 132       | RING, DIAPHRAGM OPERATING  | 513141         |                  |   |   |   | 1 |   |
| 133       | SCREW                      | 513142         |                  |   |   |   | 1 |   |
| 134       | RING, BALL RETAINER        | 513143         |                  |   |   |   | 1 |   |
| 135       | CANON MOUNT                | 513144         |                  |   |   |   | 1 |   |
| 136       | RING, COVER                | 513145         |                  |   |   |   | 1 |   |
| 137       | RING, LOCK                 | 513146         |                  |   |   |   | 1 |   |
| 138       | SCREW, SIGNAL              | 513147         |                  |   |   |   | 1 |   |
| 139       | SPACER                     | 513148         |                  |   |   |   | 7 |   |
| 140       | SCREW, FLAT                | 513149         |                  |   |   |   | 1 |   |
| 141       | SPRING, OPERATING RING     | 513150         |                  |   |   |   | 1 |   |
| 142       | SPRING, CAM OPERATING      | 513151         |                  |   |   |   | 1 |   |
| 143       | SCREW, SPRING HOOK         | 513152         |                  |   |   |   | 1 |   |
| 144       | PIN, E.E. CHANGE           | 513156         |                  |   |   |   | 1 |   |
| 145       | SCREW, STOP                | 513154         |                  |   |   |   | 1 |   |
| 146       | WASHER                     | 513155         |                  |   |   |   |   | 1 |
| 147       | STOPPER                    | 513208         |                  |   |   |   |   | 1 |
| 148       | RING, OPERATING            | 513157         |                  |   |   |   |   | 1 |
| 149       | OPERATION METAL (SET)      | 513158         |                  |   |   |   |   | 1 |
| 150       | RING, DEPTH OF FIELD       | 513159         |                  |   |   |   |   | 1 |
| 151       | RING, DIAPHRAGM            | 513160         |                  |   |   |   |   | 1 |
| 152       | SCREW                      | 513161         |                  |   |   |   |   | 6 |
| 153       | RING, CAM                  | 513162         |                  |   |   |   |   | 1 |
| 154       | SCREW, CONTROL METAL SHAFT | 513163         |                  |   |   |   |   | 1 |
| 155       | SPRING, CONTROL METAL      | 513164         |                  |   |   |   |   | 1 |
| 156       | LEVER, COUPLING            | 513165         |                  |   |   |   |   | 1 |
| 157       | SCREW, SPRING HOOK         | 513166         |                  |   |   |   |   | 1 |
| 158       | CONTROL METAL (SET)        | 513167         |                  |   |   |   |   | 1 |
| 159       | MOUNT FRAME, OLYMPUS       | 513168         |                  |   |   |   |   | 1 |
| 160       | DIAPHRAGM BUTTON, MANUAL   | 513169         |                  |   |   |   |   | 1 |

PARTS LIST  
VIVITAR SERIES 1 AUTOMATIC TELEPHOTO LENS  
135MM F/2.3

| REFERENCE | DESCRIPTION                         | PART<br>NUMBER | MOUNT & QUANTITY |   |   |   |   |   |
|-----------|-------------------------------------|----------------|------------------|---|---|---|---|---|
|           |                                     |                | U                | N | M | K | C | O |
| 161       | SCREW, MANUAL DIAPHRAGM METAL SHAFT | 513170         |                  |   |   |   |   | 1 |
| 162       | SPRING, MANUAL DIAPHRAGM            | 513171         |                  |   |   |   |   | 1 |
| 163       | ACTUATOR, MANUAL DIAPHRAGM          | 513172         |                  |   |   |   |   | 1 |
| 164       | BUTTON, LOCK                        | 513173         |                  |   |   |   |   | 1 |
| 165       | SPRING, LOCK BUTTON                 | 513174         |                  |   |   |   |   | 1 |
| 166       | SCREW, PAN HEAD                     | 513175         |                  |   |   |   |   | 2 |
| 167       | SPRING, OPERATING RING              | 513176         |                  |   |   |   |   | 1 |
| 168       | RING, DIAPHRAGM OPERATING           | 513177         |                  |   |   |   |   | 1 |
| 169       | OLYMPUS MOUNT                       | 513178         |                  |   |   |   |   | 1 |
| 170       | SCREW, PAN HEAD MOUNT               | 513179         |                  |   |   |   |   | 1 |
| 171       | LENS FRAME, 6th                     | 513180         |                  |   |   |   |   | 1 |
| 172       | SCREW, STOP                         | 513181         |                  |   |   |   |   | 1 |
| 173       | RETAINER, DIAPHRAGM OPERATING RING  | 513182         |                  |   |   |   |   | 1 |
| 174       | RING HOLDER, DIAPHRAGM              | 513183         |                  |   |   |   |   | 1 |
| 175       | CAM, DIAPHRAGM OPERATING            | 513184         |                  |   |   |   |   | 1 |
| 176       | SPRING                              | 513185         |                  |   |   |   |   | 1 |
| 177       | SCREW, CAM STOP                     | 513186         |                  |   |   |   |   | 1 |
| 178       | SPRING, BLADE RING                  | 513187         |                  |   |   |   |   | 1 |
| 179       | SPRING                              | 513188         |                  |   |   |   |   | 1 |
| 180       | SCREW                               | 513189         |                  |   |   | 3 |   | 3 |
| 181       | SPRING                              | 513190         |                  |   |   | 1 |   |   |
| 182       | PLATE, BUFFER                       | 513191         |                  |   |   | 1 |   |   |
| 183       | RING, BAFFLE                        | 513129         |                  |   |   |   |   | 1 |
| 184       | SCREW                               | 513193         |                  |   |   |   |   | 3 |
| 185       | SCREW                               | 513071         |                  |   |   |   |   |   |



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