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# **E. S. Ritchie & Sons, Inc**

## **Your Most Important Instrument**

### **Parts & Service Manual**

The Information contained in this manual is intended to be used as a reference for trained and qualified compass service technicians only.

E.S. Ritchie & Sons, Inc. is not liable for any damage to its products caused by misuse or by repair service rendered by unqualified persons.

Service Manual Publish Date      January 1, 2007

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# Introduction & Parts Ordering

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E.S. Ritchie & Sons, Inc. has a tradition of excellence in servicing its products. Our customers expect timely, accurate, and complete repair of all Ritchie® products, and we are committed to continuing this tradition.

As a qualified repair technician, your contribution is vital. Your work directly affects customer satisfaction.

This manual is your key resource to help you repair and service Ritchie® navigational instruments.

## **Parts ordering Information**

1. Parts are available from the factory at 50% off list price to Ritchie Authorized Service Stations who meet all requirements.
2. There is a net \$20.00 minimum order.
3. Proper part numbers from the most recent Service Manual must be used.  
If you are unsure of a part number please verify because there will be a 15% re-stocking fee for improperly ordered parts returned to the factory.

Parts can be ordered by:

Phone 781-826-5131  
781-709-3202  
Fax 781-826-7336

e-mail [service@ritchienavigation.com](mailto:service@ritchienavigation.com)  
[sales@ritchienavigation.com](mailto:sales@ritchienavigation.com)

Mail E.S. Ritchie & Sons, Inc.  
P.O. Box 548  
Pembroke, MA 02359

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<b>CombiDamp™</b>	Compass Dial	<b>Ritchie®</b>	Navigation Instruments
<b>Explorer™</b>	Magnetic Compass	<b>RitchieAngler®</b>	Magnetic Compass
<b>Globemaster®</b>	Magnetic Compass	<b>RitchieSport®</b>	Magnetic Compass
<b>Helmsman™</b>	Magnetic Compass	<b>SportAbout™</b>	Hand Held Compass
<b>Kayaker™</b>	Magnetic Compass	<b>SuperSport™</b>	Magnetic Compass
<b>Navigator™</b>	Magnetic Compass	<b>Tactician™</b>	Magnetic Compass
<b>PowerDamp Plus®</b>	Compass Dial	<b>Trek™</b>	Magnetic Compass
<b>PowerDamp®</b>	Compass Dial	<b>Voyager®</b>	Magnetic Compass

This manual is arranged by compass families. If you do not know what family the compass is in, see the index at the back of this manual.

Isopar® is a Registered Trademark of Exxon Mobil Corporation.  
Mossy Oak® is a Registered Trademark of Haas Outdoors, Inc.  
Break Up® is a Registered Trademark of Haas Outdoors, Inc.  
Shadow Grass® is a Registered Trademark of Haas Outdoors, Inc.

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# Service Manual Information

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## Model and Serial Number Information

Most Ritchie compasses built after 1974 were supplied with a model & serial number sticker which can be found on the compass bowl or the bottom of the housing. The serial number is key to determining what year a compass was built, which in turn helps you determine what parts to order in this manual.

The serial number will take one of three forms.

1. A code number stamped in the bezel designated the model # and year of manufacture. Contact Ritchie with this number for model and year information.
2. A code that consists of a letter (A, B, C, or D) and a slash /, followed by a 2 digit number.
3. A 10-digit number in which the first 2 numbers represent the year of manufacture and the second two indicate any mid year model changes. These changes are referred to as Rev numbers. (00 indicates no changes) (01 would indicate Rev 1)

Note: Some compasses have a **-R** in the serial number. This indicates that a Globemaster has been upgraded to a bladder style diaphragm and bowl.

## Examples of serial numbers

- A/87** Built in 1987; any parts ordered will be for a **1987** model compass.  
**A/87-R** Built in 1987 but upgraded to a bladder style diaphragm and bowl, order accordingly.  
**94.000123** Built in 1994; consider it a **1994** in this manual  
**94.010124** Built in 1994: consider it a **1994 Rev 1** in this manual.

## Zone Sticker & Dial Balance

For the ultimate in accuracy Ritchie Compass Dials are balanced to accommodate for magnetic inclination in the Northern Hemisphere. By special request Southern Hemisphere dials are available. To determine if a dial has been balanced for Zones 2 through 7 check the bottom of the dial for a scribed number. (Models made after 1997 will also have a zone label on the bowl. Please indicate zone when ordering a dial for the Southern Hemisphere. Note: Dials in the Explorer models will function properly in all zones except 7.

## Fluid Labels (Isopar L)

All Ritchie compasses (except sealed capsule models) will have an ID label indicating that the compass is filled with Isopar. Older models containing odorless Mineral Spirits will have no ID label.

## Using This Manual

This manual is divided into seven sections arranged by compass family. An Index is provided at the back of the manual for model number reference.

Most even number pages have diagrams showing compass breakdown. Each part is assigned a key number, which is used in conjunction with the parts list found on the next page. If there is more than one key number assigned to part, different colors or types are available.

**N/A indicates that the part is no longer available. In some cases a replacement part may be available and the part number is given.**

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# Repair Tips

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## Opening comments

1. Be careful not to disturb the compensators when performing a repair. If you do, re-compensation will be necessary.
2. Before beginning any service work, check the dial's sensitivity.
3. Replace O-rings on all repairs.
4. Make sure you do not disturb the factory bend in the balance tab, unless re-balancing the gimbal ring & pan assembly is necessary.
5. When reassembling fully gimbaled units, make sure to install the gimbal with the correct side up. The flat surface should be on top and the gimbal pins and springs should not be visible.

## General Repair Tips

### Sticking dial

1. Before disassembly, follow these steps to test for a sticking dial.
  - a) Allow dial to settle, and then take note of the reading.
  - b) Deflect the dial 5° to port with a ferrous screwdriver or similar device.
  - c) Check to see that the dial returns to the original reading.
  - d) Repeat steps b and c, this time deflect the dial to starboard.
2. If the dial fails to return accurately the cause is usually a worn or defective pivot or jewel. The complete dial assembly must be replaced. The pivot and jewel are not field repairable.
3. Drain the compass of fluid and remove the dome.
4. Do not disturb the factory bend in the balance tab, unless the gimbal system is off balance. If it is off balance, refer to the next section.
5. Replace the dial assembly and re-assemble the compass with new O-ring seals.

### Gimbal system off balance

1. Drain the compass of fluid and remove the dome.
2. Allow the dial/pan/gimbal assembly to dry thoroughly before attempting to balance them.
3. Check the pan to gimbal ring spacing. The pan should have just enough clearance to swing freely within the ring. Excess spacing will cause the pan to slide side to side and make accurate gimbal balance virtually impossible.
4. Set the bowl on the bench and using a small bubble level shim it until the top is level.
5. Place the dial/pan/gimbal assembly in the bowl and observe the relationship between the gimbal ring and the top of the bowl. If necessary, bend the balance tab to level the gimbal ring with the top of the bowl.
6. Observe the relationship of the pan to the gimbal ring. If necessary, bend the balance tab to level the pan with the gimbal ring.
7. Re-assemble the compass with new O-ring seals.

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# Repair Tips & Fluid Requirements

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## Bubble in the fluid

A bubble in the fluid usually indicates a leak or incomplete vacuuming of the fluid. The problem may be caused by inadequately bottomed bezel or diaphragm retaining screws, improperly installed fill plug screw, failed o-ring, diaphragm, bowl, or crazed dome.

1. Check to see if there is an O-ring or diaphragm leak by pressing on the diaphragm.
2. Replace the failed part.
3. Make sure the diaphragm retainer is completely bottomed out.
4. Re-assemble the compass with new O-ring seals.

## Dome Replacement

1. Always replace the dome if any cracks or de-lamination is visible.
2. When re-assembling a flare type dome, the dome must be centered inside the bezel and the bezel screws must be tightened evenly in a torque pattern. There should be a space left between the bezel and clamping ring that is even all the way around.
3. When re-assembling a compression type dome, the dome and bezel will self-center. the bezel screws must be tightened evenly in a torque pattern. The bezel will bottom against the bowl (or clamping ring) when the screws are tight.

## Dampening Fluid

Always use Ritchie compass fluid. (Be sure to subject the fluid to a vacuum equivalent of 28 inches of mercury for a minimum of 15 minutes before sealing it in the compass. This step prevents the formation of a bubble in the fluid due to temperature changes.)

Ritchie began using Isopar L as dampening fluid during 2001. This fluid is a high-purity isoparaffinic solvent very similar to Odorless Mineral spirits. Ritchie changed to this fluid because it has a higher flash point and conforms to most of the world's shipping regulations. It is important to note that some other manufacturers use Isopar M as their dampening fluid.

PLEASE NOTE: **ISOPAR M CANNOT BE USED IN RITCHIE COMPASSES.**

## Replacing Odorless Mineral spirits with Isopar L

Ritchie will no longer be providing Odorless Mineral Spirits. If you have a compass that has odorless mineral spirits, you can replace it with Isopar L. It is recommended that you completely replace the old fluid with Isopar L. There is no harm to the compass if a small amount of Odorless Mineral Sprits is mixed with the Isopar L.

Quantity	Ritchie Part #
Pint (16 fl oz)	SH-0154
Quart (32 fl oz)	SH-0155
1 Gallon (128 fl oz)	SH-0156
4 Gallons (512 fl oz)	SH-0157

Fluid Capacity	
Voyager	9.4 fl oz
Helmsman	17.0 fl oz
Navigator	24.4 fl oz
5" Globemaster	40.0 fl oz
6" Globemaster	66.1 fl oz

# Options for Alternate Lighting Voltages

<b>Type 1 Lighting (1 LED)</b>
These Compasses have one light wire
<b>B-80's</b> (all) & <b>B-81's</b> (1981 to 1997)
<b>D-84's</b> (all) & <b>D-85</b> (1981 to 1997)
<b>F-82's</b> (all) & <b>F-83's</b> (1981 to 1997)
<b>HB-70</b> (All) & <b>HB-71</b> (1981 to 1995)
<b>HB-85</b> (All)
<b>HD-74</b> (All) & <b>HD-75</b> (1981 to 1995)
<b>HD-75</b> (1981 to 1995)
<b>HF-72's</b> (all) & <b>HF-73's</b> (1981 to 1995)
<b>HF-742's</b> (all)
<b>HV-76 &amp; 77</b> (all)
<b>SS-1000's</b> (all) & <b>SS-1002's</b> (all)

<b>Type 2 Lighting (2 LED's)</b>
These Compasses have two light wires (2 LED's Total)
<b>B-81's &amp; D-85</b> (1998 to 2005)
<b>F-83's</b> (1998 to 2005)
<b>HB-71 &amp; HD-75</b> (1996 to 2005)
<b>HF-73's &amp; HF-743's</b> (1996 to 2005)
<b>HF-79's</b> (all)
<b>S-87's</b> (2000 to 2005)

<b>Type 3 Lighting (2 LED's)</b>
These Compasses have one light wire
<b>DNB-200, DNP-200 &amp; DNW-200</b> (all)
<b>FN-201's &amp; FNW-201's</b> (all)
<b>Globemasters</b> (1996 to present)
<b>SS-2000's</b> (all)

<b>Type 1a Lighting (1 ultra bright LED)</b>
These Compasses have one light wire
<b>B-80's</b> (2005 rev 1 to present)
<b>D-84's</b> (2005 rev 1 to present)
<b>F-82's</b> (2005 rev 1 to present)
<b>HB-70</b> (2005 rev 1 to present)
<b>HB-740 &amp; HB-845</b> (all)
<b>HB-85 &amp; HD-74</b> (2005 rev 1 to present)
<b>HD-744</b> (all)
<b>HF-72's &amp; HF-742's</b> (2005 rev 1 to present)
<b>SS-1000's &amp; SS-1002's</b> (2005 rev 1 to present)

<b>Type 2a Lighting (2 ultra bright LED's)</b>
These Compasses have two light wires
<b>B-81's</b> (2005 rev 1 to present)
<b>F-83's</b> (2005 rev 1 to present)
<b>HB-71</b> (2005 rev 1 to present)
<b>HB-741 &amp; HD-745</b> (all)
<b>HD-75</b> (2005 rev 1 to present)
<b>HF-743's</b> (2005 rev 1 to present)
<b>S-87's</b> (2005 rev 1 to present)

<b>Type 4 Lighting (4 LED's)</b>
These Compasses have two light wires
<b>DNB-203, DNP-203 &amp; DNW-203</b> (all)
<b>FN-203's &amp; FNW-203's</b> (all)

<b>Type 5 Lighting (3 LED's)</b>
These Compasses have two light wires
<b>BN-202</b> (all)

<b>Resistor selection by LED Part Number</b>		
	<b>24 volt</b>	<b>32 volt</b>
GM-0087 ASY	SH-0126-200	SH-0126-330
NV-0044 ASY w/ NV-0045 ASY	SH-0126-200	SH-0126-330
SH-0028 ASY	SH-0126-200	SH-0126-330
SH-0029 ASY	SH-0126-330	SH-0126-500
SH-0102 ASY	SH-0126-330	SH-0126-500
SH-0102 ASY (2)	SH-0126-200	SH-0126-330
SH-0111 ASY	SH-0126-200	SH-0126-330
SH-0174 ASY	SH-0126-200	SH-0126-330
SH-0174 ASY w/ NV-0128 ASY	NV-0160-150	NV-0162-250
SH-0176 ASY	SH-0126-200	SH-0126-330
SH-0194 ASY*	SH-0126-820	SH-0126-1.1
SH-0194 ASY w/ SH-0195* ASY	SH-0126-390	SH-0126-560
SH-0195 ASY*	SH-0126-820	SH-0126-1.1
SH-0195 ASY* (2)	SH-0126-390	SH-0126-560
SH-0202 ASY*	SH-0126-820	SH-0126-1.1

\* ultra-bright LED

<b>Resistor selection by Lighting Type</b>		
	<b>24 volt</b>	<b>32 volt</b>
Type 1	SH-0126-330	SH-0126-500
Type 1a	SH-0126-820	SH-0126-1.1
Type 2	SH-0126-200	SH-0126-330
Type 2a	SH-0126-390	SH-0126-560
Type 3	SH-0126-200	SH-0126-330
Type 4	NV-0160-150	NV-0162-250
Type 5	SH-0126-200	SH-0126-330

# Protective Covers

Protective Covers			
Family		Ritchie Part #	Comments
<b>Explorer</b>			
All	B-51's, D-55's F-50's, RA-91's, RA-93's, S-53's & S-0FF90	<b>E-50-C</b>	
<b>Voyager</b>			
All	B-80, D-84, D-85, F-82, F-82W	<b>V-80-C*</b>	Use V-80-C when you have a RU-90 or RU-90W with the optional Light Kit installed.
82 to 2000	B-81, F-83, F-83W		
2000 rev 1 to present	B-81, B-81W, F-83, F-83W S-87, S-87W	<b>V-83-C*</b>	
All	RU-90 & RU-90W	<b>V-81-C*</b>	
<b>Helmsman</b>			
All	HB-740, HB-741, HD-744, HD-745, HF-742's, HF-743's SS-1002's	<b>HF-741-C*</b>	
All	HF-72's, HF-73's, HB-70, HB-71, HD-74, HD-75, HB-85, SS-1000's,	<b>H-71-C*</b>	Some OEM's and older style Helmsman's use the HL-0087 sunshade (see page 5-12). Use Protective cover # H-70-C*
	HF-79, HF-79G, HF-79G	<b>H-79-C**</b>	
	HV-76 & HV-77	<b>HV-C*</b>	
		<b>HC-80</b>	
<b>Navigator</b>			
All	ALL Models (except BN-202)	<b>N-203-C*</b>	replaces N-200-C
	BN-202	<b>BN-C*</b>	
		<b>NC-20</b>	Back Cover
<b>Globemaster</b>			
All	FB-500 & SF-500	<b>LL-C**</b>	
	SS-5000 & SS-5000W	<b>LL-C**</b>	
	SP-5C & SP-5B	<b>GM-5C</b>	
	SS-5100P & SS-5100B	<b>GM-5C</b>	
* For replacment rubber bumpers order Part # SH-0012			
**For replacment rubber bumpers order Part # 5G-0139			

Leveling Blocks		Weather Shields	
HV-76 & HV-77	HL-B	Binnacle mount	WS-P
BN-202	N-LB		



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# Accessories & Screwdrivers

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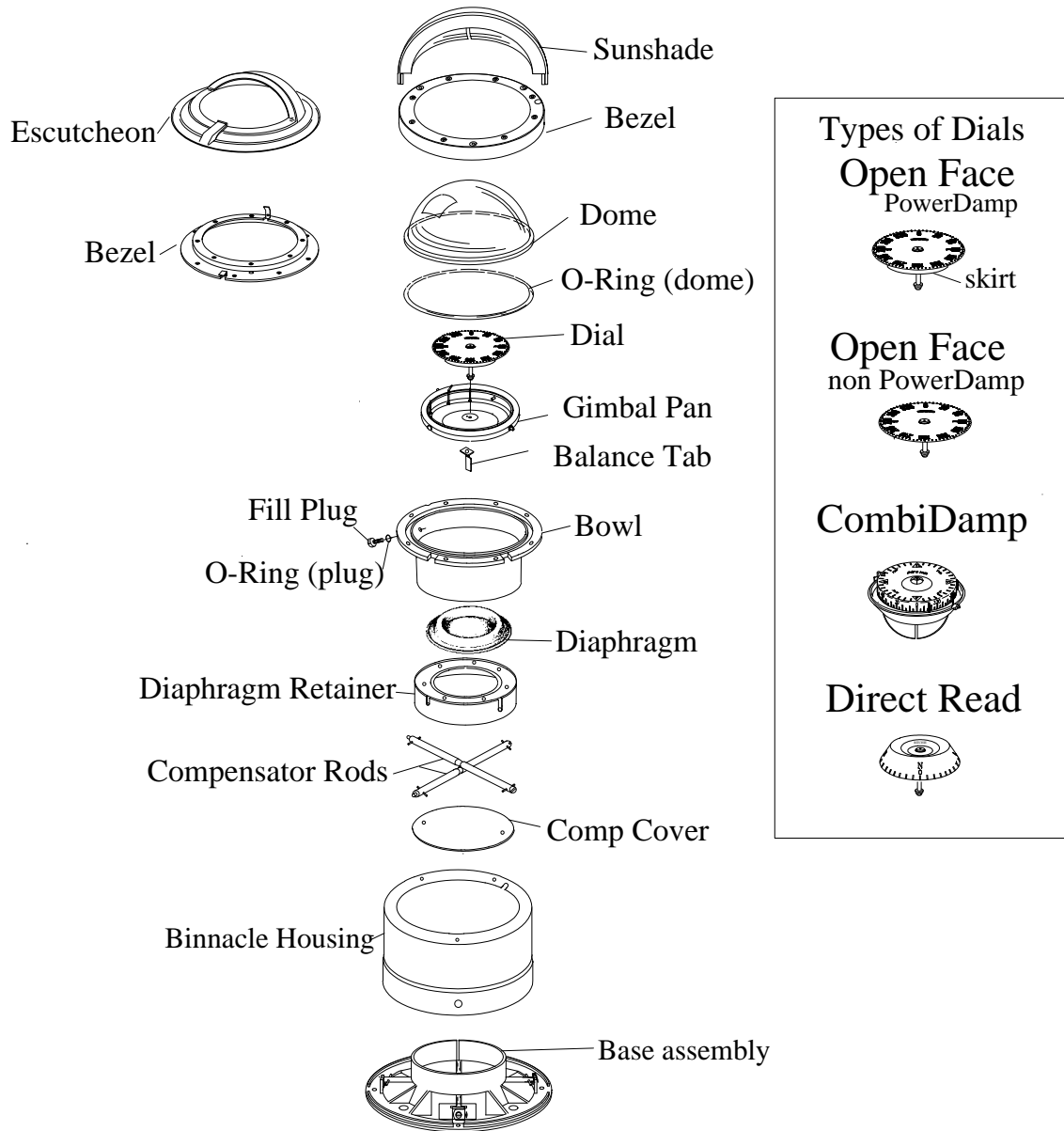
<b>Compensator Screwdrivers</b>			
Sport	EX-0066	Helmsman (except HV-76 & 77)	SH-0069
Trek	EX-0066	Navigator (except BN-202)	SH-0069
Explorer	EX-0066	HV-76 & 77, BN-202	SH-0058
Voyager	SH-0069	Globemaster	SH-0058

<b>Kayak Tie downs</b>		
	<b>X-TD</b>	<b>KTD.2</b>
Bungee Cord 3'	RS-0117	RS-0117
Snap Clip	RS-0118	RS-0118
Mounting Plate	RS-0115	EX-0193
Foam Spacer	RS-0119	EX-0150
Holder	X-11-H	N/A

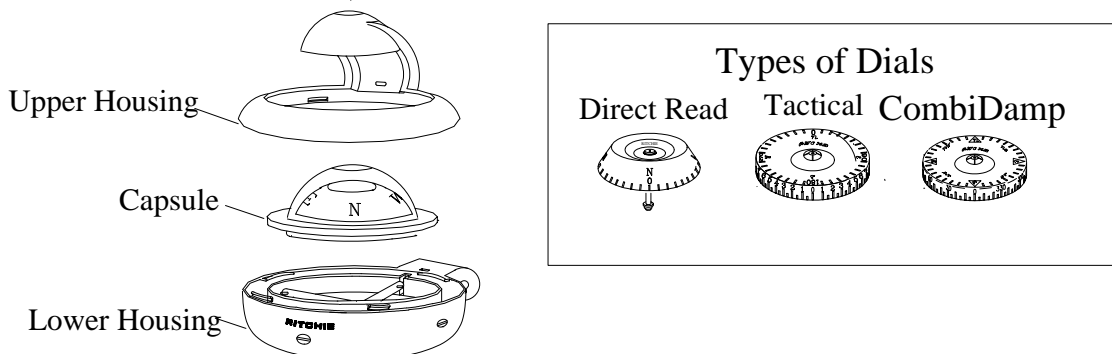
<b>Navy Standard</b>	
CS-06P1T1	Jewel, Navy Std.
CS-08J1D1	Pivot, Navy Std.
CS-08E1G1	O-ring, Navy Std. (old)
CS-08E3G1	O-ring, Navy Std.

# The Ritchie Compass

## Repairable Capsule Design



## Sealed Capsule Design



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# Sport & SportAbout

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## **Production History (rev info)**

### X-10's (1991 to present)

- 1999: (Rev 1) Changed lighting from incandescent bulb to LED.
- 2001: (No Rev) Re-designed 5-degree dials for better readability.
- 2001: (No Rev) Changed dial in X-10-A (automotive) to the new 5-degree dial.
- 2001: (Rev 1) Changed to Isopar L dampening fluid.
- 2004: (No Rev) Reintroduced the 10-degree dial on the X-10-A (automotive)

### X-11's (1995 to present)

- 2001: (no serial number) Re-designed 5-degree dial for better readability.
- 2001: (no serial number) Changed to Isopar L dampening fluid.

### X-15's (1997 to 2005)

- 1999: (No Rev) Re-designed nut to allow for thinner bulkhead mounting.
- 2001: (No Rev) Re-designed the 5-degree dial for better readability.
- 2001: (Rev 1) Changed to Isopar L dampening fluid.

### X-21's

- 2005: Began production

## **Repair Tips**

Sports feature factory sealed dome/dial/bowl capsule. Most repairs require merely replacing the capsule

### X-10's

To disassemble, take a butter knife (or similar tool) and wedge it between the top and bottom housing to the left of the name Ritchie. Pry up until the parts snap open. Repeat this step on the tab to the right of the name Ritchie. This will remove the top housing.

To close, guide the top housing onto the bottom housing so that the rear tabs are in place. Snap the right front side of the top housing down. Repeat with some pressure until the left side snaps down. Guide the light wire through the hole in the lower housing.

### X-15's & X-21's

These Models cannot be serviced in the field.

### X-11's

The SportAbout capsule is removable from its impact resistant silicon case. Simply peel back the case and pop out the capsule.

The V-notch top cover is removable from the top of the capsule and should be reused on the replacement capsule. When service has been completed, be sure to realign the V-notch top with the lubber line.

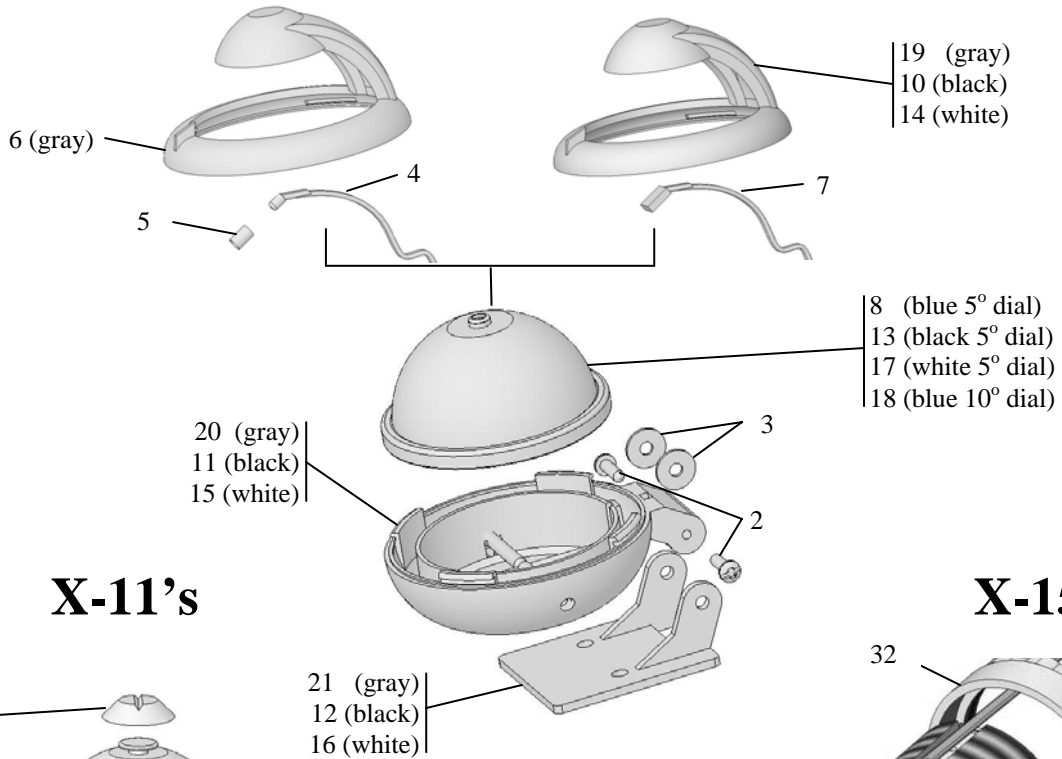
# Sport & SportAbout

X-10, X-10-M, X-10-A, X-10B-M, X-10W-M, X-15SBB, X-15VBU, X-15SWW,  
X-21BB, X-21BU, X-21WW, X-11-G X-11-Y

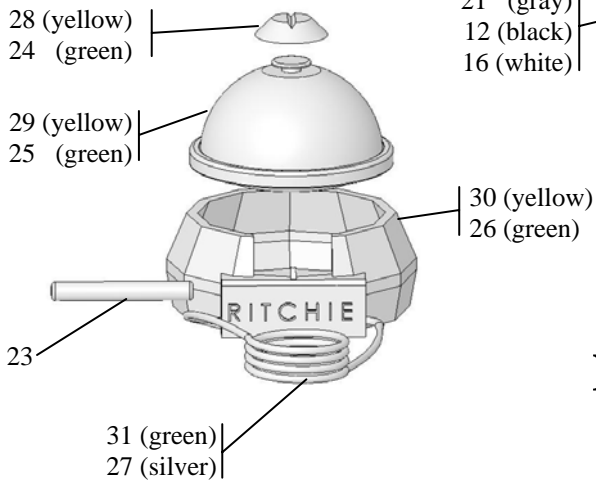
## X-10's

1991 to 1999

2000 to present



## X-11's

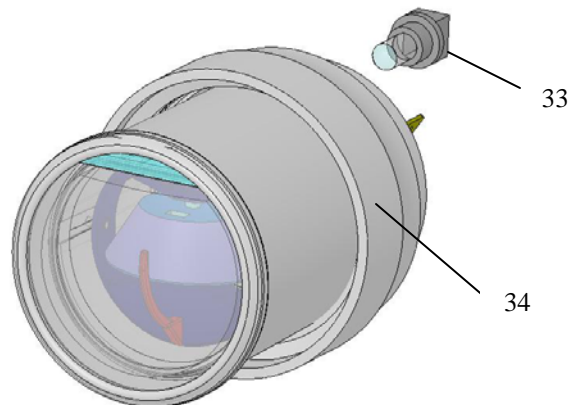


## X-15's



*Shown without bezel*

## X-21's



Note: Capsules are not sold separately for the X-15's & X-21's

# Sport & SportAbout

## Part List

2	RS-0018	Screw, # 4 x 3/8 bracket, mounting	all X-10's
3	RS-0021	Washer, rubber	
4	RS-0004 ASY	Light, 14V clear bulb	X-10's
5	RS-0006	Diffuser, light (use w/ clear light)	(1991 to 1999)
6	CS-0015	Top Housing, gray (use w/clear light)	X-10, X-10-A, X-10-M (1991 to 1999)
7	RS-0105 ASY	Light, 14V green LED	X-10's (2000 to present)
8	RS-0007 ASY	Capsule, blue 5° dial	X-10, X-10-M
10	RS-0001 BLK	Top Housing, black	X-10B-M
11	RS-0002 BLK	Bottom housing, black, (with Comps)	
12	RS-0003 BLK	Bracket, universal, black	
13	RS-0126 ASY	Capsule, black 5° dial	
14	RS-0001 WHT	Top Housing, white	X-10W-M
15	RS-0002 WHT	Bottom Housing, white, (with Comps)	
16	RS-0003 WHT	Bracket, Universal, White	
17	RS-0125 ASY	Capsule, white 5° dial	
18	RS-0036 ASY	Capsule, blue 10° dial	X-10-A
19	RS-0001	Top Housing, gray	X-10, X-10A. X-10-M
20	RS-0002	Bottom Housing, gray, (with Comps)	
21	RS-0003	Bracket, universal, gray	
23	RS-0051	Illuminator, chemical green (pkg. of 1)	X-11Y & X-11G
24	RS-0056	Cover, green silicone rubber	X-11G
25	RS-0054 ASY	Capsule, green	
26	RS-0055	Housing, green silicone rubber	
27	RS-0057	Lanyard, silver	
28	RS-0048	Cover, yellow silicone rubber	X-11Y
29	RS-0052 ASY	Capsule, yellow base, white dial	
30	RS-0047	Housing, yellow silicone rubber	
31	RS-0050	Lanyard, green	
32	RS-0072	Mounting Nut	all X-15's
33	RS-0148 GRN	Light Assembly, Green LED	all X-21's
34	RS-0152	Mounting Nut	

Mounting Tape for all the X-10's **PART # RS-0023**

Mounting Gasket for all the X-15's **PART # RS-0088**

Mounting Gasket for all the X-21's **PART # RS-0151**

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## **Production History (rev info)**

TR-31's & TR-33's (2001 to present)

2001: Began production

TR-35's

2002: Began production

TR-31's TR-33's & TR-35's (excluding Camo Models (TR-31S & TR-31B))

2004: (Rev 1) Change directional lighting

## **Repair Tips**

Treks feature factory sealed dome/dial/bowl capsule. Most repairs require merely replacing the capsule

TR-31's & TR-33's

To disassemble, apply pressure to the two quadrants at the rear of the compass marked "Press Here". This will snap off the upper cover. If you are having difficulty try alternating pressure between the two points. It may also be helpful to apply pressure in the front quadrants diagonal to the rear points.

TR-35's

To disassemble apply pressure to the four Access portals found on the side of the compass. Apply the pressure one portal at a time using a slotted screw driver. It is not necessary to pry the top off.

All Models

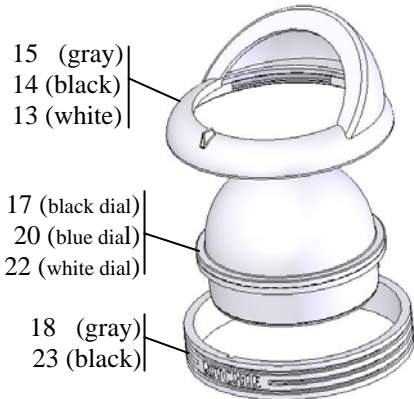
For re-assembly simply snap the upper cover back into place.

If you replace or disturb the light wire make sure it is back in place before re-assembling the compass.

# Trek

## TR-31, TR-31G, TR-31W, TR-33, TR-33G, TR-33W, TR-35, TR-35G, TR-35W

**TR-33's**

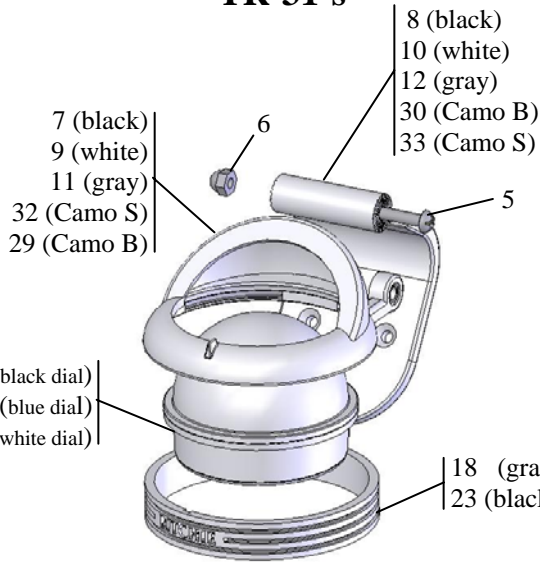


15 (gray)  
14 (black)  
13 (white)

17 (black dial)  
20 (blue dial)  
22 (white dial)

18 (gray)  
23 (black)

**TR-31's**



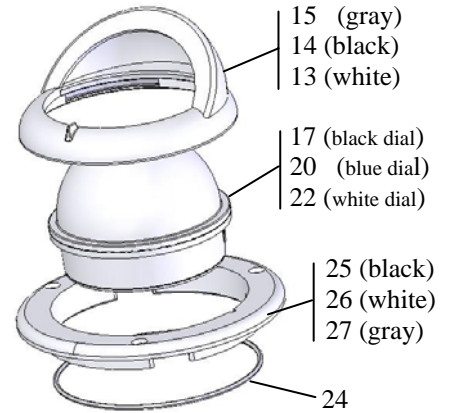
8 (black)  
10 (white)  
12 (gray)  
30 (Camo B)  
33 (Camo S)

7 (black)  
9 (white)  
11 (gray)  
32 (Camo S)  
29 (Camo B)

17 (black dial)  
20 (blue dial)  
22 (white dial)

18 (gray)  
23 (black)

**TR-35's**

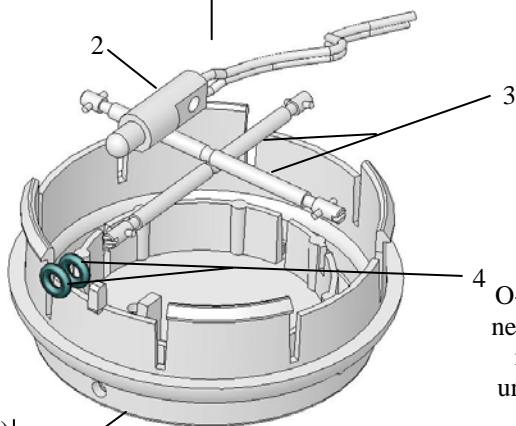


15 (gray)  
14 (black)  
13 (white)

17 (black dial)  
20 (blue dial)  
22 (white dial)

25 (black)  
26 (white)  
27 (gray)

24

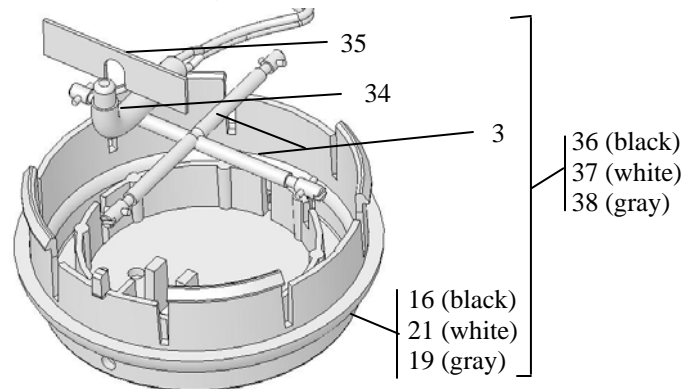


n/a\* (black)  
n/a\* (white)  
n/a\* (gray)  
31 (Camo S)  
28 (Camo B)

**2001 to 2004**  
(Camo models to present)

\* use new lower housing with new light

O-rings are not needed on flush models and units with new style lights



36 (black)  
37 (white)  
38 (gray)

16 (black)  
21 (white)  
19 (gray)

**2004 rev 1 to present**



# Trek Part List

2	EX-0022 CS	Light socket, wire, and <b>bulb</b>	ALL Treks* (2001 to 2004)
3	TR-0012 MAG	Compensator rod (need 2)	All Treks
4	TR-0020	O-ring, Light Blocker (need 2)	TR-31's & TR-33's (2001 to 2004)
5	TR-0009	Screw 8-32 x 2" Round Head	TR-31, TR-31B, TR-31S, TR-31G & TR-31W
6	TR-0010	Nut 8-32, Acorn	
7	TR-0007 BLK	Upper Housing, Bracket Mount, Black	TR-31
8	TR-0008 BLK	Bracket, Black	
9	TR-0007 WHT	Upper Housing, Bracket Mount, White	TR-31W
10	TR-0008 WHT	Bracket, White	
11	TR-0007 GRY	Upper Housing, Bracket Mount, Gray	TR-31G
12	TR-0008 GRY	Bracket, Gray	
13	TR-0006 WHT	Upper Housing, White	TR-33W & TR-35W
14	TR-0006 BLK	Upper Housing, Black	TR-33 & TR-35
15	TR-0006 GRY	Upper Housing, Gray	TR-33G & TR-35
16	TR-0005 BLK**	Lower Housing, black	TR-31, TR-33 & TR-35
17	TR-0014 ABK	Capsule, 5° dial, Black	TR-31, TR-31B, TR-31S, TR-33 & TR-35
18	TR-0011 GRY	Trim Band, Gray	TR-31 & TR-33
19	TR-0005 GRY**	Lower Housing, Gray	TR-31G, TR-33G & TR-35W
20	TR-0014 ABU	Capsule, 5° dial, Blue	TR-31G, TR-33G & TR-35W
21	TR-0005 WHT**	Lower Housing, White	TR-31W, TR-33W & TR-35W
22	TR-0014 AWT	Capsule, 5° dial, White	TR-31W, TR-33W & TR-35W
23	TR-0011 BLK	Trim Band, Black	TR-31G, TR-31W TR-31B, TR-31S, TR-33G & TR-33W
24	TR-0048	O-ring, (used as a spacer)	TR-35, TR-35G & TR-35W
25	TR-0026 BLK	Bezel, Black	TR-35
26	TR-0026 WHT	Bezel, White	TR-35W
27	TR-0026 GRY	Bezel, Gray	TR-35G
28	TR-0033	Lower Housing, Mossy Oaks®, Break Up®	TR-31B
29	TR-0035	Upper Housing, Mossy Oaks®, Break Up®	
30	TR-0037	Bracket, Mossy Oaks®, Break Up®	
31	TR-0034	Lower Housing, Mossy Oaks®, Shadow Grass®	TR-31S
32	TR-0036	Upper Housing, Mossy Oaks®, Shadow Grass®	
33	TR-0038	Bracket, Mossy Oaks®, Shadow Grass®	
34	TR-0050 ASY	Light Assembly	ALL Treks* (2004 to present)
35	TR-0051	Light Clip	
36	TR-0005 XBK	Lower Houing Asy, Black, Include key #'s 3, 34, 35 & 8	TR-31, TR-33 & TR-35
37	TR-0005 XWT	Lower Houing Asy, White, Include key #'s 3, 34, 35 & 10	TR-31W, TR-33W & TR-35W
38	TR-0005 XGY	Lower Houing Asy, Gray, Include key #'s 3, 34, 35 & 12	TR-31G, TR-33G & TR-35W

\*Camo Models (TR-31S & TR-31B) will contuse to use the older style Light

\*\* This part will not accept the old style light you will need to upgrade the light and clip

Mounting Gasket for all the TR-35's **PART # TR-0027**

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# Explorer

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## Production History (Rev info) 1987 to Present

### All Explorers

2001: (Rev 3) Explorer Compasses received Wheelmark Certification.

### B-51's, RA-91's, RA-93's, S-53's, & D-55

1999: (Rev 1) Modified capsule to improve performance.

1999: (Rev 2) Modified capsule to aid in production.

2001: (Rev 1) Changed color of bowl to green to produce filtered illumination.

2001: (Rev 2) Changed to Isopar L dampening fluid.

### F-50's

1999: (Rev 1) Modified capsule to improve performance.

1999: (Rev 2) Modified capsule to aid in production.

2001: (Rev 1) Changed color of bowl to green to produce filtered illumination.

2001: (Rev 2) Changed to Isopar L dampening fluid.

### V-57, V-57W S-58W, & S-59's

2001: (Rev 1) Changed to Isopar L dampening fluid.

### V-57.2 & V-57W.2

2001: These Models replaced the V-57 and V-57W

### V-527, V-537, V-537W, V-537B

2005: Began Production

## Repair Tips

Explorers feature factory sealed dome/dial/bowl capsule. Most repairs require replacing the capsule.

### B-51's & RA-91's

When removing the capsule from the upper housing, make sure the thumbscrews are backed out enough to clear the capsule.

### RA-93's S-53's

To remove the capsule from the upper housing on a surface mount model pull the release buttons away from the capsule.

### F-50-K & F-50-WT

Some older models use an O-ring and silicone. If you need to replace a capsule you will also need to replace the O-ring with the new gasket (page 3-6 item # 16).

### S-58W, S-59 & S-59W

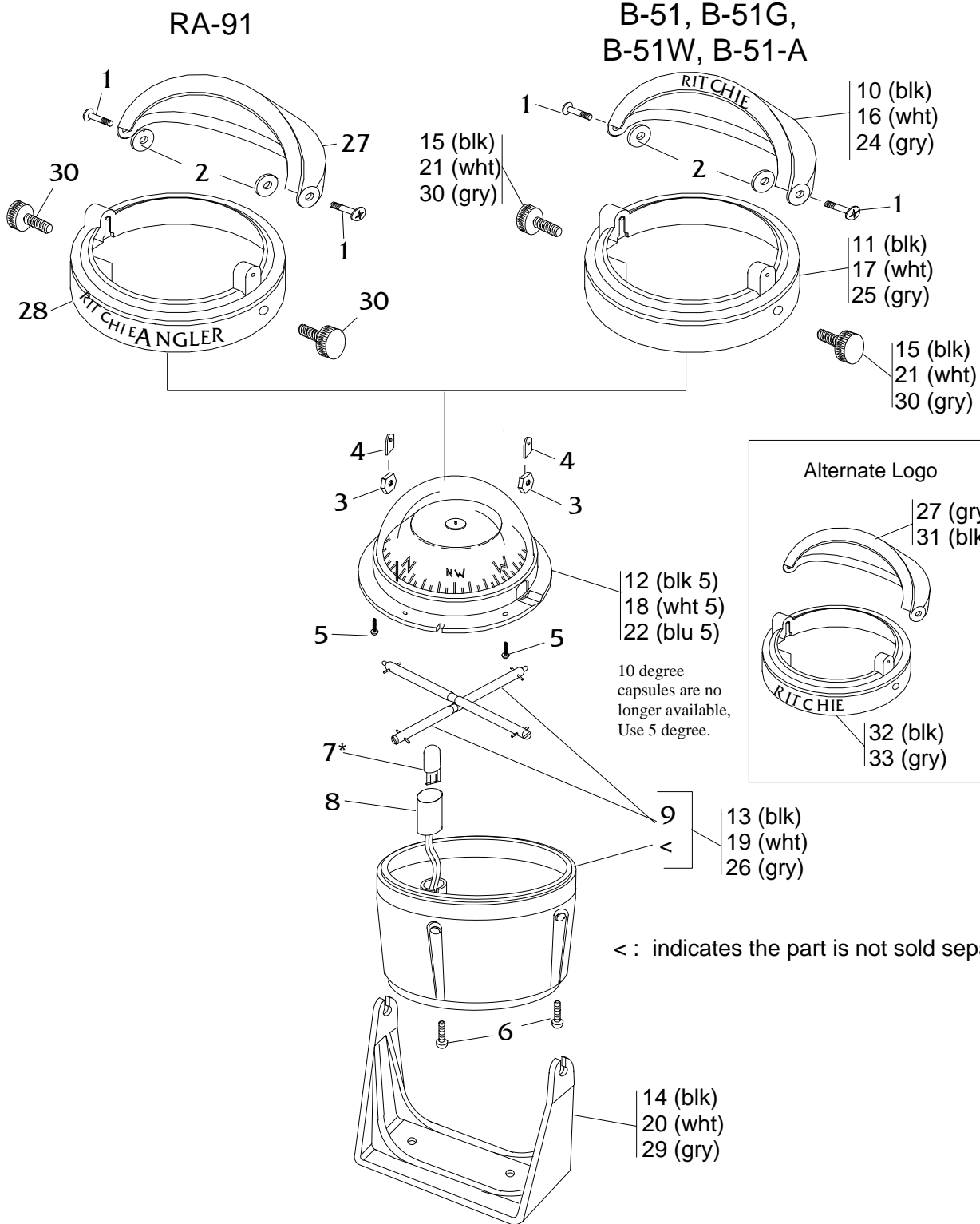
No disassembly is required; simply replace the movable bezel ring onto a replacement capsule. (Make sure that the rubber O-ring remained in place).

### Helpful Hint -

To aid in bezel re-attachment, a small amount of dish soap works as a great lubricant.

# Explorer

## B-51, B-51G, B-51W, B-51-A, RA-91



# Explorer

## Parts List for Bracket Mounts

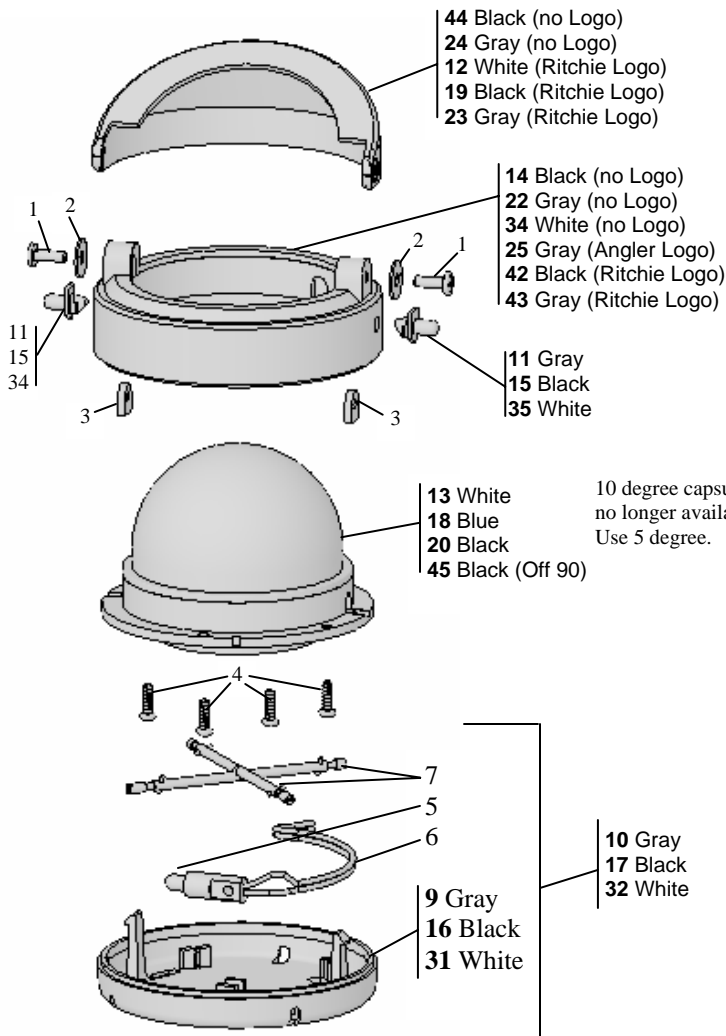
1	SH-0067	Screw, sunshade retaining	B-51, B-51G, B-51-A, B-51W, RA-91
2	SH-0083	Washer, sunshade	
3	SH-0037	Nut, thumbscrew retaining	
4	EX-0026	Nut, shade retaining	
5	SH-0062	Screw, 4-24 x 1/2, round. head	
6	EX-0032	Screw, 4 x 1/2, oval. head	
7	EX-0005*	Bulb, 12 volt subminiature wedge # 86	
8	EX-0022 ASY	Light socket and wire, <b>Bulb included</b>	
9	EX-0030 MAG	Compensator rod	
10	EX-0034	Sunshade, with "RITCHIE" logo, black	B-51
11	EX-0002 RAW	Bezel, black, NO LOGO	
12	EX-0006 ASY	Capsule, black 5° dial	
13	EX-0013	Housing, black, <i>Includes 2 of key # 9</i>	
14	EX-0004	Bracket, black	
15	SH-0077 ASY	Thumbscrew, black	B-51W
16	EX-0121	Sunshade, with "RITCHIE" logo, white	
17	EX-0174 RAW	Bezel, white, NO LOGO	
18	EX-0124 ASY	Capsule, white 5° dial	
19	EX-0123	Housing, white, <i>Includes 2 of key #9</i>	
20	EX-0177	Bracket, white	
21	EX-0173 ASY	Thumbscrew, white	RA-91 & B-51G
22	EX-0087 ASY	Capsule, blue 5° dial	
24	EX-0080	Sunshade, with "RITCHIE" logo, gray	B-51G
25	EX-0079 RAW	Bezel, gray, NO LOGO	
26	EX-0076	Housing, gray, <i>Includes 2 of key # 9</i>	RA-91
27	EX-0080 RAW	Sunshade, gray, NO LOGO	
28	EX-0084	Bezel, with "RitchieAngler" logo, gray	B-51G, RA-91, B-51A
29	EX-0073	Bracket, gray	
30	EX-0081 ASY	Thumbscrew, gray	
31	EX-0034 RAW	Sunshade, black, NO LOGO	Alternate logo options
32	EX-0002	Bezel, with "RITCHIE" logo, black	
33	EX-0079	Bezel, with "RITCHIE" logo gray	

*Alternate Lighting Voltages		
7	EX-0099	6 volt bulb, subminiature wedge #73
	EX-0098	24 volt bulb, subminiature wedge # 85

# Explorer

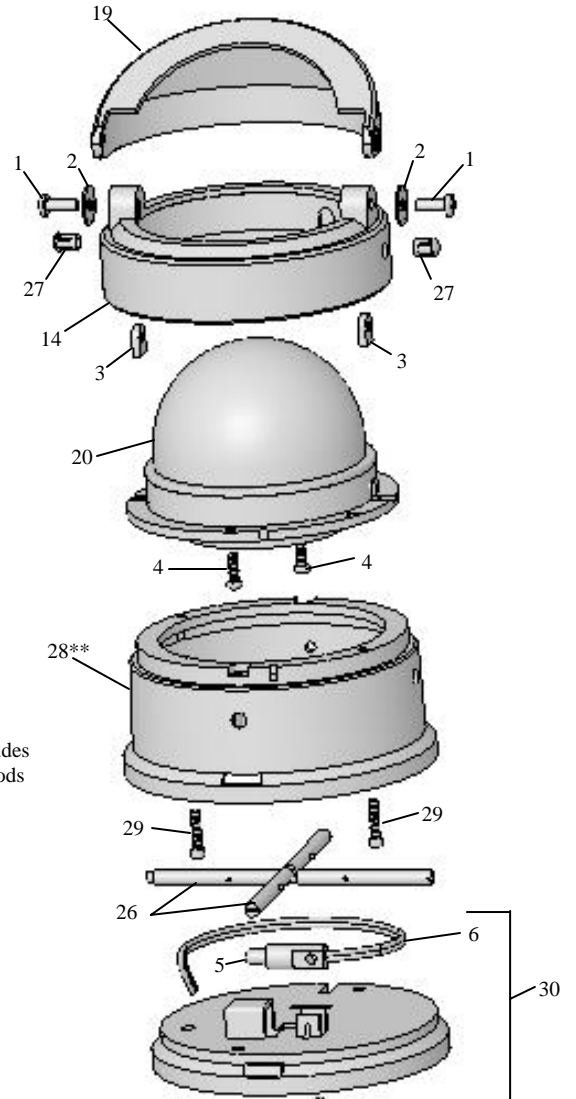
D-55, RA-93, S-53, S-53W, S-53G, S-53-A, S-58W, S-59W

## RA-93 & S-53'S



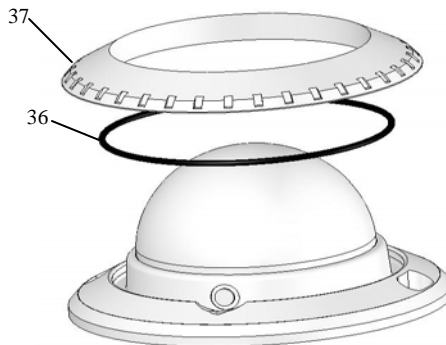
10 degree capsules are no longer available, Use 5 degree.

## D-55



## S-58W, S-59 & S-59W

Note: Capsules are not sold separately for the S-58's & S-59



# Explorer

## Parts List for Deck & Surface Mounts

1	SH-0067	Screw, sunshade retaining	S-53, S-53W, S-53G, S-53-A, RA-93, D-55
2	SH-0083	Washer, sunshade	
3	EX-0026	Nut, sunshade retaining	
4	SH-0062	Screw, capsule retaining	
5	EX-0005*	Bulb, 12 volt	
6	EX-0022 ASY	Light socket, wire & <b>bulb</b>	
7	EX-0102 MAG	Compensator rod	S-53, S-53W, S-53G, S-53-A, RA-93
8	EX-0104	Mounting Pads, adhesive, (strip of 3)	
9	EX-0105	Surface Mount Base, gray	S-53G, S-53A, RA-93
10	EX-0105 ASY	Surface Base Assembly, gray, <i>Includes Key #'s 5,6,7,9</i>	
11	EX-0106	Button, release, gray	
12	EX-0121	Sunshade, white, with "RITCHIE" logo	S-53W
13	EX-0124 ASY	Capsule, white 5° dial	
14	EX-0002 RAW	Bezel, black, NO LOGO	S-53
15	EX-0103	Button, release, black	
16	EX-0101	Surface Mount Base, black	
17	EX-0101 ASY	Surface Base Asy, black, <i>Includes Key #'s 5,6,7,16</i>	S-53G & RA-93
18	EX-0087 ASY	Capsule, blue 5° dial	
19	EX-0034	Sunshade, black, with Ritchie logo	S-53 & D-55
20	EX-0006 ASY	Capsule, black 5° dial	
22	EX-0079 RAW	Bezel, gray, NO LOGO	S-53-A, S-53G
23	EX-0080	Sunshade, gray, with "RITCHIE" logo	
24	EX-0080 RAW	Sunshade, gray, NO LOGO	RA-93
25	EX-0084	Bezel, gray, with "RitchieAngler" logo,	
26	EX-0031 MAG	Compensator rod	
27	SH-0046	Hole Plug	D-55
28	EX-0014	Lower Housing Includes 2 of Key #'s 26	
29	EX-0032	Screw, Housing Retaining	
30	EX-0001 ASY	Mounting Base Assembly	
31	EX-0175	Surface Mount Base, white	S-53W
32	EX-0175 ASY	Surface Base Asy, white, <i>Includes Key #'s 5,6,7,31</i>	
33	EX-0176	Button, release, white	
34	EX-0174 RAW	Bezel, white, NO LOGO	
36	SH-0127	O-ring, bezel retaining	S-58W, S-59, S-59W
37	EX-0129	Rotating Bezel, White	S-58W & S-59W
38	EX-0200	Rotating Bezel, Black	S-59
42	EX-0002	Bezel, black, with "RITCHIE" logo	Alternate logo
43	EX-0079	Bezel, gray, with "RITCHIE" logo	
44	EX-0034 RAW	Sunshade, black, NO LOGO	
45	EX-0226 ASY	Capsule, Black Special off 90 Degree Off Dial	S-OFF90

<b>*Alternate Lighting Voltages</b>		
5	EX-0099	6 volt bulb, subminiature wedge #73
	EX-0098	24 volt bulb, subminiature wedge # 85

Mounting Gasket for the D-55 Part # **EX-0012**

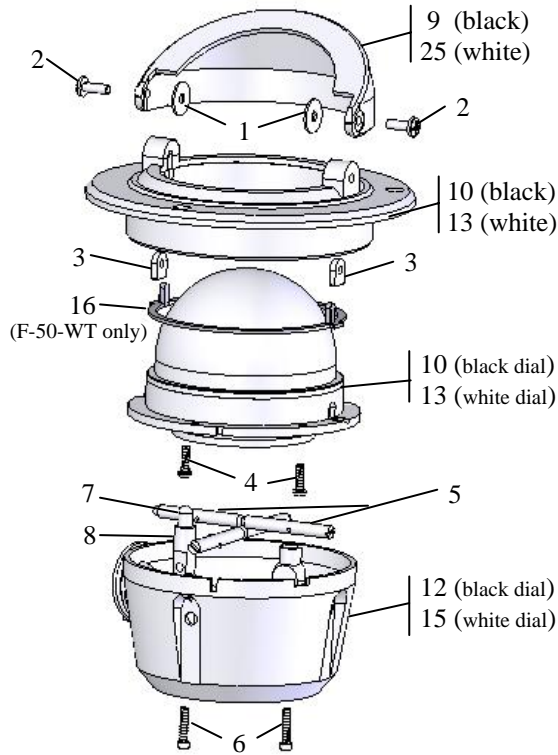
Mounting Gasket for the all the S-58 & S-59's Part # **EX-0133**

Mounting Tape for all the S-53's and RA-93 Part # **EX-0104**

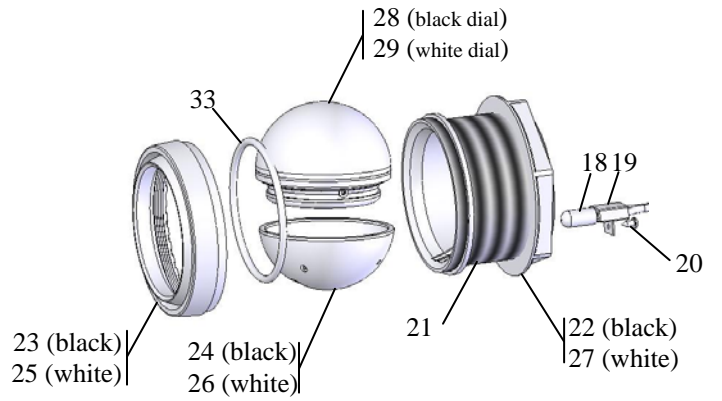
# Explorer

F-50, F-50W, F-50-K, F-50-WT, V-57, V-57.2, V-57W, V-57W.2 V-527, V-537, V-537B, V-537W

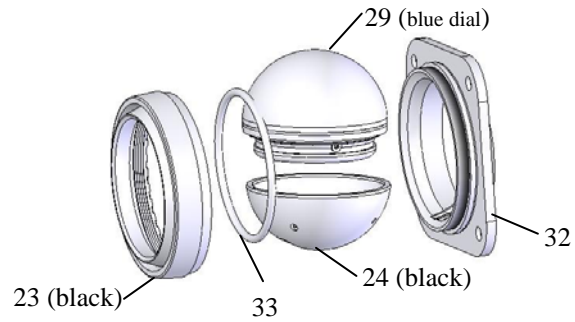
## F-50, F-50W, F-50WT



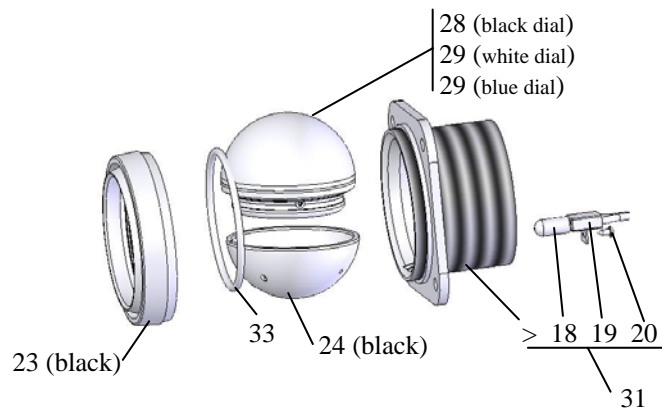
## V-57, V-57.2, V-57W, V-57W.2



## V-527



## V-537, V-537B, V-537W





# Explorer

## Parts List for Flush & Bulkhead Mounts

1	SH-0083	Washer, sunshade	all F-50's
2	SH-0067	Screw, sunshade retaining	
3	EX-0026	Nut, sunshade retaining	
4	SH-0062	Screw, 4-24 x 1/2, Capsule to bezel	
5	EX-0031 MAG	Compensator rod	F-50, F-50W & F-50-WT
6	EX-0032	Screw, 4 x 1/2, ovl. head	
7	EX-0005*	Bulb, 12 volt	
8	EX-0022 ASY	Light socket, wire & <b>bulb</b>	
9	EX-0034	Sunshade, black, with Ritchie logo	F-50 & F-50-WT
10	EX-0038	Bezel, flush mount, black	
11	EX-0006 ASY	Capsule, black 5° dial	
12	EX-0013	Housing, black, <i>Includes 2 of key # 5</i>	
13	EX-0122	Bezel, flush mount, white	F-50W
14	EX-0124 ASY	Capsule, white 5° dial	
15	EX-0123	Housing, white, <i>Includes 2 of key # 5</i>	
16	EX-0247	Water Tight Gasket	
17	EX-0101	Base/cover, Black	F-50-K
18	EX-0057*	Bulb, 12 volt	all V-57's & V-537's
19	EX-0056 ASY	Light socket, wire and <b>bulb</b>	
20	SH-0066	Screw, 4 x 1/4	
21	EX-0055	Mounting base	
22	EX-0058	Mounting nut, black	V-57, V-57.2
23	EX-0059	Bezel, black	V-57, V-57.2, V-537's & V-527
24	EX-0053 ASY	Compensator Base, black, <b>with comp rods</b>	
25	EX-0114	Bezel, white	
26	EX-0117 ASY	Compensator Base, white, <b>with comp rods</b>	
27	EX-0116	Mounting nut, white	V-57W & V-57W.2
28	EX-0067 ASY	Capsule, black 5° dial	V-57, V-57.2 & V-537
29	EX-0118 ASY	Capsule, white 5° dial	V-57W, V-57.2, V-537W & V-527
30	EX-0233 ASY	Capsule, blue 5° dial	V-537B
31	EX-0230 ASY	Mounting Base w/ adapter and Light assembly	all V-537's
32	EX-0232 ASY	Mounting Base w/ adapter "Low Profile"	V-527
33	EX-0060	O-ring	all V-57's, V-537's & V-527

*Alternate Lighting Voltages		
1	EX-0099	6 volt bulb, subminiature wedge #73
	EX-0098	24 volt bulb, subminiature wedge # 85
19	EX-0100	24 volt bulb, miniature wedge # 12

The V-57 and V-57W were replaced by the V-57.2 and V-57W.2 in 2001. The .2's are the same as their predecessors but with a larger diaphragm in the capsule. The new capsules will fit in place of the old but you will need to replace the Light socket. The part numbers did not change.

Mounting Gasket for the F-50's **PART # EX-0039**

Mounting Gasket for all the V-57's **PART # EX-0061**

Mounting Gasket for all the V-527 & V-537's **PART # EX-0234**

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# Voyager

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## Production History (Rev info) 1981 to Present

### All Voyager models

- 1986: (No Rev #) Changed from a red incandescent bulb to a red LED.  
1993: (No Rev #) Changed from a red LED to a green LED.  
1999: (Rev # 1) Changed LED to a solid-state design in sunshade.  
2000: (No Rev #) Changed clip in sunshade to improve lighting.  
2001: (Rev #1) Changed to Isopar L dampening fluid.  
(Rev #2) All Voyager Compasses received Wheelmark Certification.  
2003: (No Rev #) Changed part number of fill plug.  
2005: (Rev # 1) Changed to brighter lighting

### RU-90

- 1990: (No Rev #) Changed bezel from White to Black.

### B-81, F-83's, D-85

- 1997: (Rev #1) Changed Dial to CombiDamp type & added second LED (sunshade).  
1998: (Rev #1) Changed LED to a solid-state design in bezel.

### B-81's, F-83's & F-83W

- 2000: (Rev #1) Re-designed compass to a sealed capsule (modular) design.

### F-83's & F-83W

- 2001: (Rev #3) Changed Comprod (See Service Bulletin SB0013)

## Re-assembly Tips

When replacing the diaphragm retainer, which also contains the compensators, (*except* models RU-90 and RU-90W) make sure the compensators are positioned properly. In the correct position, you will see the slotted end of one rod facing aft, and the other rod's slotted end-facing starboard.

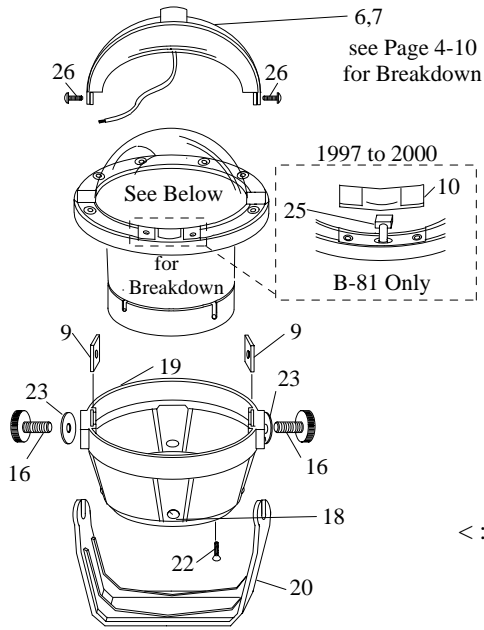
**On models with direct reading dials, make sure both gimbal pins are located in the upper holes of the lubber line pan assembly. On models with open face dials, both gimbal pins *must* be located in the lower holes of the lubber line pan assembly.**

On all Voyager models, (except modular types) install the two sunshade retaining nuts, Part # SH-0038, under the bezel. These rectangular nuts *must* be installed with their long side downward.

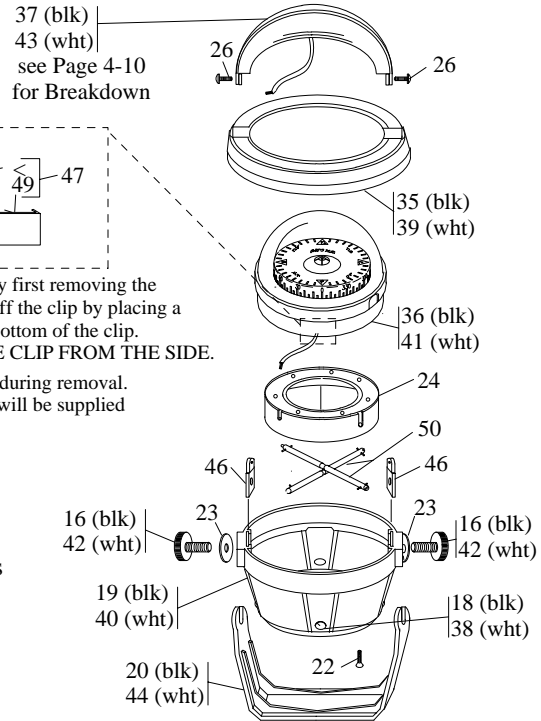
# Voyager

## B-80, B-81, B-81W

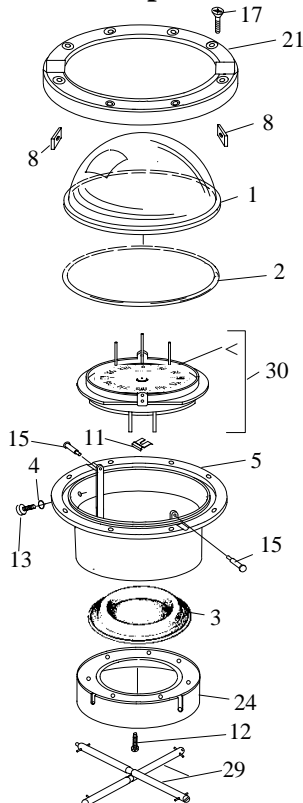
### B-80 (1981 to present) B-81 (1981 to 2000)



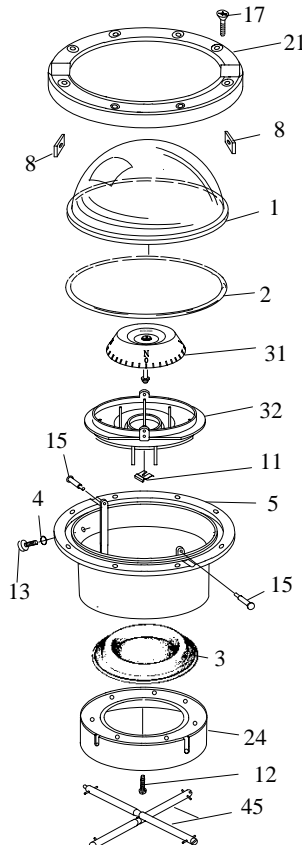
### B-81 & B-81W 2000 (Rev 1) to present



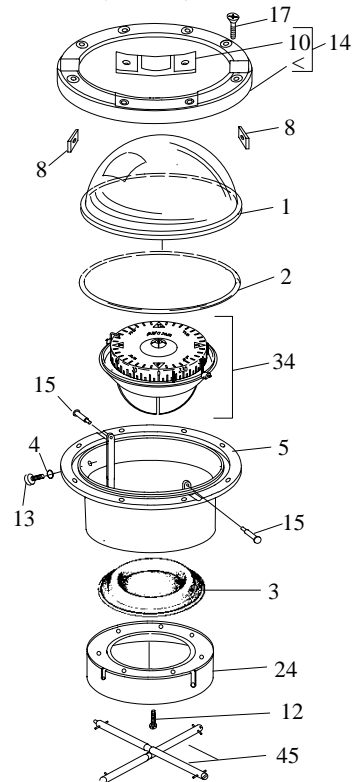
### B-80 Capsule 1981 to present



### B-81 Capsule 1981 to 1997



### B-81 Capsule 1997 (Rev 1) to 2000



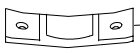
# Voyager Bracket Mounts

1	VY-0017	Dome	1981 to 2000 (B-80: 1981 to present)	B-80 & B-81
2	VY-0046	O-ring, dome		
3	VY-0016	Diaphragm		
4	SH-0039	O-ring, fill plug screw		
5	VY-0004	Bowl		
6	VY-0055 ASY	Sunshade, black with <b>red</b> LED		
7	VY-0056 ASY	Sunshade, black with <b>green</b> LED		
8	SH-0038	Nut, 6-32, square, sunshade		
9	VY-0045	Nut, thumbscrew retaining		
10	VY-0110	Light Cover, black		
11	SH-0052	Retainer, dial		
12	SH-0062	Screw 4-24 x 3/8" Rnd, diaph retainer		
13	SH-0138	Fill Plug Screw		
14	VY-0001 DRL	Bezel, black accepts DR Light	1997 (rev 1) to 2000	B-81
15	VY-0019	Gimbal pin	1981 to 2000 (B-80: 1981 to present)	B-80 & B-81
16	SH-0077 ASY	Thumbscrew, black		
17	SH-0061	Screw, 4-24 x 1/2" Flt, bezel		
18	SH-0045	Hole plug, Black	All	B-80
19	VY-0020	Housing, black, bracket mount		
20	VY-0007	Bracket, black		
21	VY-0001	Bezel, black		
22	SH-0063	Screw, 4-24 x 5/8", brkt housing	All	B-80, B-81, B-81W
23	HL-0095	Washer, thumbscrew		
24	VY-0050	Retainer, diaphragm & comprods		
25	SH-0195 ASY	Green light		
26	SH-0067	Screw, sunshade retaining		
29	VY-0052 MAG	Compensator Rod, for open face dial	All	B-80
30	VY-0084 ASY	Dial/Pan, black, open face <i>Includes Key # 11</i>	1981 to 1997	B-81
31	VY-0013 ASY	Dial, (black), direct read		
32	VY-0048 ASY	Pan, for black direct read dials	1997 (Rev #1) to 2000	B-81
34	VY-0119 ASY	Dial/Pan assembly, (black), CombiDamp		
35	VY-0142	Bezel, black, for modular type		
36	VY-0154 ASY	Capsule, Black	2000 (Rev #1) to Present	B-81W
37	VY-0147 ASY	Sunshade, black with <b>green</b> LED		
38	SH-0144	Hole plug, White		
39	VY-0143	Bezel, white, for modular type		
40	VY-0158	Housing, white, bracket mount		
41	VY-0153 ASY	Capsule, white		
42	EX-0173 ASY	Thumbscrew, white		
43	VY-0148 ASY	Sunshade, white & Green LED		
44	VY-0159	Bracket, white		
45	VY-0053 MAG	Compensator Rod	1981 to 2000	
46	VY-0150 THD	Nut, shade & housing	2000 (Rev #1) to Present	B-81 & B-81W
47	SH-0194 ASY	Green light, <i>Includes Key # 49</i>		
49	VY-0151	Clip, capsule light		
50	VY-0172 MAG	Compensator rod for modular type		

# Voyager

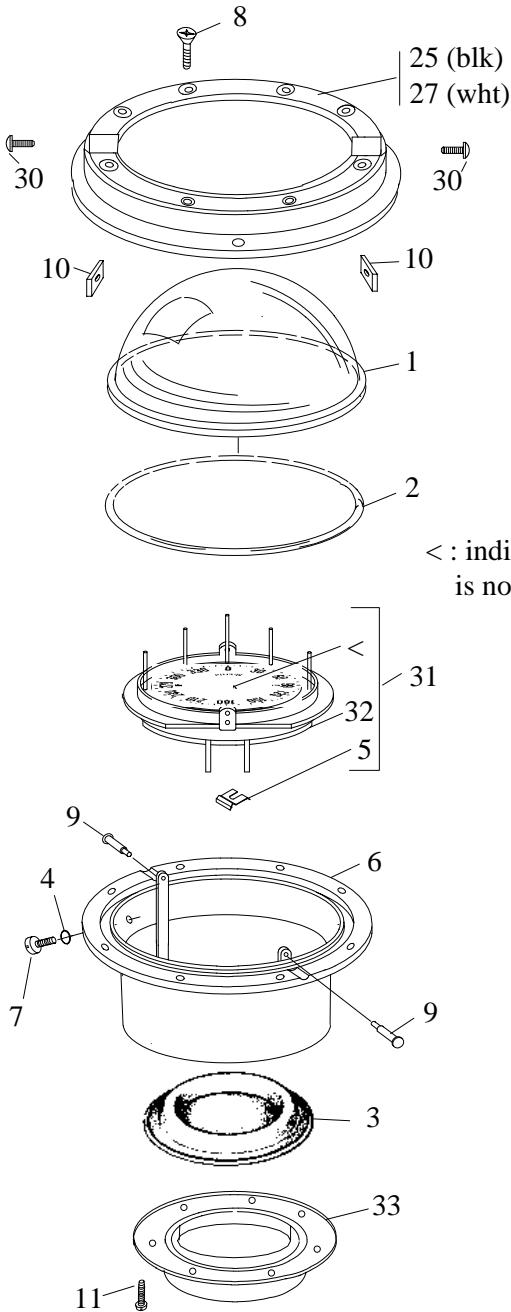
## F-82, F-82W, RU-90, RU-90W

Cosmetic Cover  
1997 to 2002



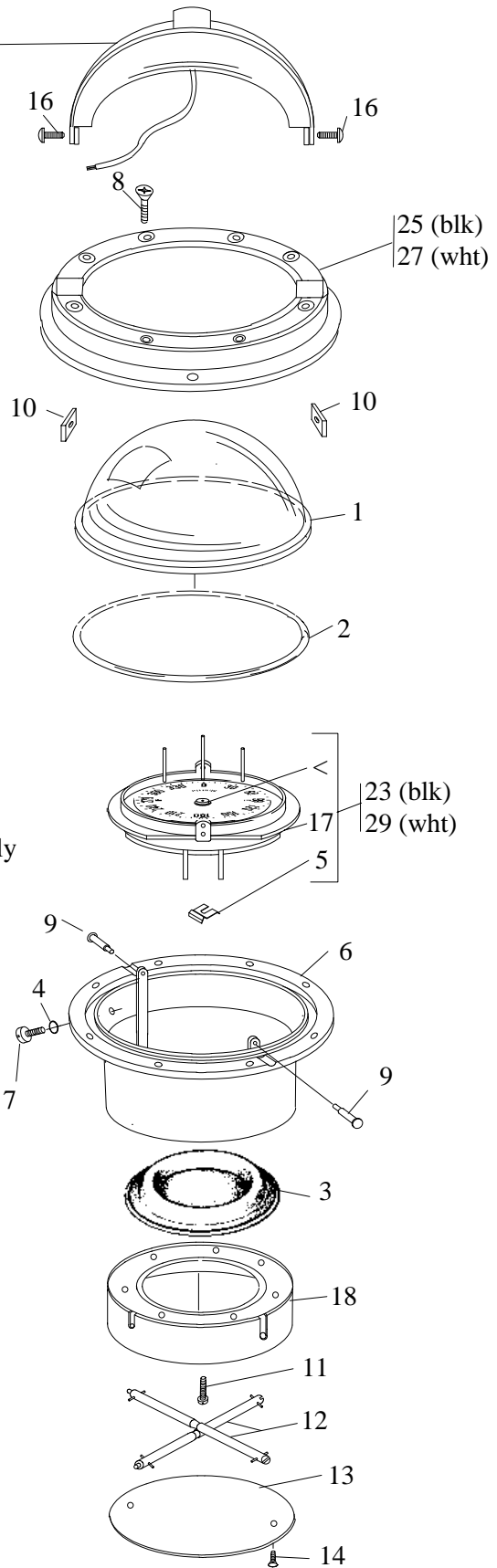
24 (blk)  
26 (wht)

### RU-90 & RU-90W



### F-82 & F-82W

21 (blk)  
22 (blk)  
28 (wht)  
see Page 4-10  
for Breakdown



< : indicates the part  
is not sold separately

# Voyager

## Open Face Flush Mounts

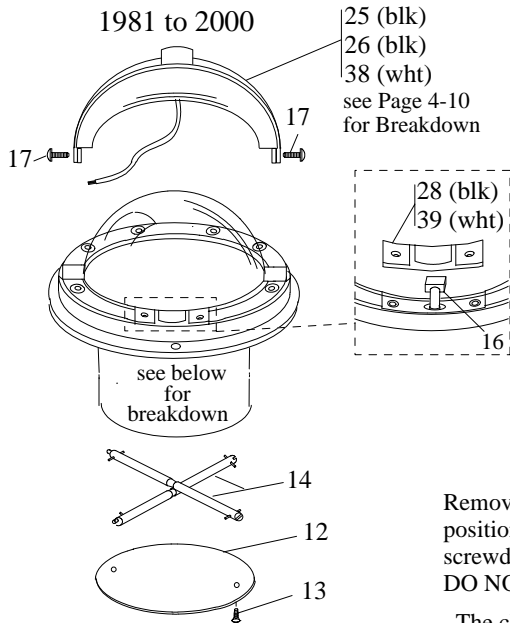
1	VY-0017	Dome	F-82, F-82W, RU-90, RU-90W
2	VY-0046	O-ring, dome	
3	VY-0016	Diaphragm	
4	SH-0039	O-ring, fill plug screw	
5	SH-0052	Retainer, dial	
6	VY-0004	Bowl	
7	SH-0138	Screw, fill plug	
8	SH-0061	Screw, 4-24 x 1/2" Flt, bezel	
9	VY-0019	Gimbal pin	
10	SH-0038	Nut, 6-32, square, sunshade	
11	SH-0062	Screw 4-24 x 3/8" round, diaph retainer	
12	VY-0052 MAG	Compensator rod, for open face dial	
13	VY-0009	Comp cover	
14	SH-0064	Screw, 4-40 x 1/4", comp cover	
16	SH-0067	Screw, sunshade retaining	
17	VY-0047 ASY	Pan, open face	F-82
18	VY-0050	Retainer, diaphragm & comprods	
21	VY-0055 ASY	Sunshade, black with <b>red</b> LED	
22	VY-0056 ASY	Sunshade, black with <b>green</b> LED	F-82 & RU-90
23	VY-0084 ASY	Dial/Pan assembly, black, open face, <i>Includes Key #'s 5 &amp; 17</i>	
24	VY-0110	Light Cover, black	F-82W & RU-90W
25	VY-0002	Bezel, flush mount, black	
26	VY-0113	Light Cover, white	F-82W
27	VY-0076	Bezel, flush mount, white	
28	VY-0075 ASY	Sunshade, white with <b>green</b> LED	RU-90 & RU-90W
29	VY-0088 ASY	Dial/Pan assembly, white, open face <i>Includes Key #'s 5 &amp; 17</i>	
30	SH-0068	Screw, 6-32 x 5/16" RU-90	RU-90 & RU-90W
31	VY-0085 ASY	Dial/Pan, open face, blue <i>Includes Key #'s 5 &amp; 32</i>	
32	VY-0058 ASY	Pan, w/ 90's	
33	VY-0049	Retainer, Diaphragm	

Mounting Gasket for all Flush Mount Voyagers **PART # VY-0164**

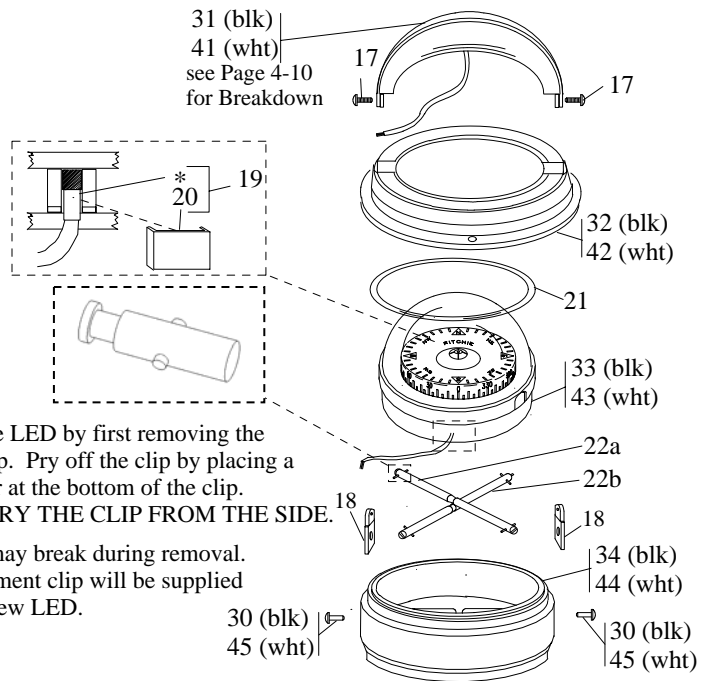
# Voyager

## F-83, F-83W

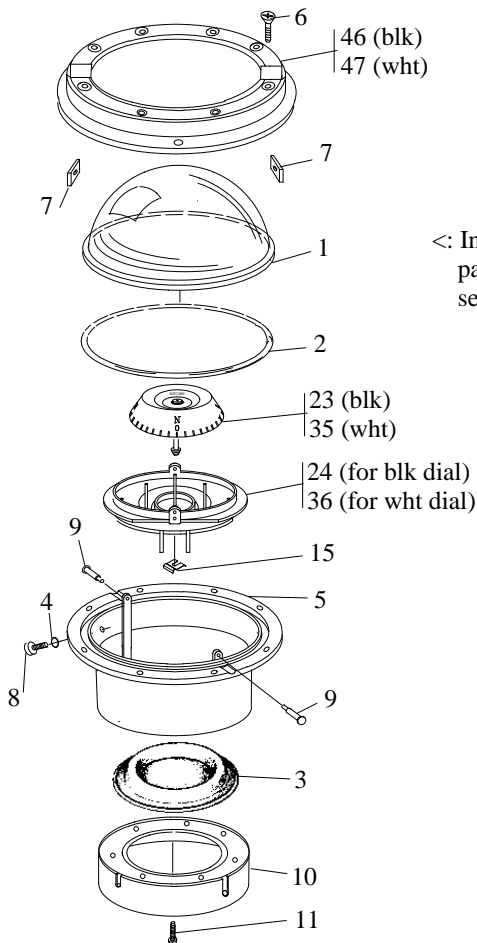
### F-83 & F-83W 1981 to 2000



### F-83 & F-83W 2000 (Rev 1) to present

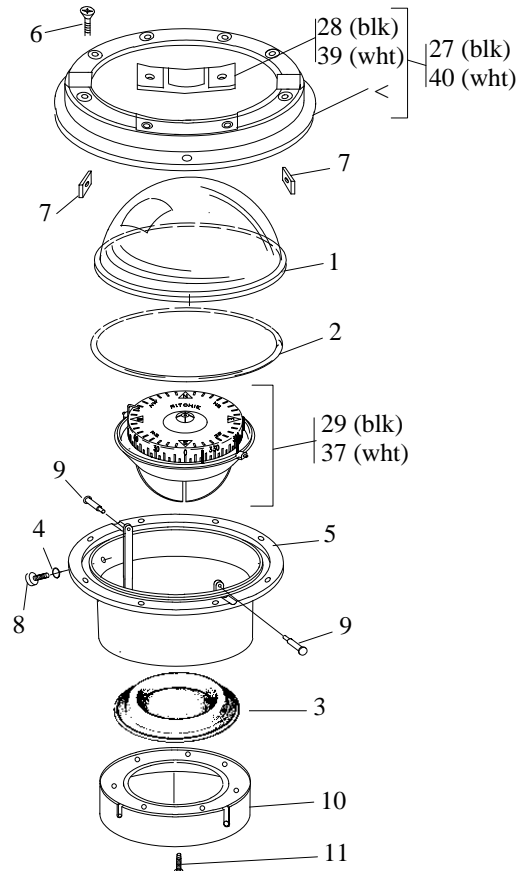


### F-83 & F-83W 1981 to 1998



<: Indicates the part is not sold separately.

### F-83 & F-83W 1999 to 2000





# Voyager

## Direct Read and CombiDamp Flush Mounts

1	VY-0017	Dome	1981 to 2000	F-83 & F-83W
2	VY-0046	O-ring, dome		
3	VY-0016	Diaphragm		
4	SH-0039	O-ring, fill plug screw		
5	VY-0004	Bowl		
6	SH-0061	Screw, 4-24 x 1/2" Flt, bezel		
7	SH-0038	Nut, 6-32, square, sunshade		
8	SH-0138	Screw, fill plug		
9	VY-0019	Gimbal pin		
10	VY-0050	Retainer, diaphragm & Comprods		
11	SH-0062	Screw 4-24 x 3/8" Rnd, diaph retainer		
12	VY-0009	Comp cover		
13	SH-0064	Screw, 4-40 x 1/4", Comp cover		
14	VY-0053 MAG	Compensator Rod		
15	SH-0052	Retainer, dial	1981 to 1998	
16	SH-0195 ASY	Green Light	1981 to present	
17	SH-0067	Screw, sunshade retaining	2001 to present	
18	VY-0150 THD	Nut, shade & housing		
19	SH-0194 ASY	Green light, <i>Includes Key # 20</i>		
20	VY-0151	clip, capsule light		
21	VY-0156	Weather Seal, foam gasket		
22a	VY-0180 MAG*	Compensator Rod with holding cap		
22b	n/a use 22a	Compensator Rod	1981 to 1998	
23	VY-0013 ASY	Dial, black, direct read		
24	VY-0048 ASY	Pan, for black direct read dials	1981 to 2000	F-83
25	VY-0055 ASY	Sunshade, black with <b>red</b> LED		
26	VY-0056 ASY	Sunshade, black with <b>green</b> LED		
27	VY-0002 DRL	Bezel, flush mount, black <i>Includes Key #28</i>	1998 to 2000	
28	VY-0110	Light Cover, black	2000 (Rev #1) to present	
29	VY-0119 ASY	Dial/Pan Assembly, black, CombiDamp		
30	VY-0157	Snap Rivet, black		
31	VY-0147 ASY	Sunshade, black with <b>green</b> LED		
32	VY-0140	Bezel, black, for flush modular type	1994 to 1998	
33	VY-0154 ASY	Capsule, black		
34	VY-0144	Lower Housing, black, for flush modular type	1998 to 2000	
35	VY-0078 ASY	Dial, white, direct read	1994 to 2000	F-83W
36	VY-0103 ASY	Pan Assembly, for white direct read dials		
37	VY-0120 ASY	Dial/Pan Assembly, (white), CombiDamp		
38	VY-0075 ASY	Sunshade, white, with <b>green</b> LED	2000 (Rev #1) to present	
39	VY-0113	Light Cover, white		
40	VY-0076 DRL	Bezel, flush mount, white, <i>Includes Key #39</i>	1981 to 1998	F-83
41	VY-0148 ASY	Sunshade, white, with <b>green</b> LED		
42	VY-0141	Bezel, white, for flush modular type		
43	VY-0153 ASY	Capsule, white		
44	VY-0149	Lower Housing, white, for flush modular type		
45	VY-0157 WHT	Snap Rivet, black	1994 to 1998	F-83W
46	VY-0002	Bezel, Black, w/o light access hole.	1981 to 1998	F-83
47	VY-0076	Bezel White, w/o light access hole.	1994 to 1998	F-83W

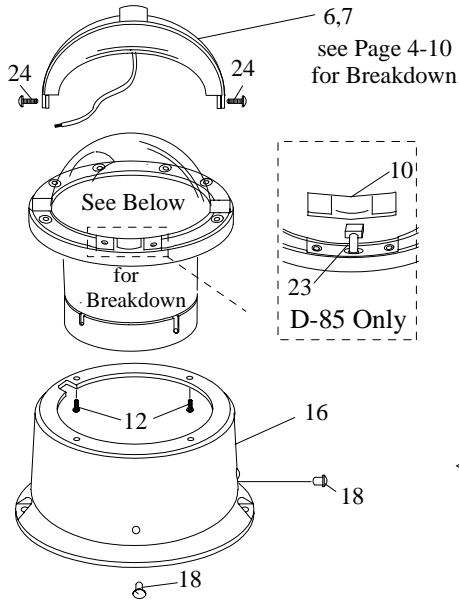
\* VY-0180 ASY must be placed in the Upper position. It is OK to have a second VY-0180 ASY in the lower position but not necessary. See SB0013 for Details.

Mounting Gasket for all Voyager Flush Mounts **PART # VY-0164**

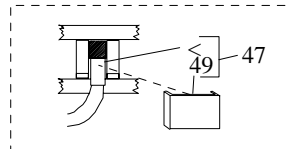
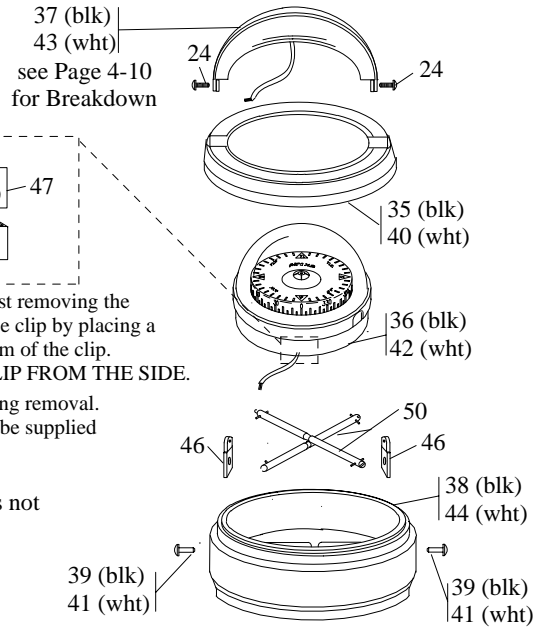
# Voyager

## D-84, D-85, S-87, S-87W

### D-84 & D-85



### S-87 & S-87W

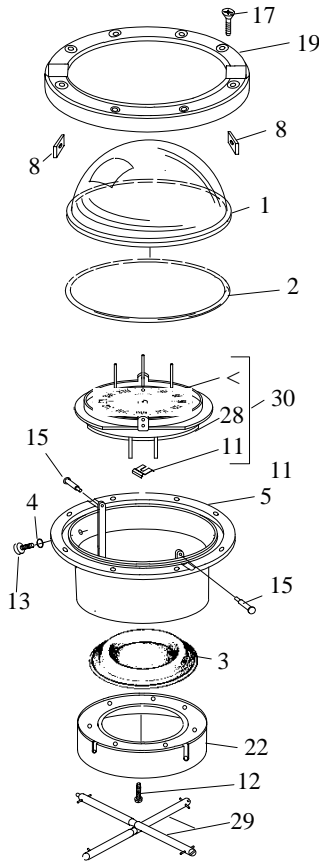


Remove the LED by first removing the position clip. Pry off the clip by placing a screwdriver at the bottom of the clip. **DO NOT PRY THE CLIP FROM THE SIDE.** The clip may break during removal. A replacement clip will be supplied with the new LED.

< : Indicates the part is not sold separately.

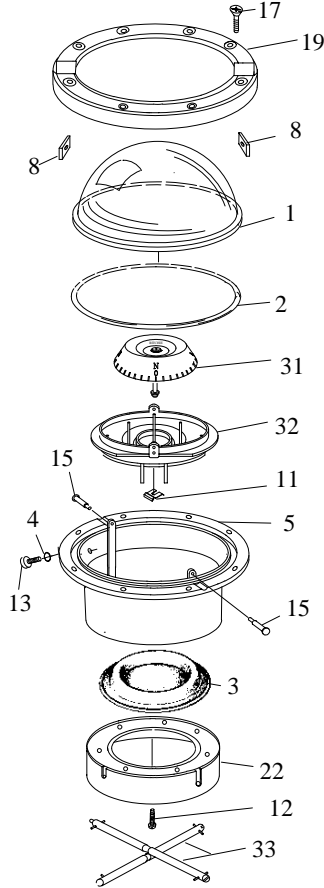
### D-84

1981 to Present



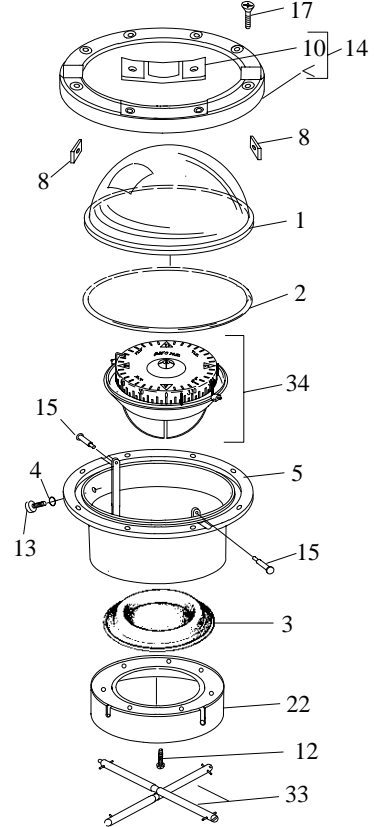
### D-85

1981 to 1997



### D-85

1997 (Rev 1) to Present



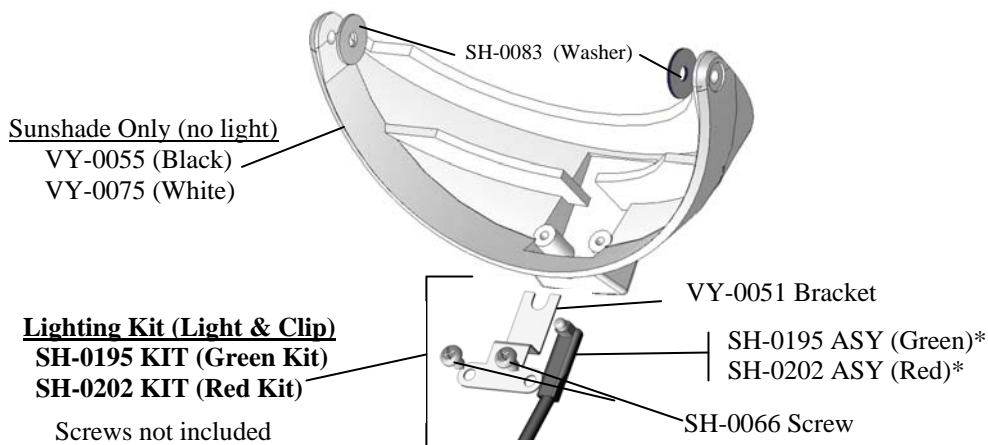
# Voyager

## Deck & Surface Mount

1	VY-0017	Dome	1981 to Present	D-84 & D-85
2	VY-0046	O-ring, dome		
3	VY-0016	Diaphragm		
4	SH-0039	O-ring, fill plug screw		
5	VY-0004	Bowl		
6	VY-0055 ASY	Sunshade, black with <b>red</b> LED		
7	VY-0056 ASY	Sunshade, black with <b>green</b> LED		
8	SH-0038	Nut, 6-32, square, sunshade		
10	VY-0110	Light Cover, black		
11	SH-0052	Retainer, dial assembly		
12	SH-0062	Screw 4-24 x 3/8" rnd, diaph retainer		
13	SH-0138	Fill Plug Screw		
14	VY-0001 DRL	Bezel, black, <i>Includes Key # 10</i>		
15	VY-0019	Gimbal pin		
16	VY-0021	Deck Housing		
17	SH-0061	Screw, 4-24 x 1/2" flt, bezel		
18	SH-0045	Hole plug, Black		
19	VY-0001	Bezel, black		
22	VY-0050	Retainer, diaphragm & comprods		
23	SH-0195 ASY	LED & wire, green		
24	SH-0067	Screw, sunshade retaining	ALL	D-84
28	VY-0047 ASY	Pan assembly, open face		
29	VY-0052 MAG	Compensator rod, for open face dial	1981 to 1997	D-85
30	VY-0084 ASY	Dial/Pan, black, <i>Includes Key #'s 11 &amp; 28</i>		
31	VY-0013 ASY	Dial, (black), direct read		
32	VY-0048 ASY	Pan, for black direct read dials	1997 (Rev #1) to present	
33	VY-0053 MAG	Compensator rod, for Direct and Combi		
34	VY-0119 ASY	Dial/Pan asy, (black), CombiDamp	ALL	S-87
35	VY-0142	Bezel, black, for modular type		
36	VY-0154 ASY	Capsule, black		
37	VY-0147 ASY	Sunshade, black & green LED		
38	VY-0145	Surface Housing, lower, black		
39	VY-0157	Snap Rivet, black		
40	VY-0143	Bezel, white, for modular type		
41	VY-0157 WHT	Snap Rivet, white	ALL	S-87W
42	VY-0153 ASY	Capsule, White		
43	VY-0148 ASY	Sunshade, white & Green LED		
44	VY-0146	Surface Housing, lower, white		
46	VY-0150 THD	Nut, shade & housing	ALL	S-87 & S-87W
47	SH-0194 ASY	Green Light, <i>Includes key # 49</i>		
49	VY-0151	Clip, capsule light		
50	VY-0172 MAG	Compensator rod, for modular units		

# Voyager Lighting

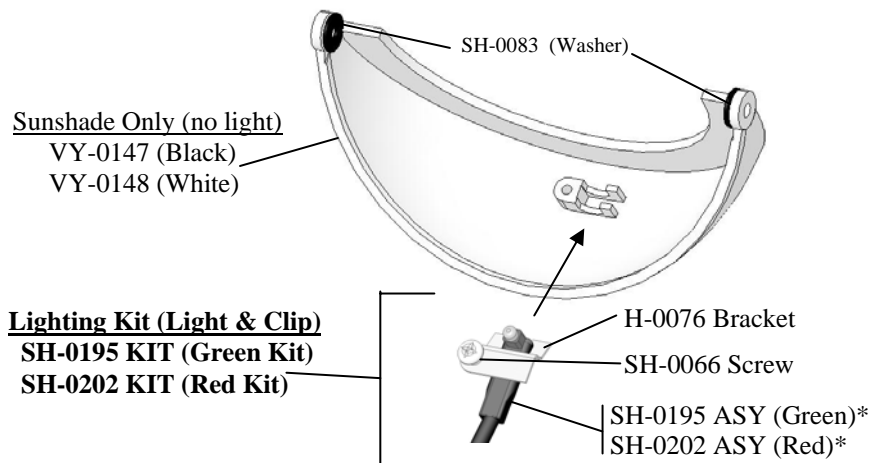
**All F-82's, B-80's, D-84's & D-85's**  
plus **F-83's** built between 1984 and 2001 rev 1



\*If you are replacing a sunshade light on any Voyager compass built before 2005 rev 1 you will need a new bracket. We recommend purchasing the Lighting kit.

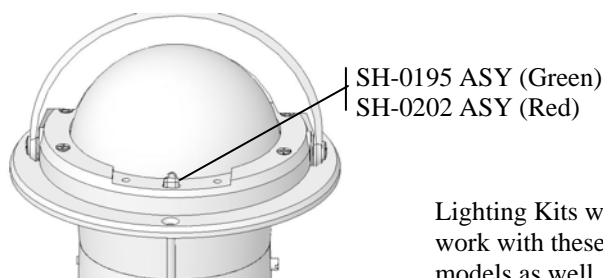
**Quick Ordering Tip:**  
The Lighting Kit contains an assortment of clips to meet the needs for light replacement for either type on any Voyager model compass.

**All S-87's**  
plus **F-83's** and **B-81's** built after 2000 rev 1



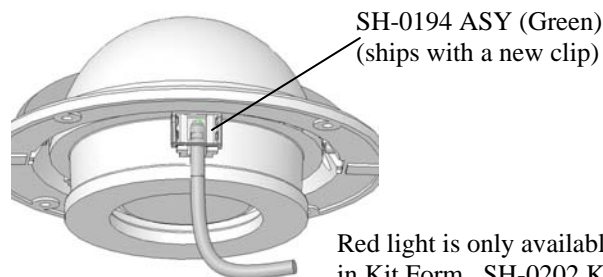
Please note the kit come with one LED. If you need to replace both lights on your compass you will need to purchase the second light separately.

**All D-85's**  
plus **F-83's** built between 1984 and 2001 rev 1



Lighting Kits will work with these models as well.

**All S-87's**  
plus **F-83's** and **B-81's** built after 2000 rev 1



Red light is only available in Kit Form. SH-0202 KIT

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# Helmsman

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## Production History (rev info) 1981 to Present

### All Helmsman Models

1986: (No Rev #) Changed from a **red** incandescent bulb to a **red** LED.  
1992: (No Rev #) Changed from a **red** LED to a **green** LED.  
1998: (No Rev #) Changed LED to a solid-state design.  
2000: (No Rev #) Changed clip in sunshade to improve lighting.  
2001: (Rev # 1) Changed to Isopar L dampening fluid.  
2001: (Rev # 2) Helmsman Compasses received Wheelmark Certification.  
2003: (No Rev #) Changed part number of fill plug.  
2005: (Rev # 1) Changed to brighter lighting (except HV-76 & HF-79's)

### HF-73, HF-73W, HB-71 & HD-75

1992: (No Rev #) Moved position of LED from sunshade to bezel.  
1996: (No Rev #) Changed dial to CombiDamp type & added second LED (sunshade).

### HF-72S

1988: (No Rev #) Changed to a one piece bezel.

### HF-73 & HF-72

1988: (No Rev #) Changed from a square to a round bezel.

### HB-70, HB-85, HF-72, HF-72W, HV-76

2000: (No Rev #) changed balance tab to wide sweep aluminum type to improve dampening.

### HF-743's, HF-742's & SS-1002's

2004: Began Production

### HB-845, HB-740, HB-741, HD-744, HD-745

2006: Began Production

## Re-assembly Tips

When replacing the diaphragm retainer, which also contains the compensators, (except models HV-76 and HV-77) make sure the compensators are positioned properly. In the correct position you can see the slotted end of one rod facing aft, and the other rod's slotted end facing starboard.

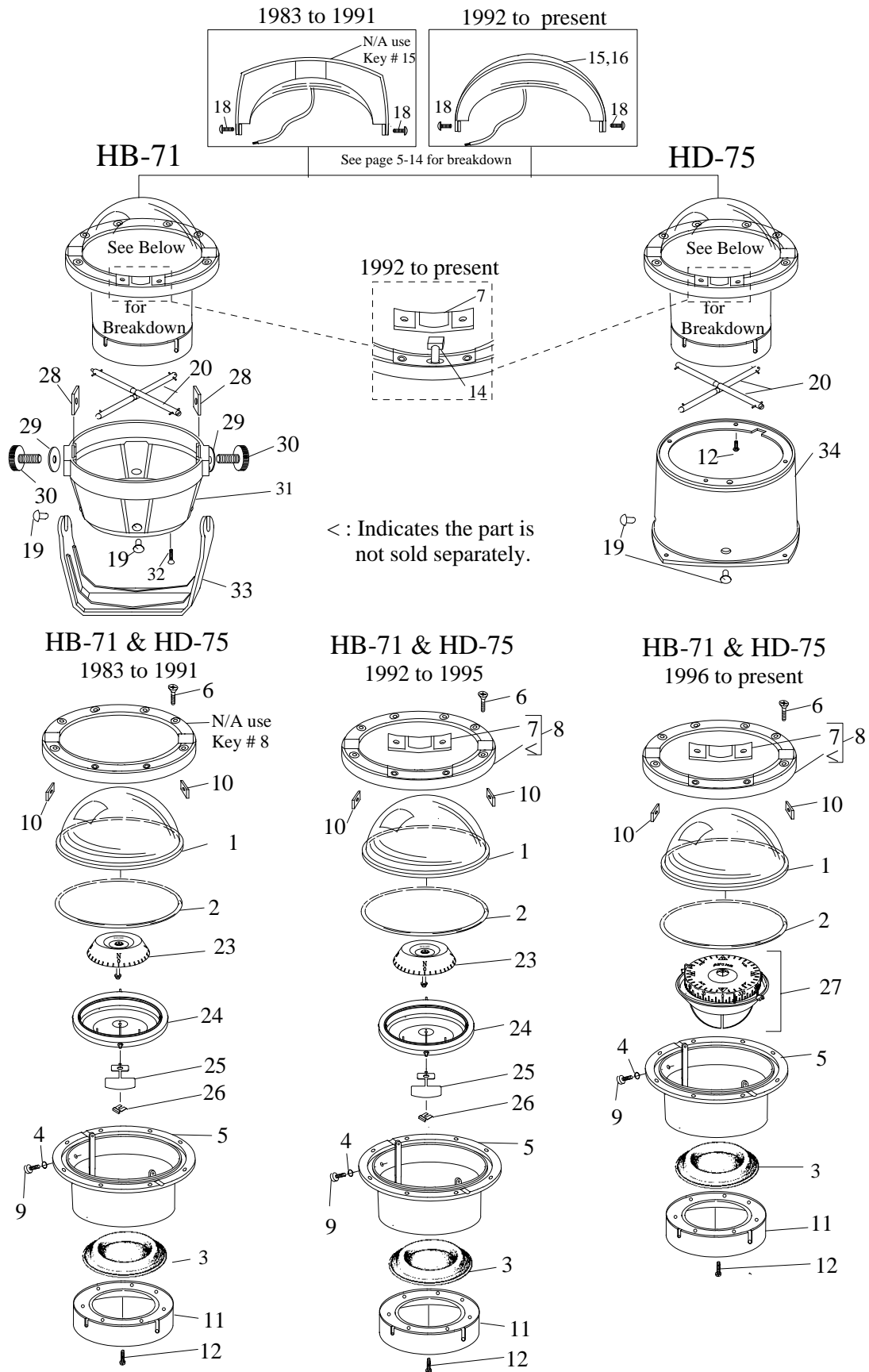
On all Helmsman models, except models HV-76, HV-77, HF-79, HF-79G, and HF-79W install the two sunshade retaining nuts, part # SH-0038, under the bezel. These rectangular nuts *must* be installed with their long side downward.

To avoid damaging the bowl of the HB-85 when installing the quadrantal corrector rods, make sure you do not thread the rods more than 6 to 8 revolutions into the housing. These rods are currently manufactured with a check nut welded to the rod to avoid this potential problem.

HB-845, HB-740, HB-741, HD-744, HD-745, HF-743's, HF-742's & SS-1002's all feature factory sealed dome/dial/bowl capsule. Most repairs require replacing the capsule.

# Helmsman

## HB-71 & HD-75



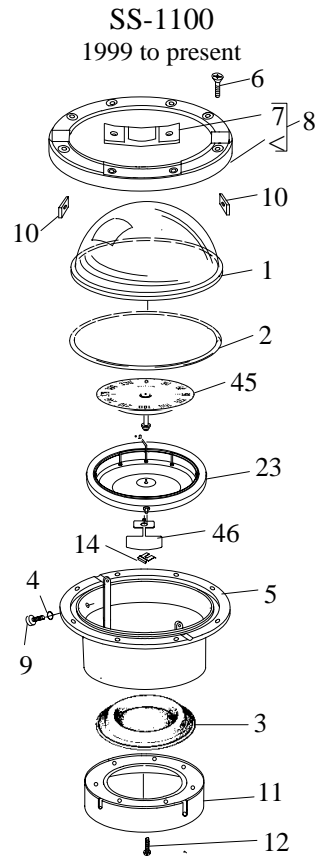
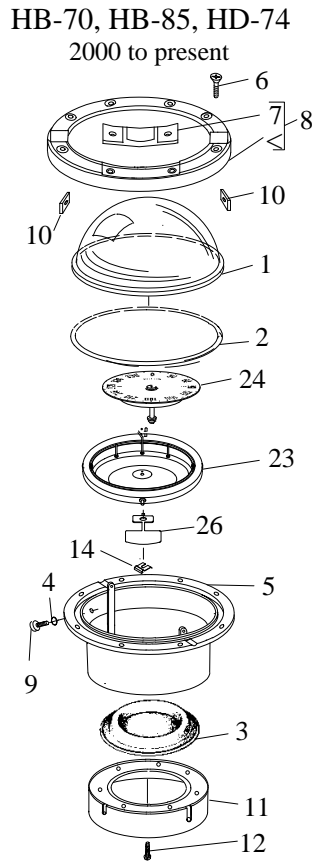
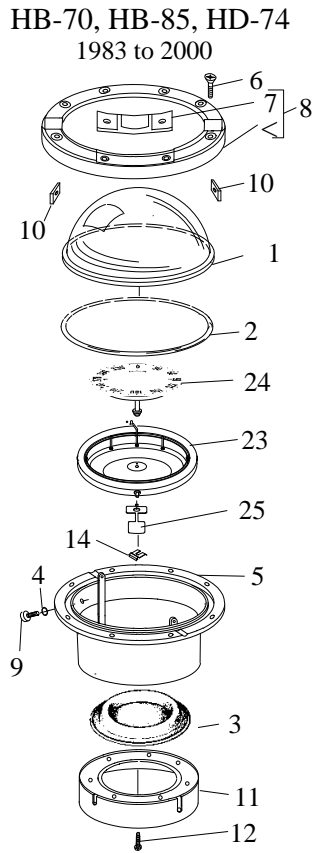
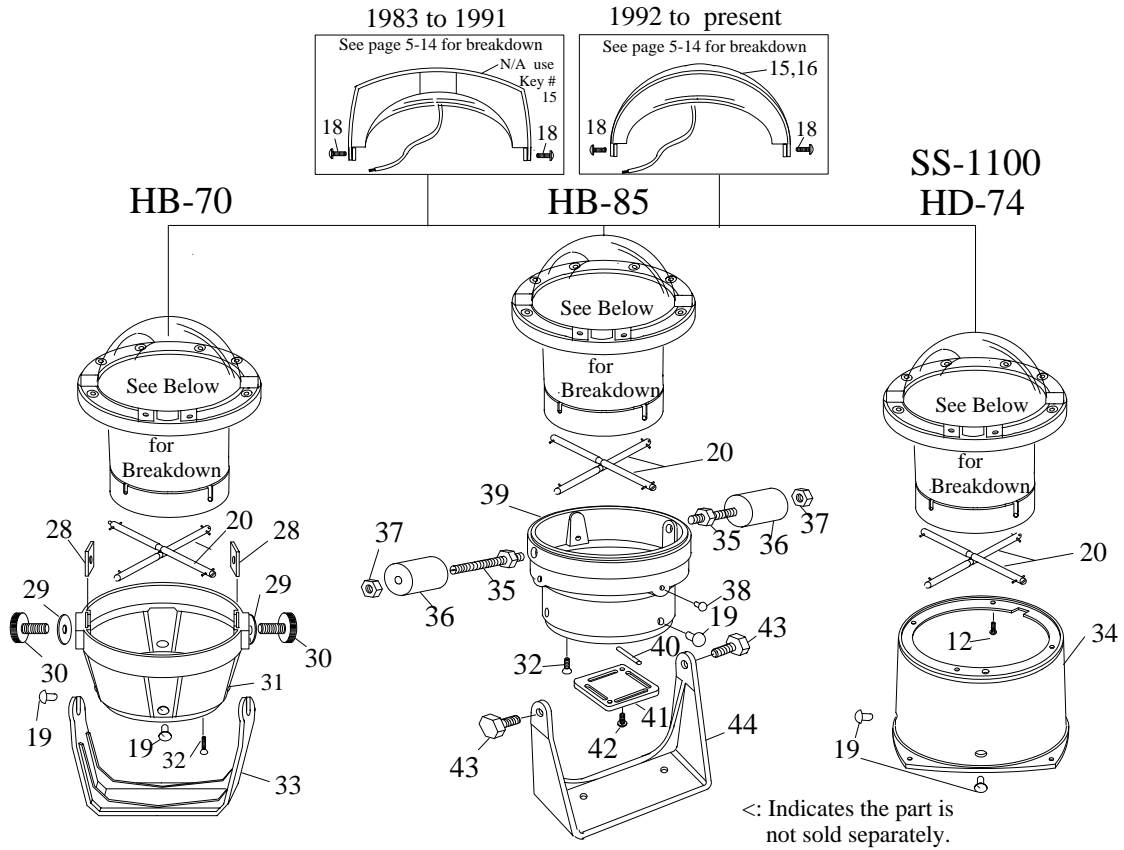
# Helmsman

## Direct Read and CombiDamp Bracket & Deck Mounts

1	HL-0020	Dome	1983 to present	HB-71 & HD-75		
2	HL-0067	O-ring, dome				
3	HL-0018	Diaphragm				
4	SH-0039	O-ring, fill plug screw				
5	HL-0007	Bowl				
6	SH-0061	Screw, 4-24 x 1/2", flt, bezel				
7	HL-0125	Light Cover, black				
8	HL-0004	Bezel, bracket mount <i>Includes key # 7</i>				
9	SH-0059	Screw, fill plug				
10	SH-0038	Nut, 6-32 square, sunshade retaining				
11	HL-0073	Retainer, diaphragm & comprods				
12	SH-0062	Screw 4-24 x 3/8" round head				
14	SH-0195 ASY	LED & wire, green				
15	HL-0088 ASY	Sunshade, black with <b>red</b> LED				
16	HL-0131 ASY	Sunshade, black with <b>green</b> LED				
18	SH-0067	Screw, sunshade retaining				
19	SH-0045	Hole Plug, black				
20	HL-0079 MAG	Compensator Rod, direct read & CombiDamp				
23	HL-0017 ASY	Dial, black, direct read			1983 to 1991	
24	HL-0129 ASY	Gimbal Ring/Pan, straight LL				
25	HL-0002	Balance tab, direct read				
26	SH-0052	Retainer, balance tab				
27	HL-0156 ASY	Dial/Pan Assembly, black, w/45 deg. LL	1992 to present			
28	HL-0066	Nut, bracket retaining	1983 to present	HB-71		
29	HL-0095	Washer, thumbscrew				
30	HL-0094 ASY	Thumbscrew				
31	HL-0028	Housing, bracket mount				
32	SH-0063	Screw, 4-24 x 5/8", flat head, housing				
33	HL-0009	Bracket				
34	HL-0029 OLD	Housing, deck mount			1983 to present	HD-75

# Helmsman

## HB-70, HB-85, HD-74, SS-1100





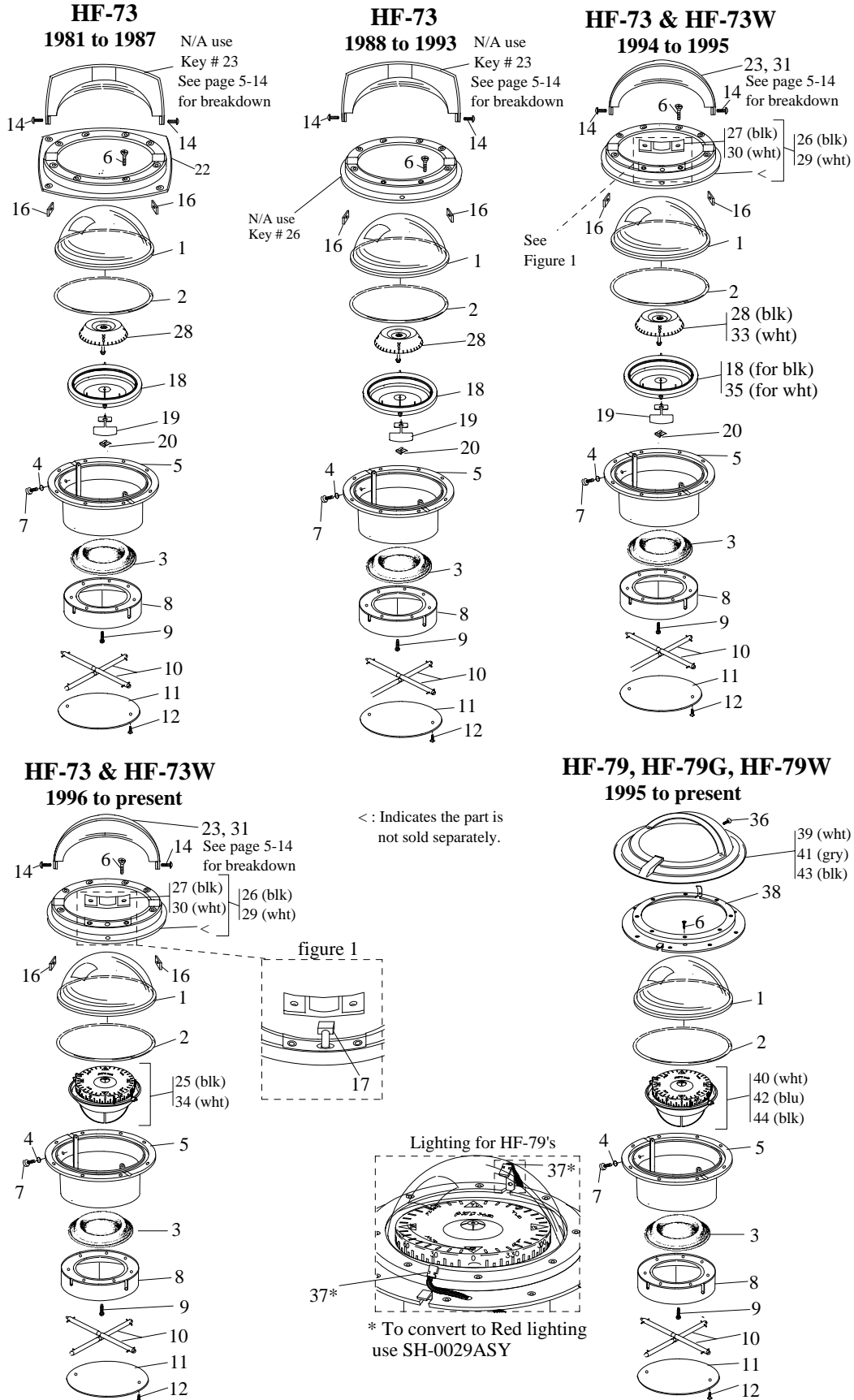
# Helmsman

## Open face, Bracket and Deck mounts

1	HL-0020	Dome	1983 to present	HB-70, HB-85, HD-74, SS-1100
2	HL-0067	O-ring, dome		
3	HL-0018	Diaphragm		
4	SH-0039	O-ring, fill plug screw		
5	HL-0007	Bowl		
6	SH-0061	Screw, 4-24 x 1/2" flt, bezel		
7	HL-0125	Light Cover, black		
8	HL-0004	Bezel, bracket mount, <i>Includes Key # 8</i>		
9	SH-0059	Fill Plug screw		
10	SH-0038	Nut, 6-32 square, sunshade retaining		
11	HL-0073	Retainer, diaphragm & comp rods		
12	SH-0062	Screw 4-24 x 3/8" round head		
14	SH-0052	Retainer, balance tab		
15	HL-0088 ASY	Sunshade, black with <b>red</b> LED		
16	HL-0131 ASY	Sunshade, black with <b>green</b> LED		
18	SH-0067	Screw, sunshade retaining		
19	SH-0045	Hole Plug, black		
20	HL-0080 MAG	Compensator Rod, open face dial		
23	HL-0128 ASY	Gimbal Ring/Pan, bent LL		
24	HL-0120 ASY	Dial, black, open face	1983 to 2000	HB-70, HB-85, HD-74
25	HL-0003	Balance Tab, open face dial	2001 to present	
26	HL-0103	Balance Tab, plastic, open face dial	1983 to present	HB-70
28	HL-0066	Nut, bracket retaining		
29	HL-0095	Washer, thumbscrew		
30	HL-0094 ASY	Thumbscrew		
31	HL-0028	Housing, bracket mount		
32	SH-0063	Screw, 4-24 x 5/8", flat head,		
33	HL-0009	Bracket		
34	HL-0029 OLD	Housing, deck mount	1983 to present	HD-74
35	HL-0081 ASY	Mounting Rod Asy, quadrantal corrector	1983 to present	HB-85
36	HL-0072	Quadrantal Corrector		
37	HL-0065	Mounting Nut, Quadrantal corrector		
38	SH-0046	Hole Plug		
39	HL-0030 OLD	Housing, bracket mount, HB-85		
40	HL-0062	Magnet, booster		
41	HL-0071	Mounting Plate, booster magnet		
42	SH-0068	Screw, 6-32 x 5/16", magnet plate		
43	HL-0082	Bolt, mounting bracket		
44	HL-0008	Bracket, HB-85		
45	HL-0102 ASY	Dial, blue, open face	1983 to present	SS-1100
46	HL-0103	Balance Tab, plastic open face dial		

# Helmsman

## HF-73, HF-73W, HF-79, HF-79G, HF-79W



# Helmsman

## Direct Read and CombiDamp Flush Mounts

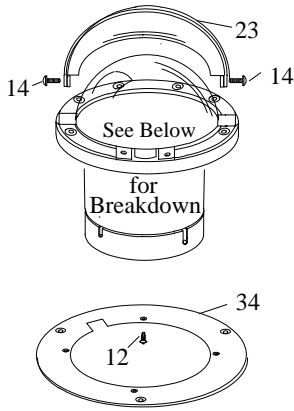
1	HL-0020	Dome	1981 to present	HF-73, HF-73W, HF-79, HF-79G, HF-79W
2	HL-0067	O-ring		
3	HL-0018	Diaphragm		
4	SH-0039	O-ring, fill plug screw		
5	HL-0007	Bowl		
6	SH-0061	Screw, 4-24 x 1/2" Flt, bezel		
7	SH-0059	Screw, fill plug		
8	HL-0073	Retainer, diaphragm & comprods		
9	SH-0062	Screw 4-24 x 3/8" Rnd, diaph retainer		
10	HL-0079 MAG	Compensator Rod, direct read dial		
11	HL-0012	Comp Cover		
12	SH-0064	Screw, 4-40 x 1/4" comp cover	1981 to present	HF-73, HF-73W
14	SH-0067	Screw, sunshade retaining		
16	SH-0038	Nut, 6-32 square, sunshade retaining		
17	SH-0195 ASY	Green Light	1981 to 1995	HF-73
18	HL-0129 ASY	Gimbal Ring & Pan, straight LL		HF-73, HF-73W
19	HL-0002	Balance Tab, direct read dial		
20	SH-0052	Retainer, balance tab		
22	HL-0006	Bezel, square	1981 to 1987	HF-73
23	HL-0088 ASY	Sunshade, black with <b>red</b> LED	1981 to present	
24	HL-0131 ASY	Sunshade, black with <b>green</b> LED		
25	HL-0156 ASY	Dial & Pan , black, w/ 45 <sup>0</sup> lubber lines	1996 to present	
26	HL-0109 DRL	Bezel, black, <i>Includes Key # 27</i>	1994 to present	
27	HL-0125	Light Cover, black	1981 to 1995	
28	HL-0017 ASY	Dial, black, direct read		
29	HL-0133 DRL	Bezel, white, <i>Includes Key # 30</i>	1994 to present	HF-73W
30	HL-0134	Housing, light, white		
32	HL-0132 ASY	Sunshade, white with <b>green</b>		
33	HL-0136 ASY	Dial, white, direct read		
34	HL-0178 ASY	Dial & Pan , white, w/ 45 <sup>0</sup> lubber lines		
35	HL-0176 ASY	Gimbal Ring & Pan, straight LL		
36	GM-0051	Screw, 6-32 x 3/8", escutcheon to bezel	1995 to present	HF-79, HF-79G, HF-79W
37	SH-0102 ASY	LED & Wire, green		
38	HL-0138	Bezel, flush mount, performer		
39	HL-0144	Escutcheon, white	1995 to present	HF-79W
40	HL-0148 ASY	Dial & Pan, white, CombiDamp	1995 to present	HF-79G
41	HL-0143	Escutcheon, gray		
42	HL-0149 ASY	Dial & Pan, blue, CombiDamp	1995 to present	HF-79
43	HL-0137	Escutcheon, black		
44	HL-0155 ASY	Dial & Pan, black, CombiDamp		

Mounting Gaskets	
HF-73 (1981 to 1987)	HL-0023
HF-73 (1988 to present)	HL-0105
HF-73W & HF-79's (all)	

# Helmsman

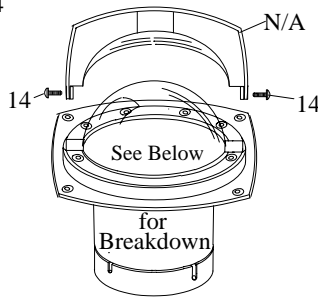
## HF-72, HF-72S, HF-72W, SS-1000, SS-1000W

**HF-72S**  
1984 to 1987

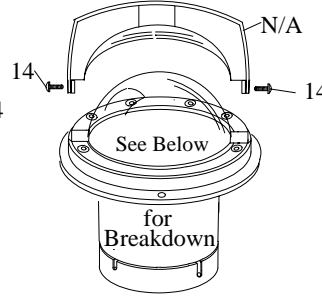


(See page 5-14 for light shade breakdown)

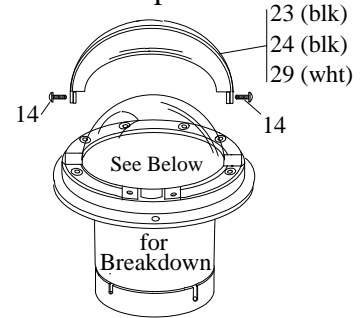
**HF-72**  
1981 to 1987



**HF-72**  
1988 to 1991

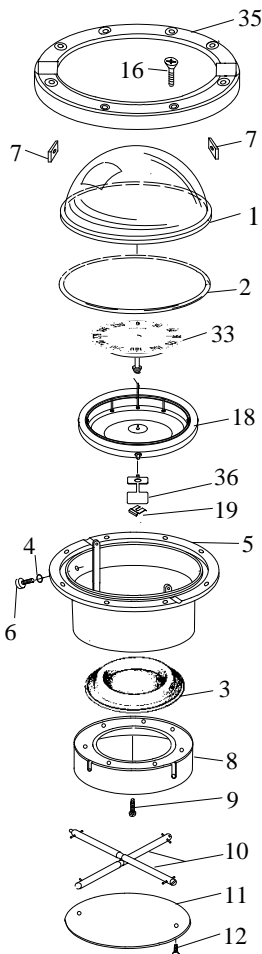


**HF-72S**  
1988 to 1991  
**HF-72 & HF-72W**  
1992 to present  
**SS-1000 & SS-1000W**  
1988 to present

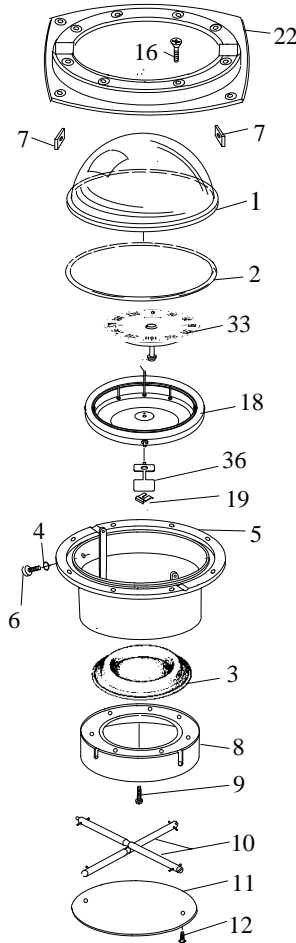


< : Indicates the part is not sold separately.

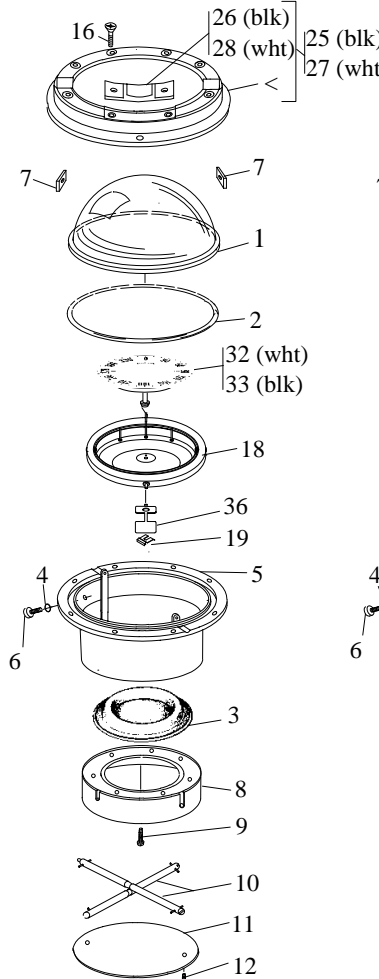
**HF-72S**  
1984 to 1987



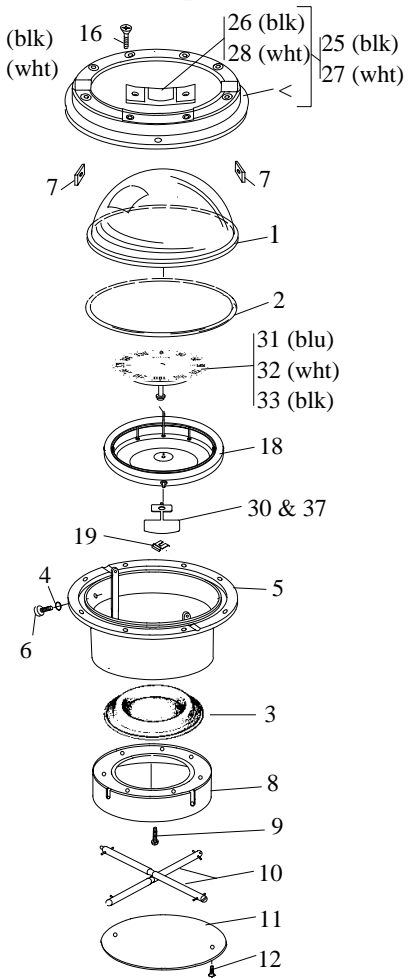
**HF-72**  
1981 to 1987



**HF-72S**  
1988 to 1991  
**HF-72 & HF-72W**  
1992 to 2000



**HF-72 & HF-72W**  
2001 to present  
**SS-1000 & SS-1000W**  
1988 to present



# Helmsman

## Open Face Flush Mounts

1	HL-0020	Dome	HF-72, HF-72S, SS-1000 & SS-1000W	
2	HL-0067	O-ring		
3	HL-0018	Diaphragm		
4	SH-0039	O-ring, fill plug screw		
5	HL-0007	Bowl		
6	SH-0059	Screw, fill plug		
7	SH-0038	Nut, 6-32 square, sunshade retaining		
8	HL-0073	Retainer, diaphragm		
9	SH-0062	Screw, 4-24 x 3/8", rnd, diaph retainer		
10	HL-0080 MAG	Compansator Rod, open face dial		
11	HL-0012	Comp Cover		
12	SH-0064	Screw, 4-40 x 1/4", comp cover		
14	SH-0067	Screw, sunshade retaining		
16	SH-0061	Screw, 4-24 x 1/2" Flt, bezel		
18	HL-0128 ASY	Gimbal Ring & Pan, bent center LL		
19	SH-0052	Retainer, balance tab		
22	HL-0006	Bezel, square		HF-72 (81 to 87)
23	HL-0088 ASY	Sunshade, black with <b>red</b> LED		HF-72 & SS-1000, HF-72S
24	HL-0131 ASY	Sunshade, black with <b>green</b> LED		
25	HL-0109 OFL	Bezel, black, <i>Includes Key # 26</i>	HF-72 (1988 to present)	
26	HL-0125	Housing, cover, black	HF-72S (88 to 91) SS-1000 (all)	
27	HL-0133 OFL	Bezel, white, <i>Includes Key # 28</i>	HF-72W & SS-1000W	
28	HL-0134	Housing, light, white		
29	HL-0132 ASY	Sunshade, white with <b>green</b> LED		
30	HL-0103	Balance tab, use with plastic and SS dials	SS-1000 & SS-1000W	
31	HL-0102 ASY	Dial, blue, open face	HF-72W	
32	HL-0135 ASY	Dial, white, open face		
33	HL-0120 ASY	Dial, black, open face	HF-72 & HF-72S	
34	HL-0001	Bezel Plate, black	HF-72S (84 to 87)	
35	HL-0004	Bezel, deck and early flush mounts		
36	HL-0003	Balance Tab, for open face dial	HF-72, HF-72S, HF-72W (81 to 00)	
37	HL-0103	Balance tab, use with plastic and SS dials	HF-72, HF-72W (81 to present)	

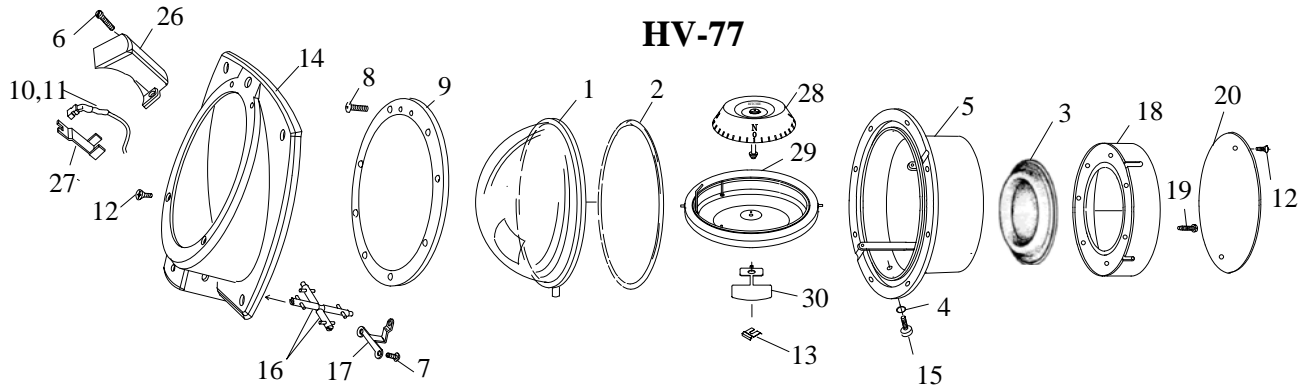
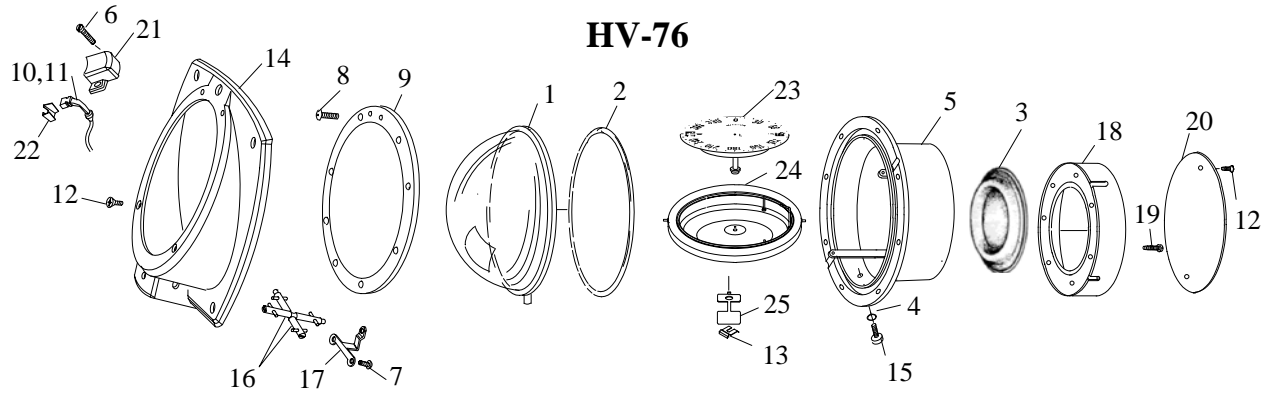
Mounting Gaskets	
HF-72 (1981 to 1987)	HL-0023
HF-72-S (1984 to 1987)	HL-0021
HF-72 (1988 to present)	HL-0105
HF-72W & SS-1000's (all)	

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# Helmsman

## HV-76 & HV-77

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## Helmsman Bulkhead Mounts

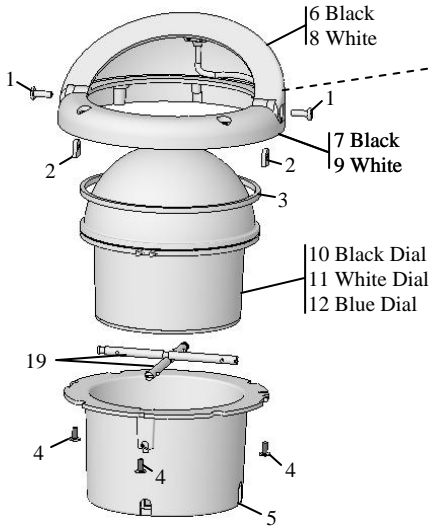
1	HL-0019	Dome	HV-76 & HV-77
2	HL-0067	O-ring	
3	HL-0018	Diaphragm	
4	SH-0039	O-ring, filler plug screw	
5	HL-0007	Bowl	
6	HL-0085	Screw, 4-40 x 3/8	
7	SH-0066	Screw, 4 x 1/4",	
8	HL-0084	Screw, 4-24 x 3/8", bezel	
9	HL-0005	Bezel	
10	SH-0029 ASY	LED & Wire, <b>red</b>	
11	SH-0102 ASY	LED & Wire, <b>green</b>	
12	SH-0064	Screw, 4-40 x 1/4",	
13	SH-0052	Retainer, balance tab	
14	HL-0011	Cover, bulkhead	
15	SH-0059	Screw, fill plug	
16	SH-0057 MAG	Comp Rod	
17	SH-0053	Comp Rod bracket	
18	HL-0073	Retainer, diaphragm & comp rods	
19	SH-0062	Screw, 4-24 x 3/8" rnd, diaph retainer	
20	HL-0012	Comp Cover	
21	HL-0054	Light Cover	HV-76
22	HL-0077	Light Retainer	
23	HL-0120 ASY	Dial, black, open face	
24	HL-0129 ASY	Gimbal Ring & Pan, straight center LL	
25	HL-0003 BLK	Balance Tab	HV-77
26	HL-0055	Light Cover	
27	HL-0078	Light Retainer	
28	HL-0017 ASY	Dial, black, direct read	
29	HL-0130 ASY	Gimbal Ring & Pan, bent center LL	
30	HL-0002 BLK	Balance Tab	

Mounting Gasket for the HV-76 & HV-77 Part # **HL-0022**

# Helmsman

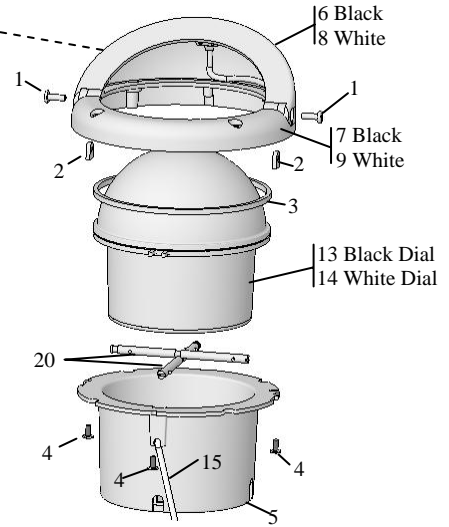
HB-740, HB-741, HB-845, HD-744, HD-745, HF-742, HF-743, HF-742W, HF-743W, SS-1002, SS-1002W

## HF-742's & SS-1002's

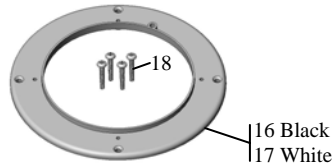


See Page 5-14  
for Lighting  
Part Numbers

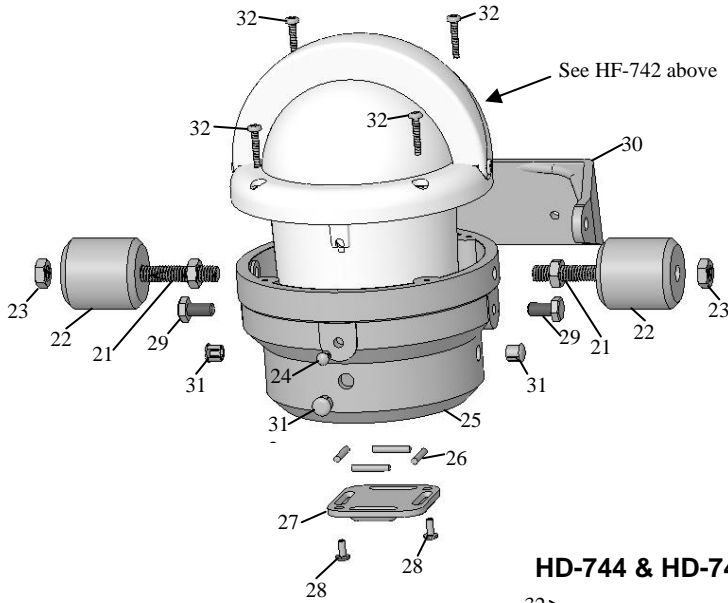
## HF-743's



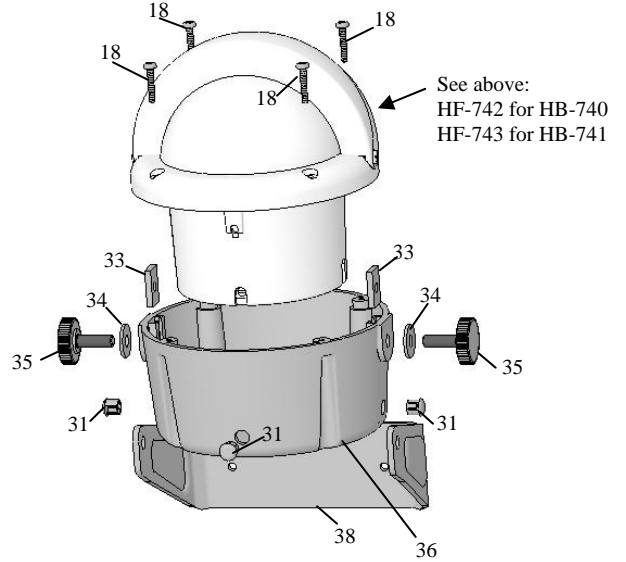
## Adapter Kit



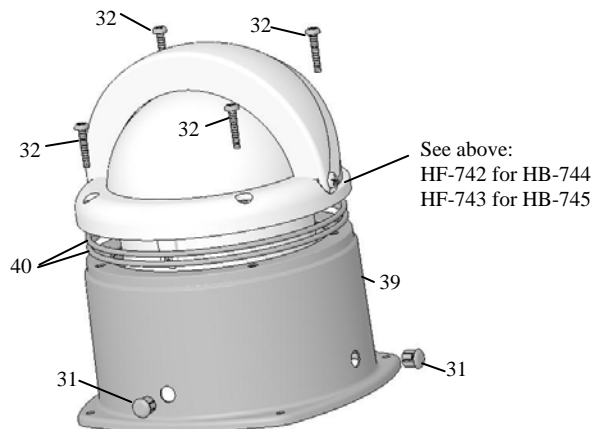
## HB-845



## HB-740 & HB-741



## HD-744 & HD-745





# Helmsman Modular Models

1	SH-0067	Screw, Sunshade (requires 2)	All
2	SH-0038	Nut (requires 2)	
3	HL-0218	Gasket, (Bezel to Dome seal)	
4	SH-0184	Screw, 4 x 3/8" Truss head (compass requires 4)	
5	HL-0217 BLK	Lower Housing	HF-742, HF-743 & SS-1002
6	HL-0216 XBK	Sunshade & Light, Black	
7	HL-0215 BLK	Bezel, Black	HF-742W, HF-743W & SS-1002W
8	HL-0216 XWT	Sunshade & Light, White	
9	HL-0215 XWT	Bezel, White	HF-742
10	HL-0225 XBO	Capsule with Black Open Face Dial	
11	HL-0225 XWO	Capsule with White Open Face Dial	HF-742W
12	HL-0225 XSS	Capsule with Blue Super Sport Dial	SS-1002 & SS-1002W
13	HL-0225 XBC	Capsule with Black CombiDamp Dial	HF-743
14	HL-0225 XWC	Capsule with White CombiDamp Dial	HF-743W
15	SH-0194 ASY	LED light assembly, Green for Direct lighting	HF-743 & HF-743W
16	HL-0220 BLK	Adapter, Black	HF-742, HF-743 & SS-1002
17	HL-0220 WHT	Adapter, White	HF-742W, HF-743W & SS-1002W
18	MT-0307	Adapter Screw (requires 4)	All
19	HL-0229 MAG	Comprod for Open Face Dials. (requires 2)	HF-742, HF-742W, SS-1002, SS-1002W
20	HL-0230 MAG	Comprod for CombiDamp Dials. (requires 2)	HF-743, HF-743W
21	HL-0081 ASY	Mounting Rod Asy, quadrantal corrector (requires 2)	HB-845
22	HL-0072	Quadrantal Corrector (requires 2)	
23	HL-0065	Mounting Nut, Quadrantal corrector (requires 2)	
24	SH-0046	Hole Plug (requires 2)	
25	HL-0030	Housing, bracket mount, HB-845	
26	HL-0062	Magnet, booster (requires 4)	
27	HL-0071	Mounting Plate, booster magnet	
28	SH-0068	Screw, 6-32 x 5/16", magnet plate (requires 2)	
29	HL-0082	Bolt, mounting bracket (requires 2)	
30	HL-0008	Bracket, for Steel Boat	
31	SH-0045	Hole Plug (requires 4)	
32	HL-0256	Screw, 6-32 x 7/8", Housing (requires 4)	HB-845, HD-744 & HD-745
33	HL-0066	Nut, bracket retaining (requires 2)	HB-740 & HB-741
34	HL-0095	Washer, thumbscrew (requires 2)	
35	HL-0094 ASY	Thumbscrew (requires 2)	
36	HL-0253	Housing, bracket mount	
38	HL-0252	Bracket	
39	HL-0029	Housing, deck mount	HD-744 & HD-745
40	HL-0255	Decorative Ring (requires 2)	

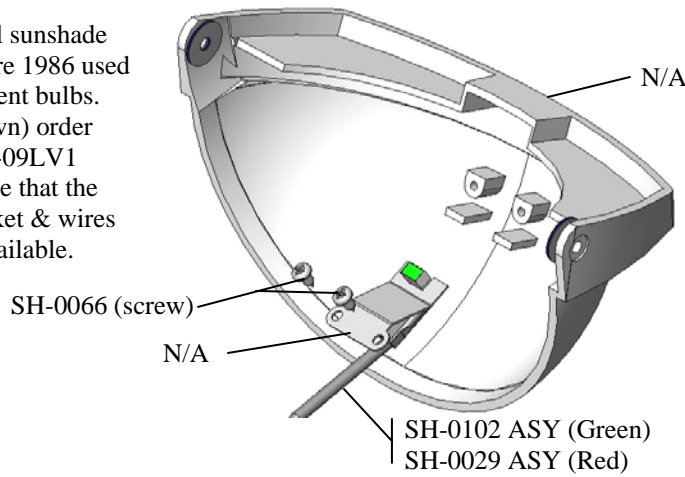
### Mounting Gaskets

HL-0105	Use when Adapter is installed on compass
HL-0219	Use when there is no Adapter installed

# Helmsman Lighting

## High level Helmsman Sunshade HL-0087 ASY

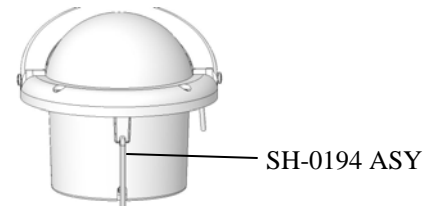
High level sunshade built before 1986 used incandescent bulbs. (Not Shown) order Part # CS-09LV1 Please note that the bulbs socket & wires are not available.



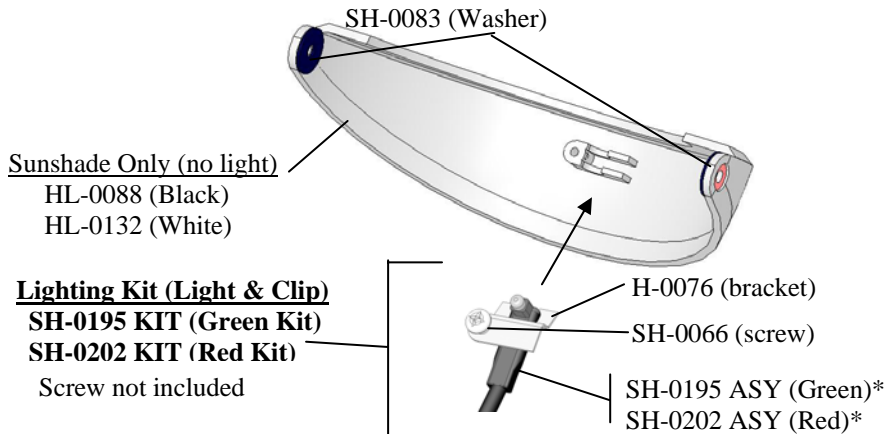
## Front Light Type 1



## Front Light Type 2



## Low level Helmsman Sunshade Type 1 HL-0088 ASY, HL-0131 ASY & HL-0132 ASY



Sunshade Only (no light)  
HL-0088 (Black)  
HL-0132 (White)

Lighting Kit (Light & Clip)  
**SH-0195 KIT (Green Kit)**  
**SH-0202 KIT (Red Kit)**  
Screw not included

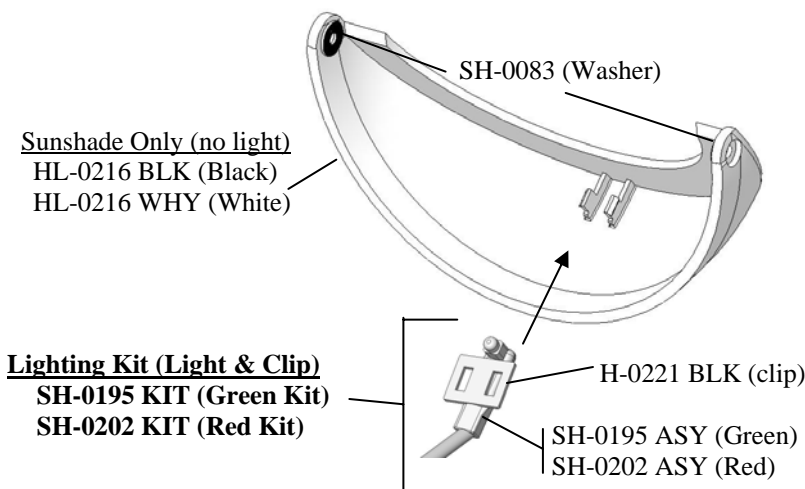
\*If you are replacing the Sunshade light on any Low Level Helmsman built before 2005 rev 1 you will need a new bracket. We recommend purchasing the Lighting kit.

### Quick Ordering Tip:

The Lighting Kit contains an assortment of clips to meet the needs for light replacement for most Helmsman compasses. (See below for exceptions.)

Please note: The kit come with one LED. If you need to replace both lights on your compass you will need to purchase the second light separately.

## Low level Helmsman Sunshade Type 2 HL-0216 XBK & HL-0216 XWT



Sunshade Only (no light)  
HL-0216 BLK (Black)  
HL-0216 WHY (White)

Lighting Kit (Light & Clip)  
**SH-0195 KIT (Green Kit)**  
**SH-0202 KIT (Red Kit)**

### Kit exceptions

The following compasses are not compatible with the SH-0195 KIT or the SH-0202 KIT

HV-76 (see page 5-11 for replacement lights)  
HV-77 (see page 5-11 for replacement lights)  
HF-79's (see page 5-6 for replacement lights)

High Level Lighting (see above)

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# Navigator

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## **Production History (Rev info) 1984 to Present**

### All Navigator Models

- 1986: (No Rev #) Changed from a **red** incandescent bulb to a **red** LED.
- 1987: (No Rev #) Changed Bowl to use a self-tapping bezel screw.
- 1993: (No Rev #) Changed from a **red** LED to a **green** LED.
- 1999: (No Rev #) Changed bowl to accommodate new direct read models.
- 2000: (Rev # 1) Changed to plastic bezel, changed sunshade screws and added washers.
- 2001: (No Rev #) Removed hard plastic washer from sunshade screw.
- 2001 (Rev # 2) Changed to Isopar L dampening fluid.
- 2001: (Rev # 3) Navigator Compasses received Wheelmark Certification.
- 2003: (No Rev #) Changed design of Sunshade LED. (see Service Bulletin SB0021)

### DNB, DNP, DNW's & SS-2100

- 2000: (Rev #1) In concurrence with the bezel change, pem nuts replaced the spacer on the binnacle.

### DNB-203, DNP-203, DNW-203, FN-203 & FNW-203

- 2000: (No Rev #) Changed to stronger compensator magnets.
- 2001: (Rev # 1) Changed bowl, bezel & light clips to accommodate under bezel lighting.
- 2001: (Rev # 4) Dial Coating. (see Service Bulletin SB0016)
- 2002: (Rev #1) Change to Molded Dial. (see Service Bulletin SB0016)
- 2004: (Rev # 1) Changed to a brighter front light assembly.

### BN-202

- 2004: (Rev # 1) Re-designed Gimbal Pan (see Service Bulletin SB0027)

## **Repair Tips**

When replacing the diaphragm retainer on any Navigator model, make sure the key on the diaphragm retainer is aligned with the keyway on the bowl.

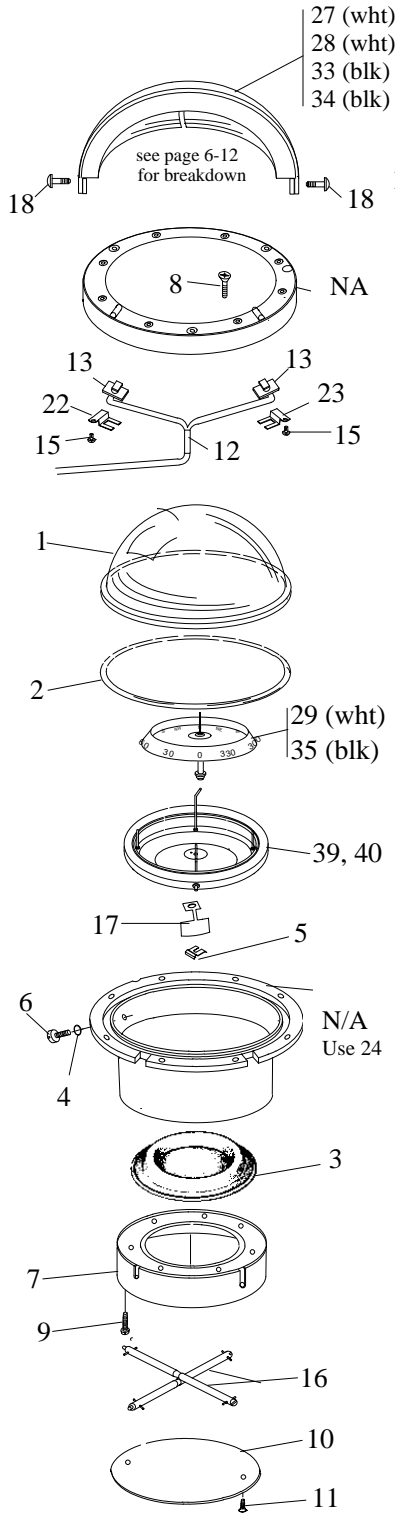
Make sure the gimbal pins stay in the bowl trunnions during re-assembly.

If you are replacing a Dial on a BN-202 built before 2004 rev 1 you will need to also replace the Gimbal pan. Please see Service Bulletin SB0027.

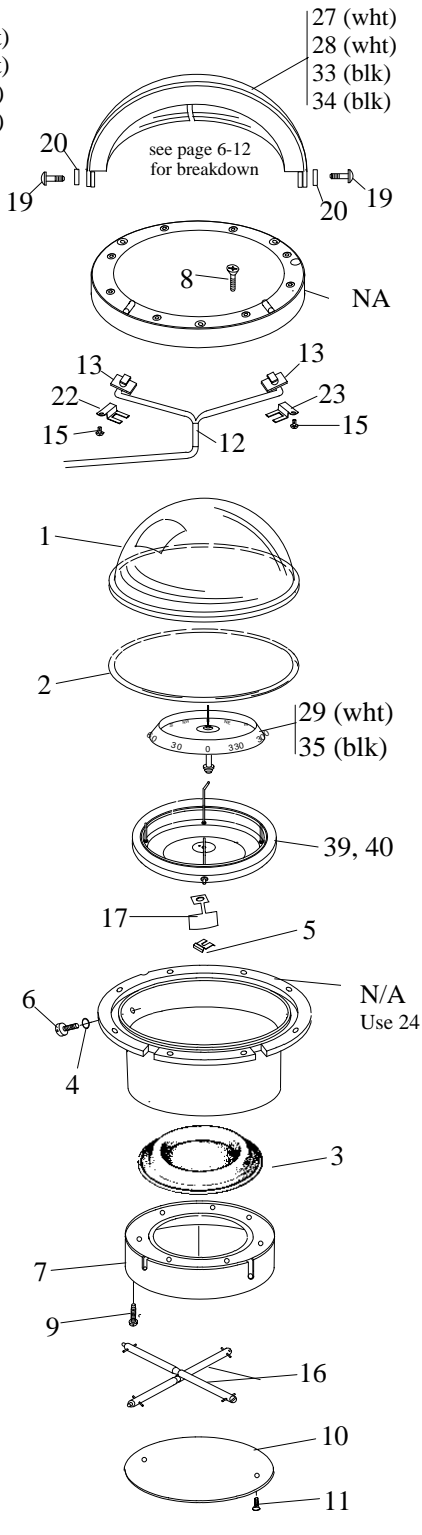
# Navigator

## FN-203, FNW-203

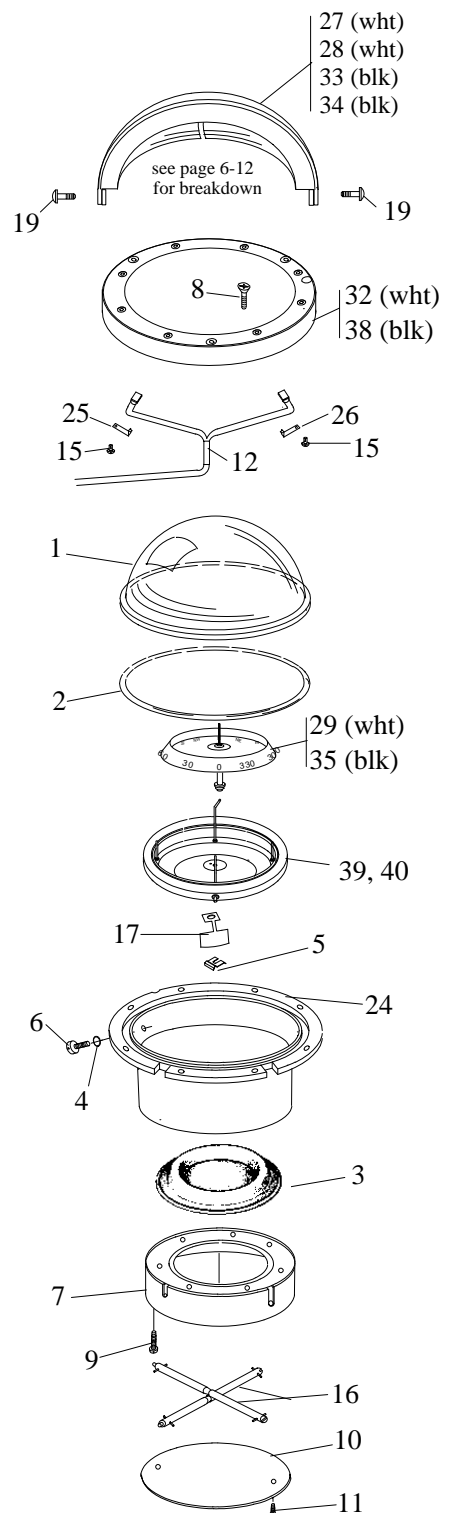
### 1999 to 2000



### 2000 (Rev 1) to 2001



### 2001 (Rev 1) to present



# Navigator

## CombiDamp Flush Mounts

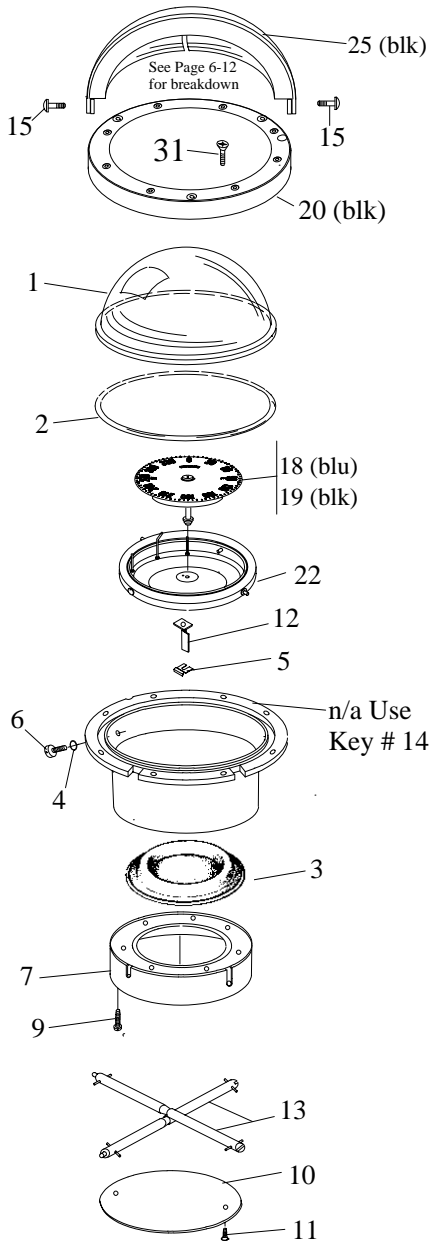
1	NV-0022	Dome		
2	NV-0054	O-ring		
3	NV-0021	Diaphragm		
4	SH-0039	O-ring, fill plug screw		
5	SH-0052	Retainer, balance tab		
6	NV-0086	Screw, fill plug		
7	NV-0057	Retainer, diaphragm		
8	SH-0061	Screw, 4-24 X 1/2", flt, bezel		
9	SH-0062	Screw 4-24 x 3/8", rnd, diaph retainer		
10	NV-0013	Comp Cover		
11	SH-0064	Screw, 4-40 x 1/4", comp cover		
12	NV-0128 ASY	LED, dual light assembly, <b>green</b>		
13	NV-0138	Gasket LED,		
15	SH-0066	Screw, 4 x 1/4", pan, light retainer		
16	NV-0179 MAG	Compensator Rod, CombiDamp, flush		
17	NV-0164	Balance Tab, for CombiDamp dials		
18	NV-0064	Screw, sunshade retaining	1999 to 2000	
19	NV-0165	Screw, sunshade, for plastic bezel	2000 (Rev #1) to present	
20	NV-0172	Washer, flat, nylon, for plastic bezel	2000 to 2001	
22	NV-0135 LFT	Retainer, light assembly left		
23	NV-0135 RGT	Retainer, light assembly right		
24	NV-0007	Bowl, under bezel lighting		
25	NV-0185 LFT	Retainer, light, left	2001 (Rev #1) to present	
26	NV-0185 RGT	Retainer, light right		
27	NV-0088 ASY	Sunshade, white, with <b>red</b> LED		
28	NV-0100 ASY	Sunshade, white, with <b>green</b> LED	ALL	
29	NV-0125 ASY	Dial, white, CombiDamp dial		
32	NV-0167 ASY	Bezel, plastic, white	2001 (Rev #1) to present	
33	NV-0070 ASY	Sunshade, black, <b>red</b> LED		
34	NV-0099 ASY	Sunshade, black, <b>green</b> LED	ALL	
35	NV-0124 ASY	Dial, black, CombiDamp Dial		
38	NV-0166 ASY	Bezel, plastic, black	2001 (Rev #1) to present	
39	NV-0189 ASY	Gimbal Ring/Pan. <b>Use w/ white dial</b>		
40	NV-0131 ASY	Gimbal Ring/Pan <b>Use w/ black Dial</b>	All	
				FN-203, FNW-203
				FNW-203
				FN-203
				FNW-203
				FN-203

Mounting Gasket for all Flush mount Navigators **Part # NV-0175**

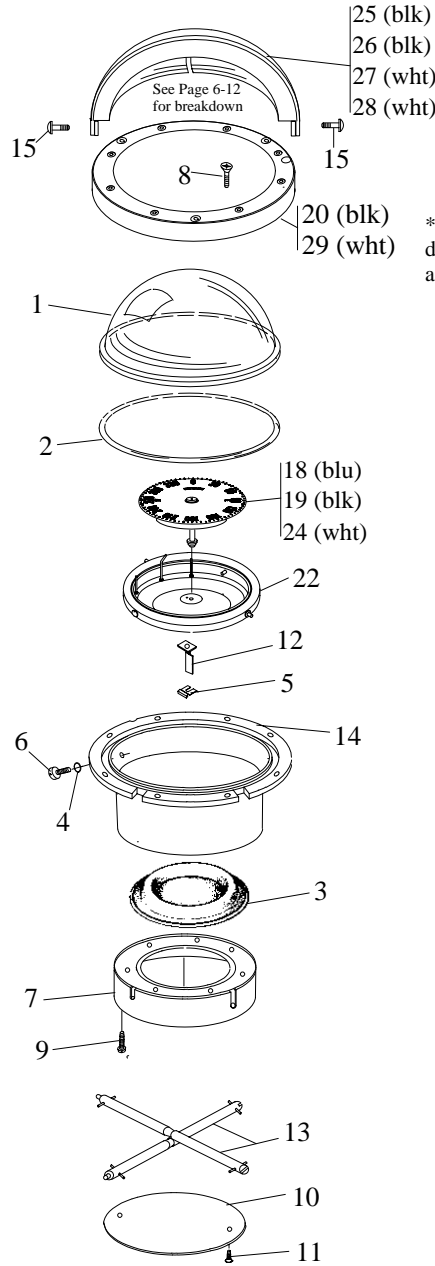
# Navigator

## FN-201, FNW-201, SS-2000, SS-2000W

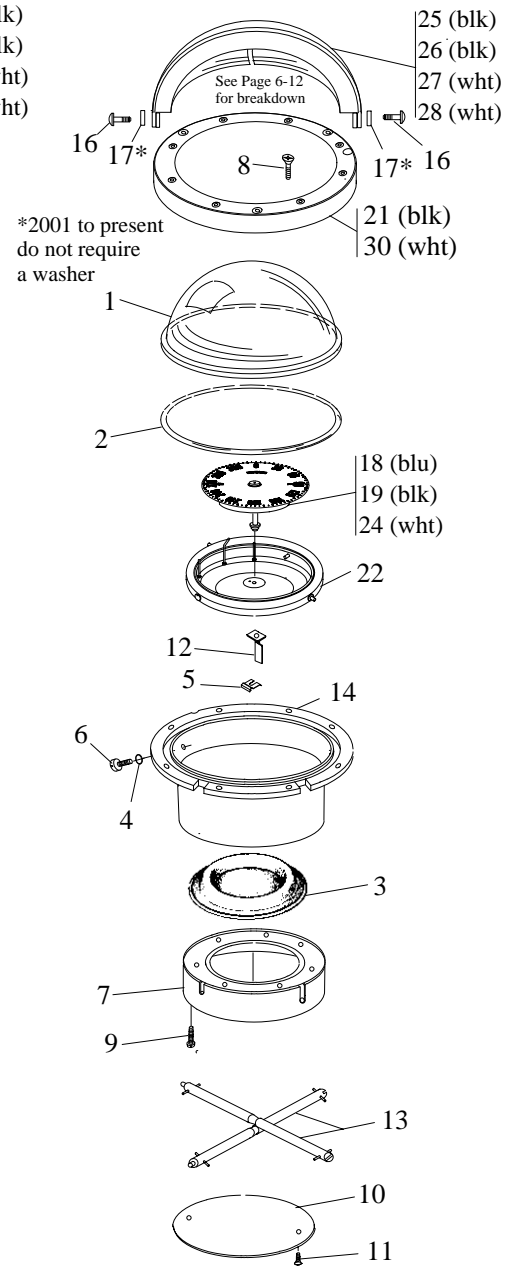
### 1984 to 1987



### 1987 to 2000



### 2000 (Rev 1) to present



# Navigator

## Open Face Flush Mounts

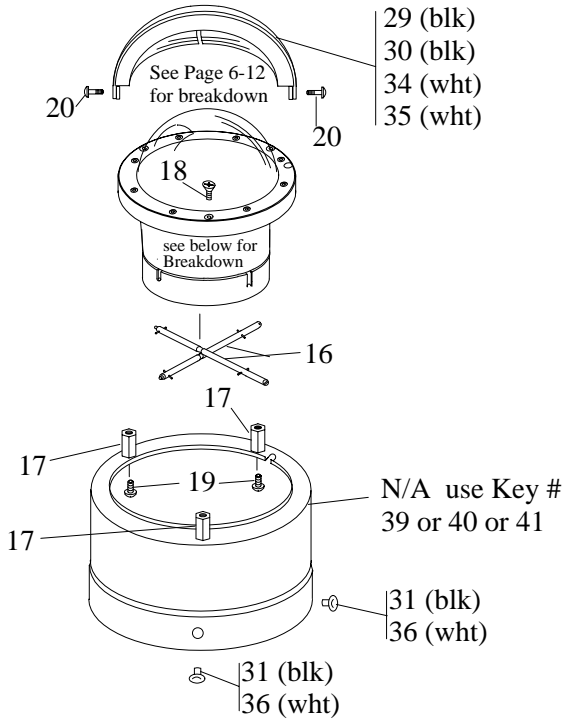
1	NV-0022	Dome	ALL	FN-201, FNW-201 SS-2000, SS-2000W
2	NV-0054	O-ring		
3	NV-0021	Diaphragm		
4	SH-0039	O-ring, fill plug screw		
5	SH-0052	Retainer, balance tab		
6	NV-0086	Screw, fill plug		
7	NV-0057	Retainer, diaphragm		
8	SH-0061	Screw, 4-24 x 1/2", flt, bezel	1987 to Present	
9	SH-0062	Screw, 4-24 x 1/2", rnd, diaph retainer	ALL	
10	NV-0013	Comp Cover		
11	SH-0064	Screw, 4-40 x 1/4", comp cover		
12	NV-0002	Balance Tab, for open face dial		
13	NV-0063 MAG	Compensator rod, flush mount		
14	NV-0007	Bowl		
15	NV-0064	Screw, sunshade retaining		1984 to 2000
16	NV-0165	Screw, sunshade, for plastic bezel	2000 (Rev #1) to present	
17	NV-0172	Washer, flat nylon, for plastic bezel	2000 (Rev #1) to 2001	
18	NV-0018 ASY	Dial, blue, open face	ALL	SS-2000 & SS-2000W
19	NV-0094 ASY	Dial, black, open face	ALL	FN-201
20	NV-0004	Bezel, brass, black	1984 to 2000	
21	NV-0166 ASY	Bezel, plastic, black	2000 (Rev #1) to present	
22	NV-0085 ASY	Gimbal Ring & Pan	ALL	FN-201, SS-2000, SS-2000W
24	NV-0097 ASY	Dial, white, open face	ALL	FNW-201
25	NV-0070 ASY	Sunshade, black, <b>red</b> LED	ALL	FN-201, SS-2000
26	NV-0099 ASY	Sunshade, black, <b>green</b> LED		
27	NV-0088 ASY	Sunshade, white, <b>red</b> LED	ALL	FNW-201, SS-2000W
28	NV-0100 ASY	Sunshade, White, <b>green</b> LED		
29	NV-0087	Bezel, brass, white	1993 to 2000	
30	NV-0167 ASY	Bezel, plastic, white	2000 (Rev #1) to present	
31	NV-0065	Screw, 4-24 x 1/2", mch, bezel	1984 to 1987	FN-201

Mounting Gasket for all Flush mount Navigators **Part # NV-0175**

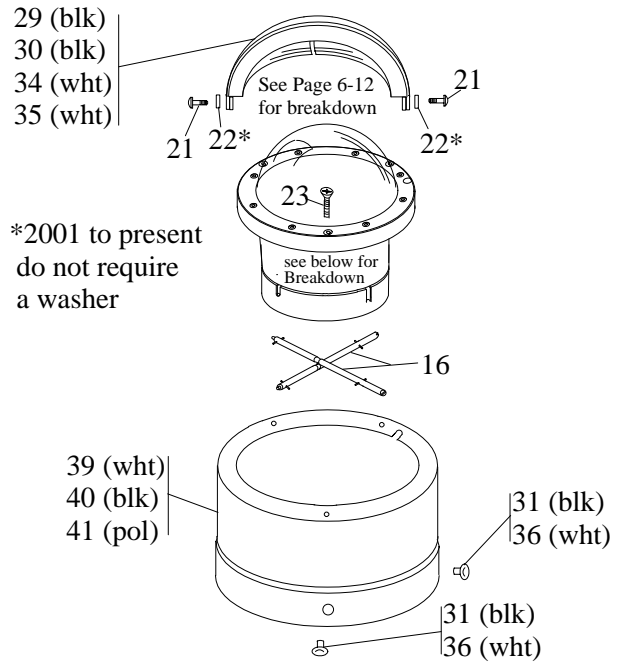
# Navigator

DNB-200, DNP-200, DNW-200, SS-2100B, SS-2100P, SS-2100W

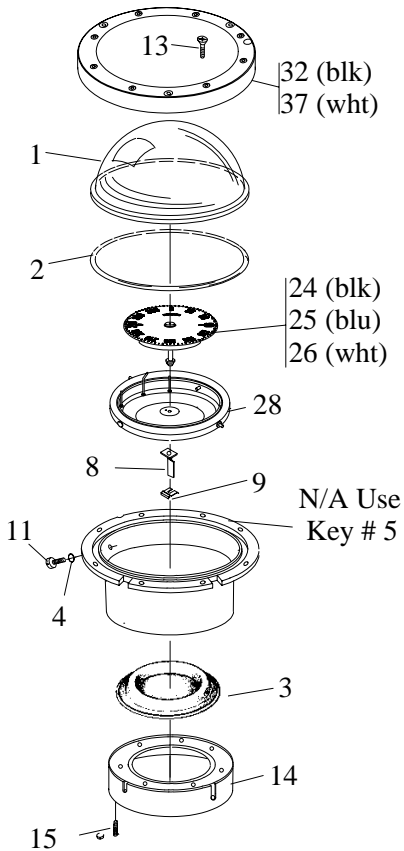
## 1984 to 2000



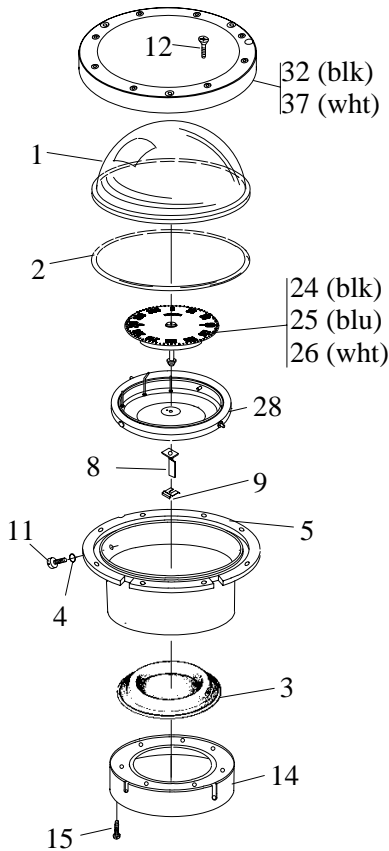
## 2000 (Rev 1) to present



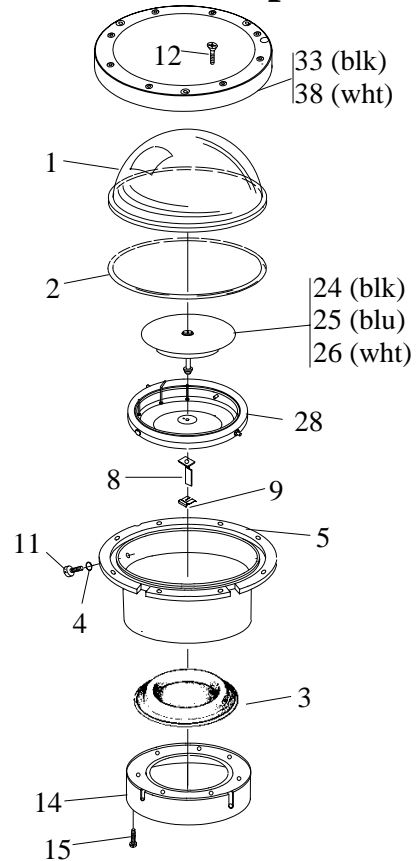
## 1984 to 1987



## 1987 to 2000



## 2000 (Rev 1) to present





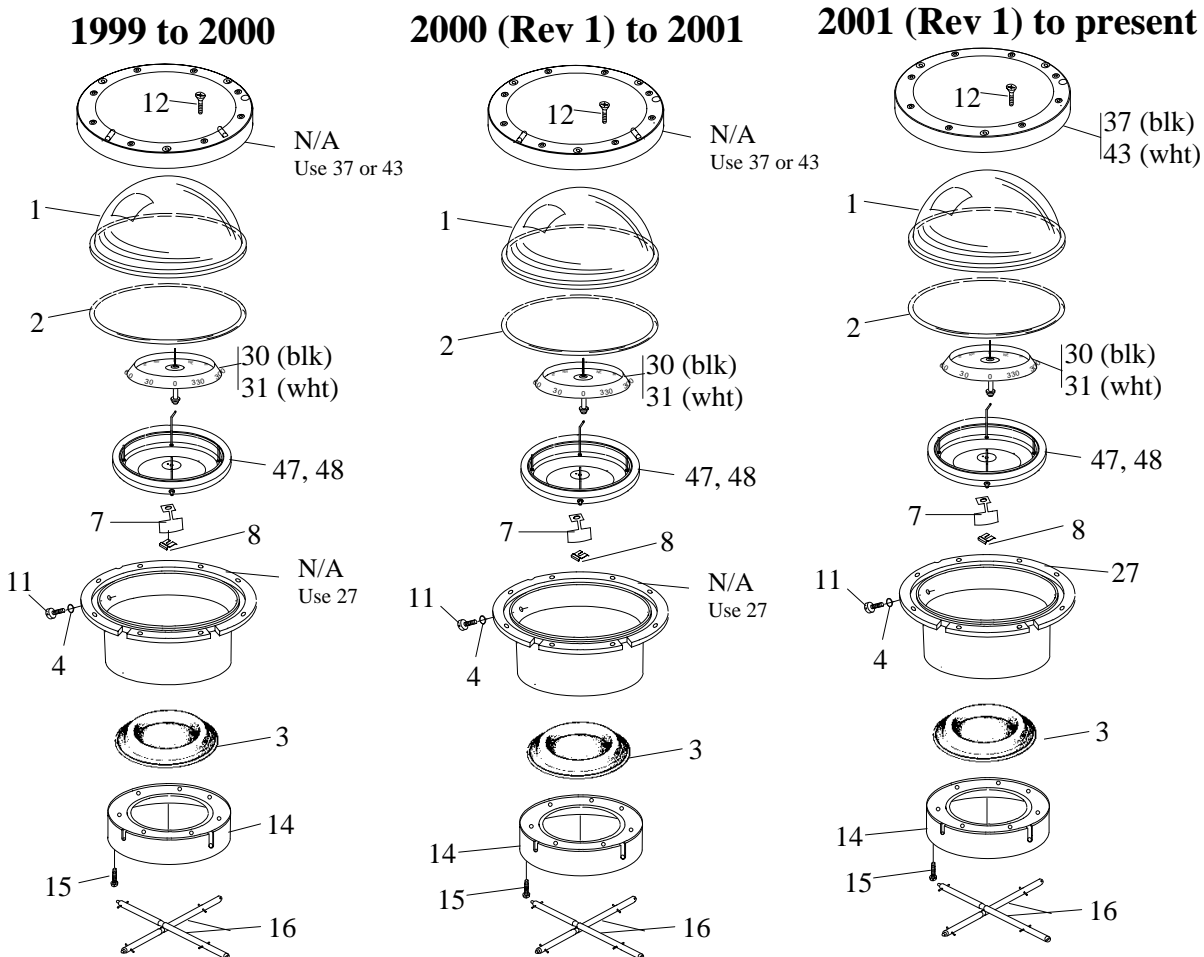
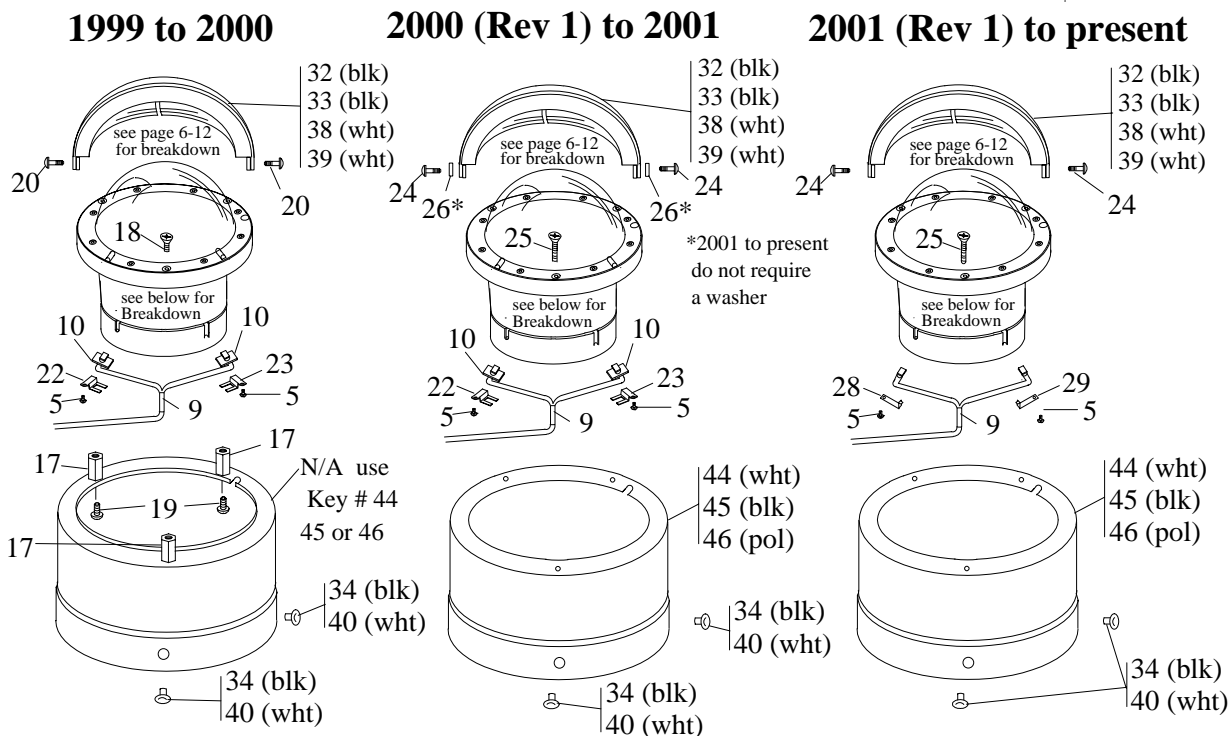
# Navigator

## Open Face Binnacle Mount

1	NV-0022	Dome	All	DNB-200, DNP-200, DNW-200, SS-2100B, SS-2100P, SS-2100W	
2	NV-0054	O-ring			
3	NV-0021	Diaphragm			
4	SH-0039	O-ring, fill plug screw			
5	NV-0007	Bowl			
8	NV-0002	Balance Tab, for open face dial			
9	SH-0052	Retainer, balance tab			
11	NV-0086	Screw, fill plug			
12	SH-0061	Screw, 4-24 x 1/2", flt, bezel			1988 to Present
13	NV-0065	Screw, 4-24 x 1/2", mch, bezel			1984 to 1987
14	NV-0057	Retainer, diaphragm			All
15	SH-0062	Screw 4-24 x 3/8" rnd, diaph retainer			
16	NV-0062 MAG	Compensator Rod, (compass requires 2)			
17	NV-0069	Spacer, housing to bezel	1984 to 2000		
18	NV-0068	Screw, 6-32 x 1/4" bezel to spacer			
19	SH-0068	Screw, 6-32 x 5/16", spacer			
20	NV-0064	Screw, 10-32, sunshade, for brass bezel			
21	NV-0165	Screw, 6-32, sunshade, for plastic bezel		2000 (Rev #1) to present	
22	NV-0172	Washer, flat nylon, for plastic bezel	2000 (Rev #1) to 2001		
23	NV-0177	Screw, 6-32, flt, bezel to housing	2000 (Rev #1) to present		
24	NV-0094 ASY	Dial, black, open face	All	DNB-200	
25	NV-0018 ASY	Dial, blue, open face	All	SS-2100B, SS-2100P, SS-2100W	
26	NV-0097 ASY	Dial, white, open face	All	DNW-200	
28	NV-0085 ASY	Gimbal Ring/Pan Assembly	All	DNB-200, DNP-200, DNW-200, SS-2100B, SS-2100P, SS-2100W	
29	NV-0070 ASY	Sunshade, black, <b>red</b> LED	All	DNB-200, DNP-200, SS-2100B, SS-2100P	
30	NV-0099 ASY	Sunshade, black, <b>green</b> LED			
31	SH-0045	Hole plug, black			
32	NV-0004	Bezel, brass, black	1984 to 2000		
33	NV-0166 ASY	Bezel, plastic, black	2000 (Rev 1) to present		
34	NV-0088 ASY	Sunshade, white, <b>red</b> LED	All	DNW-200, SS-2100W	
35	NV-0100 ASY	Sunshade, white, <b>green</b> LED			
36	SH-0144	Hole plug, white			
37	NV-0087	Bezel, brass, white			1984 to 2000
38	NV-0167 ASY	Bezel, plastic, white			2000 (Rev #1) to present
39	NV-0098	Housing, white	2000 (Rev #1) to present		
40	NV-0028	Housing, black		DNB-200, SS-21000B	
41	NV-0029	Housing, polished S/S		DNP-200, SS-2100P	

# Navigator

## DNB-203, DNP-203, DNW-203



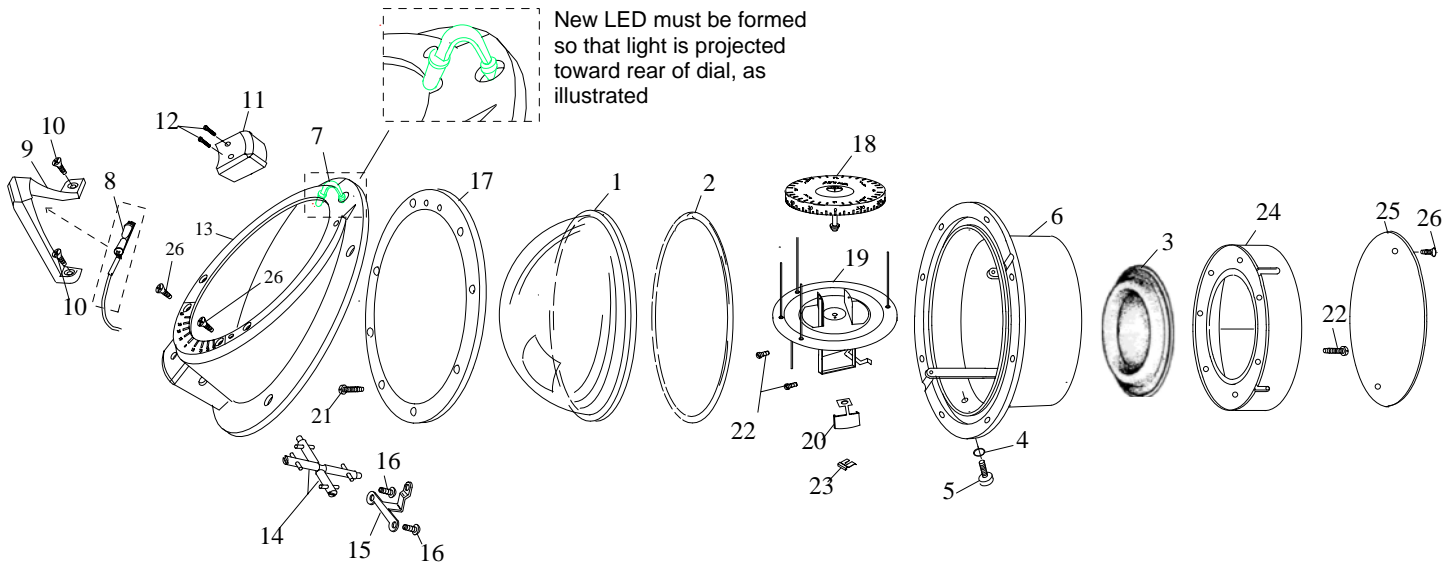
# Navigator

## CombiDamp Binnacle Mount

1	NV-0022	Dome	All	DNB-203, DNP-203, DNW-203
2	NV-0054	O-ring		
3	NV-0021	Diaphragm		
4	SH-0039	O-ring, fill plug screw		
5	SH-0066	Screw, 4 x 1/4, pan, light retainer		
7	NV-0164	Balance Tab, CombiDamp dial		
8	SH-0052	Retainer, balance tab		
9	NV-0128 ASY	LED, dual light assembly, <b>green</b>		
10	NV-0138	Gasket LED,		
11	NV-0086	Screw, fill plug		
12	SH-0061	Screw, 4-24 x 1/2", flt, bezel		
14	NV-0057	Retainer, diaphragm		
15	SH-0062	Screw 4-24 x 3/8" rnd, diaph retainer		
16	NV-0180 MAG	Compensator, (compass requires 2)		
17	NV-0069	Spacer, housing to bezel		
18	NV-0068	Screw, 6-32 x 1/4"		
19	SH-0068	Screw, 6-32 x 5/16", spacer		
20	NV-0064	Screw, 10-32, sunshade, brass bezel		
22	NV-0135 LFT	Retainer, light, left	1999 to 2000	
23	NV-0135 RGT	Retainer, light, right		
24	NV-0165	Screw, 6-32, sunshade, plastic bezel		
25	NV-0177	Screw 6-32, flt, bezel to housing	2000 (Rev #1) to Present	
26	NV-0172	Washer flat nylon, for plastic bezel	2000 (Rev 1) to 201	
27	NV-0007	Bowl, under bezel lighting	2001 (Rev 1) to present	
28	NV-0185 LFT	Retainer, light, left		
29	NV-0185 RGT	Retainer, light, right		
30	NV-0124 ASY	Dial, black, CombiDamp dial	All	DNB-203, DNP-203
31	NV-0125 ASY	Dial, white, CombiDamp dial	All	DNW-203
32	NV-0070 ASY	Sunshade, black with <b>red</b> LED	All	DNB-203, DNP-203
33	NV-0099 ASY	Sunshade, black with <b>green</b> LED		
34	SH-0045	Hole Plug, black		
37	NV-0166 ASY	Bezel, plastic, black	2001 (Rev #1) to Present	DNW-203
38	NV-0088 ASY	Sunshade, white with <b>red</b> LED	All	
39	NV-0100 ASY	Sunshade, white with <b>green</b> LED		
40	SH-0144	Hole Plug, white		
43	NV-0167 ASY	Bezel, plastic, white	2001 (Rev #1) to Present	
44	NV-0098	Housing, white	2001 (Rev #1) to Present	
45	NV-0028	Housing, black	2001 (Rev #1) to Present	DNB-203
46	NV-0029	Housing, polished S/S	2001 (Rev #1) to Present	DNP-203
47	NV-0189 ASY	Gimbal Ring/Pan. <b>Use w/ white dial</b>	All	DNW-203
48	NV-0131 ASY	Gimbal Ring/Pan <b>Use w/ black Dial</b>		DNB-203, DNP-203

# Navigator

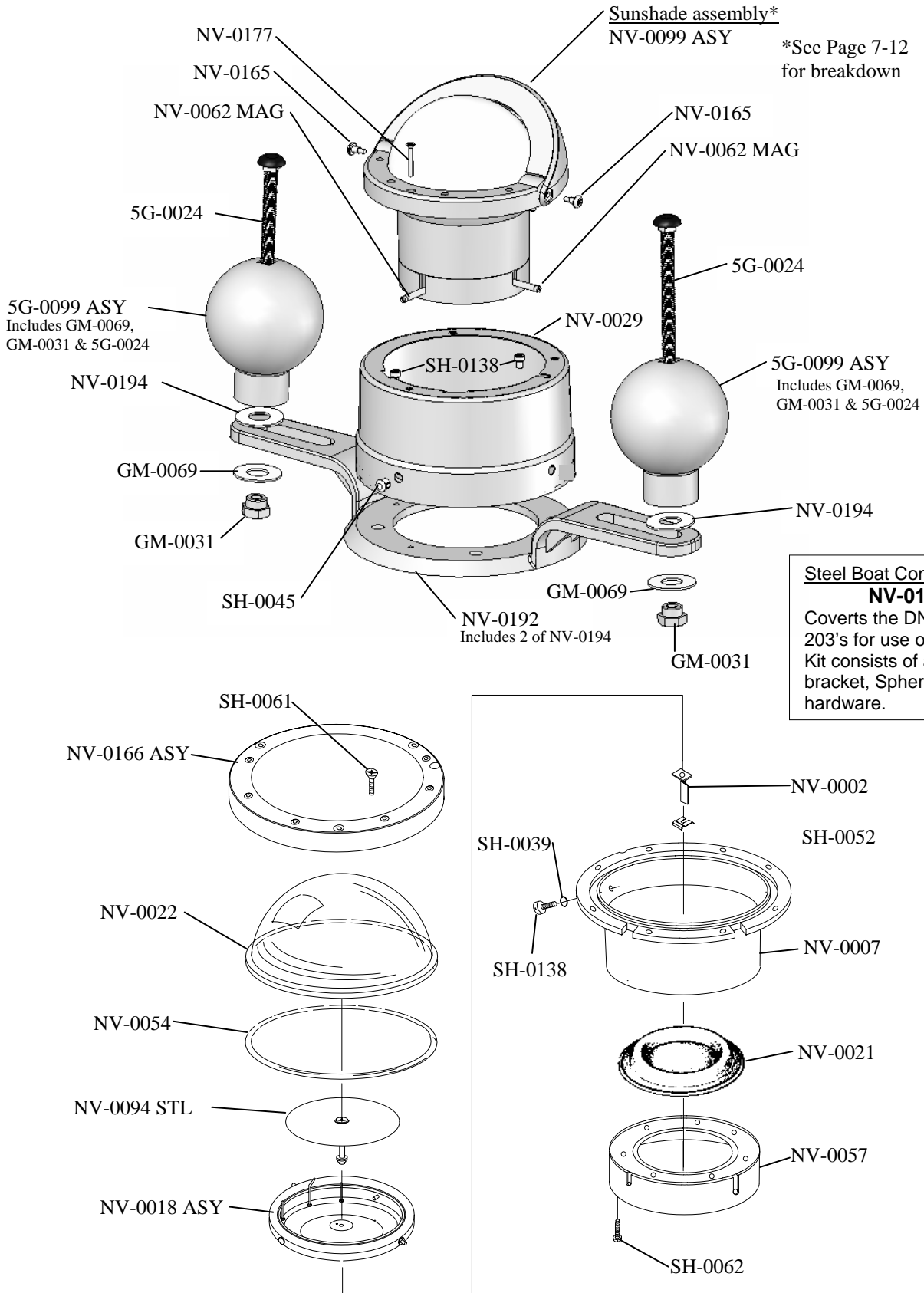
## Bulkhead Mount BN-202



1	NV-0022	Dome	BN-202
2	NV-0054	O-ring	
3	NV-0021	Diaphragm	
4	SH-0039	O-ring, fill plug screw	
5	NV-0086	Screw, fill plug	
6	NV-0007	Bowl	
7	NV-0045 ASY	LED, Upper Light assembly	
8	NV-0044 ASY	LED, Lower Light assembly	
9	NV-0047	Housing, lower light	
10	NV-0065	Screw, lower light housing	
11	NV-0048	Housing, upper light	
12	NV-0067	Screw, upper light housing	
13	NV-0014	Cover, mounting	
14	SH-0057 MAG	Compensator Rod, (compass requires 2)	
15	SH-0053	Retainer, compensator assembly	
16	NV-0066	Screw, compensator assembly retaining	
17	NV-0005	Bezel, sealing	
18	NV-0016 ASY	Dial Assembly, red	
19	NV-0090 ASY	Lubber Line Platform Assembly	
20	NV-0001	Balance Tab	
21	SH-0061	Screw, 4-24 x 1/2" flt, bezel	
22	SH-0062	Screw 4-24 x 3/8" rnd, diaph retainer	
23	SH-0052	Retainer, balance tab	
24	NV-0057	Retainer, diaphragm	
25	NV-0013	Comp Cover	
26	SH-0064	Screw, cover retaining	

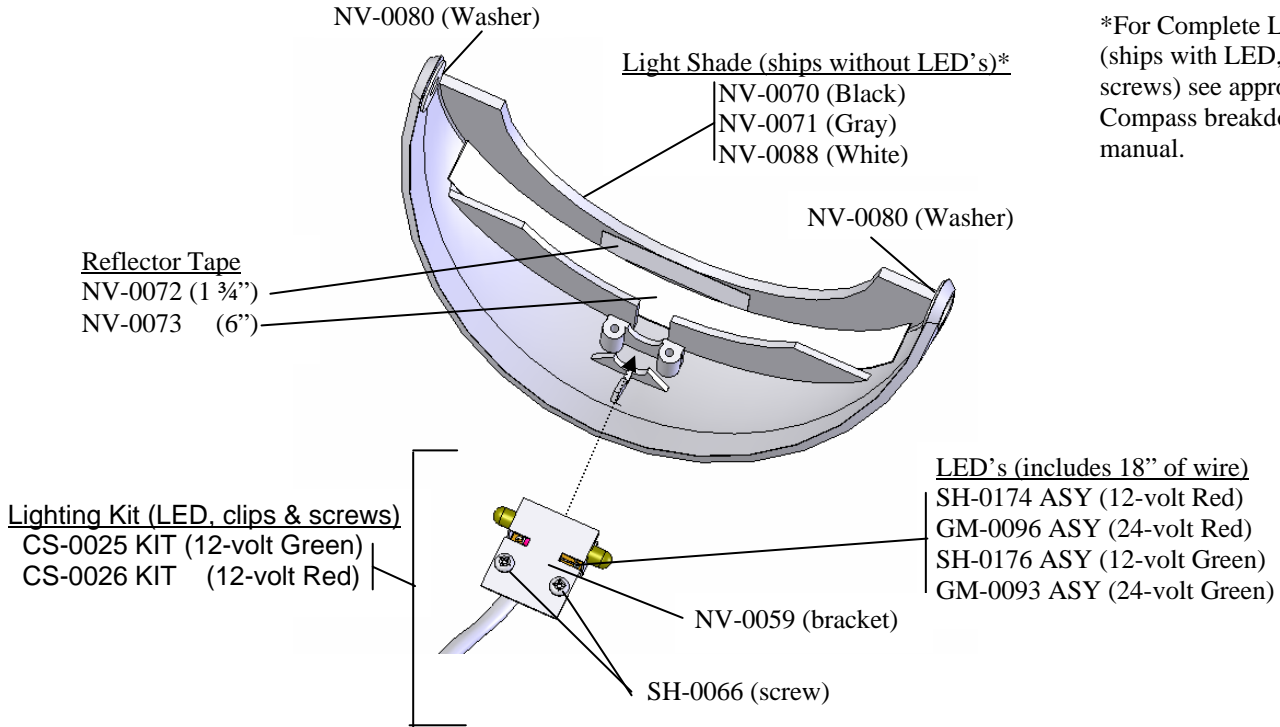
Mounting Gasket for the BN-202 **Part # NV-0023**

# Navigator Steel Boat B-200P



# Navigator Lighting

## Sunshade Lighting

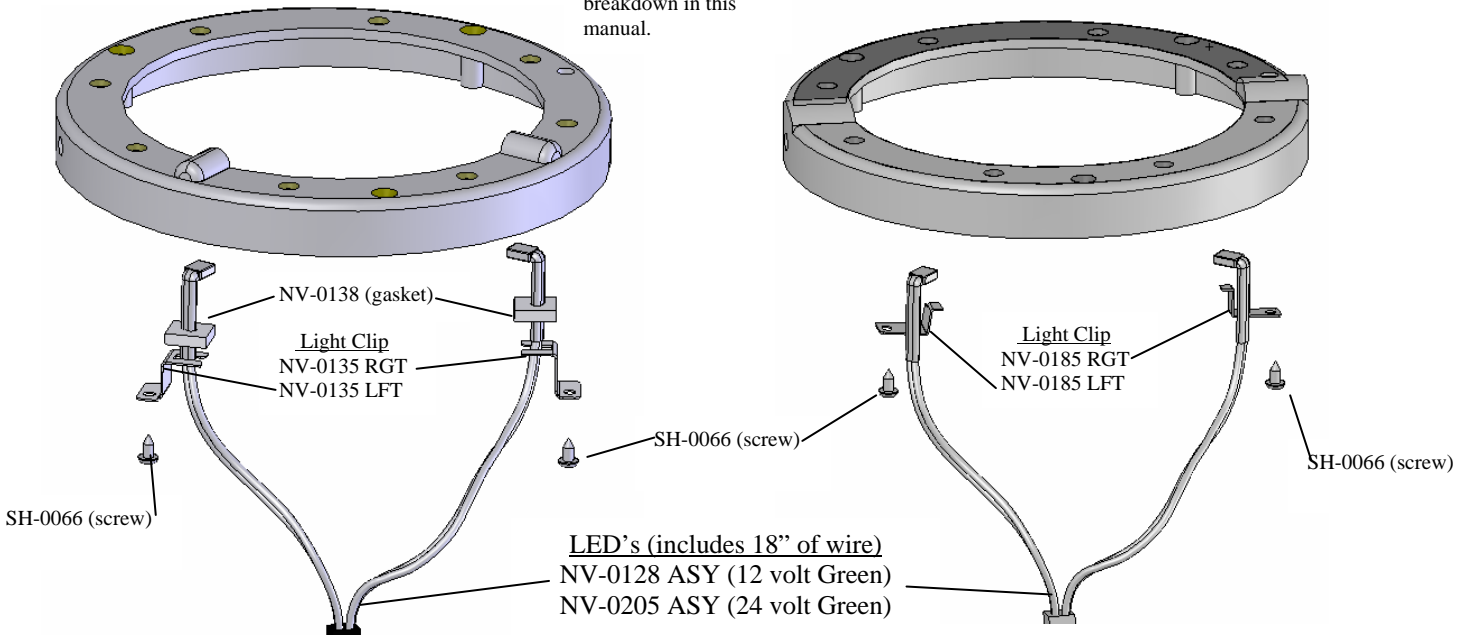


## Direct Lighting

**1999 to 2001**

For bezel part #'s see appropriate compass breakdown in this manual.

**2001 (rev 1) to Present**



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## Old Style Navigator

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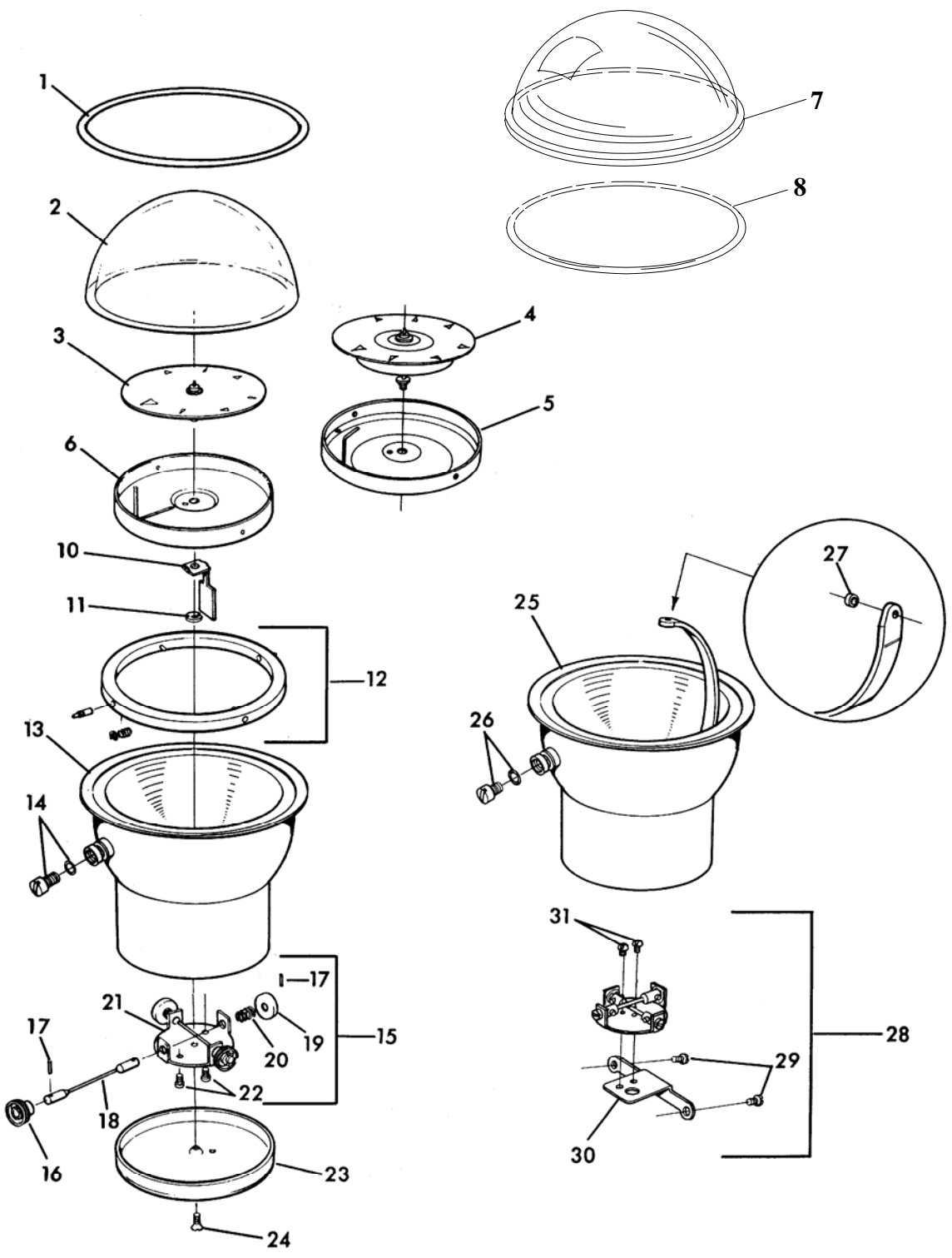
The following pages, 6-13 to 6-17, are re-prints of a past service manual. Parts that are not available are shown as N/A. Non-production parts are only available while supplies last.

The old style Navigator was produced between 1970 and 1984.

In 1980 (serial number C/80 or higher) the O-ring and dome were changed to under dome sealing.

# Old Style Navigator

## Capsule breakdown

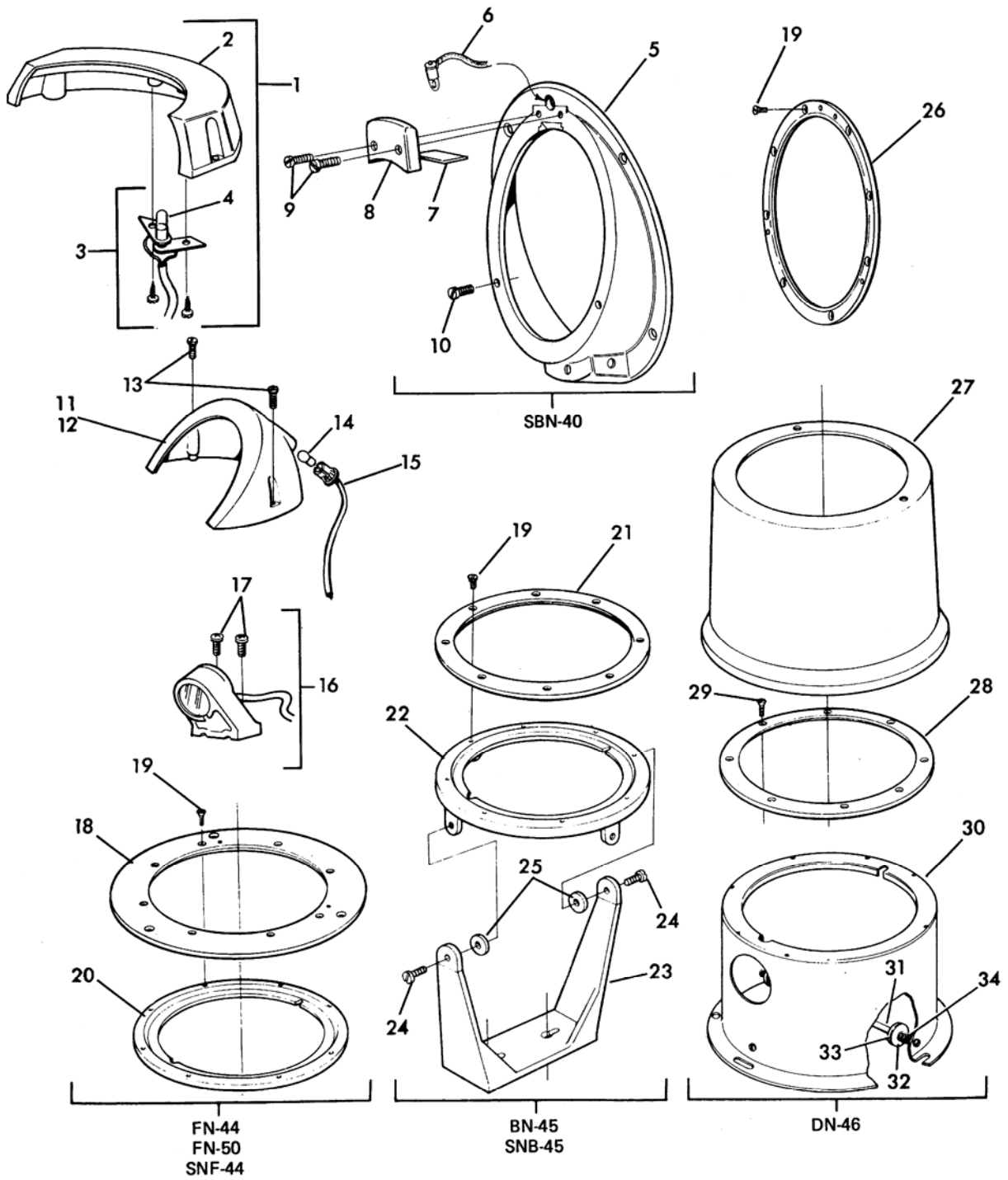




# Old Style Navigator

1	N/A CS-09D1G1	O-ring, dome (prior to Ser # C-80)
2	N/A CS-09D1	Dome (prior to ser # C-80)
3	CS-09J1X	Dial Assembly (non Power-Damp)
4	CS-09J2X	Dial Assembly (Power-Damp)
5	N/A	Pan, Power-Damp
6	N/A	Pan
7	N/A CS-09D2	Dome (after Ser # C-80)
8	N/A CS-09D1G2	O-ring, dome (after Ser # C-80)
10	NV-0002	Balance Tap
11	SH-0052	Retainer, balance tab
12	N/A	Gimbal Assembly
13	N/A	Bowl (prior to Ser # B-80)
14	GM-0046	Fill Plug
	SH-0039	O-ring, fill plug
15	N/A	Comp Assembly
16	N/A	Knob
17	N/A	Magnet
18	N/A	Rod
19	N/A	Retainer
20	N/A	Spring
21	NA	Comp Plate
22	N/A	Screw
23	NA	Comp Cover
24	SH-0064	Screw
25	N/A	Bowl (prior to Ser # B-80)
26	NV-0086	Fill Plug
	SH-0039	O-ring, fill plug
27	N/A	Spacer
28	N/A	Comp Assembly
29	N/A	Screw
30	N/A	Mounting Plate
31	N/A	Screw
N/A Not Available		

# Old Style Navigator Lighting



# Old Style Navigator

1	CS-09A4X	Low Level Light Shield Asy. w/LED
2	CS-09A4	Low Level Light Shield
3	N/A*	Light Wire Asy. w/bulb
4	CS-04L4V1	Lamp, Red (12 Volt Only)
5	N/A	Cover (Model SBN-40 only)
6	CS-20L1V1X	Lamp Assembly (1 2 Volt)
7	N/A	Lens, <b>red</b>
8	CS-20L1M2	Cover, bulkhead lamp
9	N/A	Screw, bulkhead lamp cover
10	N/A	Screw, cover
11	N/A	Hood, sunshade (Models BN-45 & FN-44)
12	N/A	Hood, sunshade (Models DN-46 only)
13	N/A	Screw, sunshade
14	CS-09L1V1	Lamp, bayonet, 12 volt, <b>red</b>
15	CS-02LIX	Lamp Assembly, 12 volt, <b>clear</b>
16	CS-20L1X	Lamp Assembly, 12 volt (Models FN-50, SNF-44 & SNB-45)
17	NV-0066	Screw, lamp holder
18	N/A	Bezel (Prior to B-80)
	N/A	Bezel (Model FN-44, FN-50 & SNF-44)
19	NV-0065	Screw, bezel
20	N/A	Ring, retaining (prior to B-80)
	N/A	Ring, retaining (Models FN-44, FN-50, SNF-44 & SBN-40)
21	N/A	Bezel (Prior to B-80)
	N/A	Bezel (Models BN-45 & SNB-45)
22	N/A	Ring, Retaining (Prior to B-80)
	N/A	Ring, Retaining (Models BN-45 & SNB-45)
23	N/A	Bracket
24	N/A	Screw, bracket
25	N/A	Washer, rubber
26	N/A	Bezel (SBN-40)
	N/A	Screw, bezel (not shown)
27	N/A	Housing, deck mount
28	N/A	Bezel (Prior to B-80)
	N/A	Bezel (Model DN-46)
29	NV-0066	Screw, bezel
30	N/A	Base, compensator housing
31	N/A	Rod, compensator
32	N/A	Retainer, compensator magnet
33	N/A	Magnet, compensator
34	N/A	Spring, compensator magnet retainer
<b>*Order CS-0002KIT for LED upgrade</b>		

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# Globemaster

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## Production History (Rev info) 1980 to Present

### All Globemasters

2001: (Rev #2) Globemasters received Wheelmark Certification.  
(Rev #3) Updated Dials to Molded Magnet Carrier.

2003: (No Rev #) Created a 24 Volt Light, eliminating the need for an external resistor.  
*Reference Service Bulletin # SB0022*  
(No Rev #) Expanded the Model numbers to include Dial and Voltage information. *Reference Service Bulletin # SB0023*

### All Globemasters with Low Level Lighting

1987: (No Rev #) Changed from a **red** incandescent bulb to **red** LED.  
1991: (No Rev #) Changed from **red** LED to **green**.  
1996: (No Rev #) Re-designed the LED assembly to a circuit board type.

### All Globemasters with Power lighting

1996: (No Rev #) Changed from a clear incandescent bulb (red filter) to **green** LED.  
2003: (no Rev #) Re-designed the LED assembly to a circuit board type. *see SB0021*

### All 5" Globemasters

1980: (Ser # A/80 & B/80\*) Moved o-ring to groove in dome. Changed dome, bezel and o-ring.  
1990: (Rev # 1\*) Replaced bronze bowl with bladder and modified dome to work with new bowl.  
1996: (Rev # 1) Changed diaphragm material. *Reference Service Bulletin # 052096a*  
1997 & 98: (97.02 & 98.02 only) Modified dome. *Reference Service Bulletin # 101597a*  
2001: (Rev #1) Changed to Isopar L dampening fluid.

### SP-5's and DR-5's

1980: (Ser # A/80 & B/80\*) Moved o-ring to grove in dome. Changed dome, bezel and o-ring.  
1981: (Ser # C/81 & later\*) Replaced aluminum inner housing with brass clamping ring and plastic base.

\* **-R** in the serial number indicates that a Globemaster has been upgraded to a bladder style diaphragm. Carefully examine parts before ordering. Some compasses have been modified to a newer design without changing the serial number.

### B-453 & YB-500, D-5-S

2000 (Rev # 1) Changed to a non-powerdamp dial on all steel boat models.

### All 6" Globemaster

1994: (Rev # 1) Re-designed bowl by replacing the bronze bellows with a diaphragm.  
2001: (Rev #1) Changed to Isopar L dampening fluid.

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# Globemaster

## Re-assembly Tips

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### Globemasters

#### 5" (1974 to 1990) & 6 (1974 to Present)

When re-assembling flare type assemblies, the dome must be centered inside the bezel and the bezel screws must be tightened evenly, but not bottomed out.

The fill plug screw is elongated to act as a stop to prevent the gimbal ring from turning completely over. As you install this screw, be careful it does not contact the gimbal ring as this can cause damage to the gimbal assembly.

Measure the bellows height and do the necessary adjustment. Sometimes excessive internal pressure can deform the bellows. If the bellows height requires readjustment and it is not modified, excessive fluid will be added resulting in even higher internal pressure. The bellows in both the 5-inch and 6 inch old style versions can be adjusted manually to the proper height.

Measure the 5-inch old style bellows height from the bottom of the bowl assembly to the center of the bellows. The proper height is  $\frac{3}{4}$  inch. To measure, place a straightedge across the bottom of the bowl assembly and measure the distance from the straightedge to the center of the bellows.

#### 6" (1973 to 1993)

Measure the 6-inch old style bellows height from the bottom of the threaded stud to the center interior of the bellows. The proper measurement is 1 inch. To measure, use a small rod that can fit through the hole in the stud.

#### 5" (1990 to present) & 6" (1994 to present) Globemasters

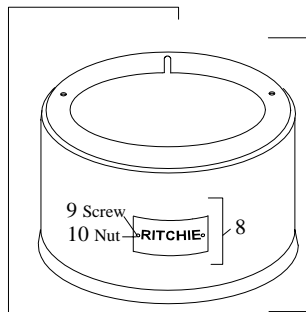
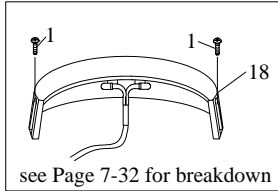
The flexible diaphragm must be held at the proper height while the compass is being filled with fluid. The weight of the fluid as it is being installed may cause the bellows to bulge and too much fluid will be added. This can result in excessive internal pressure.

Fluid replacement for the NEW STYLE 6-inch compass requires maintaining a 1-inch space between the bottom outside of the diaphragm and the bottom of the bowl.

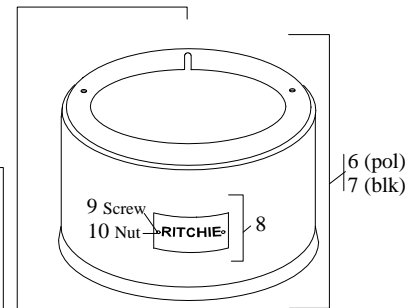
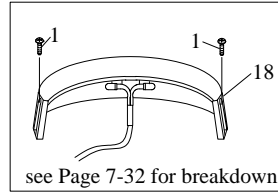
# Globemaster 5''

**DR-5, DR-5C, DR-5B, SP-5 SP-5C, SP-5B, SS-5100, SS-5100B**

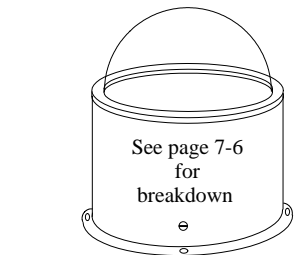
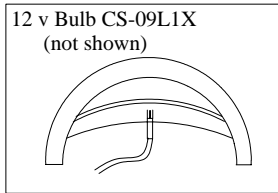
**SP-5,  
SP-5C & SP-5B  
1973 to 1980**



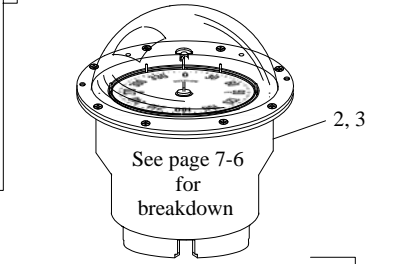
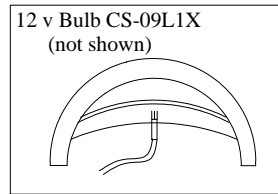
**SP-5,  
SP-5C & SP-5B  
SS-5100B, SS-5100P  
1981 to present**



**DR-5,  
DR-5C & DR-5B  
1969 to 1980**



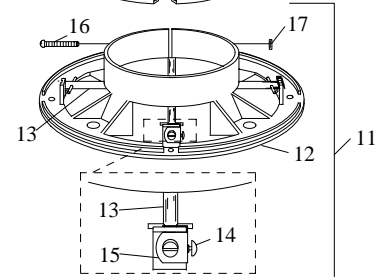
**DR-5,  
DR-5C & DR-5B  
1981 to 1990**



This Light shade & wire assembly is no longer available. The entire assembly can be replaced with Key #'s 4 or 5.

This capsule has been updated and is no longer available in this form. The replacement capsules for the DR-5's are Key # 2, SP-5's are Key # 3 You will also need a new style base assembly Key # 11

This Light shade & wire assembly is no longer available. The entire assembly can be replaced with Key #'s 4 or 5.



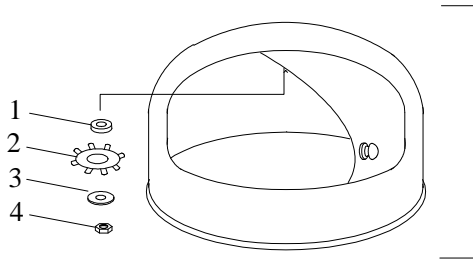
1	SH-0068	Screw, 6-32 X 5/16"	SP-5's, SS-5100's
2	CS-0009-P2	Replacement Capsule, w/ power pan,	DR-5's
3	CS-0009-P1	Replacement Capsule, w/ sail pan,	SP-5's, SS-5100's
6	5G-0023 SS	Binnacle for SP-5, polished SS, <i>Includes Key #'s 8,9,10</i>	SP-5C, DR-5C, SS-5100P
7	5G-0023 BLK	Binnacle for SP-5, black wrinkle <i>Includes Key #'s 8,9,10</i>	SP-5B, DR-5B, SS-5100B
8	GM-0027	Nameplate, <i>Includes Key #'s 9 &amp; 10</i>	
9	GM-0047	Screw, 3-48 x 1/4", nameplate	
10	GM-0030	Nut, 3-48, nameplate	
11	5G-0005 ASY	Mounting Base Assembly, <i>Includes Key #'s 12 through 16</i>	
12	5G-0005	Mounting Base	SP-5's, DR-5's, SS-5100's
13	5G-0092 MAG	Compensator Rod (compass requires 2)	
14	GM-0050	Screw, locking retainer	
15	5G-0085	Locking Retainer, compensator rod	
16	5G-0095	Screw, clamping, 8-32, x 1-1/4"	
17	5G-0076	Nut, 8-32, base clamping	

Low Level Light Assembly					
18	5G-0140 ASY	Black w/ Green 12v LED	18	5G-0096 ASY	Black w/ Red 12v LED
	5G-0160 ASY	Black w/ Green 24v LED			
These are complete Compass lights including housings and LED's (or bulbs)					
For replacement Parts (LED's, Lens, LED Upgrade Kits, ect.) See page 7-32					

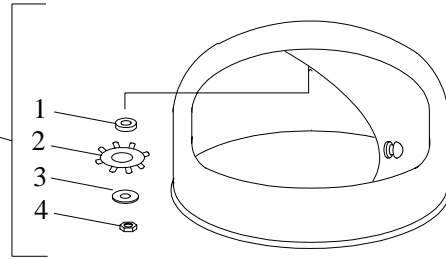
# Globemaster 5"

515-P, 515-B, 515-EP, 515-EB, D-515-P, D-515-B, D-515-EP, D-515-EB

D-515-EP & D-515-EB

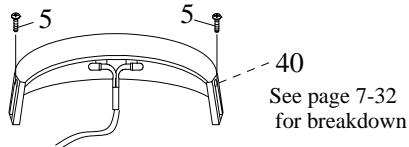


D-515-P & D-515-B



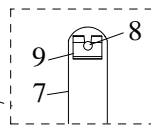
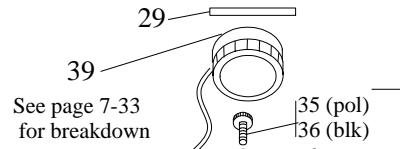
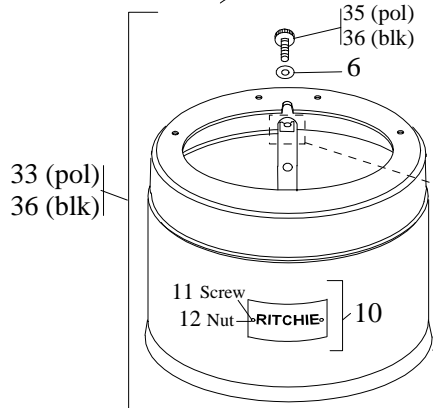
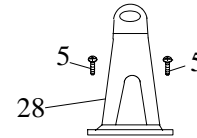
34 (pol)  
37 (blk)

515-EP & 515-EB



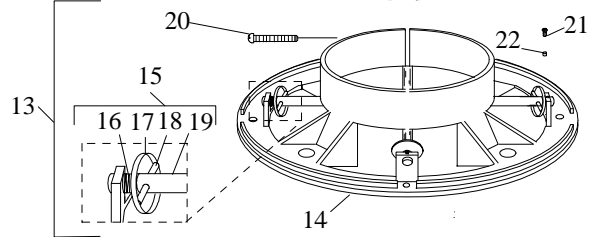
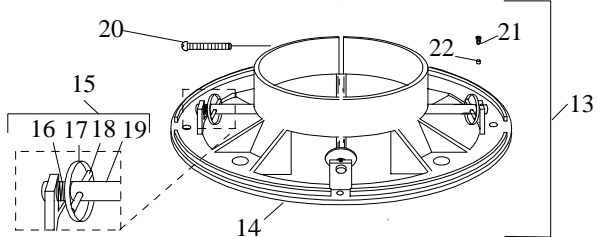
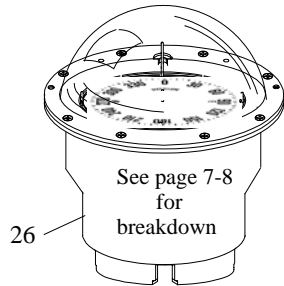
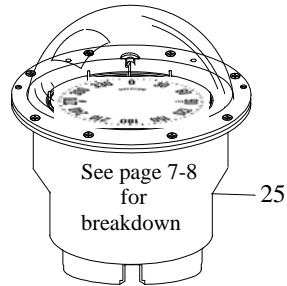
The 515's are D-515's without the Hood.

515-P & 515-B



33 (pol)  
36 (blk)

33 (pol)  
36 (blk)





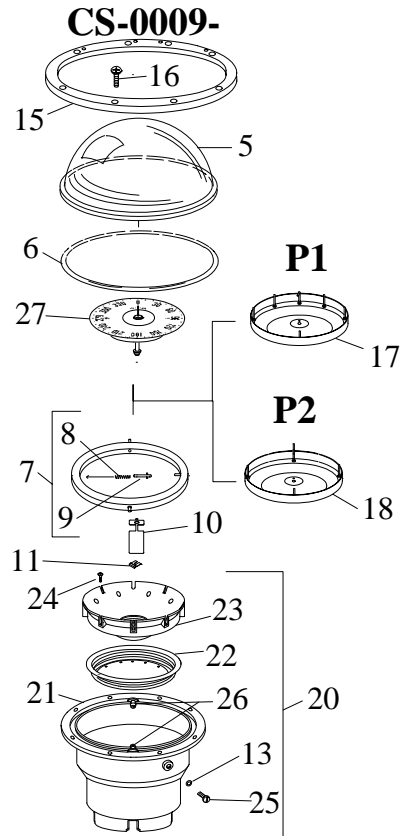
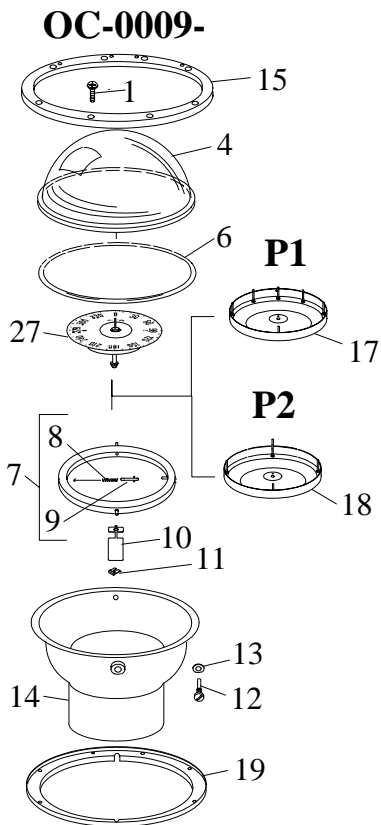
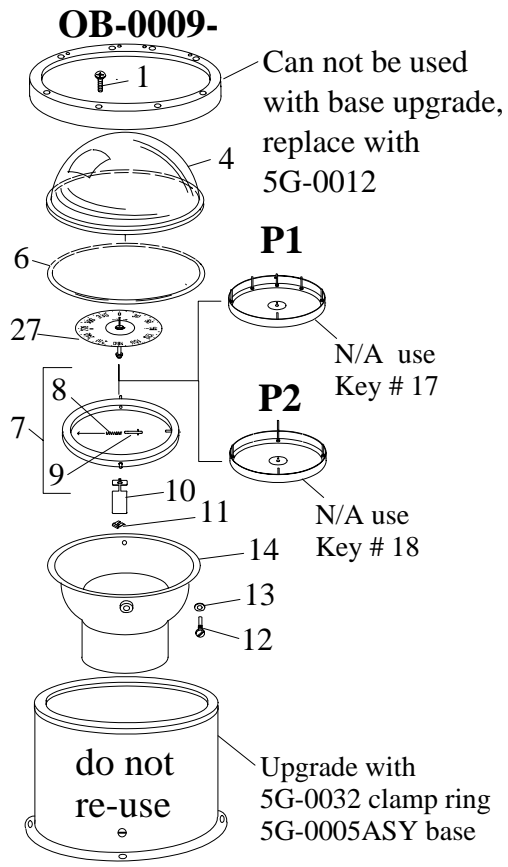
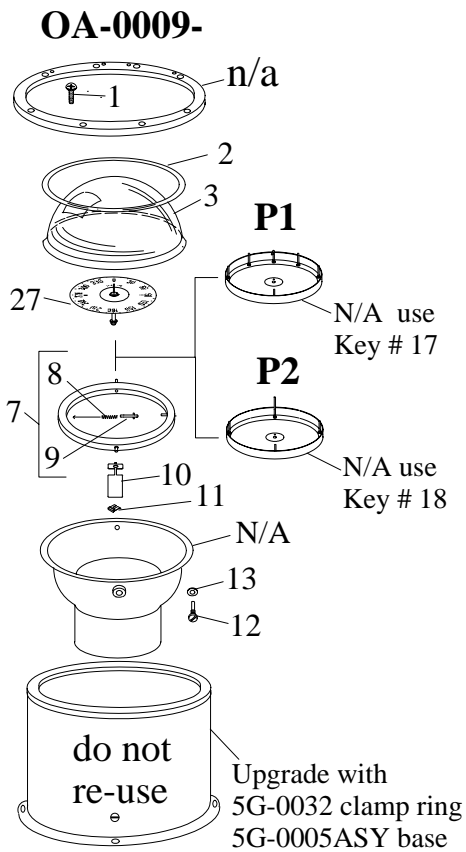
# Globemaster 5''

## Stainless Steel Binnacle Mount

1	GM-0055	Spacer, hood retaining	ALL
2	GM-0071	Spring Washer, hood retaining	
3	GM-0068	Washer, hood retaining	
4	GM-0029	Nut, hood retaining	
5	SH-0068	Screw, 6-32 x 5.16", light retaining	
6	GM-0072	Washer, thumbscrew	
7	GM-0022	Lever, hood retaining	
8	GM-0054	Binder Button	
9	SH-0052	Retainer, binder button	
10	GM-0027	Nameplate	
11	GM-0047	Screw, 3-48 x 1/4", nameplate	
12	GM-0030	Nut, 3-48, nameplate	
13	5G-0004 ASY	Base Assembly, bronze, <i>Includes Key #'s 14 through 22</i>	
14	5G-0004	Base, bronze	
15	CS-0013 KIT	Compensator Kit, (2 rods) <i>Includes Key #'s 16, 17, 18, 19</i>	
16	GM-0057	Spring, compensator magnet retainer	
17	5G-0084	Retainer, compensator magnet	
18	5G-0075	Magnet, compensator	
19	5G-0087	Rod, compensator	
20	GM-0052	Screw, clamping, bronze base	
21	GM-0075	Screw, compensator rod locking	
22	GM-0032	Binder, compensator rod locking	
23	5G-0140 ASY	Low Level Light Shield Assembly ( <b>green</b> LED)	515-EP, D-515-EP, 515-EB, D-515-EB
24	5G-0096 ASY	Low Level Light Shield Assembly ( <b>red</b> Led)	
25	CS-0009-P1	Replacement Capsule, w/ sail pan,	515-P, D-515-P, 515-B, D-515-B
26	CS-0009-P2	Replacement Capsule, w/ power pan,	
27	GM-0050	Screw, locking retainer	
28	GM-0005	Bracket, light	
29	GM-0012	Gasket, light Bracket	
30	GM-0023 ASY	PowerLight, with 12 volt bulb & <b>red</b> lens	
31	GM-0023 AS3	PowerLight, with 24/32 volt bulb & <b>red</b> lens	
32	GM-0086 ASY	PowerLight, (12 volt, <b>green</b> LED)	515-EP, D-515-EP, 515-P, D-515-P
33	5G-0022 SS	Binnacle Housing, polished SS, <i>Includes Key #'s 6 though 12 &amp; 35</i>	
34	5G-0054 SS	Hood, polished SS, <i>Includes Key #'s 1,2,3,4</i>	
35	GM-0065	Thumbscrew, chrome	515-EB, D-515-EB, 515-B, D-515-B
36	5G-0022 BLK	Binnacle Housing, black, <i>Includes Key #'s 6 though 12 &amp; 38</i>	
37	5G-0054 BLK	Hood, black wrinkle finish, <i>Includes Key #'s 1,2,3,4</i>	
38	GM-0063	Thumbscrew, black wrinkle finish	

Power Light Assembly			Low Level Light Assembly		
39	GM-0023 ASY	Clear 12v Bulb & Red Lens	40	5G-0140 ASY	Black w/ Green 12v LED
	GM-0023 AS3	Clear 24/32v Bulb & Red Lens		5G-0160 ASY	Black w/ Green 24v LED
	GM-0086 ASY	Green 12v LED & Clear Lens		5G-0096 ASY	Black w/ Red 12v LED
	GM-0092 ASY	Green 24v LED & Clear Lens			
	GM-0094 ASY	Red 12v LED & Clear Lens			
	GM-0096 ASY	Red 24v LED & Clear Lens			
These are complete Compass lights including housings and LED,s (or bulbs)					
For replacement Parts (LED's, Lens, LED Upgrade Kits, ect.) See pages 7-32 and 7-33					

# Globemaster Capsule Breakdown



# Globemaster 5''

## Capsules for Stainless Steel Binnacle mounts

Select the appropriate capsule				
Model #	1969 to 1980	1980-1981	1981 to 1990	1991 to present
SP-5's	<b>OA-0009-P1</b>	<b>OB-0009-P1</b>	<b>OC-0009-P1</b>	<b>CS-0009-P1</b>
DR-5's	<b>OA-0009-P2</b>	<b>OB-0009-P2</b>	<b>OC-0009-P2</b>	<b>CS-0009-P2</b>
SS-5100's	n/a			<b>CS-0009-P1</b>

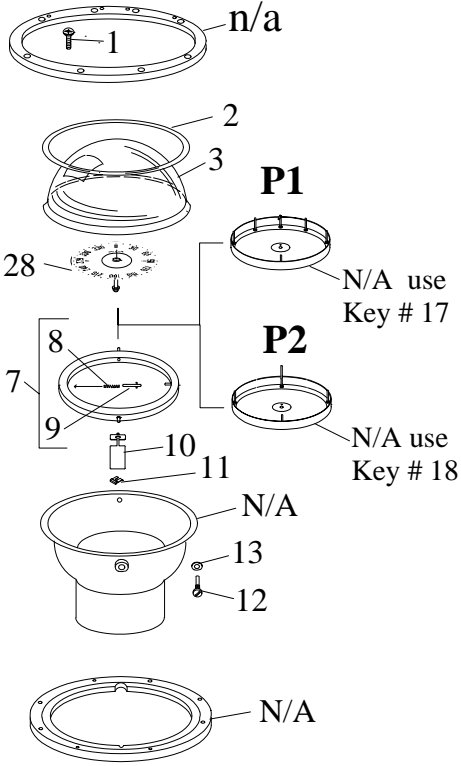
1	GM-0048	Screw, 6-32 x 1/2" bezel
2	CS-04D1G1*	O-ring
3	CS-04D1*	Dome, flare type
4	5G-0040*	Dome, ridge type w/ groove for O-ring
5	5G-0131	Dome, ridge type, no groove
6	5G-0078	O-ring
7	5G-0044 ASY	Gimbal Ring Assembly, <i>Includes Key #'s 8 &amp; 9</i>
8	GM-0059	Spring, gimbal pin
9	GM-0013	Gimbal Pin
10	5G-0002	Balance Tab
11	SH-0052	Retainer, balance tab
12	GM-0046	Fill Plug for metal bowl , 10-32 x 5/8"
13	SH-0039	O-ring, fill plug screw
14	5G-0025 ASY*	Bowl, bronze, without strap.
15	5G-0012	Bezel, for SS housing, accepts low level or power light
16	5G-0132	Screw, 6-20 x 5/8" bezel
17	5G-0082 ASY	Lubber Line Pan, sail
18	5G-0081 ASY	Lubber Line Pan, power
19	5G-0032	Clamp Ring
20	5G-0127 ASY	Bowl Assembly, <i>Includes Key # 13 &amp; 21 though 26</i>
21	5G-0127	Bowl
22	5G-0129	Diaphragm
23	5G-0128	Retainer, diaphragm
24	5G-0094	Screw, 6 x 3/8", diaphragm retainer
25	SH-0059	Fill Plug, 10-32 x 3/8"
26	5G-0130	Boss, gimbal pin

**\* Availability may be limited**

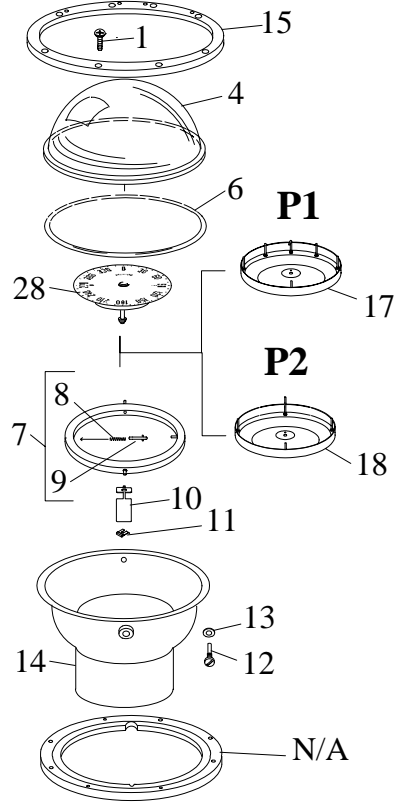
Dial Selection		
The model number will not reflect what type of dial is in the compass. (except SS-5100's)		
Key #	Part #	Description
27	5G-0038 ASY	SuperSport 5 degree PowerDamp dial, (blue)
	5G-0135 ASY	5 degree PowerDamp dial, (black)
	5G-0135 STL	5 degree dial (black)
	5G-0133 ASY	2 degree PowerDamp dial without points, (black)
	5G-0133 STL	2 degree dial without points, (black)
	5G-0036 ASY	2 degree PowerDamp dial (black)
	5G-0036 STL	2 degree dial with points (black)
PowerDamp dials require Pan #'s 5G-0082 ASY or 5G-0081 ASY (key #'s 17 or 18)		
Some dials were produced special for OEM's. Choose a replacement dial from the list above or contact Ritchie's Service Department for OEM dial availability.		

# Globemaster 5'' Capsule Breakdown

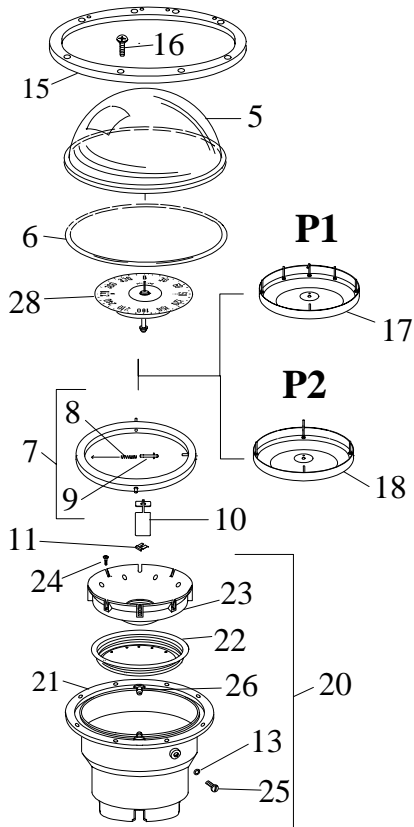
## OD-0009-



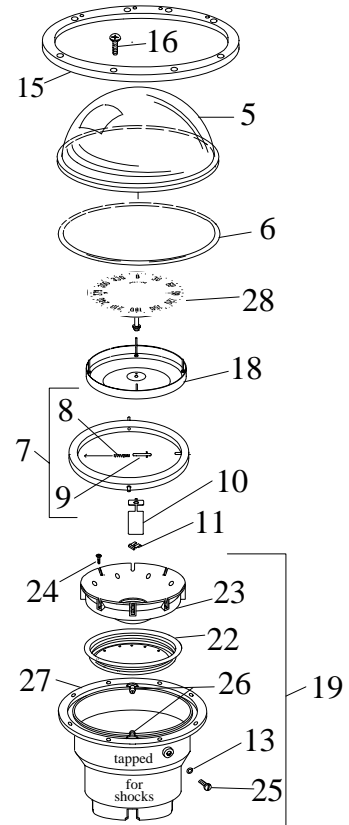
## OE-0009-



## CS-0009-



## CS-0011-P2



# Globemaster 5''

## Capsules for Stainless Steel Binnacle Mounts

Select appropriate capsule			
Model #	1969 to 1980	1981 to 1990	1991 to present
515-EP & 515-EB	<b>OD-0009-P1</b>	<b>OE-0009-P1</b>	<b>CS-0009-P1</b>
515-P & 515-B	<b>OD-0009-P2</b>	<b>OE-0009-P2</b>	<b>CS-0009-P2</b>
D-515-EP & D-515-EB	<b>OD-0009-P1</b>	<b>OE-0009-P1</b>	<b>CS-0009-P1</b>
D-515-P & D-515-B	<b>OD-0009-P2</b>	<b>OE-0009-P2</b>	<b>CS-0009-P2</b>
B-453 & C-453	<b>OD-0009-P2</b>	<b>OE-0009-P2</b>	<b>CS-0011-P2</b>

1	GM-0048	Screw, 6-32 x 1/2" bezel
2	CS-04D1G1*	O-ring
3	CS-04D1*	Dome, flare type
4	5G-0040*	Dome, ridge type w/ groove for O-ring
5	5G-0131	Dome, ridge type, no groove
6	5G-0078	O-ring
7	5G-0044 ASY	Gimbal Ring Assembly, <i>Includes Key #'s 8 &amp; 9</i>
8	GM-0059	Spring, gimbal pin
9	GM-0013	Gimbal Pin
10	5G-0002	Balance Tab
11	SH-0052	Retainer, balance tab
12	GM-0046	Fill plug for metal bowl, 10-32 x 5/8"
13	SH-0039	O-ring, fill plug screw
14	5G-0025 ASY*	Bowl, bronze, without strap
15	5G-0012	Bezel, for SS housing, accepts low level or power light
16	5G-0132	Screw, 6-20 x 5/8" bezel
17	5G-0082 ASY	Lubber Line Pan, sail
18	5G-0081 ASY	Lubber Line Pan, power
19	5G-0136 ASY	Bowl Assembly, <i>Includes Key # 13 &amp; 22 though 27</i>
20	5G-0127 ASY	Bowl Assembly, <i>Includes Key # 13 &amp; 21 though 26</i>
21	5G-0127	Bowl
22	5G-0129	Diaphragm
23	5G-0128	Retainer, diaphragm
24	5G-0094	Screw, 6 x 3/8", diaphragm retainer
25	SH-0059	Fill Plug, 10-32 x 3/8"
26	5G-0130	Boss, gimbal pin
27	5G-0136	Bowl, tapped for shock mounts

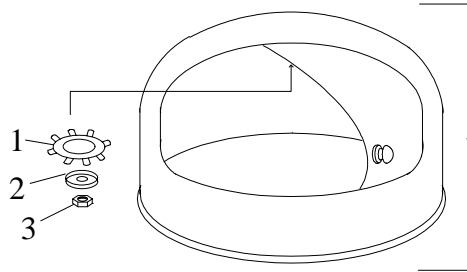
\* Availability may be limited

Dial Selection		
The model number will not reflect what type of dial is in the compass. (except SS-5100's)		
Key #	Part #	Description
28	5G-0135 ASY	5 degree PowerDamp dial, (black)
	5G-0135 STL	5 degree dial (black)
	5G-0133 ASY	2 degree PowerDamp dial without points, (black)
	5G-0133 STL	2 degree dial, (black)
	5G-0036 ASY	2 degree PowerDamp dial (black)
	5G-0036 STL	2 degree dial with points (black)
PowerDamp dials require Pan #'s 5G-0082 ASY or 5G-0081 ASY (key #'s 17 or 18)		
Some dials were produced special for OEM's. Choose a replacement dial from the list above or contact Ritchie's Service Department for OEM dial availability.		

# Globemaster 5''

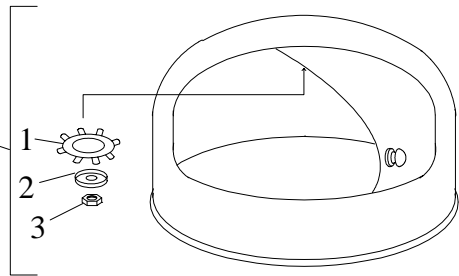
515-X, 515-EX, D-515-X, D-515-EX, D-5-S-B, D-5-S-C, D-5-S-X

D-515-EX

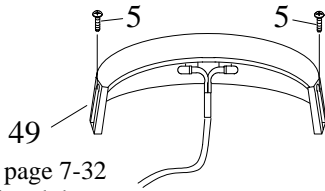


29 (chm)  
33 (pol)  
37 (blk)

D-515-X



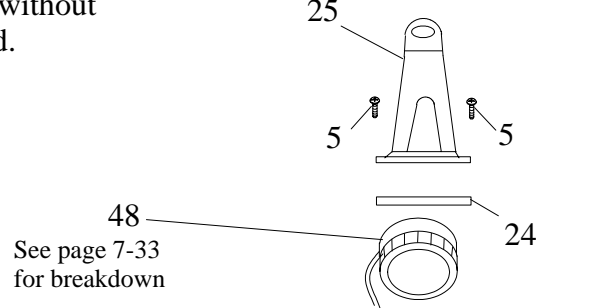
515-EX



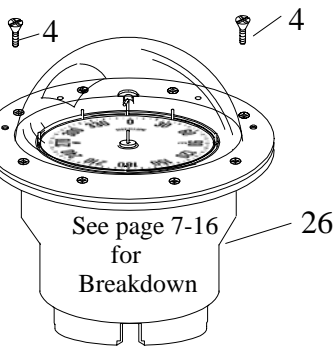
See page 7-32  
for breakdown

The 515's are  
D-515's without  
the Hood.

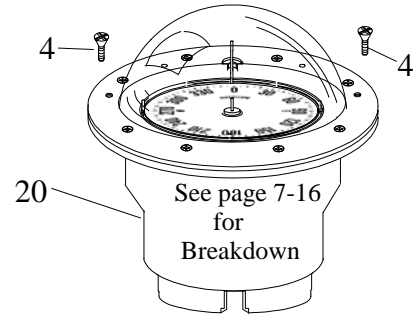
515-X



See page 7-33  
for breakdown

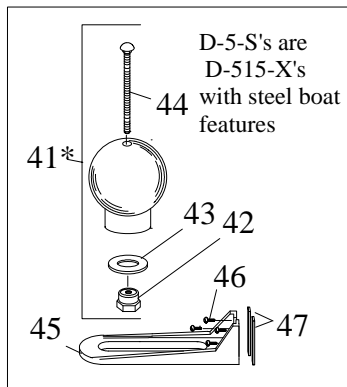


See page 7-16  
for  
Breakdown



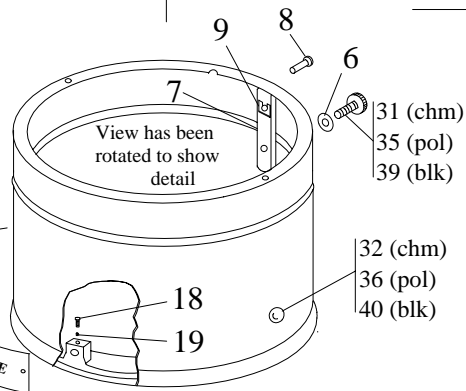
See page 7-16  
for  
Breakdown

D-5-S-B, D-5-S-C  
D-5-S-X



D-5-S's are  
D-515-X's  
with steel boat  
features

\* 3 1/2" Sphere  
4 & 5" spheres are  
available, see page 7-22

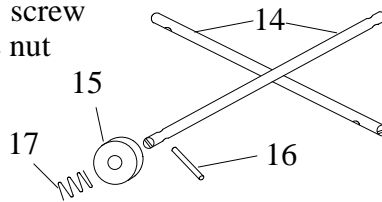


30 (chm)  
34 (pol)  
38 (blk)

31 (chm)  
35 (pol)  
39 (blk)

32 (chm)  
36 (pol)  
40 (blk)

11 screw  
12 nut



# Globemaster 5''

## Brass Binnacle Mounts

1	GM-0070	Spring Washer, hood retaining	ALL	
2	GM-0066	Cup Washer, hood retaining		
3	GM-0028	Nut, hood retaining		
4	GM-0048	Screw, 6-32 x 1/2" capsule to housing		
5	SH-0068	Screw, 6-32 x 5.16", light retaining		
6	GM-0072	Washer, thumbscrew		
7	GM-0022	Lever, hood retaining		
8	GM-0054	Binder Button		
9	SH-0052	Retainer, binder button		
10	GM-0027	Nameplate, <i>Includes Key #'s 11 &amp; 12</i>		
11	GM-0047	Screw, 3-48 x 1/4", nameplate		
12	GM-0030	Nut, 3-48, nameplate		
13	CS-0013 KIT	Compensator Kit, <i>Includes Key #'s 14(2) 15(4) 16(4) 17(2) 18(1) 19(1)</i>		
14	5G-0087	Compensator Rod		
15	5G-0084	Retainer, compensator magnet		
16	5G-0075	Magnet, compensator		
17	GM-0057	Spring, compensator magnet retainer		
18	GM-0075	Screw, compensator rod locking		
19	GM-0032	Binder, compensator rod locking		
20	CS-0012-P2	Replacement Capsule, w/ power pan		515-X, D-515-X, D-5-S-B, D-5-S-C, D-5-S-X
24	GM-0012	Gasket, powerlight bracket		
25	GM-0005	PowerLight Bracket		
26	CS-0010-P1	Replacement Capsule, w/ sail pan		515-EX, D-515-EX
29	5G-0053 CM	Hood Assembly, chrome, <i>Includes Key #'s 1, 2, 3</i>		D-5-S-C
30	5G-0020 ASY	Binnacle Assembly, chrome, <i>Includes Key #'s 6-17, 31, 32(4)</i>		
31	GM-0065	Thumbscrew, chrome		
32	GM-0037	Plug, compensator, chrome		
33	5G-0053 BR	Hood assembly, polished brass, <i>Includes Key #'s 1, 2, 3</i>	515-X, D-515-X, D-5-S-X, 515-EX, D-515-EX	
34	5G-0021 ASY	Binnacle assembly, brass, <i>Includes Key #'s 6 through 17, 35, 36(4)</i>		
35	GM-0064	Thumbscrew, polished brass		
36	GM-0036	Plug, compensator, polished brass		
37	5G-0053 BLK	Hood, black wrinkle, <i>Includes Key #'s 1, 2, 3</i>	D-5-S-B	
38	5G-0017 ASY	Binnacle, black, <i>Includes Key #'s 6 through 17, 39, 40(4)</i>		
39	GM-0063	Thumbscrew, black wrinkle finish		
40	GM-0035	Plug, compensator, black wrinkle		
41	5G-0099 ASY	Sphere, 3 1/2" <i>Includes Key #'s 42, 43, 44 (requires 2 per compass)</i>	D-5-S-B, D-5-S-C, D-5-S-X	
42	GM-0031	Nut, sphere bolt		
43	GM-0069	Washer, sphere bolt		
44	5G-0024	Bolt 3 1/2", sphere		
45	5G-0028	Sphere Bracket for 5" models (requires 2 per compass)		
46	GM-0045	Screw, 10-32 x 5/8", bracket mounting, (requires 4 per bracket)		
47	GM-0034	Mounting Plate for sphere bracket (requires 2 per bracket)		

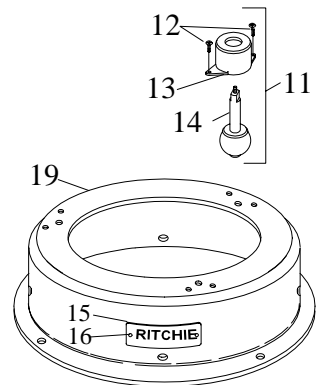
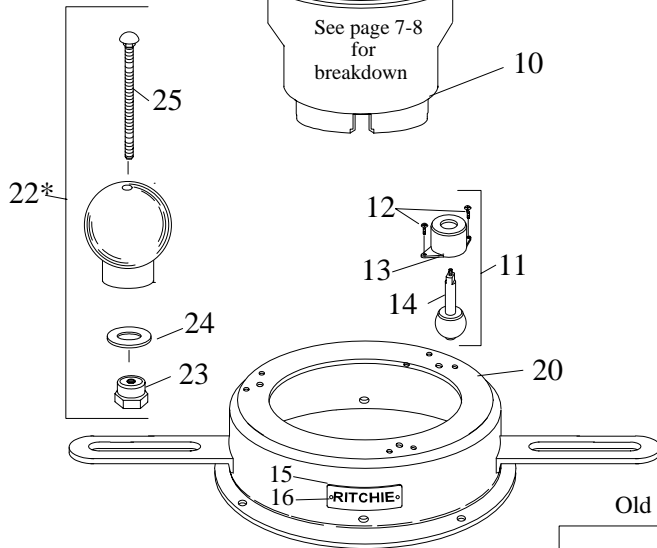
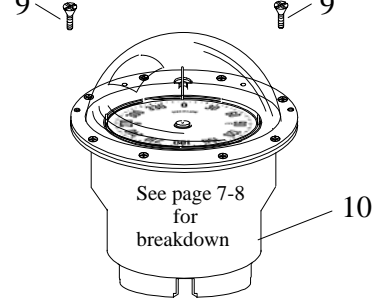
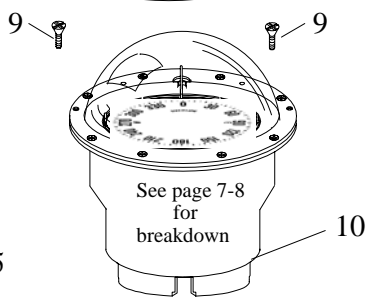
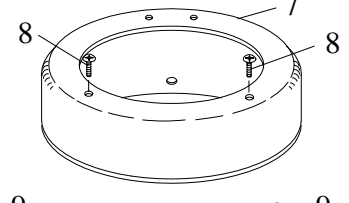
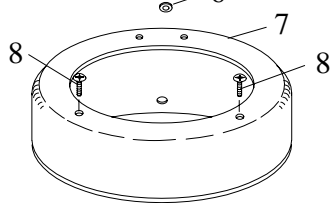
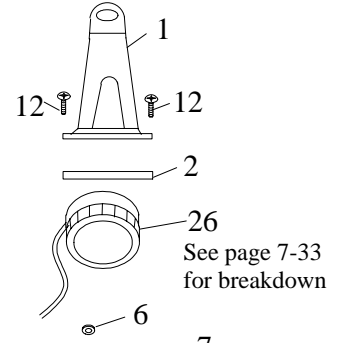
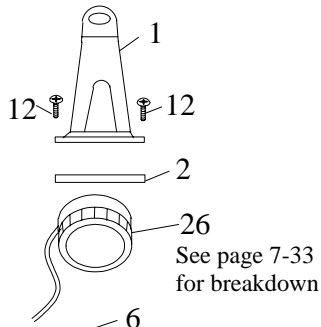
Power Light Assembly		Low Level Light Assembly			
48	GM-0023 ASY	Clear 12v Bulb & Red Lens	49	5G-0140 ASY	Black w/ Green 12v LED
	GM-0023 AS3	Clear 24/32v Bulb & Red Lens		5G-0160 ASY	Black w/ Green 24v LED
	GM-0086 ASY	Green 12v LED & Clear Lens		5G-0096 ASY	Black w/ Red 12v LED
	GM-0092 ASY	Green 24v LED & Clear Lens			
	GM-0094 ASY	Red 12v LED & Clear Lens			
	GM-0096 ASY	Red 24v LED & Clear Lens			
These are complete Compass lights including housings and LED's (or bulbs)					
For replacement Parts (LED's, Lens, LED Upgrade Kits, ect.) See pages 7-32 and 7-33					

# Globemaster 5"

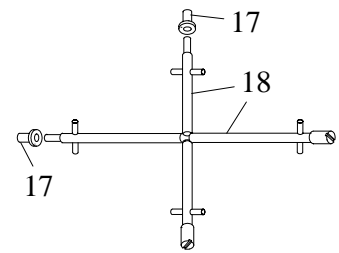
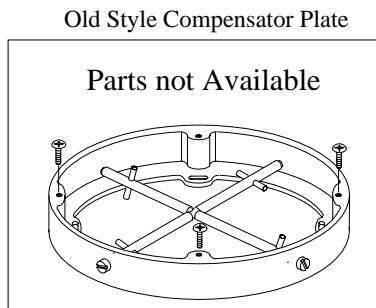
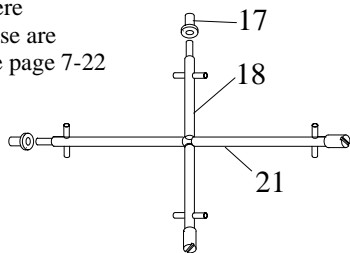
## B-453 & C-453

### B-453

### C-453



\* 3 1/2" Sphere  
4 & 5" Spherse are  
available, see page 7-22





# Globemaster 5'' Shock Mounts

1	GM-0005	PowerLight Bracket	B-454 & C-453	
2	GM-0012	Gasket, PowerLight bracket		
6	SH-0020	Grommet, light wire hole		
7	5G-0016	Upper Housing,		
8	GM-0050	Screw, locking retainer		
9	GM-0048	Screw, 6-32 x 1/2"		
10	CS-0011-P2	Replacement Capsule, w/ power pan, power light		
11	GM-0080	Shock assembly <i>Includes Key #'s 12, 13, 14</i> (requires 3 per compass)		
12	SH-0068	Screw, 6-32 x 5.16", light retaining		
13	GM-0041	Housing, shock hount		
14	GM-0001 ASY	Shock Balloon		
15	GM-0027	Nameplate, <i>Includes Key #'s 16</i>		
16	GM-0047	Screw, 3-48 x 1/4", nameplate		
17	5G-0077	Nylon Bearing, Compensator Rod		
18	5G-0089 ASY	Compensator Rod		
19	5G-0015	Binnacle Base: Model C-453, <i>Includes Key #'s 15 &amp; 16</i>		C-453
20	5G-0014	Binnacle Base: Model B-453, <i>Includes Key #'s 15 &amp; 16</i>		B-453
21	5G-0088 ASY	Compensator Rod (longer than 5G-0089ASY)		
22	5G-0099 ASY	Sphere, 3 1/2", <i>Includes Key #'s 23, 24, 25</i> (requires 2 per compass)		
23	GM-0031	Nut, sphere bolt		
24	GM-0069	Washer, sphere bolt		
25	5G-0024	Bolt 3 1/2", sphere		

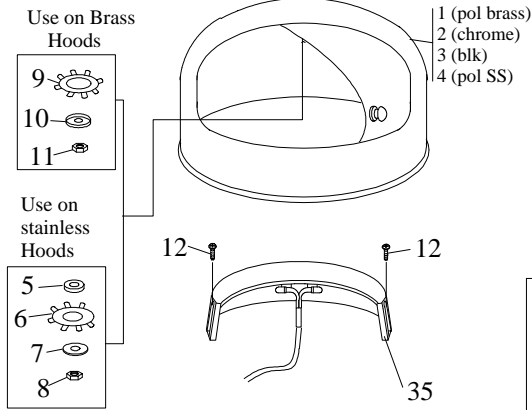
Power Light Assembly					
26	GM-0023 ASY	Clear 12v Bulb & Red Lens	26	GM-0092 ASY	Green 24v LED & Clear Lens
	GM-0023 AS3	Clear 24/32v Bulb & Red Lens		GM-0094 ASY	Red 12v LED & Clear Lens
	GM-0086 ASY	Green 12v LED & Clear Lens		GM-0096 ASY	Red 24v LED & Clear Lens
These are complete Compass lights including housings and LED'S (or bulbs)					
For replacement Parts (LED's, Lens, LED Upgrade Kits, ect.) See page 7-33					

# Globemaster 5"

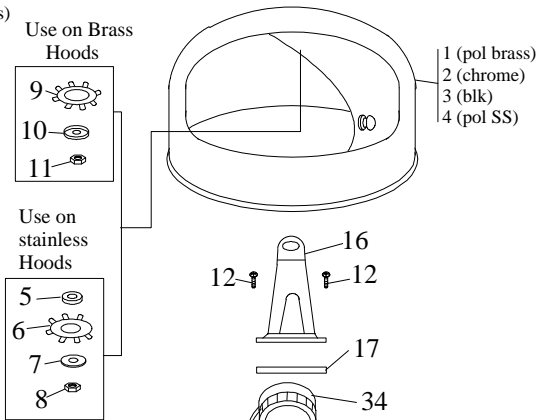
**B-500 F-500 FD-500-EB, FD-500-EP, FD-500-EX, FD-500-B, FD-500-P, FD-500-X, SF-500  
FB-500, SB-500, SS-5000, SS-5000W, YB-500**

SEE PAGE 7-32 & 7-33 FOR LIGHTING BREAKDOWN

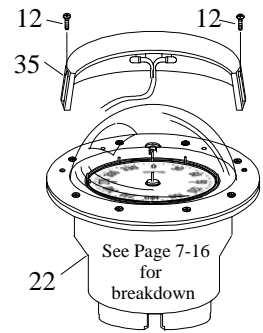
## FD-500-EB, FD-500-EP, FD-500-EX



## FD-500-B, FD-500-P, FD-500-X

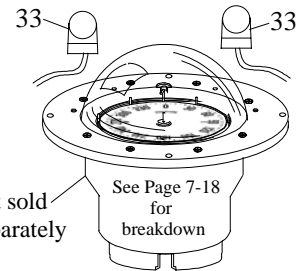


## SB-500



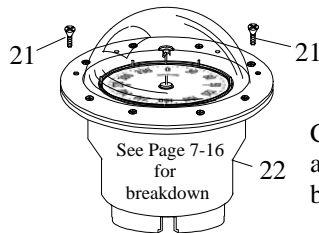
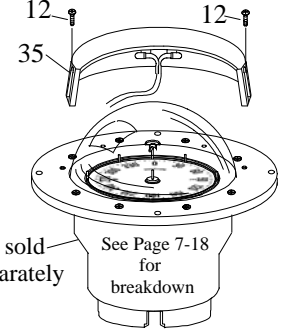
## SF-500

1973 to 1978

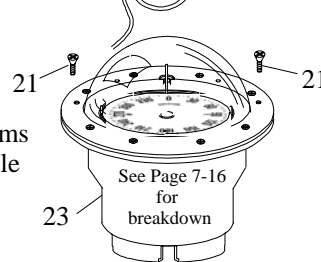


## SF-500

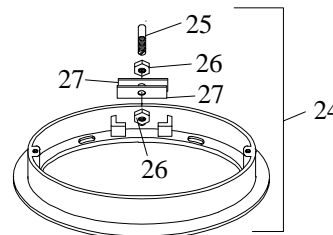
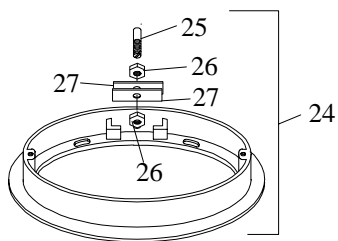
1979 to present



Compensator Systems are shown on capsule breakdown pages.



Not sold Separately

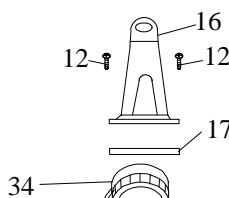


## B-500 YB-500

The B-500 is the YB-500 without the bracket or spheres

## F-500 & FB-500

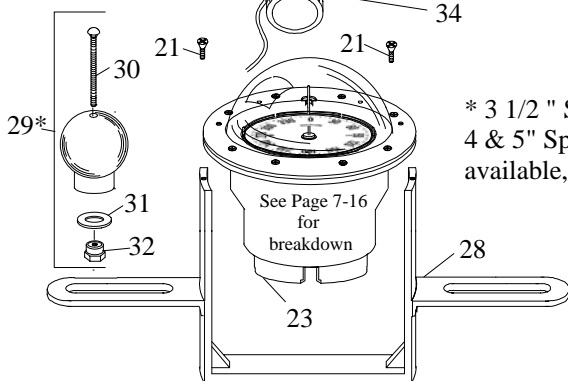
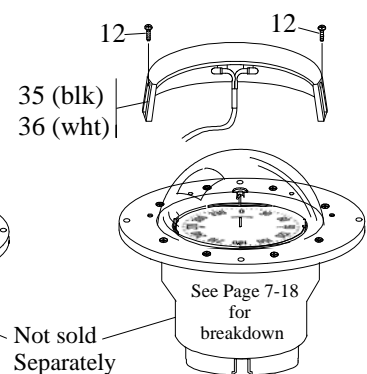
1965 to 1989



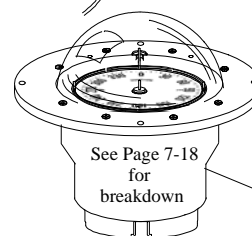
## FB-500

1990 to present

SS-5000, SS-5000W



\* 3 1/2" Sphere  
4 & 5" Spheres are available, see page 7-22



Not sold Separately

# Globemaster 5''

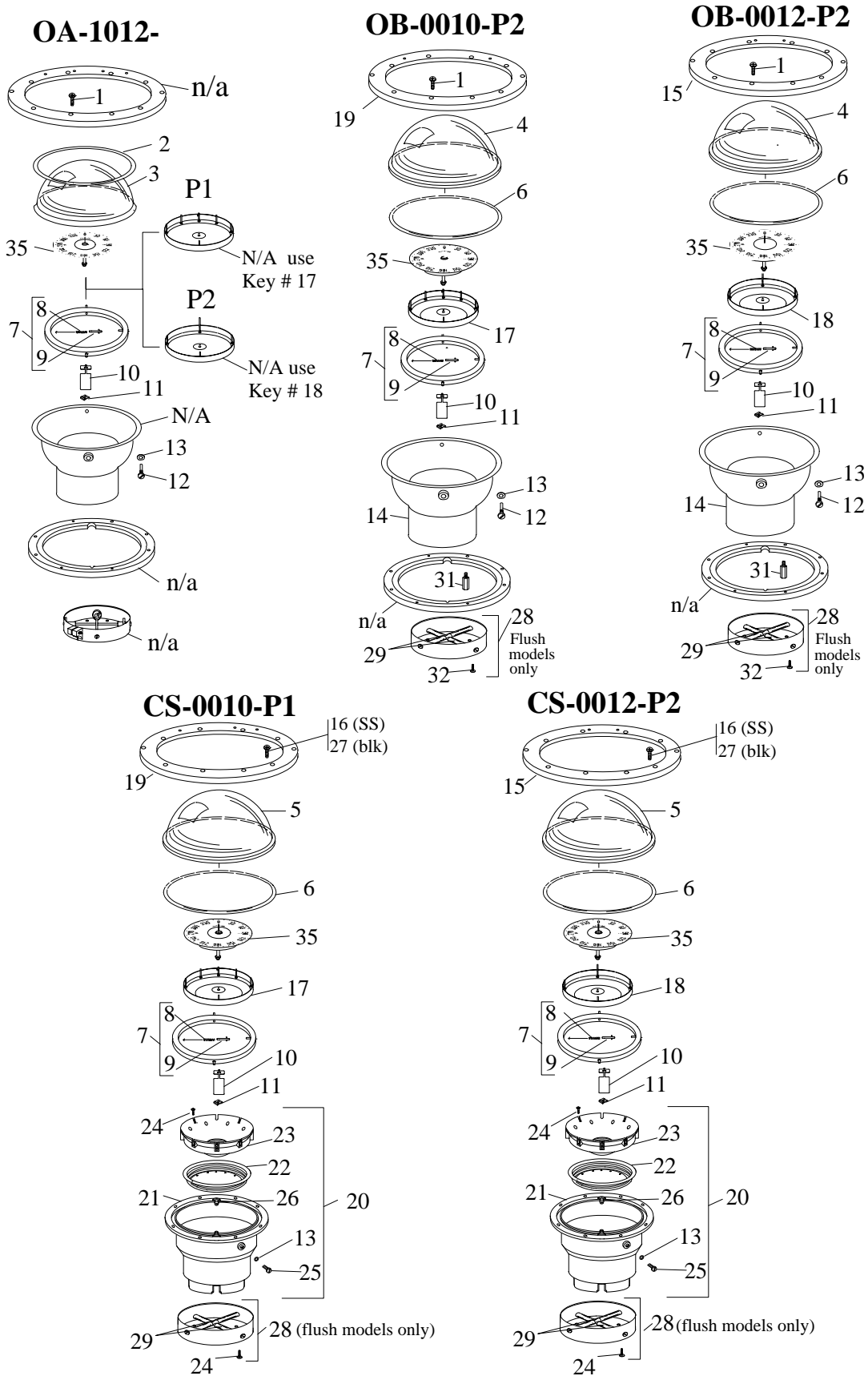
## Flush & Bracket Mounts

1	5G-0053 BR	Hood, polished brass, <i>Includes Key #'s 9, 10, 11</i>
2	5G-0053 CM	Hood, chromed brass, <i>Includes Key #'s 9, 10, 11</i>
3	5G-0053 BLK	Hood, black painted SS, <i>Includes Key #'s 5, 6, 7, 8</i>
4	5G-0054 SS	Hood, polished SS, <i>Includes Key #'s 5, 6, 7, 8</i>
5	GM-0055	Spacer, for SS hoods
6	GM-0071	Spring washer, for SS hoods
7	GM-0068	Washer, for SS hoods
8	GM-0029	Nut, for SS hoods
9	GM-0070	Spring washer, for brass hoods
10	GM-0066	Cup washer, for brass hoods
11	GM-0028	Nut, for brass hoods
12	SH-0068	Screw, 6-32 x 5.16", light retaining
16	GM-0005	PowerLight Bracket
17	GM-0012	Gasket, powerlight bracket
21	GM-0048	Screw, 6-32 x 1/2" capsule to housing
22	CS-0010-P1	Replacement Capsule, w/ sail pan
23	CS-0010-P2	Replacement Capsule, w/ power pan
24	5G-0001 ASY	Adapter Ring, <i>Includes Key #'s 25 through 27</i>
25	GM-0053	Screw, hood detent
26	SH-0037	Nut, hood detent
27	GM-0058	Spring, hood detent
28	5G-0027	Bracket, sphere arm: model YB-500
29	5G-0099 ASY	Sphere, 3 1/2", <i>Includes Key #'s 30, 31, 32 (requires 2 per compass)</i>
30	5G-0024	Bolt 3 1/2", sphere
31	GM-0069	Washer, sphere bolt
32	GM-0031	Nut, sphere bolt
33	CS-20L1X	Old Sail Light, with 12 volt Bulb,

Power Light Assembly			Low Level Light Assembly		
34	GM-0023 ASY	Clear 12v Bulb & Red Lens	35	5G-0140 ASY	Black w/ Green 12v LED
	GM-0023 AS3	Clear 24/32v Bulb & Red Lens		5G-0160 ASY	Black w/ Green 24v LED
	GM-0086 ASY	Green 12v LED & Clear Lens		5G-0096 ASY	Black w/ Red 12v LED
	GM-0092 ASY	Green 24v LED & Clear Lens	36	5G-0141 ASY	White w/ Green 12v LED
	GM-0094 ASY	Red 12v LED & Clear Lens		5G-0161 ASY	White w/ Green 24v LED
	GM-0096 ASY	Red 24v LED & Clear Lens			
These are complete Compass lights including housings and LED's (or bulbs)					
For replacement Parts (LED's, Lens, LED Upgrade Kits, ect.) See pages 7-32 and 7-33					

Mounting Gasket for the FD-500's Part # **5G-0042**  
 Mounting Gasket for the SB-500 & B-500 Part # **5G-0041**  
 Mounting Gasket for the FB-500, SF-500 and the SS-5000's Part #**5G-0043**

# Globemaster 5'' Capsule breakdown



# Globemaster 5''

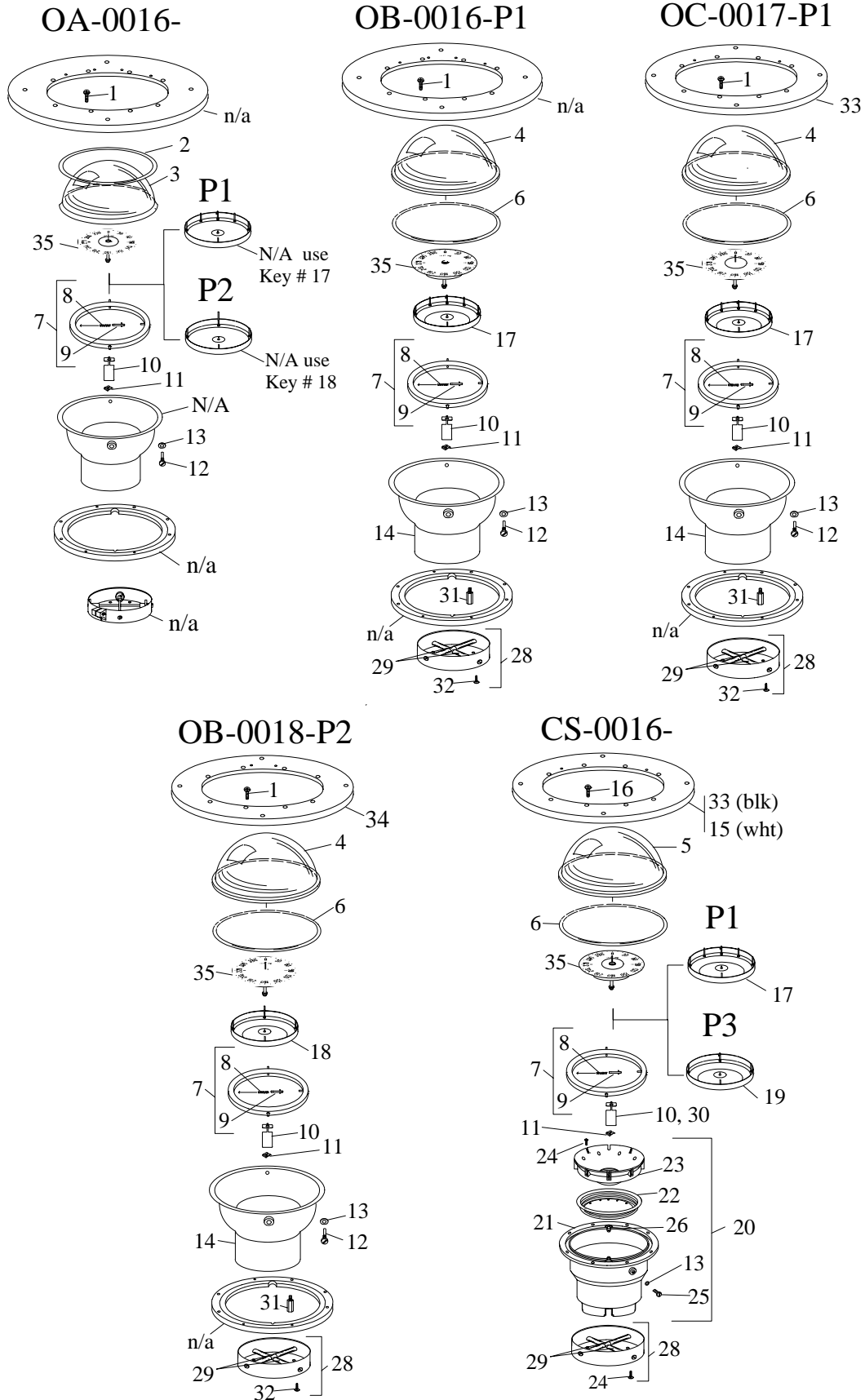
Select appropriate capsule			
Model #	1969 to 1980	1981 to 1990	1991 to present
515-EX, D-515-EX, SB-500	<b>OA-1012-P1</b>	<b>OB-0010-P1</b>	<b>CS-0010-P1</b>
515-X, D-515-X, YB-500	<b>OA-1012-P2</b>	<b>OB-0012-P2</b>	<b>CS-0012-P2</b>
FD-500-EB / EP / EX	<b>OA-1012-P1</b>	<b>OB-0010-P1</b>	<b>CS-0010-P1</b>
FD-500-B / P / X, B-500	<b>OA-1012-P2</b>	<b>OB-0012-P2</b>	<b>CS-0012-P2</b>
D-5-S-B, D-5-S-C, D-5-S-X	<b>OA-1012-P2</b>	<b>OB-0012-P2</b>	<b>CS-0012-P2</b>

1	GM-0048	Screw, 6-32 x 1/2" bezel
2	CS-04D1G1*	O-ring, for flare type dome
3	CS-04D1*	Dome, flare type
4	5G-0040*	Dome, ridge type w/ groove for o-ring
5	5G-0131	Dome, ridge type, no groove
6	5G-0078	O-ring, for ridge type dome
7	5G-0044 ASY	Gimbal Ring Assembly <i>Includes Key #'s 8 &amp; 9</i>
8	GM-0059	Spring, gimbal pin
9	GM-0013	Gimbal Pin
10	5G-0002	Balance Tab
11	SH-0052	Retainer, balance tab
12	GM-0046	Fill Plug for metal bowl , 10-32 x 5/8"
13	SH-0039	O-ring, filler plug screw
14	5G-0026 ASY*	Bowl, bronze, with comp strap
15	5G-0008	Bezel, for brass housing, accepts power light
16	5G-0132	Screw, 5/8" bezel, stainless steal
17	5G-0082 ASY	Lubberline Pan, sail
18	5G-0081 ASY	Lubberline Pan, power
19	5G-0009	Bezel, for brass housing, accepts low level light
20	5G-0127 ASY	Bowl assembly <i>Includes Key # 13 &amp; 21 though 26</i>
21	5G-0127	Bowl
22	5G-0129	Diaphragm
23	5G-0128	Retainer, diaphragm
24	5G-0094	Screw, 6 x 3/8", diaphragm retainer
25	SH-0059	Fill Plug, 10-32 x 3/8"
26	5G-0130	Boss, gimbal pin
27	5G-0145	Screw, 5/8", bezel, black anodized
28	5G-0034 ASY	Comp Cup Assembly <i>Includes Key #'s 24 &amp; 29</i>
29	5G-0090 MAG	Rod, compensator assembly
31	5G-0086*	Spacer, comp cup
32	SH-0068	Screw, 6-32 x 5.16", light retaining

\* Availability may be limited

Dial Selection		
The model number will not reflect what type of dial is in the compass. (except SS-5000's)		
key #	Part #	Description
35	5G-0135 ASY	5 degree PowerDamp dial, (black)
	5G-0135 STL	5 degree dial (black)
	5G-0133 ASY	2 degree PowerDamp dial without points, (black)
	5G-0133 STL	2 degree dial without points, (black)
	5G-0036 ASY	2 degree PowerDamp dial (black)
	5G-0036 STL	2 degree dial with points (black)
PowerDamp dials require Pan #'s 5G-0082ASY or 5G-0081ASY (key #'s 17 or 18)		
Some dials were produced special for OEM's. Choose a replacement dial from the list above or contact Ritchie's Service Department for OEM dial availability.		

# Globemaster 5'' Capsule Breakdown



# Globemaster 5''

Select appropriate capsule				
Model #	1969 to 1980	1981 to 1985	1986 to 1990	1991 to present
SF-500	OA-0016-P1	OB-0016-P1	OC-0017-P1	CS-0016-P1
F-500	OA-0016-P2	no longer in production		
FB-500		OB-0018-P2		CS-0016-P3
SS-5000, SS-5000W			OC-0017-P3	CS-0016-P3

1	GM-0048	Screw, 6-32 x 1/2" bezel
2	CS-04D1G1*	O-ring, for flare type dome
3	CS-04D1*	Dome, flare type
4	5G-0040*	Dome, ridge type w/ groove for o-ring
5	5G-0131	Dome, ridge type, no groove
6	5G-0078	O-ring, for ridge type dome
7	5G-0044 ASY	Gimbal Ring Assembly, <i>Includes Key #'s 8 &amp; 9</i>
8	GM-0059	Spring, gimbal pin
9	GM-0013	Gimbal Pin
10	5G-0002	Balance Tab
11	SH-0052	Retainer, balance tab
12	GM-0046	Fill Plug for metal bowl , 10-32 x 5/8"
13	SH-0039	O-ring, fill plug screw
14	5G-0026 ASY*	Bowl, bronze, with ,/ strap.
15	5G-0142	Bezel, flush, white, accepts low Level light
16	5G-0132	Screw, 6-20 x 5/8" bezel
17	5G-0082 ASY	Lubberline Pan, sail
18	5G-0081 ASY	Lubberline Pan, power
19	5G-0083 ASY	Lubberline Pan, power plus
20	5G-0127 ASY	Bowl Assembly, <i>Includes Key # 13 &amp; 21 though 26</i>
21	5G-0127	Bowl
22	5G-0129	Diaphragm
23	5G-0128	Retainer, diaphragm
24	5G-0094	Screw, 6 x 3/8", diaphragm retainer
25	SH-0059	Fill Plug, 10-32 x 3/8"
26	5G-0130	Boss, gimbal pin
28	5G-0034 ASY	Cup, compensator assembly <i>Includes Key #'s 29 &amp; 30</i>
29	5G-0090 MAG	Rod, compensator compass requires 2
30	5G-0143	Balance Tab for the SS-5000
31	5G-0086*	Spacer, comp cup
32	SH-0068	Screw, 6-32 x 5.16", comp cup
33	5G-0011	Bezel, flush, black, accepts Low Level light
34	5G-0010*	Bezel, flush, black, accepts Power Light

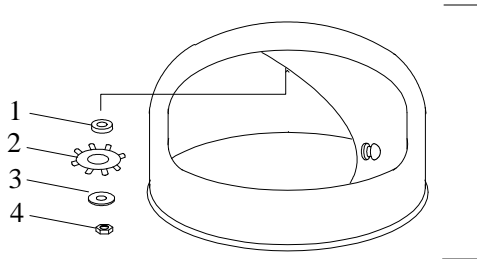
\*Availability may be Limited

Dial Selection		
The model number will not reflect what type of dial is in the compass. (except SS-5000's)		
Key #	Part #	Description
35	5G-0135 ASY	5 degree PowerDamp dial, (black)
	5G-0135 STL	5 degree dial (black)
	5G-0133 ASY	2 degree PowerDamp dial without points, (black)
	5G-0133 STL	2 degree dial without points, (black)
	5G-0036 ASY	2 degree PowerDamp dial (black)
	5G-0036 STL	2 degree dial with points (black)
	5G-0038 ASY	5 degree PowerDamp Plus, (blue)
PowerDamp dials require Pan #'s 5G-0082ASY or 5G-0081ASY (Key #'s 17 or 18)		

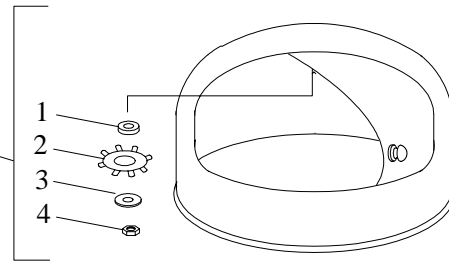
# Globemaster 6''

615-P, 615-B, 615-EP, 615-EB, D-615-P, D-615-B, D-615-EP, D-615-EB

D-615-EP & D-615-EB

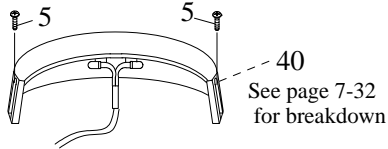


D-615-P & D-615-B



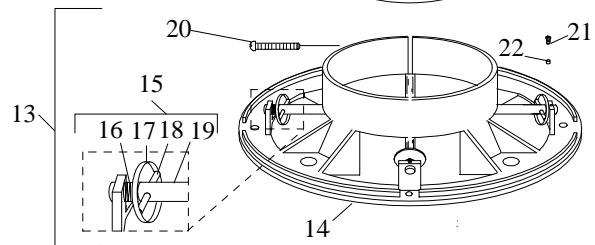
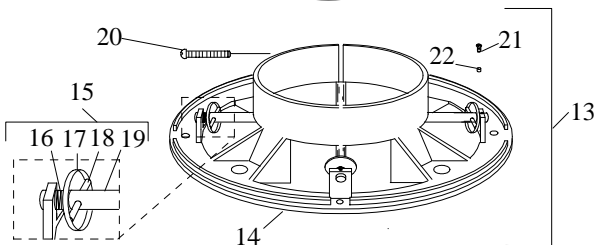
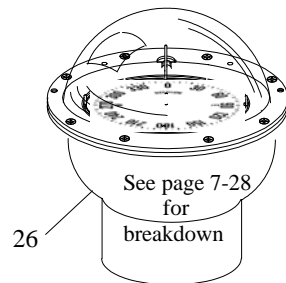
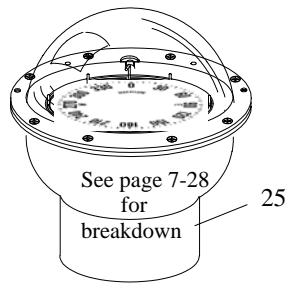
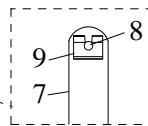
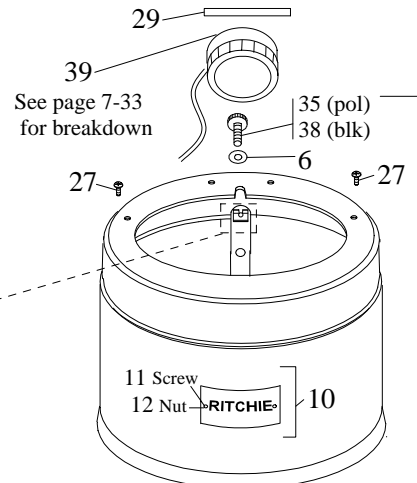
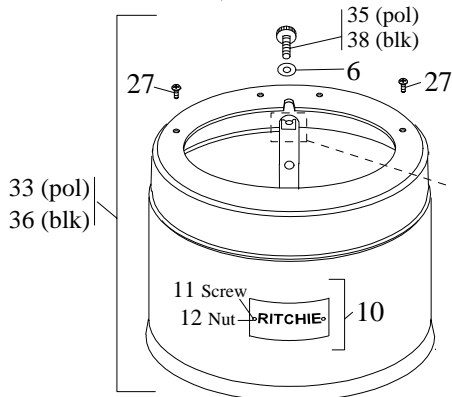
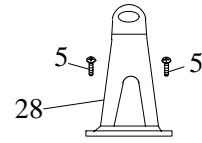
34 (pol)  
37 (blk)

615-EP & 615-EB



The 615's are D-615's  
without the Hood.

615-P & 615-B





# Globemaster 6''

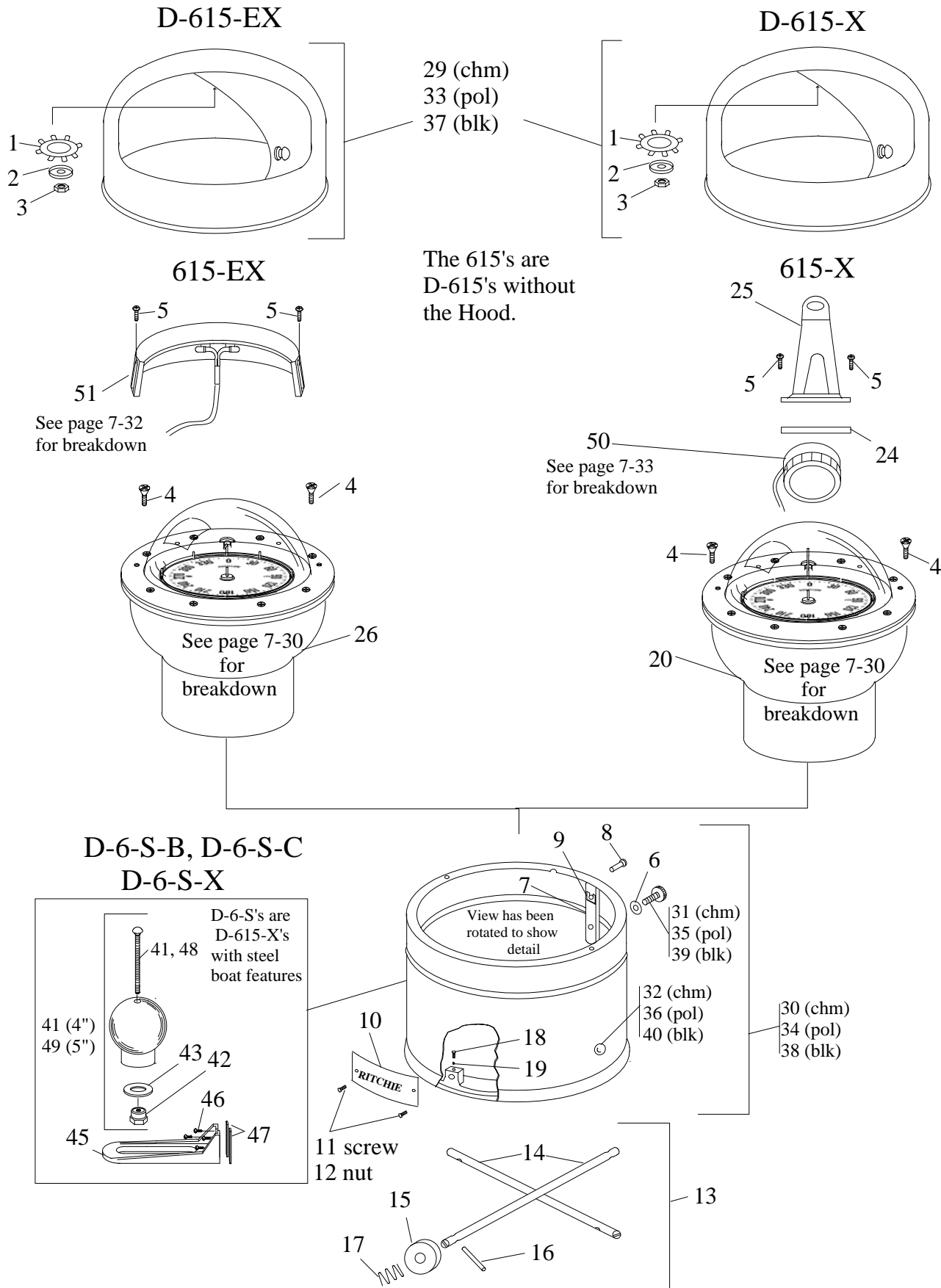
## Stainless Steel Binnacle Mounts

1	GM-0055	Spacer, hood retaining	ALL
2	GM-0071	Spring washer, hood retaining	
3	GM-0068	Washer, hood retaining	
4	GM-0029	Nut, hood retaining	
5	SH-0068	Screw, 6-32 x 5.16", light retaining	
6	GM-0072	Washer, thumbscrew	
7	GM-0022	Lever, hood retaining	
8	GM-0054	Binder Button	
9	SH-0052	Retainer, binder button	
10	GM-0027	Nameplate	
11	GM-0047	Screw, 3-48 x 1/4", nameplate	
12	GM-0030	Nut, 3-48, nameplate	
13	6G-0005 ASY	Base Assembly, bronze	
14	6G-0005 ASY	Base, bronze, <i>Includes Key #'s 14 through 22</i>	
15	CS-0014 KIT	Compensator Kit, (2 rods) <i>Includes Key #'s 16, 17, 18, 19</i>	
16	GM-0057	Spring, compensator magnet retainer	
17	6G-0060	Retainer, compensator magnet	
18	6G-0074	Magnet, compensator	
19	6G-0061	Rod, compensator	
20	GM-0052	Screw, clamping	
21	GM-0075	Screw, compensator rod locking	
22	GM-0032	Binder, compensator rod locking	
25	CS-0006-P1	Replacement Capsule, w/ sail pan	615-EP, D-615-EP, 615-EB, D-615-EB
26	CS-0006-P2	Replacement Capsule, w/ power pan	615-P, D-615-P, 615-B, D-615-B
27	GM-0050	Screw, locking retainer	
28	GM-0005	Bracket, light	
29	GM-0012	Gasket, light bracket	
33	6G-0020 SS	Binnacle Housing, polished SS, <i>Includes Key #'s 6 though 12 &amp; 35</i>	615-EP, D-615-EP, 615-P, D-615-P
34	6G-0047 SS	Hood Assembly, polished SS, <i>Includes Key #'s 1,2,3,4</i>	
35	GM-0065	Thumbscrew, chrome	
36	6G-0020 BLK	Binnacle Housing, black, <i>Includes Key #'s 6 though 12 &amp; 38</i>	615-EB, D-615-EB, 615-B, D-615-B
37	6G-0047 BLK	Hood Assembly, black wrinkle finish, <i>Includes Key #'s 1,2,3,4</i>	
38	GM-0063	Thumbscrew, black wrinkle finish	

Power Light Assembly			Low Level Light Assembly		
39	GM-0023 ASY	Clear 12v Bulb & Red Lens	40	6G-0087 ASY	Green 12v LED
	GM-0023 AS3	Clear 24/32v Bulb & Red Lens		6G-0090 ASY	Green 24v LED
	GM-0086 ASY	Green 12v LED & Clear Lens		6G-0065 ASY	Red 12v LED
	GM-0092 ASY	Green 24v LED & Clear Lens			
	GM-0094 ASY	Red 12v LED & Clear Lens			
	GM-0096 ASY	Red 24v LED & Clear Lens			
These are complete Compass lights including housings and LED's (or bulbs)					
For replacement Parts (LED's, Lens, LED Upgrade Kits, ect.) See pages 7-32 and 7-33					

# Globemaster 6''

615-X, 615-EX, D-615-X, D-615-EX, D-6-S-B, D-6-S-C, D-6-S-X



# Globemaster 6''

## Brass Binnacle Mounts

1	GM-0070	Spring washer, hood retaining	ALL	
2	GM-0066	Cup washer, hood retaining		
3	GM-0028	Nut, hood retaining		
4	GM-0048	Screw, 6-32 x 1/2" capsule to housing		
5	SH-0068	Screw, 6-32 x 5.16", light retaining		
6	GM-0072	Washer, thumbscrew		
7	GM-0022	Lever, hood retaining		
8	GM-0054	Binder Button		
9	SH-0052	Retainer, binder button		
10	GM-0027	Nameplate, <i>Includes Key #'s 11 &amp; 12</i>		
11	GM-0047	Screw, 3-48 x 1/4", nameplate		
12	GM-0030	Nut, 3-48, nameplate		
13	CS-0014 KIT	Compensator kit, <i>Includes Key #'s 14(2) 15(4) 16(4) 17(2) 18(1) 19(1)</i>		
14	6G-0061	Compensator Rod		
15	6G-0060	Retainer, compensator magnet		
16	6G-0074	Magnet, compensator		
17	GM-0057	Spring, compensator magnet retainer		
18	GM-0075	Screw, compensator rod locking		
19	GM-0032	Binder, compensator rod locking		
20	CS-0004-P2	Replacement Capsule, w/ power pan	615-X, D-615-X,	
24	GM-0012	Gasket, PowerLight Bracket	D-6-S-B,	
25	GM-0005	PowerLight Bracket	D-6-S-C,	
26	CS-0007-P1	Replacement Capsule, w/ sail pan	615-EX,	
29	6G-0046 CM	Hood Assembly, chrome, <i>Includes Key #'s 1, 2, 3</i>	D-6-S-C	
30	6G-0018 ASY	Binnacle Assembly, chrome, <i>Includes Key #'s 6-17, 31, 32(4)</i>	615-X, D-615-X,	
31	GM-0065	Thumbscrew, chrome		D-6-S-X,
32	GM-0037	Plug, compensator, chrome		615-EX,
33	6G-0046 BR	Hood Assembly, polished brass, <i>Includes Key #'s 1, 2, 3</i>	D-615-EX	
34	6G-0019 ASY	Binnacle Assembly, brass, <i>Includes Key #'s 6 through 17, 35, 36(4)</i>	D-6-S-B	
35	GM-0064	Thumbscrew, polished brass		
36	GM-0036	Plug, compensator, polished brass		
37	6G-0046 BLK	Hood Assembly, black wrinkle, <i>Includes Key #'s 1, 2, 3</i>	D-6-S-B,	
38	6G-0016 ASY	Binnacle Assembly, black, <i>Includes Key #'s 6 through 17, 39, 40(4)</i>		D-6-S-C,
39	GM-0063	Thumbscrew, black wrinkle finish		D-6-S-X
40	GM-0035	Plug, compensator, black wrinkle	Optional Spheres	
41	6G-0066 ASY	Sphere, 4" <i>Includes Key #'s 42, 43, 44 (requires 2 per compass)</i>		
42	GM-0031	Nut, sphere bolt		
43	GM-0069	Washer, sphere bolt		
44	6G-0021	Bolt, for 4" sphere		
45	6G-0024	Sphere Bracket (requires 2 per compass)		
46	GM-0045	Screw, 10-32 x 5/8", bracket mounting, (requires 4 per bracket)		
47	GM-0034	Mounting Plate for sphere bracket (requires 2 per bracket)		
48	GM-0003	Bolt, for 5" sphere		
49	GM-0056 ASY	Sphere, 5" <i>Includes Key #'s 42, 43, 48 (requires 2 per compass)</i>		

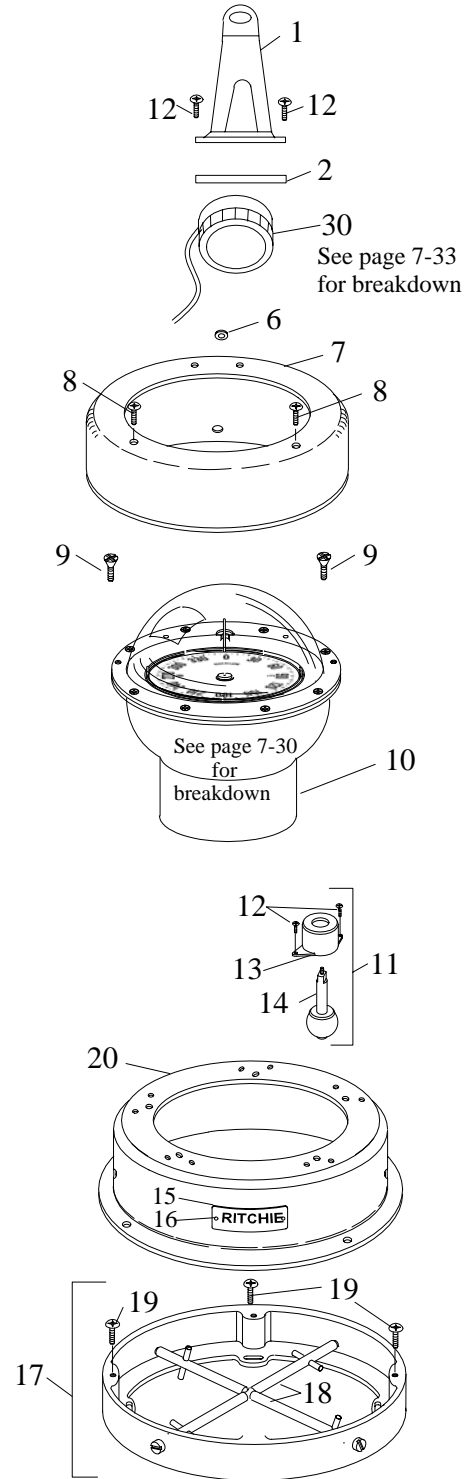
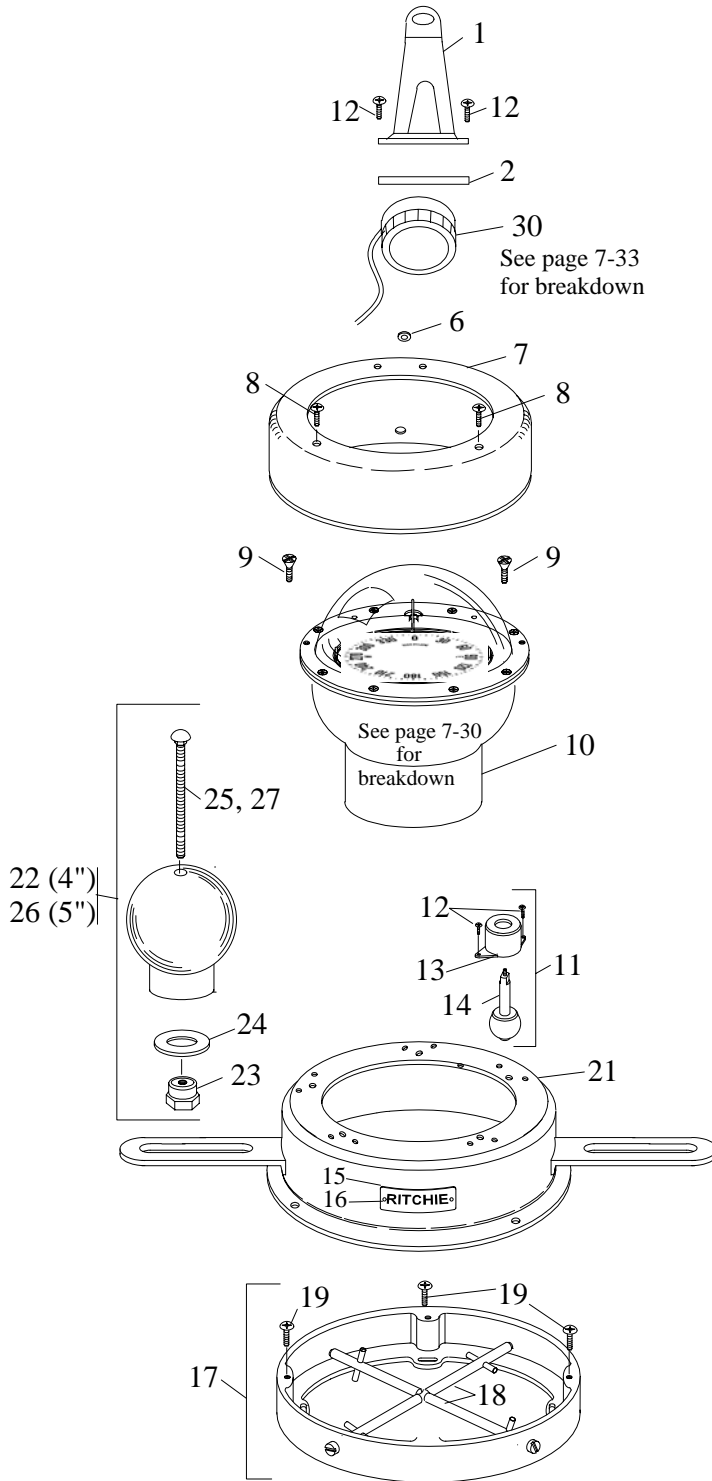
Power Light Assembly			Low Level Light Assembly		
50	GM-0023 ASY	Clear 12v Bulb & Red Lens	51	6G-0087 ASY	Green 12v LED
	GM-0023 AS3	Clear 24/32v Bulb & Red Lens		6G-0090 ASY	Green 24v LED
	GM-0086 ASY	Green 12v LED & Clear Lens		6G-0065 ASY	Red 12v LED
	GM-0092 ASY	Green 24v LED & Clear Lens			
	GM-0094 ASY	Red 12v LED & Clear Lens			
	GM-0096 ASY	Red 24v LED & Clear Lens			
These are complete Compass lights including housings and LED (or bulbs)					
For replacement Parts (LED's, Lens, LED Upgrade Kits, ect.) See pages 7-32 and 7-33					

# Globemaster 6''

## B-463 & C-463

### B-463

### C-463



# Globemaster 6''

## Shock Mounts

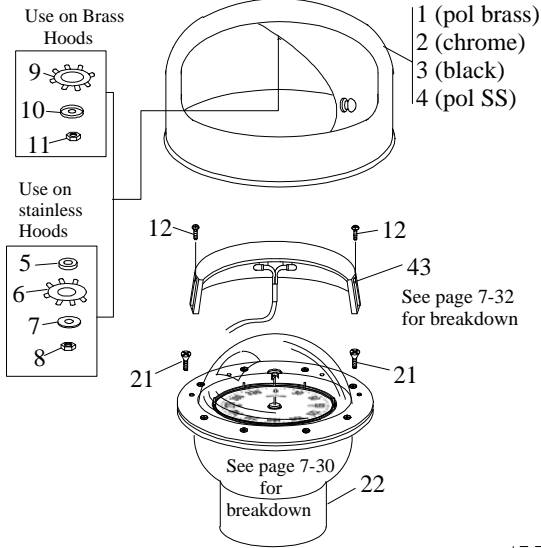
1	GM-0005	PowerLight Bracket	B-463 & C-463
2	GM-0012	Gasket, powerlight bracket	
6	SH-0020	Grommet, light wire hole	
7	6G-0015	Upper Housing,	
8	GM-0050	Screw, locking retainer	
9	GM-0048	Screw, 6-32 x 1/2"	
10	CS-0006-P2	Replacement Capsule, w/ power pan	
11	GM-0080	Shock Assembly, <i>Includes Key #'s 12, 13, 14,</i> (requires 5 per compass)	
12	SH-0068	Screw, 6-32 x 5.16", light retaining	
13	GM-0041	Housing, shock mount	
14	GM-0001 ASY	Shock Balloon	
15	GM-0027	Nameplate, <i>Includes Key #'s 16</i>	
16	GM-0047	Screw, 3-48 x 1/4", nameplate	
17	6G-0004 ASY	Compensator Base assembly	
18	6G-0062 ASY	Compensator Rod (requires 2 per compass)	
19	6G-0064	Screw, 10-24 x 5/8", for 6" comp plate	B-463
20	6G-0014	Binnacle Base: model C-463	
21	6G-0013	Binnacle Base model B-463	
22	6G-0066 ASY	Sphere, 4" <i>Includes Key #'s 23, 24, 25</i> (requires 2 per compass)	
23	GM-0031	Nut, sphere bolt	
24	GM-0069	Washer, sphere bolt	Optional Sphere size
25	6G-0021	Bolt, for 4" sphere	
26	GM-0056 ASY	Sphere, 5" <i>Includes Key #'s 23, 24, 29</i> (requires 2 per compass)	
29	GM-0003	Bolt, for 5" sphere	

Power Light Assembly					
30	GM-0023 ASY	Clear 12v Bulb & Red Lens	30	GM-0092 ASY	Green 24v LED & Clear Lens
	GM-0023 AS3	Clear 24/32v Bulb & Red Lens		GM-0094 ASY	Red 12v LED & Clear Lens
	GM-0086 ASY	Green 12v LED & Clear Lens		GM-0096 ASY	Red 24v LED & Clear Lens
These are complete Compass lights including housings and LED's (or bulbs)					
For replacement Parts (LED's, Lens, LED Upgrade Kits, ect.) See page 7-33					

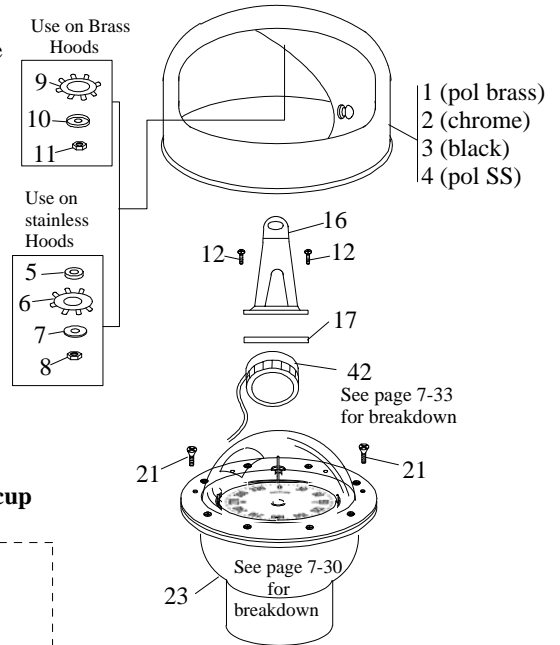
# Globemaster 6"

FD-600-EB, FD-600-B, FD-600-EP, FD-600-P, FD-600-EX, FD-600-X, F-600, SF-600, YB-600

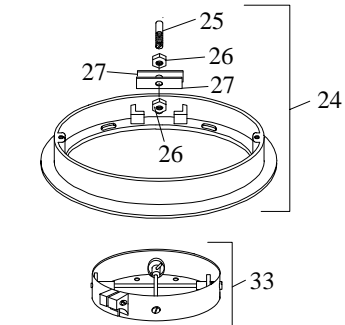
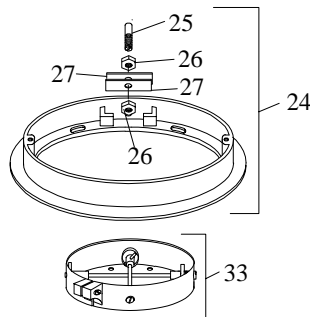
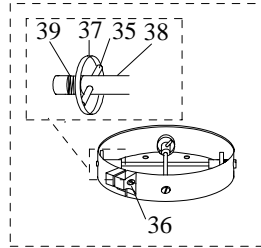
## FD-600-EB, FD-600-EP, FD-600-EX



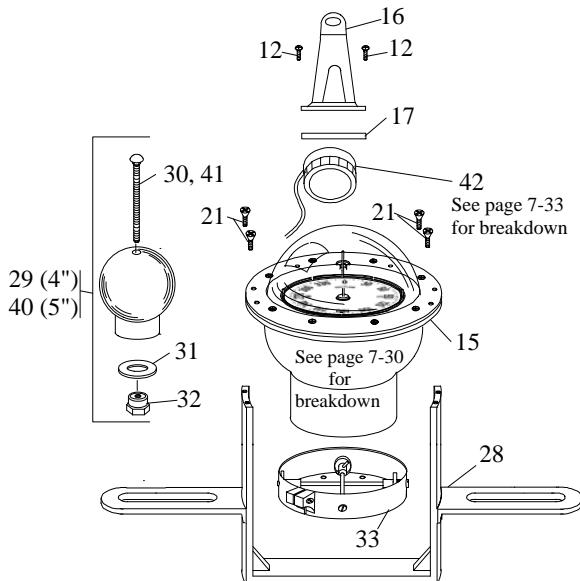
## B-600, FD-600-B, FD-600-P, FD-600-X



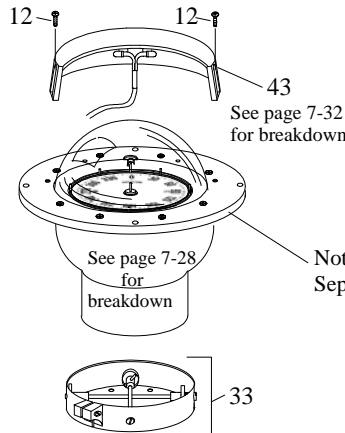
### Compensator cup Breakdown



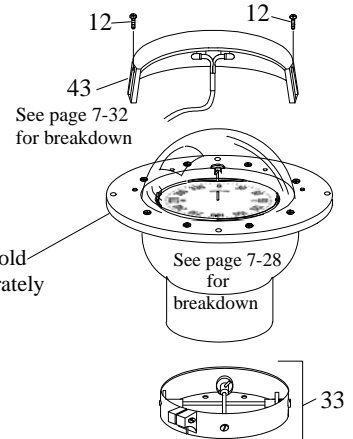
## YB-600



## F-600



## SF-600



# Globemaster 6''

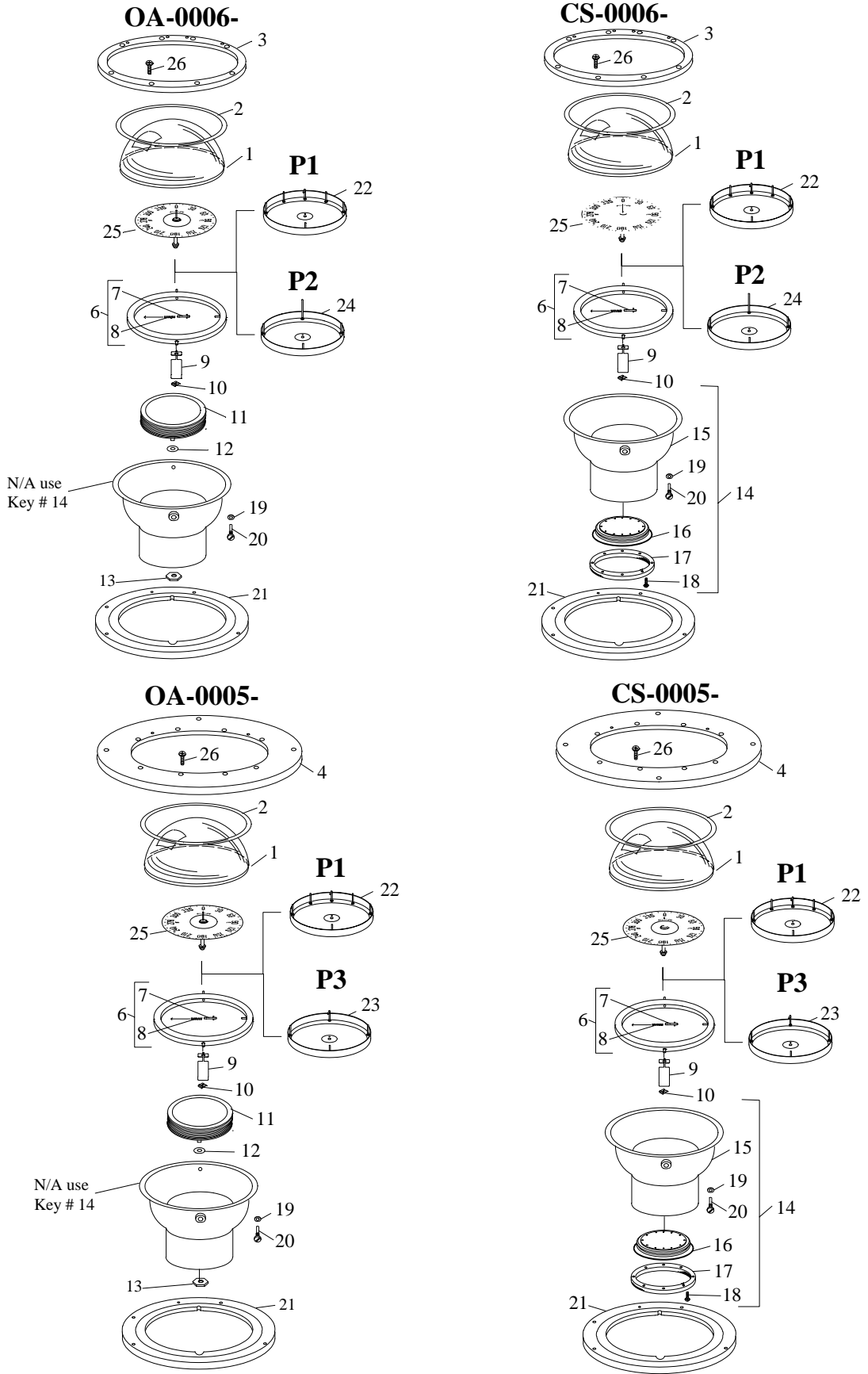
## Flush & Bracket Mounts

1	6G-0046 BR	Hood, polished brass, <i>Includes Key #'s 9, 10, 11</i>
2	6G-0046 CM	Hood, chromed brass, <i>Includes Key #'s 9, 10, 11</i>
3	6G-0047 BLK	Hood, black painted SS, <i>Includes Key #'s 5, 6, 7, 8</i>
4	6G-0047 SS	Hood, polished SS, <i>Includes Key #'s 5, 6, 7, 8</i>
5	GM-0055	Spacer, for SS hoods
6	GM-0071	Spring Washer, for SS hoods
7	GM-0068	Washer, for SS hoods
8	GM-0029	Nut, for SS hoods
9	GM-0070	Spring Washer, for brass hoods
10	GM-0066	Cup Washer, for brass hoods
11	GM-0028	Nut, for brass hoods
12	SH-0068	Screw, 6-32 x 5.16", light retaining
15	CS-0008-P2	Replacement Capsule, w/ power pan, YB-600
16	GM-0005	PowerLight Bracket
17	GM-0012	Gasket, powerlight bracket
21	GM-0048	Screw, 6-32 x 1/2" capsule to housing
22	CS-0007-P1	Replacement Capsule, w/ sail pan, accepts low light
23	CS-0004-P2	Replacement Capsule, w/ power pan, accepts power light
24	6G-0001 ASY	Adaptor Ring, <i>Includes Key #'s 25 through 27</i>
25	GM-0053	Screw, hood detent
26	SH-0037	Nut, hood detent
27	GM-0058	Spring, hood detent
28	6G-0023	Bracket, sphere arm: Model YB-500
29	6G-0066 ASY	Sphere, 4", <i>Includes Key #'s 30, 31, 32 (requires 2 per compass)</i>
30	6G-0021	Bolt, for 4" sphere
31	GM-0069	Washer, sphere bolt
32	GM-0031	Nut, Sphere bolt
33	6G-0029 ASY	Compensator Assembly, cup type, <i>Includes Key #'s 35 through 39</i>
35	6G-0074	Magnet, compensator,
36	GM-0052	Screw, clamping
37	6G-0060	Retainer, compensator magnet,
38	6G-0063	Rod, compensator,
39	GM-0057	Spring, compensator magnet retainer
40	GM-0056 ASY	Sphere, 5", <i>Includes Key #'s 30, 31, 32 (requires 2 per compass)</i>
41	GM-0003	Bolt, for 5" sphere

Power Light Assembly			Low Level Light Assembly		
42	GM-0023 ASY	Clear 12v Bulb & Red Lens	43	6G-0087 ASY	Green 12v LED
	GM-0023 AS3	Clear 24/32v Bulb & Red Lens		6G-0090 ASY	Green 24v LED
	GM-0086 ASY	Green 12v LED & Clear Lens		6G-0065 ASY	Red 12v LED
	GM-0092 ASY	Green 24v LED & Clear Lens			
	GM-0094 ASY	Red 12v LED & Clear Lens			
	GM-0096 ASY	Red 24v LED & Clear Lens			
These are complete Compass lights including housings and LED'S (or bulbs)					
For replacement Parts (LED's, Lens, LED Upgrade Kits, ect.) See pages 7-32 and 7-33					

Mounting Gasket for the FD-600's Part # **6G-0036**  
 Mounting Gasket for the SF-600 & F-600 Part # **6G-0035**

# Globemaster 6'' Capsule Breakdown





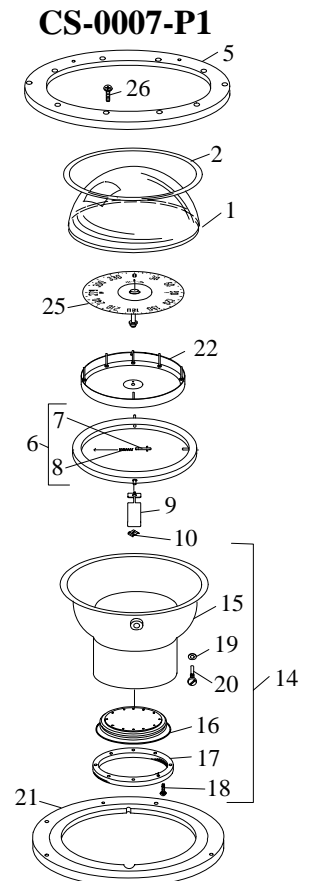
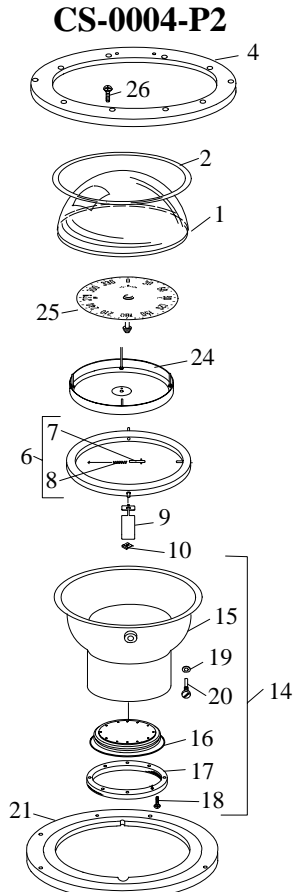
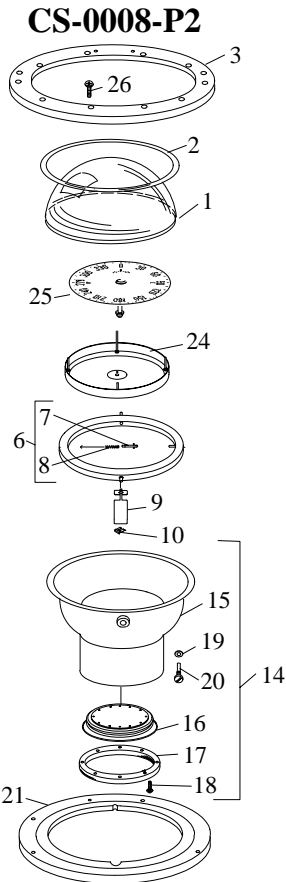
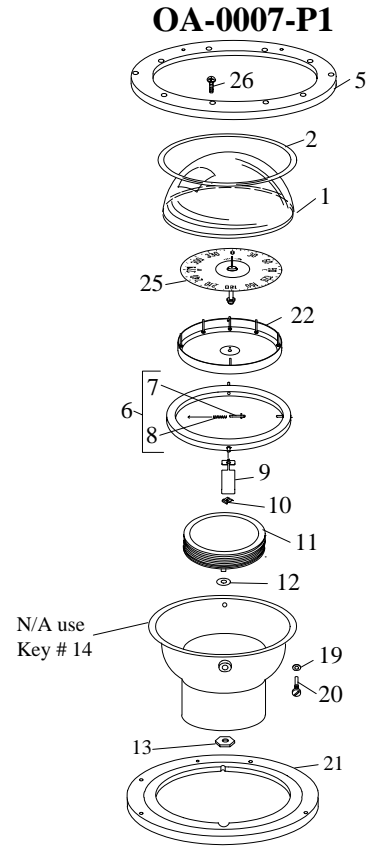
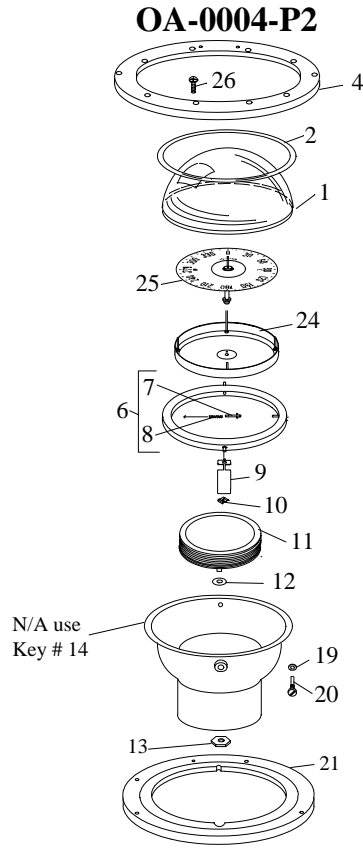
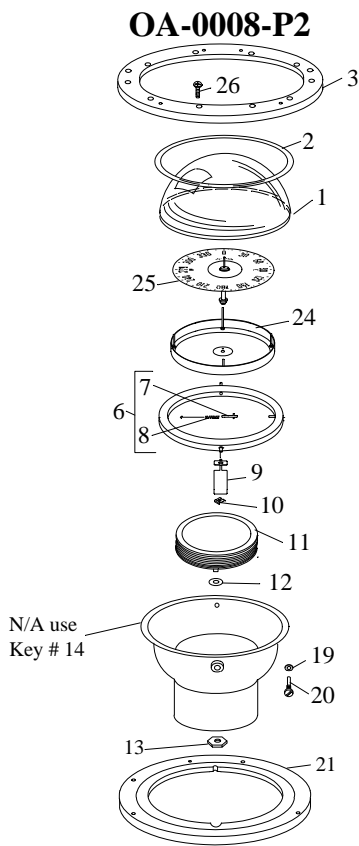
# Globemaster 6''

Select Appropriate Capsule		
Model #	1969 to 1994	1995 to present
D-615-B, D-615-P, 615-B, 615-P, B-463, C-463	<b>OA-0006-P2</b>	<b>CS-0006-P2</b>
D-615-EB, D-615-P, 615-EB, 615-EP	<b>OA-0006-P1</b>	<b>CS-0006-P1</b>
F-600	<b>OA-0005-P3</b>	<b>CS-0005-P3</b>
SF-600	<b>OA-0005-P1</b>	<b>CS-0005-P1</b>

1	6G-0033	Dome
2	6G-0057	O-ring
3	6G-0009	Bezel; 7 1/8"
4	6G-0076	Bezel; 9"
6	6G-0037 ASY	Gimbal Ring Assembly, <i>Includes Key #'s 7 &amp; 8</i>
7	GM-0059	Spring, gimbal pin
8	GM-0013	Gimbal Pin
9	6G-0002	Balance Tab
10	SH-0052	Retainer, balance tab
11	6G-0034 ASY	Expansion chamber assembly, for old style bowl
12	6G-0073	Gasket, expansion chamber, for old style bowl
13	6G-0056	Nut, expansion chamber, for old style bowl
14	6G-0081 ASY	Bowl assembly, new style <i>Includes key #'s 15 through 20</i>
15	6G-0083 ASY	Bowl (w/out diaphragm)
16	5G-0129	Diaphragm
17	6G-0084	Retainer, diaphragm
18	6G-0085	Screw, diaphragm retaining
19	SH-0039	O-ring, fill plug screw
20	GM-0046	Screw, fill plug
21	6G-0028	Ring, clamping
22	6G-0059 ASY	Pan Assembly, sail
23	6G-0079 ASY	Pan Assembly, model F-600
24	6G-0058 ASY	Pan Assembly, power
26	GM-0048	Screw, 6-32 x 1/2" bezel

Dial Selection		
The model number will not reflect what type of dial is in the compass.		
Key #	Part #	Description
25	6G-0030 ASY	Dial Assembly, black, 2° increments
	6G-0031 ASY	Dial Assembly, black, 5° increments
Some dials were produced special for OEM's. Choose a replacement dial from the list above or contact Ritchie's Service Department for OEM dial availability.		

# Globemaster 6'' Capsule Breakdown



# Globemaster 6''

Select Appropriate Capsule		
Model #	1969 to 1994	1995 to present
615-X, D-615-X, D-6S-B, D-6S-C, D-6S-S	<b>OA-0004-P2</b>	<b>CS-0004-P2</b>
B-600, B-610, FD-600-B, FD-600-P, FD-600-X	<b>OA-0004-P2</b>	<b>CS-0004-P2</b>
615-EX, D-615-EX, FD-600-EP/ EB/ EX	<b>OA-0007-P1</b>	<b>CS-0007-P1</b>
YB-600	<b>OA-0008-P2</b>	<b>CS-0008-P2</b>

1	6G-0033	Dome
2	6G-0057	O-ring
3	6G-0011	Bezel; 8" for YB-600
4	6G-0008	Bezel; 8" , power light
5	6G-0012	Bezel; 8", low level light
6	6G-0037 ASY	Gimbal Ring Assembly, <i>Includes key #'s 7 &amp; 8</i>
7	GM-0059	Spring, gimbal pin
8	GM-0013	Gimbal Pin
9	6G-0002	Balance Tab
10	SH-0052	Retainer, balance tab
11	6G-0034 ASY	Expansion Chamber Assembly, for old style bowl
12	6G-0073	Gasket, expansion chamber, for old style bowl
13	6G-0056	Nut, expansion chamber, for old style bowl
14	6G-0081 ASY	Bowl Assembly, new style, <i>Includes key #'s 15 to 20</i>
15	6G-0083 ASY	Bowl (w/out diaphragm)
16	5G-0129	Diaphragm
17	6G-0084	Retainer, diaphragm
18	6G-0085	Screw, diaphragm retaining
19	SH-0039	O-ring, fill plug screw
20	GM-0046	Screw, fill plug
21	6G-0028	Ring, clamping
22	6G-0059 ASY	Pan Assembly, sail
24	6G-0058 ASY	Pan Assembly, power
26	GM-0048	Screw, 6-32 x 1/2" bezel

Dial Selection		
The model number will not reflect what type of dial is in the compass.		
Key #	Part #	Description
25	6G-0030 ASY	Dial Assembly, black, 2° increments
	6G-0031 ASY	Dial Assembly, black, 5° increments
Some dials were produced special for OEM's. Choose a replacement dial from the list above or contact Ritchie's Service Department for OEM dial availability.		

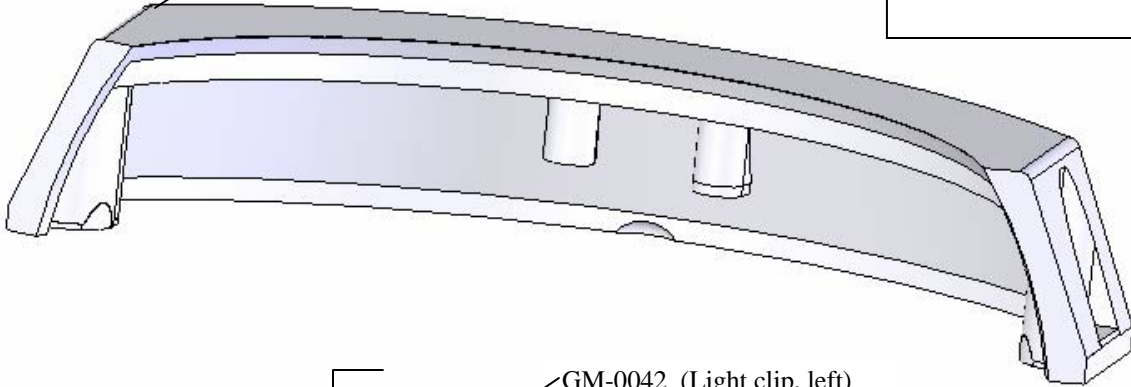
# Globemaster 5 & 6''

## Low Level Lighting

Light shield (ships without LED's)\*

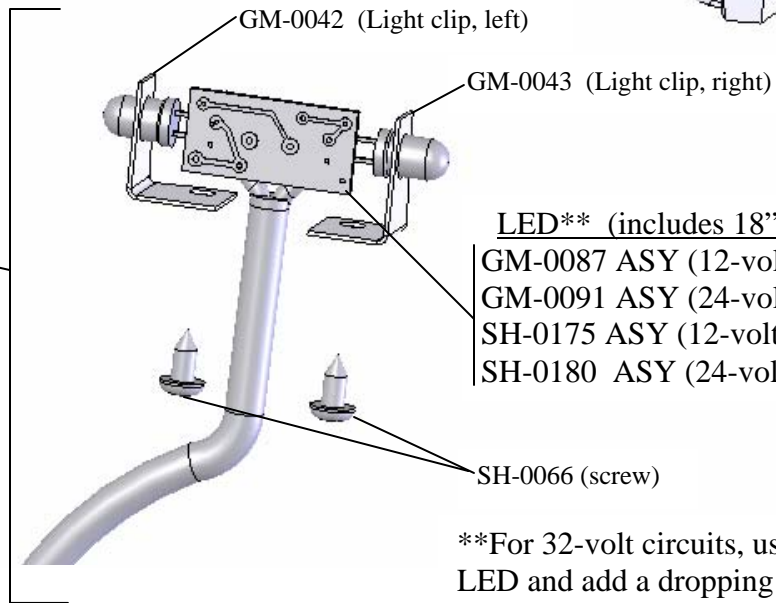
- 5G-0096 (Black, used on 5'' Globemasters)
- 5G-0141 (White, used on 5'' Globemasters)
- 6G-0065 (Black, used on 6'' Globemasters)

\*For Complete Light Shield (ships with LED, clips and screws) see appropriate Compass breakdown in this manual.



Lighting Kit (LED, clips & screws)

- CS-0002 KIT (12-volt Green)
- CS-0003 KIT (12-volt Red)



LED\*\* (includes 18'' of wire)

- GM-0087 ASY (12-volt Green)
- GM-0091 ASY (24-volt Green)
- SH-0175 ASY (12-volt Red)
- SH-0180 ASY (24-volt Red)

\*\*For 32-volt circuits, use a 12-volt LED and add a dropping resistor  
**Ritchie Part # SH-0126-330**

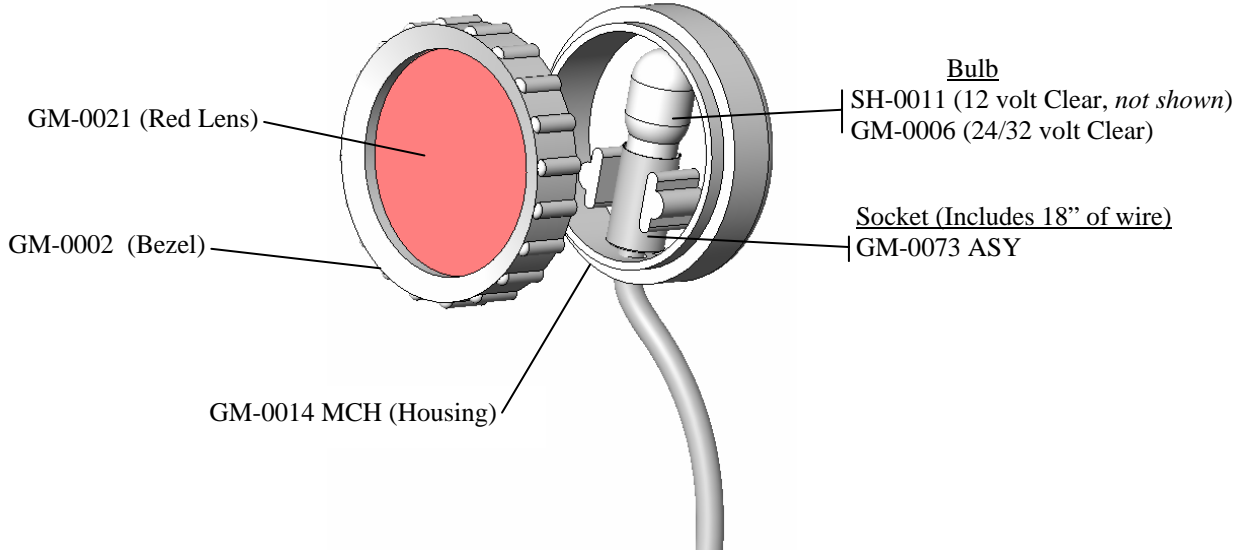
Some older LED's may not resemble the new style (shown). The new LED's are direct replacements.

Note: Older Globemasters were equipped with incandescent bulbs that are no longer available. You can upgrade to the LED by ordering any of the Lighting Kits listed above.

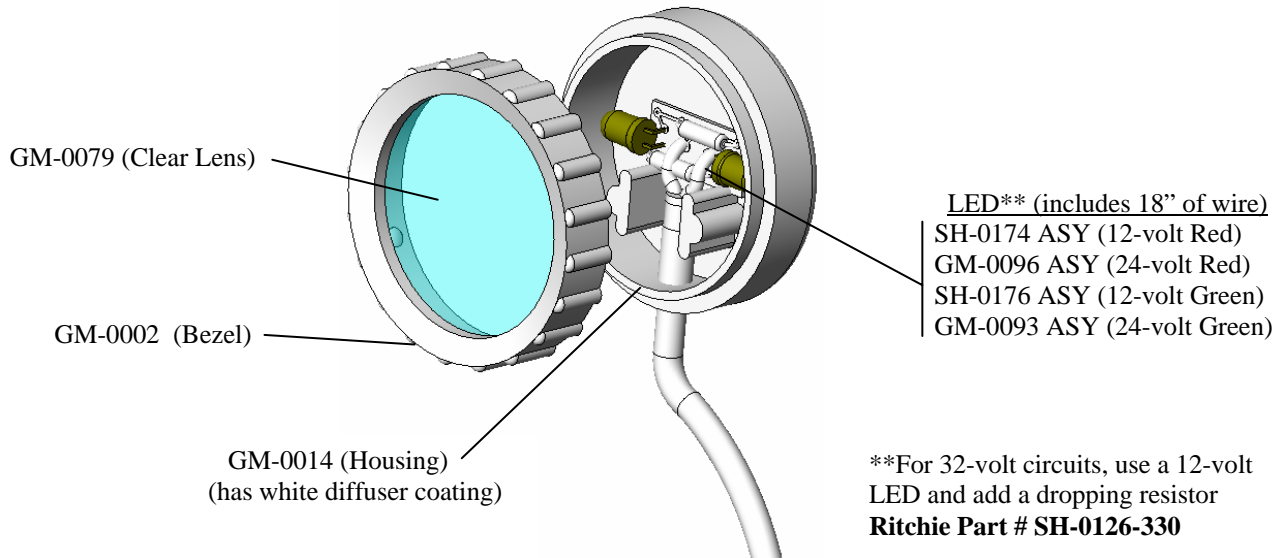


# Globemaster 5 & 6'' Power Lighting

GM-0023 ASY	Red lens, 12 volt Clear Bulb
GM-0023 AS3	Red lens, 24/32 volt Clear Bulb



GM-0094 ASY	Clean Lens, 12 Volt Red LED
GM-0095 ASY	Clean Lens, 24 Volt Red LED
GM-0086 ASY	Clean Lens, 12 Volt Green LED
GM-0092 ASY	Clean Lens, 24 Volt Green LED



Some older LED's may not resemble the new style (shown).  
The new LED's are direct replacements.

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DNB-203	6-8, 6-9, 6-12
DNP-200	6-6, 6-7, 6-12
DNP-200-SR	OEM, similar to DNP-200
DNP-200-SR24	OEM, similar to DNP-200
DNP-200W	OEM, similar to DNP-200
DNP-203	6-8, 6-9, 6-12
DNW-200	6-6, 6-7, 6-12
DNW-200-24	OEM, similar to DNW-200
DNW-200-SR24	OEM, similar to DNW-200
DNW-203	6-8, 6-9, 6-12
DP-60	Parts no longer available
DP-60-B	Parts no longer available
DP-60-C	Parts no longer available
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DR-5-B	7-3, 7-6, 7-7, 7-2
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DS-0061 TRF	Factory service only
F-50	3-6, 3-7
F-500	7-14, 7-15, 7-18, 7-19, 7-2
F-50-24	OEM, similar to F-50
F-50-C	OEM similar to F-50
F-50-K	3-6, 3-7
F-50-M	OEM, similar to F-50
F-50-RED	OEM, similar to F-50
F-50-SR	OEM, similar to F-50
F-50-SRC	OEM, similar to F-50
F-50-SRCWT	OEM, similar to F-50

F-50W	3-6, 3-7
F-50W-24	
F-50W-OEM	OEM, similar to F-50W
F-50W-SR	OEM, similar to F-50W
F-50W-SRC	OEM, similar to F-50W
F-50-WT	3-6, 3-7
F-60	Parts no longer available
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F-82-R	OEM, similar to F-82
F-82-SR	OEM, similar to F-82
F-82W	4-4, 4-5, 4-10
F-82-W	OEM, similar to F-82
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F-83-B	OEM, similar to F-83
F-83-C	OEM, similar to F-83
F-83-M	OEM, similar to F-83
F-83-OEM	OEM, similar to F-83
F-83-RED	OEM, similar to F-83
F-83-SR	OEM, similar to F-83
F-83-SRC	OEM, similar to F-83
F-83W	4-6, 4-7, 4-10
F-83-W	OEM, similar to F-83
F-83W*	OEM, similar to F-83
F-83W-C	OEM, similar to F-83
F-83W-OEM	OEM, similar to F-83
F-83W-R	OEM, similar to F-83
F-83W-RED	OEM, similar to F-83
F-83W-SR	OEM, similar to F-83
F-83W-SRC	OEM, similar to F-83
FB-500	7-14, 7-15, 7-18, 7-19, 7-2
FB-500-NL	OEM, similar to FB-500
FB-500-PS	OEM, similar to FB-500
FB-500-S	OEM, similar to FB-500
FB-500-SR	OEM, similar to FB-500
FB-500-SR24	OEM, similar to FB-500
FB-500-W	OEM, similar to FB-500
FD-500	7-14, 7-15, 7-16, 7-17, 7-2
FD-500-B	7-14, 7-15, 7-16, 7-17, 7-2
FD-500-B-NL	OEM similar to FD-500
FD-500-EB	7-14, 7-15, 7-16, 7-17, 7-2
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FD-500-P-SR	OEM similar to FD-500
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FN-201-F	OEM, similar to FN-201
FN-201-M	OEM, similar to FN-201
FN-201-NOR	OEM, similar to FN-201
FN-201-R	OEM, similar to FN-201
FN-201-RED	OEM, similar to FN-201
FN-201-SR	OEM, similar to FN-201
FN-201-W	OEM, similar to FN-201
FN-201-X	OEM, similar to FN-201
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FN-203-24	OEM, similar to FN-203
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HD-74-RC	OEM, similar to HD-74
HD-74-Y	OEM, similar to HD-74
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HD-75-RC	OEM, similar to HD-75-RC
HD-75-Y	OEM, similar to HD-75
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HF-72W	5-8, 5-9, 5-14, 5-15
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HF-73-M	OEM, similar to HF-73
HF-73-S	5-6, 5-7, 5-14, 5-15
HF-73-SR	OEM, similar to HF-73
HF-73-T	OEM, similar to HF-73

HF-73W	5-6, 5-7, 5-14, 5-15
HF-73W-C	OEM, similar to HF-73
HF-742	5-12, 5-13, 5-14, 5-15
HF-742-OEM	OEM, similar to HF-742
HF-742-OEM-R	OEM, similar to HF-742
HF-742-SR	OEM, similar to HF-742
HF-742W	5-12, 5-13, 5-14, 5-15
HF-742W-OEM	OEM, similar to HF-742W
HF-742W-OEM-R	OEM, similar to HF-742W
HF-742W-SR	OEM, similar to HF-742W
HF-743	5-12, 5-13, 5-14, 5-15
HF-743-M	OEM, similar to HF-743
HF-743-MR	OEM, similar to HF-743
HF-743-OEM	OEM, similar to HF-743
HF-743-OEM-R	OEM, similar to HF-743
HF-743-RED	OEM, similar to HF-743
HF-743-SR	OEM, similar to HF-743
HF-743-T	OEM, similar to HF-743
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HF-743W-C	OEM, similar to HF-743W
HF-743W-OEM	OEM, similar to HF-743W
HF-743W-OEM-R	OEM, similar to HF-743W
HF-743W-SR	OEM, similar to HF-743W
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M-2	Factory service only
M-22	Parts no longer available
M-2-DSP	Factory service only
M-2-NMEA	Factory service only
M-2W	Factory service only
M-2W-DSP	Factory service only
M-2W-NMEA	Factory service only
M-4	Factory service only
M-4-DSP	Factory service only
M-4-NMEA	Factory service only
M-4W	Factory service only
M-4W-DSP	Factory service only
M-4W-NMEA	Factory service only
MA-100	Contact Factory
MC-100B	Factory service only
MC-100B-AG	Factory service only
MC-100B-F	Factory service only
MC-100B-S/C	Factory service only
MC-100F	Factory service only
MC-100F-F	Factory service only

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MC-200B	Factory service only
MC-200B-F	Factory service only
MC-200B-S/C	Factory service only
MC-200E	Factory service only
MC-200F	Factory service only
MC-200F-F	Factory service only
MC-200F-FS	Factory service only
MC-200F-S	Factory service only
MC-200F-S/C	Factory service only
MD-100B	Factory service only
MD-100B-AG	Factory service only
MD-100E	Factory service only
MD-100F	Factory service only
MD-200B	Factory service only
MD-200E	Factory service only
MD-200F	Factory service only
MG-10F	Factory service only
MG-11D	Factory service only
MG-11D-R	Factory service only
MG-C	Factory service only
MM-003	Factory service only
MM-100	Factory service only
MM-200	Factory service only
MM-300	Factory service only
MM-400	Factory service only
MM-500	Factory service only
MS-080	Factory service only
MS-100	Factory service only
MS-100-AG	Factory service only
MS-100-DB	Factory service only
MS-100-F	Factory service only
MS-100-FS	Factory service only
MS-100-S	Factory service only
MS-100-S/C	Factory service only
MS-101	Factory service only
MS-101-B&G	Factory service only
MS-101-CTX	Factory service only
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RU-90-L	OEM, similar to RU-90

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RU-90-U-B	OEM, similar to RU-90
RU-90-U-D	OEM, similar to RU-90
RU-90-U-E	OEM, similar to RU-90
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S-15	Parts no longer available
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S-53-A	3-4, 3-5
S-53-B	OEM, similar to S-53
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S-53G-CLM	See S-53G
S-53G-L	OEM, similar to S-53G
S-53-L	OEM, similar to S-53
S-53-SR	OEM, similar to S-53
S-53-SRC	OEM, similar to S-53
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S-60	Parts no longer available
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SB-500-I	OEM, similar to SB-500
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SF-60	Parts no longer available
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SL-200	Factory service only
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SS-1002-H	OEM, similar to SS-1002
SS-1002-OEM	OEM, similar to SS-1002
SS-1002-OEM-R	OEM, similar to SS-1002
SS-1002W	5-12, 5-13, 5-14, 5-15
SS-1002W-OEM	OEM, similar to SS-1002W
SS-1002W-OEM-R	OEM, similar to SS-1002W
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SS-2000W-D	OEM, similar to SS-2000W
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TR-33W-CLM	See TR-33W
TR-33W-L	OEM, similar to TR-33W

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TR-35G-L	OEM, similar to TR-35G
TR-35G-OEM	OEM, similar to TR-35G
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TR-35W-L	OEM, similar to TR-35W
TR-35W-OEM	OEM, similar to TR-35W
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TT-100A	Factory service only
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X-10B-MAR	OEM Similar to X-10B
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X-21BU-OEM	OEM Similar to X-21BU
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