
Helmsman

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

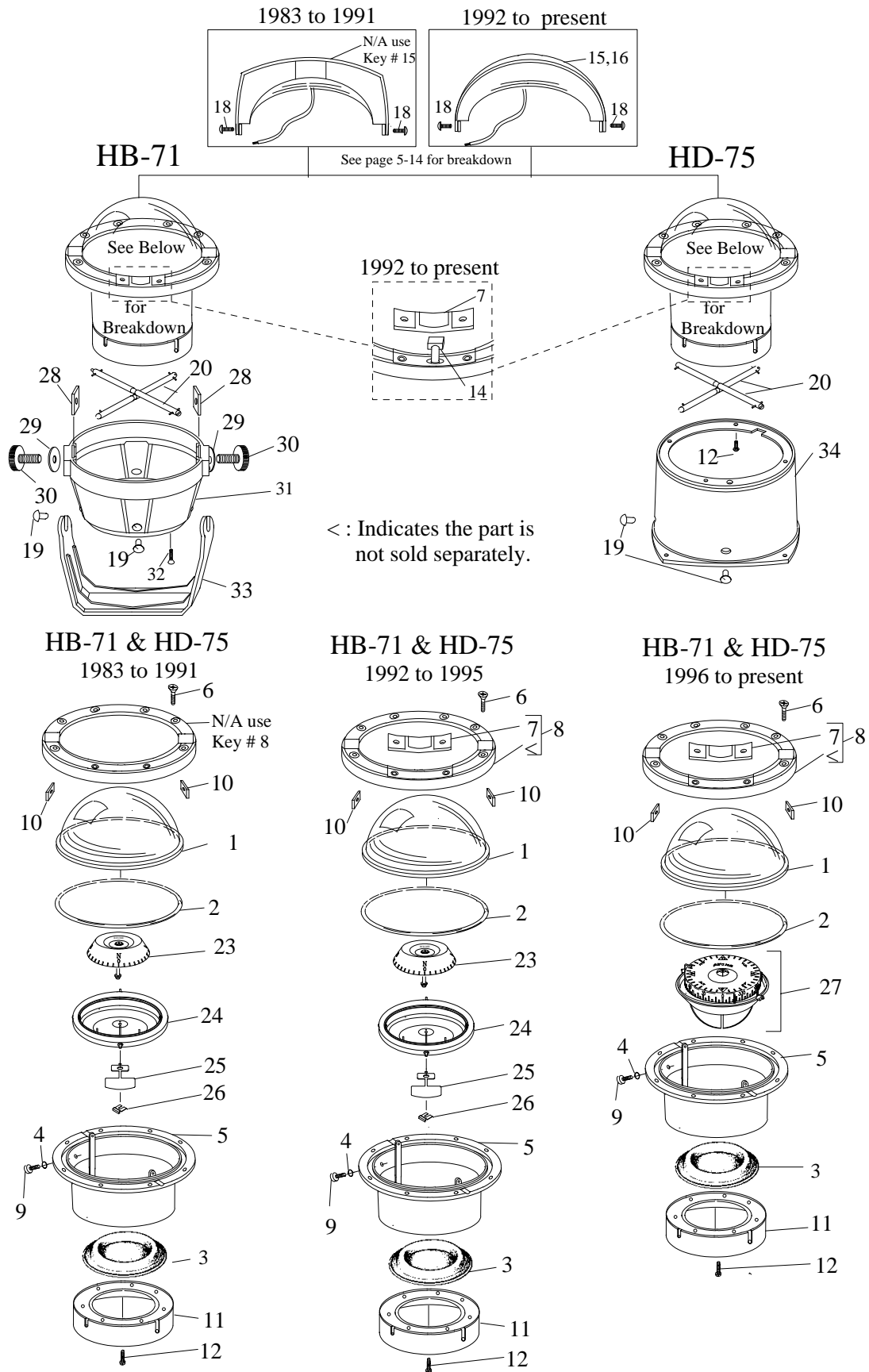
When replacing the diaphragm retainer, which also contains the compensators, (except models HV-76 and HV-77) make sure the compensators are positioned properly. In the correct position you can see the slotted end of one rod facing aft, and the other rod's slotted end facing starboard.

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



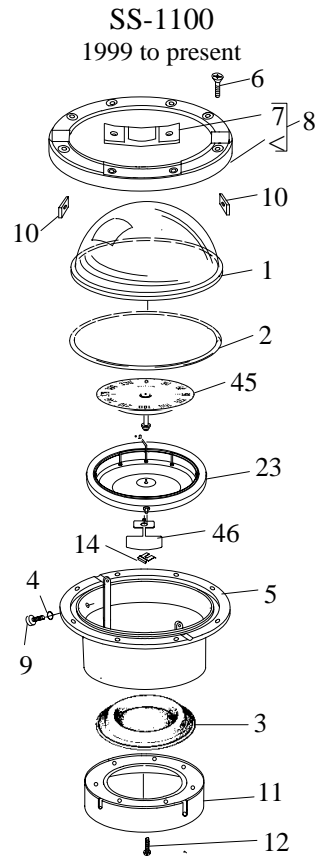
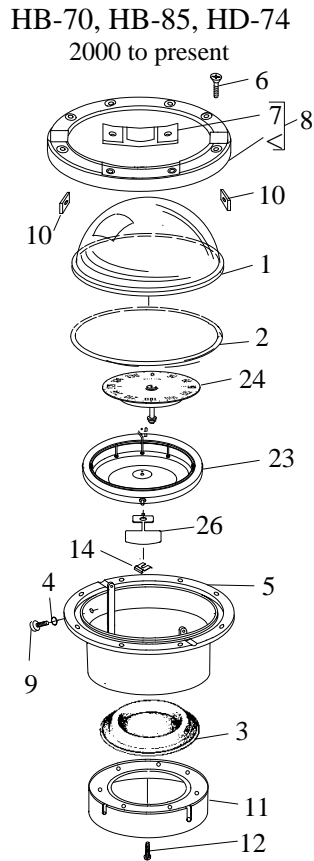
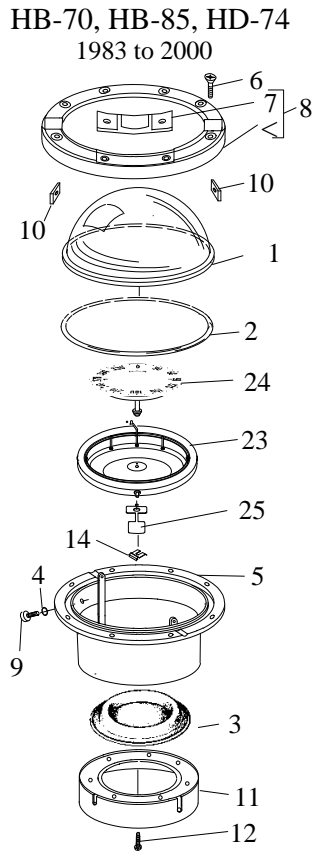
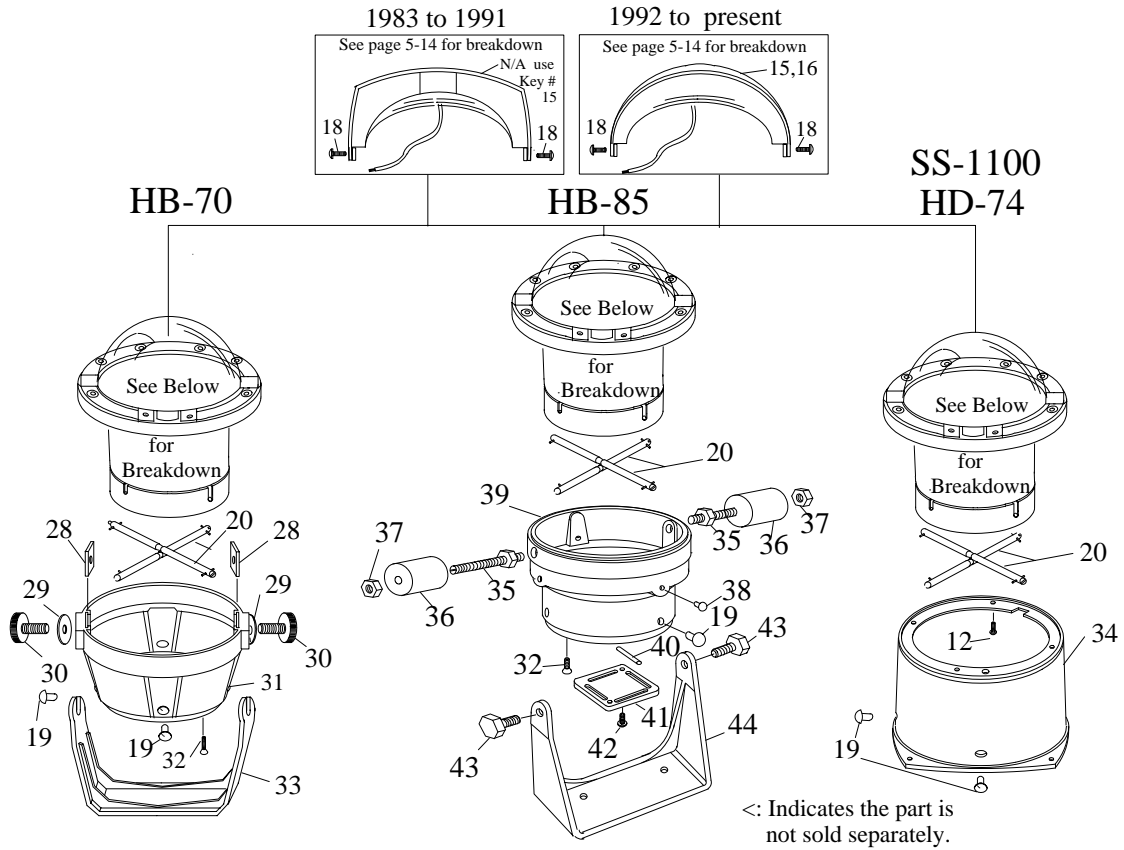
Helmsman

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 red LED			
16	HL-0131 ASY	Sunshade, black with green 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

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



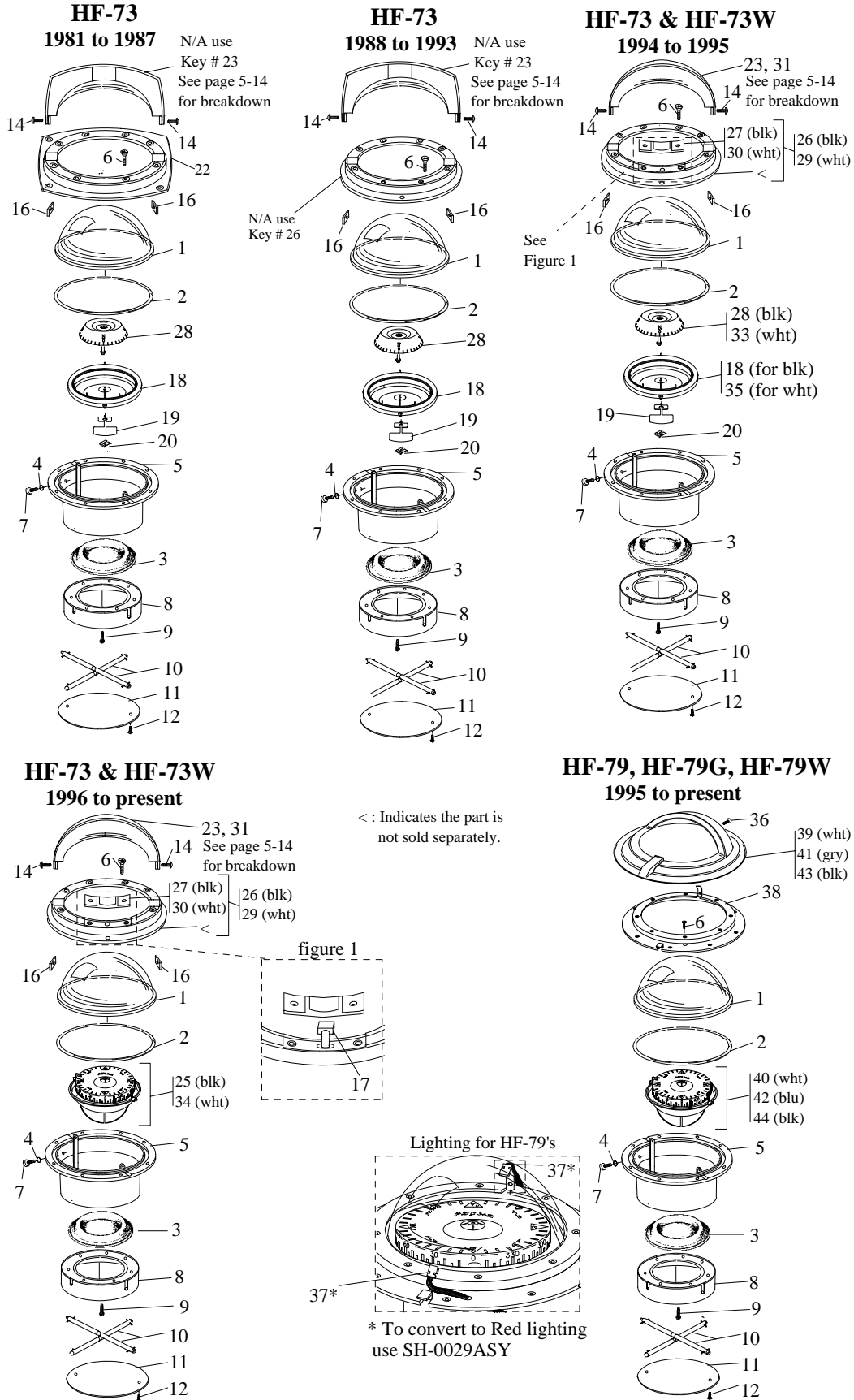
Helmsman

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 red LED		
16	HL-0131 ASY	Sunshade, black with green 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		
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		

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



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Direct Read and CombiDamp Flush Mounts

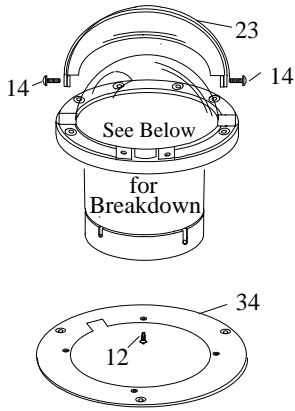
1	HL-0020	Dome	1981 to present	HF-73, HF-73W, HF-79, HF-79G, HF-79W
2	HL-0067	O-ring		
3	HL-0018	Diaphragm		
4	SH-0039	O-ring, fill plug screw		
5	HL-0007	Bowl		
6	SH-0061	Screw, 4-24 x 1/2" Flt, bezel		
7	SH-0059	Screw, fill plug		
8	HL-0073	Retainer, diaphragm & comprods		
9	SH-0062	Screw 4-24 x 3/8" 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 red LED	1981 to present	
24	HL-0131 ASY	Sunshade, black with green LED		
25	HL-0156 ASY	Dial & Pan , black, w/ 45 ⁰ 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 green		
33	HL-0136 ASY	Dial, white, direct read		
34	HL-0178 ASY	Dial & Pan , white, w/ 45 ⁰ 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

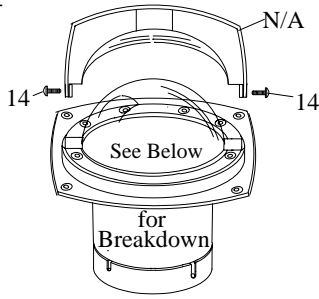
HF-72, HF-72S, HF-72W, SS-1000, SS-1000W

HF-72S
1984 to 1987

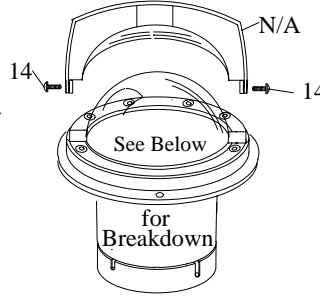


(See page 5-14 for light shade breakdown)

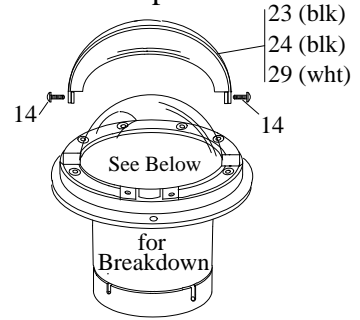
HF-72
1981 to 1987



HF-72
1988 to 1991

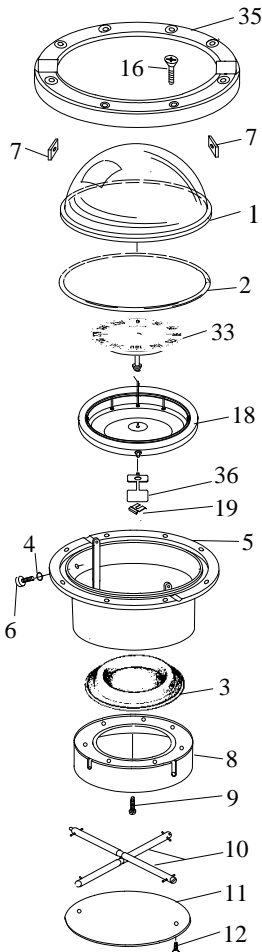


HF-72S
1988 to 1991
HF-72 & HF-72W
1992 to present
SS-1000 & SS-1000W
1988 to present

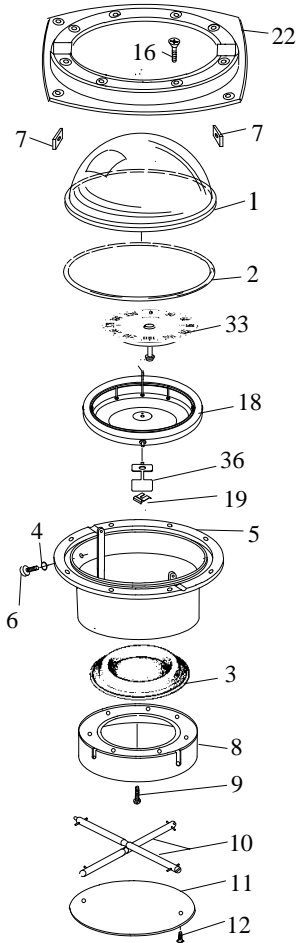


< : Indicates the part is not sold separately.

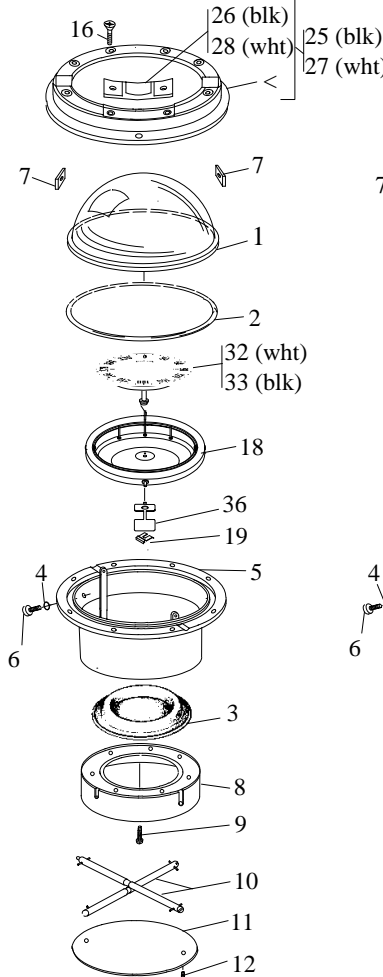
HF-72S
1984 to 1987



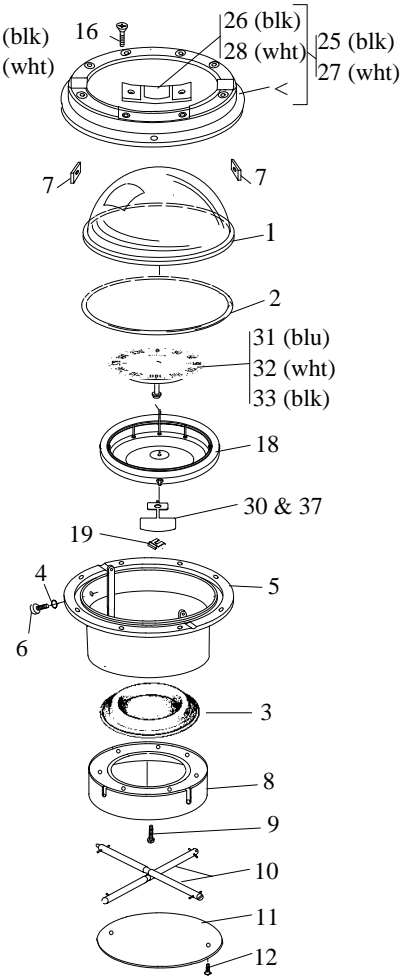
HF-72
1981 to 1987



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



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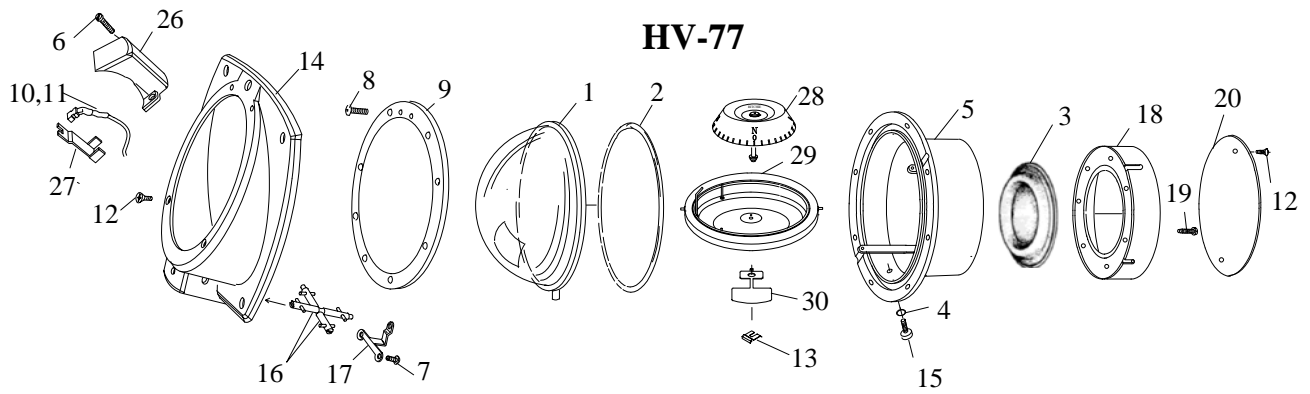
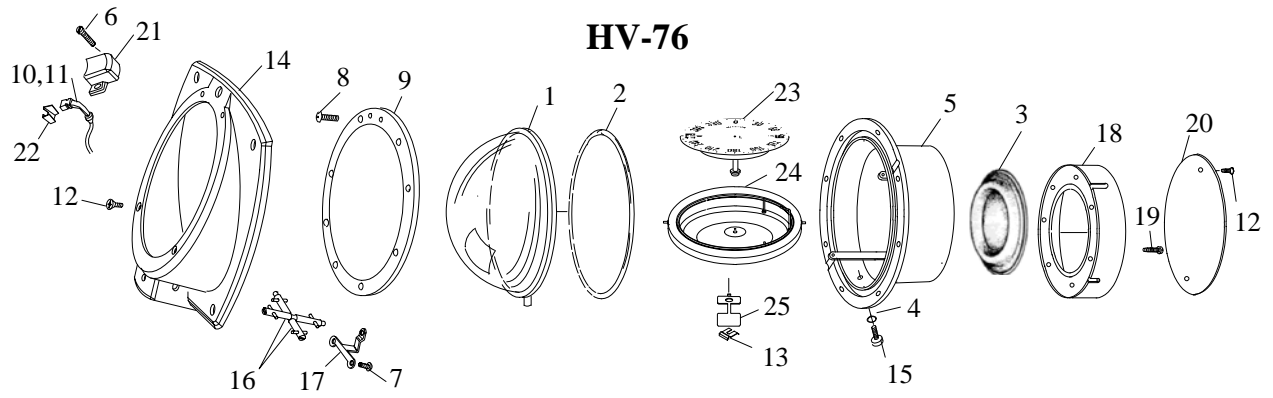
Open Face Flush Mounts

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 red LED		HF-72 & SS-1000, HF-72S
24	HL-0131 ASY	Sunshade, black with green 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 green 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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HV-76 & HV-77



Helmsman Bulkhead Mounts

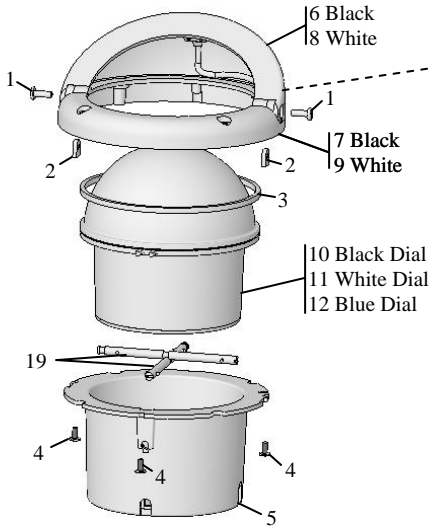
1	HL-0019	Dome	HV-76 & HV-77
2	HL-0067	O-ring	
3	HL-0018	Diaphragm	
4	SH-0039	O-ring, filler plug screw	
5	HL-0007	Bowl	
6	HL-0085	Screw, 4-40 x 3/8	
7	SH-0066	Screw, 4 x 1/4",	
8	HL-0084	Screw, 4-24 x 3/8", bezel	
9	HL-0005	Bezel	
10	SH-0029 ASY	LED & Wire, red	
11	SH-0102 ASY	LED & Wire, green	
12	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

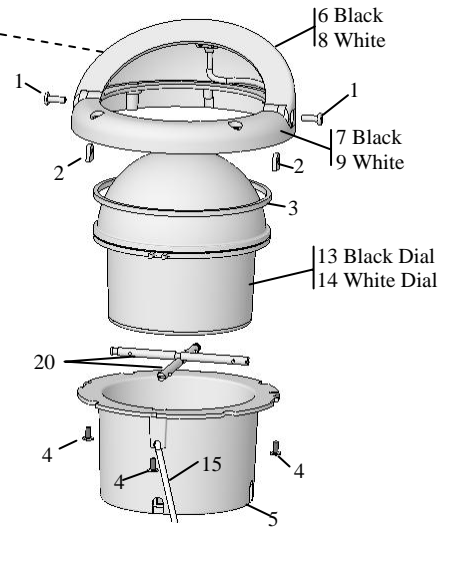
HB-740, HB-741, HB-845, HD-744, HD-745, HF-742, HF-743, HF-742W, HF-743W, SS-1002, SS-1002W

HF-742's & SS-1002's

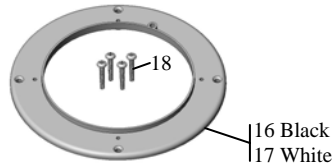


See Page 5-14
for Lighting
Part Numbers

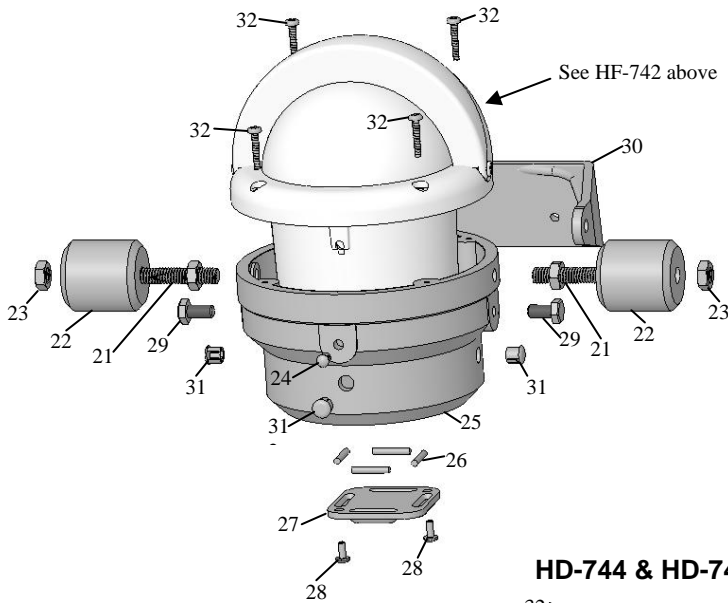
HF-743's



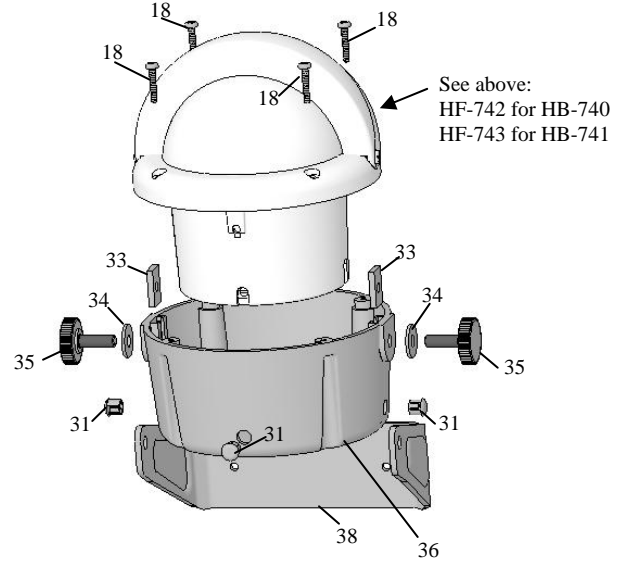
Adapter Kit



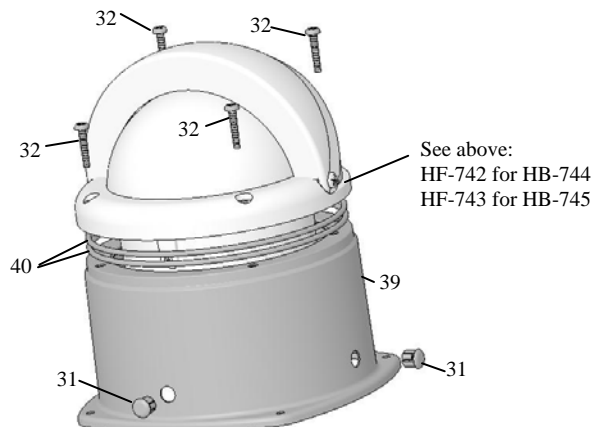
HB-845



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)	

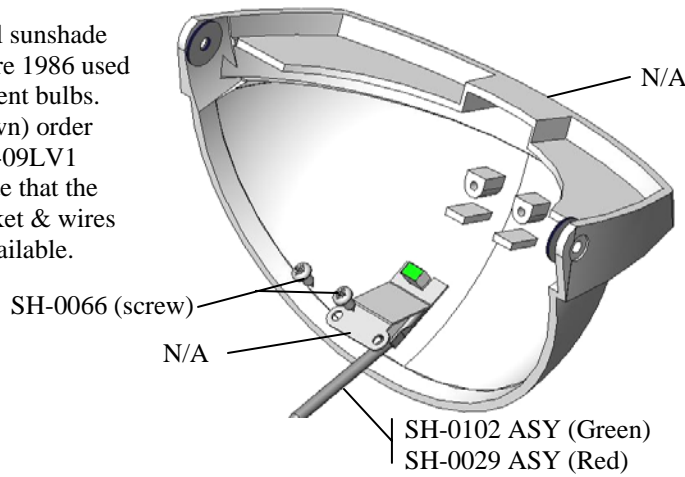
Mounting Gaskets

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

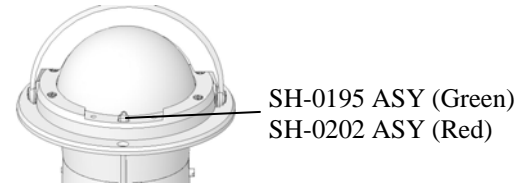
Helmsman Lighting

High level Helmsman Sunshade HL-0087 ASY

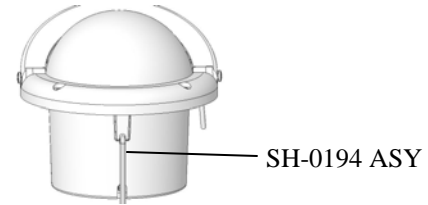
High level sunshade built before 1986 used incandescent bulbs. (Not Shown) order Part # CS-09LV1 Please note that the bulbs socket & wires are not available.



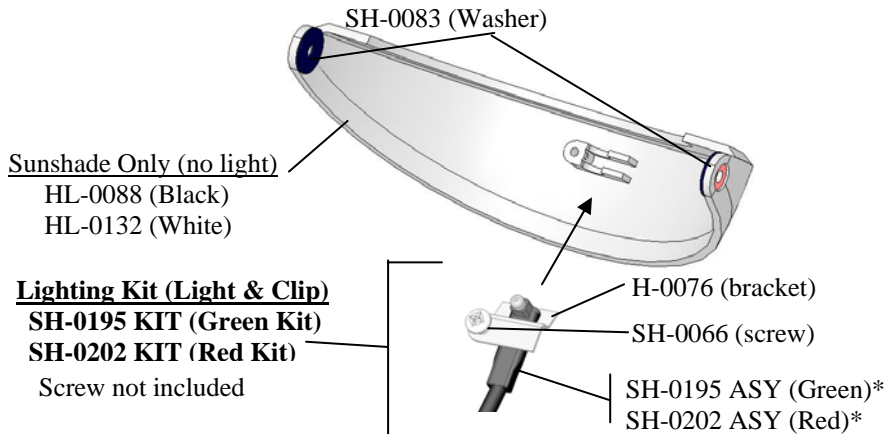
Front Light Type 1



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

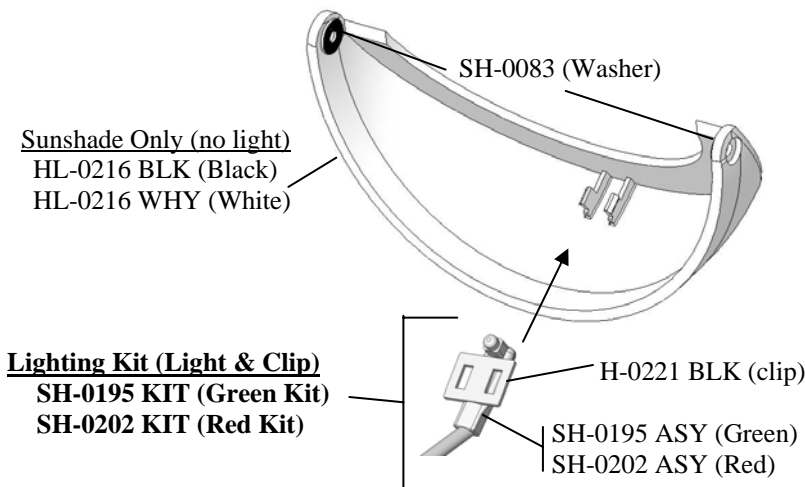
*If you are replacing the Sunshade light on any Low Level Helmsman built before 2005 rev 1 you will need a new bracket. We recommend purchasing the Lighting kit.

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)