



PERKO®

Shaping the Wave of Excellence™

ISO 9002 Certified



ISO 9002

CERTIFICATE #98019

Commercial Products Catalog 290C

Manufacturer of Marine Lights, Hardware and Accessories



425,000 Sq. Ft. Home of PERKO



THE PERKO STORY

PERKO, Inc. is a privately owned, family operated business, founded in the late 1880's by Frederick Perkins. Private ownership allows PERKO to function and react quickly to today's market needs. Under the direction of the Perkins family, the employees take personal pride in the quality of all PERKO products. As a manufacturer, PERKO prides itself on being a leader in the marine industry and having a long term commitment to quality.

PERKO also prides itself on being a truly integrated manufacturer, almost completely independent of outside vendors, with the exception of a few basic items such as light bulbs, electric wire, etc. A wide range of complete in house capabilities, from product design through manufacturing and assembly of finished products, enables us to eliminate most subcontractors and obtain better control of our product quality, cost and delivery.

REGIONAL SALES REPRESENTATIVES

NORTHEAST & MID ATLANTIC

CGW Associates
354 Country Way/P.O. Box 414
Scituate, MA 02066
Phone 781-545-3790/Fax 781-545-0359

SOUTHEAST

Henry S. Gartner & Associates, Inc.
2470 N.E. 22 Street/ P.O. Box 50227
Lighthouse Point, FL 33064
Phone 954-781-4303/Fax 954-781-4412

MIDWEST

Midwestern Sales Co., Inc.
9849 Briar St., Overland Park, KS 66207
Phone 913-649-1270/Fax 913-648-2885

Inland Marketing Associates, Inc.

500 S. Washington/Suite 1
Royal Oak, MI 48067
Phone 248-541-4404/Fax 248-541-4405

GULF COAST & SOUTH CENTRAL

MAC-HUGH & Associates, Inc.
5540A Pepsi Street, Harahan, LA 70123
Phone 504-734-9411/Fax 504-734-5144

WEST

Pacific Marine Marketing, Inc.
3368 McGraw Road, Lafayette, CA 94549
Phone 925-284-4855/Fax 925-284-4856

Commercial Products

B.A. Griffin Associates, Inc.
355 Grow Avenue. N.W.,
Bainbridge Island, WA 98110
Phone: 206-780-0509/Fax: 206-855-9080

EXPORT

PERKO, Inc.
Jose R. Martinez Sales Manager - Export
See Below for Address and Phone Number

GENERAL INFORMATION

SALES POLICY

PERKO Products are sold through our established Distributors. We do not sell direct to the public or organizations. Therefore, possession of this catalog does not infer an offer to sell. Please contact your local marine supplier.

PRICES AND TERMS

Our costs are subject to change due to causes beyond our control. Therefore, our price list is only intended for the guidance of our customers and does not necessarily establish current prices. *A Repackaging Service Charge of \$10.00 net will apply to all broken packages.* All prices are subject to change without notice. Terms are 1% 10 days, net 30 days.

Orders from firms having no satisfactory history or credit rating with us must be prepaid. C.O.D. shipments will be made if a 25% deposit is sent with order. Cash discounts do not apply to C.O.D. shipments.

ONE YEAR LIMITED WARRANTY

PERKO, INC. (PERKO) warrants to the original commercial-purchaser that PERKO'S commercial products will be free from defective materials or workmanship, and that the PERKOPATE/PERKO•KOTE Finish will remain corrosion-free under normal use and service, for a period of one (1) year from the original purchase date.

ALL IMPLIED WARRANTIES, INCLUDING MERCHANTABILITY, ARE ALSO LIMITED IN DURATION TO THE ONE YEAR PERIOD FROM THE ORIGINAL PURCHASE DATE.

PERKO SHALL NOT BE LIABLE FOR LOSS OF USE OF ANY OF ITS COMMERCIAL PRODUCTS, NOR FOR OTHER INCIDENTAL OR CONSEQUENTIAL COSTS, EXPENSES, OR DAMAGES INCURRED BY THE ORIGINAL COMMERCIAL-PURCHASER OR BY ANY OTHER PERSON.

SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY OR MAY NOT APPLY TO YOU. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY OR MAY NOT APPLY TO YOU.

This warranty is void if the commercial product warrant- ed has been damaged by accident or unreasonable use, neglect, improper service or other cause not arising out of defects in material or workmanship. Excluded from this warranty are Electric Light Bulbs (lamps), Sealed Beam Units and Fuses.

During the warranty period, your PERKO product will either be repaired or it will be replaced with a like product (at PERKO's option) without charge to the original commercial-purchaser, when returned prepaid and insured, with proof-of-purchase date to PERKO at the address shown below. In the event of replacement, the replacement product will continue the warranty of the original product, or ninety (90) days, whichever is longer.

PERKO does not authorize any person or company to create for it any other obligation or liability in connection with any of its products.

DESIGNS

For the purpose of constant improvement in our products, the designs and specifications are subject to change without notice.

RETURN GOODS

Products made to order are not returnable. Stock products in new, saleable condition are only returnable when permission has been granted by us, and are subject to handling and repackaging charges. Return shipping charges must be prepaid. Purchase date and invoice number are required when requesting an R.G.A. (Return Goods Authorization) number. Permission must be requested within 30 days after receipt of goods.

WEIGHTS

The weights given in this catalog are approximate, but should be sufficient for general purposes.

SHIPPING INSTRUCTIONS

Customers should send specific shipping instructions; otherwise, we will use our own judgement in selecting route.

SHIPMENTS

F.O.B. our plant, Miami, Florida, unless quoted otherwise. We are not responsible for damage, loss or delay after goods are delivered to carrier. When loss or delay occurs, we will gladly assist in tracing or expediting, but such assistance is no criterion of responsibility.

When there is loss or apparent visible damage to a shipment, when tendered for delivery, **do not give the carrier a clear receipt.** Note such damage on the carrier's delivery receipt and have the driver sign the receipt.

CONCEALED DAMAGE OR LOSS

1. Advise the delivering carrier in writing as soon as discovered or at least no more than 15 days after delivery, and request carrier to make an inspection.
2. **Retain** for the carrier's inspection, the **container** and **all packaging** that the damaged or lost material was packaged in.
3. **Shortages** - Must be reported to us within 15 days after receipt of goods.

Offices & Factory

Street Address:

16490 N.W. 13th Avenue
Miami, FL 33169-5707

Mailing Address:

P.O. Box 64000D • Miami, FL 33164-0510
Phone: 305-621-7525 • Fax: 305-620-9978
Internet: www.perko.com
email: sales@perko.com

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On March 31, 1977, the U.S. Coast Guard published in the Federal Register, an amendment to the navigation and navigable water regulations, which added a new subchapter DD, (33CFR 87). This subchapter contains rules implementing and interpreting the International Regulations for Preventing Collisions at Sea, 1972 ('72 COLREGS). The International Regulations for Preventing Collisions at Sea, 1960, were replaced by the '72 COLREGS at 1200 hours, zone time on July 15, 1977. Therefore, all vessels on the high seas must comply with the '72 COLREGS at this time. In addition, with the enactment of the U.S. Inland Navigation Rules Act of 1980, the Inland Rules, Western Rules, and Great Lakes Rules were unified into a single set of requirements. The effective date for this legislation was December 24, 1981 (March 1, 1983 for Great Lakes). Therefore, all vessels must comply with these rules at this time.

Rules 21 and 22 of the '72 COLREGS and the U.S. Inland Navigation Rules give the color and range requirements for various navigation lights. Annex 1 to the '72 COLREGS and the U.S. Inland Navigation Rules gives positioning and technical details for these lights.

U.S. COAST GUARD ACCEPTANCE OF NAVIGATION LIGHTS

All U.S. Registered vessels are subject to either the '72 COLREGS or the U.S. Inland Rules. The U.S. Coast Guard is accepting lights that have passed the U.L. tests (U.L. Standard 1104) as meeting the '72 COLREGS and the U.S. Inland Rules for vessels over 20 meters (65.6 ft.) in length. U.S. requirements for smaller vessels are less strict. As the first domestic manufacturer to pass U.L. 1104, PERKO's lights can be installed on vessels over 20 meters (65.6 ft.) in length. Some models are designed for use on vessels over 20 meters (65.6 ft.) in length, while others are designed for use on vessels 20 meters (65.6 ft.) to 50 meters (164.0 ft.) in length.

A brass tag is permanently affixed to the light indicating the type of light, catalog no., voltage and bulb type to install to meet the visibility requirements. It also states that the light is classified by U.L. in accordance with the '72 COLREGS. This is the only documentation needed by a vessel for navigation lights to certify light construction compliance with the '72 COLREGS and the Inland Navigation Rules, and eliminates the former "Certificate of Compliance".



EACH LIGHT HAS ITS OWN SERIAL NO. FOR IDENTIFICATION.

The lights indicated for use on vessels over 20 meters (65.6 ft.) in length have passed U.L. 1104. The facsimile of the tag shown above is used on our cast bronze & plastic lights. Similar rectangular tags are used on other style lights.

Please note that any changes made to PERKO Navigation lights, including substitution of bulbs other than those shown in our catalog, instruction sheets, or metal tags (affixed to some lights) will void all certifications and U.S. Coast Guard acceptance.

For the present, the U.S. Coast Guard will not publish a list of U.L. classified lights. However, field offices have been notified. For more detailed information, consult the complete '72 COLREGS, the U.S. Inland Navigation Rules, and your local U.S. Coast Guard office.

SPECIAL PURPOSE LIGHTS

Other lights (not shown) for use where the vessel is subject to special local requirements are available. Contact PERKO for further information.

NAVIGATION LIGHT SELECTION CHART

FOR COMMERCIAL POWER DRIVEN VESSELS OVER 20 METERS (65.6 FT.) IN LENGTH.

This Chart is Provided as a guide for Light Selection, Not Positioning. Refer to the "72 COLREGS and the U.S. Inland Navigation Rules for positioning Details. Depending Upon the Activity of the Vessel, It May be Required to Carry a Combination of Several of the Types of Lights Listed Below. Consult your Local U.S. Coast Guard Office for Specific Vessel Requirements. Refer to Product Listings for Specific Visibility Arc and Range Requirements.

VESSEL ACTIVITY AND SIZE		LIGHTING CODES
Power driven, underway and making way.	Vessels 20 Meters (65.6 ft.) to 50 Meters (164.00 ft.) in length.	SL, SN, M
Power driven, underway and making way.	Vessels over 50 Meters (164.00 ft.) in length.	SL, SN, M, MR
Towing by pushing ahead (COLREGS)	Vessels 20 Meters (65.6 ft.) to 50 Meters (164.00 ft.) in length. Vessels over 50 Meters (164.00 ft.) in length. Barges	SL, SN, 2M SL, SN, 2M, MR SL
Towing by pushing ahead (Inland) Note: Tug and Barge rigidly connected in a composite unit. Same as power driven vessel above	Vessels 20 Meters (65.6 ft.) to 50 Meters (164.00 ft.) in length. Vessels over 50 Meters (164.00 ft.) in length. Barges	SL, 2T, 2M SL, 2T, 2M, MR SL
Towing Alongside (COLREGS)	Vessels 20 Meters (65.6 ft.) to 50 Meters (164.00 ft.) in length. Vessels over 50 Meters (164.00 ft.) in length. Barges	SL, SN, 2M SL, SN, 2M, MR SL, SN
Towing Alongside (Inland)	Vessels 20 Meters (65.6 ft.) to 50 Meters (164.00 ft.) in length. Vessels over 50 Meters (164.00 ft.) in length. Barges	SL, 2T, 2M SL, 2T, 2M, MR SL, SN, SF
Towing Astern, tow length less than 200 meters (656.0 ft.) in length.	Vessels 20 Meters (65.6 ft.) to 50 Meters (164.00 ft.) in length. Vessels over 50 Meters (164.00 ft.) in length. Barges	SL, T, 2M SL, T, 2M, MR SL, SN
Towing Astern, tow length over 200 meters (656.0 ft.) in length.	Vessels 20 Meters (65.6 ft.) to 50 Meters (164.00 ft.) in length. Vessels over 50 Meters (164.00 ft.) in length. Barges	SL, T, 3M SL, T, 3M, MR SL, SN
Fishing, engaged, underway and making way with nets or lines astern.	Vessels 20 Meters (65.6 ft.) to 50 Meters (164.00 ft.) in length. Vessels over 50 Meters (164.00 ft.) in length.	SL, SN, RW SL, SN, 3M, RW
Fishing, engaged, underway and making way "trawling" dragging a dredge net.	Vessels 20 Meters (65.6 ft.) to 50 Meters (164.00 ft.) in length. Vessels over 50 Meters (164.00 ft.) in length.	SL, SN, GW SL, SN, 3M, GW
Fishing, engaged, underway and making way with an obstruction over the side more than 150 meters (492.0 ft.).	Vessels 20 Meters (65.6 ft.) to 50 Meters (164.00 ft.) in length. Vessels over 50 Meters (164.00 ft.) in length.	SL, SN, RW, W SL, SN, MR, RW, W
Fishing, engaged, not making way or at anchor.	Vessels of any length.	RW
Restricted in maneuverability making way.	Vessels 20 Meters (65.6 ft.) to 50 Meters (164.00 ft.) in length. Vessels over 50 Meters (164.00 ft.) in length.	SL, SN, M, RWR SL, SN, MR, RWR
Restricted in maneuverability not making way.	Vessels of any length.	RWR
Restricted in maneuverability not making way with an obstruction over the side.	Vessels of any length. Obstruction such as a pipeline.	RWR, 2R, 2G Y (See COLREGS for Details)
Restricted in maneuverability and towing.	See "towing" above for running and towing light requirements.	RWR
At Anchor	Vessels 20 Meters (65.6 ft.) to 50 Meters (164.00 ft.) in length. Vessels 50 Meters (164.00 ft.) to 100 Meters (328.0 ft.) in length. Vessels over 100 Meters (328.0 ft.) in length.	W W, W/A W, W/A, WL
Not under command and making way.	Vessels of any length.	SL, SN, 2R
Not under command and not making way.	Vessels of any length.	2R
Aground	Vessels 20 Meters (65.6 ft.) to 50 Meters (164.00 ft.) in length. Vessels over 50 Meters (164.00 ft.) in length.	W, 2R W, W/A, 2R
Pilot vessel engaged in pilotage duty.	Vessels of any length.	SL, SN, WR
Pilot vessel at anchor.	Vessels of any length.	W, WR

KEY TO LIGHTING CODES

SL - Side Lights (Red & Green).	T - Towing Light mounted vertically above a Stern light.	W - White All-Round Light.
SN - Stern Light.	2T - 2 Towing Lights mounted in a vertical line.	W/A - White All-Round Light forward and above anchor light astern.
M - Masthead Light.	GW - Green All-Round Light mounted vertically above a White All-Round Light.	WR - White All-Round Light mounted vertically above a Red All-Round Light.
MR - Masthead "Range" Light.	RW - Red All-Round Light mounted vertically above a White All-Round Light.	SF - Special Flashing Yellow Barge Light.
2M - 2 Masthead Lights mounted in a vertical line.	RWR - 3 All-Round Lights mounted vertically, the highest and lowest being red and the middle being white.	YA - Yellow All-Round Light.
3M - 3 Masthead Lights mounted in a vertical line.		WL - Working lights that illuminate the deck.
2R - 2 Red All-Round Lights mounted in a vertical line.		
2G - 2 Green All-Round Lights mounted in a vertical line.		

SINGLE LENS NAVIGATION LIGHTS

CERTIFIED FOR USE ON ANY LENGTH VESSEL OVER 20 METERS (65.6 Ft.) IN LENGTH.



Fig. 1372
Green Side Light



Fig. 1372
Red Side Light

FEATURES

BLACK PLASTIC.

COMPLETE WITH A PRE-WIRED MEDIUM PREFOCUS SOCKET AND 3 FEET OF 16/3-SO CABLE THROUGH A WATERTIGHT TERMINAL TUBE. WATERTIGHT ACCESS CAP FOR REBULBING AND CLEANING. FOR 24, 120 & 220 VOLT SYSTEMS, BULB NOT INCLUDED.

IMPORTANT BULB DATA

To comply with the U.L. Standard 1104, the lights listed on this page must be used with the Following PERKO Catalog Numbers: 24 Volt Use Cat. No. 342 024 CLR, 120 Volt Use Cat. No. 342 004 CLR bulb or 342 RS4 CLR bulb when a "Rough Service" bulb is required and 220 Volt Use Cat. No. 342 220 CLR.

Height Overall Inches	Height Lens Inches	Weight Pounds	Mounting Bolt Size Inches
9-1/4	6-3/4	3-1/2	3/8

ORDERING INFORMATION

	Visibility Arc	Visibility Miles	Single Stack Cat. No.
Red Side Light	112-1/2°	3	1372 REO BLK
Green Side Light	112-1/2°	3	1372 GEO BLK
White Masthead Light	225°	6	1373 E00 BLK
White Stern Light**	135°	3	1374 E00 BLK
Yellow Towing Light	135°	3	1374 MEO BLK
White All-Round Light**	360°	3	1369 E00 BLK
White All-Round Light***	360°	6	1369 HEO BLK
Red All-Round Light	360°	3	1370 REO BLK
Green All-Round Light	360°	3	1370 GEO BLK
Yellow All-Round Light	360°	3	1370 MEO BLK

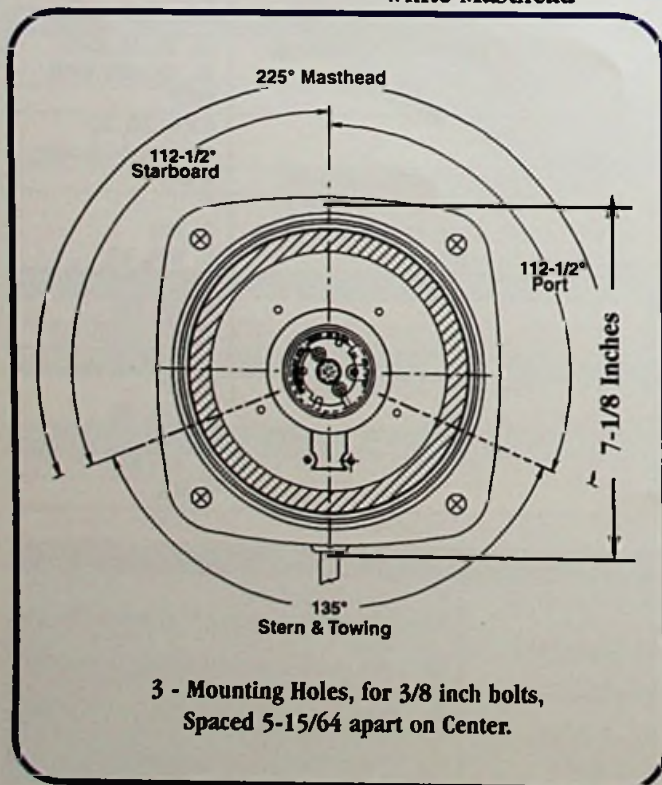
Special lights to meet local requirements are available upon request.

**These lights are supplied with a Gray Tinted Lens.

***For Great Lakes use.

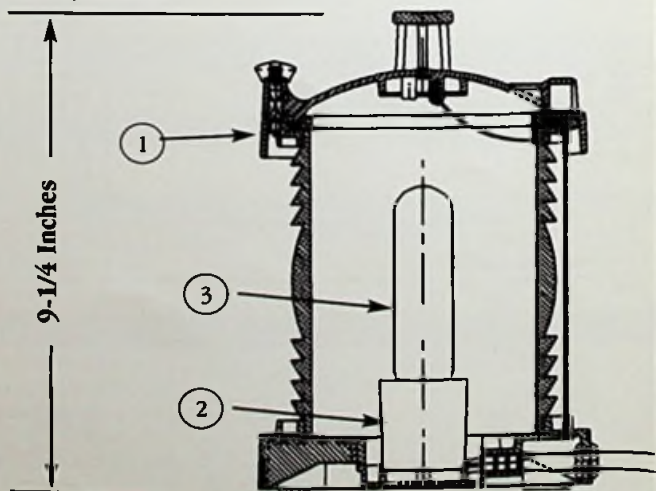


Fig. 1373
White Masthead



SPARE PARTS ORDERING INFORMATION

- 1) Access Cap Assembly, Cat. No. 1363 000 BLK.
- 2) Medium Prefocus Socket, Cat. No. 367.
- 3) Spare Bulb Information
24V = 342 024 CLR
120V = 342 004 CLR
= 342 RS4 CLR
220V = 342 220 CLR



DOUBLE LENS NAVIGATION LIGHTS

CERTIFIED FOR USE ON ANY LENGTH VESSEL OVER 20 METERS (65.6 Ft.) IN LENGTH.

FEATURES

BLACK PLASTIC.

COMPLETE WITH TWO PRE-WIRED MEDIUM PREFOCUS SOCKETS AND TWO 3 FOOT LENGTHS OF 16/3-SO CABLE THROUGH A WATERTIGHT TERMINAL TUBES. WATERTIGHT ACCESS CAP FOR REBULBING AND CLEANING. FOR 24, 120 & 220 VOLT SYSTEMS, BULBS NOT INCLUDED.

IMPORTANT BULB DATA

To comply with the U.L. Standard 1104, the lights listed on this page must be used with the Following PERKO Catalog Numbers: 24 Volt Use Cat. No. 342 024 CLR, 120 Volt Use Cat. No. 342 004 CLR bulb or 342 RS4 CLR bulb when a "Rough Service" bulb is required and 220 Volt Use Cat. No. 342 220 CLR.

Height Overall Inches	Height Lens Inches	Weight Pounds	Mounting Bolt Size Inches
17-1/4	6-3/4	5-1/2	3/8

ORDERING INFORMATION

Description	Visibility Arc	Visibility Miles	Double Stack Cat. No.											
Red Side Light	112-1/2°	3	1364 RE0 BLK											
Green Side Light	112-1/2°	3	1364 GE0 BLK											
White Masthead Light	225°	6	1365 E00 BLK											
White Stern Light*	135°	3	1366 E00 BLK											
Yellow Towing Light	135°	3	1366 ME0 BLK											
White All-Round Light**	360°	3	1367 E00 BLK											
White All-Round Light***	360°	6	Red All-Round Light	360°	3	1368 RE0 BLK	Green All-Round Light	360°	3	1368 GE0 BLK	Yellow All-Round Light	360°	3	1368 ME0 BLK
Red All-Round Light	360°	3	1368 RE0 BLK											
Green All-Round Light	360°	3	1368 GE0 BLK											
Yellow All-Round Light	360°	3	1368 ME0 BLK											

Special lights to meet local requirements are available upon request.

**These lights are supplied with a Gray Tinted Lens.

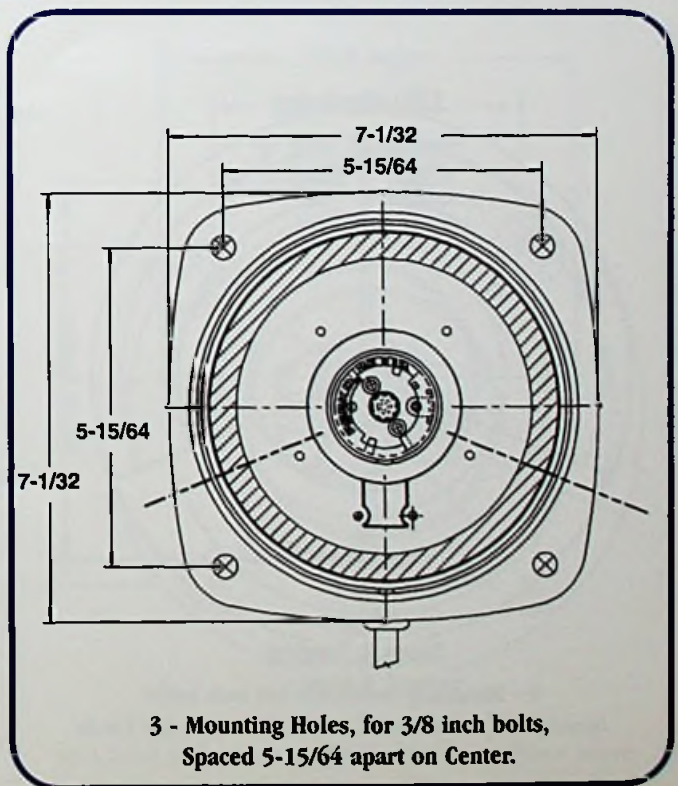
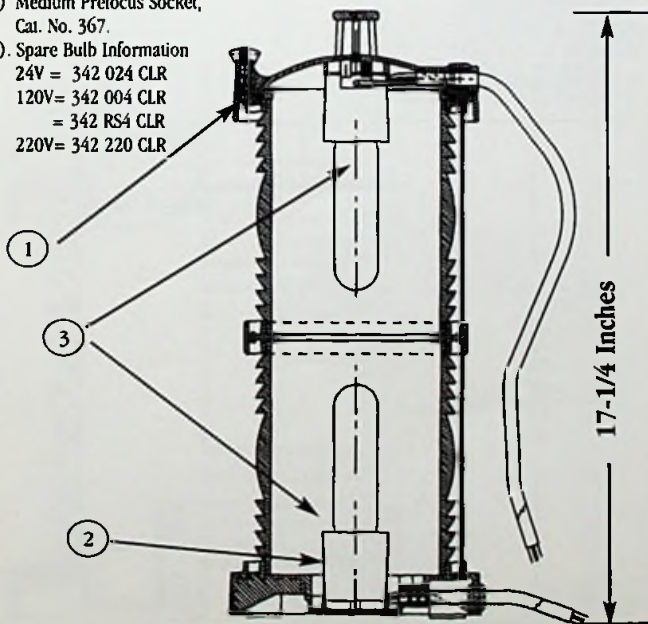
***For Great Lakes use.



Fig. 1367
White All-Round
Light

SPARE PARTS ORDERING INFORMATION

- Access Cap Assembly, Cat. No. 1363 000 BLK.
- Medium Prefocus Socket, Cat. No. 367.
- Spare Bulb Information
 24V = 342 024 CLR
 120V = 342 004 CLR
 = 342 RS4 CLR
 220V = 342 220 CLR



SINGLE LENS NAVIGATION LIGHTS

CERTIFIED FOR USE ON ANY LENGTH VESSEL OVER 20 METERS (65.6 FT.) IN LENGTH.

FEATURES

CAST BRONZE.

COMPLETE WITH A PRE-WIRED MEDIUM PREFOCUS SOCKET AND 3 FEET OF 16/3-SO CABLE THROUGH A WATERTIGHT TERMINAL TUBE. WATERTIGHT ACCESS CAP FOR REBULBING AND CLEANING. 120 VOLT BULB NOT INCLUDED.

IMPORTANT BULB DATA

To comply with the U.L. Standard 1104, the lights listed on this page must use PERKO Cat. No. 342 004 CLR bulb or 342 RS4 CLR bulb when a "Rough Service" bulb is required.



Fig. 1172



Height Overall Inches	Height Lens Inches	Weight Pounds	Mounting Bolt Size Inches
9-1/4	6-3/4	11-1/8	3/8

ORDERING INFORMATION

Description	Visibility Arc	Visibility Miles	Catalog Number
Red Side Light	112-1/2°	3	1172 RE0 PLB
Green Side Light	112-1/2°	3	1172 GEO PLB
White Masthead Light	225°	6	1173 E00 PLB
White Stern Light*	135°	3	1174 E00 PLB
Yellow Towing Light	135°	3	1174 ME0 PLB
White All-Round Light*	360°	3	1169 E00 PLB
White All-Round Light**	360°	6	1169 HE0 PLB
Red All-Round Light	360°	3	1170 RE0 PLB
Green All-Round Light	360°	3	1170 GEO PLB
Yellow All-Round Light	360°	3	1170 ME0 PLB

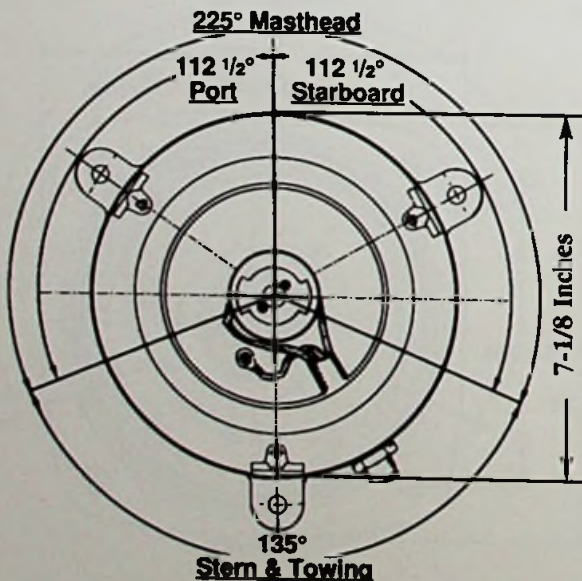
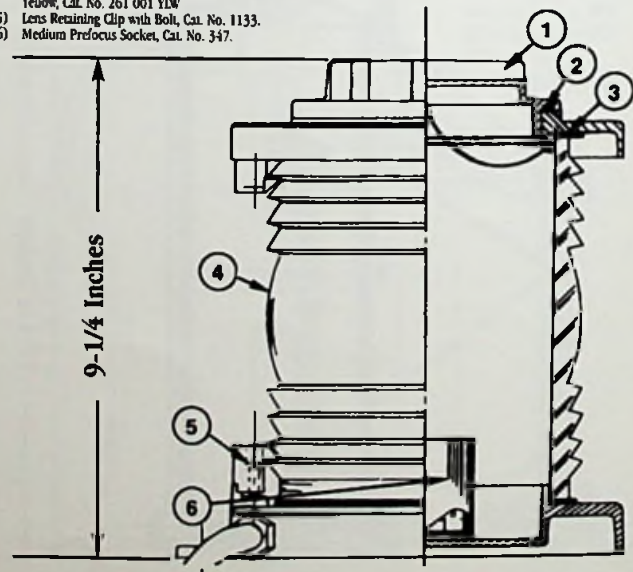
Special lights to meet local requirements are available upon request.

*These lights are supplied with a Gray Tinted Lens.

**For Great Lakes use.

SPARE PARTS ORDERING INFORMATION

- Access Cap, O-Ring and Retainer, Cat. No. 1105 000 BLK.
- O-Ring for Cap, Cat. No. 1119.
- Lens Gasket, Cat. No. 1143.
- Spare Lenses:
Red, Cat. No. 261 001 RED
Green, Cat. No. 261 001 GRN
White, Cat. No. 261 001 CLR
Gray, Cat. No. 261 001 GRY
Yellow, Cat. No. 261 001 YLW
- Lens Retaining Clip with Bolt, Cat. No. 1133.
- Medium Prefocus Socket, Cat. No. 347.



3 - Mounting Holes, for 3/8 inch bolts,
Spaced 120° apart, on a 8-1/8 inch Diameter Circle

DOUBLE LENS NAVIGATION LIGHTS

CERTIFIED FOR USE ON ANY LENGTH VESSEL OVER 20 METERS (65.6 FT.) IN LENGTH.

FEATURES

CAST BRONZE

COMPLETE WITH A PRE-WIRED MEDIUM PREFOCUS SOCKET AND TWO 3 FOOT LENGTHS OF 16/3-SO CABLE THROUGH WATERTIGHT TERMINAL TUBES. WATERTIGHT ACCESS CAP FOR REBULBING AND CLEANING. TWO PERKO CAT. NO. 342 004 CLR, 120 VOLT BULBS NOT INCLUDED.

IMPORTANT BULB DATA

To comply with the U.L. Standard 1104, the lights listed on this page must use PERKO Cat. No. 342 004 CLR bulb or 342 RS4 CLR bulb when a "Rough Service" bulb is required.

Height Overall Inches	Height Lens Inches	Weight Pounds	Mounting Bolt Size Inches
17-1/4	6-3/4	17	3/8

Fig. 1164



ORDERING INFORMATION

Description	Visibility Arc	Visibility Miles	Catalog Number
Red Side Light	112-1/2°	3	1164 REO PLB
Green Side Light	112-1/2°	3	1164 GEO PLB
White Masthead Light	225°	6	1165 E00 PLB
White Stern Light*	135°	3	1166 E00 PLB
Yellow Towing Light	135°	3	1166 MEO PLB
White All-Round Light*	360°	3	1167 E00 PLB
White All-Round Light**	360°	6	1167 HEO PLB
Red All-Round Light	360°	3	1168 REO PLB
Green All-Round Light	360°	3	1168 GEO PLB
Yellow All-Round Light	360°	3	1168 MEO PLB

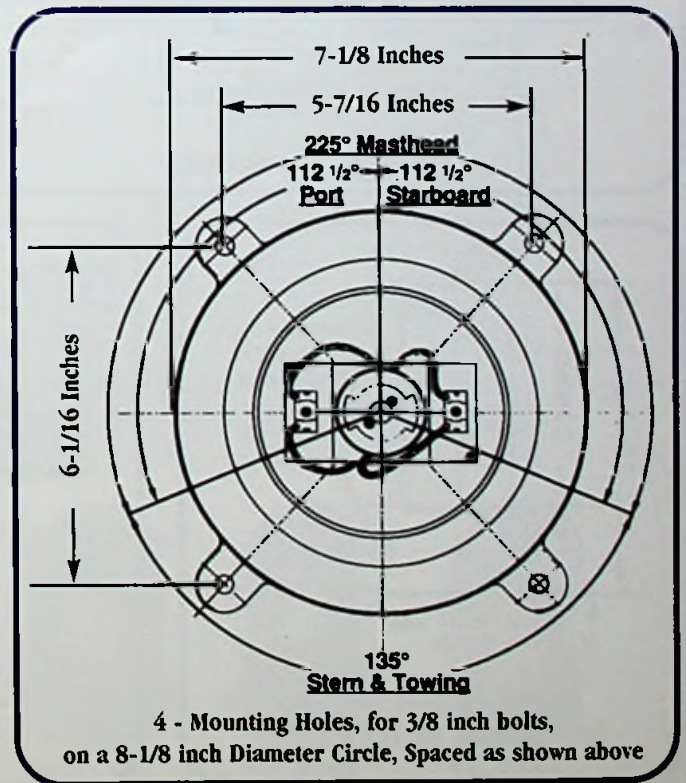
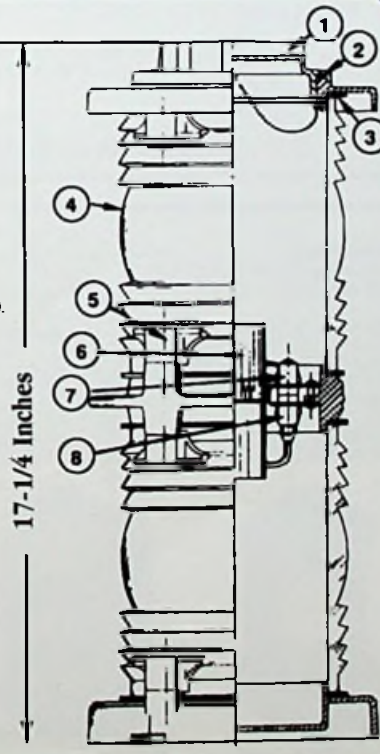
Special lights to meet local requirements are available upon request.

*These lights are supplied with a Gray Tinted Lens.

**For Great Lakes use.

SPARE PARTS ORDERING INFORMATION

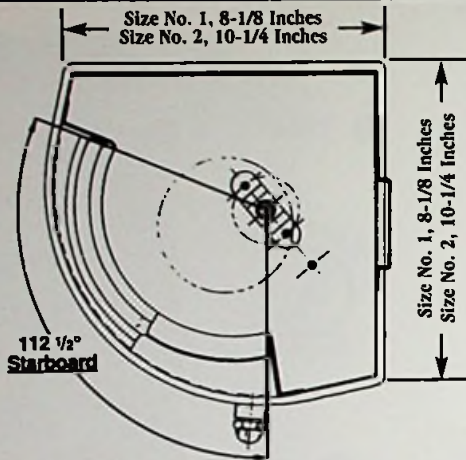
- 1) Access Cap, O-Ring and Retainer, Cat. No. 1105 000 BLK.
- 2) O-Ring for Cap, Cat. No. 1119.
- 3) Lens Gasket, Cat. No. 1143.
- 4) Spare Lenses:
Red, Cat. No. 261 001 RED
Green, Cat. No. 261 001 GRN
White, Cat. No. 261 001 CLR
Gray, Cat. No. 261 001 GRY
Yellow, Cat. No. 261 001 YLW
- 5) Lens Retaining Clip with Bolt, Cat. No. 1133.
- 6) Dual Medium Prefocus Socket Assembly, Cat. No. 303.
- 7) Male Electrical Plug, Cat. No. 303 A00.
- 8) Female Electrical Receptacle, Cat. No. 303 B00.



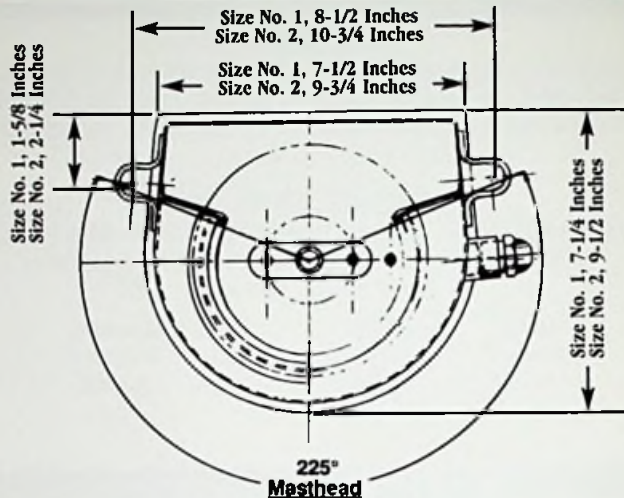
See Page 60 for Bulb Information.

NAVIGATION LIGHTS

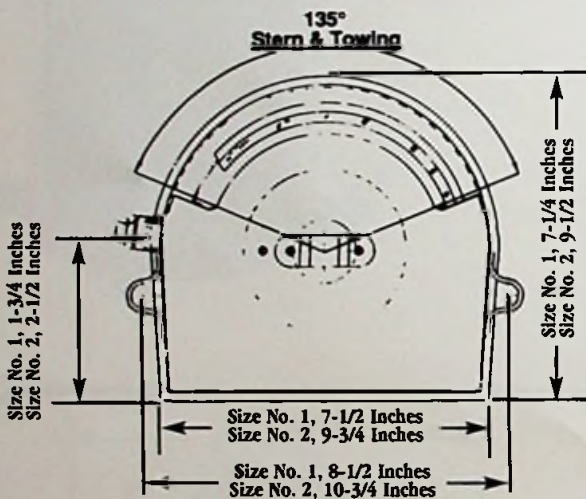
CERTIFIED FOR USE ON VESSEL LENGTHS AS SPECIFIED ON THE OPPOSITE PAGE.



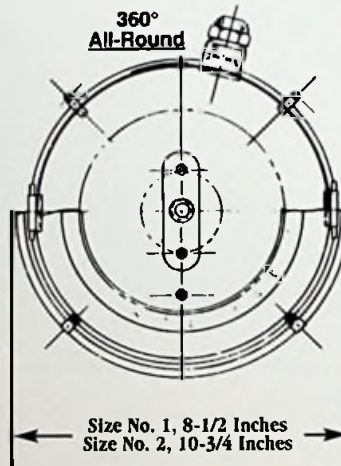
1150 SIDE LIGHTS
STARBOARD LIGHT SHOWN - PORT SIDE OPPOSITE



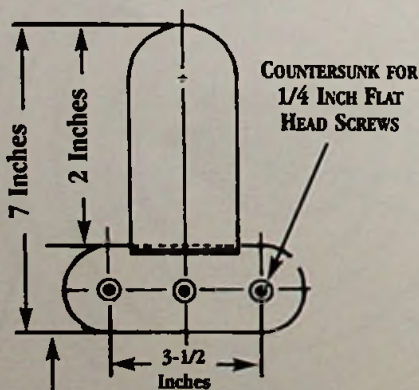
1151 & 1111ME MASTHEAD LIGHTS



1152 STERN & TOWING LIGHTS



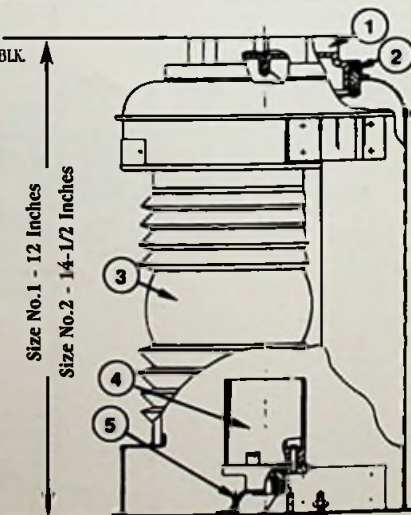
1153 & 1154 ALL-ROUND LIGHTS



**MOUNTING BRACKETS FOR 1150
SIDE LIGHTS, CAT. NO. 143 000 ALU.**

SPARE PARTS ORDERING INFORMATION

- 1) Access Cap, O-Ring and Retainer, Cat. No. 1105 000 BLK.
- 2) O-Ring for Cap, Cat. No. 1119.
- 3) Lenses:
112-1/2° Cat. No. 259 No.1 or No.2, Specify Color.
135° Cat. No. 269 No.1 or No.2, Specify Color.
225° Cat. No. 256 No.1 or No.2, Specify Color.
360° Cat. No. 261F No.1 or No.2, Specify Color.
- 4) Medium Prefocus Socket, Cat. No. 347 A00.
- 5) Socket Support Stand:
Size No. 1, Cat. No. 341 001 PLB.
Size No. 2, Cat. No. 341 01A PLB.



Typical View

NAVIGATION LIGHTS

CERTIFIED FOR USE ON VESSEL LENGTHS AS SPECIFIED BELOW.

FEATURES

SHEET METAL, GALVANIZED STEEL.

COMPLETE WITH A MEDIUM PREFOCUS SOCKET AND A WATERTIGHT TERMINAL TUBE FOR 16/3-SO CABLE. WATERTIGHT ACCESS CAP FOR REBULBING AND CLEANING. 120 VOLT BULB NOT INCLUDED.

IMPORTANT BULB DATA

TO COMPLY WITH U.L. STANDARD 1104, THE LIGHTS LISTED ON THIS PAGE MUST USE A PERKO CAT. NO. 342 BULB.



Size No.	Height Overall Inches	Height Lens Inches	Weight Pounds
1	11-1/2	6-3/4	6-5/8
2	13-1/2	7-1/2	10-7/8

ORDERING INFORMATION

FOR USE ON VESSELS 20 METERS (65.6 FT.) TO 50 METERS (164.0 FT.) IN LENGTH.

Description	Catalog Number	Visibility Arc	Visibility Miles	Required Bulb
Red Side Light	1150 RE1 GAL	112-1/2°	2	342 002 CLR
Green Side Light	1150 GE1 GAL	112-1/2°	2	342 002 CLR
White Masthead Light	1151 E01 GAL	225°	5	342 003 CLR
White Stern Light	1152 E01 GAL	135°	2	342 000 CLR
Yellow Towing Light	1152 ME1 GAL	135°	2	342 000 CLR
White All-Round Light	1153 E01 GAL	360°	2	342 001 CLR
Red All-Round Light	1154 RE1 GAL	360°	2	342 004 CLR**
Green All-Round Light	1154 GE1 GAL	360°	2	342 003 CLR
Yellow All-Round Light	1154 ME1 GAL	360°	2	342 002 CLR

ORDERING INFORMATION

FOR USE ON VESSELS OVER 20 METERS (65.6 FT.) IN LENGTH.

Description	Catalog Number	Visibility Arc	Visibility Miles	Required Bulb
Red Light	1150 RE2 GAL	112-1/2°	3	342 004 CLR**
Green Side Light	1150 GE2 GAL	112-1/2°	3	342 004 CLR**
White Masthead Light	1151 E02 GAL	225°	6	342 004 CLR**
White Stern Light	1152 E02 GAL	135°	3	342 002 CLR
White All-Round Light	1153 E02 GAL	360°	3	342 003 CLR
Red All-Round Light	1154 RE2 GAL	360°	3	342 006 CLR
Green All-Round Light	1154 GE2 GAL	360°	3	342 004 CLR**

Lights are Preprimed.

** A Cat. No. 342 RS4 CLR Bulb may be Substituted When a "Rough Service" Bulb is Required



FIG. 1150



FIG. 1151



FIG. 1152



FIG. 1153



FIG. 1154

See Page 60 for Bulb Information.

NAVIGATION LIGHTS

CERTIFIED FOR NAVIGATION LIGHTS ON VESSELS OVER 20 METERS (65.6 FT.) TO 50 METERS (164.0 FT) IN LENGTH.

FEATURES

CAST BRONZE. PLAIN OR CHROME PLATED.

COMPLETE WITH DOUBLE CONTACT ELECTRICAL SOCKET FOR 12, 24, 32 OR 120 VOLTS. BULB NOT INCLUDED.



Fig. 112A



Fig. 309A

Fig. No.	Height Overall Inches	Diameter Base Inches	Tapped Pipe Size Inches	Weight Pounds
112	8-3/4	3-1/8	----	2-1/2
309	6-1/2	----	1/2	2

IMPORTANT BULB DATA

To comply with U.L. Standard 1104, the lights listed on this page must use one of the following bulbs:

12 Volts, Cat No. 374 001 CLR	24 Volts, Cat No. 374 002 CLR
32 Volts, Cat No. 374 003 CLR	120 Volts, Cat No. 374 004 CLR

ORDERING INFORMATION

112-A PEDESTAL BASE

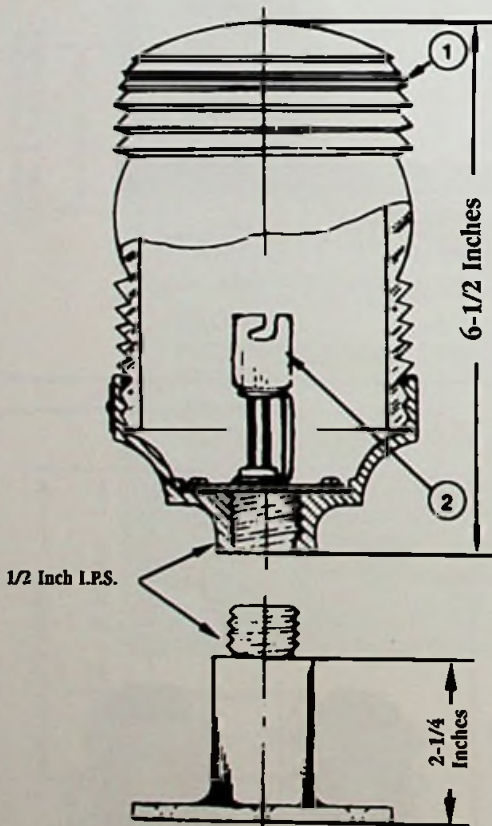
Description	Visibility Miles	Plain Bronze	Chrome Plated Bronze
White All-Round	2	112 A00 PLB	112 A00 CHR
Red All-Round	2	112 RAO PLB	112 RAO CHR
Green All-Round	2	112 GAO PLB	112 GAO CHR
Yellow All-Round	2	112 MAO PLB	112 MAO CHR

309-A PIPE BASE

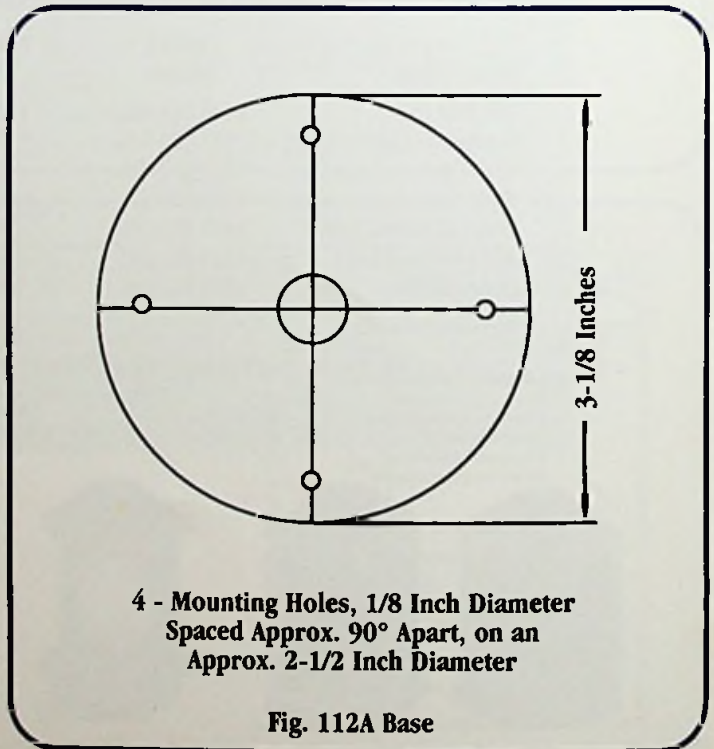
Description	Visibility Miles	Plain Bronze	Chrome Plated Bronze
White All-Round	2	309 A00 PLB	309 A00 CHR
Red All-Round	2	309 RAO PLB	309 RAO CHR
Green All-Round	2	309 GAO PLB	309 GAO CHR
Yellow All-Round	2	309 MAO PLB	309 MAO CHR

SPARE PARTS ORDERING INFORMATION

- Globe:
White, Cat. No. 106 000 WHT.
Red, Cat. No. 106 000 RED.
Green, Cat. No. 106 000 GRN.
Yellow, Cat. No. 106 000 YW.
- Double Contact Socket, Cat. No. 276 002



Figs. 112A & 309A



4 - Mounting Holes, 1/8 Inch Diameter
Spaced Approx. 90° Apart, on an
Approx. 2-1/2 Inch Diameter

Fig. 112A Base

NAVIGATION LIGHTS

CERTIFIED FOR USE ON ANY LENGTH VESSEL OVER 20 METERS (65.6 Ft.).

FEATURES

CAST BRONZE.

COMPLETE WITH MEDIUM PREFOCUS SOCKET.
PERKO CAT. No. 342 004 CLR 120 VOLT BULB NOT INCLUDED.

Fig. No.	Height Overall Inches	Height Lens Inches	Tapped Pipe Size Inches	Weight Pounds
403/454	11-1/2	6-3/4	1	8-1/4
412	14	6-3/4	*	8-1/4

IMPORTANT BULB DATA

To comply with U.L. Standard 1104, the lights listed on this page must use a PERKO Cat. No. 342 004 CLR bulb or Cat. No. 342 RS4 CLR when a "Rough Service" bulb is required.



Figs. 403-3 & 454E

FIG. 412

ORDERING INFORMATION

Description	Visibility Miles	Catalog Number	Catalog Number
White All-Round Whistle Light	5	454 E00 PLB	-----
White All-Round Light**	3	403 E03 PLB	412 E00 PLB
Red All-Round Light	3	403 RE3 PLB	412 RE0 PLB
Green All-Round Light	3	403 GE3 PLB	412 GE0 PLB
Yellow All-Round Light	3	403 ME3 PLB	412 ME0 PLB

*Supplied with watertight terminal tube for 16/3-SO cable.

**These Lights are Supplied with Gray Tinted Lenses.

SPARE PARTS ORDERING INFORMATION

- 1) Lens or Cover Gasket, Cat. No. 1143
- 2) Lens:
Red, Cat. No. 261 001 RED.
Green, Cat. No. 261 001 GRN.
Gray, Cat. No. 261 001 GRY.
Yellow, Cat. No. 261 001 YLW.
- 3) Lens Retaining Clip with Bolt, Cat. No. 1133.
- 4) Medium Prefocus Socket, Cat. No. 347.

SPARE PARTS ORDERING INFORMATION

- 1) Lens or Cover Gasket, Cat. No. 1143
- 2) Lens:
Red, Cat. No. 261 001 RED.
Green, Cat. No. 261 001 GRN.
White, Cat. No. 261 001 CLR.
Gray, Cat. No. 261 001 GRY.
Yellow, Cat. No. 261 001 YLW.
- 3) Lens Retaining Clip with Bolt, Cat. No. 1133.
- 4) Medium Prefocus Socket, Cat. No. 347.

Figs. 403-3 & 454E

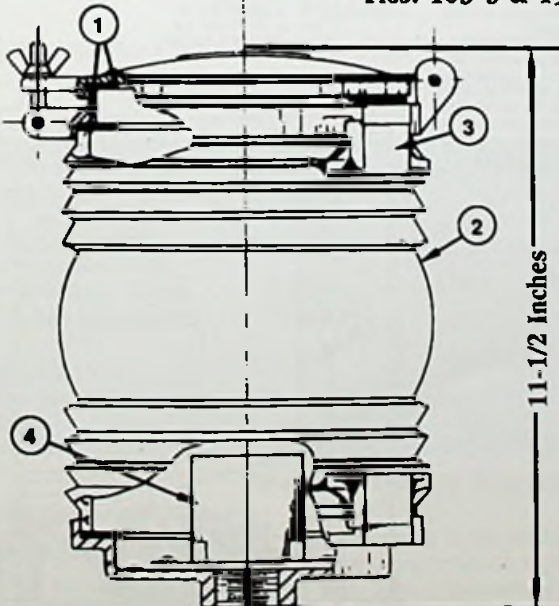
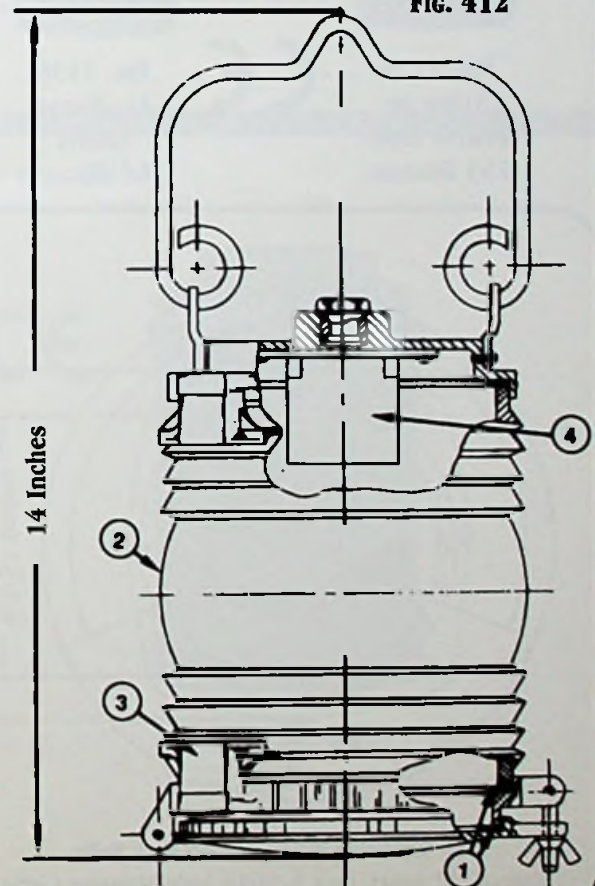


FIG. 412



NAVIGATION LIGHTS

CERTIFIED FOR USE ON VESSELS 20 METERS (65.6 Ft.) TO 50 METERS (164.0 Ft.) IN LENGTH.



FIG. 1127
RED & GREEN SIDE LIGHTS
112-1/2 DEGREES

FIG. 1128
MASTHEAD LIGHT
225 DEGREES

FEATURES

BLACK PLASTIC.

COMPLETE WITH PRE-WIRED DOUBLE CONTACT SOCKET AND 3 FEET OF 16/3-SO CABLE FOR 12, 24, 32 OR 120 VOLTS.

WATERTIGHT ACCESS CAP FOR REBULBING AND CLEANING.

BULB NOT INCLUDED.

Height Overall Inches	Height Lens Inches	Screw Size	Weight Pounds
7-1/2	4-1/2	1/4	3-1/8

IMPORTANT BULB DATA

To comply with U.L. Standard 1104, the lights listed on this page must use a PERKO Cat. No. 374 bulb.



FIG. 1129
STERN OR TOWING LIGHT
135 DEGREES

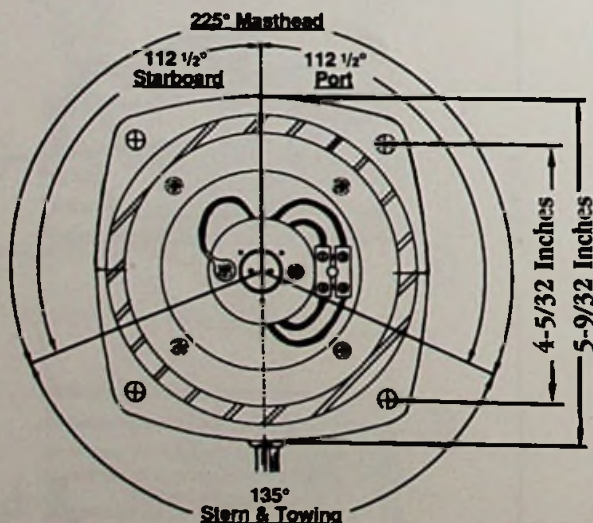
FIG. 1130
ALL-ROUND LIGHTS
360 DEGREES

ORDERING INFORMATION

Description	Visibility Arc	Visibility Miles	Catalog Number
Red Side Light	112-1/2°	2	1127 RAO BLK
Green Side Light	112-1/2°	2	1127 GAO BLK
White Masthead Light	225°	5	1128 A00 BLK
White Stern Light*	135°	2	1129 A00 BLK
Yellow Towing Light	135°	2	1129 MA0 BLK
White All-Round Light*	360°	2	1130 A00 BLK
White All-Round Light**	360°	5	1130 HA0 BLK
Red All-Round Light	360°	2	1130 RAO BLK
Green All-Round Light	360°	2	1130 GAO BLK
Yellow All-Round Light	360°	2	1130 MA0 BLK

*These lights are supplied with a Gray Tinted Lens.

**For Great Lakes use.

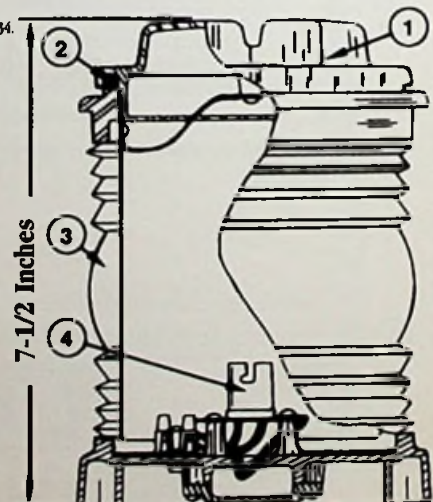


4 - Mounting Holes, for 1/4 Inch Bolts Spaced 90° Apart, on a 5-13/16 Inch Diameter Circle.

SPARE PARTS ORDERING INFORMATION

- 1) Access Cap, O-Ring and Retainer, Cat. No. 1105 000 BLK.
- 2) O-Ring for Cap, Cat. No. 1119.
- 3) Lens Assembly:
Red, Cat. No. 249 000 RED.
Green, Cat. No. 249 000 GRN.
White, Cat. No. 249 000 CLR.
Gray, Cat. No. 249 000 GRY.
Yellow, Cat. No. 249 000 YW.
- 4) Double Contact Socket, Cat. No. 134.

Required Bulbs:
12 Volts, Cat. No. 374 001 CLR.
24 Volts, Cat. No. 374 002 CLR.
32 Volts, Cat. No. 374 003 CLR.
120 Volts, Cat. No. 374 004 CLR.



SPECIAL PURPOSE LIGHTS

CERTIFIED FOR USE ON VESSELS OF ANY LENGTH.

SPECIAL FLASHING YELLOW BARGE LIGHT

FEATURES

SHEET METAL, GALVANIZED STEEL*.

COMPLETE WITH MEDIUM PREFOCUS SOCKET AND WATERTIGHT TERMINAL TUBE FOR 16/3-SO CABLE. SEALED FLASHER UNIT, WATERTIGHT ACCESS CAP FOR REBULBING AND CLEANING. 120 VOLT BULB NOT INCLUDED.

Designed to meet Federal Requirements for Flashing yellow 180° - 225° light for barges, canal boats, etc., that are being pushed ahead or towed alongside of a tug boat. For use on 120 volts A.C. only. Federal Requirements for this light are applicable for: inland waters, the Atlantic, Pacific and Gulf coasts, intercoastal waterways and western rivers. Refer to the U.S. Inland Navigation Rules for application, configuration and technical details.



**FIG. 1111ME
GALVANIZED**

See Page 8 for Dimension Drawing

ORDERING INFORMATION

Catalog Number	Height Overall Inches	Height Lens Inches	Visibility Miles	Visibility Arc	Flashes Per Minute	Weight Pounds
1111 ME1 GAL	11-1/2	6-3/4	2	225°	50-70	6-5/8

*Galvanized Steel Lights are Preprimed.

IMPORTANT BULB DATA

To comply with Federal Requirements this light must use a PERKO Cat. No. 342 004 CLR bulb or Cat. No. 342 RS4 CLR bulb when a "Rough Service" bulb is required.

SPARE PARTS ORDERING INFORMATION

Spare Flasher, Cat. No. 133.
Spare O-Ring for Cap, Cat. No. 1119.
Spare Lens, Cat. No. 256 001 YLW.

Spare Medium Prefocus Socket, Cat. No. 347 A00.
Spare Access Cap, O-Ring and Retainer, Cat. No. 1105 000 BLK.

PANAMA CANAL BLUE STEERING LIGHT

FEATURES

BLACK PLASTIC.

PRE-WIRED DOUBLE CONTACT SOCKET WITH 3 FEET OF 16/3-SJO CABLE. FOR 12, 24, 32 OR 120 VOLTS, BULB NOT INCLUDED.



FIG. 1129BA

See Page 12 for Dimension Drawing

ORDERING INFORMATION

Cat. No.	Visibility Arc	Height Overall Inches	Height Lens Inches	Weight Pounds
1129 BAO BLK	135°	7-1/2	4-1/2	3-1/8

IMPORTANT BULB DATA

To comply with Panama Canal Requirements this light must use a PERKO Cat. No. 374 bulb.

SPARE PARTS ORDERING INFORMATION

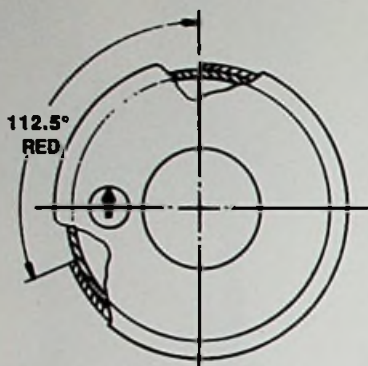
Required Bulbs
12 Volts, Cat. No. 374 001 CLR.
24 Volts, Cat. No. 374 002 CLR.
32 Volts, Cat. No. 374 003 CLR.
120 Volts, Cat. No. 374 004 CLR.

Spare Lens, Cat. No. 249 000 BLU.
Spare O-Ring for Cap, Cat. No. 1119.
Spare Double Contact Socket, Cat. No. 134.
Spare Plastic Cap, O-Ring and Retainer, Cat. No. 1105 000 BLK.

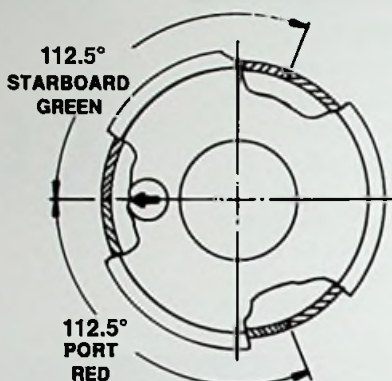
See Page 60 for Bulb Information.

NAVIGATION LIGHTS

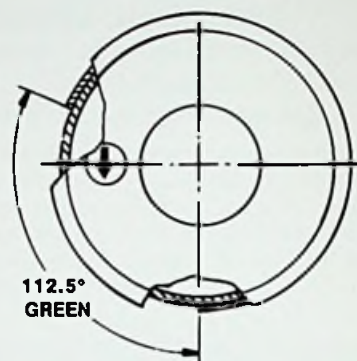
CERTIFIED FOR USE ON VESSELS UNDER 20 METERS (65.6 Ft.) IN LENGTH.



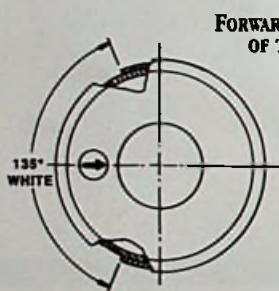
**200 SERIES BASE MOUNT
PORT SIDE LIGHT**



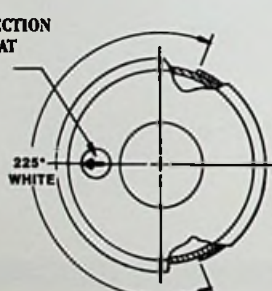
**200 SERIES BASE MOUNT
BI-COLOR LIGHT**



**200 SERIES BASE MOUNT
STARBOARD SIDE LIGHT**



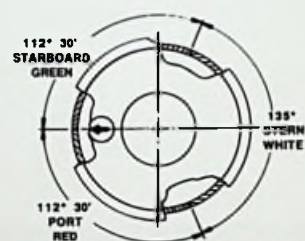
**200 SERIES BASE MOUNT
STERN LIGHTS**



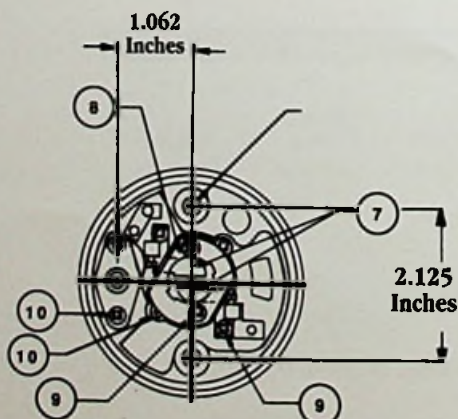
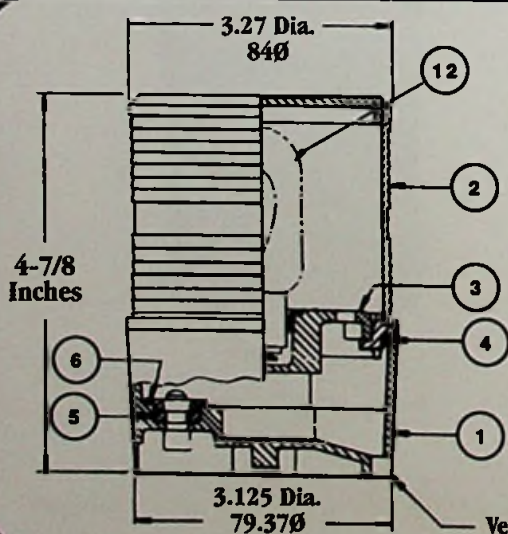
**200 SERIES BASE MOUNT
MASTHEAD LIGHT**



**200 SERIES BASE MOUNT
ALL-ROUND LIGHTS**



**200 SERIES BASE MOUNT
TRI-COLOR LIGHT**



SPARE PARTS ORDERING INFORMATION

- 1) Base Molding
 - 2) Lens Assembly*
 - 3) Bulb Holder
 - 4) O-Ring
 - 5) Gland
 - 6) Clamp
 - 7) Contact Assembly Bulb
 - 8) Bulb Support Plate
 - 9) Screws - #4 x 1/4" P.H.
 - 10) Screws - #6 x 1/2" P.H.
 - 12) Spare Bulbs
- For Masthead, Bi-Color, Tri-Color, All-Round & Side Lights
- 12 V = Cat. No. 375 12V 25W.
 - 24 V = Cat. No. 375 24V 25W.
 - 32 V = Cat. No. 375 32V 25W.
- For White All-Round, Towing & Stern Lights
- 12 V = Cat. No. 375 12V 10W.
 - 24 V = Cat. No. 375 24V 10W.
 - 32 V = Cat. No. 375 32V 10W.
- Spare Lens Assembly Part Numbers are Determined by Replacing the Last Three Digits of the Catalog Number with the Letters "LNS" (e.g., 200 BB LNS, for a Bi-Color Base Mount Lens Assembly). Spare Replacement Bulb Socket, Cat No. 93

NAVIGATION LIGHTS

CERTIFIED FOR USE ON VESSELS UNDER 20 METERS (65.6 FT.) IN LENGTH.

FEATURES

BASE MOUNT. BLACK PLASTIC.

COMPLETE WITH 12, 24 OR 32 VOLT BULB.



Height Overall <u>Inches</u>	O.D. Base <u>Inches</u>	Height Lens <u>Inches</u>	Screw Size	Weight <u>Ounces</u>
4-7/8	3-5/16	2-3/4	10	12-1/2

ORDERING INFORMATION

FOR 12 VOLT LIGHTS

Description	Visibility Arc	Dealer Pkg. - 5 Cards 1 Pc. per Card	Std. Pkg. - 1 Pc. OEM Pkg. - 10 Pcs.	Visibility Miles	Replacement Bulb
Bi-Color Light	225°	200 BB DP1	200 BB 12V	2	375 12V 25W
Red Side Light	112-1/2°	200 PB DP1	200 PB 12V	2	375 12V 25W
Green Side Light	112-1/2°	200 SDB DP1	200 SDB 12V	2	375 12V 25W
White Masthead Light	225°	200 MB DP1	200 MB 12V	3	375 12V 25W
White Stern Light	135°	200 SNB DP1	200 SNB 12V	2	375 12V 10W
Yellow Towing Light	135°	200 TWB DP1	200 TWB 12V	2	375 12V 10W
White All-Round Light	360°	200 SWB DP1	200 SWB 12V	2	375 12V 10W
Red All-Round Light	360°	200 SRB DP1	200 SRB 12V	2	375 12V 25W
Green All-Round Light	360°	200 SGB DP1	200 SGB 12V	2	375 12V 25W
Tri-Color Light*	360°	200 TB DP1	200 TB 12V	2	375 12V 25W

*For Use on Vessels Under Sail Alone.

FOR 24 VOLT LIGHTS

Replace the "DP1" with "DP2" For Dealer Package or the "12V" with "24V" For Standard Package or OEM Package (e.g., 200 BB DP2 or 200 BB 24V). For the Replacement Bulb, Replace the "12V" with "24V" (e.g., 375 24V 25W and 375 24V 10W).

FOR 32 VOLT LIGHTS

Replace the "DP1" with "DP3" For Dealer Package or the "12V" with "32V" For Standard Package or OEM Package (e.g., 200 BB DP3 or 200 BB 32V). For the Replacement Bulb, Replace the "12V" with "32V" (e.g., 375 32V 25W and 375 32V 10W).

FIG. 200 SERIES BASE MOUNT



FIG. 200 SNB



FIG. 200 TWB



FIG. 200 SGB



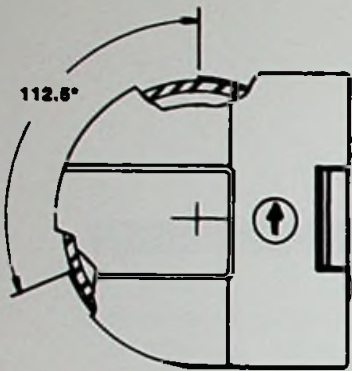
FIG. 200 BB



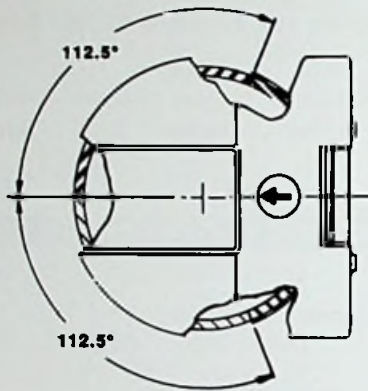
FIG. 200 SRB

NAVIGATION LIGHTS

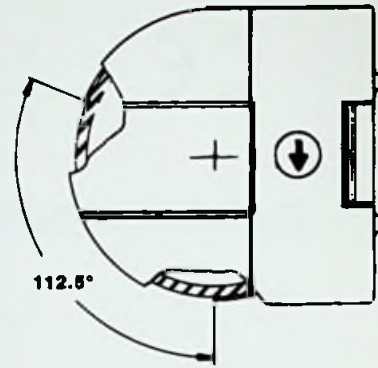
CERTIFIED FOR USE ON VESSELS UNDER 20 METERS (65.6 FT.) IN LENGTH.



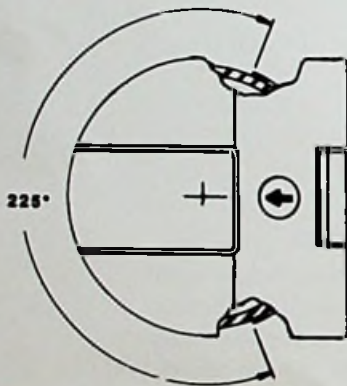
**200 SERIES TOP MOUNT
PORT SIDE LIGHT**



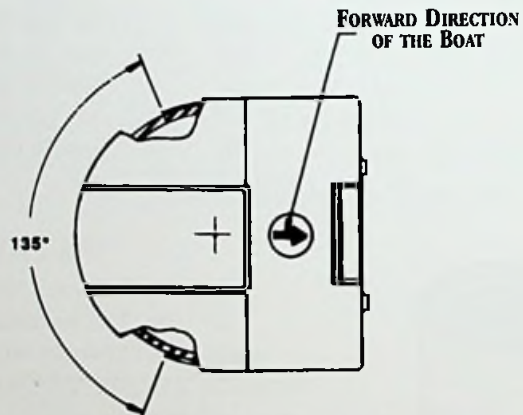
**200 SERIES TOP MOUNT
BI-COLOR LIGHT**



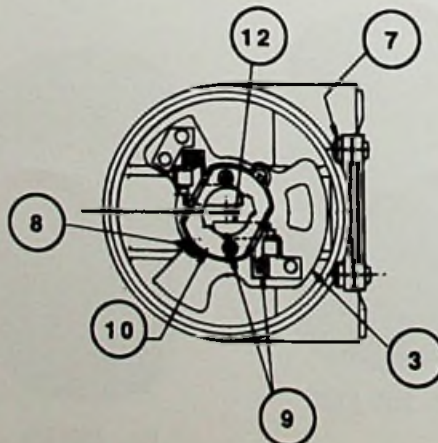
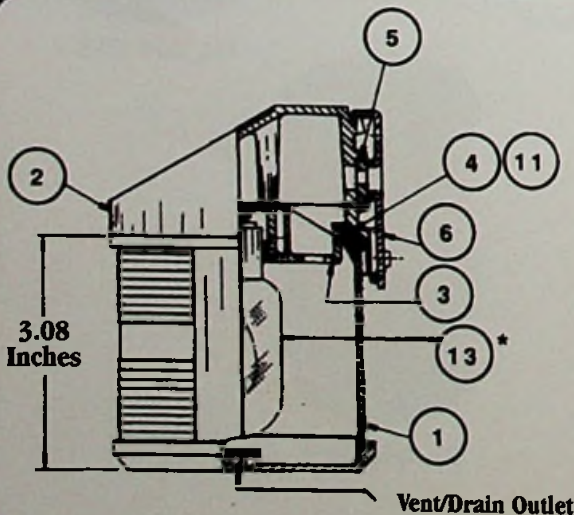
**200 SERIES TOP MOUNT
STARBOARD SIDE LIGHT**



**200 SERIES TOP MOUNT
MASTHEAD LIGHT**



**200 SERIES TOP MOUNT
STERN LIGHTS**



SPARE PARTS ORDERING INFORMATION

- 1) Lens Assembly*
- 2) Cap, Top, Molding
- 3) Bulb Holder
- 4) O-Ring
- 5) Seal
- 6) Mounting Plate
- 7) Screws - 4M x 8mm P.H.
- 8) Screws - #6 x 1/2" P.H.
- 9) Screws - #4 x 1/4" P.H.
- 10) Bulb Support Plate
- 11) Grease
- 12) Contact Assembly, Bulb
- 13) Spare Bulbs

For Masthead, Bi-Color & Side Lights

12 V = Cat. No. 375 12V 25W.

24 V = Cat. No. 375 24V 25W.

32 V = Cat. No. 375 32V 25W.

For Towing & Stern Lights

12 V = Cat. No. 375 12V 10W.

24 V = Cat. No. 375 24V 10W.

32 V = Cat. No. 375 32V 10W.

Spare Lens Assembly Part Numbers are Determined by Replacing the Last Three Digits of the Catalog Number with the Letters "LNS" (e.g., 200 BT LNS, for a Bi-Color Base Mount Lens Assembly). Spare Replacement Bulb Socket, Cat No. 93

NAVIGATION LIGHTS

CERTIFIED FOR USE ON VESSELS UNDER 20 METERS (65.6 Ft.) IN LENGTH.

FEATURES

TOP MOUNT. BLACK PLASTIC.

WITH STAINLESS STEEL MOUNTING BRACKET

COMPLETE WITH 12, 24 OR 32 VOLT BULB.

Height Overall Inches	Projection Inches	Height Lens Inches	Screw Size	Weight Ounces
4-13/16	3-5/16	2-3/4	8	12-1/2

ORDERING INFORMATION

FOR 12 VOLT LIGHTS

Description	Visibility Arc	Dealer Pkg. - 5 Cards 1 Pc. per Card	Std. Pkg. - 1 Pc. OEM Pkg. - 10 Pcs.	Visibility Miles	Replacement Bulb
Bi-Color Light	225°	200 BT DP1	200 BT 12V	2	375 12V 25W
Red Side Light	112-1/2°	200 PT DP1	200 PT 12V	2	375 12V 25W
Green Side Light	112-1/2°	200 SDT DP1	200 SDT 12V	2	375 12V 25W
White Masthead Light	225°	200 MT DP1	200 MT 12V	3	375 12V 25W
White Stern Light	135°	200 SNT DP1	200 SNT 12V	2	375 12V 10W
Yellow Towing Light	135°	200 TWT DP1	200 TWT 12V	2	375 12V 10W

FOR 24 VOLT LIGHTS

Replace the "DP1" with "DP2" For Dealer Package or the "12V" with "24V" For Standard Package or OEM Package (e.g., 200 BT DP2 or 200 BT 24V). For the Replacement Bulb, Replace the "12V" with "24V" (e.g., 375 24V 25W).

FOR 32 VOLT LIGHTS

Replace the "DP1" with "DP3" For Dealer Package or the "12V" with "32V" For Standard Package or OEM Package (e.g., 200 BT DP3 or 200 BT 32V). For the Replacement Bulb, Replace the "12V" with "32V" (e.g., 375 32V 25W).



FIG. 200 SNT



FIG. 200 TWT

FIG. 200 SERIES TOP MOUNT



FIG. 200 SDT



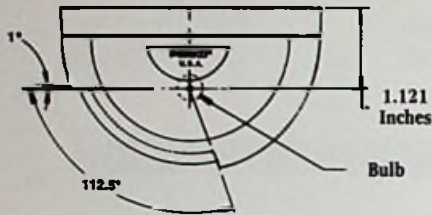
FIG. 200 BT



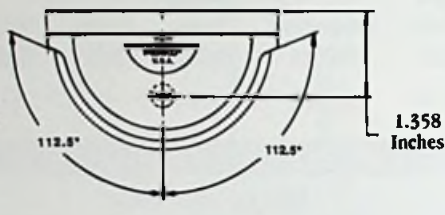
FIG. 200 PT

NAVIGATION LIGHTS

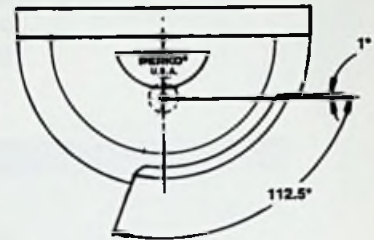
CERTIFIED FOR USE ON VESSELS UNDER 20 METERS (65.6 FT.) IN LENGTH.



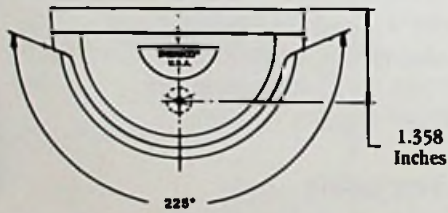
**170 SERIES
PORT SIDE LIGHT**



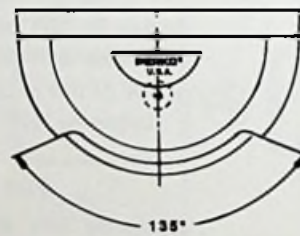
**170 SERIES
BI-COLOR LIGHT**



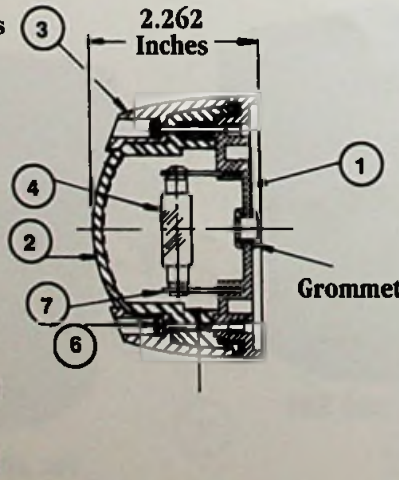
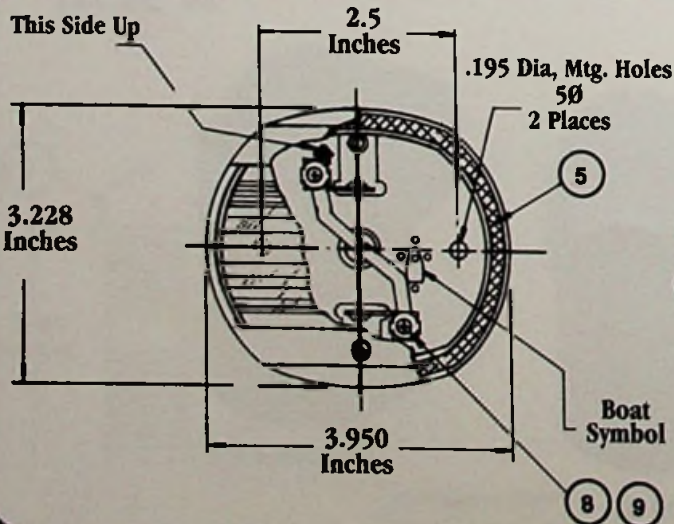
**170 SERIES
STARBOARD SIDE LIGHT**



**170 SERIES
MASTHEAD LIGHT**



**170 SERIES
STERN & TOWING LIGHTS**



SPARE PARTS ORDERING INFORMATION

- 1) Base Assembly*
- 2) Lens Assembly*
- 3) Cover
- 4) Spare Bulbs
For 170 MSN & BSN (12Volt),
Cat. No. 69 DP CLR. (2 Per Card)
For 170 MSN & BSN (24Volt),
Cat. No. 67 DP1 CLR. (2 Per Card)
For All others 12 Volt 170's
Cat. No. 70 DP1 CLR. (2 Per Card)
For All others 24 Volt 170's
Cat. No. 67 DP2 CLR. (2 Per Card)
- 5) Gasket
- 6) Captive Screw
- 7) Bulb Terminal
- 8) Pan Head Screw
- 9) Washer

*For Spare Lens and Shield Assembly,
Replace the Last Three Digits of the
Catalog Number with the Letters "LNS"
(e.g., 170 MM LNS, for a Chrome Plated
Shield and Bi-Color Lens).

NAVIGATION LIGHTS

CERTIFIED FOR USE ON VESSELS UNDER 20 METERS (65.6 Ft.) IN LENGTH.

FEATURES

BLACK PLASTIC OR CHROME PLATED BRASS TOPS WITH BLACK PLASTIC BASE
COMPLETE WITH 12 OR 24 VOLT BULB.

Fig.	Height Overall Inches	Projection Overall Inches	Width Inches	Screw Size	Weight Ounces
170 Series	3-5/8	2-1/2	4-1/8	10	5

ORDERING INFORMATION

CHROME PLATED BRASS TOP & BLACK PLASTIC BASE

Description	Visibility Arc	12 Volt	12 Volt	24 Volt	24 Volt	Visibility Miles
		Dealer Pkg. - 5 Cards 1 Pc. per Card	Std. Pkg - 1 Pc.. OEM Bulk Pkg.-10 Pcs.	Dealer Pkg. - 5 Cards 1 Pc. per Card	Std. Pkg - 1 Pc.. OEM Bulk Pkg.-10 Pcs.	
Bi-Color Light	225°	170 MB DP1	170 MB 12V	170 MB DP2	170 MB 24V	2
Red Side Light	112-1/2°	170 MP DP1	170 MP 12V	170 MP DP2	170 MP 24V	2
Green Side Light	112-1/2°	170 MSD DP1	170 MSD 12V	170 MSD DP2	170 MSD 24V	2
White Masthead Light	225°	170 MM DP1	170 MM 12V	170 MM DP2	170 MM 24V	3
White Stern Light	135°	170 MSN DP1	170 MSN 12V	170 MSN DP2	170 MSN 24V	2



Fig. 170 MSD



Fig. 170 MSN



Fig. 170 MB



Fig. 170 MM



Fig. 170 MP

ORDERING INFORMATION

BLACK PLASTIC TOP AND BASE

Description	Visibility Arc	12 Volt	12 Volt	24 Volt	24 Volt	Visibility Miles
		Dealer Pkg. - 5 Cards 1 Pc. per Card	Std. Pkg - 1 Pc.. OEM Bulk Pkg.-10 Pcs	Dealer Pkg. - 5 Cards 1 Pc. per Card	Std. Pkg - 1 Pc.. OEM Bulk Pkg.-10 Pcs	
Bi-Color Light	225°	170 BB DP1	170 BB 12V	170 BB DP2	170 BB 24V	2
Red Side Light	112-1/2°	170 BP DP1	170 BP 12V	170 BP DP2	170 BP 24V	2
Green Side Light	112-1/2°	170 BSD DP1	170 BSD 12V	170 BSD DP2	170 BSD 24V	2
White Masthead Light	225°	170 BM DP1	170 BM 12V	170 BM DP2	170 BM 24V	3
White Stern Light	135°	170 BSN DP1	170 BSN 12V	170 BSN DP2	170 BSN 24V	2
Yellow Towing Light	135°			170 BTW DP2	170 BTW 24V	2



Fig. 170 BSD



Fig. 170 BSN/BTW



Fig. 170 BB

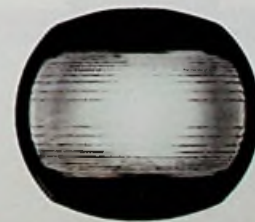


Fig. 170 BM

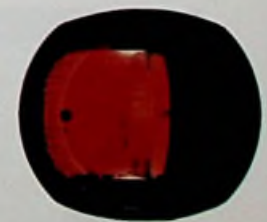


Fig. 170 BP

See Page 59 for Bulb Information.

MASTHEAD/WHITE ALL-ROUND LIGHT

FIG. 455 - WHITE ALL-ROUND LIGHT

FIG. 455 - CERTIFIED FOR USE ON POWER DRIVEN VESSELS UNDER 20 METERS (65.6 FT.) IN LENGTH.

CLEAR FRESNEL GLOBE, BLACK PLASTIC BASE.
FIXED MOUNT.



Fig. 455

ORDERING INFORMATION

Vertical Height Inches	O.D. Base Inches	Dealer Pkg. - 5 Cards 1 Pc. per Card	OEM Bulk Pkg. 50 Pcs.	Screw Size	Weight Ounces
4-1/2	2-1/8	455 DP1 CHR	455 001 CHR	8	12
11-7/8	2-1/8	455 DP2 CHR	455 002 CHR	8	16

Spare Bulb (2 per card), Cat. No. 337 011 DP. Spare Globe, Cat. No. 248 DP CLR.

LIGHTING FIXTURES

FIGS. 1087 & 1090 - VAPOR PROOF LIGHT FIXTURES

SATIN FINISH DIE CAST ALUMINUM WITH GLASS GLOBES.
INTEGRAL JUNCTION BOX WITH FOUR 1/2 INCH I.P.S. FITTINGS.

FIG. 1087, CEILING MOUNT

FIG. 1090, BULKHEAD MOUNT

MEDIUM SCREW SOCKET FOR BULBS UP TO 100 WATTS.
BULB NOT INCLUDED.



Fig. 1090



Fig. 1087



ORDERING INFORMATION

O.D. Box Inches	Length Overall Inches	Projection Inches	Standard Pkg. - 1 Pc.	Bolt Size	Weight Pounds
3-3/4	9-1/2	---	1087 000 ALU	1/4	3
3-3/4	10	7	1090 000 ALU	1/4	3-1/4

Note: These fixtures are listed in accordance with U.L. Standard 57, for enclosed gasketed fixtures. Not evaluated for use in hazardous or explosive atmospheres.

Spare Guards, Cat. Nos. 1087 000 99A and 1090 000 99A.
Spare Globes, Cat. Nos. 1087 000 99C and 1090 000 99C.
Spare Sockets, Cat. Nos. 1087 000 99B and 1090 000 99B.

LIGHTING FIXTURES

FIG. 555 - SURFACE MOUNT DOME LIGHT

CHROME PLATED BRONZE

FOR SYSTEMS UP TO 50 VOLTS.

TWIN DOUBLE CONTACT BAYONET SOCKETS,

TOGGLE SWITCH. BULBS NOT INCLUDED.

WILL ACCOMMODATE BULBS UP TO 20 WATTS EACH.



FIG. 555

ORDERING INFORMATION

O.D. Globe Inches	O.D. Base Inches	Depth Inches	Standard Pkg. - 1 Pc.	Screw Size	Weight Pounds
6	7-7/8	3-1/8	555 000 CHR	8	4-1/4

Spare Switch, Cat. No. 514 DP. Spare Socket, Cat. No. 276 000.
Spare Globe, Cat. No. 257 DP6.

FIG. 753 - SURFACE MOUNT DOME LIGHT

CHROME PLATED WROUGHT BRASS.

FOR SYSTEMS UP TO 50 VOLTS. MEDIUM SCREW SOCKET, TOGGLE SWITCHES.

BULBS NOT INCLUDED.

SIZE NO. 1 HAS ONE SOCKET AND SWITCH.

WILL ACCOMMODATE ONE BULB UP TO 50 WATTS.

SIZE NO. 2 HAS TWO SOCKETS AND SWITCHES.

WILL ACCOMMODATE TWO BULBS UP TO 25 WATTS EACH.



FIG. 753

ORDERING INFORMATION

O.D. Glass Inches	O.D. Base Inches	Depth Inches	Standard Pkg. - 1 Pc.	Screw Size	Weight Pounds
8	9-1/2	3	753 001 CHR	10 R.H.	2-3/4
8	9-1/2	3	753 002 CHR	10 R.H.	3

Spare Switch, Cat. No. 514 DP. Spare Globe, Cat. No. 132 000 FRD.
Spare Socket, Cat. No. 1323.

FIG. 1253 - EXTERIOR SURFACE MOUNT DOME LIGHT

IVORY PERKO•KOTE ZINC ALLOY.

DOUBLE CONTACT BAYONET SOCKET.

BLACK VINYL MOUNTING GASKET.

PUSH SWITCH WITH WATER RESISTANT BOOT.

12 VOLT BULB INCLUDED.



FIG. 1253

ORDERING INFORMATION

O.D. Globe Inches	O.D. Base Inches	Depth Overall Inches	Wattage of Bulb Supplied	Maximum Wattage	Dealer Pkg. 5 Cards 1Pc. per Card	OEM Bulk Pkg. 10 Pcs.	Screw Size	Weight Ounces
4	5	1-7/8	11	17	1253 DP1 WHT	1253 001 WHT	10 R.H.	13
5	6	2	17	17	1253 DP2 WHT	1253 002 WHT	12 R.H.	18-1/2

Spare Bulbs (2 per card) for 4 Inch Light, Cat. No. 337 012 DP.
Spare Bulbs (2 per card) for 5 Inch Light, Cat. No. 337 013 DP.
Spare Globe, Cat. No. 257 DP, Specify Size.

Spare Switch, Cat. No. 701 DP.
Spare Socket, Cat. No. 24 DP1.

SOLAR RAY® SEALED BEAM SEARCHLIGHTS



FIG. 305



FIG. 313

FEATURES

FIGS. 305 & 313 - SEARCHLIGHT HEADS BRONZE BASE, BRASS BODY.

POLISHED CHROME PLATED OR WHITE PERKO•KOTE POWDER COATING.
FOR 12, 24 OR 32 VOLTS.

Electrical Specifications

Voltage	Wattage	Approximate Candlepower	Sealed Beam Range Miles	Spare Bulb Catalog No.
12	100	250,000	5/8	433 003 12V
24	450	470,000	3/4	433 003 24V
32	200	260,000	5/8	433 003 32V

ORDERING INFORMATION

Voltage	Head Only Polished Chrome For Lever Control	Head Only White PERKO•KOTE For Lever Control	Head Only Polished Chrome For Wheel or Lever/Gear Control	Head Only White PERKO•KOTE For Wheel or Lever/Gear Control
	Cat. No.	Cat. No.	Cat. No.	Cat. No.
12	305 H12 CHR	305 H12 WHT	313 H12 CHR	313 H12 WHT
24	305 H24 CHR	305 H24 WHT	313 H24 CHR	313 H24 WHT
32	305 H32 CHR	305 H32 WHT	313 H32 CHR	313 H32 WHT

Nominal Weight - 20 lbs.

FEATURES

FIGS. 851, 852 & 969 - CONTROL ASSEMBLIES STAINLESS STEEL TUBES WITH CHROME PLATED FITTINGS.

Control Assemblies of Different Types May Be Interchanged to Offer
a Large Variety of Searchlights With a Minimum of Inventory.

ORDERING INFORMATION

Control Length Inches	"E" Lever Control Cat. No.	"E" Lever/Gear Control Cat. No.	"F" Wheel Control Cat. No.	Nominal Weight Pounds
8-1/2	7-1/2 851 000	969 000	852 000	6
15-1/2	14-1/2 851 0A0	969 0A0	852 0A0	9
22-1/2	21-1/2 851 0B0	969 0B0	852 0B0	12
29-1/2	28-1/2 851 0C0	969 0C0	852 0C0	15



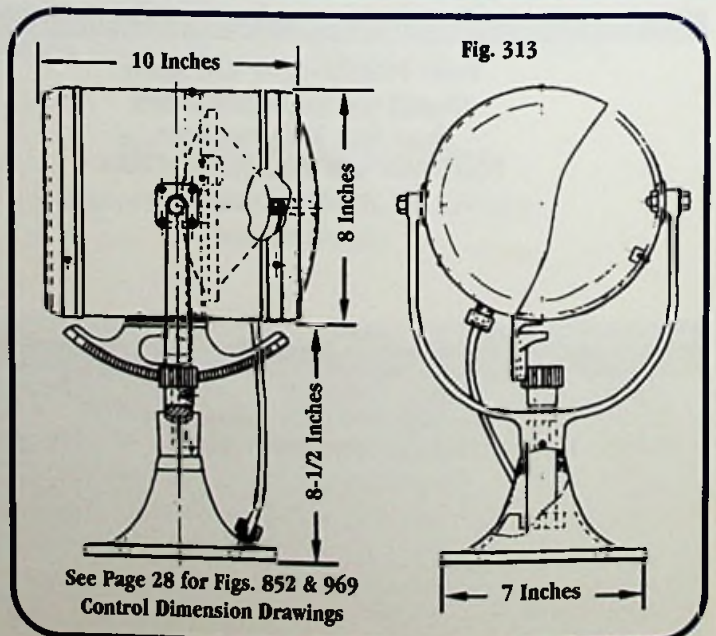
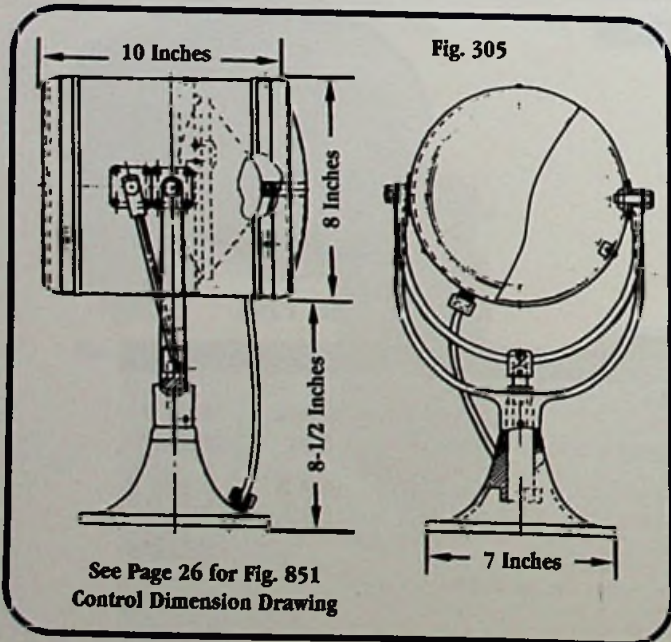
FIG. 852
WHEEL
CONTROL



FIG. 851
LEVER CONTROL



FIG. 969
LEVER/GEAR
CONTROL



SOLAR RAY® SEARCHLIGHTS

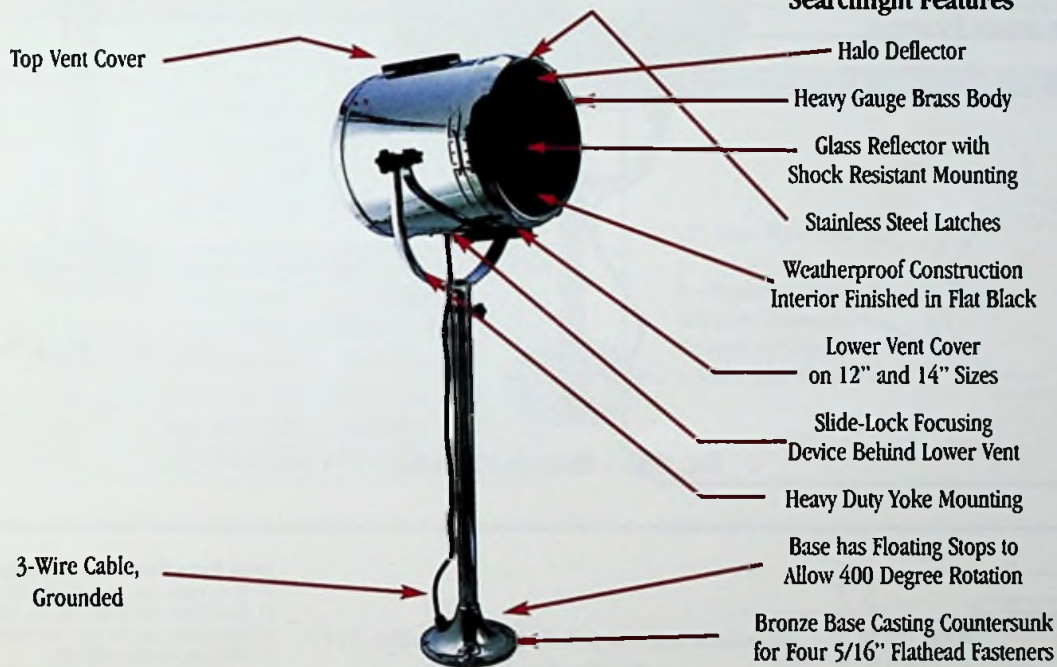
**883/884/885 SERIES
10", 12" OR 14"**

**CAST BRONZE AND HEAVY GAUGE BRASS.
POLISHED CHROME OR WHITE PERKO•KOTE FINISH.
12, 24, 32, 120 OR 230 VOLTS.**

The 800 Series - Solar-Ray® Searchlights are available in 10", 12" and 14" sizes with your choice of Deck, Wheel, or Lever/Gear Controls. All models feature: halo deflectors, parabolic glass mirror reflectors for maximum light output and ventilation covers for quick dissipation of heat to help prolong bulb life. Hinged front doors have quick release stainless steel latches to provide easy access for bulb replacement. The 800 Series models are also available in our white PERKO•KOTE finish; an advanced powder coating process that eliminates the need for painting while providing a scratch resistant and chip-proof surface for painting when necessary to match the color of the vessel.

Bulbs are not included and must be ordered separately. PERKO offers a choice of the traditional incandescent or the brighter, more piercing quartz-halogen bulbs in a broad variety of voltages and wattages to fit every need. For complete information on bulbs and candlepower output, see page 31.

"800 SERIES" High Power Searchlight Features



CONTROL TYPES



DECK CONTROL

Equipped with handles on the rear cover for positioning.

LEVER CONTROL

Aim handle for horizontal position. Move handle up and down for vertical position.

WHEEL CONTROL

Turn upper wheel for horizontal position. Turn lower wheel for vertical position.

LEVER/GEAR CONTROL

Aim handle for horizontal position. Twist handle for vertical position.



PERKO®

DECK CONTROL SOLAR RAY® SEARCHLIGHTS

883 SERIES

10", 12" OR 14"

SEARCHLIGHT DIMENSIONS

"A" Nominal Drum Diameter <u>Inches</u>	"C" Length Drum <u>Inches</u>	Nominal Weight <u>Pounds</u>
10	13	28
12	15	38
14	17	45



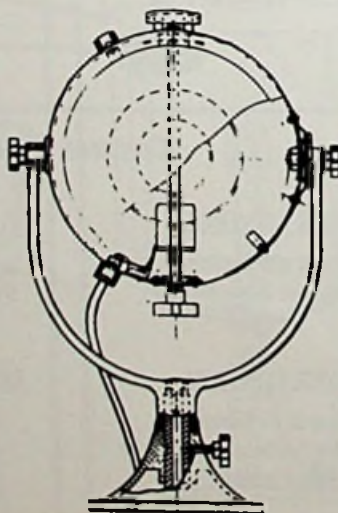
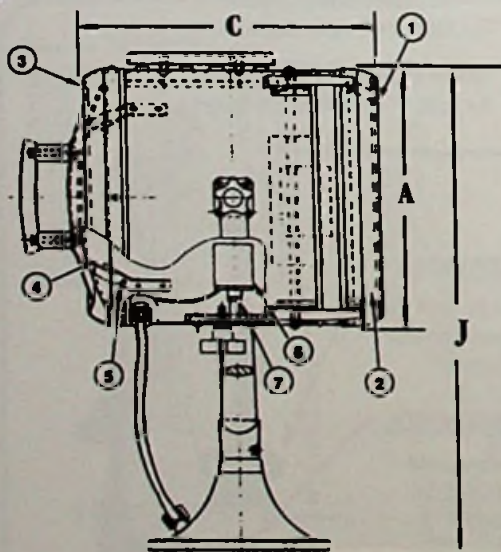
FIG. 883 - STANDARD PEDESTAL



FIG. 883 - MEDIUM PEDESTAL



FIG. 883 - HIGH PEDESTAL



SPARE PARTS ORDERING INFORMATION

- 1) Front Glass, Cat. No. 889 001 CLR.
- 2) Front Door with Glass, Cat. No. 891 001 CHR.
- 3) Rear Cover, Cat. No. 908 001 CHR.
- 4) Reflector, Cat. No. 890 001.
- 5) Reflector Retaining Clips, (Set of 8), Cat. No. 910.
- 6) Bulb Socket, See Page 37 for Details.
- 7) Socket and Support Stand, See Page 30 for Details.

* Note: The "J" Dimension is Height Overall.

Note: Illustration and Catalog Numbers are shown for a 10 Inch Chrome Searchlight.
For 12 Inch, Replace the "001" with "002" and for 14 Inch, Replace the "001" with "003". For White Finish Replace the "CHR" with "WHT"

DECK CONTROL SOLAR RAY® SEARCHLIGHTS

883 SERIES 10", 12" OR 14"

ORDERING INFORMATION

- NOTES: 1) These Searchlights Cannot Be Fitted With Controls.
 2) Bulbs Must be Ordered Separately, Refer to Pages 30 and 31 for Ordering Information.
 3) Refer to Worksheet on Page 33 For Help in Ordering.

STANDARD PEDESTAL SEARCHLIGHT HEAD ASSEMBLIES

Reflector Size Inches	"J" Height Overall Inches	Polished Chrome Catalog No.	White PERKO•KOTE Catalog No.
10	20-1/8	883 OP1 CHR	883 OP1 WHT
12	22-1/8	883 OP2 CHR	883 OP2 WHT
14	25-1/8	883 OP3 CHR	883 OP3 WHT

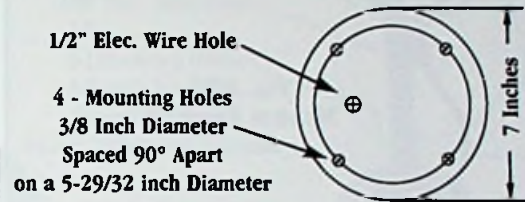
MEDIUM PEDESTAL SEARCHLIGHT HEAD ASSEMBLIES

Reflector Size Inches	"J" Height Overall Inches	Polished Chrome Catalog No.	White PERKO•KOTE Catalog No.
10	27-1/2	883 MP1 CHR	883 MP1 WHT
12	29-1/2	883 MP2 CHR	883 MP2 WHT
14	32-1/2	883 MP3 CHR	883 MP3 WHT

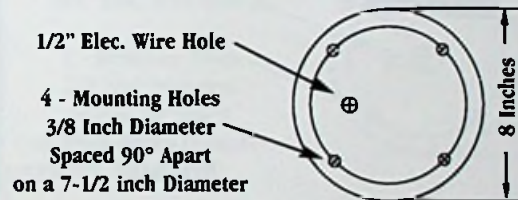
HIGH PEDESTAL SEARCHLIGHT HEAD ASSEMBLIES

Reflector Size Inches	"J" Height Overall Inches	Polished Chrome Catalog No.	White PERKO•KOTE Catalog No.
10	44	883 HP1 CHR	883 HP1 WHT
12	46	883 HP2 CHR	883 HP2 WHT
14	49	883 HP3 CHR	883 HP3 WHT

STANDARD PEDESTAL BASE



MEDIUM & HIGH PEDESTAL BASE



**NOTE: Custom Pedestal Heights are Available.
 Price Upon Application.
 Specify the "J" Dimension for Custom Pedestal Height.**

LEVER CONTROL SOLAR RAY® SEARCHLIGHTS

884 SERIES 10", 12" OR 14"

SEARCHLIGHT DIMENSIONS

"A" Nominal Drum Diameter Inches	"C" Length Drum Inches	Nominal Weight Pounds
10	13	28
12	15	38
14	17	45



**FIG. 884
MEDIUM PEDESTAL**



**FIG. 884
HIGH PEDESTAL**



**FIG. 884
STANDARD PEDESTAL**

* Note: The "J" Dimension is Height Overall.

SPARE PARTS ORDERING INFORMATION

- 1) Front Glass, Cat. No. 889 001 CLR.
- 2) Front Door with Glass, Cat. No. 891 001 CHR.
- 3) Rear Cover, Cat. No. 908 001 CHR.
- 4) Reflector, Cat. No. 890 001.
- 5) Reflector Retaining Clips, (Set of 8), Cat. No. 910.
- 6) Bulb Socket, See Page 37 for Details.
- 7) Socket and Support Stand, See Page 30 for Details.

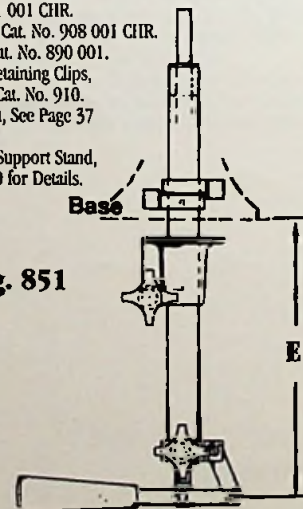
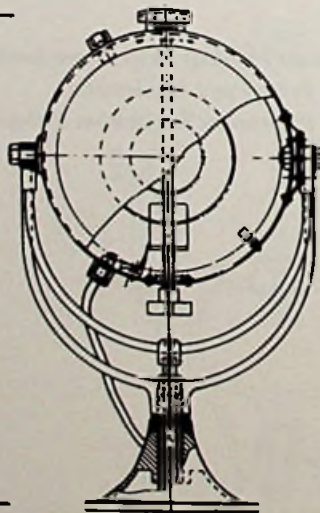
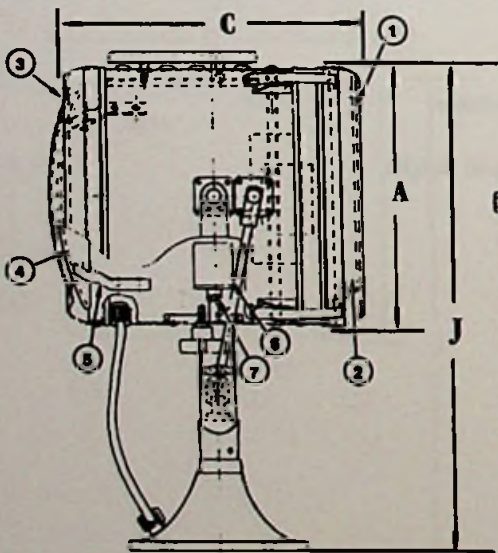


Fig. 851

Note: Illustration and Catalog Numbers are shown for a 10 Inch Chrome Searchlight. For 12 Inch, Replace the "001" with "002" and for 14 Inch, Replace the "001" with "003". For White Finish Replace the "CHR" with "WHT"

LEVER CONTROL SOLAR RAY® SEARCHLIGHTS

884 SERIES 10", 12" OR 14"

ORDERING INFORMATION

- NOTES: 1) Bulbs Must be Ordered Separately, Refer to Pages 30 and 31 for Ordering Information.
2) Refer to Worksheet on Page 33 For Help in Ordering.

STANDARD PEDESTAL SEARCHLIGHT HEAD ASSEMBLIES

Reflector Size Inches	"J" Height Overall Inches	Polished Chrome Catalog No.	White PERKO•KOTE Catalog No.
10	20-1/8	884 OP1 CHR	884 OP1 WHT
12	22-1/8	884 OP2 CHR	884 OP2 WHT
14	25-1/8	884 OP3 CHR	884 OP3 WHT

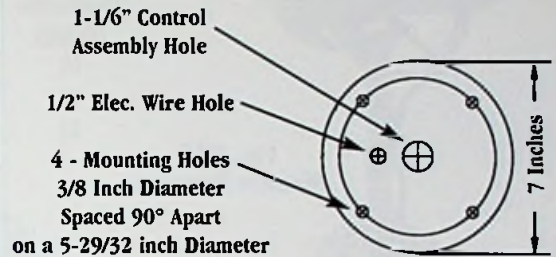
MEDIUM PEDESTAL SEARCHLIGHT HEAD ASSEMBLIES

Reflector Size Inches	"J" Height Overall Inches	Polished Chrome Catalog No.	White PERKO•KOTE Catalog No.
10	28-1/4	884 MP1 CHR	884 MP1 WHT
12	30-1/4	884 MP2 CHR	884 MP2 WHT
14	33-1/4	884 MP3 CHR	884 MP3 WHT

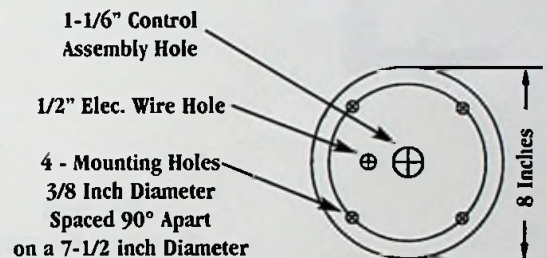
HIGH PEDESTAL SEARCHLIGHT HEAD ASSEMBLIES

Reflector Size Inches	"J" Height Overall Inches	Polished Chrome Catalog No.	White PERKO•KOTE Catalog No.
10	44-3/4	884 HP1 CHR	884 HP1 WHT
12	46-3/4	884 HP2 CHR	884 HP2 WHT
14	49-3/4	884 HP3 CHR	884 HP3 WHT

STANDARD PEDESTAL BASE



MEDIUM & HIGH PEDESTAL BASE



NOTE: Custom Pedestal Heights are Available.

Price Upon Application.

Specify the "J" Dimension for Custom Pedestal Height.

FIG. 851 - LEVER CONTROL ASSEMBLIES ORDERING INFORMATION

Control assemblies of different lengths may be interchanged on Solar-Ray® Searchlights (Fig. 884) of the same pedestal height. The following chart makes it possible to order and stock different styles of these assemblies separately to offer a large variety of Solar-Ray® searchlights with a minimum of inventory.

"E" Length Control Inches	For Standard Pedestal Cat. No.	For Medium Pedestal Cat. No.	For High Pedestal Cat. No.	Nominal Weight Pounds
8-1/2	851 000*	851 M00*	851 H00*	6
15-1/2	851 0A0	851 MA0	851 HA0	9
22-1/2	851 0B0	851 MB0	851 HB0	12
29-1/2	851 0C0	851 MC0	851 HC0	15

* Maximum Ceiling Thickness, 4-1/2 Inches.

NOTE: Custom Control Lengths are Available. Price Upon Application. Specify the "E" Dimension for Custom Control Lengths.

885 SERIES

10", 12" OR 14"

SEARCHLIGHT DIMENSIONS

"A" Nominal Drum Diameter Inches	"C" Length Drum Inches	Nominal Weight Pounds
10	13	28
12	15	38
14	17	45



FIG. 885
MEDIUM PEDESTAL

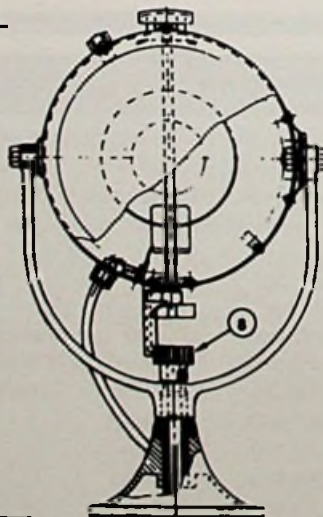
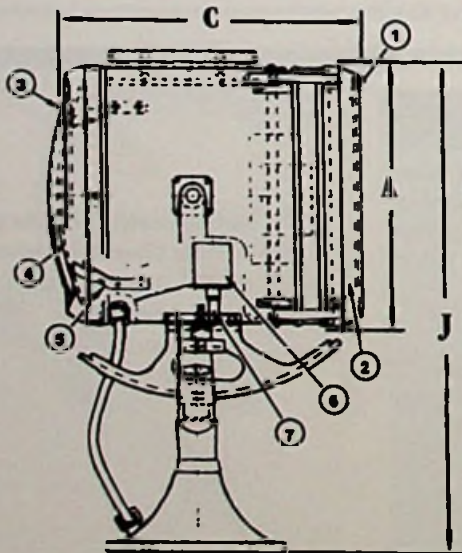


FIG. 885
STANDARD PEDESTAL



FIG. 885
HIGH PEDESTAL

* Note: The "J" Dimension is Height Overall.



SPARE PARTS ORDERING INFORMATION

- 1) Front Glass, Cat. No. 889 001 CLR.
- 2) Front Door with Glass, Cat. No. 891 001 CHR.
- 3) Rear Cover, Cat. No. 908 001 CHR.
- 4) Reflector, Cat. No. 890 001.
- 5) Reflector Retaining Clips, (Set of 8), Cat. No. 910.
- 6) Bulb Socket, See Page 37 for Details.
- 7) Socket and Support Stand, See Page 30 for Details.
- 8) Pinion Gear, Cat. No. 905.

Fig. 969

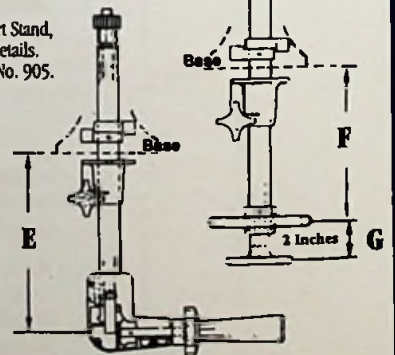


Fig. 852

Note: Illustration and Catalog Numbers are shown for a 10 Inch Chrome Searchlight.

For 12 Inch, Replace the "001" with "002" and for 14 Inch, Replace the "001" with "003". For White Finish Replace the "CHR" with "WHT"

WHEEL & LEVER/GEAR CONTROL SOLAR RAY® SEARCHLIGHTS

885 SERIES
10", 12" or 14"

ORDERING INFORMATION

- NOTES: 1) Bulbs Must be Ordered Separately, Refer to Pages 30 and 31 for Ordering Information.
2) Refer to Worksheet on Page 33 For Help in Ordering.

STANDARD PEDESTAL SEARCHLIGHT HEAD ASSEMBLIES

Reflector Size Inches	"J" Height Overall Inches	Polished Chrome Catalog No.	White PERKO•KOTE Catalog No.
10	20-1/8	885 OP1 CHR	885 OP1 WHT
12	22-1/8	885 OP2 CHR	885 OP2 WHT
14	25-1/8	885 OP3 CHR	885 OP3 WHT

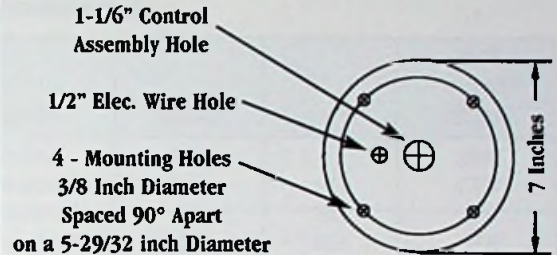
MEDIUM PEDESTAL SEARCHLIGHT HEAD ASSEMBLIES

Reflector Size Inches	"J" Height Overall Inches	Polished Chrome Catalog No.	White PERKO•KOTE Catalog No.
10	28-1/4	885 MP1 CHR	885 MP1 WHT
12	30-1/4	885 MP2 CHR	885 MP2 WHT
14	33-1/4	885 MP3 CHR	885 MP3 WHT

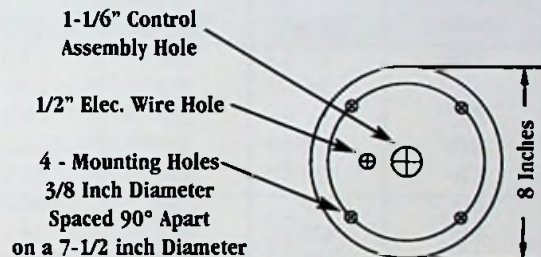
HIGH PEDESTAL SEARCHLIGHT HEAD ASSEMBLIES

Reflector Size Inches	"J" Height Overall Inches	Polished Chrome Catalog No.	White PERKO•KOTE Catalog No.
10	44-3/4	885 HP1 CHR	885 HP1 WHT
12	46-3/4	885 HP2 CHR	885 HP2 WHT
14	49-3/4	885 HP3 CHR	885 HP3 WHT

STANDARD PEDESTAL BASE



MEDIUM & HIGH PEDESTAL BASE



NOTE: Custom Pedestal Heights are Available. Price Upon Application. Specify the "J" Dimension for Custom Pedestal Height.

FIGS. 852 & 969 - CONTROL ASSEMBLIES ORDERING INFORMATION

Control Assemblies of different lengths may be interchanged on Solar-Ray® searchlights (Fig. 885) of the same pedestal height. The following chart makes it possible to order and stock different styles of these assemblies separately to offer a large variety of Solar-Ray® Searchlights with a minimum of inventory.

WHEEL CONTROL - FIG. 852

"F" Length Control Inches	For Standard Pedestal Cat. No.	For Medium Pedestal Cat. No.	For High Pedestal Cat. No.	Nominal Weight Pounds
7-1/2	852 000*	852 M00*	852 H00*	6
14-1/2	852 0A0	852 MA0	852 HA0	9
21-1/2	852 0B0	852 MB0	852 HB0	12
28-1/2	852 0C0	852 MC0	852 HC0	15

LEVER/GEAR CONTROL - FIG. 969

"E" Length Control Inches	For Standard Pedestal Cat. No.	For Medium Pedestal Cat. No.	For High Pedestal Cat. No.	Nominal Weight Pounds
8-1/2	969 000*	969 M00*	969 H00*	6
15-1/2	969 0A0	969 MA0	969 HA0	9
22-1/2	969 0B0	969 MB0	969 HB0	12
29-1/2	969 0C0	969 MC0	969 HC0	15

"G" Distance Between Wheels, 2 Inches.
*Maximum Ceiling Thickness, 3 Inches.

*Maximum Ceiling Thickness, 3-1/2 Inches.

NOTE: Custom Control Lengths are Available. Price Upon Application. Specify the "E" or "F" Dimension for Custom Control Lengths.

883/884/885 SERIES - 10", 12" AND 14"

BULBS ARE NOT INCLUDED IN LIGHTS

To give good results, the bulb and reflector must be perfectly compatible; therefore be sure to specify the catalog number of the bulb desired. Peak candlepower is exceedingly sensitive to many factors, (i.e., a light source out of focus by 1/32 inch, under-voltage of only 4%, or differences between bulb manufacturers) which can cause a reduction of range of up to 20%.

INCANDESCENT BULB ORDERING INFORMATION

Bulb Catalog Number	Voltage	Wattage	Socket Type	Socket Code Letter	For Searchlight Sizes Inches	Rated* Life Hours	Mfg. Bulb Code
806	32	500	Medium Screw	B	10, 12, 14	50	DLT
807	120	500	Medium Prefocus	E	10, 12, 14	25	CZX
809	120	750	Medium Prefocus	E	12, 14	25	DDB
837	120	750	Medium Prefocus	E	12, 14	200	DGH
810	120	1000	Medium Prefocus	E	12, 14	25	DRS
811	120	1000	Mogul Screw	D	12, 14	50	DPT

For a More Concentrated Beam, Longer Range, Brighter Light and a Longer Life, We Recommend the Following Bulbs:

"QUARTZ" TUNGSTEN-HALOGEN BULB ORDERING INFORMATION

Bulb Catalog Number	Voltage	Wattage	Socket Type	Socket Code Letter	For Searchlight Sizes Inches	Rated* Life Hours	Mfg. Bulb Code
816	12	100	2-Pin Prefocus	F	10, 12, 14	50	FDT
836	24	150	2-Pin Prefocus	G	10, 12, 14	50	DZE-FDS
817	32	200	2-Pin Prefocus	H	10, 12, 14	200	G.E. 1945
844	120	500	Medium Prefocus	E	10, 12, 14	500	BTL
820	120	600	2-Pin Prefocus	I	10, 12, 14	75	DYS
845	120	750	Medium Prefocus	E	12, 14	200	BTP
839	120	900	2-Pin Prefocus	K	12, 14	75	BVA
846	120	1000	Medium Prefocus	E	12, 14	200	BTR
860	230	1000	Medium Prefocus	E	12, 14	50	FKD

PLEASE ORDER CAREFULLY, BULBS ARE NOT RETURNABLE.

**NOTE: These are the "Rated Average Laboratory Life in Hours" of the Bulb Manufacturer obtained in closely controlled laboratory life testing groups of lamps at their design voltage. It is not necessarily the same as the service life where conditions such as shock, vibration, voltage fluctuation and environment may result in a shorter average attained life.*

ELECTRIC SOCKET AND SUPPORT STAND ASSEMBLIES

Solar-Ray® Searchlights include a socket and support stand assembly based on the bulb or socket information given when ordering. The following chart makes it possible to order and stock different socket and stand assemblies for field conversion to meet a large variety of voltage and candlepower requirements with a minimum of inventory.

ORDERING INFORMATION

Socket Type	Socket Code	For 10" Searchlights		For 12" Searchlights		For 14" Searchlights	
		Catalog Number	Height Stand Inches	Catalog Number	Height Stand Inches	Catalog Number	Height Stand Inches
Medium Screw	B	872 001	1-1/4	872 002	2-1/4	872 003	3-1/4
Medium Prefocus	E	873 001	1-5/16	873 002	1-15/16	873 003	2-15/16
Mogul Screw	D	-----	-----	874 002	7/16	874 003	1-1/4
2-Pin Prefocus (12 Volt)	F	875 001	3-1/2	875 002	4-1/2	875 003	5-1/2
2-Pin Prefocus (24 Volt)	G	876 001	3-1/4	876 002	4-1/4	876 003	5-1/4
2-Pin Prefocus (32 Volt)	H	878 001	3-1/4	878 002	4-1/4	878 003	5-1/4
2-Pin Prefocus (600 Watt)	I	879 001	3-1/8	879 002	4-1/8	879 003	5-1/8
2-Pin Prefocus (900 Watt)	K	-----	-----	880 002	3-13/16	880 003	4-13/16

NOTE: Refer to Page 37 for Spare/Replacement Electric Socket Only Ordering Information.

BULB TECHNICAL DATA FOR SOLAR RAY® SEARCHLIGHTS

883/884/885 SERIES

THE FOLLOWING CHART IS PROVIDED TO AID IN PROPER BULB SELECTION:

Searchlight Size Inches	Voltage	Approximate Range Miles*	Bulb Catalog Number	Bulb Wattage	Rated Life Hours**	Maximum Candlepower Output	Horizontal Beam Spread Degrees	Vertical Beam Spread Degrees
10"	12	1	816	100	50	1,168,000	1.7	1.4
	24	1	836	150	50	891,000	2.6	1.5
	32	3/4	817	200	200	571,000	2.6	1.7
	32	1	806	500	50	943,000	3.4	3.9
	120	1	820	600	75	908,000	4.4	2.2
	120	1-1/8	807	500	25	1,332,000	3.5	2.8
	120	1-1/8	844	500	500	1,260,000	3.1	3.4
	12"	12	1-1/4	816	100	50	1,617,000	1.5
24		1-1/8	836	150	50	1,349,000	2.2	1.5
32		7/8	817	200	200	865,000	2.4	1.6
32		1-1/8	806	500	50	1,496,000	3.4	3.5
120		1	837	750	200	977,000	4.1	3.7
120		1	845	750	200	1,185,000	3.7	5.2
120		1-1/8	820	600	75	1,410,000	4.3	1.9
120		1-1/4	809	750	25	1,792,000	3.6	3.4
120		1-1/4	844	500	500	1,641,000	3.2	3.4
120		1-1/4	807	500	25	1,799,000	3.3	3.1
120		1-1/4	811	1000	50	1,816,000	4.0	4.9
120		1-3/8	810	1000	25	1,894,000	4.0	3.8
120		1-3/8	846	1000	200	1,911,000	3.9	5.0
120		1-1/2	839	900	75	2,482,000	4.5	5.5
230		7/8	860	1000	950	865,000	6.9	5.9
14"	12	1-1/4	816	100	50	1,756,000	1.5	1.0
	24	1-1/8	836	150	50	1,367,000	2.3	1.2
	32	1	817	200	200	943,000	2.2	1.5
	32	1-1/8	806	500	50	1,591,000	4.0	3.7
	120	1-1/8	837	750	200	1,254,000	3.9	4.5
	120	1-1/8	845	750	200	1,531,000	3.6	5.1
	120	1-1/4	820	600	75	1,626,000	4.5	1.9
	120	1-3/8	844	500	500	1,840,000	2.9	3.2
	120	1-3/8	811	1000	50	2,249,000	4.0	5.1
	120	1-1/2	807	500	25	2,353,000	3.2	3.2
	120	1-1/2	809	750	25	2,422,000	3.7	4.0
	120	1-1/2	846	1000	200	2,586,000	3.8	5.0
	120	1-1/2	810	1000	25	2,621,000	4.0	4.5
	120	1-5/8	839	900	75	2,889,000	4.5	5.2
	230	1	860	1000	950	1,021,000	7.7	6.2

*The approximate ranges listed above are based on photometric measurements of beam candlepower output under ideal conditions. Many factors such as atmospheric conditions, size and color of target, background, etc., may reduce effective range considerably; therefore, these figures are offered only as a guide to compare different bulb and voltage options.

**NOTE: These are the "Rated Average Laboratory Life in Hours" of the Bulb Manufacturer obtained in closely controlled laboratory life testing of groups of lamps at their design voltage. It is not necessarily the same as the service life where conditions such as shock, vibration, voltage fluctuation and environment may result in a shorter average attained life.



2-PIN PREFOCUS



MOGUL SCREW



MEDIUM PREFOCUS



MEDIUM SCREW

FIG. 314 - PILOT HOUSE CONTROL SEARCHLIGHT

NEW
H.I.D. VERSION



FIG. 314
SHOWN IN
WHITE
PERKO•KOTE

**CHROME PLATED OR WHITE PERKO•KOTE
BRASS HEAD WITH BRONZE BASE.**

CORROSION RESISTANT, SPLASH PROOF CONSTRUCTION.

7 & 8 INCH SEALED BEAM UNITS.

TIN PLATED ELECTRICAL CONTACTS AND WIRING.

LEVER ACTION, PILOT HOUSE CONTROL.

380° HORIZONTAL MOVEMENT, 70° VERTICAL MOVEMENT.

LEVER HANDLE CONTROLS BOTH HORIZONTAL
AND VERTICAL MOVEMENT.

FOR CEILING THICKNESSES OF UP TO 5"

FIG. 314 STANDARD
FOR 12, 24 OR 32 VOLTS.

FIG. 314 H.I.D.
HIGH INTENSITY DISCHARGE TECHNOLOGY.
FOR 12 VOLT SYSTEMS ONLY.
GREATER INTENSITY AND BEAM UNIFORMITY THAN CONVENTIONAL.
SEALED BEAM SEARCHLIGHTS.
FIVE TIMES THE TARGET RESOLVING POWER .
THAN CONVENTIONAL SEALED BEAMS.
LOW POWER CONSUMPTION, APPROXIMATELY 4 AMPS AT 12 VOLTS.
FIVE YEAR LAMP WARRANTY.

ORDERING INFORMATION

<u>Overall Length</u>	<u>Voltage</u>	<u>Approx. Range Miles</u>	<u>Beam Candlepower</u>	<u>Wattage</u>	<u>Chrome Plated Bronze</u>	<u>White PERKO Kote</u>
<u>7 Inch Head</u>						
<u>Standard</u>						
24	12	5/8	250,000	100	314 C07 12V	314 W07 12V
24	24	3/4	470,000	450	314 C07 24V	314 W07 24V
24	32	5/8	260,000	200	314 C07 32V	314 W07 24V
<u>H.I.D.</u>						
24	12	1	—	35	314 CH7 12V	314 WH7 12V
<u>8 Inch Head</u>						
<u>Standard</u>						
26	12	3/4	500,000	250	314 C08 12V	314 W08 12V
26	24	3/4	500,000	600	314 C08 24V	314 W08 24V
26	32	3/4	500,000	600	314 C08 32V	314 W08 32V

SEALED BEAM INFORMATION

Replacement Sealed Beam Unit For 7 Inch Head, 12 Volt, Cat. No. 433 003 12V

Replacement Sealed Beam Unit For 7 Inch Head, 24 Volt, Cat. No. 433 003 24V

Replacement Sealed Beam Unit For 7 Inch Head, 32 Volt, Cat. No. 433 003 32V

Replacement Sealed Beam Unit For 8 Inch Head, 12 Volt, Cat. No. 433 004 12V

Replacement Sealed Beam Unit For 8 Inch Head, 24 Volt, Cat. No. 433 004 24V

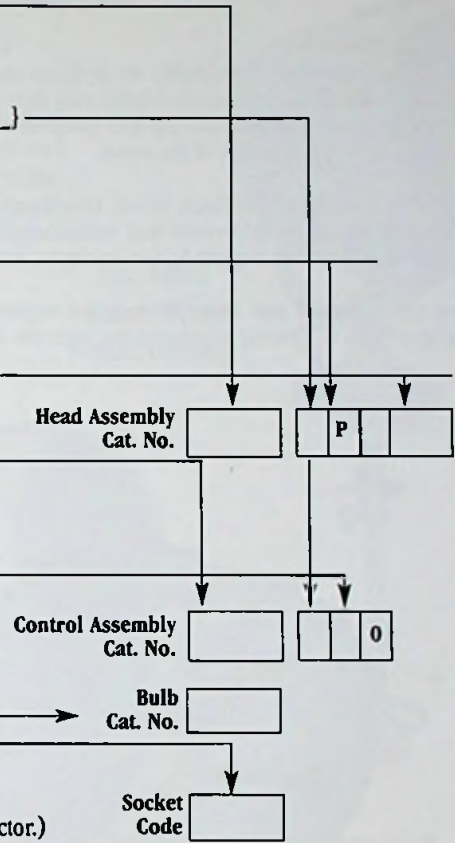
Replacement Sealed Beam Unit For 8 Inch Head, 32 Volt, Cat. No. 433 004 32V*

*Used in conjunction with Internal Dropping Resistor (Cat. No. 314 R32 99A).

SOLAR RAY® SEARCHLIGHTS ORDERING WORKSHEET

883/884/885 SERIES

- 1) **Head Assembly Type:** _____
 a) For deck control - 883
 b) For lever control - 884
 c) For wheel and lever/gear control - 885
- 2) **Pedestal (overall) Height (see catalog page for details):** _____
 a) Standard - O
 b) Medium - M
 c) High - H
For custom pedestal height see no. 10 below.
- 3) **Reflector Size:** _____
 a) 10 inch - 1
 b) 12 inch - 2
 c) 14 inch - 3
- 4) **Finish:** _____
 a) PERKOPLATE (polished chrome) - CHR
 b) PERKO•KOTE (white) - WHT
- 5) **Control Type:** _____
 a) Lever control (For 884 Head Assembly) - 851
 b) Wheel control (For 885 Head Assembly) - 852
 c) Lever/Gear control (For 885 Head Assembly) - 969
- 6) **Control Length (when necessary):** _____
 a) (8-1/2" for 851 & 969) or (7-1/2" for 852) - 0
 b) (15-1/2" for 851 & 969) or (14-1/2" for 852) - A
 c) (22-1/2" for 851 & 969) or (21-1/2" for 852) - B
 d) (29-1/2" for 851 & 969) or (28-1/2" for 852) - C
- 7) **Bulb Number (see pages 30 & 31 for details):** _____
- 8) **Socket Type:** _____ Code: _____
 a) Medium Screw "B"
 b) Medium Prefocus..... "E"
 c) Mogul Screw..... "D" (Not for use with 10 inch reflector.)
 d) 2-Pin Prefocus (12 volt) "F"
 e) 2-Pin Prefocus (24 volt) "G"
 f) 2-Pin Prefocus (32 volt) "H"
 g) 2-Pin Prefocus (600 Watt) "I"
 h) 2-Pin Prefocus (900 watt) "K" (Not for use with 10 inch reflector.)
- 9) **Custom control length:** _____
 Specify control length desired as measured from pedestal base to lower end of control assembly ("E" or "F" dimension).
- 10) **Custom pedestal height:** _____
 Specify overall height of searchlight desired as measured from the top of the searchlight head to the bottom of the pedestal base ("J" dimension).



SPARE PARTS FOR 883/884/885 SERIES SOLAR-RAY® SEARCHLIGHTS						
Fig.	Size	Front Glass Cat. No.	Front Door with Glass Cat. No.	Rear Cover Cat. No.	Reflector* Cat. No.	Pinion Gear Cat. No.
883	10"	889 001 CLR	891 001 CHR	908 001 CHR	890 001	---
	12"	889 002 CLR	891 002 CHR	908 002 CHR	890 002	---
	14"	889 003 CLR	891 003 CHR	908 003 CHR	890 003	---
884	10"	889 001 CLR	891 001 CHR	902 001 CHR	890 001	---
	12"	889 002 CLR	891 002 CHR	902 002 CHR	890 002	---
	14"	889 003 CLR	891 003 CHR	902 003 CHR	890 003	---
885	10"	889 001 CLR	891 001 CHR	902 001 CHR	890 001	905
	12"	889 002 CLR	891 002 CHR	902 002 CHR	890 002	905
	14"	889 003 CLR	891 003 CHR	902 003 CHR	890 003	905

NOTE: The Spare Part catalog numbers listed above are for the polished chrome (CHR) finish.

To order white finish, replace the "CHR" in the catalog number with the "WHT" finish code.

*Replacement Retaining Clips (Cat. No. 910) For The Reflector Should Also Be Ordered When Ordering a Replacement Reflector To Assure a Proper Fit.

19 INCH SOLAR RAY® SEARCHLIGHTS

1901 & 1902 SERIES

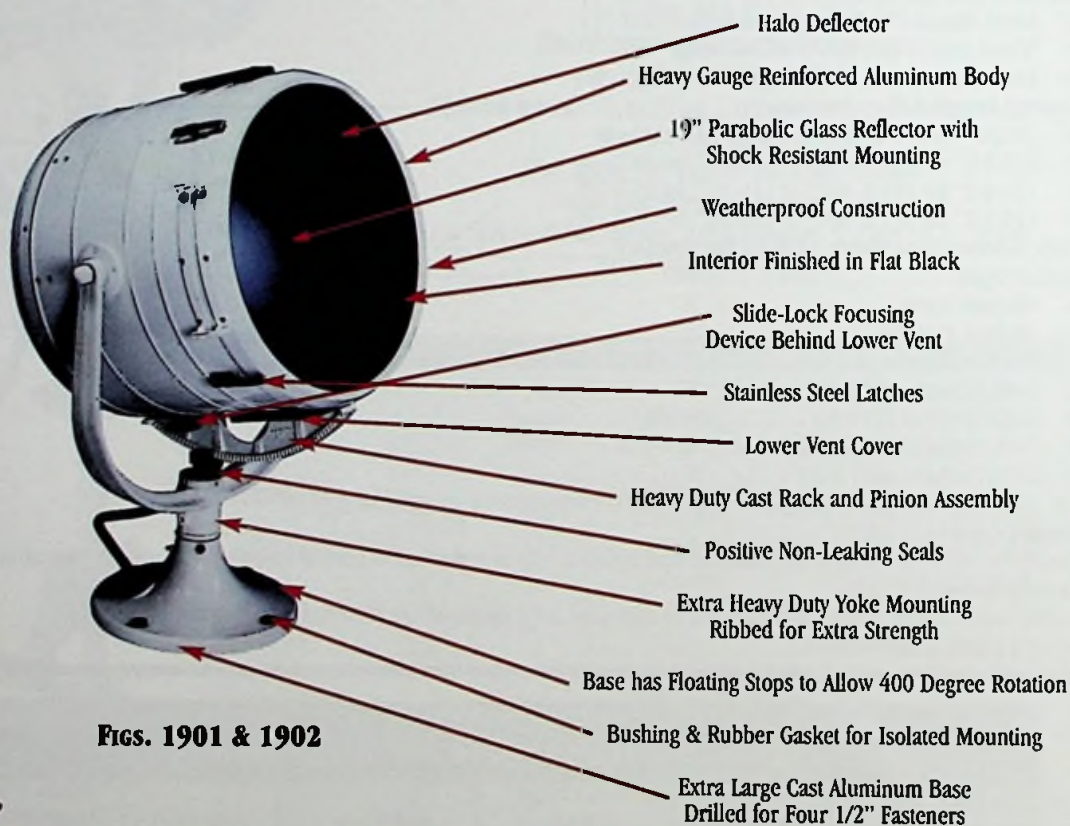
ALL ALUMINUM - WHITE PERKO•KOTE FINISH
32, 120 OR 230 VOLTS

The 1900 Series - Solar-Ray® Searchlights are designed and built with the commercial user in mind where maximum size and brilliance counts. These units are constructed of marine aluminum with heavy duty castings and heavy gauge reinforced bodies for extra durability. They are finished in our white PERKO•KOTE finish; an advanced process that eliminates the need for painting while providing a scratch resistant and chip-proof surface for painting when necessary to match the color of the vessel.

The 1900 Series is available with Deck, Wheel, Lever/Gear or Distant Electric Remote Controls. All models feature halo deflectors, parabolic glass mirrors for maximum light output and ventilation covers for quick dissipation of heat to help prolong bulb life. Hinged front doors have quick release stainless steel latches to provide easy access for bulb replacement.

Bulbs are not included and must be ordered separately. PERKO offers a choice of the traditional incandescent or the brighter, more piercing quartz-halogen bulbs in a variety of voltages and wattages. For complete information on bulbs and candlepower output, see page 36.

"19 Inch Series" High Power Searchlights Features



Figs. 1901 & 1902

CONTROL TYPES



WHEEL CONTROL

Turn upper wheel for horizontal position. Turn Lower Wheel for vertical position.

Fig. 1922
Fig. 1922

DISTANT ELECTRIC CONTROL

Electric Remote Control with Joystick controller for both horizontal & vertical positioning

Fig. 1925



LEVER/GEAR CONTROL

Aim handle for horizontal position. Twist handle for vertical position.



Fig. 1921

DECK CONTROL

Equipped with handles on the rear cover for positioning.

19 INCH SOLAR RAY® SEARCHLIGHTS

1901 & 1902 SERIES

SEARCHLIGHT DIMENSIONS

Nominal Drum Diameter Inches	Nominal Drum Weight Inches	Nominal Control Weight Pounds
19	68	22



FIG. 1902
SHOWN WITH
LEVER/GEAR CONTROL



FIG. 1902
SHOWN WITH
WHEEL CONTROL



FIG. 1901
DECK CONTROL



FIG. 1902 SHOWN WITH
ELECTRIC CONTROL



20-3/4 Inches

19 Inches

32-3/4 Inches

13 Inches

SPARE PARTS ORDERING INFORMATION

- 1) Front Glass, Cat. No. 889 004 CLR.
- 2) Front Door with Glass, Cat. No. 1936 004 WIT.
- 3) Rear Cover, (1901, Cat. No. 1932 000 WIT), (1902, Cat. No. 1933 000 WIT)
- 4) Reflector, Cat. No. 890 004.
- 5) Reflector Retaining Clips. (Set of 4), Cat. No. 911.
- 6) Bulb Socket, See Pages 36 & 37 for Details.
- 7) Socket and Support Stand, See Page 36 for Details.
- 8) Pinion Gear, Cat. No. 905.

Fig. 1921

22 Inches

Fig. 1922

20-1/2 Inches

2-3/4 Inches

19 INCH SOLAR RAY® SEARCHLIGHT HEAD & CONTROL ASSEMBLIES

1901 & 1902 SERIES

ALL ALUMINUM - WHITE PERKO•KOTE FINISH

ORDERING INFORMATION	
Description	Catalog No.
Deck Control Searchlight*	1901 004 WHIT
Wheel or Lever/Gear Control Searchlight Head Assy. (Requires Wheel or Lever-gear Control Assy. Below)	1902 004 WHIT
Distant Electric Control Searchlight Head Assembly (Requires DEC Base Assembly Below)	1902 DE4 WHIT
Wheel Control Assembly (For Above)	1922 000 WHIT
Lever/Gear Control Assembly (For Above)	1921 000 WHIT
Distant Electric Control Base (For Above)	1925 000 WHIT
Conversion Adapter Kit for 1902 004 Searchlight Head to Fit A DEC Base	1926 000 WHIT

*Cannot Be Fitted With Controls.

Custom Control Lengths and Pedestal Heights Are Available. Price Upon Application. Specify Measurements.

BULBS ARE NOT INCLUDED IN LIGHTS

BULB ORDERING INFORMATION FOR 19 INCH SEARCHLIGHTS

To give good results, the bulb and reflector must be perfectly compatible; therefore be sure to specify the catalog number of the bulb desired. Peak candlepower is exceedingly sensitive to many factors, (i.e., a light source out of focus by 1/32 inch, under-voltage of only 4%, or differences between bulb manufacturers can cause a reduction of range of up to 20%).

For a More Concentrated Beam, Longer Range, Brighter Light and a Longer Life, We Recommend the Quartz/Halogen Bulbs.

Voltage	Approx. Range Miles*	Bulb Catalog Number	Bulb Type	Socket Type	Socket Code Letter	Wattage	Rated Life Hours**	Maximum Candlepower Output	Horizontal Beam Spread Degrees	Vertical Beam Spread Degrees	Mfg. Bulb Code
32	1-2/3	806	Incandescent	Medium Screw	B	500	50	3,520,000	3.5	3.7	DLT
120	1-3/8	837	Incandescent	Medium Prefocus	E	750	200	2,076,000	3.6	4.2	DDY
120	1-5/8	845	Quartz/Halogen	Medium Prefocus	E	750	200	2,871,000	3.6	5.4	BTP
120	1-5/8	807	Incandescent	Medium Prefocus	E	500	25	3,191,000	3.5	4.0	CZX
120	1-2/3	859	Quartz/Halogen	Mogul Prefocus	M	2000	250	3,633,000	9.4	5.9	BVW
120	1-2/3	847	Quartz/Halogen	Mogul Prefocus	M	1000	200	3,659,000	4.5	5.4	BVV
120	1-3/4	844	Quartz/Halogen	Medium Prefocus	E	500	500	3,861,000	3.0	5.4	BTL
120	1-3/4	809	Incandescent	Medium Prefocus	E	750	25	4,569,000	3.6	4.5	DDB
120	1-7/8	846	Quartz/Halogen	Medium Prefocus	E	1000	200	4,601,000	4.5	5.4	BTR
120	2	848	Quartz/Halogen	Mogul Prefocus	L	1500	100	5,596,000	5.9	5.7	DTA
120	2	810	Incandescent	Medium Prefocus	E	1000	25	5,622,000	3.6	4.2	DRS
120	2	839	Quartz/Halogen	2-Pin Prefocus	K	900	75	5,769,000	5.9	5.4	BVA
120	2-1/8	840	Incandescent	Mogul Prefocus	L	1500	25	5,968,000	5.6	5.4	DTJ
230	1-3/8	860	Incandescent	Medium Prefocus	E	1000	950	2,162,000	7.9	6.5	FKD

*The approximate ranges listed above are based on photometric measurements of beam candlepower output under ideal conditions. Many factors such as atmospheric conditions, size and color of target, background, etc., may reduce effective range considerably; therefore, these figures are offered only as a guide to compare different bulb and voltage options.

PLEASE ORDER CAREFULLY, BULBS ARE NOT RETURNABLE.

**NOTE: These are the "Rated Average Laboratory Life in Hours" of the Bulb Manufacturer obtained in closely controlled laboratory life testing of groups of lamps at their design voltage. It is not necessarily the same as the service life where conditions such as shock, vibration, voltage fluctuation and environment may result in a shorter average attained life.

Electric Socket and Support Stand Assemblies for 19 Inch Searchlights

Solar-Ray® Searchlights include a socket and support stand based on the bulb or socket information given when ordering. The following chart makes it possible to order and stock different assemblies for field conversion, to meet a large variety of voltage and candlepower requirements with a minimum of inventory.

ORDERING INFORMATION			
Socket Type	Socket Code	Socket & Stand Catalog Number	Height Stand Inches
Medium Screw	B	872 004	5-3/4
Medium Prefocus	E	873 004	5-7/16
Mogul Prefocus (1500 Watt)	L	1930 004	3-5/8
Mogul Prefocus (1000 & 2000 Watt)	M	1931 004	3-1/8
2-Pin Prefocus (900 Watt)	K	880 004	7-5/16

SPARE PARTS FOR 19 INCH SERIES SOLAR RAY® SEARCHLIGHTS

ORDERING INFORMATION					
Fig. No.	Front Glass Cat. No.	Front Door with Glass Cat. No.	Rear Cover Cat. No.	Reflector* Cat. No.	Pinion Gear Cat. No.
1901	889 004 CLR	1936 000 WHT	1932 000 WHT	890 004	---
1902	889 004 CLR	1936 000 WHT	1933 000 WHT	890 004	905

*Replacement Retaining Clips (Cat. No. 911) for the Reflector Should Also Be Ordered When Ordering a Replacement Reflector to Assure a Proper Fit.

SPARE SOCKETS
FOR 883/884/885 SERIES AND 1901 & 1902 SERIES SOLAR-RAY® SEARCHLIGHTS

ORDERING INFORMATION



Medium Screw Socket
 (Code "B")
 Catalog No. 894.



Medium Prefocus Socket
 (Code "E")
 Catalog No. 895.



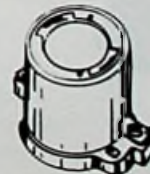
2-Pin Prefocus Socket
 (Codes "F, G, H & I")
 Catalog No. 899.



2-Pin Prefocus Socket
 (Code "K")
 Catalog No. 866.



Mogul Screw Socket
 (Codes "D")
 Catalog No. 897.



Mogul Prefocus Socket
 (Codes "L & M")
 Catalog No. 893.

*For Use In 10", 12" and 14" Searchlights Except When Catalog No. 839, 900 Watt Bulb is Used.
 **For Use In 12", 14" and 19" Searchlights Only When the Catalog No. 839, 900 Watt Bulb is Used.

VARO-RAY™ XENON SEARCHLIGHTS

15" HOUSINGS - 500 WATT, 110 OR 220 VAC POWER SUPPLY
19" HOUSINGS - 1600 WATT, 220 OR 440 VAC POWER SUPPLY

VARO-Ray Xenon Searchlights are designed and manufactured to meet the demanding needs of commercial marine applications. The short arc Xenon filled lamps produce an extremely bright and very white light which can be focused in the pilothouse into a narrow long range beam. The heavy duty head of the 1,600 watt light is a marine grade aluminum casting with integral cooling fins to assure cool operation at high output levels. The cast marine aluminum yoke & base are equally rugged. High quality Timkin bearings provide for smooth 380° rotation.

The VARO-Ray 9854 Series is available manually controlled with a traditional lever gear control system or remotely controlled with a distant electric control system. In addition, an optional heating capability is available to assure trouble free operation in areas of the world prone to icing conditions. The 9854 Series searchlight can be operated continuously at 1,600 watts for maximum brightness providing in excess of 100,000,000 candle power and up to 5.5 mile (IES Handbook) range. The 9304 series searchlight can be operated continuously at 500 watts for a maximum brightness of 35,000,000 candlepower and over 3 1/2 mile (ES Handbook) range. An iridium coated precision reflector provides for maximum light output and sharp focus. The remote control panel controls lamp ignition (start-up) and focus from the pilot house. Superior cooling is provided by a heavy duty cooling fan which blows air across the lamp inside the sealed housing.

Both Series Searchlights include a single Xenon lamp. Perko offers a choice of several replacement lamps (800, 1,000 & 1,600 watt) which will operate in the series 9854 searchlight when the proper amperage settings have been chosen. For the 9304 series, a 500 watt Xenon lamp is the only available option.

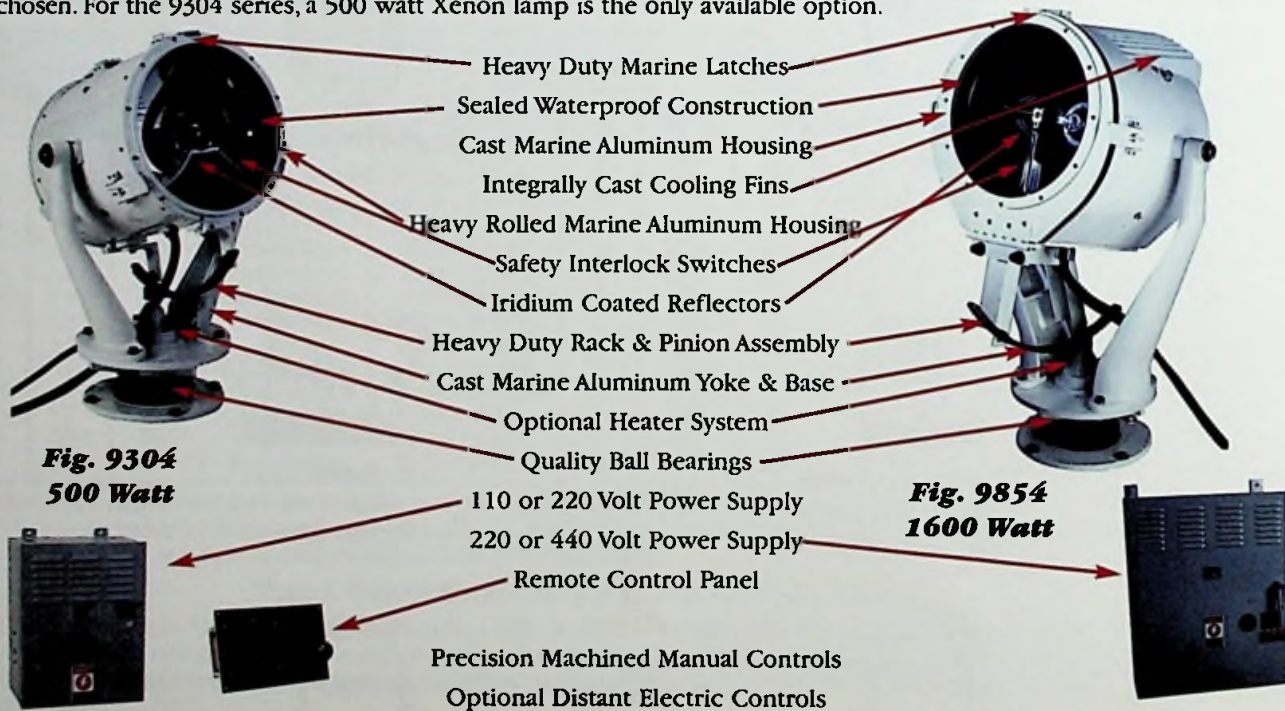


Fig. 9304
500 Watt

Fig. 9854
1600 Watt

Lever Gear

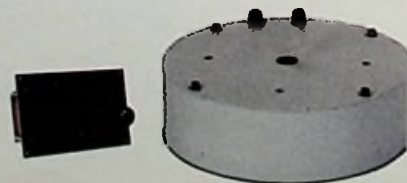
Aim handle for horizontal position.
Twist handle for vertical position.



CONTROL TYPES

REMOTE ELECTRIC

Joystick type controller for both horizontal & vertical positioning



VARO-RAY™ XENON SEARCHLIGHTS

**VARO-Ray™ Xenon Lamp
ORDERING INFORMATION**



WARNING!!
 Xenon lamps are filled with Xenon Gas under high pressure. They may explode in either hot or cold state, especially if dropped or mishandled. **ALWAYS** wear protective safety equipment (a protective face mask with neck guard, chest protector, heavy clothing and leather gloves) when handling a lamp.

AMPERAGE RATINGS

Xenon Lamp Size	Catalog Number	Current Range	Recommended Operation	Candle Power	Range Miles
300 Watt*	9563-000	12A - 16A	15A @ 20V	20,000,000	3.1
500 Watt*	9565-000	20A - 30A	30A @ 15V	35,000,000	3.8
800 Watt	9568-000	30A - 45A	37A @ 19V	65,000,000	4.5
1000 Watt	9560-000	30A - 55A	50A @ 20V	80,000,000	5.1
1600 Watt	9566-000	50A - 70A	65A @ 24V	100,000,000	5.5

* 300W and 500W lamps shown as replacements on VARO 300W and 500W Searchlights only - Not used on 9854 Series Searchlights.

**LAMP WARRANTIES REQUIRE COMPLETION OF WARRANTY
REGISTRATION FORMS SHORTLY AFTER
PURCHASE AND INSTALLATION**

PERKO
Purchase Notification

Purchase Price _____

Date Completed _____

Date of Purchase _____

Authorized Dealer _____

Motor Vessel Name _____

PERKO Inc.
Miami, FL 33169

PERKO
Warranty Registration

Purchase Price _____

Hour Meter Reading _____

Date of Installation _____

Authorized Dealer _____

Motor Vessel Name _____

PERKO Inc.
Miami, FL 33169

NOTE: PERKO offers a limited warranty on both the shelf and operating life of the VARO-Ray™ Xenon lamps. Please see the VARO-Ray™ "Limited Eighteen (18) Month Warranty" for all explicit terms and conditions of this warranty.

All VARO-Ray™ Xenon lamps are supplied with an adapter sized to fit VARO-Ray™ Searchlights. Adapters for other searchlights can be manufactured upon request. Contact customer service for details.

VARO-RAY™ XENON SEARCHLIGHTS

(500 WATT) WITH 120 OR 220 VAC POWER SUPPLY

SEARCHLIGHT DIMENSIONS

Nominal Drum
Diameter
Inches
13-3/4

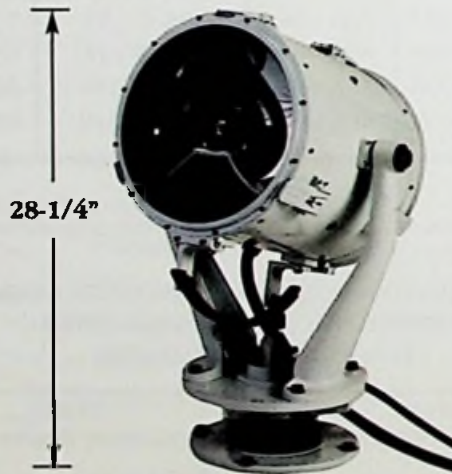
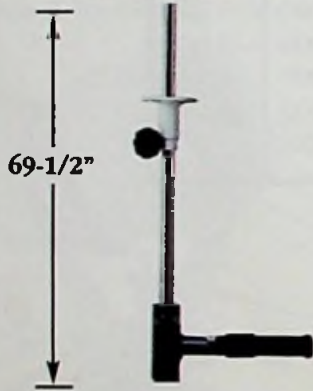
Nominal Searchlight
Assembly Weight
Pounds
71

17-3/4"
Front to Back

13-3/4"

**FIG. 9304 LIGHT
SHOWN WITH
REMOTE DISTANT
ELECTRIC CONTROL
BASE**

**FIG. 9304 LIGHT
SHOWN WITH
LEVER/GEAR
CONTROL**



**FIG. 9304
HEAD, YOKE AND BASE ASSEMBLY**

**FIG. 9511-000
500 WATT POWER SUPPLY**

Gross Shipping Weight
Including Crate
Searchlight
Power Supply
Control Rod & Tube

Pounds
130 Lbs
100 Lbs
19 Lbs

Base Diameter, 12 Inches.

Complete VARO-Ray™ Searchlight

ORDERING INFORMATION With Distant Electric Control Base

Lamp Type & Lamp Size	Voltage	Catalog No. Without Heaters	Catalog No. With Heaters
500 Watt Xenon	120 VAC	9304-E01-WH5	9304-EH1-WH5
500 Watt Xenon	220 VAC	9304-E02-WH5*	9304-EH2-WH5*

ORDERING INFORMATION With Lever/Gear Controls

Lamp Type & Lamp Size	Voltage	Catalog No. Without Heaters	Catalog No. With Heaters
500 Watt Xenon	120 VAC	9304-L01-WH5	9304-LH1-WH5
500 Watt Xenon	220 VAC	9304-L02-WH5*	9304-LH2-WH5*

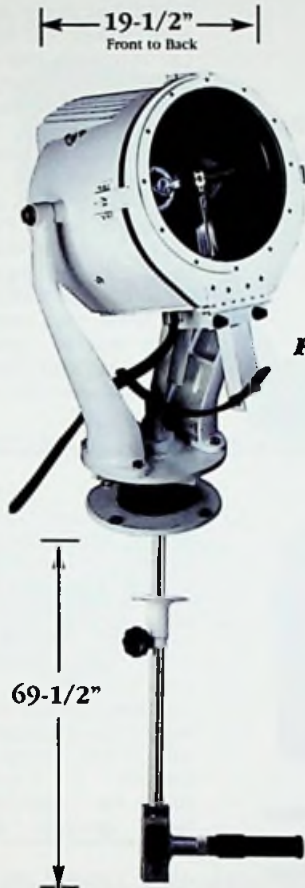
NOTE: Lamps are included with complete Searchlights.

* 500 Watt 220 Power Supply Ships 60hz unless 50hz is requested.

VARO RAY™ XENON SEARCHLIGHTS

(1600 WATT) WITH 220 & 440 (3Ø) VAC POWER SUPPLIES

SEARCHLIGHT DIMENSIONS



Nominal Drum Diameter
Inches
19

Nominal Searchlight Assembly Weight
Pounds
145

FIG. 9854 LIGHT SHOWN WITH LEVER/GEAR CONTROL



FIG. 9854 LIGHT SHOWN WITH REMOTE DISTANT ELECTRIC CONTROL BASE

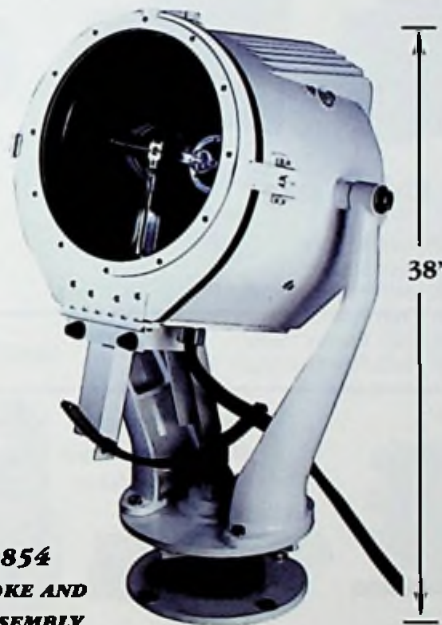


FIG. 9854 HEAD, YOKE AND BASE ASSEMBLY



FIG. 9512 POWER SUPPLY

Gross Shipping Weight
Searchlight
Power Supply
Control Rod & Tube

Pounds
258 Lbs
264 Lbs
19 Lbs

Base Diameter, 12 Inches.

Complete VARO-Ray™ Searchlight

ORDERING INFORMATION With Distant Electric Control Base

Lamp Type & Lamp Size	Voltage	Catalog No. Without Heaters	Catalog No. With Heaters
800 Watt Xenon	220 VAC	9854-E02-WH8	9854-EH2-WH8
1000 Watt Xenon	220 VAC	9854-E02-WH0	9854-EH2-WH0
1600 Watt Xenon	220 VAC	9854-E02-WH6	9854-EH2-WH6
800 Watt Xenon	440 VAC	9854-E04-WH8	9854-EH4-WH8
1000 Watt Xenon	440 VAC	9854-E04-WH0	9854-EH4-WH0
1600 Watt Xenon	440 VAC	9854-E04-WH6	9854-EH4-WH6

ORDERING INFORMATION With Manual Lever Control

Lamp Type & Lamp Size	Voltage	Catalog No. Without Heaters	Catalog No. With Heaters
800 Watt Xenon	220 VAC	9854-L02-WH8	9854-LH2-WH8
1000 Watt Xenon	220 VAC	9854-L02-WH0	9854-LH2-WH0
1600 Watt Xenon	220 VAC	9854-L02-WH6	9854-LH2-WH6
800 Watt Xenon	440 VAC	9854-L04-WH8	9854-LH4-WH8
1000 Watt Xenon	440 VAC	9854-L04-WH0	9854-LH4-WH0
1600 Watt Xenon	440 VAC	9854-L04-WH6	9854-LH4-WH6

NOTE: Lamps are included with complete Searchlights.

MAJOR COMPONENT ORDERING INFORMATION



Fig. 9521-000



Fig. 9501-000
19" HEAD ASSY



Fig. 9504-000
15" HEAD ASSY



Fig. 9506-000
19" ASSY YOKE



Fig. 9508-000
15" ASSY YOKE

A unique design feature of the 1600 Watt V A R O - R a y '™ Searchlight is the ease with which the optical assembly can be changed. By removing a few bolts and easily accessible wires, the entire assembly comes out the front of the searchlight as one complete unit. Even older VARO-Ray™ lights can be upgraded to current technology with just a simple swap out of optical assemblies and power supplies.

SEARCHLIGHT HEAD AND OPTICAL COMPONENTS

Catalog Number	Description
9504-000	Complete 15" Searchlight Head with Optical Assembly.
9508-000	15" Searchlight Yoke & Base Assembly Only.
9501-000	Complete 19" Searchlight Head with Optical Assembly.
9506-000	19" Searchlight Yoke & Base Assembly Only.
9521-000	Removable 1,600 Watt Optical Assembly.



Figs.
9512-000
&
9514-000
1600 WATT POWER
SUPPLIES



Fig. 9511-000
500 WATT
POWER SUPPLY

VARO-Ray™ power supplies are made using high quality, durable components. Power supply units can be easily exchanged for factory rebuilt units offering a low cost means of repairing or upgrading older units in the field. All power supplies include a remote panel for controlling lamp ignition and focus.

POWER SUPPLY COMPONENTS

Catalog Number	Description
9511-000-110	500 Watt-110 Volt Power Supply
9511-000-220	500 Watt-220 Volt Power Supply
9510-000-220	1,000 Watt-220 Volt (3Ø) Power Supply
9510-000-440	1,000 Watt-440 Volt (3Ø) Power Supply
9512-000	1,600 Watt-220 Volt (3Ø) Power Supply
9514-000	1,600 Watt-440 Volt (3Ø) Power Supply

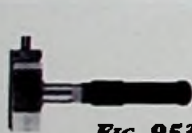


Fig. 9530

LEVER CONTROL
HANDLE



Fig. 9551-000
DISTANT ELECTRIC
CONTROL BASE



CONTROL COMPONENTS

Catalog Number	Description
9530-000	Standard Length Lever Gear Mechanical Controls for Fig. 9854.
9551-000	Remote Distant Electric Controls for Fig. 9854.
9551-001	Additional Slave Controller for Distant Electric Control.

VARO-Ray™ lights can be controlled using conventional mechanical lever gear controls or upgraded to remote distant electric control systems. The standard length for lever gear systems is 72 inches. Custom lengths are available. In either case searchlight movement is 380° horizontal and 70° vertical.



Fig. 9582-001



Fig. 9582-002

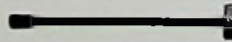


Fig. 9582-003

SEARCHLIGHT TOOLS

Catalog Number	Description
9582-001	9/64" Hex (Lamp Changing) Tool.
9582-002	500 Watt and 1KW Lamp Extractor Tool.
9582-003	1/4" x 10" Reflector Adjusting Wrench.
9582-005	Spare Emulator Kit for Fig. 9854 (See Manual Fig. 9581-001 for item list).

A number of custom produced tools make working with and on VARO-Ray™ searchlights easier. One of the best (and safest) ways to evaluate the performance of older units in the field is with the Xenon lamp emulator kit which simulates Xenon lamps while running and during start-up. Other tools help adjust focus and install lamps.

VARO RAY™ XENON SEARCHLIGHTS

ADDITIONAL COMPONENT ORDERING INFORMATION

TRANSFORMERS



Fig. 9510-001
Accessory Transformer



Fig. 9510-013
Main Power Transformer



Fig. 9521-009
Excitation Transformer



Fig. 9521-017
Injection Transformer

METERS, GAUGES & CONTROL PANELS



Fig. 9510-009
Remote Ammeter



Fig. 9510-003
Hour Meter



Fig. 9510-010
Control Panel
Assembly



Fig. 9551-007
Distant Electric
Base Control Panel



Fig. 9551-001
Slave Controller

FANS, SPARK GAP ASSEMBLY & SWITCHES



Fig. 9510-011
Power Supply Fan



Fig. 9521-008
Optical Assembly Fan

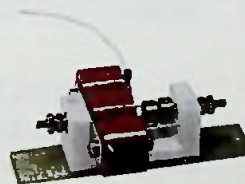


Fig. 9521-003
Spark Gap Assembly



Fig. 9510-005
Ignite Toggle
Switch



Fig. 9510-006
Beam Focus Switch

MANUALS

Catalog Number	Description
9581-001	Installation Manual - For Fig. 9854 Complete Searchlights.
9581-002	Installation Manual - For Fig. 9551 Remote Distant Electric Control Unit.
9581-003	Installation Manual - For Figs. 9501 & 9521 Head and Optical Assemblies.
9581-004	Installation Manual - For Fig. 9304 Complete Searchlights.



FIG. 9581

Major Component Maintenance Program

Varo-Ray Searchlights are designed around a modular component concept. This makes replacing major assemblies like the Optical Assembly, Distant Electric Controls and the Power Supply extremely simple. Our new Major Assembly "Swap out" program is designed to take full advantage of this feature. As an alternative to attempting to fix or replace individual components on board, complete assemblies can be exchanged inexpensively for factory rebuilt replacements. The sturdy shipping containers can be used to return the old assembly for core value. We determine the core value based on the condition of the components and issue credit for their value. There are two ways to take advantage of this program:

1. **Major Assembly Maintenance Plan** - At the time you purchase your new Varo-Ray searchlight, you can contract for this plan which extends your original warranty from 12 months to as long as 60 months. The plan can be paid for completely at the time of purchase or renewed annually (provided the warranty does not expire before renewal).
2. **Per Occurrence** - Any time while you own your Varo-Ray light, you can purchase a rebuilt assembly (providing you return the failed unit for core credit). These assemblies are factory rebuilt by qualified technicians and tested to the same standards as new assemblies. They come with a 6 month warranty.

Rebuilt components can be ordered ahead of time so they arrive during scheduled maintenance periods. Or you can use the program for on the spot repairs. There is usually an inventory of rebuilt assemblies on hand and available for quick emergency shipment. Here are the assemblies in the program. Give us a call for more details and prices.

<u>Figure Numbers</u>	<u>Item Description</u>
9501-000-EXC	Complete 19" Searchlight Head (1)
9504-000-EXC	Complete 15" Searchlight Head (1)
9510-000-EXC	1Kw Power Supply
9511-000-EXC	500 W Power Supply
9512-000-EXC	1.6 Kw 220 Volt Power Supply
9514-000-EXC	1.6 Kw 440 Volt Power Supply
9521-000-EXC	Removable 1600 Watt Optical Assembly (2)
9530-000-EXC	Standard Length Mechanical Controls
9551-000-EXC	Distant Electric Controls
9570-000-EXC	Electrical Heating System

(1) Includes Head, Optical Assembly, Yoke & Base.
DOES NOT INCLUDE LAMP.

(2) DOES NOT INCLUDE LAMP.

BATTERY SELECTOR SWITCHES

FIG. 8603 - HEAVY DUTY BATTERY SELECTOR SWITCH

IGNITION PROTECTED

MAKE BEFORE BREAK DESIGN, FOR USE WITH TWO OR MORE BATTERIES AND SINGLE OR DUAL ENGINES. ALTERNATOR FIELD DISCONNECT TO PREVENT DAMAGE TO ALTERNATOR IF ACCIDENTALLY SWITCHED TO THE "OFF" POSITION WHILE ENGINE IS RUNNING.

FIBER-REINFORCED POLYCARBONATE BODY 1/2 INCH DIAMETER BRASS BATTERY TERMINALS
 FOR USE WITH SYSTEMS UNDER 50 VOLTS.
 CAPACITY - RATED 380 AMPS CONTINUOUS,
 850 AMPS INTERMITTENT (5 MINUTES ON, 5 MINUTES OFF).



FIG. 8603



ORDERING INFORMATION

Dimensions Face Inches	Depth Inches	Dealer Pkg. - 2 Pkgs. 1 Pc. per Pkg.	Weight Pounds
5-1/4 x 5-1/4	3-3/8	8603 DP	2-1/2

FIG. 9703 - HEAVY DUTY BATTERY DISCONNECT SWITCH

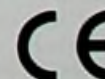
IGNITION PROTECTED

THIS UNIT IS THE SAME BASIC DESIGN AND CONSTRUCTION AS OUR 8603 SERIES, EXCEPT IT IS OFFERED AS A MAIN DISCONNECT SWITCH WITH A HIGHER CAPACITY RATING.

FOR USE WITH SYSTEMS UNDER 50 VOLTS.
 CAPACITY - RATED 450 AMPS CONTINUOUS,
 1200 AMPS INTERMITTENT (15 SECONDS ON, 5 MINUTES OFF).



FIG. 9703



ORDERING INFORMATION

Dimensions Face Inches	Depth Inches	Dealer Pkg. - 2 Pkgs. 1 Pc. per Pkg.	Weight Pounds
5-1/4 x 5-1/4	3-3/8	9703 DP	2-1/2

INTAKE WATER STRAINERS

FIGS. 493 & 500 - INTAKE WATER STRAINERS

CAST BRONZE

PERKO WATER STRAINERS ARE DESIGNED FOR EASY INSTALLATION AND CLEANING. FEATURES INCLUDE MOUNTING LUGS CAST INTO BOTH SIDES TO ASSURE UNIVERSAL MOUNTING, FOUR OUTSIDE TIE RODS AND A 304 STAINLESS STEEL STRAINER BASKET TO MINIMIZE ELECTROLYSIS. SCREEN HOLE SIZE DIAMETER .077 INCHES, 46% OPEN AREA. HINGED LUGS FOR THE CAST BRONZE COVER PERMIT EASY REMOVAL AND CLEANING OF THE STRAINER BASKET. A DRAIN PLUG IN THE BOTTOM CASTING IS PROVIDED FOR EASILY REMOVING SEDIMENT AND DRAINING FOR WINTERIZING.

FOR APPLICATIONS REQUIRING HIGHER CAPACITY SEE FIG. 500 BELOW



Fig. 493

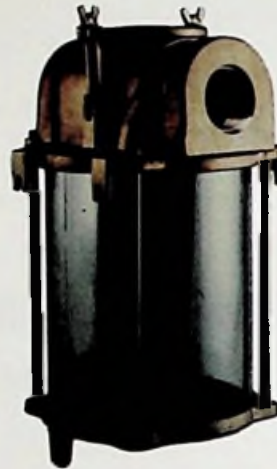


Fig. 500

ORDERING INFORMATION FOR FIG. 493

Pipe Size Inches	Height Overall Inches	Width Overall Inches	Standard Pkg. - 1 Pc.	Dimensions Cylinder Inches	Dimensions Basket Inches	Open Area To Pipe Size Ratio	Weight Pounds	Spare Gasket Kit* Dealer Pkg. - 5 kts 1 Kit. per Bag
1/2	5-3/4	4-1/2	493 004 PLB	3-1/2 x 4	1-13/16 x 4-3/8	30:1	4-3/4	493 DP5 99M or 99R
3/4	8-3/8	4-1/2	493 005 PLB	3-1/2 x 6	1-13/16 x 6-1/4	25:1	5	493 DP5 99M or 99R
1	9-1/2	5-1/2	493 006 PLB	4-1/2 x 5-1/2	2-5/8 x 5-7/8	20:1	8	493 DP7 99M or 99R
1-1/4	10	5-1/2	493 007 PLB	4-1/2 x 6	2-5/8 x 6-1/4	13:1	8	493 DP7 99M or 99R
1-1/2	11-1/2	7-1/4	493 008 PLB	6 x 8	3-5/16 x 8-7/16	17:1	14	493 DP9 99M or 99R
2	16	7-1/2	493 009 PLB	6 x 12	3-5/16 x 12-1/4	13:1	18	493 DP9 99M or 99R
2-1/2	16	7-1/2	493 010 PLB	6 x 12	3-5/16 x 12-1/2	10:1	18	493 DP9 99M or 99R

ORDERING INFORMATION FOR FIG. 500

Pipe Size Inches	Height Overall Inches	Width Overall Inches	Standard Pkg. - 1 Pc.	Dimensions Cylinder Inches	Dimensions Basket Inches	Open Area To Pipe Size Ratio	Weight Pounds	Spare Gasket Kit* Standard Pkg. - 1 kit
2	14-1/2	9	500 009 PLB	8 x 10	3-7/8 x 10-1/4	20:1	36	500 DP9 99M or 99R
2-1/2	16-1/2	9	500 010 PLB	8 x 12	3-7/8 x 12-1/4	18:1	35	500 DP9 99M or 99R
3	18-1/2	9	500 011 PLB	8 x 14	3-7/8 x 14-1/4	14:1	34-1/2	500 DP9 99M or 99R

*Spare Gasket Kit Consists of: 1 - Cover Gasket and 2 - Cylinder Gaskets.

INTAKE WATER STRAINER SPARE PARTS ORDERING INFORMATION

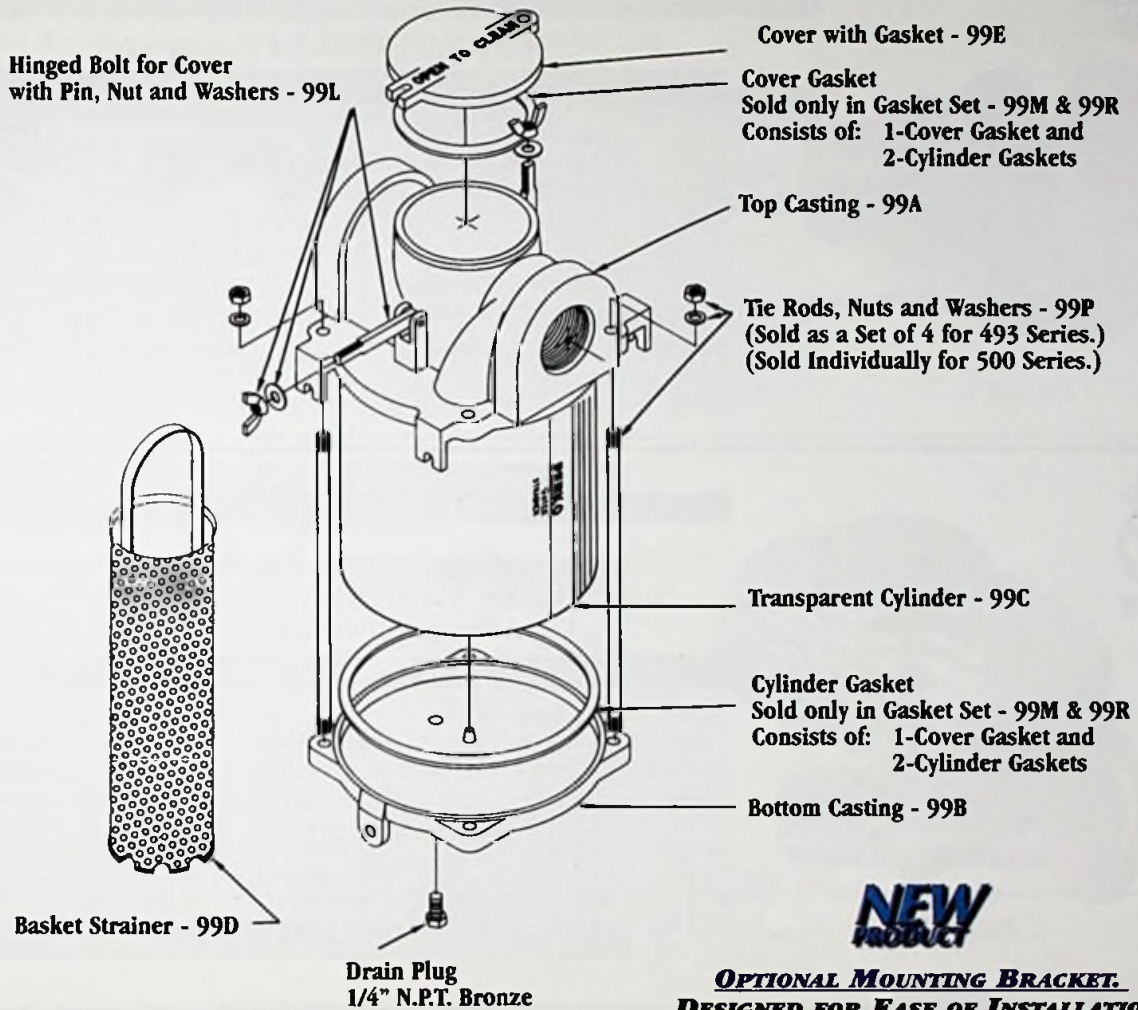
For Spare Part No. Insert a Spare Part Code Listed Below in Place of the "PLB" in the Strainer's Catalog Number (i.e., 493 006 99A, Top Casting for 1" Strainer).

Description	Spare Part Code	Sample Part Number	Package	Description	Spare Part Code	Sample Part Number	Package
Top Casting	99A	493 004 99A	Boxed	Cork Gasket Kit Consists of:			
Bottom Casting	99B	493 004 99B	Boxed	1- Cover Gasket and			
Transparent Cylinder	99C	493 004 99C	Boxed	2- Cork Cylinder Gaskets	99M*	493 DP5 99M	Bag
Basket Strainer	99D	493 004 99D	Boxed	Rubber Gasket Kit Consists of:			
Cover with Gasket	99E	493 004 99E	Boxed	1- Cover Gasket and			
Hinged Bolt for Cover				2- Rubber Cylinder Gaskets	99R*	493 DP5 99R	Bag
With Pin, Nut and Washer	99L	493 DP5 99L	Bag	Tie Rods, Nuts and Washers			
				Consists of (4 Each for 493 Series)			
				(1 Each for 500 Series)	99P	493 DP4 99P	Bag

*Note Older Model strainers utilizing cork cylinder gaskets must order 99M - Cork Gasket Kit, and newer model strainers must order 99R - Rubber Gasket Kit

INTAKE WATER STRAINERS

FIGS. 493 & 500 - INTAKE WATER STRAINERS SPARE PARTS ORDERING INFORMATION



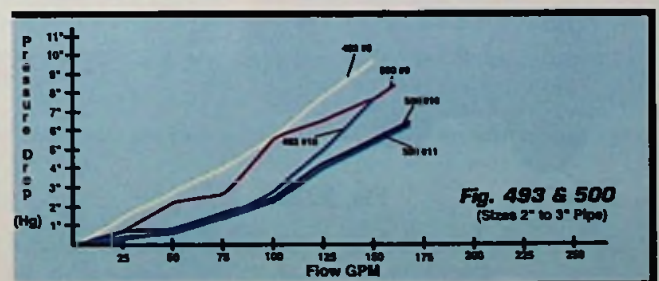
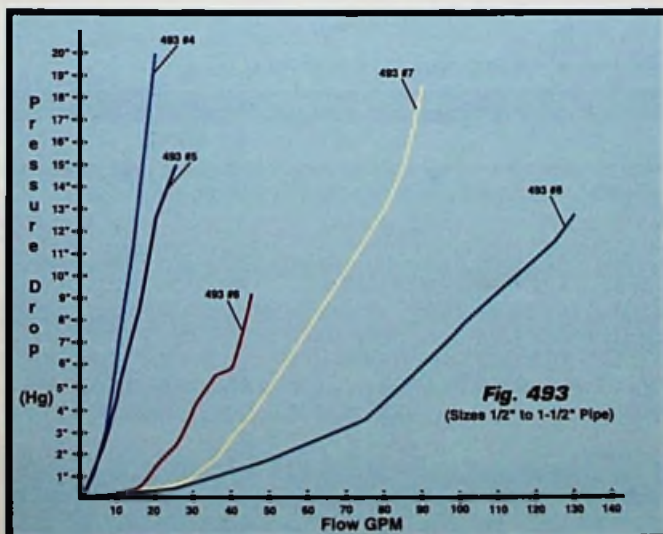
NEW PRODUCT

OPTIONAL MOUNTING BRACKET.
DESIGNED FOR EASE OF INSTALLATION
OF FIG. 493 SERIES WATER STRAINERS



PART NUMBER	FITS STRAINER SIZE
493 045 BKT	4 & 5
493 067 BKT	6 & 7
493 089 BKT	9

FIGS. 493 & 500 - DIFFERENTIAL PRESSURE GRAPHS



THRU-HULL CONNECTIONS



Fig. 331

FIG. 331 - FLUSH MOUNT THRU-HULL CONNECTION

CAST BRONZE - FOR USE WITH PIPE

THE EXTERIOR SURFACE OF THE FLANGE IS MACHINED FLAT AND DESIGNED TO BE COUNTERSUNK INTO THE HULL, RESULTING IN A SMOOTH EXTERNAL FIT WITH NO RAISED PORTION TO INCREASE DRAG.

ORDERING INFORMATION

Pipe Size Inches	Max. Hull Thickness Inches	O.D. Flange Inches	Dealer Pkg. 5 Pcs	OEM Bulk Package	OEM Bulk Pkg. Qty	Weight Pounds
1/2	2-3/16	1-11/16	331 DP4 PLB	331 004 PLB	10	3/8
3/4	2-3/8	2	331 DP5 PLB	331 005 PLB	10	1/2
1	2-9/16	2-1/4	331 DP6 PLB	331 006 PLB	10	3/4
1-1/4	2-15/16	2-7/8	331 DP7 PLB	331 007 PLB	10	1-1/4
1-1/2	3-1/16	2-31/32	331 DP8 PLB	331 008 PLB	10	1-3/8
2	3-3/8	3-7/8	————	331 009 PLB	1	2-1/4



ILLUSTRATION OF BEDDING GROOVE



Fig. 348

FIG. 348 - EXTRA LONG THRU-HULL CONNECTION

CAST BRONZE - FOR USE WITH PIPE

FLANGE IS MACHINED TO FIT HULL AND GROOVED TO RETAIN BEDDING COMPOUND. NECK IS THREADED TO APPROXIMATELY 3/8 INCH FROM FLANGE.

ORDERING INFORMATION

Pipe Size Inches	Max. Hull Thickness Inches	O.D. Flange Inches	Dealer Pkg. 5 Pcs.	OEM Bulk Package	OEM Bulk Pkg. Qty	Weight Pounds
3/4	5	1-7/8	348 DP5 PLB	348 005 PLB	25	7/8
1	4-7/8	2-1/4	348 DP6 PLB	348 006 PLB	10	1
1-1/4	4-5/8	2-3/4	348 DP7 PLB	348 007 PLB	10	1-3/4
1-1/2	4-5/8	3	348 DP8 PLB	348 008 PLB	10	2-1/4
2	4-1/2	3-5/8	————	348 009 PLB	1	2-7/8
2-1/2	4-1/4	4-5/16	————	348 010 PLB	1	3-1/2



ILLUSTRATION OF BEDDING GROOVE

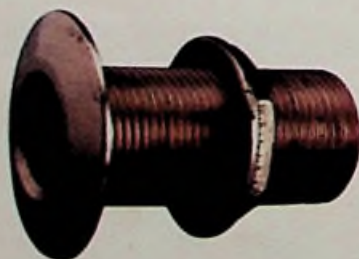


Fig. 322

FIG. 322 - THRU-HULL CONNECTION

CAST BRONZE-FOR USE WITH PIPE

FLANGE IS MACHINED TO FIT HULL AND GROOVED TO RETAIN BEDDING COMPOUND. NECK IS THREADED TO APPROXIMATELY 3/8 INCH FROM FLANGE.

ORDERING INFORMATION

Pipe Size Inches	Max. Hull Thickness Inches	O.D. Flange Inches	Dealer Pkg. 5 Cards	Std. Pkg. 1 Pc.	OEM Bulk Pkg. 25 Pcs.	Weight Pounds
3/8	1-3/4	1-7/16	322 DP3 PLB	————	322 003 PLB	1/4
1/2	1-3/8	1-1/2	322 DP4 PLB	————	322 004 PLB	3/8
3/4	1-1/2	1-7/8	322 DP5 PLB	————	322 005 PLB	3/8
1	1-7/8	2-3/16	322 DP6 PLB	————	322 006 PLB	3/4
1-1/4	2	2-3/4	322 DP7 PLB	————	322 007 PLB	1
1-1/2	2-1/4	3	322 DP8 PLB	————	*322 008 PLB	1-1/2
2	2-3/8	3-5/8	————	322 009 PLB	*322 009 PLB	2
2-1/2	2-5/8	4-1/2	————	322 010 PLB	————	2-7/8
3	2-3/4	5	————	322 011 PLB	————	4-5/8

* O.E.M. Bulk Pkg. - 10 pcs

INTAKE, SCOOP & PUMP STRAINERS



FIG. 65 - INTAKE STRAINER

CAST BRONZE WITH MACHINED SLOTS

ORDERING INFORMATION

Pipe Size Inches	Max. Hull Thickness Inches	Dimensions Strainer Inches	Dealer Pkg. 5 Pcs	OEM Bulk Pkg. 10 Pcs.	Weight Pounds
1/2	2-1/4	3 x 4	65 DP4 PLB	65 004 PLB	3/4
3/4	2-3/16	3 x 4	65 DP5 PLB	65 005 PLB	1
1	2-1/2	3 x 4	65 DP6 PLB	65 006 PLB	1-1/4
1-1/4	3	3-1/4 x 4-1/4	65 DP7 PLB	65 007 PLB	1-5/8

Screw Size #8.



FIG. 65

FIG. 66 - SCOOP STRAINER

CAST BRONZE WITH MACHINED SLOTS

ORDERING INFORMATION

For Thru-Hull Sizes Inches	Dimensions Strainer Inches	Dealer Pkg. 5 Pcs	Standard Package - 5 Pc.	Weight Pounds
3/8 & 1/2	3-1/2 x 2-1/2	66 DP1 PLB	66 001 PLB	3/8
3/4 & 1	5 x 3-1/4	66 DP2 PLB	66 002 PLB	7/8
1-1/4 & 1-1/2	6-1/4 x 4-1/4	66 DP3 PLB	66 003 PLB	1-1/4
2	8 x 5-1/8	66 DP4 PLB	66 004 PLB	2

Screw Size #8.



FIG. 66



FIG. 709 - PUMP STRAINER

CAST BRONZE

ORDERING INFORMATION

Hose Size Inches	Length Overall Inches	Width Overall Inches	Dealer Pkg. 5 Pcs.	Weight Ounces
5/8	3-5/8	1-3/4	709 DP PLB	8-3/4



FIG. 709

FIGS. 721 & 722 - PUMP STRAINERS

CAST BRONZE

ORDERING INFORMATION

Pipe Size Inches	Length Overall Inches	Width Overall Inches	Standard Package - 1 Pc.	Weight Pounds
1-1/4	4-3/4	2-3/4	721 000 PLB	1-5/8
1-1/4	4-1/2	2-3/4	722 000 PLB	1-3/8



FIG. 721



FIG. 722

FIGS. 834 & 835 SEACOCKS - BALL VALVE DESIGN



Fig. 834



CAST BRONZE

Fig. 834 - WITH 90° CURVED HOSE ADAPTER

Fig. 835 - WITH STRAIGHT HOSE ADAPTER

INCLUDES THRU-HULL, HOSE ADAPTER, DRAIN PLUG, FOUR PRE-DRILLED MOUNTING HOLES AND BONDING SCREW. PERKO SEACOCKS INCORPORATE A PLASTIC BALL AND SEAT ASSURING A TIGHT SEAL AND EASE OF OPERATION. DRAIN PLUGS FOR WINTERIZING. HANDLES ARE EASILY REMOVED.



Fig. 835

ORDERING INFORMATION

Hose Size Inches	Pipe Size Inches	Flange Diameter Inches	Fig. 834 Overall Height*	Fig. 834 Standard Package - 1 Pc.	Fig. 835 Overall Height*	Fig. 835 Standard Package - 1 Pc.	OEM Bulk Pkg.	Bolt Size	Weight Pounds
3/4	3/4	3-1/4	5-7/8	834 005 PLB	5	835 005 PLB	5	5/16	3
1	1	4-3/8	6-3/8	834 006 PLB	5-3/8	835 006 PLB	—	3/8	5-1/8
1-1/4	1-1/4	4-7/8	7-5/8	834 007 PLB	6-1/4	835 007 PLB	5	3/8	8-1/4
1-1/2	1-1/2	5-1/2	8-3/8	834 008 PLB	6-5/8	835 008 PLB	5	3/8	10
2	2	5-3/4	10-3/8	834 009 PLB	7-7/8	835 009 PLB	—	3/8	22
2-1/2	2-1/2	7-1/4	12-1/2	834 010 PLB	10-3/8	835 010 PLB	—	1/2	25
3	3	8	14-3/8	834 011 PLB	12	835 011 PLB	—	1/2	32

* Overall Height is measured from the top of the hose adapter to the bottom of the flange.



Fig. 805

FIG. 805 SEACOCK BODY

CAST BRONZE - BALL VALVE DESIGN

THESE VALVE BODIES ARE OFFERED TO MEET THE NEEDS OF APPLICATIONS THAT REQUIRE EXTRA LONG, SCOOP OR FLUSH TYPE THRU-HULLS.

ORDERING INFORMATION

Pipe Size Inches	Fig. 805 Standard Package - 1 Pc.	OEM Bulk Pkg.	Weight Pounds
3/4	805 005 PLB	5	2-1/2
1	805 006 PLB	5	3-7/8
1-1/4	805 007 PLB	5	5-1/4
1-1/2	805 008 PLB	5	6-3/8
2	805 009 PLB	---	11
2-1/2	805 010 PLB	---	19-3/8
3	805 011 PLB	---	21-1/4

FIG. 805 - SPARE PARTS ORDERING INFORMATION

The Repair Kits Listed Below Consist of: 1 Ball, 2 Ball Seats and 2 O-Rings for the Valve Stem.

Pipe Size Inches	Repair Kit	Pipe Size Inches	Repair Kit	Pipe Size Inches	Repair Kit
3/4	805 005 99B	1-1/2	805 008 99B	3	805 011 99B
1	805 006 99B	2	805 009 99B		
1-1/4	805 007 99B	2-1/2	805 010 99B		

FOG BELLS

THE 8 AND 12 INCH DIAMETER BELLS LISTED ON THIS PAGE HAVE BEEN REVIEWED BY THE U.S. COAST GUARD AND COMPLY WITH C.G. 169 REGULATIONS FOR SOUND SIGNAL APPLIANCES AS REQUIRED BY ANNEX III PARAGRAPH 2 OF THE '72 COLREGS. THE 8 INCH SIZES ARE FOR USE ON VESSELS UNDER 20 METERS (65.6 FT.) IN LENGTH. THE 12 INCH SIZE IS FOR USE ON VESSELS OF ANY LENGTH.

FIG. 150 - FOG BELL

CAST BRONZE

PLAIN, POLISHED OR CHROME PLATED BRONZE

HEAVY WEIGHT, REMOVABLE

ORDERING INFORMATION

Bottom Diameter Inches	Height Overall Inches	Plain Bronze Std. Pkg. - 1 Pc.	Polished Bronze Std. Pkg. - 1 Pc.	Chrome Plated Bronze Std. Pkg. - 1 Pc.	Weight Pounds
8	8	150 008 PLB	150 008 POL	150 008 CHR	9-5/8
12	12	150 012 PLB	150 012 POL	150 012 CHR	31

Screw Size 1/4" F.H.



FIG. 150

FIG. 158 - FOG BELL

CAST BRONZE

PLAIN, POLISHED OR CHROME PLATED BRONZE

HEAVY WEIGHT, FIXED MOUNTING

ORDERING INFORMATION

Bottom Diameter Inches	Height Overall Inches	Plain Bronze Std. Pkg. - 1 Pc.	Polished Bronze Std. Pkg. - 1 Pc.	Chrome Plated Bronze Std. Pkg. - 1 Pc.	Weight Pounds
12	12	158 012 PLB	158 012 POL	158 012 CHR	33-1/4

Screw Size 1/4" R.H.



FIG. 158

FIG. 179 - FOG BELL

WROUGHT BRASS

PLAIN BRASS

LIGHT WEIGHT, FIXED MOUNTING

ORDERING INFORMATION

Bottom Diameter Inches	Height Overall Inches	Standard Pkg. - 1 Pc.	Weight Pounds
12	8	179 012 PLB	7-1/2

Screw Size #12 R.H.



FIG. 179

SPARE PARTS ORDERING INFORMATION

For complete Spare Part No. Insert Finish Code:

P or PLB, for Plain Bronze or Brass Finish (i.e. 150 P06 99A or 127 000 PLB)

B or POL, for Polished Bronze or Brass Finish (i.e. 150 B06 99A or 127 000 POL)

C or CHR, for Chrome Plated Finish (i.e. 150 C06 99A or 127 000 CHR)

ARMS		WALL PLATES		CLAPPERS		EYE BOLTS		ACORN NUTS	
Figure No.	Spare Part No.	Figure No.	Spare Part No.	Figure No.	Spare Part No.	Figure No.	Spare Part No.	Figure No.	Spare Part No.
150-8"	171	150-8"	127	150-8"	144	150-8"	123	150-8"	465 008
150-12"	150-99A-12"	150-12"	150-99B-12"	150-12"	172	150-12"	172	150-12"	465 009
*158-12"	158-99A-12"	*158-12"	158-99A-12"	*158-12"	172	*158-12"	172	158-12"	465 009
179	179-000-99A	179	179-000-99A	179	144	179	179-99B	179	465 008
*Includes Wall Bracket		*Includes Arm		*Includes Eye Bolt		*Includes Clapper			

DECK PLATE & CLEATS

FIG. 526 - REGULAR DECK PLATE

CAST BRONZE, PLAIN OR CHROME PLATED.

DECK PLATE KEY INCLUDED

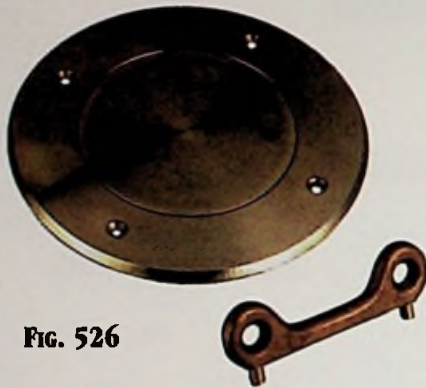


FIG. 526

ORDERING INFORMATION

I.D. Opening Inches	O.D. Overall Inches	Plain	Chrome Plated	Screw Size	Weight Pounds
		Bronze Standard Pkg. - 1 Pc.	Bronze Standard Pkg. - 1 Pc.		
3	5-3/8	526 003 PLB	526 003 CHR	10	2-1/4
4	7-1/16	526 004 PLB	526 004 CHR	10	3-1/4
5	8-3/8	526 005 PLB	526 005 CHR	10	5-1/8
6	9-3/8	526 006 PLB	526 006 CHR	1/4	7-7/8

SPARE PARTS ORDERING INFORMATION

I.D. Opening Inches	Plain Bronze Cap	Chrome Plated Bronze Cap	Spare Key Only
3	526 P03 99A	526 C03 99A	1248 010 ZNC
4	526 P04 99A	526 C04 99A	539 004 PLB
5	526 P05 99A	526 C05 99A	539 005 PLB
6	526 P06 99A	526 C06 99A	539 006 PLB

FIG. 530 - OPEN BASE CLEAT

PLAIN ALUMINUM

ORDERING INFORMATION

Length Overall Inches	Dimensions Base Inches	Max. Rope Size Inches	Standard Package - 1 Pc.	Screw Size	Weight Pounds
8	4 x 2-1/4	3/4	530 008 ALU	1/2	1-1/4
10	4-1/2 x 3	7/8	530 010 ALU	1/2	2
12	6-1/2 x 2-7/8	1	530 012 ALU	5/8	4
15	7 x 3-1/4	1-1/2	530 015 ALU	3/4	5-1/2



FIG. 530

FIG. 545 - CLEATS

PLAIN ALUMINUM

ORDERING INFORMATION

Length Overall Inches	Dimensions Base Inches	Max. Rope Size Inches	Dealer Pkg. 5 Cards 2 Pcs. per Card	OEM Bulk Package	OEM Bulk Pkg Pcs/Pkg	Screw Size	Weight Ounces
3	1-1/2 x 5/8	1/4	545 DP3 ALU	—	—	8	1-3/8
4	1-5/8 x 3/4	5/16	545 DP4 ALU	—	—	10	1-7/8
5	2 x 7/8	3/8	545 DP5 ALU	—	—	1/4	3
6	2-1/4 x 7/8	7/16	**545 DP6 ALU	545 006 ALU	50	1/4	4-1/4
*8	2-5/8 x 1-7/8	5/8	**545 DP8 ALU	545 008 ALU	25	1/4	7-3/4
*10	3-5/8 x 1-1/2	3/4	—	545 010 ALU	5	5/16	9-5/8
*12	4 x 1-1/2	7/8	—	545 012 ALU	5	5/16	13

*These Sizes are Open Base, Balance of Sizes are Closed Base.

** Dealer Package, 10 pcs., 1 Pc. per card.

LOCK AND LATCH SETS

FIGS. 918 & 919 - RIM LOCK SET

CHROME PLATED ZINC ALLOY

For Door Thickness 5/8 to 1-3/8 Inches

FIG. 918 - REGULAR BEVEL WITH BOX STRIKE

FIG. 919 - REVERSE BEVEL WITH FLUSH STRIKE

Locks by Turn Button from Inside or Key from Outside

ORDERING INFORMATION

Door Bevel/Strike Type	Dimensions Case Inches	Dimensions Escutcheon Inches	Dealer Pkg. 5 Sets 1 Set per Card	OEM Bulk Pkg. 10 Sets	Screw Size	Weight Pounds
Regular w/Box	3-7/8 x 2	4-3/8 x 1-1/4	918 DP CHR	918 000 CHR	6	1-3/8
Reverse w/Flush	3-7/8 x 2	4-3/8 x 1-1/4	919 DP CHR	919 000 CHR	6	1-3/8

Spare Box Strike, Cat. No. 918 000 99A.

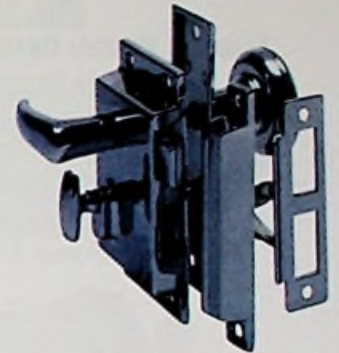
Spare Flush Strike, Cat. No. 913 DP CHR.

Spare Knob and Handle Assembly, Cat. No. 962 000 CHR.

Spare Escutcheon Plate with Keys, Cat. No. 953 000 CHR.

Spare Regular Bevel with Cam, Cat. No. 984 000 CHR.

Spare Reverse Bevel with Cam, Cat. No. 920 DP CHR.



**FIG. 918
SHOWN
ASSEMBLED**

FIGS. 927 - MORTISE LOCK SET

CHROME PLATED ZINC ALLOY

Locks by Turn Button from Inside or Key from Outside

Bevel can be Reversed During Installation

ORDERING INFORMATION

For Door Thickness Inches	Dimensions Case Inches	Dimensions Escutcheon Inches	Dealer Pkg. 5 Sets 1 Set per Card	OEM Bulk Pkg. 10 Sets	Screw Size	Weight Pounds
1 to 1-3/8	2-3/4 x 2	4-3/8 x 1-1/4	927 DP CHR	927 000 CHR	6	1-3/8

Spare Flush Strike, Cat. No. 913 DP CHR.

Spare Knob and Handle Assy, Cat. No. 962 000 CHR.

Spare Bevel with Cam, Cat. No. 920 DP CHR.

Spare Escutcheon Plate with Keys, Cat. No. 927 000 99B.



**FIG. 927
SHOWN
ASSEMBLED**

FIG. 567 - TUBULAR LATCH SET

CHROME PLATED ZINC ALLOY

Sliding Lock Button

ORDERING INFORMATION

For Door Thickness Inches	Dimensions Escutcheon Inches	O.D. Tube Inches	Dealer Pkg. 5 Cards 1 Set per Card	OEM Bulk Pkg. 10 Sets	Screw Size	Weight Pounds
1 to 1-3/8	4-3/8 x 1-1/4	3/4	567 DP CHR	567 000 CHR	6	7/8

Spare Flush Strike, Cat. No. 912 DP CHR.

Spare Knob and Handle Assembly, Cat. No. 962 000 CHR.



**FIG. 567
SHOWN
ASSEMBLED**

PRIVACY LATCH SETS

PRIVACY LATCH SETS FOR INTERIOR CABINS AND HEAD ENCLOSURES

FIG. 710

CHROME PLATED BRASS AND ZINC ALLOY

- TWO TONE ESCUTCHEON PLATES
- PLASTIC BEVEL FOR QUIET OPERATION
- NEW CONTEMPORARY STYLING
- LOCKS BY TURN BUTTON FROM INSIDE
- SAFETY UNLOCK FROM OUTSIDE
- FOR DOOR THICKNESS 3/4 TO 1-1/2 INCHES

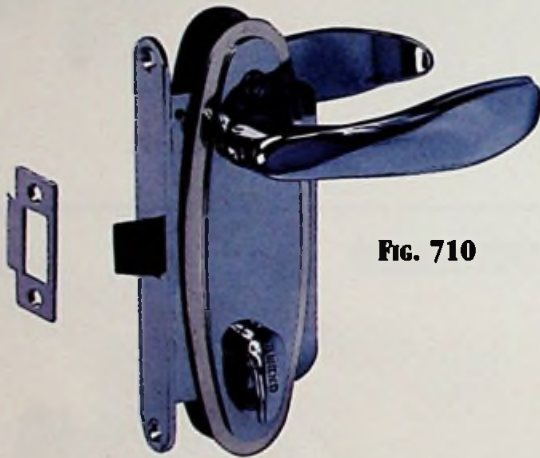


FIG. 710

FIG. 711

CHROME PLATED BRASS AND ZINC ALLOY

- PLASTIC BEVEL FOR QUIET OPERATION
- NEW CONTEMPORARY STYLING
- LOCKS BY TURN BUTTON FROM INSIDE
- SAFETY UNLOCK FROM OUTSIDE
- FOR DOOR THICKNESS 1/2 TO 3/4 INCHES

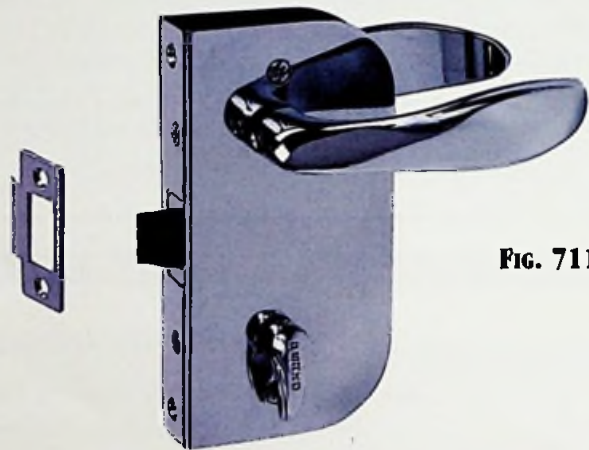
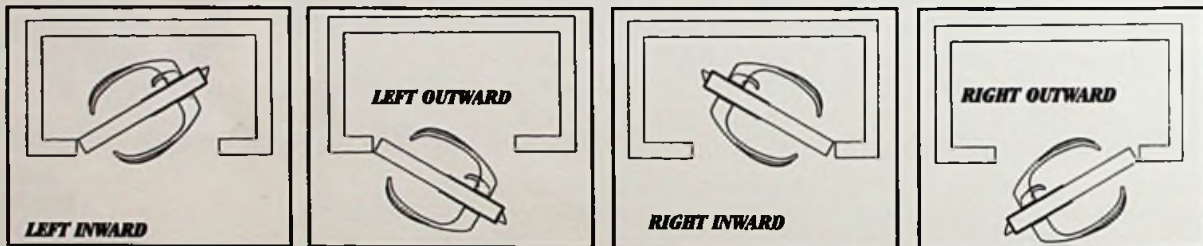


FIG. 711

Determining the hand of the latch set.



ORDERING INFORMATION

FIG. 710			
<u>Latch Set</u>	<u>Type of Latch</u>	<u>For Door Thickness Inches</u>	<u>OEM Bulk Pkg. 5 Sets</u>
Mortise	Left Inward or Right Outward	3/4 to 1	710 001 LIC
Mortise	Right Inward or Left Outward	3/4 to 1	710 001 RIC
Mortise	Left Inward or Right Outward	1 to 1-1/4	710 002 LIC
Mortise	Right Inward or Left Outward	1 to 1-1/4	710 002 RIC
Mortise	Left Inward or Right Outward	1-1/4 to 1-1/2	710 003 LIC
Mortise	Right Inward or Left Outward	1-1/4 to 1-1/2	710 003 RIC

FIG. 711			
<u>Latch Set</u>	<u>Type of Latch</u>	<u>For Door Thickness Inches</u>	<u>OEM Bulk Pkg. 5 Sets</u>
Flush	Left Inward	1/2	711 001 LIC
Flush	Left Outward	1/2	711 001 LOC
Flush	Right Inward	1/2	711 001 RIC
Flush	Right Outward	1/2	711 001 ROC
Flush	Left Inward	5/8	711 002 LIC
Flush	Left Outward	5/8	711 002 LOC
Flush	Right Inward	5/8	711 002 RIC
Flush	Right Outward	5/8	711 002 ROC
Flush	Left Inward	3/4	711 003 LIC
Flush	Left Outward	3/4	711 003 LOC
Flush	Right Inward	3/4	711 003 RIC
Flush	Right Outward	3/4	711 003 ROC

Note: Left Inward/Right Outward are Interchangeable.
Right Inward/Left Outward are Interchangeable.

BARREL BOLT & CABIN DOOR HOOK

FIG. 947 - BARREL BOLT

CHROME PLATED BRONZE

SUPPLIED WITH FRICTION PAD TO ELIMINATE
RATTLE AND PROVIDE SMOOTH OPERATION.

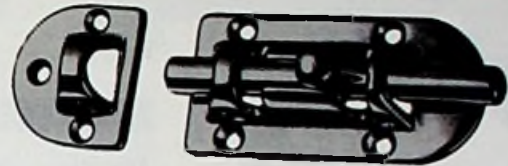


Fig. 947

ORDERING INFORMATION

Dimensions Overall Inches	Chrome Plated Bronze	Chrome Plated Bronze	Screw Size	Weight Ounces
	Dealer Pkg. - 5 Cards 1 Pc. per Card	OEM Bulk Pkg. 25 Pcs.		
3-7/16 x 1-7/16	947 DP1 CHR	947 001 CHR	6	4-1/2
4-5/16 x 1-7/16	947 DP2 CHR	947 002 CHR	6	5-7/8
5-1/4 x 1-7/16	947 DP3 CHR	947 003 CHR	6	6-3/4

FIG. 956 - CABIN DOOR HOOK

CAST BRONZE, PLAIN OR CHROME PLATED



Fig. 956

ORDERING INFORMATION

Length Hook Inches	Chrome Plated Bronze	Chrome Plated Bronze	Plain Bronze Standard	Weight Ounces
	Dealer Pkg. - 5 Cards 1 Pc. per Card	OEM Bulk Pkg. 50 Pcs.	Pkg. - 5 Pcs.	
1-1/2	956 DP1 CHR	956 001 CHR	956 001 PLB	2
2	956 DP2 CHR	956 002 CHR	956 002 PLB	2-1/8
2-1/2	956 DP3 CHR	956 003 CHR	956 003 PLB	2-1/8
3	956 DP4 CHR	956 004 CHR	956 004 PLB	2-1/2
3-1/2	956 DP5 CHR	_____	956 005 PLB	2-5/8
4	956 DP6 CHR	_____	956 006 PLB	2-7/8
5	956 DP7 CHR	_____	956 007 PLB	3-1/4
6	956 DP8 CHR	*956 008 CHR	956 008 PLB	4

*O.E.M. Bulk Pkg. - 25 pcs.

Screw Size #6.

Spare Plain Keepers, (2 per card), Cat. No. 959 DP PLB.

Spare Chrome Keepers, (2 per card), Cat. No. 959 DP CHR

Spare Chrome Keepers, O.E.M Bulk (100 pcs.) Cat. No. 959 000 CHR

**Fig. 959
SPARE KEEPER**



HASP & HOLD DOWN CLAMPS

FIG. 998 - HASP



FIG. 998

CHROME PLATED BRONZE

ORDERING INFORMATION

<u>Length Closed Inches</u>	<u>Width Overall Inches</u>	<u>Padlock Clearance Inches</u>	<u>Dealer Pkg. 10 Cards 1 Pc. per Card</u>	<u>OEM Bulk Pkg. 25 Pcs.</u>	<u>Screw Size</u>	<u>Weight Ounces</u>
2	1	9/32	998 DP1 CHR	998 001 CHR	6	2-3/8
3	1	9/32	998 DP2 CHR	998 002 CHR	6	3

Spare Chrome Keepers (2 per card), Cat. No. 959 DP CHR.

FIG. 1108 - LOCKABLE HOLD DOWN CLAMP



FIG. 1108

CHROME PLATED BRONZE

ORDERING INFORMATION

<u>Dimensions Base Inches</u>	<u>Clearance Padlock Inches</u>	<u>Dealer Pkg. 5 Cards 1 Pc. per Card</u>	<u>OEM Bulk Pkg. 25 Pcs.</u>	<u>Screw Size</u>	<u>Weight Ounces</u>
2-3/4 x 1-3/4	1/4	1108 DP CHR	1108 000 CHR	6	6-3/4

FIGS. 1112 & 1113 - HOLD DOWN CLAMPS



FIG. 1112

CHROME PLATED BRONZE

FIG. 1112 FLAT MOUNTING

FIG. 1113 RIGHT ANGLE MOUNTING



FIG. 1113

ORDERING INFORMATION

<u>Length Inches</u>	<u>Width Inches</u>	<u>Dealer Pkg. - 5 Cards 1 Pc. per Card</u>	<u>OEM Bulk Pkg. 25 Pcs.</u>	<u>Screw Size</u>	<u>Weight Ounces</u>
3	1-1/2	1112 DP CHR	1112 000 CHR	8	5-1/2
2-1/2	1-1/2	1113 DP CHR	1113 000 CHR	8	5-5/8

GRAB RAIL & POSTS, AXE BRACKET AND RING BUOY HOLDER

FIG. 491 - GRAB RAIL

CHROME PLATED ZINC ALLOY END POSTS
 POLISHED 18-8 STAINLESS STEEL TUBE

ORDERING INFORMATION

Length Overall Inches	Length Inside Inches	Height Inside Inches	Dealer Pkg. - 5 Cards 1 pc. per Card	Screw Size	Weight Pounds
9-1/2	7	3/4	491 DP1 CHR	6	3/4
15-5/8	13	3/4	491 DP2 CHR	6	7/8

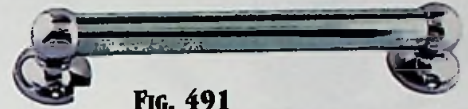


FIG. 491

FIGS. 380 & 380A - GRAB RAIL POSTS

CHROME PLATED BRONZE

FIG. 380 - END POST

FIG. 380A - CENTER POST

HOLLOW, FOR 3/4 INCH O.D. TUBING

ORDERING INFORMATION

Height Overall Inches	O.D. Base Inches	Fig. 380 Standard Pkg. - 1 Pc.	Fig. 380A Standard Pkg. - 1 Pc.	Screw Size	Weight Ounces
3-3/8	2-1/2	380 000 CHR	380 A00 CHR	8	11-1/2



**FIG. 380
END POST**



**FIG. 380A
CENTER POST**

FIG. 325 - AXE BRACKETS

STAINLESS STEEL

ORDERING INFORMATION

For Blade Width Inches	Standard Pkg. - 10 sets	Socket Screw Size	Bracket Screw Size	Weight per Set Ounces
6	325 000 STS	10 R.H.	6	5



FIG. 325

FIG. 1017 - RING BUOY HOLDER

BRASS - PLAIN OR CHROME PLATED

ORDERING INFORMATION

Width Mounting Plate Inches	Height Overall Inches	Chrome Plated Brass Dealer Pkg. - 5 Cards 1 Pc. per Card	Plain Brass Standard Pkg. - 5 Pcs.	Screw Size	Weight Pounds
3	4-1/2	1017 DP CHR	1017 000 PLB	8	3/8



FIG. 1017

UTILITY HOOKS

FIG. 1106 - UTILITY HOOK



FIG. 1106

CHROME PLATED ZINC ALLOY

ORDERING INFORMATION

<u>Projection Inches</u>	<u>Width Base Inches</u>	<u>Dealer Pkg. - 10 Cards 1 Pc. per Card</u>	<u>OEM Bulk Pkg. 50 Pcs.</u>	<u>Screw Size</u>	<u>Weight Ounces</u>
3/4	1	1106 DP CHR	1106 000 CHR	6	7/8

FIG. 975 - UTILITY HOOK



FIG. 975

CHROME PLATED ZINC ALLOY

ORDERING INFORMATION

<u>Projection Inches</u>	<u>Width Base Inches</u>	<u>Dealer Pkg. - 10 Cards 1 Pc. per Card</u>	<u>OEM Bulk Pkg. 50 Pcs.</u>	<u>Screw Size</u>	<u>Weight Ounces</u>
2	1-1/8	975 DP1 CHR	975 001 CHR	6	1
3	1-1/4	975 DP2 CHR	975 002 CHR	6	1-1/2

FIG. 610 - UTILITY HOOK



FIG. 610

CHROME PLATED ZINC ALLOY

ORDERING INFORMATION

<u>Projection Inches</u>	<u>Width Base Inches</u>	<u>Dealer Pkg. - 10 Cards 1 Pc. per Card</u>	<u>OEM Bulk Pkg. 50 Pcs.</u>	<u>Screw Size</u>	<u>Weight Ounces</u>
1-3/8	1-1/8	610 DP CHR	610 000 CHR	6	5/8

SPARE BULBS FOR NAVIGATION LIGHTS

FOR NAVIGATION LIGHTS ON VESSELS UNDER 20 METERS (65.6 FT.) IN LENGTH

FIG. 337 - DOUBLE CONTACT BAYONET BASE BULB

ORDERING INFORMATION

Nominal Voltage	Wattage	Amps	Dealer Pkg. 5 cards	Bulbs per card	Bulb Dia. Inches	Lamp Mfg. No.
12	7	.58	337 011 DP	2	3/4	90
12	11	.94	337 012 DP	2	3/4	1004
24	15	.63	337 014 DP	1	1	306
32	13	.40	337 018 DP	1	3/4	624



FIG. 337

FIG. 375 - DOUBLE CONTACT BAYONET INDEXING BASE BULB

ORDERING INFORMATION

Nominal Voltage	Wattage	Amps	Standard Pkg. - 1 bulb
12	10	.83	375 12V 10W
12	25	2.08	375 12V 25W
24	10	.42	375 24V 10W
24	25	1.04	375 24V 25W
32	10	.31	375 32V 10W
32	25	.78	375 32V 25W



FIG. 375

FIG. 340 - MEDIUM SCREW BASE BULB

ORDERING INFORMATION

Nominal Voltage	Wattage	Amps	Standard Pkg. - 6 bulbs	Lamp Type	I.C.L. Inches	Mfr. Lamp Number
12	15	1.25	340 005 FRD	A-17	2-3/8	15-A
12	25	2.08	340 006 FRD	A-19	2-9/16	25-A
32	15	.47	340 011 FRD	A-17	2-3/8	15-A
32	25	.78	*340 012 FRD	A-19	2-9/16	25-A

*Standard Pkg. - 2 bulbs



FIG. 340

FIG. 338 WEDGE BASE BULBS

ORDERING INFORMATION

Nominal Voltage	Wattage	Amps	Dealer Pkg. - 5 cards 2 Bulbs per card	Bulb Diameter Inches	Bulb Length Inches
12	5	.35	338 DP1 CLR	13/32	1-1/16
12	9	.69	338 DP2 CLR	5/8	1-1/2



FIG. 338 #1



FIG. 338 #2

FIGS. 67, 69, 70, 71 & 72 FESTOON BULBS - DOUBLE ENDED

ORDERING INFORMATION

Nominal Voltage	Wattage	Amps	Dealer Pkg. - 5 cards 2 Bulbs per card	Bulb Diameter Inches	Bulb Length Inches
12	8	.70	71 DP8 CLR	3/8	1-1/8
12	10	.83	69 DP CLR	3/8	1-5/8
12	10	.74	70 DP0 CLR	3/8	1-11/16
12	15	.97	70 DP1 CLR	9/16	1-11/16
12	10	.80	71 DP CLR	3/8	1-1/8
24	8	.35	72 DP8 CLR	3/8	1-1/8
24	10	.42	67 DP1 CLR	3/8	1-11/16
24	18	.75	67 DP2 CLR	9/16	1-11/16
24	10	.40	72 DP1 CLR	3/8	1-1/8
32	12	.40	70 DP2 CLR	3/8	1-5/8

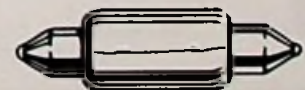


FIG. 67

FIG. 69

FIG. 70

FIG. 71

FIG. 72

SPARE BULBS, SOCKETS AND LENSES FOR NAVIGATION LIGHTS

FOR NAVIGATION LIGHTS ON VESSELS OVER 20 METERS (65.6 FT.) IN LENGTH.

DUAL MEDIUM PREFOCUS SOCKET ASSEMBLY

Phenolic - 250 Volts - 1000 Watts
Plug In Type - Prewired - with two medium
prefocus sockets. For use in double lens lights.



Cat. No.	Height Overall Inches	Width Overall Inches	Weight Ounces
303	3-7/8	3-7/8	12

Male Plug Only Cat. No. 303 A00.
Female Socket Only Cat. No. 303 B00.

SINGLE CONTACT PREFOCUS SOCKET ASSEMBLY - COMPLETE WITH STAND, BOTTOM PLATE AND GASKET



Cat. No.	Height Overall Inches	Diameter Overall Inches
294 003 PLB	3	3-3/4

MEDIUM PREFOCUS SOCKETS

Phenolic - 250 Volts - 1000 Watts



Cat. No.	Height Overall Inches	Diameter Overall Inches	Standard Package	Weight Per Pkg. Ounces
347	1-7/8	1-1/2	5	14-1/2
347 A00	1-7/8	1-1/2	5	23-3/8

Cat. No. 347 A00 Supplied with metal Mounting Cap Tapped for 3/8 Inch LPS.

112-1/2° LENSES



	Height Overall Inches	Diameter Opening Inches	Catalog Number
Red	6-3/4	6-1/8	259 001 RED
Green	6-3/4	6-1/8	259 001 GRN
Red	7-1/2	9-1/4	259 002 RED
Green	7-1/2	9-1/4	259 002 GRN

Weight: Size 1, 7/8 Lbs - Weight: Size 2, 1-1/2 Lbs.

MEDIUM PREFOCUS SOCKET



Cat. No.	Ht. Overall Inches	Dia. Overall Inches	Standard Package	Wt. Per Pkg. Ounces
367	1-7/8	1-7/8	5	14-1/2

135° LENSES



	Height Overall Inches	Diameter Opening Inches	Catalog Number
White	6-3/4	5-1/8	269 001 WHIT
Red	6-3/4	5-1/8	269 001 RED
Yellow	6-3/4	5-1/8	269 001 YLW
White	7-1/2	7-1/4	269 002 WHIT
Red	7-1/2	7-1/4	269 002 RED

Weight: Size 1, 1-1/4 Lbs. - Weight: Size 2, 2 Lbs.

DOUBLE CONTACT SOCKET



Cat. No.	Height Overall Inches	Diameter Overall Inches
134	7/8	1-3/4

DOUBLE CONTACT BAYONET BULBS



Clear - 12, 24, 32 or 120 Volts,
Type T-8, C-8, Filament - 1-3/8 Inch L.C.L.

Cat. No.	Voltage	Wattage	Candella
374 001 CLR	12	30	24
374 002 CLR	24	30	24
374 003 CLR	32	30	24
374 004 CLR	120	30	24

Weight: 1 oz. - Standard Pkg. - 1 pc.

225° LENSES



	Height Overall Inches	Diameter Opening Inches	Catalog Number
White	6-3/4	4-1/2	256 001 WHT
Yellow	6-3/4	4-1/2	256 001 YLW
White	7-1/2	6-5/8	256 002 WHIT

Weight: Size 1, 1-1/2 Lbs. - Weight: Size 2, 2-1/4 Lbs.

MEDIUM PREFOCUS BULBS



Cat. No.	Clear Volts	Wattage
342 000 CLR	120	7.5
342 001 CLR**	120	15
342 002 CLR**	120	25
342 003 CLR**	120	40
342 024 CLR	24	55
342 004 CLR**	120	60
342 RS4 CLR*	120	60
342 006 CLR	120	125
342 220 CLR	220	65

Weight: 2 oz. - *Designed for rough service.
Standard Pkg. - 1 pc. - **OEM - 25 pcs.

360° LENSES



	Height Overall Inches	Diameter Opening Inches	Clear Cat. No.	Frosted Cat. No.
White	6-3/4	5-1/8	261 001 CLR	261 001 FRD
Red	6-3/4	5-1/8	261 001 RED	261 RF1 FRD
Green	6-3/4	5-1/8	261 001 GRN	261 GF1 FRD
Yellow	6-3/4	5-1/8	261 001 YLW	261 MF1 FRD
Gray	6-3/4	5-1/8	261 001 GRY	
White	7-1/2	7-3/8	261 002 CLR	261 002 FRD
Red	7-1/2	7-3/8	261 002 RED	261 RF2 FRD
Green	7-1/2	7-3/8	261 002 GRN	261 GF2 FRD

Weight: Size 1, 2-1/4 Lbs. - Weight: Size 2, 3-1/4 Lbs.

SINGLE CONTACT PREFOCUS BULBS



C-8 Filament Clear - 12 Volts

Cat. No.	Amperage	Mfg. No.
373 001 CLR	.25	25A/S8
373 002 CLR	.55	55A/S8
373 003 CLR	.77	77A/S8
373 004 CLR	1.15	1.15A/S8
373 005 CLR	2.03	2.03A/S8SCP

Weight: 1 oz. - Standard Pkg. - 1 pc.

360° LENSES - With Top Assembly



	Height Overall Inches	Diameter Opening Inches	Catalog Number
White	5-3/4	5-1/2	249 000 CLR
Red	5-3/4	5-1/2	249 000 RED
Green	5-3/4	5-1/2	249 000 GRN
Yellow	5-3/4	5-1/2	249 000 YLW
Gray	5-3/4	5-1/2	249 000 GRY

Weight: 17 oz.

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158	51	709	49	910	24, 26 & 28	1373	4
170	18 & 19	710	54	911	35	1374	4
179	51	711	54	918	53	1901	35 & 36
200	14 to 17	721	49	927	53	1902	35 & 36
248	20	722	49	956	55	1921	35 & 36
249	60	753	21	959	55	1922	35 & 36
256	60	805	50	969	22 & 29	1925	36
257	21	806	30, 31 & 36	975	58	1930	36
259	60	807	30, 31 & 36	998	56	1931	36
261	60	809	30, 31 & 36	1017	57	1932	35 & 36
269	60	810	30, 31 & 36	1087	20	1933	35 & 36
276	10 & 21	811	30 & 31	1090	20	1936	35 & 36
294	60	816	30 & 31	1105	6, 7, 8, 9, 12 & 13	8603	45
303	60	817	30 & 31	1106	58	9304	38 to 40
305	22	820	30 & 31	1108	56	9501	42
309	10	834	50	1111	13	9504	42
313	22	835	50	1112	56	9506	42
314	32	836	30 & 31	1119	6, 7, 8, 12 & 13	9508	42
322	48	837	30, 31 & 36	1127	12	9510	42 & 43
325	57	839	30, 31 & 36	1128	12	9511	42
331	48	844	30, 31 & 36	1129	12 & 13	9512	42
337	59	845	30, 31 & 36	1130	12	9514	42
338	59	846	30, 31 & 36	1133	7 & 11	9521	42 & 43
340	59	847	36	1143	6, 7 & 11	9530	42
341	8	848	36	1150	9	9551	42
342	60	851	22 & 27	1151	9	9560	39
347	60	852	22 & 29	1152	9	9563	39
348	48	859	36	1153	9	9565	39
367	4 & 5	860	30, 31 & 36	1154	9	9566	39
373	60	866	37	1164	7	9568	39
374	60	872	30 & 36	1165	7	9581	43
375	59	873	30 & 36	1166	7	9582	42
380	57	874	30	1167	7	9703	45
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