



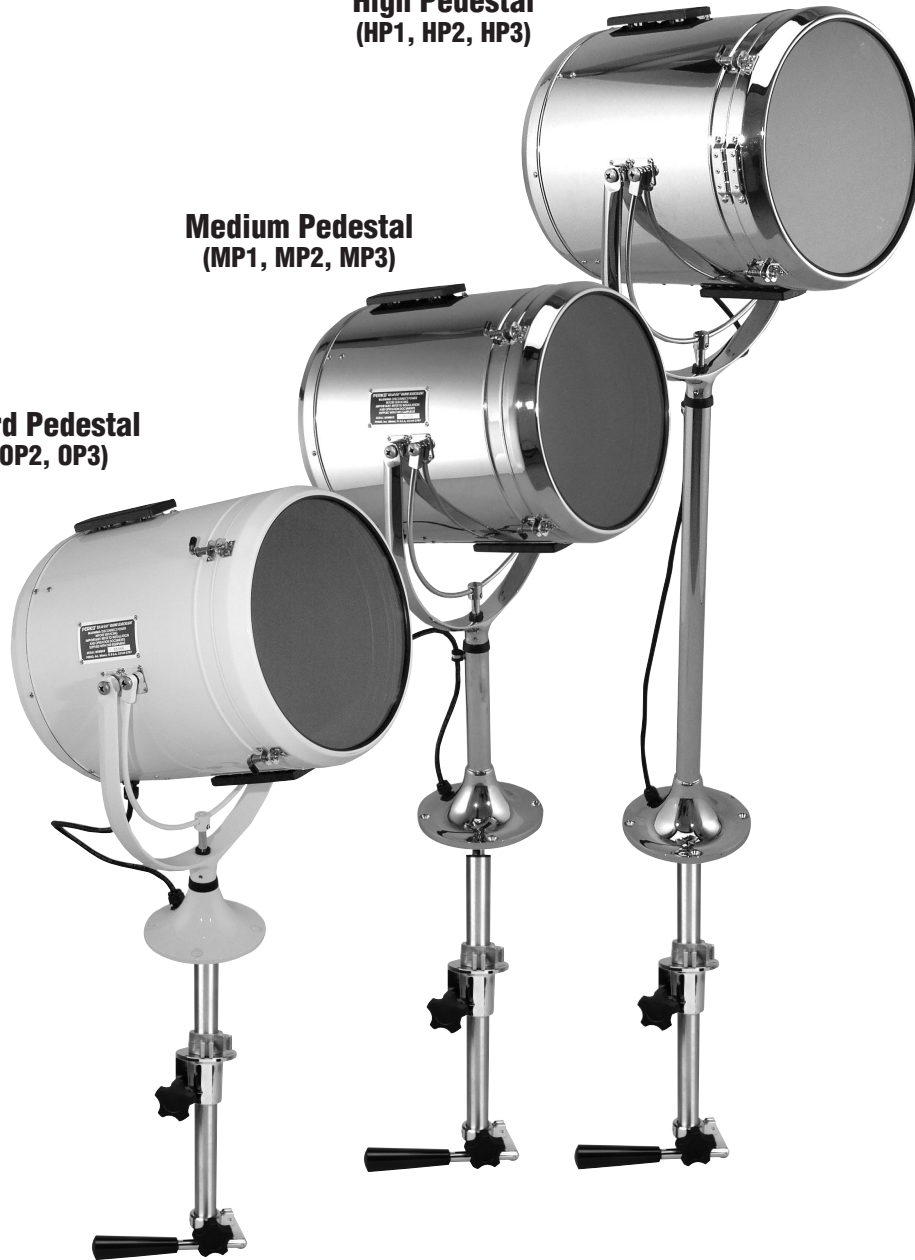
Fig. 0884 Series Installation and Spare Parts Manual

Lever Control
Solar-Ray[®] Searchlights
10", 12" & 14"

**High Pedestal
(HP1, HP2, HP3)**

**Medium Pedestal
(MP1, MP2, MP3)**

**Standard Pedestal
(OP1, OP2, OP3)**

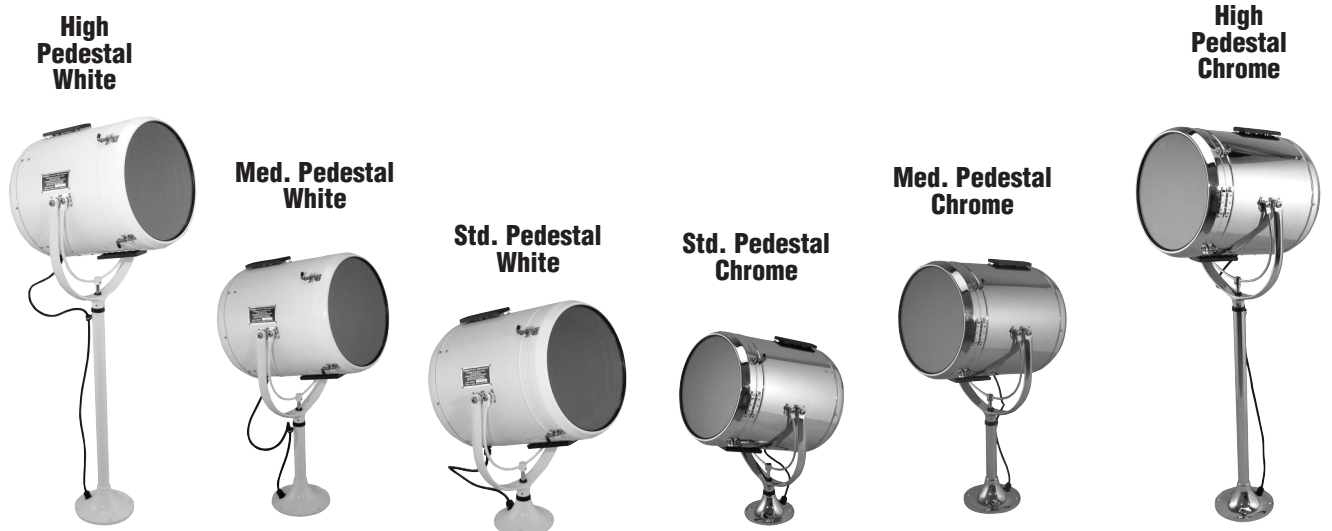


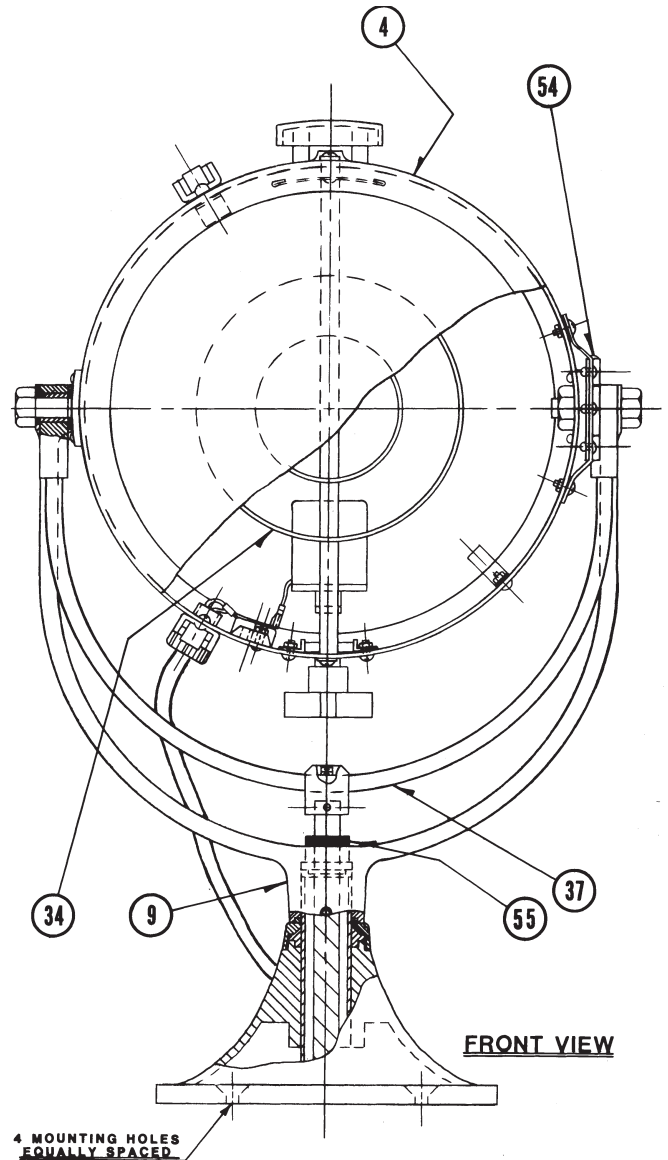
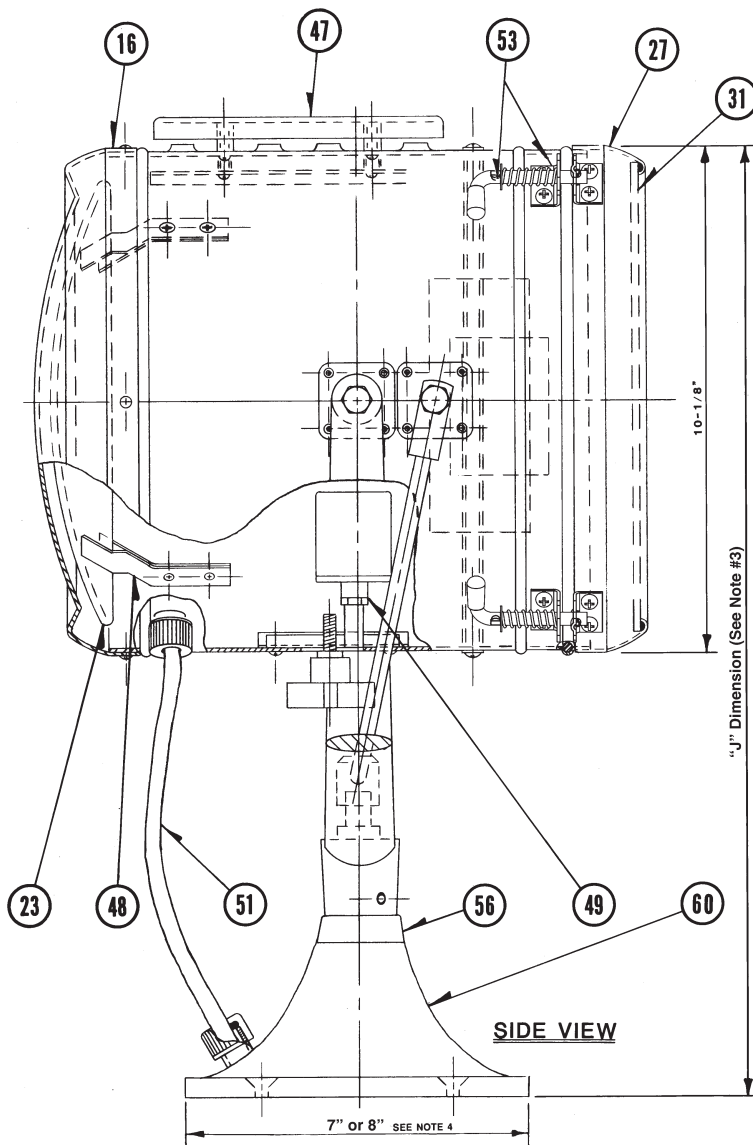
PERKO, INC. • 16490 N.W. 13th Avenue • Miami, FL 33169-5707 • www.perko.com

Fig. 0884 Lever Control Solar-Ray® Series Installation Manual

Table of Contents

	Page
• Fig. 0884 10" Searchlight (OP1, MP1 & HP1) Spare Parts Diagram	3
• Fig. 0884 12" Searchlight (OP2, MP2 & HP2) Spare Parts Diagram	4
• Fig. 0884 14" Searchlight (OP3, MP3 & HP3) Spare Parts Diagram	5
• Fig. 0851 Lever Control Assembly Installation Instructions	6
• Fig. 0851 Lever Control Assembly Spare Parts Diagram.....	7
• 7" Base Mounting Template (for Standard Pedestal OP)	8
• 8" Base Mounting Template (for Medium & High Pedestals MP & HP)	9
• Spare Parts, Bulbs and Socket Ordering Information	10-11
• Solar-Ray® Searchlight Limited Warranty.....	12





Notes

Note 1 All Bulbs using the same socket and stand Fig. No. are field interchangeable w/o modification, otherwise a change in bulb type must be accompanied by a new corresponding socket and stand. (See page 10).

Note 2 Inclination Declination
22° 27°

Note 3	"J" Dimensions	Base Template
0884OP1	20-1/8"	7"
0884MP1	28-1/4"	8"
0884HP1	44-3/4"	8"

Note 4 Searchlights with "J" dimensions above the standard (20-1/8") utilize an 8" diameter base (item no. 60) instead of standard 7" base.

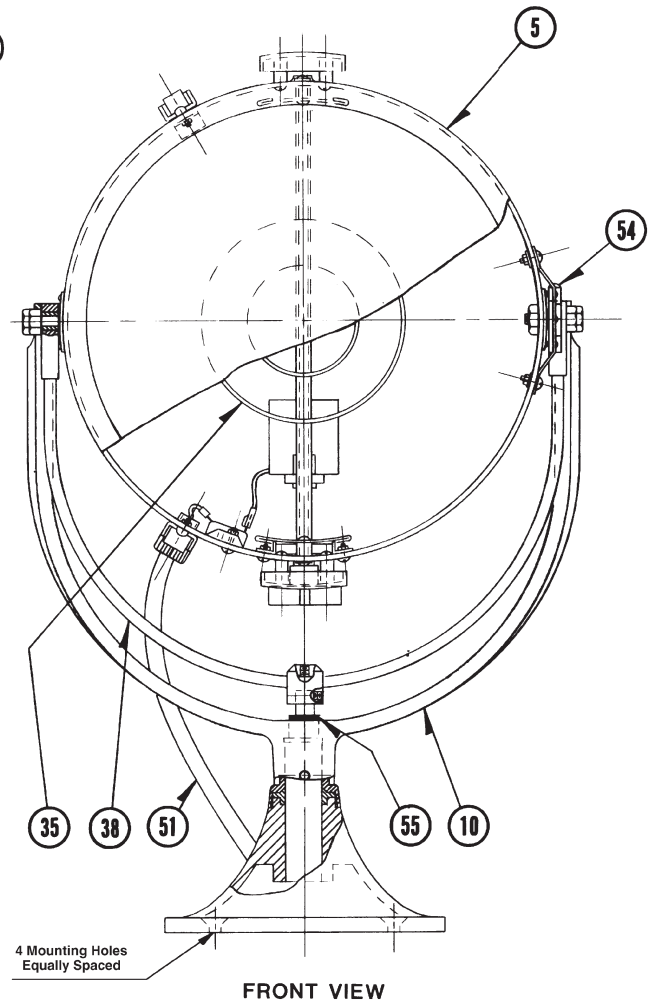
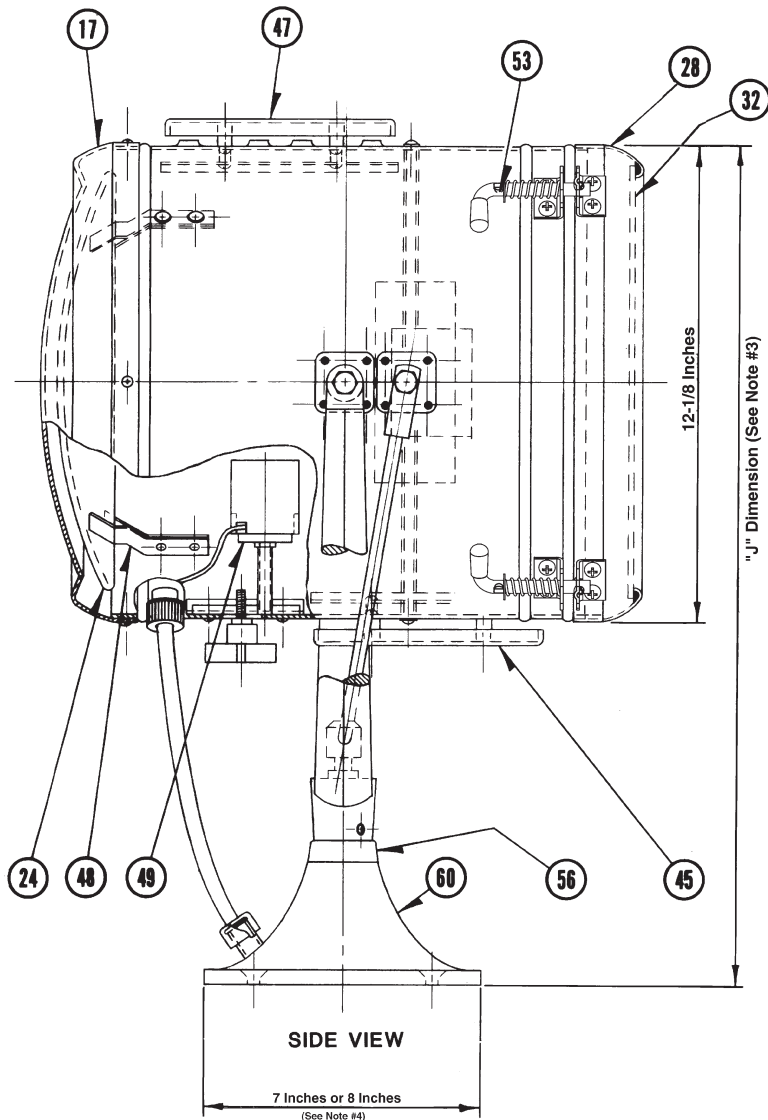
Note 5 Searchlights with special pedestal heights and/or special control lengths can be made to order. The special "J" dimension and/or control length dimension ("E") must accompany the inquiry.

Note 6 This searchlight head assembly is compatible with Fig. 0851 series control assemblies. See Fig. 0851 prints for control dimensions and complete searchlight/control Fig. No. designations.

Bill of Material

Item	Spare Part	Description	Qty.
4		Drum Assembly Complete	1
9		Fork Assembly Complete	1
16	0902001	Rear Cover with Screws	1
23	0890001	Reflector	1
27	0891001	Front Door with Glass Assembly	1
31	0889001	Front Glass	1
34	0883SPR034	Anti-Halo Ring Assembly	1
37		Vertical Yoke Assembly Complete	1
47		Upper Vent Cover	1
48	0910	Reflector Clips	4
49		Focus Device Assy. w/Socket & Stand. See Note 1	1
51	0883SPR051	Electrical Cord Assembly	1
53	088300099A	Latch, Front Door	2
54		Hinge Assembly, Front Door	1
55	0884SPR055	Shaft Seal	1
56	0884SPR056	Base Seal	1
60	0850*	Base Assembly	1

*Specify Pedestal (O00, M00 or H00) and Finish (CHR/WHT) when ordering base assembly.



Notes

Note 1 All Bulbs using the same socket and stand Fig. No. are field interchangeable w/o modification, otherwise a change in bulb type must be accompanied by a new corresponding socket and stand. (See page 10).

Note 2 Inclination Declination
27° 18°

Note 3	"J" Dimensions	Base Template
0884OP2	22-1/8"	7"
0884MP2	30-1/4"	8"
0884HP2	46-3/4"	8"

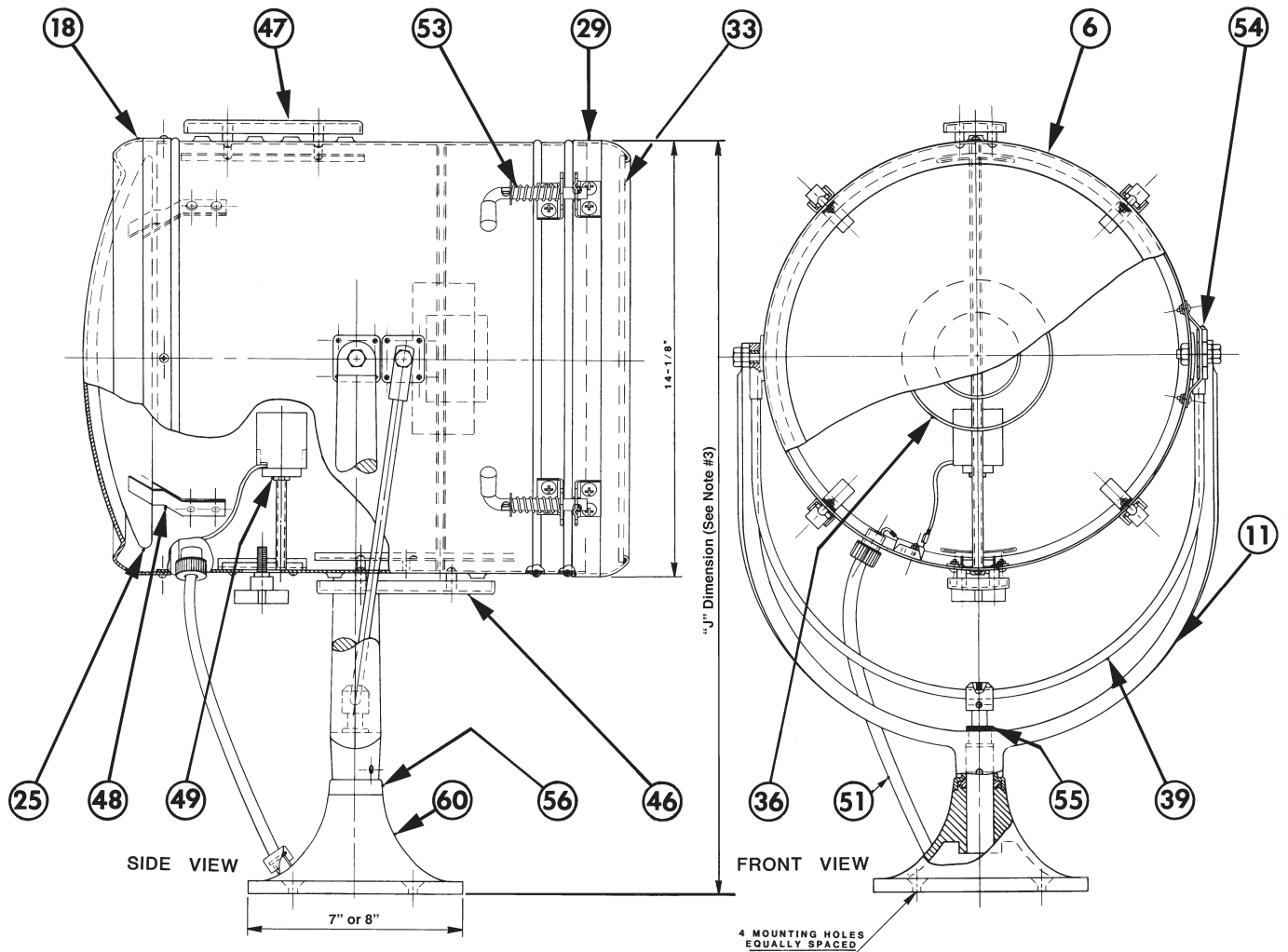
Note 4 Searchlights with "J" dimensions above the standard (22-1/8") utilize an 8" diameter base (Item no. 60) instead of standard 7" base.

Note 5 Searchlights with special pedestal heights and/or special control lengths can be made to order. The special "J" dimension and/or control length dimension ("E") must accompany the inquiry.

Note 6 This searchlight head assembly is compatible with Fig. 0851 series control assemblies. See Fig. 0851 prints for control dimensions and complete searchlight/control Fig. No. designations.

Item	Spare Part	Description	Qty.
5		Drum Assembly Complete	1
10		Fork Assembly Complete	1
17	0902002	Rear Cover with Screws	1
24	0890002	Reflector	1
28	0891002	Front Door with Glass Assembly	1
32	0889002	Front Glass	1
35	0883SPR035	Anti-Halo Ring Assembly	1
38		Vertical Yoke Assembly Complete	1
45		Lower Vent Cover	1
47		Upper Vent Cover	1
48	0910	Reflector Clips	4
49		Focus Device Assy. w/Socket & Stand. See Note 1	1
51	0883SPR051	Electrical Cord Assembly	1
53	088300099A	Latch, Front Door	2
54		Hinge Assembly, Front Door	1
55	0884SPR055	Shaft Seal	1
56	0884SPR056	Base Seal	1

*Specify Pedestal (O00, M00 or H00) and Finish (CHR/WHT) when ordering base assembly.



Notes

Note 1 All Bulbs using the same socket and stand Fig. No. are field interchangeable w/o modification, otherwise a change in bulb type must be accompanied by a new corresponding socket and stand. (See page 10).

Note 2 **Inclination** **Declination**
27° 23°

Note 3

	"J" Dimensions:	Base Template
0884OP3	25-1/8"	7"
0884MP3	33-1/4"	8"
0884HP3	49-3/4"	8"

Note 4 Searchlights with "J" dimensions above the standard (25-1/8") utilize an 8" diameter base (Item no. 60) instead of standard 7" base.

Note 5 Searchlights with special pedestal heights and/or special control lengths can be made to order. The special "J" dimension and/or control length dimension ("E") must accompany the inquiry.

Note 6 This searchlight head assembly is compatible with Fig. 0851 series control assemblies. See Fig. 0851 prints for control dimensions and complete searchlight/control Fig. No. designations.

Bill of Material

Item	Spare Part	Description	Qty.
6		Drum Assembly Complete	1
11		Fork Assembly Complete	1
18	0902003	Rear Cover with Screws	1
25	0890003	Reflector	1
29	0891003	Front Door with Glass Assembly	1
33	0889003	Front Glass	1
36	0883SPR036	Anti-Halo Ring Assembly	1
39		Vertical Yoke Assembly Complete	1
46		Lower Vent Cover	1
47		Upper Vent Cover	1
48	0910	Reflector Clips	4
49		Focus Device Assy. w/Socket & Stand. See Note 1	1
51	0883SPR051	Electrical Cord Assembly	1
53	088300099A	Latch, Front Door	2
54		Hinge Assembly, Front Door	1
55	0884SPR055	Shaft Seal	1
56	0884SPR056	Base Seal	1

*Specify Pedestal (O00, M00 or H00) and Finish (CHR/WHT) when ordering base assembly.

Fig. 0884 Searchlights to be installed with Fig. 0851 Lever Control Assembly

ASSEMBLY AND INSTALLATION INSTRUCTIONS

NOTE: STOP COLLAR ASSEMBLY ON CONTROL TUBE IS FACTORY PRE-SET AT 3-9/16 INCHES. DO NOT LOOSEN.

1. Place Head Assembly on flat area with lens down. Remove lever control assembly from box. With "O" ring seal in place, insert the Control Assembly through the base into the main fork with control handle pointing straight up.
2. Important - to prevent leakage, apply pressure on "O" ring seal (by pushing control assembly into the base) while tightening 3 set screws in fork hub.
3. Insert vertical control rod into the inner fork socket and tighten 2 set screws.
4. Insert electric wire through searchlight base and tighten gland nut.
5. Remove control handle, fulcrum collar assembly and ceiling plate.
6. Select proper base mounting template for either 7" or 8" base. Drill holes in deck, per correct template.
7. Place searchlight assembly through the cabin roof in proper position and thru-bolt with 5/16 inch machine screws (not supplied).
8. Install ceiling plate, control handle and fulcrum collar assembly.
9. Wiring must be according to applicable standards and performed by a qualified marine electrician.

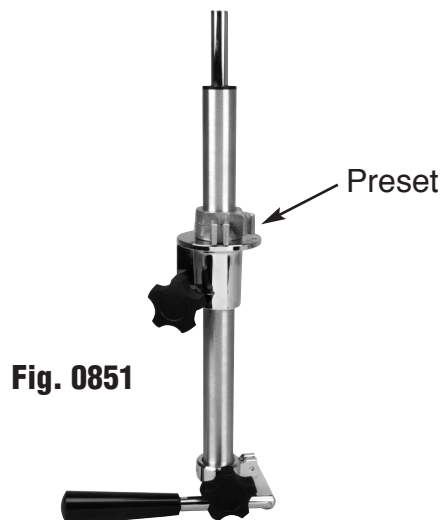
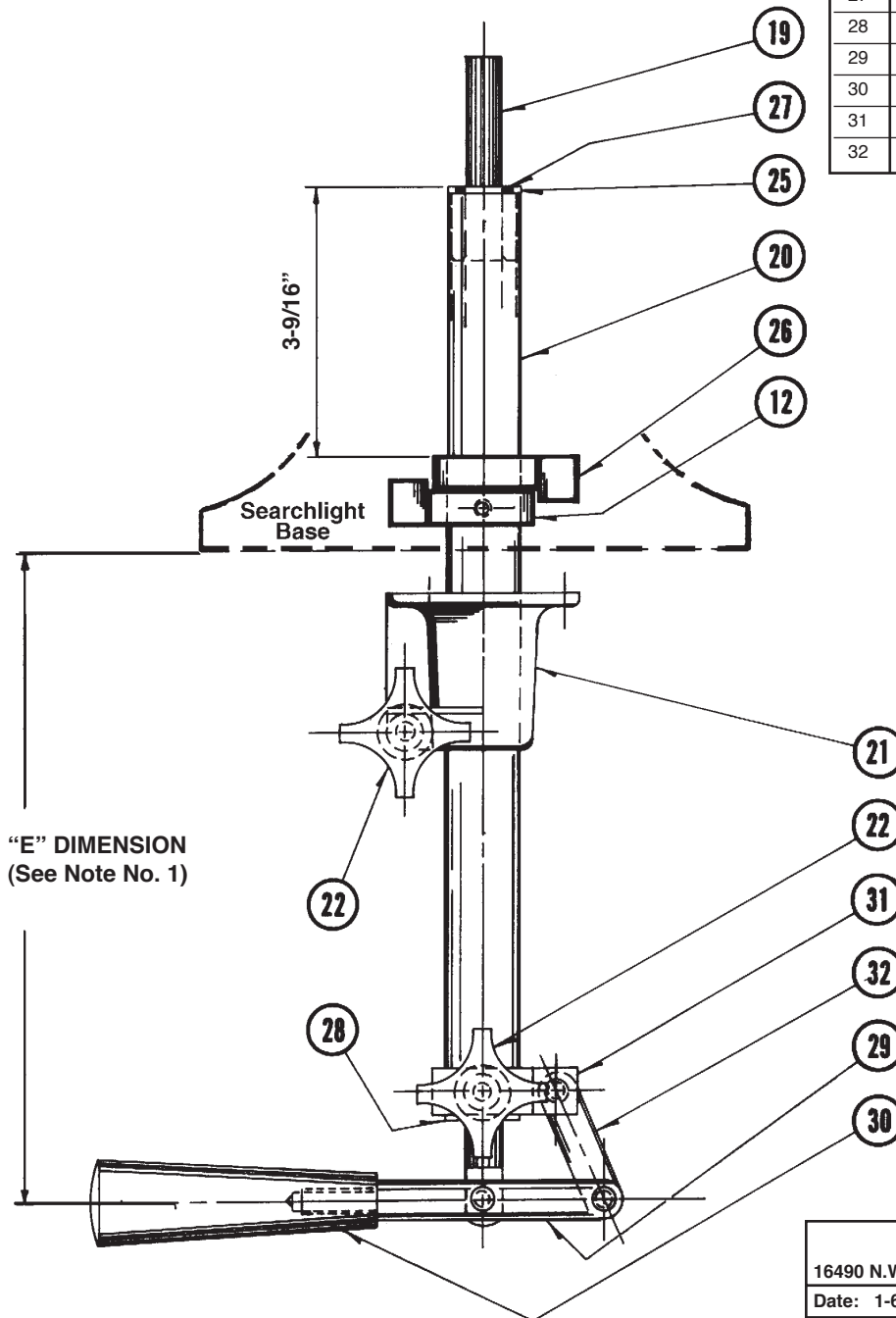


Fig. 0851

0851 Lever Control Assembly Spare Parts Diagram

Bill of Material

Item	Cat.No.	Description	Qty.
12	0851SPR012	Fixed Stop Collar	1
19		Vert. Control Rod (see Note 2)	1
20		Horiz. Control Tube (See Note 2)	1
21	0851SPR021	Horizontal Lock/Ceiling Plate	1
22	0851SPR022	Lock Knob with Spacer	2
25	0851SPR025	Upper Control Tube Bushing	1
26	0851SPR026	Floating Stop Collar	1
27	0851SPR027	O-Ring Seal	1
28	0851SPR028	Lower Control Tube Bushing	1
29	0851SPR029	Control Handle Shaft	1
30	0314SPR040	Control Handle, Plastic	1
31	0851SPR031	Fulcrum Collar	1
32	0851SPR032	Fulcrum Bar	1



Note 1

0884 or 0305 Control Assembly

Control Assy. Cat. No.	"E" Dimension
0851000CHR*	8-1/2"
08510A0CHR	15-1/2"
08510B0CHR	22-1/2"
08510C0CHR	29-1/2"
0851M00CHR**	8-1/2"
0851H00CHR***	8-1/2"

* Maximum Ceiling Thickness 4-1/2 Inches.

** For Medium - Pedestal Lights.

*** For High - Pedestal Lights.

Note 2

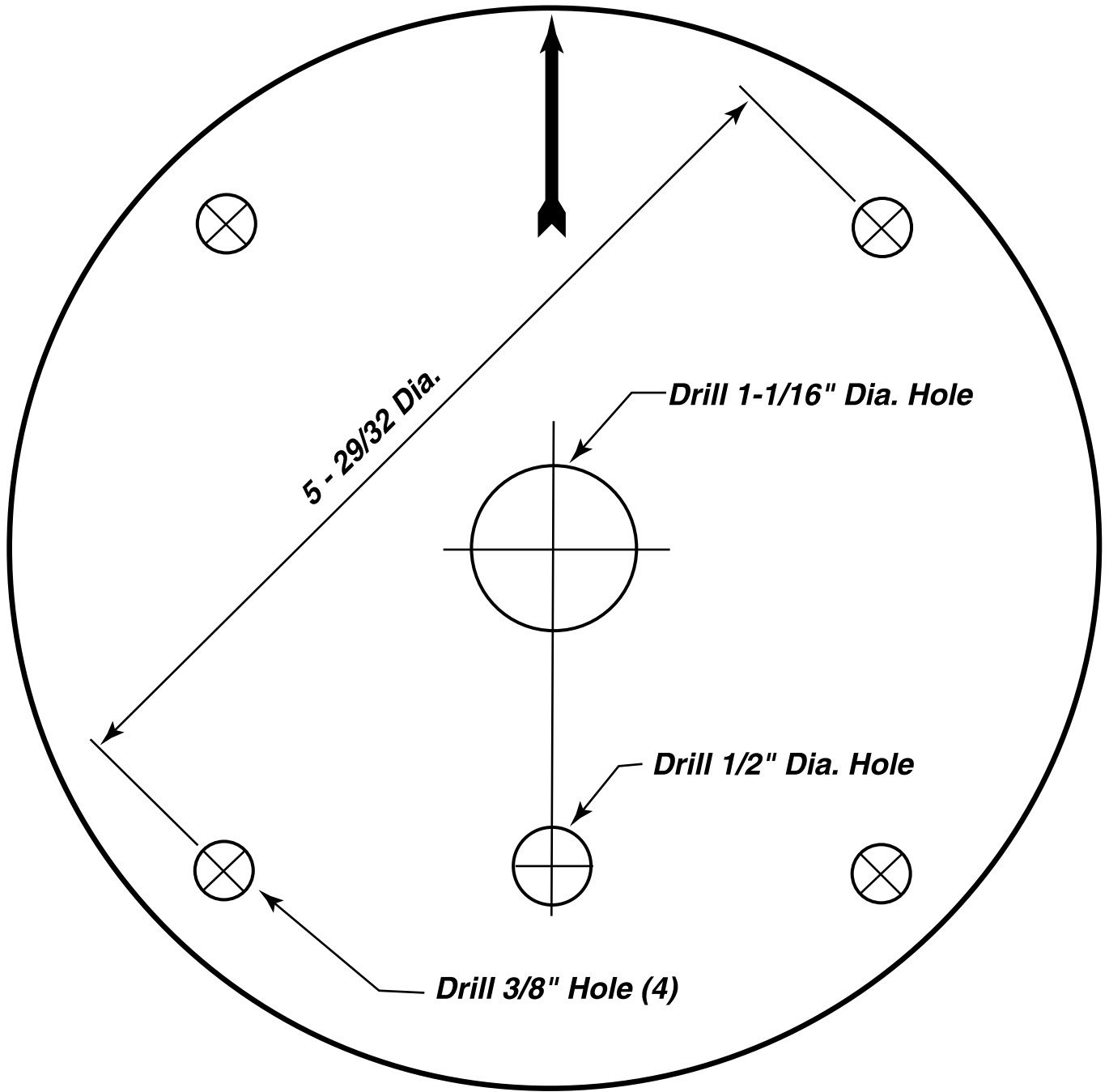
Lengths of vertical control rods and horizontal control tubes must be specified by the "E" Dimension as shown in note 1, in addition to the control assembly Cat. No. in column 2 of the above chart. Other dimensions available on special order.

"E" DIMENSION
(See Note No. 1)

5/11
0851INS1

PERKO®	
16490 N.W. 13th Avenue	Miami, FL 33169-5707
Date: 1-6-83	Drawn By: D. Beutler
Scale: None	Revised: 5/6/16
Cat. No. 0851 Series Searchlight Lever Control (Fits 0305 & 0884 Series Searchlights)	

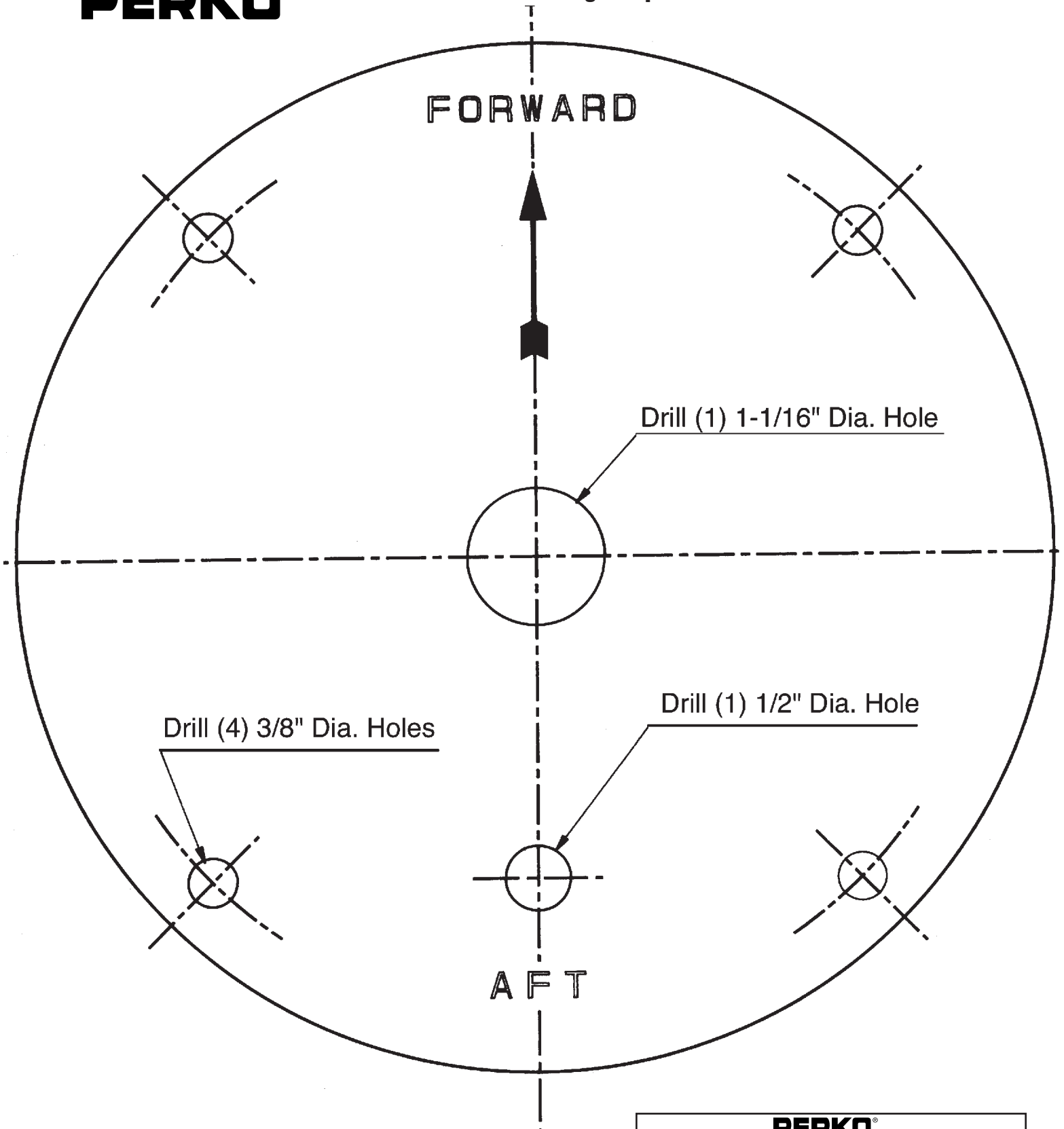
FORWARD



AFT

Caution: Check for correct searchlight base diameter before drilling mounting holes.

PERKO®	
16490 N.W. 13th Avenue	Miami, FL 33169-5707
Date: 4/11/95	Drawn By: H. Ahmed
Scale: Full	Checked By:
7" BASE TEMPLATE	
Base for Fig. Nos. 0883, 0884, 0884, 0305, 0313 (Standard Pedestal Only)	



Caution: Check for correct searchlight base diameter before drilling mounting holes.

PERKO®	
16490 N.W. 13th Avenue Miami, FL 33169-5707	
Date: 6/23/75	Drawn By: H. Ahmed
Scale: Full	Revised Date: 11/05/04
8" BASE TEMPLATE	
Base for Fig. Nos. 0883,0884,0884,0305,0313 (Med. & High Pedestal Mount Base Template)	

0800 Series Bulbs

Bulbs Are Not Included in Lights and Must Be Ordered Separately.

For best 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 variation in range of up to 20%.

Incandescent Bulb Ordering Info

Bulb Catalog Number	Voltage	Wattage	Socket Type	Socket Code Letter	For Searchlight Sizes Inches	Rated* Life Hours	Mfg. Bulb Code
0806	32	500	Medium Screw	B	10, 12, 14	50	DLT
0807	120	500	Medium Prefocus	E	10, 12, 14	25	CZX/DAB
0809	120	750	Medium Prefocus	E	12, 14	25	DDB
0837	120	750	Medium Prefocus	E	12, 14	200	DGH
0810	120	1000	Medium Prefocus	E	12, 14	25	DRS
0811	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 Info

Bulb Catalog Number	Voltage	Wattage	Socket Type	Socket Code Letter	For Searchlight Sizes Inches	Rated* Life Hours	Mfg. Bulb Code
0816	12	100	2-Pin Prefocus	F	10, 12, 14	50	FDT
0836	24	150	2-Pin Prefocus	G	10, 12, 14	50	DZE-FDS
0817	32	200	2-Pin Prefocus	H	10, 12, 14	200	1945
0844	120	500	Medium Prefocus	E	10, 12, 14	500	BTL
0820	120	600	2-Pin Prefocus	I	10, 12, 14	75	DYS
0845	120	750	Medium Prefocus	E	12, 14	200	BTP
0839	120	900	2-Pin Prefocus	K	12, 14	75	BVA
0846	120	1000	Medium Prefocus	E	12, 14	200	BTR
0860	230	1000	Medium Prefocus	E	12, 14	950	FKD

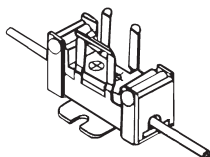
Please Order Carefully, Bulbs are Not Returnable.

*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

Ordering Info

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	0872001	1-1/4	0872002	2-1/4	0872003	3-1/4
Medium Prefocus	E	0873001	1-5/16	0873002	1-15/16	0873003	2-15/16
Mogul Screw	D	-----	-----	0874002	7/16	0874003	1-1/4
2-Pin Prefocus (12 Volt)	F	0875001	3-1/2	0875002	4-1/2	0875003	5-1/2
2-Pin Prefocus (24 Volt)	G	0876001	3-1/4	0876002	4-1/4	0876003	5-1/4
2-Pin Prefocus (32 Volt)	H	0878001	3-1/4	0878002	4-1/4	0878003	5-1/4
2-Pin Prefocus (600 Watt)	I	0879001	3-1/8	0879002	4-1/8	0879003	5-1/8
2-Pin Prefocus (900 Watt)	K	-----	-----	0880002	3-13/16	0880003	4-13/16



2-Pin Prefocus Socket
(Code “F, G, H, I & K”)
Catalog No. 0899



Medium Screw Socket
(Code “B”)
Catalog No. 0894



Mogul Screw Socket
(Code “D”)
Catalog No. 0897



Medium Prefocus Socket
(Code “E”)
Catalog No. 0895

Spare Parts Ordering Info for 0884 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.
0884	10"	0889001CLR	0891001CHR	0902001CHR	0890001	----
	12"	0889002CLR	0891002CHR	0902002CHR	0890002	----
	14"	0889003CLR	0891003CHR	0902003CHR	0890003	----

* 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. 0910) For The Reflector Should Also Be Ordered When Ordering a Replacement Reflector To Assure a Proper Fit.

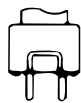
0800 Series Bulbs

The Following Chart is Provided to Aid in Proper Bulb Selection:

Searchlight Size Inches	Approximate 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	0816	100	50	1,168,000	1.7	1.4
	24	1	0836	150	50	891,000	2.6	1.5
	32	3/4	0817	200	200	571,000	2.6	1.7
	32	1	0806	500	50	943,000	3.4	3.9
	120	1	0820	600	75	908,000	4.4	2.2
	120	1-1/8	0807	500	25	1,332,000	3.5	2.8
	120	1-1/8	0844	500	500	1,260,000	3.1	3.4
	12"	12	1-1/4	0816	100	50	1,617,000	1.5
24		1-1/8	0836	150	50	1,349,000	2.2	1.5
32		7/8	0817	200	200	865,000	2.4	1.6
32		1-1/8	0806	500	50	1,496,000	3.4	3.5
120		1	0837	750	200	977,000	4.1	3.7
120		1	0845	750	200	1,185,000	3.7	5.2
120		1-1/8	0820	600	75	1,410,000	4.3	1.9
120		1-1/4	0809	750	25	1,792,000	3.6	3.4
120		1-1/4	0844	500	500	1,641,000	3.2	3.4
120		1-1/4	0807	500	25	1,799,000	3.3	3.1
120		1-1/4	0811	1000	50	1,816,000	4.0	4.9
120		1-3/8	0810	1000	25	1,894,000	4.0	3.8
120		1-3/8	0846	1000	200	1,911,000	3.9	5.0
120		1-1/2	0839	900	75	2,482,000	4.5	5.5
230		7/8	0860	1000	950	865,000	6.9	5.9
14"		12	1-1/4	0816	100	50	1,756,000	1.5
	24	1-1/8	0836	150	50	1,367,000	2.3	1.2
	32	1	0817	200	200	943,000	2.2	1.5
	32	1-1/8	0806	500	50	1,591,000	4.0	3.7
	120	1-1/8	0837	750	200	1,254,000	3.9	4.5
	120	1-1/8	0845	750	200	1,531,000	3.6	5.1
	120	1-1/4	0820	600	75	1,626,000	4.5	1.9
	120	1-3/8	0844	500	500	1,840,000	2.9	3.2
	120	1-3/8	0811	1000	50	2,249,000	4.0	5.1
	120	1-1/2	0807	500	25	2,353,000	3.2	3.2
	120	1-1/2	0809	750	25	2,422,000	3.7	4.0
	120	1-1/2	0846	1000	200	2,586,000	3.8	5.0
	120	1-1/2	0810	1000	25	2,621,000	4.0	4.5
	120	1-5/8	0839	900	75	2,889,000	4.5	5.2
	230	1	0860	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

PERKO®

SOLAR-RAY® SEARCHLIGHT

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 PERKOPLATE/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 warranted 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.

Serial Number _____

Date of Purchase _____

(Retain with Proof-of-Purchase Documentation)

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

9901 019 FRM