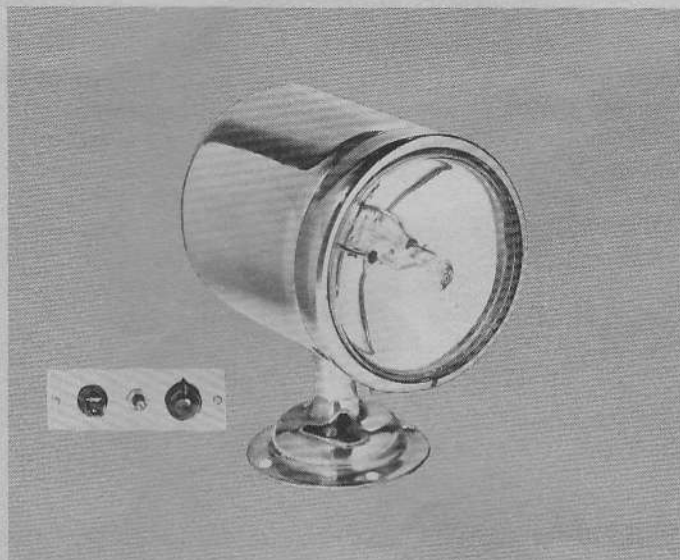


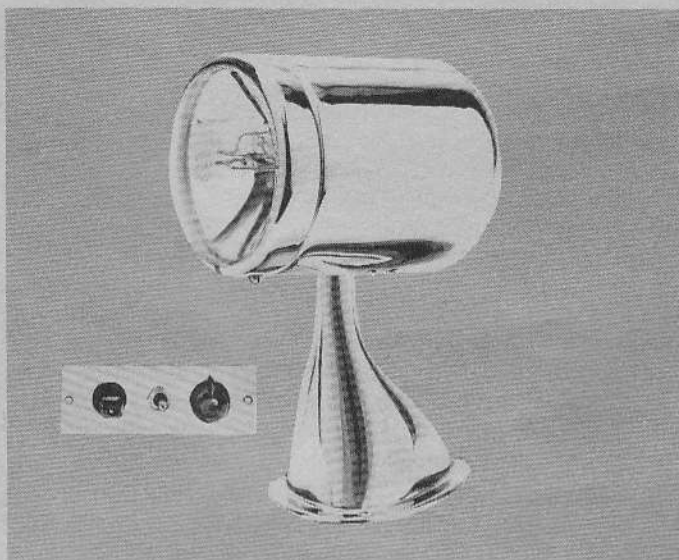
**RAY-LINE®**  
SEARCHLIGHTS

MODELS: 61024 - Series 61025 - Series  
61029 - Series 61040 - Series  
61041 - Series 61042 - Series  
5", 7" & 8" Electric Remote Control Searchlights

PRODUCT DATA

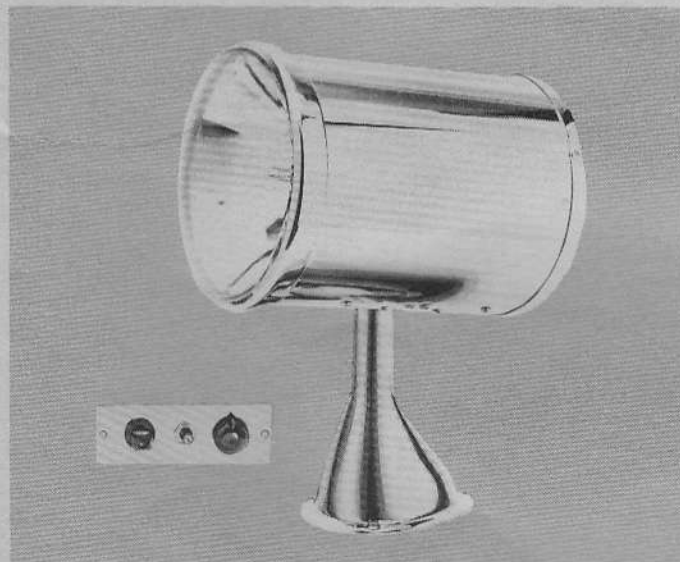


MODEL 61022-0002



MODEL 61024, 61025, 61029-Series

5", 7" & 8" ELECTRIC REMOTE CONTROL SEARCHLIGHTS



MODEL 61040, 61041 & 61042-Series

FEATURES

- Complete drive unit enclosed in light housing.
- Single control lever for vertical and horizontal movement.
- Variable speed control for precise beam movement.
- On-off and spot/flood beam selection from a single switch.
- Exclusive Clutch-A-Matic feature protects drive unit against overload. Can operate for extended periods against limit stops without harm. Light head may be moved manually without damage to the drive unit.
- Internal brake system holds beam firmly on target.
- Includes control panel with on-off, spot/flood switch, variable speed control, and single control for vertical and horizontal movement.

STANDARD MODELS

Model Number	Volts	Control Panel	Housing Material/Finish	Bulb	Beam Candlepower	Vert. Tilt	Horiz. Rotat.	Wiring Cable	Weight
61024-0002	12	Single Panel	Steel/Chrome	5" Spot-Flood	100,000	70°	450°	8 ft. (2.4M)	4 lbs. (1.8 kg.)
61025-0002	12	Single Panel	Brass/Chroms	5" Spot-Flood	100,000	70°	450°	8 ft. (2.4M)	4 lbs. (1.8 kg.)
61040-0002	12	Single Panel	Brass/Chrome	7" Spot-Flood	240,000	80°	450°	*	9 lbs. (4 kg.)
61041-0002	24	Single Panel	Brass/Chrome	7" Spot	330,000	80°	450°	*	9 lbs. (4 kg.)
61042-0002	12	Single Panel	Brass/Chrome	8" Spot	500,000	80°	450°	*	13 lbs. (5.9 kg.)

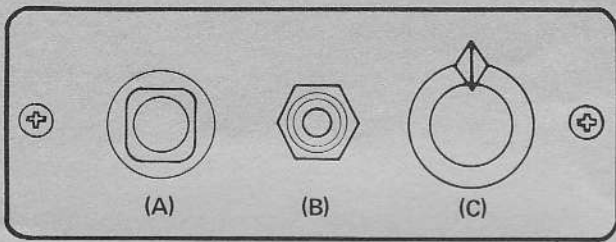
\*Cable not included. Desired cable length ordered separately. (See wiring instructions.)

Accessories - Optional Secondary (Flybridge) Remote Control Panel, including station selector panel - No. 66075-0000 (see wiring diagram).

JABSCO PRODUCTS **ITT**

Form 43000-0170 Rev. 9-76

## CONTROL UNIT OPERATION SINGLE PANEL CONTROL



### SWITCH FUNCTIONS

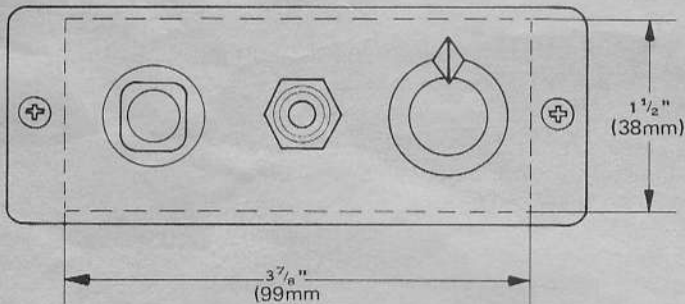
- (A) Directional Switch - Move it up or down, left or right, and the light will move in the same direction.
- (B) Light Switch - Spot/off/flood switch positions.
- (C) Variable Speed Control - Turn the knob for fast or slow movement of the light head.

### LIGHT MOUNTING

See base mounting dimensions for appropriate model light. Mount all models with front of base toward direction of most intended use (front of circular base is marked with arrow). Drill screw holes (per dimensional drawing) and a 3/8" (10mm) hole at center of base for wiring cable. Drill additional holes for wiring cable through firewalls, bulkheads, etc. for connection to control panel. With gasket under light base, feed wire through hole and fasten light in place.

### CONTROL PANEL MOUNTING

**SINGLE CONTROL PANEL:** For flush mount, cut rectangular hole in flat surface where panel is to be mounted (see diagram). Insert wiring cable through hole and mount panel with No. 4 round head sheet metal or wood screws as required.



For under or over-dash bracket mounting, order Optional Kit No. 66053-0000. Kit includes angle brackets, hardware, and installation instructions.

### CONTROL PANEL SERVICE

Individual replacement parts are available for the single panel control shown below. To remove the 4-way directional switch, locate the small holes (top and bottom) in the bracket attached to the rear of the chrome faceplate, depress springs in these holes, and pull switch out. The variable speed control and on-off switch can be removed simply by removing the locknuts. To wire the new part into place, cut wires to the old part, and splice wires (with wire nuts) to the new part, being sure to match wire colors.

### WIRING

**5" Series** — Refer to wiring diagrams at right and extension cable instructions below. Connect wires from control panel to plug end of cable assembly, matching colors and plugs. String cable through bulkheads, walls, etc. to the light. **NOTE: SECURE CABLE WITH NYLON CLIPS OR EQUIVALENT, PROTECT INSULATION AT POINTS OF STRESS, AND LEAVE ADEQUATE SLACK WHERE CABLE MUST BE FLEXIBLE.**

Connect cable wires to light wires using wire nuts provided. Be sure to match colors and plugs. Connect red fused lead from control panel to positive side of correct voltage power source. Connect white wire to negative.

When installation and wiring is completed, check light operation. If light is inoperative, or does not operate correctly, refer to trouble shooting instructions.

**7" Series** — Connection of the 61040 and 61041-Series lights is accomplished in the same manner as the 5" Series above. Cable assemblies of the required gauge and length are available separately to assure proper current to the light (see cable listing below).

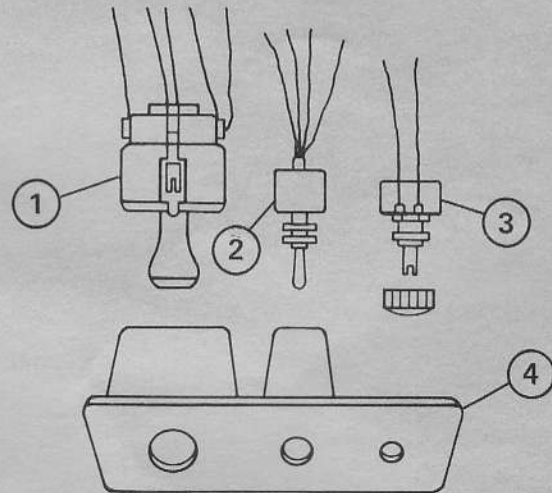
**8" Series** — Connection of the 61042-Series is accomplished in a similar manner to the 5" Series above, except as noted later. Cable assemblies of the required gauge and length are available separately to assure proper current to the light (see the cable listing below). The light base wiring has additional Red (+) and White (-) 14 gauge power leads which must be connected direct to a power source. The power source wiring must be 10 gauge wire or larger depending on the lead run length.

### CABLE LISTING

Part Number	Description	Length	Use
67294-0000	7 conductor, 18 & 10 gauge	50' coil (cut to length at Dealers')	Extension of 5" Series cable by a maximum of 25'
66076-0000	7 conductor, 18 & 10 gauge	10' (3M)	
66077-0000	7 conductor, 18 & 10 gauge	15' (4.5)	
66078-0000	7 conductor, 18 & 10 gauge	25' (7.6M)	

**NOTE:** Any extensions to light wiring beyond limits above should be of 16 gauge wire minimum for control functions and 8 gauge for power circuits.

### CONTROL PANEL NO. 66120-0000 PARTS DIAGRAM



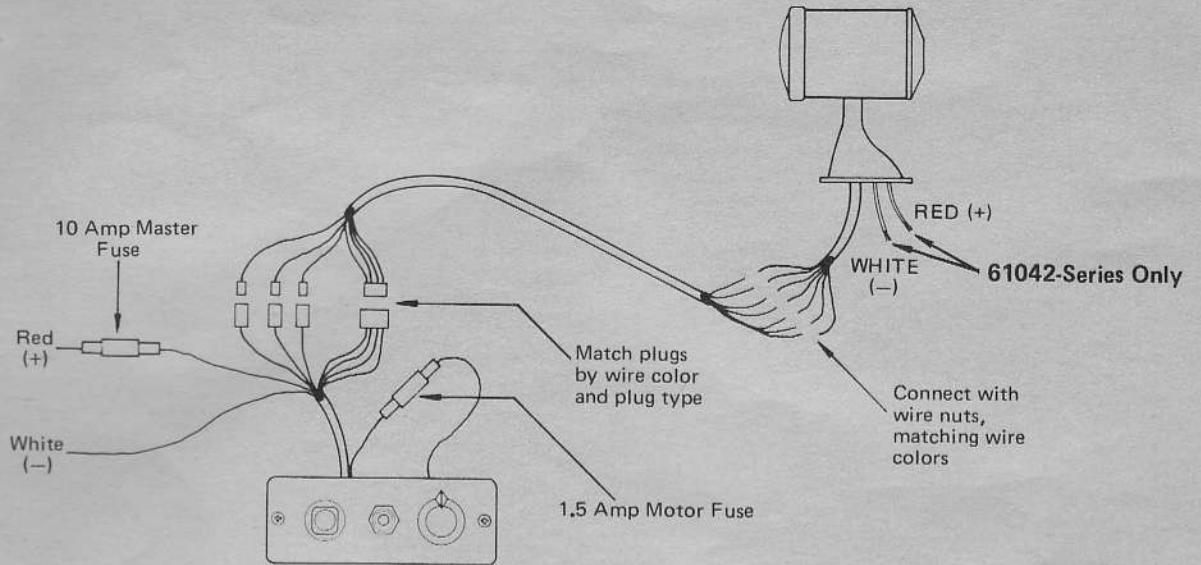
### PARTS LIST

Key	Part Number	Description
1	**66122-0000	Directional Switch
2	**66150-0000	Spot/Flood Switch
3	**66153-0000	Speed Control
4	66154-0000	Face Plate

\*\* Indicates 6" presoldered leads and wire nuts provided.

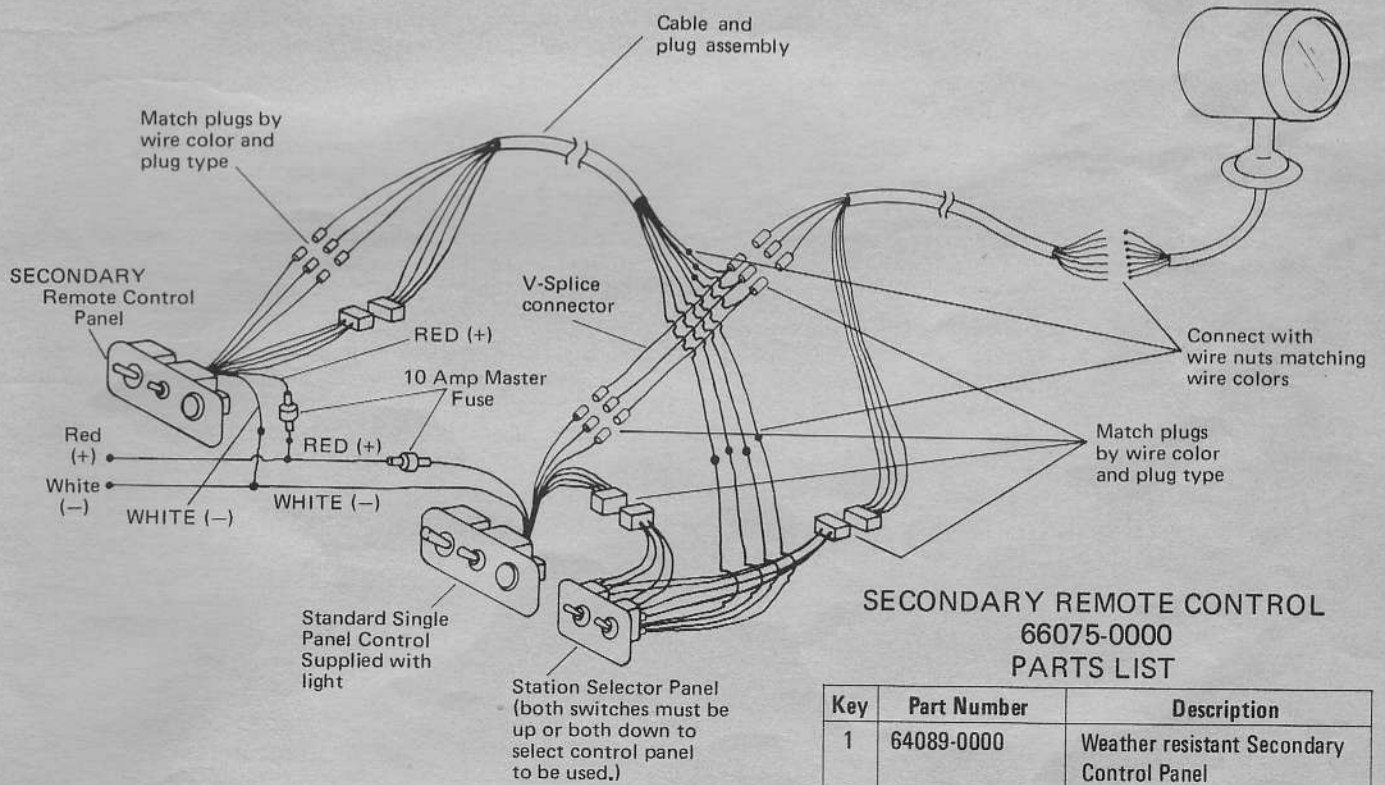


## WIRING DIAGRAM, SINGLE PANEL CONTROL



## WIRING DIAGRAM, OPTIONAL SECONDARY REMOTE CONTROL

Optional Secondary Remote Control No. 66075-0000 (includes weather-resistant secondary control panel, station selector panel, V-splices, and wire nuts).



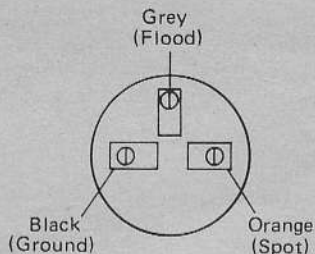
### SECONDARY REMOTE CONTROL 66075-0000 PARTS LIST

Key	Part Number	Description
1	64089-0000	Weather resistant Secondary Control Panel
2	64073-0000	Station Selector Panel
3	64074-0000	V-Splices
4	66158-0000	Wire Nuts
5	SEE WIRING INSTRUCTIONS	Secondary Control Cable must be acquired separately

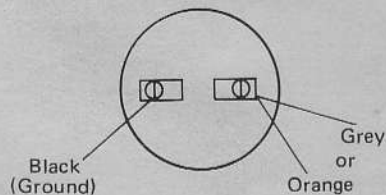
## BULB REPLACEMENT

Loosen screw and remove bulb retaining ring. Disconnect wires from faulty bulb. Connect wires to new bulb as shown below. Install bulb and fasten with bulb retaining ring.

### DUAL FILAMENT SPOT-FLOOD (No. 4710)



### SINGLE FILAMENT



## TROUBLE SHOOTING

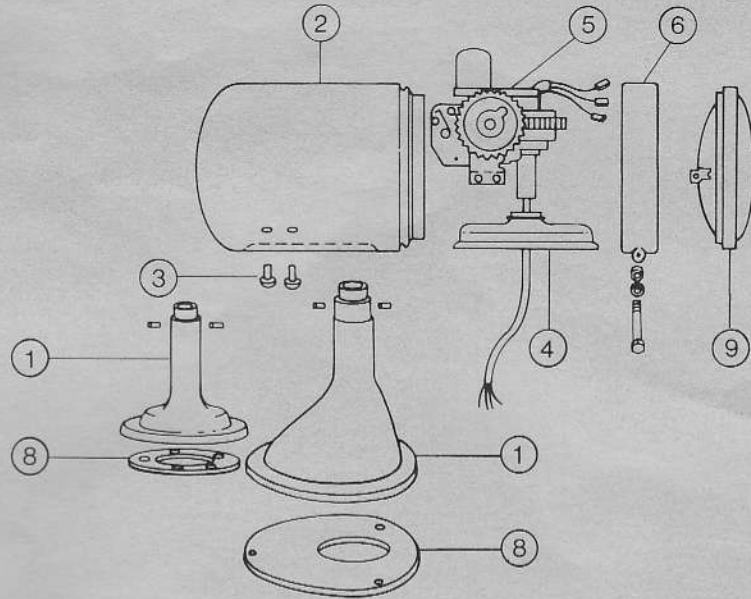
All lights are thoroughly inspected before shipping and are warranted to operate within specifications. If light does not operate correctly, CHECK FUSES, WIRE HARNESS CONNECTIONS AND COLOR MATCHING OF WIRES BEFORE PROCEEDING WITH THIS TROUBLE SHOOTING.

Problem	Solution
1. Dual filament bulb works in reverse (up is spot, down is flood)	Disconnect orange and gray wires. Reconnect as follows: (Orange from light) to (Gray from switch) (Gray from light) to (Orange from switch)
2. Control lever works in reverse in all directions (left is right, down is up, etc.)	Reverse Red and White battery connections.
3. Control lever works in reverse in horizontal direction only (left is right and right is left)	Disconnect Yellow and Blue wires. Reconnect as follows: (Yellow from light) to (Blue from switch) (Blue from light) to (Yellow from switch)
4. Control lever works in reverse in vertical direction only (up is down, and down is up)	Disconnect Green and Violet wires. Reconnect as follows: (Green from light) to (Violet from switch) (Violet from light) to (Green from switch)
5. Light moves in only three of the four possible directions:	Reverse connection as in Step 3. If opposite horizontal motion becomes inoperative, replace the switch. If problem persists, return light for service.*
a. One horizontal direction is inoperative	Reverse connections as in Step 4. If opposite vertical motion becomes inoperative, replace the switch. If problem persists, return light for service.*
b. One vertical motion is inoperative.	

\*Return light for service at the factory, ITT Jabsco Products, 501 W. Liberty St., Springfield, Ohio 45501

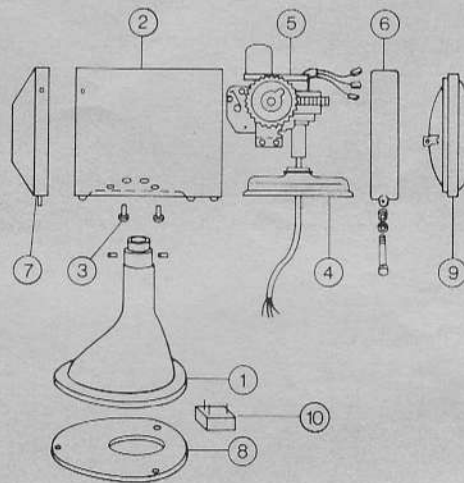
EXPLODED VIEW

MODEL 61022-0002  
61024-0002  
61025-0002



EXPLODED VIEW

MODEL 61040-0002  
61041-0002  
61042-0002



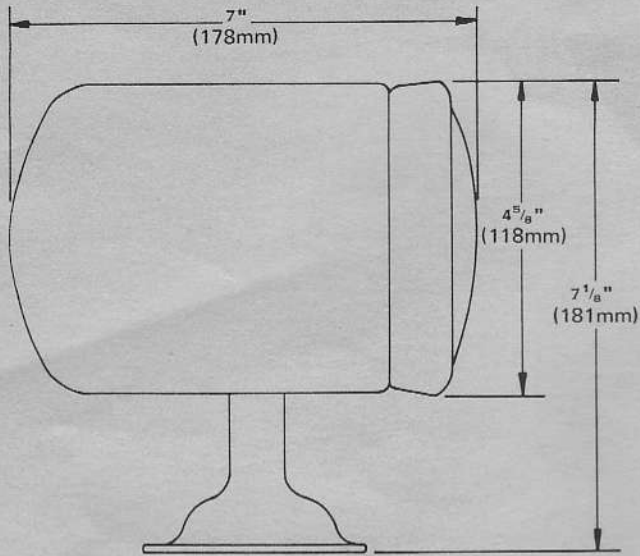
PARTS LIST

Searchlight Model No. and Diagram Reference

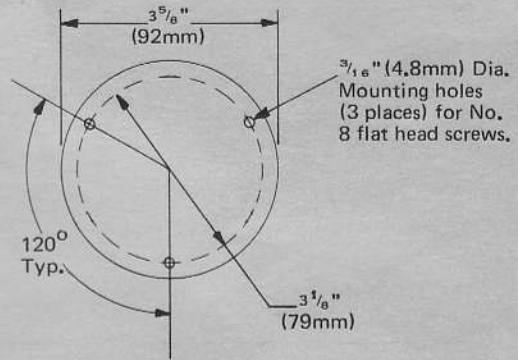
Key No.	Part Description	61024-0002		61022-0002 61025-0002 61029-0002		61040-0002 61041-0002		61042-0002	
		Part No.	Qty.	Part No.	Qty.	Part No.	Qty.	Part No.	Qty.
1	Base (includes set screws) Base for 61022-0002 only	66132-0000	1	66132-0000 66131-0000	1	66133-0000	1	66133-0000	1
2	Housing (rubber boot installed) (Includes end bell on 7" & 8" dia.)	66135-0000	1	66136-0000	1	66137-0000	1	66137-0000	1
3	Screws for mounting housing (package of 4)	66138-0000	1	66138-0000	1	66139-0000	1	66139-0000	1
4	Rubber Boot (includes straps and fasteners)	66140-0000	1	66140-0000	1	66141-0000	1		
5	Motor Clutch Assembly (assembled and wired) 12v DC 24v DC	66142-0000	1	66142-0000 66147-0000	1	66145-0000 66146-0000	1	66145-0000	1
6	Bulb Retaining Ring (includes fasteners)	66046-0000	1	66149-0000	1	66032-0000 66152-0000	1	67563-0000	1
7	End Bell (Includes fasteners)						1		
8	Gasket (base mount)	66156-0000	1	66156-0000	1	66157-0000	1	66157-0000	1
9	Bulb 12v DC 24v DC	67296-0000	1	67296-0000 98040-0450	1	67262-0000 98040-0450	1	67524-0000	1
10	Primary Power Relay							41167-0000	1



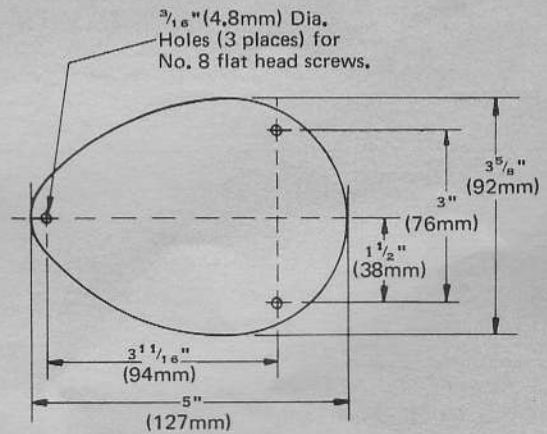
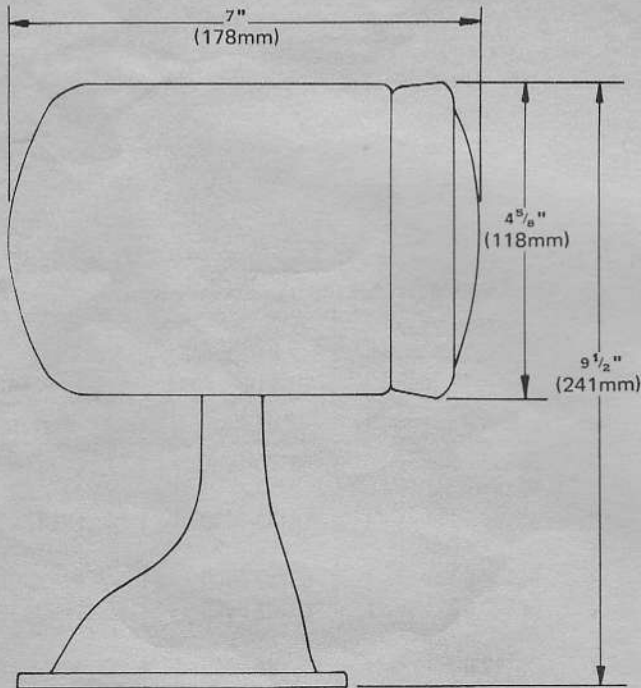
DIMENSIONAL DRAWINGS



BASE MOUNTING DIMENSIONS

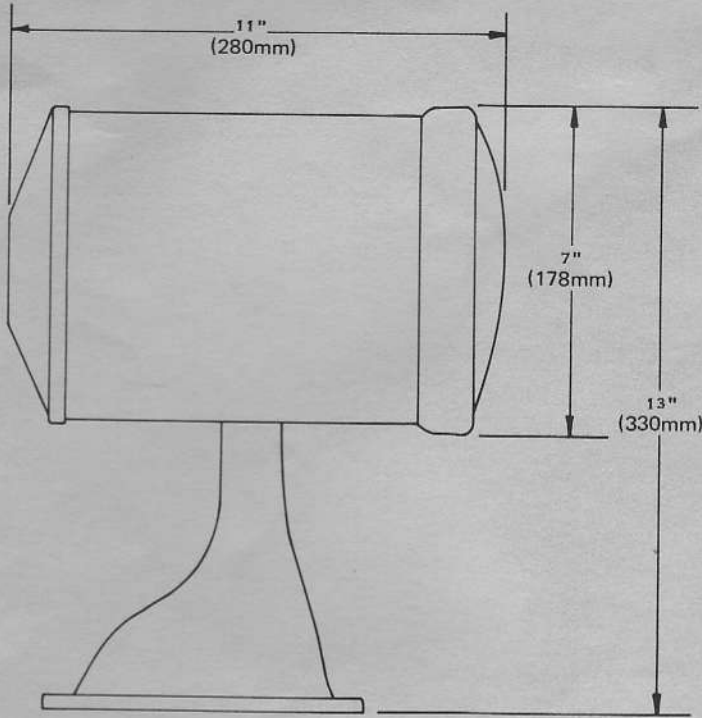


61022-0002

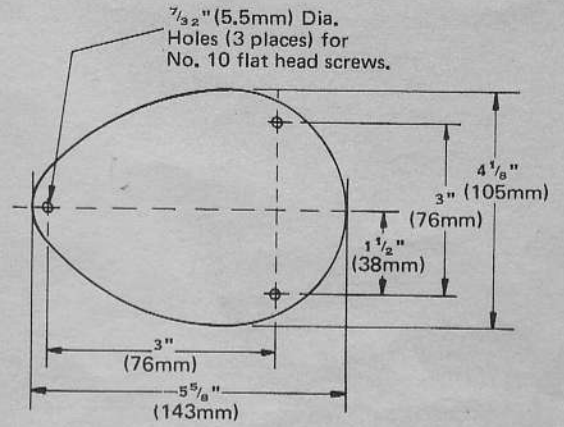


BASE MOUNTING DIMENSIONS

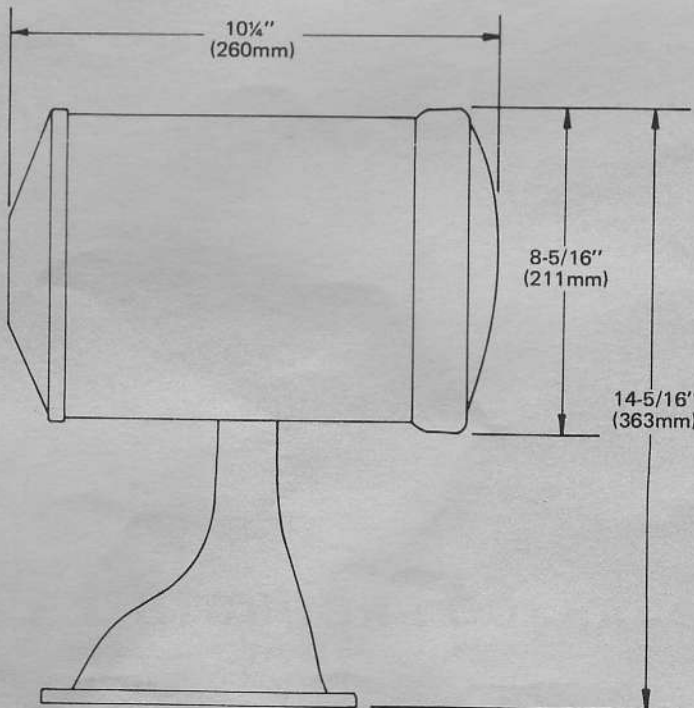
61024-0002/61025-0002/61029-0002



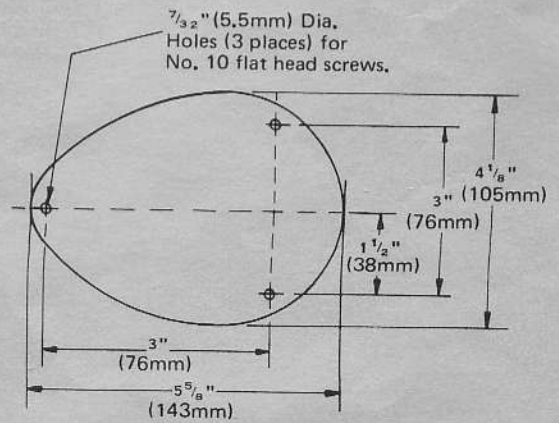
**BASE MOUNTING DIMENSIONS**



61040-0002/61041-0002



**BASE MOUNTING DIMENSIONS**



61042-0002

**JABSCO PRODUCTS ITT**

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