

**RAY-LINE**

# Models 41120-2XXX 41130-2XXX

## MARINE SEARCHLIGHTS 10" & 12" Electric Remote Control

### FEATURES

#### Motorized Base

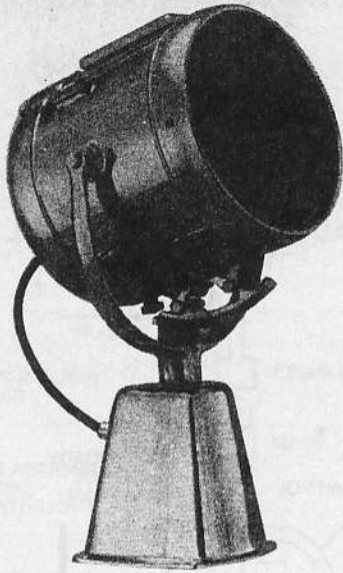
- Completely motorized drive unit in base.
- Slip-clutch design prevents accidental damage to drive unit.
- Built-in brake holds light head firmly on target.
- Includes eight-position control for horizontal, vertical, and simultaneous motor operation.
- Speed control for variable movement in all directions.
- High quality nickel chrome or white painted base available.

#### Light Head

- Full 10" or 12" silver backed parabolic mirror.
- Hinged rear door for easy lamping and mirror cleaning.
- Designed for today's high candlepower tungsten halogen bulbs.
- All brass construction with heavy nickel polished chrome finish.
- External focusing device.
- Specially designed light shield to diminish side light.

All models include main control and 15 foot interconnecting cable. **Bulbs not included. Order from Parts List.** Optional secondary control, No. 42640-0001, includes 15 foot interconnecting cable.

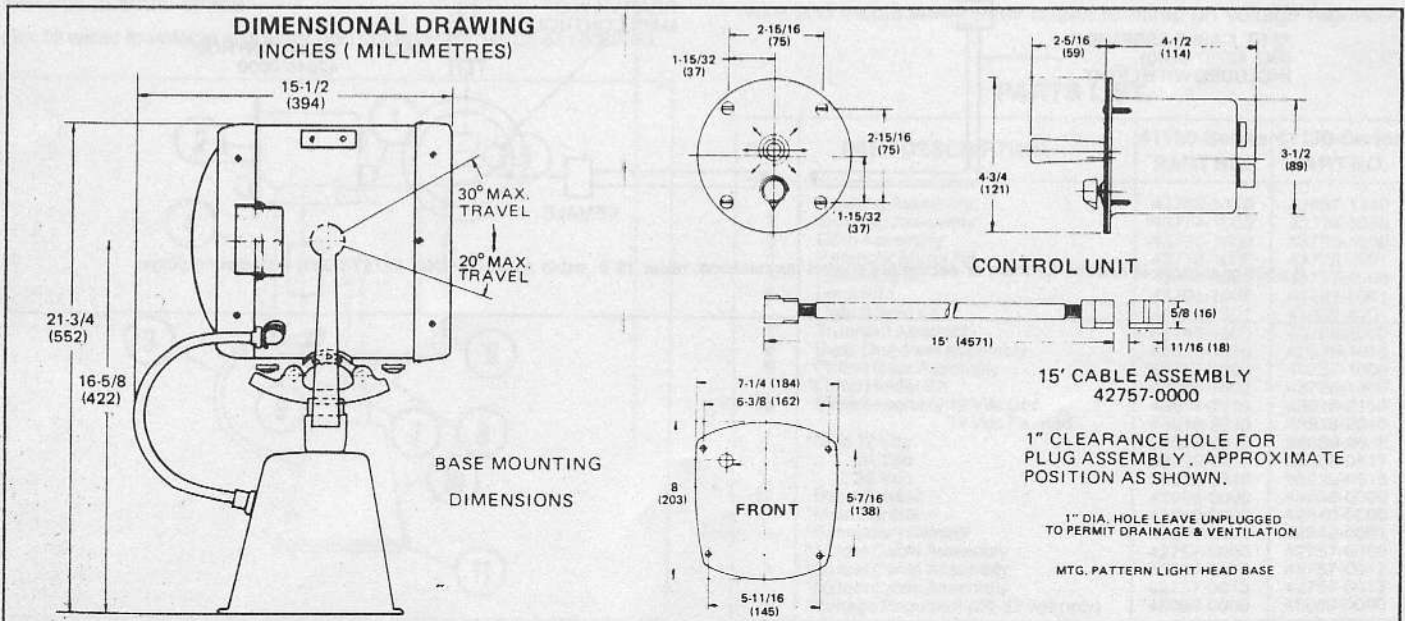
Models 41120-2XXX, 41130-2XXX



MODEL NO.	DIAMETER	BASE FINISH	VOLTAGE
41120-2110	10"	Chrome	12 Vdc
41120-2010	10"	White Pt.	12 Vdc
41130-2110	12"	Chrome	12 Vdc
41130-2010	12"	White Pt.	12 Vdc

For 24 or 32 volt installations, a 45090-0000 voltage regulator is required with appropriate voltage bulb.

### DIMENSIONAL DRAWING INCHES (MILLIMETRES)



## INSTALLATION INSTRUCTIONS 12 VOLT

Select a location for the light which will allow clear beam projection forward and as far aft as possible. Searchlight base should be mounted on level, flat surface. See dimensional drawing for mounting hole pattern and clearance hole for cable plug.

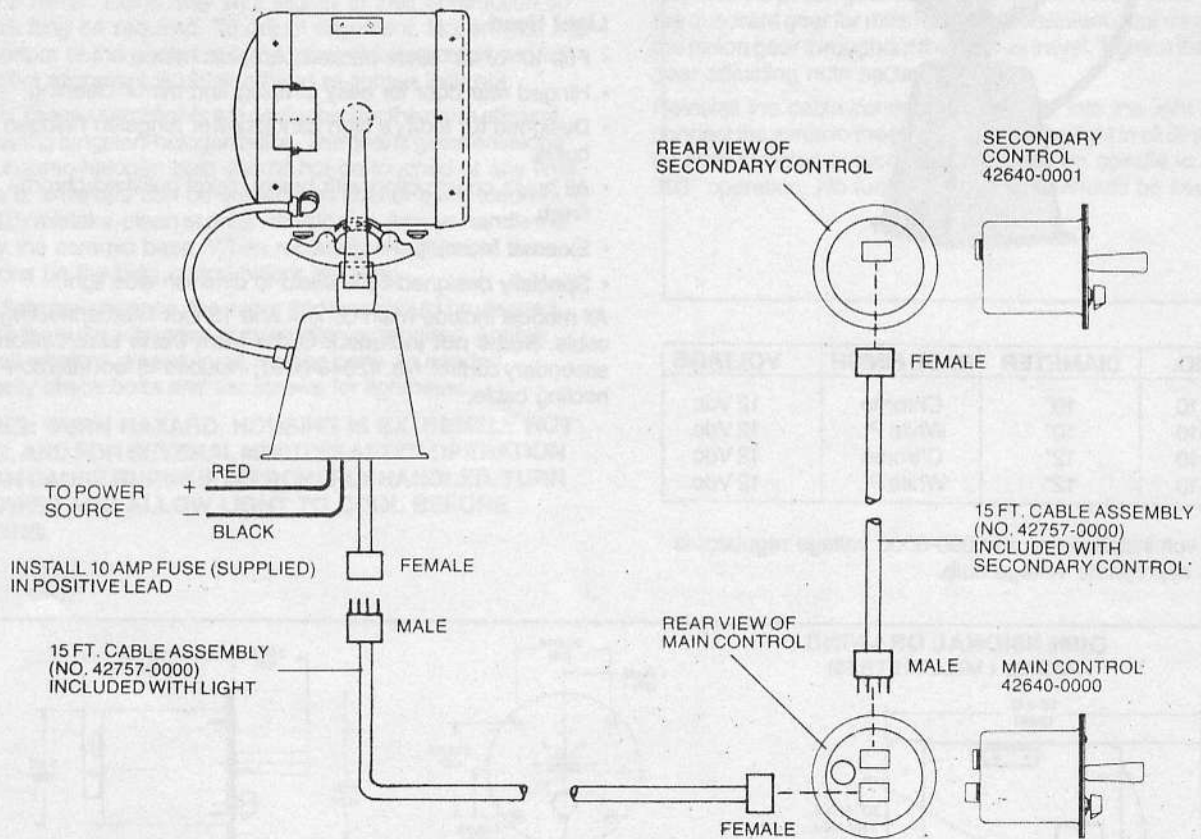
Choose a location for main control near the helm which will permit convenient operation of directional control lever and speed control knob. Control may be mounted on vertical, horizontal, or inclined panel. Provide for routing of interconnecting cable from light to control. Note lug dimensions on dimensional drawing so adequate clearance can be provided along cable route.

Position gasket under base, feed wires through clearance hole and fasten base securely with four screws provided. Cut a 3-5/8" hole for control in desired location. Do not cut hole larger than 3-5/8" so adequate material will be left to install the four mounting bolts. Chamfer top edge of the hole about 1/8" for radius in control housing.

Remove four mounting nuts on back of control and remove back mounting ring. Slide control through the 3-5/8" diameter hole and mark the four mounting bolt locations. Drill four 5/16" diameter holes in locations marked. Install control with the back mounting rim behind the panel with the four mounting nuts just removed.

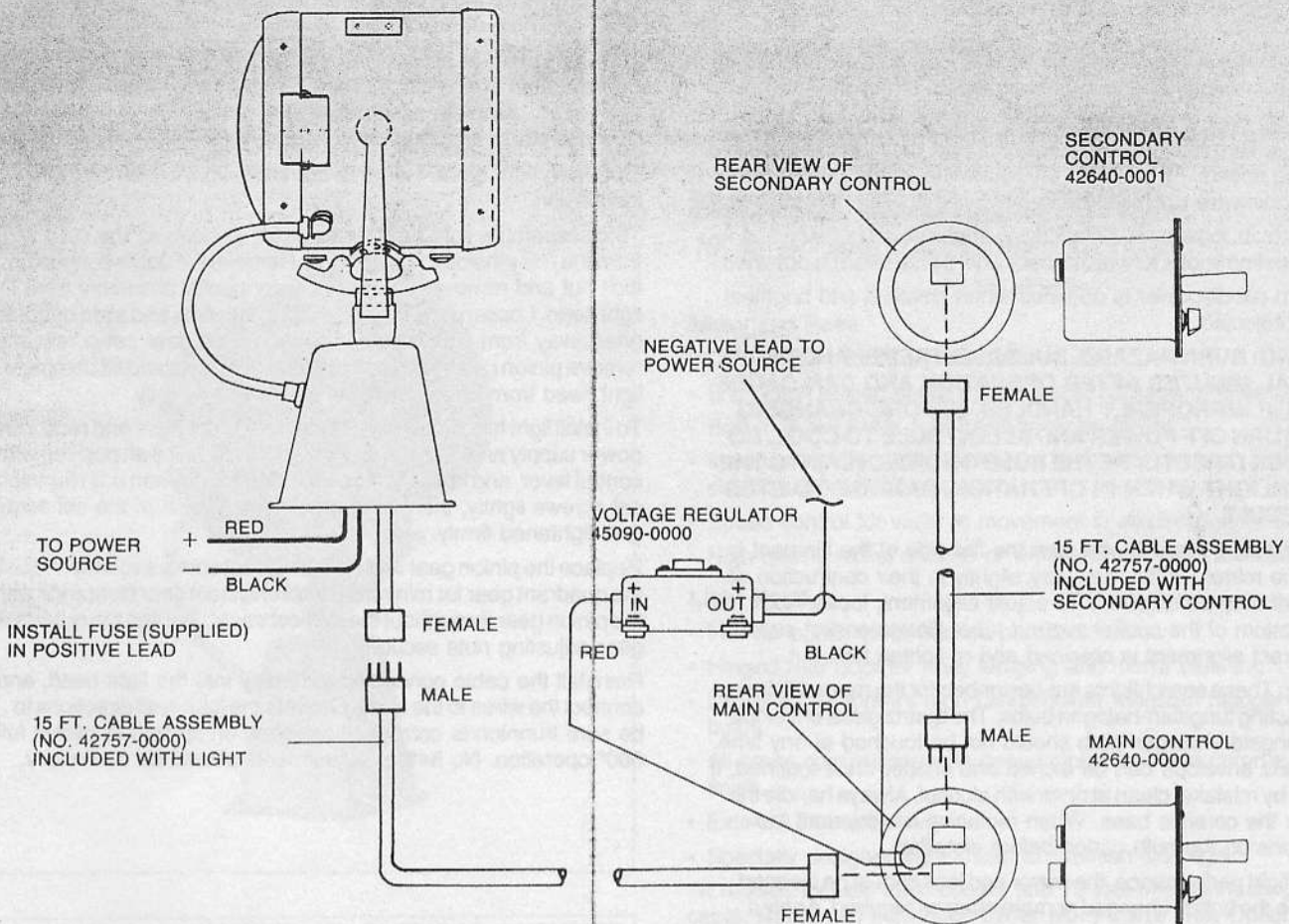
Connect control cable and DC power source as shown in wiring diagram (see below). Use 12 gauge stranded copper wire for up to 35' (10,6 m). For greater distances, use 10 gauge stranded copper wire. Install fuse holder provided in the positive lead in an easily accessible location. If additional cable length is required, order optional 15 foot cable and plug assembly No. 42757-000.

### WIRING DIAGRAM FOR MAIN CONTROL AND OPTIONAL SECONDARY CONTROL (12 VOLT)



If additional cable is needed for main or secondary control connections, order 15 ft. cable assembly (No. 42757-0000) with mating plugs.

## WIRING DIAGRAM FOR MAIN CONTROL AND OPTIONAL SECONDARY CONTROL (24/32 VOLT)



If additional cable is needed for main or secondary control connections, order 15 ft. cable assembly (No. 42757-0000) with mating plugs.

### INSTALLATION INSTRUCTIONS 24/32 VOLT

Mount regulator near control in area protected from rain or spray using (4) screws supplied.

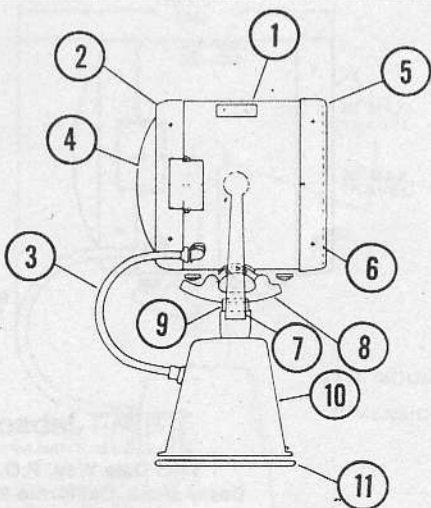
Install the terminals attached to the red and black wires supplied with the voltage regulator to the black connector on the back of the main control. **Note:** Large terminal to large spade and small terminal to small spade.

Route wires to voltage regulator and cut and strip wires as required.

Crimp large (1/4") terminal supplied to both red and black wires.

**Important:** Install red wire to *positive input* and black wire to *positive output* on the voltage regulator.

Install negative lead from power source to voltage regulator. Use 16 gauge copper stranded wire. Crimp small slip on terminal to wire and install to *negative output* terminal on voltage regulator.



### PARTS LIST

KEY	PART DESCRIPTION	41120-Series PART NO.	41130-Series PART NO.
1	Housing Assembly	43788-1110	43857-1110
2	End Cap Assembly	43774-1000	43774-1030
3	Cord Assembly	43790-1000	43790-1000
4	Parabolic Mirror Kit	43778-1002	43778-1001
5	Lens Ring Kit	43776-1000	43777-1000
6	Lens Kit	43791-1002	43791-1001
	*Light Shield Kit	41639-1001	41639-1001
7	Trunnion Assembly	43745-1000	43762-1000
8	Gear Quadrant Assembly	40529-1010	40529-1010
9	Pinion Gear Assembly	43757-1000	40757-1000
	*Lamp Holder Kit	43796-1002	43796-1006
10	Base Assembly 12 Vdc Chr. 12 Vdc Painted	43918-2110 43918-2010	43918-2110 43918-2010
	*Bulb 12 Vdc	98039-0616	98039-0616
	24 Vdc	98039-0617	98039-0617
	32 Vdc	98039-0618	98039-0618
11	Base Gasket	43056-0000	43056-0000
	*Main Control	42640-0000	42640-0000
	*Secondary Control	42640-0001	42640-0001
	*15 foot Cable Assembly	42757-0000	42757-0000
	*25 foot Cable Assembly	42757-0012	42757-0012
	*50 foot Cable Assembly	42757-0013	42757-0013
	*Voltage Regulator (24-32 volt only)	45090-0000	45090-0000

\* Not Shown

## OPERATING INSTRUCTIONS

To turn light on, rotate the ON-OFF-SPEED control knob clockwise to about mid position. To move light head, push the control lever in the direction the beam is to move.

The control lever has eight contact positions and will operate in horizontal, vertical, and in four intermediate directions.

The speed control varies the speed of head movement in all directions. Turn clockwise to increase speed, counterclockwise to decrease speed. To turn light off, rotate the speed control knob counterclockwise until light clicks off.

To focus bulb, loosen two (2) adjusting knobs under housing and slide adjusting knobs forward or back until desired beam is obtained.

Optimum candlepower is obtained when smallest and brightest spot is projected.

**WARNING: BURN HAZARD. BULB IS EXTREMELY HOT FOR SEVERAL MINUTES AFTER OPERATION AND CAN CAUSE BURNS IF IMPROPERLY HANDLED. BEFORE CHANGING BULB, TURN OFF POWER AND ALLOW BULB TO COOL. DO NOT LOOK DIRECTLY AT THE BULB OR DIRECTLY INTO THE SEARCHLIGHT WHEN IN OPERATION. DAMAGE TO EYES MAY RESULT.**

When installing the bulb, be sure the flat side of the filament is facing the mirror. Bulbs may vary slightly in their construction so alignment may be required. To adjust alignment, loosen lock nut at the bottom of the socket support tube. Rotate socket support until correct alignment is obtained and re-tighten lock nut.

**NOTICE:** These searchlights are designed for the more efficient, longer lasting tungsten-halogen bulbs. The quartz glass envelope of the tungsten-halogen bulb should not be touched at any time. The quartz envelope can be etched and shatter once touched. If touched by mistake, clean at once with alcohol. Always handle the bulbs by the ceramic base. When replacing a bulb, read the instructions on the bulb carton before installing.

For best light performance, the mirror and lens should be cleaned each time the bulb is changed or more often as required. Apply a coat of all-weather grease to all moving parts as needed. Periodically check bolts and set screws for tightness.

**WARNING: BURN HAZARD. HOUSING IS EXTREMELY HOT DURING, AND FOR SEVERAL MINUTES AFTER OPERATION AND CAN CAUSE BURNS IF IMPROPERLY HANDLED. TURN OFF POWER AND ALLOW LIGHT TO COOL BEFORE SERVICING.**

THE PRODUCTS DESCRIBED HEREIN ARE SUBJECT TO THE JABSCO® ONE YEAR LIMITED WARRANTY, WHICH IS AVAILABLE FOR YOUR INSPECTION UPON REQUEST.

## SERVICE INSTRUCTIONS

**Major Service:** Control assembly or base drive unit assembly should be returned to the factory at 501 W. Liberty St., Springfield, Ohio 45501, for service.

To return main or secondary control, remove complete unit and unplug cable connections. Tape or fasten face plate to housing and return complete assembly to the factory.

To return base assembly, disconnect power connections and cable plug from light base. Remove complete light assembly from installation.

To disassemble light head from base, disconnect the cord wires from the relay inside the light head. Remove the cable connector lock nut and remove the cord and connector assembly from the light head. Loosen quadrant gear adjusting nuts and slide quadrant gear away from pinion gear. Loosen pinion gear set screw and remove pinion gear. Loosen trunnion set screws and lift complete light head from base. Return base assembly only.

To install light head after service, remount light base and reconnect power supply and cable plug. Rotate spindle to full aft position with control lever, and install light head facing aft. Tighten both trunnion set screws lightly, then alternately tighten each of the set screws until tightened firmly.

Replace the pinion gear and tighten the set screw securely. Adjust the quadrant gear for minimum and consistent gear clearance with the pinion gear throughout the vertical travel. Tighten the quadrant gear adjusting nuts securely.

Reinstall the cable connector assembly into the light head, and connect the wires to the relay. Operate the light in all directions to be sure trunnion is correctly positioned on spindle to permit full 360° operation. No further adjustments should be necessary.