



Figure 1- RCL-300A Components

SECTION 2 - SEARCHLIGHT MOUNTING

Make sure the area is clean and dry. The searchlight can be mounted where desired, using appropriate length 5/16" diameter stainless steel fasteners. One set is provided in the mounting kit and four (4) nylon shoulder washers. The nylon washers prevent a galvanic reaction between the mounting hardware and the base of the searchlight. Be sure these washers have been inserted in the base mounting holes and that the mounting base gasket is securely in place before bolting down. Apply silicone grease to the bottom of the gasket to help in waterproofing the unit. When mounting, be sure the searchlight is able to rotate 360° without hitting any obstructions. For the drilling hole pattern, refer to the searchlight Mounting Template.



CAUTION: Do not mount the searchlight upside down. Moisture cannot drain from the inverted light head assembly.

Self Park Feature

The RCL-300A has a Self-Park feature. The Self Park function will automatically return the light to a specific position when turned off. When mounting the light, determine in advance the direction that the light should face when it is turned off. Align the red marker on the base 180° opposite of the final facing direction.

To activate the Self-Park feature, press the “Speed” button on the URP-102 Point Pad™ for more than five (5) seconds.

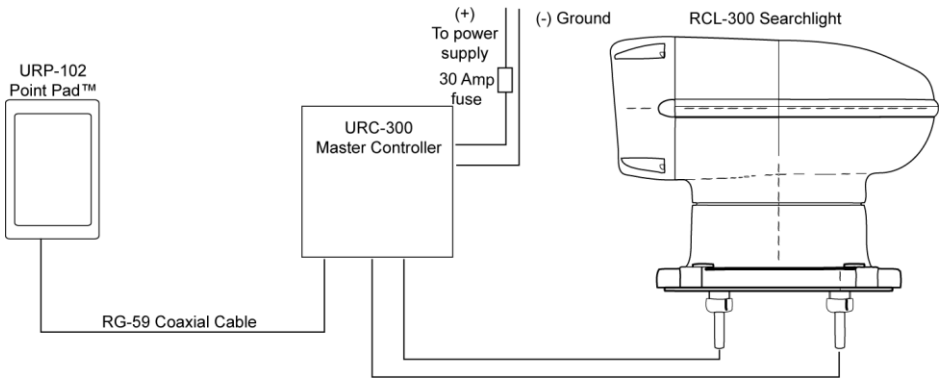


Figure 2- URC-300 Master Controller unit (mounted upright)
Single Point Pad connection configuration

SECTION 3 - REMOTE CONTROL SYSTEM

The Remote Control System consists of the URC-300 Master Controller and the URP-102 Point Pad™. This system is compatible with 12 VDC through 24 VDC systems without modification.

SECTION 4 - URP-102 POINT PAD™

Case options

The URP-102 Point Pad™ is supplied as a surface mount unit (see Figure 3). A flush mount option is provided. To switch mounting options, unscrew the six (6) screws on the unit's back plate and remove the front cover. Fit the Point Pad™ with the flush mount cover, replace the back plate and screw the unit back together.

Mounting

Both the surface mount and the flush mount options require access to the backside of the mounting location. Verify that there are not any obstructions behind the area where the switch is to be located, e.g., bulkheads, wires, plumbing or hardware. Check that the coax cable from the Master Controller can be routed to this location. Generally, the Point Pad™ should be mounted in a protected area.

Surface Mount

Install the surface mount Point Pad™ by drilling three (3) holes in the dashboard location using the Point Pad™ Surface Mount Template supplied in the Mounting Templates. Mount the Point Pad to the dashboard using the gasket, washers and nuts supplied. Apply a sealant around the bolt holes to protect from moisture intrusion.



URP-102
Surface Mount



URP-102
Flush Mount

Flush Mount

When the flush mount is selected, cut a rectangular hole in the dashboard location using the Point Pad™ Flush Mount Template supplied in the Mounting Templates. Use the gasket, washers, nuts and the two U-Clamps provided to secure the Point Pad™. Apply a sealant around the cut out to protect from moisture intrusion.

Connecting to the Master Controller

The Point Pad™ communicates with the Master Controller via standard television type RG-59 coaxial cable. The connectors are standard “F” type television connectors. The connector on the back of the Point Pad™ is located in the center of the panel for ease of installation. After the coax cable has been routed and the “F” connector is attached to the coax cable, screw the “F” connectors to the Master Controller and the Point Pad™.


Additional Point Pads™ (up to three) may be used with one (1) Master Controller. A standard “T” connector or RG-59 television type splitter is used for each additional Point Pad™. Limit the total length of all coax cable used to 300 feet.

SECTION 5 - URC-300 MASTER CONTROLLER


Mounting

The Master Controller can be mounted in any position near the searchlight that is protected from the weather. Check in advance that the coax cable from the Point Pad and the wiring harness from the searchlight can be routed to this location. Mount the Master Controller with the wires and coax facing down. Use an appropriate fastener for your mounting location. Use a sealant in fastener holes to prevent moisture intrusion.

General wiring scheme


 **WARNING:** The RCL-300 has a unique wiring scheme. Special attention must be paid to the following chart.

The Master Controller is supplied with an in-line fuse-holder on the Orange power lead. Use only 30 amp fuses in this fuse-holder. See chart below for the Master Controller wiring diagram.

 **WARNING:** Failure to follow this arrangement may damage components.

Master Controller Wire	Searchlight Cable Wire	Wire Gauge (AWG)	Power Source Lead	Function
Orange		16	+12 VDC or +24 VDC**	URC-300 Power
Blue		16	Ground	URC-300 Ground
Yellow	Yellow	16		Position Sensor Signal
Green	Green	16		Position Sensor Common
Red	Red	16		Up
White	White	16		Down
Black	Black	16		Right
Brown	Brown	16		Left
White	White	12		Lamp Power
Black	Black	12		Lamp Ground

Table 1

 **WARNING:** This wire MUST be fused with a 30 amp fuse in the Master Controller's in-line fuse-holder.

Wiring to the searchlight

The RCL-300A searchlight is supplied with a 15-foot integral wire harness. If you must lengthen the wire harness, use heavy duty wire to minimize the voltage drop. This is especially important for the WHITE 12 AWG lamp power, BLACK 12 AWG lamp ground, ORANGE power wire and BLUE ground wires.

Following the wiring scheme above and Appendix C, use the supplied butt connectors to connect the Master Controller to the searchlight.

Wiring the Point Pad™

The RG-59 coax cable is supplied without the “F” connectors attached for ease of routing. After the Coax cable has been routed, strip the insulation and crimp the “F” connectors in place. Screw the “F” connectors to the Master Controller and the Point Pad™.

Wiring to the power supply

The power source must be a fused 12 VDC, 30-amp supply or a 24 VDC, 15-amp supply. Following the wiring scheme in Table 1, use the supplied butt connectors to connect the Master Controller to the power source. Refer to Table 2 for proper wire size for connection of the input power lines.



Figure 5

NOTE: As per the wiring scheme, the ORANGE wire is connected to the positive terminal and the BLUE wire is connected to the negative terminal of the power source.



CAUTION: HID light systems, when first turned on, have a high inrush current requirement of 25 amps. If you activate the light and the lamps flicker on and off repeatedly, check the voltage being supplied. This condition can be experienced with voltage input of less than 11.5V.

Functions of the URC-300

The URC-300 Master Controller is designed to perform up to six different duties on searchlights, winches and other electrical devices. The Master Controller provides optimum voltage to ensure brightest performance and long lamp life, regardless of boat system voltage fluctuations. The Master Controller is compatible with devices requiring 12 VDC through 24 VDC operation.