



The SV20 LED is the perfect light for the small to mid size boater that requires the reliability and serviceability of a thru-hull fixture. The COB LED chip, the latest development in this technology, produces an industry leading 3040 lumens creating an amazing lighting effect for its size. The aluminum/bronze housing, previously used in the SV20 HID, has been sold worldwide to the leading builders for many years with proven reliability. Lights can be serviced from the inside so hauling to work on the lights is not required.

SV20 LED technical specifications

Application for:	GRP/fiberglass/wood hulls
Lamp:	High density COB LED
Life length:	approx. 40,000 hours plus
Lumens:	3040
Kelvin colour temp:	5000
Glass lens:	Borosilicate glass
Thickness:	9.5mm / 0.38"
Diameter:	41mm / 1.61"
Power supply:	12VDC nominal (18VDC max) 4.2 amps continuous 24 VDC nominal (32VDC max) 2.0 amps continuous
Casing material:	Marine Bronze
Dimensions:	Flange diameter: 80 mm (3.15") Body length: 159mm (6.26")
Angles available:	Flush
Weight:	2kg / 4.5lbs

Code:	SV20 LED
Driver:	12VDC or 24VDC
Dimensions:	Length: 122mm / 4.8" Width: 60mm / 2.36" Depth: 29mm / 1.14"
Total shipping weight:	112 grams / 0.25lbs
Installation:	Recommended at minimum 6" (152 mm) below waterline between 3 - 6 feet (1 - 2 meters) apart. (60mm) 2.36" cut out hole

Note: Please specify voltage when ordering.

All information is subject to change without prior notice, please confirm details prior to ordering.

SV20 LED Underwater Light

Thru-Hull Mount, LED Array



Introduction:

Congratulations on the purchase of your new thru-hull LED underwater light. Underwater Lights® USA, LLC takes pride in providing well designed, high quality and thoroughly tested lights that allow you to “enhance your boating experience”. These lights can be installed on your vessel for aesthetics, to attract fish and/or for security and safety.

General Operating Information:

The latest commercial grade “COB” High-Density Light Emitting Diode (LED) technology used in this light will provide robust and reliable operation under normal operating conditions when used with the matching Underwater Lights® USA, LLC driver.

The SV20 LED is intended for use on fiberglass and wood hulled vessels.

Depending upon water clarity conditions, the light beam can reach up to 18 meters (60 feet).

General Safety Information:

Never try to install or remove this light while the vessel is in the water.

Electrical wiring harness components should be kept out of potentially explosive gas environments.

The body of the light must be electrically joined to the vessels grounding and cathodic protection system. Failure to do so may cause galvanic corrosion.

Always disconnect and lock-out power before working on light.

The light should be visually inspected every six months.

The light, electrical components and electrical cabling should be visually inspected for proper operating condition every six months.

Marine growth should be removed from the glass using a soft brush to allow both heat and illumination to exit the light.

Technical Specifications:

Light source = Instant-on high flux, high density LED array - 3,040 Lumens (Peak Axial Candela 1405) and 5,000 Kelvin color temperature in White or optional Blue LED array - 40,000+ hours life - Thermal limit switch and short circuit protection included

Glass = Borosilicate glass - 9.5mm (0.38”) thick - 41mm (1.61”) diameter net aperture

Construction = Marine bronze - Black anodized marine aluminum alloy - Black delrin

Light dimensions = 80mm (3.15”) diameter x 159mm (6.26”) long - 1,999 grams (4.4 pounds)

LED driver dimensions = 122mm (4.8”) long x 60mm (2.36”) wide x 29mm (1.14”) tall - 112 grams (0.25 pounds)

Power supply = 12 VDC nominal (18 VDC max) - 4.2 Amps continuous - Operating temperature from -30°C (-22°F) to 50°C (122°F)

OR

Power supply = 24 VDC nominal (32 VDC max) - 2.0 Amps continuous - Operating temperature from -30°C (-22°F) to 50°C (122°F)

Troubleshooting:

Please contact our technical support staff in Florida at 1-954-760-4447, Monday to Friday from 8:00 am to 5:00 pm EST.

Warranty:

Underwater Lights® USA, LLC warrants this light to be free from defects in workmanship and materials for a period of two years from the date of original purchase. Further, misuse, abuse, improper installation, neglect, improper shipping, damage caused by disasters such as fire, flood and lightning, unauthorized repair or modifications will void said warranty. Should your light prove defective during the warranty period, promptly contact Underwater Lights® USA, LLC for an RMA number and then return the light freight prepaid with the RMA number clearly marked on the outside of the shipping container.

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SV20 LED Underwater Light

Thru-Hull Mount, LED Array



Installation:

This light should be installed at least 152mm (6") below the water line by qualified/approved personnel using proper tools and materials. The minimum hull thickness is 8mm (0.31") and maximum (for sufficient heat dissipation) is 73mm (2.87") with an access area of at least 100mm (3.9") left behind the light for LED array servicing and general ventilation.

After selecting a flat surface, cut a 60mm (2-3/8") diameter hole through the vessel hull in the desired location. Caution! Check that no electrical wiring, fuel lines, oil lines, water lines etc., pass near or through the intended hole location.

Remove numbers (4) [with attached (5)], (7) + (8) from the light. Carefully coat the Flanged Main Body (1) and inner surface of above cut hole with 3M 5200 Marine Adhesive or equivalent. Caution! Avoid placing adhesive on flanged main body threads. Note: Exposed inner hole surface must be properly sealed before light installation to prevent potential water intrusion into the hull proper.

Holding the Flanged Main Body (1), push the light through the hole, slide the Compression Ring (7) over the Flanged Main Body (1) and then tighten the Locking Ring (8) hand tight. Note: Ensure that the tips of all three set screws (13) are NOT touching the Compression ring (7). After the 3M 5200 Marine Adhesive is fully cured, tighten the three set screws (13) to 7 Nm (5 ft/lbs) using a 3mm allen wrench.

Insert the Projector Mount (3) in the Flanged Main Body (1) and hand tighten Projector Lid (4) [with attached (5)]. Upon completing light installation, it is highly recommended that the Flanged Main Body (1) face be coated with antifouling paint and a wire lead be connected from the Locking Ring (8) M4 x 0.7 tapped hole to the vessels grounding and cathodic protection system.

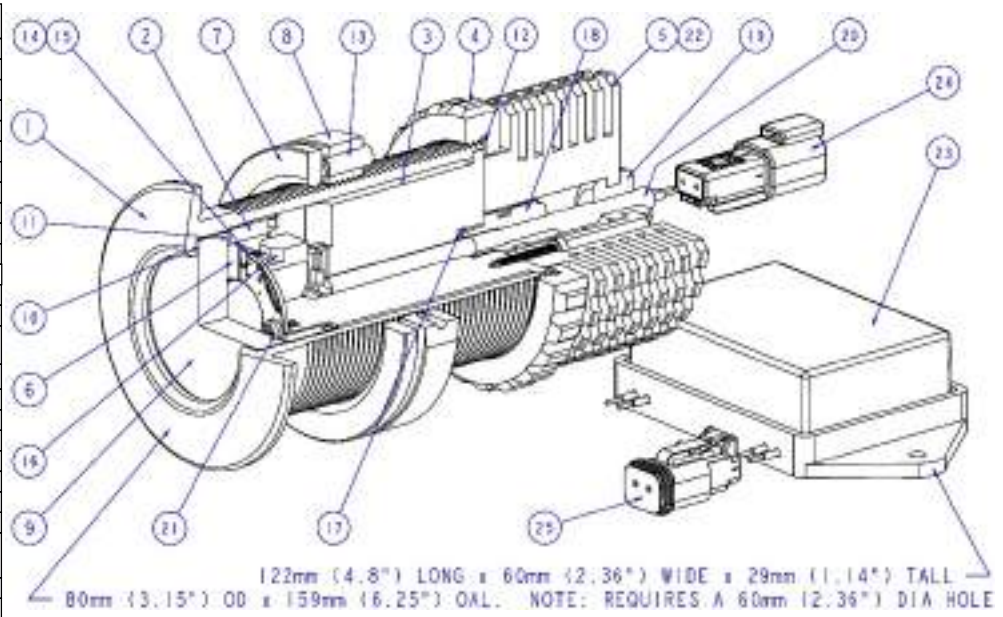
Securely mount the LED Driver (23) as high as possible away from the light and point electrical wires downwards. Connect loose LED driver RED wire lead to a switched and fused power source utilizing supplied fuse, connect loose LED driver BLACK wire lead to a good ground. Plug LED driver (25) output connector to LED light input connector (24).

Caution! Directly connecting power source to light without using the LED driver will permanently damage the light.

Serviceable Parts:

The SV20 LED Underwater Light is field serviceable and most of the parts are replaceable. However, numbers (9), (10) + (11) are not field serviceable on this light. Please contact our technical support staff to discuss your individual needs.

BALLOON	PART	DESCRIPTION
		WHITE MODELS A11A11B41-13G32C-36, 12VDC & A11A11B41-14G32C-36, 24VDC BLUE MODELS A11A11B49-13G32C-36, 12VDC & A11A11B49-14G32C-36, 24VDC
1	20039	FLANGED MAIN BODY
2	20042	GLASS RETAINING COLLAR
3	20101	PROJECTOR MOUNT
4	20103	PROJECTOR LID
5	20104	PROJECTOR CAP
6	20105	LED SHIELD
7	20010	COMPRESSION RING
8	20011	LOCKING RING
9	20045	GLASS
10	20046	OUTER GLASS GASKET
11	20048	INNER GLASS GASKET
12	20016	PROJECTOR LID GASKET
13	20021	M6 x 1.0 x 16LG SST SET SCREW
14	20106 20121	WHITE LED ARRAY BLUE LED ARRAY
15	20107	LED ARRAY CONNECTOR
16	20108	THERMOSWITCH
17	20109	STRAIN RELIEF O-RING
18	20110	CABLE STRAIN RELIEF
19	20111	RUBBER GROMMET
20	20112	ELECTRICAL CABLE
21	20113	M3 x 0.5 x 5LG SST PPHS
22	20114	M3 x 0.5 x 20LG SST SHCS
23	20116 20117	12VDC LED DRIVER COMPLETE 24VDC LED DRIVER COMPLETE
24	20118	RECEPTACLE ASSEMBLY, 2-WAY
25	20119	PLUG ASSEMBLY, 2-WAY



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