

Super SeaArc® 5500, 150W HID P/N 720-006-001 User Manual, Rev. 4/4/06



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GENERAL NOTES AND WARNINGS:

- Do not burn a Super SeaArc® 150W HID out of water for more than about 5 minutes.
- Please note that the 150W HID may need several minutes to cool after being extinguished before it will re-strike.
- Do not operate any high voltage electrical equipment without using a Ground Fault Interrupt circuit for safety, especially when divers are in the water!
- Do not operate a lamp at higher than recommended voltage.
- Be sure that any fingerprints are cleaned off the lamp with Isopropyl alcohol before use. (Use reagent grade alcohol if possible, contaminated alcohol will damage the lamp – insure that all alcohol has evaporated before reassembling the lamp).

SUPER SEAARC® 5500, 150W HID PRE- AND POST-DEPLOYMENT CHECKLIST:

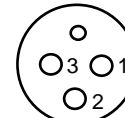
Each Super SeaArc® 150W HID is shipped ready for immediate use. To ensure that the light will perform reliably, please observe the following maintenance guidelines:

1. Rinse the light with fresh water after use in salt water.
2. Always check to make sure that the rear bulkhead connector assembly is secure before deployment.
3. Check for condensation inside the glass dome, especially after changing lamps. If any condensation is evident, unscrew the light head assembly from the body and remove the lamp. Place the whole assembly and lamp inside a warm oven (at least 100 C or 212 deg F) for at least 30 minutes to bake out any moisture that may be present. If possible, purge with dry nitrogen while reassembling the light.
4. After each deployment, examine the power cable and rear connector for damage.

Warning: After each deployment, carefully check to make sure the light has not flooded. It is possible for the light to partially flood and then reseal itself while underwater. Upon surfacing, the light can become internally pressurized, which may be potentially dangerous. Additionally, if the power remains on when the light has partially flooded, it is possible for electrolytic generation of an explosive mixture of hydrogen and oxygen gases. **If a light appears flooded upon removal from the water, it should be treated as potentially dangerous. Point the light away from persons and valuable equipment and verify whether or not it is internally pressurized. Make sure that the power is disconnected as soon as a flooded condition is suspected.**

CONNECTOR OPTIONS:

One standard underwater connector can be used with the Super SeaArc® 150W HID: BH3MP. The standard connector pin-outs are illustrated below.



BH3MP

- 1 = Hot
- 2 = Neutral
- 3 = N/C

IMPORTANT: THE HOUSING OF THIS LAMP IS NOT CONNECTED TO PIN 3 ON THE POWER CONNECTOR. WHERE NECESSARY FOR SAFETY AN EXTERNAL GROUND MUST BE PROVIDED.

ELECTRICAL AND THERMAL WARNINGS:

A Ground Fault Interrupt should be used whenever high voltage lights are being utilized; when divers are in the water this is especially critical! **Do not operate AC-powered lights without a GFCI!** Additionally, all high voltage lights should be case grounded for safety. It is important not to burn the Super SeaArc® 150W HID in air for more than 5 minutes, as it relies on the surrounding water to provide cooling. When an underwater light is burned in air, the resulting heat buildup can pose a fire hazard. If the light is operated for testing purposes in air, be sure to let it cool down completely before immersing it in water. It is recommended you turn the light off a few seconds prior to removing it from the water.

SUPER SEAARC® 5500, 150W HID SPECIFICATIONS:

MECHANICAL

Housing Material: Aluminum
Diameter: Body 2.65 inches (6.73 cm)
Cowl 4.50 inches (11.43cm)
Length: 16.92 inches (42.97cm)
Glass Dome: Clear borosilicate glass
Or Frosted borosilicate glass
Reflectors: Wide or spot flood
Depth Rating: 1000 meters (3280 feet) of seawater
Air Weight: 6.6lbs (3Kg.)
Water weight--Aluminum: 3.7lbs (1.7Kg.)

OPTICAL

Beam patterns: Medium / Clear: 30 degrees
Spot / Clear: 15 degrees
Wide flood / Frosted: 90 degrees

ELECTRICAL

Output: 150W
Input Voltage: 120V – 277 V AC/DC
Input Current: 1.40A (at 120V)

Average lamp life: 6000 hours

Color Temperature: 4000K
(7000K optional lamp)

TROUBLESHOOTING:

PROBLEM	POSSIBLE CAUSE	RECOMMENDED ACTION
Light doesn't turn on.	Not plugged in.	Secure all connections.
	GFCI tripped.	Reset GFCI. If problem persists, use a different GFCI. Some ballasts will always trip certain GFCI models.
	Lamp burned out.	Change lamp.
	Cable defective.	Check continuity from one end to the other. Meg test if possible.
	Insufficient voltage	Measure available voltage is correct as necessary
Light flooded.	Connector loose.	Tighten. If still leaking, replace.
	Damaged O-ring.	Replace as required.
	Glass cracked or chipped.	Return to DeepSea.

FLOODED LIGHT REPAIR:

If the light is leaking, first suspect that there is a damaged O-ring, or that the glass envelope is cracked. When looking for the source of a leak, first check if the rear connector is loose. If the connector is secure, check for a sliced or otherwise damaged O-ring and make sure the O-ring sealing surfaces are clean. If the cause of the leak still cannot be found, we recommend that the light be returned to DeepSea Power & Light for repair or replacement. DeepSea Power & Light cannot be responsible for any damage incurred during emergency field repairs. Such repairs should be undertaken only as a last resort and by qualified personnel. Spares kits are available from DeepSea Power & Light.

LAMP REPLACEMENT PROCEDURE:

Before any field replacement of a SeaArc® 150W HID component is initiated, the work area must be made as clean as possible. The surface used to work on should be dirt and lint free. To change the lamp, first disconnect the cable by unscrewing the plastic locking sleeves and pulling the connector halves apart. Separate the light head from the body. Carefully remove the old lamp from the lamp socket. When installing the new lamp, be sure not to get any fingerprints on the surface of the lamp. Use a piece of tissue or other clean paper to hold the lamp while installing it. Fingerprints can be cleaned from the surface of the lamp with isopropyl (rubbing) alcohol.

Options:

Model #	Connector	Reflector/Dome	Voltage/Watts/CT
5500	B	FC	UNIV/150/4K
Aluminum - 1000 meter depth rating	B = BH3MP	MC = Medium/Clear	UNIV/150/4K
		FC = Flood/Clear	UNIV/150/7K
		FF = Flood/Frosted	
		SC = Spot/Clear	

Model #	Housing Options	
5500	Housing SSA-5500, 150W HID Aluminum	720-006-005-0A-01

Code	Connector Options	
B	End Cap Assy (Al), BH3MP (B) Connector	720-006-025-0A-01

Code	Reflector/Dome Options	
MC	Head Assy (Al), Medium Reflector Clear Dome	720-005-023-0D-03
FC	Head Assy (Al), Flood Reflector Clear Dome	720-005-023-0D-04
FF	Head Assy (Al), Flood Reflector Frosted Dome	720-005-023-0D-05
SC	Head Assy (Al), Spot Reflector Clear Dome	720-005-023-0D-08

Code	Lamp Options	
UNIV/150/4K	Lamp 150W Hid 4K Color Temp	460-00141
UNIV/150/7K	Lamp 150W Hid 7K Color Temp	460-00142