Mini-SeaLite® P/N 710-071-601
User Manual, Rev. 03/11/04

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GENERAL NOTES AND WARNINGS

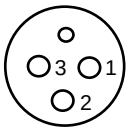
- Do not burn a Mini-SeaLite® out of water for more than about 20 seconds.
- Do not operate any high voltage electrical equipment without using a Ground Fault Interrupt circuit for safety, especially when divers are in the water!
- Do not operate a lamp at higher than recommended voltage. The lamp filament will melt with severe over-voltage, and slight over-voltage drastically reduces lamp life.
- Be sure that any fingerprints are cleaned off the lamp and 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).

MINI-SEALITE® PRE- AND POST-DEPLOYMENT CHECKLIST: Each Mini-SeaLite® is shipped ready for immediate use. To ensure that the light will perform reliably, please observe the following maintenance guidelines:

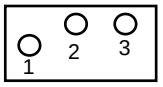
1. Rinse the light with fresh water after use in salt water.
2. Always check to make sure that the rear bulkhead connector assembly is secure before deployment.
3. Check for condensation inside the glass port, especially after changing lamps. If any condensation is evident, unscrew the connector/socket assembly from the body and remove the lamp. Place the connector/socket 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 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.**

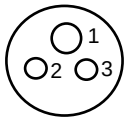
CONNECTOR OPTIONS: Four different industry standard underwater connectors can be used with the Mini-SeaLite®: BH3MP, LPBH3MP, XSG3BCL, and 1503. The standard connector pin-outs are illustrated below.



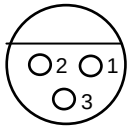
BH3MP
1 = Hot
2 = Neutral
3 = Ground to shell



LPBH3MP
1 = Hot
2 = Neutral
3 = Ground to shell



XSG3BCL
1 = Ground to shell
2 = Neutral
3 = Hot



1503
1 = Hot
2 = Neutral
3 = Ground to shell

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 also important not to burn the Mini-SeaLite® in air for more than 20 seconds, 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 for a couple of minutes before immersing it in water. It is also a good idea to turn the light off a few seconds prior to removing it from the water.

SPARE LAMPS (Mini-Can screw base)

LAMPS (LOW VOLTAGE BI-PIN LAMPS AND HIGH VOLTAGE MINI-CAN SCREW BASE):

Model Number	Part Number	Volts	Watts	Hours	Color Temp	Lumens
BP-12/50*	460-00019	12	50	2000	3000K	950
BP-12/100*	460-00027	12	100	1000	3100K	2,200
BP-24/100*	460-00032	24	100	2000	3000K	1,800
BP-24/150*	460-00035	24	150	70	3400K	5,000
BP-24/250*	460-00038	24	250			
BP-24/300*	460-00041	24	300			
MC-120/100	460-00053	120	100	1500	2700K	1,600
MC-120/150	460-00055	120	150	750	2850K	2,400
MC-120/250	460-00059	120	250	2000	2900K	4,750
MC-120/325	460-00061	120	325			
MC-220/150**	460-00078	220	150	1300	2800K	2,100
MC-220/250**	460-00079	220/230	250	2000	2900K	4,500
MC-240/250**	460-00082	240	250	2000	2900K	4,200
MC-LV-LA***	714-001-001	Mini-Can low voltage lamp base adapter				

* Replace old style mini-can low voltage lamps but require the low voltage lamp base adapter.
** 220/230V, 230V, and 240V lamps are used to meet a nominal 240V requirement.
*** Required for use with low voltage lamps.

MINI-SEALITE® SPECIFICATIONS

Mechanical

Housing Material:	6061-T6 aluminum; stainless steel (optional)
Port:	Quartz glass
Length:	14.0 cm (5.5 in.)
Diameter:	3.8 cm (1.5 in.)
Weight in Air:	
Aluminum:	0.2 kg (0.4 lbs.)
Weight in Water:	
Aluminum:	0.1 kg (0.3 lbs.)

Electrical

Beam Pattern:	78 degrees (full angle measure to half power point)
Connector:	Impulse LPBH3MP, BH3MP, XG-3-BCL, Burton 1503

Environmental

Depth:	1,000 meters (3,250 feet)

TROUBLESHOOTING:

PROBLEM	POSSIBLE CAUSE	RECOMMENDED ACTION
Light doesn't turn on.	Not plugged in.	Secure all connections.
	GFI tripped.	Reset GFI.
	Lamp burned out.	Change lamp.
	Cable defective.	Check continuity from one end to the other. Meg test if possible.
	Insufficient voltage	Make sure battery is fully charged. Verify power supply is adequate.
Light flooded.	Connector loose.	Tighten. If still leaking, replace.
	Damaged O-ring.	Replace as required.

Flooded Light Repair

If the light is leaking, first suspect that there is a damaged O-ring, or that the quartz window is cracked or has a chipped edge.

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; make sure the O-ring sealing surfaces are clean. If there is no apparently damaged O-ring, remove the quartz window and inspect the edge of the glass. If the edge is chipped, this is probably the source of the leak, and the window should be replaced.

If a light is flooded and/or damaged, 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.

OPTIONS

Model Number	Part Number	Description
IL3FS	140-00062	BH3MP mating connector with male locking sleeve on 18" (0.5m) whip
LPIL3FS	140-00094	LPBH3MP mating connector on 18" (0.5m) whip
RMG3FS	140-00112	XSG3BCL mating connector with female locking sleeve on 18" (0.5m) whip
UHMB	774-000-013	Universal helmet mounting bracket for Superlite 17 and 27, attaches to UBS
UBS		Universal mounting bracket assembly, small, includes UBSC, UBSL & UBSH
UBSC	774-00002/3	UBS mounting collar, small
UBSL	774-00001	UBS mounting L-bracket, small
UBSH		UBS mounting hardware

SPARE PARTS

Model Number	Part Number	Description
MSL-BOD	710-07103	Aluminum Mini SeaLite body
MSL-BOD-S		Stainless steel Mini SeaLite body
MSL-PRT	710-07102	Mini SeaLite front port
MSL-OR		Mini SeaLite O-ring kit
DS4-3WC	705-00014	BH3MP connector/socket assembly with female locking sleeve
DS4-3XS	705-00053	XSG3BCL connector/socket assembly with male threads
DS4-3LP	705-00048	LPBH3M connector/socket assembly
DS4-1503	705-00069	Burton 1503 connector/socket assembly
DS4-PEN	705-00042	Penetrator/socket assembly