

IKELITE SpD-AA Specialty Diver Lite

#1410.08 SpD-AA 50-Watt



PACKAGE INCLUDES:

- SpD-AA Lite Head w/Cable
- NiMH Battery Pack
- Tank Strap
- Single Battery Pack Pouch
- SpD Charger
- Four Charger Plugs
- Lubricant



Items shown are not to scale

Note: Please read all instructions before using this product.

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INTRODUCTION

The Ikelite SpD Lite is the high performance lighting choice for speciality cave and wreck divers. Simply slide the SpD's battery pack into the battery pack pouch and strap it to your scuba tank or waist. Explore with certainty, knowing the incredibly intense 50W lite head will light up the sea.

The anodized aluminum lite head features a rotating On/Off switch and a 1.4m (4.5') cable with protective spiral wrapped coating. The reflector on the lite head is shrouded in protective rubber, allowing you to rotate it to adjust the intensity of the beam from a broad flood to a concentrated spot.

The battery pack approaches neutral buoyancy underwater and encompasses nickel metal hydride batteries.

Add a second lite head for even more blazing light or add a second battery pack to double the light's run time. See "Accessories" on page 11.

Caution: Do not use the SpD Lite above water. This product is not designed for extended above water use. Water helps cool the lite head. Using the SpD-Lite above water could overheat the system and damage it.

SPECIFICATIONS

Battery Power.....	13.5-volt / 4.5 amp-hour NiMH
Battery Pack Recharge Time.....	5 hours
Average Burn Time (One Battery Pack).....	55 minutes with 50-watt lamp-bulb
System Weight In Air.....	1.9 kg (4.1 lbs.)
System Weight Underwater.....	0.6 kg (1.2 lbs.)
Depth Rating.....	90 meters (300')
Lite Head Size.....	9cm diam. x 17cm long (3.5" diam. x 6.5" long)
Battery Pack Size.....	11.4cm x 16.5cm x 3.6cm (4.5" x 6.5" x 1.4")

SpD LITE HEAD

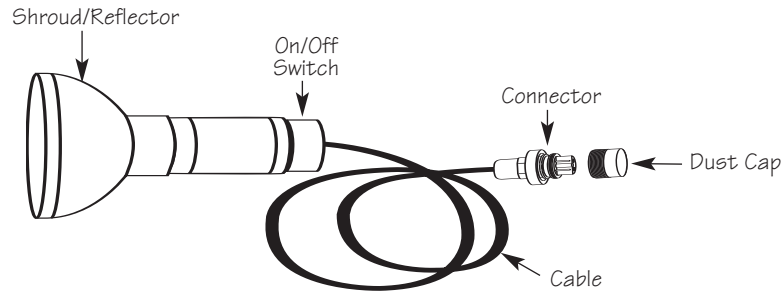
The SpD-AA Lite Head features a rubber shroud around its reflector, allowing you to adjust the beam's intensity by rotating it.

The SpD-AA Lite Head features a rotating On/Off switch located at the base of the aluminum lite head body. There are two positions on the switch:

- Rotate the switch counterclockwise to turn ON the lite head.
- Rotate the switch clockwise to turn OFF the lite head.

Warning: Never look into the face of the lite head when it is on. Its intensity could temporarily blind and/or disorient you.

Caution: The cable is permanently attached to the lite head; **do not** remove. Attempting to remove the cable will void your Ikelite limited warranty.



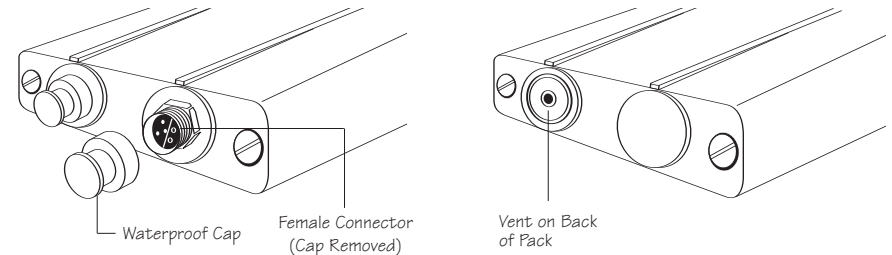
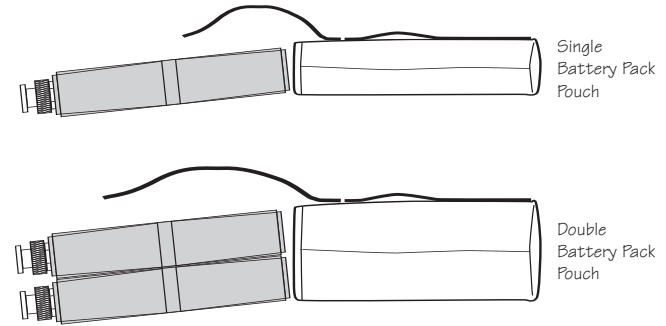
NiMH BATTERY PACK #1400.8

Caution: The battery pack is factory sealed. **Do not** disassemble. Disassembly will void your Ikelite product's limited warranty.

The rechargeable battery pack consists of NiMH batteries (4.5 Ah rating). Per charge, the pack can power the SpD lite for 55 minutes with a 50W lamp-bulb (this time is the tested average).

Two light heads can be connected to a single battery pack for greater area coverage. See "Accessories" on page 11.

Two battery packs can be stacked in a double battery pack pouch and connected to two lite heads. Or you could attach two packs to one lite head and double its run time. See "Accessories" on page 11.



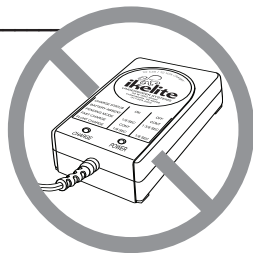
Caution: The battery pack's female connectors are not waterproof and must be capped when not connected to the Spd's lite head cable. Using a battery pack underwater with one or both of the female connectors uncapped or unconnected to a cord will cause the pack to flood. **Do not** reuse a battery pack that has flooded. See "Maintenance" on page 10.

Caution: **Do not** block or tamper with the vent on the battery pack. The vent port on the battery pack allows hydrogen/air mixtures to escape. The Ikelite Battery Pack Pouch safely covers this vent.

USING THE CHARGER

NOTE:

The Ikelite 10 Cell/12 Volt Pro / SpD Smart Charger is not compatible with the NiMH Battery Pack #1400.8

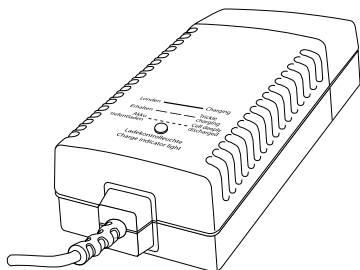


PRO / SpD CHARGER #1403.4

The Ikelite Pro / SpD Charger #1403.4 is compatible with the NiMH Battery Pack #1400.8 featured on the Ikelite SpD and Pro Video-Lite systems (it is also compatible with the older NiCad Battery Pack #1400).

Note:

- This charger is not compatible with Ikelite substrobes.
- Charger cords (#0171.61, #0171.62, #0171.63) for the original smart chargers (#1403.1, #1403.2, #1403.3) are not compatible with the Pro / SpD Charger #1403.4.



CHARGING THE BATTERY PACK

Warning: Do not attempt to charge the battery pack when it is still wet. Electrical shock, injury, or fire could occur. Make sure all components are completely dry.

Charge the battery pack after purchase and recharge after each use.

The charger can be plugged into either of the two female connectors on the battery pack. To charge the pack, please read the following instructions:

1. Make sure all components are dry. Rotate the lite head switch to the OFF position.
2. Unscrew and remove the waterproof cap or lite head cable.
3. Align the plug of the charger with the female connector on the battery pack and insert.
4. Screw the knurled ring of the plug down onto the female connector. Make sure the connection is good and secure.
5. Plug the charger into the wall and charge the pack. See the charger instructions for details on charging times.
6. After charging, replace the waterproof cap.

You can tell it's past time to recharge the pack by examining the intensity of the light. If it dims, the batteries have been nearly depleted.

Caution: Do not completely drain (fully discharge) the battery pack. Fully discharging the NiMH batteries will shorten the battery pack's life.

Store the battery pack fully charged. Remove it from storage every few months and fully recharge it.

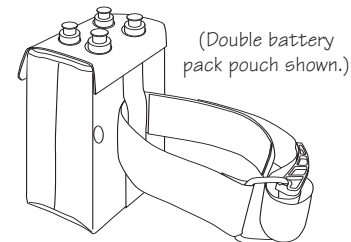
Note: See charger instructions for further information.

MOUNTING THE BATTERY PACK

The battery pack is designed to slide into the battery pack pouch and fit around the scuba tank using the strap provided. Alternatively, you can wear the pack at your waist by threading your weight belt through the pouch loop.

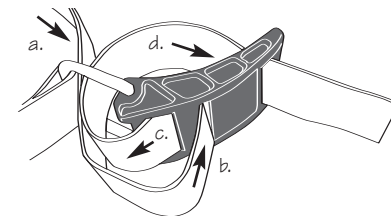
ATTACHING THE BATTERY POUCH TO THE STRAP

1. Form a circle with the strap by following the curvature of the buckle on the strap. The curved portion of the buckle will rest against the tank. **Note:** The rubber strip on the strap must be on the inside of this circle because it helps grip the tank.
2. Feed the end of the strap through the strap loop on the side of the battery pack pouch that's opposite the side with the Ikelite logo. **Note:** The pouch itself can be pointed up or down, depending on your preference.



3. Begin feeding the strap through the buckle by following this sequence:

- a. With the strap resting against the the curved part of the buckle, insert the strap through its metal ring until roughly half of the strap's length is extended past the ring.
- b. Fold the strap and insert most of the extended strap through the middle slot of the buckle, leaving only a small loop outside of the buckle.
- c. Fold the strap and insert it though the slot at the end of the buckle closest to the metal ring and then through the ring itself.
- d. Finally, insert the strap through the slot on the buckle furthest from the metal ring.



ADJUSTING AND SECURING THE POUCH AND STRAP

Once the strap has been fed though the buckle as referenced above, adjust the size of the strap circle so that it will slide over your scuba tank. Then readjust the strap through the buckle slots to eliminate any slack. The Velcro on the strap will secure any excess strap.

INSERTING THE BATTERY PACK

After gaining the desired position for the pouch on your tank or waist, simply open up the Velcro flap on the pouch and insert the battery pack (or packs). **Caution:** Be careful when inserting packs into a pouch that has been positioned upside down; you want to make sure the flap is securely closed over them so they don't fall out of the pouch.

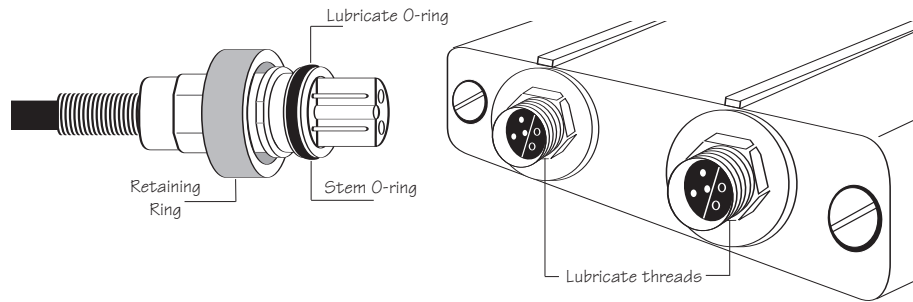


CONNECTING LITE TO BATTERY PACK

CONNECTING THE LITE HEAD TO THE BATTERY PACK

1. Always make sure the lite head is switched to the OFF position before connecting or disconnecting the end of its cable to the battery pack. Make sure all parts are dry.
2. Unscrew and remove one waterproof bulkhead cap from the battery pack to access a female connector. Either of the two female connectors can be used to connect the battery pack to the lite head.
3. Unscrew and remove the dust cap on the end of the lite head's connector cable.

Caution: It is important to keep the threads on the pack's female connectors and the lite head connector's stem o-ring clean and lightly lubricated. Otherwise the connections could freeze due to electrolysis and the cable would become stuck. Regularly check the stem o-ring for nicks or cuts. These actions will prevent your cable from flooding and/or requiring repair. See "Lubricant" on page 10 for more information.



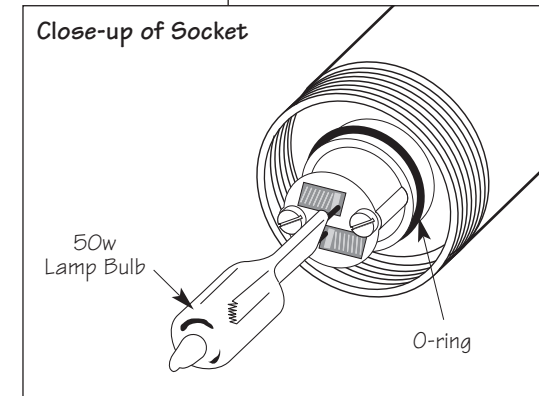
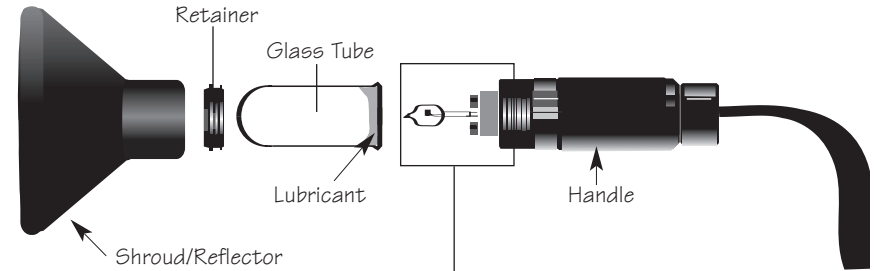
4. Note the positioning of the receptacles and pins on the end of the lite head's connector. Properly align the lite head's connector and insert it into the female connector of the battery pack.
5. Begin hand-tightening the knurled retaining ring while carefully pushing the pins and receptacles further into the female connector. Continue tightening the retaining ring until the cable is securely fastened.

Note: It is recommended that you disconnect the lite head from the pack during transit to avoid the possibility of the lite head accidentally being switched on.

Caution:

- **Do not** leave the cable connected for extended periods of time. Electrolysis could occur and make removal of the cable very difficult.
- **Do not** disconnect the cable underwater or when wet. Connections are not waterproof and must be capped when not connected.

REPLACING THE BULB



REPLACING THE BULB

OPENING THE LITE HEAD

Note: It is only necessary to open the lite head when a bulb needs to be replaced.

Warning: Allow the bulb in the lite head to cool down sufficiently; it reaches very high temperatures during operation. Wait at least 15 minutes before opening the lite head. Prematurely opening the lite head could burn you.

1. Disconnect the lite head cable from the battery pack. Grasp the front of the shroud/reflector and turn it counterclockwise to remove the shroud/reflector assembly.
2. Being careful not to touch the glass tube, turn the octagonal retainer at its base counterclockwise to release it from the handle. Remove the retainer. **Note:** A crescent wrench may be required to unscrew the retainer.
3. **Warning:** Use extreme caution during this next step, as you will be handling the glass tube that surrounds the lamp-bulb. You must wear gloves to protect your hands in case the tube breaks. **Do not** grab the glass tube with an unprotected hand; if the tube breaks you could injure your hands.

Gently pull on the glass tube while carefully rocking it back and forth. This action will free the glass tube from its o-ring seal. Remove the tube.

REPLACING THE BULB

4. Gently grasp the flat section of the burned out lamp-bulb and pull it straight out of the socket. Discard the used bulb.
5. **Caution:** Avoid touching the surface of the bulb with your fingers. Oil and dirt from your fingers will create heat concentrations that will shorten the bulb's life.

Using a soft cloth or tissue, pick up the replacement lamp-bulb. Align the two pins of the bulb with the socket receptacles and insert the bulb into the socket. Once fully inserted, there will be a small section of exposed pins between the base of the bulb and the socket.

6. **Caution: Do not** stretch the o-ring; a stretched o-ring will not provide a good seal and may cause your equipment to leak. See "Lubricant" on page 10.

Carefully remove the o-ring from the base of the socket to clean and lubricate it. Lightly lubricate the o-ring with the Ikelite brand lubricant provided and check the o-ring for nicks or cuts.

SEALING THE LITE HEAD

7. **Warning:** Wear gloves to protect your hands as you will again be handling the glass tube.

Place a very light film of lubricant on the inside lip of the glass tube. This will help you to return the tube to its place over the o-ring. Press the tube gently down while using a slight rocking motion to return it to its original place.

8. **Caution: Do not** cross thread the retainer. Cross threading will damage the retainer and handle threads, preventing attachment in the future and requiring repair. Return the octagonal retainer to its original place by hand threading it clockwise onto the lite head handle. Push down while hand tightening until the retainer is secure.

9. **Caution: Do not** cross thread the shroud/reflector assembly. Cross threading will damage the reflector and handle threads, preventing attachment in the future and requiring repair.

Grasp the front of the shroud/reflector assembly and thread it clockwise onto the lite handle.

Note: To create the best beam angle, leave approximately 0.6cm (0.25") of the lite head threads exposed.

MAINTENANCE

Ikelite recommends adding an **ALL RISK FLOATER** to your homeowner's or renter's insurance policy to cover your Ikelite equipment against loss, damage, or flooding. Ikelite's warranty does not cover customer neglect.

Caution: Make sure the battery pack's female connectors are covered with bulkhead caps or cord connections before exposing the system to water; make sure your lite head cord(s) are securely fastened to the battery pack. This applies to your equipment whether you are diving or simply cleaning. Water should never enter the battery pack (via an open female connector) or lite head (via an unconnected cord). If this does occur, see the "Flooding" section on this page.

Regular visual inspections are important to the maintenance of this system. A forgotten o-ring can cause a lot of damage, for example.

ROUTINE CLEANING

- Rinse the SpD system with fresh water after each use, especially after exposure to salt water. While rinsing, rotate the On/Off to free salt or debris that might have accumulated in its recesses during the dive.
- Keep the threads of the female connectors on the battery pack and the lite head's stem o-ring cord clean of dirt and debris and lightly lubricated. Be careful not to stretch o-rings when removing them for cleaning and lubrication. See "Lubricant" for more information.

LONG TERM STORAGE

- Submerging the SpD system in a body of warm, soapy water will clean its exterior; let it soak for an hour or two. Use a liquid soap and thoroughly rinse the system afterwards.
- Thoroughly dry all parts of the SpD system before putting it in storage. This includes the lite head and its cable, the tank strap, and the battery pack.
- Disconnect the lite head from the battery pack when in storage. Keep the end of the lite head's cord covered with the dust cap.
- The battery pack should be put into storage fully charged and should be fully recharged every few months. The female connectors should be capped when in storage.

LUBRICANT

- Silicone lubricant is provided. Use only enough lubricant to make the area where it's being applied feel slick; wipe off any excess with a clean cloth.
- Use only Ikelite brand silicone lubricant with Ikelite brand o-rings; other brand lubricants can cause the Ikelite o-rings to swell in size.
- Lubricant only reduces friction; it is not a sealant.
- Caution: Do not use spray lubricant; it can crack the plastic of the system.

FLOODING

In the event of flooding, do not attempt to repair your Ikelite SpD system yourself. Gather all of the system's components and return them to Ikelite for inspection, water pressure testing, and/or repair.

Caution: Do not reuse batteries that have been wet; the water could create an internal short circuit at some later date, potentially causing an explosion. In case the battery pack floods, return it to Ikelite for repair.

ACCESSORIES

SpD-AA LITE HEAD

- #1410 50W adjustable focus lite head with rotating On/Off switch and 1.4m (4.5') of cable.
- #0185.46 Replacement lite head reflector

SpD LITE BATTERY PACK

Additional battery packs are available. A spare battery pack is helpful when you quickly need to replace an exhausted pack above water. Two battery packs can be stacked to double the run time of a single lite head (Requires the Double Battery Pack Pouch and a Battery Cable) or each pack can be connected to a separate lite head. (Requires the Double Battery Pack Pouch.)

- #1400.8 NiMH Battery Pack
- #1401.2 Double Battery Pack Pouch
- #1405.06 Battery Cable

REPLACEMENT BULBS

- #0049.50 50W Lamp-bulb for the SpD-AA lite head

TANK STRAP

- #1401.3 Tank Strap with Buckle

PRO VIDEO-LITE CONVERSIONS

Allows you to convert to video cinema light. Mounting hardware included to attach battery pack pouch to bottom of Ikelite video housings. Pro Video-Lite heads offer 100° of primary lighting coverage and come in 50W and 100W versions. The compact lite head also features a 20W modeling light. The system's cord has an in-line switch that mounts to the handle of the housing for fingertip operation. An adjustable 15cm (6") ball-socket arm system provides the flexibility needed to position the lite head in a multitude of ways.

- #6386.1 Pro Video-Lite 100W head with cable and mounting arm
- #6386.51 Pro Video-Lite 50W head with cable and mounting arm

LIMITED WARRANTY

All Ikelite products are warranted against any manufacturing defects for a period of one year from the date of purchase. Defective products should be returned prepaid to Ikelite. Ikelite will, at its discretion, repair or replace such products, and will return to customer prepaid. All other claims, of any nature, including but not limited to bulb failure are not covered. Except as mentioned above, no other warranty expressed or implied, applies to this Ikelite product.

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