

OPERATING INSTRUCTIONS FOR THE GRAMS HEADLIGHT

Headlight Model HL-100 is designed for the reflector assembly to be worn close to the tip of the nose for stereo vision, or slightly off center for narrow, deep cavities. In these positions, the upper ball joint is placed directly in the middle of the forehead and the rheostat (dimmer knob) over the right eye. The wire can be clipped outside, or for more protection, under the coat. To relieve any wire pulling, the lapel wire clip can be fastened to your shirt collar. (LWC) (Slide the clip along the wire for the most comfortable length.) The battery packs have belt clips, and can be worn any place around the waist where they feel most comfortable.

STANDBY POSITION: When wearing the headlight, but not in use, swing the reflector assembly toward the rheostat, rather than forward and up. In the same move, the dimmer can be turned off to save power. In “standby” position, the assembly is closer to the head, and should not interfere when using other instruments. The reverse of this habit can be used to bring the unit back into operation.

Turn dimmer to desired brightness.

Swing reflector assembly down to desired position, and aim spot.

HEADBAND ADJUSTMENT: Adjust the band by rotating the large knob to fit your head size. Do not make it too tight: the special foam inside the band should hold the light in place with minimum discomfort. The foam is of a closed pore construction, and can be cleaned with a soapy sponge. It can also be easily replaced. Replacement foam bands are available (FB-1).

HEADLIGHT POWER: The headlight can be powered by battery pack (BP-126). The primary advantage of the battery pack is to give mobility. When using battery packs, two are usually ordered, so that while one is being used, the other is on charge. For extended use, the headlight can be powered by a wall transformer (TR-142).

BP-126 Battery: This battery is Nickel Metal Hydride technology. It was chosen for its longer life, higher energy output, and lighter weight. When fully charged, it should power the headlight for 3+ hours continuously, and should have approximately 500 cycles. This battery has a special smart fuse that will shut down if it detects a problem, such as a headlight wiring problem or when power is drained to excessive levels.

The small black button on the BP-126 is an electronic fuse. In the event of a short circuit in the headlight wiring, the fuse will be tripped to prevent overheating in the battery wiring and circuitry. To reset a tripped fuse, push and hold the black button momentarily. When the battery energy is about 95% exhausted, the fuse (black button) will disconnect electronically. Push the button to retrieve the last bit of energy (1-2 minutes worth) or recharge the battery and the fuse will reset itself.

WALL TRANSFORMER: Transformer is intended to power the headlight for long procedures when mobility is not a problem. It has a 7 foot coil cord, which should give adequate freedom of movement. Use the transformer also in cases of battery problems.

continued on back side



Grams Medical

2443 Norse Ave – Costa Mesa, CA 92627
(949) 548-7337 – FAX (949) 548-1056

sales@gramsmmedical.com – www.gramsmmedical.com

CHARGING INSTRUCTIONS: The charger (TC-137) is a dedicated quick charger intended only for charging the BP-126 . The charger consists of a small square transformer, and an oval shaped (“turtle”) charger. Plug the transformer into a wall outlet - connect the “turtle” charger to the transformer - connect the battery to the charger. A small red light is visible while the battery is charging. The green light comes on when charging is complete.

FOCUS ADJUSTMENT: Focus the light to the proper working distance by turning the front portion of the assembly. If necessary, use two hands to prevent the back portion of the assembly from turning and twisting the wire. The built-in friction is intended to prevent unintentional de-focusing during positional changes. When properly focused, the light spot should be even in intensity, and for a smaller spot, the center is brighter. The light is out of focus when there is a dark spot in the center.

BULB REPLACEMENT: Replacement bulbs (LB-110) come pre-centered in a special base. To replace the bulb, unplug the headlight. Turn the front section of the assembly counter-clockwise until it separates. (About five turns) Remove old bulb base by using your fingernails behind the ridge. Apply a small rocking motion, and a slight pull.

HANDLE THE NEW BULB BY THE TEFLON BASE ONLY. DO NOT TOUCH THE GLASS. THE BULB IS PRECISION ALIGNED. IF DISTURBED, THE LIGHT WILL NOT FOCUS PROPERLY.

Align the pins on the base with the sockets. Push the new base firmly and straight. When replacing the reflector housing, make sure that the threads are properly aligned. Note that there is a space of about 1/8 inch between the back portion of the assembly, and the reflector housing when the light is in focus with a properly aligned bulb. At full bright, the average bulb life is about 70 hours. In most cases, adequate light is obtained at 3/4 turn, which will increase the bulb life to over 200 hours.

BALL JOINT TENSION: Surrounding each ball joint are three screws. To increase ball joint tension, simply tighten one screw at a time, ¼ turn per screw, until joint is at desired tension.

IMPORTANT REMINDERS:

- Always unplug the light after each days use, and recharge the batteries as soon as possible.
- The life of the bulb will increase greatly if the dimmer is turned down just a tiny bit less than full bright.
- Be sure wires do not become twisted around the ball joints.
- Keep in mind, that when used daily, the wire will eventually break. If your practice depends on this headlight, it may be wise to purchase a second headlight as a back-up.

For prompt service concerning your headlight, please give us a call.



Grams Medical

2443 Norse Ave – Costa Mesa, CA 92627
(949) 548-7337 – FAX (949) 548-1056

sales@gramsmedical.com – www.gramsmedical.com