LED DayLite Wireless Mini

Designs for Vision
www.designsforvision.com

WARRANTY
4 years for headlight
2 years for recharger
1 year for batteries

PRICES
Headlight w/3 batteries
$995.00
Replacement batteries
$49.95 (pack of 3)

Designs for Vision is on a roll with new products. Besides the recently introduced and 5 Star loupes called Micro3.5EF Scopes (see The Ratings/Magnification Systems), DVI was also the first manufacturer to the market with a self-contained, totally cordless LED headlight, namely the LED DayLite Wireless (see The Ratings/Headlights – LED). However, DVI was not content to rest on its laurels, which brings us to the similarly named LED DayLite Wireless Mini.

From its nomenclature, you can quickly assume the Mini is smaller than its big brother and you would be absolutely correct. But not in the dimension that counts, that being the diameter of the actual headlight. While its big bro is 0.8in/20.8mm in diameter, the Mini is 0.8in/20.6mm. On the other hand, the dimensions of the battery packs are radically different. The original version’s battery pack measures 1.8in/46.8mm high and 0.9in/23.2mm in diameter. The Mini, on the other hand, specs out at 1.3in/33.2mm high and 0.6in/15.4mm in diameter. And it is visibly much smaller.

If the size doesn’t matter to you, then maybe the weight probably will. The original model weighs 1.7oz/48.2g, whereas the Mini is 1.0oz/28.3g. That’s a 41% reduction. Although we never considered the weight of the original model to be a key issue, the fact remains that lighter is always better when it comes to headlights. So there is no doubt that the Mini will feel lighter on your loupes.
Besides the size and weight, the other main differences between the Mini and its big bro relate to their batteries and rechargers and to the activation/deactivation modes.

First the batteries. While the original version has a proprietary battery that screws on and off its receptacle, the Mini uses a AAA-sized type that you literally drop into its chamber just like a flashlight. What’s more, the battery for the original version costs $75.00, while Designs for Vision is selling replacement batteries for the Mini for $49.95 for a pack of three or $13.99 each. That’s a huge difference. But it gets even better. Since the batteries for the Mini are not proprietary, we found what appears to be an exact match on Amazon for $13.99 for a pack of four or only $3.50 each!

Note: We asked Designs for Vision why their batteries were four times more expensive than those we found on Amazon. Designs stated that it has tested its batteries and even though the batteries on Amazon look exactly the same and have identical specs as those it is selling, they may not provide equivalent power. And since the batteries should last for at least one year, you can make the battery replacement decision at a later date.

The battery charger, still called the Smart Charging Cradle, is also a miniature version of the charger for the original model. The two recesses for the two extra batteries are more conventional in design and sit in the back half of the top surface. You insert the batteries just like you would to most chargers that you are probably familiar with, paying attention to their polarity (+ or -), which is clearly marked.

The recesses are also labeled 1 and 2, the numbers of which relate to the two displays on the angled front section of the charger. The displays give you immediate feedback through blue indicator LEDs as to the charge status of the batteries. When the batteries are charging, these lights are moving sequentially in the battery icon from the negative to positive end as well as showing you in numerals the percentage of charge.

There is even a voltage meter, which should be 4.2v when new. According to the directions, you will need to replace the batteries when the voltage doesn’t go higher than 3.4v when the battery is fully charged. In addition, there is a count up timer that indicates how long it has taken to charge the batteries.

When fully charged, the lights in the battery icon are fully illuminated and 100% will tell you the battery is ready to roll. When you remove the battery from the charger, the display for that battery will be NC to indicate not charging.

The power cord to the charger is basically a USB cord. One end has a mini USB connector; that one inserts into the charger. The other end has a conventional USB connector that inserts into an electric plug adapter. However, the cord is only about 30.0in/76.2cm, which is acceptable if your electrical outlet is close, but it’s not long enough if you are trying to use a wall plug close to the floor.

According to the manufacturer, a fully charged battery will power the headlight for about 90 minutes or 1.5 hours. Our test found the manufacturer was spot on — we had power for just 80 more seconds past the 1.5 hours.

Unlike its big brother, there is no low battery warning while you are using the Mini. Therefore, having a fully charged spare battery close by for quick changing would be prudent.

Recharging time for a spent battery is stated to be about 60 minutes, while we found the charger indicating 99% at 60 minutes. With the 3 batteries included in the kit, you should never be out of juice.

So what about the activation/deactivation mode? In the original version, you merely touch the silver band at the top of battery receptacle. One touch produces the high power setting, a second touch activates the medium power setting, and a third touch deactivates the light. While this capacitive touch technology is very cool and innovative, it’s a little quirky and was not a fav of all of our evaluators.

The Mini takes a simpler approach. After dropping the battery into its recess, there is a black cap that screws onto the top end of the recess to secure the
battery. But if you continue to tighten this knob, it will engage the battery’s connection to the LED lamp and voila, the headlight comes alive.

There is only one power setting that is stated to emit 29,000 lux, whereas our test utilizing the same protocol for all headlights, found 20,100 lux. This compares to 29,500 for the original model. Although this is on the low end of the continuum and some clinicians prefer as much power as possible, it will probably be adequate for most operators.

The light beam itself is quite white and is stated to be 5800° K (same as its big bro), which makes it reasonably color corrected. The curing filter is identical to that used for the original model, rotating over the aperture via a single pivot point. The size of the spot at 14.0in/35.6cm is 3.0in/7.6cm, which is virtually identical to the original version. Its shape is somewhat like a diamond, but just like most LED headlights, its borders are diffuse, not distinct.

The directions are in a small, coated paper booklet with several color photos. Information is reasonably straightforward and easy to understand.

There is no doubt that cordless headlights offer many benefits over corded versions because, let’s face it, cords are a nuisance. However, the current cordless headlights are somewhat heavy, mainly due to the robust batteries.

That’s where the Mini comes in. Although it’s not quite as lightweight as several corded versions, it comes very close. And its operation is simple. But you do need to be willing to give up some power. It may not be the brightest on the market, but it’s the easiest to use and its price is the lowest among the major brands.