Daylight Laser Level by Victor Rasilla

PLS2E
Pacific Laser Systems
800/601-4500
www.plslaser.com
Street price for kit: $350

Laser lines are nearly impossible to see in direct sun. To make its PLS2 line laser more usable outdoors, Pacific Laser Systems introduced the PLS2E. This laser, when combined with the PLS LD laser detector, can be used to project level and plumb lines in bright sunlight.

The kit version of the PLS2E comes in a plastic carrying case and includes the laser, the detector, a belt pouch, and mounting brackets for both devices. The laser appears to be identical to the original PLS2, but if you look closely you'll see a second button — labeled "Pulse On." This button controls the pulse function, which is necessary for use with a detector.

The main button — which is labeled "On" — advances the laser through three modes that project a level line, a plumb line, or both a plumb and a level line at the same time. The laser is self-leveling provided the tool is positioned within 6 degrees of level and plumb. If the laser can't come to level, a tilt mechanism prevents it from projecting a line. Pressing the main button a fourth time disables the tilt mechanism, allowing the tool to project a pair of 90-degree intersecting lines even if the unit is out of level.

To use the laser outdoors, you select a mode and activate the pulse function. You can't see the pulsing action, but the sensor on the detector can. There are three buttons on the front of the detector: an on/off switch, a volume control (the medium setting is loud enough to be heard on a job site), and a sensitivity adjustor.

To locate a level line, you raise or lower the detector until the pulsing laser beam hits the center of the sensor, which is marked on the face of the detector with an index mark. (There is a second index mark on the back edge of the detector.) The sensor starts to beep when it's within an inch of the beam. If the sensor is above the beam, it chirps rapidly. If it's below the beam, it chirps more slowly. Once at the right elevation, it emits a steady tone. At this point, you can mark where one of the index marks hits a surface, or note where it reads on a grade rod.

The sensitivity button allows you to determine how closely aligned with the beam the detector has to be to register plumb or level. There are four levels of sensitivity. At the highest setting, you have to get within about 1/16 inch of the beam; at the lowest you have to get within 1/4 inch of it. I mostly use the highest setting, but every now and then I

lower it if I have to take a quick measurement in circumstances where it's hard to hold the grade rod steady.

You can also use the detector to find out where a plumb beam hits a wall. To do this, you turn the detector sideways (long edge parallel to the ground), hold it against the wall, and move it horizontally until it starts to chirp. When the sensor is aligned with the beam, the detector emits a continuous tone, at which point you can mark the wall where one of the index marks hits it. Since you need two points to make a line, you repeat this process higher up the wall and then snap a line between the two marks you made. The line between the marks will be plumb.

Pacific Laser Systems claims that the PLS2E is accurate to within 1/8 inch in 30 feet. With the detector, the laser has a range of at least 100 feet, but at that distance the accuracy goes down to plus or minus 3/8 inch. I would have no trouble using this device to set landscaping grades or the slope of a long drain line, but I'd probably opt for a more accurate piece of equipment to lay out the foundation of a large custom home.

I have used many other laser and optical leveling devices, but what I like most about this one is how versatile it is. It's small and light, and sets up quickly. Indoors, it's a simple-to-use line laser; outdoors, it can be used over moderate distances as a replacement for a rotary laser or optical level. The portability of this tool is hugely beneficial, too. I can walk the site with the PLS2E kit, a lightweight camera tripod, a hammer, and some stakes, and do fairly serious layout work.

Victor Rasilla *is a working supervisor for Brinton Construction in San Leandro, Calif. This article was reprinted with permission of* JLC The Journal of Light Construction.

There's a New Gun in Town

GR150 Joist Nailer
PrimeSource Building Products
800/676-7777
www.grip-rite.com
Street price: $240

by Kim Katwijk

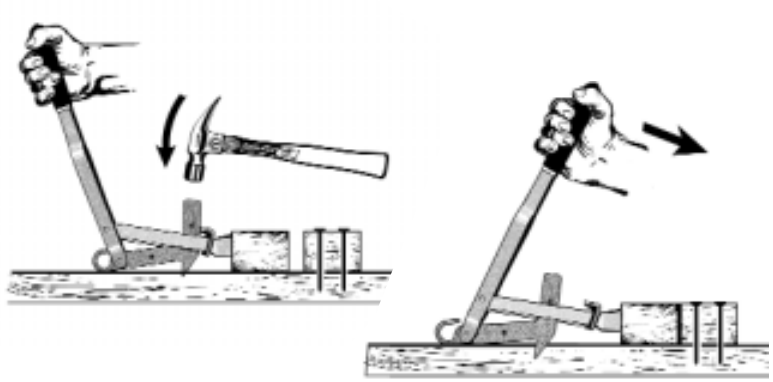
The Grip-Rite GR150 Joist Nailer has retired my two single-shot metal-connector nailers to the shelves. The GR 150 is a palm nailer with a magazine that takes 25 collated 1 1/2-inch nails. It's less than 11 inches long, and weighs only 4.4 pounds. Like all palm nailers, it has no trigger and uses multiple blows to drive the nails. All you have to do is position the gun and push down to drive the nail. The lead nail protrudes down from the front of the gun, which allows you to put the tip of the nail into the hole of the hanger.

So why do I like the GR150 over my single-shot nailers? There are several reasons. I found that the GR150 splits wood less often. This is most apparent on small pieces of 4x4 posts on low decks. Another advantage is that its multi-blow mechanism drives the hanger tight to the wood; unlike when I use my other metal-connector nailers, I rarely have to come back with my hammer to drive the nail and tighten the fastener. It's lighter and smaller than my other two guns, so it's easier to maneuver in more confined places. It's less expensive, too — and collated nails for the GR150 cost less, because they don't have to be hardened.

There are a couple of disadvantages to the GR150. It uses more compressed air than the single-shot guns. Also, the GR150 tends to jam with the last few nails of the clip. (Actually, my other nailers do this, too.) To solve this problem, I load a new clip when there are still three or four nails left. I find that paper collated nails — though you have to keep them dry — work better than plastic collated. The plastic sometimes gets hung up inside the barrel, preventing the lead nail from protruding where I can see it.

Kim Katwijk *builds decks in Olympia, Wash. His wife, Linda, helps with his writing.*

Board Straightener



BowJak
Vaughan and Bushnell Mfg. Co.
www.vaughanmfg.com
Street price: $40

by Bill Bolton

I first saw this tool at the 2003 Deck Expo in Atlanta and decided then and there to buy one. Because the BowJak is compact, lightweight, and inexpensive — and because it can be used to straighten out diagonally laid decking, unlike some of its competitors — it was a must-have item for me.

I have to set one thing straight, though. Literature for the BowJak and similar tools refers to correcting bows in the wood, when in fact crooks in the wood bred these tools. A bow is a deviation from flatness along the length of a board. Lay a bowed board down as you would a deck plank, and it looks like either a rocking chair runner or an arch, depending on which side is down. A crook, on the other hand, is a curvature along the edge of a board. To get the rocker or the arch, you have to hold the crooked board edgewise, like a joist.

Bows are easy to deal with, whereas crooks are more problematic — but maybe the company didn't want to sell a product called "CrookJak"? Now, that I can understand.

The BowJak is quick and simple to use. Hammer its prong into a joist near the offending deck board, and pull the BowJak's handle toward you. I use two fasteners per joist, because the forces generated in a crooked decking member that's been coaxed straight can shear off a single #8 deck screw.

***Bill Bolton** is the owner of DeckCreations in Santa Barbara, Calif.*

Finding the Right Angle by Bill Bolton

505A Prosite 12-inch Protractor
The L. S. Starrett Co.
978/249-3551
www.starrett.com
Street price: $47

The Starrett 12-inch Prosite Protractor has replaced my dad's old Skidmore Automatic adjustable square/protractor as my day-to-day angle finder. While the old Skidmore served the purpose pretty well, the markings are small and hard to see, thereby rendering not-quite-so-accurate readings. Still, it filled the niche for decades until Starrett came out with the Prosite Protractor. Now the Skidmore occupies a place of honor on my shop wall, kind of an angle- finder emeritus.

At first glance, the Prosite Protractor doesn't seem all that impressive. But once you play around with it a few times, it becomes clear that this protractor really does the trick. It's machined from quarter-inch aluminum stock, and assembled with such close tolerances that the two arms remain where you position them while taking the reading. It can be used for either inside or outside corners.

The scale is easy to read and is cleverly separated into black and red scales. The black scale reveals the angle you would set the saw to for cutting a single workpiece. The red scale gives the exact miter angle. No more math.

Starrett also offers a 7-inch Prosite Protractor, at a lower price. ❖

Editor's note: *I've owned this tool for several years. Recently, mine stopped holding the measured angle, and seemed sloppy. Thirty seconds and an Allen wrench put it right. — A.E.*