Toolbox

PLS2E Laser

by Victor Rasilla

About a year and a half ago, I tested the PLS2, a line laser from Pacific Laser Systems (see *Toolbox,* 4/05). It worked very well indoors, but the line was hard to see in bright sunlight — a common problem with line lasers.

To make the tool more usable outdoors, the manufacturer introduced the PLS2E. This laser, when combined with the PLS LD laser detector, can project level and plumb lines in bright sunlight at greater distances than were possible with the PLS2.

I tested the kit version of the PLS2E. It 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 that the company has added a second button — labeled "Pulse On" — to the back. This button controls the pulse function, which is necessary for use with a detector. The main button — labeled "On" — advances the laser through the same modes that were on the original model.

Original Modes

Press the main button once and the laser projects a level line. Press it again and it projects a plumb line. If you press it a third time, it projects plumb and level at the same time.

The laser is self-leveling in these first three modes — 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.

You can use this mode to project right-angle reference lines.

PLS2E Specs

Accuracy: 1/8 inch at 30 feet; 3/8 inch at 100 feet
Outdoor range: 100 feet
Power supply (laser): three AA batteries
Power supply (detector): two AA batteries
Street price for kit: $400
Kit includes laser, detector, plastic case, belt pouch and bracket for laser, bracket for detector

Pacific Laser Systems
800/601-4500
www.plslaser.com

Using the Detector

To use the laser outdoors, you select a mode and activate the pulse function. You can't actually see the pulsing action, but it's visible to the sensor on the detector. There are three buttons on the front of the detector: an on/off switch, a volume control, and a sensitivity adjustor.

To locate a level line, you raise or lower the detector until the pulsing laser beam hits the sensor, causing it to emit a series of beeps. The idea is to get the beam to hit 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 is a couple of inches tall, so when the detector starts to beep you know you're within an inch of the beam.

If the sensor is above the beam, the detector chirps rapidly. If it's below the beam, it chirps more slowly. Once you get it to 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.

Since it's not always convenient to bring a grade rod along, I often use the bracket to fasten the detector to the edge of a 2x4 and then measure up from the bottom.

The flat area on top of the detector is exactly 2 inches from the reference marks, so you can create a level reference line by tracing along it; the line you make will be 2 inches above the projected beam.

Volume. The volume button has three settings: silent, medium, and loud. The medium setting is loud enough to be heard on a job site, even with circular saws and compressors running nearby. In silent mode you take visual readings off a small LCD screen on the detector.

Sensitivity. 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.

Finding plumb. 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.

If the detector is lower than the laser beam, the unit beeps slowly and an upward arrow appears on the screen. If the detector is too high, the beeps are faster and the arrow points down. When the detector is aligned with the beam, it emits a continuous tone and a horizontal line appears on the screen.

The kit includes a bracket for clamping the detector to a grade rod or to a piece of lumber. These carpenters are using the laser and detector to check the grade of some forms.

Accuracy

According to the manufacturer, the PLS2E is accurate to within plus or minus 1/8 inch in 30 feet.

That kind of accuracy is fine for most of the work I do. 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.

The Bottom Line

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.*

That Red Drywall Lift on eBay

by Norm St. Onge

My contracting business focuses on small renovations and handyman-type work. Since I don't employ any helpers, I need a lift when I hang drywall. In the past I rented one, but at $50 per day it was an expensive undertaking. Plus, I live in a rural area and each trip to the rental yard wasted two hours of my time.

So I decided to buy my own drywall lift.

I started by shopping my local lumber dealers. The best price I could find was $649 for a Telpro PanelLift. Unwilling to spend that much cash on a tool I'd use only occasionally — think of all the other tools I could buy with that money! — I ventured onto eBay.

At first I was looking for a used Telpro lift, but then I came across a brand-new Contractor Line Professional Tools drywall lift. Some $217 later ($118 plus $99 for shipping), I was the owner of what eBay called a "Red Drywall Lift."

Aside from the red paint, the Contractor Line Professional Tools–brand drywall lift looks and operates much like the Telpro PanelLift. However, the knockoff product's manufacturer does sacrifice fit and finish for a price ($217) that's significantly lower than Telpro's.

Similar tools — all of which probably come from the same factory in China — are available every day on eBay. Prices and shipping charges vary, so if you go this route, review the offers carefully. And check the seller's feedback so you know you're dealing with a reputable company or individual.

If you don't feel comfortable buying on eBay, the same tool — or one that looks exactly like it — is available from other online sources.

Special Delivery!

My unit arrived a few days after I placed my order. The package looked fairly beat-up, but inside, everything was intact and accounted for.

The lift was preassembled into its main components: a tripod base (with casters); a frame assembly, including the winch and telescoping sections; and the cradle assembly, with outriggers for supporting longer panels. It was essentially the same setup I'd dealt with when I'd rented the Telpro lift.

The instructions were surprisingly well-written for such an inexpensive knockoff and contained helpful illustrations, including a detailed parts list with an exploded drawing.

However, I couldn't find a company name, phone number, or Web site for purchasing replacement parts or getting assistance. This could be a problem down the road if any of the pieces break or get lost.

Setup and Breakdown

Assembling the lift wasn't that hard to do alone, but I did run into a couple of issues with "fit and finish." For example, connecting the frame assembly to the tripod base was a challenge. The "V" connections were just a bit too snug, and getting them together took a little persuasion.

Disassembly was problematic, too; knocking the components apart required a 3-pound hammer.

Nevertheless, over time these connections have

loosened to where they're no longer a problem. Basically, I view these inconveniences as part of the trade-off for buying a lesser-grade piece of equipment.

Specs

The manufacturer says that the drywall lift can raise a 4-foot-by-16-foot panel weighing a maximum of 150 pounds 11 feet into the air — 15 feet with the optional extension.

The claim seems reasonable enough, but since I never go higher than 10 feet and seldom work with sheets longer than 8 feet (larger panels are simply too difficult to navigate solo through an occupied house), I did not test the machine's maximum capabilities.

The support cradle can be lowered to a 34-inch height for easy loading, and it can be either locked into the flat position or tilted for installations on sloping ceilings.

Small feet on the tripod base help hold the lift stationary during loading.

The lift breaks down into three major components; the tripod base folds for storage and transport. Disassembled, the whole rig can be easily carried by one person and fits in a decent-sized car trunk.

Performance

My first job with the lift was in a duplex I'm renovating: I had to hang 34 4x8 sheets of ½-inch drywall on the second-floor ceilings.

The lift worked exactly as it should have. The only real performance difference I could detect between my knock-off and the Telpro was in the winch's operation. On my lift, the mechanism was a little choppy, and the wheel itself wobbled a bit, like a bad bicycle wheel.

Still, I'm nitpicking; the problems weren't serious, and the brake mechanism — the most important component — seemed solid and worked fine.

One benefit of having the lift all the time is that I have found another great use for it: I drilled holes in a 3-foot-by-4-foot piece of plywood and bungeed it to the lift's cross arms. Since I hate toolbelts and puny step-ladder trays, I use the rig as a large elevated tool platform.

This is especially useful when I'm working at ceiling height for extended periods.

The lift's winch is a little choppy, and the hand-wheel that controls it is noticeably off-center. These problems don't affect operation greatly, though, and the most important control — the lift brake — works just fine.

The Verdict

Would I buy this lift again? You bet.

Once I'd operated it a few times and understood its idiosyncrasies, working with it became second nature. At this point, I use it about twice a month; it's met my needs perfectly. I figure the first job paid for it and everything else is gravy.

If I were to need a drywall lift every day, the little problems I've had with fit, finish, and smoothness of operation would bother me. But for the $400-plus I've saved by opting for it rather than a Telpro, I'm happy to live with those minor shortcomings.

I just hope I don't end up searching for the seller on eBay if I need replacement parts down the road.

Norm St. Onge *owns St. Onge Renovations and Backyard Tractor Works in North Bennington, Vt.*

Metal Mania. Most metal-connector nailers evolved from conventional framing nailers, but the Bostitch *MCN150 Strap-shot* is based on a completely new platform. Weighing in at 4.8 pounds, it's about the size of a 15-gauge finish nailer and features a housing that's only $10\frac{1}{2}$ inches tall — a real plus when you're working with 12-inch-on-center framing. It accepts $1\frac{1}{2}$-inch paper-tape–collated fasteners from .131 to .148 inch in diameter. I found it online for $260.

Bostitch, 800/556-6696, www.bostitch.com. **Circle #16**

Air Supply. Cordless nailers offer portability and rapid setup, while pneumatic tools cost less to operate and are more reliable. If you're looking for the best of both worlds, check out the *JacPac CO_2 Power System* from Supplierpipeline. The tiny CO_2 tank holds enough gas to fire up to 500 nails and works with everything from framers to pinners. According to the manufacturer, any store that sells paintball supplies will fill the tank for about $5. The JacPac kit — coil hose, regulator, and 10-ounce tank — sells for about $120.

Supplierpipeline, 800/567-0864, www.supplierpipeline.com. **Circle #17**

Step on the Gas. When it comes to high work and small framing tasks, it's tough to beat the speed and convenience of a gas-powered framing nailer. The Max *GS683RH* is a 21-degree full-head framer with an easy-to-load magazine, a reversible belt hook, adjustable depth-of-drive, and a niMH battery. The tool weighs about 8 pounds and sells for approximately $350.

Max USA, 800/223-4293, www.maxusacorp.com. **Circle #18**

Toolbox | Lifting Equipment

Jack for All Trades. It weighs a mere 60 pounds, but the *Ellis Bridge Jack* can raise as much as 40 tons. And at just 13 1/2 inches tall, it's perfect for structural repairs and shoring in crawlspaces and other tight locations. The screw provides 6 inches of adjustment and can be raised or lowered by hand; for additional leverage, a 1-inch steel rod can be used. Visit the company's Web site for other handy lifting and shoring products. The jack sells for $135.

Ellis Mfg. Co., 800/654-8311, www.ellisok.com. **Circle #19**

Big Boom. Outside of a sky crane, hydraulic *Tele-Booms* are probably the coolest lifting devices around. Available for most popular skid-steer loaders, they extend from 8 1/2 feet to 20 feet for a total reach of about 30 feet (based on a typical machine's maximum vertical lift; for maximum capacity, check the manufacturer's Web site, since the amount depends on the boom extension and the machine). Accessories include sheet carriers, pallet carriers, and tool bins. Tele-Boom prices start at about $4,100.

Sheyenne Tooling & Mfg., 800/797-1883, www.sheyennemfg.com. **Circle #20**

Wall Stand. Sheathing walls while they're on the floor deck is a great way to save time — but raising a sheathed wall can be a back-breaking exercise. A pair of 16-foot *TranzSporter Wall Jacks* by Tie Down Engineering can help. The jacks — which boast a 1,000-pound maximum capacity — can lift sheathed walls of up to 70 feet long and 10 1/2 feet tall. Features include replaceable floor plates and cable assemblies; square tubing makes the jacks stronger and easier to use than round-tube versions, says the maker. The jacks are sold in pairs and come in 16-, 20-, and 23-foot models for $700, $900, and $1,100 respectively.

Tie Down Engineering, 800/241-1806, www.tranzsporter.com. **Circle #21**