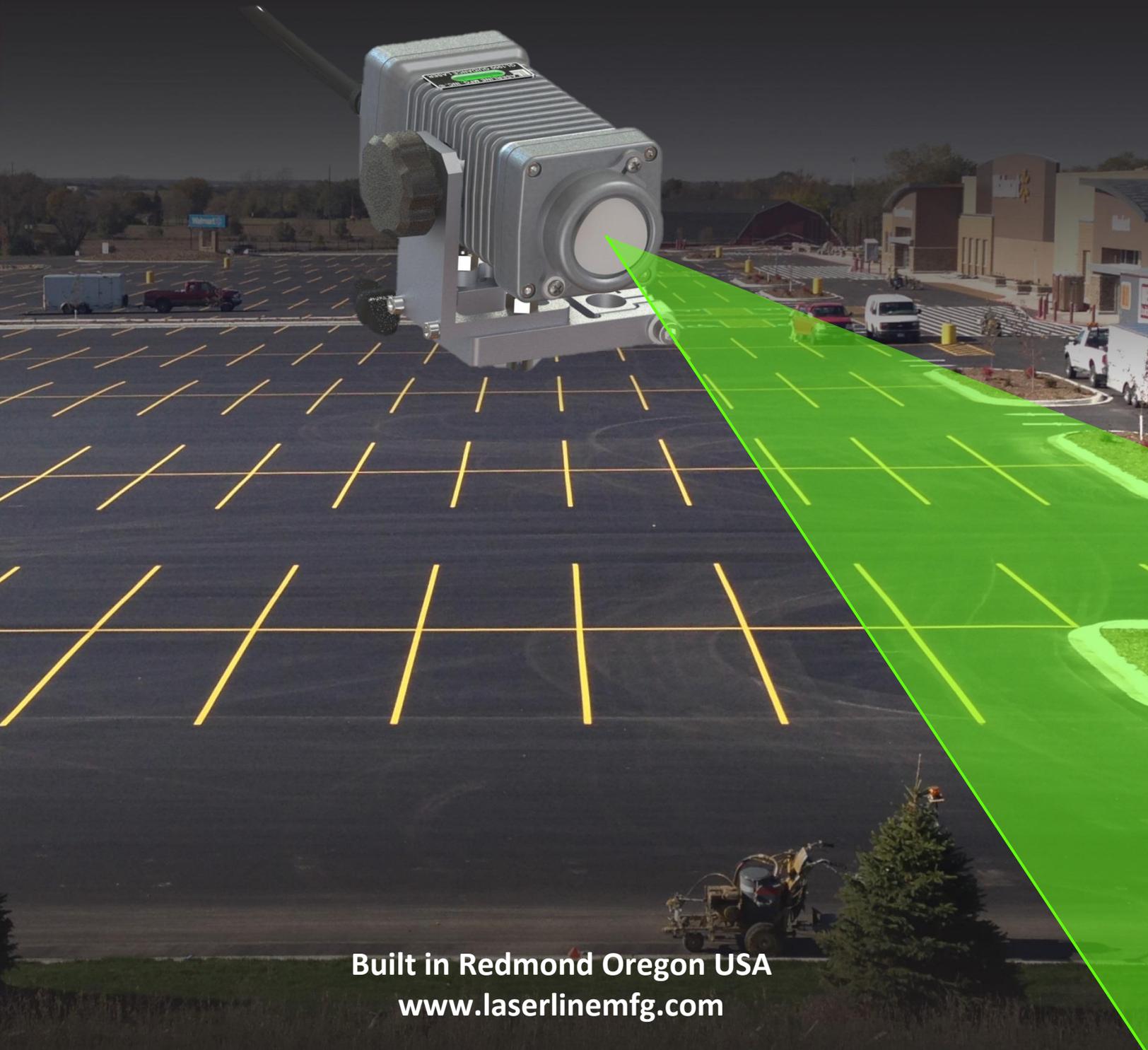


GL1000

STRIPING SYSTEM

OWNERS MANUAL – OPERATION GUIDE



Built in Redmond Oregon USA
www.laserlinemfg.com

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ELIMINATES STRING LINES AND CHALK LINES

- OSHA compliant
- 5/8" mounting bracket for virtually all walk behinds
- Compact and durable

FASTER – STRAIGHTER – EASY TO USE



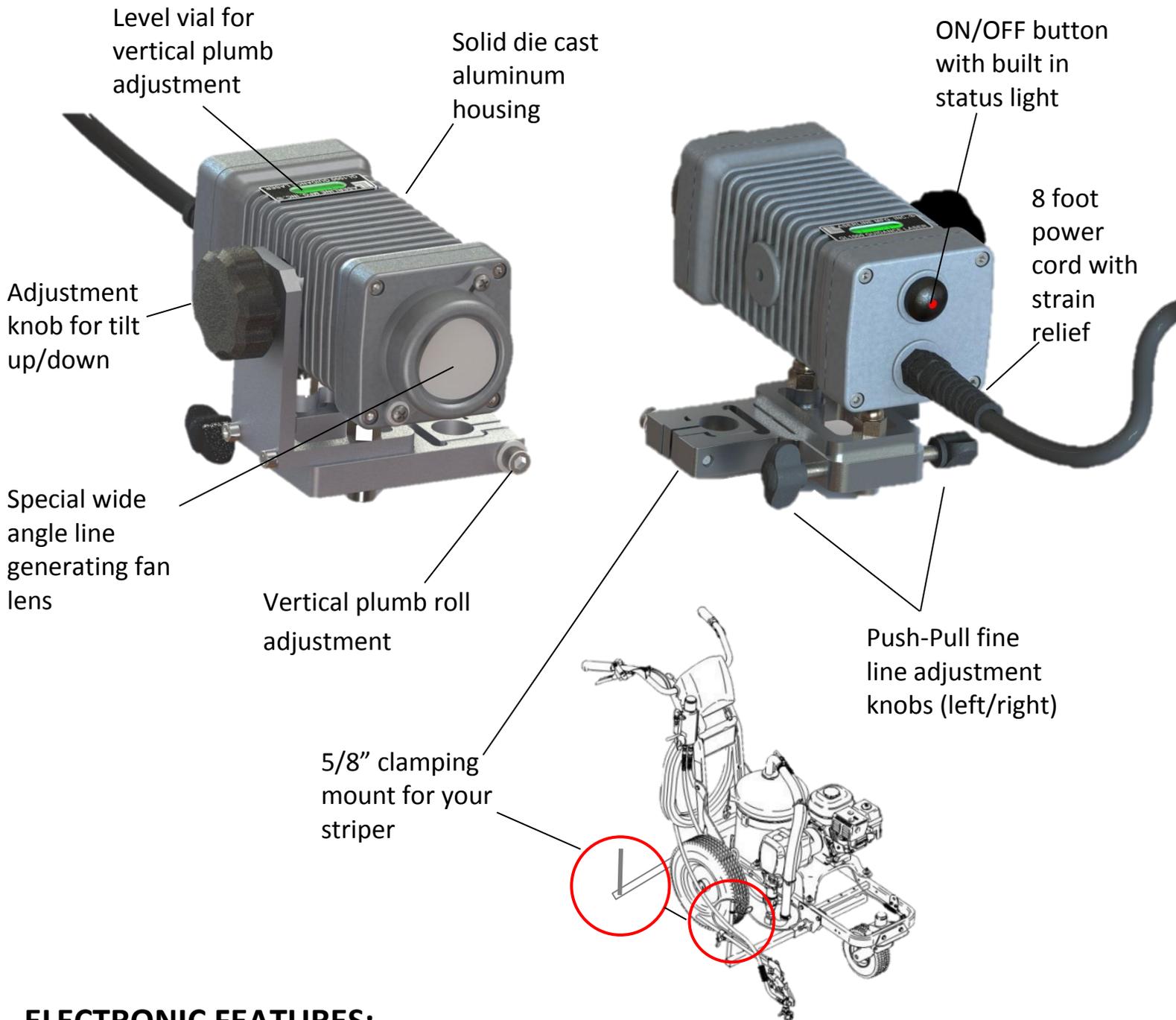
PRODUCT OVERVIEW

The GL1000 Laser Guide was designed from the ground up to provide line control for walk behind paint striping or paint removal equipment.

The GL1000 features a rugged die cast aluminum housing. The special 5/8" mounting bracket allows the GL1000 to attach to virtually any walk behind machine in just minutes. The unit can be powered by 12 or 24 volts and only draws 1/10 of 1 amp or less allowing you to operate for 50 hours on a small 5amp ATV battery.

The ON/OFF switch on the back of the laser has an internal LED light to indicate if the GL1000 is getting power. Also the power cord has a strain relief built in to reduce cord fatigue failure.

MECHANICAL FEATURES



ELECTRONIC FEATURES:

- **Automatic Power Control (APC)** keeps laser power stabilized through ambient temperature changes.
- Over temperature protection circuit with automatic soft shutdown to protect electronics and laser module from overheating.
- Reverse polarity protection.
- Input power stabilization-protects against power spikes.
- Universal voltage input-automatically operates GL1000 from 11-28 volts DC
- Ultra low power consumption: $1/10$ of 1 amp @ 12 volts DC / $1/20$ of 1 amp @ 24 volts DC

ACCESSORIES

Battery Kit : (Consist of the following)

P/N 3003-0800

12v 5amp Hr. Sealed Lead Acid Portable Battery

Will operate GL1000 for approx. 50 hours.

Battery Float Charger

Trickle charge for lead acid batteries that automatically shuts off when battery is fully charged. Reverse polarity protected.

Hard Plastic Battery Case

Enclosed weather proof plastic box, with in-line fuse protection and universal stainless steel battery posts.

(Includes mounting hardware)

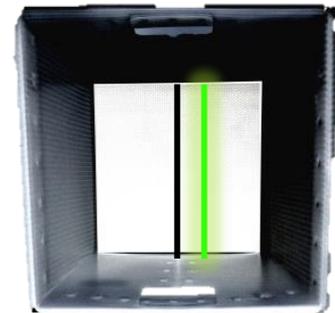


Mounting Example

Reflective Alignment Target

P/N 3003-0070

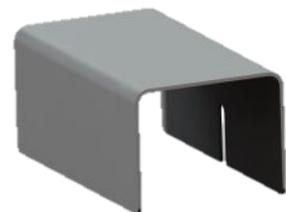
Reflective alignment target with reinforced steel rim and grab handle.



Heat Shield

P/N 3003-0080

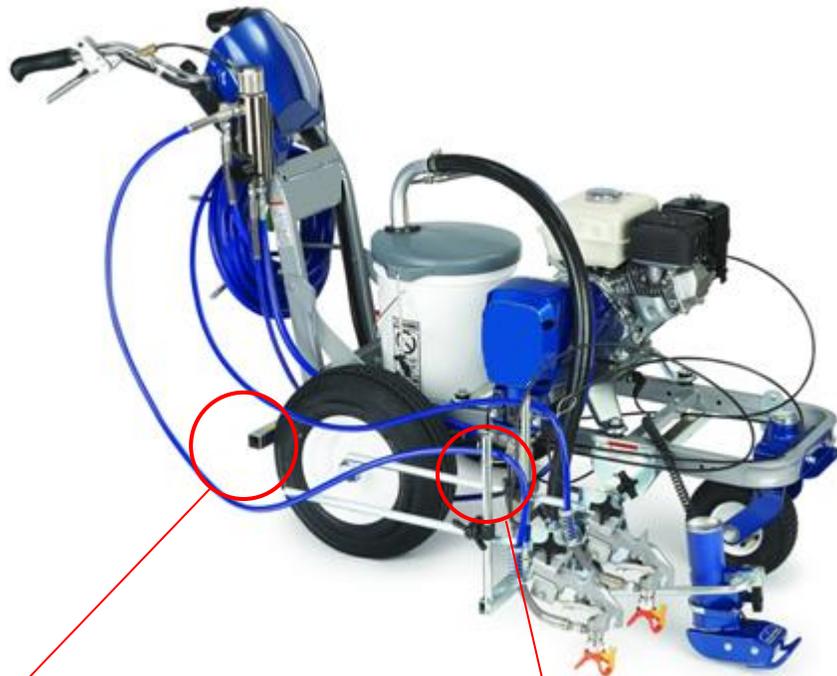
Recommended for use in areas where ambient temperature normally exceeds 100° F (38°C)



MOUNTING



Mounts to GRACO, TITAN or any other walk behind striper using a 5/8" round gun support bracket.



POSITION 1: Mount in rear above and in line with sprayer.
(Preferred mounting)

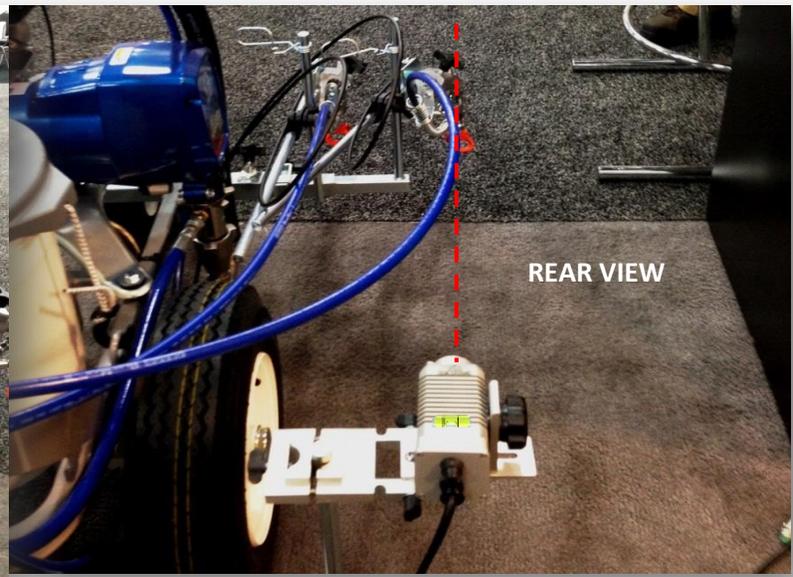
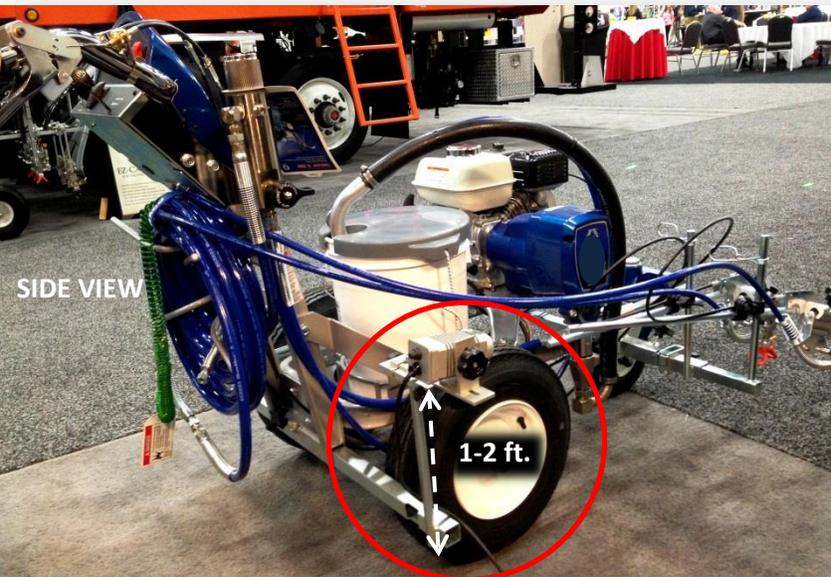


POSITION 2: Mount in front above and in line with sprayer

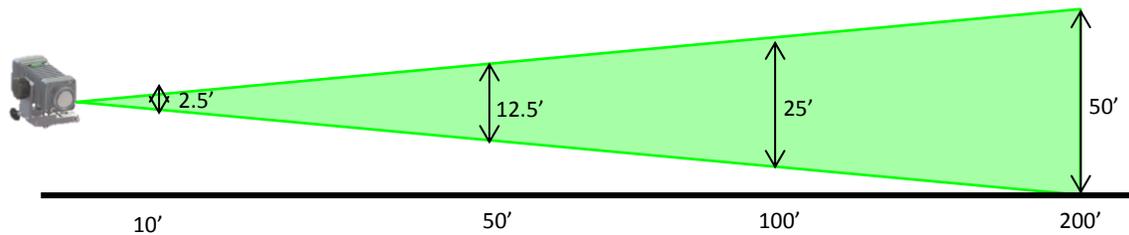
Note: Rear L bar not shown

MOUNTING SUGGESTIONS

The GL1000 laser must be mounted so that it is in line with the gun package and projecting forward in line with where you will be painting to. The height of the laser unit should be 1 to 2 feet above ground level for optimum performance.



The “Line” is created by a special lens that elongates the laser spot to a vertical fan or plane of light. The fan expands the beam at about 25 feet per 100 linear feet. The fan allows you to easily stay aimed at your far point as it compensates for the up and down movement of the machine caused by uneven surfaces.



Position the laser housing so that you are picking up the line near to your striper (starting point) and still seeing your “line” at your far point.
(Where you are striping to)

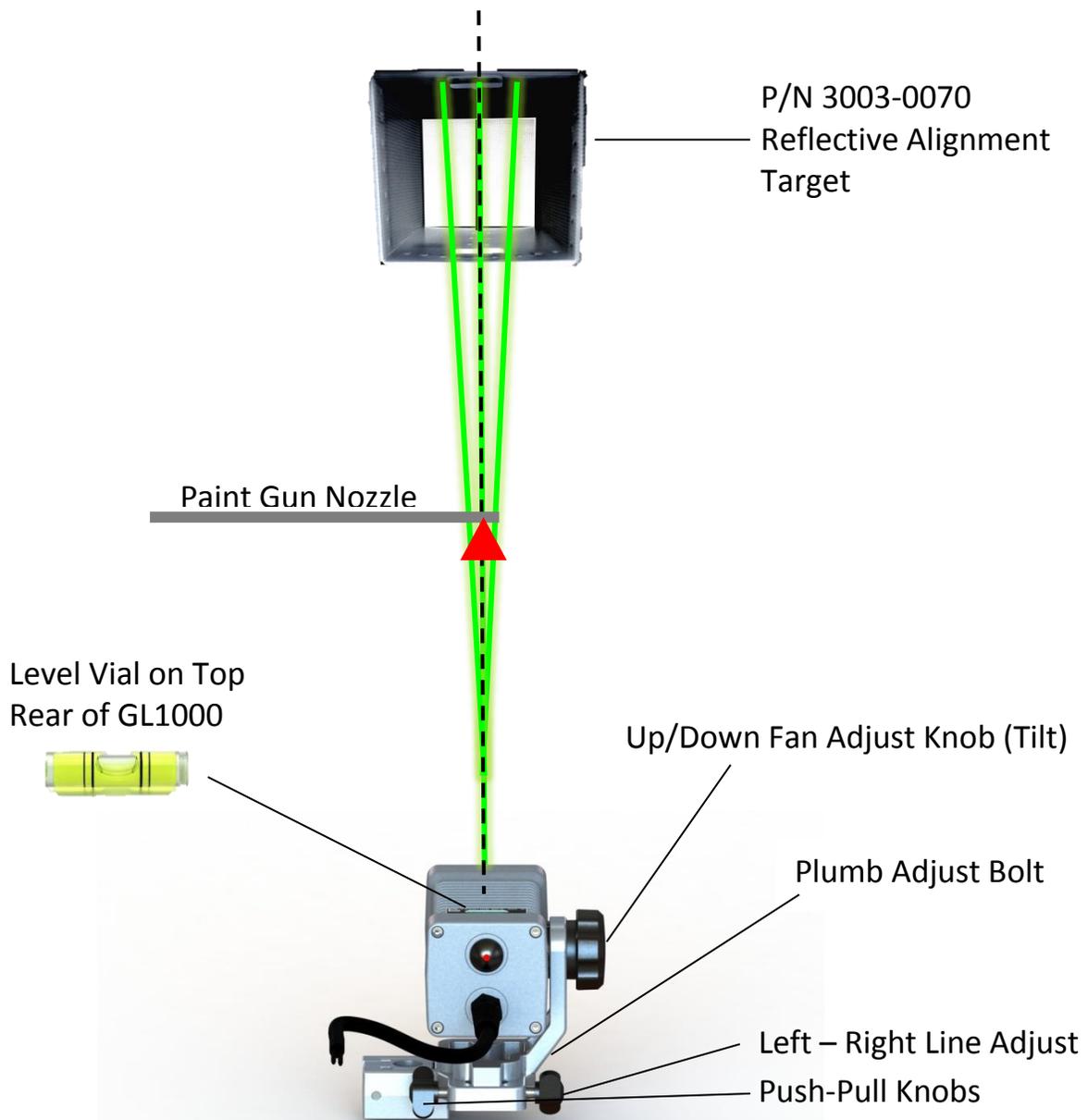


For optimum “line” use, set the GL1000 from one to two feet above ground level. This will allow you the most effective use of the fan and give you the longest line.

CALIBRATING THE LINE TO YOUR MACHINE

- 1) Find an existing long straight line such as a curb edge, existing striped line or asphalt concrete seam. (Or snap a 200 foot chalk line for a reference line)
- 2) Set reflective alignment target at your far point at least 200 feet away.
- 3) Position your machine in line with the paint gun over the reference line.
- 4) Adjust GL1000 (Left-Right) using the built in fine line adjust knobs so the laser line is in line with the gun and with the reflective alignment target at your far point. Also, adjust for plumb using the level vial on the top rear of the GL1000 housing so that the vertical laser is not striking at a severe angle.
- 5) Push or drive the striper while keeping the laser centered in the reflective alignment target and your spray nozzle directly over your reference line. When you have arrived at the reflective target and the laser is centered on the target and the spray gun is still over the reference line, then the unit is properly calibrated.

NOTE: If your spray nozzle is not over your reference line, repeat steps 3-5



USING THE LASER LINE

Change your Method • Get Rid of String Lines • Increase Profits

You need two points:

- A. **Starting point** to get your gun over
- B. **Ending point** to stripe to.
 - 1. For day operation the 3003-0070 reflection alignment target is used at your far point to stripe to.
 - 2. For night work the target is *optional* since you can see the line to your far point to stripe to. However, it is useful for longer runs as a visual tool to determine the end of the run.

Get your machine set up over your starting point and lined up with your far point.
(Reflective Alignment Target)

Start striping by keeping the laser line lined up with your far point (Reflective Alignment Target) as you move forward.

**NOTE: What seems like a large correction at your far point is actually a very small correction at the machine.*

You are staying on line by looking out ahead to your far point and NOT by looking down at a string line or chalk line.

Since the laser line is laser-straight, your painted lines will be just that – Laser Straight.

- **NO** more string lines blowing in the wind
- **NO** more string line crew

DAY USE

Using the GL1000 fan line during the day requires the use of the 3003-0070 reflective alignment target to be placed at your far point.

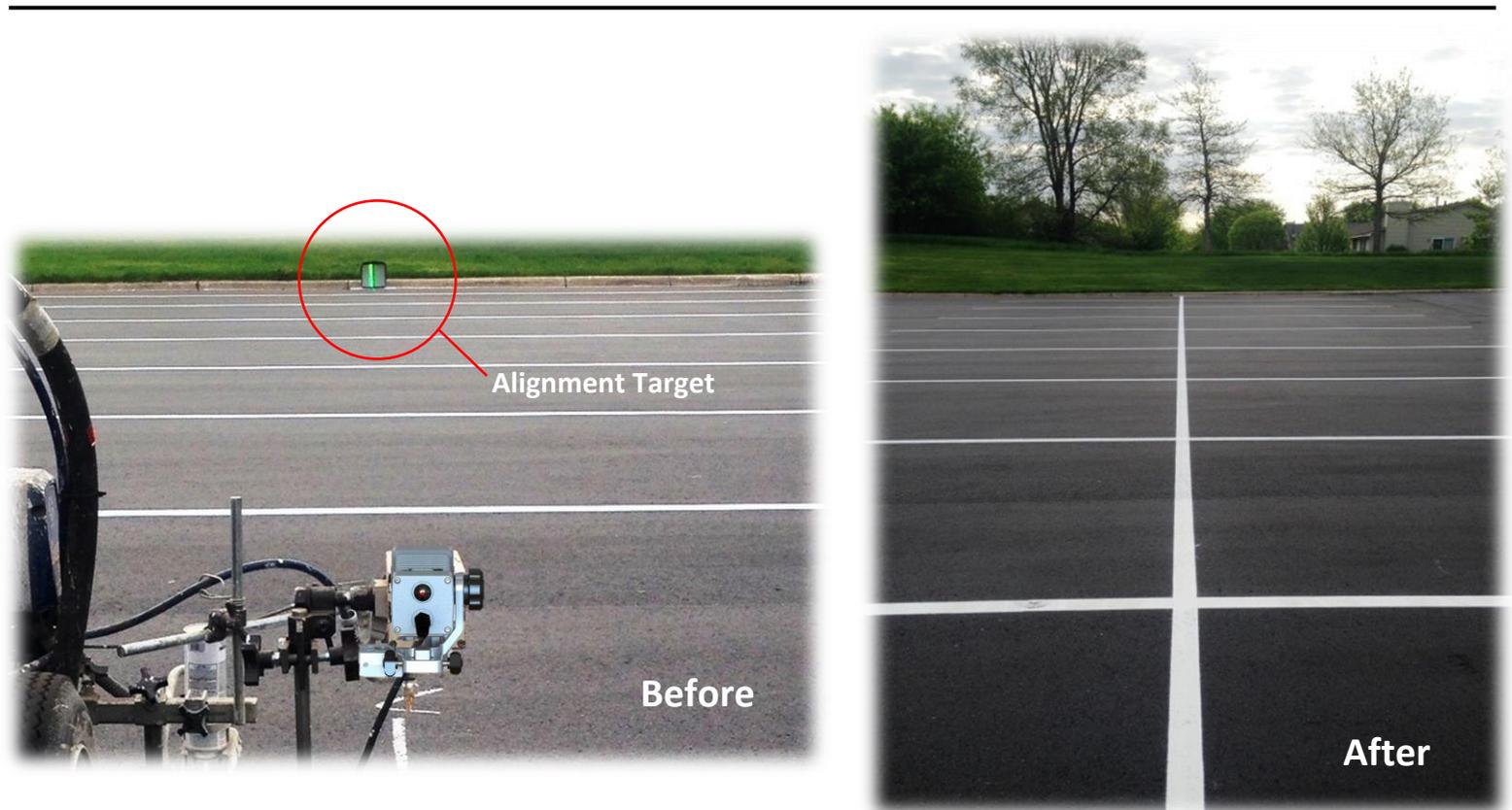
In daylight you will not see the green line along the surface as you do at night, but you will see the line on the “target” at your far end up to several hundred feet away.

You will need a starting point to get your spray gun over and a far point to set your reflective alignment target at.

Line up on your first point and adjust the machine so that the green line is centered on your alignment target. Stripe to the far point keeping the green laser line on target center.

The alignment target must be moved to the far point of each new line so you can line up on it.

Using the GL1000 with line in conjunction with the 3003-0070 reflection alignment target eliminates at least one man if not two from the operation, and it's faster plus gives you straighter lines.



- 1 Set reflective alignment target over far point (Up to 700 feet)
- 2 Get spray nozzle w/ laser over near point
- 3 Start striping while keeping laser in center of alignment target

NIGHT USE

The GL1000 creates a visible virtual string line that is aimed from just in front of your gun carriage to your far point up to several hundred feet away.

The line is bright green and visible on the surface. Since it is a laser line it is perfectly straight at all times in all conditions.

Since the green laser line is visible along its entire length, it allows you to line up on two points and stripe a perfectly laser true line without using a string line crew and the expense associated with it. Your job goes much faster and your lines will be laser straight.

- Visible on the ground as far as you can see
- Just connect the dots - The laser is your string line
- **Optional:** Use reflective alignment target for long distance lines and hit your marks flawlessly



Restripe



Single Stalls



New Layout

- **Makes restripe work laser straight!**

- **Just connect the dots.**

- **Turns new layout jobs into restripe jobs, because there is a constant reference line on the ground as far as you can see.**

MAINTENANCE

The GL1000 requires no maintenance other than periodically cleaning the laser output lens. Use a soft cloth with Windex or alcohol.

***NOTE: Laser must be turned OFF when cleaning the lens!**

LASER SAFETY

The maximum power output of this laser is less than 5mw. A laser safety kit is supplied with the Quad 1000 laser. The kit contains operator qualification cards and a sign that should be posted near the laser whenever it is in use. Observe the following rules:

- Never look directly into a laser beam or point the beam into the eyes of others. Set the laser at a height that prevents the beam from shining directly into people's eyes.
- DO NOT remove any warning signs from the laser.
- Only properly trained people are to use this product.
- If service is required, which results in the removal of the outer protective cover, only factory-trained personnel must perform this.

CERTIFICATION

The IEC and The United States Government Center of Devices for Radiology Health (CDRH) has classified this laser as a Class 3R/3A laser product. This laser complies with IEC/EN 60825-1:2001, CDRH 21 CFR 1040.10 and 1040.11.

LABELS

The labels required for this product are:



OSHA REQUIRED

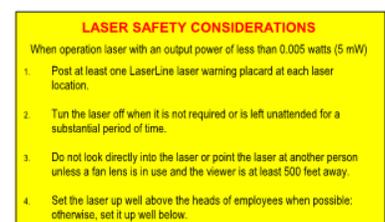
Warning Plaque: To be posted near laser



Operator Card: To be carried by laser operator



Front



Back

GL1000 Specifications

“Built To Work Where You Work”

Laser

- Laser Type/Class: 532nm / CDRH Class 3a / IEC 825-1 Class 3R
- Laser Power: 4.5mw
- Operational Life: 20,000 hrs. MTBF
- OSHA compliant-Meets all Federal and International standards

Environment

- Operating Temperature: -40°F to 122°F (-40° to 50°C)
- Enclosure Rating: Outdoor dust and water rated to IP65
- Vibration compliant per MIL-STD-810F method 5145 and truck assurance level 2, schedule E

Electronic

- Power Source: 12 to 24 volt DC (Automatically operates between 11-25 volts DC)
- Power Draw: 1/10 of 1 amp at 12vdc, 1/20 of 1 amp at 24vdc
- Reverse Polarity and Spike Protected
- Over Temperature Protection Circuit
- Automatic Power Control: (APC) Keeps laser power stabilized through ambient temperature changes

Mechanical

- Special wide angle line generating fan lens
- Rugged die cast aluminum housing
- Built in level vial to assure laser plane (line) is plumb
- Universal clamp with built-in fine line adjust
- Built in adjust knob for aiming left/right – up/down and swivel for adjusting fan (line) beam
- Waterproof ON/OFF button with built in power indicator light
- Heavy duty power cord with strain relief
- Dimensions: 6”length x 2.5”width x 2.5”height
(15.24cm) (6.35cm) (6.35cm)
- Weight: 2.30 lbs.

WARRANTY

This product is guaranteed against defects in materials and workmanship for both parts and labor, under normal working conditions for two years from the date of purchase, except as noted herein. LaserLine Mfg., Inc. liability under this warranty is limited to repairing or replacing any product returned to an authorized service center for that purpose. Any evidence of attempts to repair this unit by other than factory authorized personnel automatically voids the warranty. LaserLine Mfg., Inc. does not take liability for any damages caused by non-accuracy of this product. Before using the product always check for accuracy per the enclosed instructions in this manual.

Warning!

Under no circumstances, attempt to open or disassemble the Laser Housing. Doing so may cause exposure to potentially hazardous levels of laser radiation.

Factory Service Center

LaserLine MFG., INC.

1810 S.E. First Street, Suite H,
Redmond, OR 97756

(P) 541-548-0882

(F) 541-548-0892

(Email) laserline@laserline.net

Factory Service: New Product Warranty service policy for new products stated above.

Service Warranty: 2 years on replacement Parts, 90 days on Labor.

For all Warranty: Call Order Processing for RMA # at 541-548-0882. The Unit will be repaired and returned by prepaid freight.

Non-Warranty:

Send to: LaserLine MFG., INC. at above address