

GL1700

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PRODUCT OVERVIEW

The GL1700 features a 5/8" mounting bracket with quick disconnect allowing it to attach to virtually any walk behind machine in just minutes. Connect the power cord to a 12 or 24 vdc battery source and mount the laser to your desired location. Next, adjust the spot so it is directly under and in-line with the spray nozzle. **Start Striping!**

- **OSHA Compliant**
- **Compact and Durable**
- **Faster**
- **More Precise**
- **Easy to Use!**

GL1700 FEATURES

1 Replaceable paint spray shield

Protects laser output optics from paint overspray damage

2 Detachable quick release

5/8" Mounting bracket allows the GL1700 to attach to virtually any walk behind machine in just minutes!

3 7-foot power cord

Powered by 12 or 24 vdc and only draws 0.1 of 1 amp at 12 vdc or 0.05 amp at 24 vdc

4 Sealed & rugged die cast aluminum housing

IP65 Rated

5 Tightening knob with swing adjustment

6 Tightening knob with swing adjustment



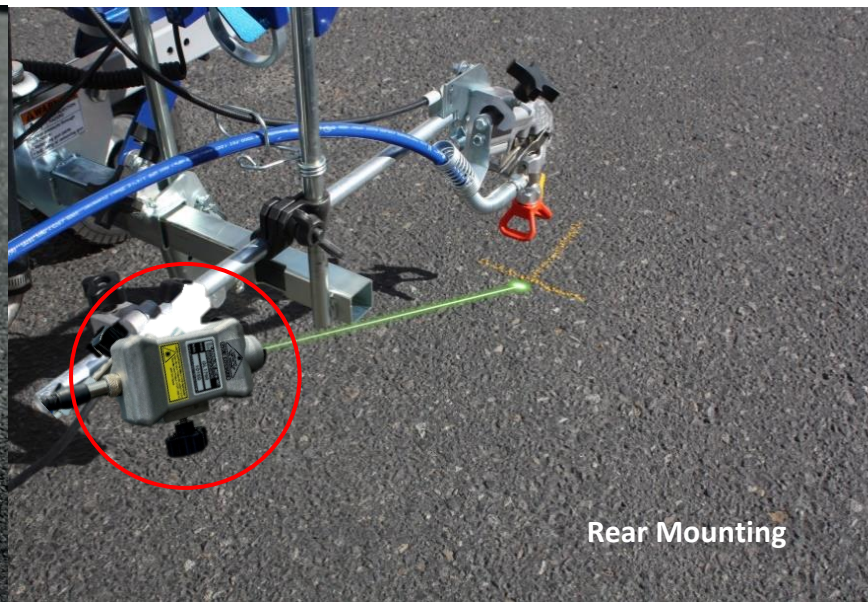
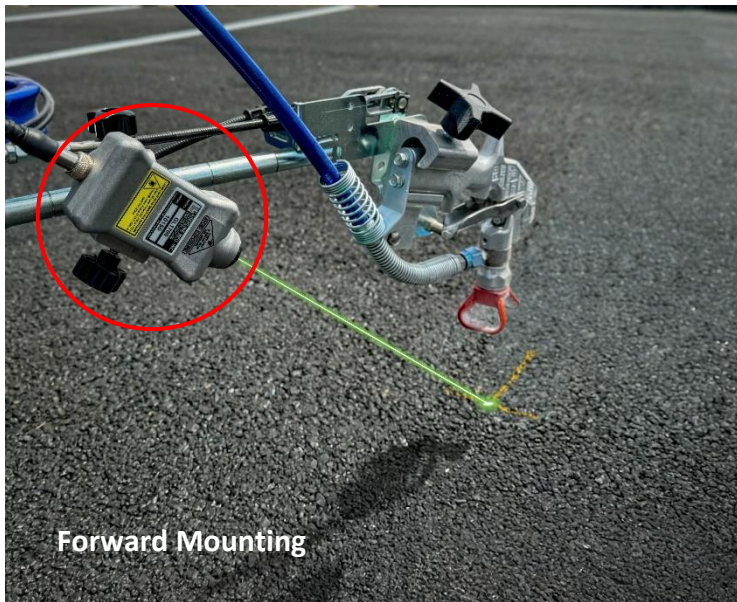
ELECTRONIC FEATURES

- **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; protects the GL1700 in case the power leads are connected backwards.
- Input power stabilization-protects against power spikes.
- Universal voltage input-automatically operates GL1700 on 12 volts DC (11-25 volts DC)
- Ultra-low power consumption: 0.1 of 1 amp at 12 vdc / 0.05 amp at 24vdc

OPERATING INSTRUCTIONS AND MOUNTING OPTIONS

The GL1700 features a $\frac{5}{8}$ " mounting bracket with quick disconnect allowing it to attach to virtually any walk behind machine in just minutes. Connect the power cord to a 12 or 24 Volt DC battery source and mount the laser to your desired location. Next, adjust the spot so it is directly under and in-line with the spray nozzle. **Start striping!**

When the laser is no longer needed or the job is complete, power off the laser by pressing the ON/OFF power button on the optional LaserLine 12v battery kit or by disconnecting the power cord from the 12 or 24 volt battery source.



Tip: Mount the GL1700 laser to the horizontal $\frac{5}{8}$ " bar and properly align it. Now, anytime you need to swing the spray gun left or right, the laser spot follows it.

***Note:** If mounted to the vertical $\frac{5}{8}$ " bar, this will not apply as you will have to re-align the laser.

Scan QR code for Calibration Video!

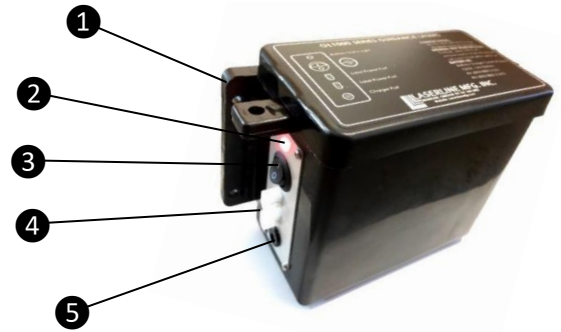


12V BATTERY KIT

**Battery Kit: P/N 3003-0800-2 (U.S.)
P/N 3003-0802-2 (INTL)**

Consists of: Hard shelled weatherproof battery case w/ mounting hardware, 12VDC 5Ah lead acid battery plus battery A/C wall charger.

- ① Mounting tabs (2) / Mounting hardware included
- ② Red LED indicator for operation, state of charge and charging status
- ③ ON/OFF power rocker
- ④ Built in dual Molex DC output connectors / nominal 12V, 900mA total
- ⑤ Built in charging port / DC input jack 5.5x2.5mm 15V 560mA
- ⑥ 12VDC 5Ah sealed lead acid battery operates 1 laser approx. 30-40 hours
- ⑦ A/C adaptor-charger
Universal input voltage, meets level VI efficiency standards with multiple regulatory approvals for safety and EMI.
- ⑧ International Travel Adaptor kit (included in P/N 3003-0802-2)



Battery Box Features:

- Enclosed weather proof plastic box
- Charge control functions built in
- Cell balancing function
- Battery maintaining function
- Current and voltage limited
- Reverse polarity protected
- Short circuit protected
- Thermally protected

Battery Box Operation:

(Approx. 30-40 hours run time using one laser and 15-20 using two lasers)

LED solid = Fully charged

LED blinking = Needs to be charged *(You should have 1-2 days of operation remaining)*

Note: *This battery box contains an internal self-resetting fuse. To reset, press rocker switch off, remove/unplug shorted source, wait 1-2 minutes and press rocker switch to on position.*



**Battery Box Mounting Example
(LineLazer IV)**



Battery Box Tips:

- For best battery life and performance, it is recommended to charge your battery box once a week.
- Replace battery with only Duracell model DURA12-5F / 12V 5Ah AGM

"Y" CABLE INSTALLATION INSTRUCTIONS

POWERING TWO LASERS FROM FACTORY INSTALLED GRACO LINELAZER V WIRING HARNESS
(P/N 3003-1401)

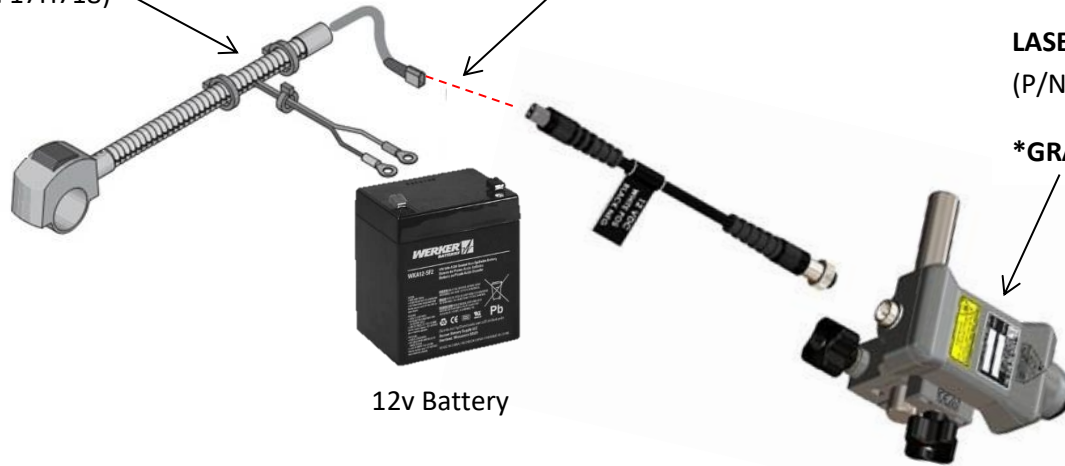
GRACO wiring harness
with on/off rocker switch
(P/N 17H718)

***Note:** You may have to remove the GRACO battery box cover to get access to the wiring harness connections. Once you have access, disconnect the GL1700 connector from the GRACO wiring harness connector. (See below for next step)

LASERLINE GL1700 START-STOP LASER
(P/N GL1700)

*GRACO (P/N 17H714)

12v Battery



GRACO wiring harness
with on/off rocker switch
(P/N 17H718)

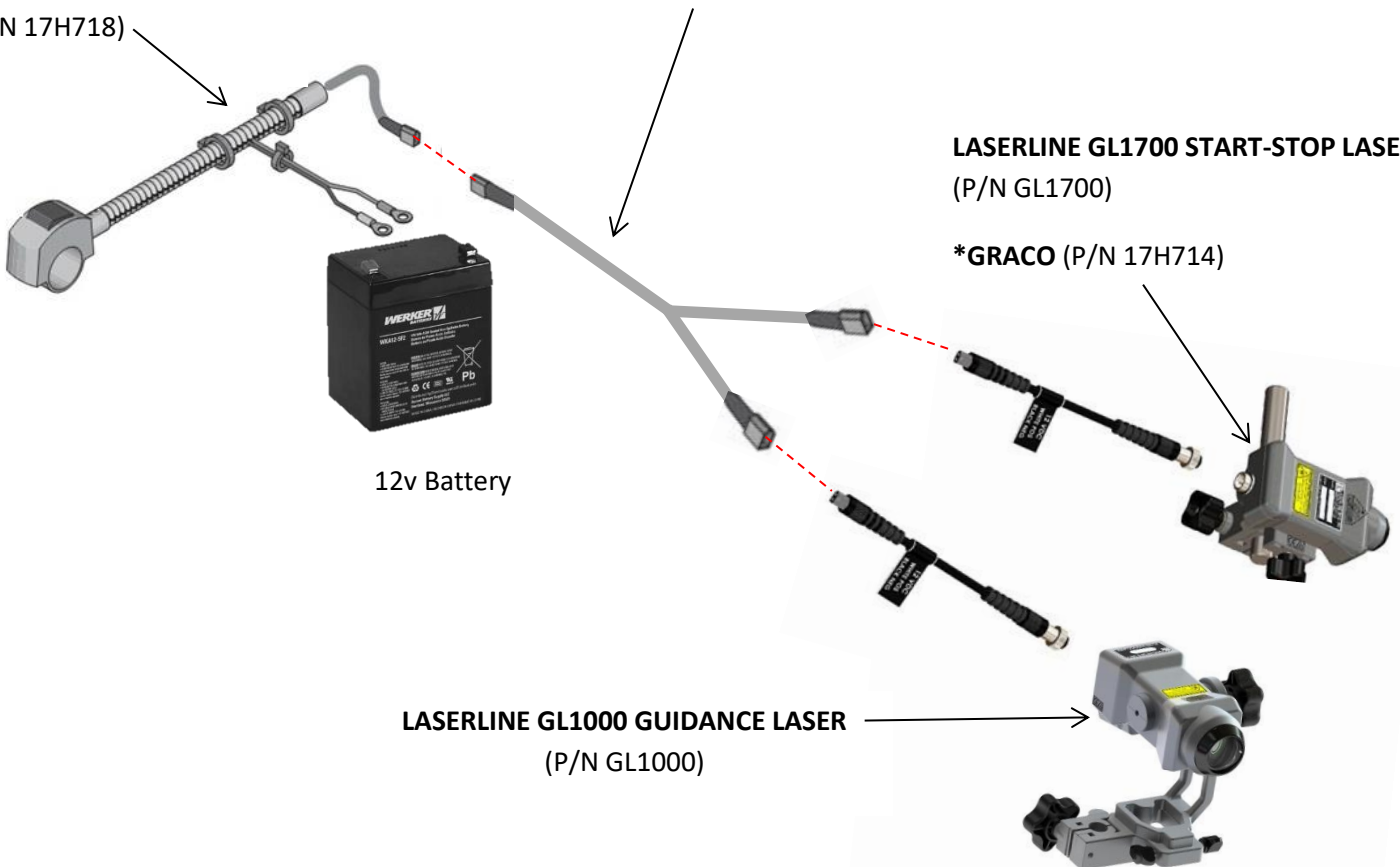
Insert provided LaserLine "Y" cable adaptor (P/N 3003-1401) to the GRACO wiring harness as shown. Then connect both the GL1000 and GL1700 to either one of the two connectors.

LASERLINE GL1700 START-STOP LASER
(P/N GL1700)

*GRACO (P/N 17H714)

12v Battery

LASERLINE GL1000 GUIDANCE LASER
(P/N GL1000)



Laser Certification, Safety and Maintenance

Laser Product Certification

This laser product qualifies as 'Class IIIa' in the U.S. under US FDA/CDRH 21 CFR, part I, Subchapter J, sections 1040.10 and 1040.11

This product qualifies internationally (outside the US) as 'Class 3R' under:

- 'EN/IEC 60825-1 2014 edition 3' (E.U.), 
- 'BS EN 60825-1:2014' (UK)
- 'AS/NZS 60825-1:2011' (Australia/New Zealand)
- & other countries, including: Japan, Korea, China, Singapore, Israel, South Africa, and more

Laser Safety

The maximum power output of this laser is less than 5mW for U.S. OSHA compliance. A laser safety kit is supplied with the GL1700 laser. The kit contains operator qualification cards and a sign that should be posted near the laser whenever it is in use.

WARNING: LASER LIGHT, AVOID DIRECT EYE EXPOSURE!



- Eye exposure to Class IIIa / 3R levels of laser light can potentially present an eye (retinal) injury hazard, including spot blindness or other retinal injury**.

Observe the following operating rules:

- **NEVER** look directly into a laser beam or point the beam into the eyes of others, even at long distances.
- **NEVER** shine the laser at mirror like surfaces which can cause specular reflections of the beam.
- **ALWAYS** set the laser at a height and angle that prevents the beam from shining into people's eyes.
- **IMMEDIATELY** terminate laser emissions if personnel, animals or reflective objects approach the beam.
- **ALWAYS** turn off laser when unattended.
- **DO NOT** remove any warning labels from the laser.
- **ONLY** properly trained laser operators are to use this product.
- **NEVER** allow beams to be aimed toward traffic, vehicles, or heavy equipment. Even when not damaging at long distances, the high brightness of lasers can distract or disrupt vehicle operations.
- **NEVER** point a laser at an aircraft or law enforcement personnel. This is considered a felony in most locations, with the possibility of jail time, heavy fines or both.
- **DO NOT** disassemble laser product, return to factory for all service procedures.

Laser Certification, Safety and Maintenance (Cont'd)

*** Note: Although all Class IIIa / 3R lasers should be respected as potentially hazardous and operated to avoid eye exposure to the beam or a direct specular reflection, as these are considered a theoretical eye hazard. In actuality, after 50 years of global laser use, confirmed rates of retinal eye injuries from visible CW (non-pulsed) lasers are exceedingly low and essentially non-existent*

Laser Maintenance

The GL1700 requires no maintenance other than periodically cleaning the laser output lens. Use a soft cloth with Windex or alcohol.

Warning: 

Laser must be turned OFF when cleaning the lens, so as not to create unwanted laser refraction.

Warning: 

Under no circumstances, attempt to open or disassemble the Laser Housing. Doing so may cause exposure to potentially hazardous levels of laser radiation. No user serviceable parts within. Unit is factory sealed.

Caution:

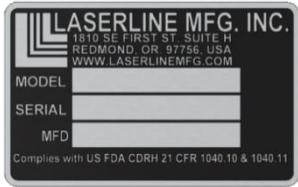
Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

Warning: Fire and Explosion Hazard 

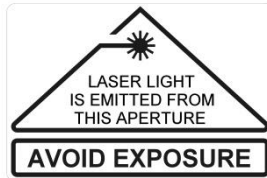
Do not connect GL1700 directly to a generator source as it can create over voltage and damage to the electronics. Connecting directly to a generator source can also create a short or sparking under certain conditions. Connect GL1700 only to a dedicated 12 or 24 volt DC battery source.

LABELS

The labels required for this product are:



Identification and Certification Label

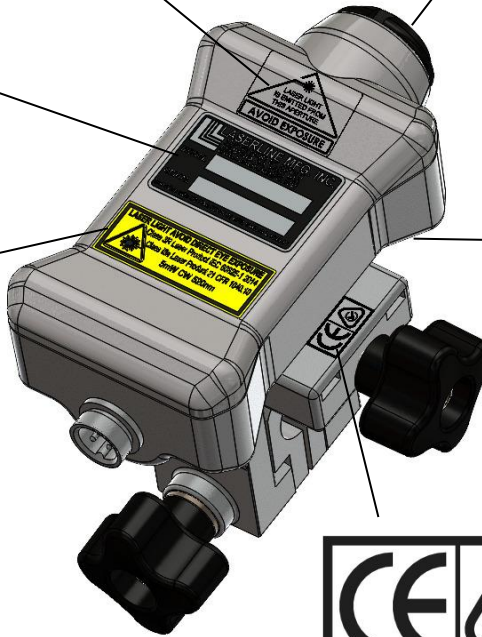


Aperture Label

Laser Aperture



Explanatory and Warning Label-Hazard Symbol



Prop 65 California Label
(On bottom of laser-not shown)



European Conformity Logo (left)
Regulatory Compliance Mark Logo (right)

Warning Plaque: To be posted near laser

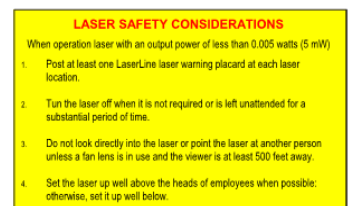


**OSHA REQUIRED
(USA ONLY)**

Operator Card: To be carried by laser operator



Front



Back

GL1700 Specifications

“Built To Work Where You Work”

Laser

- Laser Wavelength 510-532nm (Nominal)
- < 2mrad
- Laser Power: 4.75mW
- This laser product qualifies as ‘Class IIIa’ in the U.S. under US FDA/CDRH 21 CFR, part I, Subchapter J, sections 1040.10 and 1040.11
- This product qualifies internationally (outside the US) as ‘Class 3R’ under:
 - ‘EN/IEC 60825-1 2014 edition 3’ (E.U.),
 - ‘BS EN 60825-1:2014’ (UK)
 - ‘AS/NZS 60825-1:2011’ (Australia/New Zealand)
 - & other countries, including: Japan, Korea, China, Singapore, Israel, South Africa, and more.
- U.S.A OSHA compliant: Meets all Federal and International standards
- Calculated Operating Life: 15,000 hrs. MTBF

Environment

- Operating Temperature: -40°F to 122°F (-40° to 50°C) (Nominal)
- 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- or 24-volt DC (11-25 volts DC) **Note: Do not connect directly to a generator AC source, only connect to a dedicated 12 or 24v DC battery)**
- Power Draw: 0.1 of 1 amp at 12vdc / 0.05 amp at 24vdc (Nominal)
- Reverse Polarity and Spike Protected
- Over Temperature Protection Circuit
- Automatic Power Control: (APC) Keeps laser power stabilized through ambient temperature changes

Mechanical

- Aluminum housing with clear hard coat anodize
- Universal clamp with built-in adjustments for aiming laser
- Heavy duty 7-foot power cord
- Replaceable paint overspray optics shield
- Laser Dimensions: 4.42” length x 2.23” width x 1.54” height
- Laser and Mount: 4.42” length x 3.30” width x 3.35” height
- Weight: 1 lb.



GL1700 WARRANTY

This product is guaranteed against defects in materials and workmanship for both parts and labor, under normal working conditions for 1 year 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.

Factory Service Center

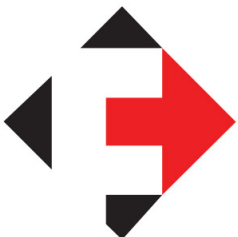
LaserLine MFG., INC.
1810 S.E. First Street, Suite H
Redmond, OR 97756
(P) 541-548-0882
(F) 541-548-0892
(Email) laserline@laserline.net

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

All Non-Warranty Repairs:

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

Out of Warranty Repairs: 1 Year on replacement parts, 90 days on labor.



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