

GradeLight 2500 and GradeLight 2500C

Battery Life
60 Hrs. (normal operation)
Recharge Time
8 - 10 hours
Grade Range
Std. Model: +40% to -10%
Special Model: +25% to -25%
Self-Leveling Range
±5.7° (±10%) grade axis
Cross Axis
±3° (±5%) cross axis
Azimuth Range
20' @ 100' (6m at 30m)
Pivot Point
Yes, Green LED
GradeLight 2500 Dimensions
5.19"D x 11.33"L (13.18cm x 28.8cm)
GradeLight 2500C Dimensions
5.19"D x 8.5"L (13.18cm x 21.59cm)
GradeLight 2500 Weight
9 lbs., 12 oz. (4.54 kg)
GradeLight 2500C Weight
6 lbs., 4 oz. (2.72 kg)
Operating Temperature
0° F (-18° C) to 120° F (50° C)
Waterproof
Yes, purged with nitrogen Laser is IPX7, except for battery compartment (located under laser for protection)
Rough Level Indicators
Grade: 3-light SpeedLevel display
Cross axis: Lighted level vial
Stand-by Mode
Controlled from optional remote
Cross Axis
Lighted level vial
Line Indication
Lighted indicator on control panel
Control Panel
Tactile feedback, integrates line, grade, and low battery indicator
Beam
Visible Laser Diode, 635nm
Beam Accuracy
±10 arc seconds = ±1/16" per 100 ft.
Grade Accuracy
±.005%

GL2500 REMOTE

Battery
9 Volt Alkaline
Battery/Operation Indicator
Green LED on front panel
Operating Range
600' front (through the pipe)
25' from rear
Dimensions
5" L x 1.8" W x 1" D
(12.7 x 4.6 x 2.5 cm)

Choice of Carrying Cases Large Case

22"(w) x 16"(h) x 11"(d)
55.8cm(w) x 40.6cm(h) x 27.9cm(d)

Instrument Plus Accessories

Example:
Instrument
Slide Legs
Charger
12 volt DC Cable
Trivet
Height Adjustable Rod

Small Case

17"(w) x 15"(h) x 9"(d)
43.1cm(w) x 38.1cm(h) x 22.86cm(d)

Instrument With Basic Accessories

Example:
Instrument
Slide Legs
Charger
12 volt DC Cable

Optional Special Orders

Available on GradeLight 2500, 2500C & 2100

Optional Grade Range

-25% to +25%

Optional "Firmware" for GL 2500 / 2500C

Auto Keypad Lock

The keypad on the instrument is disabled automatically after the unit has self-leveled. To unlock, simply press * or power switch on instrument. The remote remains functional at all times.

AGL

GradeLight 2500

Utility Alignment Laser



AGL Corporation

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GradeLight 2500

Great Features - Easy To Use!

RELIABLE, RUGGED DESIGN

Fragile metal stampings, plastic internal mechanical parts, and low quality electronic components *are not good enough* for the GradeLight 2500.

All lasers consist of an external housing and the all critical internal system. The GradeLight 2500's internal works use the highest quality aluminum, brass and stainless steel that are precisely machined. Circuit boards utilize top-of-the-line electronic components. The GradeLight 2500 housing uses high quality aluminum die castings and extrusion.

The GradeLight 2500 is designed to last!

"Jobsite Tough!"

- Tough Aluminum Housing.
- Waterproof and Purged with Nitrogen.
- Bottom Loading Battery Compartment.
- All Metal Adjustable Slide Legs.
- 6" Legs Part of Die Cast Aluminum Housing.
- Fixed Metal Carrying Handle Protects Keypad.

SIMPLE TO OPERATE

Automatic Grade Run

Press either the positive or negative grade switch. Hold for a few moments and release. The grade will continue in the selected direction until you press any switch again. No more holding the grade switch until the desired grade is reached.

Automatic Line Centering

Press both azimuth switches simultaneously and the beam automatically returns to its center of line adjustment.

Automatic Zero Grade Set

Press the positive & negative grade switches simultaneously to automatically set grade back to 0% grade.

Precise Grade Setting

Enter grade to the nearest .001%. GradeLight 2500 firmware insures grade device always approaches grade from negative direction.

Superior Beam

The NEW and advanced GradeLight 2500 has a bright, highly visible beam which can be seen under all jobsite conditions.

New & Improved Design

The display panel is designed for a wider veiwing angle. With the control panel and LCD display angled upwards it is easier to see and use.



A
F

E

D

B

C



OUR REPLACEMENT BATTERY CAN BE PURCHASED IN ANY HARDWARE STORE!



G

H



Stand-by Mode

save laser battery life with stand-by mode on new remote..

A. Large, Easy to Read Grade Display.

B. Azimuth Indicator. Know where the beam is pointing all the time. Center the GradeLight 2500™ in the pipe and use the large 20' per 100' adjustment range.

C. Battery Indicator. Shows the available supply of volt-age so you know when it's time to recharge.

D. "SpeedLevel" Electronic Self-leveling. The three-light "speedlevel" indicator enables the operator to quickly adjust the unit into the optimum setup position. No Waiting!

E. Lighted Cross-Axis Rough Level Vial. Enables the user to quickly position the GradeLight 2500™ in the cross-axis. Lighted for visibility in dark setup conditions.

F. Rear Carrying Handle. Ideal for lowering into manholes with a rope. It also protects the control panel.

G. Illuminated Azimuth Pivot Point. A bright green LED indicates line (azimuth) pivot point and is easily seen in dark setup conditions.

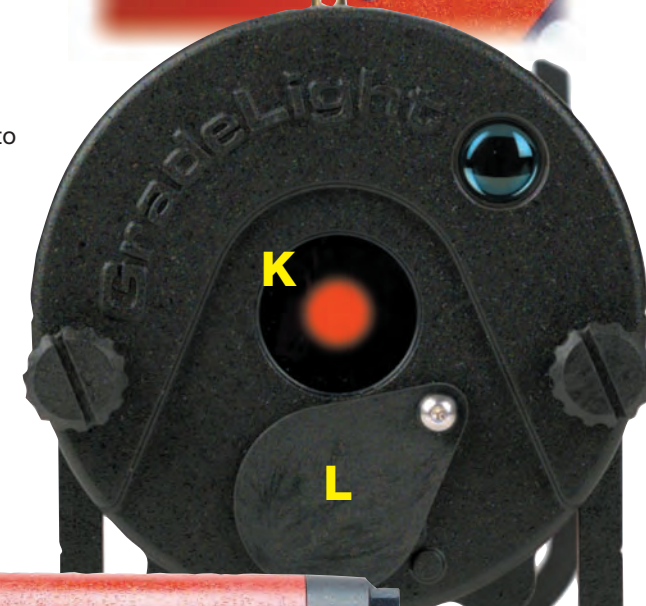
H. Sightline Hook. Used with the string alignment technique. (Comes standard with the laser.)

I. Adjustable Slide Legs. Three independent adjustable legs give the GradeLight 2500™ unmatched versatility for in-the-pipe set-ups. One set of adjustable legs center the beam in 8" to 12" (200mm to 300mm) pipe. Remove the legs to setup in 6" (150mm) pipe.

J. Grade Axis Pivot Point. Located on each side of the laser. Provides a reference of the grade pivot point.

K. Beam Exit. The beam exits through the center of the housing. This makes setup on centerline easier and quicker.

L. Attached Lens Cover. Protects the lens from scratches. It is permanently attached.



K

L



Flexibility of Use

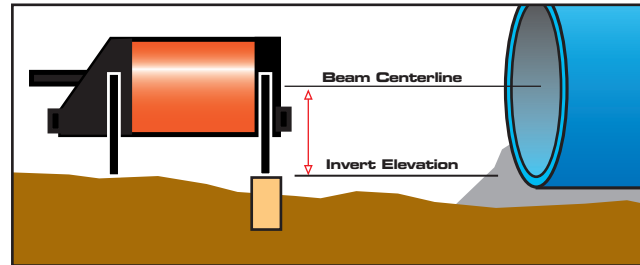
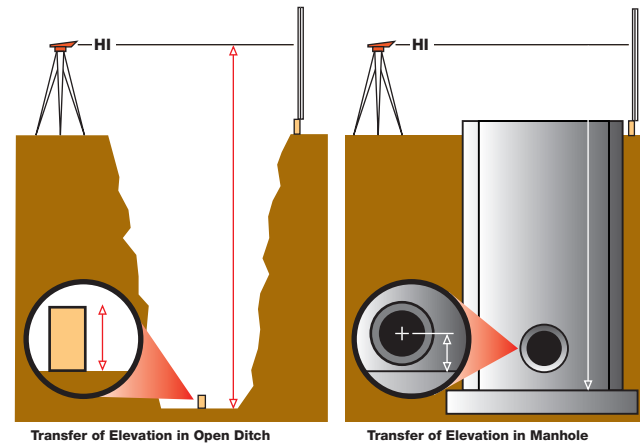
UNIQUE SLIDE LEG SYSTEM

Our adjustable "Slide Leg System" provides maximum flexibility in setting the GradeLight 2500 height. One set of legs enables the operator to set centerline in 8", 10", and 12" pipe. (No need for separate legs for each pipe size.) The slide legs can also be quickly and easily adjusted to non-standard heights.

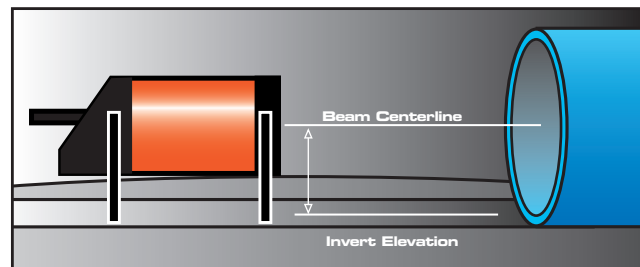
The 3-leg configuration is the easiest, quickest and most stable in actual jobsite conditions. The GradeLight 2500 3-leg configuration, like a tripod, provides the ability to setup on uneven, rough surfaces.

- Built in legs for 6" (150mm) pipe.
- **Figure A:** In-pipe setup or prepoired inverts Centerline 8", 10" and 12" pipe. (200, 250, and 300mm pipe)
- **Figure B:** Open ditch on stake set to elevation or other reference.
- **Figure C:** Optional Long Legs to set centerline in 15 to 24" pipe.
- **Figure D:** Optional 4-legs for unusual applications.

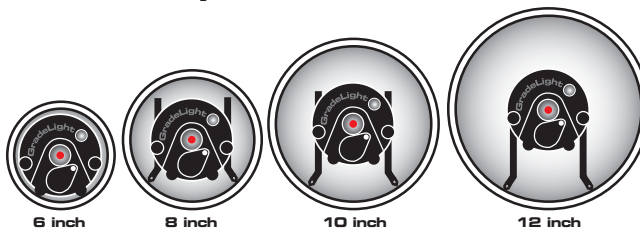
Transfer of Elevation



Setup in Ditch



Setup in manhole invert



Optional four leg configuration.



Flexibility of Setup

- A. Graduated Rod**
Comes in 2.5 and 5 foot sections that are secured together with slotted locking screw.
- B. AGL Special Transit**
- C. Adjustable Manhole Crossbrace**
30 - 54" Standard. Additional sections can be added.
- D. Trivet with Height Adjustable Rod**
- E. Spotting Scope**
Large viewing field with red filter makes this scope the best! Seeing is believing — Try it!



Rod & Crossbrace

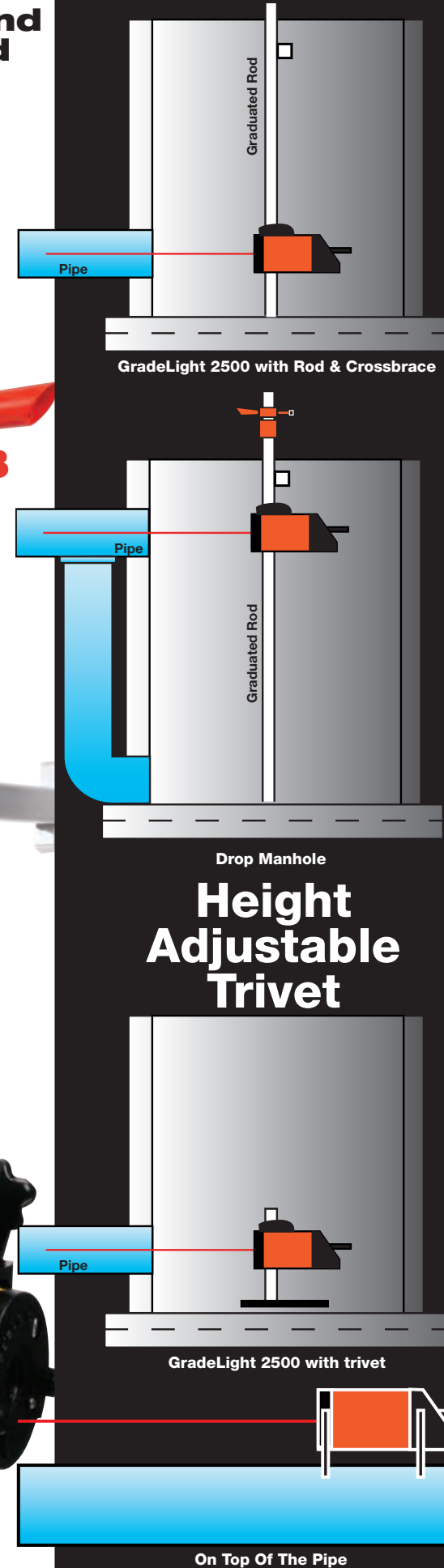
Allows GradeLight 2500 to be set at any height on graduated rod. Also provides a bullet proof alignment system.



Trivet and Height Adjustable Rod



Rod & Crossbrace



AGL Alignment Methods

AGL Special Transit

Use the AGL Special Transit to lower setup time plus improve the accuracy of alignment. The AGL Special Transit has two unique design features that make it superior to standard optical instruments

- **Tilt-Block Design** - Allows the AGL Special Transit line-of-sight (vertical cross-hair) to be quickly and accurately positioned on the desired line of travel for the laser. (Eliminates crossing error found with conventional transits)

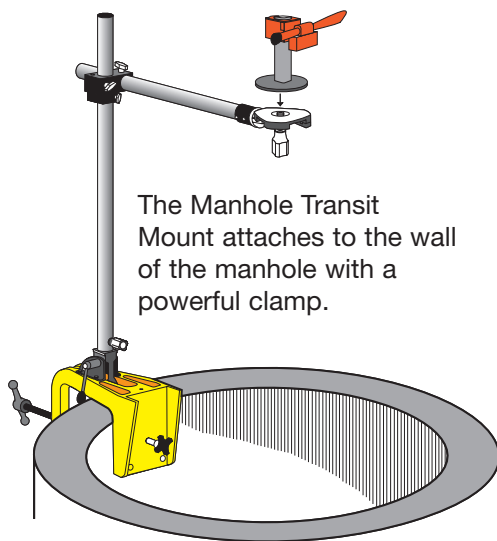
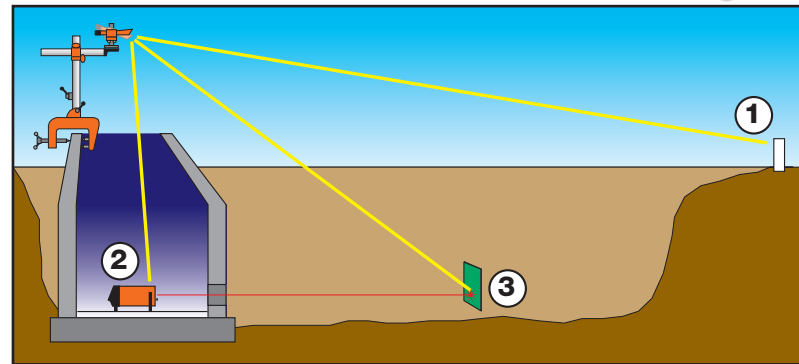
- **“Plunge-to-GradeLight 2500”** - Allows the operator to quickly and visually, find and adjust the transit crosshair to the green LED centerline of the GradeLight 2500. (Standard optical alignment requires the use of optical plummets or swaying plumb bobs.)

Set the Special Transit roughly on line over the GradeLight 2500™ using either the Rod & Cross Brace or the Manhole Clamp.

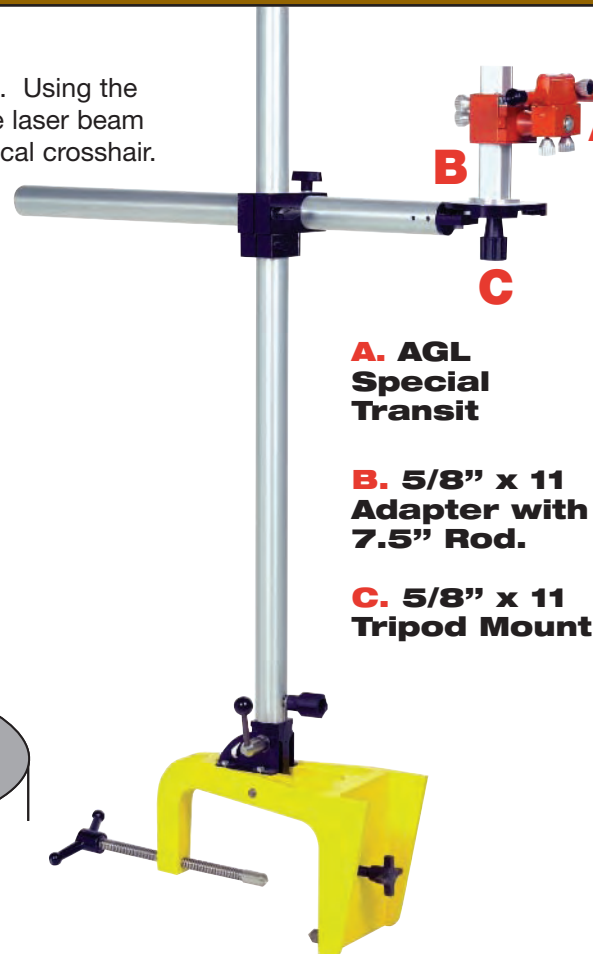
1. Rough align the Special Transit to the forward manhole center and adjust (left/right) the vertical crosshair using the designated fine adjust knob on the transit.

2. Tilt the transit downward, pointing at the GradeLight 2500™, and adjust (left/right) the vertical crosshair to the green centerline LED on top of the laser.

3. Tilt the special transit to roughly intersect the laser beam hitting in the end of the ditch. Using the GradeLight 2500 remote, adjust the laser beam (left/right) until it intersects the vertical crosshair.



The Manhole Transit Mount attaches to the wall of the manhole with a powerful clamp.



A. AGL Special Transit

B. 5/8" x 11 Adapter with 7.5" Rod.

C. 5/8" x 11 Tripod Mount



Lasers for Pipe Jacking and Tunneling

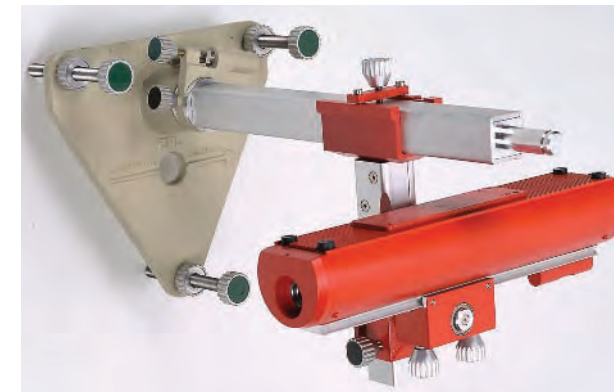
AGL also offers specialty lasers for tunneling, mining, pipe jacking, and boring: the GradeLight 2500C and the SLB110.



The GradeLight 2500C is a compact version of the GradeLight 2500. The On-Board Battery is eliminated to provide a shorter instrument for tight spaces or inverts. Requires 12 volt DC power.

GradeLight 2500C

Reduced length of GradeLight 2500C: 8.5" (21.5 cm) without handle



SLB110

The SLB110 is a compact, ruggedly built laser transmitter with a visible beam. A universal mounting bracket allows 360° positioning of the beam with tangent screw accuracy.

Ideal for aligning conveyors, cables, tracks and other fresh air applications.



SLB110 tilting base package

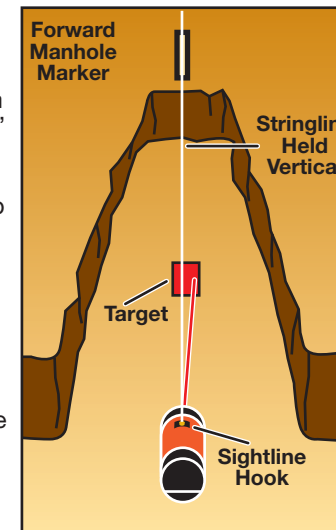
SLB110 with optional mounting plate and 15" rod

- Power source: 12V DC battery
- Easy to install on tunnel walls with alignment base plate
- Targets mounted on same base so forward movement is easy

Additional Method for Aligning the Beam

Sight Line Method

Place a target in the ditch about 50' from laser. Hold a "string" line attached to the Sight Line Hook vertically and line up with forward manhole marker. Using the remote, move the beam until it is split by the string. When the forward manhole marker, beam, and string are lined up, you are ready to work.



Accessories

Targets



Clip-in Targets are designed to fit 6, 8, 10, and 12" pipes.

Two-panel adjustable target has 1 stand and 2 inserts.



Above Ground Target

AGL's durable pipe targets have a special coating that enhances the already bright beam emitted from the GradeLight 2500, 2500C and 2100.

Power Options



Universal AC Charger: 100 - 240 VAC to 6 VDC



12 VDC to 6VDC Cable with Clamp Connectors



12 VDC to 6VDC Cigar Plug