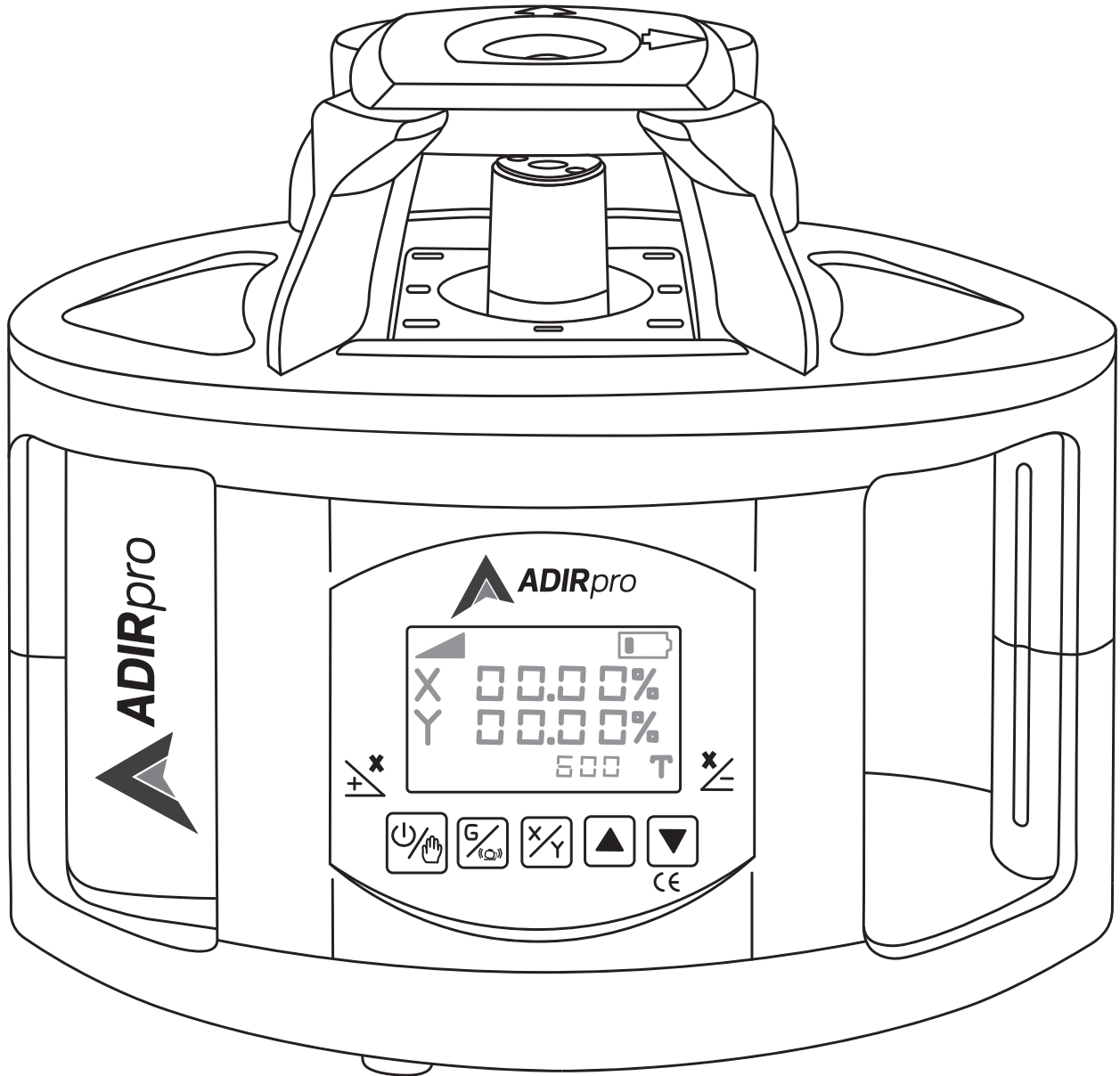


AdirPro DUAL GRADE LASER



USER GUIDE

ADI790-90



Thank you for your purchase.

.....

AdirPro is known for its quality products in the construction industry, all manufactured to the highest standards.

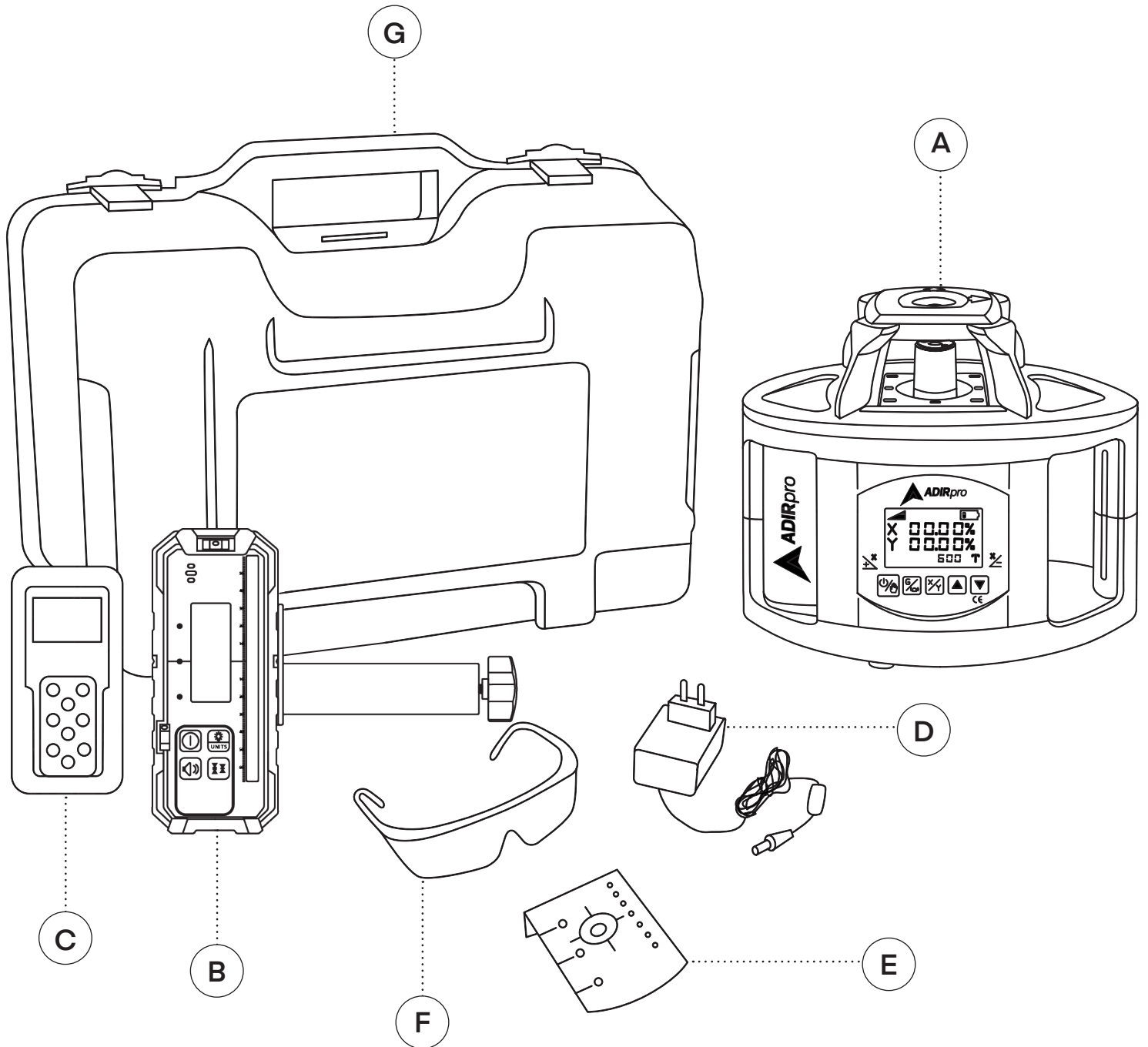
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We strive to help you complete your project in the most reliable, safe, and cost-effective manner. We deliver everything with accuracy you can count on so your team can count on you.

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Included Items With Purchase

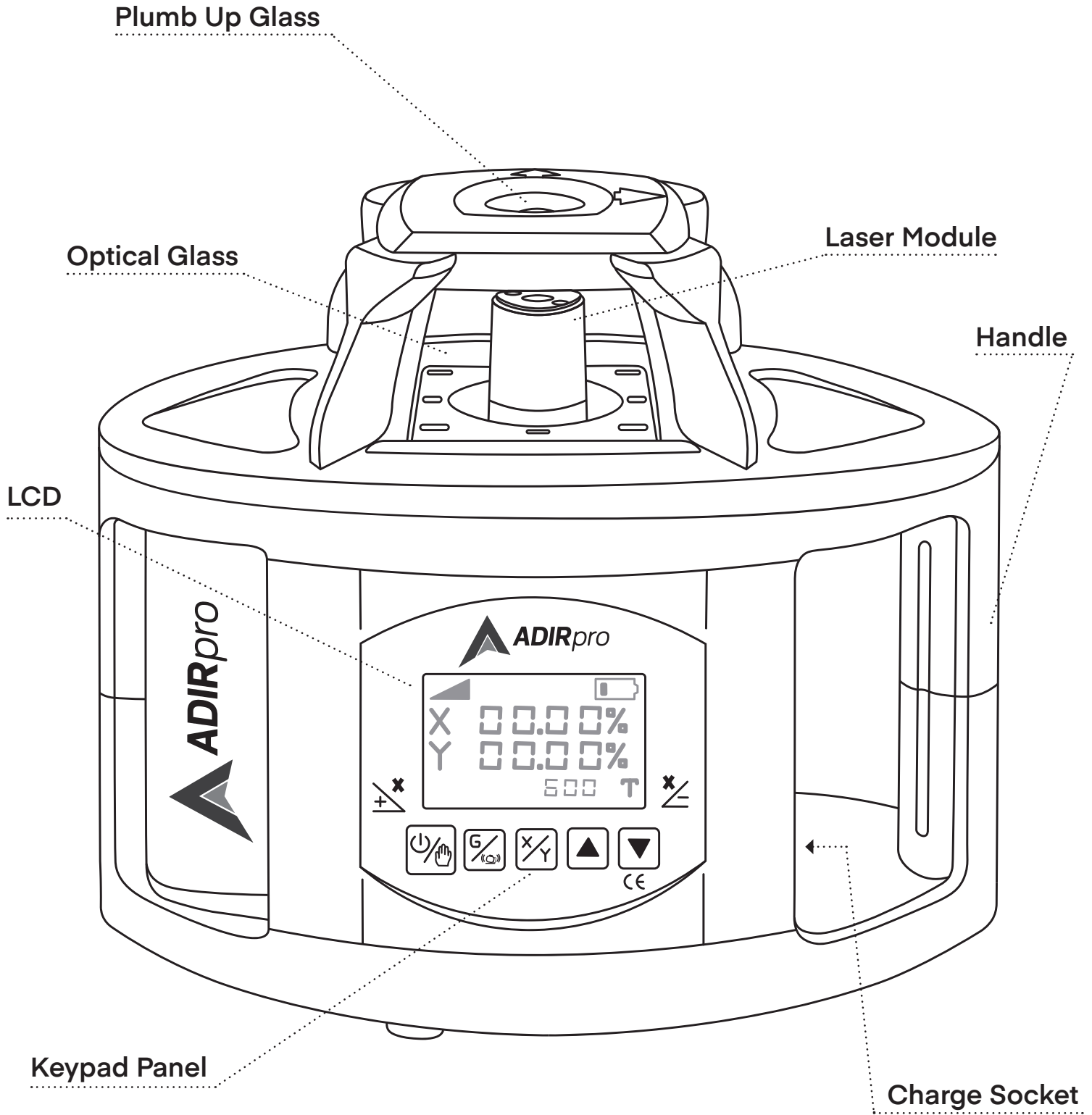


- A.** Dual Grade Laser
- B.** Laser Line Detector and Bracket
- C.** Wireless Remote Control
- D.** Li-ion Battery Charger
- E.** Laser Plate
- F.** Glasses
- G.** Hard Case with Foam Insert
- H.** Li-ion Battery Pack 7.4 V 4000 mAh

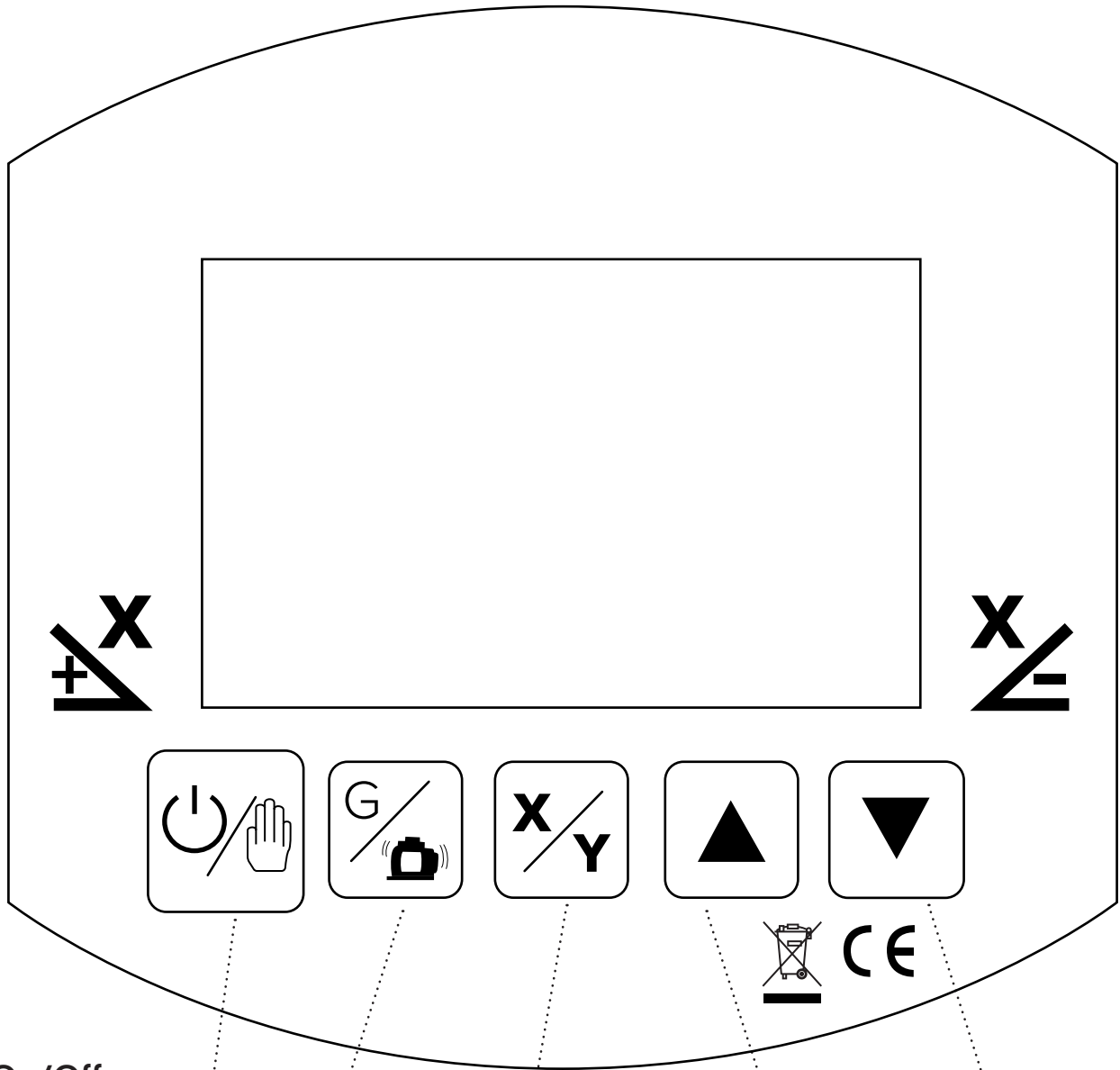
NOTE:

Contact your supplier if any of the above parts are missing.

Navigating Your Dual Grade Laser



Control Panel



On/Off
Automatic/Manual

Grade
Mode

X/Y Axis Switch

Increase

Decrease

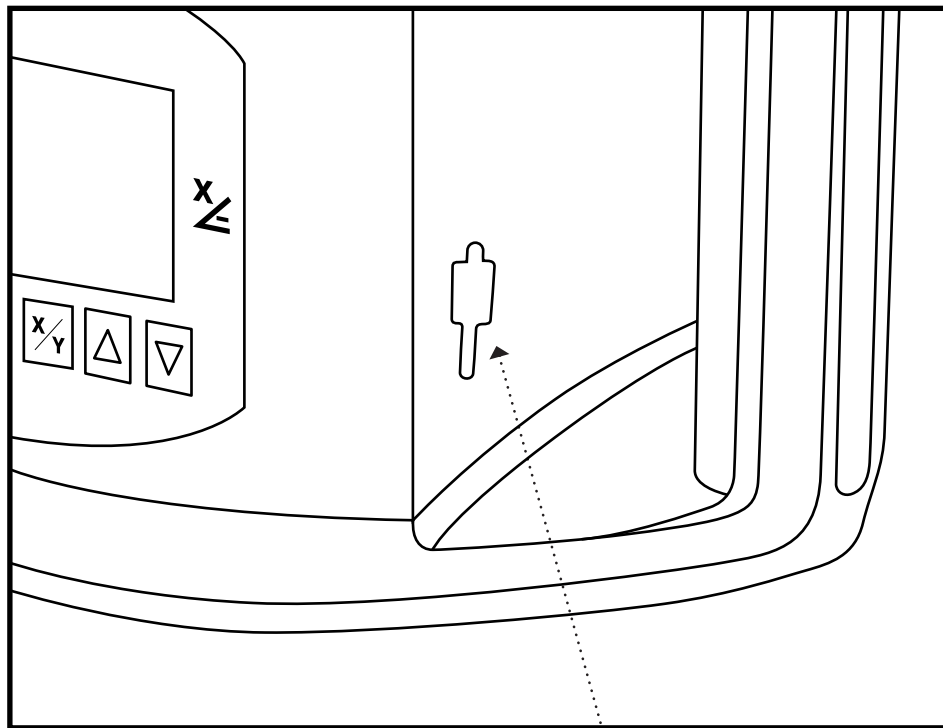
Getting Started

Charging Battery:

- A. Insert the charger into the mains and the charging socket into the instrument or the battery pack.
- B. Turn on the power.
- C. The charger will show one of the three modes.
 - **Red Flashing Light:** Battery Not Charging
 - **Red Light:** Battery Charging
 - **Green Light:** Battery Charged
- D. If the red light illuminates, wait for the charging to complete.
- E. If the light is flashing, check the connection.
- F. When the green light illuminates, your laser is fully charged.
 - a. It will typically take 7 hours to fully charge.
 - b. Once fully charged, you will have 35 hours of use.

NOTE:

The instrument normally comes with some charge in the battery; however, it is recommended that before initial use the battery is fully charged.



Charge Socket

Setting Up In Horizontal Mode:

- A. The instrument should be attached to the tripod using the screw that inserts into the underside of the instrument.
- B. The instrument will only self-level if it is set up within 5° of the horizontal.
 - a. If the instrument appears level by eye, then it should be within this range.
 - b. Using the horizon as a datum will help with this assessment.
 - c. If the instrument looks tilted, then adjust the tripod to suit.

NOTE:

The laser should be set on a solid base, ideally a tripod.

Horizontal Leveling:

- A. Set up the instrument as described in **Setting Up In Horizontal Mode**.
- B. Press the green button on the bottom left-hand side of the panel.
- C. The instrument will auto-level and start spinning, giving a horizontal beam.

Sloping Leveling:

- A. Set up the laser to work horizontally as described in **Horizontal Leveling**.
- B. Press the "G" button to get the "X" value flashing on the screen.
- C. Use the + and – buttons to achieve the required gradient in the "X" direction.
 - a. The "X" direction is parallel to the screen/digital panel.
- D. Press the "X/Y" button to get the "Y" figure flashing.
- E. Use the + and – button to get the required gradient in the "Y" direction.
 - a. The "Y" direction is at the right angle to the screen/digital panel.
- F. Press the "X/Y" button again so that neither the X or Y letters are flashing.
- G. After a few seconds, the instrument should start counting up to the preset values.
 - a. Once the values are reached, the laser will start to rotate again.
- E. If the laser is disturbed by an impact, an audible alarm will sound to indicate the laser may have moved.
 - a. The instrument should be checked to see if it has shifted position.
 - b. If the instrument remains in the same position, push the "X/Y" button and the unit will restart, and return to the grade previously set.

Vertical Lines:

- A.** To obtain vertical lines, first complete the steps described in the **Sloping Leveling** section, press the green button on the bottom left hand of the panel.
 - a.** The instrument will auto-level and start spinning, giving a vertical beam.

Other Functions:

NOTE:

All other functions can be operated through remote control.

Scan Mode

- A.** The scan mode is to be used when you want the beam focused on a smaller range.
- B.** Press the Scan Button for a single point.
- C.** Press the same button to get angles of approximately 10°, 45°, 90°, and 180°.
- D.** To change the direction of the point/scan, you can press the + or – button to move the direction in the beam is pointing.

Speed Control

- A.** To change the speed of the rotating beam, press the Hare/Tortoise Button.
- B.** Speeds of 120 rpm, 300 rpm, and 600 rpm can be obtained.

Plumb Up and Down Beams

- A.** The laser has both a plumb up beam and a plumb down beam.
- B.** These will be vertical when the instrument is set up as Page 6.
- C.** The spots cannot be picked up by a detector and must be vertically located.

Automatic Drifts System/Tilt

- A.** This will warn you if your device is misaligned.
- B.** When the instrument is in this mode, there will be a signal on the LCD display to alert you that the position of the instrument has changed.

The Detector

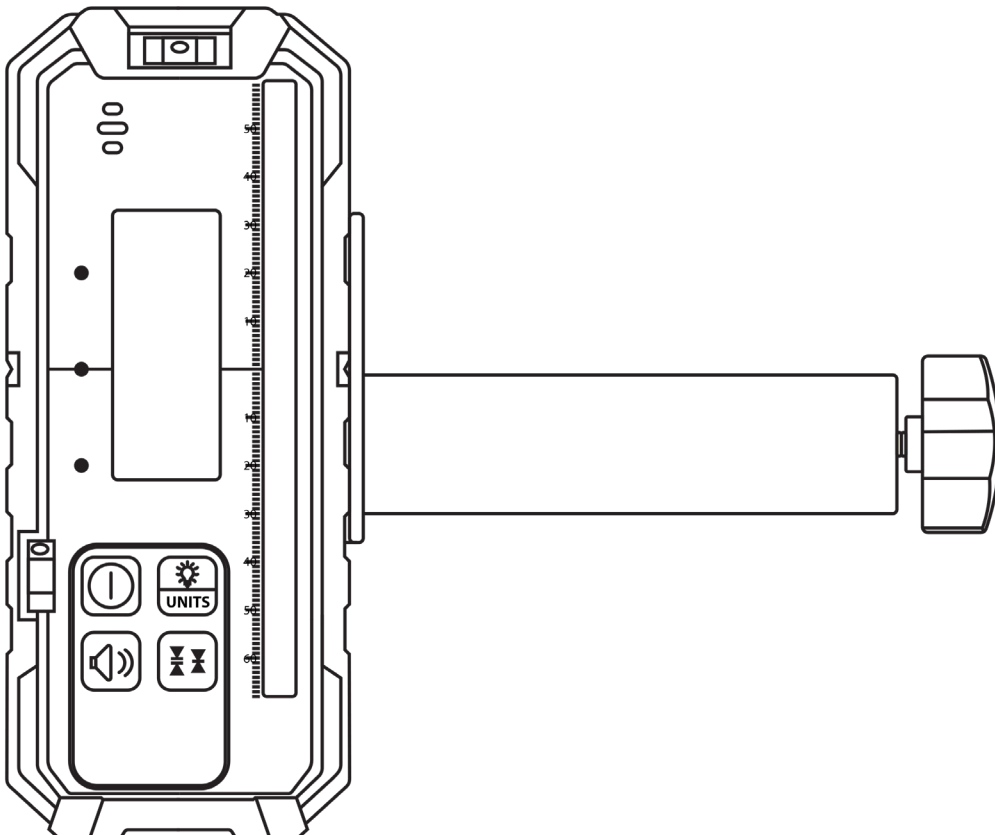
The detector has 4 buttons:

1. **ON/OFF Button**
2. **Sound Button:** Three Settings – HIGH, OFF, and LOW
3. **Units Button:** Illuminates the background, and you can switch the unit from millimeters to inches.
 - a. Hold the key for 3-4 seconds to turn on the background light.
4. **Accuracy Button:** When turned on, the default accuracy is on, starting at the highest accuracy.
 - a. Click the button to switch between high, middle, or rough accuracy.

- A. When the detector is too high, a slower beep will be emitted.
- B. When it's too low, a fast beep will be emitted, and a continuous pitch will sound when it's at the same level as the beam.
 - a. At this point, the center of the detector is in the same alignment as the beam.
- C. To get accurate results, use the spirit bubble to keep the detector level.
- D. The detector is powered by 4 x AA batteries.

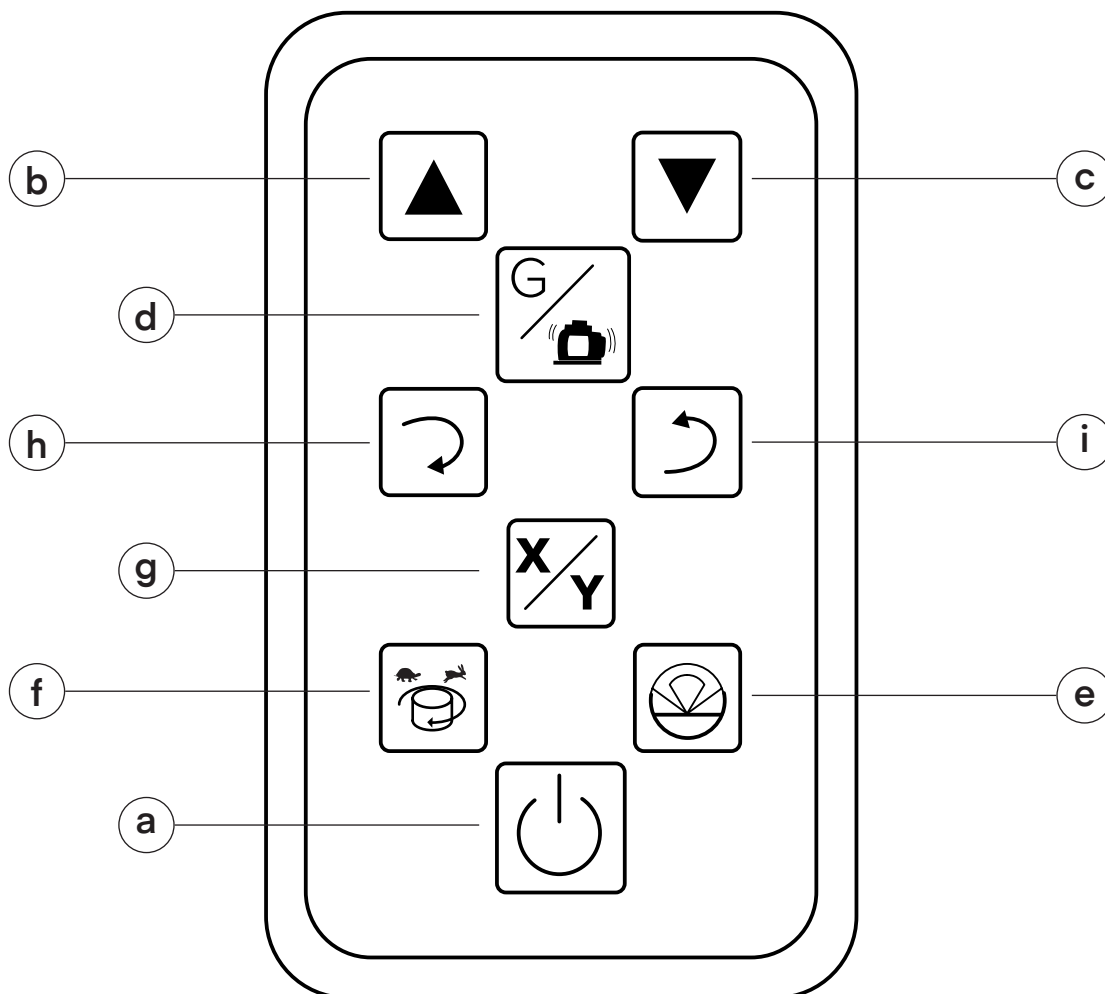
NOTE:

The detector will pick up a spinning beam when it crosses the electronic sensor window



The Wireless Remote Control

- A.** Due to its wireless technology, the wireless remote control will work to a distance of approximately 100m.
- a. It is ideal for adjusting the instrument while at the same time not disturbing it.
- B.** It is powered by two 1.5 V, 2 x AAA batteries.
- a. Power Button.
 - b. (+) Increase.
 - c. (-) Decrease.
 - d. ("G") Grade Button/Tilt Alert.
 - e. Scanning Mode Button.
 - f. Rotational Speed Button.
 - g. X/Y Axis Switching.
 - h. Clockwise Rotation Button.
 - i. Anti-clockwise Rotation Button.



Troubleshooting

1. Check that the batteries are installed correctly with the + and – in the correct orientation.
2. Check the power rating of the batteries to ensure they are correct – particularly if you are using rechargeable batteries.
3. Use the charger supplied with the instrument.
 - a. While similar charges may fit the instrument socket, they may not be charging the batteries if the rating is not correct.

NOTE:

The majority of problems that occur arise from the power source.

Specifications

Level Accuracy: $\pm 15''$ ($\pm 0.07''$ @ 100ft) / ($\pm 2\text{mm}$ @ 30m)

Level system: Electronic sensor fast leveling

Slope accuracy: $\pm 0.39''$ @ 32.80ft / ($\pm 10\text{mm}$ @ 10m)

Slope Range: $\pm 10.00\%$

Automatic Self-leveling Range: 5°

Laser Source: Visible Laser Diode 635nm

Classification: Class 2 Output Power < 1mw

Operation range: 1,968.5 ft (500m) dia. with detector

Rotational Head Speed: 60, 120, 300, 600RPM

Approximate Scan Angles: 10° , 45° , 90° , 180°

Wireless Remote Control Available Remote Distance: 328.08 ft. (100m)

Operation Temperature: -20°C ~ $+50^\circ\text{C}$ (-4°F ~ $+122^\circ\text{F}$)

Power Supply: 7.4V 4000mah Li-ion Battery

Continuous Working Time: Approximately 35 hours

Waterproof and Dustproof: IP65

Dimensions: 7.28" x 6.3" x 6.3"

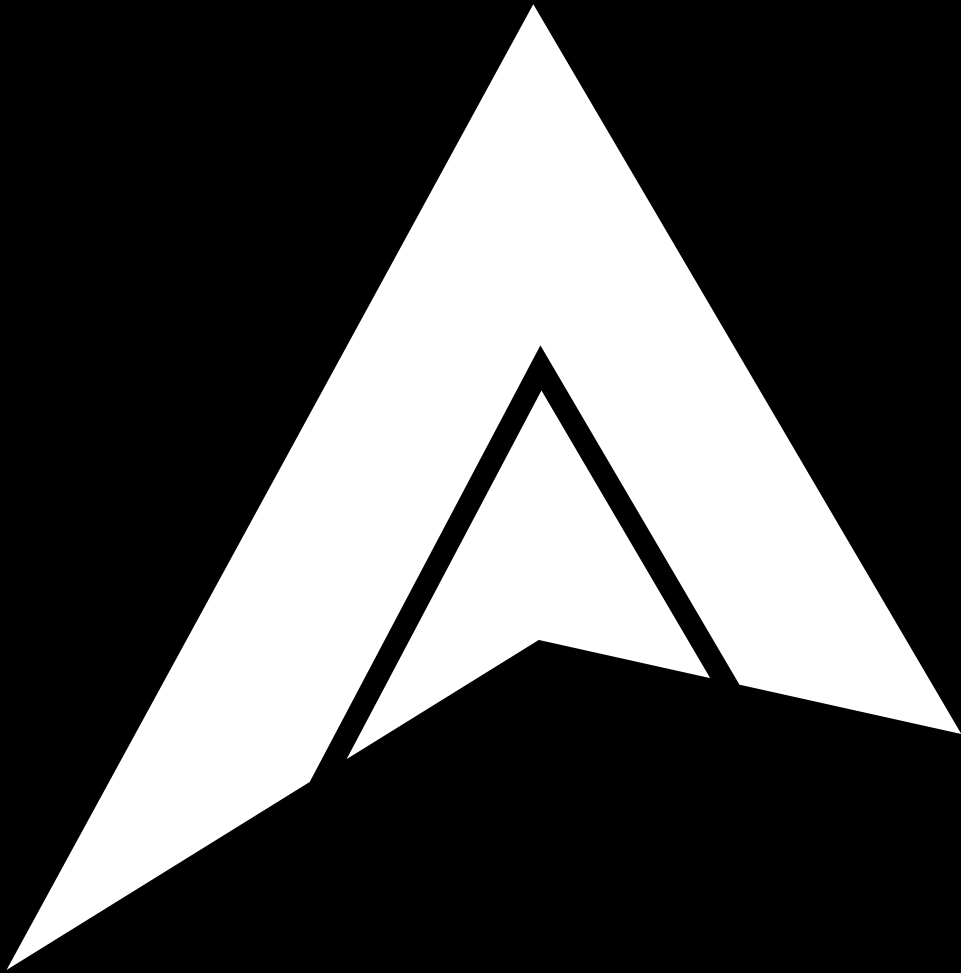
Weight: 6.17 lb

Warnings and Precautions

- While the instrument is in operation, be careful to avoid exposing your eyes to the laser beam for long periods of time.
 - A long exposure may be hazardous to your eyesight: the laser beam is equivalent to a Class 2 laser.
 - Try to set the instrument at a height that is above eye level.
 - This will help avoid accidental exposure to the beam by both the user and passersby.
- When the instrument is not in use, remove the batteries to avoid internal damage.
 - Do not try to repair the instrument yourself.
- Have it repaired by an authorized professional.
- When setting up the instrument on a tripod please ensure that the tripod is placed firmly on/into the ground, that the tripod legs are securely fastened and that the instrument is securely screwed to the top of the tripod.
- The instrument should not be used or stored in temperatures of about 50°C or below -20°C.
- Store the instrument inside its carrying case and away from moisture, dust, and vibration.
 - Do not store it in the back of your vehicle.
- Avoid sudden changes in temperature.
- Allow the instrument to acclimatize before use.
- Transport the instrument in its carrying case and always handle with care.
- Please follow the instructions given in this manual.

Warranty

1. Adir Corp (the "Company" or "Tiger Companies") warrants to the purchaser that the product will be free from defects in workmanship and materials for a period of 1 year from the date of purchase. The warranty period is not extended if we repair, replace, exchange, or provide a refund for the product (as determined in our sole discretion). We may change the availability of this limited warranty at our discretion, but any changes will not be retroactive.
2. These warranties are not assignable or transferable to any other person, including, without limitation, any subsequent owner or other transferee of the product.
3. This Warranty does not apply to: (a) damage caused by misuse, tampering, abuse, neglect, or accident; (b) damage caused by improper installation, modification, or service; (c) alteration of the serial number; or (d) use that violates the instructions furnished by the Company will void this warranty.
4. The sole responsibility of the Company shall be limited to (a) the repair or replacement (in its sole discretion) of any component of the product which fails to conform to this; (b) a refund the purchase price of such product (in its sole discretion), at no cost to the purchaser for the period of the warranty, or (c) an exchange for a similar product, comparable in function and price.
5. Contact the Company directly at 1-(800)-805-1790 to obtain service under this warranty. If it becomes applicable to send a defective product to the Company, a Return Authorization Number must first be obtained from the Company. In order to obtain service under this warranty, purchaser may be required to provide the Company with the following items (a) proof of purchase, (b) photographs and or videos (of the damage, and (c) a written testimonial describing the defect.
6. Products shipped without prior Return Authorization and Return Authorization Number may not be accepted, and the Company will not be responsible for their disposition and/or cost of return to the owner.
7. The Company will not assume any responsibility for any loss or damage incurred in shipping and or delivery.
8. The product(s) must be returned within 14 calendar days of receiving the return authorization from the Company and must include the original proof of purchase for the warranty to be honored.
9. Any implied warranties that the purchaser may have are limited to the duration of the warranties described above. There are no further warranties that extend or apply beyond the face hereof, and the Company expressly disclaims and excludes any and all warranties of merchantability or fitness for a particular purpose. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.
10. THE REMEDIES DESCRIBED ABOVE ARE YOUR SOLE AND EXCLUSIVE REMEDIES AND THE COMPANY'S ENTIRE LIABILITY FOR ANY BREACH OF THIS LIMITED WARRANTY. OUR LIABILITY SHALL UNDER NO CIRCUMSTANCES EXCEED THE ACTUAL AMOUNT PAID BY YOU FOR THE DEFECTIVE PRODUCT, NOR SHALL WE UNDER ANY CIRCUMSTANCES BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL OR PUNITIVE DAMAGES OR LOSSES, WHETHER DIRECT OR INDIRECT. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATIONS OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE LIMITATION MAY NOT APPLY TO YOU.
11. This warranty gives you specific legal rights, and you may also have additional rights which vary from state to state.



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