

Laser Distance Meter

User Manual



Contents

1. Use of the instrument.....	1
2. Start-up.....	5
3. Menu Functions.....	6
4. Operation.....	7
5. Measuring.....	8
6. Functions.....	9
7. Appendix.....	10
8. Technical Data.....	11
9. Measuring Conditions.....	12
10. Accessories.....	13



Congratulations on the purchase of this product. Carefully read the safety instructions and the user manual before using this product. The person responsible for the instrument must ensure that all users understand these directions and adhere to them.

Safety Instructions

Symbols Used

The following symbols are used to distinguish precautions by the degree of injury or damage that may result if the precaution is ignored.



Warning



Caution: Important paragraphs, which must be adhered to them.

1. Use of the instrument

- a) Press  to switch on the device. The laser beam emits from the front of the meter.
- b) Press  again to measure the distance. The results will show on the screen.

Cautions:

- Do not look straight at the laser beam
- Do not use the device in flammable and explosive environments
- Remove the batteries to avoid leakage if the device is not to be used for a long period of time

Care

Wipe off dirt with a damp, soft cloth or a clean cloth moistened with alcohol. Be careful with the optical components (such as optical lens): wipe with a clean soft cloth or cotton swab moistened with distilled water (same as cleaning glass or camera lens). Do not use aggressive cleaning agents or solutions.

Permitted use

Measuring distances, areas and volumes

Prohibited use

- Using the instrument without instruction
- Using outside the stated limits
- Deactivation of safety systems and removal of explanatory and hazard labels.
- Opening of the equipment by using tools (screw drivers. etc.), as far as not specifically permitted for certain cases.

- Carrying out modification or conversion of the product
- Use of accessories from other manufacturers without the approval of our company.

Limits of use

See section “Technical Data”

Responsibilities of the person in charge of the instrument

Warning:

The person responsible for the instrument must ensure that the equipment is used correctly and is responsible for training and safety of the equipment when in use. The person in charge of the instrument has the following duties:

- To understand the safety instructions of the product and the instructions in the user manual.
- To be familiar with local safety regulations relating to accident prevention
- To inform local dealer immediately if the equipment becomes unsafe.

Hazards in use

Caution:

Watch out for incorrect distance measurements. If the instrument is defected or if it has been dropped or has been misused or modified.

Precautions:

- Carry out periodic test measurements, particularly after the instrument has

been subject to abnormal use, and before, during and after important measurement.

-Make sure the optics are kept clean and undamaged

 **Caution:**

If the instrument is used for positioning moving objects (e.g. cranes, building equipment, platforms, etc.) unforeseen events may cause invalid measurements

 **Warning:**

Flat batteries must not be disposed of with household waste.

The product must not be disposed of with household waste.

Take them to the collection points provided in accordance with national or local regulations.

Electromagnetic compatibility (EMC)

The term "electromagnetic compatibility" means the capability of the product to function smoothly in an environment where electromagnetic radiation and electrostatic discharges are present, and without causing electromagnetic interference to other equipment.

 **Warning:**

The product conforms to the most stringent requirements of the relevant standards and regulations. Yet, the possibility of it causing interference in other devices cannot be totally excluded.

 **Caution:**



Never attempt to repair the product yourself. In case of damage, contact

the local dealership.

Laser classification

Integrated distance meter

This product produces a visible laser beam, which emits from the front of the instrument.

It is a class 2 laser product in accordance with:

IEC60825-1:2007 “Radiation safety of laser products” laser class 2 products:

Do not stare into the laser beam or direct it towards other people.



Warning:

Looking directly into the beam with optical aids (e.g. binoculars telescopes) can be hazardous.

Precautions:

Do not look directly into the beam with optical aids.



Caution:

Looking into the laser beam may be hazardous to the eyes.

Precautions:

Do not look into the laser beam. Make sure the laser is aimed above or below eye level.

2. Start-up

2-1 inserting/replacing batteries

- 1). Remove battery compartment lid and attach hand strap
- 2). Insert batteries
- 3). Close the battery compartment

 Replace the batteries when the  symbol flashes permanently in the display.

 Remove the batteries when the meter is not going to be used for a long period of time to avoid the danger of corrosion

 Only use alkaline or rechargeable batteries

3. Menu Functions

3-1. Changing unit of measurement

Press  to turn the meter on and press and hold  for a while to change the unit of distance measurement. The following units are available: m (meter), ft (feet), in (inch), ftin (feet-inch 1/16) or ruler

3-2 Turn on the laser

To turn the laser on, press  button.

Aim the laser at a target and press  button again. Display shows measurement result.

Press  button to clear the measurement and turn the laser off.

3-3 Screen Change

Press   together to change the direction of the screen display

4. Operation

4-1 Switching the meter on/off

Press  to turn the instrument and laser on. The display shows the battery symbol until  is pressed again.

Press and hold  button to turn the instrument off

The instrument switches off automatically after three minutes of no activity.

4-2. Clear Button

Press  button to cancel the last action. While making area or volume measurements, each single measurement can be deleted and re-measured in succession.

4-3 Reference Setting

The default reference setting is from the rear of the instrument. Press



the display will show you . Press  button, will measure the

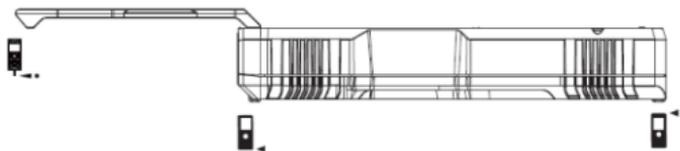
reference edge fixed to the front. The display will show you .

Press the  button, the rear reference is set again.

Press the two arrowed button on the base of the meter to pull out the belt buckle and turn it the other way round to extend the length of the device, you

can measure from the corner. Press this button , a measurement will be

extended along as the reference edge, the display will show you .



5. Measuring

5-1 Single Distance Measurement

Press  to activate the laser. Press  again to trigger the distance measurement. The result is displayed immediately.

5-2. Continuous Measurement

Press and hold down  button for 2 seconds to make continuous measurements. Press  again to stop continuous measurement.

6. Functions

6-1 Area

Press  once to enter into area mode.

Press the  button to take the first length measurement (e.g. length).

Press  again to take the second length measurement (e.g. width) . The result is displayed in the summary line.

6-2 Volume

Press  button twice to enter into volume mode.

Press  button to take the first measurement (e.g.length).

Press  button to take the second measurement (e.g.width)

Press  button to take the third measurement (e.g.height)

The volume result appears in the summary line.

7. Appendix

7-1 Message Codes

Icon	Cause	Solution
	Calculation error. Signal is too weak or too strong, or measurement time is too long.	Reoperation, change to a better surface or use a target plate
	Ambient light is too strong	Change the light for measuring
	Temperature is too high (+40 °C) or too low (0 °C)	Cool down or warm up the instrument. This instrument works best at temperatures between 0 °C to +40 °C

	<p>Hardware error</p>	<p>Switch on/off the instrument several times. If the symbol still appears, then your instrument may be defective. Please call ATP Instrumentation Ltd for assistance.</p>
---	-----------------------	--

8. Technical Data

Measuring Range	0.05~30m
Measuring Accuracy	±2mm
Display Accuracy	1mm
Laser Classification	Class 2
Pollution Degree	2
Laser Type	620~690nm,<1mw 0.16x0.6 mrad,0.25s
Area, Volume Measuring	yes
Continuous Measuring	yes
Show Beep	yes
Protection against splashes and dust	IP54
Temperature range for operation	0~40 °C
Temperature range for storage	-20~70 °C

Battery Life	5000 Measurements
Battery Selection	LR3(AAA)2x1.5v
Laser Switch-off Automatically	After 30 seconds
Instrument Switch-off Automatically	After 3 minutes
Dimensions	118*37*25mm
Weight	70g
Max Operating Altitude:2000m: Max Relative Humidity :0~95%	

Remarks: Measurement could reach 10 m in good conditions (good measurement surface, room temperature).Under adverse measuring conditions, such as the light is too strong, the measured surface reflective weakly or the temperature difference is too large, or the deviation over distance above 10m will increase on ± 0.2 mm/m.

9. Measuring Conditions

9-1 Measuring Range

The range of this meter is limited to 30m, at night or dusk and if the target is in shadow, the measuring range without target plate is increased. Use a target plate to increase the measurement range during daylight or if the target has poor reflection properties.

9-2 Target Surfaces

Measuring errors can occur when measuring toward colorless liquids (e.g.

water) or dust free glass, Styrofoam or semipermeable surfaces. Aiming at high gloss surfaces may deflect the laser beam and lead to measurement errors. For non-reflective and dark surfaces the measuring time may increase. -if the equipment is used in a manner not specified by the manufacture, the warranty will be invalid

Care

Do not immerse the instrument in water. Wipe off dirt with a damp, soft cloth. Do not use aggressive cleaning agents or solutions. Handle the instrument as you would a telescope or camera.

Warranty

This instrument comes with a one-year warranty. If it is not used correctly via this manual, the warranty will be invalid

10.Accessories

- 1) User's manual
- 2) 1.5V AA × 2 battery

