

KILLER TOOLS & Equipment Corporation

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ART90 Series Laser Distance Meter User Manual

Introduction:

Please read the safety instructions and user manual carefully before use to avoid risks such as hazardous laser radiation or electric shock. The person responsible for this device must ensure that all users understand and follow these guidelines.

Safety Instructions:

1. This is a Class II laser device. DO NOT stare directly into the laser beam.
2. Be aware that the tram conducts electricity, and you should be careful not to extend the tram into electrical power wires.
3. DO NOT look at the beam through optical devices (e.g., binoculars, telescopes).
4. DO NOT remove safety labels from the product.



Powering On/Off:

Press the **ON** button to turn on the device. The **default** mode is single measurement, with rear reference and metric units. See Figure A.

Long-press **C/OFF** to turn off the device. The laser switches off automatically after 30 seconds, and the device powers off after 3 minutes of inactivity. The laser maintains memory after being switched off.

Changing Measurement Reference: The default reference point is the rear edge. Press the **REF** button to switch the reference point between rear and front edge.



Clear Button: Press **C/OFF** to clear the last command or data displayed.

Unit Conversion: The default unit is meters. Long-press the **UNITS** button to switch between units.

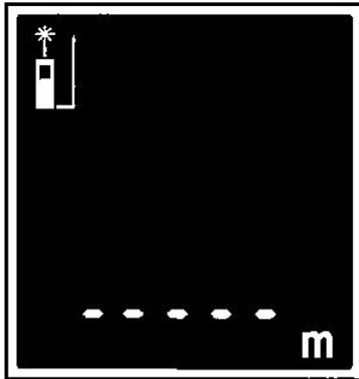
Single Measurement: With the device powered on, press the **ON** button to activate the laser. Aim at the target and press the **ON** button again to take a measurement. The result will display immediately.

Storing & Recalling Measurements: Measurement data is stored automatically, up to 20 measurements. **Long-press** the **+ -** button to view past readings. The highest memory slot represents the most recent measurement. Use the **+ -** button to scroll through stored measurements, and the **C/OFF** button to clear stored measurements.

Continuous Measurement Mode: With the laser powered on, press and hold the **ON** button to enable continuous measurement. The minimum, maximum, and current values are displayed separately during continuous measurement.

Area, Volume, and Pythagorean Measurement: Pressing the **UNITS** button cycles through measurement modes; Area, volume, and Pythagorean. **These measurements are not needed for tram gauge operation.**

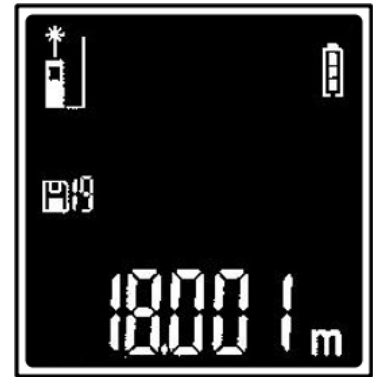
Addition/Subtraction Functions: Press the **+/-** button to switch between + and – modes. + Mode adds the current measurement to the previous result. - mode subtracts it.



Single Measurement



Continuous Measurement



Memory View

Technical Specs: Measuring Range: 0.05m – 100m

Prohibited Actions:

1. Using unauthorized tools to open the device.
2. Submerging the device in water.
3. Cleaning the laser lens with alcohol or any organic solvent.
4. Touching or wiping the laser lens with fingers or rough surfaces.

5. Exceeding the rated DC voltage.

Important:

1. Do not mix old and new batteries; use only alkaline or rechargeable batteries.
2. Replace batteries when the battery symbol flashes.
3. Remove batteries if the device won't be used for an extended period.
4. **Dispose of flat batteries at designated collection points in accordance with local regulations.**

Measuring Accuracy (Standard Deviation): ± 2.0mm

Note: Maximum deviation or reduced range may occur in unfavorable conditions (e.g. bright sunlight, poor reflection surfaces, extreme temperatures). For measurements beyond 10m, accuracy is $\pm 2.0\text{mm} \pm 0.05(D-10)$, where D is the distance in meters.

Units: m, ft, in

Area Units: m², ft²

Laser Type: 620-690nm

Laser Class: Class II, <1mW

Single Measurement Time: 0.25s

Operating Temperature: 0°C to +40°C

Storage Temperature: -20°C to +65°C

Battery Life (per set): >5000 measurements

Battery Type: 2x AAA (1.5V Alkaline)

Weight (without batteries): ~76g

Dimensions (L×W×H): 110*40*25mm