

MTD 130 USER'S MANUAL DISTANCE METER



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I Safely instructions:

- This Unit emits a laser beam which projects a visible Red spot on the target. Do not stare into the laser beam, shine it near yore eyes or the eyes of others.
- Use of controls or performance of procedures other than those specified herein and failure to follow warnings may result in injury.

DANGER)

Warnings:

The power of the emission of the laser beam is less than 5mW in class Illa. Do not remove the label from the unit.

Care and handing

This unit is a precision instrument which must be handled with care.

Avoid dust and water, use a soft cloth to clean the unit.

Avoid shock, vibrations and extreme heat.

Keep the unit clean and dry.

Check the battery regularly to avoid deterioration.

Power off when not use.

Remove the battery if unit is to be stored for a long period of time.

Function:

- 1) Measures in imperial /metric
- 2) Start point selection
- 3) Data store/recall
- 4) Computers areas and volumes
- 5) 5 groups of values in memory.
- 6) Sum of lengths
- 7) Auto/manual shut-off
- 8) LCD backlight
- Key sound, beeps for wrong reading finding and reading confirmation.

II Specification

- 1) Measuring range: 0.5 ~ 16m (1.64 ~ 52.48feet)
- 2) Settings:

Fm / Bm : switch measures from front or rear pf unit.

M / FT: Switch measures in metric/imperial (inside the battery

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compartment).

- Accuracy: ±1%+1 of reading.
 Conditions: 25±5℃,45% ~ 90%RH
- response time: 2sec
- 5) Power supply 9 V battery
- 6) Current consumption: 6.1)Stand- by current: ≦1uA 6.2)Operating current: ≦60mA
- Auto shut-off 100 sec(approx)
- 8) LCD back light :active in 7 sec (approx)
- 9) Operation environment: Temperature: 0~ 40°C Humidity: 45% ~ 90%RH
- 10) Store temperature : -10 ~ 60°C
- 11) Dimension: 20mm×85mm×70mm
- 12) Weight: 192g

III Before operating

Slide off the battery compartment door, connect a fresh 9V alkaline battery to connector, then slide battery compartment back on. Notes:

- For accurate results, choose a target surface that is large, flat and hard.
- Place sufficiently sized piece of card board in front of targets that are too small.
- The unit can not be measured through glass even though the laser beam can pass through
- Choose the units and don't change the units when you have chosen the measure mode.
- When the distance is longer than 12m, the strong wind could affect the accurate.

IV How to use

Power on the meter.

Default graphic on screen shows 0.00m, the measuring begins from the

front side of the unit.

Hold the unit perpendicular and straight to eh target on the wall and

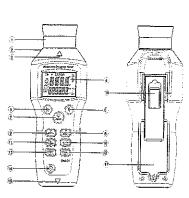
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WI OPERATING INSTRUCTIONS

- open the battery door, install 9V battery properly.
- Press the power key for taking the measurement .LCD
 Back light active for 7 sec, the device build in 100 sec auto power off.
- Select measurement unit: Slide the "FT / M" switch inside the battery compartment to select between metric and imperial reading.
- 4) Select measures start point: press Fm / Bm to change start point .icon " Fm " means measuring from front of unit , icon " Bm " means measuring from rear of unit.
- 5) After 3),4) set-up, point the product to the surface to the measured perpendicularly .Press READ for about 1 sec, then reading the value . If keep holding the READ and moving to take measuring the dynamic reading will show.
- Access to compute area:
 - Press the area key, the unit will work in the area measuring mode. Press READ key reading one of the lengths ,aiming to another direction and press the READ reading the width ,and the same time the AREA value will displaying in the LCD (the area and the volume display place) .
- Accesses to compute volume:
 - Press the Volume key to run into the volume measure mode. Aiming to one direction and press READ key to get the Lengths, aiming to another direction and press READ. To get the width value. Then aiming to the last direction and press READ key to get the height value and the same time the VOLUME value will displaying in the LCD.
- 8) Sum of lengths;
 - When one of the lengths has reading in ,press Sum, then the unit work in the sum mode. Then pres READ for measuring , press READ again ,the sum will output.
 - The SUM function only can be use for LENGTH values operation. In metric the maximum sum is 100m, in imperial the maximum is 100 feet.
- Change reading when measuring :If a reading needs to be confirmed for changes start point before pressing STORE, may

- repress READ for measuring linear distance again.
- 10) Storage of readings:
- 10.1) The device has 5 memory units,5 memory units available for different length ,volumes areas and 5 memory units for sum data storage .those data will be store until press Clear to clear or battery replacement.
- 10.2) Stored data store in memory unit accordingly when all memory unit are occupied , further storage operation will not be implement unless press CLEAR to delete one of memory data
- 11) Recall function:
- 11.1) When data stored, LCD will display M icon. In normal status, press recall to call for memorized lengths/areas/volumes. The memorized data display as follow: When the memory unit only stored linear distance, LCD only display length; when recall memorized areas data, LCD display length, with and area; when recall memorized volumes data, LCD display length, with, height, and volumes.
- 11.2) Recall sum data:
 - After turn on, press recall to display SUM1 to SUM5, The sum data will be showed orderly.
- 11.3) When the memory unit is empty or the data have been deleted, LCD display 0.00m.
- 12). ESC/CLEAR function:
- In operations, after press READ to take measurement ,press ESC/CLEAR to clear the reading on LCD.
- 12.2) Clear memorized data: press the ESC/CLEAR key hold more than 3 sec ,all the data in the memory will be cleared.
- 12.3) When you in other modes(AREA VOLUME ADD), Press ESC/CLEAR, you will operate at Length measuring.
- 13). Measuring continuously:
 - Hold the READ key ,work in the continuously mode.

WI NAME OF PARTS AND POSITIONS



- Ultrasonic sensor aperture
- 2. Laser point
- 3. Front measurement
- 4. LCD
- (FM)Front / base (BM) measurement
- 6. FEET/METER conversion.
- READ key :Pressing or holding to get the value.
- Volume computation Area computation
- 10. Addition
- 11. Escape
- 12. Memory output
- 13. Memory store 14. Power on/off
- Base measurement 15.
- 16. Hook
- Cover

V BATTERY CHECK-UP & REPLACEMENT

- As the battery power is not sufficient, LCD will display low battery, and replacement of one new battery is required.
- After turning off the meter, disconnect the battery cover with a
- Disconnect the battery from the instrument and replace it with a standard 9V battery and go for the cover.

- 1). when icon "" becoming "" indicates low battery power, please replace the battery to prevent imprecision measurement.
- 2). Environmental requirement: Because temperature and humidity in different environment affects the speed of sound. When accuracy is critical make sure ultrasonic range finder provided to be used in environment below: indoors or windless within 0 degree c to 30

degree c, 45% RH to 90 %RH.

- 3). Requirement of measurement: Ultrasonic technology is adopted in this unit so the unit should be hold toward the surface of the subject to measure at a rectangular angle. To assure the accuracy that rectangular angle should be controlled less than +/- 5° deviations. For rough surface subject, this unit can't reach precision measuring stated in this manual.
- 4). Error Symbol
 - When the device out of range or no return signal or no valid reading,-ERROR-symbol will appears on the display with alert bi sound.

DO not point laser directly at eye or indirectly off reflective surface.



For insuring the veracity, you 'd better pay attention to the measure

When the distance is more then 5m, the weigh in the picture is more then 1.5m appropriate; When the distance is more then 10m, the weigh in the picture is more then 2.5m appropriate.