FREEMANS
TEST & MEASURE

LASER DISTANCE METER 40m

WATCH VIDEO

PROECO-L40

www.freemansgroup.com

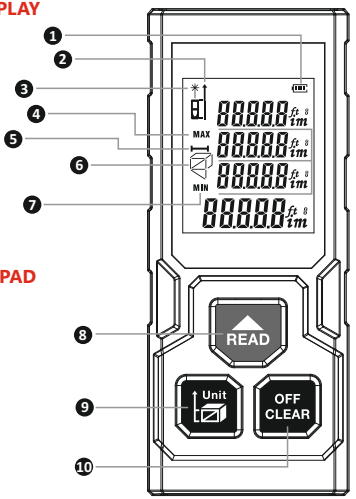
USER MANUAL

FREEMANS
TEST & MEASURE

Nomenclature

DISPLAY

KEYPAD



1. Battery Voltage
2. Reference Point
3. Laser Beam
4. Maximum Measurement
5. Length
6. Area/ Volume/ Pythagorean Measurement
7. Minimum Measurement
8. Switch On/ Take Measurement
9. Switch between Units/ Reference Points
10. Switch Off/ Clear Measurement

Technical Specification

ITEM	PROECO
Working Range	0.05-40m
Precision	(2mm+d*1/10000)*
Continuous Measurement	Yes
Area/Volume Measurement	Yes
Pythagorean Measurement	Yes
Min/Max Value	Yes
Self-Calibration	Yes
Laser Level	Class II
Laser Type	630-670nm,<1mW
Automatically Cut off Laser	20s (Single Measurement)
Auto Power-Off	150s
Battery Life	4000/8000 times (Carbon-Zinc Battery/Alkaline Battery)
Storage Temperature	- 20˚C ~ 60˚C
Working Temperature	0˚C ~ 40˚C
Storage Humidity	20%~80%RH
Battery	2x1.5v AAA
Dimension	104x43x25.5mm

* "d" indicates the actual distance

Cautions

Measurement results may have large errors in extreme environments such as in strong sunlight or where the ambient temperature fluctuates excessively. The same could be experienced if the battery is low. In such conditions, it is advisable to use a reflecting plate.

Buttons

1) READ

a) Short Press READ to switch on the device. Short Press READ again to switch on the laser pointer. The device is now in measurement mode.
Short Press READ to generate a measurement.

2) OFF CLEAR

a) Short Press OFF CLEAR to clear any measurements from the screen.

b) Long Press OFF CLEAR for 3 seconds to turn the device off. The device will shut down automatically with 150 seconds of inactivity.

3) UNIT

a) Click on the READ button to switch off the Laser pointer. With the Laser pointer off, long Press UNIT to switch between different measurement units. You can now take your measurement in a unit of your choice.

	Length	Area	Volume
1	0.000m	0.000 m^2	0.000 m^3
2	0.0 in	0.00 ft^2	0.00 ft^3
3	0.00 ft	0.00 ft^2	0.00 ft^3

4) Ensure the Laser Pointer is on, by clicking the READ button. With the Laser pointer on, long Press UNIT to change the measuring Reference Point. The default Measuring Reference Point is the terminal baseline of the device.

Back Light

The Backlight turns on and off automatically. The backlight stays on for approximately 15 seconds if any key is pressed. In order to save power, the backlight will automatically turn off if there is no activity for 15 seconds.

Key Functions

1) SINGLE MEASUREMENT

a) Short press READ to switch on the device. Short press READ again to switch on the laser pointer. The Laser beam pointer will flash on the display when the laser pointer is on. The device is now in measurement mode. Short press READ to generate a single measurement.

2) CONTINUOUS MEASUREMENT

a) Short press READ to switch on the device. Long press READ to enter continuous measurement mode. The maximum and minimum measured values, along with current measurement value will appear on the display.

b) Short press READ or EXIT CLEAR to exit continuous measurement mode.

3) AREA MEASUREMENT

a) Press UNIT once and a ☐ will show on the screen. The length of the object will flash on the display. Please follow the below instructions for calculating the area of an object:

  a) Press READ once to take the objects length

  b) Press READ again to take the objects width

  c) The device will automatically calculate the area, and the result will display on the screen. The length and width will also be visible.

d) Press OFF CLEAR to clear the most recent result and measure again if necessary

e) Press OFF CLEAR again to exit mode

4) VOLUME MEASUREMENT

a) Press UNIT LOCK twice to enter volume measurement mode. A ▱ will display on the screen. Please follow the below instructions for calculating the volume of an object:

a) Press READ once to take the objects length

b) Press READ again to take the objects width

c) Press READ again to take the objects height

d) The device will automatically calculate the volume, and the result will display on the screen. The length, width and height will also be visible.

e) Press OFF CLEAR to clear the most recent result and measure again if necessary

f) Press OFF CLEAR again to exit mode

5) PYTHAGORAS

There are 2 Pythagoras modes which can be applied for indirect measurement:

1) Calculate one side of the triangle (x) by measuring another side (a) and the hypotenuse (b) (Refer to image 1 above)

a) Short Press UNIT three times to enter Pythagoras mode 1, the hypotenuse of the ◿ will blink

b) Press READ to measure the length of the hypotenuse (a)

c) Press READ to measure the length of the side (b)

d) The device will automatically calculate the length of side (x)

2) Calculate the hypotenuse of the triangle (x) by measuring the length of the other two sides, (a) and (b) (Refer to image 2 above)

a) Short Press UNIT four times to enter Pythagoras mode 2, the length of the ◿ will blink

b) Press READ to measure the length of one side (a)

c) Press READ to measure the length of one side (b) The device will automatically calculate the length of hypotenuse (x)

Caution: The sides of the triangle must be shorter than the hypotenuse or an Error will show on the screen. In order to guarantee the accuracy, please make sure all measurements are started in the order stated on the screen.

Self Calibration

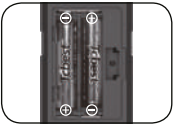
The Self-Calibration function is provided to ensure the precision of the device.

1) When the device is off, Long Press OFF CLEAR and Short Press READ at the same time. 'CAL' and a blinking figure show on the display. This means the device has entered self-calibration mode.
2) At this point, the user can adjust the error by pressing 1 UNIT and OFF CLEAR buttons, depending on the error the instrument is showcasing.
3) The adjustment range is -9~9mm. Long press READ to save the new setting.
   1) For example, the actual distance between points a and b is 3.780m. If the laser distance meter is showing a measured value of 3.778m, 2mm smaller than the actual value, then the calibration value can be increased to 2mm using the 1 UNIT button. Long Press READ to save the setting.
   2) If the actual distance between points a and b is 3.783m, 3mm larger than the actual value, the calibration value can be lowered by 3mm, using the OFF CLEAR button. Long Press READ to save the setting.

Sound Off/On

1) When the device is off, Long Press OFF CLEAR and Short Press READ at the same time. 'CAL' and a blinking figure show on the display. Short press READ to bring up the Sound menu.
2) Short Press 1 UNIT to switch the sound on or off. Short Press READ to save the desired setting.

Battery Installation & Replacement



1) The Laser Distance Meter uses two 1.5V AAA batteries.
2) Open the battery compartment at the back of the device and replace the batteries in the device accounting for the correct polarity.
3) If the Laser Distance Meter is not in use for an extended period of time, kindly remove the device's battery. This will avoid battery corrosion.

Troubleshooting

Prompt	Cause	Solution
Err	Measurement is outside the specified working range of 40m	Use the device within the specified Measurement Range
Err1	Signal is too weak	Choose a surface with a stronger reflection or use a reflecting plate
Err2	Signal is too strong	Choose a surface with weaker reflection
Err3	Low battery voltage	Replace Batteries as specified in the User Manual
Err4	Ambient temperature too high or too low	Use your device in the specified Temperature Range
Err5	Pythagoras Theorem not applied correctly	Before retaking the measurement, ensure that the Hypotenuse is the longest side.

Maintenance Instructions

1) If the Laser Distance Meter is not in use for an extended period of time, it is advisable to remove the device's battery and place the device in its carry bag. Store the carry bag in a cool, dry place. Avoid storing in hot and humid environments.
2) Use a soft, wet cloth to keep the device clean. Microfibre cloths can be used to clean the device's display and its lens. Do not use any corrosive liquids.

Warranty

All **FREEMANS** Test & Measure products are guaranteed for 1 year from the date of sale against manufacturing defects. This guarantee does not cover damage due to modifications, misuse or fair wear and tear.

FREEMANS
TEST & MEASURE

Please Retain this Instructional Manual or Sales Invoice in order to Claim Your Warranty (If Applicable)

Contact us:

FMI Limited (**FREEMANS**) – G.T. Road, Doraha
Ludhiana-141421 Punjab, India
www.freemansgroup.com
Customercare@freemansgroup.com
Phone Number : +91-124-418-5950

FREEMANS
TEST & MEASURE

DIGITAL MEASURING TAPE

LASER DISTANCE METERS

DIGITAL SPIRIT LEVELS

DIGITAL MEASURING WHEELS

NEW

LASER DISTANCE METER

NEW

LASER LINE LEVEL

Follow us on

FACEBOOK INSTAGRAM YOUTUBE