



FREEMANS
TEST & MEASURE

LASER

DISTANCE METER
40m



WATCH VIDEO

PROECO-L40

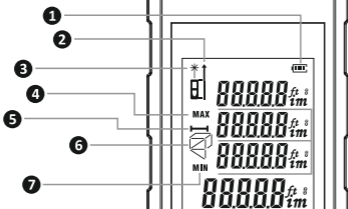
www.freemansgroup.com

USER MANUAL

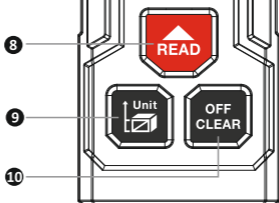


Nomenclature

DISPLAY



KEYPAD



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

Technical Specification

ITEM	PROECO
Working Range	0.05-40m
Precision	$(2\text{mm}+d*1/10000)^*$
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  to switch on the device. Short Press  again to switch on the laser pointer. The device is now in measurement mode.



Short Press  to generate a measurement.

2) OFF CLEAR



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

b) Long Press  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  button to switch off the Laser pointer. With the Laser pointer off, long Press  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  button. With the Laser pointer on, long Press  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  to switch on the device. Short press  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  to generate a single measurement.

2) CONTINUOUS MEASUREMENT








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

3) AREA MEASUREMENT

- a) Press  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  once to take the objects length
 - b) Press  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.

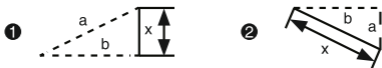
- d) Press  to clear the most recent result and measure again if necessary
- e) Press  again to exit mode




4) VOLUME MEASUREMENT




- a) Press  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  once to take the objects length
 - b) Press  again to take the objects width
 - c) Press  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  to clear the most recent result and measure again if necessary
 - f) Press  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  to measure the length of the hypotenuse (a)
 - c) Press  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  to measure the length of one side (a)
- c) Press  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  and Short Press  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  and  buttons, depending on the error the instrument is showcasing.
- 3) The adjustment range is -9~9mm. Long press  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  button. Long Press  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  button. Long Press  to save the setting.

Sound Off/On

- 1) When the device is off, Long Press  and Short Press  at the same time. 'CAL' and a blinking figure show on the display. Short press  to bring up the Sound menu.
- 2) Short Press  to switch the sound on or off. Short Press  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 covered by a **1-year limited Warranty** against defects in material & workmanship and if found defective will be replaced free of charge. **This is valid from the date of final sale.** The warranty do not cover damage caused by misuse, modification, accident 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

An ISO 9001:2015 Company

8-005, 8-006, 8-007 (8th Floor) Emaar Capital Tower 1,
MG Road, Sector 26, Gurgaon-122002, Haryana, India

🌐 www.freemansgroup.com

Customer care details: Name and address as above

✉ cs@freemansgroup.com

☎ 0124-4185950



Follow us on



📘 FACEBOOK



📷 INSTAGRAM



📺 YOUTUBE



FREEMANS

TEST & MEASURE



DIGITAL MEASURING TAPE



LASER DISTANCE METERS



DIGITAL SPIRIT LEVELS



**DIGITAL
MEASURING
WHEELS**



NEW

LASER DISTANCE METER



NEW

LASER LINE LEVEL