DRAPER ®

2-IN-1

LASER STUD FINDER AND DISTANCE MEASURER

88988

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1. Preface

These are the original product instructions. This document is part of the product; retain it for the life of the product, passing it on to subsequent holders. Read this manual in full before attempting to assemble, operate or maintain this product.

This Draper Tools manual describes the purpose of the product and contains all the necessary information to ensure its correct and safe use. Following all the instructions and guidance in this manual will ensure the safety of both the product and the operator and increase the lifespan of the product.

All photographs and drawings within this manual are supplied by Draper Tools to help illustrate correct operation of the product.

Every effort has been made to ensure the information contained in this manual is accurate. However, Draper Tools reserves the right to amend this document without prior warning. Always use the latest version of the product manual.

1.1 Product Reference

User Manual for: 2-in-1 Laser Stud Finder and Distance Measurer

Stock No: 88988

Part No: DMSD

1.2 Revisions

Version 1: March 2010
First release

Version 2: January 2024

Version 3: May 2024
Text update

As our manuals are continually updated, always ensure that the latest version is used.

Please visit **drapertools.com/manuals** for the latest version of this manual and the associated parts list, if applicable.

1.3 Understanding the Safety Content of This Manual

⚠ **WARNING!** – Situations or actions that may result in personal injury or death.

⚠ **CAUTION!** – Situations or actions that may result in damage to the product or surroundings.

Important: – Information or instructions of particular importance.

1.4 Copyright © Notice

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2. Contents

3. Product Introduction

3.1 Intended Use

This product is designed to detect wooden studs through common wall materials up to 19mm. Any other application beyond the conditions established for use will be considered misuse. Draper Tools accepts no responsibility for improper use of this product.

⚠️ **WARNING! This product is not a toy and must be respected.**

Read this manual in full before attempting to assemble, operate or maintain the product and retain it for later use.

3.2 Specification

Stock No.	88988
Part No.	DMSD
Wood Stud Detection:	19mm
Distance Measurement	0.60-15M
Accuracy	±0.5% ±1 Digit
Resolution	0.01M (1")
Aperture Angle (approx.)	5°
Laser Diode Type	650nM Diode
Laser Class	Class 2A
Power Source*	9V (PP3) (not supplied)
Weight	192g
Operating Temperature	32°F-104°F (0°C-40°C)

4. Health and Safety Information

- **DO NOT** shine or aim the laser pointer at people or animals, as it may cause damage to eyesight.
- The combined stud/distance detector is a precision instrument which must be handled with care.
- Avoid shock, vibrations and extreme heat.
- Avoid dust and water, which may obstruct the lens. If needed, use a soft cloth to clean the lens.
- Keep the laser tool dry and clean.
- Check battery regularly to avoid deterioration.
- Remove battery if the laser tool is to be stored for an extended period of time.
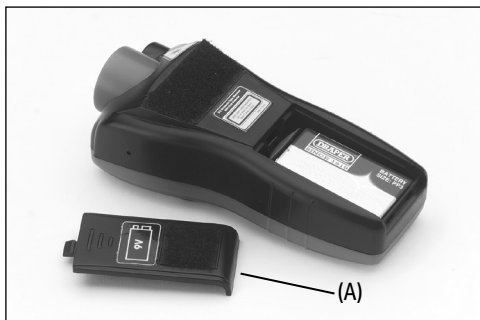- Ensure the battery is fitted in the correct +/- orientation.

5. Assembly

Fig. 1

- Slide out battery door (A) located at the rear of the unit.
- Fit a new 9V PP3 battery* (not supplied) into the battery compartment - ensure the battery is fitted in the correct +/- orientation.
- Replace cover (A) and securely clip in place.

6. Disposal

At the end of its working life, disposed of the product responsibly and in line with local regulations. Recycle where possible.

- **DO NOT** dispose of this product with domestic waste.
- **DO NOT** incinerate.
  - **DO NOT** burn or mutilate batteries, this may release toxic or corrosive substances.
- **DO NOT** abandon in the environment.

7. Warranty

Warranty is 12 months -
Visit **drapertools.com/warranty/** for more information.

Proof of purchase must be provided.

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8. Operation and Use

8.1 Stud Detector

Fig. 2

Place the detector flat against the wall. Press and hold button (B) to calibrate the unit. The buzzer will sound to confirm and the display will read 'Stud'.

Important: If by chance, the calibration is carried out too close or over a stud the detector will not pick up a reading and will give false information. For this reason it is advisable to take a couple of readings and calibrate the unit in different positions to ensure accuracy.

Upon detection of a stud or nogging the bars will begin to increase on the LCD display and the buzzer will sound when all twelve bars are lit.

The best method of accuracy is to mark the wall at the point where the buzzer sounds. Then move the detector approximately 30cm past this point. Trace back with the detector again, until the buzzer sounds. Mark the wall, and the midway point between the marks is the centre of the stud/nogging.

Important: The wall must be a cavity design for the detector to work correctly. If the cavity has been filled with glass fibre, even this may effect the readout.
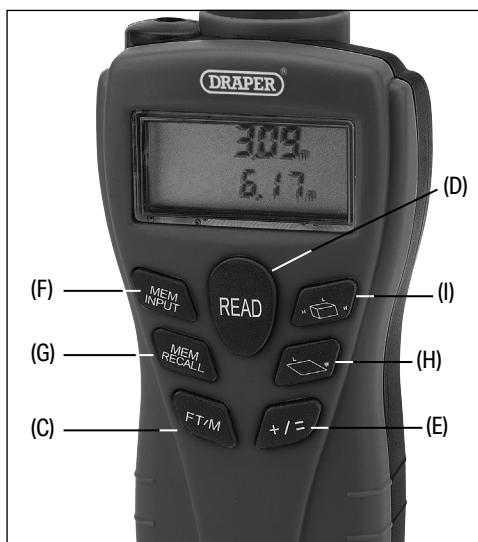
8.2 Distance Detection

Fig. 3

Ensure the detector is positioned and pointing perpendicular to the target area. The laser is a guide to where the measurement is being taken.

The target area must be a rigid surface without any irregularities. The target cannot be impaired by obstacles.

For more accurate results and when measuring longer distances ensure the target area is large (measurements over 12M the target should be >3M2). For small and irregular surfaces try affixing a piece of board as the target area.

The ultrasonic distance detection will not measure through glass, but WILL measure to glass.

Measure from base (i.e. measurement includes length of detector). Press button (C) to select metric or imperial results.

TO TAKE STANDARD MEASUREMENTS:

- Press button (D) to take the measurement.
- The result will be displayed unless an error has occurred in which case try again.

8. Operation and Use

TO ADD RESULTS: (without using the memory)

- Press button (D) to take the measurement.
- Press button (E) to enter the addition mode.
- The '+' is displayed on the LCD.
- Press button (D) again to take the next reading.
- Press button (E) to display the result.

TO ADD RESULTS: (using the memory)

- Press button (D) to take the measurement.
- Press button (F) to save the current measurement.
- Press button (D) to to take the next reading.
- Press button (E) to enter the addition mode.
- The '+' is displayed on the LCD.
- Press button (G) to recall the previous measurement.
- Press button (E) to display the result.

TO TAKE AREA MEASUREMENTS:

- Press button (H) to enter area mode.
- The symbol will appear on the LCD with the 'L' flashing.
- Press button (D) to take the length measurement.
- If the measurement was successful the 'W' will begin flashing.
- Press button (D) to take the width measurement.
- If successful the result in Ft2/M2 will be displayed under the individual measurement button (D) to cycle through the two individual measurements or press button (H) to begin a new area measurement.
- Alternatively, press and hold button (D) for two seconds to exit the area mode.

Important: It is possible to store an area result in the memory, take a fresh area measurement and add them together using button (E).

TO TAKE VOLUME MEASUREMENTS:

- Press button (I) to enter volume mode.
- The symbol will appear on the LCD with the 'L' flashing.
- Press button (D) to take the length measurement.
- If the measurement was successful the 'W' will begin flashing. Press button (D) to take the width measurement.
- If successful the 'H' will begin flashing.
- Press button (D) to take the height measurement.
- If successful the result in Ft3/M3 will be displayed under the individual measurement.
- Press button (D) to cycle through the three individual measurements or press button (I) to begin a new volume measurement.
- Alternatively, press and hold button (D) for two seconds to exit the area mode.

Important: All length, width and height measurements must be complete to exit the volume mode.

Important: It is possible to store a volume result in the memory, take a fresh volume measurement and add them together using button (E).

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