



# INSTRUCTIONS FOR Combined Stud Detector & Distance Estimator

Stock No.88988 Part No.DMSD

**IMPORTANT:** PLEASE READ THESE INSTRUCTIONS CAREFULLY TO ENSURE THE SAFE AND EFFECTIVE USE OF THIS PRODUCT.



**DRAPER**<sup>®</sup>

## GENERAL INFORMATION

Read all these instructions before operating this product and save these instructions.

This manual has been compiled by Draper Tools and is an integrated part of the product with which it is enclosed and should be kept with it for future references.

This manual describes the purpose for which the product has been designed and contains all the necessary information to ensure its correct and safe use. We recommend that this manual is read before any operation or, before performing any kind of adjustment to the product and prior to any maintenance tasks. By following all the general safety instructions contained in this manual, it will ensure both product and operator safety, together with longer life of the product itself.

All photographs and drawings in this manual are supplied by Draper Tools to help illustrate the operation of the product. Whilst every effort has been made to ensure accuracy of information contained in this manual, the Draper Tools policy of continuous improvement determines the right to make modifications without prior warning.

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We:  
 Draper Tools Ltd.,  
 Hursley Road,  
 Chandler's Ford,  
 Eastleigh, Hampshire.  
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 England.

Declare under our sole responsibility that the product:

Stock No:- **88988.**

Part No:- **DMSD.**

Description:- **Distance Measure Stud Detector.**

To which this declaration relates is in conformity with the following directive(s)

89/336/EEC

With reference to

EN61326:1997+A1+A2



J.N. Draper  
 Chairman

05/07/2005

The Draper Tools policy of continuous improvement determines the right to change specification without notice.

|                                |                       |
|--------------------------------|-----------------------|
| Stock No. ....                 | 88988                 |
| Part No. ....                  | DMSD                  |
| Detection Distance:            |                       |
| Stud .....                     | 19.05mm               |
| Distance .....                 | 0.60-15.24M           |
| 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)              |
| Weight .....                   | 0.192kg               |
| Operating Temperature .....    | 32°F-104°F (0°C-40°C) |

\* Draper Stock No.62044

#### - BATTERY INSTALLATION: (FIG.1)

When the battery power starts getting low a battery symbol will appear on the display. Slide out battery door (A) located at the rear of the unit. Connect a new 9V PP3 battery\* (not supplied) into the battery compartment and ensure the correct polarity. Replace cover (A) and securely clip in place.

\* Draper Stock No.62044

FIG.1



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

- **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'.

**NOTE:** If by chance, the calibration is carried out too close or over a stud the detector will never pick up any readings, and 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 in 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 has sounded. Then move the detector approximately 30cm past this point. Trace back with the detector again, until the buzzer is sounded. Mark the wall, and the midway point between the marks is the centre of the stud/nogging.

**NOTE:** 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.

- **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 >3M<sup>2</sup>). 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.



**1. 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.

**2. 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.

**3. 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 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.

**4. 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  $\text{Ft}^2/\text{M}^2$  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.

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

**5. 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  $\text{Ft}^3/\text{M}^3$  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.

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

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

- At the end of the machine's working life, or when it can no longer be repaired, ensure that it is disposed of according to national regulations.
- Contact your local authority for details of collection schemes in your area.

In all circumstances:

- Do not dispose of power tools with domestic waste.
- Do not incinerate.
- Do not abandon in the environment.
- Do not dispose of WEEE\* as unsorted municipal waste.



\* Waste Electrical & Electronic Equipment.



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\* Waste Electrical & Electronic Equipment.



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For aftersales servicing or warranty repairs, please contact the Draper Tools Helpline for details of an agent in your local area.

YOUR DRAPER STOCKIST

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