

EXTECH ULTRASONIC DISTANCE METER

This guide is not intended to replace the original equipment manual. Please refer to the manual for more detailed operating instructions and safety information.

EQUIPMENT DESCRIPTION

The Extech Ultrasonic Distance Meter [1] measures distance up to 50 ft (15 m), calculates area and volume and has a built-in flashlight. It is also equipped with a laser pointer for accurate targeting when making measurements.

The distance meter sends out an ultrasonic pulse and listens for the echo. Since the speed of sound is fairly constant under normal conditions, the meter can determine the distance to the object by recording the time taken for the sound wave to leave the meter, reflect off the object and be returned to the meter.



Figure 1: Extech Ultrasonic Distance Meter

EQUIPMENT OPERATION

MEASURING DISTANCE

The target surface should be flat, hard and smooth and be perpendicular in orientation to the meter when taking measurements. Surfaces parallel to the measurement beam should be at least 4" from the side, top or bottom of the meter to avoid accidentally measuring distance to that surface.

Ideally, the distance meter should be on a hard, flat surface when the measurement is taken.

The meter can be turned on using the switch on the right hand side of the meter [2].



Figure 2: Power Switch

To take a measurement, point the meter [3] at the target and press and hold the **MEASURE** button [4]. A laser dot will appear on the target. Release the **MEASURE** button when satisfied with the measure reading. This will remain in the display for 1 minute.



Figure 3: Meter Aperture to be Pointed at Target



Figure 4: Measure Button

Inaccurate measurements or **Err** messages could result from:

- low battery
- distance outside of range (0.5m to 15 m)
- non-reflective target surfaces
- meter held at wide angle to target
- irregular objects near target

- unsteady distance meter

ADDING MEASUREMENTS

Measurements can be taken and added to the previous measurement. This is useful for distances greater than 50'. This can be accomplished by pressing the **ADD/=** button [5] after a measurement. The sum of the previous and current measurements will be displayed.

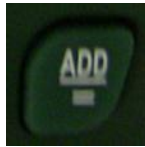


Figure 5: Add Button

AREA / VOLUME

The distance meter can also compute the area or volume of a space. This can be accomplished by pressing the **AREA** or **VOL** button [6] and taking measurements for the 'L', 'W' and 'H' of a space as shown in the display.

$$\text{Area (m}^2\text{)} = \text{Length (m)} \times \text{Width (m)}$$

$$\text{Volume (m}^3\text{)} = \text{Length (m)} \times \text{Width (m)} \times \text{Height (m)}$$



Figure 6: Area and Volume Buttons

MEMORY

To store a taken measurement simply press the **STORE** button and then select a memory location by pressing **M1**, **M2** or **M3**. These measurements can be recalled by pressing **M1**, **M2** or **M3** [7]

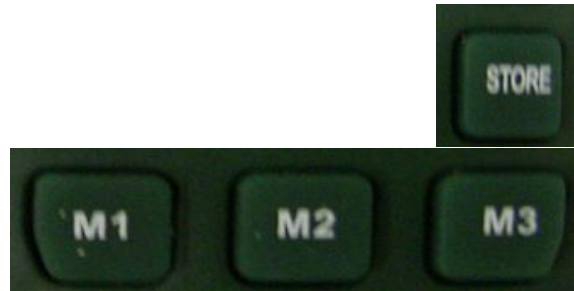


Figure 7: Memory Buttons

SETTINGS

The distance meter can measure in feet/inches and meters. Press the **Ft/m** button [8] to toggle between the two.

The distance meters can also display the distance from the front of the meter or the back of the meter to the target. This setting can be toggled by pressing the **Fm/Bm** button [9].



Figure 6: Feet / Meters Button



Figure 7: Front / Back Button

The Distance Finder also has an Auto Off feature which will power off the instrument after 1 minute of inactivity.