CorDEX
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LaserMETER 3000XP
USER GUIDE

US

Ref. ID 2102, Rev. B

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WARNING! LASER HAZARD!

This device is a Class II laser product (< 1mW, 635nm, EN60825-1:2002). Never look directly at the laser beam, aim it at people or shine it at highly reflective surfaces: it may cause eye damage.

1. INTRODUCTION

OVERVIEW

Congratulations on your purchase of the LaserMETER 3000XP.

The LaserMETER 3000XP is an explosion-proof laser distance meter, CSA-certified for use within a Class 1 Div.I hazardous (explosive) area. The robust IP65 design incorporates a shock resistant, anti-static overmold, interchangeable battery pack and backlit LCD display.

The LaserMETER 3000XP is capable of measuring distances of 30m (100ft) with an accuracy of 3mm (0.1in) - accuracy may vary depending on reflectivity and ambient conditions. It allows Pythagoras, Area and Volume calculations.

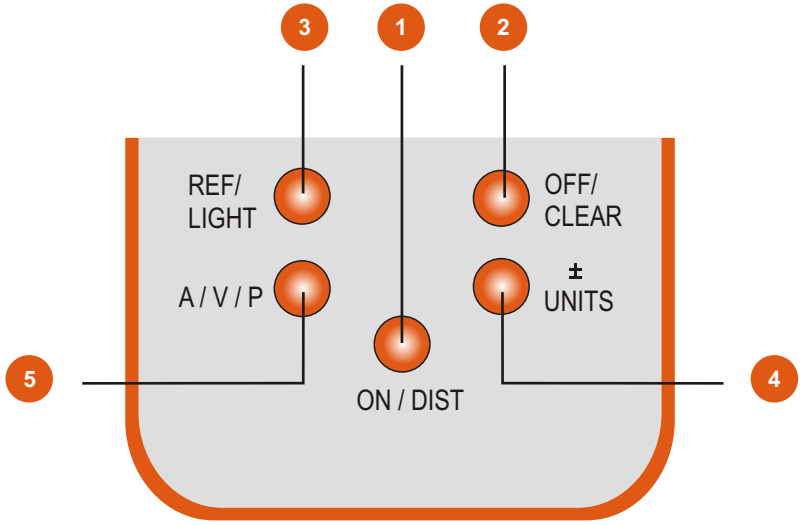
PACKAGE CONTENTS

Carefully unpack your LaserMETER 3000XP and ensure that you have the following items:

- LaserMETER 3000XP
- Removable/rechargeable battery pack
- Safe area charging station
- Wrist strap
- Power pack
- Battery removal tool

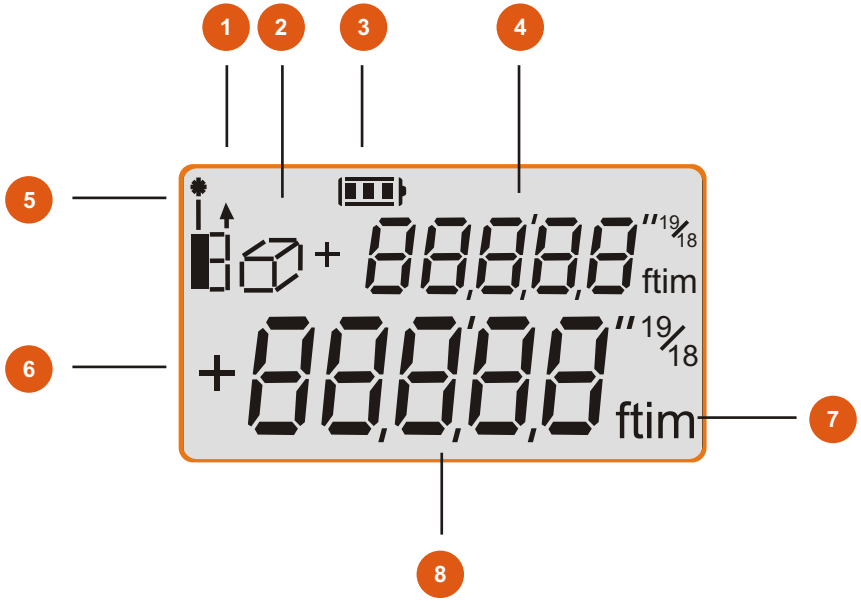
2. GETTING TO KNOW YOUR LASERMETER

Keypad



1. On / measure distance
2. Cancel last action / Off (hold button for 2s)
3. Change reference (front/back) / turn backlight on/off (hold down for 2s)
4. Addition (one press), subtraction (two presses) / change units (hold key for 2s)
5. Advanced mode: Area (one press) / Volume (two presses) / Pythagorean - calculate hypotenuse (three presses) / Pythagorean - calculate opposite side (four presses)

Display



1. Reference indicator
2. Area/volume/Pythagorean mode
3. Battery charge indicator
4. Secondary display
5. Laser activity indicator
6. Addition/subtraction mode
7. Units
8. Main display area

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BATTERY PACK AND CHARGING

Place the CorDEX Approved Battery Pack in the supplied Charging Station. Plug the charger into a suitable mains supply. The green LED flashes during charging, and remains on when the battery is fully charged (approximately 2 hours). Do not leave batteries in the charger longer than is necessary - this may lead to shortened battery life.

Only use CorDEX Approved Battery Packs Only (CDX2341-007). There could be a risk of explosion if other types of batteries are charged.
Please note that batteries can become warm during the charge cycle.
Do not attempt to open the charger.
Keep the charger in a dry place (indoor use only).
Do not use the charger if there are any signs of damage to the housing, mains, pins, cables or connectors. In case of a defect, please return to an authorized service center.

LOADING THE BATTERY

1. Open the LaserMETER's battery compartment.
   Remove the six retaining screws using the supplied battery removal tool.
2. Load the battery pack paying careful attention to its orientation.
3. Close the battery cover, replace the screws and make sure the cover is locked securely.

NEVER OPEN THE BATTERY COMPARTMENT IN A HAZARDOUS ENVIRONMENT. ONLY USE CORDEX APPROVED BATTERY PACKS.

SWITCHING ON AND OFF

To switch the meter on, press the ON/DIST button.

To switch the unit off, press and hold down the CLEAR/OFF button. The device also switches off automatically if no key is pressed within 3 minutes.

CHOOSING THE REFERENCE MODE

When you make a measurement using the LaserMETER, the distance is measured from either the front or back of the device (default). The reference point is indicated by an icon on the left of the screen.


BACK

If you want to change the reference point, press the Reference button until the required mode is displayed.


FRONT

CHOOSING THE UNITS

Distances

The LaserMETER can display measurements in metres, feet, feet & inches, or inches. To cycle through the seven display formats, shown opposite, press the UNITS button.

Areas

You can display areas in three formats: 0.000m², 0.00m² or 0.00ft².

Press the UNITS button to cycle through these options.

Volumes

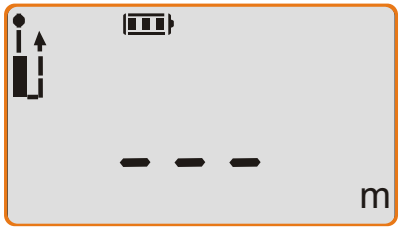
You can display volumes in three formats: 0.000m³, 0.00m³ or 0.00ft³.

Press the UNITS button to cycle through these options.

5. BASIC OPERATION

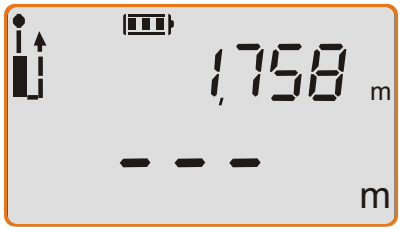
SINGLE MEASUREMENTS

1. Press the ON/DIST button to switch on the meter. The laser is activated. Place the meter against a stable surface and aim the laser at the far end of the range to be measured.

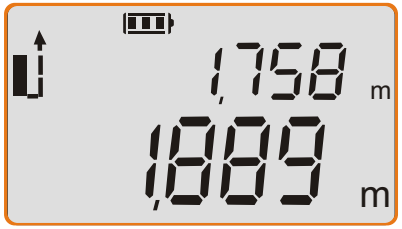


2. Press the ON/DIST button again to take the measurement. The laser is deactivated.

3. To take another measurement, press the ON/DIST button again. The laser is activated. Your previous measurement is transferred to the secondary display area. Aim the laser as before.



4. Press the ON/DIST button again. The new measurement is shown in the main display area.

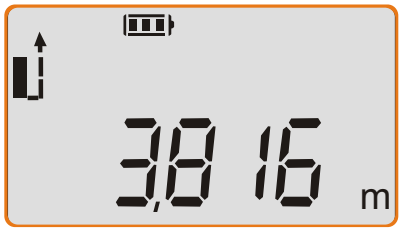


CONTINUOUS MEASUREMENT

Hold down the ON/DIST button for about 2 seconds to start continuous measuring. The meter beeps with each updated measurement. During continuous measuring, the latest measured value is displayed in the main display area. The previous value is displayed in the secondary display area.

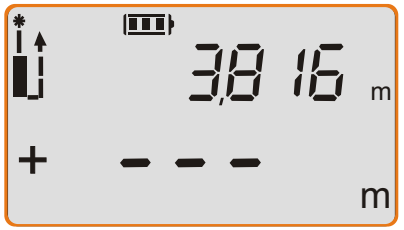
ADDITION/SUBTRACTION

1. Press the ON/DIST button to switch on the meter and activate the laser.

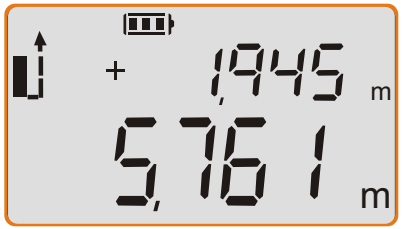


2. Press the ON/DIST button again to take your first measurement as described previously.

3. Press the +/- button once for an addition or twice for a subtraction operation, as required. The first measurement is transferred to the secondary display area.



4. Press the ON/DIST button again to take the next measurement. Its value is displayed in the secondary display area; the result of the addition/subtraction operation is shown in the main display area.

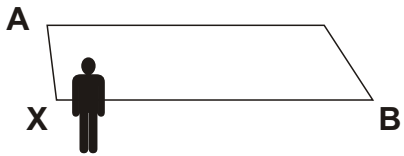


5. Repeat these steps to carry out further addition/subtraction operations.

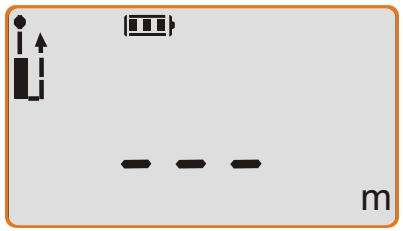
6. ADVANCED FUNCTIONS

AREA

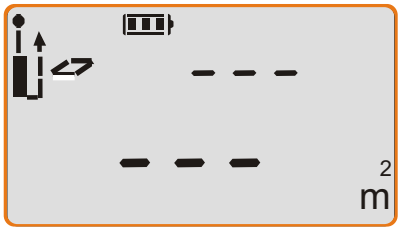
1. Position yourself at one corner of the area to be measured (X - see diagram).



2. Press the ON/DIST button to switch on the LaserMETER.

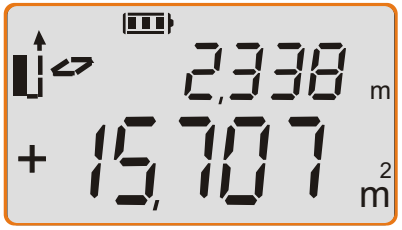


3. Press the A/V/P button once. The area symbol is displayed



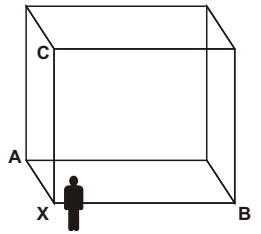
4. Point the laser at one of the adjacent corners in the area (A). Press the ON/DIST button. The length A-X is measured and displayed in the secondary display area.

5. Point the laser at the other adjacent corner (B). Press the ON/DIST button again. The meter displays the length X-B in the secondary display area. It calculates and displays the area based on the two measurements (XA x XB) and displays it in the main display area.

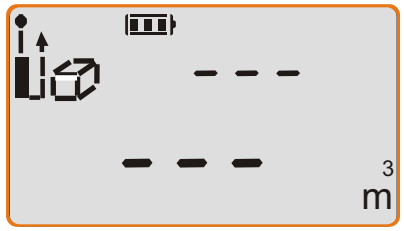


VOLUME

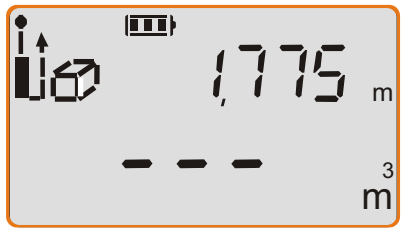
1. Position yourself at one corner of the volume to be measured (X - see diagram).



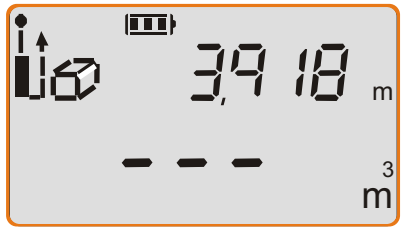
2. Press the ON/DIST button to switch on the meter.
3. Press the A/V/P button twice. The volume symbol is displayed and the laser is activated.



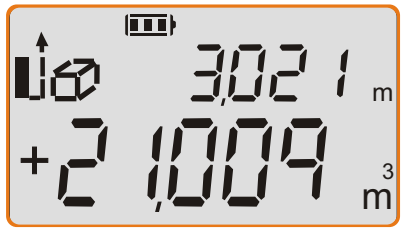
4. Point the laser at one of the adjacent corners in the area (A). Press the ON/DIST button. The length A-X is measured and displayed in the secondary display area.



5. Point the laser at another adjacent corner (B). Press the ON/DIST button again. The meter displays the length X-B in the secondary display area.



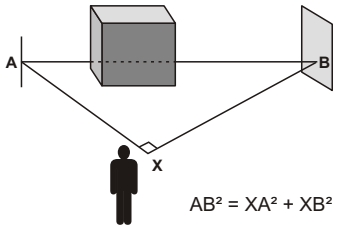
6. Point the laser at another adjacent corner (C). Press the ON/DIST button again. The meter displays the length X-C in the secondary display area. The meter calculates the volume (XA x XB x XC) and displays it in the main display area.



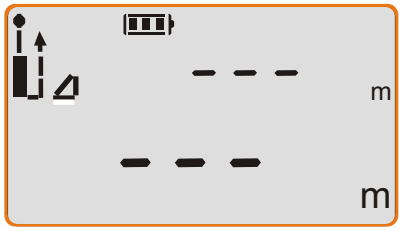
PYTHAGOREAN (hypotenuse mode)

The Pythagorean mode allows you to measure distances accurately when it is not possible to gain access to an area, or when there is an obstacle preventing a direct line of sight. The first mode calculates the hypotenuse from two measurements taken at right angles.

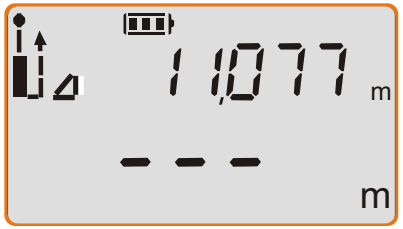
1. Position yourself so that:
   You can see both measurement points (A and B) and the lines (X-A) and (X-B) are at right angles (see diagram).



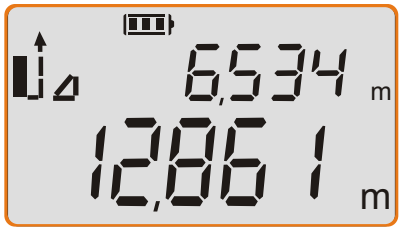
2. Press the ON/DIST button to switch on the meter.
3. Press the A/V/P button until the ⊿ symbol is displayed.



4. Aim the laser at the first measurement point (A) and press the ON/DIST button. The meter measures the distance: X-A, and displays it in the secondary display area.



5. Moving the meter as little as possible, rotate it through 90°and point it at the second measurement point (B).
6. Press the ON/DIST button again. The meter measures the distance: X-B and displays it in the secondary display area.

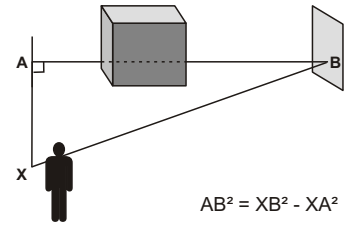


The meter calculates the distance A-B and displays it in the main display area.

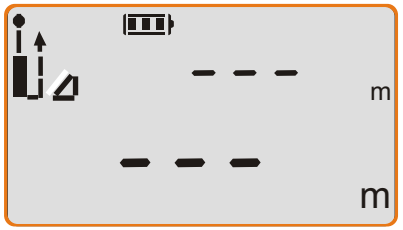
PYTHAGOREAN (baseline mode)

The second Pythagorean mode calculates a baseline length from the measurements of the hypotenuse and the adjacent side.

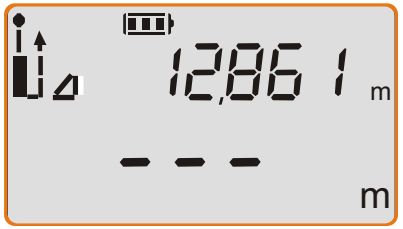
1. Position yourself so that:
   You can see both measurement points (A and B) and the lines (X-A) and (A-B) are at right angles (see diagram).



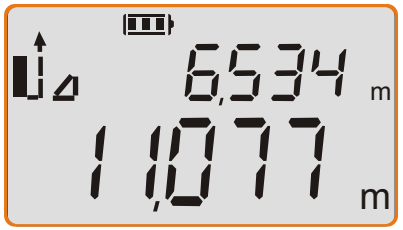
2. Press the ON/DIST button to switch on the meter.
3. Press the A/V/P button until the ⊿ symbol is displayed. Press the mode button again (the hypotenuse of the symbol flashes).



4. Aim the laser at the first measurement point (A) and press the ON/DIST button. The meter measures the distance: X-A, and displays it in the secondary display area.



5. Moving the meter as little as possible, rotate it to aim at the second measurement point (B).
6. Press the ON/DIST button again. The meter measures the distance: X-B and displays it in the secondary display area.



The meter calculates the distance A-B and displays it in the main display area.

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7. TROUBLESHOOTING

Error Message	Cause	Correction
204	Data overflow	Repeat the measurement steps.
205	Measurement range exceeded	The meter has a maximum range of 30m (100ft). If you need to measure a greater distance, try to break it down into smaller steps.
252	Temperature too high	Allow the meter to cool down and then repeat the measurement.
253	Temperature too low	Warm the meter and then repeat the measurement.
255	Received signal too weak	Select another target point with higher reflectivity.
256	Received signal too strong	Select another target point with lower reflectivity.
257	Pythagorean measurement violation	Repeat the measurement and ensure the hypotenuse is greater than the right angle edge.
258	Initialization error	Turn the meter off, wait a few seconds and then turn it back on.
	Hardware error	Turn the meter off, wait a few seconds and then turn it back on.

If any of these problems persist, please contact your dealer.

8. SPECIFICATION

Certification information	
Certificate No:	Certificate Pending
Certificate Type:	0518 II 2 G
Ambient Temperature:	Tamb -20°C to +50°C
General Information	
Range	0.5m (1.6ft) to 30m (100ft)
Measuring Accuracy	Typically: 3mm (0.1in)
Measurement Unit Displayed	m, ft, ftin, in
Laser Type/ Class	635mm, <1 mW, II
Acc	IEC 60825-1 : 2001
Body/ Lens and LCD	Cast aluminum chassis with anti-static overmold/ Toughened safety glass
Emited Wavelength	620-690nm
IP	65
Detailed information	
Weight	<1kg (<2.2lb)
Dimensions	length 140mm (5.5in), height 130mm (5.1in) width 75mm (3.0in)
Functions	Pythagoras Volume Area
Electrical information	
Battery type	Rechargeable
Capacity	1100mAh
Cell type	NiMH

CorDEX INSTRUMENTS

SAFER | FASTER | BETTER

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