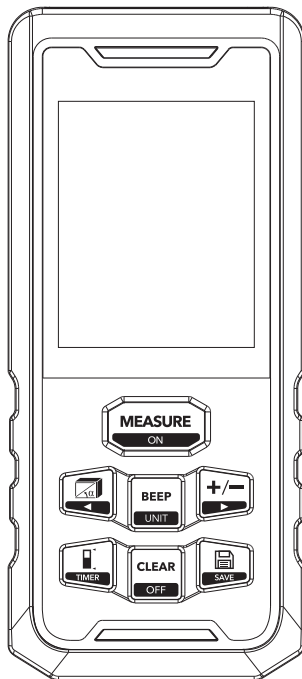


USER MANUAL

202.40R DISTY 40R
202.60G DISTY 60G
202.80R DISTY 80R



EN ENGLISH

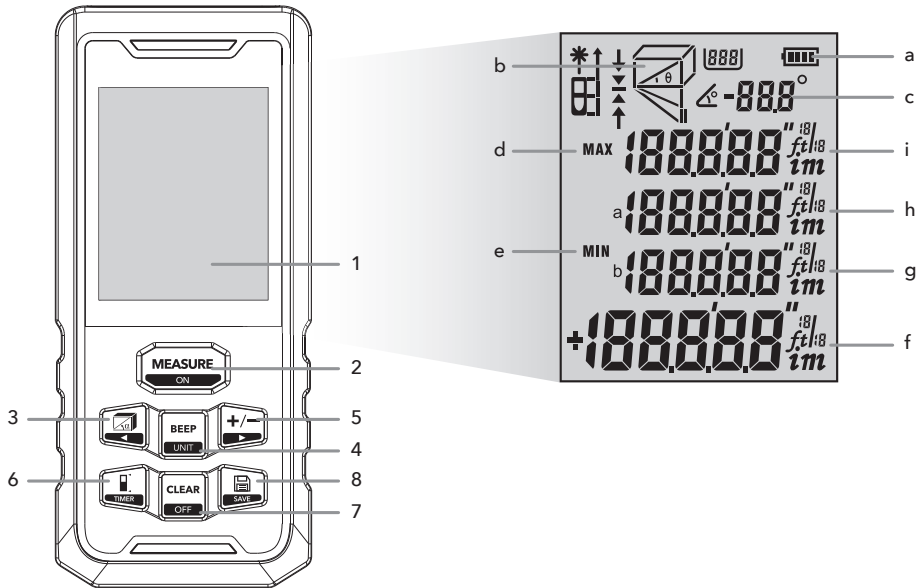
Manual
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OVERVIEW



■ CASE

- 1 Screen
- 2 Measure - ON button
- 3 Function - Back button
- 4 Beep - Unit button
- 5 Addition/Subtraction - Next button
- 6 Reference point - Timer button
- 7 Clear - OFF button
- 8 Memory - Save button

■ SCREEN

- a Battery indicator
- b Function indicator
- c Angle
- d Maximum
- e Minimum
- f Major display
- g Auxiliary display, line 1
- h Auxiliary display, line 2
- i Auxiliary display, line 3



SAFETY & WARRANTY

Read the complete safety and warranty instructions provided together with the device before using.

While the product is in operation, be careful not to expose your eyes to the emitting laser beam.

LASER RADIATION, Class 2.

Do not stare into beam.

Do not disassemble the tool. There are no user serviceable parts inside. Do not modify the tool in any way. Modifying the tool may result in hazardous Laser Radiation Exposure.

BATTERY



Open the battery door on the back of the device and place the batteries according to correct polarity. Then cover the batteries with the battery door.

Only use 1,5V AAA Alkaline batteries or the provided LI-ION battery (not included with Disty 40R)

If the device is not used for a longer time,

remove the batteries to avoid battery corrosion inside the device.

MAJOR SETTINGS

■ TURN ON/OFF THE INSTRUMENT

Hold the Measure - ON button [2] for approx. 3 seconds to turn the device on. By starting up the device, the laser will light up shortly. The device is stand by for measurement.

Hold the Clear - OFF button [7] for approx. 3 seconds to turn off the device.

The device will shut down automatically after approx. 150 seconds without any operation.

■ UNIT SETTINGS

Hold the Beep - Unit button [4] for approx. 3 seconds to change the measurement unit. The default unit is 0.000m. There are 6 units to choose:

LENGTH	AREA	VOLUME
0.000 m	0.000 m ²	0.000 m ³
0.00 m	0.00 m ²	0.00 m ³
0.0 in	0.00 ft ²	0.00 ft ³
0.00 ft	0.00 ft ²	0.00 ft ³
0 1/16 in	0.00 ft ²	0.00 ft ³
0' 00" 1/16	0.00 ft ²	0.00 ft ³



(For every change you need to release and hold the Beep - Unit button **[4]** for another 3 seconds.)

■ CHANGING THE REFERENCE POINT

Press the Reference point - Timer button **[6]** shortly to change the reference point.

There are 3 reference points which you can choose:

- | | |
|--------|---|
| Front | Top of the device (with laser exit) is the reference point |
| Middle | The middle of the ¼" screw on the backside is the reference point (for use with tripod) |
| Back | Bottom of the device is the reference point |

■ DELAY MEASUREMENTS

You can easily delay your measurement with 3 to 60 seconds. Hold the Reference point - Timer button **[6]** for approx. 3 seconds. SEC will be shown on the display with the number of seconds of the delay.

To adjust the delay, press the Function - Back button **[3]** and/or the Addition/Subtraction - Next button **[5]** as much as needed to reach the delay you prefer.

Press the Measure - ON button **[2]** to start the

countdown. The device will measure when the countdown reaches the 0.

■ BACKLIGHT

The backlight will turn ON/OFF automatically.

The backlight will be on for 15 seconds while operating. After 15 seconds with no operation, the backlight will turn off automatically. It will light up again after pressing any button.

■ SOUND ON/OFF

The device can produce beeping sounds. To turn them ON of OFF, press the Beep - Unit button **[4]**.

OPERATIONS

Below, we mention the symbol shown on the function indicator **[b]**. Hit the Function - Back button **[3]** als much as needed until the measurement you need is shown in the function indicator **[b]**.

The side you need to measure will blink in the shown symbol.

■ — SINGLE DISTANCE MEASUREMENT

Press the Measure - ON button **[2]** to make a laser beam appear and activate the measure mode. Press the Measure - ON button **[2]** again to see appear the measured length. The measured results is displayed on the major display **[f]**.



■ CONTINUOUS MEASURING

Hold the Measure - ON button **[2]** and a continuous measuring mode will be activated. The minimum and maximum measuring results will be shown **[d, e]** and the present result will be shown in the major display **[f]**. Press the Measure - ON button **[2]** or on the Clear - OFF button **[7]** to quit the continuous measuring mode.

■ AREA MEASUREMENT

Press the Function - Back button **[3]** once, a square appears at the top of the screen. One of the sides of the square/ rectangle is blinking on the screen. Then follow the subsequent instructions to calculate the volume:

Press the Measure - ON button **[2]** once for the length.

Press the Measure - ON button **[2]** again for the width.

The device will show the result on the major display **[f]**. The current measuring result will appear in the auxiliary display **[g, h]**.

Press the Clear - OFF button **[7]** to remove and clear the previous measurement results. Press the same button again to exit this mode.

■ VOLUME MEASUREMENT

Press the Function - Back button **[3]** twice to enter the volume measurement mode. A rectangular shape will appear on the top of the screen. Then follow the subsequent instructions to calculate the volume:

Press the Measure - ON button **[2]** once for the length.

Press the Measure - ON button **[2]** again for the width.

Press the Measure - ON button **[2]** a third time for the height.

The device will show the result on the major display **[f]**. The current measuring result will appear in the auxiliary display **[g, h, i]**.

Press the Clear - OFF button **[7]** to remove and clear the measurement results. Press the same button again to exit this mode.

■ PAINTER FUNCTION

When the device is in the surface/area function, you can use the addition and subtraction function to add up the different surface areas.

Press the Function - Back button **[3]** three times till the Painter function symbol is visible in the function indicator **[b]**.

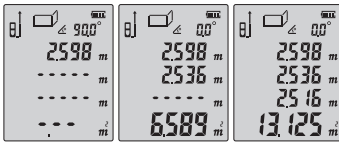
Press the Measure - ON button **[2]** a first time to



measure the height of the first wall.

Press the Measure - ON button [2] to measure the bottom edge of the first wall. You can see the surface measure in the major display [f].

Press the Measure - ON button [2] to measure the bottom edge of another wall. Afterwards you can get the sum of these two walls.

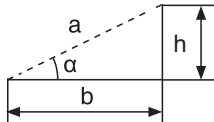


Repeat these steps for more walls. Press the Clear - OFF button [7] to remove and clear the previous measurement results. This way you can perform a new measurement.

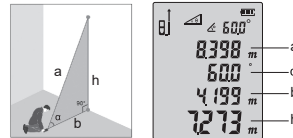
When there is no data in the auxiliary display [g, h, i], press the Clear - OFF button [7] to exit this mode.

■ BASIC PYTHAGORAS

Calculate the length of two legs by measuring the hypotenuse and the angle.

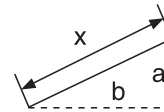


Press 4x on the Function - Back button [3], when the hypotenuse (a) of the triangle is blinking. Press the Measure - ON button [2] to measure the length of the hypotenuse (a) and to calculate the angle (α) between bevel and the bottom at the same time. The device will calculate the horizontal distance (b) and the vertical height (h).



■ LENGTH OF HYPOTENUSE

Calculate the hypotenuse by measuring the length of two legs.



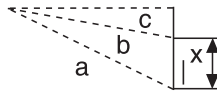
Calculate the hypotenuse by measuring the length of two legs. Press the Function - Back button [3] 5x till one leg of the triangle is blinking on the screen.

Press the Measure - ON button [2] to measure the length of one leg (a).

Press the Measure - ON button [2] again to measure the length of the other leg (b).

The device will calculate the length of hypotenuse (x).

▀ DOUBLE PYTHAGORAS VIA SUBTRACTION



Press the Function - Back button [3] 6x till one side of the triangle is blinking on the screen.

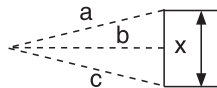
Press the Measure - ON button [2] to measure the length of one side (first hypotenuse - a).

Press the Measure - ON button [2] again to measure the length of the median line (second hypotenuse - b).

Press the Measure - ON button [2] a third time to measure the length of another, horizontal side (c).

The device will calculate the length of the leg (x).

▀ DOUBLE PYTHAGORAS VIA SUM



Press the Function - Back button [3] 7x till the hypotenuse of the triangle is blinking on the screen.

Press the Measure - ON button [2] to measure the length of first hypotenuse (a).

Press the Measure - ON button [2] to measure the length of the horizontal hypotenuse (b).

Press the Measure - ON button [2] to measure the length of third hypotenuse (c).

The device will calculate the length of the leg (x).

The legs must be shorter than the hypotenuse otherwise an "err" will be shown on the screen. In order to guarantee the accuracy, please make sure that all measurements are performed from the same starting point.

We recommend using a tripod with tilting head.

HANDLING MEASURED DATA

▀ ADDITION/ SUBTRACTION

The device can be used for length addition and subtraction.

Press the Addition/ Subtraction - Next button [5] to select the function once you have the length measuring result. Press the Addition/ Subtraction - Next button [5] and a "+" will be shown in the major display. The + shows that the addition mode is activated. The value of the last meas-



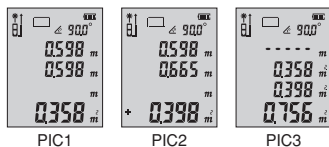
urement and the result of the cumulation will be showed on the screen.

Press the Addition/ Subtraction - Next button [5] again and a “.” shows in the major display. The - shows that the regressive mode is activated. The value of the last measurement and the result of the cumulation will be showed on the screen.

By pressing the Addition/ Subtraction - Next button [5], you can switch between the addition and subtraction mode.

Not only lengths can be added or subtracted, but it can also calculate sum or subtraction of the areas and volumes.

An example with summing two areas:



Area cumulative function:

Measure the first area as showing in PIC1.

Then press the Addition/ Subtraction - Next button [5] and measure the second area as showing in PIC2. A + is showing in the left bottom of the screen.

At last, press the Measure - ON button [2] to get

the summation result of the two areas. This result is showed in PIC3.

■ MEMORY FUNCTION

__ STORE MEASUREMENTS

Hold the Memory- Save button [8] for 3 seconds to record your measuring result. You can record the result of all the operation modes. Calculations can be saved too.

__ READ AND DELETE RECORDS

Press the Memory- Save button [8], then you can read the records by pressing the Function - Back button [3] and the Addition/ Subtraction - Next button [5]. Press the Clear - OFF button [7] to delete the displayed record. Hold this button to clear all the records. Press the Memory- Save button [8] or the Measure - ON button [2] to exit the record mode.

When the storage is full, the screen will show a “FUL” mark.

■ ANGLE MEASUREMENT

The angle information is displayed at the top of the screen. The angle measurement range is -90.0° to 90.0°.

SELF-CALIBRATION

This function ensures that the precision of the device is maintained.

Power off and press the Clear - OFF button [7] and the Measure - ON button [2] till "CAL" appears. The user can adjust the figure, that appeared on the screen, with the Function - Back button [3] or the Addition/ Subtraction - Next button [5], according to the accuracy of the meter.

Adjusting range: -9 to 9mm, then press the Measure - ON button [2] to save the calibration result.

INSTRUMENT MAINTENANCE

The meter should not be stored in high temperatures and strong humidity environments for too long. If it is not used often, please take out the battery and place the meter in the allocated pouch. Store the pouch in a cool and dry place.

Please keep the device surface clean. Use a wet soft cloth to clean dust. Never use erosion liquid for the meter maintenance. Laser output window and its focus lens can be maintained according to maintenance procedures for optical device.

TIPS

You may get some warning information as below:

INFO MESSAGE	CAUSE	SOLUTION
Err	Out of distance measurement range	Use the device within the range.
Err1	Signal is too weak	Chose the surface with stronger reflectance. Use the reflecting plate.
Err2	Signal is too strong	Chose the surface with weaker reflectance. Use the reflecting plate.
Err3	Low battery voltage	Change the power supply
Err4	The working temperature is out of working range	Use the device in the specified temperature
Err5	Pythagoras measuring error	Re-measure and ensure that Hypotenuse is bigger than Cathetus.
Err6	Angle sensor error	Depot repair

NOTE

Use a target plate to increase the measurement range during daylight or if the target has poor reflection properties.



TECHNICAL SPECIFICATIONS

	DISTY 40R	DISTY 60G	DISTY 80R
Working range	40m	60m	80m
Distance measurement precision		±2mm (*)	
Continuous measurement function		Yes	
Area measurement function		Yes	
Volume measurement function		Yes	
Pythagorean proposition measurement function		Full mode	
Painter function		Yes	
Angle function		Yes	
Add and subtract measurement function		Yes	
Min/max value		Yes	
Self-calibration		Yes	
Laser class		Class 2	
Laser type	630-670nm,<1mW	500-535nm,<1mW	630-670nm,<1mW
Max storage		99 units	
Automatically cut off laser		20s	
Automatic shutdown		150s	
Battery life		8000 times for single measurement	
Buttons/keys sound		Yes	
Storage temperature		-20°C~60°C	
Working temperature		0°C~40°C	
Storage humidity		20%~80% RH	
Battery	3x1.5V AAA (or optional 1x 3,7V LI-ion battery)	1x 3,7V LI-ION battery (or 3x1.5V AAA)	
Angle Range		±90°	
Dimension		118 x 52 x 27 mm	

(*) Typical Tolerance: ±2mm, when reflectivity 100% (white surface), environment light <2000 LUX. 25°
Tolerance is usually affected by the distance, reflectivity and environment light etc. It probably gets tolerance around ± (2mm+0.2mm/m).



USER MANUAL

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