

# Angle Meter

LM320D/LM320E/LM320F



## User Manual

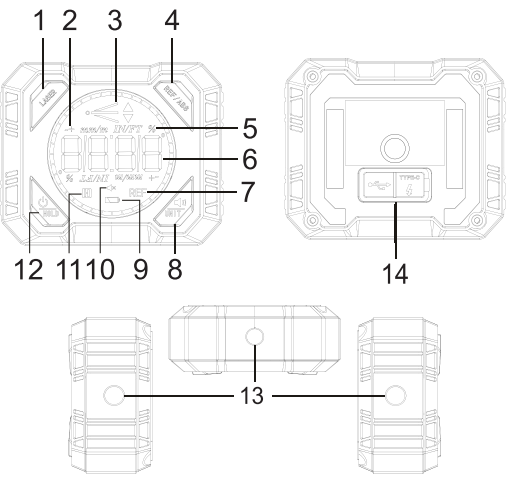
### PREFACE

Thank you for purchasing the new Angle Meter. In order to use this product safely and correctly, please read this manual thoroughly. After reading this manual, it is recommended to keep the manual at an easily accessible place, preferably close to the device, for future reference.

### LIMITED WARRANTY AND LIABILITY

Uni-Trend guarantees that the product is free from any defect in material and workmanship within one year from the purchase date. This warranty does not apply to damages caused by accident, negligence, misuse, modification, contamination and improper handling. The dealer shall not be entitled to give any other warranty on behalf of Uni-Trend. If you need warranty service within the warranty period, please contact authorized service center or send the product back with problem description. This warranty is the only compensation you can obtain. Uni-Trend will not be responsible for any special, indirect, incidental or subsequent damage or loss caused by any reason or speculation. As some areas or countries do not allow imitations on implied warranties and incidental or subsequent damage, the above limitation of liability and stipulation may not apply to you.

### Product Structure



1	Laser ON/OFF Button(only LM320E, LM320F)
2	-/+ Display Icon
3	Angle Direction Icon
4	Absolute/Relative Value Switch
5	(in/ft, mm/m, %, °) Unit Switch
6	Angle Display
7	Absolute / Relative Value Display
8	Unit Switch/Sound ON/OFF
9	Battery Display
10	Mute Icon
11	Data-Hold Display

9	POWER/Data Lock Button
10	Laser Emission Hole (only LM320E, LM320F)
11	Type-C Charging Port

### Operations:

Power On: In power-off state, long press button to power on.

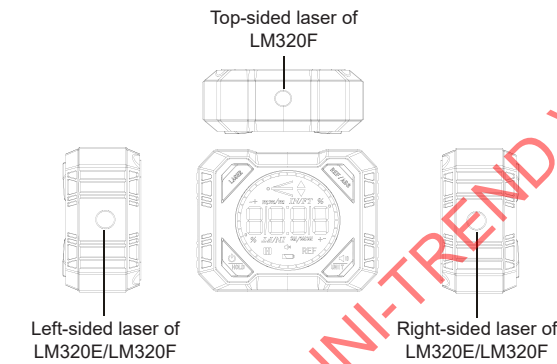
Power Off: In power-on state, long press button to power off.

Laser ON/OFF (LM320E)

In power-on state, short press button to make all lasers on, and short press button again to make the laser off on the right side. Short press button again, the laser on the left side is off, and then short press button again to make all lasers off.

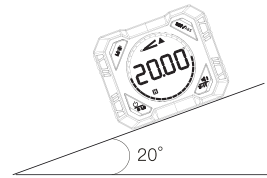
Laser ON/OFF (LM320F)

In power-on state, short press button to make all lasers on, and short press button again to make the laser off on the top side. Short press button again, the laser on the left side is off, and then short press button again to make the laser off on the right side; Short press button again to make all lasers off.



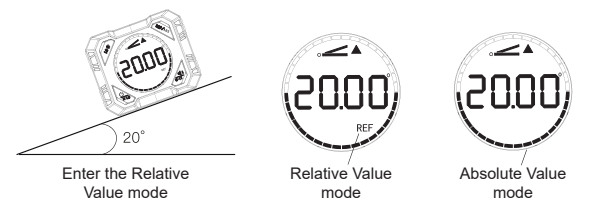
### Angle Measurement

In power - on state, place the device on the inclined plane, the show value on the screen is the angle value between the inclined plane and the horizontal plane.



REF (Relative Value Mode):

In the measurement mode, short press button to enter the Relative Value mode (Set the current value to 0), and short press it again to exit the mode.



### Calibration Mode

Place the device on the absolute horizon, continuously long press button for three times to enter the self - calibration mode (see figure 1); CAL0 flashes on the screen, short press button to confirm to enter the auto zero calibration (see figure 2). Rotate the device 90 degrees, press button and CAL1 flashes on the screen; short press button to confirm to enter the auto zero calibration (see figure 3). Rotate the device 90 degrees, press button and CAL2 flashes on the screen; short press button to confirm to enter the auto zero calibration (see figure 4). Rotate the device 90 degrees, press button and CAL3 flashes on the screen; short press button to confirm to enter the auto zero calibration (see figure 5). The calibration, and recover the use of is after power-on.

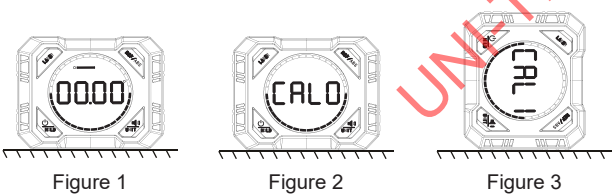


Figure 1



Figure 2

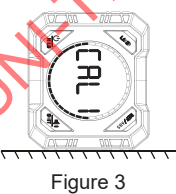


Figure 3



Figure 4

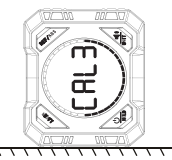
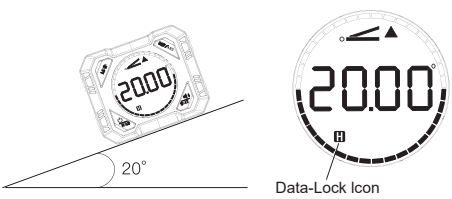


Figure 5

### Data Lock

In the measurement mode, short press button to lock the current measured data; short press again to unlock the data.

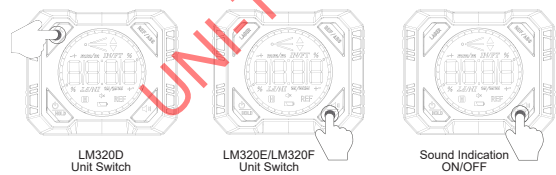


### Unit Switch & Sound ON/OFF

For LM320E/LM320F, long press button to switch the unit (in ° unit by default), mm/m, %, or in/ft. In in/ft unit display, when '-' icon shows on the screen, the range of measured value is within 'measured value -1/8 ~ measured value'; when '+' icon shows, the range of measured value is within 'measured value ~ measured value +1/8'. For example, 11.7/8 display means 11 and 7/8; 9-3/8 display means 9 and 3/8.

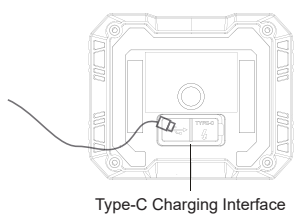
For LM320D, short press UNIT button to switch the unit.

For LM320E/LM320F, short press button to make the sound indication on/off; For LM320D, short press button to make the sound indication on/off.



### Charge

When low battery icon shows on the screen, please charge the device with charging cable in the accessories. In the power-off state, battery is fully charged when its icon stops flashing and not showed on the screen any more.



Type-C Charging Interface

### Technical Parameters

Models	LM320D	LM320E	LM320F
Measurement Range	4°~90°	4°~90°	4°~90°
Resolution	±0.05°	±0.05°	±0.05°
Angle Accuracy	±0.2°	±0.2°	±0.2°
Repeatability	±0.2°	±0.2°	±0.2°
Unit	Angle; Percentage; Metric system of mm/m; British system of in/ft.		
Laser Lines	N	2 lines	3 lines
Laser Accuracy	N	±3mm/5m	
Magnetic Base	Twosided magnetic	Twosided magnetic	Foursided magnetic
Relative/Absolute			
Angle		✓	
Measurement			
Angle Hold		✓	
Screen Rotation		✓	
Power Off	No operations in 5 minutes.		
Materials	Aluminum frame +ABS		
Power Supply	3.7V, 1000mAh lithium battery		

Working Temperature	0°C ~ + 50 °C		
Laser Class	N	Class 2	
Laser Life	N	630-670nm, <1mW	
Battery Life	14 h	8h	6h
Size	83.5*70*35.5mm		
Package	Angle Meter*1, Type-C Cable*1, Gift Box*1, User Manual*1		

### Cautions:

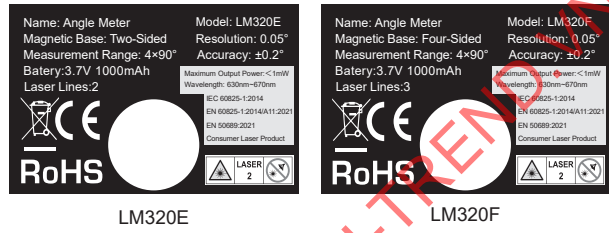
- Do not use organic solvents to wash the precision equipment. Take it far away from water and corrosives.
- Do not damage the surface of device; use soft cloth to wipe the dust for its accuracy.
- For power saving, the device will be auto power off if no operations in 5 minutes.

### LASER RADIATION

DO NOT STARE INTO BEAM

CLASS 2 CONSUMER LASER PRODUCT

Compliance with IEC/EN 60825-1, EN 50689.



LM320E

LM320F

The manual is subject to change without prior notice!

Due to different batches, the materials and details of actual products may be slightly different from the graphic information, please refer to the actual product received. Experimental data provided in the page is from internal laboratory of UNI-T, but it should not be a reference for customer to place orders. Any questions, please contact the customer service, thanks!

**UNI-T**  
**UNI-TREND TECHNOLOGY (CHINA) CO., LTD.**  
No.6, Gong Ye Bei 1st Road,  
Songshan Lake National High-Tech Industrial  
Development Zone, Dongguan City,  
Guangdong Province, China  
Tel: (86-769) 8572 3888  
www.uni-trend.com  
P/N:110401113327X