



Please note that Instruction of safe using and Instruction of instrument using carefully before using this product first time. Otherwise it may cause laser radiation injure and electric shock dangerously.

**Instruction of Safe Using**

- 1、 This laser distance meter belong to Class II laser product, please don't stare at laser directly at any time when using this equipment.
- 2、 Please don't using together about this product with other Optical products. In case result in laser radiation seriously.
- 3、 Please don't destroy any warning label on the instrument.

Using Instrument tips:

- 4、 This product belong to optical instrument , it's main used for indoor, outdoor with cloudy weather etc.
- 5、 To guarantee precision, instrument should keep in steady status until finish measuring during measuring process.
- 6、 To guarantee precision, reflect rate of measuring aim should over 15%.
- 7、 To guarantee precision,it should adopt with 90% white reflector measuring together when measuring aim over 10 meter.
- 8、 To guarantee precision,it should adopt with 90% white reflector measuring together on condition measure outdoor.

**Accessories list**

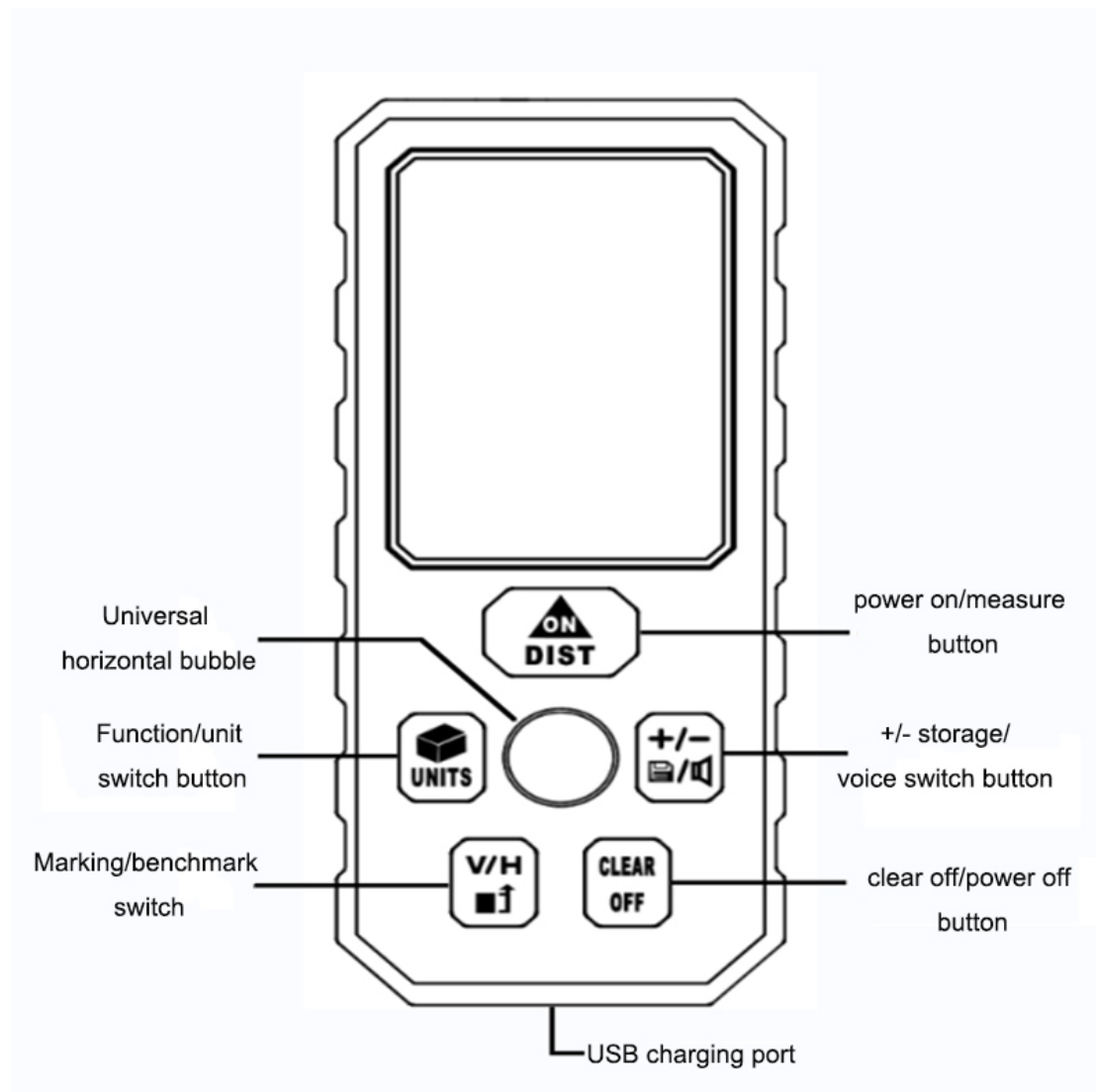
Name	Quantity
Laser distance meter	1
Lanyard	1
storage bag	1
Instruction manual	1
Package box	1
USB Charging cable	1

**Forbidding category**

- 1、 Using equipment without reading using manual.
- 2、 User open or repair this instrument without authorization.
- 3、 Aim sun directly.
- 4、 Put equipment into water.
- 5、 Using equipment beyond using limited range
- 6、 Clean lens directly by alcohol or other organic solvents, hands or other rough objects.
- 7、 Irradiate other people intentionally in dark environment.

8、 Supply power for instrument adopt with power supply over the rated voltage.

### Structure of product & Introduction of button



## Basic parameters

Number	Technical Parameters	SI11-40/60/80/100	40/60/80/100R 40/60/80/100G	40/60/80/100RS 40/60/80/100GS
		1	Precision	<b>± 2mm</b>
2	Range	<b>0.08 - 40/60/80/100 m</b>		
3	Min display	<b>1mm</b>		
4	Time of Single measurement	<b>0.4-4 seconds</b>		
5	Units of measurement	<b>m,ft,in</b>		
6	Laser class	<b>Class II</b>		
7	Laser type	<b>620-690NM</b>		
8	Laser power	<b>&lt; 1mW</b>		
9	Marking laser type	-	Single Cross	Double Horizontal line
10	Marking laser wavelength	-	620-690nm (red light) 500-560nm (green light)	
11	Marking power rating	-	<b>Class II(IEC/EN60285-1/2007)</b>	
12	Voice broadcast	●		
13	Area measurement	●		
14	Volume measurement	●		
15	Pythagorean 1	●		
16	Pythagorean 2	●		
17	Pythagorean 3	●		
18	Triangular area measurement	●		
19	Max and Min measure	●		
20	Add and Subtract function	●		
21	Change Baseline	●		
22	Data storage	<b>20 sets</b>		
23	Battery Type	<b>Lithium battery 3.7v</b>		

<b>24</b>	Operating temperature	<b>0°C-40°C</b>		
<b>25</b>	Storage temperature	<b>-10°C-60°C</b>		
<b>26</b>	Turn off the laser automatically	<b>30 seconds</b>		
<b>27</b>	Power off automatically	<b>180 seconds</b>		
<b>28</b>	Size (length×width×height)	<b>123×51×28mm</b>		
<b>29</b>	weight	<b>about 103g</b>	<b>about 127g</b>	<b>about 132g</b>

## Measuring condition

SI1180 series handheld laser distance meter are mainly used for indoor measurement environments.

It may cause a large error when using like the following condition, for example the intensity of ambient light is too high, the ambient temperature is too high or too low, the reflected light of the target is too weak or too strong (such as strong sunlight, low reflectivity or rough surface, mirror surface, etc.)

## Charging operation

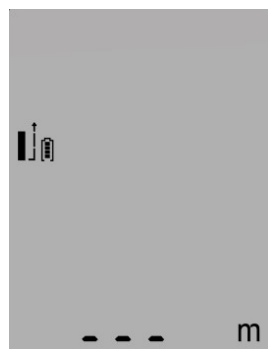
Connect the charging cable to the USB port at the end of the instrument and turn on the power. The battery icon on the screen flashes, indicating that it is charging. When the battery is charged fully, the battery icon no longer flashes, and the screen displays the full charge status.

## Button of instrument operating

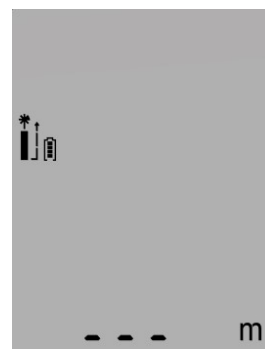
1、Power on



Press this button long time, instrument will carry on. Display screen will show as picture 1-1, the measuring mode is single measurement by default. **Press the button shortly**, laser point will be turned on, display screen will show as 1-2. Laser point will be turn off automatically after 30 seconds if machine have no action.



1-1



1-2

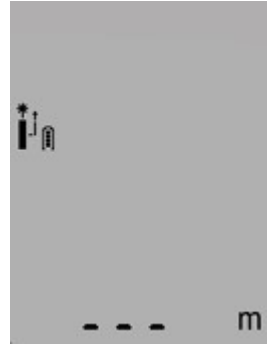
2、 Transform of Measuring benchmark



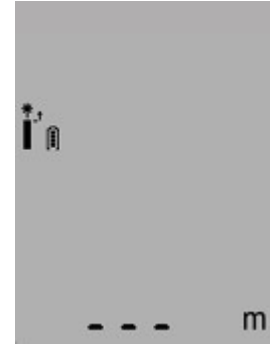
Post-benchmark by default after machine turn on, display screen show as picture 2-1. **Press this button shortly**, benchmark will be change into Middle benchmark and former benchmark. Show as picture 2-2, 2-3. **Press this button long time**, benchmark will be exchange cyclically.



2-1 Post-benchmark



2-2 Middle benchmark

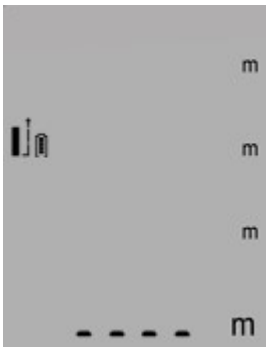


2-3 Former benchmark



### 3、 Transform of Measuring unit

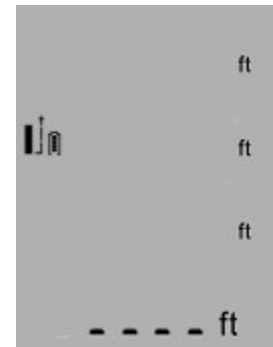
Measuring unit is "Meter" after machine turn on, display screen will show as 3-1; **Press this button long time**, measuring unit will change into "in", "ft", display screen will show as 3-2 and 3-3.



3-1 m



3-2 in



3-3 ft

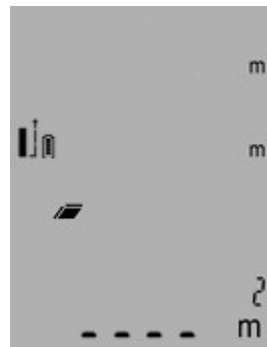


### 4、 Transform of Measuring mode

Display screen will show as 4-1 after machine turn on. **Press this button shortly** the measurement mode will be exchange cyclically.



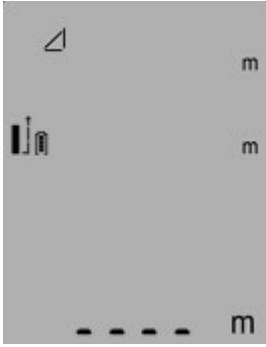
4-1 Single measurement



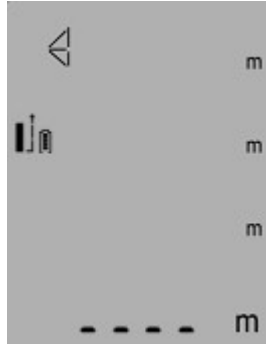
4-2 Area measurement



4-3 Volume measurement



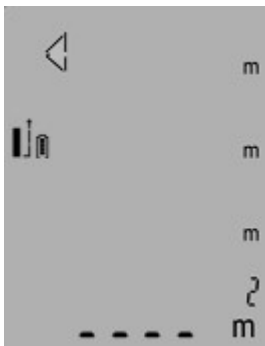
4-4 Pythagorean measurement



4-5 Pythagorean Measurement1



4-5 Pythagorean Measurement2



4-6 Triangle area measurement

5、Historical data Storage, Search



Storage: When there is data on the interface, the data display on surface will be stored while release the button after the ticking sound if **press this button long time**.

Search: If there no data on surface, surface will be change into storage surface while **press this button long time**, display screen will show as 5-1; **Press this button shortly**, go forward one by one to view the measurement data storage records, The smaller the number, the newer the measured value. Display screen will show as picture 5-1 and 5-2.


(Note: If the instrument has a storage record by default, this is the factory debug value and does not mean that the instrument has been used)




5-1



5-2

6、Voice turn on/off 

Voice turn on by default after machine turn on. **Quickly three-click this button**, to the voice is turn on and the voice is turn off cyclically.

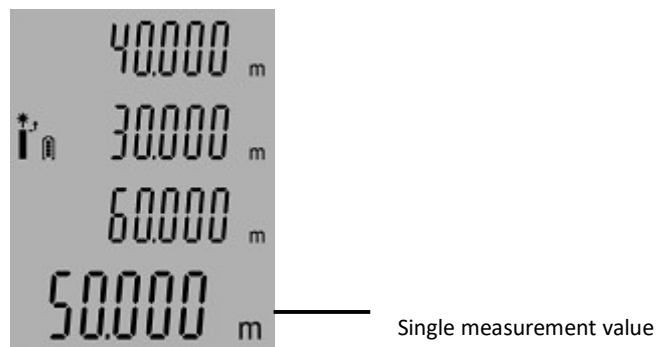
7、Power off/Clear off 

Machine will power off if **press this button long time** at any status. **Press this button shortly**, the last measurement data can be cleared. It will return to the single measurement mode interface after the data is cleared.

### Machine measuring operation

8、Single measurement

On the condition that power on, enter single measuring mode. **Press measuring button shortly**, measurement with laser point. Display screen will show as picture 8-1.

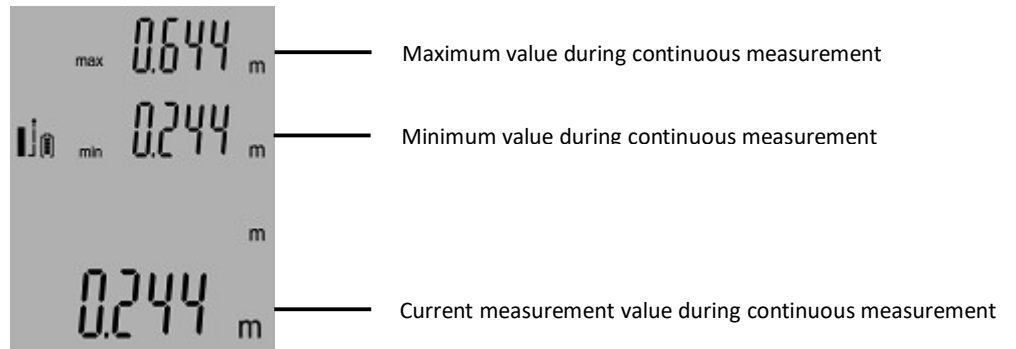


8-1

9、Continuous measurement

On condition that measuring mode single, **press measuring button long time**, enter into Continuous measurement mode, display screen will show as 9-1. Press clear off button, pause continuous measurement and quit continuous measurement mode.

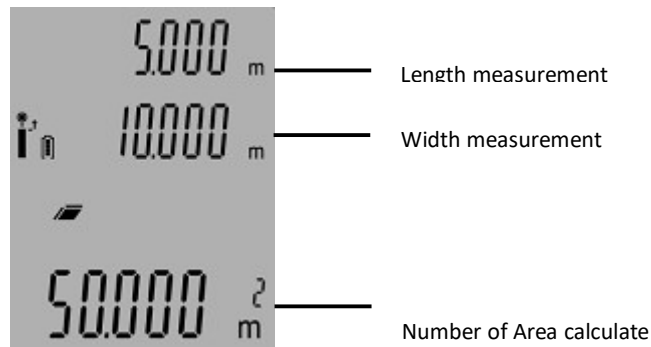




9-1

10、Area measurement

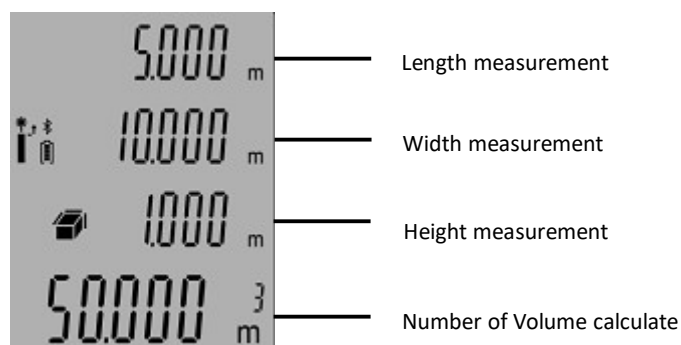
On the condition that power on, enter into area measuring mode. **Press measuring button shortly**. The result of area measurement will be displayed on screen, show as picture 10-1.



10-1

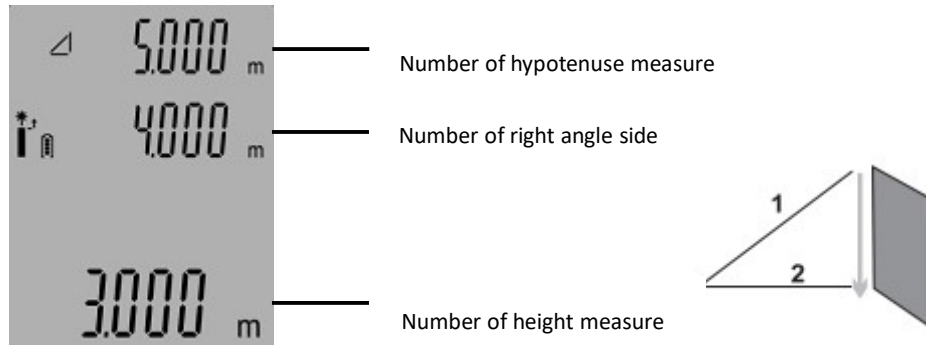
11、Volume measurement

On the condition that power on, enter into volume measuring mode. **Press measuring button shortly**, Measure the length, width and height of the target to be measured separately. The result of volume measurement will display on screen, show as 11-1.



12、Pythagorean measurement 1

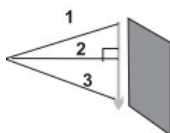
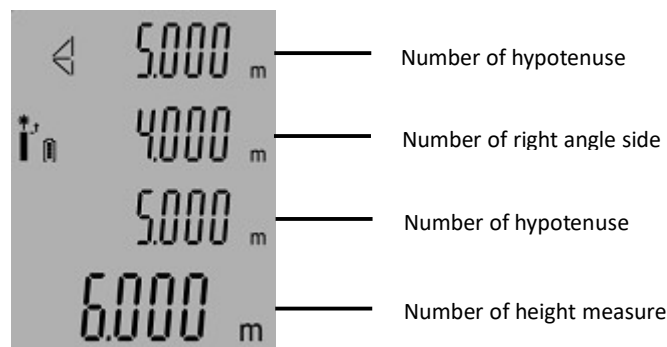
On the condition that power on, switch pythagorean measurement mode. **Press measuring button shortly**, measuring the length of the hypotenuse for first time; Keep datum mark not change, laser meter on horizontal position, measure the length of the right-angle side for the second time. The height of the right triangle is displayed on the screen, show as picture 12-1.



12-1

### 13、Pythagorean measurement 2

On the condition that power on switch pythagorean measurement mode. **Press measuring button shortly**, measuring the length of the hypotenuse for first time; Keep datum mark of machine not change, laser meter is in horizontal position. Measure the length of the right-angle side for the second time, Keep datum mark of machine not change, and the laser meter is in the horizontal position, measure the length of the hypotenuse for the third time. The height of the triangle will displayed on the screen, show as 13-1.



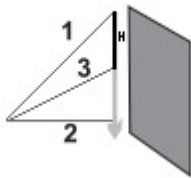
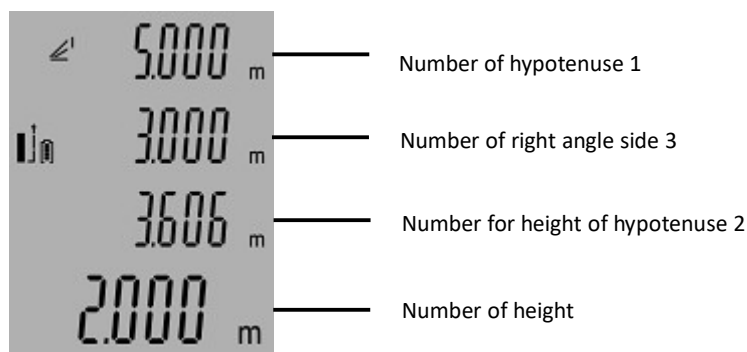
13-1

**Note:** This instrument can calculate the distance automatically by Pythagorean theorem. This function is designed for measuring places that are not easy to reach.

Please strictly obey the following measurement sequence: all measured points must be in the same horizontal or vertical plane, and the triangle must be with a right angle formed by the instrument and the two targets. In order to get the best measurement results, it is recommended to fix the instrument on one point.

#### 14、Pythagorean measurement 3

On the condition that power on switch indirect Pythagorean Measurement Model. **Press measuring button shortly**, measuring the length of the hypotenuse for first time; Keep datum mark of machine not change, laser meter is in horizontal position. Measure the length of the right-angle side for the second time, Keep datum mark of machine not change, and the laser meter is in the horizontal position, measure the length of the hypotenuse for the third time. The height of the triangle will be displayed on the screen, show as 14-1.



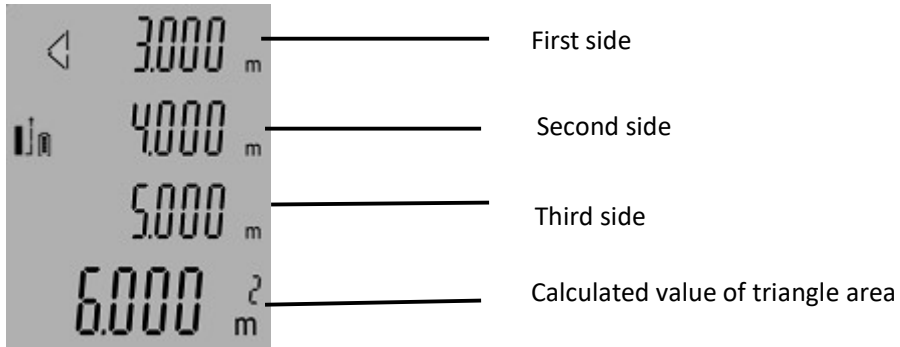
14-1

**Note:** This instrument can calculate the distance automatically by Pythagorean theorem. This function is designed for measuring places that are not easy to reach.

Please strictly obey the following measurement sequence: all measured points must be in the same horizontal or vertical plane, and the triangle must be with a right angle formed by the instrument and the two targets. In order to get the best measurement results, it is recommended to fix the instrument on one point.

#### 15. Hypotenuse triangle area measurement

On the condition that power-on, enter the triangle area measurement mode. **Short press the measuring button** to measure the three sides of the triangular target separately. The area measurement result is displayed on the screen, as shown in Figure 15-1.

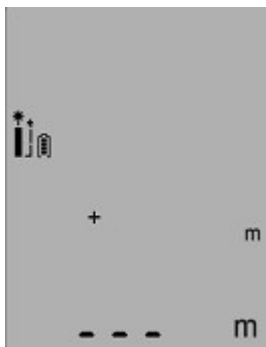


15-1

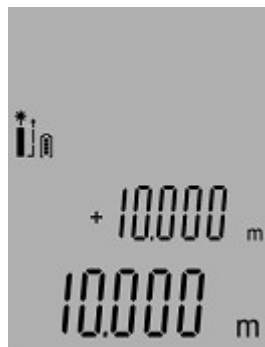
16. Number addition and subtraction measurement

After the instrument turned on, it enters the individual measurement mode. **Short press the button of plus and minus**, the symbol of "+" appears on the screen, indicating that the main display line will be added to the third line of data. **Short press the measure button** to perform the measurement. The result of the first addition will be displayed as picture 16-2. Short press the measure button again to measure, and the result of the second addition will be displayed as picture 16-4.

**Short press the plus and minus button** to cycle between "+" and "-". If it is subtraction, it means that the main display line subtracts the third line of data. (Note: The default main display line at power-on is 0.000m)

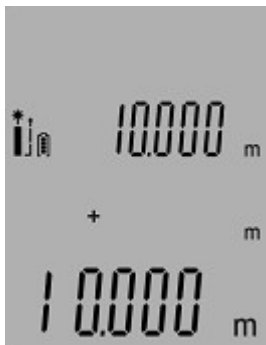


16-1



The third line  
Main display line

16-2



16-3



The second line  
The third line  
Main display

16-4

17. Laser level

The function of laser level is turn off after machine turn on by default, **Short press the reference button** to turn on/off or switch the marking function. (Note: Vertical marking and horizontal marking are unique to GS and RS series)



16-1



16-2

#### Appendix

#### Display Error code

Display both “ infocode ” and “error”, the following error can be corrected.

Infocode	Reason	Correct
Er204	Beyond calculate Range	Measure again
E205	Exceeded measuring range	Using within allowable range
E255	Weak signal	Adopt reflector
E404	Error of hardware	Turn on/off the instrument, check the content displayed on the screen, and contact after-sales

#### Service

- 一、 We provide 1 year warranty Service since clients buy the machine.
- 二、 The following condition we not offer warranty service.
  - 1、 The machine with deleted code.
  - 2、 Repair machine without permission and authorization
  - 3、 Error caused by Man-made damage or storage incorrectly
  - 4、 Instruments with expired warranty period.
- 三、 Warranty service must offer us with warranty card what purchasing date, type, the number of machine.
- 四、 warranty card

Model number of machine	
-------------------------	--

Number of product	
Purchasing date	
Quality inspector	

 **Warning**

Electromagnetic radiation may cause interference to other equipment, devices (such as pacemakers or hearing aids, and medical instruments,) and aircraft. It may influence humans and animals also.

**Prevent Measures:**

Although this product complies with the most strict standards and regulations, the original manufacturer cannot rule out the possibility of harm to humans and animals completely.

- Don't using this product on the condition that near gas stations, chemical plants, potentially flammable gases and environments where blasting occurs.
- Don't using this product near with medical equipment.
- Don't using this product on airplane.
- Don't using this product near body for long time.