Operation manual

SNDWAY

深达威®
手持式测距望远镜

Laser Rangefinder Telescope

SW-1000D SW-1500D SW-2000D

目录 CONTENTS

产品执行标准：GB/T 14267-2009

安全条例

初次使用仪器前，请先仔细阅读安全条款和操作指南

⚠ 在使用仪器之前请仔细阅读本手册中的所有操作指南和安全条例，没有按照本手册所指引的操作方法使用仪器有可能会造成仪器的损害、影响测量精度、对使用者或第三者的人身伤害。

⚠ 不要用任何方式自行打开或修理仪器，严禁非法改装或改变仪器激光发射器的性能。请妥善保管仪器，不要放置在儿童可以接触到的地方，避免无关人员的使用。

⚠ 仪器电磁辐射可能对其他设备和装置造成干扰，请不要在飞机或医疗设备附近使用本仪器，不要在易燃、易爆的环境中使用仪器。

⚠ 报废的仪器不可与生活垃圾一同处理，请按国家或者当地的相关法律规定处理报废的仪器。

⚠ 仪器出现任何的质量问题，或对使用仪器有任何疑问时请及时联系当地经销商或深达威仪器厂家，我们将第一时间为您解决。

感谢您购买 SNDWAY 深达威®仪器 激光测距望远镜系列产品！

产品介绍

深达威 SW-1000D、SW-1500D、SW-2000D 系列激光测距望远镜，是一种工程、高尔夫通用型仪器。全系配备扫描测量功能，可轻松识别远处细小目标，广泛应用于电力设备安装，如：电线、电线塔，高速公路，市政工程，林业勘察设计，建筑施工、网络规划勘测设计，通讯检修，狙击手，高尔夫，狩猎等户外各类测量。

产品优势

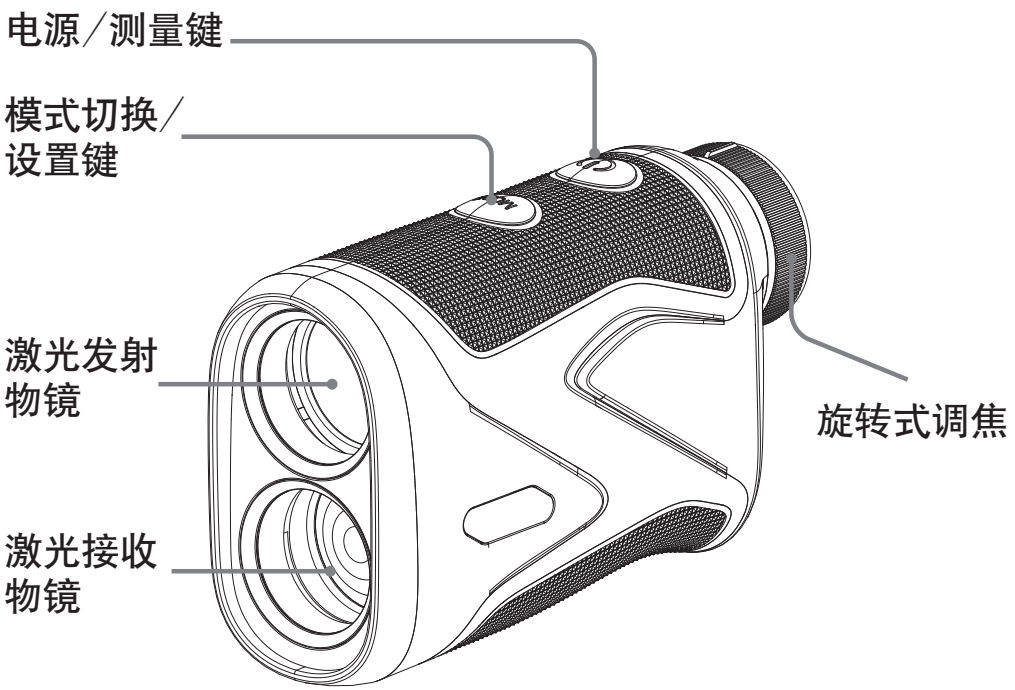
● 在清晰观察物体的同时，可测量固定或慢速运动物体在一定范围内的距离。具有测量精度高、测距时间短、距离显示直观、耗电低和自动断电等优点。

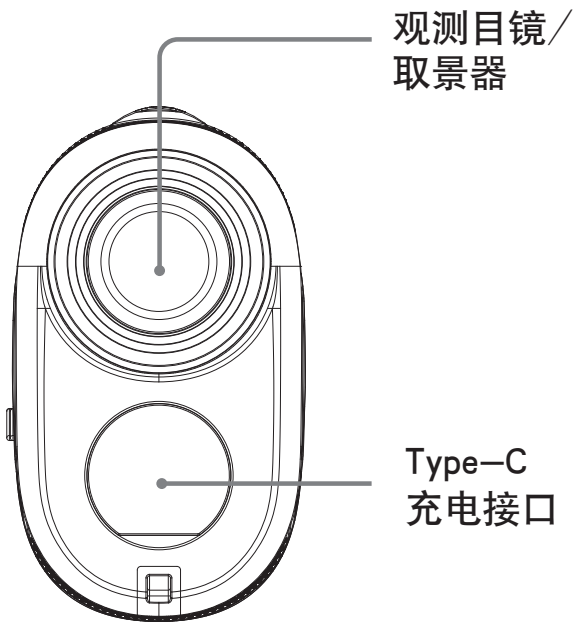
● 仪器的激光发射功率小、对人眼安全；不需要配对目标，可对任何目标测距；体积小，重量轻，便携。机内使用可循环充电锂电池供电。

产品特性

- 小巧，轻便，便携；
- 高精度，高速，低功耗；
- 1级脉冲激光，对眼睛无害；
- 静音操作，自动断电；
- 测速模式，可实时捕捉目标速度。
- 内置750mAh可循环充电锂电池；
- 旗杆锁定功能，方便测量细长目标；
- 高尔夫弹道补偿功能，用于计算出实际击球距离；
- 高度和水平模式，应用于工程测量；
- OLED自发光屏，无惧环境明暗，屏显清晰可见。

产品概述图





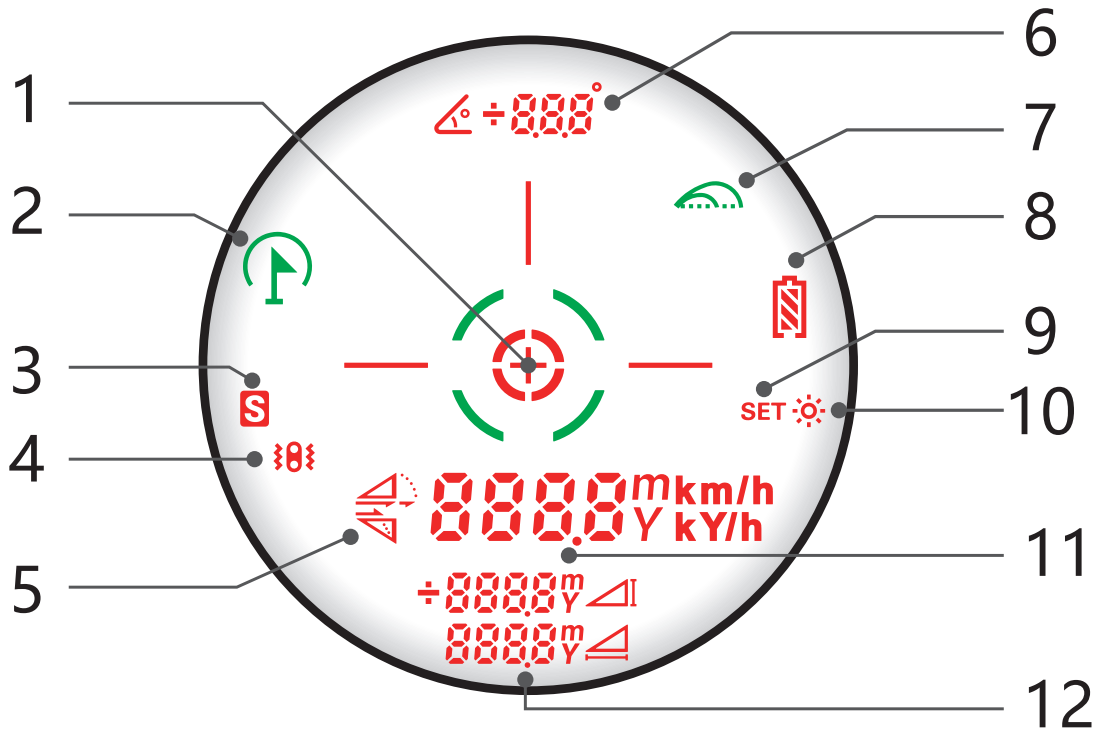
技术参数

产品型号	SW-1000D / SW-1500D / SW-2000D
产品大小	112x70x40 mm
产品重量	181 g
测量范围	3-1000m / 3-1500m / 3-2000m ，±(1.0m+Dx0.2%)*
测量单位	m(Meter), Y(Yard)
反应时间	<0.5s (<120M 64ms; ⩾120M 460ms)
速度测量精度	±5km/h
速度测量范围	0~300km/h
望远镜倍率	6X±5%
视场	7.0°±5%
物镜孔径	23.5mm
目镜孔径	15mm
出瞳直径	4.0±0.5mm
视度调节范围	±6° 屈光度

激光等级	Class 1
激光波长	905nm
电池规格	3.7V / 750mAh Li-ion
满电工作次数	20000次测量(满电)
防护等级	IP54
工作温度	-10℃~ 50℃
高度测量功能	有
斜坡测量功能	有
充电规格	DC 5V 0.5A Type-C

* 最大量程，以浅色建筑物测量为标准。天气、目标大小、表面形状等情况，可能对最大量程产生影响。精度受天气、目标反射条件是否良好，是否有强光干扰等因素影响。
详情参考<注意事项>。

屏显内容图解



1>  十字瞄准靶心

2>  旗杆锁定模式

未锁定旗杆：  显示

已锁定旗杆：  显示

3>  直线模式时显示

4>  振动指示

5>  高尔夫补偿模式上下坡指示

上坡： 

下坡： 

6>  角度指示

7>  高尔夫补偿模式指示

8>  电池电量显示

9>  设置模式指示

10>  亮度调整

11>  直线距离模式：显示实际距离

旗杆模式：显示旗杆距离

高尔夫补偿模式：显示补偿距离

测速模式：显示测量速度

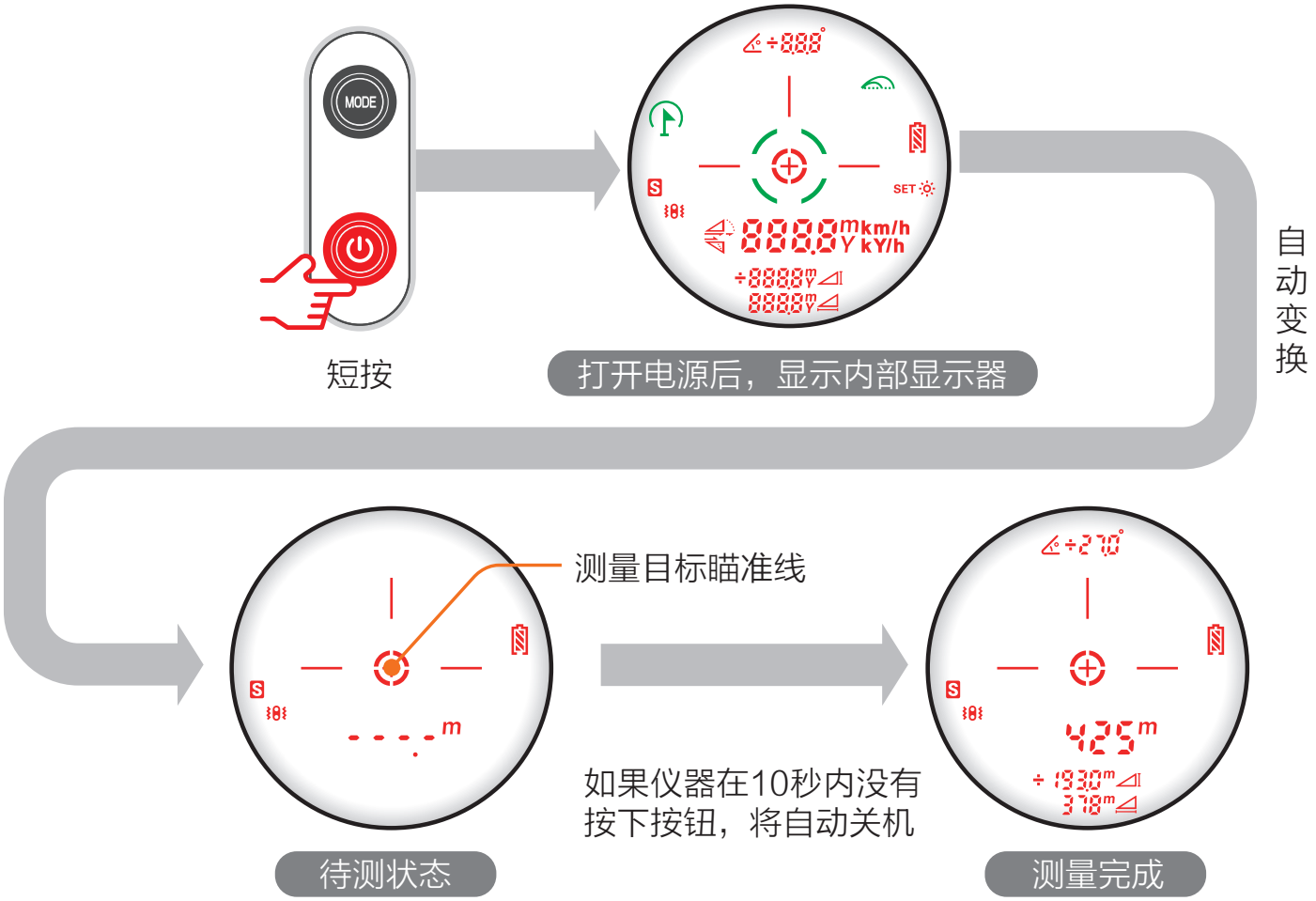
12> 

直线距离模式：显示高度和水平距离

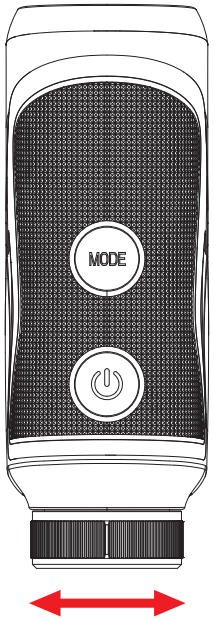
旗杆模式：显示高度

高尔夫补偿模式：显示高度和实际距离

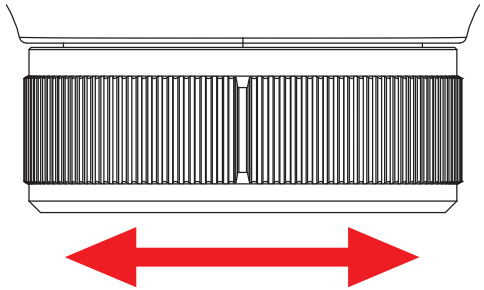
操作说明图解


MODE
短按
打开电源后，显示内部显示器
自动变换
测量目标瞄准线
待测状态
如果仪器在10秒内没有
按下按钮，将自动关机
测量完成

旋转式调焦



通过向左或右旋转旋钮，调节目镜的清晰度。

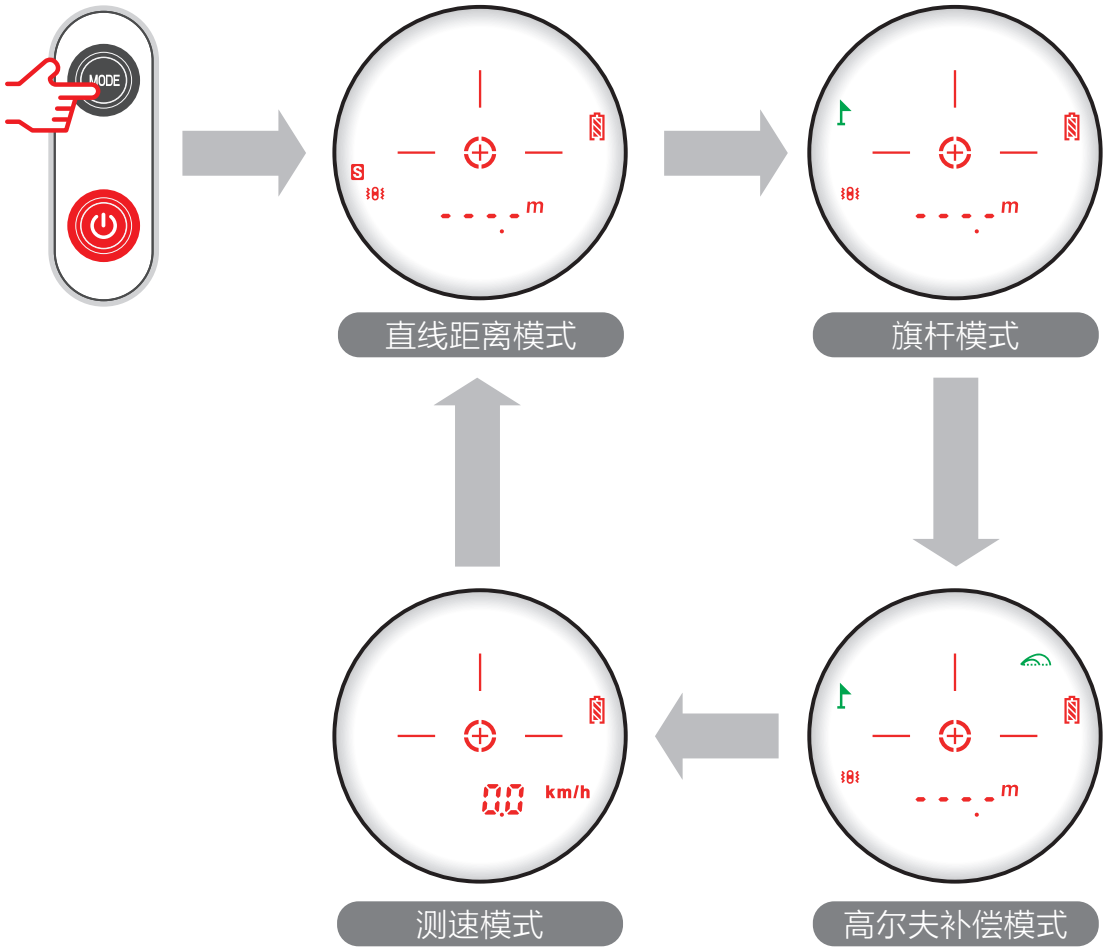


模式选择

短按模式键 MODE 切换模式。

仪器设有4种模式：

1. 直线距离模式：测量使用者到观测目标的直线距离。
2. 旗杆模式：锁定最近目标距离。
3. 高尔夫补偿模式：测量高尔夫弹道补偿距离。
4. 测速模式：测量目标速度。



单位和振动选择

长按模式键 MODE 2s进入设置模式。

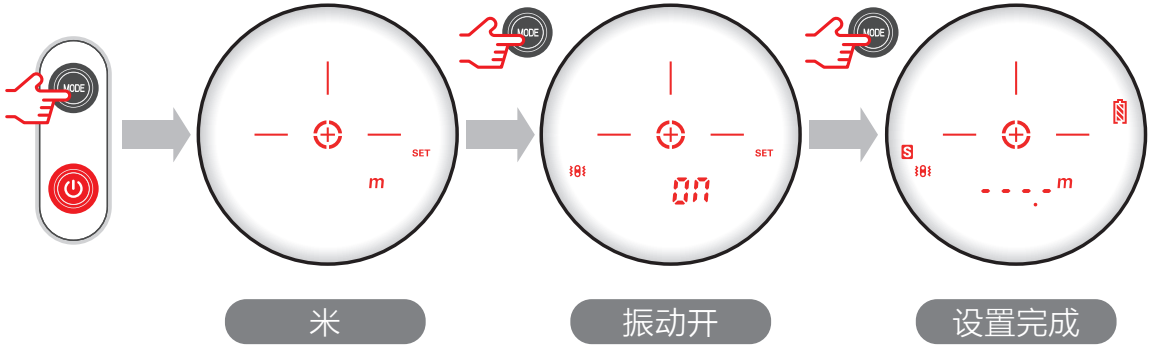
● 设置单位

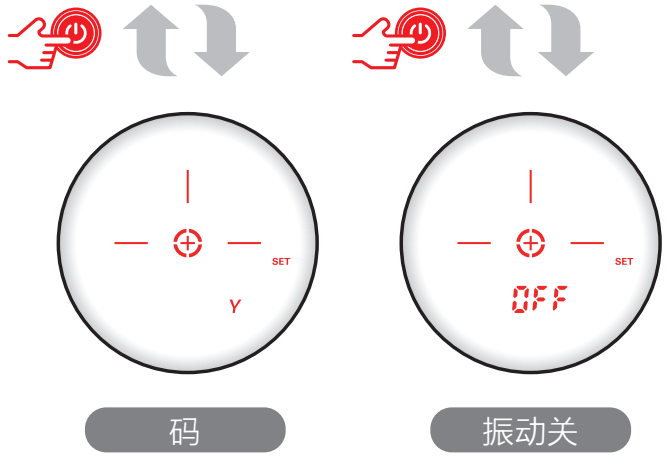
短按电源键 ⏻ 切换单位m/Y，
短按模式键 MODE 进入振动设置。

● 振动设置

短按电源键 ⏻ 切换振动开关，
短按模式键 MODE 设置完成。

注：
1. 开启振动模式，仪器测量距离，振动一次，仪器锁定旗杆，振动两次。
2. 关闭振动模式，仪器测量距离，不振动，仪器锁定旗杆，振动两次。



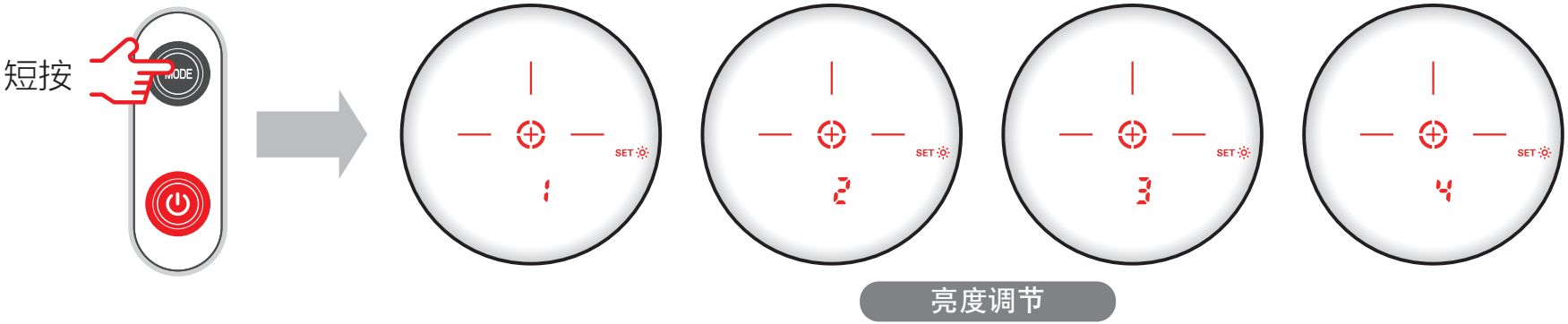


亮度调节

OLED亮度调节

按住 电源按键，再短按 模式按键，调节亮度。

系统设置了1~4档亮度循环调节，再次开机时保留上次调节的亮度

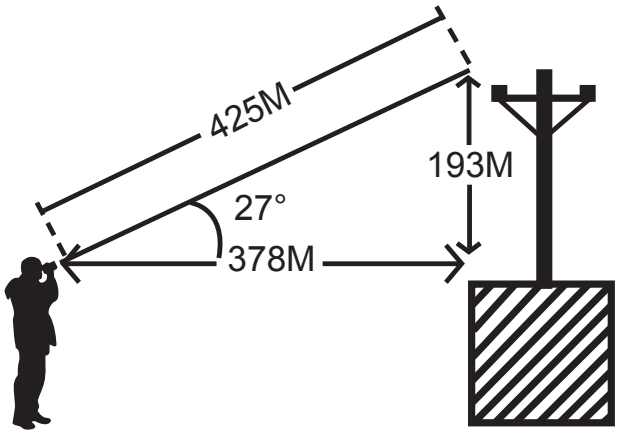


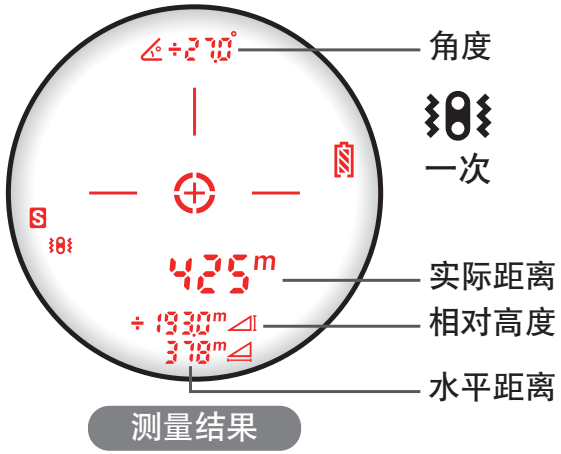
亮度调节

直线距离测量

测量目标的距离，高度以及角度。

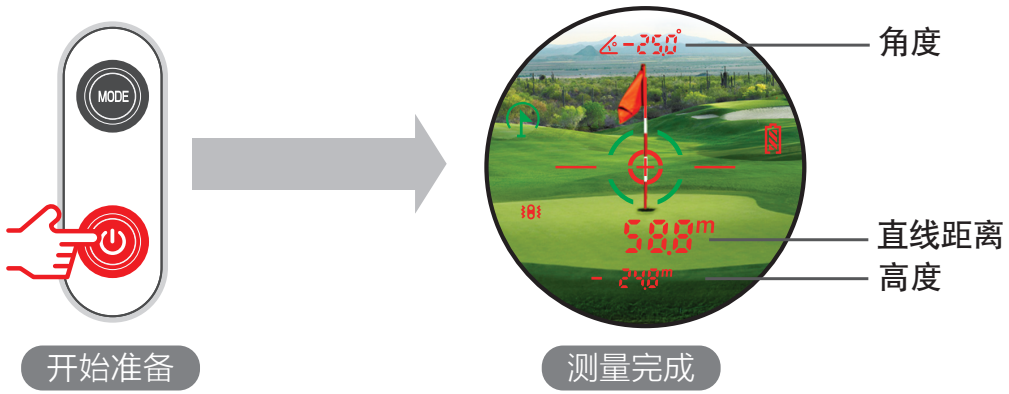
单次测量：短按测量键 测量一次距离
连续测量：长按测量键 扫描距离，实时显示扫描目标距离。





旗杆锁定

当测量重叠目标时，长按测量键 显示最近目标的距离。
例如：无法确定测量的距离是旗帜还是其后面的树林，锁定功能将锁定最近的目标——旗杆距离

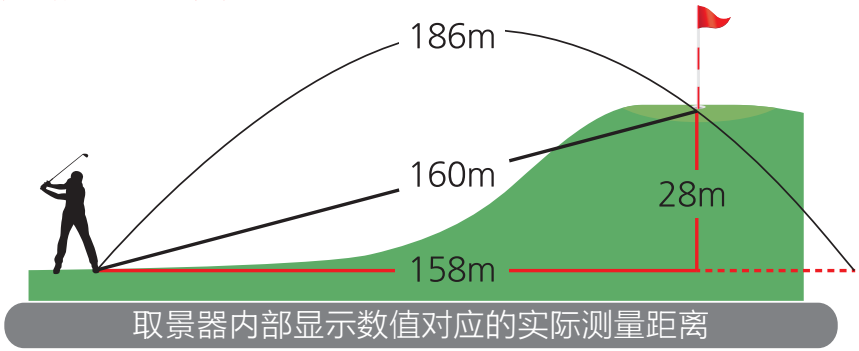


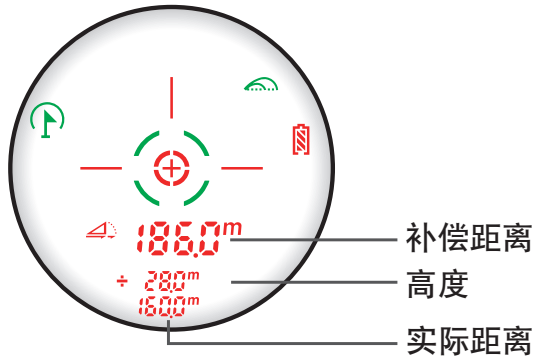
高尔夫测量

长按测量键 显示高尔夫补偿距离，实际距离和高度。

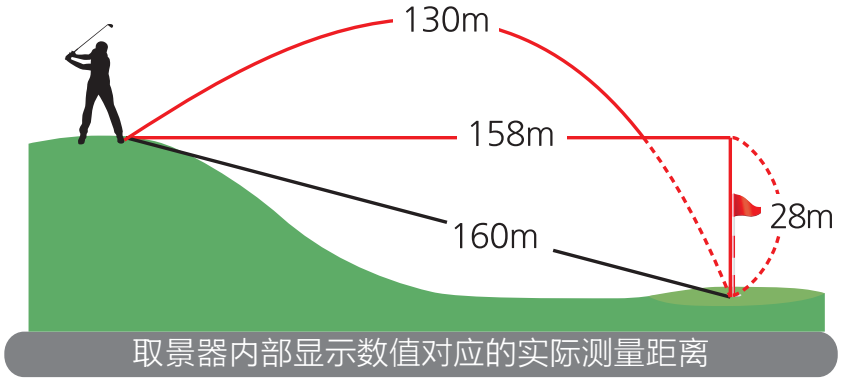
注：仪器锁定旗杆震动两次

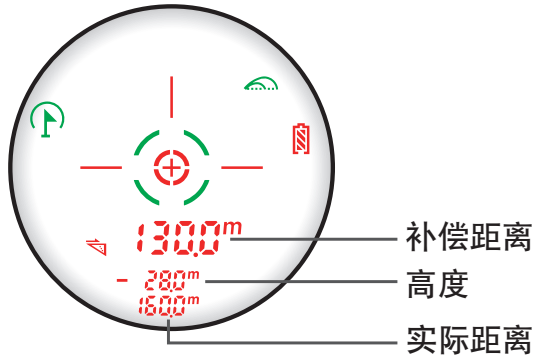
测量上坡





测量下坡

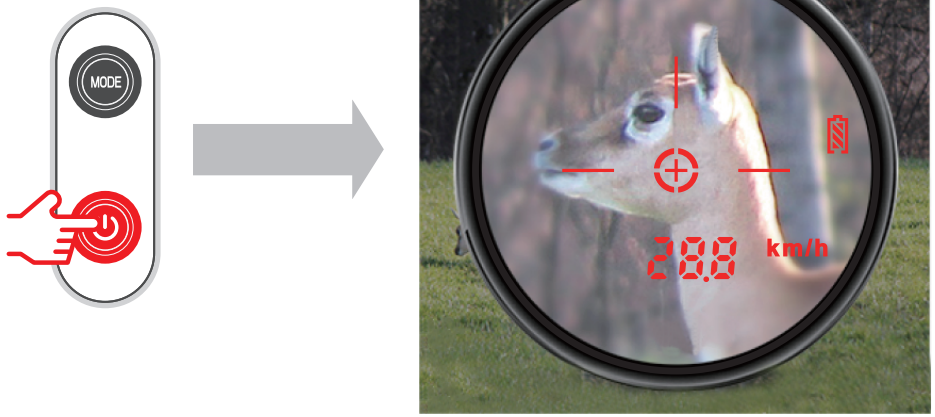




测速模式

按住 键，测量移动目标，仪器会实时计算移动目标速度并在LCD上显示。

测量移动目标



注意事项

● 多功能测距仪发射出不可见、无损视力的红外脉冲激光，然后将其从选定目标反射回光学接收器中。通过测量每个脉冲激光从测距仪到目标并返回所花的时间，系统采用先进的精确充电电路来即时计算出被测距离。该设备的最大测量范围取决于目标的反射率、颜色、表面光洁度尺寸和实际形状。

下列因素能确保获得最佳测量范围和精度：

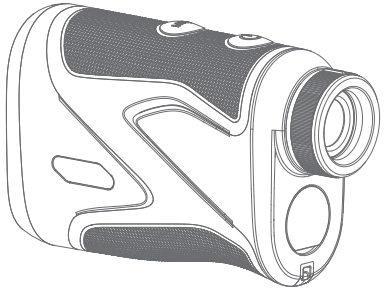
- 晴朗天气
- 空气中无任何杂质
- 亮色目标
- 具有高反射面的目标
- 具有光亮外表的目标

下列因素不能确保获得最佳测量范围和精度：

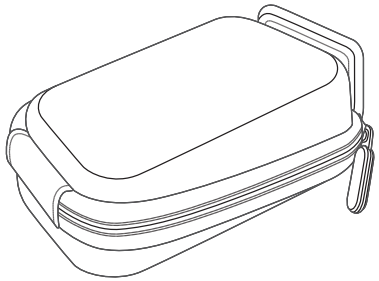
- 黑色目标
- 细小或微型目标
- 强光干扰/猛烈太阳光
- 雪天、雨天或雾天
- 需穿透玻璃测量的目标
- 有漫反射表面的目标
- 动态目标

- 当电池显示  电量不足时，应及时给电池充电，否则测距误差会增大。
- 请勿用手指触摸镜头表面，以免损坏镜头表面的膜层。
- 本机是经过精密仪器精确调校的，请勿随意拆卸，如有损坏，应送专门部门进行维修。
- 请用擦镜布轻轻擦拭镜头，切勿用其他物体擦拭。
- 携带时，应避免碰撞或重压。
- 携带时或使用时，不要使其受到烘烤或腐蚀。
- 存放时应注意防潮，宜存放在干燥、阴凉、通风的地方，防止太阳直射，避免灰尘和温度突变。
- 切忌将本机直接对准太阳或强光源发射，以免损坏机内光敏器件。

包装清单



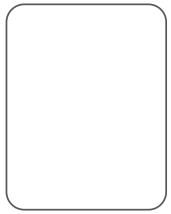
主机



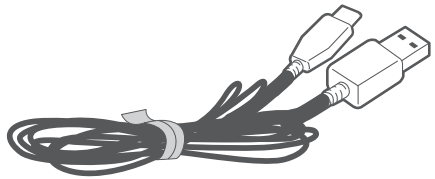
布包

挂绳

用户手册



保修卡



USB Type-C线

Safety regulations

Please read the safety regulations and operation guide carefully before operating.

⚠ Please read all of the operational guide and safety regulations in this manual before operation. Improper operations without complying with this manual guided could cause damage to the device, influence on measurement result or bodily injury to the user.

⚠ The instrument is not allowed to disassemble or repair in any ways. It is forbidden to do any illegal modification or performance change for laser emitter. Please keep it out of reach of children and avoid using by any irrelevant personnel.

⚠ Due to electromagnetic radiation interference to other equipment and devices, please don't use the meter in the plane or around medical equipment, don't use it in inflammable, explosive environment.

⚠ Discarded meter device shall not processed just like household garbage, please handle them in line with related law and regulations.

⚠ Any quality issues or any questions on the meter, please contact local distributors or manufacturer in time, we are ready to offer solutions for you.

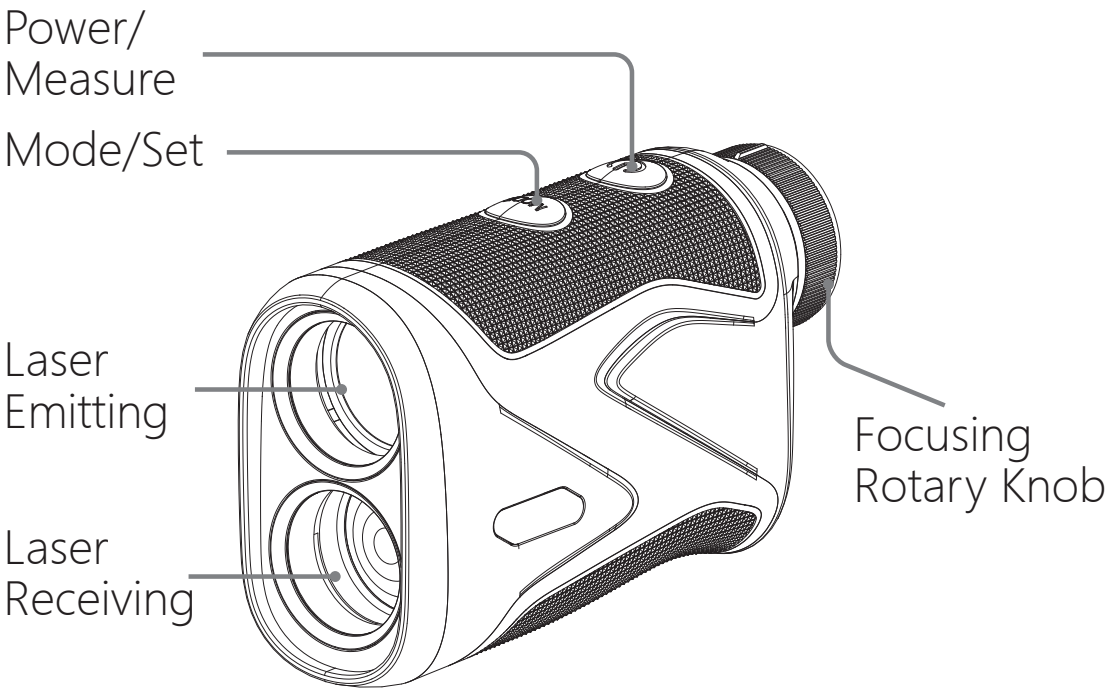
INSTRUCTION

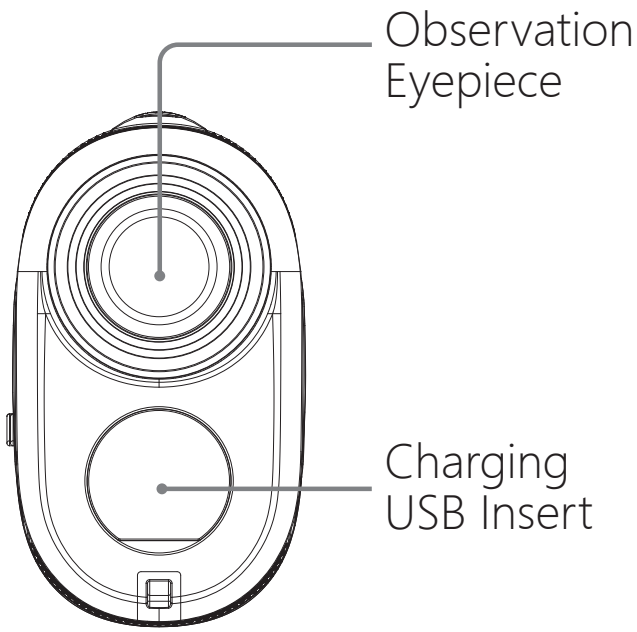
Laser rangefinder telescopes of Sndway,SW-1000D SW-1500D SW-2000D, are an instrument both for construction and golf. It can be used on the installation of electric equipment or various outdoor measurement, such as electric wire, wire tower, highway, municipal engineering, forestry survey and design, construction, network planning survey and design, communication check, hunting, golf and so on.

Feature:

- Compact, light and portable;
- High accuracy, quick measurement and low power consumption;
- Class 1 pulse laser causing no harm to eyes;
- Noiseless operation, Auto power off;
- It can capture the velocity of the target in real time in velocity measurement mode
- Built-in 750mAh chargeable lithium battery;
- Flag pole lock function, convenient for us to measure the slender target;
- Golf trajectory compensation function, used to calculate the actual hitting distance.
- Horizontal and vertical distance, applied to engineering survey
- OLED self-luminous screen without fear of ambient light or darkness and the screen is clearly visible

Overview diagram





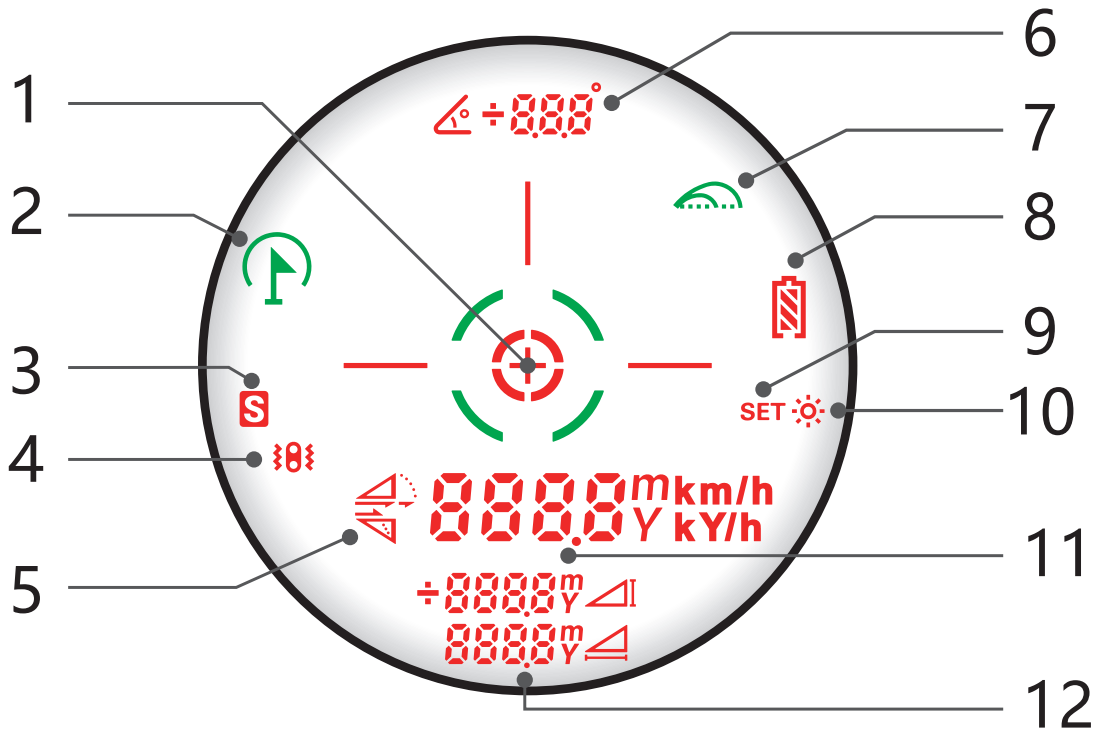
SPECIFICATIONS

Model	SW-1000D/SW-1500D/SW-2000D
Dimensions	112x70x40 mm
Net Weight	181g
Measuring Range	3-1000m / 3-1500m / 3-2000m , ±(1.0m+Dx0.2%)*
Measuring Unit	m(Meter), Y(Yard)
Measuring Speed	<0.5s (<120M 64ms; ≥120M 460ms)
Speed Measuring Accuracy	±5km/h
Speed Measuring Range	0~300km/h
Magnification	6X±5%
Field of View	7.0°±5%
Objective Caliber	23.5mm
Eyepiece Caliber	15mm
Exit pupil Caliber	4.0±0.5mm
Diopter Adjustable Range	±6°

Laser Class	Class 1
Laser wavelength	905nm
Battery Specifications	3.7V / 750mAh Li-ion
Working times	20000 times after one time full charging
Water Resistant	IP54
Operating Temperature	-10°C~ 50°C
Height Measurement	Yes
Slope Measurement	Yes
Charging specification	DC 5V 0.5A Type-C

Note: The maximum measuring range is based on light color buildings which is dependent on weather, target size, surface shape. Weather, reflection condition of the target and strong light can also affect the accuracy of the device. Please check “IMPORTANT NOTES” for more information.

Inner Display:



1>  Aiming: target in the center

2>  Flag pole lock mode

 Unlocked

 Locked

3>  Display in straight line distance mode

4>  Vibration mode

5>  Golf compensation uphill and downhill mode

 Uphill

 Downhill

6>  Angle

7>  Golf trajectory compensation

8>  Power display

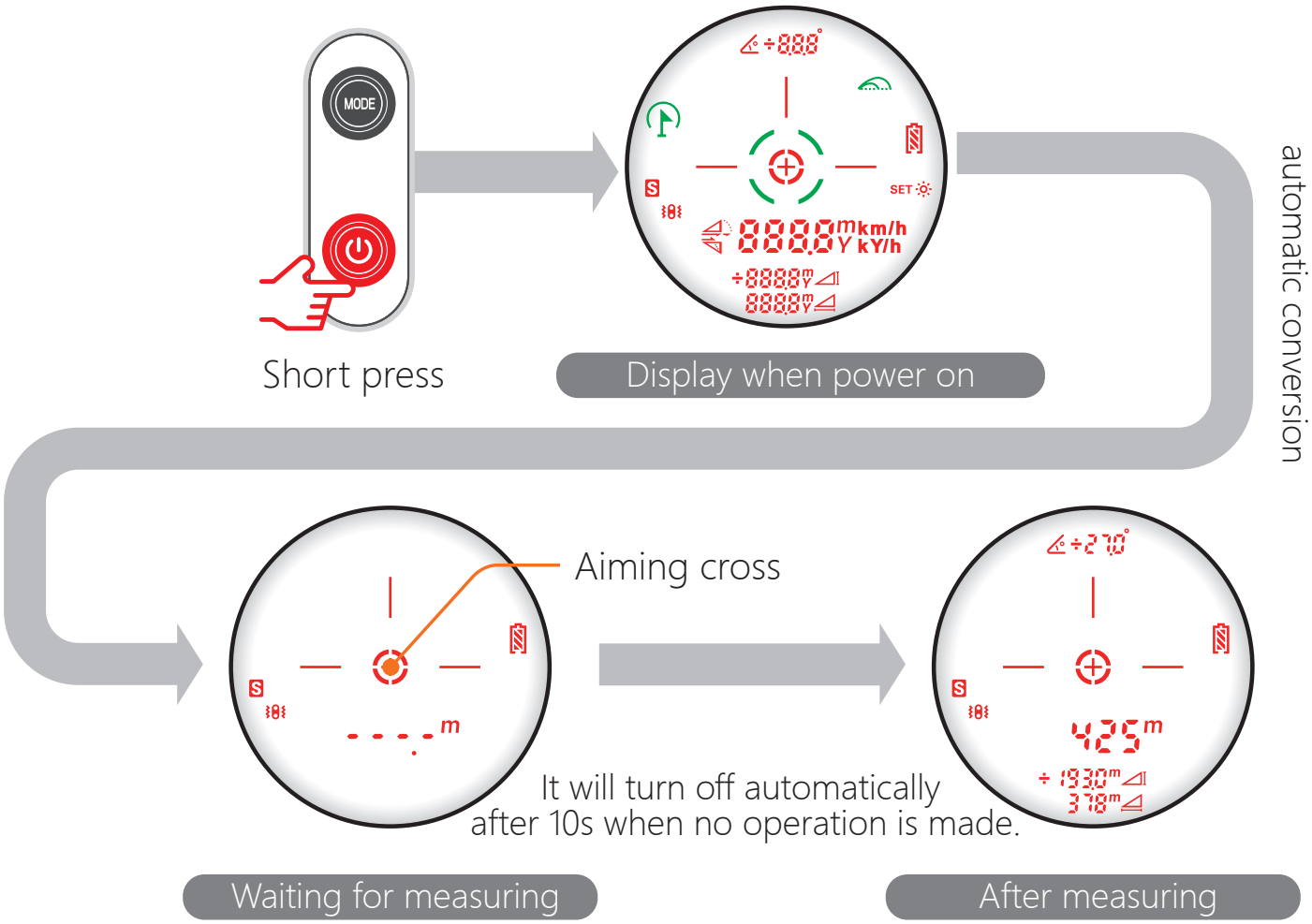
9>  Setting mode

10>  Brightness control

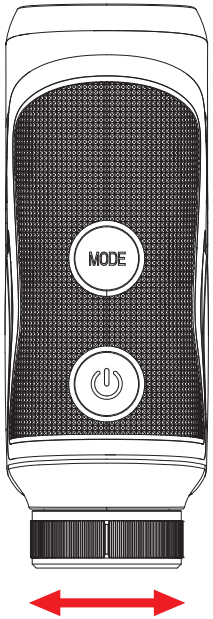
11>  Straight Line Measurement: actual distance / Flag pole measure ment: distance to the flag pole / Golf compensation: compensation distanc / Speed measurement: speed of target

12>  Straight Line Measurement: vertical distance and horizontal distance / Flag pole: vertical distance / Golf Trajectory Compensation: vertical distance and actual distance

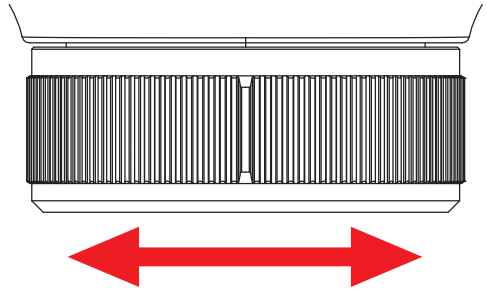
OPERATION INSTRUCTION DIAGRAM



FOCUSING



Turn The Knob To Get Clearer Vision

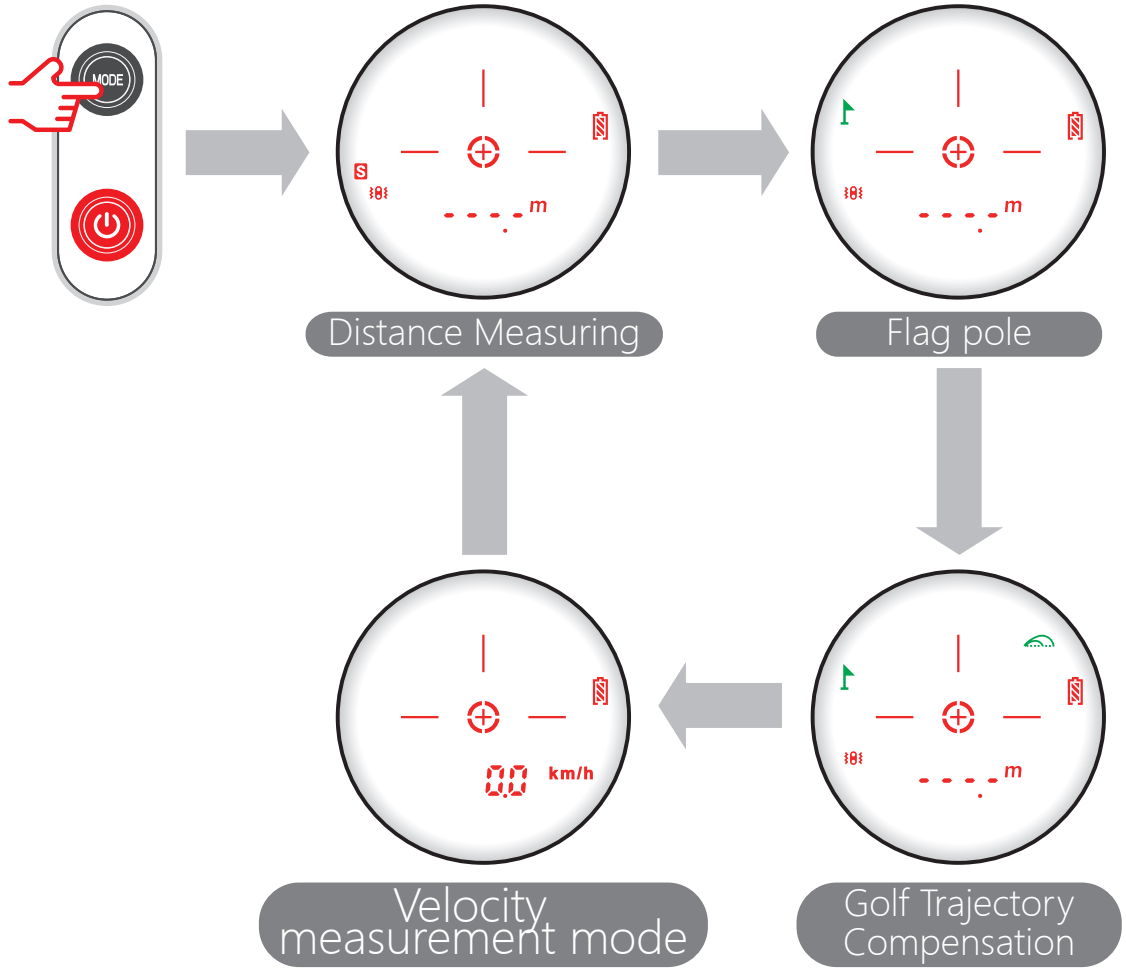


MODE

Short press MODE to select the mode.

There are 4 available modes in the device:

1. Straight Line Distance Measurement: Measure the straight-line distance from device to target.
2. Flag pole: Lock the nearest target.
3. Golf Trajectory Compensation: Measure the golf compensating distance.
4. Speed measurement: measure the Speed of the target

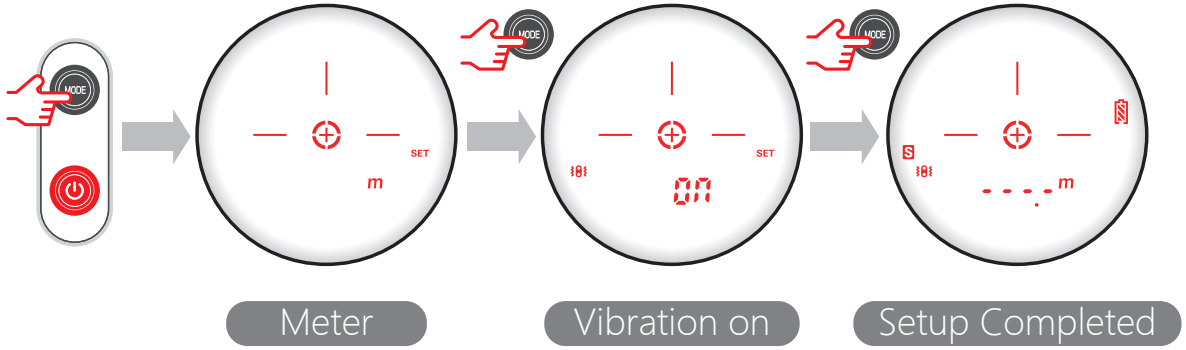


UNIT AND VIBRATION SETUP

Long press MODE for 2s to set mode:

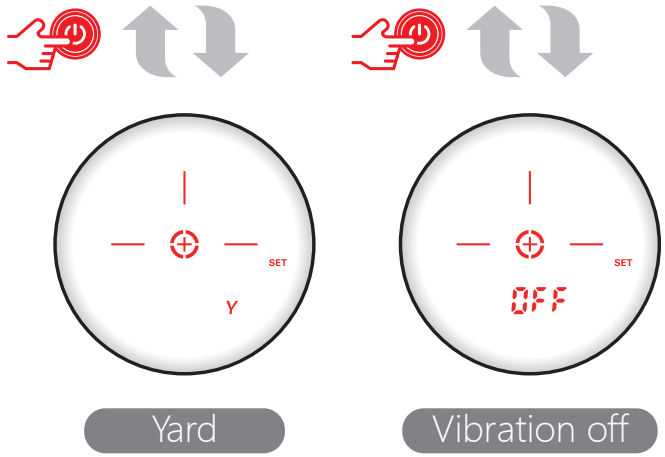
● Unit Setup

Short press ⏻ to select units between M and Y.
Short press MODE to set vibration.



● Vibration Setup

Short press ⏻ to switch on/off the vibration.
Short press MODE to save setting result.



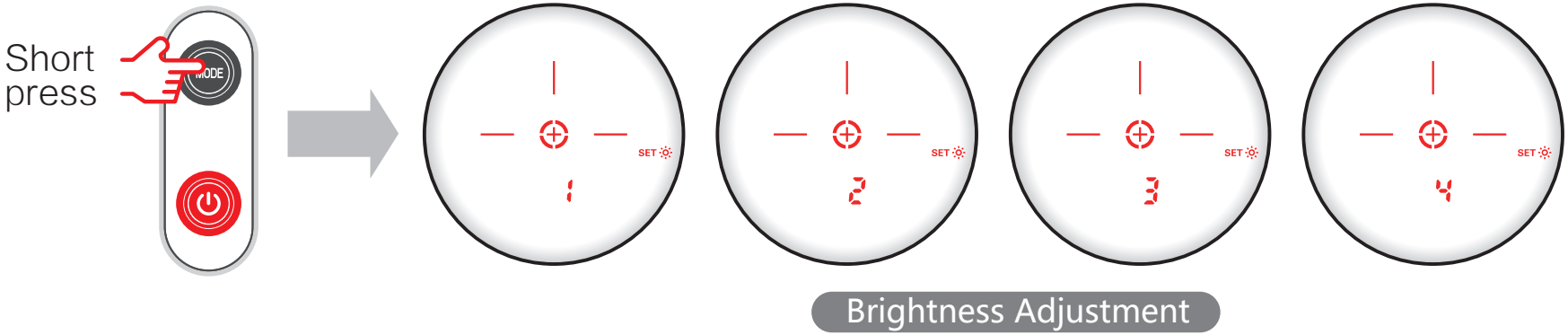
NOTE:
1. Vibration on, the device vibrates once after each measurement, and twice when the flag pole is locked.
2. Vibration off, the device won't vibrate after each measurement, and vibrate twice when the flag pole is locked.

BRIGHTNESS ADJUSTMENT

OLED brightness adjustment

Press  and at the same time short press  to adjust bright .

The system has set 1~4 levels of brightness cyclical adjustment. When it is turned on again, the last adjusted brightness will be retained.

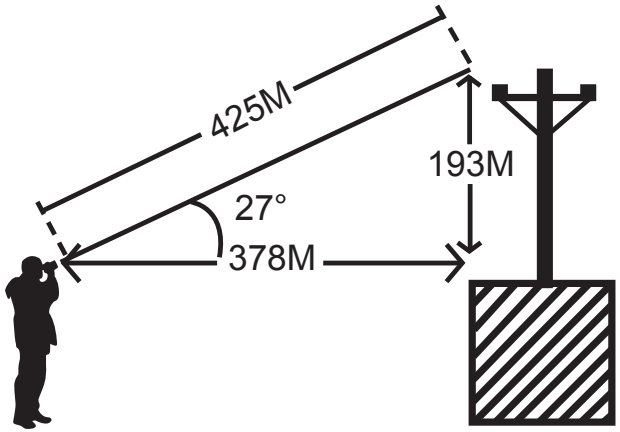


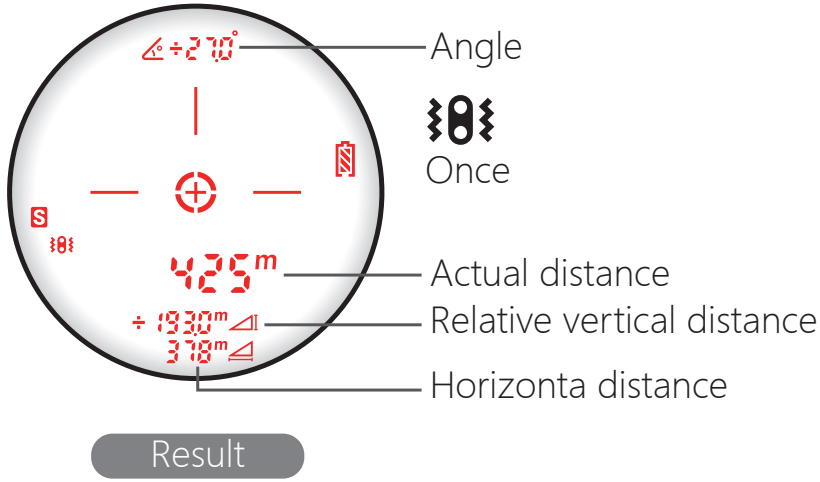
Brightness Adjustment

STRAIGHT LINE DISTANCE MEASUREMENT

Measure the horizontal distance, vertical distance and angle

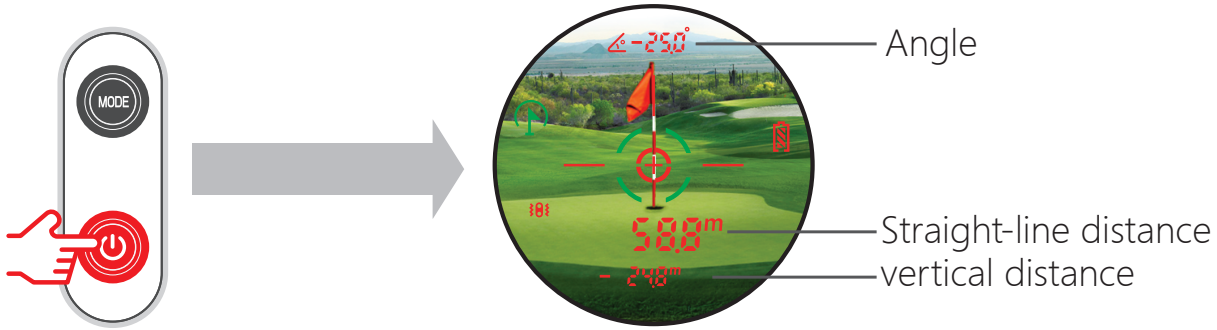
Single Measurement: Short press  once
Continuous Measurement: Long press  to scan the distance





FLAG POLE LOCK

When measuring overlapping targets, long press to get the distance of the nearest target.
For example: If it cannot distinguish the target is a flag pole or forest, this function will lock the nearest target ---- the flag pole.



Start measuring

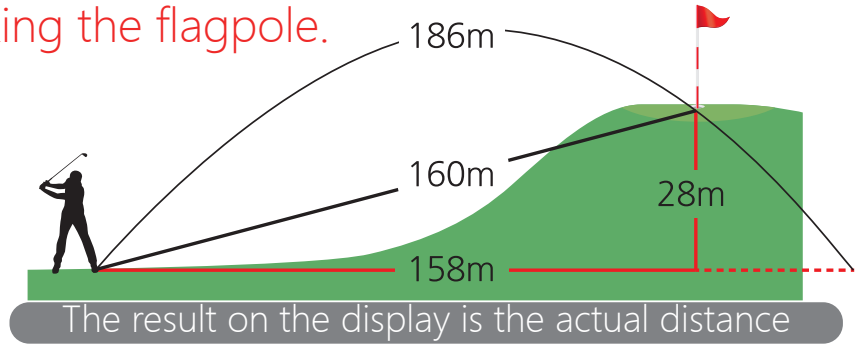
Measurement completed

GOLF MEASUREMENT

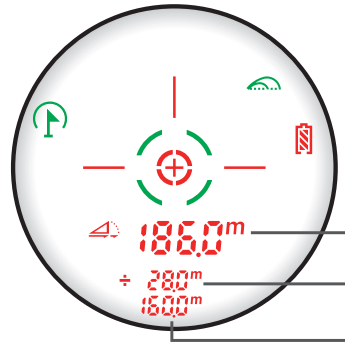
Long press , golf trajectory compensation, actual distance and vertical distance show on the display.

Note: The instrument vibrates twice when locking the flagpole.

Measuring Uphill

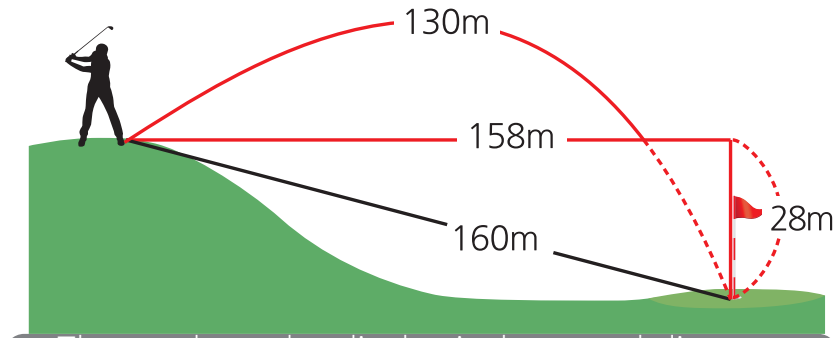


The result on the display is the actual distance



Compensation distance
vertical distance
Actual distance

Measuring Downhill



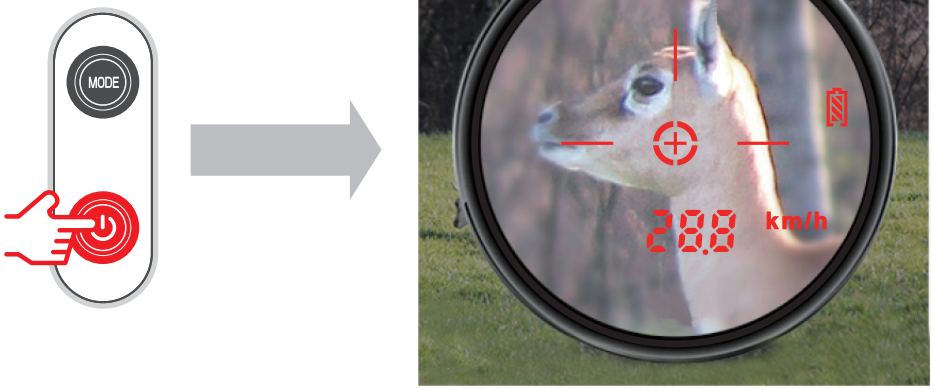
The result on the display is the actual distance

Compensation distance
vertical distance
Actual distance

SPEED MEASUREMENT

Press and hold to track the target, your traget speed would be shown on LCD screen in real time.

Track and measure the target speed



IMPORTANT NOTES

● The multifunctional range finder does not emit a visible beam. It emits a vision-nondestructive infrared pulse laser, and then the laser returns from the selected target, back to the optical receiver. By measuring the time each pulse laser takes to travel from the target and back, the laser rangefinder then uses its advanced diagnostic circuit to instantly calculate the measured distance. The maximum measuring range of the device depends on the target reflectivity, colour, surface finish, size and actual shape.

Try to use the device environments below to guarantee the accuracy:

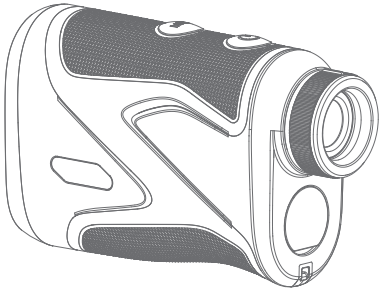
- Sunny Day
- Clear Air
- Bright Target
- High Reflecting Surface
- Shiny Surface

Situations below may cause measuring problems to the device:

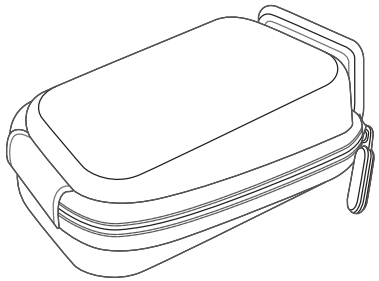
- Black Target
- Tiny Target
- Very Strong Light or Sunshine
- Snowy Rainy or Foggy
- Glass
- Diffuse Surface
- Dynamic Target

- Charge the device when the icon  shows to avoid bigger accuracy under low power condition.
- DO NOT touch the lens with fingers in order to protect the coating on lens.
- DO NOT disassemble the device which is calibrated by highly precise instrument. Please send it to a professional maintenance department when the device gets problems.
- DO NOT wipe the lens with anything other than lens cloth.
- DO NOT carry the device under collision or heavy objects.
- DO NOT store the device in baking or corrosion environments.
- DO NOT store the device in sunlight, dusty or temperature-abrupt environments. It should be kept in a dry, cool and ventilated place.
- DO NOT aim the device at the sun or strong light source, which may damage the photosensor.

PACKING LIST

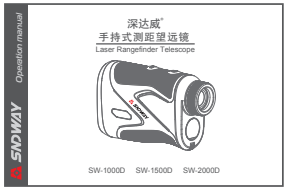


Meter

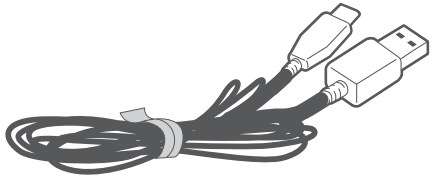


Pouch

Hand Strap



User Manual



USB Type-C Cable

Operation manual

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