

USER MANUAL

360° Self-leveling Cross Line Laser Level

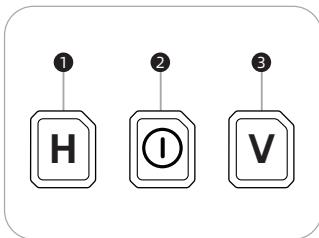
Thank you for purchasing 360° Self-leveling Cross Line Laser Level.

Before using the product, please read this manual thoroughly to ensure proper use.

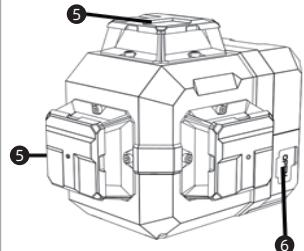
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Product Overview

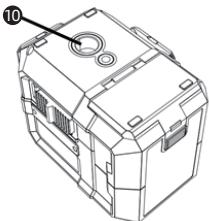
- ① Switch Horizontal Line(s)
- ② ON/OFF/Pulse Mode Button
- ③ Switch Vertical Lines
- ④ Light
- ⑤ Liser Windows
- ⑥ Type-C Charging Port
- ⑦ Pendulum / Transit Lock
- ⑧ Battery Compartment
- ⑨ 1/4"-20 Threaded Mount
- ⑩ 5/8"-11 Threaded Mount



3DG/3DR:

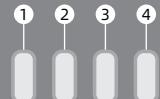
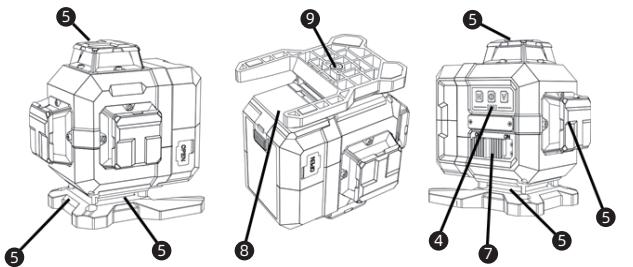


2DG/2DR:



Indicator Icons

4DG/4DR:



- ① Pulse light up blue light / lock power on green light
- ② ③ ④ When charging, it is indicated by a marquee; When working normally, it will indicate the power level, and the green light will be on.

Note: green light is a green indicator light, and red light is a red indicator light.

Safety Instructions

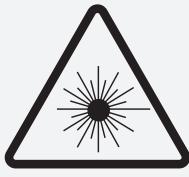
Please read thoroughly and comply with the Safety Instructions and User Manual before using this product. Failure to read and follow may void the warranty.

WARNING!

CLASS I LASER PRODUCT
COMPLIES WITH CFR 1040.10 AND 1040.11

Max Power Output : <1mW
Wavelength : 505nm - 660nm

LASER RADIATION:
DO NOT STARE INTO BEAM.
DO NOT DIRECT EYE EXPOSURE
AVOID VIEW WITH OPTICAL INSTRUMENTS.



ICE / EN 60825-1

ATTENTION:

Read all instructions prior to operating this laser tool. Do not remove any labels from tool.

- While the product is in operation, be careful not to expose your eyes to the emitting laser beam (Green/Red light source). Exposure to a laser beam for an extended time may be hazardous to your eyes.
- Do not attempt to view the laser beam through optical tools such as telescopes as serious eye injury may result.
- Do not disassemble or modify the laser in any way. Modifying the tool may result in hazardous Laser Radiation Exposure.
- Do not operate the laser around children or allow children to operate the laser. Serious eye injury may result.
- An exposure to the beam of a Class 2 laser is considered safe for a maximum of 2 seconds. Eyelid reflexes will normally provide adequate protection.
- The following label/print samples are placed on the product to inform of the laser class for your convenience and safety.

CAUTION

LASER RADIATION - DO NOT
STARE INTO THE BEAM OR VIEW
DIRECTLY WITH
OPTICAL INSTRUMENTS
MAX OUTPUT <1mW @505nm-660nm
CLASS II LASER PRODUCT
COMPLIES WITH CFR 1040.10 AND 1040.11



User Guide, Maintenance and Care

- When not in use please power OFF the tool and place the pendulum lock in locked position.
- The laser tool is sealed and calibrated at the plant to the accuracy specified. It's recommended to carry out an accuracy check before first use and periodic checks in future use especially for precise layouts.
- Do not touch the glass window in case leaving any fingerprint on the window, which may affect the working performance of the laser.
- Do not store the laser tool in direct sunlight or expose it to high temperatures. The housing and some internal parts are made of plastics and may become deformed at high temperatures.
- Exterior plastic parts may be cleaned with a damp cloth, NEVER use solvents. Use a soft, dry cloth to remove moisture from the tool before storage.
- Do not dispose of this product with household waste.
- Always dispose of batteries per local code.
- Please recycle in line with local provisions for the collection and disposal of electrical and electronic waste under the WEEE Directive.

Charging and Battery Safety

This product is compatible with lithium battery. The dealer's choice is equipped with lithium battery. Please check the contents of the package according to the dealer's description.

Please read thoroughly and comply with battery safety instructions and attention before charging. Fail to read and follow may result in personal injury, fire, and property damages if the battery is charged and/or used improperly.

Lithium Battery Safety:

- A power adapter with 5V=2A can be used for charging. The first charging time is recommended to be more than 6 hours. Each charge time is about 3 hours, but not more than 24 hours.
- A power adapter with 3A can also be used for quick charging. Charging time is only about 1.5 hours.
- Please charge in 24 hours when the low battery or the laser tool turns off due to low power.
- If the lithium battery is not used for extended time, please charge the lithium battery once every 6 months, each charging time is not less than 6 hours.
- The best charging temperature: 0°C to 20°C (32°F-68°F)
- The red light is steady when the battery pack is charging, and the green light is on when the battery pack is fully charged.

Attention:

- Keep the battery away from children, and pets.
- **DO NOT SHORT CIRCUIT.** Short circuits may cause fire, and injury!
- Do not charge unattended.
- Do not disassemble, or modify the battery.

- If the device is not used for a long period of time, please fully charge and remove the battery. Please store the battery in a dry and room temperature environment.
- Never charge or store the batteries inside your car. Do not leave the battery near a heat source (such as a stove). Extreme temperatures (low or high) might ignite the battery, and cause a fire.
- Do not place the battery in high-pressure containers, microwave ovens, or on induction cookware.
- Do not carry, or store the batteries together with hairpins, necklaces, or other metal objects.
- On (battery electrolytes) exposure to skin, flush with water immediately. If eye exposure occurs, flush with water for 15minutes, and seek emergency care immediately.
- Immediately discontinue use of the battery if the battery abnormal/ deformed (emits an unusual smell, feels hot, changes color or shape, or appears abnormal in any other way). Please contact the manufacturer to replace it.

Icons and LCD Display:

- After Power ON, the battery level  will be showed on the LCD display.
- When battery is low and needs to be charged, the icon  will display and flash.
- During charging, the icon  will scroll.
- When charging is complete, the icon  displayed.
- When laser tool is with AA batteries, the icon  will display.
- The laser tool is able to work while being plugged in directly even if taking out the battery, and the icon  displayed.
- When battery level is less than 5% of total battery capacity, the laser tool will power off and needs to be charged.

Turn ON the laser tool:

Method 1 Turn ON the Self-leveling Mode:

- Slide the pendulum to the Unlocked Position to turn ON the laser tool, the self-leveling mode is activated by default.
- The laser beam(s) blink fast and beep as well when the tool is out of self-leveling range

Method 2 Turn ON the Manual/Tilt mode:

- When the pendulum in Locked Position, press  and hold for >2 seconds to turn ON the laser tool, the manual mode is activated by default.
- The laser beam(s) will blink about every 3-5 seconds to notify the user it is not self-leveling now.
- Under manual mode, users can position the laser tool at various angles.

Note: Please notice the laser beam(s) projected in manual mode cannot be used as a horizontal or vertical reference in nature.

Turn OFF the laser tool:

A. If the laser tool is in Self-leveling Mode:

- Slide the pendulum to the Locked Position to turn OFF the laser tool.

B. If the laser tool is in Manual Mode:

- Method 1: Slide the pendulum to the Unlocked Position, and then slide the pendulum again to the Locked Position to turn OFF the laser tool.

- Method 2: When the pendulum is in the Locked Position, press  and hold for ≥ 2 seconds to Turn OFF the laser tool.

Automatic Power OFF:

- In Manual Mode, when all laser lines are switched OFF as well as the LCD is still ON, the laser tool will Automatically Turn OFF after about 5 minutes of inactivity.

Note:

- The laser level can only be turned off when the pendulum in its Locked Position.
- If all laser beams light off while LCD is still on, the unit is not turned OFF.
- If all laser lines are switched OFF while the LCD is still ON, the laser tool will beep after 30 seconds to remind the laser tool is not turned OFF.

Lines Switching:

After turned ON the laser tool, all laser beams will be on by default.

- Short press  to switch the horizontal line(s).
- Short press  to switch the vertical lines.

Pulse Mode (Use with Laser Receiver):

- Under pulse mode, the laser tool can work with the laser receiver for working in a brighter environment or a larger working distance.
- It is necessary to turn on the pulse mode when using with the receiver.

Switch to Pulse Mode:

Turn on the laser tool, short press  to switch to Pulse Mode.

The laser beams are dimmer in pulse mode.

Return Back to Normal Mode:

Short press  again to return to Normal Mode. The laser beams will be recovered.

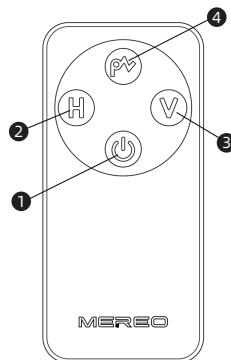
Note:

- When switched to Pulse Mode or returned to Normal mode, the laser beam(s) will blink fast as a reminder.
- Keep the pulse mode on when using with receiver for longer working range.

Remote Control(Optional)

Overview

- ① Self-vertical boot mode, toggle the laser light on/off
- ② Horizontal line switching
- ③ Vertical line toggle key
- ④ Pulse mode key



Turn ON the remote control:

Please understand that due to the pendulum locking design, the laser tool cannot be turned on or off by the remote control. The self-leveling and manual mode cannot be switched via the remote control.

Press  and hold for >2 seconds to turn ON the remote control when the laser tool is on. The remote control will match and connect with the laser tool automatically.

Turn OFF the remote control:

• If the laser tool is in Self-leveling Mode:

Short Press  to turn off all the laser lines. The LCD is still on while backlight will be off. Short press any button on the remote control to wake up the laser tool for working again.

• If the laser tool is in Manual Mode:

Short Press  to turn off all the laser lines. The laser tool will **Automatically Turn OFF** after about 5 minutes of inactivity. Within 5 minutes, users can short press any button on the remote control to wake up the laser tool for working again.

Note: The laser level can only be turned off when the pendulum is in its Locked Position.

Press and hold  for ≥ 5 seconds to turn off remote control.

- **Lines Switching:**

Short press **H** to switch the horizontal line(s).

Short press **V** to switch the vertical lines.

- **Pulse Mode:**

Short press **PW** to switch to Pulse Mode and return back to normal mode.

Remote control indicator display:

- During Bluetooth match and connection with the laser tool, the indicator will flash in green twice per second. Once connected, the indicator will light up in green continuously. If the connection fails after more than 2 minutes, the remote control will automatically turn off and the indicator light off.
- After the remote control connected successfully, the indicator will flash in green every 0.5 second when press any button.
- When the remote control is not operated within 5 minutes, the indicator will flash in green and remote control enters low power consumption mode. Press any button to resume normal operation.
- When the power is low, the indicator will flash in red twice per second. The remote control can still work until the power is exhausted, then turn off automatically and the indicator will light off.
- During charging, the indicator will flash in red. When charging is complete, the indicator will flash in green continuously.

Note: Do not use the laser tool with Bluetooth in the vicinity of gasstations, chemical plants, areas where there is danger of explosion and areas subject to blasting.

Specifications

Model	Green Beams	Red Beams
Laser Class	Class 2 (IEC/EN60825-1/2014), <1mW	
Laser Wavelength	505-520nm	635-660nm
Leveling Accuracy	±2mm/10m (±1/13 in. at 33 ft)	
Leveling/Compensation	3.5°±1°	
Self-leveling Time	3 seconds	
Reference Working Distance (60-100 LUX)	≥20m/ 66ft	≥20m/ 66ft
Reference Working Distance (With Laser Detector)	≥40m/ 130ft	≥40m/ 130ft
Power Source	Li-ion Battery 7.4V 2600mAh / 4x"AA"	
Reference Operating Time (with 2600mAh Li-ion Battery)	2DG: About 11 hrs 3DG: About 9 hrs 4DG: About 7 hrs	
Charging Time	About 3 hrs for 5V=1A Adapter About 1.5 hrs for 12V=3A Adapter	
Mount Size	2DG/2DR & 3DG/3DR: 1/4"-20 & 5/8"-11 3DDG/3DDR & 4DG/504DR: 1/4"-20	
IP Rating	IP54	
Distance from wall	8mm	
Distance from Ground (S03DG/S03DR & S04DG/S04DR)	13mm	
Work Temperature	-10°C ~ +50°C-	
Storage Temperature Range	20°C~+70°C	
Net Weight (Include Li-ion Battery)	2DG/2DR: 630g 3DG / S03CR: 680g 3DDG/3DDR: 680g 4DG / 4DR: 740g	

Note:

- Appearance and specifications may differ due to product improvement.
- Working distance varies depending on the operating environment.
- Keep the pulse mode on when using with receiver for longer working range.

Warranty



The laser tool passed a rigorous and comprehensive product inspection. We are confident in the quality of our products and provide excellent guarantee for professional users of the products

We offer One Year Warranty from date of purchase including that:

- Proof of purchase is produced
- Service/repairs have not been attempted by unauthorized persons
- The product has not been misused

Defective products will be repaired or replaced, free of charge or at our discretion, if sent together with proof of purchase to our authorized distributor(s)

This Warranty does not cover:

- Faults caused by accidental damage
- The product has suffered unreasonable wear and tear
- Failure to use according to manufacturers' instructions
- Defects caused by maintenance or renovation without our authorization
- Calibration and maintenance are not included in the warranty

Note:

- We are not liable for any direct or indirect loss caused by the failure of this product beyond the scope stipulated by law.
- Repair or replacement under this Warranty does not affect the expiry date of the Warranty.
- This warranty is only applied to customers who have purchased this product, and is not permitted to transfer this warranty to any third parties.
- This Warranty shall not be altered without our authorization.

FCC Warning

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.

FDA **CE** **FC** **RoHS**  