

Specification

Item Number: MSR20Hmini

Laser Class: Class 1 or 2 depending on light source power

Laser Wavelength: 635nm±5nm

Light source & output power: 20mW Split Cross

Red Light source

Horizontal Accuracy: ±4.5mm/15m

Vertical Accuracy: ±4.5mm/15m

Self-leveling Range: 4°±1°

Self-leveling Time: ≤3s

Working distance:

15m; ≥35m with detector (typical intermediate light source power)

Operating Time: >16h (all lasers on)

Power Source: 2×“AA” (LR6)

IP Rating: IP54

Operating Temperature Range: -10°C to 50°C

Storage Temperature Range: -20°C to 70°C

Mount Size: 1/4"-20 & 5/8"-11

Item Number: MSR20Mmini

Laser Class: Class 1 or 2 depending on light source power

Laser Wavelength: 635nm±5nm

Light source & output power: 10mW Split Cross

Red Light source

Horizontal Accuracy: $\pm 4.5\text{mm}/15\text{m}$

Vertical Accuracy: $\pm 4.5\text{mm}/15\text{m}$

Self-leveling Range: $4^\circ \pm 1^\circ$

Self-leveling Time: $\leq 3\text{s}$

Working distance:

15m; $\geq 35\text{m}$ with detector (typical intermediate light source power)

Operating Time: $> 16\text{h}$ (all lasers on)

Power Source: 2×“AA” (LR6)

IP Rating: IP54

Operating Temperature Range: -10°C to 50°C

Storage Temperature Range: -20°C to 70°C

Mount Size: 1/4"-20 & 5/8"-11

Item Number: MSG20mini

Laser Class: Class 2

Laser Wavelength: 510nm-530nm

Light source & output power: 15mW Split Cross

Green Light source

Horizontal Accuracy: $\pm 4.5\text{mm}/15\text{m}$

Vertical Accuracy: $\pm 4.5\text{mm}/15\text{m}$

Self-leveling Range: $4^{\circ}\pm 1^{\circ}$

Self-leveling Time: $\leq 3\text{s}$

Working distance:

25m; $\geq 35\text{m}$ with detector

Operating Time: 6h (all lasers on)

Power Source: 2×“AA” (LR6)

IP Rating: IP54

Operating Temperature Range: -10°C to 50°C

Storage Temperature Range: -20°C to 70°C

Mount Size: $1/4''$ -20 & $5/8''$ -11







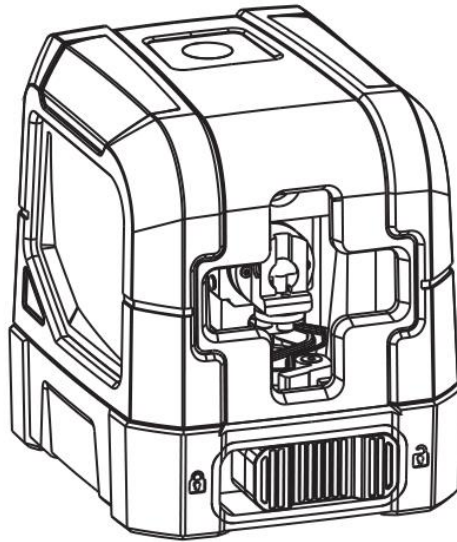


Manual

MSR20Mmini / MSR20Hmini/ MSG20mini

Mini CROSS Line LASER

User Manual



Safety

Read the Safety Instructions and User Manual thoroughly before using this product. All users must fully understand and adhere to these instructions.

CAUTION:

- While the product is in operation, be careful not to expose your eyes to the emitting laser beam (red or green light source). Exposure to a laser beam for an extended time may be hazardous to your eyes.
- Glasses may be supplied in some of the laser tool kits. These are NOT certified safety glasses. These glasses are ONLY used to enhance visibility of beam in brighter environments or at greater distances from laser source.

WARNING:

The following label/print samples are placed on the product to inform of the laser class for your convenience and safety.

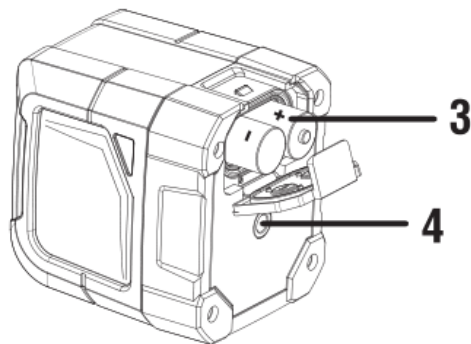


IEC/EN 60825-1:2007

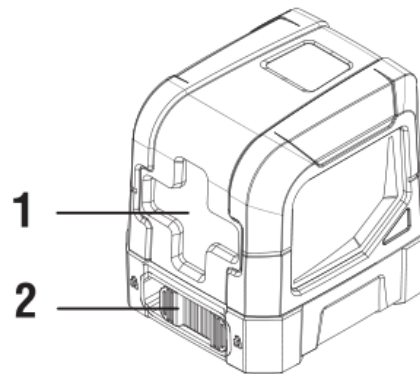


- Do not stare directly into the beam or view directly with optical instruments or set up the laser at eye level.
- Do not disassemble the laser tool. There are no user serviceable parts inside.
- Do not modify the laser in any way. Modifying the tool may result in hazardous Laser Radiation Exposure.
- 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 0.25 seconds. Eyelid reflexes will normally provide adequate protection.

Product Overview



1. Laser Window
2. Power/Lock
3. Battery Compartment
4. 1/4-20 Mounting Thread



Operation Modes

General Notes:

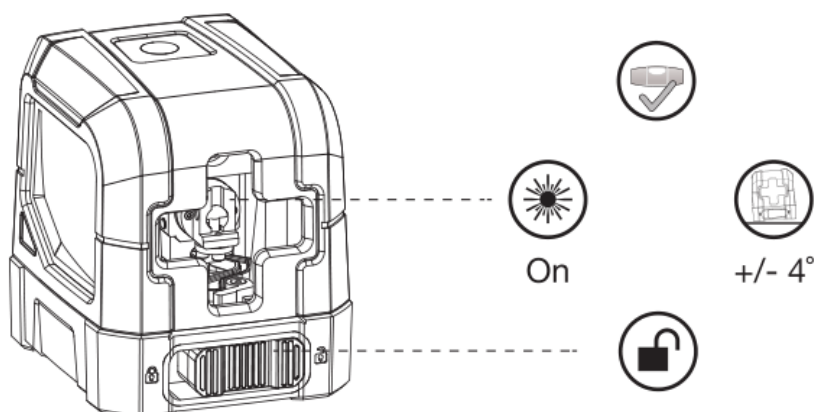
Press or slide locking switch to turn laser tool ON; short press to turn laser tool OFF when the laser tool is locked with pendulum.

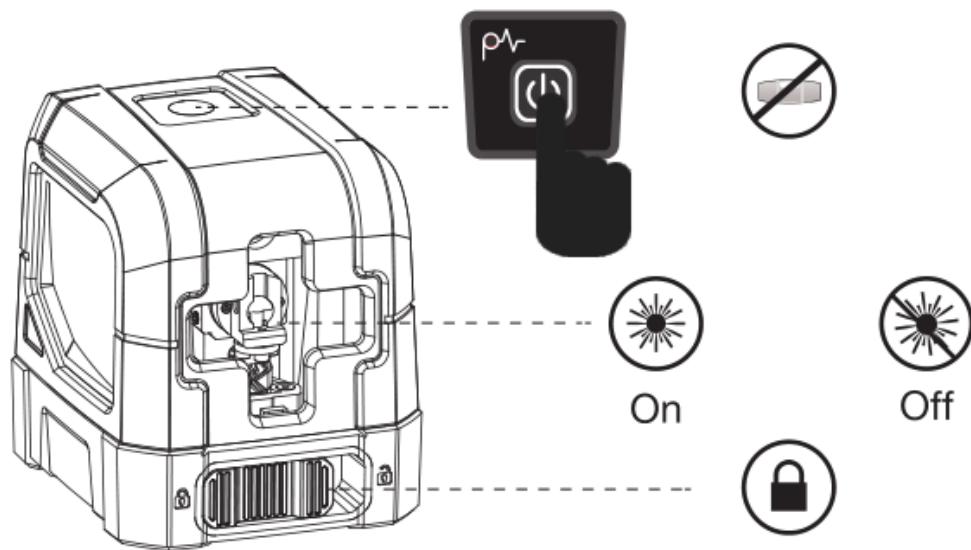
Self-leveling Mode:

- is enabled when the laser tool is switched to the unlocked position.
- has laser beam(s) blink fast at 2 Hz when tool is out of self-leveling range.
- allows proper use of tool's full time pulse mode with laser detector.

Manual Mode

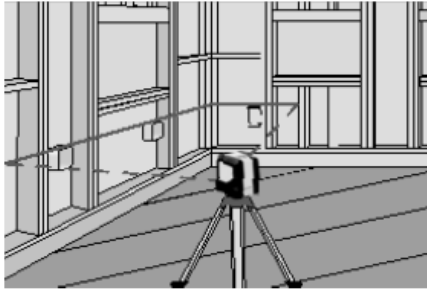
- is enabled when the pendulum lock is in its locked position to position the laser tool at various angles to project non-level straight lines.



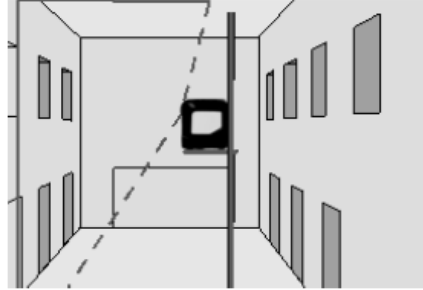


Applications

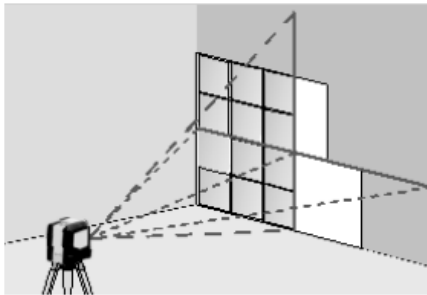
Level Transfer



Plumb Transfer



Square



- The laser tool is sealed and calibrated at the plant to the accuracies specified.
- It's recommended to carry out an accuracy check before its first use and periodic checks during future use especially for precise layouts.
- When not in use please power OFF the tool and place the pendulum lock in its locked position.
- In Manual Mode, self leveling is OFF. The accuracy of the beam is not ensured to be level.

- 5 -

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- Do not short any battery terminals or charge alkaline batteries or dispose of batteries in fire.
 - Do not mix old and new batteries. Replace all of them at the same time with new batteries of the same brand and type.
 - Keep batteries out of reach of children.
 - Remove batteries if the tool will not be used for several months.
 - 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. Although these parts are solvent resistant, NEVER use solvents. Use a soft, dry cloth to remove moisture from the tool before storage.
 - Store the tool in its case when not in use. If storing for extended time, remove batteries before storage to prevent possible damage.
 - 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.
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Specifications

MSR20Mmini/MSR20Hmini/MSG20mini General Specification			
Laser Class	Class 2	Leveling Accuracy	$\pm 4.5\text{mm}/15\text{m}$
Leveling Range	$4^{\circ} \pm 1$	Horizontal/Vertical Accuracy	$\pm 4.5\text{mm}/15\text{m}$
Power Source	"AA" Battery x 2	IP Rating	IP54
Working Temp. Range	$-10^{\circ}\text{C} - +50^{\circ}\text{C}$	Storage Temp. Range	$-20^{\circ}\text{C} - +70^{\circ}\text{C}$

- 6 -

MSR20Mmini/MSR20Hmini/MSG20mini Particular Specification			
	Wavelength	Range / Range with Detector	Working Time
MSR20Mmini	$635\text{nm} \pm 5\text{nm}$ (Red)	15m / 30m	16H
MSR20Hmini	$635\text{nm} \pm 5\text{nm}$ (Red)	20m / 50m	12H
MSG20mini	$510\text{nm} \sim 530\text{nm}$ (Green)	25m / 60m	6H

Warranty

We are confident of the quality of our products and offer outstanding guarantee for professional users of the products. This statement is in addition to and in no way prejudices your contractual rights as a professional user or your statutory rights as a private non-professional user. We warrant our laser level(s) against faults in materials and/or workmanship for one year from date of purchase provided that:

- Proof of purchase is produced.
- Service/repairs have not been attempted by unauthorized persons;
- The product has been subject to fair wear and tear;
- 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).

- 7 -

This Warranty does not cover faults caused by accidental damage, unfair wear and tear, and use other than in accordance with the manufacturers' instructions or repair or alteration of this product not authorized by us.

Repair or replacement under this Warranty does not affect the expiry date of the Warranty.

To the extent permitted by law, we shall not be liable under this Warranty for indirect or consequential loss resulting from faults in this product. This Warranty may not be varied without our authorization. Calibration and care are not covered by warranty.

NOTE:

- The customer is responsible for the correct use and care of the tool. Moreover, the customer is completely responsible for periodically checking the accuracy of the laser, and therefore for the calibration of the tool.