sola REC RRD2 Handheld Receiver Instruction Manual

Contents

sola REC RRD2 Handheld Receiver

Product Information

Specifications

- **Working Range:** Up to 300m*
- **Detection Window Size**: 90mm
- **Max. Sensitivity Levels:** Superfine, Fine, Medium, Rough
- **IP66 Rating**
- **Batteries:** 4 x 1.5V Mignon (AA)
- **Battery Life**: Up to 48 hours
- Thread for bracket
- Weight without Battery
- **Dimensions:** [Insert Dimensions]

Product Usage Instructions

General Information
Before using the REC RRD2 handheld receiver, familiarize yourself with the signal words and their meanings as described in the manual.

Delivery Contents
The delivery contents include the REC RRD2 handheld receiver, REC RRD2 clamp, and 4 x 1.5V Mignon batteries (AA).

Description, Device Components, Display and Operating Elements
The REC RRD2 device components include horizontal and vertical vials, marking point, ON/OFF key with display illumination, sensitivity switching key, VOL key for volume control, and more. Familiarize yourself with these components before use.

Technical Data
The REC RRD2 has a working range of up to 300m*, a detection window size of 90mm, and different sensitivity levels. The device is IP66 rated and operates on 4 x 1.5V Mignon batteries (AA) with a battery life of up to 48 hours.

FAQ

- **How do I change the sensitivity level on the REC RRD2?**

  To change the sensitivity level on the REC RRD2, use the sensitivity switching key to toggle between settings of 1mm, 2mm, 5mm, and 10mm.
- **What is the battery life of the REC RRD2?**

  The REC RRD2 has a battery life of up to 48 hours when using 4 x 1.5V Mignon batteries (AA).

About this Manual
Congratulations on the purchase of your new REC RRD2! You have acquired a SOLA measurement device, which can make your work easier, faster, and more precise. To utilize the complete functionality range of this measurement device, and to ensure a safe operation, please review the following instructions:

- Please read these operating instructions before using the device.
- Always keep the operating instructions near the device.
- Only hand over the device to other persons together with the operating instructions.
- Never render the attached warning signs unreadable.

General Information

Signal Words and their Meaning

- **DANGER**

  For an imminent danger that could lead to serious injury or death.
- **WARNING**

  For a possibly dangerous situation that could lead to serious injury or death.
- **CAUTION**

  For a possibly dangerous situation that could lead to slight injury or property damage.
- **NOTICE**

  For application notes and other useful information.

Pictograms and Other Information

Warning Signs

Warning of dangers in general

Symbols

Read operating instructions before use.

Do not throw battery into the fire.

Batteries and devices may not be disposed of with household waste.

Do not heat battery above 60°C.

Delivery Contents

REC RRD2 Delivery Contents

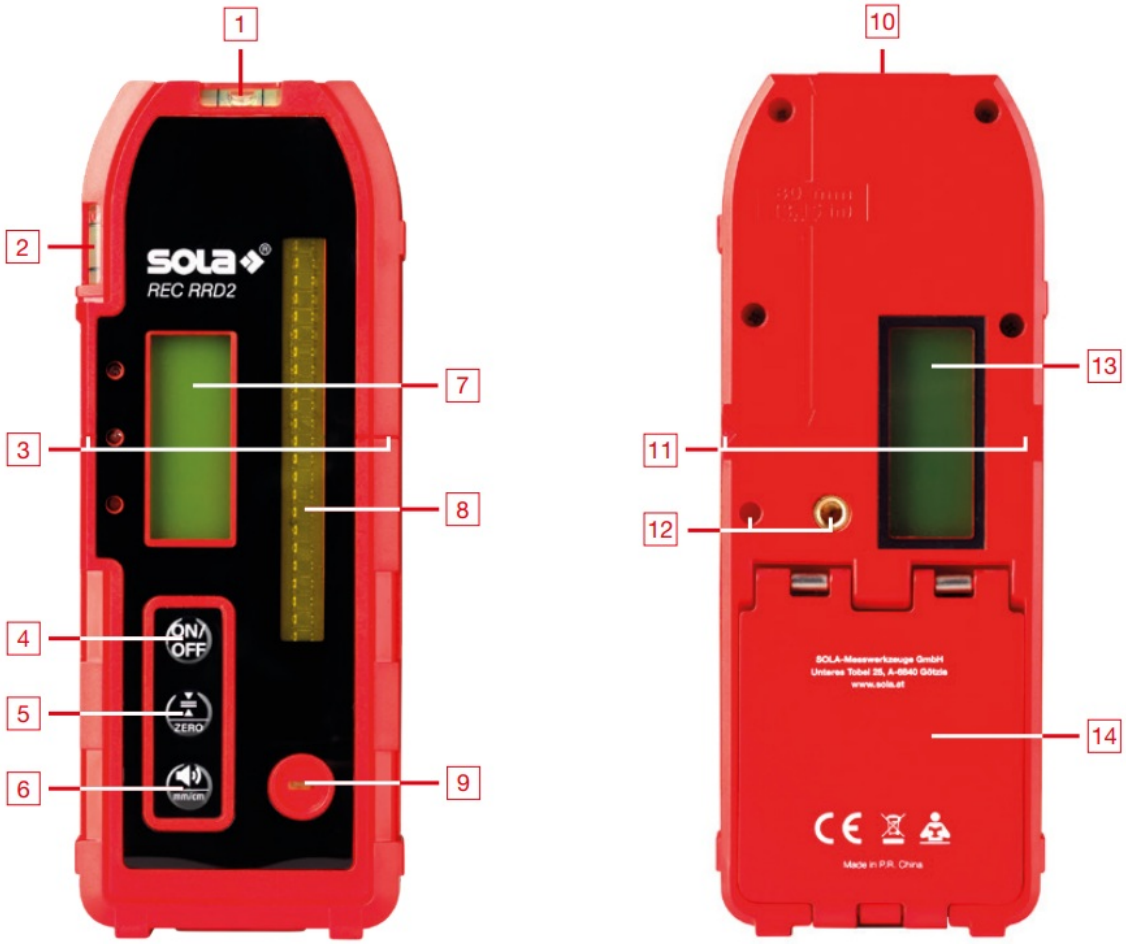
1. 1 Receiver REC RRD2
2. 1 REC RRD2 clamp
3. 4 1.5 V Mignon batteries (AA)

Description, Device Components, Display and Operating Elements

Intended Use

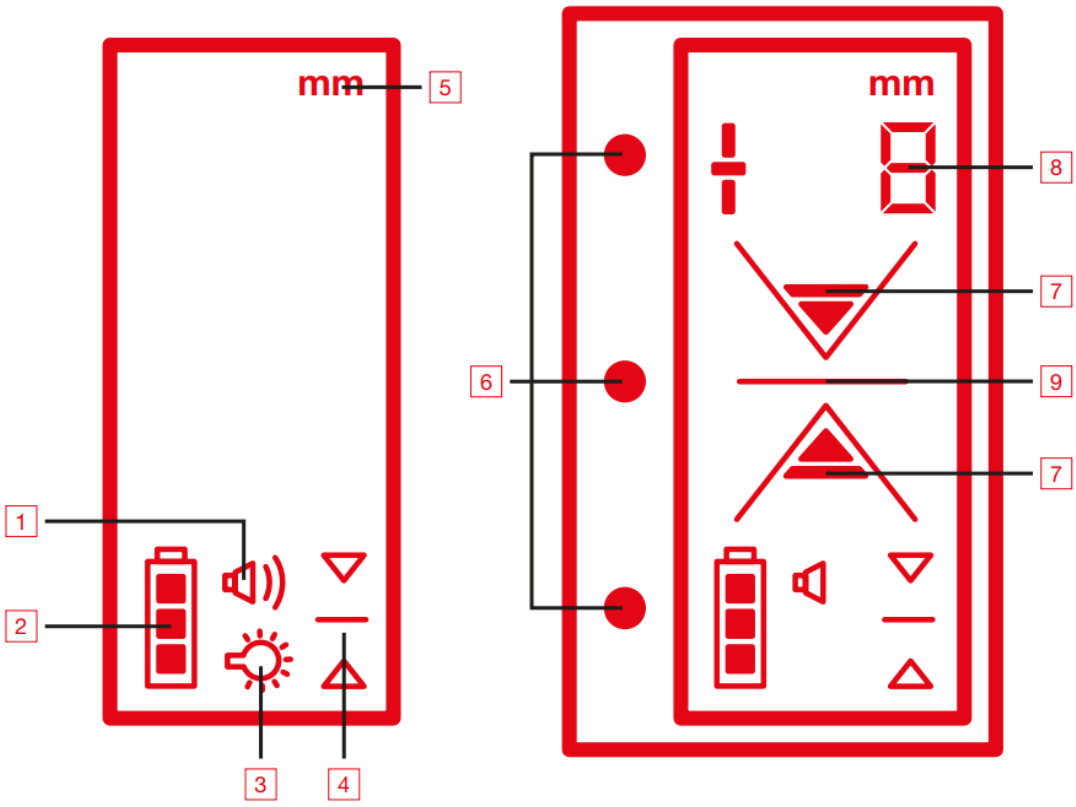
- The REC RRD2 is a handheld receiver with which a single person is able to level and align line laser beams both horizontally and vertically.
- The device is preferably intended for indoor use. For outdoor applications, care must be taken to ensure that the environmental conditions correspond to those indoors. Follow the operating instructions contained in this manual.
- The device and accessory equipment may present a danger if they are utilized improperly or inappropriately by persons who are not instructed as required.

REC RRD2 Device Components



1. Horizontal vial
2. Vertical vial
3. Marking point
4. “ON/OFF” key and display illumination
5. “Sensitivity switching” key for setting 1, 2, 5 and 10 mm
6. “VOL” key for volume control and mm/cm switching
7. Display front
8. Detection window for laser beam
9. Loudspeaker
10. Magnet
11. Marking point
12. ¼” Thread and guide bush for clamp
13. Display rear
14. Battery compartment cover

REC RRD2 Display



1. Beep status
    - Loudspeaker only -> mute
    - Loudspeaker with 2 marks -> medium
    - Loudspeaker with 3 marks -> very loud
2. Battery status
3. Illumination ON/OFF status
4. Sensitivity status
    - 1 mark ± 1.0 mm
    - 3 marks ± 2.0 mm
    - 5 marks ± 5.0 mm
    - 7 marks ± 10.0 mm
5. Unit mm/cm status
6. Approximate orientation of the receiver position to the center reference of the laser beam
7. Specification of process direction to the center reference of the laser beam
8. Deviation 0 – 40 mm from the center reference of the laser beam
9. Center reference of the laser beam

REC RRD2 Clamp

1. Fixing screw with ¼” thread
2. Guide pin
3. Adjustment screw for clamping

Technical Data

Working range	r = 300 m*
Detection window size	90 mm
Max. sensitivity	· Superfine ± 1.0 mm · Fine ± 2.0 mm · Medium ± 5.0 mm · Rough ± 10.0 mm
Protection class	IP66
Power supply	4 x 1.5V Mignon (AA) batteries
Operating time (at 20°C)	48 hrs
Operating temperature	-15°C to +60°C
Storage temperature	-40°C to +70°C

Thread for bracket	¼”
Weight without battery	257 g
Dimensions	192 × 73 × 29 mm

Safety Instructions

Area of Responsibility

Manufacturer

SOLA is responsible for the safe delivery condition of the product, including the operating instructions and the original accessories.

Operator
The operator is responsible for using the product as intended, the deployment of personnel, their training, and the operational safety of the product.

- The operator understands the safety information which is stated on the product and in the operating instructions.
- The operator shall comply with the standard local regulations relating to safety and accident prevention regulations as well as worker protection laws and regulations.
- The operator shall immediately notify SOLA if safety-related issues should arise relating to the product or during its utilization.
- The operator shall ensure that the product is not utilized any further if defects become evident, and will have the product repaired professionally.

Improper Use

- Use of the device and the accessories without instruction.
- Use of third-party accessories or additional equipment.
- Use outside of the intended limits (see Chapter 4/Technical Data).
- Use under extreme temperature fluctuations without adequate acclimatization.
- Disabling of safety devices and removal of hazard notices and labels.
- Unauthorized opening of the device.
- Performance of modifications or alterations to the device or the accessories.
- Deliberate blinding of third parties.
- Inadequate safeguarding at the installation site.

Utilization Limitations
The handheld receiver REC RRD2 is suitable for continuous use in an atmosphere which can be inhabited by humans.

- Do not operate the product in explosion-prone or corrosive environments.
- Inform the local safety authorities and safety experts before working in hazardous environments, in close proximity to electrical installations or similar surroundings.

Usage Hazards

General
CAUTION
A fall, longer storage, transportation, or other mechanical effects can lead to erroneous measurement results. Check the unit for damage before use. Do not use damaged equipment

- Repairs must only be performed by SOLA.
- Before using, check the accuracy of the device (see Chapter 7/Checking the Accuracy).

Batteries/Rechargeable Batteries

DANGER
Mechanical damage can cause batteries and rechargeable batteries to leak, explode, or catch fire or trigger the release of toxic substances.

- Batteries and rechargeable batteries must not be opened or exposed to mechanical loads.
- Repairs must only be performed by SOLA.

  WARNING

  High ambient temperatures and immersion into liquids can cause batteries and rechargeable batteries to leak, explode, or catch fire or trigger the release of toxic substances.
- Protect batteries and rechargeable batteries from mechanical damage during transport. Do not overheat batteries and rechargeable batteries or expose them to fire.
- Avoid the ingress of moisture into batteries and rechargeable batteries.
- Do not use damaged batteries or rechargeable batteries. Perform a proper disposal (see Chapter 9/Disposal).

  WARNING

  Short-circuiting or improper use can cause batteries to overheat and create an injury or fire hazard.
- Do not transport or store batteries in the pockets of garments.
- Do not bring the battery contacts in contact with jewelry, keys, or other electrically conductive objects.
- Do not charge the batteries.
- Do not discharge the batteries through short-circuiting.
- Do not solder the batteries in the device.
- Do not mix old and new batteries, and do not mix batteries from different manufacturers or with a differing type designation.

  WARNING

  If disposed of improperly third parties may possibly be seriously injured and the environment polluted. Burning plastic compo-nents generates toxic fumes which may impair health. Batteries/rechargeable batteries may explode if they are damaged or heat-ed excessively, and thereby cause poisoning, burning, corrosion, or environmental contamination. If disposed of negligently, unauthorized persons are able to use the product improperly.
- The product must not be disposed of together with household waste. Dispose of the device and accessories properly (see Chapter 9/Disposal).
- Protect the product against access by unauthorized persons at all times, especially children.

Electromagnetic Compatibility (EMC)

The electromagnetic compatibility is the ability of the product to function in an environment where electromagnetic radiation and electrostatic discharge are present, without causing electromagnetic interference to other devices.

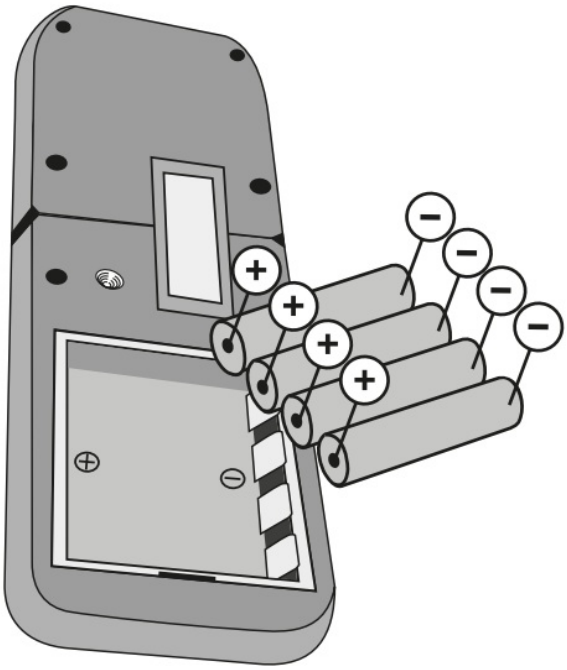
Interference with other Devices by the REC RRD2 Handheld Receiver
Although the product meets the strict requirements of the relevant directives and standards, SOLA cannot completely exclude the pos-sibility of interference with other devices (for example, when using the product in combination with third-party devices, such as field computers, personal computers, wireless devices, mobile phones, certain cables, or external batteries).

- When using computers and radio equipment, be sure to observe to the vendor-specific information about electromagnetic compatibility.
- Only use original SOLA equipment and accessories.

Interference with the REC RRD2 Handheld Receiver by other Devices
Although the product meets the strict requirements of the relevant directives and standards, SOLA cannot entirely exclude the possibility that intense electromagnetic radiation in the immediate vicinity of radio transmitters, two-way radios, diesel generators, etc., may distort the measurement results.
When performing measurements under these conditions, check the plausibility of the results.

Getting Started

1. Open the battery compartment cover on the rear of the device.
2. Insert batteries with the correct polarity.
3. Close the battery compartment cover (audible click of the cover).
   Only use 1.5V (AA) batteries! Remove the batteries if the device is not used for an extended period (see Chapter 8/Maintenance, Storage, and Transportation).



Operation

REC RRD2

Switching On and Off

- **ON:** Press the “ON/OFF” key
- **OFF:** Press and hold the “ON/OFF” key for 3 seconds (the receiver switches off automatically after 30 minutes if it is not in active use).
    - Turn the operating surface of the receiver towards the laser device and ensure that the receiver window is perpendicular to the line level.
    - Move the receiver up and down until a signal sounds, direction arrows appear on the display and the remaining distance that the receiver has to be moved to ensure that the laser beam hits the center reference of the receiver is displayed.
- If the marking point of the receiver is above the laser beam, a slowly pulsed beep sounds, a downward-pointing arrow symbol appears on the display and the negative remaining distance that the receiver has to be moved to ensure that the laser beam hits the center reference of the receiver is shown.

Move the receiver downwards in the direction of the arrow on the display.

- If the marking point of the receiver is below the laser beam, a fast pulsed beep sounds, an arrow symbol pointing upwards appears on the display and the positive remaining distance that the receiver has to be moved to ensure that the laser beam hits the center reference of the receiver is shown.
  Move the receiver upwards in the direction of the arrow on the display.
- When you hear a continuous beep and/or when only the middle beam is visible, the marking point is exactly on the laser beam.
  - Use a pencil to mark the height of the laser beam at the marking points.
  - The receiver can be aligned vertically using the vial; the marking points on the left and right sides are at the same height.

Accuracy/Sensitivity
The REC RRD2 receiver has four sensitivity classes. The “Superfine” class (1 mark) with a sensitivity of ± 1.0 mm, the “Fine” class (3 marks) with a sensitivity of ± 2.0 mm, the “Medium” class (5 marks) with a sensitivity of ± 5.0 mm and the “Rough” class (7 marks) with a sensitivity of ± 10 mm.

- Switch on receiver REC RRD2.
- Press the “Sensitivity switching” key to alternate between the sensitivity classes.

Beep
The beep can be set on the REC RRD2 receiver.
There are three possible variants.

1. Loudspeaker only: mute;
2. Loudspeaker with 2 marks: medium;
3. Loudspeaker with 3 marks: very loud.
   - Switch on receiver REC RRD2.
   - Press the “VOL” key to alternate between the variants.

Display Illumination
The REC RRD2 receiver has a backlight for the front and rear display.

Maintenance, Storage, and Transportation

Cleaning
Wipe off the dirt with a soft damp cloth.

- Check the outlet openings of the laser distance meter regularly, and thoroughly clean them if necessary. Do not touch the glass with your fingers.
- Do not use aggressive cleaning agents or solvents.
- Do not immerse the device in water!
- Clean and dry wet equipment, accessories, and transport containers prior to packaging them. Only pack equipment again when it is completely dry.
- Keep plug connections clean and protected from moisture.

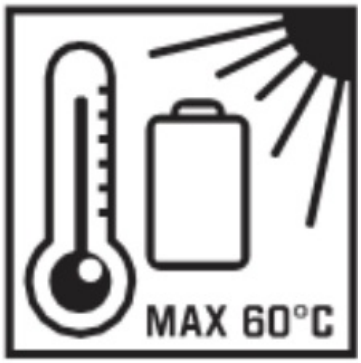
Storage

General

- The equipment may only be stored within the specified temperature limits (see Chapter 4/Technical Data).
- After prolonged storage, check the accuracy of the measuring device before using it.

Batteries/Rechargeable Batteries

- Remove the batteries and rechargeable batteries from the device for storage. If possible, store at room temperature and in a dry environment (see Chapter 4/Technical Data).
- Protect from moisture and wetness. Wet or damp batteries must be dried before storage or use.



Transport

General
The device may be damaged if it falls or is subjected to strong vibrations.

- Never transport the product loose. Always use the original packaging or an equivalent transport container.
- Switch off the measuring device before transporting it.
- Check the unit for damage before use.

Batteries/Rechargeable Batteries
When transporting or shipping the batteries and rechargeable batteries, the operator is responsible for complying with the applicable national and international laws and regulations.
Remove the batteries from the device before shipping.

Disposal

- If disposed of improperly third parties may possibly be seriously injured and the environment polluted.
- Burning plastic components generates toxic fumes which may impair health. Batteries/rechargeable batteries may explode if they are damaged or heated excessively, and thereby cause poisoning, burning, corrosion, or environmental contamination.
- If disposed of negligently, unauthorized persons are able to use the product improperly.
- Measuring tools, accessories and packaging must be recycled in an environmentally friendly manner.
- The product as well as the accessories – especially the batteries and rechargeable batteries – must not be disposed of with household waste.
    - Dispose of the device and the accessories properly.
    - Observe the country-specific disposal requirements.

- Your SOLA dealership will accept returned batteries as well as old equipment, and will ensure proper disposal.

Only for EU Countries

- Electric tools must not be disposed of with household waste!
- According to European Directive 2002/96/EC on Waste Electrical and Electronic Equipment and its transposition into national law, electrical and electronic equipment that is no longer usable must be collected separately and recycled in an environmentally friendly manner.

Manufacturer's Guarantee

- "The manufacturer warrants to the original purchaser stated on the guarantee card, freedom from defects of the device for a period of two years, with the exception of batteries, from such time as the device is handed over. The guarantee is limited to repairs and/or replacements at the manufacturer's discretion.
- Defects which are caused through improper handling by the purchaser or third parties, natural wear, and optical flaws that do not affect the usability of the equipment, are not covered by this guarantee. Claims under this guarantee can only be invoked if the device is submitted along with the guarantee card, completely filled out by the dealer, dated, and provided with the company stamp.
- If the guarantee claim is justified, the manufacturer shall bear the transport costs. The duration of the guarantee will not be extended through repair or spare parts work which is carried out within the scope of the guarantee.
- Further claims are excluded, unless these are stipulated by the respective national legislation.
- In particular the manufacturer shall not be liable for any direct, indirect, incidental, or consequential damages, losses or expenses in connection with device's use or because of the inability to use the tool for any purpose whatsoever. Implied warranties for the usage or suitability for a particular purpose are expressly excluded."

EC Declaration of Conformity

Wir/We/Nous
SOLA-Messwerkzeuge GmbH
6840 Götzis, Austria

erklären in alleiniger Verantwortung, dass das Produkt(e)
declare under our sole responsibility that the product(s)
déclarons sous notre seule responsabilité que le(s) produit(s)

REC RRD2

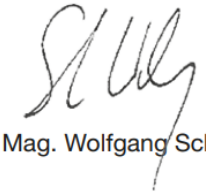
auf das sich diese Erklärung bezieht, mit den folgenden Normen übereinstimmt.
to which this declaration relates is in conformity with the following standards.
auquel(s) se réfère cette déclaration est conforme aux normes.

EN 61010-1:2010

Gemäss den Bestimmungen der Richtlinie(n)
Following the provisions of Directive(s)
Conformément aux dispositions de(s) Directive(s)

Electromagnetic compatibility 2004/108/EC
Low Voltage Directive 2006/95/EC

SOLA-Messwerkzeuge GmbH



Mag. Wolfgang Scheyer CEO

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Documents / Resources

	sola REC RRD2 Handheld Receiver [pdf] Instruction Manual REC RRD2, REC RRD2 Handheld Receiver, Handheld Receiver, Receiver

References

- Sola Measuring Tools U.S.A.
- SOLA - der Spezialist für Messen und Markieren am Bau
- SOLA Suisse AG - der Spezialist für Messen und Markieren am Bau
- User Manual