

Leica RGR 300-D



User Manual
Version 1.0
English

- when it has to be right

Leica
Geosystems

PART OF
HEXAGON

Introduction



This manual contains important safety directions as well as instructions for setting up the product and operating it. Refer to [1 Safety Directions](#) for further information.

Read carefully through the User Manual before you switch on the product.



The content of this document is subject to change without prior notice. Ensure that the product is used in accordance with the latest version of this document.

Updated versions are available for download at the following Internet address:

<https://www.disto.com/manuals>



Keep for future reference!

Validity of this manual

This manual applies to the Leica RGR 300-D. Where there are differences between the standard setups they are clearly described.

Leica Geosystems address book

On the last page of this manual, you can find the address of Leica Geosystems headquarters. For a list of regional contacts, please visit http://leica-geosystems.com/contact-us/sales_support.

Table of Contents

1	Safety Directions	4
1.1	General Introduction	4
1.2	Definition of Use	5
1.3	Limits of Use	6
1.4	Responsibilities	6
1.5	Hazards of Use	7
1.6	Disposal	9
2	Overview	10
3	Instrument Setup	12
4	Operation	14
5	Cleaning and Drying	18
6	Technical Data	19
6.1	Conformity to National Regulations	20
7	International Limited Warranty	23

1 Safety Directions

1.1 General Introduction

Description

The following directions enable the person responsible for the product, and the person who actually uses the equipment, to anticipate and avoid operational hazards.

The person responsible for the product must ensure that all users understand these directions and adhere to them.

About warning messages

Warning messages are an essential part of the safety concept of the instrument. They appear wherever hazards or hazardous situations can occur.

Warning messages...

- make the user alert about direct and indirect hazards concerning the use of the product.
- contain general rules of behaviour.

For the users' safety, all safety instructions and safety messages shall be strictly observed and followed! Therefore, the manual must always be available to all persons performing any tasks described here.

DANGER, WARNING, CAUTION and **NOTICE** are standardised signal words for identifying levels of hazards and risks related to personal injury and property damage. For your safety, it is important to read and fully understand the following table with the different signal words and their definitions! Supplementary safety information symbols may be placed within a warning message as well as supplementary text.

Type	Description
 DANGER	Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.
 WARNING	Indicates a potentially hazardous situation or an unintended use which, if not avoided, could result in death or serious injury.
 CAUTION	Indicates a potentially hazardous situation or an unintended use which, if not avoided, may result in minor or moderate injury.
NOTICE	Indicates a potentially hazardous situation or an unintended use which, if not avoided, may result in appreciable material, financial and environmental damage.
	Important paragraphs which must be adhered to in practice as they enable the product to be used in a technically correct and efficient manner.

1.2

Definition of Use

Intended Use

- Detection of horizontal and vertical laser lines

Foreseeable misuse

- Use of the product without instructions
- Use outside of the intended use and limits
- Disabling of safety systems
- Removal of hazard notices
- Inadequate safeguards at the working site

- Modification or conversion of the product
- Opening the product using tools, for example a screwdriver, unless this is permitted for certain functions
- Use after misappropriation
- Use of products with recognisable damage or defects
- Use with accessories from other manufacturers without the prior written explicit approval of Leica Geosystems AG

1.3

Limits of Use



Refer to section [6 Technical Data](#).

Environment

Suitable for use in an atmosphere appropriate for permanent human habitation. Not suitable for use in aggressive or explosive environments.

1.4

Responsibilities

Manufacturer of the product

Leica Geosystems AG, CH-9435 Heerbrugg, hereinafter referred to as Leica Geosystems, is responsible for supplying the product, including the User Manual and original accessories, in a safe condition.

The company above is not responsible for third-party accessories.

Person responsible for the product

The person responsible for the product has the following duties:

- To understand the safety instructions on the product and the instructions in the User Manual
- To ensure that the product is used in accordance with the instructions
- To be familiar with local safety regulations relating to accident prevention

- To stop operating the system and inform Leica Geosystems immediately if the product and the application become unsafe
- Always prevent access to the product by unauthorised and/or untrained personnel
- Keep the User Manual and pass on if the instrument is passed on
- To ensure that the national laws, regulations and conditions for the operation of the products are respected

If laser radiation hits your eye, you must close your eyes and immediately turn your head away from the beam.

1.5

Hazards of Use

CAUTION

Signal sound > 80 db(A)

The A-weighted sound pressure level of the signal sound is > 80 db(A) at a distance of one metre. Your hearing may be damaged.

Precautions:

- ▶ Do not hold the device or the laser receiver directly to your ear.

WARNING

Magnetic field

Magnets integrated in the target plate may affect the function of the pacemaker.

Precautions:

- ▶ Do not use the target plate near a pacemaker.

 CAUTION**Electromagnetic radiation**

Electromagnetic radiation can cause disturbances in other equipment, in installations, for example medical ones such as pacemakers or hearing aids, and in aircraft. It can also affect humans and animals.

Although this product conforms to the most stringent standards and regulations, the possibility of harm to people and animals cannot be totally excluded.

Precautions:

- ▶ Do not use the product near petrol stations, chemical plants, in areas with a potentially explosive atmosphere and where blasting takes place.
- ▶ Do not use the product near medical equipment.
- ▶ Do not use the product in airplanes.
- ▶ Do not use the product near your body for extended periods.

NOTICE**Defective instrument, dropping, misusing, modifying**

Watch out for erroneous measurement results.

Precautions:

- ▶ Carry out periodic test measurements.
- ▶ Particularly after the instrument has been subject to abnormal use, and before, during and after important measurements.

⚠ CAUTION

Never attempt to repair the product yourself. In case of damage, contact a local dealer.

1.6

Disposal

⚠ WARNING

Improper disposal

If the product is improperly disposed of, the following can happen:

- If polymer parts are burnt, poisonous gases are produced which may impair health.
- If batteries are damaged or are heated strongly, they can explode and cause poisoning, burning, corrosion or environmental contamination.
- By disposing of the product irresponsibly you may enable unauthorised persons to use it in contravention of the regulations, exposing themselves and third parties to the risk of severe injury and rendering the environment liable to contamination.

Precautions:



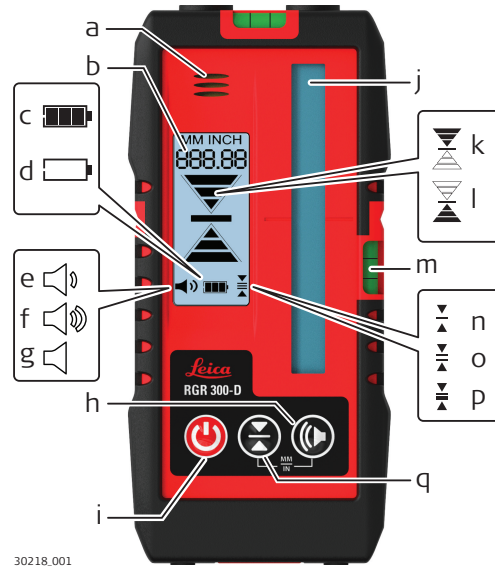
The product must not be disposed with household waste.
Dispose of the product appropriately in accordance with the national regulations in force in your country.
Always prevent access to the product by unauthorised personnel.

Product-specific treatment and waste management information can be downloaded from [Get Disto Support](#), section **Recycling Passports**.

2

Overview

Components part 1

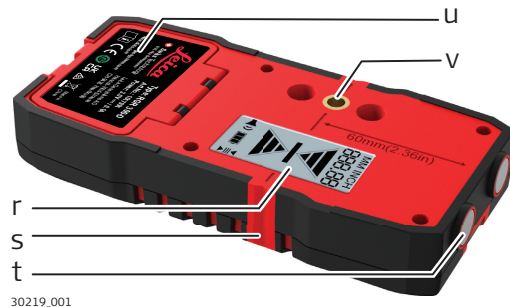


30218.001

- a Beeper
- b Front display
- c Battery status: full
- d Battery status: low
- e Beep medium
- f Beep high
- g Beep off
- h Beeper key¹⁾: change the sound level of the beeper
- i ON/OFF key: switch the receiver on/off and illumination
- j Detection window
- k Move receiver down
- l Move receiver up
- m Spirit level
- n Sensitivity: fine ± 0.5 mm (± 0.02 in) (default)
- o Sensitivity: mid ± 2 mm (± 0.08 in)
- p Sensitivity: coarse ± 5 mm (± 0.19 in)
- q Accuracy key¹⁾: switch sensitivity

¹⁾ Press Beeper key and Accuracy key to change between mm and in

Components part 2



- r Back display
- s Reference notch
- t Magnets
- u Battery compartment
- v Bracket thread

30219.001

3

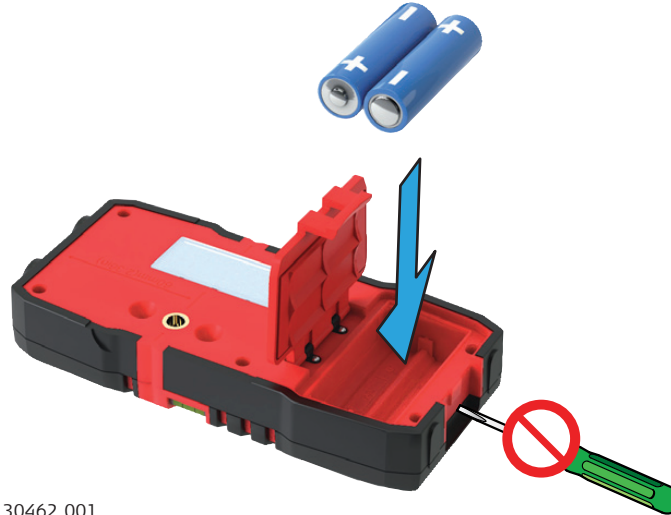
Instrument Setup

Insert Alkaline batteries



To ensure a reliable use, we recommend using high quality Alkaline batteries.

Insert Alkaline batteries in the battery compartment.



30462.001

Attach bracket



30463_001

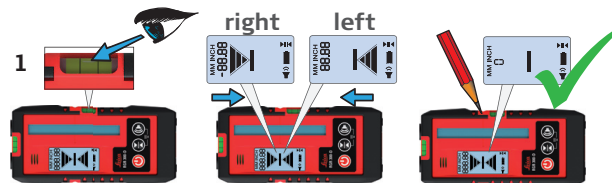
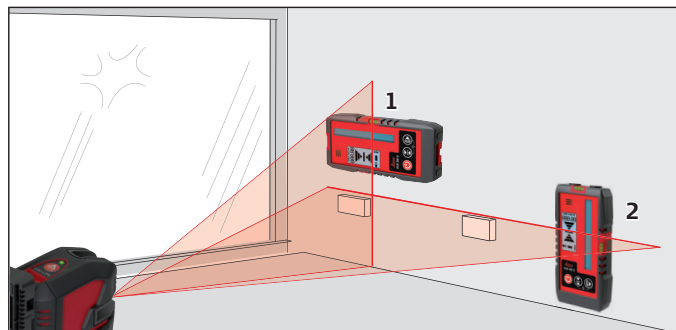
4

Operation

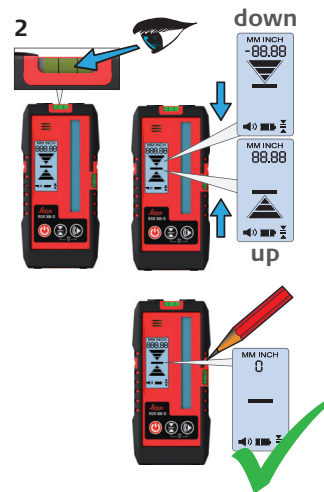
Switching ON/OFF



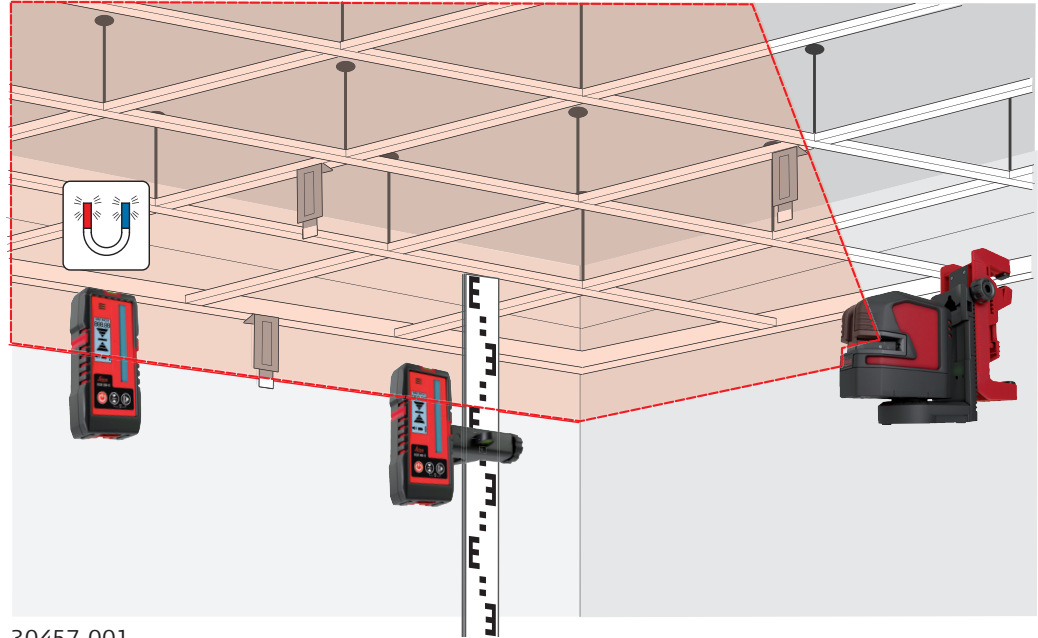
Work vertical and horizontal



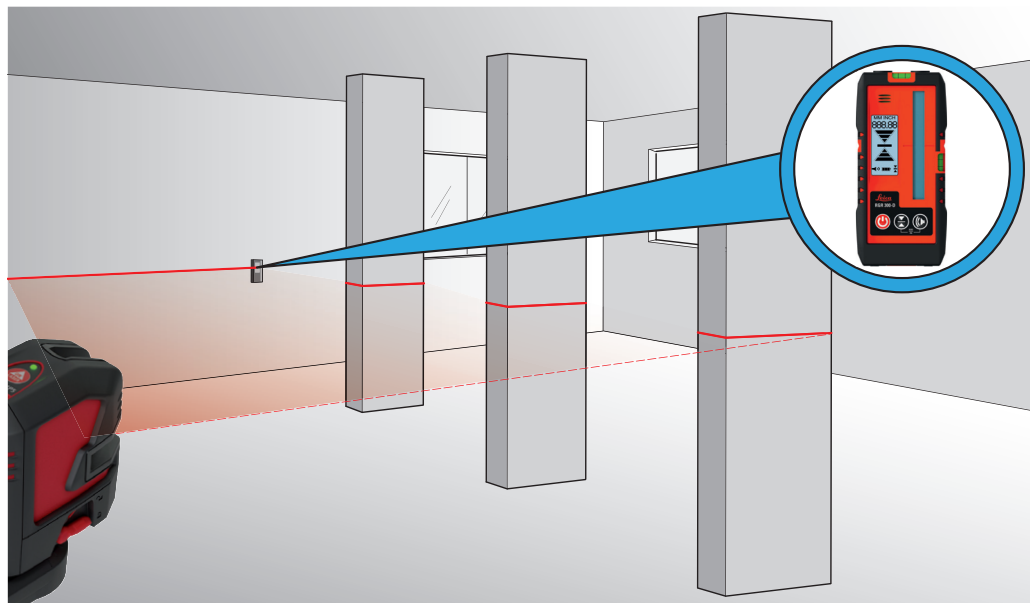
30461_001



Strong attachment



Long range applications



30458_001

5

Cleaning and Drying

- Clean the device with a damp, soft cloth
 - Never immerse the device in water
 - Never use aggressive cleaning agents or solvents
-

Cleaning and drying

Dry the product, the container, the foam inserts and the accessories at a temperature not higher than 40 °C/104 °F and clean them. Remove the battery cover and dry the battery compartment. Do not repack until everything is dry. Always close the container when using in the field.



6

Technical Data

Technical Data

Working range ²⁾	2 m – 80 m (6.6 ft – 262 ft)
Accuracy (switchable)	±0.5 mm (±0.02 in) / ±2.0 mm (±0.08 in) / ±5.0 mm (±0.19 in)
Digital window range	60 mm (2.4 in)
Digital display range	±25 mm (1 in)
Detection angle	±45° at 10 m (33 ft)
Detectable spectrum	635 nm ±5 nm red / 525 nm ±5 nm green Class 2 (acc. IEC 60825-1)
Illuminated display	Front side and back side
Accustical signal	90 dB / 70 dB / 0 dB
Drop resistant	1.2 m (3.9 ft)
Protection class	IP 65 (IEC 60529) dust and jet water
Battery type/life	2 x AA 1.5 V / 24+ hours
Low power alert	Digital display
Dimensions (L x W x H)	158 x 73 x 26 mm (6.22 x 2.87 x 1.02 in)
Weight with batteries	265 g (0.58 lbs)
Automatic shut-off	30 min without detection
Operating temperature	-10 - +50 °C (+14 - +122 °F)

²⁾ depending on lighting conditions

Storage temperature

-25 - +70 °C (-13 - +158 °F)

6.1

Conformity to National Regulations

Labelling Leica RGR
300-D

30281.001



EU



Hereby, Leica Geosystems AG declares that the product/s is/are in compliance with the essential requirements and other relevant provisions of the applicable European Directives.

The full text of the EU declaration of conformity is available at the following Internet address:

<http://www.leica-geosystems.com/ce>.

USA

FCC Part 15

This equipment has been tested and found to comply with the limits for a Class B digital instrument, 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 the 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

This device complies with part 15 of the FCC rules. Operation is subjected to the following two conditions:

- This device may not cause harmful interference, and
- this device must accept any interference received, including interference that may cause undesired operation.

FCC Radiation Exposure Statement

The radiated rf output power of the instrument is below the FCC radio frequency exposure limits for portable devices according to KDB 447498.

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

ISED Statement, applicable in Canada

This device complies with Industry Canada's licence-exempt RSSs. Operation is subject to the following two conditions:

1. This device may not cause interference; and
2. This device must accept any interference, including interference that may cause undesired operation of the device.

Others

The conformity for countries with other national regulations has to be approved prior to use and operation.



Description



International Limited Warranty

The Leica RGR 300-D comes with a two year warranty from Leica Geosystems AG. To receive an additional year warranty, the product must be registered on our website at [Leica Disto Warranty](#) within eight weeks of the purchase date. If the product is not registered, our two year warranty applies.

More detailed information about the International Limited Warranty can be found on the internet at [Leica Warranty](#)

1021290-1.0.0en

Original text (1021290-1.0.0en)

Published in Switzerland, © 2025 Leica Geosystems AG

Leica Geosystems AG

Heinrich-Wild-Strasse

9435 Heerbrugg

Switzerland

www.leica-geosystems.com



- when it has to be right

Leica
Geosystems

