

Leica Rugby CLAx



Quick Guide
Version 1.0
English

- when it has to be **right**

Leica
Geosystems



1

Important Information about your Instrument



Read and follow the User Manual of the main product before using the product or the accessories delivered with the product.



Keep for future reference!

Intended use

- The laser beam can be detected by means of a laser detector
- Remote control of product
- Data communication with external appliances

Laser products and location of laser apertures

Laser product	Laser class	Classification
Rugby CLAx EDM (Electronic Distance Measurement)	Class 2	IEC 60825-1 (2014-05)



CAUTION

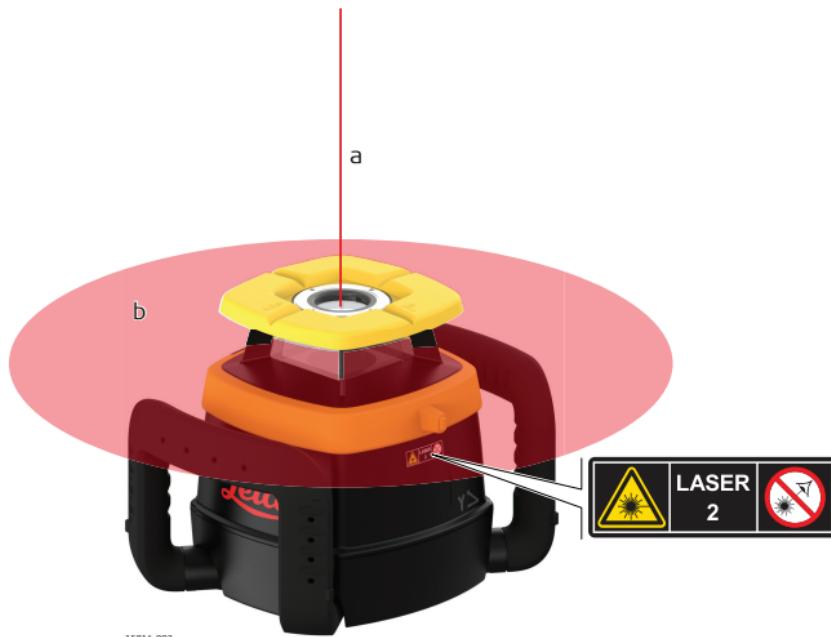
Class 2 laser product

From a safety perspective, class 2 laser products are not inherently safe for the eyes.

Precautions:

- ▶ Avoid staring into the beam or viewing it through optical instruments.
- ▶ Avoid pointing the beam at other people or at animals.

Labelling Rugby CLAx



- a Laser beam, Plumb beam
- b Rotating laser beam



WARNING

Electric shock due to use under wet and severe conditions

If unit becomes wet, it may cause you to receive an electric shock.

Precautions:

- ▶ If the product becomes humid, it must not be used!
- ▶ Use the product only in dry environments, for example in buildings or vehicles.



- ▶ Protect the product against humidity.



WARNING

Unauthorised opening of the product

Either of the following actions may cause you to receive an electric shock:

- Touching live components
- Using the product after incorrect attempts were made to carry out repairs.

Precautions:

- ▶ Do not open the product!
- ▶ Only authorised Leica Geosystems Service Centres are entitled to repair these products.



The product must not be disposed with household waste.

EU



Hereby, Leica Geosystems AG declares that the radio equipment type RugbyCLAx, Combo+ is in compliance with Directive 2014/53/EU and other 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

Contains FCC ID: RFD-CT301

FCC Part 15, Part 15 B

Canada

CAN ICES-003 B/NMB-003 B

Contains IC: 3177A-CT301

Others

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

2

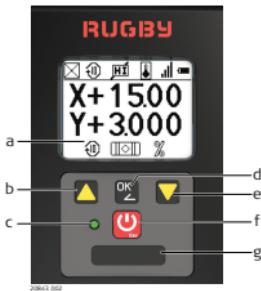
Instrument Components

Rugby laser components



- a Vertical plumb window
- b Plate for optional scope
- c Carry handle
- d Screen
- e Keypad
- f Product variant label
- g Battery compartment

Overview



- a LCD display
- b Arrow up button
- c Status LED
- d OK/Grade button
- e Arrow down button
- f Power button
- g Product variant label

Functions

Component	Description
LCD display	Displays all required user information.
Power button	Press to turn the Rugby on or off.
Status LED	Indicates the level status of the Rugby.
OK/Grade button	Press to confirm selections.
Arrow up/down button	Press to select and change values.

3

Technical Data

Operating range

Rugby CLAx Operating range (diameter):

With Rod Eye 160/Combo+ 1,350 m/(4,430 ft)

Environmental specifications for Rugby and Combo+

Temperature

Operating temperature	Storage temperature
-20 °C to +50 °C (-4 °F to +122 °F)	-40 °C to +70 °C (-40 °F to +158 °F)

Protection against water, dust and sand

Protection

Rugby: IP68 (IEC 60529) / MIL-STD-810G w/CHANGE 1 512.6 procedure I

Combo+: IP67 (IEC 60529) / MIL-STD-810G w/CHANGE 1 512.6 procedure I

Dust tight

Protected against continuous immersion in water.

A100 Lithium-Ion charger

Type	Value
Type	Li-Ion battery charger
Input voltage	100 V AC-240 V AC, 50 Hz-60 Hz
Output voltage	12 V DC
Output current	3.0 A
Polarity	Shaft: negative, Tip: positive

Internal battery for Rugby and Combo+

Type	Operating times* at 20°C
Lithium-Ion (Li-Ion Pack)	50 h

*Operating times are dependent upon environmental conditions.



Charging the Li-Ion battery pack takes a maximum of five hours.

CLB Lithium-Ion battery pack

Type	Value
Type	Li-Ion battery pack
Input voltage	12 V DC
Input current	2.5 A

Type	Value
Charge time	5 hours (maximum) at 20 °C

Field adjustment

Exposing the product to high mechanical forces, for example through frequent transport or rough handling, or storing the product for a long time may cause deviations and a decrease in the measurement accuracy. Periodically carry out test measurements and perform the field adjustments indicated in the User Manual before using the product.

5

Operation

Charging the Li-Ion battery pack

The rechargeable Li-Ion battery pack on the Rugby can be charged without removing the battery pack from the Rugby.



1. Slide the locking mechanism on the battery pack to the left to expose the charge jack.
2. Plug the AC connector into the appropriate AC power source.
3. Connect the charger plug into the charge jack on the Rugby battery pack.
4. The small LED next to the charge jack flashes indicating that the Rugby is charging. The LED is on solid when the battery pack is fully charged.

5. When the battery pack is fully charged, disconnect the charger plug from the charge jack.

6. Slide the locking mechanism to the centre position to prevent dirt from getting into the charging jack.



The battery pack reaches a full charge in approximately five hours if completely empty. A one-hour charge should allow the Rugby to run for a full eight hours.

Changing the Li-Ion battery pack

With the rechargeable Li-Ion battery pack, the battery indicator on the Rugby LCD display shows when the battery pack is low and must be charged. The charge indicator LED on the battery pack indicates when the battery pack is being charged (flashing slowly) or fully charged (on, not flashing).



 The battery pack is inserted in the front of the Rugby.

 The battery pack can be charged without being removed from the Rugby. Refer to [Charging the Li-Ion battery pack](#).

1. Slide the locking mechanism on the battery pack to the right and open the cover of the battery pack.
2. To remove the battery pack: Remove the battery pack from the battery compartment.

To insert the battery pack: Insert the battery pack into the battery compartment.

3. Close the cover of the battery pack and slide the locking mechanism to the left centre position until it locks into position.

Turn on and off

Press the Power button to turn the Rugby on or off.

After turning on:

- The LCD display turns on and displays the current status of the Rugby.
- If set up within the $+-6^\circ$ self-levelling range (horizontal or vertical), the Rugby automatically levels to create an accurate horizontal plane of laser light.
- Once levelled, the head starts rotating and the Rugby is ready for use.
- The H.I.Alert system becomes active 30 seconds after completing the self-levelling. The H.I.Alert system protects the Rugby against changes in elevation caused by any movement or settling of the tripod.
- The self-levelling system and the H.I.Alert function continue to monitor the position of the laser beam to ensure consistent and accurate work.



The H.I.Alert function turns on automatically every time the Rugby is turned on.

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