



# Leica TS11 Quick Guide



Version 3.0  
English

- when it has to be **right**



# 1

## Important Information about your Instrument

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Read and follow the User Manual on the accompanying USB card before using the product.

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Keep for future reference!

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### Intended Use

- Measuring horizontal and vertical angles.
  - Measuring distances.
  - Recording measurements.
  - Visualising the aiming direction and vertical axis.
  - Capturing and recording images.
  - Data communication with external appliances.
  - Measuring raw data and computing coordinates using carrier phase and code signal from GNSS satellites.
  - Carrying out measurement tasks using various GNSS measuring techniques.
  - Recording GNSS and point related data.
  - Computing with software.
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## Laser products

The TS11 instrument contains the following laser products:

Laser product	Laser class
EDM (Electronic Distance Measurement) module <ul style="list-style-type: none"><li>measurements with reflectors</li><li>measurements without reflectors</li></ul>	Class 1 Class 3R
Red laser pointer	Class 3R
EGL (Electronic Guide Light)	Exempt Group
Laser plummet	Class 2

- The classification for the EDM, red laser pointer and laser plummet is in accordance with IEC 60825-1 (2014-05).
- The classification for the EGL is in accordance with IEC 62471 (2006-07).



### CAUTION

From a safety perspective, class 3R laser products should be treated as potentially hazardous.

#### Precautions:

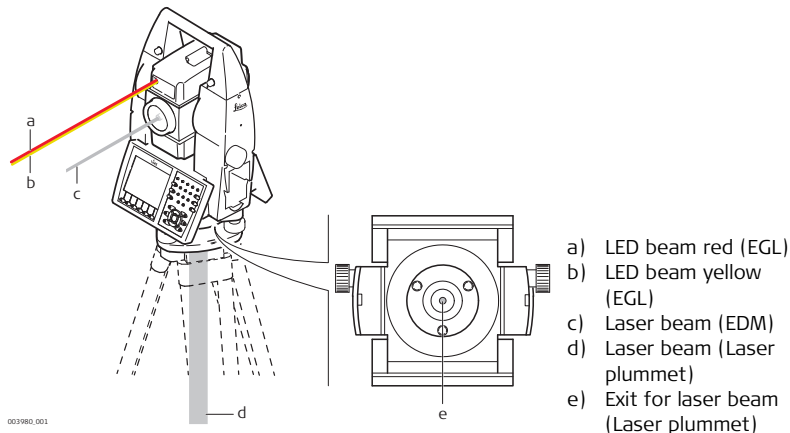
- 1) Prevent direct eye exposure to the beam.
- 2) Do not direct the beam at other people.

**CAUTION**

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

**Precautions:**

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

**Locations of laser apertures**



### Conformity to national regulations

The product must not be disposed with household waste.

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- FCC Part 15 (applicable in US)
- Hereby, Leica Geosystems AG, declares that the product TS11 is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC and other applicable European Directives. The declaration of conformity may be consulted at <http://www.leica-geosystems.com/ce>.



Class 1 equipment according European Directive 1999/5/EC (R&TTE) can be placed on the market and be put into service without restrictions in any EU Member state.

- The conformity for countries with other national regulations not covered by the FCC part 15 or European directive 1999/5/EC has to be approved prior to use and operation.
  - Japanese Radio Law and Japanese Telecommunications Business Law Compliance.
    - This device is granted pursuant to the Japanese Radio Law and the Japanese Telecommunications Business Law.
    - This device should not be modified (otherwise the granted designation number will become invalid).
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### **Dangerous Goods Regulations**

The products of Leica Geosystems are powered by Lithium batteries.

Lithium batteries can be dangerous under certain conditions and can pose a safety hazard. In certain conditions, Lithium batteries can overheat and ignite.



When carrying or shipping your Leica product with Lithium batteries onboard a commercial aircraft, you must do so in accordance with the **IATA Dangerous Goods Regulations**.



Leica Geosystems has developed **Guidelines** on "How to carry Leica products" and "How to ship Leica products" with Lithium batteries. Before any transportation of a Leica product, we ask you to consult these guidelines on our web page (<http://www.leica-geosystems.com/dgr>) to ensure that you are in accordance with the IATA Dangerous Goods Regulations and that the Leica products can be transported correctly.



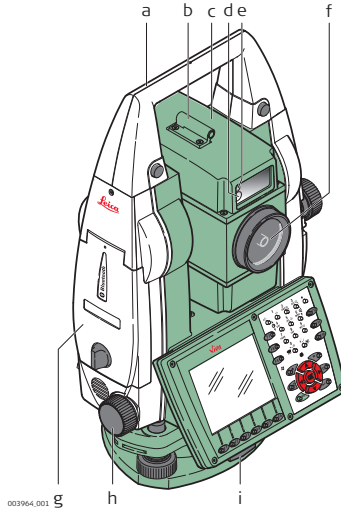
Damaged or defective batteries are prohibited from being carried or transported onboard any aircraft. Therefore, ensure that the condition of any battery is safe for transportation.

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## 2

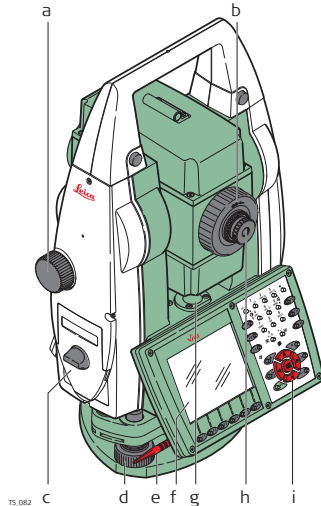
# Instrument Components

### Instrument components part 1 of 2



- a) Carry handle
- b) Optical sight
- c) Telescope, integrating EDM, EGL, overview camera
- d) EGL flashing diode - yellow and red
- e) Overview camera, lens
- f) Coaxial optics for angle and distance measurement, and exit port of visible laser beam for distance measurements
- g) Communication side cover
- h) Horizontal drive
- i) Tribach securing screw

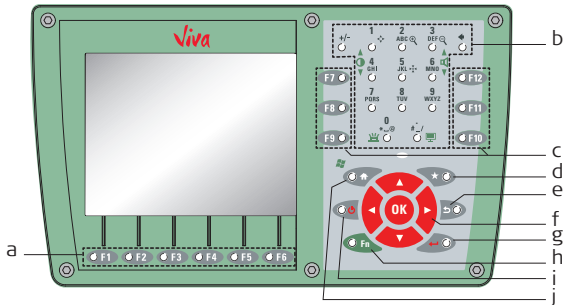
Instrument components  
part 2 of 2



- a) Vertical drive
- b) Focusing ring
- c) Battery compartment
- d) Tribrach footscrew
- e) Stylus for touch screen
- f) Touch screen
- g) Circular level
- h) Interchangeable eyepiece
- i) Keyboard



## Keyboard



TS\_143

- a) Function keys F1-F6  
Correspond to six softkeys that appear on the bottom of the screen when the screen is activated.
- b) Alphanumeric keys  
To type letters and numbers.
- c) Function keys F7-F12  
User definable keys to execute chosen commands or access chosen screens.
- d) Favourites  
Goes to a favourites menu.
- e) Esc  
Leaves the current screen without storing any changes.

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- f) Arrow keys  
Move the focus on the screen.  
OK  
Selects the highlighted line and leads to the next logical menu / dialog, starts the edit mode for editable fields or opens a selectable list.
  - g) Enter  
Selects the highlighted line and leads to the next logical menu / dialog, starts the edit mode for editable fields or opens a selectable list.
  - h) Fn  
Switches between the first and second level of function keys.
  - i) ON/OFF  
If the instrument is already off: Turns on the instrument when held for 2 s. If the instrument is already on: Turns to Power Options menu when held for 2 s.
  - j) Home  
Switches to the SmartWorx Viva Main Menu. Switches to the Windows CE Start Menu when pressing Fn at the same time.
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### 3

## Technical Data

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### Environmental specifications

#### Temperature

Operating temperature [°C]	Storage temperature [°C]
-20 to +50	-40 to +70

#### Protection against water, dust and sand

IP55 (IEC 60529)

#### Humidity

Max 95 % non condensing.

The effects of condensation are to be effectively counteracted by periodically drying out the instrument.

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## 4 Care and Transport

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### Care and transport

- Carry the product in its original container or carry the tripod with its legs splayed across your shoulder, to protect the product against shock and vibration.
  - Periodically carry out test measurements and perform the field adjustments indicated in the User Manual, particularly after the product has been dropped, stored for long periods or transported.
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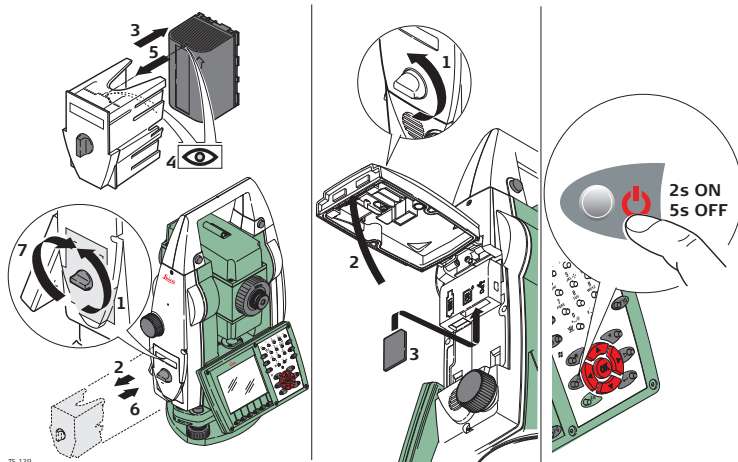
# 5

## Operation



The battery must be charged before using it for the first time.

### Turning on and off the instrument



**Leica Geosystems AG**

Heinrich-Wild-Strasse  
CH-9435 Heerbrugg  
Switzerland

Phone +41 71 727 31 31

[www.leica-geosystems.com](http://www.leica-geosystems.com)

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