

Artec Ray II

Quick Start Guide

Version 1.1



Welcome

Congratulations! You are now the proud owner of this high-accuracy, lightning-speed, and long-distance wireless 3D scanner.

As you begin using your scanner, we would love to hear about your experiences with it. Whether you want to share a case study or demonstrate new ways in which you work, or if you need any guidance along the way, we are always ready to listen. Please feel free to get in touch with us at support@artec3d.com!

To access the user manual, scan this QR code:



用户手册
사용자 매뉴얼
ユーザーマニュアル
Manuale d'uso
Manual de usuario
Manuel de l'Utilisateur
Benutzerhandbuch

Safety information

This product contains electronic components, lithium-ion batteries, Class 1 lasers, moving parts, and radio transmitters.

It is designed for a specific use as described in the User Manual. Please refrain from using this product for anything other than its intended purpose. Misuse can result in injury, damage to health, and may also void the product's warranty.

Risk of electric shock

Never attempt to disassemble, repair, or modify the product yourself. An electric shock could cause serious harm your health. All repairs or servicing should be done by authorized Artec 3D Service Centers.

Lithium-ion batteries

Batteries can present a risk of fire, explosion, or burns. Do not puncture, crush, or expose the batteries to fire or high temperatures. Mishandling batteries can cause severe injuries and harm your health.

Class 1 laser product

This product is equipped with a Class 1 laser. Do not attempt to open the product or operate it if the product appears damaged. Exposure to the laser light could be harmful to your eyes, potentially causing severe or irreversible damage.

Moving parts

Be careful during operation, as the moving parts can pinch or otherwise cause injury. Keep this product out of reach of children, as unexpected contact with moving parts can lead to bodily harm.

Radio transmitter

This device emits radio frequency (RF) signals that may potentially interfere with other electronic devices. Non-compliance with local regulations regarding RF signals can result in harmful interference and legal consequences.

Safety information

Radio transmitter

Before using this product, refer to the provided User Manual, Quick Start Guide, and Safety Information for detailed instructions, precautions, and safety guidelines. It is essential to fully understand the safe operation of this product to prevent accidents, potential hazards, and damage to your health.

1. Important information about your scanner

Read and follow the User Manual on the accompanying data storage device before using the product.

The product must not be disposed with household waste.

Keep for future reference!

To ensure safety when using accompanying battery charger, also observe the directions and instructions contained in the User Manual of the battery charger.

Intended use

- Measuring horizontal and vertical angles
- Measuring distances
- Scanning objects
- Capturing and recording images
- Recording measurements
- Remote control of product
- Data communication with external appliances

1. Important information about your scanner

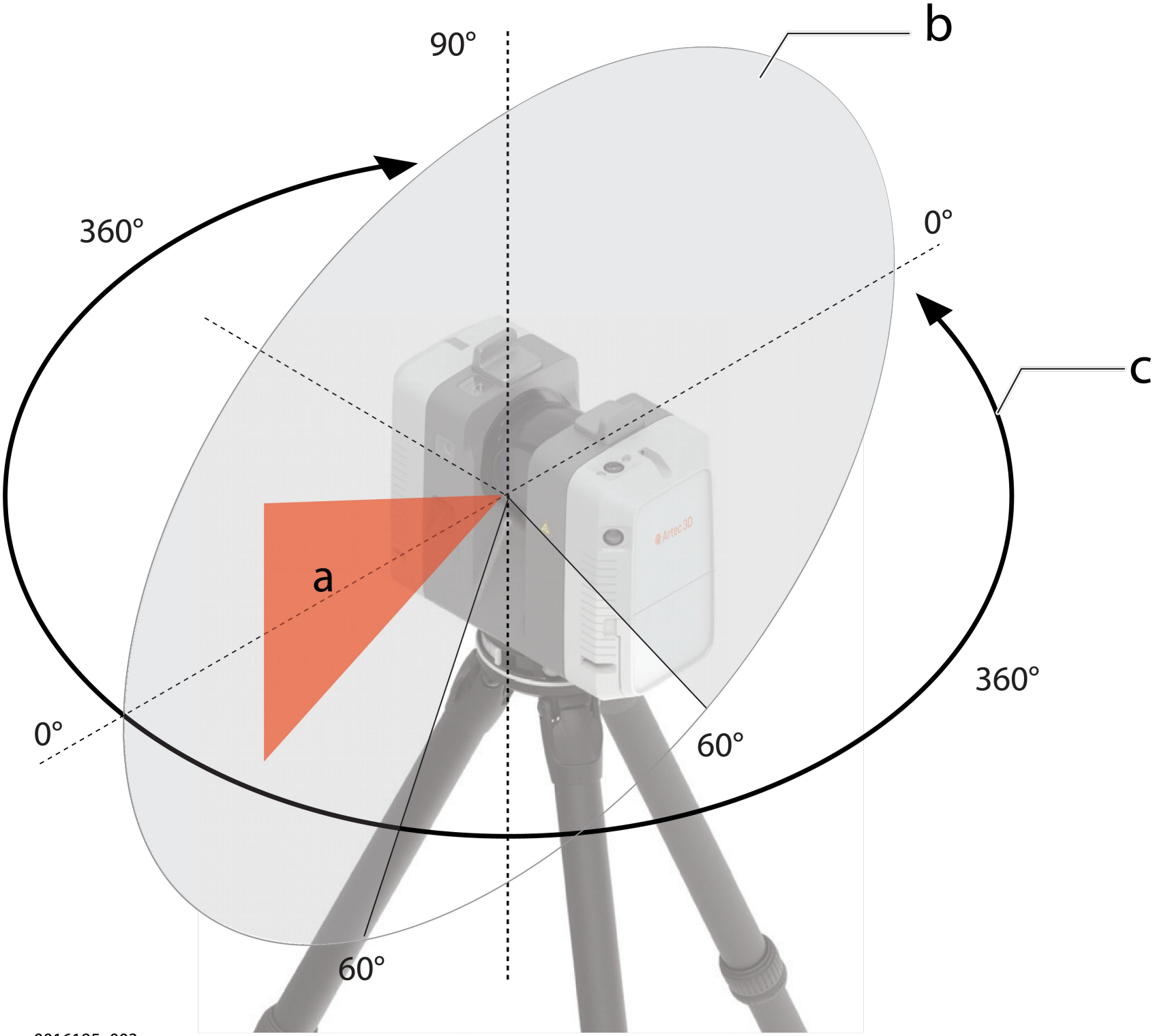
Laser products

The Artec Ray II scanner contains the following laser product:

Laser product	Laser class
EDM (Electronic Distance Measurement) module	Class 1

The classification is in accordance with IEC 60825-1 (2014-05).

Locations of laser apertures



- a Laser beam
- b Vertical laser scanning area
- c Horizontal laser scanning area

1. Important information about your scanner

For the Power supply and the Multicharger:

Warning

Unauthorized 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.
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Precautions:

- Do not open the product!
- Only authorized Artec 3D Service Centers are entitled to repair these products.

1. Important information about your scanner

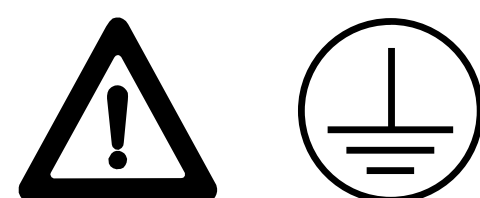
For the AC power supply:

Warning

If unit is not connected to ground, death or serious injury can occur.

Precautions:

- To avoid electric shock power cable and power outlet must be grounded.



1. Important information about your scanner

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.

1.1 Conformity to National Regulations

EU  Hereby, Artec 3D declares that the Battery and Multicharger for Ray II are in compliance with the essential requirements and other relevant provisions of the applicable European Directives. For the full text of the EU declaration of conformity, please reach out to the to the [Artec 3D Support Team](#).

EU  Hereby, Artec 3D declares that the radio equipment type Artec Ray II is in compliance with Directive 2014/53/EU and other applicable European Directives. For the full text of the EU declaration of conformity, please reach out to the to the [Artec 3D Support Team](#).

USA

FCC ID: N6C-SXPCEAN2

FCC Part 15 B/C

Canada

CAN ICES-003 Class B/NMB-003 Class B

IC: 4608A-SPCEAN2

**Australia/
New Zealand**



The Regulatory Compliance Mark (RCM) shows that a product complies with the relevant requirements in Australia and New Zealand.

1.1 Conformity to National Regulations

Japan

- This device is granted pursuant to the Japanese Radio Law (電波法).
 - This device should not be modified (otherwise the granted designation number will become invalid).
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Others

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

Changes or modifications not expressly approved by Artec 3D for compliance could void the user's authority to operate the equipment.

Other certifications and compliance information may be updated by Artec 3D from time to time. Please refer to **Artec 3D Support Team** (support@artec3d.com) for more information.

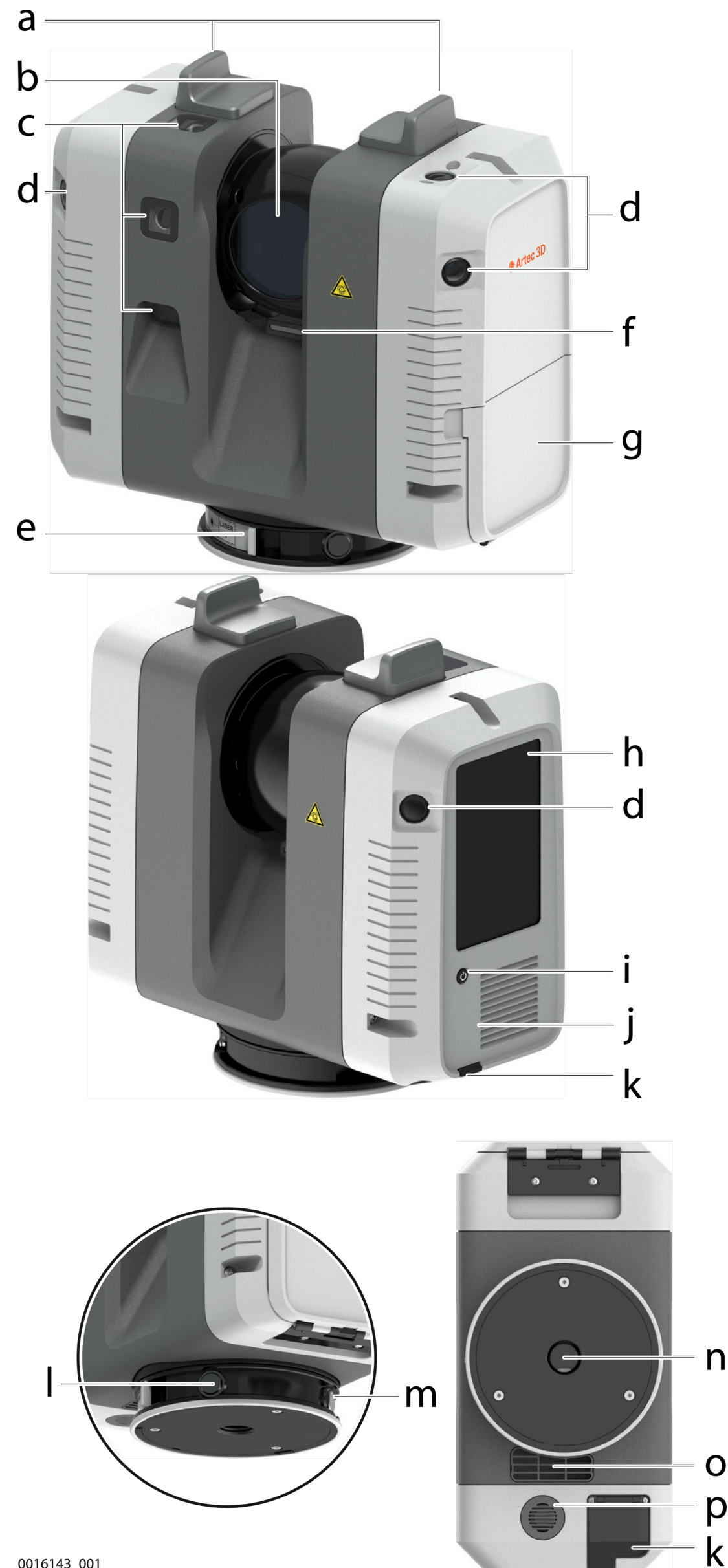
Disposal of Electrical and Electronic Equipment in Private Households

In the European Union, Norway, Iceland and Liechtenstein: This symbol on the product, or in the manual and in the warranty, and/or on its packaging indicates that this product shall not be treated as household waste. Instead it should be taken to an applicable collection point for the recycling of electrical and electronic equipment.



2. Scanner Components

Scanner components



- a Antennas
- b Rotating mirror/laser aperture
- c HDR cameras
- d Cameras for visual inertial system
- e Quick release
- f LED indicator
- g Battery compartment
- h Touch screen
- i On/Off button
- j Ventilation slots
- k USB slot
- l Socket for power supply, 5 pin female
- m Ethernet socket, 8 pin female
- n Quick release mount
- o Ventilation slots
- p Loudspeaker

3. Technical Data

Environmental specifications

Temperature

Type	Operating temperature [°C]	Storage temperature [°C]
Artec Ray II	-5 to +40	-40 to +70
<p>Extended low temperature operation is possible down to -10 °C if internal temperature is at or above -5 °C when powered on. When the device is operated in the extended low temperature range, redundant measurements and plausibility checks are recommended to verify the measurement results.</p> <p>Internal temperature can be checked in the System Information screen on the device. Refer to the user manual.</p>		
Battery for Ray II	Charging: 0 °C to +50 °C Discharging: -20 °C to +60 °C	-40 to +70
Power supply for Ray II	0 °C to +40 °C	-10 to +80

3. Technical Data

Protection against water, dust and sand

Type	IP class
Artec Ray II	IP54 (IEC 60529), upright $\pm 15^\circ$ /upside down $\pm 15^\circ$ Dust protected Protection against splashing water from any direction IP51 (IEC60529), in any other position Dust protected Protection against dripping water
Battery for Ray II	IP54 (IEC 60529) Dust protected Protection against splashing water from any direction
Power supply for Ray II	Only operate in dry environments, for example in buildings and vehicles.

Pollution degree

Type	Pollution degree
Artec Ray II/ Battery	4 - Electrical equipment for indoor and outdoor use.
Power supply/Multicharger	2 - Electrical equipment for office environment.

3. Technical Data

Humidity

Type	Protection
Artec Ray II/ Battery	Max 95% non-condensing.

Altitude

Type	Range
Artec Ray II/ Battery/Multicharger	Unrestricted
Powersupply	0-2000 m

Sound level

Type	Value
Artec Ray II	< 70 db(A)

4. Care and Transport

Transport in the field

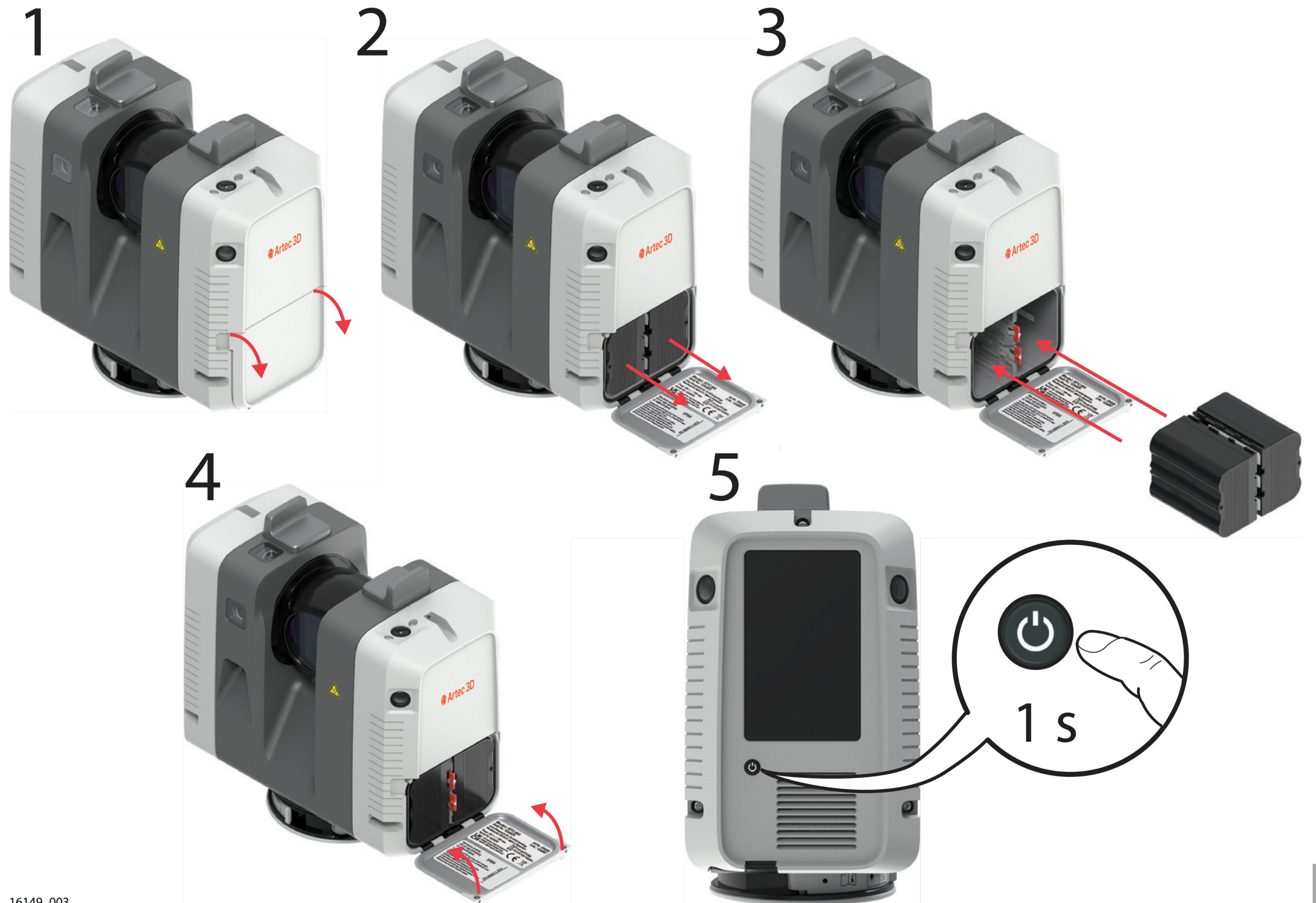
When transporting the equipment in the field, always make sure that you:

- either carry the product in its original container,
- or in the backpack,
- or carry the tripod with its legs splayed across your shoulder, keeping the attached product upright.

5. Operation

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

Insert and remove the exchangeable battery



6. EU Declaration of Conformity

EU Declaration of Conformity



This corresponds to EN ISO/ IEC 17050-1

We, Artec 3D, declare under our sole responsibility that the product(s) 3D Laser Scanner

- Artec Ray II

following the provision of Directive(s)

- 2014/53/EU Radio equipment (RED) (in accordance with annex III)
- 2006/42/EC Machinery (MD)
- 2011/65/EU Restriction of hazardous substances (RoHS)

(incl. delegated directive 2015/863 amending Annex II to Directive 2011/65/EU)

to which this declaration relates, are in compliance with the following standards:

- ETSI EN 300 328 V2.2.2
- ETSI EN 301 489-1 V2.2.3
- ETSI EN 301 489-17 V3.2.4
- ETSI EN 301 489-19 V2.1.1
- ETSI EN 303 413 V1.1.1
- EN 60825-1:2014
- EN 61010-1:2010/A1:2019
- EN 61326-1:2013
- EN 62311:2008

