

# FARO® Laser Scanner

with HYPERMODULATION™

## Quick Start Guide

**FARO**®



# Equipment

## Download

For a comprehensive version of your product manual, please visit <http://www.faro.com/download-center> and download the latest version.



## Standard Equipment

- 1 Scanner transport and carry case
- 2 PowerBlock Battery
- 3 External power supply unit with cable
- 4 AC power cable
- 5 USB stick with SCENE software and scanner manual (optional)
- 6 PowerDock Battery Charger
- 7 Quick Start Guide
- 8 FARO Quick Release (optional)
- 9 SD card cover
- 10 SD card reader
- 11 Mirror Cleaning Liquid
- 12 Laser scanner with inserted SD memory card

The SD memory card, a tripod and the scanner battery are the minimum required equipment to carry out a scanning project.

For detailed information please download the FARO Laser Scanner operating manual at the FARO download center:

[www.faro.com/en-us/download-centre/search-results?category=Technical+Sheets](http://www.faro.com/en-us/download-centre/search-results?category=Technical+Sheets)

# General information



## SCENE Software

SCENE is specifically designed for all FARO laser scanners. The software processes and manages scanned data both efficiently and easily by using the automatic object recognition and scan registration.

SCENE is an extremely user-friendly software that allows scans to be automatically combined. The resulting point cloud can be viewed in three dimensions. All the scans are available in color and as high-contrast intensity images.

- Automated target-less scan registration
- SCENE WebShare Cloud integration
- Super-crisp visualisation
- Easy processing of large scan projects
- Plug-Ins for extended functionality
- Homogenisation of point clouds

## Software Options

The FARO Laser Scanner and the SCENE software are compatible with the most common CAD software applications and can be used to export scan data to over 50 common software solutions.



## FARO Webinars

Hear from industry experts on emerging trends in 3D documentation, advancements in 3D metrology and portable CMMs and best practices without ever leaving the office. If you are unable to attend any of our live webinars, they are all recorded and uploaded as podcasts here and are searchable by broadcast date.

[www.faro.com/webinars](http://www.faro.com/webinars)



## Online Tutorials

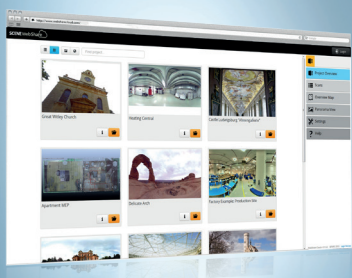
Find more information and helpful tips on the use of the FARO Laser Scanner and SCENE in the Internet at: <http://tutorial.faroeurope.com>



## FARO 3D App Center

In the 3D App Center you will find software dedicated to the FARO 3D Documentation world. The shop is divided into two main categories: Stand-alone apps and plug-in apps:

<http://3d-app-center.faro.com>



## SCENE WebShare Cloud

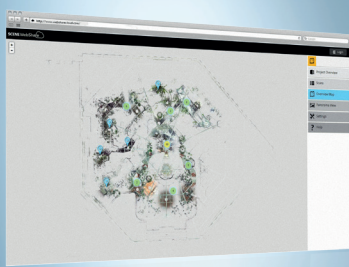
With SCENE WebShare Cloud, FARO offers a comprehensive service to provide users with simple access to 3D documentation. Neither technical training nor specialist skills in 3D laser scanning are necessary to work with the intuitive user interface.

Digital data, such as 3D documentation, often needs to be available to many different project partners. Previously, users having their own internet server, could use SCENE WebShare to present their laser scan projects to clients and project partners. Now FARO goes considerably further, offering the SCENE WebShare Cloud solution, a hosting service with various packages at different prices.

- Easy data sharing and collaboration
- Minimal set up and maintenance effort
- Best possible security level
- Persistent measurements & annotations
- Hosting service offered by FARO
- Support for mobile devices

Check it out on our demo server at:

[www.websharecloud.com](http://www.websharecloud.com)



# Getting Started



## 1. Setup the Tripod

Extend and lock all legs of the tripod.

Check that the tripod adjustment arrangements have been locked and that the legs are of even length.

Ensure that the surface is stable, that the tripod's feet are secured and that it is firm in its position.



## 2. Mount the Scanner onto the Tripod

To mount the FARO Laser Scanner to a tripod we recommend using a FARO Quick Release which is an optional equipment for the FARO Laser Scanner. The Quick Release is equipped with a 3/8" screw to fit into the scanner's mount.

Attach the upper part of the Quick Release to the scanner's mount and tighten the screw.



Ensure that the setscrews of the tripod are let-in flush before tightening the part. Mount the counter piece of the Quick Release onto the tripod. Secure the part by tightening the setscrews.



Carefully mount the scanner with the upper part of the Quick Release onto the counter part. Make sure that the marks on both parts of the Quick Release are aligned. Lock it by rotating the nut at the upper part of the Quick Release in a clock-wise direction.



### 3. Insert the SD Memory Card

Open the SD Card slot cover on the battery side. Insert the SD card with the notched edge in the direction as illustrated until it clicks. The SD card might have a protective lock-switch at the top left. Make sure that this lock-switch is in the open position.



Do not remove the SD card from the scanner while it is busy, otherwise you risk corrupting data. A busy SD card is indicated by this icon blinking in the status bar on the display.



### 4. Supply Power to the Scanner

Use the rechargeable battery provided by FARO to power the FARO Laser Scanner.

Open the laser scanner's battery compartment. With its type label directed upwards, point the battery contacts to the scanner, push the battery straight in, and slide it into the compartment until the fastener clicks into position.

Close the battery cover.



Adhere to the battery safety measures described in the laser scanner manual. Insert or remove batteries from the laser scanner in dry and dust-free environments only.



## 5. Switch the Scanner On

Press the scanner **Power On/Off button**. The scanner LED will blink in blue.

When the scanner is ready, the LED stops blinking and illuminates permanently blue; the Home screen of the controller software appears on the integrated touch screen.



## 6. Set the Scanning Parameters

The scanning parameters are the settings used by the FARO Laser Scanner for recording the scan data. There are two ways to set the scanning parameters:

- select a scan profile which is a predefined set of scanning parameters.
- or change the parameters individually. Tap the **Parameters** button on the Home screen.

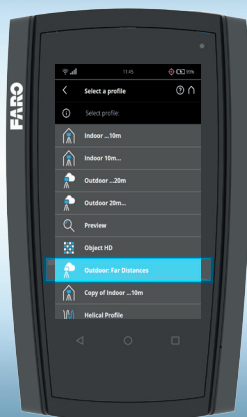
### Selecting a Scan Profile

- 1 Tap the **Selected Profile** to select one of the predefined scan profiles.  
You will get a list of all available profiles.

- 2 Select a profile from the list. The selected profile will be highlighted and marked with a check mark.

The scanning parameters will be changed according to the settings of the selected profile. To see details of the selected profile, tap it once again.

- 3 You may go back to the scanning parameters to change them individually.







## Setting the Parameters Individually



**Resolution and Quality:** tap to adjust the scan resolution and quality. Resolution is the resulting scan resolution in Mega-points. The quality setting affects the scan quality and the scanning time at constant scan resolutions. Increasing the quality reduces noise in the scan data but increases scanning time.

**Scan Range:** change the scan area with its horizontal and vertical start and end angles.

**Select Sensors:** enable or disable the automatic use of the data of the built-in sensors (GPS, compass, dual axis compensator (inclinometer) and altimeter). This information is very valuable for the later scan registration in SCENE.

**Scan with Color:** switch capturing of colored scans on or off. If switched on, the scanner will also take color images of the scanned environment with the integrated color camera. These images will be used in SCENE to automatically colorize the recorded scan data.

**Color Settings:** change the metering mode used to determine the exposure for taking the color images.

**Advanced Settings:** change the scan filter settings and enable or disable the Far Distance Optimization.

**Scan Duration:** expected scan time.

**Scan Size [Pt]:** the resolution of the scan in horizontal and vertical points.

**Scan File Size:** expected scan file size in Megabytes.



For more information on the scanning parameters read the FARO Laser Scanner manual or view the onscreen help that can be accessed via the help button on the scanner's display.



## 7. Start a Scan

Please respect all necessary safety measures and start the scan either by clicking on the **Start Scan button** on the scanner display.

Scanning starts and the laser will be switched on. The scanner will save the scanned data to the SD card. The scanner's LED will blink in red as long as the laser of the scanner is switched on. During scanning, the scanner rotates clockwise by 180°. If scanning with color, the scanner continues to turn to 360° to take the images.



Remember that the scanner is turning and the mirror unit is rotating with high speed. Ensure that the scanner can move freely and that no objects or fingers can touch the mirror unit.



You can abort scanning with the **Stop Scan button** on the display or with the **Start / Stop button** on the scanner.

Once scanning and taking the pictures are finished, the scanner might make another full turn to capture inclination data. Please do not move the scanner while this data is being recorded.



When finished, a preview picture of the captured scan will be displayed on the screen.

To view and process the scanned data with SCENE, remove the SD card from the scanner, insert it into your PC, start SCENE and transfer the scans to your local hard drive. Now, you can view and process the scans with SCENE. For more information on this, read the SCENE manual or visit: <http://tutorial.faroeurope.com>



## 8. Power the Scanner Off

To shut down the scanner, press its **Power On/Off button** or tap the **Power** button in the user interface drop-down list under Home. The scanner-LED will start blinking in blue and will stop blinking once the scanner has finished shutting down.

When the scanner has completely shut down, remove the battery and secure the equipment in protective cases.



To prevent damages to the scanner, do not remove the battery before the scanner has finished shutting down.



## Customer Service

### United States and Canada

**On the phone:** Our customer service staff is available from 8:00 am to 7:00 pm (EST) from Monday to Friday.

**Toll Free:** 1-800-736-2771

**E-Mail:** [support@faro.com](mailto:support@faro.com)

### Europe

**On the phone:** Our customer service staff is available from 8am to 5pm (CET) from Monday to Friday.

**Free call number:** 00 800 3276 7378

**E-Mail:** [support.emea@faro.com](mailto:support.emea@faro.com)

### Asia

**On the phone:** Our customer service staff is available from 8:30am to 5:30pm (SST) from Monday to Friday.

**Free call number:** 1800 511 1360

**E-Mail:** [supportap@faro.com](mailto:supportap@faro.com)

**Online-Support Center:** [www.faro.com/support](http://www.faro.com/support)

# FARO Offices



FARO Technologies Inc.  
250 Technology Park  
Lake Mary, FL 32746,  
USA  
[info@faro.com](mailto:info@faro.com)

FARO Europe GmbH & Co.KG  
Lingwiesenstraße 11/2  
D-70825 Korntal-Münchingen  
Germany  
[info.emea@faro.com](mailto:info.emea@faro.com)

FARO Singapore Pte. Ltd.  
No. 3 Changi South Street 2  
#01-01 Xilin District Centre Building B  
Singapore 486548  
[asia@faro.com](mailto:asia@faro.com)

[www.faro.com/focus](http://www.faro.com/focus)