FARO® Swift Indoor Mobile Scanner

The First Integrated Mobile High-Accuracy Laser Scanner

The all-new FARO Swift is the first fully-integrated indoor mobile mapping system designed to accomplish large-area as-built capturing tasks with minimal time and effort. As an extension of FARO's renowned Focus 3D Laser Scanners, Swift provides the most accurate measurements wherever needed – providing better data, faster.

As its name implies, Swift is fast – capable of capturing large and complex areas in as little as 10 minutes. While already the most accurate mobile 3D laser scanning system for large areas, Swift is also capable of taking stationary scans with unmatched detail.

Swift is a lightweight, highly portable device unequaled in its versatility, and combines the FARO Focus Laser Scanner with a FARO ScanPlan 2D mapper and FARO's revolutionary SCENE mobile laser scanning software. Not only does Swift provide its users with a superior 3D mobile laser scanning system, the stationary option allows users to have well-known FARO Focus accuracy wherever clarity and precision is needed.

Ideal for indoor scans of factories, office buildings, hospitals and retail shops, the intuitive and easy-to-use Swift is compact for transport and fits in only 2 carry-on sized cases. The carbon fiber tripod and 3-wheeled vehicle can be easily folded for travel. With a user interface compatible to run on any mobile phone, operators have real-time awareness of how much of a job has been completed.

As a high-value cutting-edge product that enables AEC professionals to make informed decisions that increase productivity and reduce inefficiency, Swift is ideal for large construction companies, general contractors, facility and plant managers. In addition, Swift is perfect for scanning service providers eager to generate the most accurate as-built models and building documentation, while ensuring construction quality control.

Features

Lightweight and Mobile 17.5kg (38.5 lbs)

- Easy to walk with in indoor locations with less bulk
- Ideal for fast walk-throughs or detailed scans

Innovative Automation

- Eliminates manual processing steps
- Combines several leading technologies, including FARO's patented Focus Laser Scanner

Speed vs. Accuracy

- As-build capturing jobs that would require for example 1 hour or more with stationary 3D laser scans could be accomplished in about 6 minutes with Swift
- Provides 3D accuracy from 2mm to 10mm
- Scans up to 1 million points per second via mobile and 2 million via stationary

Operating Temperatures

- Designed for a wide range of thermal conditions, operating from 5°C to 40°C
- Operates in temperatures as low as -10°C
- Can be stored in temperatures up to 60°C, although 25°C is recommended

Multiple-Software Compatibility

- Compatible with FARO As-Built™, BuildIT Construction and WebShare Cloud
- Directly imports in any CAD system with 3D point cloud capabilities
- Simplifies modeling workflow with automated processes
- Optimizes scan to BIM workflow

Intuitive Design

- Comfortable handles with simple push operation
- Lightweight for easy mobility and setup wherever needed
- Versatile for factories, office buildings, hospitals and more

Wide Powerful Output Options

- Exports scan points
- Compatible with ASTEM 57, LAS, XYZ file formats

Enhanced Battery Operation

- Two hours on internal battery
- Operation time can be extended using additional battery packs
- Continuous cable-free operation without external power

Benefits

Boost Productivity

- Allows mobile mapping operators to work faster and smarter, delivering better quality scans and a significant reduction in on-scene and processing time
- Maximizes productivity by capturing 3D as-built data while walking through a building
- Easy to learn and easy to use through FARO's active user guidance

Improve Efficiency

- No compromises on best-in-class data quality and accuracy by combining mobile data capture with stationary laser scanning with the same device
- Complete large and complex scans in as little as 10 minutes
- Provides 3D accuracy of 2mm to 10mm

Increase Quality and Reliability

- Allows users to stay ahead of the competition with a better-quality product fully integrated into FARO's software and product ecosystem
- Advanced mobile mapping device delivers unparalleled performance
- Tested under extreme conditions to ensure reliability in challenging industrial environments

Maximize ROI

- Expands the possibilities of FARO Focus Laser Scanners to be used in even more applications
- Intuitive, easy-to-use with minimal learning curve
- Exceptional warranty, low maintenance costs
- Switch between static and mobile scanning mode for greater area or more detail

Features	
Sensor Range[1]	
90% Reflectivity (white)	0.6 m up to 350 m
10% Reflectivity (dark-gray)	0.6 m up to 150 m
2% Reflectivity (black)	0.6 m up to 50 m
Sensor Information	
Laser Class	1
Wavelength	1550 nm Focus^S / 905 nm ScanPlan
Sensor Distance Accuracy[2]	
Range Noise	down to 0.1 mm @10 m 90% (white)
Ranging Accuracy	1 mm
System Performance	
Local Accuracy	2 mm @ 10 m
Global Accuracy[3]	10 mm
Area/Volume[4]	up to 500 m²/5000 m³ per minute
Data Acquisition Rate	
Max. Measurement Speed	1 mil. pts/sec (mobile scans) Up to 2 mil. pts/sec (stationary scans)
Deflection Unit	
Field of View (horizontal)	360°
Field of View (vertical)	300°
Data Handling and Control	
Data Storage	SDHC™, SDXC™; 32GB; max. 512GB
System Control	Access by mobile devices with HTML5
Color Unit	
Color Resolution	Up to 165-megapixel color
HDR Camera	Exposure bracketing 2x, 3x, 5x
Parallax	Minimized due to co-axial design

Sensors	
IMU	Yes
Dual Axis Compensator	Yes
Additional Features	
Digital Hash Function	Scans are cryptographically hashed and signed by the scanner
General Specifications	
Trolley	
Trolley Weight	8.8 kg
Size Closed (H x W x L)	340 x 450 x 700 mm
Size Open (H x W x L)	1080 x 770 x 1370 mm
System[5]	
System Weight (incl. Batteries)	17.5 kg
Max. Size (H x W x L)	1080 x 770 x 2010 mm
Min. Size (H x W x L)	1080 x 770 x 1580 mm
Power Supply Voltages - external	19 V
Power Supply Voltages - internal	14.4 V and 15 V (battery)
Battery Service Life	2 hours
Operating Temperature (ambient)	+5 °C to +40 °C
Extended Operating (ambient)[6]	-10 °C to +40 °C
Storage Temperature (ambient)	Recommended -10 °C to 25 °C Maximum[7] -10 °C to 60 °C
Humidity Resistance	Non-condensing
Interface Connection	
WLAN	802.11n (150Mbit/s), as access point or client in existing network
Output[8]	
Scene Export Scan Points	FARO Scan, FARO Cloud, ASTM E57, .dxf, .igs, .txt, .xyz, .xyb, .pts, .ptz, .pod

[1] For a Lambertian scatterer, using Focus^S 350 or Focus^S Plus 350 | [2] For stationary scans; ranging noise is defined as a standard deviation of values about the best-fit plane for measurement speed of 122,000 points/sec. | [3] In a controlled indoor environment | [4] Dependent on scanned environment | [5] Including Swift trolley, tripod, mounts, Focus^S scanner and ScanPlan | [6] Low temperature operation: Devices have to be powered on while internal temperature is at or above 15°C | [7] Extended storage at temperatures greater than 40 °C may degrade battery life and performance. | [8] Using FARO Scene

Accuracy depends on the effectiveness of the SLAM registration algorithm, which can be influenced by the geometry of the captured environment. Long paths in absence of loop closures, cross passes (and different conditions like narrow corridors or presence of windows/glass walls) can degrade the accuracy. For additional information see tech sheet of Focus^S / Focus^S Plus scanners and ScanPlan. All accuracy specifications are one sigma, after warm-up and within operating temperature range; unless otherwise noted. Subject to change without prior notice. Swift is only available for Focus^S and Focus^S Plus scanners, requires ScanPlan, accessories and additional FW/SW licenses, requires SCENE version 2020 or higher and Focus firmware 6.6 or higher.

Local offices in over 25 countries around the world. Go to **www.faro.com** to learn more.

FARO Global Headquarters
250 Technology Park, Lake Mary, FL 32746, USA
US: 800 736 0234 MX: +52 81 4170 3542
BR: 11 3500 4600 / 0800 892 1192

FARO Europe Regional Headquarters
Lingwiesenstr. 11/2
70825 Korntal-Münchingen, Germany
00 800 3276 7253

FARO Asia Regional Headquarters
No. 3 Changi South Street 2, #01-01 Xilin Districentre Building B Singapore, 486548
+65 65111350

SFDC_04MKT_530 Revised: 03/29/2021