



Model VAS-44M

**Installation and User Guide** 



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# 1. Introduction

### 1.1. About this guide

Congratulations on your new purchase. The 3D Foot Scanner is intended to obtain foot dimensions for shoe size measurement and selection.

This guide will assist you with the installation and usage of the 3D Foot Scanner model iQube S VAS-44M. The installation consists of:

- ✓ Unpacking & installation
- ✓ Software installation
- ✓ Connecting the scanner
- ✓ Starting the software
- ✓ Your first measurement

Enjoy your 3D Foot Scanner.

#### 1.2. Contact information

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Support: <a href="mailto:support@elinvision.com/">support@elinvision.com/</a>

# 1.3. Product description

The 3D Foot Scanner uses laser triangulation technology combined with 2D color images for a precise 3D representation of the feet.

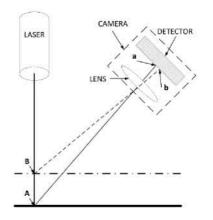
A camera and line laser are used to capture the 3D image and texture. This allows precise and fast scans of feet in normal ambient light conditions.



The laser projects a line onto the foot. The camera captures the laser projection.

The laser and camera are mounted on a moving carriage.

Geometric algorithms are used to measure and digitize the surface. The processing of the 3D and 2D images, calculations, measurements and interpretation of the results is done by the software package on the connected PC.



# 1.4. Product overview

The 3D Foot Scanner iQube S VAS-44M package includes:

- iQube S 3D Foot Scanner
- USB 2.0 cable A-B
   Do not use any other USB cable!
- Power cord with a C5 plug, the other side will be country specific
- AC adapter:

Brand: Chicony Power International

Model: A045R068P

Do not use any other AC adapter!

- Carrying bag
- This guide
- Foot switch / pedal (optional)
- "Vesa" mounting kit (optional)













#### 2. General information

# 2.1. Symbols

The following symbols may appear on the product, packaging or documentation:



Caution, read these instructions carefully
If used on the product label: Caution, consult accompanying documentation



Manufacturer



Date of manufacturing



Consult the installation and user guide (this document)



Type B applied part, the glass plate of the 3D foot scanner is designated as type B applied part



Regulatory Mark for the European Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE)



CE mark according to the applicable European Directives



Power



USB port



Pedal switch



Do not jump on the glass plate, or tread lightly



Do not exceed the maximum weight limit of 200 kg (440 lbs.)



Class 1 laser product as per IEC 60825-1:2014 (Third Edition)



This way up



Fragile, handle with care



Keep dry



Recyclable packaging



Refer to instruction manual



Atmospheric pressure limitation



**Humidity limitation** 



Temperature limitation

#### 2.2. Requirements

Refer to the Installation Guide and User Manual for the software.

#### 2.3. General safety information



This section contains instructions regarding safety. Please read carefully.

- Prior to a measurement session, instruct the client how to stand on the 3D Foot Scanner. The client should only step or stand on the designated scan area.
- Do not jump on the glass plate. Protect the glass plate from high impacts or sharp objects.
- Do not exceed the maximum specified weight of 200 kg (440 lbs.).
- Do not use the 3D Foot Scanner if cables or parts such as the glass plate are damaged.
- Do not use a USB connection cable longer than the supplied cable, use a powered hub or active
  extension cable in combination with the supplied cable if a longer connection cable is required.
- Always use the supplied USB cable for compliance to the applied standards.
- Install the 3D Foot Scanner level on a solid and non-skid surface.
- Power off the 3D Foot Scanner when not in use or before connecting / disconnecting cables.
- When powered off, wait at least 10 seconds before powering up again.
- Unplug the power cord when not in use for longer periods.
- When unplugging the power or USB cable, always pull the plug, never the cable.
- Protect the 3D Foot Scanner cables and connectors from accidental damage. Secure the cables to prevent accidental tripping or entanglement. Do not bend, twist, stretch, modify or wrap the cables.
- Protect the 3D Foot Scanner from shocks and vibration.
- Do not place the 3D Foot Scanner adjacent to equipment or power lines which generate strong electromagnetic or electrostatic fields, or in the vicinity of sensitive equipment. Relocate if necessary.
- Do not operate or store the 3D Foot Scanner outside the specified environmental temperature and humidity range, do not expose to direct sunlight, do not expose to moisture. For indoor use only.
- The connected PC should be compliant with the appropriate safety standard for medical equipment EN 60601-1.
- Ensure a safe distance of 1.5m between the client and the PC or other equipment not compliant with the EN 60601-1 standard.
- To reduce the risk of electric shock or damage to the equipment, plug the AC adapter into an AC outlet that is always easily accessible.
- Protect the 3D Foot Scanner cables and connectors from accidental damage. Secure the cables to prevent accidental tripping or entanglement. Do not bend or wrap the cables.
- Do not operate or store the 3D Foot Scanner outside the specified environmental temperature and humidity range. Do not expose to direct sunlight. Do not expose to moisture.
- The entire 3D Foot Scanner is designated as a type B applied part.
- Do not touch patient and power supply and the patient at the same time.

- WARNING: Do not modify this equipment without authorization of the manufacturer.
- No serviceable pars inside.

#### 2.4. Laser safety

- The 3D Foot Scanner uses Class 1 laser light, do not stare into the laser beam or view directly with optical instruments. Laser light can damage your eyes.
- The 3D Foot Scanner is classified per EN 60825-1:2014 as a Class 1 laser product.
- The 3D Foot Scanner complies with FDA performance standards for laser products except for deviations pursuant to Laser Notice No. 50, dated June 24, 2007.

#### 2.5. Care of the 3D Foot Scanner

- To ensure client safety, clean and, if applicable, disinfect the glass plate between uses.
- The glass plate and other surfaces can be cleaned and disinfected with a suitable disinfectant or a mild detergent (for example Dettol, Washing up liquid), or the supplied wipes.
- Do not pour or spray the cleaning or disinfectant product directly on the 3D Foot Scanner or glass plate, use a damp cloth or lint free wipe to clean and remove contamination.
- Make sure the glass plate is completely dry before use.
- Do not use solvent based, flammable, aggressive or abrasive cleaning or disinfectant products (such as acetone, or ammoniac). Consult the labelling of the products before use.

#### 2.6. Safety inspections



This section contains instructions regarding safety. Please read carefully.

- On daily basis, visually inspect the glass plate and housing for damage ensuring maximum safety for the client while being measured.
- On a weekly basis, visually inspect the cables and connection. Do not use the system if any cables are damaged. Replacement cables can be ordered.

### 2.7. Calibration and repair

- The 3D Foot Scanner is calibrated in the factory. A new calibration is required after replacing the laser, optics, camera or other mechanical parts by a qualified and authorized technician or in case these parts are out of alignment due to mishandling, shocks or heavy vibrations.
- There are no user serviceable parts inside the 3D Foot Scanner. Disassembly will void warranty.
- Repairing the 3D Foot Scanner should only be performed by qualified and authorized personnel.
   Contact the support department for more information.
- Save the original packaging, it can be used to ship the 3D Foot Scanner for repair.

#### 2.8. Limited warranty terms and conditions

- The 3D Foot Scanner (the "Product") is warranted against defects in materials and workmanship for a period of one (1) year from the date of the original purchase (the "Warranty Period") when used in accordance with the Installation and User Guide.
- If the Product is determined to be defective during the Warranty Period, The Company will at its option (1) repair the Product, (2) exchange the Product with a new Product or refurbished Product that is

equivalent to new in performance and reliability.

- Repair or exchange as provided under this warranty is the sole and exclusive remedy of the consumer and The Company's sole and exclusive liability in respect of defects in the Product.
- Customer shall contact The Company support department to initiate the warranty service procedure. Customer shall exhaust all support options before doing so.
- Replacement parts or Product will be covered by a 90 days warranty or the remainder of the Product Warranty Period, whichever period is longer. The Product Warranty Period will not be extended.
- Replaced parts or Product will become the property of The Company.
- To the extent permitted by applicable law(s) The Company does not assume any liability for loss of
  or damage to or corruption of data, for any loss of profit, loss of use of products or functionality, loss
  of business, loss of contracts, loss of revenues or loss of anticipated savings, increased costs or
  expenses or for any indirect loss or damage, consequential loss or damage or special loss or damage.
- This Limited Warranty does not affect your legal (statutory) rights under your applicable national laws relating to the sale of products.

#### The warranty includes:

 The cost of all parts and labor in the repair or replacement of the Product, following mechanical or electrical breakdown, which are shown to the satisfaction of The Company to be defective due to faulty materials or workmanship.

#### The warranty excludes:

- Normal wear and tear, including wearing parts.
- Damage to the glass plate.
- Failures due to accidental damage, careless operating, unintended use, use or incorrect installation
  of incompatible third-party equipment, negligence, handling damage, transit damage, misuse, noncompliance with the supplied instructions, force majeure, natural forces or damage due to other
  external causes.
- Unsatisfactory performance caused by non-compliance with the minimum system requirements, the use or attachment of any accessories not produced or authorized by The Company.
- Repairs, alterations or disassembly carried out by unauthorized parties.
- Products damaged during transit to The Company due to insufficient or improper packaging.
- Software (refer to the End User License Agreements of the supplied software).

### 2.9. European Union (EU) customer information

- The 3D Foot Scanner is marked according to the European directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE).
- This symbol on the product or the documentation indicates that this product may not be treated as household waste. Instead it shall be handed over to the applicable collection point for the recycling of electrical and electronic equipment. Disposal must be carried out in accordance with local environmental regulations for waste disposal. For more detailed information about disposal of this product, please contact the distributor where you purchased the product, your household waste disposal service or your local city office.



 Alternatively, the product can be sent back to The Company for disposal or trade-in. Contact the support department for details.

# 3. Unpacking and installation

- Place the scanner at the point of use.
- Place the scanner level on a solid flat surface. Do not place under direct lighting or sunlight.



• For measurements in (semi) unloaded position or with clients in a seated position, the scanner can be mounted on a video camera tripod or "Vesa" mount fixed to a wall or other solid object. Make sure the tripod or "Vesa" mount is suitable for the weight of the scanner. If the supplied "Vesa" mount is used, fix it to the bottom of the scanner with the supplied screws.



#### 4. Software installation



Do not connect the 3D Foot Scanner to the USB port of the PC until the software is installed

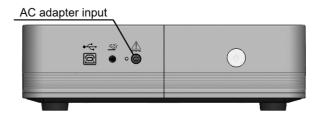
Download and run file "Foot3dt-setup.exe" from <a href="http://www.elinvision.com/support-center/">http://www.elinvision.com/support-center/</a> to install the software.

Refer to the Installation Guide and User Manual for the installation of the software.

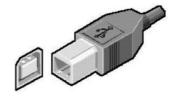
Once the software has been successfully installed, you are ready to connect the 3D Foot Scanner.

# 5. Connecting the scanner

Connect the power cord to the 3D Foot Scanner and plug it into a properly grounded AC outlet.



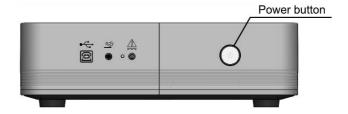
Connect the 3D Foot Scanner to your PC using the supplied USB cable. Connect the USB-B plug side of the cable (square plug) to the USB connector on the 3D Foot Scanner. Match the orientation of the plug and connector, align the beveled edges of the plug with the beveled edges of the connector.



Connect the USB-A plug side of the cable (flat rectangular plug) to a free USB port on your PC. Match the orientation of plug and connector.



When the hardware setup is completed, switch on the 3D Foot Scanner by press the power button. It will light on green indicator. A self-test will be performed, after that the 3D Foot Scanner is ready for use.



Press the power button one time to turn of the scanner. Green led indicator will turn off. Then unplug power cable from connector.

#### 6. Start the software

Start "Foot3dt" software by running "Foot3dt" in the directory you chose to install the software.

Refer to the Installation Guide and User Manual for the "Foot3dt" software.

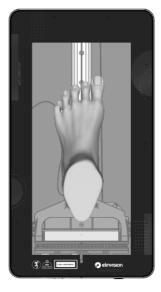
#### 7. Your first measurement

Once you have installed the software and set up the 3D Foot Scanner, you are ready to take your first measurement.

Let the client step carefully onto the glass plate of the scanner with either left or right foot.



Roughly position the center of the foot in the center of the transparent part of the glass to obtain the best scan result.

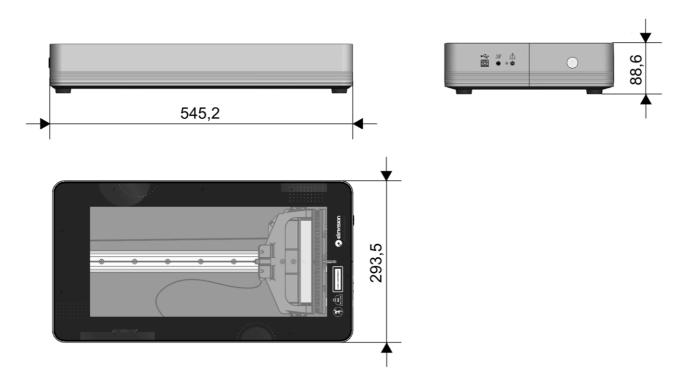


Refer to the Installation Guide and User Manual for the software for further instructions on how to take a measurement.

# 8. Software user guide

Refer to the Installation Guide and User Manual for the "Foot3dt" software.

# 9. System specifications



Dimensions (L x W x H): 545.2 x 293.5 x 88.6 mm (21.46 x 11.55 x 3.48 in.)

Weight: 5.5 kg (12.12 lbs.)

Scanning area (L x W x H):  $340 \times 180 \times 80 \pm 5 \text{ mm} (13.70 \times 7.08 \times 3.15 \pm 0.20 \text{ in})$ 

2 Class 1 lasers

Accuracy: ±1 mm (0.04 in.) Scan time: 2.5 - 5 s

Radiation output and standards information:

Laser class:

Max output of laser radiation: 10 mW

**Emitted wavelength(s):** 788, 650 nm Standard(s): IEC 60825-1:2014 (Second Edition)

Camera type: 1 VGA RGB color camera **Operating temperature range:** 

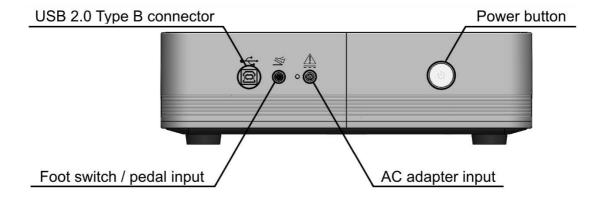
+10 °C .. +30 °C (+50 °F .. +86 °F) +5 °C .. +50 °C (+41 °F .. +122 °F) Storage temperature range: Relative humidity: Maximum 80% non-condensing

I/O: USB 2.0 Type B

Supply voltage: 100 - 240 V AC 50 - 60 Hz

Input voltage: 19.5V DC Power consumption:

Idle: 10 VA Scanning: 20 VA



- **Power button:** lets user to switch the 3D Foot Scanner on or off, when power is on and mains connected power symbol on button will lit green
- AC adapter input: connects to AC adapter which must be connected to mains in order power 3D Foot Scanner
- USB 2.0 Type B input: connects to the USB-B end of the USB cable, which allows user to connect to the PC
- Foot switch / pedal input: allows user to connect the foot switch / pedal, can be used to start measurements



# 10. Appendices

#### 10.1. Troubleshooting

### The power switch light does not light up

- ✓ Check if AC adapters power cord is plugged in to the AC outlet
- ✓ Check if AC adapter is plugged to scanner

#### The PC does not recognize the scanner

- ✓ Check if the USB cable is plugged in at the scanner and the PC
- ✓ Reinstall the software

#### 10.2. REACH compliance statement

The European Union chemical regulation 2006/1907/EEC: REACH (Registration, Evaluation, Authorization and Restriction of Chemicals), entered into force on 1<sup>st</sup> June 2007.

As a manufacturer of articles (products), according to article 33, The Company is obligated to provide the recipient or consumer of its products, containing any of the Substances of Very High Concern (SVHC) of the published candidate list in a concentration above 0.1% w/w, with sufficient information to allow safe use of the product including, as a minimum, the name of that substance.

All information in this statement is based on our current knowledge. We take neither liability nor warranty for factors beyond our knowledge and control.

The majority of products supplied by The Company do not contain any of the Substances of Very High Concern (SVHC) of the published candidate list in a concentration above 0.1% w/w. The articles listed below may contain a Substance of Very High Concern (SVHC) of the published candidate list in a concentration above this threshold.

Article	Substance	CAS number	Application
Power cables, USB cables	Bis (2- ethyl(hexyl)phthalate)	117-81-7	Plasticizer in PVC