



rs scan powered by



3D Foot Scanner

Model 28BA0100

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 28BA0100.

The installation consists of:

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

Enjoy your 3D Foot Scanner.

1.2. Manufacturer contact information

RSscan International NV

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Website: <http://www.rsscan.com/>.

Sales: sales@rsscan.com

Support: support@rsscan.com

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.

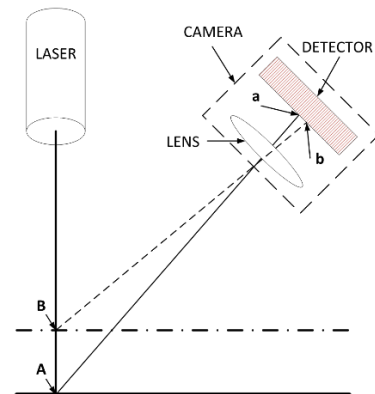
Eight monochrome cameras are used for the 3D image, one color camera for the texture, and four lasers. This allows precise and fast scans of feet in normal ambient light conditions.



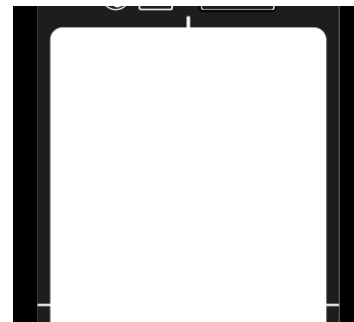
Each of the four lasers projects a line onto the foot from several angles. The eight monochrome cameras capture the laser projections.

The lasers and cameras are mounted on a moving carriage. When the foot is scanned and the carriage moves back to the home position, the backlight LED is turned on and a 2D color image of the sole of the foot is scanned.

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.



The center of the active scanning area is marked on the glass plate with three white markers.

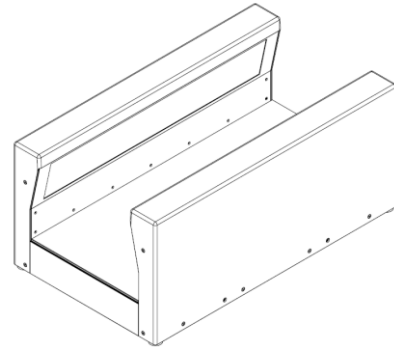


1.4. Product overview

1.4.1. Model 28BA0100

The 3D Foot Scanner model 28BA0100 package includes:

- 3D Foot Scanner.



- USB cable A-B 1.8m (71 Inches).
Do not use any other USB cable!



- AC adapter.
Brand: Delta Electronics inc.
Model: MDS-060AAS19-B
Do not use any other AC adapter!



- Power cord with a C13 plug, the other side will be country specific.



- This guide.



- Lifting straps.



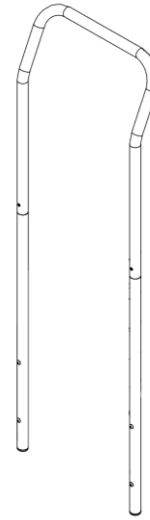
2X

- Allen key (attached to a lifting strap).



The accessories package includes:

- Handle bar and two extension rods.



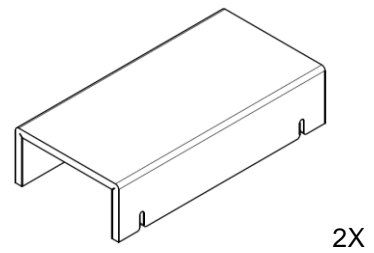
- 4 screws to mount the handle bar to the scanner.



- Four knob screws to mount the support steps to the scanner.



- Two support steps.



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.



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



CE mark according to European Directives.



CSA certification mark.



Power.



Power off.



Power on.



DC power.



USB port.



Do not jump on the glass plate, or tread lightly.



Do not exceed the maximum weight limit of 200Kg (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.

2.2. System requirements

Refer to the Installation Guide and User Manual for the footscan 9 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.
- 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 stand or sit on the scanner's sides.
- Do not use the 3D Foot Scanner if cables or parts such as the glass plate, steps or handle bar are damaged.
- Do not use a USB connection cable longer than the supplied 1.8m (71 Inches) 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.
- Heavy device, lift with two persons using the provided straps.
- Install the 3D Foot Scanner level on a solid, level and non-skid surface.
- Power off the 3D Foot Scanner when not in use or before connecting / disconnecting cables.
- Unplug the power cord when not in use for longer periods.
- Only use the supplied AC adapter. Using other power supplies may violate the safety standard and/or could damage the scanner.
- Do not wrap the cord from the AC adapter around the AC adapter, this may damage the cord.
- 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.
- 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.

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 uses four lasers and 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).
- Do not pour or spray the cleaning or disinfectant product directly on the 3D Foot Scanner or glass plate, use a damp cloth 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 alcohol, acetone, or ammoniac). Consult the labelling of the products before use.

2.6. 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.

2.7. 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, RSscan international 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 RSscan international's sole and exclusive liability in respect of defects in the Product.
- Customer shall contact the RSscan International 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 RSscan international.
- To the extent permitted by applicable law(s) RSscan international 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 RSscan international 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, non-compliance 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 RSscan international.
- Repairs, alterations or disassembly carried out by unauthorized parties.
- Products damaged during transit to RSscan international due to insufficient or improper packaging.
- Software (refer to the End User License Agreements of the supplied software).

2.8. 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 send back to RSscan International for disposal or trade-in. Contact the support department for details.

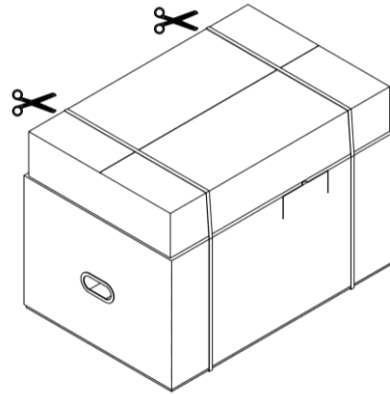
3. Unpacking and installation



Caution: Heavy device, lift with two persons!

Cut the straps to release the accessories box from the scanner box.

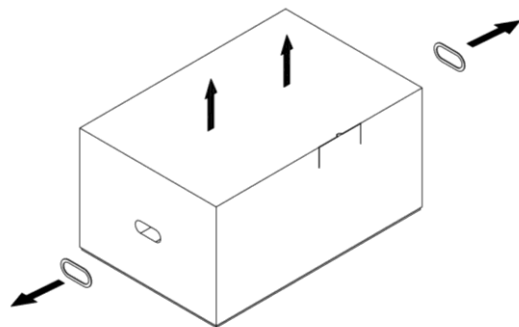
Remove the accessories box and set aside.



The scanner box consists of an *upper* and *bottom* half.

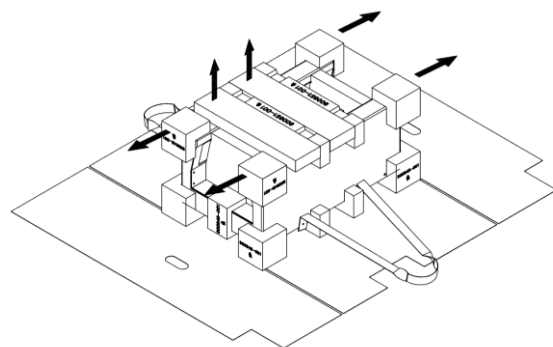
Remove the plastic handles on front and rear side. This will remove the lock between the *upper* and *bottom* parts.

Lift the *upper* cardboard off the box.

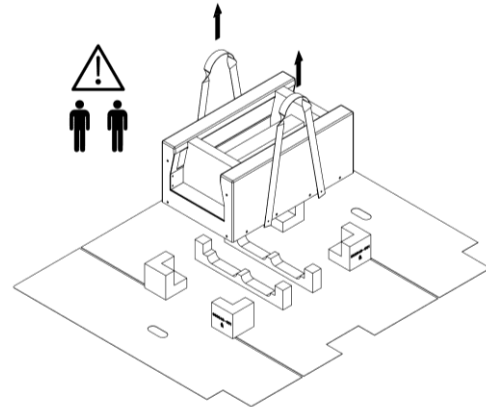


The four sides of the *bottom* cardboard will fold down allowing full access to the scanner.

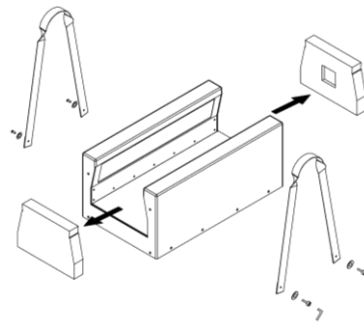
Remove the protective parts from the top corners and top.



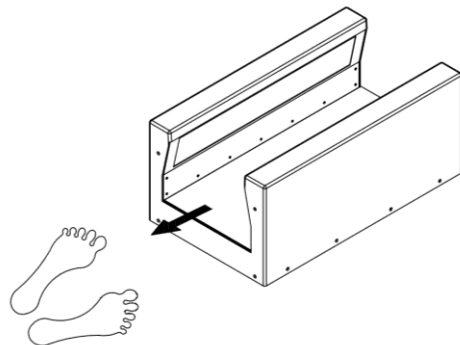
Lift the scanner with two persons using the attached straps.
Place the scanner at the point of use.
Do not place under direct lighting or sunlight.



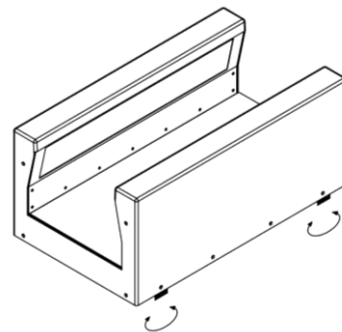
Remove the Allen key from the lifting strap.
Use the Allen key to remove the four hex screws and washers that hold the lifting straps in place.
Store the straps and screws for future use.
Remove the protective parts inside the scanner.



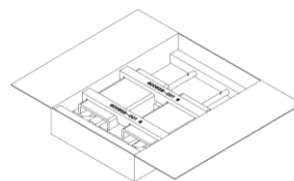
The connections and power switch are on the rear of the scanner. Orient the front of the scanner to face the client.



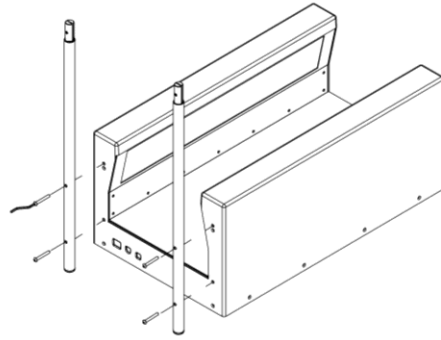
Make sure the scanner is level on a solid floor.
Adjust the four feet to level the scanner by turning them clockwise or counter clockwise.



Open the accessories box and remove the parts.



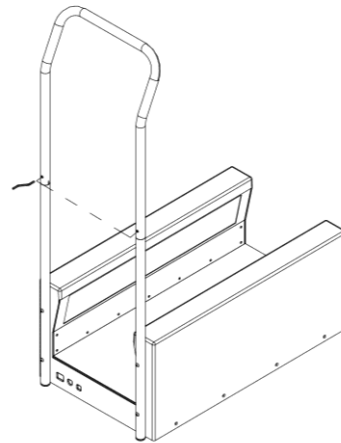
Secure the two extension rods for the handle bar to the back of the scanner using the four screws and Allen key supplied, the four protection pads on the rods positioned towards the scanner.



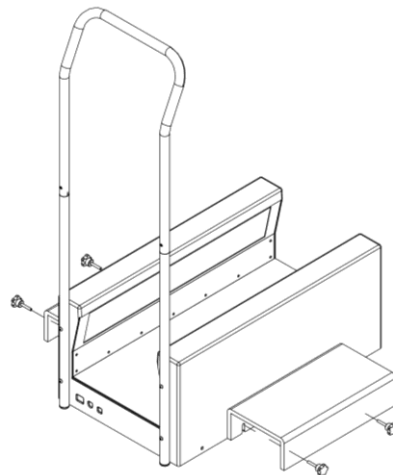
Slide the handle bar over the extension rods until the hex screws are visible through the holes in the handle bar.

Turn the hex screws slightly clock wise or counter clockwise when the rods cannot be fully inserted in the handle bar.

Turn the hex screws clock wise to secure the extension rods.



Place the steps next to the scanner, align the mounting holes with the holes at the sides of the scanner, and secure them using the four knobs. Adjust the steps until they are supported by the floor, fasten the knobs.



4. Software installation



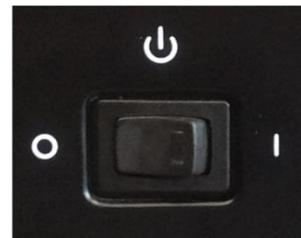
Caution: Do not connect the 3D Foot Scanner to the USB port of the PC until the software is installed.

Refer to the Installation Guide and User Manual for the installation of footscan 9 software.

5. Connecting the scanner

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

Verify if the power switch is in the OFF position (Marked O).



Connect the AC adapter to the 3D Foot Scanner.

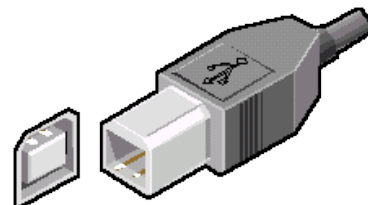


Connect the power cord to the AC adapter and then plug it into the AC outlet.



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.

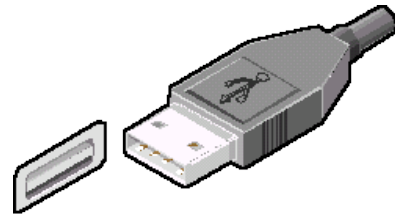
Match the orientation of the plug and connector, align the beveled edges of the plug with the beveled edges of the connector.





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 switching the power switch to the ON position (Marked I). The green power LED inside the switch will light up.



6. Start the software

Refer to the Installation Guide and User Manual for the footscan 9 software.

7. Initial settings

Refer to the Installation Guide and User Manual for the footscan 9 software.

8. 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, the other foot on the support step. Have the client use the handle bar for balance and support.



Roughly position the center of the foot in the center of the three white markers to obtain the best scan result.



Refer to the Installation Guide and User Manual for the footscan 9 software for further instructions on how to take a measurement.

9. Software user guide

Refer to the Installation Guide and User Manual for the footscan 9 software.

10. Troubleshooting

The power LED does not light up

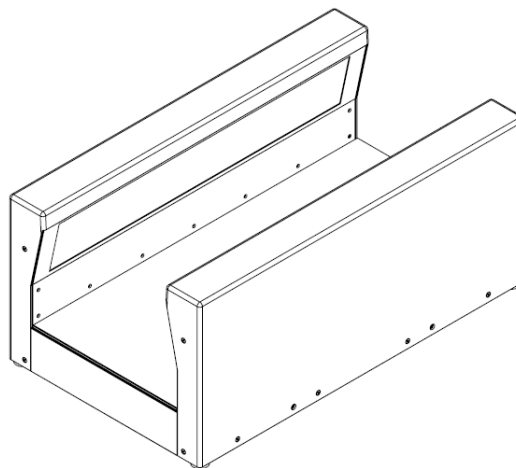
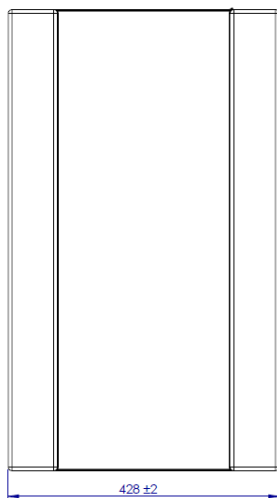
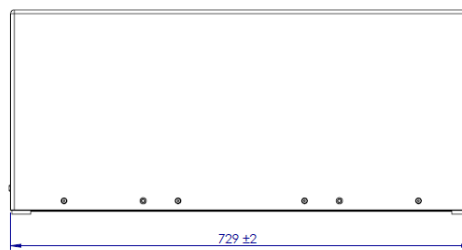
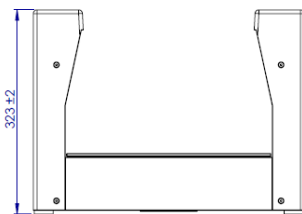
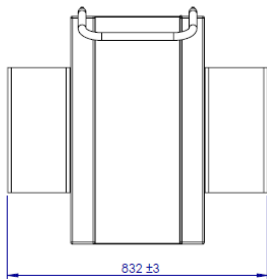
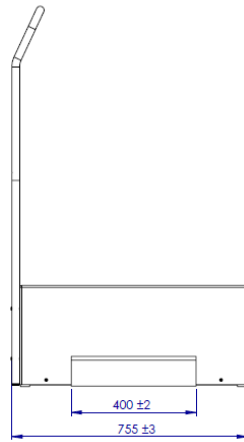
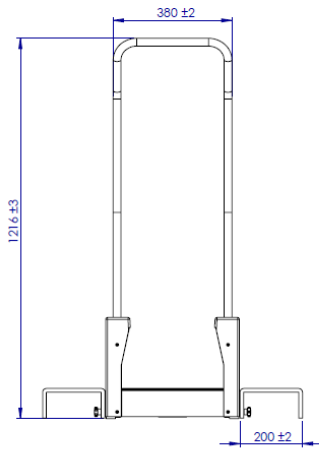
- ✓ Check if the power switch is in the 'on' position (marked I).
- ✓ Check if the AC adapter is plugged into the scanner.
- ✓ Check if the power cord is plugged in to the AC adapter and the AC outlet.

The PC does not recognize the scanner

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

11. System specifications

11.1. Model 28BA0100



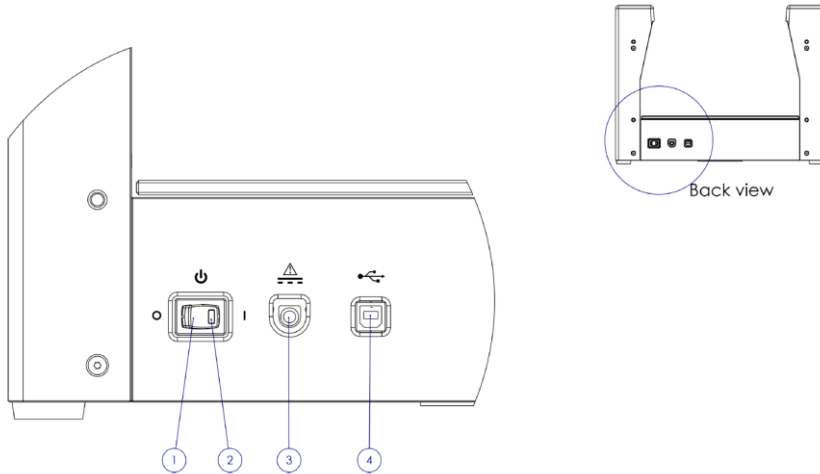
Dimensions (scanner body) (L x W x H):	729 x 428 x 323 mm (28.70 x 16.85 x 12.72 Inches)
Dimensions (with handle bar and steps) (L x W x H):	755 x 832 x 1216 mm (29.72 x 32.75 x 47.87 Inches)
Weight (with handle bar):	26 Kg (57.32 lbs.)
Scanning area (L x W x H):	400 x 200 x 180 mm ±5 mm (15.75 x 7.87 x 7.09 Inches ±0.197 Inches)
Measurement standard deviation:	0.5mm 0.02 Inches
Scan time:	5-15 seconds
Radiation output and standards information:	
Laser class:	4 lasers Class I
Max output of laser radiation:	1.5 mW
Emitted wavelength(s):	650nm
Standard(s):	IEC 60825-1:2014 (Third Edition)
Camera type:	1 color camera: SENSOR IMAGE VGA RGB color 48-CLCC 8 monochrome cameras: SENSOR IMAGE VGA mono 48-CLCC
Operating temperature range:	+10 °C .. +30 °C (+50 °F .. +86 °F)
Storage temperature range:	+5 °C .. +50 °C (+41 °F .. +122 °F)
Relative humidity:	20% .. 80% non-condensing
Protection class:	I
IP code:	IP40
I/O:	1x USB 2.0 (1.8m USB cable A–B)
Supply voltage (AC adapter):	100 – 250 V AC 50-60 Hz (to AC adapter)
Supply voltage (DC):	19V DC (from AC adapter)
Power consumption (AC adapter):	<0.2 W standby 12 W non scanning 24 W scanning

HP part number:

2ZN18AA

Regulatory model number:


VAS-63



- 1 Power switch:** to switch the 3D Foot Scanner on or off
- 2 Power LED:** to indicate that the 3D Foot Scanner is powered on
- 3 Power:** connect the supplied AC adapter, **do not** use any other AC adapter
- 4 USB:** connect the USB-B end of the USB cable, connect the USB-A end of the USB cable to the PC

12. Appendices

12.1. EC declaration of conformity

	<h2 style="text-align: center;">EC Declaration of Conformity</h2> <p style="text-align: center;">rs scan 3D Foot Scanner</p>
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Document reference: RS-QMS-00xxx-001
Manufacturer: RSscan International NV
De Weven 7
B-3583 Paal
Belgium

Product name: 3D Foot Scanner (retail)
Models: 3D Foot Scanner 28BA0100

We hereby declare under our sole responsibility that the above mentioned products meet the transposition into national law of the provisions of European Low Voltage Directive (LVD) 2014/35/EU, European Electromagnetic Compatibility Directive (EMC) 2014/30/EC and European directive 2011/65/EU on the Restriction of the use of certain Hazardous Substances in electrical and electronic equipment (RoHS).

Standards applied: EN-IEC 60950-1:2006 +A11:2009, +A1:2010, +A12:2011, +A2:2013 ITE - Safety - General Requirements
EN 55022:2010 ITE - Radio disturbance characteristics - Limits and methods of measurement
EN 55024:2010/A1:2015 ITE - Immunity characteristics - Limits and methods of measurement
EN 61000-3-2:2014 EMC - Limits for harmonic current emissions
EN 61000-3-3:2013 EMC - Limitation of voltage changes, voltage fluctuations and flicker
EN 61000-4-2:2009 EMC - Testing and measurement techniques - Electrostatic discharge immunity test
EN 61000-4-3:2006+A1:2007+A2:2010 EMC - Testing and measurement techniques - Radiated, radio-frequency, electromagnetic field immunity test
EN 61000-4-4:2012 EMC - Testing and measurement techniques - Electrical fast transient/burst immunity test
EN 61000-4-5:2014 EMC - Testing and measurement techniques - Surge immunity test
EN 61000-4-6:2014 EMC - Testing and measurement techniques - Immunity to conducted disturbances, induced by radio-frequency fields
EN 61000-4-8:2010 EMC - Testing and measurement techniques - Power frequency magnetic field immunity test
EN 61000-4-11:2004 EMC - Testing and measurement techniques - Voltage dips, short interruptions and voltage variations immunity tests
IEC 60825 -1:2014 Safety of laser products - Equipment classification and requirements

Place and date of issue: Paal, Belgium, 27/06/2016

Name: Friso Hagman
Authority: CEO
Signature:



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12.2. REACH compliance statement

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

As a manufacturer of articles (products), according to article 33, RSscan International NV 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 RSscan International NV 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, external power supply cables.	Bis (2-ethyl(hexyl)phthalate) (DEHP)	117-81-7	Plasticizer in PVC cables.