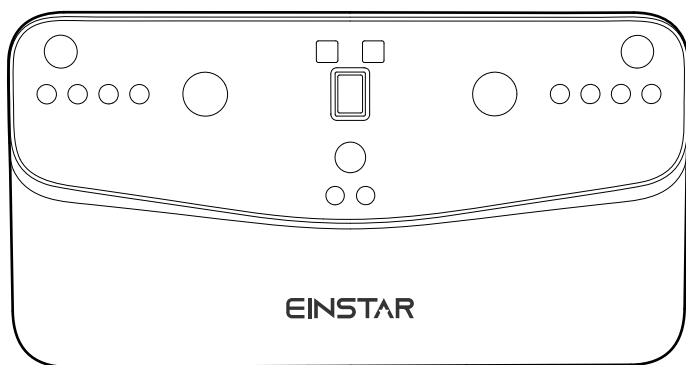




SHINING 3D

For More Shining Ideas



EINSTAR VEGA

Quick Start Guide

Compliance



LVD/EMC Directive

This product complies with the European Low Voltage Directive 2014/35/EU and EMC Directive 2014/30/EU.



WEEE Directive-2012/19/EU

The product this manual refers to is covered by the Waste Electrical&Electronic Equipment(WEEE) Directive and must be disposed of in a responsible manner.



This device complies with "IEC 60825-1:2014 Safety of laser products"



Federal Communications Commission Certified.

RoHS

Restriction of Hazardous Substances Certified.



Korea Certification Certified.

Welcome!

Thank you for purchasing the Einstar Vega scanner. We hope you enjoy scanning with your new scanner.

You can login to our user platform passport.shining3d.com to get more information.

For 3D model cloud storage and sharing, please visit cloud.shining3d.com

For technical support, please visit our support center support.einstar.com

Join our social media platform to get more information



Facebook



Einstar Forum



Instagram



Youtube video list



Tik Tok

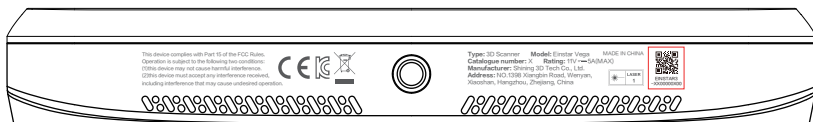
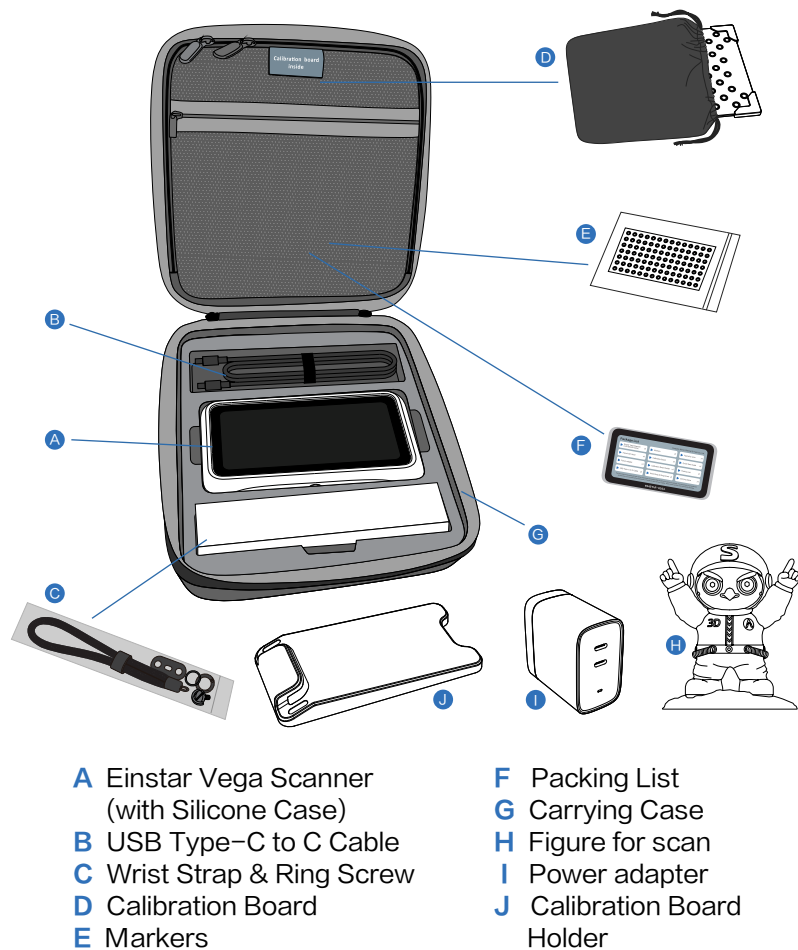
Legal Disclaimer

This quick start guide introduces the device appearance and operation procedure of Einstar Vega, and the usage process of the desktop post-processing software StarVision.

This document is related to your safety, lawful rights and responsibilities. Read it carefully before installing and using the product.

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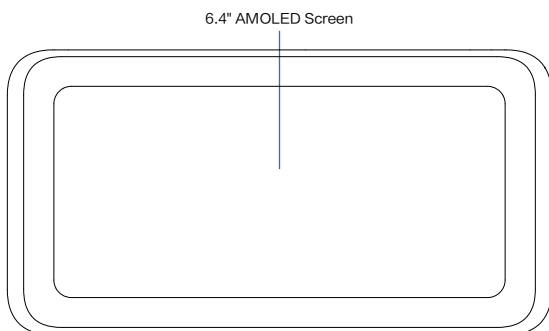
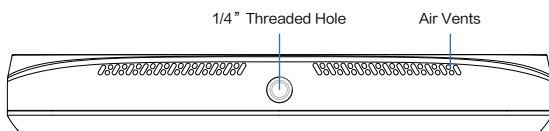
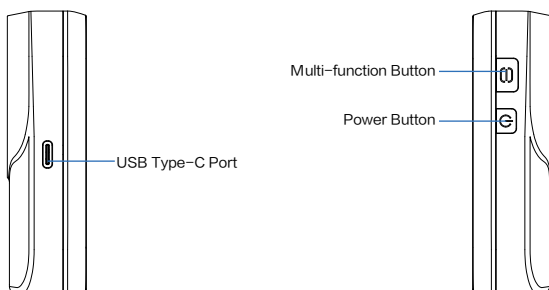
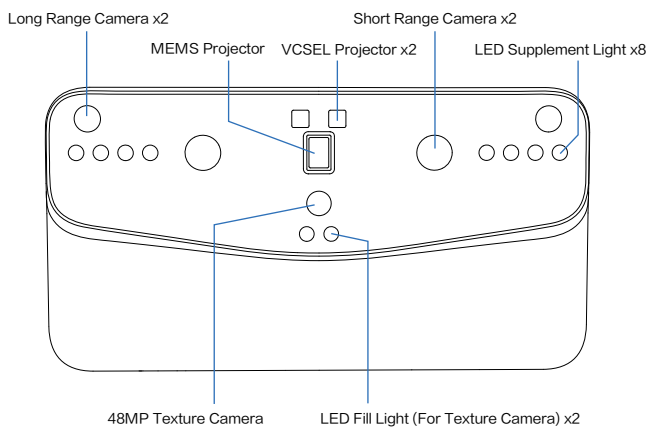
Packing List



Note:

Serial number can be found on the back of the scanner after the silicon case is removed or on the back of the calibration board, which is like "EINSTAR3-XX00 000X00".

Appearance



Specification

Parameter	Description
Device dimensions	180 mm x 95 mm x 26.5 mm
Device weight	limited edition: 643 g, regular edition: 535 g
Working temperature	-10 °C ~ 40 °C
Working humidity	0 % ~ 90 % RH (no coagulation)
Screen	6.4-inch 2K AMOLED screen
Light source	Class I
RGB fill light	White flash LED * 2
Markers fill light	Infrared fill light * 8
3D camera resolution	HD: 2 mega-pixel Fast: 1.3 mega-pixel
Texture camera resolution	8064 px x 6048 px (48 mega-pixel)
Battery type	Lithium polymer battery (5000 mAh)
Data format	OBJ / STL / PLY / ASC
Interface	USB 2.0 or 3.0; BT; Wi-Fi 6
RAM	32 GB
ROM	32 GB eMMC+ 512 GB SSD
Working distance	· HD scan mode: 100 mm ~ 250 mm · Fast scan mode: 300 mm ~ 1000 mm
Compatible system (for StarVision)	Windows 10 or Windows 11 (64-bit); macOS (recommended: macOS 11.0 or above with Apple Silicon)

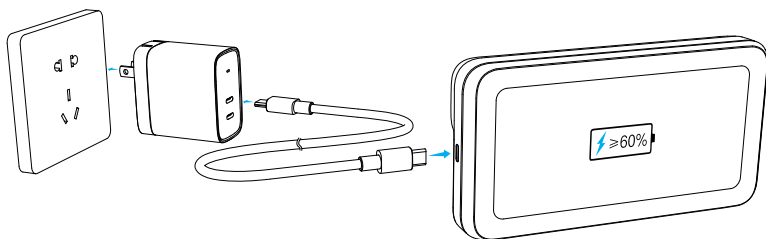
Frequency Range (RF)

- BT: 2400 – 2483.5 MHz (TX / RX)
 - *Wi-Fi (2.4G): 2400 – 2483.5 MHz (TX / RX)
 - *Wi-Fi (5G): Band 1: 5150 – 5250 MHz (TX / RX); Band 4: 5725 – 5850 MHz (TX / RX)
- BT: <10 dBm (max.e.i.r.p)
 - *2.4G Wi-Fi: < 20 dBm (max.e.i.r.p)
 - *5G Wi-Fi: < 23 dBm (max.e.i.r.p)

Unboxing and Setup

STEP 1 Charging

For the first use, please charge the Einstar Vega to more than 60%.



STEP 2 Power on

To power on the device successfully, press and hold the power button for 2 seconds until the screen displays the startup animation.



Note:

- Press and hold the power button for 6 seconds to power the device off.

STEP 3 Connect Network

After entering the Connect Network interface, the device will automatically search for available wireless networks nearby every 10 seconds.

Connected network 

Shining3d-Employee 

Shining3d-Employee 

Shining3d-Employee 

Shining3d-Employee 

[Skip](#) 

Next

Note:

- When no network connected, you are not allowed to enter the Next step.

STEP 4 Register / Login

After entering the Log in to Shining3D passport interface, you can choose to log in with verification code or password.

 Network [Skip](#) 

Login to Shining3D passport

Unregistered accounts will be automatically registered after verification, or [use password to login?](#)

Phone number/Email

 Click to verify

Enter Verification code | [Get Code](#)

☐ I have read and agreed to the [Privacy Policy](#) and [Terms of use](#)

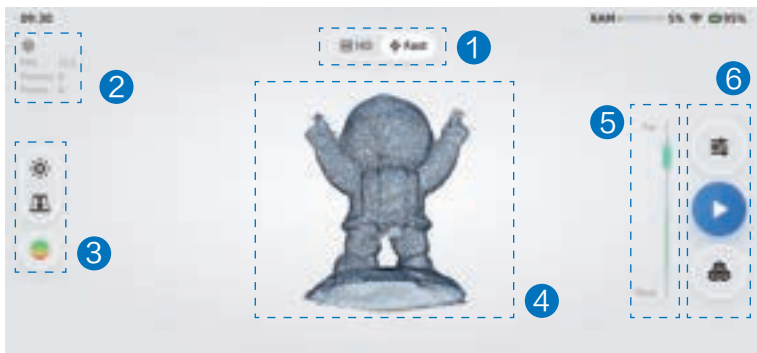
Login

Note:

- If this is your first login, it is recommended that you choose to log in with a verification code. If your phone number or email is not registered, it will be automatically registered after verification.
- If you choose to Skip the registration and login to directly enter the scan process, the scanned data can not be uploaded to SHINING 3D Digital Cloud or transferred to your computer.

STEP 5 Scan Preview

Tap Next to enter the Scan Interface.



- 1 Scan Mode
- 2 Scan Status
- 3 Scan Settings

- 4 Model Preview
- 5 Distance Indication
- 6 Function Buttons

Update the Software

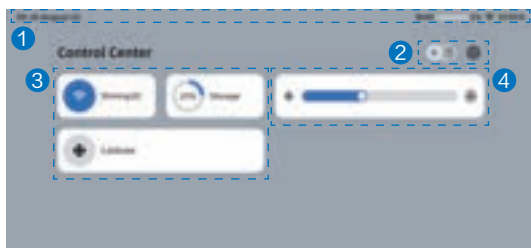
You can update the software on device.

- Swipe down to the top menu and find "Settings".
- Click the "Software Update" on the left side of the screen.
- And then check for update, if the software version you're using is not the latest, you can update it here.



Control Center

To invoke the Control Center module, simply swipe down from the top of the screen.



- 1 Status Bar
- 2 Widget Bar Setting
- 3 Function Panel
- 4 Screen Brightness

Calibration

Calibration is required under the following conditions:

- The scanner was severely shaken or shocked, such as shocked during transportation.
- Significant accuracy issues, like frequent misalignment or unrecognized markers.
- Incomplete data is captured during scanning, or the quality of the scanned data seriously deteriorates.

Note:

If the current device has not been calibrated for more than 7 days,  **Suggest to calibrate** will appear in the status bar at the top of the screen;

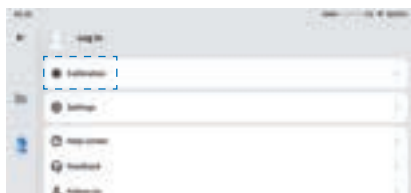
if it has not been calibrated for more than 14 days,  **Suggest to calibrate** will appear.

Warning

- The calibration board should be matched to the device. Doing the calibration with an incorrect calibration board will fail to generate good scan data or optimum accuracy.
- Always make sure that both sides of the calibration board are clean and free of scratches.
- Do not place heavy objects or sundries on the calibration board.
- Keep the calibration board away from corrosives, metals and sharp objects to avoid corrosion or damage.
- It's best not to wipe the calibration board. If cleaning is essential, gently use a clean, damp cloth. Avoid using cloths with chemicals or alcohol.
- After using the calibration board, put it safely in a box or flannel bag.

Calibration Process

Two ways to enter the calibration process are introduced as follows.



The operation steps for device calibration is as follows:

1. Place the calibration board on a flat surface as shown in the figure, and then prepare the holder.



2. Align the board to make the board match with the figure; when matched, the markers will turn green.



3. Move the scanner vertically to remove all blue areas.



4. Adjust the position of the bracket and the calibration board according to the illustration, and repeat the step 2 and step 3 for a total of 4 times.



5. After completing the scan calibration, you will be automatically directed to the scan calibration; and a calibration file will be generated after all calibration steps are completed.

Note:

- After calibration successes, it will prompt that "  Calibration completed "; and tap the Apply button, the device will restart automatically.
- if calibration fails for several times, please [contact technical supports](#).

Preparation

If the object to be scanned has rich geometric or textural features, the scanning speed and quality can be better guaranteed;

On the contrary, if the object to be scanned has fewer geometric or textural features or a high degree of feature repetition, you need to do some preparation work before scanning to enhance your scanning experience.

For Portrait Scan

Specific requirements:

1. Hairstyle: Please keep it as neat as possible and avoid hairstyles with loose strands or bangs.
2. Posture: Since the scanned object should remain as still as possible during the scanning process, a comfortable and easy-to-maintain posture is suggested before the scan begins.



Wrong example



Correct example

For Object Scan

Object	Preparation	Notes while scanning
Transparent, shiny, reflective or black objects	Use washable or vanishing scanning spray.	Scan as normal after spraying.
Objects with less features or repetitive features	Choose one from below 3 methods · Attach some rich geometric shapes around or on the target object · Place markers on the object and enable Markers alignment in the Advanced Settings. · Add rich texture features and enable Aquire texture and Texture alignment	Scan as normal after preparations.

Note:

Not recommend to scan following objects:

- Soft material object that cannot be hung.
- Lattice structures with many small deep holes.
- Moving or shaking objects. Frequent coordinate changes will lead to a poor scanning quality.

Pre-Scan Settings

After entering the scan preview interface, you can adjust scanning settings for the current project.

Note:

After start scanning, you can adjust the camera view or the switch for quality chromatograph & texture, but you will not be allowed to readjust the scanning distance or advanced settings.

Camera View

Tap  to enable camera view, it will show the black-and-white camera view and texture camera view (only shown when Acquire Texture is enabled).



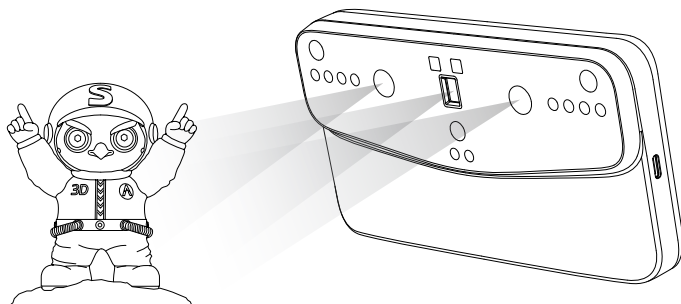
Adjust the exposure level by touching and moving finger up or down inside camera window until a reddish area appearing on object's surface, which means proper exposure status and more data will be detected in scanning interface.

For example, above window shows too much red area, Which means over-exposure, should touch and move finger down to lower the exposure.

Scanning

STEP 1 Set up a scanning environment.

For the first trial, just try to scan the Figure for scan with HD mode.



STEP 2 Scanning

After entering the interface of scan preview, tap  in the right-side function bar to start scanning.



Note:

- Move scanner steady and better to keep distance indicator in green zone.
- If it prompts "Tracking lost", please move the scanner back to already scanned area with rich geometric features to recover tracking.

Pause Scan

After start scanning, you can tap  in the right-side function bar to pause the scan.

Note:

- After the scan is paused, the model can be panned or rotated ( Reset View function to reset the model to its original position):



Swipe with two fingers: Translation



Swipe with one finger: Rotation

- During the scanning process, when the current frame count has reached 5000, the scan will pause automatically, and please tap Complete Scan in the pop-up window to save the project into the file list.

After the scan is paused, you can tap  to clear the scanned data, or tap  to continue scanning.

Complete Scan

After the scan is paused, tap  in the right-side function bar to complete the scan, and enter the interface of point cloud edit.



Data Edit

After completing scanning, you can edit the point cloud data.

Interface Overview



- 1 Switch data
- 2 Project information
- 3 Point cloud edit tools
- 4 Mesh tools

Data Clipping

On the  Point interface, tap  in the left-side tool bar to enable the data clipping function.



Note:

In the  selection mode, you can hold down on any area but buttons to activate the magnifying glass function, and you can drag the magnifying glass to the model area to zoom in and display a specific part of the model.



Icon	Function	Description
	Selection Mode (by default)	Use one-finger swipe to select the area. Note: In this mode, the model can not be rotated.
	Rotation Mode	Use one-finger swipe to rotate the model.
	Rectangle Lasso	In the  selection mode, rectangle lasso is chosen by default, and you can drag with a single finger in the model area to draw a rectangular selection area.
	Free Lasso	In the  selection mode, tap this button to switch the selection tool to free lasso, and you can drag with a single finger in the model area to draw a selection area in irregular shape.

**Note:**

In the  selection mode, using the rectangular / lasso tool, you can select common areas by making consecutive selections.

For selected areas, you can use tools as follows:

Icon / Function	Description
 Connected Domain	After selecting the area, tap this button to automatically select connected areas.
 Invert	After selecting the area, tap this button to select the invert area according to the selected area.
 Unselect	After selecting the area, tap this button to deselect all selected areas.
 Delete	After selecting the area, tap this button to delete all selected areas. After deleting, you can undo or redo the last operation.

Note:

If all scanned data is deleted, then you will not be allowed to operate one-click processing or other functions.

Post-processing

Mesh

In the interface of point cloud edit, you can tap  to perform one-click processing (including ⚡Fast and High detail), and mesh & texture map will be automatically generated using recommended parameters.



Note:

- If the current project has already generated the mesh, it will be overwritten after one-click processing.
- Operations such as scaling, translating, and rotating the model are supported ( Reset View function can be used to reset the model to its original position).

Mesh Settings

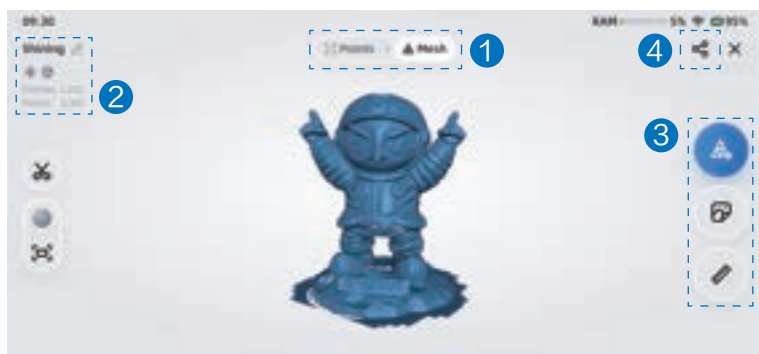
Setting	Description
Watertight	Disabled by default, and all holes will be retained.
Resolution	Dragging the slider  to adjust the resolution, you can check on  Use recommend value to use the default resolution. Besides, you can tap  to tap  /  to adjust the resolution.
Mesh Smoothness	Provide 4 adjustable levels: none, low (by default), middle and high.
Texture Mapping	Click to map the texture manually.

Tap the Apply button, the mesh will be automatically generated according to the mesh settings.

Mesh Edit

After mesh, in the  Mesh interface, you can  clip the mesh and  map the texture.

Interface Overview



- | | |
|-----------------------|--------------------|
| ① Switch data | ③ Function buttons |
| ② Project information | ④ Share |

Save and Share

In the  Point /  Mesh interface, you can tap the Save button in the upper right corner to save or update the current project into the file list.

In the  Mesh interface, you can tap  in the upper right corner to upload the data to SHINING 3D Digital Cloud and share the 3D model with your friends. You can also find your data in <https://cloud.shining3d.com> with your passport account.

Note:

- If the SHINING 3D passport has not been logged in, a login window will pop up.
- If the selected space is less than 500 MB, it will prompt that "Mesh is too large", please simplify it before uploading.
- If the model file has already been uploaded, the corresponding QR code for downloading the model will be displayed.



SHINING 3D

Technical Support

Register at support.einstar.com to submit a support ticket and track your ticket status.
User manual: Get user manual from www.einstar.com--Support--Manual

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YouTube: <https://www.youtube.com/Shining3DScanner>

APAC Headquarters

Shining 3D Tech. Co., Ltd.
Hangzhou, China
P: +86-571-82999050
Email: sales@shining3d.com
No. 1398 Xiangbin Road, Wenyan,
Xiaoshan, Hangzhou, Zhejiang, China,
311258

EMEA Region

SHINING 3D Technology GmbH.
Stuttgart, Germany
P: +49-711-28444089
Email: sales@shining3d.com
Breitwiesenstraße 28, 70565,
Stuttgart, Germany

Americas Region

SHINING 3D Technology Inc.
San Leandro, United States
2450 Alvarado St #7, San Leandro, CA 94577
P: +1(888)597-5655
Tampa, United States
2807 W Busch Blvd, Suite 200, Tampa, FL 33618
Email: sales@shining3d.com

www.shining3d.com

www.einstar.com