

# INTRAVUE 900

## Intraoral Scanner



User Manual



Fast. Accurate.  
AI-Powered Scanning

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

## Foreword

### Purpose

This manual is an integral part of the product and describes in detail its specified use, function and operation. Before using this product, please read, understand and follow the contents of this manual carefully to ensure the correct use of this product and ensure the safety of patients and operators.

### warning

- The company reserves the right to change this instruction manual and update the described product at any time, subject to change without notice.

### Target readers

This product is specifically designed and used by dental and dental laboratory technical professionals. The product cannot be operated by the patient himself.

### Training

Through the training of the company, the main operation functions of this oral digital impression instrument can be safely and effectively used. It is recommended to conduct on-the-job training after the initial installation of oral digital impression instrument, without regular training. After the subsequent system updates, the company may provide appropriate training.

### Instruction

**Product name:** Intraoral Scanner

**Specification and model:** INTRAVUE 900 AI

**Performance, structure and composition :**

INO200 consists of scanner handpiece、 scanner tip, power adapter, handle cable, USB cable, scanner cradle and software (release version: BLZ-IntraoralScan V01). The software is in the USB drive and is made up of order section, scanning section and pre-design section.

**Indications for Use:** Intraoral Scanner is intended to obtain digital impression of teeth, gums, soft and hard tissues, to produce 3D scans for use in computer-assisted design and manufacturing of dental restorations.

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## Version

Software version: BLZ-IntraoralScan V01, and the Manual version number is A/1 and was prepared on 2024.4.1.

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## Chapter 1 Safety

### WARNING

- This product is designed for dental and dental laboratory technical professionals and only trained relevant personnel can use the Intraoral Scanner and the software programs provided. The product cannot be operated by the patient himself.
- Operators must comply with the regulations, warnings and precautions to ensure the safe operation of the Intraoral Scanner.
- Do not use the Intraoral Scanner screen for any use other than that specified in this instruction manual.
- Do not apply shock / vibration to the scanning handle and its scanner cradle. strong impact may damage the internal components.
- Do not cut, squeeze, or excessively bend the fitting wire, otherwise, the external insulation may be damaged and lead to short circuit or fire.
- Before connecting the AC power supply, confirm whether the voltage and frequency of the AC power supply are consistent with the input power supply marked in the device identification or manual.
- Before use, the user must check the device, connecting cables, and accessories to ensure that they can work properly and safely.
- Do not open the device shell without permission, otherwise there may be a risk of electric shock. Maintenance or upgrading of the device shall only be performed by maintenance personnel trained and authorized by the Company.
- To avoid accidental electric shock, do not touch both the device port / connector and the patient.
- Operator intended location: device intended handheld use.

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Additional case-specific warnings, precautions, and notes are listed in each relevant section.

## 1.1 Security information

### WARNING

- The potential hazards or unsafe operations, if not avoided, may result in death or serious personal injury or property damage.
- 

### CAUTION

- Any potential dangerous or unsafe operations that, if not avoided, may cause minor personal injury, product failure, damage or property loss.
- 

### NOTES

- Emphasize important considerations, provide instructions or explanations for better use of the product.
- 

### 1.1.1 Indications for Use

Scanner is intended to obtain digital impression of teeth, gums, soft and hard tissues, to produce 3D scans for use in computer-assisted design and manufacturing of dental restorations.

The product is intended to be used Health professional\Healthcare professional trained by manufacturer / supplier.

## WARNING

- Users of this Intraoral Scanner and software are responsible for image quality and diagnosis. They should ensure that the test data are used only for analysis and diagnosis and that the data are adequate in space and time.
- Images acquired by the Intraoral Scanner screen must be interpreted by a qualified professional medical personnel. The software was unable to interpret the images or provide a medical diagnosis of the patient examined.

### 1.1.2 Graphic images of the product



### 1.1.3 Expected use environment

Expected to use in medical facilities, clinics, laboratories and processing factory.

### 1.1.4 Contraindication

None

### 1.1.5 Misoperation precautions

#### WARNING

- Please use the specified matching accessories.
  - Please ensure the continuous power supply during the use of the device. A sudden power loss may lead to data loss.
  - Please properly install or carry the device to prevent falling, collision, strong shock or other external mechanical damage.
  - Do not let any liquid into the device. Water and moisture may cause the electronics to short circuit and fail.
  - To avoid danger or environmental pollution, when handling packaging materials, it is necessary to comply with relevant local regulations or hospital waste disposal systems. Packaging materials must be placed out of reach of children.
  - In order to avoid polluting the environment, other device or infected personnel, the device and its accessories that reach the service period must be dealt with according to the relevant local regulations or hospital regulations.
  - The device shall not be used adjacent or stacked with other device. If adjacent or stacked use is required, the device shall be observed to verify the normal operation of its usage configuration.
- 

#### WARNING

- Before reading, understanding, and understanding all safety information, safety procedures, and emergency procedures contained in this chapter, do not use hardware and software for any application. Operating hardware and software without proper awareness of safe use may result in fatal hardware damage or permanent data loss.
  - The use of non-specified supporting cables or accessories may result in increased radiation or decreased immunity of the device.
  - The scanning handle of the device may heat to higher than normal temperature, but such short-term and small area contact will not cause a health or safety hazard to the patient.
-

### 1.1.6 Classification

Electrical insulation classification: Class II.

#### WARNING

- The device is not an AP or an APG class instrument.
  - Do not place device in an environment where flammable anesthetic agents are mixed with air, oxygen, or nitric oxide.
- 

### 1.1.7 Safety inspection

#### WARNING

- Check the scanner handpiece, scanner cradle, USB cable and other accessories for damage before operation. Damaged parts may reduce performance or have safety hazards. If any damage is found or the Intraoral Scanner fails, the Intraoral Scanner or Appendix is prohibited. Please contact the authorized company personnel for an update and check.
  - Except for the cleaning and maintenance operations described in this manual, personnel authorized by the manufacturer are not allowed to perform any repairs on the Intraoral Scanner.
  - No liquid from entering the device. If the liquid is immersed in the device, the device will have a short circuit or other faults. If the oral digital screen scanner scans the handle or scanner cradle is wet, it should be thoroughly dried and carefully checked before being used again.
- 

### 1.2 Guarantee statement

- The manufacturer is responsible for product safety, reliability and performance under the following: Assembly, operation, expansion, adjustment, modification or repair by personnel authorized by the manufacturer.
- Electrical installation of the relevant room complies with the regulations.
- The device is used according to the instructions.

## WARNING

- Only manufacturer-supplied accessories can be used. The accessories supplied by the manufacturer ensure patient safety, accuracy and electromagnetic compatibility of the Intraoral Scanner .

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The warranty does not include damage resulting from the use of accessories and consumables purchased by other manufacturers. See the warranty policy in the appendix for full warranty information.

## Chapter 2 Overview

### 2.1 Operating principle

The Intraoral Scanner device is designed based on the principle of optical three-dimensional measurement. It utilizes an optical imaging system to capture images, which are then processed by a computer to reconstruct three-dimensional data information from the current perspective. Through matching and stitching techniques, a complete three-dimensional digital impression is obtained. The Intraoral Scanner device is an equipment that employs an intraoral optical Scanner tip, which directly scans the patient's oral cavity to acquire the three-dimensional morphology and color texture information of the teeth, gums, mucosa, and other soft and hard tissue surfaces.

The scanner can directly scan the teeth and soft tissues in the oral cavity to obtain the real oral model of the patient, which has higher convenience and accuracy. The model scanned by the scanner can be used for dental restoration.

### WARNING

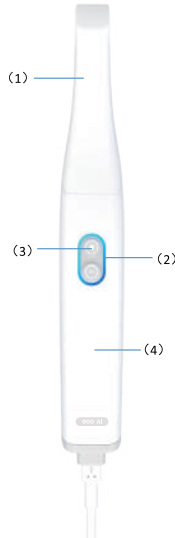
- Intraoral Scanner should be used by a professional clinician, or under the guidance of a professional clinician. Personnel using the Intraoral Scanner should be adequately trained.

### 2.2 Application

Indications for Use: Scanner is intended to obtain digital impression of teeth, gums, soft and hard tissues, to produce 3D scans for use in computer-assisted design and manufacturing of dental restorations. Expected to use in medical facilities, clinics, laboratories and processing factory.

## 2.3 Component Overview

### 2.3.1 Main part



(1) Scanner tip

The scanner tip can extend into the oral cavity for scanning the upper or lower jaw.

(2) Power indicator light

- On: The intraoral scanner's handpiece is powered on.
- Off: The intraoral scanner's handpiece is not powered on.

(3) Start/Pause button

After connecting the intraoral scanner's handpiece to the power source and opening the corresponding software to enter the scanning interface, pressing this button can switch between starting and pausing the scanning process.

(4) Intraoral scanner handpiece

This is the main part of the intraoral scanner, also the part that is held and operated during the scanning process.

### 2.3.2 Cradle



## Caution

- The ports of this device can only be connected to each other using the provided cables in the prescribed manner and should not be used to connect any other device interfaces or cables.
- 

## Note

- To reduce the internal temperature of the intraoral scanner handpiece, heat dissipation will continue to operate after the handpiece enters standby or sleep mode.
- 

### 2.3.3 Software

The intraoral scanner requires compatible software for use. For specific details, please refer to the relevant content in this user manual.

## Chapter 3 Installation and Settings

### 3.1 Out of box audit

Before opening the packaging of the Intraoral Scanner, check the packaging for damage. If the package shows signs of damage, immediately contact the dealer, sales representative to report the external damage and apply for repair or replacement of the damaged instrument.

The transport box shall contain parts: scanner handpiece, scanner handpiece, scanner cradle, scanner tip, scanner tip, scanner cradle, USB cable, power adapter and instruction manual. If parts are missing or damaged, contact the dealer, sales representative.

#### WARNING

- Damaged parts may reduce performance or have safety hazards. If any damage is found, contact the manufacturer for update and inspection before use.

### 3.2 Installation precautions

The installation can be customized according to the needs of the organization and the department. Please contact your local dealer for help.

#### WARNING

- Please use the installation Appendix specified by BLZ tech.
- The software copyright of the device belongs to the Company. Without permission, any organization or individual shall not tamper with, copy or exchange any infringement by any means or form.
- All analog and digital devices connected to this device must be certified by IEC / GB standard. If you have any questions, please contact us.

## WARNING

- The device shall be installed by the personnel designated by the Company.
  - Please place the packaging material out of the child. Disposal of packaging materials must comply with relevant local regulations or hospital waste disposal regulations.
  - The device may be contaminated by microorganisms in storage, transportation and use. Before use, please confirm whether the packaging is intact, especially for disposable use accessories. If any damage is found, do not use it.
  - Please ensure that the device works under the specified environmental requirements, otherwise the technical specifications claimed in this specification and may lead to unexpected consequences such as damage to the device.
  - Please carefully read and understand the contents of this instruction manual, to ensure the correct use of this product, and to ensure the safety of patients and operators.
- 

## CAUTION

- Install the device for easy observation, operation and maintenance.  
Please put this manual near the device, so that it can be convenient and timely access when needed.  
Please keep the packaging and packaging materials for use during later transportation or storage.
- 

### 3.2.1 Electrical connection

## WARNING

- The use of non-specified supporting device or cables may affect the normal use of the device, and increase the risk of leakage current or endanger the safety of grounding.
  - Using accessories or power units other than specified may lead to warranty failure and cause increased emissions, reduced EMI immunity of the device, and even damage to the device and personal injury.
-

- 
- The adapter power supply plug is used as a disconnection device from the network power supply.
- 

### 3.2.2 Placement

#### WARNING

- The device shall not be used adjacent or stacked with other device. If adjacent or stacked use is required, the device shall be observed to verify the normal operation of its usage configuration.
  - To avoid the risk of injury, do not place the oral digital impression screen where it is easy to fall on the patient, bystander or operator.
  - Do not pull the oral digital impression instrument to prevent it from falling on the patient, bystander or operator.
  - All medical devices should be carefully wired and fixed to avoid the danger of winding or choking patients.
  - Do not place the device where it is difficult to operate the disconnected device.
- 

## 3.3 Connected to use

### 3.3.1 System requirements

The device needs to be used with the supporting software. Before installing and running the software program provided, please ensure that the computer used should meet the following requirements:

Item	Minimum Configuration Requirements
Operating system	Windows 10 (64-bit) or above
CPU	Intel Core i5 11 Gen or above
Graphics Card	NVIDIA RTX 3060 6GB DDR3 or above
Hard Disc	512G or above
Memory	16GB or above
USB Port	At least 2 USB3.0 ports
Note: The computer shall meet the requirements of IEC/EN 62368-1, or have a certificate.	

### 3.3.2 Install the software program

After obtaining the software installation program and the driver:

1. Double-click to run the Software Installer and follow the steps to install it.
2. Double-click on the Run driver and install in the steps.

When finished, the shortcut icon for the application software is displayed on the desktop for quick access.

### 3.3.3 Connect the Intraoral Scanner

#### CAUTION

- Before connecting, make sure that the computer has installed the provided software program.
- Follow the instructions in this user manual.
- Do not install, place, and use impressions in dusty, wet environments, extreme temperature areas, or in direct sunlight.
- Prepare the placement plane for the device, do not place it on the inclined surface.
- Do not power on the device until the installation is complete.
- When not using the scanner handpiece, put it back to the scanner cradle. Do not place an oral digital impression screen on a heated or wet surface that may damage the device.
- When used, the scanning handle will heat up, which is a normal phenomenon.

#### WARNING

- Ensure the specified matching power adapter and USB cable.

## Connection steps:

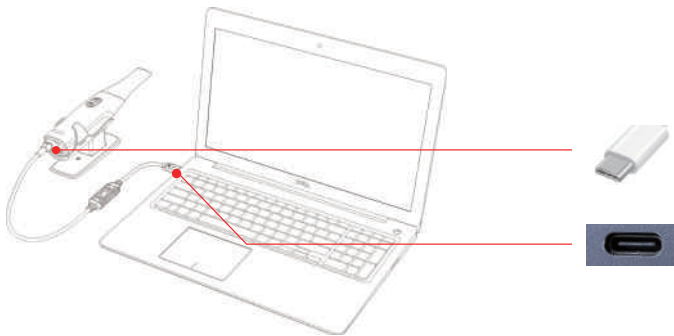
1. Insert the scanner tip to the handpiece.




2. Connect the power adapter to the power source, and insert the DC port to the desktop cradle.

3. Connect the handle cable to the USB 3.0 B port on the rear of the scanner handpiece scanner handpiece and the scanner cradle scanner cradle.

4. Use the supplied USB cable to connect the computer to the Type A port on the mount.



5. Open the power switch on the cradle scanner cradle when the scanner handpiece scanner handpiece indicator blue light comes on.

6. Click the BLZ-IntraoralScan Software shortcut icon  on the desktop to start the software.

## CAUTION

- The USB cable must be connected to the USB3.0 interface of the computer, connected to other interfaces (such as the USB2.0 interface), and the device will not work properly.
  - The blue light indicates that the green light is connected and in the standby ready to scan state.
- 

### 3.3.4 Disconnect the Intraoral Scanner

1. Secdisconnect the Intraoral Scanner through the following steps:
2. Exit the BLZ-IntraoralScan software.
3. Turn off the power switch on the scanner cradlescanner cradle.
4. Pull out the scanner handpiecescanner handpiececable from the scanner cradlescanner cradle.
5. Pull out the USB cable connecting the scanner cradlescanner cradle to the computer.
6. Pull the power adapter from the mains port and the power DC from the power port of the scanner cradlescanner cradle.

## CAUTION

- Do not directly disconnect the Intraoral Scanner by unplugging the power cable and USB cable.
  - After disconnecting the Intraoral Scanner, do not wrap the USB wire to the oral digital screen scanner handle, do not cause any excessive bending on the USB line.
- 

### 3.4 Scan preparation

The following section is described for the use of Intraoral Scanner preparation. To obtain high-quality images and models, please read and follow the guidelines and tips given in this chapter.

### 3.4.1 Patient preparation

- Make sure there is no foreign matter and blood in the mouth. Please stop the bleeding first if necessary.
- If necessary, the patient is required to keep the tongue still and move it to the other side of the mouth.
- Consider using a triple gun or tampon to dry the surface of the teeth before starting scanning.
- Turn off the oral lamp on the dental chair and start the scan.
- When scanning, the surface of the teeth dry.
- If necessary, consider the use of a stopreader to help create space to work in narrow areas between the teeth.

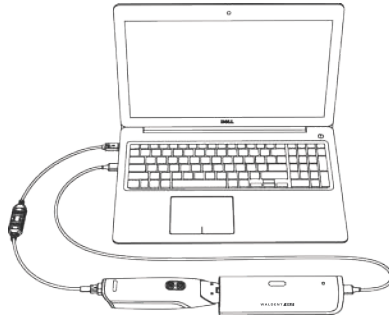
#### WARNING

- Always wear clean medical gloves during the scan.

### 3.4.2 Intraoral Scanner preparation

- Ensure that the scanner handpiece and scanner cradlescanner cradle are properly pre-cleaned and sterilized.
- Make sure that the scanner tipscanner tip is not scratched or damaged. Furthermore, the scanner tipscanner tip should be firmly attached to the front end of the scanner handpiece.
- Ensure the screen connection is ready: the power is properly connected and powered up and is activated and ready for intraoral scanning.
- Ensure that the scanner is calibrated within the calibration period, otherwise please calibrate by the following steps:

- ① Connect the device according to the picture below and make sure that the scanner and calibrator is stably connected.



- ② Open up the calibration software and click [start] to calibrate
- ③ After the loading bar coming to an end, click [finish] to complete the calibration.

# Chapter 4 Operation Of Scanner

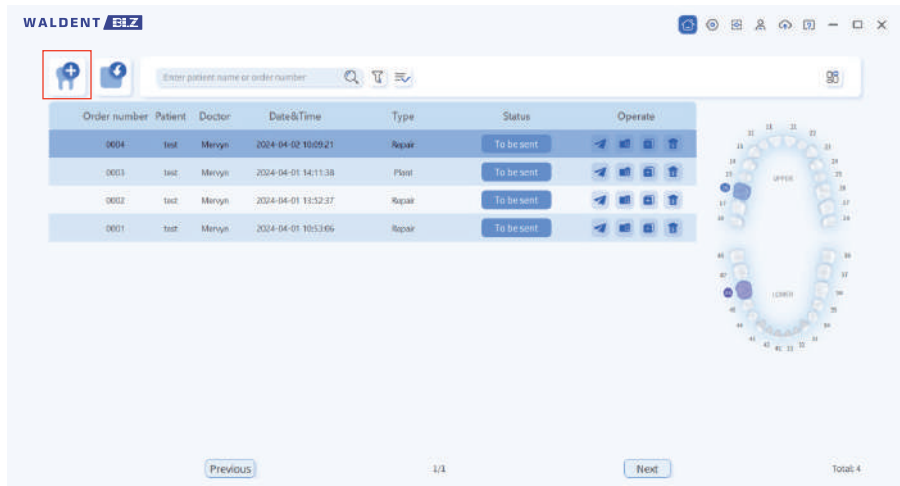
## 4.1 Device Appendix

Connect the device correctly according to the steps described previously.

## 4.2 Create a case

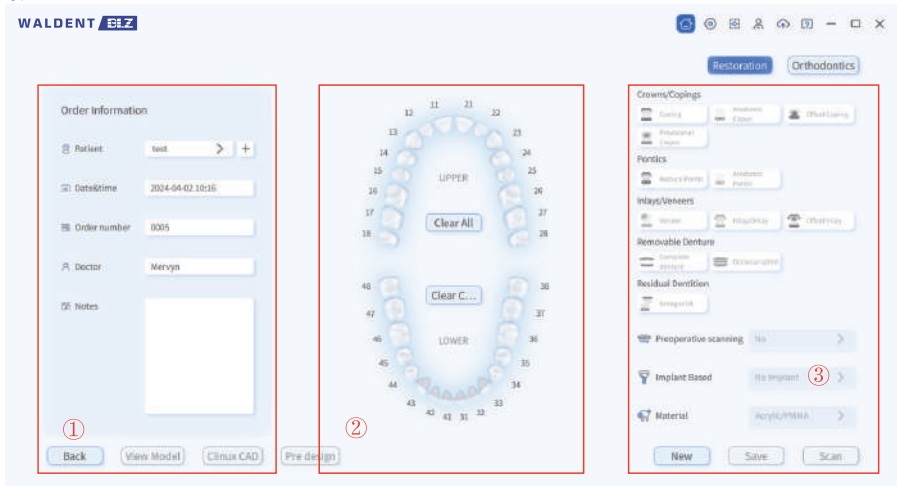
A new case can be made through the following steps:

1. Click on the desktop application system icon to enter the main interface.



2. Enter [New Order] and fill in your personal information.

3.



① Order information: input patient's information

- Input information of patient, technician and notes as needed
- Date and order number cannot be changed as default

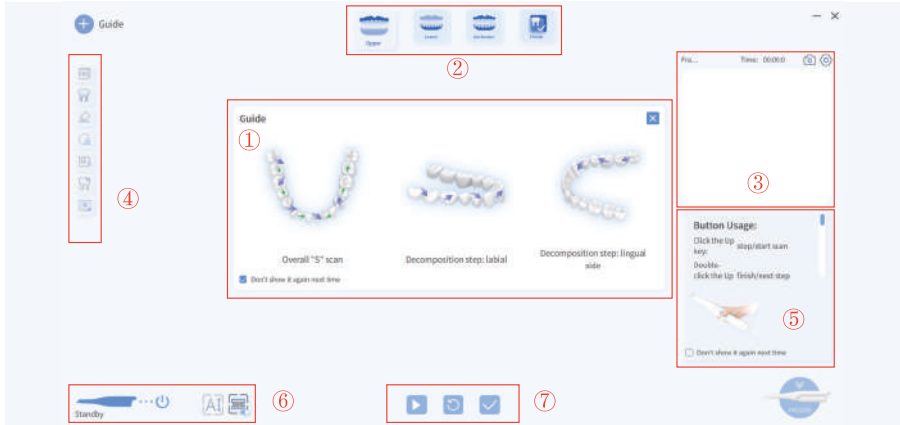
② Tooth mark area: select the restoration position

- Left click to mark a position and hold down the left button for multiple ones
- Clear current: to clear the chosen position
- Clear all: to clear all marked positions



③ Restoration type: select scan mode, restoration type, implant type and materials

4. Click the [Save] button to save the case.








5. Finally, select the [Scan] button to automatically enter the scanning interface.



- ① Scan guide
- ② Scan flow
- ③ Camera view window: showing frames and time

	Capture the current camera view		Setting button
---	---------------------------------	---	----------------

④ Tool bar


Symbol	Usage	Symbol	Usage
	Adjust point of view		Map texture
	Erase		Area lock
	Remove isolated pieces		Fill holes
	View lock		

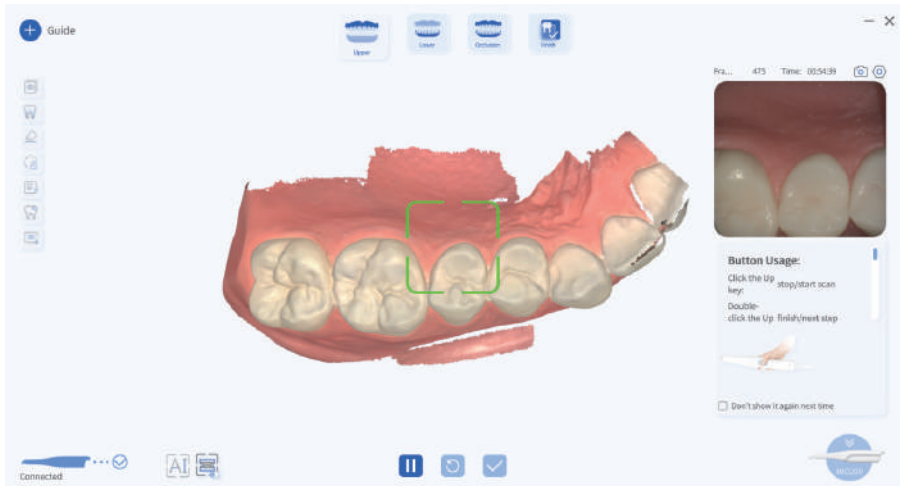
- ⑤ Button usage: turn on/off as needed
- ⑥ Scanner status:
  - Standby: scanner is put on the cradle
  - Connected: scanner is normally connected and can be used for scanning
  - Connect error: power is off or failure of connection
- ⑦ Buttons for mouse control: start/pause, re-scan, finish/next step

## 4.3 Start scanning

### 4.3.1 Regular scan

Scan the patient's mouth through the following steps:

- 1.To confirm that the camera window image of the software is normal, click the software scan button  or press the scanner handpiece button to start the scan.



Green box: indicates that the current scan is normal.

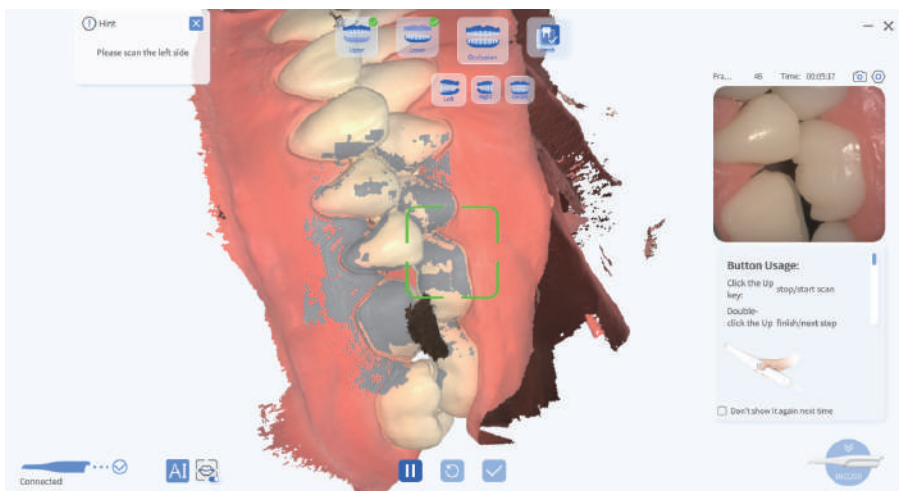
Red box: indicates that the scanner tip needs to be moved to the position displayed by the red box.

- 2.If some location data is incomplete during the scanning process, it is recommended that the scanner tip return to this position to supplement the scan.

3. Confirm that the model scan is completed, click the button to automatically optimize the data.



4. After scanning the lower jaw, it will enter the occlusion scan interface automatically. Scan the left occlusion first and after the alignment, it will switch to the right occlusion.

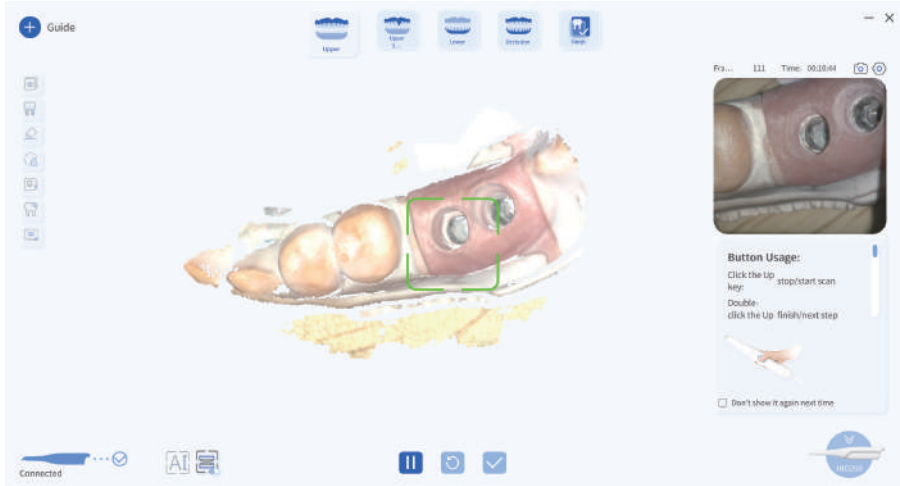


5. After the data processing is completed, the page will automatically enter the model preview interface. After confirmation, click the [complete] button to complete the scan.

### 4.3.2 Implant restoration

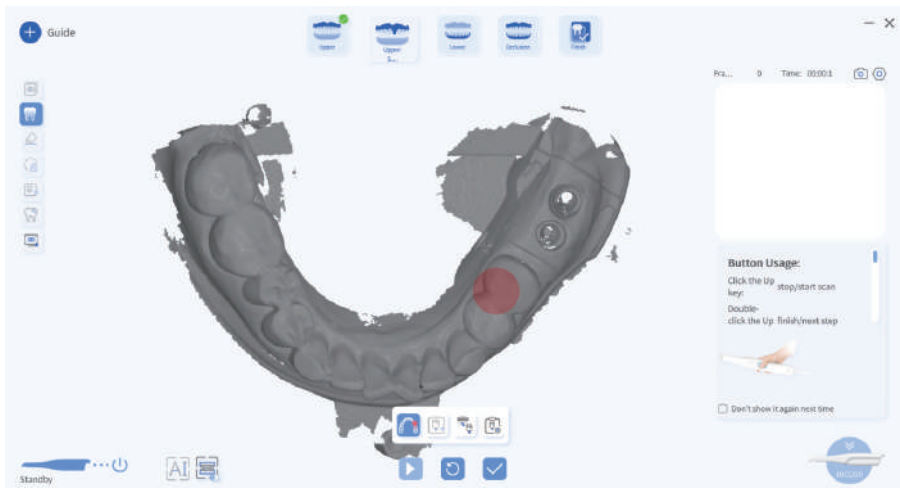
Scan the patient's mouth through the following steps, similar to the scan of regular type:

1.Scan the upper jaw



2.After scanning the upper jaw, it will enter the scanbody scan interface.

Left click to delete the area that needs re-scanning.



3. Place the scanbody onto the restoration part to complete the scanning



4. After scanning the scanbody, scan the lower jaw and occlusion, and check the final model. After confirmation, click the [complete] button to complete the scan.

#### 4.4 Generate the oral examination report

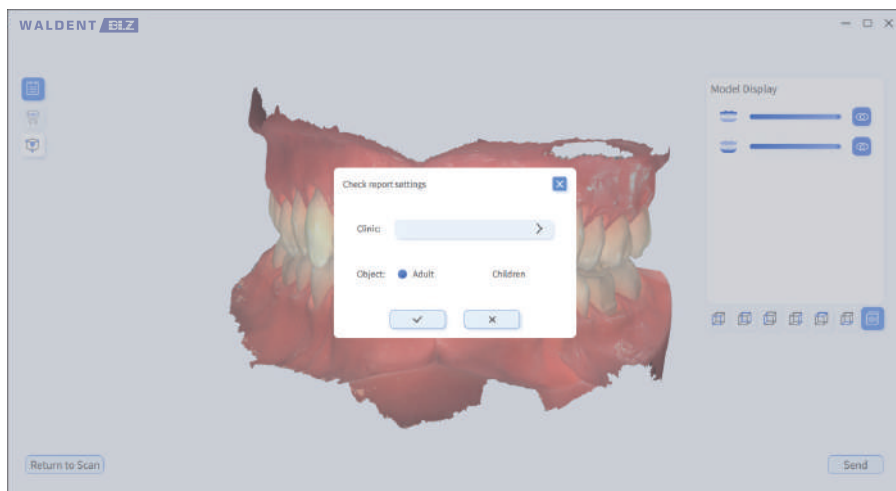
The oral examination report will be generated by the following steps:

1. After completing the scan, click the [pre-design] button to enter the pre-design interface





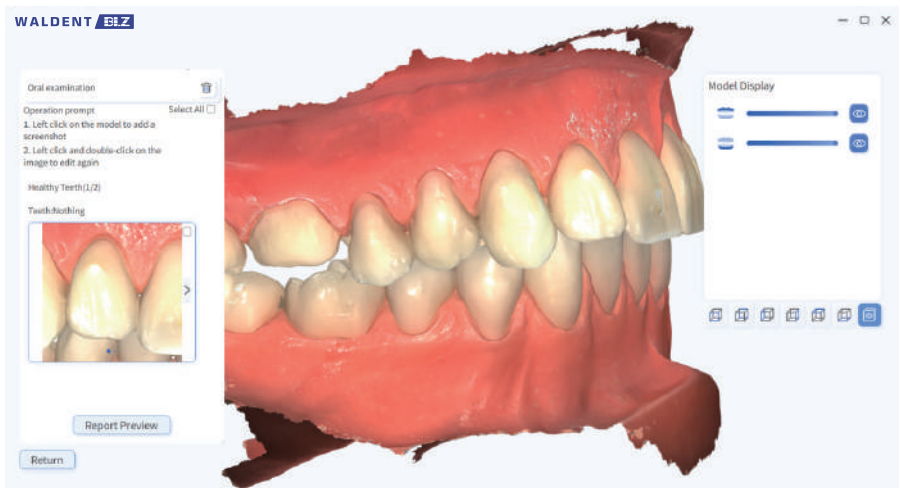
2. Choose clinic and report type to enter the editing interface



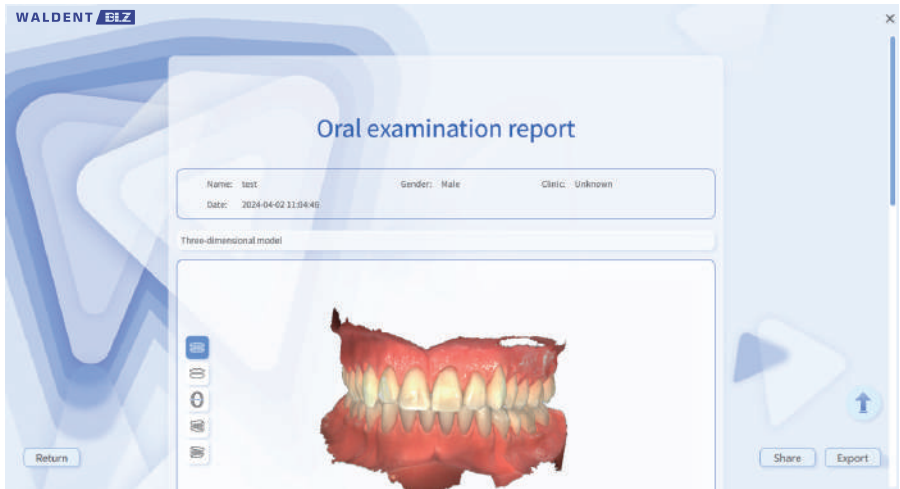
3. Double click on the model to choose the tooth area and edit the details in the pop-up window including tooth mark, tooth issue, description and solution.



4. After completing the editing, click [confirm] button and there will be a screenshot on the left and double click it for re-editing.



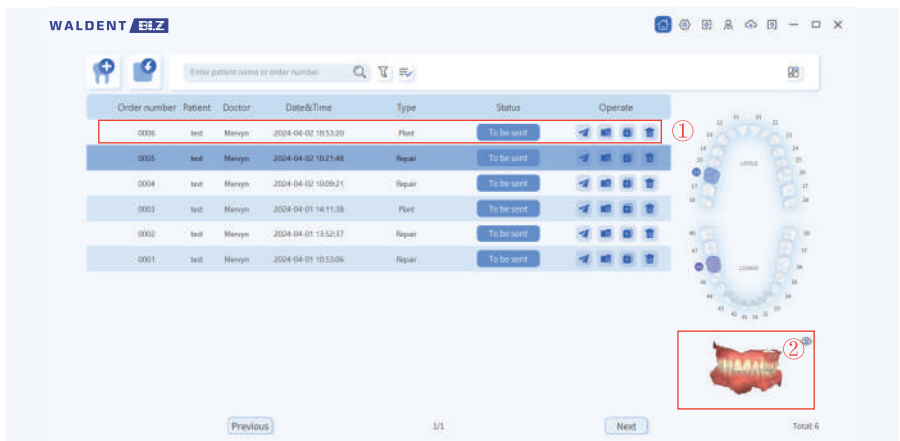
5. After finishing editing the report, click [report review] to preview and export the report by click [export] button.



#### 4.5 View/Load order information

View/load orders by following the steps below:

1. Go back to the main interface of the software and find the order you want to view in the order list.
2. Under the [Operate] column, you can upload, view, copy and delete orders.



3. Double-click the corresponding order ① to enter the order interface, and you can view the specific contents of the order.



4. Click on the model in the lower right corner of the main interface (shown by ②) to view the final model generated by scanning.



## 4.6 Scan technique

In order to obtain a high-quality model, the scanning operation technique of the oral digital impression instrument has certain requirements. During the scanning process, the speed should not be too fast, and the model can be scanned out before moving to the next part. During the scanning process, try to maintain more than 30% overlapping area.

The oral digital impression instrument is scanned by S-mode, as shown in the figure below.



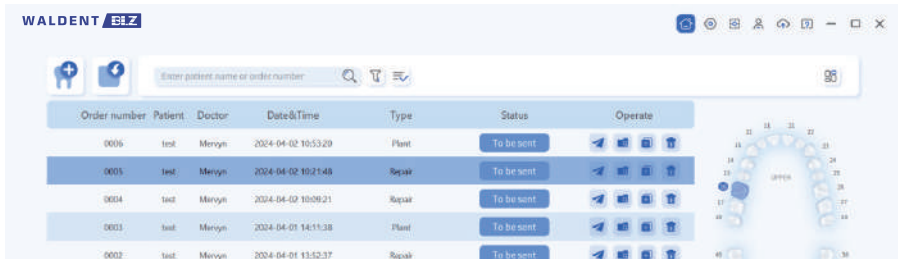
For a complete area failing to be scanned, move the scanner tip back to that position for supplementary scanning, and if the scan is not complete at a single angle, it is necessary to turn the scanner handpiece to try scanning at different angles.






### CAUTION

- Avoid strong light sources (such as dental chair lights) directed directly to the area to be scanned.
- When scanning, you must slowly move the scanner handpiece and check the scan results on the screen to ensure good scan quality and pay attention to the warning message.

- When scanning, the Scanner tip should be kept stable and make the Scanner tip within 15 mm of the tooth. Note that the tooth should not be stuck in the open window of the Scanner tip.
- Complete scan data for a single case included mandibular, maxillary, and median occlusal relationships, but also required only partial data scanning as appropriate.
- When scanning, take care to create the overlap. A minimum of 30% overlap needs to be achieved between each acquisition. If the overlap is too small, it may fail.
- Check the scan image in real time and note the warning message.

### 4.7 Button introduction



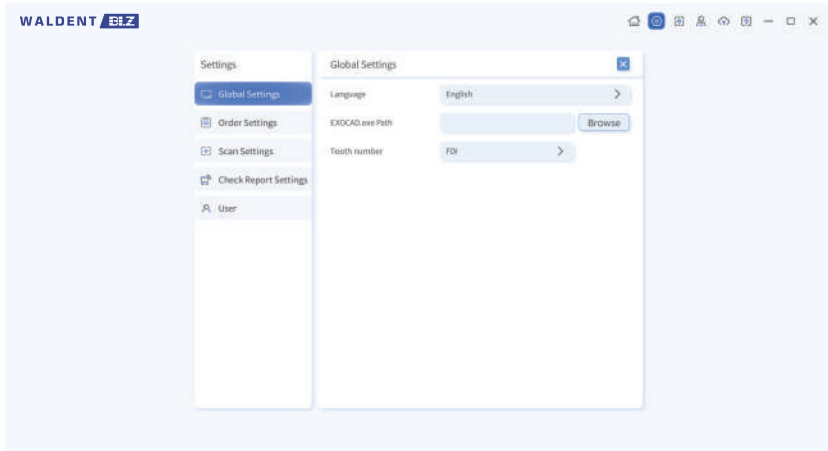
	Main interface button: Go back to the main interface
	New order button: Click to enter the new order interface
	Import button: Click to select an order to import
	Filter button: Click to set rules to filter orders
	Multi-select button: Click to multi-select orders for batch operation

Click on the Settings button on the main interface to customize the language and functions of the software.



Settings button: Click to enter the settings interface

### Global Settings

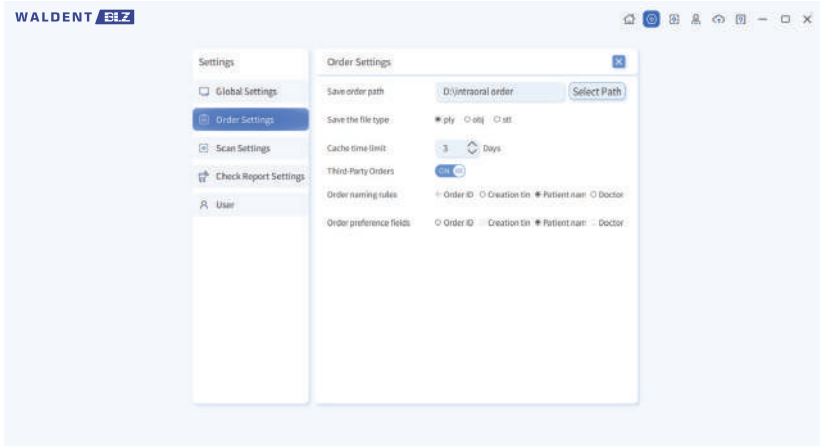


Language: Select the language of the software

EXOCAD Path: Bind with the EXOCAD software; after binding, you can directly call the scanning software with EXOCAD.

Tooth number: Select the tooth number rules: UNS or FDI.

## Order Settings



Save order path: Where the scanning documents are saved

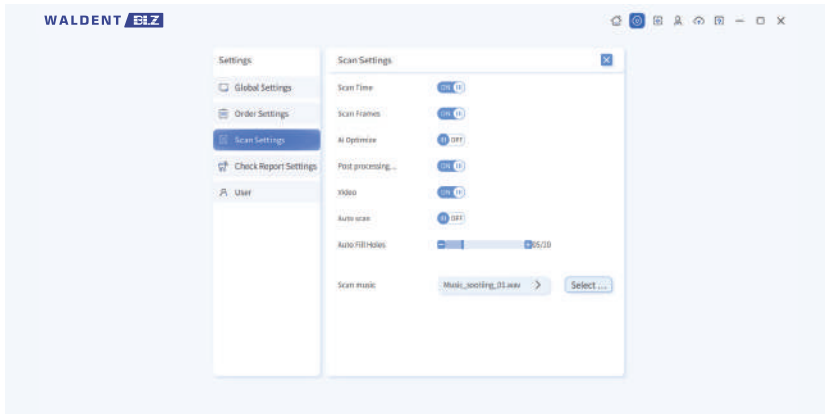
Save the file type: Select at least one

Cache time limit: Set the cache storage time

Third party orders: Generate models that are compatible with 3shape coordinate

Order naming rules: Set the order naming rules

## Scan Settings



**Scan Time:** The scanning time is displayed on the scanning interface when it is turned on.

**Scan Frames:** The number of scanning frames is displayed on the scanning interface when it is turned on.

**Ai Optimize:** Turn on during intraoral scanning to automatically remove debris

**Post processing delay:** Turn on to set all processing steps into the last one

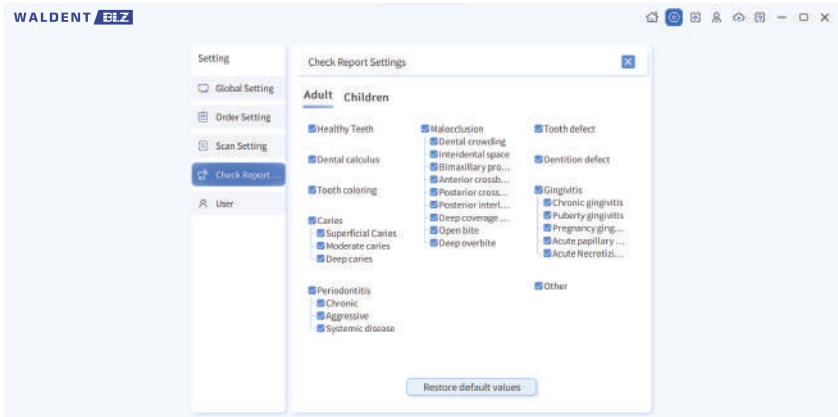
**Video:** When you turn on it, the scanning process will be recorded and saved in the order folder.

**Auto scan:** The light will be projected once the handle is lifted when turning it on.

**Auto Fill Holes:** You can adjust the value of the size of the hole to be filled, and holes smaller than the value will be filled automatically when the data is processed.

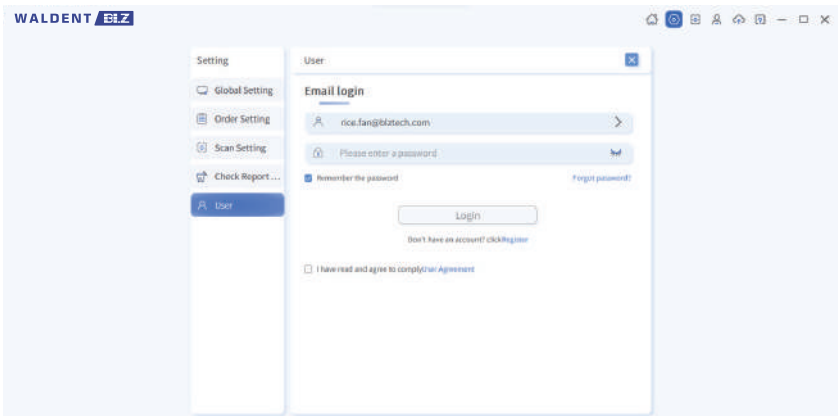
**Scanning music:** The music played by the computer during scanning; you can make your own choices.

### Check Report Settings



Customized problem templates for adult/child examination reports

### User



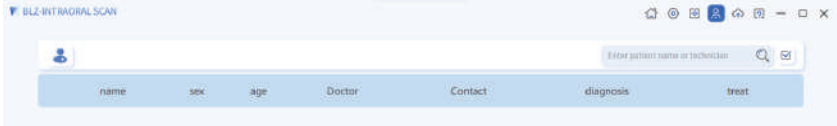
Register for an account that can be used to log in to the cloud platform



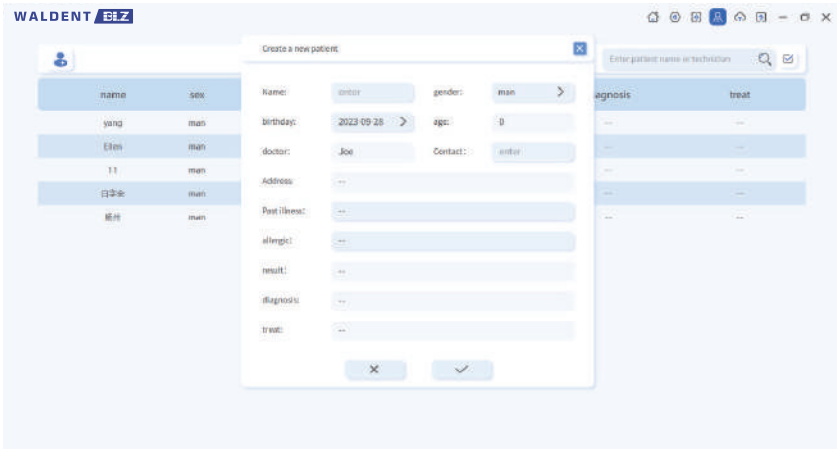
Calibrate button: Click to enter the calibration interface



Patient management button: Click to enter the patient management interface



"Add a patient" button: Click it to bring up the editing interface to edit the patient information.



Note: New patients can only be created after logging in as a user.



Cloud Platform button: Click to enter the Cloud Platform login interface



Help button: Click to enter the Help interface, and you can refer to the operating instructions and the user manual.

## Chapter 5 Cleaning and Maintenance

The complete set of device, including the scanner tip, scanner handpiece and scanner cradle, requires proper care, cleaning and handling. As individual parts may be handled differently, please read and follow the information and instructions provided to help process the kit effectively and thoroughly.

It is recommended to reprocess the device in the following order:

- Scanner handpiece Care.
- Scanner cradle Care.
- Scanner tip Care.

### WARNING

- All the parts were shipped without disinfection. Follow the instructions before the initial use.
- Before each scan, make sure that the scanner handpiece, scanner cradle and scanner tip are pre-cleaned and disinfected.
- Ensure that all connections to the power and oral digital screen are completely disconnected.
- Before starting any cleaning or maintenance, check the digital screen handle, scanner cradle, scanner tip and other accessories for damage.
- Clean medical gloves must be worn before pre-cleaning and disinfection.
- Using disinfectant or wipes, disinfection procedures not specified in this user manual may damage the product and invalidate the warranty.
- To prevent cross-contamination, pre-cleaning must be performed and disinfected correctly after each use.
- Modification of this device is not permitted.
- Unauthorized service personnel may damage the oral digital screen press and may invalidate the warranty.
- Preventive inspection of the working condition of the device is carried out by the manufacturer.
- No calibration is required for the device before use.

## 5.1 Scanner handpiece care

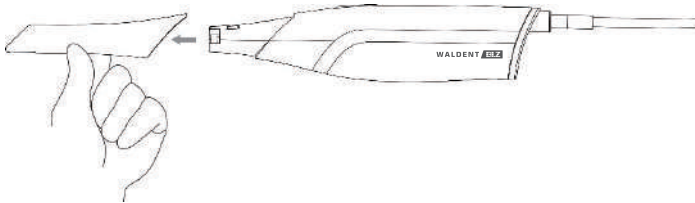
Intraoral Scanner scanning handle requires medium horizontal disinfection.

### WARNING

- When disinfecting the Intraoral Scanner scanner handpiece, ensure that the scanner tip is separated from it and place the protective cap on the scanning handle.
- Do not contact the scanning handle or soak it with flowing liquid, otherwise it may be damaged.

Complete the disinfection through the following steps:

1. Disconnect the device power supply.
2. Pull the handle cable out from the rear of the scanner handle.
3. Pull the scanner tip out of the scanner handpiece, as shown.



4. Before disinfecting the scanning handle, store the separate Scanner tip in a safe place, such as a dental instrument tray.
5. Hold the provided protective cover and insert the protective cover into the front end of the scanning handle to protect the internal lens.



6. Hold the scanner handpiece with your hand.
7. The surface of the scanning handle was wiped with a moist new gauze with 70% -75% ethanol solution.
8. Once completion, store the scanner handpiece in a clean and secure place.

## WARNING

- When removing, do not put your finger on the lens of the Scanner tip, otherwise it will pollute the lens and may even cause lens damage.
- After removing the scanning handle, always place the provided protective cap to protect the precision unit and internal optical components at the front end of the scanning handle.
- Do not attempt to clean the front end of the scanning handle with any sharp objects or other such tools that may scratch and damage the optical front parts of the scanning handle.
- Do not clean the intake and exhaust ports with sharp objects or other such tools.

## 5.2 Scanner cradle Care

Intraoral Scanner scanner cradle needs medium horizontal disinfection.

## WARNING

- Before disinfecting the scanner cradle, ensure that the scanner handpiece is not placed on the scanner cradle.
- Do not contact the scanner cradle or soak the scanner cradle with flowing liquid, otherwise the scanner cradle may be damaged.

Complete the disinfection through the following steps:

1. Disconnect the power supply from the device.
2. Pull out all connectors on the scanner cradle.
3. Hold the scanner cradle tightly with your hand.
4. Wipe the scanner cradle surface with a moist new gauze with 70% -75% ethanol solution.
5. After completion, store the scanner cradle in a clean and secure place.

### 5.3 Scanner tip Care

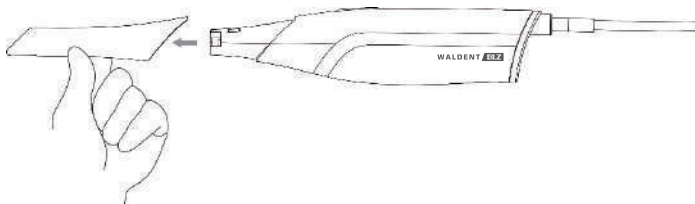
The scanner tip is an important part of the Intraoral Scanner, which is inserted into the patient's mouth during the scan process, so before and after each contact with the patient, it must thoroughly clean and sterilize the scanner tip to prevent cross contamination.

#### WARNING

- If cracks or scratches on the lens, stop the cleaning process and contact your local dealer or service provider.
- Cleaning the Scanner tip is an essential step before effective sterilization.
- Do not use sharp tools to scratch the surface.
- Special attention should be paid to checking the mirror of the Scanner tip to ensure that the mirror is not damaged during sterilization.
- The Scanner tip can be sterilized up to 100 times, after which it must be discarded and replaced by the user himself.

Clean and sterilize as follows:

1. Disconnect the device power supply.
2. Pull the scanner tip out of the scanner handpiece as shown in the following below.



3. Insert the protective cover into the head of the scanner handpiece to prevent damage and dust.
4. Carefully inspect the lenses of the scanner tip to make sure the lenses are not broken or damaged and there are no scratches on them.
5. The inner and outer sides of the Scanner tip were gently cleaned with gentle PH neutral soapy water and a soft cloth for 3 min.
6. Repeat the previous step at least twice.
7. Rinse the Scanner tip thoroughly with distilled water for at least 3 min.
8. If the tip is found with dirt or finger print, please repeat the last step.
9. Please clean and dry the scanning tip gently by a soft cloth.
10. Please check the mirror surface on the scanning tip again to make sure the cleaning process is well completed and the mirror is intact.
11. Put the tip into the sterilization bag and use heat-sealed bag or self-adhesive bag for sealing.
12. When putting the tip into a autoclave, please make sure the bag is well sealed and set the temperature at 134 C (273.2 F) and sterilization time for at least 4 minutes.
13. Please dry the tip in a autoclave for 30 minutes.
14. Open the autoclave.
15. Pay special attention to checking the mirror of the Scanner tip to ensure that the mirror is not damaged during sterilization.
16. Reconnect the scanner tip to the scanner handpiece. If you attempt to store the scanner tip with other dental instruments (e. g. dental instrument trays), ensure it is completely dry.

## 5.4 Intraoral Scanner Storage

If transportation device is required, it is recommended to retain the original packaging. Shipping device without the original packaging material may cause product damage and cause additional service costs.

See the appendix for information on temperature and humidity requirements.

If the original package is discarded or damaged, carefully package each part of the Intraoral Scanner with bubble wrapping paper to prevent any possible damage during transportation.

### 5.4.1 Transportation and storage

- Ensure that the Intraoral Scanner is clean, sterile before placing it into the original carrying box / package to avoid any possible contamination.
- Carefully place each part of the product, such as the scanner tip, scanner handpiece, scanner cradle, power adapter, in the original package, and prevent excessive kinking of the cable.
- Make sure any part of the product is packaged before sealing the box.

### 5.4.2 Daily and long-term storage

- When the Scanner tip is separated from the scanning handle, always cover the provided protective cap to protect the fine units and internal optical components at the front end of the scanning handle.
- Before long-term storage, ensure that the oral digital impression instrument is clean and sterile.
- Avoid storing Intraoral Scanner and accessories at extreme temperatures or in direct sunlight.
- Before storing the Intraoral Scanner, make sure the scanner tip, scanner handpiece and scanner cradle are completely dry.

## 5.5 Common errors and solutions

Number	Phenomenon	Probable cause	Resolvent
1	When scanning, the image window has no image and cannot be scanned	The software is not installed properly	Re-install the software
		The data cable is not connected to the computer USB3.0 port	Connect the cable to the appropriate interface
2	Scan data confusion, have debris	The window glass of the scanner head mirror or handle is contaminated	Proper cleaning
		External light source interference	Avoid the intense direct-light scanning window or the scanned object
3	Software jammed	System anomaly	Restart the device and the software
4	The generation model is too slow during scanning	The computer configuration used is too low	Use the recommended configuration
5	Unable to save the order and model data	There is insufficient storage space	Clean up the hard disk space
6	Device connection error	No matching cables are used to connect normally	Use the matching cable to connect tightly










Note: If the above operation fails to resolve faults or find other faults, please contact the manufacturer or local distributor.

## Appendix A Symbol Description

The following table summarizes the symbols used on the Intraoral Scanner and its accessories. Symbols may appear on the product or on its packaging. Symbols are shown in black, unless otherwise indicated.












### A.1 Intraoral Scanner device symbol

#### A.1.Symbols on intraoral scanner

Symbol	Description
	Caution! Refer to the relevant document
	Manufacturer
	Must not be directly discarded in the household trash can (The EU Directive Mark on Waste Electrical and Electronic device)
	Refer to the user manual
	Class II
	AP Type (BF), for Scanner tip
	Serial number
	Date of manufacture
	Power switch

## A.2. Symbols on the package

### A.2. Symbols on the package

Symbol	Description
	Temperature limit
	Humidity limit
	Atmospheric pressure limit
	Fragile, handle with care
	Upward direction
	No rain, keep dry
	No tumbling
	Stacking limit is 5 layers
	Materials can be recycled
	Date of manufacture
	Serial number

## Appendix B Specification

### B.1 Specification parameters

INTRAVUE 900 AI	Scanner handpiece		Scanner cradle	
	Scan window size	15.5 mm *17.0mm	Size	132mm*64mm*72mm
	Scanner size	264.5mm*38.0mm *46.5mm	Weight	540g
	Weight	260g	Import	12V, 2.0A
Other specification parameters	Power Adapter: FJ-SW3381202000N Shenzhen Fujia Electric Appliance Co., LTD input voltage:100-240VAC,50/60Hz interiorinput power:60VA class of pollution : 2 above sea level:≤2000m Overvoltage category:II		Classification of electric shock protection: type like BF Protective classification of harmful liquid inflow and particulate matter: IPX0 Suitable for use in oxygen-rich environment classification: not suitable for use in oxygen-rich environment Operation mode classification: continuous operation	

## B.2 Operating Condition

Temperature: 10°C-30°C

Humidity: 10%-85%

Air pressure: 70kpa-106kpa

## B.3 Storage/Transportation Condition

Temperature: -25°C-60°C

Humidity: 10%-85%

Air pressure: 70kpa-106kpa

## B.4 Service life of the device

- 1.Intraoral Scanner: Under normal maintenance conditions, the service period of the equipment is 5 years;
- 2.Scanner tip : It can be sterilized up to 100 times and must be discarded.

## B.5 Standards

The Intraoral Scanner the following standards (in the relevant version):

1. IEC 60601-1-6:2010/AMD2:2020
- 2.IEC 60601-1-9:2007/AMD2:2020
- 3.EC60601-1-2:2014+A1:2020
- 4.IEC60601-1:2005+AMD1:2012+AMD2:2020

## Appendix C ELECTROMAGNETIC COMPATIBILITY

The ESSENTIAL PERFORMANCE of Intraoral Scanner is the scanner can display three-dimensional images of soft and hard tissue surfaces such as teeth, gums, and mucous membranes. This ESSENTIAL PERFORMANCE will not be lost or degraded by electromagnetic interference.

The purchaser or user of the Intraoral Scanner should use the device in the electromagnetic environment specified in this section to ensure the operating functions of the device.

### WARNING

- Use of this equipment adjacent to or stacked with other equipment should be avoided because it could result in improper operation. If such use is necessary, this equipment and the other equipment should be observed to verify that they are operating normally.
- Use of accessories, transducers and cables other than those specified or provided by the manufacturer of this equipment could result in increased electromagnetic emissions or decreased electromagnetic immunity of this equipment and result in improper operation.
- Portable RF communications equipment (including peripherals such as antenna cables and external antennas) should be used no closer than 30cm (12 inches) to any part of the scanner, including cables specified by the manufacturer. Otherwise, degradation of the performance of this equipment could result.

**NOTE**

- Portable and mobile radio frequency communication equipment may affect the normal use of scanner .Hospitals except for near active HF SURGICAL and the RF shielded room of an ME SYSTEM for magnetic resonance imaging,where the intensity of EM DISTURBANCES is high. Please use the recommended electromagnetic environment during use of the scanner.
- The use of non-specified accessories and cables may result in an increase in the emission or immunity of the scanner .BLZ cannot guarantee that accessories, lines and transformers acquired outside of and not delivered from BLZ, will correspond with EMC requirements of IEC 60601-1-2.
- The scanner is exclusively intended for use by medical professionals. In residential areas, the scanner may cause radio interference in certain circumstances so that it may be necessary to undertake suitable measures such as realigning, rearranging or screening the scanner, or filtering the connection with the public power supply.
- The EMISSIONS characteristics of this equipment make it suitable for use in industrial areas and hospitals (CISPR 11 class A). If it is used in a residential environment (for which CISPR 11 class B is normally required)this equipment might not offer adequate protection to radio-frequency communication services. The user might need to take mitigation measures,such as relocating or re-orienting the equipment.
- The scanner do not contain magnetically sensitive components or circuitry within the enclosure or as part of an attached accessory.

**C.1 Components information**

<b>Accessory part/name</b>	<b>Length/dimensions</b>
Adapter cord	2m
USB cord	1.5m

## C.2 RF Transmitting

<b>Manufacturer's declaration - Electromagnetic emission</b>	
The scanner is intended for use in the electromagnetic environment specified below, and the purchaser or user shall ensure that it is used in such an electromagnetic environment.	
Emission Tests	Compliance
CISPR 11 Conducted emission	Group 1, Class A
CISPR 11 Radiated emission	Group 1, Class A
IEC 61000-3-2 Harmonic emissions	not applicable
IEC 61000-3-3 Voltage Fluctuations and Flicker	not applicable

## C.3 IMMUNITY TEST LEVELS

IMMUNITY TEST LEVELS for BASIC SAFETY and ESSENTIAL PERFORMANCE of scanner shall be according to the professional healthcare facility environment, scanner cradler on the IEC 60601-1-2.

**Table 1 ENCLOSURE PORT**

Phenomen on	Basic EMC standard or test method	IMMUNITY TEST LEVELS
		professional healthcare facility environment
ELECTROSTAIC DISCHARGE(ESD)	IEC 61000-4-2	±8 kV contact ±2 kV,±4kV,±8 kV 15kV air
Radiated RF EMfields <sup>a)</sup>	IEC 61000-4-3	3 V/m <sup>f)</sup> 80 MHz - 2.7 GHz <sup>b)</sup> 80 % AM at 1 kHz <sup>c)</sup>
Proximity fields from RF wireless communications equipment	IEC 61000-4-3	See table 1
RATED power frequency magnetic fields <sup>d)</sup>	IEC 61000-4-8	30A/m 50Hz or 60Hz

a)The interface between the PATIENT physiological signal simulation, if used, and the ME EQUIPMENT or ME SYSTEM shall be located within 0,1 m of the vertical plane of the uniform field area in one orientation of the ME EQUIPMENT OF ME SYSTEM.

b)ME EQUIPMENT and ME SYSTEMS that intentionally receive Rf electromagnetic energy for the purpose of their operation shall be tested at the frequency of reception, Testing may be performed at other modulation frequencies identified by the RISK MANAGEMENT PROCESS. This test assesses the BASIC SAFETY and ESSENTIA-PERFORMANCE of an intentional recelver when an ambient signal is in the passband. It is understood that the receiver might not achieve normal reception during the test.

c)Testing may be performed at other modulation frequencies identified by the RISK MANACEMENT PROCESS.

d) Applies only to ME EQUIPMENT and ME SYSTEMS with magnetically sensitive components or circuitry.

e)Void

f) Before modulation is applied.

**Table 2 Input a.c. power port**

Phenomen on	Basic EMC standard	IMMUNITY TEST LEVELS
		professional healthcare facility environment
Electrical fast transients/ bursts	IEC 61000-4-4	±2 kV 100 kHz repetition frequency
Surges Line-to-line	IEC 61000-4-5	±0.5 Kv,±1 kV
Conducted disturbances induced by RF fields	IEC 61000-4-6	3V 0.15MHz-80MHz 6V in ISM bands between 0.15MHz and 80MHz 80% AM at 1kHz
Voltage dips	IEC 61000-4-11	0% UT;0.5 cycle At 0°,45°,90°,135°,180°,225°,270°and315°
		0% UT;1 cycle and 70% UT;25/30 cycle Single phase:at 0°
Voltage interruptions	IEC 61000-4-11	0% UT; 250/300 cycle

**Table 3 SIP/SOP PORT**

Phenomen on	Basic EMC standard	IMMUNITY TEST LEVELS
		professional healthcare facility environment
ELECTROSTAIC DISCHARGE <sup>e)</sup>	IEC 61000-4-2	±8 kV contact ±2 kV,±4kV,±8 kV, 15kV air
Electrical fast transients/bursts <sup>b)f)</sup>	IEC 61000-4-4	not applicable
Surges Line-to-ground <sup>a)</sup>	IEC 61000-4-5	not applicable
Conducted disturbances induced by RF field <sup>d)g)j)k)</sup>	IEC 61000-4-6	3V <sup>h)</sup> 0,15MHz-80MHz 6 Vh) in ISM between 0,15 MHz and 80MHz <sup>i)</sup> 80%AM at 1kHz <sup>c)</sup>
<p>a) This test applies only to output lines intended to connect directly to outdoor cables.</p> <p>b) SIP/SOPS whose maximum cable length is less than 3 m in length are excluded.</p>		

c) Testing may be performed at other modulation frequencies identified by the RISK MANAGEMENT PROCESS.

d) Calibration for current injection clamps shall be performed in a 150  $\Omega$  system.

e) Connectors shall be tested per 8.3.2 and Table 4 of IEC 61000-4-2:2008. For insulated connector shells, perform air discharge testing to the connector shell and the pins using the rounded tip finger of the ESD generator, with the exception that the only connector pins that are tested are those that can be contacted or touched, under conditions of INTENDED USE, by the standard test finger shown in Figure 6 of the general standard, applied in a bent or straight position.

f) Capacitive coupling shall be used.

g) If the frequency stepping skips over an ISM or amateur radio band, as applicable, an additional test frequency shall be used in the ISM or amateur radio band. This applies to each ISM and amateur radio band within the specified frequency range.

h) r.m.s., before modulation is applied.

i) The ISM (industrial, scientific and medical) bands between 150 kHz and 80 MHz

are 6,765 MHz to 6,795 MHz; 13,553 MHz to 13,567 MHz; 26,957 MHz to 27,283 MHz; and 40,66 MHz to 40,70 MHz. The amateur radio bands between 0,15 MHz and 80 MHz are 1,8 MHz to 2,0 MHz, 3,5 MHz to 4,0 MHz, 5,3 MHz to 5,4 MHz, 7 MHz to 7,3 MHz, 10,1 MHz to 10,15 MHz, 14 MHz to 14,2 MHz, 18,07 MHz to 18,17 MHz, 21,0 MHz to 21,4 MHz, 24,89 MHz to 24,99 MHz, 28,0 MHz to 29,7 MHz and 50,0 MHz to 54,0 MHz.

j) See IEC61000-4-6:2013, Annex B, for modified start frequency versus cable length and equipment size.

k) SIP/SOPS whose maximum cable length is less than 1m are excluded

**Table 4 The specifications for ENCLOSURE PORT IMMUNITY to RF**  
wireless communications equipment

Test frequency (MHz)	Band (MHz)	Service	Modulation	IMMUNITY TEST LEVEL (V/m)
385	380 to 390	TETRA 400	Pulse modulation 18 Hz	27
450	430 to 470	GMRS 460, FRS 460	FM ± 5 kHz deviation 1 kHz sine	28
710	704 to 787	LTE Band 13, 17	Pulse modulation 217 Hz	9
745				
780				
810	800 to 960	GSM 800/900, TETRA 800, iDEN 820, CDMA 850, LTE Band 5	Pulse modulation 18 Hz	28
870				
930				
1720	1700 to 1990	GSM 1800; CDMA 1900; GSM 1900; DECT; LTE Band 1, 3, 4, 25; UMTS	Pulse modulation 217 Hz	28
1845				
1970				
2450	2400 to 2570	Bluetooth, WLAN, 802.11 b/g/n, RFID 2450, LTE Band 7	Pulse modulation 217 Hz	28
5240	5100 to 5800	WLAN 802.11 a/n	Pulse modulation 217 Hz	9
5500				
5785				

## WARNING

- Keep away from strong radiation sources and electromagnetic interference environment. External RFI and electromagnetic interference will affect the normal operation! Such as cardiac pacemakers and other device sensitive to electromagnetic environment, please try to avoid using together.
-

## Appendix D Accessory

Please contact our customer Service or visit our website for the latest product information. The Intraoral Scanner accessories consist of Scanner tips .

## Appendix E Warranty policy

The warranty period of the purchased products shall be subject to the sales contract.

Consumables refer to the disposable consumption materials or vulnerable materials that need to be replaced regularly after each use. There is no warranty for the consumables.

The warranty period starts from the "installation date" filled in on the "warranty card" attached to the product, and the "Warranty Card" is the only certificate to calculate the warranty period.

In order to protect your rights and interests, please fill in the insurance card after the installation of the equipment, and send the second copy of the insurance card "Bo Joint Branch retention" to the relevant personnel or mail back to the sales department of the company.

Please note that the following will not be under the warranty:

- The customer does not fill in and return the equipment warranty card within 30 days after the completion of the installation acceptance;
- The equipment serial number provided by the customer is incorrect (we confirm the warranty with the equipment series number).

During the warranty period, all products can enjoy free after-sales service; However, please note that even during the warranty period, the company will implement charging maintenance service and customers shall pay the maintenance fee and parts fee:

- Man-made damage;
- Improper use;
- Power grid voltage exceeds the specified range of the product;
- Unirresistible natural disasters;
- Replace or use parts, accessories, consumables not approved by the company or repaired by personnel not authorized by the company;
- Other faults not caused by the product itself.

After the warranty expires, the BLZ Technology (Wuhan) Co., Ltd can continue to provide paid maintenance services.



Imported and Marketed By:

**VASA DENTCITY LTD.**

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