User manual
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RAYPLICKER™ USER MANUAL

Version 1.0

- 2017 -

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1 Introduction

1.1 Dear customers,

Congratulations for your new purchase. Rayplicker™ is an auto-calibrated device for shade and translucency dental analysis destined to Dentists and Laboratories.

This Plug and Play device, made in France, is equipped with a technology allowing exact determination of shades for natural tooth and dental prosthesists according to a multitude choices of ceramic powders.

Accurate and ergonomic, the Rayplicker™ solution is also equipped with a software allowing data processing and recording thus elaboration of an order form.

The smartphone application « Pics App Solution » will let you the possibility of adding easily contextual pictures to your order form, an essential element for the realisation of a prosthesis by the dental technician.

In order to realise perfect shade taking, please read carefully this user manual.

Forget about approximative measurements and be more efficient with the Rayplicker™.

Borea Team
1.2 Terms choice

Terms used in the user manual:

Dentist, dental surgeon = Practitioner
Dental technician, dental prosthesis manufacturing laboratory, Prosthetist = Laboratory
Dentist and Dental technician = Users

1.3 Safety notices

Warnings

1. Please ensure that you only use rechargeable battery supplied with the device. (Li-polymer battery 3.7V 2000 mAh). The use of an other battery is prohibited and may damage the battery or the unit. BOREA SAS will not be held responsible in this case.

2. Do not look in the light source direction.

3. Do not immerse the Rayplicker™ device or charger in water or other liquid.

4. All repairs or maintenance must be performed by authorized persons. To fail to comply with this rule will cancel the warranty.

5. Please follow the instructions contained on p.22 to clean and sterilize the Rayplicker™ and tip.

6. Please follow the instructions listed in p.12 to place the sterilizable tip and the protective sheath.

7. When using the Rayplicker™, respect safety measures for dental practices and dental laboratories.

8. Do not expose to temperatures above 40 °C (104°F) or below 10° C (50°F).

9. Protective sheaths designed against infection are single use.

10. Protect the device from direct sunlight. The device must be stored in a dry place.

11. Do not drop the device, there is a risk of equipment damage and electrical shock.

12. The temperature range for shade taking should be between 10 °C (104°F) and 30 °C (86°F)
### 1.4 Description of symbols

<table>
<thead>
<tr>
<th>CEM</th>
<th>Certification marking indicating that the product complies with the requirements of the «German Product Safety Act (ProdSG)».</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE</td>
<td>Certification C-UL-US means that representative product samples have been evaluated and indicates compliance with the United States requirements. (concerning mechanics, fire and electrical shock risks)</td>
</tr>
<tr>
<td></td>
<td>The Rayplicker™ is an electrical device that complies with the European Comunity Directive according to:</td>
</tr>
<tr>
<td></td>
<td>Low tension directive 2014/35/UE according to EN-61010-1:2010 norm</td>
</tr>
<tr>
<td></td>
<td>CEM 2014/30/ue Directive according to EN-61326-1:2014 norm</td>
</tr>
<tr>
<td></td>
<td>RoHS 2011/65/CE Directive according to EN-50581/2013 norm</td>
</tr>
<tr>
<td></td>
<td>RED 2014/53/UE Directive with justification EMF</td>
</tr>
<tr>
<td></td>
<td>DEEE 2012/19/CE Directive.</td>
</tr>
<tr>
<td>Elimination</td>
<td>This appliance and all accessories marked with this symbol must not be disposed of with unsorted household waste. Return of the old device to Borea SAS.</td>
</tr>
<tr>
<td>Protection class</td>
<td>Equipment of protection class II.</td>
</tr>
<tr>
<td></td>
<td>Read instructions before use.</td>
</tr>
<tr>
<td>Type</td>
<td>MODEL</td>
</tr>
<tr>
<td>Serial number</td>
<td>SN</td>
</tr>
<tr>
<td>Catalog Number</td>
<td>REF</td>
</tr>
<tr>
<td>Batch number</td>
<td>LOT</td>
</tr>
<tr>
<td>Non-sterile</td>
<td>NON STERILE</td>
</tr>
<tr>
<td>Do not reuse</td>
<td></td>
</tr>
<tr>
<td>Place of manufacture</td>
<td></td>
</tr>
<tr>
<td>Temperature limits</td>
<td></td>
</tr>
<tr>
<td>Recyclable</td>
<td></td>
</tr>
</tbody>
</table>
2 Rayplicker™ solution description

Rayplicker™ is a shade taking device for determine the shade and translucency of the tooth. It’s a device working with a multi-spectral measurements built around spectrophotometer based on a two-dimensional optical sensor. This enables acquisition of spectral data at all points on the tooth and the automatic realization of a complete and accurate mapping of colour variations of the tooth. The analysis is performed on specific relevant spectral bands for recognition of hue. Due to its geometry, this wireless device allows access to all the teeth in the mouth.

It has a sterilizable calibration tip which comes in contact with the patient’s teeth ensuring precise positioning of the device (focus is facilitated and it also reduces the impact of stray light).

These tips are important because they enable a self-calibration of the device not perceived by the user.

A LCD screen is integrated in the device and displays real-time analyzed area, facilitating the positioning of the measuring head on the tooth. Finally, an interface and algorithms for data processing are embedded within the device and thus allow the user to interact and directly view map of hues and translucency of the analyzed tooth. It will also allow the user to specify the analyzed tooth, select the ceramic powder manufacturer, choose the resolution of the mapping (segmentation of the tooth by 3, 9, detailed mapping).

2.1 Information about Rayplicker™ device

Rayplicker™ works with most of the greatest ceramics powders brands (Vita, Ivoclar, Kuraray)

The user has only one shade taking to do in order to automatically obtain all the necessary informations for a dental prosthetics realisation.

- A color picture
- A complete and accurate mapping of the hues variations in all the tooth area thanks to a bi-dimensional sensor and a spectrophotometer.
- A translucency mapping.

When the device is charging, its base lights on in blue. It will turn off automatically when it’s fully charged.

2.2 Information about the Rayplicker™ software

Rayplicker™ software is destined to follow up customer files, to realize an order form and follow up the order process. It allows, in function of the selected option and tanks to the Cloud (Optional) to exchange digital data between dentists-dental technician and offshore laboratory.
## 2.3 The different versions available

### DENTIST

<table>
<thead>
<tr>
<th><strong>1</strong> dentist pack including:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Rayplicker™ device</td>
</tr>
<tr>
<td>1 Dentist software license (x4 users for windows® only)</td>
</tr>
<tr>
<td>1 Mobile application</td>
</tr>
<tr>
<td>6 months of Cloud option</td>
</tr>
<tr>
<td>6 Calibration tips (Autoclavable)</td>
</tr>
<tr>
<td>50 Protective sheaths</td>
</tr>
<tr>
<td>1 Quickstart guide</td>
</tr>
</tbody>
</table>

Ref: RP0001

### LABORATORY

<table>
<thead>
<tr>
<th><strong>1</strong> laboratory pack including:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Rayplicker™ device</td>
</tr>
<tr>
<td>1 Laboratory software license (x4 users for windows® only)</td>
</tr>
<tr>
<td>1 Mobile application</td>
</tr>
<tr>
<td>6 months of Cloud option</td>
</tr>
<tr>
<td>6 Calibration tips (Autoclavable)</td>
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<tr>
<td>50 Protective sheaths</td>
</tr>
<tr>
<td>1 Quickstart guide</td>
</tr>
</tbody>
</table>

Ref: RP0002
## 3 Delivered set and charging

### 3.1 Delivered set

<table>
<thead>
<tr>
<th>Articles</th>
<th>Quantity</th>
<th>RAYPLICKER™ items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Handpiece Rayplicker™</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Docking station (Charge and USB transfer)</td>
<td>1</td>
<td>Ref : SF0005</td>
</tr>
<tr>
<td>Stylus for touch screen</td>
<td>1</td>
<td>Ref : PA0011</td>
</tr>
<tr>
<td>Calibration tips (autoclavable)</td>
<td>7</td>
<td>Ref : RA0015</td>
</tr>
<tr>
<td>Protective sheaths</td>
<td>50</td>
<td>Ref : SF0015</td>
</tr>
<tr>
<td>USB 2 cable</td>
<td>1</td>
<td>Ref : CA0005</td>
</tr>
<tr>
<td>AC-DC Power supply, universal input</td>
<td>1</td>
<td>Ref : CA0004</td>
</tr>
<tr>
<td>Quick start</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Cleaning wipe</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Activation key for Rayplicker™ software</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Recharge for Pack Rayplicker™ Service</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Packaging and shipping carton</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

![Images of delivered set items](image1.png)
### 3.2 Spare parts and accessories

#### ACCESSORIES

<table>
<thead>
<tr>
<th>Item</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>50 Protective sheaths</td>
<td>SF0015</td>
</tr>
<tr>
<td>6 Calibration tip (Autoclavable)</td>
<td>RA0015</td>
</tr>
</tbody>
</table>

#### PIÈCES DETACHÉES

<table>
<thead>
<tr>
<th>Item</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main plug 5V 1A</td>
<td>CA0004</td>
</tr>
<tr>
<td>USB cable</td>
<td>CA0005</td>
</tr>
<tr>
<td>Battery</td>
<td>EA0007</td>
</tr>
<tr>
<td>Stylus</td>
<td>PA0011</td>
</tr>
<tr>
<td>Docking station</td>
<td>SF0005</td>
</tr>
</tbody>
</table>
4 First start

4.1 Fit the protective sheath

Prior to use on each patient, place a protective sheath over the measuring head of the Rayplicker™.

The sterilised calibration tip is clipped after, between the measuring head and the protective sheath. (see or refer to explanations below 4.2)

These sheaths must be disposed of according to regulations.

4.2 Fit the calibration tip

The measuring head must be sterilised with disinfectant wipes before patient use (see point 8 p.22 cleaning and sterilization).

Then place the sheath on the measuring head. To prevent infection, sterilized the mouthpiece in an autoclave at 134° during 20 minutes.

This mouthpiece by touching the patient's teeth ensures precise positioning of the device. Focus is facilitated and it also reduces the impact of stray light.

It includes a color reference (gray pattern) required for an auto-calibration not perceived by the user.

Important: the sterilisable calibration tip has an estimated life of 100 uses. Beyond the recommended sterilisation quota, it can be damaged. Then, the unit will not ble able to auto-calibrate. It’s then necessary to change the tip.

4.3 Charging the device

Before first use, the device must be charged at least 4 hours. For this, the unit must be placed on its docking station and connected via cable to a main plug or by USB.

When the device is charging, the base lights up blue. Once loaded, the base lights off.
4.4 Battery status

On the main screen of your device, the battery symbol will indicate its charging status.

4.5 Turning on/off Rayplicker™ device

Turn on the device by pressing the measurement button in the center of the device handle.

The main screen lights on (2) then the main menu appears (3).

The top banner gives you indications on battery charge, wifi connection and the available sheets are notified.

The button « » allows you to turn off the device.
To ensure the maximum battery charge, there is a system shut-down in two stages.

Stage 1:
Whether there is a current record or not, after 60 seconds, automatic return to the home screen.

Stage 2:
After 3 minutes, the system stops.

Data recovery:
This screen indicates that there was an unsaved shade taking before the automatic switch-off.
4.6 Observations concerning the device illustrations

<table>
<thead>
<tr>
<th>Scroll down</th>
<th>Scroll up</th>
<th>Cancel</th>
<th>Delete</th>
<th>Confirm</th>
<th>Picture</th>
<th>Save</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home</td>
<td>Settings</td>
<td>Charging</td>
<td>Charged</td>
<td>Unconnected Wifi</td>
<td>Wifi connected</td>
<td></td>
</tr>
<tr>
<td>Wifi available networks</td>
<td>Overall shade</td>
<td>3 parts</td>
<td>9 parts</td>
<td>Detailed mapping</td>
<td>Translucency</td>
<td></td>
</tr>
<tr>
<td>Turn off</td>
<td>Selected</td>
<td>Unselected</td>
<td>Edit</td>
<td>User</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5 Settings for Rayplicker™ device

5.1 Basic settings

By clicking on « icon from the device main screen, you can access basic settings.

1. Change Rayplicker Name
2. WIFI networks management
3. Language choice

Click on this icon « to come back to the main screen.

1. Change device name

Enter or change the name of the device, for this, click on « Modify » , use the keypad and press OK.
2 Connect the device to wifi network

Move the slider to the right to activate the wifi and turn off by moving it to the left.

if a network has already been saved, the device will automatically connect to it. For connection to another network, click on « modify ».

The device will scan the wireless available networks.

Once the scan is complete, select a network by clicking on it.

Fill your wifi password to connect the device.

Observation :

When you turn on the wifi, the device automatically connects to the last registered network in the area in which it's located.

Once connected, the wifi icon in the top banner turns green.

3 Language choice :

Select a language and confirm.
To display the users list, click-slide from the top of the screen to open a window. Select the user of your choice and validate.

### 5.2 Shade guide choice on Rayplicker™ device

To change the shade guide of your device, this one has to be connected to your software.

From your software, go to:
parameters > device > change shade guide device

Click on « change shade guide device », a sheet opens.

Select the shade guide you wish and click on « configure ». Your Rayplicker™ device will automatically turn off. Next restarting, this one will be configured with the new shade guide.

### 5.3 Device informations

<table>
<thead>
<tr>
<th>Device serial number</th>
<th>see on the label of the device</th>
</tr>
</thead>
<tbody>
<tr>
<td>Version</td>
<td>see on the label of the device</td>
</tr>
</tbody>
</table>

### 5.4 Automatic calibration

When you switch on the Rayplicker™, it performs an auto-calibration.

This is done through the sterilised calibration tip that has a gray pattern. This tip degrades over time. The Rayplicker device can detect this degradation. In that case, operation will be blocked and the user must use a new tip.

Renewal of the calibration tip ensures the quality of the calibration of the device (and thus shade detection).
6 Realization of a shade taking

6.1 Obtaining a correct measurement of shade and translucency.

The device allows the acquisition of spectral data at all points on the tooth, the automatic realization of a complete and accurate mapping of colour variations of the tooth. The analysis is performed on specific relevant spectral bands for recognition of shades.

Due to its geometry, the wireless device allows access to all teeth up to premolars. Be sure to follow the procedure in order to obtain compliant results.

*The measuring head of the unit must be in contact with the reference tooth.

Camera

The calibration tip must be parallel to the tooth which must appear at the center of the screen of your device. A target tooth on the screen of the device will allow to help the user in a good positioning.

The displayed video of the target tooth will allow the user to properly position the measuring head on the tooth.

Tooth picture

Keep the measuring head against the tooth and press the measurement button.

Once the measurement obtained, a picture of the tooth will appear on the screen.

6.2 Shade taking interface presentation.

After performing the measurement, a picture of the tooth appears on the screen.

Click on the touch screen to access the mapping menu with different types of viewing. Surf on the different icons to access the different viewing.
6.3 Types of visualisation of shade taking

Color picture of the tooth.

General mapping: this icon allows you to view the global tooth color.

The camera automatically detects the outline of the reference tooth. If clipping is distorted, make sure to follow the directions under 6.1 and perform a new shade taking or perform a « manual carving out » from the Rayplicker software. (See on 11.4 «shade taking tab» page 33)

Mapping in 3 zones: this icon allows you to view a map of the three horizontal thirds of the tooth.

Mapping in 9 zones: this icon allows you to view a map into 9 areas of the tooth.
Detailed mapping: this icon allows you to view the complete mapping of the tooth. The referent shade guide is specify under the picture. References of this shade guide appears on the screen edges.

Translucency: this icon allows you to view indicatively the translucency of the tooth according to the black and white color bar on the right edge of the screen. In this scale, the more the view is dark, the more the translucency of the area is important.

6.4 Shade taking personalization

After shade taking, it’s possible to personalise it.

Patient name:
Use the stylus to click on the field «Patient» and access to the numeric keypad. Enter a name then confirm.

Reference tooth number:
Click on «Tooth» then a representative pattern of tooth numbers appears, point the tooth number.

Shade guide choice:
Select the desired powder manufacturer. Select the shade of your device from the administration tab > Device > Change Device shade guide. (See 5.2, page 17)
Observation: the information related to the patient, tooth number and the referent shade guide are informations that can be completed from the shade taking tab in the software; Do not forget to save the form.

7 Storage of measurements

7.1 Measurement record

After a shade taking, Click on « Save » or « Delete » the file.

It’s possible to record up to 40 files on the internal memory of the device.

When recording, the device also records the date, time and a file number. These informations can be helpful for the import of a file on the software in order to easily identify a patient file.

7.2 Delete recorded measurements.

To remove some data from the memory of the device, it must be connected to the software by USB or wifi.

Go to : settings > Administration > Unit memory management. Select the file(s) to delete and confirm.

7.3 Measurements transfer

To transmit the measurements to a computer, two options are available:

Via USB:

Place the device on its docking station. Connect the docking station to the computer by USB.

To import the files, open the Rayplicker™ software then click on the icon « » and « ».
If you want to import only some of the recorded files, click on the files you are interested in. They are highlighted. Import by clicking «import selection».

«Import all» allows to import all the files.

The imported records are transferred on the software in the main page. Follow the instructions, page 30 to process the data and prepare an order.

Observation: Once imported, data are no longer available on your Rayplicker™. The number of records available on your device is then updated automatically.

8 Cleaning and sterilization

The Rayplicker™ device:

To clean the Rayplicker, it’s recommended to use cleaning and disinfection wipes for medical devices. Type mikrozid AF wipes Jumbo.

Calibration tips:

The calibration tips are delivered by batch of 6. They must be sterilised before use.

Calibration tips can be cleaned and sterilized in autoclave at 134°C during 20 mn. These tips have an estimated lifespan of 100 uses.

Important: Beyond the recommended sterilisation quota, it can be damaged and discoloration of the grey frame appears.

Protective sheaths:

The plastic sheaths are single use and should be disposed of according to regulations.
9 Technical specifications

CMOS Sensor: 400x400 px

Spectrophotometer: measuring range 400-700 nm

Dimension of the measuring head in mm: L.76 / Diameter 25

Screen: touchscreen

Resolution: 320 x 240 NTSC

Battery: 3,7 V  2000 mAh

Memory capacity: 40 shade taking files

Wifi: Bluegiga wf121 802.11 b/g/n

Weight of the handpiece: 450g

Dimensions of the handpiece: L. 210 X w.75 x h 155

Dimensions of the docking station in mm: L.133 x w.101 x h 43

USB: 1 USB 2.0

Weight of the docking station: 165 g

Main plug: 5V 1Ah

Rayplicker™ is an electric device. It complies with the European Comunity Directive according to ECC requirements:

- Low tension directive 2014/35/UE according to the standard EN-61010-1:2010
- CEM 2014/30/UE Directive according to the standard EN-61326-1:2014
- RoHS 2011/65/CE Directive according to the standard EN-50581:2013
- RED 2014/53/UE Directive with justification EMF
- DEE Directive (products lifespan) DEE 2012/19/CE.
PART 3- RAYPLICKER™ SOFTWARE

Download, free of charge, the Rayplicker™ software from the BOREA website

http://borea.dental/telechargement/

10 Install the software

In order to use the maximum capacity of the Rayplicker™ solution, install the software to follow up customer files and realise order forms.

10.1 System compatibility

The Rayplicker™ software 1.0 is compatible for windows® only

Windows® minimum configuration

Operating system : Windows Xp or superior
Processor : Intel Core i3 or AMD equivalent
RAM : 2 GB
Hard disc: 5Go
USB ports : USB 2.0 x 1
Screen resolution : 720 p
Internet : High speed connection

Windows® recommended configuration

Operating system : Windows Xp or superior
Processor : Intel Core i5 or AMD equivalent
RAM : 4 GB
Hard disc: 5Go
USB ports : USB 2.0 x 1
Screen resolution : 1080 p
Internet : High speed connection
10.2 Drivers installation

In the first software installation, drivers will install automatically.

10.3 Software installation

The « rayplicker.exe » file can be freely downloaded from: http://borea.dental/téléchargement/.

Double click on the « rayplicker.exe » file to start installing the software. Select the installation language.

Follow directions of the different screens. Click on « finish » to complete the setup.

10.4 Start the Rayplicker™ software

Open the application from your desktop.

First, you must create a company. To do so, fill the requested informations.

Indicate your Rayplicker™ personal login in order to activate your software. Click on « create a company » to confirm.

For data recovery, follow the instructions p27.
Click on « add a recharge » or « ignore »

If you select « add a recharge », fill your code in order to activate your Rayplicker™ Pack Service option.

Click on « add an address » or « ignore »

Complete your address in order to get the geolocation option.

To complete your address, use the automatic fields or the free search. For each completed field, select the proposal that appears on the drop-down menu by clicking on it.

This option is valid insofar as your company is geolocated.

If the data are correct, click on « Validate address » otherwise you have to return to the previous stage.
Fill the requested information then press confirm to create a new user.

A welcome screen appears.
Click on your « user » to open the work session.

10.5 Restore a company data from the Cloud

This option allows you to restore company data parameters, users and files automatically with your Cloud licence.

To recover data after uninstalled the software, it is possible to make restoration on an added computer for example.

This restoration is possible for Cloud users ; To do this, fill the sheets with your Rayplicker™ personal login then click to restore data.

10.6 Cloud credits

Click on « administration » tab on Rayplicker™ software settings.
Click on « add Cloud credits » then fill your Cloud password in order to activate your Rayplicker™ Pack Service.
The Dentist Pack allows shade taking thanks to the Rayplicker™ device, transfer data and the realisation of order forms from the software. Then, these orders can be printed, sent by mail or directly by Cloud as part of Rayplicker™ Service option.

The cloud allows the dentists to directly transfer its orders digitally to the different technicians also equipped with the Rayplicker™ solution. The cloud allows the user to follow the order progress in real-time and gives an access to the community of laboratories also using the cloud.

### 11.1 Software illustration

<table>
<thead>
<tr>
<th>Previous</th>
<th>Next</th>
<th>User</th>
<th>Add</th>
<th>Refresh the cloud</th>
<th>Cloud refresh pending</th>
<th>Settings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disconnect</td>
<td>Import</td>
<td>Wifi connection</td>
<td>Usb connection</td>
<td>Memory management</td>
<td>Company</td>
<td>Restore</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>Delete account</td>
<td>Save</td>
<td>Save files</td>
<td>Administration</td>
<td>Import pictures</td>
<td>Shade-taking tab</td>
<td>Order tab</td>
</tr>
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</tr>
<tr>
<td>Print</td>
<td>Polarized Picture</td>
<td>Mappings</td>
<td>Translucency</td>
<td>Overall</td>
<td>3 parts</td>
<td>9 parts</td>
</tr>
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</tr>
<tr>
<td>Detailed mapping</td>
<td>Send</td>
<td>Low</td>
<td>Standard</td>
<td>High</td>
<td>Add translucency</td>
<td>Reduce translucency</td>
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</tr>
<tr>
<td>No collar</td>
<td>360° Collar</td>
<td>Lingual</td>
<td>Occlusal metal</td>
<td>Pontic design case 1</td>
<td>Pontic design case 2</td>
<td>Pontic design case 3</td>
</tr>
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<tr>
<td>Pontic design case 4</td>
<td>On the Cloud</td>
<td>Received by the laboratory</td>
<td>Accepted by the laboratory</td>
<td>Sent</td>
<td>Open document</td>
<td>PDF</td>
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</tr>
<tr>
<td>Validate</td>
<td>Zoom</td>
<td>Cancel</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
11.2 Import shade taking

Open Rayplicker™ software and select a user. To create a new user, recover files, please refer to the explanations described page 27.

On this main page, it's possible to select several sheets imported from the Rayplicker™ device. They are classified by date.

The icons and colours of the sheets give information on their states of progress. All the different states of progress are described page p.37-38.

Click on this icon « » to import files from your Rayplicker™.

The software will show you the various Rayplicker™ devices available. To be able to connect your device to the software, make sure your device is connected by USB or by wifi on the same network as your computer. Click on the corresponding icon to import files.

The process to connect your device to a computer is explained in details page p.21.

On this page, it's possible to select « the user », to « import all the files », or select the files of your choice and to « import the selection ».

Click here and make your choice for the user.
11.3 Open a file

After import sheets from your device, they are displayed on the software main page. The files you just have imported appear in grey.

Just click on it to open it.

You will obtain the following informations in this file:

Patient name, (if you define it during the shade taking with Rayplicker™ device), date, hour of shade taking realization and the Rayplicker™ device user.

If the laboratory does not accept the order you have sent, a message appears to inform you about it.

Grounds for refusal can also be explained by the lab.

This option is valid insofar as the command was sent from the Cloud.
11.4 Shade taking tab

When you open a sheet, it will display the information on the shade taking tab of the software.

1. Fill the patient name

2. Sheet number and the date

3. Add a recipient « Laboratory » of the order form.

2 options are available to add a Laboratory:
« manually » or « by Cloud »,
Manual add :

This option is destined to add a Laboratory who doesn’t use Rayplicker™ device with Rayplicker™ Pack Service.

It's absolutely necessary to add the Laboratory email address in order to send an order form under PDF file and to fill your own email address in:
Settings > User > Email address

Fill the other informations then click on « Add »

Cloud add :

Use the map or make a research owing to the address then double-click on the selected Laboratory using the Cloud

(For more informations, see p34)

The created or added by Cloud contacts appear on the contacts list.

Click right if you want to remove a Laboratory, then « delete »,

The different laboratories registered on the Cloud and represented with a cloud icon use the Rayplicker™ Pack Service.

The « Cloud » icon allows you to send digitally your orders.

Select type of prosthetic « fixed prosthetics » or « removable prosthetics »

Choose the « referent » and « production » teeth.

Click on the banner « referent and production tooth », this scheme will appear.

Choose the teeth number then validate,

Then the software reaches to the « order » tab.
Fill the patient « age » and « gender »

Choose the « shade guide »

Select the prosthetic stratification : Make sure you have previously selected the icon detailed point.

- *Overall shade
- *3 parts
- *9 parts
- *Detailed mapping

Click on the phone icon to import contextual pictures taken with the mobile application. The process is explained page p. 47.

Observation:
To access « order form » tab, some informations must be filled in the upper banner. Some of these informations can already have been filled during the shade taking with the Rayplicker. (see p.20)

Click on one of the four icons to display :

- « Tooth border editing »
- « Picture of the tooth »
- « Color Mapping of the tooth »
- « Translucency of the tooth »

Automatic contour, just click on the center of the tooth to crop it automatically then validate.

Manual contour, create the contour of the tooth be creating points. End the clipping by joining the first point then validate.
11.5 Add a Laboratory using the Cloud

1. Click on the green arrow for searching a laboratory around you or either with the address or with the laboratory name.

2. Once founded on the map, the list of laboratories appears on the left.
   After selecting a laboratory: click on it. All its informations are described in the upper window if the laboratory has already provided them.
   Double-click on the laboratory of your choice to add it to your contacts list.

3. Use the map to visualize the different laboratories registered on the Cloud.

4. Use the mouse scroll wheel or the « + » and « - » icons to modify the map view.

5. After selecting a laboratory, you can see some of its informations on this window. (only available if the laboratory has already provided these informations).
11.6 Order tab

1. Scheme of the production tooth
2. Select the prosthetic stratification:
   - *Neck of the tooth and overall shade
   - *Neck of the tooth and 3 horizontal zones
   - *Neck of the tooth and 9 zones
3. Translucency adjustment:
   - *click here to add translucency
   - *click here to reduce translucency
   - *click here to delete the translucency
4. Leave notes about the order form to the laboratory in this banner. (Specific features for the prosthetic wished ...)
5. Fill in the informations in link with the prosthetic realization. Use the drop down menu and select the elements. These informations are compulsory before sending your order form.
6. Click on the arrow to select additional informations linked to the order form. These informations are optional but allow more informations in prosthetic realization by the laboratory.
After filling your order form, click on the send icon « » a new window opens.

11.7 Validate the order

Select the wished delivery date and the sending way.

Tick the privacy statements then validate the order to send it.
11.8 Example of order form

Page 1: Detailed order form

Page 2: Patient pictures
11.9 Sheet’s colors meaning

Without using (Rayplicker™ parck Service = Cloud):

**Grey sheet:**
The sheet is only imported from the Rayplicker™ device. The order form has not been sent or printed.

**Green sheet:**
The order form has been sent

With the option Service Pack Rayplicker™.

**The Grey blurred sheet:**
Means that the order is on transfer on the cloud.

**Orange sheet:**
The sheet has been sent. It’s on the cloud.

**Orange sheet:**
The order has been received by the laboratory.

**Orange sheet:**
The order has been accepted by the laboratory.

**Green sheet:**
The order has been sent by the laboratory.

Observation: this icon indicates that sheets are waiting of updating.
12 Using the software with the laboratory pack.

12.1 Similarities with the Dentist Pack

The Prosthesist version is destined to Laboratories. It offers the same solutions as the Dentist version (shade taking, viewing and follow up of patients’ folders).

However, the use is somewhat different thanks to the possibility of order form received from dentist using the cloud.

Moreover, orders can be sent or exported to other laboratories in digital format under .Borea file if they also have a Rayplicker™ software.
12.2 Receive and process an order

Orders are received in this main page. Click on this icon « » to actualize the cloud, to receive new orders and to update sheets. Sheets are classified by date. (See page p.29) After sheet receipt, click on it to see information.

The origin, the delivery date, the type of prosthesis and the type of stratification are specified. You can do nothing, in this case, the tab closes automatically and the order doesn't open. The order opens when you accept it.

When you reject the order, you can specify a reason for rejection. Validate to send the rejection to the practitioner.
12.3 Interpret an order

After clicking on an order sheet and accept it, it opens on the order tab.

Here are presented the different specifications of the ordered prosthesis.

The upper banner indicates general information about this order.

Important: on the order tab, informations selected by the practitioner can't be changed.

1. Patient name.
2. Information concerning the practitioner who sent the order form.
   
   Click on the practitioner name to open a window with his contact details.
Type of prosthesis order « removable » or « fixed prosthetics ».

Number of the referent and production tooth (subsequent prosthetic).

Patient « age » and « gender »

Delivery date requested by the practitioner.

Click on the icon to print the order form.

The order form opens, click on the icon printer to print it.

An example of order form is detailed page p.37

Click here to finish.

Select a shipping date to the practitioner.
The form is saved automatically and available on the « archives » tab on the main page.

Here are described order additional informations. They are optional but allow more accuracy for the prosthetic manufacturing by the laboratory.

Here are the notes about the order destined for the laboratory. (particularity of the wished prosthetic, tooth surface...)

Indication about translucency of the desired prosthetic

Indication about stratification of the desired prosthetic

Scheme of the production tooth

Information about the form number, date and hour of the shade taking.
12.4 Shade taking tab

Click on the shade taking tab also available.

Here are presented details of shade taking registered by the practitioner. Contextual pictures can also be joined.

1. Picture of the referent teeth
2. Click on one of the two icons to display:
   - *Polarize picture of the tooth
   - *Picture with shade analysis of the referent tooth
3. Patient pictures. Click on to enlarge it
4. Export the sheet in «.borea» files.
5. Print the order form

6. Delivery date requested by the practitioner

In the upper banner, we find the same informations as those presented in the « order » tab. (see previous scheme p.41).

12.5 Sheet's colors meaning

- **Grey sheet:**
  An order came by cloud. It hasn't yet been opened.

- **Orange sheet:**
  The order has already been opened but hasn't been finished.

- This icon indicates that sheets are waiting for updating.

**Observation:** Once processed and sent, the order is automatically saved in the «archives» tab of the main page.

12.6 Archived files

From the « archives » tab of the main page, you can access to the saved forms.

To open it, just double click on it.
13. Software settings management

13.1 User tab

On this user tab, you can modify the personal details of your user.

Save an e-mail address with your address and password and click on «Test and save»

Click on delete my account and my data to delete your user.

Click on « ok » to save changes.

13.2 Company tab

In this « Company » tab you can change your company details.

All details described will be shown on the geolocation map.

Specify your website address, this information will also be shown on the Dentists Cloud Search page using the Rayplicer™ Service Pack option.

Change the address of your company by clicking on the address.

Validate to save the changes.

13.3 Save files on the computer

From this « save » tab, you can recover or save several files not sent on the cloud.
13.4 Administration

The Administration tab lets you access your Rayplicker™ credentials and manage your Rayplicker™ Service Pack.

Here you can add credits to activate your Rayplicker™ Service Pack.

13.5 Device

To manage the device memory, it must be connected to the software. Click on « device memory management », this will open a new window where you can select files and delete some of them by clicking on « delete ».

To change the taking shade of your device, this one must be connected to the software. Click on « change shade guide », a new window will open. Select the whished shade guide and click on « configure ».
14. Mobile application «Rayplicker™ Pics App Solution»

To complete your order form, you can take contextual pictures and transfer them by wifi thanks to the smartphone app.

Contextual pictures are an additional support to the order form.

Observation: Pictures are saved temporarily on the application until their transfer. If you log off the application without transferring the pictures, they will be lost.

14.1 Download and compatibility.

You can download freely the application Rayplicker™ Pics App Solution for your mobile or tablet on the different stores.

14.2 Take contextual pictures

There are four shooting views:
* Face
* Smile
* Retractor 1 and 2

Take the pictures

The banner allows pictures improvement

- Previous
- Cancel
- Brightness
- Contrast
- Cropping
After taking pictures, click on « Transfer » to go on the next step.

Click on « reset » to erase the pictures.

Fill the patient name

Click on the arrow to make a software research

Select the software that will receive the data then click on « send ».

Pictures will automatically be transferred to the software by wifi.

Important : make sure both your devices (phone and software) are connected at the same time to the same wi-fi network.

14.3 Import contextual pictures

After pictures transfer from the mobile application, they are available on the « shade taking » tab by clicking on the icon « 📷 »

Files are classified by name and date.

Double-click on the file to add them to the order.
15.1 Error messages

Device error messages

The USB connection failed. Check that the cable is connected and then reconnect.

The internal memory of the device is full. Please transfer the files via the software (see page 29).

Following my acquisition, the automatic cropping does not conform to the shape of the tooth.

Delete the shade and start again according to the indications on page 18, or change the clipping of the tooth from the shade taking tab of the software (see p33).
15.2 Glossary

**Spectrophotometer**: Device for acquiring spectral data on all points of the tooth. These wavelengths are analyzed and compared to a data basis to deduct the color of a tooth.

**Color**: It characterizes the dominant wavelength of light reflected by a tooth. It is the hue that gives this sensation of color (red, yellow, green or blue ...).

**Translucency**: Characteristic of the effect of light passing through an object.

15.3 Patents

Rayplicker™ is protected by the following patents

**France**: 1556140; 1556141; 1651452

**US**: 14837,449

15.4 Warranty

The guarantees are specified in the terms of sale. These can be found on the www.BOREA.dental (download tab)