iChiropro, iChiropro Surgery

ENG  INSTRUCTIONS FOR USE.

Other languages available on www.bienair.com/ifu
Set iChiropro REF 1700439-001

Set iChiropro CA REF 1700440-001

Set iChiropro Surgery REF 1700485-001*

Set iChiropro Surgery HP REF 1700484-001*

* Set is available in the USA and Canada only.

Options

REF 2100291-0006/2019.11 © Bien-Air Dental
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# 1 Symbols

## 1.1 Description of symbols for iChiro pro and iChiropro Surgery units

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE Marking with number of the notified body.</td>
<td>Recyclable materials.</td>
</tr>
<tr>
<td>Main switch - Power OFF.</td>
<td>Recyclable materials.</td>
</tr>
<tr>
<td>Main switch - Power ON.</td>
<td>Manufacturer.</td>
</tr>
<tr>
<td>Fuse Ø 5 x 20 mm.</td>
<td>Light.</td>
</tr>
<tr>
<td>Alternating current.</td>
<td>Sound alerts.</td>
</tr>
<tr>
<td>RF emitting device (Interference may occur in the vicinity of equipment marked with this symbol).</td>
<td>Rx Only</td>
</tr>
<tr>
<td>CAUTION! Consult accompanying documents. Provides an instruction that should be observed for safety reasons.</td>
<td>CSA marking - Complies with U.S. and Canadian standards.</td>
</tr>
<tr>
<td>Refer to the accompanying documents (<a href="http://www.bienair.com/ifu">www.bienair.com/ifu</a>).</td>
<td>SN</td>
</tr>
</tbody>
</table>

### Reference number.

## 1.2 Description of symbols for iChiro pro and iChiropro Surgery accessories

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE Marking with number of the notified body.</td>
<td>Thermo washer disinfectable.</td>
</tr>
<tr>
<td>Expiration date.</td>
<td>Recyclable materials.</td>
</tr>
<tr>
<td>Do not reuse.</td>
<td>Separate collection of electric and electronic equipment.</td>
</tr>
<tr>
<td>Sterilized with Ethylene Oxide.</td>
<td>Sterilizable in autoclave up to the specified temperature.</td>
</tr>
<tr>
<td>Electrical security. Applied part type B.</td>
<td>Manufacturer.</td>
</tr>
</tbody>
</table>

### Reference number.

### Serial number.
2 Identification, Intended use and Notation

2.1 Identification

Electronically controlled tabletop device for dentistry allowing operation of a dental handpiece via an MX-i micromotor with variable speed control by a pedal.

A peristaltic pump conveys the physiological liquid via a disposable irrigation line without being contaminated.

It is essential to connect a compatible iPad to the device using the connector provided for this purpose.

See section "6.1.1 Compatibility" on page 12 for details.

The implant fitting parameters are defined before the operation using the iChiropro application installed on the iPad.

⚠️ CAUTION

The pre-recorded settings of Implant Brands are informative only and must be updated according to the Instructions for use from Implant Brands.

2.2 Intended use

The system is to be used by dentists and surgeons in dental offices and hospitals. The system is designed to control a dental MX-i micromotor which can drive a dental hand-piece fitted with appropriate tools to cut hard and soft tissues in the mouth and to screw dental implants.

The system is intended for use in dentistry for implantology and dental surgery.

Any use other than that for which this product is intended is prohibited and may prove dangerous.

The system meets all the current legal requirements for medical devices. The intended EM environment (per IEC 60601-1-2 ed. 4.0) is Professional healthcare facility environment.

Two applications are available to control these systems:

- The iChiropro application, deployed on the App Store © worldwide except United States and Canada;
- The iChiropro US application, deployed on the App Store © in United States and Canada only.

The iChiropro US application allows both implantology and surgery procedures only when the iPad is connected to an iChiropro Surgery unit. When the iPad is connected to an iChiropro unit, only implantology procedures may be accessed by the user.

FIG. 1

iChiropro US application is connected to iChiropro Surgery unit: in the application user interface, both implantology (IM) and surgery (SR) procedures selection buttons are available.

FIG. 2

iChiropro US application is connected to iChiropro unit: in the application user interface, only implantology (IM) procedures selection button is available.

2.3 Notation and chapter links

- A, B, C, etc.
  Text preceded by a letter indicates a procedure to be carried out step-by-step.
- ☑
  Indicates a procedure result.
- (1), (2), (3), etc.
  Text preceded by a number indicates text used in conjunction with an illustration.
- OK, Settings, etc.
  Text in bold italic font style indicates, on-screen elements such as buttons, menus, menu items, screen areas, values, fields when they are named and screen names.
  Tap Settings to open the Settings screen, change parameters and tap Done.

FIG. 3

• Chapter links and the table of contents
  By clicking on a chapter section in the table of contents or in the manual, the user can directly access it. The dedicated button (1) links the user directly to the table of content, regardless of the reading position in the text.
3 Warnings & Precautions of Use

⚠️ CAUTION
To prevent any risk of electric shock, this device must be connected only to a power supply network provided with protective earth.

⚠️ CAUTION
The power plug is the device used for disconnection in case of problems, it must be easily accessible at all times.

⚠️ CAUTION
Never connect a handpiece on a running MX-i micromotor.

⚠️ CAUTION
The iPad must never be disconnected from the iChiropro dental unit during operation.

⚠️ CAUTION
Any modification of the medical device is strictly forbidden.

⚠️ CAUTION
The device is not designed for use in an explosive atmosphere (anaesthetic gas).

⚠️ CAUTION
Do not attempt to open the device when it is connected to the electric mains.
Risk of electrocution.

⚠️ CAUTION
The patient must not be in contact neither with the iChiropro unit nor with the pedal.

⚠️ CAUTION
The parameters contained in the dental procedures are given as information ONLY. Bien-Air Dental SA cannot be held liable for them.

Note 1

NOTES

1. The predefined parameters may be subject to modification without notice.
4 Description

4.1 iChiropro system overview

FIG. 1

1. Peristaltic pump lid
2. Pedal connector
3. Adapter for iPad
4. Bracket support
5. Main switch
6. Fuse box
7. Mains connector
8. MX-i micromotor
9. Button to start/stop irrigation and to acknowledge high speed steps warnings
10. Button to reverse the rotation of the MX-i micromotor on pedal
12. MX-i micromotor connector
4.2 Sets supplied

4.2.1 iChiropro sets

iChiropro set REF 1700439-001

<table>
<thead>
<tr>
<th>Designation</th>
<th>REF number</th>
</tr>
</thead>
<tbody>
<tr>
<td>iChiropro unit (1x)</td>
<td>1600784-001</td>
</tr>
<tr>
<td>MX-i LED micromotor (1x)</td>
<td>1600755-001</td>
</tr>
<tr>
<td>3-button pedal (1x)</td>
<td>1600631-001</td>
</tr>
<tr>
<td>Cable for MX-i LED micromotor 2 m (1x)</td>
<td>1600606-001</td>
</tr>
<tr>
<td>2 single-use sterile iPad protective sheets (1x)</td>
<td>1501746</td>
</tr>
<tr>
<td>Pack of 10 disposable sterile irrigation lines (1x)</td>
<td>1500984-010</td>
</tr>
<tr>
<td>iPad Air 2 adapter (1x)</td>
<td>1306547-001</td>
</tr>
<tr>
<td>iPad Air adapter (1x)</td>
<td>1306205-001</td>
</tr>
<tr>
<td>Philips screwdriver (1x)</td>
<td>1305436-001</td>
</tr>
<tr>
<td>10 attachment collars for fastening the sterile irrigation line to a cable (1x)</td>
<td>1303711-010</td>
</tr>
<tr>
<td>Bracket for fluid bottle (1x)</td>
<td>1303393-001</td>
</tr>
<tr>
<td>Handpiece support (1x)</td>
<td>1301575-001</td>
</tr>
<tr>
<td>3P cable system, US/Asia, length 2m (1x)</td>
<td>1300066-001</td>
</tr>
<tr>
<td>3P cable system, Europe, length 2.5 m (1x)</td>
<td>1300066-001</td>
</tr>
<tr>
<td>3P cable system, Switzerland, length 2 m (1x)</td>
<td>1300065-001</td>
</tr>
<tr>
<td>Quick Start Guide (1x)</td>
<td>2100247</td>
</tr>
</tbody>
</table>

iChiropro CA set REF 1700440-001

<table>
<thead>
<tr>
<th>Designation</th>
<th>REF number</th>
</tr>
</thead>
<tbody>
<tr>
<td>iChiropro unit (1x)</td>
<td>1700439-001</td>
</tr>
<tr>
<td>MX-i LED micromotor (1x)</td>
<td>1600755-001</td>
</tr>
<tr>
<td>3-button pedal (1x)</td>
<td>1600631-001</td>
</tr>
<tr>
<td>Cable for MX-i LED micromotor 2 m (1x)</td>
<td>1600606-001</td>
</tr>
<tr>
<td>2 single-use sterile iPad protective sheets (1x)</td>
<td>1501746</td>
</tr>
<tr>
<td>Pack of 10 disposable sterile irrigation lines (1x)</td>
<td>1500984-010</td>
</tr>
</tbody>
</table>

iChiropro Surgery HP set REF 1700484-001 *

<table>
<thead>
<tr>
<th>Designation</th>
<th>REF number</th>
</tr>
</thead>
<tbody>
<tr>
<td>iChiropro Surgery unit (1x)</td>
<td>1600436-001</td>
</tr>
<tr>
<td>MX-i LED micromotor (1x)</td>
<td>1600755-001</td>
</tr>
<tr>
<td>3-button pedal (1x)</td>
<td>1600631-001</td>
</tr>
<tr>
<td>3P cable system, US/Asia, length 2m (1x)</td>
<td>1300066-001</td>
</tr>
<tr>
<td>3P cable system, Europe, length 2.5 m (1x)</td>
<td>1300066-001</td>
</tr>
<tr>
<td>3P cable system, Switzerland, length 2 m (1x)</td>
<td>1300065-001</td>
</tr>
</tbody>
</table>

4.2.2 iChiropro Surgery sets

iChiropro Surgery set REF 1700485-001 *

<table>
<thead>
<tr>
<th>Designation</th>
<th>REF number</th>
</tr>
</thead>
<tbody>
<tr>
<td>iChiropro Surgery unit (1x)</td>
<td>1700485-001</td>
</tr>
<tr>
<td>Contra-angle handpiece CA 20:1 L KM Micro-Series (light)</td>
<td>1600786-001</td>
</tr>
<tr>
<td>Contra-angle handpiece CA 20:1 L KM (light)</td>
<td>1300692-001</td>
</tr>
<tr>
<td>Straight handpiece HP 1:2 (1x)</td>
<td>1305436-001</td>
</tr>
<tr>
<td>Bracket for fluid bottle (1x)</td>
<td>1303393-001</td>
</tr>
<tr>
<td>Handpiece support (1x)</td>
<td>1301575-001</td>
</tr>
<tr>
<td>3P cable system, US/Asia, length 2m (1x)</td>
<td>1300066-001</td>
</tr>
<tr>
<td>3P cable system, Europe, length 2.5 m (1x)</td>
<td>1300066-001</td>
</tr>
<tr>
<td>3P cable system, Switzerland, length 2 m (1x)</td>
<td>1300065-001</td>
</tr>
<tr>
<td>Quick Start Guide (1x)</td>
<td>2100247</td>
</tr>
</tbody>
</table>

4.3 Options

4.3.1 iChiropro options

<table>
<thead>
<tr>
<th>Designation</th>
<th>REF number</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-button pedal (1x)</td>
<td>1600631-001</td>
</tr>
<tr>
<td>MX-i LED micromotor (1x)</td>
<td>1600755-001</td>
</tr>
<tr>
<td>Contra-angle handpiece CA 20:1 L KM Micro-Series (light)</td>
<td>1600786-001</td>
</tr>
<tr>
<td>Contra-angle handpiece CA 20:1 L KM (light)</td>
<td>1600785-001</td>
</tr>
<tr>
<td>Contra-angle handpiece CA 20:1 L KM Micro-Series (light)</td>
<td>1600692-001</td>
</tr>
<tr>
<td>Contra-angle handpiece CA 20:1 L (light)</td>
<td>1300692-001</td>
</tr>
<tr>
<td>Straight handpiece HP 1:2 (1x)</td>
<td>1305436-001</td>
</tr>
<tr>
<td>Bracket for fluid bottle (1x)</td>
<td>1303393-001</td>
</tr>
<tr>
<td>Handpiece support (1x)</td>
<td>1301575-001</td>
</tr>
<tr>
<td>3P cable system, US/Asia, length 2m (1x)</td>
<td>1300066-001</td>
</tr>
<tr>
<td>3P cable system, Europe, length 2.5 m (1x)</td>
<td>1300066-001</td>
</tr>
</tbody>
</table>

In the interests of clarity, only the iChiropro CA set (REF 1700440-001) is illustrated in these instructions for use. However, the explanations apply to all other iChiropro and iChiropro Surgery sets.

*K Set is available in the USA and Canada only.

*K Set is available in the USA and Canada only.
4.4 Technical data

Dimensions L x W x H
- iChiropro unit: 242 x 244 x 102 mm
- iChiropro unit (with bracket): 242 x 244 x 482 mm
- Pedal: 250 x 205 x 54 mm
- Pedal (with handle): 250 x 205 x 144 mm
- Motor cable (REF 1600606): L 2.0 m
- Motor cable (REF 1600881): L 3.0 m
- Pedal cable: L 2.9 m

The pedal is waterproof (IP X8 in accordance with CEI 60529).

Weight
- iChiropro unit: 2.8 kg
- Pedal: 830 g
- Bracket: 115 g
- Cable: 105 g

Electrical data
- Voltage: 100 – 240 VAC
- Frequency: 50-60 Hz

Environmental conditions

<table>
<thead>
<tr>
<th>Environmental conditions</th>
<th>Operating</th>
<th>Transport and storage (max. 15 weeks)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature</td>
<td>+10°C (50°F) to +25°C (77°F)</td>
<td>-25°C (-13°F) to +70°C (158°F)</td>
</tr>
<tr>
<td>Relative humidity (including condensation)</td>
<td>30% to 80%</td>
<td>10% to 95%</td>
</tr>
<tr>
<td>Altitude</td>
<td>Up to 3000 m above sea level</td>
<td>Up to 5000 m above sea level</td>
</tr>
</tbody>
</table>

⚠️ CAUTION
Do not use iChiropro outside the range of operating temperature.

Classification
Class IIa in accordance with European Directive 93/42/EEC concerning medical devices.

Electric insulation class
Class I per IEC 60601-1 (apparatus protected against electric shocks).

Applied parts (per IEC 60601-1):
- MX-i LED micromotor: REF 1600755-001
- Straight handpiece 1:1: REF 1600052-001
- Straight handpiece 1:2: REF 1600436-001
- CA 20:1 L: REF 1600598-001
- CA 20:1 L Micro-Series: REF 1600692-001
- CA 20:1 L KM: REF 1600785-001
- CA 20:1 L KM Micro-Series: REF 1600786-001
- Irrigation lines: REF 1500984-100
- KM Irrigation lines: REF 1501635-010
- Sterile Bur Guards: REF 1501317-100

Degree of ingress protection
IP 40 (protection against insertion of objects larger than 1 mm).

Memory
- Memory storage of 8 users;
- Memory storage of 30 implant manufacturers (user-defined);
- Memory storage of 50 different settings for each implant manufacturer (user-defined);
- Memory storage of 12 steps per setting including adjustment of speed, torque, irrigation, lighting and handpiece for each step;
- 30 minute recording length per implant.

Languages
French, German, English, Italian, Spanish, Portuguese, Japanese, Russian and Chinese.

Bracket for physiological liquid flask
Stainless steel.

Peristaltic pump
- Pump delivery: From 30 to 150 ml/min. (5 levels)
- Hose for pump: External Ø 5.60 mm Internal Ø 2.40 mm
- Wall thickness: 1.60 mm

Intended for use with:
- MX-i LED micromotor: REF 2100245
- Cable for micromotor: REF 2100163
- Contra-angle CA 20:1 L, light: REF 2100209
- Contra-angle CA 20:1 L Micro-Series, light: REF 2100209
- Contra-angle CA 20:1 L KM, light: REF 2100209
- Contra-angle CA 20:1 L KM Micro-Series, light: REF 2100209
- Straight handpiece 1:1: REF 2100046
- Straight handpiece 1:2: REF 2100103

⚠️ CAUTION
The use of the system with other handpieces, motors or cables has not been validated/certified (speed and torque values are not guaranteed in this case).

List of errors & Troubleshooting
See chapter “10 List of errors & Troubleshooting” on page 48.

4.5 Environmental protection and information for disposal

⚠️ The disposal and/or recycling of materials must be performed in accordance with the legislation in force.

Separate collection of electric and electronic equipment and accessories in view of recycling. Electrical and electronic equipment may contain dangerous substances which constitute health and environmental hazards. The user must return the device to its dealer or establish direct contact with an approved body for treatment and recovery of this type of equipment (European Directive 2002/96/EC).
4.6 Limitation of liability

⚠️ CAUTION
Bien-Air Dental SA shall not be held liable for any non-compliant use of the iPad®.
The conditions for and restrictions on use set by Apple must be respected (jailbreak, hardware modification, etc.).

To ensure the appropriate working of the whole device, make sure to use your iChiropro application only with iOS version validated by Bien-Air Dental SA.

4.7 Electromagnetic compatibility (technical description)

Precautions regarding Electromagnetic Compatibility (EMC)
Electro-medical equipment needs special precautions regarding EMC and needs to be installed and put into service according to the EMC information provided in this document.

⚠️ CAUTION
Dental professionals need to be aware of potential electromagnetic interference between electronic dental devices and active implantable medical devices, and should always inquire about any devices implanted in the patient.

⚠️ CAUTION
iChiropro complies with the EMC requirements according to IEC 60601-1-2. Radio transmitting equipment, cellular phones, etc. shall not be used in close proximity to the unit since they could influence the performance of the unit. Special precautions must be taken when using strong emission sources such as High Frequency surgical equipment and similar equipment so that the HF cables are not routed on or near the unit. If in doubt, please contact a qualified technician or Bien-Air Dental SA. Portable RF communications equipment (including peripherals such as antenna cables and external antennas) should be used no closer than 30 cm (12 inches) to any part of the device, including cables specified by the manufacturer. Otherwise, degradation of the performance of this equipment could result.
iChiropro should not be used adjacent to or stacked with other equipment. If adjacent or stacked use is necessary, iChiropro should be monitored to verify normal operation in the configuration in which it will be used.

⚠️ CAUTION
The use of accessories, transducers and cables other than those specified, with the exception of transducers and cables sold by Bien-Air Dental SA as replacements parts for internal components, may result in increased emissions or decreased immunity of iChiropro.

Guidance and manufacturer’s declaration - electromagnetic emissions
iChiropro is intended for use in the electromagnetic environment specified below. The customer or the user of iChiropro should ensure that it is used in such an environment.

<table>
<thead>
<tr>
<th>Emissions test</th>
<th>Compliance</th>
<th>Electromagnetic environment - guidance</th>
</tr>
</thead>
<tbody>
<tr>
<td>RF emissions</td>
<td>Group 1</td>
<td>iChiropro uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.</td>
</tr>
<tr>
<td>CISPR 11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RF emissions</td>
<td>Class B</td>
<td>iChiropro is suitable for use in all establishments including domestic establishments and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.</td>
</tr>
<tr>
<td>CISPR 11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Harmonic emissions</td>
<td>Class A</td>
<td></td>
</tr>
<tr>
<td>IEC 61000-3-2</td>
<td>Not applicable</td>
<td></td>
</tr>
<tr>
<td>Voltage fluctuations/flicker emissions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IEC 61000-3-3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Immunity test</th>
<th>IEC 60601 test level</th>
<th>Compliance level</th>
<th>Electromagnetic environment - guidance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electrostatic discharge (ESD)</td>
<td>±8 kV contact</td>
<td>±8 kV contact</td>
<td>Floors should be wood, concrete or ceramic. If floors are covered with synthetic material, the relative humidity should be at least 30%.</td>
</tr>
<tr>
<td>IEC 61000-4-2</td>
<td>±2 kV air</td>
<td>±2 kV air</td>
<td></td>
</tr>
<tr>
<td></td>
<td>±4 kV air</td>
<td>±4 kV air</td>
<td></td>
</tr>
<tr>
<td></td>
<td>±8 kV air</td>
<td>±8 kV air</td>
<td></td>
</tr>
<tr>
<td></td>
<td>±15 kV air</td>
<td>±15 kV air</td>
<td></td>
</tr>
<tr>
<td>Electrical fast</td>
<td>±2 kV for power</td>
<td>±2 kV for power</td>
<td>Mains power quality should be that of a typical commercial or hospital environment.</td>
</tr>
<tr>
<td>transient burst</td>
<td>supply lines</td>
<td>supply lines</td>
<td></td>
</tr>
<tr>
<td>IEC 61000-4-4</td>
<td>±1 kV for other lines</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Immunity test</td>
<td>IEC 60601 test level</td>
<td>Compliance level</td>
<td>Electromagnetic environment - guidance</td>
</tr>
<tr>
<td>---------------</td>
<td>----------------------</td>
<td>------------------</td>
<td>--------------------------------------</td>
</tr>
</tbody>
</table>
| Surge IEC 61000-4-6 | ±0.5 kV line to line  
±1 kV line to line  
±0.5 kV line to earth  
±1 kV line to earth  
±2 kV line to earth | ±0.5 kV line to line  
±1 kV line to line  
±0.5 kV line to earth  
±1 kV line to earth  
±2 kV line to earth | Mains power quality should be that of a typical commercial or hospital environment. |

| Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11 | 0% \(U_T\) for 0.5 cycle, at 0°, 45°, 90°, 135°, 180°, 225°, 270° and 315° 0% \(U_T\) for 1 cycle and 70% \(U_T\) for 25/30 cycles at 0° 0% \(U_T\) for 250 cycles at 0° | 0% \(U_T\) for 0.5 cycle, at 0°, 45°, 90°, 135°, 180°, 225°, 270° and 315° 0% \(U_T\) for 1 cycle and 70% \(U_T\) for 25/30 cycles at 0° 0% \(U_T\) for 250 cycles at 0° | Mains power quality should be that of a typical commercial or hospital environment. If the user of iChiropro requires continued operation during power mains interruptions, it is recommended that iChiropro be powered from an uninterruptible power supply or a battery. |

| Magnetic field due to mains frequency (50/60Hz) IEC 61000-4-8 | 30 A/m | 30 A/m | Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment. |

| Conducted disturbances induced by RF fields IEC 61000-4-6 | 3 V\(_{\text{RMS}}\) 0.15 MHz – 80 MHz 6 V\(_{\text{RMS}}\) in ISM bands 0.15 MHz – 80 MHz 80% AM at 1 kHz | 3 V\(_{\text{RMS}}\) 0.15 MHz – 80 MHz 6 V\(_{\text{RMS}}\) in ISM bands 0.15 MHz – 80 MHz 80% AM at 1 kHz | Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey should be less than the compliance level in each frequency range. Interference may occur in the vicinity of equipment marked with the following symbol: \(\text{\wedge} \) |

| Radiated RF EM fields IEC 61000-4-3 | 3 V/m 80 MHz – 2,7 GHz 80% AM at 1 kHz | 3 V/m 80 MHz – 2,7 GHz 80% AM at 1 kHz | Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey should be less than the compliance level in each frequency range. Interference may occur in the vicinity of equipment marked with the following symbol: \(\text{\wedge} \) |

<table>
<thead>
<tr>
<th>Proximity fields from RF wireless communications equipment IEC 61000-4-3</th>
<th>Test freq. [MHz]</th>
<th>Max. power [W]</th>
<th>Immunity test level</th>
</tr>
</thead>
<tbody>
<tr>
<td>385</td>
<td>1.8</td>
<td>27</td>
<td></td>
</tr>
<tr>
<td>450</td>
<td>2</td>
<td>28</td>
<td></td>
</tr>
<tr>
<td>710, 745, 780</td>
<td>0.2</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>810, 870, 930</td>
<td>2</td>
<td>28</td>
<td></td>
</tr>
<tr>
<td>1720, 1845, 1970</td>
<td>2</td>
<td>28</td>
<td></td>
</tr>
<tr>
<td>2450</td>
<td>2</td>
<td>28</td>
<td></td>
</tr>
<tr>
<td>5240, 5500, 5785</td>
<td>0.2</td>
<td>9</td>
<td></td>
</tr>
</tbody>
</table>

Distance: 0.3 m

Note: \(U_T\) is the a.c. mains voltage prior to application of the test level.

Essential performance: The essential performance is the maintaining of the visual lighting intensity of the LED, the peristaltic pump operation and the maintaining of motor speed. Maximum allowed speed deviation is ± 5%.

\(a\). Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the iChiropro is used exceeds the applicable RF compliance level above, the iChiropro should be observed to verify normal operation.

If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating the iChiropro.

**NOTES**

1. At 80 MHz and 800 MHz, the higher frequency range applies.

2. These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.
5 Installation
5.1 Install the iChiropro app

A. Open the App Store®, tap the corresponding icon on the iPad.
B. Tap Search to find the iChiropro application.
C. Install the iChiropro application designed by Bien-Air Dental.

Note 1

5.2 Install the iChiropro system

A. If necessary, use the Phillips screwdriver to change the adapter for the iPad model being used (see chapter “11.5 iPad adapter change” on page 50).

FIG. 1
B. Place the iChiropro on a flat surface capable of bearing its weight.

⚠️ CAUTION
It may be positioned on a table, on a trolley or any other surface but in no circumstances on the floor.

FIG. 2
C. The fuse box may be opened with a screwdriver.
100 - 240 VAC = fuse T4.0AH 250 VAC REF 1307312-010. To replace a fuse, see chapter “11.6 Fuses replacement” on page 51.
D. Connect the power cable (1) to the connector (2).

Note 2

⚠️ CAUTION
The power plug is the device used for disconnection in case of problems, it must be easily accessible at all times.

FIG. 3
E. Connect the pedal cable to the output provided on the rear panel, guiding the connector and plug by means of the index pin on the connector.

⚠️ CAUTION
Do not lift the pedal holding the connection cable. To disconnect the pedal cable pull the cable socket connector (1). Do not pull the cable (2) without disconnecting the cable socket before.

FIG. 4
F. Connect the MX-i micromotor cable to the motor output, guiding the connector and plug by means of the index pin on the connector.

FIG. 5
G. Align and attach the bracket to the housing provided on the rear of the console and suspend the flask or bottle.

FIG. 6
H. Check the packaging integrity, as well as the expiry date of the irrigation line on the label (1).

⚠️ CAUTION
The medical device must be used only with lines supplied by Bien-Air Dental to ensure trouble-free operation. These lines are sterile and for single use. Re-use may result in microbiological contamination of the patient.

I. Remove the single-use sterile irrigation line (2) from its pouch.

FIG. 7
J. Connect the flexible hose of the irrigation line to the spray tube of the handpiece or contra-angle.

FIG. 8
K. Install the peristaltic cassette (1) in the peristaltic pump (2). Check that the cassette is clipped correctly.

FIG. 9
L. Close the pump lid (3). If there is resistance to closing, open the lid again and check the correct positioning of the cassette. When the lid is correctly closed, the user should hear a click sound.

⚠️ CAUTION
Do not run the pump while the lid is open.

⚠️ CAUTION
Risk of pinching!

FIG. 10
M. Perforate the cap of the physiological liquid flask with the pointed end of the irrigation line after removing the protective cap.

FIG. 11
N. Attach the irrigation line on the motor cable using the attachment collars (1) REF 1303711-010.

5.3 Installation of the iPad on the iChiropro

O. Remove the single-use sterile protection sheet for iPad from its pouch and stick it on the screen. Refer to the instructions on the back of the pouch.

FIG. 12
P. Connect the iPad to the iChiropro by sliding it carefully along the adapter.

5.4 On/off procedure

The device can be switched on and off in complete safety using the main switch on the iPad and iChiropro.

NOTES

1. The iPad must be correctly connected to the Internet before the App Store® is opened; refer to Apple’s user guide for appropriate use of the iPad.

2. The equipment is powered by the mains power supply (100 - 240 Vac).
6 Interface overview

6.1 iChiropro application
The iChiropro system is intended for use in dental implantology and dental surgery.

6.1.1 Compatibility
The iChiropro application is compatible with iPad 4th generation and higher.

6.1.2 Notation
In order to simplify the notation, in this manual, interface devices «iPad 4», «iPad Air®», «iPad Air 2®» and «iPad 5th generation» are referred to as «iPad».

6.2 Sound alerts

<table>
<thead>
<tr>
<th>Sound alert</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>One short beep</td>
<td>Activating irrigation, going to next step, and changing rotation direction</td>
</tr>
<tr>
<td>Two short beeps</td>
<td>Deactivating irrigation, and changing rotation direction</td>
</tr>
<tr>
<td>One high-frequency beep</td>
<td>Going to next implant placement or next surgery procedure</td>
</tr>
<tr>
<td>One long beep</td>
<td>Entering in implantology or surgery operative, going to first step of operative sequence</td>
</tr>
<tr>
<td>Alternate short beeps</td>
<td>Warning notifications</td>
</tr>
<tr>
<td>Alternate medium beeps</td>
<td>Micromotor REVERSE running indicator</td>
</tr>
<tr>
<td>Alternate long beeps</td>
<td>System failure notification</td>
</tr>
</tbody>
</table>

6.3 iPad and iChiropro connection / disconnection conditions

6.3.1 Disconnection
If the iPad is disconnected, the iChiropro system is in standby mode (MX-i micromotor stopped). The iChiropro app remains accessible when the iPad is disconnected. The user is able to navigate through the application and also to modify/create his own settings.

⚠️ CAUTION
The iPad must never be disconnected from the iChiropro dental unit during operation! If the iPad is disconnected during an operation, the MX-i micromotor stops immediately.

6.3.2 Connection
The MX-i micromotor can start only when the iPad is connected and the application is in operative mode (implantology or surgery).

⚠️ CAUTION
If the footpedal is pressed before entering in operative mode, the MX-i micromotor will not start to run.

6.3.3 iChiropro unit switched ON
If the iChiropro app is running and the iPad is plugged to the iChiropro (switch ON):
- The iPad will charge up (even if the app is not running);
- The MX-i micromotor can be operated with the pedal (iChiropro app in operative mode).
7 Getting started

7.1 Back up data

Use iTunes or iCloud to automatically back up your iChiropro application user-defined settings (user profiles, implant brands, implant parameters and all operations data). Refer to Apple’s user guide for appropriate use of the iPad, iTunes or iCloud.

7.2 Launch iChiropro app

FIG. 1
A. Make sure that the sound volume on your iPad is ON and set to an appropriate level according to the ambient noise of the room:
   • Volume down (3) and up (2).
B. Close all other applications in order not to disrupt the operation:
   • Double-click the home button (4) to show the multitasking display and drag the app up to close.
   • Click the home button again to return to the main screen.
C. Deactivate Auto-lock and all alerts. Refer to Apple’s user guide for appropriate use of the iPad.
D. Ensure that the latest application updates have been installed (see chapter “7.11 iChiropro App update” on page 21).
E. Tap the app icon (5) to launch the iChiropro application.

⚠️ CAUTION
If not using your iPad, press the Sleep/Wake button (1) to lock it.

7.3 User agreement

A. When opening iChiropro application for the first time, user agreement must be validated.
B. Select I have read, understood and accept all of the terms and conditions of this agreement. I warrant that I am duly authorized to do so. These terms are an integral part of the contractual relationship between me and Bien-Air Dental SA and tap I agree.

7.4 Welcome screen and disclaimer

A. To ensure the appropriate working of the iChiropro Dental unit, make sure to only use your iChiropro application with the iOS version validated by Bien-Air Dental.

FIG. 2
Refer to the current iOS version of your device (1).

⚠️ CAUTION
Do not update iOS unless it is recommended by Bien-Air. See also chapter “10.1 Safety warning (operating)” on page 48.
For more information go to the App Store © under “what’s new” of the selected application.
B. Tap OK (2) to acknowledge disclaimer message and access the disclaimer message second screen (3).

FIG. 3
C. Make sure to have set all steps of disclaimer (3) and tap OK (4).

The Home page screen is displayed.

See chapter “7.5 Home page screen” on page 14.
7.5 Home page screen

FIG. 4
A. Tap (4) to open the Information screen.
See chapter “7.12 Information” on page 22 for details.
B. Tap (2) to create a new user profile.
See chapter “7.7 Create user profile” on page 14 for details.
C. Tap a thumbnail (5) or use the arrows (1 or 6) to select a user profile.
D. Tap the profile photo (7) to edit or remove a user profile.
See chapter “7.8 Edit or remove user profile” on page 15 for details.
E. Tap (3) to validate the profile choice.
The User page screen is displayed.

7.6 User page screen

FIG. 5
A. Tap IM (5) to enter the implantology mode.
See chapter “8.1 Enter implantology mode” on page 24 for details.
B. Tap SR (1) to enter the surgery mode.
See chapter “9.1 Enter surgery mode” on page 38 for details.

Note 1
C. Tap Patients (2) to open the Patients list popup.
See chapter “7.9 Patients” on page 16 for details.
D. Tap Operations history (4) to open the Operations history screen.
See chapter “7.10 Operations history” on page 18 for details.
E. Tap (3) to open the Information screen.
See chapter “7.12 Information” on page 22 for details.

7.7 Create user profile

A. From the Home page screen (FIG. 4), tap (3) to create a new user profile.
The Profile popup window is displayed.
B. Fill in the following parameters fields:
• Title (6)
• Last Name* (5)
• First Name* (4)
• Teeth numbering system (Universal, FDI) (2)

Note 2
• Planning software (3)

Note 3
Note 4 - 5
C. Tap Save (1) to create the new user profile.
Note 6 - 7
7.8 Edit or remove user profile

FIG. 7
A. From the Home page screen, tap the profile photo (1) to edit or remove user profile.
   The Profile popup window is displayed.

FIG. 8
B. Change the desired parameters and tap Save (1) to validate the changes on profile, or tap Delete profile (2) to remove profile.
   If removing profile, a message box opens: Delete profile.
C. Tap Cancel or Delete to acknowledge.

NOTES

1. In the USA and Canada, the surgery mode is available only on the iChiropro Surgery unit (REF 1600883-001).

2. A No access to camera popup window is displayed if the app does not have access to camera. Tap OK to acknowledge and go to the iPad settings to allow the app to access camera:

3. FDI is defined as the default teeth numbering system.

4. CoDiagnostiX™ is selected as the default planning software.

5. Fields marked with an asterisk are mandatory fields.

6. It is possible to create up to 8 users.

7. In case mandatory fields are empty, saving is not possible until these fields are filled in. Empty mandatory fields blink on the screen.
7.9 Patients

FIG. 9
From the user page screen, tap Patients to open the Patients list popup.

FIG. 10
The Patients list popup displays all the recorded patients with the following information (3):
- Patient’s first and last names;
- Patient’s number;
- Patient’s date of birth.
This popup also allows to find patients in the list with the Search in patients list field (1).

7.9.1 Add or edit patient

FIG. 10
A. Tap + (2) to create a new patient, or tap on the desired patient line to access and modify the specific information.

Note 8
The Patient popup window is displayed.

FIG. 11
B. Tap the patient’s identity fields to fill them in or to modify them:
- Patient number (9);
- Last Name* (8);
- First Name* (7);
- Date of birth (6).
C. Swipe right or left (or tap) to answer by Yes or No to their medical history (5) (the selector is set by default in the middle position meaning unknown):
- Smoker
- Irradiated bone
- Chronic steroid use
- Autoimmune disease
- Diabetes
- Chemotherapy
- Osteoporosis
- Bruxist

Note 9
D. Tap Save (1) to validate or Back (or Cancel, if creating a patient) (9) to discard changes.

Note 10 - 11
E. Tap Close (4) (see FIG. 10) to close the Patients list popup.

7.9.2 Remove patient

FIG. 11
A. Tap Delete patient (3) or from the Patients list popup, swipe left and tap Delete (1) (see FIG. 12) to remove the desired patient.

Note 12
A message box opens: Delete patient

B. Tap Cancel or Delete to validate.

7.9.3 Consult patients history

FIG. 11
A. Tap Operations history (4) to consult the patient’s operations history.

Note 13 - 14
The Operations history screen is displayed.
See chapter “7.10 Operations history” on page 18 for details.
7.9.4 Merge patients

Patient identity is unique. When the iChiropro app is updated, or when an operation is imported from a planning software, a check on the patients already existing in the database is performed. If two or more patients share first name, last name, date of birth and patient number, they are automatically merged.

If only some of these fields are coincident, a manual merge is still possible:

FIG. 12
A. From the Patients list popup, swipe left and tap Merge (2).

Note 12

FIG. 13
B. Tap the lines of the patients that need to be merged with the selected patient.
C. Tap Done (1) to validate.
D. A check symbol is displayed on each of the selected patients lines.

Tap Use this patient to use the already existing patient’s information, or tap Cancel to discard changes.

Patients and their corresponding operations are merged.

NOTES

8 If accessing from Operation setup page, tap to access and modify information.

9 Fields marked with an asterisk are mandatory fields.

10 In case mandatory fields are empty, saving is not possible until these fields are filled in. Empty mandatory fields blink on the screen.

11 In case the patient number already exists, a popup window is displayed when saving:

12 The button is only available when accessing the Patients list popup from the User page screen.

13 It is only possible to consult a patient’s history when accessing the Patients list popup from the user page screen.

14 The number of operations found for the selected patient is indicated (4, FIG. 11).
7.10 Operations history

The Operations history screens can differ whether they are displayed from the User page screen (see FIG. 14) or the Patient popup window (see FIG. 15).

This page displays all the recorded operations with the following information:

**FIG. 14**
- Patient’s first and last names (8);
- Patient’s number (7);
- Patient’s date of birth (6);
- Operation’s date (3);
- Operation type (implantology or surgery) (4);
- Planning software used (9) (see chapter “8.4 Import an operation” on page 26).

**Note 15**

**FIG. 15**
- Patient’s first and last names (9);
- Patient’s number (8);
- Operation’s date (3);
- Operation type (implantology or surgery) (4);
- Operation recorded by another user (12);
- Placed implants identification numbers or surgery operations and their teeth positions (7);
- Planning software used (6) (see chapter “8.4 Import an operation” on page 26).

**Note 16**

This page also allows to:
- Filter operations by type, by tapping IM (implantology), SR (surgery) or ALL (surgery and implantology) (10);
- Filter operations by user, by tapping (current user only) or (all users) (11);
- Find specific information in the list with the Search button (1) (see chapter “7.10.1 Search operations history” on page 18);
- Export all filtered operations data in a .zip file containing .csv or .pdf data for each operation, with the Export all button (5) (see chapter “7.10.4 Export all operations reports” on page 20);
- Sort patients names and operations dates by tapping on their respective columns titles (2);
- Tap on the desired operation line to access and modify the specific information through the Operation data page.

**Note 18**

See chapter “7.10.2 Operation data” on page 19.

7.10.1 Search operations history

**FIG. 16**

Tap (1) to display the search popup showing the following fields:
- By patient name (2);
- By patient number (3);
- By date range (start – end) (8).

These fields can be edited in order to define search criteria (4).

In addition to this, it is possible to automatically filter operations displaying only those performed:
- This week (7);
- This month (6);
- This year (5).
7.10.2 Operation data

FIG. 17, FIG. 18 and FIG. 19
These three pages are available either during or after an operation. It is possible to switch through these pages with the Patient, Implants and Operation tab switch (1).

The common page footer allows to export the operation report (2) (See chapter “7.10.3 Export report” on page 20), add Notes (3) and go back (4) to the previous page.

Note 15 - 16
Patient data tab
FIG. 17
This page allows to view the operation date (9), the patient identity* (8) and his medical history* (7).

Note 20 - 21
Implants data tab
FIG. 17
This page allows to consult the Implant brand and Implant type (10) and the implant position (5) in details. As well as the Bone density (8) and the Insertion torque (7).
It is possible to modify the implants Reference*, Lot number* and Expiration date* (9), and the ISQ* (6) values readings.
For more information about ISQ values readings, See chapter “7.13 ISQ values readings” on page 23.

Note 22, 23 and 24
Operation data tab
FIG. 19
This page allows to consult the operations in detail.
(5) Operation summary table for each implant, including step number, step name, max. reached speed, max. set speed, max. reached torque, max. set torque, motor rotation direction, irrigation level and instrument type.
(6) Graphic with torque and speed as a function of operation time for each implant and for each operative step.
(7) Implant selection icons.

NOTES
15 If the operation has been imported, the corresponding planning software icon is displayed.
16 Operations recorded by other users are marked either with the symbol 🧹 (12, FIG. 15) or 🔁 (11). It is not possible to modify information for these operations.
17 When the Operations history screen is accessed from the Patient popup window, only recorded operations related to the corresponding patient are displayed.
18 Patients names column is replaced by a non-sortable Tooth number column when accessing the Operations history screen from the Patient popup window.
19 By patient name and By patient number are only available if the search popup was accessed from the User page screen.
20 Values with “*” can be modified and saved during and also after an operation.
21 Tap 📄 to modify the patient’s information (See chapter “7.9.1 Add or edit patient” on page 16 for details).
22 If information is modified Cancel and Save buttons are displayed.
23 Implant brand and Implant type can only be modified during operation, before the footpedal is pressed in the implant placement step. In this case, the first procedure step of the newly selected implant is selected when going back to the Operative page screen. If imported from a planning software it is not possible to modify data.
24 This page differs whether the operation concerns implantology or surgery and whether the implant information has been scanned or filled-in manually.
7.10.3 Export report

A. From the Operation data page, tap to export the operation data.
   A popup window allows to choose the export format:
   - Export as .pdf
   - Export as .csv

B. Tap Export as .pdf or Export as .csv.
   The Operation report screen (export as pdf) or the operation data table (export as csv) is displayed.

FIG. 20

C. Tap the Export report button (1) to choose the export target.
   A popup window allows to choose the export target (2).
D. Choose the export target among the available web file storages or the installed apps supporting the csv or pdf files.
   The corresponding app popup is displayed.
   Note 25
   Or tap Close (or Done, for csv export) (3) to go back.

7.10.4 Export all operations reports

FIG. 21

A. From the Operations history page screen tap (2) to export all operations displayed in the filtered list in a .zip file.
   A popup window allows to choose the export format.

Note 26

B. Tap Export as .pdf or Export as .csv.
   The export progress bar popup is displayed (export might take some time depending on the amount of operations):
   - Export as .pdf
     Exporting reports: 4/10
     Do NOT perform any action on your iPad during export.

   The EXPORT COMPLETE popup is displayed when the .zip file containing .pdf or .csv data for each operation has been created successfully:
   - EXPORT COMPLETE

C. Tap anywhere on the screen to acknowledge message.
   A popup window allows to choose the export target (1).
D. Choose the export target among the available web file storages or the installed apps supporting the .zip files.
   The corresponding app popup is displayed.
   Note 25

⚠️ CAUTION

If the generated zip file is large, it might not be possible to export it with the procedure described above.
In this case, see “Export all reports procedure with iTunes” on page 21.
Export all reports procedure with iTunes

A. Connect the iPad to a computer via USB cable.
B. Tap Trust if the Trust This Computer? popup window is displayed on the iPad.
C. Launch iTunes app on the computer.

**FIG. 22**

D. Click the connected iPad icon (7).
E. Click Apps (6) and scroll down until reaching File Sharing area (5).
F. Click on the iChiropro app line (4).
G. Click on the iChiropro Operation Archive format-dd.mm.yy hh-mm.zip line (2), in the iChiropro Documents area (1).
H. Click Save to (3) and choose the desired saving path.

---

7.11 iChiropro App update

**FIG. 23**

When the application is launched, it will check whether a new version is available on the App Store ©.

If a new update is available, a message box will be displayed on Disclaimer screen to notify the user should download the application.

**Note 27**

- **Download**: user can automatically access App Store © application page.
- **Remind Me Later**: user can delay the update and continue to work with currently installed app version (the message appears once a day).
- **Ignore**: User can ignore the update and continue to work with currently installed app version (the message reappears only if a new version is available).

---

**NOTES**

25 It is only possible to export as a mail if a mail account is already created and configured on the iPad.

26 When the Operations history screen is accessed from the Patient popup window, only recorded operations related to the corresponding patient are exported.

27 This function is active only when the iPad is connected to the internet.
7.12 Information

**FIG. 24**

A. Tap 🔄 to open the *Information* screen (it is also possible to access it from the home page screen).

**FIG. 25**

This screen allows to navigate to the following pages:
- **Latest news** (1) (opens Bien-Air website latest news page);
- **User manual** (2) (application detects the language of the iPad and downloads the User Manual in the same language);

**Note 28 – 29**
- **Catalogue** (3) (opens online catalogue (pdf file));
- **Web TV** (4) (opens Bien-Air web TV);
- **About** (5) (See chapter “7.12.1 About” on page 22);
- **Contact us** (6) (opens email application with predefined email address iChiropro@bienair.com);
- **Implants update** (7) (displays updated implants / protocols list, FIG. 26).

**Note 30**

7.12.1 About

**FIG. 26**

The *About* screen displays the following information:
- Manufacturer contact details (1);
- Application name and version (2);
- iPad model and iOS version (3);
- Compatible dental units (4);
  - iChiropro;
  - iChiropro Gnatus;
  - iChiropro Surgery;
  - OsseoCare™ Pro;
- Interface board name and firmware version (5);
- MX-i micromotor drive type and firmware version (6).
7.12.2 Implants update

FIG. 27
The **Implants update** screen displays the automatically updated implants and protocols. Type of update is indicated with the following symbols:

- + for the added implants;
- for the implants with existing protocols which have been updated;
- x for the removed implants.

7.13 ISQ values readings

FIG. 28
By default ISQ values readings area (1) displays only the (3) button. It is possible to add up to five ISQ editable fields by tapping the (3) button and to **Delete** (2) them.

Tap (4) to access a popup with explanations on the ISQ or tap the button (5) to display a graph (FIG. 29) of the different ISQ readings in relation to time.

NOTES

28 If the User Manual is not available in the correct language, the English manual is downloaded.

29 The user can export the User Manual to targets such as e-mails, printer or any other supported export target.

30 Latest News, Catalogue, Web TV and Contact us functions are greyed out when the iPad is not connected to the internet.
8 Operation - Implantology mode

8.1 Enter implantology mode

FIG. 1
Tap **IM** to enter the implantology mode. The implantology mode allows to perform operations consisting of placing up to 8 implants. Each implant placement is made up of several steps that can be edited by the user.

The Setup page screen is displayed.

8.2 Setup screen description

FIG. 2
The Setup screen allows to plan an operation, start a planned operation or select a single implant for direct placement:

1. **Search** field (to find specific information in the planned operations list)
2. Import an operation from a planning software (see “8.4 Import an operation” on page 26)
3. Back to the previous screen
4. **Direct** operation area
5. Plan a new operation (see “8.3 Plan an operation” on page 24)
6. **Planned** operations area

Note 1

8.3 Plan an operation

A. From the Setup screen, tap **Add new operation** to add a new operation.

The **Operation setup** page screen is displayed.

FIG. 3

B. Tap **(6)** to access the Patients list popup.

The Patients list popup is displayed.
C. Tap on the desired patient line to select the patient. See section “7.9.1 Add or edit patient” on page 16 if the desired patient is not present or to modify patient’s data.

D. Tap the following operation fields to fill them in, FIG. 3:
- **First and last names** (7);
- **Date of birth** (1);
- **Patient Number** (5).

E. Tap **(4)** to select an implant.

F. Tap a **Brand** to access the implants types window or tap **Close** (1) to go back.

G. When available, choose between **Guided** (implant) and **Non-guided** (1).

H. Tap the desired implant system (3) and its diameter (2). If the desired implant is not available, see “8.10 Add, edit or remove implants” on page 34.

The app navigates back to the Operation setup page screen.
8.4 Import an operation

A. From the Setup screen, tap Import from Planning software logo to import an operation from corresponding planning software.

B. Align the yellow rectangle with the desired QR code from a planning software.

C. If correct, tap Done (1) or the Scan completed! popup itself.

K. If correct, tap Done or the Scan completed! popup itself.

The following implant information fields are automatically filled in:
- Reference / GTIN (8);
- Lot number (6);
- Expiration date (2) if available.

L. Define the implant position by tapping the corresponding tooth in the jaw representation.

M. Tap (9) to add other implants to the operation, or tap (1) to remove implants from the operation.

N. Tap or slide Notes (5) to write comments in relation to the operation.

O. Tap Save (4) to validate.

P. Tap to go back to the Setup page screen or tap to start the operation.

See section “8.6 Start or resume a planned operation” on page 28 to start a planned operation.
The following operation information is automatically defined for each step and cannot be modified:

- Implant placement order (12)
- Implant brand (2)
- Implant type (3)
- Implant position (5)

D. If necessary, modify the automatically filled in patient's general information (13) and Bone density (8).

E. Tap the Operation date* field (1) to define the operation date.

Note 15

F. Tap (10) to scan an implant barcode.

The camera is activated and the Scan page screen is displayed.

G. Align the yellow rectangle with the barcode.

The Scan completed! popup is displayed when the barcode has been read successfully:

H. If correct, tap Done or the Scan completed! popup itself.

The following implant information fields are automatically filled in:

- Reference / GTIN (11);
- Lot number (9);
- Expiration date (4) if available.

Note 5 - 6 - 7

I. Tap or slide Notes (7) to write comments in relation to the operation.

Note 10

J. Tap Save (6) to validate.

The operation appears on the planned operations list.

Note 16

K. Tap to go back to the Setup page screen or tap to start the operation.

See section "8.6 Start or resume a planned operation" on page 28 to start a planned operation.
8.5 Remove an operation

**FIG. 11**
A. From the Setup page screen, swipe left and tap **Delete** (1) to remove the desired operation.

A message box opens: *Delete operation.*

B. Tap **Cancel** or **Delete** to acknowledge.

**FIG. 12**

8.6 Start or resume a planned operation

**FIG. 12**
A. From the Setup page screen, in the Planned operations area, tap the operation that needs to be started or tap an operation marked with the 🔄 symbol to resume it and go directly to step C.

The Operation setup page screen (start operation) or the Operative page screen (resume operation) is displayed.

**Note 17**

B. Check if the operation’s information is correct and tap >> to access the Operative page screen.

**Note 18**

⚠️ **CAUTION**

If the footpedal is pressed before entering in operative mode, a warning message «Please release pedal...» will be displayed. The MX-i micromotor will not start to run until the footpedal is released and pressed again.

⚠️ **CAUTION**

If the sound volume is OFF before entering in operative mode, a warning message «Please switch ON sound volume on your iPad and set it to an appropriate level according to the ambient noise level in your practice room.» will be displayed. The MX-i micromotor will not start to run until the sound volume is ON.

**FIG. 14**

⚠️ **CAUTION**

When accessing the Operative page screen for the first time, a popup is displayed to introduce the footpedal’s orange button behavior. Tap anywhere on the screen to close the popup or tap Don’t show me again to acknowledge:

C. Operate by pressing the footpedal to adjust the MX-i micromotor speed.

If needed, tap 📺 (1) to record step.

**Note 19 - 20**

⚠️ **CAUTION**

Recording steps is only possible with the contra angle handpiece CA 20:1 L designed by Bien-Air Dental SA.

D. Navigate through the operation steps by:

- Short pressing the footpedal’s orange button or tapping the Navigation area (9) to go to the next step;
- Tapping the desired step icon (4).

**Note 22 - 23 - 24**

E. Tap 📦 (2) to visualize the surgical protocol generated by the planning software, if necessary.

**Note 25**

F. If necessary, tap 🗓️ (3) to visualize the position of the tool to be used for the current step in the cassette.

**Note 26**

See chapter “8.9 Tool visualization in cassette” on page 34 for details.

G. Adjust the operative parameters (7) if necessary.

See section “8.8 Operative parameters” on page 32.

H. Long tap on the implant icons (11) or long press the footpedal’s orange button to perform the other planned implants placement.
**Note 22**

**I.** Select the bone density (10) for the current implant position; it is possible to set or modify the bone density value at any time during the operation (?= unknown).

**J.** Tap **Data** (5) to modify patient’s data if necessary.

- The **Operation Data** page screen is displayed. See section “7.10.2 Operation data” on page 19 for details.

**K.** Tap the **Finish** button (6) to end the operation.

- A message box opens: **Finish operation**.

**L.** Tap **Finish** to confirm the end of operation or **Cancel** to continue operation.

---

**NOTES**

17 In case mandatory fields are empty, saving is not possible until these fields are filled in. Empty mandatory fields blink on the screen.

18 Starting an operation is not possible if the implant’s position and information is not defined. Empty mandatory fields blink on the screen.

19 Real-time speed and torque values are displayed when the MX-i micromotor is running.

20 When the power demand of the MX-i micromotor is excessive, the Operative screen displays the overheating symbol. In this case the iChiropro unit lowers the torque automatically in order to avoid overheating of the MX-i micromotor. To restore 100% torque, allow the motor to idle or stop for a few seconds.

21 The specific guided surgery information (8) is displayed for operations imported from coDiagnostiX™ with Straumann™ guided implants.

22 Refer to the corresponding handpiece IFU if a tool change is needed.

23 For safety reasons, the speedometer and the step icon of high speed steps are highlighted in orange. The following popup warning is displayed when switching from low speed to high speed (≥ 100 RPM) drilling:

Tap **OK** or short press the footpedal’s blue button to acknowledge the popup warning and allow the MX-i micromotor to start.

24 The implant placement step icon is marked with the symbol in the upper-right corner.

25 Surgical protocol visualization is only available for operations imported from coDiagnostiX™.

26 Tool visualization in the cassette is only available for operations using Straumann™ non-guided implants.
8.7 Start a direct operation

The direct operation mode allows realizing an operation without any planning.

**FIG. 15**

A. From the Setup page screen, tap (2) in the Direct operation area to select implant brand and type,

The Implant brand selection popup window is displayed.

Or tap (1) if the desired implant selection is already displayed and go directly to step E.

The Operative page screen is displayed.

**FIG. 16**

B. Tap a brand to access the Implant type selection window.

The Implant type selection window is displayed.

See section “8.10.1 Add implant” on page 34 if the desired brand is not present or see “8.11 Bookmark or remove brands” on page 37 to manage brands.

**Note 27**

C. When available, choose between Guided (implant) and Non-guided (1).

D. Tap the implant system (2) and its diameter (3) to select the desired implant.

If the desired implant is not available, see “8.10 Add, edit or remove implants” on page 34.

The app navigates back to the Setup page screen.

**FIG. 17**

E. Tap (1) to access the Operative page screen, FIG. 15.

**CAUTION**

If the footpedal is pressed before entering in operative mode, a warning message «Please release pedal…» will be displayed.

The MX-i micromotor will not start to run until the footpedal is released and pressed again.

**CAUTION**

If the sound volume is OFF before entering in operative mode, a warning message «Please switch ON sound volume on your iPad and set it to an appropriate level according to the ambient noise level in your practice room.» will be displayed.

The MX-i micromotor will not start to run until the sound volume is ON.

F. Operate by pressing the footpedal to adjust the MX-i micromotor speed.

If needed, tap (1) to record step.

**Note 28 - 29**

**CAUTION**

Recording steps is only possible with the contra angle handpiece CA 20:1 L designed by Bien-Air Dental SA.

G. Navigate through the operation steps by:

- Short pressing the footpedal’s orange button or tapping the Navigation area (7) to go to the next step;
- Tapping the desired step icon (3).

**Note 30 - 31 - 32**

H. If necessary, tap (2) to visualize the position of the tool to be used for the current step in the cassette.

**Note 33**

See chapter “8.9 Tool visualization in cassette” on page 34 for details.

I. Adjust the operative parameters (6) if necessary.

**See section “8.8 Operative parameters” on page 32.**

J. Select the bone density (8); it is possible to set or modify the bone density value at any time during the operation (?= unknown).

K. Tap Data (4) to modify patient’s data if necessary.

The Operation data page screen is displayed.

See section “7.10.2 Operation data” on page 19 for details.
L. Tap the Finish button (5) to end the operation.
M. Tap Finish to confirm the end of operation or Cancel to continue operation.

- The Operation data page screen is displayed. Fill the necessary information in and tap Save.

See section “7.10.2 Operation data” on page 19 for details.

NOTES

27 User-defined implants are represented by  
Default implants are represented by  

28 Real-time speed and torque values are displayed when the MX-i micromotor is running.

29 When the power demand of the MX-i micromotor is excessive, the Operative screen displays the overheating symbol  
In this case the iChiropro unit lowers the torque automatically in order to avoid overheating of the MX-i micromotor. To restore 100% torque, allow the motor to idle or stop for a few seconds.

30 Refer to the corresponding handpiece IFU if a tool change is needed.

31 For safety reasons, the speedometer and the step icon of high speed steps are highlighted in orange. The following popup warning is displayed when switching from low speed to high speed (≥ 100 RPM) drilling:

Tap OK or short press the footpedal’s blue button to acknowledge the popup warning and allow the MX-i micromotor to start.

32 The implant placement step icon is marked with the  symbol in the upper-right corner.

33 Tool visualization in the cassette is only available for operations using Straumann™ non-guided implants.
8.8 Operative parameters

The operative parameters disposition can slightly differ whether it is displayed from a direct operation, a planned operation or a procedure protocol. However, the procedures given in this chapter are valid for all kinds of operations. All operation parameters can be temporarily changed during an operation, on the Operative screen.

8.8.1 MX-i micromotor Speed & Torque

FIG. 18
Maximum reachable speed (3) and torque (2) values are displayed when the MX-i micromotor is not running. Real-time speed (3) and torque (2) values are displayed when the MX-i micromotor is running.

Note 34
Slide to adjust the maximum speed and torque values.

Or tap the icons to activate the wheel scroller for fine adjustment.

FIG. 19
Slide to precisely adjust the motor max. speed and torque values and tap Cancel or Done to validate.

8.8.2 MX-i micromotor rotation direction

FIG. 20
Tap to select the rotation mode of the MX-i micromotor:
• Forward (clockwise)
• Reverse (counter clockwise)

Note 35 - 36
8.8.3 Irrigation Level

FIG. 21
Slide or tap the appropriate dot to set up the irrigation level. 6 levels of adjustment are possible:
irrigation OFF, 30ml/min, 60ml/min, 90ml/min, 120ml/min, 150ml/min.

8.8.4 Handpiece ratio

FIG. 22
Tap and select to modify the handpiece ratio.

⚠️ CAUTION
Verify that the handpiece corresponds to your selection.

Note 37 - 38

8.8.5 Light intensity

FIG. 23
Slide or tap the appropriate dot to set up the light intensity of the MX-i micromotor.
11 levels of adjustment are possible:
• light OFF, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90% and 100% of the max light intensity value.

Note 39
8.9 Tool visualization in cassette

FIG. 24

From the Operative screen, tap 🔄 to visualize the position of the tool to be used for the current step in the cassette.

The tool visualization page screen is displayed.

FIG. 25

This page allows to locate the needed tool in the cassette:

1. Complete / Basic switch
2. Current step tool to be used
3. Tools identification table
4. Cassette picture
5. Close button

A. Find the current step tool number (2) in the tools identification table (3). If necessary, swipe down or up to access the tool in the tools identification table (3).
B. Locate the current step tool number in the cassette picture (4).
C. Tap Close to go back to the Operative page screen.

The Operative page screen is displayed.

8.10 Add, edit or remove implants

8.10.1 Add implant

FIG. 26

A. From the Implant type selection popup window tap 🍔 (2) to create a copy of a factory implant, or tap 🍔 (1) to create an implant named after an existing Implant Brand, with operation parameters assigned by default.

Note 41

It is also possible to add a new brand by tapping 🍔 in the Implant brand selection popup window.

The Drill protocol page screen is displayed. If creating an implant as a copy of a factory implant or named after an existing Implant Brand, go directly to step E.

FIG. 27

B. Tap the Implant brand button (1).

The Implant brand selection popup window is displayed again.

FIG. 28

C. Type the brand name in the Brand name field (2).

Note 42

D. Tap Done (1) to validate.

The app navigates back to the Drill protocol page screen.
E. When available, choose between Guided (implant) and Non-guided (9).
F. Fill in or modify the Implant type (1) and Diameter (2) fields.
G. Change the Step name (7) and the operative parameters (6) if necessary.
See section “8.8 Operative parameters” on page 32.
H. Tap 📅 (5) to record step by default.

⚠️ CAUTION
Recording steps is only possible with the contra angle handpiece CA 20:1 L designed by Bien-Air Dental SA.
I. Tap 🆓 (8) to add steps or tap ✗ (3) to remove steps from the drill protocol. Change their position by dragging and releasing them.
Note 43 - 44 - 45
J. Tap Save (4) to validate.

💡 The new implant can be found in the Implant type selection popup window, into its corresponding brand. If a brand has been created, it is now present in the Implant brand selection popup window.
Note 46

NOTES

40. The Basic tab allows to display simplified tools identification table and cassette picture (not available for all Straumann™ implants).
41. User-defined implants are represented by 👤. Default implants are represented by 👤.
42. It is also possible to automatically fill-in the Brand name field by tapping on the icon of one of the existing Implant Brands.
43. It is possible to add up to 12 steps for each drill protocol.
44. The implant placement step icon is marked with the ⚫ symbol.
45. By default, when a new implant is created from scratch, only the implant placement step is present. This step cannot be removed, its recording is active by default and cannot be deactivated.
46. The Implant brand and Implant type fields must be filled in before saving.
8.10.2 Edit (user-defined) implant

**FIG. 30**

A. From the **Implant type selection** popup window, tap (1) on the user-defined implant to be modified.

Inspect The **Drill protocol** page screen is displayed.

B. Change the desired operative parameters.

See section “8.8 Operative parameters” on page 32.

C. Tap **Save** to validate or **Cancel** to discard changes.

8.10.3 Remove (user-defined) implant

Swipe left to remove the desired user-defined implant:
8.11 Bookmark or remove brands

FIG. 31

A. From the Implant brand selection popup window, long tap on a brand in the ALL tab (1) to activate the bookmark or remove brands function.

Note 47

The brands icons are greyed out when the bookmark or remove brands function is activated.

B. Tap ✭ (5) to bookmark a brand or tap ⌋ (4) to remove a brand.

Note 48

C. Tap Done (3) to validate or Cancel (6) to discard changes. Bookmarked brands are displayed in the favorite brands tab (1). To unbookmark brands, apply reverse procedure (possible on both ALL and favorite brands tab).

NOTES

47 When displaying the Implant brand selection popup window for the first time, the favorite brands tab (2) is selected. When no brand is bookmarked in the favorite brands tab (2), a tutorial explaining how to bookmark brands is displayed.

48 The brands present by default in the app (factory ones) cannot be removed.
9 Operation - Surgery mode

9.1 Enter surgery mode

FIG. 1

Tap to enter the surgery mode.

Note 1

The surgery mode allows to perform operations which do not include implants placement.

Note 2

9.2 Setup screen description

FIG. 2

The Setup screen allows to plan an operation, start a planned operation or start a direct operation:

1. Search field (to find specific information in the planned operations list)
2. Plan a new operation (see “9.3 Plan an operation” on page 38)
3. Back to the previous screen
4. Direct operation area
5. Planned operations area

9.3 Plan an operation

A. From the Setup screen, tap to add a new operation.

B. Tap (6) to access the patients list.

C. Tap on the desired patient line to select the patient.

See section “7.9.1 Add or edit patient” on page 16 if the desired patient is not present or to modify patient’s data.

D. Tap the following operation fields to fill them in:

- First and last names* (7);
- Date of birth (1);
- Patient Number (5).

E. Tap (4) to choose the procedure.

F. Tap the desired procedure or tap Close (1) to go back.

See “9.8.1 Add procedure” on page 46 to create an user-defined procedure.
G. In the jaw representation, tap the desired tooth emplacement to affect the procedure to it.

H. Tap the desired tooth emplacement to add other procedures to the operation, or tap the desired tooth emplacement to remove procedures from the operation.

Note 5 - 6
I. Tap or slide Notes (3) to write comments in relation to the operation.

Note 7
J. Tap Save (2) to go back to the Setup page screen.

See section “9.5 Start or resume an operation” on page 40 to launch a planned operation.

NOTES

1. In the USA and Canada, the surgery mode is available only on the iChiropro Surgery unit (REF 1600883-001).
2. Patients’ names and operation’s dates can be sorted by tapping on their respective columns titles (6).
3. Fields marked with an asterisk must be filled in before saving.
4. User-defined procedures are represented by 
Default procedures are represented by 
5. It is possible to add up to 8 procedures per operation. Each procedure is numbered in the jaw representation accordingly to the operation order.
6. Long tap on procedure icons and move them to reorganize order.
7. Position of the Notes is automatically saved.
8. In case mandatory fields are empty, saving is not possible until these fields are filled in. Empty mandatory fields blink on the screen.
9.4 Remove an operation

A. From the Setup page screen, swipe left and tap Delete to remove the desired operation:

- A message box opens: Delete operation.

B. Tap Cancel or Delete to acknowledge.

9.5 Start or resume an operation

A. From the Setup page screen, in the Planned operations area, tap the operation that needs to be started or tap an operation marked with the symbol to resume it and go directly to step C.

- The Operation setup page screen (start operation) or the Operative page screen (resume operation) is displayed.

B. Check if the operation’s information is correct and tap (1) to access the Operative page screen.

Note 9

⚠️ CAUTION
If the footpedal is pressed before entering in operative mode, a warning message «Please release pedal...» will be displayed. The MX-i micromotor will not start to run until the footpedal is released and pressed again.

⚠️ CAUTION
If the sound volume is OFF before entering in operative mode, a warning message «Please switch ON sound volume on your iPad and set it to an appropriate level according to the ambient noise level in your practice room.» will be displayed. The MX-i micromotor will not start to run until the sound volume is ON.
C. Operate by pressing the footpedal to adjust the MX-i micromotor speed. If needed, tap (1) to record step.

Note 10 - 11

D. Navigate through the operation steps by:
   • Short pressing the footpedal’s orange button or tapping the Navigation area (2) to go to the next step;
   • Tapping the desired step icon (3).

Note 12

E. Adjust the operative parameters (6) if necessary. See section “9.7 Operative parameters” on page 44.

F. Select the bone density (7); it is possible to set or modify the bone density value at any time during the operation.

G. Tap the teeth icons (8) or long press the footpedal’s orange button to perform the operation’s other planned surgery procedures.

Note 12

H. Tap Data (4) to modify patient’s data if necessary.

The Operation data page screen is displayed. See section “7.10.2 Operation data” on page 19 for details.

I. Tap the Finish button (5) to end the operation.

A message box opens: Finish operation.

J. Tap Finish to confirm the end of operation or Cancel to continue operation.

NOTES

9 Starting an operation is not possible if the procedure is not defined.

10 Real-time speed and torque values are displayed when the MX-i micromotor is running.

11 When the power demand of the MX-i micromotor is excessive, the Operative screen displays the overheating symbol . In this case the iChiropro unit lowers the torque automatically in order to avoid overheating of the MX-i micromotor. To restore 100% torque, allow the motor to idle or stop for a few seconds.

12 Refer to the corresponding handpiece IFU if a tool change is needed.
9.6 Start a direct operation

The direct operation mode allows realizing an operation without any planning.

FIG. 11
A. From the Setup page screen, tap (2) in the Direct operation area to select surgery procedure. The Procedure popup window is displayed.

Note 13
Or tap (1) if the desired operation is already displayed and go directly to step E.

The Operative page screen is displayed.

FIG. 12
B. Tap the desired procedure or tap Close (1) to go back.

The app navigates back to the Setup page screen.

See chapter “9.8.1 Add procedure” on page 46 to create an user-defined procedure.

C. Tap (1) to access the Operative page screen, FIG. 11.

⚠️ CAUTION
If the footpedal is pressed before entering in operative mode, a warning message «Please release pedal...» will be displayed. The MX-i micromotor will not start to run until the footpedal is released and pressed again.

⚠️ CAUTION
If the sound volume is OFF before entering in operative mode, a warning message «Please switch ON sound volume on your iPad and set it to an appropriate level according to the ambient noise level in your practice room.» will be displayed. The MX-i micromotor will not start to run until the sound volume is ON.

D. Operate by pressing the footpedal to adjust the MX-i micromotor speed.

If needed, tap (1) to record step.

Note 14 - 15
E. Navigate through the operation steps by:
- Short pressing the footpedal’s orange button or tapping the Navigation area (2) to go to the next step;
- Tapping the desired step icon (3).

Note 16
F. Adjust the operative parameters (6) if necessary.
See section “9.7 Operative parameters” on page 44.

G. Select the bone density (7); it is possible to set or modify the bone density value at any time during the operation.

H. Tap Data (4) to modify patient’s data if necessary.

The Operation data page screen is displayed.
See section “7.10.2 Operation data” on page 19 for details.

I. Tap the Finish button (5) to end the operation.

A message box opens: Finish operation.

J. Tap Finish to confirm the end of operation or Cancel to continue the operation.

The Operation data page screen is displayed. Fill the necessary information in and tap Save.
See section “7.10.2 Operation data” on page 19 for details.
NOTES

13 User-defined procedures are represented by 🗿. Default procedures are represented by 🎮.

14 Real-time speed and torque values are displayed when the MX-i micromotor is running.

15 When the power demand of the MX-i micromotor is excessive, the Operative screen displays the overheating symbol 🚲. In this case the iChiropro unit lowers the torque automatically in order to avoid overheating of the MX-i micromotor. To restore 100% torque, allow the motor to idle or stop for a few seconds.

16 Refer to the corresponding handpiece IFU if a tool change is needed.
9.7 Operative parameters

The operative parameters disposition can slightly differ whether it is displayed from a direct operation, a planned operation or a procedure protocol. However, the procedures given in this chapter are valid for all kinds of operations. All operation parameters can be temporarily changed during an operation, on the Operative screen.

9.7.1 MX-i micromotor Speed & Torque

Maximum reachable speed (2) and torque (1) values are displayed when the MX-i micromotor is not running. Real-time speed (2) and torque (1) values are displayed when the MX-i micromotor is running. Slide to adjust the maximum speed and torque values.

Or tap the icons to activate the wheel scroller for fine adjustment.

9.7.2 MX-i micromotor rotation direction

Tap to select the rotation mode of the MX-i micromotor:
- Forward (clockwise)
- Reverse (counter clockwise)

Note 17 - 18
9.7.3 Irrigation Level

FIG. 17
Slide or tap the appropriate dot to set up the irrigation level. 6 levels of adjustment are possible:
irrigation OFF, 30ml/min, 60ml/min, 90ml/min, 120ml/min, 150ml/min.

9.7.4 Handpiece ratio

FIG. 18
Tap and select to modify the handpiece ratio.

⚠️ CAUTION
Verify that the handpiece corresponds to your selection.

Note 19 - 20

9.7.5 Light intensity

FIG. 19
Slide or tap the appropriate dot to set up the light intensity of the MX-i micromotor.
11 levels of adjustment are possible:
• light OFF, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90% and 100% of the max light intensity value.

Note 21

NOTES

17 The operative screen always displays the selected rotation direction.
18 In reverse mode (CCW), the symbol flashes and there is a sound alert (alternate medium beeps).
19 The operative screen always displays the selected handpiece ratio.
20 The handpiece ratio is red-colored for multiplication gears, blue-colored for direct-drive, and green-colored for reduction gears.
21 The operative screen always displays the selected light intensity value.
9.8 Add, edit or remove procedures

9.8.1 Add procedure

FIG. 20
A. From the Procedure popup window, tap \(+\) (1) to create a procedure from scratch.
Or tap \(\circ\) (2) to create a copy of a factory procedure.

Note 22
The Procedure Protocol page screen is displayed.

FIG. 21
B. Fill in or modify the Procedure name field (7).
C. Change the Optional step name (5) and the operative parameters (4) if necessary.

See section “9.7 Operative parameters” on page 44.

D. Tap \(\rightarrow\) (3) to record step by default.
E. Tap \(\bigoplus\) (6) to add steps or tap \(\times\) (1) to remove steps from the procedure protocol. Change their position by dragging and releasing them.

Note 23
F. Tap Save (2) to validate.

\(\Psi\) The new procedure can be found in the Procedure popup window.

Note 24

9.8.2 Edit (user-defined) procedure

FIG. 22
A. From the Procedure popup window, tap \(\bigodot\) (1) on the user-defined procedure to be modified.

\(\Psi\) The Procedure protocol page screen is displayed.
B. Change the desired operative parameters.

See section “9.7 Operative parameters” on page 44.
C. Tap Save to validate or Cancel to discard changes.
9.8.3 Remove (user-defined) procedure

FIG. 23
Swipe left to remove the user-defined procedure.

NOTES

22 User-defined procedures are represented by 🆐.
Default procedures are represented by 🆑.

23 It is possible to add up to 12 steps for each procedure.

24 The Procedure name field must be filled in before saving.
## 10 List of errors & Troubleshooting

### 10.1 Safety warning (operating)

<table>
<thead>
<tr>
<th>Warning description</th>
<th>Message</th>
<th>Cause of warning</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Footpedal to be released</td>
<td>Please release pedal ...</td>
<td>Pedal is pressed when accessing operative page. Pedal remains pressed when acknowledging any system notification. Motor is jammed for more than 2 seconds.</td>
<td>Release footpedal and press it again.</td>
</tr>
<tr>
<td>Motor torque limitation active</td>
<td></td>
<td>Motor drive limits delivered torque to prevent motor overheating.</td>
<td>Avoid extended use. Let system cool down.</td>
</tr>
<tr>
<td>Low to high speed drilling transition</td>
<td>![low to high speed symbol]</td>
<td>User switches from low speed to high speed (≥ 100 RPM) drilling during implant procedure.</td>
<td>Confirm transition and acknowledge message.</td>
</tr>
<tr>
<td>iPad speaker OFF</td>
<td>Please switch ON sound volume on your iPad and set it to an appropriate level according to the ambient noise level in your practice room.</td>
<td>iPad speaker was switched OFF, or sound volume was disabled by user. It is necessary to have iPad speaker turned ON so that system sound notifications and alarms may be heard distinctly.</td>
<td>Turn iPad speaker ON and set sound volume to an appropriate level.</td>
</tr>
<tr>
<td>Non-verified iOS version in use</td>
<td>![iOS version symbol]</td>
<td>iOS version installed on the iPad has not been verified according to Bien-Air validation protocols. Therefore it is NOT recommended to use the system with this configuration.</td>
<td>Do NOT update iPad with new iOS versions unless Bien-Air recommends to do so. If the iPad has been updated with a new iOS version despite everything, do not use the system until Bien-Air has verified and approved the new iOS version.</td>
</tr>
<tr>
<td>User Manual has been updated</td>
<td>User Manual has been updated, and may be consulted in the Information page.</td>
<td>An update of the User Manual is available on Bien-Air website, and has been automatically downloaded on the iPad.</td>
<td>It is highly recommended to consult the updated User Manual before using the system.</td>
</tr>
</tbody>
</table>
10.2 Device operating error

<table>
<thead>
<tr>
<th>Error description</th>
<th>Message</th>
<th>Cause of error</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pedal connection missing</td>
<td>Pedal is not connected! Please check pedal connection.</td>
<td>Pedal is not properly connected.</td>
<td>1. Check pedal connection. 2. If problem persists, contact Bien-Air Dental SA.</td>
</tr>
<tr>
<td>Irrigation pump general failure</td>
<td>Irrigation pump fault! Please contact Bien-Air Dental SA.</td>
<td>Irrigation pump electrical failure. Irrigation pump motor overheats.</td>
<td>Contact Bien-Air Dental SA.</td>
</tr>
<tr>
<td>Motor connection missing</td>
<td>Motor is not connected! Please check motor connection.</td>
<td>Motor is not properly connected.</td>
<td>1. Check motor connection. 2. If problem persists, contact Bien-Air Dental SA.</td>
</tr>
<tr>
<td>Motor cable failure</td>
<td>Motor cable fault! Please replace motor cable.</td>
<td>Motor drive power protection failure. Motor cable may be defect.</td>
<td>1. Replace motor cable. 2. If problem persists, contact Bien-Air Dental SA.</td>
</tr>
<tr>
<td>Motor drive over temperature</td>
<td>Overall system overheating! Please wait until cool.</td>
<td>Motor drive over temperature failure.</td>
<td>1. Wait for system cooling. 2. If problem persists, contact Bien-Air Dental SA.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[FailCode] = EC102 : Motor drive over voltage failure</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>[FailCode] = EC120 : Motor drive other failure</td>
<td></td>
</tr>
</tbody>
</table>

10.3 iOS compatibility errors (disclaimer screen)

<table>
<thead>
<tr>
<th>Color</th>
<th>iOS version (identifier digit change)</th>
<th>Text version</th>
<th>Restriction (recommendations)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green</td>
<td>• None. • Currently installed iOS is identical to iOS verified during app validation.</td>
<td>Currently installed iOS x.y.z text section is displayed in green color.</td>
<td>No restrictions</td>
</tr>
<tr>
<td>Orange</td>
<td>• Last digit is different: iOS x.y.Z. • Currently installed iOS was updated for a minor change compared to iOS verified during app validation.</td>
<td>Currently installed iOS x.y.z text section is displayed in orange color.</td>
<td>• Configuration in use is slightly different from recommended configuration. • No restrictions</td>
</tr>
<tr>
<td>Red</td>
<td>• First and/or second digit are/is different: iOS X.Y.Z. • Currently installed iOS was updated for major or at least significant changes compared to iOS verified during app validation.</td>
<td>Currently installed iOS x.y.z text section is displayed in red color.</td>
<td>• Configuration in use is significantly different from recommended configuration. <strong>⚠️ CAUTION</strong> The current configuration should NOT be used!</td>
</tr>
</tbody>
</table>

[49]
11 Maintenance

⚠️ CAUTION
Only use original Bien-Air Dental maintenance products and parts or those recommended by Bien-Air Dental. Using other products or parts may cause operational failure and/or void the guarantee.

11.1 Servicing
Never disassemble the device. For any modification and repair, we recommend that you contact your regular supplier or Bien-Air Dental directly.

*Note 1*

11.2 Information
The technical specifications, illustrations and dimensions contained in these instructions are given only as a guide. They may not be the subject of any claim. The manufacturer reserves the right to make technical improvements to its equipment, without amending these instructions. For all additional information, please contact Bien-Air Dental SA at the address indicated on the back cover.

11.3 Cleaning-disinfection
- Disinfect the surfaces of the iChiropro unit and footpedal by gently rubbing with a clean cloth soaked in a suitable product (i.e. Bien-Air Dental Spraynet or isopropyl alcohol for about 15 sec.)
- Do not immerse in disinfectant solution.
- Not designed for an ultrasonic bath.
- Use a new sterile irrigation line for each patient.
- Use a new sterile protective sheet for each patient.

11.4 Important
For maintenance: See instructions for use
MX-i LED micromotor.................REF 2100245
Cable for micromotor..................REF 2100163
Contra-angle CA 20:1 L, light........REF 2100209
Contra-angle CA 20:1 L KM..........REF 2100209
Micro-Series, light..................REF 2100209
Contra-angle CA 20:1 L KM Micro-Series, light..................REF 2100209
Straight Handpiece 1:1............REF 2100046
Straight Handpiece 1:2.............REF 2100103

11.5 iPad adapter change
A. Switch off the iChiropro unit «O».
B. Remove the iPad from the adapter.
C. Remove the bracket support and unplug all the cables on the iChiropro unit.
D. Open the peristaltic pump lid and uninstall the peristaltic cassette in it.
E. Tilt the iChiropro unit to approximately 45° and remove both screws (2).
F. Remove the iPad support (1) and install the needed one by following the steps above reversely.

See chapter "4.2 Sets supplied" on page 6 for details on the available adapters.

See chapter "5.2 Install the iChiropro system" on page 11 for details on installation.
11.6 Fuses replacement

A. Switch off the iChiropro unit «0».
B. Remove the iPad from the adapter.

C. Remove the fuse box (1) with a flat screwdriver.

D. Replace the fuses (2) by the new ones and put the fuse box back (1) in place.

⚠️ CAUTION
Only use fuses T4.0AH 250 VAC REF 1307312-010.

NOTES

1  Bien-Air Dental SA recommends the user to have its dynamic instruments regularly checked or inspected.
12 General information and guarantee

12.1 General information

The device must be used by qualified professionals in compliance with the current legal provisions concerning occupational safety, health and accident prevention measures, and these instructions for use. In accordance with such requirements, the operators:

- must only use devices that are in perfect working order; in the event of irregular functioning, excessive vibration, abnormal heating or other signs that may indicate malfunction of the device, the work must be stopped immediately; in this case, contact a repair center that is approved by Bien-Air Dental SA;
- must ensure that the device is used only for the purpose for which it is intended, must protect themselves, their patients and third parties from any danger.

12.2 Terms of guarantee

Bien-Air Dental SA grants the user a guarantee covering all functional defects, material or production faults.

The device is covered by this guarantee from the date of invoicing for:

- 12 months for the hose;
- 24 months for the iChiropro unit and CA 20:1 L Micro-Series;
- 36 months for the MX-i micromotor.

In case of justified claim, Bien-Air Dental SA or its authorized representative will fulfill the company’s obligations under this guarantee by repairing or replacing the product free of charge. Any other claims, of whatever nature, in particular in the form of a claim for damages and interest, are excluded.

Bien-Air Dental SA shall not be held responsible for damage or injury and the consequences thereof, resulting from:

- excessive wear and tear
- improper use
- non-observance of the instructions for installation, operation and maintenance
- unusual chemical, electrical or electrolytic influences
- poor connections, whether of the air, water or electricity supply.

The guarantee does not cover flexible “fiber optic” type light conductors, or any parts made of synthetic materials.

The guarantee shall become null and void if the damage and its consequences are due to improper manipulation of the product, or modifications to the product carried out by persons not authorized by Bien-Air Dental SA.

Claims under the terms of the guarantee will be considered only on presentation, together with the product, of the invoice or the consignment note, on which the date of purchase, the product reference and the serial no. should be clearly indicated.
