



teethan



Quick Start Guide

# Package Contents

Teethan™ Charging Station complete with 4 wireless EMG probes



USB receiver



USB memory key with self-installing software and manual



USB power cable



USB extension cable



USB power adapter



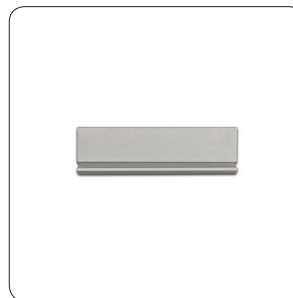
Pre-gelled electrodes



Stainless steel plate



Plate support



If parts are damaged or missing, please contact Teethan Customer Services immediately: [support@teethan.com](mailto:support@teethan.com)

# Safety Information

We advise completing any operation in compliance with the safety rules contained in the manual found on the USB memory key and on the website [www.teethan.com](http://www.teethan.com). The safety of the instrument cannot be guaranteed if these conditions are not respected.

Teethan™ is a medical device (EU Directive 93/42/EC and its amendments, including Directive 2007/47/EC) which must always be used under the supervision of skilled and authorised personnel, in accordance with the rules in force in the Country in which it is used.

The EMG probes are classified as ETSI EN 300 440 "Receiver category 3" in accordance with Directive R&TTE 99/5/EEC. Teethan™ must always be used only for this purpose, by qualified personnel, in environments appropriate for performing electromyographic analyses, and in compliance with the regulations in force in the countries in which it is used.

Teethan™ is a device owned by Teethan SpA granted on use in accordance with the conditions indicated in the rental contract. The system software is supplied on licence for use and may not be copied, distributed or transferred to third parties. In the event of a fault, malfunctioning or replacement of the internal batteries, please contact Teethan™ Customer Services. For methods of use, characteristics and operating conditions, please consult the manual.

The system contains batteries; in the case of authorised disposal, comply with the rules of law in force. In accordance with Directive 2002/96/EC(WEEE), all devices supplied after 13/08/2005 may not be disposed of with domestic waste. Teethan™ belongs to category 8 (Medical Devices) and is classified in the Business-to-Business sector. The rules for disposal may differ in individual EU countries.





## 1 Software installation

### Minimum Requirements

The software installation requires a computer with Windows 7 operating system or above, equipped with the following minimum requirements:

- Intel i5 Dual Core Processor (or equivalent AMD). RAM 4GB
- 100 Mb free disk space
- 1 free USB 2.0 port
- 1280x768 screen resolution or above
- Internet connection.

### Installation

Insert the USB memory key included in the packaging to install the Teethan™ software **1**

Select the folder "Teethan installer" and double click on the file setup.exe; the installation wizard will begin.

## 2 System preparation

### Receiver connection

Connect the receiver to a USB port on the computer. **2**

### Charging Station connection

Charge the electromyographic probes by connecting the charging station to a power supply (PC or mains) by way of the USB cable and/or external power supply. **3**

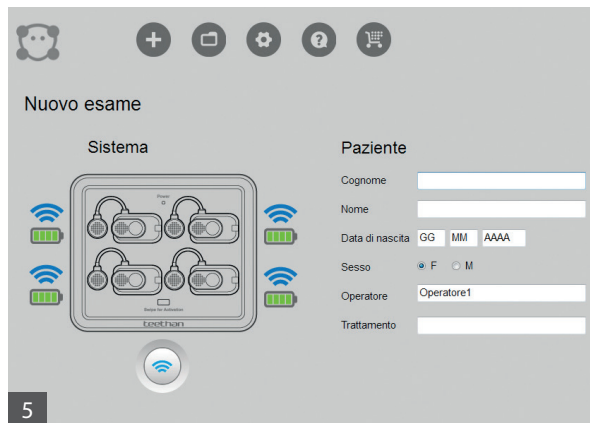
Every probe has an LED warning light: a blue light indicates that the probe is charging. When the charging is finished, the LED goes out.

### Probe activation

Remove the probes from the charging station by disconnecting the mother probe and the satellite, being careful not to pull the cable that connects them.

Activate the probes by swiping on the "Swipe for Activation" area. **4**

The rapid flashing of the LED indicates that the probe is searching for the receiver to which it can connect. Slower flashing indicates that the probe is connected.



### 3 Start-up

#### Open the programme

At first start-up, you will be asked to enter the activation code issued upon confirmation of the contract. You will also have to connect to the internet to allow for the automatic activation of the licence for use and the periodic updates.

#### System check

The initial screen of the application allows you to check the system status **5**

The level of battery charge appears alongside each probe, together with the probe/receiver connection status. The blue icon indicates that the probe is connected. If one or more probes are not connected (grey icon), press the search key to make a new connection. If the problem continues, it may be necessary to change the transmission channel frequency (consult the manual in the "Problem Solving" section)

#### Start-up

When all probes are connected, the examination can be commenced. Enter the patient's details in the appropriate fields and click OK: the calibration screen appears.

### 4 Patient preparation

#### Attaching electrodes

Apply the pre-gelled electrodes to the probe using the clip provided and remove the protective film **6**

#### Positioning of probes

Position the probes on the patient's face in line with the masseter and temporalis muscles. Each probe is dedicated to the acquisition of a specific muscle, identified on the label:

-  Right Temporalis
-  Left Temporalis
-  Right Masseter
-  Left Masseter



Attention: Errors in correspondence between the probe and the selected muscle give inaccurate results.



### Application of probes to temporalis muscles

In order to identify the anterior bundle of the temporalis, palpate the muscle by asking the patient to perform a full clench. Identify the major axis of the zygomatic process of the frontal bone and apply the probe along with anterior margin of the muscle (close to the coronal suture and keeping 2 centimetres from the zygomatic process) **7**

### Application of probes to masseter muscles

In order to identify the masseter, palpate the clenched muscle by identifying its belly. Apply the probe in a direction parallel to the course of the muscle fibres and in the central portion of the muscle (along the line joining the outside edge of the eye with the angle of the jaw) **8**

### Symmetry and Posture

Symmetry of positioning between right and left should be maintained **9**. To minimise any interferences due to the patient's posture, ensure that the chair back is upright and the patient is in a relaxed position with legs uncrossed, hands resting on the knees and looking forwards.

## 5 Performing the examination

### Calibration Test

Insert two cotton rolls between the arches on the 5th and 6th tooth (second premolars and molars) **10**

Ask the patient to clench their teeth as hard as possible **11** and click on the "Rec" button to start the calibration; the recording stops automatically after 5 seconds **12**. It is possible to perform and compare a number of calibration tests before moving onto the acquisition stage.

### Acquisition

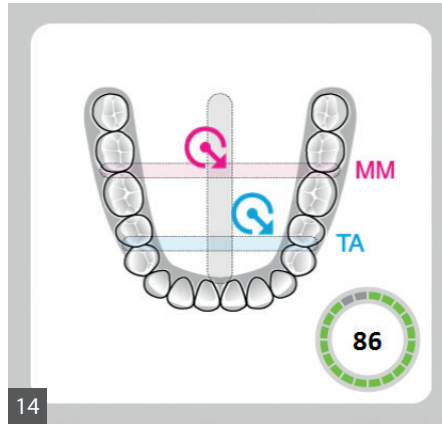
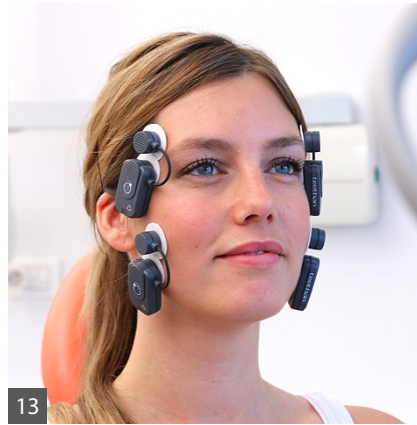
Remove the cotton rolls.

Ask the patient to clench their teeth again as hard as possible (allowing for natural dental intercuspitation) and start the acquisition **13**. It is possible to perform a number of consecutive acquisitions and then to save the selected ones.

### Saving

Save the acquisitions **14**; the files are automatically recorded in the archive with the patient's name, date of implementation and sequential acquisition number.

For the data interpretation, consult the manual.



## 6 Shutdown and stand-by

### Probe deactivation and charging

At the end of the acquisition, switch off the probes, resting them for a moment on the activation surface (the white LED stops flashing) **15** or reconnecting them directly to the charging station **16**

When the charging is finished, the system enters stand-by mode and can stay permanently connected to the power supply.

### Battery duration

Teethan™ probes use Li-Poly batteries for their operation. The batteries provide a range of about 7 hours in continuous acquisition. For better performance, the probes should be returned to the charging station at the end of every acquisition. The batteries are equipped with a protection circuit for overvoltage, undervoltage and short circuits. They may only be replaced by Teethan™ personnel.

## 7 System management

### Updates and Licence for Use

The use of Teethan™ is regulated by the signed licence for use. To keep the system updated and operating, the computer must be connected to the internet at least once a month. The software automatically connects to the Teethan™ server and verifies the licence status and the availability of any updates. If, by the tenth day of each month, Teethan™ is unable to establish a connection with the update centre, a warning will appear to remind you to activate the internet connection.

### Cleaning

For cleaning the charging station of the probes and the receiver, use a dry cloth or one dampened with a mild detergent. The devices must be kept dry. To avoid damage to the materials used, do not use alcohol, degreasers or chemical solvents. Since the parts do not enter into direct contact with the patient (thanks to the interposition of the pre-gelled electrodes), sterilisation processes are not required.



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