



OSTEOPROBE USER MANUAL



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OsteoProbe® is a registered trademark of Active Life Scientific, Inc.
Bone Score™ is a trademark of Active Life Scientific, Inc.

Patent 7,878,987
Patent 7,966,866
Patent 8,398,568
Patent 9,895,104
Patent 9,983,107
Additional Patents Pending

The device meets e-IFU requirements of e-IFU regulation 207/2012 and directive 95/46/EC for protection of personal data.




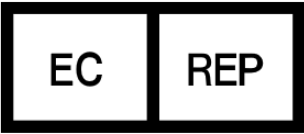





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1.0 Glossary

Symbol	Definition
	MANUFACTURER
	DATE OF MANUFACTURE
	CE LOGO
	AUTHORIZED REPRESENTATIVE IN THE EUROPEAN COMMUNITY
	CATALOG NUMBER
	SERIAL NUMBER
	REFER TO INSTRUCTION MANUAL
	TYPE B APPLIED PART
<p>Power Rating: 5V  100 mA</p>	POWER RATING (DIRECT CURRENT)

Symbol	Definition
	TEMPERATURE LIMITS
	HUMIDITY LIMITS
	ATMOSPHERIC PRESSURE LIMITS
	FRAGILE, HANDLE WITH CARE
	KEEP DRY
	DO NOT RESTERILIZE
	DO NOT USE IF PACKAGE IS DAMAGED
	DO NOT REUSE
<p>R_X ONLY</p>	CAUTION: Federal (USA) law restricts this device to sale by or on the order of a physician.

2.0 Descriptive Information

2.1 Indications for Use

OsteoProbe® is indicated to measure bone material quality on skeletally mature adults on the mid-shaft of the left or right tibia.

OsteoProbe® should be used on skeletally mature patients, male or female, to measure bone material quality on the left or right tibia when additional information about skeletal health is needed or desired by a physician. Patients with the following indications are appropriate for measurement with OsteoProbe®:

1. Patients with any disorders associated with altered skeletal structure or function including:
 - Chronic renal impairment (chronic kidney disease [CKD] stage IV or V)
 - Acromegaly
 - Type I or Type II diabetes
 - Gaucher's disease
 - Any hereditary/genetic diseases that affect the skeleton.
2. Patients undergoing treatments with any of the bone modifying drugs including:
 - Corticosteroids
 - Bisphosphonates
 - Denosumab
 - Teriparatide
 - Any therapies that affect the skeleton.

2.2 Details

The device utilizes both a reusable, non-invasive component and a single-use, transient invasive component. The Tip Assembly is the single-use, transient invasive component. The duration of a measurement, and therefore contact with the body, is typically 1-5 minutes.

OsteoProbe® is intended to provide physicians, medical professionals, and researchers with information about the mechanical characteristics and quality of a patient's bone tissue without surgery or removing any tissue from the body.

Micro-indentation has been demonstrated to be a reliable measure in both pre-clinical and clinical studies. The OsteoProbe® should be used by trained technicians, nurses or physicians with experience handling sterile needles and sharps as well as application of local anesthetic.

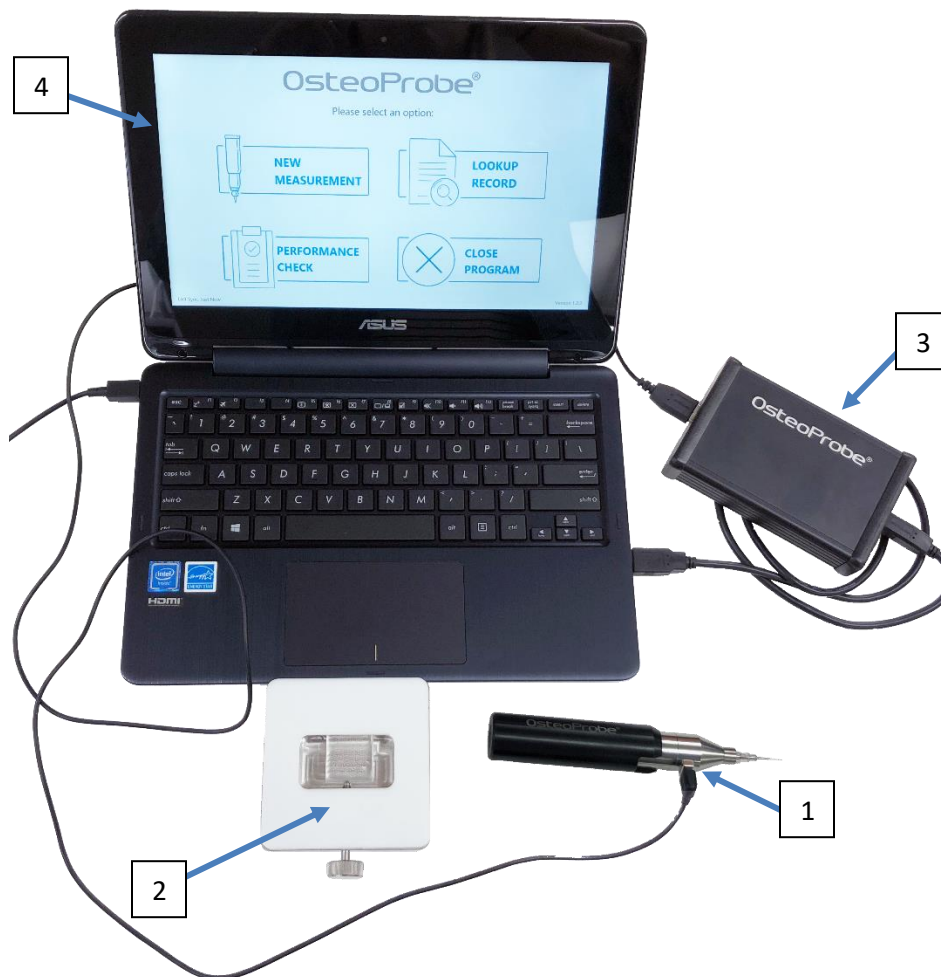
2.3 Description of the Device

Welcome to the OsteoProbe®!

OsteoProbe® is a device that measures bone quality in patients without the need for surgery or radiographic imaging.

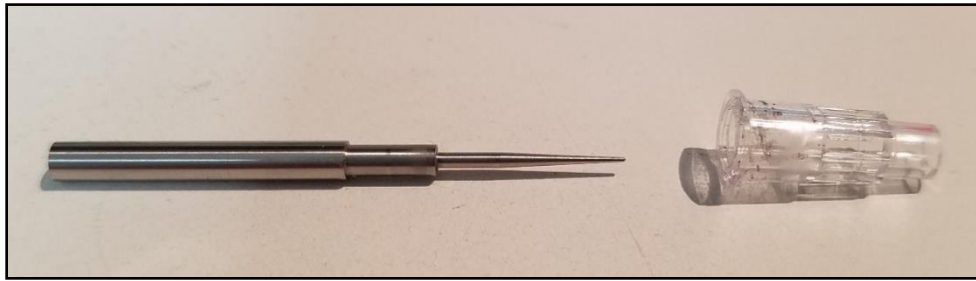
A single-use, disposable Tip is mated to the OsteoProbe® Stylus to make subcutaneous measurements on a patient's left or right tibia without the need for an incision.

The output of a test is the Bone Material Strength index (BMSi), or Bone Score™, which is a score that quantifies a patient's bone quality.



Complete OsteoProbe® system. Pictured here: (1) Stylus & Tip Assembly, (2) Holder & Reference Block, (3) E-Box, and (4) Laptop.

2.3.1 Tip Assembly (Unsterilized)



The Tip Assembly is a single-use disposable that comes with a Tip ID that must be entered into the software prior to beginning measurement on a patient. These are sharp needles and should be handled with care.

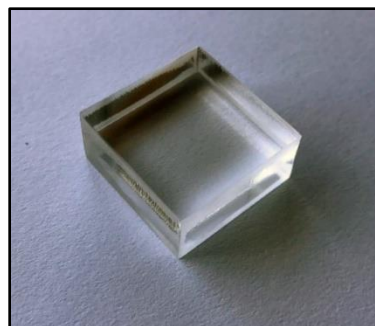
NOTE: The Tip Assemblies ship *unsterilized*. See Section 6.1: Tip Assembly Sterilization for information on sterilization of Tip Assemblies.

2.3.2 Stylus

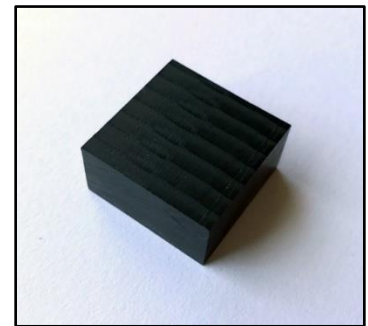


The Measurement Head Unit is the Stylus that the operator uses to make measurements. The Stylus consists of an outer Handle and an internal Body. The Tip Assembly is attached to the Stylus via a magnetic coupling. The Stylus delivers an impact to the Tip Assembly, and an internal sensor measures the indentation depth.

2.3.3 Holder & Reference Materials



Reference Block



Performance Check Block

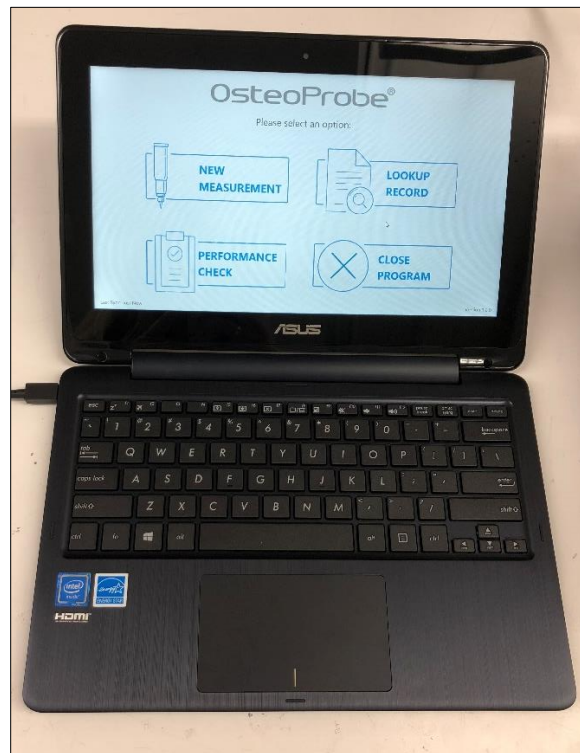
The Holder provides sufficient mass and secures Reference Materials in a stable position for making consistent measurements.

2.3.4 E-Box



The E-Box conditions and transmits the signal from the Stylus to the Laptop for further processing.

2.3.5 Laptop



The Laptop runs the OsteoProbe Software, collects and stores measurement data, and transmits measurement data back to Active Life Scientific, Inc. for quality control purposes.

2.4 Contraindications for Use

Patients with the following conditions should not be measured with the OsteoProbe®:

- Local edema ^a
- Local skin infection or cellulitis ^a
- Prior clinical or stress fracture in the tibia diaphysis ^a
- Dermatological lesions in the area of measurement ^a
- Focal tibial lesions like in primary or metastatic tumor. ^a
- Osteomyelitis of the tibia ^a
- Systemic infection or fever (unless unrelated to infection)
- Severe obesity (excessive soft tissue at the site of measure, often associated with severe obesity)
- Allergy to lidocaine or alternative local anesthetic used

^a In the event that a patient has one of these conditions, the opposite tibia may be used.

3.0 Safety Warnings & Precautions

R_X ONLY

3.1 Warnings

To avoid potential injury to the user and the patient and/or damage to the equipment, please note the following warnings:

1. OsteoProbe® has not been studied for use in diagnosis of bone fracture risk or to prescribe a therapy.
2. Failure to follow the instructions, warnings, and precautions in this manual may lead to injury or damage to the equipment.
3. Measuring an area other than the left or right tibia could lead to serious harm to the patient.
4. This equipment is only to be used by qualified personnel, who have complete knowledge of the use of the equipment.
5. To avoid the risk of electrical shock, only use the equipment with the provided Power Supply and AC Cable.
6. To avoid risk of electrical shock, equipment must be used on battery power or only be connected to a supply mains with protective earth.
7. To avoid the risk of electrical shock, do not contact the Stylus to a source of voltage other than the Stylus Cable and E-Box.
8. To avoid accidental detachment of the Stylus Cable and loss of connectivity, always hold the Stylus by the black Handle ABOVE the USB port on the Body during use.
9. To electrically isolate circuits from supply mains on all poles simultaneously, disconnect the Power Supply from the Laptop.
10. The equipment is unsterile so it is not suitable for an operating room environment. Introducing unsterile equipment into an operating room could cause cross-contamination.
11. Tip Assemblies are shipped unsterile and should be sterilized according to the procedure in Section 6.1: Tip Assembly Sterilization. Using an unsterile Tip Assembly to make a measurement could lead to serious harm to the patient.
12. Tip Assemblies are single use only and cannot be resterilized or reprocessed.
13. The Tip Assemblies are sharp and may be hazardous to the user. Use caution when handling, using, and disposing of Tip Assemblies.
14. Improper cleaning and disinfection of the Stylus, Stylus Cable, or Holder could lead to serious harm to the patient or operator.
15. No servicing, modification, or maintenance of the equipment should be conducted by end-users. Contact Active Life Scientific, Inc. if the device is not performing.

3.2 Precautions

To avoid improper use and/or damage to the equipment, please note the following precautions:

1. Carefully unpack the equipment and check for any damage that may have occurred during shipment. If damage is detected, refer to Section 10: Warranty and Return Policy.
2. Operation of equipment is recommended in the following conditions:
Temperature: 10°C – 30°C
Relative Humidity: 20% – 80%
Atmospheric Pressure: 71 kPa – 101 kPa
3. Transport and storage of equipment is recommended in the following conditions:
Temperature: -20°C – 50°C
Relative Humidity: 10% – 90%
Atmospheric Pressure: 28 kPa – 101 kPa
4. To reduce the risk of damage to the equipment, avoid actuating the Stylus without a Tip Assembly attached.
5. To reduce the risk of damage to the equipment, only use the approved cleaning, disinfection, and sterilization methods described in Section 6.0: Operating Instructions. Do not immerse the equipment in liquid.
6. Do not attempt to sterilize any part of the equipment, except the Tip Assemblies (see Section 6.1: Tip Assembly Sterilization), via any sterilization method.
7. Avoid rough handling or dropping of the equipment or any component of the equipment to prevent damage by mechanical shock.
8. All components of the equipment should be stored and transported in the provided Carrying Case.
9. To shut down the equipment, close the OsteoProbe Software and shutdown the Laptop. If the equipment is shut down during measurement, results may not be saved.

Note: The warranty is void if any of these warnings or precautions are disregarded.

3.3 Electromagnetic Compatibility

The OsteoProbe is intended to be used in a professional healthcare environment. Proper use of the OsteoProbe will result in successful patient measurements of acceptable accuracy and precision. The Essential Performance of the OsteoProbe is related to the accuracy of the measurement sensor. If the OsteoProbe is used improperly, including using it in the presence of excessive electromagnetic disturbances, the device may experience degraded performance. This could include decreased measurement accuracy and/or precision, or unexpected errors requiring the device to be reset.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

The OsteoProbe® requires special precautions regarding EMC and needs to be installed and put into service according to the EMC information provided in these accompanying documents.

⚠ WARNING: 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 OsteoProbe®, including cables specified by the manufacturer. Otherwise, degradation of the performance of this equipment could result.

⚠ WARNING: A risk of increased emissions or decreased immunity may result if any additional cables are attached.

⚠ WARNING: Use of this equipment adjacent to or stacked with other equipment should be avoided because it could result in improper operation. If such use is necessary, this equipment and the other equipment should be observed to verify that they are operating normally.


⚠ WARNING: Use of accessories, transducers and cables other than those specified or provided by the manufacturer of this equipment could result in increased electromagnetic emissions or decreased electromagnetic immunity of this equipment and result in improper operation.

Guidance and manufacturer's declaration – electromagnetic emissions		
The OsteoProbe® is intended for use in the electromagnetic environment specified below. The customer or the user of the OsteoProbe® should assure that it is used in such an environment.		
Emissions test	Compliance	Electromagnetic environment - guidance
RF emissions CISPR 11	Group 1	The OsteoProbe® uses RF energy only for its internal function. Therefore, its RF emissions are very low and are no likely to cause any interference in nearby electronic equipment.
RF emissions CISPR 11	Class A	The OsteoProbe® 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. Warning: this system is intended for use by healthcare professionals only.
Harmonic emissions IEC 61000-3-2	Class A	
Voltage Fluctuations IEC 61000-3-3	Complies	

Guidance and manufacturer's declaration – electromagnetic immunity			
The OsteoProbe® is intended for use in the electromagnetic environment specified below. The customer or the user of the OsteoProbe® should assure that it is used in such an environment.			
Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment - guidance
Electrostatic discharge (ESD) IEC 61000-4-2	±8kV contact ± 15kV air	+8kV contact + 15kV air	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%.
Electrical fast transient/burst IEC 61000-4-4	±2kV for power supply lines	±2kV for power supply lines	Mains power quality should be that of a typical commercial or hospital environment
Surge IEC 61000-4-5	±1kV line(s) to line ±2kV line(s) to earth	+1kV line(s) to line +2kV line(s) 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 ; 0,5 cycle At 0°, 45°, 90°, 135°, 180°, 225°, 270° and 315° 0 % U_T ; 1 cycle and 70 % U_T ; 25/30 cycles h) Single phase: at 0° 0 % U_T ; 250/300 cycle	0 % U_T ; 0,5 cycle At 0°, 45°, 90°, 135°, 180°, 225°, 270° and 315° 0 % U_T ; 1 cycle and 70 % U_T ; 25/30 cycles h) Single phase: at 0° 0 % U_T ; 250/300 cycle	Mains power quality should be that of a typical commercial or hospital environment. If the user of the OsteoProbe® requires continued operation during power mains interruptions, it is recommended that the OsteoProbe® be powered from an uninterruptible power supply or a battery.
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	30 A/m	30 A/m	Power frequency magnetic fields should be a levels characteristic of a typical location in a typical commercial or hospital environment.
NOTE: U_T is the A.C. mains voltage prior to application of the test level.			

Guidance and manufacturer's declaration – electromagnetic immunity

The OsteoProbe® is intended for use in the electromagnetic environment specified below. The customer or the user of the OsteoProbe® should assure that it is used in such an environment.

Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment - guidance
Conducted RF IEC 61000-4-6	3 Vrms 0,15 MHz – 80 MHz 6 Vrms in ISM and amateur radio bands between 0,15 MHz and 80 MHz 80 % AM at 1 kHz	3 Vrms 0,15 MHz – 80 MHz 6 Vrms in ISM and amateur radio bands between 0,15 MHz and 80 MHz 80 % AM at 1 kHz	Portable and mobile RF communications equipment should be used no closer to any part of the OsteoProbe®, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter.
Radiated RF IEC 61000-4-3	3 V/m 80 MHz to 2.7 GHz	3 V/m 80 MHz to 2.7 GHz	Recommended separation distance $d = [3.5/3] \sqrt{P}$ 80 MHz to 800 MHz $d = [7/3] \sqrt{P}$ 800 MHz to 2.7 GHz where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and d is the recommended separation distance in meters (m). 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: 


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

NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

- 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 OsteoProbe® is used exceeds the applicable RF compliance level above, the OsteoProbe® should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as re-orienting or relocating the OsteoProbe®.

Guidance and manufacturer's declaration – electromagnetic immunity

The OsteoProbe® is intended for use in the electromagnetic environment specified below. The customer or the user of the OsteoProbe® should assure that it is used in such an environment.

Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment - guidance
IMMUNITY to proximity fields from RF wireless communications equipment	MHz – Modulation – Field Strength 385 - 18 Hz - 27 V/m 450 - 18 Hz - 28 V/m 710 - 217 Hz - 9 V/m 745 - 217 Hz - 9 V/m 780 - 217 Hz - 9 V/m 810 - 18 Hz - 28 V/m 870 - 18 Hz - 28 V/m 930 - 18 Hz - 28 V/m 1720 - 217 Hz - 28 V/m 1845 - 217 Hz - 28 V/m 1970 - 217 Hz - 28 V/m 2450 - 217 Hz - 28 V/m 5240 - 217 Hz - 9 V/m 5500 - 217 Hz - 9 V/m 5785 - 217 Hz - 9 V/m	MHz – Modulation – Field Strength 385 - 18 Hz - 27 V/m 450 - 18 Hz - 28 V/m 710 - 217 Hz - 9 V/m 745 - 217 Hz - 9 V/m 780 - 217 Hz - 9 V/m 810 - 18 Hz - 28 V/m 870 - 18 Hz - 28 V/m 930 - 18 Hz - 28 V/m 1720 - 217 Hz - 28 V/m 1845 - 217 Hz - 28 V/m 1970 - 217 Hz - 28 V/m 2450 - 217 Hz - 28 V/m 5240 - 217 Hz - 9 V/m 5500 - 217 Hz - 9 V/m 5785 - 217 Hz - 9 V/m	Portable and mobile RF communications equipment should be used no closer to any part of the OsteoProbe®, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter. Recommended separation distance $E = [6/d] \text{ VP}$ $d = [6/E] \text{ VP}$ where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer, d is the recommended separation distance in meters (m), and E is the field strength in V/m. 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: 

NOTE: These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

Recommended separation distances between portable and mobile RF communications equipment as well as RF wireless communications equipment the OsteoProbe®

The OsteoProbe® is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the OsteoProbe® can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the OsteoProbe® as recommended below, according to the maximum output power of the communications equipment.

Rated maximum output power of transmitter (W)	Separation distance according to frequency of transmitter (m)			
	80 to 800 MHz $d = [3.5/3] \sqrt{P}$	800 MHz to 2.7 GHz $d = [7/3] \sqrt{P}$	710, 745, 780, 5240, 5500, 5785 $d = [6/9] \sqrt{P}$	385, 450, 810, 870, 930, 1720, 1845, 1970, 2450 $d = [6/28] \sqrt{P}$
0.01	0.117	0.233	0.067	0.021
0.1	0.369	0.738	0.211	0.070
1	1.170	2.333	0.667	0.214
10	3.689	7.379	2.108	0.700
100	11.667	23.333	6.670	2.143

For transmitters rated at a maximum output power not listed above, the recommended separation distance d in meters (m) can be estimated using the equation applicable to the frequency of the transmitter, where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.

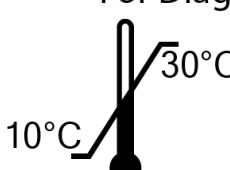
NOTE 1 At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies.

NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

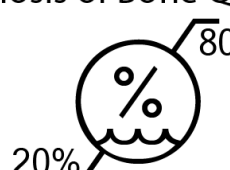
3.4 Safety Labels

OsteoProbe® **R_X ONLY**

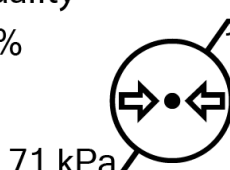
For Diagnosis of Bone Quality




10°C — 30°C




20% — 80%




71 kPa — 101 kPa




2797



REFER TO INSTRUCTION MANUAL





Active Life Scientific, Inc. 1027 Garden Street
 PHN: +1.805.770.2600 Santa Barbara, CA 93101 USA

OPG-033 Rev A

[On exterior of Carrying Case]

Active Life Scientific, Inc. For Diagnosis of Bone Quality
 1027 Garden Street
 Santa Barbara, CA 93101 USA
 PHN: +1.805.770.2600

EC **REP** EMERGO EUROPE
 Prinsessegracht 20
 2514 AP The Hague
 The Netherlands

REF OP-100 **R_X ONLY** REFER TO INSTRUCTION MANUAL

Power Rating: 5V \equiv 100 mA

CE
2797
OPG-034 Rev A

[On exterior of E-Box]



[On exterior of E-Box]



[On exterior of E-Box]

Tip Assembly

[On each individual Tip Assembly Tube]

REF

OPD-900

CE 2797



R_X ONLY

LOT

20 UNITS

Patent 9,983,107

REF

REFERENCE NUMBER



FOR SINGLE USE ONLY

LOT

LOT NUMBER



REFER TO INSTRUCTION MANUAL



DO NOT RESTERILIZE



DO NOT USE IF PACKAGE IS DAMAGED



NON-STERILE



PRESCRIPTION DEVICE

Active Life Scientific, Inc.
Santa Barbara, CA, USA
(805)770-2600

[On each pack of Tip Assemblies]

OsteoProbe Tip Assembly Sterilization Instructions



Manufacturer: Active Life Scientific, Inc.

Method: Steam Sterilization (Autoclave)

Device(s): OPD-900 OsteoProbe Tip Assembly

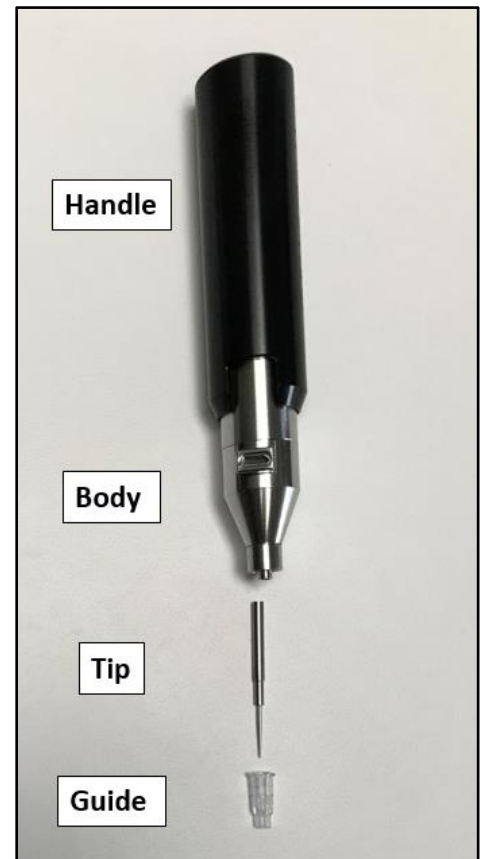
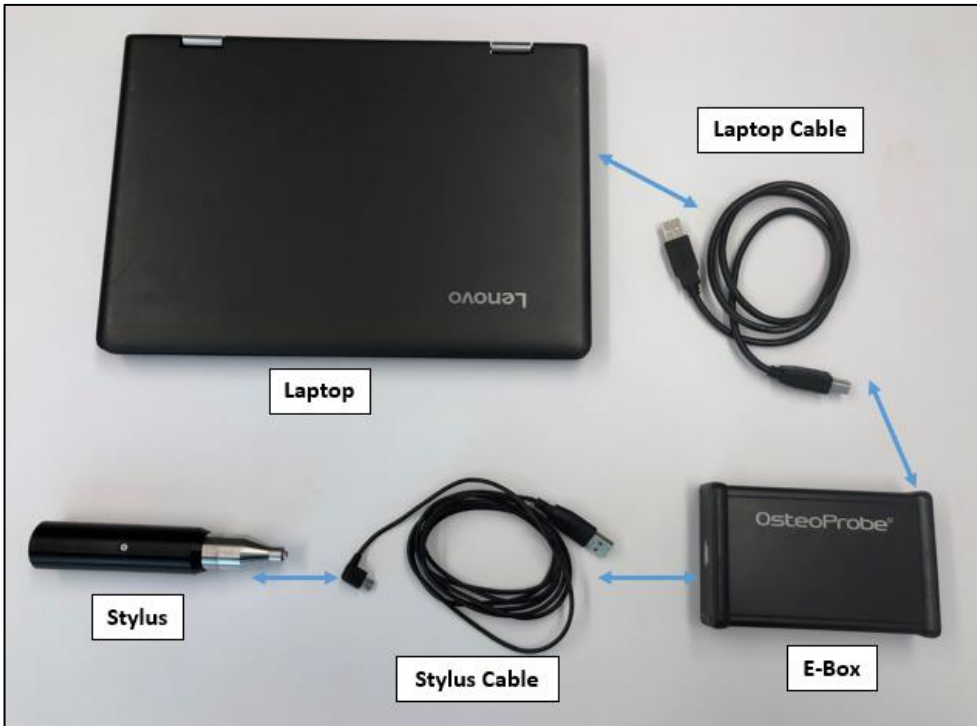
WARNING: The instructions provided on the reverse have been validated by Active Life Scientific, Inc. as being CAPABLE of preparing the device for use. It remains the responsibility of the processor to ensure that the processing as actually performed using equipment, materials, and personnel in the processing facility achieves the desired result. This normally requires validation and routine monitoring of the process.

WARNINGS	The Tip Assembly is sharp and may be hazardous to the user. Use caution when handling, using, and disposing of Tip Assemblies.
Limitations on reprocessing	Tip Assemblies are single use only and cannot be reesterilized or reprocessed.
INSTRUCTIONS	
Point of use:	N/A – Tip Assemblies are to be disposed after one use
Preparation for decontamination:	N/A – Tip Assemblies are to be disposed after one use
Cleaning: Automated	N/A – Tip Assemblies are to be disposed after one use
Cleaning: Manual	N/A – Tip Assemblies are to be disposed after one use
Disinfection:	N/A – Tip Assemblies are to be disposed after one use
Drying:	N/A – Tip Assemblies are to be disposed after one use
Maintenance, Inspection and Testing:	N/A – Tip Assemblies are to be disposed after one use
Packaging:	<ol style="list-style-type: none"> 1. Uncap the Tube and remove the Tip Assembly. 2. Remove the Foam Cover and disassemble the Guide and the Tip. 3. Carefully insert the Tip and Guide into a 3" x 8" FDA-cleared sterilization pouch suitable for steam sterilization.
Sterilization:	<ol style="list-style-type: none"> 1. When sterilizing more than one pouch at a time, make sure the plastic side of pouch always faces the paper side of adjacent pouch. 2. Up to 25 pouches can be placed into the same sterilization basket and up to 2 sterilization baskets can be used for a single sterilization cycle. 3. Gravity Steam Sterilization Cycle - 60 minutes at 121° C, 30 minutes drying time. Do not exceed 130° C.
Storage:	Store in a dry place.
Additional Information:	No particular requirements.
Manufacturer contact:	1027 Garden Street Santa Barbara CA 93101 USA +1.805.770.2600

[Included inside each pack of Tip Assemblies]

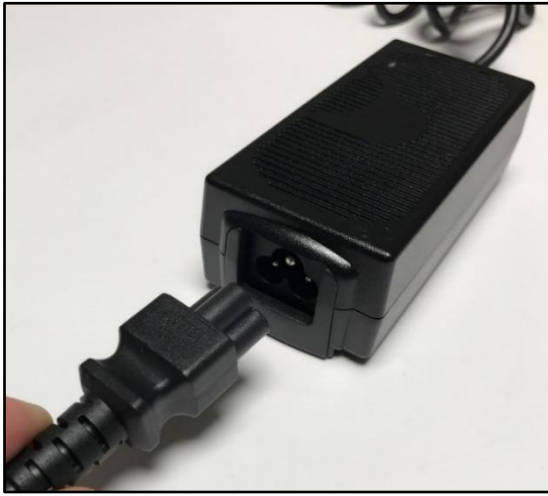
4.0 System Setup

Getting started with the OsteoProbe is straight-forward. This section will go through the setup of the device to get ready to make measurements.



4.1 Connecting the System

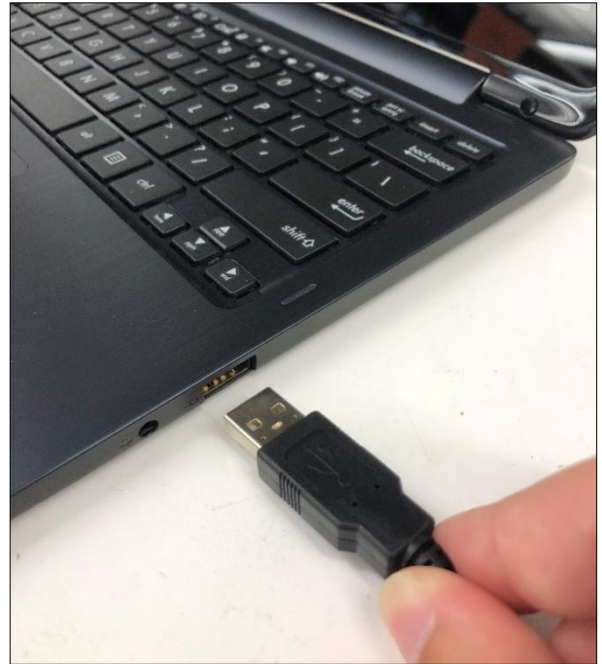
1. Use the AC Cable to connect the Power Supply to an appropriate power outlet.



2. Plug the connector of the Power Supply into the Laptop. An LED will light up along the edge of the Laptop to indicate that the Laptop is charging.



3. Plug the USB-B connector of the Laptop Cable into the E-Box and plug the USB-A connector into the Laptop. An auditory tone will indicate when the E-Box is initially connected to the Laptop properly.



4. Plug the USB-A connector of the Stylus Cable into the E-Box and plug the Micro-B connector into the Stylus.



4.2 Securing a Reference Block

1. Wipe down the pocket of the Holder to ensure that the pocket is free of debris that could prevent the Reference Block from sitting completely flat.



2. Lightly push down on the Reference Block while tightening down the Holder Screw to help ensure that the block sits completely flat in the Holder. Note that the Holder Screw does not need to be tightened down excessively to properly secure the Reference Block in place.



3. Select a flat, stable surface to place the Holder on. If needed, wipe down the bottom of the Holder and the surface to ensure that the Holder sits in a flat and stable position on the surface.



4.3 Handling Tip Assemblies

1. Tip Assemblies are extremely sharp and can blunt easily. Tips can get blunted by getting dropped or by touching the metal of the Holder.

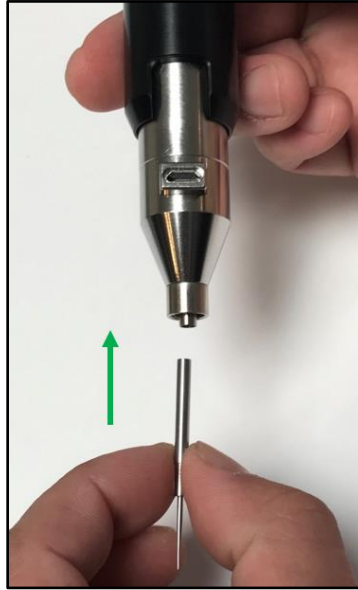


2. Take care to avoid touching the Tip to anything except Samples, Performance Check Blocks, and Reference Blocks.



4.4 Loading Tip Assemblies

1. First, get a feel for the magnetic coupling of the Tip to the inside of the Body - take just the Tip, and insert it into the opening at the bottom of the Body. An audible click will sound when the Tip engages the magnetic coupling within the Body.



2. Now, pull the Test Probe out of the Body to get a feel for the pull strength of the magnetic coupling.



3. Attaching a Guide to the Body is similar to attaching a hypodermic needle to a syringe. To get a feel for attaching a Guide, take just the Guide, and attach it to the Body by gently pressing the Guide onto the bottom of the Body and rotating clockwise to engage the locking threads. Thread the Guide on until it does not come out or wiggle when gently pulled. Note how the Guide does not need to be tightened down with force to properly secure it to the Body.



4. To load a Tip Assembly onto the Stylus:

- i. Hold the Stylus in a vertical position while loading a Tip Assembly to help prevent the Guide from catching on the Tip.



- ii. Hold the Tip Assembly by the Guide and carefully begin bringing the Tip into the opening at the bottom of the Body.



- iii. As the Guide begins to engage the bottom of the Body, rotate the Guide to thread it onto the bottom of the Body.



- iv. Tighten down the Guide until it is secured to the bottom of the Body. The Guide should not wiggle or feel loose when properly loaded onto the bottom of the Body.

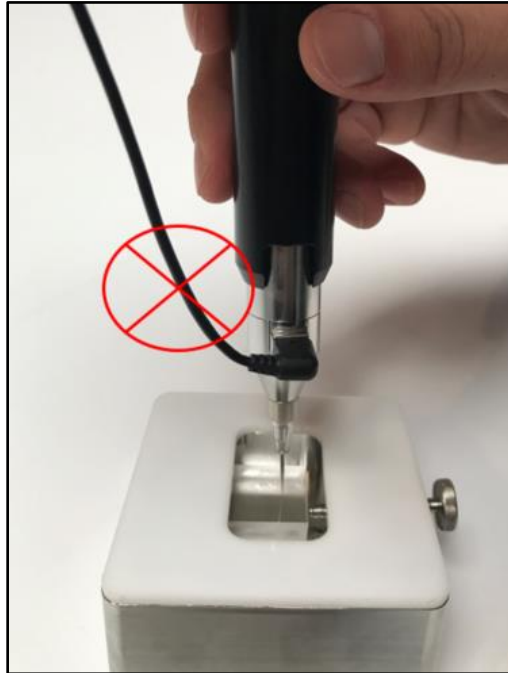


4.5 Handling the Stylus Cable

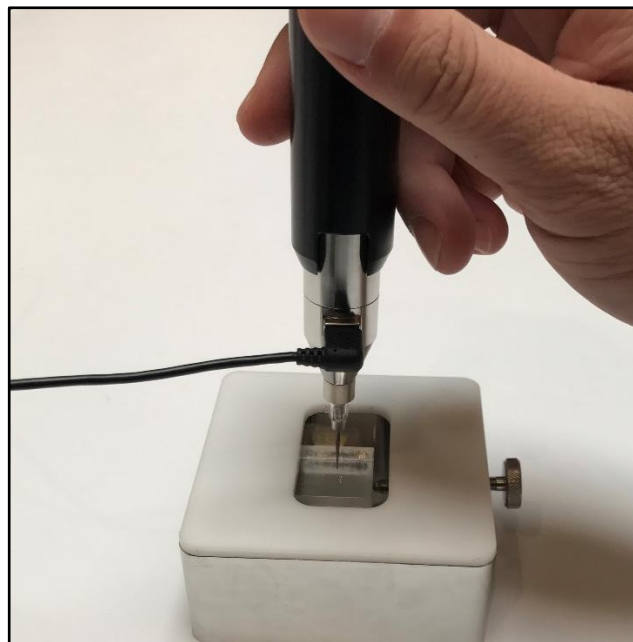
1. Treat the Stylus Cable with care, as it can get damaged by coiling it up too tightly or by getting pinched. Always store the Stylus Cable in the cutout in the foam of the Carrying Case.



2. During an actuation, tension on the Stylus Cable can lead to inaccurate results.



3. Place the E-Box in a secure position to ensure that the Stylus Cable is slack during actuations.



4.6 Measurement Technique

1. Holding the Stylus

Hold the Stylus by the Handle with one hand in as comfortable and natural a position as possible. It is important to hold the Stylus in a manner so as to avoid touching any part of the Body during actuation, while taking into account that the hand position relative to the Body changes during the compression of an actuation.

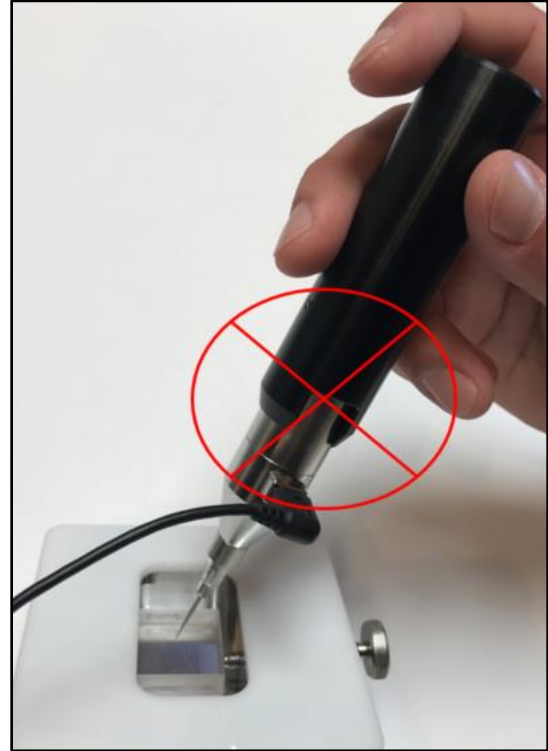
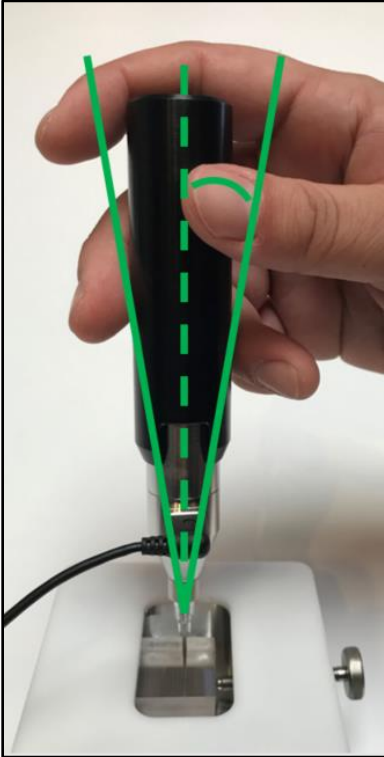


Contacting any part of the Stylus **EXCEPT** the Handle during actuation can lead to inaccurate results.



2. Actuating the Stylus

Keep the Stylus perpendicular to the surface of the material being measured during actuation. Actuating the Stylus at angles greater than 10° can lead to inaccurate results.

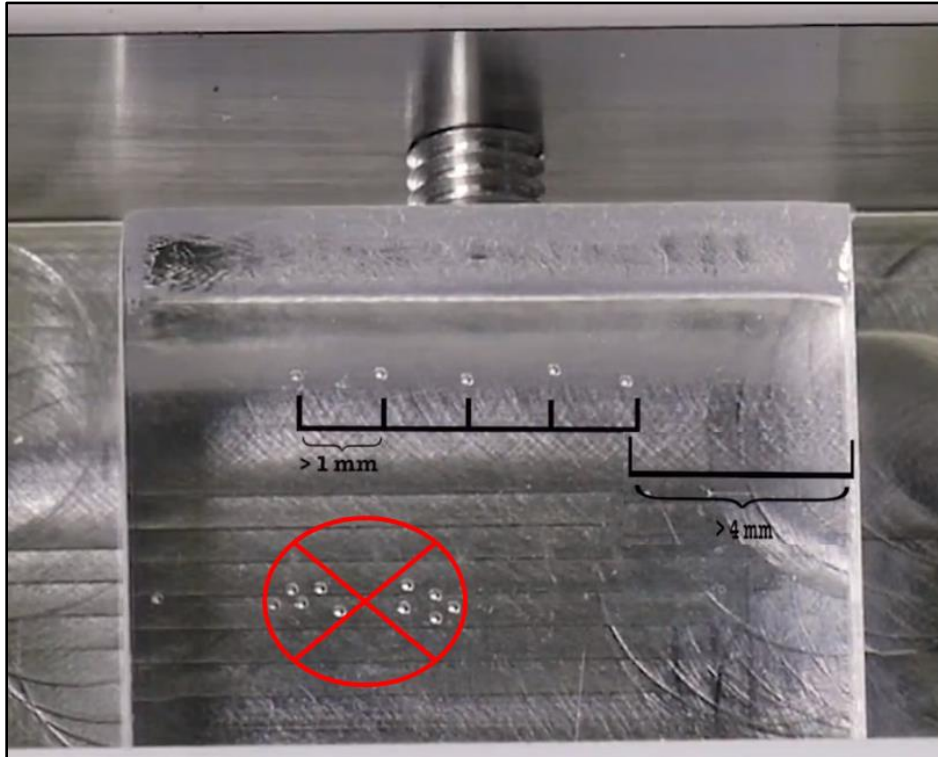


Slowly compress the Handle until the Stylus actuates. The time from starting the compression to the actuation should be $1\frac{1}{2}$ to 3 seconds. Actuating the Stylus faster than $1\frac{1}{2}$ seconds can lead to inaccurate results.



3. Indentation Sites

Indent in a new location on the Reference Block for every indentation. Ensure that each indentation site is at least 1 mm away from other indentation sites and at least 4 mm away from any edge of the Reference Block.



IN BETWEEN ACTUATIONS, the opposite hand can be used to hold the Guide to help move to a new location in a controlled manner. Remember that nothing should be touching the Body, the Guide, or the Tip during an actuation.



4.7 Software Overview

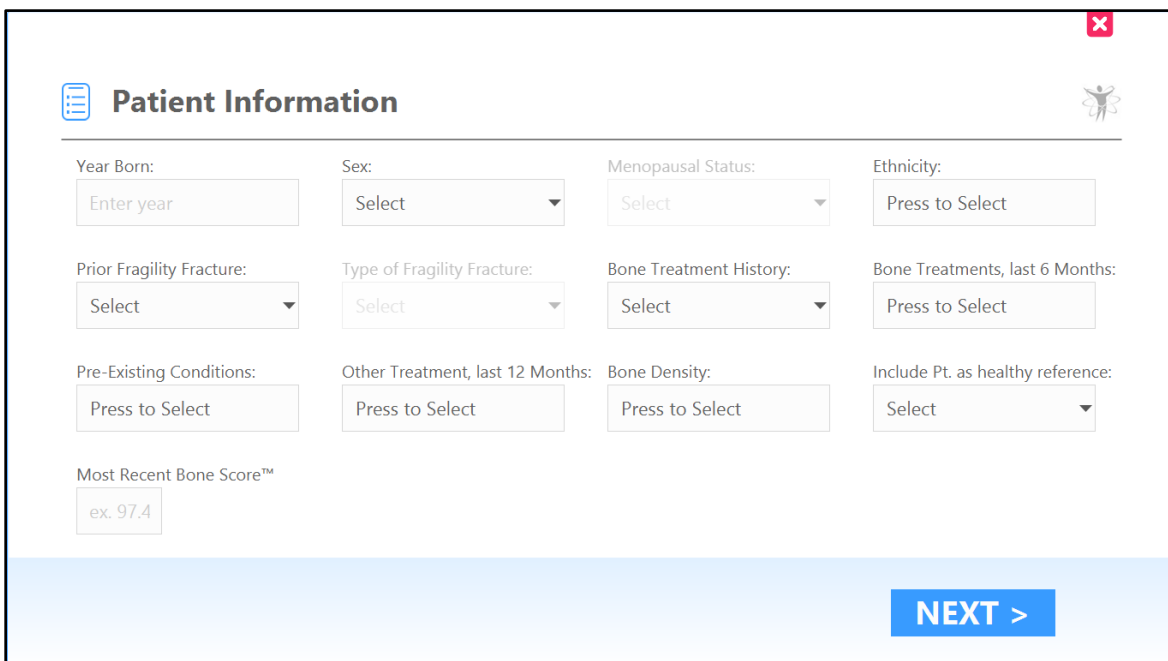
1. Main Menu Screen

Select “NEW MEASUREMENT” on the Main Menu Screen to begin a new measurement.



2. Patient Information Screen

Fill out the patient information fields, then select “NEXT” to proceed to the Tip ID prompt.



3. Tip ID Prompt

Enter in the Tip ID of the Tip Assembly to be used, then select “NEXT” to proceed to the Patient Indentations Screen and begin performing indentations.

Enter Tip ID

Enter Tip ID

CancelNEXT >

Red text will indicate if the Tip ID is not valid or has already been used.

Enter Tip ID

00000!

Tip ID is not valid

CancelNEXT >

Enter Tip ID

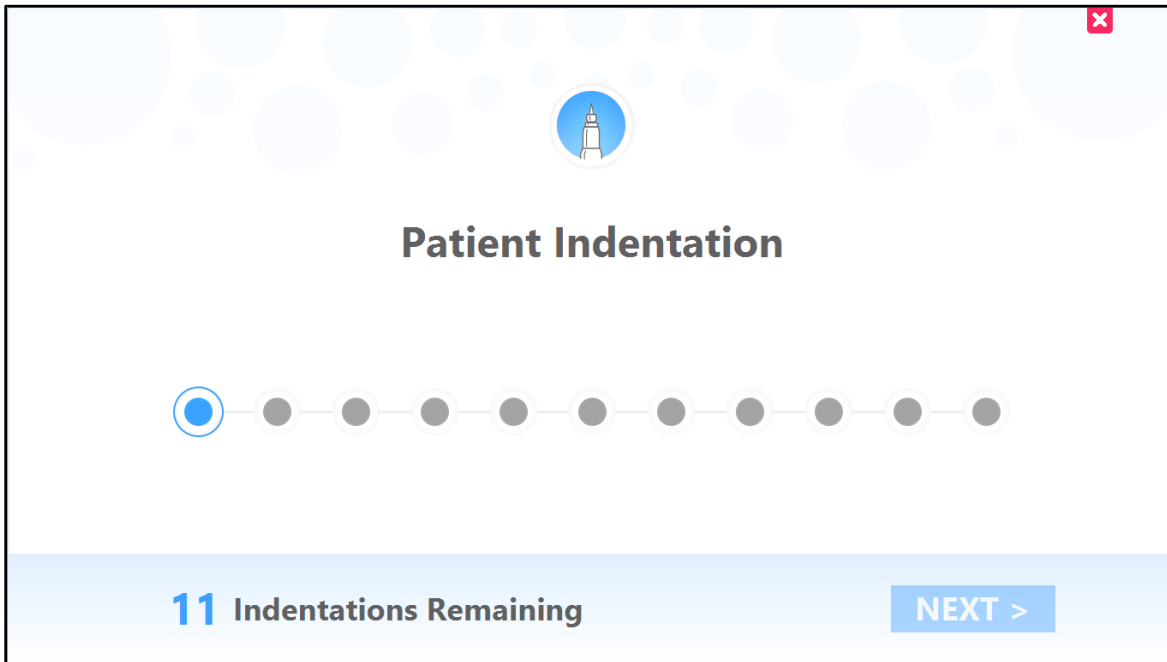
000MF!

Tip ID has already been used

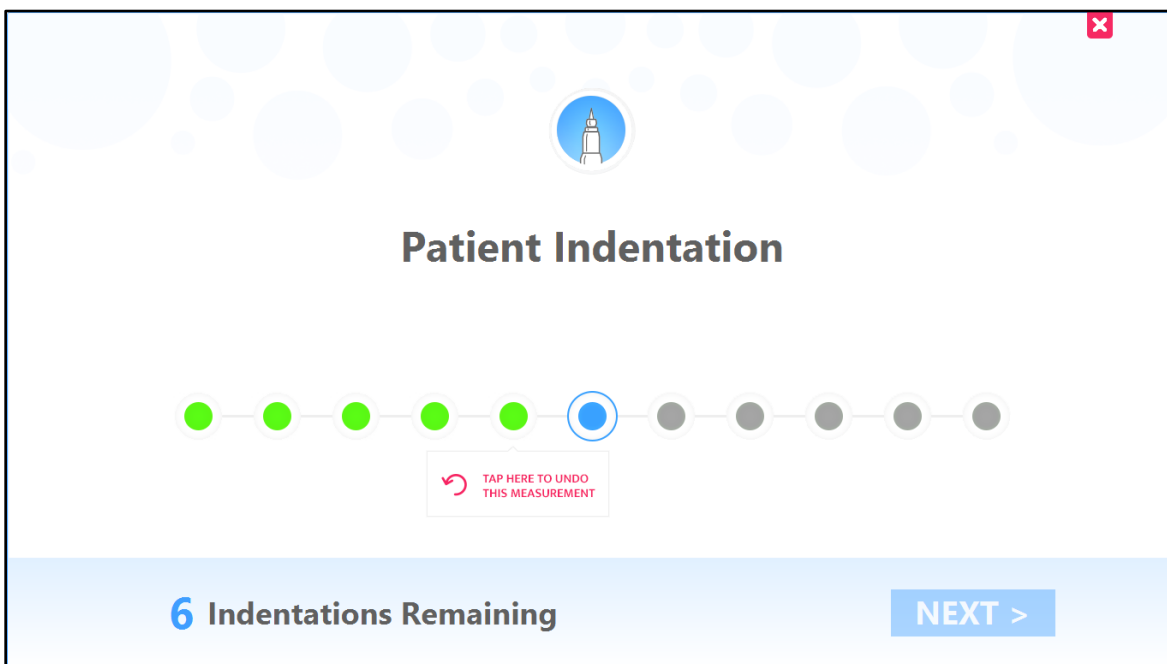
CancelNEXT >

4. Patient Indentation Screen

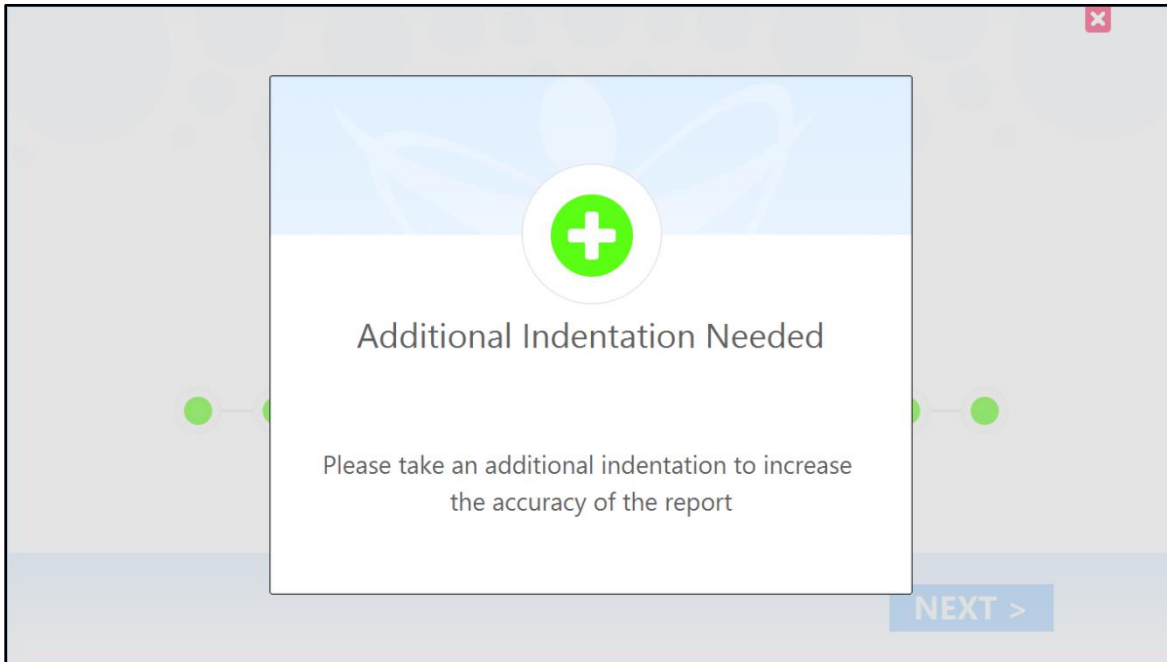
The indentation count will be displayed on the screen as indentations are performed.



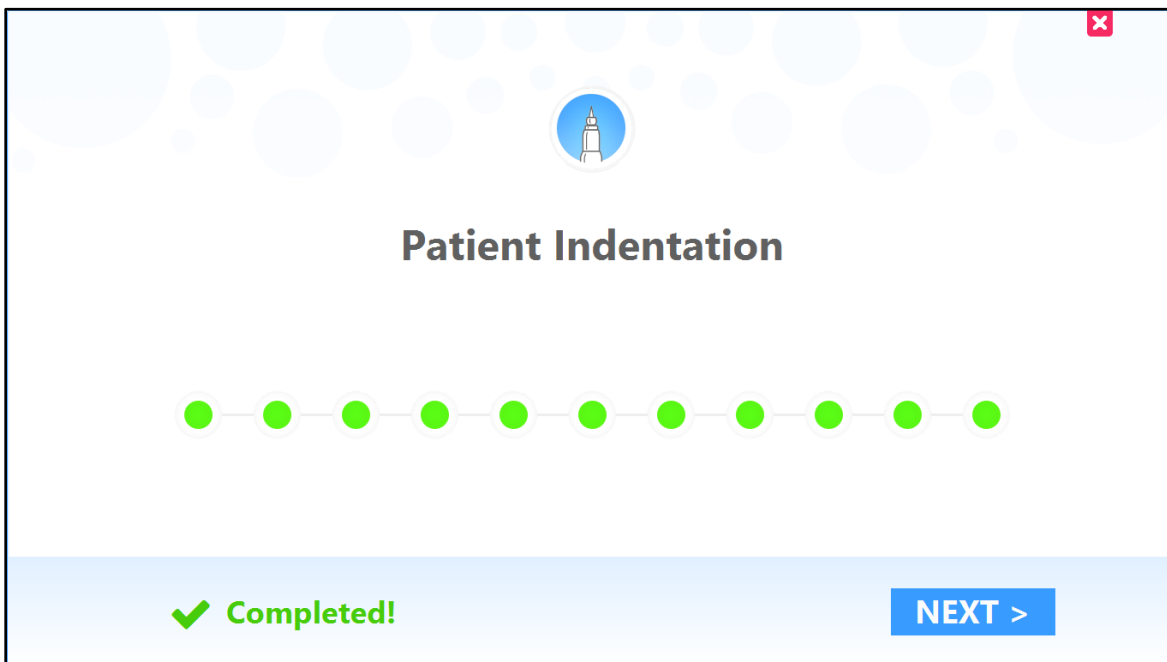
If necessary, select "TAP HERE TO UNDO THIS MEASUREMENT" to remove the last indentation performed.



If necessary, perform additional indentations as indicated by the Software prompt.

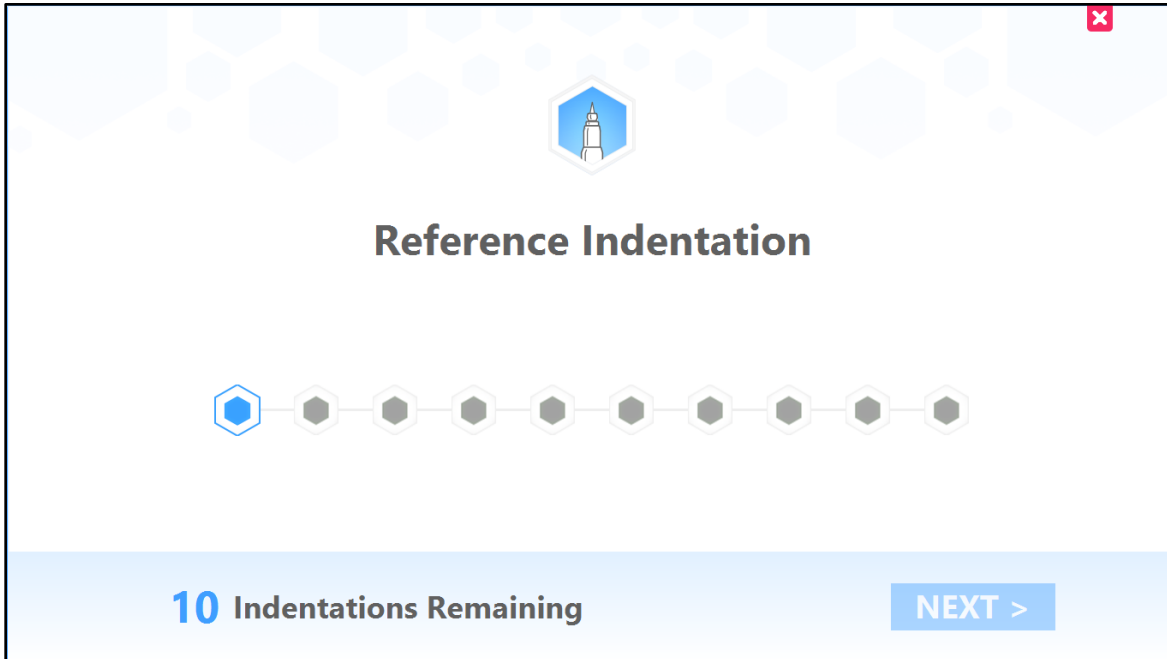


After the patient indentations are completed, select "NEXT" to proceed to the Reference Indentation Screen.

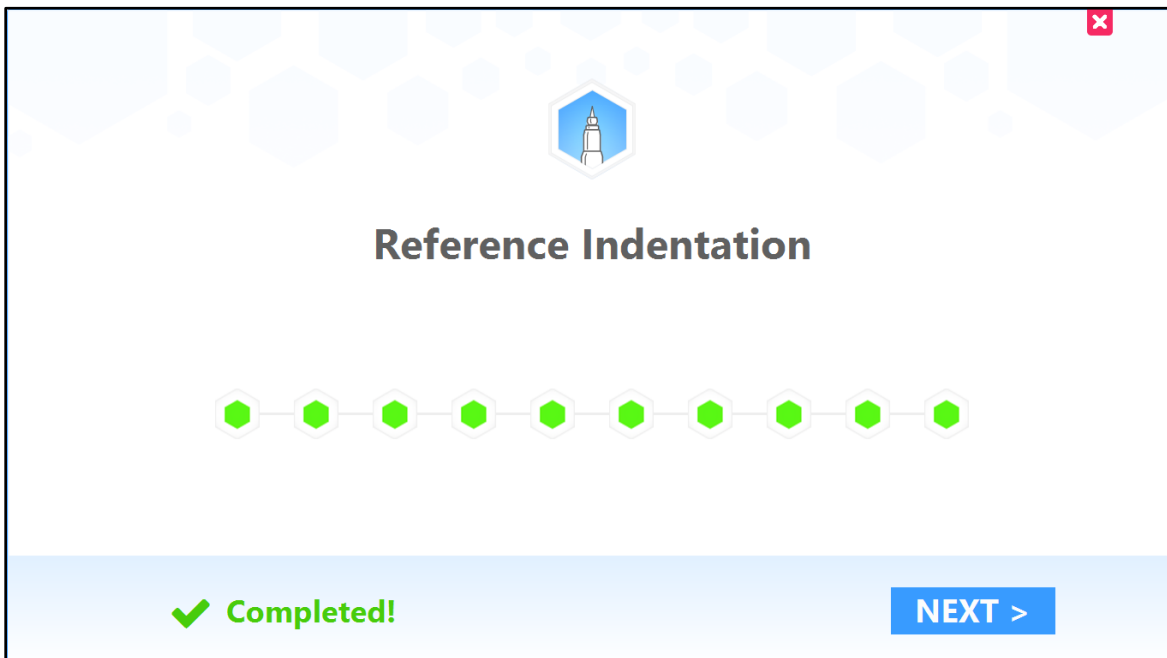


5. Reference Indentation Screen

Similar to the Patient Indentation Screen, the indentation count will be displayed on the screen as indentations are performed.



After the reference indentations are completed, select "NEXT" to proceed to the Report Screen.



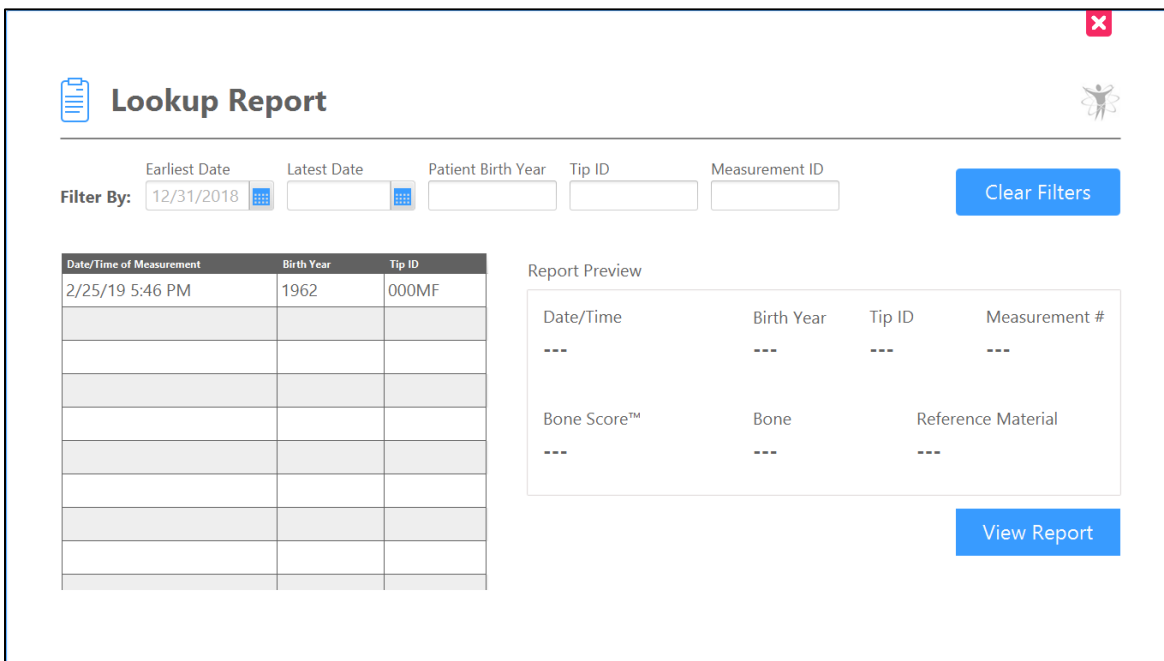
6. Measurement Report Screen

The Measurement Report Screen will display the results of the Bone Score™ procedure. This Report can be accessed at a later point through the “LOOKUP RECORD” button on the Main Menu of the Software.



7. Lookup Report

Bone Score™ Reports can be accessed at any time by selecting “LOOKUP RECORD” in the Main Menu of the Software.



Lookup Report

Filter By: **Clear Filters**

Date/Time of Measurement	Birth Year	Tip ID
2/25/19 5:46 PM	1962	000MF

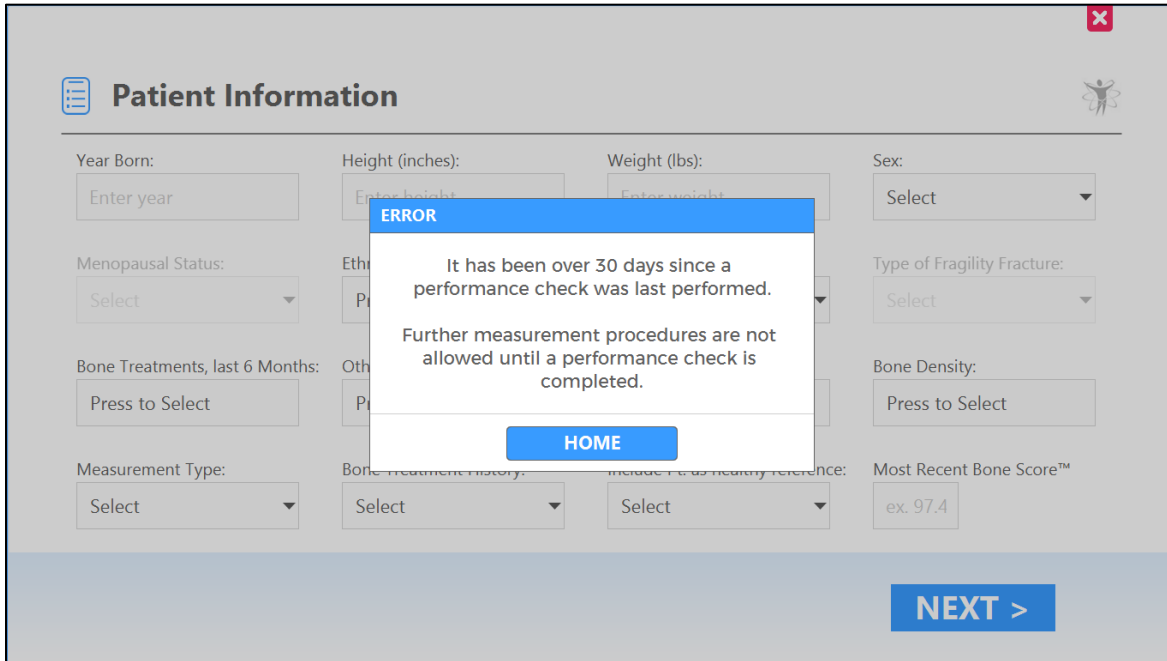
Report Preview

Date/Time	Birth Year	Tip ID	Measurement #
---	---	---	---
Bone Score™	Bone	Reference Material	
---	---	---	

View Report

8. Software Indicators

The software will indicate when a Performance Check is required and will not allow new measurements to be made until a Performance Check is completed.



Patient Information

Year Born: Height (inches): Weight (lbs): Sex:

Menopausal Status: Ethnicity: Type of Fragility Fracture:

Bone Treatments, last 6 Months: Other: Bone Density:

Measurement Type: Bone Treatment History: Include T-ads healthy reference: Most Recent Bone Score™:

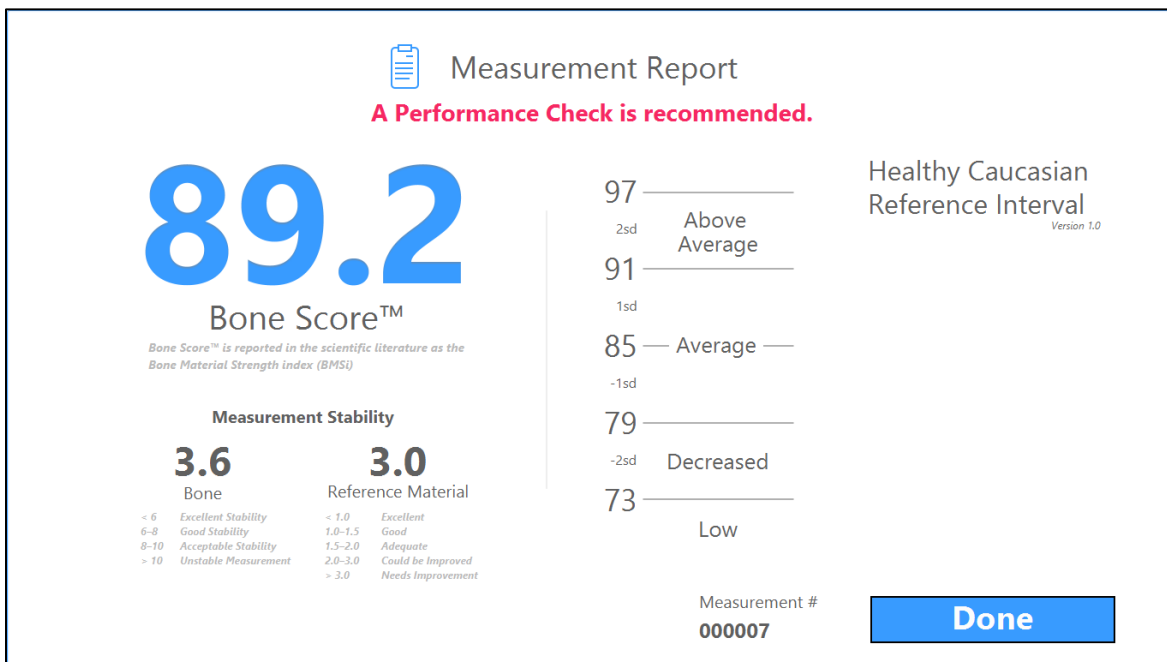
ERROR

It has been over 30 days since a performance check was last performed. Further measurement procedures are not allowed until a performance check is completed.

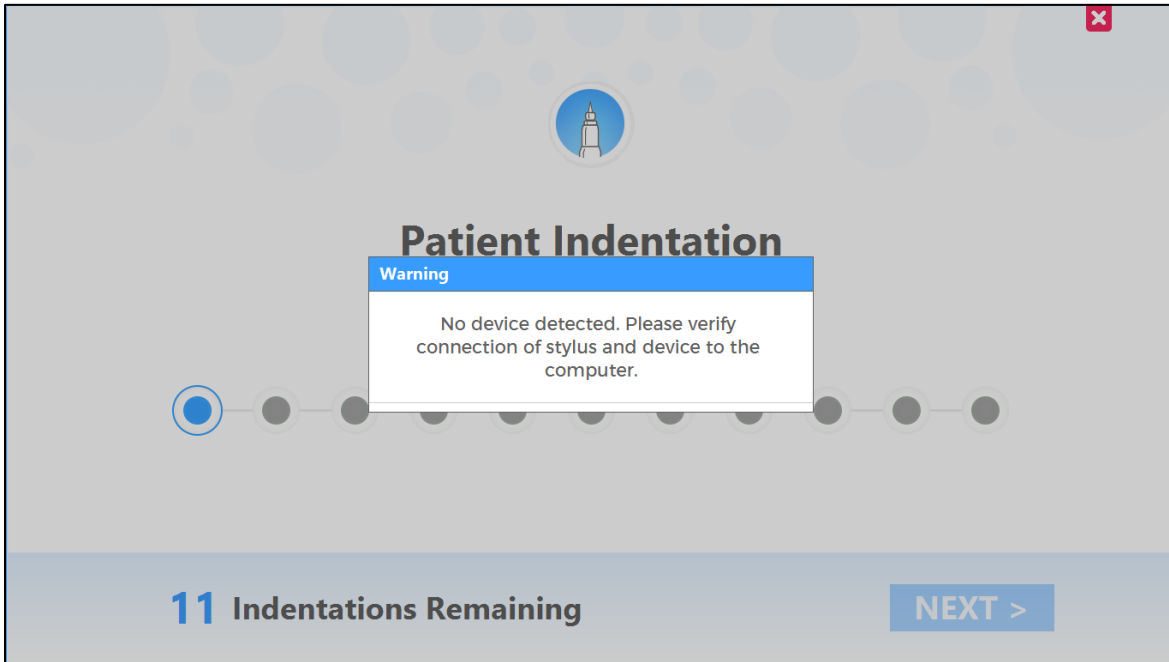
[HOME](#)

[NEXT >](#)

The software also monitors the device performance and may suggest a Performance Check if it detects a potential issue.



If the E-Box is disconnected from the Laptop at any time, the software will indicate that there is no device detected. An auditory tone will also sound indicating the disconnection.



5.0 Performance Check

A successful Performance Check and software sync via the internet is required at least once every 30 days to determine whether the device is functioning properly and to allow new measurements to be made.

1. Secure a Performance Check Block in the Holder.



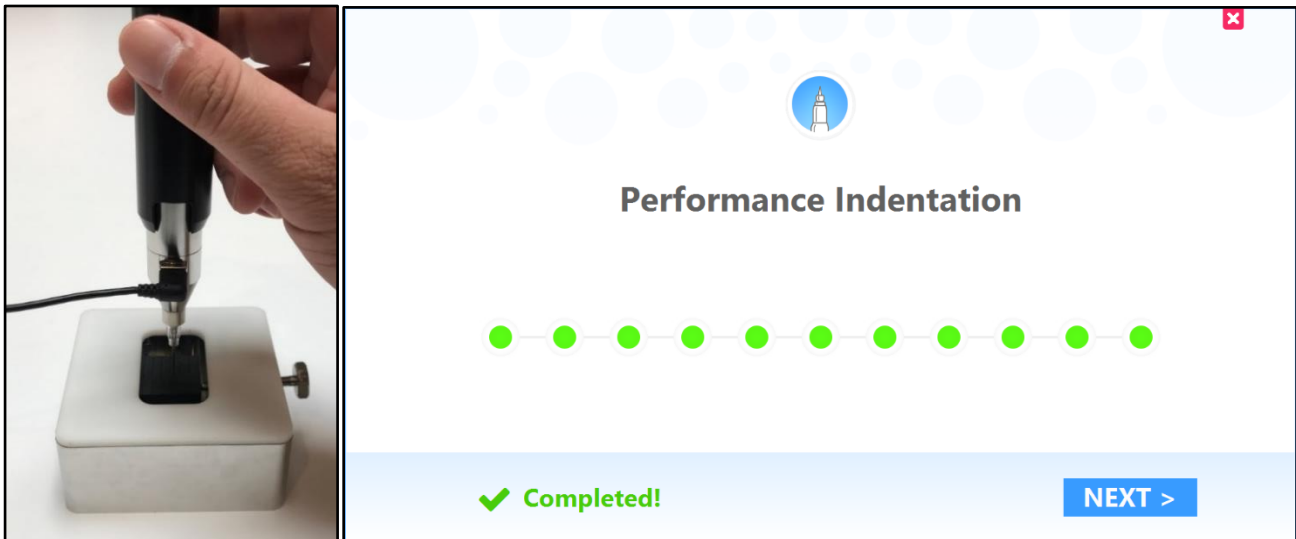
2. Load a Tip Assembly onto the Stylus.



3. Select "PERFORMANCE CHECK" on the Main Menu of the OsteoProbe Software to enter the Performance Check Mode.



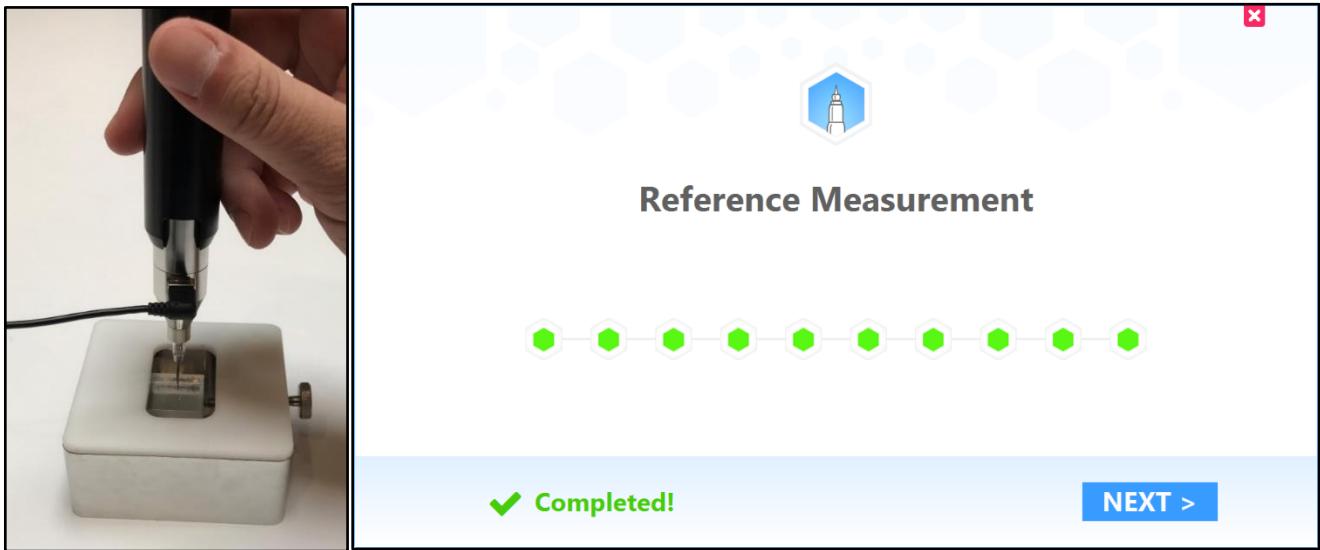
4. Perform 11 indentations on the Performance Check Block.



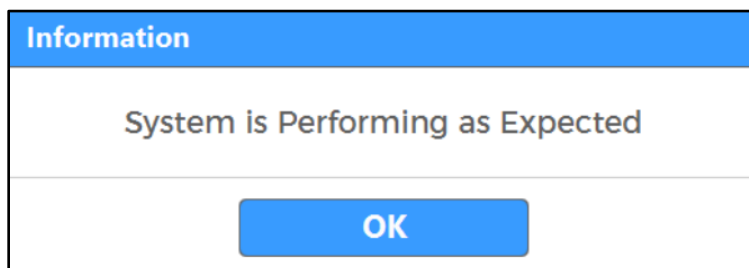
5. Remove the Performance Check Block and secure a Reference Block in the Holder.



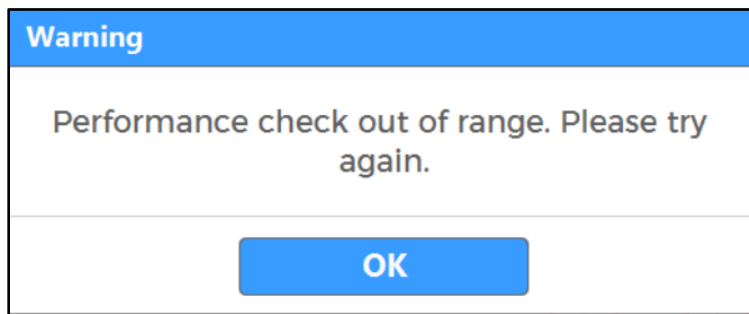
6. Perform 10 indentations on the Reference Block.



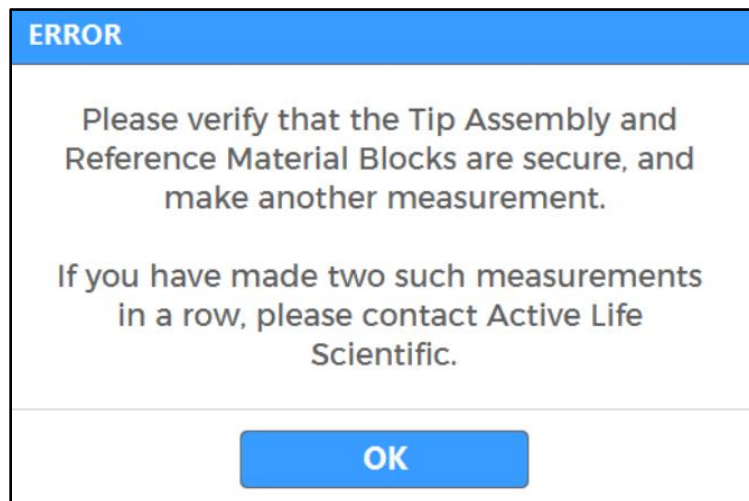
7. The software will automatically determine whether the device is functioning properly.



8. If the Performance Check indicates that the device is not functioning properly, perform another Performance Check.



9. If the second Performance Check also indicates that the device is not functioning properly, contact Active Life Scientific, Inc.



6.0 Operating Instructions

6.1 Tip Assembly Sterilization



Manufacturer: Active Life Scientific, Inc.

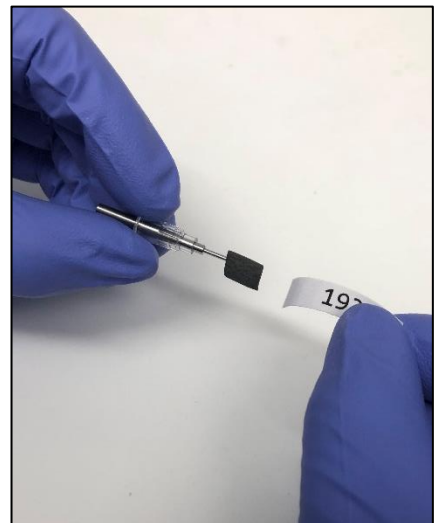
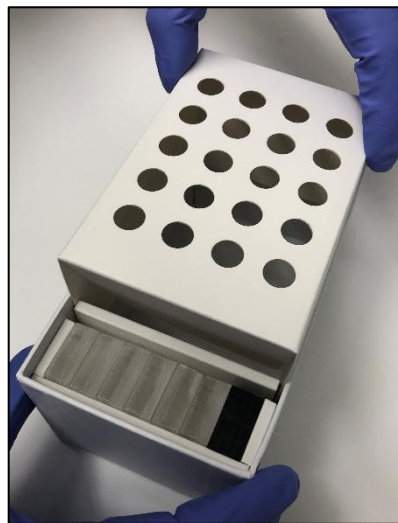
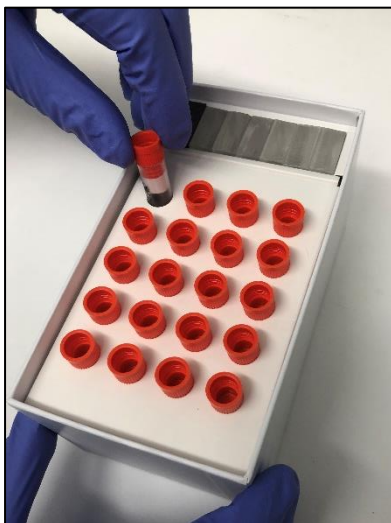
Device(s): OPD-900 OsteoProbe Tip Assembly

Method: Steam Sterilization (Autoclave)

WARNINGS	The Tip Assembly is sharp and may be hazardous to the user. Use caution when handling, using, and disposing of Tip Assemblies.
Limitations on reprocessing	Tip Assemblies are single use and cannot be resterilized or reprocessed.

WARNING: The instructions provided below have been validated by Active Life Scientific, Inc. as being CAPABLE of preparing the device for use. It remains the responsibility of the processor to ensure that the processing as actually performed using equipment, materials, and personnel in the processing facility achieves the desired result. This normally requires validation and routine monitoring of the process.

Remove the Tip Assemblies from the Box and discard the Box Insert. Uncap a Tube and remove the Tip Assembly and Tip ID. Place the Tip ID back in the Box for later. Remove the Foam Cover from the Tip Assembly and discard.



Disassemble the Tip and the Guide and carefully insert both into a 3" x 8" FDA-cleared sterilization pouch suitable for steam sterilization.



When sterilizing more than one pouch at a time, make sure the plastic side of the pouch always faces the paper side of the adjacent pouch. Up to 25 pouches can be placed into the same sterilization basket and up to 2 sterilization baskets can be used for a single sterilization cycle. Run a Gravity Steam Sterilization Cycle - 60 minutes at 121° C with 30 minutes drying time. **Do not exceed 130° C.**

When the sterilization and drying cycles are complete, place the pouches back into the Box with the Tip IDs for storage. Store in a dry place.

6.2 Planning and Patient Positioning

The operator should first refer to the patient's chart and discuss all relevant contraindications for use with the patient.

Refer to Section 2.4
Contraindications
for Use for more
information

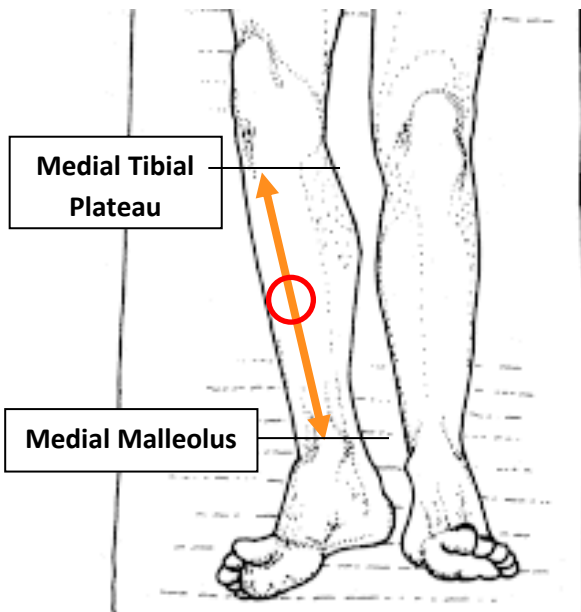
Position the patient in decubitus supine position for optimal comfort. Either tibia can be used for the measurement unless some local contraindication is present, in which case the contralateral side can be used.



Put on clean gloves. Position the leg in external rotation to orient the flat surface of the medial tibia diaphysis horizontal (i.e., parallel to the exam table).

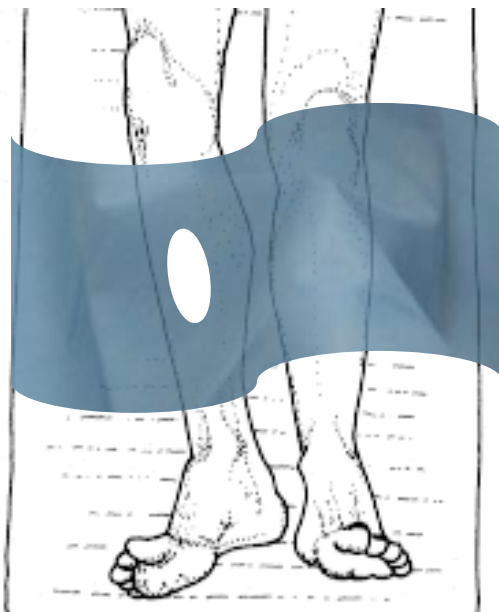


6.3 Patient Preparation



Locate the mid distance between the medial border of the tibial plateau and the medial malleolus.

Perform a careful disinfection of a wide area of the anterior mid tibia region using a chlorhexidine solution or any appropriate disinfectant.



Place a sterile drape over the patient's leg with an opening at the area identified for measurement.

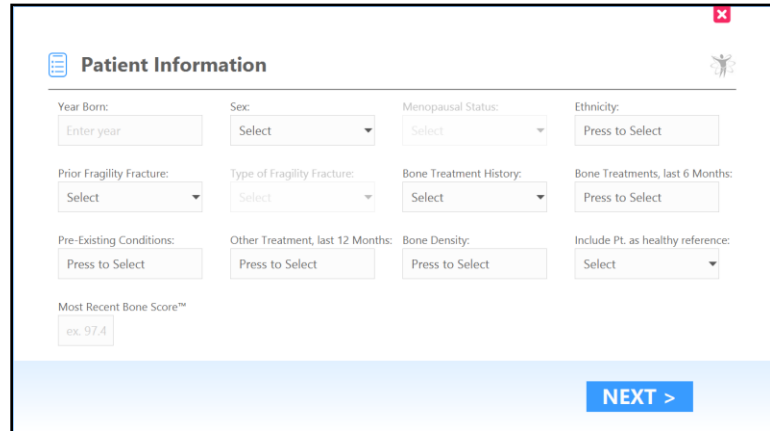
Perform local anesthesia infiltration by inserting a thin syringe needle both subcutaneously and in the periosteal surface. Lidocaine 2%, mepivacaine 2% or equivalent, with or without adrenaline, can be used.

6.4 Measurement Preparation

Prepare a clean workspace near the patient with enough room for all materials. Place the Holder on a flat, stable surface in or near this workspace.

Select “NEW MEASUREMENT” on the Main Menu Screen to begin a new measurement.

Fill out the patient information fields, then select “NEXT” to proceed to the Tip ID prompt.

Patient Information

Year Born: Enter year | Sex: Select | Menopausal Status: Select | Ethnicity: Press to Select

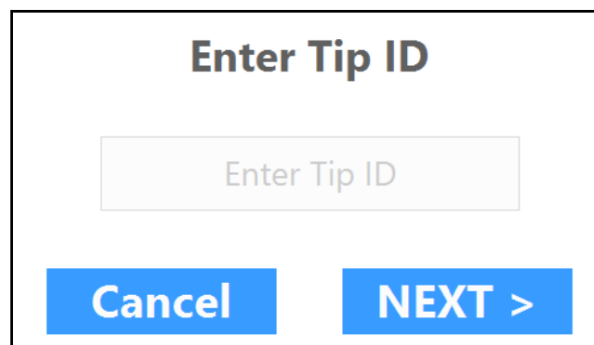
Prior Fragility Fracture: Select | Type of Fragility Fracture: Select | Bone Treatment History: Select | Bone Treatments, last 6 Months: Press to Select

Pre-Existing Conditions: Press to Select | Other Treatment, last 12 Months: Press to Select | Bone Density: Press to Select | Include Pt. as healthy reference: Select

Most Recent Bone Score™
ex. 97A

NEXT >

Enter in the Tip ID of the Tip Assembly to be used, then select “NEXT” to proceed to the Patient Indentations Screen and begin performing indentations.

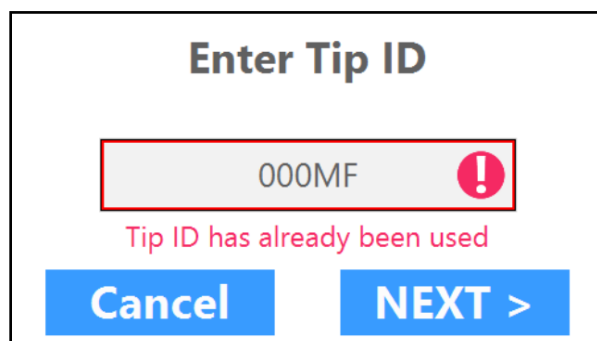


Enter Tip ID

Enter Tip ID

Cancel **NEXT >**

Red text will indicate if the Tip ID is not valid or has already been used.

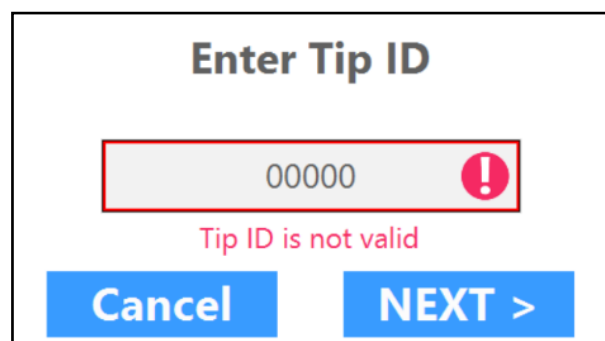


Enter Tip ID

000MF !

Tip ID has already been used

Cancel **NEXT >**



Enter Tip ID

00000 !

Tip ID is not valid

Cancel **NEXT >**

6.5 Making a Measurement

Refer to Section 4.3
Handling Tip
Assemblies for more
information

Once software is prepared, or while an assistant is preparing the software, open a sterilized Tip Assembly pouch within the clean workspace.

Put on sterile gloves. Place the glove packaging within the clean workspace.

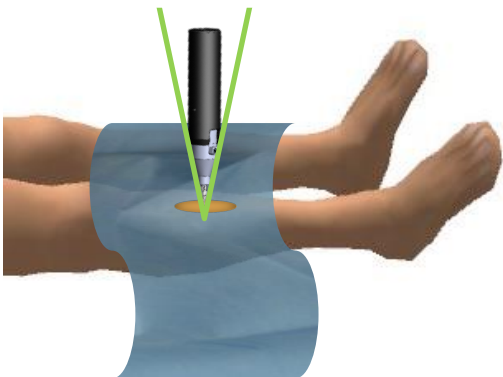
Remove the Tip Assembly from the pouch. Mate the Guide with the Tip and insert the sterile Tip Assembly into the Stylus.

Place the empty Tip Assembly pouch in the workspace.

⚠ NOTE: At this point the orientation of the hands for sterile technique has been defined. The hand holding the Stylus is “clean” and the hand applying the sterile Tip Assembly is “sterile”. This orientation of the hands will be important to keep consistent throughout the measurement and cleaning. Using a Tip Assembly that has contacted anything unsterile could lead to serious harm to the patient. **⚠**

Pierce the skin and periosteum at the measurement site and navigate the Tip down until it reaches the bone cortex.

⚠ NOTE: Now that the “sterile” hand has contacted the Patient, it becomes “dirty”. Again, make sure to keep orientation of the hands consistent. **⚠**

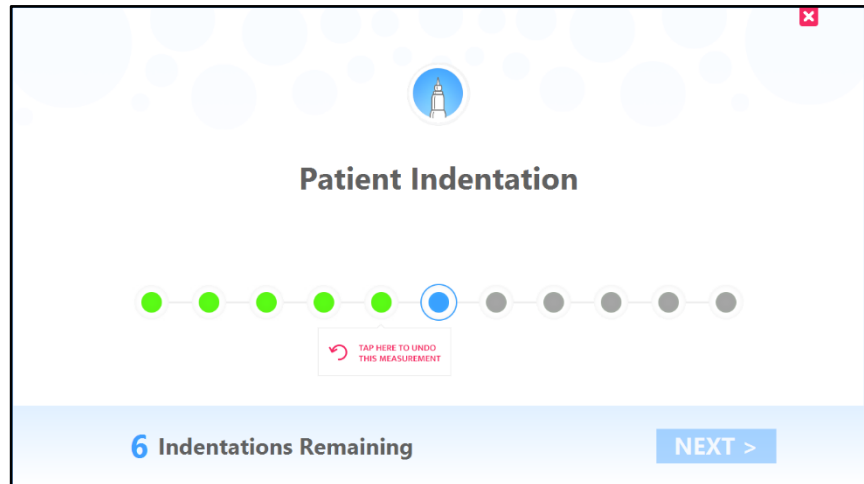


Once in contact with the tibia cortex, adjust the angle of the device to become perpendicular to the tibia surface (< 10° from normal) and slide the Handle of the device toward the patient's leg to initiate an indentation.

For every indentation, the Handle of the device is pulled down slowly and smoothly for a 1 ½ to 3 second period. Remember to not actuate the device faster than 1 ½ seconds.

The indentation count will be displayed on the screen and an auditory tone will sound as each indentation is registered.

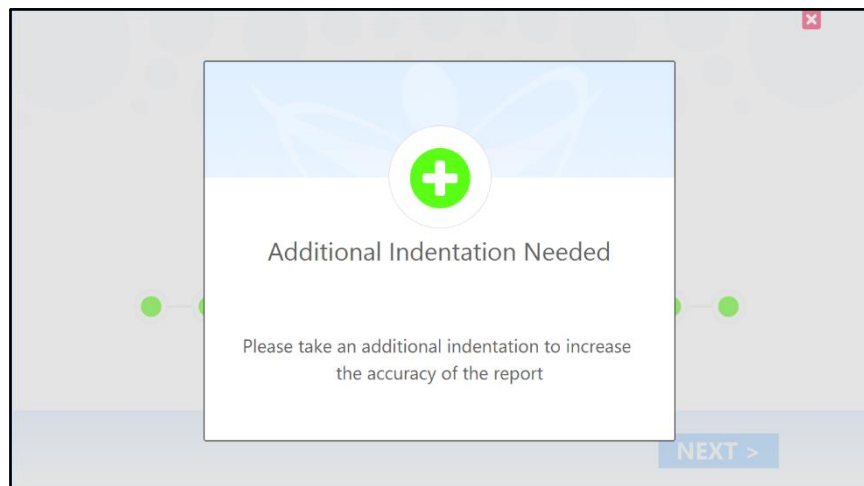
If necessary, select “TAP HERE TO UNDO THIS MEASUREMENT” to remove the last indentation performed.

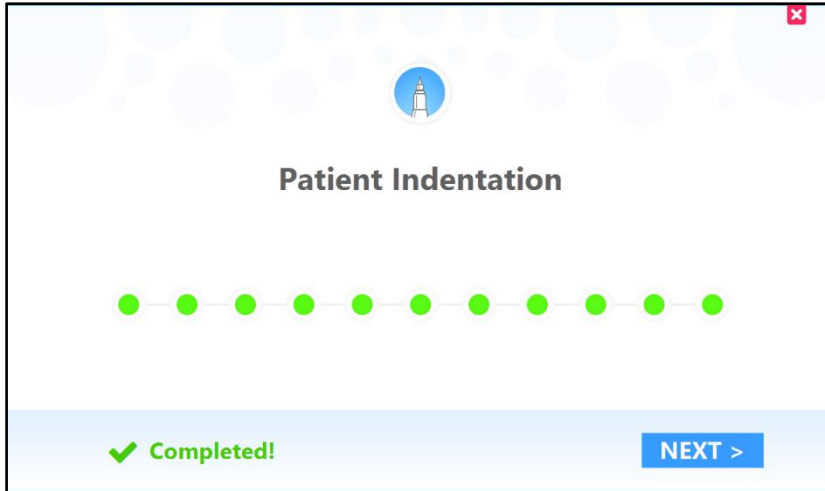


After each indentation and without pulling the Tip out of the skin, slide the Tip to a new location (about 2 mm away from the previous indentation) so as not to indent the same place twice. Re-adjust the angle of the device and perform another indentation.

If additional indentations are required, the software will prompt the operator.

Continue making indentations, without pulling the Tip out of the skin, until the software indicates that patient indentations are complete. All indentations are typically performed within a 1 cm² area.



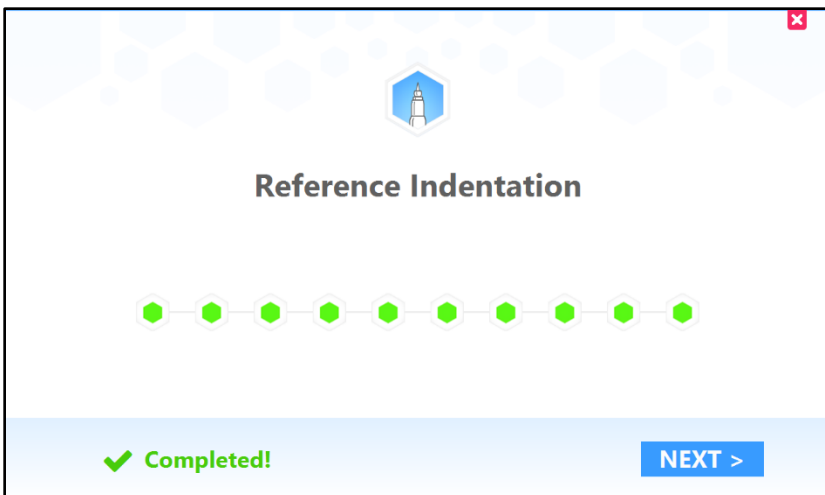


After the patient indentations are completed, a different auditory tone will sound. Select “NEXT” to proceed to the Reference Indentation Screen.



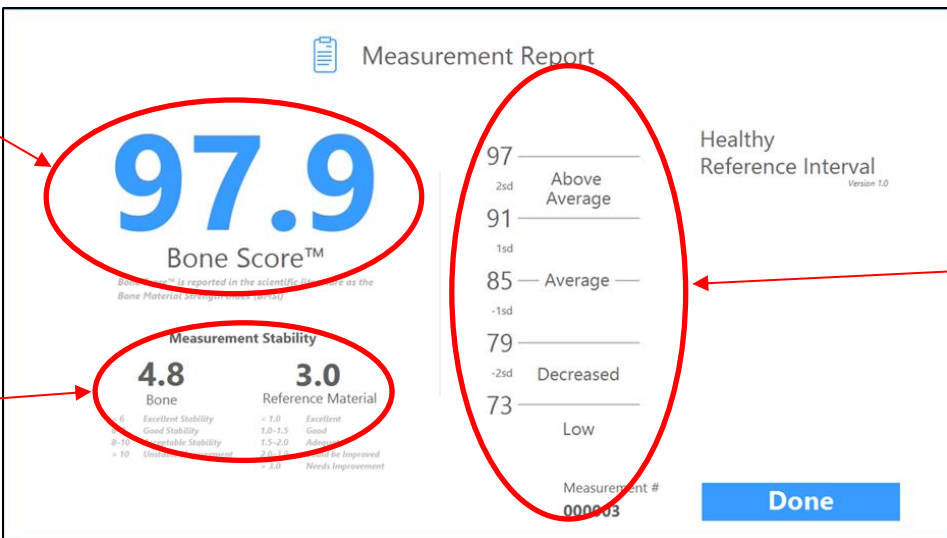
The same focus and precision used for patient indentations should be used for the reference indentations. Maintain perpendicularity and consistent actuation speed. Follow the software prompts and perform 10 indentations on the Reference Block.

⚠ NOTE: Orientation of the hands is to remain the same. The “clean” hand is still holding the Stylus and the “dirty” hand is used to guide the Tip to new locations on the Reference Block. **⚠**



Similar to the Patient Indentation Screen, the indentation count will be displayed on the screen as indentations are performed.

After the reference indentations are completed, a different auditory tone will sound. Select “NEXT” to proceed to the Report Screen.



Measurement Report

97.9
Bone Score™

Measurement Stability
4.8 Bone **3.0** Reference Material

Healthy Reference Interval
Version 1.0

97 — 2sd Above Average
 91 — 1sd
 85 — Average
 79 — -1sd
 73 — -2sd Decreased
 Low

Measurement # 000003 **Done**

This is the Bone Score™
The Bone Score™ is the final result from the measurement.

These are the measurement stability scores and reference ranges.

This display is the healthy reference range for male or female patients.

The Measurement Report Screen will display the results of the Bone Score™ procedure. This Report can be accessed at a later point through the “LOOKUP RECORD” button on the Main Menu of the Software.

Refer to Section 6.6 Disposal of Sharps and Biohazards for more information

After the measurement is complete, both the Tip Assembly and Reference Block should be considered contaminated.

Apply a sterile bandage to the measurement site on the patient’s leg.

6.6 Disposal of Sharps and Biohazards

Special care should be taken when removing the Tip Assembly for disposal as it is now a **biohazardous sharp**.

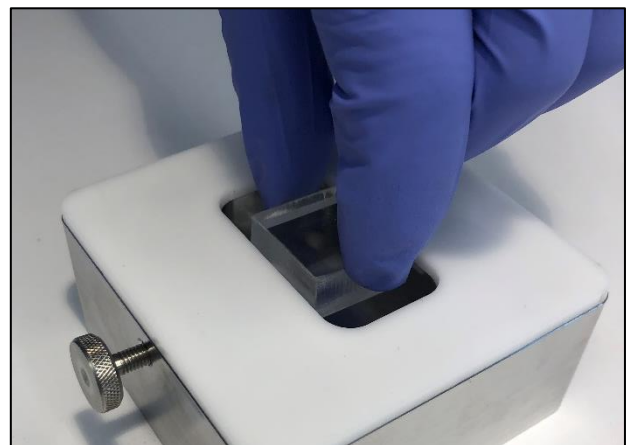
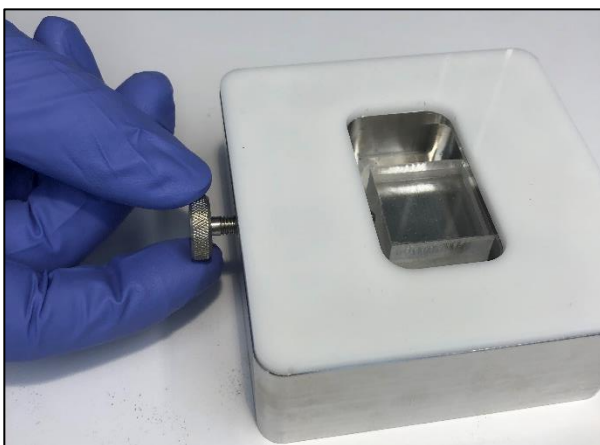
Hold the Stylus in the “clean” hand with the Tip facing away. With the “dirty” hand, begin rotating the Guide to disengage it from the Stylus.

⚠ NOTE: Remember orientation of the hands for disposal of contaminated equipment. **⚠**

Once the Guide is disengaged, pinch the shaft of the Tip and pull both the Guide and Tip away from the Stylus simultaneously. Immediately dispose of the entire Tip Assembly in an appropriate Sharps container.



Unscrew the Holder Screw with the “clean” hand and remove the Reference Block with the “dirty” hand. Dispose of the used Reference Block in an appropriate Biohazard container.



Dispose of gloves and all other contaminated equipment in an appropriate Biohazard container.

6.7 Cleaning and Disinfection Procedure (Stylus, Holder, and Stylus Cable)

Manufacturer: Active Life Scientific, Inc.

Method: Cleaning (Manual) & Intermediate-Level Disinfection

Device(s): Stylus, Holder, & Stylus Cable

<p>WARNINGS</p>	<ul style="list-style-type: none"> • The Stylus, Holder, and Stylus Cable must be cleaned and disinfected after every use on a patient. • Wear appropriate protective equipment (e.g. gloves) during reprocessing and handling. • Use only the cleaning and disinfecting procedure outlined in this document. Using unspecified cleaning and/or disinfecting procedures may damage the components or may result in incomplete disinfection.
<p>Cautions</p>	<ul style="list-style-type: none"> • Use only the cleaning and disinfecting procedure outlined in this document. Use of cleaning and/or disinfecting procedures, including cleaning agents and germicides, not specified in this document may damage the components. • Do not submerge or soak the components in any liquids. • Do not use automated washers or disinfectors to clean or disinfect the Stylus, Holder, or Stylus Cable. • Do not sterilize the Stylus, Holder, or Stylus Cable.

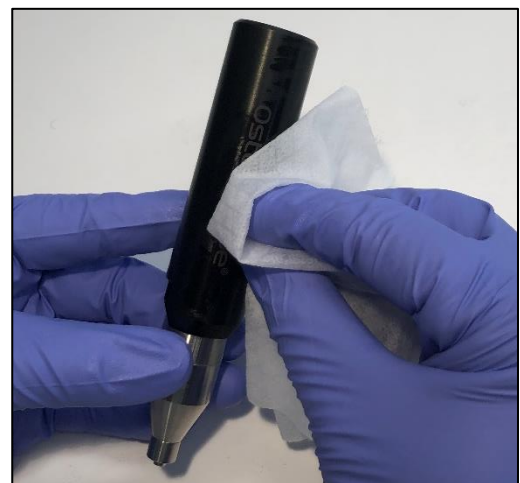
WARNING: The instructions provided below have been validated by Active Life Scientific, Inc. as being CAPABLE of preparing the device for use. It remains the responsibility of the processor to ensure that the processing as actually performed using equipment, materials, and personnel in the processing facility achieves the desired result. This normally requires validation and routine monitoring of the process.

The Stylus, Holder, and Stylus Cable must be cleaned and disinfected **immediately after each use** of the device.

Put on clean gloves before beginning the cleaning and disinfection procedure.

For the Stylus:

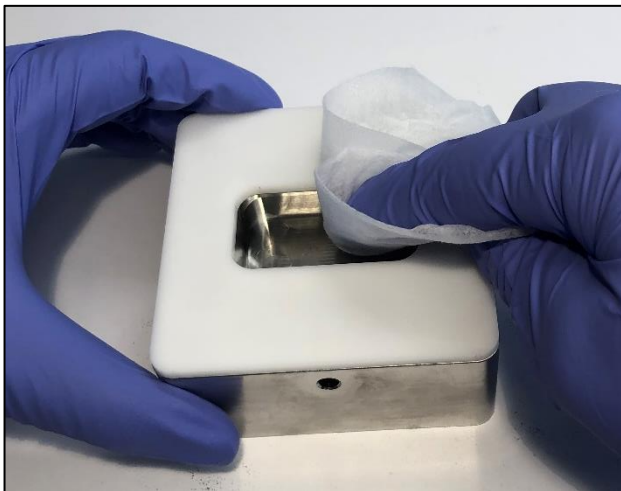
Dispense a new towelette (Super Sani-Cloth® Germicidal Disposable Wipes). Wipe down the exterior of the Stylus with the towelette. Visually inspect the Stylus for cleanliness. If visible soil remains, repeat previous steps.





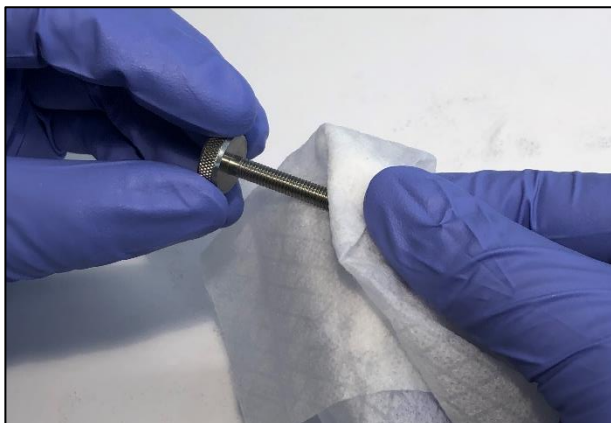
Dispense a new towelette. Wipe down the exterior of the Stylus with the towelette. Use additional towelettes as needed to **ensure the treated surfaces remain wet for at least 2 minutes**. Allow treated surfaces to air dry completely.

For the Holder:



Disassemble the Holder Screw from the Holder. Dispense a new towelette. Wipe down the exterior surfaces and pocket of the Holder with the towelette. Dispense a new towelette. Wipe down the Holder Screw. Visually inspect the Holder and Holder Screw for cleanliness. If visible soil remains, repeat previous steps.

Dispense a new towelette. Wipe down the exterior surfaces and pocket of the Holder with the towelette. Use additional towelettes as needed to **ensure the treated surfaces remain wet for at least two minutes**.



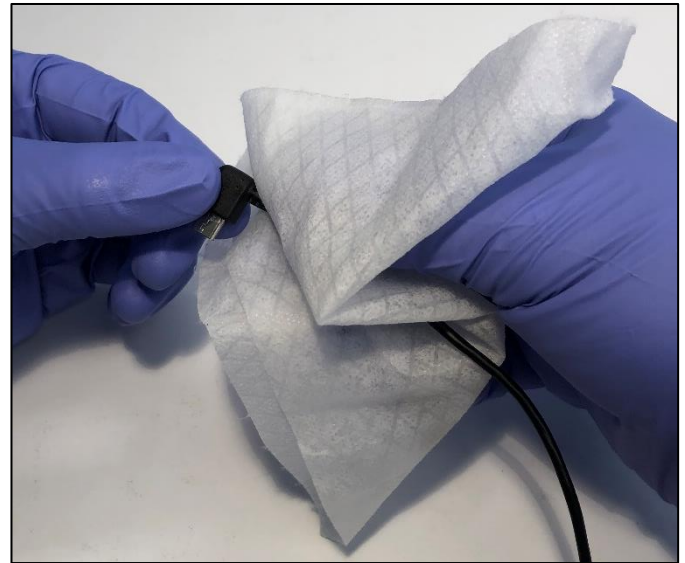
Dispense a new towelette. Wipe down the Holder Screw. Use additional towelettes as needed to **ensure the treated surfaces remain wet for at least two minutes**. Allow the treated surfaces to air dry completely. Reassemble the Holder Screw into the Holder.

For the Stylus Cable:

Dispense a new towelette. Wipe down the Stylus Cable. Visually inspect the Stylus Cable for cleanliness. If visible soil remains, repeat previous steps.

Dispense a new towelette. Wipe down the Stylus Cable with the towelette. Use additional towelettes as needed to **ensure the treated surfaces remain wet for at least 2 minutes**. Allow the treated surfaces to air dry completely.

Dispose of gloves and all used towelettes in an appropriate Biohazard container.



Inspect the Stylus, Holder, and Stylus Cable for any damage. Do not use if a component is damaged. Return damaged components to Active Life Scientific, Inc. for repair. Place all components back in their pockets in the Carrying Case for storage and store the Carrying Case in a dry place.



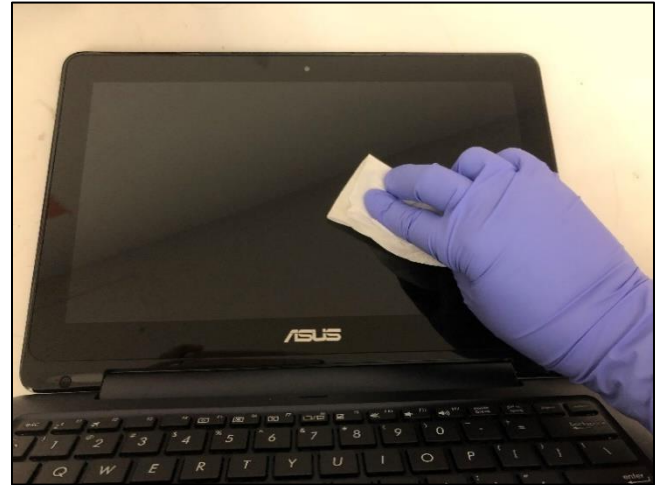
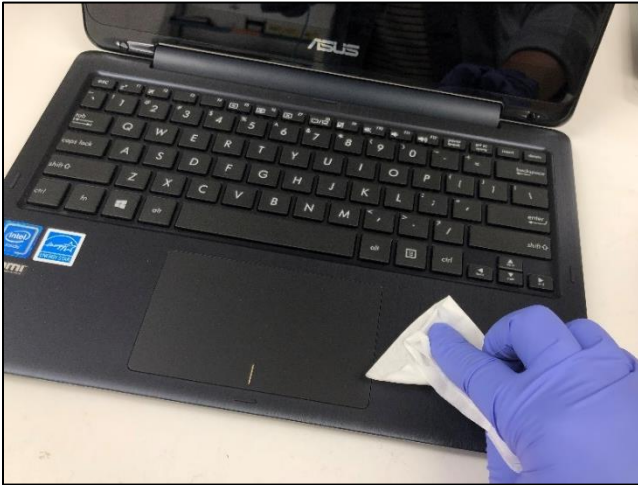
6.8 Cleaning Procedure (Laptop and E-Box)

The Laptop and E-Box can be cleaned as needed.

6.8.1 Cleaning the Laptop

Ensure that the Laptop is disconnected from the Power Supply and completely shut down. Use a dry, new Kimwipe to gently wipe down the surface of the keyboard and monitor screen.

NOTE: If you have significant dirt or smudges on the keyboard or monitor screen, it is appropriate to use a Kimwipe that has been slightly wetted with IPA.



6.8.2 Cleaning the E-Box

Wet a Kimwipe with IPA and wipe down all exterior surfaces.

NOTE: use caution when cleaning near the USB ports to avoid saturation with IPA. If the ports do get wet, let the E-Box dry completely prior to connecting.



7.0 Disposal

7.1 Disposal of OsteoProbe Equipment

OsteoProbe should be returned to Active Life Scientific, Inc. for disposal. See Section 10.2: Return Policy for information on how to return products.

7.2 Disposal of Tip Assemblies

Used Tip Assemblies should be considered contaminated 'sharps' and disposed of accordingly. See Section 6.6: Disposal of Sharps and Biohazards.

7.3 Disposal of Reference Blocks

Used Reference Blocks should be considered contaminated and disposed of accordingly. See Section 6.6: Disposal of Sharps and Biohazards.

8.0 Technical Specifications

8.1 System Information

Parameter	Parameter Value
System Classification	EU Class: Class IIa
Safety Certifications	EU Certification: IEC 60601-1: 2012
	EMC Certification: IEC 60601-1-2:2014 (4TH EDITION)
CE Marking	CE Marking for MDD 93/42/EEC
Type of Equipment	Medical Device
Classification of Use	Type B Applied Part
Intended Use	See Section 2.1: Indications for Use

8.2 Specifications

Parameter	Parameter Value
Power Input Requirements	Voltage: 100 – 240 V~ Frequency: 50 – 60 Hz Current: 1.5 A
Stylus Dimensions	Approximately: \varnothing 2.7 x 14.0 cm
Stylus Weight	Approximately: 240 g
Case Dimensions	Approximately: 46 x 34 x 17 cm
Case Weight	Approximately: 8 kg
Internet Connectivity	Wireless: 802.11b/g/n Ethernet: RJ-45 (100/1000 Mbps)

9.0 Troubleshooting

9.1 Laptop Power

If the Laptop is not turning on, check the following:

1. Check to ensure that the AC Cable is properly connecting the Power Supply to an appropriate power outlet.
2. Check to ensure that the connector of the Power Supply is properly connected to the Laptop.
3. Check to ensure that the power outlet the Power Supply is plugged into has power by plugging in another device that draws power (such as a phone charger).
4. If the Laptop is still not turning on, contact Active Life Scientific, Inc.

9.2 Software Communication

If the Software is not registering a connection to the Stylus, check the following:

1. Check to ensure that the USB-B connector of the Laptop Cable is properly connected to the E-Box and that the USB-A connector is properly connected to the Laptop.
2. Check to ensure that the USB-A connector of the Stylus Cable is properly connected to the E-Box and that the Micro-B connector is properly connected to the Stylus.
3. If the Software is still not registering a connection to the Stylus, contact Active Life Scientific, Inc.

10.0 Warranty & Return Policy

10.1 Product Warranty

Active Life Scientific, Inc. (“Company”) warrants that each new OsteoProbe® System (“OsteoProbe®”), single use Tip Assemblies for OsteoProbe® (“Components”), and software for OsteoProbe® (“Software”) hereinafter the Products (“Products”), shall be free from defects in materials and workmanship under normal use and service and when correctly maintained for two years from the date of shipment (“Warranty Period”).

Procurer agrees that before this limited warranty shall become effective, Procurer shall fully inspect each Product within five (5) days of delivery and before such Product is put to use. Further, before this limited warranty shall become effective, Procurer shall complete training. Procurer also agrees to operate the Product in accordance with Product’s User Manual as provided and that failure to do so shall void this limited warranty. Procurer further agrees that any claim for breach of warranty must be made in writing promptly following the discovery of a purported defect and within the Warranty Period. Company will not be responsible for any alleged breach of warranty, which, as a result of Company’s inspection, Company determines to have arisen from a cause not covered by this limited warranty. Warranties are granted to the original Procurer of the Products only, and are nontransferable without the express written consent of Company. If a valid warranty claim is received within the Warranty Period, Company will, in its sole discretion: (1) replace the product at no charge with a product that is at least functionally equivalent to the original product, or (2) refund the amount paid for the product on a prorated basis. In any event, Company’s liability for breach of warranty shall be limited to the replacement value of the defective or non-conforming part or component.

This limited warranty does not apply to: (A) replacement of Products necessitated by misuse, abuse, accident, neglect, modification, alteration, adjustment, tampering, improper installation or repairs made by persons other than Company or persons expressly authorized by Company to perform repairs; (B) use of Components or Software with OsteoProbe® other than those expressly approved by Company; (C) the subjugation of the Products to unusual stress or environmental conditions; (D) Acts of God, or other causes not within the control of Company; (E) Products on which any original serial numbers or other identification marks have been removed or destroyed.

If Company determines in its reasonable discretion that the claimed defect or non-conformance in the product is excluded from warranty coverage as described hereunder, it will notify the customer of such determination and will provide an estimate of the cost of replacement of the Product. In such an event, any replacement would be performed at Company’s standard rates.

Products replaced under this warranty continue to be warranted as described herein during the initial Warranty Period or, if the initial Warranty Period has expired by the time the Product is replaced, for thirty (30) days after delivery of the replaced product. When a Product or component is replaced, the item provided in replacement will be the customer’s property and the replaced item will be Company’s property. If a refund is provided by Company, the Product for which the refund is provided must be returned to Company and will become Company’s property.

If Procurer believes that a Product does not comply with the limited warranty stated above, Procurer should contact Company at the address stated at the beginning of this manual or by email at customer.care@activelifescientific.com, describing the problem and providing Serial Number(s) of Products. The Company will then schedule a mandatory remote diagnosis session. If directed by Company, Procurer shall return the Products, at the customer’s expense unless Company specifically agrees otherwise in writing, properly packaged in an Company approved shipping container and properly

identified by a Return Material Authorization Form issued by Company. Company does not accept any COD returns. Products returned without a Return Material Authorization Form will be refused and returned at Procurer's expense.

THIS LIMITED WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES OR REPRESENTATIONS, EXPRESSED, OR IMPLIED, EITHER IN FACT OR BY OPERATION OF LAW, STATUTORY OR OTHERWISE, INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NON-INFRINGEMENT. NO REPRESENTATION OR STATEMENT OF COMPANY MAY CHANGE OR ALTER THIS LIMITED WARRANTY.

COMPANY SHALL HAVE NO FURTHER LIABILITY FOR DAMAGES, LOSSES, COST OR FEES OF ANY KIND OR NATURE, WHETHER FORESEEABLE OR NOT, INCLUDING BUT NOT LIMITED TO ATTORNEY'S FEES AND CONSEQUENTIAL, GENERAL, SPECIAL, EXEMPLARY OR PUNITIVE DAMAGES, REGARDLESS OF THE FORM OF ANY CLAIM, WHETHER IN CONTRACT, TORT OR OTHERWISE, ARISING OUT OF OR RELATED TO THE USE OF COMPANY PRODUCTS EVEN IF COMPANY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, LOSSES, COST OR FEES.

Any claims for breach of this limited warranty shall be governed by California law and must be brought in a State or Federal court in California.

COMPANY EXPRESSLY DISCLAIMS ANY AND ALL RESPONSIBILITY FOR ANY UNAPPROVED USE OF THE PRODUCTS.

10.2 Return Policy

A Returned Merchandise Authorization (RMA) Form must be obtained from Company before returning product. To obtain an RMA Form, please contact Company Customer Service at 805.770.2660 or email:

customer.care@activelifescientific.com

Upon issuing an RMA Form, Company will provide further instruction for returning OsteoProbe System. Please include the completed RMA Form with the return.

Please follow instructions provided by Company to clean all potentially contaminated products prior to returning them to Company. It is unlawful to transport bio-contaminated products through interstate commerce, unless they are properly packaged and labeled as such.

If a return does not comply with these terms, Company reserves the right to destroy the product at the customer's expense. Any replacement would be at the customer's expense.

11.0 Contact Information



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