OSTEOPROBE USER MANUAL





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

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1.0 Glossary

Symbol	Definition
	MANUFACTURER
	DATE OF MANUFACTURE
CE	CE LOGO
EC REP	AUTHORIZED REPRESENTATIVE IN THE EUROPEAN COMMUNITY
REF	CATALOG NUMBER
SN	SERIAL NUMBER
	REFER TO INSTRUCTION MANUAL
İ	TYPE B APPLIED PART
Power Rating: 5V === 100 mA	POWER RATING (DIRECT CURRENT)



Symbol	Definition
	TEMPERATURE LIMITS
<i>%</i>	HUMIDITY LIMITS
.	ATMOSPHERIC PRESSURE LIMITS
	FRAGILE, HANDLE WITH CARE
Ţ	KEEP DRY
STERNIZE	DO NOT RESTERILIZE
	DO NOT USE IF PACKAGE IS DAMAGED
(2)	DO NOT REUSE
R _x only	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.



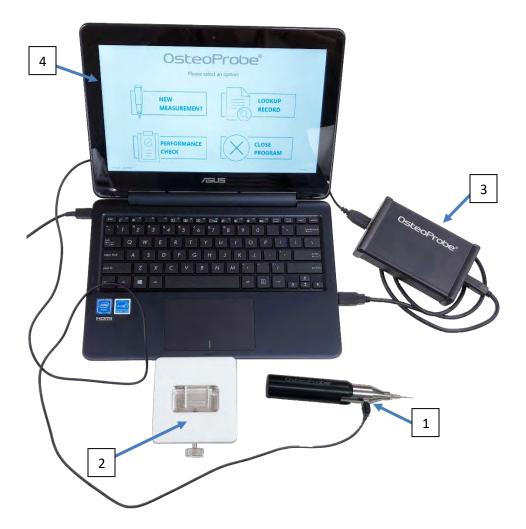
2.3 Description of the Device

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.

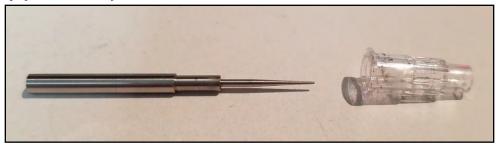
The output of a test is the Bone Material Strength index (BMSi), or Bone Score[™], which is a score that quantifies a patient's bone quality.



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.

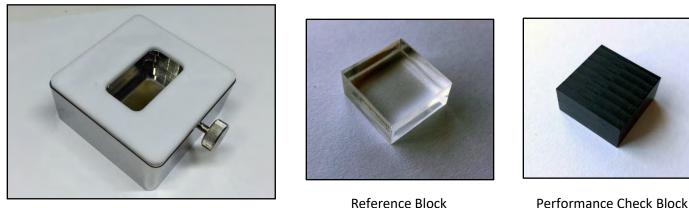
NOTE: The Tip Assemblies ship unsterilized. See Section 6.1: Tip Assembly Sterilization for information on sterilization of Tip Assemblies.

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



Performance Check Block

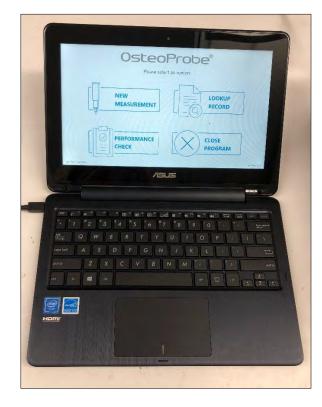
The Holder provides sufficient mass and secures Reference Materials in a stable position for making consistent measurements.



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 metastic 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



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 <u>unsterile</u> 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 <u>unsterile</u> 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.
- Operation of equipment is recommended in the following conditions: Temperature: 10°C – 30°C Relative Humidity: 20% – 80% Atmospheric Pressure: 71 kPa – 101 kPa
- 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.

MARNING: 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.

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

MARNING: 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.

MARNING: 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.

Gu	idance and mai	nufacturer's declaration – electromagnetic emissions	
		the electromagnetic environment specified below. The customer or the 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	
Harmonic emissions IEC 61000-3-2	Class A	low-voltage power supply network that supplies buildings used for domestic purposes. Warning: this system is intended for use by healthcare professionals	
Voltage Fluctuations IEC 61000-3-3	Complies	only.	



Guid	ance and manufacturer's decla	aration – electromagnetic imm	unity
	I for use in the electromagneti		
	ssure that it is used in such an		
Immunity test	IEC 60601 test level	Compliance level	Electromagnetic
			environment - guidance
Electrostatic discharge			Floors should be wood,
(ESD)			concrete or ceramic tile. If
IEC 61000-4-2	<u>+</u> 8kV contact	+8kV contact	floors are covered with
			synthetic material, the
	<u>+</u> 15kV air	+ 15kV air	relative humidity should be
			at least 30%.
Electrical fast	12k) for nower supply lines	12k) / for nower supply lines	Mains power quality should
transient/burst	+2kV for power supply lines	+2kV for power supply lines	be that of a typical
IEC 610004-4			commercial or hospital
			environment
Surge			Mains power quality should
IEC 61000-4-5	<u>+</u> 1kV line(s) to line	+1kV line(s) to line	be that of a typical
	(21)(1)(a)(a) = a		commercial or hospital
	<u>+</u> 2kV line(s) to earth	+2kV line(s) to earth	environment.
Voltage dips, short	0 % <i>U</i> T; 0,5 cycle	0 % <i>U</i> T; 0,5 cycle	Mains power quality should
interruptions and voltage	At 0°, 45°, 90°, 135°, 180°,	At 0°, 45°, 90°, 135°, 180°,	be that of a typical
variations on power supply	225°, 270° and 315°	225°, 270° and 315°	commercial or hospital
input lines			environment. If the user of
	0 % <i>U</i> T; 1 cycle	0 % <i>U</i> T; 1 cycle	the OsteoProbe [®] requires
IEC 61000-4-11	and	and	continued operation during
	70 % <i>U</i> T; 25/30 cycles h)	70 % <i>U</i> T; 25/30 cycles h)	power mains interruptions,
	Single phase: at 0°	Single phase: at 0°	it is recommended that the
			OsteoProbe [®] be powered
	0 % <i>U</i> T; 250/300 cycle	0 % <i>U</i> T; 250/300 cycle	from an uninterruptible
			power supply or a battery.
Power frequency (50/60			Power frequency magnetic
Hz) magnetic field			fields should be a levels
	20.54	20.54	characteristic of a typical
IEC 61000-4-8	30 A/m	30 A/m	location in a typical
			commercial or hospital
			environment.
NOTE: U_T is the A.C. mains v	oltage prior to application of the	ne test level.	1



	Guidance and m	anufacturer's declaratio	on – electromagnetic immunity
The OsteoProbe	[®] is intended for use in t	he electromagnetic env	ironment specified below. The customer or the user
of the OsteoProt	pe® should assure that i	t is used in such an envii	ronment.
	Γ	Γ	
Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment - guidance
Conducted RF	3 Vrms	3 Vrms	Portable and mobile RF communications
IEC 61000-4-6	0,15 MHz – 80 MHz	0,15 MHz – 80 MHz	equipment should be used no closer to any part
			of the OsteoProbe [®] , including cables, than the
	6 Vrms in ISM and	6 Vrms in ISM and	recommended separation distance calculated
	amateur radio bands	amateur radio bands	from the equation applicable to the frequency of the transmitter.
	between 0,15 MHz and 80 MHz	between 0,15 MHz and 80 MHz	the transmitter.
	80 % AM at 1 kHz	80 % AM at 1 kHz	
			Recommended separation distance
Radiated RF	3 V/m	3 V/m	d = [3.5/3] √P 80 MHz to 800 MHz
IEC 61000-4-3	80 MHz to 2.7 GHz	80 MHz to 2.7 GHz	d = [7/3] √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:
			$((\cdot,\cdot))$
			-

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 manufact	urer's declaration – electroma	gnetic immunity
The OsteoProbe® i			ified below. The customer or the user
	[®] should assure that it is used	•	
Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment -
-			guidance
IMMUNITY to	MHz – Modulation – Field	MHz – Modulation – Field	Portable and mobile RF
proximity fields		Strength	communications
from RF wireless	Strength		equipment should be used no closer
communications	_	385 - 18 Hz - 27 V/m	to any part of the OsteoProbe [®] ,
equipment	385 - 18 Hz - 27 V/m	450 - 18 Hz - 28 V/m	including cables, than the
	450 - 18 Hz - 28 V/m	710 - 217 Hz - 9 V/m	recommended separation distance
	710 - 217 Hz - 9 V/m	745 - 217 Hz - 9 V/m	calculated from the equation
	745 - 217 Hz - 9 V/m	780 - 217 Hz - 9 V/m	applicable to the frequency of the
	780 - 217 Hz - 9 V/m	810 - 18 Hz - 28 V/m	transmitter.
	810 - 18 Hz - 28 V/m	870 - 18 Hz - 28 V/m	
	870 - 18 Hz - 28 V/m	930 - 18 Hz - 28 V/m	Recommended separation distance
	930 - 18 Hz - 28 V/m	1720 - 217 Hz - 28 V/m	
	1720 - 217 Hz - 28 V/m	1845 - 217 Hz - 28 V/m	
	1845 - 217 Hz - 28 V/m	1970 - 217 Hz - 28 V/m	E = [6/d] VP
	1970 - 217 Hz - 28 V/m	2450 - 217 Hz - 28 V/m	d = [6/E] VP
	2450 - 217 Hz - 28 V/m	5240 - 217 Hz - 9 V/m	
	5240 - 217 Hz - 9 V/m	5500 - 217 Hz - 9 V/m	where P is the maximum output
	5500 - 217 Hz - 9 V/m	5785 - 217 Hz - 9 V/m	power rating of the transmitter in
	5785 - 217 Hz - 9 V/m		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:
			((1,1))
NOTE: These guide	lines may not apply in all situ	ations. Electromagnetic propa	gation 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.

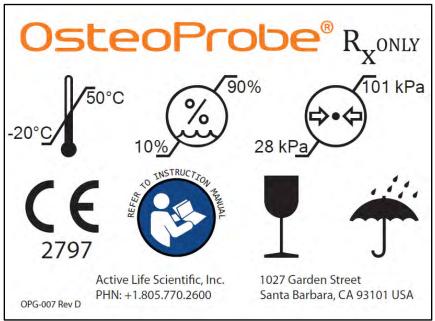
Datadara	Separation distan	ce according to frequen	cy of transmitter (m)	
Rated maximum output power of transmitter (W)	80 to 800 MHz d = [3.5/3] √P	800 MHz to 2.7 GHz d = [7/3] √P	710, 745, 780, 5240, 5500, 5785 d = [6/9] VP	385, 450,810, 870, 930, 1720, 1845, 1970, 2450 d = [6/28] √P
0.01	0.117	0.233	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.

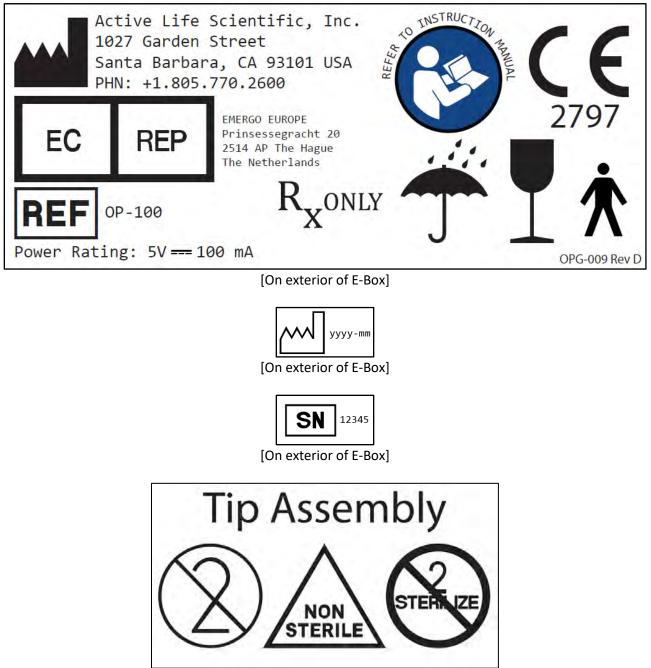
NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

3.4 Safety Labels



[On exterior of Carrying Case]





[On each individual Tip Assembly Tube]





[On each pack of Tip Assemblies]





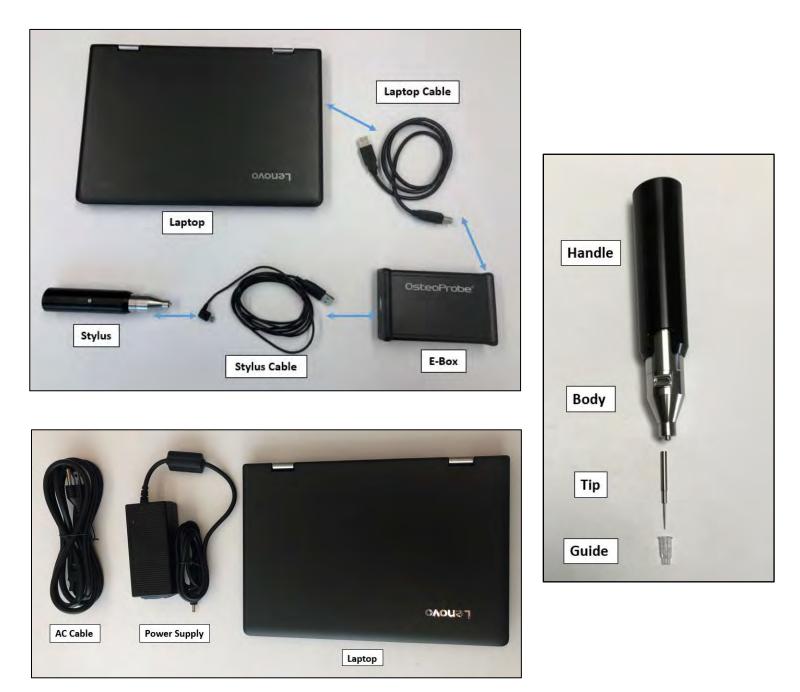
WARNINGS	The Tip Assembly is sharp and may be hazardous to the user. Use caution when handling, using, and disposing of Tip Assemblies.
Limitations on reprocessing	Tip Assemblies are single use only and cannot be resterilized or reprocessed.
INSTRUCTIONS	
Point of use:	N/A – Tip Assemblies are to be 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:	 Uncap the Tube and remove the Tip Assembly. Remove the Foam Cover and disassemble the Guide and the Tip. Carefully insert the Tip and Guide into a 3" x 8" FDA-cleared sterilization pouch suitable for steam sterilization.
Sterilization:	 When sterilizing more than one pouch at a time, make sure the plastic side of pouch always faces the paper side of 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. 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.

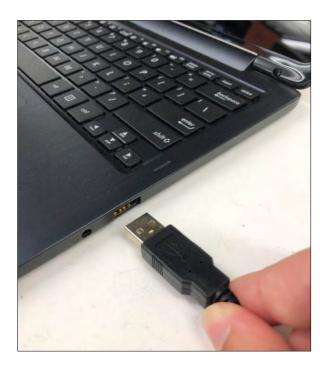






3. Plug the USB-B connector of the Laptop Cable into the E-Box and plug the USB-A connector into the Laptop. An auditory tone will indicate when the E-Box is initially connected to the Laptop properly.





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

 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.

 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.

 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.







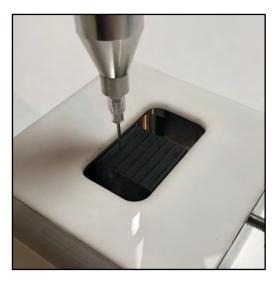


4.3 Handling Tip Assemblies

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.

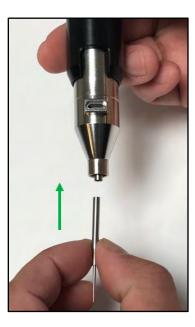






4.4 Loading Tip Assemblies

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.



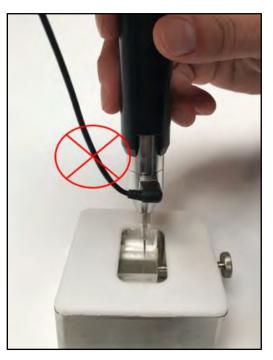
4.5 Handling the Stylus Cable

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.

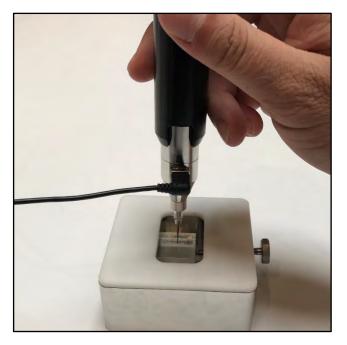




2. During an actuation, tension on the Stylus Cable can lead to inaccurate results.



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





4.6 Measurement Technique

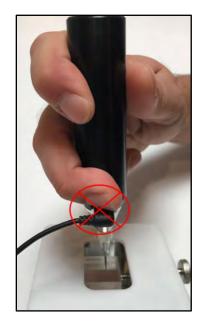
1. Holding the Stylus

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.

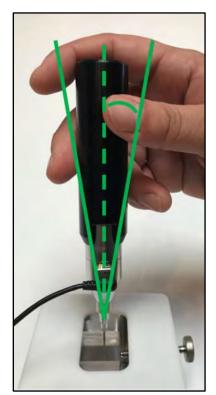






2. Actuating the Stylus

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.

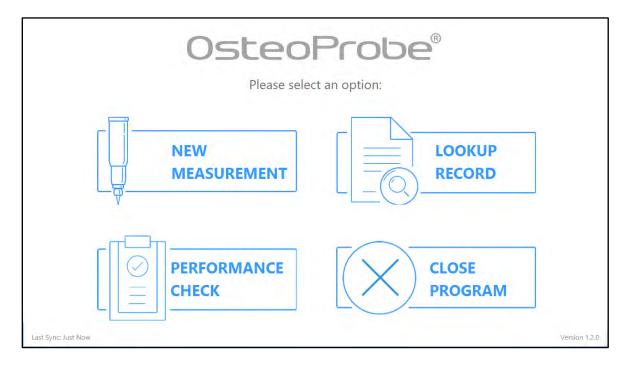




4.7 Software Overview

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.

Year Born:	Sex:	Menopausal Status:	Ethnicity:
Enter year	Select 💌	Select 🔹	Press to Select
Prior Fragility Fracture:	Type of Fragility Fracture:	Bone Treatment History:	Bone Treatments, last 6 Month
Select	Select 🗸	Select 🔹	Press to Select
Pre-Existing Conditions: Press to Select	Other Treatment, last 12 Mon Press to Select	Press to Select	Include Pt. as healthy reference Select
Most Recent Bone Score™			



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
Cancel	NEXT >

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

Enter	Tip ID
000	000
Tip ID is	not valid
Cancel	NEXT >
Enter	Tip ID
000	DMF
000 Tip ID has alre	IMF



4. Patient Indentation Screen

Patient Indentation

Image: Constraint of the second s

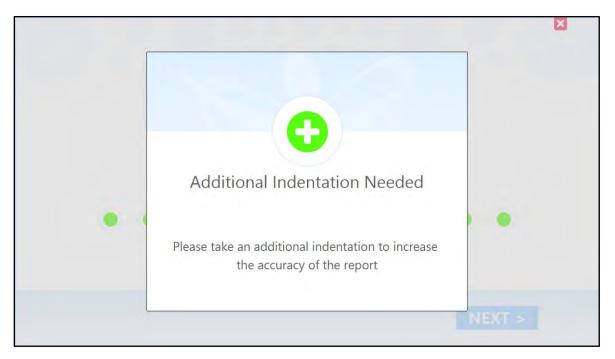
The indentation count will be displayed on the screen as indentations are performed.

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

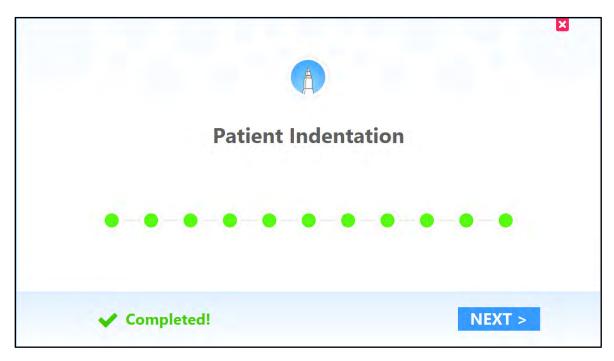
	X
Patient Indentation	
6 Indentations Remaining NEXT >	



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



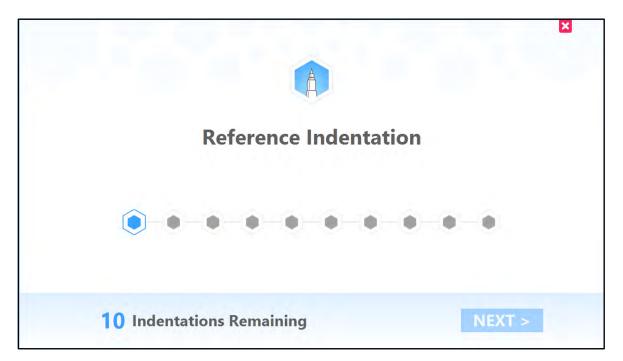
After the patient indentations are completed, select "NEXT" to proceed to the Reference Indentation Screen.



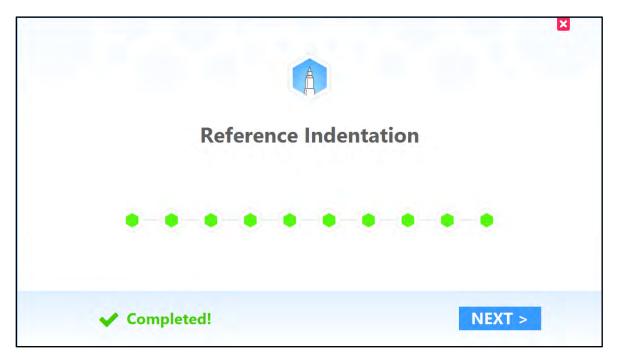


5. Reference Indentation Screen

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.

				Healthy
97	9	97 - ^{2sd} 91 -	Above Average	Reference Interval
Bone Score ^{an} & reported In Bone Noterial Scrength In		1sd 85 - -1sd	— Average —	
4.8 Bone	ent Stability 3.0 Reference Material	79 - - ^{2sd} 73 -	Decreased	
O Localised Stability Solution Stability defined Stability defined Stability defined Stability (1) Unshalide Phenomeneous	1.0 Location 1.0-1.5 Good 1.5-5.0 Addiguone 5.0-1.0 Smith be Improved 5.3.0 D Winds Improved 5.3.0 Winds Improvement	13-	Low	
			Measurement # 000003	Done

7. Lookup Report

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

ilter By:	Earliest Date	Latest Date	Patient Birt	th Year Tip ID	Measurement ID		Clear Filters
Date/Time of M 2/25/19 5		Birth Year 1962	Tip ID	Report Preview			
2/23/193	UHO L'IVI	1502		Date/Time	Birth Year	Tip ID	Measurement #
				Bone Score™	Bone	Refer	ence 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.

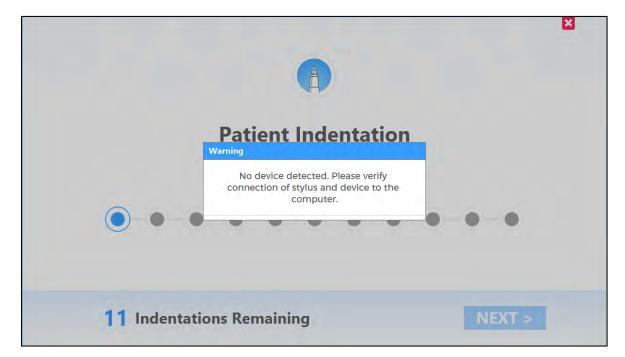
Year Born:	Height (inches):	Weight (lbs):		Sex:	
	Enter beight ERROR	Entorwoight		Select	•
Menopausal Status:		een over 30 days since a		Type of Fragility Frac	
Select 🗸	Pi performanc	ce check was last performed.	-		T
Bone Treatments, last 6 Months:		surement procedures are not ntil a performance check is		Bone Density:	
Press to Select	Р	completed.		Press to Select	
Measurement Type:	Bon e rreatment risto	HOME	ence:	Most Recent Bone So	core™
Select 🗸	Select	▼ Select	•	ex. 97.4	

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

	ement Report Check is recommended.
89.2	97 — Healthy Caucasian Price Average 91 — Healthy Caucasian Reference Interval Version 1.0
Bone Score [™] Bone Score [™] is reported in the scientific literature as the Bone Material Strength index (BMSI)	^{1sd} 85 — Average — -1sd
Measurement Stability	79
3.6 3.0	-2sd Decreased
Bone Reference Material	73
 6 Excellent Stubility 7.0 Excellent 6-8 Good Stability 7.0-1-5 Good 8-10 Acceptable Stability 7.2.0 Adequate 2.0-3.0 Could be Improved 3.0 Needs Improvement 	Low
	Measurement # Done



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.

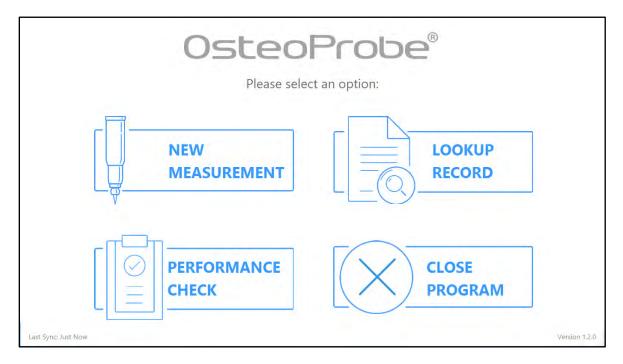


2. Load a Tip Assembly onto the Stylus.

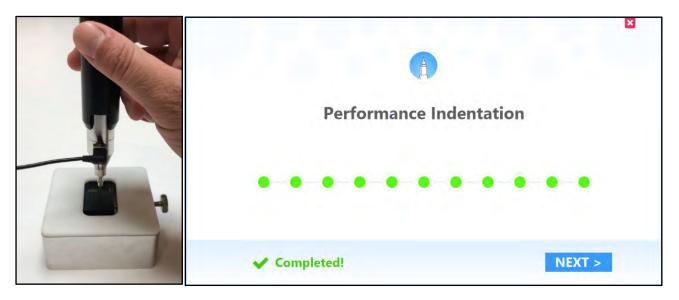




3. Select "PERFORMANCE CHECK" on the Main Menu of the OsteoProbe Software to enter the Performance Check Mode.



4. Perform 11 indentations on the Performance Check Block.

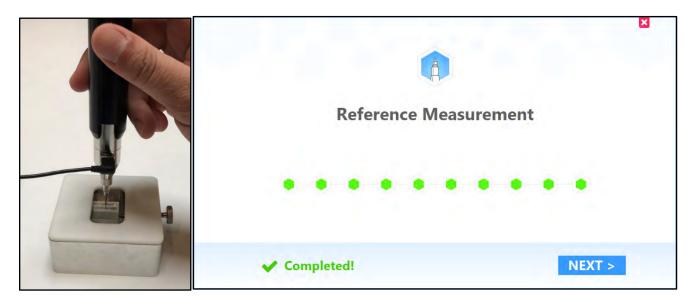




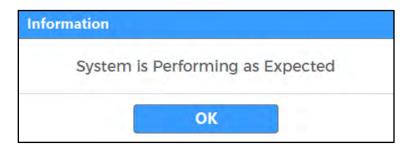
5. Remove the Performance Check Block and secure a Reference Block in the Holder.



6. Perform 10 indentations on the Reference Block.

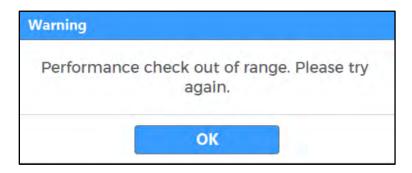


7. The software will automatically determine whether the device is functioning properly.





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.

ERRO	R
	lease verify that the Tip Assembly and ference Material Blocks are secure, and make another measurement.
lf y	ou have made two such measurements in a row, please contact Active Life Scientific.
	ОК



6.0 Operating Instructions

6.1 Tip Assembly Sterilization



Method: Steam Sterilization (Autoclave)

Manufacturer: Active Life Scientific, Inc. Device(s): OPD-900 OsteoProbe Tip Assembly

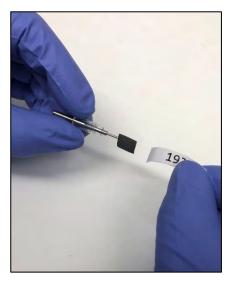
WARNINGS	The Tip Assembly is sharp and may be hazardous to the user. Use caution when handling, using, and disposing of Tip Assemblies.
Limitations on reprocessing	Tip Assemblies are single use and cannot be resterilized or reprocessed.

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.

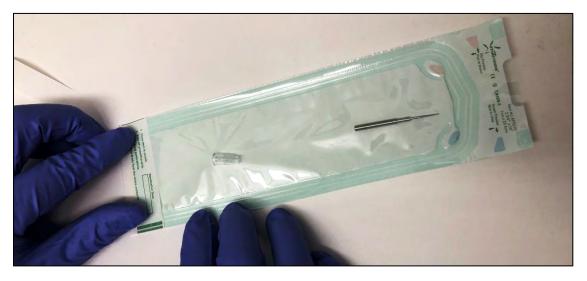








Disassemble the Tip and the Guide and carefully insert both into a 3" x 8" FDA-cleared sterilization pouch suitable for steam sterilization.



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

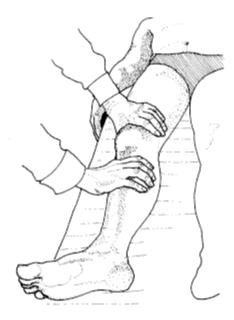
The operator should first refer to the patient's chart and discuss all relevant contraindications for use with the patient.

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.

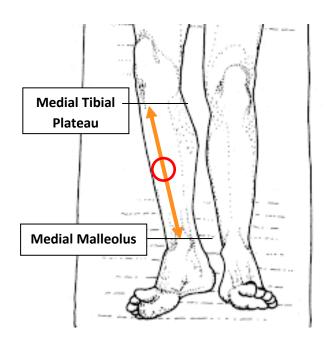


Put on clean gloves. Position the leg in external rotation to orient the flat surface of the medial tibia diaphysis horizontal (i.e., parallel to the exam table).



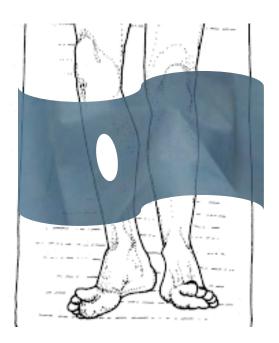


6.3 Patient Preparation



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

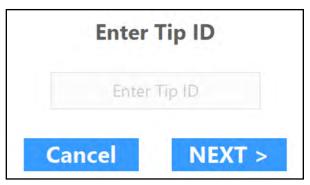
Prepare a clean workspace near the patient with enough room for all materials. Place the Holder on a flat, stable surface in or near this workspace.

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.

OsteoProbe®	🗐 Patient Infor	mation		×
Please select an option:	Year Born:	Sex:	Menopausal Status:	Ethnicity: Press to Select
NEW MEASUREMENT	Enter year Prior Fragility Fracture: Select Pre-Existing Conditions: Press to Select	Type of Fragility Fracture:	Select Bone Treatment History: Select Bone Density: Press to Select	Press to Select Bone Treatments, last 6 Months: Press to Select Include Pt. as healthy reference: Select
	Most Recent Bone Score™ ex. 97.4			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.



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

Enter Tip ID				
000N	AF 🌔			
Tip ID has already been used				
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.

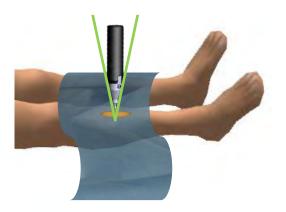
Remove the Tip Assembly from the pouch. Mate the Guide with the Tip and insert the sterile Tip Assembly into the Stylus.

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. ∧



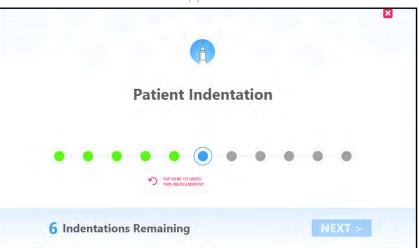
Once in contact with the tibia cortex, adjust the angle of the device to become perpendicular to the tibia surface (< 10° from normal) and slide the Handle of the device toward the patient's leg to initiate an indentation.

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.

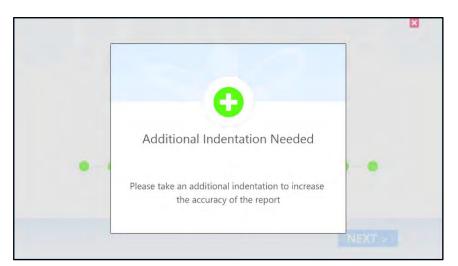
If necessary, select "TAP HERE TO UNDO THIS MEASUREMENT" to remove the last indentation performed.



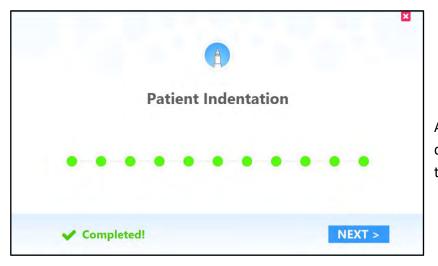
After each indentation and without pulling the Tip out of the skin, slide the Tip to a new location (about 2 mm away from the previous indentation) so as not to indent the same place twice. Re-adjust the angle of the device and perform another indentation.

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.





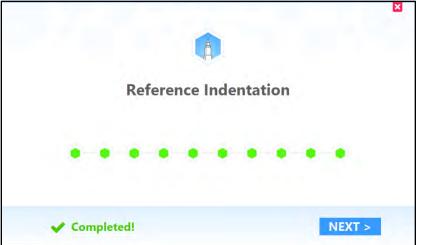


After the patient indentations are completed, a different auditory tone will sound. Select "NEXT" to proceed to the Reference Indentation Screen.



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.

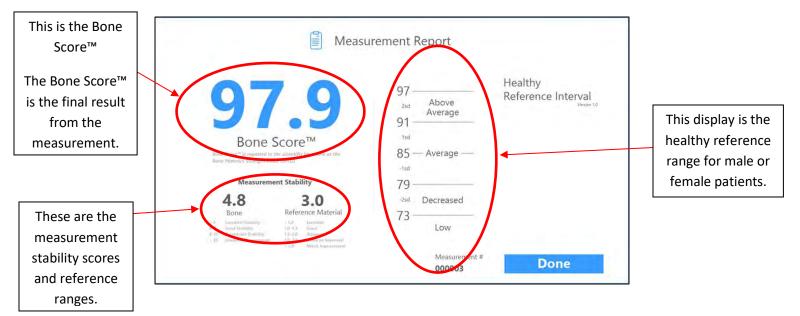
▲ **NOTE:** Orientation of the hands is to remain the same. The "clean" hand is still holding the Stylus and the "dirty" hand is used to guide the Tip to new locations on the Reference Block. ▲



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.





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

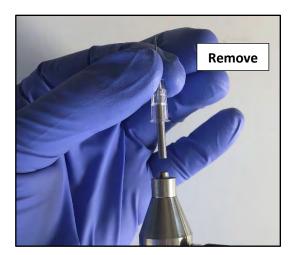
Special care should be taken when removing the Tip Assembly for disposal as it is now a biohazardous sharp.

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.

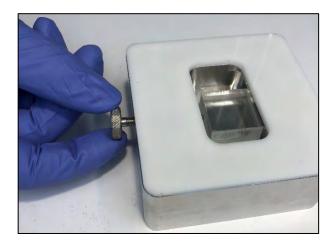
 \wedge NOTE: Remember orientation of the hands for disposal of contaminated equipment. \wedge

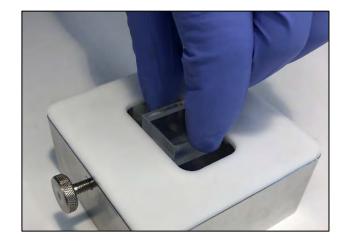
Once the Guide is disengaged, pinch the shaft of the Tip and pull both the Guide and Tip away from the Stylus simultaneously. Immediately dispose of the entire Tip Assembly in an appropriate Sharps container.





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

WARNINGS	 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.
Cautions	 Use only the cleaning and disinfecting procedure outlined in this document. Use of cleaning and/or disinfecting procedures, including cleaning agents and germicidals, 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.

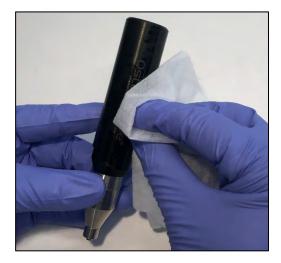
WARNING: The instructions provided below have been validated by Active Life Scientific, Inc. as being CAPABLE of preparing the device for use. It remains the responsibility of the processor to ensure that the processing as actually performed using equipment, materials, and personnel in the processing 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 <u>before</u> beginning the cleaning and disinfection procedure.

For the Stylus:

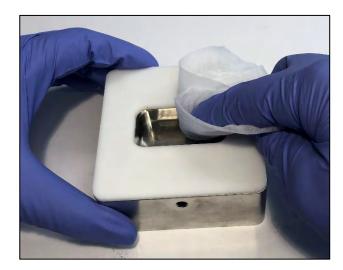
Dispense a new towelette (Super Sani-Cloth[®] Germicidal Disposable Wipes). Wipe down the exterior of the Stylus with the towelette. Visually inspect the Stylus for cleanliness. If visible soil remains, repeat previous steps.

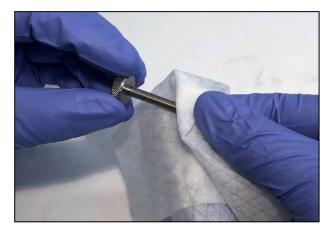






Dispense a new towelette. Wipe down the exterior of the Stylus with the towelette. Use additional towelettes as needed to **ensure the treated surfaces remain wet for at least 2 minutes**. Allow treated surfaces to air dry completely.





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.

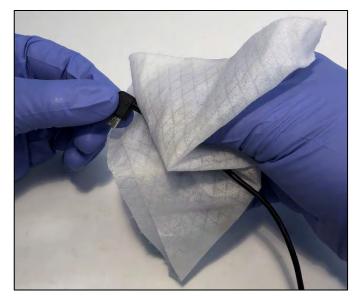


For the Stylus Cable:

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: Frequency: Current:	100 – 240 V~ 50 – 60 Hz 1.5 A
Stylus Dimensions	Approximately:	ø2.7 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: Ethernet:	802.11b/g/n 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

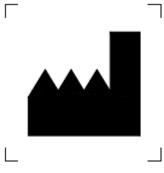
Upon issuing an RMA Form, Company will provide further instruction for returning OsteoProbe System. Please include the completed RMA Form with the return.

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



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



EMERGO EUROPE Prinsessegracht 20 2514 AP The Hague The Netherlands