

Liftera-A2

USER MANUAL



ASTERASYS Co., Ltd.

#1005, #508, #313, 25, Seongsuil-ro 4-gil, Seongdong-gu, Seoul, 04781, Republic of Korea

Tel +82-1833-7010

Fax +82-2-6953-0599

Rev. No. Ver.1.0.0

Website <http://www.asterasys.com>

E-mail info@asterasys.com

Rev. Date Apr. 27. 2023



© 2023 ASTERASYS all rights reserved. Reproduction in whole or in part in any form or by any means, electrical, mechanical or otherwise is prohibited without the written consent of the copyright holder

About this manual

- All the contents of this manual should be read and understood before using.
- Please use the product in accordance with the instruction provided in the manual. Otherwise, Manufacturer will not bear any responsibility with respect to any damages.
- This manual is provided to offer safe and effective operation of products.
- This manual provides explanations on product setting, control and functional procedure.
- This manual should be kept near the device for the reference.
- The content of this manual can be changed or improved.
- Please note that all the relevant standard and regulations referenced in this manual are valid version at the time of writing.

Warning

The hazard signs on this manual are recognizable symbols designed to warn about hazardous materials, location or objects, and specified the type of hazard.















Symbol	Description
 Warning	It indicates the possibility of serious injury if the device is mishandled or instructions are ignored.
 Caution	Indication of possible physical injury.







Linguistic variants

The instruction for use is made in accordance with EC Medical Directive 93/42/EEC amended by 2007/47/EC: -EN1041:2008 Information supplied by the manufacturer with medical device. The information provided with the device and the used languages are as below. To assist in the use of other language contact the authorized agent.

☒ English
 ☐ German
 ☐ French
 ☐ Italian
 ☐ Roman
 ☐ Polish
 ☐ Portuguese
 ☐ Czech
 ☐ Turkish
 ☐ Irish
☐ Croatian
 ☐ Greek
 ☐ Spanish
 ☐ Danish
 ☐ Sweden
 ☐ Russian
 ☐ Finnish
 ☐ Korean
 ☐ Chinese
 ☐ Arabic

Symbol

Symbol	Description/Function	Reference
	Refer to instruction manual	ISO 7010-M002
	Indicates the need for the user to consult the instructions for use for important cautionary information such as warnings and precautions that cannot, for a variety of reasons, be presented on the medical device itself.	ISO 15223-1 5.4.4.
	Indicates the medical device manufacturer	ISO 15223-1 5.1.1.
	Indicates the date when the medical device was manufactured	ISO 15223-1 5.1.3.
	Manufacture number: Serial number.	15223-1 5.1.7.
	Identifies a type BF applied part complying with IEC 60601-1	IEC 60417-5333
	Indicates a medical device that can be broken or damaged if not handled carefully	ISO 15223-1 5.3.1.
	Indicates the correct upright position of a package	ISO 7000-0623
	Use no hooks	ISO 7000-0622
	Indicates a medical device that needs to be protected from moisture	ISO 15223-1 5.3.4.
	Indicates the temperature limits to which the medical device can be safely exposed	ISO 15223-1 5.3.7.
	Indicates the range of humidity to which the medical device can be safely exposed	ISO 15223-1 5.3.8.
	Indicates the range of atmospheric pressure to which the medical device can be safely exposed	ISO 15223-1 5.3.9.
	Indicates a product should not be disposed of in a landfill; Refer to '6.4.4 Disposal'	BS EN 50419

Symbol	Description/Function	Reference
	Indicates connection to the mains, at least for mains switches or their positions, and all those cases where safety is involved.	IEC 60417-5007
	Indicates disconnection from the mains, at least for mains switches or their positions, and all those cases where safety is involved.	IEC 60417-5008
	Indicates that the equipment is suitable for alternating current only; to identify relevant terminals.	IEC 60417-5032
	USB port connector	IEC 60417-5032
	Recycle	
	Stacking limit by 4	ISO 7000-2403
IPX0	Degrees of protection provided by enclosures (IP Code)	

The following international standards have been applied to Liftera-A2:

- IEC 60601-1:2005 + AMD1:2012 / EN 60601-1:2006 + A1:2013 Electrical medical equipment
- IEC 60601-1-2:2014 / EN 60601-1-2:2015 Electromagnetic compatibility
- IEC 62304:2006 / EN 62304:2006 Software life cycle processes
- IEC 60601-1-6:2010 + AMD1:2013 / EN 60601-1-6:2010 + A1:2015 & IEC 62366:2007 + AMD1:2014 / EN 62366:2008 + A1:2015 Usability safety

CONTENTS

1	Precaution on Safety.....	7
1.1	Prohibition.....	7
1.2	General Safety.....	7
1.3	Electrical & Explosion Safety	7
1.4	Medical Safety.....	7
1.5	Focused Ultrasound Stimulator Use System Safety	8
1.6	Focused Ultrasound Stimulator Use System Warning	9
1.7	Focused Ultrasound Stimulator Use System Emergency switch	10
1.8	EMC Table	10
2	Liftera-A2 Introduction	15
2.1	Intended Use	15
2.2	Usage.....	15
2.3	Operating Principle.....	16
2.4	Environmental Condition	16
2.5	Product Classification	17
2.6	Expected Service Life	17
2.7	Routine Maintenance	17
2.8	Applied Parts	17
3	Liftera-A2 Overview	19
3.1	Product Co,ponenets.....	19
3.2	Appearance and Fuction	21
3.3	Screen Layout	26
4	Liftera-A2 A Installation	31
4.1	Precaution on Installation	31
4.2	How to Install	33
5	Liftera-A2 Usage	37
5.1	Precaution on Operation	37
5.2	How to Operate.....	38
6	Product Specification and Maintenance	49
6.1	Product Specification	49
6.2	Error Message	50
6.3	Trouble Shooting	52
6.4	Maintenance	54

Chapter 1. Precaution on Safety

- 1.1 Prohibition
- 1.2 General Safety
- 1.3 Electrical & Explosion Safety
- 1.4 Medical Safety
- 1.5 Focused Ultrasound Stimulator Use System Safety
- 1.6 Focused Ultrasound Stimulator Use System Warning
- 1.7 Focused Ultrasound Stimulator Use System Emergency switch
- 1.8 EMC Table



1 Precaution on Safety

1.1 Prohibition

If you are wearing the following electronic medical devices, please abstain from using the product:

- Portable electronic medical devices such as electrocardiographs
- Electrical stimulator for treatment



Warning

Above mentioned devices could be the cause of malfunction of the product and, therefore, it might cause substantial health risk.

1.2 General Safety

- Please do not dismantle or modify the product without permission by manufacturer.
- Pregnant woman should consult with medical doctor before use.
- Please read and understand this manual thoroughly before using the product.
- Please use this device only for the purpose described in the manual.
- Please keep the manual near to device.
- Please refrain from pushing the device or giving external shock on device.
- Individual with infectious disease or injury should not use or keep in touch with device.
- Please do not use when there is crack on surface. It may cause serious injury.

1.3 Electrical & Explosion Safety

- Please do not handle this device with wet hands. Device can be damaged by water.
- Please do not spill water or liquid on the product.
- Please refrain from using this product near the devices generating strong electric fields, such as T.V., micro-wave equipment.
- Please do not use the product near the other device or on the top of the other device. The electromagnetic interference can cause malfunction of the product.

1.4 Medical Safety

- There is no age or gender limit in applying this product to a patient, but the physician must determine the patient's health condition before deciding whether to use the product for the patient.
- The Liftera-A2 can be used for healthy men and women who do not have physical problems (e.g., cardiovascular abnormalities).

1.4.1 Contraindications

- Do not treat the patients who fall on each of the following subparagraphs.
 - A patient with a herpes virus infection
 - Patients with skin allergy to local anesthesia
 - Patients with hemorrhagic disease or another hemostatic dysfunction
 - Pregnant women and infants
 - Keloid skin
 - Cutaneous cancer

1.4.2 Precaution

- The Liftera-A2 has not been evaluated for use in the following patients.
 - Autoimmune disease
 - Diabetes
 - Epilepsy
 - Acute disease
 - Hypertension
 - Dermatitis

1.4.3 Potential side effects

- Do not treat the patients who fall on each of the following subparagraphs.
 - Erythema
 - Swelling
 - Purpura
 - Bruising

1.5 Focused Ultrasound Stimulator Use System Safety

- Set energy by considering the thickness of skin.
- Thin skin areas such as forehead, intra orbital and lateral orbital are treated by low energy.
- During treatment, anatomical understanding about facial blood vessels and nerves is required.
- Be careful that Focused ultrasonic energy does not touch on the surface of the skin because cartridge is not in contact with the skin well. In case, burns may occur.
- Do not overlap the treatment in the same line. Duplicate heat may result in burns.
- If the practitioners move the handpiece or the patient are moved due to the pain, Energy will be redundant and it may cause burns. As possible, Anesthesia is recommended to reduce the movement of patients.
- If you perform these operations around the eye, after determining the energy which doesn't effect on eyes, do procedure. Since it affects around focal length, please consider the treatment.
- Check the type and depth of the cartridge. During ultrasonic radiation, be careful not to exceed the amount of time required and radiation.

- If treatment area (=skin) turn red (usually disappears within a few hours), avoid washing or showering by hot water.
- Each cartridge is supplied non-sterile and is for single patient use only.
- When handling the handpiece equipped with the transducer, carefully handle it since rough handling may adversely affect its characteristics.
- After a mechanical shock, the performance inspection on all the parameters related to its essential performance should be performed.
- During the treatment, there may be a potential risk of heating of unintended tissue due to ultrasonic energy.
- When unintended reflected ultrasonic power (energy) is observed, press the Emergency Stop button located on the left part of the main body, and check the condition of the patient.
- During the treatment, there may be a risk of bubble formation all along the acoustical path, notably at the surface of the transducer, at the transducer-tissue interface and in the region of interest.
- To avoid the bubble formation, place and maintain the film surface of the cartridge downward during the treatment.
- It is recommended that the following areas should be avoided during the ultrasound treatment
 - Thyroid gland, thyroid cartilage and trachea
 - Major vessels
 - Breast tissue or breast implant
 - Eyes or in a location where ultrasound energy can reach the eye.
- Do not use the ultrasound treatment to the areas listed below:
 - Mechanical implants (such as a metal stent etc.)
 - Dermal fillers
 - Implanted electrical devices
 - Breast implant

1.6 Focused Ultrasound Stimulator Use System Warning

- 1) Cavitation from ultrasonic energy may damage tissues (Organs, Human body)
 - Serious damage to tissue can lead to lung, heart, and gastrointestinal. Do not use on organs.
 - Eye damage (blindness)
- 2) Unintentional use of ultrasound can damage tissue.
 - Damage to bone tissue
 - Nerve damage
 - Damage to the lung and gastrointestinal organs
 - Eye damage (blindness)

1.7 Focused Ultrasound Stimulator Use System Emergency switch

- In case of emergency, press the Emergency Stop button located on the side part of the main body during treatment to stop operation.



1.8 EMC Table

* Electromagnetic field information according to IEC 60601-1-2

Guidance and manufacturer's declaration – electromagnetic emissions

The Liftera-A2 is intended for use in the electromagnetic environment specified below.
The customer or the user of the Liftera-A2 should assure that it is used in such an environment.

Emissions test	Compliance	Electromagnetic environment - guidance
RF emissions CISPR 11	Group 1	The Liftera-A2 uses Ultrasound energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment
RF emissions CISPR 11	Class A	The Liftera-A2 is suitable for use in all establishments other than domestic, and may be used in domestic establishments and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes, provided the following warning is heeded: Warning: This Liftera-A2 is intended for use by healthcare professionals only. This equipment/ system may cause radio interference or may disrupt the operation of nearby equipment. It may be necessary to take mitigation measures, such as re-orienting or relocating the Liftera-A2 or shielding the location.
Harmonic emissions IEC 61000-3-2	Class A	
Voltage fluctuations/ flicker emissions IEC 61000-3-3	Complies	

Guidance and manufacturer's declaration – electromagnetic immunity

The Liftera-A2 is intended for use in the electromagnetic environment specified below.
The customer or the user of the Liftera-A2 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	±6 kV Contact ±8 kV air	±6 kV Contact ±8 kV 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	±2 kV for power supply lines ±1 kV for input/output lines	±2 kV for power supply lines Not applicable	Mains power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	±1 kV line(s) to line(s) ±2 kV line(s) to earth	±1 kV line(s) to line(s) ±2 kV 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	< 5 % U_T (> 95 % dip in U_T) for 0.5cycle 40 % U_T (60 % dip in U_T) for 5 or 6 cycle 70 % U_T (30 % dip in U_T) for 25 or 30 cycle < 5 % U_T (> 95 % dip in U_T) for 5 s	< 5 % U_T (> 95 % dip in U_T) for 0.5cycle 40 % U_T (60 % dip in U_T) for 5 or 6 cycle 70 % U_T (30 % dip in U_T) for 25 or 30 cycle < 5 % U_T (> 95 % dip in U_T) for 5 s	Mains power quality should be that of a typical commercial or hospital environment. If the user of the Liftera-A2 image intensifier requires continued operation during power mains interruptions, it is recommended that the Liftera-A2 image intensifier be powered from an uninterruptible power supply
Power frequency (50 Hz and 60 Hz) magnetic field IEC 61000-4-8	3 A/m	3 A/m	Power frequency magnetic fields should be at 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

Guidance and manufacturer's declaration – electromagnetic immunity

Liftera-A2 is intended for use in the electromagnetic environment specified below.
The customer or the Liftera-A2 should assure that it is used in such an environment.

Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment guidance
			Portable mobile RF communications equipment should be used no closer to any part of the Liftera-A2, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter.
Conducted RF IEC 61000-4-6	3 Vrms 150 kHz to 80 MHz	3 Vrms	Recommended separation distance $d = 1,2 \sqrt{P}$
Radiated RF IEC 61000-4-3	3 V/m 80 MHz to 1.5 GHz	3 V/m	$d = 1,2 \sqrt{P}$ 80 MHz to 800 MHz $d = 2,3 \sqrt{P}$ 800 MHz to 2.5 GHz
			Where p is the maximum output power rating or 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 ^a . Should be less than the compliance level in each frequency range ^b . 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.

^aField 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 Liftera-A2 is used exceeds the applicable RF compliance level above, the Liftera-A2 should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as re-orienting or relocating the Liftera-A2. ^bOver the frequency range 150 kHz to 80 MHz, field strengths should be less than 3 V/m.

**Recommended separation distances
between portable and mobile RF communications equipment and the Liftera-A2**

The Liftera-A2 is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the Liftera-A2 can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the Liftera-A2 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		
	150 kHz to 80 MHz $d = 1, 2 \sqrt{P}$	80 MHz to 800 MHz $d = 1, 2 \sqrt{P}$	800 MHz to 2.5 GHz $d = 2, 3 \sqrt{P}$
0.01	0.12	0.12	0.23
0.1	0.38	0.38	0.73
1	1.2	1.2	2.3
10	3.8	3.8	7.0
100	12	12	23

For transmitters rated at a maximum output power not listed above, the recommended separation distance 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.

Chapter 2. Liftera-A2 Introduction

- 2.1 Intended Use
- 2.2 Usage
- 2.3 Operating Principle
- 2.4 Environmental Condition
- 2.5 Product Classification
- 2.6 Expected Service Life
- 2.7 Routine Maintenance



2 Liftera-A2 Introduction

2.1 Intended Use

- Liftera-A2 is non-invasive therapeutic device for the treatment of ptosis and correction of skin laxity using the principle of coagulation and necrosis.

2.2 Usage

2.2.1 User Requirements

Requisitions	Descriptions
Training	<ul style="list-style-type: none"> Only persons fully familiar with operating instructions or persons who have been trained for the operation
Knowledge	<ul style="list-style-type: none"> Those who can read and understand the units and words indicated on the LCD of the product and Arabic numerals Those who can understand the measured data (Graphs or Chart) A Person who can accurately understand the correct measurement posture
Language	<ul style="list-style-type: none"> Understanding on written manual
Experience	<ul style="list-style-type: none"> The person who read and understand the user manual
Acceptable Physical Conditions	<ul style="list-style-type: none"> Freely can move hands and feet, staying 5-6 minutes in one place Aging-related short-term memory impairment at an average level Mild visual impairment



For other users, a companion must be accompanied to proceed.

2.2.2 Target Treatment Recipient

Requisitions	Descriptions
Recipients Age	Over 20 Years old (Available for below 20 years old by doctor's decision)
Weight	Not relevant
Health	Exception: Active implanted electronic medical device bearer
Nationality	Not relevant
Recipient Status	Not relevant as long as the recipient is not over excited status

► Exception

This device is not intended to be used for infant, pregnant women and the handicapped.

2.3 Operating Principle

- When the high frequency generated by power board is transferred to transducer in handpiece, it transforms into ultrasound by vibration. created ultrasound is focused to generate thermal energy at focusing point and create selective thermal coagulation without damaging epidermis and subcutaneous.
- The ultrasound output can be controlled by LCD GUI and handpiece button. Depending on the type of cartridge output frequency (4MHz, 7MHz) and depth (1.5mm, 3.0mm, 4.5mm) will be applied differently.

2.4 Environmental Condition

2.4.1 Operational Environment

- Temperature : 10 °C ~ 35 °C
- Humidity : 30% ~ 70%
- Atmospheric pressure : 700hPa ~ 1,060hPa

2.4.2 Transportation and Storage Condition

- Temperature : 5 °C ~ 50 °C
- Humidity : 0% ~ 93% (congelation included)
- Atmospheric pressure : 700hPa ~ 1,060hPa



Caution

Make sure to operate, transport and store within scope of condition described above. Otherwise, it may cause malfunction of the product.

2.4.3 Product Specification

- Product: High Intensity Focused Ultrasound Surgical Unit
- Voltage, Frequency, Power Consumption: 100-240Vac, 50/60Hz, 300VA
- Ultrasound Frequency / Depth
 - Liftera-A2 LINE TYPE 4M 4.5 / Liftera-A2 PEN APPLICATOR 4M 4.5: 4Mhz / 4.5mm
 - Liftera-A2 LINE TYPE 7M 3.0 / Liftera-A2 PEN APPLICATOR 7M 3.0: 7Mhz / 3.0mm
 - Liftera-A2 LINE TYPE 7M 1.5 / Liftera-A2 PEN APPLICATOR 7M 1.5: 7Mhz / 1.5mm

2.5 Product Classification

- According to IEC 60601-1 Liftera-A2 is classified as follows:
 - Class I Me equipment
 - Type BF applied part
 - Non-continuous operation (On time: Max. 10 min., Off time: Min. 5 min.)
 - Not intended for use with flammable anesthetics
 - Not suitable to use in high oxygen level environment
 - IPX7

2.6 Expected Service Life

- Expected service life: 5 years

2.7 Routine Maintenance

- Routine maintenance life: 1 month

2.8 Applied Parts

- 3) Applied parts
 - Part: cartridge output part
 - Probability of occurrence of contact: frequent
 - Duration of contact: within 20 seconds
- 4) Accessible parts
 - External enclosure
 - Duration of contact: between 10 seconds and 1 minute
 - Touch panel, main switch, push switch, line handpiece and Pen Applicator connect cable, line handpiece enclosure + cable

Chapter 3. Liftera-A2 Overview

- 3.1 Product Components
- 3.2 Appearance and Function
- 3.3 Screen Layout



3 Liftera-A2 Overview

3.1 Product Components

- Liftera-A2 consists of the followings:

Name	Image
Main Body	
Line Handpiece	
Handpiece Holder	
Line Cartridge Liftera-A2 7M1.5	
Line Cartridge Liftera-A2 7M3.0	
Line Cartridge Liftera-A2 4M4.5	

Name	Image
Pen Applicator Liftera-A2 7M1.5	
Pen Applicator Liftera-A2 7M3.0	
Pen Applicator Liftera-A2 4M4.5	
Power Cable (10A, 250 V, 0.75mm ² x 1.8M)	
Pen Cable	

* Please check any damage on products before installation.

3.2 Appearance and Fuction

3.2.1 Main Body

Product	Dimension(mm) [L x W x H]	Weight (kg)
Main body	374 x 301 x 239	7.8

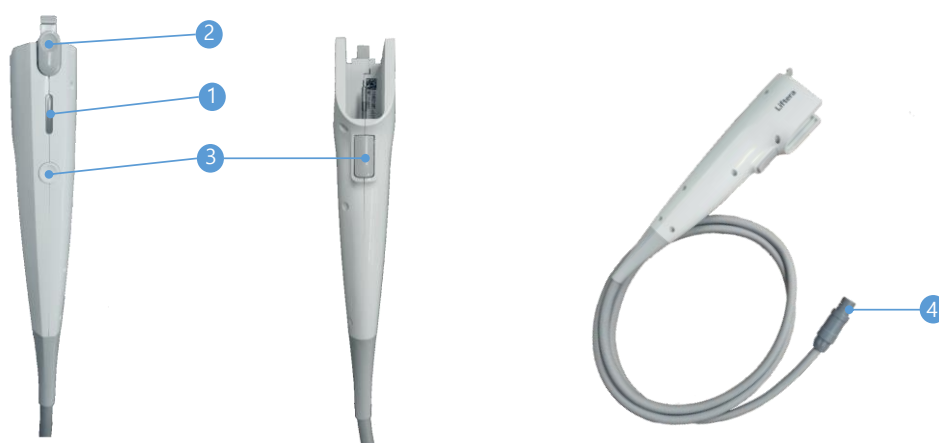


No	Name	Description
1	LCD Control Panel	The function of the device can be set and operated.
2	Handpiece Holder	For mounting the handpiece
3	Pen Applicator Holder	For mounting the Pen Applicator
4	USB port	The port used for software upgrade. (only for engineer) The patient should not be connected to the equipment during the equipment is being upgraded and connected to other equipment.
5	AC INLET	AC Power inlet to connect power cord
6	Fan	System cooling fan for protect the device from overheating
7	FUSE	Fuse to protect the device from over voltage and over current.
8	Main Power Switch	Main Power control from AC INLET
9	Power Switch	Switches that can be turned ON or OFF
10	Line Handpiece Connector	Connection port for connecting the handpiece
11	Pen Applicator Cable Connector	Connection port for connecting PEN Cable

3.2.2 Accessories

1) Line Handpiece

Name	Dimension (mm) [L x W x H]	Weight (kg)
Line Handpiece	294 x 50 x 89	1.3
Cable	185 cm	



No.	Name	Description
1	Mode LED Light	Display of ultrasound power and output status(Green colored LED: power, Yellow colored LED: Ultrasound output)
2	Cartridge Lock	Fixing cartridge into handpiece
3	Output Button	The push button to generate ultrasonic output for treatment
4	Line Handpiece Connector	Be used for connecting to the main device

2) Line Cartridge

Product	Dimension(mm) [L x W x H]	Weight (kg)
Cartridge	83 x 75 x 32	0.5



7M1.5 : 7MHz / 1.5mm



7M3.0 : 7MHz / 3.0mm



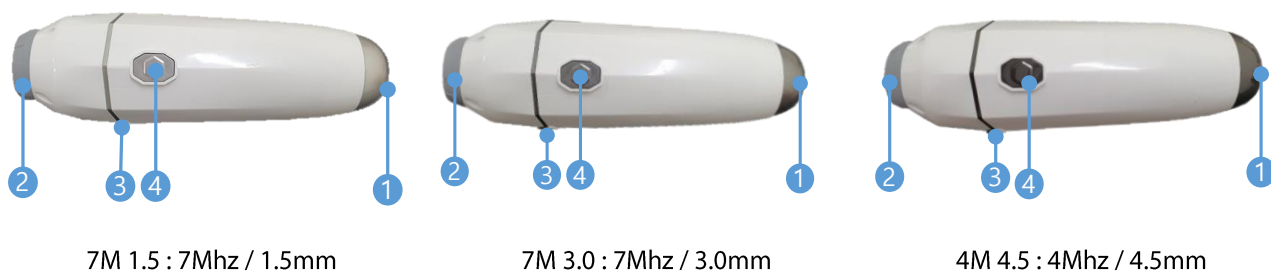
4M4.5 : 4MHz / 4.5mm

No.	Name	Description
1	Ultrasound Output Membrane	Ultrasound transmission unit
2	Handpiece Connecting part	Connecting to handpiece
3	Line Handpiece Guide	핸드피스와 라인 카트리지 결합 가이드로 탈부착 가능

3) Pen Applicator

Name	Dimension (mm) [L x W x H]	Weight (kg)
Pen Applicator	136 x 38 x 38	0.5

Applied in small area of the body.



No	Name	Description
1	Ultrasound Output Membrane	Ultrasound transmission unit
2	Pen Cable Connector	Connecting to pen cable
3	Mode LED Light	Display of ultrasound power and output status (Green colored LED : power, Yellow colored LED : ultrasound output)
4	Output Button	The push button to generate ultrasonic output for treatment.

4) Cable of Pen Applicator

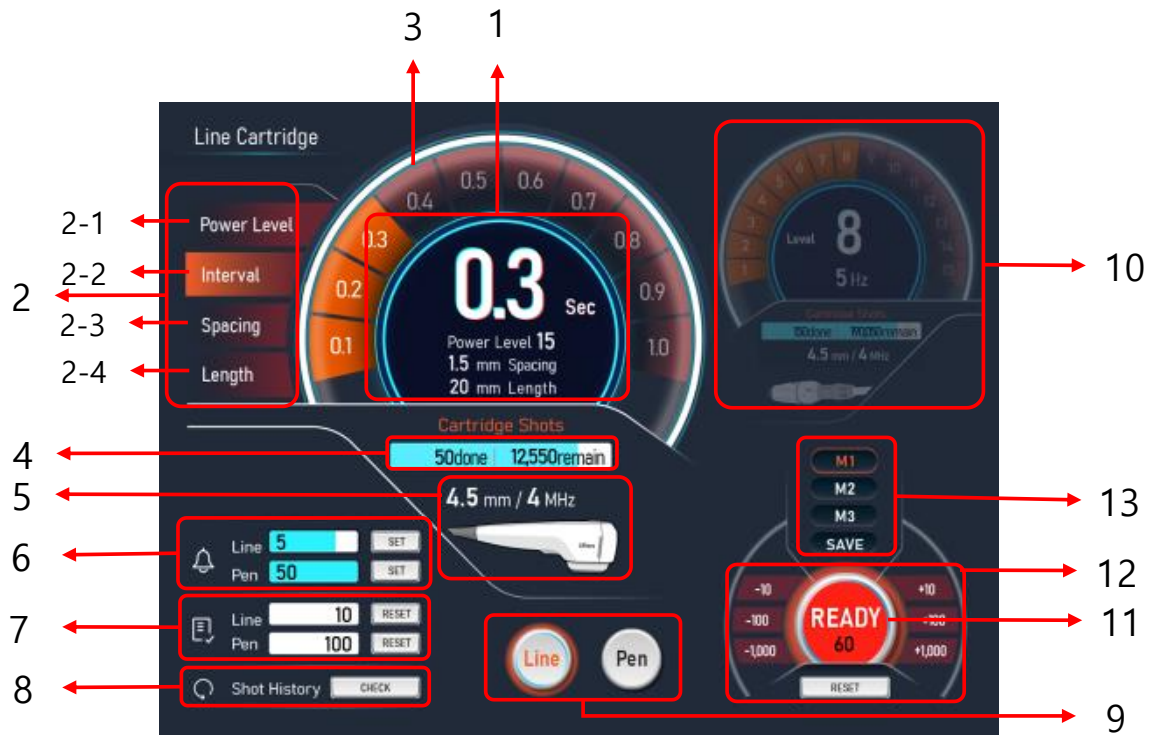
- Length: 190 cm
- Both sockets of the cable are cross-usable. (Main Device ↔ Pen Applicator)

















3.3 Screen Layout

3.3.1 Main Screen

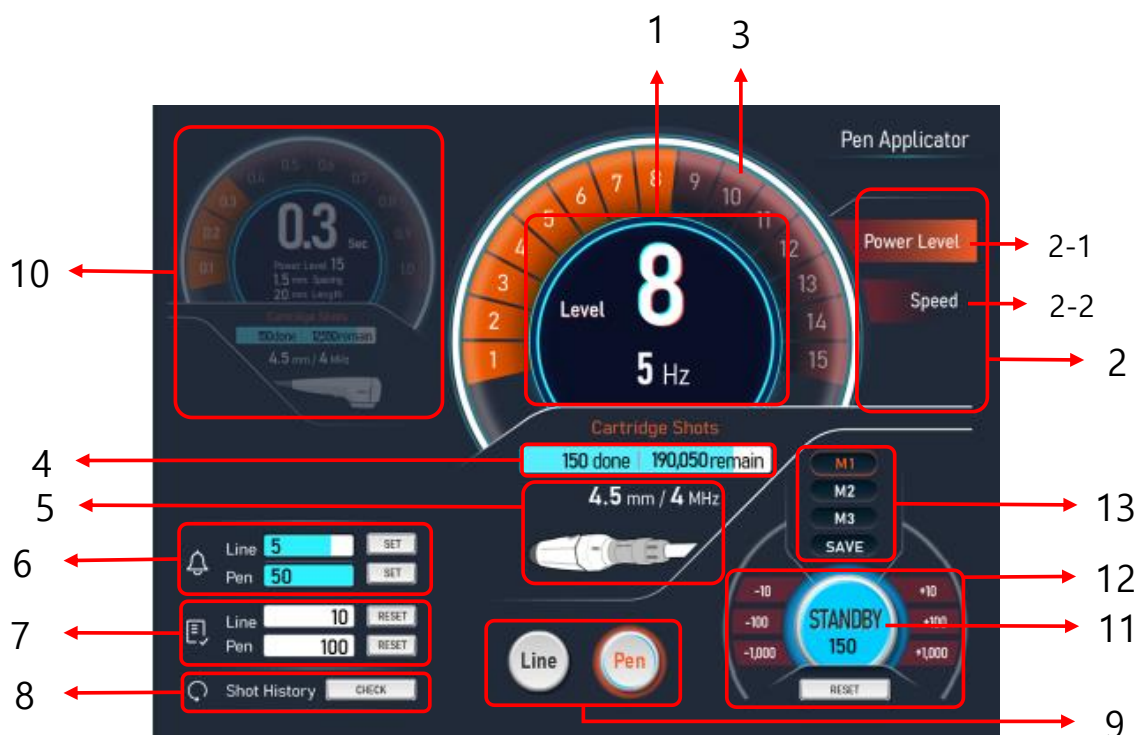
1) Line Cartridge Main Screen





















No.	Name	Description
1	Setting Check Window	Check the treatment setting value
2	Change Setting button	Power Level/Interval/Spacing/Length Settings change button
2-1	Power Level	Power Level Controls the power of ultrasonic output. (7M1.5: 5Level / 7M3.0: 7Level / 4M4.5: 15Level)
2-2	Interval	Interval Controls the time between ultrasonic output. (0.1 ~ 1.0sec, 0.1sec step)
2-3	Spacing	Spacing Controls the spacing of the ultrasonic output (1.5 / 1.8 / 2.0mm)
2-4	Length	Length Controls the total treatment length of one shot (5 ~ 25mm, 5mm step)
3	Select Setting Value button	Change the strength of scope of each function by selecting the desired value
4	Usage and Remain Amount	"done" show current usage of Line Cartridge. "remain" show remain shot of Line Cartridge.

No.	Name	Description
5	Line Cartridge Information	Displays icons and Line Cartridge depth and frequency values for the cartridge type currently in use. LINE TYPE 7M1.5: 1.5mm / 7MHz LINE TYPE 7M3.0: 3.0mm / 7MHz LINE TYPE 4M4.5: 4.5mm / 4MHz
6	Line Cartridge shot reach info.	Set an alarm for every shot on the Lin Cartridge, set using the set using the  of  Line
7	Number of Procedures	Displays the total shot number of Line Cartridge, and maintains them even if the used Line Cartridge is changed. Press  button of  Line to initialize to '0'
8	Shot History	Press  button to display history of used cartridges.
9	LINE / PEN Mode Settings button	When select  button change to Line Cartridge type. When select  button change to Pen Applicator type.
10	Background	Displays information of Pen Applicator in the background.
11	STANDBY/READY Mode	Set STANDBY mode and READY mode. And displays limit setting value
12	Limit the setting of treatment	Sets the Limit number of treatment shots by using       button. Converts to STANDBY mode when limit number becomes '0'. No limit when setting '0'
13	Save Button	Save the information of the selected function. Save up to 3 information. selects parameters and press  button to save.

2) Pen Applicator Main Screen



No.	Name	Description
1	Setting Check Window	Check the treatment setting value
2	Change Setting button	Power Level/Speed Settings change button
2-1	POWER LEVEL	 Controls the power of ultrasonic output. (7M1.5: 5Level / 7M3.0: 7Level / 4M4.5: 15Level)
2-2	SPEED	 Controls the Speed of the ultrasonic output. (1 / 3 / 5 / 7 / 10Hz)
3	Select Setting Value button	Change the strength of scope of each function by selecting the desired value
4	Usage and Remain Amount	"done" show current usage of Pen Applicator "remain" show remain shot of Pen Applicator.
5	Pen Applicator Information	Displays icons and Line Cartridge depth and frequency values for the Pen Applicator type currently in use. PEN TYPE 7M1.5: 1.5mm / 7MHz PEN TYPE 7M3.0: 3.0mm / 7MHz PEN TYPE 4M4.5: 4.5mm / 4MHz

No.	Name	Description
6	Pen Applicator Shot reach info.	Set an alarm for every shot on the Pen Applicator, set using the set using the  of  
7	Number of Procedures	Displays the total shot number of Pen Applicator, and maintains them even if the used Pen Applicator is changed. Press  button of   to initialize to '0'
8	Shot History	Press  button to display history of used cartridges.
9	LINE / PEN Mode Settings button	When select  button change to Line Cartridge type. When select  button change to Pen Applicator type.
10	Background	Displays information of Line Cartridge in the background.
11	STANDBY/READY Mode	Set STANDBY mode and READY mode. And displays limit setting value
12	Limit the setting of treatment	Sets the Limit number of treatment shots by using       button. Converts to STANDBY mode when limit number becomes '0'. No limit when setting '0'
13	Save Button	Save the information of the selected function. Save up to 3 information. selects parameters and press  button to save.

Chapter 4. Liftera-A2 Installation

- 4.1 Precaution on Installation
- 4.2 How to Install



4 Liftera-A2 A Installation

4.1 Precaution on Installation

4.1.1 Installation Safety

- 1) Please be careful on transportation of product. It's bulky and heavy.
- 2) Please do not lay down the product on floor or impact to avoid any internal damage.
- 3) Avoid installing in hazardous areas where the flammable gas can be leaked or explosion can be occurred by evaporation of organic gas. Also, avoid the place saturated with oxygen (O₂) and nitrous oxide (N₂O).
- 4) Avoid heat and humidity. Insulation can be affected.
- 5) Be sure to check all the risk, warning, and precaution on the manual.
- 6) Please install the product on a well-ventilated area with more than 20cm gap from the wall.
- 7) Please make sure the wall outlet voltage matches the rated voltage (100 –240Vac, 50/60Hz).
- 8) Please check the ground terminal of wall socket.
- 9) Please check voltage before installation. This product is manufactured to operate on rated voltage.
- 10) Please make sure power cable is not get wet.
- 11) Do not connect to main if power cable is damaged.
- 12) Do not use power strip which is used to connect to other products. It can be a cause of fire by overheating.
- 13) Cartridge and Pen Applicator are consumable. If popup window saying "Cartridge shots ran out " shows up, replace the cartridge.
- 14) When installing the device, ensure the appliance coupler shall be easily accessible.

4.1.2 Electric shock and fire hazard

- 1) Do not use multiple consent or loose outlet. It could be cause of fire.
- 2) Do not damage cause damage or deformation on power cable
(bending, pulling, twisting, tying) It could be a cause of fire or electric shock.
- 3) Maintain the power cable clean. Any damage or contamination could be a cause of fire or electric shock.
- 4) Power cable should not be placed on passage. It could cause damage on cable and people can stumble on cable.
- 5) Keep the power cable unplugged in the event of lightning. Lightning can cause electric shock or damage on the product.
- 6) Please do not disassemble, repair or modify the product. It can be a cause a malfunctioning of the product or electric shocks
- 7) The operator shall not touch the operator accessible connector and the patient simultaneously.

4.1.3 Fire and Explosion Risk

- 1) Do not operate the product near flammable or volatile materials.
- 2) Keep away from combustible materials
- 3) Do not use near oxygen (O₂) enriched environment to avoid fire.
- 4) Please avoid area saturated with oxygen (O₂) and nitrogen dioxide (N₂O). It can cause fire and burn to operator.
- 5) Keep away flammable materials, such as alcohol or thinner, from the product.
- 6) Do not spray water on the product or clean using chemicals such as benzene, thinner, alcohol etc.

4.1.4 Recipient & Safety

- 1) This product can be used by professional medical doctors only.
- 2) Do not use on pregnant women and children.
- 3) Do not use on progressive dermatitis.
- 4) Do not use on pacemaker wearer. If the pacemaker wearer wants to have treatment, please consult with cardiologist.
- 5) Do not use on ICD (implantable cardioverter defibrillator) wearer.
- 6) Do not use on life sustaining implantable medical electronic device wearer (artificial heart) or ECG which can cause malfunction of devices.
- 7) The following patient should not be treated:
 - Cardiac assist device wearer, patients with malignant tumor, patient with high fever, patients with heart attack experience or severe heart failure, pregnant women, patient acute illness, SPD (sensory processing disorder) patients, dermatitis, patients with artificial organs or artificial skeletons.
- 8) Application should be limited as per described on user manual.
- 9) Do not use in the eyes.
- 10) Please ventilate the treating area if necessary.
- 11) Please refrain from direct exposure to sunlight after procedure.
- 12) Please avoid the use of isotretinoin containing products, such as glycolic acid, salicylic acid or retin-A® 3 days before the treatment.
- 13) Do not use make up, skin cream, lotion, foundation and powder before procedure. It is recommended to have gentle cleansing using mild cleanser after procedure.

4.2 How to Install

- 1) Unpack the packing and check the components.
- 2) After positioning the main body, check the handpiece and holder.
- 3) Please insert the handpiece holder onto both side of main body as shown below.
 - How to install the Line Handpiece and Pen Applicator
 - Separate the left handpiece holder and the right Pen Applicator holder.
 - Check the position of the groove and slide the holder as shown in the picture below.



- The assembly is finished when click sound is heard.
- 4) After fully assembling the cartridge holder to the body, connect the pen cable and Line handpiece to the connection at the bottom of the body.
 - How to connect the pen cable to main body
 - Check the connector on the lower right side of the body.
 - Position the arrow and the groove of the body in a straight line as shown in the picture.



- Push the pen cable toward the body to complete the connection.
- If you want to disconnect the pen cable from the body, pull the part out.



- How to connect the Pen Applicator
 - Insert one of Pen Applicator(Liftera-A2 PEN 1.5mm/3.0mm/4.5mm) into the pen cable. Please check the model before use.
 - Disconnecting is the same as disconnecting the pen cable from the main body.



- How to connect the LINE handpiece to main body
 - Check the connector on the lower left side of the body
 - The connection and disconnection of the handpiece are the same as the pen cable.
- How to connect the Line Cartridge
 - Insert one of Line Cartridge (Liftera-A2 LINE 1.5mm/3.0mm/4.5mm) into the LINE handpiece. Please check the model before use.
 - The blue LED will illuminate when the installation is complete.
 - If you want to remove the Line Cartridge from the handpiec, press the lock button on the LED



- 5) Place the Pen Applicator and Line Cartridge on the holder and inspect it closely for damage.
- 6) If power connector is plugged in multiple plugs, please remove the rest connection.
- 7) Please make sure the right connection of power plug. Avoid working in wet hands to prevent from electric shocks.
- 8) Turn the main power switch on the back of the product.
- 9) Press the power switch ON the side of main body. If power switch is ON, it will glow blue.
- 10) If LCD control panel shows up properly, the installation is completed.

Chapter 5. Liftera-A2 Usage

- 5.1 Precaution on Operation
- 5.2 How to Operate



5 Liftera-A2 Usage

5.1 Precaution on Operation

- 1) This product can be used by properly trained and qualified person.
- 2) Please check the risks, warning, caution and importance on the user manual before use.
- 3) Please read and learn the usage thoroughly before use.
- 4) Please make sure that 100-240Vac, 50/60Hz power is supplied to the product.
- 5) Please check the power cable (300/500V, 0.75mm³ x 3C above) is connected.
- 6) If this product is used on multiple extensions, use separate grounding of 15A.
- 7) Please check defects on membrane of Cartridge and PEN Applicator and replace it if necessary.
- 8) Please keep flammable anesthetic or solvent away.
- 9) There is no restriction of age and gender on the use of High Intensity Focused Ultrasound. However, the practitioner must decide the use of the product depending on health condition.
- 10) Cartridge is consumable. If popup saying "Cartridge shots ran out " shows up, please replace the cartridge.
- 11) Energy level should be decided in consideration of skin thickness.
- 12) Procedure must be done under anatomical understanding on facial blood vessel or nerves.
- 13) Cartridge must be attached to skin closely. If focused ultrasound is exposed to skin, it can cause the burn.
- 14) Do not repeat the treatment on the same spot. Accumulated heat can be cause of the burn.
- 15) Do not move handpiece during the treatment. It can be a cause of repeated shot on the same spot and occurs a burn. It is recommended to use topical anesthesia to minimize the movement of patients.
- 16) Please check whether the device is working properly and the patient's condition is comfortable.
- 17) Please stop the procedure and take proper measures if abnormality shows on device or patient.
- 18) If any damage is found on the device, terminate the procedure and switch off the power.
- 19) If there is power outage, turn the power off immediately and revert the switch to original position.
- 20) Since the power level is adjusted according to the ultrasound output level and the thermal effect is affected, the power level should be adjusted according to the condition of the skin.
- 21) If bubbles form on the exterior of the cartridge, the operation should be stopped.
- 22) Changing parameters during the procedure will interrupt the procedure, which may harm the patient. Do not change the parameters during the treatment.
- 23) Treatment for lesions can achieve the highest therapeutic effect when delivering the precise energy set by the device to the skin.

5.2 How to Operate

5.2.1 Preparation

- 1) Check the power cable and power supply at the back of device.
- 2) Turn the power switch ON at the rear of device.
- 3) Turn the power switch ON at the side of device. It glows blue when power is ON.
- 4) When power is connected it starts initialization. Wait until initial screen appears.
- 5) Check the display status on the screen.
- 6) Insert a selected cartridge to handpiece. (Liftera-A2 Line / 1.5mm, 3.0mm, 4.5mm, Liftera-A2 PEN / 1.5mm, 3.0mm, 4.5mm)

5.2.2 How to Use

- 1) Power ON: Position the main power switch on the rear of the body to [I] and press the power switch on the left side of the equipment to turn on the power. (Light blue when the power switch is on.)

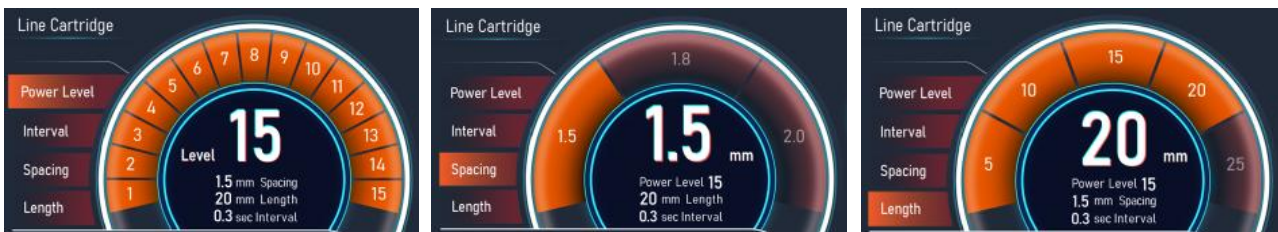


- 2) When power is applied, the main screen is displayed after loading the screen.

5.2.3 Line Cartridge Ultrasonic output setting



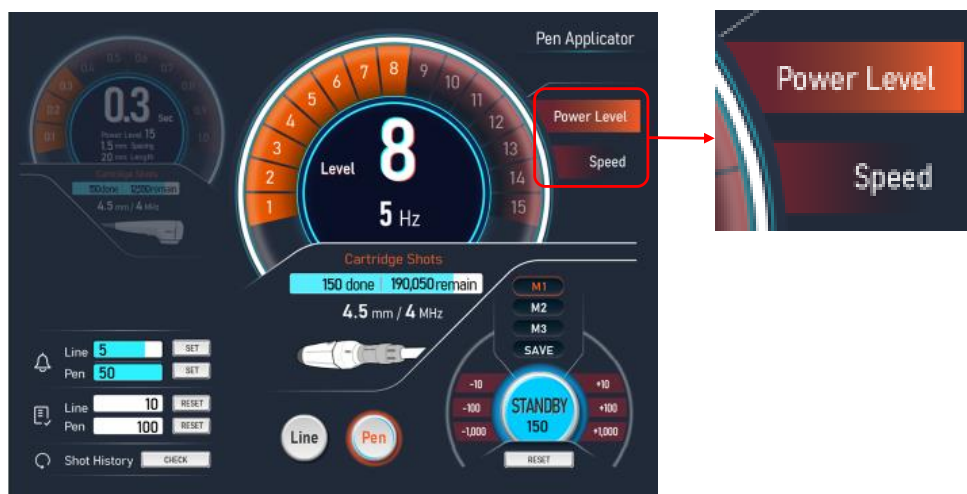
- 1) Press **Power Level** **Interval** **Spacing** **Length** buttons to change each output setting.
- 2) "Power Level" controls the intensity of the ultrasonic output, "Interval" controls the interval time between shot irradiations, "Spacing" controls interval space between shot, "Length" controls length of ultrasound irradiation.



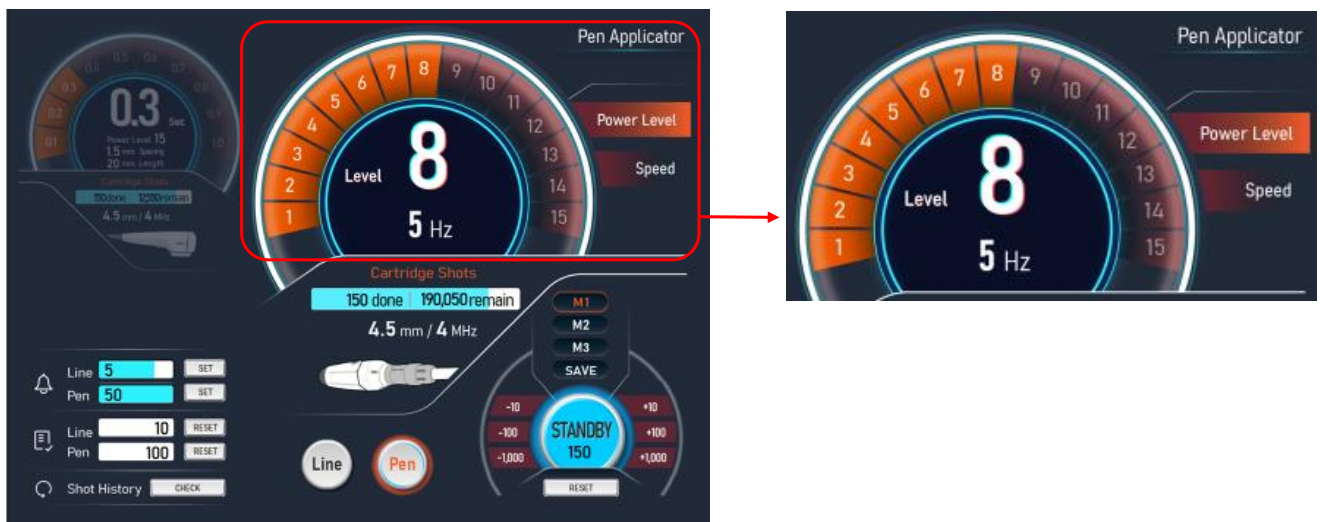
- 3) Within the setting check window, "Power Level" is displayed as Level, "Interval" as sec and "Spacing" and "Length" as mm.
- 4) When the buttons for each function are activated, you can set the strength and range by selecting the desired number. The strength and scope of each function are as follows.

- Power Level: LINE 7M1.5: 5Level
LINE 7M3.0: 7Level
LINE 4M4.5: 15Level
- Interval: 0.1sec ~ 1.0sec, 0.1 sec step
- Spacing: 1.5mm, 1.8mm, 2.0mm
- Length: 5mm ~ 25mm, 5mm step

5.2.4 Pen Applicator Ultrasonic output setting



- 1) Press **Power Level** **Speed** buttons to change each output setting.
- 2) "Power Level" controls the intensity of the ultrasonic output and "Speed" controls the irradiation speed of ultrasonic output.

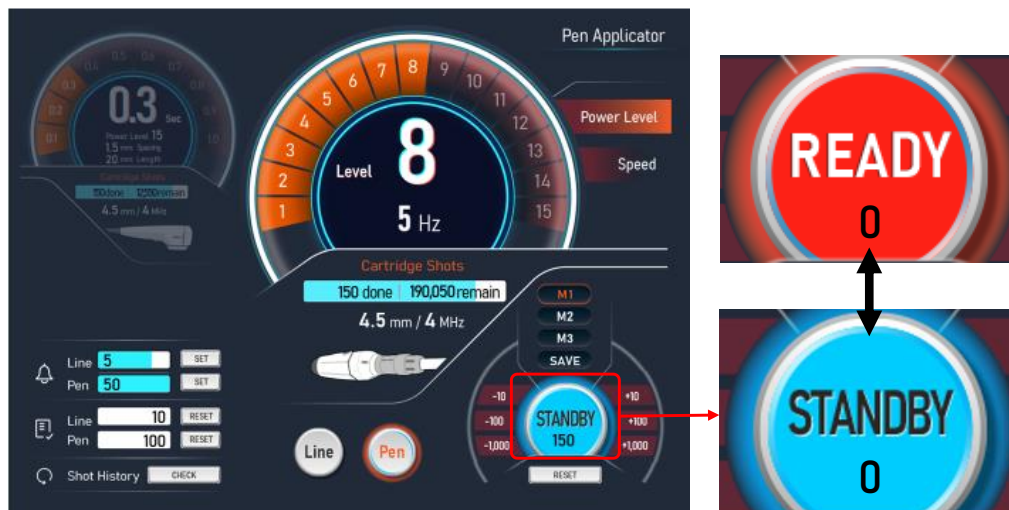




- 3) Within the setting check window, "Power Level" is displayed as Level, "Speed" as Hz.
- 4) When the buttons for each function are activated, you can set the strength and range by selecting the desired number. The strength and scope of each function are as follows.
 - Power Level: PEN 7M1.5: 5Level
PEN 7M3.0: 7Level
PEN 4M4.5: 15Level
 - Speed: 1Hz, 3Hz, 5Hz, 7Hz, 10Hz

5.2.5 STANDBY/READY Mode

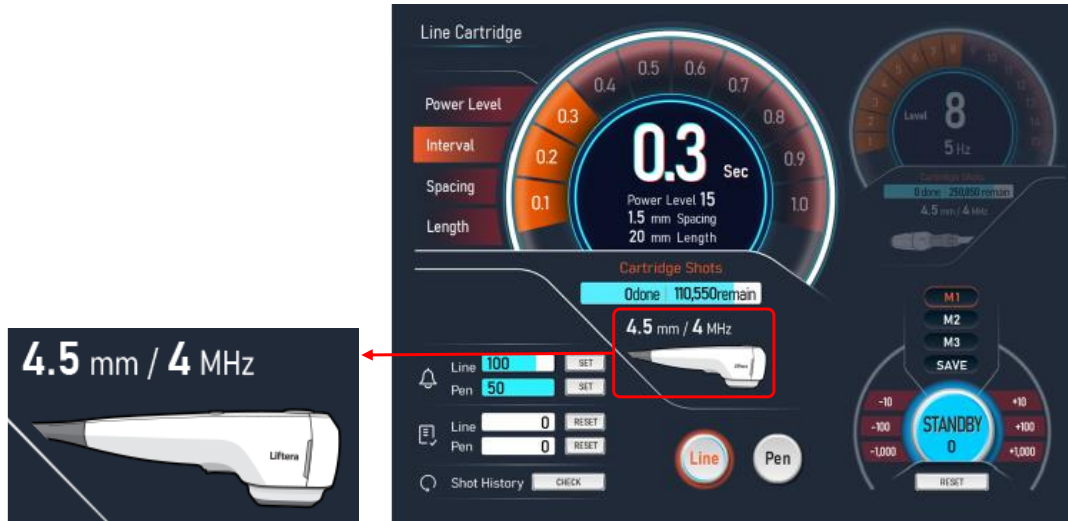
- 1) "STANDBY" indicates standby mode and "READY" indicates ready mode. Only be performed in ready mode.



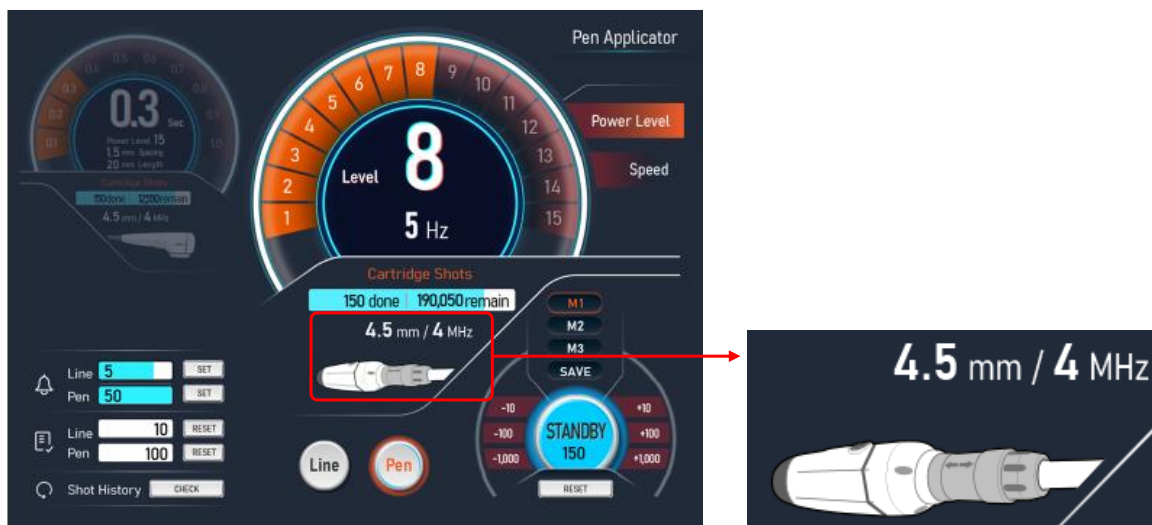
- 2) Press the "STANDBY" button after completing all the settings to enter the "READY" mode
- 3) The "READY" mode is set only when the Pen Applicator is connected and when the "READY" button is pressed again, it enters "STANDBY" mode.
- 4) If you change the setting in the "READY" state, the ready mode is released and changes to the "STANDBY" mode.

5.2.6 Information of Line Cartridge and Pen Applicator

- 1) Check the information on the Pen Applicator and Line Cartridge connected on the main body.
 - Information and icons of the Line Cartridge



- Information and icons of the Pen Applicator

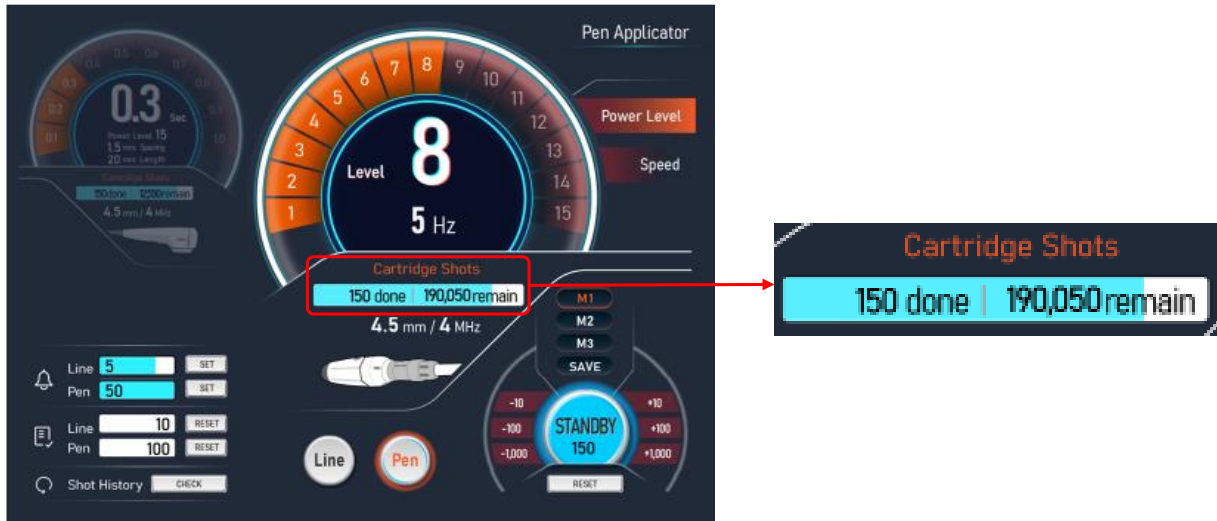


- 2) The frequency and depth are displayed with icons on the cartridge. Check if it matches the cartridge you want to use.



Caution Please use it after checking the information on the cartridge.

- 3) The current usage of the connected cartridge is displayed in "done" on the main screen "Cartridge Shots"
- 4) If disconnect the cartridge, the usage of "done" is reset.







- 5) The remaining amount of connected cartridge is displayed in "remain" on the main screen "Cartridge Shots". The blue gauge bar is reduced depending on the amount residual after use.
- 6) If the residual amount becomes '0' and the blue gauge is reduced, the Pen Applicator must be replaced.

5.2.7 Information and setting on shot amounts








- 1) The total number of treatments on the cartridge is shown in the area shown below.



- 2) The number of treatments is maintained when the cartridge is replaced. Total treatment information of the Line Cartridge and Pen Applicator is displayed respectively.

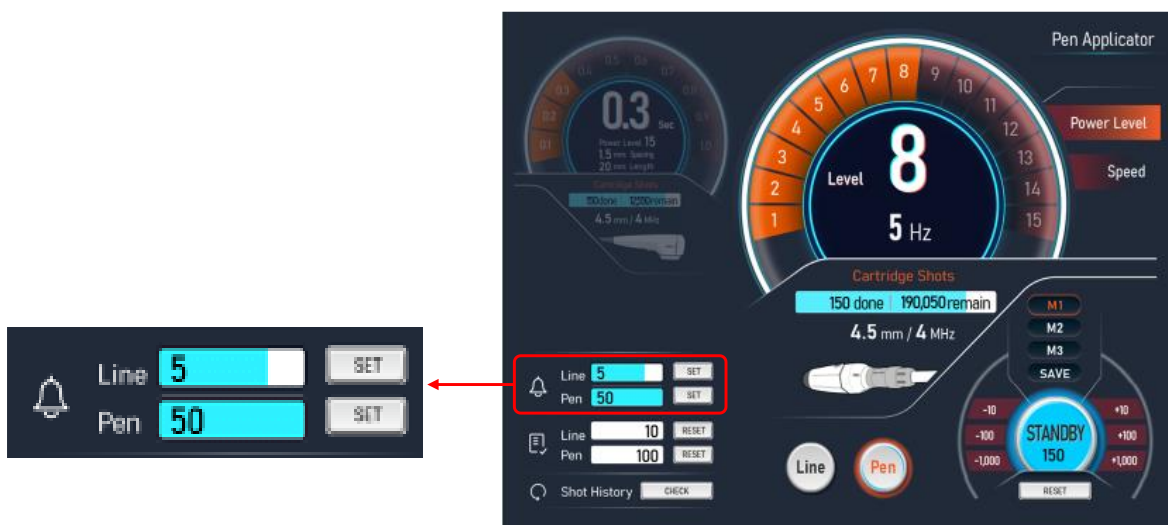
- 3) Press  of  **Line** to reset the total number of treatments and press  of  **Pen** to reset the total number of treatments.









- 4) The treatment shot limit setting can be adjusted using       the button as shown in the picture above.
- 5) Limit setting value is shown under the "STANDBY/READY" button.
- 6) After setting the "READY" mode, when the set value of the shot procedure, it is converted to "STANDBY" mode.
- 7) If set to '0' by pressing  under the "READY/STANDBY" button, the shot limit is unlocked.


5.2.8 Shot reach Info.

- 1) Set the notification for certain shot.

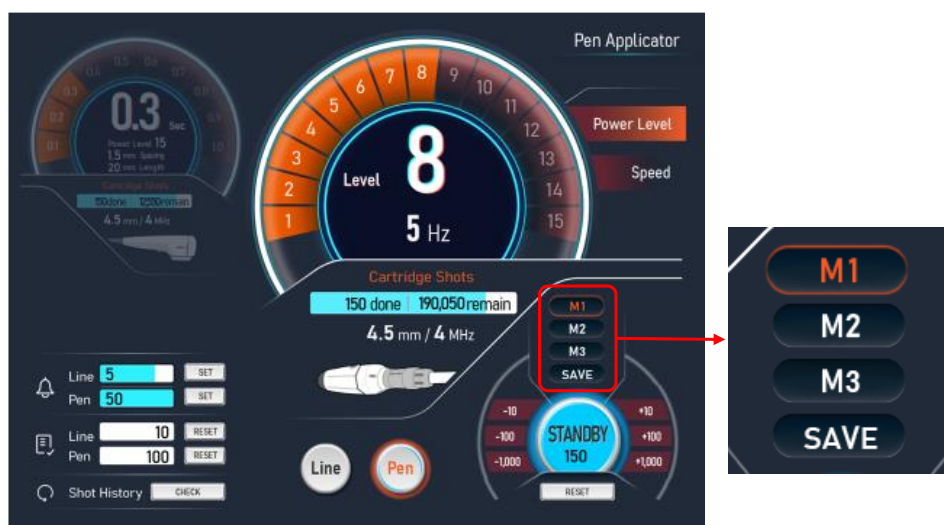


- 2) Press  button of  **Line** for set the notification of Line Cartridge,
Press  button of  **Pen** for set the notification of Pen Applicator.
- 3) After Pressing  button to display the keypad, set the desired number of notification and press .



- 4) The blue gauge reduce with the number of uses and beep sound is ringing when the target shot number is reached.
- 5) The notification is repeated continuously and if want to terminate the notification, change the number by using  to '0'.

5.2.9 Save

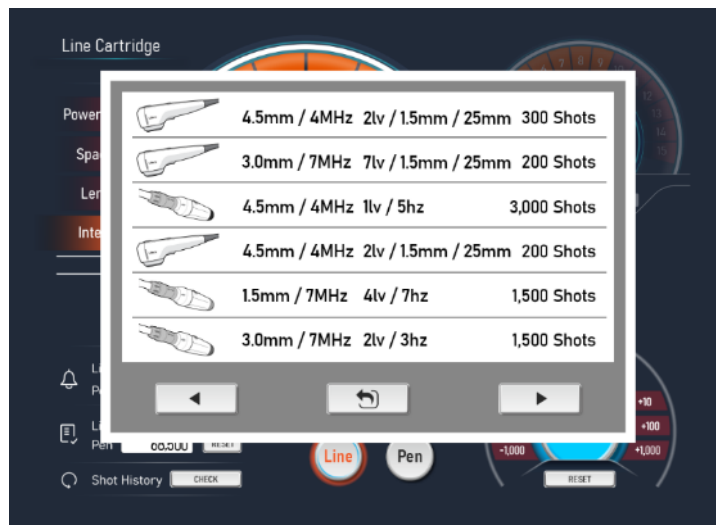


- 1) Select on of M1, M2 and M3 to enter the treatment information and press  button.

- 2) parameters include "Power Level", "Interval", "Spacing", "Length" and Line Cartridge types for the Line Cartridge.
parameters include "Power Level", "Speed" and Pen Applicator types for the Pen Applicator.
- 3) Press the appropriate button among the saved M1, M2 and M3 to retrieve the stored parameters. A maximum of 3 treatment information can be stored.

5.2.10 SHOT History

- 1) Touch  of Shot History button to pop up the function on the screen.



- 2) Display the history of all the PEN Applicator and Line Cartridge used.

5.2.11 Procedure

- 1) Paste enough gel on the surface of skin before procedure.
- 2) Membrane of the cartridge where the ultrasound is emitted must be attached to surface of skin closely. Then, press the shot button to start the procedure.
- 3) Make sure that the membrane attaches to skin closely. Otherwise, it can be a cause of skin burn.
- 4) Too much gel on skin surface can affect the focusing of ultrasound into targeted area and skin burn or interference with correct procedure in consequence.



5.2.1 End of Procedure

- 1) Press "READY" button to return to "STANDBY" after procedure.
- 2) Turn the main power switch OFF at the rear of device.

5.2.2 After procedure care

- 1) Turn off the main unit, disconnect the power cable from the back of the main unit, and stop power supply. Disconnect the power cable from the outlet.
- 2) Return accessories, and other to the state before use.
- 3) Store the product in a dry place.
- 4) If it's not used for more than one day, turn off the main power switch on the back of the product.
- 5) For long-term storage, remove the power cable and state main unit with vinyl cover.
- 6) Avoid environments where direct sunlight can cause temperature rise.
- 7) Be careful not to damage the PEN Applicator to the floor. It is very vulnerable to impact and can cause leaks, etc.
- 8) Keep out not to be reached to the children.
- 9) Be careful of adverse effects such as air pressure, temperature, humidity, ventilation, daylight, dust, salt laden air.
- 10) Do not store the unit in a place with high temperature, high humidity, and direct sunlight or a lot of dust and corrosive gas.
- 11) Be careful of slope, vibration and impact.
- 12) Do not store in a place where chemicals are stored or gas is generated.
- 13) It is recommended that products and parts be checked regularly.
- 14) When reusing a product that has not been used for more than a month, try safety-check before using.
- 15) Store the PEN Applicator at room temperature as freezing may damage the liquid inside.
- 16) Clean the device after use as follows.
 - Turn off the device and remove the power cable before cleaning.
 - Wet the recommended detergent with a soft cloth, then gently rub the screen.
 - Clean only monitor parts other than the LCD panel on the screen, as this may damage the display.
 - The used PEN Applicator is stored after lightly wiping the exterior and mounting parts with a soft cloth soaked with the recommended detergent.
 - Do not use benzene, thinner, acid or alkaline detergents and other solvents.
 - Recommended detergent: 0.55% benzalkonium chloride, 0.63% sodium hypochlorite or 70% alcohol solution.

Chapter 6. Product Specification and Maintenance

- 6.1 Product Specification
- 6.2 Error Message
- 6.3 Trouble Shooting
- 6.4 Maintenance
- 6.5 Labeling

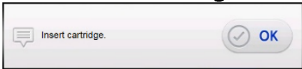


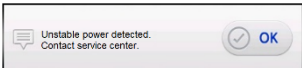


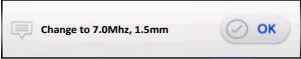
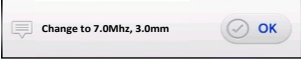
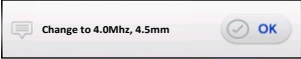
6 Product Specification and Maintenance

6.1 Product Specification

Type of protection against electric shock		Class I					
The degree of protection against electric shock		Class I, Type BF applied part					
Operational Parameter (Frequencies)		4 MHz, 7 MHz					
Electricity Consumption		300VA					
Rating		100-240 Vac, 50 / 60Hz					
Display		15"LCD					
Cartridge	Cartridge / Applicator	Liftera-A2 Line Cartridge			Liftera-A2 Pen Applicator		
	Ultrasound Frequency (±10%)	7 MHz	7 MHz	4 MHz	7 MHz	7 MHz	4 MHz
	Ultrasound Focusing Depth (±10%) (±10%)	1.5 mm	3.0 mm	4.5 mm	1.5 mm	3.0 mm	4.5 mm
	Size of Focused Area	0.13mm ³ ±10%	0.13mm ³ ±10%	0.13mm ³ ±10%	0.13mm ³ ±10%	0.13mm ³ ±10%	0.13mm ³ ±10%
	Interval (±10%)	0.1 ~ 1.0 sec			N/A		
	Spacing (±10%)	1.5 – 2.0 mm					
	Length (±10%)	5.0 – 25 mm					
	Speed (±10%)	N/A			1 / 3 / 5 / 7 / 10 Hz		
Handpiece	Length	185 cm					
Pen Cable	Length	190 cm					
Operational Environment		Atmospheric Temp.		10 C° ~ 35 C°			
		Humidity		30 % ~ 70 %			
		Atmospheric Pressure		700 hPa ~ 1.060 hPa			
Transportation & Storage Conditions		Temperature		5 C° ~ 50 C°			
		Humidity		0 % ~ 93 % (No Cond.)			
		Atmospheric Pressure		500 hP a ~ 1.060 hPa			



6.2 Error Message

Error Message	Description	Solution
<p>"Insert cartridge."</p> 	<p>Insert cartridge. Message</p> <p>"Insert cartridge" message will appear if press Ready/Standby button without inserting Cartridge or Pen Applicator.</p> <p>"Insert cartridge" message will appear when Cartridge or Pen Applicator is removed from Ready or handpiece cable is disconnected from main body.</p>	<p>Check the connection of handpiece to main body.</p> <p>Insert cartridge into handpiece.</p> <p>Check correct loading of cartridge into handpiece.</p>
<p>"Cartridge shots ran out."</p> 	<p>Cartridge shots ran out. Message</p> <p>"Cartridge shots ran out." message appears when there is no remaining shot available.</p> <p>"Cartridge shots ran out." message will appear and the remaining shot shows as 0 when there is technical error on cartridge or Pen Applicator. It will stop automatically and return to "STANDBY" mode.</p>	<p>Replace by new cartridge.</p>
<p>"Handpiece alignment error. Contact service center."</p> 	<p>Handpiece alignment error. Contact service center. Message</p> <p>"Handpiece alignment error. Contact service center" message will appear if the start position of the cartridge is irrelevant to original setting.</p>	<p>Please contact A/S center.</p>
<p>"Unstable power detected. Contact service center."</p> 	<p>Unstable power detected. Contact service center. Message</p> <p>"Unstable power detected. Contact service center." message will appear when the ultrasonic output doesn't occur during use.</p>	<p>Please contact A/S center.</p>

Error Message	Description	Solution
<p>"Change to 7.0Mhz, 1.5mm."</p> 	<p>Change to 7.0Mhz, 1.5mm. Message</p> <ul style="list-style-type: none"> Retrieving parameter values of M1, M2 or M3 stored when connecting 7MHz, 1.5mm pen applicator or cartridge, "Change to 7.0MHz, 1.5mm" occurs when information on connected cartridge is different. 	<ul style="list-style-type: none"> Check the information on the attached cartridge. Replace with 7.0Mhz, 1.5mm cartridge.
<p>"Change to 7.0Mhz, 3.0mm."</p> 	<p>Change to 7.0Mhz, 3.0mm. Message</p> <ul style="list-style-type: none"> Retrieving parameter values of M1, M2 or M3 stored when connecting 7MHz, 3.0mm pen applicator or cartridge, "Change to 7.0MHz, 3.0mm" occurs when information on connected cartridge is different. 	<ul style="list-style-type: none"> Check the information on the attached cartridge. Replace with 7.0Mhz, 3.0mm cartridge.
<p>"Change to 4.0Mhz, 4.5mm."</p> 	<p>Change to 4.0Mhz, 4.5mm. Message</p> <ul style="list-style-type: none"> Retrieving parameter values of M1, M2 or M3 stored when connecting 4MHz, 4.5mm pen applicator or cartridge, "Change to 4.0MHz, 4.5mm" occurs when information on connected cartridge is different. 	<ul style="list-style-type: none"> Check the information on the attached cartridge. Replace with 4.0Mhz, 4.5mm cartridge.

6.3 Trouble Shooting

Symptom	Solution
No power on the device	<p>Check the power on the electrical outlet and proper insertion of plug. Power connection to the product.</p> <p>Check the fuse in the fuse holder of power cable connector and replace it if necessary.</p> <p>If problem cannot be solved by above steps, please contact local distributor or A/S center.</p>
Different loading display appears on window and count message shows for 30 seconds	<p>If window program was not terminated properly in the previous session, it can happen. Therefore, please close down the program and wait until power is off. Then, it can return to normal operation.</p>
No energy transferred to skin during procedure	<p>Change the cartridge and try again.</p> <p>It can be temporary malfunction of SMPS. Please turn off for 2-3 minutes and try again.</p> <p>If the symptom persists, please contact A/S center</p>
Power switch on the top of device is not turning to OFF	<p>Turn the power off by pressing main switch to [I] position.</p> <p>Check power cable connection and ON/OFF function.</p> <p>Please contact A/S center if the symptoms persist</p>
Power is disconnected by itself when trigger button is pressed for the shot	<p>If there is water leakage inside transducer, it can be shot down.</p> <p>If so, please replace by another cartridge.</p> <p>Contact A/S center if the same symptom continues.</p>

Symptom	Solution
Burning smell coming off the product Loud explosive noise from the product	<p>Turn the power OFF using power switch. Remove power cable from outlet. Contact A/S center</p> <p> Warning If you keep using the product, it can cause the fire or serious safety incident</p>
Continuous Creaking noise from handpiece during operation	<p>It happens if cartridge is not recognized properly by system. Please replace by new cartridge and try again. Please check the transducer moving shift magnet is placed correctly. Turn the power off and change the cartridge.</p>
When the glass of Touch Screen is broken	<p>Please stop the operation immediately. Turn the power off and separate the power cable from outlet. Contact A/S center.</p> <p> Warning If you continue to use the product with broken touch screen it will result in damages to the skin due to uneven energy level.</p>
When blister or burn occurs	<p>It is necessary to cool down the treated area immediately. If necessary, paste burn ointment or steroid medication such as dexamethasone.</p>

6.4 Maintenance

6.4.1 Cleaning and Storage

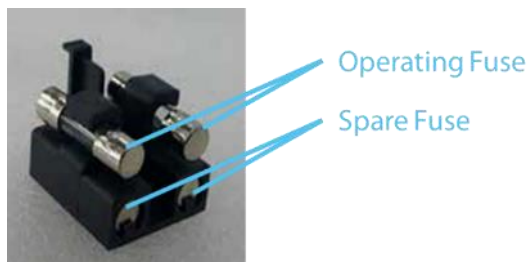
- 1) Remove gels after procedure.
- 2) The connecting cable between main body and handpiece should not be bent.
- 3) Avoid damp area for storage.
- 4) If you do not use the device more than a day, it is recommended to switch off from main power.
- 5) It should be kept covered with vinyl after remove the power cable for prolonged storage.
- 6) Avoid direct sunlight for storage.
- 7) Be careful not to drop handpiece on the floor. It can be a cause of leak in cartridge. Cartridge is fragile on external impact.
- 8) Power cable must be separated from outlet for storage.
- 9) Keep out of reach of children.
- 10) Be aware of adverse effects of pressure, temperature, humidity, ventilation, sunlight, dust and salt laden air.
- 11) Do not store in places with high temperature, high humidity, direct sunlight, lots of dust and corrosive gases.
- 12) Store the product with consideration of tilt, vibration and shocks.
- 13) Avoid the places with chemical and gases.
- 14) It is recommended to have regular checkup for product and accessories.
 - If you need to check the equipment and performance, please contact the manufacturer.
 - Check the output cable for damage
 - Check the output connector and AC INLET connector for cracks and looseness.
- 15) Please check the safety of product prior to use if you want to reuse the product that has not been used more than a month.
- 16) Keep in room temperature to avoid freezing the solution inside cartridge.
- 17) Cleaning agent: Alcohol

6.4.2 Replacement of fuse

- 1) Separate the power cable after switch off main power.
- 2) Insert screwdriver inside fuse holder to remove fuse as shown in figure below.



- 3) There are two fuses loaded in fuse holder and two spare fuses.



- 4) Replace with new fuse that is compatible with the power voltage. (Fuse: 250V, T4AH)
- 5) Push back the fuse holder in and connect power cable.



* Manufacturer will supply other required information and services, such as schematic, parts or components and instructions by request.

Tel: +82-6927-0498

E-Mail: info@asterasys.com

Homepage: <http://www.asterasys.com>



Warning

- Replace the fuse in accordance with rating. (250V, T4AH)
- Please contact service center if you need to replace fuse.

Manufacturer will not be responsible for any damage caused by own replacement without consulting.

6.4.3 Service Life and Warranty Period

- The service life of product is 5 years. Please receive regular maintenance service as scheduled by manufacturer. (Free A/S for warrant is 1 year)

6.4.4 Disposal

- This product should be disposed according to local waste disposal regulation.



Liftera-A2



Manufacturer ASTERASYS Co., Ltd.

Address #1005, #508, #313, 25 Seonsuil-ro 4-gil, Seongdong-gu, Seoul,
04781, Republic of Korea

Tel +82-1833-7010
Fax +82-2-6953-0599

Website www.asterasys.com
E-mail info@asterasys.com

