

silkro

USER MANUAL

PRODUCT	Electrosurgical System
MODEL	SILKRO



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Copyright

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Intellectual Property Rights

SILKRO-related intellectual property rights referred to herein include all of the patent, trademark and design rights applied for or registered in Korea and other countries. All of the rights related to this product are protected by the relevant intellectual property rights.

The product referred to herein is protected by Hironic Co., Ltd.'s intellectual property rights, including the patent rights and their patent family, as well as the trademark rights and design rights. Unauthorized use of this product is an infringement of Hironic Co., Ltd.'s intellectual property rights and may be subject to civil and/or criminal penalties.

The user manual is basically in English. French, Italian, German, Spanish and English are standard. However, when exported to each country, it is provided in each country's language.

Purpose of Use

A device used for coagulation by utilizing high-frequency currents

Patients Group

RM, RN, RC, PS handpieces are for dermatology patients group / RV handpiece is for Women 18 years over

Life Cycle

Main Body – 4 years of expected service life

* RM Microneedle tip, RN Needle Life cycles are 3 years.



Caution

Manipulation, control, and procedural implementation of the equipment in a way that is inconsistent with the instructions for normal use stated in the manual can cause a serious danger.

Warning

- * Using this system for purposes other than the intended use is prohibited. Ensure that the system is not used by anyone but a permitted user (doctor).
- * Abstain from using this system in areas such as eyes, wounds, and other human body tissues that can be seriously damaged.
- * Upon a breakdown, do not disassembly or manipulate the equipment but place an out-of-order sign on it and contact the manufacturer.
- * The handpiece may become severely damaged if it is dropped, exposed to an impact or bumped against an object. If the applicator will not be used, store it under safe conditions. Hironic Co., Ltd. is not responsible for a damaged applicator caused as a result of negligent use, such as dropping, abuse or misuse of the applicator.
- * Be careful to ensure that the applicator is not put into liquid. The applicator may become damaged if submerged in liquid.
- * Be sure that you are familiar with the user instructions, and check that the system operates properly before use.
- * Do not use this product or other electric devices at the same time. There are no research results in regard to using this product together with an implanted electronic medical device or electronic life-support system.
- * Avoid disassembling or remodeling the system on your own.
- * Since the devices generate high-frequency voltage and current in general, be sure that there is no device nearby that is sensitive to electric or magnetic fields.

Contraindications:

If the patient falls in any of the following categories, DO NOT USE SILKRO:

- * Persons that experience immunologic inhibition or take immunosuppressive medications, or persons that suffer from HIV infection, AIDS or other autoimmune diseases
- * Persons that took or plan to take antiplatelet agent, anticoagulant, thrombolytic agent or antiinflammatory drug within two weeks before or after the treatment
- * Persons that currently take anticoagulants due to a coagulation disorder. Note that the system can be used on persons that take a large dose of aspirin (e.g. more than 81 mg daily)
- * Persons with skin tanned by sunlight, persons whose skin needs to be tanned with a tanning bed, or persons that are likely to be exposed to sunlight within a week before or after the treatment
- * Persons that took medicine that is highly sensitive to sunlight, or persons that are sensitive to sunlight
- * Prior to use, a doctor must check that the patient does not fall in any of the following categories.
 - Patients with a chronic disease
 - Patients using an electronic medical device for electrocardiographic uses
 - Pregnant women or infants
 - Patients with high blood pressure
 - Patients with sensory impairment
 - Women on their period

Precautions for Treatment

- * Continuously monitor the system and patient to make sure that there is no problem during the treatment process.
- * If a problem is found with the system or patient, stop operation of the system and take other adequate measures while keeping the patient safe.
- * Since electric sparks may cause ignition on a flammable liquid or gas, be sure that there is no flammable gas nearby prior to using the system.
- * Be careful while using the electrodes. Be sure that the patient is not in contact with the electrodes while they are not used.
- * In the case of a patient with a pacemaker or electrode implanted, attention must be paid since the device may involve a functional error and ventricular fibrillation. In general, do not use this device along with any other system that is involved in life-sustaining such as a pacemaker.
- * Since liquids (such as saline solution or blood) are conductive, be sure that there is no liquid nearby during the treatment in order to prevent an accidental skin burn.
- * In order to prevent a skin burn during the treatment, be sure that the entire surface of the grounding pad is adhered tightly onto a muscular part.
- * Be sure to use it in a well-ventilated area. Avoid certain areas such as sharp corners or shelves.
- * Removing the electrode is from the skin while electricity flows through the device may cause a risk of skin burn. Be sure to cut off the power output before removing the electrode from the skin.

Restrictions for Use

- * Although there is no age or gender restriction on use of the system, it is necessary to check the health condition of the patient to decide whether to use the system on them and the output level before using the system

Side Effects

The temporary side effects specified below may occur.

- * Redness, pressure pain, swelling, pain, bruises, numbness, blister, skin burn, itching, hyperpigmentation, hypopigmentation, irregular skin contour, indentation, necrosis (cell loss), skin hardening, tubercle, skin relaxation, asymmetry (resulting from an imbalanced operation or an anatomic imbalance)
- * Although the treatment may cause swelling, redness, or discomfort, such phenomena are temporary and do not last longer than a week.
- * Although it is rare, small papules shaped like a white head may remain for weeks (1 or 2 months).

General Precautions

- * Before operating the device, make sure to become familiar with the user manual and receive professional training related to the product.
- * The user must thoroughly read and understand the instructions specified in the user manual and take adequate safety measures. The user should also be aware of potential hazards all the time.
- * Do NOT disassemble or modify this system arbitrarily.
- * Only the manufacturer or service technicians authorized by the manufacturer can handle/repair the system.
- * Before using the system, make sure you thoroughly read and understand the safety instructions (in the user manual) provided by the manufacturer and receive relevant training on using the system.
- * Do NOT use any components other than the ones supplied.
- * Do NOT subject the main unit to excessive shocks.
- * Never touch the power socket of the system with wet hands.
- * If the contact with or connection to the RF Circle handpiece is defective, the output error may cause a skin burn. Be sure to check the contact or connection prior to use.
- * Make sure the power cable is connected correctly and the system components are attached or mounted correctly and properly.
- * Before using a system that has not been used for an extended period of time, first check that the system is functioning properly.
- * Use this system in a location with good ventilation.
- * Be sure to check the grounding of the system prior to use. While not using the system, be sure to turn it off.
- * Avoid direct sunlight and do not install near a device that generates intense heat.
- * In order to prevent the system from being damaged by overheat, dust, or air pressure, use it in a well-ventilated place.
- * Check the status of grounding and do not touch the power socket with wet hands.
- * Upon a breakdown, take emergency measures and ask a professional technician for repair.
- * RF Micro Needle TIP and RF Needle are supplied sterile. Do not use a product that has been opened or its packaging damaged.
- * When using MonoPolar (RN / RC / RV HP) handpiece, be sure to attach the ground pad to the opposite side (Thigh or back) of the treatment area.
- * Since the heat generated when using general-purpose electrosurgical instruments can be an ignition source when flammable materials are in the vicinity, use them after completely evaporating flammable materials.
- * In the user manual, state "Only update software licensed by SILKRO".

Precautions for Prevention of Safety Accidents

- * Do not place any combustible materials near the device.
- * Do not use the system in a place where adverse effects can be expected due to atmospheric pressure, temperature, humidity, ventilation, dust, salt, air containing sulfur, or liquid such as water.
- * Avoid using the system in a location where chemicals are stored or gas is generated. Avoid using the system around inflammable material.
- * Use standard power frequency, voltage and permitted electric current (or power consumption).
- * Perform inspection and maintenance regularly.
- * Make sure a fire extinguisher is installed in the location where the system is used.
- * Do not place the system near inflammable materials, such as anesthetics or solvents.

Interactions











- * Do NOT use the system together with other devices. There is no study proving the system's effect when used together with other devices.
- * During treatment, do NOT use a cell phone or other mobile communication devices which may affect electric medical systems.

Precautions for Infections and Side Effects












- * RF VENUS STICK, RF MICRO NEEDLE TIP, RF NEEDLE, PS TIP PROTECTIVE CAP are disposable accessories. Dispose of after use.
- * Reuse of RF VENUS STICK, RF MICRO NEEDLE TIP, RF NEEDLE, PS TIP PROTECTIVE CAP can cause serious infections and side effects. Never reuse accessories.
- * RF VENUS STICK used for RV handpiece is disposable. Dispose of after use. Never reuse it.
- * The RF Needle used for the RN handpiece is disposable. Dispose of after use. Never reuse it.
- * RF MICRO NEEDLE TIP used in RF MICRO NEEDLE handpiece is disposable. Dispose of after use. Never reuse it.
- * The PS TIP PROTECTIVE CAP, which protects the PS TIP of the PS handpiece, is disposable. Dispose of after use. Never reuse it.

Definitions of Symbols and Labels

Symbols that can be found on the components, accessories, or the packaging that come with the system are as follows:

Symbol / Label	Description
	Indicates a potential threat that may result in injury or property damages if the instruction is neglected.
	Provides important information on using the system.
	Indicates the address of the product manufacturer.
	Indicates the manufacture date of the product.
	Indicates a type B applied part; this is in accordance with the regulation for protection against electric shocks (IEC 60601-1 5840).
	Indicates a type BF applied part; this is in accordance with the regulation for protection against electric shocks (IEC 60601-1 5840).
	This mark indicates that the product cannot be disposed of as general waste, according to the Directive on Waste Electrical and Electronic Equipment (Directive 2002/96/EC and EN50419). The product should be collected separately and recycled. For more information on disposal, contact Hironic Co., Ltd.
ON / OFF	Indicates turning the product power on/off switch.
	Indicates Main unit on/off switch.
	Indicates the serial number of the product.
	Indicates the possibility of electromagnetic interference.

Introduction

Symbol / Label	Description
	Indicates an Ethylene Oxide sterilized product.
	Indicates that instructions in the user manual must be followed.
	Single Use only
	To prohibit pushing against an object.
	Use by Date
	Catalogue Number
	Do not use if package is damaged and consult instructions for use
	EU Representative
	<p>[Product Label] Product Label Product Name : Electrosurgical device, general-purpose Model : SILKRO</p>
	Package Box Label
	Warranty Label

※ It is recommended that the descriptions of signs and indications displayed on the screen be thoroughly read and understood before using the system.

Locations of Labels

Labels are located on the top or rear of the system.

[Labels on the rear]



[Package Label]



MODEL	
SN	
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etc.	

1. Product Overview and Components

1.1 Overview of SILKRO

This device is an instrument used for tissue coagulation by means of high-frequency current. It consists of the main unit, handpiece (RM, RN, RC, RV, PS H/P), GP Cable, , foot switch, other accessories and power cable.

This device is designed on the basis of the principle that as high-frequency energy (RF) flows, the heat generated from the load or contact resistance causes the coagulation of cellular tissues.

1.1.1 Electric specifications

- A) Rated voltage / frequency: 100 - 240V~, 50/60 Hz
- B) Power consumption: 1.5A
- C) Display part: 12.1 TFT LCD

1.1.2 Form and degree of protection for rating

- A) Form and degree of protection against electric shock: Class 1 device, Type B device

1.1.3. Safety devices

No.	Device	Description
1	Power Protection for inputs	Since the circuit protective fuse is attached to the power input, power is cut off when power exceeding the rated power is applied. (Fuse capacity: 250V, 3.15A)
2	RV H/P Temperature Sensor	The microprocessor automatically shuts down when the RV handpiece is out of reference.
3	Automatic restoration functional device	The system is programmed to return to the default state if a power failure or a temporary power cut off occurs.
4	RM, RV, RC, RN, PS H/P Mounting sensing device	This automatically detects whether the handpiece is attached. The output is not initiated without a handpiece attached. An alarm message will pop up instead.
5	RF VENUS STICK sensing device	This automatically detects whether the RF VENUS STICK is attached. The output is not initiated without a RF VENUS STICK attached. An alarm message will pop up instead.
6	RF Micro Needle TIP sensing device	This automatically detects whether the RF Micro Needle TIP is attached. The output is not initiated without a RF Micro Needle TIP attached. An alarm message will pop up instead.
7	GP Cable sensing device	This automatically detects whether the GP Cable is attached. If the cable is not properly connected, an alarm will pop up.

1.1.4. Mechanical specifications

- A) Main unit [W × D × H] : 700 x 605 x 1315 mm
- B) RM Handpiece [H × Φ] : 110 mm x 45 Φ / Length : 2 m
- C) RN Handpiece [H × Φ] : 137 mm x 16 Φ / Length : 2 m
- D) RC Handpiece [H × Φ] : 155 mm x 30 Φ / Length : 2 m
- E) RV Handpiece [H × Φ] : 140 mm x 30 Φ / Length : 2 m
- F) PS Handpiece [H × Φ] : 180 mm x 50 Φ / Length : 2 m
- G) GP cable [W × H × D] : 31 x 55 x 13 mm / 2 m
- H) RF Needle [H × D] : 24.8 mm x 11 Φ
- I) RV VENUS STICK [H × Φ] : 198 mm x 15 Φ
- A) PS TIP [W×D×H] : 32.3 x 21 x 32.6 mm
- J) Grounding Pad [W×D×H] : 105 mm x 13 mm x 130 mm
- K) Foothold Switch Case [W×D×H] : 148 x 160 x 140 mm
- L) Foot switch [W×D×H]: 68 x 120 x 37 mm
- M) Power cable: 2 m

1.2 Product Performance

SILKRO specifications are as below:

No.	H/P	Item	Details	Duration of application
1	RM H/P	Needle Type	0.5-3.5mm (0.5mm step)	30 seconds rest after 5 minutes use
2		Outer Power	20W 500Ω	
3		Operating Frequency	2MHz ±10%	
4	RN H/P	Needle Type	RF-1pin	30 seconds rest after 15 minutes use
5		Outer Power	7.5W 500Ω	
6		Operating Frequency	2MHz ±10%	
7	RC H/P	Outer Power	34W 500Ω	30 seconds rest after 15 minutes use
8		Operating Frequency	2MHz ±10%	
9	RV H/P	Outer Power	18W 500Ω	30 seconds rest after 15 minutes use
10		Operating Frequency	2MHz ±10%	
11		Temperature RAnge	30-44°C	
12	GP Cable	GP Cable	Grounding Pad	30 seconds rest after 15 minutes use
13	PS H/P	Outer Power	6kV~12kV	30 seconds rest after 15 minutes use
14		Operating Frequency	41kHz	

1.3 Components and Functions

1.3.1 Product configuration

SILKRO consists of the following components:

No.	Components	Quantity	Note
1	Main unit	1 EA	-
2	RM Handpiece	1 EA	-
3	RN Handpiece	1 EA	Option
4	RC Handpiece	1 EA	Option
5	RV Handpiece	1 EA	Option
6	GP Cable	1 EA	Option
7	PS Handpiece	1 EA	Option

1) Main unit



2) RM Handpiece



3) RN Handpiece



4) RC Handpiece



5) RV Handpiece



6) GP Cable



7) PS Handpiece



1.3.2 Additional components

No.	Components	Quantity	Note
1	RF Micro Needle Tip	1 SET	Option
2	RF Needle	1 SET	Option
3	RF VENUS STICK	1 SET	Option
4	PS Tip Protective Cap	1 EA	Option
5	PS Tip	1 SET	Option
6	Grounding Pad	1 SET	Option
7	Foot switch	1 EA	-
8	Power cable	1 EA	-
9	User manual	1 EA	-

1) RF Micro Needle Tip



2) RF Needle



3) RF VENUS STICK



4) PS TIP Protective Cap



5) PS TIP



6) Grounding Pad



7) Foot Switch



8) Power Cable

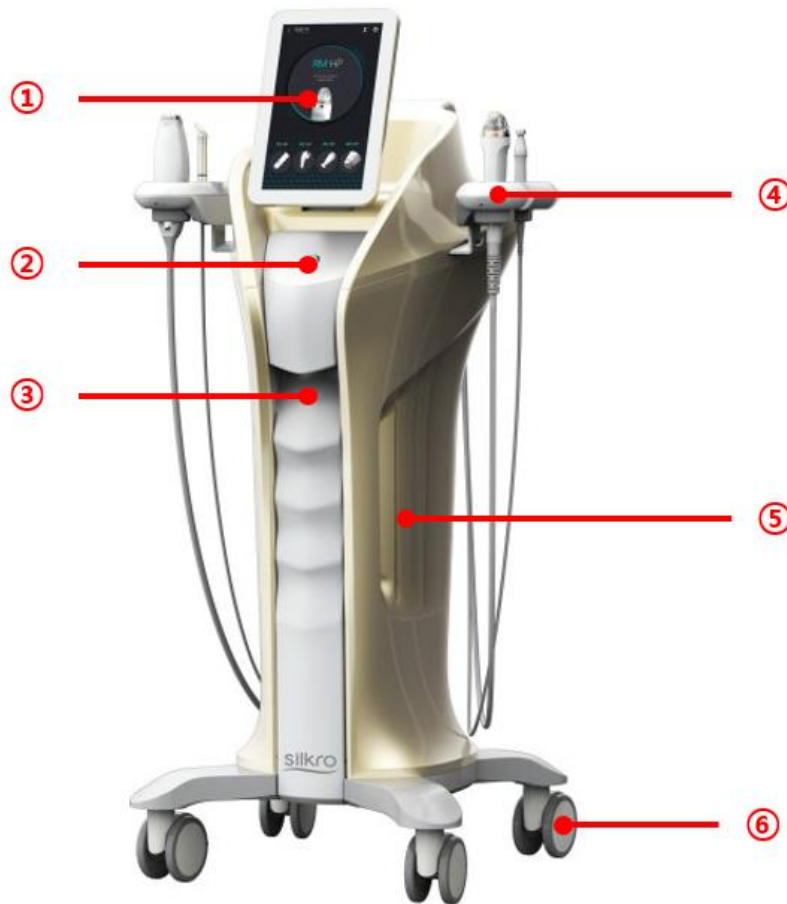


9) User Manual



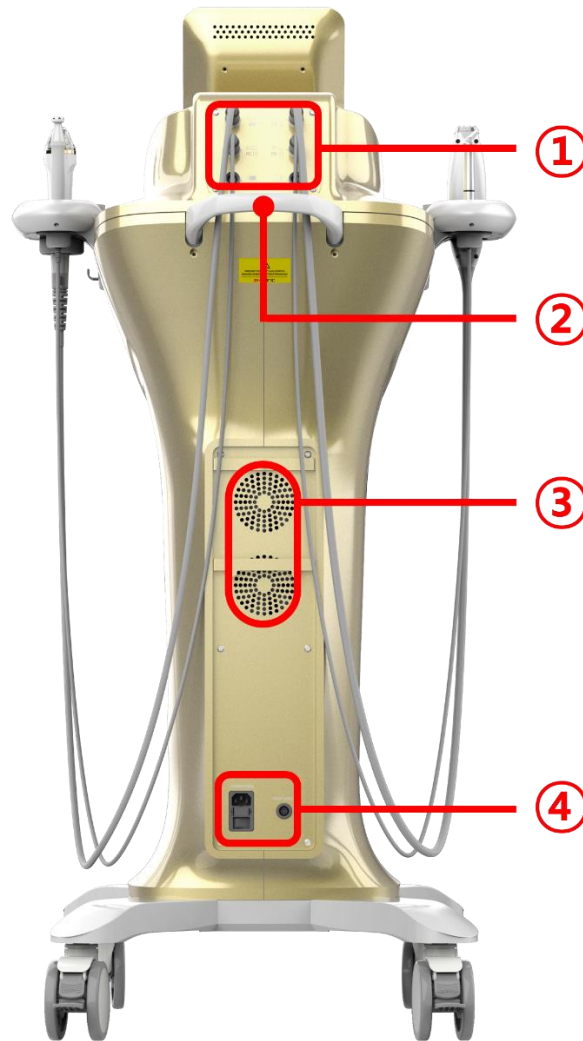
1.3.3 Names and functions of components

1.3.3.1 Main unit—front view



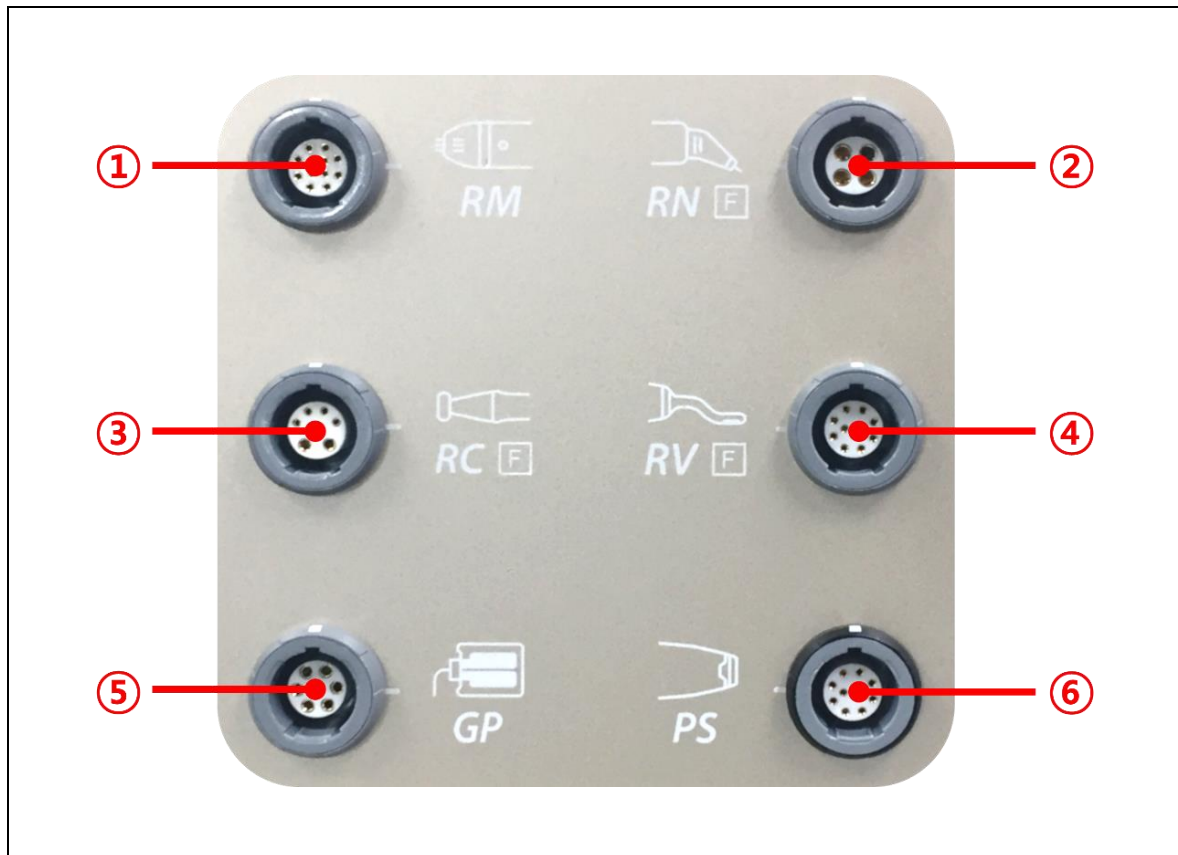
No.	Item name	Description
1	Touch Display	A touch display shows the device status so that a user can set up energy values, etc.
2	Power switch	A switch used to control equipment operation
3	LED	This indicates the product's operation status in LED color.
4	Handpiece holder	This holder is exclusively for a handpiece. When a handpiece is attached, the main unit sensor recognizes it automatically.
5	Intake	Unit to allow the flow of external air into the device
6	Caster	There are 4 casters used to transport the device. As each has a locking unit, these can be fixed while the device is used.

1.3.3.2 Main unit—rear view



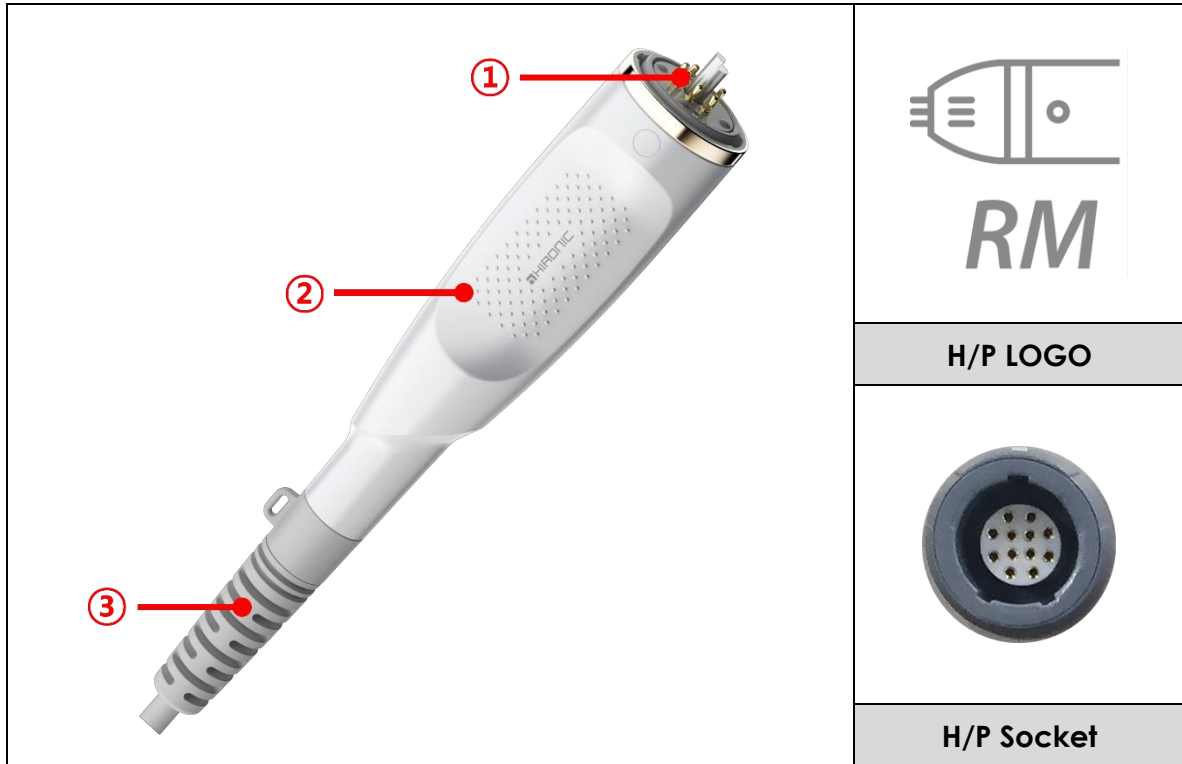
No.	Item name	Description
1	Handpiece connector	Port to connect the handpiece to the main unit
2	Handle for transportation	Handle for carrying the device
3	Discharger	Heat inside the system is discharged through this hole to the outside.
4	Power switch	Use this switch to connect/disconnect the external power supply.
	Foot switch socket	A port to connect the foot switch to the main unit for system operation

1.3.3.3 Handpiece connector



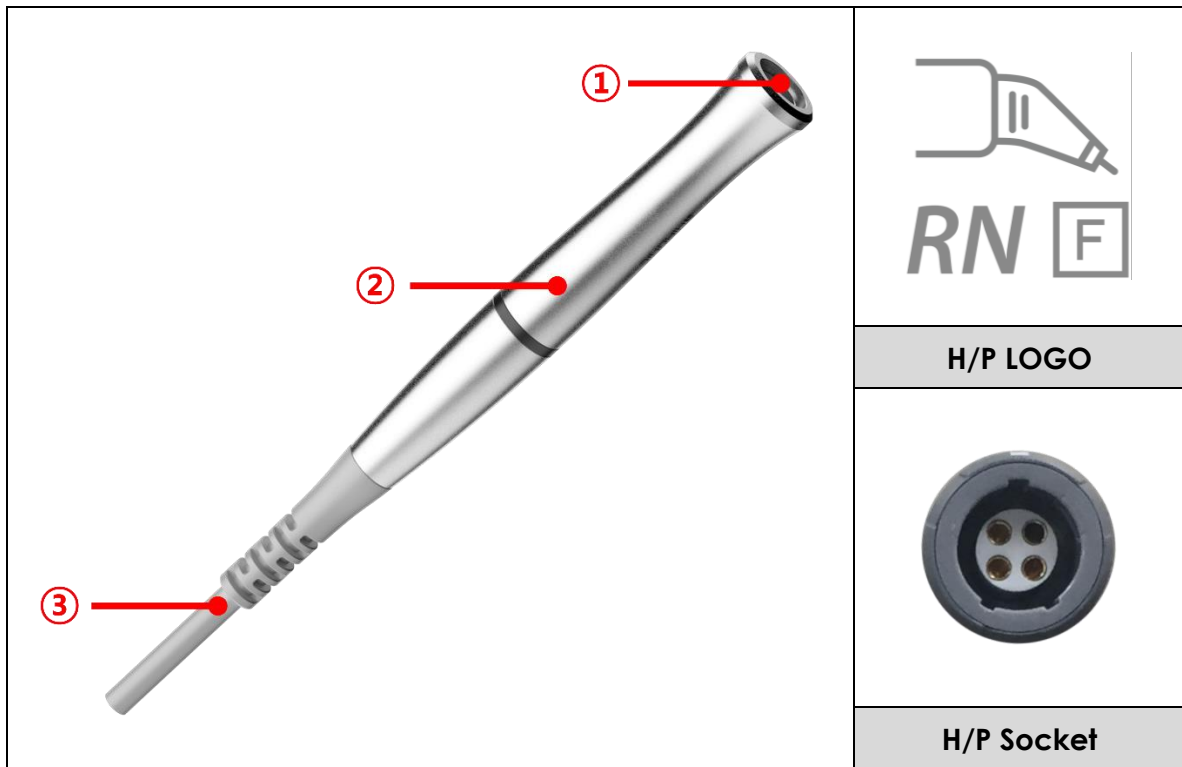
No.	Item name	Description
1	RM H/P Connector	Connector of the RF Micro Needle Handpiece
2	RN H/P Connector	Connector of the RN Handpiece
3	RC H/P Connector	Connector of the RC Handpiece
4	RVH/P Connector	Connector of the RV Handpiece
5	GP Cable Connector	Connector of the grounding pad handpiece
6	PS H/P Connector	Connector of the PS Handpiece

1.3.3.4 RM Handpiece (RF Micro Needle H/P)



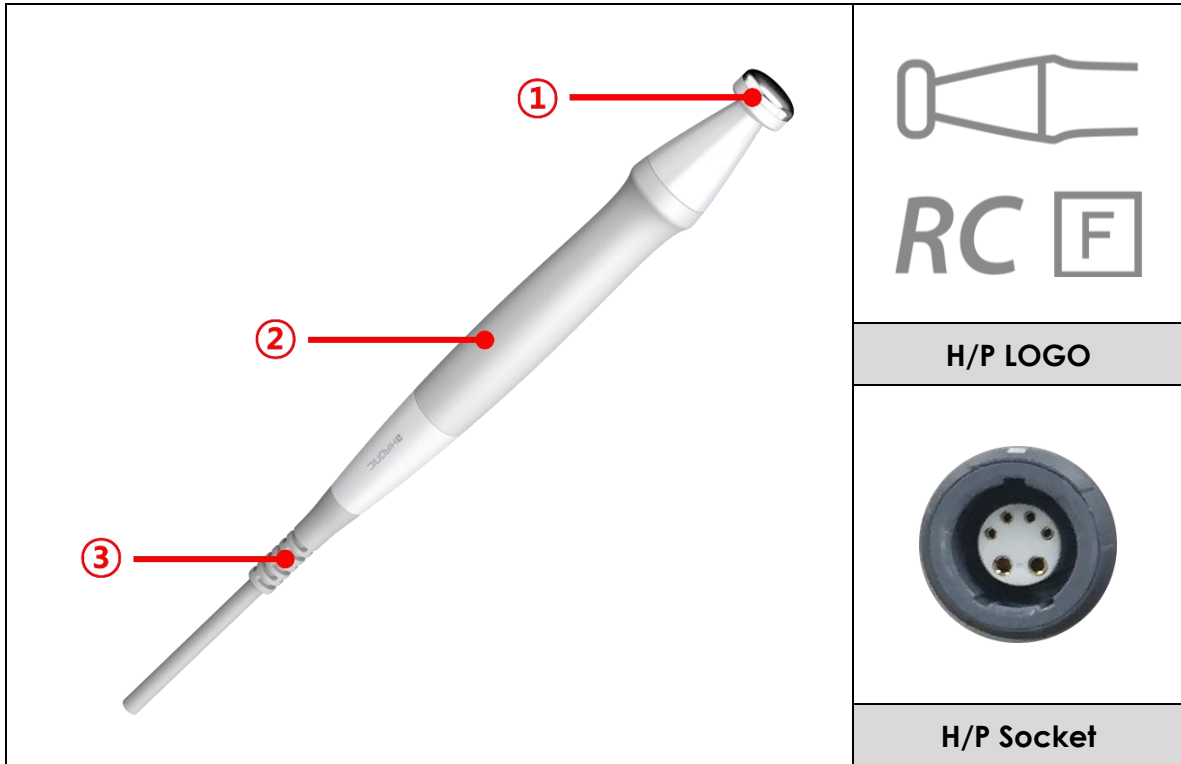
No.	Item name	Description
1	RF Micro Needle TIP Connection Unit	Unit where the RF Micro Needle Tip is mounted
2	Handle	Used as a handle during treatment
3	Cable	Electric cable to deliver the RF output to the handpiece and RF Micro Needle.

1.3.3.5 RN Handpiece (RF Needle H/P)



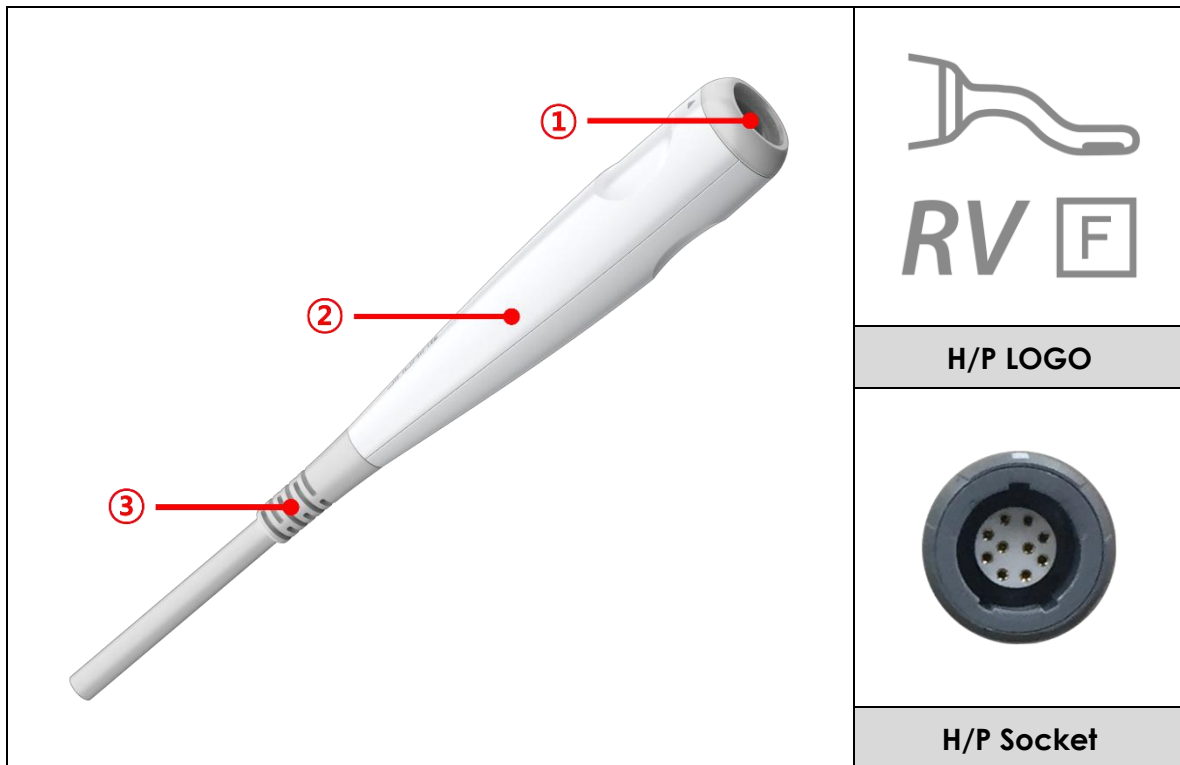
No.	Item name	Description
1	RF Needle Connection Unit	Unit where the RF needle is inserted
2	Handle	Used as a handle during treatment
3	Cable	Electric cable to deliver the RF output to the handpiece or RF needle

1.3.3.6 RC Handpiece (RF Circle H/P)



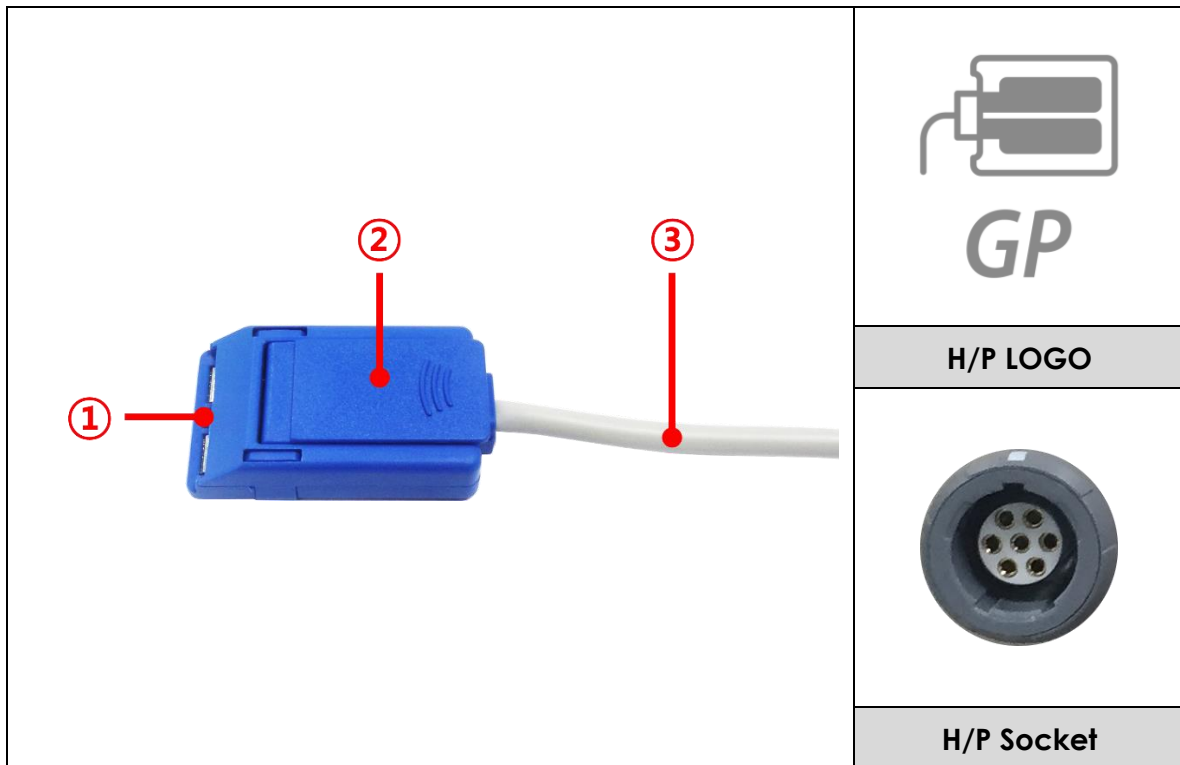
No.	Item name	Description
1	Radiating part	Exposure part where RF is radiated
2	Handle	Used as a handle during treatment
3	Cable	Electric cable to deliver the RF output to the handpiece

1.3.3.7 RV Handpiece (RF VENUS H/P)



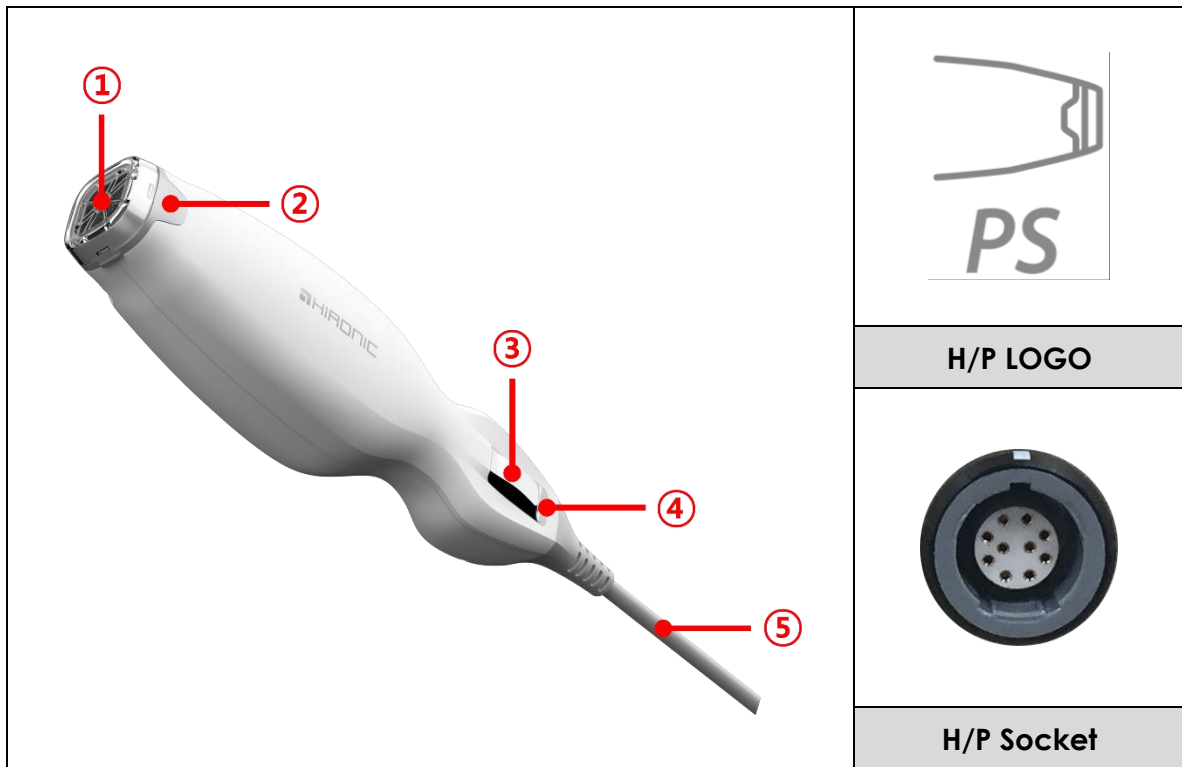
No.	Item name	Description
1	RF VENUS STICK Connection Unit	Unit where the RF VENUS STICK is mounted
2	Handle	Used as a handle during treatment
3	Cable	Electric cable to deliver the RF output to the handpiece

1.3.3.8 GP cable (Ground pad)



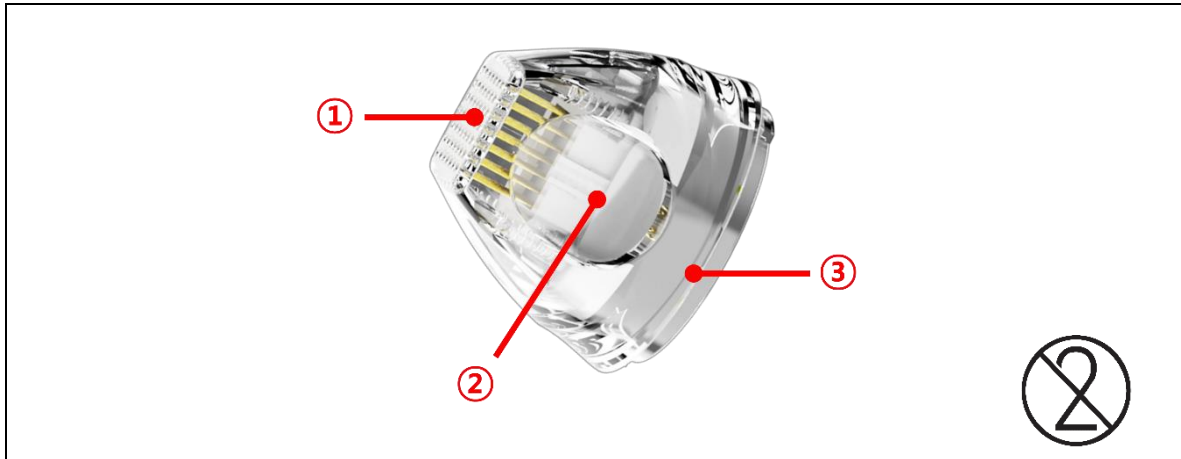
No.	Item name	Description
1	Grounding pad connector	Part used to connect the grounding pad.
2	Connecting switch	Switch used to fix the pad after the grounding pad is connected
3	Cable	Connected to the main unit for normal use of the grounding cable

1.3.3.9 PS Handpiece (PLASMA H/P)



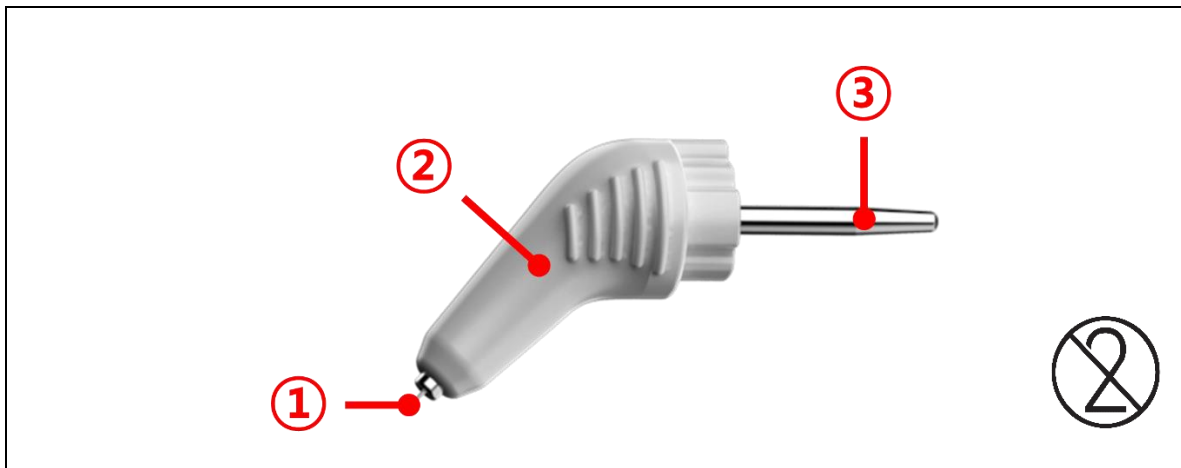
No.	Item name	Description
1	PS TIP Connection Unit	Unit where the PS TIP is mounted
2	Plasma tip	Guide that is used for accurate plasma treatment
3	Hand switch	Clicking the button initiates the hand piece's operation.
4	LED	Displays the operation status of the handpiece on LED
5	Handpiece cable	Connected to the main unit for normal use of the handpiece

1.3.3.10 RF Micro Needle TIP (RF Micro Needle TIP is disposable.)



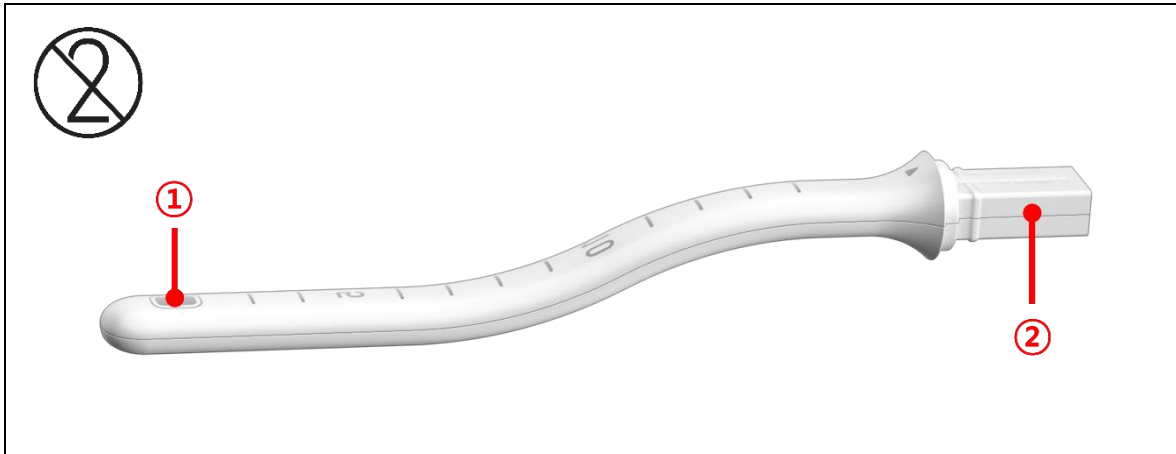
No.	Item name	Description
1	Skin contact	The part where RF Micro Needle comes into contact with the skin
2	Guide	Guide to protect the RF Micro Needle TIP and connect the handpiece
3	Handpiece connector	Part where the RF Micro needle TIP is connected to the handpiece

1.3.3.11 RF Needle (RF Needle is disposable.)



No.	Item name	Description
1	Electrode Unit	Electrode part in contact with skin
2	Guide	Guide to protect the RF Needle and connect the handpiece
3	Handpiece connector	Part where the RF needle is connected to the handpiece

.3.3.12 RF VENUS STICK (RF VENUS STICK is disposable.)



No.	Item name	Description
1	Radiating part	Part where RF is radiated
2	Handpiece connector	Part where the RF VENUS STICK is connected to the handpiece

1.3.3.13 PS Tip Protective cap (PS Tip Protective cap is disposable.)



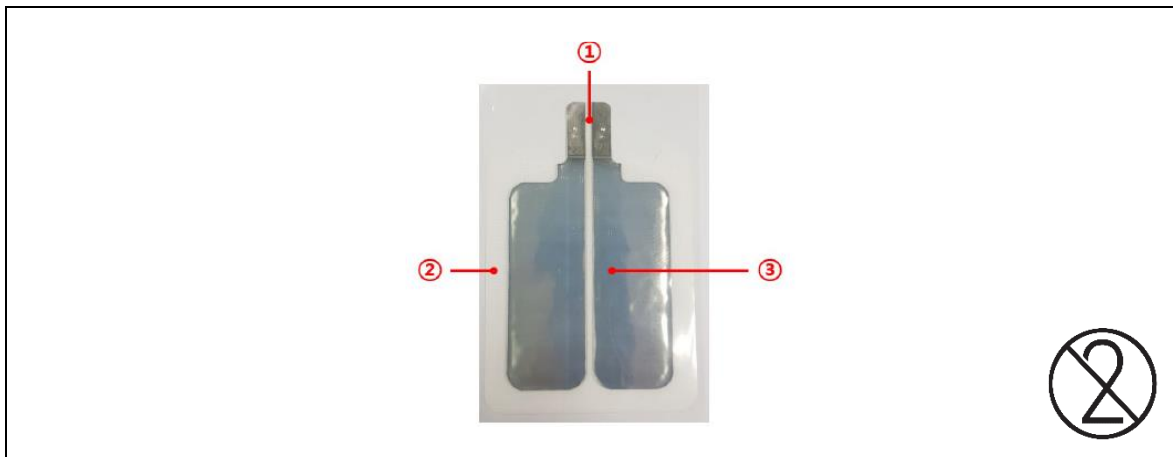
No.	Item name	Description
1	Plasma Tip Protective Cap	Instrument used to prevent the plasma tip from being damaged

1.3.3.14 PS TIP (Discard the PS TIP when the use time of the PS TIP expires.)



No.	Item name	Description
1	Protective cap for handpiece tip	Guide that is used for accurate plasma treatment
2	Radiating part	Part where RF is radiated
3	Tip connecting part	Hanger for the tip that is connected to the handpiece

1.3.3.15 Grounding pad (Grounding pad is disposable.)



No.	Item name	Description
1	GP Cable Connecting Part	Part to connect the grounding pad to the GP cable
2	Felt	An adhesive pad to be adhered to the body
3	Grounding Plate	Plate where gel is applied to the aluminum foil, it sends out the electrical energy from the body and to the cable

1.3.3.16 Foot switch



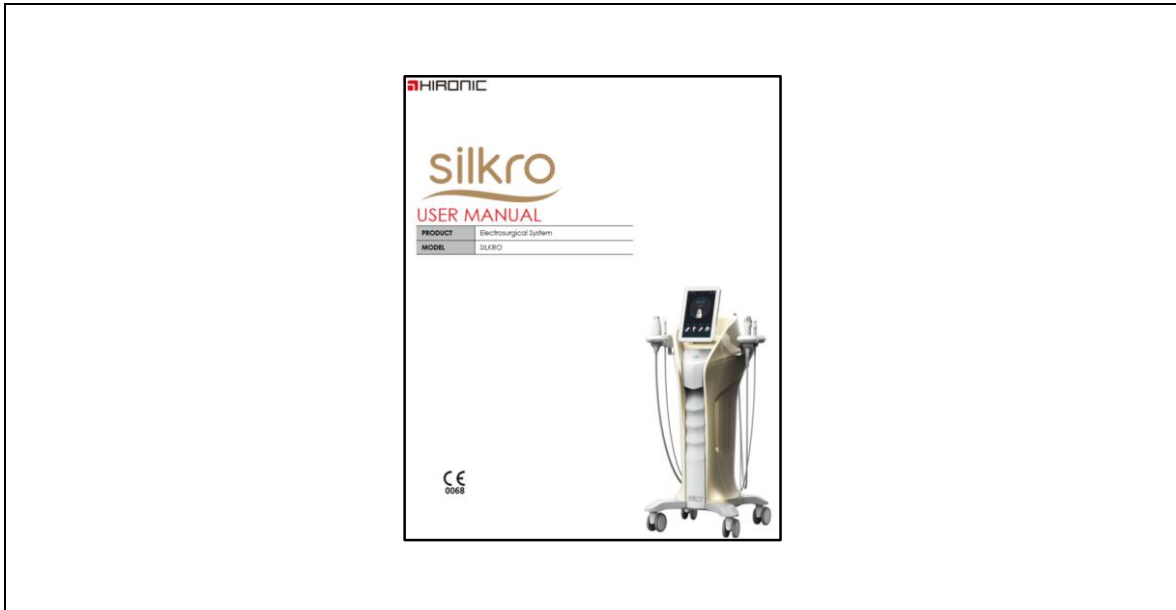
No.	Item name	Description
1	Exterior cover	This cover/guide prevents the foot switch from being pressed when it has overturned.
2	Foot switch	This switch is equipped with an embedded contact switch, which causes energy irradiation when the foot switch is pressed.
3	Connection cable	This cable transmits foot switch position signals to the main unit.
4	Foot switch connector	This connector connects to the foot switch port in the bottom rear of the system.

1.3.3.17 Power cable



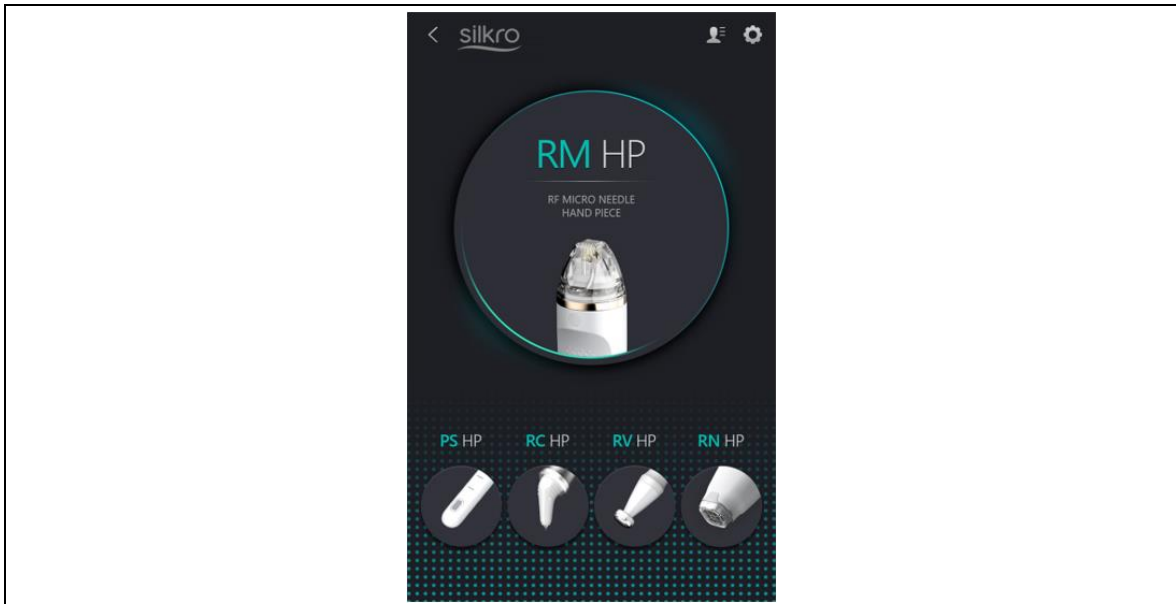
No.	Item name	Description
1	Power cable	This cable is fixed onto the rear bottom of the main unit to supply external power to the main unit.

1.3.3.18 User manual



No.	Item name	Description
1	User manual	Product user's manual

1.3.3.19 Software



No.	Item name	Description
1	SILKRO Operation Software	Function: The software is used to configure/manipulate functions and view the system status and settings.

2. How to Install

2.1 Precautions before Installation

2.1.1. Check the following before installing the product.

- Avoid a location that is humid or exposed to water.
- Install the device in a location where the device will not be damaged by excessive air pressure, temperature extremes, humidity, lack of ventilation, direct sunlight, dust, salt, or air containing ions.
- Install the product in a safe location with no slope, vibration and impact.
- Avoid a location where chemicals are stored or gases are generated.
- Pay attention to the power frequency, voltage and allowable current (or power consumption).
- Use a power socket with a grounding terminal. Failing to do so may result in malfunction as this product is affected electrically.

2.1.2. To move the product to another place, follow the steps below.

- First turn off the system and remove the power cable socket.
- In order to ensure that the handpiece does not fall off while being transported, mount it on the rack securely or hold it separately while carrying it.
- Unlock the brakes on the wheels so that the wheels can roll.
- Hold the handle on the main unit and move the product slowly.
- Be careful so that the handpiece cable does not bump into other objects during transportation.
- After the moving is finished, lower the brakes on the wheels to anchor the product.
- For a long-distance transportation, separate it from the handpiece main unit and pack it securely. Pack it securely in order to prevent the main unit from being hit or damaged during the transportation.



Caution

Use caution to minimize impact applied to the product when moving it.

2.2 Preparations before Installation

2.2.1 Checking the grounding status

- Make sure that the power plug is correctly connected. Do not attempt to connect the power cord to the product wet hands. There is a risk of electric shock.

Checking the power cable grounding status



[Cable grounding position]



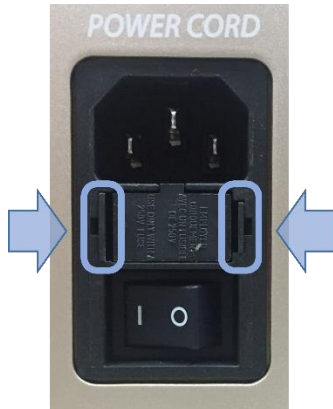
[Electrical outlet
grounding position]



[Correctly connected]

- Plug the power cable all the way into the electrical outlet to ensure proper grounding. Incorrect connection may cause incorrect grounding on the connector. As a result, the LCD touch panel input may not work properly or the product may malfunction.

How to replace the fuse of the main power switch at the back of the device



Click the fuse box



Separate the fuse box



Replace the fuse

- The SILKRO system is equipped with 2 fuses that automatically cut off current if the allowable current is exceeded.
- To replace the fuse, check the fuse box and press with a finger the indicated part. The fuse box will then be separated. As the fuse box is separated, replace the fuse.



NOTE

The system may not turn on if the power cable is not fully plugged in.
The system may malfunction if it is used in an environment where grounding is not possible.

3. How to Use

3.1 Preparations before Use

- To use the system, first secure an installation space.
 - Avoid locations where strong electricity or a magnetic field is running, as well as locations that can be exposed to heat or moisture. The system may malfunction or break down.
 - Install the system in a location where proper temperature and humidity can be maintained. Ensure that the interior temperature and humidity of the place where the system is installed are maintained between 10 and 30°C and between 30 and 70%.
 - Ensure that the system's vent is at least 30 cm away from the walls.
 - Install the system on a stable and flat surface.
- Be sure that the handpiece has properly been cleaned using an antiseptic solution (use dedicated cleaning tools) before use.
 - Be sure that the outside of the handpiece is not damaged.
(If there is a damaged part, please consult with Hironic Co., Ltd..)
- Check all components necessary for treatment are properly connected to the main unit before use.
 - Connect every component of the system.
 - Connect the power cable to a grounded outlet.

3.2 Instructions for Use and Handling

- After all the components are connected, use the following steps to apply power to the system.
 - Turn the power switch on the rear side of the device to ON.
 - Position the switch in the front of the device to ON.
- Checking for system failure
 - Turn on and off the switch at the front side of the device and check if it operates properly.
 - Put each handpiece on the main unit's rack and check that they are recognized properly.
- Device booting and initialization
 - If all components, including the handpiece, are properly connected and power is applied, the system performs initialization and checks the connection of the components.



Caution

This product is very sensitive. Please read the user manual thoroughly before using the product. Be careful while using the product and handpiece in order to prevent any problems on them.

Power ON / OFF & Operation

The power switch is located on the back side of the main unit.

For proper operation of GELTRO, turn on the power switch on the back side and use the On/Off switch on the front.




[Power Switch]

The Device On / Off switch is located on the front side.

For proper operation of SILKRO, press the Device On / Off Switch button and turn it on. While the device is operated, keep the Device On / Off Switch button pressed for 5 seconds to turn off SILKRO.

[DEVICE POWER LED STATUS]

	Device Power	White LED
	POWER ON	LED ON
	POWER OFF	LED OFF



[Device On / Off Switch]

[RM Micro Needle TIP] How to Connect

1. To connect the device, prepare the RF Micro Needle TIP and RM handpiece.



RF Micro Needle TIP

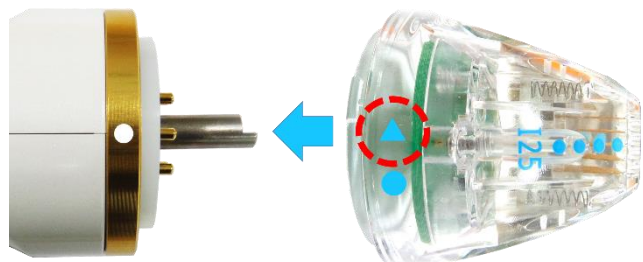


RM Handpiece

2. Check the connection position of the RF Micro Needle TIP and the connection position of the RM handpiece.

RF Micro Needle TIP
Connection LocationConnecting position of
the RM handpiece

3. Center the triangle icon on the RF Micro Needle TIP as shown in the figure on the right, and connect it to the RM handpiece.



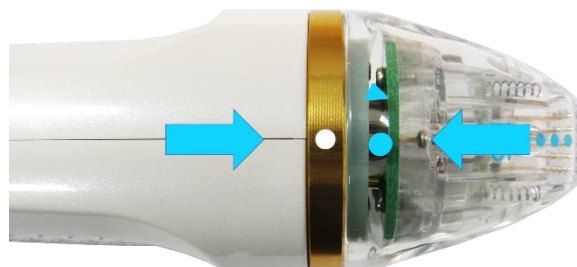
Connection direction of RF Micro Needle TIP

4. Connect the RF Micro Needle TIP to the RM handpiece as shown on the right and rotate the RF Micro Needle TIP in the direction of the arrow.



RF Micro Needle TIP Connection Direction

5. As shown in the figure on the right, the RF Micro Needle TIP is connected by aligning the connection position of the RF Micro Needle TIP with the connection position of the RM handpiece.



RF Micro Needle TIP Connection

[RF Needle] How to Connect

1. To connect the device, prepare the RF Needle and RN handpiece.



RF Needle



RN Handpiece

2. Check the insertion unit of the RF Needle.

There is a groove in the RF Needle insertion unit to fasten it into position.



RF Needle insertion unit



RN Handpiece joint

The RN handpiece joint is notched in order to connect the insertion unit for RF Needle mounting.

3. Check the groove of the RF Needle and RN handpiece and combine them.



Combining method

[RF VENUS STICK] How to Connect

1. Understand the intended purposes of each cartridge and then have ready the appropriate cartridges for the treatment.



RF VENUS STICK



RV Handpiece

2. Check the mechanical form of the part where the RV handpiece and RF VENUS Stick are connected, and check the combining structure.



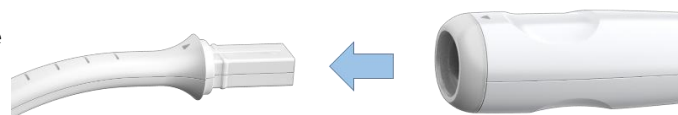
3. Connect the RF VENUS Stick and handpiece in line with the shape of the joint. If the cartridge is inserted in the wrong direction, an error will occur.
In order to check if it is connected correctly, select 'Memory' in the main unit LCD and press the READY button at the bottom. If the handpiece part shows a blue light, it is ready for operation.



4. If the red light is displayed, it is not recognized properly.



5. When separating the RF VENUS Stick from the handpiece, pull out the RF VENUS Stick from the RV handpiece in the direction indicated in the figure.



How to replace the PS TIP

The SILKRO PS TIP is a consumable part that can be replaced. If the handpiece lens is discolored, blurry or damaged, please contact the Hironic Co., Ltd. after-sales service center.

1. Check the location of the PS TIP where the PS handpiece is attached.



2. Slightly lift the PS TIP connecting part using the TIP of the handpiece to detach the TIP.
3. Replace the old tip with the new one.



4. The contact part on the PS TIP is separated from the device as shown in the figure on the right.
5. When connecting the PS TIP to the PS handpiece, make sure to check the figure on the right.



PS TIP contacting part



PS handpiece contacting part

How to replace the PS TIP protective cap

The PS TIP and PS TIP protective cap are consumable parts that can be replaced.

1. Check for the groove on both sides of the protective cap for the PS TIP as shown in the figure on the right.



Groove of the PS TIP protective cap

2. Grab the connecting part of the PS TIP by hand as shown in the figure on the right.



Handle of the PS TIP protective cap

3. Push the groove part on the PS TIP protective cap where the arrow is pointing using your fingers to detach it from the device.
4. When it is detached from the device completely, replace it with a new PS TIP protective cap.



How to separate the PS TIP protective cap

How to Connect the [Grounding pad]

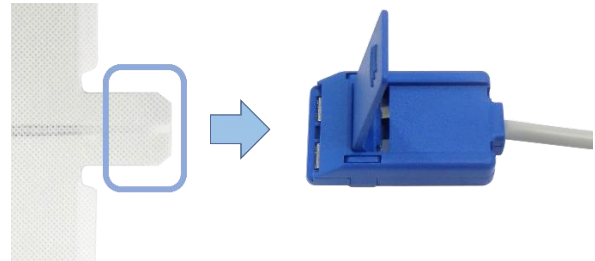
1. To connect the device, prepare the grounding pad and GP cable.



Grounding Pad

GP Cable

2. Lift up the GP cable switch as illustrated in [Figure 1] and put the edge of the grounding pad into the GP cable.



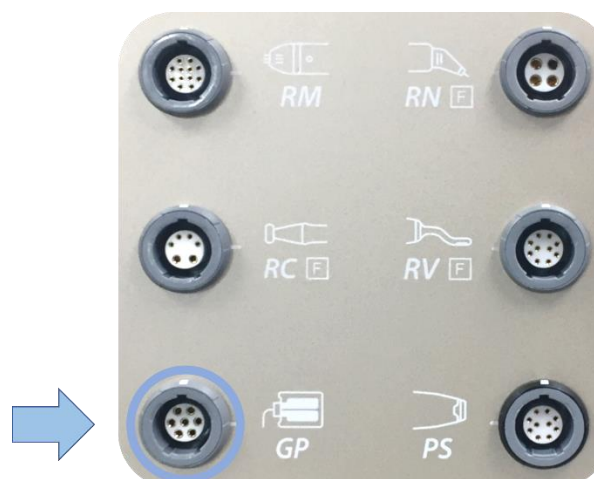
[Fig. 1]

3. Insert the grounding pad into the GP cable and lift down the switch as shown in [Figure 2].



[Fig. 2]

4. Connect the GP cable to the GP (GROUNDING PAD) port.



How to Attach the Grounding pad

1. Grounding pads are for a wider area on the body, where pads can be attached entirely as shown in Figure 1.
 - Locations of attachment: arm, leg, neck, etc.
- ※ Grounding Pads send out currents generated from the RN / RC / RV handpiece.
 - ※ Be sure to attach the grounding pads to the patient before surgery; otherwise, it may cause an electric shock.
2. Be sure that the entire silvered surface of the grounding pad is adhered completely to the muscular part as shown in Figure 2.
 3. Remove the grounding pads from the patient at the end of the surgery.
- ※ Grounding pads are for single-use only. Do not re-use them.



Fig. 1



Fig. 2



Caution

Grounding pads are for single-use only. Do not re-use them.



Caution

Be sure to attach the grounding pads to the patient before surgery; failing to do so may cause an electric shock.



NOTE

Place grounding pads on well-vascularized muscle mass such as arms, back, legs, neck, etc.

Locking/unlocking the wheels

The main unit of SILKRO is equipped with four wheels that have locks.

These wheels are designed to stop rolling if the locks are engaged.

Make sure to engage the wheel locks before using the system to prevent the system from moving during radiation treatment.

[Engaging locks]

Step on each lock. The lock lever will descend to lock and prevent the wheel from rolling.

[Disengaging locks]

Raise each lock lever. The wheel will be unlocked, and can roll.



[Locked]



[Unlocked]



Caution

Make sure you lock the wheels before using the system to prevent the system from moving during treatment.

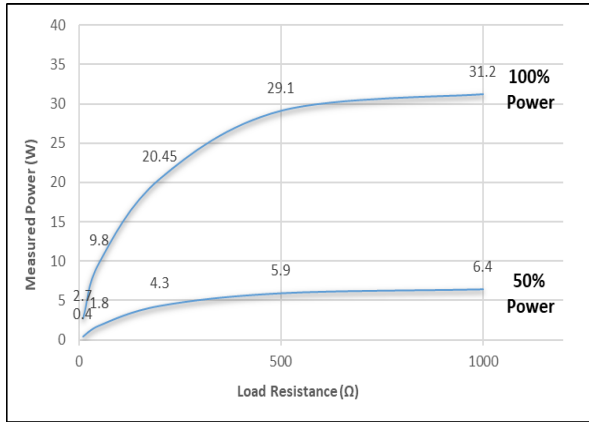


Caution

If wheel locks are engaged with excessive force or engaged in an incorrect direction, the locks may become damaged.

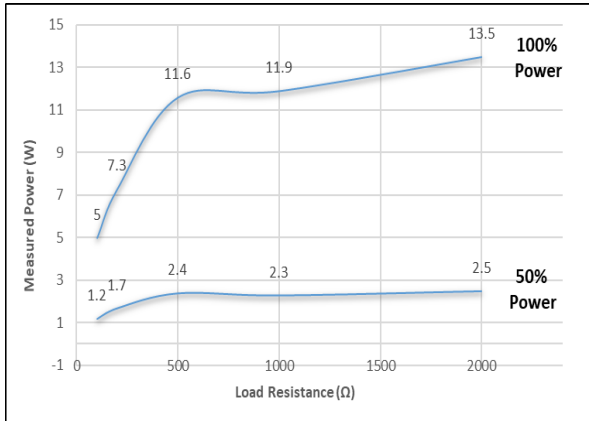
Hand piece Output Diagram

RM Handpiece (RF MICRO NEEDLE H / P)



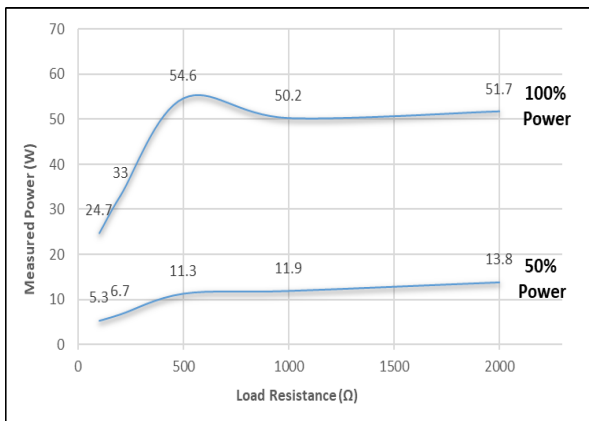
Power (%)	Load Resistance (Ω)	Measured Power (W)
100 %	10	2.7
	50	9.8
	200	20.45
	500	29.1
	1000	31.2
50 %	10	0.4
	50	1.8
	200	4.3
	500	5.9
	1000	6.4

RN Handpiece (RF NEEDLE H / P)



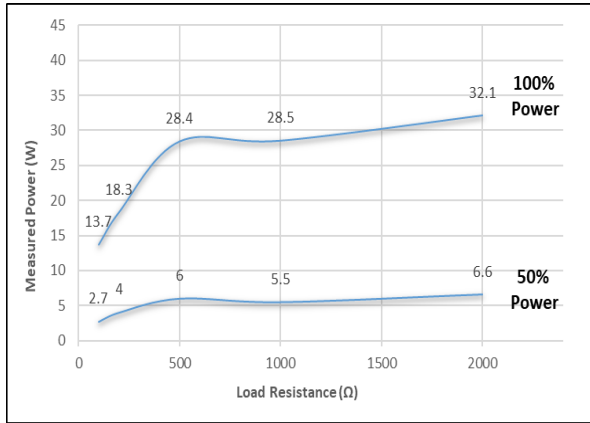
Power (%)	Load Resistance (Ω)	Measured Power (W)
100 %	100	5.0
	200	7.3
	500	11.6
	1000	11.9
	2000	13.5
50 %	100	1.2
	200	1.7
	500	2.4
	1000	2.3
	2000	2.5

RC Handpiece (RF CIRCLE H / P)



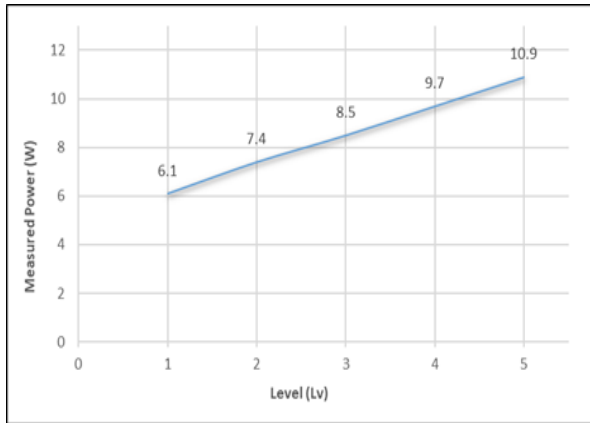
Power (%)	Load Resistance (Ω)	Measured Power (W)
100 %	100	24.7
	200	33.0
	500	54.6
	1000	50.2
	2000	51.7
50 %	100	5.3
	200	6.7
	500	11.3
	1000	11.9
	2000	13.8

RV Handpiece (RF Venus H / P)



Power (%)	Load Resistance (Ω)	Measured Power (W)
100 %	100	13.7
	200	18.3
	500	28.4
	1000	28.5
50 %	100	2.7
	200	4.0
	500	6.0
	1000	5.5

PS Handpiece (PLASMA H / P)



Level	Measured Power (kV)
Lv 1	6.1
Lv 2	7.4
Lv 3	8.5
Lv 4	9.7
Lv 5	10.9

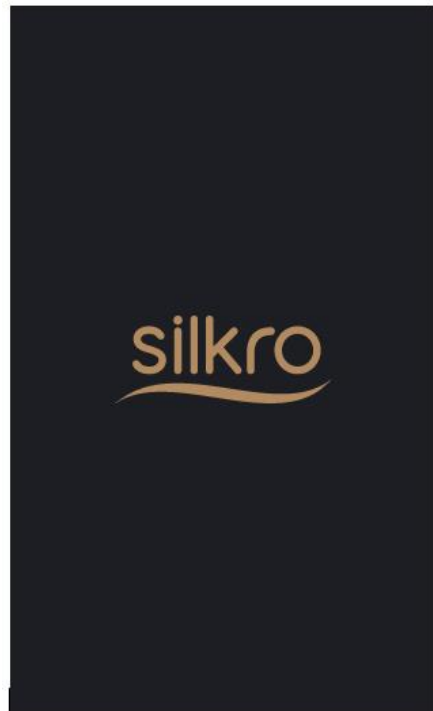
3.3 Using the Screen

- **Initialization screen**

- As soon as power is supplied to the system, the system automatically starts initialization.
- The initial screen displays the manufacturer's logo and the product's model name.



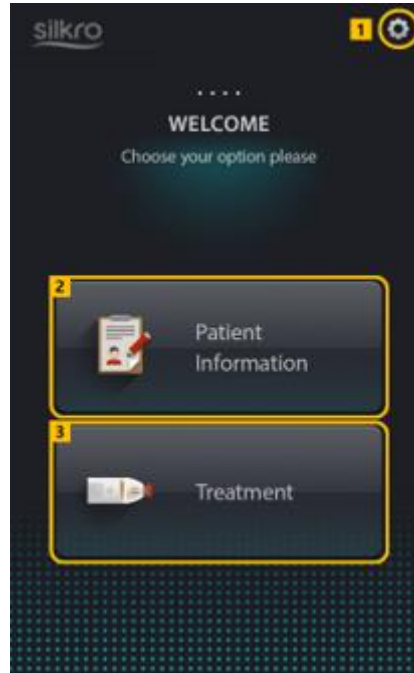
[Initialization screen - 1]



[Initialization screen - 2]

- **Main Screen**

- When Patient Information is selected, a popup window will appear and show patient information.
- When a treatment is to be selected, the screen will lead to the handpiece selection page.



Main Screen

No.	Symptom	Steps to take
1	Settings	Clicking on the Settings leads to the settings page.
2	Patient Information	The patient information entry page will appear.
3	Treatment	This takes the user to the handpiece selection screen.

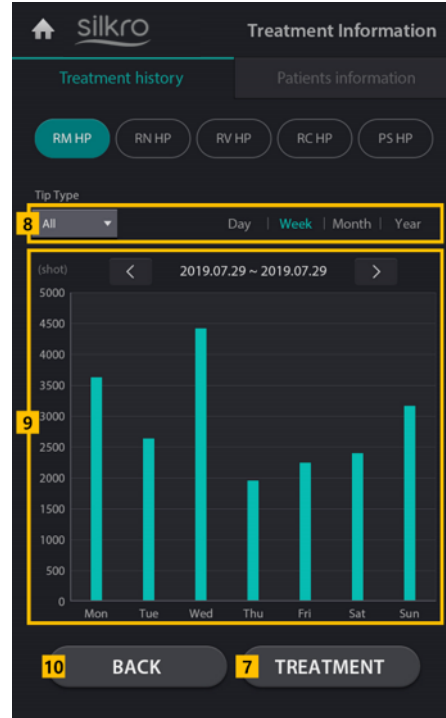
**Caution**

Cybersecurity Caution: The set-up is only for administration mode.

- Patient Information (Treatment History)**
 - When **Treatment history** is selected, a popup window will appear and show patient history.



Screen of Treatment history



Screen of Treatment history (Statistics)

No.	Symptom	Steps to take
1	Treatment history	The Treatment history menu is displayed.
2	Patients information	Patients information menu is displayed.
3	Handpiece Selection	You can check the treatment history by type of handpiece.
4	Information Sorting	You can sorting the treatment history by type of Tip type, Period, Part, Feedback
5	Treatment history Information Sorting (Tip Type, Period, Part, Feedback)	You can check and choose from the treatment records of a selected patient. You can check the treatment history by type of handpiece.
6	Statistics	You can see a statistical history graph of the handpiece.
7	Treatment	This takes the user to the handpiece selection screen.
8	Statics Information Sorting (Tip Type, Period)	You can sorting the treatment statistics history by type of Day, Week, Month, Year
9	Treatment statistics history screen	You can check and choose from the treatment statistics records of a selected patient. You can check the treatment history by type of handpiece.
10	BACK	Move to the previous page.

- **Patient Information**

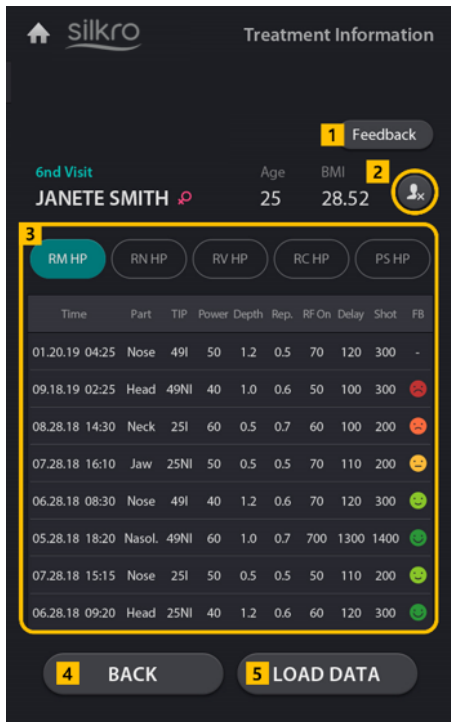
- Upon completion of device initializing, you can save patient information by using the window below. Even if the entry is not completed yet, pressing the "DONE" button will lead to the next page.

Screen of patient information entry

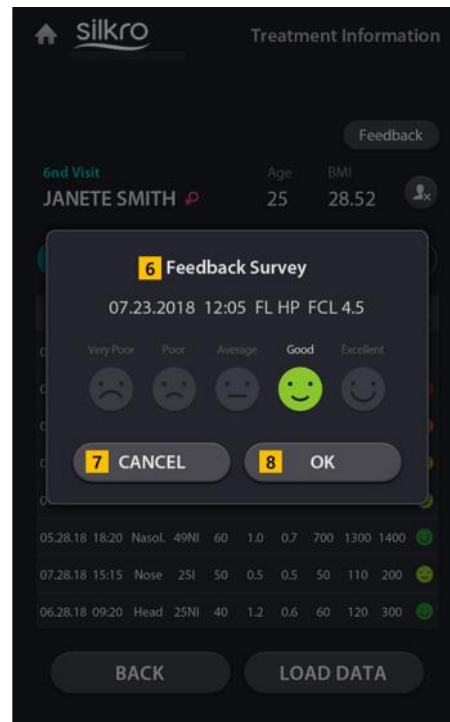
Screen of the Search patient

No.	Symptom	Steps to take
1	HOME	Leads to the handpiece selection screen
2	Patient Information	Patient information is displayed.
3	SEARCH	This menu is used to search patient names. (The Search patient popup page will appear when this menu is selected)
4	RESET	Resets input values.
5	PATIENT CODE	This shows patient information codes.
6	NAME	This is to enter a patient's name.
7	GENDER	This is to enter a patient's sex.
8	BIRTHDAY	This is to enter a patient's date of birth.
9	HEIGHT / WEIGHT	This is to enter a patient's height and weight.
10	BMI	This shows the BMI. (When the height and weight are entered, the value is calculated automatically and displayed) BMI: (weight (kg) ÷ (height (m) x height (m)))
11	SKIP	Skipping the entry of patient information, leads to the treatment page.
12	DONE	With the entered values saved, the screen moves on to the next page.
13	SEARCH	This is used to search patients.
14	BACK	Move to the previous page.
15	SELECT	Show the selected patient information


- Selected Patient Information**
 - When **Patient Information** is selected, a popup window will appear and show patient Information and Feedback Survey.



Patient information

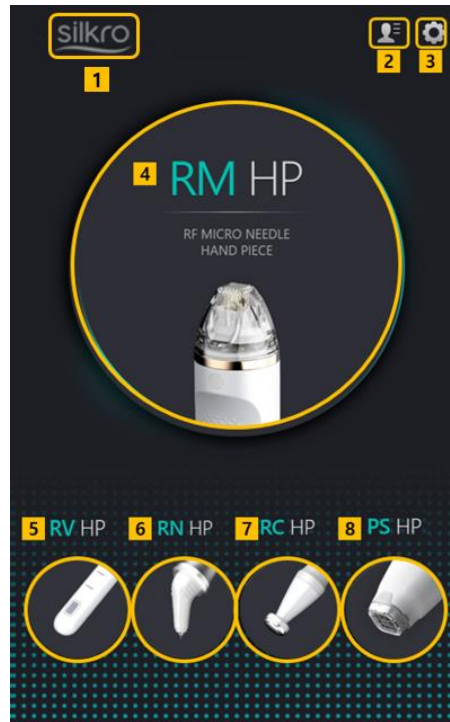


Feedback Survey



No.	Symptom	Steps to take
1	Feedback	Takes you to the feedback screen. (When the treatment history at the bottom is selected, the Feedback Option window is activated.)
2	Log out	The selected patient information is logged out, and the patient information disappears from the screen.
3	Treatment history screen	You can check and choose from the treatment records of a selected patient. You can check the treatment history by type of handpiece.
4	BACK	Move to the previous page.
5	LOAD DATA	Loads patient information.
6	Feedback Survey	The patient's treatment satisfaction is displayed in a 5-level rating scale. Very Poor Poor Average Good Excellent 
7	Cancel	Cancels a selected feedback.
8	OK	With a patient selected, the screen returns to HOME.

- **TREATMENT - Handpiece Selection**

- The GUI screen appears differently depending on how to connect the handpiece connector.

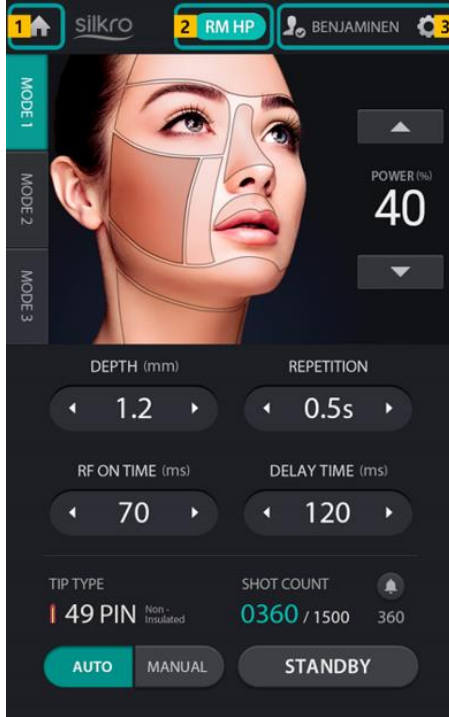


RM / PS / RC / RV / RN Handpiece Connection GUI

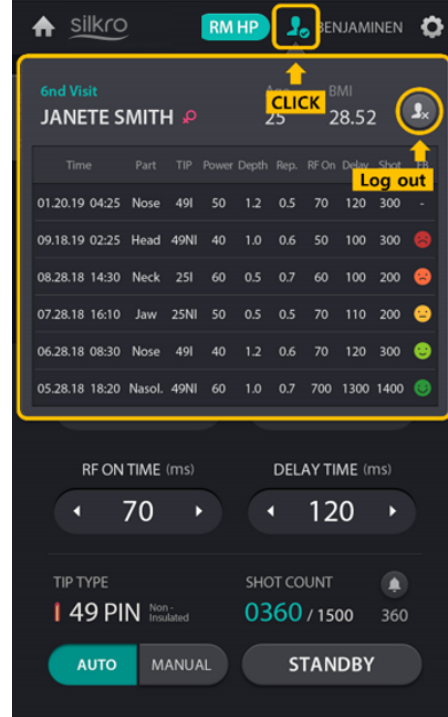
No.	Symptom	Steps to take
1	SILKRO	SILKRO LOGO
2		This icon is displayed on the screen when patient information is skipped in the patient information entry page.
3		Clicking on the Settings leads to the settings page.
4	RM H/P	Select RM H/P icon, leads to the RM Handpiece settings page.
5	RV H/P	Select RV H/P icon, leads to the RV Handpiece settings page.
6	RN H/P	Select RN H/P icon, leads to the RN Handpiece settings page.
7	RC H/P	Select RC H/P icon, leads to the RC Handpiece settings page.
8	PS H/P	Select PS H/P icon, leads to the PS Handpiece settings page.

RM Handpiece (Auto Mode)

- You can set the detailed settings of the part you want to perform.
- The stored treatment values can be easily used by loading the information during the next treatment.



RF Multi H/P Auto Mode

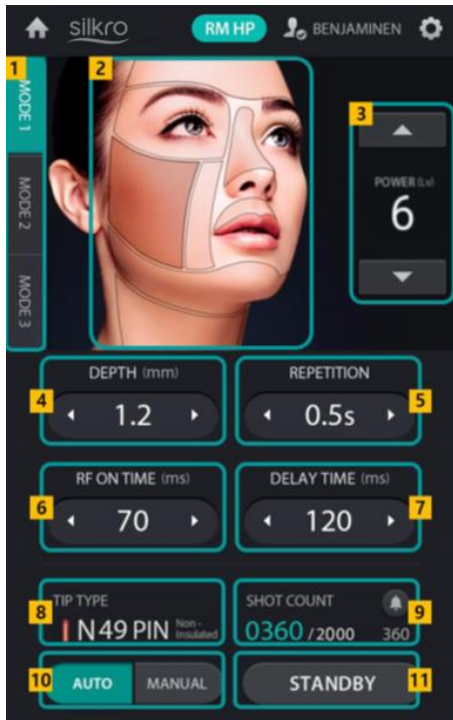


Patient Information screen

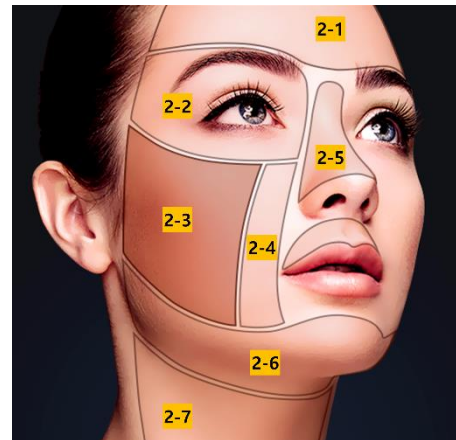
No.	Symptom	Steps to take	
1	HOME	Goes to the screen where you can select the handpiece.	
2	RM HP Auto	The Auto mode of the RM Handpiece is displayed.	
3	Patient information display		This icon is displayed on the screen when patient information is loaded from the patient's information entry page.
			This icon is displayed on the screen when clicking on a patient's information. (The patient information screen pops up)
			This icon is displayed on the screen when patient information is skipped in the patient information entry page.
			Clicking on the SETUP leads to the settings page.
4	Log out		When this icon is clicked, you will be logged out from the current patient information page and the information will no longer be displayed.

• **RM Handpiece (Auto Mode)**

- Choose the spot to be treated depending on the patient's condition, and select the part corresponding to the selected treatment.



RM Handpiece Auto Mode

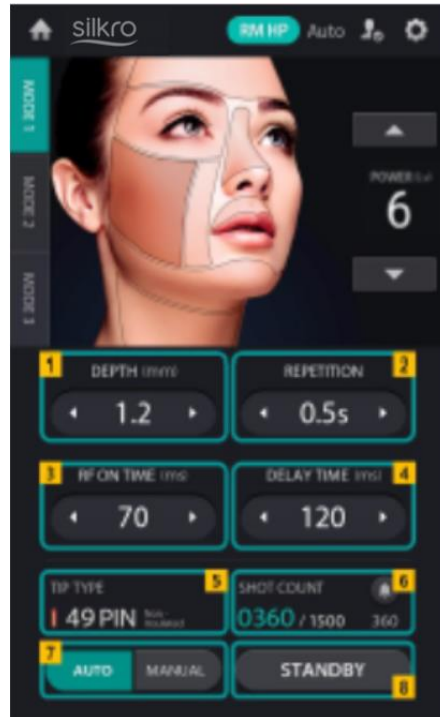


Selection of the spot to be treated


No.	Symptom	Steps to take														
1	MODE Setting	Load functions of the designated Mode 1 / 2 / 3. (Pressing the button for 3 seconds will save the current status information.)														
2	Setting the spot to be treated	<table border="1"> <tr> <td>2-1</td> <td>HEAD</td> </tr> <tr> <td>2-2</td> <td>EYE</td> </tr> <tr> <td>2-3</td> <td>CHEEK</td> </tr> <tr> <td>2-4</td> <td>NOSOLABIAL</td> </tr> <tr> <td>2-5</td> <td>NOSE</td> </tr> <tr> <td>2-6</td> <td>JAWLINE</td> </tr> <tr> <td>2-7</td> <td>NECK</td> </tr> </table> <p>The spot to be treated may be selected from among 7 areas: forehead / eye / cheek / nasolabial fold / nose / jawline + philtrum / neck. There are 3 treatment modes for each area.</p>	2-1	HEAD	2-2	EYE	2-3	CHEEK	2-4	NOSOLABIAL	2-5	NOSE	2-6	JAWLINE	2-7	NECK
2-1	HEAD															
2-2	EYE															
2-3	CHEEK															
2-4	NOSOLABIAL															
2-5	NOSE															
2-6	JAWLINE															
2-7	NECK															
3	POWER	High-frequency power settings (1Lv-10Lv / adjustable at intervals of 1Lv)														

- **RM Handpiece Auto Mode**

- The treatment proceeds with the set MODE value.

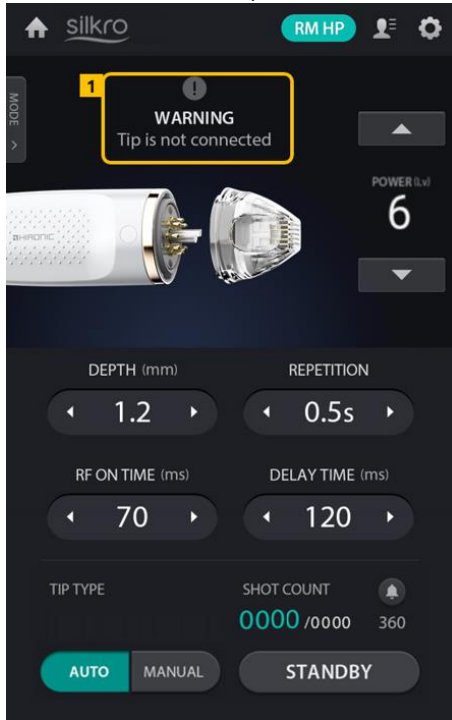


RM Handpiece Auto Mode

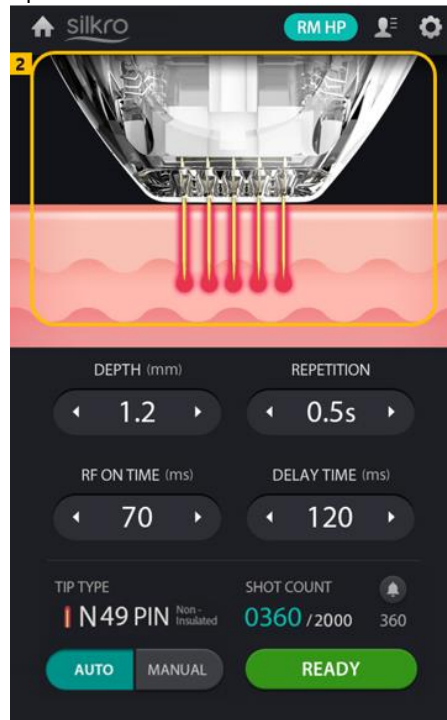
No.	Symptom	Steps to take
1	DEPTH	The needle penetration depth is set up. 0.5 - 3.5mm (unit: 0.1mm)
2	REPETITION	The needle radiation (repetition interval) is set up. Single, 0.2s, 0.3s, 0.4s, 0.5s, 0.8s, 1.0s, 2.0s
3	RF ON TIME	The needle radiation (repetition interval) time is set up. 50 - 150ms (unit: 10ms) / 150 - 950ms (unit: 50ms)
4	DELAY TIME	The time of needle exposure is set up. 100 - 150ms (unit: 10ms) / 150 - 1000ms (unit: 50ms)
5	TIP TYPE	The mounted TIP TYPE is displayed. (25 Pin / 49 Pin displayed)
6	SHOT COUNT	The SHOT COUNT in treatment is displayed. The RF Micro Needle TIP remaining time is displayed.  It is possible to set up alarms by clicking the alarm button.
7	AUTO / MANUAL	You can switch between AUTO and MANUAL screens.
8	STANDBY	The 'STANDBY' button will be changed to the 'READY' button if clicked.
	READY	When a procedure is ready, and energy can be radiated by stepping on the foot switch. ※ The FACE screen is switched to the handpiece screen.

• **RM Handpiece**

- Tip is not connected / RF Micro Needle operation screen



Tip is not connected

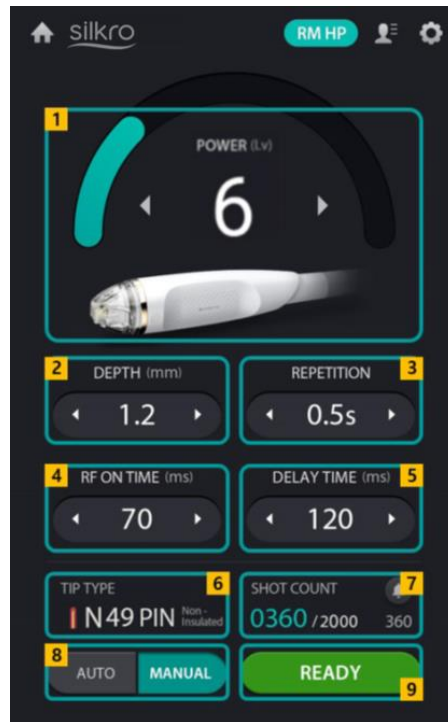


RF Micro Needle TIP operation screen

No.	Symptom	Steps to take
1	Tip is not connected	This message is displayed when the RF Micro Needle TIP is not connected to the RM handpiece.
2	RF Micro Needle TIP Operation status screen	During an RM handpiece treatment, the image on the screen is displayed.

- **RM Handpiece Manual Mode**

- This screen is displayed when the Manual button is clicked. You can select a specific setting for treatment.

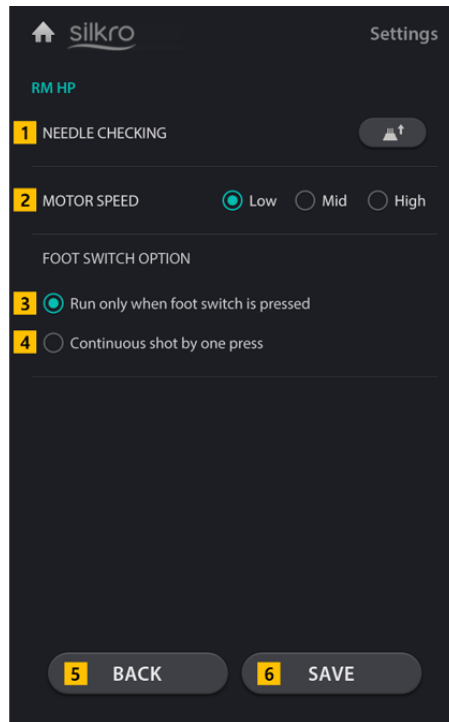


RM Handpiece Manual Mode

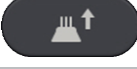

No.	Symptom	Steps to take
1	POWER	High-frequency power settings (1Lv-10Lv / adjustable at intervals of 1Lv)
2	DEPTH	The needle penetration depth is set up. 0.5-3.5mm (unit: 0.1mm)
3	REPETITION	The needle radiation (repetition interval) is set up. Single, 0.2s, 0.3s, 0.4s, 0.5s, 0.8s, 1.0s, 2.0s
4	RF ON TIME	The needle radiation (repetition interval) time is set up. 50 - 150ms (unit: 10ms) / 150 - 950ms (unit: 50ms)
5	DELAY TIME	The time of needle exposure is set up. 100 - 150ms (unit: 10ms) / 150 - 1000ms (unit: 50ms)
6	TIP TYPE	The mounted TIP TYPE is displayed. (25 Pin / 49 Pin displayed / Insulated / Non-Insulated)
7	SHOT COUNT	The SHOT COUNT in treatment is displayed. The RF Micro Needle TIP remaining time is displayed. 🔔 It is possible to set up alarms by clicking the alarm button.
8	AUTO / MANUAL	You can switch between AUTO and MANUAL screens.
9	Standby	The 'STANDBY' button will be changed to the 'READY' button if clicked.
	Ready	When a procedure is ready, and energy can be radiated by stepping on the foot switch.

- **RM Handpiece Setting screen**

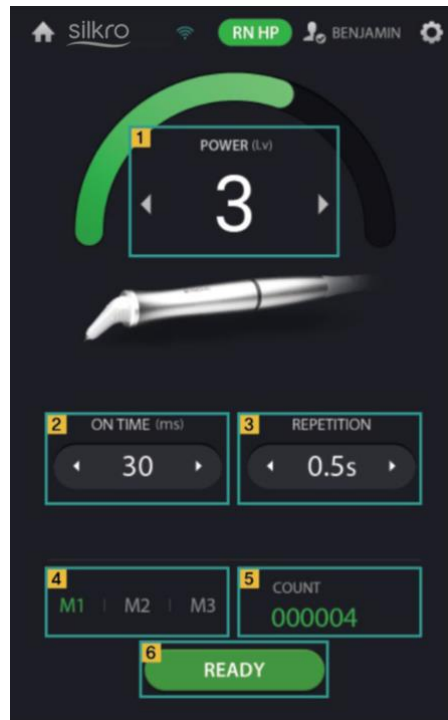
- This screen appears when the SETTING button is clicked. You can set up RF Micro Needle actions and the motor speed.




RF Multi H/P Manual Menu

No.	Symptom	Steps to take
1	NEEDLE CHECKING	 When this menu is selected, the needle is projected outside the cartridge.
		 When this menu is selected, the needle is inserted into the cartridge.
2	MOTOR SPEED	Adjusts the speed of the motor that moves the RF Micro Needle .
3	Run only when foot switch is pressed	Press the foot switch once to output one time.
4	Continuous shot by on press	Press the foot switch once to resume output. Press again to stop the output.
5	BACK	Goes to the Treatment Menu screen.
6	SAVE	This menu is to save modified information.

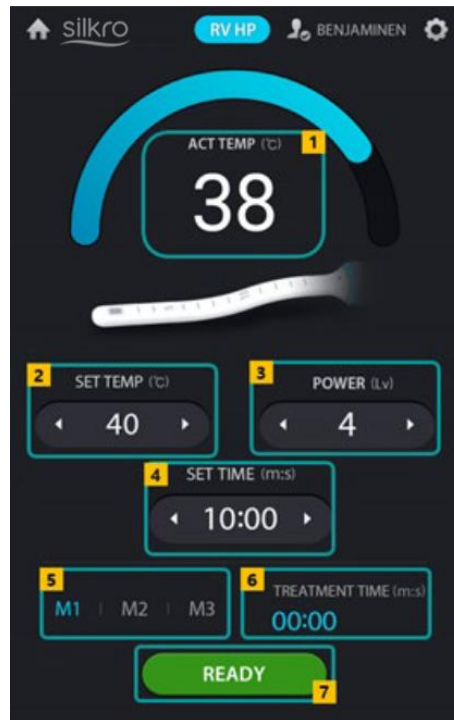
- RN Handpiece



RN H/P Menu

No.	Symptom	Steps to take
1	POWER	Adjusts the power level between 1Lv and 10Lv. (Adjustable in the 1Lv unit)
2	ON TIME	Sets up the time of high-frequency radiation initiation. Time of radiation: 50 - 1000ms (interval: 10ms)
3	REPETITION	When this menu is selected, you can adjust the time of the ON Time RF repetition. (Single - one-time repetition, 0.2s, 0.3s, 0.4s 0.5s, 0.8s, 1.0s, 2.0s)
4	M1 / M2 / M3	Select the mode to be used. (Frequently used settings can be saved: M1 / M2 / M3) (Press the MODE for 3 seconds, and the current status will be saved)
5	COUNT	This displays the count of handpiece treatments.  When this menu is selected, you can set up the alarms.
6	STANDBY	The 'STANDBY' button will be changed to the 'READY' button if clicked.
	READY	When a procedure is ready, and energy can be radiated by stepping on the foot switch.

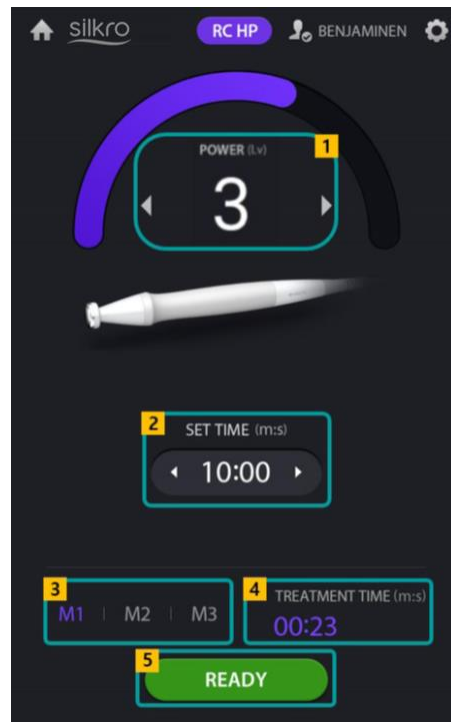
- RV Handpiece



RV H/P Menu

No.	Symptom	Steps to take
1	ACT TEMP	This displays the present temperature of the handpiece.
2	SET TEMP	Sets up the temperature at which the treatment will be performed. (30 - 44°C / unit: 1°C)
3	POWER	Adjusts the power level between 1Lv and 10Lv. (Adjustable in the 1Lv unit)
3	SET TIME	Sets up the treatment time of handpieces between 1 min and 30 min. (Minute : Second)
4	M1 / M2 / M3	Select the mode to be used. (Frequently used settings can be saved: M1 / M2 / M3) (Press MODE for 3 seconds and the current status will be saved)
5	TREATMENT TIME	Displays the treatment time needed for the handpiece. (Minute : Second)
6	STANDBY	The 'STANDBY' button will be changed to the 'READY' button if clicked.
	READY	When a procedure is ready, and energy can be radiated by stepping on the foot switch.

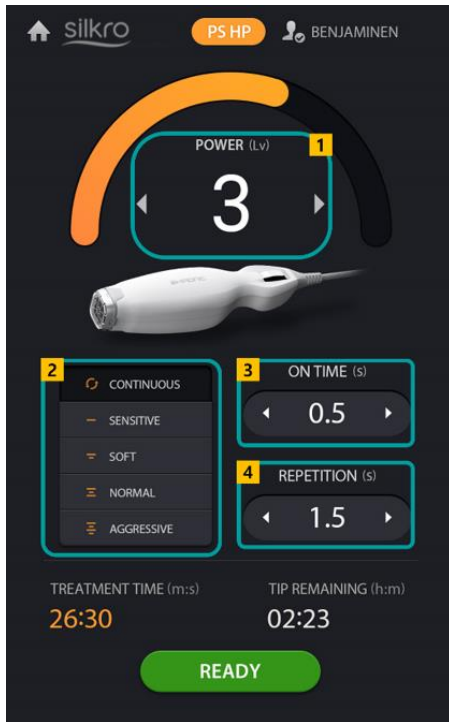
- RC Handpiece



RF Circle H/P Menu

No.	Symptom	Steps to take
1	POWER	The power is adjustable between 1Lv and 10Lv. (Adjustable in the 1Lv unit)
2	SET TIME	Treatment time setting (max. 30 min. / unit: 1 min.)
3	M1 / M2 / M3	Select the mode to be used. (Frequently used settings can be saved: M1 / M2 / M3) (Press the MODE for 3 seconds, and the current status will be saved)
4	TREATMENT TIME	Displays the treatment time needed for the handpiece. (Minute : Second)
5	STANDBY	The 'STANDBY' button will be changed to the 'READY' button if clicked.
	READY	When a procedure is ready, and energy can be radiated by stepping on the foot switch.

• PS Handpiece



PS handpiece menu



Tip is not connected

No.	Symptom	Steps to take
1	POWER	The power is adjustable between levels 1 and 5.
2	MODE SELECT	Continuous Plasma is continuously generated from the handpiece when the setting is applied.
		SENSITIVE The mode for sensitive skin
		SOFT The mode for soft skins
		NORMAL The mode for normal skin
		AGGRESSIVE The mode for rough skin
3	ON TIME	When this menu is selected, you can adjust the time of PS operation. (ON – continued repetition, SINGLE- one-time repetition) (0.5 – 5 sec / interval: 0.5 sec.)
4	REPETITION	When this menu is selected, you can adjust the time of the ON Time plasma repetition. (OFF – no repetition / Single - one-time repetition) (0.5 – 5 sec / interval: 0.5 sec.)

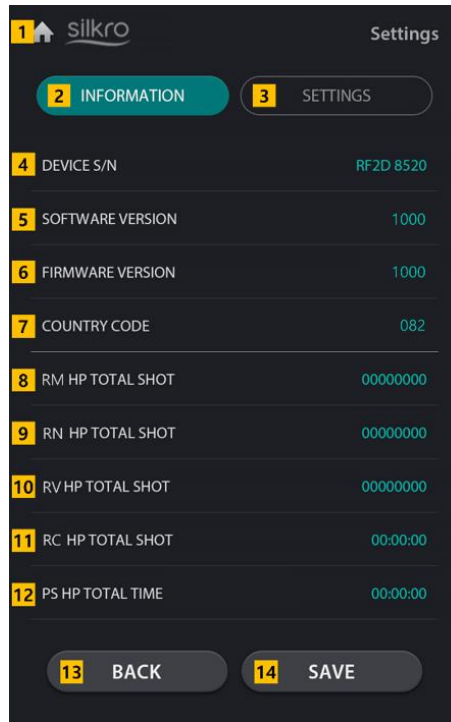
- PS Handpiece



PS handpiece menu

No.	Symptom	Steps to take
5	TREATMENT TIME	Displays the treatment time needed for the handpiece. (Minute : Second)
6	TIP REMAINING	This shows the remaining time of the tip. (Hour : Minute) If the remaining time is indicated as 0, the tip should be replaced with a new one.
7	STANDBY	The 'STANDBY' button will be changed to the 'READY' button if clicked.
	READY	When a procedure is ready, and energy can be radiated by stepping on the foot switch.

- **Settings Information**
- Displays the device's Information.

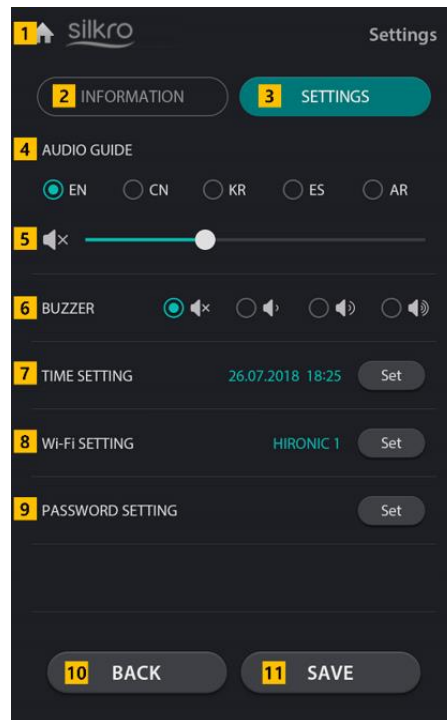


Information Menu




No.	Symptom	Steps to take
1	HOME	The screen will lead to the handpiece selection page.
2	INFORMATION	Displays the information.
3	SETTINGS	Displays the settings information.
4	DEVICE S/N	Displays the device's serial number.
5	SOFTWARE VERSION	Displays SILKRO serial No.
6	FIRMWARE VERSION	Displays SILKRO firmware version.
7	COUNTRY CODE	Display the serial number of the device.
8	RM HP TOTAL SHOT	Displays the total shot count the RM handpieces have been used.
9	RN HP TOTAL SHOT	Displays the total shot count the RN handpieces have been used.
10	RV HP TOTAL SHOT	Displays the total shot of times the RV handpieces have been used.
11	RC HP TOTAL SHOT	Displays the total shot of times the RC handpieces have been used.
12	PS HO TOTAL SHOT	Displays the total shot of times the PS handpieces have been used.
13	BACK	Returns to the previous page.
14	SAVE	Save the settings.

- **Settings Information**

- Used to show the device's version and usage tips, adjust the volume, and confirm / select audio guides.

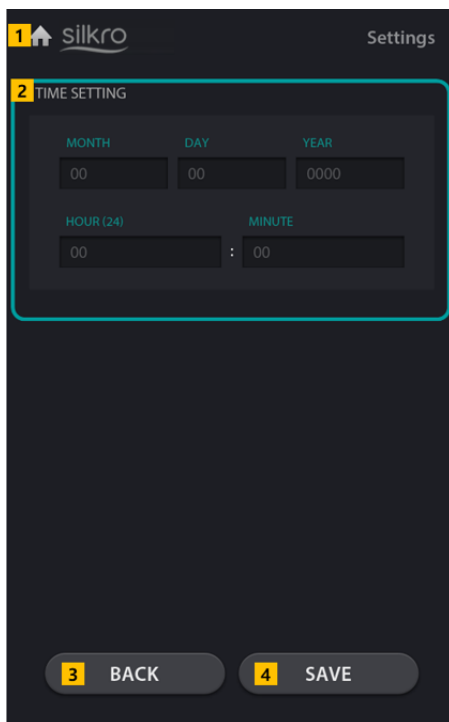


Settings Menu

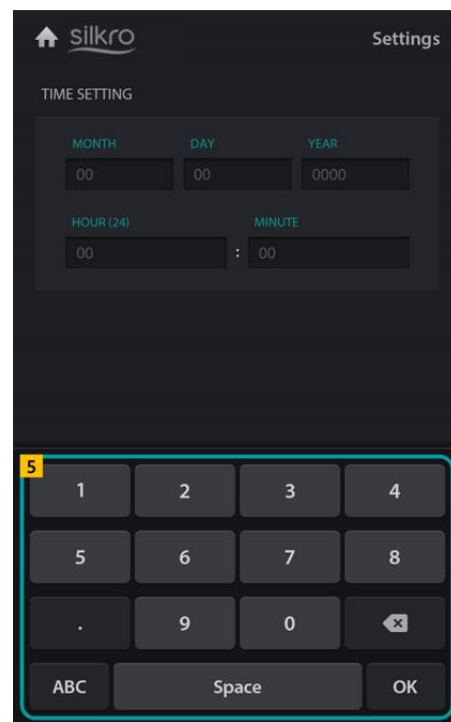
No.	Symptom	Steps to take
1	HOME	Leads to the handpiece selection page.
2	INFORMATION	Displays the information.
3	SETTINGS	Displays the settings information.
4	AUDIO GUIDE	Audio language selection of product announcements. (English, Chinese, Korean, Espana, Arabic).
5	AUDIO CONTROL	Adjust the volume of the spoken language of the initial message.
6	BUZZER	Adjusts the Buzzer volume in 4 levels (mute, min, medium, max.).
7	TIME SETTING	 When this menu is selected, you can move to the Time Setting screen.
8	WI-FI SETTING	 When this menu is selected, you can move to the Wi-Fi Setting screen.
9	PASSWORD	 Set ADMIN Setting Password
10	BACK	Goes to the Treatment Menu screen.
11	SAVE	This menu is to save modified information.

- Time Settings**

- Sets up the device time.



TIME SETTING MENU

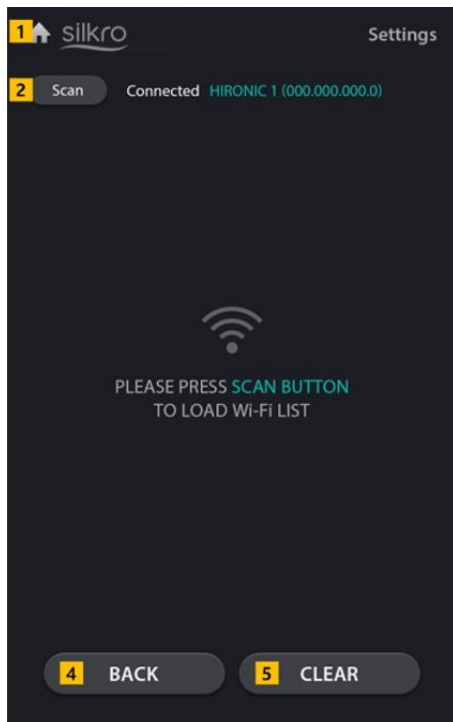


TIME SETTINGS Menu (KEY PAD)

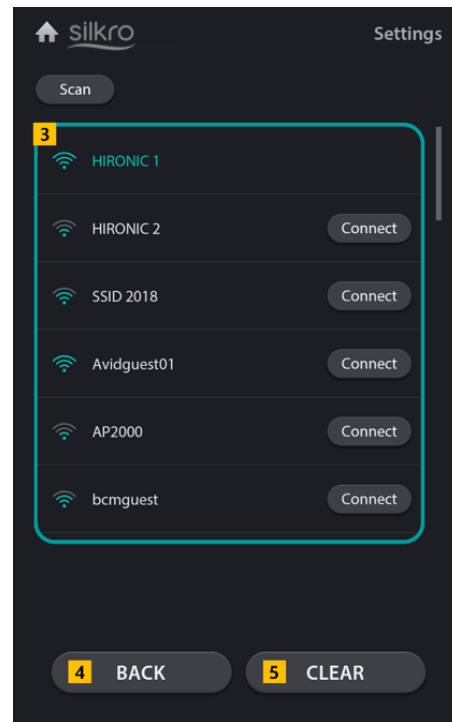
No.	Symptom	Steps to take
1	HOME	Leads to the handpiece selection page.
2	TIME SETTING	Sets up the device time.
3	BACK	Returns to the previous page.
4	SAVE	Save the settings.
5	KEY PAD	Used to select the number to be entered.

- **Wi-Fi Setting screen**

- This menu is used to select the Wi-Fi connection of the device.



Wi-Fi Scan screen



Wi-Fi Connect screen

No.	Symptom	Steps to take
1	HOME	Leads to the handpiece selection page.
2	Scan	Scans for accessible Wi-Fi signals.
3	Connect	Connects to the selected Wi-Fi signal.
4	BACK	Goes to the Treatment Menu screen.
5	CLEAR	This menu used is to reset the information.

[Pop-up messages]

Symptom	Steps to take
	<p>"Alarm Count Setting"</p> <p>This message will appear when the Alarm button is clicked.</p> <ul style="list-style-type: none"> ※ Select the desired number of shots and save the setting. The alarm will then be set up. ※ This is to turn the alarm on or off.
	<p>"WARNING – Ground Pad is not connected Please connect a Ground Pad"</p> <p>When the RN / RC / RV H/P GUI is clicked, no grounding pad is connected.</p> <ul style="list-style-type: none"> ※ Connect the grounding pad cable to the Main Body ※ Connect the grounding pad to the grounding pad cable and attach it to the patient's body.
<p>WARNING It might cause damage to the Skin</p>	<p>WARNING - It might cause damage to the Skin</p> <p>This warning is generated when the RF ON TIME setting of the RM handpiece is over 400.</p> <ul style="list-style-type: none"> ※ When the value is set under 400, this popup menu will disappear.
<p>"Tip is not connected. Please connect a Tip."</p>	<p>"Tip is not connected. Please connect a Tip."</p> <p>This message will appear when no Tip has been connected.</p> <p>If no Tip has been connected to the handpiece, connect a Tip.</p> <ul style="list-style-type: none"> ※ If there is a Tip that has been connected but this message is displayed, it indicates that a PCB error of the Tip. Replace the Tip with a new one.
<p>"Initialize motor fail."</p>	<p>"Initialize motor fail."</p> <p>This message appears when the handpiece (motor) is not initialized.</p> <ul style="list-style-type: none"> - Check if the Tip motor moves smoothly. ※ If the same symptom remains even after you connect another Tip, contact and the manufacturer for assistance.
<p>"Tip is end of lifespan. Please change Tip."</p>	<p>"Tip is end of lifespan. Please change Tip."</p> <p>This will appear when the maximum Tip shot counter has been reached.</p> <ul style="list-style-type: none"> - Replace the Tip with a new one. - When the Tip memory has been deformed. (When the number of shots used has changed)
<p>"Write to Tip fail"</p>	<p>"Write to Tip fail"</p> <p>This will appear when no information has been saved in the Tip and the memory device inside the Tip fails to respond.</p> <ul style="list-style-type: none"> - The Tip memory is not usable. If this message appears again even after disconnecting and reinstalling it, the Tip may be out of order. Contact and consult the manufacturer.

4. Maintenance and storage

4.1 Storing and Maintaining the Product

- The system and components should be inspected on a regular basis.
- If an impact is applied to the main unit and components, the device may come to be damaged.
- If it is deemed that the system does not operate properly or has broken down, please contact the manufacturer for assistance. Do not arbitrarily disassemble the system.
- To use the system after it has been unused for an extended period of time, first check that the system is clean, safe and working properly.

4.2 Precautions for Storage

- Store the system in a place that is not affected by direct sunlight, moisture, atmospheric pressure, temperature, humidity, ventilation, sun rays, dust, or air containing salt.
- Do not store the system in a bathroom or other places that are highly humid.
- If it is deemed that the system does not operate properly or has broken down, please contact the manufacturer for assistance. Do not arbitrarily disassemble the system.
- Ensure that the system is maintained in a safe state under any conditions, including when the system is transported, to ensure protection against slopes, vibration or excessive force.

4.3 Preparations for Transport

Follow these procedures before transporting the device:

- Detach the handpiece, foot switch, and other components.
- Seal the handpiece and accessories safely before transport so that they are not damaged.
- Put the system in a dedicated transport box. Exercise caution to ensure that the system does not collide with other objects during transportation.
- If a dedicated storage box is not available, pack the system with other material that can prevent excessive force or scratches.



NOTE

	Usage	Transportation / Storage
Temperature	10°C ~ 30°C	10°C ~ 40°C
Humidity	30% ~ 70%	30% ~ 70%
Air Pressure	80 ~ 106 kPa	80 ~ 106 kPa

4.4 Cleaning

- Use a soft brush to remove dust and other foreign materials off the electrical outlet.
- Always check that there is no foreign material found in or on the electrical outlet before connecting the power cable.
- Use a soft cloth to wipe the main unit.
- Do not use water or oils such as benzene or thinner, to clean the system.
- Use exclusive cleaning tools (lens cleaning tissue, proper cleaning tools, etc.) to clean the handpiece and dry thoroughly for storage.
- After using the system, make sure you turn it off and use a dry cloth or soft brush to wipe the system.
- Do not touch the front of the system with wet hands.



Caution

Never dip a handpiece into solution since it can be damaged. After each use, clean the handpiece.





NOTE

If it is deemed that the system does not operate properly or has broken down, please contact the manufacturer for assistance. Do not arbitrarily disassemble the system. If the product has been disassembled arbitrarily and the product malfunctions, the issue will not be covered by our paid or free-of-charge repair service. We hereby notify that we will not and shall not be held accountable for any and all legal problems caused by disassembly at your discretion.

5. Troubleshooting

5.1 Steps to Take in Emergency Situations

Symptom	Steps to take
<p>Burning smell is coming from the product</p> <p>Abnormal noise is coming from the product</p>	<ul style="list-style-type: none"> • Use the power button on the rear side of the system to turn it off. • Unplug the power cable from the electrical outlet. • Contact the original distributor or our after-sales service center. <p> Caution</p> <p>If the product is used continuously, internal modules may become damaged one after another and fire or safety accidents may occur.</p>
<p>The display screen is broken or damaged</p>	<ul style="list-style-type: none"> • Immediately stop the treatment and use of the product. • Turn off the system and unplug the power cable from the electrical outlet. • Contact the original distributor or our after-sales service center. <p> Caution</p> <p>If the touch screen is broken and the system is used continuously, energy will not be irradiated uniformly and the patient's skin may become damaged.</p>
<p>Blisters or burns are present in the treated area</p>	<ul style="list-style-type: none"> • Immediately cool the affected area. Apply burn ointment to the area to hasten skin regeneration, if necessary. • Contact the original distributor or our after-sales service center.

5.2 Troubleshooting by Symptom

Symptom	Steps to take
The system cannot be turned on	<ul style="list-style-type: none">• check if power is applied to the electrical outlet and the plug is inserted properly.• Confirm that the power cable is firmly connected to the system.• Confirm that the power switch (circuit breaker) on the rear of the system works properly. (If over current enters the system, the circuit breaker may not work properly.)• If the main unit still does not operate properly after checking the above, contact the original distributor or our after-sales service center.
The main power switch (circuit breaker) on the rear of the system does not work properly	<ul style="list-style-type: none">• Turn off the power switch (circuit breaker) on the rear of the main unit.• Check the power cable connection and confirm that the system can be turned on/off. Turn the Device On / Off switch on the front of the system on and off 2 or 3 times repeatedly. If the main unit does not respond, contact the original distributor or our after-sales service center.
Loud noise is audible	<ul style="list-style-type: none">• Check if the product is placed on a flat and stable surface.• Check if the product is installed at least 30 cm away from the wall.• Contact the service center if the device makes a loud or irregular noise.

6. Warranty

6.1 Overview

This section describes the warranty coverage for normal use of the product and exceptions to the warranty.

6.2 Warranty Coverage

- If the product has been used for intended purposes, Hironic Co., Ltd. provides a warranty for one year after the installation.
- Free-of-charge warranty covers the main unit and applicator. Consumable components are excluded.
- If you request repairs that fall within the required conditions for the warranty coverage, repair or replacement will be performed at either the head office of Hironic Co., Ltd. or the location where the product is installed, depending on the target component for repair and the period of time required for the repair.
- When making a warranty claim, the user should provide Hironic Co., Ltd. with materials, video or photos that show details of the problem.



NOTE

- **To maintain free-of-charge warranty, repair or modification shall be performed by service personnel officially appointed by Hironic Co., Ltd. If the product was not used for the intended purpose or the instructions herein were not followed and the product malfunctions, the issue will not be covered by the warranty. Make sure you thoroughly read and understand the user manual.**
- **Hironic Co., Ltd. shall be responsible and entitled to make a decision regarding details and the cause of a damage in the product; the decision is final and subject to no change.**



NOTE

If the system has been disassembled or modified arbitrarily and the system malfunctions, the issue will not be covered by the warranty.

6.3 Exceptions to the Warranty

Problems caused by failure to follow the instructions and safety precautions suggested in this manual will not be covered by the warranty. The following instructions need to be followed with extra caution when using the product.

- Damage to the main unit or handpiece, caused due to the user's negligence when using or moving the product, is not covered by the warranty.
- The warranty is void if the product has been used for unintended purposes or it has been altered or disassembled.
- Consumables are not covered by the warranty.
- Damage or loss due to the user's carelessness is not covered by the warranty.
- The warranty is void if a damage has occurred due to disassembly of or shock to the system or applicator (including the cables), the applicator has been removed from the main unit with an excessive force and damaged, or the system has been disassembled or repaired by someone that is not a service technician authorized by Hironic Co., Ltd.
- The warranty is void if a seal on the product has been damaged without permission by Hironic Co., Ltd.

**NOTE**

Use only genuine components and consumable parts supplied by the manufacturer. Do not modify or alter the product. Damage caused by unauthorized tampering is not covered by the warranty.

Warranty Certificate

This warranty certificate supersedes any explicit or implied warranties. The seller cannot guarantee the warranty or the conditions of the product.

Hospital name	
Name	
Address	
Contact info.	
Mobile	
Email	
Product name	SILKRO
Serial No.	
Installation date	
Warranty expiration date	
Seller/Company	
Seller contact information	
Others	

Important!

To take full advantage of your warranty, please send the details above via email.

You can send the details via fax, but you will need to notify a contact person at Hironic Co., Ltd. in advance.



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User Manual



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