



# Pulse Wave Therapy Device

## Mini Wave

## Operation Manual

- >Physiotherapy & Beauty & ED applications
- > RSWT technology
- > Mini design with dual channels
- > OLED screen controller on applicator
- > Finger swipe control
- > Customized pre-set protocols
- > Easy to operate
- >High mobility

Product supplied with sincerity

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**READ THIS MANUAL TO BECOME FAMILIAR WITH ALL SAFETY REQUIREMENTS  
AND OPERATING PROCEDURES BEFORE ATTEMPTING TO OPERATE THE  
SYSTEM.**

Specifications are subject to change without notice.

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# 1 Product Description

## 1.1 Intended use and operation

INTENTION OF USAGE: relief pain feeling, aesthetic cellulite reduction and body contouring, ED assisted therapy.

The MiniWave™ Pro/Max therapeutic machine is a precisely integrated pulsed wave therapy device. It is composed by one main unit, one or two applicators (2<sup>nd</sup> applicator is optional), 6 fully alloy made transmitters and other accessories as silicon caps for transmitters, etc.

## 1.2 Contraindications

Following side effect is known for the pulse wave technology:

- Erythema or swelling can temporarily occur in the treated area.
- Loss of bodily sensation or itching can temporarily occur in the treated area
- Hematoma
- Petechiae
- Skin damage after previous corticoid therapy
- Pulsed wave application can cause undesirable heart activity

Following with the known contraindication for pulsed wave therapy:

- Application to certain tissues: The eyes and the surrounding area, the myocardium, the spinal cord, the gonads, the kidneys and the liver
- Blood disorders, coagulation problems or the use of anticoagulants
- Blood thinning medications (Warfarinization)
- Polypus in the area of treatment
- Pregnancy
- Thrombosis
- Tumor diseases
- Polyneuropathy
- Acute inflammation
- Growing cartilage in children
- Therapy using corticoids
- Inapplicable on areas of the body and organs with possible gas content
- Inapplicable on areas in proximity to large nerve bundles, blood vessels, the spinal cord and the head

## 1.3 Technical data and parameters

Model	MiniWave Pro / MAX
Operating conditions	Ambient temperature: + 10 °C to + 30 °C Relative humidity: 30 % to 75 % Atmospheric pressure: 700 hPa to 1060 hPa Type of operation: permanent
Transport and storage conditions	Ambient temperature: - 10 °C to + 55 °C Relative humidity: 25 % to 85 % Atmospheric pressure: 650 hPa to 1100 hPa Storage time Transport: only in the original container
Power supply	Maximum input: 250 W Mains voltage: AC 100 V to 240 V Mains voltage DC input: DC48V Frequency: 47 Hz to 63 Hz Equipment protection class: II (acc. IEC 536) External exchangeable fuses: 1xT6.3A,L,250V, tube safety fuse 5 x 20 mm, in accordance with IEC 127-2 Power switch according to IEC 60601-1: On the back of device, positions 0 and I. To disconnect from the mains, unplug the male plug of the power supply adapter from the mains socket outlet
Display elements	OLED screen on front panel of main unit OLED screen on rear panel of applicator
Assisted user interface	Touch-slide control panel of main unit 5-button controller on rear panel of applicator Optional foot-pedal to trigger output APP on mobile device as smart phone/tablet
Adjustable values	Shock intensity 10mJ to 190mJ (equal to 0.5 Bar to 5.0Bar) Shock frequency 1 - 21 Hz Therapy period 0 – 2500 shocks
Increments of adjustable values	Shock intensity 10mJ – 190mJ, stepping 5mJ Shock frequency 1 – 21Hz, stepping 1Hz
Output channel	2 (dual channel output, support 2 applicators at the same time)
Dimension of main unit	230 x 200 x 80mm (length, width, height)
Weight of main unit	1.75Kg
Dimension of applicator	230 x 45mm (length, diameter)
Weight of applicator (w/o cable)	550g
Accuracy	± 20 %
Lifespan of applicator	Over 2 million shots with proper maintenance
Transmitters	Fully alloy made 6 different size/types
Bluetooth	V.5.0 with APP supported on Android or IOS (from Apple Store)

## 1.4 Warranty service















Purchasing the MiniWave Pro/MAX device entitles you to a 1-year warranty.

Applicator is limited by either the 1 year warranty period or max 2 million shots

Except for damages caused by lack of regular basic maintenance or improper use (such as long-term lack of maintenance, liquid entering the handle, failure to operate in accordance with the recommended usage method, plugging and unplugging the handle with electricity, etc.). The shelf life of the handle head is up to 150,000 shocks.

Consumable parts are not covered by the warranty. Improper use or repair, or failure to observe these instructions, relieve us from any obligations arising from warranty provisions or other claims.

## 2 Explanation Of Symbols

	Warning		Symbol indicating the order number
	Date of manufacturing		Foot pedal to applicator
	Manufacturer		Symbol indicating the serial number with the date of manufacture (year/month)
	Type BF applied part is the filling tube with connected instruments		Observe the instructions for use
	Applicator socket Commonly applicator shall be connected before power on the machine, and cannot be unplugged before machine is turned off. CH1 or CH2 means channel1 or channel 2		Electrical and electronic devices that have reached the end of their service life comprise hazardous waste and may not be disposed of together with household waste. Valid local disposal regulations apply
	CE symbol		Symbol indicating the lot number
	Bluetooth symbol		Bluetooth Disconnect symbol

## 3 Safety Information

Human safety, including the safety of operators, as well as patients, is very important to us. It is therefore essential to obey the rules of safety as following descriptions.

## 3.1 Safety Indications

Throughout the manual, the following terms are used to identify tips and precautions that will help avoid accidental injury to patients or personnel, or prevent damage to the system. The words NOTE, WARNING, and CAUTION carry special meaning and should be carefully reviewed:

NOTE: Indicates special information to make maintenance easier or important instructions more clear.

WARNING: Indicates that the safety of the patient and/ or hospital personnel could be involved.

CAUTION: Indicates special service procedures or precautions that must be followed to avoid damaging the instrument and/ or system components.

WARNING
1. Risk of fire. Replace fuse with T5AL250V Slow Blow.
2. Grounding reliability can only be achieved when the equipment is connected to equipment receptacle marked "Hospital Only" or "Hospital Grade."
3. Disconnecting the applicator cord will isolate the applicator from the main unit simultaneously.
4. Risk of fire. Use only verified cables to connect to the instrument.
5. Explosion Hazard. Equipment and components are not suitable for use in the presence of flammable anesthetics or oxygen.
6. Electric Shock. DO NOT remove back panels.
7. Type BF rating may only be maintained if the instrument is not used to bridge between the patient and ground.
8. Use care to ensure that there is no electromagnetic interference between this device and other devices in use.
9. Prior to use, all system components (main unit, cables, applicator, and tube sets) should be inspected to detect any damage or malfunction.

CAUTION
10. Risk of overbalance due to sitting or stepping on console. DO NOT sit on or step on console.
11. DO NOT twist or force the plug into the outlet. Doing so could bend the pins in the cable and damage the cable and/or the console.
12. DO NOT plug in applicator when system is turned on already.
13. DO NOT unplug applicator when system is turned on already.
14. DO NOT drop the applicator to ground.
15. DO NOT have liquid entering the applicator, either from the rear end of front end.
16. When overheating alert raised, just let the unit rest and the fan in applicator will help heat dispelling
17. Repairs may only be performed by authorized service technicians (contact LUMSAIL).
18. Improper use or repair of the device and failure to observe these instructions relieve us from any obligation arising from warranty provisions or other claims.

NOTE
19. Turn off power supply by pressing power switch on back panel to O state. The "OFF" position is designated by <b>O</b> shape icon and the "ON" position is designated by <b>I</b> icon.
20. Do only use the applicator provided together with the device or under instruction by manufacturer.
21. Check if the local power specification meets the requirement of the system before start to use.

22. Prior to using the device, before startup, and before operation, the user must always ensure that the device and accessories are in good working order and are clean and operational.

## 4 Check List

Following items are delivered when you order the device.

**NOTE:** Item marked with Optional is not delivered by default. Contact with sales preventives for details.

Item No.	Description	Quantity
5011	MiniWave Main unit Pro/Max Version	1 unit
4001	1 <sup>st</sup> applicator	1 unit
4101	Transmitters 36mm 36U	1 unit
4102	Transmitters 25mm 25U	1 unit
4103	Transmitters 15mm 15F	1 unit
4104	Transmitters 15mm 15B	1 unit
4105	Transmitters 15mm 15U	1 unit
4106	Transmitters 6mm 6F	1 unit
4201	Silicon cap for applicator	6 pcs
5001 *	1-Way foot pedal (2013 conf.) * Optional accessory	1 unit
5002 *	360 degree round foot pedal (2014 conf.) * Optional accessory	1 unit
5101	Power cable * US style	1 unit
5102	Power cable * European style	1 unit
5105	Backup fuse	2 units
6001	Spare maintenance kit	1 pack
7101	Operating instruction manual for MiniWave	1 unit

**NOTE:** main unit supports dual channel output, by default only 1 applicator is included. 2<sup>nd</sup> applicator is optional and is to be ordered separately.

**NOTE:** foot pedal is optional accessory, not included by default.

**NOTE:** power cable is provided according to the local power specification or similar.

**NOTE:** for the aim of environmental protection, the hardcopy (paper version) booklet or operating instruction manual might not be provided in some markets, instead we shall provide link to download the electric-version or contact your local distributor for help.



# 5 Device Overview

## 5.1 Front view



1	Main unit of MiniWave	2	Applicator (1 <sup>st</sup> )
3	Front panel of main unit		

## 5.2 Side view



1	Applicator plug	2	Applicator control panel
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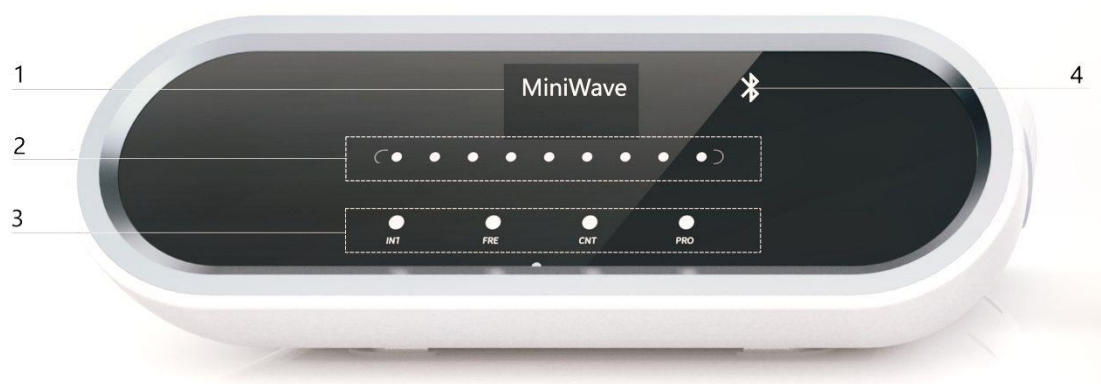
### 5.3 Back view



1	Foot pedal socket	2	Applicator (1 <sup>st</sup> ) socket
3	Applicator (2 <sup>nd</sup> ) socket	4	Micro SD card socket
5	DC power input socket *	6	Power socket
7	Power switch	8	Heat vents

\* The DC power input socket is only available on MiniWave Max version. With it, the MiniWave can work with battery as power source, so it can be easily used at outdoor environment or at scenario that AC power is not available.

### 5.4 Front panel view



1	<b>OLED display screen</b> It displays system information and concurrent working status, not responding to touch action by operator.	2	<b>Touch control string with 9 level LED lights</b> Each light can respond to click action by finger of operator. It also supports sliding operation, by sliding finger along the string of led lights, for continuously adjusting.
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3	<p>Touch Control button array with 4 buttons Each button can respond to short-clicking or long-clicking.</p> <p>INT: adjust the intensity of pulsed wave FRE: adjust the frequency of pulsed wave CNT: adjust the desired shot quantity PRO: select or modify pre-set protocols</p>	4	<p>Bluetooth connection status</p> <ol style="list-style-type: none"> <li>1) If device is not bound to any mobile device (smart phone, tablet), the icon will not show up.</li> <li>2) After bind successfully, and connected to mobile device, the Bluetooth icon will light on.</li> <li>3) If only bind, but not connected, the Bluetooth icon will show with a dash: ✖</li> </ol>
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**NOTE:** The parameter settings are synced with the control panel on applicator, vice versa.

**NOTE:** Some buttons are multiple used for different settings, as adjusting system time/date, check system accumulated counters of shots, revise the protocols' parameters, etc. Please read following sections for details.

**NOTE:** If the Bluetooth functionality fails, the device may not enter its working state after powering on, and the screen will only display the "MiniWave" logo. Please contact your local repair shop or agent for repairs.

**NOTE:** When the device is in standby mode, the OLED panel displays only the "MiniWave" logo. If it has entered working mode, it will display the current operating parameters. Users can modify the logo in the APP to display their own brand name. For details, please refer to the APP section.

**NOTE:** For MiniWave Pro version or Max version, following control panel is also used (back light shows as continuous strip rather than dots. Operation methods are identical for both types - operators swing finger to adjust the parameter, as following photo shows:



## 5.5 Applicator view



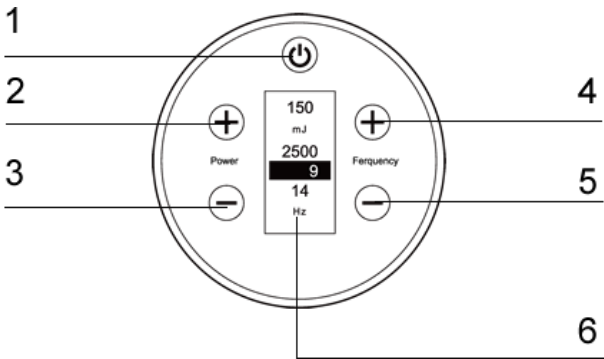
1	Transmitter, installed on applicator	2	36mm transmitter: 36U
3	25mm transmitter: 25U	4	15mm transmitter: 15U
5	15mm transmitter: 15F	6	15mm transmitter: 15B
7	6mm transmitter: 6F		

**NOTE:** One transmitter is installed on applicator when product is delivered.

**NOTE:** When exchange the transmitter, ensure it is firmly screwed on.

**NOTE:** Transmitter lifecycle is depending on usage methods. Warranty of over 150000 shots is provided.

Following with the control panel of applicator:



1	ON/OFF button switch	2	Increase intensity of pulsed wave energy
3	Decrease intensity of pulsed wave energy	4	Increase frequency of pulsed wave
5	Decrease frequency of pulsed wave	6	OLED screen displays the working status

**The operation of the ON/OFF button switch(When not connected to the APP for use):**

When applicator in WORKING mode, short-press of the ON/OFF button will trigger the applicator to start to work or stop. Long-press of the ON/OFF button will force the system quit the WORKING mode, and whole system enters STANDBY mode.

When applicator in STANDBY mode, but the other applicator is already in WORKING mode, long press of the ON/OFF button will switch over the applicator, thus the STANDBY one will enter WORKING mode, and the other applicator will quit to STANDBY mode. Same parameters of another applicator will be used. When the device is connected to the APP and the handle is in operational mode, the mode should be exited through the APP during use, rather than by using the ON/OFF button for this purpose.

## 6 Start To Use Without APP Connection

### 6.1 Device setup

Place the MiniWave device on the even, non-slip desktop, and equip it with all required accessories and instruments. Make sure you have good access to all controls.

- Do not allow the operating range of the device (including cable) and the connected instrument to be compromised by limiting factors.
- The power plug at the rear of the device must be accessible at all times.
- The ventilation slots (heat vent) at the rear panel of the device must be kept clear in order to prevent temperature from becoming excessive. It shall be kept at least 10cm to the wall, so that air can flow smoothly to dispel heat transferred from inside of the device.
- Connect applicator and foot pedal (if there is) to the main unit. Also check the working environment, check if the temperature and moisture is within the requirement of the unit.

### 6.2 Connection to the power supply

**NOTE:** Before switching on, make sure that the power supply unit of the device matches the local specific service voltage. The device has to be ordered according to the country specific service voltage.

In order to prevent the risk of an electric shock, the device may only be connected to a power network with a PE protective ground conductor.

The power plug socket is located at the rear of the device. Please use the power cable in accessory for the device, it is assumed to be working normally under proper voltage and working current over 10A.

For the MAX model, , DC power functionality is supported. You must choose between using AC power or DC power. Both cannot be used simultaneously. When selecting DC power, please disconnect the AC power cord.

### 6.3 Power on the unit

Turn on the unit by pressing down the power switch on back panel. You will hear short beep indicating the power on status. The screen of the unit will turn on and display the brand MiniWave.

Now the machine is under STANDBY mode, on the screen of the main unit, the concurrent date/time will show up. On the screen of applicator, the brand name MiniWave will show up.

### Revise system date and time

User can revise the system date and time.

Under STANDBY mode, click the INT button over 0.5 seconds (long press).



Then the year (in above photo, it is 20) starts to blink.

Click INT to add or FRE to decrease, click PRO to switch to another item, as month (in above photo, it is 05). After all items are set (second is the last item), click PRO to finish the setting.

### Revise system alert sound volume and check counters of applicator/main unit

User can set alert sound volume.

Under STANDBY mode, click the CNT button over 0.5 seconds (long press).



The screen on main unit will show VOL and corresponded value of volume. Click INT or FRE button to increase or decrease. Set to zero means force the system silent.

Click PRO button to check the counter of each channel/applicator and main unit.



Long press CNT button or click PRO button to quit setting.

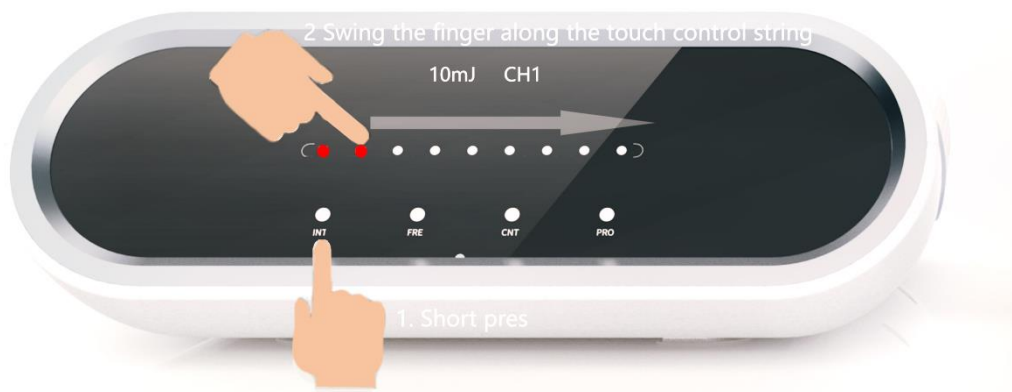
#### Adjust parameters and start operation

System will enter treatment mode upon the clicking action on the following 3 buttons:

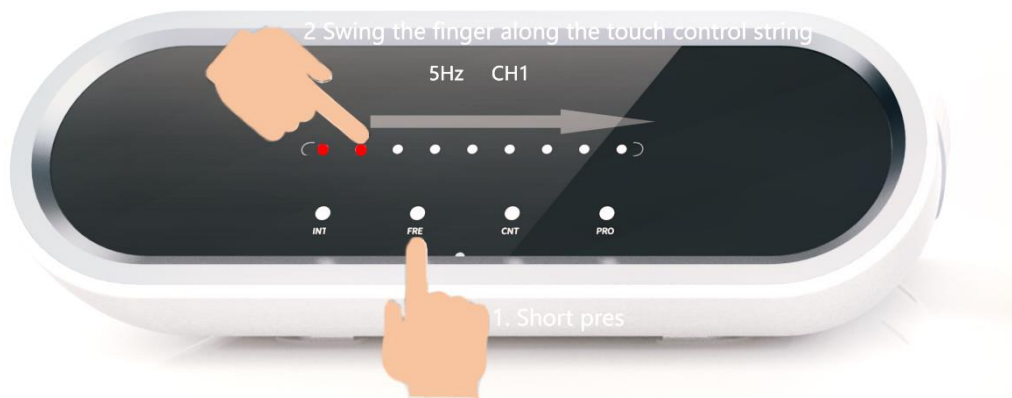
- INT: adjust the intensity of pulsed wave
- FRE: adjust the frequency of pulsed wave
- CNT: adjust the desired shot quantity

Short click each button (click and remove finger), system will change status from STANDBY mode to WORKING mode. Under WORKING mode, user can start the shot by clicking the ON/OFF button on panel of applicator or stepping down the foot pedal, and system will set with very low intensity and frequency parameter automatically.

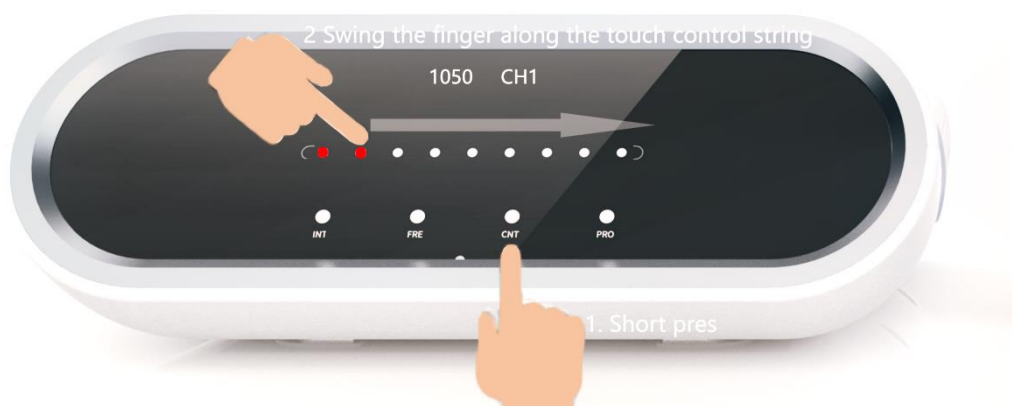
User can freely revise the three parameters (intensity, frequency and desired shot count) at any time, by click each button (INT/FRE/CNT), and drag along on the above touch control string (9 levels). The screen will show the updated value of each parameter immediately.



Above photo shows how to adjust intensity, following photo tells how to adjust frequency settings:



Following photo shows how to adjust the targeted shot count for treatment.



**NOTE:** All parameters can be set before shot starts or during the shot operation. The adjustment of shot count will be effectively changed.

User can also use the control panel on applicator to adjust the intensity or frequency. Check section 5.5 in detail. The adjustment will be displayed in time on both screen of main unit or applicator panel. Following photo shows the control panel of the applicator which is in WORKING mode.

By default system will choose the 1st available channel/applicator as default output applicator/channel. If both channels and applicators are ready, system will choose the 1st channel as default output. On the screen of main unit, the according channel name will be showing up, as CH1 or CH2.

For more about the operation of applicator panel, check section 5.5.

#### Start from pre-set protocols

Under the STANDBY mode, click any key among INT, FRE or CNT, and system will enter WORKING mode. Then short press PRO key to select pre-set protocols. On the screen of the main unit, it will show PRO0, with another clicking it will show PRO1... PRO 5, etc.

Then user can start the operation normally, by press the ON/OFF button switch on applicator panel, or by foot pedal. User can also click INT, FRE or CNT key to see the parameters of that protocol.

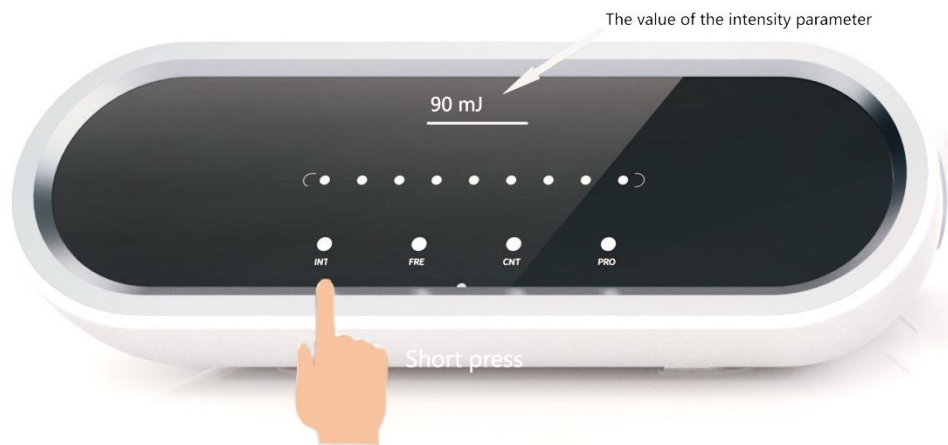
#### Customize pre-set protocols

Users can customize the pre-set protocols with their own parameter settings.

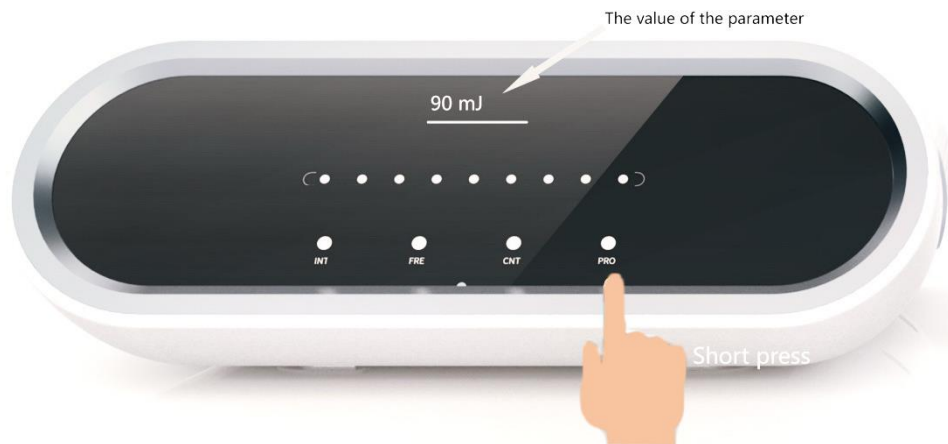
Click any key among INT, FRE or CNT, and system will enter WORKING mode. Then long press PRO key (over 0.5 seconds). On the screen of main unit, PRO 0 will show up and blinks. If user



would modify PRO 1, just short click PRO key to switch to PRO 1. There are totally 5 pre-set protocols; after PRO 5 shows up, another click on the PRO key will end up the operation of setting protocols and system quits to STANDBY mode.



When the PRO 0 is blinking on the screen, by short clicking PRO key, the intensity, frequency and desired shot count parameter will show on the screen one by one. At that time, user can customized the pre-set parameters by clicking INT, FRE or CNT keys accordingly. Long press CNT key again to modify PRO 1 pre-set protocol.



After all 5 pre-set protocols are revised, by long pressing PRO key, system will save all settings and quit to STANDBY mode.



If user want to abandon all customized settings and revert to the default settings for the pre-set protocols:

Under STANDBY mode, long press PRO key and when the blinking PRO 0 shows up, long press CNT key for about 1 second.

#### Start to shot

Press the ON/OFF button on applicator control panel to start shot. If foot pedal is available, stepping down the foot pedal and applicator will also start to shot.

When finish (left count goes zero), system will quit treatment mode automatically, and enter STANDBY mode.

User can terminate the treatment at any time by long press the ON/OFF button of the applicator which is in WORKING mode.

#### Extend the shot quantity during operation.

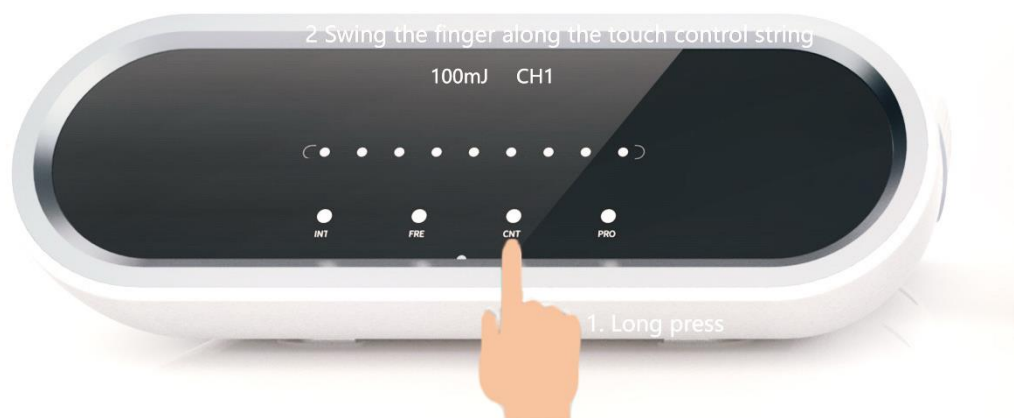
User can extend (add more) shots during operation, before end of the treatment.

When system is in working mode, press the CNT button and use finger to slide along the touch control string on control panel of main unit to revise the counter.

#### Switch to another channel

There are two methods to switch channels after the system is in WORKING mode.

- 1) Long press CNT button on control panel of main unit.



- 2) Long press ON/OFF button switch on the STANDBY applicator.

After switching, the working channel name will show up on the control panel of main unit.

Check section 5.5 for more information.

# 7 APP Usages

MiniWave APP is used to remotely control the MiniWave machine, which can be used for:

- 1) Connect and manage the MiniWave hardware
- 2) Display the working status and statistic data of hardware
- 3) Operator management (administrator can grant different privileges to different operators)
- 4) Client management (manage clients' basic info and treatment history)
- 5) Pre-set protocols management and setup private protocols
- 6) Remote control the MiniWave machine
- 7) Rental/Lease management (\*optional)

Before start to use the APP, please ensure the machine is properly powered on and APP is well installed on tablet or phone already. The APP can be found on both IOS APP Store for iPhone/iPad or Google Play Store, as well as other local APP stores. Find MiniWave as the title of the APP and download/install.

When install or start the APP, please grant all privileges as Bluetooth, Localization and storage, etc. Otherwise the APP might fail to work.

## 7.1 Bind and connect MiniWave

Each MiniWave device can be at state of: Discovered, Undiscovered, Connected, Disconnected, and Lost Connection:

State	Description	Available Action
<b>Discovered</b>	Device is visible by mobile device (APP)	Connect
<b>Undiscovered</b>	Device is not visible but it has connection history on the mobile device	N/A
<b>Unpaired</b>	Device is not paired to the mobile device, thus it cannot be controlled by the mobile device	Pair
<b>Paired</b>	Device is paired to the mobile device, but it cannot work before it is connected. It cannot be controlled by other mobile devices, unless it was unpaired and paired again with other devices (by force pairing can waiver the limitation)	Unpair
<b>Connected</b>	Device is connected to the mobile device, and operation in APP can be executed to control the device	Disconnect
<b>Disconnected</b>	Device is not connected. Before connected, the device cannot be operated with further steps	Connect
<b>Lost Connection</b>	Device fails to connect to the mobile device which it has been paired	Unpair

Before MiniWave machine can be controlled by APP on cellphone, following steps shall be done:

1. Ensure the machine is not paired to any mobile device yet. If it is bound already, please unpair it.
2. Download and install MiniWave APP from application store which fits the smart phone/tablet.
3. \* For Android phone/tablet, it is feasible to retrieve APK file from distributor to install directly.
4. Power on the MiniWave machine, until the screen shows date/time.

5. Enable Bluetooth function on mobile device, it could be a smart phone or tablet. Currently Android and IOS based smart phones are supported.

Start MiniWave application from smart phone/tablet.

For each MiniWave device, it has an unique ID, and the device name under Bluetooth is MiniWave123 (or other numbers). And Device S/N is used to identify the device, which can be used to bind to certain mobile device (cellphone or tablet).

**NOTE:** a mobile device can pair multiple MiniWave devices, and APP provides the function to switch over the devices to control them separately.

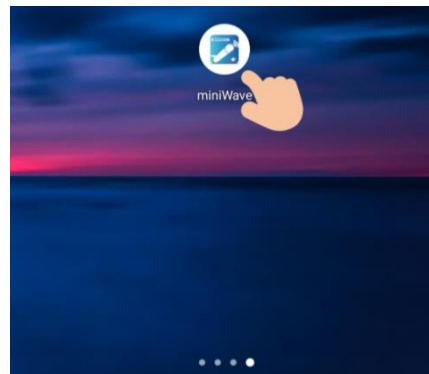
**NOTE:** when MiniWave device is paired to a mobile device, it cannot be paired to another mobile device, until it was unpaired.

**NOTE:** when MiniWave device is paired and connected to a mobile device (as cellphone), it cannot be controlled through the main unit directly.

The following are the MiniWave pairing and connection steps.

#### STEP 1

Start MiniWave APP on mobile device. Now the APP is available on both Android enabled devices and IOS enabled devices (as iPhone powered by APPLE Computer Inc).



For new machine, default login account is:

*User name: admin    Pass code: 000000*

It's recommended to revise the admin passcode, and create other accounts for daily usage.

#### STEP 2

Click "Connect Device" and enter "Device Pair" page.

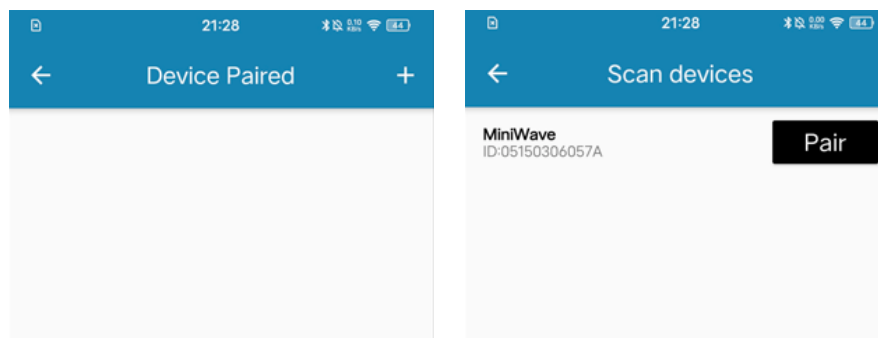


### STEP 3

In the “Device Pair” page, click the “+” icon in the upper right corner to enter the “Scan devices” page.

### STEP 4

Click “Pair” icon.



### STEP 5

Enter the corresponding “Device Key” directly according to “Device S/N”. For new device, you can click “Calculate activation code” and get the Key.

\* If the device has been paired to other phones by Admin, please select "Force pairing (for device which has been already paired before)".

### STEP 6

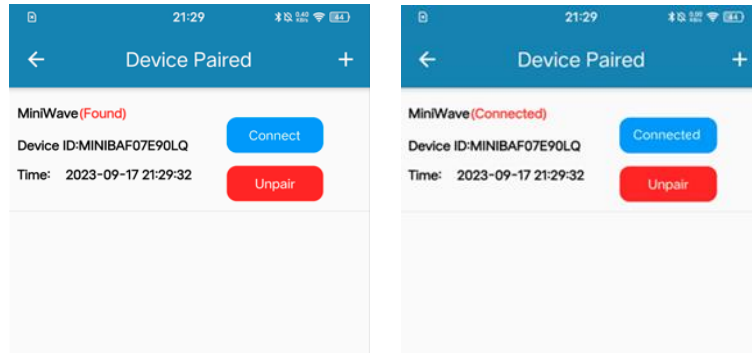
Click “Pair” icon. It will show you “Pair device successfully”.

### STEP 7

Click “←” icon back to “Device Paired” page, you can see the MiniWave device you just paired.

### STEP 8

Click “Connect” icon and connect the MiniWave device. After that, the device will be appended with (Connected), that means the machine is already under control of the APP.



To unpair MiniWave Device, just follow the steps below:

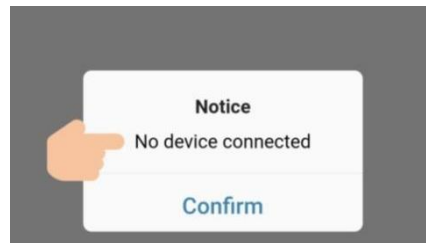
### STEP 1

Enter the “Device Paired” page.

### STEP 2

Connect the MiniWave device you want to unpair.

\* If you are not connected to the MiniWave device, the software will remind you "No device connected".



### STEP 3

Click the red “Unpair” icon.

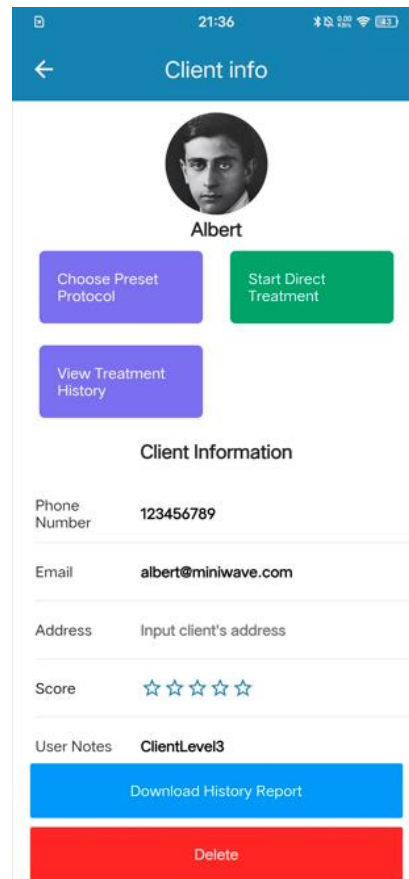
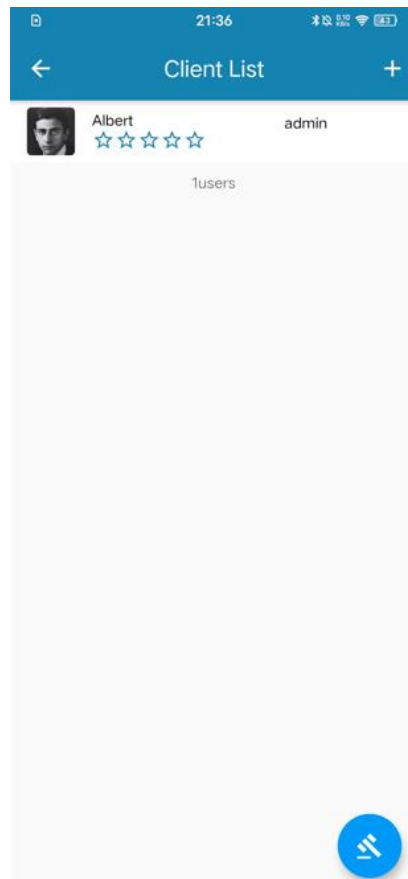
### STEP 4

Confirm to unbind and unpair the device successfully.

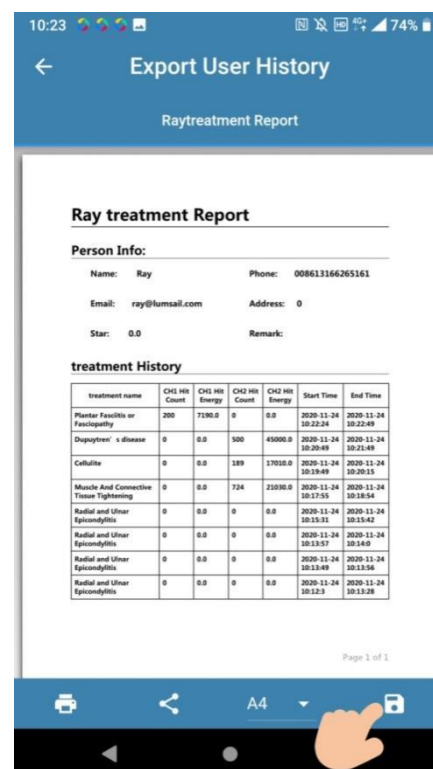
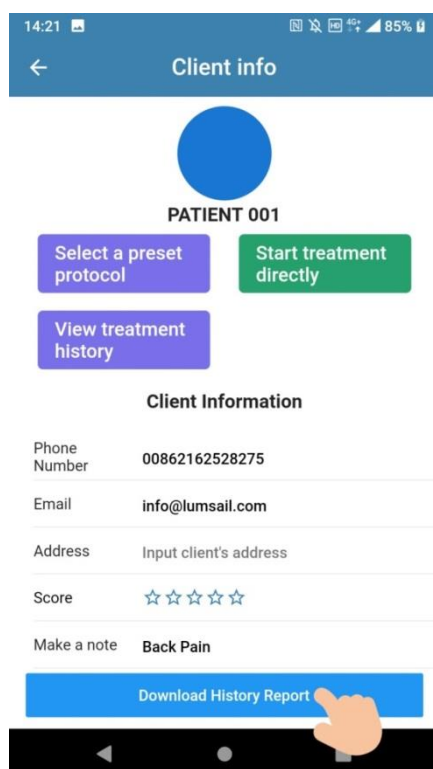
## 7.2 Client management

MiniWave APP provides the function to manage client, including recording contact info, customized remarks (notes), etc. Client’s treatment history can be checked directly in APP, or export to PDF file.

Step 1, Click the user in user list to enter the user information interface. In client list page, click the “+” icon on right top position to create a new client.



Step 2, Click the “Download History Report” icon. Generate report. It can be exported to PDF format file.



## 7.3 Pre-set protocol management

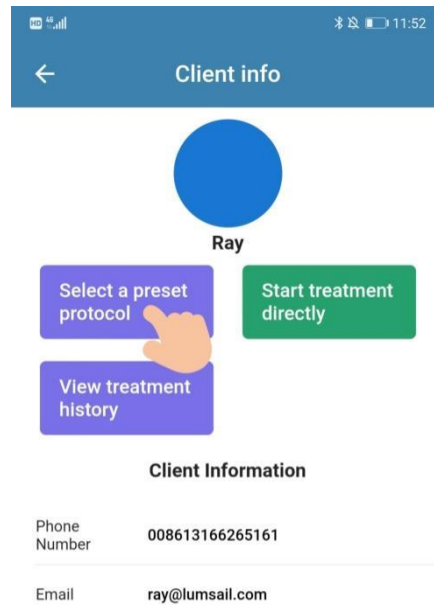
Pre-set protocols provide the facility to choose a targeted protocol which mostly fits the requirement of client. Similar protocols in same domain are categorized to one ‘Protocol Type’. There are following types

of protocols:

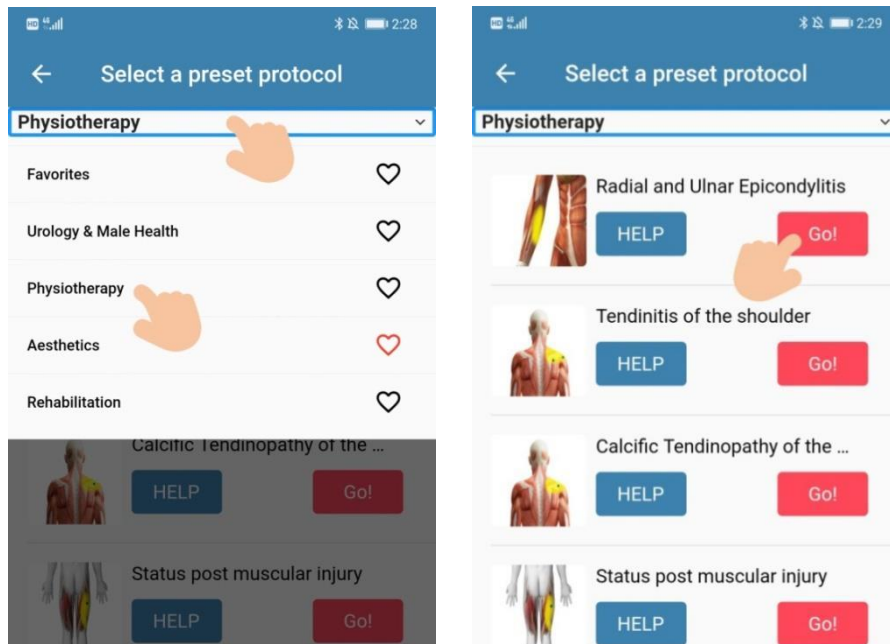
Type	Function
Built-in protocols	Built-in protocols are ready when MiniWave is leaving factory
Customized private protocol	Operator can create/ modify pre-set protocol during treatment operation and save it (rename) as private protocol.

### Choose a protocol to start operation:

Step 1, Click the “Select a preset protocol” button.



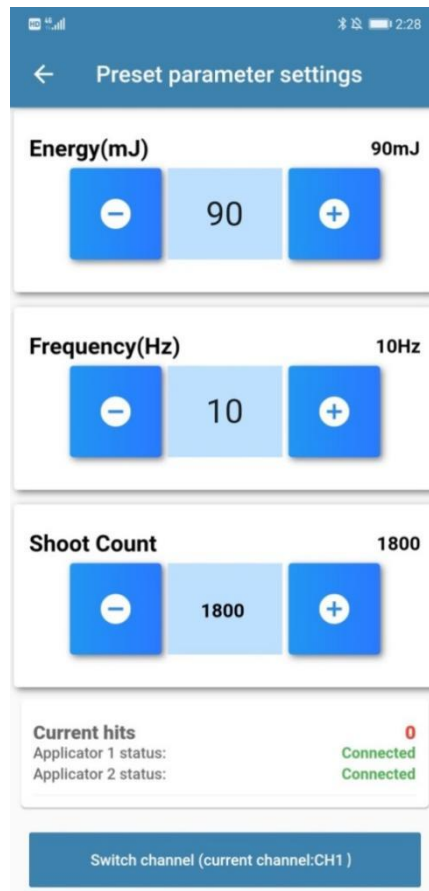
Step 2, Click the drop-down menu to choose a protocol type.



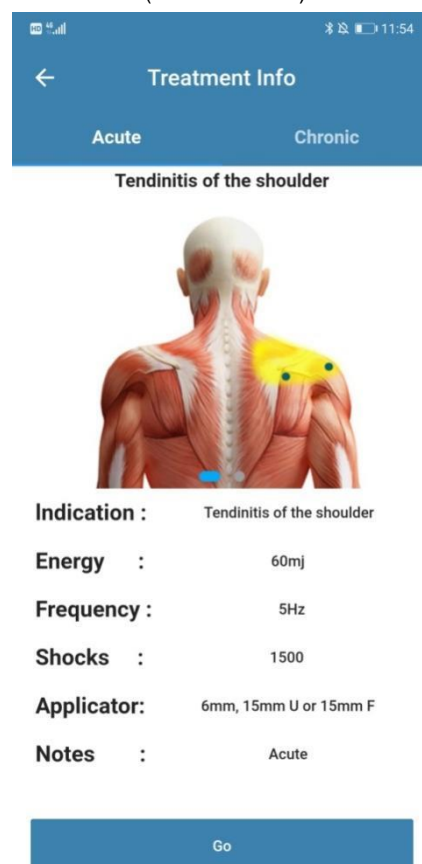
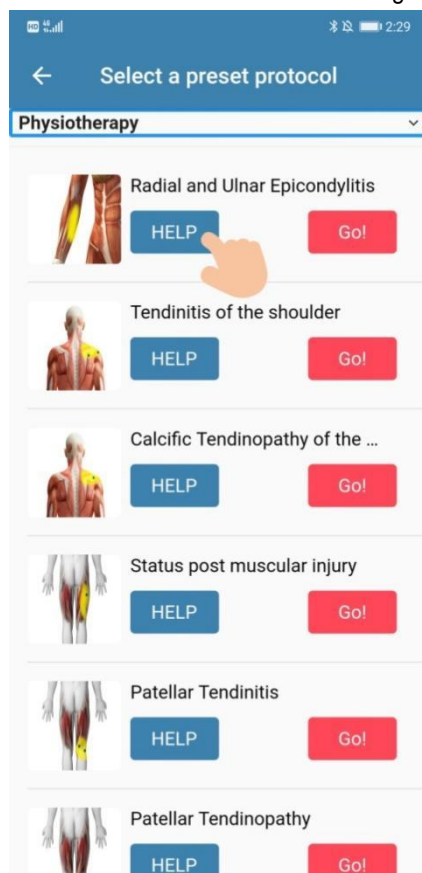
Step 3, Click the red “Go!” button to start operation.

Then the operation menu will show up. When start to shoot on applicator, the counter in the menu will increase automatically. When quit the menu, the treatment ends up.

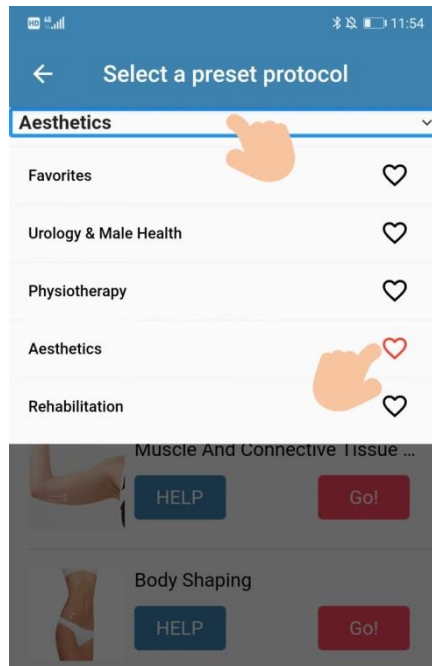




Click the Switch Channel button to switch among the two channels (CH1 and CH2).



\* When select a pre-set protocol type, by double clicking the heart icon on right side, that protocol type will be set as default one for that client. Next time when operator clicks 'Select a preset protocol' button, APP will display the protocol list which is all under that type.

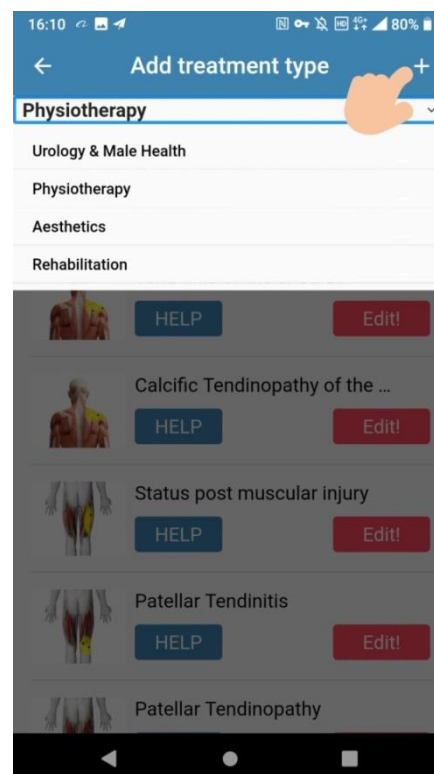
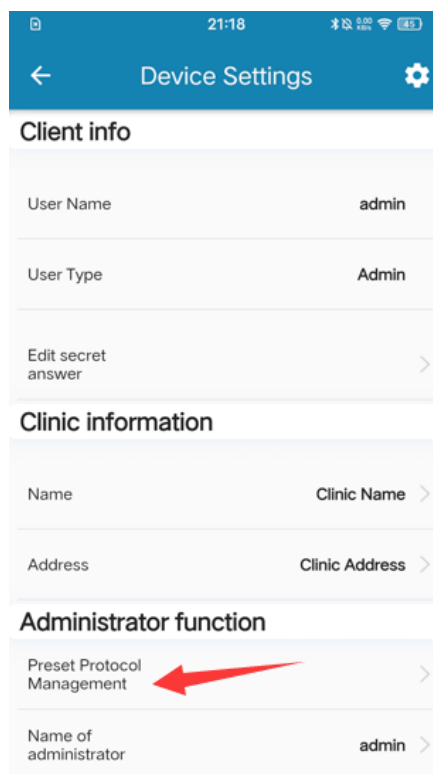


All protocols can be revised by admin in system setting, including add, delete or revise pre-set protocol. Check following sections for detail.

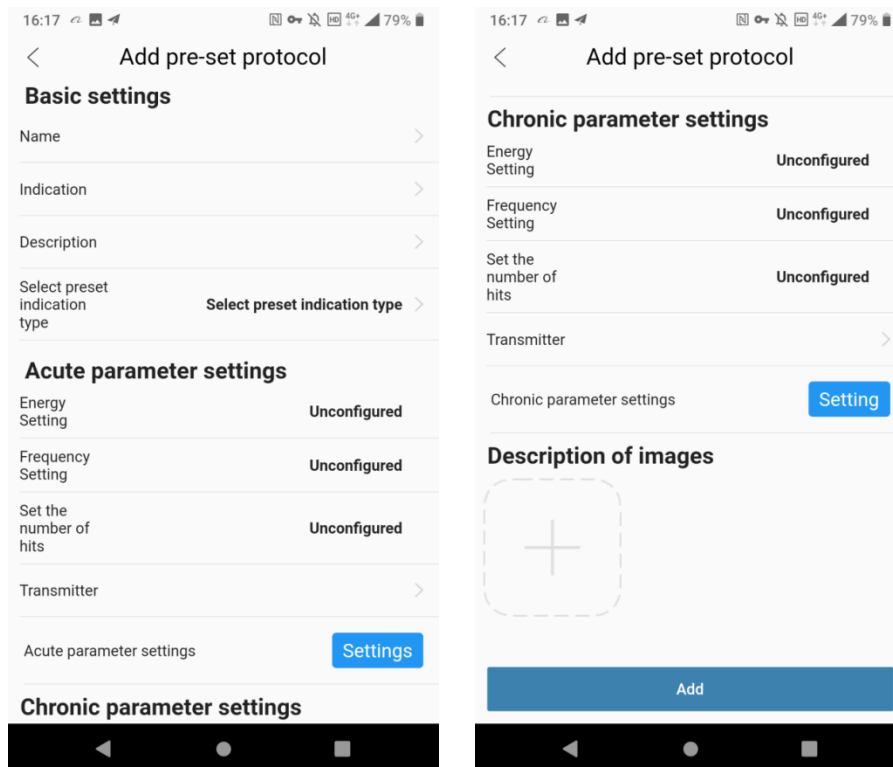
### Add a new protocol.

Step1, enter "Preset Protocol Management" on "Device settings" page.

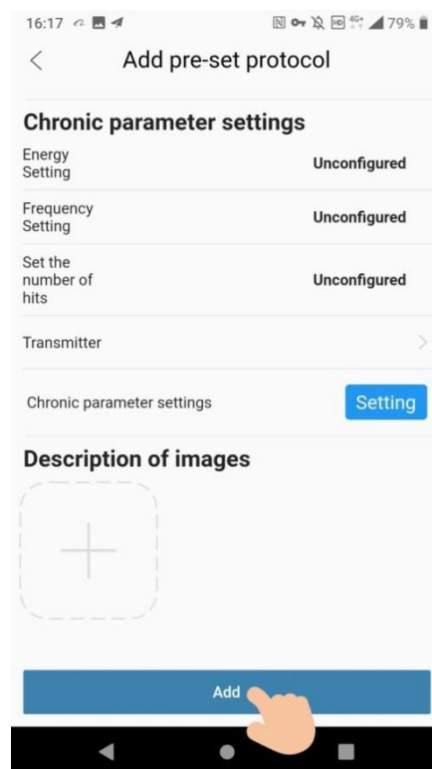
Step2, click the "+" icon in the upper right corner.



Step3, fill in all information.



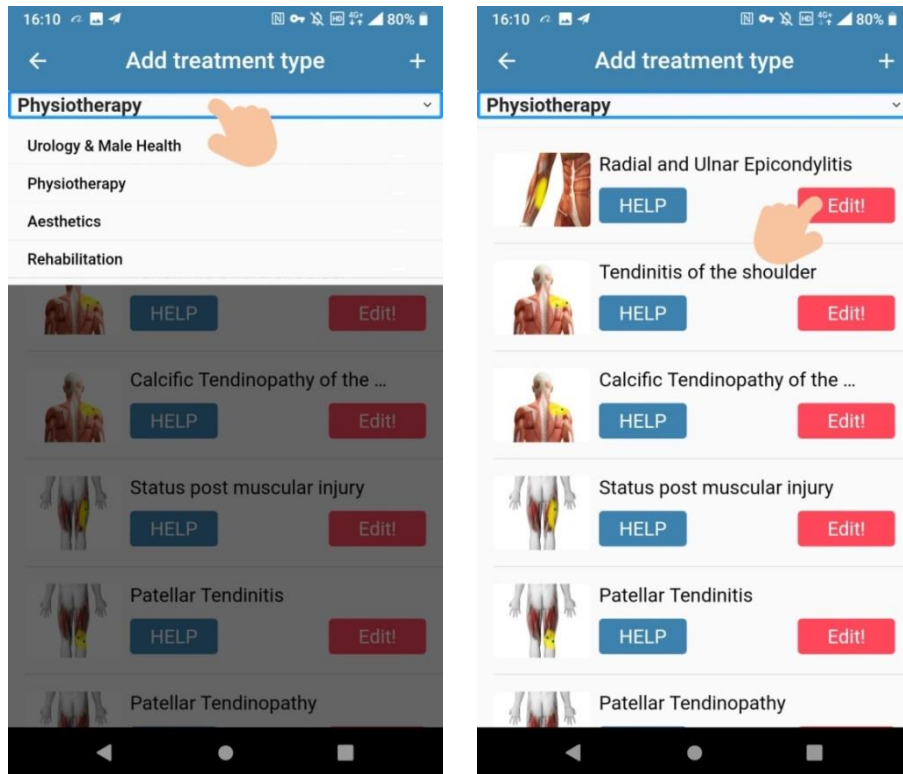
Step4, click "Add" icon and add a new protocol successfully.



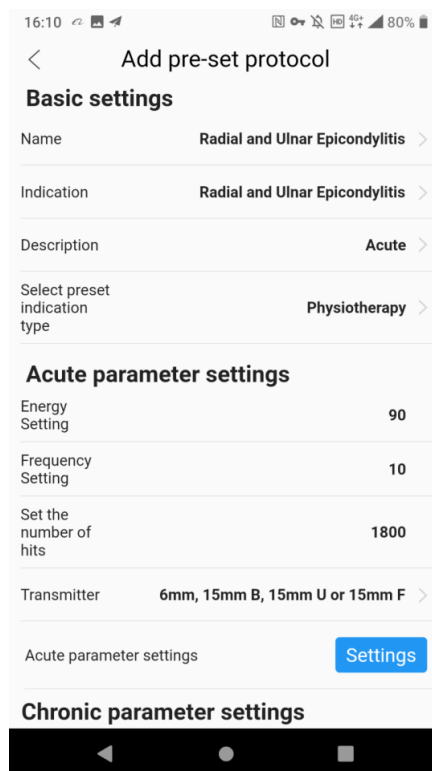
#### Revise or delete a preset protocol:

Step 1, enter "Preset Protocol Management" on "Device settings" page.

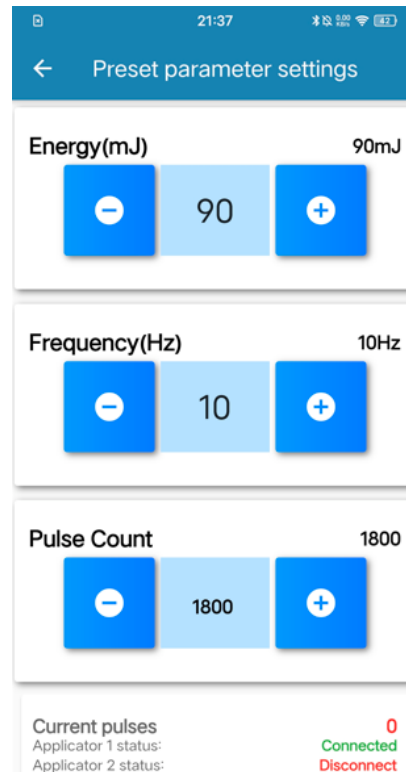
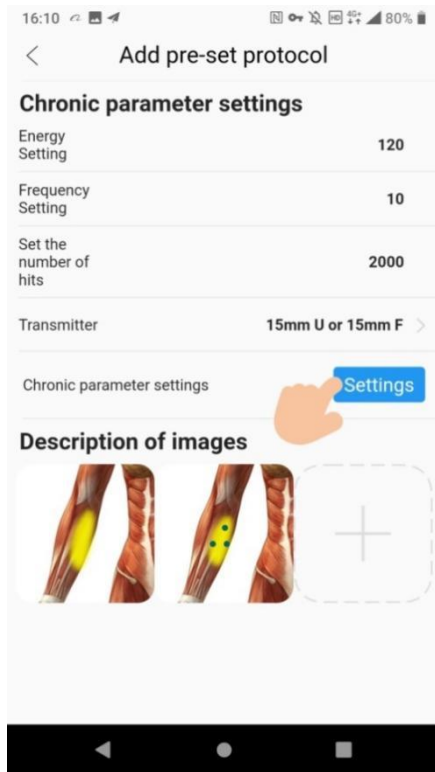
Step 2, select the treatment type and click the red "Edit!" icon on the preset protocol you want to revise.



Step 3, according to your needs, revise the "Name", "Indications", "Descriptions", parameter settings and images of the protocol.

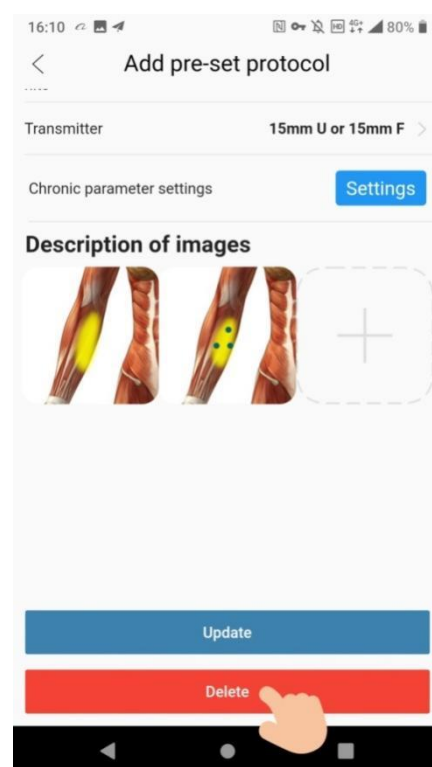
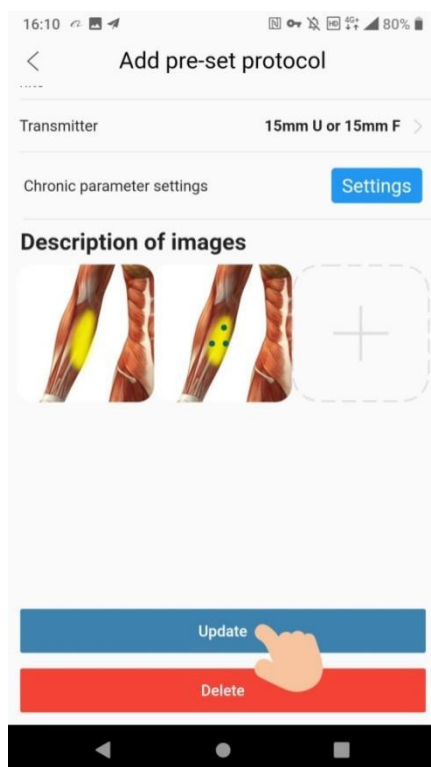


Step 4, click blue "Settings" icon to revise the parameter settings of the preset protocol more conveniently.



Step 5, click "Update" and the preset program is successfully revised.

\* If you want to delete a preset protocol, please click the red "Delete" icon.



## 7.4 Operator management

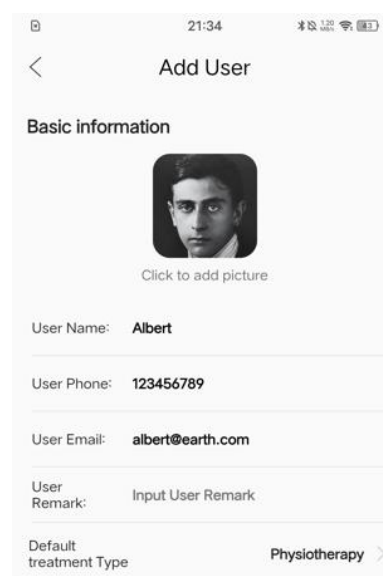
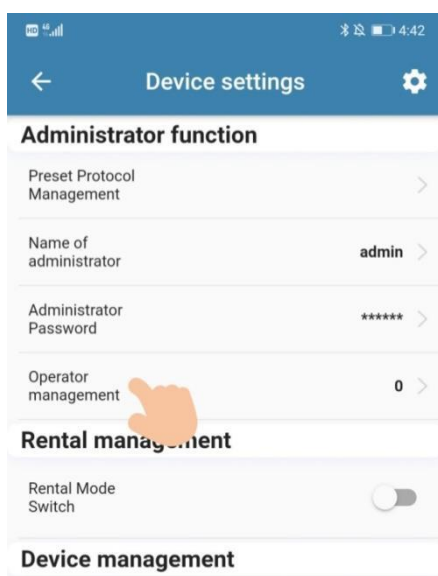
There are two kinds of operator to operate the APP on mobile device:

Operator Type	Privilege
---------------	-----------

Admin	All privilege as client management, protocol management, rental management, general operator management
Normal operator	Account is created by admin, and can only access their assigned protocols, can only manage their own clients (created by that operator only). Administrator can allow or disable the operators to revise the clients' treatment history. Normal operator cannot create/revise/delete pre-set protocols.

The APP allows multiple operators to share the mobile device, while each operator owns their account, and manage their own clients.

Step 1, click "Operator management" to check the existing operator list. For a new installed APP, it is clean and no data there.



Step 2, in operator list page, click the "+" icon on bottom right corner to create a new operator.

Step 3, in "Add User" page, fill in all the information of the new operator and click blue "Submit" icon. It will show you "Add successfully".

For different operators, Admin can authorize different preset protocols to them. Non-authorized protocols cannot be used by those operators.

## 7.5 Treatment operation

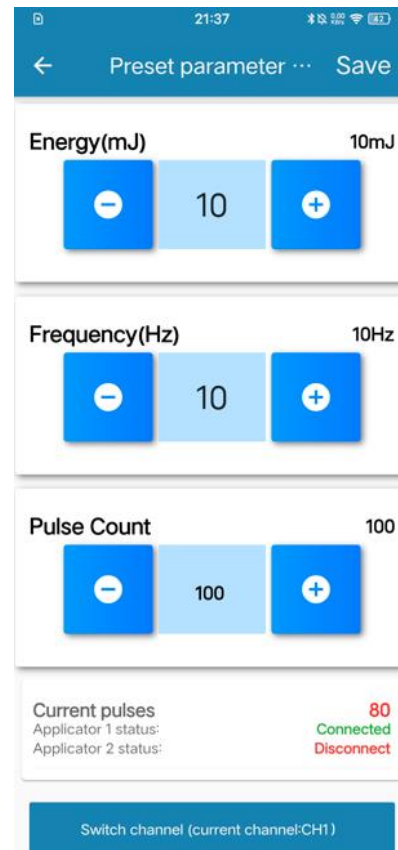
Operator can choose a pre-set protocol or click 'Start Treatment Directly' from client information page, then start the treatment.

Step 1, the parameters will show in the page, operator can keep or revise the parameter settings freely.

Click the ON/OFF button on rear panel of applicator, the applicator will start to work. During operation, operator can revise the parameters freely, either on mobile device, or through the applicator panel.

Step 2, operator can also click the button on APP to switch to another applicator to work. The concurrent counter will be displayed on all screens instantly. Click the arrow on left-top position to quit treatment.

After the treatment is completed (when the number of strikes reaches the preset value of the strike counter), the system will automatically cease operation, and the APP will return to the main interface.

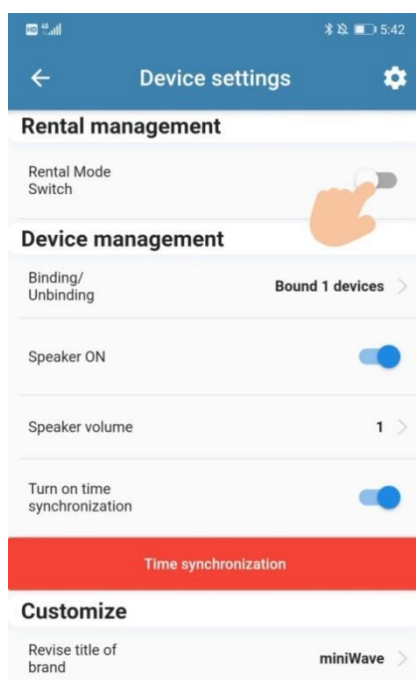


## 7.6 System Settings

In system setting menu, admin or general operator will see quite different options.

### Settings for admin only:

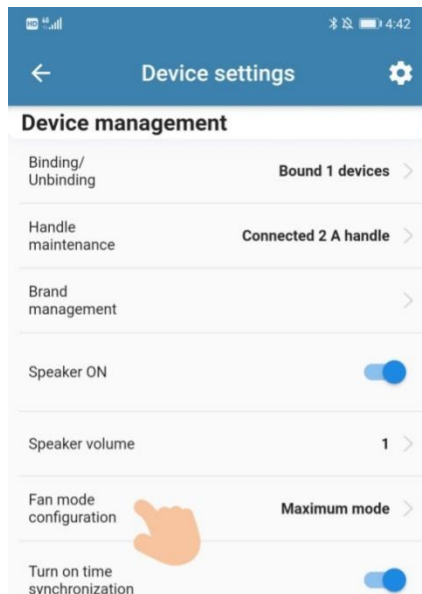
1. The admin account can rename the APP name, change splash logo photos, as well as rename the clinic name, etc, and manage general operator accounts.
2. Admin can enable/disable rental system.



3. Admin can set the fan mode configuration:

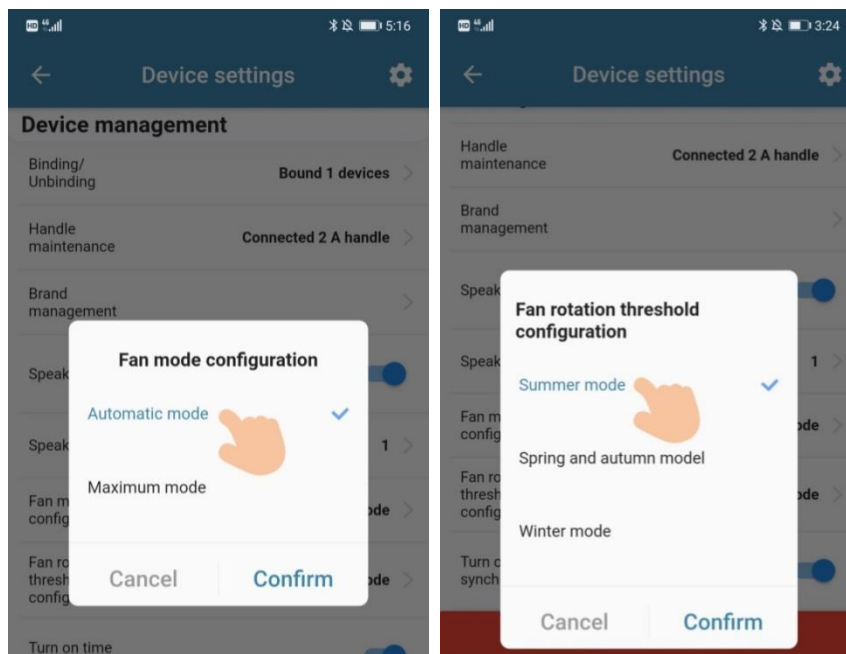
The fan mode can be set according to the working environment (room temperature). For example, if the operator just uses the machine for few sessions, then it is unnecessary to set the fan work at full mode, thus less noise generated during the operation. On the other side, if the room temperature is high, then it is necessary to set the fan to run from beginning at full speed, and work continuously, so as to keep the applicator cool quickly.

Step 1, click the "Fan mod configuration".



Step 2, Admin can choose "Automatic mode" or "Maximum mode".

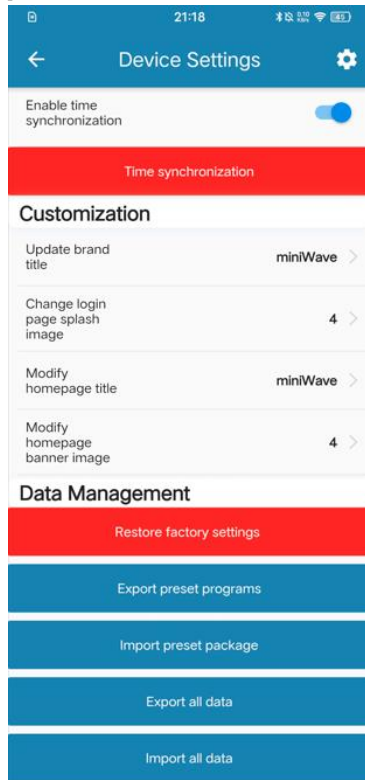
Step 3, If choose "Automatic mode", You can continue to choose "Summer mode", "Spring and autumn mode" or "Winter mode" according to the season (temperature in room).



4. Restore factory settings (erase all private settings and restore all modified pre-set protocol settings).

Note: all private settings and private data will be erased after clicking this button.





5、Export pre-set protocol settings or import pre-set protocol settings (easy for chained-clinics to sync all protocols, or transfer all data to a new tablet/phone), or simply export/import all data (include client information, treatment history, as well as pre-set protocols).

#### **System Setting for “Normal Operator”:**

Operator can only edit the secret answer, control volume switch, adjust the volume level and turn on or off time synchronization.

## **7.7 OEM/ODM Brand management**

When connected to the machine, you can see “Brand management” at “Device management” in the system setting interface. It’s feasible to modify the brand name.

Step 1, click the “Brand management”.

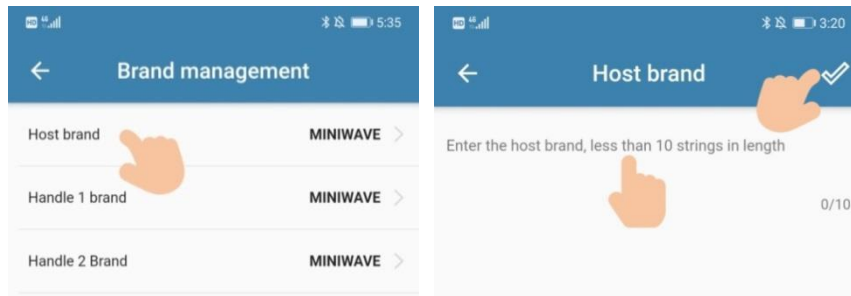
Step 2, Can choose to modify “Host brand” “Handle1 brand” and “Handle2 brand”.

NOTE: The brand text will show up in main unit LCD screen and applicator screen when the machine powers up. So be cautious to revise it.

NOTE: The format of brand:

Main unit(host): max 10 characters, allow normal character or number, and space.

Applicator: 2 lines, max 5 character each line, separated by a comma ‘,’.



Step 3, Enter the brand you want to modify, click the " ✓ " icon to modify successfully.

## 8 Cleaning

The following points in particular are important with regard to caring for the material:

### 8.1 Main unit and foot pedal

Wipe the outside using micro-biologically tested surface disinfectant or a 70% isopropyl solution. Don't let liquid entering inside of the unit.

### 8.2 Applicator

Applicator needs regular maintenance so as to ensure applicator is able to work properly as designed. Following problems would happen if applicator lacks maintenance:

PROBLEMS	
1.	Gels entered the applicator inside (refer to the cavity where projectile bar moves during operation). Gel or oil which is used as lube will stick the projectile bar, especially when gel/oil gets dry. Phenomenon: when start to shock, the applicator will fail to emit pulses, but counter increases in control panel/APP menu. Or the applicator shocks weakly.
2.	Applicator heats up quickly during normal usages. Dust (as metal powder) is observable when exchanging transmitters.

Clean the transmitter and applicator with non-water alcohol (without water ingredient). Keep applicator dry after cleaning before start to work again. Please refer to the maintenance guide for more details.

Unscrew the transmitter and check inside, if metal powder there, clean it in time.

**Check the projectile bar inside the applicator:**

Swing the applicator back and force, and the projectile bar inside shall be able to move smoothly. If not, please contact our after-sales technician for help. Exchange the projectile bar if necessary.

### 8.3 Transmitters

The transmitters need cleaning if gel or massage oil is used during operation.

Clean it by wipers with alcohol, remove all attached gel or other dirt. Ensure the middle metal part can move freely there.

\*Silicon caps are used to protect the transmitters, as well as keep the treatment clean and safe.

Please ensure the silicon cap is well installed on transmitter when using. Clean the cap every time and prevent the gel/oil entering applicator which is used during operation.

## 9 Maintenance

### 9.1 Replacing the control unit fuse:

Users can replace faulty control unit fuses themselves, under help of authorized local electrical engineer. These are located at the rear of the device in the fuse slot beside the power switch:



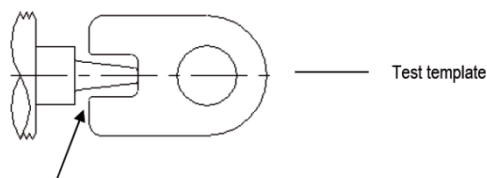
1. Unplug the power plug.
2. Open the fuse slot using a screw driver.
3. Replace defective fuses with the spare one.
4. Slide the fuse holder back in and close the fuse slot.
5. Plug in the power plug again.

**NOTE:** The socket contains dual fuses, just exchange the one which is broken, or both if the two fuses break down together.

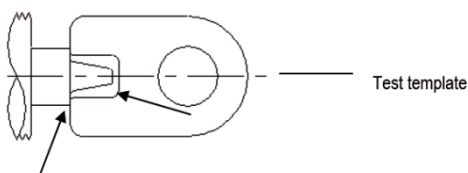
### 9.2 Applicator and transmitters

A periodical replacement of the applicator is recommended after 2 million shots.

Transmitters are expendable parts and must be replaced after certain period of use. Minor / slight deformation or shortening of the rear impact dome does not affect functionality. In cases of greater deformation or stronger shortening of the rear impact dome the applicator head must be replaced. A test template is supplied with the device that enables the user to test if the wear limit has been reached.



Air gap → applicator OK



Template makes contact or air gap at the tip → Wear limit has been reached

**NOTE:** The blue silicon cap is wearing on the tip of transmitter.



**NOTE:** Dispose the filter according to local medical management rules.

**NOTE:** Transmitter has a black rubber ring installed from inner side. Check the ring every time during maintenance is carried, exchange the ring if broken.

Applicator is installed by screws:

- 1) Screw which fix the part on which transmitter is installed. Check the screw from time to time, if got loosen, please fasten it. In fact when exchange the bullet the 1<sup>st</sup> step is to unscrew that screw, so it's quite important to ensure it is working well.
- 2) Screws at middle area of the applicator, which are used to connect the down part and up part of applicator. Fasten it if they get loosen

## 9.3 System alerts

System alerts will be shown on control panel of main unit of the screen of applicator panel.

Alert	Content
E0HD	Problem: Applicator not found If applicator is not detected by the system, the error code will show on the front panel of main unit. And no further operation can be done.
EHO7	Temperature is over normal range. System will stop working but fan in the applicator will continue to work until the temperature drops to normal range.
EEN0	Applicator lifecycle is over, please check and exchange a new applicator
BT ERROR	If the Bluetooth communication module fails, please contact local technical support.

# 10 Malfunction and troubleshooting

Following with the common troubleshooting list of the device, but for cases outside of the table, please contact local distributor or us directly for further information.

Malfunction	Cause	Solution
Device is not operational	Improper input voltage/frequency	Check power supply
	Fuse broken	Exchange fuse
	Wall socket is faulty	Check/fix wall socket
	Applicator is not connected	Connect at least one applicator
	Applicator lifecycle is over	Exchange to another applicator
	** Foot pedal is not pressed down	Press down foot pedal
Applicator is weak when shot	Check if proper intensity is set	Set to higher intensity to try
	Applicator needs cleaning	Clean the applicator
	Bullet in applicator needs exchange	Exchange the bullet
	Transmitter is not fully installed	Install the transmitter firmly
	Power module defective	Consult with us to check
Fail to switch between channels	Applicator is not fully connected	Reconnect the applicators
	At least one applicator lifecycle over	Exchange the applicator which is end of life
	Defective of either main unit of applicator	Consult with us to check
Touch control not working on main unit	Power input does not meet requirement	Check if normal power is provided
	Interference around	Change a place/location to use it
	No ground line	Power on the machine with ground line
	Defective of either main unit	Consult with us to check

# 11 Information on disposal

When disposing of the device, device parts and accessories, the regulations prescribed by law must be observed. Do not dispose of devices with household waste, please follow local rules.



Electric parts that have reached the end of their service life may not be disposed of with household waste. Applicator and adapter of applicator must be sterilized before disposal. Contaminated single-use tubing sets are subject to specific disposal requirements.