MEDRAY SOFTSHOCK 2.0

MODEL NO.: MEDRAY-AW2

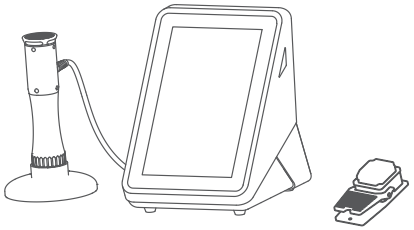
OPERATION MANUAL

Before operating this unit, please read this manual completely.

CONTENTS

- Safety instructions and precautions 03
  - Warnings and Precautions
  - Electrical and mechanical safety
- Basic Information 04
  - Intended use
  - Contraindications
  - Side Effects
- Product introduction 06
  - Product Structure
  - Labels and Explanation
  - Performance parameters
  - Operating Conditions and Product Safety Features
- Software Interface 09
- Instructions 10
  - Power up
  - Set the treatment parameters
  - Start the treatment
  - End the treatment
- Product Cleaning, Maintenance, and Care 13
  - Product Cleaning
  - Product Maintenance
  - Trouble Shooting
  - Tips for Optimal Performance

Appendix 1: Equipment list 15



⚠ Safety instructions and precautions.
This chapter introduces the safety precautions in detail.

• Warnings and Precautions

Below are the warnings and precautions that appear in the instructions.

Warnings:

· In order to protect the personal safety of the user and the healer, please follow the instructions.

·The equipment contains sophisticated electronic components that may cause serious damage if dropped, hit or collided. When not in use, it should be properly maintained. We are not responsible for any damage to the equipment caused by falling, misuse or negligence.

· Do not immerse the device in any liquid or it will cause damage.

· Except our technical personnel, others are not allowed to overhaul the internal parts of the machine, including internal adjustment of power supply, cooling system, handle, etc, pay attention to the dangerous high pressure in the unit.

Precautions:

· Do not treat areas of the head, chest, abdominal cavity, major nerves and vessels (such as the spine) that may cause adverse reactions.

· If previously treated areas have unrecovered redness, pain, swelling, bruising, or other side effects, do not use the treatment in the near future.

· Before starting treatment, the healer should wear noise-canceling headphones.

· Electrical and mechanical safety

Operators should pay attention to electrical and mechanical safety when using. Please follow the following instructions when using:

· Before starting the device, please check whether the power cord, foot switch and handle on the back panel of the host machine are well connected to the port and the power plug is well connected. The power is in the AC220V range and the power switch is located at "O".

·The device dimensions measures 25 cm long, 24 cm wide, and 31 cm high. The device should be away from the hot air inlet and protected with other objects. Hold a distance of more than 60cm, ensuring that enough air space is left to maintain a comfortable room temperature and heat dissipation requirements.

·Before starting the equipment, please check the position of the heat sink hole on the back panel of the host machine without object shielding to ensure good ventilation.

·The foot switch is used by the customer's foot. If the customer has any discomfort during the treatment, the foot switch and handle can be pressed down to stop working.

·Unplug the unit from the wall outlet after use before cleaning and maintenance.

·Keep all panels and cover plates closed, and do not remove any of the equipment by any person other than our designated technician parts.

·Disconnect the power when the machine is moving, put the handle in a safe position, handle it lightly, and the display screen cannot be stressed.

• Basic Information

The Medray Softshock 2.0 uses electromagnetic wave effects to generate mechanical shock waves capable of penetrating human tissues. These focused shock waves target the affected areas of the body to alleviate pain, thereby achieving therapeutic effects.

• Intended use:

The shock wave therapeutic apparatus is used to relieve pain in targeted areas.

Indications: Tendinitis, Achilles tendinitis, and fasciitis.

Intended Use Environment: The device is intended for use in medical institutions under the supervision of healthcare personnel and is designed for operation by professional users, such as doctors, nurses, and trained clinical practitioners. While there is no minimum age requirement for operating the device, operators must comply with the laws and regulations governing device use. Before use, operators are required to complete device-specific training programs. Prior experience is not necessary for operating the device. The device can be used by operators with mild reading vision impairments (corrected) and mild hearing impairments (corrected). However, operators must have the physical capability to operate the system using both arms and hands.

Targeted Users: Adults requiring shock wave therapy.

• Contraindications

Contraindications for the shock wave therapeutic apparatus are categorized into systemic and local factors based on the patient's condition.

Patients with bleeding disorders, coagulation dysfunction, thrombus in or near the treatment area, pediatric epiphyseal plates, severe cognitive impairments or mental illnesses, pacemaker implantation sites, tumor locations, pregnant women's lower abdomen, tendon or fascia rupture and severe injuries, brain or spinal cord regions, major blood vessels, or key nerve trunks, as well as any other conditions deemed unsuitable by the doctor, are contraindicated.

• Systemic Contraindications:

·Bleeding disorders: Patients with coagulation dysfunction may experience localized tissue bleeding. Patients with untreated, incurable, or unmanageable bleeding disorders should avoid shock wave therapy;

·Presence of thrombosis in the treatment area;

·Severe cognitive impairments and mental illnesses.

• Local Contraindications:

·Patients with tendon or fascia rupture and severe injuries;

·Extracorporeal shock wave focus located near the brain, spinal cord, major blood vessels, critical nerve trunks, or lung tissue;

·Patients with joint fluid leakage;

·Treatment areas involving epiphyseal plates.

• Side Effects

Temporary side effects may occur during treatment, including: Redness, mild pain or discomfort, swelling, and bruising.

Note: After treatment, clients may experience the above side effects. These symptoms should gradually subside. Mild discomfort typically resolves within two weeks, while it may persist longer in some cases.

• Product introduction

• Product Structure

The shock wave therapeutic apparatus mainly consists of host, handle, handle base, power cord, foot switch, treatment head and embedded software.

The structure of product is shown in Figure 1

Figure 1

• **The names and functions of product structure are as follows:**

No.	Name	Function
1	Handle	The application of the product, generates mechanical shock waves for treatment
2	Handle base	Place the handle
3	Display screen	Displays the functional interface, touch screen for setting treatment parameters
4	Indicator	Displays the current status of the device. Green indicates standby/ready state, blue indicates light emission, and red indicates a fault alert
5	Foot switch	Controls the start and stop of the treatment by pressing the foot switch
6	Heat sink hole	Internal heat dissipation of the product
7	Power input port	Insert the power cord
8	Fuse cover	Contains the internal fuse
9	Power switch	Controls the power on/off of the device
10	SD card slot	For upgrading the interface program
11	USB port	For upgrading the mainboard program
12	Foot switch connection port	Insert the foot switch connector to connect the foot switch
13	Handle connection port	Insert the handle connector to connect the handle

• **Labels and Explanation**

Disconnect (Main Power Supply)

BF Type Applied Part

Connect (Main Power Supply)

Refer to Accompanying Documents

Protective Grounding

Caution: Electric Shock Warning

• Performance Parameters

Frequency	1～16 Hz
Energy Setting	30～210 mJ
Preset Count	1～30000
Safety Category	Class Ⅰ, BF Type
Working Mode	Intermittent
Power Input	AC220V，50Hz
Rated Power	500VA
Shock wave Generation	Electromagnetic Method
Size	25cmx24cmx31cm
Weight	6Kg

• Operating Conditions and Product Safety Features

Working Environment:

A. Environment temp: 5℃～30℃

B. Relative humidity: 20%～80%

C. Air pressure: 860hPa~1060hPa

Transporting and Storage Environment:

A. Environment temp: 0℃-50℃

B. Relative humidity: 10%～90%

C. Air pressure: 860hPa～1060hPa

D. The device should be protected from heavy pressure, direct sunlight, and rain or snow during transportation and storage, and stored in a non-corrosive gas, well-ventilated and clean room.

• Software Interface

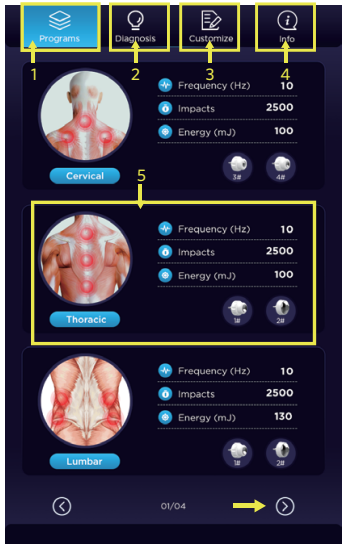


Figure 3.1 Main Interface

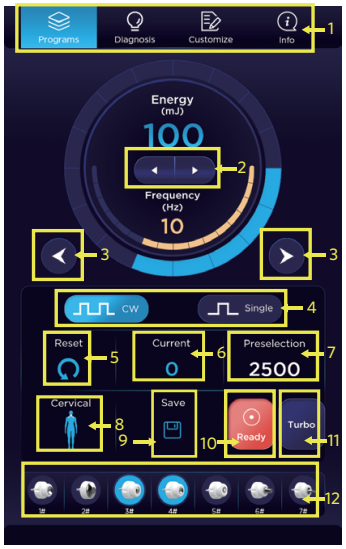


Figure 3.2 Treatment Parameter Settings Interface

As shown in Figure 3.1, the main interface is described as follows:

1） "Programs" Treatment Plan: Click this icon to enter the treatment plan selection interface. From here, you can select the treatment area and access the treatment parameter settings interface.

2） "Diagnosis" Condition Treatment Plan: Click this icon to enter the treatment plan selection interface. From here, you can select the treatment based on the patient's condition and access the treatment parameter settings interface.

3） "Customize" Custom Plan: Click this icon to enter the treatment plan selection interface. During operation, you can save the current parameters as a custom plan in the system from the treatment parameter settings interface. You can save up to 7 pages with 21 plans in total. The latest plan will replace the old one and be saved as the default on page 1, slot 1.

4） "Info" Settings: Click this icon to enter the settings interface. From here, you can turn on/off the laser emission prompt sound, view SN (serial number), model, handle temperature, software and mainboard version.

Note: If the target treatment plan is not found on the current page, you can click the left/right buttons at the bottom of the screen to scroll through pages to find it.

As shown in Figure 3.2, the treatment parameter settings interface is as follows:

1） Function Keys: Click the button icons to enter the corresponding function interface.

2） Frequency Adjustment Key: Click the left/right buttons to up/down the frequency value.

3） Energy Adjustment Key: Click the left/right buttons to up/down the energy value.

4） Light Emission Mode: Click "CW" or "Single" to select continuous or single-pulse output mode.

5） Reset Key： Click "Reset" to set the shock count of the previous treatment to zero.

6） Shock Count： Cumulatively counts the current treatment shock count.

7） Preset Count： Displays the current preset shock count. Click the digital popup to reset it. Once the cumulative shock count reaches the preset value, the treatment ends, and the handle stops working.

8） Plan Display： Displays information related to the current function interface, showing the selected treatment area/condition/custom plan.

9） Save Key： Click "Save" to save the current treatment parameters as a custom plan for the current account.

10） Standby/Ready： After setting parameters, click "Standby", the icon will change to "Ready" to enter the preparation state.

11） Turbo： Click the Turbo button to automatically increase the energy by 20%.

12） Recommended Treatment Head： The icon lights up to show the recommended treatment head model for the current treatment plan.

• Instructions

This chapter is the operation procedure of shock wave therapeutic apparatus.

• Power up

Step 1: Insert the power cord in Figure 4.1 into the AC100-240VC power input port on the rear panel of the host.

Step 2: Insert the foot switch connector in figure 4.2 to the port of foot switch connector on the rear panel of the main engine, insert figure 4.3 handle connector into port of handle connector port in the same way.

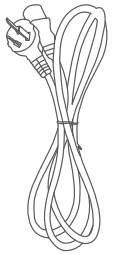
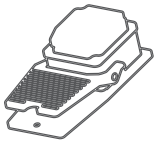


Figure 4.1 Power Cord Figure



4.2 Foot Switch

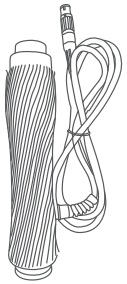


Figure 4.3 Handle

Step 3： Insert the power plug in Figure 4.1 into AC220V wall outlet, then press the power switch on the back panel of the main unit to the "I" position to turn on the system. After the device performs self-check in Figure 4.4, it will enter the foot switch connection confirmation interface. Press the foot switch once. After that, on the maintenance reminder interface, click the "confirm" button to enter the main interface.

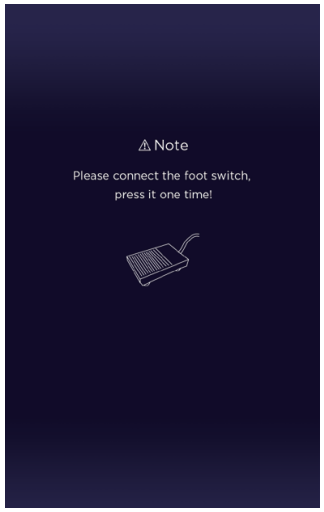


Figure 4.4 Foot Switch Connection Confirmation Interface

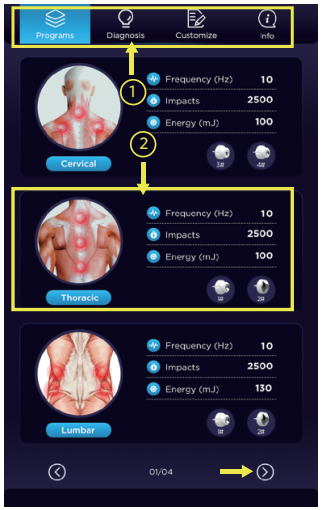


Figure 4.5 Main Interface

- **Set the Treatment Parameters**

According to the introduction of the main interface in Figure 3.1, in the Figure 4.5 main interface function bar, click the button icon to enter the corresponding functional interface. Then based on the patient's condition, select the treatment area/condition/custom treatment plan and proceed to the Figure 3.2 treatment parameter settings interface. The interface will display default treatment parameters. The doctor can reset the parameter values according to the description in Figure 3.2. Click "Standby" to get ready.

- **Star the treatment**

Remove the handle from the handle base, press the end of the treatment head on the pain point. Step on the foot switch and the treatment head starts to emit shock wave. Move the handle slowly in circles, covering all areas of pain.

Note: 1. Before starting the treatment, the healer should wear noise-canceling headphones to prevent injury. 2. In clinical practice, the physician sets the parameters according to the actual condition of the patient. Shock wave therapy is different for each patient. The frequency of treatment depends on how sensitive the patient is to pain, and the pain point depends on the patient's description. You can gradually increase the intensity as the patient can tolerate, until the patient can feel the pain. 3. The temperature of the treatment head will increase during the treatment. When the handle temperature exceeds 65°C, the device will automatically stop working.

- **End the treatment**

When the patient feels unbearable pain, the operator can release the foot switch or click "Ready" icon on the main interface to stop emitting shock waves, and then turn down the parameter or stop treatment at doctor's recommendation. When the current count of impacts reaches the preset value, the first treatment is completed and the handle stops running.

• Product Cleaning, Maintenance, and Care

This chapter is about the daily maintenance of the shock wave therapeutic apparatus performed by the operator. The operator can only perform the dimensions listed in this chapter. Any other maintenance work can only be operated by our authorized technicians.

This product has a lifespan of 5 years, it should either be returned to the manufacturer for recycling or disposed of by the user according to local laws.

The shock wave count of the treatment head is 2 million impacts. If the treatment head or handle reaches its lifespan while the host is still functional, please replace it with a compatible treatment head and handle.

Product Cleaning

（1）Do not rinse with water or other liquids. A neutral cleaner can be used, but acidic or alkaline cleaners are strictly prohibited.

（2）Do not disassemble the product for cleaning; only clean the exterior to prevent liquids from entering the device.

（3）Do not use gasoline, abrasive powders, or hard brushes for cleaning.

（4）After each use, wipe the surface of the treatment head with a soft tissue to keep it clean and free from oil, and then disinfect with 75% medicinal alcohol.

Product Maintenance

（1）During transportation and storage, the product should be protected from heavy pressure, direct sunlight, and exposure to rain or snow.

（2）The device should be stored in a non-corrosive gas, well-ventilated and clean room.

（3）The warranty period for this product is 1 year.

（4）Shock wave treatment head replacement：With the device powered off, hold the handle with one hand and unscrew the treatment head (post-use) counterclockwise. Then screw on the new treatment head clockwise.

（5）Fuse replacement：With the device powered off, open the fuse cover located above the power switch. Replace with a new fuse (F3.15AL250V) and close the fuse cover.

（6）Disposal：Once the product and accessories are confirmed to be decommissioned, do not discard randomly. Disposal should be carried out by hospitals or care institutions according to local regulations.

Trouble Shooting

phenomenon	probable cause	measures
No display	The power cord is not properly connected	Check whether the power cord and plug are properly connected
	Wall outlet malfunctions	Replace the wall outlet and test
	The power switch is not pressed	Press the power switch on the back panel of the main engine to "I"
	The fuse blew	Turn on the fuse box above the power switch and replace the fuse
No response when clicking on the display screen button	/	Please contact our maintenance department
Cannot enter the main interface	/	Please contact our maintenance department
No response when clicking on the display screen icon	/	Please contact our maintenance department
Cannot access main interface	/	
"E-PRIM" shown in the bottom left corner	Primary coil circuit open	
"E-SECO" shown in the bottom left corner	Secondary coil circuit open	
"E-TEMP" shown in the bottom left corner	Handle temperature exceeds 65°C	Stop operation until the temperature decreases. If the issue persists, please contact our maintenance department
"E-HD" shown in the bottom left corner	Handle not connected or damaged.	Reconnect the handle to the host. If the issue persists, please contact our maintenance department

Tips for Optimal Performance:

We understand that the hammering action can be a noticeable aspect of the treatment process. While this is inherent to the device's functionality, there are practical steps you can take to minimize the associated noise and enhance your overall experience.

1. we recommend applying a contact gel during the treatment. This not only enhances the effec-tiveness of the treatment but also acts as a dampening agent, minimizing the sound produced.
2. Ensuring a proper and consistent skin contact is crucial for optimal shock transmission during treatment, which will not only improve the efficiency of the treatment but also contribute to a quieter treatment experience.

These practices are not only good for noise reduction but also enhance the overall performance of your machine. We encourage users to follow these tips for a more comfortable and effective treat-ment session.

Thank you for choosing Medray Laser and Technology for your wellness needs. If you have any further questions or concerns, please refer to the user manual or contact our customer support.

• Appendix 1:Equipment list

Item	Material name	Quantity
1	host machine	1
2	handle	1
3	handle base	1
4	power cord	1
5	foot switch	1
6	treatment head accessories	6
7	fuses	2
8	impact needle	1
9	QC card	1
10	Warranty card	1