

手部伸展復康治療器

Hand Stretching Rehabilitation Therapy Device

使用說明書

Instruction Manual



(SAB)

Ziglite Smart Health Care Products Co., Ltd.

節亮康護產品有限公司

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After service, Thank you for choosing the hand trainer.

Please read this manual carefully before using this product.

Please keep this manual properly for guidance when using the rehabilitation training device.

The Hand training device has two modes: the passive mode and Mirror Motion Rehabilitation Training Mode. Our device aims to maintain and expand the range of motion of finger joints, prevent joint contracture and muscle atrophy, greatly promote the reorganization and compensation of the nervous system, and help patients recover as soon as possible.

The recovery of hand dysfunction after stroke is a long-term and arduous process. Patients' conditions, rehabilitation courses, and curative effects are very different. Under normal circumstances, the recovery of hand function is slower than other parts, and long-term rehabilitation training is needed. If you have any questions in use, please get in touch with info@ziglite.com.

If you have any questions in use, please contact: info@ziglite.com

The manual version may upgrade due to changes in software version or technical specifications without prior notice.

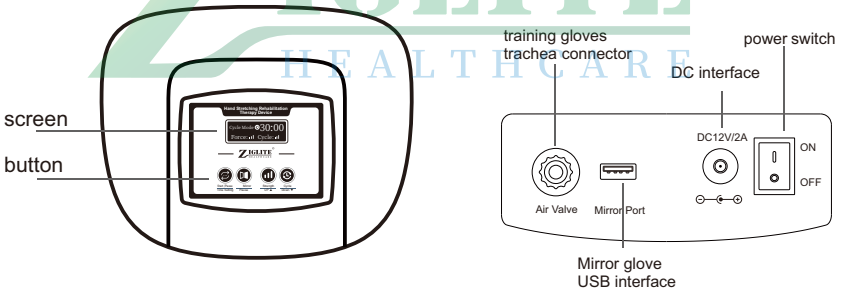
Product Introduction

Scope Of Application

It is suitable for rehabilitation training in (families) institutions for patients with finger joint recovery after injury or limb dysfunction sequelae caused by brain injury, stroke, cerebral palsy, spinal cord injury, orthopedic surgery, multiple sclerosis, etc.

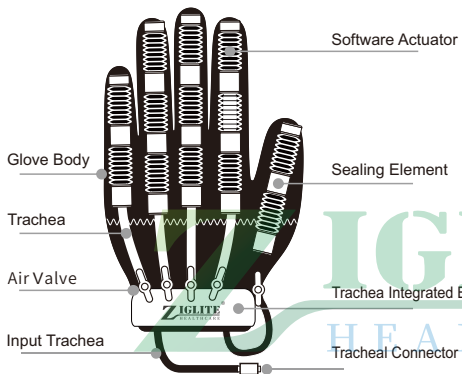
Product Composition

Trainer Host

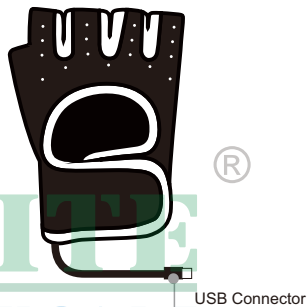


Product Introduction

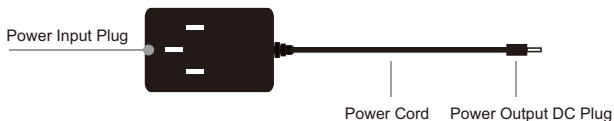
Training Gloves



Mirror Glove

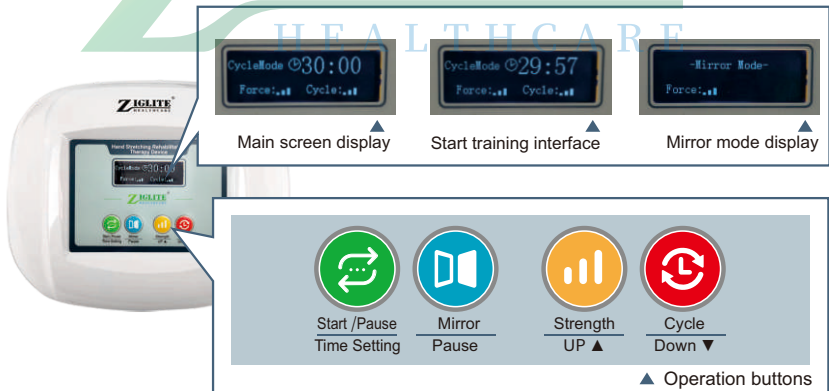
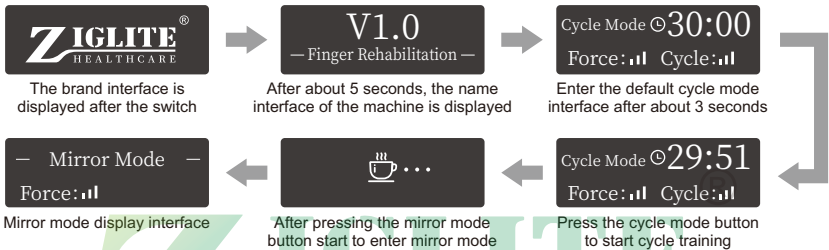


Power Adapter



User Guide

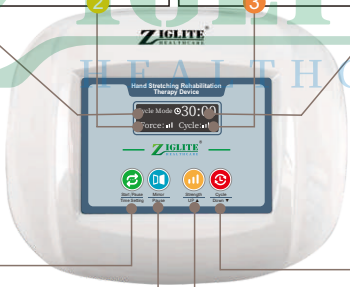
Operation buttons and interface display



User Guide

Buttons, screen icons in detail

Cycle mode interface



The diagram shows the ZIGLITE device interface with callouts 1 through 8 pointing to specific features:

- 1: Cycle Mode button
- 2: Force button
- 3: Training duration countdown display
- 4: Cycle button
- 5: Cycle mode Time setting button
- 6: Mirror mode button
- 7: Power button
- 8: Cycle duration setting button

Cycle Mode
Training mode display
All finger cycle training is controlled by cycle keys.

Force: [signal icon]
Training intensity display
The training strength is controlled by buttons, and the strength is displayed in 5 gears in total.

⌚ 30:00
Training duration countdown display
The default startup time is set to 30:00 minutes, and the maximum can be set to 60:00 minutes.
The training starts to count down, and the therapeutic device stops automatically after returning to zero.

Cycle: [signal icon]
Training cycle display
The training cycle is controlled by pressing the key, and a total of 5 cycles are displayed.

⌚ Cycle mode Time setting
1) In the main interface, press this key once to enter the cyclic training mode. During the operation of this mode, press this key again to pause the training.
2) In training mode, long press the button for 3 seconds to enter the training time setting, with a maximum of 60 minutes.

⌚ Cycle duration setting
1) Press this button to set the cycle time of one grasping and stretching training. The setting value is 1 ~ 5, a total of 5 gears.

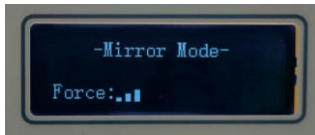
Mirror mode
1) Press this button once to switch to the mirror training mode.

Power setting
1) Press the "training strength" button to set the training strength. The set values are: 1, 2, 3, 4 and 5, with a total of 5 levels of strength.

User Guide

Interface display details

Mirror mode display

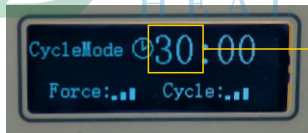


Force: [signal icon]

Mirror mode Power setting

In the mirror image mode, press the "⏸" and "⌚" button to set the training intensity of the mirror image mode. There are 5 levels of intensity adjustment in total. (P)

Training time setting interface



Time bit flashes

In the cyclic training mode, long press the "⌚" key for 3 seconds to enter the time setting mode, and the exercise time bit flashes.

The "⏸" and "⌚" keys can set the addition and subtraction of the training time. The minute setting division value is 5 minutes, and the training time can be up to 60 minutes.

User Guide

Use Guide

1



Place the therapeutic device host on the desktop, not on the wet, soft cloth or unclean desktop.

The image shows a white, rounded rectangular device with a central screen displaying icons for 'Power', 'Mode', 'Time', and 'Stop'. The brand name 'Z-MATE' is visible at the top and bottom of the device.

2



Connect air pipe and DC plug

When the training gloves are connected, the trachea connector needs to be turned clockwise and tightened to the corresponding interface of the host.

The image shows the back of the device with two ports: a green air pipe connector and a black DC power plug. A green power switch is also visible.

3



Wear training (mirror) gloves

The guardian shall help the patient wear gloves and pull the glove Velcro to the wrist to bond and tighten.

The image shows a hand wearing a blue training glove with a black wristband and Velcro strap. A registered trademark symbol (®) is visible on the back of the hand.

User Guide

Use Guide

4



Power on

Turn down the "power switch" key of the therapeutic device host to the "I" position, power on and turn on, the LCD display will light up and enter.

5



Start hand training

Press the "cycle mode / mirror mode" button to start and pause training at any time.

6

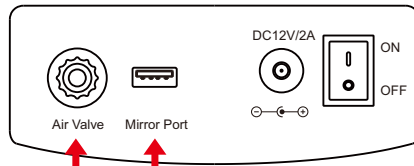


Shut off

After the training, turn the "power switch" key of the therapeutic device host to the "O" position to turn off, and the LCD is powered off.

User Guide

Glove Wiring Diagram



Training gloves
Tracheal connector

When training gloves are connected, rotate and tighten the air pipe connector clockwise to the corresponding interface of the host.

Mirror gloves
USB connector

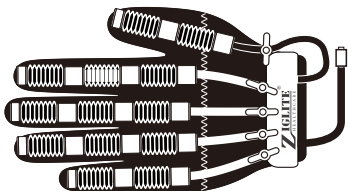
When the mirror glove is connected, the "↑" mark of the USB connector shall be inserted upward into the corresponding interface of the host.

Glove access effect



User Guide

Air Valve Switch Control



Each glove trachea of the training gloves is equipped with a single independent air valve switch, which can be turned on or off to carry out finger targeted selection training.



Open The Air Valve

The direction of the air valve is the same as that of the air pipe. The air valve is open, and the corresponding fingers can undergo rehabilitation training.

The air valve switch is on by default.



Close The Air Valve

The direction of the air valve and the air pipe is cross shaped, the air valve is closed, and the corresponding fingers are not trained.



User Guide









Cycle training

The circulation training mode adopts a fully automatic design. When the patient has no active control ability, it is recommended to use circulation training first, which will help to promote the recovery of flexor and extensor muscle strength of the affected hand, increase the joint's range of motion, and promote the emergence of active finger extension movement.

Default circuit training

| | | | |
|--|--|--|---|
| <p>1</p>  | <p>1) Wear Training Gloves 2) After startup, enter the main training interface</p> | <p>2</p>  | <p>3) After power on, press to automatically enter the default cycle mode, press "↺" once to start training, the training duration is 30 minutes, and the cycle strength is the third gear.</p> |
|--|--|--|---|





Force, cycle and time settings (Step 3 can be skipped without setting the time)

| | | | |
|--|--|---|---|
| <p>(1)</p>  | <p>(2)</p>  | <p>(3)</p>  | <p>(4)</p>  |
| <p> Set training cycle</p> <p>Press 1 time to set the gear, 1 ~ 5 gears in total</p> | <p> Set training intensity</p> <p>Press 1 time to set the gear, 1 ~ 5 gears in total</p> | <p> Set training duration</p> <p>Press and hold for 3 sec to enter the setting, " " and "↺" control the addition and subtraction of time, and click addition and subtraction for 5 minutes each time.</p> | <p> Start training</p> <p>Press the button once to start training</p> |

User Guide

Mirror training

Mirror mode refers to the mode that the patient drives the patient's hand to move synchronously through healthy hand movement. Through interactive visual feedback, it can stimulate different regions of the patient's brain to produce motor and sensory consciousness, start mirror neurons, and promote the reconstruction of motor function and brain function.

| | | | |
|--|---|--|--|
| <p>(1)</p>  <p>Mirror glove Training gloves</p> | <p>(2)</p>  <p>ZHATEX</p> | <p>(3)</p>  <p>ZHATEX</p> | <p>(4)</p>  |
| <p>Wear gloves and turn on the machine</p> <ul style="list-style-type: none">Wear training gloves on affected handsHealthy hands wear mirror glovesAfter startup, enter the main training interface | <p>Enter mirror mode</p> <p>In the main training interface, press " " once to enter the mirror training mode</p> | <p>Set training intensity</p> <p>Press " " once each time to set the training intensity, 1 ~ 5 gears in total</p> | <p>Start mirror training</p> <p>The healthy hand gives instructions for grasping (stretching) exercise, and the affected hand performs grasping (stretching) exercises according to the instructions</p> <p>Note: You need to grasp and press (release) the control button in the mirror glove to start the training glove grasp (release) action</p> |

Safety Precautions

[warning] failure to comply with the following safety instructions may lead to serious accidents such as fire, electric shock and casualties.

- Do not disassemble, repair, or modify the components of the equipment by yourself to avoid abnormalities in the treatment device.
- Do not store components in or near water heaters, microwave ovens, cooking equipment, or high-pressure containers to avoid fire caused by overheating.
- It cannot be sterilized or autoclaved.
- Do not continue to use it when the alarm prompt appears.
- It is suitable for hand circulation and mirror movement rehabilitation training. Please do not use it for other purposes to avoid accidents.
- Do not store the parts in a place that is too hot or too cold to avoid accidents.
- The validity period of the product is 5 years, and the disposal of the product at the end of its service life should comply with the requirements of local laws and regulations.
- Please keep the power connector dry and water-free, please do not plug or unplug the power supply with wet hands to avoid electric shock or injury.

Working Environment

- 1) Ambient temperature: 10°C~35°C
- 2) Relative humidity: 30%~75%, excluding condensation
- 3) Atmospheric pressure range: 700hpa~1060hpa
- 4) Power supply: AC100-240V, 50/60Hz (main unit power supply of the treatment device DC12V)


Storage And Transportation

- During transportation, please fix the treatment device in a relatively stable place to prevent bumping and damage of the treatment device.
- Please prevent liquid or foreign objects from entering the treatment device to avoid damaging the internal electronic components and causing malfunctions.
- Do not store in a sterile gas or active gas environment to avoid damage to internal electronic components and cause malfunctions.
- Do not fold the gloves forcefully to avoid damaging the soft-actuated actuator and causing malfunctions.
- Do not store the therapy device in a humid environment or strong magnetic field interference and other environments that are not suitable for electronic equipment.

Safety Precaution Include

- In case of skin allergy and other discomfort during the use of the product, please stop using and consult a doctor.
- For patients with diseases or wounds or being treated for them, or with previous medical history, please consult a doctor after being familiar with the following contents.
- In case of sprain, trauma, bone injury of unknown condition, severe osteoporosis, untreated fracture or people who need bracing after treatment, do not use this product without professional confirmation.

Contraindication

- Patients with severe blood flow disorder such as thoracic venous tumor and hemocolumn disease;
- Patients with ulcer, wound, purulent fruit, bleeding, scald, inflammation, etc. on the affected hand. 

Other Precautions

- 1) In case of abnormal experience or body feeling during use, stop using it and use it under the guidance of a doctor after seeing a doctor;
- 2) In case of redness, pruritus and rash during use, stop use and seek medical attention;
- 3) Do not use it together with other equipment or in the state of applying drugs;
- 4) Do not use it alone for unconscious people or young children;
- 5) Do not use this product for any purpose other than the purpose of use.

Before Use

- 1) Before wearing training gloves, please try to run the therapeutic device host for 1 minute to confirm that all parts function normally;
- 2) Patients with mandatory systolic spasm need to massage before using the therapeutic device;
- 3) Note: before training, please confirm that the non muscle tension of the hand to be trained is too high (above grade II).

Safety Precaution Include

In Use

In case of the following conditions during operation, please stop using immediately and disconnect the power supply.

- 1) The main machine of the trainer makes abnormal sound
- 2) The surface temperature of the trainer is too high
- 3) The main machine of the trainer is flooded
- 4) The user feels pain, swelling or other discomfort symptoms
- 5) If spasm occurs during training, stop using it immediately

Usage Time


- 1) It is suggested to select appropriate training methods according to their own actual situation
- 2) The time of each use should not be too long. If the hand feels sore the next day after training, it is necessary to reduce the number and time of daily training
- 3) It is recommended to use 2-4 times a day for about 20 minutes each time, with an interval of at least 45 minutes
- 4) If you need to change or extend the use time, please consult professional medical personnel

Use Of Power Adapter

- 1) The power adapter must be plugged in and out by the patient's supervisor
- 2) After using the therapeutic device, please cut off the power adapter and 220V power supply
- 3) Do not use a power adapter that is not provided with this machine

Troubleshooting

| Problem | The Reason | Measures |
|---|---|---|
| Flip the "power switch" down to turn on the machine | Poor power connection | Check the power cord and power adapter, the connection between the power adapter and the host |
| Training gloves are not working | Gloves that are not properly attached can damage the host or glove structure | Check the physical status of the training gloves, the connection between the treatment device and the training gloves |
| The treatment gloves are not installed or removed from the treatment device | The air pipe connector of training gloves is not rotationally installed (screwed out) | Rotate the tracheal connector of the training glove counterclockwise to insert (remove) |

Note: If you still can't use the above method, please contact us. 

Care And Maintenance

HEALTHCARE

Clean And Disinfect

- Do not wash training gloves and mirrored gloves directly with water. Dip a soft cloth in water or neutral detergent, wring it out, and wipe the gloves. If necessary, use a rag with a concentration of 75% medical alcohol for cleaning or disinfection, and then use it after it is completely dried.
- When there is dust or dirt on the surface of the main body of the treatment device, the user can wipe it with 75% medical alcohol. When wiping, please use a dry cloth dipped in a small amount of alcohol to avoid dripping or flowing into the product.
- Clean with clean and dry soft cloth, and dry in a cool and ventilated place.

Note

1. The use of cleaning and disinfecting agents other than alcohol may damage the product, shorten the service life or cause safety risks.
2. It is forbidden to use high-temperature drying and exposure to the sun for quick drying or disinfection.
3. Do not use gasoline, thinner or similar organic solvents to clean any part of this product. Do not use radiation, steam, ethylene oxide and other methods for disinfection, otherwise the product will be damaged.

Technical Parameters

Product Specifications

| | | | |
|---------------|---|------------------|--|
| Product Name | Hand Stretching Rehabilitation Therapy Device | Waterproof Level | IPX0 |
| Product Model | SAB | Velocity Setting | 1-5 |
| Security Type | I Type | Time Setting | 5-60 minutes |
| Power Supply | AC100-240V 50/60Hz | Running Noise | ≤60dB |
| Host Size | 251*204*111mm | Training Mode | Cycle training/ Mirror training [®] |



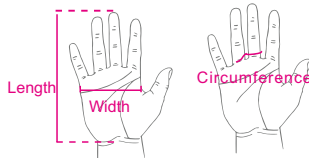
Glove Size

| Size | S | M | L | XL | XXL |
|----------------------------------|---------|---------|---------|---------|---------|
| Hand length (mm) | 140-160 | 160-180 | 165-190 | 190-220 | 220-230 |
| Hand width (mm) | 60-80 | 70-90 | 80-100 | 100-120 | 120-130 |
| Middle finger circumference (mm) | 45-50 | 50-60 | 60-70 | 70-90 | 90-100 |

* The corresponding model can be selected according to the user's actual hand measurement situation.

If two or more measured values are at the critical point, it is recommended to choose one yard larger.

* Women generally choose s/m, men generally choose l/xl, and the larger hand is XXL.



After service

After sales email : info@ziglite.com

After sales address : Room B3, 18/F Bonsun Industrial Building,
364-366 Sha Tsui Road, Tsuen Wan, Hong Kong

| Packing List | | |
|--------------|---------------------------|----------|
| Number | Name | Quantity |
| 1 | Therapeutic device host | 1 set |
| 2 | Training gloves | 1 set |
| 3 | Mirror gloves | 1 set |
| 4 | Power adapter, power cord | 1 set |
| 5 | Product specification | 1 set |



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