



User's Manual

ARTUS-704ES



Safety precautions are intended to protect the user's safety and prevent property damage. Please read the instructions before use and use them correctly.

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Thank you for purchasing the Shoulder CPM(ARTUS-704ES).

Please refer to the manual in the box to view the components contained within the box when opening the box.

Be sure to familiarize yourself with this manual before connecting and powering down the parts, and keep the manuals handy for future use.

The illustrations in this manual may differ slightly from the originals.

Chapter 1. Warning and Caution

Safety precautions are intended to be used safely and correctly to prevent accidents or risks, so please ensure that you read and protect them carefully.

Cautions are divided into 'warning' and 'caution', each meaning :



Warning : If there is a possibility of death or serious injury to the person in violation of the instructions



Caution : Violation of damaged products or possible minor injury to the human body when violating the instructions.

1.1 Warning

- Please check the power during installation and using.
Violation of this range could cause electric shock and product would be damaged.
- Please check the wiring of all terminals before turning on the power.
This could cause electric shock and malfunction.
- Please do not use it with wet hands.
This could cause electric shock and malfunction.
- Please do not change or extend the power cable arbitrarily.
This could cause fires and electric shock.
- Please program the range of motion as prescribed by a physician.
This could cause deterioration in affected area and injury.
- Please do not place the product near the fire.
This could cause fires.
- If there are any unusual sounds, smells and smoke from the product, please turn off the main power switch. This could cause a fires and failure.
- Please make sure to be careful of water inside the product.
This could cause fires and failure.
- Please do not dismantle, repair and remodel arbitrarily.
This could cause fires and electric shock
- Please do not keep the product with combustible substance and inflammability gas.
This could cause a fires and failure.
- Please do not use the product in gas spill area.
This could cause fires and explosion.
- Please turn off the power switch during cleaning.
This could cause fires and electric shock.

1.2 Caution

- Please do not disconnect the power or communication cables during operating.
This could cause injury.
- Elderly people and people with disabilities should use it under supervision of product manager such as doctor or physical therapist.
This could cause injury.
- Please do not install the product on unsafe place.
This could cause injury.
- Please do not dismantle the product arbitrarily.
This could cause fires and failure.
- Please do not allow any metallic foreign substance to enter the inside of the product.
This could cause fires and failure.
- Please connect the earth terminal.
This could cause electric shock, malfunction and failure.
- Please clean the product with soft cloth and do not use strong cleanser like solvent.
This cause fires and deformation.
- Please do not tap with anything sharp or use excessive force to the screen when using the Operation Controller. This could cause damage the screen or malfunction.
- Please check the tightening a bolt before operating.
This could cause injury.
- Please avoid sharp object when installing and opening the product.
This could cause product damage.
- Please make sure that a part of body or clothing gets caught to device during operating.
This could cause injury.
- Please do not use except for rehabilitation treatment purposes.
This could cause failure and injury.
- When you disconnect the power plug or Operation Controller, please hold the plug and do not hold the cable.
This could cause electric shock and product damage.
- Please disconnect the power plug from the socket before moving.
This could cause electric shock and product damage.
- Please do not exercise too much.
This could cause injury of joints.

1.3 Information of Electro-Magnetic Compatibility (EMC)

- Warning : Please note that emitted electromagnetic signals from the external environment may affect the patient and also ARTUS-704ES.
- Warning : Do not use ARTUS-704ES near high-power wireless equipment such as mobile phone, this could cause malfunction.
- Caution : ARTUS-704ES is compliant with medical device regulations 93 / 42 / EEC and it is designed to protect it from electromagnetic signals.
- Caution : Portable and mobile frequency (RF) communication device may affect the electronic medical devices.
- Caution : Only the component we provide are recommended to use, other unspecified devices may cause increasing emissions and immunocompromised status.

The RF of “ARTUS-704ES” emissions are very low and are not likely to cause interference in nearby electronic equipment.

The “ARTUS-704ES” is suitable for use in all establishments other than domestic and those directly connected to the public low voltage power supply network that supplies buildings used for domestic purposes.

Mains (AC) power quality should be that of a typical commercial or hospital environments.

Floors should be wood, concrete or ceramic tile. If floor is covered with synthetic material, the relative humidity should be at least 30% to avoid excessive static electricity.



Warning : The “ARTUS-704ES” should not be situated adjacent to, or stacked with, other electronic equipment. If the system must be installed in close proximity to other equipment, both the “ARTUS-704ES” and the nearby equipment should be observed to verify normal operating in that configuration.



Caution : The “ARTUS-704ES” has been designed to meet the standards of IEC60601-1-2 for electromagnetic compatibility; however some computer equipment unintentionally emits strong interfering RF signals. Portable RF communication devices may also affect “ARTUS-704ES”.



Warning : Use of accessories other than those specified, may result in increased emissions, or decreased immunity of this system.

Chapter 2. Product

2.1 Introduction of ARTUS-704ES

Thank you for purchasing ARTUS-704ES.

ARTUS-704ES is a rehabilitative exercise equipment (Continuous Passive Motion Machine) that recovers the lost function of Shoulder joint quickly through the continuous passive motion for patient who cannot exercise by themselves. It can also be adjusted angle range of exercise, exercise time, the number of exercise, etc. And also it is available to set 5 steps exercising speed. Acceleration mode allows the exercise speed up to 2 steps faster than previously programmed speed. It also provide a caster to move product easily.

Operation Controller(O/C, fixed on the top of machine) which is adopting 3.5 inch screen and touch is easy to operate and it provides the information of progressing and programing exercise on screen.

2.2 Operation

If it is left untreated after the shoulder joint surgery, it may cause problems such as limited range of motion and muscle contraction. And applying too much load to the shoulder joint without rehabilitation may worsen the condition of the surgical area. So it is necessary to exercise properly for the quick recovery of surgical area. ARTUS-704ES is the rehabilitation equipment to recover the function of shoulder joint quickly through continuous passive movement.

Range of motion is different depending on the exercise mode and exercising ROM has to be programmed according to the condition of patient.

Please exercise at a slow speed at first, and then do exercise higher speed and wider angle after becoming familiar with the equipment. Exercise with a wide range of motion from the beginning could cause secondary damage to the patient's surgical site.



<FIG 2.1 ARTUS-704ES>

2.3 Purpose of ARTUS-704ES

- ARTUS-704ES is a rehabilitative exercise equipment that recovers the lost function of shoulder and elbow joint quickly through continuous passive motion for patient who cannot exercise by themselves at equipped such as hospitals.
- The ARTUS-704ES should be used in a properly equipped environment such as a hospital and must be handled by trained professional who have the proper qualifications like physical therapists or medical specialists.

2.4 Before reading the user manual

- Please read the user's manual before using ARTUS-704ES.
- The user's manual is for buyer and user, it will help to use the product safely.
- The user's manual is for using the product to ensure safe and proper use.
- The user's manual could be revised any time at the manufacturer's discretion.

2.5 Safety Precaution

- ARTUS-704ES uses the power of AC100V ~ 240V, 50 / 60Hz.
- Please check the power when using it inside.
- The product should be used while the room is at room temperature.
- Please be well-informed of the user manual before using.

2.6 Caution

- Please use the product as prescribed and do not stab the Operation Controller with anything sharp.

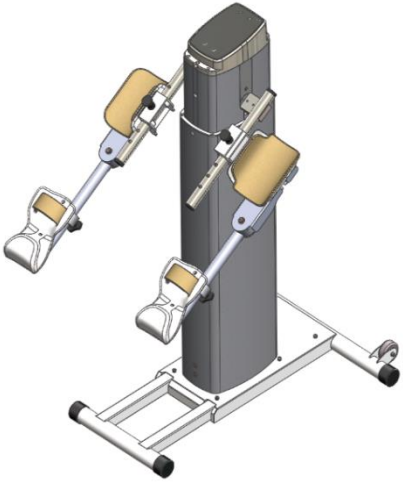


2.7 Damaged product during delivery


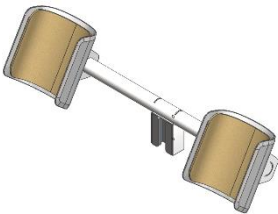
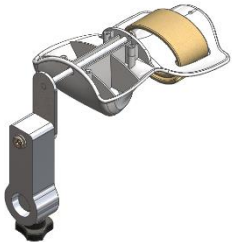
- ARTUS-704ES will be shipped securely in an outer box with inner packing.
- After receiving the product, please check for damage or something abnormal on product.
- If any damage or abnormality is found, contact the company that purchased the product.

2.8 Product Configuration

- Please check the product and accessories before installation.

Basic composition for shoulder exercise of Flexion/Extension and Abduction/Adduction

| | | |
|---|--|--|
|  <p>Body (with basic splinter)</p> |  <p>Emergency Stop Switch</p> |  <p>Power Cable</p> |
|---|--|--|

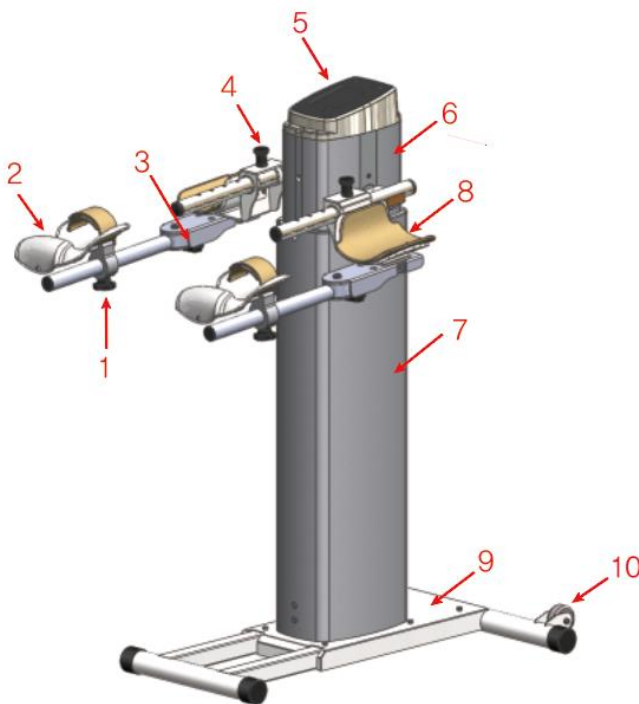
| Optional composition for shoulder rotation | Optional composition for elbow Flexion/Extension | |
|---|--|---|
|  <p>Upper arm splinter for shoulder exercise of rotation. (USSR)</p> |  <p>Left/Right Upper arm supporter for elbow exercise of flexion / extension (USEF)</p> |  <p>Hand Splinter for elbow exercise of flexion / extension (HSEF)</p> |

2.9 Label

| | |
|--------------------------|--|
| <p>HC label</p> |  |
| <p>Side label</p> |  |
| <p>Control box label</p> |  |

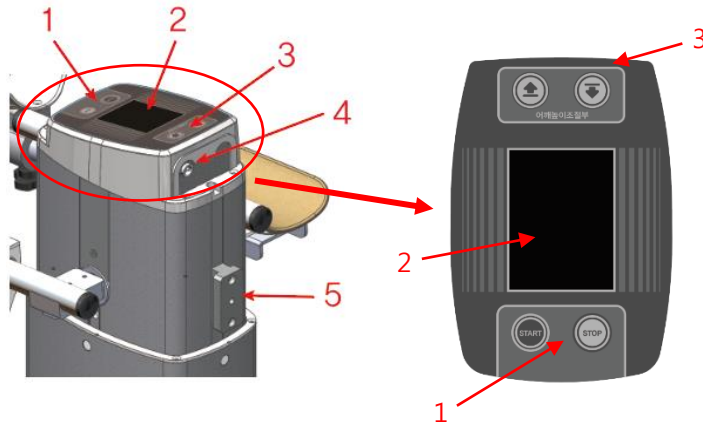
2.10 Component name

- Main body



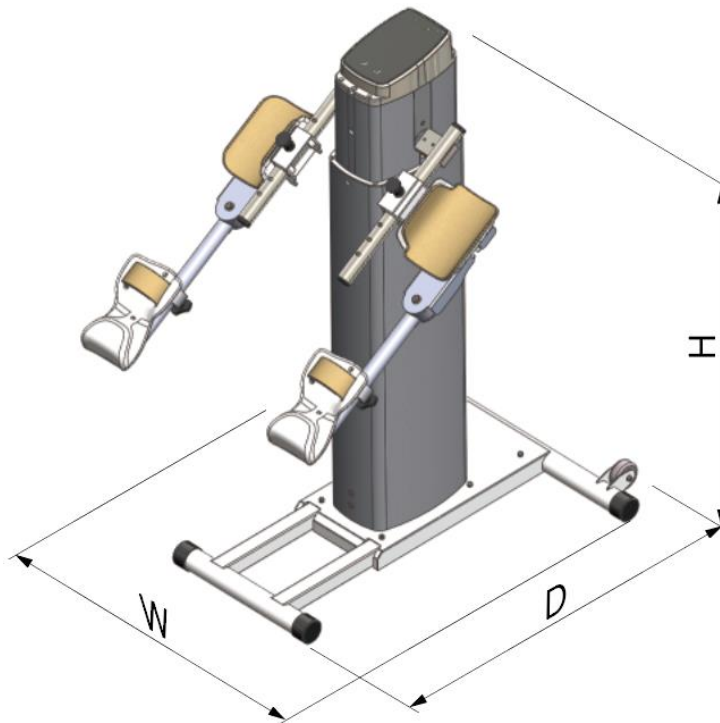
1. Hand splinter location adjustment locking screw.
2. Hand splinter
3. Elbow angle adjustment locking screw
4. Upper arm splinter location adjustment fixture
5. Operation controller
6. Shoulder motor and height adjustment part
7. Main frame
8. Upper arm splinter for shoulder exercise of Flexion/Extension(USSF)
9. Base
10. Caster

- Operation Controller



1. Start/Stop Button
2. Display and touch screen
3. Shoulder height adjustment switch
4. Connect to Emergency switch
5. Locking mount of USEF

2.11 Product specifications



| Division | Contents |
|----------------------------------|---|
| Rated Power | AC 100V~240V, 50/60Hz |
| Power Consumption | 50VA |
| Operating Temperature / Humidity | 0°C ~ +40°C / 80% or less |
| Storage Temperature | 0°C ~ +60°C |
| Size | 670 X 790 X 910 (Width X Length X Height) |
| Weight | 25 kg |

2.12 Setting








| Division | | Specification |
|---|-----------------------|-------------------------|
| Shoulder Exercise | Flexion / Extension | 20° ~ 180° |
| | Abduction / Adduction | 20° ~ 160° |
| | Rotation | -60° ~ 90° |
| Elbow Exercise | Flexion / Extension | 0° ~ 150° |
| Speed | | 1 ~5 step(75°~150°/min) |
| Pause time (at upper or lower limit angle) | | 0 ~ 9 sec |
| Timer | | 1~99 min |
| Counter | | 1~99 |

Chapter 3. Explanation of Terms and Symbols

3.1 Explanation of Terms

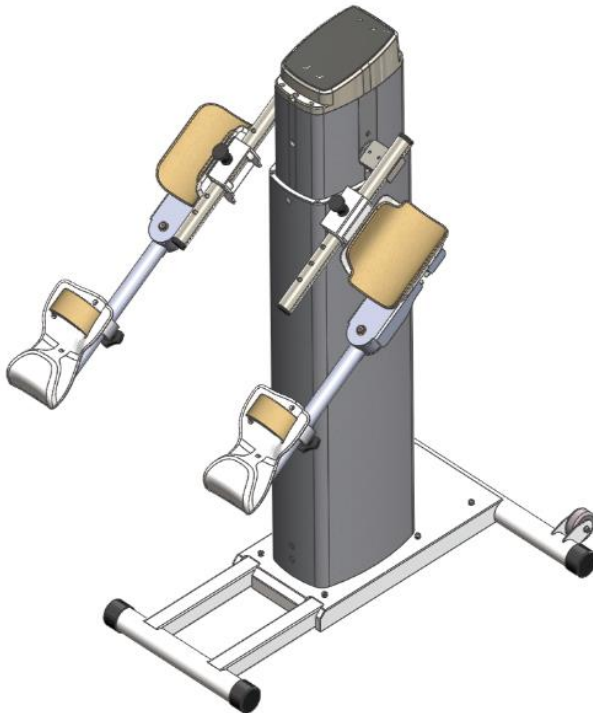
| Term | Explanation |
|-----------------|---|
| Upper limit | Limit angle of flexion and abduction of shoulder Limit angle of flexion of elbow Limit angle of inner rotation of Elbow |
| Lower limit | Limit angle of extension and adduction of shoulder Limit angle of extension of elbow Limit angle of outer rotation of Elbow |
| Upper pause | Pause time at Upper limit angle |
| Lower pause | Pause time at Lower limit angle |
| Bypass | The function of adjusting upper and lower limit angle during exercise operating |
| Manual | The function to check manually the patient's available exercising ROM before exercise operating |
| Speed/Uni/Accel | Exercise speed level / Uniform speed / Accelerated speed |
| Timer | Time of Exercise |
| Counter | Number of Exercise |
| M1 | The exercising motor for Shoulder |

3.2 Explanation of Symbols

| Symbol | Explanation | Symbol | Explanation |
|---|--|---|--|
|  | Shoulder flexion/extension exercise mode |  | Shoulder abduction/adduction exercise mode |
|  | Shoulder rotation exercise mode |  | Elbow flexion/extension exercise mode |
|  | Increment / Decrement |  | Display of device operating status |
|  | Touch locked | | |

Chapter 4. Installation

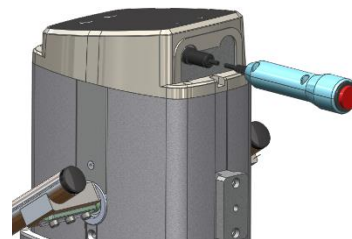
Refer to clause 2.8 Product configuration.



<Fig 4.1>



<Fig 4.2>



<Fig 4.3>

Remark : The Body is packaged in the assembled state as shown in the illustration.

- Step 1. Place the Body of ARTUS-704ES on the floor.(Fig 4.1)
- Step 2. Connect the “Power cable” like Fig.4.2
- Step 3. Connect the “Emergency stop switch” like Fig 4.3





Warning : Tighten the fixing screw (knob) firmly to prevent the device from separation during exercise.

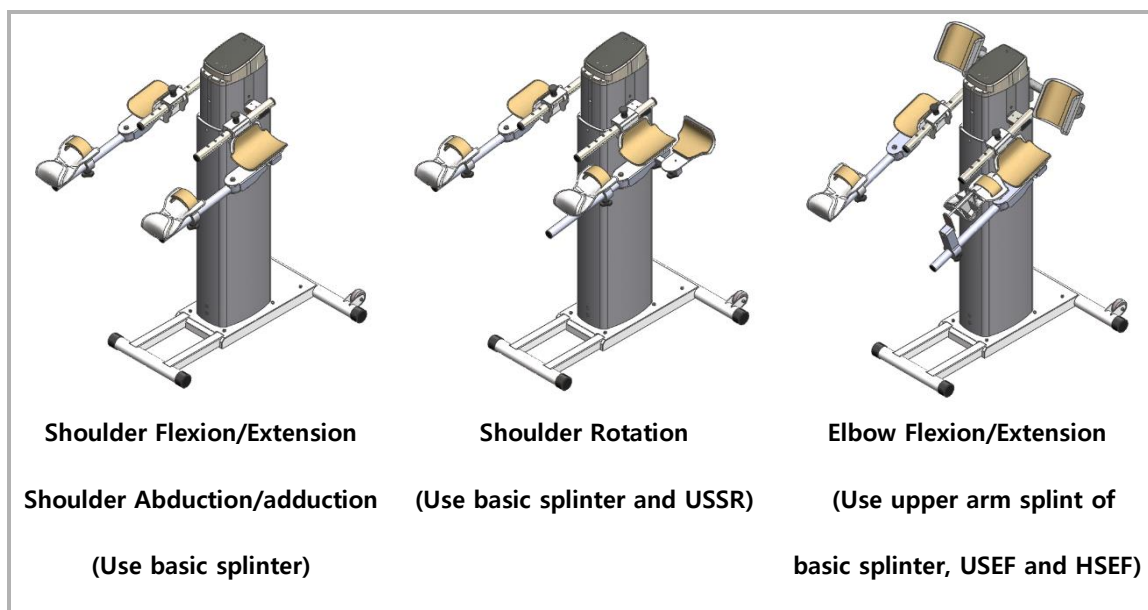
Chapter 5. Operation

- Please review warning and caution in Chapter 1.
- Please check the connection of the power cable.
- Explanation of symbols in the control unit is covered in Chapter 3.

5.1 How to adjust the device according to the exercise

 **Warning :** Tighten the fixing screw (knob) firmly to prevent the device from separation during exercise.

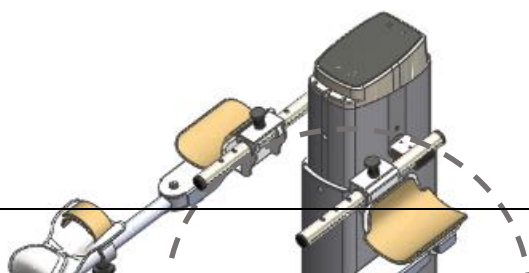
 **Warning :** It is forbidden to exercise two people at the same time.

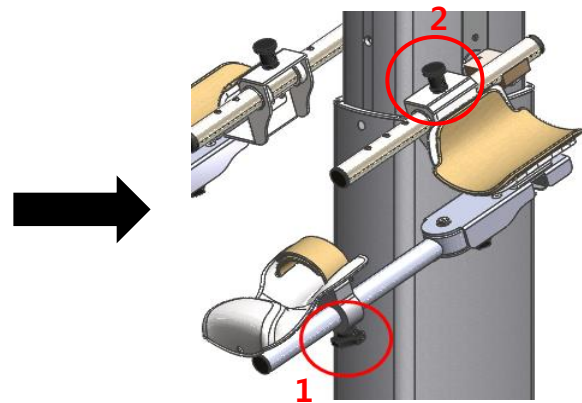


Remark) USSR, USEF, HSEF refer to clause 2.8.

- Two chairs can be placed on each side of the device.
- The exercise of Flexion/Extension, Abduction/Adduction do not require updating the splinter settings according to the arm to be treated.
- The exercise of shoulder Rotation and elbow Flexion/Extension require updating the splinter settings according to the arm to be treated.

5.1.1 Device adjustment for Shoulder Flexion/Extension, Abduction/Adduction





<Fig 5.1.1>

- Explain based on right arm treatment

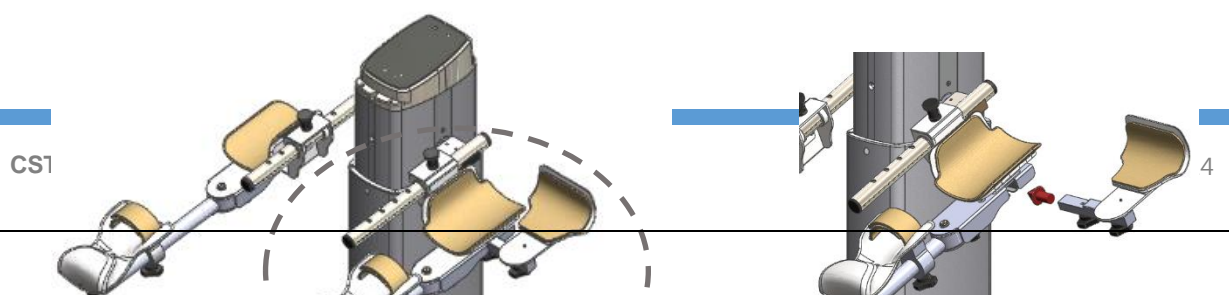
- Step 1. A patient sit comfortably in the separate chair placed left side of device and has his back tightly attached to the chair back.
- Step 2. Adjust height of Shoulder motor axis to the patient's shoulder using height adjustment switch being upper side of Operation Controller.
- Step 3. Loosen the lower arm length adjustment screw(1), and adjust the location of the Hand splinter to fit to the length of patient's arm. And then tighten the screw to fix it.
- Step 4. Full the upper arm splinter fixture(2) up and adjust location the upper arm splinter to make patient feel comfortable during exercise.

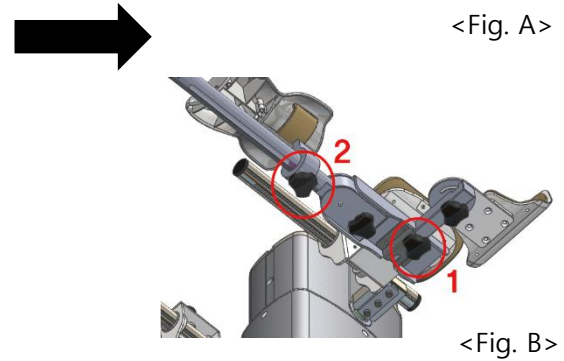
In case of Abduction/ adduction, sit down by turning the chair to the left from the device.



Warning : Tighten the fixing screw (knob) firmly to prevent the device from separation during exercise.

5.1.2 Device adjustment for Shoulder Rotation



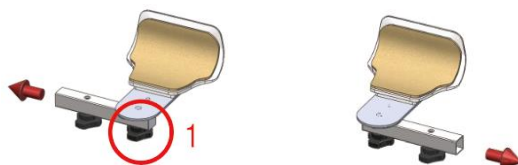


<Fig 5.1.2>

- Explain based on right arm treatment

- Step 1. Insert USSR to upper arm splinter of basic splinter like <Fig. A>.
- Step 2. Tighten the locking screw(1) to fix USSR on upper arm splinter.
- Step 3. A patient sit comfortably in the separate chair placed left side of device and has his back tightly attached to the chair back.
- Step 4. Loosen the lower arm length adjustment screw(2) and adjust the location of the Hand splinter to fit to the patient's arm. And then tighten the screw to fix it.
- Step 5. Full the upper arm splinter fixture up and adjust location the upper arm splinter to make patient feel comfortable during exercise

- How to change USSR insertion direction



Exercise for right shoulder

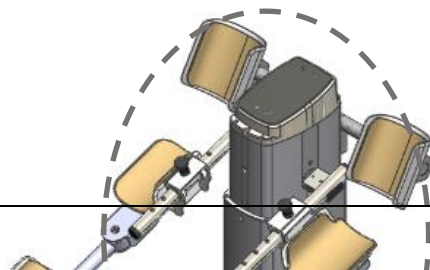
Exercise for left shoulder

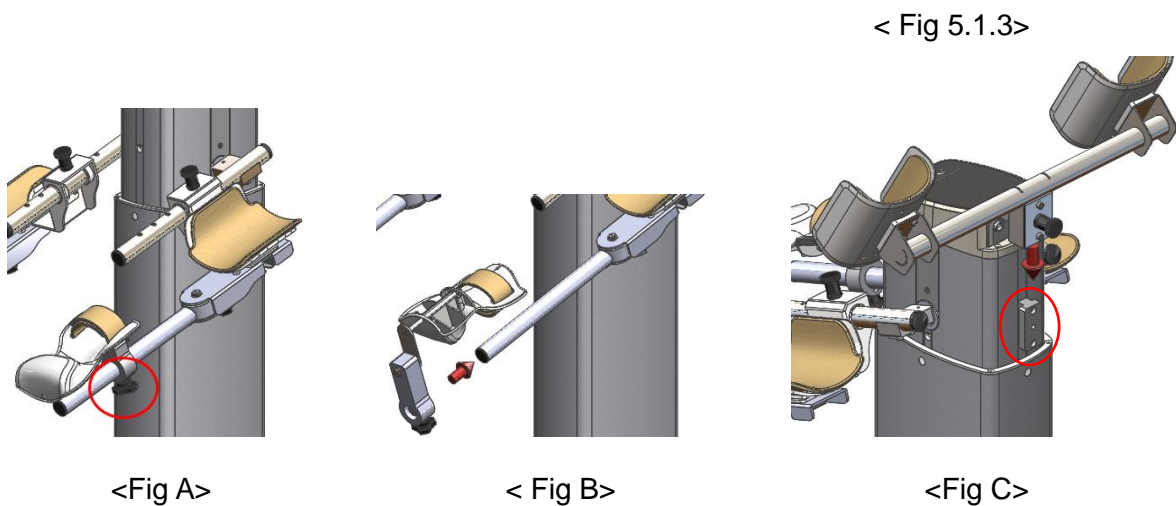
- | |
|--|
| <ol style="list-style-type: none"> ① Loosen the locking screw(1) ② Change direction of insertion bar ③ Fasten the locking screw |
|--|



Warning : Tighten the fixing screw (knob) firmly to prevent the device from separation during exercise.

5.1.3 Device adjustment for Elbow Flexion/Extension





- Explain based on right arm treatment

Step 1. Loosen locking screw of Hand Splinter(see. Fig A) of Basic Splinter and pull

out the Hand Splinter.

Step 2. Insert HSEF instead of Hand Splinter.(see Fig B)

Step 3. Install USEF to the locking mount (see Fig C)

Step 4. A patient sit comfortably in the separate chair placed left side of device and has his back tightly attached to the chair back.

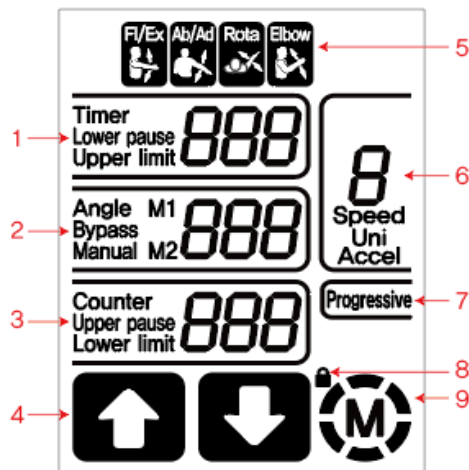
Step 5. Adjust the location of HSEF and USEF to fit to the patient's arm.



Warning : Tighten the fixing screw (knob) firmly to prevent the device from separation during exercise.

5.2 How to use Operation Controller and set the exercise

5.2.1 Explanation of full screen



<Touch, setting and Display area>

- 1) Timer/Lower pause/Upper limit
- 2) Present Angle/Bypass/Manual
- 3) Counter/Upper pause/Lower limit
- 4) Up/Down arrow
- 5) Available Exercises
- 6) Speed/Uniform/Acceleration
- 7) Progressive exercise
- 8) Symbol of Touch Locked
- 9) Exercise status

● Function of each area

1) [Timer / Lower pause / Upper limit] area

Touch this area to set the exercise time, pause time at the lower limit angle and upper limit angle to exercise. Upper limit angle means the maximum angle of exercise of Flexion, Abduction and inner Rotation.

2) [Present Angle / Bypass / Manual] area

Touch this area to select Bypass or Manual function and display present exercising angle.

3) [Counter / Upper pause / Lower limit] area

Touch this area to set the number of exercising, pause time at the upper limit angle and lower limit angle to exercise. Lower limit angle means the minimum angle of exercise of Extension, Adduction and outer Rotation.

4) [Up arrow / Down arrow] area

Touch this area to change a setting value and select a function.

5) [Available Exercises setting] area

Press and hold this area for 2 seconds to set the exercise.

Use the arrows to select the exercise mode (the exercise indicator is blinking), pressing the [M] button while the desired exercise mode is blinking completes the exercise setup.

6) [Speed / Uniform / Acceleration] area

Touch this area to select the exercising speed level and uniform or accelerative exercising mode.

7) [Progressive] area

Touch this area to select progressive exercising mode.

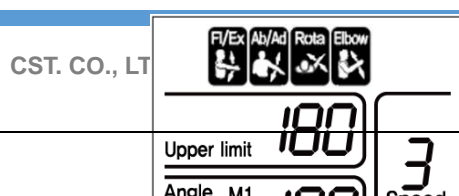
8) [Touch Locked] symbol

This symbol means touch function being locked.

9) [M] symbol

Touch this area to save the set value and return to the previous screen at setting mode, and it display exercise operating(circle of M is circulating) or stop status.

5.2.2 Set the Exercise





: Flexion / Extension of Shoulder



: Abduction / Adduction of shoulder

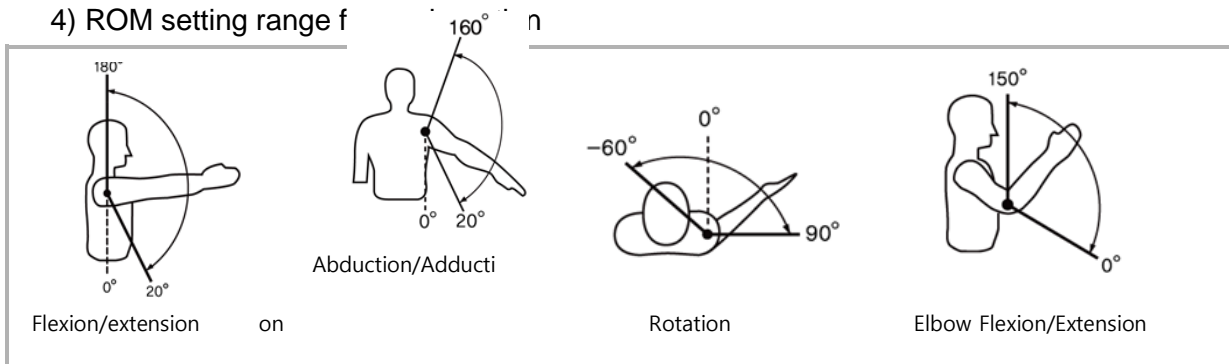


: Rotation of Elbow

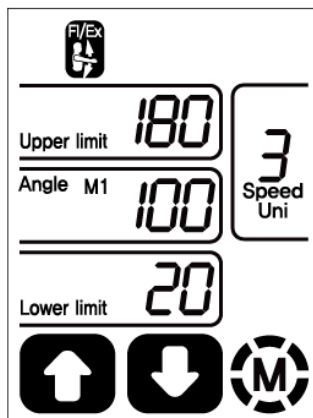


: Flexion / Extension of Elbow

- 1) To set the exercise to do, press and hold [exercise setting] area(5) for 2 seconds. Symbol of shoulder Flexion/Extension is flickering and the other exercise symbols are displayed.
- 2) Select exercise using [Up/Down] arrow, selected exercise symbol is flickering.
- 3) After selection of exercise, touch the [M](9) to complete setting of exercise.
- 4) ROM setting range f



5.2.3 Set the range of exercise and pause time



※ The name of each touch area refer to clause 5.2.1.

- 1) Upper limit (angle) and Lower limit (angle)
 - It means exercise range to do an exercise.
 - Touch the [Upper limit] display area(1) - the number is flickering, and set upper limit (angle) with [Up/Down] arrow(4).
 - Touch the [Lower limit] display area(3) - the number is flickering, and select lower limit

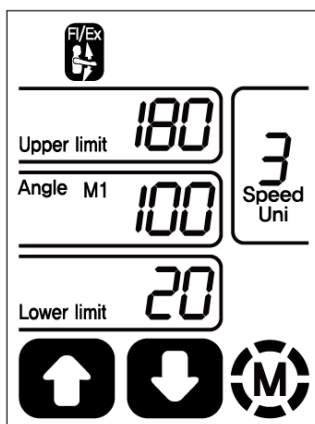
(angle) with [Up/Down] arrow(4).

- Touch the symbol [M](9) or just wait for 6 seconds to complete setting of limit angle.

2) Upper pause (time) and Lower pause (time)

- It is the exercise pause time at the upper or lower limit angle.
- [Upper pause] will be displayed when touched twice the [Lower limit] display area(3) – the number is flickering, and set upper pause (time) with [Up/Down] arrow(4).
- [Lower pause] will be displayed when touched twice the [Upper limit] display area(1) – the number is flickering, and set lower pause (time) with [Up/Down] arrow(4).
- Touch the symbol [M](9) or just wait for 6 seconds to complete setting.

5.2.4 Set the Exercising Speed and Uniform(Uni) or Accelerative(Accel) exercising



※ The name of each touch area refer to clause 5.2.1.

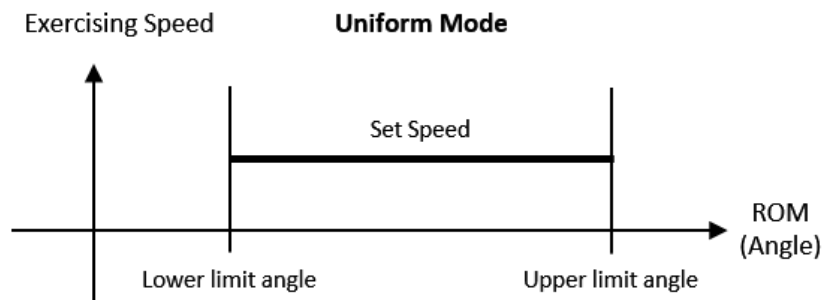
1) Exercising Speed

- It means exercise speed of device. (Speed is refer to clause 2.12.)
- Touch the [Speed] display area(5) – the number is flickering, and select speed level with [Up/Down] arrow(4). Bigger number level is faster.
- Touch the symbol [M](9) or just wait for 6 seconds to complete setting.

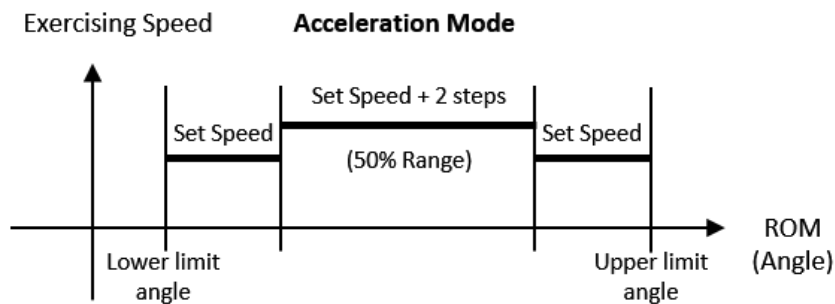
2) Uniform / Acceleration mode

- It is available to select uniform or accelerative exercising speed by touching twice the [Speed] display area(5).
- The present mode is flickering and it is available to change that with [Up/Down] arrow(4).
- Touch the symbol [M](9) to complete setting.
- See the next page about explanation of Uniform and Acceleration mode.

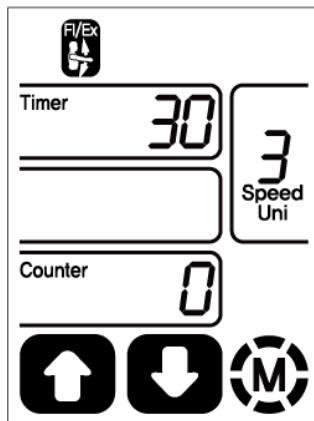
- Uniform Mode : The device moves with uniform exercising speed in the ROM.



- Acceleration(Accel) Mode : The device moves by two steps faster than the set speed in the middle 50% of the ROM.



5.2.5 Set the exercise time and the number of exercise



※ The name of each touch area refer to clause 5.2.1.

1) Exercise duration time

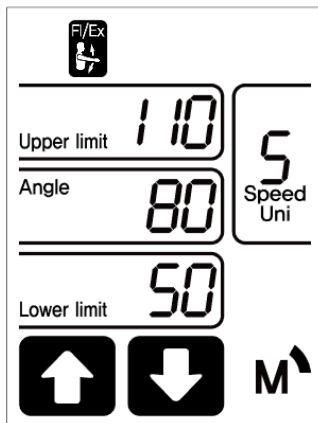
- Touch the symbol [M](9) at the screen of clause 5.2.4, the screen is changed like above. - Present Timer value is flickering.
- Touch the [Timer] display area(1), and set exercise time with [Up/Down] arrow(4).
- Touch the symbol [M](9) to complete setting of exercise time.

2) The number of exercise

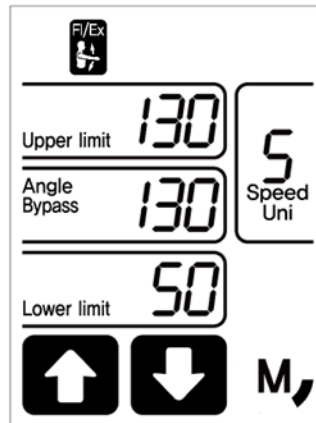
- Touch the symbol [M](9) at the screen of clause 5.2.4, the screen is changed like above. - Present Timer value is flickering.
- Touch the [Counter] display area(3) - Present Counter value is flickering, and set the number of exercise with [Up/Down] arrow(4).
- Touch the symbol [M](9) to complete setting.

5.2.6 Set the function of Bypass and Manual

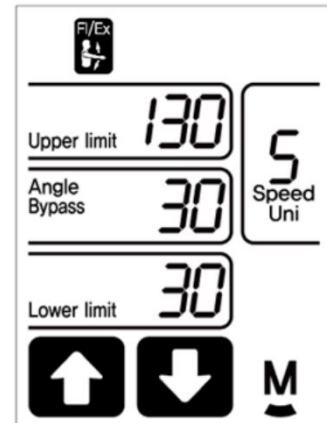
1) Bypass mode



<Fig 5.2.1>



<Fig 5.2.2>



<Fig 5.2.3>

- The [Bypass] function is used to adjust exercise range during exercise operating.
- Touch the [Angle] display area(2) in screen <Fig 5.2.1> while exercise is operating, [Bypass] is displayed like screen <Fig 5.2.2>.
- When the motion is moving in the direction of [Upper limit] angle, pressing and holding the [Up arrow] can increase current exercising angle over set [Upper limit] angle. If it is reached at desired angle, touch [Upper limit] display area(1) to change [Upper limit] angle. The <Fig 5.2.1> shows the changing from 110° to 130°.
- When the motion is moving in the direction of [Lower limit] angle, pressing and holding the [Down arrow] can decrease current exercising angle over set [Lower limit] angle. If it is reached at desired angle, touch [Lower limit] display area(3) to change [Lower limit] angle with new value. The <Fig 5.2.3> shows the changing from 50° to

30°

2) Manual mode

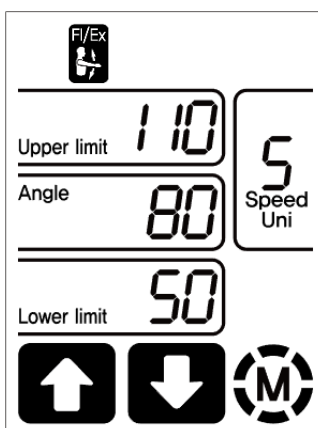
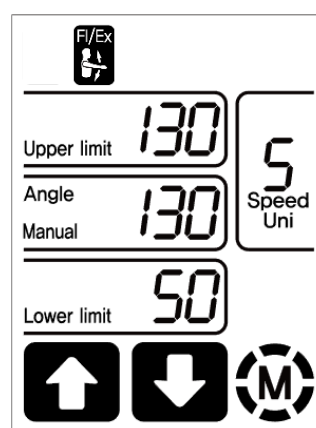
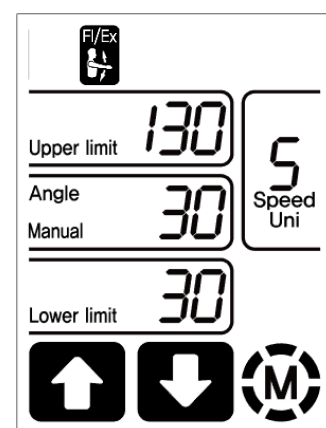


Fig 5.2.4>



<Fig 5.2.5>





<Fig 5.2.6>

- The [Manual] function is used to adjust exercise range at the stop mode.
- Touch the [Angle] display area(2) in screen <Fig 5.2.4> while exercise is stopped, [Manual] is displayed like screen <Fig 5.2.5>.
- Pressing and holding the [Up arrow] increase current angle, if it is reached at

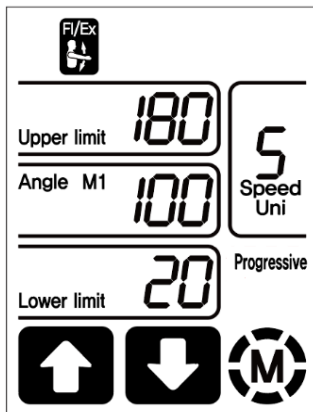
desired angle, touch [Upper limit] display area(1) to set as [Upper limit] angle.
The <Fig 5.2.5> shows the setting being changed from 110° to 130°.

- Pressing and holding the [Down arrow] decrease current angle, if it is reached at desired angle, touch [Lower limit] display area(3) to set as [Lower limit] angle.
The <Fig 5.2.6> shows the setting being changed from 50° to 30°.

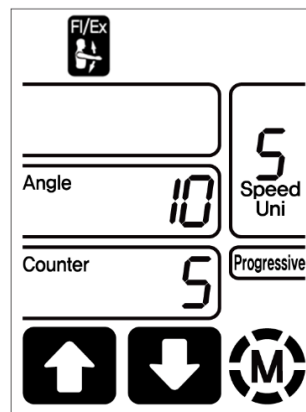
5.2.7 Locking a touch function

- It is possible to lock the touch function in order not to change the set value by patient.
- Pressing and holding the [STOP] button for 5 seconds in the stop mode, the [Lock] function is set with 'beep' sound and  symbol displaying, above screen shows this.
- It is available to operate only [START] and [STOP] button.
- The [Lock] function is disabled with 'beep' sound and  symbol disappearing by pressing and holding the [STOP] button for 5 seconds.

5.2.8 Set the Progressive function



<Fig 5.2.7>



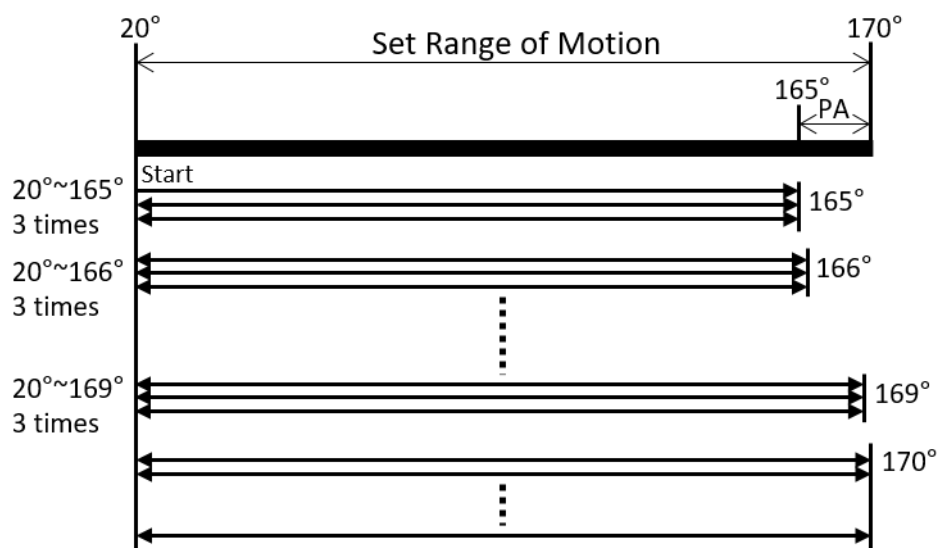
<Fig 5.2.8>

- Until reached to set [Upper(flexion) limit] angle, the function of [Progressive] increase flexion angle progressively by 1° for each round trip of the range of exercise.
- Touch the [Progressive] display area(7) at the screen <Fig 5.2.7>, the screen is changed to <Fig 5.2.8> and it is available to select whether progressive function is used(ON) or not(OFF), ON or OFF is displayed in the blank row of the top in <Fig 5.2.8>.
- Touch the [Angle] or [Counter] display area, and change the progressive angle and the number of Progressive with [Up/Down]arrow(4).
- [Angle] is the progressive range of angle to be done the [Progressive] function at the Upper limit. [Counter] is the number of repetitive movement every 1° increment.
- The range between the [Upper and Lower limit] angle should be 3 times larger than the set progressive range of angle.
- When the [Progressive] function is used, the [Upper and Lower limit] angle is adjusted automatically if the set range between [Upper and Lower limit] angle is not 3 times larger than the set [Progressive] angle.

- With the progressive range of angle is already set, if the range between [Upper and Lower limit] angle is set to less than 3 times the progressive range of angle, then the [Progressive] function is automatically disabled.
- [Progressive] is disabled after completion of function.
- Setting example

< Progressive Setting >

Upper limit angle : 170°
 Lower limit angle : 20°
 Progressive Angle(PA) : 5°
 Progressive Counter : 3



Chapter 6. Maintenance and Troubleshooting

6.1 Storage conditions

- Please shutdown the main power switch of the product before cleaning.
- Please use a dry cloth while cleaning to protect the inside of the product from liquid.

6.2 Treatment and Maintenance

- Please check the tightness of bolts on a regular basis, at least every six months.
- Please make sure that the cable is not damaged or torn.
- Please make sure that the label is not damaged and is kept to identifiable.

6.3 Troubleshooting

If you encounter any of the following problems during use, please do the following.

| NO | Symptoms | Actions |
|----|---|---|
| 1 | The screen of the Operation Controller does not work. | 1. Please check the supplying of power. 2. Please check the connection of the Operation Controller with device. |
| 2 | The touch function does not respond.(no change/ no sound) | 1. Please initialize the Operation Controller. - Turn on the power again while pressing and holding both of the [START] and [STOP] buttons. - When a screen is displayed, then touch anywhere on screen. 2. Please check whether Touch Lock function enabled. Refer to clause 5.2.7. |
| 3 | Error code 'E3' displayed | The current angle of Shoulder Motor is out of set range of exercise. - Pressing and holding the [START] button for more 3 seconds, then the device goes into the set range.The error code will disappeared. |
| 4 | Error code 'E4' displayed | The current angle of Shoulder Motor is out of set range and limit switch is pressed. - Pressing and holding the [START] button for more 3 seconds, then the device goes into the set range.The error code will disappeared. |
| 5 | Error code 'E5' displayed | Emergency stop switch is pressed. - The error message disappears when the emergency stop switch is released. |

※ If the error message continues to appear even though you have taken suggested course of actions from above, you should seek after sale service.

Chapter 7. Warranty

This product is manufactured through its strict quality control and inspection process. Standard of Compensation for product repair and replacement are that comply with "compensation criteria for consumer's damages" which is announced by Korean Government. The warranty period for this product has been defined as one year. In case of a failure in normal use, we will repair it free of charge during the warranty period at its service center.

If any trouble arises during the warranty, please let us know the model of the product, date of purchase and failure information.

Manufacturer and Distributor(or Agency) are not liable for performance issues or incompatibilities caused by Products neglect or using incorrect.

This product is a technically verified, a problem caused by using a third party's products instead of those supplied components at the time of shipment is regarded as the user's carelessness.



- This user's manual cannot be changed or reproduced without prior consent of our company.
- This user's Manual is subject to change without prior notice.

Service Information

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Distributor :

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