

# PULSE PRESS

DYNAMIC COMPRESSION THERAPY

## MULTITEC 12 USER MANUAL



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## ***SAFETY INSTRUCTIONS***

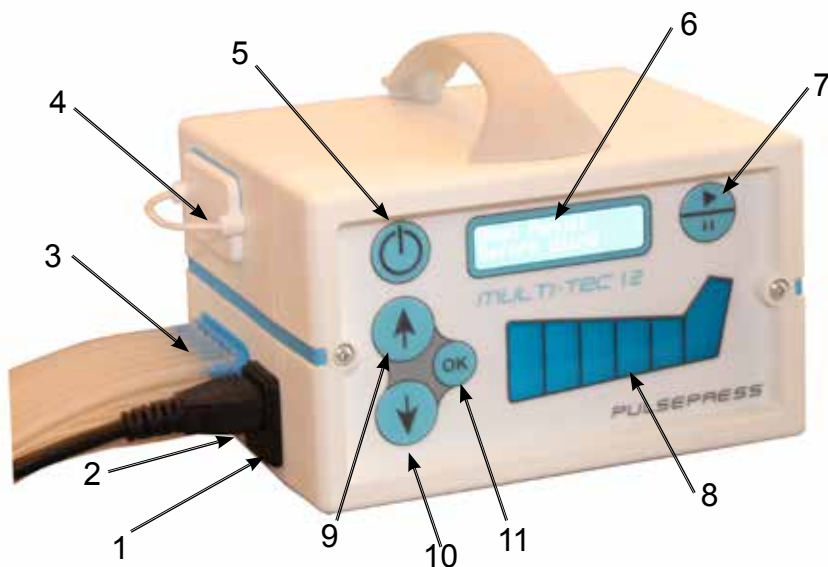
Read all of these instructions and save them for later reference. Follow all warnings and instructions marked on the devices.

- These units must only be operated by qualified medical staff. Operation of these units by any other person is entirely the responsibility of that person.
- This manual must be read and fully understood before these units are applied to patients.
- Equipment not suitable for use in the presence of Flammable Anesthetic mixture with air or with oxygen or nitrous oxide.
- Unplug the pumps before cleaning. Only ever use a damp cloth. Do not spill liquid onto the pump enclosure.
- Always place pumps on a flat, stable surface before operation. The pumps will not operate properly if tilted or at an angle.
- Do not cover the pumps whilst in operation.
- Use only the type of power source indicated on the pump's rear label.
- Do not use a damaged or frayed power cord.
- Unplug the pumps and refer servicing to qualified personnel under the following conditions:-
  - o If the power cord or plug is damaged.
  - o If liquid has entered the pumps.
  - o If the plastic outer enclosure is damaged.
  - o If the pump is not operating normally, continuous running, noisy running or low performance.
- Always switch off the pump before unzipping the garments.

## ***ELECTROMAGNETIC INTERFERENCE***

This equipment has been constructed and tested to comply with EN60601-1-2 (EMC regulations for Medical devices). This test was designed to provide reasonable protection against harmful interference. This equipment may generate and radiate radio frequency energy and, if not installed correctly may cause interference to radio communications. If this equipment does cause interference then the user is encouraged to try to correct the interference by one or more of the following measures:-

- Re-orientate or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the manufacturer of the device.



## PUMP CONTROLS

1. External fuse holder. Replace with 500mA Slo-Blo
2. Power Inlet. Use with 220-240v AC 50 Hz
3. Air outlet for use with single garment.
4. Air bung. Remove for inflating two garments at a time or trousers
5. Power button.
6. LCD Display. Shows treatment settings.
7. Start / Stop button. Push to start or Stop treatment.
8. Inflation progress bar. Shows user progress of inflation cycle.
9. Up button. Used to move through menu selection.
10. Down button. Used to move through menu selection.
11. OK button. Used to make a selection in menu settings.

**LYMPH LOW** Set to treat lymphoedema at low pressure  
*Pressure 40mmHg Inflate 90secs Deflate 45 secs Therapy 60mins*

**LYMPH HIGH** Set to treat lymphoedema at high pressure  
*Pressure 60mmHg Inflate 90secs Deflate 45 secs Therapy 60mins*

**SPORTS LOW** Set to treat sports injuries at low pressure  
*Pressure 40mmHg Inflate 40secs Deflate 25 secs Therapy 60mins*

**SPORTS HIGH** Set to treat sports injuries at high pressure  
*Pressure 60mmHg Inflate 40secs Deflate 25 secs Therapy 60mins*

**WOUNDS LOW** Set to treat open wounds at low pressure

*Pressure 40mmHg Inflate 40secs Deflate 25 secs Therapy 60mins*

**WOUNDS HIGH** Set to treat open wounds with twin garments  
*Pressure 40mmHg Inflate 75secs Deflate 45 secs Therapy 60mins*

**WELLNESS LOW** Set to Wellness mode at low pressure  
*Pressure 30mmHg Inflate 90secs Deflate 60 secs Therapy 60mins*

**WELLNESS HIGH** Set to Wellness mode at high pressure  
*Pressure 45mmHg Inflate 90secs Deflate 60 secs Therapy 60mins*

**CUSTOM MODE** Allows user to set treatment settings

|                      |                     |
|----------------------|---------------------|
| Pressure 30-100 mmHg | Inflate 20-180 secs |
| Deflate 15-60 secs   | Therapy 30-120 mins |

# OPERATING INSTRUCTIONS

**WARNING:** These units must only be operated by qualified medical staff. Operation of these units by any other person is entirely the responsibility of that person.

**WARNING:** This manual must be read and fully understood before these units are applied to patients.

**WARNING:** Refer to section on indications and contra-indications prior to the unit being applied to patients.

## Application of Garment to Patient

These units are designed to provide compression to the Pulse Press range of Multi pressure garments. Each unit can be connected to one or two garments simultaneously. If only one garment is being used then the other outlet is sealed, unless you are using the trouser garment.

For the Multi pumps the blanking plug must be removed to use a second garment and the trouser garment. The hoses connection is unable to be the wrong way round. The other end of the air feed hose simply pushes onto the garment.

Unzip the garment and place around the patients limb. Always fully zip the garment up before starting treatment.

Do not unzip the garment during treatment. Wait for garment to be deflated before removing from patient.

## Operational Use

1. Connect the mains lead to the IEC power inlet socket. Insert the mains plug of the lead into a standard 220-240V mains socket.
2. Fit the air feed hose(s) to the air outlets, as described above. Ensure that all connections to the pump and garment make a good seal.
3. Place / fit the garment(s) onto the limb(s) requiring treatment.
4. Press Power button. LCD Display will ask user to read user manual.
5. Press Start / Stop button to resume previous treatment cycle. If different treatment is required then press OK to enter mode selection menu.
6. During operation to pause the treatment press the Start / Stop button. The garment will deflate. To resume treatment press Start / Stop button again.
7. The Inflation Progress Bar shows the user where in the inflation cycle the system is.
8. On completion of therapy timer the system will vent the garment and wait for user to reset system.

## *OPERATING INSTRUCTIONS*

9. To change the mode use the Up and Down buttons to change program until the desired mode is shown on the screen. Then press the OK button to select the mode.
10. Then press the Start / Stop button to run the selected mode.
11. If the Custom mode has been selected then the user must follow the on screen instructions by using the Up / Down and OK buttons.
12. Below is the sequence of variables to set:-
  - a. Use the Up and Down buttons to set the desired pressure in mmHg. You can select between 30-100mmHg. Press the OK button to set the pressure shown on the screen and continue to the next stage of set up.
  - b. Use the Up and Down buttons to set the desired inflation time in seconds. You can select between 20-180 seconds. Press the OK button to set the inflation time shown on the screen and continue to the next stage of set up.
  - c. Use the Up and Down buttons to set the desired deflation time in seconds. You can select between 15-60 seconds. Press the OK button to set the deflation time shown on the screen and continue to the next stage of set up.
  - d. Use the Up and Down buttons to set the desired therapy time in minutess. You can select between 30-120 minutes. Press the OK button to set the therapy time shown on the screen and continue to the final stage.
  - e. Press the Start / Stop button the run the custom treatment as selected.

## PUMP

Before cleaning the pump unit, always ensure it has been disconnected from the mains power supply. Clean the unit with a light detergent, ensuring that only a damp, and not wet, cloth is used. If in doubt as to the action of the detergent, try cleaning the underside of the unit first, where damage will be unseen.

There are no service items which need replacing or cleaning out on a regular basis. All technical information can be found at '[www.mjsgrp.com](http://www.mjsgrp.com)' .

## GARMENT

The garments can be sponged with a detergent. Allow to dry fully before use. DO NOT FORCE DRY.

In the event of heavy soiling the garments can be machine washed. See wash label. Always insert the air entry blanking plug, to prevent water ingress, and turn the garment inside out prior to machine washing.

## INDICATIONS AND CONTRA-INDICATIONS

### INDICATIONS

#### VENOUS

Post phlebotic syndrome, varicose veins, varicosities of pregnancy, stasis dermatitis, leg ulcers.

#### WOUND RECOVERY

Venous ligation or stripping, hand surgery, total knee replacement.

#### D.V.T.

For prevention of deep vein thrombosis.

#### ARTERIAL

Raynaud's disease, arteriosclerosis, acrocyanosis, blue leg.

#### EDEMA

Gravitational, lymphatic, post mastectomy, inguinal lymphadenectomy, after cast removal, rheumatoid, multiple sclerosis.

#### FLEXION CONTRACTURES

Chronic, injury, burns and skin graft.

### CONTRA-INDICATIONS

Acute thrombophlebitis, acute pulmonary edema, congestive heart failure, known or suspected deep vein thrombosis.

## TECHNICAL SPECIFICATIONS

Power Source 220-250V AC

Frequency 50Hz

Internal Fuse T500mAL250V



Type BF

Caution

Equipment not suitable for use in the presence of Flammable Anesthetic mixture with air or oxygen or nitrous oxide.



Read instructions prior to using equipment.



Keep Equipment Dry. Do not spill fluid on device.

Mode

Intermittent Operation

Storage / Operation

Equipment to be stored / used between 15 and 30 degrees C  
Equipment suitable for use 0-50% humidity.

Pressure Regulation Range 30 - 100mmHg  $\pm$ 5mmHg

LCD Display 16 x 2 Blue Backlite LCD Module

Power Consumption 40W



Class II (Double Insulated Device)

Accessories

Only use PulsePress hoses and garments  
Only use power lead supplied





