POWERMEDIC
HEALING TECHNOLOGY

GIGALASER 1801

Instruction Manual

Edition 2.51US

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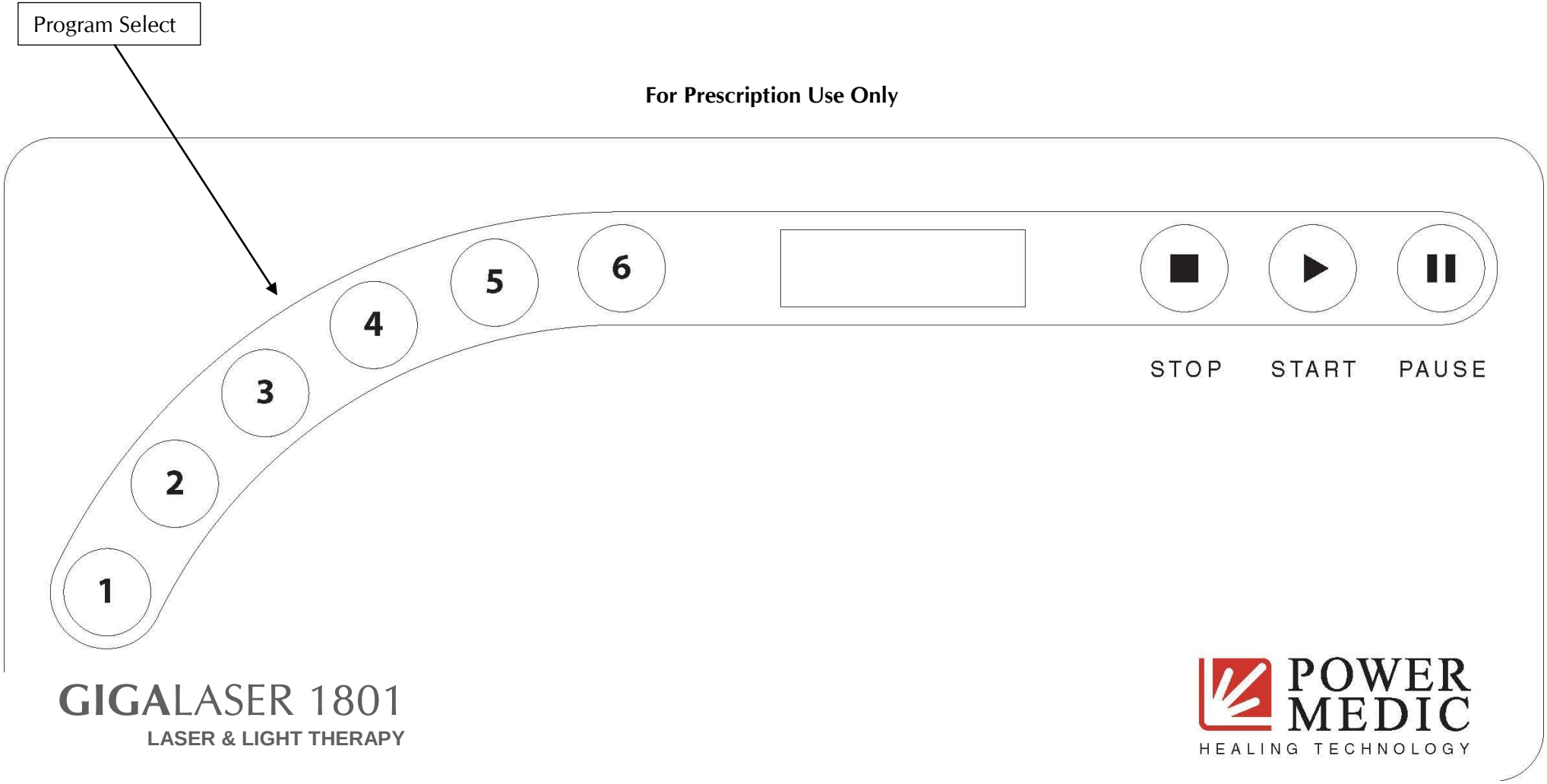
HEALING TECHNOLOGY



For Prescription Use Only

Warnings and Safety Instructions

Caution: Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure or cross contamination.
The use of the laser requires no special educational background but it should be operated only by personnel properly acquainted with the instructions put forth in this manual.
When not in use the laser unit should be protected from unauthorized use by removal of the key control.

Protective eyewear

The use of protective eyewear with an optical density, OD, larger than 4 at 808 nm is recommended for the operator and the patient. The aiming light at 660 nm or 405 nm is very low intensity and protective eyewear is not mandatory for safety purposes. However, for patient comfort, we recommend the patient wear protective eye shields during treatment.

Precautions

When treating all kinds of surface problems, the laser panels must be held at a distance of ½-1″ from the surface in order to avoid contact.

Cleaning

The laser panels should be cleaned with alcohol between individual patients.
All other parts of the **GIGA**LASER 1801 may be cleaned with alcohol or a detergent at regular intervals.

Contra indications

Do not treat patients with:

1. heart patients
2. pregnancy
3. epilepsy
4. cancer

Do not treat areas with:

1. melanomas
2. tattoos
3. very dark skin

If the patient feels a burning sensation, stop the laser stimulation immediately.

Introduction

Introduction

GIGALASER 1801 is a very large area therapy laser for the indicated use as stated on page 5, combined with blue and red aiming light.

GIGALASER 1801 has power supply and main user interface built into the control panel. Each laser panel is equipped with surveillance electronics, monitoring the proper and safe functioning of the unit.

Components

1 **GIGA**LASER 1801 main body
2 key for key switch
3 remote interlock jack plug
4 5 supporting legs with casters
5 expandable arm
6 screen module
7 Instruction Manual
8 protection goggles
9 power chord
10 tools for assembling **GIGA**LASER 1801

Controls

- PROGRAM SELECTOR
  selection of program according to description. Touch control, program can only be changed to another position adjacent to the active one.
- DISPLAY
  Shows remaining exposure time.
  Shows error code in case of errors.
- START
  Starts laser emission.
- STOP
  Stops laser emission. Reset timer.
- PAUSE
  Stops laser emission. Pauses timer.

Specifications unit

Max output power:	18000 mW +/- 10%
Wavelength:	808 nm +/- 2 nm
Beam divergence horizontal:	40°
Beam divergence vertical:	8°
NOHD:	90 mm
Pulse duration, max:	25 msec
Laser class	3B
Red light, 660 nm:	1400-1600 mcd
Blue light, 405 nm:	70-80 mcd
Operating temperature:	5 - 35°C / 41 - 95°F
Protection degree:	Type B

Indications for use

GIGALASER is intended to emit energy in the visible and near infrared spectrum to provide topical heating for the purpose of elevating tissue temperature for a temporary relief of minor muscle and joint pain and stiffness, minor arthritis pain, or muscle spasm; the temporary increase in local blood circulation; the temporary relaxation of muscles.

CE standards

Annex V, section 3.2 - Production Quality Assurance. 93/42/EEC concerning medical devices.
Notified body: CE 0543, DGM.

Therapy programs

Program no.	**#1**	**#2**	**#3**	**#4**	**#5**	**#6**
Treatment time [min]	7	10	15	10	15	23
Laser dosage [J/cm^2]	3	10	30	3	10	30
LED dosage [J/cm^2]	0	0	0	1	3	10
Total dosage [J/cm^2]	3	10	30	4	13	40

Getting started

Connect the power cord to a 120-240 VAC outlet. Turn the Key switch to vertical position. Make sure the emergency button is not activated. See the display show 00:00 and touch button no. 1 light up.

Starting laser emission

Select a program according to indication.
Touch the START button. Laser emission will start and the display will start counting down. When the display reaches 00:00 laser emission will stop.

Key switch

The **GIGA**LASER 1801 is turned off by turning the key counterclockwise. When not in use, the key should be removed and stored in a safe place.

Emergency switch

The **GIGA**LASER 1801 is equipped with an emergency switch according to laser safety regulations.

Stopping laser emission

During operation, the laser emission can always be stopped by touching the STOP button.

Pausing laser emission

If a break in the treatment is called for, touch the PAUSE and the timer will retain the remaining exposure time. When the patient is in place again, the laser emission is restarted by touching the START button.

Remote interlock switch

The **GIGA**LASER 1801 is equipped with a remote interlock switch in order to comply with laser safety standards. The remote interlock switch can be connected to e.g. a door switch for automatic termination of laser emission when the door is opened.

Temperature surveillance

The key element in **GIGA**LASER 1801 is a highly sophisticated yet fragile component called a laser diode. Every possible protective circuitry is built into the **GIGA**LASER 1801 in order to ensure a long and trouble free lifetime of the unit. A special circuit monitors temperature at the laser diodes and reduces output power when the temperature is below 5°C / 41°F. When started from a temperature below 5°C / 41°F the laser diodes will quickly heat itself up and enter normal operating mode. Similarly, when temperature is **above 50°C / 122°F** the laser output is blocked completely. This is indicated by the message "e01" in the display, and there is **no laser emission**. If this situation occurs it is recommended that the unit be cooled off.

Error detection

The **GIGA**LASER 1801 is equipped with a sophisticated surveillance circuit, monitoring the proper functioning of the unit and preventing hazardous situations from arising. If any faulty state is detected the display will show the message "e2", and the unit cannot be operated. If this situation - or any of below listed conditions - occur the unit must be handed in to the supplier for repair.

No visible output
Unit cannot be started
Unit cannot be operated in certain programs

Storage

The **GIGA**LASER 1801 should be kept on storage under following limiting conditions:

Storage temperature:	5 - 35°C / 41 - 95°F
Storage humidity:	20-85% RH

Warranty

The **GIGA**LASER 1801 carries a 2-year warranty covering all malfunctioning directly resulting from material or manufacturing faults.

Disclaimer

Any damage or injury resulting from failure to observe guidelines or precautions put forth in this manual falls outside the liability of the seller and/or producer of the equipment covered by same manual.

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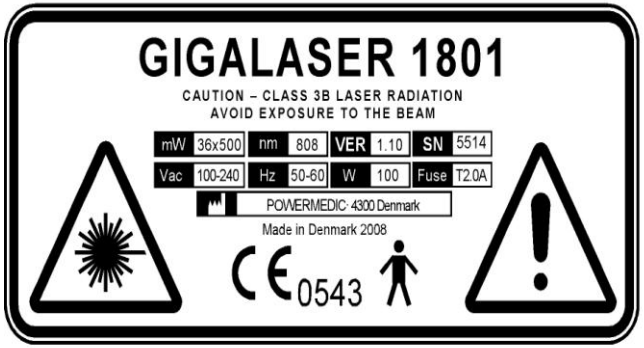
Reproduction of labels:



Information box

Laser warning symbol

Type B insulation

Read Manual

INVISIBLE LASER RADIATION
AVOID EXPOSURE TO BEAM
EN 60601-2-22:1996

mW 500	Output power:	36x500 mW
nm 808	Wavelength:	808 nm
VER 6.80	Version:	6.80
SN 4711	Serial number:	4711
Vac 100-	Input voltage:	100 – 240 Vac
Hz 50-60	Frequency:	50 – 60 Hz
W 100	Power consumption:	100 W
Fuse	Fuse:	3.15A slow
PowerMedic· 4300 Denmark	Manufacturer	

ON: 1, OFF: 0

Symbol for emergency stop

Symbol for remote interlock

CE 0543 CE certification no.