

# DIODE TREATMENT SYSTEM

## Features

- > Use the wavelength of 808nm or 980nm which are within the biological cells' absorption peak range and have the best effect on human tissue surgery;
- > Use GaAs diode laser which has the advantages of few heat and power consumption, stable output power, long life and so on;
- > Use smooth cut end light guide fiber (a variety of fiber core diameters are optional), which is flexible in operation and easy to use;
- > Use programme built-in embedded chip, 7 inch color LCD touch resistive screen, man-machine interface for control system. It's reliable and easy to operate;
- > Have many output modes including continuous, repeated pulse and so on which are available for different surgery needs;
- > Have power detection system which can correct the power automatically according to user requirements;
- > Have fiber plug-in detection function. In order to prevent light-colored light, the fiber must be detected to make sure the therapeutic equipment can work properly;
- > Use 650nm red diode laser as aiming beam to facilitate positioning during physician's operation;
- > Have over-temperature protection, remote chain, emergency stop protection system;
- > Use wide voltage input which can be applied to the worldwide net power;
- > Desktop styling, compact, easy to move and carry



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## Product specifications

|                          |   |
|--------------------------|---|
| Laser type:              | GaAs diode laser  |
| Laser wavelength:        | 808nm & 980nm   |
| Laser mode:              | Multi mode  |
| Output power :           | 0.5 ~ 4W ,0.5-7W continuously adjustable (808nm) 0.5-10W (980nm)  |
| Divergence angle:        | ≤ 25 mrad   |
| Power instability:       | ≤ ± 10%   |
| Aiming beam:             | 650nm red diode laser, 3mW  |
| Delivery system:         | Fiber: support the fiber with diameter of 200um, 300um,400um, 600um,800um, 1000um (optional). Standard configuration: 400um fiber treatment handpiece (disposable fiber head), beam expand raying head for whitening. |
| Operation and control:   | Color touch screen, microcomputer control   |
| Display:                 | 7" resistance-type true color touch   |
| Operation mode:          | Continuous output, repeated pulse output  |
| T on:                    | 25us ~ 1s   |
| T off                    | 25us ~ 1s   |
| Frequency:               | 1 ~ 20k Hz  |
| Cooling system:          | TEC semiconductor cooling, heat pipe air cooling  |
| screen Battery:          | Li-battery 4700mAh(8 hours standby time, 2 hours continuous working time)   |
| Main body input voltage: | DC 12V~17V  |
| Input power:             | AC110V ~ 220V ± 20% 50Hz ~ 60Hz ± 1Hz   |
| Battery input voltage:   | DC 18V~19.5V  |
| Ambient temperature:     | 5 ~ 40 °C   |
| Relative humidity:       | Not more than 80%   |
| Dimensions:              | 200x120x60 (mm)   |
| Net weight:              | 1.5kg   |



## Indications

This instrument can do the following default treatment with its high-tech laser technology:

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Pulpitis, periodontal disease, physical treatment, whitening, surgical granuloma, general surgery, surgical fibrous tissue treatment, surgical coagulation. The extreme pain tolerance of the diode laser treatment reduces the needs of anesthetic in most of the surgeries . This ensures the doctor can maintain a better relationship with the patients, especially with children and the patients who are feared of dental treatment.

Compared with traditional technology, as a relatively less invasive treatment method, diode lasers reduces cell damage, and can promote purification and anti-inflammatory because of its characters of hematischesis, less bleeding and potent antibacterial.

