

Guideline for Chattanooga Group Laser Applicators



1. SINGLE PROBE

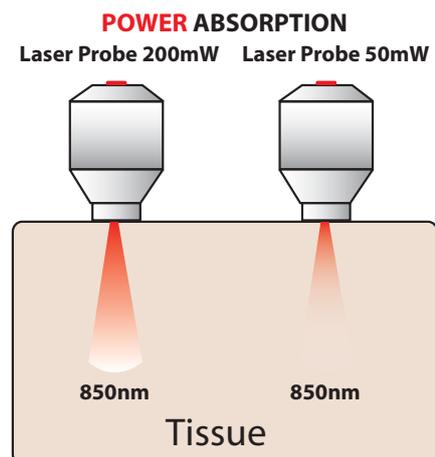
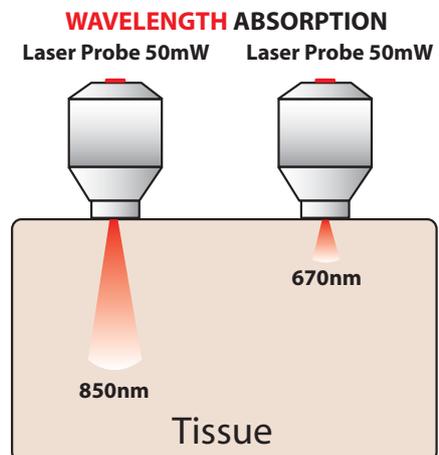
This applicator is a construction of a single laser or LED device mounted into an applicator. The device inside this applicator will be of fixed wavelength and power. The range of wavelengths and power offered within this applicator will be the variables that determine the usage of these probes. Generally, the usage of these single device applicators is for treatments that only require a small treatment area. The surface area of this probe that is in contact with the patient is approx. 1cm².



Single Probes

Wavelength of single device probe: –The wavelength of the single probe will have a direct effect on the depth of absorption of the energy being emitted from the probe. Lower wavelengths such as 670nm will be absorbed within the superficial tissue of the patient, with the higher wavelength of 850nm being absorbed over a deeper area.

Power of single device probe: – The power of the single probe will have a direct effect on the energy delivered into the tissue, with higher-powered probes being able to deliver more energy at the given depth over the same time period. It is also apparent that the higher-powered probes are more suitable for deeper conditions, as they are able to reach these areas with more power due to the absorption of energy as it travels through the tissue depths.



2. CLUSTER PROBE

This applicator is a construction of an array of LED's and laser or simply LED's mounted into a choice of 2 size applicators. Each device inside this applicator will be of a fixed wavelength and power. However, there is a range of combinations of these devices. The range of wavelengths and power offered within these applicators will be the variables that determine the appropriate usage of these probes. Generally, the usage of these multi device applicators is for treating large areas. The surface area of this applicator that is in contact with the patient is either 7.54 cm² for small cluster or 30.19 cm² for the larger cluster. The same principles of wavelength and power apply to each individual device in the cluster as they do for the single probes, however when a combination of these devices are used together then a different combination of applications can be obtained.



Cluster Probes

CLINICAL CONDITION

	Probe Size	Ref #	Wound Healing	Soft Tissue Injuries	Pain Relief	Dermatology Conditions	Superficial Wounds	Joint Conditions	Tendon	Burns
Single Probes	670nm LED Diode Probe 10mW	27799	✓			✓	✓			
	850nm Laser Diode Probe 40mW	27803		✓	✓			✓	✓	
	850nm Laser Diode Probe 100mW	27840		✓	✓			✓	✓	
	850nm Laser Diode Probe 150mW	27804		✓	✓			✓	✓	
	850nm Laser Diode Probe 200mW	27841		✓	✓			✓	✓	
	820nm Laser Diode Probe 300mW	27805	✓				✓			
Cluster Probes	9 Diode Cluster 290mW Total	27810		✓	✓			✓	✓	
	9 Diode Cluster 540mW Total	27811		✓	✓			✓	✓	
	9 Diode Cluster 1040mW Total	27812		✓	✓			✓	✓	
	13 Diode Cluster 265mW Total	27813	✓	✓	✓	✓	✓	✓	✓	✓
	13 Diode Cluster 415mW Total	27814	✓	✓	✓	✓	✓	✓	✓	✓
	13 Diode Cluster 715mW Total	27816	✓	✓	✓	✓	✓	✓	✓	✓
	19 Diode Cluster (No Lasers) 325mW Total	27815	✓			✓	✓			✓
	33 Diode Cluster (No Lasers) 565mW Total	27809	✓			✓	✓			✓
	33 Diode Cluster 690mW Total	27802	✓	✓	✓	✓	✓	✓	✓	✓
	33 Diode Cluster 940mW Total	27807	✓	✓	✓	✓	✓	✓	✓	✓
33 Diode Cluster 1440mW Total	27808	✓	✓	✓	✓	✓	✓	✓	✓	

Note: Some of the applicators listed in the preceding table and the corresponding clinical conditions that they treat are not marketed in the USA.



This document should be read in conjunction with other literature and documents to give a full understanding of laser therapy and its applications.

