



USER MANUAL LTH-255A Hand Piece

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SAFETY AND HANDLING CONSIDERATIONS



Warning

NEVER look directly into the distal end of the hand piece connected to an active laser device. Never direct the laser light directly into the eyes, or direct the laser beam at anything other than the area to be treated. WITH or WITHOUT the appropriate laser-emission protective eyewear: indirect or direct eye contact with the output beam or scattered laser light from any reflective surface will cause serious irreparable corneal and/or retinal damage, and possible blindness to one or both eyes.



Warning

DO NOT allow any reflective object to fall into or obstruct the path of the laser energy produced by this device. The operator, all assistants, and the patient must remove all reflective objects (such as rings, metal watchbands, and jewelry) prior to treatment with this device. Indirect or direct eye contact with the output beam or scattered laser light from any reflective surface from the laser will cause serious, irreparable corneal and/or retinal damage, and possible blindness to one or both eyes.



Warning

DO NOT remove protective eyewear until the operator returns the laser device to Standby mode.



Warning

FAILURE TO COMPLY with all safety instructions and warnings may expose all participants to harmful levels of laser radiation and/or dangerous levels of electrical current.



Warning

ALWAYS wear the protective eyewear (OD>5) supplied with this device, which is optically dense at the wavelength of operation. All personnel present during device operation must wear this eyewear. Contact LiteCure, LLC at 302-709-0408 to purchase additional sets of protective eyewear for this device.



Warning

ALWAYS put the laser in Standby mode or turn the device OFF prior to adjusting or connecting / disconnecting the hand piece or fiber optic.



Warning

ALWAYS post Warning Signs for Class IV laser products.



Warning

ALWAYS post Warning Signs in the area of the laser beam to alert others.



Warning

ALWAYS Turn the device OFF before lifting, moving or relocating the device.



Warning

ALWAYS place "Laser In Use" signs at location entrances where people will use the laser.



Warning

NEVER leave this device in the READY mode unattended.



Warning

NEVER allow untrained personnel to operate this device unless directly supervised by a properly trained and experienced individual.



Warning

DO NOT leave key in device's key switch when not in use. Prevents unauthorized and/or unqualified personnel use of the device. This will also prevent inadvertent laser emissions. DO NOT allow any nonessential personnel into the treatment area during any laser procedure.



Warning

DO NOT press the foot/finger switch without first verifying the safe orientation and proper positioning of the hand piece and distal end of the optical fiber and ensuring compliance to all safety precautions.

If the laser fails to operate properly, please discontinue treatment and contact LiteCure, LLC at 302-709-0408.



Warning

Public legal provisions may include special safety regulations for the protection of personnel against laser radiation. Compliance with any special safety regulations is required.



Warning

Using controls or settings or performing procedures other than those specified in this Operator Manual may result in hazardous radiation exposure.



Warning

Do not attempt to disassemble the laser unit. This will void all warranties applicable to the unit and may result in hazardous radiation exposure.

FIRE AND EXPLOSION HAZARDS

Healthcare professionals should be aware of the following safety considerations and potential fire hazards when using the laser:

1. The laser beam can ignite most nonmetallic materials.
2. A UL-approved or equivalent fire extinguisher should be readily available

This laser unit is not intended for operation in areas subject to explosion hazards such as flammable materials, gases or substances. A fire or explosion could occur.



Warning

The laser unit is not suitable for use in the presence of anesthetics that are flammable when in contact with air, oxygen, protoxide or nitrogen monoxide.



Warning

AVOID THE USE of flammable solvents, anesthetics, oxidizing gases such as nitrous oxide (N₂O) and oxygen or endogenous gases. The high temperatures produced in normal use of the laser equipment may ignite some material, for example cotton or wool, when saturated with oxygen. The solvents of adhesives and flammable solutions used for cleaning and disinfecting should be allowed to evaporate before the laser equipment is used. Always be aware of the fire risk caused by flammable gases in close proximity to an operating laser. If you accidentally spill liquid on the unit, immediately stop treatment, disconnect the power supply cable and contact your local distributor, authorized service center or LiteCure customer service for assistance.



Warning

Never direct the laser beam toward paper, plastics or dark surfaces. These may catch fire or be damaged due to the high temperatures produced by the laser beam.

PREPARATION OF PATIENT FOR LASER THERAPY TREATMENT

1. The area to be treated must be exposed
2. The treatment area should be clean and free of surface dirt or oils
3. Use rubbing alcohol for all instrument surfaces in contact with the patient



Caution

DO NOT use Hand Piece Head until alcohol solution used in cleaning procedure completely evaporates. Doing so may cause the laser to ignite alcohol solutions or vapors.

4. Thermal effects vary with hair coat and pigmentation – darker pigments absorb more. If there is a withdrawal response, increase distance and/or move the beam more rapidly, and/or reduce power.
5. Spraying water on a dark hair coat is recommended. You can also part the hair with your hands or clip.

HANDPIECE DESCRIPTIONS

1. The hand piece is composed of hand piece handle and hand piece heads. The universal screw design is perfect for making the different heads interchangeable.



WARNING!



DO NOT use Hand Piece without Hand Piece Head or inadequately secured Hand Piece Head on the Hand Piece Handle.

Doing so may cause serious and/or irreversible injury.

2. Exchange Hand Piece Head.



This head is for use in applications where contact and soft tissue manipulation during treatment are desired. Examples of appropriate applications for the large massage ball are muscular or deep soft tissue injuries. The large massage ball is not recommended for use over bone, open wounds, non-intact skin or areas that would be sensitive to contact.

- The Large Massage Ball can be used at any desired power setting **up to 12W** while moving the head at a rate of 1-3 inches per second.



This head is for general use and applications where no contact or soft tissue manipulation during treatment is desired.

- The Large Cone Head can be used at any desired power setting **up to 12W** while moving the head at a rate of 1-3 inches per second.



This head is for use in applications where contact and soft tissue manipulation during treatment are desired with fine control. Examples of appropriate applications for the small massage ball are muscular or tissue injuries in tight spaces or near sensitive areas. The small massage ball is not recommended for use over bone, open wounds, non-intact skin or areas that would be sensitive to contact.

- The Small Massage Ball can be used at any desired power setting **up to 6W** while moving the head at a rate of 1-3 inches per second.



Hand Piece Handle + PRT000179 Small Cone

This head is for use in applications that require fine control where soft tissue manipulation or contact is not desired. The small cone head should be used at a minimum distance of 2cm from the target tissue. Examples of appropriate applications are treatment in the ear, mouth or other tight spaces.

- The Small Cone Head can be used **up to 6W** operating power while moving the head at a rate of 1-3 inches per second.

WARNING!

ALWAYS turn the device power OFF by using the key switch before changing Hand Piece Head.



Remove Hand Piece Head from Hand Piece Handle, and DO NOT touch the distal end of the Hand Piece Handle.

Securely tighten the new Hand Piece Head to Hand Piece Handle.

WARNING!



DO NOT use Hand Piece without Hand Piece Head or inadequately secured Hand Piece Head on the Hand Piece Handle.

Doing so may cause serious and/or irreversible injury.

WARNING!

Wear Laser Safety Eyewear provided with the laser before operating the laser device.

CAUTION

Please do not remove the hand piece fiber from the emission port once it has been secured unless it is unavoidable. Repeated insertion and removal of the hand piece fiber before and after every procedure will increase the chance of emission port and fiber tip contamination. If the emission port or the fiber tip is contaminated then the device might be damaged during laser beam output emission.

The dust cap is installed by the manufacturer as a means to prevent dust and debris from contaminating the emission port during shipping and before device installation and is not intended as the primary means to protect the emission port connector during normal use.

We recommend the following procedure:

1. Before using the device for the first time, install and secure the hand piece fiber into the laser emission port in accordance with the User Manual.
2. Use the device as required.
3. When done using the device, power off in accordance with the User Manual and leave the hand piece connected.

Bending Limits of the Hand Piece Cable:

The radiation transferred within the hand piece cable goes through a very small diameter glass rod (an optical fiber). It can be damaged if bent too sharply. The maximum permissible bending radius of optical fiber is 5 cm.

Laser Hand Piece Troubleshooting:

If the any part of the hand piece assembly is overheating or producing smoke, then immediately power off device and discontinue operation. And then call LiteCure, LLC at 302-709-0408 immediately for assistance.

HAND PIECE HEAD CLEANING AND DISINFECTION



Warning

Always turn off the system and unplug the power cord from the wall outlet before cleaning.



Warning

Always use protective eyewear and gloves when cleaning and disinfecting any equipment.



Caution

DO NOT use Hand Piece Head until alcohol solution used in cleaning procedure completely evaporates. Doing so may cause the laser to ignite alcohol solutions or vapors.

1. To clean the exterior surfaces on Hand Piece Head:

- Wipe with a soft cloth moistened with isopropyl alcohol solution. Ensure the solution is only 70% alcohol or less. Solutions of more than 70% alcohol can cause product damage.

2. To clean the PRT000212 Large Massage Ball:

Always dampen the cloth and then clean.

- Before cleaning, turn off the system and unplug the power cord from the wall outlet.
- Avoid using gritty cloths.

3. If you have access to an Ultrasonic Cleaner, it can be used to deep clean the PRT000212 Large Massage Ball.

The following recipe is recommended:

Mix 90% isopropyl alcohol with warm water at the volume ratio of 60:40 and add one drop of dish soap.

4. After cleaning the Hand Piece Head, wipe it with soft cloth. Then leave it on clean surface to dry. To expedite drying time of the Hand Piece Head, putting 70% or less isopropyl alcohol into the Hand Piece Head and pouring it out will be helpful.



Caution

DO NOT use Hand Piece Head until alcohol solution used in cleaning procedure completely evaporates. Doing so may cause the laser to ignite alcohol solutions or vapors.



Warning

DO NOT use anything to clean the lens inside the handpiece. Doing so may damage the lens when laser emission. Using compressed air to remove the dust, debris and hair is recommended.