VET
MOYAVE

OPERATING INSTRUCTIONS

MOYAVE LASER
L-SERIES

EN

CONTENTS

1. INTRODUCTION

Thank you for buying a high-quality L Series laser by MOYAVE.

THE MOYAVE L LASERS ARE AUTHORISED FOR USE IN VETERINARY MEDICINE ONLY!

2. IMPORTANT INFORMATION

Before using the MOYAVE L laser, please take care to read the operating instructions that accompany this product, and keep them handy for further reference.

All MOYAVE products and their original accessories must only be used in accordance with the safety information and instructions contained in this manual. All of this safety information can be found in Sections 7 and 8.

In order to guarantee safety and reliability, the MOYAVE L lasers must always be used in conformity with these operating instructions.

MOYAVE L lasers must only be used by trained and qualified experts, and under constant supervision.

The manufacturer can accept no liability if the MOYAVE L laser is used/operated incorrectly or for the wrong purpose; this also applies to any consequences arising from this.

The laser must only be used with the accessories listed in this instruction manual!

MOYAVE LASER LA SERIES

MOYAVE LASER LF SERIES

3. BEFORE USING FOR THE FIRST TIME

In addition to the safety information in Section 8, please pay special attention to the following points before you operate the device for the first time:

- Ensure that the battery for the MOYAVE L laser is fully charged: see Section 36
- Read the information about charging the battery: see Section 37
- Ensure that the MOYAVE mains adapter is properly connected to the MOYAVE charging station
- Ensure that the MOYAVE L laser is properly attached to the MOYAVE charging station
- If the laser isn't in use, ensure that it's properly stored in the carrying case that has been designed for this purpose

4. OVERVIEW

The MOYAVE L laser provides you with a low-level laser therapy device that's extremely user-friendly and equipped with innovative elements and technologically sophisticated components.

The exceedingly light and battery-operated MOYAVE L laser can be deployed in stationary settings, but is particularly suitable for mobile use too. Thanks to their ergonomic design, optimised weight distribution and easy-to-reach operating elements, every laser in the MOYAVE L Series sits extremely well in the hand.

Menu navigation relies exclusively on 'swiping movements', as is for example customary on modern smartphones. The innovative sensor field – the touch slider – is located directly on the upper side of the MOYAVE L laser, and is dirt-resistant and dustproof. This makes the MOYAVE L laser particularly suitable for use with animals.

The high-performance integrated Li-Ion battery ensures convenient operation of the MOYAVE L laser in mobile settings. The MOYAVE charging station that's included with the MOYAVE L laser enables practical charging and storage.

Every MOYAVE L laser can be operated quickly and easily. Pre-programmed energy outputs and times with automatic switch-off allow you to work safely and without interruption. In addition to this, you can of course enter the energy/time parameters manually.

Besides the classic continuous wave variant, MOYAVE L lasers are – depending on their specification – equipped with the most important frequencies: Alpha, Nogier, Nogier', Bahr, Reininger and Vinja Bauer.

TOUCH-SLIDER AND OLED DISPLAY

5. DESIGNATED USES

The MOYAVE L laser is used to radiate skin and tissue, and relies on the effect of low-level laser therapy (as described in the relevant literature).

Lasers with a low energy level are described as low-level lasers. MOYAVE L lasers provide therapy options in the field of complementary medicine: treatment of pain, inflammation, wound management, and acupuncture.

MOYAVE L lasers can also be used to prevent illnesses/disorders or to support and reinforce the body's own defences.

The areas in which the MOYAVE L laser is used are always the personal responsibility of the relevant specialist(s).

MOYAVE LASER APPLICATION

6. CONTRAINDICATIONS

- Eyes (even when closed)
- Pregnant women: in the area of the abdomen, pelvis and lower back
- Hyperthyroidism
- Testicles
- Areas of the head (in the case of epilepsy)
- Open fontanelle
- Tumours
- Infected tissue
- Photosensitivity

BEWARE OF CONTRAINDICATIONS

7. PRINCIPLES OF SAFE USAGE

In order to achieve safe and optimal results with the MOYAVE L laser, the following principles should be adhered to:

- DThe applicator tip on the laser should be kept at a very small distance from the surface of the skin.
- Depending on the particular use, the applicator tip on the laser can nevertheless also be placed in direct contact with the skin.
- Ensure that the skin isn't greasy.
- The MOYAVE L laser must only be activated once the application needle has been placed on the skin.
- The MOYAVE L laser must be switched off before changing its position.
- The MOYAVE L laser must only be reactivated once the applicator tip has been placed in a new position on the skin.
- The MOYAVE L laser must be deactivated and switched off after every treatment.
- Please note that the MOYAVE L laser can only be fully deactivated by removing the security magnet.
- The applicator tip should be cleaned with medical alcohol after each use.

8. SPECIAL SAFETY INFORMATION

- Use of the MOYAVE L laser must adhere to the relevant national and international regulations for Class 3B lasers; this is the responsibility of the individual operator of the MOYAVE L laser.
- Users must be aware of the relevant regulations, and must be trained to operate the MOYAVE L laser correctly.
- In accordance with the legal requirements, Class 3B MOYAVE L lasers are only intended for users who are specialists in medicine and/or veterinary medicine.

CORRECT !

WRONG !

PLEASE FOLLOW ALL SAFETY INFORMATION

- In accordance with the respective accident prevention guidelines, the treatment area must be identified by a 'Laser' warning sign.
- All reflective (or diffusely reflective) surfaces must either be covered or removed from the treatment area.
- As a safeguard against unauthorised use/operation, the MOYAVE L laser is provided with a security magnet.
- The MOYAVE L laser can only be permanently operated with this security magnet.
- If the MOYAVE L laser is taken out of service or not used, the security magnet must be removed and kept separately from the MOYAVE L laser in a safe place. This prevents any unauthorised operation.
- In case of emergency, the MOYAVE L laser can at any time be deactivated via the Function button, via one of the 4 side buttons, or by removing the security magnet.
- The visible/invisible laser radiation that is emitted can cause irreversible damage to the eyes.
- Direct or indirect radiation of the eyes by the MOYAVE L laser must be avoided.
- You should never look directly into the exit aperture of the MOYAVE L laser.
- Fundamentally speaking, you should never aim the laser beam at other people and never radiate directly into their eyes.
- During treatment, the user as well as any other people present in the treatment area must wear laser protection glasses that are suitable for the MOYAVE L laser; glasses of this sort are available as a separate accessory.
- An excessive dose of energy can burn the skin. Adjust the treatment time and/or the amount of energy dispensed to suit the respective application.
- The MOYAVE L laser is not authorised for use in damp places or those where there's a risk of explosion.
- Before using it for the first time, operation of the MOYAVE L laser must be notified to the legally prescribed institutions/authorities.
- The safe functioning and condition of the MOYAVE L laser must always be checked before use.
- In order to guarantee correct operation, the MOYAVE L laser must not be used in the immediate vicinity of other devices since this could lead to one or more of the devices being (negatively) affected.
- The MOYAVE L laser must only be operated in enclosed spaces.
- The temperature during use must range between +10°C and +30°C.
- Avoid uninterrupted operation of the MOYAVE L laser because the increased build-up of heat might damage the laser diodes. Pause for at least 1 minute after approx. 5-10 minutes of continuous operation.
- The MOYAVE L laser must not be stored or operated in damp spaces.
- The security magnet must be removed after each application of the laser.
- The security magnet must be removed without fail if the MOYAVE L laser is stored in the carrying case (or not used).



9. SCOPE OF DELIVERY BASIC EQUIPMENT

- MOYAVE LA laser or LF laser [1)]
- MOYAVE charging station
- MOYAVE mains adapter - cable 140 cm
- Security magnet
- Carrying case
- Operating instructions

1) Either LA-Laser or LF-Laser

SCOPE OF DELIVERY - BASIC EQUIPMENT

10. OPTIONAL ACCESSORIES

- MOYAVE dental applicator (curved)
- MOYAVE lens attachment
- Laser warning sign

DENTAL-APPLICATOR CURVED

LENS ATTACHEMENT ø12 mm

LASER WARNING SIGN

11. OPTIONALE ACCESSORIES LASER PROTECTION GLASSES

- Laser protection glasses for use with all MOYAVE L lasers (660 nm and 785 nm)
- RTD-2
- OD2+ at 600 to 1100nm
- DIR L2
- Translucence: 28%

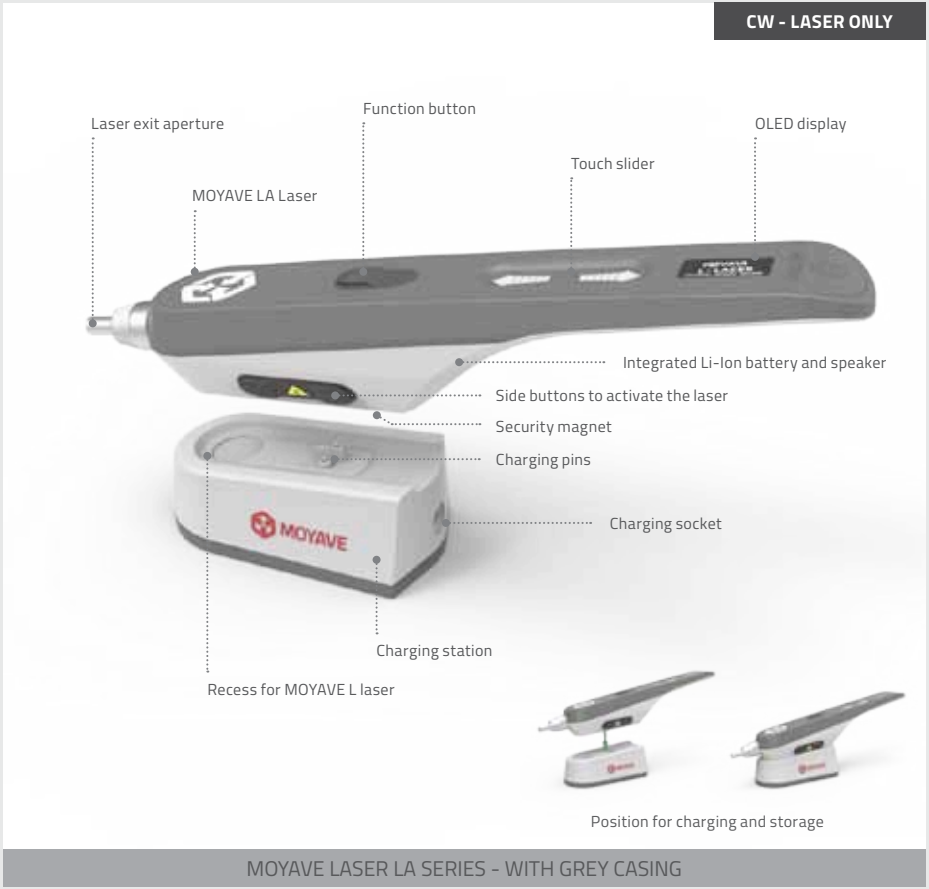
incl. Spectacle case

MOYAVE LASER PROTECTION GLASSES

12. DEVICE OVERVIEW: MOYAVE LA LASER

1. MOYAVE LA Laser
2. Security magnet
3. Function button
4. Touch slider
5. Side buttons to activate the laser
6. OLED display
7. Laser exit aperture
8. Integrated speaker
9. Integrated Li-Ion battery
10. MOYAVE charging station
11. Charging socket for connection to MOYAVE mains adapter
12. Recess for MOYAVE L laser
13. Charging pins

Die MOYAVE LA-Modelle werden mit einem grauen Gehäuse ausgeliefert und sind reine CW-Laser. Die Frequenzprogramme lassen sich nicht nachträglich upgraden.



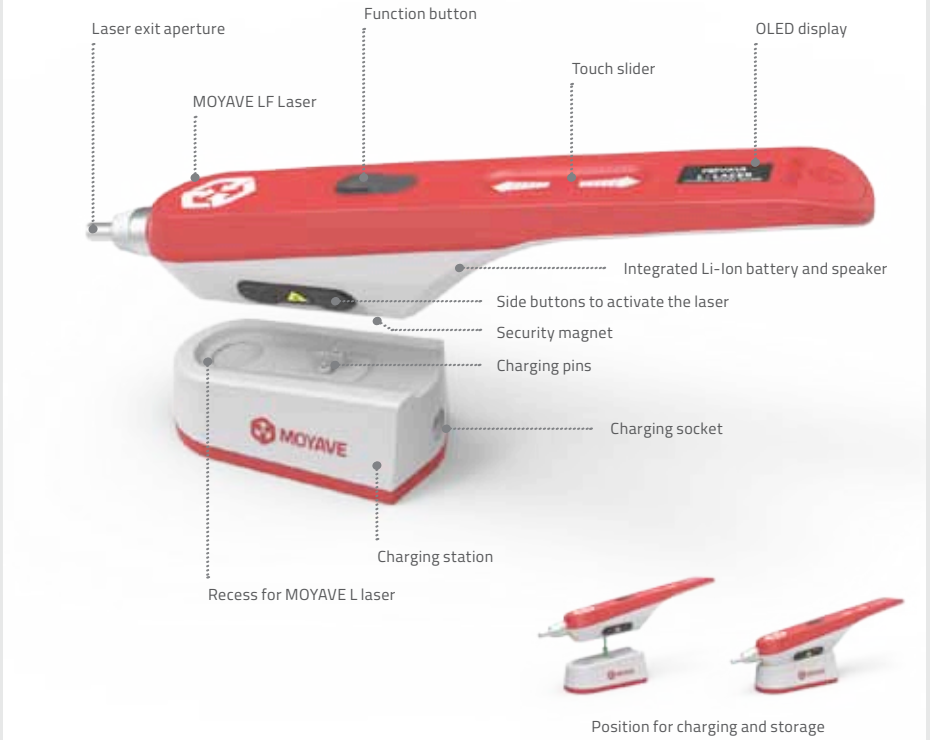
MOYAVE LASER LA SERIES - WITH GREY CASING

13. DEVICE OVERVIEW: MOYAVE LF LASER

1. MOYAVE LF Laser
2. Security magnet
3. Function button
4. Touch slider
5. Side buttons to activate the laser
6. OLED display
7. Laser exit aperture
8. Integrated speaker
9. Integrated Li-Ion battery
10. MOYAVE charging station
11. Charging socket for connection to MOYAVE mains adapter
12. Recess for MOYAVE L laser
13. Charging pins

The MOYAVE LF models are supplied in a red casing, are equipped with CW and Alpha frequency as standard, and can be retrofitted with frequency programmes.

UPGRADES POSSIBLE



MOYAVE LASER LF SERIES - WITH RED CASING

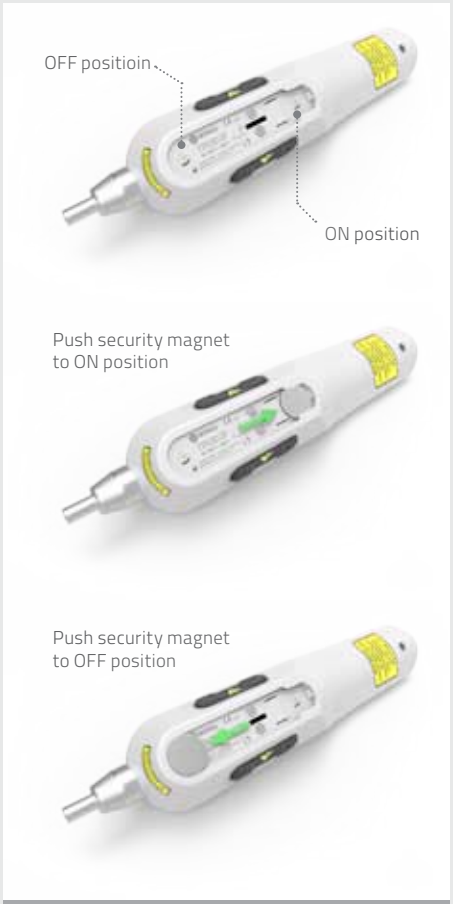
14. SECURITY MAGNET

Every MOYAVE L laser has a security magnet (supplied) to safeguard against unauthorised use; it is slotted into the guideway that's intended for this purpose (on the underside of the laser). Once the security magnet has been inserted, the MOYAVE L laser is ready for operation (see Sections 18 and 19).

The MOYAVE L laser is only fully deactivated once the security magnet has been removed from the ON position.

After use, the security magnet must be removed and stored in a safe place.

SECURITY MAGNET



POSITIONS FOR ON AN OFF

15. CHECKING BEFORE OPERATION

Before use, you should always check the MOYAVE L laser and its accessories for any damage.

If one or more of the components are damaged, you should under no circumstances operate the MOYAVE L laser.

If the MOYAVE mains adapter or MOYAVE charging station are damaged, you should only replace them with original MOYAVE parts.

USE ORIGINAL PARTS ONLY

16. FUNCTION BUTTON AND TOUCH SLIDER

The Function button and touch slider are the main operating elements that allow you to navigate through all the settings and programmes on the MOYAVE L laser.

The Function button and touch slider also allow you to quickly navigate back from one menu entry to the previous menu or the main menu.

The MOYAVE L laser is placed in standby mode by pressing the Function button for at least 3 seconds.

If the laser is active, the Function button can also be used to abort the laser programme that's currently running.

FUNCTION BUTTON AND TOUCH SLIDER

TOUCH SLIDER

17. ACTIVATION BUTTONS

The MOYAVE L laser has a total of 4 buttons which are used to activate it.

These 4 buttons can also be used to pause the programme and temporarily deactivate the laser.

ACTIVATION BUTTONS LEFT SIDE

ACTIVATION BUTTONS RIGHT SIDE

18. INSERTING THE SECURITY MAGNET

The MOYAVE L laser is made ready for operation by inserting the security magnet; the magnet must audibly click into the position that is reserved for it.

19. READINESS FOR OPERATION

Once the security magnet has been inserted, the model number of the MOYAVE L laser followed by the wavelength (nm) and output (mW) will appear on the display.

The MOYAVE L laser is now ready for operation.

20. MENU NAVIGATION GENERAL NAVIGATION

After the device has been switched on, 'MENU' (with a light background) will appear on the display, together with the current charging status of the battery. You can reach the main menu by pressing the Function button.

You can use the touch slider and the Function button to navigate through all the settings and programmes on the MOYAVE L laser.

Fundamentally speaking, the menu item with the light background is always the one that can be selected via the Function button.

21. MENU NAVIGATION BACK

In order to leave a menu and return to the previous level or reach the top level, you can use swiping movements to the left to activate the **<<BACK** and **<TOPMENU** items.

By using the **<<BACK** item you can in each case reach one menu level up. By using the **<TOPMENU** item you can reach the top menu level.

These menu items are generally not visible on the display, and are always only activated by swiping movements to the left.

SECURITY MAGNET ON

MENU NAVIGATION AND DISPLAY

OPTIONS NAVIGATION BACK

22. MENU NAVIGATION SWIPING MOVEMENTS

The surface of the touch slider reacts when touched. For example, one places a finger on the left-hand side of the touch slider and makes a swiping movement over part or the entire length of the touch slider. Depending on the length of the swiping movement, one reaches one or more (forward or backward) entries in the menu.

- Swiping to the right: forward entries
- Swiping to the left: backward entries

SWIPING MOVEMENTS ON TOUCH SLIDER

23. MAIN MENU

The following menu items can be selected in the main menu:

- < TOPMENU
- <<BACK
- CW
- ALPHA
- VBB Series
- VBM Series
- VBE Series
- MOTION FREQUENCY
- CELL ACTIVATION
- EPIGENETICS
- NOGIER
- NOGIER'
- BAHR
- REININGER
- SETTINGS

Some menu items may be unavailable (depending on the model version).

You can use the touch slider to choose between the menu items. The menu item that's active in each case has a light background and is selected by pressing the Function button.

SELECTION OF MAIN MENU ITEMS

24. PROGRAMME SELECTION

In the main menu level you have the opportunity to select the appropriate therapy programme. Depending on the model version, you can choose from CW, Alpha frequency, and several other frequency programmes. The list of available frequency programmes can be found in Section 34.

SELECTION OF FREQUENCY PROGRAMMES

You can navigate between the various frequency programmes by making swiping movements on the touch slider.

Once you've selected a frequency programme, you can choose the type of operation in the next menu level.

25. TYPES OF OPERATION

Once the frequency programme has been selected, the following modes are now available to operate the laser:

- TIME
- ENERGY
- MANUAL

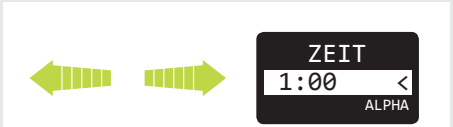
TYPES OF OPERATION

26. OPERATING MODE: TIME

In the TIME operating mode you can set the length of the laser application in 5-second intervals; the default value is 1 minute.

The therapy time is related to the energy output, so the latter is automatically adjusted when the time is selected.

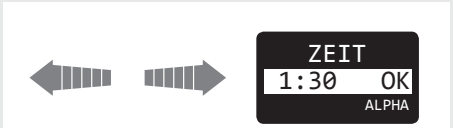
A flashing symbol next to the therapy time indicates that you can set the therapy time via the touch slider.



SETTING THE DESIRED TIME

- Swiping to the right: the therapy time is increased
- Swiping to the left: the therapy time is decreased

The time that has been selected is confirmed by pressing the Function button.



CONFIRMING THE TIME VIA THE FUNCTION BUTTON

The laser application can now be started; this is done via one of the 4 activation buttons on the side.

If 'sound' is activated in the general settings, a sound will be heard every 10 seconds.

ACTIVATED LASER

Once the preset therapy time has finished, the laser application stops automatically and without any interaction from the user. The end of the laser application is indicated via a two-tone sound.

If you'd like to pause the laser during therapy, you must press one of the 4 activation buttons. Pressing one of the 4 activation buttons again will continue the laser application.

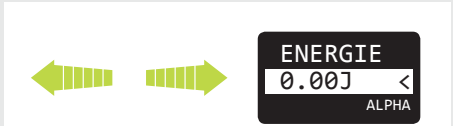
Use of the laser can be interrupted at any time during therapy by pressing the Function button once.

If you'd like to repeat the laser application with the programmes and parameters you've set, you must press one of the 4 activation buttons within 30 seconds of finishing the laser application.

27. OPERATING MODE: ENERGY

In the ENERGY operating mode, the energy output can be set using intervals of 0.1 joule. The energy output is related to the therapy time, so the latter is automatically adjusted when the energy output is selected.

A flashing symbol next to the joule value indicates that you can set the energy output via the touch slider.

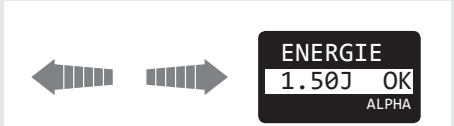


SETTING THE DESIRED ENERGY

- Swiping to the right: the joule value is increased
- Swiping to the left: the joule value is decreased

The level that's been set is confirmed by pressing the Function button. The laser application can now be started; this is done via one of the 4 activation buttons on the side.

If 'sound' is activated in the general settings, a sound will be heard every 10 seconds.



CONFIRMING ENERGY VIA THE FUNCTION BUTTON

Once the preset energy has been reached, the laser application stops automatically and without any interaction from the user.

ACTIVATED LASER

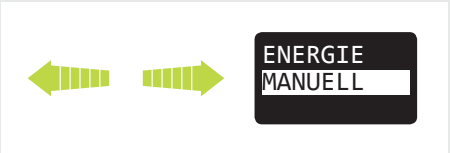
The end of the laser application is indicated via a two-tone sound.

If you'd like to pause the laser during therapy, you must press one of the 4 activation buttons. Pressing one of the 4 activation buttons again will continue the laser application.

Use of the laser can be interrupted at any time during therapy by pressing the Function button once.

If you'd like to repeat the laser application with the programmes and parameters you've set, you must press one of the 4 activation buttons within 30 seconds of finishing the laser application.

28. OPERATING MODE: MANUAL



EINSTELLEN DES MANUELLEN MODUS

In the MANUAL operating mode, the laser application is started directly via one of the 4 activation buttons on the side. The therapy time and resultant energy value are shown on the display.

If 'sound' is activated in the general settings, a sound will be heard every 10 seconds.

AKTIVIERTER LASER MANUELLER MODUS

The laser application doesn't stop automatically!

If you'd like to pause the manual laser application during therapy, you must press one of the 4 activation buttons.

Pressing one of the 4 activation buttons again will continue the laser application. The therapy times and resultant energy values are added together and shown on the display.

If the manual laser application isn't continued within 15 seconds, the therapy time and resultant energy value are deleted and reset to zero.

The manual laser application can be interrupted at any time during the therapy session by pressing the Function button once; the therapy time and energy value are displayed.

Once the laser application has been aborted by pressing the Function button and then restarted by pressing one of the 4 activation buttons, the therapy time and energy value are deleted. The values then restart at zero.

29. STANDBY MODE

Regardless of the type of operation that's been selected and the programme that's been set, the MOYAVE L laser will independently switch to Standby mode after 3 minutes at most.

The user can at any time switch manually to Standby mode by pressing the Function button for approx. 5 seconds.

The display indicates that Standby mode has been activated.

In order to switch from Standby mode to Operating mode, you must press the Function button.

STANDBY ON: Functional button for 5 seconds
STANDBY OFF: Functional button 1 x click

STANDBY MODE VIA THE FUNCTION BUTTON

30. SWITCHING OFF, MAKING THE DEVICE NON-OPERATIONAL

The MOYAVE L laser can only be fully deactivated by removing the security magnet.

In order to remove the security magnet, you should begin by gently depressing the small plastic flap/cover and then push the security magnet lengthwise out of its slot. The security magnet should without fail be stored separately from the laser in order to prevent unauthorised operation of the MOYAVE L laser.

IMPORTANT! Please take note of SPECIAL SAFETY INFORMATION section.

REMOVAL OF THE SECURITY MAGNET

31. LA-MODELS

The MOYAVE LA models are supplied with a grey casing and are exclusively CW lasers. The frequency programmes cannot be subsequently upgraded.

The menu contains the most important navigation elements in order to guarantee straightforward and effortless working in CW mode.

LA-LASERS - CW ONLY

32. LF-MODELS

The MOYAVE LF models are supplied with a red casing and are equipped with CW and Alpha frequency as standard.

The corresponding frequency programmes are integrated in the NB and VB models (see Table).

LF-LASERS - INCL. FREQENCY PROGRAMMES

33. FREQUENCY UPGRADES

The **MOYAVE LF-660-05** and **LF-785-05** lasers can be retrofitted; the wavelength and output range naturally remain unaltered.

Frequency upgrade on NB:

The frequency upgrade on the NB model contains the Nogier, Nogier', Bahr and Reininger frequencies.

Frequency upgrade on VB:

The frequency upgrade on the VB model contains the Nogier, Nogier', Bahr, Reininger and Vinja Bauer frequencies.

A frequency upgrade from NB models to VB models is not possible.

MODEL NUMBER	FREQUENCY PROGRAMMES	OUTPUT	WAVELENGTH	FREQUENCY UPGRADE
MOY-LA660-05	CW	50 mW	660 nm	no
MOY-LA785-05	CW	50 mW	785 nm	no
MOY-LF660-05	CW, ALPHA	5 - 50 mW	660 nm	yes
MOY-LF785-05	CW, ALPHA	5 - 50 mW	785 nm	yes
MOY-LF660-05-NB	CW, ALPHA, NOGIER, NOGIER', BAHR, REININGER	5 - 50 mW	660 nm	no
MOY-LF785-05-NB	CW, ALPHA, NOGIER, NOGIER', BAHR, REININGER	5 - 50 mW	785 nm	no
MOY-LF660-05-VB	CW, ALPHA, NOGIER, NOGIER', BAHR, REININGER, VINJA BAUER	5 - 50 mW	660 nm	no
MOY-LF785-05-VB	CW, ALPHA, NOGIER, NOGIER', BAHR, REININGER, VINJA BAUER	5 - 50 mW	785 nm	no

34. TABLE OF FREQUENCY PROGRAMMES

TYPE	NAME	FREQUENCY	LASER MODEL NR
CW	Continuous Wave	continuous	1), 2), 3), 4), 5), 6), 7), 8)
ALPHA	Alpha Frequency	10 Hz	3), 4), 5), 6), 7), 8)
VBB SERIES	VBB 1 - VBB 6	various	7), 8)
VBM SERIES	VBM 1 - VBM 6	various	7), 8)
VBE SERIES	VBE 1 - VBE 6	various	7), 8)
MOTION	Motion frequency 1 - 9	various	7), 8)
CELL ACTIVATION	Cell activation 1 - 8	various	7), 8)
EPIGENETICS	Epigenetics 1 - 9	various	7), 8)
NOGIER	NOGIER A	2,28 Hz	5), 6), 7), 8)
	NOGIER B	4,56 Hz	5), 6), 7), 8)
	NOGIER C	9,12 Hz	5), 6), 7), 8)
	NOGIER D	18,25 Hz	5), 6), 7), 8)
	NOGIER E	36,5 Hz	5), 6), 7), 8)
	NOGIER F	73 Hz	5), 6), 7), 8)
	NOGIER G	146 Hz	5), 6), 7), 8)
	NOGIER L	276 Hz	5), 6), 7), 8)
NOGIER'	NOGIER A'	292 Hz	5), 6), 7), 8)
	NOGIER B'	584 Hz	5), 6), 7), 8)
	NOGIER C'	1168 Hz	5), 6), 7), 8)
	NOGIER D'	2336 Hz	5), 6), 7), 8)
	NOGIER E'	4672 Hz	5), 6), 7), 8)
	NOGIER F'	9344 Hz	5), 6), 7), 8)
	NOGIER G'	18688 Hz	5), 6), 7), 8)

TYPE	NAME	FREQUENCY	LASER MODEL NR
BAHR	Bahr 1	599 Hz	5), 6), 7), 8)
	Bahr 2	1199 Hz	5), 6), 7), 8)
	Bahr 3	2398 Hz	5), 6), 7), 8)
	Bahr 4	4796 Hz	5), 6), 7), 8)
	Bahr 5	9592 Hz	5), 6), 7), 8)
	Bahr 6	19184 Hz	5), 6), 7), 8)
	Bahr 7	38368 Hz	5), 6), 7), 8)
REININGER	REIN-Le	442 HZ	5), 6), 7), 8)
	REIN-Ma	471 HZ	5), 6), 7), 8)
	REIN-He	497 HZ	5), 6), 7), 8)
	REIN-KS	530 HZ	5), 6), 7), 8)
	REIN-Di	553 HZ	5), 6), 7), 8)
	REIN-Gb	583 HZ	5), 6), 7), 8)
	REIN-Ni	611 HZ	5), 6), 7), 8)
	REIN-BI	667 HZ	5), 6), 7), 8)
	REIN-MP	702 HZ	5), 6), 7), 8)
	REIN-3E	732 HZ	5), 6), 7), 8)
	REIN-Dü	791 HZ	5), 6), 7), 8)
	REIN-Lu	842 HZ	5), 6), 7), 8)

LA- MODELS:

1) MOY-LA660-05

2) MOY-LA785-05

LF-MODELS:

3) MOY-LF660-05

4) MOY-LF785-05

5) MOY-LF660-05NB

6) MOY-LF785-05NB

7) MOY-LF660-05VB

8) MOY-LF785-05VB

35. BATTERY LIFE AND MOBILE USE

The MOYAVE L laser has an extremely powerful integrated battery, thereby allowing mobile use with many laser applications without having to charge the battery in between.

CHARGING THE BATTERY

Battery life depends on various environmental factors (such as temperature) and the choice of treatment programmes.

At normal room temperature, the battery in the MOYAVE L laser will run for approx. 10 hours.

36. CHARGING THE BATTERY

In order to charge the battery that's integrated in the MOYAVE L laser, you should firstly engage the security magnet in the position that means the device is ready for operation; only then is it possible to charge the MOYAVE L laser.

Insert the plug of the MOYAVE mains adapter into the socket on the MOYAVE charging station that's reserved for this purpose. Position the MOYAVE L laser directly above the charging pins in the MOYAVE charging station. An integrated magnet system ensures that the MOYAVE L laser is engaged in the correct position.

Constant charging of the battery should be avoided, since this will reduce the battery life.

The charging pins on the MOYAVE charging station, the contact surfaces on the MOYAVE L laser, or the plug on the MOYAVE mains adapter must under no circumstances be short-circuited since this would pose a serious risk to health and safety.

37. SPECIAL SAFETY INFORMATION: BATTERY

Read the special safety information before charging the battery for the first time!

The Lithium-Ion battery that is integrated in the MOYAVE L lasers contains substances that can harm people and the environment.

The dispatch and/or transport of batteries is subject to ADR Special Provision 188. If the battery is damaged, it can leak liquid which is caustic. Any vapours that are released must not be breathed in. Contact with damaged batteries can cause skin inflammations and (chemical) burns. You should immediately seek medical assistance if liquid comes into contact with the eyes.

What to do if you come into contact with electrolytes:

- Eyes: rinse with clean water for at least 15 minutes, without rubbing the eyes.
- Skin: thoroughly wash affected areas of the skin with soap and running water.
- If inhaled: ensure an immediate supply of fresh air and/or oxygen.
- If swallowed: immediately rinse out the mouth if liquid is inadvertently ingested.
- Disposal: if possible, use protective

equipment and mop up any liquid with an absorbent cloth. Any waste must only be disposed of as special (hazardous) waste at a collection point designated for this purpose.

- Fire: do not inhale any vapours or gases that are produced, and only approach the fire with suitable protective clothing and breathing apparatus. The fire must be extinguished with a Class D fire extinguisher (metal fire powder extinguisher).

You should always seek medical assistance as a precautionary measure.

38. CLEANING AND MAINTENANCE

Prior to cleaning, please ensure you disconnect the MOYAVE mains adapter from the power supply and the charging station.

Under no circumstances should you clean the MOYAVE L laser and its accessories in running water. In order to preserve the plastic components, you should avoid using any scouring or corrosive cleaning agents or abrasive objects. Ensure that no cleaning agents, moisture or other liquids can penetrate the casing.

You can clean the MOYAVE L laser, the MOYAVE charging station and the MOYAVE mains adapter with a slightly damp cloth; this can be done after every treatment.

In order to guarantee a perfect electrical connection for the charging process, you should keep the socket and the charging pins on the MOYAVE charging station as well as the plug on the MOYAVE mains adapter free of dust and dirt.

The applicator tip plus the lens and dental attachments for the MOYAVE L laser which are available as accessories should be cleaned with medical alcohol after each laser application.

The MOYAVE L laser and all its accessories must not be exposed to direct sunlight.

39. OTHER SAFETY INFORMATION

- Every MOYAVE product should always be kept dry. Don't immerse any of the MOYAVE products in water, and don't rinse them in running water.
- Don't use the MOYAVE products in a damp environment.
- Don't use the MOYAVE products if they've come into contact with moisture.
- The MOYAVE products mustn't be placed near an open fire or a major source of heat.
- You should never let children play with the MOYAVE products.
- Before each time you use them, check the MOYAVE products for any possible damage.
- If one of the MOYAVE products is defective, don't operate any of its components.
- If one of the MOYAVE products or accessories is damaged, you should only replace it with original MOYAVE parts; otherwise you will forfeit your right to any claims for liability or protection from the warranty.
- Contact your local dealer or the manufacturer if the product doesn't work or is faulty.
- Don't try to open or repair the MOYAVE products yourself.
- You should only charge the battery with the mains adapter that was originally supplied; on no account should you use an adapter other than the original MOYAVE mains adapter.
- When charging, don't use a socket that is loose or in which the mains plug doesn't firmly engage.
- Don't use the MOYAVE L laser while it's charging.
- Never leave the MOYAVE L laser and its accessories unsupervised when it's being charged or when it's switched on.

- You should only use this product with original MOYAVE accessories.
- The MOYAVE L-Laser isn't suitable for use with mains adapters from other manufacturers.
- When operating or storing the product, ensure that no heavy objects are lying on top of it or can fall onto it.
- Don't let the product fall onto the ground.
- During charging, use, and storage, ensure ambient temperatures of +5 °C to +40 °C and relative air humidity of 25% to a maximum of 85%.
- The MOYAVE L laser is not meant to be used continuously. Take note of the times indicated.
- Avoid any contact between the MOYAVE L laser and embrocations, ointments, or other creams which contain heat-producing components, otherwise this may lead to burns on the skin.
- Keep the MOYAVE products away from any sharp, pointed, or abrasive objects.
- Store the MOYAVE products in a clean, dry place.
- Do not dispose of this safety information.
- Do not throw into the fire.
- If operated correctly, it is almost impossible to inadvertently switch the MOYAVE L laser on or off; neither will the frequency programmes nor the parameters that have been set be altered.

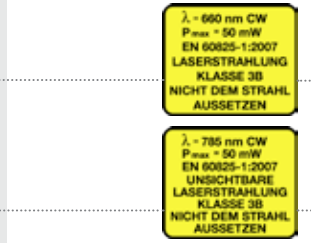
40. SETTINGS

The following settings for the MOYAVE L laser can be selected via the SETTINGS menu:

- Orientation for left-handed or right-handed people
- Display brightness
  25%, 50%, 75%, 100%
- Beep
  On or off
- Output (for LF models only)
  5mW, 15mW, 30mW, 50mW
- Firmware version
- Reset

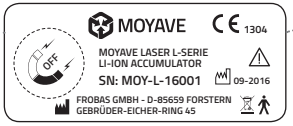
41. TYPE LABEL, OUTPUT LABEL AND WARNING LABELS

MOYAVE LA-SERIES



OUTPUT LABELS

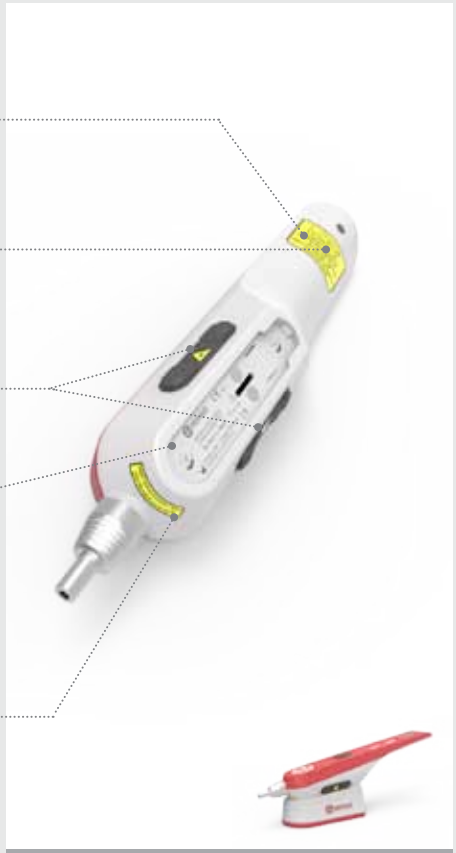
WARING LABELS



TYPE LABEL

WARNING LABEL

LEGEND OF SYMBOLS



MOYAVE LF-SERIES

42. TECHNICAL SPECIFICATIONS




MOYAVE L-LASER				
Laser model	LA-660-05	LA-785-05	LF-660-05	LF-785-05
Output	max. 50 mW	max. 50 mW	max. 50 mW	max. 50 mW
Wavelength	660 nanometer	785 nanometer	660 nanometer	785 nanometer
Battery type	Li-Ion battery	Li-Ion battery	Li-Ion battery	Li-Ion battery
Battery capacity	2250 mAh	2250 mAh	2250 mAh	2250 mAh
Weight	135g	135g	135g	135g
Dimensions (W x H x D)	226 x 39 x 40 mm	226 x 39 x 40 mm	226 x 39 x 40 mm	226 x 39 x 40 mm
Protective insulation	2	2	2	2
Laser class*	3B	3B	3B	3B
Laser type	Semiconductor	Semiconductor	Semiconductor	Semiconductor

MOYAVE PA12 MAINS ADAPTER	EU SPECIFICATION
Charging voltage	100 - 240 V ~ 50/60 Hz
Nominal voltage	12 V
Charging current	2 A
Nominal output	24 W
Weight	124 g
Dimensions (W x H x D)	48 x 65 x 72 mm
Connector	2.2 mm, rounded

*) Laser class according to EN 60825-1:2007

MOYAVE CHARGING STATION	
Weight	115 g
Dimensions (W x H x D)	90 x 40 x 35 mm

MOYAVE CARRYING CASE	
Weight	670 g
Dimensions (W x H x D)	300 x 385 x 100 mm

OPERATING CONDITIONS	
Ambient temperature	+10°C to +30°C
Relative air humidity	25% to max. 80%

43. SYMBOLS

SYMBOL	DESCRIPTION
	Do not hold or rinse in running water.
	Within the EU, this symbol indicates that this product must not be disposed of in household waste. Old equipment/appliances contain valuable materials which can and should be recycled, as well as to avoid damaging the environment and/or human health as a result of uncontrolled waste disposal. Please dispose of used equipment/appliances via appropriate collection systems, or send the device to the place where you bought it for disposal. They will then recycle the materials used in the device.
IP41	The device is protected against hard foreign bodies with a diameter exceeding 1.0 mm; it is also protected against dripping water and being accessed via a wire.
	Read the operating instructions
	Do not use in the open air
	Warning! The documents supplied with the device must be read before using it. All the safety measures must be complied with.
	Protective insulation Class II
	Conforms to EC Directives (“Conformité Européenne”)
	Do not put in the washing machine
	Never look directly at the laser beam or into the laser exit aperture
	The batteries incorporated in the MOYAVE device cannot be exchanged. These batteries can be disconnected from the electronics, and should be disposed of separately. Take the battery to an official collection point in order to ensure that it is properly disposed of. Information about disposal: Do not dispose of the device in household waste! In accordance with the Waste Electrical & Electronic Equipment Directive, electronic devices must be disposed of via the local collection points for waste electronic equipment.
	Information about the manufacturer: FROBAS GmbH, Gebrüder-Eicher-Ring 45, D-85659 Forstern Phone: +49 8124 91890 40, Fax: +49 8124 91890 55, E-Mail: info@frobas.com, Website: www.moyave.com
SN	Serial number
	Application part type BF
	Year and month of manufacturing
	Laser warning label

44. STANDARDS AND SAFETY

All MOYAVE products comply with the relevant standards for domestic electrical equipment which generates frequencies in the above-mentioned visible and invisible ranges. MOYAVE products satisfy the standards and regulations relating to electromagnetic tolerance (EMT) and the relevant electromagnetic fields.

The battery is equipped with protective insulation and a certified protection circuit.

MOYAVE is CE-certified

45. ENVIRONMENTAL PROTECTION

Electrical products must not be disposed of as part of ordinary household waste, and should if possible be taken to a recycling centre. The relevant authorities or your specialist dealer will be able to provide information about this.

46. WARRANTY

The manufacturer's warranty is valid for 12 months from the date of purchase for defects relating to materials and/or workmanship so long as an original invoice or proof of purchase showing the date of the sale is presented. If the product is faulty, please contact the specialist dealer from whom you bought the product, or alternatively the sales partner or manufacturer. If one or more of the following circumstances apply, the warranty is deemed to be invalid and the costs of any repairs will be invoiced (even within the warranty period); the MOYAVE products will be repaired or replaced as the manufacturer sees fit.

These circumstances are as follows:

- The product has been used incorrectly or improperly.
- The product has been opened or repaired by unauthorised persons.
- Damage due to fire, earthquake, flooding, or other natural disasters.
- Normal wear and tear.
- If the invoice or proof of purchase is missing.
- If the product has been damaged as a result of disregarding the information in these operating instructions.

47. CUSTOMER SERVICE

If you need any further information or have questions about or problems with the MOYAVE products, please email us at:

service@moyave.com

You can reach our Customer Service Department by calling +49-8124-91890-45

48. INFORMATION ABOUT THE MANUFACTURER

FROBAS GmbH

Gebrüder-Eicher-Ring 45
D-85659 Forstern

Phone: +49 8124 91890 40
Fax: +49 8124 91890 55

Email: info@frobas.com
Website: www.moyave.com

49. OTHER

MOYAVE is a registered trademark, and is the property of FROBAS GmbH. Any other trademarks are the property of the respective companies.

We reserve the right to make technical changes without prior notification.

The firmware used in the MOYAVE L laser is being constantly updated. In the case of MOYAVE products that have already been supplied, it's possible that the functions described in the manual will subsequently become operational once the firmware has been updated.

We cannot be held liable for any printing or typesetting errors.

50. GUIDANCE AND MANUFACTURER'S DECLARATION

ELECTROMAGNETIC COMPATIBILITY

Medical electronic devices are subject to special precautions regarding their EMC and must be installed and operated in accordance with the EMC instructions in the accompanying documents. In particular, medical electronic equipment may be influenced by portable and mobile HF communication devices.

The manufacturer warrants that the device meets the EMC requirements only if the accessories and cables are used which are listed in the EC Declaration of Conformity. Using other accessories and cables may result in an increased emission of electromagnetic interference or reduced immunity against electromagnetic interference.

The device may not be placed directly next to or stacked with other devices. If such an arrangement is nonetheless necessary, the device must be observed to make sure that it operates properly in this arrangement.

ELECTROMAGNETIC EMISSIONS

The MOYAVE acupuncture laser type L-series 660-05 and 785-05 is intended for use in the electromagnetic environment specified below. The customer or the user of the MOYAVE acupuncture laser type L-series 660-05 and 785-05 should assure that it is used in such an environment

Emissions test	Compliance	Electromagnetic environment - guidance
RF emissions CISPR 11	Group 1	The MOYAVE acupuncture laser type L-series 660-05 and 785-05 uses RF energy only for is internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF emissions CISPR 11	Class B	The MOYAVE acupuncture laser type L-series 660-05 and 785-05 is suitable for use in all establishments, including domestic establishments and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.
Harmonic emissions IEC 61000-3-2	Class A	
Voltage fluctuations/ flicker emissions IEC 61000-3-3	Complies	

ELECTROMAGNETIC IMMUNITY

The MOYAVE acupuncture laser type L-series 660-05 and 785-05 is intended for use in the electromagnetic environment specified below. The customer or the user of the MOYAVE acupuncture laser type L-series 660-05 and 785-05 should assure that it is used in such an environment.

Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment - guidance
Electrostatic discharge (ESD) IEC 61000-4-2	± 6 kV contact ± 8 kV air	± 6 kV contact ± 8 kV air	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30 %.
Electrical fast transient/ burst IEC 61000-4-4	± 2kV for power supply lines ± 1 kV for for signal lines	± 2 kV for power supply lines	Mains power quality should be that of a typical commercial or hospital environment.
Surges IEC 61000-4-5	± 1 kV differential mode ± 2 kV common mode	± 1 kV differential mode	Mains power quality should be that of a typical commercial or hospital environment.
Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	< 5 % U_T (> 95 % dip in U_T) for 1/2 cycle 40 % U_T (60 % dip in U_T) for 5 cycle 70 % U_T (30 % dip in U_T) for 25 cycle < 5 % U_T (> 95 % dip in U_T) for 5 sec	< 5 % U_T (> 95 % dip in U_T) for 1/2 cycle 40 % U_T (60 % dip in U_T) for 5 cycle 70 % U_T (30 % dip in U_T) for 25 cycle < 5 % U_T (> 95 % dip in U_T) for 5 sec	Mains power quality should be that of a typical commercial or hospital environment. If the user of the MOYAVE acupuncture laser type L-series 660-05 and 785-05 requires continued operation during power mains interruptions, it is recommended that the MOYAVE acupuncture laser type L-series 660-05 and 785-05 be powered from an uninterruptible power supply or a battery.
Power frequency (50/60Hz) magnetic field IEC 61000-4-8	3 A/m	3 A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.

Note: U_T is the a.c. mains voltage prior to application of the test level.

ELECTROMAGNETIC IMMUNITY

The MOYAVE acupuncture laser type L-series 660-05 and 785-05 is intended for use in the electromagnetic environment specified below. The customer or the user of the MOYAVE acupuncture laser type L-series 660-05 and 785-05 should assure that it is used in such an environment.

Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment - guidance
Radiated RF IEC 61000-4-3	3 V/m 80 MHz to 2500 MHz	3 V/m 80 MHz to 2500 MHz	Portable and mobile RF communications equipment should be used no closer to any part of the MOYAVE acupuncture laser type L-series 660-05 and 785-05, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter. Recommended separation distance: $d=1.17\sqrt{P}$ $d=1.17\sqrt{P}$ 80 MHz to 800 MHz $d=2.33\sqrt{P}$ 800 MHz to 2,5 GHz Where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and d is the recommended separation distance in meters (m). Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey,[a] should be less than the compliance level in each frequency range[b]. Interference may occur in the vicinity of equipment marked with the following symbol: 
Conducted RF IEC 61000-4-6	3 Vrms 150 kHz to 80 Mhz	3 Vrms 150 kHz to 80 Mhz	

Note 1: At 80 MHz and 800 MHz, the higher frequency range applies.
Note 2: These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

[a] Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the MOYAVE acupuncture laser type L-series 660-05 and 785-05 is used exceeds the applicable RF compliance level above, the MOYAVE acupuncture laser type L-series 660-05 and 785-05 should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating the MOYAVE acupuncture laser type L-series 660-05 and 785-05.

[b] Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3 V/m.

VET MOYAVE

MOYAVE® - eine Marke der FROBAS GmbH

FROBAS GmbH - Gebrüder-Eicher-Ring 45 - 85659 Forstern - Deutschland

Tel: +49 8124 91890 40 - info@moyave.com - www.moyave.com

Find us on Facebook

www.facebook.com/moyave

MAN-L 20160831 EN