Q.Light® phototherapy

Lighttherapy Devices

Operating Instructions

Table of Contents

I. Manual

for Light Therapy Device **Q.Light®** _____ (for example: 70, 70 NT, 200 etc.)

Serial Number: | | | | | | | | (see identification label)

Manufacturer's Guarantee

⚠ **If the device is not used appropriately or as directed, no manufacturer's guarantee can be granted!**

The device has fully passed the final function inspection of the manufacturer. The service life of the **Q.Light®** light therapy devices is indicated with 10 years. There is a warranty against production faults and material defects of twelve (24) months from distribution date.

!!! In any case of complaint both the purchase invoice and the following briefing proof must be submitted !!!

Briefing proof

⚠ **The device may only be used after the manufacturer, authorized qualified person or the operator has given full instructions!**

Place and Date	**BRIEFED PERSON (Operator)** Name and Signature		**BRIEFING PERSON** Name and Signature
			☐manufacturer ☐authorized personnel
			☐manufacturer ☐authorized personnel ☐operator
			☐manufacturer ☐authorized personnel ☐operator
			☐manufacturer ☐authorized personnel ☐operator
			☐manufacturer ☐authorized personnel ☐operator
			☐manufacturer ☐authorized personnel ☐operator

II. Delivery Contents

please check the content of the **Q.Light®** package.
Please take all pieces out of the box and remove packing material.

A Light Therapiy Device **Q.Light®** with standard slide-in module

B Power supply unit (13,8 V – 60 VA)

C Handle

D **Q.Light® Filtersets** – „Indication“, „Colour“ (optional)

Figure II.a **Q.Light®** with accessories

Please check if all pieces are free of transport damages.
Keep the packing material for future transport.

III. Intended Use

The medical device is to be used for treatments of mild and moderate Acne, PDT, Woundcare, Burns, Paincare, Depressions, Sleep disorder and Colourtherapy.

The **Q.Light®** Phototherapy devices are not intended for any other use. For the use according to the regulations please follow the operating instructions.

IV. Important Notes

⚠ **Please read the operating instructions carefully before starting treatment and strictly adhere to them! In case of any questions please contact the Q.Products® customer service (see page 16)**

⚠ **Q.Light® devices may be operated only with the delivered power supply unit. The use of any other power supply unit is not permitted!**

⚠ **The device may only be opened by the manufacturer or authorized personnel! Otherwise no manufacturer's guarantee can be granted!**

⚠ **Danger! Before opening the device the mains plug has to be disconnected! The power supply unit may not be opened!**

⚠ **The device may only be used after the manufacturer, authorized qualified personnel or the operator has given full instructions!**

Important Notes continued:

- An instructed operator only may use the device. Each briefing is to be registered in the manual (see page 4).
- If the device is not used appropriately or as directed, the manufacturer's guarantee will expire.
- The device must never be put into or showered with a liquid! If this however happens, disconnect the device immediately from electricity mains! Pull out power supply plugs immediately and inform the **Q.Products AG** customer service.
- The device must never be used in humid rooms (in particular not in bathrooms) or come into contact with liquids!
- With electrostatic loading the device switches off. Press the button **[OK]** again for restarting (if available (Q.Light 200), otherwise the main switch (On/Off) actuate).
- Regarding medical indications a physician is to be consulted prior to any treatment!
- Light therapy is suitable only for outward application!
- While treating the face and absorbing light through open eyes do not stare directly into the light beam. Place the device at a distance and do not look directly at the light with wide eyes opened, blinding danger!
- Polarization and colour filters are very sensitive high-quality products. They are to be treated with extreme caution and to be touched only at the frame of the filter slide-in module. After contact of the filter surfaces the optical characteristics change and their life span is reduced. Clean filters carefully with a dry cloth in case of contamination.
- After operation of the Q.Light® filters are intensively heated up. They may be taken out of the device at the earliest five minutes after end of treatment. Risk of burning!
- The device is to be cleaned before each application with a suitable disinfection tissue!

  Clean the body of the device with a slightly damp cloth only when cooled off and without electrical supply. Do not use aggressive or scrubbing detergents. The device must never be put into or showered with liquid.

⚠
- Never leave the device in operation without supervision, particularly not in the presence of children!
- Do not cover the ventilating fan during operation, risk of overheating!
- While the device is being fixed on the tripod always hold it tight to make sure it cannot fall down!
- In case of use of the handle always hold it tightly to make sure it cannot fall down!

⚠
- The minimum treatment distance of 10 cm must be kept.

V. Assembly and Installation

Mounting the Handle

- The handle is at one end equipped with a thread. By simple clockwise rotation of the handle screw it into the thread accommodation of the device or in anti-clockwise direction to unscrew after treatment.

Use on Desktop

- **Q.Light®** has also been designed for easy use as desktop device. Set up on a table the cone of light has an ideal angle of incidence for a treatment in particular for head and torso. Place the device in front of you on an even surface with the lens pointing in your direction.

Figure V.a **Q.Light®** with handle and on desktop

Repair and Service

Device and handle are absolutely maintenance-free if used as intended. If questions or malfunctions should occur, please always contact the Q.Products AG customer service (see page 16).

Fixing and Connecting

- When operating the light therapy device **Q.Light® <u>without</u> a tripod**, you use it either on desktop or manually. Put it on the table in front of you, respectively screw the handle **[A]** under slight rotation in clockwise direction into the thread accommodation **[B]** on the lower surface of the device.
- Put the device plug into the socket **[C]** at the bottom of the device. Always hold the handle tight, so that the device cannot slip out of your hand!
- Put the power supply plug into the wall socket.

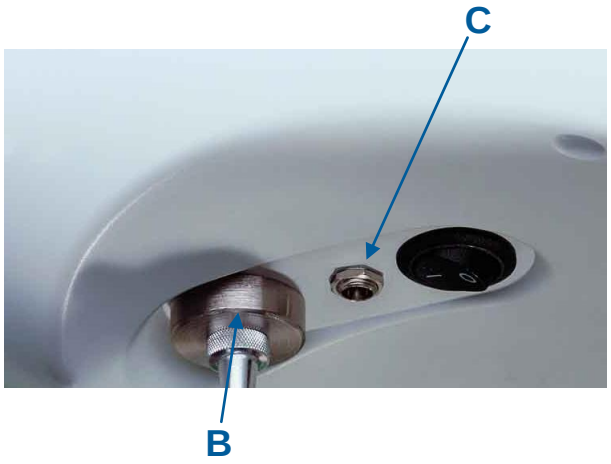


Figure V.b Screw joint and power socket

Figure V.c Fixed handle

⚠ **Before putting the device into operation please verify that the mains voltage of 230 V/50 cycles per second (as indicated on the type plate of the device) is identical to the electricity mains at your home. Make sure that the plug socket for current consumption is correctly grounded. Never attach the device to other voltage supplies!**

☞ **Before each application the device has to be cleaned with a suitable disinfection cloth!**

Control Unit

The master switch (on/off) is located at the lower surface of the **Q.Light®** Light Therapy Device.

Figure V.d Master switch

All further control elements of **Q.Light®** Light Therapy Device (Typ **Q.Light®** 200) including the display are located at the upper surface of the device.

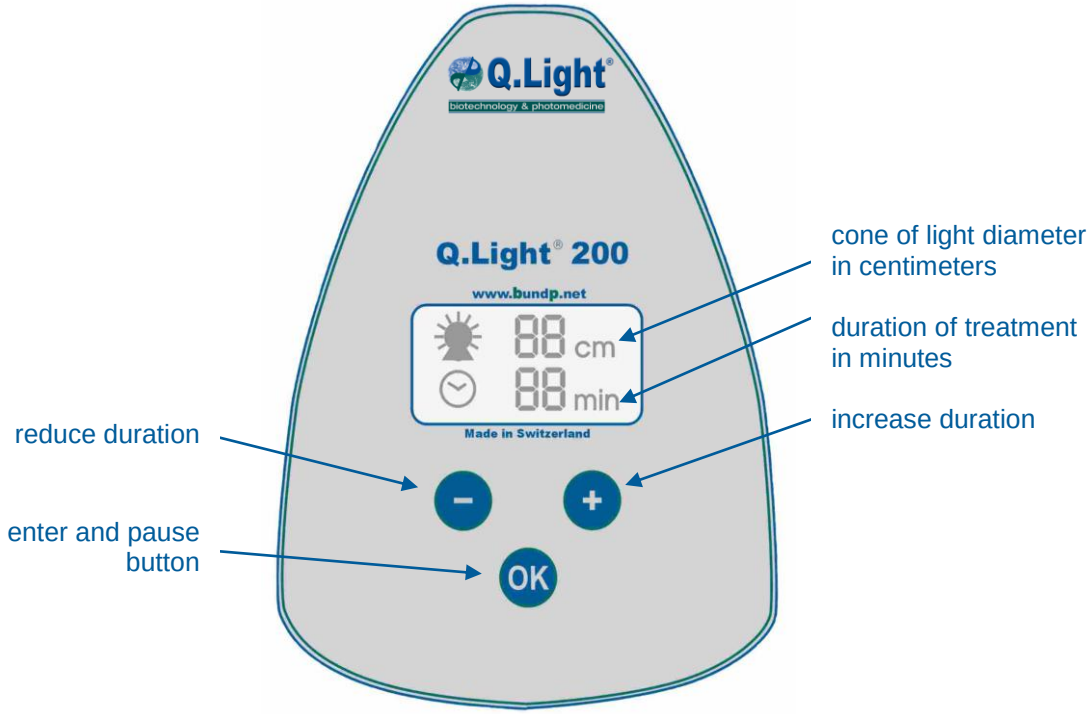


Figure V.e Control Display

Operation and Duration

Q.Light® Light Therapy Devices of the series Q.Light® 70 without the possibility to adjust treatment time:

- To start treatment the **Q.Light®** is switched on with the master switch at the lower surface. It gives off light immediately and is ready for use. By switching on the device the ventilating fan also becomes operational.
- Switching the device on and off regulates treatment duration.
- The light diameter is fix preset.
- After treatment the device is switched off with the master switch again. The light extinguishes and the ventilator stops.

Q.Light® Light Therapy Devices of the series Q.Light® 200 with the possibility to adjust treatment time:

- To start treatment the device is switched on with the master switch at the lower surface. The display shows the preset cone of light diameter in centimetres **[cm]** and the duration of treatment in minutes **[min]**. At the same time the ventilating fan also becomes operational.
- By turning the light beam adjustment **(see** Figure V.f) the cone of light can be fixed to the needed diameter. The chosen value is displayed.
- With the button **[+]** duration of treatment is increased by one-minute steps up to the desired value, with the button **[-]** the value can be reduced. The adjusted value is displayed. A key tone acknowledges each input of the buttons **[+]** or **[-].** The chosen value is also displayed. The device is now ready for use.
- Now press the key **[OK]**. The device turns itself on with a short beep and gives off light immediately.
- At the end of the chosen duration **Q.Light®** switches off automatically. The fan continues. If you do not require further treatment for the time being switch the device off with the master switch. The fan stops then also.

Figure V.f Light beam adjustment

Pause and Stop Button with **Q.Light®** devices with the possibility to adjust treatment time**:**

- Using the key **[OK]** during operation you can interrupt treatment. The light extinguishes while the time indicator in the display is flashing.
- To resume the treatment press key **[OK]** again.
- For final stop of the treatment switch off the device with the master switch.
- Attention! With electrostatic loading the device switches off. Press the key **[OK]** again for restarting.

Use of Filters (optional)

Depending on the planed application you will choose between two available filter sets: **Indication Filter Set Pro** and **Colour Filter Set Pro**.
Further informations are available in the brochures or directly of Q.Products customer service (see page 16).

The filters are heating up intensively during treatment! Before any change of the filters the device has to be left switched off for at least five minutes to cool down! Risk of burning!

⚠ **Change filters only while device is switched off!**

Q.Light® Filter Sets – „Indication“, „Colour“ (all optional)

- Select the appropriate filter (see Figure V.g) according to your chosen colour light therapy. Each module is labelled accordingly for easy identification.
- Remove the standard filter module (see Figure V.h) out of the device. Insert a filter module your choice into the device.

Figure V.g Range of colour filters

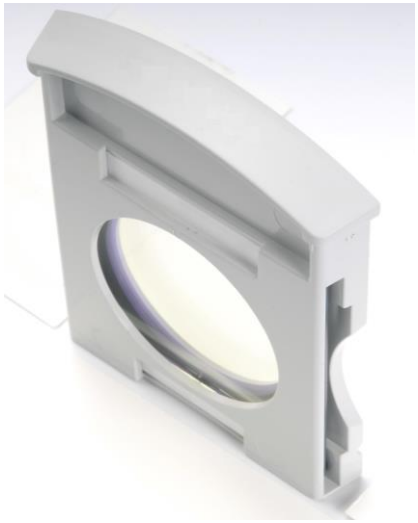


Figure V.h Filter slide-in module

- Shift the colour filter module into the respective opening. Under slight pressure the module clicks into place. Do not exert excessive pressure on the filter module.

Figure V.i Shifting-in the filter module

- After operating with **Q.Light®** the used Filter will be warmed up. The Filter should be carefully uncased. RISK OF BURNS!

- After operating with the FILTERS let the filter cool down and box carefully.

☞ **The filters are sensitive and high-quality products. They are not to be touched with fingers but only at the frame. In case of contamination please clean filters carefully with a dry cloth before application.**

VI. Contra-Indications

With contra-indications as specified below **Q.Light®** Light Therapy Devices should only be applied after medical consultation:

- hypersensitivity to light or "photo allergy"
- tendency towards photo-toxic reactions
- taking of photo-sensitizing medicines
- malicious illness, tumour, metastasis
- unknown skin alteration
- pregnancy

VII. Cleaning and Maintenance

Q.Light® light therapy device and power supply unit are free from special maintenance requirements.

- Before cleaning the device the mains plug has to be disconnected!
- Clean the body with a slightly damp cloth if necessary. Do not use aggressive or scrubbing detergents. Make sure no liquid gets into the device.
- For hygiene reasons wipe the device with a suitable disinfection cloth before each application.
- The filters are very sensitive high-quality products. They are to be treated with extreme caution and to be touched only at the frame of the filter slide-in module but never at the glass surface. After contact of the filter surfaces the optical characteristics change and their life span is reduced. Clean filters carefully with a dry cloth in case of contamination.

VIII. Troubleshooting

⚠ **In case of any failure please contact the Q.Products AG customer service (see page 16). The device may only be opened by the manufacturer or authorized personnel! Otherwise the manufacturer's guarantee expires!**

Defect	Help
Device does not give off light	Check power supply
Display or control unit does not work	Check mains cable, switch off master switch, wait one minute, switch on again
Ventilating fan does not work	Check power supply
Device is defective	Inform the **Q.Products AG** customer service
Mains cable is cracked or damaged	Have cable exchanged immediately by authorized electrician or **Q.Products AG** customer service
Body is cracked or damaged e.g. after it fell down	Put device out of action immediately and inform **Q.Products AG** customer service
Liquid is pouring over or into the body	Pull mains plug immediately, let **Q.Light®** dry and inform **Q.Products AG** customer service
Filter is cracked or broken	Inform the **Q.Products AG** customer service
Increased noise of ventilating fan	Due to frequent use, does not have any effects on its operation

To exchange the fuse (T 315 mA / 250 A) of the power supply unit remove the black cover with the inscription "Fuse" in clockwise direction with a crosstip screwdriver. Change the fuse and screw the cover again firmly**.**

Repairs and Maintenance

If **Q.Light®** is used as intended no maintenance or regular service is necessary.

In case of any failure please contact the **Q.Products AG** customer service. The device may only be opened by the manufacturer or authorized personnel. Otherwise the manufacturer's guarantee expires!

Customer Service

You can reach the **Q.Products AG** customer service:

by Service-phone**: + 41 (0) 71 858 20 60** by f**ax: + 41 (0) 71 858 20 61** by e**-mail: contact@QProducts.info**

or contact the **Q.Products AG** distributor who carried out delivery and instruction.

IX. Technical Data

Q.Light®

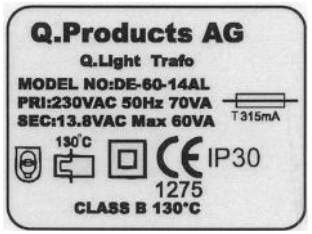
Voltage:	230 V, 50 Hz
Power Uptake:	between 20 VA max. and 60 VA max. (see bottom of device)
Protection Class:	II
Power of Irradiation:	ca. 40 mW / cm² with standard treatment diameter
Light Bulbs:	12 V/20 W/GU 5,3 Ø 50 mm (see bottom of device) 13,8 V/50 W/GU 5,3 Ø 50 mm (see bottom of device)
Type of Protection:	IP 30
Dimensions:	260 x 158 x 173 mm (L x B x H)
Weight:	1.170 g (**Q.Light® 70, 70 NT, 70 NT IR, 150 NT, 150 NT IR**) 1.250 g (**Q.Light® 200, 200 NT, 200 NT IR**)
Guarantee:	24 months from delivery
Country of Production:	Switzerland

☞ **Technical changes, which follows the newest developments are subject to alteration.**

☞ **Q.Light® devices are Active Medical Devices of Class II a and carrying the CE-mark according to Annex V of Medical Device Directive No. 93/42/EEC.**.

Type Plates

Power supply unit:



Explanation of symbols:

CE 1275	The LGA has made an evaluation procedure and Q.Light devices are carrying the CE mark according to Annex V of the Medical Device Directive 93/42/EWG.
	Device according to Protection Class II
	Shotsercuit Secure Transformator
130°C	Temperaturclass B (130°C)
T315mA	Delay-action fuse

Signs for power requirements:

Q.Light® 70

~ ⊙ ~
12V AC 20 VA

Q.Light® 70 NT, 70 NT IR, 150 NT, 150 NT IR, 200, 200 NT, 200 NT IR

~ ⊙ ~
13,8V AC 60 VA

Development, Manufacture

Q.Products AG
Säntisstrasse 11
CH-9401 Rorschach

Conditions for Storage and Operation

Storage temperature:	- 20 °C to + 60 °C
Operation temperature:	+ 10 °C to + 40 °C
Atmospheric humidity:	max. 90 %, non-condensing

Waste Disposal

Please do not dispose but keep the packing material for any case of future transport. Disposal of the device will be taken over by the manufacturer or authorized persons. It must be disinfected carefully before disposal.

Please contact the **Q.Products AG** customer service in case of need (see page 16).

Repeat Orders

You can place your inquiries and orders with the **Q.Products AG** customer service (see page 16) or contact the **Q.Products AG** distributor who carried out delivery and instruction.

X. Guidance and manufacturer's declaration according to EN 60601-1-2:2001

This appendix applies to all Q.Light therapy devices of type Q.Light 70 NT and Q.Light 200 NT.

The Q.Light therapy device emits Radio Frequency energy and could cause any interference in other electronic equipment or vice versa.

Therefore following advices should be considered:

- **The use of spare parts not authorized by the original manufacturer could lead to a raise of emissions or to the reduction of the devices electromagnetic immunity.**
- **The Q.Light therapy device must not be operated close by to other devices. If this is not possible, the Q.Light therapy device and all other devices should be observed to verify normal operation.**

Figure 201

Guidance and manufacturer's declaration – electromagnetic emissions – for the Q.Light therapy devices		
The Q.Light therapy device is intended for use in the electromagnetic environment specified below. The customer or the user of the Q.Light therapy device should assure that it is used in such an environment.		
Emissions test	**Compliance**	**Electromagnetic environment – guidance**
RF emissions CISPR 11	Group 1	The Q.Light therapy device uses RF energy only for its 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 Q.Light therapy device 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	

Figure 202

Guidance and manufacturer's declaration – electromagnetic immunity			
The Q.Light therapy device is intended for use in the electromagnetic environment specified below. The customer or the user of the Q.Light therapy device 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	±2 kV for power supply lines	±2 kV for power supply lines	Mains power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	±1 kV differential mode ±2 kV common mode	±1 kV differential mode ±2 kV common mode	Mains power quality should be that of a typical commercial or hospital environment

Guidance and manufacturer's declaration – electromagnetic immunity			
The Q.Light therapy device is intended for use in the electromagnetic environment specified below. The customer or the user of the Q.Light therapy device should assure that it is used in such an environment.			
Immunity test	**IEC 60601 test level**	**Compliance level**	**Electromagnetic environment – guidance**
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 0,5 cycle 40 % U_T (60 % dip in U_T) for 5 cycles 70 % U_T (30 % dip in U_T) for 25 cycles <5 % U_T (>95 % dip in U_T) for 5 sec	<5 % U_T (>95 % dip in U_T) for 0,5 cycle 40 % U_T (60 % dip in U_T) for 5 cycles 70 % U_T (30 % dip in U_T) for 25 cycles <5 % U_T (>95 % dip in U_T) for 5 sec	Mains power quality should be that of atypical commercial or hospital environment. If the user of the Q.Light therapy device requires continued operation during power mains interruptions, it is recommended that the Q.Light therapy device be powered from an uninterruptible power supply or a battery.
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8			This test has not been carried out, since the equipment does not contain components units sensitive to magnetic fields.
NOTE U_T is the a.c. mains voltage prior to application of the test level.			

Figure 204

Guidance and manufacturer's declaration – electromagnetic immunity			
The Q.Light therapy device is intended for use in the electromagnetic environment specified below. The customer or the user of the Q.Light therapy device should assure that it is used in such an environment.			
Immunity test	**IEC 60601 test level**	**Compliance level**	**Electromagnetic environment – guidance**
Conducted RF IEC 61000-4-6 Radiated RF IEC 61000-4-3	3 Vrms 150 kHz to 80 MHz 3 V/m 80 MHz to 2,5 GHz	3 Vrms 150 kHz to 80 MHz 10 V/m 80 MHz to 2,5 GHz	Portable and mobile RF communications equipment should be used no closer to any part of the Q.Light therapy device, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter. **Recommended separation distance** $d = 1{,}2\sqrt{P}$ $d = 0{,}35\sqrt{P}$ 80 MHz to 800 MHz $d = 0{,}35\sqrt{P}$ 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 metres (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: 
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 landmobile 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 Q.Light therapy device is used exceeds the applicable RF compliance level above, the Q.Light therapy device should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as re-orienting or relocating the Q.Light therapy device. [b] Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3 V/m.			

Figure 206

Recommended separation distances between portable and mobile RF communications equipment and the Q.Light therapy device			
The Q.Light therapy device is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the Q.Light therapy device can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the Q.Light therapy device as recommended below, according to the maximum output power of the communications equipment.			
Rated maximum output power of transmitter W	**Separation distance according to frequency of transmitter m**		
	150 kHz to 80 MHz $d = 1{,}12\sqrt{P}$	**80 MHz to 800 MHz** $d = 0{,}35\sqrt{P}$	**800 MHz to 2,5 GHz** $d = 0{,}7\sqrt{P}$
0,01	0,1	0,1	0,1
0,1	0,4	0,1	0,2
1	1,1	0,3	0,7
10	3,5	1,1	2,2
100	11	3,5	7,0
For transmitters rated at a maximum output power not listed above, the recommended separation distance *d* in metres (m) can be estimated using the equation applicable to the frequency of the transmitter, where *P* is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer. NOTE 1 At 80 MHz and 800 MHz, the separation distance for 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.			

XI. Q.Products AG – Product listing

Article-Name	Article-Number
MED. TREATMENT DEVICES	
Q.Light® - PAIN CARE	10.10.79
Q.Light® - SAD CARE, LIGHT THERAPY	10.10.80
Q.Light® - WOUND CARE	10.10.81
Q.Light® - ACNE CARE	10.10.82
Q.Light® - PDT	10.10.84
Q.Light® - HOME CARE UNIT	10.10.85
Q.Light® - SKIN CARE UNIT	10.10.86
Q.Light® 200 NT IR - PRO UNIT	10.10.24
MED. ACCESSORIES	
Indication Filter Set Pro	10.21.20
Colour Filter Set Pro, COLOUR LIGHT THERAPY	10.21.21

Please ask for further accessories information.

⚠ **Only the use of original Q.Light® products and accessories of the Q.Products AG grants best service. If other products or accessories are used, the manufacturer's warrantee will expire.**

XII. Table of Figures

Art. Nr. 90.10.13

Your local **Q.Products AG** distributor

Q.Light® phototherapy

Version 11/01