



Operator/Owner Instructions for use

and identification of your device



IQ
TOUCH
CONTROL
INSIDE

E-BALLAST
INSIDE



made in **Germany**



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2 Introduction

Thank you for purchasing the finest and most durable tanning unit in the world. Your sunbed has been manufactured with extreme care and has been subjected to numerous quality control inspections and tests to ensure you reliable use. This manual is meant to help you as far as possible. Should you have any questions, or suggestions in relation to our products, please do not hesitate to let us know.

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3 General Information

3.1 Intended Use

The i8 tanning device is intended for the cosmetic tanning of the human skin in adults.

3.2 Indications for Use

This tanning device can be used by any adult person who does not suffer from any of the contraindications listed in this manual.

3.3 About these Instructions

This manual is intended for use by the user, operator and service installer / technician. Any person using, maintaining or servicing this tanning device must read and understand these instructions prior to any activities involving this tanning device.

3.4 Scope of Personnel Activities

Term	Definition
Installer/technician	Trained technician for the initial set/installation, scheduled maintenance, and repairs that involve opening the device.

Owner/operator	Owner of the device and/or employees who have been trained in the correct operation and regular/daily/day-to-day maintenance of device.
User/customer/patient	Person who receives the therapy/treatment in the device and uses the device to set personal options/preferences. Interaction with the device is limited to treatment time and a short amount of time before or after treatment.

3.5 Safety Signs

SYMBOL DESCRIPTIONS	
	General Warning
	Warning – Hot Surface Hazard
	Warning – High Voltage Hazard
	Warning – UV Hazard
	Refer to Instruction Manual /Booklet

	<p>Refer to Operator's Manual / Operating Instructions</p>
	<p>Chapter with work to be done by a specialist.</p>

3.6 Contraindications

Contraindications for the tanning function:

- Not for use on persons under the age of 18 years
- Not to be used if skin lesions or open wounds are present
- Should not be used on individuals who have skin cancer or have a family history of skin cancer
- Should not be used when taking medicines or using cosmetics which could increase sensitivity to ultraviolet radiation (see appendix)

Contraindications for the Vibraplate function:

- Pregnancy
- Cardiovascular disease
- Inflammatory diseases
- Cardiac pacemaker
- Recent wounds resulting from injury
- Inner metal plates, screws, artificial joints and/or limbs
- Acute hernia

Also in case of acute thrombosis, arthrosis, discopathy, spondylolysis, diabetes, epilepsy, severe migraines, tumours and or a degeneration of the intervertebral discs, we recommend to consult a medical expert before you start using the VibraPlate.

3.7 Warnings: Read this carefully before use



	<p>If any user experiences any discomfort during a tanning session, (such as overheating, dizziness or nauseous), stop session and exit chamber</p>
	<p>Do not use or stop use of device if it is not functioning properly</p>
	<p>Operator must inspect all components of the tanning device between each use to verify normal operation and structural integrity.</p>
	<p>Fluid containers are not allowed inside tanning device.</p>
	<p>Do not exceed session duration or frequency of tanning sessions to those stated in the manufacturer recommended table</p>
	<p>Always follow manufacturer's stated recommendations for cleaning the tanning device</p>
	<p>Do not place more weight on the Vibraplate than recommended by manufacturer</p>
	<p>Always wear the eye covers provided by the manufacturer during a tanning session</p>
	<p>Do not use the tanning device if you suffer from any of the contraindications listed in this manual</p>
	<p>Follow regulations provided by the local authority when disposing of tanning booth components</p>
	<p>Not for use in an oxygen rich environment</p>
	<p>This device is intended to be used by one person at a time!</p>
	<p>Make sure there is at least 10 cm (5 inches) space between the machine and the walls/ceilings to ensure proper ventilation.</p>
	<p>Never use this device, if one or all the acrylics are broken or removed. Check this for each tanning session</p>
	<p>Always use the protective sunglasses provided!</p>
	<p>Water and electricity are a dangerous combination. Do not place your Ultrasun in a humid room or near water facilities like a shower or swimming pool.</p>
	<p>This device is rated IPX0: no protection against fluid ingress</p>
	<p>Lamps, components and accessories must be replaced with original lamps, components and accessories only. Failure to do so could cause improper operation resulting in overexposure to UV radiation or contact with hot surfaces.</p>
	<p>Do not operate this device in ambient temperatures greater than 30°C</p>
	<p>Keep all vent openings clear of debris or objects that may hinder air flow</p>
<p>The appliance is not to be used by children or people with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction.</p>	
<p>Do not allow children to play in the device</p>	
<p>Always follow the tanning rules as specified in this document</p>	
<p>Do not install the device in a location that could make it difficult to operate the power disconnection device (circuit breaker or power switch)</p>	

	<p>This device does not contain any user serviceable components.</p> <p>This appliance may only be assembled, installed and serviced by specifically trained staff.</p> <p>Do not service this device while in use</p> <p>Do not overload the floor plate.</p> <p>Route all external cables so that they minimize tripping hazards</p> <p>Do not modify equipment in any way. Modifications can cause improper operation resulting in overexposure to UV radiation or contact with hot surfaces.</p> <p>Use only original spare and replacement components</p> <p>Class I ME Equipment – Risk of electric shock. To avoid the risk of electric shock, this equipment must only be connected to a supply mains with protective earth.</p>
	<p>Always wear eye protection when sunlamps are activated</p>
	<p>Several surfaces inside tanning chamber, such as the transparent sunbelt covers, will normally become hot during a tanning session. Avoid touching any hot surface during anytime the tanning device is active or has recently been active.</p>
	<p>Beware of dangerous voltage, do not touch internal electrical parts before disconnecting the voltage.</p>
	<p>Before servicing this equipment or changing lamps, remove the power supply cord or isolate from main supply</p>
	<p>Read the instructions before using this product or consult the attendant for further information.</p>

3.8 Tanning Rules and General Safety Notes

Before you start the tanning session you must first determine which skin type you have and which session (week) you are working on, if you reflect this data on the table below, you can determine the maximum tanning time.

RECOMMENDED EXPOSURE SCHEDULE		MAXIMUM EXPOSURE TIMES (IN MINUTES)			
CLASS	SKIN TYPES	week 1	week 2	week 3	week 4
I	Sensitive skin Burns easily and severely, and does not tan.	Tanning not advised			
II	Light skin Burns easily and severely, and tans minimally.	4	6	9	12
III	Normal skin Burns moderately, and tans moderately.	5	8	10	12
IV	Dark skin Burns minimally, and tans well or above average.	6	10	12	12

**Allow at least 48 between all exposures, tan maintenance: 1-2 times weekly.
MAXIMUM EXPOSURE TIME: 12 minutes.**

General safety notes:

- The exposure time for first session must not be shorter than 1 minute.
- Follow the recommendations concerning exposure duration and exposure intervals
- Protect your eyes from visible and infrared radiation, take adequate precautions! Always use the provided sunglasses!
- Do not sunbath and use the tanning device on the same day.
- This device is intended to be used by one person at a time!
- Always use the protective sunglasses provided.
- Remove cosmetics well in advance of exposure and do not apply any sunscreens.
- Do not undergo exposure when taking medicines or using cosmetics, which increase sensitivity to ultraviolet radiation. If in doubt, take medical advice.
- Follow the recommendations concerning exposure duration and exposure intervals.
- Seek medical advice if persistent lumps, sores or pigmented moles develop on the skin.
- Ultraviolet radiation from the sun or UV-machines can cause injury to skin or eyes. These biological effects depend upon the quality and the quantity of the radiation as well as the skin sensitivity of the individual.
- The skin may develop sunburn after an excessive exposure. Excessively repeated exposure to ultraviolet radiation from the sun or the machine may lead to premature ageing of the skin as well as increased risk of development of skin tumours.
- The unprotected eye may develop surface inflammation, and in some cases, damage may occur to the retina after excessive exposure. Cataracts may develop after many repeated exposures. Therefore: **always use the protective sunglasses provided.**
- This machine is not to be used by people burning without tanning when exposed to the sun, by people suffering from sunburn, by people suffering from or previously suffering from skin cancer or predisposed to skin cancer.
- Read this carefully: if unexpected side effects, such as itching, occur within 48 hours of the first session of using a UV appliance, medical advice should be sought prior to further UV exposure.
- This appliance is not to be used by people burning without tanning when exposed to the sun, by people suffering from sunburn, by people under the age of 18, or by people suffering from (or previously suffering from) skin cancer or predisposed to skin cancer.
- Do not undergo exposure when taking medicines or using cosmetics, which increase sensitivity to ultraviolet radiation. If in doubt, take medical advice.

- This appliance shall not be used by persons under medical care for diseases that involve photosensitivity or persons receiving photosensitizing medications.
- Seek medical advice if persistent lumps, sores or pigmented moles develop on the skin.
- Ultraviolet radiation from the sun or UV-machines can cause injury to skin or eyes. These biological effects depend upon the quality and the quantity of the radiation as well as the skin sensitivity of the individual.
- The unprotected eye may develop surface inflammation, and in some cases, damage may occur to the retina after excessive exposure. Cataracts may develop after many repeated exposures.
- Read this carefully: if unexpected side effects, such as itching, occur within 48 hours of the first session of using a UV appliance, medical advice should be sought prior to further UV exposure.
- The skin may develop sunburn after an excessive exposure. Excessively repeated exposure to ultraviolet radiation from the sun or the machine may lead to premature ageing of the skin as well as increased risk of development of skin tumours.
- Remove cosmetics well in advance of exposure and do not apply any sunscreens.
- According to basic standards your Ultrasun tanning equipment needs to be equipped with original parts and lamps. In every other case the guarantee is taken off as well as any responsibility and any liability.

Use this machine only by standing-up in the middle of the sun plateau. Do not overload the suspended weight of the suspension handle on top in the middle of this machine. The overload capacity is 30 Kg.

4 System Description

4.1 General Description

Ultrasun tanning devices are standalone devices that can be divided into two groups: the lay down beds (sunbeds) and the stand-up booths (sunshowers, suntowers etc.). Both groups are supplied with tanning lamps, and the sunbeds can have a special facial tanner. All the devices are controlled by a programmable timer system and are supplied with a user manual, electrical drawings, and two Sunfit UV goggles. The Ultrasun tanning devices generate ultraviolet (UVA and UVB) radiation and are intended for getting a tanned skin for a healthy appearance and better resistance to sunburn.

Depending on the configuration every device has its specific power consumption and main connections, read the user manual for details.

Some devices can be expanded with additional options like a Vibraplate (a vibrating exercise plate) available or several audio options.

All timer systems operate by the user pressing the Start button, a default time appears and can be reduced. To prematurely end the session, the stop button can be pressed. All other functions can (if available) be adjusted by the user. The device is mostly placed in commercial places (tanning salon i.e.) and is managed by an attendant who gives instructions on how to use it.

A tanning session consist of standing in the middle of the base plate (i8) for the time being, the internal timer has a beep sound when treatment time is up and the time is double controlled by internal software.

The device does not contain any user serviceable components. A specialized technician must replace the lamps at the end of its life, the maintenance consists mainly of removing dust and visual inspection.

4.2 Basic User Functions:

- **Tan Session Timer:**
The timer system (also known as IQ Touch Control) is the central control of your tanning appliance, it controls all functions of the appliance and is also equipped with safety functions. The IQ Touch Control is operated via a START and STOP switch for the primary functions, all other settings are operated via the touchscreen.
- **Audio:**
If your device is equipped with the audio system, you can use the pre-programmed Wellness sound, Bluetooth from your smartphone or (if connected) the provider's central music system. The volume and sound of the audio system can be adjusted. The voice control is also part of the audio system, the voice instructions are pre-programmed and can be turned on or off if desired.
- **Body Cooler:**
The body cooler is located in the top cooler and is adjustable via the IQ Touch Control in five steps. At the start of the session, the body cooler always starts at position 1 and can be increased or decreased according to your own preference.
- **VibraPlate:**
The Vibraplate is a vibrating plate that is intended as an addition to your tanning session. The VibraPlate generates vibrations that are being transferred to the body. Both the time (maximum 5 minutes) and the intensity (in 5 steps) can be adjusted to your personal wishes, in addition there are three pre-programmed options (Relax, Regular and Active).

The functions above are described in detail in the next chapter.

5 User Controls and Operating Instructions

5.1 Frequently Used Functions

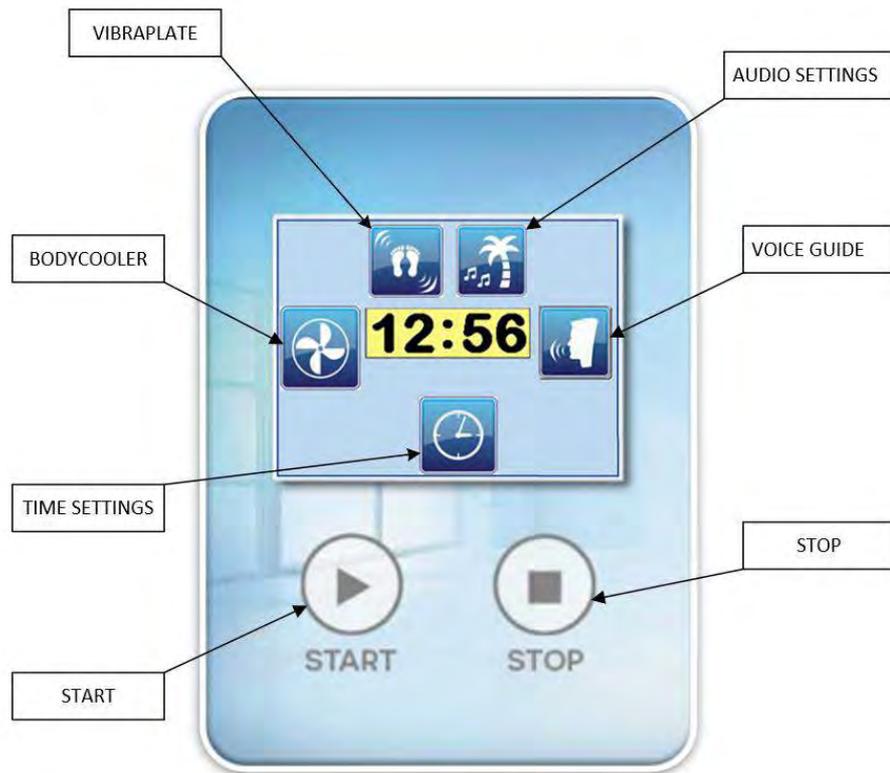
The primary control functions available to the user are described in the following table. Detailed operation of the control functions are described in detail in the Operating Instructions of this manual section.

<p><u>Welcome screen</u></p> <p>After two minutes that no activities have taken place, the welcome screen is displayed. Press anywhere on the touchscreen (or on the START/STOP button) to access the Home screen.</p>	
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Home Screen

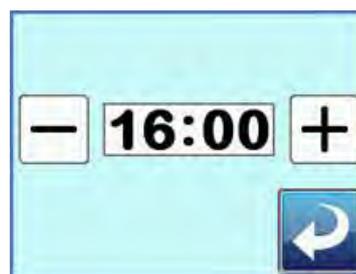
The home screen will be displayed and pressing START will count down the time from the pre-set time. Now it is possible to adjust the settings from the settings on your Ultrasun i8

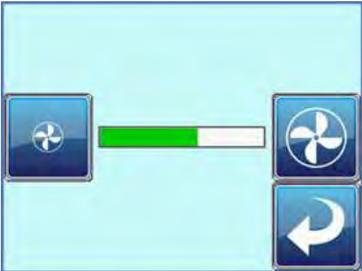
The function of each button is described below.

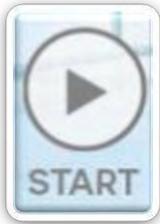


Time Settings

The time settings button activates the time setting controls which allow the user to change the total time of a suntan session. Change the remaining session time by pushing the “-“ or “+” buttons.



<p>PAUSE Screen</p>	<p>If normal operation is paused (STOP depressed for less than 1 second) the background of the time indicator</p> 
<p><u>Audio Controls</u></p>	<p>In the top row, choose for Studio Music, own player, Bluetooth or wellness music. In the middle row it is possible to set the desired volume. In the bottom row you can set settings for equalizer (tone) and tracks forward or previous of the Wellness music playlist.</p> 
<p><u>Body Cooler</u></p>	<p>The body cooler button activates the controls to set the flow of cooling air to the inside of the tanning device.</p> 

<p><u>Vibraplate</u></p>	<p>Select the intensity, duration or a program (Relax, Regular or Active) then press PLAY to start your session. Press STOP to end the session.</p> 
<p><u>Voice Guide</u></p>	<p>The voice guide enables audible instructions for the tanning device operation. The Voice guide can be set on or off.</p> 
<p><u>START Button</u></p>	<p>The START button activates the session timer, sunlamps and other enabled functions.</p> 
<p><u>STOP Button</u></p>	<p>The STOP button will pause the tanning session off if it is pushed for less than 1 second. The tanning session can be restarted by pushing the START button, otherwise the tanning session will be terminated after 15 seconds.</p> <p>The STOP button stops the tanning session if pressed for longer than 1 second. Once the session stops, the fans will remain on for 3 minutes and afterward it is possible to start the Ultrasun i8 again.</p> 

5.2 Operating Instructions

5.2.1 How to Start and stop a tanning session

5.2.1.1 The START button



The START button is used to (re) start the tanning session and to program the parameters (please see Chapter 5). When the tanning time starts the colour of the section that indicates the time changes from white to yellow. During the cooling down time this section will turn red. In case a of a pause, the Start button can be pressed to continue the session. This has to happen before the pause time passes, otherwise the machine will proceed to the cooling down.



5.2.1.2 The STOP button



The default setting of the STOP button is the pause function. Your tanning session can be continued after pressing this button (by pressing START), with the exception of e.g. the facial tanner which needs a cooling down period first. The pause screen is shown on the image above. In case the STOP button is pressed longer than 5 seconds the entire machine shuts down and the cooling down period will start. This cooling down period is indicated with the image of a rotating fan and the remaining time, as shown on the image to the right.



5.2.2 Audio Controls

Need a brief, general explanation of the audio controls here



When the icon (“palmtree”) shown in the menu, your solarium has been equipped with an audio system. (if it is not switched off in the parameter menu). This icon indicates wellness music. This means that, during a tanning session, the music from the μ SD card on the voice/wellness module will be playing. When this icon is pushed, the audio menu appears as shown on the right (next page). Here you can choose a different preset audio source, for example studio music (loudspeaker), the Bluetooth or MP3 function.



On top of the menu a choice can be made between the different audio sources by pressing the corresponding icon. In case the wellness button is pressed as well, no audio is selected. The volume control is deactivated (grey) and in the main menu a red cross will appear over the music note icon (see images right). When you choose an different audio source, the corresponding icon will appear in the main menu and the volume control and equalizer are active again. If the loudspeaker icon is showing, the option ‘studio music’ is active. Now, there



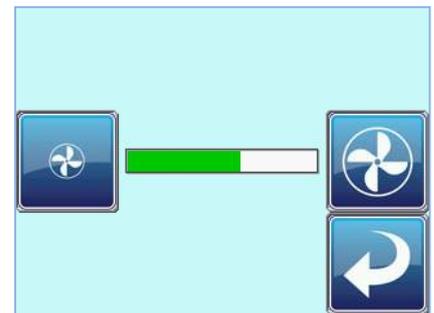


The Equalizer presettings are programmed in the following order:
 Pop : Bas 60%, Mid 50%, High 80%
 Classic : Bas 30%, Mid 60%, High 90%
 Dance : Bas 80%, Mid 60%, High 90%

5.2.3 Body Cooling Fan Controls



After pressing the bodycooler icon, the screen automatically shows the bodycooler regulator menu, as shown on the image to the right. With the icon on the left, the bodycooler can be turned down, and with the icon on the right it can be turned up. In case the position of the regulator is totally on the left side (bodycooler is off), a red cross appears over the bodycooler icon in the main menu. When pressing the arrow button on the lower right, you will return to the



5.2.4 The VibraPlate Controls

At the main screen a button appears to indicate that the VibraPlate is connected. The button resembles the icon that is placed on the right side of this text. When you press this button, you enter the vibration plate menu, which resembles the image on the right. Now a choice can be made between manual use or one of the pre-installed interval programs.



Manual control:

By pressing the 'feet' buttons you can set the intensity of the vibration. By pressing the clock buttons, the corresponding time can be set. The upper green bar shows the vibration intensity, the lower green bar the time in minutes.

After the intensity and time are set, press the 'PLAY' button and the manual vibration starts. The session can be ended by pressing the 'STOP' button, as is shown on the left side.

The maximum time to be programmed is 5 minutes. The intensity of the vibration can be set in four different modes. Keep pressing the clock buttons in order to change the time!

Pre-installed interval : PROGRAM

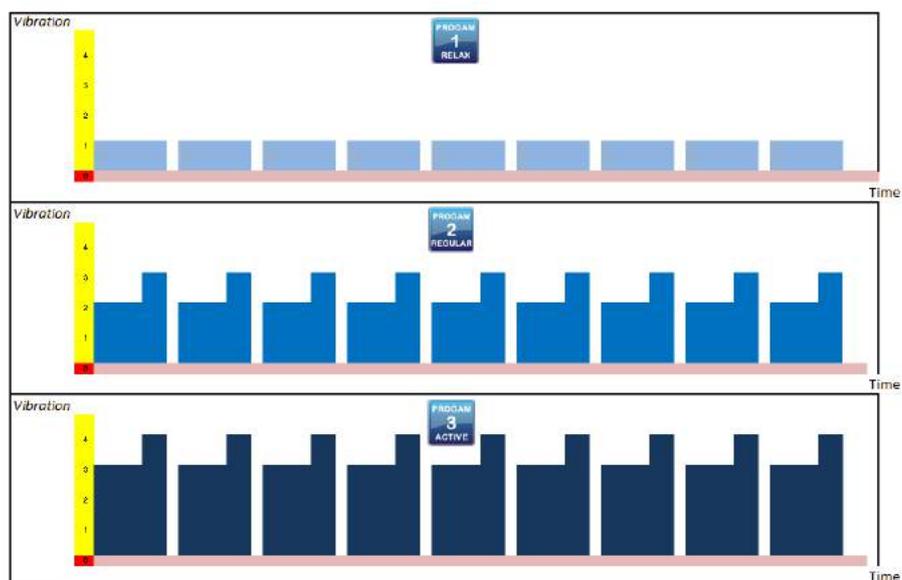
With the three pre-installed program buttons you can choose between an easy "RELAX" program, the recommended standard "REGULAR" program or the "ACTIVE" program. The 'active' program is especially for users that are able to withstand the maximum vibration experience. When one of these three programs is chosen, the buttons for manual control will be deactivated, like is shown at the image on the right. The progress of this pre-installed session can be seen in appendix 8. The pre-installed session can be stopped by pressing the "STOP" button. By pressing the "RETURN" button you will return to the

The lower (right side) screen is on display in case the machine has not started and when the parameter (162-01) has been set. At this time it is not possible to change the VibraPlate settings in case the machine is off. (First press the START button to switch the machine on!).

When no buttons are pressed in the VibraPlate menu for 20 seconds, the IQ Touch Control will automatically return to showing the main menu. The remaining vibration time (see the image on the left) will be shown in a green bar over the VibraPlate button.



In the schedule below you can see the schedule of the three pre-installed interval programs: RELAX, REGULAR and ACTIVE.



Read the owner's manual of your device in advance because of specific contraindications with the VibraPlate!



5.3 The Vibraplate:

The following terms of use apply for correct usage of the VibraPlate:

- The maximum load of the VibraPlate is 130 Kg.
- Never step onto the VibraPlate with more than one person. The device is developed for one person at a time.
- Remain in a fixed position during usage of the VibraPlate. Move your feet as little as possible. In case you want to move your feet, switch the VibraPlate (temporarily) off.
- The recommended position for using the VibraPlate is shown in the figure on the right: Always slightly bend your knees and remain keeping your back straight. Other positions can be experienced as unpleasant. Place your feet in a position that you feel comfortable with, it is preferred to place your feet 20 to 30 centimetres apart to give you the most steady position.
- When you feel unsteady during a session on the VibraPlate, you can hold on to the metal handle on the topcooler or the strap which is attached to the topcooler to better keep your balance.
- Never use the VibraPlate for a period longer than five minutes in sequence. Take a pause of at least one minute after every session.



If in doubt, always consult a medical specialist before you start using the VibraPlate.

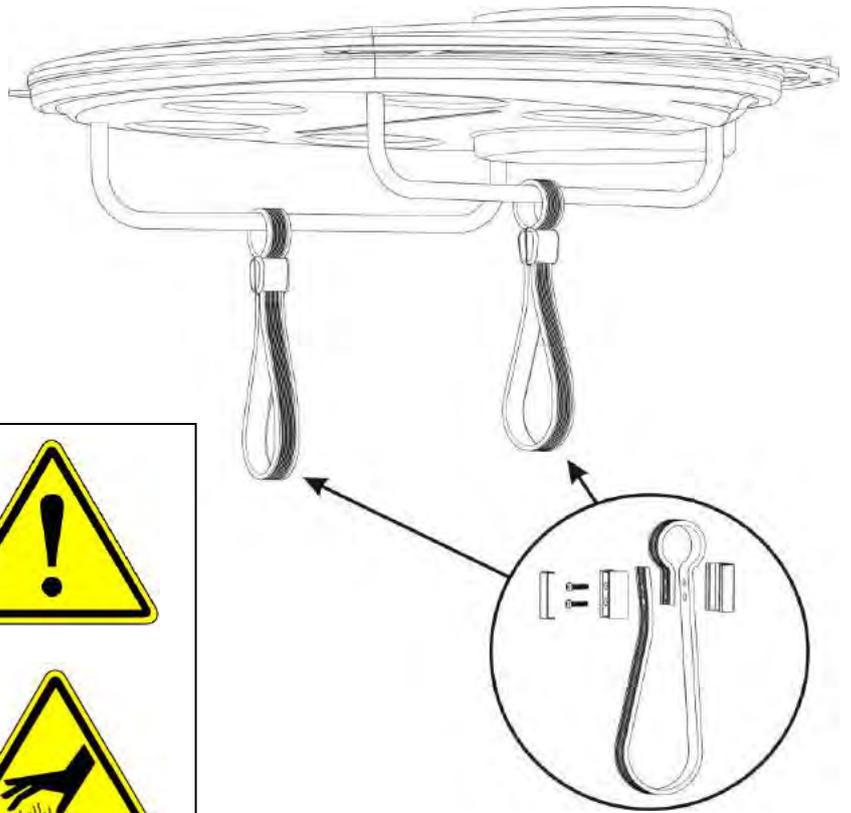


5.4 Arm Strap Use

Change this section to a user instruction oriented section by removing assembly pictures and language. Duplicate the assembly in the installation section and make it strictly an assembly context.

Two straps are assembled to the topcooler. The user can hold on to this strap to get a better tan.

The straps can be disassembled for cleaning or replacement.



Use the strap for which it is intended, do not charge it heavier than 25 kilograms.



Attention:
The metal handles can obtain high temperatures, it is advisable to use only the straps and not touch the metal parts



5.5 The led controller with remote control:

The RGB controller consists of:

- A. IR Remote Control B. RGB Control Unit

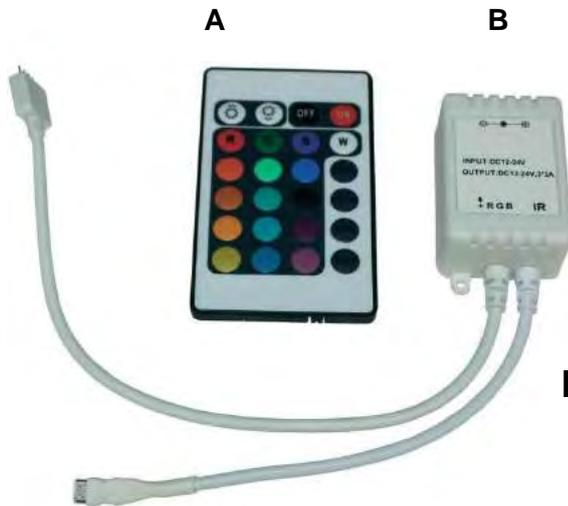


Fig. 17

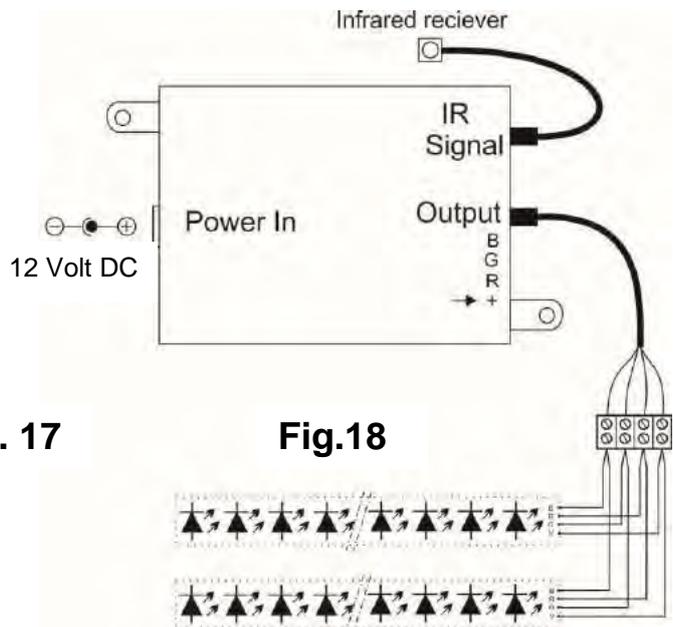


Fig.18

Your tanning device is equipped with a RGB led controller and a remote control with which you can control the colour settings of the Rainbow-led strip. With the led controller (Fig.17:A) you can set the colour changing, colour jumping, etc. and the colour can be set to static at any time. This system is applicable for 12V DC. The maximum current per color may not exceed 2Amp. The electrical scheme for the led controller can be found in Fig.18. The remote control has 24 buttons, each having its own functions:

Position and function of buttons on the IR remote:

brightness up / speed up	brightness down / speed down	off	on
static red	static green	static blue	static white
static orange	static pea green	static dark blue	7 colors jump
static dark yellow	static cyan	static magenta	white fade in/out (strobe)
static yellow	static light blue	static pink	7 colors change
static straw yellow	static sky blue	static purple	3 colors jump

The 16 “static” buttons give the opportunity for an immediate color selection, the other buttons have the following functions:

- **Brightness up/speed up and Brightness down / speed down** : if a static color is selected, the brightness can be changed to more or less bright. If another button is selected, the speed can be changed up or down.
- **On and Off button** : switches your RGB led controller on or off.
- **7 color jump (FLASH)**: gives the opportunity to jump from color to color.
- **White fade in/out (STROBE)** : gives a strobe effect in white color.
- **7 color change (FADE)**: gives the opportunity to run automatically through the color spectrum.
- **3 color jump (SMOOTH)**: jumps through the three basic colors red, blue and green.

Be aware that the infrared transmitter should be directed to the receiver. The location of the receiver is indicated in production by the designation below. Keep in mind that this sticker is removed when the film is removed.

6 Cleaning, Disinfection and Maintenance.

Maintenance and care play an important role for the performance and appearance of the tanning appliances during their service life. Careful adherence to the specified intervals is imperative for the proper functioning of your tanning appliance. Incorrect maintenance can damage the tanning appliance or make it unusable. Always adhere to the specified maintenance intervals.

Before each session there should be an optical check of the Ultrasun i8, always pay attention to unusual noises from the device during use and all functions (and lamps) function normally.

Regular maintenance, such as is required for safe operation of the tanning appliance, must be documented. The current operating hours of the tanning appliance and the parts that require maintenance can be displayed in the Cleaning menu on the next page, it is advisable to post a checklist in the cabin where the tanning appliance is located on which the cleaning sessions are daily recorded. Technical maintenance and repairs can be tracked in the "Technical information and registration" part in the installation manual on page 22.

Always take into account for service, repair and maintenance:

- Only use original spare parts of the same brand and type! The manufacturer's warranty expires if other parts are used!
- Any liability is excluded in the event of damage or injury proven to be the result of the use of non-original spare parts.
- Only replace UV lamps with lamps specified on the product label. Any form of liability and warranty expires when using other UV lamps.
- If the tanning appliance has not been used for a long time, it must be inspected by qualified, trained and authorized service technicians before it is put back into service.
- Before carrying out maintenance work, the tanning appliance must be disconnected from the mains. This means that all live cables must be switched off. Switching off the tanning appliance alone is not enough, as voltage can remain at certain points. Before carrying out any work, also switch off the fuses and remove them if possible or make a label with the text:

<u>Danger: Beware of high voltage.</u>	
Don't turn on, work in progress.	
Date :.....-.....-.....	
Name :.....	

Before you start cleaning, service or maintenance:

- It is essential that you, the owner and / or the studio operator check all components for signs of wear and tear that may occur during normal use.
- After all activities, check the safety provisions and the functioning of the entire device.
- Before you start cleaning or other work on the tanning appliance, remove all rings, watches and bracelets etc. for your own safety and to prevent damage to the tanning appliance.
- Never let cleaning fluid get into the tanning appliance, this can lead to dangerous situations!

Allergies or hypersensitivity to certain substances can lead to unexpected skin reactions, in that case make sure that you take protective measures for yourself, for example gloves, goggles, face protection, etc.



6.1 Cleaning and disinfection plan:

PART	METHOD OF CLEANING	HOW TO CLEAN	INTERVAL
Acrylics	Sprout cleaning fluid * directly onto the surface, clean and wipe dry, repeat if necessary if the result is insufficient.	Clean these parts with disposable paper towels. If the quality of the cleaning does not immediately produce the desired result, it is sometimes advisable to allow the liquid to act on the surface to be cleaned for some time. After this specified exposure time, remove the remaining cleaning agent or disinfectant from the surfaces of the tanning appliance (e.g. with water)	After each tanning session.
Acrylic handle			
Handgrips topcooler			
Bottom plate			
Timer frontplaat			
Safety glasses	First spray cleaning fluid * on a piece of (one-way) kitchen paper and use it to carefully clean the surface, repeat if necessary if the result is insufficient.		
Lamps	Remove lamps from the tanning appliance and clean them separately.	Clean with a wet sponge until the dust layer has been removed, then dry with a cloth.	Every 200 operating hours or at least once in a half year.
Plastic covers	The main purpose of cleaning the plastic covers is to remove dust	Clean with a damp chamois. Never clean with a dry cloth only. If there is dust in the air vents, first remove it with a vacuum cleaner.	If necessary or at least monthly
Coated metal parts	The powder-coated metal parts may eventually show wear and tear spots that cannot be cleaned, the metal handles must be disinfected.	Use a general cleaning agent with a pH value between 5 and 8, then rinse with water and a lint-free cloth, again use an EPA-registered cleaning agent for disinfection.	If necessary or at least monthly

* Only use an EPA registered cleaning agent based on germicidal quaternary ammonium. An example of a good disinfectant cleaning agent is Lucasol One Step. Lucasol One Step cleans and disinfects your tanning appliance and most components, but always read the user manual before use and follow the product label for the correct dilution, composition and use.

6.2 Maintenance plan:



Beware of dangerous voltage, do not touch internal electrical parts before disconnecting the voltage.

When performing maintenance work, always look for signs of electrical overload, damage or distorted parts on cables, connections, panels and PCB's.

Signs of this can be recognized by:

- Discoloration
- Deformations
- To melt
- Blisters on the housing

The affected components must be replaced immediately. Only use original spare parts.

		Interval						
Component	x	50 hours	500 Hours	800 Hours	2000 Hours	5000 Hours	10000 Hours	
(in alphabetic order)	Every day	Monthly	Every 6 Month	Lamp change	Every Year	5 Years	10 Year	
Acrylics	C (outside)		C (inside)		N	R		
Air exhaust hoses and connections			I		I	N	R	
Chassis and mounting materials		T	I		I	N	N	
Connection cables and glands			I		I	N	R	
Control of all functions	T	T		T	T	N	N	
Electronic parts		T	I		I	N	N	
Fans and motors (Vibraplate)		I	C	I	I	N	R	
Lamps	T		C	R				
Logo lamps, LED strips and deco lights		T	I		I	N	R	
Plastic caps and covers		C	T		I	N	N	
Wiring, connections and plugs			I		I	N	R	
Wooden base	C	T	I			N	N	
R	Replace	Regular daily inspection by attendant or owner.	Clean the entire unit and remove all dust, fluffs and unwanted objects.	Half year inspection by qualified representative technician.	The technician always carries out an extensive check at the lamp change	Important inspection of all major components and functions by a technician.	Major maintenance by qualified, trained and authorized service technician.	Complete overhaul by qualified, trained and authorized service technician.
C	Clean							
N	Replace if Necessary							
I	Inspect							
T	Test (working)							

7 Labels

Attention labels Ultrasun i8:

These stickers are visible for the user:

<p>EN: ATTENTION : ULTRAVIOLET RADIATION FOLLOW INSTRUCTIONS – WEAR PROTECTIVE EYEWEAR; FAILURE TO USE PROTECTIVE EYEWEAR MAY RESULT IN SEVERE BURNS OR OTHER LONG TERM EYE INJURY – IF DISCOMFORT DEVELOPS, DISCONTINUE USE AND CONSULT A PHYSICIAN</p>		<p>DANGER : AVOID OVEREXPOSURE. AS WITH NATURAL SUNLIGHT, OVEREXPOSURE CAN CAUSE EYE AND SKIN INJURY AND ALLERGIC REACTIONS. REPEATED EXPOSURE MAY CAUSE PREMATURE AGING OF THE SKIN AND SKIN CANCER. MEDICATIONS OR COSMETICS MAY INCREASE YOUR SENSITIVITY TO THE ULTRAVIOLET RADIATION. CONSULT A PHYSICIAN BEFORE USING THIS PRODUCT IF YOU ARE USING MEDICATIONS OR HAVE A HISTORY OF SKIN PROBLEMS OR BELIEVE YOURSELF ESPECIALLY SENSITIVE TO SUNLIGHT. IF YOU DO NOT TAN IN THE SUN YOU ARE UNLIKELY TO TAN FROM THE USE OF THIS PRODUCT. CHILDREN, THE ELDERLY OR FAIR SKINNED PEOPLE WHO ALWAYS BURN EASILY AND EITHER NEVER TAN OR TAN MINIMALLY SHOULD NOT USE THIS EQUIPMENT</p>
<p>FR: ATTENTION : RAYONNEMENTS ULTRAVIOLETS VEUILLEZ SUIVRE LES INSTRUCTIONS – SANS DISPOSITIF DE PROTECTION DES YEUX; CE PRODUIT PEUT CAUSER DES BRÛLURES OU LÉSIONS OCULAIRES GRAVES – SI VOUS SENTEZ UN MALAISE, EN DISCONTINUER L'USAGE ET CONSULTER UN MEDECIN</p>		<p>DANGER – EVITER SUREXPOSITION. COMME AVEC LA LUMIERE NATURELLE DU SOLEIL, LA SUREXPOSITION PEUT CAUSER LÉSIONS AUX YEUX ET À LA PEAU ET RÉCTION ALLERGIQUES. UNE EXPOSITION REPETÉE PEUT CAUSER UN VEILLISSEMENT PRÉMATURE DE LA PEAU ET CANCER. MÉDICAMENTS ET COSMÉTIQUE PEUVENT AUGMENTER VOTRE SENSIBILITÉ AUX RAYONS ULTRAVIOLETS. CONSULTER UN MÉDECIN AVANT D'UTILISER LA LAMPE À ULTRAVIOLETS SI VOUS UTILISEZ MÉDICAMENTS, SI VOUS AVEZ PROBLÈMES DE PEAU OU SI VOUS CROYEZ VOUS ÊTES PARTICULIÈREMENT SENSIBLES AU RAYONS DE SOLEIL. SI VOUS NE BRONZES PAS AVEC LE SOLEIL, C'EST IMPROBABLE QUE VOUS POUVIEZ VOUS BRONZER EN UTILISANT CE PRODUIT. ENFANTS, PERSONNES AGÉES, OU PERSONNES À PEAUX TRÈS CLAIRE, QUI DÉJÀ SONT TRÈS SENSIBLES À UN COUP DE SOLEIL ET NE BRUNISSENT PAS OU TRÈS PEU NE DOIVENT PAS UTILISER CET APPAREIL DE BRONZAGE.</p>

Item no. 750700 V1

ATTENTION: THIS SUNLAMP PRODUCT SHOULD NOT BE USED ON PERSONS UNDER THE AGE OF 18 YEARS.

Item no. 750730 V1

<p>This device is intended for the tanning of the human skin of an adult person who is in full command of his/her physical, sensal and mental faculties. Use this machine only by standing-up in the middle of the sun plateau.</p> <p>CAUTION : EXPOSURE POSITIONS OTHER THAN SPECIFIED MAY RESULT IN OVEREXPOSURE AND ARE NOT RECOMMENDED !</p> <p>Tanning normally begins after one or two exposures and maximizes after one to four (1-4) weeks of exposure following the recommended schedule for the skin type.</p> <p>CAUTION! Disconnect supply cord before opening unit.</p>	<p>Read the instruction booklet before using this device or consult an attendant for information.</p> <p>Tanning can begin at a regular basis by gradually increasing the exposure times until maximum tanning has occurred (in approx. 4 weeks).</p> <p>Do not tan more than once in a 48 hour period.</p> <div style="text-align: center;">  <p>ULTRASUN RECHARGE YOURSELF</p> </div> <p style="font-size: x-small;">Read the recommended exposure scheme that is also stuck on this device. Do not remove warning or informational labels.</p>	<p>This device is in conformity with performance standards for sunlamp products under No. 21 CFR 1040.20</p> <p>This Ultrasun i8 is intended to be used with the following lamps:</p> <p>48 x Sunfit XXL 200W E-Tronic 2L1201</p> <p>For replacement lamps, eyewear or parts please contact:</p> <p style="text-align: center;">Tanning Supplies Unlimited 1504 Sadler Circle South Drive Indianapolis Indiana 46239 U.S.A.</p>
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Item no. 750720 V1

This sticker is visible for the installer (backside of device):

Attention

Distance control connection for a potential free contact: read the owner's manual for instructions.

This distance control plug is primarily used for the T-max box. So this connection cannot be used for other purposes at the same time. Ask your dealer or installer about the possibilities.



ULTRASUN
RECHARGE YOURSELF

Item no. 750740 V1

DANGER

- WARNING: HIGH LEAKAGE CURRENT-ENSURE PROPER GROUNDING
- WARNING: GROUNDING CIRCUIT CONTINUITY IS VITAL FOR SAFE OPERATION OF EQUIPMENT. NEVER OPERATE EQUIPMENT WITH GROUNDING CONDUCTOR DISCONNECTED
- CAUTION: CONNECT ONLY TO A CIRCUIT PROTECTED BY A CLASS A GROUND FAULT CIRCUIT INTERRUPTER
- UV LIGHT SOURCE - KEEP PROTECTIVE BARRIER IN PLACE
- REPLACE MOVABLE PARTS AFTER SERVICING
- CAUTION RISK OF PERSONAL INJURY
- DISCONNECT SUPPLY CORD BEFORE OPENING UNIT.

Item no. 750725 V1


ULTRASUN

Manufactured by:
Ultrasun International B.V.
Graafland 6, NL-7554 TG Hengelo, Holland
 Certified in Conformance with 21CFR1040.20

Model	: i8 DWM
Serial No.	: 1821
Voltage	: 1 x 220V - PE / 60 Hz
Art.Nr.	: 1V18D314AC843
Power	: 9400 VA
Mfg. M-Y	: - 21

UDI






IPX0

Item no. 7S0770 V1

Distributed in USA by:
Tanning Supplies Unlimited
1604 Sadler Circle South Drive Indianapolis 46229 U.S.A.

Read instructions before using this product !

Use only with the following approved lamps:
 48 x Sunfit XXL-200 W 2L1201 200-R-92/5,5


 tanning supplies unlimited

This appliance is built according to drawing number:
I8_48_U_3S_TC_eI_RGB_1x220
Ask your supplier for further information

UV4

-FOR USE IN DRY LOCATIONS ONLY
- ALL RATINGS OF THE DECORATIVE LIGHTING ARE INCLUDED
 IN THE TOTAL RATING OF THE TANNING DEVICE

Item no. 7S0771 V1

This sticker is visible on the power supply connection, inside the Ultrasun i8:

L2
L1
 **PE**

Single Phase 220 Volts / 60 Hz

Supply connection to be wired as per NEC/CEC :

AWG 8

CAUTION : Disconnect power source before working on this device

Item no. 7S0750 V1

8 Troubleshooting



When your sunbed, or part of it, does not function, please check:

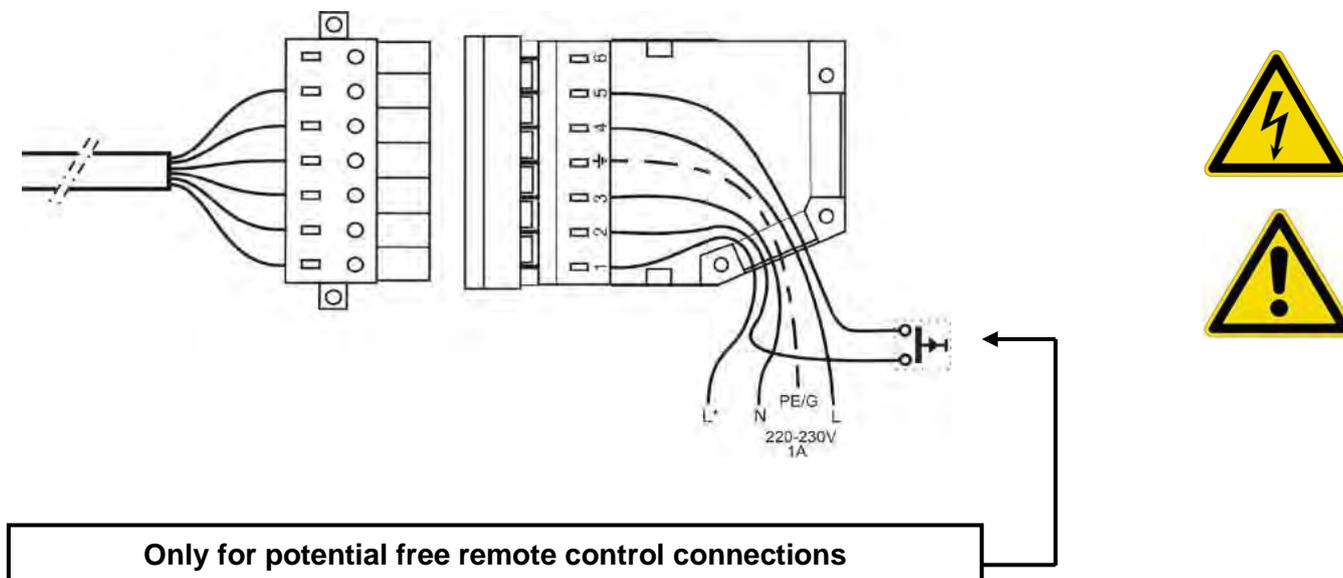
- The fuses/differential switch of your main supply;
 - The connection to the main supply and fuse, consult the electronic scheme of the sunbed;
 - The thermal switches (temperature safety), these are checked by the IQ Touch Control, read the user manual of the IQ Touch Control for more information;
 - The plug connections between different parts. (for example in the cooling pillar, see STEP 6);
-
- If one of the lamps does not function anymore, change it with the lamp next to it. If it still does not work, change the starter.
 - Switch off the power supply to the machine in case of:
 - working inside the sunbed.
 - fans are out of order.
 - technical failures.
 - any doubt about the nature of the failure;



All service and repairs other than the troubleshooting instructions listed above must be performed by a factory trained service technician. Qualified service technicians will be provided with all materials and assistance to make repairs such as circuit diagrams, component part lists and operational descriptions.

Please contact your technical servicer in case the problem cannot be solved with the above instructions.

9 Remote Control Connections



At the backside of the solarium, the connector for the remote control is located. The connections resemble the figure above.

Note: The only purpose of this connection is for controlling the solarium by means of a coinbox or a remote control with a potential free switch or contact.

The counterproductive plug can be connected to your control box, timer or coin box.

An incorrect connection of the connector can lead to damage to the parts of the sunbed.

In case you would like to make use of a potential free switch or contact, the parameter P021 of the IQ Touch Control needs to be changed to P021:01 or P021:02 depending upon the application. For this, please read the user manual of the particular remote control you want to use.

The 220-230V connection is only intended as an exit for connecting the electronics in a remote control (for example a Paytronic coin box) with a maximal current consumption of 1,0 ampere. The exit L* delivers 230V in case the machine is turned on. This connection can be used by applications like feedback signal or occupied signal. Always note that during assembly the plug is connected in accordance to the manufacturing method (the smooth and ribbed side must be in accordance with each other).

In case larger distances must be bridged or in case disturbances in the pipes arise, the possibility exists to place an Opto-box (Ultrasun article number 3T0480) between the remote control pipes.

10 Maintenance

After 50 hours or at least after one month and then every 500 hours or 6 months:

- Visual inspection of all parts inside;
- Remove dust and fluffs inside;
- Working of the whole machine;
- Check screws and nuts (if loose tighten);

Always:

- Pay attention to strange noises in the sunbed;
- Clean the acrylics after every tanning session;
- Consult an authorised service agent in the event of a failure with your Ultrasun machine;

10.1 Replacing Lamps and Starters

When the estimated lifetime of the lamps have been reached or if an obvious relapse occurs in the tanning results, you need to replace the lamps.



Attention: Before replacing the lamps always remove the power supply first before removing the acrylic.

To replace the sunlamps, remove the acrylic panel associated with the bulb(s) to be replaced and replace bulb(s) with new component(s).

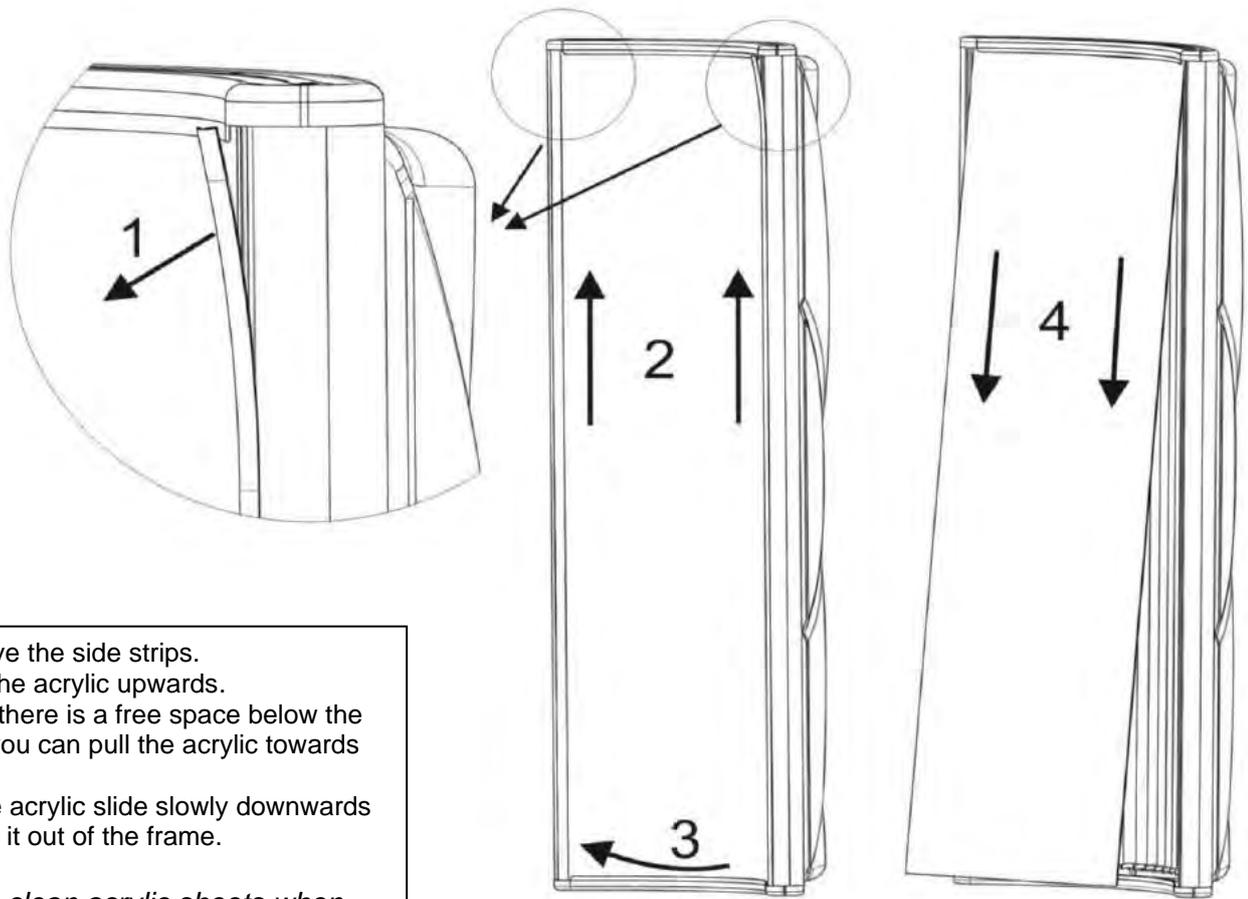
After bulbs are replaced, replace the acrylic panel(s) using same procedure.

Used lamps and electronic components must be disposed of in accordance with national and local laws.

ADD Procedure to replace a starter

Need more detailed procedure to replace lamps

10.1.1 Removing the Acrylic Panels



- 1-Remove the side strips.
- 2-Push the acrylic upwards.
- 3-When there is a free space below the acrylic, you can pull the acrylic towards you.
- 4-Let the acrylic slide slowly downwards and take it out of the frame.

Always clean acrylic sheets when you take them out.

Remove the acrylic sheet by loosening the plastic strips on both sides of the acrylic. Carefully lift the acrylic and take out of the endcap at the bottom, and then drop it and disassemble on the top side. Then the acrylic can be cleaned, and the lamps can be replaced. Re-assemble in reverse order.

Attention: For the replacement of lamps only use lamps which are the same as previously used!



In order to keep your Ultrasun machine in compliance with the standard, you have to make sure to change lamps, components and other accessories with original lamps, components and accessories only.



10.2 Service Parts

This Ultrasun i8 is equipped with high quality parts, there is a possibility that parts get exposed to mechanical erosion. When this happens these parts need to be replaced. In the table “*Technical product information*” specific article numbers of the lamps are mentioned. In the separately enclosed electrical scheme the article numbers of the electrical parts are mentioned in the inscription. Below other parts are listed that can be ordered with their related article number.

Art. number	Article
2Z0100	UV eye protection sunglasses with elastic
5A0512	Acrylic handle – Model: i7, i8, i9 – 120,2 mm
5A7030	Acrylic plate i7,i8 and i9
5R0076	Synthetic profile GS PT strip – silver 2070 mm
5K2200	Strap for the topcooler
2P0050	Paytronic distance control payment system

Safe performance of routine maintenance necessary to ensure continued safe use of this equipment should not be performed by while the unit is powered on.

End of Life Disposal:

At the end of the useful life of the device, dispose of device according to federal and local laws. Many parts can be recycled, so keep them separate and do not dispose of them.



To obtain repairs or replacement components and accessories which are compatible with this product, including compatible protective eyewear, ultraviolet lamps, timers, reflectors and filters, which will, if installed or used as instructed, result in continued compliance with the standard, contact the manufacturer.

10.3 Accessory Parts

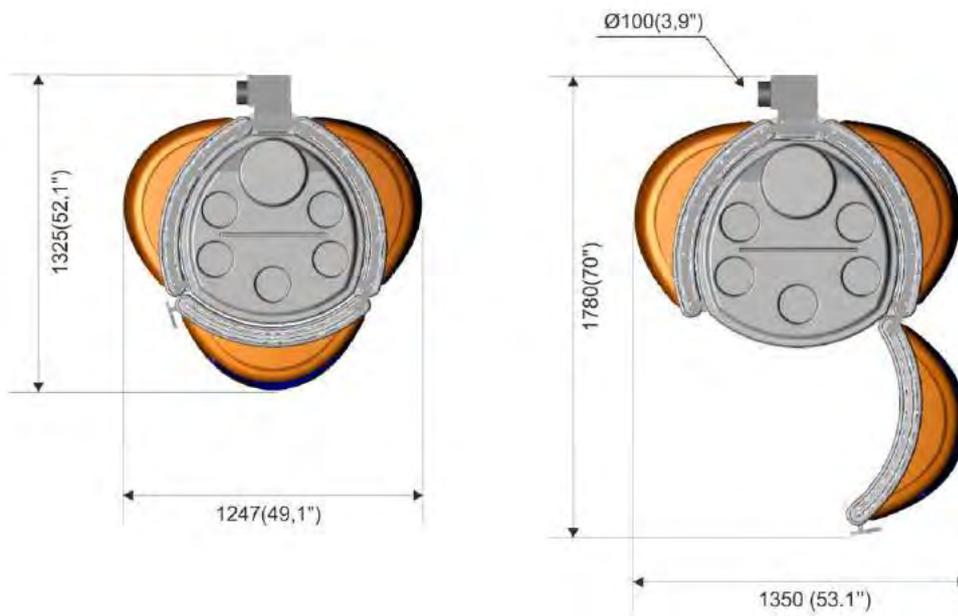
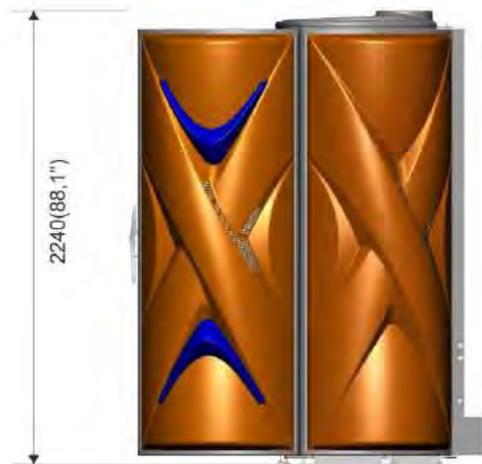
Description	Ultrasun Part Number
SunFit UV Goggles	#XXXXX

11 Specifications

11.1 Dimensions

i8

Dimensions - Grundabmessungen - Afmetingen - Dimensions



All dimensions in mm.
Between brackets in inches.

11.2 General

SUNBED TYPE	Ultrasun i8
UV-Type (conform EN 60335-2-27)	4
Lamps	48 x Sunfit XXL+200W
Equivalency code	200-R-156/9,8
Article number	2L1201
Breaker/Fuse*:	60 A
Power Supply:	Single phase 220V / 60Hz + PE
Power circa:	9.400 VA
Weight circa:	777 Pounds/ 265 Kg
Electronic ballast weight circa: (with airco)	230 (290) Kg

11.3 Environmental Conditions

Observe the following conditions for safe and responsible use:

Operating Conditions	
temperature range	10°C to 30°C
Humidity range	30-60% RH
Maximum altitude	2000 meter (79.50 kPa)

Transport Conditions	
temperature range	-20°C to 60°C
Humidity range	10-95% RH
Maximum altitude	3900 meter (62.44 kPa)

11.4 Fluid Ingress

This device is rated IPX0: no protection against fluid ingress

11.5 Electrical Characteristics

11.5.1 Electrical Safety

The i8 device is rated as a Class I electrical device.

11.5.2 Pollution Degree Classification

This product is classified as Pollution degree 2.

11.5.3 Electromagnetic Emissions

Guidance and manufacturer's declaration – electromagnetic emissions		
The Ultrasun Q22 is intended for use in the electromagnetic environment specified below. The customer or the user of the Ultrasun Q22 should assure that it is used in such an environment.		
Emissions test	Compliance	Electromagnetic environment – guidance
RF emissions CISPR 11	Group 1	The Ultrasun Q22 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	Group 2	The Ultrasun Q22 must emit electromagnetic energy in order to perform its intended function. Nearby electronic equipment may be affected.
RF emissions CISPR 11	Class A	The Ultrasun Q22 is suitable for use in all establishments, including domestic establishments and those directly connected to the public lowvoltage power supply network that supplies buildings used for domestic purposes.
Harmonic emissions IEC 61000-3-2	Complies	
Voltage fluctuations/ flicker emissions IEC 61000-3-3	Complies	

11.5.4 Immunity to ESD and Power Disturbances

Guidance and manufacturer's declaration – electromagnetic immunity			
The Ultrasun Q22 is intended for use in the electromagnetic environment specified below. The customer or the user of the Ultrasun Q22 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	N/A	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 ± 1 kV for input/output lines	N/A	Mains power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	± 1 kV line(s) to line(s) ± 2 kV line(s) to earth	N/A	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 % UT (>95 % dip in UT) for 0,5 cycle 40 % UT (60 % dip in UT) for 5 cycles 70 % UT (30 % dip in UT) for 25 cycles <5 % UT (>95 % dip in UT) for 5 s	N/A	Mains power quality should be that of a typical commercial or hospital environment. If the user of the Ultrasun Q22 requires continued operation during power mains interruptions, it is recommended that the Ultrasun Q22 be powered from an uninterruptible power supply or a battery.
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	3 A/m	N/A	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.
NOTE UT is the a.c. mains voltage prior to application of the test level.			

11.5.5 Immunity to Radiated Disturbances

Table 3 Guidance and manufacturer's declaration – Immunity to Radiated Disturbances
The Ultrasun i8 Tanning Device is intended for use in an electromagnetic environment in which radiated disturbances are controlled. The user of the i8 Tanning Device can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the i8 Tanning Device as recommended below, according to the maximum output power of the communications equipment.

IMMUNITY TEST	Compliance Level	Electromagnetic environment guidance
		Portable and mobile RF communications equipment should be used no closer to any part of the Contour Light System, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter.
		Recommended separation distance
Conducted disturbances induced by RF fields IEC 61000-4-6	3 Vrms 150 kHz to 80 MHz, 6 Vrms in ISM and amateur radio band between 150 KHz and 80 MHz, 80% modulation at 1KHz	$d = 1.2\sqrt{P}$
Radiated RF Electromagnetic fields IEC 61000-4-3	3 V/m 80 MHz – 2.7GHz 80% AM at 1kHz	$d = 1.2\sqrt{P}$ 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. Interference may occur in the vicinity of equipment marked with the following symbol: 
<p>Note: These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects, and people.</p> <p>^a Field strength 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 i8 Tanning Device is used exceeds the applicable RF compliance level above, the i8 Tanning Device should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating the i8 Tanning Device.</p>		

11.5.6 Proximity Fields

Guidance and Manufacturer's declaration for proximity fields

The Contour Light System is intended for use in the electromagnetic environment specified below. The customer or the user of the Contour Light System should assure that it is used in such an environment.

IMMUNITY TEST	Compliance Level	Electromagnetic environment guidance
Proximity fields from RF wireless communications equipment IEC 61000-4-3	385 MHz 27V/m @18Hz pulse modulation, 1.8 W maximum 450 MHz: 28V/m @ 1kHz sine wave FM modulation, 2.0 W maximum 710 MHz, 745 MHz, 780 MHz: 9 V/m @217 Hz modulation, 0.2 W maximum 810 MHz, 870 MHz, 930 MHz: 28 V/m @18 Hz pulse modulation, 2.0 W maximum 1720 MHz, 1845 MHz, 1970 MHz: 28 V/m @217 Hz pulse modulation, 0.3 W maximum 2450 MHz: 28 V/m @ 217 Hz pulse modulation, 2.0 W maximum 5240 MHz, 5500 MHz, 5785 MHz: 9 V/m @ 217 Hz pulse modulation, 0.2 W maximum	See "Recommended Separation Distance Table", Table 5 for recommended separation distance

12 Assembly and Installation Instructions

	This appliance may only be installed and assembled by specifically trained staff.
	Do not position this appliance so as to make it difficult to operate the disconnection device
	Route all external cables so that they minimize tripping hazards

12.1 Transport

If the unit is mounted on a pallet a forklift truck should be used to move the device to the place of installation. If a forklift truck cannot be used, the individual parts must be unpacked and transported by suitable means, such as a dolly. Heavy components may require multiple people.

12.2 Assembly Information

Make sure that this manual corresponds with the purchased product, check that the product sticker on this manual is the same as on the device. Always keep this user manual close to the sunbed.

- Check if the packaging is in the original state and report possible damages directly to your transporter. Especially look for possible dents, cracks or water damage on the outside of the packaging.
- Get all separate parts out of the packaging. Check directly if all parts are present and undamaged.
- May one of these control checks not suffice these requirements, report this as soon as possible to your Ultrasun distributor.

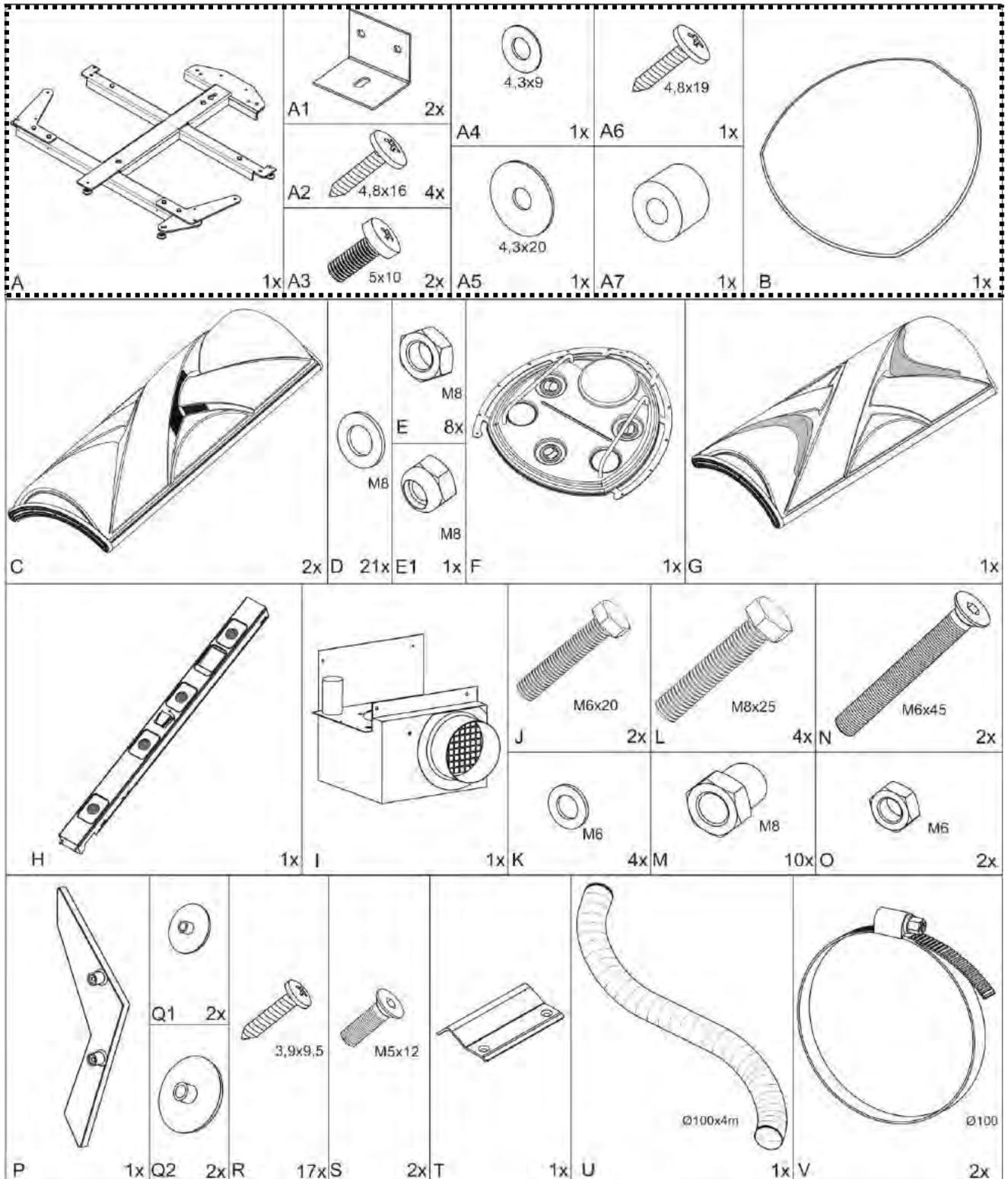
12.3 Location

This appliance should be installed in a location that has a controlled environment conforming to the requirements in the Environment section of this document.

Install close to the power source where practical.

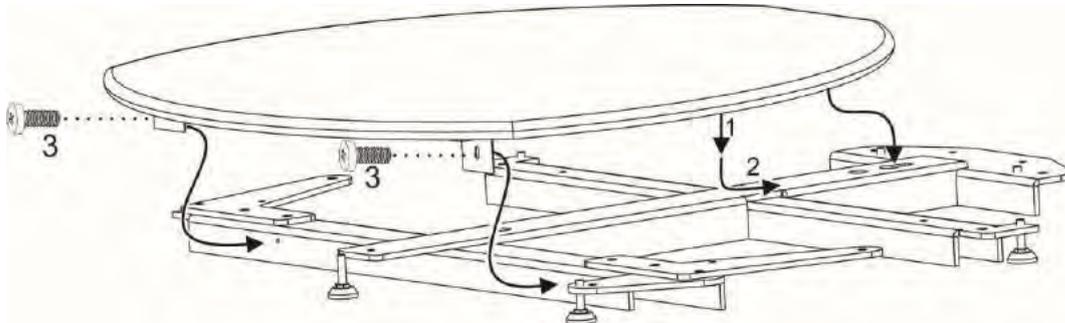
12.4 Components

Prior to assembly - Be sure that all of the components are included in the package



In the above overview, all the parts are shown from which your Ultrasun i8 needs to be assembled. The parts in the frame with the dotted line are preassembled, read on the following pages how these parts must be disassembled. Hereafter a schematic overview of the assembly of all parts of the i8 tanning machine is given.

12.5 Base Plate Assembly

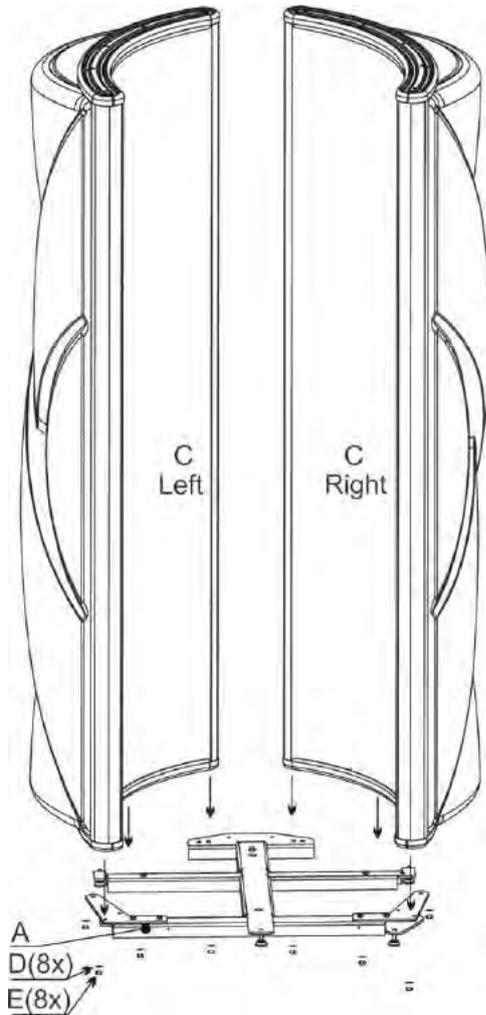


Disassemble the base plate from the under frame, as in the drawing “*Disassembly of the base plate*” is shown. Hereafter, put all parts together as is shown in the previous drawings. Slightly fasten all nuts and bolts by hand. After all parts are assembled you can fasten them properly. Follow the following steps:

12.6 Enclosure Assembly



Step 1

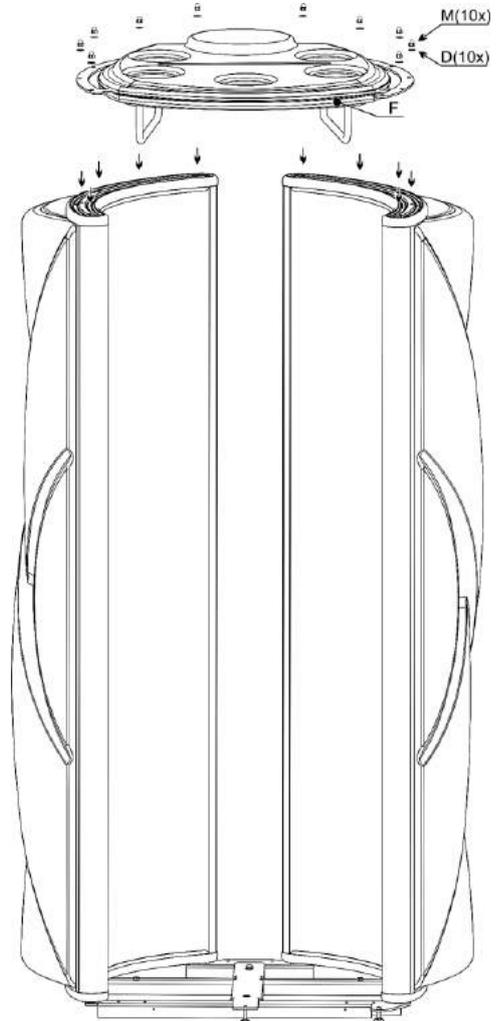


STEP 1: Place the panels (C) on the under frame (A) by dropping the stud bold in the similar holes and then fixing the nuts (E) with the washers (D).



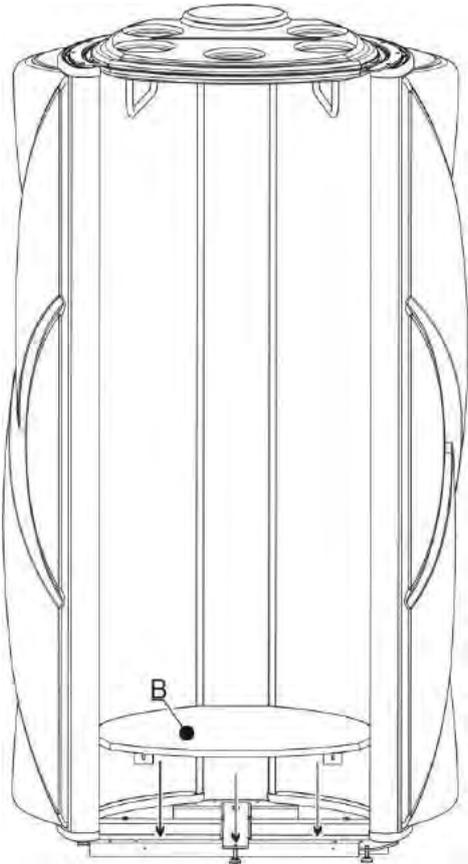
Attention: The parts do not stand up straight by themselves. Make sure that you get help for assembling.

Step 2

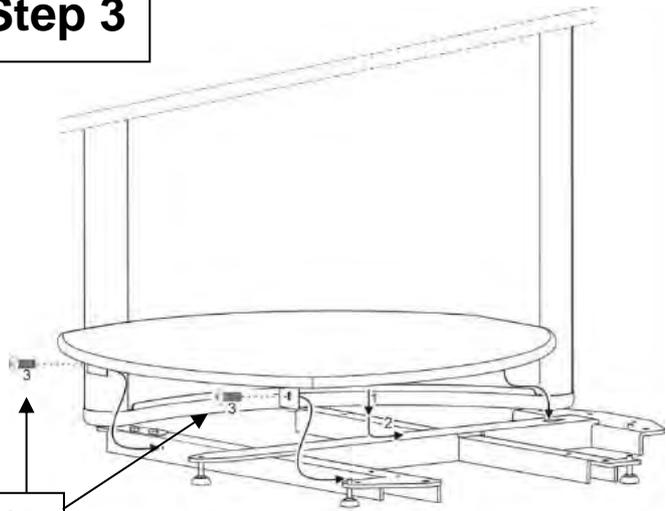


STEP 2: Mount the top cooler (F) with the cap nuts (M) and washers (D). Do not place the nut closest to the door yet and first turn the cap nuts on this side on the bolts only by 1 or 2 turns.

Step 3



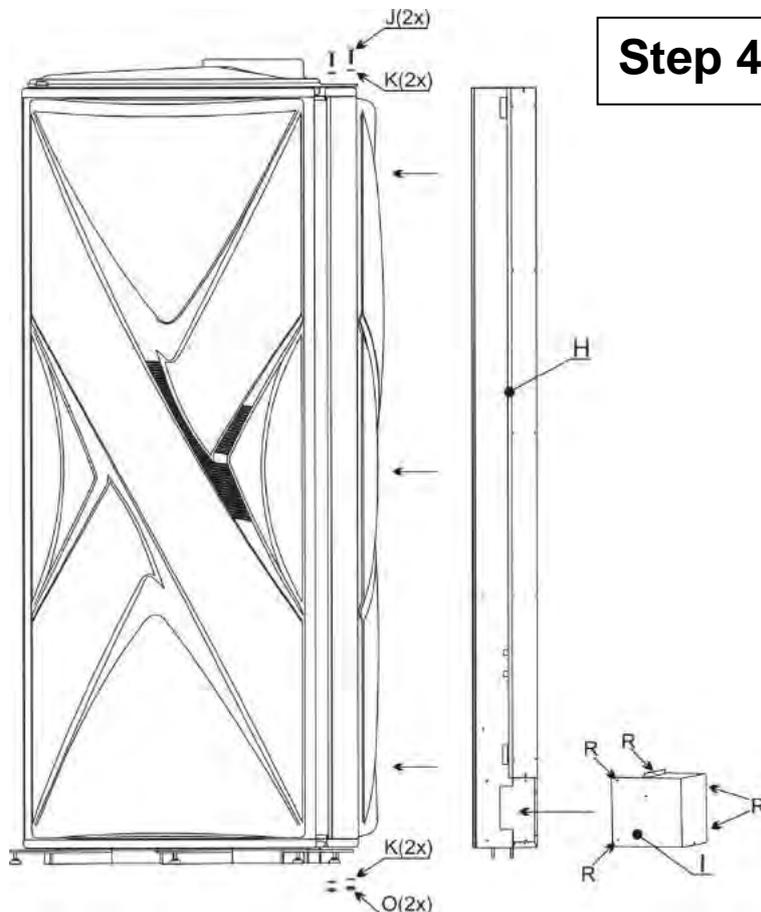
A3



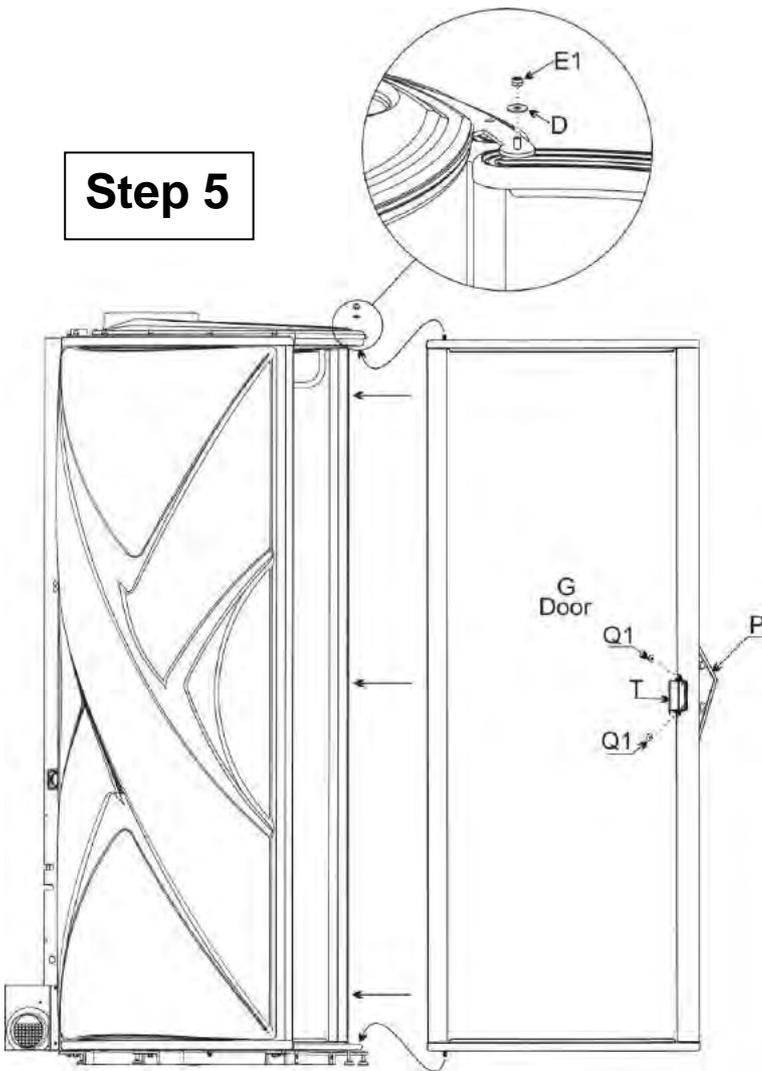
STEP 3: Place the base plate (B) on the under frame, like is shown in the drawing and tighten it with the screws A3.

STEP 4: Fix the fan housing (L) to the cooling pillar (H) (do not forget to connect the plug) and place the cooling pillar between the brackets of the topcooler (F) and the under frame: The stud bolts on the bottom side fall in the similar holes and on the top side the bolts (J) and the rings (K) are fixed. Fasten the nuts (O) and the rings (K) on the bottom side.

Step 4



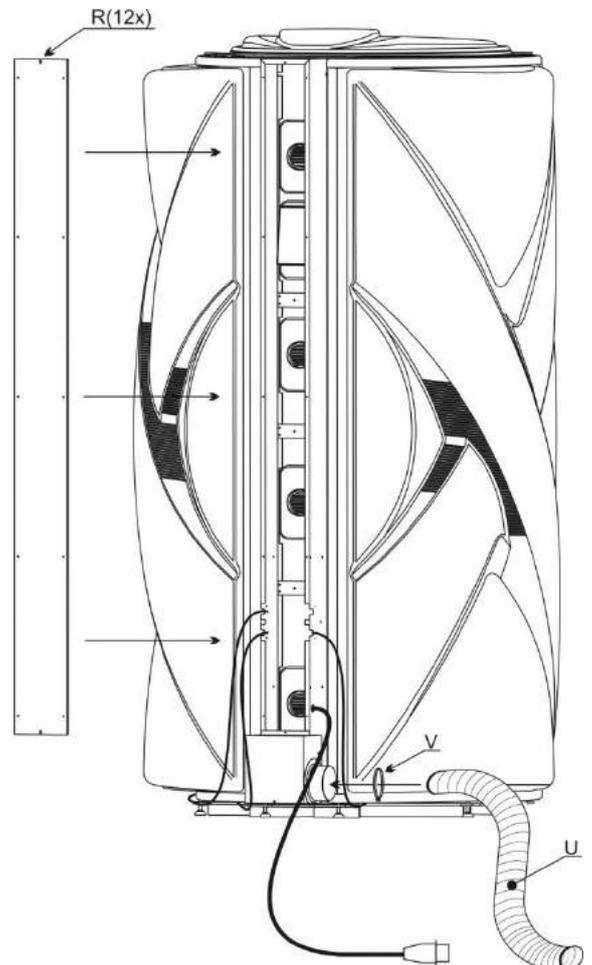
Step 5



STEP 5: Place the door panel (G) between the brackets on the bottom and top and lock the upper stud bolt with the self-securing nut (drawing STEP 5: E1 and D). Press the caps (Q1) on the pre-assembled handle (T).

Step 6

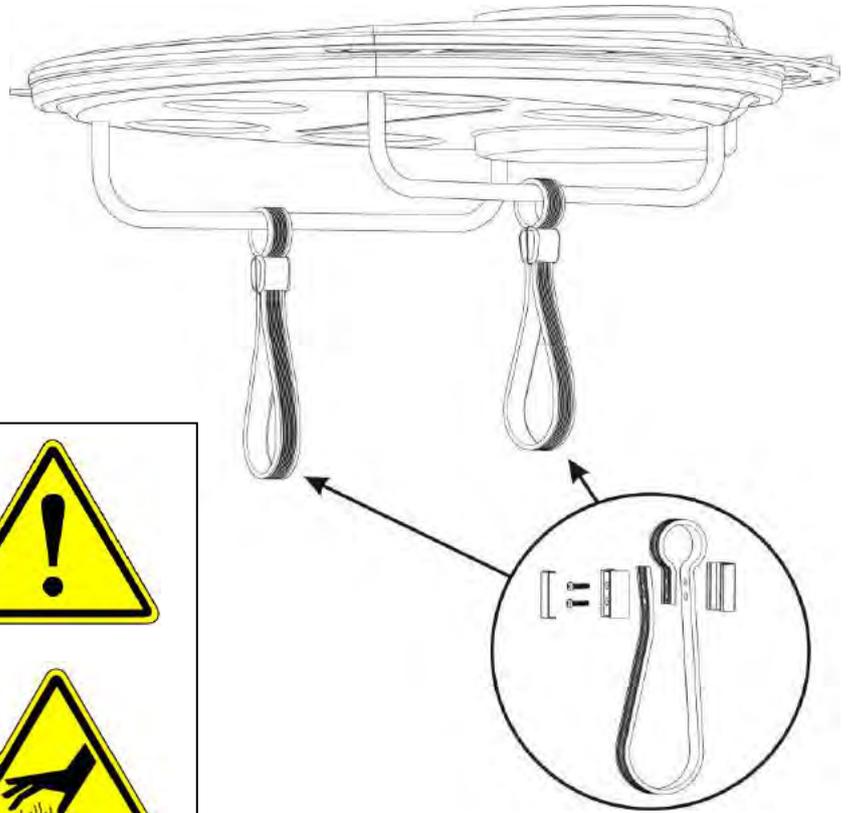
STEP 6: Disassemble the back plate off the cooling pillar and connect all the plugs of the panels. The 10-pole plug can be connected randomly. Fasten the cables in the pull relief and replace the cover plate of the cooling pillar (in case the machine is equipped with the breeze/aroma system, first read the chapter: "Assembly of the breeze/aroma unit"). Fasten all bolts and nuts well and stabilize the under frame on the floor with the adjustable stands. The exhaust hose (U) of \varnothing 100mm (4 meter length) needs to be fixed with the hose clamps (V) to the cabinet for the air van at the back of the cooling pillar. Always make sure that enough fresh air comes into the room. Never exceed the maximum length of 4 meters for this exhaust hose!



12.7 Arm Strap Assembly

Two straps are assembled to the topcooler. The user can hold on to this strap to get a better tan.

The straps can be disassembled for cleaning or replacement.



Use the strap for which it is intended, do not charge it heavier than 25 kilograms.



Attention:
The metal handles can obtain high temperatures, it is advisable to use only the straps and not touch the metal parts



12.8 Vibraplate Assembly

The Ultrasun i8 that is equipped with a VibraPlate is assembled as follows: Assemble the i8 with the exception of installing the VibraPlate onto the bottom frame (Fig. 19). Hold the VibraPlate above the bottom frame and put the cable underneath the left panel. Put the VibraPlate carefully onto the bottom frame and make sure that the centring buffer (see figure) fit exactly into the corresponding holes in the bottom frame. Connect the plug to its corresponding connection on the side of the cooling pillar. The centring buffer ensure that the VibraPlate cannot shift during operation.

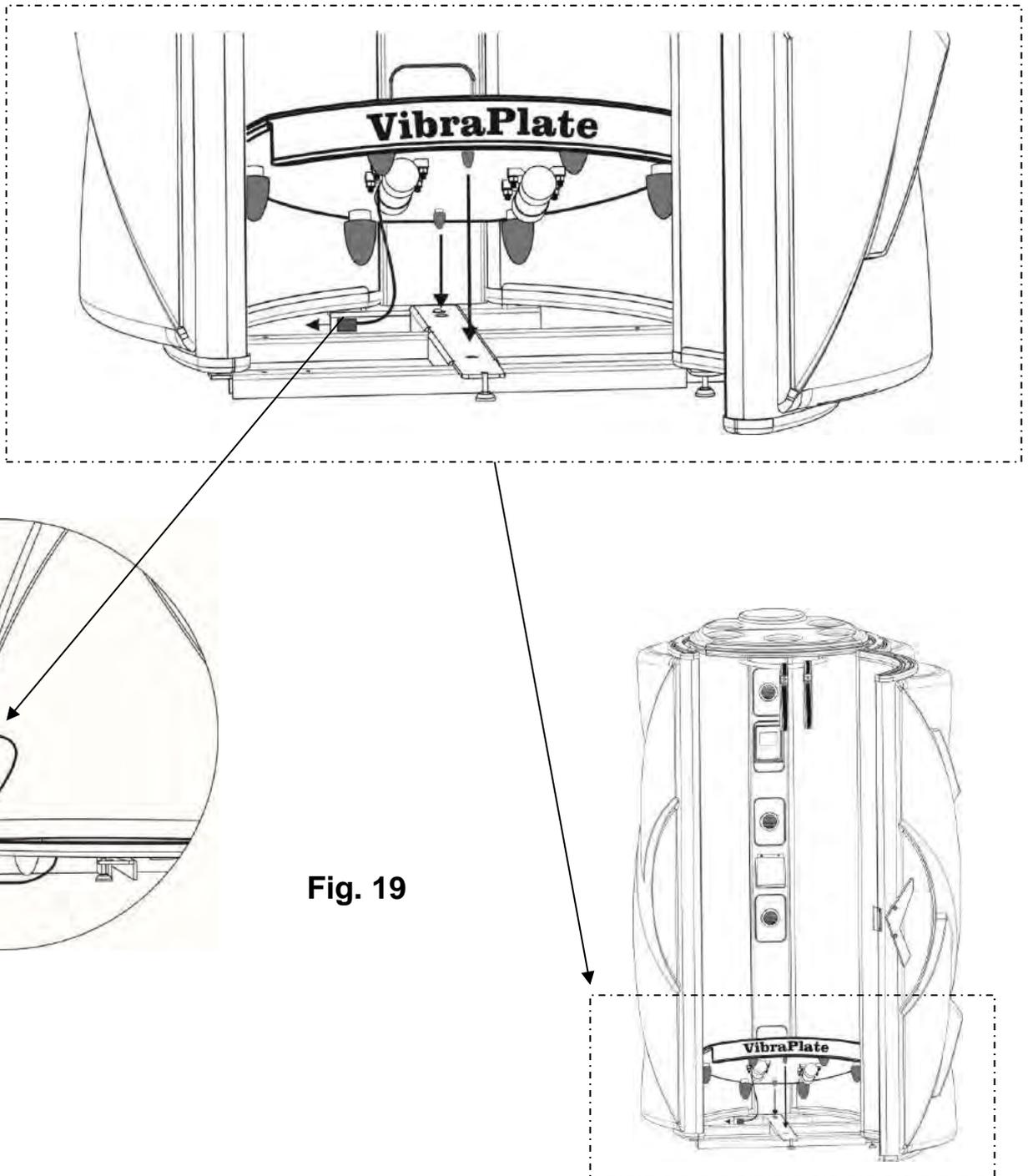


Fig. 19

12.9 Audio Module Connections

When your i8 is equipped with the “music pro” option, an extra bass box is provided which can be attached to the backside of the cooling pillar. The cooling pillar is equipped with an MP3 or IPod connection and holder (See next chapter).

All connections are connected in the cooling pillar like in the figure on the right.

Read the included user manual of the IQ Touch Control for more detailed information and service. At the side of the pillar compartment the connections for the audio system are located (External audio input). The drawing below shows the connections and operating elements of the bass speaker.

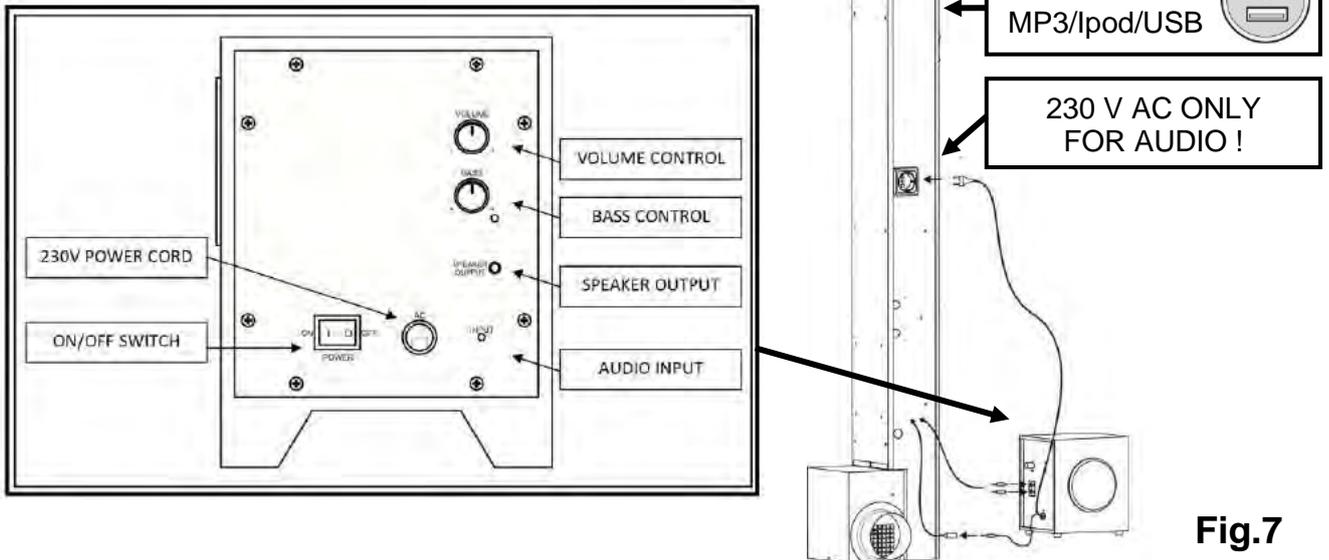


Fig.7

NOTE

It is advisable to adjust the Volume and the Bass control to halfway.
Please note that if you adjust the Volume and the Bass control to a higher level there is a possibility that the sound will be distorted, in longer terms this can damage your loudspeakers.

ATTENTION

Loud music can result in hearing problems!

The image below displays these connections (Fig.8:audio in). In case you want your i8 to have an external audio signal, connect this to the Audio in (“tulip” connector) at this audio print. The input sensitivity can be arranged with the potentiometer which is located next to this connection. Read the manual of the IQ Touch Control for more information. Connect the bass speaker as in Fig.7

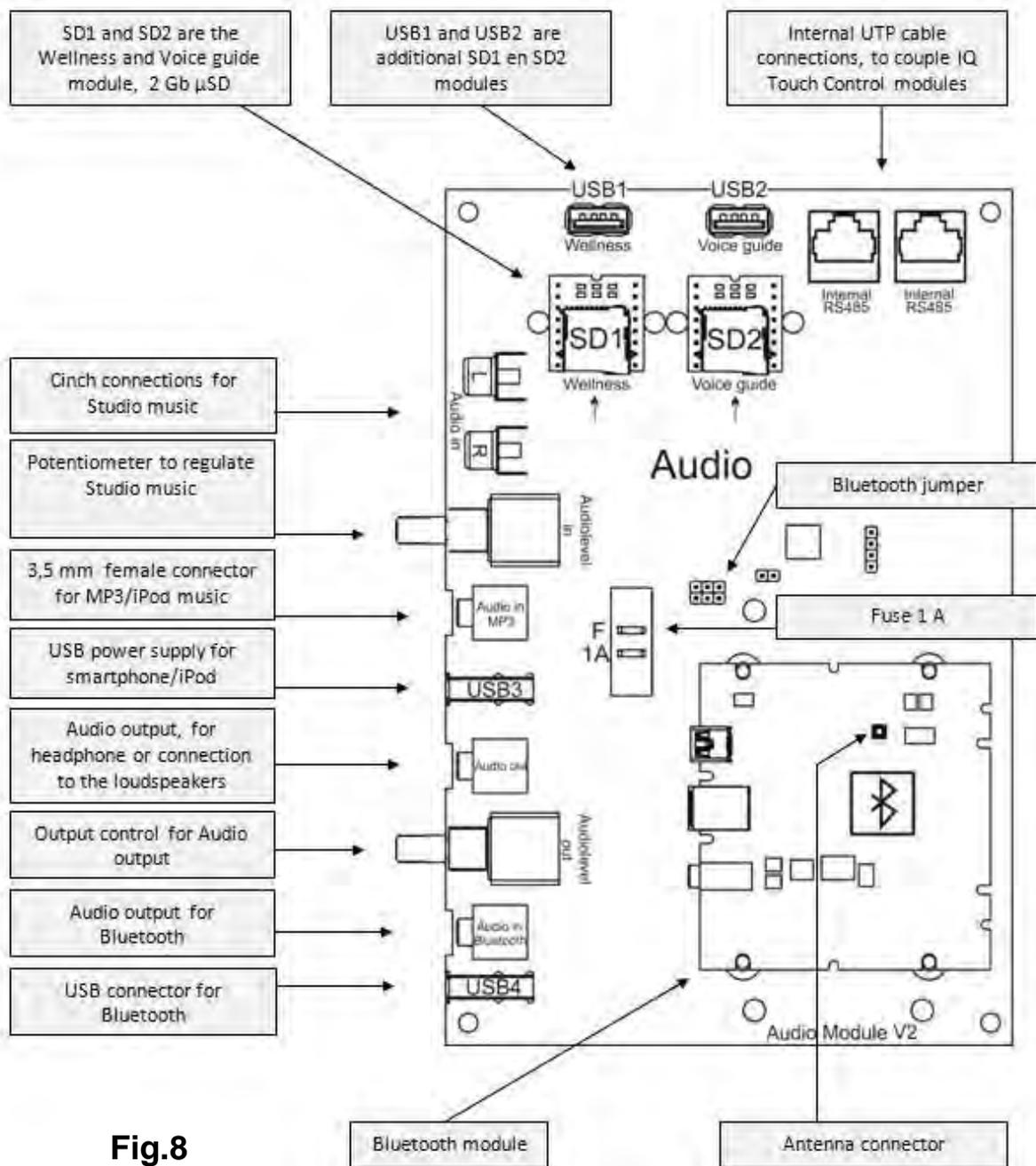
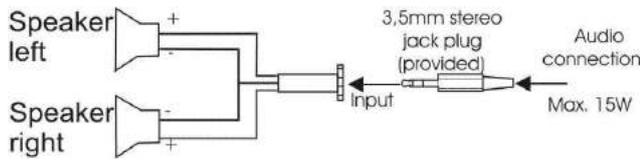


Fig.8

The topcooler (see F in the assembling instructions) has two speakers which can be connected to an amplifier (max. 15 watt) with the supplied 3,5 mm jack plug. Below you can find the diagram of the speakers.



The acrylic holder for your MP3 player, iPod or tablet needs to be attached to the cooling pillar as can be seen in the image. Place the holder so that the holes of the holder and the holes in the cooling pillar correspond (2). Press the rivets in the holes and put the pin in (3) with a hammer. Your MP3/iPod holder is now ready for use (4).

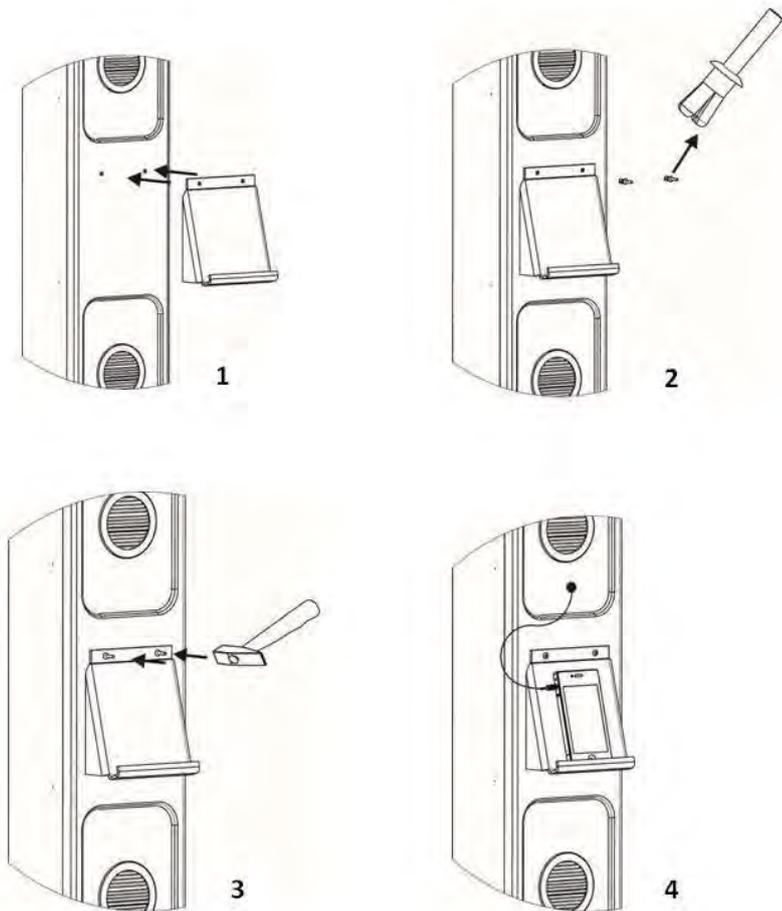


Fig.9

Use the MP3/iPod/tablet holder only for what it is intended.
Do not charge it with anything heavier than 750 grams.



13 Label Placement on Device

Ultrason i8 : Labels attached to the tanning device



Inside the cooling pillar,
Situated near the power supply connection.

L2	L1	PE
Single Phase 220 Volts / 60 Hz		
Supply connection to be wired as per NEC/CEC : AWG 8		
CAUTION : Disconnect power source before working on this device Item no. 750750 V1		

On the back of the device, on the left side,
Situated near the power cord inlet.

Manufactured by:
ULTRASUN Ultrason International B.V.
Crescentlaan 4, 3612-TR Utrecht, Nederland
Certified in accordance with TCFP 0402 21

Model : i8 DWM
Serial No. : 1821
Voltage : 1 x 220V - PE / 60 Hz
Art.Nr. : 1V18D314AC843
Power : 9400 Watt
Mfg. M-Y : - 21

UDI

CE, PG, and other safety icons.

Item no. 750770 V1

On the back of the device, on the right side,
Situated near the distance control plug.

Attention

Distance control connection for a potential free contact: read the owner's manual for instructions.

This distance control plug is primarily used for the T-max box. So this connection cannot be used for other purposes at the same time. Ask your dealer or installer about the possibilities.

ULTRASUN
RECHARGE YOURSELF

Item no. 750788 V1

Distributed in USA by:
Tanning Supplies Unlimited
296 Sadler Circle South Drive Indianapolis, IN 46239-4334

Read instructions before using this product!

Use only with the following approved lamps:
48 x Sunfit XXL 200 W 2L1201 200-R-620-6.5

This appliance is built according to drawing number
18_48_U_3S_TC_et_RGB_1x220
Ask your supplier for further revision.

TSU
tanning supplies unlimited

UV4

FOR USE IN DRY LOCATIONS ONLY
- ALL RATINGS OF THE DECORATIVE LIGHTING ARE INCLUDED IN THE TOTAL RATING OF THE TANNING DEVICE

Item no. 750771 V1

DANGER

- WARNING: HIGH LEAKAGE CURRENT-ENSURE PROPER GROUNDING
- WARNING: GROUNDING CIRCUIT CONTINUITY IS VITAL FOR SAFE OPERATION OF EQUIPMENT. NEVER OPERATE EQUIPMENT WITH GROUNDING CONDUCTOR DISCONNECTED
- CAUTION: CONNECT ONLY TO A CIRCUIT PROTECTED BY A CLASS A GROUND FAULT CIRCUIT INTERRUPTER
- UV LIGHT SOURCE - KEEP PROTECTIVE BARRIER IN PLACE
- REPLACE MOVABLE PARTS AFTER SERVICING
- CAUTION RISK OF PERSONAL INJURY
- DISCONNECT SUPPLY CORD BEFORE OPENING UNIT

Item no. 750728 V1

Inside the Ultrason i8. Situated on the cooling pillar and topcooler.

ATTENTION: THIS SUNLAMP PRODUCT SHOULD NOT BE USED ON PERSONS UNDER THE AGE OF 18 YEARS.

Item no. 750730 V1

CLASS	SKIN TYPES	RECOMMENDED EXPOSURE SCHEDULE			
		week 1	week 2	week 3	week 4
I	Sensitive skin <i>Some people with extremely dry skin or sunburn</i>	Tanning not advised			
II	Light skin <i>Some people get tanning, some get sunburn</i>	4	6	9	12
III	Normal skin <i>Some people start with tanning</i>	5	8	10	12
IV	Dark skin <i>Some people start with tanning</i>	6	10	12	12

Allow at least 48 between all exposures, tan maintenance: 1-2 times weekly.
MAXIMUM EXPOSURE TIME: 12 minutes.

Item no. 750530 V1

EN: ATTENTION : ULTRAVIOLET RADIATION
FOLLOW INSTRUCTIONS - WEAR PROTECTIVE EYEWEAR, FAILURE TO USE PROTECTIVE EYEWEAR MAY RESULT IN SEVERE BURNS OR OTHER LONG TERM EYE INJURY - IF DISCOMFORT DEVELOPS, DISCONTINUE USE AND CONSULT A PHYSICIAN

FR: ATTENTION : RAYONNEMENTS ULTRAVIOLETS
VEUILLEZ SUIVRE LES INSTRUCTIONS - SANS DISPOSITIF DE PROTECTION DES YEUX, CE PRODUIT PEUT CAUSER DES BRULURES OU LESIONS OCULAIRES GRAVES - SI VOUS SENTEZ UN MALAISE, EN DISCONTINUER L'USAGE ET CONSULTER UN MEDECIN

DANGER - AVOID OVEREXPOSURE AS WITH NATURAL SUNLIGHT, OVEREXPOSURE CAN CAUSE EYE AND SKIN INJURY AND ALLERGIC REACTIONS. REPEATED EXPOSURE MAY CAUSE PREMATURE AGING OF THE SKIN AND SKIN CANCER. MEDICATIONS OR COSMETICS MAY INCREASE YOUR SENSITIVITY TO THE ULTRAVIOLET RADIATION. CONSULT A PHYSICIAN BEFORE USING THIS PRODUCT IF YOU ARE USING MEDICATIONS OR HAVE A HISTORY OF SKIN PROBLEMS OR BELIEVE YOURSELF ESPECIALLY SENSITIVE TO SUNLIGHT. IF YOU DO NOT TAN IN THE SUN YOU ARE UNLIKELY TO TAN FROM THE USE OF THIS PRODUCT. CHILDREN, THE ELDERLY OR FAIR SKINNED PEOPLE WHO ALWAYS BURN EASILY AND IS THERE NEVER TAN OR TAN MINIMALLY SHOULD NOT USE THIS EQUIPMENT

DANGER - EVITER SUREXPOSITION, COMME AVEC LA LUMIERE NATURELLE DU SOLEIL, LA SUREXPOSITION PEUT CAUSER LESIONS AUX YEUX ET A LA PEAU. UNE SUREXPOSITION ALLERGIQUE, UNE EXPOSITION REPETEE PEUT CAUSER UN VEILLISSEMENT PREMATURE DE LA PEAU ET CANCER. MEDICAMENTS ET COSMETIQUE PEUVENT AUGMENTER VOTRE SENSIBILITE AUX RAYONS ULTRAVIOLETS. CONSULTEZ UN MEDECIN AVANT D'UTILISER LA LAMPRE A LA TRONCOLETS SI VOUS UTILISEZ MEDICAMENTS, SI VOUS AVEZ DES PROBLEMES DE PEAU OU SI VOUS CROIEZ VOUS ETES PARTICULIEREMENT SENSIBLES AU RAYONS DE SOLEIL. SI VOUS NE BRONZES PAS AVEC LE SOLEIL, C'EST IMPROBABLE QUE VOUS PUISSIEZ VOUS BRONZER EN UTILISANT CE PRODUIT. ENFANTS, PERSONNES AGEES OU PERSONNES A PEAU TRES CLAIRES, QUI BRULENT SOUVENT, SONT TRES SENSIBLES A UN COUR DE SOLEIL, ET NE BRUNISSENT PAS OU TRES PEUX NE DOIVENT PAS UTILISER CET APPAREIL DE BRONZAGE.

Item no. 750700 V1

This device is intended for the tanning of the human skin of an adult person who is in full command of his/her physical, sensory and mental faculties. Use this machine only by standing-up in the middle of the sun plateau.

CAUTION: EXPOSURE POSITIONS OTHER THAN SPECIFIED MAY RESULT IN OVEREXPOSURE AND ARE NOT RECOMMENDED!

Tanning normally begins after one to two exposures and maximizes after one to four (1-4) weeks of exposure following the recommended schedule for the skin type.

CAUTION! Disconnect supply cord before opening unit.

Read the instruction booklet before using this device or consult an attendant for information.
Tanning can begin at a regular basis by gradually increasing the exposure times until maximum tanning has occurred (in approx. 4 weeks).
Do not tan more than once in a 48 hour period.

ULTRASUN
RECHARGE YOURSELF

Read the recommended exposure scheme that is also stuck on this device.
Do not remove warning or informational labels.

This device is in conformity with performance standards for sunlamp products under No. 21 CFR 1648.20
This Ultrason i8 is intended to be used with the following lamps:
48 x Sunfit XXL 200W E-Tronic 2L1201
For replacement lamps, eyewear or parts please contact:
Tanning Supplies Unlimited
1504 Sadler Circle South Drive
Indianapolis, Indiana 46239 U.S.A.

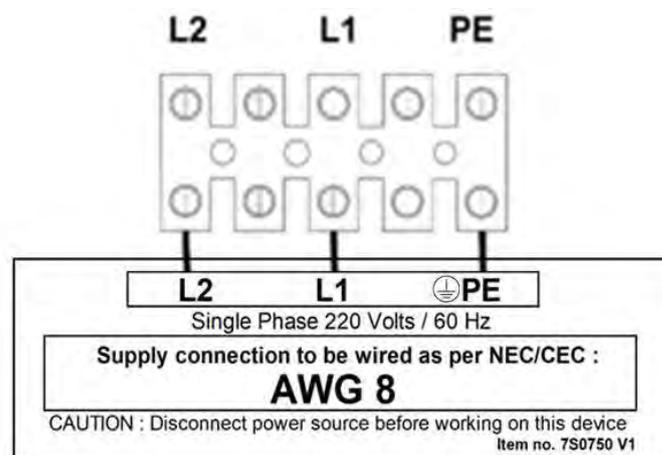
Item no. 750720 V1

14 Connection to Power Source

When the entire device has been completely assembled, your sunbed still needs to be equipped with a power supply cable that meets the standards in your region. The minimal wire dimensions (in AWG) are listed at the power connection sign. The sunbed is constructed to be connected to a voltage of 1 x 220 Volt / 60Hz with a protective ground connection.

The power supply connection from the i8 should be connected like this:

Class I ME Equipment – Risk of electric Shock. To avoid the risk of electric shock, this equipment must only be connected to a supply mains with protective earth.



The electrical installation must be equipped with a freely accessible all-pole disconnecting device in accordance with the overvoltage category III. (Master switch with clearly marked on/off settings e.g. “O” and “I” or additional indicator light). This means that for full separation each pole must have a contact gap according to the conditions of the overvoltage category III. The device shall be capable of being locked in the off-position and shall comply with IEC 60447. A supply main switch must not be incorporated in the power supply cord.

Circuit breakers should be double pole type rated for 60A continuous operation.

Power connections must be completed by a licensed electrician following guidelines and rules mandated by federal and local regulation.

External cable routing must be configured to minimize tripping hazards.

15 System Functional Modules

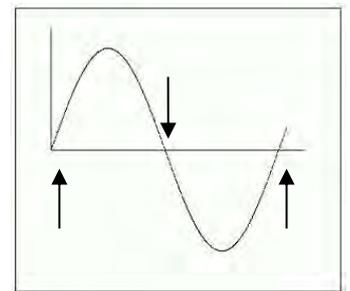
15.1 Introduction

With the IQ Touch Control, you have chosen the latest technology in operating your tanning machine. On the outside, only the screen, Start- and Stop button are visible. The real technology lies within the machine.

The following specifications give you an insight in the technology used.

- 3,5 inch colour active matrix TFT-LCD touch screen with VGA resolution and LED background.
- Modular build-up of the components.
- The feeding apparatus is suitable for supplied voltages ranging from 85 to 264 VAC, is frequency independent, and uses a safe 24V rectified tension.
- Plug and Play, all available modules are automatically recognized and shown on the screen. Also, only the available modules are shown on the parameter screen.
- Time switch for all moodlights, preventing unnecessary energy use and unwanted lighting.
- Soft start, no more need for a power relay due to the integration of a

zero switch. The image below shows the moment your machine can start up. This prevents unwanted peak currents and switch-on symptoms.



15.2 Module Descriptions

The following modules are available:

1. **Power module:** Every tanning machine equipped with the IQ Touch Control has a power module. The power module can connect one group of lamps or high pressure lamps to the 3 phase supplied voltage. All safety switches and the most important connections (e.g. fans, moodlight and RS485) are connected to this print. Furthermore, connections for the shouldertanner and the 24V supplied voltage are located at the power module print.
2. **Display module:** This module contains the touch screen and the print with the most important processors, the buzzer, the back-up battery and the front foil connector. In case the user wants to connect a computer to perform monitoring operations, this can be done by connecting an adaptor cable to the 8-pole plug.
3. **Audio module*:** This module controls all possibilities regarding the IQ Touch Control's Music options. You can use the standard audio signal, an MP3/iPod connection, and Voice Guide/Wellness Sound, in case this extension module is applied. The amplifier provides enough power to fully enjoy the offered music during a tanning session. The customer can use the very accurate 3-way equalizer and volume control to adjust the tonecolor to his or her own preferences.
4. **Voice Guide* and Wellness Sound module*:** This module gives the user the possibility to enjoy the relaxing, pre-programmed music on the MicroSD card, instead of the external sound source. When desired, it is possible to program your own musical preferences and voice commands in every language onto the SD card.
5. **Bluetooth module*:** This module is also mounted on and connected as an extension module to the Audio Module. The Bluetooth network will default to the name of the delivery device but is freely

programmable. The Bluetooth module has the property that it does not connect automatically when you are within range, you must always reconnect to the network.

6. **The VibraPlate module*:** In case your PowerTower i8, i9 or CollaShower is equipped with the VibraPlate, this expansion module controls the manual and pre-installed interval programs. This module is provided with an additional power module. All settings can be programmed via the IQ Touch Control.
7. **The power supply unit:** All modules are equipped with a 24V supply via a UTP cable except the main- and audio module: For these two modules a double-pole plug is used for the main connection.

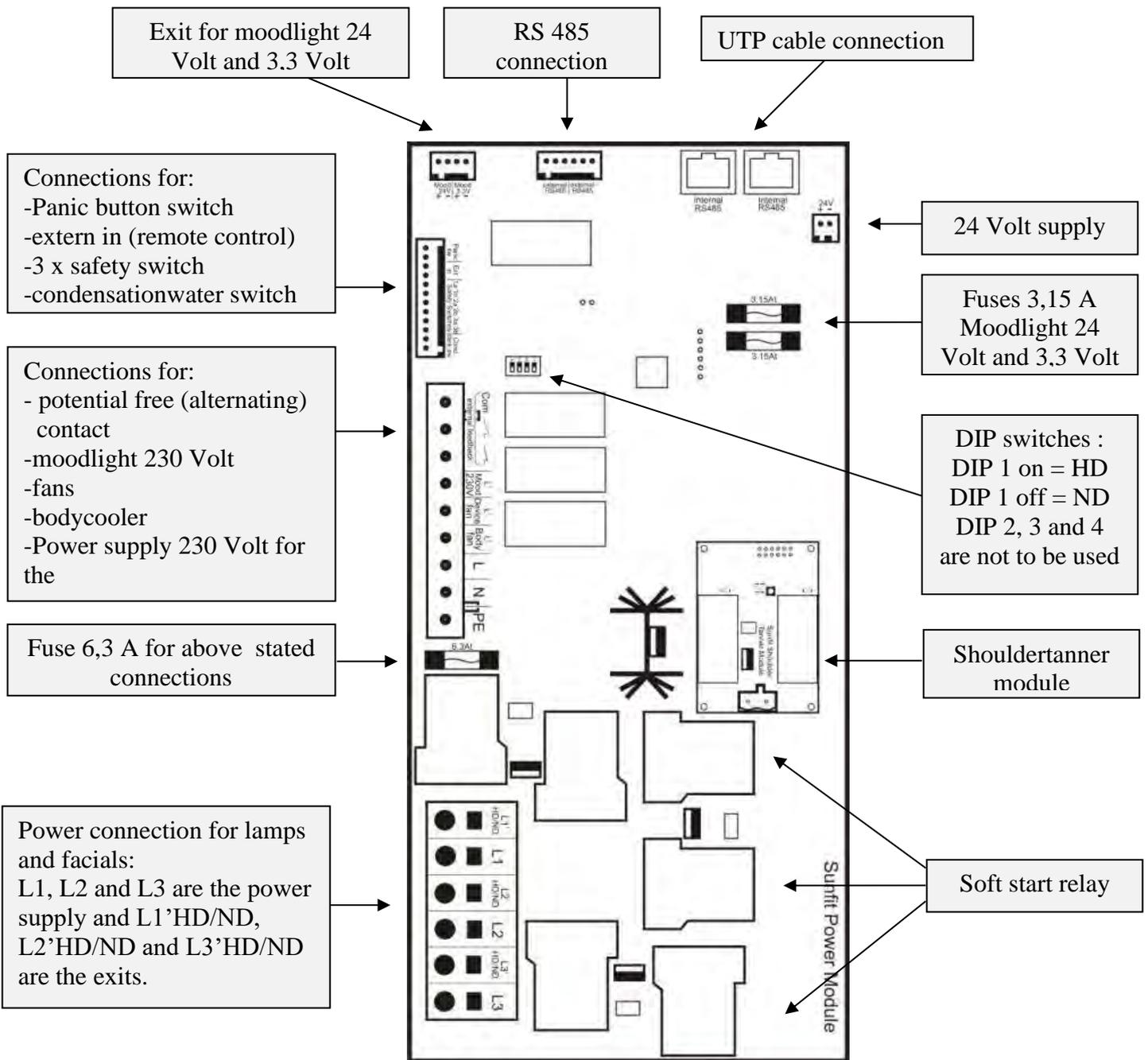
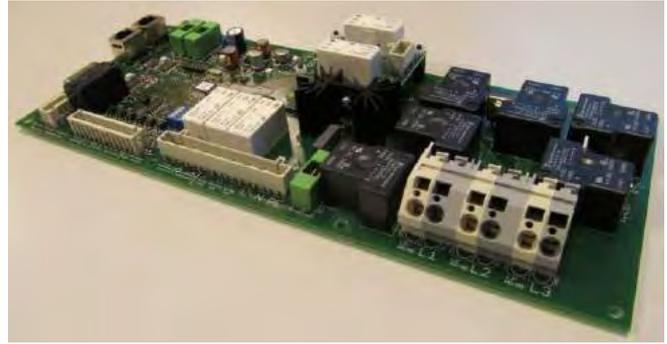
The following section contain extensive information about all connections, protections and possibilities of the above mentioned modules.

All modules are centrally operated by the electronic controls situated on the display unit; all internal communication is done by using Unshielded Twisted Pair (UTP) cables. All modules can be randomly connected, provided that a resistance is applied at the end of every loop that has an open UTP connection.

15.2.1 The power module and the shouldertanner* module.

The power module contains all important connections and therefore can be seen as the heart of the IQ Touch Control.

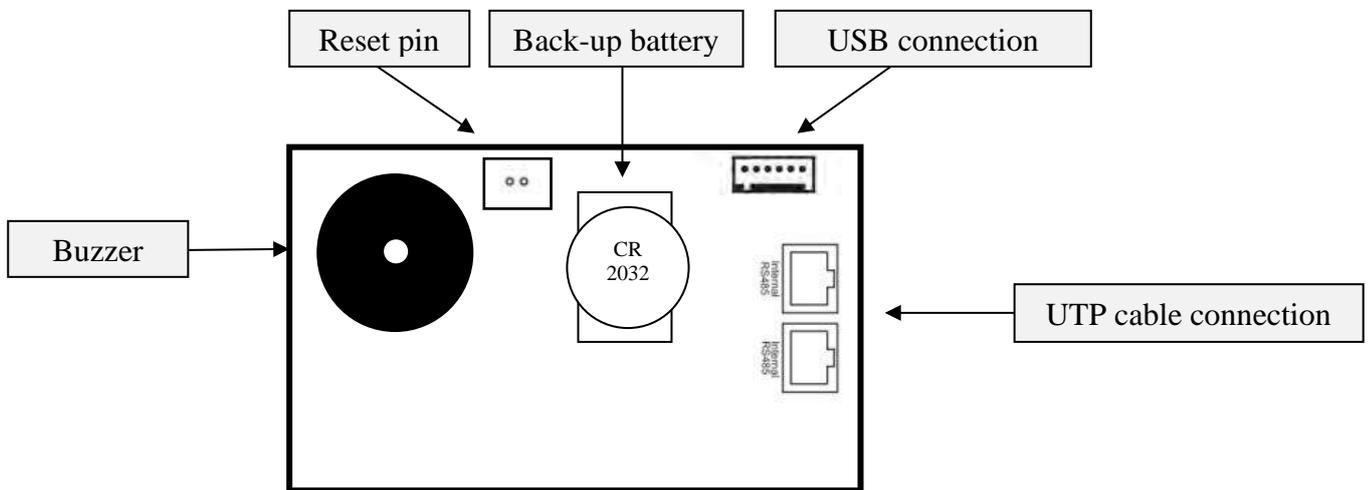
On the right the power module and all its connections can be viewed. Below a schematic overview including the purpose of the different connections, DIP switches and fuses.



15.2.2 The display module

The display module consist of two parts: the touch screen and the print containing the operating electronics, the connections, reset pin, the buzzer and the back-up battery.

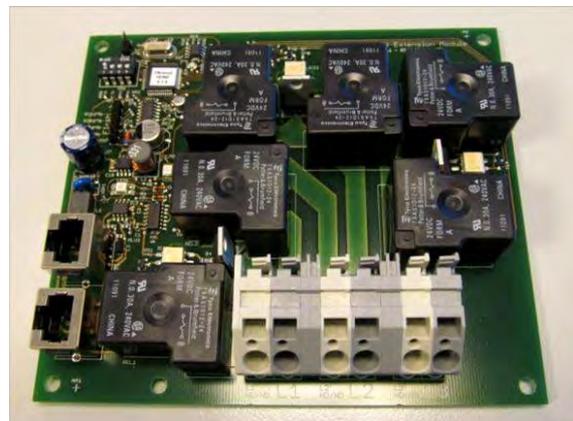
This display module is assembled onto the timer support as a default, which is equipped with the front foil on which the START and STOP button are integrated.

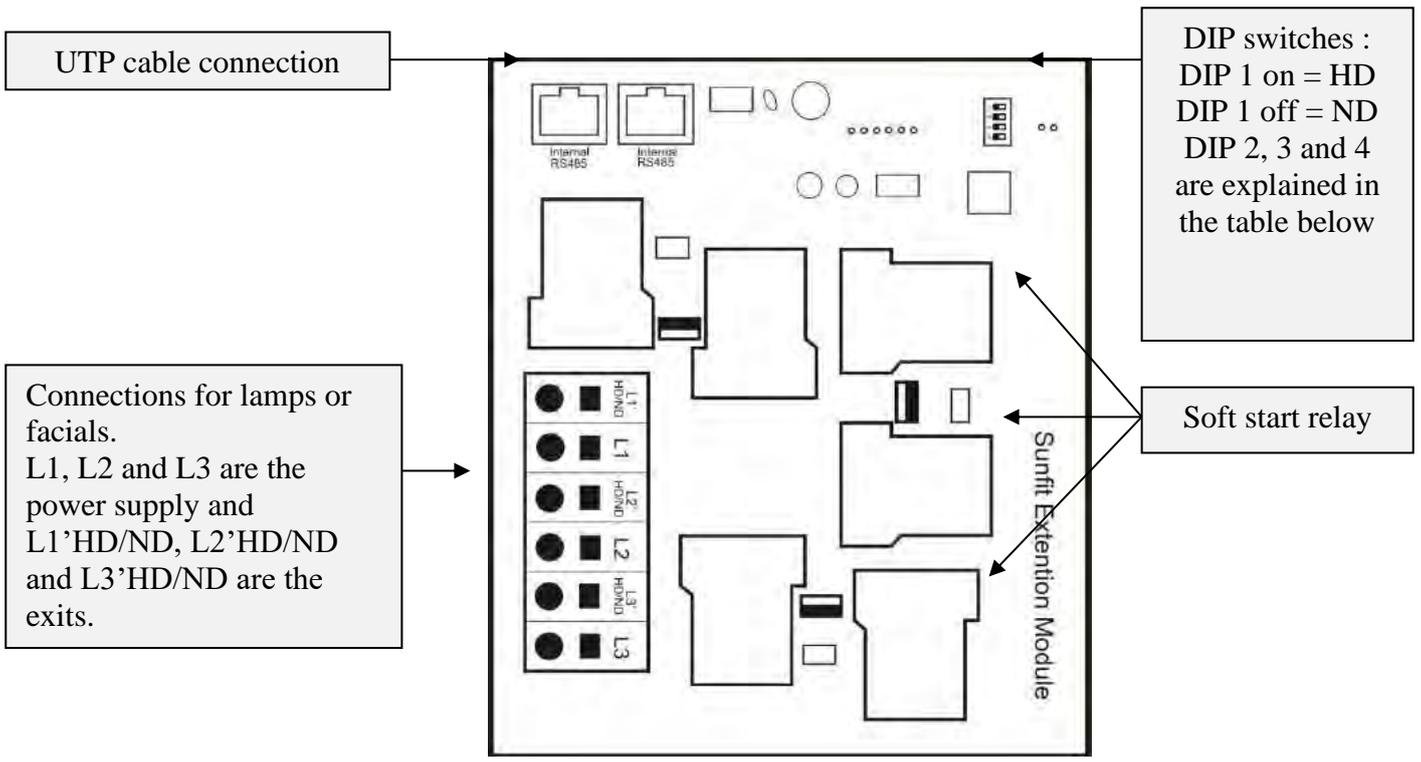


15.2.3 The extension module*

The extension module will mostly be used for switched the shouldertanner lamps on and off, But it can also be used to connect an additional group of lamps. One can determine for which lamp group the extension module operates by using the DIP switches. And, in case more extension modules are applied, the DIP switches also determine the module number.

Please refer to the DIP Switch table on the next page for a more detailed description of their use.





Connections for lamps or facials.
L1, L2 and L3 are the power supply and L1'HD/ND, L2'HD/ND and L3'HD/ND are the exits.

DIP switches :
DIP 1 on = HD
DIP 1 off = ND
DIP 2, 3 and 4 are explained in the table below

Soft start relay

In case more extension modules are connected, the central processor must be able to identify all the individual modules separately. (e.g. to register the hour counters and the connection method (HD or ND)).

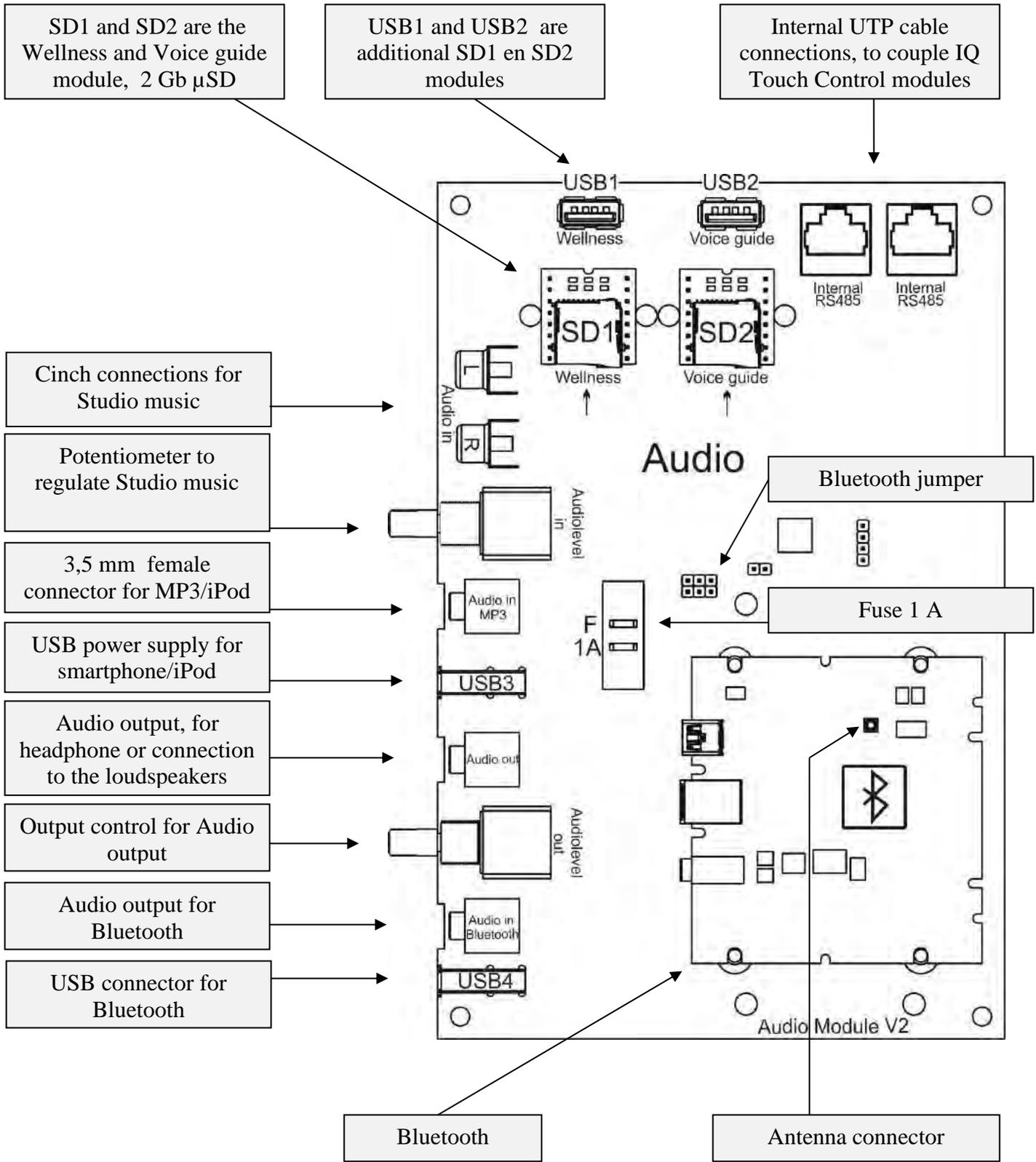
One should always assign a unique number for every extension module from the table to the right, this way a delay time for each module can be separately programmed, please refer to parameters **133** to **142** to read how .

DIP 2	DIP 3	DIP 4	Module number
off	off	off	1
on	off	off	2
off	on	off	3
on	on	off	4
off	off	on	5
on	off	on	6
off	on	on	7
on	on	on	8

15.2.4 The audio module* with additional Voice Guide*, Wellness Sound* and Bluetooth modules*.

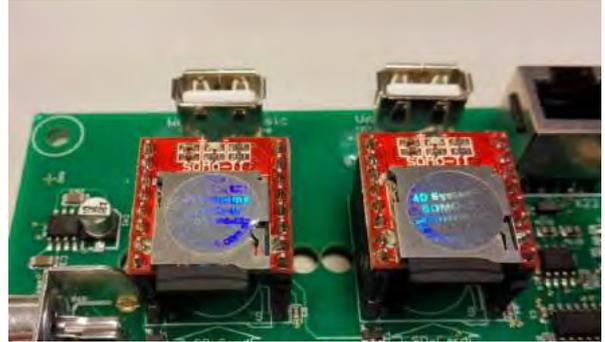
The audio module consists of the base board with many connectivity options like studio music input, MP3 or iPod connection and expansion modules wellness sound, voice guide and Bluetooth. The input signal from the studio music and the total output signal can be controlled by potentiometers which are located on the PCB. All modules and connections are plug and play, except the cinch connector of the music studio.





15.2.5 Wellness Sound, Voice Guide and Bluetooth options

The audio module has the possibility to place an additional module for the Wellness Music and / or Voice Guide. Both are equipped with a μ SD card containing several songs (Wellness Sound) or Voice (Voice Guide). To save the Wellness Guide songs and Voice Guide files, μ SD cards up to 32 GB can be used that are compatible with FAT16 and FAT 32. Always use formatted μ SD cards!



Besides μ SD cards it is also possible to use USB sticks up to 32GB. These can be installed in the USB portal behind the Wellness Sound or Voice Guide module. Only one of these options can be chosen. If both are connected only the μ SD is active. Please read the following instructions to use the possibilities properly. Copy the data from the μ SD card to the USB stick and remove unwanted files (or copy them to a PC or other storage media) before you add your own music to the μ SD card.

Wellness Sound:

On the μ SD, at least two folders must be present, called 01 and 02. Each is capable of storing at least 255 MP3 files. The folder 01 includes an MP3 file that is used during the TEST program (Parameter 175-02). Folder 02 can contain any MP3 file. The first map (01) contains a file named 001xxx.mp3 (xxx may be random characters, for example, the artist name, up to 29 characters).

The playback order is determined by the settings of parameter 070 Wellness Select Music.

Voice Guide:

On the μ SD must be a folder called 01 containing the voice instructions (as specified in Appendix 2). In other folders (02, 03 etc.), voice instructions are placed in other languages. However, these are only active when they are placed in the folder 01. For this you will need to change the μ SD card in your Windows or Apple computer.

Bluetooth:

If the Bluetooth module is installed, connected (see the right picture) and configured to the audio module, then you can transfer music wirelessly from your smartphone to the speaker of your device. As a default, the Bluetooth module has the name of your device (for example, Ultrasun i8, if this is your device). Standard no automatic connection is being made when you are visiting this device. This is to prevent unwanted music to be played.



If you have two devices with the same name, you can change this with the following software (first read the instructions):

<http://www.lintech.de/support/downloads/bluetooth-musikempfaenger/>

The antenna is mounted at a suitable location in your device. If you encounter any hindrance or interference in the range of the Bluetooth signal, move the antenna to another suitable place. The antenna is placed in such a way that the Bluetooth transmitter has a range of about 3 to 4 meters.



Bluetooth is an open standard for wireless duplex connections between devices at close range. The Bluetooth Music Receiver uses the latest technology which guarantees the highest sound quality despite radio transmission. When setting up a new Bluetooth connection it is necessary to connect with your smartphone. The Bluetooth version used on your smartphone and environment variables can affect the range of the Bluetooth transmitter. When programming the Bluetooth module, be sure there is an SPP connection.

Read Appendix 4 to activate your Bluetooth module.

Specifications of the Bluetooth module BlueLino:

- Bluetooth®-Standard v3.0+EDR
- Bluetooth®-Profile: A2DP
- Codecs: SBC and aptX
- Maximum number of connections: 8
- Frequency: 2402 – 2480 MHz
- Maximum reach: 10 Meter
- Internal 24-bit 192kHz Stereo D/A Converter
- Analog audio output: 3.5mm jack: 2+/- 10% Vrms
- Audio frequency: 20Hz – 20 kHz



15.2.6 The VibraPlate module

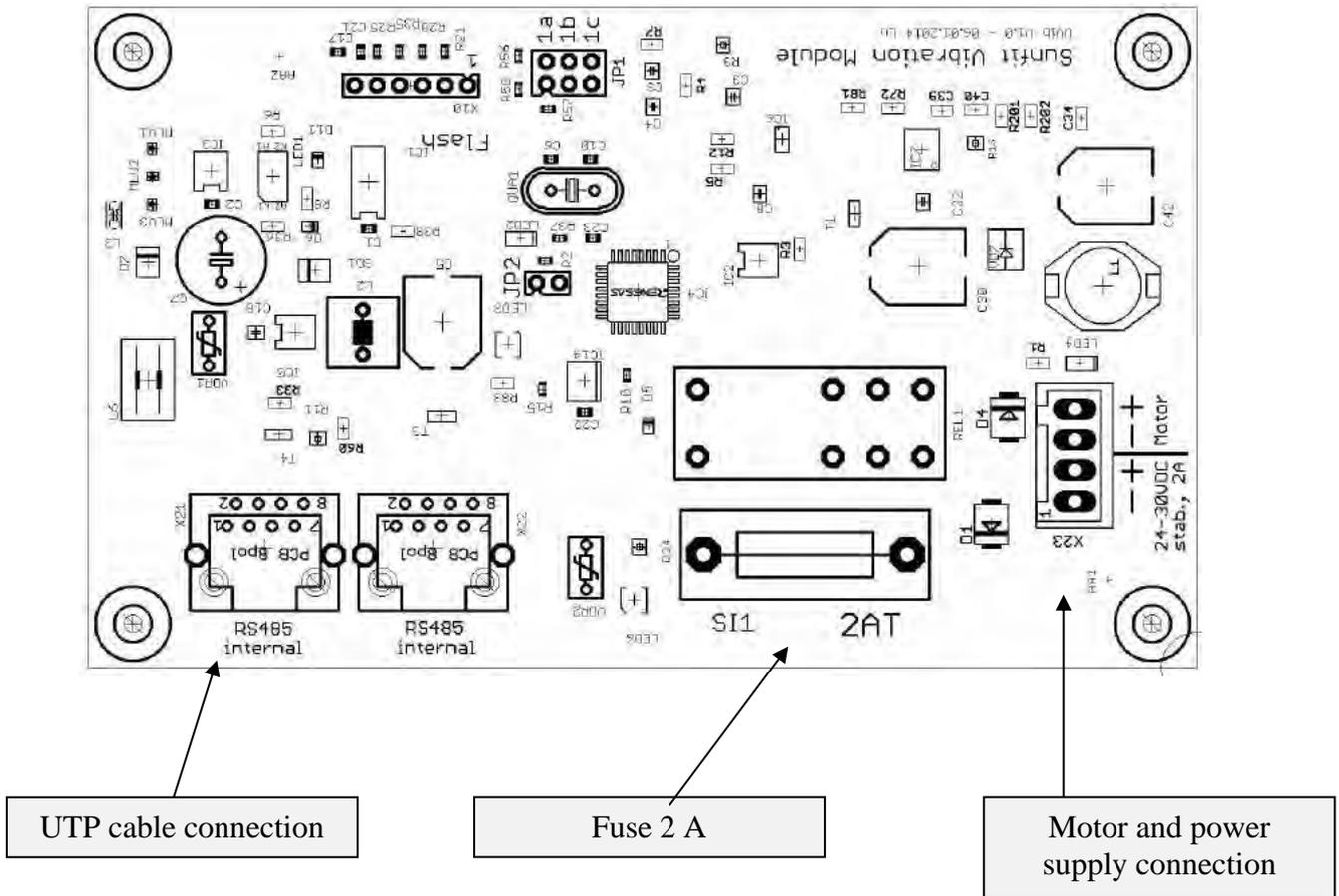
In case the VibraPlate module is connected, then this module will replace the shouldertanner module in the main screen of the IQ Touch Control (see image on page 2).

The VibraPlate module supplies the power for the vibration motor, which may be installed in your Ultrasun i8, i9 or CollaShower. This module is assembled in the cooling pillar of the stand-up.



The VibraPlate module has its own 24 Volt connection, due to the power output that needs to be supplied to the motor of the VibraPlate.

The printed circuit board has the following connections and components:



No settings can be changed at this printed circuit board. Settings can only be changed via the parameter menu, see parameters 009, 037, 038, 162, 163, 164. The VibraPlate module is also included in the test- and demo program (parameter 175). In the service menu the preference settings of the level of vibration (parameters 152-154) can be changed.

15.2.7 The power supply unit

The power supply unit is a so called switching supply. Because of this no transformer is assembled. Switching supplies have (e.g.) the advantage that they are (almost fully independent from the supplied tension, which has to be between 88 and 264 Volt. The images below show the 24 volt supply modules and its specifications.

The connections (from left to right):

- L- Phase 230 Volt connection for de supplied tension
- N-Zero of the 230 Volt connection for the supplied tension



- Earth connection for the supplied tension

- V the negative connection of the 24 Volt
- V the negative connection of the 24 Volt (only RS-100-24)
- +V the positive connection of the 24 Volt
- +V the positive connection of the 24 Volt (only RS-100-24)
- V Adjust ; the regulator with which the 24 volt can be set accurately

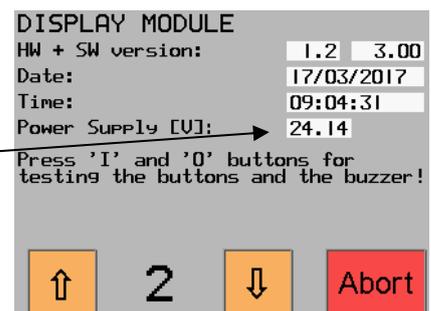


MODEL		RS-100-24	RS-50-24
INPUT	AC VOLTAGE	88-264 V	88-264 V
	DC VOLTAGE	24 V	24 V
OUTPUT	RATED CURRENT	4,5 A	2,2 A
	CURRENT RANGE	0 - 4,5 A	1 - 2,2 A
	RATED POWER	108 W	52,8 W
	RIPPLE AND NOISE	120 mVp-p	120 mVp-p
	VOLTAGE ADJUST RANGE	22,8 - 26,4 V	22 - 27,2 V
	VOLTAGE TOLERANCE	± 1,0 %	± 1,0 %
	LINE REGULATION	± 0,5 %	± 0,5 %
	LOAD REGULATION	± 0,5 %	± 0,5 %

The RS 100-24 is used in case an audio module is applied, in any other case the RS50-24 is used.

The adjustment of the voltage (V adjust) can be read in the screen at parameter 175 Function test, this can be seen in the image displayed on the right.

In case the voltage is adjusted, this output voltage remains constant independent from the power supply, provided that this stays within the tolerations of 88 and 264 Volts.



16 The Parameter Menu System

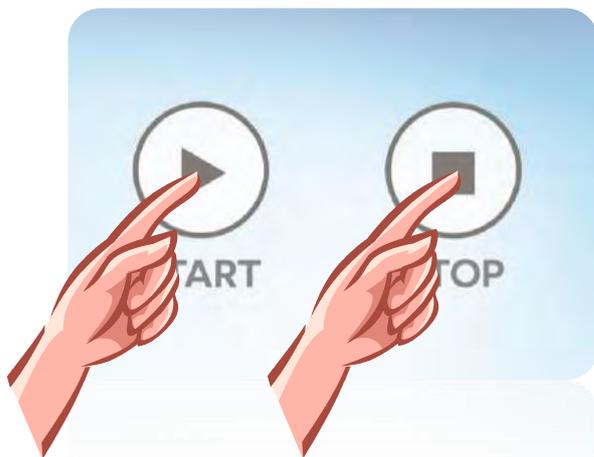
This menu system is used to set operational parameters in the software. This system is intended to be used by the operator, owner and maintenance technician.

To prevent unwanted changes, the parameter settings are divided into 3 groups. Every group is password protected. The 3 groups can be identified as following:

1. **Read-Only Menu:** The studio personnel cannot make changes to the parameter settings. In this group it is only possible to verify working hours, pulses and coins. The PIN code consists of two numbers, the default PIN is set to 00.
2. **Basic Menu:** the owner of the machine can make functional changes in the parameters, such as: time settings, coin intake, audio preferences, and possibilities regarding a stand-by screen and a cleaning icon. This PIN code consists of three numbers, the default PIN is set to 000.
3. **Operator Menu:** the designated technician for this machine can change the parameters of a more technical nature, such as: setting sound preferences, checking safety switches and performing the test- and demo programs. The technician can also check the Error notifications. This PIN code consists of four numbers, the default PIN is set to 1111.

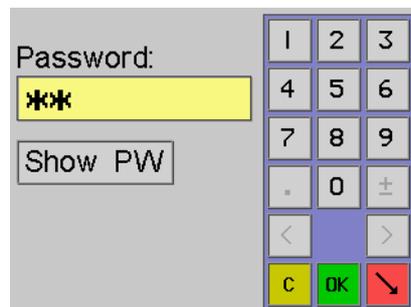
Acquiring access to the parameter menu:

One can access the PIN code menu by pressing and holding the STOP button and push the START button five times simultaneously. Press the "Show PW" button in order to see the numbers filled in (normally two ** are shown). In case a wrong PIN code is entered, the screen turns red and an extra minute of waiting time is added before the correct code can be entered.



5x

Hold it



After pressing OK one has gained access to the parameter menu which is shown on the image on the next page. For every user group one number is added to the PIN code. By using the red "return" button one can go back to the previous menu.

16.1 Read-out menu

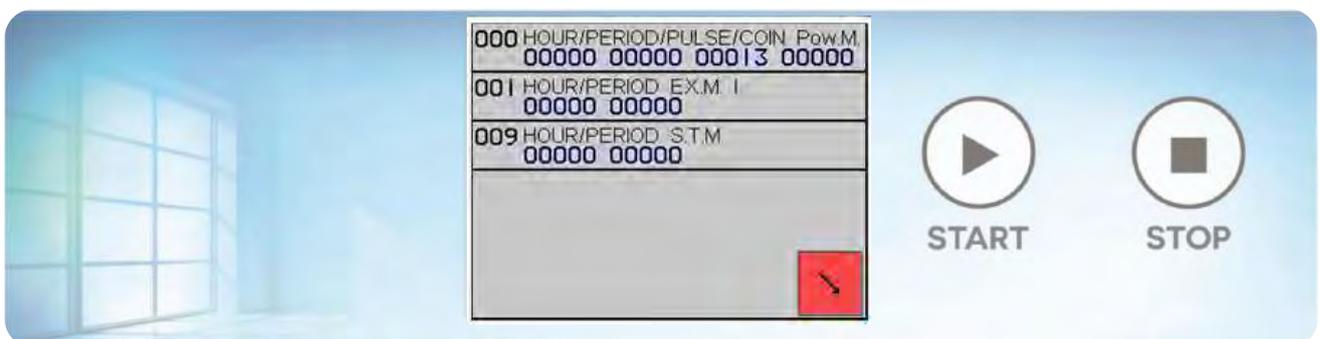
Parameter	Display description	Default	Settings
000	Hour/Period/Pulse/Coin Pow.M. 0000/0000/0000/0000		
001-008	Hour/Period EX.M. 1-8 0000/0000		
009	Hour/Period S.T.M/Vibrate 0000/0000		
010	Change PIN Code of Counter Menu	00	00-99

Parameters **000** to **009** (which are the only accessible parameters for every-day use) only show the hours, running hours, pulses and number of coins inserted for the connected modules. The image below shows an example of this menu.

009 is, in case a shouldertanner module is connected, the hours counter and the period hours counter. In case a VibraPlate is connected, this parameter automatically becomes the hour counter for the VibraPlate, the period hours counter expires.

The default PIN for this menu is 00 but this can be changed in parameter **010**. This is only possible in the Basic menu!

The image below shows an example of the layout of the front foil used in many machines. The meter values can be read out and written down, if necessary. By pressing the red “return” button on the lower right of the screen one can go back to the main menu.



16.2 Basic menu

The owner of the tanning machine, or the designated personnel can make changes in the parameters below. In this menu some functional changes can be made. It concerns the following parameters:

Parameter	Display description	Default	Settings
020	Max. Tanning time minutes / seconds	07:00	01:00-30:00
021	User Mode (setting)	00	00=Normal 01=Extern (permanent) 02=Coin (pulse) 03=Network
022	Start while cooling down (setting)	02	00=starts at once 01=starts after cooling down 02=start not possible
023	Cooling down time minutes / seconds	3:00	0:00 off 0:01-9:00 minutes
024	Start while delay time (setting)	00	00: start at once 01:start not possible
025	Start delay time minutes/seconds	0:00	0:00 off 0:01-9:00 minutes

- **020:** Determines the maximum tanning time. This maximum time itself depends on the time given in parameter **202** (only accessible by Ultrasun). Default is 07 minutes and can be set to 30 minutes maximum. At the factory is the tanning time specifically for your device set to the maximum usage time.
- **021:** Determines the machine's user mode.
00=Normal by using START button.
01=Extern (permanent) with a potential free contact that needs to be closed during the tanning time.

02=Coin(pulse) with a potential free contact (a coin receptor or Paytronic) that receives tanning time with every pulse. See parameter **030 and 032** for more info.

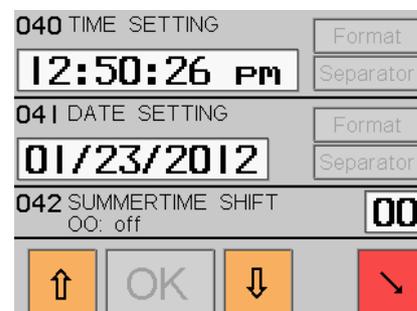
03=Network, in case the IQ Touch Control is operated by a computer or is integrated in an network. When at 01 or 02 the START button is pressed, a screen pops up with the text: 'Please load tanning time!'



- **022** Determines if it is possible to start the machine during cooling down.
00=starts at once: means the machine can be started instantly during cooling down.
01= starts after cooling: means that the machine will start automatically after cooling down.
02= start not possible: means the machine cannot start: wait for cooling down to finish and the press START again.
- **023** Determines the cooling down time. Variable between 0 and 9 minutes. Adjustable to the second.
- **024** Determines whether or not the machine can be started during delay time. Delay time is determined in parameter **025**. The remaining delay time is erased when interrupted.
- **025** Determines the delay time, e.g. for undressing before use. Delay time can be set between 0 and 9 minutes. Adjustable to the second.

Parameter	Display description	Default	Settings
030	Time per coin minutes/seconds	5:00	00:01 - 60.00
032	Minimum coin insert Number of coins	1	01-99
035	Tanning end signal seconds	10	00=off 01-60
036	Turn around signal (setting)	0	00=off 01= at half time
037	Vibration alternating signal (setting)	1	00=off 01-03 number of signals
038	End of vibration signal (setting)	2	00=off 01-03 number of signals
040	Time setting (setting)	*1	
041	Date setting (setting)	*1	
042	Summertime shift (setting)	0	00=off 01=on
046	Standby screen minutes/age control screen	1	00=off 01-05 (minutes)/18 (years)

- **030** Determines the tanning time per inserted coin/pulse, this option is only visible when parameter **021** is set to 02. The time can be set between 0 and 60 minutes and is adjustable to the second.
- **032** Determines the number of coins that need to be inserted for the machine to start. This parameter too is only visible when parameter **021** is set to 02. The number of coins/pulses can be set between 0 and 99.
- **035** The number of seconds shown here indicate the time that the buzzer on the display print gives a signal, alerting the user that the tanning time is finishing. The length of the signal can be set between 01 and 60 seconds. When showing 00 the option is turned off.
- **036** Determines whether or not a “turn” signal is given halfway through the session. The buzzer gives 4 shorts signals (beeps). This function can only be turned on (01) or off (00) and is mainly used in tanning machines with lamps on one side.
- **037** For pre-installed interval programs an ‘alternating signal’ can be installed. (for example when the vibration motor changes from level 1 to level 2). The number of beeps can be adjusted, choose from 0 up to 3. It is standard set at 1. The volume is determined by parameter **061**.
- **038** determines that a signal is given at the end of a vibration session (manual or pre-installed interval program). The number of beeps can be adjusted, choose from 0 up to 3. It is standard set at 2. The volume is determined by parameter **061**.
- **040** the “time setting” is used to set the current time and the way it is displayed. (separator)



041 the “date setting” is used to set the current date and the way it is displayed. (separator). Time and date settings are important for Daylight Saving Time (**042**) and programming the Moodlights (**050**).

- **042** With the summertime shift the time can be corrected automatically in accordance with Daylight Saving Time.
- **046** sets the time that is needed to show the stand-by screen or the Age Control screen. When 00 is selected, the Welcome screen (see image on the right) will not be displayed. The time can be set between 01 and 05 minutes, where after the Welcome screen automatically appears. When the value is set at 18, the Age Control screen appears.

The Welcome screen disappears when the screen is touched or when the START or STOP button is pressed. For the Age Control screen you have to choose between the <18 or 18+ button. When (in this case) the <18 button is pressed, the screen “Tanning prohibited” appears on the main screen.

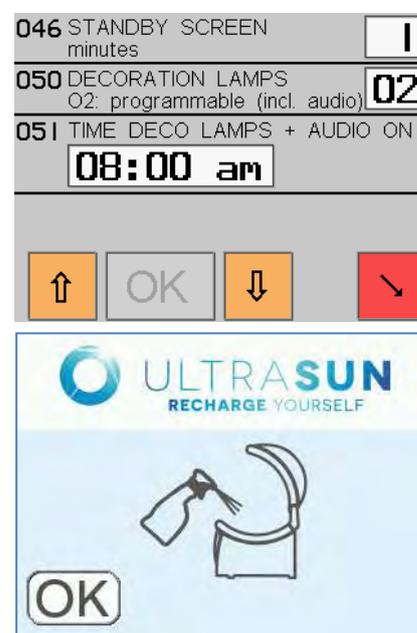


Note that in many countries national law states that a tanning bed is not allowed to be used by people under the age of 18!
Set parameter 046 at 18+ when tanning under 18 this is not legally allowed in your country.



Parameter	Display description	Default	Settings
050	Decoration lamps (setting)	01	00=off 01= always on 02= programmable (incl.audio) 03= always on, not during a session 04= 03 + programmable
051	Time deco lamps+audio on (setting)	09:54	00:00 -24:00
052	Time deco lamps+audio off (setting)	23.54	00:00 -24:00
055	Cleaning icon (setting)	00	00=off 01=visible button 02=invisible button
060	Touch tones (setting)	03	00=off 01-05 volume
061	End/turn around tones (setting)	03	00=off 01-05 = volume
065	Breeze/Aroma pause minutes / seconds	01:00	00:30 - 03:00

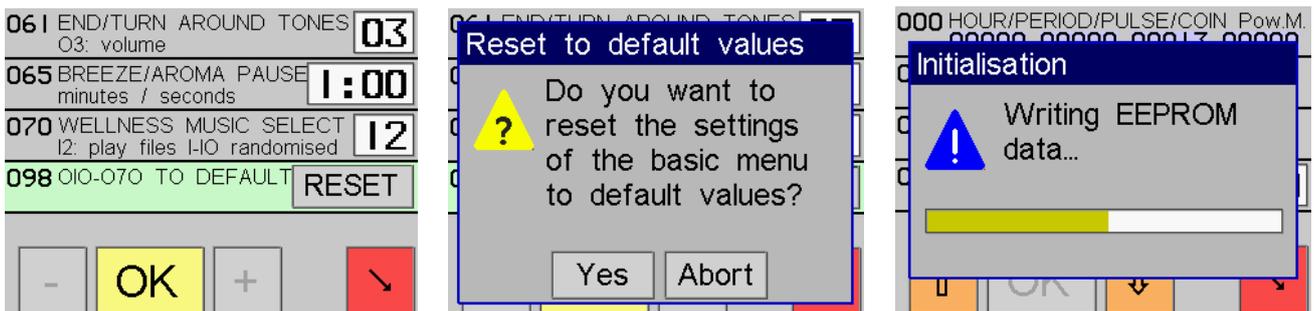
- **050** all decoration lamps (230volt, 24 volt and 3,3 volt) can be programmed at different settings (see the instructions about the power module).By default (01) these decoration lamps are switched on, when set at 00 the decoration lamps are switched off all the time. In case 02 is selected the time can be programmed in **051** and **052** when the lamps are switched on and off. When 03 is selected, the rainbow lamps will be switched off during a session. When 04 is selected the lamps will be switched off during a session as well, and there is the possibility to program the switch on and shutdown times of the rainbow lamps.
- **051** This parameter determines the time the deco lights and audio system switch on. Default time is 09:54 but this is adjustable to any desired time.
- **052** This parameter determines the time the deco lights and audio system switch off. Default time is 23:54 but this is adjustable to any desired time.
- **055** In case the tanning session is finished, it is possible to show the cleaning icon in the screen. If this parameter shows 00, this option is turned off. When it show 01 there is reset icon (OK) visible on the screen, and when it shows 02 the option is turned on but the icon is invisible. To reset, the screen can be pushed on the same spot as where the visible icon would appear on the screen. This function is not available when **021** is programmed on 01.
- **060** This parameter determines if a tone is given every time the screen is touched. In 00 this function is switched off. When it shows 01 to 05 it is switched on and also determines the volume of the tone.
- **061** The signal that is given at the end of a tanning session (**035**) or halfway the session (**036,037** and **038**) can be switched off by setting this parameter to 00. When it shows 01 to 05 it is switched on and also determines the volume of the tone.



- **065** The automatic pulse time that controls the Breeze and Aroma has a default setting of one minute, but can be set anywhere between 30 seconds and three minutes. This option does not work when the breeze or aroma function is switches off, or is set to “one pulse” (refer to **160** and **161**; only accessible by the designated technician (Operator Menu).

Parameter	Display description	Default	Settings
070	Wellness music select (setting)	01	01- audio file cyclical 02=play files randomised
098	010-070 to default (setting)	RESET	
100	Change PIN code of Basic Menu	000	000-999

- **070** This parameter determines the preferences considering the Wellness Music. The default setting is 01 which means the wellness sounds of the µSD card are played cyclical. With settings 02 is activated, all music files are played randomly.
- **098** With this function, all parameters from **010** to **070** can be reset to the default values. After the RESET button is pushed, a confirmation request appears which (if the reset is desired) should be answered with YES. Afterwards EEPROM is re-written/reset. Below you can find images showing the above.



- **100** Here the PIN code for the Basic Menu can be changed to a desired number between 000 and 999. When the PIN code is changed, be sure to write it down, so it is available to others too.

16.3 Operator menu

Parameter	Display description	Default	Settings
101	Change lamps Pow.M hours	0800	0000-2000
102-109	Change lamps Ex.M.1-8	0800	0000-2000
110	Change lamps S.T.M.	0800	0000-2000
111	Period Counter Pow.M		Reset
112-119	Period Counter Ex.M 1-8		Reset
120	Period Counter S.T.M.		Reset

- 101** This parameter determines the changing time for the lamps and/or facial tanners that are connected to the Power Module. The default is set to 800 hours, but this can be changed to any time between 0000 and 2000 hours. 100 hours before the changing time is due an orange 'wrench' will appear on the screen, as show on the image to the right. When the changing time is met, the 'wrench' will turn red.
- 102-109** This parameter determines the changing time for the lamps and/or facial tanners that are to connected to the Extension Module. The default is set to 800 hours, but this can be changed to any time between 0000 and 2000 hours. The 'wrench' will appear in the same fashion as in parameter **101**.
- 110** This parameter determines the changing time for the shouldertanner lamps. Default is set to 800 hours, but this can be changed to any time between 0000 and 2000 hours. The 'wrench' will appear in the same fashion as in parameter **101**
- 111** When the lamps and/or facial lamps connected to the Power Module have been replaced, this parameter restores the periodical running hours to 0000. Total running hours will remain the same.
- 112-119** When the lamps and/or facial lamps connected to the Extension Module have been replaced, this parameter restores the periodical running hours to 0000. Total running hours will remain the same.
- 120** When the lamps for the shoulder tanner have been replaced, this parameter restores the periodical running hours to 0000. Total running hours will remain the same.



Parameter	Display description	Default	Settings
121	Pauze during session (setting)	15	00=off 01-60 seconds
122	Delay cooling fans (setting)	0:30	00=off 0:01-2:00 minutes:seconds
123	Delay Start Pow.M	00	00=off 01-30 seconds
124-131	Delay Start Ex.M. 1-8	00	00=off 01-30 seconds
132	Delay Start S.T.M.	00	00=off 01-30 seconds
133	Restart Delay Pow.M	0:00	0:00= off 0:01-5:00 minutes/seconds
134	Restart Delay Ex.M.1	1:30	0:00= off 0:01-5:00 minutes/seconds
135-141	Restart Delay Ex.M.2-8	0:00	0:00= off 0:01-5:00 minutes/seconds
142	Restart Delay S.T.M.	0:00	0:00= off 0:01-05:00 minutes/seconds

- 121** Determines the function of the STOP button during a session. When set to 00 the STOP button will immediately end the session and the machine will start cooling down. When a time is set (between 01 and 60 seconds), the possibility is offered to continue the session by pressing the START button (the STOP button operates as a PAUSE button). The PAUSE screen is shown on the image to the right. The time will count down from the time set to zero.
- 122** Determines the delay time for the cooling fans. Delay time can be set between one second and two minutes. When this function is set to 00, all fans will start up immediately when the machine is started. As the default, this function is set to 30 seconds delay time.
- 123** This parameter determines the delay time for the Power Module and can be set between one and 30 seconds. When set to 00 all lamps and facial lamps will switch on immediately when START is pressed. 00 is set as a default which means there is no delay time.
- 124-131** This parameter determines the delay time for the Extension module and can be set between one and 30 seconds. When set to 00 all lamps and facial lamps will switch on immediately when START is pressed. 00 is set as a default which means there is no delay time.
- 132** This parameter determines the delay time for the shoulder tanner module and can be set between one and 30 seconds. When set to 00 all lamps and facial lamps will switch on immediately when START is pressed. 00 is set as a default which means there is no delay time.
- 133** When a tanning session is restarted (e.g. with the PAUSE function **121** or in case the Power Module is configured as a HD module), this parameter offers the possibility to apply a delay time for restarting lamps and facial lamps connected to the Power Module, in case this is necessary for sufficient cooling down. The delay time can be set between one second and 5 minutes, but is set at 00 as a default.
- 134** When a tanning session is restarted (e.g. with the PAUSE function **121** or in case the Extension Module is configured as a HD module), this parameter offers the possibility to apply a delay time for restarting lamps and facial lamps connected to the Extension Module, in case this is necessary



for sufficient cooling down. The delay time can be set between one second and 5 minutes, but is set to 00 as a default.

- **135-141** Individual delay time for the different groups connected to the Extension Module.
- **142** When a tanning session is restarted (e.g. with the PAUSE function **121** this parameter offers the possibility to apply a delay time for restarting the shouldertanner lamps, in case this is necessary for sufficient cool down. The delay time can be set between one second and 5 minutes, but is set to 00 as a default.

Parameter	Display description	Default	Settings
145	Preset volume audio (setting)	40	00=off 01-100 %
146	Preset volume voice (setting)	50	00=off 01-100 %
147	Preset bodycooler (setting)	03	00=off 01-05 fan speed
150	Safety switch 1 (setting)	01	00=disabled 01=enabled
151	Safety switch 2 (setting)	01	00=disabled 01=enabled
152	Safety switch 3 (setting)	01	00=disabled 01=enabled
153	Condensate tank switch (setting)	01	00=disabled 01=enabled
154	Safety switch 4 (setting)	01	00=disabled 01=enabled

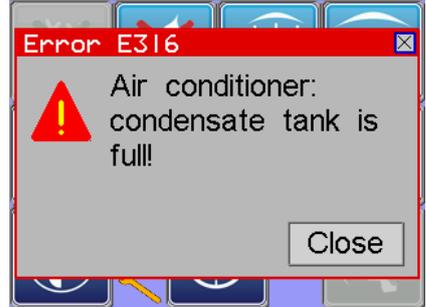
- **145** The preset volume for all audio (studio music, MP3 or Wellness sounds) is set to 40% of the maximum volume. The preferred volume can be set between 0% and 100%.
- **146** The preset volume for Voice Guide is set to 50% of the maximum volume. The preferred volume can be set between 0% and 100%.
- **147** This parameter determines the fan speed for the bodycooler. The default value is set to 03. The bodycooler fan speed can be set between 00 and 05. When set to 00 the bodycooler function is switched off when starting a tanning session.

- **150,151,152 and 154** These parameters determine if safety switches 1 to 4 are either switched on (01) or off (00). Examples of safety switches are: temperature switches, acrylic switches or broken glass detectors. Switches for un-used connections (see chapter concerning the main module) are switched off. The switched are 'on' (01) as a default.

When, during a session or during standby mode, one of the above switches is activated, a screen as shown on the image to the right appears. At this point the machine cannot be used until the cause of the error is found.



- **153** This parameter determines whether or not the water level switch for the condensation tank is switched on (01) or off (00). Default setting is on (01), but when there is no airco on the machine it is not visible. In case the water tank is full, the Error screen as shown on the right image appears. The machine can still be used, but the airco will not function anymore. Empty the condensation reservoir following the instructions in the manual provided with the machine.



Parameter	Display description	Default	Settings
155	Preset audio source (setting)	1	00=off(disabled) 01=off,switchable anytime 02=studiomusic anytime (sw) 03=MP3 music anytime (sw) 04=Welln. Music anytime (sw) 05=Bluetooth anytime (sw) 06=off (switchable dur.tan.) 07=studiomusic dur. Tan.(sw) 08=MP3 music dur. tan.(sw) 09=welln. music dur. tan. (sw) 10=Bluetooth dur. tan. (sw)
156	Preset voice guide (setting)	2	00=off(disabled) 01=off (switchable) 02=on (switchable)

- **155** This parameter determines the preferred audio settings. When 00 is chosen, the different audio options are not visible on the screen, when 01 is chosen the options are visible but switched off as a default. Settings 02, 03 and 04 mean that, respectively studio music, MP3 and wellness are switched on as a default. They can be switched on and off. 05 indicates that the audio is switched off, and can only be switched on during a session. With function 06, 07 and 08 audio is switched on as a default (respectively studio music, MP3 or Wellness) during a tanning session but can also be switched off.
- **156** This parameter determines the presetting of the Voice Guide. As a default it is switched on (02). It can be switched off as a default when function 01 is selected. In case function 00 is chosen the Voice Guide is disabled completely and the Voice Guide icon will not show on the screen.

Parameter	Display description	Default	Settings
157	Preset shouldertanner (setting)	02	00=off(disabled) 01=off (switchable) 02=on (switchable)
158	Preset facial tanner (setting)	02	00=off(disabled) 01=off (switchable) 02=on (switchable)
159	Presetting airconditioning (setting)	03	00=off(disabled) 01=off, (switchable) tanning 02=off, (switchable) tanning + cool 03=on (switchable) tanning 04=on (switchable) tan+cool
160	Presetting breeze (setting)	01	00=off(disabled) 01=off, (switchable) 02=on (switchable) 03=one pulse
161	Presetting aroma (setting)	02	00=off(disabled) 01=off, (switchable) 02=on (switchable) 03=one pulse

- **157** This parameter determines whether the shoulder tanner is switched on (02=default) together with the IQ Touch Control, or remains off (01) when the IQ Touch Control is switched on. Both 01 and 02 are switchable. When function 00 is selected, the shoulder tanner is switched off and cannot be switched on. (no icon appears on the screen).
- **158** This parameter determines whether the facial tanner is switched on (02=default) together with the IQ Touch Control, or remains off (01) when the IQ Touch Control is switched on. Both 01 and 02 are switchable. When function 00 is selected, the facial tanner is switched off and cannot be switched on. (no icon appears on the screen).
- **159** This parameter determines whether the airco is switched on (03=default) together with the IQ Touch Control, or remains off (01) when the IQ Touch Control is switched on. Both 01 and 03 are switchable. When function 00 is selected, the airconditioning is switched off and cannot be switched on. (no icon appears on the screen). In case 02 or 04 is selected the airconditioning functions in the same way as in respectively function 01 and 03, but now the airconditioning also functions during the aftercooling period together with the bodycooler, that runs as programmed in parameter 147.
- **160** This parameter determines whether the breeze unit is switched on (02=default) together with the IQ Touch Control, or remains off (01) when the IQ Touch Control is switched on. Both 01 and 02 are switchable. When function 00 is selected, the breeze unit is switched off and cannot be switched on. (no icon appears on the screen). When function 03 is selected, a breeze pulse can be given manually by pressing the icon on the touch screen, after this a waiting time will appear as described in the **breeze icon** paragraph.
- **161** This parameter determines whether the aroma unit is switched on (02=default) together with the IQ Touch Control, or remains off (01) when the IQ Touch Control is switched on. Both 01 and 02 are switchable. When function 00 is selected, the aroma unit is switched off and cannot be switched on. (no icon appears on the screen). When function 03 is selected, an aroma pulse can be given manually by pressing the icon on the touch screen, after this a waiting time will appear as described in the **aroma icon** paragraph.

Note: When you choose setting 03 of parameters 160 and 161 both parameters must be set at 03, or at 00 (off), because otherwise the waiting time for both will be overlapped!

Parameter	Display description	Default	Settings
162	Preset vibration (setting)	01	00=off (disabled) 01=switchable during session 02=switchable anytime
163	Preset vibration time minutes / seconds	2:00	00=off(disabled) 0:15-5:00 minutes/seconds
164	Preset vibration level minutes / seconds	2	00=off(disabled) 01-04 level
165	Condensate pump minutes / seconds	1:30	00=off(disabled) 0:01-3:00 minutes/seconds
166	Breeze/water time seconds	3	1-6 seconds
167	Breeze air time seconds	1	1-3 seconds
168	Aroma time seconds	3	01-30 seconds

- **162** Setting this parameter determines whether the VibraPlate can be used during the session (01=default) or cannot be used (00). When parameter 00 is selected, the VibraPlate icon is not visible in the main screen. When 02 is selected, the VibraPlate can be used independently from the Ultrasun machine. Here the machine does not have to be switched on if you want to use the VibraPlate.
- **163** determines the pre-installed time for the manual control of the VibraPlate. The time can be set between 0:10 and 5:00 minutes. Standard it is set at 3 minutes.
- **164** determines the pre-installed speed for the manual control of the VibraPlate . The speed can be set between levels 1 up to 4 (see parameters 251-254). Standard it is set at level 1.
- **165** De condensate pump (which operates with the Airco system will pump for 90 seconds after a tanning session (default). When 00 is chosen, the pump is switched off. The time can be set between 1 second and 3 minutes.
- **166** When the breeze function is activated during a session, there will be a three second breeze of water sprayed through the nozzle (=default). This time can be set between 1 and 6 seconds.
- **167** After the breeze function has sprayed water (**166**), air will be pumped through the tubing. This happens for one second (=default) but can be set between 1 and 3 seconds.
- **168** When the aroma function operates, the aroma fluid will be sprayed into the bodycooler for 20 seconds (=default). It can be set between 1 and 30 seconds.

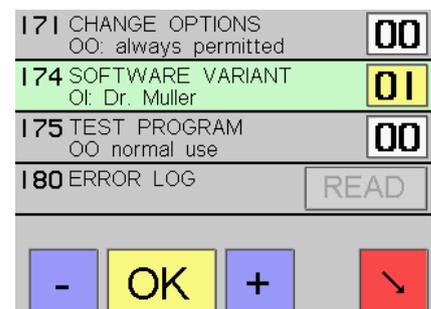
Parameter	Display description	Default	Settings
169	Pause bodycooler seconds before start of breeze	3	0=off 1-5 seconds before start of breeze
170	restart bodycooler (setting)	0	0=off 1-5 seconds after end of breeze
171	change options (setting)	0	00=always permitted 01=only during session

- **169** Due to the fact that some machines are equipped with multiple bodycooler fans, and that some of these fans could counteract with the Breeze function, this parameter can disable the bodycooler fan before the breeze function operates. Normally this is set to 3 seconds before the pulse(=default), but it can be set between 1 and 5 seconds.
- **170** After the bodycooler fans have been switched off (**169**) a delay time can be implemented for the re-start of the fans. This is disabled as a default (0) but can be set between 1 and 5 seconds.
- **171** Even when the machine is not switched on, it is already possible to make changes in the options. In case the user wishes to start the session without airconditioning, breeze, aroma, facial tanner or shouldertanner before the machine begins, these options can be switched off by pressing the icons on the screen (see image to the right). A red cross will appear over the corresponding option(s). All options can be switched on again without any problems. This function is switched on (00) as a default, but can also be switched off (01). When it is switched off changes can only be made during a session.



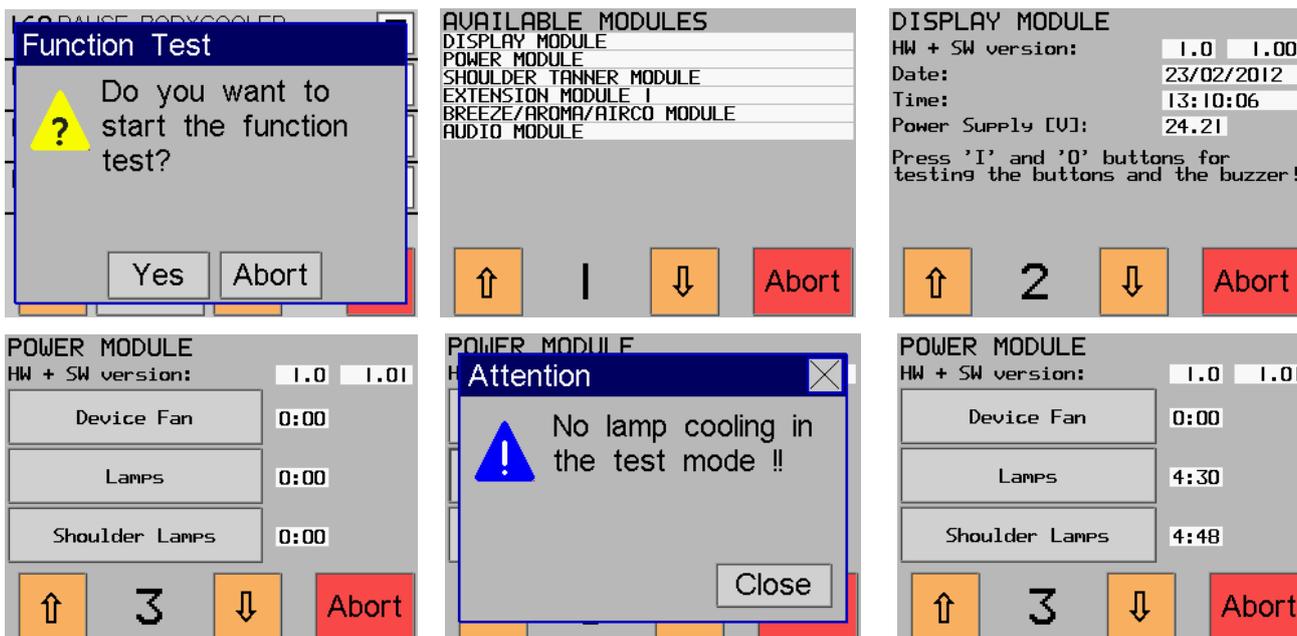
Parameter	Display description	Default	Settings
174	Software Variant	0	00=ULTRASUN 01=Dr. Muller
175	Test Program (setting)	0	00=normal use 01=function test 02=demo
180	Error log	READ	
190	HW + SW version + serial #	*2	
197	Device adress	1	01-32
198	010-181 to default	RESET	
200	Change PIN code of operator menu	1111	0000-9999

- **174** This parameter let you choose between Ultrasun tanning equipment and Dr. Muller Light Therapy appliances. The settings are equal from both possibility, only the logo's, pictures and used colours are different.



- **175** This parameter can activate the test and demo program and is switched off as a default (00). When this function is changed to 01, one can test every part connected to the machine

independently. (E.g. to perform measurements on one particular part). The screens will appear as shown below:



The top left image shows the first screen, and by pressing yes the next screen, with an overview of all the modules, will appear. By using the arrow buttons one can scroll through the different screens. The “display module” screen shows the version numbers, date and time, and the measured supplied voltage. The next screens show all the connected parts. The bottom left screen subsequently shows the buttons: “device fan” , “lamps” and “Shoulder Lamps”. The designated buttons can be used to switch on/off the related function. Every function will switch on for 5 minutes. E.g. in case one presses the “Lamps” button the following warning appears on the screen: ‘-attention- No lamp cooling in the test mode’. This warning is shown, because in this situation, only the lamps are switched on, not the fans. The fans can be switches on by pressing the “device fan” button. This way all menus can be walked through, and all parts can be tested separately. To the right of the button the running time is shown. When function 02 is chosen in parameter **175** one can start the demo program. The demo program goes through all the different functions of the test program automatically, in a preset sequence. The sequence that is followed is shown below, but is of course dependant on the connected modules. The screen layout is identical to that of the test program as described on the previous page.

info	
info	
fan	
lamps	
shoulder	
body	
deco lamps	
compressor	
switch	
fan	
lamps	
airco	
condenswater	
no body fan	
compressor	
breeze water/air	
aroma	
status pressure	
voice guide	
(+)	
(-)	
(L)	
(R)	
Studio	
MP3	
Bluetooth	
Wellness	vol
	bas
	mid
	high
Vibrate	1
Vibrate	2
Vibrate	3
Vibrate	4

- **180** This parameter shows the Error history of the machine. The screen resembles the image on the right and shows the last 30 Error notifications. In chapter 6 you can find a description of every error code. The error screen also has columns with: a short description of the error, what has happened (which is shown under "Event"(Events are described extensively in the appendix)) and furthermore the date and time which indicate when the errors occurred.
- **190** In this parameter the hardware (HW) and software (SW) version of the IQ Touch Control are shown. The serial number of the timer is also shown here.
- **197** To use your IQ Touch Control in a network, the timer needs an 'address'. A number between 01 and 32 can be chosen. This has to be a unique number for every connected timer.
- **198** The function of this parameter is to reset all parameters from **010** to **181** to the default settings. Press the reset button and afterwards, if the reset is desired, press YES. Afterwards EEPROM will be re-written/reset. The images shown below the description of parameter **098** show the screens that will be shown.
- **200** In this parameter the PIN code for the *operator* menu can be changed to a desired number ranging from 0000 to 9999. When the PIN code is changed, be sure to write it down, so it is available to others too.

CODE	SOURCE	EVENT	DATE	TIME
E311	Safety 2	ALARM	23/02/12	13:56
	Safety 2	reset	23/02/12	13:56
E311	Safety 2	ALARM	23/02/12	13:56
	Audio-M.	logged	23/02/12	13:56
	BrArAi-M.	logged	23/02/12	13:56
E90	Audio-M.	LOST	23/02/12	13:56
E90	BrArAi-M.	LOST	23/02/12	13:56
	BrArAi-M.	logged	23/02/12	13:56
E90	BrArAi-M.	LOST	23/02/12	13:56
E311	Safety 3	ALARM	23/02/12	13:55

Some additions to the parameter menu:

In case you already "in" the parameter menu and (accidentally) another button is pressed, a screen like on the right is displayed. Press close first finish was started, then press OK always at least 0.5 seconds.



In the parameter menus several times a * is shown, these have the following meanings:

* 1 -At parameter 040 and 041 there should normally be the actual time, there is no default. If you want to set a time then please change the setting. If the time is not correct after a power failure then it is advisable to replace the backup battery (see the section of the display module)

* 2 The default menu, the value of the serial number is not listed because it is only programmed during final inspection.

* 3 This is the serial number filled during the final inspection.

16.3.1 Error Notifications

Many of the error notifications have been described in the parameter menu's on the previous pages, but below is a list containing all error notifications that can appear on the screen. When a "reset" is mentioned below, please refer to the chapter: "**Resetting the processor**". In the event this solution does not work, we advise to [purchase a new display print](#).

E03: Memory reading error (the device's processor), reset the timer. Can also mean a defect print, exchange and exclude.

E04: Memory writing error (the device's processor), reset the timer. Can also mean a defect print, exchange and exclude.

E37: This function is switched off or blocked, refer to the parameter menu how this function is configured.

E39: General parameter error. In case the parameter menu can still be accessed, check all settings. In case the menu cannot be accessed, execute a reset.

E40: Unknown software version or transmission protocol, make sure an original version is installed; normally this can be done with a reset or update. It can also mean that the version number of one of the connected modules or the external operating system differs.

E45: Serial interface (slave mode). The identification code (to or from) for the transaction is unknown or unexpected in the current operating state. Check connected modules, parameters and UTP cables.

E46: Serial interface (slave mode). The address group is not permitted or the identification code for the transaction is unknown.

E49: Divide by 0 (zero)

E79: Serial interface: the device does not identify the transmission protocol or the number of exchanged data bytes is incorrect.

E81: Serial interface (slave mode): Receiving buffer-overload, relates to the RAM buffer or the Slide register.

E82: Serial interface (slave mode): possible cable breakage or check if all modules have supplied voltage.

E83: Serial interface (slave mode): There is a discrepancy in the data stream (Possible cause is the occurrence of a difference in transfer speed between transmitter and receiver, or more devices having the same address!)

E84: Serial interface (slave mode): Runtime error, error in the timeframe of the transmission. Can be a time exceeded.

E85: Serial interface (slave mode): Unclear or invalid signals received.

E86: Serial interface (slave mode): Too many bytes are being send. (Buffer overrun error)

E87: Serial interface: Internal controller conflict, possible cause is some devices or parts have the same address.

E88: Serial interface (slave mode): Interruption (ETX not found or receiver is not answering, or taking too long to answer. The transmission time between transmitter and receiver has a different value).

E89: Serial interface (slave mode): Control sum error or other data errors. (e.g. an unexpected number

of bytes).

E90: Serial interface (slave mode): A module is logged off, unregistrable.

E200: Data error occurred in the time menu of the EEPROM memory.

E201: Data error occurred in the configuration data and the EEPROM memory of the device.

E232: Conditions for the execution of this function are not confirmed.

E233: Data error in the shared data in the EEPROM memory. In case this error reoccurs often, it should be re-initialized or repaired.

E234: Data error in the statistical data of the EEPROM memory

E241: Illegal bitmap size or file compression (expected is a Windows Bitmap file, with 24bit colour, not inverted, uncompressed, one layer, radon definition and a maximum width of 320 pixels and a maximum height of 240 pixels).

E282: Fuse (Si1) of the Power module is defect, or the supplied tension is not connected properly or not present: Moodlight 3,3V (the supplied voltage regulator on the print can also be defect).

E283: Fuse (Si2) of the power module is defect (or the supplied tensions is not connected (properly) or present: Moodlight 24V).

E284: Fuse (Si3) of the Power Module is defect (or the supplied tension is not connected(properly) or present: Moodlight 230V and 230V supplied tension for the fans and the bodycooler).

E285: Fuse 1 of the Breeze/Aroma/Airco Module is defect of the supplied tension is not connected (properly) or present: 230V supplied tension of all valves, the airco and condensation pump.

E286: Fuse 1 of the Audio Module is defect (or the supplied tension is not connected (properly) or present: 5V supplied tension of the amplifier).

E290: Serial interface (master mode): Interruption during receipt of the RS 485 network connections.

E291: Serial interface (master mode): The receiving device reports: length of sent transmission block is unknown. (number of bytes)

E292: Serial interface (master mode): The receiving device reports: transmission protocol version of the sent transmission block is unknown. (receiver does not support this version).

E293: Serial interface (master mode): The receiving device reports: The identification (command/return code) of the sent transmission block is either unknown, or is known but unexpected at this moment in this situation. Another answer is probably expected.

E294: Serial interface (master mode): The receiving part reports a receipt of buffer exceeded.

E298: Data error in the password data of the EEPROM memory.

E299: Data error in the error protocol of the EEPROM memory.

E301: Data error in the Breeze/Aroma/Airco of the EEPROM memory.

E305: Data error in lamp change data and restart delay-time data of the EEPROM memory.

E306: Data error in the 'events' protocol data of the EEPROM memory.

E310: Shouldertanner Module not present.

E311: One of the safety switches has been activated (gives alarm).

E312: The panic switch has been pushed.

E313: Sound Module not present. (Wellness music and Voice guide).

E316: Condensation tank full (or the corresponding switch has been activated)

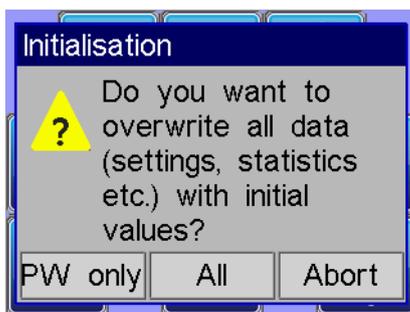
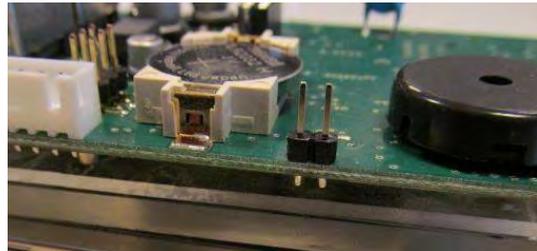
E320: General error in connecting with the μ SD card. (read or write error).

E331: μ SD Card: the file cannot be opened, or does not exist.

When one of the above error notifications appears on the display screen, try to restore the IQ Touch Control with simple solutions (switch the power supply on/off, reset, control the cable connections, exchange modules). If this does not work, please contact your distributor or contact Ultrasun International.

16.4 Processor Reset

In case one wishes to perform a general reset of the IQ Touch Control, one should remove the display unit from its casing and look on the back of the unit. Here one can see two small pins as shown in the image below. Connect these small pins for a short period of time (e.g. by using a screwdriver). When the notification: “please remove initialisation jumper” appears on the screen the pins ***can be disconnected***. In case one only wants to reset the passwords, please select “PW Only”. In case one wants to reset all parameters to the default settings, please select “All”. After the “ Writing EEPROM Data” screen the ***connection can be removed***.



When a general reset had been executed as explained in the above (All data); all parameters need to be walked through again, in order to select the preferred settings!

16.5 Article Numbers of individual Parts

<i>Art.Nr.</i>	<i>Description</i>
2Z0100	Sunfit UV glasses brown
3T1010	Display module V1.0 IQ Touch Control
3T1011	Touchscreen for display module
3T1020	Power module V1.0 IQ Touch Control
3T1030	Extension module for lamps and facials V1.1 IQ Touch Control
3T1040	Shouldertanner module V1.0 IQ Touch Control
3T1045	VibraPlate module V1.0 IQ Touch Control
3T1053	Audio module V2.0 IQ Touch Control
3T1061	Micro SD for Voice Guide/Wellness module IQ Touch Control
3T1062	Voice Guide/Wellness module IQ Touch Control for Micro SD
3T1065	Bluetooth module for IQ Touch Control audio board
3T1070	Breeze / Aroma / Airco module IQ Touch Control
3T1080	Terminator V1.0 IQ Touch Control
3T1089	24 Volt power supply MeanWell RS50-24 IQ Touch Control
3T1090	24 Volt power supply MeanWell RS100-24 IQ Touch Control
3T1140	Front foil with START and STOP button for i8, and i9
3T1145	Front foil with START and STOP button for Q6, Q10, Q14 and Q18
3T1130	Front foil with START and STOP button for Q22 (old style)
3T1087	USB adapter 90 degree for i8,i9
3T1088	USB cable 25 cm to mini USB for Bluetooth module
3W2194	3,5 mm 15 cm cable for Bluetooth module
3W2202	FTP cable white 0,25m
3W2205	FTP cable white 0.5m
3W2230	FTP cable white 3.0m
3W2175	3,5mm stereo plug angle JC-023 IQ Touch Control i model
3W2176	Cinch adapter 2x plug male/male AC 064 IQ Touch Control i model
3X0710	Fuse 3,15 A slow (5 x 20 mm)
3X0711	Fuse 1 A slow (5 x 20 mm)
3X0712	Fuse 6,3 A slow (5 x 20 mm)
3X0714	Fuse 10 A slow (5 x 20 mm)
3X2102	Connector -CC 3,5mm 2pol.FS/Lock 732-102/037-000
3X2104	Connector -CC 3,5mm 4pol.FS/Lock 734-104/037/000
3X2106	Connector -CC 3,5mm 6pol. FS/Lock 734-106/037-000
3X2112	Connector -CC 3,5mm 12pol. FS/Lock 734-112/037-000
3X3202	Connector FST 7,5mm 2P with lock 721-202/037-000
3X3209	Connector FST 7,5mm 9P with lock 721-209/037-000
3X3211	Connector FST 7,5mm 11P with lock 721-211/037-000
5K1400	Spacer for pcb Shoulder module IQ Touch Control
5K1405	Spacer for pcb all modules (except shoulder) IQ Touch Control

10. Appendices

Appendix 1: error notifications from the “ error log “ screen of parameter 180

column 2:

"Safety 1" = safety switch 1 on power module

"Safety 2" = safety switch 2 on power module

"Safety 3" = safety switch 3 on power module

"Cond.t.sw" = condensate tank switch of the airconditioner, is connected via power module

"Panic sw." = panic switch on power module

"Mood 3,3V" = supply voltage 3,3V of moodlight on power module

"Mood 24V" = supply voltage 24V of moodlight on power module

"Fans 230V" = supply voltage 230V of device fan, body fan and moodlight on power module

"BrArA230V" = supply voltage 230V of the valves and relays on breeze/aroma/airco module

"Audio 24V" = supply voltage 24V of the power amplifiers on the audio module

"Power-M." = RS485 data link to the power module

"Ext.M. 1 8" = RS485 data link to the extension module 1 8

"BrArAi-M." = RS485 data link to the breeze/aroma/airco module

"Audio-M." = RS485 data link to the audio module

"Should-M." = detection of the shoulder tanner module (sandwich on power module)

"Sound-M." = detection of the sound module (sandwich on audio module)

"Vibra 30V" = supply voltage 24-30V for the VibraPlate module

column 3:

"ALARM" = safety / condensate tank / panic switch gives alarm

"reset" = safety / condensate tank / panic switch was reset

Note: if a switch is to be ignored by **150 SAFETY SWITCH = disabled** in Operation menu, or **210 IGNORE SAFETY CONTROLS = test mode** in service menu, or by other reasons, the event is not recorded in the event list!

"FAIL" = supply voltage failure (fuse killed, or wiring incorrect, or electronic defect)

"fixed" = supply voltage o.k. (fuse is replaced, wiring or electronic is repaired)

"LOST" = RS485 data link is interrupted, or module is removed

"logged" = RS485 data link is established again, or module is connected again

Note: because most of the modules are connected optionally, a data link event only is recorded in the log if the event occurs during operation. It is not reported after reset (if a module was removed or connected during the device supply was switched off)!

Appendix 2: Voice Guide texts

001.mp3	welcome, touch to activate
002.mp3	push the start button to begin
003.mp3	wait until the prerun time is over
004.mp3	thank you for using this Ultrasun device
005.mp3	this device has to be cleaned
006.mp3	your device is controlled by an external management system
007.mp3	aroma off
008.mp3	aroma on
010.mp3	aroma delay time
011.mp3	body cooler
012.mp3	less fresh air
013.mp3	more fresh air
014.mp3	airconditioning off
015.mp3	airconditioning on
016.mp3	airconditioning delay time
017.mp3	breeze off
018.mp3	breeze on
019.mp3	breeze delay time
021.mp3	facial tanner off
022.mp3	facial tanner on
023.mp3	facial tanner delay time
024.mp3	shoulder tanner off
025.mp3	shoulder tanner on
026.mp3	shoulder tanner delay time
027.mp3	audio adjustment
028.mp3	all music channels off
029.mp3	volume
030.mp3	low tone
031.mp3	mid tone
032.mp3	high tone
033.mp3	external audio
034.mp3	personal audio
035.mp3	wellness sound
036.mp3	voice guide off
037.mp3	voice guide on
038.mp3	session time adjustment
040.mp3	less time
041.mp3	more time
042.mp3	main menu
043.mp3	pause, press start to resume
044.mp3	Your session has resumed
045.mp3	changes can only be made during the session
046.mp3	vibration
047.mp3	relax vibration program
048.mp3	regular vibration program
049.mp3	active vibration program
050.mp3	vibration off
051.mp3	vibration manually
052.mp3	not permitted
053.mp3	enjoy your session
054.mp3	button 'BlueTooth music' is pressed
055.mp3	equalizer 'pop' is selected
056.mp3	equalizer 'classic' is selected
057.mp3	equalizer 'dance' is selected
058.mp3	equalizer 'vocal' is selected
059.mp3	equalizer screen is selected
060.mp3	wellness music: play previous track
061.mp3	wellness music: play next track
062.mp3	all equalizer buttons are switched off
063.mp3	thank you for using this Dr.Muller device
064.mp3	Add here the personal welcome text of your own company (private label)
065.mp3	wait until the cooling time is over
255.mp3	IQ touch timer

Appendix 3 : Original English texts of the error notifications

- E03 Memory read error (EEPROM of the device)
- E04 Memory write error (EEPROM of the device)
- E37 This function is disabled or blocked, see configuration menu!
- E39 General parameter error.
- E40 Unknown software version or transmission protocol version.
- E45 Serial interface (slave mode): Unknown command (IDENTIF). Or the command or return code is not expected at this moment.
- E46 Serial interface (slave mode): Group address not permitted, or command is unknown.
- E49 Division by 0.
- E79 Serial interface: The device does not know the transmission protocol version, or the transmitted number of data bytes is incorrect.
- E81 Serial interface (slave mode): Overrun error.
- E82 Serial interface (slave mode): Framing error.
- E83 Serial interface (slave mode): Parity Error (Possible cause: the parities or the baudrates of sender and receiver are set to different values, or several devices have the same address.)
- E84 Serial interface (slave mode): Runtime error (timeout).
- E85 Serial interface (slave mode): Incomprehensibly or invalid signals are received.
- E86 Serial interface (slave mode): Buffer overrun error (too many bytes).
- E87 Serial interface: Collision on the bus! Possible cause: several devices have the same address.
- E88 Serial interface (slave mode): Timeout (ETX not found, or receiver sends no answer, or too long delay between 2 bytes). Possible cause: the parities or the baudrates of sender and receiver are set to different values.
- E89 Serial interface (slave mode): Checksum error, or other data errors (unexpected number of bytes).
- E90 Serial interface (slave mode): Timeout. A module is lost and logged out!
- E200 Data error in the time menu in the EEPROM memory of the device. Check the data!
- E201 Data error in the configuration data in the EEPROM memory of the device. Check the data!
- E232 The conditions needed for executing this function are not confirmed!
- E233 Data error in the common data in the EEPROM memory of the device. If this error occurs several times, the device must be initiated or repaired.
- E234 Data error in the statistics data in the EEPROM memory of the device. Check the data!
- E241 Illegal bitmap format or compression (expected: windows bitmap file with 24 bit color, not inverted, no compression, one layer, arbitrary definition, maximum width = 320 pixels, maximum height = 240 pixels)
- E282 Fuse Si1 on Power Module is defect (or external operating voltage is not properly connected or failed): moodlight supply 3,3V (also: maybe voltage regulator is defect)
- E283 Fuse Si2 on Power Module is defect (or external operating voltage is not properly connected or failed): moodlight supply 24V
- E284 Fuse Si3 on Power Module is defect (or external operating voltage is not properly connected or failed): moodlight supply 230V and 230V supply of device and body fan
- E285 Fuse 1 on Breeze/Aroma/Airco Module is defect (or external operating voltage is not properly connected or failed): 230V supply of all valves, the air conditioner and the condensation water pump.
- E286 Fuse 1 on Audio Module is defect:
- a) audio module V1: 24V supply of power amplifier (or external operating voltage is not properly connected or failed)
 - b) audio module V2: 5V supply of a smartphone via USB connector X2
- E287 Fuse 1 on Vibration Module is defect (or external operating voltage is not properly connected or failed): 24-30V supply of power amplifier.
- E290 Serial interface (master mode): Timeout during polling of the networked devices (RS485). If the connection was interrupted a too long time, the device sends this message at station enquiry (ENQ) when the connection is established again. (Power Module and the Extension Modules: during the offline time the lamp and fan relays remain switched on. They are switched off automatically after elapsing of their internal timers.)
- E291 Serial interface (master mode): the receiving device reports: length of the sent transmission block is unknown to the receiving device (number of bytes).

E292 Serial interface (master mode): the receiving device reports: transmission protocol version of the sent transmission block is unknown to the receiving device (the receiver does not support this version).

E293 Serial interface (master mode): the receiving device reports: the identifier (command / return code) of the sent transmission block is unknown to the receiving device! Or the identifier is known, but it is not expected at this moment or in this operating state! It is possible that another answer is expected!

E294 Serial interface (master mode): the receiving device reports a receive buffer overrun error.

E298 Data error in the password data in the EEPROM memory of the device.

E299 Data error in the error protocol data in the EEPROM memory of the device!

E301 Data error in the breeze / aroma / airco data in the EEPROM memory of the device.

E305 Data error in the lamps changing interval data and the restart delay time data in the EEPROM memory of the device.

E306 Data error in the event protocol data in the EEPROM memory of the device.

E310 Shoulder Tanning Module is not present.

E311 Safety switch error (one or more safety switches give alarm!).

E312 Emergency switch error (switch is on).

E313 Sound Module is not present (wellness music and voice guide).

E316 Condensate tank switch of airconditioner gives alarm (tank is full).

E320 General error when accessing μ SD card (timeout or response error, read or write error)

E331 μ SD card: file could not be opened. Does not exist?

E420 Sound module reports Folder or track not found

E421 Sound module reports μ SD card and USB flash drive not found

E422 Sound module reports MP3 cable not present, see 3,5 mm jack plug . In spite of this: command executed!

E423 Sound module reports BlueTooth module cable not present , see 3,5 mm jack plug . In spite of this: command executed!

E424 Sound module reports BlueTooth module is inhibited by software and/or jumper 1a. Command not executed!

Appendix 4 : Activating the Bluetooth module

The Bluetooth module is only recognized by the IQ Touch Control when the jumper has been fitted in connector 1a. See the yellow part in the picture below.



Appendix 1 User manual for a software update

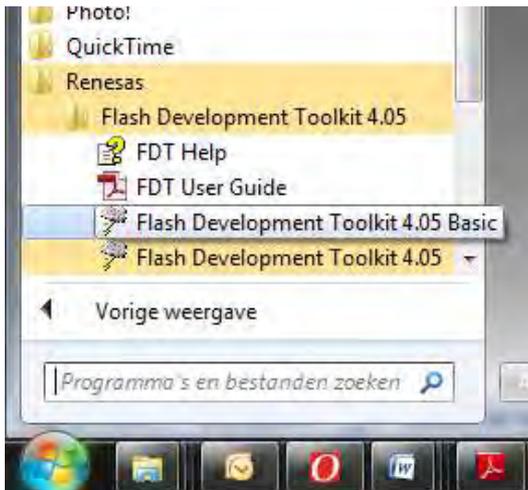
The software version *fdt_4_05_01* is only compatible with a 32 bits **windows** operating system, the 64 bits version is the *fdtv409r02*!

Installing the software is for both (32 and 64 bit) identically.

In case an alert appears like: "This software installs an unsupported version" just press the OK button to ignore this alert.

Press the NEXT button five times, accept the conditions, press the INSTALL button and at last the FINISH button.

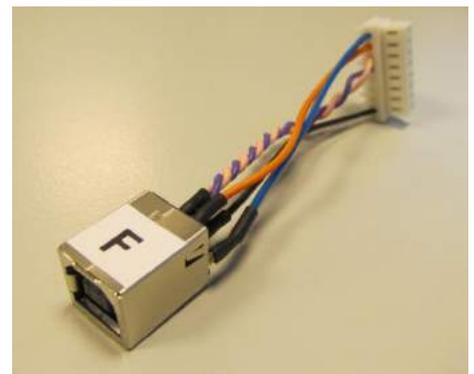
Go via START (Windows) to Renesas/Flash Development Toolkit 4.05 and open the Flash Development Toolkit 4.05 BASIC (see image below)



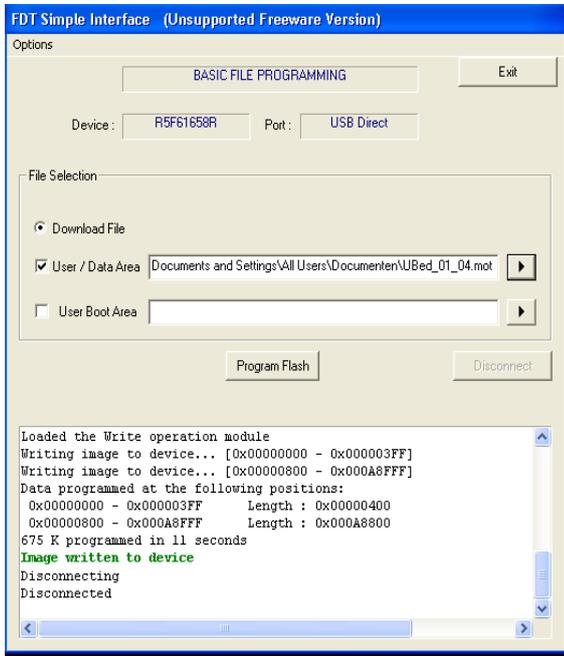
In the screen, choose: "Generic-Boot-Device", hereafter "USB direct" and then "User data Area".



Connect the USB cable to the computer and to the display unit of the IQ Touch Control. Do this with the use of the adapter cable (3T1086) (see image on the right) or the 3T1085 (use the "F" connection).



Install the USB driver manually (once the connection has been made). Do this by selecting the driver from the list (otherwise the possibility exists that the wrong driver will be installed). The name of the USB driver is E1USB (“Generic BootUSB Direct V1.1.8.0”) and is located in the file “C:\Programme\Renesas\FDT4.05\Drivers\for_32bit\Renesas_E_Series_USB”.



Select 'Download File' and choose in the 'User / Data Area' the location where the new software can be found (V1.04). Press the button 'Program Flash' and the software will automatically be installed.

Hereafter, press the disconnect button, disconnect the USB cable and the IQ Touch Control automatically starts with the new software, as can be seen at the starting screen (see image below).



DECLARATION OF CONFORMITY

Directive 2014/35/EU and 2014/30/EU

We, Ultrasun International BV
 Granaatstraat 6
 7554 TR HENGELO, Holland

declare that this Ultrasun i8 is in conformity with
the actual version of the following normative documents:

Applied harmonized Standards:

Safety: EN 60335-1
Safety: EN 60335-2-27
EMC: EN 55014-1 and EN 55014-2
EMC: EN 61000-3-2 and EN 61000-3-3

following the provisions of the following directives:

IEC-Directives: Low Voltage Directive
 2014/35/EU
 Electromagnetic Compatibility Directive
 2014/30/EU

Issued by:



J.W.S Fabels
CEO Ultrasun International
Hengelo, August 2016

Appendix 4 LIMITED WARRANTY

ULTRASUN warrants its products to be free from defects in materials and workmanship under intended normal use as described in the unit's Operation and Instruction Manual, for a period of one (1) year from date of sale.

This Limited Warranty applies only to the original purchaser of the equipment through ULTRASUN or its authorized dealer or distributor, and is not transferable.

ULTRASUN 's obligations under this warranty are limited to repair or replacement of any defective part without charge for that part to the original purchaser, with the following exceptions:

- * Only parts obtained through ULTRASUN, its authorized dealers or distributors may be used. Transportation costs for parts shipped to the consumer and the return of defective parts to ULTRASUN are not included.
- * Labor will be furnished without charge for ninety (90) days from date of purchase only. All labor and related charges must be authorized by ULTRASUN. prior to start of repairs, and must coincide with ULTRASUN 's established rates and time allotment policy.
- * Acrylics, filters, lamps and facial bulbs are excluded from guarantee.

It is imperative that the original customer completes and returns the enclosed warranty card within 10 days after purchase to insure valid registration and coverage for potential claims.

If the warranty card is not registered, proof of purchase from ULTRASUN or its authorized dealer or distributor will be required prior to any consideration on warranty claims. This could result in service delays.

This warranty is extended to the individual or legal entity, whose name appears on the warranty registration card filed with ULTRASUN., or whose name appears on the original sale document and may not be transferred to any other individual or legal entity.

This warranty does not apply to any failure of the product, or any parts of the product due to alterations, modifications, misuse, abuse, accident, improper maintenance, improper installation or if the serial number on the product has been removed, altered, or defaced. Adequate packaging must be used for returned goods to prevent freight damage.

This warranty is expressly in lieu of all other warranties, expressed or implied, including the warranties of merchantability and fitness. No person, firm or corporation is authorized to obligate ULTRASUN for any liability in connection with the sale or use of these goods.

This warranty gives you specific legal rights, and you may also have other rights that vary from state to state.



Appendix 5 Ultraviolet light and its relationship with man

The Sun

The sun is an abundant source of radiant energy; however, only about half this energy reaches the earth's surface as sunlight or visible radiation. The other half of the radiant solar energy contains invisible shorter wavelength components (ultraviolet) and invisible longer wavelength components (infrared).

This radiation consists of electromagnetic waves of various wavelengths. Infrared radiation, for instance, has a greater wavelength than the radiation that makes us tanned. The radiation that makes us tanned we call ultraviolet (UV). Both sorts of radiation are invisible. The visible radiation (light) has wavelengths that lie between the infrared and ultraviolet. Today's technology has given mankind the opportunity of reproducing all these forms of solar radiation, so that we now have artificial light (the light bulb for instance) and also the ultraviolet rays which produce tanning (e.g. sunlamp, solarium).

Ultraviolet

The ultraviolet rays are subdivided into UV-A, UV-B and UV-C. UV-A and UV-B are the parts of the ultraviolet spectrum which produce tanning UV-C is not received on earth because it is filtered out by our atmosphere.

Your ULTRASUN unit and the special made Ultraviolet bulbs remove the UV-C in the sunbeds and sunroofs by using a special quartz glass. A further explanation of these regions is described in the ensuing paragraphs.

Skin

Like all other organs, the skin is a living part of the body. It is therefore in no sense merely a form of packing for the muscle system, the tissue, the veins, and the nerves. On the contrary, through the medium of the delicate and sensitive nerve cells situated in the skin, it conveys to the regulating center (the cortex of the brain) news of all stimuli affecting the body from the outside. It may therefore be compared with an extremely efficient radar screen of a large area that receives and registers wavelengths of all types, such as light and heat.

The horny layer of our skin, which is about 1/100 inch thick, consists of scaly cells without nuclei. It transmits only about twenty percent of the ultraviolet rays with wavelengths less than 300 nm. Of the rays in the range between 300 and 390 nm, on the other hand, up to eighty percent get through. The entire outer skin (the epidermis), consisting of the horny layer (stratum corneum), the clear layer (stratum luteum) and the reproductive layer (stratum germinativum), causes a twenty percent weakening of the rays. Ultraviolet rays undergo the greatest absorption in the papillary layer, the layer in which the nerves end.

Ultraviolet rays of the ordinary wavelengths do not penetrate the skin beyond this papillary layer. This means that the rays do not get further than one fiftieth of an inch through the one-twelfth-inch thickness of the human skin. The slight penetration is explained by the fact that when the ultraviolet rays reach the papillary layer of the skin, they immediately become active participants in chemical processes and are thereby destroyed. The natural consequence of a sunbathe in ultraviolet light is the reddening of the skin.

In harmless cases, the reddening of the skin is followed by a brown tan that lasts for varying lengths of time. This coloration is caused by the pigment granules that, under the influence of the ultraviolet radiation, form between the reproductive and papillary layers of the skin. When, after eight to ten days, the coloration of the skin has reached a point at which the blood vessels can be dilated no further, the pigment granules inside the skin rise to the top and fade. This restores the pallor of the skin, and the natural color is gone. Pigmentation of the skin is mainly caused by ultraviolet rays with a wavelength of less than 310 nm. A tan may be produced without prior reddening of the skin if the skin is exposed only to ultraviolet rays with a wavelength between 310 and 390 nm. (This is what occurs in your Ultrasun unit with UV-A lamps). A tan created by these long-wave ultraviolet rays is more lasting and finer in color.

People are not all uniformly sensitive to ultraviolet rays. As a rule, a blond person shows a stronger reaction than a person with black hair; but even among fair people there are variations. The very fair and redheads are more than twice as sensitive as those with the darker shades of blond hair. Age too, and the general physical conditions plays an equally decisive role.

Exposure

"Burn in": The specially made ultraviolet fluorescent lamps in your Ultrasun unit have to be "burnt in". This process requires about 40 - 50 hours. The radiation of the lamps is about 120% of the nominal power during this period. We advise you to reduce the exposure time during this period by about 20%.

UV-A Longwave Ultraviolet Light and Its Application

The radiation produced in the area of 315 to 400 nanometers (and according to some researchers, part of the visible light rays too) is responsible for the direct tanning which appears soon after irradiation.

UV-B Middlewave Ultraviolet Light and Its Application

The radiation produced in the area of 280 and 315 nanometers is responsible for the direct tanning. The UV-B radiation produces in the skin a substance known as melanin. This melanin moves to the cells on the surface of the skin and their changes into pigment. The fluorescent lamps used in your ULTRASUN unit contains a very small percentage of UV-B radiation which triggers this process. The discoloration of the pigment present in the cells on the surface of the skin is accomplished by adding UV-A.

A disadvantage of UV-B radiation is that it is very powerful and can irritate the eyes and sunburn (erythema) the skin. Caution must be used when the body is exposed to this radiation.

Protective sunglasses are a necessity when using UV-B.

UV-C Shortwave Ultraviolet Light and Its Application

The wavelengths in the ultraviolet region below 280 nanometers are known as UV-C. UV-C lamps are generally known as germicidal lamps. Germicidal ultraviolet is primarily intended for the destruction of bacteria and other micro-organisms in the air or on exposed surfaces.

The air indoors may contain countless bacterial and mold spores. These are usually the source of spoilage of perishable products and can cause disease in persons or animals. The germicidal rays emitted by the lamps destroy micro-organisms so as to maintain a sanitary storage or processing area for products and disinfected environment for persons.

Appendix 6 Photosensitivity and Medications

Certain drugs do not mix well with ultraviolet light, from either its natural, or artificial sources. The U.S. Department of Health and Human Services has published a booklet entitled Medications That Increase Sensitivity to Light; A 1990 Listing prepared by Jerome I. Levine, M.S., R.Ph. The booklet is HHS Publication FDA 91-8280 and is available from the U.S. Government Printing Office. Refer to this booklet or your health practitioner if you are taking any medications.

Dr. Richard Childers, a dermatologist at the University of Florida, and Dr. Edward Emmett of John Hopkins University compiled a list of drugs, foods, and other substances that could make your skin super-sensitive to sunlight. This list is presented below:

- Diuretics (which help prevent water retention), prescribed for high blood pressure (for example, Hydrodiuril).
- Diabetes drugs-Orinase and Diabinase.
- Urinary tract infection treatments with phenothiazines.
- Tranquilizers, such as Thorazine.
- The acne treatment Retin-A.
- Antihistamines--Phenergan and Benadryl--particularly when they are used on the skin in ointment form.
- Antibiotics--Declomycin, Aureozycin, and Griseofulvin, which is used in ringworm treatment.
- Coal tar treatment for psoriasis or chronic eczema.
- Bacterial infection treatments using sulfanilamide.
- Compounds known as furocoumarins or psoralens, which sensitize skin to sunlight whether put on the skin or taken orally. They are prescribed for vitiligo (loss of skin pigmentation) and psoriasis.
- Birth control pills. The hormones they contain can react with sunlight and in some cases cause brown patches on the skin.
- Perfumes and colognes containing furocoumarins, compounds from natural products such as plants and fruits. Their natural oils can sensitize the skin to sunlight.
- Food and fruits that contain photosensitizing agents: celery, carrots, limes, coriander, parsley, fennel, dill, buttercup, mustard, and figs.

