megaSun
by KBL ®

megaSun 4500
megaSun 4000

Operating Instructions

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Contents

About these instructions

This operating manual is intended for use by

- operating staff,
- users,
- service staff.

Any person dealing with this tanning unit must have read and understood these instructions.

This manual describes units equipped with the maximum number of features.

Keep this manual ready to hand at all times.

Safety notes

This chapter provides a summary of general information on safety and proper handling of the device. More specific safety advice is given in other chapters of the operating manual.

Intended use

The unit is intended to be used for the tanning of one single person at a time. This person must not fall in one of the categories mentioned below, otherwise using the tanning equipment is prohibited for him or her.

The following individuals must not use the tanning system:
- Persons under 18 years of age
- Persons with heart pacemakers
- Persons prone to sunburn, without the desired tanning effects, when exposed to the sun (skin type I)
- Persons already suffering from sunburn
- Persons suffering, or having suffered, from skin cancer, or persons with a corresponding predisposition
- Persons taking medicines

Furthermore, this tanning unit has been designed for use by individuals who are in full command of their physical, sensorial and mental faculties. Moreover, sufficient knowledge and experience are required. Children should be supervised to make sure that they do not use the unit as a toy.

Duties of the operator

KBL-Solarien AG cannot be held liable for any damage resulting from improper use of the equipment or non-observance of these operating instructions. Only original spare parts, particularly tubes and sunlamps, must be used. Otherwise, both operating authorisation as well as warranty will become void.

Timer operation

The tanning unit must be controlled via an external timer. Should the external timer fail, an internal safety timer will switch off the system automatically after 30 minutes.

General safety advice

- Follow all instructions given in this manual. In addition, observe all relevant statutory provisions and regulations, also those applicable in the country of operation.
- The unit must only be installed and assembled by specifically trained staff.
- Arbitrary modifications or conversions of the equipment are not permissible.
- Observe all danger signs and safety notices attached to the equipment.
- Safety notices must not be removed, and safety equipment must not be disabled or removed.
- The unit must only be operated when in perfect working condition.
- Never operate the unit with the outer covers or acrylic panes removed.
- The tanning system must be controlled via a timer that complies with the generally applicable standards.
- Absolutely observe the maintenance frequencies indicated in the maintenance plan.

Tanning times

Adhering to tanning times and schedules is essential.

Transport

Transport by forklift truck

The device is mounted on a pallet.

- Insert the forks carefully into the openings of the pallet.
- Lift the load by a few centimetres.
- Transport the load carefully to the place of installation.

Other modes of transport

If a forklift truck cannot be used for transport, the box must be unpacked and the parts inside must be transported individually to the place of installation, e.g. using a dolly. Depending on the weight of the components, lifting them might require several people.

⚠	⚠ WARNING!
	Overturning load!
	Danger of being crushed by heavy parts of the equipment.
	• **Wear safety shoes.**

Description of the unit

Standards

This tanning system complies with the following standards in their respectively applicable version:

- EN 60335-2-27
- Low Voltage Directive 2006/95/EC
- EMC 2004/108/EC

An EC Declaration of Conformity can be requested from the manufacturer.

Components

The tanning unit basically consists of the following components:

- The canopy including 24 tubes and three facial tanners (XXL devices with 21 standard tubes and 30 spaghetti tubes).
- The base part including 16 tubes, the electronics unit and further, optionally available components.

megaSun 4500, canopy opened

Figure 7.1

Back view, canopy closed

Figure 7.2
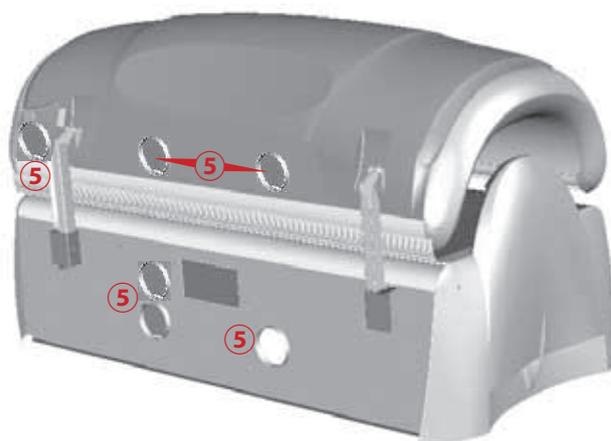
Front view, canopy opened

Figure 7.3
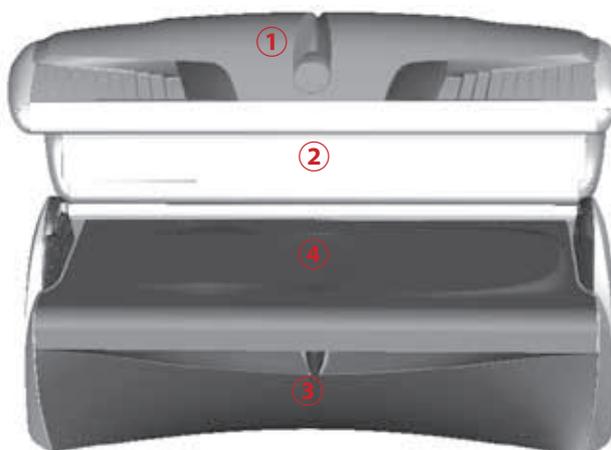
1	Canopy
2	Canopy pane
3	Base section
4	Bed pane
5	Air supply connectors

The tanning systems MS4000 and MS4500 are basically of similar construction. The two models differ from each other with regard to the decorative lighting (canopy) and the shaped bed pane (MS4500).

Connections

Connecting the mains voltage

⚠	**⚠ DANGER!**
	Live components
	Risk of fatal injury due to electric shock when touching live parts.
	Disconnect from mains **according to DIN VDE 0105.**

Both the power supply and the related connection work must comply with national standards, e.g. those set up by VDE in Germany. The connection must only be performed by qualified expert staff.

The connection to the 400 V mains must be protected by fuses. Their specifications are listed in the chapter "Technical data".

A residual current-operated circuit breaker (RCD) must always be used. KBL-Solarien AG recommends the following type: KBL 3200 0770 00 (type ABB F 374 63/0.03A). Should the operation of the tanning unit cause any interference in the power supply network, e.g. with ripple-control systems (TRA), consult your power supply company regarding the installation of corresponding blocking elements (audio frequency suppressor).

Figure 8.1
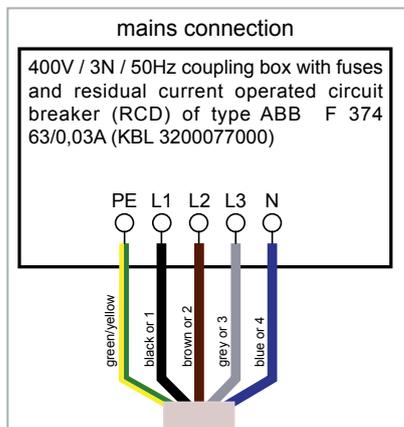
Connecting an external audio source

When connecting an external audio source, pay attention to the correct polarity.

Figure 8.2
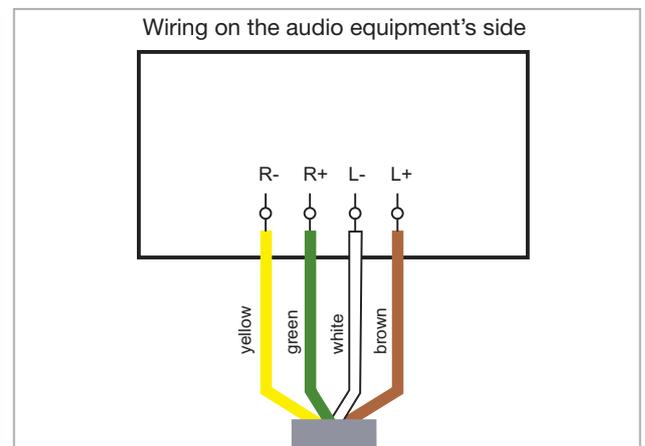
EXTERNAL AUDIO SIGNAL 100 V (OPTIONAL FEATURE)

A transformer (KBL item no.: 9100 0170 00) is required for the transmission of the audio signal if a 100 V audio system is connected.

The connection must be carried out by trained service staff.

Level adjustment

The components of the voice/audio system are built into the base section of the tanning unit. The potentiometer (see *arrow*), which is located on the audio switch board, must be set to the maximum volume level. Line adjustment of the studio music is performed via the line box.

Figure 9.1
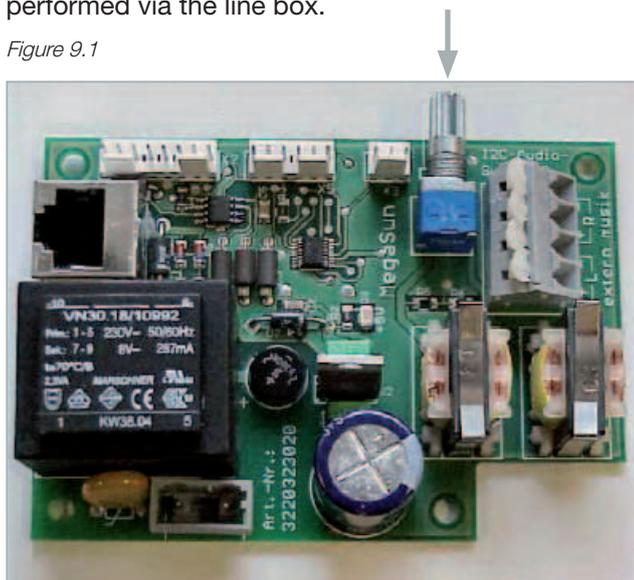
Operation using different audio sources

The tanning unit can be operated using the following audio sources:

• An internal MP3 player alone

• An external audio source alone

• Both audio sources

Use the control panel to alternate between internal and external audio source.

INTERNAL MP3 PLAYER

When using the internal MP3 player, you can either play the music tracks that are originally supplied on the SD card, or you can record your own tracks on the SD card.

EXTERNAL AUDIO SOURCES

As an external audio source, you can connect

devices ranging from the standard-line level to low loudspeaker levels.

These sources comprise:

• the studio music, and

• external players such as MP3 players, mobile phones (cell phones), iPods, etc.

STUDIO MUSIC

The level of the studio music can be adjusted by means of a potentiometer on the line box. The box is located below the bed, on the right-hand front side *(figure 9.2)*. It is only fixed by Velcro tape and can be removed.

Figure 9.2

This is where you can adjust the studio music to the level of the integrated MP3 player.

Figure 9.3

EXTERNAL PLAYERS

A line-in connector is available in the head area of the bed, on the right-hand side, so that the studio client can plug in his/her own equipment, e. g. MP3 player, iPod, etc. *(figure 10.1)*. Use a standard 3.5 mm jack cable (included if the music option has been ordered). If an external player is plugged into this connector, the system switches over automatically and plays the music of the personal player. This assumes that you have selected the "Studio" option of the menu item "Audio" in the service menu I.

You can adjust the level by using the volume control of either the control panel or the player.

Figure 10.1
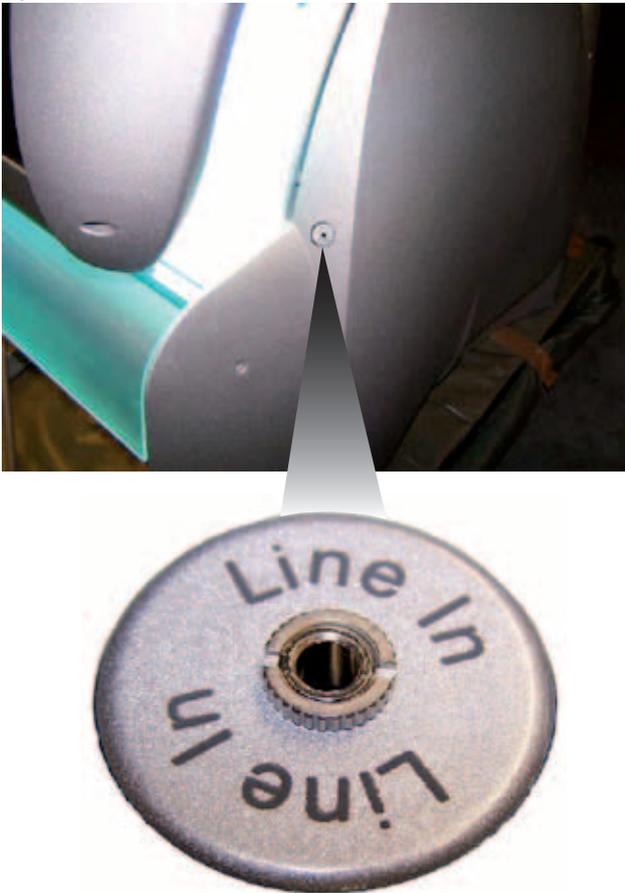
The tanning unit can only be operated with audio sources if you have purchased the optionally available audio package. For further information, please refer to the chapters "Connections" and "Operation in service mode".

Connecting the external timer

Connect the external timer (coin box, studio control) according to the instructions supplied with the timer. The following diagram shows the wiring requirements with regard to the timer.

Figure 10.2

Wiring on the coin box/external timer
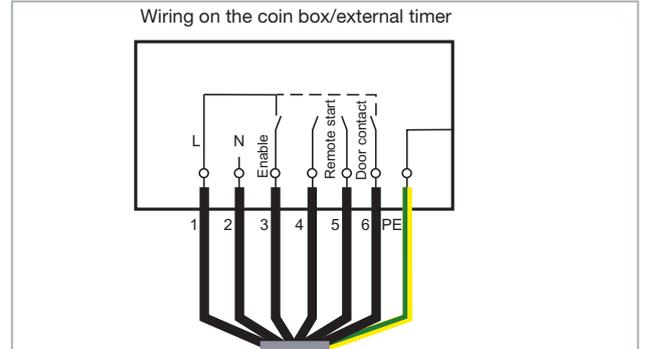
Connecting the channel selection

The following diagrams show the wiring of the channel selection on the audio equipment's side, for pulse coding and for BCD coding. *Figure 10.3*

Wiring on the audio system of the studio

Figure 10.4

Wiring on the audio system of the studio
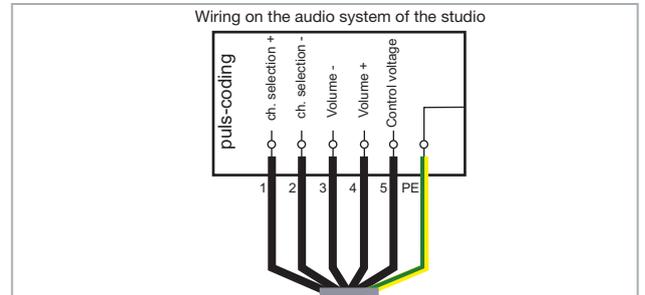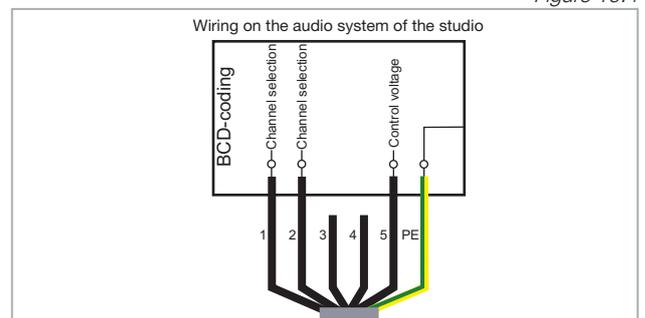
CHANNEL	BCD CODING	
1	0	0
2	1	0
3	0	1
4	1	1

Aroma connections

If you have opted for the Aroma function, the Aroma box is fastened to the front left-hand foot in the base section of the unit. The box is equipped with three hose connections, one of them leading to the Aroma tin ⑥, the other two to the ventilation ducts of the nozzles in the foot area ⑦.

Figure 11.1
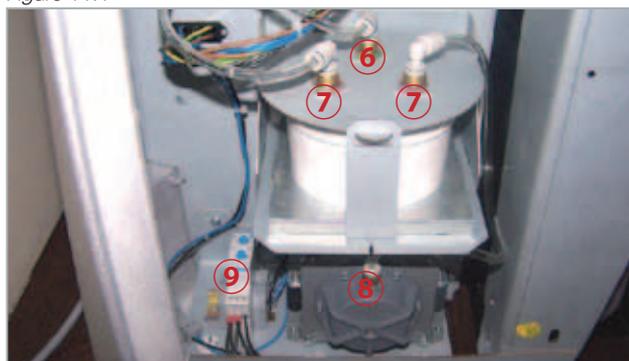
6	Aroma box (inlet)
7	Aroma box (outlets)
8	Compressor
9	Time relay

AROMA CONTROL

The "Aroma function" is controlled by a time relay. Air is guided through the Aroma tin by means of a compressor during the connection time. The scented air is released into the tanning space from the foot end.

The time relay is mounted on a plate at the front left-hand foot of the sunbed. You can set the scenting time and the break interval here.

The following switching times are preset at the factory:

Connection time   -> T_{on} = 12 s

Interval (break)   -> T_{off} = 60 s

If in doubt about the setting procedure, have trained service staff carry out the timing.

The studio customer cannot switch this function on or off!

STRUCTURE OF THE TIME RELAY

The Aroma relay includes 4 adjusting elements: two rotary switches and two potentiometers.

Figure 11.2
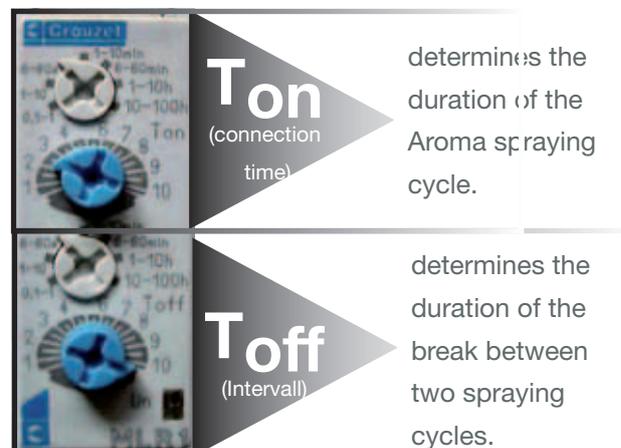
The upper pair is used to set T_{on} , the lower pair to set T_{off} *(figure 11.2)*; the rotary switch is located above the potentiometer in both cases. A rotary switch and a potentiometer together offer the setting options available for T_{on} or T_{off} respectively.

SETTING THE TIME RELAY

The following applies for both setting ranges (T_{on} / T_{off}):

Switching time = time factor * multiplier

Figure 11.3
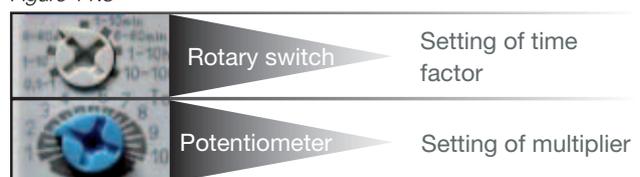
Set the time factor (X) by using the corresponding rotary switch. Specify the applicable multiplier (1-10) by setting the potentiometer located below the switch. -> X*1; X*2; X*3...... - X*10

Example:

Set a time factor of 6 seconds (6-60s) by means of a rotary switch and select 2 as the multiplier with the corresponding potentiometer. The switching time resulting from this setting is 6 * 2 = 12 seconds.

Start-up

Before switching on for the first time:

- Fix the supplied warning sign or one with the following wording permanently to the wall close to the tanning unit:

<div style="background-color:orange; padding:10px;">

Warning!

- UV radiation can cause eye and skin injury. Ask the studio staff for further information.
- Wear protective goggles.
- Certain medicines or cosmetics can increase the sensitivity of the skin to UV radiation.

</div>
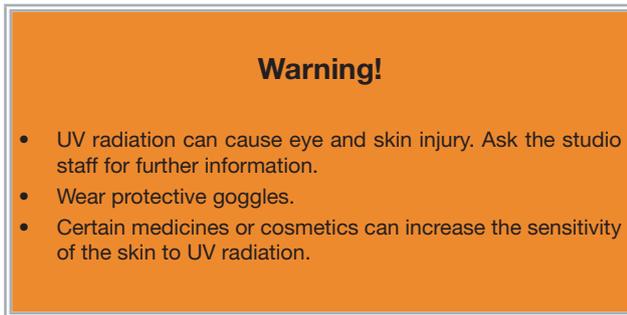
After the power up:

- Determine the presettings for the sunbed in the service menu.
- Store these Operating Instructions in a place that allows for easy access at any time.

Operating modes

The three different operating modes are explained below:

STANDBY MODE

The unit is in an idle state, i.e. it is connected to the mains but is currently not being used. The tubes and the tanning lamps are switched off. From the standby mode, you can change over to the tanning mode or to the service mode.

TANNING MODE

The tubes and the tanning lamps are switched on and a tanning session is in progress. While the unit is in tanning mode, the settings for the ongoing tanning session can be changed via the control panel.

FAN RUN-ON

After the tanning session, the fan runs on for 3 minutes in order to cool down the tanning system. The fan power is automatically decreased as the tubes cool down.

SERVICE MODE

In the service mode, the device is configured for the tanning mode. Various values can be displayed and test functions can be carried out.

Tanning instructions

As a rule, an averagely tanning skin has achieved a uniform tan after three to five tanning sessions. These sessions should take place every second day. To preserve the suntan achieved, one or two tanning sessions per week are normally sufficient.

NO SUNSCREEN WITH PROTECTION FACTOR
Sunscreens with sun protection factors are unsuitable for use in a tanning salon. For tanning, the skin should have been thoroughly cleaned and be dry. For optimum skin care, we recommend using our "AfterSun" line of body-care products after tanning.

Instructions for the user
Observe the following tanning instructions:

GENERAL
- Any person that complies with the requirements laid down in the chapter "Intended use" may use the Tower pureEnergy.
- The different skin types tolerate the sun and hence tanning times to a different degree. Please observe the specifications in the skin-type table (supplied with the unit) and the tanning times. After having reached the ultimate tan, further tanning can only be achieved by substantially exceeding the allowed tanning times. This must absolutely be avoided.
- The UV radiation of the sun or of UV appliances can cause damage to the skin or to the eyes. These biological effects depend on the type and amount of radiation as well as on the individual sensitivity of the skin.
- After excessive exposure to radiation, the skin may exhibit sunburn. Excessively repeated exposure to UV radiation of sunlight or UV appliances can result in premature ageing of the skin and in a higher risk of skin cancer.
- The unprotected eye can suffer from surface inflammation, and in certain cases, e.g. after a cataract operation, excessive radiation can damage the retina. After many repeated sessions, a cataract may form.
- No exposure to UV radiation if medicine is taken that increases the sensitivity to ultraviolet radiation. If in doubt, seek medical advice.
- It cannot generally be assumed that the use of a solarium reduces the risk of getting sunburn.
- Seek medical advice if persistent swellings or sores develop on the skin or if pigmented moles change in appearance.
- Only use radiation appliances of UV type 4 after consulting a doctor.

FOR EACH TANNING SESSION
- Always wear the supplied protective goggles.
- Remove cosmetics before the session and do not use any sunscreen.
- Allow for at least 48 hours to pass between sessions.
- After a tanning session in a studio, do not take another sunbath out of doors on the same day.

Tanning times

Please refer to the following tables for learning the individually applicable tanning times that depend on the type of tanning system and on the skin type. For the precise definition of the skin types, please consult the supplied skin-type table.

If the tanning-session sequence is interrupted for four weeks or more, you will have to start with the first session again. The times given in the tanning tables only apply on the condition that the tanning units undergo regular maintenance according to the intervals stipulated in the chapter "Maintenance" (cleaning and replacement of tubes).

4000/4500 SUPER - INDUCTIVE (LEVEL 1) ＊
According to EN 60335-2-27 -> 0.3 W/m^2

	Skin type		
	II	III	IV
1. Session	7 min	7 min	7 min
2. Session	8 min	8 min	9 min
3. Session	9 min	10 min	11 min
4. Session	10 min	11 min	13 min
5. Session	10 min	13 min	16 min
6. Session	11 min	15 min	18 min
7. Session	12 min	16 min	20 min
8. Session	13 min	18 min	22 min
9. Session	14 min	19 min	24 min
10. Session	15 min	21 min	26 min
11. Session	16 min	22 min	29 min
12. Session	17 min	24 min	31 min
The interval between two tanning sessions must be at least 48 hours.			
Max. number of tanning sessions per year (=15 kJ/m^2)	60	43	33

4000/4500 SUPER - CPI (LEVEL 1) ＊
According to EN 60335-2-27 -> 0.3 W/m^2

	Skin type		
	II	III	IV
1. Session	6 min	6 min	6 min
2. Session	7 min	7 min	8 min
3. Session	7 min	9 min	9 min
4. Session	8 min	10 min	11 min
5. Session	9 min	11 min	14 min
6. Session	10 min	13 min	15 min
7. Session	10 min	14 min	17 min
8. Session	11 min	15 min	19 min
9. Session	12 min	17 min	21 min
10. Session	13 min	18 min	22 min
11. Session	14 min	19 min	25 min
12. Session	15 min	21 min	26 min
The interval between two tanning sessions must be at least 48 hours.			
Max. number of tanning sessions per year (=15 kJ/m^2)	60	43	33

4000/4500 XXL SUPER - CPI (LEVEL 1) ＊
According to EN 60335-2-27 -> 0.3 W/m^2

	Skin type		
	II	III	IV
1. Session	6 min	6 min	6 min
2. Session	7 min	7 min	7 min
3. Session	7 min	8 min	9 min
4. Session	8 min	10 min	11 min
5. Session	9 min	11 min	13 min
6. Session	9 min	12 min	15 min
7. Session	10 min	14 min	17 min
8. Session	11 min	15 min	18 min
9. Session	12 min	16 min	20 min
10. Session	13 min	17 min	22 min
11. Session	13 min	19 min	24 min
12. Session	14 min	20 min	26 min
The interval between two tanning sessions must be at least 48 hours.			
Max. number of tanning sessions per year (=15 kJ/m^2)	60	43	33

4000/4500 SUPER POWER / ULTRA POWER - INDUCTIVE (LEVEL 1) *

According to EN 60335-2-27 -> 0.3 W/m²

	Skin type		
	II	III	IV
1. Session	6 min	6 min	6 min
2. Session	7 min	7 min	8 min
3. Session	8 min	9 min	10 min
4. Session	8 min	10 min	12 min
5. Session	9 min	12 min	14 min
6. Session	10 min	13 min	16 min
7. Session	11 min	14 min	18 min
8. Session	12 min	16 min	19 min
9. Session	12 min	17 min	21 min
10. Session	13 min	18 min	23 min
11. Session	14 min	20 min	25 min
12. Session	15 min	21 min	27 min
The interval between two tanning sessions must be at least 48 hours.			
Max. number of tanning sessions per year (=15 kJ/m²)	60	43	33

4000/4500 SUPER POWER / ULTRA POWER - CPI (LEVEL 1) *

According to EN 60335-2-27 -> 0.3 W/m²

	Skin type		
	II	III	IV
1. Session	6 min	6 min	6 min
2. Session	7 min	7 min	8 min
3. Session	7 min	8 min	9 min
4. Session	8 min	10 min	11 min
5. Session	9 min	11 min	13 min
6. Session	10 min	12 min	15 min
7. Session	10 min	14 min	17 min
8. Session	11 min	15 min	19 min
9. Session	12 min	16 min	20 min
10. Session	13 min	18 min	22 min
11. Session	14 min	19 min	24 min
12. Session	14 min	20 min	26 min
The interval between two tanning sessions must be at least 48 hours.			
Max. number of tanning sessions per year (=15 kJ/m²)	60	43	33

*   For tube set, see table "Technical data".

Operation in tanning mode

	⚠ DANGER!
⚠	**Excessive dose of UV radiation**
	If the tanning session is prolonged excessively, the skin and the eyes will be injured severely.
	• Never operate the solarium with a defective timer.
	• Comply with the tanning times given in the tanning schedule.

The tanning mode starts automatically after the warm-up time specified in the timer has elapsed. During the warm-up time, the tanning session can be started manually by pressing the START button.

Displays in tanning mode

The following section shows the display and names its operating elements available in the tanning mode. Which of the operating elements are actually available on your device depends both on the optional features selected for your tanning system and on the settings made in the service menu.

DISPLAY KBL4
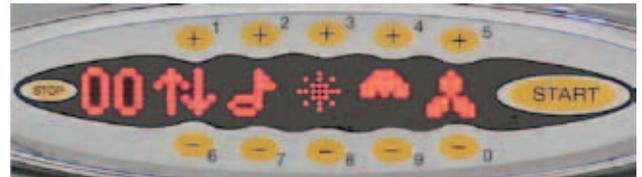
00	Display of session time and of change in volume and fan power
⇅	Back to previous/forward to next display
♪	Volume
❄	Air conditioning
👾 / 👾	Facial Tanner on/off
♣	Body fan

Assuming the tanning position and starting / stopping the tanning session

	⚠ WARNING
⚠	**UV radiation** UV radiation can cause skin and eye injuries. • Observe the tanning instructions. • If in doubt, refrain from tanning.

ASSUMING THE TANNING POSITION

The canopy must be kept closed during the tanning session in order to ensure the proper functioning of the ventilation system.

1. Close the canopy and place yourself in the middle of the cabin. Make sure that you are positioned at an equal distance between your body and the surrounding sunlamps.
2. Put on the protective goggles.

STARTING

To start the system during the warm-up time, press the START button. After the set warm-up time has elapsed, the tanning session will commence automatically.

STOPPING

Keep the STOP button pressed for at least two seconds. As an acknowledgement, you will hear a sound signal, and the session-time display starts flashing. The session is discontinued but the time will continue to be counted. The tanning session can be continued by pressing the START button if the available session time has not elapsed yet.

After the time given by the timer has elapsed, the session is terminated automatically, and the fan will run on for three minutes.

Functions (KBL/4)

Use the plus button to switch on the function or to set the next higher value. Press the button as often as necessary to set the maximum value (e.g. fan speed).

Use the minus button to switch off the function or to set the next lower value. Press the button as often as necessary to set a lower value (e.g. volume).

Use the START button to switch on the unit during the warm-up time.

If the tanning session has been interrupted by pressing the STOP button, it can be continued by pressing the START button, provided that the session time available from the coin box/timer system has not elapsed yet.

The tanning session can be terminated prematurely by pressing the STOP button for at least 2 seconds.

NUMERIC DISPLAY

While the tanning program is running, the current session time is displayed here. If you change the volume, the set value between 0 ... 99% is indicated here. If you change the fan speed, the value between 20 and 99% is displayed.

TERMINATION OF THE TANNING SESSION

After the session time has elapsed, a program to shut down the solarium is started:

A voice (for vocal guide systems) announces the end of the tanning session and says goodbye to the customer.

Sunlamps, tubes and ventilation are shut down in steps.

The LEDs (for units equipped with activeColor) will afterglow in the set colour for another 20 seconds.

VOLUME

Use the "+" and "−" buttons to control the volume of the music. The volume is displayed in the numeric field as a value between 0 … 99 %. Press the corresponding button as often as necessary to reach the desired volume. The "−" button can be used to switch off the music: at first, set the value to 20 %, then press the "−" button again for a longer time.

AIR CONDITIONING

Use the "+" or "−" buttons to switch the air-conditioning system on or off during the tanning session. After the air-conditioning unit has been switched off, it can only be switched on again after 3 minutes. A small asterisk is displayed. If the request for re-activation is made earlier, it is recorded (big asterisk); after the 3 minutes have elapsed, it is switched on automatically.

Exception: If the turning-off was effected by the coin-controlled timer system, the unit can be switched on again immediately.

FACIAL TANNER

Level II: After the tanning program has been started, the facial tanners are automatically turned on at the maximum power level.

Level I: The power is reduced to level I by pressing the "−" button. This level is not implemented in the megaSun 5600 Super, Super Power and Ultra Power models of UV type 3.

Level 0: The facial tanners are completely turned off by pressing the "−" button again for at least 3 seconds.

Use the "+" button to switch the tanners on again or to increase their power.

After the tanners have been switched off, there is a time delay before they can be switched on again because the lamps must cool down first.

BODY FAN

The power of the body fan can be increased or decreased in steps of 10 % by pressing the "+" or "−" buttons.

After the unit has been switched on, the fan starts at the power level set under ACS/A. START in the service menu on level II.

Press "−" as often as necessary to reach a value of 20% in order to deactivate the body fan. Then press the button once again and keep it pressed for 0.5 seconds. After a time delay, the fan will stop running. It can be switched on again at any time by pressing the "+" button.

SUBMENU

In this first operating submenu, P means programme. The user can choose from three audio sources during the tanning session, provided that the sources are available and have been activated in the service menu I:

- Wellness music, (W)
- Pop music (P means Pop)
- Music supplied by the studio control (S)

P is displayed if at least two sources are available and activated.

The new audio source is selected and briefly displayed by pressing the "+" or "−" button above/below the "P". Please refer to the service menu I for more information.

The symbol "channel selection" means "next track" for Wellness and Pop, and, as usual, "next channel of the external audio source" for studio music. Switching over is done by pressing the "+" or "−" buttons above the channel-selection symbol.

Functions (KBL/5)

This menu includes the following functions:

- Session time
- Channel selection
- Volume of the music
- Air-conditioning unit
- Sunlamps
- Body fan

START Press the START button to turn on the unit during the warm-up time. If the session has been interrupted by pressing the STOP button, it can be continued by pressing START, provided that the session time made available by the coin box/timer system has not elapsed yet. The numeric display indicates the session time and, after the total session time has elapsed, the running text.

STOP The tanning session can be terminated prematurely by pressing this button for at least two seconds.

NUMERIC DISPLAY

While the tanning program is running, the current session time is displayed here. If the volume is changed, the set value between 0 ... 99% is briefly displayed here. If the fan power is changed, the setting is also briefly displayed as a value between 20 % and 99 %.

TERMINATION OF THE TANNING SESSION

After the session time has elapsed, a program to shut down the tanning system starts:
Tanning lamps, tubes and the ventilation are shut down in steps and switched off.

CHANNEL SELECTION

You can choose the next channel or go back to the previous one by pressing the "+" or "–" buttons above or below the symbol for the audio source.

As far as the channel selection is concerned, you can switch over to BCD or pulse selection (see AUDIO menu on service level I).

VOLUME

The volume of the music can be changed by pressing the "+" and "–" buttons. The current value (in %) is displayed for a short period of time.

The music can be switched off by pressing the "–" button: first, set the value to 20 %, then press the "–" button once for a longer time.

AIR-CONDITIONING UNIT

Press the "+" or "–" buttons to switch the air-conditioning unit on or off during the tanning session. After the unit has been switched off, it can only be turned on again after 3 minutes. A small asterisk is displayed.

If the request to switch the air-conditioning on again is made earlier, it is stored (big asterisk), and the unit is automatically turned on after the 3 minutes have elapsed. Exception: If the unit is switched off via the coin-controlled timer system, it can be restarted immediately.

FACIAL TANNER

Level II: After the start of the tanning program, the facial tanners automatically operate at maximum level.

Level I: The power is reduced to level I by pressing the "–" button.

Level 0: If you press the "–" button again for a few seconds, the facial tanners are completely turned off. Press the "+" button to switch the tanners on again, or to increase their power.

After the tanners have been switched off, there is a time delay before they can be switched on again because the sunlamps must cool down first.

BODY FAN

The power of the body fan can be increased or decreased in steps of 10 % by pressing the "+" or "−" buttons.

After the unit has been switched on, the fan starts at the power level set under ACS/A. START in the service menu on level II.

Press "−" as often as necessary to reach a value of 20% in order to deactivate the body fan. Then press the button once again and keep it pressed for 0.5 seconds. After a time delay, the fan will stop running. It can be switched on again at any time by pressing the "+" button.

Information for the studio operator

DAILY CHECKS AND BASIC SETTINGS

Please ensure that you check and empty the condensate tank daily and that you refill the consumables. Please also note the settings you can make on the service levels of the operating system, e.g. colour stimulation, Aroma, timer controls, etc.

DECORATIVE LIGHTING

The decorative lighting can be switched on or off by pressing the "+"...."−"...."+" sequence of the body fan as long as there is no incoming signal from the coin-controlled timersystem. Make sure that you do not let more than 1 second elapse between the individual keystrokes. Also note that you can set two cycles of operation of the decorative lighting for each day of the week.

PUREAIR

The "pureAir" function cannot be switched on or off using buttons. Note: pureAir and Aroma are mutually exclusive. As long as the Aroma function is active, pureAir remains deactivated.

ERROR MESSAGE "EXHAUST AIR"

This error message is displayed and can be acknowledged by pressing the "Stop" button.
The Service staff must have eliminated the cause of the message previously.
This message is displayed as a result of:
excessive temperature inside the tanning unit, or defective exhaust air fan.

Standby/service mode

In standby mode, you can turn the decorative lighting of the device on and off. In service mode, settings for operation in tanning mode are made, and certain values concerning the operation of the unit can be displayed.

Turning the decorative lighting on and off

Press the buttons in the following order to turn the decorative lighting on or off: 5 0 5. Make sure that you carry out the keystrokes quickly one after the other!

In addition to this manual setting, you can go to the service menu and program a timer providing two independent activation and deactivation times.

Service menu

There are two service levels that can be accessed via passwords (PIN). Press the buttons 1 ... 0 to reach these levels and to be able to initiate processes on these levels. For this reason, the plus and minus buttons are also marked with numbers.

Two conditions must be fulfilled in order to access the service screens:

- No error message displayed
- No incoming signal from the coin box/timer system

If there is an error message pending, eliminate the fault first and then reset the message by pressing the "Stop" button.

Figure 21.1 Buttons1 ... 0 for service mode
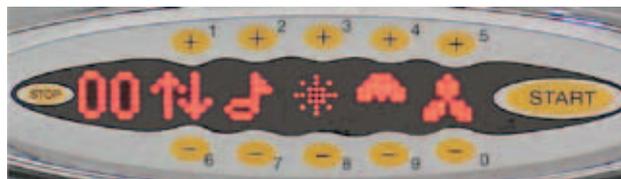
SERVICE LEVEL I

Press the sequence of buttons 1   6   1 and then enter the PIN 1   1   1   1 to access service level I.

SERVICE LEVEL II

This level contains service screens that are only used by the Technical Service staff. You reach level II from the "PIN II" menu on level I by entering the correct PIN (not 1   1   1   1). Please request the PIN from the KBL service organisation.

GENERAL NAVIGATION

After the service level I has been invoked, the following applies:

- Button 5: go forward within the menu
- Button 0: go back within the menu
- Stop button: exit the menu level, or exit the menu
- Start button: select the menu item, or save the displayed and changed value

Overview KBL5 service menu

menu start
"161",
PIN I "1111"

operating hours
00003h WORK

0 (−) | 5 (+)

entering PIN II
PIN II

input PIN II →
← STOP

functions on/off C'M'A'B'

C'M'A'B'
marker down(,) = feature disabled
marker up(') = feature activated
set by pressing (+)/(−) to the corresponding letter.

push START to save your choice.

0 (−) | 5 (+)

audio system
AUDIO

START →
← STOP

channel selection procedure (studio music)

CH
PULS 4 (+)
↕
BCD 9 (−)

push START to save your choice.

0 (−) | 5 (+)

reset tube hours

RESET h TUBE
push 1 ((+)) to reset the tube operating hours

0 (−) | 5 (+)

tube hours
00003h TUBE

Overview KBL4 service menu

KBL4 - service level I - page 1/2

operation info
Operation-Info

START →
← STOP

0 ⊖   5 ⊕

operating hours
xxxxxh WORK

0 ⊖   5 ⊕

STOP

tube hours
xxxxxh TUBE

---

reset tube hours
CPI

START →
← STOP

0 ⊖   5 ⊕

reset tube hours (for inductive & CPI devices)

CPI RESET   push 1 (⊖) to reset tube operating hours.

---

timer function
TIMER

START →
← STOP

0 ⊖   5 ⊕

weekday selection
MO 5⊕
...   push START to select the
SU 0⊖   desired day.

STOP

turnon-time A
2 3
⊕ ⊕
--:--   AON   push START to save the selected value.
⊖ ⊖
7 8

5⊕ →

turnoff-time A
2 3
⊕ ⊕
--:--   AOF   push START to save the selected value.
⊖ ⊖
7 8

5⊕ ↓

turnoff-time B
2 3
⊕ ⊕
--:--   BOF   push START to save the selected value.
⊖ ⊖
7 8

← 5⊕

turnon-time B
2 3
⊕ ⊕
--:--   BON   push START to save the selected value.
⊖ ⊖
7 8

---

set time/date
TIME/DATE

START →
← STOP

0 ⊖   5 ⊕

entering time / date

time, for example: 10:13 ⊘

date, for example: 30.03.07 FR

5⊕
↕
0⊖

enter date and time by pressing ⊕/⊖ to the corresponding numbers. The day of the week is determined automatically.

---

entering PIN II
PIN II

→ menu level PIN II

0 ⊖   5 ⊕

PIN I (AUDIO)

audio system
AUDIO

0 ⊖ 5 ⊕

START
STOP

standard audio source (tanning mode)

PRESEL W 4⊕
P ↕
S 9⊖

push (START) to
save your choice.

0 ⊖ 5 ⊕

audio source activate / disable

W,P,S'

marker down (,) = Feature disabled
marker up (') = feature activated
W=Wellness, P=Pop, S=Studio.
Set by pressing ⊕/⊖ to the corresponding letter.
For example: W'P'S, = W+P activated.
Activated features displayed under AUDIO/PRESEL
Push (START) to save.

STOP

0 ⊖ 5 ⊕

music volume (tanning mode)

VOL.HOT 10- 4⊕
99% ↕
9⊖

push (START) to
save the selected
value.

STOP

0 ⊖ 5 ⊕

music volume (standby mode)

VOL.COOL 10- 4⊕
99% ↕
9⊖

push (START) to
save the selected
value.

STOP

0 ⊖ 5 ⊕

music in standby mode (on/off)

NONSTOP ON 4⊕
↕
OFF 9⊖

push (START) to
save your choice.

STOP

0 ⊖ 5 ⊕

channel selection procedure (studio music)

CH PULS 4⊕
↕
BCD 9⊖

push (START) to
save your choice.

STOP

PIN 1 (operation info)

PIN II (Set Level)

0 ⊖ | ↑ 5 ⊕

Service Level PIN I — ENTER PIN II →

functions on/off C'M'A'B'

C'M'A'B'

STOP

marker down(,) = feature disabled
marker up(') = feature activated
set by pressing ⊕/⊖ to the
corresponding letter.

push START to
save your choice.

0 ⊖ | ↑ 5 ⊕

air-conditioning

ACS

STOP

START →
← STOP

presetting air-conditioning unit

AIRCON

ON 4 ⊕
↕
OFF 9 ⊖

push START to
save your choice.

0 ⊖ | ↑ 5 ⊕

setting the operating hours of the tubes

Röhrenstunden
z.B. 00003h TUBE

STOP

1 ⊕
↕
6 ⊖

push START to
save the selected
value.

0 ⊖ | ↑ 5 ⊕

first download

fi.Download

STOP

START →
← STOP

Time, e.g. 11:13   ⊘

Date/Day, e.g. 22.02.07 WE

5 ⊕
↕
0 ⊖

0 ⊖ | ↑ 5 ⊕

last download

la.Download

STOP

START →
← STOP

Time, e.g. 13:15   ⊘

Date/Day, e.g. 28.03.07 WE

5 ⊕
↕
0 ⊖

0 ⊖ | ↑ 5 ⊕

software info

VERSION

STOP

START →
STOP

*querying software
information*

5 ⊕
↕
0 ⊖

0 ⊖ | ↑ 5 ⊕

SET LEVEL

STOP

START →
← STOP

PIN III

Enter PIN III →
← STOP

Factory settings.
For further Informations
please contact the service.

0 ⊖ | 5 ⊕

Pin II (functions On/Off C'M'A'B')

KBL5 and KBL4 processors use different software variants! The KBL5 menu only contains a subset of the setting options available in the KBL4 menu. The order of the following information refers to the KBL4 menu. KBL4 menu items are labelled ④. Items pertaining to the KBL5 menu are additionally marked ⑤.

<div style="text-align:center; border:1px solid gray; padding:10px;">

Settings on service level I

</div>

Information about operation ④

Select the menu item `Operation-Info` to display the working hours of the tanning system (`WORK`), the operating hours of the tubes (`TUBE`).

Displaying the operating hours of the solarium ④⑤

The menu item `xxxxxh WORK` is used to display the operating hours of the tanning unit.

1. Invoke the display of the operating hours (xxxxxh `WORK`) by pressing 0 (minus button) or 5 (plus button).
2. Press STOP to exit the menu.

Displaying the operating hours of the tubes ④⑤

The menu item `xxxxxh TUBE` is used to display the operating hours of the solarium's tubes.

1. Invoke the display of the operating hours of the tubes (xxxxxh `TUBE`) by pressing 0 (minus button) or 5 (plus button).
2. Press STOP to exit the menu.

Resetting the operating hours of the tubes (KBL4/KBL5) ④⑤

Use the menu item `CPI RESET` (KBL④) to reset the operating hours of the tubes to zero for inductive and CPI-equipped units. These tube hours must be reset after each replacement of tubes.

1. Invoke the `PIN II` menu and enter the PIN.

2. Press 5 (plus button) or 0 (minus button) to select `CPI`.
3. Press START to open `CPI RESET`.
4. Keep 1 (plus button) pressed as long as necessary to set the hours to zero.
5. Press START to save the settings, then exit the menu using the STOP button.

Use the menu item `RESET h TUBE` (KBL⑤) to reset the operating hours of the tubes to zero. These tube hours must be reset after each replacement of tubes.

1. Press 5 (plus button) or 0 (minus button) to select `RESET h TUBE`.
2. Keep 1 (plus button) pressed as long as necessary to set the hours to zero.
3. Press START to save the settings, then exit the menu using the STOP button.

Setting the timer function of the decorative lighting ④

The menu item `TIME/DATE` allows you to enter two pairs of times per day at which the decorative lighting is automatically switched on and off (e.g. Monday at 10:00 h on, at 12:00 h off, at 13.00 h on again, and at 22:00 h off, Tuesday at 11:00 h on, at 22:00 h off, etc.). If a switching time is not required, it can be deleted by pressing 1.

1. Invoke the `TIMER` menu.
2. Select the days of the week with START and then press 5 (plus button) or 0 (minus button) to set the desired day.
3. Press START to invoke `AON` and set the desired

time using the plus and minus buttons 2, 3, 7, 8. Press START. Proceed in the same way for AOF, BON and BOF.

4. Press STOP to leave the menu.

Setting date and time ④

The current time and date are set within the menu item TIME/DATE. This information is required for the proper execution of the timer function for the decorative lighting. Date and time are displayed for approx. 2 seconds after the unit has been turned on.

1. Invoke the TIME/DATE menu.
2. Choose the time setting with START and set the time by pressing the plus or minus buttons to the corresponding number.
3. Choose the date setting using 5 (plus button) or 0 (minus button) and set the date by pressing the plus or minus buttons to the corresponding number. The day of the week is determined automatically.
4. Save the settings using START and press STOP to exit the menu.

Entering PIN II ④⑤

By entering your PIN II here, you will be admitted to the next service level. (See *Settings on service level II*).

Setting the audio music system ④[⑤]

STANDARD AUDIO SOURCE ④

The menu item AUDIO/PRESEL is used to determine which audio source is selected as the default source when the tanning session is started. Only sources that are activated under WPS can be selected.

1. Invoke the AUDIO menu.
2. Press START to invoke the submenu and press 5 (plus button) or 0 (minus button) to select WPS.
3. Preselect the desired source by pressing 4 (plus button) or 9 (minus button).
4. Press START to save the settings and STOP to exit the menu.

ACTIVATING/DEACTIVATING AUDIO SOURCES ④

The menu item AUDIO/WPS is used to determine which audio sources are to be made available to the salon client. W=Wellness, P=Pop, S=Studio Music. In the case of a top mark (apostrophe: W'), the corresponding source is activated while it is deactivated if a bottom mark is shown (comma: W,). All activated sources are listed under AUDIO/PRESEL.

1. Invoke the AUDIO menu.
2. Use START to invoke the submenu and 5 (plus button) or 0 (minus button) to select PRESEL. Set the desired value by using the plus and minus buttons to the corresponding letters.
3. Press START to save the settings and leave the menu by pressing STOP.

MUSIC VOLUME IN TANNING MODE ④

The menu item AUDIO/VOL.HOT is used in order to determine the volume of the music during a tanning session. The maximum possible volume of the unit is at 100 %.

1. Invoke the AUDIO menu.
2. Use START to invoke the submenu and press 5 (plus button) or 0 (minus button) to select VOL. HOT.
3. Set the desired percentage by pressing 4 (plus button) or 9 (minus button).
4. Press START to save the settings and STOP to exit the menu.

MUSIC VOLUME IN STANDBY MODE ④

Use the menu item AUDIO/NONSTOP to determine whether music is also played during standby operation (ON) or not (OFF).

1. Invoke the AUDIO menu.
2. Use START to invoke the submenu and 5 (plus button) or 0 (minus button) to select NONSTOP.
3. Set NONSTOP ON by pressing 4 (plus button) or NONSTOP OFF by pressing 9 (minus button).
4. Press START to save the settings, and leave the menu by pressing STOP.

MUSIC ON/OFF IN STANDBY MODE ④

Use the menu item `AUDIO/NONSTOP` to switch the music on or off in standby mode.

1. Invoke the `AUDIO` menu.
2. Press the START button to invoke the submenu and then press 5 (plus button) or 0 (minus button) to select `NONSTOP`.
3. Switch the option on or off by pressing 4 (plus button) or 9 (minus button).
4. Save the settings by pressing START; press STOP to leave the menu.

CHANNEL-SELECTION PROCEDURE ④⑤

The external channel-selection procedure is defined via the menu item `AUDIO/CH`.

1. Invoke the `AUDIO` menu.
2. Invoke the submenu by pressing START and select CH by pressing 5 (plus button) or 0 (minus button).
3. Select PULS by pressing 4 (plus button) or BCD by pressing 9 (minus button).
4. Press the START button to save the settings and leave the menu by pressing STOP.

Functions C'M'A'B' ④ ⑤

Depending on the configuration of your system, the menu item `PIN II/CMAB` allows you to switch on or off certain functions.

1. Invoke the `PIN II` menu and enter the PIN.
2. Set the desired value by pressing the plus and minus buttons of the corresponding letter.
3. Save the settings by pressing START, press STOP to leave the menu.

C (Channel) is deactivated if only external channel selection with exactly one channel is available as audio system for the unit. The channel-selection symbol is not displayed.

M (Music) is deactivated if there is no audio system available. No symbols regarding the audio system are displayed.

A (Air-conditioning unit) is not displayed if the tanning system is not equipped with an air-conditioning unit. No symbols regarding air-conditioning are displayed.

B (Facial tanners) You can switch the facial tanners on or off here.

Air-conditioning functions ④

The menu item `PIN II/ACS` includes three submenus for the control of the air-conditioning system:

PRESETTING AIR-CONDITIONING UNIT (AIRCON)
Use the menu item `AIRCON` to specify if the air-conditioning unit should start automatically at the beginning of the tanning session (ON) or if it must be activated manually by the studio customer (OFF).

1. Invoke the `PIN II` menu and enter the PIN.
2. Press START to invoke the menu item `ACS`.
3. Select `AIRCON` by pressing 5 (plus button) or 0 (minus button).
4. Activate the function by pressing 4 (plus button)

or deactivate it by pressing 9 (minus button).
5. Use the START button to save the settings and press STOP to exit the menu.

Setting the operating hours of the tubes ④

Go to the menu item `PIN II/CM` if you want to enter the operating hours of the tubes.

1. Invoke the `PIN II` menu and enter the PIN.
2. Press START to invoke `RÖHRENSTUNDEN EINSTELLEN (SET OPERATING HOURS OF TUBES)`.
3. Enter the desired value by pressing 5 (plus button) and 0 (minus button).
4. Save the settings by pressing START and exit the menu using the STOP button.

Download information ④

The menu items `PIN II/la.Download` and `PIN II/fi.Download` indicate time and date of the latest (`la.Download`) or of the first (`fi.Download`) software download.

1. Invoke the `PIN II` menu and enter the PIN.
2. Select `la.Download` or `fi.Download` by pressing 5 (plus button) or 0 (minus button).
3. Press the START button to display the corresponding information.

Querying software info ④

Select the menu item `PIN II/VERSION` to display the name and number of the installed software version. This information is also displayed for approx. 2 seconds after the unit has been switched on.

1. Invoke the `PIN II` menu and enter the PIN.
2. Press 5 (plus button) or 0 (minus button) to select `VERSION`.
3. Press START to display the version information.
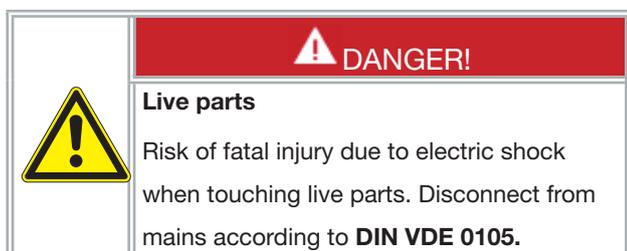
Entering PIN III ④

If you enter your PIN III here, you will access the next
service level. Level III is exclusively reserved for trained
service staff!

Maintenance and cleaning

Regular and thorough maintenance is required for the safe and reliable operation of the tanning system. It must absolutely be carried out and documented.

By ensuring proper maintenance, you substantially contribute to preserving the value of your solarium over a long period of time.
Cleaning must be performed when necessary.

⚠	⚠ DANGER!
	Live parts
	Risk of fatal injury due to electric shock when touching live parts. Disconnect from mains according to **DIN VDE 0105.**

Instructions for cleaning and care

GENERAL

- Before starting to clean the unit, take off any rings, bracelets, watches, etc. that you might be wearing in order to avoid scratching the surfaces.
- Cleaning fluid must not run into the appliance.

TUBES

- To preserve the tanning power, we recommend cleaning the tubes and UV lamps with warm water and a chamois after approx. 200 hours of operation.

ACRYLIC PANES, GRAB HANDLES AND DOOR HANDLES

- If possible, use the special cleaning and disinfectant agent "megaClean" supplied by KBL for cleaning the acrylic parts and handles, and dilute it in water at a ratio of 1:13.

VARNISHED AND PLASTIC PARTS

- Use a damp soapy cloth to clean the varnished and plastic surfaces.
- Do not clean the large plastic parts with a dry cloth. This might scratch the surfaces!

CHROMIUM-PLATED PARTS

- Only clean with a damp chamois and a cleaning agent for acrylic plastic (antistatic). Apply the cleaning agent onto the chamois and not directly onto the surface.

CLEANING AGENTS

- The surfaces and the acrylic panes must not be cleaned with concentrated disinfectants or solvents or other liquids that contain alcohol!

Maintenance intervals

Component/ wearing part	Cleaning/care	Replacement
Condensate tank	Check the filling level daily and empty, if necessary.	When necessary
Tubes and starters, inductive units	Tubes after approx. 200 operating hours	After 500 - 600 operating hours
Tubes and starters, CPI-equipped units	Tubes after approx. 200 operating hours	Tube operation: • Set level I: after 1200 operating hours • Set level II: after 1000 operating hours • Set level III: after 800 operating hours
Facial tanners	When necessary	After approx. 500 - 600 hours
Acrylic panes	When necessary	After approx. 3000 hours
Rope of the canopy drive	Check and grease after 500 - 600 hours.	Replace the rope after 3000 hours.
Air hoses	Check after 500 - 600 hours.	When necessary
Air-conditioning unit	Clean the heat exchangers after 500 - 600 hours and check the condensate pump.	When necessary

Acrylic panes

DISMANTLING THE CANOPY PANE

The acrylic canopy pane is fixed in place by two aluminium profiles that hold the front and the rear edge of the pane. The rear profile is a guide profile whereas the front one is hinged and can be turned downwards. There is a locking screw each in the left-hand and right-hand corners of the canopy.

• Proceed as follows to unblock the canopy: Use an Allen key (8 mm) to turn the right-hand screw a quarter to the left and the left-hand screw a quarter to the right. The following pictures show the procedure for the right-hand side.

Figure 32.1

Aluminium profile, closed

Turn to open

Aluminium profile, opened

- As soon as both locks have been unblocked, you can flap the aluminium profile down. The acrylic pane can then be lowered and taken out of the rear guide profile.
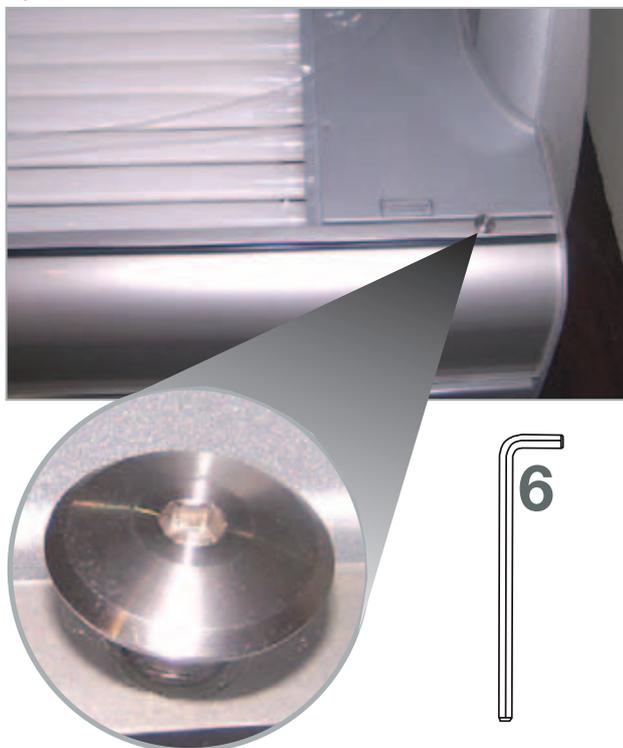
Figure 33.1
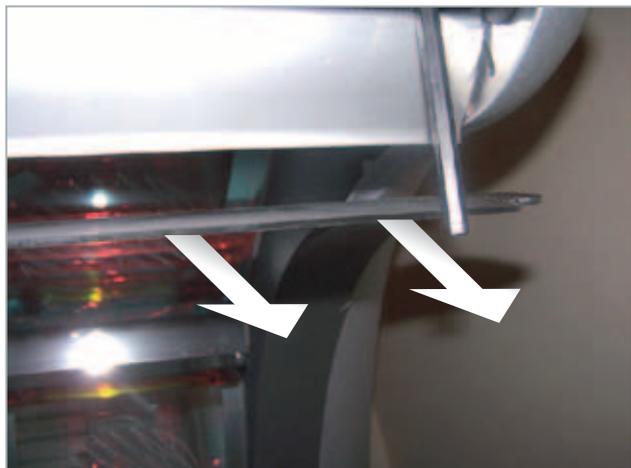
DISMANTLING THE BED PANE AND THE DUCTING PANE

The bed pane is fixed with two hexagon socket head screws in the front right-hand and left-hand corners.

- Undo the two screws using an Allen key (6 mm).

Figure 33.2

- Remove the bed pane from the rear guide profile and store it in a safe place.

NOTE: If the base part is equipped with a ducting pane (for sunbeds with air-conditioning unit), remove this pane for cleaning purposes. Make sure to re-place the ducting pane carefully after cleaning. Otherwise, the cooling of the bed pane is not ensured.

⚠ WARNING!
The electronic parts inside the bed section must absolutely not get in contact with any liquid!
• Use a slightly damp microfibre cloth to clean the panes.

INSTALLATION

- Proceed in reverse order when installing the canopy pane and the bed pane.

Filter panes

SAFETY FUNCTIONS

The facial tanners are equipped with an additional safety feature. There is a protective pane-switch behind each of the filter panes; this switch will turn off the tanning lamp if the filter pane is missing or damaged.

⚠ DANGER!
Never operate the tanning system with a defective filter pane!
• Carry out regular visual inspections!
• Only replace filter panes with ones of the same type!
• The filter panes must only be dismantled and installed by trained and qualified staff!

REMOVING THE FILTER PANE

	Procedure	Fig.
1	Dismantle the acrylic pane of the canopy.	32.1 32.1
2	Undo the screw fixing the filter-pane cover (1), pull it towards the front (2) and remove it (3).	34.1
3	Use both hands to press the filter pane downwards carefully (4) until the pane is released from the upper retention clips (5). Then remove the pane in an upward movement towards the front (6).	34.2
4	After cleaning the assembly is carried out in reverse order.	

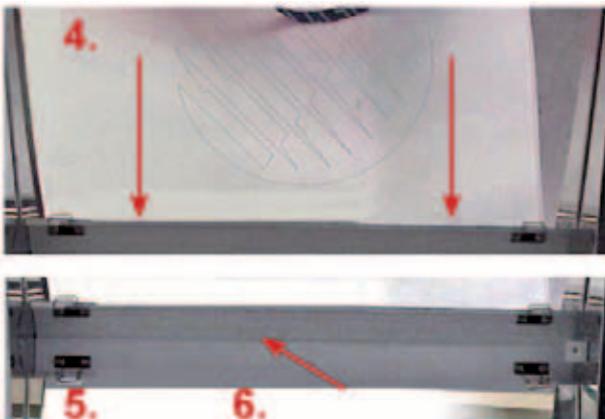Figure 34.1: Removing the filter-pane cover
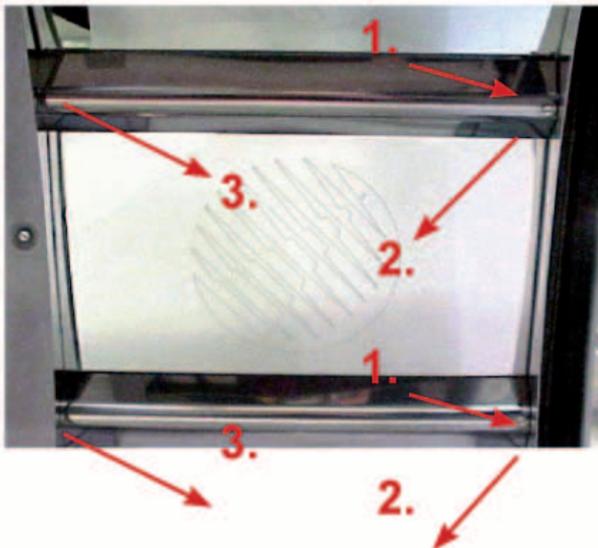
Figure 34.2: Taking the pane off the retention clips

After having dismantled the filter pane, clean the filter pane with a commercially available cleaning agent and a soft cloth or chamois.

Tubes and facial tanners

DISMANTLING

Proceed as follows in order to be able to clean or replace tubes or facial tanners:

	Procedure	Fig.
1	Dismantle the canopy and bed panes.	32.1 33.1 33.2
2	Remove the tube covers in the facial and foot areas.	
3	For units equipped with tanning lamps, you must also remove the filter panes if you wish to replace the lamps.	34.1 34.2

CLEANING CYCLE

In order to preserve the tanning effect, we recommend cleaning the tubes and UV lamps with warm water and a chamois after approx. 200 hours of operation. Do not use any cleaning agents that are aggressive or contain alcohol. Entnehmen Sie die Röhren zum reinigen aus ihren Arretierungen und setzen Sie sie anschließend wieder, mit der Beschriftung nach vorne, ein.

For cleaning of the tubes, remove them from their brackets. After cleaning, put them back with the caption forward.

REPLACEMENT CYCLE

Only replace tubes, facial tanners, shoulder tanners and starters with ones of the same type. When installing the tubes, make sure that the inscription is visible. In this position, the reflector of the tube is at the back. If your tanning unit is equipped with CPI, you must carry out a reset after each tube replacement. As far as inductive units are concerned, also replace the starters with each tube replacement. Reset the operating hours counter of the tubes after each replacement.

Dismantling the tanning lamps

Tanning lamps must only be installed and removed by trained and qualified staff.

	Procedure	Fig.
1	Remove the filter panes.	34.1 34.2
2	Push the light bulb slightly aside and then pull it out.	35.1 35.2
3	Proceed in reverse order for installation.	

Never touch a new tanning lamp with your bare hands. If necessary, clean the light bulb using an agent containing alcohol.
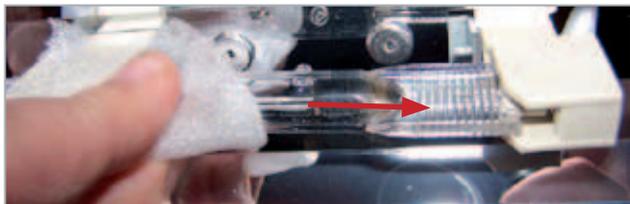
Figure 35.1: Pushing the light bulb aside

Figure 35.2: Pull out the light bulb towards the front

INSTALLING THE TANNING LAMPS

Dirt and bad seating can result in damage to the light bulbs and the sockets during operation. Make sure that the contact surfaces on both the lamp holder and the light bulb are clean when you insert the lamps. Insert the tanning lamps straight into their holders. After the installation, the small glass pin in the middle of the light bulb must point towards the reflector.

Decorative lighting

The decorative lighting of the sunbed consists of the two following components:

- There is one fluorescent tube in each of the two side parts.
- Two compact fluorescent lamps are installed in the canopy ("eyes"). -> MS 4500 only.
- There is a further fluorescent tube on the front side of the base section.
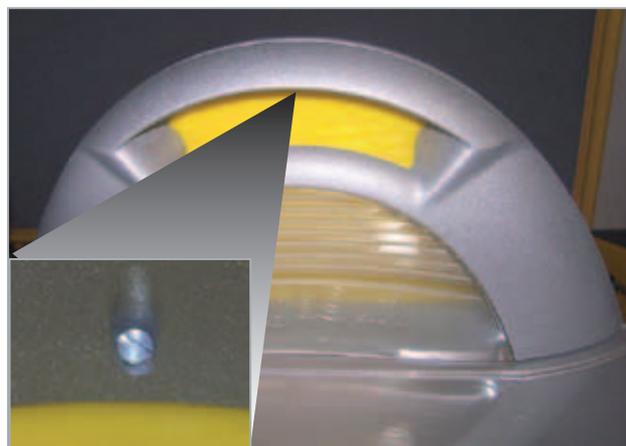
Figure 35.3

10	Fluorescent tubes in the side parts
11	Compact fluorescent lamps in the canopy
12	Fluorescent tube in the base section

If one of the decorative lamps or tubes is defective, replace it in accordance with the instructions below:

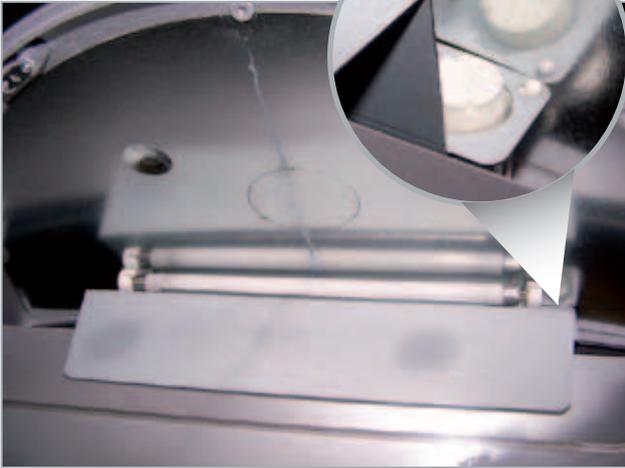DECORATIVE TUBES IN THE SIDE PARTS

- Remove the retaining screw of the interior side cover.

Figure 35.4 Interior part of the side cover

- After having removed the screw, you can take off the interior cover. There is a coloured Plexiglas pane under the cover; this pane can also be removed.

Figure 36.1

- Then you can access the tube and replace it. Make sure to replace the starter (*figure 36.1, zoomed*) with each tube replacement.
- Installation is carried out in reverse order.

DECORATIVE TUBES IN THE CANOPY (MS 4500)

- The chromium facings of the "eyes" are only fixed with Velcro tape. They can easily be removed by hand.

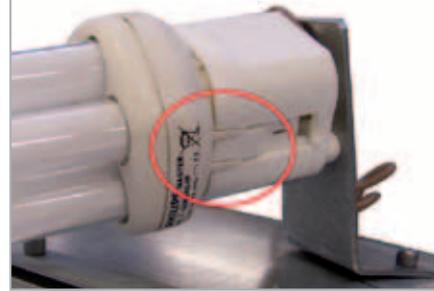Figure 36.2

Figure 36.3

- Undo the four screws fixing the carrier plate and lift off the plate.

- Pull the defective lamp carefully out of its fixture. (Do not turn it!).

Figure 36.4

Figure 36.5

- When inserting the new compact fluorescent lamp, make sure that the lamp is correctly connected to the fixture (see circle).
- Fasten the carrier plate and ensure that the edge of the diffusing panel *(figure 36.6)* is positioned below the carrier plate.

Figure 36.6

Diffusing panel

- At last, fix the chromium-plated facing.

DECORATIVE TUBE IN THE BASE SECTION

The coloured fluorescent tube in the base part is located behind the front cover, underneath the bed pane. Proceed as follows to replace this tube:

- Remove the front cover. It is fixed with screws at two places along the upper edge (*figure 37.1*) and engaged in notches at the side edges (*figure 38.2*). The following photos show how the cover is fixed on the left-hand side.
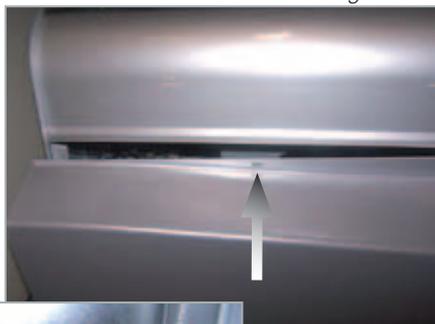
Figure 37.1

Figure 37.2

- The fluorescent tube is now freely accessible and can be replaced. The starter is located on the left-hand side. Also replace the starter (*figure 37.3, zoomed*) when replacing the tube.

Figure 37.3

Filter pads

CLEANING CYCLE

The cooling air is sucked in via two dust filters. Depending on the location, clean the filter pads after approx. 100 hour of operation, or replace them, if necessary. Only use original filter pads for replacement in order to ensure a troublefree operation. Take the opportunity to check if the heat exchangers inside the air-conditioning unit are soiled. Dirty heat exchangers substantially reduce the performance of the air-conditioning unit. Vacuum-clean them if necessary.

FILTER PADS IN THE CANOPY AND IN THE BASE SECTION

The filter pad of the canopy section (*figure 37.4*) is located in the gripping profile of the canopy; the filter pad of the base section (*figure 37.5*) is fitted behind the front lighting. The pads can simply be removed and cleaned or replaced.

Figure 37.4

Figure 37.5

megaSun

Canopy drive

REGULAR MAINTENANCE

Check and maintain the drive rope after each tube replacement in order to ensure a trouble-free operation of the drive.

- Check the canopy drive: the canopy must stop in all positions. If not, the canopy spring must be tensioned.
- Should individual rope wires be spliced, replace the rope immediately!
- Use the spray lubricant HHS 2000 to grease the rope in the area of the return pulley.

REPLACING THE SPRING ROPE

	Procedure	Fig.
1	Close the canopy.	
2	Remove the front cover of the base section.	37.1 37.2
3	De-tension the spring. Remember the position of the nut at the spring tensioner.	38.1
4	Remove the cover of the return pulley.	38.2
5	Remove the upper rope cover.	38.3
6	Undo the dowel screw of the upper rope holder. Do not forget to remember the position of the screw within the seat opening *(figure 39.3, zoomed)*.	38.3
7	Replace the old rope and fasten the new one.	
9	Tension the spring in such a way that the canopy stops in all positions.	38.1
10	Grease the rope in the area of the return pulley.	38.2
11	Fasten all covers.	

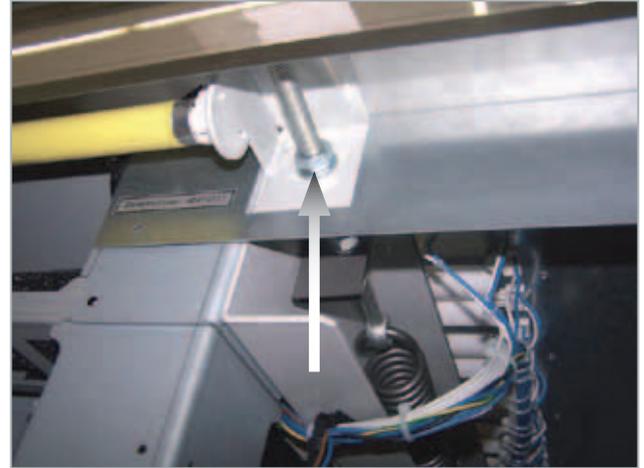*Figure 38.1: Spring tensioner in the base section (right-hand side)*

Figure 38.2: Return pulley area with and without cover

Figure 38.3: Upper rope holder with and without cover

Cooling and exhaust air

COOLING PRINCIPLE

Cooling of the tanning unit: The fan sucks in the ambient air for cooling through the upper and lower filter pads. It discharges the warm air via the exhaust air duct.

Cooling of the body: A fan at the foot end sucks in ambient air (systems without air-conditioning unit) or cooled air (systems with air-conditioning unit) and blows it into the tanning space of the solarium. A spoiler at the canopy pane leads this air to the face area.

Cooling of the bed pane: The air that is cooled down in the air-conditioning unit is blown towards the foot end between the bed pane and the ducting pane and then led further into the tanning space.

MAINTENANCE OF THE EXHAUST AND AIR-CONDITIONING UNIT

A clean and trouble-free exhaust-air unit prevents the tanning system from overheating. The maximum exhaust-air hose length of 6 m must not be exceeded unless there is an auxiliary fan installed.

	Procedure	Fig.
1	Check the air-conditioning unit and the condensate pump as described in the following chapter.	39.1
2	The filter pads in the bed section and in the canopy must be clean.	37.4 37.5
3	Check the exhaust-air hose for kinks and damages; also test the function of the auxiliary fan in the case of excessive hose lengths.	
4	Sufficient airing and ventilation of the tanning studio must always be ensured.	
5	Check the correct positioning of the ducting pane in order to ensure the proper cooling of the bed pane.	

Air-conditioning unit and condensate pump

MAINTENANCE OF THE AIR-CONDITIONING UNIT

Check the heat exchangers of the air-conditioning unit for dirt accumulation with each tube replacement. Soiled heat exchangers reduce the performance of the air-conditioner.

- Open the front cover and vacuum-clean the heat exchangers, if necessary.
- Check the air hose each time you change tubes. If it is defective, replace it immediately.

Figure 39.1: Air-conditioning unit and condensate pump

13	Condensate hose
14	Condensate pump
15	Condensate tray
16	Position of air hose and fan (rear right-hand side)

MAINTENANCE OF THE CONDENSATE PUMP

The condensate pump is controlled by the processor in such a way that it is switched on every 5 minutes for 20 seconds during a tanning session. After the session, the pump continues operating.

Always check the proper functioning of the condensate pump when you replace tubes.

- Start the tanning program.
- Open the front cover and slowly pour water into the condensate tray.
- The water must be pumped off. The unit must remain connected to the power supply after the tanning session in order to enable the run-on of the pump.
- The condensate hose must be guided into the canister without any kinks and up to a level that does not exceed the installation level by more than 25 cm.

Audio system with mp3 sound box

In the lower part there are, inter alia, the components for:

- megaVoice, the acoustic user guide,
- mp3 sound box for the "Music" option, and
- I2C audio switch

The audio switch is used for I2C bus adaptation, for connecting an external audio signal with volume control and the connections to the MP3 players. The memory card for the mp3 sound box can be exchanged after opening the front panel and pull out the ballast trolly.

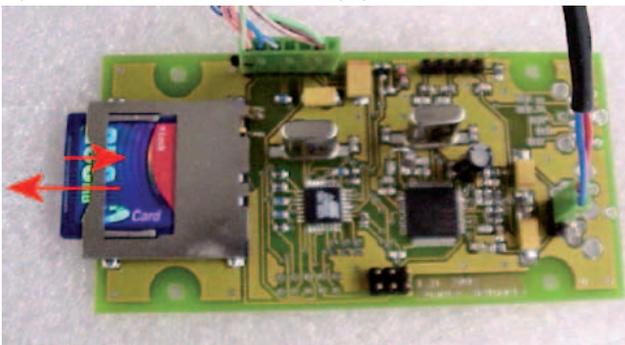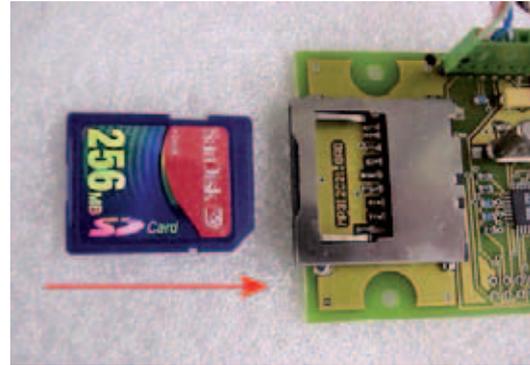*Figure 40.1: SD card ; push to disengage, then pull out.*

Figure 40.2: SD card; slide in till it engages

Recording to an SD card

Please refer to the chapter "Technical data" for information on supported card sizes as well as file-system and MP3 formats.

Using the SD Writer software (download from http://www.kbl-support.de/software/software.html), you can add or delete audio files to the SD card for music at your convenience. These tracks are played after the corresponding source has been selected. The number of files is limited by the storage capacity of the SD card.

1. Insert the card into the computer.
2. Activate SD Writer and copy files onto the card.
3. Insert the card into the MP3 player.
4. Restart the device. To do so, pull out the main plug and plug it in again. In this way, you make sure that the MP3 player will identify the SD card.

⚠	⚠ WARNING!
	• **The SD card must only be formatted using FAT16!**
	• **Only change the data of the MUSIC MP3 player!**

Refilling Aroma

The tin with the aroma gel is part of the aroma-unit which is on the left, front foot of the device.

Figure 41.1

REPLACING THE AROMA GEL

	Procedure	Fig.
1	Open the lower front cover.	37.1 37.2
3	Unlatch the retaining bracket of the lid of the Aroma tin. Then you can replace the tin.	41.2

Figure 41.2 Latch of the Aroma tin

Error messages

Only the errors "Exhaust air" and "max. time" can occur with the KBL/5 processors.

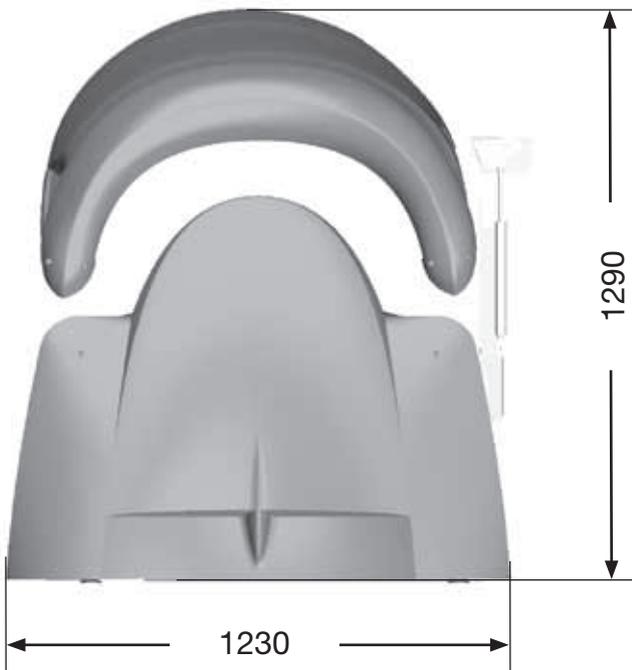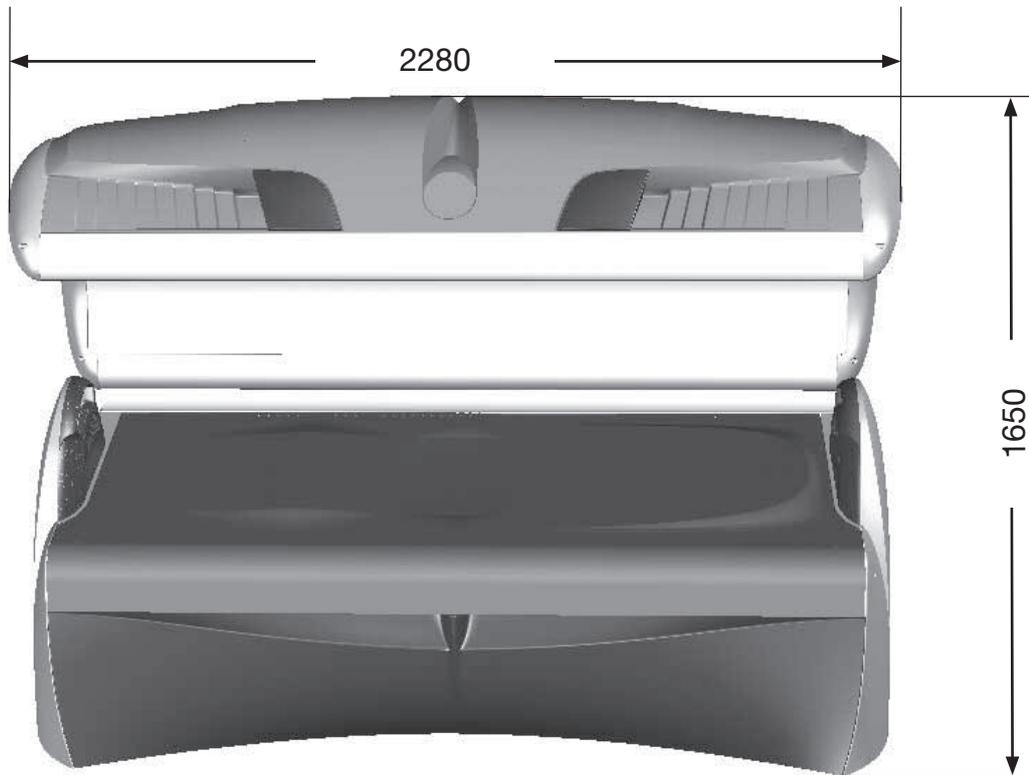| Status message KBL/4	Status message KBL/5	Status description	Remedy
Exhaust air	Exhaust air	Bi-metal switch triggers.	Check the air-intake/air-discharge system and the fan. Let the sunbed cool down and acknowledge the message by pressing the START button. If the fault persists, contact your Customer Service.
Maximum tanning time!	max. time	Enabling signal from coin-box/timer system longer than approved, i.e. the value specified under "Maximum tanning time" (voltage remains connected).	Disconnect the sunbed from the coin-box/timer system.
Hardware Error		Main board defective.	Replace the main board (contact your Customer Service).
Bus Relais Error		aquaCool relay board defective.	Replace the aquaCool relay board.
E05:BUS:REL		I²C bus faulty.	Contact your Customer Service.
E04:BUS:VOICE		Faulty data communication between control board and Voice MP3 player.	1. Check the "Voice" SD card. 2. Contact your Customer Service.
E02:BUS:TMP		I2C temperature sensor faulty or defective.	Contact your Customer Service.

Service

For all service-related questions, please contact
your responsible specialist dealer.

Technical data

Ambient conditions	
Installation site	In dry rooms (booths) with sufficient airing and ventilation • Relative air humidity: ≤ 70 % • Room temperature: ≤ 30 °C • Minimum height of the room: 1700 mm
Electrical connection values	
Protective class	IP20
Mains voltage	400V / ~3N / 50Hz
Wire cross section	5 x 2,5mm² Ölflex
Dimensions in mm (Height x width x depth)	(2280 x 1230 x 1290) when closed (2280 x 1230 x 1650) when opened
Weight (with air conditioning)	Inducive: 480 (530) kg CPI: 450 (500) kg
MP3-Player	• Supports SD cards up to 1 GB • Supported file system (SD card): FAT16 • Supported MP3 files: constant and variable bit rate, 96-320 Kbit/s
Fuses	Automatic fuse K-type (safety cut-out), 3-pole, (3x20A -> with Air conditioning) (3x16A -> without air conditioning) with residual current-operated circuit breaker (RCD)
Air discharge	
Fan	Exhaust-air socket Ø 300 -- suction power max. 2000 m³/h -- 230V / ~1N / 50Hz
Exhaust-air hose	Ø 300

Unit data megaSun 4000/4500 Super		
	Inductive	**CPI**
Tubes	LEVEL 1 ACCORDING TO EN 60335-2-27 0,3W/M² Canopy: 24x MS Ultimate III 100 (1806 R 100W) Bed: 16x MS Ultimate III 100 (1806 R 100W)	LEVEL 1 ACCORDING TO EN 60335-2-27 0,3W/M² Canopy: 24x MS Ultimate III 100 cpi energy (1820 R 100W) Bed: 16x MS Ultimate III 100 cpi energy (1820 R 100W)
Face tanner	3x MS600	3x MS600
Nominal power	With air conditioning: 6890W Without air conditioning: 5930W	With air conditioning: 7890W Without air conditioning: 6930W
Unit data megaSun 4000/4500 Super Power		
	Inductive	**CPI**
Tubes	LEVEL 1 ACCORDING TO EN 60335-2-27 0,3W/M² Canopy: 24x MS Ultimate III 160 (1808 R 160W) Bed: 16x MS Ultimate III 120 (1807 R 120W)	LEVEL 1 ACCORDING TO EN 60335-2-27 0,3W/M² Canopy: 24x MS Ultimate III 160 cpi energy (1825 R 160W) Bed: 16x MS Ultimate III 120 cpi energy (1840 R 120W)
Face tanner	3x MS600	3x MS600
Nominal power	With air conditioning: 8630W Without air conditioning: 7670W	With air conditioning: 9630W Without air conditioning: 8670W
Unit data megaSun 4000/4500 Ultra Power		
	Inductive	**CPI**
Tubes	LEVEL 1 ACCORDING TO EN 60335-2-27 0,3W/M² Canopy: 24x MS Ultimate III 160 (1808 R 160W) Bed: 16x MS Ultimate III 160 (1808 R 160W)	LEVEL 1 ACCORDING TO EN 60335-2-27 0,3W/M² Canopy: 24x MS Ultimate III 160 cpi energy (1825 R 160W) Bed: 16x MS Ultimate III 160 cpi energy (1825 R 160W)
Face tanner	3x MS600	3x MS600
Nominal power	With air conditioning: 9590W Without air conditioning: 8630W	With air conditioning: 10590W Without air conditioning: 9630W

XXL DEVICES	
Unit data megaSun 4000/4500 XXL Super	**Unit data megaSun 4000/4500 XXL Super Power**
Inductive	**Inductive**
Tubes LEVEL 1 ACCORDING TO EN 60335-2-27 0,3W/M² Canopy: 21x MS Ultimate III XXL 120 (2006 R 120W) 30x CosmoLux SP 10039 / 25W Bed: 16x MS Ultimate III 100 (1806 R 100W)	**Tubes** LEVEL 1 ACCORDING TO EN 60335-2-27 0,3W/M² Canopy: 21x MS Ultimate III XXL 180 dual use (2018 R 180W) 30x Cosmolux SP 10039/ 25W Bed: 16x MS Ultimate III 120 (1807 R 120W)
Nenn-leistung With air conditioning: 7115W Without air conditioning: 6155W	**Nenn-leistung** With air conditioning: 8690W Without air conditioning: 7730W

Unit data megaSun 4000/4500 XXL Super	
Inductive	
Tubes	LEVEL 1 ACCORDING TO EN 60335-2-27 0,3W/M² Canopy: 21x MS Ultimate III XXL 120 (2006 R 120W) 30x CosmoLux SP 10039 / 25W Bed: 16x MS Ultimate III 160 (1808 R 160W)
Nominal power	With air conditioning: 9650W Without air conditioning: 8690W

Views

Remarks

megaSun

by KBL

®