# SPORTARREDO<sup>®</sup> s.p.A.

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INSTALLATION, USE AND MAINTENANCE MANUAL

USA

# SPORTARREDO<sup>®</sup>, JA



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# 1 - GENERAL INFORMATION

# 1.1 LABELS

Cod.16986.229.0.0

Cod.16986.138.0.0

# 1 - GENERAL INFORMATION



WARNING—ULTRAVIOLET RADIATION—FOLLOW INSTRUCTIONS—FAILURE TO USE PROTECTIVE EYEWEAR MAY RESULT IN SEVERE BURNS OR OTHER EYE INJURY-IF DISCOMFORT DEVELOPS, DISCONTINUE USE AND CONSULT A PHYSICIAN

ES ES ATTENTION—RAYONNEMENTS ULTRAVIOLETS—VEUILLEZ SUIVRE LES INSTRUCTIONS—SANS DISPOSITIF DE PROTECTION I YEUX, CE PRODUIT PEUT CAUSER DES BRÛLURES OU LÉSIONS OCULAIRES GRAVES—SI VOUS SENTEZ UN MALAISE, DISCONTINUER L'USAGE ET CONSULTER UN MÉDECIN Avoid overexposure. As with natural sunlight, overexposure can cause eye and skin injury and allergic reaction. Repeated exposure may cause premature ageing of the skin Medications or cosmetics may increase your sensitivity to the ultraviolet radiation. Consult physician before using sunbed if you are using medications or have a history of skin and cancer

problems or believe yourself especially sensitive to sun light. If you do not tan in the sun, you are unlikely to tan from use of this product.

Médicaments et cosmétiques peuvent augmenter vôtre sensibilité aux rayons ultraviolets. Consulter un physicien 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 du soleil. Si vous ne bronzez pas avec le soleil, c'est Eviter surexposition. Comme avec la lurnière naturelle du soleil, la surexposition peut causer lésions aux yeux et à la peau et réactions allergiques. Une exposition repeteé peut improbable que vous pouvez vous bronzer en utilisant ce produit causer un vieillissement prématuré de la peau et cancer.

Cod. 16986, 199.0.0

CONNECT ONLY TO A CIRCUIT PROTECT BY A CLASS A GROUND FAULT CIRCUIT INTERRUPTER CAUTION!

ATTENTION! BRANCHER SEULEMENT À UNE DÉRIVATION PROTÉGEÉ PAR UN DISJONCTEUR DIFFÉRENTIEL DE CLASSE A

(Valid only for CAN/CSA - Valable seulement pour CAN/CSA)

/ALID ONLY FOR CAN/CSA

GROUNDING CIRCUIT CONTINUITY ISVITAL FOR SAFE OPERATION OF EQUIPMENT. NEVER OPERATE EQUIPMENT WITH GROUNDING CONDUCTOR DISCONNECTED.

3od,16986,137,0.0

AVERTISEMENT: POUR UN FONCTIONNEMENT SÜR, NE JAMAIS, UTILISER CET APPAREIL QUAND LE CONDUCTEUR DE MISE A LA MASSE EST DÉCONNECTÉ.

WARNING

HIGH LEAKAGE CURRENT - - ENSURE PROPER GROUNDING.

COURANT DE FUITE EL EVE--FOURNIR UNE MISE A LA AVERTISSEMENT TERRE EFFICACE

Cod.16986.001.0.0

DISCONNECT POWER SUPPLY BEFORE OPENING UNIT WARNING

VOR DER ÖFFNUNG DES GERÄTES SICH VERGEWISSERN, DASS DIE ELEKTRIZITÄT ABGESCHALTET IST **ACHTUNG!** 

AVANT D' OUVRIR D' APPAREIL, S' ASSURER QU' IL AIT ETE COUP LA TENSION D' ALIMENTATION ATTENTION

ANTES DE ABRIR EL APARATO HAY QUE ASEGURARSE DE QUE ESTE CORTADA LA TENSIÓN DE ALIMENTACIÓN CUIDADO

ATTENZIONE! PRIMA DI APRIRE L'APPARECCHIO ACCERTARSI CHE SIA STATA TOLTA LA TENSIONE DI ALIMENTAZIONE

# 1 - GENERAL INFORMATION

#### 1.2 INTRODUCTION

#### **IMPORTANT**

BEFORE OPERATING THE MACHINE, READ THE INSTRUCTIONS CONTAINED IN THIS OPERATING MANUAL CAREFULLY AND COMPLETELY.

KEEP THIS MANUAL AND ALL ENCLOSURES IN AN ACCESSIBLE PLACE WHERE IT CAN BE REFERRED TO BY ALL USERS (OPERATORS, MAINTENANCE PERSONNEL AND THOSE CLIENTS WHO ASK FOR DETAILED INFORMATION).

This Technical Manual is designed for use by installers and operators, and should be read carefully and completely before the machine is operated. The manual should always be available for reference and should be kept in a safe place so that it stays in good condition for future reference. For further copies or updates of the manual, contact the manufacturer at the address on the front page.

Sportarredo SpA reserves the right to make changes to the product and to the manual without being obliged to update the preceding manuals.

This manual contains all the instructions and information necessary to operate the machine:

- · Correct installation of the machine.
- Description of the functions of the machine.
- · Circuit diagrams.

The installers and the operators can use this manual to understand the characteristics of the machine and to learn the correct operating procedure.

# 1.3 GENERAL TANNING INSTRUCTIONS

**DANGER!** Ultraviolet Radiation.

Follow instructions. Avoid overexposure. As with natural sunlight, overexposure can cause eye and skin injury and allergic reactions. Repeated exposure may cause premature ageing of the skin and skin cancer.

WEAR PROTECTIVE EYEWEAR; FAILURE TO MAY RESULT IN SEVERE BURNS OR LONG-TERM INJURY TO THE EYES.

Medications or Cosmetics may increase your sensitivity to the ultraviolet radiation. Consult physician before using sunbed 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. This device is intended to be used by only one person at a time. Stand in the middle of booth, with body positioned an equal distance from the surrounding lamps.

**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 your skin type.

#### Skin type II.

This is the individual that usually burns easily and severely. Tans minimally or lightly and peels.

### Skin type III.

Often referred to as "average" complexion burns moderately and tans about average.

# Skin type IV.

This individual burns minimally, tans easily and above average.

# Skin type V.

This individual's system rarely burns, tans easily and substantially.

Session times are calculated for a supply voltage of 208V.

This product is in conformity with performance standards for sunlamp products under No.21 CFR 1040.20.

# RECOMMENDED EXPOSURE SCHEDULE

First three sessions should be at 48 hour intervals. Followed by the gradual increasing of exposure times until maximum tanning has occurred (in approximately 4 weeks). MAXIMUM EXPOSURE is 10 minutes

Skin type	Week 1 1st-3rd Session	Week 2 4rd-6rd Session	Week 3 7rd-9rd Session	Subsequent Weekly Session
II	3 min.	5 min.	7 min.	9 min.
III	3 min.	5 min.	7 min.	9 min.
IV	3 min.	6 min.	8 min.	10 min.
V	3 min.	6 min.	8 min.	10 min.

This schedule is intended to be used with the following lamps: (standard configuration)

Kalfasun B23-S WHITE 160W

# 1.4 TRANSPORT AND HANDLING

The machine is carefully protected and loaded onto pallets before shipping. The various parts of the machine must never be transported or stored in positions which differ from the positions in which they are shipped. In this case, the warranty shall be null and void.

The machine must be handled with care in order to prevent the risk of damage to the packaged sections. All handling operations should be carried out by authorised and trained personnel. When the machine is delivered, immediately check that the packaging material is whole and that no damage has occurred during transport.

Any damage to the machine must be notified to the carrier not later than **eight calendar days** from the date of delivery. If internal damage is suspected, it is advisable to accept the machine reserving the right to check accordingly.

THE CARRIER IS RESPONSIBLE FOR ANY DAMAGE OCCURRING DURING TRANSPORT OF THE MACHINE. SPORTARREDO WILL MAKE EVERY EFFORT TO ASSIST THE CLIENT IN SUCH CASES

ALL MAINTENANCE OF THE MACHINE MUST BE PERFORMED BY SPECIALIZED TECHNICIANS FROM SPORTARREDO OR BY PERSONS AUTHORIZED BY SPORTARREDO USA INC.

IMPORTANT!
ALWAYS DISCONNECT THE MACHINE
FROM THE POWER SUPPLY BY
PRESSING THE SWITCH BREAKER
BEFORE CARRYING OUT
MAINTENANCE

# 1.5 PREPARATION FOR INSTALLATION BY THE CLIENT

Unless otherwise expressly specified in the contract, the following must be provided by the client:

- Connections to the electrical circuit, including the protective wire generally referred to as the "EARTH CONNECTION", unit feeding cable, power plug and circuit breaker.
- Canalization system for the emission of hot air.
- External air intake.
- All tools and equipment necessary for installation.

# THE UNIT IS SUPPLIED FOR INPUT VOLTAGE AT 230V 3phase 60 Hz

AND IT IS SUPPLIED WITH OUT THE FEEDING CABLE

To make a power cable connection or voltagechange, make reference to the chapter "INSTALLATION" paragraph "VOLTAGE-CHANGE" and to the VEGA LUX OPEN n° 1/5 electrical diagram.

These operation must be done by technical personnel.

THE BREAKER MUST BE INSTALLED IN THE POWER SUPPLY BOARD OF THE ESTHETICAL CENTRE AND IT MUST BE DONE BY THE CENTRE ITSELF.

The installation must be done by technical personnel.

THE POWER SUPPLY CONNECTION (UNIT-BOARD) MUST BE DONE BY THE CENTRE. THE SKILLED TECHNICIAN MUST USE A CERTIFIED CABLE WITH THE PROPER SECTION AND WITH ADEQUATE MECHANICAL PROTECTION, IN ACCORDANCE WITH THE RULES IN FORCE. SEE CAHAPTER 3.1 TABLES FOR TECHNICAL DATA "POWER SUPPLY CABLE SECTION"

PLEASE CONTACT THE CUSTOMER SERVICE AT PHONE NUMBER

1-866-899-4826 FOR ANY FURTHER DOUBT

Before the evening closing, or the closing for a prolonged period you should operate on the breaker in order to disconnect the power supply.

TO HAVE A CORRECT USE OF THE EQUIPMENT, THE ROOM TEMPERATURE MUST NOT EXCEED THE 86F DEGREES. IF ROOM TEMPERATURE EXCEEDS THIS VALUE, WE SUGGEST TO UTILIZE AN AIR-CONDITIONING UNIT.

#### 2 - SAFETY INFORMATION

#### 2.1 GENERAL

The employer must ensure that the persons assigned to the operation of the machine receive adequate training concerning possible accident risks, the devices fitted for the safety of the operator and the client, the risks associated with the emission of UV light and the general accident-prevention regulations specified by international norms and local legislation.

Those responsible for operation, maintenance, cleaning and control of the machine must adhere strictly to the accident-prevention regulations applicable in the country in which the machine is installed.

Before operating the machine, the operator must be completely familiar with the position and the function of all the controls and with the characteristics of the machine. The operator must read this manual carefully and completely.

The machine must be operated by fully-qualified operators only.

Removal of the **safety devices** and protective barriers is strictly forbidden.

No heavy weights must be placed on the moving parts of the machine. The ventilation ducts and intake grilles must not be obstructed by foreign bodies.

The machine must always be switched off and disconnected from the power supply before performing any routine or special maintenance operations.

Unauthorised replacement of or repairs to any part or section of the machine, or the use of accessories or material that are not original or recommended by the manufacturer, may represent a risk of injury, and exonerate the manufacturer from all civil or penal liability.

It is forbidden to stay near the appliance while it is operating without eye protection.

"DANGEROUS ZONES": any zone internal to or in the vicinity of the machine in which the presence of an exposed person constitutes a risk for the safety and the health of that person.

**"EXPOSED PERSON":** any person who is wholly or partly in a dangerous zone.

"OPERATOR": person or persons assigned to the installation, operation, adjustment, maintenance, cleaning, repair and transport of the machine.

### 2.2 NOISE

The machine is designed and built in such a way as to reduce operational noise as follows:

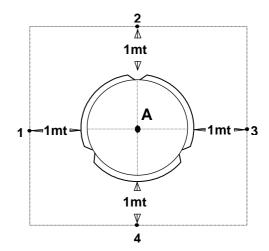
Effective normalized sound power during operation, see diagram below

1 - 2 - 3 - 4 - = 68 dB (A) max.

Effective sound pressure with simulation of the actual position of the person being treated

 $\mathbf{A} = 77 \text{ dB (A) max.}$ 

The figures shown above have been determined according to ISO 3746.



# 2.3 REGULATIONS

Standards for safety of Luminaires, UL 1598, Issue:2004/12/30 Ed:2 Luminaires, CSA C22.2 No.250.0, Issue:2004/12/30 Ed:2.

In the planning of this unit the following rules and provisions of the European Community have been taken in consideration:

ECC Directive N. 91/368 dated 20.06.91, N.93/44 dated 14.06.1993, N.93/68 dated 22.07.93.

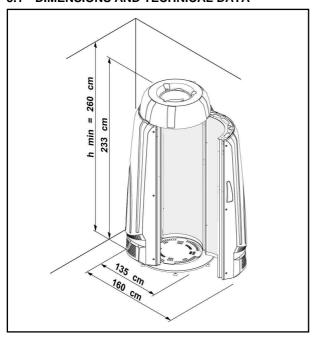
ECC Directive N.73/23 dated 19.02.73 known as "low voltage directive".

**ECC Directive N.89/336 dated 03.05.1989** known as "Electronic compatibility directive".

En 60335-2-27 II part Special standard for units for the treatment of the skin with ultraviolet and infrared rays for home use and similar use.

# 3 - TECHNICAL DATA

#### 3.1 DIMENSIONS AND TECHNICAL DATA



MINIMUM HEIGHT FOR CEILING	260 cm	102"
HEIGHT	233 cm	92"
WIDTH	135 cm	53"
WIDTH WHIT OPEN DOOR	160 cm	62"
WEIGHT	350 Kg	772 lb

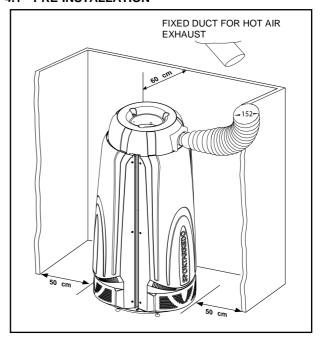
VEGA LUX OPEN	U.M DATA		ATA
POWER SUPPLY	V	230V 3~	230V~
NOMINAL POWER	KW	9,7	
NOMINAL CURRENT	Α	27,2	48
FREQUENCY	Hz	60	
WIRE SIZES	AWG	9	7
NUMBER OF WIRE REQUIRED		4	3
BREAKER		3x30-30m 2x60-30m	
EXHAUST AIR FLOW	m³/h	875	
EXAUST FAN PRESSURE	Pa	0÷200	
HEAT PRODUCED	Kcal/h	8300	
HEAT EXPELLED	Kcal/h	5000	
LAMPS TYPE	N.	48 KALF <i>A</i> B23-S Wh	

# **UV EMISSION**

SEE RAY EMISSION CERTIFICATE

# 4 - INSTALLATION

#### 4.1 PRE-INSTALLATION



In order to ensure correct operation of the machine, it should be installed in an area which has been prepared as shown in the figure.

The connection of the exhaust air pipe must have on the first part (50-60 cm / 19"-23" inch from the edge of the fan) the minimum curving. This device has to be done to reduce the noise of the fan caused by the resistance of the hair, to improve the cooling of the lamps and to have a better air flow during the tanning session.

# 4.2 CONNECTION

The area in which the machine is installed must be adequately ventilated, fit the area with an air intake from outside if necessary. To improve the technical comfort we suggest to connect the tube to expel the hot air to a fixed duct to expel the air outward

- The metal structure of the machine is earthed by means of insulated wires connected to the earth terminal in the electrical junction box.
- The earth circuit must be in full compliance in accordance with the rules in force.
- The earth connection must also be fitted to lowvoltage systems situated in wet or very damp areas (if the voltage to earth is in excess of 25V for alternating current or 50V for direct current).
- The earth wires connected to every part of the various sections of the machine and the earth wires from the various power circuits and user groups must be connected to a single earthing circuit.
- Ensure that the materials used for the earth system are suitably robust and provided with adequate protection.
- The connection to the main earth terminal should be as short as possible. The earth wires should not be subjected to mechanical stress of any kind, and must be protected against corrosion.

#### 4.3 ASSEMBLY INSTRUCTIONS

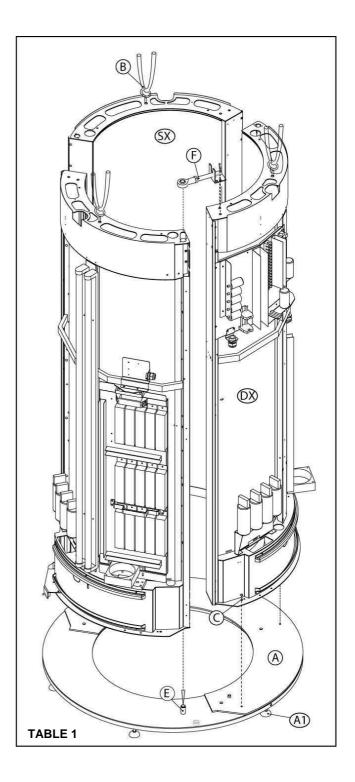
# **SEE ENCLOSED TABLES**

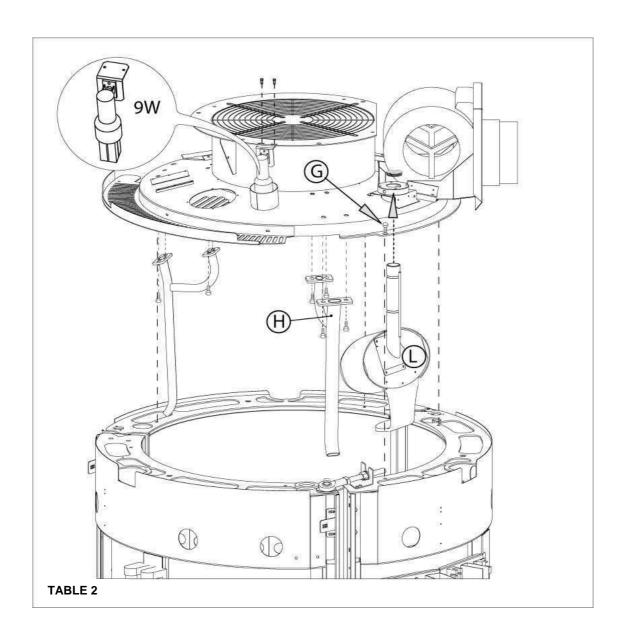
- Put the circular base A on floor and put it at level by regulating the grey foot A1. Table 1.
- 2 Put the shell **DX** and **SX** on the base **A** following the indications reported on the Table 1. To make the assembling it's advisable to lift up the shell using a rope to be connected to the specific rings. Once the assembling is ended, remove the rope from the rings **B**. Table 1.
- 3 Place the 2 screws M8x25 C to connect the shells (twice for each shell) not tighten them too much. Table 1
- 4 Tighten the screws M8x25 C placed among shells and base. Table 1.
- 5 Insert the door on journal E. Table 1.
- Block the securing plaque F of door with 2 M8x25 screws . Table 1.
- 7 Fix the chromium-plated handle H on the cap G with 4 M6x25 screws with cylindrical head, 2 insulating plates with insulating washers and apply the 2 insulating plates between the handle and the hat and screw the insulating washer with the screws. Table 2.
- 8 Insert the control board L in the specific hole and fix it using a metallic bracket. Table 2.
- 9 Fix the metal cover **G** to the shell which have been set up with 4 M8x25 screw. Table 2.
- 10 Connect the following connectors:
  - from the **DX** shell ( 5 poles black connector ) to the **SX** shell:
  - from the **DX** shell (7 poles red/black connector) to the cap;
  - from the **DX** shell (white connector) to the air exhaust fan;
  - from the door shell ( 7 poles red/black connector) to the **DX** shell;
- 11 Connect the feeding cable to the feeding terminal board. Table 3.
- 12 Install the plastic cap M fixing it with the 3 hexagonal nuts M6x20 and the cover plastic parts N with 4,8x13 screws. The plastic cover O of the air filters are fixed using magnetic closing. Table 4.

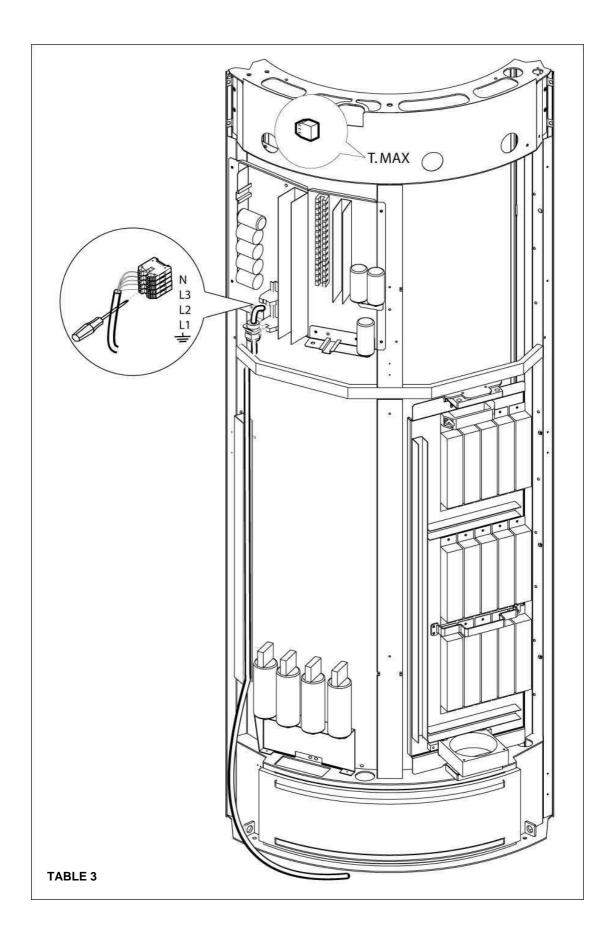
### WARNING!

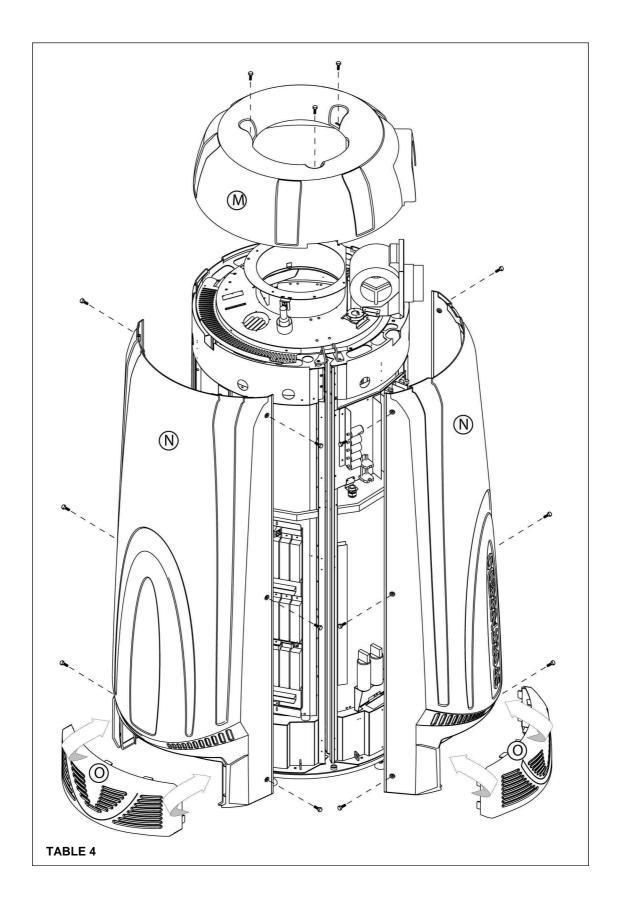
In the control box there is a safety timer set this timer at a value 10% longer than the maximum session time. e.g.: session time 10 min set the safety timer to 13 min.









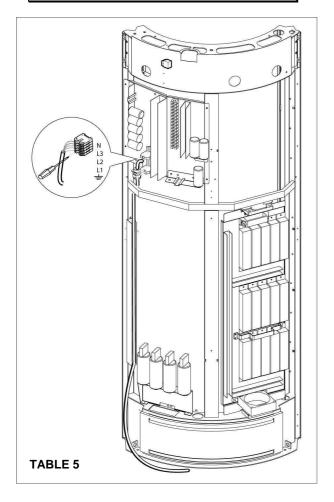


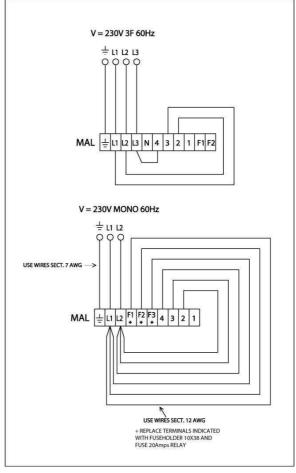
# 4.4 VOLTAGE CHANGE

To enter the terminal board for power supply, placed inside the control sheet in the right shell, make reference to table 5.

# **IMPORTANT!**

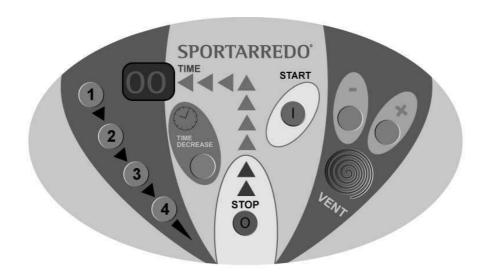
ALWAYS DISCONNECT THE MACHINE FROM THE POWER SUPPLY BY PRESSING THE SWITCH BREAKER BEFORE CARRYING OUT MAINTENANCE





# 5 - USE

#### 5.1 CONTROL BOARD



#### START



Pushing this button you start the tanning treatment.

#### STOP



When the STOP button is pressed, the tanning lamps are switched off.



The time button is used to decrease the duration of the treatment after the unit has been turned on.
At each pressure of the button there's a decrease of 1 minute.
May be used by authorised personnel only.





The buttons marked "+" or "-" may be used to increase or decrease the power of the fan.



Through the buttons 1-2-3-4 the duration of the treatment is set out according to the customer skin type.



# IMPORTANT!

TRS/4 electronic board permits to use the remaining time of a session in case of temporary interruption of power, with the relative "reset" of the unit. The remaining time will flash in the display: pushing the Start button you can use such time, while pushing the Stop button you set to zero such time and the unit is ready for a new session.

The machine is equipped with a radio so that the client can listen to music during the tanning session.

# PL

This lamp lights when the appliance has been operated for 100 hours to indicate that routine maintenance must be performed.

# SL

This lamp lights when the appliance has been operated for 400 hours to indicate that it is necessary to call a qualified technician for special maintenance.

# 5.2 HOW TO GUARANTEE THE SAFETY OF THE PERSONS EXPOSED TO UV

**Don't use** the unit in case of filter damages and timer faults!

# ATTENTION! AN IMPROPER OR INCORRECT USE OF THE UNIT CAN CAUSE SERIOUS BODILY DAMAGES TO THE PERSON EXPOSED!

From a careful analysis, as specified in **EN 60335-2-27**, the precautions that must be observed are listed below.

- If the client is undergoing treatment using medication, such as antibiotics or antiinflammatory pharmaceuticals, it is advisable to suspend tanning sessions.. In any case, it is advisable to consult a doctor.
- 2) Before a tanning session, the skin should be clean and free of cosmetics or perfumes.
- 3) Be sure not to exceed the exposure times selected by the staff of the tanning centre.
- 4) Always use the special protective eyewear. The eyes must under no circumstances remain open during the tanning session.
- After each tanning session, it is advisable to apply a moisturising cream.

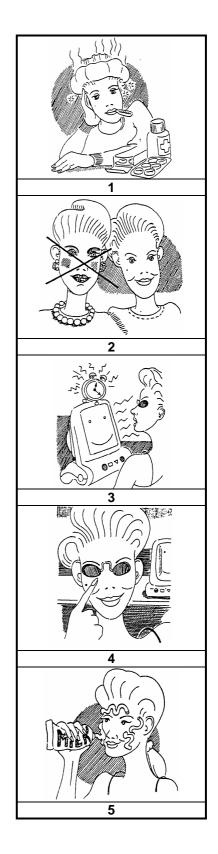
#### It's advisable to:

- Not exposure any part of the body more than one time per day.
- Not exposure to the unit and sun in the same day.
- Do not expose yourself to the appliance if you usually burn with normal sunlight or if you suffer from sunrash.
- Do not make UV session in case of pregnancy. In any case please consult your own attending physician before making the session.
- Do not expose to UV immediately after depilation treatments.
- Do not expose children or adults that are prone to or are suffering (or have previously suffered) from skin neoplasia.
- Consult the physician if on the skin swellings, ulceration's or red spots appear.

# ATTENTION!

- Ultraviolet radiation may cause injury to the eyes and skin, such as skin ageing and eventually skin cancer.
- Read instructions carefully.
- Wear the protective goggles provided.
- Certain medicines and cosmetics may increase sensitivity.

A copy of the following warnings is supplied with the manuals and must be shown to the public close to the unit.



# 6 - ORDINARY MAINTENANCE MADE BY THE CUSTOMER

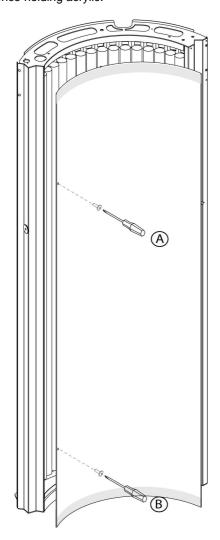
IMPORTANT!
ALWAYS DISCONNECT THE MACHINE
FROM THE POWER SUPPLY BY
PRESSING THE BREAKER SWITCH
BEFORE CARRYING OUT
MAINTENANCE

# IMPORTANT!

USE ONLY THE DISINFECTANT CLEANSING MULTYSAN TO CLEAN THE ACRYLIC N.B. DO NOT USE ALCOHOL OR ALCOHOL-BASED PRODUCTS FOR CLEANING

# REMOVING AND CLEANING THE ACRYLIC PANEL AND LAMPS

To make the cleaning of the acrylic and lamps it's necessary to make the disassembling as follows: Unscrew the 2 screws **AB** to rapid release as show in sequence holding acrylic.



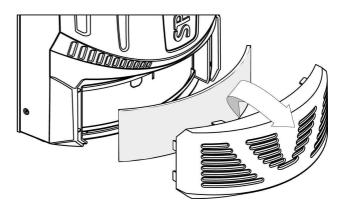
ANY TAMPERING WITH THE APPLIANCE OR THE USE OF NON-ORIGINAL MATERIAL OR PARTS MAY LEAD TO INJURY. IN SUCH CASES, THE MANUFACTURER DECLINES ALL CIVIL AND PENAL LIABILITY, AND THE WARRANTY SHALL AUTOMATICALLY BE CONSIDERED NULL AND VOID.

#### **CLEANING THE AIR FILTERS**

Manually move the plastic cover (it supported magnetically) and extract the black filter.

Filters should be cleaned using a jet of compressed air or a vacuum cleaner as an alternative.

The filters should be replaced every month of operation.



# THE FILTERS SHOULD BE CLEANED EVERY WEEK OF OPERATION

# PL PILOT LAMP FOR ROUTINE MAINTENANCE

Every 100 hours of operation the letters PL appear on the appliance display alternating with the session time. This means that routine maintenance, consisting of cleaning of internal and external acrylics of the appliance, should be carried out.

The luminous signal is turned off by the following procedure:

- press key **Time** and **1** at the same time, until the pilot lamp **PL**. appears;
- press key **Start** (the point disappears):
- press again key Start (PL flashing);

Now the resetting procedure begins and is shown by the fast flashing of the pilot lamp.

When the flashing stops, PL appears again;

- to return the machine to normal operational status, turn the electrical power off and then back on.

The resetting procedure is finished.

This procedure should be carried out with the appliance in pause mode.

# 7 - EXTRAORDINARY MAINTENANCE MADE BY A SKILLED TECHNICIAN

# 7.1 EXTRAORDINARY MAINTENANCE

# SL PILOT LAMP FOR SPECIAL MAINTENANCE

Every 400 hours of operation the letters SL appear on the appliance display alternating with the session time. This means that the following extraordinary maintenance operations should be carried out:

- Cleaning of internal and external acrylics.
- Replacement of low-pressure lamps.
- Check that the timer system is working correctly.
- Check that the SAFETY AND ACCIDENT PREVENTION instructions are legible and in satisfactory condition.
- Every 800 working hours replace the reflectors, the starters for the low-pressure lamps. Clean the fans and the inside of the machine.
- Every 1200 working hours replace the acrylics. The luminous signal is turned off by following the procedure below:
- press key **Time** and **1** at the same time, until the pilot lamp **PL**. appears;
- press key + appears SL.;
- press key Start (the point disappears);
- press again key Start (SL flashing);

Now the resetting procedure begins and is shown by the fast flashing of the pilot lamp.

When the flashing stops, **SL** appears again;

- to return the machine to normal operational status, turn the electrical power off and then back on.

The resetting procedure is finished.

This procedure should be carried out with the appliance in pause mode.

#### 7.2 PERIODIC CONTROL PROCEDURES

**Electrical checks.** Check that the electrical safety devices, and the acoustic/illuminated signal devices and alarms are undamaged and that they function correctly. Check that the equipment and devices in the electrical control box are in satisfactory condition.

These checks must be performed by qualified personnel

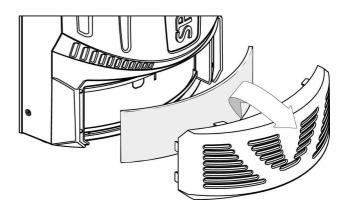
IMPORTANT!
ALWAYS DISCONNECT THE MACHINE
FROM THE POWER SUPPLY BY
PRESSING THE BREAKER BEFORE
CARRYING OUT MAINTENANCE

#### **CLEANING THE AIR FILTERS**

Manually move the plastic cover (it supported magnetically) and extract the black filter.

Filters should be cleaned using a jet of compressed air or a vacuum cleaner as an alternative.

The filters should be replaced every month of operation.



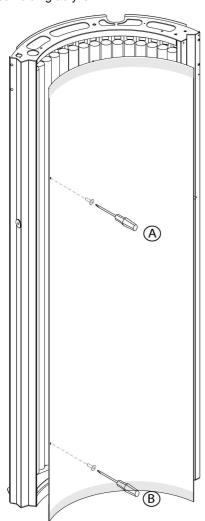
THE FILTERS SHOULD BE CLEANED EVERY WEEK OF OPERATION

# **IMPORTANT!**

USE ONLY THE DISINFECTANT CLEANSING MULTYSAN TO CLEAN THE ACRYLIC N.B. DO NOT USE ALCOHOL OR ALCOHOL-BASED PRODUCTS FOR CLEANING

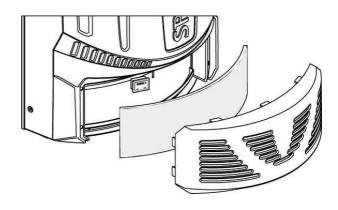
# REMOVING AND CLEANING THE ACRYLIC PANEL AND LAMPS

To make the cleaning of the acrylic and lamps it's necessary to make the disassembling as follows: Unscrew the 2 screws **AB** to rapid release as show in sequence holding acrylic.



ANY TAMPERING WITH THE APPLIANCE OR THE USE OF NON-ORIGINAL MATERIAL OR PARTS MAY LEAD TO INJURY. IN SUCH CASES, THE MANUFACTURER DECLINES ALL CIVIL AND PENAL LIABILITY, AND THE WARRANTY SHALL AUTOMATICALLY BE CONSIDERED NULL AND VOID.

# POSITION OF THE HOURCOUNTER IN THE DOOR PANEL



# 8 - CONTROL BOARD PROGRAMMING

# **8.1 PROGRAMMING**

Functions (firmware 1.3)	Display	Value	Standard
Session time in minutes for skin type 4	P4	1-40	*
Session time in seconds for skin type 4	S4	0-59	*
Session time in minutes for skin type 3	P3	1-P4	*
Session time in seconds for skin type 3	S3	0-59	*
Session time in minutes for skin type 2	P2	1-P3	*
Session time in seconds for skin type 2	S2	0-59	*
Session time in minutes for skin type 1	P1	1-P2	*
Session time in seconds for skin type 1	S1	0-59	*
Lamp cooling minutes	rF	3-8	*
Value of body ventilation at session start	bl	0-8	6
Value of body ventilation during cooling stage	bF	0-8	*
Minimum body ventilation	bd	0-8	0
Maximum body ventilation	bu	0-8	8
Type of body cooling ventilation:	bt	0-1	0
0=fan			
1=turbo			
Minutes for first coin	Pb	1-3	3
Time in seconds for first coin	Sb	0-59	0
Minutes for subsequent coin or accumulation of coins	Pu	1-3	3
Seconds for subsequent coin or accumulation of coins	Su	0-59	0
How to use	Ac	On-OF	OF
Minutes for start delay and accumulation of coin	rS	0-99	0
Start key on keypad.	tS	On-OF	On
Delay stop on keypad	SS	On-OF	Of
Function face/body selector	St	On-OF	Of
Priority external start	SE	On-OF	On
External start function	CS	On-OF	Of
Relay control on CBR/4	Cb	0-3	0
Delay CBR/4 relay disactivation when start button is loosed	Ct	mSx10	10
** Buzzer enable	b	On-OF	On
** Mid session buzzer enable	b2	On-OF	On
Session time display	uS	On-OF	On
Ascending or descending session time display	AS	On-OF	OF
Operating mode predefined	tF	0-6	0
Residual time to black-out	tr	On-OF	On
1 <sup>st</sup> Vocal message	n1	On-OF	On
2 <sup>nd</sup> Vocal message	n2	On-OF	On
3 <sup>nd</sup> Vocal message	n3	On-OF	On
4 <sup>th</sup> Vocal message	n4	On-OF	OF
Choice language of the messages	Li	1-6	1
* Value depends on the colorium	· · · · · · · · · · · · · · · · · · ·		-

<sup>\*</sup> Value depends on the solarium. \*\*Only for MPT/4 control board

To modify or read the basic parameters of the MPT/4 or TRS/4 card, programming should be carried out as follows:

Switch on the solarium and press the Time key and then key 2 in sequence and keep them pressed for about four seconds until P4 is displayed.

With ventilation keys + or - choose the function to be modified or displayed.

P4-SESSION TIME IN MINUTES FOR SKIN TYPE 4. IV (Mediterranean).

The start key displays the data relating to the function to be modified or read.

The ventilation keys + or - modifies the value (or logic status) according to the table.

The **stop** key confirms the value and exits the function. The next function, i.e. S4, is displayed.

S4-SESSION TIME IN SECONDS FOR SKIN TYPE 4. IV (Mediterranean).

The same procedure as per function P4 is repeated. When exiting, P3 is displayed.

P3- SESSION TIME IN MINUTES FOR SKIN TYPE 3. III (European dark skin).

The same procedure as per function P4 is repeated. When exiting, S3 is displayed.

S3- SESSION TIME IN SECONDS FOR SKIN TYPE 3. III (European dark skin).

The same procedure as per function P4 is repeated. When exiting, P2 is displayed.

P2- SESSION TIME IN MINUTES FOR SKIN TYPE 2. II (European fair skin).

The same procedure as per function P4 is repeated.

When exiting, S2 is displayed. S2- SESSION TIME IN SECONDS FOR SKIN TYPE 2.

II (European fair skin). The same procedure as per function P4 is repeated.

When exiting, P1 is displayed. P1- SESSION TIME IN MINUTES FOR SKIN TYPE 1. I

(Celtic). The same procedure as per function P4 is repeated. When exiting, S1 is displayed.

\$1- SESSION TIME IN SECONDS FOR SKIN TYPE 1. I (Celtic).

The same procedure as per function P4 is repeated. When exiting, rF is displayed.

rF-LAMP COOLING MINUTES.

When rF is displayed, the same procedure as per function P4 is repeated.

When exiting, bl is displayed.

bI-VALUE OF BODY VENTILATION AT SESSION START.

When bl is displayed, the same procedure as per function P4 is repeated.

When exiting, bF is displayed. **bF-** VALUE OF BODY VENTILATION DURING COOLING STAGE.

When bF is displayed, the same procedure as per function P4 is repeated.

When exiting, bd is displayed.

bd-MINIMUM BODY VENTILATION.

When bd is displayed, the same procedure as per function P4 is repeated.

When exiting, bu is displayed.

bu-MAXIMUM BODY VENTILATION.

When bu is displayed, the same procedure as per function P4 is repeated.

When exiting, bt is displayed.

bt-TYPE OF BODY COOLING VENTILATION.

Enter function bt by pressing the start key. The display shows 0 (fan) or 1 (turbo). Change to 0 or 1, depending on the body cooling fan that is installed in the solarium, by following the same procedure as per function P4.

When exiting, Pb is displayed.

Pb-MINUTES FOR FIRST COIN.

When Pb is displayed, the minutes for start of session with coin can be modified by following the same procedure as per function P4.

When exiting, Sb is displayed.

Sb-TIME IN SECONDS FOR FIRST COIN.

When Sb is displayed, the seconds for start of session with coin can be modified by following the same procedure as per function P4.

When exiting, Pu is displayed.

Pu-MINUTES FOR SUBSEQUENT COIN OR ACCUMULATION OF COINS.

When Pu is displayed, the minutes for start of session with subsequent coins or accumulation of coins can be modified by following the same procedure as per function P4.

When exiting, Su is displayed.

Su-SECONDS FOR SUBSEQUENT COIN ACCUMULATION OF COINS.

When Su is displayed, the seconds for start of session with subsequent coins or accumulation of coins can be modified by following the same procedure as per function P4.

When exiting, Ac is displayed.

Ac-COIN ACCUMULATION FUNCTION.

When Ac is displayed, accumulation of coins is enabled (On) or disabled (OF) by following the same procedure as per function P4.

This function is operative if rS is other than 0.

When exiting, rS is displayed.

rS- MINUTES FOR START DELAY AND ACCUMULATION OF COIN.

When rS is displayed, the session start time delay can be modified by following the same procedure as per function P4.

If, for example, the value of this function is 2, the solarium starts after 2 minutes from pressing the start key. If the start key is pressed again, the solarium starts immediately.

If, however, the value is set to 99, the solarium remains in stand-by.

When exiting, tS is displayed.

#### tS- START KEY ON KEYPAD.

When tS is displayed, the start key on the keypad can be enabled (On) or disabled (OF) by following the same procedure as per function P4.

When exiting, SS is displayed.

# SS - DELAY STOP ON KÉYPAD

When SS is displayed, the stop key on the keypad can be delated for 3 seconds (On) or normally operated (OF) by following the same procedure as per function P4

When exiting, St is displayed.

# St - FUNCTION FACE/BODY SELECTOR

When St is displayed, the face/body selector on the keypad can be disabled before Start (OF) or enabled during the session (On) by following the same procedure as per function P4.

When exiting, SE is displayed.

# SE- PRIORITY EXTERNAL START.

When SE is displayed, the priority external start on the keypad can be enabled (On) or disabled (OF) by following the same procedure as per function P4.

When exiting, CS is displayed.

#### **CS** - EXTERNAL START FUNCTION

When CS is displayed, the external button to the Start can be disabled through a bridge (OF) or enabled without a bridge (On) by following the same procedure as per function P4.

When exiting, Cb is displayed.

# Cb- RELAY CONTROL ON CBR/4.

Enter function Cb by pressing the start key. With ventilation keys + or - choose the function to be modified or displayed:

00 - CBR/4 relay disabled.

- 01 The relay the contacts RUNN (7-8) on the CBR/4 board when the unit makes the session.
- 02 The relay closes the contacts RUNN (7-8) on the CBR/4 board when the unit makes the session and final ventilation.
- 03 The relay closes the contacts RUNN (7-8) on the CBR/4 board when the key start is pushing.

When exiting, Ct is displayed.

# Ct-DELAY ČBR/4 RELAY DISACTIVATION WHEN START BUTTON IS LOOSED

When Ct is displayed, the function to modify the delay (on milliseconds) of the relay CBR/4 disable activation can be obtained when the START button is loosed only with Cb at point 03 and with the same procedure as per function P4.

When exiting, b is displayed.

# b- BUZZER ENABLE.

When b is displayed, the card loud speaker can be enabled (On) or disabled (OF) by following the same procedure as per function P4.

When exiting, b2 is displayed.

#### **b2**- MID SESSION BUZZER ENABLE.

When b2 is displayed, the card loud speaker is enabled (On) or disabled (OF) half-way through the session by following the same procedure as per function P4. When exiting, uS is displayed.

uS-SESSION TIME DISPLAY.

When uS is displayed, the solarium session time can be enabled (On) or disabled (OF) by following the same procedure as per function P4.

When exiting, AS is displayed.

AS-ASCENDING OR DESCENDING SESSION TIME DISPLAY.

When AS is displayed, the time in ascending (On) or descending (OF) mode can be visualised by following the same procedure as per function P4.

When exiting, tF is displayed.

# tF - OPERATING MODE PREDEFINED

Enter function tF by pressing the start key. With ventilation keys + or - choose the function to be modified or displayed:

- 00 Operating mode standard or default.
- Operating mode with CARD without the choice of skin type and price for session.
- 02 Operating mode with CARD and price for time to definition.
- 03 Operating mode with CARD with the choice of skin type and price for session.
- 04 Operating mode with external timer.
- 05 Operating mode with computer (external control).
- 06 Operating mode with CARD with the time price (dynamic charge).

When exiting, tr is displayed.

# tr - RESIDUAL TIME TO BLACK-OUT

When tr is displayed, the function to memorize (On) or enable (OF) the residual time is on if a black-out occurs during the session with the same procedure as per function P4.

When exiting, n1 is displayed.

# n1-FIRST VOCAL MESSAGE.

When n1 is displayed, the vocal message can be enabled (On) or disabled (OF) by following the same procedure as per function P4.

When exiting, n2 is displayed.

# n2-SECOND VOCAL MESSAGE.

When n2 is displayed, the vocal message can be enabled (On) or disabled (OF) by following the same procedure as per function P4.

When exiting, n3 is displayed.

# n3-THIRD VOCAL MESSAGE.

When n3 is displayed, the vocal message can be enabled (On) or disabled (OF) by following the same procedure as per function P4.

When exiting, n4 is displayed.

# n4-FOURTH VOCAL MESSAGE.

When n4 is displayed, the vocal message can be enabled (On) or disabled (OF) by following the same procedure as per function P4.

When exiting, Li is displayed.

#### Li-CHOICE LANGUAGE OF THE MESSAGES.

When Li is displayed, choose one of the 6 languages by following the same procedure as per function P4.

01=Italiano

02=English

03=Español

04=Greek

05-06=free

When exiting, P4 is displayed.

At this point, programming has been completed. To return to normal operation, switch off and reset.

Maintenance functions	Display
To zero for filter cleaning	PL.
To zero for bulb replacement	SL.
Display of number of sessions	nS.
Display of lamp operating hours	oL.
Display of filter operating hours	oF.
Display of total solarium operating hours	oS.
Display of firmware card date	dC.

To modify or read the maintenance functions of the MPT/4 or TRS/4 card, programming should be carried out as follows:

Switch on the solarium and press the **Time** key and then key **1** in sequence and keep them pressed for about four seconds until PL is displayed.

With ventilation keys + or - choose the function to be modified or displayed.

# PL- TO ZERO FOR FILTER CLEANING

When PL. is displayed, press start to enter the function. PL without the point is displayed. Press the start key again and the display flashes for a few seconds.

At this point the hours are zeroed and the associated lamp switches off.

Press the stop key to confirm the data. By pressing ventilation key + the following SL function is displayed

#### SL- TO ZERO FOR BULB REPLACEMENT

When SL is displayed, press start to enter the function. SL without the point is displayed. Press the start key again and the display flashes for a few seconds.

At this point the hours are zeroed and the associated lamp switches off.

Press the stop key to confirm the data. By pressing ventilation key + the following nS function is displayed

# nS- DISPLAY OF NUMBER OF SESSIONS.

When nS is displayed, press start to enter the function. The format of the data displayed is as follows:

# position "." number

**position**: indicates the value of the figure. E.g.: 1 for units, 2 for tens, 3 for hundreds ...and so on. **number**: indicates the value of the figure relating to the position.

E.g.: the card has carried out 008594 sessions.

When pressing the start key, the display shows
When pressing the start key again
When pressing the start key again
When pressing the start key again
Therefore, the figure is 8594

If the start key is pressed again, the display again shows the data indicated in position 1.

Note: even if the card memorises a maximum of 6 figures, the zeros on the left-hand side are not displayed.

Press the stop key to exit the function and oL is displayed.

# oL- DISLAY OF LAMP OPERATING HOURS.

When oL is displayed, press start to enter the function. The number of lamp operating hours is displayed. To read the number, repeat the same sequence as per function nS. Press the stop button to exit the function and oF is displayed.

# oF- DISPLAY OF FILTER OPERATING HOURS.

When oF is displayed, press start to enter the function. The number of filter operating hours is displayed. To read the number, repeat the same sequence as per function nS. Press the stop button to exit the function and oS is displayed.

# **os**- display of total solarium operating hours.

When oS is displayed, press start to enter the function. The total number of solarium operating hours is displayed. To read the number, repeat the same sequence as per function nS. Press the stop button to exit the function oS. When exiting, dC is displayed.

# **dC**- DISPLAY OF FIRMWARE (software microcontroller) CARD DATE.

When dC is displayed, press start to enter the function. The year and then the week of the firmware is displayed.

# E.g.:

When pressing the start key, the display shows	1.4
When pressing the start key again	2.0
When pressing the start key again	3.4
When pressing the start key again	4.3

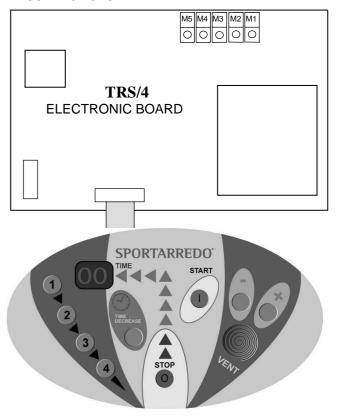
Therefore, the figure is 3404. In practice the firmware is of the 34th week of year 2004.

If the start key is pressed again, the display again shows the data indicated in position 1.

Press the stop key to exit the dC function. When exiting, PL is displayed.

At this point, programming has been completed. To return to normal operation, switch off and reset.

# 8.2 ELECTRONIC CONTROL BOARD CONNECTIONS



# CIRCUIT BOARD TERMINALS: NUMBERING AND DESCRIPTION

1	Power supply phase.
2	Power supply neutral
3	Control phase for lamps switch-on
4	Alimentation phase
5	Control phase for body-cooling ventilation

### IMPORTANT!

ALWAYS DISCONNECT THE MACHINE FROM THE POWER SUPPLY BY PRESSING BREAKER BEFORE CARRYING OUT MAINTENANCE

ANY TAMPERING WITH THE APPLIANCE OR THE USE OF NON-ORIGINAL MATERIAL OR PARTS MAY LEAD TO INJURY. IN SUCH CASES, THE MANUFACTURER DECLINES ALL CIVIL AND PENAL LIABILITY, AND THE WARRANTY SHALL AUTOMATICALLY BE CONSIDERED NULL AND VOID.

# 8.3 REMOTE CONTROLS

The T Max black connector ( 3 poles) input is located upon of shell DX. See table3.

# 9 - TROUBLESHOOTING AND RAPID DIAGNOSTICS

# 9.1 TROUBLESHOOTING AND RAPID DIAGNOSTICS

# The solarium does not switch on when START is pressed.

- Check the position of the lever on the overload cut-out switch.
- Check that the power supply terminal board MAL.
   is in correct connection to the power supply.
   See "VEGA OPEN\_\_2/5" circuit diagram.
- 3 Check the fuses on the timer board ("TRS/4").
- Check the voltage (230V) across terminals 1 and 2 on the timer board "TRS/4".
   See "VEGA OPEN\_\_5/5" circuit diagram.

# When START is pressed the ventilation system only is switched on.

- 1 Check that relay "RV" operate correctly.
   See "VEGA OPEN\_\_2/5" circuit diagram.
- Check the voltage (230V) across terminals 1 and
   2 of the timer board "TRS/4".
   See "VEGA OPEN\_\_5/5" circuit diagram.

# Body cooling system inoperative or cannot be regulated.

- Check the voltage (variable up to a maximum of 230V) across L1 and N of the connector "CNW3".
   See "VEGA OPEN \_\_2/5" circuit diagram.
- 2 Check the fuses on the Electronic board TRS/4.See "VEGA OPEN\_\_5/5" circuit diagram.

### • One of the low-pressure does not switch on.

- 1 Check for voltage on the wiring to the lamp.
- 2 Check the ballast or the starter for the lamp.

# • The radio does not work.

- 1 Check the fuses on the Electronics board "AL12"
- Check that the output of the power supply module "AL12" carries 12V DC.

See "VEGA OPEN\_\_5/5" circuit diagram.

# 10 - DEMOLITION AND WASTE MATERIALS

#### **10.1 WASTE MATERIALS**

The lamps are considered as disposable waste materials and all the materials regarding the packing. Due to their characteristics, these lamps are classified as non-toxic and non-harmful **special waste materials**. Disposal of the lamps must therefore be effected as required by the appropriate legislation.

**DEFINITION OF SPECIAL WASTE MATERIAL:** Residual material deriving from industrial processes or agricultural, artisan, commercial or service activities which, in view of their quantity of characteristics, are not classified as normal household refuse.

#### **10.2 DEMOLITION OF THE MACHINE**

Each country applies specific legislation concerning the disposal of machinery. Disposal of this machine must be carried out in compliance with the regulations laid down by local legislation and bye-laws. Dismantle the machine and group the various parts according to their chemical characteristics.

Dismantling of the machine must be performed by qualified personnel

# SPORTARREDO<sup>®</sup>, JA



# 11 - REPLACEMENTS AND CIRCUIT DIAGRAMS

# 11.1 SPARE PARTS LIST

REF	PC	CODE	DESCRIPTIONS
1	1	4028.1003.04	12V FEEDER
2	2	4027.3030.04	LP 101.20 LOUDSPEAKER
3	1	4027.3028.01	ANTENNA
4	1	4027.3025.04	MAJESTIC RADIO/CD
5	1	4028.4306.00	3,5µF CONDENSER
6	1	4028.6000.01	REVALCO HOUR-COUNTER
7	1	4028.2100.06	FANTINI&COSMI HR 2510 CONTACTOR
8	1	16946.346.0.0	ELECTRONIC TIMER BOARD ABS COVER
9	3	15946.033.0.0	AIR FILTER ABS COVER
10	1	16946.351.0.0	INTERNAL PLASTIC COVERING CAP
11	3	16946.341.0.0	AIR FILTER
12	1	4028.2116.04	TIMER
13	1	4028.4013.08	PHILIPS 9W LAMP
14	1	16946.350.0.0	CONTROL BOARD HANDLE
15	2	15910.392.0.0	CHROMIUM-PLATED HANDLE
16	1	16946.349.1.0	DOOR HANDLE
17	1	14213.066.0.0	FOOTBOARD
18	1	4025.6300.00	GREY FOOT
19	3	16946.342.1.0	ACRYLIC
20	48	4028.3311.01	NEON HOLDER WITH STARTER
21	48	4028.3311.00	NEON HOLDER WITHOUT STARTER
22	1	4028.4500.01	RELAY 60.13
23	1	15906.026.0.0	ELECTRONIC BOARD FOR PANEL JACK
24	1	14203.279.0.0	CONTROL BOARD (COMPLETE)
25	48	4028.4020.03	STARTER PHILIPS S12
26	1	16906.042.0.0	KEYBOARD
27	1	4028.0018.07	ECOFIT 4VGR 45 350V FAN
28	1	4028.0049.00	D2E 146-HT FAN
29	3	4028.0029.04	EBM 4650N FAN
30	1	4028.4550.01	UNDECAL RELAY SOCKET FINDER 90.27
31	1	4028.4555.00	UNDECAL RELAY SOCKET FINDER 94.72
32	1	4028.4502.03	FINDER RELAY 55.32
33	2	4024.0010.03	UVA EYEWEAR

REF	PC	CODE	VEGA OPEN LUX DESCRIPTIONS
34	48	4028.1001.08	BALLAST 160W 60Hz
35	1	16946.405.0.0	PLASTIC COVERING CAP
36	3	4028.4304.00	20μF CONDENSER
37	12	4028.4300.00	65µF CONDENSER
38	2	15946.402.0.0	EXTERNAL PLASTICS DX-SX
39	1	15946.041.0.0	DOOR EXTERNAL PLASTICS
40	2	4028.4013.12	LAMP 58W
41	48	4028.4009.03	LOW PRESSURE LAMP
			B23-S WHITE 160W
42	2	4028.1002.07	BALLAST 58W

# 11.2 CIRCUIT DIAGRAMS LEGEND

SIMBOLS	DESCRIPTIONS
÷	Earth terminal
AL12 4028.1003.04	Power supply circuit board for 12Vdc radio/CD
C1-2-3 4028.4304.00	20μF condenser
C4 4028.4306.00	3,5μF condenser
CNG	24-pin shell connector
CW	3-pin black connector
CNW1-3	7-pin black connector
CNW2-4-5	5-pin black connector
CO 4028.6000.01	Hour counter
F 4028.4013.08	Courtesy light - low energy consumption fluorescent 9W lamp
F1-F2	6,3 Fuses
HRB 4028.2100.06	Contactor for low pressure lamps
M1-2	2 pins terminal board
M3	5 pins terminal board
MAL	Power supply terminal board
MC	Control terminal board
N	Neutral terminal
L1-L2-L3	Power supply phases
RA 4027.3025.04	Radio/CD
RSP-LSP 4027.3030.04	Loudspeakers left
RU 4028.4502.03	Relay Tmax control
RV 4028.4500.01	Fan relay
S 4028.4020.03	Starter
Scheda jack 15906.026.0.0	Electronic board for panel jack
T 4028.2116.04	Timer
TRS/4 14203.279.0.0	Control board (complete)
VC 4028.0049.00	Air exhaust fan
VE 4028.0018.07	Body fan
VR 4028.0029.04	Cooling feeder cassette fan

SIMBOLS	VEGA OPEN LUX DESCRIPTIONS
C5-6-7-8 4028.4300.00	65μF condenser
L1 4028.4009.03	KALFASUN B23-S White 160W low pressure lamps
N1-N2 4028.4013.12	Lamp 58W
AN1-AN2 4028.1002.07	Ballast 58W
R1÷R16 4028.1001.08	Ballast 160W

# **DESCRIPTION CIRCUIT DIAGRAMS**

- 1/5 Voltage-change diagram. 2/5 Practical diagram of control.
- 3/5 Ballasts box for shell right, left and door.
- 4/5 Shell diagram.
  5/5 Control panel scheme and central ventilation.

# 12 - MEDICATION

# 12.1 MEDICATION

Certain drugs can make your skin sensitive to ultraviolet light. 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: 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 and Dr. Edward Emmett of Jhon Hopkins University complied a list of drugs, foods, and other substances that could make your skin sensitive to ultraviolet light: 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.
- Anthistamines-Phenergan and Benadrylparticularity when they are used on the skin in ointment form.
- Antibiotics-Declomycin, Aureozicin, and Griseofulvin, which is use in ringworm treatment.
- Coal tar treatment for psoriasis or chronic eczema.
- Bacterial infection treatments using sulfanilamide.
- Compounds known as furocoumarins or psoralens, which sensitise 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 cad sensitise the skin to sunlight.
- Food and fruits that contain photosensitising agents: celery, carrots, limes, coriander, parsley, fennel, dill, buttercup, mustard and figs.

# 13 - WARRANTY

# 13.1 LIMITED WARRANTY

For **USA** see next page.

