

*Star***Power**<sup>TM</sup>  
*SPEED*<sup>TM</sup> *system*

Model 52  
**USER MANUAL**

23833-01A

### Limited Lifetime Warranty

**StarPower™** warrants your tanning unit to be free of structural defects in its material and workmanship, under normal use, for its lifetime. **StarPower** will repair or replace, at their discretion, any defect to the structure which affects the performance of the unit.

For 6 months from the date of purchase, **StarPower** will provide replacements for parts that prove to be defective in material or workmanship. Acrylic shields, fluorescent lamps, and lamp starters are excluded from this warranty. Labor will be covered for 30 days from purchase date. Normal wear, damage from misuse or abuse, damage incurred in transit, or damage done by unauthorized repairs or modifications are not covered by this warranty.

**ETS, Inc.** disclaims any implied warranty of merchantability or fitness for any period beyond the expressed warranty. Some states do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply to you.

No one has authority to change or modify this Limited Lifetime Warranty in any respect. To obtain service under the Limited Lifetime Warranty, contact **ETS, Inc.** at **1-800-449-3605** and ask for the Technical Service Department.

**ETS, Inc.** shall not be liable for loss of use, loss of time, inconvenience, rental or substitute products, loss of business, loss of income, or any other incidental or consequential damages. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

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

All warranty service must be performed by an authorized service person. If your tanning unit must be returned for service, all freight charges must be at your expense. Contact your place of purchase for the address of the **StarPower** Service Center nearest you. Proof of purchase is required to obtain warranty service.

This warranty covers the original purchaser only. This warranty is void if the unit is modified in any manner from its original design.



# Welcome

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Congratulations on your purchase of this technologically advanced sun tanning unit. It has been designed to provide years of dependable service for you.

Please read all the instructions in this booklet before installing and using the unit. Always be sure to observe all safety precautions.



# Contents

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<b>Safety Information</b> .....	<b>.iii</b>
<b>Installation</b> .....	<b>1</b>
Unpacking and Inspection .....	1
Tools Required .....	2
Pre-Installation Planning .....	3
Hardware Inventory .....	4
Assembly Procedures .....	5
Electrical Connections .....	12
Final Adjustments .....	13
Remote Connections .....	14
<b>Operation</b> .....	<b>17</b>
Before You Tan .....	17
Exposure Times .....	17
Using Your Sunbed .....	18
Shoulder Tanner Features .....	20
<b>Care and Maintenance</b> .....	<b>21</b>
Cleaning After Use .....	21
Thorough Periodic Cleaning .....	21
Mechanical Inspection .....	21
Lamp and Acrylic Replacement .....	22
<b>Troubleshooting</b> .....	<b>26</b>

# Safety Information

**LABELING NOTICE:** Labels are affixed on all systems to inform the user of possible dangers. Regulations are stated in 21 CFR, Section 1040.20, and require that all products manufactured after September 8, 1986 which use sunlamps must display the following:

**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 aging of the skin and skin cancer. WEAR PROTECTIVE EYEWEAR; FAILURE TO MAY RESULT IN SEVERE BURNS OR LONGTERM INJURY TO THE EYES. Medications or cosmetics may increase your sensitivity to the ultraviolet radiation. Consult physician before using sunlamp 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.

To use, lie down under canopy and pull down as far as adjustment will allow maintaining minimum distances between your body and canopy clear plastic panels as illustrated below, otherwise overexposure may occur. Do not use without clear plastic panels in place. Untanned persons should not tan on consecutive days during their first week of tanning. Never tan more than once a day. Tanning normally appears after the first few sessions and maximizes after approximately four weeks. Tan once or twice per week thereafter to maintain appearance. Persons already having a base tan may begin at advanced levels corresponding to the extent of their base tan.

RECOMMENDED EXPOSURE TIMES IN MINUTES		MAXIMUM EXPOSURE TIME IS 12 MINUTES				
Skin Type:		Level 1/Week 1 1st-3rd Sessions	Level 2	Level 3	Level 4	Subsequent Maximum
I Sensitive Skin (Burns easily and severely and does not tan.)		NOT RECOMMENDED FOR TANNING				
II Light (Burns easily and severely and tans minimally.)		2	4	7	10	12
III Normal (Burns moderately and tans average.)		3	6	9	12	12
IV Dark (Burns minimally, tans easily and above average.)		4	7	10	12	12

New lamps emit approximately 10% more ultraviolet radiation during the first 50 hours of operation. Recommended tanning times should therefore be reduced by approximately 10% during that period.

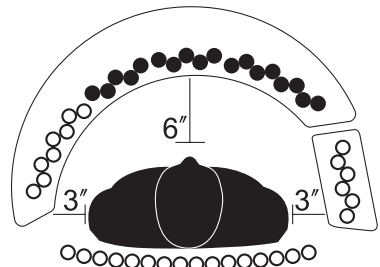
**WARNING:** • Read the instructions booklet before using this sunlamp product. • All persons in the room should wear protective eyewear when lamps are on. Recommended eyewear: provided eyeshields (Lucas Products Super Sunnies or Intrexco No. 5635/1) or equivalent eyewear as defined under 21 CFR 1040.20. Other types of eyewear may not provide adequate protection.

**ONLY THE FOLLOWING LAMPS HAVE BEEN CERTIFIED FOR USE IN THIS EQUIPMENT:**

- SPEED™ 225R Wolff® Model SPD71-T12-225R Bi-Pin (see illustration ○)
- SPEED™ 255R Wolff® Model SPD71-T12-255R Bi-Pin (see illustration ●)
- Philips Model HPA 400/30s or CosmoTech Model 23045 or 20046 (facial unit)
- COSMOLUX® RA plus 15504/40W (shoulder unit)

**DISCONNECT POWER BEFORE ATTEMPTING TO CLEAN, RELAMP, OR ENGAGE IN THE MAINTENANCE OF THIS PRODUCT.**

THIS PRODUCT IS IN CONFORMITY WITH PERFORMANCE STANDARDS FOR SUN LAMP PRODUCTS UNDER 21 CFR PART 1040.20





# Installation

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## Unpacking and Inspection

Your sunbed comes in two cardboard cartons, one for the canopy and one for the bench and ballast tray. Open the cartons and remove the sunbed parts as follows.

The boxes that the StarPower™ come in dismantle to allow easy removal of the units. Remove the box tops and pull the sides out. The bench and canopy are each wrapped in plastic. Remove the plastic and, with a helper or two, grasp the canopy and pull it from the carton bottom. Do the same for the bench. **Do not attempt to lift either unit with the plastic still on as it may slip. The black endcaps on the canopy should not be used to lift the unit.** The ballast tray is secured to the carton bottom with brackets. Remove these brackets from the ballast tray with a Phillips screwdriver.

Note! The cartons are reusable if you want to move the unit, or in the unlikely event that you may find it necessary to return your sunbed.

After unpacking the unit, check to make sure you have received the following:

- Canopy unit
- Bench unit
- Rear lamp module
- Ballast tray
- Contoured access panel (with decal)
- Two large bench endcaps
- Body fan kit
- Shoulder tanner kit
- Two bags containing necessary assembly hardware, safety goggles, a pillow and a tube of touch-up paint.

Inspect these items, including the canopy and bench, to make sure they are free from any visible damage. Report the extent of any damage to the transportation company.

Record the serial numbers of the canopy and bench, and the ballast tray ID number in the area provided at the back of this manual. This information will be required whenever you call customer service.

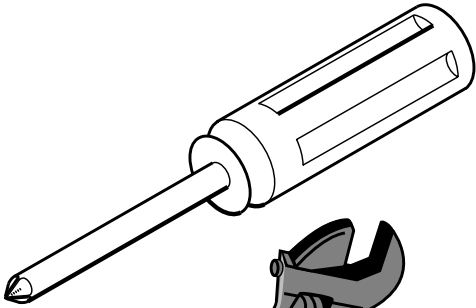


## Installation - Tools Required

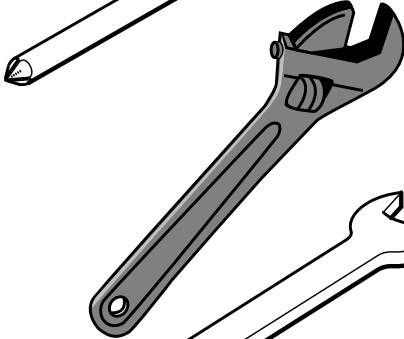
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### Tools Required

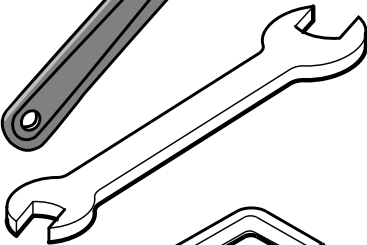
You will need the following tools to assemble your sunbed.



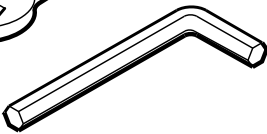
#2 Phillips Screwdriver



Adjustable Wrench



9/16" Wrench



5/16" (included in main hardware kit)  
and 1/4" (included in Shoulder Tanner box)  
Allen Wrenches



## Pre-Installation Planning

Before you begin to assemble your sunbed, you should observe the following considerations.

	<b>⚠ WARNING</b>
	<b>Shock hazard. Disconnect power before servicing.</b>

<b>⚠ CAUTION</b>
<b>Use of a voltage source above 230V AC may prevent proper operation of the sunbed and could cause damage and void the warranty.</b>

- The **StarPower™ 52 4F Speed™ System** operates from a 220V AC power source. The unit should be wired to a dedicated circuit capable of providing **50 Amp** service. This unit must be hardwired directly to a junction box. We recommend connection by a professional electrician.
- **IMPORTANT!** Voltage must be below 230V AC or may require a Buck Booster. Contact ETS service at the number on the back of this manual.

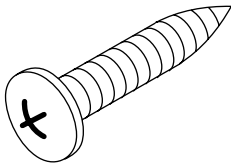
<b>⚠ CAUTION</b>
<b>Air from the room is used to cool the sunbed. Maximum ambient room temperature should be 80°F. Place your sunbed no closer than 6" from any wall. Make sure nothing obstructs the airflow into or out of the fan openings. A poorly ventilated room may cause the unit to become hot and cause discomfort to the user.</b>

<b>⚠ CAUTION</b>
<b>Proper assembly of your sunbed requires four people. Plan to have a few helpers assist you.</b>

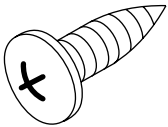


## Hardware Inventory

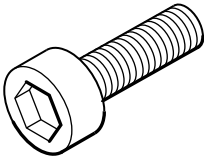
Open the hardware bags and remove the hardware. In addition to a pillow, the Allen wrenches and touch-up paint, make sure you have the following hardware items.



**#10 x 1" Phillips Pan Head Screw**  
Quantity 14



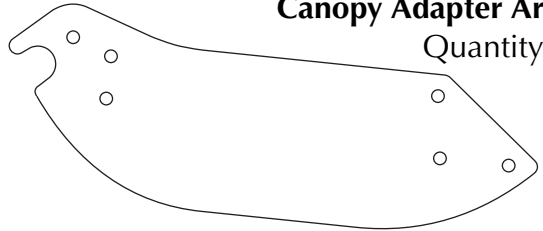
**#10 x 1/2" Phillips Pan Head Screw**  
Quantity 12



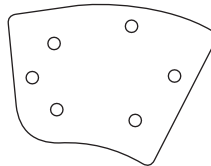
**3/8-16 x 1 1/4" Hex Socket Bolt**  
Quantity 18



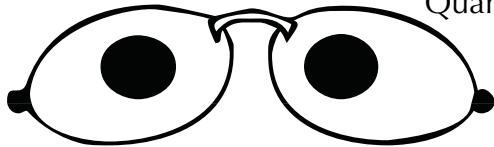
**3/8-16 Self-locking Hex Nut**  
Quantity 18



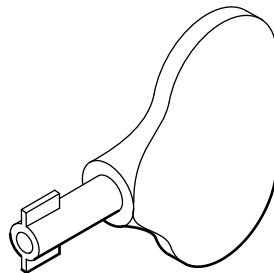
**Canopy Adapter Arm**  
Quantity 2



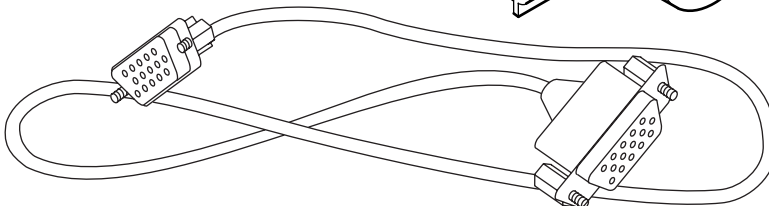
**Adapter Gusset**  
Quantity 4



**Safety Goggles**  
Quantity 1



**Access Panel Key**  
Quantity 1



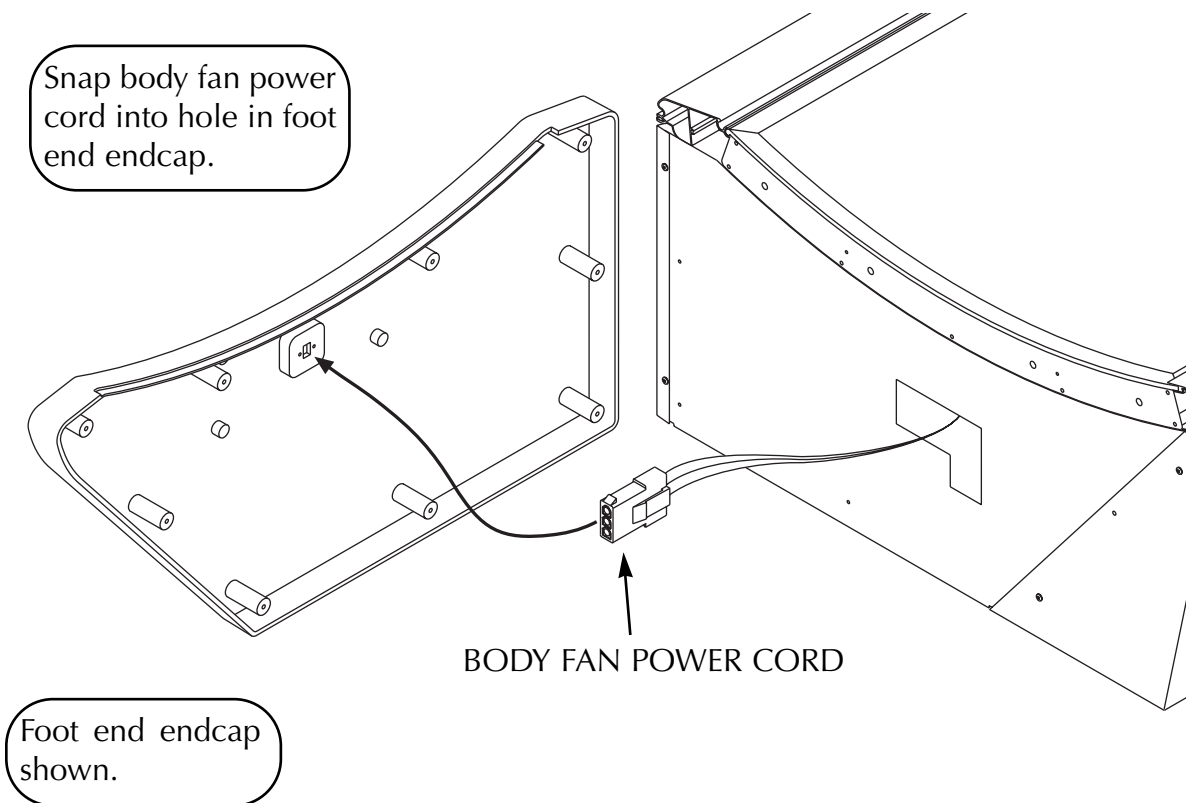
**Control Cord**  
Quantity 1





## Assembly Procedures

Before installing the bench endcaps you must install the body fan power cord into the foot end endcap, as shown below, and the shoulder tanning unit power cord into the head end endcap. The connector will snap securely into the endcap.





## Installation - Assembly Procedures

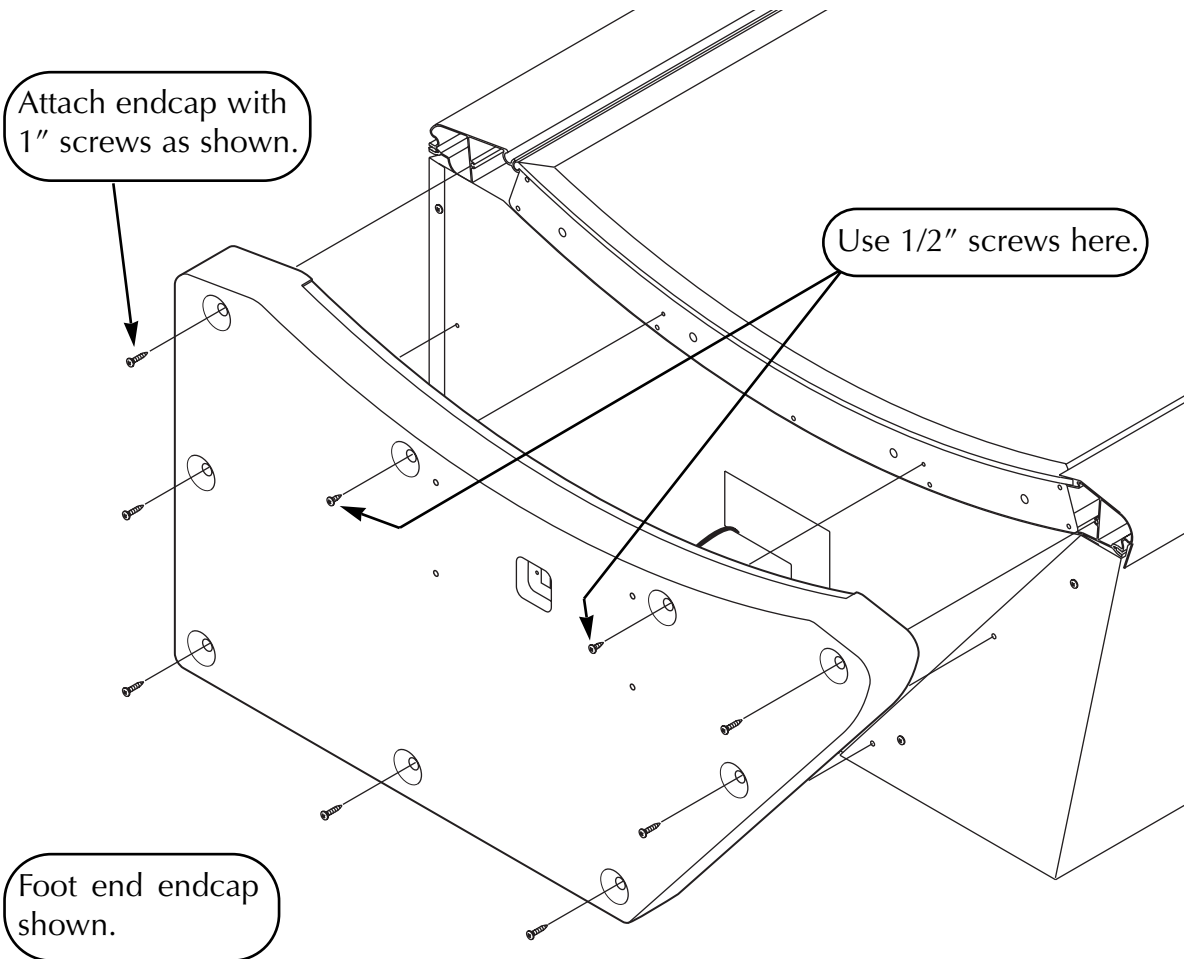
### Parts needed:

Foot end endcap

Head end endcap

14 - #10 x 1" Phillips pan-head screws

4 - #10 x 1/2" Phillips pan-head screws





Parts needed:

Canopy

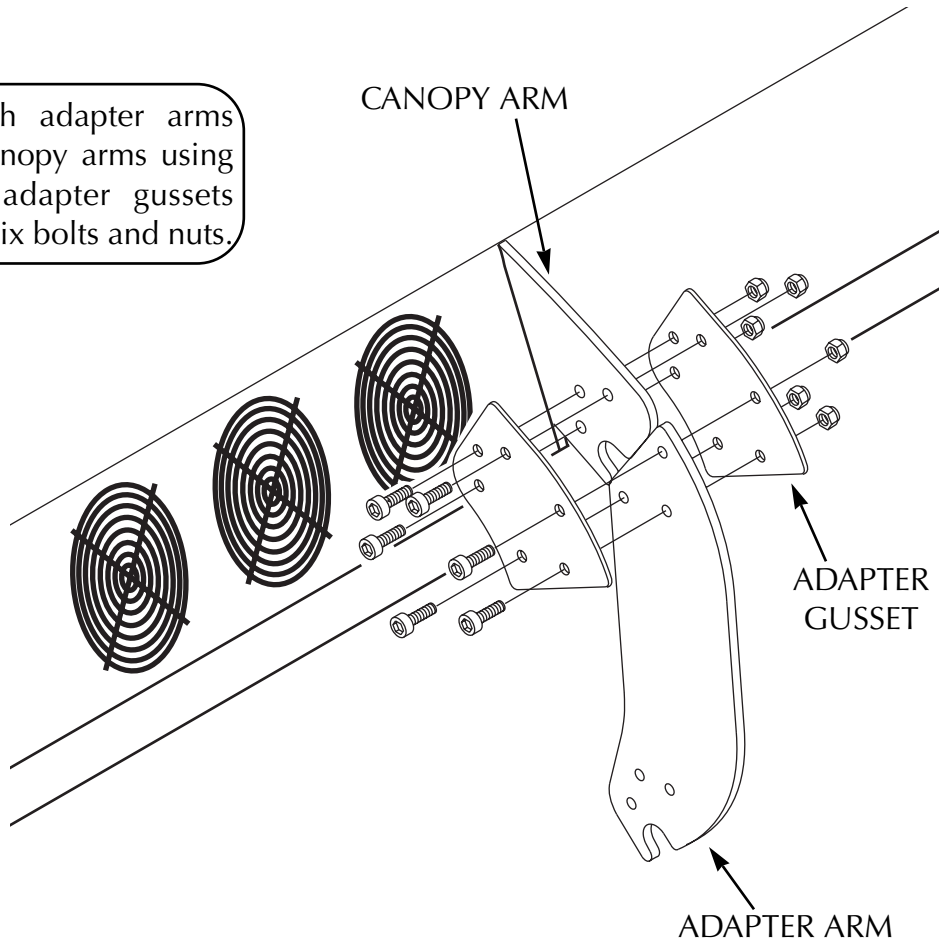
2 - Canopy Adapter Arms

4 - Adapter Gussets

12 - 3/8 x 1 1/4" hex-socket bolts

12 - 3/8" self-locking hex nuts

Attach adapter arms to canopy arms using two adapter gussets and six bolts and nuts.



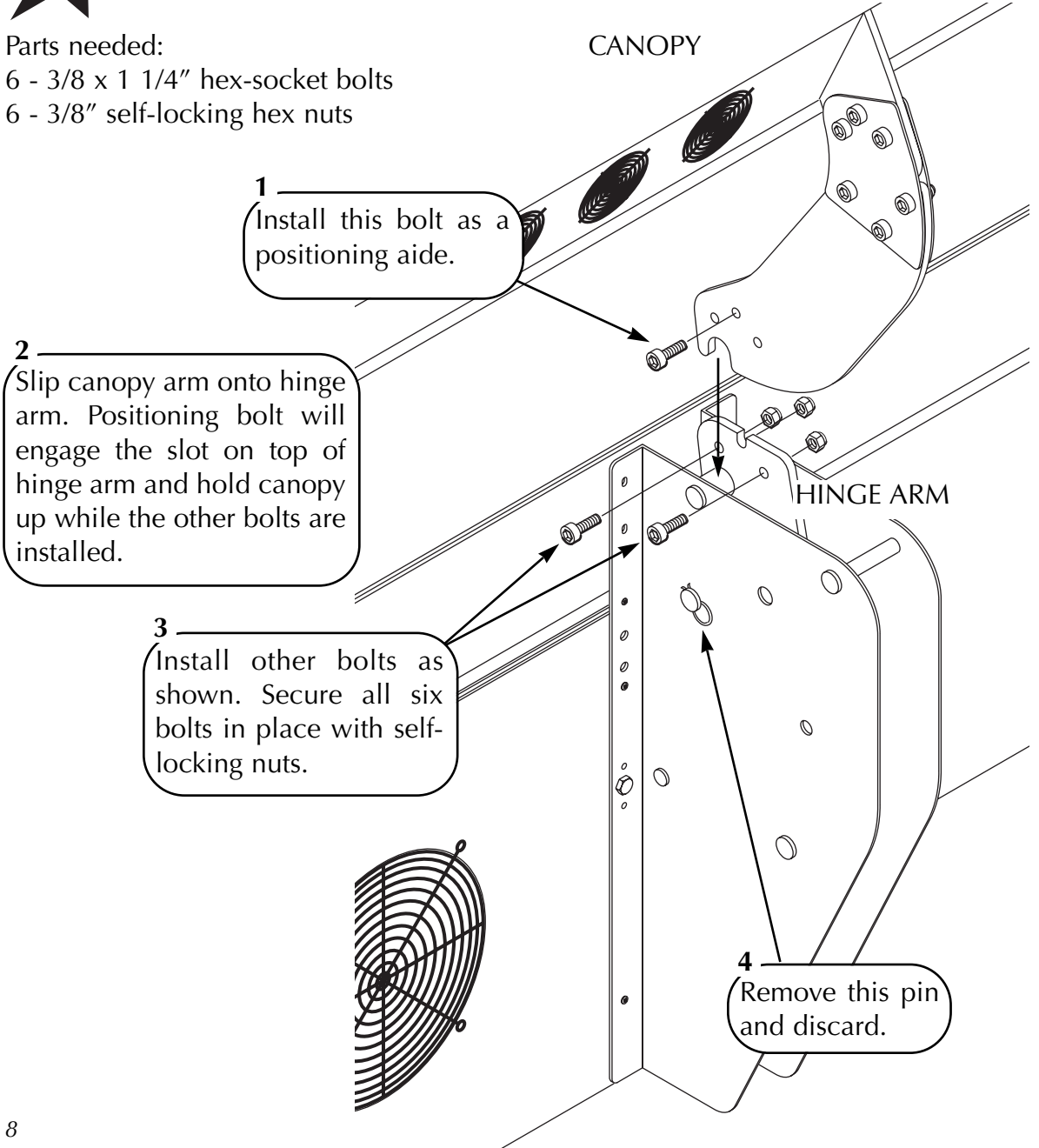


## Installation - Assembly Procedures

Parts needed:

6 - 3/8 x 1 1/4" hex-socket bolts

6 - 3/8" self-locking hex nuts

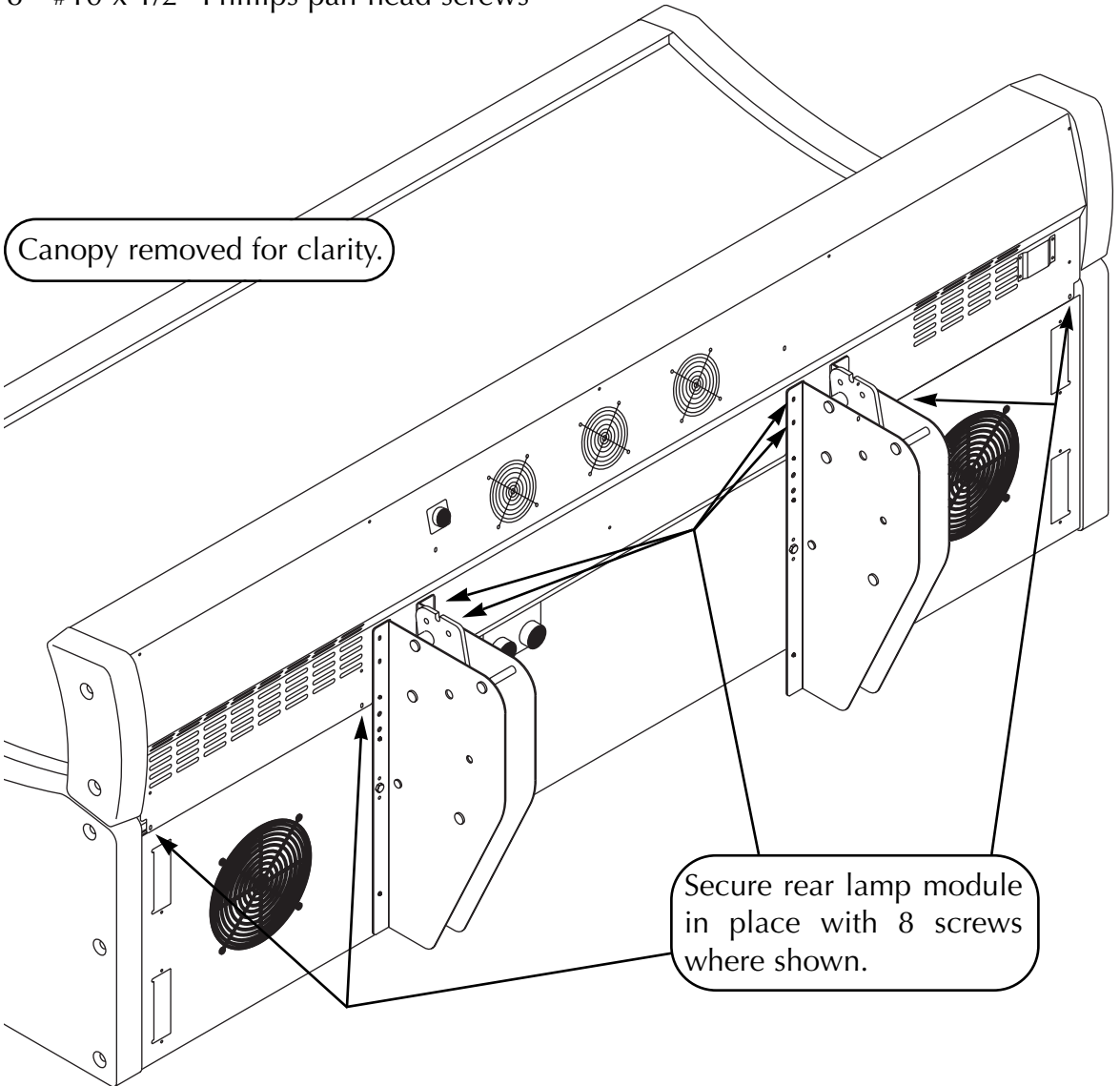




Parts needed:

Rear lamp module

8 - #10 x 1/2" Phillips pan-head screws





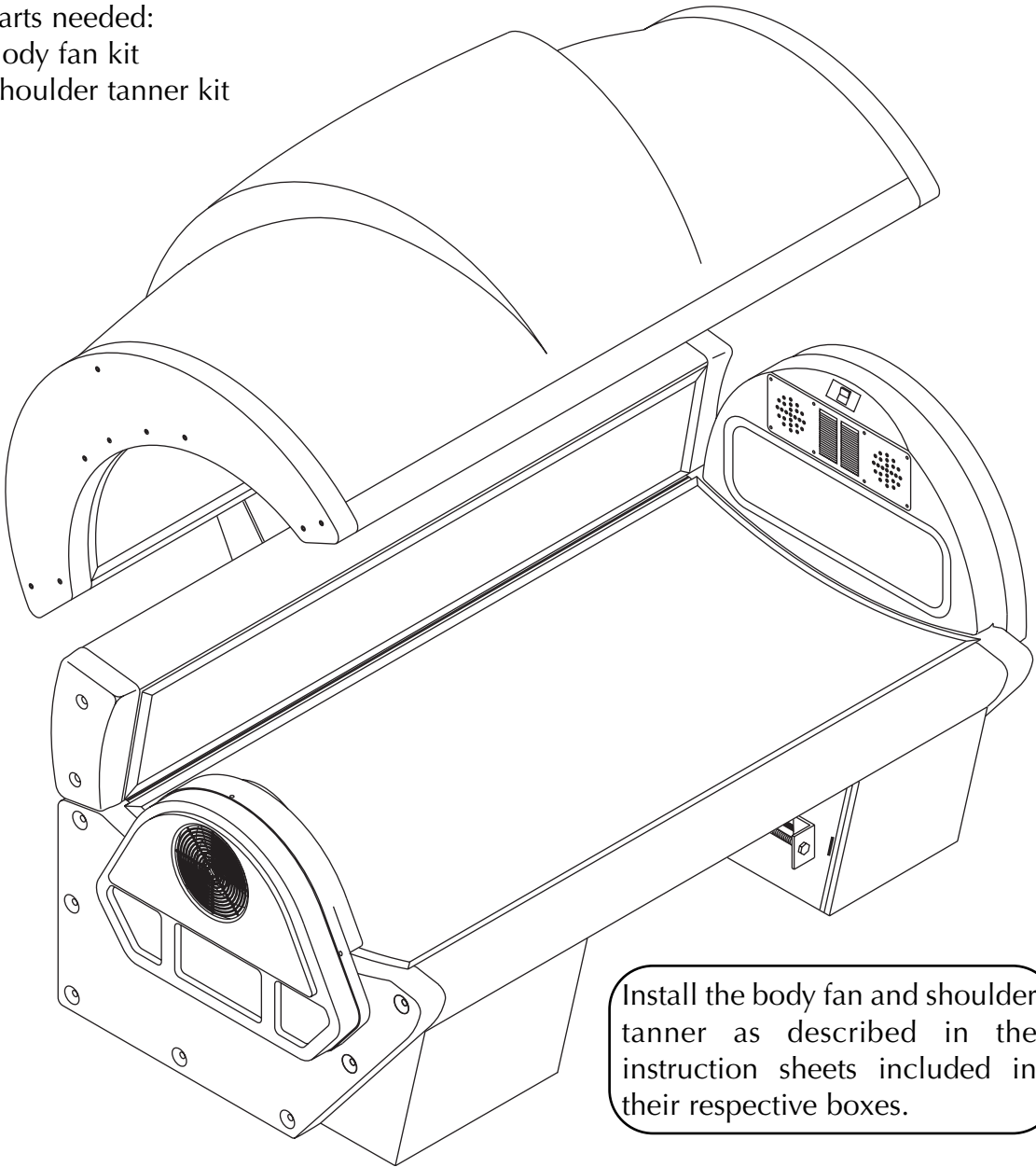
## Installation - Assembly Procedures

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Parts needed:

Body fan kit

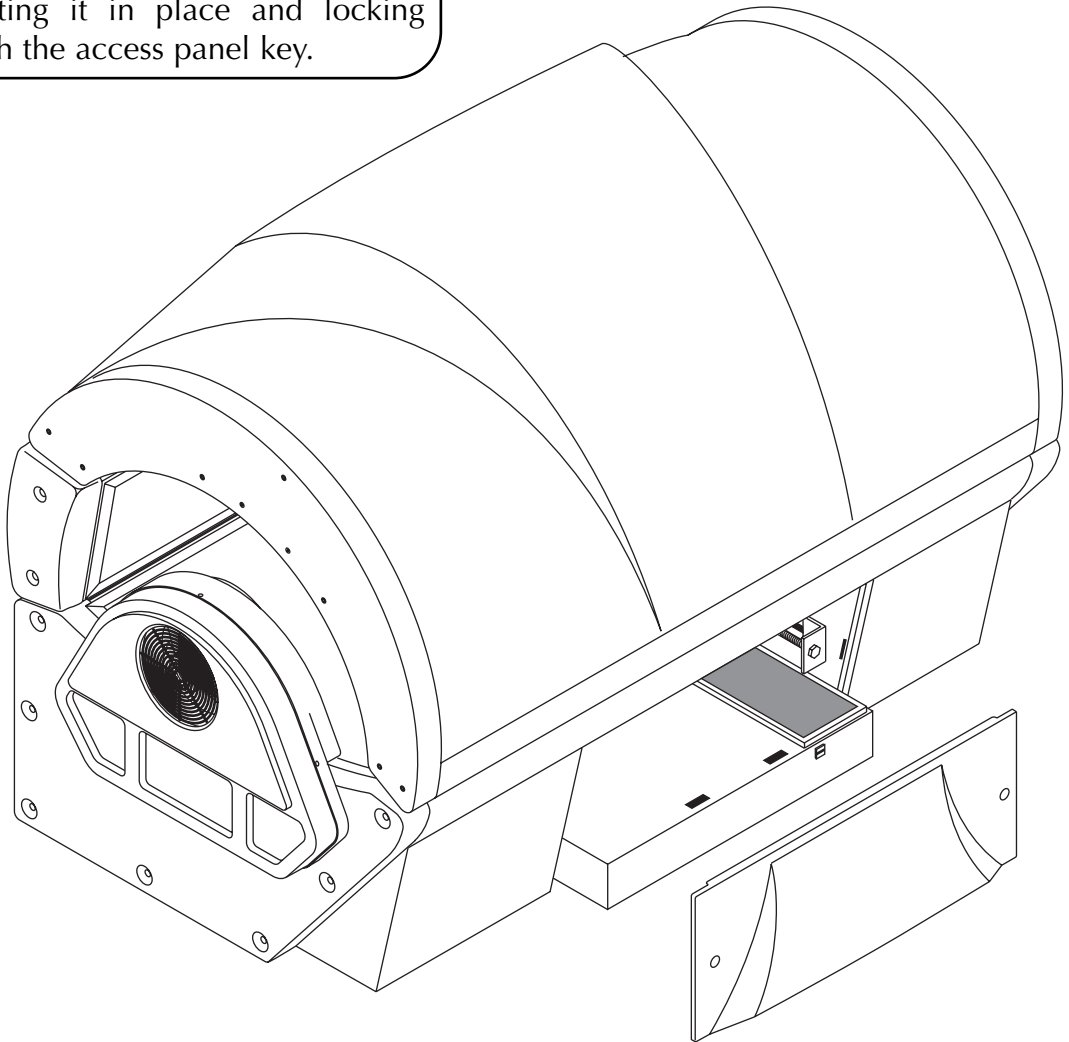
Shoulder tanner kit



Install the body fan and shoulder tanner as described in the instruction sheets included in their respective boxes.



Slide the ballast tray under the unit and pull the cords through to the rear. Install the access panel by putting it in place and locking with the access panel key.





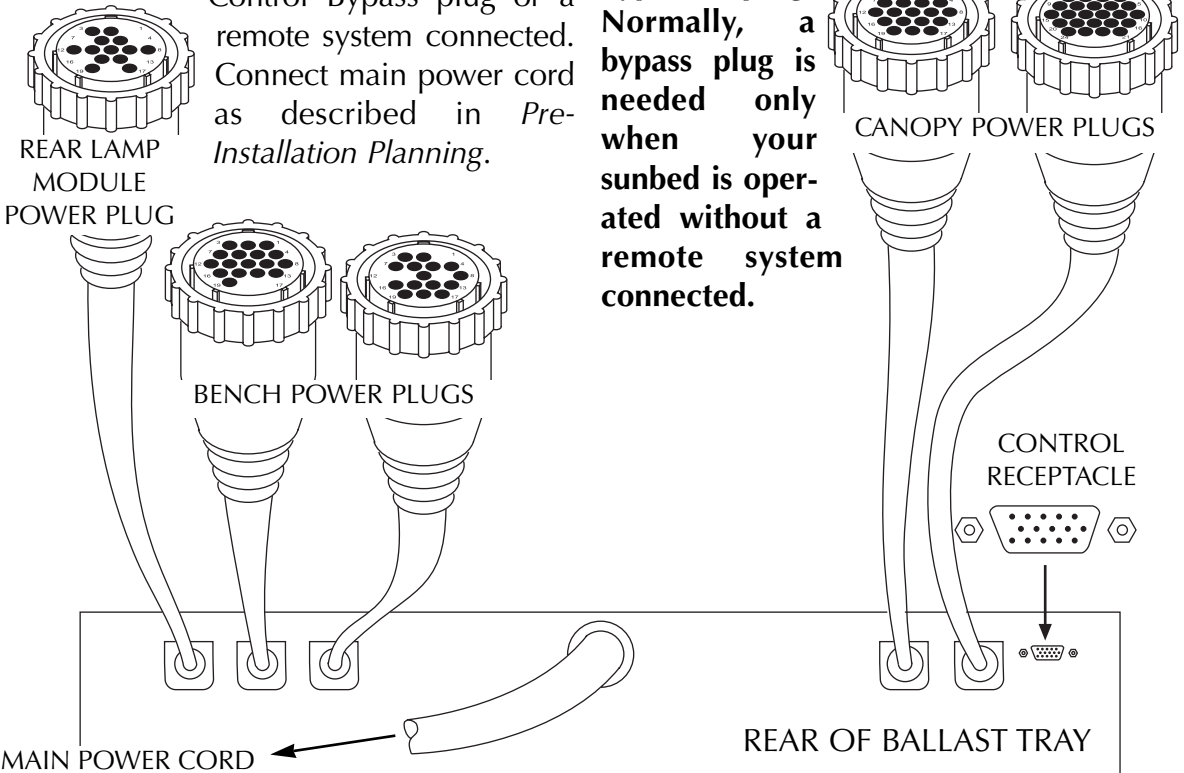
### Electrical Connections

At the rear of the sunbed, connect the power cords from the ballast tray to their respective power receptacles. Simply match the plug to the receptacle, push on firmly and secure by twisting the threaded locking ring. Connect the Control Cord to the tray and the canopy. A Remote Control Bypass plug is already installed in a remote control port on the canopy. Your sunbed will not operate without the Remote

Control Bypass plug or a remote system connected. Connect main power cord as described in *Pre-Installation Planning*.

**NOTE:** Your sunbed is designed to accept an input from a remote control device. The remote control is optional. If you plan on using a remote system refer to *Remote Connections*.

**ATTENTION:** Although the Remote Control Bypass plug provided with your sunbed will work wherever a T-Max® terminator is called for in the series, the T-Max® terminator will not work as a bypass plug. Normally, a bypass plug is needed only when your sunbed is operated without a remote system connected.



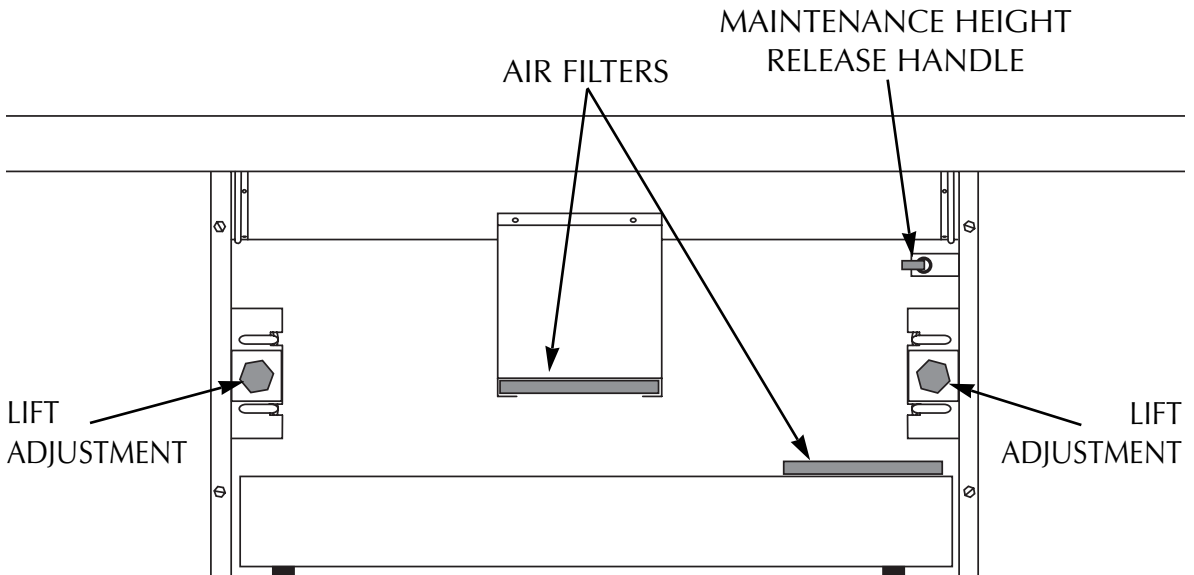




## Final Adjustments

Your sunbed uses a smooth gliding spring lift system to raise the canopy. This lift system may need to be adjusted slightly due to shipment. Remove the front access panel. Use a wrench to turn the hex shaped Lift Adjustment lugs (shown below), clockwise for more lift and counterclockwise for less. When adjusted properly, the canopy should raise easily as well as rest fully closed. Always adjust both lugs equally.

Make sure the air filters are in place. The filter on top of the ballast tray simply sits over the vent holes. Airflow holds it in place when the unit is on. The airflow arrow on the side of this filter should point down. The filter hanging under the bench should be installed with the arrow pointing up.





## Remote Connections

Your sunbed incorporates advanced circuitry allowing it to connect and communicate with most remote control systems. If a remote system is to be used, first determine whether the remote system is a T-Max® System or a standard remote system operating with a control relay. Follow the appropriate instructions for your system type.

### CAUTION

The remote connection is not designed to supply or accept high voltage, nor can it provide power to an external timer. The sunbed's remote interface circuitry operates on 5 volts, attempting to connect it to any higher voltages will damage the sunbed as well as void your warranty.

### T-Max® Products

The T-Max® remote systems offer the ultimate in sunbed control, while allowing the tanner easy straightforward operation. Your sunbed is configured to directly connect to this system. The circuitry inside your sunbed eliminates the need for the T-Max® 1A or 3A when connecting to the T-Max® Manager series. Your sunbed supports the auto addressing feature of the latest T-Max® Manager models and the following parameters: 2, 5, 6, 7, 8, 9, 10, 14, and 15. See your T-Max® manual for descriptions of these parameters and how they function.

### T-Max® Manager Remote System

This system is ideal for multiple sunbed installations. Simply connect the RJ-22 modular cable(s), described in the T-Max® Manager manual, into the remote port(s) located on the back of your sunbed and follow the instructions that came with your remote system, noting *figure 1*. If you have an older T-Max® Manager that doesn't support auto addressing, set the address, or "id", of each sunbed manually as described in *Setting the address manually*. You can place your sunbed at any location in the series.

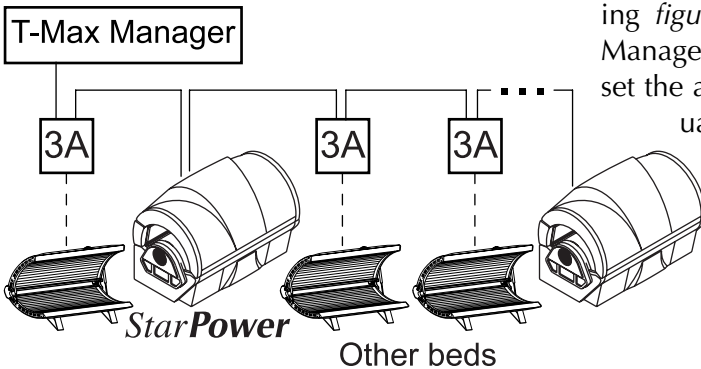


figure 1

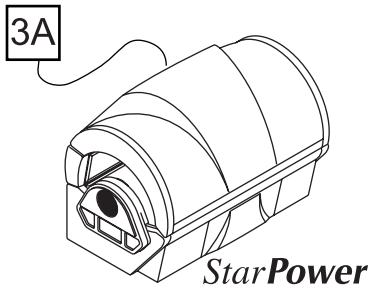
NOTE: A T-Max® 1A can be substituted for the 3A in figure 1.



### T-Max® 1A and 3A Remote Systems

The T-Max® 1A and 3A offer the same control as the T-Max® Manager in single sunbed installations. If you're using a 1A, it must have a chip labelled "master" installed on its circuit board. The remote control bypass plug must not be used in this configuration.

After you have set the T-Max® 1A's, or 3A's, address to "0" (refer to your T-Max® user's guide) and the sunbed's address to "1" (see right), simply connect the RJ-22 modular cables, described in the T-Max® user's guide, directly into either port located on the back of the sunbed and either port on the back of the T-Max® 1A or 3A. See *figure 2*.



*figure 2*

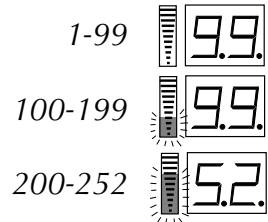
NOTE: A T-Max® 1A with a "master" chip can be substituted for a 3A in *figure 2*.

### Setting the address manually

Before connecting your sunbed to the T-Max® Manager or T-Max® 1A or 3A, the address of your sunbed must first be set. Set the "id" manually as described below.

#### Setting the "id"

1. Make sure no cables are plugged into your sunbed's remote ports.
2. Remove and reapply power to the unit.
3. Press and hold the stop button, located on the sunbed display, for three seconds and release. The display should indicate an "id" number from "oF" to "252".



4. If you are using a T-Max® 1A or 3A as your remote, the "id" of the sunbed must be set to "1". If you are using a T-Max® Manager each sunbed must be assigned a different "id". To set the "id" press the timer button, to count up, or the body fan control button, to count down, until the desired number is achieved.
5. Press the stop button to return to the normal display mode.

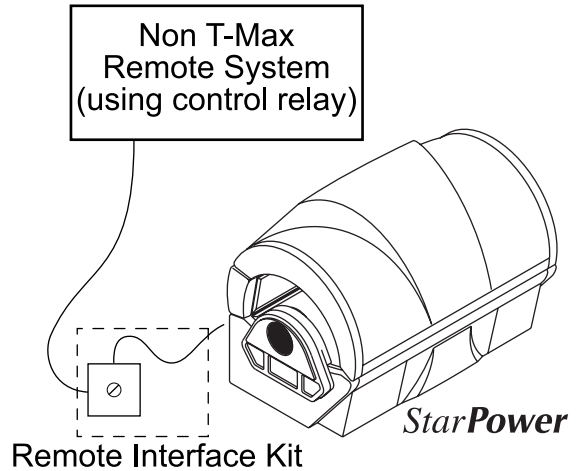


### **Remote systems using a Control Relay**

Most non-T-Max® remote systems control the sunbed by the use of a relay. The relay operates the sunbed by connecting and disconnecting a pair of wires leading from the sunbed. Refer to the user's manual provided with your remote system to determine if it operates in this way. To connect your sunbed to this type of system a remote interface kit is required. Call ETS at the phone number listed on the back of this guide to obtain the kit. *Figure 3* details a typical connection. Follow the instructions provided with the kit and from the remote's manual to make the necessary connections.

#### **CAUTION**

The remote connection is not designed to supply or accept high voltage, nor can it provide power to an external timer. The sunbed's remote interface circuitry operates on 5 volts, attempting to connect it to any higher voltages will damage the sunbed as well as void your warranty.



*figure 3*



## Before You Tan

Before using your sunbed, please note the following important precautions.

- Your skin should be free of cosmetics, oils, or other body lotions prior to tanning except for those specifically made for use with tanning devices. However, do not remove natural body oils by bathing or showering immediately before tanning.
- Your hair should be free of gels, mousses, sprays, or other hair products prior to tanning. These products can cause damage to the sunbed acrylic. As an alternative, a shower cap or towel can be worn to keep treated hair away from the sunbed surfaces.

**⚠ DANGER**

**Some medication may increase your sensitivity to ultraviolet light. It is recommended that you consult a physician before using this sunbed if taking any medication or if you suspect that your skin might be especially sensitive to sunlight. Included with this manual is an FDA booklet on medications that increase sensitivity to light.**

## Exposure Times

Follow the guidelines for skin type and exposure times as shown in the table below. Untanned persons should not tan on consecutive days during their first week of tanning. Never tan more than once a day. Tanning normally appears after the first few sessions and maximizes after approximately four weeks. Tan once or twice per week thereafter to maintain appearance. Persons already having a base tan may begin at advanced levels corresponding to the extent of their base tan.

**⚡ DANGER**

**Shock hazard. Do not operate this device near water or while you are wet.**

RECOMMENDED EXPOSURE TIMES IN MINUTES		MAXIMUM EXPOSURE TIME IS 12 MINUTES				
Skin Type:		Level 1/Week 1 1st-3rd Sessions	Level 2	Level 3	Level 4	Subsequent Maximum
I Sensitive Skin (Burns easily and severely and does not tan.)		NOT RECOMMENDED FOR TANNING				
II Light	(Burns easily and severely and tans minimally.)	2	4	7	10	12
III Normal	(Burns moderately and tans average.)	3	6	9	12	12
IV Dark	(Burns minimally, tans easily and above average.)	4	7	10	12	12



## Using Your Sunbed

When connected to the T-Max® Manager or T-Max® 1A or 3A.



A



B



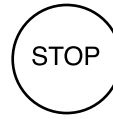
C



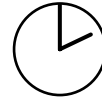
D



E



F



G

- A Face tanner control** - Turns face tanners on and off during use. (Units equipped with face tanner only)
  - B Shoulder tanner control** - Turns shoulder lamps on and off during use. (Units equipped with shoulder tanner only)
  - C Body fan control** - Controls the speed of the body fan during use. (At your feet)
  - D Body fan speed indicator** - Indicates speed of fan. (OFF - LOW - MED - HIGH)
  - E Timer display** - Displays remaining time.
  - F Stop button** - Interrupts tanning session.
  - G Timer button** - Turns bed on. Timer display shows remaining time. If a lesser time is desired, press timer button until desired time is displayed.
1. Lift canopy, lie down on bench (face up), lower canopy toward your body using canopy handle. For best results, position canopy as close to your body as possible.
  2. Put on your safety goggles.
  3. Assuming the remote system has been set to allow a pre-tanning delay time, the timer display (E) will repeatedly flash the delay symbol “dL” and then the remaining delay time. Press the timer button (G) or wait until the delay time has expired to begin the tanning session. The lamps will turn on and the timer will begin to count down.
  4. When the timer reaches 0 the lamps turn off. If you want to interrupt your session before time expires, press the stop button (F).
  5. Raise the canopy by using the canopy handle, do not push up on the acrylic shield. The cooling fans run for a period of time after the lamps shut off to aid in cooling the sunbed. The timer will indicate “..” as a reminder to clean the sunbed. After the sunbed is cleaned press the timer button and the display will return to “0”.

### WARNING

**Wear protective eyewear.  
Failure to may result in severe burns or longterm injury to the eyes.**



## Using Your Sunbed

When used as a stand alone unit or when connected to a remote system using a control relay.



**A**



**B**



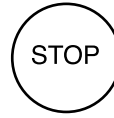
**C**



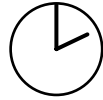
**D**



**E**



**F**



**G**

- A Face tanner control** - Turns face tanners on and off during use. (Units equipped with face tanner only)
  - B Shoulder tanner control** - Turns shoulder lamps on and off during use. (Units equipped with shoulder tanner only)
  - C Body fan control** - Controls the speed of the body fan during use. (At your feet)
  - D Body fan speed indicator** - Indicates speed of fan. (OFF - LOW - MED - HIGH)
  - E Timer display** - Displays remaining time.
  - F Stop button** - Stops tanning session.
  - G Timer button** - Turns bed on. Timer display shows remaining time. If a lesser time is desired, press timer button until desired time is displayed.
1. Lift the canopy, lie down on the bench (face up), lower the canopy toward your body using the canopy handle. For best results, position the canopy as close to your body as possible.
  2. Put on your safety goggles.
  3. Press the timer button (G) to begin the tanning session. The lamps will turn on and the timer will begin to count down.
  4. If a tanning time less than the displayed time is desired, repeatedly press the timer button (G) to decrease the remaining time.
  5. When the timer reaches 0 the lamps turn off. If you want to stop your session before time expires, press the stop button (F). You will have ten seconds to restart with the remaining time, otherwise the timer will reset to 0.
  6. Raise the canopy by using the canopy handle, do not push up on the acrylic shield. The cooling fans run for a period of time after the lamps shut off to aid in cooling the sunbed.

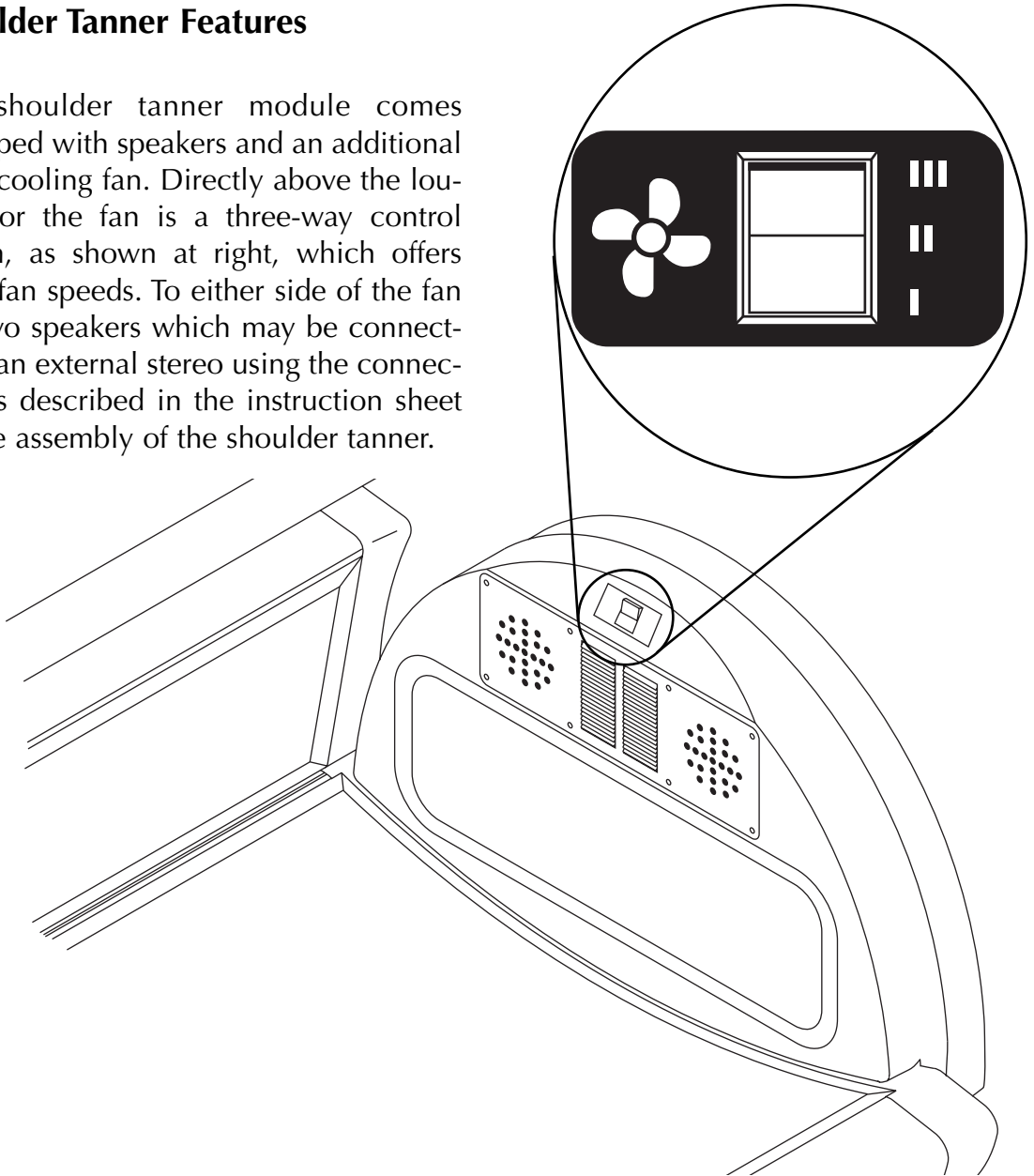
### **WARNING**

**Wear protective eyewear.**  
**Failure to may result in severe burns or longterm injury to the eyes.**



## Shoulder Tanner Features

The shoulder tanner module comes equipped with speakers and an additional body cooling fan. Directly above the louvers for the fan is a three-way control switch, as shown at right, which offers three fan speeds. To either side of the fan are two speakers which may be connected to an external stereo using the connectors as described in the instruction sheet for the assembly of the shoulder tanner.







# Care and Maintenance

---

## Cleaning After Use

Clean and disinfect your tanning bed's bench, canopy and rear lamp module after each use. Use a non-abrasive disinfectant cleaner that **does not contain ammonia or ammonia derivatives**. Ammonia may damage the acrylic shield. Spray the acrylic lightly with disinfectant and wipe dry with a clean soft cloth. We recommend SunQuest® disinfectant and SunQuest® acrylic cleaner.

## Thorough Periodic Cleaning

### Introduction

The cooling fans draw air through the bed and over time will cause a dust buildup on the lamps and reflectors. This will reduce the tanning effectiveness of the bed. When a dust buildup is observed, it is necessary to thoroughly clean the inside of the unit.

	<b>⚠ WARNING</b>
	<b>Shock hazard. Disconnect power before removing any protective covers.</b>

### Cleaning the Canopy and Bench

- Step 1** Remove the acrylic shields and lamps as described in *Lamp and Acrylic Replacement*.
- Step 2** With a soft cloth, wipe the entire length of each lamp.

- Step 3** Clean both sides of the acrylic shields with a non-ammonia disinfectant cleaner.
- Step 4** Wipe the reflectors with a clean damp cloth.
- Step 5** Reinstall the lamps and acrylic shields.
- Step 6** Clean or replace air filters on top of ballast tray and under bench (see *Final Adjustments*). Replace with 10" x 24" x 1" furnace filters.

## Mechanical Inspection

Your tanning bed has been built for years of service. To ensure trouble-free operation throughout its life, inspect the unit's mechanical integrity every 400-500 hours of use.

- Inspect the unit's fasteners verifying that all are firmly in place.
- Inspect lift adjustment. Adjust for proper lift if needed. See *Final Adjustments*.
- Inspect the AC power cord and its connections.
- Inspect the acrylic. Broken, cracked or badly scratched acrylics should be immediately replaced.
- Check damper operation. The damper limits the canopy's movement speed. Replace if canopy raises and lowers too quickly.



## Lamp and Acrylic Replacement

### **Introduction**

To be assured of maximum tanning effectiveness, change lamps after approximately 800-1000 hours of use. Tanning will continue after this time but at a slower rate. To ensure trouble-free operation of your sunbed, replace the lamp starters whenever the lamps are replaced.

	 <b>WARNING</b>
	<b>Shock hazard. Disconnect power before removing any protective covers.</b>

### **Maintenance Height Feature**

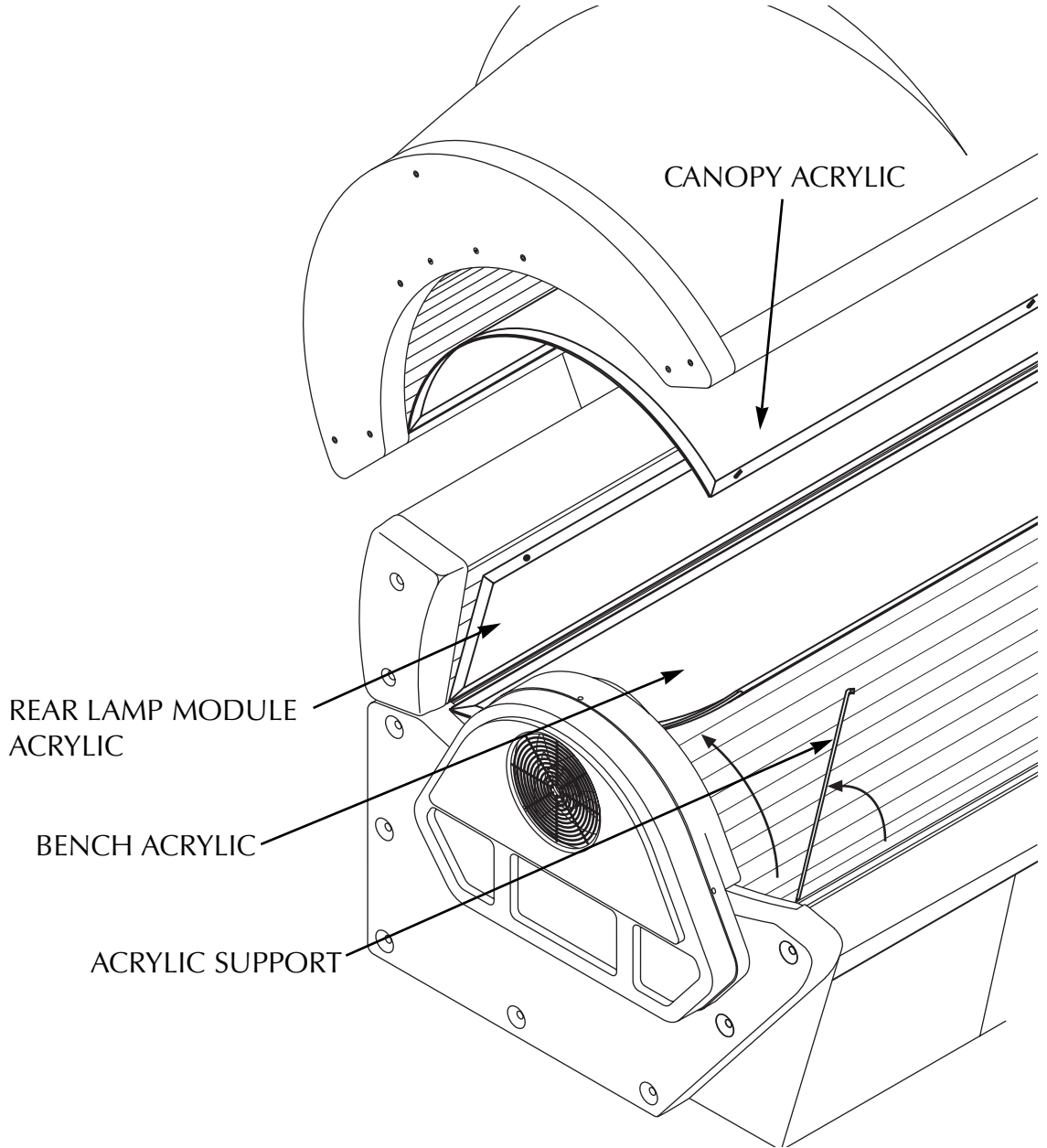
The **StarPower™ 52** offers a convenience feature when maintenance must be performed. Behind the front access panel is a release handle (see *Final Adjustments*). With the canopy open, pull this handle and raise the canopy to its maintenance position, allowing easier access to lamps, etc. When finished, simply close the canopy to return to normal operation.

### **Opening/Replacing Acrylic Shields**

The acrylic shield in the bench is secured in place by two quarter-turn latches along the front aluminum frame of the acrylic. The aluminum frame around the acrylic offers support as well as allowing the acrylic to hinge open without removing it from the bed. Use a coin or flat-bladed screwdriver to turn the latches a quarter turn to open the acrylic. Standing in front of the bed, lift the long edge of the acrylic. On the inside of the bench, along the front, are two supports for the bench acrylic. Release them from their clips and swing up to hold the acrylic open. You may remove the acrylic by lifting it out of its hinge channel along the back edge.

The other acrylics are held in place by four quarter-turn latches each. The canopy and rear lamp module acrylics also swing open on a hinge and may be removed by lifting out of the channel along the back edge.

When you are finished, simply reverse the above directions to secure the acrylic shields.





### ***Removing/Replacing Lamps***

After opening (or removing) the acrylic shields, replace lamps as follows.

- Step 1 Grasp a lamp at one end and at the middle and turn the lamp one quarter turn. Gently remove the lamp from its holders.
- Step 2 Reinstall the lamp by inserting the pins located on the ends of the lamp into the slots on top of the lamp holders and turn the lamp a quarter turn. It should click in place.

### ***Recommended Replacement Lamps***

This sunbed utilizes a proprietary system of components known as the ***Speed™ System***. Only certified ***Speed™ System*** components may be used as replacements, including lamps and ballasts. We recommend using the lamps specified below. Use of uncertified lamps is a violation of Federal regulations and will void your warranty. These lamps have an average life of 800-1000 hours of effective tanning use. Lamps used longer than that begin to lose their effectiveness even though they continue to light.

### ***Recommended Replacement Acrylics***

Acrylics vary greatly over time in their ability to effectively transmit UV light. Acrylics sold by ETS have been life tested to ensure proper transmission throughout their useful life.

## **ONLY THE FOLLOWING LAMPS HAVE BEEN CERTIFIED FOR USE IN THIS EQUIPMENT:**

***SPEED™ 225R Wolff® Model SPD71-T12-225R Bi-Pin*** (bench, rear module, front 8 canopy lamps)

***SPEED™ 255R Wolff® Model SPD71-T12-255R Bi-Pin*** (other canopy lamps)

***Philips Model HPA 400/30s or CosmoTech Model 23045 or 20046*** (SolarMax™ IFT facial unit)

***COSMOLUX® RA plus 15504/40W*** (shoulder unit)



### **Removing/Replacing Face Tanner Lamps on Face Tanner Models**

After removing the canopy and/or rear lamp module acrylic shields, replace the face tanner lamps as follows:

**Step 1** Support the face tanner assembly with your hand while unscrewing the two retaining screws. The face tanner glass casing will swing downward.

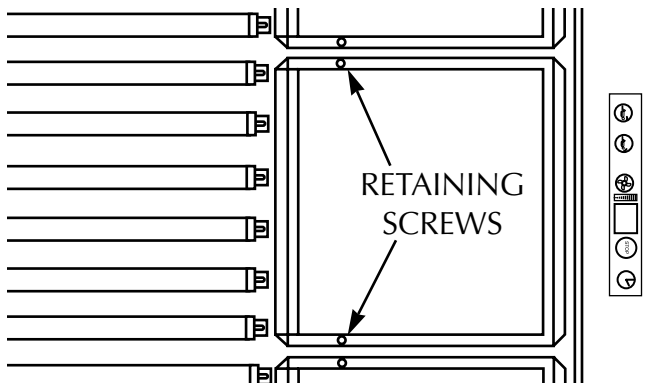
**Step 2** The lamp can now be exchanged. The lamp holders are equipped with spring contacts which enable the lamp to be removed easily. Remove the old lamp and discard. Install the new lamp, using a clean cloth or paper towel. Ensure that the lamp is firmly seated in the lamp holders.

**Note!** Never take hold of the lamp such that your fingers are in contact with the lamp glass. Finger oils will greatly reduce the lamp's operational life.

**Step 3** Gently close the face tanner glass casing and lock it closed with the screws. Ensure that the screws firmly secure the glass casing.

**⚠ DANGER**

**Unfiltered light from face tanner can cause severe burns. Never turn sunbed on while face tanner is disassembled or when glass filters are removed. Immediately discontinue use of this equipment if face tanner glass is broken or any unfiltered light can be seen escaping face tanner assembly.**





# Troubleshooting

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<b>Problem</b>	<b>Solution</b>
Sunbed not tanning	<ol style="list-style-type: none"> <li>1. Clean sunbed, see <i>Thorough Periodic Cleaning</i>.</li> <li>2. Ensure supply voltage is between 208 and 230V AC.</li> <li>3. Replace lamps if lamp hours are greater than 800hrs.</li> <li>4. Replace acrylic.</li> </ol>
Lamps fail to light and timer display is blank	<ol style="list-style-type: none"> <li>1. Make sure the unit is connected to a power source.</li> <li>2. Check source of AC power. Reset circuit breaker or replace fuse.</li> </ol>
The last minute of tanning time does not count down from 59 seconds, but some time less than 59 seconds	If the timer button has been pressed to decrease tanning time during the session, the time expired in the current minute is subtracted from the last minute.
One or more lamps fail to light	<ol style="list-style-type: none"> <li>1. Check that lamp is installed correctly.</li> <li>2. Switch unlit lamp with a lamp that lights, if new lamp lights and old lamp still does not, replace old lamp.</li> </ol>
The face tanners will not come on	<ol style="list-style-type: none"> <li>1. Face tanner operation is initially delayed by 5 seconds.</li> <li>2. Face tanners will not relight until cooled.</li> <li>3. Replace face tanner lamp, see <i>Removing/Replacing Face Tanner Lamps on Face Tanner Models</i>.</li> </ol>
The canopy will not stay up / The canopy will not stay down	Your sunbed uses a smooth gliding spring lift system to raise the canopy. This lift system may need to be adjusted slightly from time to time. See <i>Final Adjustments</i> for proper adjustment procedures. The canopy should raise easily as well as rest fully closed.
My canopy opens and closes too fast (slamming, not enough resistance)	Your sunbed utilizes a damper which limits the canopy's movement speed. This also serves as a safety device in case of spring lift failure as the canopy will not crash down. Replace the damper on back of unit.
I forgot what address, or "id", I set my sunbed to	By holding the body fan button for 3 seconds the timer display will briefly display three numbers; the installed timer software version, a factory set timer code and then the sunbed's "id" number.

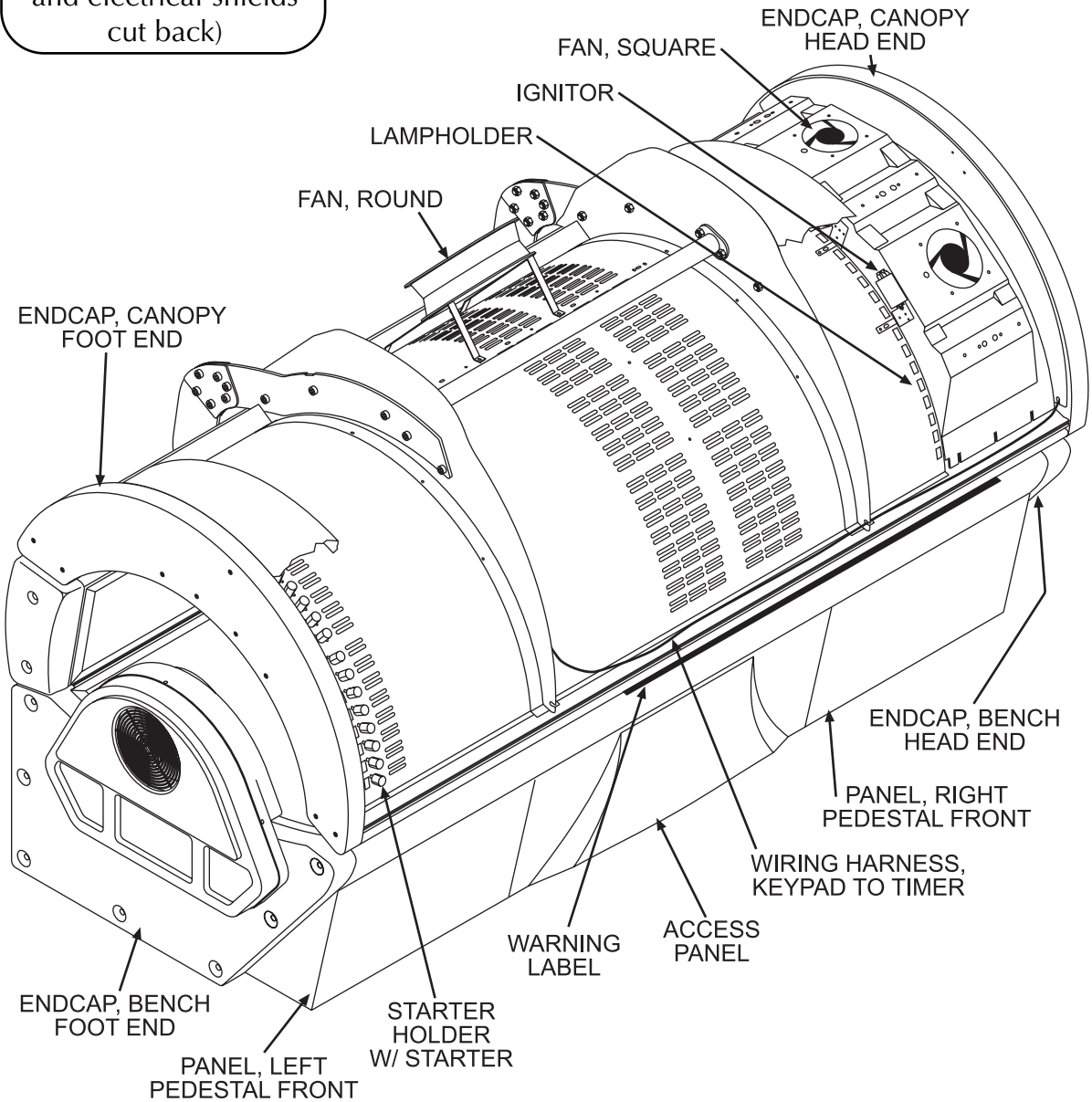
<b>Problem</b>	<b>Solution</b>
My bed is connected to a T-Max® remote system but I am having trouble getting into “id” mode	You have probably attempted to connect your sunbed to the remote system already. Disconnect the remote plug(s) from the ports at the back of the sunbed, wait 90 seconds and try again.
When auto addressing the first bed does not register an “id”	When using the auto address feature of the T-Max® Manager you must wait 10 seconds from the time you start the auto address function before addressing the first bed.
My bed won’t work with the T-Max® Manager remote system	<ol style="list-style-type: none"> <li>1. The sunbed must first be set to a unique address, see <i>Remote Connections</i>.</li> <li>2. The bypass or terminator plug may be installed in the series in an inappropriate location. Plug the bypass plug only into the bed at the end of the series.</li> </ol>
Timer display changes to indicate a tanning time after the timer button is pressed but lamps do not come on	<ol style="list-style-type: none"> <li>1. Bypass plug is not installed, see <i>Electrical Connections</i>.</li> <li>2. A T-Max® terminator has been used. See <b>ATTENTION</b> in <i>Electrical Connections</i>.</li> <li>3. If remote is being used, other than T-Max® Manager, the external timer may not be activated.</li> <li>4. Remote wiring is incorrect, see the instructions provided with the remote interface kit.</li> </ol>
My bed is connected to the T-Max® Manager remote system and when the delay time has expired the timer display starts counting down but the bed lights do not come on	The auto start feature of the remote system is disabled, see the instructions provided with your remote system.
My bed, connected to a T-Max® Manager, did not display “dL” but does indicate: “0”  a tanning time and the lamps have come on a tanning time but the lamps have not come on	<ol style="list-style-type: none"> <li>1. Remote device has not been set.</li> <li>2. The sunbed has not been connected to the remote system, see <i>Remote Connections</i>.</li> </ol> <ol style="list-style-type: none"> <li>1. Delay time of T-Max® Manager has not been set.</li> <li>2. Delay time has expired and session has begun. Auto start function of T-Max® Manager has been turned off. Press the timer button to turn on lamps.</li> </ol>

<b><i>Problem</i></b>	<b><i>Solution</i></b>
Timer display continues to show a 0 after the timer button is pressed	<ol style="list-style-type: none"> <li>1. T-Max® Manager remote system has not yet been set.</li> <li>2. Sunbed address is not set correctly, see <i>Remote Connections</i>.</li> </ol>
My salon suffers frequent, short power outages and clients complain about losing session time	If you have a T-Max® Manager, changing parameter 23 from “0” to “1” will allow the tanning bed to remember how much time was left when power goes out and resume its session after power is restored. Consult your T-Max® Manager manual for information on setting parameters.
Timer display is indicating Er 1	Body lamps are on when they should be off, have service technician check the contactor.
Timer display is indicating Er 2	Body lamps are off when they should be on, have service technician check contactor and its wiring from the main timer box.
Timer display is indicating Er 3	Bench lamps are on when they should be off, have service technician check the contactor. (Units with separate bench contactor only.)
Timer display is indicating Er 4	Bench lamps are off when they should be on, have service technician check the contactor and its wiring from the main timer box. (Units with separate bench contactor only.)
Timer display is indicating Er 5	Not currently used
Timer display is indicating Er 6	Not currently used
Timer display is indicating Er 7	Face Tanner contactor is closed when it should be open, have service technician check the contactor.
Timer display is indicating Er 8	Face Tanner contactor is open when it should be closed, have service technician check the contactor and its wiring from the main timer box.
Timer display is indicating Er 9	Ballast Drawer is open or drawer switch is broken.
Timer display is indicating Er 10	Timer computer is in an illegal state, reset power to correct, replace main timer if error reoccurs.

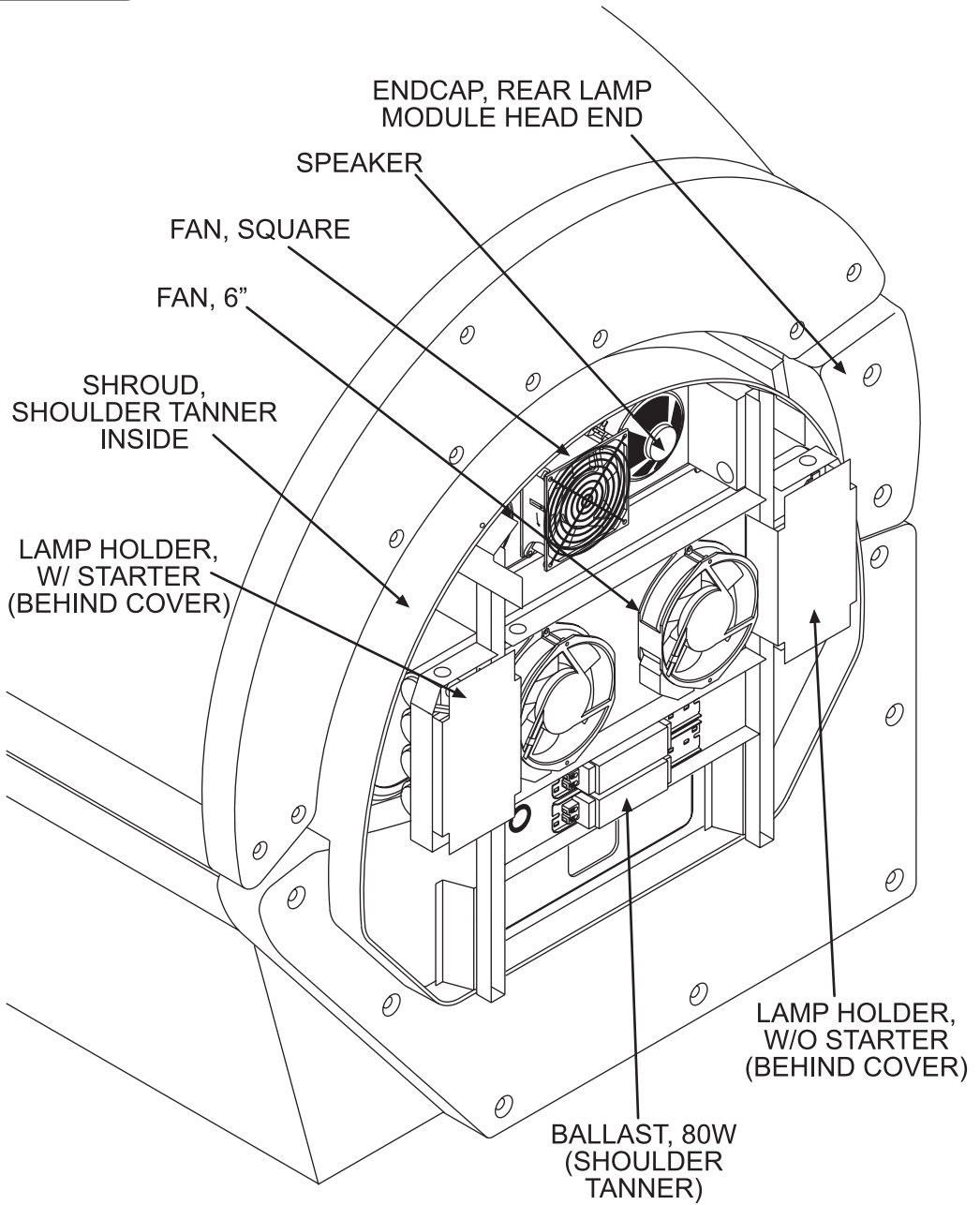


<b><i>Problem</i></b>	<b><i>Solution</i></b>
Timer display is indicating Er 11	Timer computer is in an illegal state, reset power to correct, replace main timer if error reoccurs.
Timer display is indicating Er 12	Timer computer is in an illegal state, reset power to correct, replace main timer if error reoccurs.
Timer display is indicating Er 13	Timer computer is in an illegal state, reset power to correct, replace main timer if error reoccurs.
Timer display is indicating Er 14	The timer display is not responding; 1. Check cable to display. 2. Replace display assembly. 3. Replace main timer box.
Timer display is indicating Er 15	Timer computer is in an illegal state, reset power to correct, replace main timer if error reoccurs.

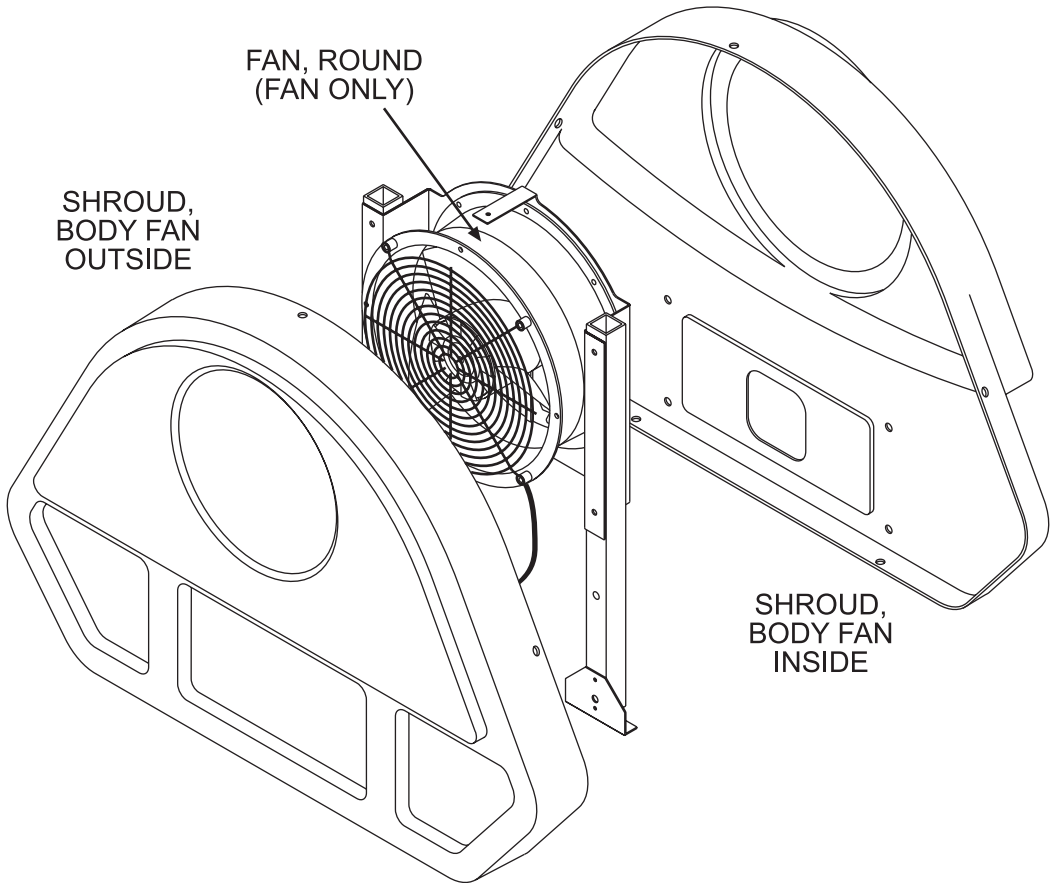
K-52STAR4F  
 (canopy cover removed  
 and electrical shields  
 cut back)



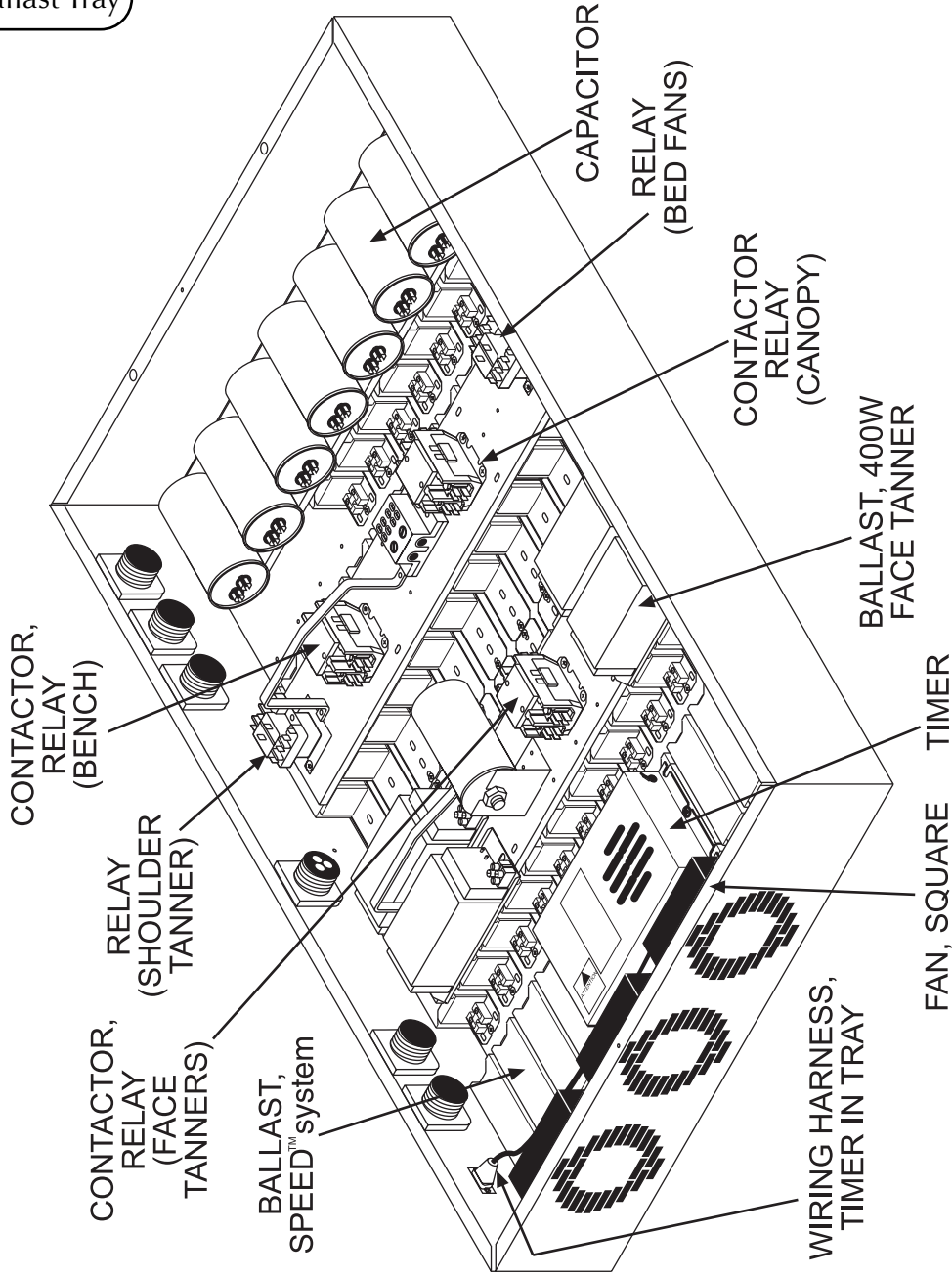
Shoulder Tanner.



Body Fan.



# Ballast Tray



# Parts List

This is a list of parts which may be replaced by the consumer. Care should be taken when replacing anything related to electrical wiring. We recommend contacting a professional electrician. When calling for parts, first state your bed model as K-52STAR4F. Then refer to this list and preceding illustrations for proper part identification.

- Access Panel
- Access Panel Key\*
- Acrylic, Bench\* (with aluminum frame)
- Acrylic, Canopy\* (with aluminum frame)
- Acrylic, Rear Lamp Module\*
- Acrylic, Shoulder Tanner\*
- Ballast, *SPEED™* system
- Ballast, 80W (shoulder tanner lamps)
- Ballast, 400W (face tanner lamps)
- Body Fan (complete kit)
- Capacitor, 75uF
- Contact (Relay)
- Control Cord\*
- Cover, Canopy\*
- Damper\*
- Endcap, Bench Foot End
- Endcap, Bench Head End
- Endcap, Canopy Foot End
- Endcap, Canopy Head End
- Endcap, Rear Lamp Module Foot End\*
- Endcap, Rear Lamp Module Head End
- Fan, 6"
- Fan, Round
- Fan, Square
- Filter\*
- Handle Kit\*
- Hardware Kit, Main\*
- Hardware Kit, Canopy\*
- Hour Counter\*
- Ignitor
- Lamp Holder w/ Starter  
(bench and shoulder tanner lamps)
- Lamp Holder w/o Starter  
(bench and shoulder tanner lamps)
- Lamp Holder, Tall (canopy and rear lamps)
- Lamp Holder, Short (canopy and rear lamps)
- Lamp Holder, Face Tanner\*
- Lamps\*
- Manual\*
- Panel, Left Pedestal Front
- Panel, Right Pedestal Front
- Pillow\*
- Relay
- Remote Connection PCB\*
- Remote Control Bypass Plug\*
- Schematic Packet\*
- Shoulder Tanner (complete kit)
- Shroud, Body Fan Inside
- Shroud, Body Fan Outside
- Shroud, Shoulder Tanner Inside
- Shroud, Shoulder Tanner Outside\*
- Speaker (pair)

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**CALL FOR SERVICE OR QUESTIONS: 1•800•449•3605**  
**ETS, Inc. 6270 Corporate Drive, Indianapolis, IN 46278-2900**

Starter, K-12 (main lamps)  
Starter Holder (main lamps)  
Starter, S-2\* (shoulder lamps)  
Support, Bench Acrylic\* (“kickstand”)  
Thermostat\* (for face tanner)  
Timer  
Timer Keypad Kit\* (circuit board)  
Timer Keypad Pushbuttons\*  
Warning Label  
Wiring Harness, Keypad/Remote Interface  
Wiring Harness, Resistor Code\*  
Wiring Harness, Timer in Tray

\* Not shown

**Record this information for ease of service:**

**Date of purchase:** \_\_\_\_\_

**Bench serial number:** \_\_\_\_\_

**Canopy serial number:** \_\_\_\_\_

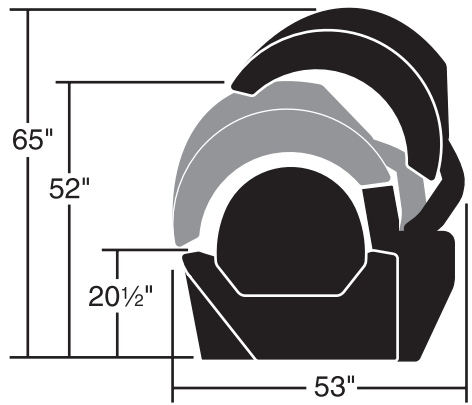
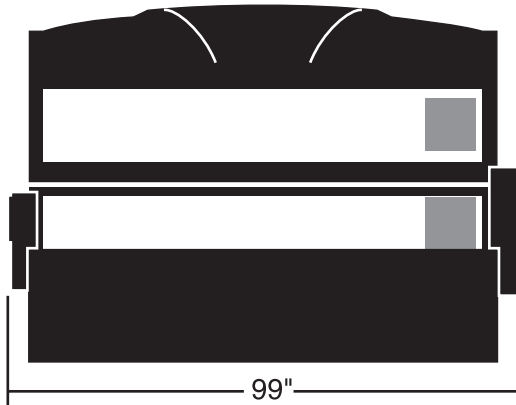
**Ballast tray ID number:** \_\_\_\_\_

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**ETS, Inc. 6270 Corporate Drive, Indianapolis, IN 46278-2900**

## 52 4F

### Size



<b>Weight (Pounds)</b>	1050
<b>Minimum Room Size</b>	10' x 10'
<b>Electrical -</b>	
Voltage (AC)	220
Amperage	35
Circuit Breaker (Amps)	50
Outlet	Hardwire
<b>Main Lamps (see page iii)</b>	<i>SPEED™ 225R / SPEED™ 255R</i>
<b>Ballasts</b>	<i>SPEED™ system</i>
<b>Face Tanner</b>	SolarMax™ IFT
<b>FT Ballasts</b>	400W
<b>Cooling System</b>	825cfm body fan
<b>Timer System</b>	Digital
<b>Max. Exposure Time</b>	20minutes
<b>Back-up Timer</b>	On-board "Watchdog"
<b>Remote Capability</b>	T-Max® compatible



**CALL FOR SERVICE OR QUESTIONS:**  
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6270 Corporate Drive Indianapolis, IN 46278-2900

