

## Table of Contents

The process of tanning .....	1
Protecting the eyes .....	2
Exposure time and schedules.....	2
Cleaning the sunbed and sunroof .....	3
Recommended parts replacements .....	3
Assembly - Impact Roller Arm Model .....	4
Assembly - Impact Gaspiston Model .....	6
Maintenance .....	8
Installing Remote Control .....	9
Trouble shooting.....	10

Congratulations! You are the owner of the finest tanning equipment on the market. Be assured that the Impact by **puretan** is manufactured with care using the best materials, components and craftsmanship possible.

In order to receive maximum benefit from your Impact sun system please read and understand this manual thoroughly.

## **The sun**

The sun is the source of all energy on earth. It provides us with light which enables us to see and make plants grow. It emits infrared rays which we experience as warmth. A third form of solar energy is less noticeable, but equally important for our well being; ultraviolet radiation. This electromagnetic radiation is divided into three bands:

long wave (uv-a)	400-321 nm
medium wave (uv-b)	320-261 nm
short wave (uv-c)	260-180 nm

Radiation in the short wave band provides a strong germicidal effect and lamps emitting uv-c are used for air and liquid disinfection. Although the sun emits uv-c it is filtered out by the earth's ozone layer and therefore does not reach the earth. You will find no uv-c radiation emitted by your Impact sun system. **puretan** tanning products use only ultraviolet radiation from the uv-b and uv-a regions for the cosmetic tanning process.

## **The process of tanning**

The immediate tanning that occurs with exposure to ultraviolet radiation of wavelengths longer than 300 nm and extending into the visible blue region is the darkening of existing melanin. This melanin is formed in the skin under the influence of uv-b. This melanin moves through the cells at the surface of the skin, and there changes into pigment. The tan produced in this way is called "indirect tanning". Tanning under uv-b starts slowly, but the overall time to get a deep tan is shorter than with uv-a. With uv-b the skin goes through a stage of reddening called "sunburn" or erythema. Uv-a causes direct tanning. Direct tanning starts immediately but takes longer to obtain an attractive tan. The lamps in your Impact use a combination of uv-b and uv-a in the exact proportions, based upon recommended exposure time, to give your skin the attractive, bronze tone you desire in a short period of time.

## Protecting the eyes

Ultraviolet radiation in the uv-b and uv-a regions may cause eye damage. **puretan** therefore provides protective eyewear with each piece of tanning equipment and recommends their use during each tanning session. Use protective eyewear type Interexco Gironde 12, 3831 AB LEUDSEN, Cat. No. 5653/1S color green, or other quality, certified eyewear whenever the product is energized.

## Exposure time and schedules

Control of exposure times is provided by means of a timer incorporated in the equipment. The maximum recommended exposure time of a tanning session is 20 minutes. **Turn the knob clockwise and set pointer to desired length of time. To terminate session turn the knob counter-clockwise until the unit shuts off.** During this time the use of the protective eyewear provided with your system is recommended. Following the recommended exposure times at the end of this section should produce results within one to four sessions.

### Caution

The length of exposure in new equipment or in equipment recently refitted with new lamps should be reduced by 20% to limit the possibility of erythema. This reduction should remain in effect for a minimum of 50 hours from the time of installation.

### Minimum use distances

The recommended exposure position for the Impact is lying on the contoured acrylic surface of the sunbed, and under the acrylic surface of the sunroof in the closed position. The minimum use distance is limited by the acrylic surface of the sunbed and may be no less than 1.5" from the acrylic surface on the sunroof.

Exposure times for lamp types: **Puretan S+ or Puretan Spectralarium R+**

WEEK	1	1	1	2	2	2	3	3	3	4	4	4
SESSIONS	1	2	3	1	2	3	1	2	3	1	2	3
MIN. PER DAY	3	3	5	5	7	7	10	10	12	15	18	20

A spacing of 48 hours between exposures the first two weeks and a spacing of 24 hours between sequential exposures is recommended. It may take 1 to 4 exposures before the expected results appear.

**If your Impact is equipped with the optional facial cassette system:**

Exposure times for lamp types: **CosmoTech 400R7s 23045**

WEEK	1	1	1	2	2	2	3	3	3	4	4	4
SESSIONS	1	2	3	1	2	3	1	2	3	1	2	3
MIN. PER DAY	3	3	5	5	7	7	10	10	12	15	18	20

A spacing of 48 hours between exposures the first two weeks and a spacing of 24 hours between sequential sessions is recommended. It may take 1 to 4 exposures before the expected results appear.

## **Cleaning the sunbed and sunroof**

After each session is completed, spray the acrylic surface with **puretan** disinfectant anti-fungal cleanser made specially for tanning products. Do not use conventional cleaners containing alcohol, ammonia or astringents. Do not wipe acrylic surfaces with a dry cloth as the static charge formed will attract dust.

### **Caution**

**Always disconnect electricity before servicing or cleaning.** Do not use excessive amounts of water, abrasive cleaners, or cleaners with warning labels regarding reactions to contact with the skin. Do not use products containing alcohol, ammonia or astringents.

### **Repairs**

**puretan International Inc.**, or your **puretan** distributor is capable of providing prompt and up to the minute service recommendations should your equipment require exceptional maintenance.

## **Recommended parts replacements**

It is recommended that parts such as timers, protective eyewear and lamps be replaced with factory supplied parts obtainable through **puretan International Inc.**, 14848 Venture Dr., Dallas, Texas, 75234 (1-800-338-8267) or your **puretan** distributor or dealer. Only factory approved parts when installed as instructed insure continued compliance with CSA/NRTL standards.

**Warning:** The Impact is designed for use by only one person at a time. Therefore only one pair of protective eyewear is provided.

## Assembly - Impact Roller Arm Model

Each **puretan** Impact sun system is tested at the factory before packaging to ensure trouble free operation.

Remove the sunbed unit from the carton marked "sunbed", and lay it on carpet or similar surface (to prevent scratching) with the acrylic side down (see figure 1).

Locate the two base leg plates (figure 1, A) and secure to the bottom of the sunbed with 4 each 1/4" phillips machine screws and lock washers through the clearance holes provided in the plates and into the threaded holes provided in the rear of the sunbed unit (see figure 1, B). Locate the front base plate (figure 1, C) and secure to the bottom of the sunbed with 4 each 1/4" phillips machine screws and lock washers through the clearance holes provided in the plate and into the threaded holes provided in the front of the sunbed unit (figure 1, D). Make sure the flanges on the end of the front plate are on the outside of the forward edges of the base leg plates. Secure the front base plate to the base leg plates with 1/4" screws and nuts through clearance holes provided (figure 1, E). Locate and attach the rear support brace to the rear flanges of the leg plates with 1/4" screws and nuts through the clearance holes provided (figure 1, F). When the base is securely fastened, turn the unit over so that the acrylic side is up and the unit is standing on its base.

Attach the roller arms to the sunbed unit (grooved side toward the acrylic) with the four 3/8" x 2 3/4" allen cap bolts, black flat washers and spacers provided (see figure 2). Your Impact sun system is a precision piece of equipment, and the tolerances are very close. Therefore, be certain that when tightening the bolts, you alternate two or three turns on each bolt position in order that the arm comes in contact with the end of the sunbed uniformly. **Note: Use enclosed Loctite adhesive on all Allen Cap bolts.**

Before installing the sunroof, make the following observations of the roller arms. Note that the groove which is approximately vertical to the floor on the rear of the arm is open at the bottom end. The groove which is horizontal at the top of the arm, is open at the top rear.

Carefully remove the sunroof from the carton marked **Asunroof** and lay it on carpet or similar surface with the acrylic side down. Locate the four rollers, spacers, washers and axle bolts in the carton marked **Aarm kit** (see figure 3). Push the roller (2) onto the axle bolt (1) so that the head of the bolt fits into the recess in the roller. Slide the metal spacer (3) onto the bolt **followed by a 3/8" flat washer** until only the threads are exposed. Locate the two 3/8" threaded holes on each end of the sunroof (one is toward the rear, and the other is in the lower center) and screw the axle bolts into the sunroof end plates. Be sure to insert the bolts carefully to guard against **Across threading**, and tighten with the 1/4" allen wrench provided.

The following exercise will require two people. Hold the sunroof in a vertical position, (see figure 4) and simultaneously insert the rear rollers (A) into the rear angled groove (1) through the opening at the bottom of the arm. Still holding the sunroof, lift upward evenly (rear rollers rolling upward in rear groove) until center rollers are higher than the top of the roller arm. Tilt unit forward, and simultaneously insert center rollers (B) in horizontal groove through the opening (2) in the top of the arm, and pull sunroof forward, as closing it. The sunroof should now roll in the grooves, and easily open and close.

**Affixing the logo decal:** Spray a liberal amount of glass cleaner in the center of the front plate. Remove the heavy backing paper and center the logo equidistant from the top and bottom and left and right sides of the front plate. Carefully peel off the masking, while pressing on the vinyl graphic. Squeeze out the excess cleaner and bubbles with a soft plastic object, such as a "squeegee" or credit card.

Connect the "umbilical cord" from the sunroof unit by inserting the female cord end connector into the male receptacle on the sunbed unit.

The power cord from the sunroof unit is to be connected to a dedicated **single phase** 30 amp wall receptacle. **The optimum voltage is 228. Voltage of 218 is the extreme low and voltage of 230 the extreme high. Voltage output above or below this range will cause ineffective operation, and or damage to the sun system.** Your Impact sun system is now ready to test by turning the timer knob on the right side of the top cover clockwise.

**CAUTION!** It is important that when relocating the sun system, lifting or moving of the sunbed is necessary. Do not, under any circumstance, attempt to lift the system by the rollerarms.

\*See instructions on page 9 for remote control installation.

## Assembly - Impact Gaspiston Model

Each **puretan** Impact sun system is tested at the factory before packaging to ensure trouble free operation.

Carefully remove the sunbed unit from the carton marked "sunbed" and lay it on carpet or similar surface (to prevent scratching) with acrylic side down (see figure 1).

Locate the two base leg plates (figure 1, A) and secure to the bottom of the sunbed with 4 each 1/4" phillips machine screws and lock washers through the clearance holes provided in the plates and into the threaded holes provided in the rear of the sunbed unit (see figure 1, B). Locate the front base plate (figure 1, C) and secure to the bottom of the sunbed with 4 each 1/4" Phillips machine screws and lock washers through the clearance holes provided in the plate and into the threaded holes provided in the front of the sunbed unit (figure 1, D). Make sure the flanges on the end of the front plate are on the outside of the forward edges of the base leg plates. Secure the front base plate to the base leg plates with 1/4" screws and nuts through clearance holes provided (figure 1, E). Locate and attach the rear support brace to the rear flanges of the leg plates with 1/4" screws and nuts through the clearance holes provided (figure 1, F). When the base is securely fastened, turn the unit over so that the acrylic side is up and the unit is standing on its base.

Remove the acrylic shield and reflective end covers as described on page 8 of this manual. Find the four ball studs (figure 2, item 1) in the "arm kit" carton. Position the shock mount insert (3) in the 7th end plate exhaust slot (of the top row) from the rear of the sunbed, making sure the hole created is farthest from the acrylic shield. Place an 8mm fender washer (2) on the ball stud thread and pass it through the clearance hole created by the insert. Place another 8mm fender washer on the thread inside the sunbed, (4) and secure tightly with an 8mm lock nut (5). Repeat the exercise on the other end of the sunbed unit.

Carefully remove the sunroof from the carton marked "sunroof", and lay it on a carpet or similar surface to prevent scratching, acrylic side up. Remove the acrylic shield and reflective end covers. Facing front of sunroof, install the ball stud in 21st end plate exhaust slot (of the top row) on the right hand side, and 22nd slot on the left hand side, counting both from the rear of the sunroof unit. Make sure the hole created with the insert is closest to the acrylic shield. **If your Impact is a facial cassette model:** Install the ball stud in the 8mm threaded hole above the 3/8" threaded hole in the upper center of the end plates. Tighten securely, and repeat the exercise on the other end of the unit.

Locate the pivot arm (see figure 3, item 1) in the carton marked "arm kit". Position a 2" black flat washer (3) on one of the 2" shoulder bolts (2) and pass it through the clearance hole on the top portion of the pivot arm. Position a 3/8" black flat washer (4) so that it is

between the arm and end plate, and insert the bolt into the 3/8" threaded hole in the rear of the sunroof end plate. Tighten securely with the 1/4" allen wrench provided.

Lay the two foam end packaging blocks (which held the sunbed in its carton) flat across the ends of the bed as in figure 4. Carefully turn the sunroof over, and lay it on top of the foam blocks, acrylic side down (see figure 4). Line up the holes in the bottom of the pivot arm with the holes in the rear of the sunbed end plates and insert the four 3/8" x 3/4" allen cap bolts and lock washers provided. Your Impact is a precision piece of equipment and the tolerances are very close, but the foam packaging is not. It may be necessary to push the sunroof down slightly into the foam for proper alignment of the holes. **Note: Use enclosed Loctite on all Allen Cap bolts.**

Locate the gaspistons, and remove the metal retainers by twisting them out away from the socket, and then straight toward the center of the gaspiston for removal. Attach the gaspistons (cylinder end up) to the unit by tapping the sockets onto the balls with your hand or rubber hammer. Replace the retainers. Remove the foam blocks, and the sunroof should easily open and close.

Line up the clearance holes in the front plate with the clearance holes in the front of the legs and secure the plate (narrow side up), to the legs with the screws and nuts provided as shown in figure 5. Snap the white plastic covers on the screw heads.

**Affixing the logo decal:** Spray a liberal amount of glass cleaner in the center of the front plate. Remove the heavy backing paper and center the logo equidistant from the top and bottom and left and right sides of the front plate. Carefully peel off the masking, while pressing on the vinyl graphic. Squeeze out the excess cleaner and bubbles with a soft plastic object, such as a "squeegee" or credit card.

Connect the umbilical cord by inserting the female cord end plug from the sunroof into the male cord end receptacle on the sunbed.

The power cord from the sunroof unit is to be connected to a dedicated **single phase** 30 amp wall receptacle. **The optimum voltage is 228. Voltage of 218 is the extreme low and voltage of 230 the extreme high. Voltage output above or below this range will cause ineffective operation, and or damage to the sun system.** Your Impact sun system is now ready to test by turning the timer knob on the right side of the top cover clockwise.

**CAUTION! It is important that when relocating the sun system, lifting or moving of the sunbed is necessary. Do not, under any circumstances, attempt to lift the system by the sunroof.**

\*See instructions on page 9 for remote control installation.

## Maintenance

It is recommended that every four (4) weeks due to heat expansion and contraction, wire connections are tested in the sun system units. **Disconnect power cord from wall receptacle** and remove the ABS plastic cover. Gently pull on wires at connections on ballasts, capacitors, terminal strips, relay and timer with a "needle nose" pliers. Test and tighten any loose connection screws with a small screwdriver.

### Removing Acrylic Shield

**Disconnect power cord from wall receptacle.** To remove the acrylic shield for cleaning or lamp and starter replacement, follow these easy steps. Use acrylic hold down removal tool by laying the tapered edge of the pipe flush against the acrylic, and striking inside edge of acrylic holding strip at either end. Then grasp the acrylic hold down strip and carefully "peel" them off of the profile extrusion. If you do not have the strip removal tool, use a similar object. Use a thin blade screwdriver or knife blade to start one edge of the shield out of the groove, and carefully remove the shield for access to your lamps and starters.

### Lamp Replacement

**Disconnect power cord from wall receptacle.** Remove the acrylic shield as described above. Next, remove the reflective end covers by carefully pulling the ends out of the grooves in which they are installed. The end covers are made from a very thin material by design, so that they are pliable for easy removal. Be careful not to bend the metal to the point that it "creases". The lamps and starters are now exposed for replacement or cleaning. Before the removal of a lamp, please make the following observation of the lamp holders. The lampholders on the left side of the sunbed (as you stand in front of the sun system), have spring loaded telescopic sockets, and the lampholders on the right are stationary. Please note that on the sunroof, just the opposite is true. To remove a lamp, carefully hold the lamp with both hands, and press toward the spring loaded lampholder. When the spring loaded socket recedes and the tip on the opposite end of the lamp clears the stationary lampholder, pull up and remove.

When replacement of a facial lamp is necessary, it is recommended that the cassette be removed and forwarded to the manufacturer for proper lamp replacement. Before proceeding, please call **puretan International, Inc.** technical support for instructions and procedures. **Terminate power to the system.** Removal of the facial cassette requires access from the top of the sunroof unit. Carefully remove the cover panel and the four screws on the right end plate which secure the cassette. Carefully detach wire connections and forward cassette to **puretan International, Inc.** as instructed.

## **Starter Replacement**

The starters are located behind the row of stationary lampholders; to the far right side on the sunbed and to the far left on the sunroof. To remove a starter from its holder, carefully twist counter-clockwise until the "click" is felt and remove. To reinstall, insert the connectors into the largest opening on the holder, and twist clockwise until locked in place.

## **Installing Remote Control**

To install your **puretan** remote control timer to the Impact, proceed with the following steps.

Remove the wire nut which connects the black and red wires (in the future the wires will be the same color) of the remote control "pigtail" together and separate the wires. Splice sixteen (16) gauge two conductor cable between the sun system and the remote control monitor.

**WARNING - Incorrect connections will cause permanent damage to the internal components of the electrical system. This will not be the responsibility of puretan, or its vendors.** The most common application is speaker wire. Attach the wires to the applicable terminals depending upon the remote monitor you are using. Be certain that your connections are tight, and that the correct wire colors are matched.

## Trouble shooting

Sun system will not operate:

1. Is power cord connected to wall receptacle?
2. Is remote control installed properly? If you are not using remote control monitors; are the black and red wires connected together with the blue wire nut on the remote control pigtail?
3. Is the timer in operational position?
4. Is circuit breaker "on"? Is there proper voltage to the wall receptacle?
5. Are the umbilical cord plug ends connected properly as discussed in the "assembly section"?
6. If "yes" to all of the above, call **puretan, Intl. Inc.** technical support.

Any lamps not working: **Disconnect power cord from wall receptacle**, and remove the acrylic shield as previously discussed.

1. Remove unlit lamp(s) and replace with a lamp which is lighting. Test by activating the system. If lamp lights, discard the defective lamp and replace with a new one. If not, go on to #2.
2. Remove starter for unlit lamp. Replace with new starter, or a starter next to a lamp which is lighting. Test by activating system. If lamp lights, discard defective starter and replace with a new one. If lamp still will not light, go on to #3.
3. Remove ABS cover from the sunroof by inserting a small screwdriver in the slot at the top center of the end plate and under the cover. Pry up and pull the cover up and out of its retaining slots along the long edges. If the unlit lamp(s) are in the sunbed, remove the legs and bottom cover as described above.
4. Check connections to lampholders and starter holders for loose wires by pulling on each connection where inserted. Also check for burned ends or physical damage. If no loose wires or damage is detected, go on to #5.
5. Check corresponding ballast connections of non-lighting lamps by gently pulling on the wires where they insert into the plastic connectors. If any wires are loose, push into connector and test. If no loose wires are detected, check the capacitor connection for the corresponding non-lighting lamps. If no loose wires are detected, install a "jumper wire" between the two connections on the capacitor cap and retest.

If the lamp lights, replace the capacitor. Make certain to insert the wires in exactly the same terminals. If the lamp still does not light, **remove the "jumper wire"** and go on to #6.

6. Replace the corresponding ballast of non-lighting lamps. Start by inserting a straightened paper clip or very small screwdriver into the slot directly above the wire, push in and simultaneously pull wire out of connector. Remove the two hold down screws at either end of ballast and replace. To reconnect wires in new ballast, gently push into appropriate position in ballast connector. Test the system. If lamp(s) still will not light, consult **puretan, Intl. Inc.** technical support.

### **Sun system will not terminate operation**

1. Remove remote blue wire nut from the remote control "pigtail" on rear of sunroof and separate the black and red wires. If system discontinues operation, go to 2. If system continues to operate, **disconnect power cord from wall receptacle.** Remove sunroof ABS cover. Locate relay and replace by first removing the two retainer screws. Change connectors at each terminal separately and install directly to replacement relay's corresponding terminals. It is important to reconnect the connectors to exactly the same terminals. If sun system still operates improperly, consult **puretan, Intl. Inc.** technical support.

2. **Disconnect power cord from wall receptacle.** Remove sunroof ABS cover. Locate timer and replace by removing the two retaining screws. Pull connectors from each terminal separately and install directly to replacement timer's corresponding terminals. It is important to reconnect the connectors to exactly the same terminals. Re-install timer and test. If sun system still operates improperly, consult **puretan, Intl. Inc.** technical support.