



OWNER'S MANUAL



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**SEE THE QUICK
START GUIDE ON THE
BACK OF THIS MANUAL**

SAFETY PRECAUTIONS:

The Solar-Breeze NX pool cleaner may look like a pool toy to some children and may lure children into the swimming pool when no one is looking.

ALWAYS WATCH CHILDREN AROUND WATER.

NEVER leave children in the pool or around the pool without supervision.

Do not swim or dive while the Solar-Breeze pool robot is on the pool surface. The unit must be removed from the water during swimming. Leaving the Solar-Breeze NX in the pool while people are swimming presents a potential safety hazard to swimmers. It can also cause the apparatus to become swamped or submerged possibly causing damage and **VOIDING THE WARRANTY.**

NEVER store the unit with chlorine onboard, as it may present both a fire and a corrosion hazard.

SO LAR-BREEZE NX O PERA TION

G ENERAL DESC RIPTION AND O PERA TION

The Solar-Breeze NX is an intelligent, autonomous robot that navigates the surface of a swimming pool to collect leaves, debris, dust, pollens and suntan lotions that float on the surface of the water. It is powered by solar energy and by a rechargeable Lithium Ion battery. It requires no hoses or power cords to operate.

PO WER AND C HARG ING

The Solar-Breeze NX is powered by direct sunlight. While operating in the sunlight, it will also collect and store surplus solar power in the rechargeable battery. On a normal sunny summer day, enough power will be stored in the battery during the daytime to allow the Solar-Breeze NX to continue to operate for several hours after the pool is no longer in direct sunlight.

When the battery reaches a pre-determined low-voltage level, the unit will shut down automatically, primarily after dark. When this happens, the red "STATUS" light will begin to flash. There is no need to remove the unit from the pool when this happens. It will float in the pool for the balance of the night with control panel and blue navigation LED lights flashing. In the morning, when there is direct sunlight on the pool again, the unit will re-start automatically.

There is also a low battery "Hunt for Sun" mode (with the Status light blinking). If the sky is not dark the unit will run intermittently in an attempt to locate sunlight where it can stop to charge its low battery. See section 5.d for further details.

PROPULSION AND DEBRIS COLLECTION

The Solar-Breeze NX is propelled through the water by a paddle-wheel located at the rear of the unit (where the control panel label is located). The paddlewheel at the front of the Solar-Breeze NX captures debris in the collection chamber inside the apparatus. As water passes through the collection tray, it passes through a fine mesh filter which removes large and very small particles, pollens, dust and even suntan oils that may be floating on the pool surface. The Solar-Breeze NX robot has twice the storage capacity than that of a skimmer basket in a typical pool skimmer inlet.

NAVIGATION

The bumper-wheels at the front of the unit rotate in opposite directions towards the outside of the unit. When the Solar-Breeze NX encounters the edge of a pool, or pool corner, the bumper-wheels will normally cause the Solar-Breeze NX to turn in one direction or the other and continue to move around the pool capturing debris.

If the Solar-Breeze NX encounters an obstruction in the pool where the front bumper-wheels are not in contact with the edge of the pool and cannot aid with navigation, it will sense that it is stuck on an obstacle and go into a reverse navigation mode. With the absence of obstacles, the Solar-Breeze NX will still reverse periodically to help randomize the direction of travel, and ensure that all areas of the pool are cleaned. While in reverse, the rear paddlewheel will rotate in reverse at twice its normal speed in order to back away from the obstruction. The front paddlewheel will continue to rotate forward, but at only half its normal speed. This helps to ensure that no debris escapes from the collection chamber while the unit is moving backwards.

EMPTYING THE DEBRIS COLLECTION TRAY

The clear window on top of the Solar-Breeze NX makes it possible to see when the debris collection chamber is becoming full. Simply turn the switch to the "OFF" position, lift the Solar-Breeze NX from the pool using the front handle, remove the debris tray and empty the tray and collection chamber into a trash receptacle or your compost bin. If needed, it can be further cleaned by immersing and swishing in water, or by washing with a GENTLE stream of water from a garden hose, while it is out of the unit. Never immerse the Solar-Breeze NX or use a high pressure hose to clean the body of the unit as damage to the unit may occur. If necessary, a low-pressure flow from a garden hose is recommended (see Section 11, Cleaning the Solar-Breeze NX).

INSPECTION BEFORE OPERATION

Before Operating the Solar-Breeze NX, be sure to inspect the following areas of the unit:



DEBRIS COLLECTION TRAY

The debris collection tray slides out the front of the unit, using the grip handle provided on the front underside of the tray. Before operation, remove this tray in case it was dislodged during shipping. Then carefully insert the whole debris tray back into Solar-Breeze NX, by engaging the slots on both sides. When the debris tray is fully inserted, you will hear a quiet click as it locks into place. This click lets you know that the debris will be captured in the collection area and will not simply flow through the apparatus.

CHLORINE DISPENSER

Slide the chlorine dispenser out the starboard side of the Solar-Breeze NX. Ensure that it slides in and out freely. The chlorine dispenser is designed to accommodate up to two (2) 3" jumbo chlorine tablets in the tray. You may wish to add chlorine tablets to the Solar-Breeze NX before you place the robot in the pool. With chlorine tablets in the dispenser, the Solar-Breeze NX will sanitize your pool at the same time it is removing debris from the surface.

NOTE: Placing only one chlorine tablet in the dispenser may cause the Solar-Breeze NX to navigate slightly to the left or right depending on placement of the chlorine tablet in the left or right compartment of the dispenser tray.



PLACING THE SOLAR-BREEZE NX IN THE POOL

The Solar-Breeze NX comes equipped with two molded handles, one at the front and one at the rear of the unit. We recommend that you use both hands, when placing the unit in the pool, holding the unit at both the front and the rear and lowering the unit gently into the pool. Launching the robot properly consists of aiming it into open water (where it won't immediately hit a wall) and moving the switch to the "ON" position.

THE ON/OFF SWITCH

After placing the Solar-Breeze NX robot in the pool, slide the switch to the "ON" position. The front and rear paddle-wheels should rotate in the forward direction and the robot should begin moving around the pool collecting debris in the collection chamber. Cycling the ON/OFF switch resets the microprocessor back to factory settings, and should undo any unusual behavior that might occasionally be observed.

OPERATING MODES

After the switch has been placed in the "ON" position, the unit will operate in the following modes:

STANDARD FORWARD OPERATION

The rear paddlewheel and front paddlewheel both rotate in a forward direction with the rear paddlewheel providing propulsion and the front paddlewheel scooping debris into the collection tray. The front bumper wheels should rotate in opposite directions towards the outside of the unit to assist with navigation and push the unit in one direction or the other when it encounters the pool edge. The rear bumper wheels are not motorized, turning only when in contact with a wall or object.

REVERSE NAVIGATION

If the Solar-Breeze NX gets stuck on an obstruction where the front bumper wheels cannot assist with navigation, or on smooth tile that the bumper wheels cannot grip, it should go into a reverse navigation mode and back away from the obstacle. The reverse navigation will normally be triggered within the first minute of becoming stuck, but it could take longer depending on the nature of the obstruction. Be patient – it will reverse.

During a reverse navigation, the rear paddlewheel will turn in reverse at twice its normal speed in order to back away from the obstruction. The front paddlewheel will continue to turn forward at $\frac{1}{2}$ the normal speed to ensure that no debris escapes from the collection chamber.

A normal reverse navigation should result in the unit moving backwards by 2 or 3 feet and turning slightly in one direction or the other. As a result, when the Solar-Breeze NX begins to move forward again, it should move in a different direction, away from the obstruction.

The Solar-Breeze NX will also reverse automatically every four minutes, even if it does not encounter an obstruction. The unit remains in reverse mode for about 50 seconds. The robot will normally turn in a different direction during each navigation reversal, improving its overall coverage of the pool.

STAND-BY OR SLEEP MODE

This mode occurs when the battery charge has been drawn down to the Low-Voltage level. This will normally occur in the evening after the pool has been in shade for some time, however, it could also occur on a cloudy day when the energy available from the sun is low. In this mode, the paddlewheels will stop turning, and the red "STATUS" light will begin to flash – indicating a low battery.

When solar energy becomes available, the unit will recharge itself and start operation again on its own, and the red STATUS light will no longer flash.

HUNT FOR SUN MODE

This intermittent mode occurs when the battery is low (blinking RED STATUS light) and the sky is illuminated. Typically this will happen shortly after sunrise or in the late afternoon after a cloudy day. The unit will operate two minutes "ON" and eight minutes "OFF" (intermittently) until it finds a spot in the pool where there is direct sunlight, where it can stop and charge its battery in the sun. This mode ends near sunset, at which time the unit will revert to Sleep Mode. If it is charging in the sun while operating in Hunt for Sun Mode and drifts into shadow, it will frequently start up and run in an attempt to find the sun and stop to charge again.

INDICATOR LIGHTS

The Solar-Breeze NX control panel comes equipped with three indicator lights, providing at a quick glance information on unit operation.

POWER LIGHT

The green "Power" light will flash whenever the switch is in the "On" position.

CHARGING LIGHT

The charging light indicates a few different modes.

CHARGING MODE

The green "Charge" light will flash whenever the solar panels recharging the battery. This can occur whether the Power switch is in the "ON" or "OFF" position. If the unit is placed in the sun with the Power switch in the "OFF" position, it may take a few minutes before the CHARGE light begins to flash. If the switch is in the "ON" position, the CHARGE light will flash as long as the battery is not fully charged and there is ample solar energy available to both charge and run the motors at the same time. If the CHARGE light blinks at a slower rate (half the speed of the POWER light) when in sunlight on an extremely hot day, it is an indicator that the battery is currently too hot to accept a charge. In very hot weather, the unit should only be charged while running, in the pool.

NOT CHARGING MODE

The green CHARGE light will only flash when sunlight is bright enough to charge the battery. If it is not flashing, then the solar panels are not collecting sufficient energy to allow charging to take place. If the unit is in full sunlight and the CHARGE light is not flashing, it could be because the battery is fully charged, in

which case the CHARGE light should glow a steady green. If the unit is not fully charged, leave the Solar-Breeze NX in the sun for 5 minutes and check again. If the CHARGE light is still not flashing, the battery is not fully charged and the unit will still not operate when the switch is moved to the "ON" position, contact customerservice@Solar-Breeze.com or call 623-582-2825 for assistance.

FULL CHARGE MODE

When the green CHARGE light glows a steady green, this indicates the battery is fully charged and cannot accept additional charge from the solar panels. At this point, the charging process will stop until the battery has been drawn down to a level where it can accept additional current.

The steady green charge light can also occur after a day or two of storage, with the switch OFF. This is NORMAL, and is used by the microprocessor to drain the battery down to a slightly lower voltage for long term storage of the battery. It will go out by itself, after several days – this will prevent damage being done to the battery by long term storage at higher voltages.

STATUS LIGHT (RED)

The red "Status" light will flash whenever the battery is low ("Standby" Mode or "Hunt for Sun" Mode). This tells you why the motors are not running, or why they are running intermittently (2 Minute ON and 8 Minutes OFF).

The red Status light burn a steady red and both motors will stop for 10 minutes if the front paddle-wheel becomes stuck by rubbish. It will try restarting every 10 minutes.

The red Status light will burn a steady red with a once per second flicker, if the rear paddle-wheel becomes stuck. But, in this case the front paddle-wheel will keep skimming, and the rear paddle-wheel will attempt restarting every 6 seconds.

HEADLIGHTS AND TAILLIGHTS

The Solar-Breeze NX is equipped with blue LED headlights and taillights that flash only at night. These are provided for safety so that the unit is always visible in the pool. These lights will flash whether the unit is operating or in Stand By mode. If the battery gets very low, they will eventually cease blinking.

CLEANING THE DEBRIS TRAY AND COLLECTION CHAMBER

The clear window on top of the Solar-Breeze NX makes it possible to see when the debris collection chamber is becoming full. When this occurs, simply turn the power switch to the "OFF" position and lift the Solar-Breeze NX from the pool using the front and rear handles but keeping the front of the unit slightly higher than the rear. Remove the debris tray by sliding it out the front of the unit, and empty the tray and collection chamber into a trash receptacle or compost bin. Keep the tray horizontal so that the debris will not fall off the tray. We recommend that you rinse the debris tray after emptying to remove any fine debris. You may also choose to wash out the inside of the debris collection chamber using a low-pressure stream from a garden hose.

DO NOT USE A HIGH PRESSURE STREAM OF WATER TO CLEAN THE BODY OF THE SOLAR-BREEZE NX.

Slide the clean debris tray back into the Solar-Breeze NX and listen for the click that indicates it is locked in place. Place the unit back in the pool and turn the switch to the ON position.



ADDING CHLORINE OR SANITIZER TABLETS TO THE DISPENSER

To add chlorine tablets to the chemical dispenser, remove the robot from the water, slide the chlorine dispenser drawer out of the side of the Solar-Breeze NX. Add one or two jumbo 3" chlorine tablets to the dispenser. **Our tray is designed to hold a maximum of two (2) jumbo 3" chlorine tablets in the chlorine dispenser at one time. Using more than two (2) chlorine tablets may result in sluggish performance.** Slide the dispenser drawer back into the Solar-Breeze NX. Place the unit back in the pool and turn the power switch to the ON position. With chlorine tablets in the dispenser drawer, the Solar-Breeze NX can now clean AND sanitize your pool at the same time.

MAINTAINING BUOYANCY

After several days or weeks of operation, water may accumulate in some areas of the apparatus where it cannot escape. This may make the unit behave sluggishly. Symptoms of such water-logging may include:

- Unit moves more slowly through the water.
- Debris is pushed in front of the unit rather than being pulled into the collection chamber.
- Unit does not reverse properly when it goes into the reverse navigation mode.

When these symptoms occur, simply remove the Solar-Breeze NX from the pool and set it in a vertical position on its end (label towards the ground) facing the sun for a half day. This will allow it to dry, and will also allow the Solar-Breeze NX to gain a full charge. Never rest the unit on the front bumper-wheels, as they may deform, and rub against the housing. The unit should resume normal operation when it is placed back in the pool.

CLEANING THE SOLAR-BREEZE NX

After a period of weeks or months, the Solar-Breeze NX may begin to accumulate calcium or mineral deposits along the water line and also around the edges of the solar panels. Before these deposits become severe and either cause damage to the unit or impact its performance, we recommend that you clean the Solar-Breeze NX using the following procedure:

- Use a sponge or damp cloth to wipe down the Solar-Breeze NX with a dilute mixture of CLR and water to break down the mineral deposits.
- Thoroughly wash the Solar-Breeze NX using a mixture of warm water and soap.
- Dry the Solar-Breeze NX using a soft dry cloth.
- If desired, use a standard household glass cleaner to clean and shine the solar panels. . (As solar panels age, self-cleaning car wax can restore their luster and remove micro scratches.)

The procedure for cleaning debris from the collection chamber was covered in Section 8 of this guide.



SO LAR-BREEZE NX TIPS AND TROUBLE-SHOOTING

ANY ODD BEHAVIOR

When first turned on, the Solar-Breeze NX robot can take up to half an hour to “learn” current pool conditions.

Because the Solar-Breeze NX is an intelligent Robot, it adjusts to conditions in the pool and learns behavior that can occasionally be in error. Cycling the OFF/ON switch will always reset its microprocessor to factory preset conditions, to “unlearn” any anomalous behavior.

LONG TERM STORAGE

Always charge the battery fully, before storage. The microprocessor may later cause the CHARGE light to come on, sometimes after a day or two, to drain the battery down to its optimum long term storage voltage. It will go out automatically, at the ideal storage voltage.

Store the unit sitting on a flat surface, or in its original storage box. To prevent damaging the plastic housing, solar-panels or front bumper-wheels, do not place heavy objects on top of it while in storage.

HIGH TEMPERATURE OPERATIONS

The Solar-Breeze NX is designed to protect the rechargeable battery if the temperature is extremely high. If the air temperature is extremely high, it is best for battery charging to be done with the switch turned on, in a swimming pool. Usually, the pool water will cool the battery enough to allow charging. If the battery becomes extremely hot, the unit will not charge the battery even when in the sun. This is to protect

the battery from long term damage that can be caused by charging at high temperatures. This condition is indicated by a CHARGE light that blinks at half its usual rate (once/second rather than twice/second). If the CHARGE light blinks at half the speed of the POWER light, the battery itself is too hot to charge. It will resume charging properly when the temperature cools even slightly.

ADJUSTING THE POOL WATER LEVEL

The Solar-Breeze NX works best when the front bumper-wheels can run freely along the side of the pool. When pools have a lip or overhang, the front bumper-wheels or the top edge of the Solar-Breeze NX may get stuck under the lip or overhang. This may result in frequent reverse navigations or, in some cases, cause the unit to get stuck and not be able to move, even when it goes into reverse. This problem can normally be addressed by either raising the water level of the pool by 1" so the front bumper-wheels run along the lip of the pool, or by lowering the water level 1" so the front bumper-wheels and top edge of the Solar-Breeze NX are completely clear of the lip. It is best to have the front bumper-wheels riding above the pool skimmer inlet.



GETTING STUCK UNDER A ROCK OR OTHER OBSTRUCTION

Occasionally, pools may also have rock outcroppings or other obstructions where the nose of the Solar-Breeze NX will get caught underneath. As described above, this can sometimes cause the unit to get stuck and be unable to move. Once again, adjusting the water level up or down 1" will normally address this problem.

UNIT DOES NOT BACK UP FAR ENOUGH WHEN IN REVERSE NAVIGATION MODE

Occasionally you may observe that the unit does not back up far enough to get away from an obstruction when it goes into a reverse navigation mode. Possible causes and solutions for this behavior are outlined below:

1. The unit has become water-logged with water getting trapped in areas where it cannot escape. (See Section 10, Maintaining Buoyancy)
2. There are too many fragments of chlorine tablets in the chlorine tray, causing the unit to have too much weight and or blocking water flow through the chlorine tray while the unit is in reverse navigation mode. To solve this problem, remove at least one tablet from the tray, preferably leaving one on the left "port" side only.

FOR SUPPORT AND SERVICE,
PLEASE CONTACT:



11445 E Via Linda, Suite 2-354
Scottsdale, AZ 85259 USA

[Phone] 623-582-2825
[Fax] 480-452-1984

[Email] customerservice@solar-breeze.com

[Web] www.solar-breeze.com
www.solarbreezenx.com

LIMITED WARRANTY

The manufacturer of this product hereby warrants, subject to the conditions set forth below, that it will:

1. Provide a full refund of the original purchase price if the product proves to be unsatisfactory and is returned to the place of purchase within 30 days of the original purchase date.
2. Repair or replace the product, at its option, within 1 year of the original purchase date if it proves to be defective due to improper workmanship or materials. In order to obtain repairs or replacement under this limited warranty you must bring this product to the original place of purchase, contact CustomerService@Solar-Breeze.com, OR call the Warranty Service phone number listed below.
3. Repairs will be performed F.O.B. the manufacturer or authorized repair center.

The following conditions apply to this Limited Warranty:

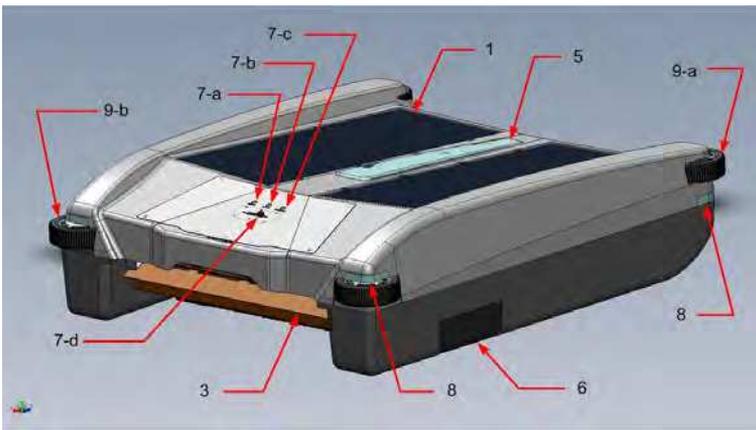
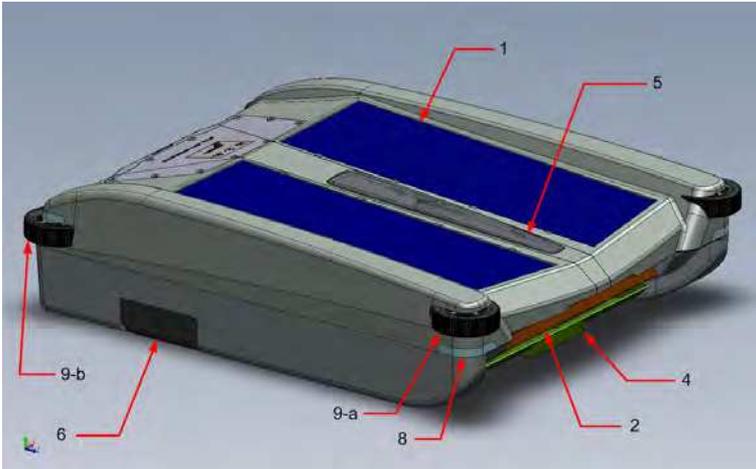
1. ORIGINAL PURCHASER. This limited warranty is limited to the original purchaser of this product from a retailer, manufacturer or authorized distributor.
2. UNAUTHORIZED REPAIR, ABUSE, ETC. This product shall not have been previously altered, repaired, or serviced by anyone other than a service facility authorized by the manufacturer or distributor to render such service. This product shall not have been subject to accident, misuse, abuse, casualty, vandalism, or operated contrary to instructions accompanying this product.
3. REGISTRATION. THIS WARRANTY, TO BE EFFECTIVE, MUST BE REGISTERED WITHIN 30 DAYS OF THE PURCHASE DATE BY EITHER REGISTERING ONLINE AT www.solar-breeze.com OR BY MAILING IN THE ENCLOSED WARRANTY REGISTRATION CARD.

4. EXCLUSIONS. This warranty does not apply to any Solar-Breeze NX unit that has been mistreated in any way, including if the unit has been:
- a. Submerged underwater sufficiently to get water inside the motors or electronic enclosures.
 - b. Treated roughly so as to break components by what is obvious abuse (such as breaking the solar panels or cracking the plastic housing, paddle-wheels or other components).
 - c. Stored or used in a pool of water where the pool surface freezes or becomes too foul to allow its use as a swimming pool, or allowed to remain in water during sleet, snow, tropical storms, or swimming activity.
 - d. Stored (out of water) with chemicals still remaining in its Chemical Dispenser, or in excessively hot or cold environments (below 32°F or above 130°F).

Except to the extent prohibited by applicable law, no other warranties, whether expressed or implied, including the warranties of merchantability and fitness for a particular purpose, shall apply to this product. Under no circumstances shall manufacturer or distributors be liable for consequential or incidental damages in connection with this product. To the extent manufacturer is prohibited by applicable law from excluding implied warranties, the duration of such implied warranties, which are not excludable, shall be 1 year from the date of the purchase of this product at retail.

Manufacturer neither assumes nor authorizes any representative or other person to assume for it any obligation or liability other than such as is expressly set forth herei

SO LAR-BREEZE NX C O M P O N E N T N A M E S



- 1. Solar Panel
- 2. Front Paddlewheel
- 3. Rear Paddlewheel
- 4. Collection Tray
- 5. Viewing window
- 6. Chemical Dispenser
- 7. Control Panel

- 7-a. POWER Indicator LED (green)
- 7-b. STATUS Indicator LED (red)
- 7-c. BATTERY Indicator LED (green)
- 7-d. ON/OFF Switch
- 8. Navigation Lights (4)
- 9. Bumper Wheels
- 9-a. Two Front Bumper wheels (powered)
- 9-b. Two Rear Bumper wheels (idlers)



If you are not satisfied with the operation of this product for any reason DO NOT return it to your place of purchase.

Instead, contact Solar Pool Technologies, Inc. at

[Phone] 623-582-2825

OR

[Email] customerservice@solar-breeze.com



HERE ARE SOME OTHER HELPFUL POINTS:

REGISTRATION

We recommend that you register your Solar-Breeze NX within 30 days from the date of purchase either online or by mailing with the enclosed Warranty Registration Card. This is required for our Limited Warranty to be valid on your unit. The six digit serial number can be found on the underside of the robot's solar panel. Simply slide the debris tray out from the front of the robot and you will see the six digit serial number. The six digit serial number can also be found on the side of the cardboard box next to the barcode.

HOW IT WORKS

The Solar-Breeze NX is a solar-powered pool cleaner that captures debris floating on the pool's surface before it settles to the bottom. The solar panels capture the sun's power runs the motors as well as charge the battery. The battery will store enough energy during the day to run the robot for several hours after the sun goes down. When the battery reaches its low energy level, the unit stops running, goes into a rest mode and waits for the sun to recharge the battery. When daylight comes it may run intermittently to hunt for the sun. This is a programmed intelligent machine. If it gets stuck, it will back up. It moves around the pool randomly and will intermittently change directions to ensure that it covers the entire pool.

CLEANING OUT THE DEBRIS TRAY

The debris tray should be removed and cleaned periodically, depending on the amount of debris in your pool. There is a clear window on top to check the amount of debris. The debris chamber volume is approximately twice that of your pool skimmer basket.

SANITIZER DISTRIBUTION

Solar Breeze NX is designed to hold a maximum of two large (3") chlorine tablets in the unit's chlorine tray so that it can systematically and uniformly dispense chlorine in your pool.

QUICK START GUIDE

IT'S SWIM TIME.
NOT SKIM TIME.



C O N G R A T U L A T I O N S on owning a Solar-Breeze NX, your intelligent robotic solar-powered pool cleaner.

Your pool will now be “swim-ready”, saving you time, money and also helping the environment.

QUICK START FOR YOUR SOLAR-BREEZE NX IS JUST THAT.

Simply place the unit in the pool, aim it towards open water, and turn the Power switch to the “ON” position. The battery should have enough energy stored to turn the paddle-wheels and the Solar-Breeze NX will begin moving around your pool collecting debris and filtering the water. If the red Status light is flashing when you first turn the Power switch to “ON”, this indicates a low battery charge and the unit may operate intermittently and stop in the sun to recharge when it finds a sunny spot in the pool. If the battery is low it will not run at night. You may also charge a unit in the sun with Power switch turned “OFF”. But, in extremely hot weather only charge the battery in the pool with the switch “ON”, to protect the battery.

If you have not already done so, we suggest that you read the Owner’s Manual in its entirety. Also, go online at WWW.SOLAR-BREEZE.COM to view the “How It Works” video that will give you more details concerning the operation of the Solar-Breeze NX robot.

See the next page for some tips to get you started.