



## **Guide for the use and maintenance OF YOUR ABOVE-GROUND POOL**

# REMINDER LIST

**Model:**

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**Height:**

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**Quantity liters:**

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**Year:**

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**Important notes:**

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# INTRODUCTION

This guide was developed to help you have a trouble-free pool. The information and instructions it presents are easy to understand and apply to above-ground pool installations of most types, shapes and sizes. It explains how to maintain an adequate level of chlorine in your pool and prevent problems. It covers all the procedures pertaining to your pool, from opening to closing, including water testing and maintenance.

At the end of the manual is a Troubleshooting Guide to help help you solve any problems that may arise. Of course, the experts at your nearest TRÉVI location are available to answer any questions not covered in this manual.

Refer to this guide and enjoy the pool season! Remember that, for your safety, certain precautions must be taken when handling and storing chemicals. Please be sure to read the warnings and dosages on all labels and carefully follow package directions. Never add two chemicals to the water at the same time. Always dilute products in water before pouring them into the pool. Don't forget that chlorine is corrosive to steel. And most importantly, keep all pool products out of the reach of children.

**CAUTION** : When using chlorine, always add the product to water. Do not pour water over chlorine, or an explosive reaction may result. A few drops of water are enough to trigger an explosion.

## POOL SAFETY

Common sense dictates certain safety rules around the pool. Read these rules at the beginning of each swim season. Here are a few rules we suggest :

### General safety precautions

- Avoid running, pushing or horseplay around the pool.
- Shower before entering the pool. This will reduce the amount of bacteria and contaminants in the pool.
- Limit diving to the diving board and the deep end.
- Keep a lifebuoy and a pole near the pool.
- Keep glass or fragile objects away from the pool.
- Do not use electrical appliances near the pool.
- Do not swim when there is thunder or lightning.

### Safety precautions for young children

- Identify shallow areas where very young children can play safely.
- Make sure children are under adult supervision at all times when in the pool.
- Install a fence around the pool. (Your municipality may require this by law.)

### Emergency preparedness

- Always have a well-stocked First Aid kit on hand (but out of the reach of children), stored in a place that is well-identified, easily accessible to adults and out of the reach of children.
- Keep a sheet outlining cardiopulmonary resuscitation (CPR) procedures near the pool. Make sure the sheet is waterproof.
- Encourage each member of your family to learn CPR technique.
- Memorize emergency phone numbers.



# POOL CAPACITY

## MEASURING POOL CAPACITY

As part of any pool maintenance program, you must first determine your pool's capacity in order to evaluate the amount of purifiers, shock treatment products and other products needed to balance and clean the water. If your pool is irregular in shape, consult your TRÉVI representative. Please note: the following calculations are in metric units (1 metre = 3.3 ft).

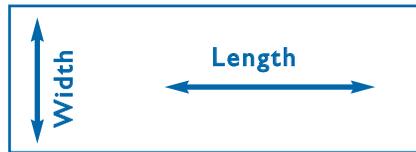
First, calculate the average depth of your pool using the following equation:

$$\frac{\text{depth at deepest end} + \text{depth at shallowest end}}{2} = \text{average depth}$$

Then, calculate the pool capacity using the following formulas.

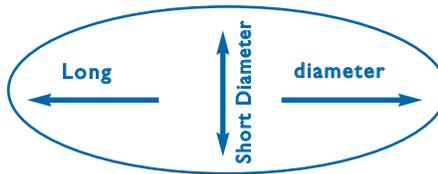
### Square or rectangular pool

$$\text{length (see above)} \times \text{width} \times \text{average depth} \times 1000 = \text{capacity (liters)}$$



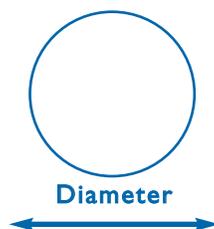
### Oval pool

$$\text{short diameter (see above)} \times \text{long diameter} \times \text{average depth} \times 785.4 = \text{capacity (liters)}$$



### Round pool

$$\text{diameter (see above)} \times \text{diameter} \times \text{average depth} \times 785.4 = \text{capacity (liters)}$$





## OPENING PROCEDURES

Depending on the weather, you may begin opening procedures at the end of April, ideally when a little ice remains on the surface. It is recommended that you open your pool as early as possible to prevent the chemicals added to the water in the fall from evaporating. Follow TRÉVI's opening instructions to maintain ideal water conditions all summer long !

### PREPARATION

If you followed our advice when you closed your pool and photographed, filmed or drew a diagram of your filter installation, your visual records will be very useful to you at this point.

- a) Check the general condition of your pool for the following problems: seized, noisy or leaking pump; cracked pump cover, pump basket or cover gasket; split hoses; broken valves; loose collars or clamps; dried up seals; damaged skimmer or return hole.
- b) Make any necessary repairs before continuing. Don't hesitate to contact your TRÉVI representative for guidance.
- c) Check the chemicals you have in stock. Discard outdated products and replace any that are missing before proceeding with the opening. If you have a test kit with vials, be sure to replace the **OTO** and **PHÉNOL** vials. For **AQUA CHECK** or **TRÉVI 3-IN-1 TEST KIT** tabs, check the expiry date.
- d) If the sand is more than three to five years old or if it was contaminated during the winter (i.e. if algae are present), change it. The gauge should also be changed every year.

### PROCEDURES

#### 1- REMOVING THE WINTER COVER

- Begin by removing as many leaves as possible using a leaf net.
  - Empty the water from the cover. There are four ways to do this:
    - using a submersible pump;
    - using a water ejector (with the garden hose);
    - using the pool pump (the vacuum hose should be connected directly to the pump intake);
    - by raising the water level to maximum under the winter cover (the filter must be connected to do this). This way, the debris on the cover will be easier to remove and there will be less risk of it falling into the pool.
- Remove the cover, rinse and dry. Store away for the summer.

#### 2- CONNECTING THE FILTER

- Remove the styrofoam kit from the skimmer.
- Remove the styrofoam cylinder from the bottom drain valve.
- If the middle of the valve was removed, screw it back in place.
- Reconnect the valve or skimmer hose to the front of the pump, the hose on the top of the pump to the PUMP filter and the one on the RETURN filter to the water return. Make sure you use liquid silicon to lubricate the pump cover and chlorinator cover gaskets (never use Vaseline).
- Connect the backwash hose to the WASTE filter.
- Put a new gauge in place using teflon tape. It should indicate "O", no more, no less.
- Reinstall the glass bottle (if applicable).
- Put teflon tape around all drain plugs (pump, filter, chlorinator) and reinstall.
- Reconnect the water heater if applicable.



## OPENING PROCEDURES

### 3- CLEANING

- Clean the dirt ring around the pool using **TRÉVI VINYLE NET**.
- Adjust water level to  $\frac{3}{4}$  of skimmer.
- Meanwhile, reinstall accessories: skimmer basket and cover, light (when the water level is above the light), solar blanket winder (but not the blanket for now), water return ring and eyeball fitting, ladder, thermometer, etc.
- Remove as much debris as possible from the pool using a leaf net or the **BLUE DEVIL**.
- Start the motor and make sure there is no apparent leak or air in the motor. As long as there is debris, do not put the valve on **BOTTOM DRAIN** but rather on **SKIMMER**.
- Pour **TRÉVI GO** directly into the water and allow to filter for 12 hours (this product is included in your Opening Kit).
- Backwash for 5 minutes in order to loosen up and clean the sand in the filter.
- Vacuum the pool. If the pool is very dirty, turn valve of the filter to **DRAIN** or **WASTE**. If you have a **REGENEX** filter, remove cartridge to avoid getting it dirty. Remember to leave the garden hose open in the skimmer to keep water level at  $\frac{3}{4}$  of the skimmer.
- Backwash two or three times.

### 4- OPENING KIT

**Note:** To find out which **PERMA SOLAIRE** kit to use for your above-ground pool, refer to the directions on the packaging or ask your TRÉVI representative.

- Vacuum the pool in **WASTE** or **DRAIN** position.
- Check alkalinity and adjust it to between 80 ppm and 120 ppm.
- After alkalinity has been set, adjust the pH to between 7.2 and 7.6. If pH is above 7.6, add **PH-**. If the pH is below 7.2, add **PH+**.
- Pour **TRÉVI GO** directly into the water and allow to filter for 12 hours.
- Pour **TRÉVI ALGICIDE 40%** directly into the water and allow to filter for 4 hours.
- Dilute **TRÉVI CHOC** into a container of hot water and mix well. Pour directly into the water.
- After 24 hours, add **TRÉVI CLAIR**.
- After 24 hours, vacuum, ideally in **WASTE** or **DRAIN** position.
- Start adding chlorine following instructions on the container.
- One week later, when conditions have stabilized, add **TRÉVI STAB** (if necessary).
- Once all these procedures have been completed, put the solar blanket on the pool.



## WATER TREATMENT AND TESTING

The following section is designed to help you test your pool water. It outlines which items need to be checked, which products are recommended and how to solve problems. Of course, if a problem persists, do not hesitate to consult our analysts and technicians. They will be glad to help.

### PREPARATION

To test your pool water properly, you need a reliable test kit that is quick, accurate, easy to use and affordable such as **TRÉVI's 3-IN-1 TEST KIT**.

### RECIPE FOR SUCCESS

The following procedures will help you keep your pool water in perfect condition and minimize the need for testing.

- Change your filtering sand every three to five years. If you use **TRÉVI FILTRE** regularly you could change filtering sand every five years.
- Backwash weekly or sooner if the pressure gauge registers a high reading.
- Never pour two chemicals in the water at the same time.
- The use of a timer on your filtering system is not recommended as it could lead to a water imbalance that would be costly to correct. Instead, choose an energy-saving dual-speed pump (running on low speed during the night).
- Close your pool as late as possible in the fall, keeping the water clean and maintaining optimum alkalinity, and open it as early as possible in the spring.
- Check alkalinity and hardness every week or, if you have an artesian well, each time you add water.
- Check pH regularly and adjust as needed.
- Add algaecide 40% to the pool at the beginning of the season and 12% on a weekly basis.
- Add chlorine to the pool regularly and do a weekly shock treatment.
- Make sure the **OTO** and **PHÉNOL** vials are replaced every year.
- Check the expiry date on the bottle of **AQUA CHECK** or **TRÉVI 3-IN-1 TEST KIT** strips.
- Check if the sand is dirty, worn smooth or contaminated (presence of algae). If so, clean with **TRÉVI FILTRE**, backwash or change the sand (3 to 5 years)
- Make sure that algaecide is added regularly and in the recommended quantity and concentration
- Check that the filtering system is on at least 18 hours a day (or non-stop if your system has a chlorinator or purifier).



# WATER TREATMENT AND TESTING

## TEST ITEMS

**Note:** The items appear by order of importance and must be handled in that order, since changes to one item may affect the next. For a complete analysis, use **TRÉVI 3-IN-1 TEST KIT** strips. You can also take a pool water sample to your TRÉVI store on a regular basis for a free analysis.

### 1- TOTAL ALKALINITY

Total alkalinity is the measure of carbonates, bicarbonates and hydroxides dissolved in the water such as sodium and potassium. The more there are, the more alkaline the water. The less there are, the more acidic the water. Apart from the lack of chlorine, alkalinity is the main cause of water problems. When alkalinity is too low, a chlorine smell is noticeable, eyes burn, algae forms, the pH level becomes unbalanced and chlorine evaporates quickly. Caution: Your water will remain very clear in spite of this. When alkalinity is too high, skin irritation results, the chlorine stops working, the pH becomes unbalanced and the water becomes cloudy.

**Note:** Avoid using baking soda to increase alkalinity as the effect is only temporary. If your pool water comes from an artesian well, the water will be alkaline because the alkalinity of well water is usually between 180 ppm and 300 ppm.

**Normal parameters for alkalinity are between 100 – 120 ppm.**

**To increase alkalinity,** use **ALCA+**.

**To reduce alkalinity,** use **TRÉVI CUR** (muriatic acid or hydrochloric acid). This product should be added at night.

### 2- pH

pH, or potential of hydrogen, is the measurement of acids and bases in the water. The higher the pH, the more basic the water and the lower the pH, the more acidic the water. An incorrect pH prevents the chlorine from working properly and causes cloudy water. Do not confuse the acidity of alkalinity with pH acidity. Acidity of alkalinity is treated using sodium bicarbonate (ALCA+), whereas pH acidity is treated using sodium carbonate (TRÉVI PH+). The ideal pH level is between 7.4 and 7.6.

**To increase pH:** Use **TRÉVI PH+**.

**To reduce pH:** Use **TRÉVI PH-**. Muriatic acid or hydrochloric acid are not recommended as they also lower alkalinity.

### 3- HARDNESS

Water hardness depends on the water's calcium and magnesium content. Several factors impact the results of the hardness test, including alkalinity, pH and the amount of chlorine. It is therefore important that all parameters be set prior to testing hardness. If hardness is too low, the water will be too corrosive. If hardness is too high, scale will build up.

**Normal parameters for hardness are between 200 – 240 ppm.**

**To increase hardness,** use **TRÉVI CALCIUM** or **CAL+**.

**To reduce hardness,** use **TRÉVI METALOC** or any other product used to trap metals in the water.



## WATER TREATMENT AND TESTING

### 4- CYANURIC ACID

Cyanuric acid is commonly known as **stabilizer or conditioner**. Properly stabilized water will save a lot of chlorine over the course of a season. When cyanuric acid levels are too high, the effectiveness of chlorine is reduced and the reading remains high even when chlorine is added. When cyanuric acid levels are too low, chlorine is quickly destroyed by the sun's ultraviolet rays and has to be added more frequently.

**Normal parameters for cyanuric acid are between 30 - 50 ppm.**

**To increase cyanuric acid, add TRÉVI STAB.**

**To reduce cyanuric acid, add water to dilute it.**

### 5- FREE CHLORINE

Chlorine is used to eliminate bacteria and burn algae in the water. It is a powerful oxidizing and disinfecting agent. When there is too much chlorine, eyes burn, there is a smell and bathing suit colours fade. When there is not enough chlorine, bacteria are not eliminated; the water becomes cloudy and chloramines form. There is also a risk of skin irritation.

**The normal level for free chlorine is 1.0.**

### 6- COMBINED CHLORINE

Combined chlorine consists of small bacterial particles that are contaminated by organic matter (skin, perspiration, saliva, urine, cosmetics, leaves and dust, etc.). These contaminants react with free chlorine to form combined chlorine, or chloramines. Test kits that use small tablets to detect combined chlorine are not very accurate. A weekly shock treatment is recommended as a preventive measure.



## WATER TREATMENT AND TESTING

### CHEMICALS

Here is a list of the main chemicals used for pool maintenance along with a description of their properties. Be sure to carefully follow the directions on the bottles or containers. When in doubt, ask your TRÉVI representative. During the swimming season, always wait 4 hours before adding a second product.

**Note** : Use products to prevent problems in order to avoid having to use products to correct problems!

### TRÉVI ALGAECIDE

These chemical compounds are used to prevent or eliminate the formation and growth of algae. To achieve the minimum starting quantity or in case of severe infestation, a 40% concentration is used. Maintenance requires a 10% concentration but the regular use of 40% algaecide is much more effective due to the higher concentration. There is no test kit to measure the quantity of algaecide in the water. We do not recommend the use of low-concentration algaecides. Because they are weaker, you have to add more, eliminating any cost savings. Never put algaecide in the skimmer (harmful to the sand) if you have a chlorinator or DURATION tablets, TREVI TAB OR TREVI MAGIK, as this could cause a chemical reaction!

### TREVI ALUM

(Alum) Flocculating agent used to keep pool water clear and bright. Used mainly when the pH is very high. (It is preferable to increase the pH to 8 before adding this product.) It forms a gelatinous precipitate that settles at the bottom of the pool. Vacuum on DRAIN or WASTE to eliminate deposits. For sand filters only. Tends to upset water balance.

### TREVI RING REMOVER

This is a degreasing product used to prevent a greasy ring from forming on the pool liner, or during a backwash to degrease the filter. It also saves cleaning and scouring the liner. May be added while the pool is being used.

### TREVI ANTI FREEZE

Non-toxic antifreeze for your pool's plumbing and pipes. Prevents burst and damaged pipes caused by freezing.

### TREVI STAIN REMOVER

Highly effective cleaner. Eliminates stains caused by scale and metals such as iron, copper and manganese. Use as needed or weekly as a preventive measure.

### TREVI BLUE

Reduces the requirement for chlorine and other chemical products. Controls algae, stabilizes the pH and cleans the water.



## WATER TREATMENT AND TESTING

### TRÉVI BLUE

Reduces the concentration of chlorine, controls algae, stabilizes the PH and clarifies water.

### TRÉVI BROME

(Bromo-chloro-dimethylhydantoin). This product is an effective oxidizing agent, although more expensive than chlorine. It eliminates bacteria and algae. It is used mostly for indoor pools and heated pools and to avoid irritation to very sensitive skin. Place bromine tablets in the brominator or floating dispenser every week. Do a weekly shock treatment using chlorine-free **TRÉVI OXY**.

### TRÉVI CALCIUM

(Calcium chloride) Used to increase water hardness. Prevents corrosion and damage to pool surfaces. Always dilute this product in water prior to adding.

### TRÉVI CAT or TRÉVI ALCA PLUS

(Sodium bicarbonate) Increases water alkalinity. It is also used as a pH stabilizer. This product is harmless and you may swim immediately after using it. Dilute in water and pour around the perimeter of the pool in a thin trickle.

### TRÉVI CHOC

(Calcium hypochlorite 65%) Oxidizing agent. Eliminates bacteria and algae. For superchlorination treatments. It is used to eliminate chloramines, burn out algae or achieve a minimum chlorine level in the water.

**Note:** When diluting **TRÉVI CHOC** in water (hot or warm), be sure to add product to water as the reverse could cause an explosive reaction.

**Caution:** A few drops of water are enough to trigger an explosion.

### TRÉVI CHLORINE

(Calcium hypochlorite 65%). Oxidizing agent. Eliminates bacteria and algae. Granulated chlorine. Do not place in the skimmer as it tends to cause scale buildup inside the filter. Also make sure that no undissolved powder settles directly on the liner, causing it to fade. Dilute in water and pour around the perimeter of the pool. Use daily.

### TRÉVI CUR

(Muriatic acid). This product is very powerful and highly toxic. It is used to lower alkalinity. Always wear full protection, including safety goggles and rubber gloves, when handling. Keep away from stainless steel accessories, which could rust when in contact with the acid. Pour in small columns. When a cloud forms, wait for it to disappear before pouring more elsewhere. Restart the pump 12 hours later. Check pH. Ideally done at night.

### COMPLETE KIT 2 STEPS IN 7 DAYS

Everything for the simplified maintenance of your swimming pool! Pre-measured portion for easy and safe application to help you to save time!

Contains:

- 12 x Trévi blue 50g,
- 12 x Trévi Hyper Oxyder 300g,
- 12 x Oxyder 450g,
- 12 x Trévi Solution 250g,
- Instruction sheet.

All-in-one kit easy to use.



## WATER TREATMENT AND TESTING

### DURATION

Stabilized concentrated chlorine (stabilized calcium hypochlorite) compressed in the shape of pucks and placed in the skimmer or in a floating dispenser. Remember to remove empty plastic wrappers from the basket.

**Caution:** Never use in a chlorinator. Replace when completely dissolved

### TRÉVI FILTRE

(Trisodium phosphate) Filter sand cleaner. This product cleans filter sand by eliminating oil and grease build-up. Improves filter performance. Monthly maintenance is recommended.

### TRÉVI GO

Degreaser. Use when opening pool to simplify cleaning and help remove stubborn dirt on the bottom and sides of the pool. Allow to filter for at least 12 hours, then vacuum.

### TRÉVI LITHIUM SHOCK

(Lithium hypochlorite). This product is a non-stabilized shock treatment. It is used in combination with bromine. Ideal for heated indoor pools.

### TRÉVI MAGIK

(Trichloro-s-triazinetrione). Highly effective oxidizing agent. Eliminates bacteria and algae. Stabilized concentrated chlorine in the form of handy 250-gram sticks that are simply placed in the skimmer. May also be used in a floating dispenser. Replace when completely dissolved.

**Caution:** Do not place in the skimmer if you have a water heater.

### TRÉVI METALOC

This product is used to eliminate metals such as iron, copper, manganese, nickel and calcium from water in order to reduce hardness. It also prevents staining caused by scale buildup, rust and corrosion. It is poured directly into the water.

### TRÉVI OXY

(Monopersulfate). Chlorine-free shock treatment (oxone). This product contains no calcium or chlorine. It introduces oxygen in the water and is not altered by the action of the sun. Use as a shock treatment when you want to swim right away. This product does not eliminate bacteria. An oxidizing agent must be used. **AQUA CHECK** or **TRÉVI TEST 3 IN 1** should be used instead of **OTO** or phenol, as these do not detect it. It is poured directly into the water.

### TRÉVI WINTER ALGAECIDE

Algaecide for the winter. Prevents the formation of algae in the fall and spring.



## WATER TREATMENT AND TESTING

### TRÉVI PH-

(Sodium bisulfate). Helps decrease the water's pH level. Dilute in water and pour into the pool.

### TRÉVI PH+

(Sodium carbonate). Used to increase the water's pH level. Dilute in water and pour into the pool.

### TRÉVI STAB

(Cyanuric acid). This product is a chlorine and pH stabilizing compound. It prolongs the action of available chlorine by protecting it from the sun's destructive ultraviolet rays. This product is not soluble. Here's a tip to make it dissolve slowly: put it in a sock (nylon or other) tied to the ladder. Don't use too much of the chlorine will no longer be effective and you will have to do several backwashes to get rid of it. Wait at least 48 hours before backwashing.

### TRÉVI STOP

Concentrate used for winterizing your pool. Helps dislodge stubborn dirt from the bottom and sides of the pool. Prevents the formation of a black ring due to stagnant water.

### TRÉVI SUPER CLEAR

Highly concentrated water clarifier. More effective than alun, this product helps suspended particle coagulation to improve filtering and brighten water. This product dissolves quickly and completely and does not affect pH. Use as needed or weekly.

### TRÉVI SUPER FLOC

Highly concentrated thickener in the same family as alun, recommended for sand filters only. When used regularly, this product brightens the water. Use as needed or weekly. The required quantity is 70 ml per square foot of filtration (indicated on your filter).

### TRÉVI TAB

(Trichloro-s-triazinetrione) Oxidizing agent. Eliminates bacteria and algae. Stabilized concentrated chlorine in the form of tablets, for use in a chlorinator. May also be placed in a floating chlorine dispenser. Tablets should not be placed directly in the skimmer to avoid excessive concentration. Replace when completely dissolved. Caution: Do not place in the skimmer if you have a water heater.

### TRÉVI VINYLE NET/TREVI VINYL CLEANER

Highly active cleaner for your pool's vinyl liner. This product is ideal for rings and stains. Apply and rub gently.



## MAINTENANCE

Maintenance is key to keeping your pool in good condition and your water clear and clean. Read the following instructions carefully and follow all the steps. You only need a few minutes per day to maintain ideal pool conditions.

### BACKWASH

Backwashing is recommended once a week. It should be done when the pressure gauge reading is 5 - 6 lbs above normal, as well as before and after each vacuuming. This operation cleans the sand in the filter. Note that the normal pressure usually ranges between 5 and 18 lbs. The steps are as follows:

- Never vacuum on BACKWASH (except in the spring, when the water might contaminate the sand).
- Uncoil the backwash hose on its entire length and turn off the pump.
- Place the filter handle on BACKWASH.
- Activate the pump for two to three seconds and turn it off. This helps get the hose unstuck, if necessary, to ensure that it does not perforate or split under the full pressure.
- Activate the pump for three minutes on BACKWASH.
- Turn off the pump between each step, reposition handle and restart pump.
- Rinse for one (1) minute and place the handle back on FILTER.

### VACUUM

- If the pool has a bottom drain, place three-way valve handle on SKIMMER to run only skimmer.
- Backwash.
- Make sure the water level is ideal, reaching three-quarters of the way up the skimmer.
- Connect the vacuum hose to the vacuum head.

**Note :** If you have a vacuum hose with a swivel end, connect that end to the vacuum head rather than in the skimmer to avoid drawing air. The swivel end also prevents the hose from tangling when the vacuum head is turned at the bottom of the pool.

- Connect the telescopic pole to the handle on the vacuum head.
- Lower the vacuum head to the bottom of the pool.
- Place the non-swivel end of the hose in the return hole while firmly holding the pole. The hose will fill with water and air will come out from under the head. When there are no more air bubbles, the hose is full of water and ready to be connected to the skimmer. Turn off the pump.
- Place the vacuum adapter on the skimmer basket and place the non-swivel end of the vacuum hose on the adapter. If the vacuum has an elbow, place it on the adapter and connect the hose to the elbow.
- For regular maintenance, leave the filter handle on FILTER.
- If the pool is very dirty, place the filter handle on DRAIN or WASTE and turn on the garden hose in the skimmer so that there is always plenty of water, otherwise the pump will draw air.
- For this step, do not forget to uncoil the backwash hose (if necessary).
- Activate the pump and vacuum. Backwash again and empty the skimmer and pump baskets.



## MAINTENANCE

### CHLORINATOR

This automatic dispenser controls the amount of chlorine going into the water. It is designed for chlorine pucks that last 5 to 7 days. The following precautions must be taken:

- Never place chemicals (i.e. algaecide, shock treatment, etc.) directly in the skimmer as contact with chlorine could create a very dangerous chemical reaction.
- Never put granulated chlorine in the chlorinator as this could cause an explosion.
- Turn off the pump before opening the chlorinator cover.
- If the cover leaks, check the seal for cracks.
- A small flapping sound in the chlorinator is normal and is caused by the one-way valve.
- **IF YOU USE A CHLORINATOR NEVER USE A TIMER AND NEVER TURN OFF THE PUMP DURING A LONG PERIOD OF TIME.**

### BOTTOM DRAIN

This drain maintains the bottom of the pool, eliminating the need to vacuum, except at the beginning of the season or in case of staining or fine debris. It also warms the water as it sends the water from the bottom to the surface. To check the bottom drain, place three-way valve on SKIMMER and activate the pump. Remove basket and put your hand in the skimmer; you will feel a strong suction. Check if water is flowing normally from the return hole. Place the three-way valve on BOTTOM DRAIN and activate the pump. Remove basket and put your hand in the skimmer; you should feel no suction. Check again if water is coming out normally from the return hole. If so, the drain is working properly. (If water is not drawn by the skimmer, it means it is being drawn by the drain and, consequently, it comes out the return hole.) It is normal for the swirling action to be weaker than seen in the store due to various factors, including pool size, size and power of pump and orientation of return hole.

### PRESSURE GAUGE

This pressure measurement instrument is essential, although not very durable. It indicates when to do a backwash, whether the pump is drawing and whether there is debris inside the pump. It must be replaced on an annual basis.

- **Normal pressure**  
Normal pressure varies between 5 and 18 from one gauge to the next as many factors come into play. The important thing is to determine what is normal for your system. To do this, at the beginning of the season, make sure the gauge is in good condition and then backwash for five minutes. Place the handle back on FILTER, make sure the pump is not drawing air and note the pressure on the gauge. This is your normal pressure for the year. The normal pressure may change from year to year as the sand changes are made to the pump, or a new gauge is installed.
- **Low pressure**  
If the pressure is lower than normal, check if the pump is drawing air, if the skimmer and pump baskets are dirty or if there is debris. Check that eyeball fittings are in place in the return hole. It is normal for the pressure to drop slightly when vacuuming.
- **High pressure**  
First backwash to clean the sand. Make sure that the handle is on FILTER and that the eyeball fitting on the return hole is not blocked. If you have just installed a water oxygenator, a slight increase in pressure is normal. Check that propeller is not blocked with pine needles. Do a BACKWASH when pressure is above 25-30 lbs.



## MAINTENANCE

### PUMP

The pump is the heart of the filtration system. A more powerful motor does not guarantee that water is being filtered adequately. Flow rate is what matters. The higher and faster the flow rate, the less adequate the filtering. Pump maintenance requires that the strainer basket be emptied. To do this:

#### With bottom drain

- Turn off the pump and place three-way valve on OFF.
- Place the filter handle on CLOSE or TEST.
- Remove the cover.
- Empty debris and rinse; use garden hose to rinse pump.
- Put the basket back in its place and make sure the seal is properly positioned before closing the cover.
- Put the three-way valve and filter handle back to their normal positions.
- Turn the pump back on.

#### Without bottom drain

- Turn off the pump.
- Place a cloth (or squash ball) in the skimmer hole.
- Proceed as above.

**NOTE:** When doing maintenance on the motor or pump, take advantage of the fact they are open to lubricate or replace the seals, gaskets, etc. as needed.

### SOLAR BLANKET

A solar blanket is very useful. It helps keep the water warmer to extend the bathing season. The thicker the blanket, the more resistant it is and the longer the warranty. Welded joints are recommended because they are sturdier than sewn joints. To keep your solar blanket as long as possible (3 to 5 years), take the following precautions:

- Place it bubble side down, i.e. in the water.
- Remove the blanket when doing a shock treatment or using muriatic acid or when the chlorine level is too high.
- Remove the blanket when it is very hot, but put it back on at night.
- When removing the blanket, drain it as long as possible, cover it with a protective cover and store it in the shade.
- When rolling up the blanket using a winder, make sure it does not rub against the edge of the pool.
- If the blanket turns with the water flow, attach another strap and secure it to the ladder.

### REGENEX FILTER

Diatomite filter. Filters 3 to 5-micron particles compared to 50 microns for sand filtration systems. Reduces the use of chemicals.

### CARTRIDGE FILTER

The procedure varies depending on the model. Please refer to user guide. Drain the filter and store inside if you wish. Clean the element with a garden hose and reposition it inside the filter. Remove drainage plug.

### DIATOMACEOUS EARTH FILTER

Drain the filter and store inside if you wish. Remove drainage plug.

### QUARTZ FILTER

Use same procedure as for sand filter.



## CLOSING PROCEDURES

To make opening as easy as possible in the spring, it is recommended that you close your pool as late as possible, ideally when the water temperature drops to about 10°C (50° F). It is recommended to have a complete test of your water done in-store. Adjust alkalinity to between 100 and 120 ppm and pH to between 7.2 and 7.6 in order to maintain neutral water. By maintaining the water and the bottom clean longer, less dirt will accumulate and less bacteria and algae will form, and the vinyl liner will be exposed to the sun's rays for a shorter period of time and therefore will be less likely to dry up and fade. Make a drawing or take a photograph of your filtering system. This will make it easier for you to put everything back come spring. It is important to check that the water level is constant in the pool in order to detect any leakage. Any repairs must be done prior to winterizing, because with freezing temperatures, a layer of ice will form, exerting pressure on the pool walls that could cause serious damage. In order to maintain clear water and protect equipment against freezing, do not turn off the filtering system prior to winterizing the pool.

### 1- PROCEDURES (FOR POOLS WITH THREE-WAY VALVE)

- Add half a container of **TRÉVI STOP** (optional) and wait 12 hours.
- Vacuum and clean liner if necessary using **TRÉVI VINYL NET** or **TRÉVI NET**.
- Place handle on **BACKWASH** position and run the pump for 4 minutes.
- During backwash, pour 2 litres of **TRÉVI FILTRE** (optional) in the skimmer and close the bottom drain. Do not add this product if you have a diatomite filtering system.
- Place filter handle on **DRAIN** or **WASTE**.
- Lower water level to **20" below the bottom of the skimmer**.
- Remove water return and skimmer lines from the pump. (Use hot water if they are difficult to remove).
- Raise the line in order to secure it to the skimmer using small cords or tie wraps.
- Place bottom drain valve on 1/2 - 1/2 position.
- Insert the roll all the way into the skimmer pipe.
- Insert a styrofoam chunk into the skimmer.
- Remove gauge, bottle, filter drain plug, ladder, baskets and skimmer door.
- Drain filter and pump. Make sure they are empty. Do not replace drain plugs.
- Remove screws holding the base of the pump and store pump indoors for the winter.
- Place filter handle on **WINTERIZE** or **CLOSE**.
- Flush any chemicals or water from the chlorinator to avoid damage. Remove drain plugs. Rinse.

### 2- SPECIAL EQUIPMENT

- **Heat pump or propane heater**  
Turn the heat pump control knob to OFF and deactivate the corresponding breaker. Disconnect fittings and blow out or vacuum water lines. This will prevent ice from forming and expanding inside the fittings during the winter. Rinse inside the heat exchanger in order to eliminate any chlorine deposit which could corrode the zinc and copper alloy. We also suggest that you add non-toxic antifreeze to both exchanger pipes.
- **Gas or oil water heater**  
To shut a gas water heater, first close the valve next to the water heater, then close the valve on the tank, leaving gas in the line for a quicker and easier reopening in spring. To shut an oil water heater, remove the plug and let water drain out. Do not replace the plug for the winter. We suggest that you add non-toxic antifreeze to both exchanger pipes.



## CLOSING PROCEDURES

- **REGENEX FILTER AND CARTRIDGE FILTER**

Remove cartridge and rinse with clear water. Remove drain plug to empty and rinse tank. Clean cartridge using **SPA SOINS** cartridge cleaner. Soak for 12 hours in a bucket as indicated on the container, rinse and let dry. When the cartridge is dry, brush it lightly. We suggest that you protect your Regenex system from freezing by storing it indoors for the winter.

- **LUMI-O lights**

Unplug electrical unit. Remove bulb, apply petroleum jelly (Vaseline or Jack's Multilube) on the socket and put back in place.

- **HAYWARD LIGHTING**

for above-ground pools: lower the water level to that recommended by Trevi. Leave the lighting in place.

### 3- POOL CLOSING KIT

**Note:** To find out which **PERMAPOLAR** kit to use for your above-ground pool, refer to the directions on the packaging or ask your TRÉVI representative.

- Place the **POLAR CONDITIONER** in the styrofoam ring, make a hole in two of the four bumps and leave it to float in the pool.
- Dilute **PERMA 180** in a bucket of warm water and pour directly into the water all around the pool. Wait 4 hours.
- Pour **PERMACIDE** directly into the water. Wait 4 hours.
- Pour the other half of the **TRÉVI-STOP** container (optional) directly into the water all around the pool in order to make the ring of dirt around the pool easier to clean in the spring.
- Before the first frost (October), add **TRÉVI ANTIGEL** into the pipe that goes to the bottom drain through the three-way valve

### 4- INSTALLING THE WINTER COVER

TRÉVI recommends the use of a waterproof winter cover because it protects the vinyl liner from the sun's rays and the water from debris, dirt and leaves. It also prevents chemicals from evaporating, which helps keep the water clearer until it freezes. Tie ropes in an X shape over the cover from one side of the pool to the other to prevent it from lifting. Add an inch or two of water on the cover.

#### **IMPORTANT:**

Abundant rain in the fall could raise the water level after you have closed your pool. If so, you will have to lower the water level back to 20" below the bottom of the skimmer. A high water level, combined with freezing action, will damage the wall near the skimmer, the skimmer and the structure. Your pool warranty could be rendered void.

In addition, if you use a winter cover with a 3-foot overlap, make sure you remove any water that collects on it. Excess pressure on the winter cover could damage the pool and, in doing so, void the warranty. We suggest that you remove the cover before the hard freeze. Winter covers with a 6-foot overlap, on the other hand, have enough give to withstand pressure caused by snow accumulation.



## TROUBLESHOOTING GUIDE

### PUMP PROBLEMS

PROBLEM	CAUSE	ACTION
Pump draws air (bubbles under the cover or suction noise)	<ul style="list-style-type: none"> <li>Skimmer door stuck</li> <li>Water level too low</li> <li>Cracked skimmer</li> <li>Bottom drain valve defective, improperly screwed or on OFF</li> <li>Loose collars</li> <li>Perforated hose</li> <li>Pump cover loose or cracked</li> <li>Cover seal improperly positioned or dried up</li> <li>Adapter cracked or improperly screwed</li> <li>Pump empty following backwash or vacuum</li> </ul>	<ul style="list-style-type: none"> <li>Free skimmer door</li> <li>Raise water level</li> <li>Replace skimmer</li> <li>Replace, screw or turn on valve as needed</li> <li>Tighten collars</li> <li>Replace hose</li> <li>Tighten or replace pump cover</li> <li>Reposition or replace seal</li> <li>Screw or replace adapter</li> <li>Reprime pump by filling</li> </ul>
Motor will not start (no noise)	<ul style="list-style-type: none"> <li>Breaker tripped or defective outlet</li> <li>Connection made using an extension cord or wire other than 12 gauge</li> <li>Motor wire cut, too dry or not uncoiled</li> </ul>	<ul style="list-style-type: none"> <li>Check breaker or try another outlet</li> <li>Connect directly in the outlet, with no extension cord (use 12 gauge wire)</li> <li>Replace motor wire or uncoil it completely</li> </ul>
Motor seized (noise)	<ul style="list-style-type: none"> <li>Pump has not worked for a long time</li> <li>Bearings worn</li> <li>Motor wire stuck in the shaft</li> <li>Defective condenser</li> </ul>	<ul style="list-style-type: none"> <li>Bring the pump in to TRÉVI</li> <li>Bring the pump in to TRÉVI</li> <li>Open the housing to free the wire</li> <li>Bring the pump in to TRÉVI</li> </ul>
Pump leaking between the strainer and the motor	<ul style="list-style-type: none"> <li>Defective seal</li> <li>Defective motor housing seal</li> <li>Loose housing screws</li> <li>Cracked strainer</li> </ul>	<ul style="list-style-type: none"> <li>Bring the pump in to TRÉVI</li> </ul>
Noisy pump (purring)	<ul style="list-style-type: none"> <li>Ball bearings worn</li> </ul>	<ul style="list-style-type: none"> <li>Bring the pump in to TRÉVI</li> </ul>
Noisy pump (noise inside)	<ul style="list-style-type: none"> <li>Dirt stuck inside</li> <li>Damaged propeller</li> <li>Loose propeller plastic ring</li> <li>Pump not level</li> </ul>	<ul style="list-style-type: none"> <li>Bring the pump in to TRÉVI</li> <li>Bring the pump in to TRÉVI</li> <li>Bring the pump in to TRÉVI</li> <li>Level pump. If the pump is installed directly on cement, a noise is normal</li> </ul>
Breaker tripped	<ul style="list-style-type: none"> <li>Connection made using an extension cord or wire other than 12 gauge</li> <li>Incorrect motor amperage</li> <li>Motor shaft seized</li> <li>Motor wire too dry or not uncoiled</li> </ul>	<ul style="list-style-type: none"> <li>Connect directly in the outlet, with no extension cord (use 12 gauge wire)</li> <li>Bring the pump in to TRÉVI</li> <li>Bring the pump in to TRÉVI</li> <li>If the wire needs replacing, bring the pump in to TRÉVI</li> </ul>



## TROUBLESHOOTING GUIDE

### FILTER PROBLEMS

PROBLEM	CAUSE	ACTION
Dirt returning to the pool	<ul style="list-style-type: none"> <li>• Fine dirt or debris going through the sand</li> <li>• Sand too old</li> </ul>	<ul style="list-style-type: none"> <li>• Vacuum on DRAIN or WASTE</li> <li>• Change the sand</li> </ul>
Sand going back into the pool	<ul style="list-style-type: none"> <li>• Temporary problem</li> <li>• Octopus problem</li> </ul>	<ul style="list-style-type: none"> <li>• Vacuum on DRAIN or WASTE</li> <li>• Replace sand and octopus</li> </ul>
Small trickle of water coming out of the backwash hose in FILTER position	<ul style="list-style-type: none"> <li>• Handle not properly set</li> <li>• Handle spring flattened</li> <li>• Seal on by-pass device worn</li> </ul>	<ul style="list-style-type: none"> <li>• Set handle properly</li> <li>• Change handle spring</li> <li>• Change seal</li> </ul>
A lot of water coming out of the backwash hose in FILTER position	<ul style="list-style-type: none"> <li>• Hoses reversed</li> </ul>	<ul style="list-style-type: none"> <li>• Make sure hoses are properly connected</li> </ul>
Water leaking under the head collar	<ul style="list-style-type: none"> <li>• Improperly tightened collar</li> <li>• Cracked seal or head</li> </ul>	<ul style="list-style-type: none"> <li>• Tighten collar properly</li> <li>• Change seal or head</li> </ul>
Water leaking from the handle	<ul style="list-style-type: none"> <li>• Filter handle not in proper position</li> <li>• Seals on by-pass device worn</li> </ul>	<ul style="list-style-type: none"> <li>• Place filter handle in proper position</li> <li>• Change seals</li> </ul>
Noise in filter head	<ul style="list-style-type: none"> <li>• Filter handle not in proper position</li> <li>• Pump draws air</li> <li>• Foreign matter inside the head</li> </ul>	<ul style="list-style-type: none"> <li>• Place filter handle in proper position</li> <li>• Find air leak</li> <li>• Dismantle head and remove foreign matter</li> </ul>

### GENERAL PROBLEMS

PROBLEM	ACTION
Pool losing water	Determine origin of leak (hole in liner, cracked skimmer, cracked return hole, liner split at the seam, leak between the wall and the liner at the skimmer or return hole, water coming out of the backwash hose in FILTER position, leaking pump, leaking lights, etc.)
Liner torn or split	If the hole is small, patch it (temporary solution) or have the liner welded. If the liner is too old (more than five to seven years), it will have to be replaced.
Liner unhooked	Remove the border and reposition liner. The border is usually changed as well.
Creases in liner	Ask for a quote as a weld may be required or the liner may need to be replaced.
Traces and holes in sand bottom	Soft bottom (worm or ant traces). Redo bottom.
Pool not level	If the grade is over 3", the pool must be dismantled and the problem corrected. Otherwise, the pool is levelled by the bottom.
Wall split or bumpy	The wall will have to be changed. In certain cases, it may be possible to change only one section of wall.



## TROUBLESHOOTING GUIDE

### WATER PROBLEMS

PROBLEM	CAUSE	REASON	SOLUTION
<p>Green or yellow water</p> <p>Slippery bottom</p> <p>Red, green, brown, mustard or pink stains.</p> <p>Black stains</p>	<ul style="list-style-type: none"> <li>Algae forming</li> </ul>	<ul style="list-style-type: none"> <li>Improper filtering</li> <li>Not enough algaecide</li> <li>Not enough chlorine</li> <li>Alkalinity too high or too low</li> <li>PH too high or too low</li> <li>Chemical reaction between two products</li> </ul>	<ul style="list-style-type: none"> <li>Check filter</li> <li>Add algaecide 40%</li> <li>Add chlorine</li> <li>Adjust alkalinity</li> <li>Adjust pH</li> <li>Follow water testing procedures</li> </ul> <p>Scour liner with a brush or a nylon stocking filled with granulated pH. Add algaecide 40%, scour, vacuum. Repeat as necessary.</p>
Cloudy water	<ul style="list-style-type: none"> <li>Suspended burnt algae</li> <li>Algae starting to grow</li> <li>Suspended bacterial particles</li> </ul>	<ul style="list-style-type: none"> <li>Improper filtering</li> <li>Not enough algaecide</li> <li>Not enough chlorine</li> <li>Alkalinity too high or too low</li> <li>PH too high or too low</li> <li>Chemical reaction between two products</li> <li>Not enough chlorine</li> </ul>	<ul style="list-style-type: none"> <li>Check filter</li> <li>Add algaecide</li> <li>Add chlorine</li> <li>Adjust alkalinity</li> <li>Adjust pH</li> <li>Follow water testing procedures</li> <li>Add chlorine</li> </ul>
Corrosion	<ul style="list-style-type: none"> <li>Corrosive water</li> <li>Muriatic acid</li> <li>Artesian well</li> </ul>	<ul style="list-style-type: none"> <li>Metal object in the water</li> <li>Muriatic acid in contact with stainless surfaces (ladder, skimmer screws, water return)</li> <li>Alkalinity or hardness too low</li> </ul>	<ul style="list-style-type: none"> <li>Avoid this problem in future to prevent permanent staining</li> <li>Avoid contact between this product and stainless surfaces</li> <li>Adjust alkalinity or hardness</li> </ul>
Stained liner	<ul style="list-style-type: none"> <li>Scale buildup</li> <li>Leaves</li> </ul>	<ul style="list-style-type: none"> <li>Water too hard</li> <li>Dirt left too long on liner</li> </ul>	<ul style="list-style-type: none"> <li>Check water hardness</li> <li>Do a shock treatment and brush after two hours. If dirt remains, use pantyhose filled with granulated pH and rub</li> </ul>
Insects on water	<ul style="list-style-type: none"> <li>Acid level</li> <li>Natural environment</li> </ul>	<ul style="list-style-type: none"> <li>Water too acidic</li> <li>Nearby trees or shrubs attracting insects</li> </ul>	<ul style="list-style-type: none"> <li>Adjust acidity</li> <li>Consult a botanist to get advice on insecticides</li> </ul>



## TROUBLESHOOTING GUIDE

### WATER PROBLEMS

PROBLEM	CAUSE	ACTION
Eye and skin irritation	<ul style="list-style-type: none"><li>• Improper pH</li><li>• Chloramines (see chlorine odour)</li></ul>	<ul style="list-style-type: none"><li>• Adjust pH between 7.4 and 7.6</li></ul>
Chlorine odor	<ul style="list-style-type: none"><li>• Not enough chlorine. The cause is not insufficient chlorine, but not enough available free chlorine</li></ul>	<ul style="list-style-type: none"><li>• Adjust pH, do a shock treatment. Repeat if necessary</li></ul>
Incrustation	<ul style="list-style-type: none"><li>• pH too high</li><li>• Total alkalinity too high</li><li>• High calcium hardness</li></ul>	<ul style="list-style-type: none"><li>• Reduce pH</li><li>• Reduce alkalinity</li><li>• An excessively high hardness level may require partial draining of the pool. A pool stain and iron remover may also be used.</li></ul>
Corrosion of metal components	<ul style="list-style-type: none"><li>• pH too low</li><li>• Total alkalinity too low</li><li>• Low calcium hardness</li></ul>	<ul style="list-style-type: none"><li>• Increase pH</li><li>• Increase total alkalinity</li><li>• Increase calcium hardness</li></ul>
Dirty ring around pool	<ul style="list-style-type: none"><li>• Accumulation of dirt and human seborrhea</li></ul>	<ul style="list-style-type: none"><li>• Clean with a cleaning product (for vinyl and tiles). Follow instructions on label</li><li>• If dirt is difficult to remove, rub with pantyhose filled with granulated pH and rinse immediately</li></ul>







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