Before you do anything else, make sure you visit our website at www.artesianspas.com and register your new Artesian spa.

Congratulations on the purchase of your new Gold Class spa by Artesian. We know you will enjoy your spa. Although spas are relaxing and fun, we believe they can be an indispensable part of a healthy lifestyle. The spa lifestyle is one that encourages health and well-being.

Owning a spa brings some responsibility. With proper care, your spa will provide years of enjoyment and therapy for your family and friends. Please take time to read and understand all of the instructions provided before you install your Artesian spa. This owner’s manual is meant to be a supplement to the training you should receive from your dealer when you purchase and start up your spa for the first time.

Please remember your spa is a powerful piece of electrical equipment. It is extremely important that you have it properly installed to ensure safe use. This manual explains safety precautions, installation instructions, and operating and maintenance procedures. If you have any questions regarding this manual, please call your competent Artesian spa dealer, who will be happy to further assist you.
For your future reference and convenience, please record the Serial and Model number along with the installation date in the spaces provided below. STORE THIS MANUAL WHERE YOU CAN EASILY FIND IT WHEN NEEDED. The serial and model numbers are mounted on the base of the equipment enclosure area, as shown below.

Spa Serial Number_____________________________________

Spa Model Number_____________________________________

Spa Installation Date____________________________________

Dealer Name, Address, and Telephone Number

_______________________________

_______________________________

_______________________________

Diagram of Where to Find Serial Number

SAFETY WARNINGS

PLEASE TAKE THE TIME TO READ ALL OF THESE WARNINGS AND CAUTIONS PRIOR TO USING YOUR SPA.

PLEASE, be a responsible spa owner. When installing and using this spa, always adhere to basic safety precautions. Be sure to list emergency telephone numbers at the telephone nearest the spa, including physician, hospital, ambulance, police, and the fire department. Be certain to explain safety precautions to all new or occasional users of your spa. Remember, they may not be aware of the possible risks associated with the spa water temperature.

Have at least one family member learn CPR (cardiopulmonary resuscitation). IT COULD SAVE A LIFE!

1. READ AND FOLLOW ALL INSTRUCTIONS!

2. WARNING - To reduce the risk of injury, do not permit children to use this product unless they are closely supervised at all times.

3. A wire connector is provided on this unit to connect a minimum 8 AWG (8.4 mm²) solid copper conductor between this unit and any metal equipment, metal enclosures of electrical equipment, metal water pipe, or conduit within 5 feet (1.5 m) of the unit.

4. DANGER - Risk of Accidental Drowning - Extreme caution must be exercised to prevent unauthorized access by children. To avoid accidents, ensure that children cannot use this spa unless they are supervised at all times.

5. DANGER - Risk of Injury - The suction fittings in this area are sized to match the specific water flow created by the pump. Should the need arise to replace the suction fittings or the pump, be sure the flow rates are compatible.

Never operate spa if the suction fittings are broken or missing. Never replace a suction fitting with one rated less than the flow rate marked on the original suction fitting.
6. **DANGER - Risk of Electrical Shock** - Install at least 5 feet (1.5 m) from all metal surfaces. As an alternative, a spa may be within 5 feet of metal surfaces if each metal surface is permanently connected by a minimum 8 AWG (8.4 mm) solid copper conductor to the wire connector on the terminal box that is provided for this purpose.

7. **DANGER - Risk of Electric Shock** - Do not permit any electrical appliance such as a light, telephone, radio, or television, within 5 feet (1.5 m) of a spa.

8. **WARNING - To reduce the risk of injury:**

   a) The water in a spa should never exceed 40°C (104°F). Water temperatures between 38°C (100°F) and 40°C are considered safe for a healthy adult. Lower water temperatures are recommended for young children and when spa use exceeds 10 minutes.

   b) Since excessive water temperatures have a high potential for causing fetal damage during the early months of pregnancy, pregnant or possibly pregnant women should limit spa water temperatures to 38°C (100°F).

   c) Before entering a spa, the user should measure the water temperature with an accurate thermometer since the tolerance of water temperature regulating devices varies.

   d) The use of alcohol, drugs, or medication before or during spa use may lead to unconsciousness with the possibility of drowning.

   e) Obese persons and persons with a history of heart disease, low or high blood pressure, circulatory system problems, or diabetes should consult a physician before using a spa.

   f) Persons using medication should consult a physician before using a spa since some medication may induce drowsiness while other medication may affect heart rate, blood pressure, and circulation.

**AUDIO COMPONENT WARNINGS**

Spas equipped with the Audio system should follow these guidelines for safety:

1. **CAUTION - Risk of Electrical Shock** - Do not leave compartment door open.

2. **CAUTION - Risk of Electrical Shock** - Replace components only with identical components.

3. Do not operate the audio controls while inside the spa.

4. **WARNING - Prevent Electrocution** - Do not connect any auxiliary components (for example cable, additional speakers, headphones, additional audio/video components, etc.) to the system.

5. These units are not provided with an outdoor antennae; when provided, it should be installed in accordance with Article 810 of the National Electrical Code, ANSI/NFPA 70.

6. Do not service this product yourself as opening or removing covers may expose you to dangerous voltage or other risk of injury. Refer all servicing to qualified service personnel.

**KEEP THESE SAFETY INSTRUCTIONS IN A CONVENIENT AND READILY ACCESSIBLE LOCATION!!**
## LINE DRAWING KEY

<table>
<thead>
<tr>
<th>Name of Component</th>
<th>Symbol for Component</th>
</tr>
</thead>
<tbody>
<tr>
<td>Storm Roto Ribbed w/ Escutcheons</td>
<td><img src="symbol1" alt="Symbol" /></td>
</tr>
<tr>
<td>Mini Storm Roto Ribbed w/ Escutcheons</td>
<td><img src="symbol2" alt="Symbol" /></td>
</tr>
<tr>
<td>Mini Storm Pulsator “A” w/ Escutcheons</td>
<td><img src="symbol3" alt="Symbol" /></td>
</tr>
<tr>
<td>Euro-Adjustable w/ Escutcheons</td>
<td><img src="symbol4" alt="Symbol" /></td>
</tr>
<tr>
<td>Non-Adjustable Whirlpool w/ Escutcheons</td>
<td><img src="symbol5" alt="Symbol" /></td>
</tr>
<tr>
<td>Storm Direct Ribbed w/ Escutcheons</td>
<td><img src="symbol6" alt="Symbol" /></td>
</tr>
<tr>
<td>Ozone / Drain Jet</td>
<td><img src="symbol7" alt="Symbol" /></td>
</tr>
<tr>
<td>Return Jet</td>
<td><img src="symbol8" alt="Symbol" /></td>
</tr>
<tr>
<td>LED</td>
<td><img src="symbol9" alt="Symbol" /></td>
</tr>
<tr>
<td>Air Control</td>
<td><img src="symbol10" alt="Symbol" /></td>
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<tr>
<td>Diverter Controls</td>
<td><img src="symbol11" alt="Symbol" /></td>
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<tr>
<td>Filter Well and Filters</td>
<td><img src="symbol12" alt="Symbol" /></td>
</tr>
<tr>
<td>Speakers</td>
<td><img src="symbol13" alt="Symbol" /></td>
</tr>
</tbody>
</table>

Line Drawings may not be exact models of your particular spa. Certain options may be shown that are not included on your spa.
**SPA CONFIGURATION AND WATER CAPACITY**

**EMERALD**

- **Volume**: 500 Gallons
- **Weight**: dry / 786 lbs  filled / 4950 lbs
- **Dimensions**: 91”x91”x36”
- **Control**: in-XM
- **Pump 1**: 6.0 HP 1 SPD 230V 56F
- **Pump 2**: 6.0 HP 1 SPD 230V 56F
- **Pump 3**: 3.0 HP 1SPD 230V Power WOW
- **Heater**: 4 kw IN.THERM
- **Filter**: One 50 Sq Ft Pleated & One Disposable
- **Circulation**: Hi-Flo
- **6” Waterfall**: Maximum of 2

---

**Volume d’ eau**: 1893 liters  
Poids à vide: 357 kg  
Poids plein: 2245 kg  
Dimensions: 2.31m x 2.31m x .91m  
Control: IN.XM  
Pompe (2): 3.0 HP 1SPD 230V  
Pompe (1): 1.4 HP 1SPD 230V  
Réchauffeur: IN.THERM 3.6 kw  
Filtre: 2  
Circulation System: HI-FLO  
6” Cascada: le maximum de 2
## SPA CONFIGURATION AND WATER CAPACITY

### ONYX

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
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<tbody>
<tr>
<td>Volume</td>
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<tr>
<td>Weight (dry) / Weight (filled)</td>
<td>775 lbs / 4730 lbs</td>
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<tr>
<td>Dimensions</td>
<td>91”x91”x36”</td>
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<tr>
<td>Control</td>
<td>in-XM</td>
</tr>
<tr>
<td>Pump 1 (HP 1 SPD 230V 56F)</td>
<td>6.0</td>
</tr>
<tr>
<td>Pump 2 (HP 1 SPD 230V 56F)</td>
<td>6.0</td>
</tr>
<tr>
<td>Pump 3 (3.0 HP 1 SPD 230V)</td>
<td>3.0</td>
</tr>
<tr>
<td>Heater (4 kw IN.THERM)</td>
<td></td>
</tr>
<tr>
<td>Filter</td>
<td>Pleated &amp; Disposable</td>
</tr>
<tr>
<td>Circulation</td>
<td>Hi-Flo</td>
</tr>
<tr>
<td>6” Waterfall</td>
<td>Maximum of 2</td>
</tr>
</tbody>
</table>

### VOLUUMEN

1798 liters

Peso seco / 352 kg

Peso lleno / 2145 kg

Dimensiones 2.31m x 2.31m x .91m

Control IN.XM

Bomba (2) 3.0 HP 1SPD 230V

Bomba (1) 1.4 HP 1SPD 230V

Calentador IN.THERM 3.6 kw

Filtrar 2

Sistema de la circulación HI-FLO

6” Cascada máximo de 2

### Wassermenge

1798 liters

Leergewicht 352 kg

Gesamtgewicht 2145 kg

Dimensions 2.31m x 2.31m x .91m

Control IN.XM

Pumpe (2) 3.0 HP 1SPD 230V

Pumpe (1) 1.4 HP 1SPD 230V

Heizelement IN.THERM 3.6 kw

Filtrar 2

Zirkulationssystem HI-FLO

6” Wasserfall Höchstbetrag von 2

### Volume d’ eau

1798 liters

Poids à vide 352 kg

Poids plein 2145 kg

Dimensions 2.31m x 2.31m x .91m

Control IN.XM

Pompe (2) 3.0 HP 1SPD 230V

Pompe (1) 1.4 HP 1SPD 230V

Réchauffeur IN.THERM 3.6 kw

Filtre 2

Système de la circulation HI-FLO

6” Cascade le maximum de 2
OPAL

Volume: 400 Gallons
Weight: dry / 610 lbs  filled / 3950 lbs
Dimensions: 83"x83"x36"
Control: in-XM
Pump 1: 6.0 HP 1 SPD 230V 56F
Pump 2: 4.8 HP 1 SPD 230V 56F
Pump 3: 3.0 HP 1 SPD 230V Power WOW
Heater: 4 kw IN.THERM
Filter: One 50Sq Ft Pleated & One Disposable
Circulation: Hi-Flo
6" Waterfall: Maximum of 2

SPA CONFIGURATION AND WATER CAPACITY

Volume: 1514 liters
Peso: seco/277 kg  llenado/1792 kg
Dimensiones: 2.11m x 2.11m x .91m
Control: IN.XM
Bomba (2): 3.0 HP 1SPD 230V
Bomba (1): 1.4 HP 1SPD 230V
Calentador: IN.THERM 3.6 kw
Filtrar: 2
Sistema de la circulación: HI-FLO
6" Cascada: máximo de 2

Wassermenge: 1514 liters
Leergewicht: 277 kg
Gesamtgewicht: 1792 kg
Dimensions: 2.11m x 2.11m x .91m
Control: IN.XM
Pumpe (2): 3.0 HP 1SPD 230V
Pumpe (1): 1.4 HP 1SPD 230V
Heizelement: IN.THERM 3.6 kw
Filter: 2
Zirkulationssystem: HI-FLO
6" Wasserfall: Höchstbetrag von 2

Volume d’ eau: 1514 liters
Poids à vide: 277 kg
Poids plein: 1792 kg
Dimensiones: 2.11m x 2.11m x .91m
Control: IN.XM
Pompe (2): 3.0 HP 1SPD 230V
Pompe (1): 1.4 HP 1SPD 230V
Réchauffeur: IN.THERM 3.6 kw
Filtre: 2
Circulation System: HI-FLO
6" Cascade: le maximum de 2
SPA CONFIGURATION AND WATER CAPACITY

DIAMOND

Volume: 380 Gallons
Weight: dry / 600 lbs  filled / 3770 lbs
Dimensions: 83"x83"x36"
Control: in-XM
Pump 1: 6.0 HP 1 SPD 230V 56F
Pump 2: 4.8 HP 1 SPD 230V 56F
Pump 3: 3.0 HP 1 SPD 230V Power WOW
Heater: 4 kw IN.THERM
Filter: One 50 Sq Ft Pleated & One Disposable
Circulation: Hi-Flo
6" Waterfall: Maximum of 2

Wassermenge: 1438 liters
Leergewicht: 272 kg
Gesamtgewicht: 1710 kg
Dimensions: 2.11m x 2.11m x .91m
Control: IN.XM
Pumpe (2): 3.0 HP 1SPD 230V
Pumpe (1): 1.4 HP 1SPD 230V
Heizelement: IN.THERM 3.6 kw
Filter: 2
Zirkulationssystem: HI-FLO
6" Wasserfall: Höchstbetrag von 2
RUBY

Volume 1230 liters
Weight seco/215 kg llenado/1442 kg
Dimensions 1.98m x 2.11m x .86m
Control IN.XM
Bomba (2) 3.0 HP 1SPD 230V
Calentador IN.THERM 3.6 kw
Filtrar 2
Sistema de la circulación HI-FLO
6” Cascada máximo de 2

Wassermenge 1230 liters
Leergewicht 215 kg
Gesamtgewicht 1442 kg
Dimensions 1.98m x 2.11m x .86m
Control IN.XM
Pumpe (2) 3.0 HP 1SPD 230V
Heizelement IN.THERM 3.6 kw
Filtrar 2
Zirkulationssystem HI-FLO
6” Wasserfall Höchstbetrag von 2

Volume d’ eau 1230 liters
Poids à vide 215 kg
Poids plein 1442 kg
Dimensions 1.98m x 2.11m x .86m
Control IN.XM
Pompe (2) 3.0 HP 1SPD 230V
Réchauffeur IN.THERM 3.6 kw
Filtre 2
Système de la circulation HI-FLO
6” Cascade le maximum de 2
### SPA CONFIGURATION AND WATER CAPACITY

**TOPAZ**

<table>
<thead>
<tr>
<th>Volume</th>
<th>235 Gallons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight</td>
<td>dry / 475 lbs  filled / 2430 lbs</td>
</tr>
<tr>
<td>Dimensions</td>
<td>91&quot;x68&quot;x33&quot;</td>
</tr>
<tr>
<td>Control</td>
<td>in-XM</td>
</tr>
<tr>
<td>Pump 1</td>
<td>3.0 HP 1SPD 230V Power WOW</td>
</tr>
<tr>
<td>Pump 2</td>
<td>3.0 HP 1SPD 230V Power WOW</td>
</tr>
<tr>
<td>Heater</td>
<td>4 kw IN.THERM</td>
</tr>
<tr>
<td>Filter</td>
<td>One 50 Sq Ft Pleated &amp; One Disposable</td>
</tr>
<tr>
<td>Circulation</td>
<td>Hi-Flo</td>
</tr>
</tbody>
</table>

**SPA CONFIGURATION AND WATER CAPACITY**

<table>
<thead>
<tr>
<th>Volumen</th>
<th>890 liters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peso</td>
<td>seco/215 kg llenado/1102 kg</td>
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<tr>
<td>Dimensiones</td>
<td>2.31m x 1.73m x .84m</td>
</tr>
<tr>
<td>Control</td>
<td>IN.XM</td>
</tr>
<tr>
<td>Bomba (2)</td>
<td>3.0 HP 1SPD 230V</td>
</tr>
<tr>
<td>Calentador</td>
<td>IN.THERM 3.6 kw</td>
</tr>
<tr>
<td>Filtrar</td>
<td>2</td>
</tr>
<tr>
<td>Sistema de la circulación</td>
<td>HI-FLO</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Wassermenge</th>
<th>890 liters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leergewicht</td>
<td>215 kg</td>
</tr>
<tr>
<td>Gesamtgewicht</td>
<td>1102 kg</td>
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<tr>
<td>Dimensionen</td>
<td>2.31m x 1.73m x .84m</td>
</tr>
<tr>
<td>Control</td>
<td>IN.XM</td>
</tr>
<tr>
<td>Pumpe (2)</td>
<td>3.0 HP 1SPD 230V</td>
</tr>
<tr>
<td>Heizelement</td>
<td>IN.THERM 3.6 kw</td>
</tr>
<tr>
<td>Filter</td>
<td>2</td>
</tr>
<tr>
<td>Zirkulationssystem</td>
<td>HI-FLO</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Volumen d’ eau</th>
<th>890 liters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poids à vide</td>
<td>215 kg</td>
</tr>
<tr>
<td>Poids plein</td>
<td>1102 kg</td>
</tr>
<tr>
<td>Dimensiones</td>
<td>2.31m x 1.73m x .84m</td>
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<tr>
<td>Pompe (2)</td>
<td>3.0 HP 1SPD 230V</td>
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<tr>
<td>Réchauffeur</td>
<td>IN.THERM 3.6 kw</td>
</tr>
<tr>
<td>Filtre</td>
<td>2</td>
</tr>
<tr>
<td>Circulation System</td>
<td>HI-FLO</td>
</tr>
</tbody>
</table>
ELECTRICAL REQUIREMENTS AND INSTALLATION

The following information is provided for hooking up electrical supply to your new spa. A qualified, licensed electrician must perform this work. Failure to follow these instructions will terminate all warranty coverage and can cause serious injury or death.

Your Artesian spa is preset at the factory to run on 240V with a 48 amps input. This feature gives you the most performance out of your spa. This will require a 240V, 60-amp GFCI. If a 60-amp service is not available, your spa can be made to run with 32 or 40 amps input rating. Press the SELECT key on the spa control pack to change the input rating.

ELECTRICAL WIRING

WARNING: Your spa must be wired by a certified electrician and according to these instructions. Failure to do so will terminate all warranties and all listings from the independant listing facility.

1) The Gold Class Spa requires a 240 VAC dedicated system. The spa must be hardwired to the power supply, with no plug-in connections, extension cords, or sharing of service.

2) The spa requires that you run 6 or 8 AWG copper wire, depending on the GFCI size. Do Not Use Aluminum Wire.

3) The power supply must have a suitable Ground Fault Circuit Interrupter (GFCI), according to Section 422-20 of the National Electrical Code, ANSI/NFPA 70-7987. This could be used as the shut-off switch, which must be installed in plain view of the spa. This electrical service must be readily accessible to the spa occupants, but must not be within 5 feet of the spa.

4) Use only non-metallic conduit and fittings when installing power to the spa.

5) After your spa has been positioned, route lines through the knockout on the left or right front corner of the spa.

6) Connect the power to the spa.

MUST BE DONE BY A CERTIFIED ELECTRICIAN

- The black and red wires from the electrical box must be connected to the input of the GFCI.
- The white wire from the electrical box must be connected to the neutral bus.
- The green or copper wire must be connected to the ground log of the GFCI.
- The black, red and white wires going to the spa must be connected directly to the output of the GFCI.
- The neutral of the GFCI must be connected to the neutral bus.
- The green or copper wire going to the spa must be connected to the ground log.

Pack Terminal Block from GFCI MUST BE DONE BY A CERTIFIED ELECTRICIAN
SPA START-UP

Please read each step of the Start-up section prior to doing the step.

SELECTING A LOCATION

In preparation for installing your new Artesian spa, you should ensure that your chosen location meets some minimum guidelines:

1) Place your spa on a surface that is large enough for the entire spa to fit. Consider the space needed to easily access equipment compartments and circuit breakers. Remember, all electronics must be kept dry.

2) The spa must be on a solid, level foundation. Recommended: 4-inch cement slab that has cured for at least 72 hours. Your warranty will be voided if the spa is not properly installed. Structural damage due to an improper foundation is not covered under warranty.

3) To avoid potential water damage to the skirt and frame, your spa should be placed on a site where it will not be in the way of water sprinklers.

4) OUTDOOR SPAS: Consider building codes, electrical and plumbing codes, desired proximity to house, wind and sun exposure, location of trees (falling leaves, shade), dressing area, landscaping and lighting when selecting a location.

5) INDOOR SPAS: Floor surface must have traction to prevent slipping when wet. A floor drain is optimum. As room humidity will increase because of the spa, provide ample ventilation to prevent dry rot, mildew and mold. Use materials that will withstand humidity. There may be a need for cross-ventilation fans and/or dehumidifiers. The spa chemicals may corrode some household metals. Provide ample room if servicing should be needed. Strong foundational support is vital, particularly if a second-story site is selected.

6) Ensure the equipment compartment is in a location where it will not be damaged by water drainage. Cover the equipment compartment with a heavy screen if rodents are a problem. Damage due to rodents is not covered under warranty.

7) Have the spa deck installed by a knowledgeable contractor to ensure proper support.

8) If the spa is placed on the ground, even for a short period of time, it must be supported by stones that are at least 2 inches thick and 12 inches square. A solid foundation should be provided as soon as possible.

INSPECTION

You will want to inspect your spa, prior to filling it up with water. Look for and remove any debris in the spa tub and in the filter. Verify that pump plugs are installed on the pumps and the pump unions are tight.

FILLING THE SPA WITH WATER

NOTE: DO NOT fill your spa with hot water straight out of your water heater or tap. This water may be as hot as 180 degrees F and will cause damage to the surface and plumbing of the spa. This will void your warranty. Level the spa before filling.

1) Prepare to fill the tub by removing all debris.
2) Remove the filters from your spa (see Removing, Installing and Cleaning Filters, page 30).

3) Place your garden hose in the circulation pump line.

4) Fill the tub from the circulation pump line until water level is above the foot-well.

   **Note:** This will purge all the air out of the circulation pump. An air lock can cause damage to the circulation pump and is not covered under warranty.

5) Once the water level is filled over the foot-well, you can pull the hose out of the circulation line and continue filling the spa from the filter well.

6) Fill the spa to the bottom of the pillows. **Note:** DO NOT OVER-FILL YOUR TUB!

7) With the front panel off, verify there are no leaks at the pump union. **Note:** Pump unions can become loose during shipping. Verify that there are no leaks during filling of the spa.

8) Reinstall the circulation pump screen and all filters.

---

### TURNING THE POWER ON

Turn the power to the spa on at the main circuit breaker. Verify that your spa has no error codes. (See page 47) Verify that there is good water circulation in the spa. The pumps will come on in cycles, for 1 minute each cycle.

### VERIFYING WATER CIRCULATION

1) Open all the jets.

2) Press the Pump 1 key to turn the pumps on or off.

3) Make sure each seat has water flow. **Note:** On certain spas there is a diverter valve. Verify where the diverter valve is located.

### TESTING THE GFCI BREAKER

**Note:** The electrical service panel for your spa should be equipped with a GFCI breaker. To avoid the risk of electrical shock, perform the following safety test before each use of your spa.

1) Make sure the power is turned on at the electrical service panel.

2) Turn on the GFCI breaker. If the breaker stays on, it is functioning properly.

**Danger: Risk of Electrical Shock**

If the GFCI breaker fails to operate as described, there is a possibility of an electric shock if the spa is used. Shut off the power at the main electrical service panel until the source of the problem has been identified and corrected by a licensed electrician or qualified spa technician.
NOTE: When power is turned on, your spa is automatically programmed to start circulating water through the circulation pump. Each pump and/or blower will come on consecutively for approximately 1 minute to automatically purge the system. Adjust your temperature by pressing the up button on your touchpad until the desired temperature is displayed. This setting will allow your spa to heat to the set temperature.

CAUTION: If water is not noticeably coming from your spa jets during the automatic purge, turn on the high speed pump. If water is still not coming from the jets, the pump needs to be manually primed, following the steps below.

**PRIMING THE PUMP**

1) Turn off power at electrical service panel.
2) Locate and loosen one of the pump plugs on each pump by turning it counterclockwise one half of one turn.
3) Allow air to escape from fittings. When a steady stream of water flows from the pump plug, close it by turning it clockwise until tight.
4) Turn on power at electrical service panel.
5) Check once more to make sure that water is flowing from the jets during auto purge. If so, continue. If no water is coming from your spa jets, please call your Artesian dealer for further assistance.

**WATER PREPARATION**

NOTE: Before putting your new spa into operation, understand that preparing your new water is an important part of maintenance. Failure to properly prepare your water can result in substantially decreasing the life of the components and may void your warranty in severe cases. Your Artesian dealer should have a start-up and maintenance kit available for you when you receive your spa.

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### Icon Introduction

<table>
<thead>
<tr>
<th>Icon</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Light Icon" /></td>
<td>The “Light” icon lights up when the light is on.</td>
</tr>
<tr>
<td><img src="image" alt="Filtering Icon" /></td>
<td>The “Filter cycle” icon lights up when filter cycle is on. It flashes when filtering is suspended.</td>
</tr>
<tr>
<td><img src="image" alt="Program Icon" /></td>
<td>A visual indication of the time remaining before equipment is turned off or before the end of the standby mode.</td>
</tr>
<tr>
<td><img src="image" alt="Set Point Icon" /></td>
<td>The “program” icon lights up when Programming.</td>
</tr>
<tr>
<td><img src="image" alt="Service Icon" /></td>
<td>The “heater” icon lights up when filter cycle is on. It flashes when filtering is suspended.</td>
</tr>
<tr>
<td><img src="image" alt="Smart Winter Mode Icon" /></td>
<td>The “SWM” icon automatically turns on when freeze protection is active. It flashes while system purges the spa plumbing.</td>
</tr>
<tr>
<td><img src="image" alt="Economy Mode Icon" /></td>
<td>The “Economy” icon lights up when filter cycle is on.</td>
</tr>
<tr>
<td><img src="image" alt="Time, temperature &amp; message digits" /></td>
<td>A problem has been detected. Do not enter the water! Spa service is required.</td>
</tr>
<tr>
<td><img src="image" alt="Pump Icons" /></td>
<td>The “Pump” indicator numbers light up and their icons become animated when pumps are on.</td>
</tr>
<tr>
<td><img src="image" alt="AM/FM (F /C ) Icon" /></td>
<td>The “Set Point” icon automatically turns on when set point setting menu is activated. It flashes when 1) there is a call for heat and heater has not started yet 2) heater has just turned off and element is cooling down 3) if system is performing a flow check.</td>
</tr>
</tbody>
</table>
Keypad Introduction

**ON/OFF KEY**
- **Standby Mode:** When this feature is activated, all pumps may be stopped at the same time by a simple click of a button! Use the On/Off key to pause all pumps. Progress bar will display the remaining time before the system automatically exits Standby Mode (user can also exit Standby Mode at any time by pressing again the On/Off Key).
- In order to warn the user, the spa light will flash for a few seconds before the exit of Standby Mode and restart the pumps. The “Stby” message is also displayed during Standby Mode.

**PUMP 1 KEY**
- Press Pump 1 key to turn Pump 1 on at high speed.
- Press a second time to turn Pump 1 off.
- A built-in timer automatically turns pump off after 20 minutes, unless pump has been manually deactivated first.

**PUMP 2 KEY**
- Press Pump 2 key to turn Pump 2 on at high speed.
- Press a second time to turn Pump 2 off.
- A built-in timer automatically turns pump off after 20 minutes, unless pump has been manually deactivated first.

**PUMP 3 KEY**
- Press Pump 3 key to turn Pump 3 on at high speed.
- Press a second time to turn Pump 3 off.
- A built-in timer automatically turns pump off after 20 minutes, unless pump has been manually deactivated first.

**LIGHT KEY**
- Press Light key to turn light on at high intensity.
- Press a second time to turn light off.
- A built-in timer automatically turns pump off after 20 minutes, unless pump has been manually deactivated first.

**+ / - KEYS**
- Use (+) or (-) key to set desired water temperature. The temperature setting will be displayed for 5 seconds to confirm your new selection.
- The “Set Point” icon indicates that the display temperature shows the desired temperature, NOT the current water temperature.

**PROGRAM KEY**
- Use program key to display time or enter Programming menu by pressing and holding key. In Programming mode, the following parameters can be set: time, purge cycle start time and frequency, economy mode start time as well as its duration, and finally the choice of temperature display unit.
Basic Programming

Setting The Time
Enter Programming mode by holding Prog. key down for 3 seconds. The display will show the current time setting.

Setting the hour:
Use (+) or (-) key to change the hour setting (AM/PM).

Setting the minutes:
Press the OK key. Use (+) or (-) key to change the minute setting.

Setting Purge Cycle
Start Time
To program the purge cycle, you must enter these parameters: start time and frequency. During a purge cycle, pumps run for one minute to purge the plumbing.

Press OK a second time.

The display will show PSxx, with “xx” representing the starting hour.

Use (+) or (-) key to change setting (0:00 h - 23:00h).

Setting Purge Cycle
Frequency
Press OK a third time.

The display will show PFxx, with “xx” representing the number of purge cycles per day (up to 24).

Use the (+) or (-) key to change setting.

Setting Economy Mode
The Economy Mode allows you to lower the temperature set point of the spa by 20°F (11°C) during a certain period of the day.

Press the OK key a fourth time.

Use (+) to enable the economy mode, the display will show EP1.

Use (-) key to disable economy mode, the display will show EP0.

Setting Economy Start Time
To program the economy mode, you must enter two parameters: start time and duration.

Press OK a fifth time.

The display will show ESxx, with “xx” representing the starting hour.

Use (+) or (-) key to change setting (0:00 h - 23:00h).

Setting Economy End Time
Press OK a sixth time.

The display will show EExx, with “xx” representing the end time in hours.

Use the (+) or (-) key to change setting. (01:00 - 12:00 AM/PM).

If the economy mode is not required, the duration must be set to “0”. If continuous activation of the Economy mode is required, the duration must be set to “24”.

If the economy mode is not required, the duration must be set to “0”. If continuous activation of the Economy mode is required, the duration must be set to “24”.
Basic Programming  cont.

When in Economy mode, the “Econ” icon is displayed.

Setting Temperature Unit

Water temperature can be displayed in either Fahrenheit (F°) or Celcius (C°).

Press the OK key a seventh time.

This display will show either F° or C°.

Use (+) or (-) key to change setting.

Press OK key a last time to go back to normal mode.

Water Temperature Regulation

In a regulation cycle, the system first generates water flow through the heater housing and the plumbing, in order to ensure accurate water temperature readings as well as avoiding heater activation in dry conditions.

After verifying pump activation and taking a water temperature reading, the system automatically turns the heater on to reach and maintain water temperature Set Point.

Cooldown

While performing these tasks, the heater is not allowed to turn on and its icon flashes. The heater is also not allowed to come on throughout the cool down period of the heater element.

Smart Winter Mode

Our Smart Winter Mode protects your system from the cold by turning pumps on several times a day to prevent water from freezing in pipes.
MAINTAINING YOUR SPA

DRAINING YOUR SPA

Your spa needs to be drained, cleaned, waxed, and refilled about every six months. More frequent water changes may be necessary if bather load is heavy. A hose bib has been provided below the left side of your front access panel, to assist you in draining your spa.

1) Turn off the power to your spa. If you fail to turn the power off, vital components could be damaged. Do not leave an empty spa exposed for long periods of time in hot, sunny weather.

2) Attach your garden hose to the hose bib.

3) Place the other end of the hose in an area that will accept the water capacity of your spa.

4) Open the hose bib by turning the valve knob counterclockwise to the full stop position.

5) Check the garden hose end to see if water is flowing. If water is not flowing, check the hose for kinks. Also check to see if valve is in the full open position.

CAUTION: The chemical content and temperature of the water will cause damage to certain vegetation. We do not recommend that you drain your spa onto plants or lawns. If you choose to do this, please remove your spa cover and allow spa to cool for a minimum of 24 hours with the spa turned off.

PILLOW CARE

Remove and clean the pillows with soapy water and a soft cloth when needed. Use a vinyl conditioner once a month. Remove pillows when doing chemical shock treatment.

JET CARE

We recommend that you clean your jets when you drain your spa. However, if you do need to clean your jets in between, this can be accomplished with a full spa.

1) To remove the jet inserts turn the jet counterclockwise to the off position until it stops. Continue to turn the jet past the stop point to loosen it from the spa. The insert will now pull out.

2) Soak jet inserts in a mixture of 1 part vinegar to two parts warm water for 2-3 hours. Periodically rotate the spinner nozzle to break up residue in the jets.

4) Rinse the jet inserts under warm water.

5) To reinstall the jets, insert jet into jet body and turn clockwise until fully seated, then tug to make sure it is seated properly. You can then continue to turn clockwise until it stops.

NOTE: A jet with stainless steel escutcheons can be slippery. You can use a soft cloth or jar-opening pad to assist in removing and installing the jet.
MAINTAINING YOUR SPA cont...

REMOVING, INSTALLING AND CLEANING FILTERS

These are the steps needed to successfully replace your filters. You should replace your disposable spa filters and clean your nondisposable filters every four months.

1) Turn off all power to your spa and remove the filter lid by lifting it out towards you.

2) Turn the filter counterclockwise and remove it from the filter well.

3) Dispose of the used filter.

5) To replace, set screen back into its place and turn clockwise to fasten. DO NOT over-tighten.

6) Place the new filter into position and turn clockwise to fasten. DO NOT over-tighten.

7) Follow the directions 1) and 2) for the pleated filter cartridge. You then rinse the filter with a garden hose and soak the filter in a mixture of one pint of filter cleaner with 2.5 gallons of water for at least 12 hours. The filter must be completely submerged. You then follow the directions 5) and 6) to replace the filter.

WARNING: Power to your spa must be turned off prior to removing your filters. The suction at the filter is extremely strong and can cause injury if there is no filter. NEVER run your spa without the filters properly installed. Injury to person and damage to the equipment can occur. Any damage to equipment due to this circumstance will not be covered under warranty.

WINTERIZING YOUR SPA

It is not recommended that you drain your spa completely during freezing conditions. We recommend that you leave your spa full of water with the power on to keep the tub from freezing. If you decide to drain your spa during freezing conditions, contact your dealer for help. Contact your Artesian dealer before refilling a drained spa in freezing temperature.

WARNING: Damage to your spa caused by freezing is NOT covered under warranty. Please contact your local Artesian dealer to assist you in winterizing your spa.

REPLACING THE LIGHT BULB

1) Turn off the power at the main electrical service panel.

2) Remove front access panel.

3) Locate and remove the reflector by turning it counterclockwise until free from wall fitting.

4) Remove the bulb from the holder.

5) Replace with new bulb. Your Artesian dealer has these bulbs in stock.

6) Replace the reflector by screwing it clockwise back onto the wall fitting.

7) Replace the front panel.

8) Turn power on at the main electrical service panel.

NOTE: The spa light bulb is not covered under warranty.
MAINTAINING YOUR SPA  cont...

SPA CABINET CARE

If you elected to purchase your spa with a wood cabinet, this cabinet is stained and sealed with an oil based acrylic stain. The stain is formulated especially for spa cabinet and deck applications and is resistant to ultraviolet light damage caused by sun rays. It is also resistant to fungus and insect damage. Your Artesian dealer carries this type of stain for your convenience, so call your dealer when you're ready to re-stain your cabinet. You should re-stain your wood cabinet at least once a year, or more frequently depending on your environmental conditions.

1) Gently wash the cabinet with mild soap and water and allow to dry completely.

2) Moisten a rag with the stain you have purchased from your Artesian dealer.

3) Apply the stain on the entire cabinet surface, wiping off any excess stain as you are applying.

4) Allow stain to dry for a minimum of 24 hours before getting the cabinet wet.

You may choose to upgrade your Gold spa with a PermaWood, or faux wood, cabinet. This cabinet requires no maintenance. You may wish to clean the cabinet with mild soap and water from time to time.

NOTE: Do not apply any solid type finish such as shellac or varnish. After weathering, these types of finishes will crack and/or turn yellow. To refinish the wood, you will need to completely strip the finish before applying the new one. Use only the stain recommended by your Artesian dealer for refinishing your spa.

CLEANING YOUR SPA INTERIOR

It is important to clean the interior of your spa every time it is drained to help preserve the sheen of your spa’s surface. However, it is important that you do not use any abrasive cleaners or strong chemicals. Your Artesian Spas authorized dealer will be able to supply you with the proper cleaning solution for your spa. After cleaning, make sure all residues are removed prior to filling the spa. This will help prevent sudsing and improper chemical balance.

COVER CARE

Cleaning of your spa cover is an important part of routine maintenance. Dirt acts as an abrasive to the vinyl topcoat, and can also cause wear to folds, seams, and stitching. Mildew growing on damp, dirty vinyl will begin to actually root in the fabric, accelerating failure.

Follow this simple routine for cleaning, prior to application of vinyl protectant:

1) Rinse with cool water using a garden hose.

2) Spray with a gentle, non-foaming cleaner and wipe clean. Never use laundry detergent, abrasives, alcohols, dish soaps or harsh cleaners. These can actually remove some of the topcoat and cause premature vinyl failure.

3) For stubborn dirt, use a non-abrasive sponge.

4) Rinse again thoroughly with water and allow to dry.

5) Repeat monthly, or as needed.

Your vinyl cover is affected by the UV in sunlight. Periodic protectant with a liquid protectant will extend the life of your cover. The wrong kind of protectant can be more harmful then no protectant at all. Keep any product away from your spa that is labeled “flammable,” that contains any type of oil, or that leaves a waxy coating on your cover.

Never stand or sit on the cover and never drag it over abrasive surfaces. Lift cover only by the handles provided.

NOTE: Your cover will hold up to 145 pounds. The covers are not intended to be walked on, but a child or pet stepping on the cover won’t break it.
MAINTAINING YOUR SPA cont...

CHEMICAL TREATMENT OF WATER

Water from your tap is fine for showers, bathing and drinking. However, in a contained recirculating system such as in a spa, water must be treated with chemicals. The main purpose of chemical treatment is to keep the water sanitary and to maintain a specific balance of the water. Proper balance ensures that the water will not cause irritation to the users or harm the spa’s components. Chemical treatment does have its limitations. When water evaporates, chemical residues are left behind. As the levels of the residues combine with other types of residue, such as body oil and detergents, your water becomes increasingly difficult to maintain. Because of this residual effect, at some point it becomes easier and more cost-effective to drain, clean and refill your spa with new water. We recommend that the water be changed at least every six months. At this time you should also clean or replace your filters. If your spa has a frequent and/or heavy bather load, it may be necessary to drain and fill your spa more often. Refer to the section titled “Draining your spa” for instructions (page 31).

WARNING: Spa damage due to improper chemicals is not covered under warranty.

WATER CHEMISTRY

CAUTION: The chemicals used to maintain the pH balance of the water and to sanitize the water can be dangerous. Always follow these basic guidelines when handling the chemicals:

1. Always read and follow the directions on the label, unless directed otherwise.

2. Never mix different chemicals.

3. Do not exceed the recommended amounts of chemicals—follow the directions on the label.

4. Keep all chemicals out of the reach of children and pets.

5. Keep containers closed tightly when not in use.

6. Never add water to the chemicals—always add the chemicals to the water as directed.

7. Always store chemicals in a cool, dry place.

WATER TREATMENT GLOSSARY

1 - **Total Alkalinity**: Total Alkalinity measures the water’s ability to resist fluctuations in the pH level. It is measured in ppm (parts per million) ranging from 0 - 400 or up. The optimum range for your spa water is between 80 and 140. This can easily be measured with 3- or 5-way test strips. With low alkalinity the pH level will be prone to dramatic fluctuations. With high alkalinity the pH becomes increasingly difficult to adjust.

2 - **pH (potential hydrogen)**: The pH is used as a measurement of the active acidity, the concentration of active hydrogen molecules in the water. pH is measured on a scale from 1 to 14, the lower numbers indicating a greater concentration of active hydrogen. While 7, halfway between base and acid is neutral, the optimum level of acidity for a spa is between 7.2 and 7.8. The effects of low pH can -
be rapid sanitizer loss, eye and skin irritation, expedited corrosion of metals, as well as staining throughout the spa. High PH can result in cloudy water, low sanitizer efficiency, as well as eye and skin irritation.

3 - Parts per Million (PPM): The term "parts per million" will be used frequently in the world of water care. The term simply means exactly what it says: the coexistence of any one unlike item with a larger number of "like" items.

4 - Sanitizers: Sanitizers are used to destroy bacteria and other germs in the water. Only 2 sanitizers are used in spas, chlorine (Sodium Dichlor) and Bromine (Hydrotech or Lonza). Without the use of a mineral system or an enzyme, the preferred level of sanitizer is between 2 and 3 ppm.

5 - Total Dissolved Solids (TDS): TDS is simply the measure of the total amount of matter dissolved in the water. When this level becomes too high, action is advised.

6 - Calcium Hardness: The measure of the amount of calcium dissolved in the water as expressed in PPM. Hard water, or water with calcium levels over 250 PPM can cause scale formation on the surface of the spa or the components of the spa.

7 - Total Chlorine: Total Chlorine is the sum of the free and combined chlorines in the water. Often, water will contain a higher level of total chlorine than available chlorine. If this is the case in your water, you may use a non-chlorine shock (typically potassium monopersulfate) to free up the remainder of total chlorine.

8 - Ozone: Ozone is a gas molecule that can be generated by an Ozonator, which is composed of three atoms of oxygen and used to oxidize the water. Ozone is very useful for regenerating bromine from bromide ions. It also acts as a supplement when used in conjunction with a sanitizer and may reduce the level of sanitizer required. You may read more about ozone later in this section of your owner's manual.

9 - Organic Matter: These are carbon-derived substances typically generated by living organisms. In a spa, they are most frequently introduced into the water by bathers. Enzyme products such as Spa Perfect by Natural Chemistry are most effective at eliminating organic matter from your body of water.

10 - Microorganisms: This term refers to tiny, living organisms such as bacteria, protozoa, or algae.

11 - Sequestering: This term defines the action taken to remedy high levels of metals or calcium in the water. By forming a complex that envelops materials in the water, commonly hardness ions, a sequestering chemical prevents the ions from reacting to one another, thus forming complex structures or solids.

12 - Shocking: Shocking is the act of hyper-chlorinating or hyper-oxidizing the water. This can be accomplished with a myriad of shock treatments, but is most commonly accomplished with Sodium Dichlor or Potassium Monopersulfate. The former raises the sanitizer level to at least 8 PPM, and the latter burns off chloramines or bromines. The use of P.S., or non-chlorine shock is advantageous because you can bathe only 15 minutes after treatment; however, oxidizing the water will not kill the bacteria unless there is sufficient total chlorine to free up used chlorine to actively sanitize.

13 - Bather Load: You may be asked by your spa professional what the average bather load is, meaning, how many people enter the spa on a daily or weekly basis.

14 - Alternative Sanitizers a group of products that sanitize pool, spa and hot tub water, by means other than the application of chemicals to the water. Includes such products as ultraviolet sanitizing systems, mineral purifiers, ionizers and ozonators.

15 - Bactericide: a chemical that kills bacteria. The most common bactericides are: chlorine, bromine, biguanide, ozone and silver. Most algaecides, other than copper, exhibit some bactericidal properties.

16 - Balanced Water: pool or spa water that is within the accepted water analysis parameters for: pH, sanitizer, total alkalinity, calcium hardness, chlorine stabilizer (chlorine pools only) and minerals. The balancing, of the pool or spa water, helps to eliminate water chemistry problems.
17 - Chloramines: irritating, odorous forms of combined chlorine, formed by the reaction of chlorine with nitrogen containing waste products. Ineffective as a pool or spa sanitizer. High levels of chloramines can cause the problems of “Red Eyes” or “Stinging Eyes.” Usually requires a shock treatment to lower or destroy the combined chlorine level.

18 - Corona Discharge: a method for producing ozone, by utilizing high voltage arcing to convert oxygen (O2) into ozone (O3). Refer to the listing for Ozone for more information.

19 - Enzymes: organic agents that hasten the natural breakdown (digestion) or decomposition of oily wastes and organic residues in pools and spas.

20 - Hard Water: the term used to describe water that is high in calcium or magnesium. High levels, usually over 400 PPM, can lead to clarity and scaling problems, if not treated. Source of the calcium can be natural or can be contributed by chemicals such as calcium hypochlorite.

21 - Ions: the electrically charged state that an element assumes in true solution. In the ionic state, ions are chemically reactive. Some ions, such as, copper, silver and zinc, are used as sanitizers in mineral purifiers and/or ionizers.

22 - Ionizers: equipment that sanitizes pool and spa water by providing a low level source of copper and silver ions, as the water passes over charged electrodes. Copper ions can provide algaeidal control. Silver ions can provide bactericidal control. Other types of devices (mineral purifiers) work by an erosion principle and utilize copper, silver or zinc ions.

23 - Mineral Purifier: a type of device that releases copper, silver or zinc ions into the water at very low levels. In this ionic state, these minerals can function in the sanitizer role and help control algae and bacteria in pool and spa water. Mineral Purifiers work on the principle-of erosion and do not require electrical components. Most include some type of replaceable cartridge, that contains the copper, silver or zinc materials.

24 - Biguanide: the generic name for a non-chlorine, non-bromine sanitizer that utilizes the polymer PHMB (polyhexamethylene biguanide). It is used to totally eliminate the use of chlorine or bromine.

25 - Biofilm: a slippery coating of microorganisms that can develop in poorly sanitized pools and spas.

26 - Brominator: feeding devices used to introduce bromine into pools or spas. Most automatic types can be plumbed inline. Others are simple floating varieties. All are intended to make the application of bromine easier and more consistent. Do not use chlorine in place of bromine, in any brominator.

27 - Calcium Carbonate: crystalline deposits (scale) that can form on all under water surfaces, if the water is excessively high in calcium hardness. High pH and high total alkalinity can worsen the problem. Responsible for cloudy water conditions that may result due to pool or spa water being out of balance.

28 - Oxidation: the chemical reaction by which organic matter is “burned” or destroyed, by the action of chlorine, bromine, ozone, hydrogen peroxide or non-chlorine shock. Oxidation may cause minerals such as iron, manganese and copper to form discoloring stains and precipitates, if not treated properly.

29 - Ozonator: a device for producing Ozone (O3), by either a UV (ultraviolet) light source or by electrical arcing (corona discharge). Used for oxidizing and sanitizing purposes in both pools and spas. Click here for some ordering information about Ozone Test Kits.

30 - Ozone (O3): typically produced by an Ozonator installed in a pool or spa. Ozone (O3) is a form of oxygen (O2) and is a powerful oxidizing agent. It is used to destroy organic waste and byproducts and help in the control of algae and bacteria. Not a stand-alone sanitizer: needs some supplementing with chlorine, bromine or ionization.

31 - Soft Water: is water that is low in calcium and magnesium hardness. Such water can prove to be corrosive to masonry surfaces...
and underwater metal parts. The calcium hardness level can be raised, to the optimum range of 150-200 PPM, by the addition of appropriate amounts of a calcium hardness increaser (calcium chloride). Vinyl pools can be maintained at a lower level: 80-200 PPM.

SPA CHEMICALS GLOSSARY

1 - Alkalinity Up: The total alkalinity of your spa water should be between 80-140 PPM. A proper alkalinity will help buffer your spa water against sudden changes in pH. Every 2.5 tablespoons of Alkalinity Up will raise your alkalinity by 10 PPM in a spa holding 500 gallons of water.

2 - Bromine Tablets: These slow-dissolving tablets work especially well in the hot water of your spa. Keep a base of tablets inside of an in-spa floater/feeder in order to maintain between 2 and 5 PPM. Add 2 tablets per 100 gallons of water and adjust the floater’s opening to regulate the PPM level.

3 - Foam Gone: Foam in spas is typically caused by residue from soap, shampoo, and cleansers. A small amount of Foam Gone will dissipate the foam and will not affect the water balance. Most foam removers are compatible with all sanitation programs.

4 - Liquid Filter Cleaner: Regular use of Filter Cleaner will greatly increase the life and performance of your filters by cutting away grease, body oils, scale, and lotions. Clean filters also contribute to better water circulation and superior spa performance, because dirty filters can substantially impede water flow. Keeping your filters clean with filter cleaner will also help keep your water filtered and clear. This is accomplished by mixing one pint of filter cleaner with 2.5 gallons of water and submerging the filters in the mixture for at least 12 hours.

5 - Dichlor Granular: This concentrated, stabilized, and quick-dissolving chlorine granular is simple to use in your spa as a sanitizing shock treatment. The downside to Dichlor is that it will not sustain a - PPM base for long in hot water. However, as a rule of thumb, if you treat your water after bathing with half a capful of Dichlor, you will maintain clear and comfortable water, providing your pH is controlled and your filters cleaned. Dichlor dissolves quickly and leaves no residue.

6 - pH Down: If your pH level remains high, you can struggle with scaling, cloudy water, rapid sanitizer loss, and possible skin and eye irritations. pH Down can be purchased from your dealer in either liquid or solid granular form. Please see your dealer for recommended dosage.

7 - pH Up: The effects of low pH can be rapid sanitizer loss, eye and skin irritation, expedited corrosion of metals, as well as staining throughout the spa. pH up can be purchased from your dealer in either liquid or solid granular form. Please see your dealer for recommended dosage.

8 - Metal Protect or Remover: Also called stain and scale defense, metal protect inhibits staining and scaling in your spa. It will also prevent calcium build-up on the surfaces of your spa. Regular use will help protect your spa surface as well as your plumbing, your pumps, and even your heater.

9 - Spa Shock: Non-chlorine spa shock contains Potassium Monopersulfate and is an oxidizer that works well with mineral, chlorine and bromine systems. Regular use of spa shock can substantially reduce the need for sanitizing by up to 50% and will continually remove inorganics from the water. Best of all, you can bath in only 15 minutes after application.

10 - Ascorbic Acid: vitamin “C.” Can be used as an acidic reducing agent in the removal of difficult metallic stains from underwater surfaces. Oxalic acid can be used in a similar manner.
MAINTAINING THE PROPER pH BALANCE

The pH factor is a measure of the relative acidity or alkalinity in the water. It is measured on a scale of 1 to 14. Pure water has a value of 7, which is neutral. Any value above 7 is alkaline, and any value below 7 is acidic. You should maintain a slightly alkaline pH level, between 7.2 and 7.8, in the hydrotherapy spa. Severe problems can occur when the pH balance is not maintained within this range. If the pH level exceeds 7.8, dissolved minerals can build up and clog the plumbing in the spa jet unit. If the pH level falls below 7.2, the acid level in the water will begin to corrode the metal parts in the spa jet unit. Also, the sanitation agents in the water will not be effective if the pH level is not properly maintained. Damage caused by improper pH levels is not covered under the warranty. To maintain the proper pH level, you should test the pH of the water regularly. To test the water, purchase a pH test kit at a pool and spa supplier. The pH reading should be between 7.2 and 7.8. If the level is too low, add a pH increaser (usually soda ash). If the level is too high, add a pH reducer (usually sodium bisulfate). Test the water again after five minutes. See the instructions with your pH test kit for additional information about testing and adjusting the pH.

TROUBLESHOOTING

The auto-diagnostic module has multiple detection levels. In.scan continuously reads current at input to monitor breaker status. It also identifies corrective actions by displaying error codes on the box display. All errors will be displayed on the keypad and on the in.xm display.

When displaying error codes, both the device ID and its related error code are displayed alternately. If there is more than one active error, the one with the highest priority is displayed first.
A hardware error was detected in in.xm.
- Restart the spa pack and start and stop all pumps and blower.
- If error reappears, contact local dealer to schedule a service call.

User tried to set input current rating lower than the sum of current for all pumps.
- Increase in.xm current rating (and breaker) or reduce pump size.

Input voltage is too low.
Either there is a problem with the terminal connections or with the power line.
- Check input terminal connections to make sure they are correctly wired and tightened.
- Have a certified electrician verify the quality of the power line.

An in.xm fuse is blown.
Fan, blower, ozone, circulation pump, fiber optic.
- Replace the blown fuse with an identically rated replacement (SC-20, SC-25, etc.).

An in.xm fuse is blown.
Pump 2 and Pump 3, or a blower that is more than 5 amps.
- Replace the blown fuse with an identically rated replacement (SC-20, SC-25, etc.).

An in.xm fuse is blown.
Pump 2 and Pump 3, or a blower that is more than 5 amps.
- Replace the blown fuse with an identically rated replacement (SC-20, SC-25, etc.).

In.xm internal temperature’s too high (overheat).
- Remove spa skirt and let system cool down.
- A system reset may be required to clear error.

OH and blinking temperature higher than 122 F on the keypad display.
In.xm detects water temperature higher than 112 F (overheat).
- Remove spa skirt and let system cool down.
- Add cold water and lower filter cycle.
- If error persists, measure the temperature with a DIGITAL thermometer and compare reading with the temperature on the display. If temperature is different, contact your local dealer to schedule a service call.

A hardware error was detected in in.therm. (related to electronic circuit only)
- Restart the spa pack; make sure the heater restarts by changing the set point.
- If problem persists, contact your local dealer and schedule a service call.

This error occurs if in.therm is trying to heat water but does not detect any temperature rise.
- In.therm is not correctly connected. Verify voltage.
- Restart the system.
- Replace in.xm if system is equipped with a stereo which is not working.
- Replace the in.therm if error persists.
This code is displayed when a “no flow” condition is detected by in.therm. Important: System will make three continuous flow checks during 9 minutes before displaying this error.
- Make sure water valves are open and water level is high enough.
- Check and clean filters.
- Make sure there are no air locks (or that no object obstructs passage of water in in.therm channel). Pumps will make strange noise and error “P1 ER” might appear. Follow air lock procedure to clear them.
- Make sure that pump associated to heater (Pump #1 or Circulation Pump) is running. If not, call spa manufacturer to get low level prog. number.

This code occurs when a communication problem exists between in.xw and in.therm.
- Make sure remote heater cables are connected properly and that none of the cable connector pins are bent.
- If problem persists, contact your local dealer to schedule a service call.

High Limit hardware circuit tripped. Usually, kinetic heating protection or current monitoring circuitry will shut the heater down before this error occurs. Still, if it appears there are typically two possible causes.
- Heater was previously stored in a very hot location prior to installation and there is no water yet in its tube to cool it down. Use a hose to cool down the interior of the tube.
- External ambient temperature is high enough to heat water, even though pumps remain off.

High Limit hardware circuit tripped.
- Add cold water in spa and let heater cool down.
- Reset spa pack using current breaker.

System hasn’t detected any current change when turning on or off Pump 1.
- Make sure Pump 1 is connected properly.
- Manually change output status (on/off) of Pump 1 and cycle through all possible states (i.e. low and high speeds).
- Reset spa pack.
- If error does not clear, call your local dealer and schedule a service call.

System hasn’t detected any current change when turning on or off Pump 2.
- Make sure Pump 2 is connected properly.
- Manually change output status (on/off) of Pump 2 and cycle through all possible states (i.e. low and high speeds)
- Reset spa pack.
- If error does not clear, call your local dealer and schedule a service call.

System hasn’t detected any current change when turning on or off Pump 3.
- Make sure Pump 3 is connected properly.
- Manually change output status (on/off) of Pump 3 and cycle through all possible states (i.e. low and high speeds).
- Reset spa pack.
- If error does not clear, call your local dealer and schedule a service call.
**Troubleshooting cont...**

System hasn’t detected any current change when turning on or off circulation pump.
- Make sure circulation pump is connected properly.
- Manually change output status (on/off) of circulation pump.
- Reset spa pack.
- If error does not clear, call your local dealer and schedule a service call.

System hasn’t detected any current change when turning on or off the ozonator.
- Make sure ozonator is connected properly.
- Manually change the output status (on/off) of ozonator.
- Reset spa pack.
- If error does not clear, call your local dealer and schedule a service call.

System hasn’t detected any current change when turning on or off Aux. 1.
- Make sure Aux.1 device is connected properly.
- Manually change the output status (on/off) of Aux.1 device.
- Reset spa pack.
- If error does not clear, call your local dealer and schedule a service call.

**System relearn error**
- Every time a low-level option is changed, the system must “relearn” currents associated to each output/load. During this learning process, the device connected to OUT8 (direct output, no relay) must be disconnected **if it draws more than 0.4 amp**. If it isn’t, system will report a SC error code.
- Once the load is correctly disconnected, user needs to restart the learning process by pressing either Select or Change key on the in.xm display panel (in.scan interface).
Artesian Spas Gold Class Spa Warranty

The following is a description of your warranty. You will also find information of what is not covered under warranty and along with what can void your warranty.

Lifetime Structure Warranty
Gold Class Spas carry a lifetime structure warranty. The structure is defined as the shell below the exposed material finish. The manufacturer warrants the spa against loss of water due to a defect in the spa structure, for the lifetime of the spa structure. In the event of a defect in the material and/or workmanship, the spa structure will be repaired or replace at the discretion of the manufacturer.

THIS WARRANTY IS GIVEN ONLY TO THE ORIGINAL OWNER, AND TERMINATES UPON TRANSFER OF OWNERSHIP. COMMERCIAL APPLICATIONS ARE EXCLUDED FROM THIS AND ALL WARRANTIES.

If the spa structure is defective and must be replaced, it will be returned to the factory. The original, installed equipment (this includes the frame, skirt and all equipment) will be reinstalled. If new equipment is desired, there will be additional charges to the customer.

If the frame and/or skirt of the spa is badly damaged, there will be a cost to the spa owner to repair or replace the frame and/or the skirt. When a spa needs to be returned to the factory for repair, the cost of freight to the company will be at the customer’s expense. The MANUFACTURER will not pay for removal, installation, cranes, construction, de-construction, or any cost associated with access, egress or ingress of the spa to the customer’s home. The MANUFACTURER reserves the right to an on-site inspection by its authorized representative. In the unlikely event a shell or spa must be repaired or replaced, all warranties (shell, surface, electrical and plumbing) date back to the original date of installation.

Seven-Year Surface Warranty
The spa surface is described as the exposed material finish. The MANUFACTURER warrants the spa surface to be free from defects in material and workmanship, such as blistering, cracking or delaminating, under normal use and maintenance for a period of seven years from the original date of delivery. The Electrical is defined as the electrical items.

THIS WARRANTY IS GIVEN ONLY TO THE ORIGINAL OWNER, AND TERMINATES UPON TRANSFER OF OWNERSHIP. COMMERCIAL APPLICATIONS ARE EXCLUDED FROM THIS AND ALL WARRANTIES.

The spa must be set on a level cement slab and/or a level deck surface that is sufficient to support the entire length and width of the spa. Standard building practices must be followed. Damage caused by failure to have a properly leveled and supported foundation under the spa is not covered under warranty. The MANUFACTURER does not warrant problems associated with prolonged exposure to the sun and/or use of any sanitation or ozone system not approved by the MANUFACTURER. Damage to the spa surface caused by leaving the spa uncovered and empty of water with direct sunlight exposure will terminate this warranty. Any alteration to any system, either electrical, plumbing or mechanical, or over use of chemicals, or any other problems caused by external source are not covered under warranty. Other exclusions may apply. Please read the warranty thoroughly. Normally, problems associated with material and workmanship can and will be repaired. If the spa surface is repaired, the repair is limited to the affected area only, and there is no guarantee against discoloration or fading. The decision to repair will be made by the MANUFACTURER and its field representative after a review of the facts, pictures, or any other data presented by the dealer or customer. In all cases, pictures of the affected area and foundation of the spa must be provided before any decisions to repair or replace can be made. In the unlikely event of a spa replacement, all warranties, (structure, surface, equipment and plumbing) date back to the original date of installation. If it is determined that the surface is to be replaced, the same conditions and terms as outlined in the surface warranty will apply.

Five-year Electrical Warranty
(i.e., pumps, equipment packs, heaters, topside, etc.)
The MANUFACTURER warrants all electrical equipment to be free from defect in material and workmanship for five-years. THIS
Artesian Spa Gold Class Warranty  cont.

WARRANTY IS GIVEN TO THE ORIGINAL CONSUMER AND TERMINATES UPON TRANSFER OF OWNERSHIP. COMMERCIAL APPLICATIONS ARE EXCLUDED FROM THIS AND ALL WARRANTIES. The stereo, speakers, L.E.D. lighting, and Ozone are not included in this warranty but are covered under a separate warranty. Damage caused by weather, poor water chemistry, and/or improper maintenance will not be covered under this warranty. Alterations or replacements of components installed in the spa that are not purchased and/or approved by the MANUFACTURER, including incorrect wiring, will terminate the complete spa warranty.

Five Year Plumbing Warranty
The Plumbing is described as all piping, jet bodies, and valve bodies. The MANUFACTURER warrants all plumbing for a period of five years from date of installation. THIS WARRANTY IS GIVEN TO THE ORIGINAL CONSUMER AND TERMINATES UPON TRANSFER OF OWNERSHIP. COMMERCIAL APPLICATIONS ARE EXCLUDED FROM THIS AND ALL WARRANTIES. Jet internals, valve handles, and such items, are regular maintenance items and they are not covered under this warranty. Damages caused by weather, poor water chemistry, and/or improper maintenance is not covered under warranty.

Cabinet Warranty
The spa cabinet is described as the outer material encasing the spa. The MANUFACTURER warrants it to be free from defect in material and/or workmanship from the date of original installation. THIS WARRANTY IS GIVEN TO THE ORIGINAL CONSUMER AND TERMINATES UPON TRANSFER OF OWNERSHIP. COMMERCIAL APPLICATIONS ARE EXCLUDED FROM THIS AND ALL WARRANTIES. This warranty does not cover normal darkening, staining, or aging. The spa cabinet requires care and maintenance by the consumer. Damage caused by weather, poor water chemistry, and/or improper maintenance is not covered under this warranty.

TWO-YEAR WARRANTY ON PERMAWOOD CABINETS
PermaWood cabinets are covered under this warranty for a two-year period.

ONE-YEAR WARRANTY ON REDWOOD CABINETS
Wood cabinets are covered for a one-year period. A coat of stain should be applied regularly to the cabinet to keep the wood in proper condition.

Other Items Not Covered In This Warranty
Some items are not covered in this warranty. These items either have a different warranty, or are warranted through the manufacturer of that item.

Stereo And Stereo Components
The stereo and stereo components, including speakers, sub woofer, wire harness and remote control, are covered for 30 days. This warranty does not cover damage to a stereo or stereo component from abuse, poor reception, or damage caused by putting a wet CD into the stereo. If a stereo is replaced under this warranty, the MANUFACTURER reserves the right to replace the unit with another like unit, but not necessarily the same stereo manufacturer. No spa will be replaced for a failed stereo. The stereo does not affect the performance of the spa.

Ozonator
The ozonator is covered for one year from the date of delivery.

Spa Cover
The spa cover manufacturer warrants the spa cover for one year. Do not send the cover to the spa MANUFACTURER. This will delay the replacement or repair of the cover, and the spa MANUFACTURER is not responsible for lost covers.

L.E.D. Lighting
The L.E.D. lighting is guaranteed to work upon delivery. There is no warranty covering the L.E.D. lighting.
Artesian Spa Gold Class Warranty cont.

Performance
In the event of any defect covered by this LIMITED warranty, a May Manufacturing LLC, authorized agent will correct such defect within the terms and conditions contained herein. There will be no charge for parts or labor within the above terms. However, travel charges that occur will not be covered under warranty. If it is determined by May Manufacturing LLC that the repair of the product is not feasible, a replacement spa equal to the value of the original purchase price will be provided. Cost for removal of the defective spa and delivery and installation of the replacement spa is the responsibility of the spa owner and will not under any circumstances be covered by May Manufacturing LLC.

Limitations
This warranty is void if this Artesian Spa has been subjected to alteration, misuse or abuse, or if any repairs have been done by anyone other than an authorized agent of May Manufacturing LLC. Misuse or abuse is defined as: use of the spa in a nonresidential application, water temperature outside of the range of 32°F to 110°F, damage caused by clogged or dirty filter cartridges, damage to the spa from absence of a hard cover, damage to components from improper pH, use of any type of acid, or from chemical imbalance. ACTS of NATURE are not covered under this warranty.

Disclaimer
May Manufacturing LLC, or its agent shall not be liable for any injury, cost or other damage, whether incidental or consequential, arising out of any defect covered by the LIMITED WARRANTY. The liability of May Manufacturing LLC under this LIMITED WARRANTY shall not exceed the original amount paid for the spa.

Legal Remedies
This LIMITED WARRANTY gives specific rights, and other rights that may apply will vary from state to state.

What Is Not Covered Under Your Warranty
The following is a general overview of non-warranty items and work.

This is not an all-inclusive list:
Diagnoses of spa problems
Jet inserts
Fuses
Valve handles
Light bulbs of all kinds
Pump seals
Removing a spa from a structure
Draining and filling a tub
Pillows
Acts of nature
Filters
Travel charges
Chemical misuse
Cabinet screws
Filter lids
Incorrect wiring
Any part not purchased from Artesian Spas

Any alteration of the spa that has not been pre-authorized by the MANUFACTURER will void all warranties. If the MANUFACTURER approves an alteration, verify that this alteration is covered under warranty. Damage caused by moving a spa that is blocked in or that has been recessed is not covered under warranty.

WARRANTY CARD
This warranty card must be returned to May Manufacturing LLC, within 45 days of installation. Failure to return the warranty card, with required areas filled in completely, can void the warranty.

The benefits of sending in your warranty card:
• Guarantees your warranty is in place.
• Registers you with the manufacturer.
• Registers the date of delivery with the manufacturer.
INTERIOR SPA DIAGRAM

1) Spa Pack
2) Heater
3) Therapy Pump
4) 24-hr Circulation pump
Mr  Ms.

Name________________________________________
Address_______________________________________
City___________________________________________ State___________________ Zip________
Phone Number___________________________________
Date of Installation___________________________ Spa Serial Number___________________________
Spa Model_____________________________________
Your Dealers Name and Location__________________
What other spa brands did you consider buying?______________________________________________

Optional Questions
How many people are in your household?_____________________________________________________
What is your age bracket?  25-30   31-40   41-50   51-60   61-70   71+
What is your reason for purchasing a spa?  ☐ Health Benefits  ☐ Stress  ☐ Relief  ☐ Relaxation
Other: ___________________________________________________________________________________