



OWNER'S MANUAL



# CERTIFICATE OF AUTHENTICITY

Thank you for your purchase. This certificate hereby verifies that the spa you have purchased from an Artesian Spas (May Manufacturing, LLC) authorized dealer is authentic, brand new and original. The spa has been crafted and built in the U.S.A in accordance with industry quality standards.

#### WARRANTY REGISTRATION

Please activate your warranty and register your spa at www.TidalFit.com click on owner login, or mail the registration card in the back of the owner's manual.

Spa Serial #:	
Spa Model:	
Date Purchased:	
Installation Date:	<u> </u>
Dealer Name:	
T-11#	







# This manual covers your new TidalFit



# **TABLE OF CONTENTS**

Certificate of Authenticity	
Important Safety Instructions	
TidalFit Specifications	
Electrical Requirements and Installation	
Electrical Wiring	
Basic System Features and Functions	
60 Hz GFCI Wiring Diagram	8
Pack Terminal Block From GFCI	9
50 Hz Electrical Configuration	10
TidalFit Start Up	11
Selecting a Location	11
Inspection	12
Filling the TidalFit with Water	
Turning the Power On	13
Verifying Water Circulation	
Testing the GFCI Breaker	13
Priming the Pump	
Water Preparation	14
TidalFit Semi In-Ground Arch Specs (EP-14/EP-15).	15
TidalFit Semi In-Ground Instructions	16
Topside Control Instructions (EP-15)	
The Main Screen	
Spa Operations	
Temperature Operation	
The Settings Screen	24
Temp Range	
Heat Mode	25
Ready Mode	25
Rest Mode	
Time of Day	
Setting Filter Cycle	
Invert Display	
Restricting Operations (Lock)	
Hold	
Utilities	
Preference	. 35

# **TABLE OF CONTENTS**

Time Display	35
Dolphin (Not Used)	36
Color	36
Language	
Heater Related Messages	
Sensor Related/Misc. Messages	
Sensor Related Messages	
Miscellaneous Messages	
System Related Messages	
Reminder Messages	
ML 700 Panel User Guide	
Initial Start-up	
Time	
Setting the Time	
Temp Set	
Mode/Prog	43
Standby Mode	44
Invert	
Preset Filter Cycles	45
Optional Filter Cycle Programming	46
Light	47
Freeze Protection	
Locking The Panel	48
Locking The Set Temperature	48
Diagnostic Messages	49
Periodic Reminder Messages	53
GFCI Protection	54
GFCI Trip Test Procedure	55
Various Exercises	
Rowing Exercise	
Upper Body Workouts	
Treadmill/Advanced Swimming w/Super Swim	58
Maintaining Your TidalFit	59
Draining Your TidalFit	
Pillow Care	59

# **TABLE OF CONTENTS**

Removing, Installing, and Cleaning Filters	Jet Care	60
Replacing the Light Bulb	Removing, Installing, and Cleaning Filters	61
TidalFit Cabinet Care	Winterizing Your TidalFit	62
TidalFit Cabinet Care	Replacing the Light Bulb	62
Cover Care	TidalFit Cabinet Care	63
Chemical Treatment of Water	Cleaning Your TidalFit Interior	63
Water Chemistry 66 Water Treatment Glossary 66 Spa Chemicals Glossary 71 Maintaining the Proper pH 72 TidalFit Warranty 73	Cover Care	64
Water Treatment Glossary	Chemical Treatment of Water	65
Water Treatment Glossary	Water Chemistry	66
Spa Chemicals Glossary71Maintaining the Proper pH72TidalFit Warranty73	•	
Maintaining the Proper pH	•	
<u>-</u>	•	
<u>-</u>	, ,	
	Interior Spa Diagram	

# 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 mm) 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.
- For cord connected/convertible units. DANGER Risk of Injury -
- a) Replace damaged cord immediately.
- b) Do not bury cord.
- c) Connect to a grounded, grounding type receptacle only.
- 5. 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.
- 6. **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.

7. **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.

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

#### 9. 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 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.

#### Save These Instructions

#### **EQUIPMENT ASSEMBLIES**

An equipment assembly shall be additionally provided with the following important safety instructions

- WARNING Risk of accidental drowning. extreme caution must be exercised to prevent unauthorized access by children. to avoid accidents, ensure that children cannot use a spa or hot tub unless they are closely supervised at all times.
- 2. **DANGER** To reduce the risk of drowning from hair and body entrapment, install a suction fitting(s) with a marked flow rate that equals or exceeds the flow rate marked on the equipment assembly.

- 3. **DANGER** To reduce the risk of injury, do not remove the suction fittings. Never operate a spa or hot tub if the suction fittings are broken or missing. Never replace a suction fitting with one rated less than the flow rate marked on the equipment assembly.
- 4. **DANGER** Risk of Electric Shock. Do not permit any electric appliance, such as a light, telephone, radio, or television, within 5 feet (1.5m) of a spa or hot tub.
- 5. **WARNING** Risk of Electric Shock. Install at least 5 feet (1.5m) from inside wall of hot tub or spa using non metallic plumbing.
- 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 hig potential for causing fetal damage during the early months of pregnancy, pregnant or possibly pregnant women should limit spa water temperaturs to 38°C (100°F).
- c) Before enterin/g a spa or hot tub, the user should measure the water temperature since the tolerance of water temperature regulating devices varies.
- **d)** The use of alcohol, drugs or medication before or during spa or hot tub 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 or hot tub since some medication may induce drowsiness while other

## 7. For equipment assemblies with a gas heater

**WARNING** - Risk of suffocation. This equipment assembly uses a gas heater and is intended for outdoor use only unless proper ventilation can be provided for an indoor installation.

## 8. For equipment assemblies with a blower

**WARNING** - Install blower no less than 1 foot (305mm) above the maximum water level to prevent water from contacting electrical equipment.

#### Save These Instructions

Marking for equipment assemblies

$\wedge$	WA	<b>RN</b>	INC
	VVA		

#### REDUCE THE RISK OF ELECTROCUTION

- 1. Install at least 5 feet from water using nonmettalic plumbing.
- 2. Do not install under spa skirt or within an enclosure that would restrict ventilation.
- 3. If blower is included, install at least 1 foot above maximum water level.

#### REDUCE THE RISK OF CHILD DROWING

- 1. Supervise children at all times.
- 2. Attach spa cover after each use.
- Install a suction guard with marked flow rate no less than \_\_\_\_\_GPM to avoid hair and body entrapment.

#### REDUCE THE RISK OF OVERHEATING

- 1. Check with a doctor before use if pregnant, diabetic, in poor health, or under medical care.
- Exit immediately if uncomfortabe, dizzy or sleepy. Spa heat can cause hyperthermia and unconsciousness.
- 3. Spa heat in conjuction with alcohol, drugs, or medication can cause unconsciousness.

WHEN PREGNANT, soaking in hot water for long periods can harm your fetus. Measure water temperature before entering.

- 1. Do not enter spa if water is hotter than 100°F (38°C).
- 2. Do not stay in spa for longer than 10 minutes.

#### **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!!

# TIDALFIT SPECIFICATIONS\*

# **TIDALFIT (EP-14)**

Dimensions 168 x 91 x 52 in 427 x 231 x132 cm

Volume 1750 gal 6625 lt

Weight (dry/filled) 2000 / 16595 lbs 907 / 7527 kg Heater 5.5/11 kW (option) 3.0/8.5 kW (option)

Circulation System\*\* Hi-Flow Standard Hi-Flow Standard

Ozone CD CD

Cascade WF Standard Standard

# **TIDALFIT (EP-15)**

Dimensions 180 x 91 x 60 in 457 x 231 x152 cm

Volume 1850 gal 7000 lt

Weight (dry/filled) 2250 / 17700 lbs 1020 / 8028 kg
Heater 5.5/11 kW (option) 3.0/8.5 kW (option)
Circulation System Hi-Flow Standard Hi-Flow Standard

Ozone CD CD

Cascade WF Standard Standard

<sup>\*</sup> Information may be use as a reference only. Please verify before installation

<sup>\*\*</sup>n/a on TidalFit (EP-14) Semi In-Ground Hydrotherapy

# ELECTRICAL REQUIREMENTS AND INSTALLATION

The following information is provided for hooking up electrical supply to your new pool. 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 60Hz pool is preset at the factory to run on 240V with a 48 amp input. This feature gives you the most performance out of your pool. This will require a 240V, 60-amp GFCI

Your export 50Hz pool is preset out of factory to run 230V-240V 3 wires 30 amp max input. This product must always be connected to residual current device (RCD) having a trip current of not more than 30 mA.

#### **ELECTRICAL WIRING**

WARNING: Your pool 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 independent listing facility.

- 1) The TidalFit requires a 240 VAC dedicated system. The pool must be hard wired to the power supply, with no plug-in connections, extension cords, or sharing of service.
- 2) The pool requires that you run 6 (10 mm²) or 8 (8.4 mm²) 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 or other national installation requirement with a residual current device (RCD) having a trip current of not more than 30 mA. This could be used as the shut-off switch, which must be installed in plain view of the pool. This electrical service must be readily accessible to the pool occupants, but must not be within 5 feet of the pool.
- 4) Use only non-metallic conduit and fittings when installing power to the spa.
- 5) After your pool has been positioned, route lines through the knockout on the left or right front corner of the pool.
- 6) Connect the power to the pool.

## **BASIC SYSTEM FEATURES AND FUNCTIONS (60HZ)**

- 240VAC, 48A, Class A GFCI-protected service (Circuit Breaker rating = 60A max.)
- 4 wires (hot, hot, neutral, ground)

# AUXILIARY HEATER POWER REQUIREMENTS (60 HZ) 'f6 UXi 'GmghYa 'Cb'mL

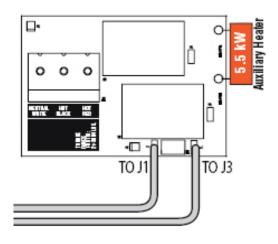
- 240VAC, 60Hz, 24A, Class A GFCI-protected service (Circuit Breaker rating = 30A max.)
- 4 wires (hot, hot, neutral, ground.)

#### **MAIN BOARD POWER REQUIREMENTS (50HZ)**

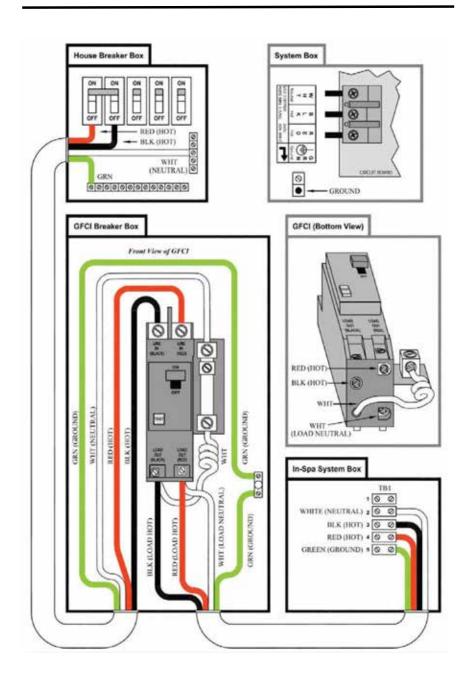
- Single Service {3 wires (line, neutral, ground)}
- 230VAC, 50Hz, 1-,16A/32A, (Circuit Breaker rating = 20A/40A max.)
- Dual Service (5 wires (line 1, neutral 1, line 2, neutral 2, ground)).
- 230 VAC,, 50Hz, 1 -, 2x 16A, Circuit Breaker rating = 20 max each service.)
- 3-Phase Service [5 wires (line 1, line 2, line 3, neutral, ground)]
- 400VAC, 50Hz, 3N -, 16A, (Circuit Breaker rating = 20A max each phase line.)
- IMPORTANT Service must include a neutral wire, with a line to neutral voltage of 230VAC.

# AUXILIARY HEATER BOARD POWER REQUIREMENTS' f6 UXi 'GnghYa 'Cb'nk

- Single service {3 wires (line, neutral, ground)}
- 230VAC, 50Hz, 1 -, 24A, (Circuit Breaker rating = 30A max.)



# **60HZ ELECTRICAL WIRING**

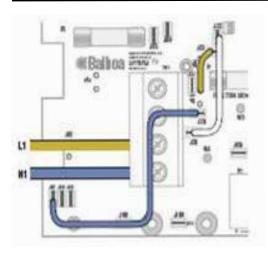


# PACK TERMINAL BLOCK FROM GFCI

#### MUST BE DONE BY A CERTIFIED ELECTRICIAN

- 1) The black and red wires from the main electrical box\* must be connected to the input lugs in the GFCI.
- 2) The white wire from the main electrical box\* must be connected to the dedicated neutral bar inside the GFCI box.
- 3) The green or copper wire from the main electrical box\* must be connected to a separate dedicated ground bar inside the GFCI box.
- 4) The red and white wires from the pool connect to the GFCI breaker output terminals.
- 5) The white wire from the pool must connect to the center load terminal ON THE GFCI BREAKER, usually behind the white pig-tail on the breaker itself
- 6) The white pig-tail from the GFCI breaker must connect to the dedicated ground bus inside the GFCI breaker box.
- 7) The green or copper wire from the pool must connect to the dedicated ground bus inside the GFCI box.
- \*Main electrical box refers to the house distribution panel and not the GFCI

# **50HZ ELECTRICAL WIRING**

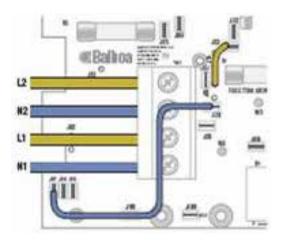


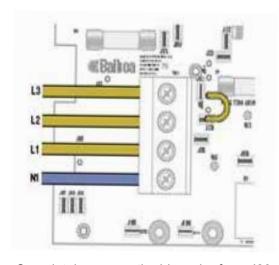
For DIP Switch Configured System

Single Service (1 x 16 Amp or 1 x 32 Amp)

This option is configured and shipped as the default. For 1 x 32 Amp Service: DIP Switch A2 can be ON For 1 x 16 Amp Service. DIP Switch A2 must be OFF

# **50HZ ELECTRICAL WIRING**





# Dual Service Option (2 x 16 Amp)

Completely remove the white wire from J26 and J32.

Note: J32 and J23 are electrically identical. The white wire may be attached to either terminal before removal.

DIP Switch A2 must be ON.

#### 3 Phase Service Option

IMPORTANT - Service MUST include a neutral wire, with a line to neutral voltage of 230VAC.

Completely remove the white wire from J 26 and J 32

Note: J32 and J23 are electrically identical. The white wire may be attached to either of these terminals before removal.

Completely remove the blue wire from J28 and J57.

Note: J57, J58 and J59 are electrically identical. The blue wire may be attached to any of these terminals before removal.

Move the brown wire from J23 or J32 to J28.

DIP Switch A2 must be ON

DIP Switch A2 must be ON.

Move black wire from J27 to J53.

10

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

#### **SELECTING A LOCATION**

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

- 1) Place your TidalFit on a surface that is large enough for the entire TidalFit to fit. Consider the space needed to easily access equipment compartments and circuit breakers. Remember, all electronics must be kept dry.
- 2) The TidalFit must be on a solid, level foundation. Recommended: 6 inches of reinforced cement slab that has cured for at least 72 hours. Your warranty will be voided if the TidalFit 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 TidalFit should be placed on a site where it will not be in the way of water sprinklers.
- 4) OUTDOOR POOL: 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 POOL: 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 pool deck installed by a knowledgeable contractor to ensure proper support.

8). If the TidalFit 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 is recommended as soon as possible.

#### INSPECTION

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

#### FILLING THE TIDALFIT WITH WATER

NOTE: Do Not fill your TidalFit with hot water straight out of your water heater or tap. This water may be as hot as 180°F and will cause damage to the surface and plumbing of the pool. This will void your warranty. Level the pool before filling.

- 1) Prepare to fill the tub by removing all debris.
- 2) Remove the filters from your pool (see Removing, Installing and Cleaning Filters, page 61.)
- 3) Place your garden hose in the center of the filter .
- 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 filter line and continue filling the pool from the filter well.
- 6) Fill the pool to the bottom of the pillows.

#### NOTE: Do Not Overfill Your Pool.

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 pool.

8) Reinstall the circulation pump screen and all filters.

#### TURNING THE POWER ON

Turn the power to the pool on at the main circuit breaker. Verify that your pool has no error codes. Verify that there is good water circulation in the pool. 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 pools there is a diverter valve. Verify where the diverter valve is located.

#### TESTING THE GFCI BREAKER

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

- 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 If the GFCI breaker fails to operate as described, there is a possibility of an electrical shock if the TidalFit 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 pool technician.

#### **TESTING THE GFCI BREAKER**

NOTE: When power is turned on, your pool 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 touch pad until the desired temperature is displayed. This setting will allow your pool to heat to the set temperature.

**CAUTION:** If water is not noticeably coming from your pool 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.

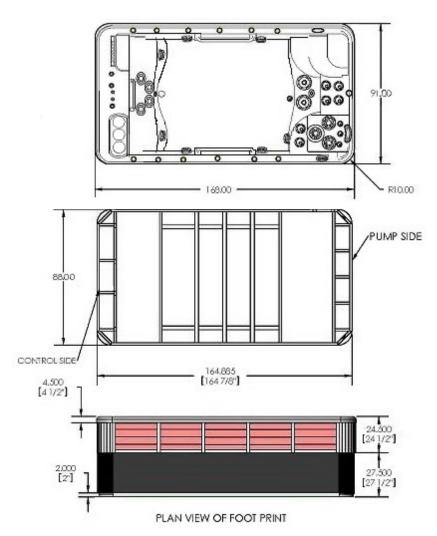
#### PRIMING THE PUMP

- 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 pool 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 pool.

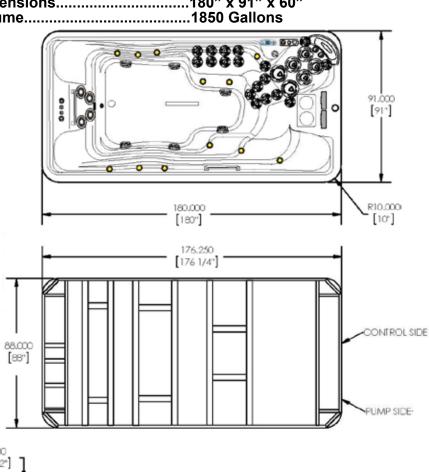
# TIDALFIT SEMI IN-GROUND EP-14 ARCHITECTURAL SPECIFICATIONS

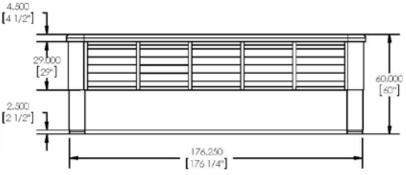


# **TIDALFIT SEMI IN-GROUND EP-15** ARCHITECTURAL SPECIFICATIONS

Dry Weight ......2250lbs. Filled Weight ......17700 lbs

Dimensions......180" x 91" x 60" Volume......1850 Gallons





# **TIDALFIT SEMI IN-GROUND INSTRUCTIONS**



The depth of the dig will vary based upon the on the terrain or slope.



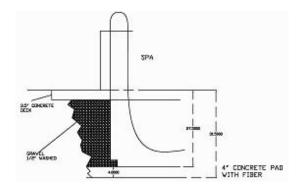


Crane the spa into position like a normal spa delivery.

## TIDALFIT SEMI IN-GROUND INSTRUCTIONS



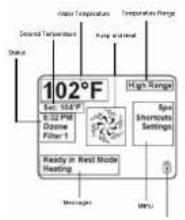
Place 1 bag in each corner and 1 in the middle of each long side. This will allow you to remove the straps on the spa is in position. Allow the ice to melt and then the spa will be ready for back fill with gravel



In a flat application: Use gravel NOT dirt. Using dirt you have to compact it, this will create unruly pressure on the spa. Gravel gives you about 98% compaction just by pouring it in the void (overdig). then you can pour your concrete decking. If a wooden deck is being built there is no real need to backfill except to keep the ground from around the spa from erodings.



#### THE MAIN SCREEN



Important information about spa operation can be seen quickly from the Main Screen.

The actual water temperature can be seen in large test and the desired water temperature is shown in smaller text.

The time-of-day, ozone/uv, filter operation, messages, heat range, menu option and panel lock are also displayed on the main screen.

#### **SPA OPERATIONS**

There are three ways to operate the spa functions from the topside. You can turn the spa pumps and lights from the topside though the buttons on the left hand side of the control panel, or you can use the spa menu using the navigation buttons or you can use the short cut setting. Certain functions (optional wave control) can only be controlled from the individual wave control buttons or through the menu option.

Jets 1 Button: The jets 1 button will operate pump number 1. First press of the Jets 1 button will activate pump 1. A second press of the Jets 1 button will deactivate pump 1. If pump1 is not manually turned off by pressing the Jets 1 button, pump will automatically timeout after 15 minutes.

Jets 2 Button: The jets 2 button will operate pump number 2. First press of the Jets 2 button will activate pump 2. A second press of the Jets 2 button will deactivate pump 2. If pump 2 is not manually turned off by pressing the Jets 2 button, pump will automatically timeout after 15 minutes.

Jets 3 Button: (If your Island Spa is equipped with a third pump.) The jets 3 button will operate pump number 3. First press of the Jets 3 button will activate pump 3. A second press of the Jets 3 button will deactivate pump 3. If pump 3 is not manually turned off by pressing the Jets 3 button, pump will automatically timeout after 15 minutes.

Light Button: The light button operates the L.E.D. Lights. First Press of the light button will turn on the lights. A second press of the light button will turn the lights off. The Island Spas lighting systems have different modes. To cycle through the different modes you must turn the light on and off, once the desired mode is selected, leave the light on. If the light is not manually turned off it will automatically timeout after 240 minutes.

Use the navigation buttons to highlight the operation you would like to perform.











Once the operation is highlighted press the Select Button, to engage the highlighted item.



Back button: Will return you to the main menu.

Jets 1: First press of the Select button will activate pump 1 (if pump is not currently on). A second press of the Select button will deactivate pump 1. If pump 1 is not manually turned off by pressing the Select button it will automatically timeout after 15 minutes.

Jets 2: First press of the Select button will activate pump 2 (if pump is not currently on). A second press of the Select button will deactivate pump 2. If pump1 is not manually turned off by pressing the Select button it will automatically timeout after 15 minutes.

Jets 3: (If applicable) First press of the Select button will activate pump 3 (if pump is not currently on). A second press of the Select button will deactivate pump 3. If pump 3 is not manually turned off by pressing the Select button it will automatically timeout after 15 minutes.

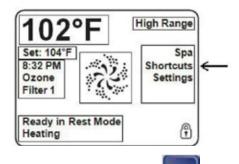
Light: First Press of the select will turn on the lights. A second press of the select button will turn the lights off. The Island Spas lighting systems have different modes. To cycle through the different modes you must turn the light on and off, once the desired mode is selected, leave the light on. If the light is not manually turned off it will automatically timeout after 240 minutes.

Invert: Inverts the display to be viewed from outside the spa or inside the spa

Using the Shortcut Menu and Navigation buttons:

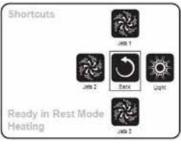
Use the Right Arrow Button and highlight SPA in the menu.

Use the Down Arrow Button and highlight Short cuts in the menu.



Press the Select Button whe

when the Shortcut option is highlighted.



The main screen will change to shortcut operation screen.

The shortcut menu assigns the operation to the navigation buttons.

Up Button: The UP button will operate pump 1. First press of the UP button will activate pump 1. A second press of the UP button will deactivate pump1. If pump1 is not manually turned off by pressing the UP button it will automatically timeout after 15 minutes.

Left Button: The Left button will operate pump 2. First press of the Left button will activate pump 2. A second press of the Left button will deactivate pump 2. If pump 2 is not manually turned off by pressing the UP button it will automatically timeout after 15 minutes.

Right Button: The RIGHT button operates the L.E.D. Lights. First Press of the RIGHT button will turn on the lights. A second press of the Right button will turn the lights off. The Island Spas lighting systems have different modes. To cycle through the different modes you must turn the light on and off, once the desired mode is selected, leave the light on. If the light is not manually turned off it will automatically timeout after 240 minutes.

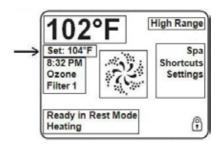
Down Button: The Down button will operate pump 3 (if applicable). First press of the Down button will activate pump 3. A second press of the Down button will deactivate pump 3. If pump 3 is not manually turned off by pressing the Down button it will automatically timeout after 15 minutes.

Select Button: Will return operation back to the main menu.

#### **TEMPERATURE OPERATION**

The only item that can be changed on the left side of the Main Screen is the Set Temperature.

Left Button: Press the left arrow button to highlight the set temperature.

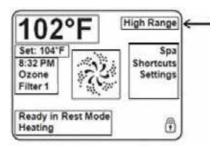


Up Button: Use the Up Button to raise the set temperature

Down Button: Use the Down Button to lower the set temperature.

Select Button: Press the Select Button to save the Set Temperature Range: The Temperature Range is displayed in the upper Right Hand corner of the display. This indicates what the range of the set point can be. Please see the section on adjusting setting to change the Temperature Range

High Range: Set point can be set between 80°F and 104°F Low Range: Set Point can be set between 50°F and 99°F



#### THE SETTINGS SCREEN

The Settings Screen is where all programming and other spa behaviors are controlled. This screen is where all programming and other spa behaviors are controlled.



Down Button: Press the Down Button until Settings is highlighted; you will need to press it twice.

Select Button: Press the Select Button to enter the Settings Screen.

The screen will change to the Settings Menu

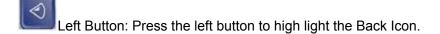


#### TEMP RANGE

The first setting available to change is Temp Range. This system incorporates two temperature range settings. The specific range that is selected (High or Low) will be displayed in the upper right hand corner of the main screen.

High range can be set between 80°F and 104°F. Low range can be set between 50°F and 99°F.

Select Button: When the temp range is highlighted in the Setting Menu pressing the Select Button will change from High to Low or Low to High.



Select Button: Press the select button to return to the main Menu OR

Down Button: Press the down button to go to Heat Mode.

#### **HEAT MODE**

Heat Mode indicates if the spa is Ready mode or Rest Mode. The heat mode will be displayed in the bottom right screen of the main screen display.

## **READY MODE**

In ready mode the heater will maintain the set temperature. If your Island spa is not programmed for 24 hours Filter it will turn on the circulation pump every half an hour to test the water temperature. If the water temperature is one degree below the set point the circulation pump will continue to run to bring the water temperature to the set point temperature.

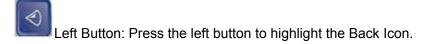
If the water temperature is at the set point temperature the circulation pump will turn off after 5 minutes. If your filtration cycle is set for 24 hours, the circulation pump will continue to run.

25

#### **REST MODE**

Will only allow the spa to heat during a filtration cycle, if the spa is not in a filtration cycle, you can press the pump 1 pump to activate the heater. The spa will go into Ready mode for 1 hour and then go back to rest mode.

Select Button: When the heat mode is highlighted in the Set-tings Menu pressing the Select Button will change from Ready to Rest or Rest to Ready.



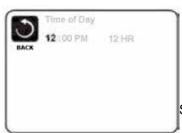
Select Button: Press the select button to return to the main Menu.

Down Button: Press the down button to go to Time of Day.

#### TIME OF DAY

When the time of day is highlighted.

Right Button: Press the Right button to go to the Time of Day Menu.



The screen will change to Time of Day Settings.

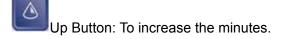


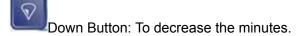
Up Button: To increase the hours.

Down Button: To decrease the hours

NOTE: To change from AM to PM you will need to adjust the hours past 12.

Right Button: Press the Right button to highlight the minutes.





Right Button: Press the Right button to highlight the time format.

12HR: 12 hour format will be displayed. 24HR: 24 hour format will be displayed.

Up Button: To change the time format.

**OR** 

Down Button: To change the time format.

Left Button: Press the left button to high light. Save Icon (you will need to press it three times to high light the save button.)



Select Button: Press the select Icon to save and return to the main Menu.

#### OR





Select Button: Press the select button to cancel changes and return to the main Menu.

Select the Setting menu.

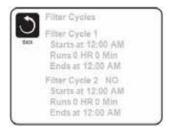
Down Button: Press the down button to go to Filter Cycle.

### **SETTING FILTER CYCLE**

When the Filter Cycle is highlighted:

Right Button: Press the Right button to go to the Filter Cycle Menu.

The Screen will change to Filter Cycle menu.



Right Button: Press the Right button to highlight Filter Cycle 1 Start time Hour. Up Button: To Increase the Filter Cycle 1 Start time hours. Down Button: To decrease the Filter Cycle 1 Start time hours. (NOTE: to change AM and PM you will need to cycle the hours past 12) Right Button: Press the Right button to high light Filter Cycle 1 Start time minutes. (NOTE: Changing the minutes goes by 15 minute intervals) Jp Button: To increase the Filter Cycle 1 Start time Minutes. Down Button: To decrease the Filter Cycle 1 Start time Minutes. Right Button: To highlight the Run Time Hours. Jp Button: To increase the Run Time Hours. Down Button: To decrease the Run Time Hours. Right Button: Press the Right button to high light Run Time Minutes. (NOTE: Changing the minutes goes by 15 minute intervals)

Up Button: To increase the Run Time Minutes.

Down Button: To decrease the Run Time Minutes. The panel calculates the end time and displays it automatically.

Right Button: Press the Right button to highlight Filter Cycle 2.

Up Button: To Filter Cycle 2 on or off.

Down Button: To Filter Cycle 2 on or off.

Right Button: Press the Right button to high light Filter Cycle 1 Start time Hour.

Up Button: To Increase the Filter Cycle 2 Start time hours.

(NOTE: to change AM and PM you will need to cycle the hours past 12)

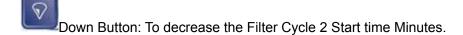
Down Button: To decrease the Filter Cycle 2 Start time hours.

(NOTE: to change AM and PM you will need to cycle the hours past 12)

Right Button: Press the Right button to high light Filter Cycle 2 Start time minutes.

(NOTE: Changing the minutes goes by 15 minute intervals)

Up Button: To increase the Filter Cycle 2 Start time Minutes.



Right Button: To highlight the Run Time Hours.

Up Button: To increase the Run Time Hours.

Down Button: To decrease the Run Time Hours.

Right Button: Press the Right button to high light Run Time Minutes.

(NOTE: Changing the minutes goes by 15 minute intervals)

Up Button: To increase the Run Time Minutes.

Down Button: To decrease the Run Time Minutes.

The panel calculates the end time and displays it automatically. In order to maintain sanitary conditions, as well as protect against freezing, the system will purge water from their respective plumbing by briefly running the pumps at the beginning of each filter cycle. If Filter Cycle is set to off, or filter cycle 1 is set to 24 hours. The second purge cycle will start at the time that is set for filtration cycle 2 start time.

Right Button: Press the Right button to highlight Save

Select Button: Press the select button to save and return to the Setting Menu

OR

Down Button: Press the down button to highlight the cel Icon.



Select the Setting menu.

Down Button: Press the down button until Invert display is highlighted.

### **INVERT DISPLAY**

Select Button: Press the select button to Change the display from Normal to Inverted.

Normal: Display will be towards the inside of the spa.

Inverted: Display will be towards the outside of the spa.

When the display is inverted, the navigation buttons will also be inverted to work with the display.

Down Button: Press the down button until Lock is highlighted.

## RESTRICTING OPERATIONS (LOCK)

The controller can be restricted to prevent unwanted use or changes. There are two lock options.

Settings: Will lock out anyone from changing the Set Temperature and other programming features all jet operations will work.

Panels: Prevent the topside from being used.

Select Button: Press the select button to enter the lock menu. The screen will change to Lock Menu.



Right Button: Press the Right button to highlight Settings OFF/

- Select Button: Press the select button to turn Setting lock on.
- Down Button: Press the down button until Panel is highlighted.
- Select Button: Press the Select button to turn Panel lock on.

The screen will change and go back to the main display.



To unlock the system:

Right Button: Press the Right button to highlight Settings OFF/ON.

Then press the following buttons:



Follow the above steps to unlock the panel.







Select button: Press the select button to go back to the set ting menu.



Down Button: Press the down button until Hold is highlighted.

#### HOLD

Hold mode is used to disable the pump during service functions, cleaning or replacing the filters. The hold will last for 1 hour unless the mode is exited manually.

Select button: Press the select button to go back to activate the hold mode.



Left Button: Press the left button to highlight



Select Button: Press the select button to activate the hold mode.

Down Button: Press the Down Button until Utilities is highlighted.

## **UTILITIES**

The Utilities menu is used for trouble shooting and for technicians. As this is for service personnel we will just explain what each subject is. We do not recommend changing anything unless walked through the setting with a technician.

A/B Temps:

This will display the temperature on sensor A and B on the main display.

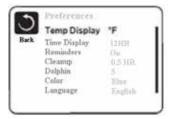
#### Fault Log:

This is a log of the last 24 actions on the spa. It is not necessary errors. GFCI Test: This will cause the GFCI to trip to verify that is working correctly.

Down Button: Press the down button to go to the Preference Menu.

#### PRFFFRENCE

The screen will change to the Preferences Menu.



### TIME DISPLAY

Right button: Press the right button to highlight temp Display.

Select button: Press the select button to change from F° (Fahrenheit) to C° (Celsius) or from C° (Celsius) to F° (Fahrenheit).

Down Button: Press the Down Button until Time Display is highlighted.

Select Button: Press the select button to change from 12HR to 24HR or 24Hr to 12HR time display.

NOTE: The Reminders are messages that will appear in the bottom left hand corner of the main display, they are maintenance reminders for clean filter, check PH etc.

## **DOLPHIN (NOT USED)**

Down Button: Press the Down Button until Dolphin is highlighted. This option is not available.

#### COLOR

Down Button: Press the Down Button until Color is Highlighted.

Select Button: Press the select button to change the background color on the display. Color options are: Blue, Red, Purple, Grey and Green.

#### LANGUAGE

This will change the language displayed on the screen to the language you choose.

Down Button: Press the Down Button until Language is highlighted.

Select Button: Press the select button to open the Language Menu.

Down Button: Press the Down Button until the Language you desire is highlighted. Language options are; English, French, Spanish and German.

Select Button: Press the select button to choose highlighted language



Select Button: Press the select button to go back to the setting menu.

Down Button: Press the Down Button until the Information is high- lighted. Used for Technical and service personnel

#### HEATER-RELATED MESSAGES

During the warmer month it is recommended to change the filter cycle duration to keep the spa overheating with the high ambient temperature.

#### The water flow is low - M016

There may not be enough water flow through the heater to carry the heat away from the heating elements. Heater start up will begin again after about 1 minute.

#### Flow-Related Checks

Check for low water level, suction flow restriction (filters) closed valves or trapped air.

#### The water flow has failed\* - M017

There is not enough water flow through the heater to carry the heat away from the heating element and the heater has been disabled. After the flow problem has been resolved you must press any button to reset and begin the heater start up.

#### Flow-Related Checks

Check for low water level, suction flow restriction (filters) closed valved, or trapped air.

## The heater may be dry\* - M028

Possible dry heater or not enough water in the heater to start it. The spa is shut down for 15 minutes. Press any button to reset the heater start-up.

#### Flow-Related Checks

Check for low water level, suction flow restriction (filters) closed valved, or trapped air.

### The heater is dry\* - M027

There is not enough water in the heater to start it. The spa is shut down. After the problem has been resolved, you must clear the message to restart the heater.

#### SENSOR-RELATED/MISC. MESSAGES

#### Flow-Related Checks

Check for low water level, suction flow restriction (filters) closed valve or trapped air.

#### The heater is too hot\* - M030

One of the water temperature has detected 118°F (47.8°C) in the heater and the spa is shut down. You must clear the message when water is below 108°F (42.2°C).

#### Flow-Related Checks

Check for low water level, suction flow restriction (filters) closed valve or trapped air.

## SENSOR RELATED MESSAGES

## Sensors are out of sync – M015

The temperature sensors may be out of sync. Call you dealer for service.

## Sensors are out of sync -- Call for service - M026

The temperature sensors are out of sync. Call you dealer for service.

# Sensor A Fault, Senor B Fault – Sensor A: M031, Sensor B: M032 The temperature sensors or sensor circuit has failed. Call you dealer for service

## **MISCELLANEOUS MESSAGES**

#### Communications error

The control panel is not receiving communication from the system. Call your dealer for service.

#### Test software installed

The Control System is operating with test software. Call your dealer for service.

## °F or °C is replaced by °T

The Control System is in Test Mode. Call your dealer for service.

#### SYSTEM RELATED MESSAGES

## Program memory failure - M022

Call you dealer for service.

#### The settings have been reset- M021

Call you dealer for service if this message appears on more than one power-up.

#### The clock has failed -M020

Call you dealer for service.

## Configuration error (Spa will not Start Up)

Call you dealer for service.

The GFCI test failed (System Could Not Test the GFCI) – M036 (North America Only) May indicate an unsafe installation. Call you dealer for service.

## A pump may be stuck on - M034

Water may be overheated.

# NOTE: POWER DOWN THE SPA! DO NOT ENTER THE WATER!

Call you dealer for service.

#### Hot fault - M035

A pump appears to have been stuck on with the spa was last powered on. Water may be overheated.

**NOTE: POWER DOWN THE SPA! DO NOT ENTER THE WATER!** Call you dealer for service.

#### REMINDER MESSAGES

#### Check the pH

May appear on a regular schedule, i.e. every 7 days. Check pH with a test kit and adjust pH with the appropriate chemicals.

#### Check the sanitizer

May appear on a regular schedule, i.e. every 7 days. Check sanitizer level and other water chemistry with a test kit and adjust with the appropriate chemicals.

#### Clean the filter

May appear on a regular schedule, i.e. every 30 days. Clean the filter media as instructed by the manufacturer.

#### Test the GFCI (or RCD)

May appear on a regular schedule, i.e. every 30 days. The GFCI or RCD is an important safety device and must be tested on a regular basis to verify its reliability. Every user should be trained to safely test the GFCI or RCD associated with the hot tub installation.

## Change the water

May appear on a regular schedule, i.e. every 90 days. Change the water in the spa on regular basis to maintain proper chemical balance and sanitary conditions.

#### Clean the cover

May appear on a regular schedule, i.e. every 180 days. Vinyl covers should be cleaned and conditioned for maximum life.

## Change the filter

May appear on a regular schedule, i.e. every 365 days. Filters should be replaced occasionally to maintain proper spa function and sanitary condition.



## **INITIAL START-UP**

When your pool is first actuated, it will go into Priming mode (after dispalying some configuration information). Please see the M-7 Installation Instruction Manual for complete instructions on Power-up and Pump Priming. The Priming mode will last for up to 4 minutes and then the pool will begin to heat and maintain the water temperature in the Standard mode. You can exit Priming mode early by pressing "Warm" or "Cool".



### Icon Legend

Heat Icon - Indicates different stages of heating.



Jets Icon - Spins fast on high speed; spins slow On low speed



Blower Icon - Biggest in highest speed; smallest In lowest speed.

#### TIME

When time hasn't been programmed, the "TIME" icon flashes to set the

time, press "Time"



then "Mode/Prog







Use the "Warm" and "Cool" buttons to adjust time.

See previous page for more detailed instructions. (Time settings on EL1000 and some EL2000 systems are not preserved in the event of power loss; time will have to be reprogrammed upon each power up.)

#### **SETTING THE TIME**

Once the pool has been properly connected the first time (every power up on the EL1000 and some EL2000 systems), notice the "TIME" icon appearing on the screen.





Then "Mode/Prog" Select the Hour by

pressing "Warm" by 1 minute).



Or "Cool"



(Each press changes the time



to enter. Select minutes by pressing





(Each press changes the time by 1 minute).

Press "Mode/Prog"



to Exit the time setting procedure and enter the

optional filter cycle programming. (Exits programming on EL1000 and some EL2000 systems).

Press "Time"



to exit programming.

## TEMP SET (80°F - 104°F / 26.0°C - 40.0°C)

The last measured temperature is constantly displayed on the LCD. Your pool's set temperature range may vary from range shown above depending on your manufacturer's settings

NOTE: The last measured spa temperature displayed is current only when the pump has been running for at least 1 minute.

#### WARM/COOL

Press the "Warm"



or "Cool"



button once to display the set temperature. Each time either button is pressed again, the set temperature will increase or decrease depending on which button is pressed. After three seconds, the LCD will automatically display the last measured spa temperature.

#### MODE/PROG

This button is used to switch between Standard, Economy, and Sleep modes. Press "Mode/Prog" to enter mode programming, press

"Cool" to cycle through to desired mode (LCD flashes until confirmed), then press "Mode/Prog" to confirm selection.

**STANDARD MODE** maintains the desired temperature. Note that the last measured pool temperature displayed is current only when the pump has been running for at least 1 minute. The "STANDARD" icon will display until the mode is changed.

**ECONOMY MODE** heats the pool to set temperature only during filter cycles. The "*ECONOMY*" icon will display until mode is changed. Pressing "Jets 1" while in Economy Mode puts the pool in **Standard-In-Economy mode**, which operates the same as Standard Mode, then reverts to Economy Mode automatically after 1 hour. Both the "*STAN-DARD*" and "*ECONOMY*" icons display in this mode. During this time, a press of the "Mode/Prog" button will revert to Economy Mode immediately.

**SLEEP MODE** heats the spa to within 20°F (11°C) of the set temperature only during filter cycles. The "SLEEP" icon will display until mode is changed.

#### STANDBY MODE

Pressing "Warm" or "Cool" then "Jets 2" will turn off all pool functions temporarily. This is helpful when changing a filter. Pressing any button resets the pool.

On some systems the "Jets 1" button will control the pump in .Standy Mode ("Drain Mode"). In this case, press any other button to exit. System will will revert to previous mode after 1 hour.

# Jets 1

Press the "Jets 1" button once to turn pump 1 on or off, and to shift between low and high speeds if equipped. If left running, the pump will turn off after a timeout period. The pump 1 low speed timeout on some systems may be as long as 4 hours.

On non-circ systems, the low speed of pump 1 runs when the blower or any other pump is on. It may also activate for at least 1 minute every 30 minutes to detect the spa temperature (polling) and then to heat to the set temperature if needed, depending upon mode. When the low speed turns on automatically, it cannot be deactivated from the panel; however, the high speed may be started.

# Jets 2 (optional on some systems)

Press the "Jets 2" button once to turn pump 2 on or off, and to shift between low and high speeds if it is a two-speed pump. If left running, the pump will turn off after a timeout period.

## **INVERT**

Press the "Warm" or "Cool" button, then "Blower" to change

the numbers in the display to read upside down. Repeat sequence to return the display to it's normal right- side-up display.

NOTE: If your system does not have a "Blower" button, use "Jets 3" instead.

#### PRESET FILTER CYCLES

On all systems, the pump and the ozone generator will run during filtration. At the start of each filter cycle, the blower will run briefly on its highest speed to purge the air channels. The lowest speed of any other pumps and the mister will also run briefly. On some circ systems, pump 1 may also run for the duration of the filter.

## (The following is specific to all systems that are programmed according time.)

There are two filter cycles per day. The start/end times of each cycle are programmable. To program set time as instructed above, then press

"Mode/Prog"



to advance to the next setting (or to exit after the last setting). Default filter cycles can vary from system to system. A common default is 8:00 AM to 10:00 AM and 8:00PM to 10:00 PM. Press "Time"

then "Mode/Prog"



to step through the filter settings to see how they are currently set. Each filter cycle automatically operates the pump for the duration of the filter cycle. The filter 1 "F1 ●" icon will light when filter 1 is running. The filter 2 "F2 ● " icon will light when filter 2 is running.

## (The following is specific to EL2000 and El1000 systems that are programmed according to duration rather than time.)

The first filter cycle ("day") begins 6 minutes after the spa is powered up. The second filter cycle ("night") begins 12 hours later. Filter duration is programmable for 1-12 hours ("F 1"-"F12"). The default filter duration can vary from system to system. To program, press "Warm"





or "Cool," then "Jets 1." Press "Warm"



or

to select the filter duration. Press "Jets1" "Cool" to select the number of filter cycles. The display will show "dn" (both "day" and "night" cycles; "d" (day cycle only); or "n" (night cycle only). Press





or "Cool" to adjust, then press "Jets 1"



to exit the programming mode. For continuous filtration, use "F 12" and "dn".

NOTE: EL 1000 and some EL2000 are capable of being programmed by time rather than by duration (see Preset Filter Cycles section). On EL 2000 and EL1000 systems with duration programming only, the spa powers up at 12:54, thus the first filter cycles begins 6 minutes later at 1:00. If you would like your spa to begin filtering at another time, you may change the clock to align with your preferred filter time, rather than the actual time of day.

#### OPTIONAL FILTER CYCLE PROGRAMMING

You are not required to set filter cycles; however, it is an option available to you. To change the filter cycle settings;

Press "Time"



"Mode/Prog"



"Mode/Prog"



"Mode/Prog"



within 3 seconds.

You will see the "PROGRAM", "FILTER 1" and "START TIME" icons appear on the display.

Press "Warm



or "Cool"



to choose the filter start time hour.

Enter the hour by pressing "Mode/Prog".



Warm" or "Cool" to choose the filter start time minutes. Each press changes the start time by 5 minutes.

Enter the minutes by pressing "Mode/Prog".



Press "Mode/Prog" to see the "PROGRAM," "FILTER 1 and "END TIME" icons. Adjust the time as done above.

Press "Mode/Prog" to see the "PROGRAM," "FILTER 2" and "START" TIME" icons. Proceed as above.

Press "Mode/Prog"



will enter the new filter cycle times into the

system and display the current water temperature.

Pressing "Time"



at any time during this programming sequence

will save the values entered up to that point and exit programming.

If you would like to select continuous filtration, set the filter 1 start and end times to be the exact same time. In this case, the filter 2 start time only controls when the second purge happens. Filter 2 end time will be unavailable.

#### LIGHT

Some systems are equipped with both a spa light and a fiber optic light; however, only one can be accessed by this panel. (Larger panels may be purchased so that both the spa light and fiber optic light can be utilized.) Depending upon how your spa is equipped and configured, the "Light" button will operate in one of three ways:

1.) Press the "Light"



button to turn the spa light on and off.

#### FREEZE PROTECTION

If the temperature sensors within the heater detect a low enough temperature, then the pump(s) automatically activate to provide freeze protection. The pump(s) and blower will run either continuously or periodically depending on conditions.

In colder climates, an optional additional freeze sensor may be added to protect against freeze conditions that may not be sensed by the standard sensors. Auxiliary freeze sensor protection acts similarly except with the temperature thresholds determined by the switch. See your dealer for details.

#### LOCKING THE PANEL

then "Warm" Press "Time" Jets 1" within 3 seconds.

When locked, the PL "PL ● "light will light. All buttons are frozen except the "Time": button.

To unlock the panel, press "Time" "Jets 1" then "Cool."

#### LOCKING THE SET TEMPERATURE

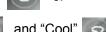
Press "Warm" or "Cool" then "Time"

"Jets 1". And "Warm" within 3 seconds to activate the lock.

The TL "TL ● " light will light when the set temperature is locked.

On some systems, locking the set temperature also locks out Mode changes.

To unlock the set temperature, press "Warm"



"Cool" then "Time, Jets 1" and "Cool"

No message on display. Power has been cut off to the spa.

 The control panel will be disabled until power returns. Time of day will be preserved for 30 days with a battery back-up on EL8000 and EL 5000 systems. EL1000 and some EL2000 systems reset the time of day on each power-up. Pool settings are preserved on all systems



"Overheat" - The pool has shutdown. On some systems, an alarm may sound. One of the sensors has detected 118°F (approximately 47.8°C) at the heater.

 DO NOT ENTER THE WATER. Remove the spa cover and allow water to cool. Once the heater has cooled, reset by pushing any button. If pool does not reset, shut off the power to the pool and call your dealer or service organization



"Overheat" - The pool has shutdown. One of the sensors has detected that the pool water is 110°F (approximately 43.3°C).

• **DO NOT ENTER THE WATER**. Remove the pool cover and allow water to cool. At 107°F (approximately 41.7°C), the pool should automatically reset. If pool does not reset, shut off the power to the pool and call your dealer or service organization



"Ice" - Potential freeze condition detected.

 No action required. The pumps and the blower will automatically activate regardless of pool status.



Pool is shutdown. The sensor that is plugged into the Sensor "A" jack is not working

If the problem persists, contact your dealer or service organization. (May appear temporarily in an overheat situation and disappear when the heater cools).



Pool is shutdown. The sensor that is plugged into the Sensor "B" jack is not working

If the problem persists, contact your dealer or service organization. (May appear temporarily in an overheat situation and disappear when the heater cools).



Sensors are out of balance. If this is alternating with the temperature, it may just be a temporary condition. If the display shows only this message (periodically blinking), the pool is shut down.

 If the problem persists, contact your dealer or service organization.



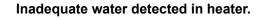
A substantial difference between the temperatures sensors was detected. This could indicate a flow problem.

 Check water level in pool. Refill if necessary. If the water level is okay, make sure the pumps have been primed. Press any button to reset.



Persistent low flow problems. (Displays on the fifth occurrence of the "HFL" message within 24 hours.) Heater is shutdown, but other spa functions continue to run normally.

Follow action required for "HFL" message. Heating capacity of the pool will not reset automatically, you may press any button to reset.





 Check water level in pool. Refill if necessary. If the water level is okay, make sure the pumps have been primed. Press any button to reset.



Inadequate water detected in heater, (Displays on third occurrence of "dr" message.) Pool is shutdown.



 Follow action required for "dr" message. Pool will not automatically reset; you may press any button to reset.

# When your pool is first actuated, it will go into Priming Mode.



See the M-7 Installation Instruction Manual for complete instructions on Power-up and Pump Priming.
The Priming mode will last for up to 4 minutes and then the pool will begin to heat and maintain the water temperature in the Standard mode..

## or

## Temperature unknown.



 After the pump has been running for 1 minute, the temperature will be displayed.



# Temperature not current in Economy or Sleep mode.

 In Economy or Sleep mode, the pump may be off for hours outside a filter. If you wish to see the current pool temperature, either switch to Standard mode or turn Jets1 on for at least a minute.



# Standby mode has been activated by pressing a button combination on the user panel.

 Press any button, except "Jets 1" to leave Standby Mode and return to normal operation.



## pH is low.

Add pH increaser according to manufacturer's instructions.



## pH is high.

 Add pH reducer according to manufacturer's instructions.

DIAGROSTIC MEGOAGES	
5AL	Sanitizer is low.
_11 11_	<ul> <li>Add sanitizer according to manufacturer's instructions.</li> </ul>
SAH	Sanitizer is high.
	<ul> <li>Remove pool cover and allow sanitizer to dissipate.</li> </ul>
drn	The pump is on during Standby Mode to assist in draining the pool.
	<ul> <li>Press "Jets 1" to turn off the pump when water has drained (or power off the pool.).</li> </ul>
r	Hardware failure.
	Contact your dealer or service organization.
P5L	Hardware failure.
, 22	<ul> <li>Contact your dealer or service organization if message appears on more than one power up.</li> </ul>
$\Gamma \Gamma \Gamma$	Firmware install problem.
L / L	<ul> <li>Contact your dealer or service organization if message appears on more than one power up.</li> </ul>
<i>LFE</i>	Configuration error. Pool cannot start up
	Contact your dealer or service organization.
9F !	Pool could not trip GFCI.
_1) (	<ul> <li>Contact your dealer or service organization . Continued operation may be unsafe.</li> </ul>
5EU	A pump appears to be stuck on, causing the water temperature to creep up, possibly to hazardous levels.

 POWER DOWN POOL IMMEDIATELY. DO NOT ENTER THE WATER. contact your dealer or service organization.



A pump appears to have been stuck on the last time spa was powered.

 POWER DOWN POOL IMMEDIATELY. DO NOT ENTER THE WATER. Contact your dealer or service organization.

## PERIODIC REMINDER MESSAGES

(Press the "Mode" button to reset a displayed reminder.\*)



### Every 7 days.

Test and adjust pH chemical levels per manufacturer's instructions.



#### Every 7 days.

 Test and adust sanitizer chemical levels per manufacturer's instructions.



## **Every 30 days**

Remove, clean, and reinstall filter per manufacturer's instructions.



## **Every 30 days**

 Test and reset GFCI per manufacturer's instructions.



## Every 90 days

Drain and refill pool per manufacturer's instructions.



## Every 180 days

Clean and condition cover per manufacturer's instructions.



## Every 180 days

Clean and condition wood per manufacturer's instructions

## PERIODIC REMINDER MESSAGES



#### Every 365 days.

· Install new filter.

#### As needed.

· Install new Mineral cartridge

**Note:** The GFCI section does not apply on EL systems used outside the United States. This GFCI section does not apply to GL Systems.

#### **GFCI PROTECTION**

Your pool may be equipped with a GFCI Protection feature. If your pool does not have this feature enabled, the GFCI Trip Test must occur to allow proper pool function.

Within 1 to 7 days after startup, the pool will trip the GFCI to test it. (The number of days is factory programmed.) The GFCI must be reset once it has been tripped. After passing the GFCI Trip Test, subsequent GFCI trips will indicate a ground default or other unsafe condition requiring the power to the pool to be shut off.

**Warning:** The owner should test and reset the GFCI on a regular basis to verify it's function

<sup>\*</sup> User can suppress all reminders in User Preferences.

<sup>\*\*</sup>All of these Periodic Messages can be disabled individually by the pool manufacturer.

<sup>\*\*\*</sup>Any of these frequencies may be changed by the pool manufacturer.

## PERIODIC REMINDER MESSAGES

#### GFCI TRIP TEST PROCEDURE

The installer can cause the GFCI Trip Test to occur sooner by initiating it with the following button sequence.

Press "Warm",



then "Jets 1", then "Light."





(Each press must be within 3 seconds of the previous press.) Press the "Warm" button repeatedly until "9FC" is displayed.

Press "Jets 1"



to select it. Press the "Warm"



button until

"9t.n" is displayed.

Press "Jets 1"



to initiate the GFCI Trip Test.

The GFCI should trip within several seconds and the pool should shut down. If it does not, shut down the power and manually verify that a GFCI breaker is installed and that the circuit and pool are wired correctly. Verify the function of the GFCI with it's own test button. Restore power to the pool and repeat the GFCI Trip Test.

Once the GFCI is tripped by the test, reset the GFCI and the pool will operate normally from that point. You can verify a successful test by navigating to the "9FC" item as described above, pressing



and then pressing the "Warm"



button until you

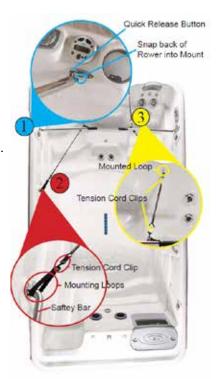
see "9SP". The code signifies GFCI Status - Passed.

The system will exit this menu in 30 seconds if no buttons are pressed.

## **ROWING EXERCISE**

- Install Rowers
  Press the quick release button.
  Snap the back of the rowing bar into the mount.
- Install First Set of Tension Cords
  Use the mounting loops as a slip
  knots around each safety bar.
  Clip tension cord to mounting loop.
  Clip tension cord to rowing bar.
- Install Second Set of Tension Cords
  Choose a desired pair of the varying length tension cords.
  Clip the tension cord to the
  mounted loop.
  Clip the tension cord to the row bar.

The tension cords are varying sizes to compensate for different levels of tension.



## Rowing

Sit in the rowing seat and grasp the rower handles, to begin your rowing exercise.



Double check the Rowers, making sure that each clip, cord and rower is mounted securely.



## **UPPER BODY WORKOUTS**

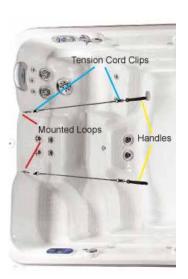


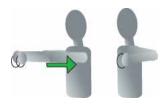
Install Tension Cords
Choose a desired pair of the varying length tension cords.
Clip the tension cords to the mounted loops.
Attach handles to the tension cords.



Chest Press Standing upright and facing away from the cords, Position your hands and elbows at

your sides, chest level. Keeping your elbows at chest level, push until your arms are outstretched in front of you.





#### Shoulder Pull

Stand upright holding the cords in front of you with a little bit of tension. Start with arms and hands at chest level and outstretched in front of you. Pull arms to your sides, keeping your elbows at chest level.

Back Pull
Stand upright holding the cords in front of
you with a little bit of tension. Start with arms
at chest height and outstretched in front of
you. Bend your arms, and pull your elbows
diagonally to your waist.





#### Tricep Pull

Sitting in the seat and facing away from the cords, position your elbows chest level, and hands eye level. Keeping your elbows parallel to your shoulders, pull until your arms is outstretched in front of you.

## TREADMILL WITH SUPER SWIM

1

Install Super Swim Pole

Attach the two poles together by matching up the brass attachments and twisting until tightened.

Place bottom of the pole into the attachment on the lip of the pool, above the rowing seat. Adjust nylon rope to desired length.

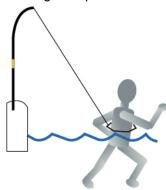
2

Install Waist Band

Pull the stainless steel clip along the waist band to adjust belt's diameter.

Strap waist belt attachment to your waist by buckling the smaller clip into the larger, angled clip.





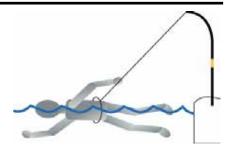
Treadmill Run in place, utilizing water resistance.

## ADVANCED SWIMMING WITH SUPER SWIM



Install Waist Band
Strap waist belt attachment
to your waist by clipping the
smaller clip into the larger
angled clip.

Swimming with Added Resistance Practice advanced swimming techniques and swim at a faster rate with the waist attachment.





For more information on the installation and use of the Super Swim, please refer to the DVD.

#### DRAINING YOUR TIDALFIT

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 to assist you in draining your spa.

- 1) Turn off the power to your pool. If you fail to turn the power off, vital components could be damaged. Do not leave an empty pool exposed for long periods of time in hot, sunny weather.
- 2) Pull tab and then turn counter clockwise till cap is removed.
- 3) Connect the hose to the hose bib
- 4) Pull hose bib out to ensure opening of nozzle/drain plug.
- 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 pool onto plants or lawns. If you choose to do this, please remove your pool cover and allow pool to cool for a minimum of 24 hours with the pool 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.

59

## **JET CARE**

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

- 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 pool. The insert will now pull out.
- 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.
- 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.

## REMOVING, INSTALLING AND CLEANING FILTERS

These are the steps needed to successfully replace your filters You should replace your disposable pool filters and clean your non-disposable filters every four months.

- 1) Turn off all power to your pool 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.
- 4) To replace, set screen back into its place turn clockwise to fasten. DO NOT over-tighten.
- 5) Place the new filter into position and turn clockwise to fasten. DO NOT over-tighten.
- 6) 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 4) and 5) to replace the filter

WARNING: Power to your pool 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 pool 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 TIDALFIT

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

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

#### 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 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 pool light bulb is not covered under warranty.

#### **TIDALFIT CABINET CARE**

Your pool comes standard with a KingWood, 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. If you elected to purchase your TidalFit with a wood cabinet, this cabinet is stained and sealed with an oil based acrylic stain. The stain is formulated especially for pool 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 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 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.

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 dealer for refinishing your pool.

#### **CLEANING YOUR TIDALFIT INTERIOR**

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

#### **COVER CARE**

Cleaning of your pool 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 treatment with a liquid protectant will extend the life of your pool cover. The wrong kind of protectant can be more harmful then no protectant at all. Keep any product away from your pool 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.

# MAINTAINING YOUR TIDALFIT

#### 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 pool, 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 pool 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 pool has a frequent and/or heavy bather load, it may be necessary to drain and fill your pool more often. Refer to the section titled "Draining your TidalFit" for instructions (page 58).

WARNING: Pool 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.
- 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 pool 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 pool is between 7.2 and 7.8.

# WATER CHEMISTRY

#### WATER TREATMENT GLOSSARY

The effects of low PH can be rapid sanitizer loss, eye and skin irritation, expedited corrosion of metals, as well as staining throughout the pool. 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 pool, 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 pool professional what the average bather load is, meaning, how many people enter the pool 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.

#### WATER TREATMENT GLOSSARY

- 17 Chloramines: Irritating, odorous forms of combined chlorine, formed by the reaction of chlorine with nitrogen containing waste products. Chloramines are 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 algaecidal 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. Spa ionizers often lack the copper element because the need for algae control is not as acute as in a pool.
- 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.
- **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.
- **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.
- **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 by-products and help in the control of algae and bacteria. Ozone is not a stand alone sanitizer and requires the supplementation of chlorine, bromine, minerals, or ionization.
- **31 Soft Water:** 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 hardness).

# SPA CHEMICALS GLOSSARY

- **1 Alkalinity Up:** The total alkalinity of your pool water should be between 80-140 PPM. A proper alkalinity will help buffer your pool water against sudden changes in pH. Every 2.5 tablespoons of Alkalinity Up will raise your alkalinity by 10 PPM in a pool holding 500 gallons of water.
- **2 Bromine Tablets:** These slow-dissolving tablets work especially well in the hot water of your pool. 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 pools 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 pool 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 Grandular:** 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 irritation. 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

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 pool. 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. 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.

This section is a description of your warranty. Here you will find descriptions of what is covered under your Tidal Fit Spa warranty and what can void your warranty. *PLEASE READ THE WARRANTY THOROUGHLY.* Please take a moment to register your warranty. You can register on line at <a href="http://www.tidalfit.com">http://www.tidalfit.com</a>, click on owner login or you mail in the warranty registration card attached to this manual. For warranty outside USA and Canada, please refer to your countries Artesian Distributor.

#### LIFETIME STRUCTURE WARRANTY

TidalFit Spas carry a lifetime structure warranty. The structure is defined as the fiberglass vessel below the exposed material finish. The manufacturer warrants the spa against loss of water due to a defect in the spa structure. In the event of a defect in the material and/or workmanship, the spa structure will be repaired or replaced 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 has been badly damaged, there will be additional charges to the spa owner for repairs or replacement. When a spa needs to be returned to the factory for repair, the cost of one way freight to the company will be at the spa owner's expense. The manufacturer will not pay for removal, installation, cranes, construction, de-construction, or any other cost associated with access, egress, or ingress, of the spa at 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 replaced, all warranties (shell, surface, electrical and plumbing) date back to the original start date of the warranty. The warranty period starts either the day of delivery to the customer or eighteen (18) month from the date of manufacturing, whichever date comes first.

#### SEVEN-YEAR SURFACE WARRANTY

The spa surface is described as the exposed acrylic material finish. The manufacturer warrants the spa surface to be free from defects in the material and workmanship, such as blistering, cracking, or de-laminating, this does not cover micro-crazing, under normal use and

maintenance for a period of seven years from the original start date of the warranty. The warranty period starts either the day of delivery to the customer or eighteen (18) month from the date of manufacturing, whichever date comes first. 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 solid 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 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 sanitization 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, 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.

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 of 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 a shell or spa must be replaced, all warranties (shell, surface, electrical 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 shell 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 from the original start date of the warranty.

The warranty period starts either the day of delivery to the customer or eighteen (18) month from the date of manufacturing, whichever date comes first. THIS WARRANTY IS GIVEN ONLY 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 acts of nature, 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, valve bodies and air controls. The manufacturer warrants all plumbing for a period of five years from the original start date of the warranty. The warranty period starts either the day of delivery to the customer or eighteen (18) month from the date of manufacturing, whichever date comes first. THIS WARRANTY IS GIVEN ONLY TO THE ORIGINAL OWNER, AND TERMINATES UPON TRANSFER OF OWNERSHIP. COMMERCIAL APPLICATIONS ARE EXCLUDED FROM THIS AND ALL WARRANTIES.

Jet internals, valve handles, and other such items are regular maintenance items. They are covered for the item only; labor is not covered for these items. Damage caused by acts of nature, poor water chemistry, and/or improper maintenance will not be covered under this warranty.

#### TWO YEAR CABINET WARRANTY

The spa cabinet is described as the outer material encasing the spa structure. The manufacturer warrants it to be free from defects in material and/or workmanship from the original start date of the warranty. The warranty period starts either the day of delivery to the customer or eighteen (18) month from the date of manufacturing, whichever date comes first.

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

75

This warranty does not cover normal darkening, staining, or aging. The spa cabinet requires care and maintenance by the consumer. Damage caused by acts of nature, poor water chemistry, and/or improper maintenance will not be covered under this warranty.

#### 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, stereo power supply, wire harness and remote control are covered for 30 days from the original start date of the warranty. The warranty period starts either the day of delivery to the customer or eighteen (18) month from the date of manufacturing, whichever date comes first. Please note: Warranty coverage for both parts and labor is covered for 30 days only. Parts, not labor, will be covered for one year from date of installation. 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. NOTE: For all operating instructions see the stereo manufacturer's owner's manual included with the spa.

#### **OZONATOR**

The ozonator is covered for one year from the original start date of the warranty. The warranty period starts either the day of delivery to the customer or eighteen (18) month from the date of manufacturing, whichever date comes first.

#### SPA COVER

The spa cover manufacturer warrants the spa cover skin for one year from the original start date of the warranty. The warranty period starts either the day of delivery to the customer or eighteen (18) month from the date of manufacturing, whichever date comes first. Do not return the spa cover to the manufacturer. This will delay

the replacement or repair of the cover. The spa manufacturer is not responsible for lost covers.

#### LIGHTING

The lighting is guaranteed to work upon delivery. There is no warranty covering the lighting.

#### **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 terms and conditions by the 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 homeowner 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 repairs have been performed 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 the range of 32 degrees F to 110 degrees F, damage caused by clogged or dirty filter cartridges, damage to the spa from an 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.

Note: Warranty on 50Hz spas excludes labor.

(Outside US and Canada)

#### **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 and 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.

Diagnosis of Spa Problems

**Fuses** 

Light Bulbs of Any Kind

Removing a Spa from a Structure

**Pillows** 

**Filters** 

Chemical Misuse / Damage

Filter Lids

Any Part not Purchased from Artesian Spas

Jet Inserts

Valve Handles

Pump Seals

Draining and filling the Spa

Acts of Nature

**Travel Charges** 

**Cabinet Screws** 

Incorrect Wiring

**Shipping Charges** 

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

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 re¬cessed, along with additional charges for labor, is not covered by this warranty

78

# **INTERIOR SPA DIAGRAM**



TidalFit Dual Badu Spa Configuration



TidalFit Hydrotherapy Spa Configuration

# **INTERIOR SPA DIAGRAM**



TidalFit Quad Swim Spa Configuration



TidalFit In-Ground Spa Configuration

	Please do not send products or	other correspondence to the address below.

Place Stamp Here

ARTESIAN SPAS
Attn: Customer Care Department
4720 N. Lamb Blvd.
Las Vegas, NV 89115

# **SPA & WARRANTY REGISTRATION**

Please activate your warranty and register your spa by mailing in this reply card, or go online at <a href="www.TidalFit.com">www.TidalFit.com</a> and click on owner login. Activate Product Warranty & Download Owner's Manuals

(Serial # is required below and can be located on the bottom kick plate of the spa, or can be found within the cabinet next to the equipment on a white placard attached to the frame.)
Name
Address
City State Zip
Phone Number
Date of InstallationSpa Serial Number (required)
Spa Model
Your Dealers Name and Location
<u>Optional Questions:</u>
What other spa brands did you consider buying?
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:



4720 N. Lamb Blvd. Las Vegas, Nevada 89115 www.TidalFit.com