

# **Aquatic Fitness System** 2005 Owner's Manual

# **Spa Information**

It is very important that you gather the following information on your spa and enter it in the blanks provided below. This information can then be used to complete your Warranty Registration, which you can do by completing and mailing the Warranty Registration Card included in your information packet or by visiting our website at <a href="http://www.D1Spas.com">http://www.D1Spas.com</a> and clicking on Warranty Registration on the Customer Service menu. This information will be needed if you want to purchase additional items for your spa, or if service is ever required. Be sure to consult with your Dealer to ensure the accuracy of this important information.

My Spa:			
Model Name:	 Serial Nur	mber:	
Date Purchased:	 Date Inst	alled:	
Gallons/Liters:			
Notes:			
Dealer Information:			
Dealer's Name:			
Address:			
City:	 State:	Zip:	
Telephone:		Fax:	

# **Aquatic Fitness System** 2005 Owner's Manual

# **Table of Contents**

My Spa:	i
Dealer Information:	
AQUATIC FITNESS SYSTEM FEATURES	
AQUATIC FITNESS SYSTEM FEATURES	1
SWIM JETS	
HYDROTHERAPY JETS	1
HYDROSPORT® AQUATIC FITNESS GEAR	1
Swim System	7
Optional Equipment	
Rowing Seat	
Swim Tether Mounts	
Built-in OptiMounts®	
Multiple Training Stations	
Dynamic LED underwater lighting	
AQUATIC FITNESS SYSTEM PROFESSIONAL MODEL EQUIPMENT PACK	ن
SAFETY FIRST	5
AMERICAN SAFETY INFORMATION	5
IMPORTANT SAFETY INSTRUCTIONS	
READ AND FOLLOW ALL INSTRUCTIONS CAREFULLY	5
CANADIAN SAFETY INFORMATION	
IMPORTANT SAFETY INSTRUCTIONS (CSA SAFETY INFORMATION)	
READ AND FOLLOW ALL INSTRUCTIONS CAREFULLY	7
INTERNATIONAL SAFETY INFORMATION	
IMPORTANT SAFETY INSTRUCTIONS	
READ AND FOLLOW ALL INSTRUCTIONS CAREFULLY	
HYPERTHERMIA	
DO'S AND DON'T'S	
Do's	
Don'ts	
DANGER SIGN	
USING YOUR AQUATIC FITNESS SYSTEM	13
BEFORE YOU START	13
USING THE "POOL-SIDE" TOP SIDE CONTROL	13
USING THE "POOL-SIDE" TOP SIDE CONTROL	
USING THE "POOL-SIDE" TOP SIDE CONTROL  Temperature Set Buttons	14
USING THE "POOL-SIDE" TOP SIDE CONTROL.  Temperature Set Buttons.  Jets 1 Button  Jets 2 and Jets 3 Buttons.	14 14 15
USING THE "POOL-SIDE" TOP SIDE CONTROL  Temperature Set Buttons  Jets 1 Button	14 14 15
USING THE "POOL-SIDE" TOP SIDE CONTROL.  Temperature Set Buttons.  Jets 1 Button.  Jets 2 and Jets 3 Buttons.  Light Button.  LED Display Window.	14 14 15 15 15 16 16 16 16 17 17 17 17 17 17 17 17 17 17 17 17 17
USING THE "POOL-SIDE" TOP SIDE CONTROL.  Temperature Set Buttons.  Jets 1 Button.  Jets 2 and Jets 3 Buttons.  Light Button.  LED Display Window.  PROGRAMMING THE FILTRATION CYCLE.	
USING THE "POOL-SIDE" TOP SIDE CONTROL  Temperature Set Buttons  Jets 1 Button  Jets 2 and Jets 3 Buttons.  Light Button.  LED Display Window.  PROGRAMMING THE FILTRATION CYCLE  Filtration.	
USING THE "POOL-SIDE" TOP SIDE CONTROL  Temperature Set Buttons  Jets 1 Button  Jets 2 and Jets 3 Buttons.  Light Button.  LED Display Window  PROGRAMMING THE FILTRATION CYCLE  Filtration.  Filter Cycles	
USING THE "POOL-SIDE" TOP SIDE CONTROL  Temperature Set Buttons  Jets 1 Button  Jets 2 and Jets 3 Buttons.  Light Button.  LED Display Window.  PROGRAMMING THE FILTRATION CYCLE  Filtration.  Filter Cycles  Standard Mode.	
USING THE "POOL-SIDE" TOP SIDE CONTROL  Temperature Set Buttons  Jets 1 Button  Jets 2 and Jets 3 Buttons.  Light Button.  LED Display Window  PROGRAMMING THE FILTRATION CYCLE  Filtration.  Filter Cycles  Standard Mode.  Economy Mode.	
USING THE "POOL-SIDE" TOP SIDE CONTROL  Temperature Set Buttons  Jets 1 Button  Jets 2 and Jets 3 Buttons.  Light Button.  LED Display Window  PROGRAMMING THE FILTRATION CYCLE  Filtration.  Filter Cycles  Standard Mode.  Economy Mode.  Lockout Mode	
USING THE "POOL-SIDE" TOP SIDE CONTROL  Temperature Set Buttons  Jets 1 Button  Jets 2 and Jets 3 Buttons.  Light Button.  LED Display Window  PROGRAMMING THE FILTRATION CYCLE  Filtration.  Filter Cycles.  Standard Mode.  Economy Mode.  Lockout Mode  SPA "INCLUDED" – DUAL-TEMP ONLY.	
USING THE "POOL-SIDE" TOP SIDE CONTROL  Temperature Set Buttons  Jets 1 Button  Jets 2 and Jets 3 Buttons.  Light Button.  LED Display Window  PROGRAMMING THE FILTRATION CYCLE  Filtration.  Filter Cycles  Standard Mode.  Economy Mode.  Lockout Mode  SPA "INCLUDED" – DUAL-TEMP ONLY  Additional Features	
USING THE "POOL-SIDE" TOP SIDE CONTROL  Temperature Set Buttons  Jets 1 Button  Jets 2 and Jets 3 Buttons  Light Button  LED Display Window  PROGRAMMING THE FILTRATION CYCLE  Filtration  Filter Cycles  Standard Mode  Economy Mode  Lockout Mode  SPA "INCLUDED" – DUAL-TEMP ONLY  Additional Features  Heater and Circulation Pump Control	
USING THE "POOL-SIDE" TOP SIDE CONTROL  Temperature Set Buttons  Jets 1 Button  Jets 2 and Jets 3 Buttons  Light Button  LED Display Window  PROGRAMMING THE FILTRATION CYCLE  Filtration  Filter Cycles  Standard Mode  Economy Mode  Lockout Mode  SPA "INCLUDED" – DUAL-TEMP ONLY  Additional Features  Heater and Circulation Pump Control  Smart Heat	
USING THE "POOL-SIDE" TOP SIDE CONTROL  Temperature Set Buttons  Jets 1 Button  Jets 2 and Jets 3 Buttons  Light Button  LED Display Window  PROGRAMMING THE FILTRATION CYCLE  Filtration  Filter Cycles  Standard Mode  Economy Mode  Lockout Mode  SPA "INCLUDED" – DUAL-TEMP ONLY  Additional Features  Heater and Circulation Pump Control  Smart Heat  Operation of the Spa	
USING THE "POOL-SIDE" TOP SIDE CONTROL.  Temperature Set Buttons.  Jets 1 Button.  Jets 2 and Jets 3 Buttons.  Light Button.  LED Display Window.  PROGRAMMING THE FILTRATION CYCLE.  Filtration.  Filter Cycles.  Standard Mode.  Economy Mode.  Lockout Mode  SPA "INCLUDED" – DUAL-TEMP ONLY.  Additional Features.  Heater and Circulation Pump Control.  Smart Heat.  Operation of the Spa  Using The Top Side Control.	
USING THE "POOL-SIDE" TOP SIDE CONTROL  Temperature Set Buttons  Jets 1 Button  Jets 2 and Jets 3 Buttons  Light Button  LED Display Window  PROGRAMMING THE FILTRATION CYCLE  Filtration  Filter Cycles  Standard Mode  Economy Mode  Lockout Mode  SPA "INCLUDED" – DUAL-TEMP ONLY  Additional Features  Heater and Circulation Pump Control  Smart Heat  Operation of the Spa	
USING THE "POOL-SIDE" TOP SIDE CONTROL  Temperature Set Buttons  Jets 1 Button  Jets 2 and Jets 3 Buttons  Light Button  LED Display Window  PROGRAMMING THE FILTRATION CYCLE  Filtration.  Filter Cycles  Standard Mode  Economy Mode  Lockout Mode  SPA "INCLUDED" – DUAL-TEMP ONLY  Additional Features  Heater and Circulation Pump Control  Smart Heat  Operation of the Spa  Using The Top Side Control  LED Digital Display Window.	
USING THE "POOL-SIDE" TOP SIDE CONTROL  Temperature Set Buttons  Jets 1 Button  Jets 2 and Jets 3 Buttons  Light Button  LED Display Window  PROGRAMMING THE FILTRATION CYCLE  Filtration.  Filter Cycles  Standard Mode  Economy Mode  Lockout Mode  SPA "INCLUDED" – DUAL-TEMP ONLY  Additional Features  Heater and Circulation Pump Control  Smart Heat  Operation of the Spa  Using The Top Side Control  LED Digital Display Window.  Jets Button	
USING THE "POOL-SIDE" TOP SIDE CONTROL  Temperature Set Buttons  Jets 1 Button  Jets 2 and Jets 3 Buttons  Light Button  LED Display Window  PROGRAMMING THE FILTRATION CYCLE  Filtration.  Filter Cycles.  Standard Mode.  Economy Mode  Lockout Mode  SPA "INCLUDED" – DUAL-TEMP ONLY  Additional Features  Heater and Circulation Pump Control.  Smart Heat.  Operation of the Spa  Using The Top Side Control  LED Digital Display Window.  Jets Button  Light Button  Up and Down Buttons  Program Button	
USING THE "POOL-SIDE" TOP SIDE CONTROL  Temperature Set Buttons Jets 1 Button  Jets 2 and Jets 3 Buttons Light Button  LED Display Window  PROGRAMMING THE FILTRATION CYCLE Filtration Filter Cycles Standard Mode Economy Mode Lockout Mode  SPA "INCLUDED" – DUAL-TEMP ONLY Additional Features Heater and Circulation Pump Control Smart Heat Operation of the Spa Using The Top Side Control  LED Digital Display Window Jets Button Light Button Up and Down Buttons	

# **Aquatic Fitness System** 2005 Owner's Manual

Filter Cycle Duration:  Number of Filter Cycles:	25
Temperature Unit:	26
Heat Indicator Light	
Dimension One Spas Icon (Logo) Button	26
Digital Display Messages	27
"OH" - Overheat Protection	27
Flashing LED on the Control Panel	27
Flashing LED on the Control Panel	28
Erroneous Temperature on the Display	28
ROUTINE EQUIPMENT MAINTENANCE	29
DRAINING YOUR AQUATIC FITNESS SYSTEM	29
FILTER CLEANING	
AquaFit™ Dual Temp	
AquaFit™ and AquaPro™	
LIGHT BULB REPLACEMENT	30
SURFACE CARE - SHELL	
Care for the Wood Spa Cabinet	
SPECIAL COLD WEATHER INSTRUCTIONS	
Items Required for Winterizing	
Procedure for Winterizing	
Spring Time Startup	
WARRANTY SERVICE INFORMATION	
GLOSSARY OF TERMS	36
TROUBLESHOOTING GUIDE	39
HEATING SYSTEM	39
ELECTRICAL SYSTEM	39
WATER SYSTEM	
SELF-DIAGNOSTIC CONTROL SYSTEM	
AquaFit™, AquaFit™Dual Temp (Pool-Side), AquaPro™	
AquaFit™Dual Temp (Spa-Side)	

# **Aquatic Fitness System Features**

<u>Congratulations</u>! You have purchased the finest **Aquatic Fitness System** available. Take the time to read these instructions carefully. When installed and maintained properly, your **Aquatic Fitness**System will provide many years of enjoyable, trouble-free operation. If you have any questions,

Swim

Jets

please contact your local authorized **Aquatic Fitness System** dealer.

# Swim Jets

Special high volume swim jets are included for your swimming pleasure and can also be used to change the dynamics of your exercise programs.

# **HydroTherapy Jets**

Special adjustable HydroTherapy Jets are included so you can relax and enjoy the pleasures of a spa within your Aquatic Fitness System.

# HydroSport® Aquatic Fitness Gear

The Aquatic Fitness
System is designed to
provide you with a
wide range of aquatic
exercises using
HydroSport® Aquatic
Fitness Gear, such as
the Swim System,
Rowing System,
OPTIMounts®,
HydroSport® Exercise
Bars, and the Aquatic
Fitness Bar.

# Swim System

The Swim System, which is included with your Aquatic Fitness System, consists of the Swim Tether, six high-volume Swim Jets and a Swim Kick Bar. The AquaFit DT 19' also includes a marked swim lane to help guide you to a much improved swimming experience.



# **Optional Equipment**

The remaining components of the **HydroSport®** Aquatic Fitness Gear are optional equipment designed to increase the benefits of therapeutic value of the jets with exercise. These items may be purchased separately from your dealer.

Because swimming and exercising must be done in pairs for safety reasons, the **Aquatic Fitness System** is designed to accommodate an additional person for some exercises. Many of the **HydroSport®** Aquatic Fitness Gear components may be used simultaneously. For example, a Swim Tether mount is located at both ends for your convenience in accommodating multiple users.

ı

2005 Owner's Manual

# **Rowing Seat**

A rowing area is designed into the **Aquatic Fitness System** for use with the **HydroSport®**Rowing System.

# Swim Tether Mounts

Swim Tether Mounts are located at each end of the **Aquatic Fitness System.** 

# Built-in OptiMounts®



Multiple **OptiMount**® locations are installed to provide easy installation of the **HydroSport®** Aquatic Fitness Gear components.

# Multiple Training Stations

Your Aquatic Fitness System is equipped with multiple OptiMounts® to accommodate different

HydroSport® exercise stations. Using the

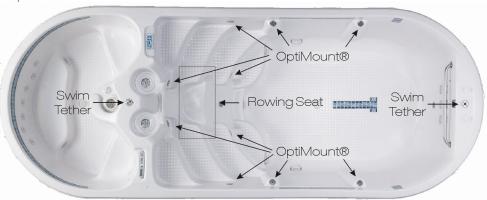
HydroSport® Aquatic

Fitness Gear, you and your exercise

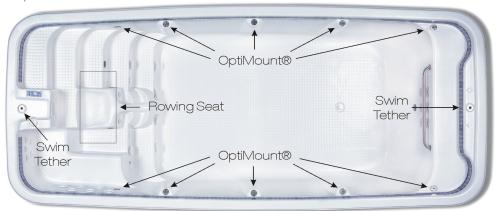
OptiMount®
OptiMount®
Swim
Tether
OptiMount®
OptiMount®
OptiMount®

AquaFit DT 19

AquaFit 16



AquaPro 19



partner(s) can rotate from station to station. Details on using the included **HydroSport®** Swim System are in the accompanying **HydroSport®** Owner's Manual.

# Dynamic LED underwater lighting

Special lighting effects are created by the underwater Dynamic LED Light which provides VisualTherapy using special customizable lighting effects. Set the mood with easily adjustable sequences and let these special lighting effects enhance your party atmosphere, or encourage your quiet relaxation.

2005 Owner's Manual

## Additional features are:

- Meets or exceeds the requirements of UL1563 Standard for Safety for Electrical Spas as evaluated and inspected by Edison Test Labs (ETL).
  - Self-contained with load sharing capabilities
- Programmable Digital control
- Automatic high/low speed filtration cycles
- Exclusive, custom hand-set ceramic tile adds a distinctive touch
- 50 sq. ft. (4.6 m²) of filtration
   [150 sq. ft (13.9 m²) of filtration AquaFit DT 19
   pool side and 75 sq. ft (6.9 ²) of filtration spa
   side1

- 100% foam insulated
- Built-in, automatic freeze protection
- Water level referencing weir skimmer
- A variety of interchangeable jets
- CrystalZone™ Water Management System
- Long life HydraMax pumps

#### Aquatic Fitness System Professional Model Equipment Pack

The **Aquatic Fitness System** Equipment Pack contains all of the equipment required to provide you with a safe and pleasurable swimming or aquatic exercise experience. The following equipment will be located under the skirt panels:

#### **Equipment Control System**

The electronic control system that governs all of the functions of your **Aquatic Fitness System** utilizes an advanced microprocessor and solid-state electronic switches to activate all user and maintenance options. A backlit, highly reliable liquid crystal display gives you a complete update of the **Aquatic Fitness System** status at any time of the day or night. Temperature settings, as well as control of lights, jets, filtration, and time of day display, are all instantly available from, and controllable at, the Top Side Control.

#### Heater

An 11kw 230v thermostatically controlled electric heater equipped with a high-limit temperature safety shut-off switch. The high-limit switch automatically shuts the heater off if the temperature reaches 118°F (≅47.8°C). If the high-limit safety switch trips, contact your authorized **Aquatic Fitness System** Dealer.



Depending on your particular installation, you may have elected to utilize a remotely installed gas heater to heat your **Aquatic Fitness System** water. Please review the applicable gas heater manufacturer's owner's manual for operating instructions.

2005 Owner's Manual

## **Primary Pump**

Produces water flow through the heater, filter, sanitation system and the jets in the **Aquatic Fitness System**. The primary pump will operate automatically during filtration and heat cycles. This pump can also be operated manually by depressing the "jets" button on the Top Side Control which will allow you to choose between two speeds

- Low speed for efficient water circulation during heating and filtration modes, and for gentle jet resistance or massage action.
- High speed for maximum jet action.

### Swim Jet Pumps

Produce water flow only through the swim jets. The swim jet pumps are high-speed pumps only. The second and third pump buttons control these pumps.

2005 Owner's Manual

# Safety First

Your safety, and the safety of your family and friends, is very important! It is vital to everyone's safety that you read and heed the following safety precautions. Review them often.

# **American Safety Information**



# **IMPORTANT SAFETY INSTRUCTIONS**

#### READ AND FOLLOW ALL INSTRUCTIONS CAREFULLY

Warning

The following basic safety precautions should always be followed when you are installing, or are using, this equipment:

- <u>Safeguard All Children At All Times.</u> Never permit children to use this **Aquatic Fitness System** without adult supervision. Always ensure that there is a responsible adult who is competent in the operation of the **Aquatic Fitness System** accompanying any child who may use this **Aquatic Fitness System**. Always ensure that children are closely supervised at all times in the vicinity of the **Aquatic Fitness System**.
- <u>Risk of Accidental Drowning</u>. Extreme caution must be exercised to prevent unauthorized access by children. To avoid accidents, ensure that children cannot use this **Aquatic Fitness System** unless they are supervised at all times.
- Risk of Serious Injury or Death. To prevent hair or body entrapment, never operate or use the Aquatic Fitness System if any of the suction fittings is broken or missing. The suction fittings of this Aquatic Fitness System are sized to match the specific water flow created by the circulation and jet pumps. Never replace a suction fitting with one rated less than the flow rate marked on the original suction fitting. Should the need arise to replace any suction fittings or the pump(s), be sure that any work if performed by an authorized Aquatic Fitness System service agent and that flow rates are compatible.
- <u>Danger:</u> A wire connector marked "Ground" is provided within the power box. To reduce the risk of electric shock, connect this terminal of connector to the grounding terminal of your electrical service or supply panel with a continuous green insulating copper wire equivalent in size to the circuit conductors supplying this equipment, but no smaller than No. 8 AWG (8.4 mm²). In addition, a second wire connector is provided for bonding to local ground points. To reduce the risk of electrical shock, this connector should be bonded with a No. 8 AWG (8.4 mm²) copper wire to any metal ladders, water pipes, or other metal within five feet (1.52 m) of the spa.
- Risk of Electric Shock. Install at least 5 FEET (1.5m) from all metal surfaces. As an alternative, an Aquatic Fitness System may be installed within 5 feet (1.5m) of metal surfaces if each metal surface is permanently connected by a minimum No. 8 AWG (8.4mm²) solid copper conductor attached to the wire connector on the grounding lug, inside the equipment compartment on the equipment can.
- Risk of Electric Shock. Do not permit any electrical appliance, such as a light, telephone, radio, television, etc., within 5 feet (1.5m) of the Aquatic Fitness System.
- <u>To Reduce the Risk of Injury</u>. The water in an **Aquatic Fitness System** should never exceed 104°F (≅40°C). Water temperatures between 100°F (≅38°C) and 104°F (≅40°C) are considered safe for a healthy adult. Lower water temperatures are recommended when using the **Aquatic Fitness System** for exercise, swimming, when total use will exceed 10 minutes, or anytime young children are present in the **Aquatic Fitness System**.
- To Reduce the Risk of Injury. 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 100°F (≤38°C). It is recommended that a physician be consulted before using an Aquatic Fitness System if you are or possibly could be pregnant.
- <u>To Reduce the Risk of Injury.</u> Before entering an **Aquatic Fitness System** the user should measure the water temperature with an accurate thermometer since the tolerance of water temperature-regulating devices may vary as much as +- 5°F (≥2°C).
- <u>To Reduce the Risk of Injury.</u> The use of alcohol, drugs or medication before or during **Aquatic Fitness System** use may lead to unconsciousness with the possibility of drowning.

2005 Owner's Manual

- <u>To Reduce the Risk of Injury.</u> Persons suffering from obesity or with a medical history of heart disease, low or high blood pressure, circulatory system problems, or diabetes should consult a physician before using an **Aquatic Fitness System**.
- <u>To Reduce the Risk of Injury.</u> Persons using medication should consult a physician before using an **Aquatic Fitness System** because some medications may induce drowsiness, while other medications may affect heart rate, blood pressure, and circulation.
- Risk of Electric Shock. The electrical supply for this Aquatic Fitness System must include a suitably rated switch or circuit breaker to open all ungrounded supply conductors to comply with Section 680-42 of the National Electrical Code, ANSI/NFPA 70-1993. The disconnect must be readily accessible and visible to the Aquatic Fitness System occupants from the Aquatic Fitness System or the surrounding area, but it must be installed at least 5 feet (1.5m) from the spa water.
- <u>Risk of Accidental Drowning</u>. Never Enter, Use, Swim or Exercise alone in the **Aquatic Fitness System**. Never allow anyone to enter, use, swim or exercise in the **Aquatic Fitness System** unsupervised.
- <u>Risk of Serious Injury of Death.</u> Diving or Jumping Into the Aquatic Fitness System is Forbidden. Serious injury, paralysis or death can occur if user jumps of dives into the Aquatic Fitness System. The Aquatic Fitness System is not designed for jumping of diving. Extreme caution must be exercised to prevent anyone from jumping or diving into the Aquatic Fitness System.
- <u>Risk of Serious Injury or Death.</u> Do not remove the "No Jumping / No Diving Appliqués from the Aquatic Fitness System!
- Risk of Serious Injury or Death. Do not walk, stand or sit on the top rail of the Aquatic Fitness System. Serious injury, paralysis or death can occur is user falls from the top rail of the Aquatic Fitness System to the ground or into the Aquatic Fitness System.
- <u>To Reduce the Risk of Injury</u>. Do not exercise in water temperature above 90°F (≥32.2° C). Recommended water temperature for hydrotherapy is higher than the recommended temperature for aquatic exercise.
- <u>To Reduce the Risk of Injury.</u> Prolonged immersion in an **Aquatic Fitness System** may be injurious to your health
- <u>To Reduce the Risk of Injury.</u> Always consult with a physician prior to beginning any exercise regimen utilizing the **Aquatic Fitness System**. Do not overexert yourself. Take frequent
- To Reduce the Risk of Injury. Always wear shatterproof swim goggles when using HydroSport® resistance exercise or rowing equipment. Improper use of HydroSport® equipment or use of aged or worn equipment could result in an eye injury if protective eyewear is not used. Every HydroSport®equipment package includes protective eyewear. If your protective eyewear is missing or defective, do not use the HydroSport® equipment until you have replaced the protective eyewear with similar shatterproof swim goggles.
- <u>To Reduce the Risk of Injury.</u> Do not use an **Aquatic Fitness System** immediately following strenuous exercise.
- <u>To Reduce the Risk of Injury.</u> People with infectious diseases should not use **Aquatic Fitness System**.
- <u>To Reduce the Risk of Injury.</u> Wet surfaces can be slippery. To avoid injury exercise care when entering or exiting the **Aquatic Fitness System**.
- <u>To Reduce the Risk of Injury.</u> Maintain water chemistry in accordance with manufacturer's instructions. Proper chemical maintenance of **Aquatic Fitness System** water is necessary to maintain safe water and prevent possible damage to **Aquatic Fitness System** components.
- To Reduce the Risk of Injury. Use the Aquatic Fitness System straps and clip tie downs to secure the cover when not in use. This will help to discourage unsupervised children from entering the Aquatic Fitness System and keep the Aquatic Fitness System cover secure in high wind conditions. There is no representation that the cover, clip tie downs or actual locks will prevent access to the Aquatic Fitness System.
- <u>To Reduce the Risk of Injury.</u> Never attempt to change the light without draining the water completely below the light fitting.
- WARNING: The use of alcohol or drugs can greatly increase the risk of fatal hyperthermia in an Aquatic Fitness System.

#### SAVE THESE INSTRUCTIONS

2005 Owner's Manual

# **Canadian Safety Information**



# IMPORTANT SAFETY INSTRUCTIONS (CSA SAFETY INFORMATION)

#### READ AND FOLLOW ALL INSTRUCTIONS CAREFULLY

When using this electrical equipment, basic safety precautions should always be followed, including the following:

- A green colored terminal or a terminal marked G, GR, Ground, Grounding, or the symbol \* is located inside the supply terminal box or compartment. To reduce the risk of electric shock, this terminal must be connected to the grounding means provided in the electric supply service panel with a continuous copper wire equivalent in size to the circuit conductors supplying this equipment.
  - o IEC Publication 417, Symbol 5019.
- At least two lugs marked "BONDING LUGS" are provided on the external surface or on the
  inside of the supply terminal box/compartment. To reduce the risk of electric shock,
  connect the local common bonding grid in the area of the hot tub or spa to these terminals
  with an insulated or bare copper conductor not smaller than No. 6 AWG.
- All field-installed metal components such as rails, ladders, drains or other similar hardware within 3 meters of the spa or hot tub shall be bonded to the equipment grounding bus with copper conductors not smaller than No. 6 AWG.
- Children should not use spas or hot tubs without adult supervision.
- AVERTISSEMENT: NE PAS LAISSER LES ENFANTS UTILISER UNE CUVE DE RELAXATION SANS SURVEILLANCE,
- Do not use spas or hot tubs unless all suction guards are installed to prevent body and hair entrapment.
- AVERTISSEMENT: POUR ÉVITER QUE LES CHEVEUX OU UNE PARTIE DU CORPS PUISSENT TRE ASPIRÉS, NE PAS UTILISER UNE CUVE DE RELAXATION SI LES GRILLES DE PRISE D'ASPIRATION NE SONT PAS TOUTES EN PLACE.
- People using medications and/or having adverse medical history should consult a physician before using a spa or hot tub.
- AVERTISSEMENT: LES PERSONNES QUI PRENNENT DES MÉDICAMENTS OU ONT DES PROBLÈMES DE SANTÉ DEVRAIENT CONSULTER UN MÉDECIN AVANT D'UTILISER USE CUVE DE RELAXATION.
- People with infectious diseases should not use a spa or hot tub.
- AVERTISSEMENT: LES PERSONNES ATTEINTES DE MALADIES INFECTIEUSES NE DEVRAIENT PAS UTILISER UNE CUVE DE RELAXATION.
- To avoid injury, exercise care when entering or exiting the spa or hot tub.
- AVERTISSEMENT: POUR ÉVITER DES BLESSURES, ÜSER DE PRUDENCE EN ENTRANT DANS UNE CUVE DE RELAXATION ET E SORTANT.
- Do not use drugs or alcohol before or during the use of a spa or hot tub to avoid unconsciousness and possible drowning.
- AVERTISSEMENT: POUR ÉVITER L'ÉVANOUISSEMENT ET LA NOYADE EVENTUELLE, NE PRENDRE NI DROGUE NI ALCOOL AVANT D'UTILISER UNE CUVE DE RELAXATION NI QUAND ON S'Y TROUVE.
- Pregnant or possibly pregnant women should consult a physician before using a spa or hot tub.
- AVERTISSEMENT: LES FEMMES ENCEINTES, QUE LEUR GROSSESSE SOIT CONFIRMÉE OU NON, DEVRAIENT CONSULTER UN MÉDECIN AVANT D'UTILISER UNE CUVE DE RELAXATION.
- Water temperature in excess of 38° C may be injurious to your health.
- AVERTISSEMENT: IL PEUT TRE DANGEREUX POUR LA SANTÉ DE SE PLONGER DANS DE L'EAU À PLUS DE 38°C.
- Before entering the spa or hot tub, measure the water temperature with an accurate thermometer.
- AVERTISSEMENT: AVANT D'UTILISER UNE CUVE DE RELAXATION MESURER LA TEMPÉRATURE DE L'EAU À L'AIDE D'UN THERMOMÈTRE PRÉCIS.
- Do not use a spa or hot tub immediately following strenuous exercise.
- AVERTISSEMENT: NE PAS UTILISER UNE CUVE DE RELAXATION IMMEDIATEMENT APRÈS UN EXERCICE SATIGANT.

2005 Owner's Manual

- Prolonged immersion in a spa or hot tub may be injurious to your health.
- **AVERTISSEMENT:** L'UTILISATION PROLONGÉE D'UNE CUVE DE RELAXATION PEUT TRE DANGEREUSE POUR LA SANTÉ.
- Do not permit electric appliances (such as a light, telephone, radio, television, etc.) within 1.5m of this spa or hot tub.
- AVERTISSEMENT: NE PAS PLACER D'APPAREIL ÉLECTRIQUE (LUMINAIRE, TÉLÉPHONE, RADIO, TÉLÉVISEUR, ETC.) À MOINS DE 1.5 M DE CETTE CUVE DE RELAXATION.
- Maintain water chemistry in accordance with manufacturer's instructions.
- ATTENTION: LA TENEUR DE L'EAU EN MATIERÈS DISSOUTES DOIT TRE CONFORME AUX DIRECTIVES DU FABRICANT.
- The use of alcohol or drugs can greatly increase the risk of fatal hyperthermia in hot tubs and spas.
- AVERTISSEMENT: LA CONSOMMATION D'ALCOOL OU DE DROGUE AUGMENTE CONSIDÈRABLEMENT LES RISQUES D'HYPERTHERMIE MORTELLE DANS UNE CUVE DE RELAXATION.
- Persons suffering from heart disease, diabetes, high or low blood pressure, any condition requiring medical treatment, pregnant women, the elderly, or infants should consult with a physician before using a spa.
- The consumer products safety commission has stated that the water temperature in a spa or hot tub should not exceed 104° F (40° C). Immersion in water in excess of 104° F (40° C) can be hazardous to your health.
- Observe a reasonable time limit when using the spa. Long exposures at higher temperatures can cause high body temperature. Symptoms may include dizziness, nausea, fainting, drowsiness, and reduced awareness. These effects could result in possible drowning.
- Do not use the spa under the influence of alcohol, narcotics, or other drugs. Use of the spa under these conditions may lead to serious consequences.
- Always test the hot tub water temperature before entering the spa. Enter and exit the spa slowly. Wet surfaces can be very slippery.
- Never bring any electrical appliances into or near the spa. Never operate any electrical appliances from inside the spa or when you are wet.
- Proper chemical maintenance of spa water is necessary to maintain safe water and prevent possible damage to spa components.
- Use the spa straps and clip tie downs to secure the cover when not in use. This will help to discourage unsupervised children from entering the spa and keep the spa cover secure in high wind conditions. There is no representation that the cover, clip tie downs, or actual locks will prevent access to the spa.

SAVE THESE INSTRUCTIONS.

2005 Owner's Manual

# **International Safety Information**



## **IMPORTANT SAFETY INSTRUCTIONS**

#### READ AND FOLLOW ALL INSTRUCTIONS CAREFULLY

When using this electrical equipment, basic safety precautions should always be followed, including the following:

- 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.
- <u>DANGER</u>: *Risk of Serious Injury or Death.* The suction fittings in this spa 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 that the flow rates are compatible.

Never operate the 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.

- <u>DANGER</u>: *Risk of Electric Shock.* Install at least 1.5 meters (5 feet), from all metal surfaces. As an alternative, a spa may be installed within 5 feet of metal surfaces if each metal surface is permanently connected by a minimum 8.4 mm<sup>2</sup> (No. 8 AWG) solid copper conductor attached to the wire connector on the grounding lug, inside the equipment compartment on the equipment can.
- <u>DANGER</u>: *Risk of Electric Shock.* Do not permit any electrical appliance, such as a light, telephone, radio, television, etc. within 1.5 meters (5 feet) of a spa.
- <u>DANGER</u>: The electrical supply for this spa must include a suitably rated switch or circuit breaker to open all ungrounded supply conductors to comply with local or national wiring requirements. The disconnect must be readily accessible and visible to the spa occupant but installed at least 1.5 meters (5 feet), from the spa water.
- <u>DANGER</u>: A grounding wire connector is provided on this spa to connect a minimum 8.4 mm<sup>2</sup> (No. 8 AWG) solid copper conductor between this unit and any metal equipment, metal enclosures of electrical equipment, metal water pipe, or conduit within 1.5 meters (5 feet) of the spa.
- WARNING: To Reduce the Risk of Injury: The water in a spa should never exceed 40° C (104°F). Water temperatures between 38° C (100° F) and 40° C (104° F) are considered safe for a healthy adult. Lower water temperatures are recommended for young children and when spa use exceeds 10 minutes.
- WARNING: To Reduce the Risk of Injury: 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).

•

2005 Owner's Manual

<u>WARNING</u>: *To Reduce the Risk of Injury:* Before entering a spa, the user should measure the water temperature with an accurate thermometer since the tolerance of water temperature-regulating devices may vary as much as +/- 2° C (5° F).

- <u>WARNING</u>: *To Reduce the Risk of Injury*: The use of alcohol, drugs, or medication before or during spa use may lead to unconsciousness with the possibility of drowning.
- <u>WARNING</u>: *To Reduce the Risk of Injury:* Persons suffering from obesity or with a medical history of heart disease, low or high blood pressure, circulatory system problems, or diabetes should consult a physician before using a spa.
- <u>WARNING</u>: *To Reduce the Risk of Injury:* 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.
- WARNING: Do not attempt to remove the light housing cover without lowering the water level below the light housing cover.
- WARNING: The use of alcohol or drugs can greatly increase the risk of fatal hyperthermia in hot tubs and spas.
- <u>CAUTION</u>: Persons suffering from heart disease, diabetes, high or low blood pressure, any
  condition requiring medical treatment, pregnant women, the elderly, or infants should
  consult with a physician before using a spa.
- <u>CAUTION</u>: The consumer products safety commission has stated that the water temperature in a spa or hot tub should not exceed 40° C (104° F). Immersion in water in excess of 40° C (104° F) can be hazardous to your health.
- <u>CAUTION</u>: Observe a reasonable time limit when using the spa. Long exposures at higher temperatures can cause high body temperature. Symptoms may include dizziness, nausea, fainting, drowsiness, and reduced awareness. These effects could result in possible drowning
- <u>CAUTION</u>: Do not use the spa under the influence of alcohol, narcotics, or other drugs. Use of the spa under these conditions may lead to serious consequences.
- <u>CAUTION</u>: Always test the hot tub water temperature before entering the spa. Enter and exit the spa slowly. Wet surfaces can be very slippery.
- <u>CAUTION</u>: Never bring any electrical appliances into or near the spa. Never operate any electrical appliances from inside the spa or when you are wet.
- <u>CAUTION</u>: Proper chemical maintenance of spa water is necessary to maintain safe water and prevent possible damage to spa components.
- <u>CAUTION</u>: Use the spa straps and clip tie downs to secure the cover when not in use. This will help to discourage unsupervised children from entering the spa and keep the spa cover secure in high wind conditions. There is no representation that the cover, clip tie downs, or actual locks will prevent access to the spa.

SAVE THESE INSTRUCTIONS.

2005 Owner's Manual

# Hyperthermia

Prolonged immersion in hot water may induce hyperthermia. A description of the causes, symptoms, and effects of hyperthermia are as follows: Hyperthermia occurs when the internal temperature of the body reaches a level several degrees above the normal body temperature of 98.6° F, or 37° C. The symptoms of hyperthermia include dizziness, drowsiness, lethargy, and fainting. The effects of hyperthermia include:

- Failure to perceive heat
- Failure to recognize the need to exit spa
- Unawareness of impending hazard
- Fetal damage in pregnant women
- Physical inability to exit spa
- Unconsciousness resulting in the danger of drowning

# DO'S AND DON'T'S

#### Do's

- DO read all operating instructions.
- DO read, understand and follow all Safety, Danger and Warning instructions before use.
- DO test water temperature with your hand before entering to be sure that it is comfortable.
- DO keep the Aquatic Fitness System cover closed when the Aquatic Fitness System is not in use. This is also the key to economical Aquatic Fitness System operation.

#### Don'ts

- DON'T allow horseplay or unsupervised use of your Aquatic Fitness System.
- DON'T block or sit on the filter recess area.
- DON'T allow anyone to tamper or play with any of the safety or suction fittings of your Aquatic Fitness System.

2005 Owner's Manual

# **DANGER SIGN**

Every Aquatic Fitness System has been provided with a warning sign, which outlines safety precautions. Read and familiarize yourself with all warnings listed on this sign and install the sign in a conspicuous place accessible to all who use your Aquatic Fitness System.

This sign **must** be permanently placed in a location that is visible to the **Aquatic Fitness System** user. Replacement signs may be obtained from:

# Dimension One Spas, Inc.

2611 Business Park Drive Vista, CA 92081

Be sure to use your **Serial Number** whenever contacting your dealer or Dimension One Spas Inc. The **Serial Number** can be found on the bottom of the frame, beneath the skirt paneling, directly below the Top Side Control.



# **Using Your Aquatic Fitness System**

# Before you Start

To complete the installation of your **Aquatic Fitness System** you must add water. Your dealer cannot complete safety checks, test equipment operation, or conduct initial training until you have added water. The **Aquatic Fitness System** should be filled until the water level is approximately in the middle of the tile line.

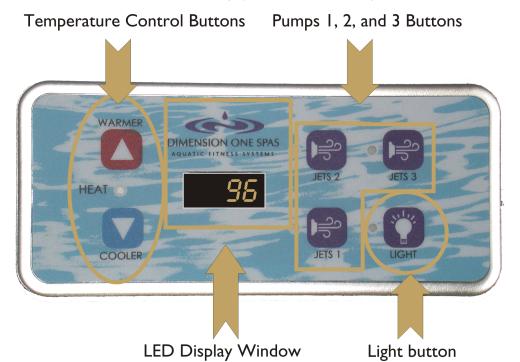


Do not attempt to use your **Aquatic Fitness System** until your dealer has completed all required tests.

When your dealer has completed required testing and determined the **Aquatic Fitness System** is ready for your use, he will show you how to operate the Top Side Control and change the filter.

# Using The "Pool-Side" Top Side Control

The Top Side Control is used to monitor and manage your Aquatic Fitness System.



2005 Owner's Manual

## **Temperature Set Buttons**



**Temperature Set Buttons:** Press the "Warmer" Up Arrow button to increase the desired temperature. Press the "Cooler" Down Arrow button to decrease the temperature. The temperature set point can be adjusted in 1°F ( $\cong$ 0.5°C) increments from 65°F to 104°F ( $\cong$ 18.3°C to  $\cong$ 40°C). The new setting will remain on the display for 5 seconds as a confirmation.



This new temperature setting is referred to as the "set temperature" setting throughout this document. It refers to the water temperature that you want the system to maintain for you (e.g. 99°F or ≅37.2°C).

When the temperature drops to 2°F ( $\cong$ 1.1°C) below the set temperature, the heater will turn on until the temperature is 2°F ( $\cong$ 1.1°C) above the set temperature.

In addition to setting the desired water temperature, these two buttons are also used to change the filter cycles. More information on this is contained in the section on "Programming the Filtration Cycle."



The Heat Indicator Light, located between the UP and DOWN Arrow Buttons, will light up while the heater is on and flash when there is a call for heat and the heater has not yet been activated.

## **Jets 1 Button**



**JETS 1 Button**: Press the button once to turn on Pump 1 to Low Speed. A second press will turn it to High Speed. A third press will typically turn the pump off, unless the pump has been automatically activated during a heating cycle – in which case a third press will return the pump to Low Speed. A built-in timer will automatically shut the pump off after 20 minutes of operation unless you manually shut if off sooner. The Jets 1 Indicator light will be lit next to the Jets 1 Button while the pump is running.

Pump 1 provides low or high volume water flow to both the Swim Jets and HydroTherapy Jets on the **AquaFit™** and **AquaPro™**. The Diverter Valve controls which set of jets gets the water, and how much is provided. The **AquaFit™ Dual Temp** has separate pumps for the Swim Jets and the HydroTherapy Jets.



Pump 1 also runs on low speed during all filter and heating cycles. If the system is in a filter cycle, the indicator light for **JETS 1** will be on. If you manually press the **JETS 1** button, this specific filter cycle will be disabled.

2005 Owner's Manual

## Jets 2 and Jets 3 Buttons



**JETS 2 and JETS 3 Buttons**: Press the appropriate button once to turn on Pumps 2 or 3. The pumps work independently, thus allowing you to control the total volume of water pumped to the Swim Jets. Pressing either button a second press will turn that pump(s) off.

A built-in timer will shut the pump(s) off after 20 minutes of operation unless you manually shut them off earlier. The Jets 2 or Jets 3 Indicator light will be lit next to the Jets 2 or Jets 3 Button whenever that Jet is running.

Pumps 2 and 3 provide high volume water flow to the Swim Jets.



If you are operating with a 60-amp service for heat and pumps, the heater will turn off if any of the pumps are operated at high speed. If you are running a separate 50-amp service for heat and a separate 50-amp service for the pumps, you can continue to heat your water while operating the pumps at high speed.

# **Light Button**



Push the **Light Button** to control your Dynamic LED lighting. This includes both Spa lights, which are synchronized to operate together. The lights have three basic Color Effects you can choose. Simply press the **Light Button** until you find the one you want. The Color Effects are:

- Color Fade Slow: This sequence rotates through all colors approximately once per minute. (Start up default)
- Color Hold: Hold on any of the colors.
- Color Fade Fast: This sequence rotates through all colors approximately three times per minute.

The default Color Effect is **Color Fade Slow**. Use the **Light Button** to change Color Effects as follows:

- Start on Color Fade Slow (default)
- Turn off for 1 second, back on again for Color Hold
- Turn off for 1 second, back on again for Color Fade Fast
- Turn off for 1 second, back on again for Color Hold
- Turn off for 1 second, back on repeats to Color Fade Slow
- Turn off for 5 or longer: start on Color Fade Slow



For your convenience and cost savings, the lights will automatically turn off after one hour. To reactivate the lights after the timer has shut them off, simply press the **Light Button** again. The lights will always start in the **Color Fade Slow** sequence after they have been off for more than 5 seconds. This ensures they always remain synchronized in multiple light spas.

2005 Owner's Manual

## **LED Display Window**



**LED Display Window:** This window displays the actual water temperature. However when you are setting the "target temperature" for your water, this window will display the SET temperature. After a brief pause, about 5 seconds, the window will return the display to the actual water temperature.

# **Programming the Filtration Cycle**

#### **Filtration**

Proper filtration is an important key to maintaining the clarity of your spa's water. The filter system is designed for unsurpassed effectiveness at removing debris and suspensions from the water anytime the water is circulating.

The Aquatic Fitness System comes with six pre-programmed filtration cycles (F1-F6) and two lockout (L1 & L2) modes. Of the six filter cycles, three cycles are in the standard mode and three cycles are in the economy mode.



To change the filter cycle or to enable or disable a lockout mode, press and hold both the **WARMER** and the **COOLER** buttons for 3 seconds. This enters the programming mode and allows you to select your filtration cycle. The display will show **F1** through **L2**. The current filter setting will be displayed in the window.

DIMENSION ONE SPAS

Use the **WARMER** and **COOLER** buttons to scroll up or down between the filtering modes. The filter cycles are as follows:

Standard Mode: F1, F2, F3Economy Mode: F4, F5, F6Lockout Mode: L1, L2

Standard Mode and Economy Mode are used primarily to determine how to heat your water. When you select a filter cycle of F1, F2, or F3, you are selecting Standard Mode. In Standard Mode the temperature of the water is used to determine the need for heat. Whenever the temperature of the water drops to  $2^{\circ}F$  ( $\cong$ 1.1°C) below your SET temperature, the pump will start and the water will heat until the water is  $2^{\circ}F$  ( $\cong$ 1.1°C) above your SET temperature. In Standard Mode, heating the water is independent of the filter cycles.

When you select a filter cycle of F4, F5, or F6, you are selecting Economy Mode. In Economy Mode, the water only heats when the filter us running. In Economy Mode, heating the water is dependent on the filter cycle.

When you select options L1, or L2, you are selecting the <u>Lockout Mode</u>, which allows you to suspend filter operation or control unauthorized access to your system.

2005 Owner's Manual

## Filter Cycles

#### Standard Mode

Standard Mode heating is automatically controlled by the loss of water temperature. If the spa water drops 2°F (£1.1°C) below the set temperature, the low speed pump and the heater will automatically turn on. They will both remain on until the water temperature reaches the temperature set point.



In this mode, the filter cycle operates independently of the need for heat to ensure proper filtration.



Set the display to F1 to receive two (2) hours of filtration twice a day. To select filter cycle F1, press and hold the Warmer and Cooler Buttons for three (3) seconds. Then press the Warmer (Up) Button, or the Cooler (Down) Button until you see F1 displayed in the window.

You have now successfully selected to receive two (2) hours of filtration twice a day and maintain your water temperature separately. The programming mode will automatically store your choice and exit if you don't make another change within three (3) more seconds.



Set the display to **F2** to receive two (2) hours of filtration three times a day. To select filter cycle **F2**, press and hold the Warmer and Cooler Buttons for three (3) seconds. Then press the Warmer (Up) Button, or the Cooler (Down) Button until you see **F2** displayed in the window.

You have now successfully selected to receive two (2) hours of filtration three times a day and maintain your water temperature separately. The programming mode will automatically store your choice and exit if you don't make another change within three (3) more seconds.



Set the display to F3 to receive two (2) hours of filtration four times a day. To select filter cycle F3, press and hold the Warmer and Cooler Buttons for three (3) seconds. Then press the Warmer (Up) Button, or the Cooler (Down) Button until you see F3 displayed in the window.

You have now successfully selected to receive two (2) hours of filtration four times a day and maintain your water temperature separately. The programming mode will automatically store your choice and exit if you don't make another change within three (3) more seconds.

2005 Owner's Manual

#### **Economy Mode**

In this mode, the timer determines when the filtering and heating take place.



If the LED Digital Display Window displays **COL** and **ICE**, Cool or Ice conditions have been discovered. These conditions take precedence over the Economy Mode. Heat will be applied as required by the identified condition regardless of the filter cycle. See the Troubleshooting Guide for more information.



Set the display to **F4** to receive two (2) hours of filtration and heat twice a day. To select filter cycle **F4**, press and hold the Warmer and Cooler Buttons for three (3) seconds. Then press the Warmer (Up) Button, or the Cooler (Down) Button until you see **F4** displayed in the window.

You have now successfully selected to receive two (2) hours of filtration twice a day and heat your water only during filter cycles. The programming mode will automatically store your choice and exit if you don't make another change within three (3) more seconds.



Set the display to **F5** to receive two (2) hours of filtration and heat three times a day. To select filter cycle **F5**, press and hold the Warmer and Cooler Buttons for three (3) seconds. Then press the Warmer (Up) Button, or the Cooler (Down) Button until you see **F5** displayed in the window.

You have now successfully selected to receive two (2) hours of filtration three times a day and heat your water only during filter cycles. The programming mode will automatically store your choice and exit if you don't make another change within three (3) more seconds.



Set the display to **F6** to receive two (2) hours of filtration and heat four times a day. To select filter cycle **F6**, press and hold the Warmer and Cooler Buttons for three (3) seconds. Then press the Warmer (Up) Button, or the Cooler (Down) Button until you see **F6** displayed in the window.

You have now successfully selected to receive two (2) hours of filtration four times a day and heat your water only during filter cycles. The programming mode will automatically store your choice and exit if you don't make another change within three (3) more seconds.

2005 Owner's Manual

#### **Lockout Mode**



**LOCKOUT** - This special feature can be used when cleaning or changing the filter cartridge, or when doing any type of non-electrical servicing that requires the pump operation to be suspended while the work is completed.

To select Lockout Mode **L1**, press and hold the Warmer and Cooler Buttons for three (3) seconds. Then press the Warmer (Up) Button, or the Cooler (Down) Button until you see **L1** displayed in the window.

You have now successfully selected Lockout Mode. The programming mode will automatically store your choice and exit if you don't make another change within three (3) more seconds. **The temperature display flashes in this function**.



If the control is heating when the system is put into the lockout mode, the heater will immediately turn off and the pump will cycle water for thirty seconds, then turn off. This will assist in cooling the heat element



**PANEL LOCKOUT** – Special feature to prevent unauthorized use of your spa. The Top Side Control incorporates a unique panel locking system that disables the control buttons on the panel.

To select Panel Lockout **L2**, press and hold the Warmer and Cooler Buttons for three (3) seconds. Then press the Warmer (Up) Button, or the Cooler (Down) Button until you see **L2** displayed in the window.

You have now successfully selected Panel Lockout. The programming mode will automatically store your choice and exit if you don't make another change within three (3) more seconds.

The temperature display flashes in this function.



In this mode the system will only operate as if the filter cycle had been set to F1.

2005 Owner's Manual

# Spa "Included" - Dual-Temp Only

Congratulations, **AquaFit™Dual Temp** Owners! You not only get the pleasures of aquatic exercise in the "pool side," you also have a "dedicated spa" on the other side. Take the time to read these additional instructions carefully because they contain information specific to the spa portion of your **Aquatic Fitness System**. If you have any questions, please contact your local Authorized Dimension One Spas Dealer.

The spa side is completely "self-contained" from the pool side. This means that the water in the spa circulates through its own closed system – including pumps and jets. It contains a separate filtration system and the water chemistry must also be managed separately using the guidelines contained in the *Water Care Guide Part No. 01513-192*.

## The following features are included on your spa:

- Meets or exceeds the most stringent requirements of UL1563 Standard for Safety for Electrical Spas as evaluated and inspected by Edison Test Labs (ETL).
- · Completely self-contained with load sharing capabilities
- 100% foam insulated
- Top access, easy to clean filter systems
- Water level referencing weir skimmer
- Proportional FastFlo™ Heater
- A variety of interchangeable jets
- Exclusive, custom hand-set ceramic tile adds a distinctive touch
- Built-in, automatic freeze protection
- Automatic high/low speed filtration cycles

#### **Additional Features**

- Programmable Digital control with digital display
- CrystalZone® Water Management System
- Long life, dual speed HydraMax pump
- Dynamic LED Lighting
- 75 sq. ft. (6.97 m<sup>2</sup>) of filtration

# **Heater and Circulation Pump Control**

On all Dimension One Spas, when the water temperature is 1° F ( $\cong$ 0.55° C) below the set temperature the heater will turn on and remain on until the water temperature rises to 1° F ( $\cong$ 0.55° C) above the set temperature. To prevent the spa from overheating, the circulation pump turns off when the water temperature rises 2° F ( $\cong$ 1.1° C) above the set temperature. When the water temperature cools down to the set temperature, the circulation pump will turn on.



The circulation pump will run for short periods when the water temperature is  $2^{\circ}$  F ( $\cong 1.1^{\circ}$  C) above set temperature to provide optimum operation.

#### **Smart Heat**

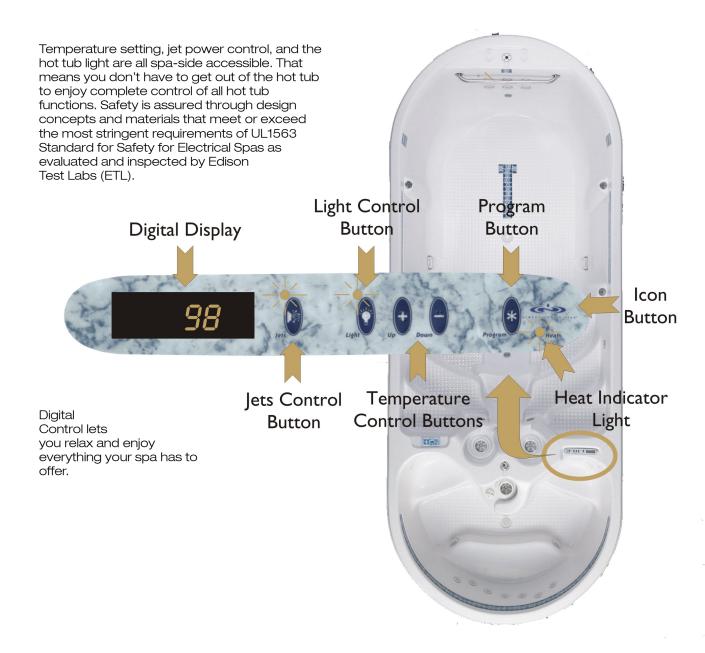
Smart Heat optimizes heat recovery using the amperage that you have available. Along with computerized load sharing, that automatically recognizes the number of jet pumps in use, compares it with the available power, Smart Heat recognizes the difference between the set temperature and the actual water temperature, and adjusts the heater to optimize the heater output.

2005 Owner's Manual

# Operation of the Spa

## **Using The Top Side Control**

Advanced microprocessor technology has been utilized to produce the Programmable Digital Control. Easy to use and understand, Dimension One Spas has put every hot tub function within fingertip control.



2005 Owner's Manual

#### LED Digital Display Window



**LED Digital Display Window:** This window displays the actual water temperature in either °F or °C. It will also display time, filter cycle start time, filter cycle duration time, and the number of filter cycles.

When you are setting the "target temperature" for your water, this window will display the target temperature. After a brief pause, about 5 seconds, the window will return the display to the actual water temperature.

#### Jets Button





Jets Button: Press the button once to turn on the pump to Low Speed. A second press will turn it to High Speed. A third press will typically turn the pump off, unless the pump has been automatically activated during a heating cycle – in which case a third press will return the pump to the Low Speed. The Jets Indicator Light, next to the Jets Button, will be lit while the pump is running. A Jet Pump Icon will also display in the upper left corner of the LED Digital Display Window whenever the pump is running.

A built-in timer will automatically shut the pump off after 30 minutes of operation unless you turn it off manually. When the pump is first turned on, a small scale will be displayed in the lower left corner of the LED Digital Display Window.

This Jet Button controls water flow only for the spa side of the **AquaFit™ Dual Temp**.

When the Jets Indicator Light, the Light Indicator Light, and the Heat Indicator Light are flashing, they indicate a problem with your spa. See the <u>Troubleshooting Section</u> for more details.



Pushing the JETS Button will disable any concurrent filter cycle.

2005 Owner's Manual

## Light Button





Push the **Light Button** to control your Dynamic LED lighting. The light hase three basic Color Effects you can choose. Simply press the **Light Button** until you find the one you want. The Color Effects are:

- Color Fade Slow: This sequence rotates through all colors approximately once per minute. (Start up default)
- Color Hold: Hold on any of the colors.
- Color Fade Fast: This sequence rotates through all colors approximately three times per minute.

The default Color Effect is **Color Fade Slow**. Use the **Light Button** to change Color Effects as follows:

- Start on Color Fade Slow (default)
- Turn off for 1 second, back on again for Color Hold
- Turn off for 1 second, back on again for Color Fade Fast
- Turn off for 1 second, back on again for Color Hold
- Turn off for 1 second, back on repeats to Color Fade Slow
- Turn off for 5 or longer: start on Color Fade Slow

When the Light Indicator Light, the Jets Indicator Light, and the Heat Indicator Light are flashing, they indicate a problem with your spa. See the <u>Troubleshooting Section</u> for more details.



For your convenience and cost savings, the light will automatically turn off after one hour. To reactivate the light after the timer has shut off, simply press the **Light Button** again. The light will always start in the **Color Fade Slow** sequence after it hase been off for more than 5 seconds.

2005 Owner's Manual

#### Up and Down Buttons





Up (+) and Down (-) Buttons: Pushing the UP (+) Button increases the temperature and pushing the DOWN (-) Button decreases the temperature. Push the respective button one time for each degree of temperature change you want, or "push and hold" the button for rapid adjustment.

The actual spa water temperature is normally displayed in the LED Digital Display Window until you push the UP (+) or DOWN (-) Button or the Program Button. If you push the UP (+) Button or the DOWN (-) Button the LED Digital Display Window will change to indicate your target temperature setting. The LED Digital Display Window will also display the SET TEMPERATURE Icon in the lower right side of the Window to indicate the temperature shown in the window is a target setting and not the actual temperature. The Temperature Icon will also be displayed along the top of the window if your new setting requires more heat.

Once the new temperature is set, the actual spa water temperature will again be indicated. The spa will heat to the new temperature automatically.

#### Program Button





**Program Button:** The PROGRAM Button is used to set several different functions including:

Programmable Item	Program Button Action
Clock	Press & Hold 5 seconds
Filter Cycle Start Time	2 <sup>nd</sup> Press
Filter Cycle Duration	3 <sup>rd</sup> Press
Number of Filter Cycles	4 <sup>th</sup> Press
Temperature Unit	5 <sup>th</sup> Press
Quit Program sequence	6 <sup>th</sup> Press or wait 60 seconds

When you have successfully entered the programming sequence, the word "PROGRAM" will be displayed in the LED Digital Display Window.

You can now start to program your spa controls.

2005 Owner's Manual

#### Clock:



Program the Clock by pressing the PROGRAM button and holding it for about 5 seconds. The LED Digital Display Window will display the word PROGRAM and a digital clock with the HOUR setting flashing. Use the UP or DOWN buttons to change to the correct HOUR. When the HOUR is correct, press the LIGHT Button to toggle to the MINUTES side of the time. Use the UP or DOWN buttons to change to the correct MINUTES. When the MINUTES are correct, press the LIGHT Button to toggle the AM/PM.

#### Filter Cycle Start Time:



**Program the Filter Cycle Start Time** by pressing the PROGRAM Button a 2<sup>nd</sup> time. Whenever you are programming a filtration setting, the FILTER Icon will be displayed next to the word PROGRAM in the LED Digital Display Window.

To adjust the Filter Cycle Start Time use the UP or DOWN buttons to change to the correct HOUR. When the HOUR is correct, press the LIGHT Button to toggle to the MINUTES side of the time. Use the UP or DOWN buttons to change to the correct MINUTES. When the MINUTES are correct, press the LIGHT Button to toggle the AM/PM.

#### Filter Cycle Duration:



**Program the Filter Cycle Duration** by pressing the PROGRAM Button a 3<sup>rd</sup> time. Whenever you are programming a filtration setting, the FILTER Icon will be displayed next to the word PROGRAM in the LED Digital Display Window.

To adjust the filter cycle duration use the UP or DOWN buttons to change to the correct amount of time you want the filter to run. Your choices are 60, 90, 120, 150, or 180 minutes. *The factory default is 60 minutes.* 

#### Number of Filter Cycles:



**Program the Number of Filter Cycles** by pressing the PROGRAM button a 4<sup>th</sup> time. Whenever you are programming a filtration setting, the FILTER Icon will be displayed next to the word PROGRAM in the LED Digital Display Window.

To adjust the number of filter cycles to run during a 24-hour period, simply use the UP or DOWN Buttons to select the correct number. Your choices are 1, 2, 3, or 4 cycles per day. *The factory default is 2 times per day.* 



Long and/or numerous filter cycles could cause overheating of the hot tub - especially in hot climates.

2005 Owner's Manual

## Temperature Unit:



**Program the Temperature Unit** by pressing the PROGRAM button a 5<sup>th</sup> time. The current Temperature Unit will be visible in the LED Digital Display Window.

To adjust the Temperature Unit used to measure spa water temperature, simply use the UP or DOWN Buttons to select between Fahrenheit (°F) and Celsius (°C). *The factory default setting is Fahrenheit.* 

Exit the Programming Sequence by pressing the PROGRAM Button a 6<sup>th</sup> time. All changes will be saved.

If you do not proceed with the programming within 60 seconds, the spa will automatically exit the programming sequence and revert to your previous settings. Any programming changes made up to that point would be saved.

#### Heat Indicator Light





# Heat Indicator Light:

This Light is illuminated whenever the heater is on. Additionally, the HEAT Icon will also be displayed in the upper left corner of the LED Digital Display Window.

## Dimension One Spas Icon (Logo) Button





Dimension One Spas ICON (Logo)®: The time of day can be viewed by pushing the Dimension One Spas ICON logo on the far right of the control. If no other button is pushed within 5 seconds, the display will revert to the spa water temperature reading.

The pre-set factory default is Fahrenheit. Using the PROGRAM Button can change the clock.

2005 Owner's Manual

# **Digital Display Messages**

The following messages may appear in the LED Digital Display Window:

#### "OH" - Overheat Protection

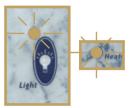


**DO NOT ENTER THE WATER** when "OH" is displayed on the control system's LED Digital Display Window because the spa is in a high temperature condition. If this happens, remove the spa cover and allow the water to cool below 110° F ( $\cong$ 43.3° C). Turn off all power to the system to reset.

If the problem persists, contact your local Authorized Dimension One Spas Dealer, or authorized service center.

Flashing LED on the Control Panel







**DO NOT ENTER THE WATER** if you see 3 flashing LEDs on the Digital Display Control. The system has detected a problem.

Check to see of your LED Digital Display Window is also displaying an Overheat Protection condition (**OH**). If you have flashing lights and an OH in the display, your system has detected a high limit condition. The water temperature has reached 118° F ( $\cong$ 47.8° C). The entire system is disabled.

Contact your local Authorized Dimension One Spas Dealer, or authorized service center.

2005 Owner's Manual

# Flashing LED on the Control Panel





**DO NOT ENTER THE WATER** if you see 3 flashing LEDs on the Digital Display Control. The system has detected a problem.

If you have flashing lights, but the LED Digital Display Window shows the current water temperature, you have a water flow problem. You will need to check the water level and/or clean the filters.



Before checking the water level or cleaning the filter be sure to test the water temperature. Do not rely exclusively on the accuracy of the temperature reading in the LED Digital Display Window. Make sure the water temperature is safe before cleaning the filters.

The flashing lights should stop once the problem is fixed. If the problem persists, reset the power to the spa by resetting the GFCI breaker.

If the error is not resolved after resetting the spa, contact your local Authorized Dimension One Spas Dealer, or authorized service center.

## Erroneous Temperature on the Display



**DO NOT ENTER THE WATER** if you see a temperature reading of **32°** F ( $\cong$ 0° C) or **136°** F ( $\cong$ 57.8° C) without first checking the actual water temperature with a separate thermometer. The system has detected a Temperature Probe Failure and the water may be too hot, or too cold, to safely use.

Contact your local Authorized Dimension One Spas Dealer, or authorized service center.

# **Routine Equipment Maintenance**

# **Draining Your Aquatic Fitness System**



<u>Risk of Accidental Drowning</u>. Extreme caution must be exercised to prevent unauthorized access by children. To avoid accidents, ensure that children cannot use this system unless they are supervised at all times.

All models are gravity drained. Do not drain water onto your lawn or plants unless all of the bromine or chlorine has dissipated from the water. The sanitizer in your water will dissipate quickly by leaving the cover off and exposing the water to direct sunlight. Drain and replace your water every six months. For heavy use, you may wish to change the water more frequently.



You may purchase an optional submersible pump from your dealer or from our Virtual Showroom at <a href="https://www.d1spas.com">www.d1spas.com</a> to provide quicker drainage.

# Filter Cleaning

# AquaFit™ Dual Temp

Always turn off the power to the system before cleaning the filter elements. Your system is equipped with three top access filter cartridges – one on the spa-side and two on the pool-side. We recommend that you clean the filters every month as preventative maintenance.



To clean the skimmer filter cartridge, remove the access lid covering the filter area. Lift the center float of the skimmer assembly until it is fully extended. Hold the centerpiece of the assembly and turn it counter clockwise until the flats of the basket are aligned with the securing tabs. Then pull the basket assembly straight up to remove. Next, remove the E-Z Lock Filter cartridge by twisting the cartridge ½ turn counterclockwise to its stop. (Be careful not to overturn the filter.) Then lift the filter out of its canister. Clean the cartridge with a high-pressure garden hose. Every other cleaning, soak the cartridges in a filter-cleaning solution, rinse it thoroughly, and reinstall. Replace the skimmer basket assembly and the access lid or cover. After cleaning, run the pump for a few minutes at high speed, then return to the heating mode.

2005 Owner's Manual

# AquaFit™ and AquaPro™

Always turn off the power to the **Aquatic Fitness System** before cleaning the filter elements. Refer to the filter manufacturer's manual for detailed instructions on removing the filter.

It is recommended that filters be cleaned every month as preventative maintenance. You should clean the cartridge with a high-pressure garden hose. Every other cleaning, you should also soak the cartridge in a filter cleaning solution, rinse it thoroughly, and then reinstall it. After cleaning, be sure to run the pump(s) for a few minutes at high speed, and then return to the heating mode.



Be sure the slice valves and the shut off valve are closed before changing or cleaning your **Aquatic Fitness System** filter.

# **Light Bulb Replacement**

All systems are equipped with Dynamic LED Lights. To change the light:

- 1. Turn the power off and drain the system below the level of the light.
- 2. Using the special tool provided in the owner's manual packet, unscrew the cover for the light housing.
- 3. Remove the old light and install the new light.
- 4. Use the special tool to replace the cover for the light housing.
- 5. Check to ensure proper operation of the new light before refilling the system.





Warning

Do not attempt to remove the light housing cover without lowering the water level below the light housing cover.



Warning

Do not attempt to remove the light housing cover without the special tool. If you are not able to locate it, contact your Dimension One Spas Dealer to have one sent.



Be sure the O-ring is not damaged and is properly in place when replacing the lens. Contact your dealer if a replacement O-ring is needed.

2005 Owner's Manual

# Surface Care - Shell

Your equipment has a very high quality finish. Stains and dirt will generally not adhere to the surface. We recommend cleaning the entire shell surface with Dimension One Spas' **Water Line Cleaner.** You may also use Dimension One Spas' **ph/Alkalinity Increaser** or a 50/50 solution of denatured alcohol and water. Be sure to thoroughly rinse the shell. After cleaning, you will want to restore your hot tub shell's original luster by using Dimension One Spas' **Poli-Gloss**.



Do not use caustic solutions as they may damage the hot tub shell surface and void the warranty. If you are using Dimension One Spas' **pH/Alkalinity Increaser** to clean your hot tub shell, be careful not to get it on the wood skirt. It may stain the wood.



Do not use citrus-based cleaners on the shell surface.

# Care for the Wood Spa Cabinet

When properly cared for, the wood cabinet of your hot tub will maintain its beauty for many years. All woods react differently to the elements by expanding and contracting. To protect your beautiful wood finish, re-stain it every 3-6 months, which serves as a good sealing agent for the wood. Please note that the cabinet is not warranted against reaction to natural weather conditions. The wood must be properly maintained. You may visit the Dimension One Spas website at <a href="https://www.D1Spas.com">www.D1Spas.com</a> to get the proper formula for your stain. This stain should be available from your local hardware store.

# **Special Cold Weather Instructions**

Slipping into your steamy water on a snowy, winter night is a refreshing experience. Many times, people who could never imagine being outside in winter weather, find themselves spending their winter nights doing just that, while relaxing in their spa with family and friends. Therefore, the best winterizing tips of all are to enjoy use of your system year-round.

All systems manufactured by Dimension One Spas are designed for rigorous winter use. They are insulated to keep operating costs down and to protect plumbing and equipment whenever the products are operational. Each product line incorporates freeze protection mode to maintain water circulation during freezing conditions whenever the system has proper electrical power and water level. Therefore, a fully operational system is your number one defense against freeze-damage.

If you find it completely necessary to drain your water during the winter months, in an area where freezing conditions may exist, please adhere to all of the instructions in this section to minimize the risk of freeze damage. Failure to complete any of the steps satisfactorily will increase the chance of freeze damage, as small amounts of water trapped in pipes will expand as it freezes, and may result in damaged plumbing lines or fittings.



Dimension One Spas does not recommend that you drain your system for the winter. Freeze damage is specifically not covered by Your Warranty.

2005 Owner's Manual

# Items Required for Winterizing

- Phillips head screwdriver
- 16" Channel-lock pliers
- High pressure air blower
- Commercial grade wet-vacuum
- 3 to 6 gallons (11.4 to 22.7 liters) of Non-Toxic Antifreeze
- Enough time (and patience) to perform all steps.

# **Procedure for Winterizing**

- Shut the power off to the system and make sure that it cannot be accidentally turned back on.
- 2. Remove filter elements from filter assembly.
- 3. Drain water from the system using the drain fitting and garden hose or you may use a submersible pump for faster draining.
- 4. Open the equipment compartment and locate pumps and heater.
- 5. Remove all of the drain plugs from each pump.
- 6. Loosen unions on both sides of each pump, and the heater if applicable.
- 7. Close all jets, by turning jet faces counter clockwise.
- 8. Put on your protective goggles in order to protect eyes from air, water, antifreeze or debris exiting the jets or drains.
- 9. Insert the hose of a high-pressure air blower into the filter element fitting. Some models may have 2 filters. Begin with the left-hand filter fitting, which will help evacuate water from the circulation pump system. Then proceed to the right-hand filter fitting. When using air blower on single-filter systems or the right-hand fitting on dual filter systems, rotate each of the jet faces clockwise to open and counter-clockwise to close again. Do this to each jet face, one jet at a time. Be careful, as water will be coming out of each jet fitting as you perform this maneuver. Perform this operation, until no more water is coming from the jets.
- 10. Remove jet faces and insert the hose of a high-pressure air blower into each jet fitting. Continue this process, until no more water comes out of any jet fitting or drain fitting and you no longer hear water gurgling within the plumbing. Place all jet faces in a plastic bag and set aside until you are ready to use your system again.
- 11. AquaFit™ DT 19' Only: Remove bleeder valve from the top of the filter canister area in the spa area. Place hose of a high-pressure air blower into the bleeder fitting first. Confirm that water mist is blowing from one or both of the circulation system; return jets in the footwell of the system. You may also get some water mist blowing from the filter canister. Repeat this process with the front-most bleeder fitting. Confirm that water mist is blowing from the drain fittings of the jet pumps.
- 12. Place the hose of a commercial grade, wet-vacuum over each jet fitting, bleeder valve fitting, and drain fitting to draw out as much remaining standing water as possible.
- 13. Remove drain hose bib assembly from the outside bottom of the system.
- 14. Use the wet-vacuum to remove standing water from the pumps and any other fittings within the equipment compartment.
- 15. Read all Directions and Safety Precautions on the Swimming Pool or Recreational Vehicle antifreeze bottle before opening and using. Ensure that it is non-toxic and safe for this use. Beware of and follow all safety precautions.

#### **Aquatic Fitness System**

2005 Owner's Manual

16. Using a long funnel, begin pouring non-toxic swimming pool or recreational vehicle water system antifreeze into the filter canister fittings, bleeder valve fittings and jet fittings of your system. Continue adding antifreeze until it comes out of the drain fittings or from the opening you are pouring it into. You must complete this task for every jet fitting in the system. Some of the antifreeze will seep into the system from the drain or jet fittings, which is okay, the goal is to have anti-freeze collect in the areas of the plumbing that would normally trap water. Use the funnel to also place antifreeze into the pump housing(s).



When pouring antifreeze into the rear-most bleeder valve fitting, you may see antifreeze pouring from one or both of the circulation system-return fittings.



DO NOT USE AUTOMOTIVE COOLING SYSTEM ANTIFREEZE IN YOUR SYSTEM. IT IS TOXIC AND HARMFUL TO HUMANS AND ANIMALS. CHECK WITH YOUR LOCAL SPA DEALER OR RV DEALER TO PURCHASE **NON-TOXIC** ANTIFREEZE THAT IS COMPATIBLE WITH DRINKING WATER SYSTEMS!

- 17. Replace all equipment access panels onto the system.
- 18. Replace thermal cover and secure locking tabs. If your system is located in an area of high snowfall, you may want to take one more extra precaution to safeguard the life of your system cover. Span the cover with (2 or more) 2x4's cut to length to reach the outside edges of your cover. Be sure to place the 2x4's on top of the cover parallel to the cover hinge. Next, place a sheet of plywood, cut to fit each half of the cover, over the 2x4's; this will carry the load of a heavy snow load and prevent the cover from warping or breaking. You can even tarp the system at this point for maximum protection.

#### **Aquatic Fitness System**

2005 Owner's Manual

#### **Spring Time Startup**

In the spring, or when you are ready to start the system back up, follow these instructions.

- Make sure o-rings for pumps are in place and undamaged.
- Make sure all the fittings that you had to loosen are tightened.
- Replace all jet fittings, pump drain plugs, hose bib drains and bleeder valves
- Fill the system up, as you would normally do.
- Turn the power back on.
- Run the jets on high speed for about 15 minutes.
- Drain the water.
- Put your filter(s) back in.
- Refill and treat chemically like you would during a normal water change.



Your system is equipped with automatic freeze protection. However, power outages can cause your system equipment to freeze. During freezing conditions, check your system frequently to ensure proper operation. Always check your system after any power failure to ensure that it is operational. Draining and not operating your system disables this feature.

For additional information about winterizing your **Aquatic Fitness System**, please contact your local Authorized Dimension One Spas dealer.

### **Warranty Service Information**

Your **Aquatic Fitness System** warranty gives you specific coverage. Be sure to read the enclosed warranty sheet carefully.

The warranty does not cover problems arising from misuse, abuse, or neglect, and it does not cover problems caused by improper installation or "perceived" problems caused by failure to read the **Aquatic Fitness System** Owner's Manual. A service charge will be made if a service call is made for any of the following:

- Equipment failure due to improper/inadequate electrical service. All systems require
  dedicated circuits as described in this manual. Low voltage can cause equipment failure and
  seriously shorten equipment life. It is the owner's responsibility to ensure proper electrical
  service is available.
- Failure of Aquatic Fitness System to reach desired temperature because the set temperature is not turned up high enough. Maximum thermostat setting is approximately 104° F (≅40° C).
- 3. Burned out Aquatic Fitness System light. Bulbs are not covered.
- 4. **Aquatic Fitness System** water chemistry is the responsibility of the **Aquatic Fitness System** owner. Cloudy, dirty or chemically unbalanced water and cleaning of the filters are also the responsibility of the **Aquatic Fitness System** owner.
- 5. Aquatic Fitness System shell or equipment damage caused by improper water maintenance. Serious damage can be caused if your Aquatic Fitness System water is not maintained carefully and correctly.
- 6. Poor jet action because the jet Selector valve is in the middle position. For full performance, turn the jet Selector valve to either the full clockwise or full counterclockwise position.



#### Do not block the air intakes.

The air intakes for the HydroTherapy Jets are located in the equipment compartment.





For the Swim jets they are built into the lower portion of the Air Selector Switches, below the shell.

Proper airflow is required for proper operation. Malfunctions resulting from blocked air intakes are not covered under warranty.

## Glossary of Terms

Term	Definition
Air Relief Valve	Used for purging air from the filter system whenever servicing the filter, during initial startup, and whenever you drain and fill the <b>Aquatic Fitness System</b> .
Air Volume Controls	Increase or decrease the amount of air drawn through the jets. The intensity of jet action is varied by adjusting the amount of air mixed with the water forced through the jets. More air produces a more vigorous massage. Since air bubbles tend to cool the <b>Aquatic Fitness System</b> , the air controls should be closed while the <b>Aquatic Fitness System</b> is heating.
Bleeder Valve	A small valve used to relieve or expel air from the <b>Aquatic Fitness System</b> 's plumbing or pump.
Circulation Pump	A pump that circulates the water in the <b>Aquatic Fitness System</b> continuously.
Diverter Valve	Allows you to select either the therapy jets or swim jets with pump number 1. Simply turn the valve to the desired position.
Dry Firing	Turning the heater element on when there is no water in the heater.
Equipment Access Panel	Provides access to your <b>Aquatic Fitness System</b> 's equipment for a qualified service technician.
Equipment Control System	The electronic control system that governs all of the electrically operated components of your <b>Aquatic Fitness System</b> utilizes an advanced microprocessor and solid-state electronic switches to activate all user and maintenance options.
Filter Cartridge	Your <b>Aquatic Fitness System</b> 's filters have been designed so that you may repeatedly clean and maintain the filter cartridge as needed. The cartridge is constructed of woven polyester rather than paper to ensure long life and proper filtration.
Filter Housing	The filter canister that houses the filter cartridge. It encloses your Aquatic Fitness System's cartridge filter element. This filter cartridge removes dirt, oil and fine particles from your Aquatic Fitness System's water. The lock ring holding the filter cover in place and the air relief valve in the filter cover must be on and closed when the Aquatic Fitness System is running. DO NOT OVER-TIGHTEN THE LOCK RING OR THE AIR RELIEF VALVE. Also do not open filter housing while the Aquatic Fitness System is running as the filter is under pressure.
Gfci-Ground Fault Circuit	A type of Circuit Breaker that automatically disconnects
Interrupter	power to the <b>Aquatic Fitness System</b> when there is an electrical power leakage to ground.
Gravity Drain Valve	Used to drain your <b>Aquatic Fitness System</b> .
Halogens	Free chlorine, bromine or iodine ions that are very strong oxidizers used to sanitize water.

Term (Cont.)	Definition		
Heater	An 11kw 230v thermostatically controlled electric heater		
i leater	equipped with a high-limit temperature safety shut-off switch.		
	If the high-limit safety switch trips, contact your authorized		
	Aquatic Fitness System Dealer. See the <u>Troubleshooting</u>		
	Guide for more information.		
Jets	Return the water into the <b>Aquatic Fitness System</b> from the		
Jets			
	equipment. The HydroTherapy Jets produce a turbulent flow		
	of water mixed with air to provide a concentrated body massage. The Swim Jets produce a high volume flow to		
	provide a rapid current for swimming.		
Light	Illuminates the <b>Aquatic Fitness System</b> vessel.		
Load Sharing	When the circuit breaker size is smaller than the total power		
Load Sharing			
	needed to operate both the heater and the jet pump at the		
	same time, load sharing automatically turns off the heater		
Lock-Ring	when a jet pump is turned onto high speed.  Mechanism that affixes filter cover to filter housing. To		
Lock-hing	remove cover, turn lock-ring counter-clockwise until it		
	disengages with filter housing. When replacing the filter cover,		
Ozone Generator	turn lock-wring clockwise to firmly secure the cover.		
Ozone Generator	A specialized ultraviolet light that changes oxygen into ozone		
Dream va Cuitale	for use in the water sanitation process.		
Pressure Switch	Safety device that sends a signal to the electronic control		
	system that there is adequate water flow to turn the heater		
Delmon / Drumm	On.		
Primary Pump	Produces water flow through the heater, filter, sanitation		
	system and the main jets in the <b>Aquatic Fitness System</b> . The		
	primary pump will operate automatically during filtration and		
	heat cycles. This pump can also be operated manually by depressing the "jets" button on the Top Side Control which will		
	allow you to choose between two speeds		
	Low speed for efficient water circulation during     heating and filtration modes, and for goatle jet.		
	heating and filtration modes, and for gentle jet		
	resistance or massage action.		
Duman Union	High speed for maximum jet action.  A removable fitting that connects the pump to the Aquation.		
Pump Union	A removable fitting that connects the pump to the <b>Aquatic</b>		
Selector Valve	Fitness System's plumbing.  Located on the top edge of the Aquatic Fitness System or		
Selector valve	spa, it diverts jet power from one area of the <b>Aquatic Fitness</b>		
Serial Number	System or spa to another.  Please use the serial number in communication with your		
Senai Nui i IDer	Please use the serial number in communication with your		
Servicing Filter Element	dealer.  To clean or replace the filter element, shut off power to the		
Servicing Filter Element			
	<b>Aquatic Fitness System</b> , loosen the lock-ring, remove the filter cover and pull the filter element from the filter housing.		
	Depending upon use, you may simply rinse the filter element		
	with a garden hose, or you may be required to soak the		
	element in Filter Cleaner Solution. Replace any worn or damaged filter elements. It is always good practice to have a		
	spare filter element, so that you can perform cleaning at your		
	convenience.		

Term (Cont.)	Definition	
Skimmer Door	Removes floating debris from the water surface. This inlet provides a water return path to your <b>Aquatic Fitness System</b> 's equipment and flow through the filter element.	
Slice Valves / Shutoff Valves	Valves located within the <b>Aquatic Fitness System</b> 's internal plumbing, which are used by service personnel to shut off water flow to the heater and pumps. All valves must be completely open during normal operations.	
Smart Heat	Smart Heat optimizes heat recovery using the amperage that you have available. Along with computerized load sharing, that automatically recognizes the number of jet pumps in use, compares it with the available power, Smart Heat recognizes the difference between the set temperature and the actual water temperature, and adjusts the heater to optimize the heater output.	
Suction Fitting	Fitting located in the footwell of the <b>Aquatic Fitness System</b> where water is pulled from the <b>Aquatic Fitness System</b> to the jet pump.	
Swim Jet Pumps	Produce water flow through the swim jets. The swim jet pumps are single speed pumps that operate on high speed. The second and third pump buttons control the booster pumps.	
Temperature Sensor	Measures the temperature of the water inside the Aquatic Fitness System. This temperature sensor is used to control the Aquatic Fitness System heater and the temperature is displayed on the Aquatic Fitness System side control panel.	
Top Side Control	Used to monitor and manage temperature, pumps for jets, light, system clock, automatic filtration cycles, and other advanced functions. A backlit, highly reliable liquid crystal display gives you a complete update of the <b>Aquatic Fitness</b> System status at any time of the day or night.	
Unions	Connects the <b>Aquatic Fitness System</b> plumbing to the equipment. The unions allow a service technician to remove equipment without cutting plumbing.	
Venturi	A device used to inject air into the water.	
Vision Cartridge	A safe, halogen-free water sanitizer that can be used in place of chlorine or bromine.	
Water Return Fittings	In addition to the skimmer, the water return fittings provide water inlets to your <b>Aquatic Fitness System</b> 's equipment. <u>DANGER</u> – Never Block Or Remove Any Of The Water Return Fittings.	
Weir Skimmer	A floating water referencing device that skims debris from the surface of the water.	

## **Troubleshooting Guide**

### **Heating System**

Symptom	Problem	Corrective Action
Does not heat	1. Temperature setting is too low	1. Turn up the thermostat
	2. Dirty filter	2. Clean filter
	3. Flow switch out of adjustment	3. Call for service
Too hot	1. Temperature setting is to high	1. Turn down the thermostat
	2. High limit tripped	2. Call for service
Flashing temperature of 34°F or 134°F appears on the display	Possible temperature sensor failure	Call for service

### **Electrical System**

Symptom	Problem	Corrective Action
Will not turn on – in any mode	No power	Check circuit breaker and/or GFCI
Turns on by itself	Normal automatic daily power filtration, or anti-freeze cycle	No action required
Light is out	Burned out bulb	Replace bulb
Pump shuts down unexpectedly while in use	Automatic 30-minute timer has shut pump off	Push JETS pad again to start another 30-minute cycle
	Motor over-heated and automatic protective device has shut down pump(s)	If pump(s) will not restart when JETS pad is pushed, call for service
		Make sure that the equipment panel vent area is not blocked. Vent blockage can cause serious damage to your equipment.
3 flashing LEDs appear on the	Possible sensor errors	Check water level
Top Side Control		2. Clean filter
		If problem persists:
		1. Turn off power
		2. Restart the system
		If problem persists:
		Call for service

#### Water System

Symptom	Problem	Corrective Action
Pulsating jets	Water level too low	Fill with water to 1" to 2" (2 to 5 centimeters) above the bottom of the tile line
No Jet Action, or action is poor	HydroTherapy Jets closed	1. Open Jets
,	2. Diverter Valve turned	Turn the Diverter Valve     clockwise or counter     clockwise
	3. Dirty Filter	3. Clean Filter
	4. Air lock	Loosen pump union to allow air to escape
	5. Gate valve closed	5. Open gate valve
The water is cloudy or has a smell	The water has a chemical	1. Check TA/pH
	imbalance.	2. Test and adjust
		3. Change Water if necessary

#### Self-Diagnostic Control System

### AquaFit™, AquaFit™Dual Temp (Pool-Side), AquaPro™

Symptom	Problem	Corrective Action
DIMENSION ONE SPAS AQUATIC FITNESS SYSTEMS  5/17	Non-functional High Temperature Sensor: Open high temperature sensor. Heater is deactivated.	Call your dealer for service.
DIMENSION ONE SPAS AGUATIC FITNESS SYSTEMS  5112	Non-functional temperature sensor:  Open temperature sensor. Heater is deactivated.	Call your dealer for service.
DIMENSION ONE SPAS AQUATIC FITNESS SYSTEMS	Water Flow Problem: Pressure switch is not closed when the pump is activated. Heater is deactivated. Proper flow of water is inhibited or pressure switch has malfunctioned. Check for proper water level, ensure pump is primed and/or check for clogged filter. Pressure switch may need to be adjusted.	Call the dealer for service.
DIMENSION ONE SPAS AQUATIC FATNESS SYSTEMS	Pressure switch problem: Pressure switch is closed, while pump is deactivated. Pressure switch may need to be adjusted.	Call your dealer for service.
DIMENSION ONE SPAS AGUATIC FITNESS SYSTEMS	Cool condition:  If the water temperature drops 20°F (≅11°C) below the set temperature, the low speed pump and the heater will activate to bring the temperature within 15°F (≅8°C) of the set temperature.	No corrective action is required.
DIMENSION ONE SPAS AQUATIC FITNESS SYSTEMS	Freeze condition: A potential freeze condition has been detected (55°F / ≅12.8°C.)	No action is required. The low speed pump will be activated along with the heater. The spa will automatically heat, until the spa is out of danger (65°F / $\cong$ 18.3°C.)

Symptom (Cont)	Problem	Corrective Action
DIMENSION ONE SPAS AQUATIC FITNESS SYSTEMS	High temperature condition:  Do not enter the spa water. The water temperature is above acceptable limits.  Water temperature has reached 110°F (≥43.3°C.) The air blower and low speed pump are activated to assist in lowering water temperature.	No action required unless the water temperature fails to return to acceptable levels – in which case, call your dealer for service.
DIMENSION ONE SPAS AQUATIC FITNESS SYSTEMS	High limit condition:  Do not enter the spa water.  The water temperature has reached 118°F (≅47.8°C.) The entire system is disabled.	Call your dealer for service.

#### AquaFit™Dual Temp (Spa-Side)

Symptom	Problem	Corrective Action
OH	"OH" on LED Digital Display Window  High Temperature Condition:  Do not enter spa water. The water temperature is above acceptable limits. The water temperature has reached 110°F (≥43.3°C.). The system will shut down.	1. Remove the cover and allow the water to cool. 2. Reset the power to the spa by resetting the GFCI breaker.  No further action is required unless the water temperature fails to return to acceptable levels – in which case, call your dealer for service.
Jets Light	3 Flashing Lights <u>AND</u> "OH" on LED Digital Display Window High Limit Condition:  Do not enter spa water. The water temperature is above acceptable limits. The water temperature has reached I18°F (≅47.8°C.). The system will shut down.	Call your dealer for service.
Jets Light	<ol> <li>3 Flashing Lights</li> <li>System Error:</li> <li>Check the water level</li> <li>Clean the filters.</li> <li>If the problem persists, reset the power to the spa by resetting the GFCI breaker.</li> </ol>	If the error is not resolved after resetting the spa, call your dealer for service.
32°	Temperature Probe Failure: If the LED Digital Display shows 32°F (≅0.0°C) or 136°F (≅57.8°C), you have an open temperature sensor. The heater is deactivated.	Call the dealer for service.

