

OWNER'S REFERENCE GUIDE

EUROPE

Tuff Spas 121 S. 39th Ave., Suite 2 Phoenix, AZ 85009 866-939-0851

- ***** Many troubleshooting inquiries can be handled by your dealer by phone.
- Side panel removal allows easy access to all interior spa plumbing for easy inspection or repair, allowing for total jet accessibility in seconds rather than minutes.
- Most parts are readily available from the factory, if not already in stock at your local dealer.

Quick Tip Guide

1. For 230V 13amp use, the cable must be rated to 13amps and no longer than 3 metres in length, Do not use extension leads, ensure outdoor socket is waterproof, and ensure the spa control pack dip switch is set to LOW AMPS (see Hi Amps to Low Amps settings below) – consult your dealer for clarification.

If using on Hi Amps, then connection needs to be made using a 20 amp supply controlled by a breaker at the consumer unit. PLEASE CONSULT AND HAVE THIS WORK DONE BY A QUALIFIED ELECTRICIAN.

2. Spa cover must be closed for the spa to properly heat. Heating time depends on air temperature but generally the spa will average 12-18 hours to heat, dependant on initial temperature of water it is filled with.

The spa will automatically filter twice a day for 2 hours each time (to change this, see the preset filter cycles section of the MVP260 User Guide attached).

Jets must all be open when the spa is not used for proper heating and filtration. The pump will continue to run until reaching the set temperature.

- 3. The heating spa may cause condensation to form on the outside and bottom of the spa which may cause reason to believe the spa is leaking. For this reason, small "leaks" should be allowed a few days prior to further investigation.
- 4. The spa pump has an automatic high temperature shut off. If the motor stops, it will auto start after it cools.
- 5. All tubing, manifolds, valves, etc. can be easily accessed throughout the spa by removing the side panels.
- 6. Means for disconnection must be incorporated in the fixed wiring in accordance with the wiring rules.

<u>Tuff Spa Startup</u>

* <u>Selecting Tuff Spa Site Location</u>

It is important your new spa be installed on a solid, flat, and level surface that is engineered to carry a load of 370kg per Square Metre – a well laid patio or a 10cm concrete base should be sufficient.

Spas should not be placed near or below electrical or telephone cables.

If there is not a dedicated 13 amp compliant and weatherproof socket within 3 metres of your spa, contact a Qualified Electrician to supply power near the spa.

The appliance must be supplied through a residual current device (RCD) having a rated residual operating current not exceeding 30mA.

There is no maximum altitude that will adversely affect the hot tub. Good voltage, good water flow, and temperatures are what matter.

Wiring Knockout

Due to the strength of the material and the fact that not all wiring is in the same location in relation to the hot tub, there is no wiring knockout. Instead, each customer can determine where they want to drill out a 2.5cm hole in the shell. Be careful not to drill into the inner shell or plumbing. It is recommended that you remove the panel nearest to where you want to drill out the hole and check the surrounding area prior to drilling into the shell.

Hi Amps to Low Amps settings (Hi amps =20amps. Low Amps = 13 amps)

- 1. Make sure electricity power is turned OFF.
- 2. Remove the necessary panel and locate the spa control pack
- 3. Remove the pack cover and locate the small bank of 10 dip switches –shown in the middle, bottom of the below picture.
- 4. Position number 10 dip switch (furthest right as you look) in the up position for low amps (it may already be there).
- 5. Replace pack cover

6. Turn power on



♦ <u>Filling Your Spa</u>

Ensure that the drain valve is closed. Unthread and remove the filter. Put garden hose in the void where the filter was. This will help to eliminate air locks. With the electrical breaker in the OFF position and/or the power cord un-plugged, fill to an approximate water level equal to the top of the highest jet. Once the spa is filled, power can then be supplied to your spa.

NOTE: Please ensure that the water level does not cover or submerge any equipment for an extended period of time when people enter the spa due to water displacement. If this happens, please lower the water level to prevent this as it could cause damage to the spa components that would not be covered under warranty.

* <u>Relieving</u> Air Locks

Occasionally, on a fresh fill or refill, an air lock may occur. This is caused by the build up of air in the plumbing lines which will not allow water or air to flow through the jets. If left un-attended, the pump can overheat from lack of water flow. This type of damage is not covered under warranty.

The easiest way to remedy this situation is to repeatedly cycle between low- and high-speed on the topside controls. If this does not fix the issue you will have to turn off the tub at the mains, open the access panel that houses the pump (it has the little black vent grill attached to the outside of the panel). Once the panel is removed, locate the pump and you will see two large, white nuts attached to the pump. One is horizontal to the pump and the other is vertical. Take a large pair of grips and loosen the vertical nut. You will hear air 'hissing out' of that joint, followed by dribbles of water when the air has stopped. Re-tighten the nut and turn on the tub at the mains again – this should have cleared the air lock.

* Adjusting Massage Jets

To adjust for direction, rotate the "eyeball" of the jet in the desired direction.

To adjust for flow, turn the outer jet face counter clockwise to increase flow and clockwise to decrease flow.

At no time fully decrease flow to all of the jets. This may cause your pump to malfunction and suffer catastrophic failure which will not be covered under the warranty.

✤ <u>Air Adjustment</u>

To introduce air into the jets, turn the air controls (located on the spa's top edge) counter clockwise. To decrease air flow, turn the air controls clockwise.

♦ <u>Suction Fitting</u>

Keep the suction fitting (located in the foot well area) of the spa unobstructed and free from debris at all times. Only remove the suction-fitting screen for cleaning. Never remove it while the spa is connected to electrical power.

♦ Drainage System

All models have several small holes drilled in the bottom of the spa to allow adequate drainage to deal with overflow water or if there is a leak in the plumbing. This ensures that water does not build up in the cabinet of the hot tub and get the electrical equipment wet.

Care and Maintenance Instructions

Cleaning the Filter Cartridge – every 2 to 3 weeks

- 1. Disconnect power
- 2. Remove the filter cover
- 3. Unthread the Filter Cartridge counter clockwise
- 4. Rinse dirt and debris away thoroughly with a garden hose
- 5. Soak overnight in a proprietary cleaning agent ask your dealer for recommendations
- 6. Rinse and either replace in the spa or if you are running 2 alternate filters, leave in a cool dark place to dry for use next time.
- 7. Replace filter cartridge and cover
- 8. Reconnect power

* Water Chemistry

Read and understand the spa chemistry guidelines supplied by your dealer or local chemical supplier. There are many solutions available to balance your water chemistry.

If you are unfamiliar with water chemistry, your best option is to work with your dealer or your local chemical supplier.

Never use your hot tub with incorrect chemical balance, always test your hot tub before use

Warning:

Do not use Calcium Hypochlorite or Trichlor tablets. Doing so may cause corrosion to your pump and possibly fade your spa surface. This will not be covered under the warranty.

* Minimum twice Weekly Maintenance

- 1. Test water for chlorine and pH
- 2. Adjust pH to 7.2-7.6
- 3. Adjust chlorine to 3-5ppm

* Winterizing

If the Spa is to be transported or stored in temperatures 32° F (0° C) or lower, it is critical that the spa be fully winterized. For specific, regional winterization guides, please contact your local dealer. Below are general guidelines:

- 1. The spa must be completely free of water
- 2. The drain valve must remain in the open position
- 3. The drain valve cap must be removed and stored
- 4. The filter cartridge element must be removed, dried and stored
- 5. Disconnect pump and heater couplings seek advice from your dealer if unsure.

*<u>Hard Top Covers</u>

- 1. Hot and cold weather natural causes the material to expand and contract which may allow for gaps and/or inconsistencies between the cover and spa. As long as the seal sits on the top edge of the spa any inconsistencies or small gaps around the edge of the cover will not affect the ability of the cover to retain heat and is purely aesthetic.
- 2. The high-grade resin from which the spas are constructed can be easily cleaned with a mild soap and water solution.
- 3. Any bolts/screws on the cover may need to be tightened on occasion, depending on use.

Soft Top Covers

- 1. Soft top covers are composed of a vinyl skin and high density foam insert. They have straps and two part clips which are attached to the spa.
- 2. The vinyl surface can be cared for with products made for the care and maintenance of vinyl products.

* <u>Cleaning Your Tuff Spa</u>

- 1. The filter should be cleaned every 2-3 weeks as explained earlier in these instructions.
- 2. If the shell gets dirty, you can simply use pressurized water to clean the majority of the dirt. In some cases you may need to use a mild soap and water solution. In this instance, you will need to thoroughly rinse the spa. If not, you will have an issue with bubbles.
- 3. Refill spa with fresh water to the recommended level. The water line should cover all the upper jets in the spa. If you encounter an air lock, refer to the "Relieving Air Locks" section above.

Troubleshooting

✤ <u>"LF" Error Code Fixes</u>

- 1. The most common reason for this error code is a lack of water in the hot tub. The water line should be equal to the top of the highest jets (please refer to the "Filling Your Spa" section above). If it is not, add water to the spa to reach this level, then reset spa power. This will reset the memory and the error should be cleared.
- 2. The 2nd most common reason for this error is an air lock during a fresh fill of water into the spa. Air locks are common when filling up a spa for the first time. Please see "Relieving Air Locks" section for tips on relieving air locks. If after the air lock is remedied you may still have a "LF" error on the topside. To reset the memory, simply reset spa power. This should clear the error code.
- 3. The 3rd most common reason for this error code is a dirty filter or a clog in the line. Power off the spa, remove the filter, and reset power. If the issue persists, please contact your dealer for additional assistance.

* <u>"Why Is My Spa Constantly Running?"</u>

All Tuff Spas are fitted with state-of-the-art technology that automatically filter your spa as well as check to ensure the spa is always at the desired temperature. Part of this process is that the spa

pump runs twice a day for at least 1 hour each time to filter. Additionally, the pump runs once every 30 minutes to verify that the spa is at the correct temperature. So while it may seem the spa is constantly running, this is simply part of the heating and filtration process. If you still feel the spa is running constantly, please contact your dealer.

* Draining Your Spa

DISCONNECT THE POWER TO YOUR HOT TUB

150, 250, 450, 650 Models:

On the outer side of the spa you, will see a black circular area that has a handle. Simply pull the handle out and twist off the cap. Attach a garden hose and carefully pull on the part where the hose and the drain assembly meet. The assembly will pop out approximately ¹/₄" opening the valve. This is a gravity drain and as such, will be slow so you may not see water draining immediately. If you need to drain the spa more quickly, you may rent/buy a submersible pump.

350, 550 Models:

Remove the panel below the topside controller and locate the drain hose (3/4" flex pipe with drain attachment). Remove the drain assembly cap and attach a garden hose. Twist the valve allowing water to flow out. This is a gravity drain and as such will be slow so you may not see water draining immediately. If you need to drain the spa more quickly, you may rent/buy a submersible pump.

DO NOT LEAVE SPA EMPTY FOR EXTENDED PERIODS OF TIME. LEAVING THE SPA EMPTY MAY RESULT IN DAMAGE THAT IS NOT COVERED UNDER THE WARRANTY.

IMPORTANT SAFETY INSTRUCTIONS

READ AND FOLLOW ALL INSTRUCTIONS

TO REDUCE THE RISK OF INJURY:

- Spa water 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 extended use (exceeding 15-20 minutes) and for younger children.
- The appliance is not intended for use by persons (including children) with reduced physical, sensory, or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
- Children should be supervised to ensure that they do not play with the appliance.
- Excessive water temperature has a high potential for causing fetal damage, during the early months of pregnancy, pregnant or possibly pregnant women should limit spa temperatures to 30° C (100° F).

- Before entering a spa, the user should measure the water temperature with an accurate thermometer since the tolerance of temperature regulating devises may vary as much as plus or minus 3° C (5° F).
- The use of alcohol, drugs or medication before or during spa use may lead to unconsciousness with the possibility of drowning.
- 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.
- Persons using medication should consult a physician before using a spa. Some medication may induce drowsiness while other medication may affect heart rate, blood pressure, and circulation.
- \clubsuit Do not sit or stand on the edge of the spa or cover.

Hyperthermia occurs when the internal temperature of the body reaches a level several degrees above the normal body temp plus or minus temperature of 98.8° F. The symptoms of hyperthermia include dizziness, fainting, drowsiness, lethargy and an increase in the internal body temperature. The affects of hyperthermia include (1) unawareness of impending hazard, (2) Failure to perceive heat, (3) Failure for the need to exit the Spa, (4) Physical inability to exit Spa, (5) Fetal damage to pregnant women, and (6) Unconsciousness resulting in a danger of drowning.

WARNING The use of Alcohol, Drugs or medication can greatly increase the risk of fatal hyperthermia.

DANGER: RISK OF ELECTRIC SHOCK

Do not permit any electric appliance such as a light, telephone, radio, or television within 1.5m of a spa or hot tub.

WARNING

Your Tuff Spa MUST be earthed To reduce the risk of electric shock, replace any damaged supply cables immediately <u>DO NOT BURY THE CORD</u>

DANGER

To reduce the risk of injury to persons, DO NOT REMOVE Suction Fittings

IMPORTANT SAFETY INSTRUCTIONS

READ AND FOLLOW ALL INSTRUCTIONS

WARNING: CHILDREN SHOULD NOT USE SPA OR HOT TUBS WITHOUT ADULT SUPERVISION

WARNING: DO NOT USE SPAS OR HOT TUBS UNLESS ALL SUCTION GUARDS ARE INSTALLED TO PREVENT BODY AND HAIR ENTRAPMENT

WARNING: PEOPLE USING MEDICATIONS AND/OR HAVING ADVERSE MEDICAL HISTORY SHOULD CONSULT A PHYSICIAN BEFORE USING A SPA OR HOT TUB.

WARNING: PEOPLE WITH INFECTIOUS DISEASES SHOULD NOT USE A SPA OR HOT TUB

WARNING: TO AVOID INJURY EXERCISE CARE WHEN ENTERING OR EXITING THE SPA OR HOT TUB

WARNING: DO NOT USE DRUGS OR ALCOHOL BEFORE OR DURING THE USE OF A SPA OR HOT TUB TO AVOID UNCONSCIOUSNESS AND POSSIBLE DROWNING

WARNING: PREGNANT OR POSSIBLY PREGNANT WOMEN SHOULD CONSULT A PHYSICIAN BEFORE USING A SPA OR HOT TUB

IMPORTANT SAFETY INSTRUCTIONS

READ AND FOLLOW ALL INSTRUCTIONS

WARNING: BEFORE ENTERING THE SPA OR HOT TUB MEASURE THE WATER TEMPERATURE WITH AN ACCURATE THERMOMETER

WARNING: DO NOT USE A SPA OR HOT TUB IMMEDIATELY FOLLOWING STRENUOUS EXERCISE

WARNING: PROLONGED IMMERSION IN A SPA OR HOT TUB MAY BE INJURIOUS TO YOUR HEALTH

WARNING: DO NOT PERMIT ELECTRIC APPLIANCES (SUCH AS A LIGHT, TELEPHONE, RADIO OR TELEVISION WITHIN 1.5 M OF THIS SPA OR HOT TUB

CAUTION: MAINTAIN WATER CHEMISTRY IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS



TO ALL ORIGINAL PURCHASERS OF THIS PRODUCT

LIFETIME WARRANTY

Tuff SpasTM warrants the entire Spa Shell and Hard Cover surface against water loss and structural integrity due to defects in the spa for Lifetime. The shell has a prorated lifetime warranty, the customer will be responsible for a portion of the proration as follows: Years 1-5=0% Years 6-lifetime=50%. The cover has a non-prorated lifetime warranty. For original purchaser only, warranty is non-transferable.

3- YEAR EQUIPMENT WARRANTY

The Original Manufacturers provide limited warranties on the "Topside" Controls, Heater, Master Control center, and Pump for 3 years from date of manufacturing. See terms and conditions in separate manufacture documents.

1- YEAR PARTS WARRANTY

The Original Manufacturers provide limited warranties on all Plumbing and Fittings, Wiring, Cords, GFCI, Jets, Hard Cover Arm Bars, Vinyl Spa Covers, Pillows, Hard Cover Gaskets & Straps, and other non-electrical mechanical parts for 1 year. The ozone is also covered for 1 year. See terms and conditions in separate manufacture documents.

90-DAY LABOR WARRANTY

Tuff SpasTM warrants all the labor involved with manufacturing defects for 90 days from date of purchase. This does not include electrical issues, ozone systems, issues with air locks or other issues that do not arise from defects in manufacturing. In some cases, the servicing dealer may charge you a reasonable repairperson travel/service charge that is not covered by this warranty. Please contact the dealer for information regarding any such charges.

PERFORMANCE OF WARRANTY

Tuff SpasTM shall repair or replace (at our option) warranted product if it fails or becomes defective during the warranty period. To obtain service in the event of a defect covered by this Warranty, contact your Tuff SpasTM dealer or Tuff SpasTM as soon as possible and take appropriate precautions to prevent further damage to your spa. Tuff SpasTM or a designated service technician will correct the defect subject to the terms in this warranty. In the event that a replacement or repair is necessary, costs for the removal of the defective spa, shipping costs for the replacement or repaired spa, and delivery and installation of the replacement or repaired spa will be the responsibility of the spa owner.

EXCEPTIONS TO WARRANTY

- 1. Any damage caused by negligent misuse, improper installation, improper water chemistry, and/or failure to follow instructions in the Owner's Manual.
- 2. Cartridge filter elements, light bulbs, stereos and all stereo components, foam, insulation, and cover straps.

This warranty is void if the spa has been subject to any alteration, misuse, or abuse. Alteration shall include any component or plumbing change, electrical conversion, or the addition of any sanitation or water purification device or heating system, which contributes to a component or unit failure or unsafe operating system. Misuse and abuse shall include use of the spa in an application for which it is not designed. **Specifically: Damage caused by clogged or dirty cartridges, damage/discoloration to the spa surface caused by harsh chemicals or chemical misuse, and damage/discoloration to the spa surface caused by harsh chemistry maintenance. Damage to the spa surface caused by leaving the spa uncovered or without water, for long periods of time.**

Tuff SpasTM shall not be liable for injury to any person or any claim for damage however it shall arise. All consequential expenses including loss of use, transportation charges arising out of alleged deficiency of spa are specifically excluded. This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state. Some states do not allow the exclusion of consequential damages, so the above limitation may not apply to you.

Tuff SpasTM 121 S. 39th Ave, Suite 2, Phoenix, AZ 85009

TO ALL ORIGINAL PURCHASERS OF ITS PRODUCT								
Tuff Spas TM 121 S. 39 th Ave., Suite 2 Phoenix, AZ 85009		Warranty Registration: Mail this in with a copy of your invoice or contract.						
	Name:	Dealer Name:						
	Address: _	City:						

State:	_ Zip:	Phone Phone	:		

Spa Model & Serial #: _____ Date of Purchase __/__/__