

## **Warning**

Prior to installation you must have a licensed electrician and plumbing to safely install our pedicure spa.

Failure to do so may result in serious injury and/or death due to improper installation of electric equipment and/or plumbing parts.

In addition your warranty will be void.

T's Nail Supply Corp. will not be responsible for the injuries and/or death resulted by installation of the unit(s).

## **Introduction**

Congratulations on your purchase of our pedicure spa.

It is strongly recommended that you read and follow the instructions carefully prior to installing and using the spa.

Our sales support are available to help you answer any questions you may have regarding our pedicure spa.

## K M X LTD. LIMITED WARRANTY STATEMENT

K M X product:	Pedicure Spa
K M X accessories of Limited Warranty:	Pedicure Stool, Manicure Tray, Pedi-cart
Duration of Limited Warranty:	1 Year
Coverage on Limited Warranty:	Parts & Labor

### LIMITED WARRANTY

K M X LTD. warranty, that the K M X product, accessories and supply will be free from defects in materials from workmanship. Fiberglass body is covered for 5 year from the date of purchase. Jet pump is covered for 1 year from the date of purchase.

In order to obtain the warranty, customer must register with K M X LTD. by sending us the completed warranty form and the original sales receipt within thirty (30) days from the date of purchase.

If K M X LTD. receives customer notice of a defective product during the applicable warranty period, K M X LTD. shall either repair or replace defective parts at K M X option. Replacement parts may be new or equivalent in performance. K M X LTD. shall have no obligation to repair or replace unless customers has registered with the K M X LTD. and return the defective product to us.

K M X limited warranty is valid in US where the covered K M X product is distributed by K M X. Additional warranty services, may be available from any authorized K M X service facility where the product is distributed by K M X or by an authorized importer.

K M X limited warranty covers only those defects which arise as result of normal use of the product, and do not apply to any:

- Improper or inadequate maintenance or modification
- Unauthorized modification or misuse
- Improper site preperation or maintenance

Any applicable warranty shall not apply to K M X that have been improper installation or plumbing, remanufactured, refurbished, misused or tampered with in any way.

### LIMITATION OF WARRANTY

To the extent allowed by local law, neither K M X nor its third party suppliers make any other warranty or condition of any kind, whether express or implied, with respect to the K M X product, and specifically disclaim the implied warranty or conditions of merchantability satisfactory quality, and fitness for a particular purpose.

Some states or provinces do not allow limitations on the duration of an implied warranty, so the above limitation or exclusion might not apply to you. This warranty gives you specific legal rights that vary from state to state or province to province.

### LIMITATION OF LIABILITY

To the extent allowed by the local law, the remedies in this warranty statement are the customer's sole and exclusive remedies

To the extent allowed by local law, except for the obligations specifically set forth in this warranty statement, in no event will K M X or its third party supplies be liable for direct, incidental, special or consequential (including lose profit) damages, whether based on contract, tort, or any other legal theory and whether advised of the possibility of such damages.

### OBTAINING TECHNICAL SUPPORT

The K M X Support process works most effectively, if you look for help, in the following order:

- 1: See guidelines on Trouble Shooting Guide
- 2: Contact K M X support by phone ( obtain our phone number from your dealer )
- 3: If you have an internet access, email us your question.

K M X USA, LTD.

2415 E Tremont Ave. Bronx NY 10461

TEL: (718) 597-9534/1841

FAX: (718) 823-7090

EMAIL: [KMxproduct@aol.com](mailto:KMxproduct@aol.com)

WEBSITE: [WWW.KMX-PRODUCTS.COM](http://WWW.KMX-PRODUCTS.COM)

# **PARTS LIST**

**Our UL approval is based on using the following products:**

- 1- The electrical rating is based on 115 volts, 60 Hz
- 2- Spa shell with fiberglass backing  
(Minimum 3/16" thick x L51" x W28.75" x H15.75")
- 3- On/Off mixing valve chrome handle
- 4- Chrome Plated ABS hand held spray head with SS corrugated hose
- 5- S/S braided supply lines (36", 48", 60", and 72"), w/ 1/2" F I P x 1/2" F I P ends
- 6- Air (on/off button), Air Control, Jets, Suction Fittings
- 7- Pumps ( 1/2HP and 3/8HP )
- 8- Discharge (drain) pump w/std plug or with amp clip (optional)
- 9- 2 minute timer with auto off air switch for drain pump (optional)
- 10- 20 minute timer with air switch for Ozone System (optional)
- 11- Electronic 20 minute timer with lighted on/off button (optional)
- 12- Schedule 40 or Tubular Waste and Overflow Drain Assembly
- 13- 3.5" Bath light kit with transformer & Halogen or LED bulb (optional)
- 14- Ozone Sanitation System (optional)
- 15- Schedule 40 Pipe Fittings
- 16- Vacuum breakers (optional)

# WHY YOUR CUSTOMERS NEED

**GOzone® sanitation systems automatically** introduce proven residential spa ozone technology into the Whirlpool bath industry. Simply piggy-backed onto existing whirlpool bath plumbing, the system infuses ozone's triatomic power (oxidation potential) into recirculation bath water. This helps neutralize sediments such as soaps, body oils, and other organic and inorganic materials that are commonly found or created when bathing.

## **How does the GOzone® system work?**

When the tub circulation pump is turned on, the system begins operation in unison. Ozone gas is generated and immediately mixes into the recirculation bath water via suction created by the pump. When the tub pump is turned off, the ozone generator circuit also turns off.

## **How does the GOzone® create ozone?**

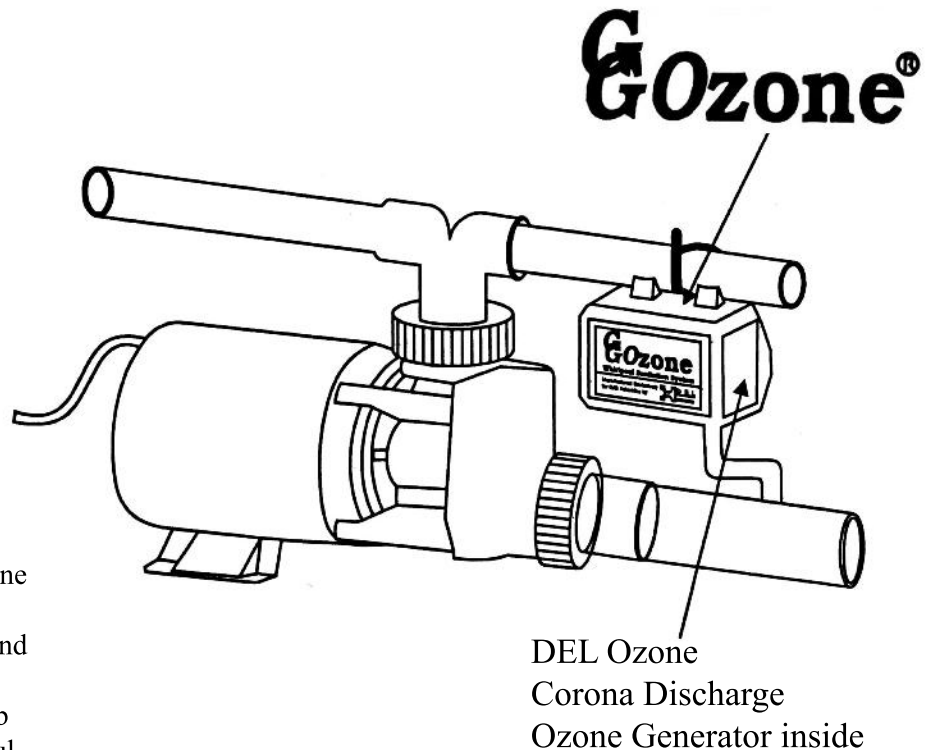
ADEL Ozone manufactured Corona Discharge (CD) generator splits Oxygen  $O_2$  molecules into separate  $O_1$  atoms. The  $O_1$  atoms immediately bond loosely to adjacent  $O_2$  molecules to form powerful  $O_3$  ozone molecules.

## **Is the GOzone® unit reliable?**

The internal components of the system are manufactured by DEL Ozone, the leading worldwide pool and spa ozone manufacturer. With nearly 1,000,000 DEL Ozone spa units installed worldwide (90% spa market share), this unit shares the same time-proven (and reliable) ozone generator technology for automatic ozone generation. G/G Industries design teams have engineered the system for easy installation, high reliability, and up to 9000 hours of use. The unit is UL listed.

## **What other benefits does GOzone® unit provide to end users?**

The unit eliminated the need to run caustic chlorine or other chemicals through the tub circulation system every 90 days as mandated by UL. The end user can simply fill the tub and run the jet pump (at least 15 minutes) to effectively sanitize the tub and internal components when potentially harmful organic mater grows. This eliminates a step that many tub owners fail to follow.





# Common Organisms Oxidized by Ozone

## BACTERIA

Achromobacter butyri NCI-9404  
Aeromonas harveyi NC-2  
Aeromonas salmonicida NC-1102  
Bacillus anthracis  
Bacillus cerius  
B. coagulans  
Bacillus globigii  
Bacillus licheniformis  
Bacillus megatherium sp  
Bacillus paratyphosus  
B. stearothermophilus  
Clostridium botulinum  
C. sporogenes  
Clostridium tetoni  
Cryptosporidium  
Coliphage  
Corynebacterium diphthiae  
Eberthella typhosa  
Endamoeba histolica  
Escherichia coli  
Flavobacterium SP A-3  
Leptospira canicola  
Listeria  
Micrococcus candidus  
Micrococcus caseolyticus KM-15  
Micrococcus sphaeroides  
Mycobacterium leprae  
Mycobacterium tuberculosis  
Neisseria catarrhalis  
Phytomonas tumefaciens  
Proteus vulgaris  
Pseudomonas aeruginosa  
Pseudomonas  
Fluorescens (biofilms)  
Salmonella choleraesuis  
Salmonella enteritidis  
Salmonella typhimurium  
Salmonella typhosa  
Salmonella paratyphi  
Sarcina lutea  
Serratia marcescens  
Shigella dysenteriae  
Shigella flexneria  
Shigella paradysenteriae  
Spirillum rubrum  
Staphylococcus albus  
Staphylococcus aureus  
Streptococcus "C"  
Streptococcus faecalis  
Streptococcus hemolyticus  
Streptococcus lactis  
Streptococcus salivarius  
Streptococcus viridans  
Torula rubra  
Vibrio alginolyticus & anguillarum  
Vibrio cholerae  
Vibrio comma  
Vibrio ichthyodermiss NC-407  
V. Parahaemolyticus

## VIRUS

Adenovirus (type 7a)  
Bacteriophage (E.coli)  
Coxsackie A9, B3 & B5  
Cryptosporidium  
Echovirus 1, 5, 12 & 29  
Encephalomyocarditis  
Hepatitis A  
HIV  
GD V11 Virus  
Onchocytic hepatitis  
Influenza  
Legionella pneumophila  
Polio virus (Poliomyelitis)1, 2 & 3  
Rotavirus  
Tobacco mosaic  
Vesicular Stomatitis

## YEAST

Baker's yeast  
Candida albicans-all forms  
Common yeast cake  
Saccharomyces cerevisiae  
Saccharomyces ellipsoideus  
Saccharomyces sp

## CYSTS

Cryptosporidium parvum  
Giardia lamblia  
Giardia muris

## ALGAE

Chlorella vulgaris  
Thamnidium  
Trichoderma viride  
Verticillium albo-atrum  
Verticillium dahliae

## FUNGUS & MOLD SPORES

Aspergillus candidus  
Aspergillus flavus (yellowish-green)  
Aspergillus glaucus (bluish-green)  
Aspergillus niger (black)  
Aspergillus terreus, saitoi & oryzae  
Botrytis allii  
Colletotrichum lagenarium  
Fusarium oxysporum  
Grotrichum  
Mucor recomosus A & B (white-gray)  
Mucor piriformis  
Oospora lactis (white)  
Penicillium cyclopsium  
P. chrysogenum & citrinum  
Penicillium digitatum (olive)  
Penicillium glaucum  
Penicillium expansum (olive)  
Penicillium egyptiacum  
Penicillium roqueforti (green)  
Rhizopus nigricans (black)  
Rhizopus stolonifer

## PROTOZOA

Paramecium  
Nematode eggs  
Chlorella vulgaris (Algae)  
All Pathogenic & Non-pathogenic form of Protozoa

## FUNGAL PATHOGENS

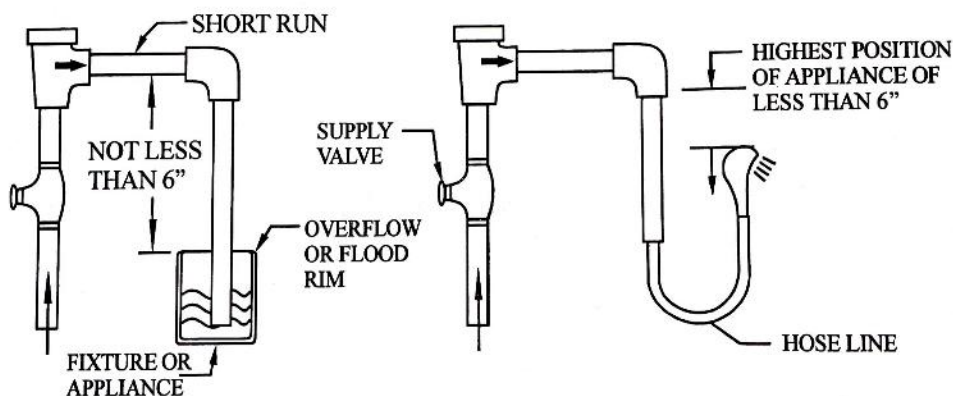
Alternaria solani  
Botrytis cinerea  
Fusarium oxysporum  
Monilinia fruticola  
Monilinia laxa  
Pythium ultimum  
Phytophthora erythroseptica  
Phytophthora parasitica  
Rhizoctonia solani  
Rhizopus stolonifera  
Sclerotium rolfsii  
Sclerotinia sclerotiorum

## **38-200 SERIES ATMOSPHERIC TYPE VACUUM BREAKERS**

#38-200 Series Atmospheric Type Anti-Siphon Vacuum Breaker is available in both pipe applied and deck mounted configurations and incorporates an atmospheric vent in combination with a check valve to prevent back-siphonage of polluted water into a potable water supply. The flow of water through the inlet orifice of the vacuum breaker lifts the float and seal to its seat, sealing the atmospheric vent, supplying water to downstream equipment. If a negative pressure develops in the supply line, the float will drop, sealing the orifice while at the same time the atmospheric vent opens polypropylene and the seat disc is silicone rubber.

### **INSTALLATION INSTRUCTIONS**

The Atmospheric Type Vacuum Breaker should be installed with the bottom of the body at least 6" above the flood rim of the fixture or appliance, (does not apply to deck mounted type). When a portable appliance is used, the breaker should be installed at least 6" above the highest point to which the portable appliance can be raised. This device shall not be subjected to continuous pressure for more than twelve (12) hours. Note: Shut-off valves are not allowed downstream of the atmospheric vacuum breaker.



TESTED AND APPROVED  
IN ACCORDANCE WITH  
A.S.S.E. STANDARD  
#1001 AND C.S.A.  
STANDARD # B 64.1.1

### **MAINTENANCE INSTRUCTIONS**

Since Atmospheric Type Vacuum Breaker are subject to normal maintenance and replacement they should be located where emergency water spillage will not create a problem and where they can be accessible for inspection or servicing. To repair a Vacuum Breaker, remove screw, nameplate and cover, then unscrew cap. Replace the cap, cap o-ring, float, and seat disc with components from repair kits. Then replace cover, nameplate and screw.

### **#38-200 SERIES VACUUM BREAKER REPAIR KITS**

VALVE NO.	KIT NO.	KIT COMPONENTS
38-201	38-202RK	D-4460 Seat Disc, F-3754 Cap, D-3902 Cap O-ring, 1-8551 Float
38-202	38-202RK	D-4460 Seat Disc, F-3754 Cap, D-3902 Cap O-ring, 1-8551 Float
38-203	38-203RK	D-3306 Seat Disc, F-3752 Cap, D-3903 Cap O-ring, 1-8547 Float
38-204	38-204RK	D-4461 Seat Disc, F-3753 Cap, D-3905 Cap O-ring, 1-8550 Float
38-231	38-202RK	D-4460 Seat Disc, F-3754 Cap, D-3902 Cap O-ring, 1-8551 Float
38-232	38-202RK	D-4460 Seat Disc, F-3754 Cap, D-3902 Cap O-ring, 1-8551 Float

**WARNING:** This product contains lead, a chemical known to the state of California to cause birth defects or other reproductive harm.

**INSTALLER:** California law requires that this warning be given to the consumer.

# Important Installation Considerations

## Electrical Service

A 100V, 60 Hz, 15 Amp GFI protected grounded circuit must be used to supply power to the Pedicure spa.

## Water Supply

Water supply for pedicure spa should consist of a system that will provide both adequate water and water temperature. All plumbing connections must conform to local codes.

### Water Pressure

Normal water pressure of 30 to 120 P.S. I is required to correctly fill the tub to the proper level.

### Water Temperature

The hot water supply should never exceed 100F. Be sure water heater in your facility is set accordingly.

### Back Flow Prevention Device

The hand help control sprayer does not have a back flow prevention device. You are required to check the local plumbing codes to see if a back flow prevention device is required.

## Drain Facilities

Connect pedicure spa drain to meet the local plumbing codes.  
Please refer to the installation drawings.

**The Pedicure Spa must be securely fastened to the floor use at least two fasteners.**

## Installation Summary

The installation must comply with local, state, and national building, plumbing and electrical codes, where applicable. A licensed plumber should complete the plumbing of the pedicure spa. Electrical wiring must be completed by a licensed electrician.

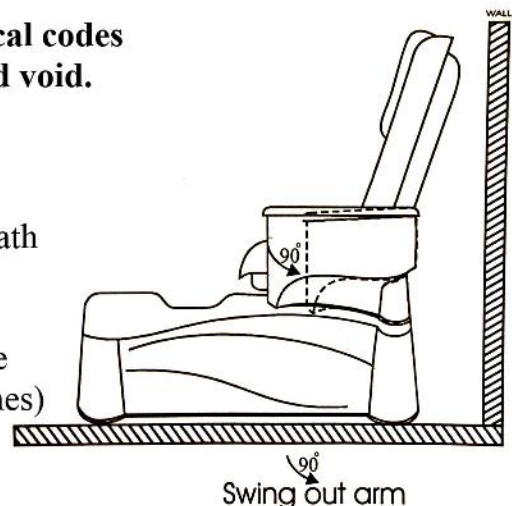
**Note: The Failure to comply with federal, state or local codes and ordinances will result in warranty being null and void.**

## Location and support

Select a level location where the floor structure beneath the pedicure spa is capable of supporting the spa.

For the seat back to fully recline the spa base must be mounted a minimum distance from the wall. (25 inches)

Please refer to installation drawings.





## Plumbing Connection

All plumbing connections should be made by licensed plumber.

## Hot and Cold water supply

Recommended using 0.5 in. supply tubes for fresh water source.  
Recommended using shut off value.

## Drain Connections

Recommended using 1-1/2in. Schedule 40 PVC drain pipe and appropriate trap to meet local plumbing codes.

## Electrical Connections

The pedicure spa must be plugged into a GFI protected outlet. A licensed electrician will install the outlet. It can also be hard wired direct to each unit with a dedicated line.

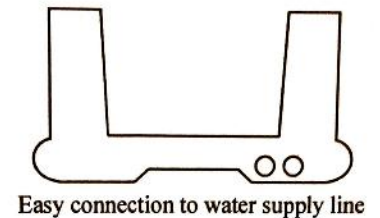
## Testing the pedicure spa.

After the plumbing and electrical connections have been made and the units been secured to the floor, clean the tub and fill with water to the appropriate level.

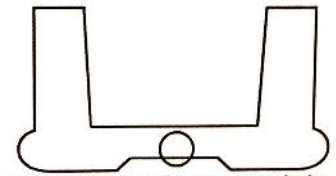
When the tub is filled with water, turn the switch on the right side of the unit to activate the whirlpool pump. Water should come out of the jets. Check for leaks at the drain overflow and pipes and fitting. After checking under the tub for leaks, switch off the whirlpool pump and drain the tub basin by turning the overflow water control.

## Attachment of the back seat

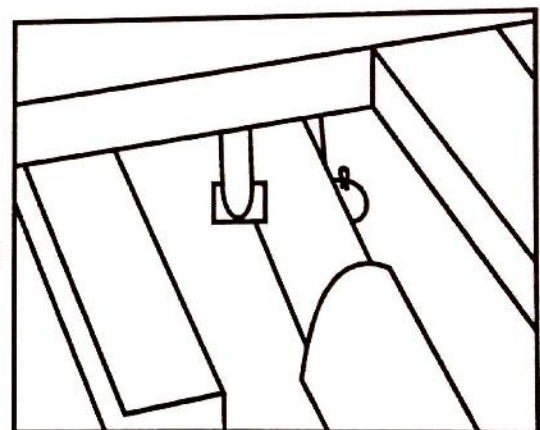
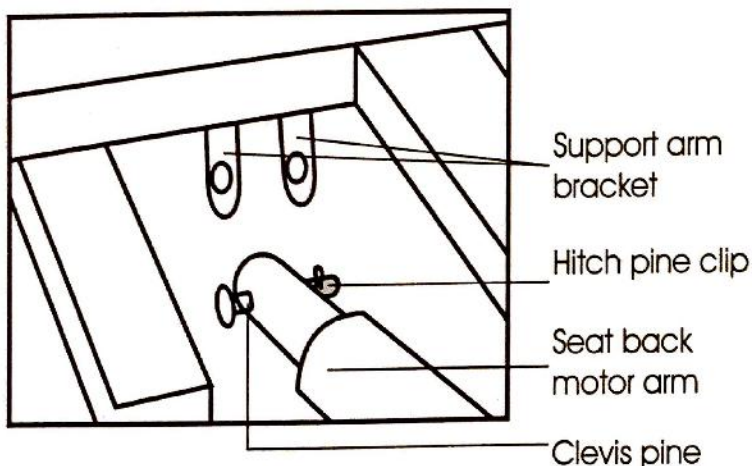
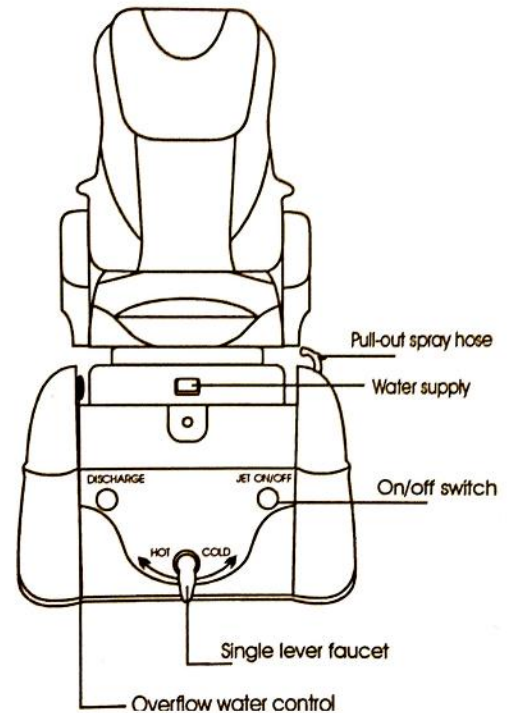
Your pedicure spa shipped with the seat bottom and seat back has already attached to the base. However, you must attach the support arm bracket to the seat back motor arm using supplied clevis pin and hitch pin clip.



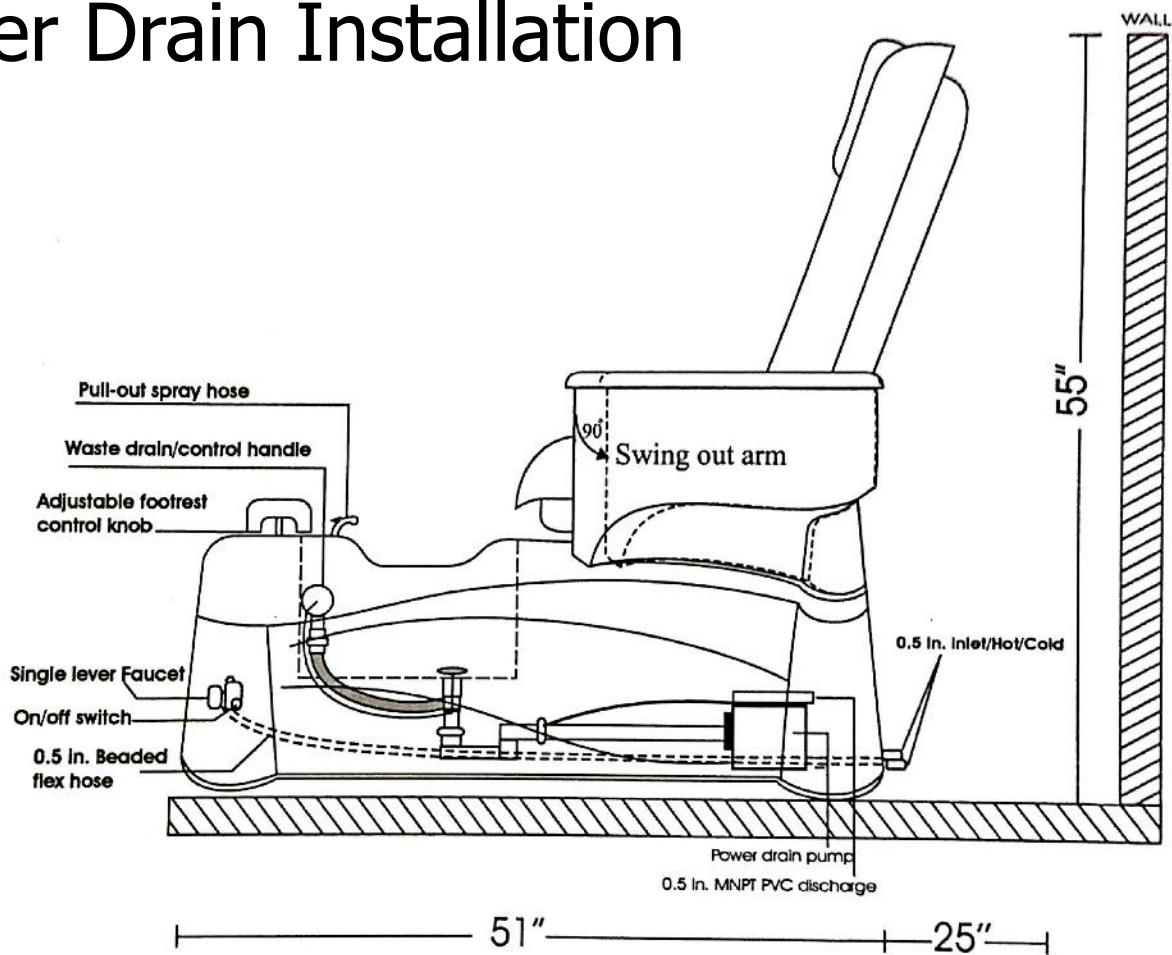
Easy connection to water supply line



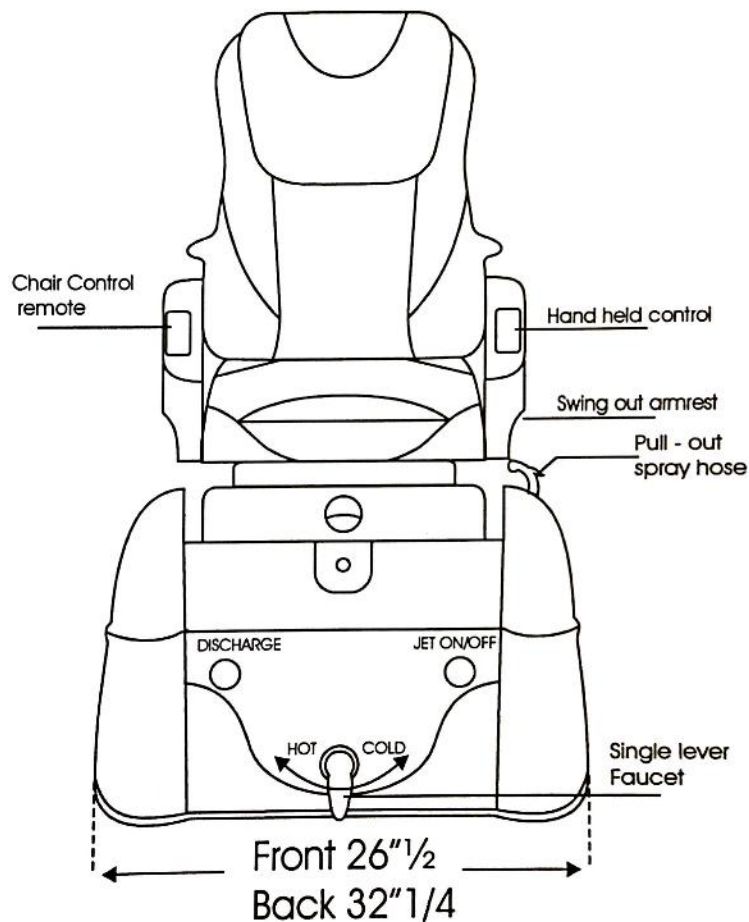
Easy access panel to connect drain



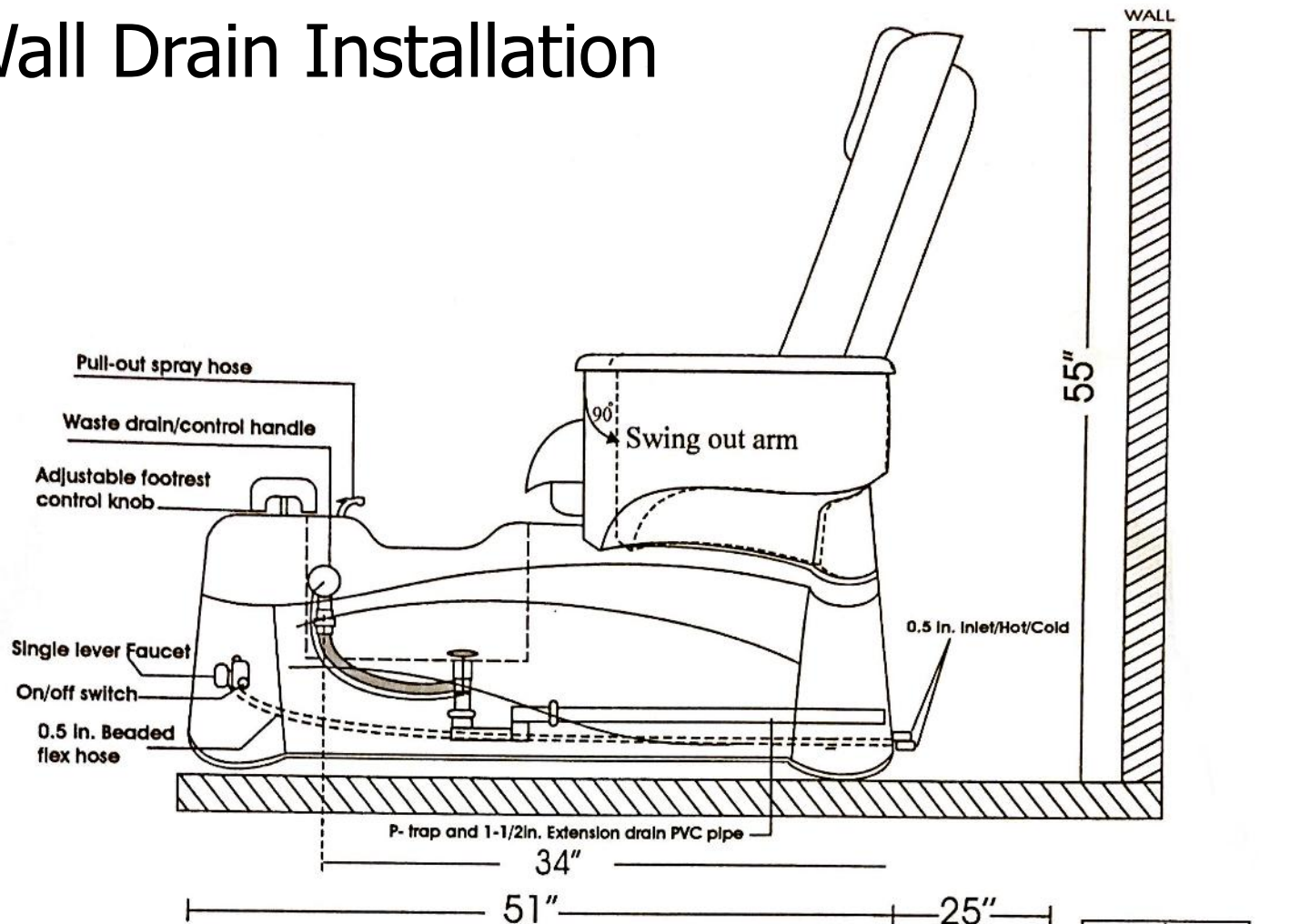
# Power Drain Installation



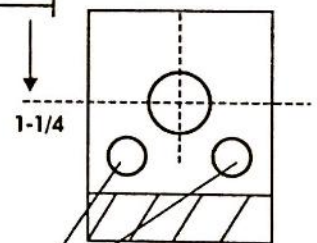
The Manufacturer strongly recommended installing vacuum breaker (NL - N9 or N9 ) by licensed plumber



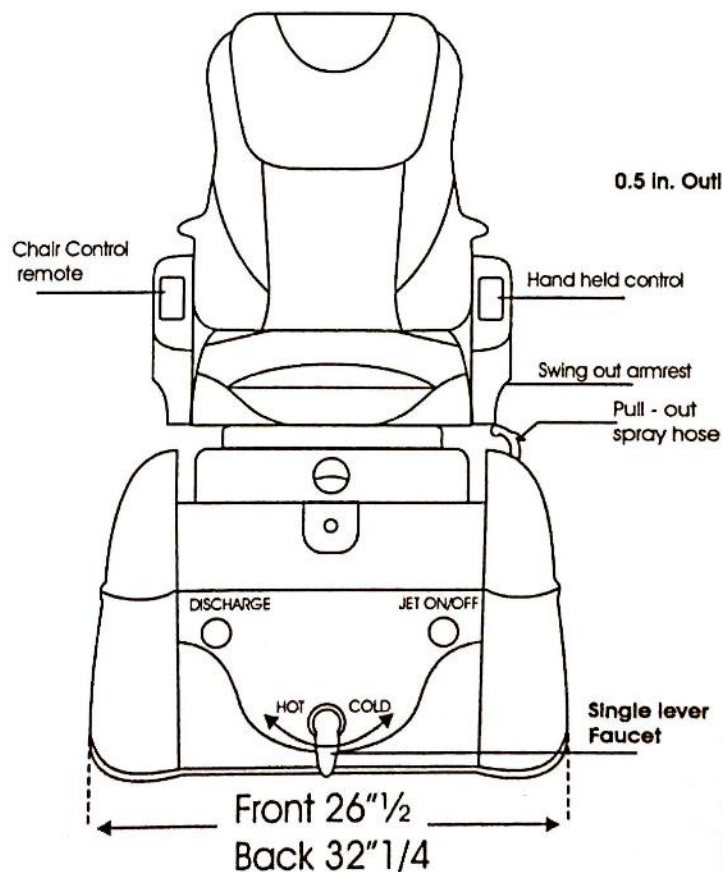
# Wall Drain Installation



The Manufacturer strongly recommended installing vacuum breaker (NL - N9 or N9 ) by licensed plumber

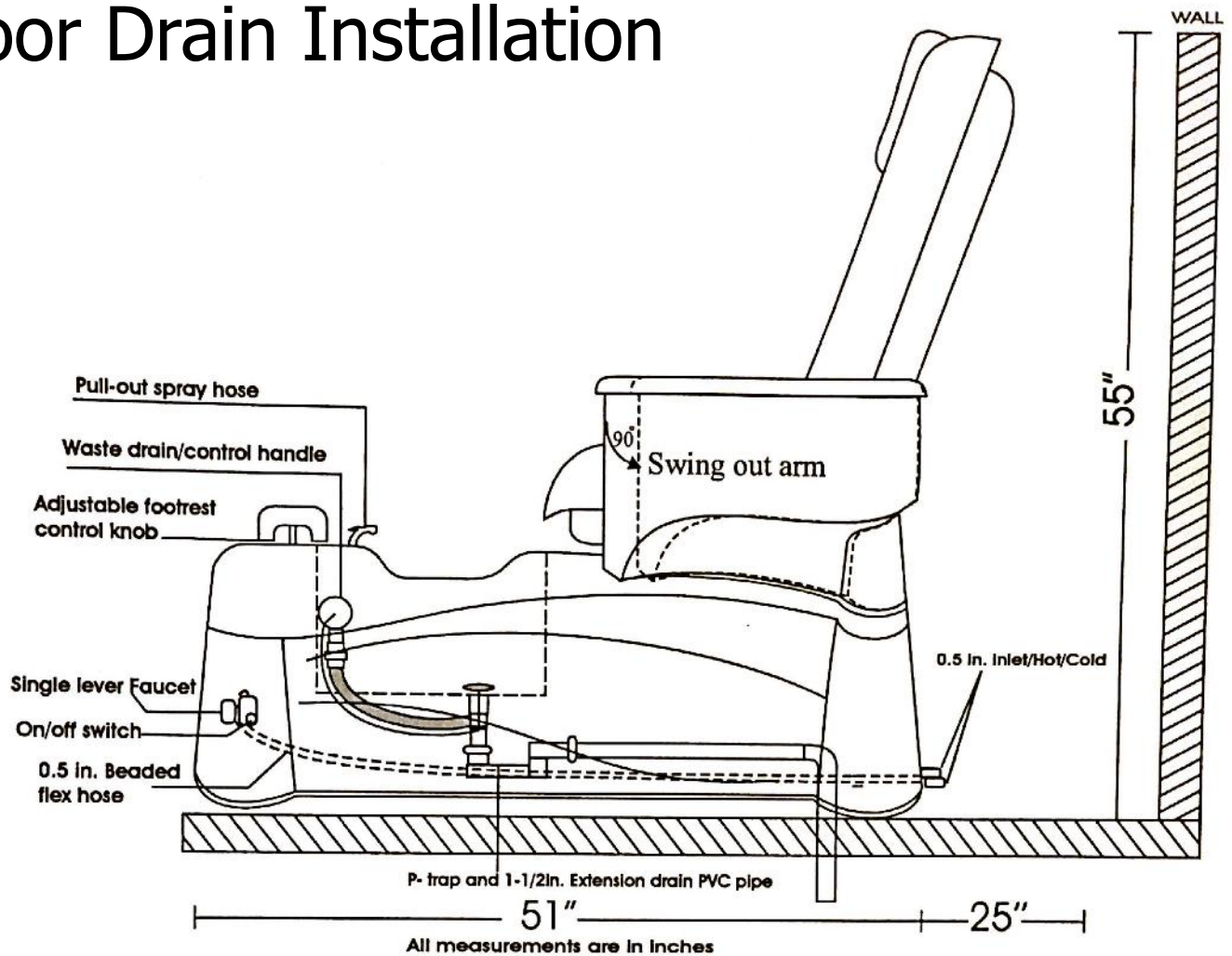


0.5 In. Outlet with valve ( not provided )

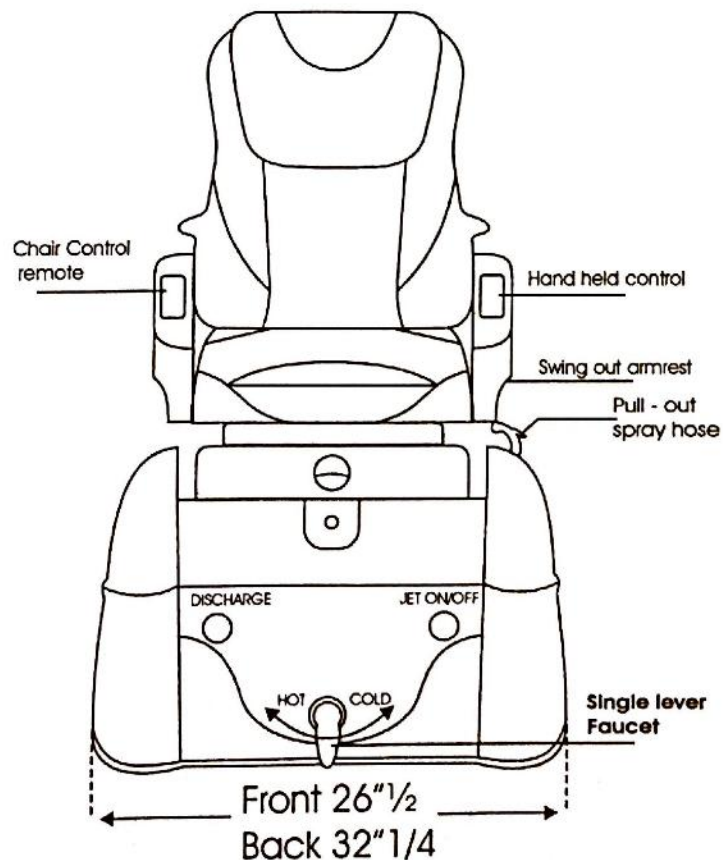




# Floor Drain Installation



The Manufacturer strongly recommended installing vacuum breaker (NL - N9 or N9 ) by licensed plumber



# Whirlpool Pedicure Spa Specifications

## Plumbing Options

The Spa may be plumbed one of three ways.

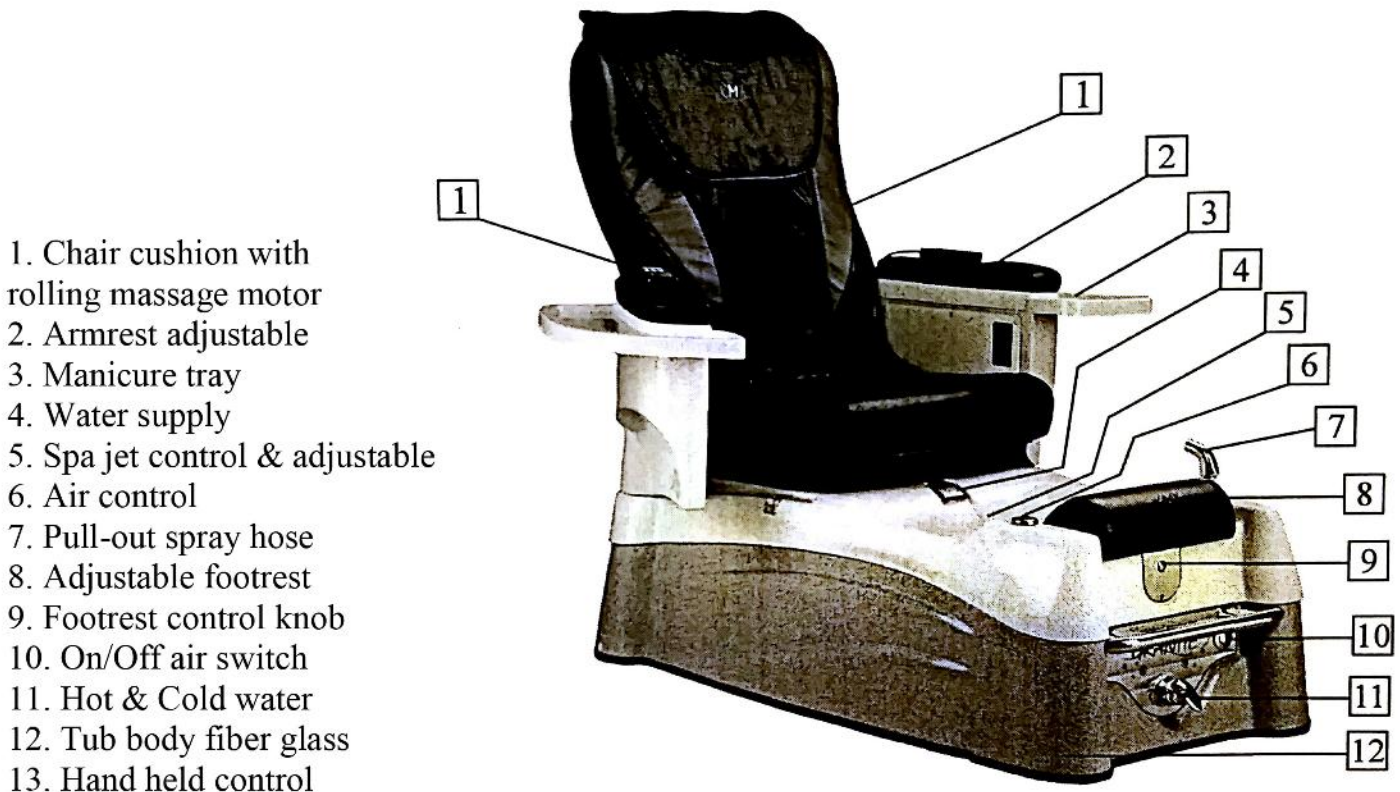
- \* Floor Drain - Similar to bath tub.
- \* Wall Drain - Bottom of "P" trap is approximate 2" below floor surface. ("P" trap is supplied by Plumber)
- \* Discharge Pump - Optional factory installation. Separate "in-line" pump discharges water into existing drain.

## SPECIFICATIONS

- <b>Dimension &amp; Weight</b>	L51" x W32" 1/4 x H55"	- Empty weight: 180 - 190 pounds (81 - 85.5 kg) - Shipping weight: 210 - 230 pounds (94.5 - 103.5 kg)
- <b>Basic Capacity of Tub</b>	5 US Gallons (18.90 liters)	
- <b>Jet Motor</b>	1/2 HP or 3/4 HP, 115V or 220V AC, 60Hz	
- <b>Discharge Pump</b>	Motor 3/4 HP, 115V or 220V, 3.2A, 60Hz	
- <b>Discharge Pump</b>	Maximum flow rate 670 Gph (11.17 Gpm)	
- <b>Massage Motor</b>	Full automatic massage with LCD controller	
- <b>Power Source</b>	110V AC, 15 Amp, 60Hz	
- <b>Whirlpool Jets</b>	4 Fully-adjustable jets with direction and water flow control	
- <b>Warranty</b>	Five years Fiberglass body (Limited), one year for Jet pump	
- <b>Safety</b>	Pedicure Spa are UL Component recognized, UL Listed # E. 198276 USA	

## Installation Instructions

- \* Size: Width 32" or more, Length 76" or more, Height 55" or more.
- \* Power Source: 110V - 120V, 60Hz (a separate GFCI protected grounded circuit is require).
- \* Water Source: 1/2" Fitting Hot and Cold (Both require dual check valves).
- \* Drain Source: 1 1/2" Drain.





## **DRAIN LINE INSTALLATION**

### **Warning:**

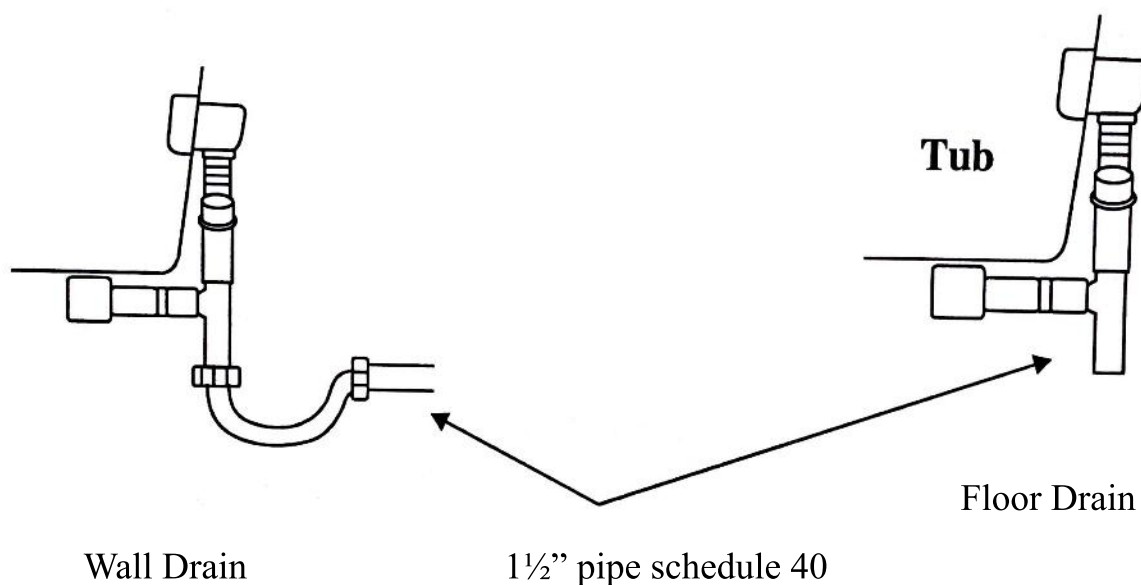
The Spa must be installed by a qualified, licensed plumber.

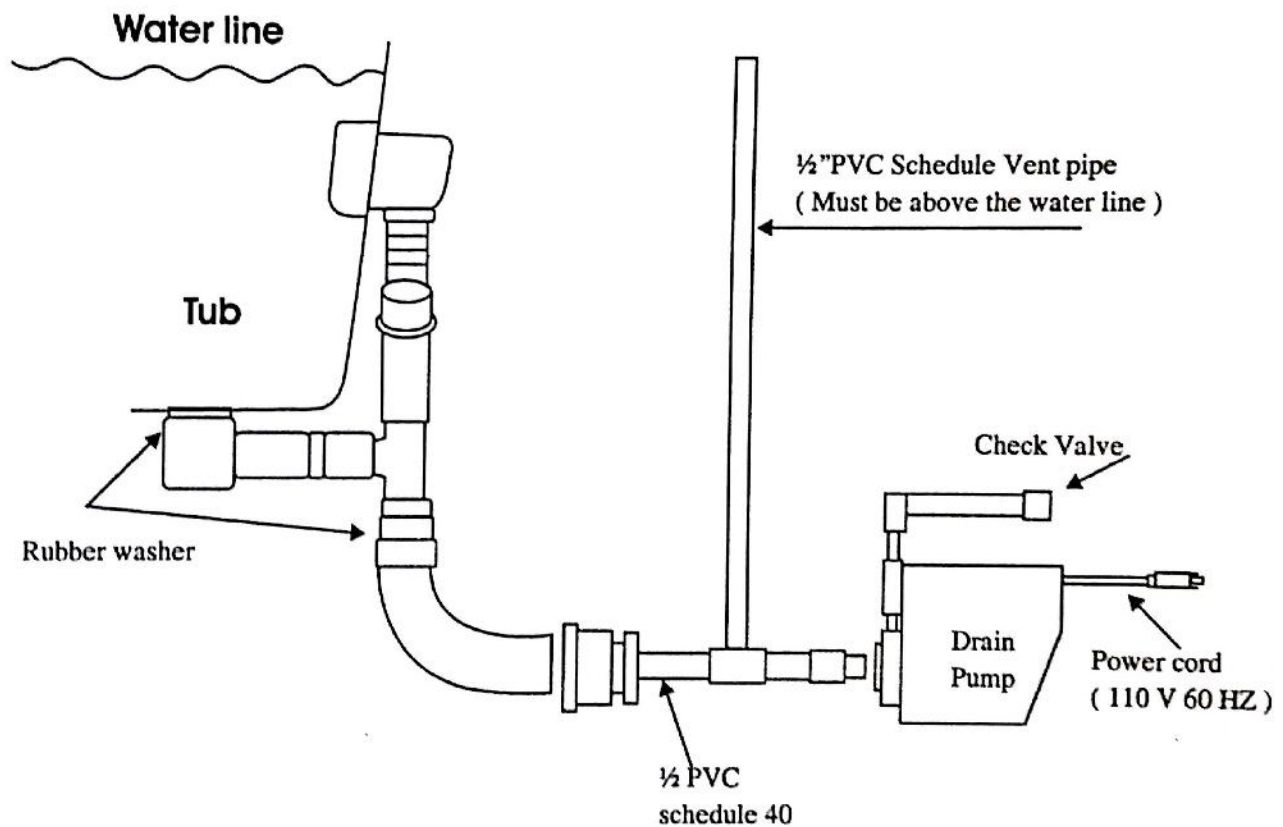
Failure to comply may result in serious injuries and warranty will be void.

- \* All plumbing connections should be made by a qualified, licensed plumber in accordance with local plumbing and buildcodes.
- \* The Spa must be located near adequate electrical electronics service, water supply and drain facilities.

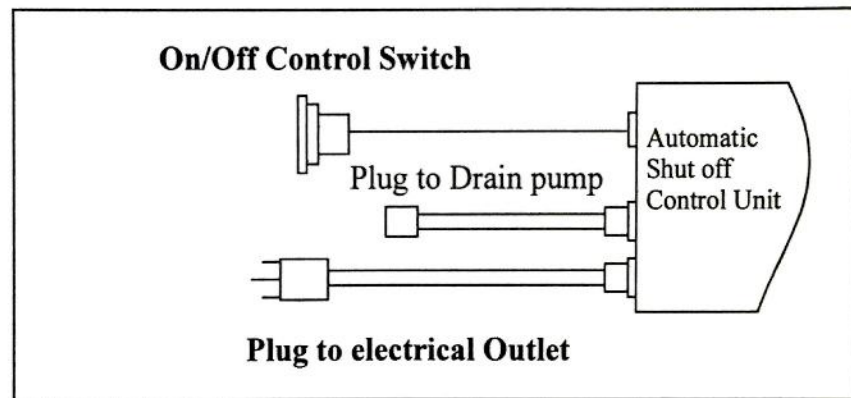
Spa without discharge pump: (please see figure below)

- \* Use 1½" schedule 40 PVC drain pipe and appropriate traps and connection to the drain pipe order to meet local plumbing code. Please refer to installation drawing below.





***Automatic Shut Off Drain Pump Installation Diagram (after 3 minutes):***



**\* On/Off Control Switch:**

***- Turn System On:***

Press the On/Off control switch to start the pump. The pump is factory set to run automatically for 3 minutes. After 3 minutes the built-in timer will turn off pump automatically unless it gets shut off manually.

***- Turn System Off:***

Press the On/Off control switch will turn off the pump.

***- Pump Light Indicator:***

Automatic On/Off Control switch features an attractive indicator that: Conveniently lights up the contour of the switch so users can easily see when pump is running.

# **OPERATING PEDICURE SPA**

## **Getting Started**

- Turn the drain handle and make sure drain plug is closed
- Faucet level should be 1 inch above the suction cover
- Push the air button ( on/off switch ) to start the whirlpool
- Adjust jets flow direction.
- For intensifying the whirlpool open the air control

**Caution**                      All jets must be fully open

## **To Turn Off**

- Gently push the air button
- Turn the drain handle and make sure plug is in up position
- Thoroughly rinse inside the tub

## **Precautions**

- Do not forcefully turn and/or push any control buttons
- When filling the tub, the water level must be at least 1 inch above the suction cover
- The massage controller or any electrical device must be kept away from the tub
- Advise your clients to always be cautious when getting ON or OFF the pedicure spa
- Always check the water temperature before clients put their feet into the tub

## **Warning**

Who has any fungal, infection, swelling, fracture, open wound or persistent pain

Should consult with a physician before using the spa

A pregnant person is not recommended to use a pedicure spa

# Massage System

## IMPORTANT SAFETY INSTRUCTIONS

**Warning:** To reduce risk of burns, fire, electric shock, or injury to persons

**READ ALL INSTRUCTIONS BEFORE USING. BURNS WILL RESULT FROM IMPROPER USE NEVER REMOVE COVER OTHER THAN AUTHORIZE PERSONNEL FROM THE MANUFACTURER.**

Close supervision is necessary when unit is used by, on, or near children and disable persons.

Use this unit only for its intended use as described in this manual.

Do not use any attachment/s not recommended by the MFG.

Keep the cord away from heat and water surfaces.

Do not use outdoors.

Do not operate where aerosol products are being use or where oxygen is being administered.

Never operate this unit if it has a damaged cord or plug.

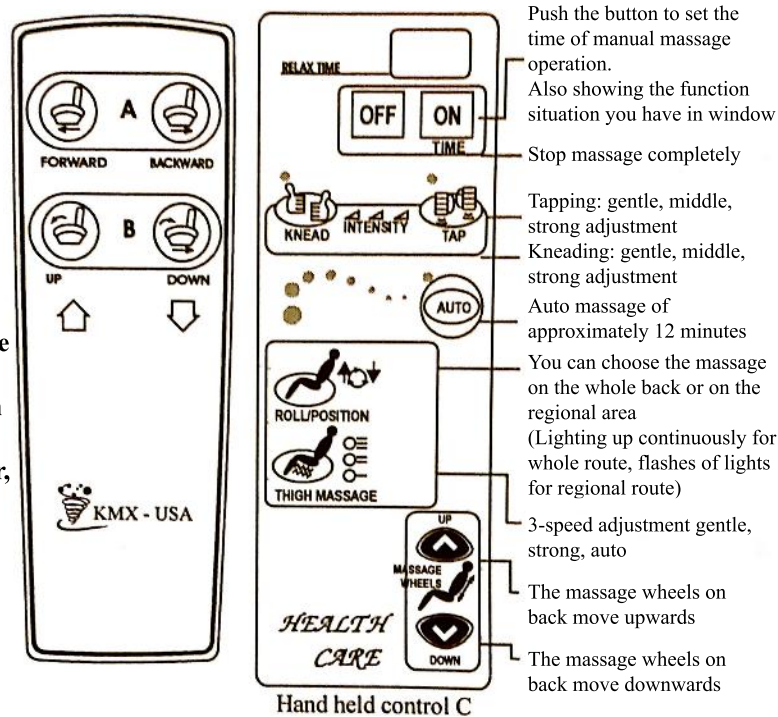
If it is not working properly or damaged, or dropped into water, to disconnect the unit, press power button to turn off, then remove the plug from outlet.

Do not place any heavy object on the chair and do not let children play with it.

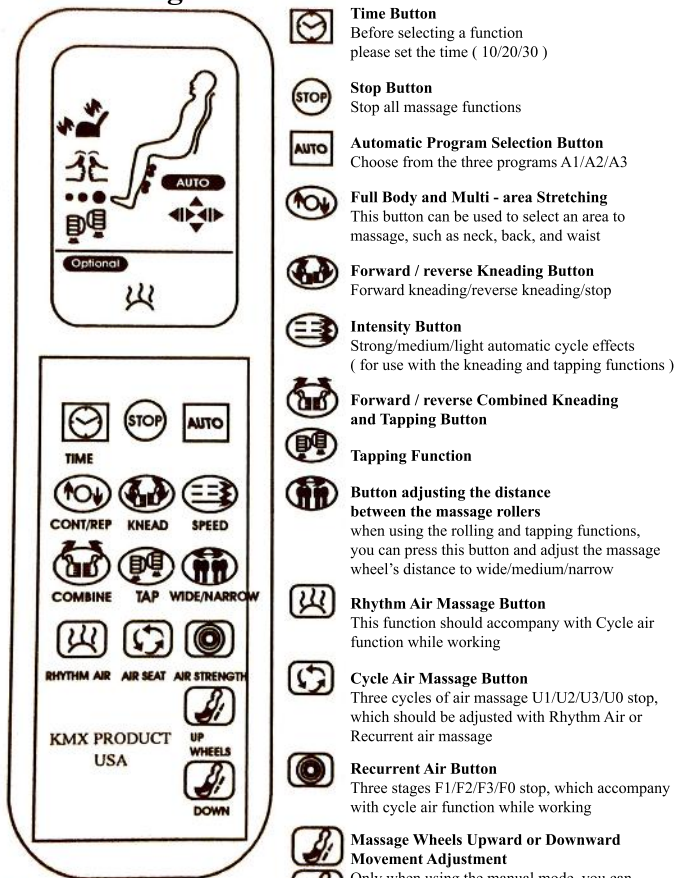
Never operate the massage chair with any part immersed in water, or any heat source.

### Hand held control operations:

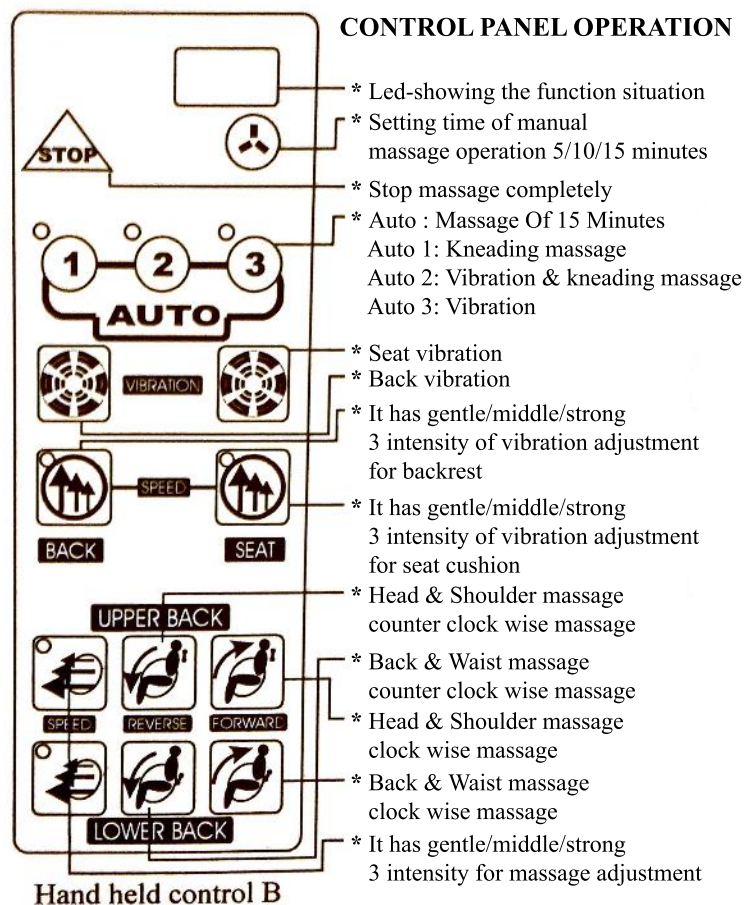
- Hand held control A: Is to be operated with massage chairs S-600, S-650
- Hand held control B: Is to be operated with massage chairs S-300, S-320, S-350
- Hand held control C: Is to be operated with massage chairs S-400, S-500, S-550, ND 5202



### Massage



### CONTROL PANEL OPERATION



## Maintenance

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\* The screen on the suction inlet must be free of debris, any blockage of the screen reduces the whirlpool action and may cause damage to the whirlpool pump motor.

## Cleaning / Flushing the inner whirlpool system

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- \* Fill warm water up to its level.
- \* Apply 3 tsp of low foaming dish wash detergent, 1 tsp of the regular bleach into the tub.
- \* Start the whirlpool for 5 minutes; let it sit still for 5 minutes; run again for two minutes.
- \* Drain out the water and fill up to its level with warm water.
- \* Wipe dry with soft cloth.

## Recommendation

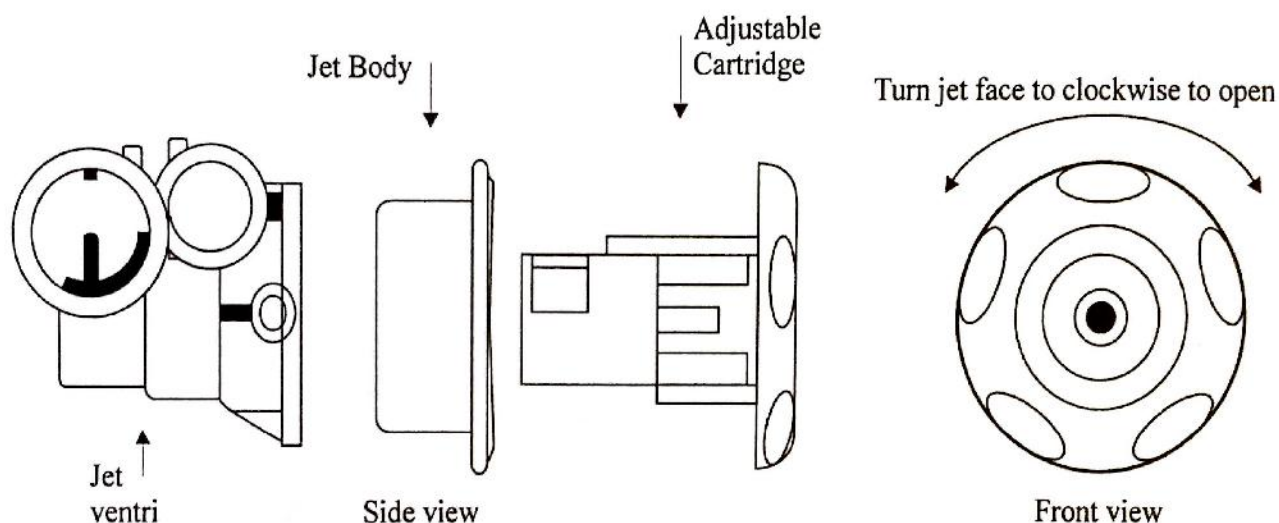
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Inner whirlpool cleaning should be two times a week, Do not exceed 14 days without flushing out.

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## Assembly of the jet

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## Assembly of the jet

- 1- With jet ventri and jet body in position, insert the cartidge into the body and lightly press the jet face unit, the face clicks into position.
- 2- Use your finger to rotate the eyeball into position. If the assembly is seated, the eyeball will stay in the correct position.

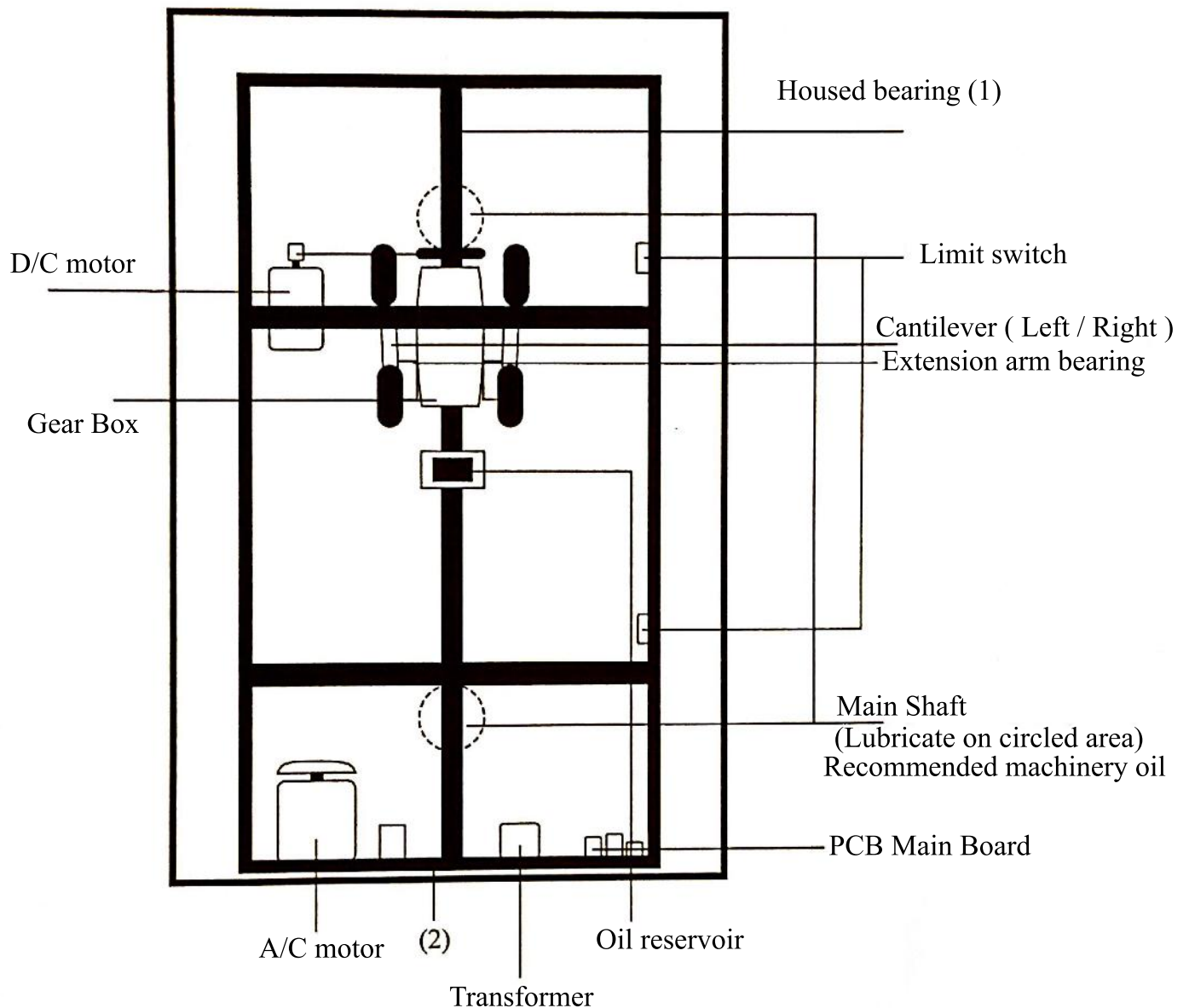
## Disassembly of the jet

Press the eyeball towards the ventri jet with your thumb. The eyeball will move freely when the spring is compressed. Using the fingers, grasp the edge of the jet face and pry the face from the body. It will snap out.

**Note:** All jets must be open at all time.



# Maintenance



It is recommended by manufacturer that you must lubricate main shaft at least once a month, depending on the usage of the chair

It is vital to check quarterly, check lists as follow:

- 1- Listen for noise, when roller goes up and down.
- 2- Check if DC motor drive belt is loose.
- 3- Check if all function are in working order.
- 4- Lubrication is a MUST, as manufacturer recommended.

# CAUTION

To reduce the potential risk of fire, electrical shock, or injury to persons:

- 1) All electrical wiring (both installation & repair) must be done by a licensed electrician and in accordance with local and state ordinances.
- 2) No modifications, additions or deletions should be made to the pump, without factory approval.
- 3) Before starting motor, fill tub with water to level recommended by whirlpool manufacturer.  
Never run pump dry!
- 4) Motors have a built-in automatic reset overload protector that guards against damage from mechanical or electrical problems such as low voltage, locked pump or similar abnormal conditions.  
Remember, if the timer device is still on, these motors will restart automatically - as soon as they cool down.
- 5) Do not relocate pump without prior approval from factory.

# WARNING

- To reduce the risk of injury, do not permit children to use this product unless they are closely supervised at all times.
- To reduce the electric shock, replace damage cord immediately, and do not use extension cord to connect unit to electric supply.

## TROUBLE SHOOTING GUIDE

SYMPTOMS	PROBABLE CAUSES	RECOMMENDED ACTION
Pump will not turn on	No power to motor	Check switch and fuse breaker, also connection from motor to switch
Pump runs slow	Pump not wired same as voltage supplied	Change pump to correct voltage
Pump Humms	Something stuck in impeller	Take pump apart and clean impeller
Pump Humms but will not turn	Wire not tight Pump jammed	Check terminals Remove dust cap and rotate motor shaft with screwdriver If unable to turn, send in for repair
Noisy pump	Something in the pump	Take pump apart and remove debris
Pump leaks	Bad bearing Hose clamps or union loose Bolts holding tank loose Leak around shaft from worn seal	Replace Bearing Tighten Replace shaft seal Secure pump to floor
Pump cavitates	Pump creeps	
Pump runs but no jet action	Air from jets getting in suction Air lock	Direct directional flow fitting away from suction fitting Turn pump on, wait 10 seconds, turn pump off Repeat up to 10 times, if airlock is not cure try turning the union (#12 as shown below) clock-wise and tighten back ( Do not turn all the way )

## PUMP PARTS LIST

ITEM	PARTS#	DESCRIPTION
1	WWVF	FRONT VOLUTE
2	WWIMP	IMPELLER
3	UPUFO/R	UNION O RING
4	UPUFM	UNION MALE 1 1/2
5	UPUFF	UNION FEMALE 1
6	PRSSFSEAL	SEAL ASSEMBLY
7	PPWWVB	VOLUTE BACK
8	PPWWCORD	POWER CORD
9	MPASHU506	AIR SWITCH
10	PPWWVO/R	VOLUTE ING
11	UPUFNUT	UNION NUT 11/2
12	UNUTEE	UNION TEE 1 1/2 X 1 X 1

