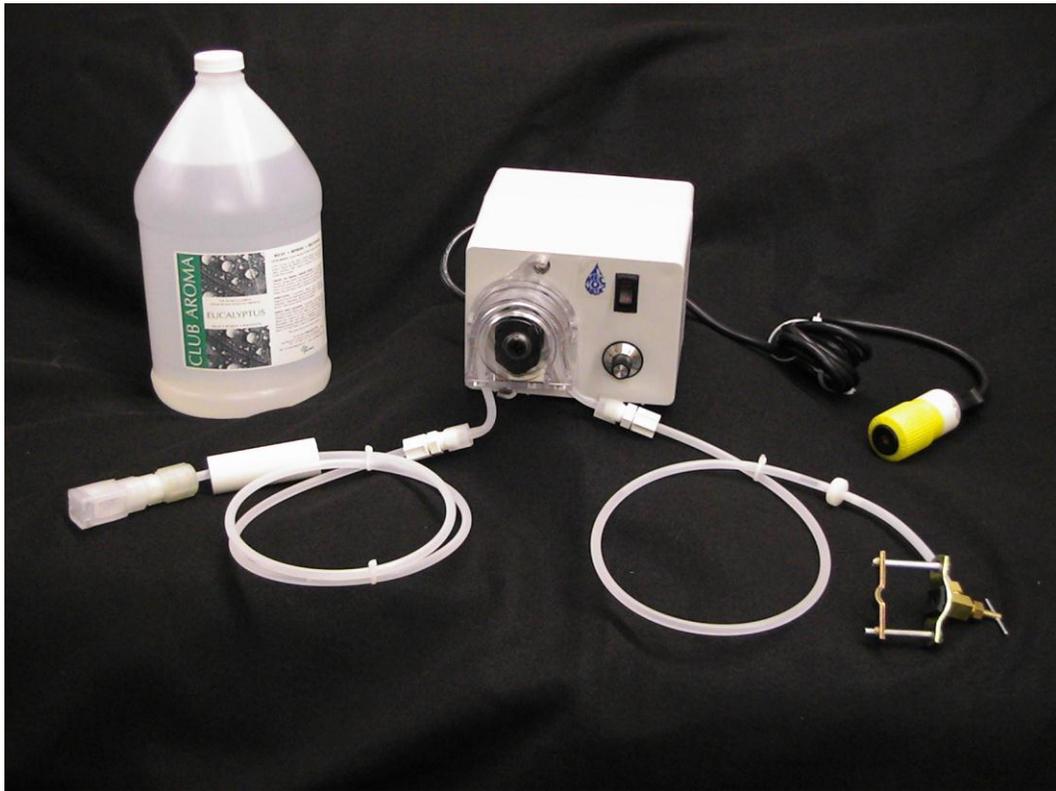


SteamAroma Nano Unit - Owner's Manual

Automatic Steam Room Aroma Pump



All automatic Spa Partners aroma dispensers are stamped with the Koala Quality Seal. This unique symbol ensures that only the highest standards of engineering and craftsmanship have gone into designing and building these units.

The quality goes in before the Koala goes on!

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Notes: The Nano unit belongs to the Dolphin Series of pumps. Please read the Dolphin Series Installation, Operation & Maintenance Manual (DSIOM) first. Aroma line and electrical connections however should be made according to this owner's manual and not the DSIOM.

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2) Introduction

Warning: The Nano unit has only been tested with Club Aroma™ steam room aromas from Spa Partners™. Using the Nano unit with any other product will void the warranty and could be a safety risk. Also, do not use Oil of Wintergreen aroma with the Nano unit since it will dissolve the fragrance lines.

Congratulations on your purchase of SteamAroma Nano, a reliable and economical aroma pump for steam rooms. SteamAroma Nano enables Club Aroma Eucalyptus or any other suitable Spa Partners steam room aroma to be accurately and automatically dosed into steam rooms.

SteamAroma Nano is perfect for the busy health club manager. It's high-specification peristaltic components and user friendly controls ensure low maintenance as well as years of hassle free service. Installation is simple with less than one hour typically required.

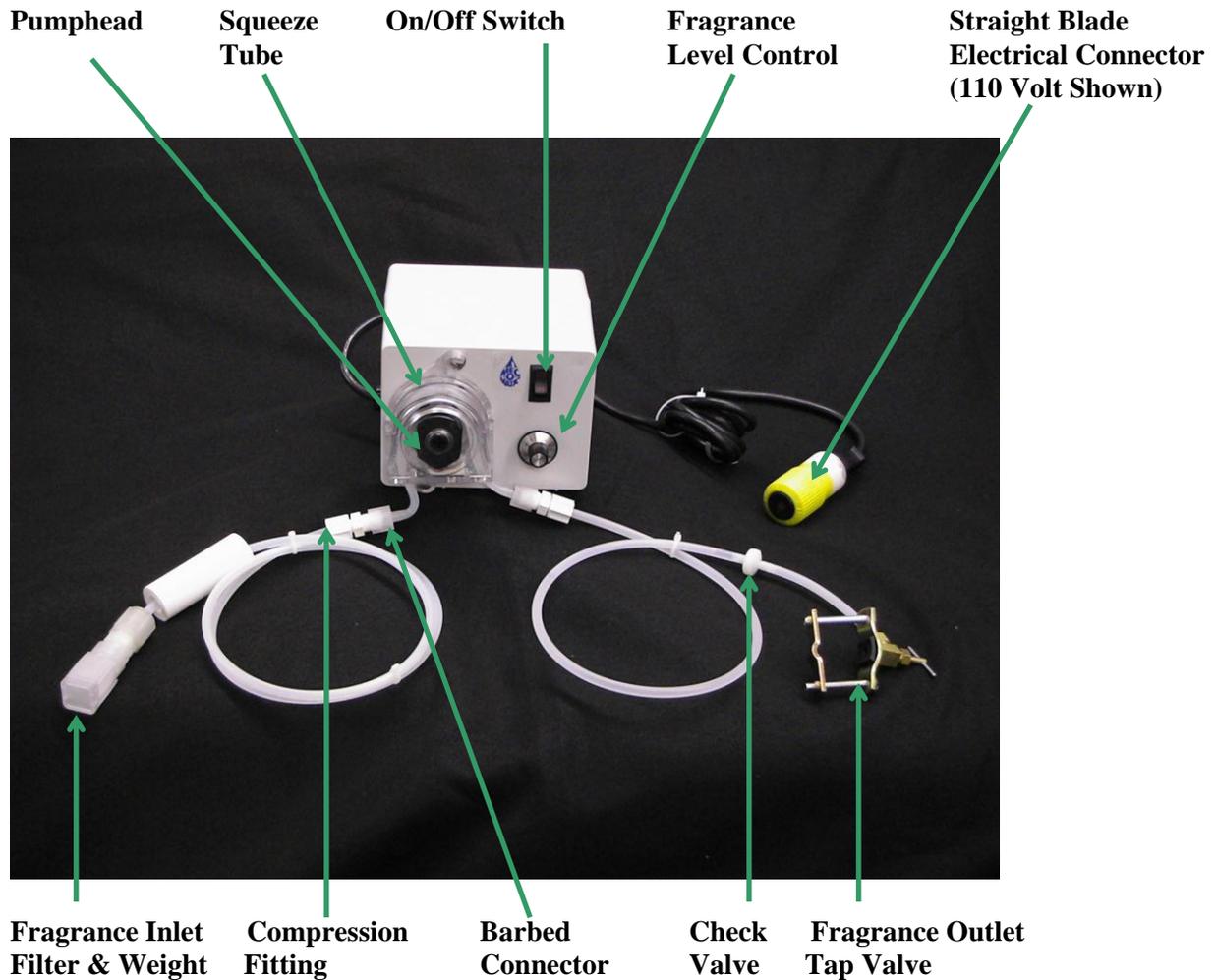
SteamAroma Nano derives its name from its diminutive size. Thanks to the rapid advances of micro electronics, we can bring you a fully functional steam room aroma pump that is small enough to fit in your hand. This feature is especially convenient when taking into account the often-confined spaces of maintenance rooms, located adjacent to the steam room. Despite the Nano unit's small size, it packs a powerful punch. It can fragrance even the largest steam rooms. For steam rooms which seat more than 15 people, you may opt for the larger 1/8" bore (3.2 mm) squeeze tube. SteamAroma Nano is quiet so it won't disturb your members. The aromas should be pumped as is, without dilution. This saves your staff the trouble of messy pre-mixing.

What happens if you forget and let SteamAroma Nano run dry? Don't worry, it will not burn out like some aroma pumps. Throughout, this manual, we have endeavoured to include helpful diagrams and to avoid excessive jargon. Hopefully, this will make installation and operation as easy as possible for you. Should you have additional questions, please contact us at technical support:

**USA – Spa Partners, Inc. Telephone 1 973 386 1158, Fax 1 973 386 9055
22 DeForest Avenue, East Hanover, New Jersey 07936, USA, Email:central@spapartners.com**

3) A Brief Overview - How SteamAroma Nano Works

The Nano unit automatically pumps Spa Partners Club Aroma Steam Room Aromas directly into the steam pipe. The steam in the pipe vaporises the aroma as it flows into the steam room.



SteamAroma Nano (standard size steam room)

Wiring – electrical connection

SteamAroma Nano should be wired directly into your steam valve solenoid via the straight blade connector. When steam is released, SteamAroma Nano automatically turns on and goes off when the steam valve is closed. If it is not possible to wire SteamAroma Nano directly into your steam valve solenoid, please contact us for a suitable alternative. .

Fragrance Level Control

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The aroma level is controlled by the adjustable timer, located to the right of the pumphead. Longer time periods result in higher aroma levels. Conversely, shorter times usually result in lower aroma levels. To adjust the aroma level, simply rotate the fragrance level control dial to the desired time period and SteamAroma Nano does the rest. **We suggest aroma levels of between 1 and 4. For technical reasons lower dial settings levels will produce the same effect as level 1. Conversely, higher dial setting will approximate level 4...so keep your settings between 1 and 4.**

Reliable peristaltic action

The pumping action for the Nano unit is accomplished by what is known as peristaltic motion. SteamAroma Nano's pumphead rollers continually squeeze the fragrance tube and cause the fragrance to flow from the reservoir, through the tube and into the steam pipe. This is known as peristaltic action. Peristaltic pumps such as those used in SteamAroma Nano are inherently very reliable since they have few moving parts.

In fact, the only periodic maintenance of SteamAroma Nano is replacement of the short section of squeeze tube, seen above, and less frequently the entire disposable pumphead. Tube replacement is normally done every one to three months and requires about five minutes. SteamAroma Nano requires no oiling, no valve replacement nor any other major type of maintenance. The unit is auto-priming and will not burn out if the reservoir runs dry.

Safety and Cautions:

- 1. Voltage Selection - It is essential that the SteamAroma Nano voltage correspond to that of your power supply. We offer either 110/120 or 220/240 volts. Do not attempt to install a device that does not have the correct voltage.**
- 2. SteamAroma Nano should only be wired into the steam valve solenoid of your steam generator. When your steam valve closes, SteamAroma Nano will automatically turn off. SteamAroma Nano will turn on again when the valve opens. Do not cut the plug off, as this will invalidate the warranty. The Nano unit arrives pre-plugged into a straight blade connector. Wire the connector (not the Nano plug) into the solenoid valve. Do not plug the Nano unit directly into the wall socket as this could result in an excessive build up of aroma in the steam chamber**
- 3. The unit should only be installed by a qualified electrician. SteamAroma Nano should always be located in utility rooms with temperatures of under 40 degrees Centigrade, (104 degrees Fahrenheit) outside the steam room. Do not place SteamAroma Nano in the Steamroom.**
- 4. Only use Spa Partners Club Aroma steam room aromas undiluted, with SteamAroma Nano. These have been extensively tested and will not damage the device. Other fragrances could damage the tubing or pumphead or cause clogging.**
- 5. The tap valve should only be attached to a low pressure steam pipe which has been de-pressurised and where the Steam Generator has been turned off. SteamAroma Nano will not function with back pressures greater than 1.5 bar (25 psi) above atmospheric. If wired correctly into the steam valve solenoid, the Nano unit will only experience atmospheric pressure (zero gauge).**

4) SteamAroma Nano List of Parts

SteamAroma Nano comes packed with the following parts. Should there be any missing, please contact us.

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- 1) 1 SteamAroma Nano unit plugged into the straight blade connector
- 2) The entire fragrance line preloaded into the pumphead. This consists of 4.5 metres (15 ft) 1.6 mm i.d. (1/16") high density polyethylene tubing with a) intake filter b) two connectors connecting the squeeze tube with the rest of the fragrance line c) check valve & d) outlet tap valve/piercing pin.
- 3) Four rubber feet for sound and vibration absorption.
- 4) Manuals – a) Quick Set Up Guide, b) Dolphin Series c) SteamAroma Nano Manual
- 5) One spare parts replacement kit including a) 3 spare silicone squeeze tubes b) 1 spare pump head c) 2 pumphead clips, d) alternative tap outlet

Also available separately is the Supplemental Spare Parts Kit consisting of: 5 squeeze tubes, 2 pump heads, 1 set of connectors for standard & large steam rooms, 2 saddle valve/piercing pin assemblies, 20 ft of hard HDPE ¼" fragrance line, 4 barbed tube connectors – ¼ inch, 1 check valve.

5) SteamAroma Nano Installation Instructions

Caution: Please ensure that SteamAroma Nano is installed by a qualified electrician and that the voltage is correct.

Average installation time for SteamAroma Nano is 45 minutes.

- 1) **Placement of SteamAroma Nano** – The unit should be located in the maintenance room next to the steam room and never in the steam room itself. Do not place the unit directly on top of a hot surface such as a steam generator. SteamAroma Nano should be mounted horizontally so that the exterior writing is correctly oriented. We recommend that the unit be secured to a sturdy wall using the two keyholes at the back of the unit. Do not block the air vents at the back. When determining final placement, please bear in mind the importance of easy access to the pumphead and timer.

The unit should be close to and above the aroma reservoir - within 1.5 meters (5 feet). Further distances could result in the inlet tube clamping shut during operation. **The reservoir should be below the pump in order to prevent siphoning.**

The outlet distance to the steam room is less critical. In general, a shorter distance is better. This will lessen the possibility of a tangled fragrance tube. However, distances of 20 feet, if properly placed will work well and may be necessary. Long fragrance lines work best in a fairly horizontal position. Steep climbs of many feet could pose problems, however.

For best results in steam rooms, the outlet tap valve/ piercing pin should attach to the steam pipe as close as possible to the location at which the steam enters the steam room.

Also, bear in mind that SteamAroma Nano needs to be wired into your steam valve solenoid. This may have an influence on location selection.

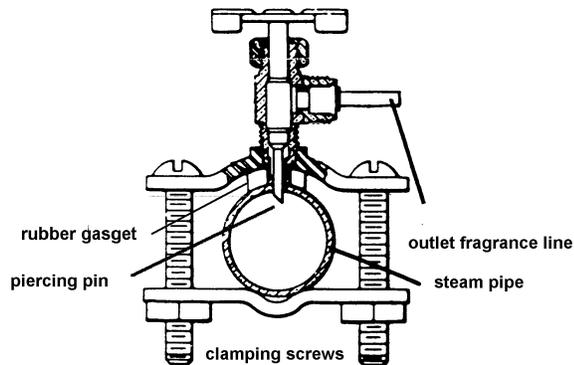
Place, but do not secure SteamAroma Nano at this time. Fasten the unit only after all connections prove to be satisfactory, in step 4).

- 2) **Inlet Connection** - Place the inlet filter and part of the 1.6mm (1/16") 4.5 metre (15 feet) fragrance tube in the fragrance bottle. Ensure that the filter reaches to the bottom of the bottle.

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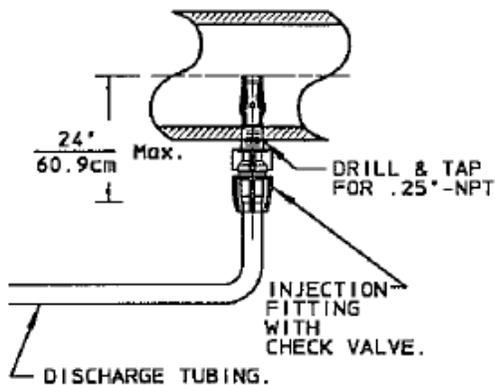
- 3) **Tap Valve** - The remainder of the fragrance tube will have a tap valve on the end. **Ensure that the steam generation is off and that the pipe is de-pressurised.** Attach the tap valve to the un-pressurised steam pipe leading to the steam room. Placement should be as close as possible to the point where the steam enters the steam room. If your steam pipe is more than 35 mm (1 3/8") in diameter, contact Spa Partners technical support. You may also use the alternative tap provided with the Nano unit. The alternative tap may require extra parts.

SteamAroma Nano Outlet Tap Valve



First clamp the tap valve to the pipe by turning the clamping screws. Ensure that the rubber gasket is correctly seated between the tap valve and the pipe. Next turn the piercing pin clockwise until it punctures the pipe. After you are sure that you have fully pierced the pipe, open the tap valve by turning it counter-clockwise until you feel resistance. The counter-clockwise rotation clears the entranceway for the aroma t/o flow into the pipe. Should you ever wish to remove the tap valve, the remaining hole in the steam pipe can be soldered shut.

Alternative Tap Valve



Tap

If the standard Tap Valve does not fit your steam pipe, you may use the enclosed Alternative Valve.

If so, you may need to order extra drilling parts.

One source is www.mcmaster.com

1) 2525A173 - Taper Pipe Tap High Speed Steel, Bright Finish, 1/4"-18 NPT.

2) 8870A41 - General Purpose Hss Jobbers' Twist Drill Bit Bright Finish, 7/16" Sz, 5-1/2" L, 4-1/16" L Flute

- 4) **Fastening the unit** – Apply the four rubber feet to the unit. We suggest, that the unit be secured vertically (the on & off labels on the front should be right-way up) via the two back keyholes. When placing the Nano, please bear in mind that you will need easy access to the fragrance level controller and the pumphead.
- 5) **Cutting excess tube** – We suggest that you cut away gross amounts of excess inlet and outlet tubing. Remember to carefully re-attach the Fragrance Inlet, the Check Valve and the Fragrance Outlet as you found them.
- 6) **Electrical Connection** - When connecting SteamAroma Nano, for safety reasons, it is essential to follow these rules:

A. The unit should only be connected by a qualified electrician.

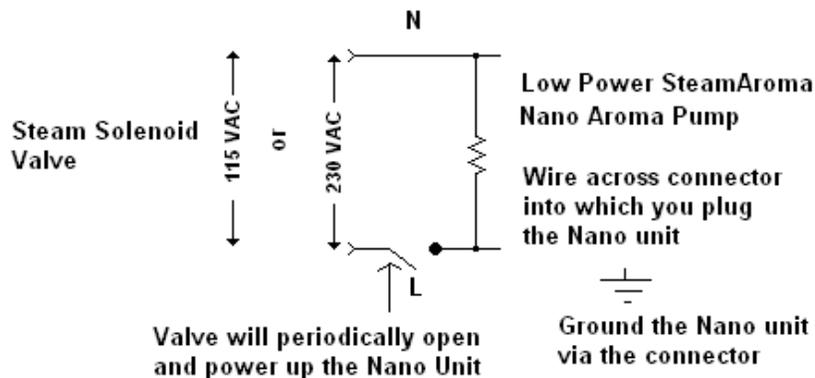
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- B. Ensure that the device voltage corresponds to that of the power supply. Options are 110/120 and 220/240 volts, single phase.**
- C. Ensure that the power supply is periodic and not continuous, i.e. the steam room solenoid valve.**
- D. Ensure that the device is grounded. Keep electrical connections clear of any liquid.**
- E. Power to the steam generator is switched off during installation, unless needed.**

The Nano unit arrives pre-plugged into the Straight Blade Connector. You will wire the Straight Blade Connector (not the Nano plug) into the steam room solenoid valve. Tighten the Straight Blade Connector once the wiring is in place.

Do not plug the Nano unit directly into the wall socket as this could result in an excessive build up of aroma in the steam chamber. Connect the lead of Straight Blade Connector across the steam valve solenoid of your steam generator unit. The wiring should be such that power is only supplied to the Nano unit when the valve is opened. Therefore the Nano unit will always pump into a un-pressurized steam pipe.

SteamAroma Nano Unit Wiring Diagram



- 7) **Test the Unit** - Have an empty container or towel ready to catch the fragrance at the outlet. Press SteamAroma Nano's on/off button to the on position. If nothing happens, wait a few minutes until the steam solenoid valve energises. At this stage, SteamAroma Nano should activate.

After about 15 minutes, you should see the aroma slowly dripping from the tap valve. The drip rate for the standard 1/16" (1.6 mm) bore tube is about 2-3 ml or 50 drops per minute. The flow rate for the large squeeze tube (3.2 mm bore) is about four times that of the standard squeeze tube. **This will only be necessary if your steam room holds more than 15 people. – see section 6.**

If the aroma is not flowing, contact Spa Partners technical support. Otherwise, proceed.

Let the unit run for a few cycles. Ensure that SteamAroma Nano re-energizes each time the steam valve opens. Check that there is no aroma or steam seeping out of the outlet tap valve. If aroma or steam is leaking, re-seat the tap valve until a tight fit is ensured. Enter the steam room and check that the aroma is noticeable. If so, the installation is complete. Otherwise, see the section on troubleshooting. If a problem persists, contact Spa Partners technical support.

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Adjust the Fragrance Level – Adjust the fragrance level to between 1 and 4. Numbers below 1 will result in fragrance level one. Numbers beyond 4 will result in a fragrance level of 4 (assuming that the unit is wired into the solenoid of the steam valve).

6) Trouble Shooting and Maintenance:

Mechanical Problems (If the pumphead rollers are turning but no fragrance is pumping):

1. Disconnect the outlet squeeze tube connector (located to the right of the pumphead) from the rest of the fragrance line. If the aroma does not flow through the connector, proceed to step 2.

If the aroma is flowing through the connector, the drip rate for the 1.6 mm squeeze tube should be about 2-3 ml or 50 drops per minute. The 3.2mm tube flow rate is about four times this rate. If you observe the correct flow rate, but are unable to detect fragrance in the steam room, the tap valve may be blocked. Possible solutions are as follows:

- A. Remove any kinks in the fragrance line.
- B. Ensure that the tap valve is properly seated (see section 5 - *installation instructions*.)
- C. Ensure that the tap valve knob is turned completely counter-clockwise.
- D. Ensure that the tap valve is clamped to a low pressure (1.5 bar or less) line.

Aroma should now pass freely into the steam pipe. Re-attach the tube connector to the fragrance line. If a problem persists, replace the tap valve or contact Spa Partners technical support.

2. Re-seat or replace the squeeze tube. (See section 6, *maintenance* section). Check to see that the outlet and inlet are not reversed. Aroma should now pass freely into the steam pipe. If not, proceed to step 3, otherwise re-connect the squeeze tube to the fragrance line. If the squeeze tube fails more than once a month, contact Spa Partners technical support
3. Ensure that the intake filter is immersed in the aroma. If necessary, replace or remove the intake filter. If you remove the intake filter, ensure that the inlet fragrance line is weighted down with a suitable non-corrosive weight. Undo any kinks in the fragrance line. Aroma should now pass freely. If not, contact Spa Partners technical support.
4. For large steam rooms, which hold more than 15 people, you may wish to use the double size bore, 3.2 mm squeeze tube. The large tube will deliver about 4x the aroma. **Please contact us for the larger bore squeeze tube.**

Electrical Problems (If nothing is moving e.g. pumphead rollers):

Note: Electrical diagnostics should only be undertaken by a qualified electrician.

1. Ensure that all external electrical connections are secure and that the motor is wired to the correct voltage, either 110/120 or 220/240. The motor voltage is written on the SteamAroma Nano. Turn the on/off switch to the 'on' position. If there is still no movement, proceed to step 2.
2. SteamAroma Nano is normally wired into the steam valve solenoid. Hence a voltage difference will only occur during the steam generator's 'on' cycle. You will therefore have to wait for the 'on' cycle to perform diagnostics.

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3. Check the power source for appropriate voltage, i.e. 110/120 or 220/240 volts. If no voltage is registered during your steam valve's 'open' cycle, the power source is faulty or incorrectly wired. Conversely, if voltage is registered during the valve's 'closed' cycle, the unit will need to be re-wired into a cyclic power source – see the previous point. If the unit still will not turn on, please contact Spa Partners technical support.

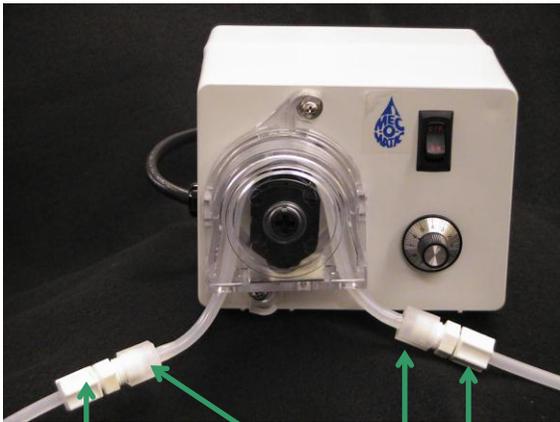
Maintenance:

- 1) **Replace Squeeze Tube – monthly or as often as required**
- 2) **Replace Pump Head – when required, less often than the squeeze tube.**
- 3) **Clean inlet filter – when required (rinse under warm tap water)**
- 4) **Clean or replace tap valve outlet (rinse under warm tap water or replace)**

Periodically, you will need to replace the 8 inch (20 cm) squeeze tube. The squeeze tube is the portion of the fragrance line that fits into the pumphead. This should only be done when aroma is no longer flowing into the steam room, and after following the instructions in the section on troubleshooting. We strongly advise against using any tubing other than the Silicone supplied by Spa Partners as this could result in damage to the pump head or unit.

1) Replacing the squeeze tube

Standard Squeeze Tube

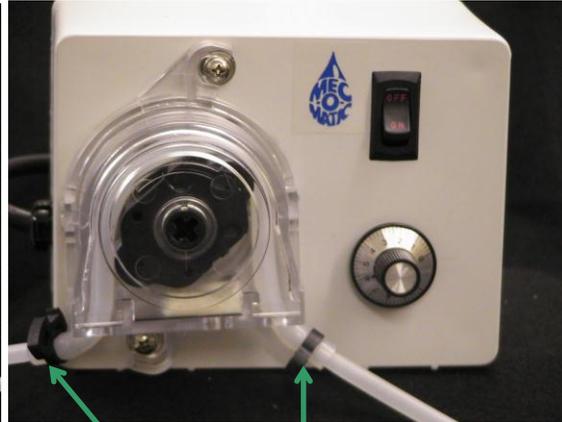


Compression Fittings **Barbed Connectors**

Standard Size Squeeze Tube Configuration
1.6 mm bore – less than 15 person capacity

Note the compression/barbed tube fittings used for the standard squeeze tube

Large Squeeze Tube



Snap Grip Fittings

Large Size Squeeze Tube Configuration
3.2 mm bore – more than 15 person capacity

Note the snap grip fittings securing the hard fragrance line located inside of the soft larger squeeze tube

The squeeze tube should be replaced about every one to three months or as needed. The procedure requires about 5 minutes. Please note that only the squeeze tube should be replaced - not other parts of the aroma tube.

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Familiarise yourself with the current squeeze tube connections. At the end of the procedure, the new connections should be identical.

For the standard squeeze tube – pull out the clear barbed connector from the squeeze tube. Be sure to leave the white compression fitting in place. Follow the procedure below for replacing the squeeze tube. Afterwards, re-attach the barbed fitting to the squeeze tube at both ends.

For the large squeeze tube – Undo the black snap grips by moving the ends sideways to the direction of their teeth until the ends detach from each other. Gently pull out the smaller, hard fragrance line from the soft squeeze tube. Follow the procedure below for replacing the squeeze tube. Afterwards, re-attach the tubing and black snap grips as before.

Rotate the pump head counter clockwise until it detaches. Place the pump head outer face down on a flat surface. Gently pull out the back of the pump head while leaving all the other parts in place. Gently pull out the old squeeze tube. Thread in the new squeeze tube. Rotate the rollers by hand to facilitate the squeeze tube installation. Replace the back of the pump head. Rotate the rollers by hand from the front of the squeeze tube to facilitate the pumphead back cover replacement. Clip the pumphead onto the Nano unit by rotating it clockwise onto the holding screws until secure.

2) Replacing the pump head – as required

Detach the squeeze tube from the connectors as above. Rotate the pump head counter clockwise until it detaches. Discard the pump head. Secure the new pump head to the pump after loading up the new squeeze tube (follow the directions above). Re-attach the tubing to the connectors as above. Again, the connectors are different for the standard and large tubes.