

WULI



物理農業機械股份有限公司

WULI AGRICULTURE MACHINE CO., LTD.

動力噴霧機、高壓洗淨機、微霧系統專業設計製造

MISTING SYSTEM OPERATION MANUAL

微霧機操作手冊

MODEL

WM-1001B-5M WM-1001B-6M

WN-1003A-5M WN-1003A-6M

WN-1004A-5M WN-1005A-6M

感謝您購買物理產品，使用前請詳閱本說明。

Thank you for choosing our product.

Please read the manual before use.

2025.05V

操作注意事項



注意

- 請仔細閱讀本說明書，並正確地操作微霧機。
- 機器內請保持乾燥，避免放置潮溼處，否則可能引起短路及漏電危險。
- 使用完畢，請關閉電源並拔除插座上之電源線。
- 低溫的操作環境下恐使本機器發生故障，故在結凍的場合使用完畢時，請務必將本機器及管路內的水排空。



警告

- 卸下外殼前，請將機器停止運轉，避免造成危險。



危險

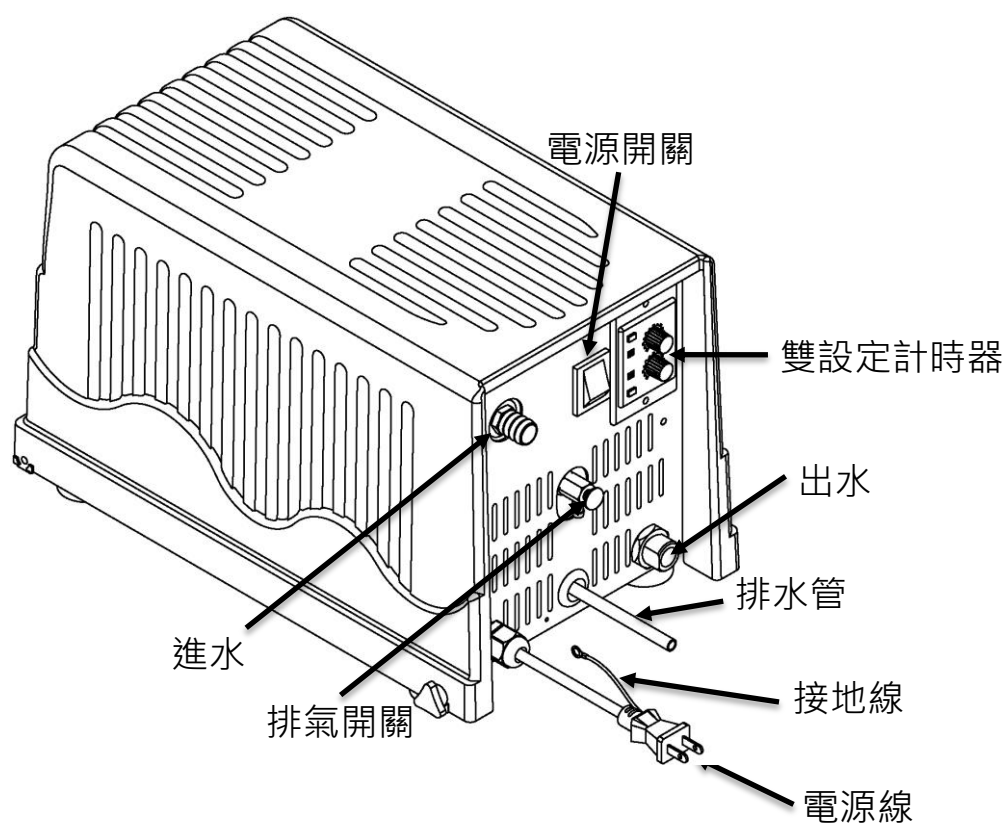
- 潮濕的手請勿觸碰本機器，避免發生觸電危險。
- 請妥善裝置接地線，避免事故發生。
- 機器運轉時，請勿觸碰機械迴轉部份，否則可能會受傷。

使用前置作業

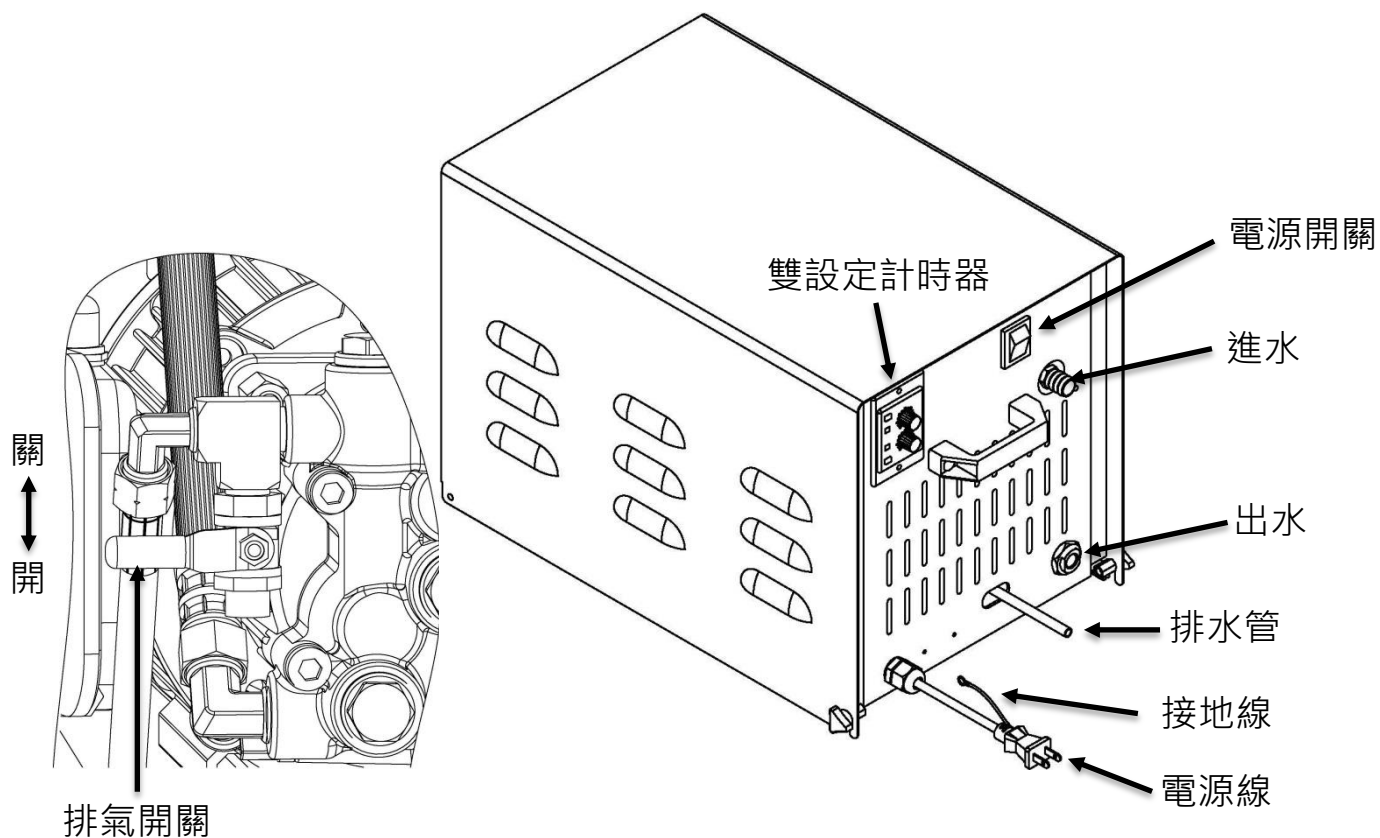
1. 將進水管兩端分別連接主機與水龍頭，使用白鐵束確實鎖緊，避免漏水。
2. 水龍頭進水壓力須在 $0.3 \sim 2.5 \text{ kgf/cm}^2$ 之間，避免損害機器。進水壓力太小，機器將無法啟動。
3. 將電源插頭置入適用於本機器之電源插座。
4. 設定計時器的噴霧運轉及停止時間。
5. 確認噴霧管路已配置完畢。
6. WM 系列-打開水源，開啟電源開關，按壓排氣開關，將管路與泵浦內之空氣排空。
WN 系列-打開外蓋，打開排氣開關，開啟水源，開啟電源開關，將管路與泵浦內之空氣排空後，關閉排氣開關。
7. 初次運轉、無水自動停止、長期未使用時，請按壓排氣開關將泵浦內之空氣與水排空，直到正常出水後，即可正常運作使用。

外觀結構圖

WM 系列微霧機



WN 系列微霧機

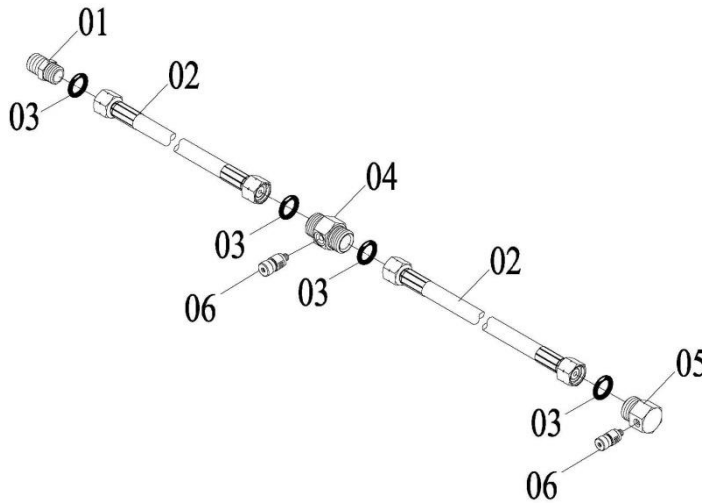


管 路 安 裝 方 式

1. 高壓軟管組

連結高壓軟管與微霧機出水口，鎖緊噴嘴。

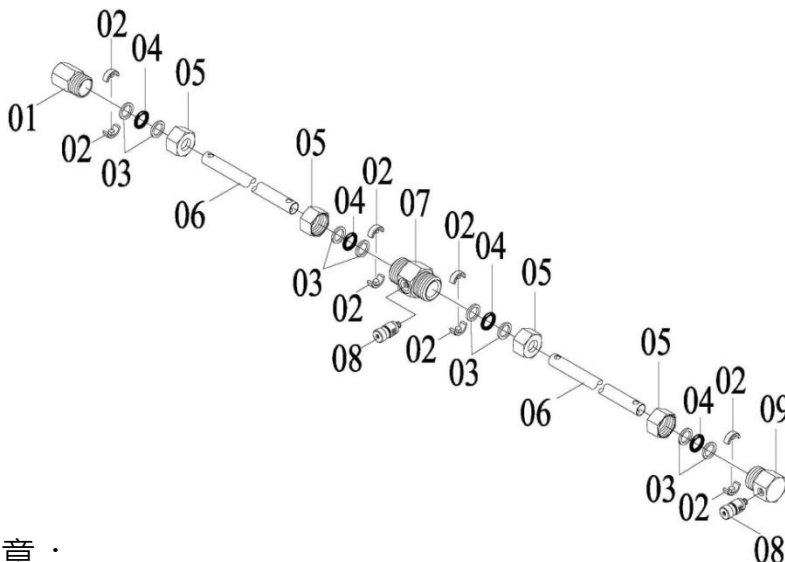
使用接頭固定片或結束帶，確實將高壓軟管安裝在欲設置的場所。



圖號	零件品名
01	高壓軟管出水接頭
02	高壓軟管
03	O 形環
04	單孔噴嘴接頭
05	高壓軟管尾端接頭
06	噴嘴

2. 不鏽鋼管組

依圖示組立順序為「No.05→No.03→No.04→No.03→No.02」；定位片(No.02)須拆開固定於不鏽鋼管(No.06)孔位。鎖緊固定螺帽(No.05)與接頭；尾端接頭(No.09)鎖緊於不鏽鋼管(No.06)末端；噴嘴(No.08)鎖緊於單孔噴嘴接頭(No.07)，避免漏水。使用接頭固定片或結束帶，確實將不鏽鋼管安裝於欲設置的場所。若要彎曲不鏽鋼管，請使用彎管器。



圖號	零件品名
01	排氣接頭
02	定位墊片
03	止水墊片
04	O 形環
05	固定螺帽
06	不鏽鋼管
07	單孔噴嘴接頭
08	噴嘴
09	尾端接頭

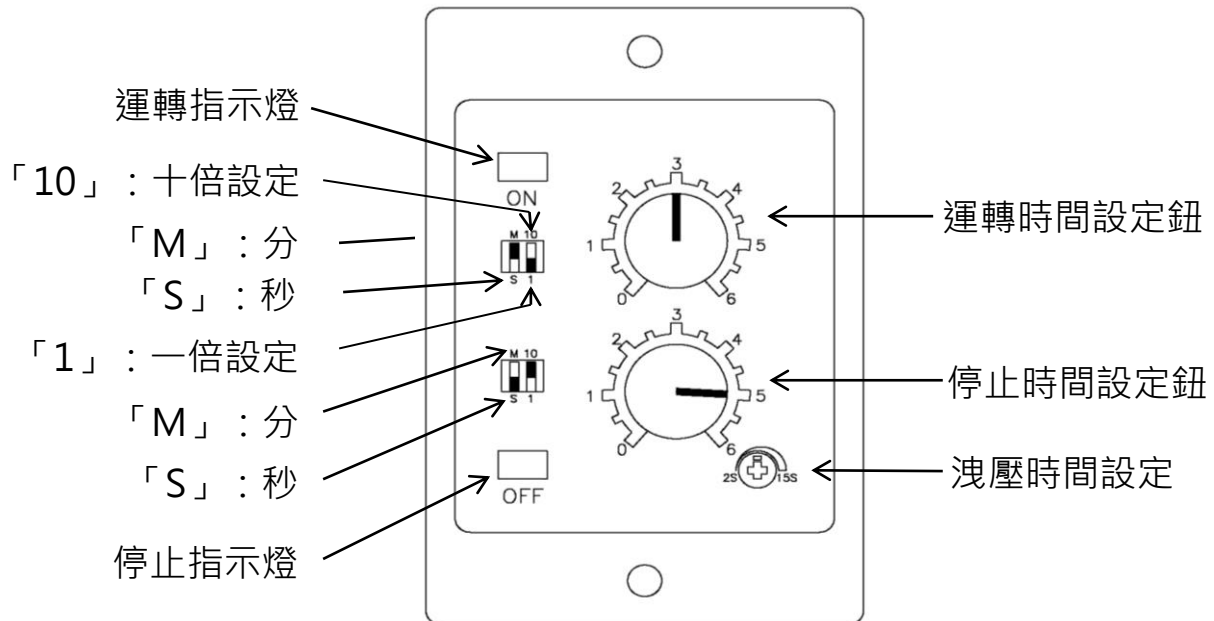
⚠ 注意：

- 初次使用管路時，請打開尾端接頭或球閥，以清潔管路，避免噴嘴阻塞。
- 安裝管路時，請注意安裝方向。

	管固定片		接頭固定片
	SST-03		SST-04
	Pipe Fitting		Connector Fitting

雙設定計時器操作方式

一、 部件名稱



二、 噴霧、停止時間設定

【例】：「欲噴霧時間運轉 3 分鐘，停止 50 秒」其設定方式如下：

◎噴霧運轉時間設定：

1. 將「運轉時間設定鈕」轉至刻度 3
 2. 該鈕左方之時間單位撥至「M」分鐘
 3. 時間倍數撥至「1」為一倍設定
- 即完成噴霧運轉三分鐘之設定。

◎間歇停止時間設定：

1. 將「停止時間設定鈕」轉至刻度 5
 2. 該鈕左方之時間單位撥至「S」秒鐘
 3. 時間倍數撥至「10」為十倍設定
- 即完成間歇停止 50 秒之設定。

※注意：為確保機械使用壽命，停止時間至少需設定在 15 秒以上。

三、 洩壓時間設定

1. 洩壓時間最長設定為 15 秒；為確保噴霧停止與洩壓時間配合無誤，噴霧停止時間設定需大於洩壓時間。
2. 噴霧管路愈長，洩壓時間可適當延長。

四、 機器停止及運轉

藉由開啟、關閉電源開關以控制機器運轉與停止。

五、 無水停機

若電源開關啟動，運轉及停止指示燈均未亮時，表示微霧機缺水將自動停機，切勿強制啟動。請檢查水源並確保供水充足，屆時再重新啟動運轉。

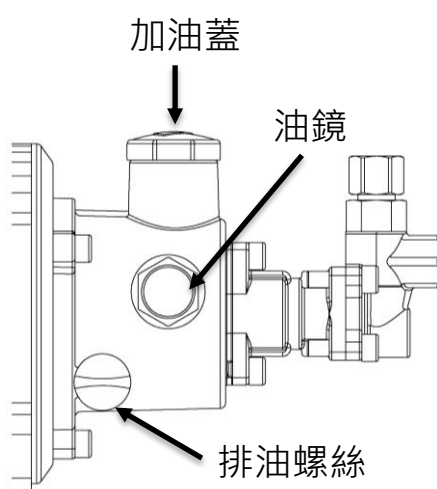
機器保養維護方法

I. 機器、配件保養時間表

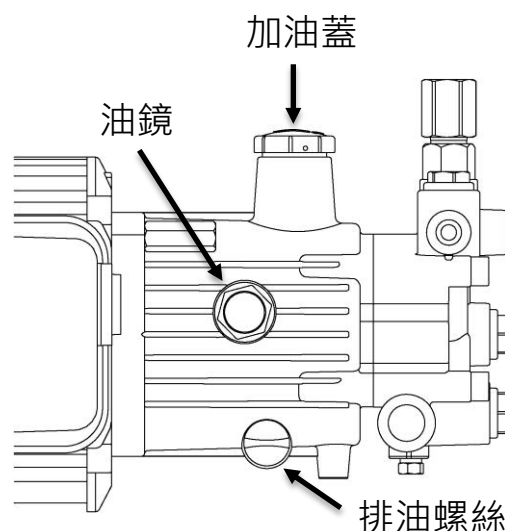
敬請遵守時間表實行保養步驟。

零件名稱	維護內容	維護時機
泵浦	確認油量	使用前確認機油是否足夠
進水過濾器	清潔	使用 15 天後
噴嘴 / 管路	清潔	必要時或每 15 天

II. 泵浦機油更換



WM 系列泵浦側面圖



WN 系列泵浦側面圖

	WM 系列	WN 系列
機油使用	SAE 30~40	
更換油量	80 cc	350 cc
更換時機	1. 首次使用 30~50 小時 2. 使用每隔 100~200 小時	

1. 打開加油蓋。
2. 卸下排油螺絲，請準備容器盛裝排流出的舊機油。
3. 舊機油排流完畢後，請確實將排油螺絲鎖緊。
4. 從注油口加入指定油量之新油。
5. 確認新油添加是否達到油鏡的中心點。若油量低於油鏡時，請再注油至油鏡的中心點為止。
6. 確實關緊加油蓋。

⚠ 注意：

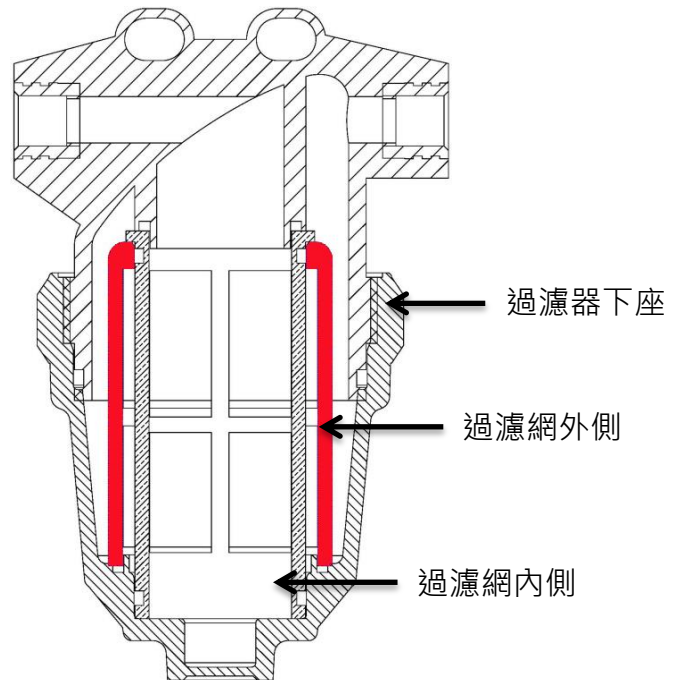
1. 機器剛運轉完時，內部機油過熱，請勿進行換油作業。
2. 當油量超過油鏡的中心點時，泵浦運轉時恐會造成機油濺出，而導致機器故障。

III. 噴嘴、微霧軟管、不銹鋼管之清潔

1. 微霧噴嘴堵塞：轉鬆噴嘴蓋，將噴嘴取出，清除堵塞物。
2. 微霧軟管及不銹鋼管之清潔：打開尾端接頭或球形閥，運轉微霧機，使水流出 2~3 分鐘。

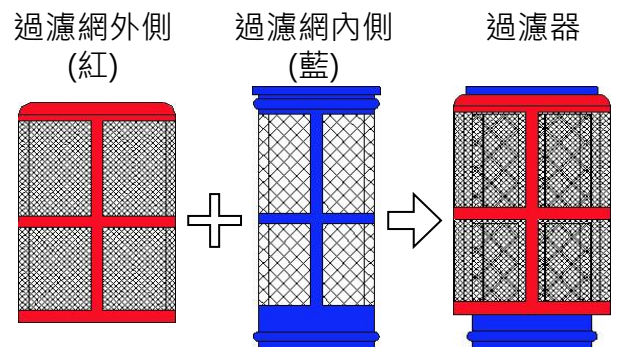
IV. 進水過濾器之清潔

1. 將進水過濾網向左轉開。
2. 內部有 2 個鋼網。將紅的拉開後，同時亦會取下藍的白鐵網。
3. 請將藍的向上拉除，紅與藍的部份將會分開。
4. 使用軟毛刷清理鋼鐵網部，並用自來水沖洗乾淨即可。
5. 依序組裝回去，即可再次使用。



⚠ 注意：

請留意拆卸時，過濾網片的上、下位置順序；若與拆下的順序顛倒裝置，請即刻修正復原。若未確實安裝組立，將可能因進水的壓力而發生漏水。



機器長期保管方式

一、 如需長時間停止使用微霧機，請按照下列步驟保管本機器

1. 拔除電源線。
2. 關閉水源、卸下進水管。
3. 打開外箱、排空進水過濾器內的水，並將進水過濾網清洗乾淨；裝回已清潔之過濾器，並將外箱蓋回。

二、 長期保管場所

請保存在以下地方

1. 幼童無法取得處、附近無危險物或火源的安全處。
2. 陽光無法直射、平坦、乾燥、清潔的地方。

故障診斷與障礙排除

若是發生不良狀況時，多半可以用下面的對策來解決，使機器恢復正常運作。萬一無法解決或是有不清楚的地方，請向購買的販售商詢問。詢問的同時，敬請告知您所購買的產品型號及機器流水號。

不良事項	原因	對策
•無法啟動馬達	<ul style="list-style-type: none"> •電源失效 •電壓過低 •檢查水源是否充足 	<ul style="list-style-type: none"> •確認電源供應 •檢查電壓 •檢查進水壓力 •檢查壓力開關
•運轉聲音大	<ul style="list-style-type: none"> •電源受損 •滲入空氣 •迫緊受損 	<ul style="list-style-type: none"> •檢查電壓 •按壓排氣開關 •清潔進水過濾器 •更換迫緊
•馬達停止運轉	<ul style="list-style-type: none"> •過載保護跳脫 •電壓不足 	<ul style="list-style-type: none"> •檢查電壓 •檢查進水 •向零售商詢問
<ul style="list-style-type: none"> •不進水 •不出水 	<ul style="list-style-type: none"> •泵浦、管路有空氣 •過濾器或噴嘴堵塞 •活門沾黏 	<ul style="list-style-type: none"> •排除泵浦空氣 •清理過濾器和噴嘴 •向零售商詢問
•未達規定之壓力	<ul style="list-style-type: none"> •噴嘴磨耗、出水量過大 •泵浦不良 	<ul style="list-style-type: none"> •更換噴嘴 •向零售商詢問
•出水量不穩定	<ul style="list-style-type: none"> •噴嘴堵塞 •滲入空氣 •進水過濾器堵塞 	<ul style="list-style-type: none"> •清理噴嘴及過濾器 •按壓排氣開關 •檢查進水系統 •向零售商詢問

Warning



Attention

- Read this manual carefully and operate the misting system correctly.
- Please keep water out of the system housing or it may cause short circuit and leakage hazards.
- Please turn off the misting system and unplug the power cord when not in use.
- Please drain all water from the misting system and all hoses/pipes before the first winter frost to avoid damage from water freezing inside.



Warning

- Please shut off the misting system before removing the cover. Failure to do so may cause personal injury and property damage.



Danger

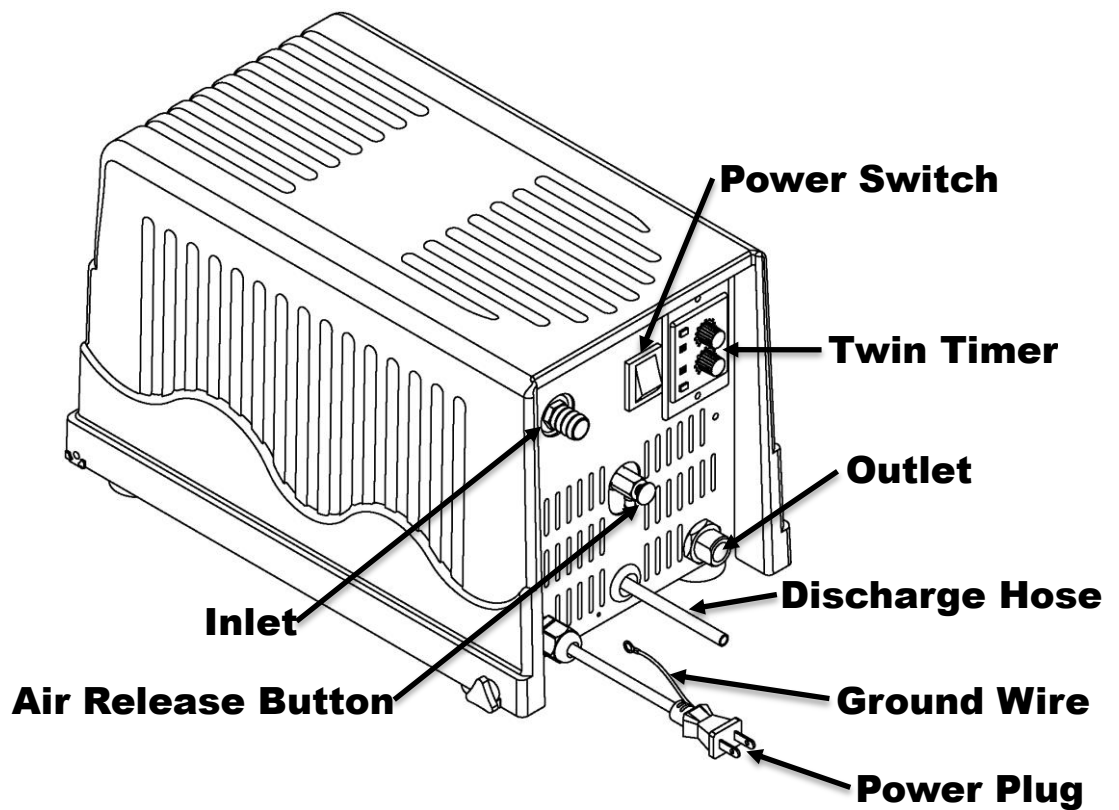
- Please don't touch the misting system with wet hands.
- It is dangerous to use the misting system without attaching the Ground Wire; this device is provided to avoid the risk of electrical shock.
- When the machine is running, do not touch the rotating parts of the machine, otherwise you may be injured.

Installation & Preparation

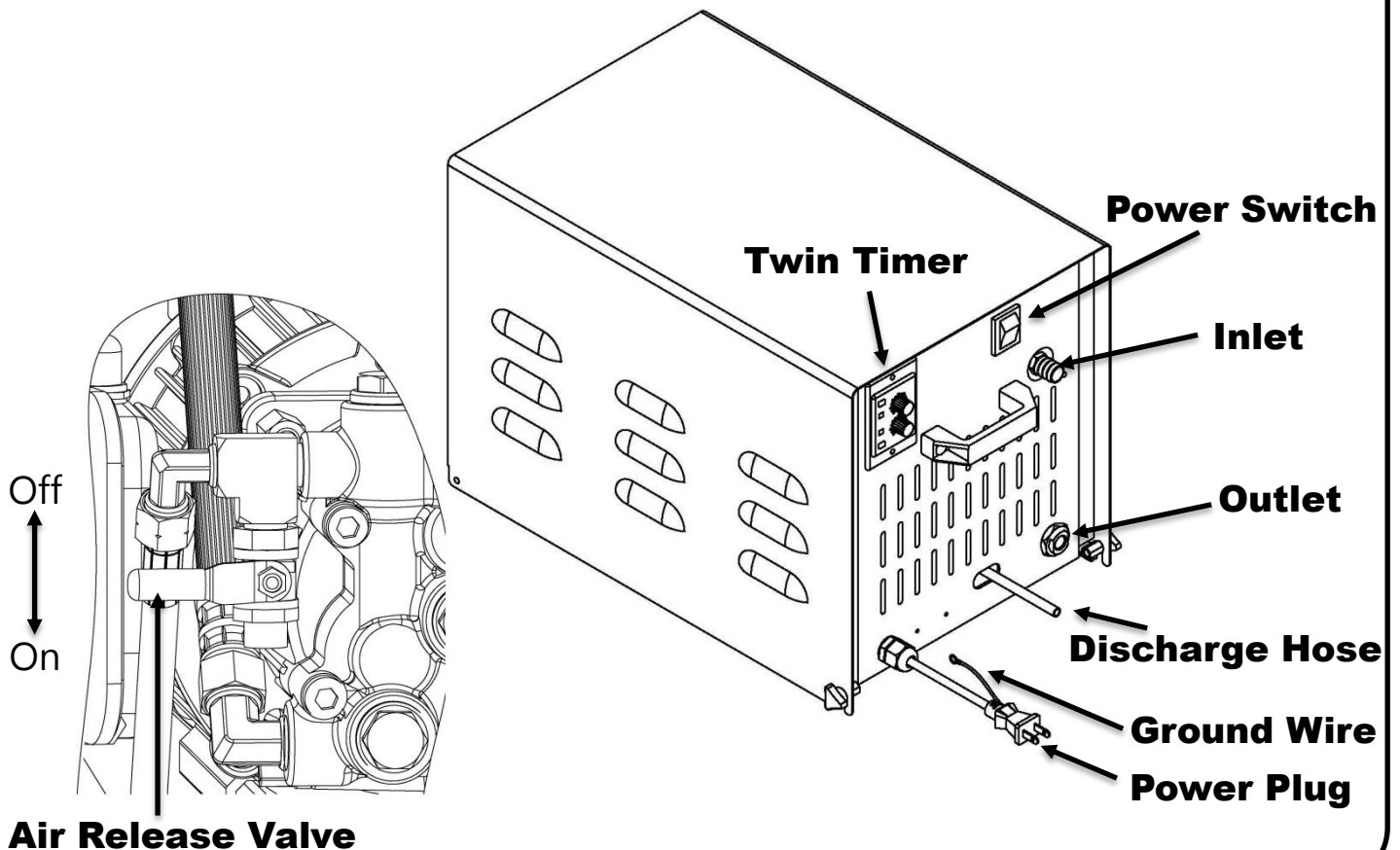
1. Please make sure the inlet hose is tightly fastened to the misting system and to the faucet. ONLY CLEAN WATER SHOULD BE USED.
2. Please check whether the inlet pressure from the faucet is **between 4 psi and 35 psi (0.3 ~ 2.5 kgf/ cm²)**. If the inlet pressure is lower than 4 psi, the misting system will not start. If the inlet pressure is over 35 psi, the misting system may be damaged.
3. Plug in the power plug after confirming the power supply matches the system requirements.
4. Set the spray start and stop time of the timer.
5. Make sure the misting hoses/pipes are fully installed.
6. **WM series-** Turn on the water supply and the power switch; press the Air Release Button to vent the air in the pipes and pump.
WN Series - Open the outer cover; open the Air Release Valve; turn on the water supply; turn on the power switch; vent the air in the pipes and pump, and then close the Air Release Valve.
7. When using the pump for the first time, when not in use for a long time, or when restarting it after dry-run shutdown, press the Air Release Button/Valve to vent the air and water in the pump until water flows out normally and it can operate normally.

Misting System Overview

WM Series



WN Series



Misting Line Preparation & Installation

● General Guide

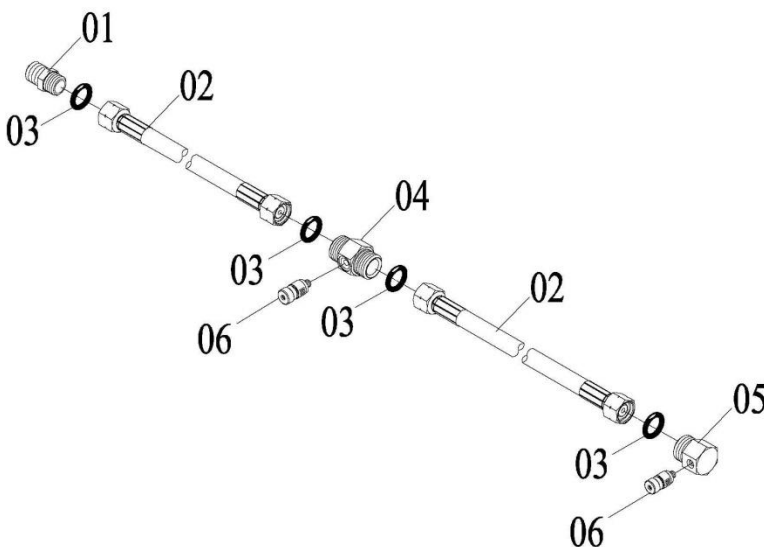
1. Make sure flexible misting hoses are connected securely to the misting system via the connectors.
2. Assemble the line at ground level before installing at the desired height.
3. Use fasteners or fittings to secure the flexible misting hoses/stainless steel pipes tightly at the installation site.
4. To clean the misting line, open the ball valve at the end of the line and turn on the system momentarily. Shut off the system and close the valve to continue using misting operation.
5. If your misting line does not have a ball valve, clean the system by removing the last nozzle from the end connector and turning on the system momentarily. Shut off the system and put the nozzle back to continue using misting operation.



Attention:

When flushing out the mist line, be certain to direct the path of the spray away from people, animals and electrical goods. Water will be traveling at high velocity and may cause personal injury and/or property damage.

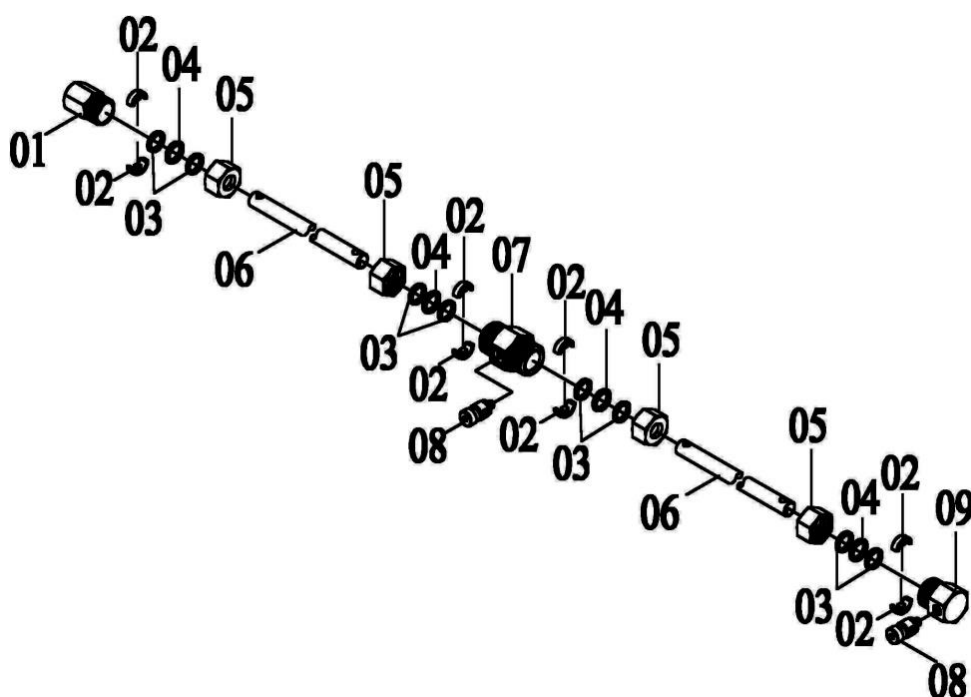
● Flexible Misting Hose Line



No.	Description
01	Outlet Connector
02	Flexible Misting Hose
03	O-ring
04	Single Nozzle connector
05	End Connector
06	Nozzle

● Stainless Steel Pipe Line

1. Assemble the connector by placing parts on the pipe in this order:
No.05→No.03→No.04→No.03→No.02 (2pcs). The peg in the center of the crescent-shaped pin (No.02) should fit into the hole on the side of SST pipe (No.06). Then, fasten the nut (No.05) tightly onto the connector body to prevent leakage.
2. Assemble the end connector(No.09) at the end of the SST pipe.
3. If necessary, use a pipe-bending tool to alter the shape of stainless steel pipes.





No.	Description
01	Connector
02	Set Pin
03	Gasket
04	O-ring
05	Nut
06	SST Pipe
07	Single Nozzle Connector
08	Nozzle
09	End Connector



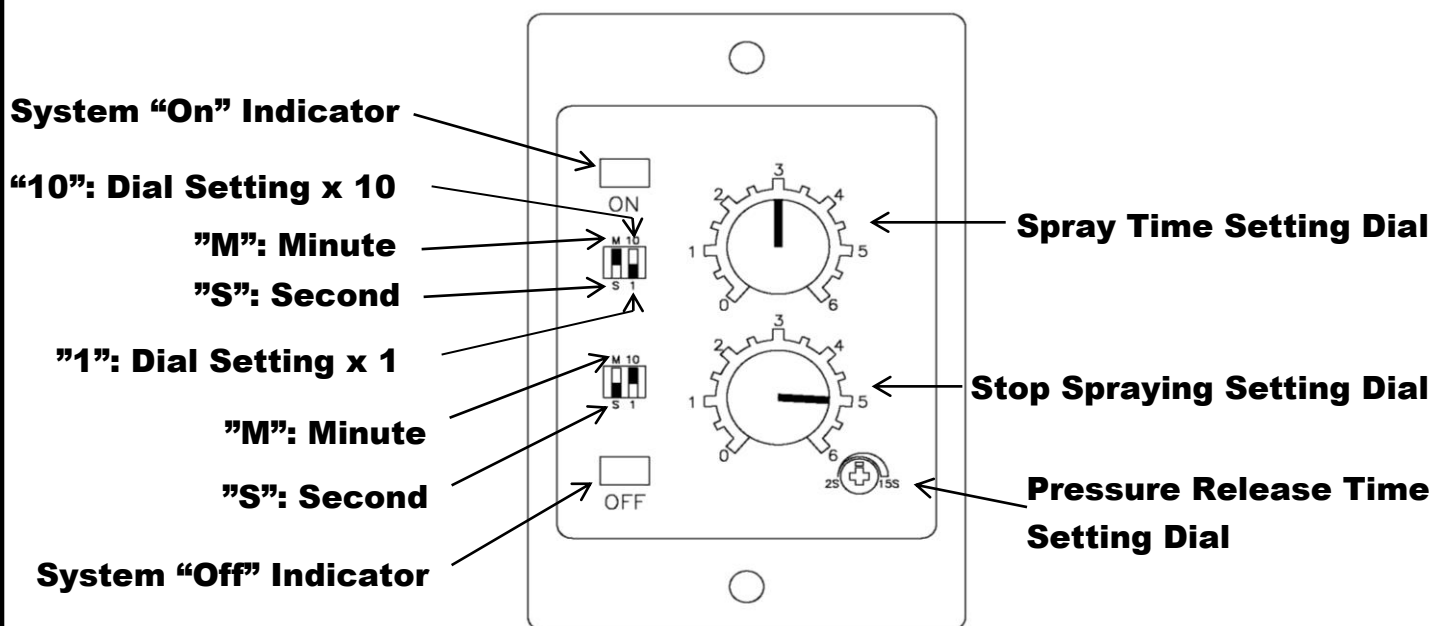
Attention:

1. When using the pipeline for the first time, please open the end connector or ball valve to clean the pipeline and avoid nozzle blockage.
2. When installing the pipeline, please pay attention to the installation direction.

	管固定片		接頭固定片
	SST-03		SST-04
	Pipe Fitting		Connector Fitting

Twin Timer Instruction

I. Parts of the Timer



II. Setting The Spray And Stop Intervals

【Example】 How to make the "Spray 3 minutes and stop 50 seconds" setting:

⊙ Setting the spraying time:

1. Use the "**Spray Time Setting Dial**" and turn it to 3.
2. Set the switch to the left of the Spray Dial to "M" for minutes.
3. Set the switch to "**1**" to get one time setting.

The system will spray for 3 minutes.

⊙ Setting the stop spraying time:

1. Use the "**Stop Spraying Setting Dial**" and turn it to 5.
2. Set the switch to the left of the Stop Dial to "**S**" for seconds.
3. Set the switch to "**10**" to get ten times setting.

The system will remain stopped for 50 seconds.

※Note: The minimum stop time is 15 seconds in order to protect the machine.

III. Setting the Pressure Release Time

1. The maximum pressure release time is 15 seconds. The stop spraying time must be longer than pressure release time in order to make sure the two actions do not overlap.
2. The longer misting line, the more pressure release time is needed.

IV. Turning On / Off the Misting System

Press the power switch "On" & "Off" to start & stop the machine.

V. Dry Run Stop

The "On" & "Off" indicator lights will be off even though the power switch is turned on. The misting system will stop running automatically when the water supply to the pump is stopped. Never attempt to run the pump without water. Please make sure the water supply is sufficient before restarting the pump.

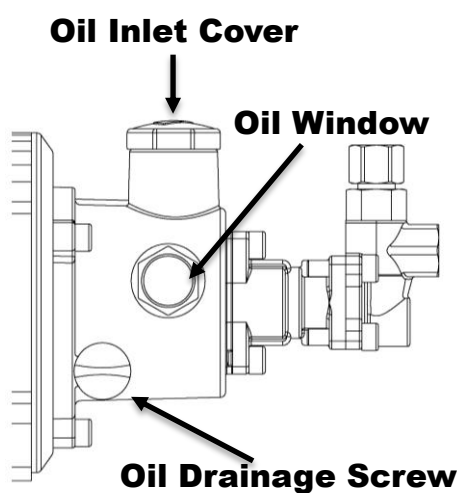
Routine Maintenance

I. Routine Maintenance Schedule

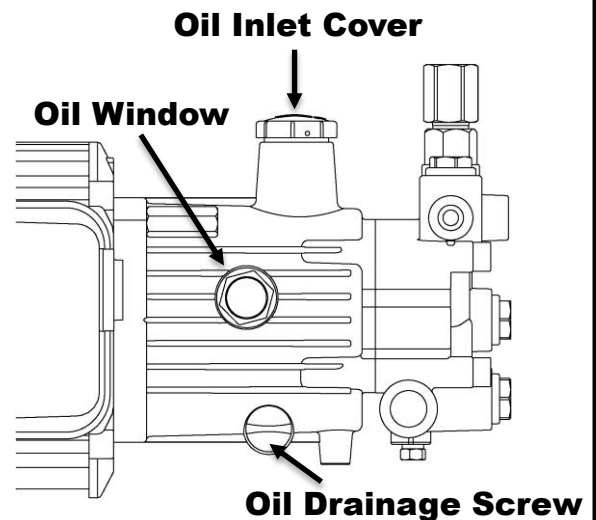
Make sure maintenance procedures are followed as required.

Description	Action	Frequency
Pump	Check oil level	Before every use
Filter	Clean	Every 15 days
Pipe/Hose/Nozzle	Clean	Every 15 days or as necessary

II. Changing the Pump Oil



WM Series Misting Pump



WN Series Misting Pump

	WM Series	WN Series
Machine Oil Type	SAE 30~40	
Oil Volume	80 cc	350 cc
Change Timing	1. First 30~50 hours of use 2. Every 100~200 hours of use	

1. Open the oil cover.
2. Unscrew the oil drainage screw. Prepare a container or a tray to catch oil as it comes out of the pump. When the oil stops draining, please refasten the screw.
3. Take off the oil inlet cover. Refill with SAE 30~40 oil according to the oil volume indicated above. Make sure the oil level is up to the middle of the oil window.
4. Refasten the oil inlet cover.



Attention:

1. Do not change oil immediately after using the misting system. The oil will be hot and might cause personal injury.
2. If the oil level exceeds the middle of the oil window, the oil may splash out when the pump is running, causing machine failure.

III. Cleaning of nozzles, flexible misting hoses and stainless steel pipes

1. **Nozzles:** Unscrew the spray tip from the nozzle body. Clean the area around the orifice.
2. **Misting Line:** Open the end connector or ball valve, operate the misting system, and let the water flow out for 2 to 3 minutes.

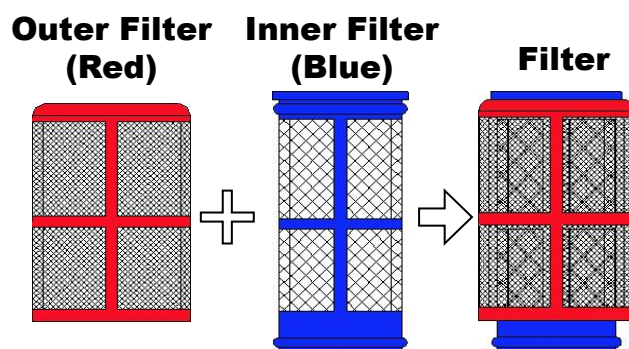
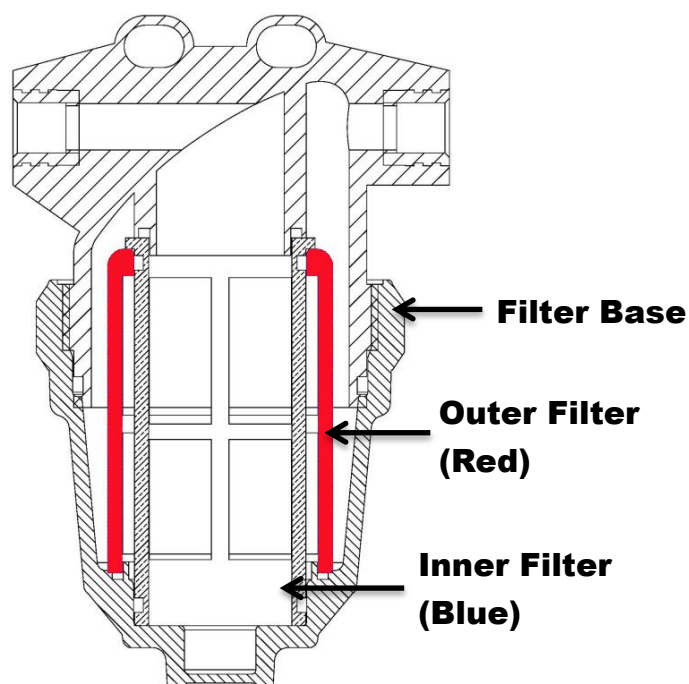
IV. Cleaning of the Filter

1. Loosen the filter cover.
(Counterclockwise)
2. There are 2 steel meshes inside. After pulling the red one apart, the blue one will also be removed at the same time.
3. Pull the blue one upwards; the red and blue one will separate.
4. Use a soft brush to clean the steel mesh and rinse it with clean water.
5. Put it back together in order and it can be used again.



Attention:

Please pay attention to the upper and lower position order of the filter meshes when disassembling. If the meshes are installed in the reverse order of removal, please correct them immediately. Improper installation may cause water leaks due to water pressure.



Storage

I. If the mist system won't be in use for a long time, follow the steps below before storing it.

1. Unplug the power cord from the socket.
2. Turn off the water supply and remove the water inlet hose.
3. If your model has a water tank, drain it and refasten the drain plug.
4. Open the cover, drain the water in the inlet filter, clean the filter, reinstall the cleaned filter, close the cover and tighten the knobs securely.

II. Storage

1. Out of reach of children and away from hazardous conditions.
2. A flat, dry and clean place that is not exposed to direct sunlight.

Troubleshooting

In case of problems or irregular performance, please check the table for the possible cause and related solution. If the problem persists or you have any questions, please contact your dealer. When making inquiries, please specify the **model** and **serial number** of your machine.

Problem	Cause	Solution
Motor does not start; or starts & runs rough	<ul style="list-style-type: none"> ● No power supply. ● Low voltage. ● Insufficient water pressure. 	<ul style="list-style-type: none"> ● Check the power cord and power supply. ● Check voltage. ● Check water inlet pressure. ● Check the pressure switch.
Loud noise; unusual noise	<ul style="list-style-type: none"> ● There is a power supply problem. ● There is air in the pump. ● The valve assembly is blocked. ● Insufficient water supply. ● Packings damaged. 	<ul style="list-style-type: none"> ● Check the voltage. ● Clean the valve assembly. ● Press the Air Release Button/ Valve. ● Clean the inlet filter. ● Replace packings.
Motor stops running	<ul style="list-style-type: none"> ● The Circuit Breaker is triggered. ● Insufficient voltage. 	<ul style="list-style-type: none"> ● Check the voltage. ● Check the inlet hose. ● After completing all the above checks, wait for the motor to cool down then press the circuit breaker. ● Contact your local dealer.
Pump does not suction or discharge water	<ul style="list-style-type: none"> ● Air in the pump or misting line. ● The pump is damaged. ● The inlet filter or nozzle is clogged. ● The valve assemblies are stuck or worn out. ● Too many nozzles in use. ● Mist line is too long. 	<ul style="list-style-type: none"> ● Press the Air Release Button/ Valve. ● Unfasten the system outlet; let water run 2 to 3 minutes. ● Clean the inlet filter and nozzles. ● Clean or replace the valve assemblies. ● Contact your local dealer.
Pressure does not reach the set pressure	<ul style="list-style-type: none"> ● Nozzle wear causes excessive water output. ● Too many nozzles in use. ● Pump failure. 	<ul style="list-style-type: none"> ● Replace nozzle. ● Reduce the nozzles to ones with smaller orifice. ● Reduce length of misting line. ● Contact your local dealer.
Unstable output	<ul style="list-style-type: none"> ● Nozzle blocked. ● Air in the pump. ● Inlet filter blocked. 	<ul style="list-style-type: none"> ● Clean nozzle & inlet filter. ● Press the Air Release Button/ Valve. ● Check water supply. ● Contact your local dealer.