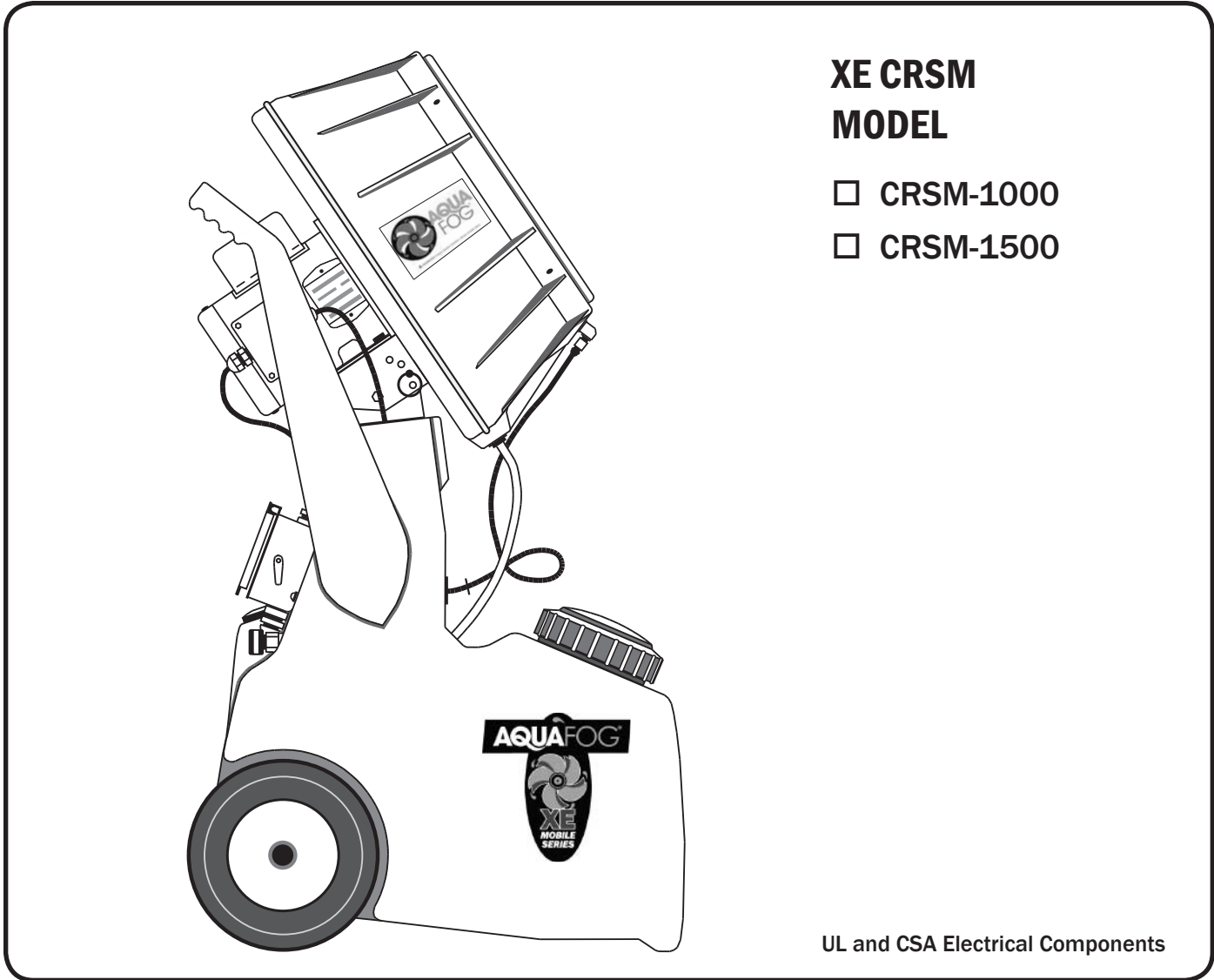




XE MOBILE ATOMIZER

USER'S MANUAL AND OPERATING INSTRUCTIONS



XE CRSM MODEL

- CRSM-1000
- CRSM-1500

UL and CSA Electrical Components

OPERATOR'S MANUAL



NOTICE

**Read & Understand
Retain for Future Reference**

TABLE OF CONTENTS

	PAGE
General Safety	3
Getting Started	4
Testing and Controls	5
Pre-Set Flow Rate	6
Chemical Dilution	7
Placement and Setup	8
Treatment Procedure	9
Clean-up/ Maintenance	10
Troubleshooting	11 - 12
Aquafof Fan Exploded View	13 - 14
CRSM Tank Exploded View	15 - 16
Electrical Schematics	17
Warranty	18

DESCRIPTION


Aquafof CRSM mobile units are intended to condition large volumes of air by atomizing chemical and water mixtures in air temperatures between 31° and 145°F. Any other use of these units will void the warranty and the manufacturer will not be responsible for problems or damages resulting from misuse.

Notes


SAFETY GUIDELINES

This manual contains very important information. This information will help ensure SAFETY and PREVENT EQUIPMENT PROBLEMS. Use these symbols to understand safety guidelines.

 **DANGER** DANGER INDICATES AN IMMEDIATELY HAZARDOUS SITUATION WHICH, IF NOT AVOIDED, WILL RESULT IN DEATH OR SERIOUS INJURY.


 **WARNING** WARNING INDICATES A POTENTIALLY HAZARDOUS SITUATION WHICH, IF NOT AVOIDED, COULD RESULT IN DEATH OR SERIOUS INJURY.

 **CAUTION** CAUTION INDICATES A POTENTIALLY HAZARDOUS SITUATION WHICH, IF NOT AVOIDED, MAY RESULT IN MINOR OR MODERATE INJURY.

 **NOTICE** NOTICE INDICATES IMPORTANT INFORMATION, THAT IF NOT FOLLOWED, MAY CAUSE DAMAGE TO EQUIPMENT.

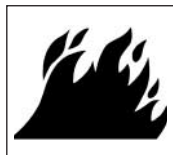
GENERAL SAFETY

Since the mobile CRSM uses high-speed components to atomize liquids, the following safety precautions must be observed at all times:

1. Read all manuals included with this product. Be familiar with the product and controls. 
2. The CRSM is intended to be used on level ground. Test for stability before operation.
3. Follow United States Environmental Protection Agency (EPA) guidelines and regulations when fogging pesticide or chemical solutions.
4. Follow all local electrical and safety codes as well as the United States National Electrical Codes (NEC) and Occupational Safety and Health Act (OSHA).
5. Only persons well acquainted with these rules of safe operation should be allowed to use the atomizer.
6. Keep visitors away and NEVER allow children in the work area.
7. Use of an extension cord for the CRSM is not recommended. If necessary, refer to the A.W.G chart in the following section or consult a certified electrician.
8. Before each use, inspect blade assembly and electrical components for signs of damage, deterioration, weakness or leakage. Repair or replace defective items before using.
9. Check all fasteners at frequent intervals for proper tightness.
10. Keep fingers away from a running unit; fast moving and hot parts will cause injury and/or burns.

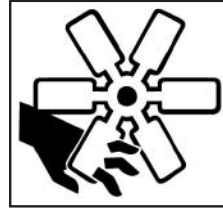
WARNING

MOTORS, ELECTRICAL EQUIPMENT AND CONTROLS CAN CAUSE ELECTRICAL ARCS THAT WILL IGNITE FLAMMABLE LIQUID OR GAS. NEVER OPERATE OR REPAIR IN OR NEAR FLAMMABLE LIQUID OR GAS. NEVER STORE FLAMMABLE LIQUIDS OR GASES IN THE VICINITY OF THE ATOMIZER.



DANGER

HIGH-SPEED ROTATION



A motionless atomizer may appear safe, but its blade could suddenly begin high-speed rotation without warning as a result of control programming.

When the CRSM is automated by controls, warning signs should be posted near the high-speed equipment.

Disconnect and lock out power source to inspect or service the unit.

WARNING

NEVER OPERATE CRSM WITHOUT THE SAFETY GUARD


IN PLACE UNLESS THE UNIT IS RAISED SEVEN FEET ABOVE WORKING HEIGHT.

11. If the equipment starts to vibrate abnormally, STOP the motor and check immediately for the cause. Vibration is generally an indication of trouble.

Fogging Precautions

DANGER

POTENTIALLY HAZARDOUS CHEMICAL VAPORS

12. Avoid exposure to hazardous chemicals. Wear a respirator and protective clothing: goggles, gloves, long sleeves and pants, etc. 
13. Read and understand all directions and safety precautions before operating CRSM. Follow all E.P.A. guidelines for chemical/pesticide use.
14. **NO** humans or animals should be in the area during chemical/pesticide application. **SERIOUS INJURY OR DEATH COULD OCCUR!**
15. Follow chemical manufacturer's instructions regarding length of restricted entry interval (**REI**).

GETTING STARTED

UNPACKING CHECKLIST ✓

⚠ WARNING DO NOT OPERATE UNIT IF DAMAGED DURING SHIPPING, HANDLING OR USE. DAMAGE MAY RESULT IN BREAKAGE AND CAUSE INJURY OR PROPERTY DAMAGE.

- ✓ Un-crate carefully and position CRSM on level ground.
- ✓ Save crate and packing materials until evaluation and testing are complete.
- ✓ Read manual carefully and understand all instructions.
- ✓ Do not connect power until after thorough inspection and filling the sump with liquid.
- ✓ After filling the unit with some liquid, inspect for leaks.
- ✓ Never operate without liquid in tank.
- ✓ Be sure guards are securely in place and warnings are clearly visible.
- ✓ Check power supply for correct voltage.

ELECTRICAL

⚠ WARNING GROUND FAULT RECEPTACLES ARE RECOMMENDED AND MAY BE REQUIRED BY LOCAL AND/OR NATIONAL CODE.

⚠ NOTICE USE OF AN EXTENSION CORD IS NOT RECOMMENDED. IF NECESSARY, REFER TO FIG. 12.

Fig. 12

EXTENSION CORD SPECIFICATIONS*		
FOR SINGLE FAN USE ONLY • (AWG - American Wire Gauge)		
Voltage	25 to 50 ft.	50 to 100 ft.
115	14 AWG	12 AWG
230	16 AWG	14 AWG



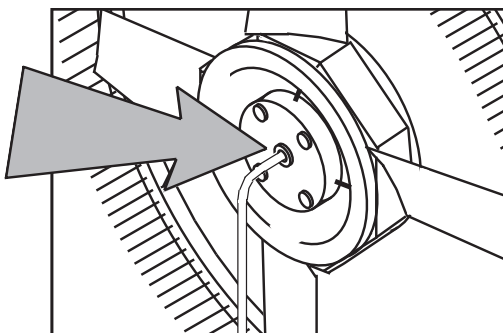
*Grounded and suitable for outdoor use.

UNIT PREPARATION

Visually check to make sure that the critically important liquid feed tube (Part #6) has maintained its center position, partially inserted into the blade assembly. Re-position if necessary. (See Fig. 1)

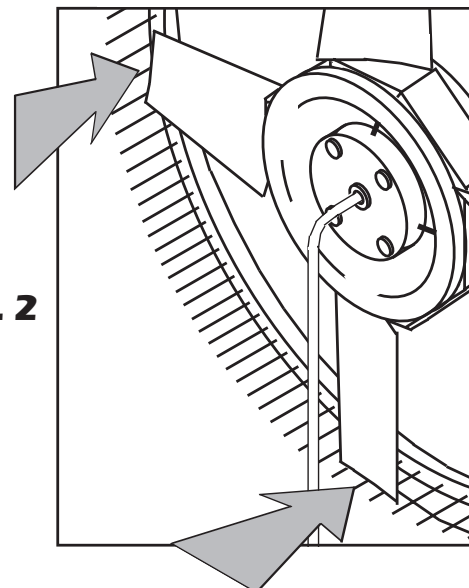
Visually check to make sure the blades can rotate freely without touching any venturi pins. There should be approximately 1/4" space between the pins and the blades. (See Fig. 2) Do Not operate if blades may hit pins. Refer to troubleshooting for adjustments.

Fig. 1



⚠ WARNING ENSURE THE BLADE ASSEMBLY IS CENTERED INSIDE THE PINNED VENTURI. ADJUST MOTOR AND BLADE AS NECESSARY.

Fig. 2



TESTING AND EVALUATION

⚠ DANGER

BEFORE TESTING FAN MAKE SURE ALL OBJECTS ARE OUT OF THE ROTATION PATH OF THE FAN BLADES. HIGH-SPEED WARNING. KEEP HANDS CLEAR! MAKE SURE GUARDS ARE INSTALLED OR UNIT IS OUT OF REACH.



- ▶ For first-time evaluation, fill tank (with water only) about one quarter full.
- ▶ Connect to power supply.
- ▶ BUMP START CRSM and check for proper fan blade rotation (clockwise if looking at front of unit). If incorrect, find rotation connection changes on the motor's electrical schematic.

⚠ CAUTION

CAREFULLY LISTEN FOR UNUSUAL NOISE OR VIBRATION.

- ▶ Turn on the unit and listen for any possible abnormalities, such as the blades rubbing against the venturi. Make re-adjustments if necessary.
- ▶ Evaluate fog quality adjusting the output by using the flow control valve. (See Fig. 3). After starting, it generally takes several seconds for the liquid to reach the atomizing fan.

CONTROLS/ FEATURES

Flow Control/ Strainer/ Pivot

The volume of fog can be regulated by adjusting the Flow Control Valve. (See Fig. 3)

Particle size is smaller at lower outputs, so it is better to operate the unit at a lower output for longer periods of time.

At the base of the plumbing is an in-line strainer with a removable cap. Periodically check inside and flush any sediment from the screen. (See Fig. 3)

The CRSM is equipped with a four position pivoting fogging head with 15° intervals up to 45°. Propelling the fog upward allows more time for the particles to evaporate, keeping floor areas drier.

When making an adjustment, balance the weight of the fogging head off of the pin for easy removal. (See Fig. 4)

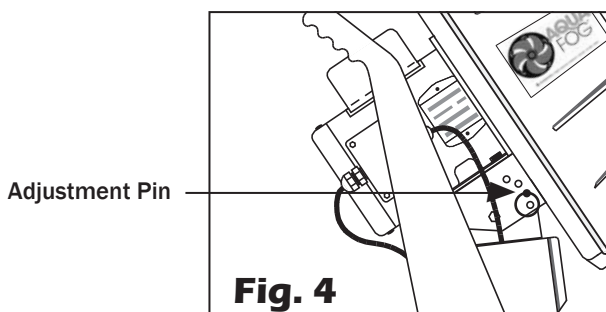
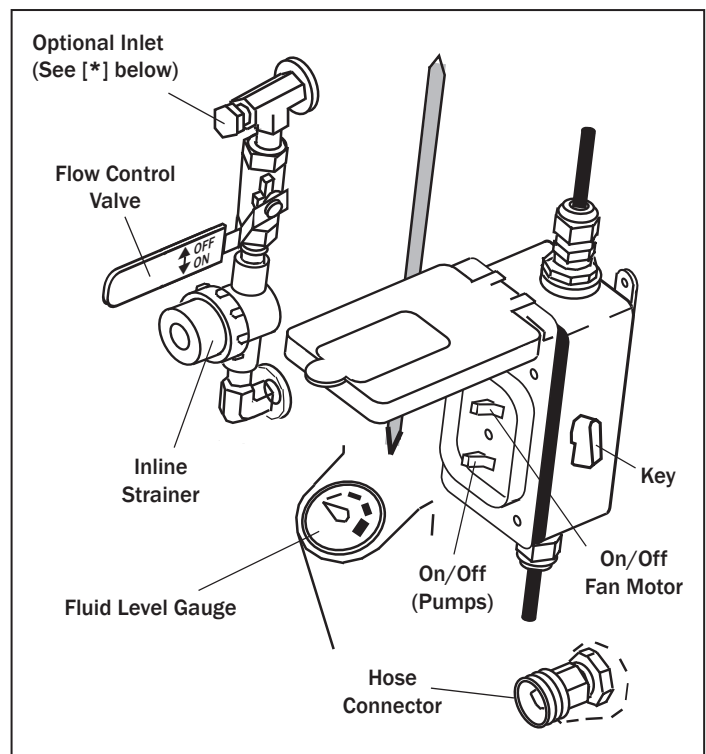


Fig. 3



* Connect unit's plumbing directly to a metering pump (with 3/8" tube fitting provided). This provides a way to feed chemical concentrate to the CRSM.

FLOW RATE (FACTORY PRE-SET)

NOTICE

AUTOMATIC PRIMING OF THE SYSTEM OCCURS THROUGH THE FLOW RATE VALVE, SO IT SHOULD NEVER BE ADJUSTED TO FULLY CLOSED.

The Flow Rate (at full open) is pre-set at 5 GPH

This pre-set flow rate will accommodate most users. However, this flow rate can easily be changed to achieve the customer's desired fogging output. Outputs usually vary based on the treatment time. Most common ones are:

3 GPH ~ Overnight Treatments

5 GPH ~ Time Sensitive Treatments

CRSM-1000 min/max range is 1 to 14 GPH.

CRSM-1500 min/max range is 2 to 8 GPH.

Optionally, connect an appropriately - sized metering pump to regulate chemical product once a flow rate has been chosen and set.

The KEY is needed to make changes

You will need the KEY located on the side of the electrical control box to make changes (see Fig. 5). Slide this key on top of the flow valve's stem (see Fig. 6) to make your adjustment.

To calibrate a New Flow Rate

Fill the unit's tank with water only and disconnect the small 1/4" black plastic tubing at the bottom of the fan housing (See Fig. 5).

Use a measuring cup and turn on only the feed pump for a 60 second interval while catching the water from the feed tube. Multiply ounces of water by 60 and then divide by 128. This will give you your GPH rate.

Example:

1 minute/ (6.5 ozs. x 60 ÷ 128 = 3 GPH)

DO not leave KEY on valve

Regular cleaning and/or maintenance inside the tank will likely move the setting and cause problems to your pre-set flow rate. Return the KEY back to its storage location when finished.

Fig. 5

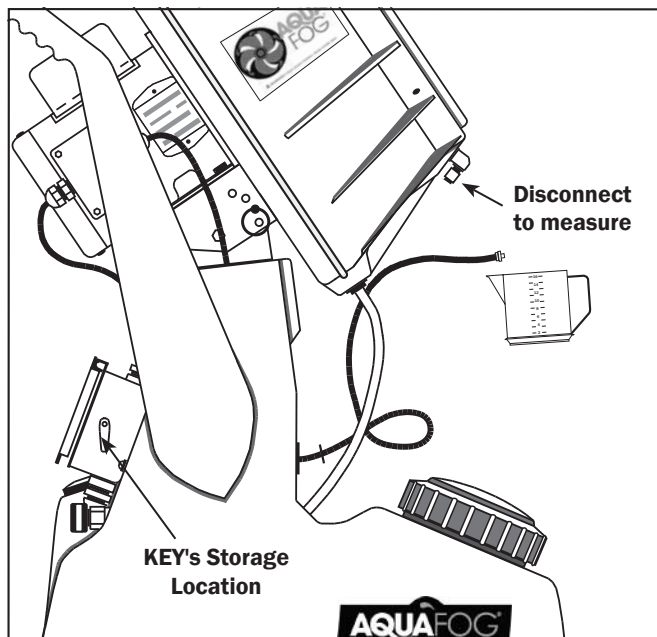
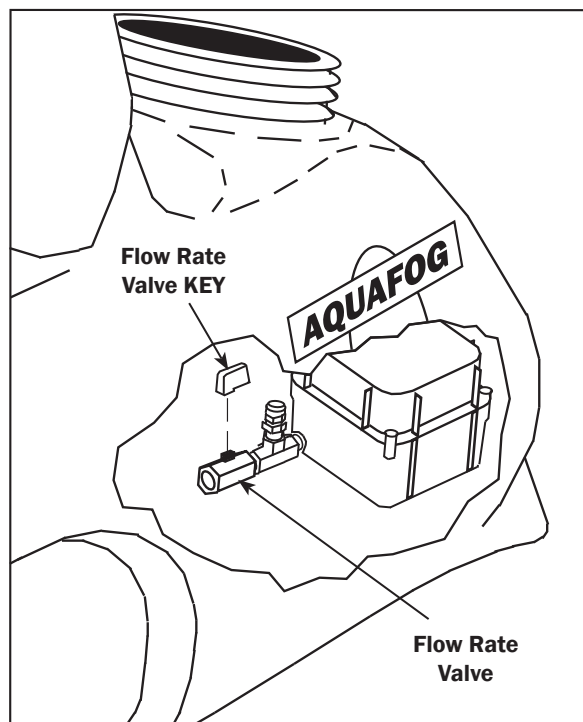


Fig. 6



CHEMICAL DILUTION (FOR FUMIGATION)

"ULV" - SUMMARY

ULV (Ultra Low Volume) refers to the amount of water needed to mix and disperse chemical solution evenly. Typical sprayers use small water droplets to carry the chemical solution to its intended source. That spraying process requires much more water than a ULV method to treat an equal amount of area.

CRSM's atomization process produces billions of tiny fog particles laced with chemical. These fog particles are propelled with great force and quickly evaporate out most of their water content, leaving behind small particles of pure chemical residue. These airborne micro-sized particles of residue will float in all directions until eventually making contact and coating most surfaces evenly.

Conventional spraying requires: about 3.5 gallons of water / every 1,000 square feet of greenhouse.

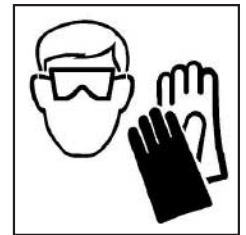
Low-Volume application requires: about 0.25 gallons of water / every 1,000 square feet.

CRSM DILUTION



CAUTION

WEAR GOGGLES & RUBBER GLOVES WHEN HANDLING CHEMICALS.



1. Determine the square footage of the area to be treated.
2. Refer to the chemical's label to determine its dilution formula:
 - (A) Pounds of chemical needed per acre
 - (B) Ounces of chemical per 100 gallons of water applied by conventional spray nozzles

If (A) Convert the pounds into ounces. Divide the ounces by 4.36 [43,560 sq. ft. per acre]. This will determine the amount of chemical needed to cover 10,000 square feet.

Example: A chemical labeled at 2 pounds per acre.

$2 \text{ lbs.} \times 16 \text{ ozs.} = 32 \text{ ozs.} \div 4.36 = 7.33 \text{ ozs. per } 10,000 \text{ square feet of greenhouse OR}$

$2 \text{ lbs.} \times 16 \text{ ozs.} = 32 \text{ ozs.} \div 43.6 = .73 \text{ ozs. per } 1,000 \text{ square feet of greenhouse}$

If (B) Multiply the number of ounces by .035. This equals amount needed to treat 1,000 square feet.

For example, if treating 8,000 square feet:

$12 \text{ ozs per } /100 \text{ gals} \times .035 = .42 \text{ ozs} \times 8 = 3.36 \text{ ozs. (amount of chemical needed in just a few gallons of water)}$

- This is based on average use of 3.5 gallons for every 1,000 square feet using conventional spray nozzles.



Bottom Line and Rule of Thumb

Regardless of the application method, you will need the same amount of chemical.

The difference is:

Conventional spray nozzles require lots of water.

(because the spray is being used to carry the chemical to the product)

CRSMs need only a few gallons of water.

(because 1 hour is generally enough time to fumigate the chemical mixture into the atmosphere)

PLACEMENT AND SETUP

When to Apply Treatment

The BEST time for a pesticide application is at dusk, when the air is cooling off. Another good time is at early dawn before the sun warms up the area.

What to Expect

During fogging operation, millions of small fog particles will quickly evaporate into microscopic sticky chemical residue. This invisible fumigation will circulate quickly and engulf the entire enclosed air space, lightly covering all surface areas. Although you will not be able to see this movement, the movement would closely resemble a similar release and circulation of ambient temperature smoke.

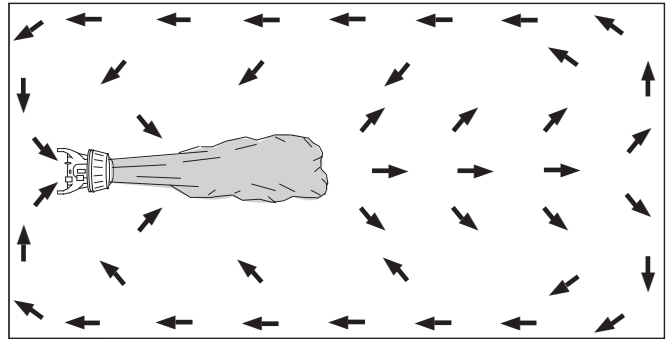


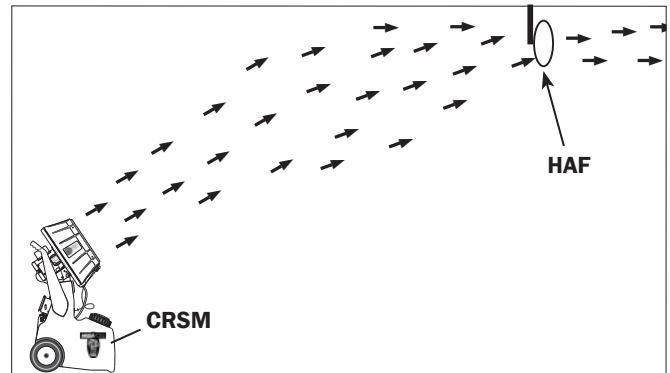
Fig. 7

► Close Up the Structure

Fumigation can only work in a closed environment. All openings to the exterior need to be closed.

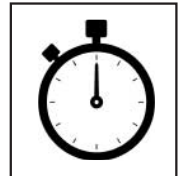
► Pivot Fogging Head Up

Pivot the fogging head upward into large open air space away from the foliage. If greenhouse is equipped with Horizontal Airflow Fans (HAF), simultaneous operation of CRSM and HAFs will enhance circulation and even out the treatment. Position HAFs where they'll be most effective. (See Fig. 7)



► Treatment Time

Calculate how long it will take the tank to empty and then add an additional 30 to 60 minutes to ensure an empty tank and aid in circulation. Both CRSM pumps are engineered to operate un-submerged. However, running them dry for too many hours can shorten the life of pumps over time. (See Fig. 8)



Fogging at 5 GPH (full throttle - factory pre-set flow rate) = Fine/ Dry Output with Fast Treatment Time

Fogging at 3 GPH (half throttle or custom flow rate) = Very Fine/ Vapor Output with Longer Treatment Time

► Automation

Set up the time clock to automatically turn off the system if desired.

Fig. 8

FOGGING @ 5 GPH			FOGGING @ 3 GPH		
Amount of Solution	Est. Discharge Time	Treatment "On Time"	Amount of Solution	Est. Discharge Time	Treatment "On Time"
2 gallons	25 min	1 hr	2 gallons	50 min	1 - 1/2 hrs
4 gallons	50 min	1 - 1/2 hrs	4 gallons	100 min	2 hrs
6 gallons	75 min	2 hrs	6 gallons	150 min	2 - 1/2 hrs

TREATMENT PROCEDURE



DANGER

FOLLOW E.P.A. SAFETY INSTRUCTIONS AND GUIDELINES FOR PESTICIDE AND CHEMICAL USE.



DANGER

NO HUMANS OR ANIMALS SHOULD BE IN THE TREATMENT AREA DURING APPLICATION.



DANGER

WEAR PROTECTIVE CLOTHING INCLUDING GLOVES, HOOD ETC. WHEN HANDLING CHEMICALS.



NOTICE

USE ONLY ON PLANTS MARKED SAFE FOR PESTICIDE USE.



PREPARATION

1. Read all instructions.
2. Post warnings on entrances to the treatment area.
3. Close structure's vents and doorways.
4. Complete placement and setup (refer to **Page 8**).
5. Turn on available HAFs.
6. Ensure CRSM has been **tested** (operated with water only).
7. Connect time clock and set it to turn the unit off (optional, refer to **Page 8**).



PROCEDURE

1. Turn on **ONLY** the CRSM's pumps (unit's lower power switch).
2. Confirm agitation of the water inside the tank.
3. Confirm operation of feed pump (water trickling out of stationary blade assembly).
4. In a small bucket, thoroughly pre-mix the chemical with some water.
5. **When Ready!** Slowly pour the pre-mixed chemical into the tank's agitated water.
6. Replace the tank's lid.
7. **TURN ON FOGGING HEAD** (unit's upper power switch) and **immediately leave area** (unless wearing protective gear with a respirator).



RE-ENTRY

1. The CRSM has been turned OFF.
2. Once OFF, the chemical's re-entry time period (REI) begins. The REI can be found on the chemical's label and is generally 6 or more hours.
3. After the REI, enter the area and open up vents and doorways and turn on ventilation.
4. Check the CRSM for an empty tank.
5. Clean the unit for future use (refer to next page).



Checking for Results and Evaluating Coverage

If using liquid chemicals, checking for results is the only viable evaluation. If using wettable powders, evaluate coverage by scattering clear cellophane sheets throughout the area in advance of a treatment. Upon re-entry, examine the cellophane under light for differences in deposit intensity.

AFTER TREATMENT CLEAN-UP



WARNING

DISCONNECT AND LOCK OUT POWER SOURCE BEFORE SERVICING

NOTICE

IMPORTANT!
CLEAN UNIT
SHORTLY AFTER EACH TREATMENT.



1. Clean CRSM

DO NOT allow remaining chemical deposits to dry inside the unit (especially wettable powders). This will cause major clogging issues.

2. Take Outside

Using a garden hose, clean strainers: the in-line strainer (Part #71) on the back and the drain strainer (Part #39) at the end of the drain tube leading from fan housing to tank. (See Fig. 9)

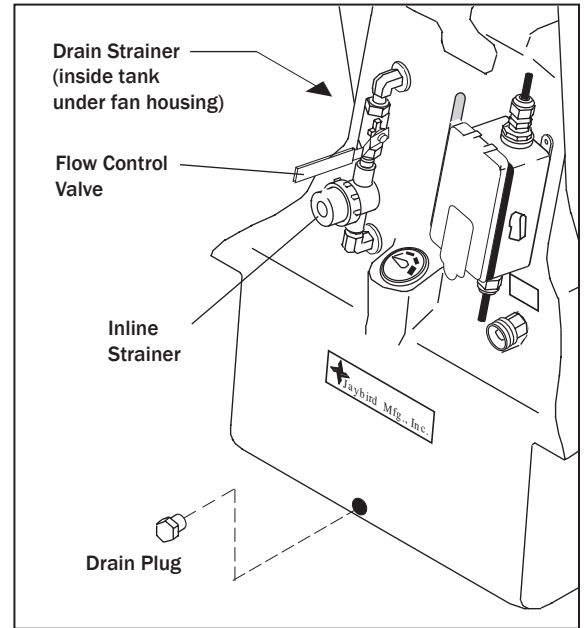
3. Flush Tank

Remove tank's drain plug (Part #351) to flush all sediment from tank and around pumps.

4. Operate with Water

After rinsing, re-install strainers and run the unit with fresh water and throttle the flow control valve open and closed a few times. When finished, drain remaining water and secure drain plug.

Fig. 9



GENERAL MAINTENANCE

► **Inspect Blade Assembly**

Clean the blade assembly about once a year, especially if a film of calcium or mineral deposits is visible on the exterior of the blades. Remove any build-up from the blades and any debris from blade passageways. While cleaning, inspect for irregularities or hairline cracks and replace as necessary.

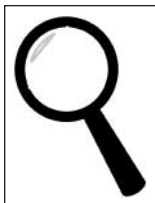
► **Winter Storage**

Protect your mobile Aquafog from winter damage. Expansion due to freezing can burst the fittings or the internal feed pump. If storing unit in below freezing temperatures, be sure all fluid is drained from the tank area. Damage due to freezing is not covered under warranty.

► **Lubricate Main Motor**

The main motor is a permanently lubricated motor, but it is beneficial to apply spray oil around the shaft where it exits the motor body. Lubricate motor once a season or whenever squealing occurs.

TROUBLESHOOTING



WARNING

***BEFORE INSPECTION AND/OR SERVICE
DISCONNECT AND LOCK OUT POWER SOURCE.***

1. Poor/Inconsistent Fogging Output

- A.) Inconsistent or spotty chemical coverage usually occurs because the fog volume output is too high. Ideally, fog will disappear when fogging at rates near 3 GPH. To check for fog volume output, refer to Maximum Pre-set Flow Rate (See **Page 6**).
- B.) Inconsistent fogging coverage may be circulation-related. To maximize circulation, check inside tank around pumps, making sure they are both free from build-up.
- C.) Ensure the SST liquid feed tube is properly inserted 1/4" into the center of the fan blade assembly.
- D.) Reservoir may be clogged. Fluid entering a clogged reservoir will spill out of the center bearing instead of entering the passageways of the fan blades. To clean, remove the blade assembly from the motor shaft and totally disassemble. Next, flush the reservoir under a sink, making sure the passageways are cleared. Check and clear the passageways for each individual blade as well. Reassemble and reattach.
- E.) It is possible for an air pocket to become caught within the plumbing. If you think this is occurring, throttle the flow control valve to wide open a few times to expel any trapped air. If the problem persists, check your pre-set flow rate valve (refer to page 6 Factory Pre-set Flow Valve). The CRSM will automatically prime the feed pump, but if the pre-set flow rate valve is in a fully closed position, the automatic priming will not occur, resulting in trapped air and poor/inconsistent fogging output.
- F.) Consistency of fogging output greatly depends on the consistency of the cleaning procedures (See Page 10). Check strainer, plumbing, and inside of tank for dried sediment or clogs.

2. Blades Rub Against Venturi

- A.) To make a horizontal adjustment, loosen the 4 bolts (Part #56) at the base of the main fan motor and shift motor side to side until centered. Retighten bolts.
- B.) To make a vertical adjustment, detach the housing by removing the 6 small bolts (Part #54). Next, loosen 4 bolts (Part #52) and make necessary adjustments. Retighten bolts and reattach housing.

3. Fan and/or Pumps Do Not Operate

Check voltage requirements on unit and electrical supply. Have a certified electrician check for live receptacle, plug, power line and toggle switch. If the fan works but one of the pumps does not, look for any loose connections inside the main motor's junction box. If there are no loose connections, the pump is probably damaged and should be replaced.

TROUBLESHOOTING (CONT.)



WARNING

**BEFORE INSPECTION AND /OR SERVICE
DISCONNECT AND LOCK OUT POWER SOURCE.**



4. No Fog

- A.) The self-priming system will usually take about 10 seconds before you see fog output. Check to see if the flow control valve is open. The valve is open when the handle is down.
- B.) Check the pre-set flow rate valve located inside the tank (refer to page 6 Factory Pre-set Flow Valve). Having the pre-set flow rate valve in either a fully closed or fully open position will result in no fog output. If the positioning is incorrect, refer to **page 6** for instructions on calibrating the pre-set flow rate valve.
- C.) Check for sediment clogs. Flush the inline strainer and check for sediment build-up around the base of the pump. Spray around the pump with a hose and drain the tank.
- D.) The pump may not be operating. Check by removing the Inline strainer cap and turning system On. If no fluid flows from the strainer, the pump may need to be replaced.

5. Unusual Noise

It is normal to hear a slight rattling noise at start-up and shut-down. This is caused by the tip of the liquid feed tube entering the center of the fan blade assembly reservoir.

6. Fan Motor Becomes Excessively Hot

The main fan motor normally becomes very hot to the touch. However, it should not get so hot that it begins to smell or smoke, nor should the power cord become hot. Discontinue operation and consult an electrician to properly evaluate the problem.

7. Electrical Breaker Tripping

If the electrical breaker trips off, there is an overload in the system and there may be a serious motor problem. Turn off all other devices connected to the same circuit. If the breaker continues to trip, the motor is probably in need of repair. Consult an electrician for evaluation.

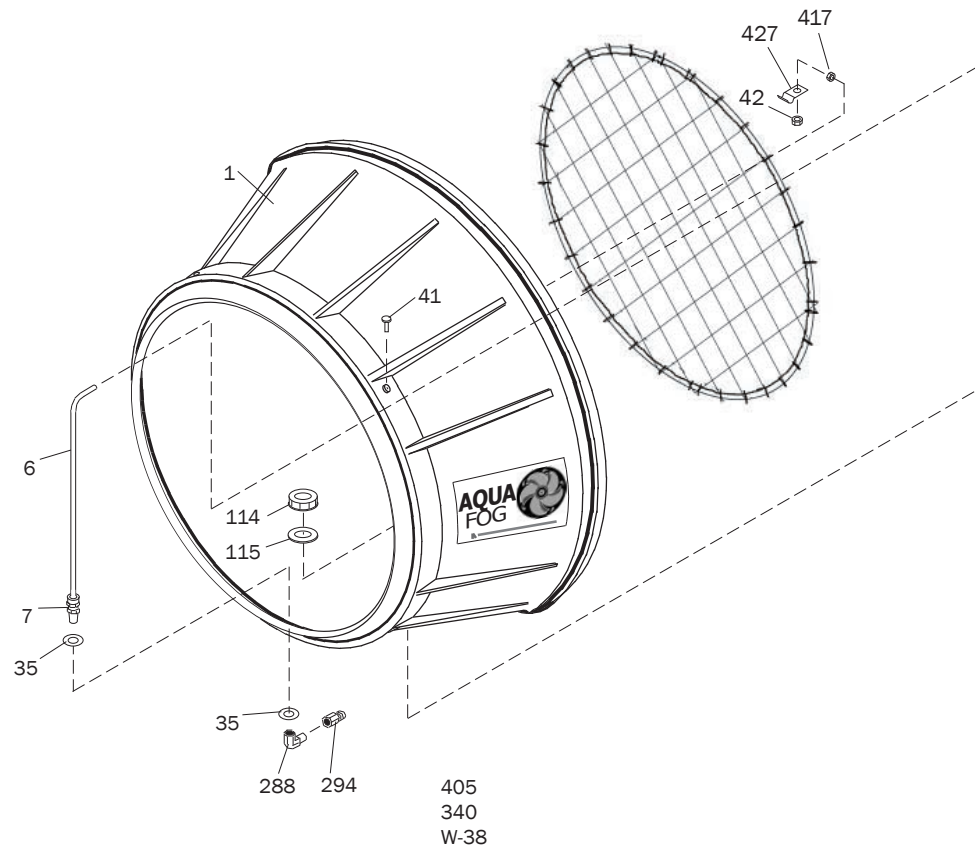
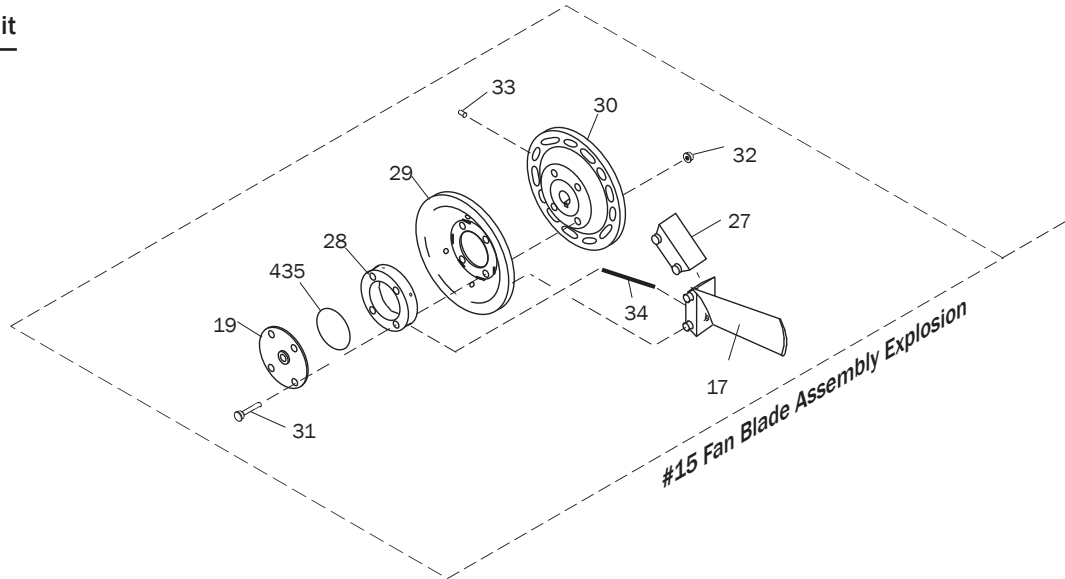
8. Fan and/or Motor Vibration

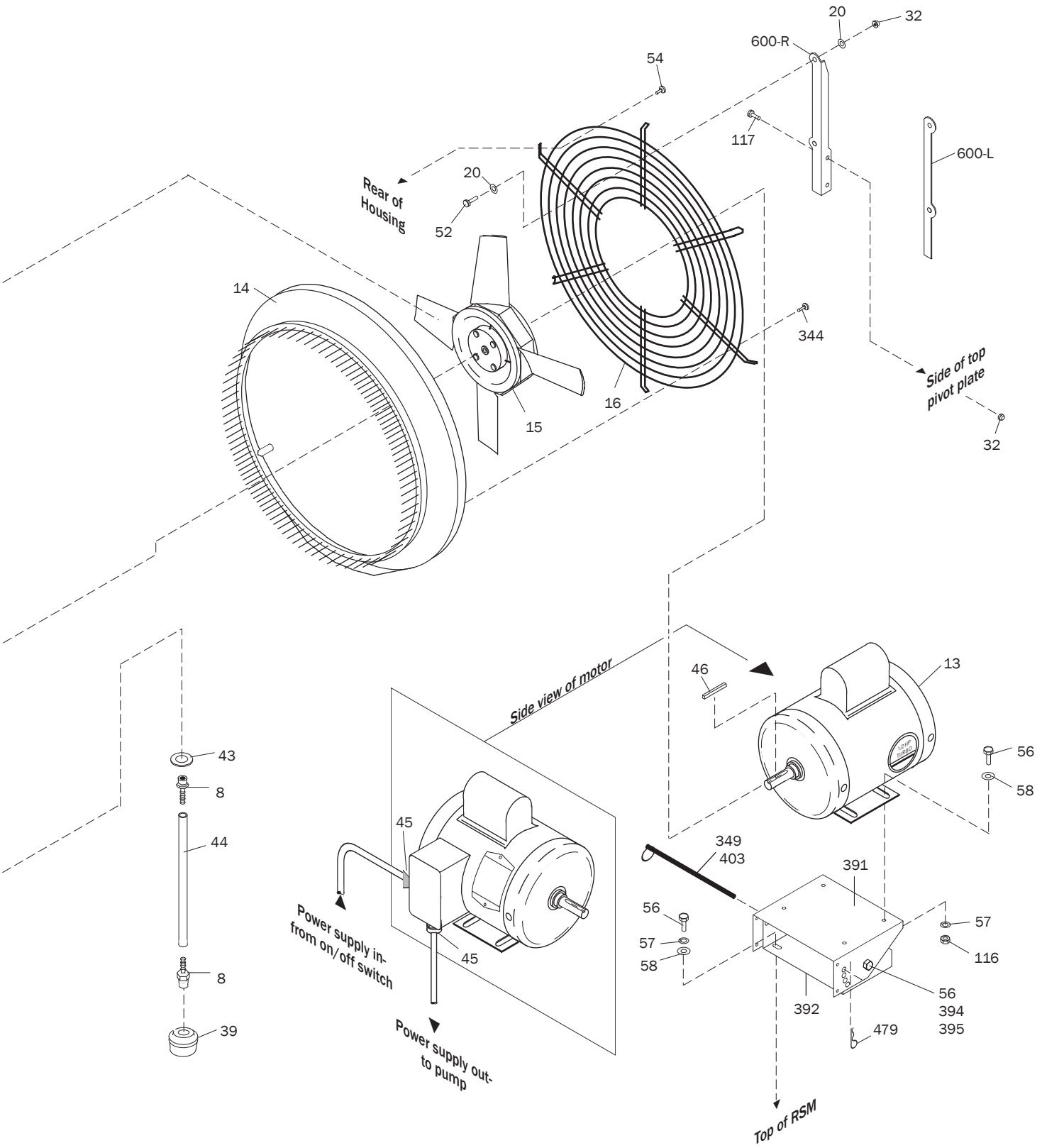
If the fan unit begins vibrating severely, first be sure the blade assembly is fully engaged and securely tightened on the motor shaft. Next, inspect the blade assembly, particularly the ends of the blades. Look for wear or cracks - replace as necessary. Look for deposits of calcium or minerals - clean and remove mineral deposits and/or calcium. Also check that the motor mounting hardware is securely tightened.

AQUAFOG FAN EXPLODED VIEW

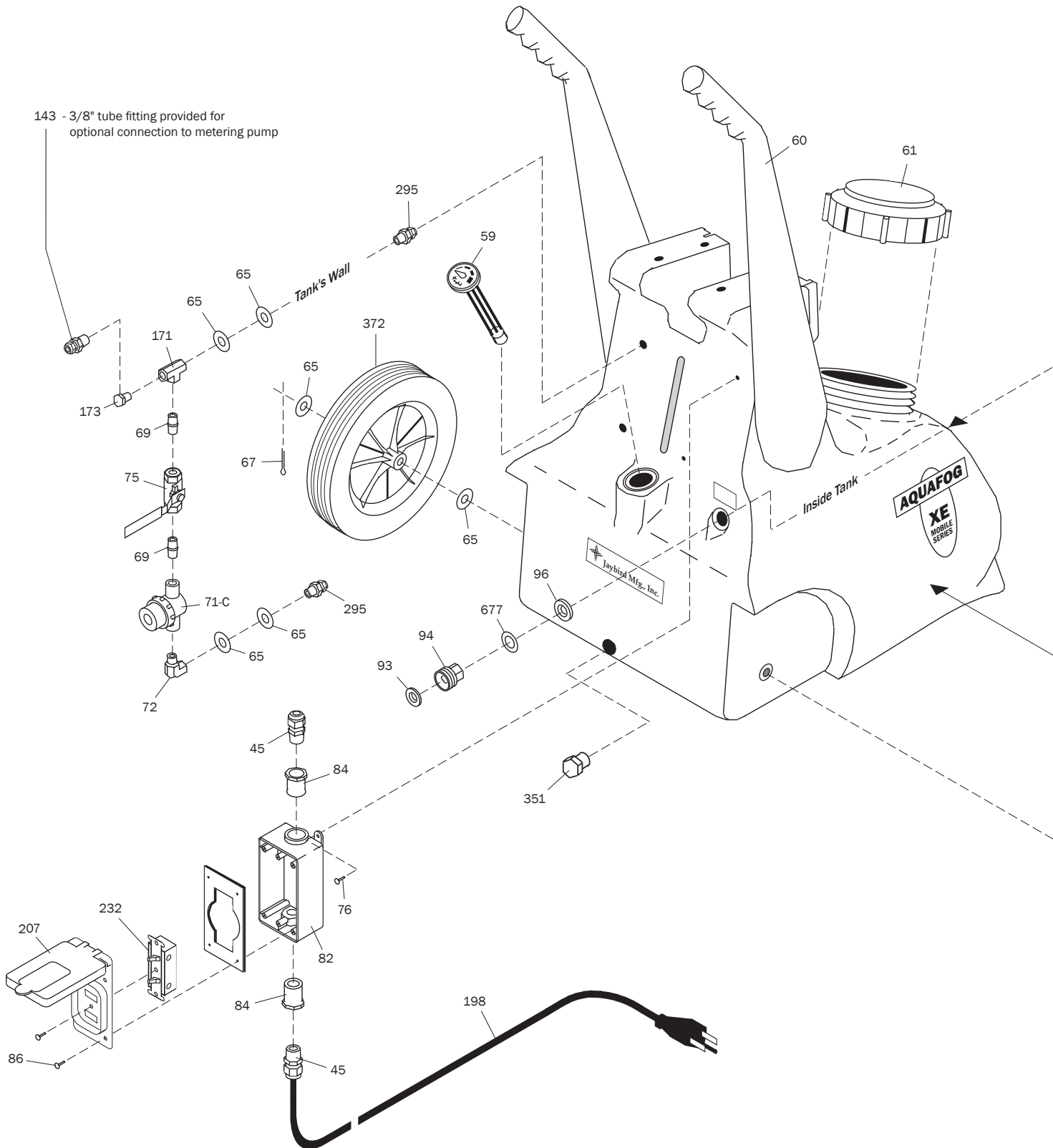
PART IDENTIFICATION

ID #	Description	Qty/Unit
1	Housing	1
2	Safety guard	1
6	SST feed tube	1
7	Liquid feed tube fitting	1
8	Drain fitting	2
12	1/4" x 1" fender washer SST	1
13	Fan motor (specify Model)	1
14	Pinned venturi assembly	1
15	Blade assembly (specify Model)	1
16	Rear guard	1
17	Fan blade (specify Model)	4
19	SST Face plate & bearing	1
20	1/4" Heavy large diameter washer	8
27	Blade spacer	4
28	Reservoir (4 hole)	1
29	Front hub	1
30	Rear hub	1
31	1/4-20 x 1 1/4" HH bolt SST	4
32	1/4-20 nylon stop nut SST	12
33	1/4-20 x 3/8" socket set screw SST	2
34	Blade feeder tube	4
35	SST washer for feed tube fitting	2
39	Drain strainer	1
40	3/32 x 3/8" aluminum pop rivet	4
41	10-24 x 1/2" phillips RH SST	4
42	10-24 nylon stop nut SST	4
43	11/16 x 1 1/4" flat washer SST	1
44	Drain tubing	3'
45	Liquid-tight cord fitting	2
46	Key	1
52	1/4-20 x 3/4" HH bolt SST	4
54	1/4-20 x 3/8" button head cap screw	6
56	5/16-18 x 3/4" HH bolt SST	10
57	5/16" lock washer SST	8
58	5/16" flat washer SST	12
114	Drain fitting nut	1
115	Drain gasket	1
116	5/16-18 finish nut SST	4
117	1/4-20 x 5/8" HH bolt SST	4
276	1/4" tubing spring clamp	1
349	5/16" brass rod	1
391	Top pivot plate	1
392	Bottom pivot plate	1
394	Brass pivot washer	2
395	5/16" nylon lock nut	2
399	Brass ring	1
403	Brass ring	1
417	Machine Nut	4
427	Safety Guard Clip	4
435	Reservoir O-ring	1
434	1/8" x 1/4" tube fitting	1
479	Hair pin SST	1
600-L	RSM support left	1
600-R	RSM support right	1
W-14	1/4" tubing	5'

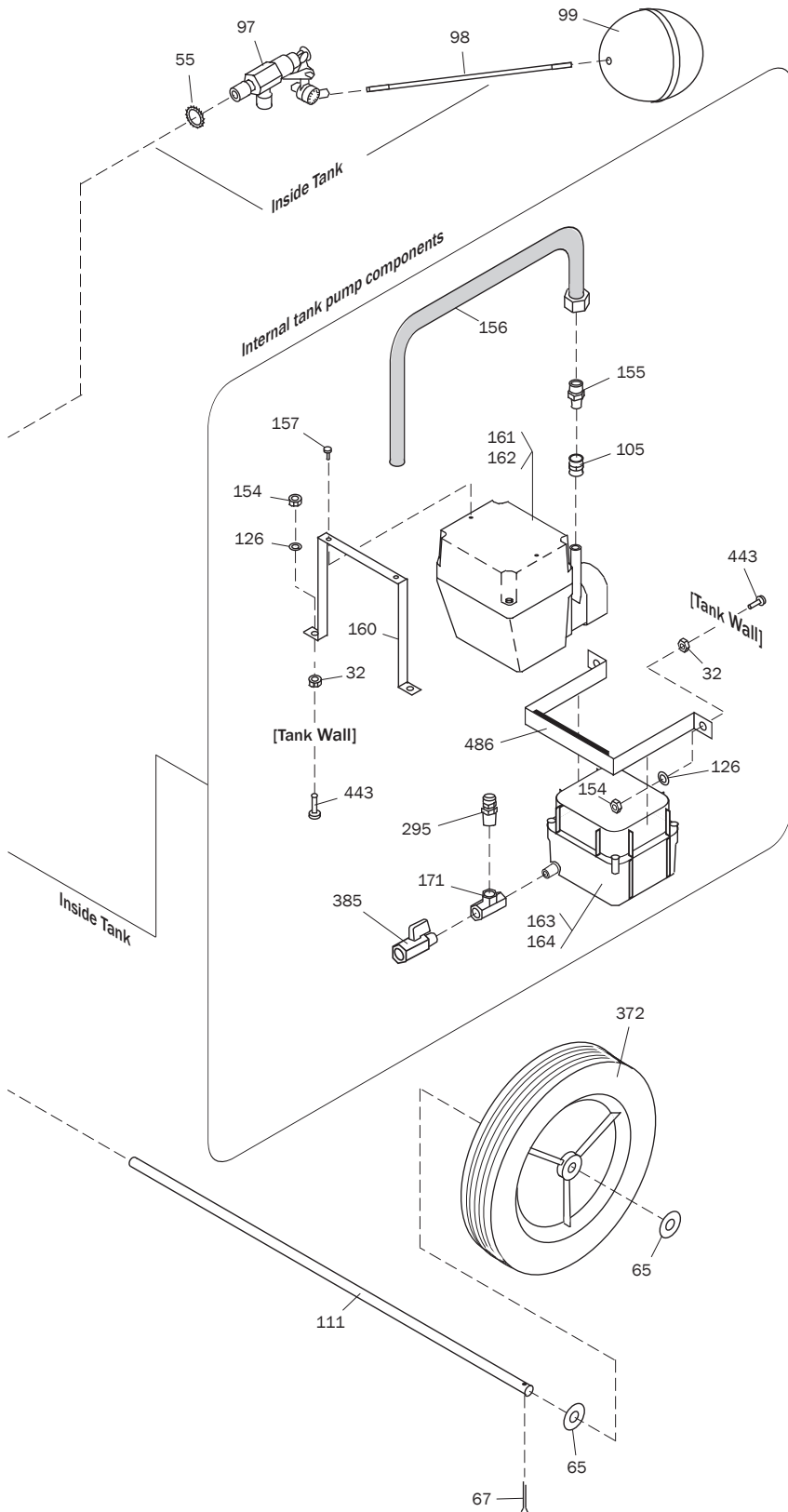




CRSM TANK EXPLODED VIEW



PART IDENTIFICATION LIST

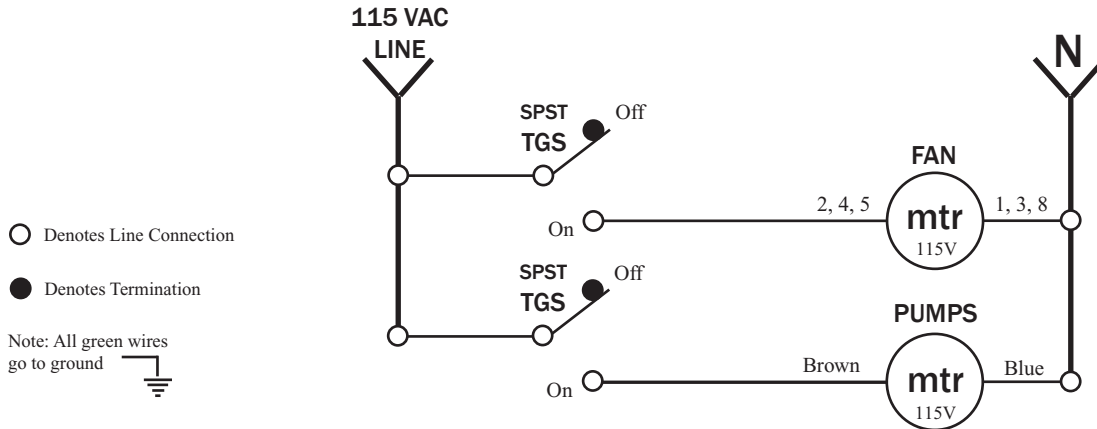


PART IDENTIFICATION

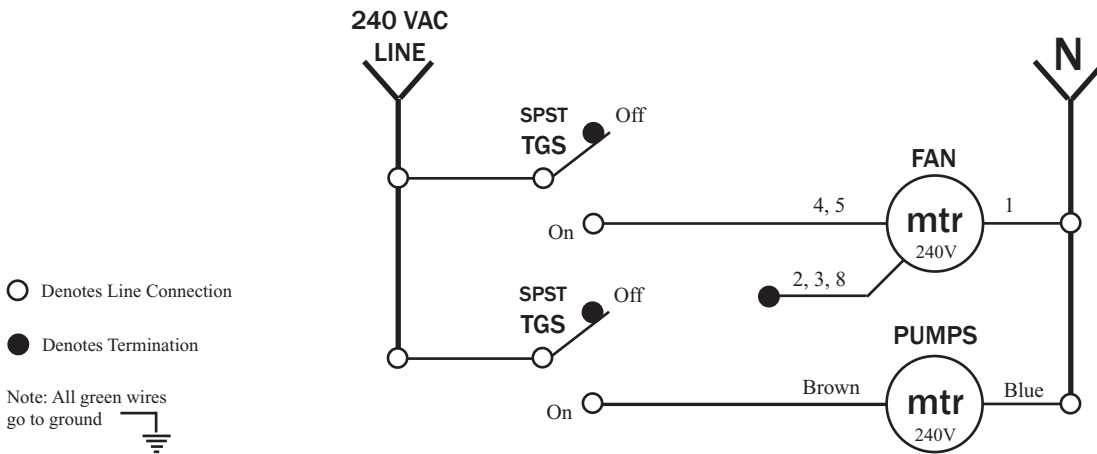
ID #	Description	Qty/Unit
32	1/4-20 nylon stop nut SST	4
45	Liquid-tight cord fitting	2
55	M20 Serrated lock washer SST	1
59	Fluid level gauge	1
60	RSM tank	1
61	Fill cap	1
65	1/2" flat washer SST	8
67	5/32 x 1 1/4" cotter pin SST	2
69	1/4" NPT close nipple	2
71-C	Inline strainer 1/4" female NPT	1
72	1/4" NPT street elbow	1
75	Flow control valve	1
76	10-24 x 3/4" phillips RH SST	2
82	Electrical switch box	1
84	3/4" M socket x 1/2" F NPT Bushing	2
86	6-32 x 1/2" oval slotted screw	6
87	Electrical switch box (3 phase)	1
88	Switch (3 phase)	1
89	Spacer plate (3 phase)	1
92	Switch cover (3 phase)	1
93	Hose connector gasket	1
94	Hose connector	1
96	Gasket	2
97	Float valve	1
98	Stem	1
99	Float	1
105	1/4" NPT-F Coupling	1
111	Axle SST	1
126	1/4" lockwasher SST	4
143	1/4" NPT-M x 3/8 tube fitting	1
154	1/4-20 finish nut	4
155	1/4" NPT-M x 1/2" compression fitting	1
156	Circulation tube	1
157	8-32 x 3/8" Phillips RH SST	2
160	Recirculation pump bracket	1
161	Recirculation pump 115 volt 60 hz.	1
162	Recirculation pump 230 volt 50 hz.	1
163	Feed Pump 115 volt 60 hz.	1
164	Feed Pump 230 volt 50 hz.	1
171	1/4" NPT TEE	2
173	1/4" NPT-M plug	1
207	Double switch cover	1
232	115/230V Double switch	1
295	1/4" NPT-M x 1/4" tube fitting	3
344	10-24 x 1/2" phillips truss head SST	4
351	1" NPT black nylon hex plug	1
372	Heavy-duty RSM wheel	2
385	Pre-set flow rate valve	1
443	1/4-20 x 1-1/4 HH bolt	4
486	CRSM Feed pump support	1
677	11/16 x 1-1/4" flat washer SST	1

ELECTRICAL SCHEMATICS

115 VOLT 1 PHASE 60/50 HERTZ
Domestic (USA)/ Foreign



240 VOLT 1 PHASE 50 HERTZ
Foreign





ONE YEAR LIMITED WARRANTY

Aquafog and accessories are warranted to the original purchaser against defects in material and workmanship under normal use for one full year from date of purchase. Any part determined to be defective and returned to the manufacturer, shipping cost prepaid, will be repaired or replaced at Jaybird Manufacturing, Inc.'s discretion without charge. Proof of purchase date and an explanation of the problem or complaint must accompany the returned portion of the machine.

Jaybird Manufacturing, Inc. reserves the right to verify the legitimacy of claimed defects. The provisions of this warranty do not apply to damage resulting from direct or indirect misuse, negligence, accident, lack of maintenance, or unauthorized repairs or alterations which affect the machine's performance or reliability.

LIMITATIONS OF LIABILITY. TO THE EXTENT ALLOWABLE UNDER APPLICABLE LAW, JAYBIRD MANUFACTURING, INC.'S LIABILITY FOR DEATH, INJURIES TO PERSONS OR PROPERTY, OR FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES ARISING FROM THE USE OF OUR EQUIPMENT IS EXPRESSLY DISCLAIMED. JAYBIRD MANUFACTURING, INC.'S LIABILITY IN ALL EVENTS IS LIMITED TO, AND SHALL NOT EXCEED, THE PURCHASE PRICE PAID. NO OTHER WARRANTY, EXPRESSED OR IMPLIED, IS AUTHORIZED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state.



Jaybird Manufacturing, Inc.

135 Summer Lane
Centre Hall, PA 16828

Parts & Service: 1.814.364.1800

Website: www.jaybird-mfg.com