

SINCE 1972



YOUR TRUSTED LEADER
IN INSECT CONTROL

SPRAYMASTER®

Automatic Spray System for Insect Control



USER MANUAL

MODEL
SM55

6602 Cunningham Road, Houston, TX | (800) 231-2966 | sales@pyranhainc.com

www.pyranhainc.com





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SprayMaster® Warranty Registration

Dear Pyranha SprayMaster™ System New Owner,

We here at Pyranha®, Inc. “Thank You” for purchasing the SprayMaster™ System, and we look forward to many years of providing you with the comfort and protection to which all of our customers are accustomed.

In order to serve you best, please complete and mail-in the attached registration within 30 days of purchase, or go to www.pyranhainc.com and register online to ensure that your system will be covered under our One (1) Year System Top Warranty (pump, timer and motor).

*Warmest Regards,
The Pyranha® Family*

Pyranha®, Inc.
Attention: Customer Service
6602 Cunningham Road
Houston, Texas 77041

Company/Individual Name _____

Address _____ **City** _____ **State** _____ **Zip** _____

Phone Number _____ **Email** _____

Serial # _____ **Date SprayMaster™ Purchased** _____

Where was your SprayMaster® System Purchased? _____

www.pyranhainc.com **Store Name** _____

City, State _____





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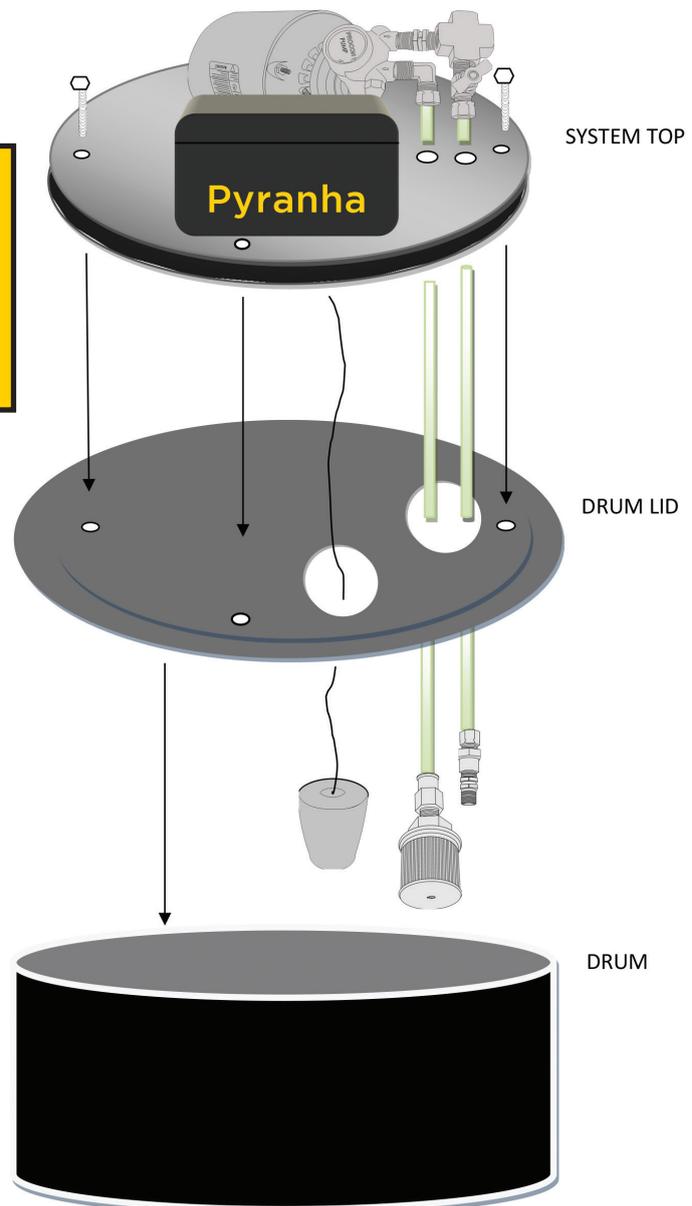
SprayMaster®

System Top Installation

1. Cut out or peel off tape covering large holes on lid.
2. Unlatch metal ring and slide it down so it remains around the drum.
3. Remove drum lid

The following steps can be completed with the drum top resting on the lip of the drum, or on any support that allows access to the bottom of the drum lid.

4. Carefully drop float through top of matching large hole. Make sure float line isn't pinched between the drum lid and system disk.
5. Insert supplied bolts through the bolt holes near the edges of the plastic disk and secure to the drum top. Tighten by hand to hold system disk in place and then use wrenches to finish tightening. *Don't over tighten as the plastic system disk can crack.
6. Check float line again to make sure it is not pinched and hangs free.

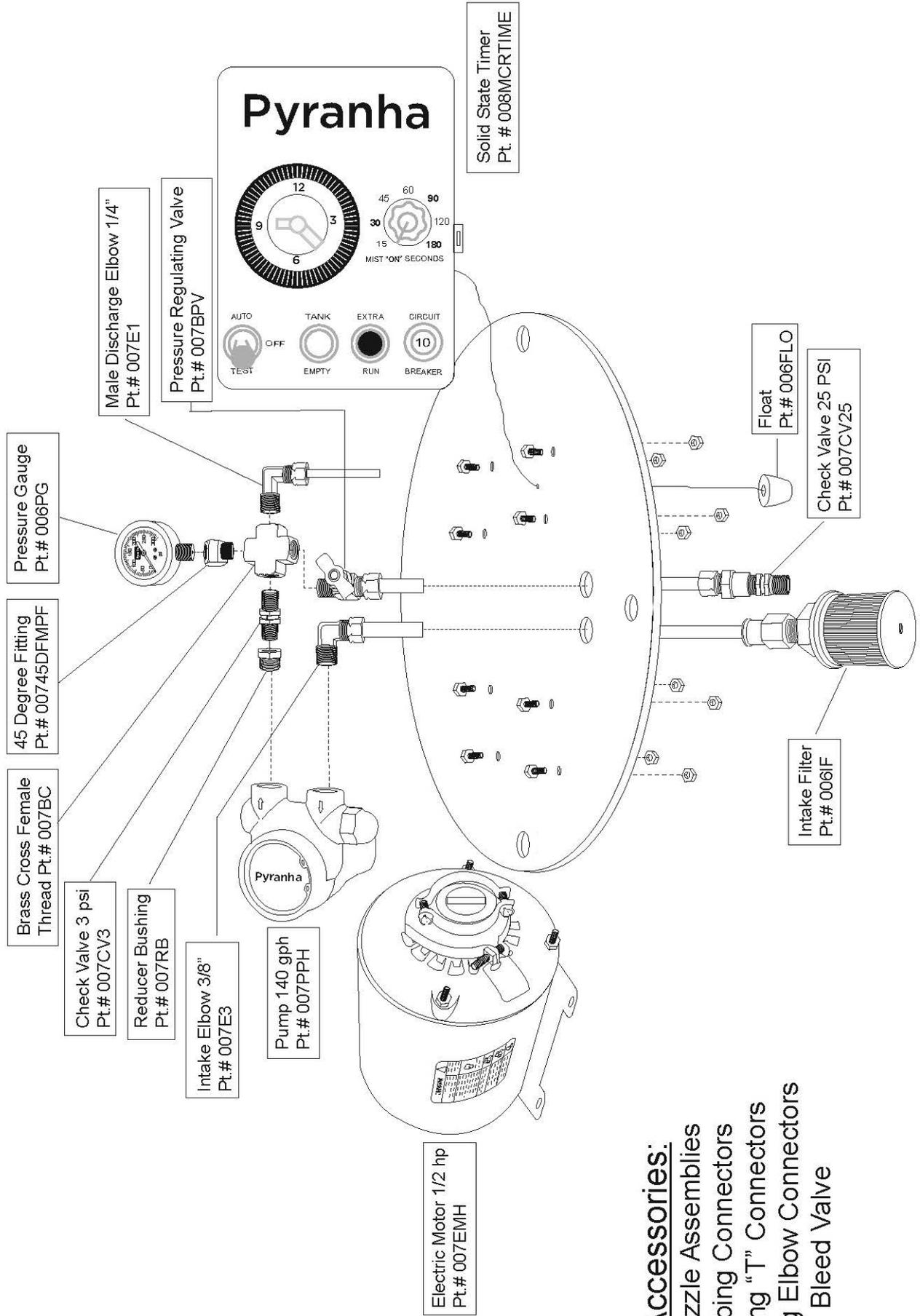


The latch on the metal ring can be locked in place for security to keep the drum from being opened.



Pyranha SprayMaster

Basic Misting System Parts & Layout



- Accessories:**
- Nozzle Assemblies
 - Tubing Connectors
 - Tubing "T" Connectors
 - Tubing Elbow Connectors
 - Bleed Valve

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Installation Instructions

1. At the installation site, remove all equipment from the corrugated box and the polyethylene drum and replace the drum lid. Check the image in Figure 1 below to identify each piece of equipment.



FIGURE 1

NOTE: HIGH PRESSURE TUBING MUST BE USED OR WARRANTY WILL BE VOID.

2. Run the end of the tubing from the intake filter through the lid and PVC circle and connect it to the pump suction inlet elbow. (Figure 2)
3. Insert the check valve assembly through the lid and PVC circle and connect it to the pressure regulating valve. (Figure 2)
4. Place the lid on the drum making sure the black float with nylon line passes through the cut-out with all lines hanging freely.
5. Remove the pressure gauge from its box and screw it into the top of the brass cross assembly. (Figure 3)
6. Make sure that the male discharge elbow points away from the timer. (Figure 3)

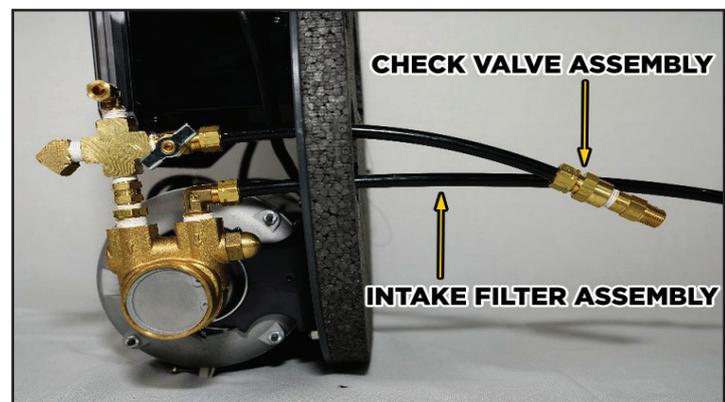


FIGURE 2

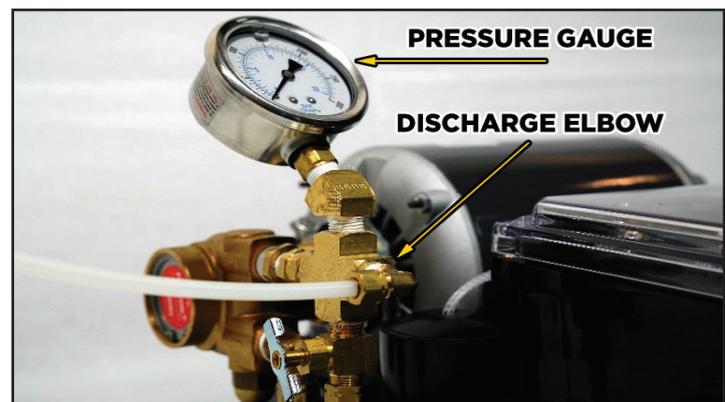
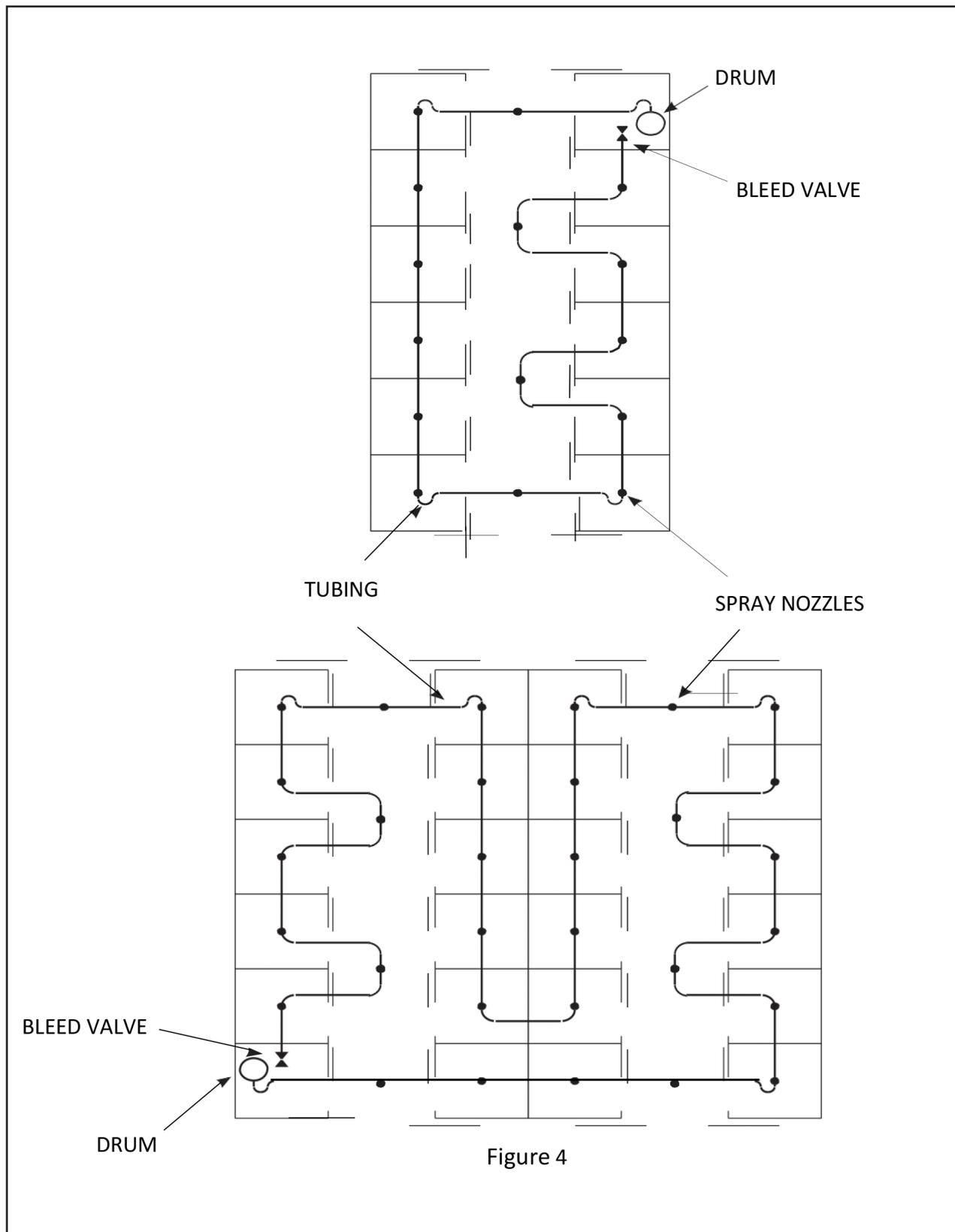


FIGURE 3



1. Remove the spray nozzles from package. Using the barn diagrams as a guide (Figure 4), run the $\frac{1}{4}$ inch nylon tubing on the ground around the stall area to be treated, beginning at the tank.



2. Using supplied tubing cutter, cut the tubing squarely to ensure airtight connections at each spray nozzle.





3. Push the tubing firmly into the side of the spray nozzle tee (Figure 5). Pull gently to confirm you have secure connections then push back in. If leakage occurs, remove tubing by pushing on the green circle, pushing the tubing in, pulling the tubing out and then releasing the green circle. Trim $\frac{1}{4}$ inch off the tubing before reinserting.



FIGURE 5

4. Using the plastic fasteners (Figure 5), or zip ties, install the tubing and spray nozzles above the center of each stall and six (6) feet inside each exterior door. Do not install above fifteen (15) feet from the floor. Use cable wire if necessary. Make sweeping turns with the tubing around corners to **avoid kinking**.
5. After all the spray nozzles have been installed, run the beginning of the tubing from the discharge elbow on the brass cross assembly (Figure 3). Tighten with a wrench. Leave four (4) feet of slack in the line to allow for easy shifting of the lid to add insecticide or to remove the lid for drum cleaning.

6. At the end of the tubing attach a bleed valve to shut off the line and hold pressure (Figure 6). It is recommended to end the tubing at the drum for bleeding liquid and air from the line into the drum.



FIGURE 6





7. Remove the lid from the top of the drum and fill the drum about halfway with clean water. **Do NOT put insecticide in the drum until testing is completed.** Replace the lid on top of the drum. Do not restrict the float line and tubing.
8. Connect the electrical cord from the timer to an 110V outlet. Open the bleed valve and hold inside the drum. Open the timer cover and start the system by flipping the toggle switch to **“TEST.”** Allow the system to operate for several minutes to be certain the pump is priming and there are no leaks at the various tubing connections. Once a steady stream is flowing into the drum, close the bleed valve.
9. Turn the pressure regulating valve clockwise until the pressure gauge reads between 190psi and 210psi (Figure 7), and all nozzles are spraying a consistently fine mist. Check again for leaks at the tubing connections.

NOTE: The system works best between 190psi-210psi and must not be set below 185psi, or over 215psi.

DO NOT OPERATE SYSTEM WITH THE PRESSURE REGULATING VALVE CLOSED.

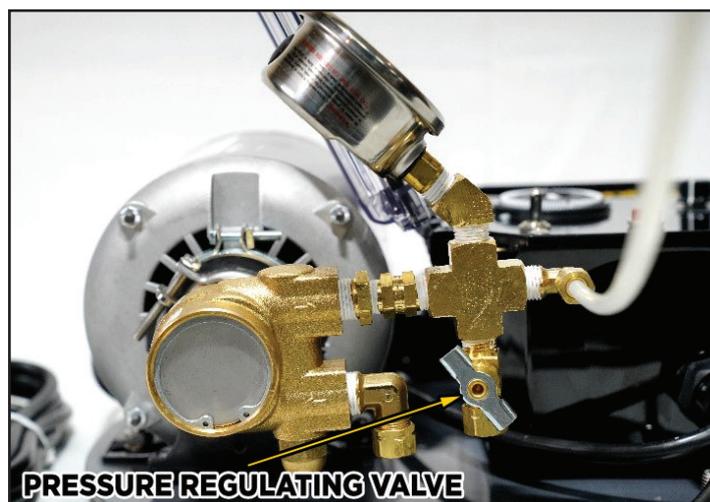


FIGURE 7

10. After confirming the spray nozzles are operating correctly with no leaks at the tubing connections, flip the toggle switch to **“OFF”** and disconnect the electrical cord from the outlet. Close the timer lid.
11. Carefully lift the drum lid and shift it to the side of the drum top. Add the entire contents of the insecticide concentrate to the drum and finish filling with clean water to four (4) inches from the top of the drum. Replace the lid on the drum (being careful not to pinch the float line or kink the tubing) and reconnect the electrical cord. Secure the lid in place with the metal ring. **The latch on the metal ring can be locked in place for security to keep the drum from being opened.**
12. Open the timer cover. Open the bleed valve and hold in the drum. Flip the toggle switch to **“TEST”** to fill the nozzle line with insecticide. Close the bleed valve once insecticide is flowing through it. Adjust the pressure between 190psi and 210psi, if necessary.





13. Rotate outer ring of clock dial clockwise to set the time of day (Figure 8).
14. Select the pin for the time of day you want the system to operate by using a ballpoint pen or similar object to move the switch outward into the set position (Figure 8). Repeat the above for each time you want the system to spray. Spray times should be set from early morning to dusk. Your unit is shipped with the timer set for six firing times: 6:00am, 8:00am, noon, 4:00pm, 6:00pm and 8:00pm.



FIGURE 8

15. Set the run duration selector switch to the length of spray time desired. When you are first starting the system, we recommend setting the timer to operate six (6) times a day for 45 seconds each time. When the area is under satisfactory control (10 to 14 days), cut back on the number of spray cycles and duration time to maintain control.

NOTE: System will run continuously when the toggle switch is in the "TEST" position. System will not operate when the switch is in the "OFF" position the "EXTRA RUN" button can be used at any time to test the system, or for extra spraying.

**CLOSE THE TIMER LID WHEN FINISHED.
PLACE CLOTH COVER OVER THE SYSTEM TOP.**





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Servicing Your System

When the liquid is low and the drum needs to be refilled, the Float Switch will automatically shut the system off and the red light will turn on.

To service and refill the system, use the following procedure:

1. Unplug the system from the power supply.
2. Lift the lid and set it to one side of the drum top. Normal refilling does not require that you completely remove the lid from the drum; but if you do remove it, take care to not crimp or damage the discharge tubing, intake tubing float line, or check valve assembly.
3. Inspect the intake filter and clean, if necessary. We recommend changing the intake filter annually and replacing every two (2) years.
4. Check the interior of the drum for residue or dirt. Flush and clean the drum before adding water and concentrate. **If the drum appears clean, just add concentrate and water.**

NOTE: If flushing out the drum; consider collecting the insecticide at the bottom of the drum prior to cleaning and spreading it on your manure pile.

5. Fill the drum about halfway with water. Put the lid back on the drum (being careful to not pinch the float line or tubing) Plug the system to the power source.
6. Open the bleed valve and hold in the drum. Flip the toggle switch to **“TEST.”** Once the liquid is flowing through the bleed valve, close it. Check the pressure gauge is between 190psi and 210psi. Use the pressure regulating valve to adjust, if needed.
7. Inspect all spray nozzles and confirm spray is a fine, even mist. If nozzles fail to spray properly, see the Troubleshooting Guide.
8. With the nozzles spraying as desired; flip the toggle switch to **“OFF.”** Slide the lid to the side of the drum top. Add insecticide concentrate and continue filling the drum with clean water to four (4) inches from the top. Put the lid back on the drum, making sure not to pinch the float line, and latch in place.
9. Reset the timer clock, if needed. Flip the toggle switch to the **“AUTO”** position.





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Winterizing Your System

Winterizing Your SprayMaster® System

1. Disconnect the nozzle tubing at the discharge elbow (liquid will pour from the tubing) and open the bleed valve at the other end. We recommend having both ends of the tubing empty into the drum. **Be sure the brass nut and ferrule on the nozzle tubing stay in place.**
2. Lift or move the lid to raise the intake filter out of the liquid. Flip the toggle switch to **“TEST”** and let run for fifteen (15) seconds to purge any liquid in the equipment (liquid will spray from the discharge elbow). Flip the toggle switch to **“OFF.”** Unplug the system from the power source.
3. Allow the nozzle tubing to drain for several minutes to empty as much liquid as possible. Be sure the intake filter stays out of any liquid remaining in the drum.
4. **If the drum freezes during the winter, you will need to stir any contents before reusing.**

Re-connecting the SprayMaster® System after Winterizing

1. After stirring the contents of the barrel, reattach the nozzle tubing to the system by pushing the tubing into the discharge elbow and tightening with the nut and ferrule.
2. Follow steps 5 through 9 under **“Servicing Your SprayMaster® System”** on page 12.





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System Consumption Rates

CONSUMPTION RATE FOR AUTOMATIC INSECT CONTROL SYSTEMS

The following is the formula for determining how many gallons of diluted Pyranha® Insecticide your Automatic System will consume in one week.

- *Number of times system fires in a day multiplied by*
Number of days in a week (7) multiplied by
- *Number of spray nozzles on your system.*
- *Divided by 128 oz. gives you the number of gallons of liquid used each week.*
- *(A 45 second cycle dispenses 1 ounce of insecticide per spray nozzle.)*

The following is for firing for 45 seconds, 6 times a day, at 190 P.S.I.:

Number of Nozzles in Facility	Consumption Rate	30 Gallon System	50 Gallon System
6 Nozzles	1.97 gal/wk	15 weeks	25 weeks
8 Nozzles	2.62 gal/wk	11 weeks	19 weeks
10 Nozzles	3.28 gal/wk	9 weeks	15 weeks
12 Nozzles	3.94 gal/wk	7 weeks	12 weeks
14 Nozzles	4.59 gal/wk	6 weeks	10 weeks
16 Nozzles	5.25 gal/wk	5 weeks	9 weeks
18 Nozzles	5.91 gal/wk	5 weeks	8 weeks
20 Nozzles	6.56 gal/wk	4 weeks	7 weeks



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Troubleshooting Solutions

Issues	Possible Causes	Solution
System does not operate at the correct times.	Time of day incorrect.	Check the timer to be sure the time of day is correct.
System does not run automatically or when you press the extra run button.	<ol style="list-style-type: none"> 1. Tripped breaker or no power. 2. Tank is empty and float is cutting power to the motor. 3. Float line being pulled or is tangled. 	<ol style="list-style-type: none"> 1. Check breaker panel. Plug in another appliance to same receptacle to make sure there is power. 2. Fill your system with water and your preferred Pyranha® Concentrate. 3. Check float line to make sure it is not being pulled or is stuck on something.
System runs but not pumping fluid.	<ol style="list-style-type: none"> 1. The tank is empty. 2. The intake filter is clogged. 3. Pump needs to be primed. 	<ol style="list-style-type: none"> 1. Fill your system with water and your preferred Pyranha® Concentrate. 2. Remove filter and rinse it clean or replace with a new one. 3. <ol style="list-style-type: none"> A) Remove nozzle tubing from discharge elbow and hit the "Extra Run" button. If fluid shoots out of the discharge elbow, reattach the nozzle tubing and open the bleed valve until liquid comes out and then close the valve. B) Remove nozzle tubing from discharge elbow, remove the system from the drum and twist off the intake filter from the brass fitting. Take a water hose and with low pressure, hold it up to the brass fitting. With your other hand press the "Extra Run" button. Water should spray out of the discharge elbow. Reassemble the system and run. <p>If options A or B do not work, call or visit pyranhainc.com for a new pump. (007PPH)</p>
Not all nozzles are spraying or very little spray coming out of tips.	<ol style="list-style-type: none"> 1. System not building enough pressure. 2. Spray tip filters are clogged. 3. Intake filter is clogged and not allowing enough fluid through. 	<ol style="list-style-type: none"> 1. Turn Pressure Regulating Valve clockwise until the pressure gauge is between 190psi - 210psi. 2. Purchase new tips from your local authorized dealer. 3. Clean or replace the intake filter. (006IF)
Motor seems to be bogged down and system shuts off causing motor to overheat.	<ol style="list-style-type: none"> 1. The Pressure Regulating Valve is completely closed off. 2. Check valve is bad. 3. Bad motor and/or pump. 	<ol style="list-style-type: none"> 1. Turn Pressure Regulating Valve counterclockwise until the pressure gauge is between 190psi - 210psi. 2. Purchase new check valve. (007CV25) 3. Replace motor and/or pump.
System only runs with the extra run button and clock is not keeping time.	The timer is no longer good.	Replace timer from your local authorized dealer.
System runs continuously and won't shut off, even in the "OFF" position.	The timer is no longer good.	Replace timer from your local authorized dealer.
Spray tips are dripping.	<ol style="list-style-type: none"> 1. Excessive pressure in nozzle tubing. 2. Loose spray tip. 3. Air in nozzle tubing. 4. Check valve not working. 	<ol style="list-style-type: none"> 1. Turn Pressure Regulating Valve counterclockwise until the pressure gauge is between 190psi - 210psi. 2. Tighten spray tip in nozzle barrel. 3. Check for air bubbles in tubing. Run system with bleed valve open until there is a constant flow of liquid and then close bleed valve. 4. Purchase new check valve. (007CV25)
Spray is not killing insects.	<ol style="list-style-type: none"> 1. Insufficient pressure. 2. Incorrect spray times. 3. Clogged tips. 4. Inoperative check valve in return line to tank. 5. 30 gallon concentrate refill in 55 gallon drum. 	<ol style="list-style-type: none"> 1. Pressure should be between 190psi and 210psi. Increase the pressure by turning the pressure regulating valve clockwise until pressure is in proper range. DO NOT TURN VALVE COMPLETELY CLOSED. 2. Confirm clock has the correct time. Spray times may need to be adjusted to increase the number of spraying times and duration of sprays. We recommend six (6) times a day for 45 seconds to obtain control (about 10 - 14 days), then the duration time can be reduced to maintain control. 3. Clean outside of spray tip with a damp cloth or steel wool. If this does not work, see below. 4. If pressure drops to zero, replace the check valve (007CV25). If the check valve isn't holding pressure this can cause air in the lines and delay spraying of the tips. 5. Check 2.5 gallon bottle to see if it's for a 30 gallon system or 55 gallon system.

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SprayMaster[®] Options & Replacement Products

Part Number	Description
002SMTOPONLY	SPRAYMASTER [®] SYSTEM TOP (MOTOR, TIMER, PUMP & BRASS CONNECTIONS)
002SM55GAL	SPRAYMASTER [®] - 55 GAL UNIT WITH BATTERY BACK UP
002SM55GALKIT	SPRAYMASTER [®] KIT - 55 GAL UNIT, (1) 1-10HP FILL, 160' TUBING, 8 NOZZLES
004SNA1NPNS	SPRAY NOZZLE ASSEMBLY - 1/4" NICKLE PLATED BARREL, NICKLE SILVER TIP
004SNANPNSKIT	SPRAY NOZZLE ASSEMBLY KIT - (5) 1/4" NOZZLE ASSEMBLIES, 100' TUBING
004NTUNUPKIT	TUNE-UP KIT - (2) 1/4" NOZZLES, 5 SPRAY TIPS, 1 INTAKE FILTER WITH TUBING
001HP55	PYRANHA [®] 1-10HP CONCENTRATE™ FOR 55 GALLON SYSTEM - 2.5 GAL
001HPS30	PYRANHA [®] 1-10HPS CONCENTRATE™ FOR 30 GALLON SYSTEM - 2.5 GAL
001ODAWAYC	PYRANHA ODAWAY™ ODOR ABSORBER - 1 GALLON

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