MistAway® systems
Outdoor Insect Control

MistAway® Drum-Based Misting Unit – Gen 1.3
Operations Manual

The Cure for What Bugs You!®

Base Functionality

- MistAway's Drum-Based Misting Unit, Gen 1.3, is designed to atomize a dilute botanical insecticide (typically contained in a 55 gallon drum) through an installed nozzle circuit to control mosquitoes and other annoying insects.
- The capacity of the unit is dependent on the configuration of the nozzle circuit. A practical field maximum for one zone is about 90 nozzles (not all in series) connected by 900 feet of tubing.
- The unit may be programmed to mist up to 24 times daily, with each mist cycle having its own independent duration. A typical program will consist of 2 to 3 mist cycles per day, each with a 45 – 60 second duration, for a daily total of 90 – 180 seconds.
- The unit will also mist in response to a signal from a handheld remote transmitter for a duration programmed by the user.

Optional Equipment and Functionality

- **Agitating Valve**: Each mist (including remote mists) will be preceded by an agitation cycle that will ensure thorough mixing of the drum contents prior to misting. In addition, there is a capability to program a once-daily agitation that is independent of any programmed or remote mist. The agitating valve also eliminates the possibility of a siphon emptying the drum contents.
- **Leak Detection:** In the event of a leak in the misting nozzle circuit, this option will shut-off the unit until the leak can be repaired.
- **Electronic Anti-Siphon Valve**: For units without agitation, addition of this valve eliminates the possibility of a siphon.
- **Wind Sensor**: Sensor input will inhibit a programmed mist if the wind speed is higher than a user-defined limit for a 5 minute period following the scheduled mist.
- **Zone Kit**: Kit will enable the unit to either independently manage areas with two different application schedules or effectively double the protected area that the unit would otherwise support.
- **iMistAway Module:** Allows the unit to be remotely monitored and controlled via an Internet connection.

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Contents

To Protect Against Accidental Exposure to Insecticide

Permitted Insecticides and Handling

- Use only insecticides that are labeled for use in automated misting systems and use only as described in the label.
- Insecticides that state “Not for use in outdoor residential misting systems” may not be used under any circumstances.
- Once insecticide has been introduced, ensure 6” air gap between hose and drum bung is maintained when filling.
- Insecticide label and dilution statement should be securely attached to the unit reservoir in a weatherproof pouch.
- Strictly follow label instructions regarding storage and disposal of insecticide and container.

Nozzle Circuit Installation:

- The nozzle circuit should be configured and installed so that insecticide does not drift off the property.
- Nozzles should be directed to spray towards the target area and away from swimming pools, water bodies, or eating and cooking areas.

Using the Unit

- Do not allow the unit to mist in the presence of people, pets or food.
- Unit must be configured, installed and operated so that any insecticide application complies with all label directions, including application rate and prohibitions against offsite drift.
- The unit reservoir and controller should be locked.
- Unit and remote transmitter should be secured against access by children.
- If a leak or siphon in nozzle circuit is suspected, discontinue use of unit until it is repaired.
- Unit must never be used for cooling.

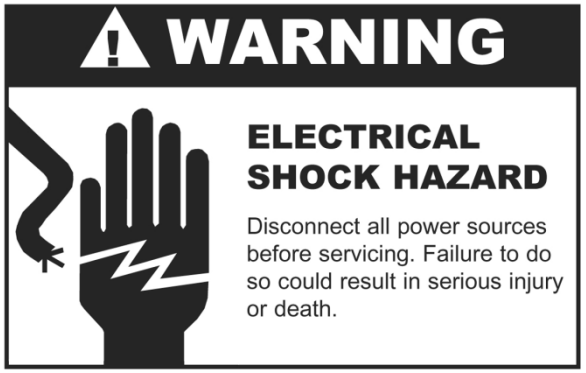
Section 1
Important Safety Instructions

Using the Unit (continued)

- The unit is not to be used by persons with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction.
- Children are not to use the appliance or play around it, even when supervised.
- The unit is not to be installed at altitudes higher than 2000 meters.

To Protect Against Fire or Electric Shock

- Ensure unit is positioned where it is free from flooding or exposure to irrigation system spray.
- Unit must be plugged into electrical outlet with ground fault interrupt protection. (GFI/GFCI)
- Extension cord must not be used.
- Disconnect unit from power source if replacing components.
- Replace fuses only with those of equivalent value.



Section 2

WARRANTY

MistAway Systems Inc. (MSI) warrants this Product, the MistAway Drum-Based Misting Unit, Gen 1.3, to be free from defects in material and workmanship as follows:

For a period of one (1) year from the date of original installation (whether or not actual use begins on that date), MSI will repair or replace defective parts, with new or refurbished parts, at its option, at no charge. This warranty does not include labor or other costs incurred for diagnosing, removing, installing, shipping, servicing or handling of either defective parts or replacement parts.

This warranty applies solely to equipment supplied by MSI and is in lieu of all other warranties, expressed or implied. No person, agent, dealer, or distributor is authorized or empowered to give any other warranty or to assume any other liability on behalf of MSI

Warranty Conditions:

- This warranty is extended only to the original Purchaser and is not transferable.
- A purchase receipt or other proof of date of original purchase will be required before warranty service is rendered.
- Installation, use, care and maintenance must be normal and in accordance with instructions contained in the operating manual and MSI's service information. Failure to do so shall void this warranty.
- All claims for failure to conform to specifications or defects in material or workmanship under this warranty must be made promptly after discovery and, in any event, must be received by MSI not more than one year after the original purchase date.
- MSI reserves the right to inspect the equipment prior to any decision involving a warranty claim.
- MSI reserves the right to make warranted repairs at either the installed site or at MSI's location in Houston, TX. If MSI opts for repair at its own location, the Purchaser is responsible for shipping the item to MSI's Houston location at its expense.

Manufacturer's obligation under the warranty shall not apply to:

- Any equipment, which has been damaged by negligence, misuse, abuse, neglect and/or improper adjustment, accident, vandalism, acts of God, acts of war, whether declared or undeclared, improper application, or any other contingency beyond the control of MSI
- Cosmetic damage
- Damage in transit
- Failures caused by products not supplied by MSI
- Failures, which result from faulty installation, set-up adjustments, improper operation, power line surge, improper voltage supply or damage from lightning
- Any equipment that has been repaired or altered without authorization from MSI or in a manner inconsistent with such authorization
- Any unit that has not been maintained in accordance with the operator's manual
- Normal wear on any item or piece of equipment
- Lost items

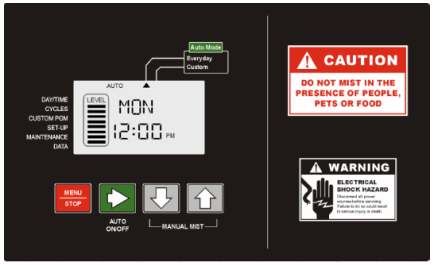
Section 2

WARRANTY

The foregoing is MSI's only obligation and Purchaser's exclusive remedy for breach of warranty. Purchaser's failure to submit a claim as provided above shall specifically waive all claims for damages or other relief, including but not limited to claims based on latent defects. In no event shall Purchaser be entitled to special, direct, indirect, incidental, exemplary or consequential damages, expenses, injury, lost profits, lost savings, business interruption, loss of business information, or any other pecuniary loss arising out of the use of or inability to use the equipment. In any case, MSI's entire liability shall be limited to the amount Purchaser actually paid for the item.

Except as modified in writing signed by both parties, this warranty is and shall remain the complete and exclusive agreement between the parties with respect to warranties, superseding all prior agreements, oral or written, and all other communications between the parties relating to the subject matter of this agreement.

Section 3
Using the Controller



- Pressing Green ► button will cycle through each of four System Modes. The ▲ at the top of the display points to the active System Mode.
  1. **OFF** – If equipped with agitation, unit will perform a daily agitation cycle. Otherwise it will sit idle.
  2. **REM** – Unit will allow Remote and MANUAL MISTs, but no AUTO MISTs. (For pre-2012 systems: displayed as ON)
  3. **AUTO-EVERYDAY** – Misting program runs daily. This is the most commonly used System Mode.
  4. **AUTO-CUSTOM** – Misting program runs only on days set in CUSTOM PGM menu.
- Pressing Red MENU/STOP button displays triangular cursor by DAY/TIME position on left side of display. Use ▲ or ▼ buttons to cycle through menu structure. Use Green ►button to select menu item and view or change data element within that item.
- Within a menu item, the convention is that the flashing data element can be changed with the ▲ or ▼ buttons. Move to the next data element with the Green ► button.
- Exit the menu item by pressing the MENU button. The unit will revert to previous System Mode in 3 minutes if the MENU button is not pressed.
- Clear any error code by pressing the Red MENU/Stop button for 5 seconds. The System Mode will return to its previous state (usually AUTO Everyday).
- To reset the controller to factory settings, unplug the unit, and hold down MENU and the ▲ button while plugging the unit back in. Mist Cycles, remote duration and number of nozzles must be reentered.

Section 4
Using the Remote

Note: The handheld remote transmitter must be electronically oriented to the controller before it will operate. See Section 5 – Setting Up the Unit.

MIST Button

- Activates a REMOTE MIST for the duration defined in the SET-UP menu.
- An agitation cycle will precede the REMOTE MIST if the Remote Agitation Duration (SET-UP → RAG) is set to a value greater than 0 seconds.
- NOTE: on pre-2012 systems, agitation duration before a remote mist is fixed at 15 seconds.
- If a Zone Kit is installed, refer to instructions included with the zone kit to configure how the remote transmitter works.

STOP MIST Button

- The STOP MIST button stops the current operation of the unit. It will not change the System Mode from ON or AUTO to OFF.

SKIP NEXT MIST Button

- The SKIP NEXT MIST button enables the next programmed AUTO MIST to be skipped. The controller will display “SKIP.”
- While the unit is flashing SKIP, it will still respond to a Remote or MANUAL MIST.
- When an AUTO MIST has been skipped, the unit will return to the normal display, with a flashing “sunshine” icon in the lower right corner of the display.
- You may only skip one mist at a time. That is, pushing the SKIP NEXT MIST button multiple times will not cause multiple AUTO MIST cycles to be skipped.
- Clear skip by holding down the ▲ button on the controller for 3 seconds.

-1. Pick a Suitable Location

- On firm level surface
- Free from flooding or sprinklers
- Near GFCI outlet – Power cord is 12 ft. NEVER USE AN EXTENSION CORD!
- Unit requires 120V and 15 amp circuit. Test with multimeter.

0. Assemble the Unit

- Verify finish kit:
  - Remote transmitter
  - Soft drum lid cover
  - Pump suction tubing and filter
  - Auto Drain Valve assembly
  - Agitator J-tube and mixing eductor
  - 4 each – bolts, flat washers, lock washers, nuts
- Turn the unit upside down on towel to protect plastic housing
- Invert lid and rotate so that holes line up with fittings.
- Insert lines into fittings:
  - ½" pump suction line into pump – ENSURE IT IS SEATED!
  - ¼" Auto Drain Valve
  - 3/8" Agitation J-tube
- Secure chassis to lid:
  - Sequence – bolt, chassis, lid, flat washer, lock washer nut
  - Place and hand tighten all four connections
  - Tighten with 7/16" WRENCHES
- Place lid assembly on drum. Secure with gray drum ring.

1. Test System and Inspect the Nozzle Circuit

- Connect nozzle circuit to ¼' bulkhead fitting.
- Install optional zone kit using instructions with the kit.
- Plug unit into outlet and confirm controller boots up.

Section 5
Setting Up the Unit

1. Test System and Inspect the Nozzle Circuit (cont.)

- Fill drum through bung on lid and set level:
  - 12-15 inches of water only. DO NOT ADD CONCENTRATE YET!
  - If 125 gallon drum unit, set TNK in SETUP Menu to 125
  - Set gas gauge LEVEL in MAINTENANCE Menu to 2 bars.

2. Install the (optional) Nozzle Circuit Filter

- Mount filter head to bracket with screws.
- FILL FILTER CANISTER WITH WATER!
- Confirm o-ring on top of the canister is seated in groove, then screw filter housing onto the filter head.
- Snap bracket and filter onto gray drum ring.
- Cut and connect ¼" tubing following direction of flow arrows:
  - Use enough tubing to be able to set filter on ground during service.
  - "IN" – misting unit to filter
  - "OUT" – filter to nozzle circuit

3. Orient and Test Handheld Remote Transmitter

- Set parameters in controller:
  - Set System Mode to Auto Everyday on home screen
  - Set NOZ in SETUP Menu to nozzle count. Set NOZ1 and NOZ2 if zone kit.
  - Set REM (remote mist duration) in SETUP Menu to desired. 45 secs is common.
- Put receiver in misting unit into "learn" mode:
  - LRT in SETUP Menu. Press and hold green button.
  - Countdown starts

3. Orient and Test Handheld Remote Transmitter (cont.)

- Put handheld transmitter in "learn" mode:
  - Find recessed pairing button on back of transmitter.
  - Use paperclip to press and quickly release button. DO NOT HOLD PAIRING BUTTON DOWN!
  - Blue LED will flash several times
  - Controller will display "DONE"
  - Press MIST on handheld to complete pairing.
- Test remote by pressing MIST. Stop cycle by pressing STOP MIST.

4. Test Leak Detection

- Confirm the unit has leak detection option installed. LD in DATA Menu will be ON.
- Press MIST on handheld transmitter and allow for a complete remote mist cycle.
- If controller displays ERR3, there is probably a leak in the nozzle circuit.
- Clear the error by pressing and holding the Red Stop button and run another mist to confirm.

5. Add Concentrate, Top Off Drum, Set Level to FULL

- Unapproved concentrates may damage the system or may not be legal to apply through the system. Make sure concentrate is in Gen 1.3 Approved Insecticides (mistaway.com)
- Calculate required volume of concentrate:
  - Refer to label or link for dosing instructions.
  - Use Dosing and Days to Empty Calculator (mistaway.com)
- Use funnel to add concentrate to drum through bung on lid
- Apply adhesive-backed label supplied with concentrate to side of drum.

Section 5
Setting Up the Unit

5. Add Concentrate, Top Off Drum, Set Level to Full (cont.)

- Fill drum with water to 3 inches from top. Do not overfill. Maintain 6" air gap between hose and fluid level.
- Set gas gauge LEVEL in Maintenance Menu to full.

6. Set Mist Cycles

- Confirm day and time on home screen are correct. If not, reset in DAY/TIME Menu.
- Set mist duration and time for each cycle in CYCLES Menu. 24 possible daily mist cycles.
- A common program is:
  - Morning: around 7:00 am for 45 seconds (after sprinkler system has run)
  - Dusk: around 7:00 pm for 45 seconds
  - Night: around 11:00 pm for 45 seconds
- You may need to set other parameters in the SET-UP Menu (e.g. if you are installing a wind sensor.) Find a complete list at Appendix B, Controller Menus.

7. Prepare unit for operation

- Confirm System Mode set to Auto Everyday on home screen.
- Put the waterproof cover over the unit, fitting the elastic under the lip at the edge of the drum.

Conventional Insecticide Formulations

- **Use only insecticides that are labeled for use in automated misting systems and use only as described on the label. Insecticides that state "Not for use in outdoor residential misting systems" may not be used under any circumstances.**
- There are only a few insecticide formulations that contain label language specific for use in automated misting systems.
- The active ingredients found in these formulations are either natural pyrethrins or permethrin, which is a closely related synthetic. They also contain a synergist, piperonyl butoxide, which makes them more effective than they would otherwise be.
- These formulations have been designed for misting and are suitable in MistAway's systems because 1) they are water-based and contain only trace amounts of hydrocarbons, 2) they have been engineered to disperse evenly throughout the batch tank or drum when diluted with water, and 3) they have been formulated to avoid or minimize plant burn.

Exempt or "Green" Insecticide Formulations

- There are also a small number of insecticide formulations that are applied in misting systems that are exempt from registration with the U.S. EPA.
- Generally, the ingredients found in these formulations are essential oils from plants. In order to dilute and disperse them in a volume of water, an emulsifying agent must be added.
- Be aware that these concentrates are very chemically aggressive, particularly to plastics. Their use in misting systems significantly increase maintenance requirements and maintenance frequency.

Visit www.mistaway.com for a list of approved insecticides and mixing guidance.

Section 6
Managing the Insecticide

Adding Insecticide to Gen 1.3

- Use only insecticides that are labeled for use in automated misting systems and strictly follow label instructions in adding insecticide to the drum:
- **Example:** A 5% pyrethrin formulation, contains label language for use in Residential Backyards to *"Mix 64 fl. Oz of concentrate in 55 gallons of water to yield a solution of 0.046% Pyrethrins and 0.23% Piperonyl Butoxide."*
- The insecticide label will contain both recommended and maximum concentrations. It is against regulations to mix the insecticide to a concentration that exceeds the stated limit.
- Concentrations less than recommended on the label are permissible, although there is a threshold below which the material will not be effective.

Mist Schedule and Duration

- It is important to note that there are differences of opinion among misting professionals as to what schedule and duration is optimal in any given circumstance. These reflect differences in factors such as relative mosquito pressure, species and activity, conducive conditions, etc.
- While these differences do exist, a common schedule is comprised of two scheduled mists per day:
  - A mist of 45 seconds in the hours around dawn (after the sprinkler system has finished).
  - Another mist of 45 seconds in the time around dusk.
  - A third mist of 45 seconds sometime in the hours between 9:00 PM and 1:00 AM.
- In this common schedule, the automated mists are timed to occur when there is unlikely to be activity on the property. Their timing also avoids afternoon winds and the daylight activity of beneficial insects like bees and butterflies.

Replenishing Insecticide Concentrate in Gen 1.3

The Gen 1.3 controller stores a "virtual volume" representing the amount of dilute insecticide remaining in the drum. Each time the unit mists, this "virtual volume" is reduced by a calculated estimate of the volume of dilute insecticide that was misted through the nozzle circuit. When the "virtual volume" equals 0, EMP (Empty) is displayed on the controller, and it is time to replenish the insecticide.

- **Calculate required volume of concentrate:**
  - Select a concentrate from the list of *https://www.mistaway.com/techselfhelparticles/gen-1-3-approved-insecticides/*
  - Remove drum cover
  - Remove cap from drum bung
  - Use a yardstick to measure inches of remaining solution and note it.
  - Calculate required volume of concentrate and water (in inches from bottom of drum) using the calculator at https://www.mistaway.com/techselfhelparticles/dosing-and-days-to-empty-calculators/
  - If you are using an approved concentrate other than ones presented in the calculator, you can find the information required by the calculator – the concentration of active ingredients in the formulation and target concentration in the mist – in the list of Gen 1.3 approved insecticides referenced above.
- **Replenish drum with water and concentrate**:
  - Fill the drum with a few inches of water from a garden hose, being careful to maintain an air gap of 6" between the tip of the hose and the fluid in the drum.
  - Measure concentrate and use a funnel to add it through the bung.
  - Continue filling the drum with water to the desired level – maintaining the 6" air gap. To avoid foaming and possible equipment damage, stop filling when the fluid level is 4" from the top.
  - Replace cap on drum bung.
  - Ensure concentrate label in waterproof envelope is affixed to the side of the drum and visible.
  - Dispose of the empty bottle strictly following label instructions or regulations regarding disposal.
  - Record type and volume of concentrate added in log.

Section 6
Managing the Insecticide

Replenishing Insecticide Concentrate in Gen 1.3

- **Reset level indicator in the controller to Full (8 bars):**
  - Navigate to MAINTENANCE Menu, scroll to LEVEL. Press Green ► button.
  - Use ▲ button to set level to full (8 bars)
- **Prepare unit for operation:**
  - Confirm AUTO Cycle times and durations.
  - Confirm Remote Mist duration
  - Confirm operating Mode – usually AUTO Everyday
  - Close plastic lid and secure waterproof cover.

Replenishment Frequency

- There are a number of factors that influence consumption of the insecticide and timing for replenishment:
  - Number of nozzles installed
  - Minutes of scheduled misting per day
  - Number and duration of remote mists
  - Volume of the drum
- To estimate the replenishment frequency for the system, use the calculator at https://www.mistaway.com/techselfhelparticles/dosing-and-days-to-empty-calculators/

Section 7

Maintenance and Winterization

With Each Refill

- Remove any debris that has collected on drum lid to prevent it from falling into the drum and fouling the intake filter or nozzle circuit.
- Clean filter on pump intake line. Remove filter from intake line. Use wire brush and hose to remove debris.

Each Year/Winterization*

1. **Flush pump, agitation valve (if equipped) and nozzle circuit with clean water:**
   - Fill 5-gallon bucket with fresh water and position next to unit.
   - Lift drum lid (with mounted assembly) from drum and rotate/reposition so that pump intake line is submerged inside 5-gallon bucket.
2. Activate a dry Manual Mist cycle and lift left side of unit to clear remaining water.
   - Remove intake line from bucket, disconnect nozzle circuit from unit.
   - Activate a dry (i.e., suction line not in any fluid) Manual Mist cycle.
   - IMPORTANT! While unit is running dry, lift left side of unit about 6 inches to clear water from agitation valve.
   - Reposition drum lid and assembly back on drum.
3. **Clear water from pressure gauge and leak detection flow meter (if equipped).**
   - Lift controller from well in shroud.
   - Disconnect tubing to pressure gauge and from inlet/left side of flow meter and tilt drum to left, allowing water to drain. Reconnect tubing.
   - Replace controller in well.
4. **Clear water from nozzle circuit filter (if equipped).**
5. **Unplug unit from power, wrap power cord around assembly, replace drum cover.**
6. **Purge water remaining in nozzle circuit with compressed air.**
   a. Remove the tip from the last nozzle on the end of each run.
   b. Use portable air compressor with adapter (MistAway Part # 20052) to purge fluid from nozzle circuit.

Section 8

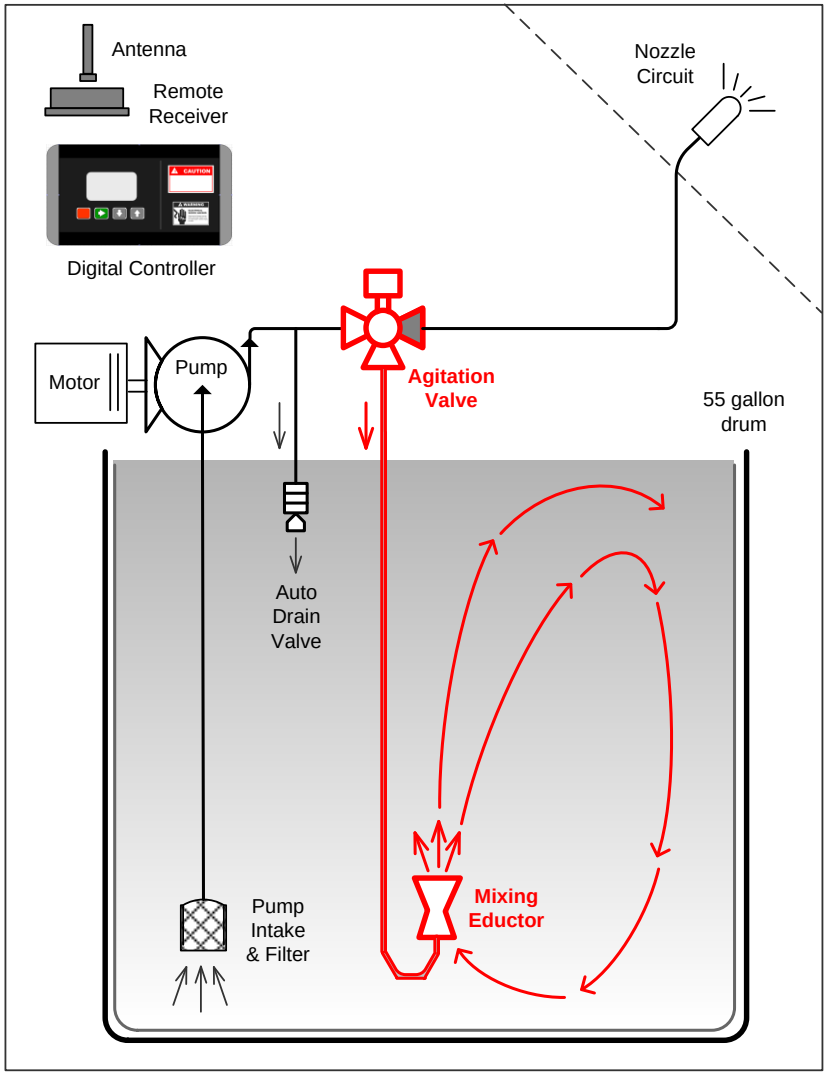
Troubleshooting and Error Codes

See https://www.mistaway.com/category/gen-1-3-troubleshooting/ for troubleshooting the following issues:

- ERR2 – Flowmeter value is zero after MIST
- ERR 3 – MIST volume greater than expected
- Unit not misting automatically
- Unit not responding to command from handheld remote transmitter
- Controller displays EMP and unit will not mist
- Controller displays NOZ00, SKIP, ERR# or SUS and unit will not mist
- Controller displays MIST, but nozzles not misting
- Displayed tank level does not match actual tank level
- Controller display is blank
- Zone Kit problems:
  - System mists from Zone 1 when it should be misting from Zone 2
  - System mists from both zones at the same time
  - System does not mist from either zone

Schematic

The operations of the Gen 1.3 are managed by a digital controller and a number of electro-mechanical components. Information about mist schedules, duration, and agitating the insecticide are entered into the controller by the user.



Appendix A
Unit Component Description

Components – Mounted to Chassis on Drum Lid

- **Digital Controller** – accepts user input, displays unit operating mode and status, controls electromechanical components.
- **Remote Receiver & Antenna** – receives signal from handheld remote transmitter
- **Pump & Motor** – atomizes drum contents through nozzle circuit. Pump pressure typically set to 240 psi.
- **Agitating Valve (optional)** – One path through the valve routes fluid to the nozzle circuit. The other path recirculates fluid in the drum through j-tube mixing assembly.
- **Plastic Housing & Cover** – protects components from the elements. The cover may be locked to the housing to secure access to the controller. The housing contains ports to the nozzle circuit tubing as well as to an optional Zone Kit. On units with an agitating valve, a pressure gauge is mounted into the plastic housing.

Components – Inside Drum

- **Pump Intake Line and Filter** – Pump intake positioned near bottom of drum. Filter ensures debris is not drawn into pump and nozzle circuit.
- **J-tube Mixing Assembly** (on units with optional Agitating Valve) – To ensure thorough mixing, during agitation, fluid is pushed through a j-shaped tube assembly at the bottom of the drum.
- **Auto-Drain Valve** – ensures rapid increase in nozzle circuit pressure on pump startup and rapid decrease on shutdown.

Other Components

- **Remote Transmitter** – 3-button remote enables the user to start a mist, stop a mist and skip the next scheduled mist.
- **Unit Cover** – Weatherproof fabric cover provides protection of the unit from the elements.

DAY/TIME Menu — Set the Day of the Week and the Time of Day and Daylight Savings Time switch.

CYCLES Menu — Configure the mist time and duration of each of 24 possible Auto Mist Cycles (Each with unique duration and time of day.)

CUSTOM PGM Menu — Configures the days of the week for Auto Misting in the AUTO-CUSTOM PGM mode. (Turn each day OFF or ON.)

SET-UP Menu

REM Set the duration for mists triggered by the remote transmitter. (Values from OFF to 120 seconds)

LRN/LRT Program unit to recognize remote handheld transmitter. See Section 5 – Setting Up the Unit.

MAN Set the duration for mists triggered by a Manual Mist (pressing ▲ and ▼ buttons simultaneously.)

NOZ Set the Number of nozzles in the circuit attached to the unit.

AGT Set duration in seconds of agitation prior to programmed mists and set time of once daily off-cycle agitation. On units without an agitating valve, the duration should be set to 0.

RAG Set duration in seconds of agitation cycle prior to a remote mist cycle.

TNK Set reservoir size in gallons (5 – 995)

NFR Target flow rate of average nozzle in circuit, in milliliters per minute. Used in tank level indicator, Empty shut-off and leak detection calculations. Default is 40 mL/min.

TOL Error tolerance for nozzle circuit flow rate. Controls sensitivity of leak detection. (Set as per NFR).

SEN Turn (optional) wind sensor ON or OFF

WND Set max wind speed (above which wind sensor reading inhibits mist).

ALT This feature is not currently used. ALT should be set to 0.

For systems with a zone kit, there are other menu items – **NZ1**, **NZ2**, **RMZ**, **MNZ**, **ZNC**, **ZN1** and **ZN2** – that are explained in the instructions referenced in the zone kit hardware.

Appendix B
Controller Menus

MAINTENANCE Menu

LEVEL Set the tank level in the controller display from 1 to 8 bars. In operation, the indicated level will decrease as insecticide is misted. Press Green ► button, then ▲ and ▼ buttons to set.

INS Inspect Nozzle Circuit. Runs pump for 5 minutes. Hold Green ► button for 3 seconds to trigger. If Zone Kit installed, separate inspection menus, INS1 and INS2.

DATA Menu

(Items marked ** are for units equipped with leak detection)

TMC Total Mist Cycles since last reset.*

TMM Total Mist Minutes since last reset.*

MMC Manual Mist Cycles since last reset.*

RMC Remote Mist Cycles since last reset.*

TMH Total Mist Hours on unit. May not be reset.

SPD Wind speed as read by sensor

FL** Actual volume pumped out of tank during last mist (mL).

AFR** Actual average flow rate of nozzle in circuit, based on volume of fluid discharged during last mist cycle.

TF** Calculated target volume in milliliters (mL) of last mist. Target Volume = (Mist Duration in seconds) * (Number of Nozzles) * (Nozzle Flow Rate NFR) / 60.

HLD Duration that Agitating Valve or Anti-Siphon Valve remains open to nozzle circuit after pump shuts off. Used to control "at-rest" pressure maintained in circuit. (Set as per NFR).

FM Flow meter pulses per gallon – factory configuration only

LGW Pair iMist2 gateway with iMist2-ready receiver

There are additional elements in the Data Menu – **PANID**, **NR**, **FR**, **M**, **P**, **PL#**, **R**, **S**, **N ###** - used to enable and troubleshoot iMistAway internet monitoring and management functionality.

Appendix C
Operating Displays

Operating Displays
(Items marked ** are for units equipped with leak detection)

AGT Unit is agitating contents of drum.

EMP Empty. Unit has calculated zero remaining volume in tank.

HOLD Anti-siphon or agitation valve is being held open at end of mist cycle to allow pressure in nozzle circuit to decay and close nozzles quickly.

INS Unit is in Inspection Mode and will mist for 20 minutes or until stopped.

MST Unit is misting.

NOZ00 Unit stopped operating because the number of nozzles is set to 0. Clear by pressing Red STOP button for 5 seconds.

ERR2** Flow meter value is zero after MIST. See Section 7, Troubleshooting and Error Codes. Clear by pressing Red STOP button for 5 seconds.

ERR3** MIST volume greater than expected. See Section 7, Troubleshooting and Error Codes. Clear by pressing Red STOP button for 5 seconds.

SKIP Unit will skip next programmed mist, having received signal from remote transmitter to SKIP NEXT MIST. Clear by holding down the ▲ arrow button for 3 seconds.

SUS Wind sensor reading higher than user-set max and is suspending programmed mist.

The previous mist was skipped because SKIP NEXT MIST was triggered by the remote or the wind sensor blocked an Auto Mist.

Appendix D
Manual Operations

There are a number of operations that can be performed while standing at the unit:

- **STOP** - Pressing Red MENU/STOP button will immediately stop any current operation of the unit but will not change the System Mode from AUTO to OFF. (To change the System Mode to OFF, use the Green ► Auto/On/OFF button to cycle through each of four System Modes. The ▲ at the top of the display points to the active System Mode.
- **MANUAL MIST** - Pressing the ▲ and ▼ arrows simultaneously (2 seconds) will activate a mist cycle for the duration programmed in the SET-UP menu.
- **INSPECT** - Unit will mist for 5 minutes or until stopped. Navigate to INS in the MAINTENANCE Menu. Press the Green ► button for 5 seconds.