

The Bug **BEATER.**TM

outdoor misting system

Outdoor Automated Misting System

INSTRUCTION MANUAL

**Bug Beater Starter Kit
Bug Beater Controller #AMS1002**

⚠ WARNING

Read and understand all labels and operating instructions before attempting installation. Risk of electrical shock – The pump is supplied with a grounding conductor and grounded power cord. To reduce risk of electrical shock, connect only to a properly grounded receptacle and always disconnect before servicing. The pump is not submersible. Do not use with flammable liquids. Pump cover should remain closed at all times while operating.

⚠ CAUTION

Pump controller should be securely fastened to a fixed wall or pole before operating. Use appropriate fasteners and wall anchors if required. Always use fresh potable water when mixing with approved solutions. Do not use with untreated water supplies. Completely drain the system after each use.

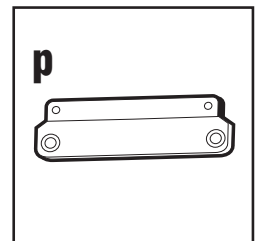
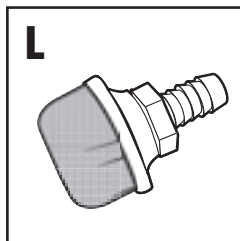
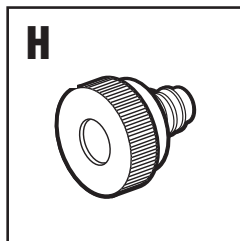
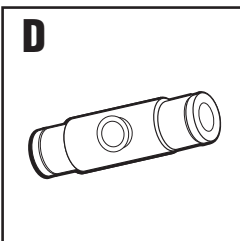
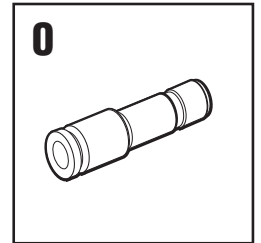
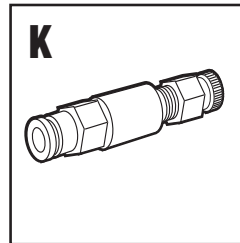
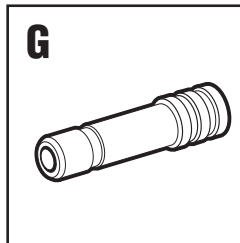
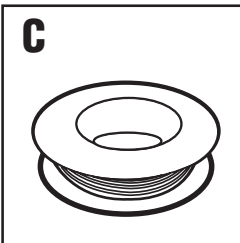
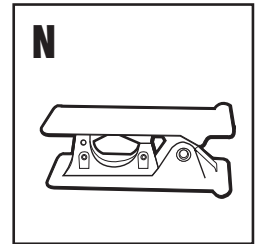
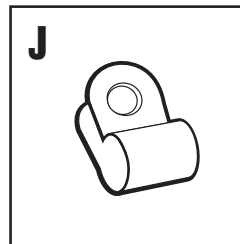
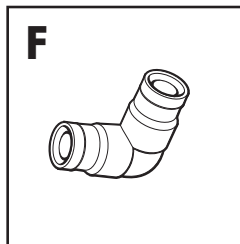
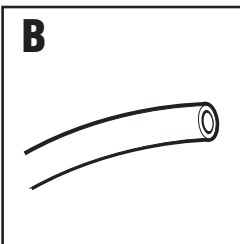
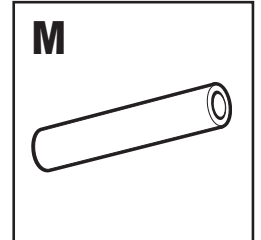
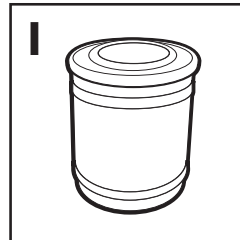
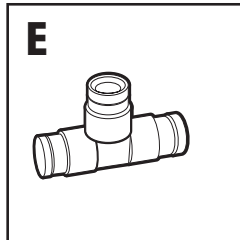
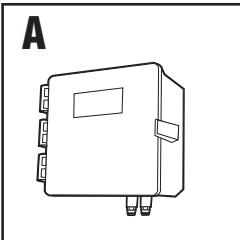
NOTICE TO PARENTS AND PET OWNERS: KEEP SMALL CHILDREN AND ANIMALS AWAY FROM CONTROLLER AND TANK AT ALL TIMES. IT IS RECOMMENDED THAT THE SOLUTION TANK BE LOCKED AT ALL TIMES AS IT MAY PRESENT A POSSIBLE SUFFICATION AND/OR DROWNING HAZARD.

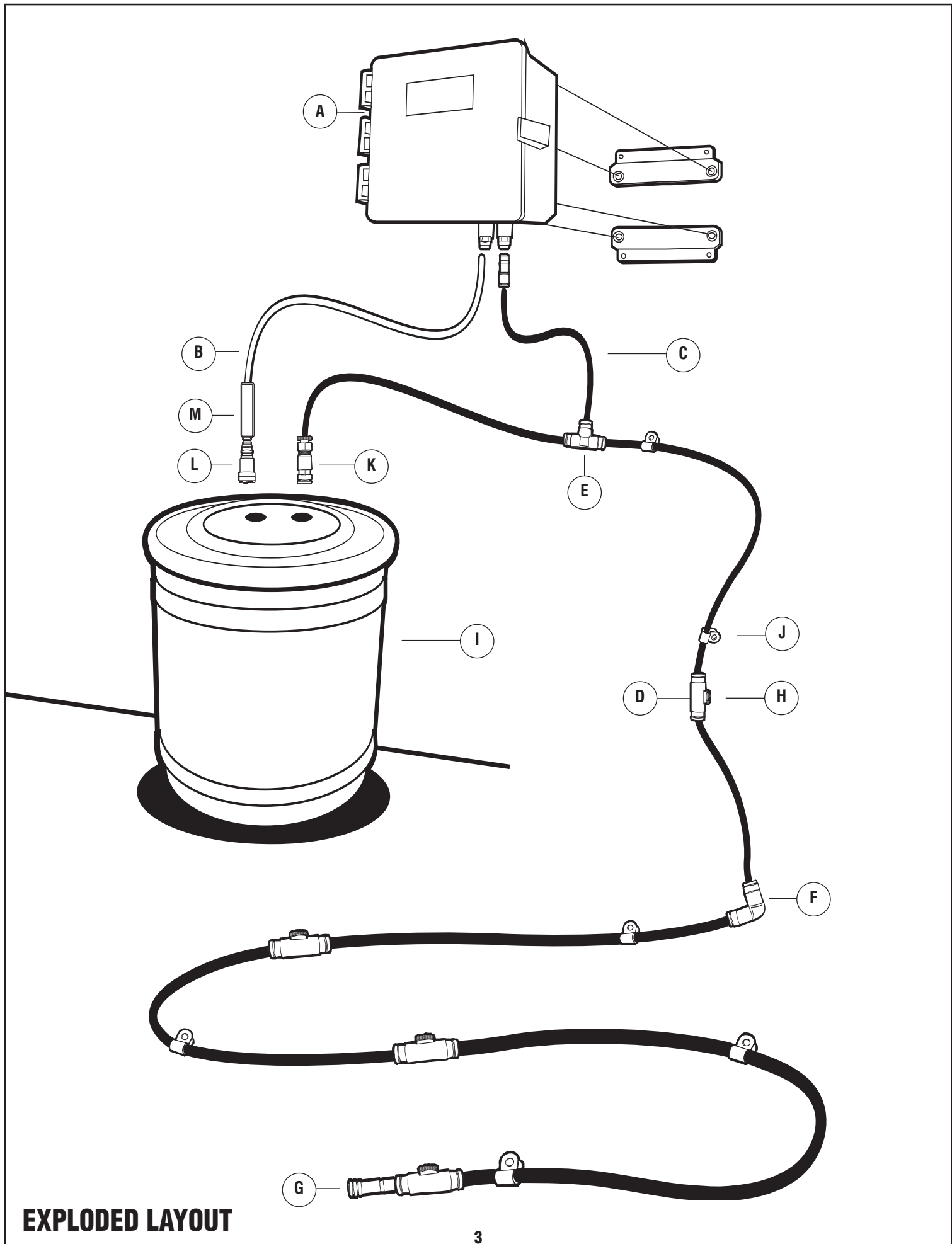
Bug Beater™ "Perimeter System" Starter Kit

Thank you for your purchase of the Bug Beater™ automated misting system. With proper installation and maintenance the system should provide you with many years of dependable, trouble free service.

PARTS LIST

PART	QTY	DESCRIPTION	ORDER CODE#
A	1	Bug Beater Controller	BBAMS1002
B	200'	High Pressure Tubing 1/4" OD	#2014
C	5'	Low Pressure Tubing 3/8" OD	#2138
D	12	Nozzle Adapter (1/4" x 1/4" x 10/24)	#3114
E	1	Union Tee 1/4"	#3214
F	1	Union Elbow (1/4" x 1/4")	#3314
G	1	Plug 1/4"	#3414
H	12	Mist Nozzle (0.012")	#4012
I	1	Solution Tank (40L)	#5010
J	50	Tubing Clamps (1/4")	#6014
K	1	Auto Drain Valve	#7001
L	1	Foot Valve Strainer	#7002
M	1	Tube Weight	#7003
N*	1	Tubing Cutter	#7004
O	1	Tubing Reducer (1/4" X 3/8")	#7010
P	2	Mounting Brackets (Controller)	#7020



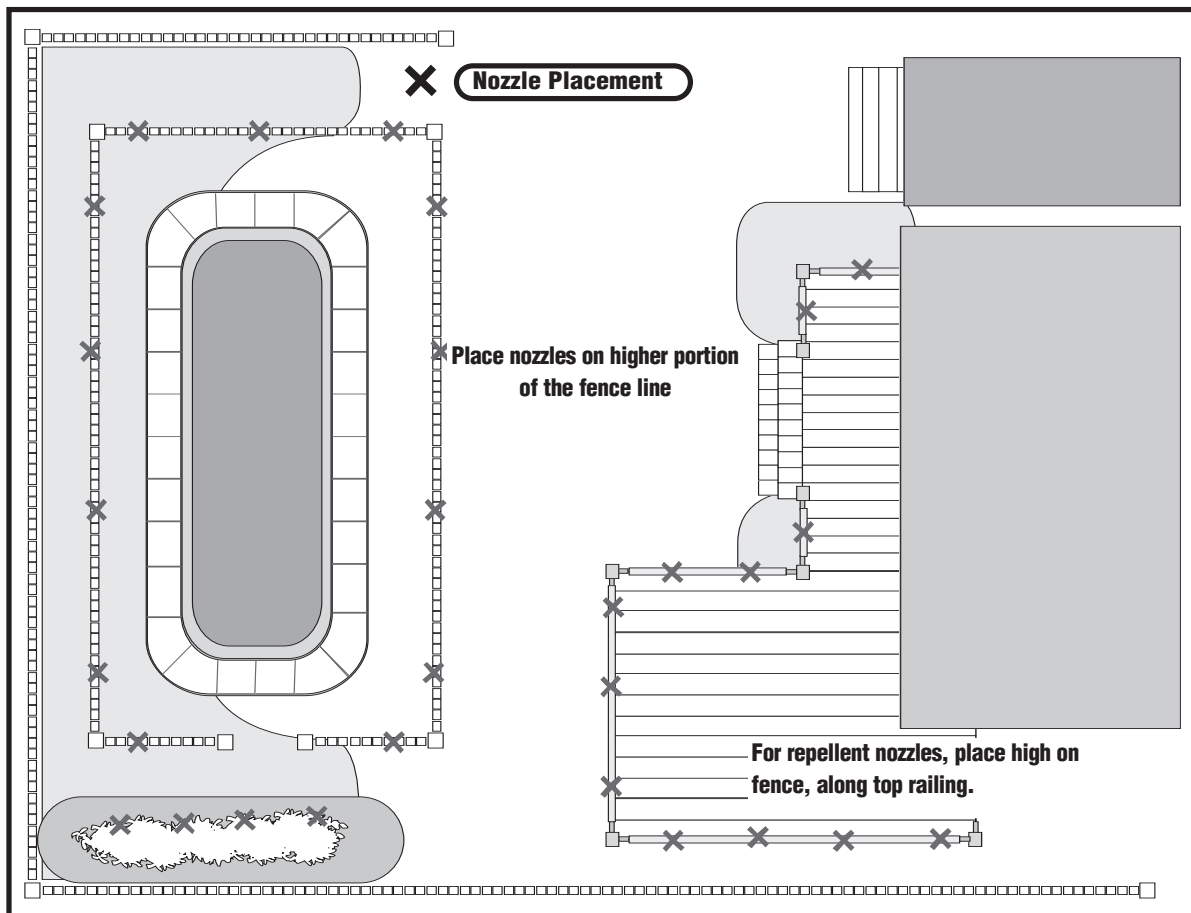


EXPLODED LAYOUT

Nozzle Placement

Nozzle Placement - How to Plan Nozzle Placement For Use With Bug Defence Repellent Solution

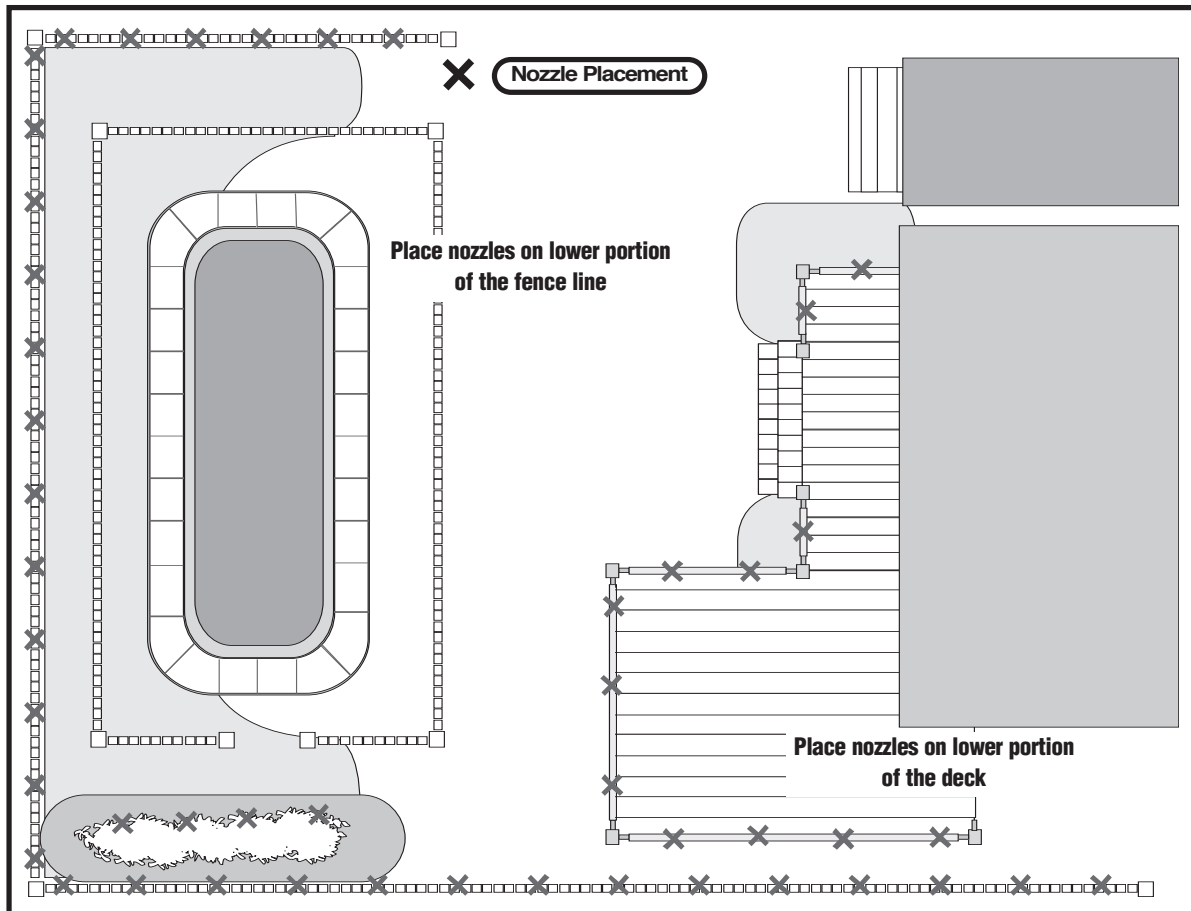
Proper placement of the nozzles is very important in order to maximize the effectiveness of the system. When using a repellent solution, you will want to have the nozzles positioned around areas that you want to have protected. It is best to position the nozzles higher, rather than lower, so that when the solution is misted into the air, it will create a barrier preventing flying insects from entering. Common areas, such as pools, decks and gazebos, are easily protected by positioning nozzles around the tops of fences, rooflines around gazebos and the tops of railings around decks. Position the nozzles pointing outwards and away from the area where people may be. For maximum protection, nozzles should be placed approximately every 10 to 15 feet.



Nozzle Placement

How to Plan Nozzle Placement for a Pyrethrum Solution

If using a Pyrethrum solution, the placement of the nozzles requires a different approach than if using a repellent solution. Pyrethrum is an all-natural insecticide. Because it is an insecticide, you will want to position the nozzles in order for the mist to penetrate into the areas where mosquitoes will be nesting and breeding. Mosquitoes will breed in areas where there is standing water and in areas containing low brush, trees and tall grass. Position nozzles so that the mist can penetrate into these areas. In many cases, such as along shrubs, you will want to position the nozzles lower, in order to penetrate down near the roots and into areas where there may be standing water. In order to place the nozzles to penetrate into some areas, you may want to use 'stakes' or small poles to keep the nozzles approximately one foot off the ground. The lines can be run underground to these stakes or poles. In areas around gazebos, decks and pools, you will want to position nozzles so that the mist will penetrate into any brush or shrubs surrounding those areas. Pyrethrum is also a repellent, so having the nozzles creating a mist barrier around sitting areas will also keep flying insects from entering areas you want to protect. For maximum protection, nozzles should be placed approximately every 10 to 15 feet.



INSTALLATION SUGGESTIONS:

Planning the layout of the misting system

Strategic planning of the layout of your misting system is critical to the overall performance of the system. Care should be taken to ensure that nozzles are positioned at critical point sources to achieve the desired effects.

Step 1: Identify the critical point sources in or around the area where misting is required.

Step 2: Measure the linear distance around the area to be misted.

Step 3: Divide the linear distance by the appropriate nozzle spacing distance (10-20 ft.)

Step 4: Locate the optimal area for mounting the controller.

Step 5: Measure the distance from the controller to the mist line.

Useful Tips:

- Avoid excessive 90 degree angles to reduce line pressure loss.
- Nozzle spacing can be varied in different sections to achieve greater misting benefits in critical areas.
- The Controller/pump module is capable of powering up to 50 nozzles over a linear distance of approximately 1,000 ft.
- For most applications, an average nozzle spacing of 10 – 20 feet can be used for effective coverage over linear areas (i.e. fence lines).

Where to install the controller

Install the controller/pump module:

- In a protected area that has access to an outdoor rated (grounded) 120 volt outlet.
- Away from excessive dust and debris
- Not in direct sunlight or in areas with consistently high ambient temperatures (over 40°C)

****Ideal locations include: garages, sheds, and pool houses.**

Installing the mist line and positioning nozzles

The high pressure flexible mist line is made from UV stabilized 1/4" nylon tubing and is capable operating at pressures of 250 psi. The tubing can be installed using the provided tubing clamps in various positions to achieve the desired aesthetic results.

Nozzles are easily mounted to the tubing by cutting the tubing, inserting the two cut ends of the tubing into each side of a "push-in" nozzle adapter and hand tightening the nozzle into the nozzle adapter (no tools required). Nozzles should be installed at slight upward angle from horizontal to achieve optimal mist dispersion.

NOTE: Place nozzles away from lawn furniture, awnings, windows, umbrellas and painted services. Spray from nozzles may create staining on certain fabrics and if misted near or on windows, will require frequent cleaning of the glass. As a general rule, try to position nozzles so that mist does not spray with 10 feet of services that need to be protected. The misted solution will not harm concrete, lock-stone, pavement or wood.

Useful Tips:

To prevent leaks, cut tubing using proper tubing cutters to ensure clean straight cuts.

To maximize misting performance use the following chart to determine the optimum nozzle spacing.

Total Linear Area Optimum Nozzle Spacing	
0 – 300 ft	10 ft.
300 ft. to 600 ft.	15 ft.
Over 600 ft.	20 ft.

Note: When the system is activated the nozzles will dispense mist up to ten to fifteen feet. Distance of mist travel may vary depending on wind speed and proximity of nozzle from surfaces. Do not position nozzles to spray directly onto food, plants, animals or people. System may require multiple manual purges to fill entire layout solution.

Trouble Shooting

Problem	Cause	Solution
The system will not turn on	System not plugged in System not programmed properly	Plug in system Re-enter program
The system turns on but does not draw solution	Solution level may be too low Foot valve strainer may be plugged Foot valve strainer may be seized Controller may be positioned too high above solution tank	Fill solution tank Clean or replace foot valve Replace or repair foot valve Raise solution tank or lower controller
The system operates but nozzles do not spray or do not spray properly	Nozzles may be plugged	Clean or replace nozzles
The system operates but has no or low pressure	Pump may be defective Foot valve strainer may be plugged Foot valve strainer may be seized Tubing may be damaged	Replace or repair pump Clean or replace foot valve Replace or repair foot valve Repair or replace tubing

If a problem arises that can not be found or fixed, contact a representative for more information.

1-888-831-2250 Please indicate model and serial number of controller and the problem that was encountered and the steps taken to correct the problem.

Warranty

Warranty

HydraLogic Systems Inc. warrants its Bug Beater™ System to be free of defects in material and workmanship for a period of one year from the date of purchase. No warranty or merchantability or other warranty, expressed or otherwise implied is made. Liability for and the exclusive remedy for defective materials or workmanship is limited to the repair or replacement of defective products returned to sender within thirty days after receipt. No allowance will be made for repairs performed by the purchaser or other non-qualified personnel. HydraLogic Systems Inc. is not liable for damages or expenses incurred through the use of its products.

Comments and Questions

Toll Free: 1-888-831-2250 www.bugdefence.com

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Tel: (705) 735-9535 Fax: (705) 735-9540 www.hydralogic.ca

STEP 1:

Unpack materials and check that all pieces have arrived in good condition. See parts list for a complete listing of parts and pictures.

STEP 2:

Open cover of controller and remove the mounting brackets.

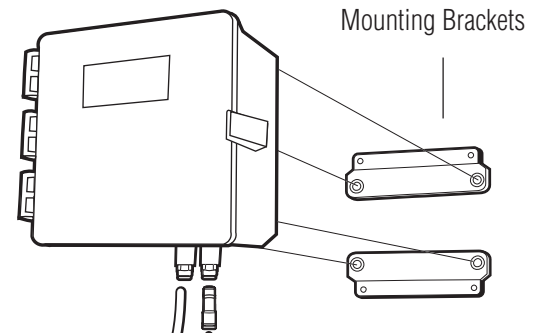


Mounting Brackets



STEP 3:

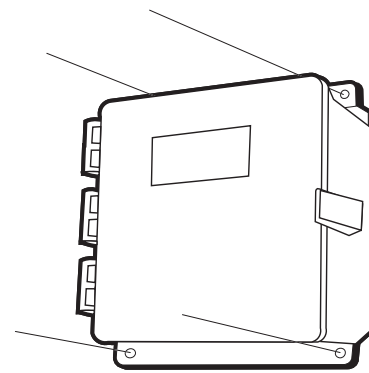
Fasten mounting brackets to back of controller with the provided bolts.



STEP 4:

Mount controller onto wall using appropriate fasteners (ie. lag screws – not provided) through each of the four (4) holes in the mounting brackets. Tip: Bracing with 2x4 pieces of wood between structural wood studs may provide for a more secure connection. Position controller approximately 4 feet above the ground within 8 feet of a 120V grounded electrical outlet. Avoid using extension cords.

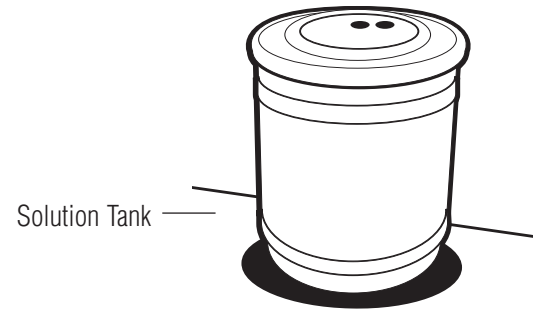
Note: Pump can draw solution up to a maximum of 72” (6 feet). Ensure that the solution tank is placed directly beneath the controller.



Mounting Brackets

STEP 5:

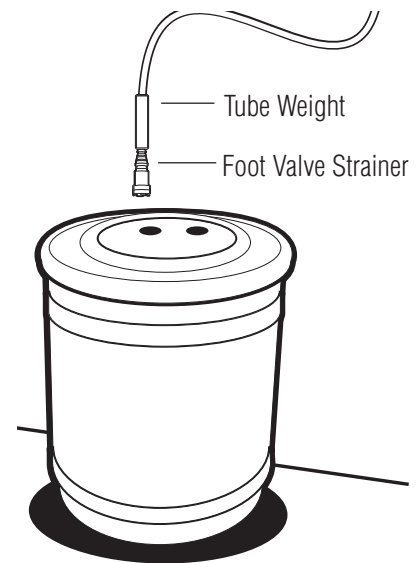
Drill one 3/8" hole and one 1/4" hole in the center of lid of the solution tank. Holes should be approximately 2" apart.



STEP 6:

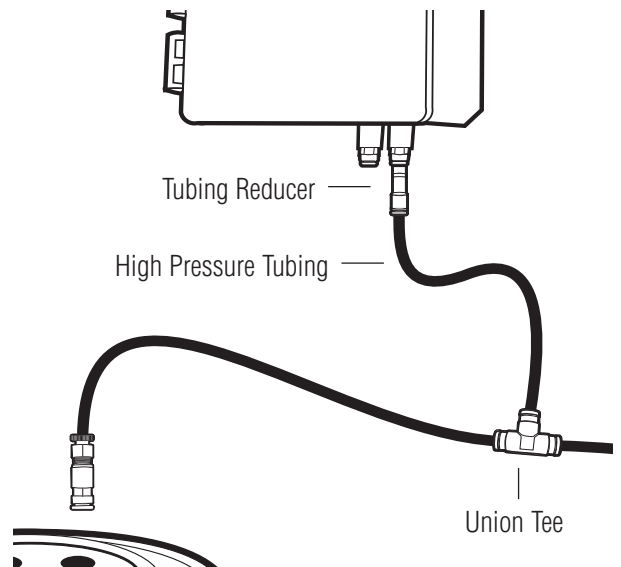
Slide tube weight onto one end of the 3/8" low pressure tubing. Insert foot valve into same end of the tubing. Slide tube weight down until it touches the foot valve. Insert the other end of the 3/8" low pressure tubing into the 3/8" hole drilled in the solution tank lid from the bottom of the lid and connect this end to the inlet port of the controller. Tubing is connected via a push-in fitting (no tools required).

Push-In Fittings: To connect tubing to push-in type fittings, firmly insert tubing into push-in fittings until the tubing is seated in the fitting. Gently pull back on the tubing to ensure a good fit. To avoid leaks, use appropriate tubing cutters to ensure a straight clean cut before inserting tubing into push-in fittings.



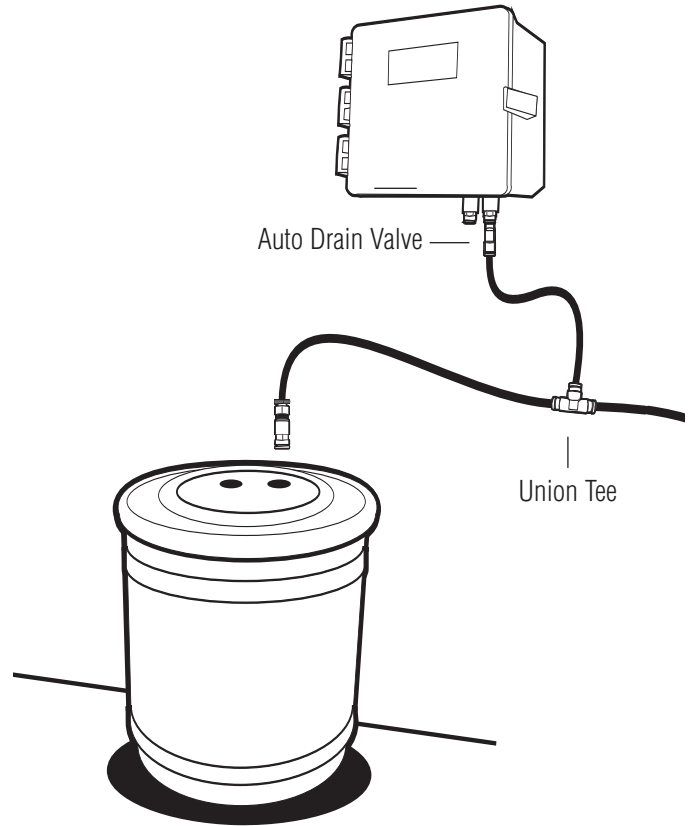
STEP 7:

Insert a 1/4" x 3/8" tubing reducer (supplied) into the discharge port of the controller. Cut a 6" length of 1/4" high pressure tubing and insert it into the other end of the tubing reducer. Connect a Union Tee push-in fitting to the other end of the 6" length of tubing. Measure distance from bottom of union tee to 6" below the lid of the solution tank. Cut a length of 1/4" discharge hose to this size and insert it into the other end of the union tee fitting.



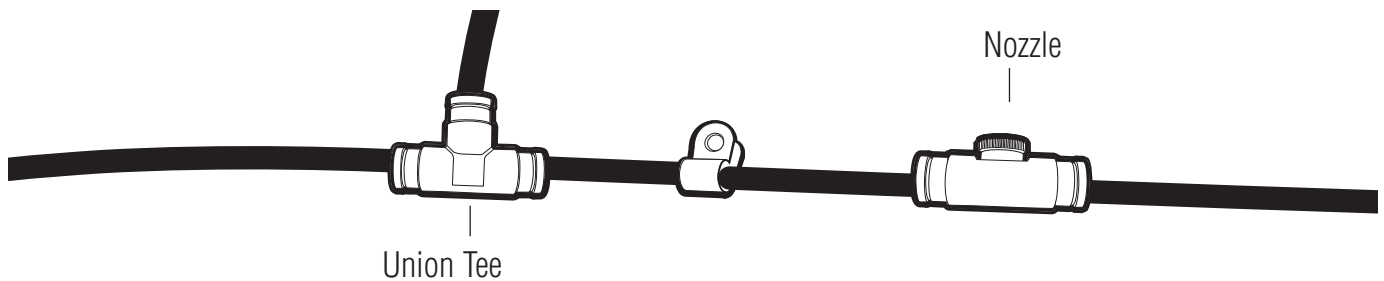
STEP 8:

Insert the 1/4" discharge tubing from the union tee fitting into the 1/4" hole in the lid of the solution tank from the top of the lid. Connect the auto drain valve assembly to the 1/4" discharge tubing inside the solution tank.



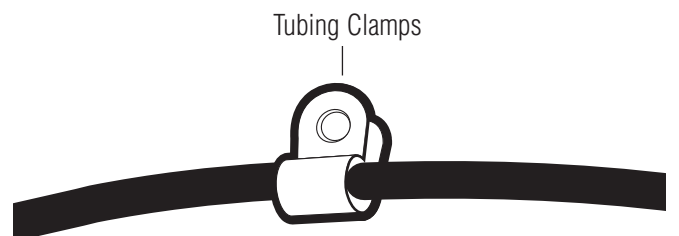
STEP 9:

In the third port of the union tee fitting insert a length of 1/4" high pressure discharge tubing. This length of tubing will extend to the first nozzle in your planned layout.



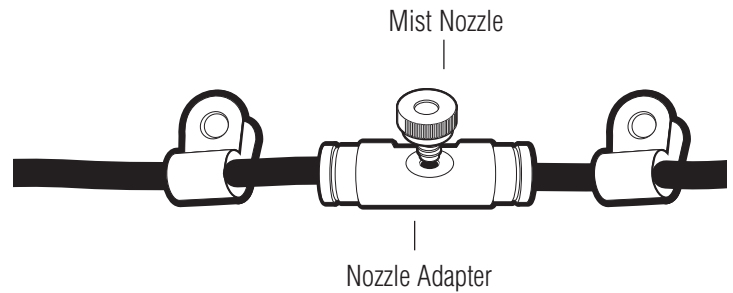
STEP 10:

Mount tubing to secured stationary surfaces using the provided tubing clamps and appropriate fasteners (i.e. wood/metal screws – not provided)



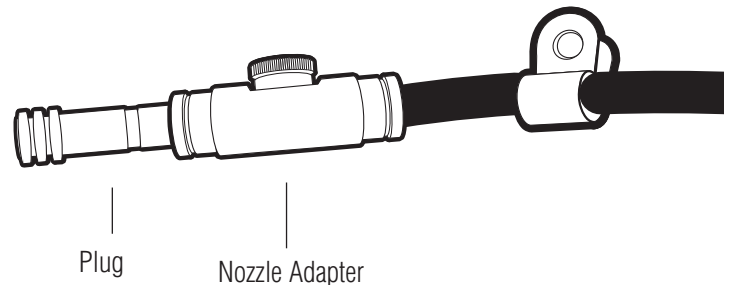
STEP 11:

Connect nozzle adapters to the tubing at the desired locations following the above "push-in" fitting installation instructions. Connect nozzle to the adapter by hand tightening. (no tools required). Secure nozzle with a tubing clamp on either side.



STEP 12:

Insert end plug into last nozzle adapter in the line.



Useful Tip: To prevent debris from getting into the tubing during installation and resulting in clogged nozzles, cover any open ends of the tubing with electrical tape.

Mixing the Solution

The solution used with the system must be mixed in the solution drum and diluted with water. If using a Pyrethrum based solution (such as BioMist), we recommend mixing the solution at a ratio at the following rates:

- 60:1 to 80:1 (60 parts water to 1 part solution to 80 parts water to 1 part solution).

A Pyrethrum based solution will separate from water over a period of time. When mixing solution, mix thoroughly and do not mix more than 14 days of solution at a time. Mixed solution standing in the solution drum for more that 14 days may separate from water and need to be re-mixed before misting.

If using the Bug Defence repellent solution, we recommend mixing the solution at the following rate

- 40:1 to 60:1 (40 parts water to 1 part solution to 60 parts water to 1 part solution). The Bug

Defence solution may separate from water over a period of time. When mixing solution, mix thoroughly and do not mix more than 21 days of solution at a time. Mixed solution standing in the solution drum for more that 21 days may separate from water and need to be re-mixed before misting.

OPERATING AND PROGRAMMING

Operating an PROGRAMMING the Controller

This section of describes the programming features and operating instructions for the BF-0105P Control/Pump Module. The controller's user interface console consists of 2x16 character LCD display, 2 LEDs and 5 buttons. The LCD display is used to display system status and setup information.

The LEDs are used as:

- *POWER ON/OFF* (green) LED – used to indicate system on/off status
- *SPRAY* (yellow) LED – used to indicate pump on/off status

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OPERATING AND PROGRAMMING

1 Introduction

The system is based on spray events. There can be up to 10 spray events in auto mode and up to 10 independent spray events in repeat mode. In auto mode the spray time is specified by the start time and the duration of spray. During the spray time the spray is continuous. In repeat mode the spray time is specified by the start time and stop time. In addition the spray pattern during the spray time is specified by the on cycle time and off cycle time.

Events can overlap.

Support for tank mixer is provided. The tank mixer is activated for preprogrammed time before every spray event. Support for four sensors is provided. The sensors can be installed and uninstalled. Support for keytag is provided. Manual mode is provided where the spray is activated for a preprogrammed time. If the spray is already in progress then the manual mode is ignored.

1.1 Sensors

The system supports four sensors

1. Wind sensor
2. Rain sensor
3. Tank level sensor
4. Pressure sensor

By default the sensors are not installed. To install the sensors the system must be reset (see 1.4).

Note: Sensors are not included in the starter kit. Visit www.bugdefence.com for more information on sensor types and their capability.

1.1.1 Wind sensor

The wind sensor is normally closed and opens when sufficient wind is detected. The sensor is installed at factory reset time if it is connected and closed. When installed the wind sensor is indicated by its icon in the bottom line of the display. The icon is only shown when the system is off. When the system is on with the wind sensor installed and open the bottom line of the display shows "Too windy". The spray does not turn on and turns immediately off when the sensor is active. The two LEDs flash when the sensor is active.

1.1.2 Rain sensor

Rain sensor is normally closed and opens when rain is detected. The sensor is installed at factory reset time if it is connected and closed. When installed the rain sensor is indicated by its icon in the bottom line of the display. The icon is only shown when the system is off. When the system is on with the rain sensor installed and open the bottom line of the display shows "Raining". The spray does not turn on and turns immediately off when the sensor is active. The two LEDs flash when the sensor is active.

1.1.3 Tank level sensor

Tank level sensor is normally closed and opens when the spray solution in the tank has reached a low level. The sensor is installed at factory reset time if it is connected and closed. When installed the tank level sensor is indicated by its icon in the bottom line of the display. The icon is only shown when the system is off.

When the system is on with the tank level sensor installed and open the bottom line of the display shows "Tank empty". The spray does not turn on and turns off immediately when the sensor is active.

The two LEDs flash when the sensor is active.

OPERATING AND PROGRAMMING

1.1.4 Pressure sensor

Pressure sensor is normally open and closes when the pressure has reached the sensor's threshold. The sensor is installed at factory reset time if it is open. The pressure sensor is ignored for some time after the pump is turned on to allow the pressure to build up. This time is settable in the menus and referenced to as "Pressure Delay".

When installed the pressure sensor is indicated by its icon in the bottom line of the display. The icon is only shown when the system is off. When the system is on with the pressure sensor installed and open (after the specified delay), the bottom line of the display shows "Low pressure". The spray turns off immediately when the sensor is active.

The two LEDs flash when the sensor is active.

1.2 Remote Control or "Keytag"

A three button remote control is supported and allows the user to remotely turn the system on, off and toggle the manual spray mode. Each remote comes with an ID selection dip switch. This enables each keytag to be unique. However the system needs to learn the remote before it can be used. Learning the remote is done with the system off in the main display screen by pressing and holding right and left key until "Keytag train" is displayed in the top line of the display screen and the two LEDs light up. At that point the keys can be released and any button on the keytag can be pressed to complete the learning. When the learning is complete or 10 second timeout has passed the display returns to the main screen and the two LEDs turn off.

1.2.1 - How to use the remote control

The 'ON' and 'OFF' buttons on the remote control mimic the programming controls on the main controller.

That is, 'ON' will active the system to come on at the pre-programmed start time.

The 'MANUAL MIST' button on the remote control unit is for 'On Demand' use. Pushing the MANUAL MIST button will turn on the system for the pre-programmed run time (i.e. 30 seconds). This allows you to use the system On Demand and allows you to run the system whenever you need.

1.3 Key lock

The keys can be locked to prevent unintentional usage. Keys are locked in the main display screen by pressing and holding the left, right and manual keys until "Keys locked" is displayed in the top line of the display. To unlock the keys press and hold the left, right and manual keys until "Keys unlocked" is displayed in the top line of the display. The key lock status is indicated by its icon in the bottom line of the main screen.

Note that the keytag is operational regardless of the key lock status.

1.4 Factory reset

Factory reset is done with the system off in main display screen by pressing and holding the left, right and mode keys until "Factory Reset" is displayed in the top line of the display. The keys can be release at that point. The bottom line of the display shows "Please wait..." while the reset is in progress. "Done" is briefly displayed in the

bottom line of the display when the reset has completed. If the keys are still pressed when the reset completes then "Done" is displayed in the bottom line of the display until the keys are released.

OPERATING AND PROGRAMMING

The factory reset does the following:

1. Installs the sensors
2. Resets all setup to factory defaults
3. User interface

The user interface consists of:

1. Display
2. LEDs
3. Buttons

2.1 Display

The display is divided into top and bottom line and is used to display system status and facilitate system setup. In normal operation the top line of the display shows the current date and time and the bottom line shows:

System in auto mode:

System	Manual	Tank Mixer	Pump	Display	bottom line
off	off	off	off		
on	off	off	off	Spray	off
on	off	on	off	Mixer	mm:ss
on	off	off	on	Spray on:	mm:ss
on	on	on	off	Manual:	ss
on	on	off	on	Manual:	ss

System in repeat mode:

System	Manual	Tank Mixer	Pump	Display	bottom line
off	off	off	off		
on	off	off	off	Spray	off
on	off	on	off	Mixer	mm:ss
on	off	off	on	On:	mm:ss
on	off	off	off	Off:	hh:mm:ss
on	on	on	off	Manual:	ss
on	on	off	on	Manual:	ss

Where hh, mm, ss are the hours, minutes and seconds of countdown times. The bottom line of the display is also used to display sensor status.

2.2 LEDs

Two LEDs are provided.

1. system led
2. pump led

2.2.1 System LED

Normally this LED is solid on when the system is on and off when the system is off. The LED is also solid on in keytag training mode and flashes when a sensor is active.

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2.2.2 Pump LED

Normally this LED is solid on when the pump is on and off when the pump is off. The LED is also solid on in remote control training mode, flashes when a sensor is active and flashes when the tank mixer is on.

2.3 Buttons

Five buttons are provided

1. On/Off
2. Manual
3. Left
4. Right
5. Mode

2.3.1 On/Off button

The on/off button is used to toggle the system on and off

2.3.2 Manual button

The manual button is used to toggle the manual spray on and off. This button is also used as a master exit from all setup menus. Special key combinations also use this button (i.e. keys lock).

2.3.3 Left and right buttons

These buttons are used to move through the menus as well as adjust all setup items. Special key combinations also use these buttons (i.e. keys lock).

2.3.4 Mode button

Mode button is used to enter and select setup menus. Special key combinations also use this button (i.e. factory reset).

3 Setup Menus

The setup menus are entered by pressing the mode key in the main display screen while the system is off. Once setup menus are entered they can be exited by selecting the exit menu item or pressing the manual (master exit) key. The menus also time out after 30 seconds of no key activity and return to the main display screen. The menus are traversed using the left and right keys and the displayed menu item is selected using the mode key.

3.1 Main menu

The main menu has the following items:

- Date & Time
- Spray Mode
- Time of Day
- Manual Time
- Tank Mixer
- Pressure Delay
- Exit

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3.1.1 Date & Time

This setup screen is used to set the system date and time

Top Line yy/mm/dd hh:mm
Bottom Line (example) 04/04/28 12:00a

Press mode to traverse between year, month, day, hour and minute and return to the main menu.
Press left or right to adjust selected value.
Press manual to exit and return to the main display screen.

3.1.2 Spray Mode

This setup screen is used to set the system mode

Top Line Set system mode
Bottom Line (example) Auto

Press mode to return to the main menu.
Press left or right to toggle between "Repeat" and "Auto".
Press manual to exit and return to the main display screen.

3.1.3 Time of day

Press mode to enter the event schedule mode menu.
Press manual to exit and return to the main display screen.

3.1.4 Manual Time

This setup screen is used to set the manual spray time

Top Line Set manual time
Bottom Line (example) 5:10s

Press mode return to the main menu.
Press left or right to adjust the value.
Press manual to exit and return to the main display screen.
The adjustment range is 0:10s to 59:59s and the factory default is 0:30s.

3.1.5 Tank Mixer

This setup screen is used to set the tank mixer time

Top Line Set mixer time
Bottom Line (example) 10 minutes

Press mode return to the main menu.
Press left or right to adjust the value.
Press manual to exit and return to the main display screen.
The adjustment range is 0 minutes to 60 minutes and the factory default is 0 minutes (0 is indicated as "Off").

3.1.6 Pressure Delay

This setup screen is used to set the pressure sensor delay

Top Line Set the delay
Bottom Line (example) 10 seconds

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Press mode return to the main menu. Press left or right to adjust the value.
Press manual to exit and return to the main display screen.
The adjustment range is 10 seconds to 60 seconds and the factory default is 3 seconds.

3.1.7 Exit

Press mode to return to the main display screen.
Press manual to exit and return to the main display screen.

3.2 Event schedule mode menu

The event schedule mode menu has the following items:

- Every Day
- Individual Day
- Exit

3.2.1 Every Day

Press mode to adjust the number of events
Top Line Set # of events
Bottom Line (example) 10 events

Press mode enter event selection menu (only if the number of events is not 0).
Press left or right to adjust the value.
Press manual to exit and return to the main display screen.

The adjustment range is 0 events to 10 events and the factory default is 0 events. This number of events is independent for the number of events set for the individual day schedule mode.

3.2.2 Individual Day

Press mode to enter the event day select menu.
Press manual to exit and return to the main display screen.

3.3.3 Exit

Press mode to return to the main menu.
Press manual to exit and return to the main display screen.

3.4 Event day select menu

Event day select menu has the following items

- Saturday
- Sunday
- Monday
- Tuesday
- Wednesday
- Thursday
- Friday
- Exit

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3.4.1 Saturday..Friday

Press mode to adjust the number of events for the selected day

Top Line Set # of events

Bottom Line (example) 10 events

Press mode enter event selection menu (only if the number of events is not 0).

Press left or right to adjust the value.

Press manual to exit and return to the main display screen.

The adjustment range is 0 events to 10 events and the factory default is 0 events. This number of events is independent for the number of events set for the everyday schedule mode.

3.4.2 Exit

Press mode to return to the event schedule mode menu.

Press manual to exit and return to the main display screen.

3.5 Event selection menu

The event selection menu has variable number of items depending on the number of events set.

- Event 1
-
- Event 10
- Exit

3.5.1 Event 1..Event 10

Press mode to enter event time setup.

Press manual to exit and return to the main display screen.

3.5.2 Exit

Press mode to return to the event schedule mode menu.

Press manual to exit and return to the main display screen.

3.6 Event time setup (auto mode)

This setup screen is used to set the event time

Top Line (example) On: 12:00a

Bottom Line (example) Duration: 10:00s

Press mode to traverse between on hour, on minute, duration minute, duration second and return to the event selection menu. Press left or right to adjust selected value. Press manual to exit and return to the main display screen.

The on adjustment range is 12:00a to 11:59p and the factory default is 12:00a.

The duration adjustment range is 0:00s to 59:59s and the factory default is 0:00s.

3.7.Event time setup (repeat mode)

This setup screen is used to set the event time

Top Line (example) On: 12:00a

Bottom Line (example) Off: 10:00a

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Press mode to traverse between on hour, on minute, off hour, off minute and entry to the event cycle setup screen. Press left or right to adjust selected value. Press manual to exit and return to the main display screen. The on adjustment range is 12:00a to 11:59p and the factory default is 12:00a. The off adjustment range is 12:00a to 11:59p and the factory default is 12:00a.

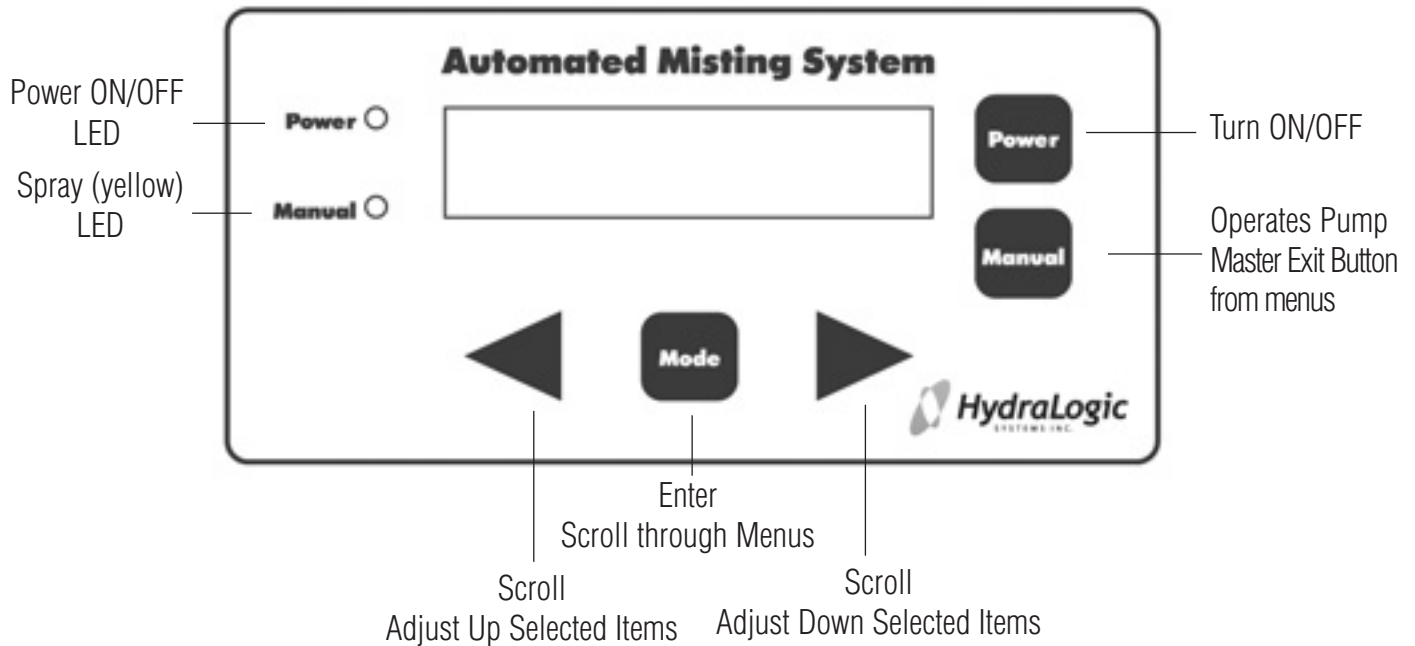
3.8 Event cycle setup (repeat mode)

This setup screen is used to set the event cycle

Top Line (example) On Cycle:10:00s
Bottom Line (example) Off Cycle:12:00m

Press mode to traverse between on cycle minute, on cycle second, off cycle hour, off cycle minute return to the event selection menu. Press left or right to adjust selected value. Press manual to exit and return to the main display screen.

The on cycle adjustment range is 0:01s to 59:59s and the factory default is 0:30s.
The off cycle adjustment range is 0:01m to 23:59m and the factory default is 0:05m.



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Winterizing Your Misting System

Winterizing your system is recommended in order to protect the lines, controller unit and nozzles from damage. When closing down the system for the winter, there are two recommended approaches to winterize your system.

The first method is as follows:

- remove any left over solution from the drum
- remove the line running from the controller unit to the drum and the line from the controller unit that leads to the nozzles.
- use a device such as a foot pump or a compressor to blow the air from the line running to the nozzles.
- leave the lines unconnected to the controller unit
- re-connect the lines in the spring

The second, and often preferred method is as follows:

- remove any left over solution from the drum
- pour some RV or Marine anti-freeze into the solution drum
- run the system for 20 or 30 seconds in order to get the antifreeze into all of the lines and misting from the nozzles
- remove the line running from the controller unit to the drum and the line from the controller unit that leads to the nozzles.
- leave the lines unconnected to the controller unit
- re-connect the lines in the spring

In both cases, if the control unit is inside a pool house, garage or anywhere indoors, you can leave the control unit in its place. If the control unit is mounted outdoors, it is recommended the control unit be brought indoors for the winter months.