

# Do-It-Yourself Outdoor Cooling 1/2" Misting System

## INSTRUCTIONS

**IMPORTANT:** Read all instructions and check kit contents before beginning assembly.

### 1/2" Misting System Contents List

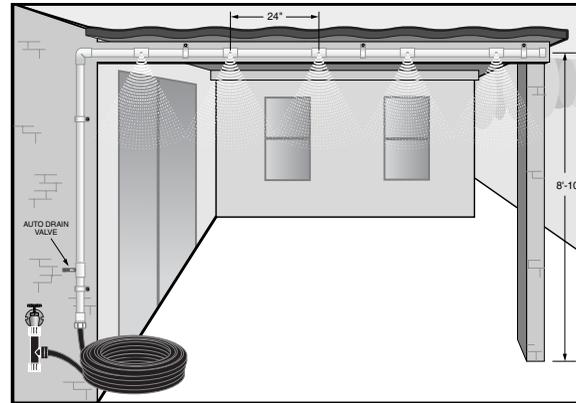
\*\*Check the contents in the parts bag. If items are missing, please return unopened to the place of purchase, or call Orbit Customer Service at (800) 488-6156.

Part	Qty	Description
	9	22" Sections Precut 1/2" Paintable UV-treated PVC Pipe
	6	PVC Split Section Couplings
	5	Brass and Stainless Steel Mist Nozzles
	7	1/2" PVC Hanging Clamps
	1	1/2" x 3/4" PVC Swivel Hose Adapter
	1	Auto Drain Valve
	3	90 Degree 1/2" PVC Elbow
	1	Can PVC Cement
	1	1/2" PVC Cap
	1	FHT x MHT T Filter 150 Mesh
	1	Hose Washer
	3	1/2" S x S1/2" PVC Couplings

## USEFUL TIPS FOR MIST SYSTEM LAYOUT

For the most effective cooling:

1. Place mist line around the perimeter of the area to be cooled. This forms a "mist curtain," a cooling barrier between the protected area and the outside heat.
2. Place mist nozzles 24" apart for mist lines mounted 8' to 10' above the ground. Nozzle spacing should be shortened if mist line is mounted higher.
3. For a deep patio (more than 12' deep), mount the pipe on the inside of the fascia board with nozzles directed slightly downward into the patio for the most effective cooling. This will result in better cooling, but may result in some residual moisture buildup during cooler temperatures or more humid conditions.
4. For a shallow patio (less than 12' feet deep), mount the pipe on the outside of the fascia board with nozzles positioned slightly down and outward.
5. If your mist line will require more than one 90 degree elbow, purchasing a PVC cutter is recommended to allow for cutting 1/2" PVC in exact lengths required.
6. 1/2" Misting System Nozzle Extensions (Item #10056W) may be used to allow for complete nozzle adjustment even after your system is installed. 1/2" Misting System Nozzle Extensions will also allow your system to be mounted inside the fascia with the nozzles extended below the fascia for a more attractive installation. (See Inset Diagram 2A). See your local retailer to purchase programming in a variety of ways.

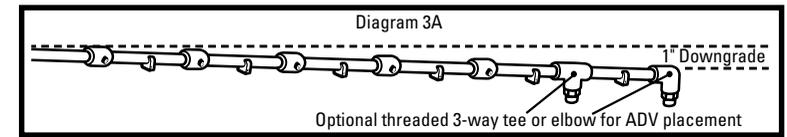


## Mist System Assembly and Installation

REMEMBER: Read all instructions before assembly

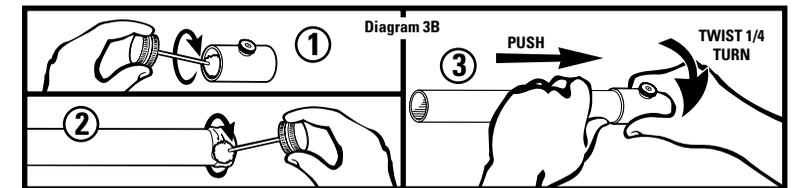
### Mist Line Assembly Preparation and Planning

- Make sure each section of pre-cut PVC and split sections are completely free of debris. Remove any PVC shavings from outside edges and interior of pipes/fittings, then flush with air or water to clean thoroughly.
1. Predetermine the hanging position of mist line (inside or outside of patio fascia), then mark. Connect them together with the supplied 90 degree elbows after they are mounted to the fascia.
  2. Measure the lengths needed for straight runs of mist line.
  3. Determine where you will connect water source to mist line (this is your water feed line).
  4. Placement for Auto Drain Valve (2) - An Auto Drain Valve must be installed at the lowest point(s) of your mist line to insure proper water drainage when mist system is not in use and to prevent premature nozzle clogging. This can be done at the beginning of the mist line with one of the PVC Split Section Couplings and the Brass Auto Drain Valve. Use the coupling to join the first 22" PVC Pipe section to form a feed line and thread the Auto Drain Valve into the 10/24 threaded hole at the center of the coupling." (See diagram 3A)



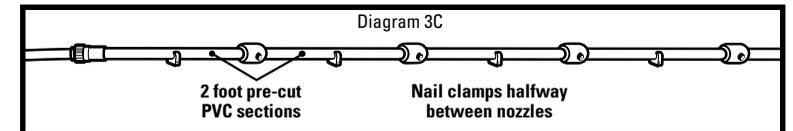
## Mist System Assembly and Mounting

- Assemble straight sections of mist line. Connect the pre-cut sections of pipe using the Split Sections and the PVC cement by liberally applying the cement to the inside of the fitting and the outside of the pipe (See Diagram 3B). Insert pipe into fitting and twist 1/4 turn (See Diagram 3B) to evenly spread the cement as each piece and provide a water-tight seal. Each section should begin and end with a piece of straight PVC. Keep in mind Auto Drain Valve placement.
- Be sure that split sections are cemented in place so that all threaded nozzle openings are aimed in the same direction. (See Diagram 3C).



Mounting System. Before mounting, snap one hanging clamp onto the PVC between each split section of prebuilt mist line. Place assembled mist line along your marks with the first nozzle beginning approximately 2 feet from the house. Nail hanging clamps into place (see Diagram 3C). Repeat this step until all straight sections are hung.

- Join all sections at corners by cementing 90 degree elbows into place at corners using the same cementing process as described above. Be sure that mist line is positioned at the proper angle for misting—this will be the permanent position of mist line once cement has dried (see Diagram 3C). See "Useful Tips," Option #6 if nozzle adjustment is needed after mist line is set.



- Water feed line. To attach feed line, cement a 90 degree elbow at the start of mist line closest to water source. Point the elbow down towards water source. Cement remaining pre-cut 2' section of PVC into the elbow. Continue to join remaining 22" sections of pipe together with Slip X Slip Couplings until desired feedline length is completed. (Remember the lowest coupling of 22" pipe sections must be made with a PVC Split Section with 10/24 threading at the center, to allow for placement of the Auto Drain Valve). Then cement PVC hose adapter to the other end of pre-cut PVC pipe section.
- End of Mist Line. Cap the end by cementing a 1/2" PVC cap.
- ALLOW A MINIMUM OF 1 HOUR DRYING TIME BEFORE FLUSHING SYSTEM OR MISTING.
- Water Connection/Flush System/Begin Mist Operation. Attach T Filter to the water spigot, then attach water feed line between filter and mist line. Turn on water (at full pressure) for a few minutes to flush out any dirt or debris from within the mist line. Turn off water, hand-thread nozzles in threaded split section openings (hand tighten only), and thread Auto Drain Valve(s) into threaded opening of PVC Split Section Coupling at the beginning of your feed line. Turn on the water and begin misting!

## Mist System Operation and Maintenance

The following recommendations will assist you in maintaining your mist nozzles and preventing unnecessary clogging.

**Draining Water from Mist Line** - Whenever the mist system is not in use the residual water should be drained to minimize nozzle clogging. If your system has had a(n) Auto Drain Valve(s) installed correctly at the lowest points in the system, no additional steps are required after turning off the system. If an Auto Drain Valve has not been installed, detach the system at the water source and allow the water to drain completely.

**Nozzle Cleaner** - Periodically clean the nozzles in the system. See bottle for instructions.

**Sediment or Calcium Inhibitor Filter** - A T Filter should be used to prevent any solid sediments from passing from water source to nozzles.

**Flushing System** - Always remove nozzles at the end of the summer season. Before reinstalling your nozzles the following year, flush the system for 5 minutes. To keep the mist line free from debris in the off season, install Arizona Mist Nozzle Plugs in place of the nozzle. You should also flush the system if it has been idle for longer than a month.

### Troubleshooting

Problem	Solution
Leak at Split Section	1. If the leak is occurring at the union between the split section and PVC pipe section, a water tight seal was not formed when cemented. This occurs if cement was not applied completely around the inside of the split section and the outside of the pipe section or if water was run prematurely through the mist line before a watertight seal could be established. The split section must be removed and replaced or cemented again.
Leak at Nozzle	1. Make sure the nozzle is sufficiently tightened into place. <b>HAND TIGHTEN ONLY DO NOT USE TOOLS.</b> 2. Check to make sure the nozzle O-ring is in place. 3. Nozzle may be clogged which can give the appearance of "leaking" or dripping. Clean with nozzle cleaner (See use instructions on nozzle cleaner bottle) and/or remove debris left from inadequate flushing of mist line by blowing out with air. <b>Do not attempt to clean by sticking foreign object into nozzle opening</b> —this will result in nozzle damage.

For questions or comments, please contact Orbit Customer Service at Orbit Irrigation Products, Bountiful, UT 84011 or by calling at (800) 488-6156.

## System Expansion/Accessories

The 1/2" Misting System can be easily expanded from the original kit of 10 nozzles/20 feet of mist line to 250 nozzles/500 feet of mist line by adding additional split sections and sections of 1/2" paintable UV-treated PVC pipe. Additional PVC pipe and fittings can be found at your local retail store centers for a nominal cost. Listed below are the accessories available to expand and/or maintain your 1/2" Misting System for many years of cool mist enjoyment.

### Orbit /Arizona Mist Accessories

Picture	Part #	Product Description
	<b>10107</b>	Plug (5 Pack) - Use to close off unneeded misting outlets
	<b>10109</b>	Sediment or Calcium Inhibitor Filter Attaches directly to 3/4" hose faucet. Protects nozzles from clogging due to sediment or calcium build up
	<b>10103</b>	Nozzle Cleaner - 8 oz. bottle. Used to dissolve mineral deposits on nozzles
	<b>10106</b>	Mist Nozzle (5 Pack) - Brass and stainless steel nozzles available as replacements
	<b>10112</b>	Split Section - PVC Couplings with nozzles are available to expand your mist system in 5 packs
	<b>10056</b>	4' 1/2" Misting System Nozzle Extension - Use to extend nozzle away from Split Section and allow for easy, versatile direction of mist

## Warranty and Statement

Orbit® Irrigation Products, Inc. warrants to its customers that its Orbit/Arizona Mist products will be free from defects in materials and workmanship for a period of four years from the date of purchase. We will replace, free of charge, the defective part or parts found to be defective under normal use and service for a period of up to four years after purchase (proof of purchase required). We reserve the right to inspect the defective part prior to replacement. Orbit® Irrigation Products, Inc. will not be responsible for consequential or incidental cost or damage caused by the product failure. Orbit® liability under this warranty is limited solely to the replacement or repair of defective parts.

To exercise your warranty, return the unit to your dealer with a copy of the sales receipt.

Questions please call: 1-800-488-6156 or 1-801-299-5555  
www.orbitonline.com



Register your product online at [www.orbitonline.com](http://www.orbitonline.com)

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