

TECHNICAL INSTRUCTIONS

# Klima 800-12 (16) User Guide

**OUTDOOR MISTING**

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# Klima Cool 800-12 (16)

## Specification Sheet

### Features

Klima Cool 800-12 230 V,  
Klima Cool 800-16 115 V

- High pressure (up to 800 psi)
- Factory assembled for easy installation
- Integrated timer for scheduled mist cycles
- Heavy duty powder coated cabinet
- Diagnostic LED lights
- Prefiltration for nozzle protection
- Automatic low pressure shutdown
- Low maintenance pump
- Low energy consumption
- Metal high pressure rated nozzles and fittings
- Nozzle with integrated antidrip

Model	KLIMA COOL 800-12 (16)
Maximum nozzles covered up to	12 nozzles for 230 V 16 nozzles for 115 V
Minimum nozzles covered	8 nozzles for 230 V
<b>Location Requirements</b>	
Electrical Source	100/115/230 V AC, 50-60 Hz
Water Supply	1/2" MPT Adapter
Inlet Pressure	30 psi (2 bar) minimum
Drain	Floor Drain or 1" Drain Pipe
<b>Maintenance</b>	
20-25 micron Sediment Filter (#11033)	Change every 3 months
Motor/pump	Maintenance free
<b>Specifications</b>	
<b>Size:</b>	
Height	18.7 inches (47.5 cm)
Width	14 inches (36 cm)
Depth	5 inches (12.7 cm)
Weight	45 lb (20 kg)
Water Pressure Gauges	Inlet, Product
Operating Voltage	115/230 V
Unit Power Consumption	115 V, 1.5 A / 180 W 230 V, 0.75 A / 173 W
Pump	High Pressure Pump
<b>Solenoid Valve:</b>	
Inlet	Plastic 1/4" 24 V
Purge	Metal HP 1/4" 24 V
<b>Tubing</b>	
	Color coded
<b>Materials</b>	
	Polyethylene
	High pressure rated
<b>Nozzles</b>	
Materials	Stainless Steel Nozzle Stainless Steel Connector
Water consumption	Maximum per nozzle 1.02 gallons/hour (3.8 liters/hour)
Antidrip	Yes

# Klima Cool 800-12 (16)

## Installation Guide



Picture 1

### MIST LINE ASSEMBLY

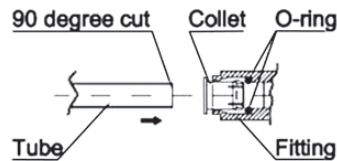
Mist line should be installed on the ceiling or on the walls to have the best possible distribution and coverage.

**NOTE:** To prevent overloading the pump, Drosia 800 12(16H) requires a minimum of 8 nozzles (HP Nozzle #20052, 3/8" HP Union nozzle connector #17173).

Using precut 30 inches / 76 cm pieces of tubing (#18045), make sure the tubing has a clean degree cut (see picture 2). Use a tube cutter (# 27002) to insure you have the proper cut.

**Install Black Locking Clips (#17143) to every HP Union nozzle connector (#17173) as shown on picture 1!!!**

If the edges of the cut tube are sharp or have burrs, you need to remove the burrs with the knife or sand paper and make edges smoother for easier connection, thus you can avoid damage to the O-ring. Using the lubricant on the tube before inserting into the fitting is also recommended. Push the tube into the fitting, past the O-ring until you feel it come in contact with the internal tube stop. It is recommended to pull the collet out with the screwdriver or pliers while pushing the tubing into the fitting to lock the tube inside the fitting.



Picture 2

Continue to install the precut tubing and nozzle bodies. Two elbows (#17174) have been included to go around corners. To finish your high pressure line install the last nozzle and attach the plug (#17176) to the outlet of the last nozzle body or put an elbow and block it with the plug on the outlet.

### SYSTEM PLACEMENT

Find the suitable location with a flat level surface for the system. Make sure this is close to the water and electrical supply. It will require a 115 V or 230 V outlet depending on the available voltage. Make sure the outlet for the system is grounded properly to prevent electrical shock.

### HIGH PRESSURE FEED LINE

Using the high pressure tubing (#18046), push one end through the hole in the cabinet and push into the fitting on the output of the pump. Route the high pressure tubing to the first nozzle connector.

Secure tubing with zip ties (#24078). Cut the tubing at the first nozzle and push it into the nozzle connector. Use the precut pieces of high pressure tubing for further nozzle body connections for proper spacing between nozzles.



Picture 3

### WATER SUPPLY LINE (GREEN TUBING)

The water supply tubing is GREEN and is 1/2 inch. Attach one end of the tubing to the inlet fitting on the cabinet (see picture 3). Route the tubing to the water source and connect the tubing. The system requires 1/2" FPT Adapter with Shutoff Valve. At a suitable location between the water source and the

pump, the tubing must be cut and the filter installed. Use two screws supplied with kit to attach the filter and connect the tubing. Make sure to use the lock clips (#17143) on the fittings.

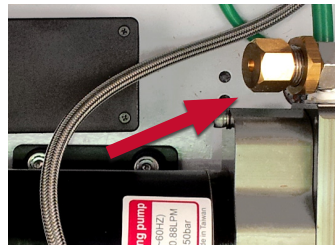
Before starting the system install and run water through the filter for 30 seconds to avoid contaminants entering the pump.

### FLUSHING THE SYSTEM

Flushing the system before regular operation is important in order to clean the tubing from small particles. Let the end of the tubing run open. Turn ON the water supply and the system and let it run for 30 seconds. This will flush the tubes and fittings of any foreign matter. After the flushing plug the tubing run in the end as recommended earlier.

### CHECKING THE INSTALLATION

Make sure that water supply is attached and the inlet pressure is more than 30 psi. Turn ON the system. Remember, the pump will start with 5 to 15 psi inlet pressure (because of the pressure switch), but the system will not operate as designed with less than 30 psi inlet pressure.



Picture 4

The first check is the product pressure. The product pressure is factory set at 800 psi. The pressure can be adjusted to 800 psi if necessary by turning the knob on the pressure regulator (see the red arrow on the picture 4). Clockwise to increase the pressure and counter clockwise to decrease the pressure. Check each fitting and

nozzle for leaks. If a leak occurs, shut OFF the system and remove the tubing from the leaking fitting. Make sure the tubing is cut straight and pushed all the way into the fitting. Reassemble making sure the tubing is inserted passed the O-ring and comes to rest at the tubing stop. Let the system run for a few minutes. You will notice the tubing beginning to sag between the ties. This is normal as a result of the tubing and fittings expanding and locking in place. Turn OFF the system. Start at the last nozzle and tighten each cable tie while pulling the tubing to remove any sagging. Continue until all the cable ties are secured. When shutting down the system, always shut OFF the system first and then the water. Also it is recommended to turn off the system after it finishes a cycle so the Purge can release the pressure in the tubing.

### POWER AND WATER SUPPLY

A dedicated circuit is recommended for the system. The system must be grounded. In the event of a malfunction or breakdown, grounding will reduce the risk of electric shock by providing a path to ground for electric current. The system is equipped with a cord having a ground conductor and a grounding plug. If a grounded outlet is not available, a hardwired ground must be used. The plug must be plugged into an appropriate outlet that is installed and grounded in accordance with all local codes and ordinances.

**WARNING:** Improper connection of the equipment-grounding conductor can result in a risk of electrical shock. Check with a qualified electrician if you are in doubt whether the pump is properly grounded. Insure that the water source being used can supply at least 1.7 gallons (6.5 liters) per minute.

# Klima Cool 800-12 (16)

## Installation Guide



Picture 5

### SETTING THE TIMERS

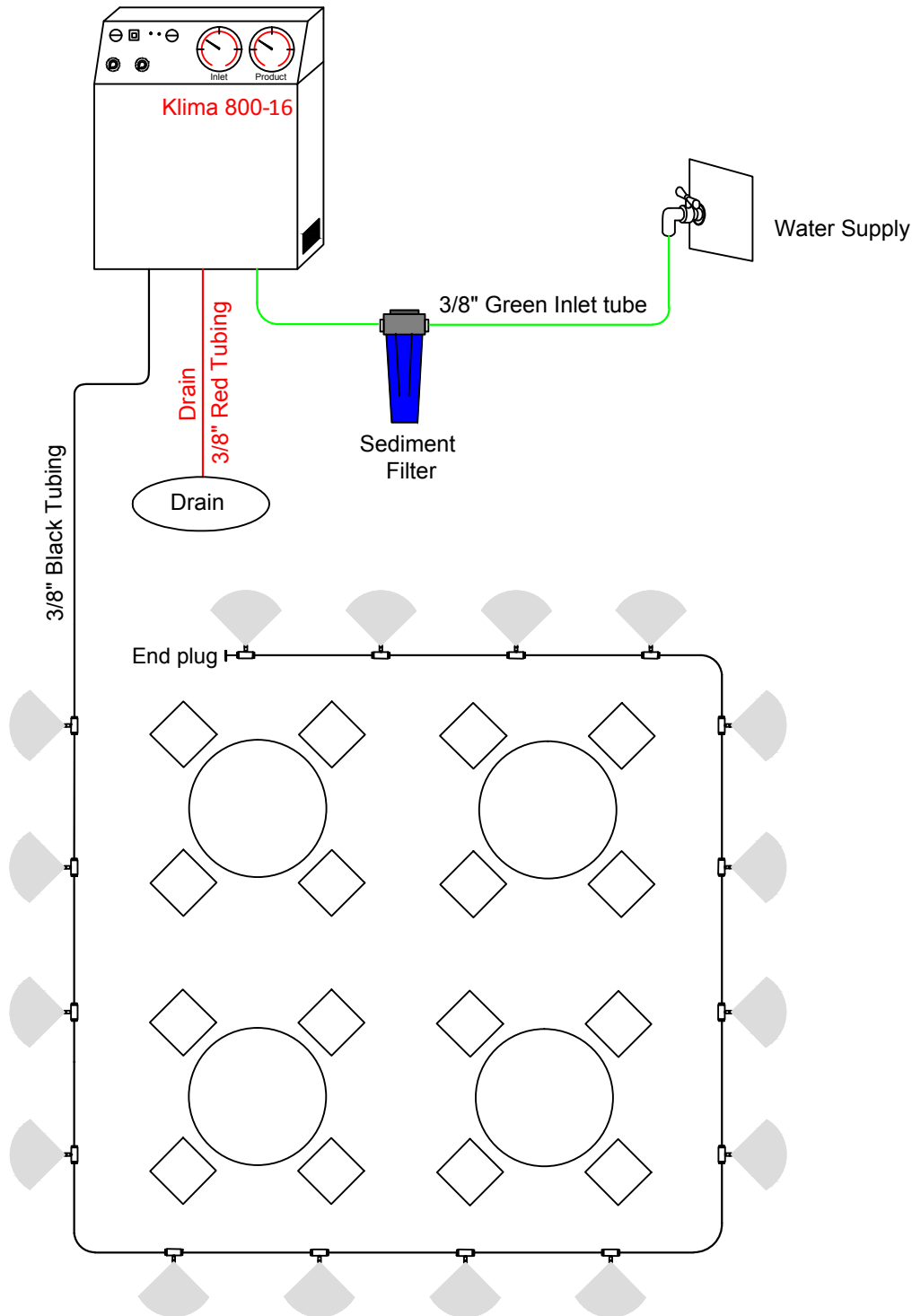
When the mist becomes too heavy or too much, the timer should be used to correct the amount of mist.

The “Continuous” switch and two adjustment knobs on the control

panel control the timer. When the “Continuous” switch is “ON”, the system will mist continuously. When the “Continuous” switch is “OFF”, the timer will control the mist “ON” and “OFF” times by using the two adjustment knobs (see the red arrows on the picture 5). These times will be from 5 seconds to 20 minutes as marked on the control panel. The times set will be particular to the temperature, wind, relative humidity and area being cooled. Because of these variables, it is impossible to give settings for each account. Adjust these two knobs as, necessary, to get the desired effects from the mist.

# Klima Cool 800-12 (16)

## Layout Diagram



Maximum nozzles covered up to	12 nozzles for 230 V 16 nozzles for 120 V
Minimum nozzles covered	8 minimum

# Klima Cool 800-12 (16)

## Maintenance Guide

**ATTENTION: When installing use 12 nozzles in 230 V applications and 16 nozzles in 115 V applications for proper operation.**

### Maintenance Requirements

The low flow pump is maintenance free.

The nozzles will periodically become clogged due to minerals in the water. Simply remove them from the system and soak them in a product such as CLR for 30 minutes. If CLR is not available in your area, vinegar could be used as a substitute. Also, heating the cleaner will improve its ability to dissolve the minerals. Replacement nozzles are also available from the manufacturer.

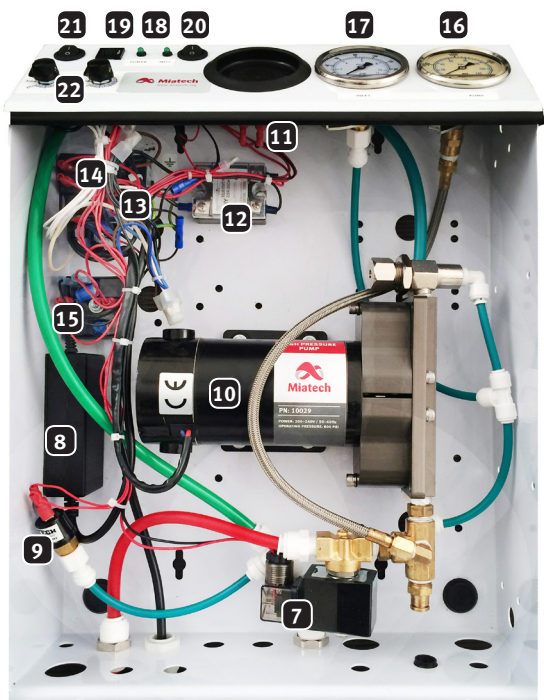
On average the filter last up to three months. It should be inspected and changed depending on the local water quality.

A sediment filter is used in this system. If the sediment filter isn't replaced on a regular PM schedule it will cause a flow restriction that could lessen the life of the pump. To check, open the canister and inspect the cartridge. Replace as necessary.

If the system will not be used for a prolonged period of time and during the winter months, water inside the line should be removed. Store them in a cool dry area until the system is to be used again.

### Troubleshooting

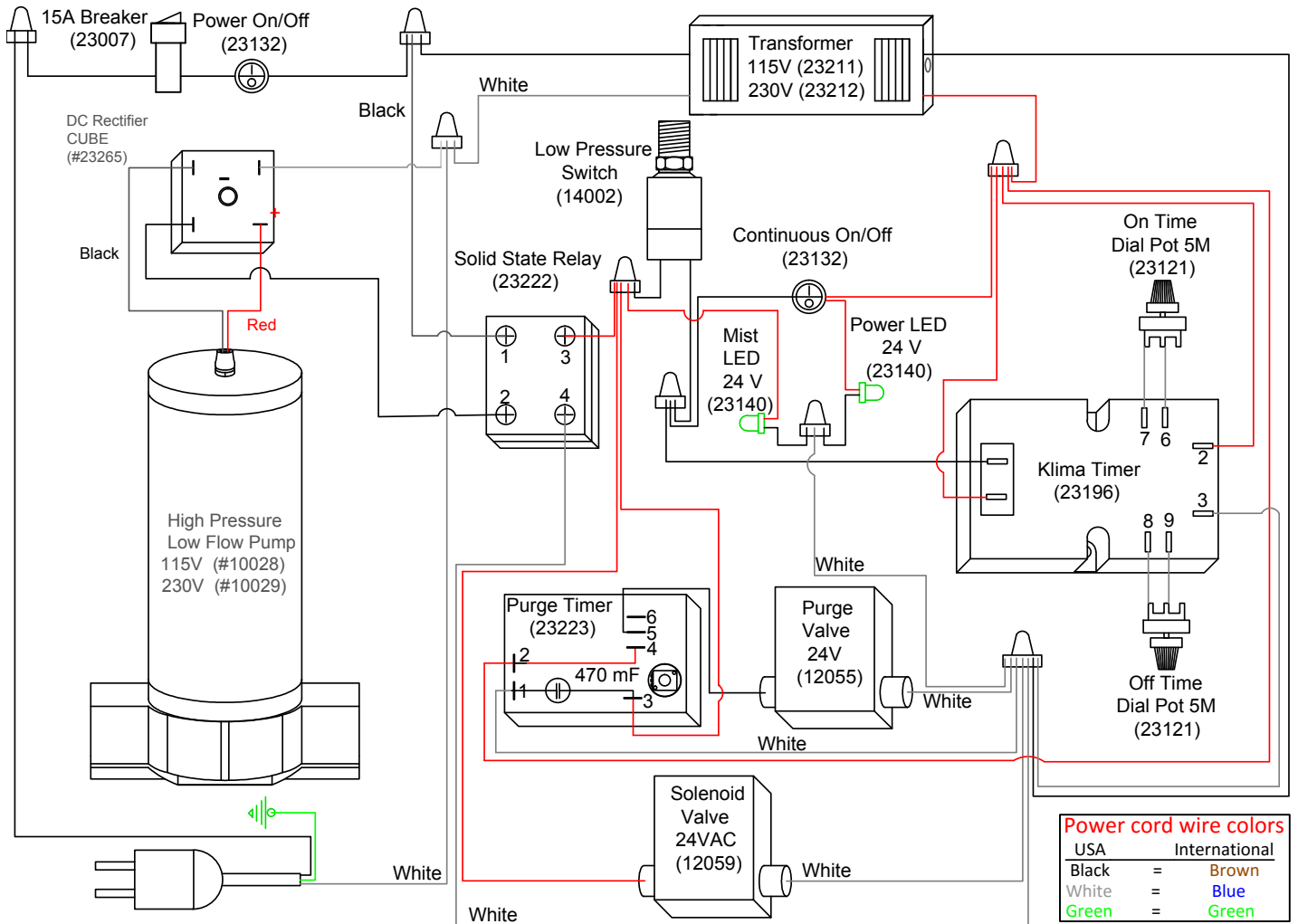
Problem	Cause	Solution
Some tips are dripping after each cycle.	Bad ball checks or debris inside tips.	Replace tips with new ones.
Most of the tips are dripping after mist.	Purge valve not opening or line restriction.	Check red tube line and see if after each cycle, water is exiting. If not this is the problem. It may be the valve or something else causing the valve not to open.  If water is exiting in the red line after each mist then a line restriction must exist.  Search for a pinched line going to the mist bar, or possibly the purge valve is not opening fully.
Pump/Motor doesn't start but the lights are ON.	Bad low pressure switch or bad pump.	Change the low pressure switch.  If problem still exist, then change pump/motor.
Timing for mist times is inconsistent.	Bad timer module.	Replace timing module. In rare cases may require replacement of the dial pot for off time.
No power. Indicator lights do not light.	No power to unit.	Check the wall outlet.  Check 15 A Reset Breaker.



1. HP Mist tip (#20052)
2. 3/8" high pressure tube (#18046)  
30" pieces (#18045)
3. HP 3/8" union connector for nozzle (#17173)
4. Single canister bracket (#11046)
5. Filter canister blue (#11018)
6. 20-25 micron Sediment Filter (#11033)
7. Purge Valve (#12055)
8. DC Transformer  
115 V (#23211), 230 V (#23212)
9. Low Pressure Switch (#14002)
10. High Pressure Low Flow Pump 115 V (#10028), 230 V (#10029)
11. Inlet Valve (#12050)
12. Solid State Relay (#23222)
13. DC Rectifier Cube (#23265)
14. Klima Timer (#23196)
15. Purge Timer (#23223)
16. Product Pressure gauge (#15007)
17. Inlet Pressure gauge (#15005)
18. Green LED panel mount (#23140)
19. 15 amp Reset Breaker (#23007)
20. Continuous Mode Switch (#23132)
21. Power switch (#23132)
22. Dial Pots 5 meg on/off time (#23121)

# Klima Cool 800-12 (16)

## Wiring Diagram



# Klima Cool 800-12 (16)

## Pull Sheet Pack

PART NO.	PART NAME	AMOUNT	AMOUNT	Insp.
		<b>12 Nozzles (230 V)</b>	<b>16 Nozzles (115 V)</b>	
11018	Filter Canister (Blue)	1	1	
11033	20 Micron Sediment Filter	1	1	
11046	Single Canister Bracket	1	1	
17067	66 MPT - QC	3	3	
17143	Locking Clip 3/8	28	36	
17145	Locking Clip 1/2	3	3	
17173	3/8" HP Union Nozzle Connector	14	18	
17174	HP 66 Elbow	2	2	
17176	HP 66 End Plug	1	1	
18028	66 Green Tube (Inlet)	30	30	
18036	66 Red Tube (Purge)	20	20	
18045	HP 30" (Pre-cut)	11	15	
18046	66 HP Black tube (Mist)	50	50	
20052	HP Mist Tip	14	18	
24001	8 x 3/4" Self-tapping Screw	38	38	
24034	#14 x 3 Sheet Metal Screw	27	27	
24035	Plastic Anchor #14 x 1 3/8	27	27	
24078	Cable 6" Tie Black	35	40	

DATE \_\_\_\_\_

PULLER \_\_\_\_\_

CHECKER \_\_\_\_\_



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For further technical support in North America call 1-800-928-6478  
If outside North America call to the USA at 1-503-659-5680