

Sample specifications for SW-2

Humidifiers shall be of the high speed centrifugal atomizing type. Construction shall be of heavy gauge copper, brass and non-ferrous alloy. Heavy duty shaded pole motor with overload protection shall drive the centrifugal disc and pump assembly to draw water up from the seamless copper reservoir, against breaker combs, producing a finely atomized mist. Rotating parts shall be electronically balanced to eliminate vibration. An automatic float valve shall maintain water level in the reservoir.

Vapor output of the humidifier shall be constant while in operation and shall not depend on the temperature of the air or water.

Humidifier(s) shall be Model SW-2 as manufactured by Humidity Source, LLC. Must be UL listed for US and Canada.



Support bracket optional

SPECIFICATIONS

CAPACITY

Moisture Output – 2 lb./hr.

WEIGHT

Net: 10 lb.
Shipping: 11 lb.
Operating: 15 lb.

WATER CONNECTIONS & PRESSURES

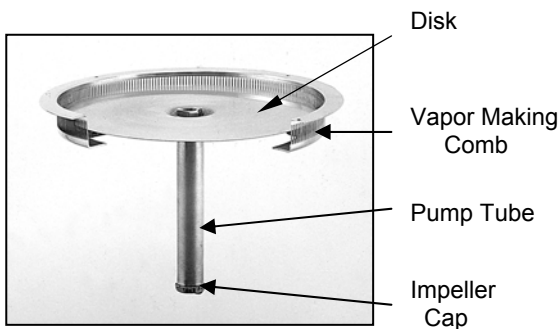
Supply: 1/8" Male Pipe Thread
Overflow: 1/4" Female Pipe Thread
Operating Pressure Range: 10-150 psig

Electric Motor

50 Watts
115 volts, single phase, 60 Hz.

CARTON SIZE

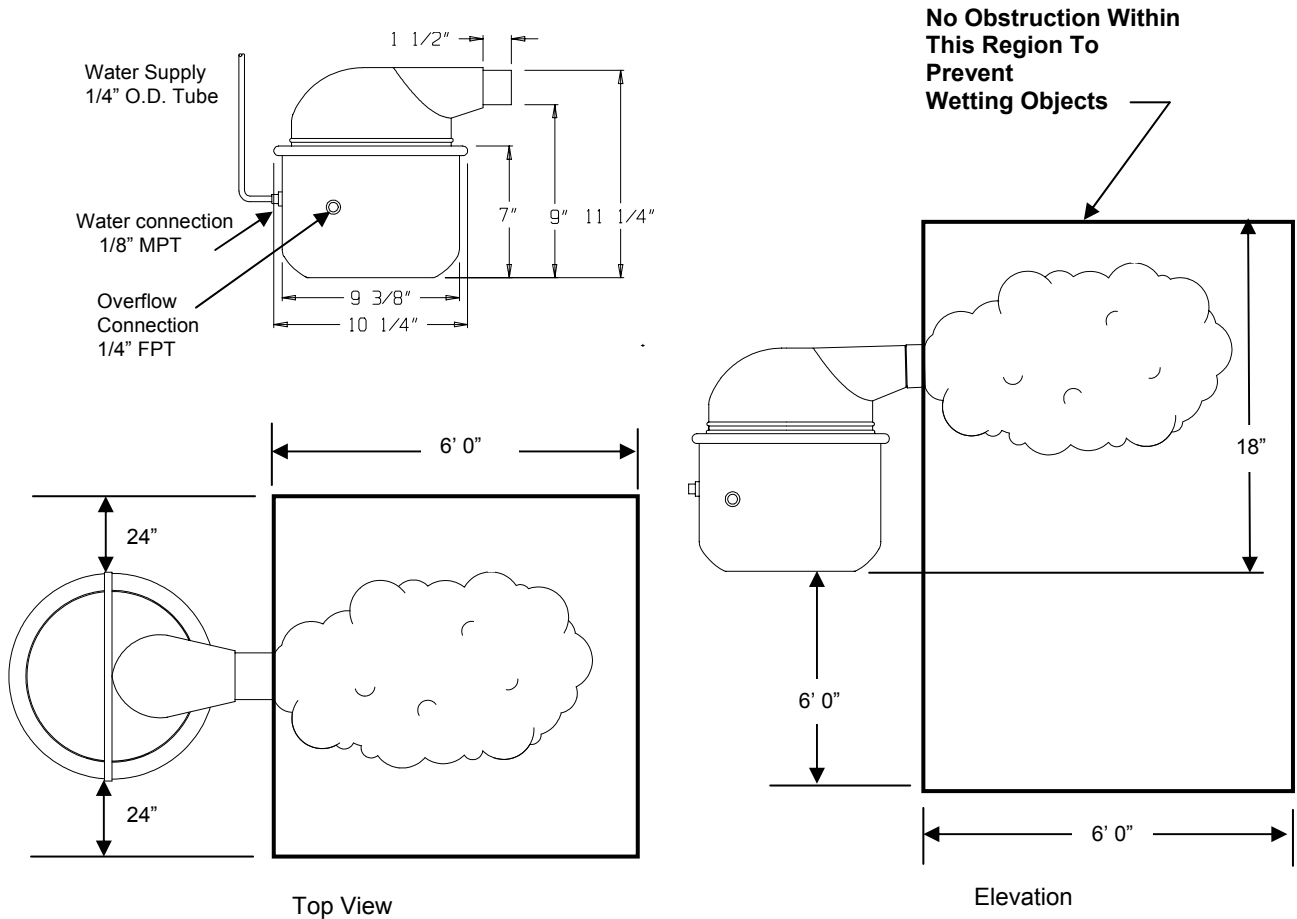
15 1/2" X 12 1/4" X 15 1/4"



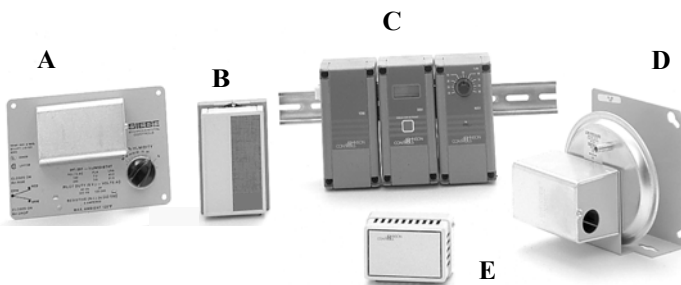
CENTRIFUGAL ATOMIZER

Heart of the unit
The heart of Humidity Source humidifier units is the patented masterfully engineered Centrifugal Atomizer. Water is drawn by centrifugal force up through the rotating impeller cap and pump tube, then spun across the disk rotating at 3250 RPM striking the Vapor-Maker Comb creating an extremely fine vapor. An integral fan under the rotating disk blows the vapor out of the unit resulting in a fine atomized vapor that is quickly absorbed into the air.

HUMIDITY SOURCE ATOMIZING humidifiers produce moisture that will quickly be absorbed in the air. However, it is very important that the humidifier be installed so that there is no chance of the moisture striking **any object** before it has been absorbed by the air. If any solid is hit with air containing suspended or unabsorbed moisture, condensation and dripping will result. It is therefore most important that all directions and minimum dimensions be strictly adhered to.



NOTE: Drawings Not To Scale



ACCESSORIES

- A. Duct mounted, high limit humidistat. Model No. HC-201
- B. Wall mounted humidistat. Model No. P825.
- C. Johnston Controls electronic humidistat. Model No. W351 and remote sensor (E)
- D. Air duct pressure switch. Model No. PC-301

Humidity Source, LLC
 90 Dayton Ave. Suite 58 Passaic, New Jersey 07055
 TEL 973-916-1001 FAX: 973-916-0770

MODEL SW-2

Your humidifier has been designed and engineered to give, with proper care, many years of trouble free service. Therefore, if this unit ceases to operate properly, we suggest you contact your local dealer. If we, at Humidity Source, can be of any assistance to you, please feel free to write, call or e-mail.

IMPORTANT

This space type humidifier is designed so that it may be shelf mounted. The shelf should be at least 18" (45.7cm) below the ceiling and 6 feet (1.8m) above floor. The directional vapor dome should be positioned to diffuse moisture without striking any obstructions closer than six feet and maintain 24" minimum between each side of the humidifier and any wall or obstruction.

PROCEDURE

Run a water supply line using 1/4" o.d. copper or plastic tubing or 1/8" pipe. Keep the line to the rear of the unit to avoid creating an obstruction.

Flush water feed lines before making final connection to avoid having cutting oil, pipe scale, or chips which may clog the float valve.

Turn on water valve and adjust water level to 1/2" below the overflow connection by adjusting the thumb screw as shown in Figure 1.

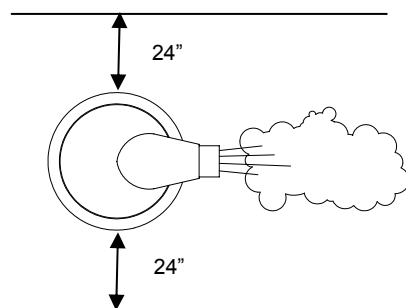
Adjustment is easily made using the adjusting thumb screw for higher or lower water level as illustrated.

SERVICE & REPAIR

Should this humidifier need service or repair some time in the future, return only atomizing unit direct to the factory.

CARE OF THE MACHINE

Due to air washing while the humidifier is in operation, a deposit of dirt and dust may settle in the bottom of the water reservoir and screen, and it is recommended that both be cleaned regularly.

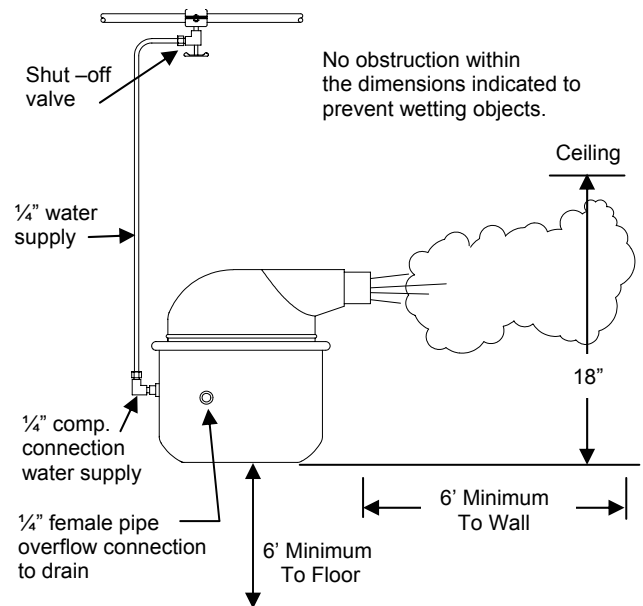


Top View

IN ROOM MOUNTED HUMIDIFIER

Periodically the atomizing unit should be taken from the reservoir and given a careful visual check. The pump tube should be spun by hand to make sure that it is free to revolve without binding. See maintenance instructions.

Typical Installation



WIRING

The atomizer motor draws .67 Amps at 115 Volts A.C. single phase and 60 Hz service.

Provide standard electric receptacle to receive electric cord from humidifier. Have the hot leg of service to this receptacle wired in series with the humidistat terminals and use a standard disconnect switch if required. See wiring diagram.

This humidifier may be run continuously or operated by means of a humidistat.

Our standard human hair element humidistat model P-825 is correct for most applications maintaining up to 60% RH.

For humidors and other high humidity applications, or for more precise control, use the electronic humidistat model W351A. This model also has an optional digital display module to indicate the set point and the actual R.H. in the room.

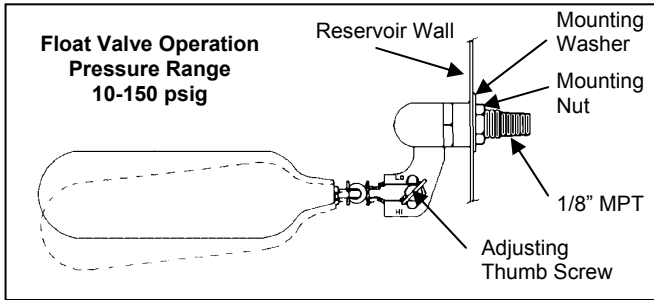


Figure 1

OPERATION

Positive capacity atomizing humidifiers produce a mist that will quickly evaporate into the air if there is no impingement of water particles against barrier surfaces before the water is completely absorbed. Strict attention to minimum clearance dimensions must be adhered to in order to avoid condensation.

MAINTENANCE

Unplug electric cord & remove dome. Carefully lift atomizing unit out of reservoir (Figure 2). Hold atomizing unit firmly and remove the perforated screen (2-A) by turning it slightly to the left until the four lugs are in line with the slots. To remove the impeller cap (2-B), hold a flat file or the back of a table knife flat against the side of the tube and gently tap the cap which is held in place by a pressed fit. After the cap has been removed, the inside of the tube is visible and it is simple matter to clean it with a piece of cloth on the end of a screwdriver or a small round brush.

There are three ports through which water makes its way from the pump tube to the top of the rotating disc (2-C). These ports should be cleaned out with the aid of a wire. See drawing on this page.

Replace the impeller cap by tapping it evenly back into place, using plastic handle on screwdriver.

Remove water from reservoir & rinse. Fill reservoir with white vinegar or other mild acid solution. Replace dome & atomizer on reservoir & block outlet of dome with plastic wrap & a rubber band. Run atomizer for 1/2 hour or until minerals are completely dissolved. If necessary, rinse with diluted chlorine bleach solution. Rinse with clean water and return to service. For hard water problems, see "demineralized water" below.

Inspect float valve assemble periodically, & replace when necessary, or every few years. Should this humidifier need service or repair some time in the future, return only atomizing unit direct to the factory.

DEMINERALIZED WATER

If your local water supply has a high mineral content, (call water company & ask for "total dissolved solids" or T.D.S.) This mineral will create tiny particles of airborne "white dust" when the mist evaporates in the air. To eliminate this dust, use an ion exchange or a reverse osmosis demineralizer. See Humidity Source data sheets for Reverse Osmosis demineralizing filters.

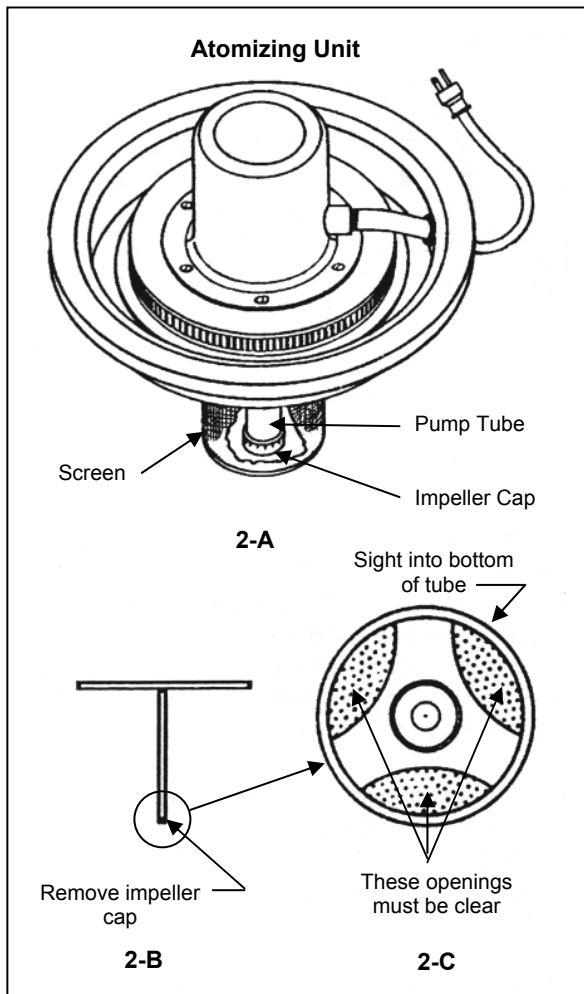
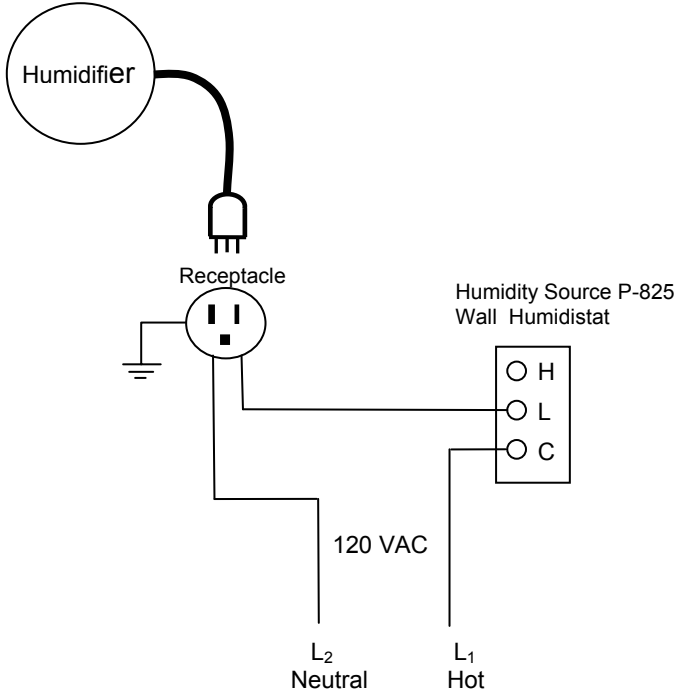
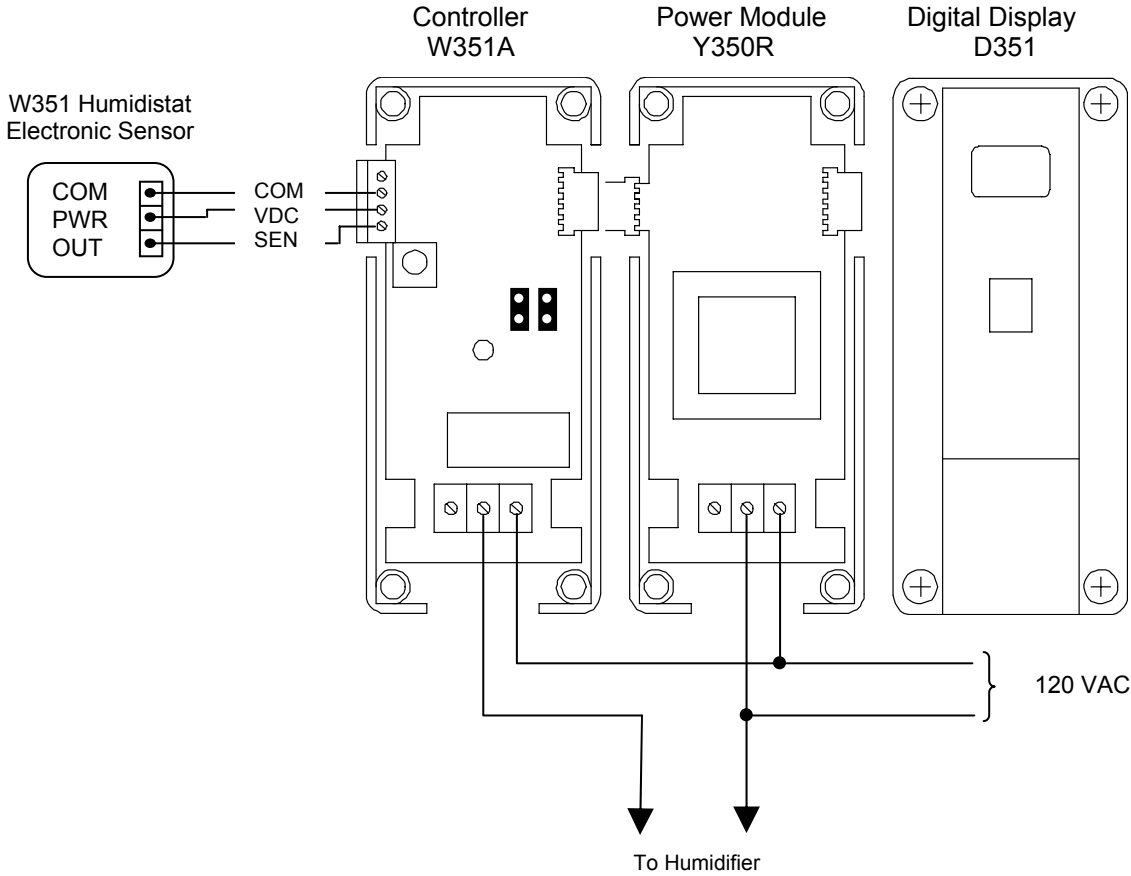


FIGURE 2

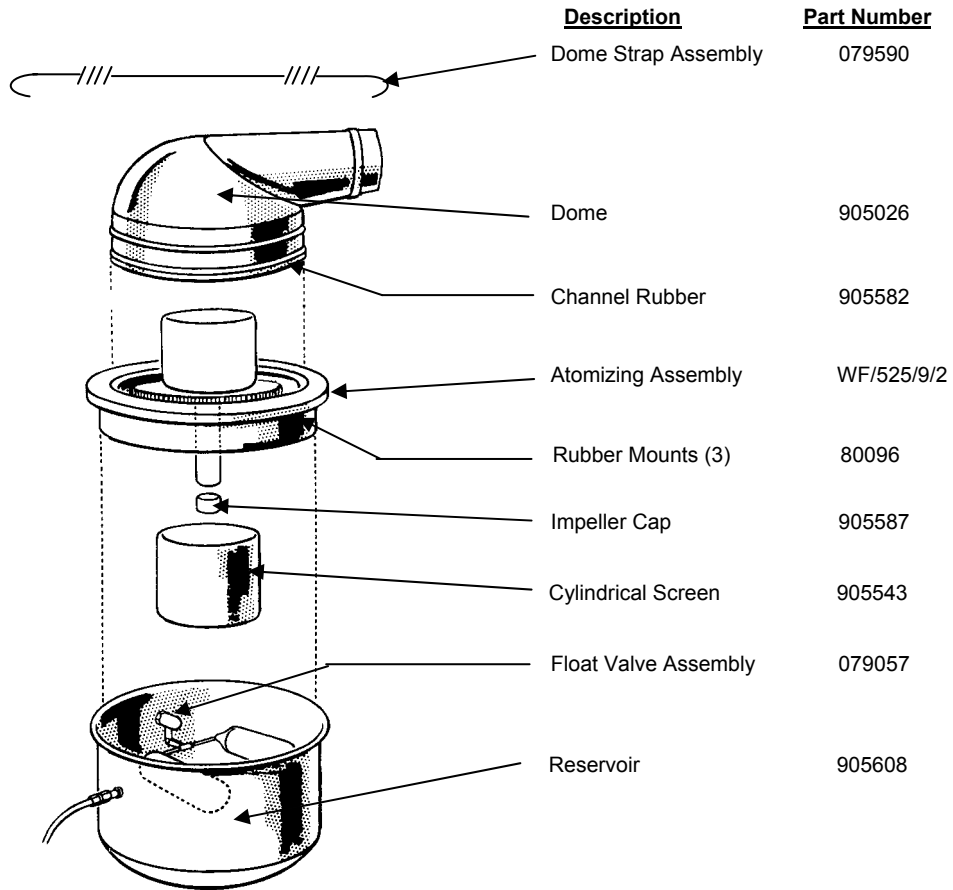
Wiring Diagram If Using P-825 Humidistat Installation



W351A Wiring Diagram If Using W351 On/Off Controller

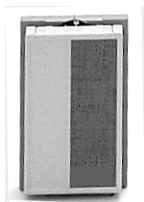


MODEL SW-2 REPLACEMENT PARTS



Humidifier Accessories

P-825 Humidistat
Human Hair Element



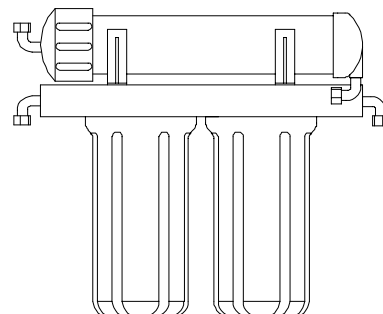
Standard

W351 Humidistat
Electronic Sensor



For high humidity
And/or close
tolerances

Humidity Source Reverse Osmosis water Treatment systems. Sizes range from industrial capacities down to individual room units.



Humidity Source LLC

90 Dayton Ave. Suite 58, Passaic, New Jersey 07055
Phone 973-916-1001 e-mail HumiditySource@aol.com

Sample specifications for SF-5/SW-5

Cold water centrifugal atomizing type humidifier and mounting brackets for installation overhead. Water level reservoir includes valve to automatically regulate water flow. Atomizer includes motor, impeller, disc and breaker comb to produce a fine vapor and introduce moisture with a small amount of air through the vapor dome to the surroundings. All water exposed parts to be copper, brass or non-ferrous alloy.

The SF5 includes an air filter to protect atomizing unit from dust, lint etc. in the small amount of primary air that passes through the atomizer. Must be UL listed for US and Canada.



SPECIFICATIONS

CAPACITY

Moisture Output – 5 lb./hr.

WEIGHT

Net: 25 lb.
Shipping: 28 lb.
Operating: 36 lb.

DIMENSIONS

Height: 10 ½"
Diameter: 14 ½"

WATER CONNECTIONS & PRESSURES

Supply: 1/8" Male Pipe Thread
Overflow: ¼" Female Pipe Thread
Operating Pressure Range: 10-100 psig.

Electric Motor

.76 amps
115 volts, 1 ph – 50/60 Hz.
3250 RPM

CARTON SIZE

Unit: 12" x 20" x 18"
Dome: 13 ¾" x 10 ¼" x 19 ¼"



Notes:

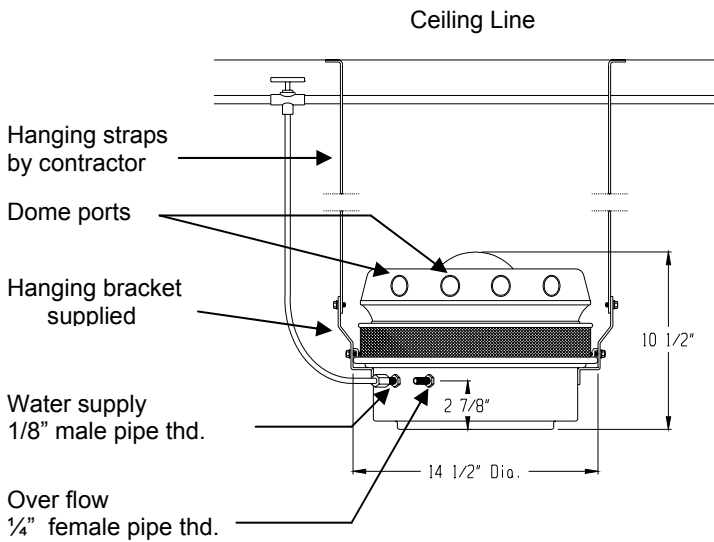
SF Models equipped with filters of a washable, replaceable filter media type. Proper dome selection must be made.

These specification are subject to change without Notice. Mounting brackets supplied with units.

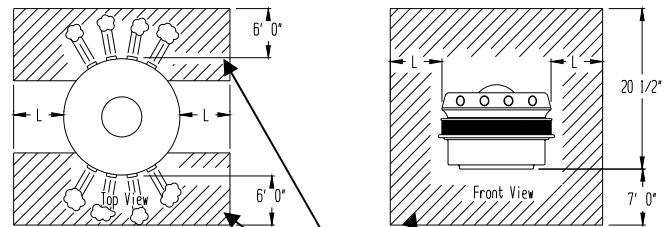
Humidity Source ATOMIZING humidifiers produce moisture that will quickly be absorbed in to the air, However, It is very important that the humidifier be installed so there is on chance of the moisture striking **any object** before it has been absorbed in the air. If any solid object is hit with air containing suspended or absorbed moisture, condensation and dripping will result. It is therefore most important that all directions and minimum dimensions be strictly adhered to.

APPLICATION NOTES:

1. Allow minimum distance of un-obstructive space around humidifier for moisture to be absorbed into the air as shown in diagram.
2. Operation is by means of P-825 wall mounted humidistat with human hair sensing element. Order separately.
3. If water supply is hard, install a demineralizer in water in water line to prevent "white dust" from being formed.
4. When ordering, choose proper dome (see below).



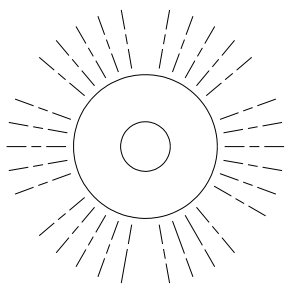
Note: Drawing not to scale



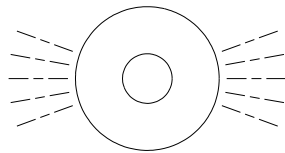
Two way Dome shown

No obstruction within this region
To prevent wetting object for
One and Two way Domes, L = 41"
For Standard Dome, L = 6' 0"

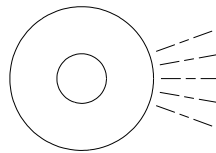
IMPORTANT: Select proper Dome to avoid condensation on obstructions.



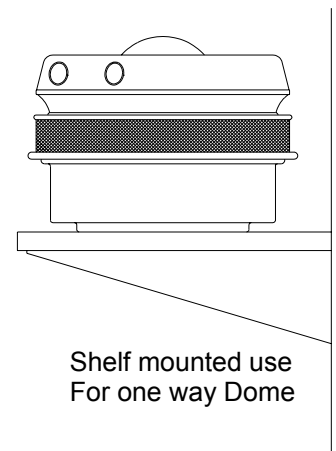
Standard Dome



Two way directional Dome



One way Directional Dome



Shelf mounted use
For one way Dome

Humidity Source, LLC

90 Dayton Ave. Suite 58 Passaic, New Jersey 07055
TEL 973-916-1001 FAX: 973-916-0770

MODEL SF-5 and SW-5

GENERAL INFORMATION

This space type humidifier is designed to be suspended from the ceiling or mounted on a shelf. Hanging brackets are provided but supports from the ceiling or shelf must be furnished by others.

The humidifier consists of two assemblies; the water reservoir which includes a float type water level valve with 1/8" male pipe thread connection and a safety overflow port and the atomizer assembly which is a delicately balanced, completely self-contained unit that rests in the water reservoir and supports the directional vapor distribution dome.

PROCEDURE

When selecting exact location for each humidifier be sure that the vapor discharge is approximately six feet from the any obstruction such as lights, pipes or beams. Vapor must also avoid touching humidifier wiring and supports. The following procedure is recommended.

1. Obtain the correct type of vapor distribution dome for each humidifier location.
2. At each location place the correct dome in the reservoir and install one hanging bracket above the water inlet valve, above the position of the water valve on the side of the tank. Then rotate and position the dome so that its vapor ports will avoid this bracket.
3. Place the other hanging brackets in a position which will give level, secure suspension and at the same time will avoid striking the hangers which are to be attached to these brackets.
4. After positioning the reservoir to avoid vapor touching any existing obstructions, locate points on the ceiling directly above the brackets and connect suspension straps or rods at these points. See Figure "B" for further details.

NOTE: ALL MINIMUM INSTALLATIONS DIMENSIONS AS SHOWN IN FIGURE "A" MUST BE FOLLOWED.

PLUMBING

Insert the float valve assembly as illustrated in Figure "C". Run a water supply line near the

ceiling and drop a 1/4" tubing line (or 1/8" pipe) from the supply line. Keep the drop very close to one of the hangers to avoid creating an obstruction.

Flush all water feed lines before making final connections to avoid clogging the float valve with foreign matter.

Adjust the position of float valve stem to establish a water level in the reservoir about 1/2" below the overflow fitting. See Figure "C" for location of adjusting screw.

Be sure that the water valve arm is directed toward the center of the reservoir when tightening the mounting nut.

FOR MODELS WITH FILTER

Place the filter in the reservoir with wide flange on top, and the notch directly above marker near water inlet position. Place atomizer assembly into this flange positioned so that the motor extension cord matches the notch in the flange. This avoids the possibility of atomizer legs interfering with the operation of the water regulating valve.

Place vapor dome over the atomizer assembly and run electric cord along one hanger to a female receptacle. Wiring to the receptacle should be through a humidistat control that will operate the humidifier. Refer to Figure "E" for wiring diagram.

Due to a certain amount of "air-washing" when the humidifier is operating, an accumulation of dust and dirt may settle at the bottom of the reservoir. It is therefore recommended that periodic inspection and cleaning be performed as necessary. Also the water drain plug or valve should be opened frequently and the water line flushed out. This periodic maintenance can greatly extend the life of the humidifier.

IMPORTANT:

IT IS NECESSARY TO KEEP THE RESERVOIR AND ATOMIZER UNIT CLEAN IN ORDER TO MAINTAIN FULL HUMIDIFIER CAPACITY AND NOT OVERLOAD THE MOTOR.

MAINTENANCE

As stated above, the water reservoir and pump tube must be kept clean and free of minerals, scale and dust. Periodically remove atomizer assembly and clean reservoir with white vinegar. Carefully remove impeller cap (see Figure "D") and clean pump tube with pipe cleaner or test tube brush. Motors have sealed bearings and do not require lubrication.

SERVICE

Atomizer motors are sealed in a copper housing at the top of the atomizer assembly. **DO NOT BREAK THIS SEAL.** If for any reason a repair becomes necessary, carefully package the entire atomizer assembly and return intact to your installer, local distributor or Humidity Source, LLC. When ordering parts have model number and voltage available.

Positive Capacity Atomizing Humidifiers produce a fine vapor that will quickly evaporate in the air if there is no impingement of water particles against obstructions before absorption is complete. Strict attention to minimum clearance dimensions must be adhered to in order to avoid condensation.

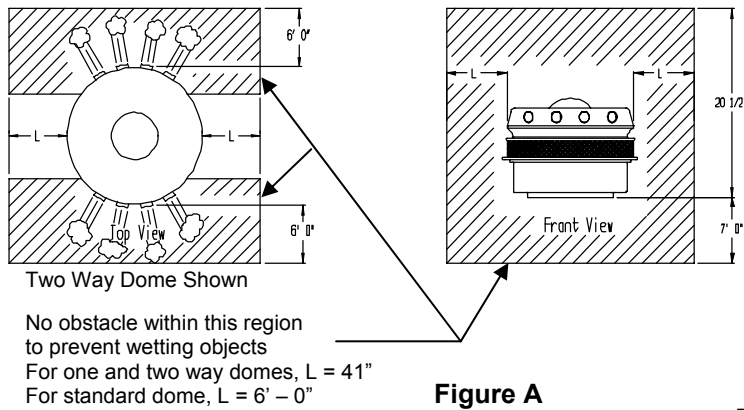


Figure A

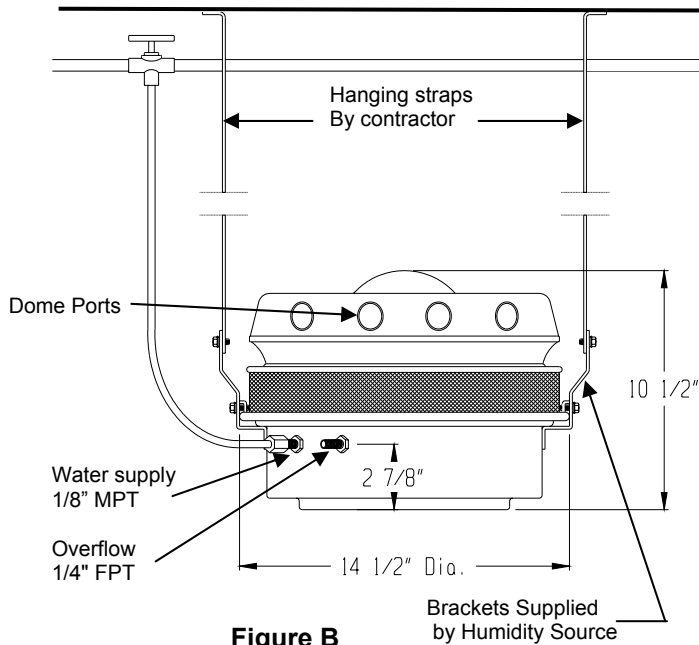


Figure B

GENERAL NOTES:

1. Water reservoir must be level.
2. Keep water supply piping close to hanging strap.
3. Use a humidistat for automatic operation.
4. Use Reverse Osmosis for poor quality water.

FLOAT VALVE

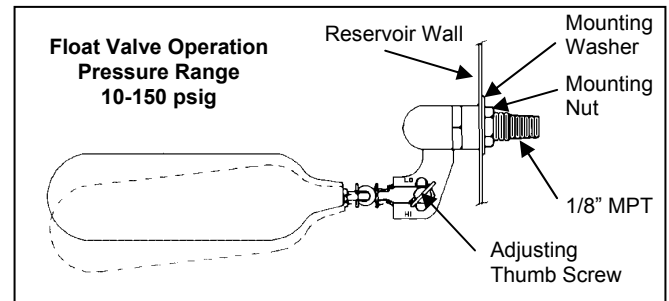


Figure C

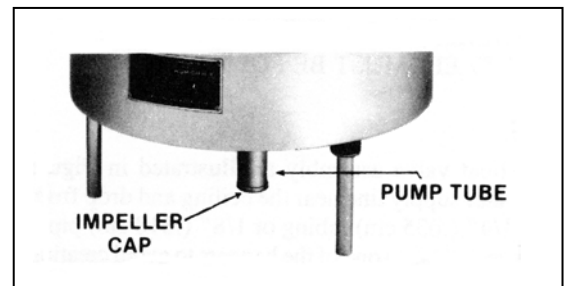
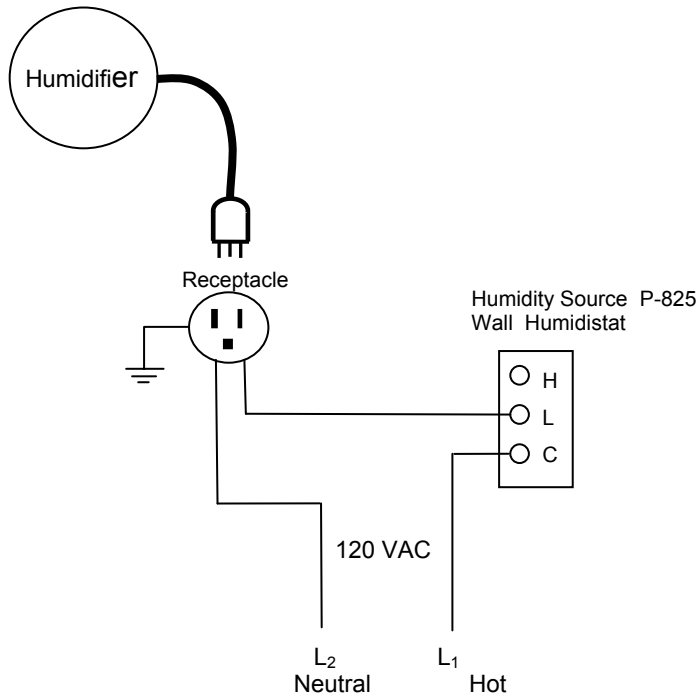
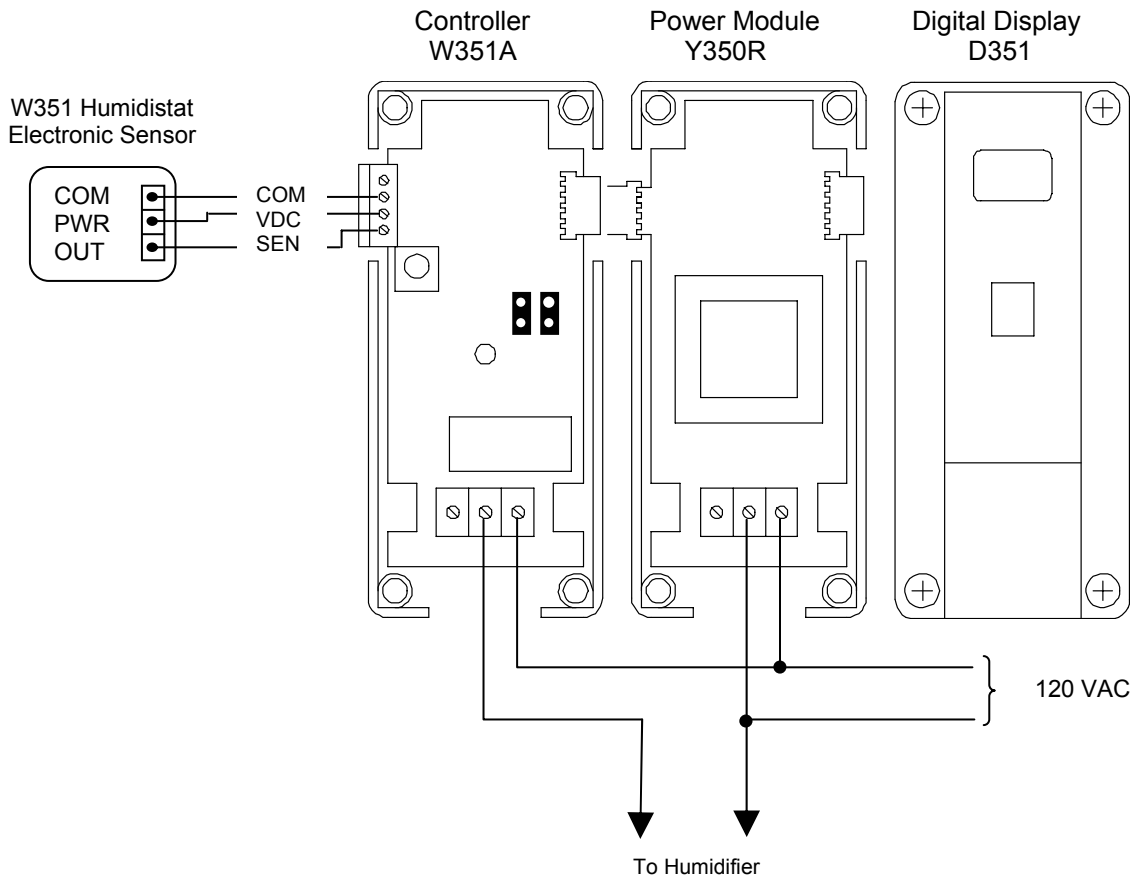


Figure D

Wiring Diagram For P-825 Humidistat



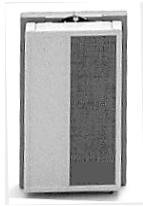
W351A Wiring Diagram – On/Off Control



Humidifier Accessories

Humidistats, Sensors & Controls

P-825 Humidistat
Human Hair Element



Standard

W351 Humidistat
Electronic Sensor



For high humidity
And/or close
tolerances

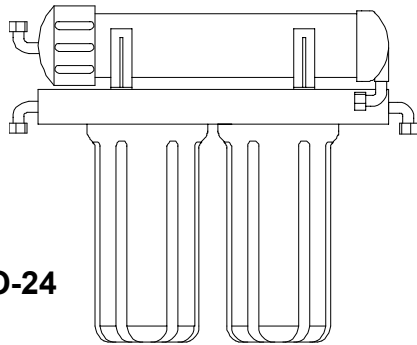
W351 ELECTRONIC HUMIDITY
CONTROL With Digital Display



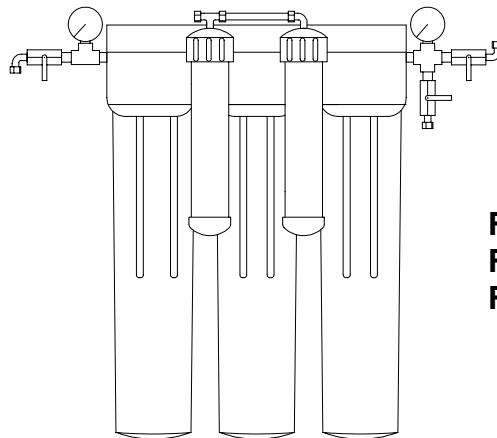
Reverse Osmosis Demineralizers

Humidity Source Reverse Osmosis

water Treatment systems. Sizes range from industrial capacities down to individual room units.



RO-24



RO-120
RO-450
RO-900

Humidity Source LLC

90 Dayton Ave. Suite 58, Passaic, New Jersey 07055
Phone 973-916-1001 e-mail HumiditySource@aol.com

**Sample specifications for SF-10/SW-10
& SF-10B/SW-10B**

Cold water centrifugal atomizing type humidifier and mounting brackets for installation overhead. Water reservoir includes valve to automatically regulate water flow. Atomizer includes motor, impeller, disc and breaker comb to produce a fine vapor and introduce moisture with a small amount of air through the vapor dome to the surroundings. All water exposed parts to be copper, brass or non-ferrous alloy.

SF10 includes an air filter to protect atomizing unit from dust, lint etc. in the small amount of primary air that passes through the atomizer. Must be UL listed for US and Canada.



SPECIFICATIONS

CAPACITY

Moisture Output – 10 lb./hr.

WEIGHT

Net: 28 lb.

Shipping: 31 lb.

Operating: 40 lb.

WATER CONNECTIONS & PRESSURES

Supply: 1/8" Male Pipe Thread

Overflow: 1/4" Female Pipe Thread

Operating Pressure Range: 10-100 psig.

Electric Motor

Model SF-10 & SW-10

1.15 amps, 115 volts, 1 ph – 50/60 hz.

Model SF-10B & SW-10B

.55 AMPS, 220 volts, 1 ph – 50/60 hz.

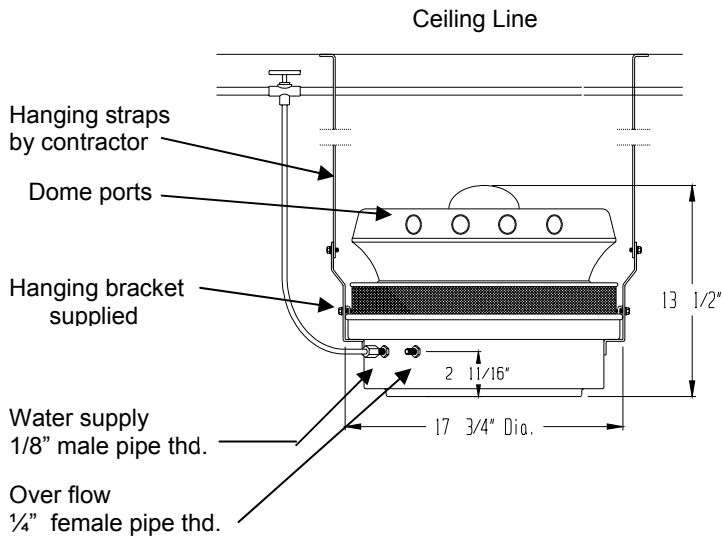


Notes:

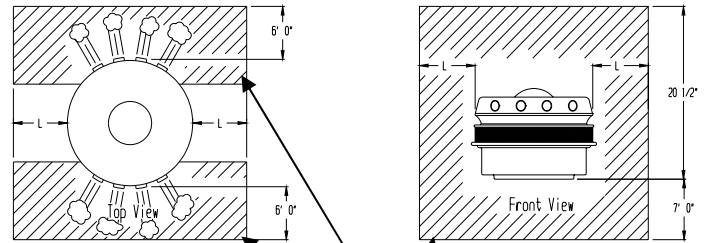
SF Models equipped with filters of a washable, replaceable filter media type. Proper dome selection must be made.

These specification are subject to change without Notice. Mounting brackets supplied with units.

Humidity Source ATOMIZING humidifiers produce moisture that will quickly be absorbed in to the air, However, It is very important that the humidifier be installed so there is on chance of the moisture striking **any object** before it has been absorbed in the air. If any solid object is hit with air containing suspended or absorbed moisture, condensation and dripping will result. It is therefore most important that all directions and minimum dimensions be strictly adhered to.



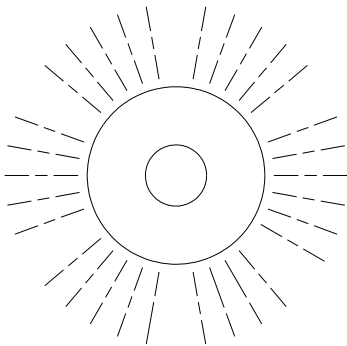
Note: Drawing not to scale



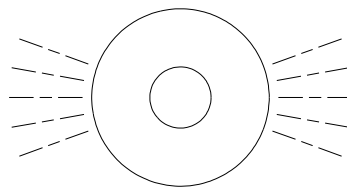
Two way Dome shown

No obstruction within this region
To prevent wetting object for
One and Two way Domes, L = 41"
For Standard Dome, L = 6' 0"

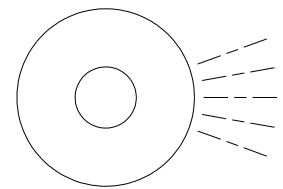
IMPORTANT: Select proper Dome to avoid condensation on obstructions.



Standard Dome



Two way directional Dome



One way Directional Dome

Humidity Source, LLC

90 Dayton Ave. Suite 58, Passaic, New Jersey 07055
TEL 973-916-1001 FAX: 973-916-0770

MODEL SF-10, SF-10B, and SW-10, SW-10B

GENERAL INFORMATION

This space type humidifier is designed to be suspended from the ceiling or mounted on a shelf. Hanging brackets are provided but supports from the ceiling or shelf must be furnished by others.

The humidifier consists of two assemblies; the water reservoir which includes a float type water level valve with 1/8" male pipe thread connection and a safety overflow port and the atomizer assembly which is a delicately balanced, completely self-contained unit that rests in the water reservoir and supports the directional vapor distribution dome.

PROCEDURE

When selecting exact location for each humidifier be sure that the vapor discharge is approximately six feet from the any obstruction such as lights, pipes or beams. Vapor must also avoid touching humidifier wiring and supports. The following procedure is recommended.

1. Obtain the correct type of vapor distribution dome for each humidifier location.
2. At each location place the correct dome in the reservoir and install one hanging bracket above the water inlet valve, above the position of the water valve on the side of the tank. Then rotate and position the dome so that its vapor ports will avoid this bracket.
3. Place the other hanging brackets in a position which will give level, secure suspension and at the same time will avoid striking the hangers which are to be attached to these brackets.
4. After positioning the reservoir to avoid vapor touching any existing obstructions, locate points on the ceiling directly above the brackets and connect suspension straps or rods at these points. See Figure "B" for further details.

NOTE: ALL MINIMUM INSTALLATIONS DIMENSIONS AS SHOWN IN FIGURE "B" MUST BE FOLLOWED.

PLUMBING

Insert the float valve assembly as illustrated in Figure "C". Run a water supply line near the ceiling and drop a 1/4" tubing line (or 1/8" pipe) from the

supply line. Keep the drop very close to one of the hangers to avoid creating an obstruction.

Flush all water feed lines before making final connections to avoid clogging the float valve with foreign matter.

Adjust the position of float valve stem to establish a water level in the reservoir about 1/2" below the overflow fitting. See Figure "C" for location of adjusting screw.

Be sure that the water valve arm is directed toward the center of the reservoir when tightening the mounting nut.

FOR MODELS WITH FILTER

Place the filter in the reservoir with wide flange on top, and the notch directly above marker near water inlet position. Place atomizer assembly into this flange positioned so that the motor extension cord matches the notch in the flange. This avoids the possibility of atomizer legs interfering with the operation of the water regulating valve.

Place vapor dome over the atomizer assembly and run electric cord along one hanger to a female receptacle. Wiring to the receptacle should be through a humidistat control that will operate the humidifier. Refer to Figure "E" for wiring diagram.

Due to a certain amount of "air-washing" when the humidifier is operating, an accumulation of dust and dirt may settle at the bottom of the reservoir. It is therefore recommended that periodic inspection and cleaning be performed as necessary. . Also the water drain plug or valve should be opened frequently and the water line flushed out. This periodic maintenance can greatly extend the life of the humidifier.

IMPORTANT:

IT IS NECESSARY TO KEEP THE RESERVOIR AND ATOMIZER UNIT CLEAN IN ORDER TO MAINTAIN FULL HUMIDIFIER CAPACITY AND NOT OVERLOAD THE MOTOR.

MAINTENANCE

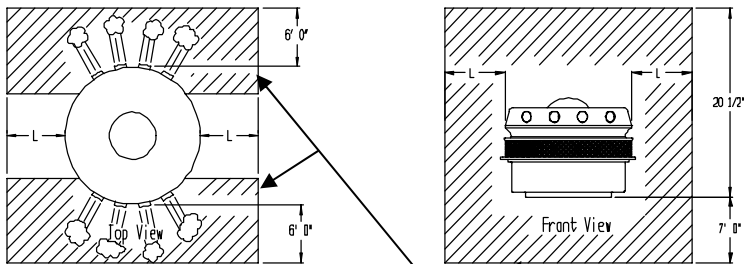
As stated above, the water reservoir and pump tube must be kept clean and free of minerals, scale and dust. Periodically remove atomizer assembly and clean reservoir with white vinegar. Carefully remove impeller cap (see Figure "D") and clean pump tube with pipe cleaner or test tube brush.

Motors have sealed bearings and do not require lubrication.

SERVICE

Atomizer motors are sealed in a copper housing at the top of the atomizer assembly. **DO NOT BREAK THIS SEAL.** If for any reason a repair becomes necessary, carefully package the entire atomizer assembly and return intact to your installer, local distributor or Humidity Source, LLC. When ordering parts have model number and voltage available.

Positive Capacity Atomizing Humidifiers produce a fine vapor that will quickly evaporate in the air if there is no impingement of water particles against obstructions before absorption is complete. Strict attention to minimum clearance dimensions must be adhered to in order to avoid condensation.



Two Way Dome Shown
 No obstacle within this region to prevent wetting objects
 For one and two way domes, L = 41"
 For standard dome, L = 6' - 0"

Figure A

FLOAT VALVE

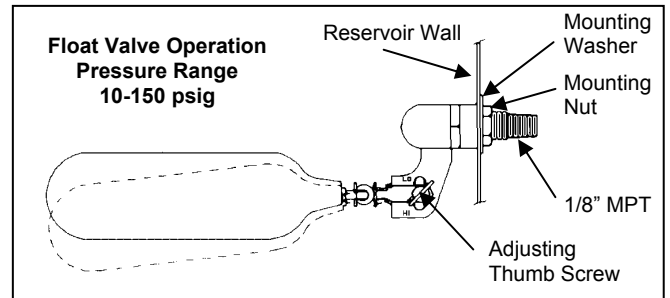


Figure C

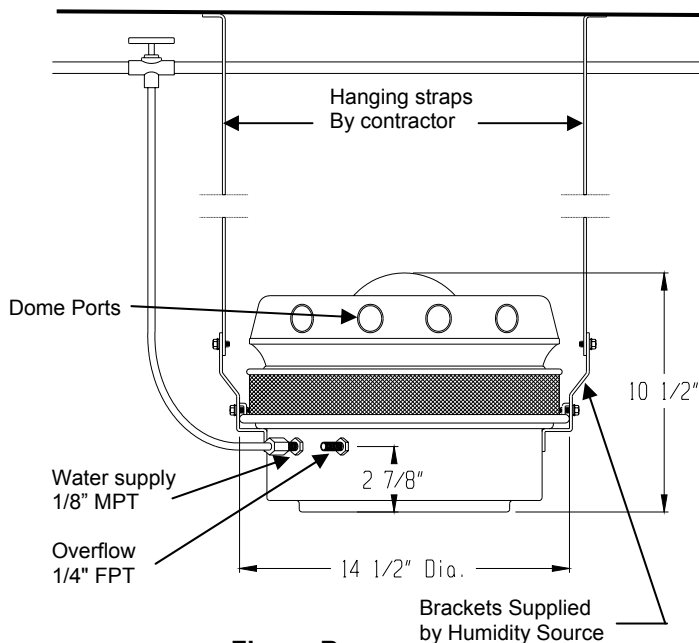


Figure B

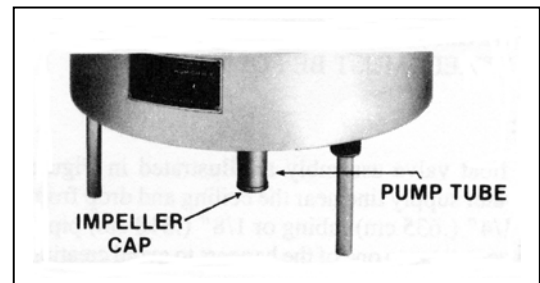
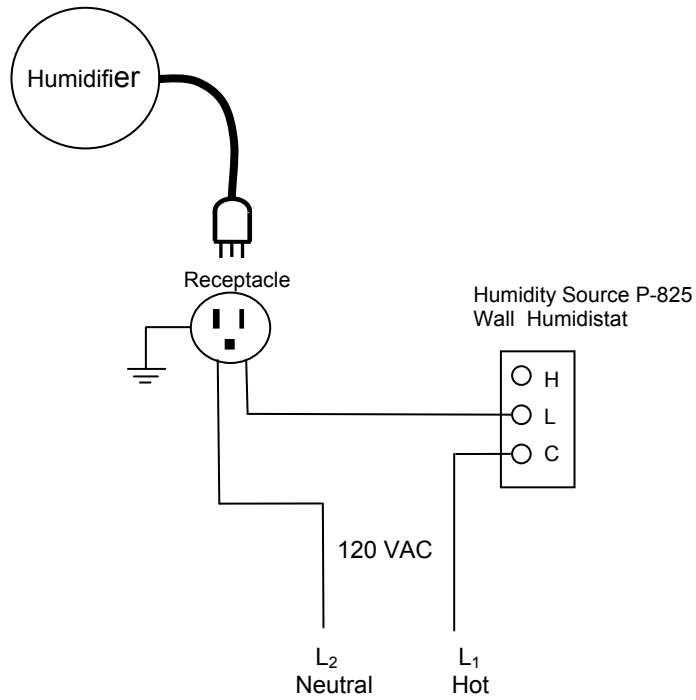


Figure D

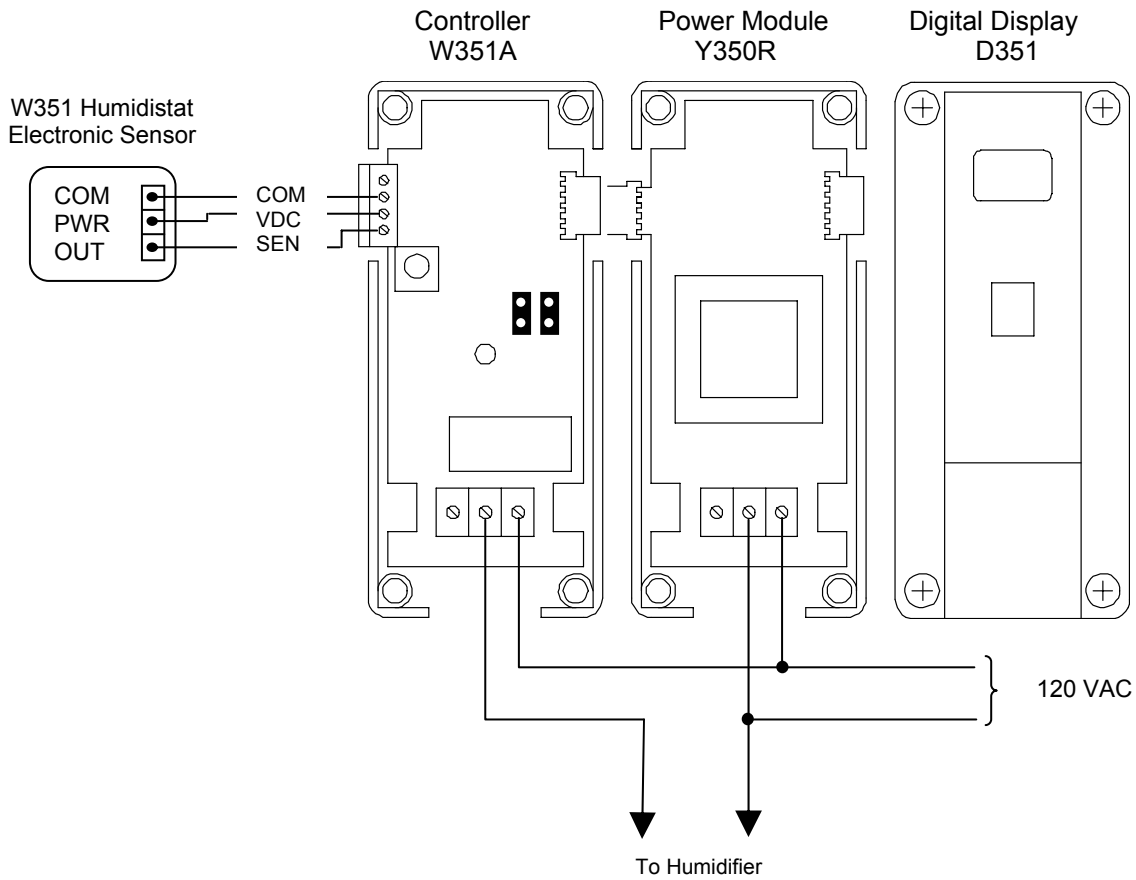
GENERAL NOTES:

1. Water reservoir must be level.
2. Keep water supply piping close to hanging strap.
3. Use a humidistat for automatic operation.
4. Use Reverse Osmosis for poor quality water.

Wiring Diagram For P-825 Humidistat Installation



W351A Wiring Diagram – On/Off Control



Humidifier Accessories

Humidistats, Sensors & Controls

P-825 Humidistat
Human Hair Element



Standard

W351 Humidistat
Electronic Sensor



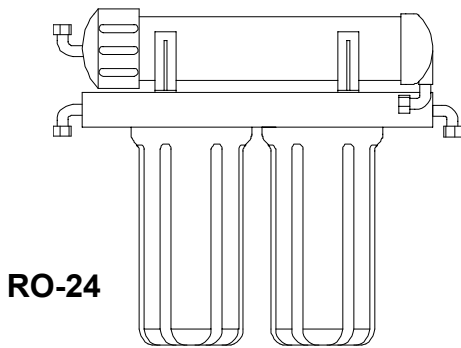
For high humidity
And/or close
tolerances

W351 ELECTRONIC HUMIDITY
CONTROL With Digital Display

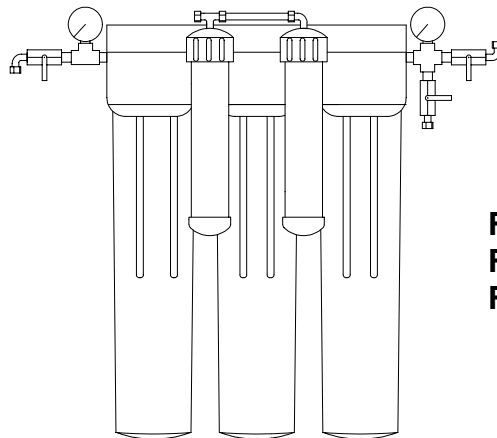


Reverse Osmosis Demineralizers

Humidity Source Reverse Osmosis Water
Treatment systems. Sizes range from industrial capacities
down to individual room units.



RO-24



RO-120
RO-450
RO-900

Humidity Source LLC

90 Dayton Ave. Suite 58, Passaic, New Jersey 07055
Phone 973-916-1001 e-mail HumiditySource@aol.com

Sample specifications for WF-225

Cold water centrifugal atomizing type humidifier and mounting brackets for installation in return duct applications. Water reservoir includes float valve to automatically regulate water level. Humidifier includes motor, impeller, disk and breaker comb to produce a fine vapor. Rotating parts shall be electronically balanced to eliminate vibration. Tubes shall be employed to direct moisture into vertical or horizontal duct systems and equalize humidifier internal air pressure to that of the duct. All water exposed parts to be copper, brass, or non-ferrous alloy. Vapor output of the humidifier shall be constant while in operation and shall not depend on the temperature of the air or water. Humidifier(s) shall be Model WF-225 as manufactured by Humidity Source. Must be UL listed for US and Canada.



SPECIFICATIONS

CAPACITY

Moisture Output – 3.5 lb./hr.

WEIGHT

Net: 16 lb.
Shipping: 18 lb.
Operating: 20 lb.

WATER CONNECTIONS & PRESSURES

Supply: 1/8" Male Pipe Thread
Overflow: 1/4" Female Pipe Thread
Operating Pressure Range: 10-100 psig

Electric Motor

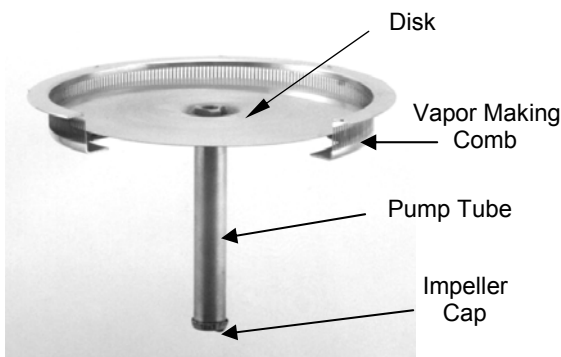
50 Watts
115 volts, single phase, 60 Hz.

CARTON SIZE

15 1/2" X 12 1/2" X 15 1/4"

UNIT SIZE

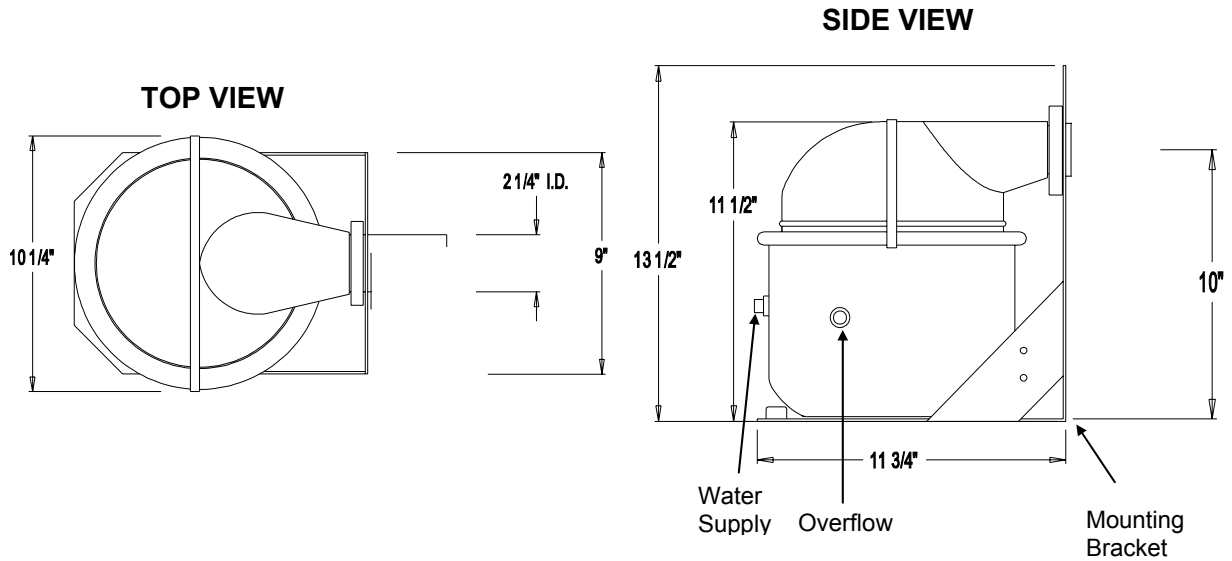
Height: 11 1/2"
Diameter: 10 1/4"



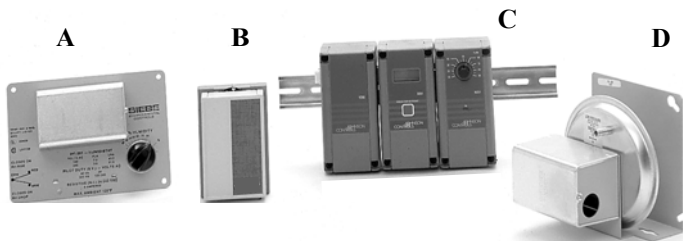
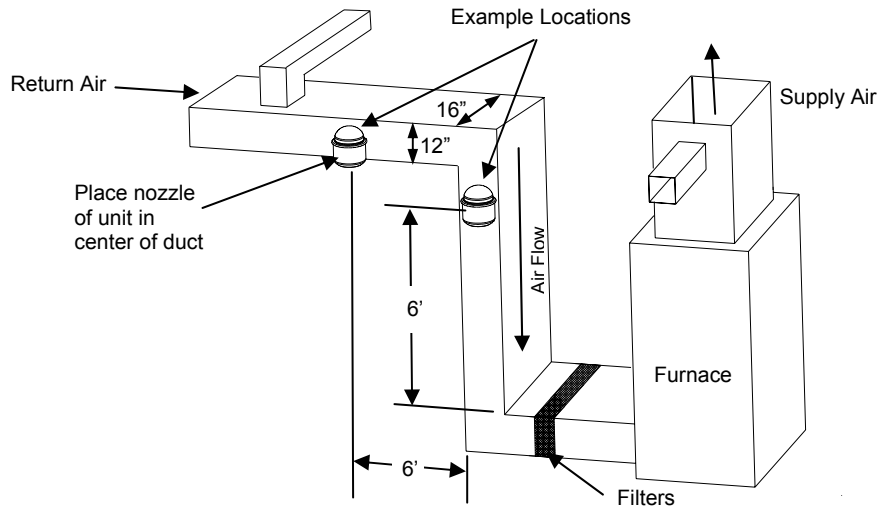
CENTRIFUGAL ATOMIZER

The heart of Humidity Source humidifier units is the patented masterfully engineered Centrifugal Atomizer. Water is drawn by centrifugal force up through the rotating impeller cap and pump tube, then spun across the disk rotating at 3250 RPM striking the Vapor-Maker Comb creating an extremely fine vapor. An integral fan under the rotating disk blows the vapor out of the unit resulting in a fine atomized vapor that is quickly absorbed into the air.

Humidity Source POSITIVE CAPACITY ATOMIZING humidifiers produce moisture that will quickly be absorbed in to the air stream, provided there is no impingement. It is therefore most important that all directions and minimum dimensions be strictly adhered to In order to avoid condensation.



Duct Location Requirements



ACCESSORIES

- A.** Duct mounted, high limit humidistat. Model No. HC-201
- B.** Wall mounted humidistat. Model No. P825.
- C.** Johnston Controls electronic humidistat. Model No. W351 with remote sensor (E)
- D.** Air duct pressure switch. Model No. PC-301

Humidity Source, LLC

90 Dayton Ave. Suite 58 Passaic, New Jersey 07055 TEL 973-916-1001 FAX 973-916-0770

MODEL WF-225

Your humidifier has been designed and engineered to give, with proper care, many years of trouble free service. Therefore, if this unit ceases to operate properly, we suggest you contact your local dealer. If we, at Humidity Source, can be of any assistance to you, please feel free to write, call or e-mail.

APPLICATION

The WF-225 is designed for forced air systems only mounted on the return air duct. The unit must be wired to function only when the furnace fan is in operation. A typical return air duct installation is shown in Figure C. All dimensions and mounting positions are considered minimum to prevent wetting of internal duct surfaces. The WF-225 output is sufficient for forced air furnaces up to 125,000 BTU output.

INSTALLING

Water Supply. Run a water supply line from an existing cold water pipe using 1/4" o.d. copper or plastic tubing or 1/8" pipe (see Figure A). A saddle valve and compression fittings are a convenient way to run the supply water line to the humidifier. Flush water feed lines before making final connection to avoid foreign objects which may clog the float valve.

Mounting. The WF-225 comes with a duct mounting plate to support the unit. Place the mounting plate at a point where the humidifier is to be installed. Scribe a hole for discharge tube and mounting screw locations. Cut out the hole for vapor discharge tube. Drill (2) 9/32" holes to accommodate top of mounting plate for 1/4"-20 bolts. The rest drill with #30 drill for #10 sheet metal screws. Install mounting plate on duct.

Insert (3) rubber feet in bottom of mounting plate using nuts to secure. Tighten front nuts only.

Set reservoir in place and connect water line. Turn on water valve and adjust water level to 1/2" below the overflow connection by adjusting the thumb screw as shown in Figure D.

Insert atomizer assembly into reservoir with power cord in notch provided in reservoir. Fit tube seal over vapor discharge tube. Set dome over atomizer and through mounting plate and hole in duct. Adjust reservoir to touch front rubber feet then slide the tube seal against the mounting plate. Slide rear rubber foot against the reservoir holding it in place, tighten nut.

WIRING. Provide standard electric receptacle to receive electric cord from humidifier. Power for humidifier must come from the furnace blower motor to insure that it never runs unless there is air flow.

A humidistat may be wired in series with the hot leg from the blower motor. See wiring diagram, Figure B. Plug in the humidifier, it is now ready for operation.

CARE OF THE MACHINE

Periodically the atomizing unit should be removed from the reservoir and given a careful visual check. The pump tube should be spun by hand to make sure that it is free to revolve without binding. See maintenance instructions.

Typical Water Connections

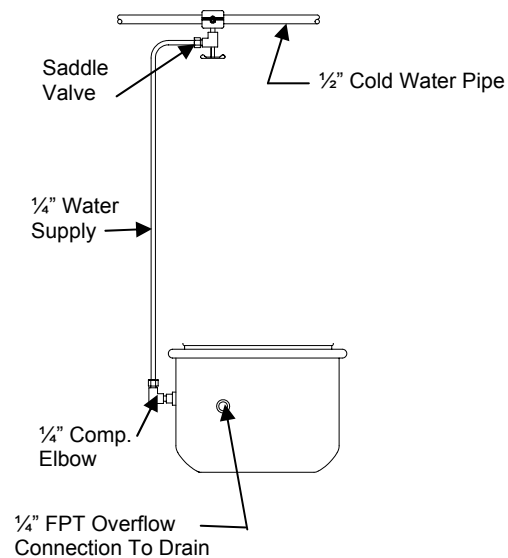


FIGURE A

Wiring Diagram For P-825 Humidistat

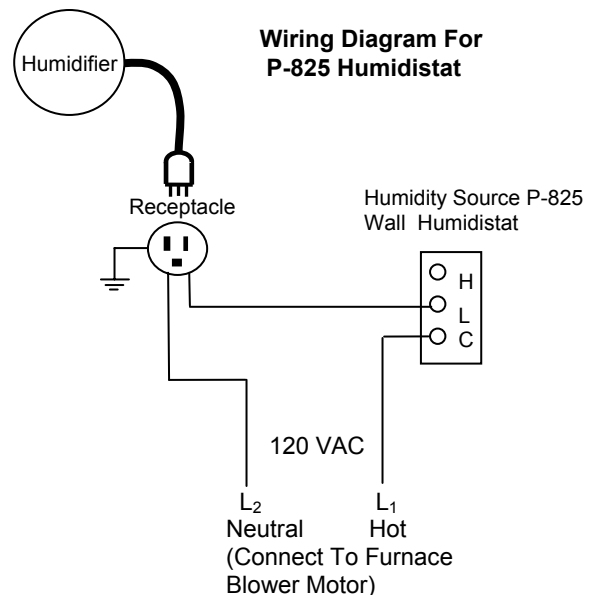


FIGURE B

W351A Wiring Diagram – On/Off Control

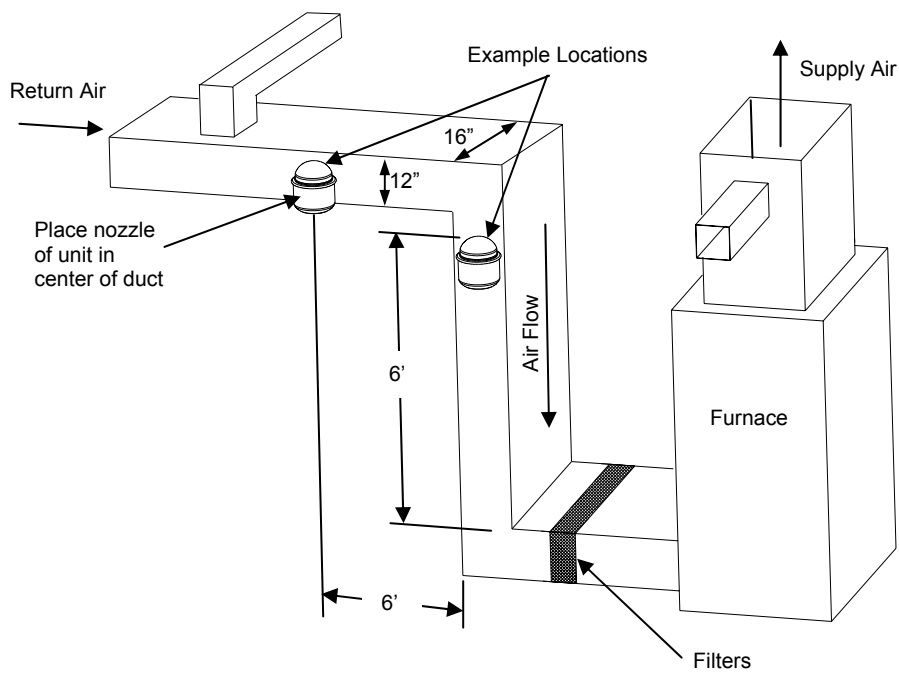
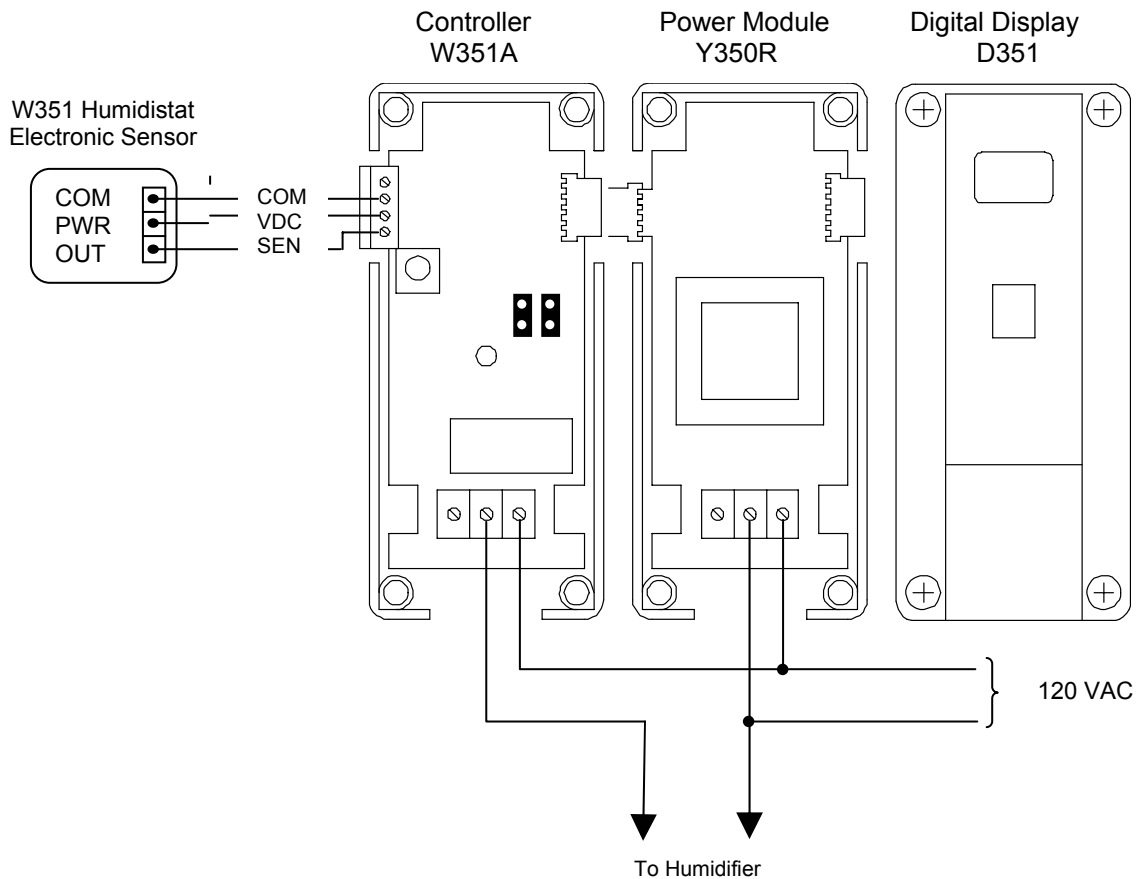


FIGURE C

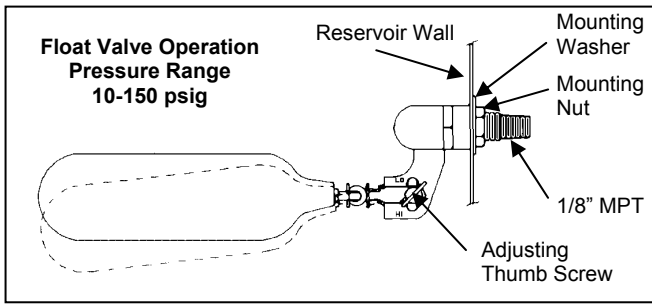


FIGURE D

OPERATION

Positive capacity atomizing humidifiers produce a mist that will quickly evaporate into the air if there is no impingement of water particles against barrier surfaces before the water is completely absorbed. Strict attention to minimum clearance dimensions must be adhered to in order to avoid condensation.

MAINTENANCE

Unplug electric cord & remove dome. Carefully lift atomizing unit out of reservoir (Figure E). Hold atomizing unit firmly and remove the perforated screen (E-1) by turning it slightly to the left until the four lugs are in line with the slots. To remove the impeller cap (E-2), hold a flat file or the back of a table knife flat against the side of the tube and gently tap the cap which is held in place by a pressed fit. After the cap has been removed, the inside of the tube is visible and it is simple matter to clean it with a piece of cloth on the end of a screwdriver or a small round brush.

There are three ports through which water makes its way from the pump tube to the top of the rotating disc (E-3). These ports should be cleaned out with the aid of a wire. See drawing on this page.

Replace the impeller cap by tapping it evenly back into place, using plastic handle on screwdriver.

Remove water from reservoir & rinse. Fill reservoir with white vinegar or other mild acid solution. Replace dome & atomizer on reservoir & block outlet of dome with plastic wrap & a rubber band. Run atomizer for 1/2 hour or until minerals are completely dissolved. If necessary, rinse with diluted chlorine bleach solution. Rinse with clean water and return to service. For hard water problems, see "demineralized water" below.

Inspect float valve assemble periodically, & replace when necessary, or every few years. Should this humidifier need service or repair some time in the future, return only atomizing unit direct to the factory.

DEMINERALIZED WATER

If your local water supply has a high mineral content, (call water company & ask for "total dissolved solids" or T.D.S.) This mineral will create tiny particles of airborne "white dust" when the mist evaporates in the air. To eliminate this dust, use an ion exchange or a reverse osmosis demineralizer. See Humidity Source data sheets for Reverse Osmosis demineralizing filters.

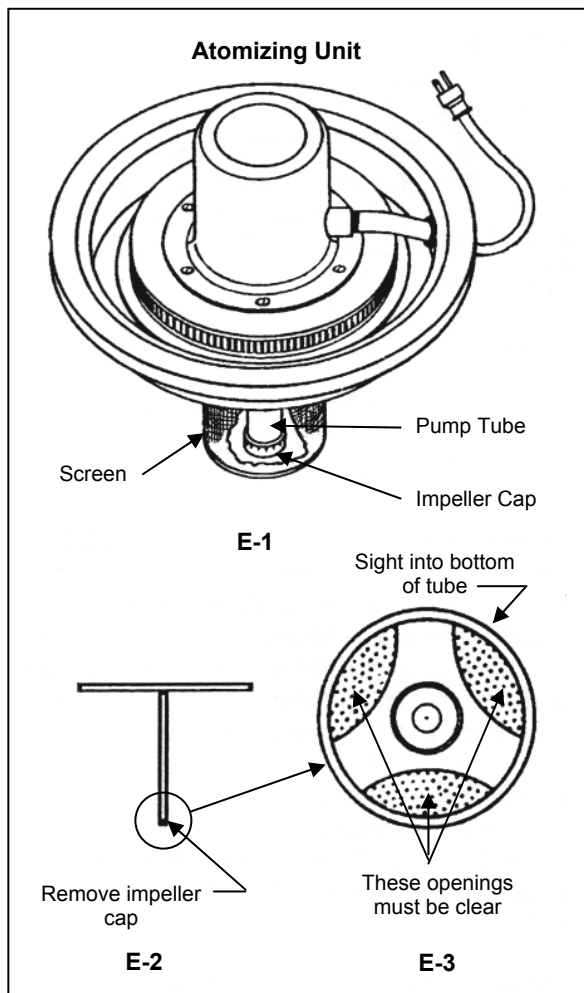


FIGURE E

MODEL WF-225 REPLACEMENT PARTS

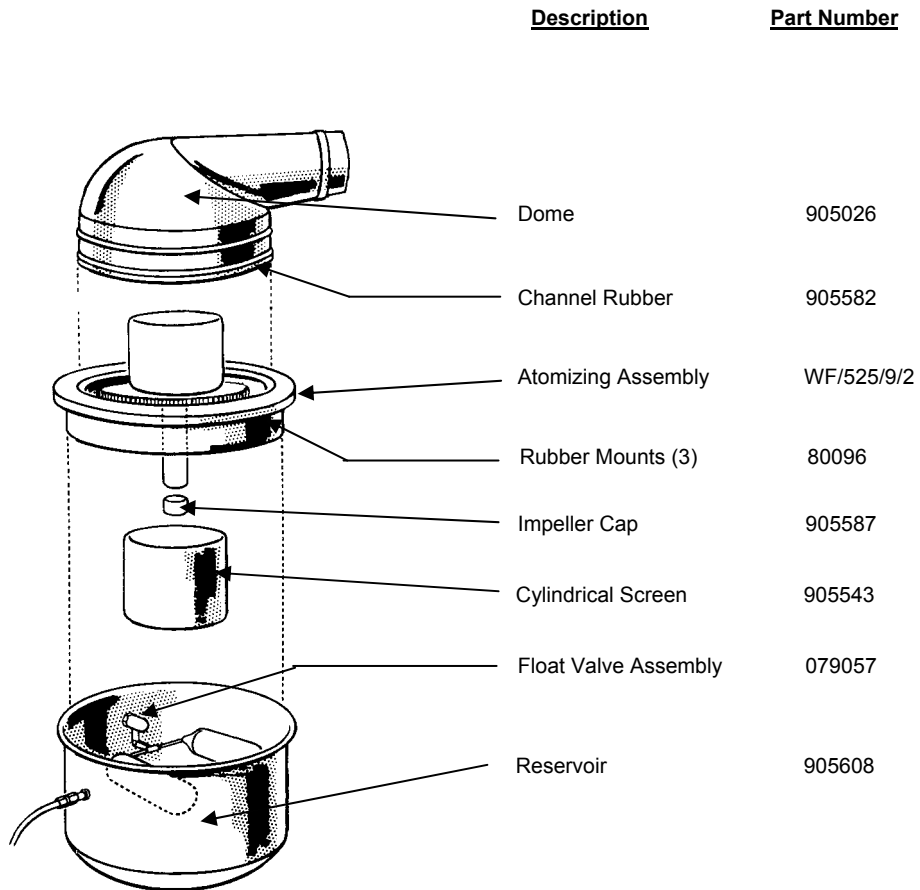


FIGURE F

Humidifier Accessories

P-825 Humidistat
Human Hair Element



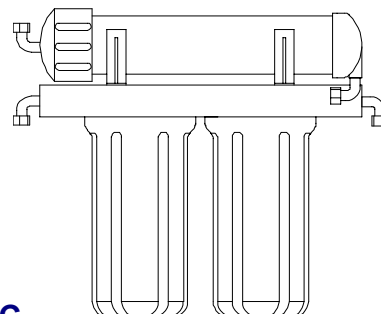
Standard

W351 Humidistat
Electronic Sensor



For high humidity
And/or close
tolerances

Humidity Source Reverse Osmosis water Treatment systems. Sizes range from industrial capacities down to individual room units.

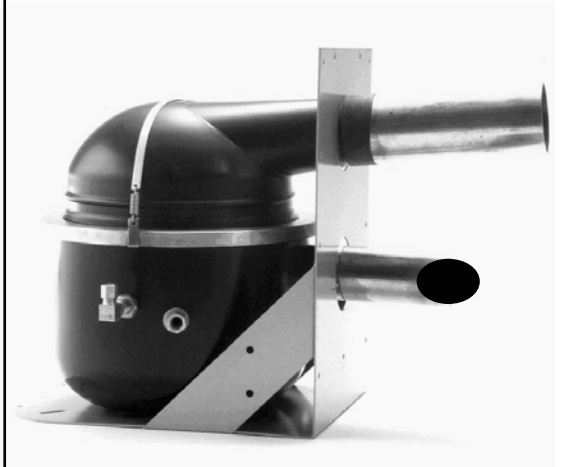


Humidity Source LLC

90 Dayton Ave. Suite 58, Passaic, New Jersey 07055
Phone 973-916-1001 e-mail HumiditySource@aol.com

Sample specifications for WF-HP-226

Cold water centrifugal atomizing type humidifier and mounting brackets for installation in duct systems negative or positive pressure. Maximum allowed positive static pressure - .25" H₂O. Water reservoir includes float valve to automatically regulate water level. Humidifier includes motor, impeller, disk and breaker comb to produce a fine vapor. Rotating parts shall be electronically balanced to eliminate vibration. Tubes shall be employed to direct moisture into vertical or horizontal duct systems and equalize humidifier internal air pressure to that of the duct. All water exposed parts to be copper, brass, or non-ferrous alloy. Vapor output of the humidifier shall be constant while in operation and shall not depend on the temperature of the air or water. Humidifier(s) shall be Model WF-HP-226 as manufactured by Humidity source. Must be UL listed for US and Canada.



SPECIFICATIONS

CAPACITY

Moisture Output – 3 lb./hr.

WEIGHT

Net: 17 lb.
Shipping: 19 lb.
Operating: 20 lb.

WATER CONNECTIONS & PRESSURES

Supply: 1/8" Male Pipe Thread
Overflow: 1/4" Female Pipe Thread
Operating Pressure Range: 10-100 psig

Electric Motor

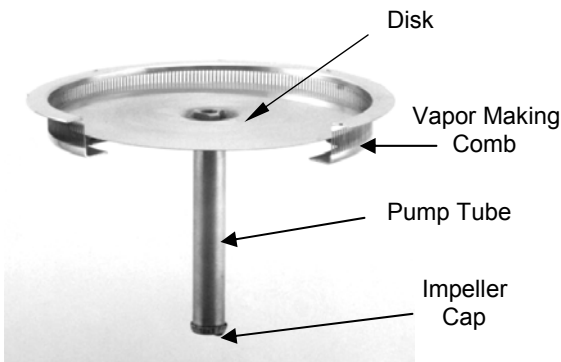
50 Watts
115 volts, single phase, 60 Hz.

CARTON SIZE

15 1/2" X 12 1/4" X 15 1/4"

UNIT SIZE

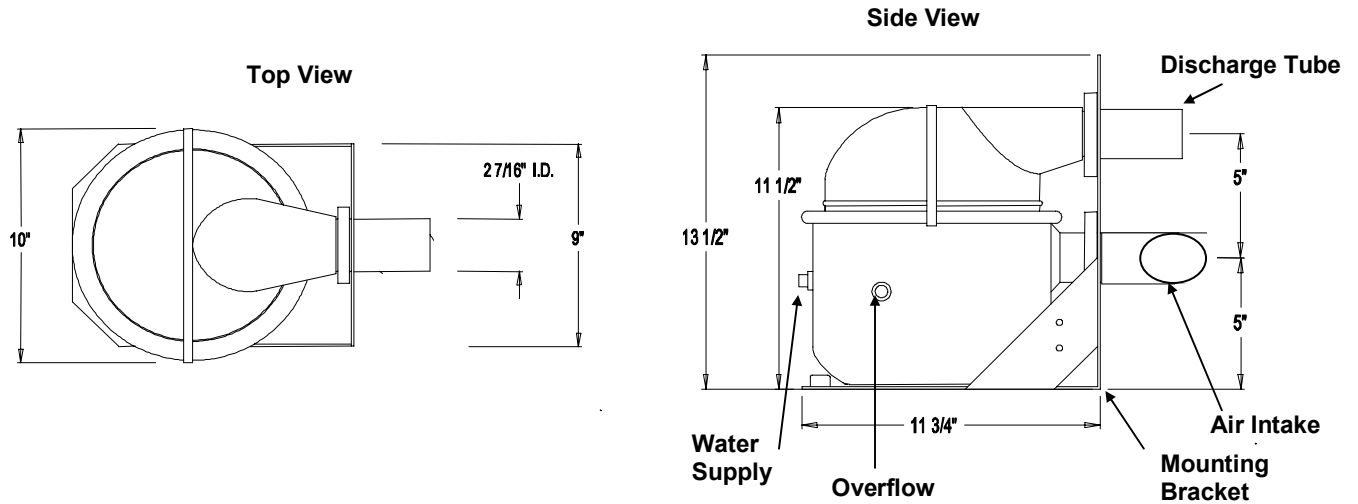
Height: 11 1/2"
Diameter: 10 1/4"



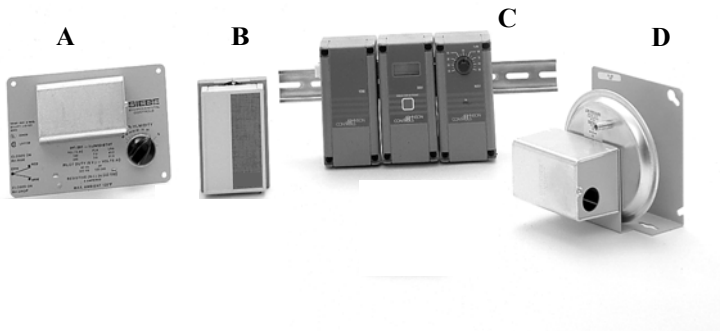
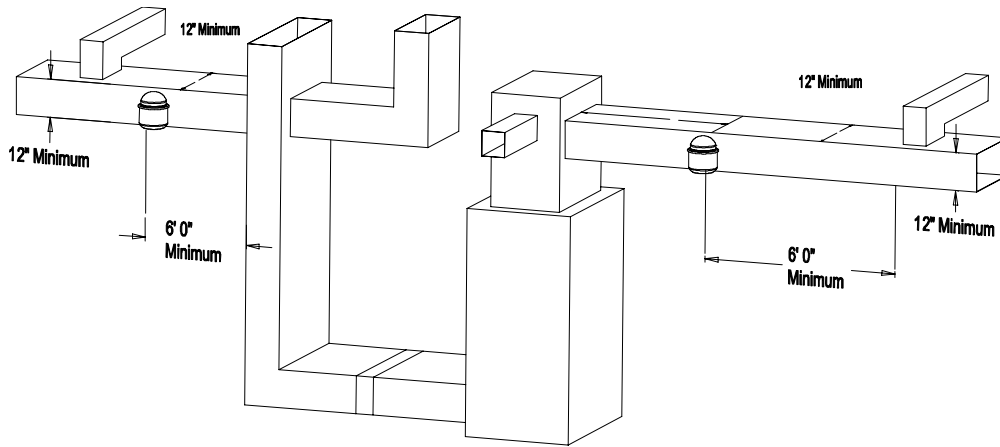
CENTRIFUGAL ATOMIZER

The heart of Humidity Source humidifier units is the patented masterfully engineered Centrifugal Atomizer. Water is drawn by centrifugal force up through the rotating impeller cap and pump tube, then spun across the disk rotating at 3250 RPM striking the Vapor-Maker Comb creating an extremely fine vapor. An integral fan under the rotating disk blows the vapor out of the unit resulting in a fine atomized vapor that is quickly absorbed into the air.

Humidity Source POSITIVE CAPACITY ATOMIZING humidifiers produce moisture that will quickly be absorbed in to the air stream, provided there is no impingement. It is therefore most important that all directions and minimum dimensions be strictly adhered to in order to avoid condensation.



Duct Location Requirements



ACCESSORIES

- A.** Duct mounted, high limit humidistat. Model No. HC-201
- B.** Wall mounted humidistat. Model No. P825.
- C.** Johnston Controls electronic humidistat. Model No. W351 with remote sensor (E)
- D.** Air duct pressure switch. Model No. PC-301

Humidity Source, LLC

90 Dayton Ave. Suite 58, Passaic, New Jersey 07055
 TEL 973-916-1001 FAX: 973-916-0770

MODEL WF-HP-226

NOTE: MAXIMUM STATIC AIR PRESSURE ALLOWED AT SUPPLY IS .25" H₂O.

1. Choose a mounting location, with a 6 ft. minimum straight unobstructed downstream run, on the side of a 12 inch minimum width by 12 inch minimum height supply or return duct. See Fig. F.
2. Place the mounting plate against the duct at the mounting location and scribe the (2) large air tube holes and (11) mounting screw locations on the duct.
3. With a straight edge scribe a 3 inch wide by 8 inch high rectangle enclosing the (2) large circles on the duct and cut out this rectangle.
4. Drill (2) 9/32 inch diameter holes at the two top screw hole locations and drill the remaining (9) screw hole locations with a #30 drill.
5. Assemble the mounting plate to the duct with (2) 1/4 -20 screws and nuts and (9) #10 sheet metal screws.
6. Slide the intake tube with a tube seal onto the reservoir air intake tube oriented such that when the humidifier is assembled on the mounting plate the intake end of the elbow will be facing directly into the duct air flow. Slide the extension tube onto the dome and seal the joint with the supplied rubber seal band as shown in Fig. B. This extension tube must be tilted upward approximately 5° to prevent water from dripping into the duct.
7. Insert (3) rubber feet in the bottom of the mounting plate, with rubber bumper up, and attach nuts to the feet. Tighten the front nut and leave the (2) rear nuts loose.
8. Place the reservoir on the mounting plate while slipping the air intake tube through the lower hole in the mounting plate. Again, make sure the intake tube faces the duct air flow.
9. Connect water supply line to float valve as illustrated in Fig. C. Turn on water valve and adjust the water level to 1/2" below the overflow port by adjusting the float position with the adjusting screw. See Fig. D
10. Place the atomizer unit in the reservoir with its electrical cord located in the notch provided in the reservoir lip. Place the dome on the atomizer unit while slipping its extension tube through the upper hole in the mounting plate. Attach the dome strap assembly. See Fig. A.
11. Adjust the reservoir so that it touches the front rubber foot. Slide the tube seals up to the mounting plate. Move the two rear rubber feet so they touch the reservoir, holding it in place. Tighten the rear nuts.
12. Provide a receptacle in a convenient location and make necessary electrical connections as indicated in the schematic wiring diagram in Fig. F.
13. If the water has a high concentration of minerals, a Humidity Source reverse osmosis unit may be required.

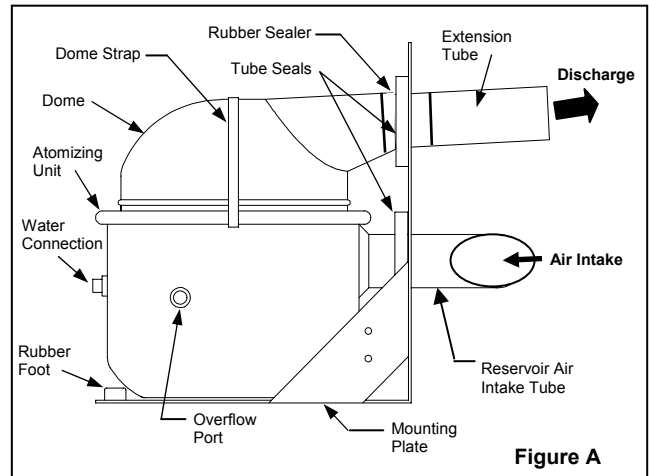


Figure A

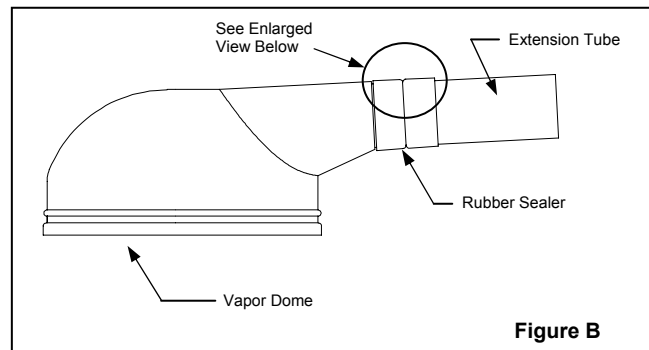
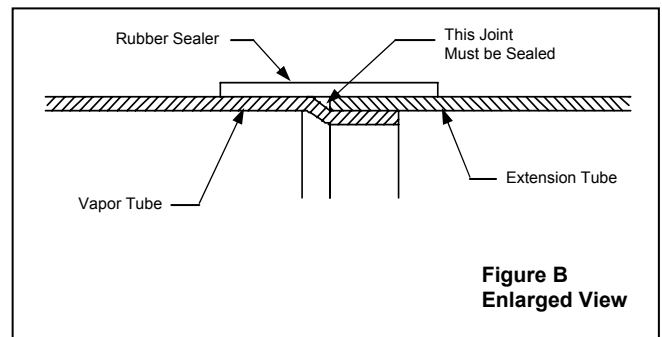


Figure B

Slip rubber sealer end of extension tube all the way over vapor tube of dome. Peel top layer of rubber sealer off the extension tube and on to the vapor tube.

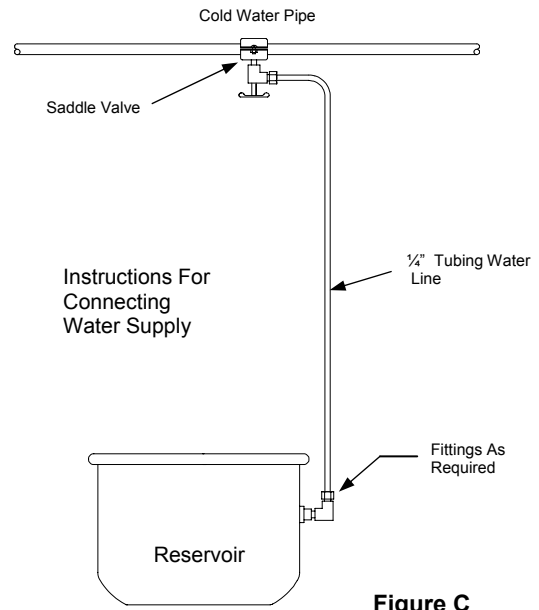


**Figure B
Enlarged View**

Be sure that the rubber seal overlaps the extension tube and the extension tube overlaps the vapor tube as shown in the illustration above.

Positive capacity atomizing humidifiers produce moisture that will quickly evaporate in the air stream, provided there is no impingement of water particles against barrier surfaces before the water is completely absorbed by the air in the duct. Strict attention to minimum clearance dimensions must be adhered to in order to avoid condensation in the duct.

Water Supply Connections



Float Assembly Details

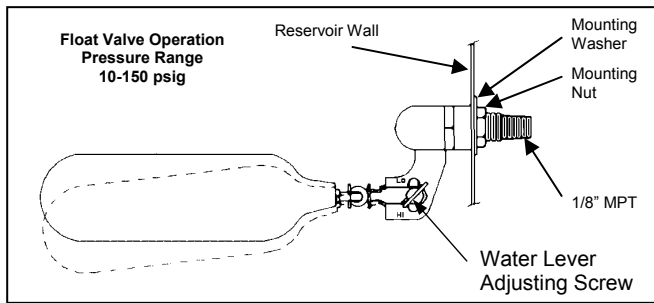


Figure D

Duct Location Requirements

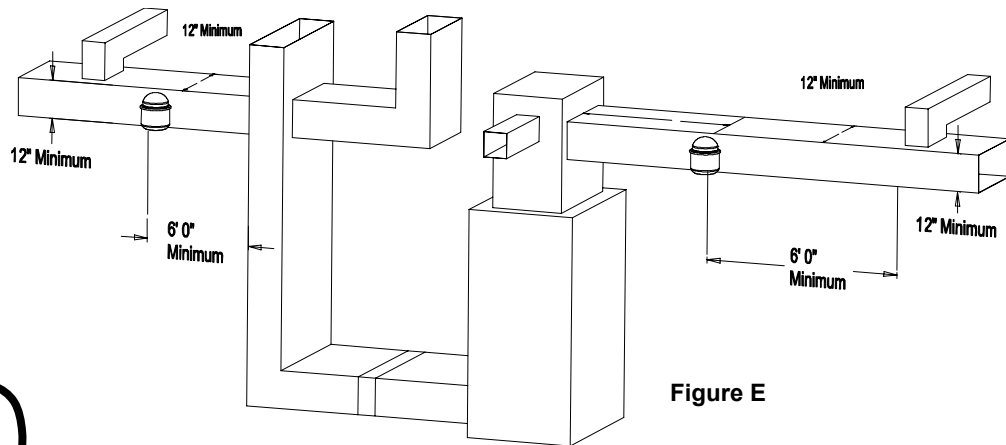


Figure E

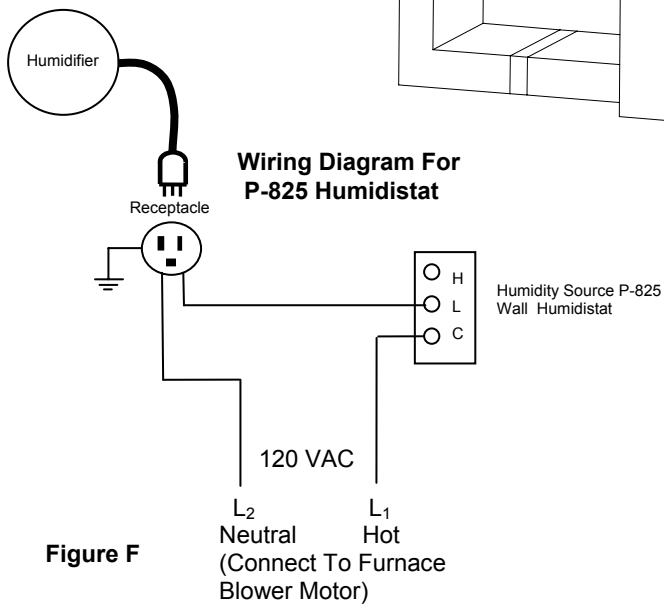


Figure F

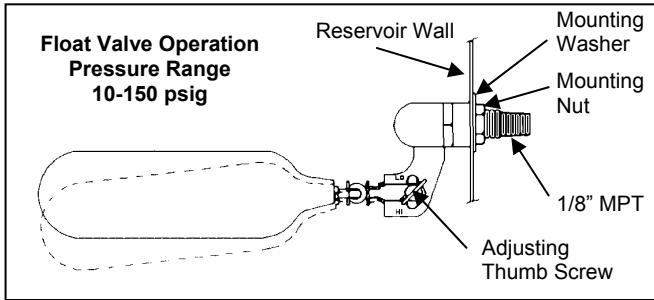


Figure 1

OPERATION

Positive capacity atomizing humidifiers produce a mist that will quickly evaporate into the air if there is no impingement of water particles against barrier surfaces before the water is completely absorbed. Strict attention to minimum clearance dimensions must be adhered to in order to avoid condensation.

MAINTENANCE

Unplug electric cord & remove dome. Carefully lift atomizing unit out of reservoir (Figure 2). Hold atomizing unit firmly and remove the perforated screen (2-A) by turning it slightly to the left until the four lugs are in line with the slots. To remove the impeller cap (2-B), hold a flat file or the back of a table knife flat against the side of the tube and gently tap the cap which is held in place by a pressed fit. After the cap has been removed, the inside of the tube is visible and it is simple matter to clean it with a piece of cloth on the end of a screwdriver or a small round brush.

There are three ports through which water makes its way from the pump tube to the top of the rotating disc (2-C). These ports should be cleaned out with the aid of a wire. See drawing on this page.

Replace the impeller cap by tapping it evenly back into place, using plastic handle on screwdriver.

Remove water from reservoir & rinse. Fill reservoir with white vinegar or other mild acid solution. Replace dome & atomizer on reservoir & block outlet of dome with plastic wrap & a rubber band. Run atomizer for 1/2 hour or until minerals are completely dissolved. If necessary, rinse with diluted chlorine bleach solution. Rinse with clean water and return to service. For hard water problems, see "demineralized water" below.

Inspect float valve assemble periodically, & replace when necessary, or every few years. Should this humidifier need service or repair some time in the future, return only atomizing unit direct to the factory.

DEMINERALIZED WATER

If your local water supply has a high mineral content, (call water company & ask for "total dissolved solids" or T.D.S.) This mineral will create tiny particles of airborne "white dust" when the mist evaporates in the air. To eliminate this dust, use an ion exchange or a reverse osmosis demineralizer. See Humidity Source data sheets for Reverse Osmosis demineralizing filters.

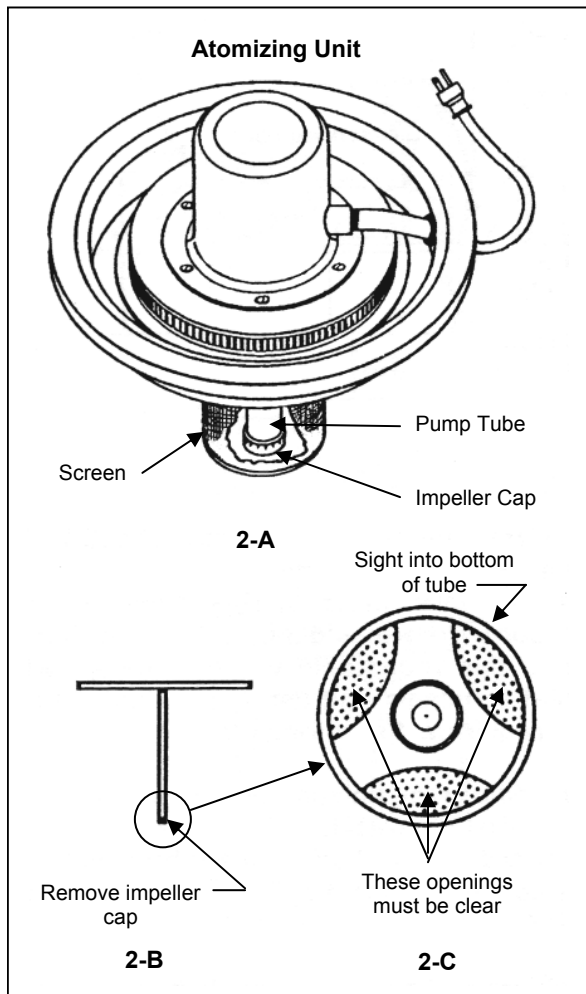
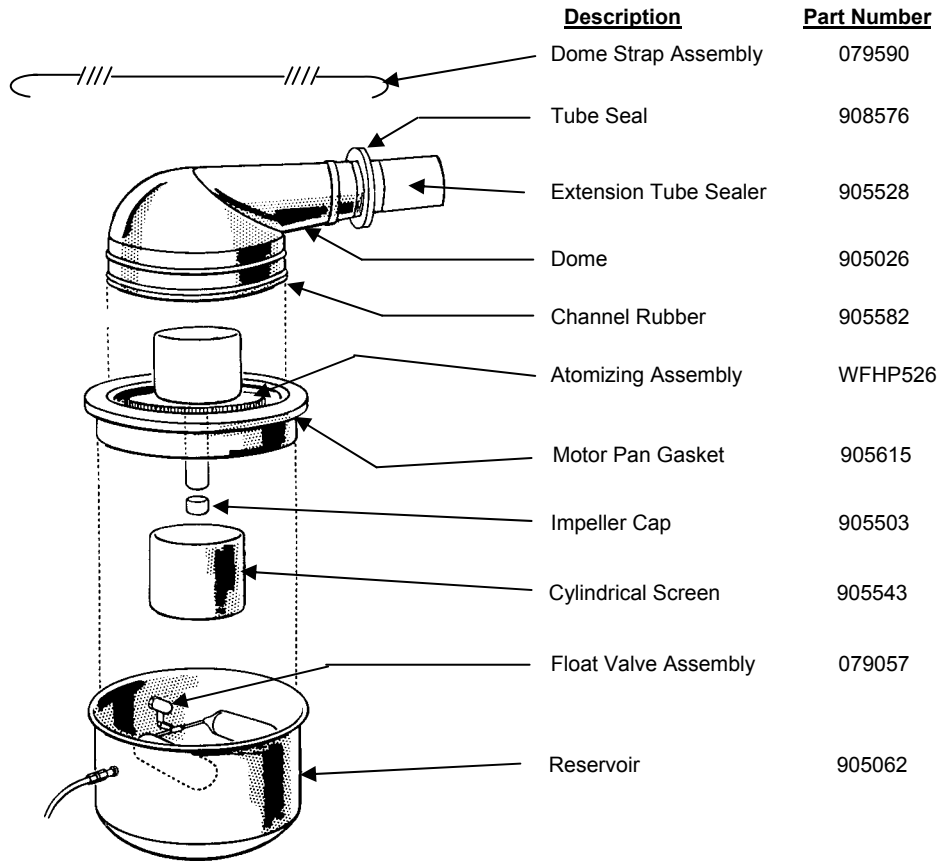


FIGURE 2

MODEL WF-HP-226 Replacement Parts



Humidifier Accessories

P-825 Humidistat
Human Hair Element



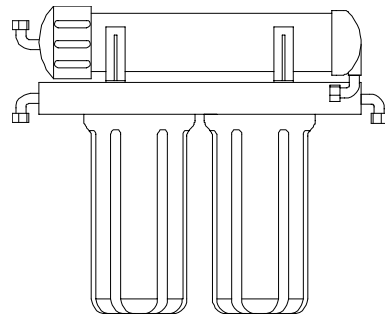
Standard

W351 Humidistat
Electronic Sensor



For high humidity
And/or close
tolerances

Humidity Source Reverse Osmosis water
Treatment systems. Sizes range from industrial
capacities down to individual room units.



Humidity Source, LLC

90 Dayton Ave. Suite 58, Passaic, New Jersey 07055
Phone 973-916-1001 e-mail HumiditySource@aol.com

Sample specifications for WJ-228

Cold water centrifugal atomizing type humidifier and mounting plate for installation in bottom of a straight run of air duct that is under either negative or positive pressure. Water reservoir (normally) is suspended from mounting plate to hang below bottom of duct and permit external plumbing connections for feed to automatic water valve within the reservoir. Atomizer and moisture diffusing ring stand in reservoir so that air will pass through, around, and over the atomizer. Atomizer include motor, impeller, disc and breaker comb to produce a fine vapor. Humidifiers also includes a rim slide to regulate the air stream entering the atomizing section. All water exposed parts to be copper, brass, non-ferrous alloys and stainless steel. Operation is by means of wall mounted (P825) or return air duct mounted line voltage humidistat. Multiple units may be operated with one humidistat by using relay transformer. See installation instruction.



SPECIFICATIONS

CAPACITY

Moisture Output – 12lb./hr.

CARTON SIZE

19 1/4" X 17 1/4" X 21"

Electric Motor

.76 amps, 115 volts, 1 ph – 50/60 hz

WEIGHT

Net: 24 lb.

Shipping: 27 lb.

Operating: 33 lb.

WATER CONNECTIONS & PRESSURES

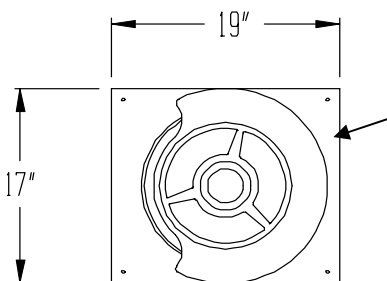
Supply: 1/8 in. Male Pipe Thread

Overflow: 1/4 in. Female Pipe Thread

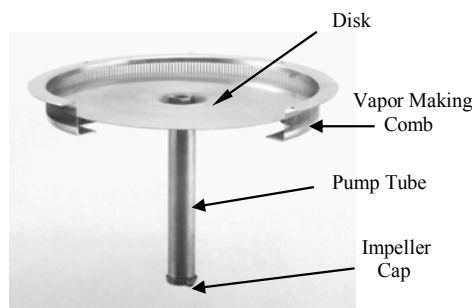
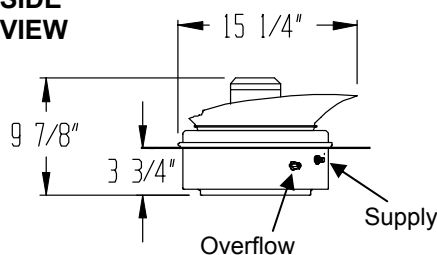
Operating Pressure Range: 10-100 psig

Mounting plate supplied with unit.

These specifications are subject to change without notice.



SIDE VIEW



CENTRIFUGAL ATOMIZER

The heart of Humidity Source humidifier units is the patented masterfully engineered Centrifugal Atomizer. Water is drawn by centrifugal force up through the rotating impeller cap and pump tube, then spun across the disk rotating at 3250 RPM striking the Vapor-Maker Comb creating an extremely fine vapor. An integral fan under the rotating disk blows the vapor out of the unit resulting in a fine atomized vapor that is quickly absorbed into the air.

DUCT HUMIDIFIER APPLICATION DATA

Humidity Source positive capacity atomizing humidifiers produce moisture that will quickly evaporate in the surrounding air **if there is no impingement**. Strict attention to minimum clearance dimensions must be adhered to in order to avoid condensation.

ABSORPTION DISTANCE

Duct Air Velocity ft/min.	800	1000	1200
Absorption Distance Required	8'	10'	12'

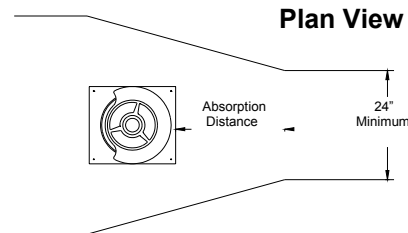
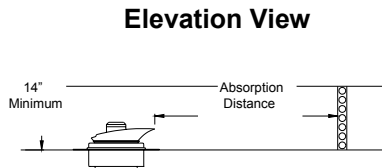
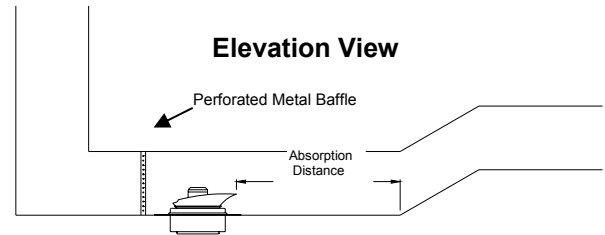
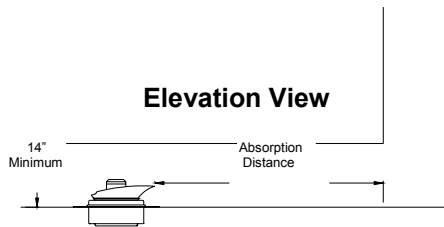
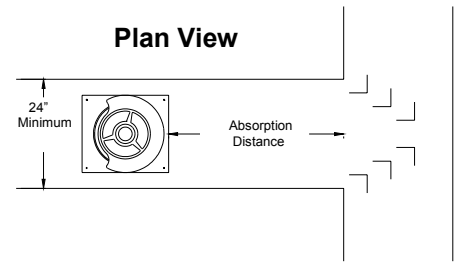
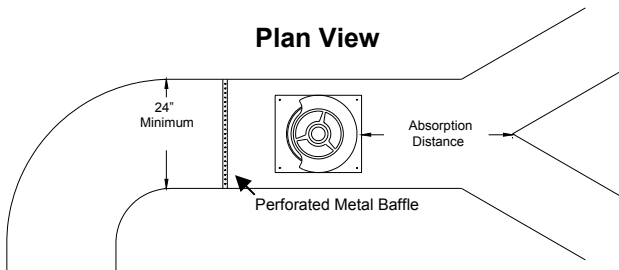
Based on 65 F minimum and 30% R.H. maximum. Longer distances apply for lower temperatures or higher humidity.

Unit must be placed far enough downstream of an elbow or blower to prevent turbulence, normally 8' is sufficient.

SPECIAL REQUIREMENTS

Where minimum straight run distance are not available, one or more of the following procedures may apply:

1. Install a high limit duct humidistat at point of obstruction. Set at 95%. Barber Colman Co. Model HC-201.
2. Install moisture eliminator in duct at point of obstruction supplied by sheet metal fabricator. Pipe to drain.
3. Install reduced capacity impeller cap on bottom of pump tube. Available from Humidity Source.
4. Rotate rim slide (rim slide built into unit).
5. Seal all duct seams in 8' section downstream of unit and install duct drain.
6. Install perforated metal baffle upstream of humidifier to reduce turbulence and stratification of air flow.
7. If water supply is hard, install a demineralizer to prevent "white dust" from being formed.
8. Install temperature control to prevent operation below 65 F minimum temperature.

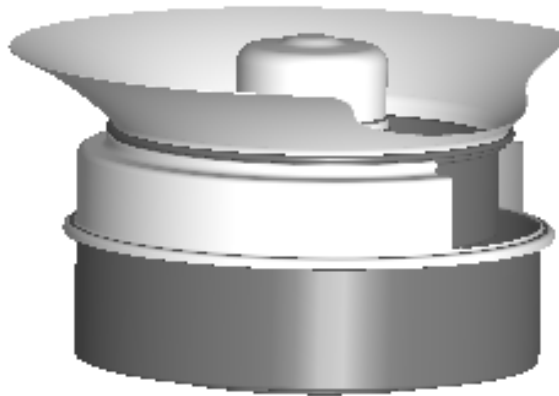


Humidity Source, LLC

90 Dayton Ave. Suite 58, Passaic, New Jersey 07055
 TEL 973-916-1001 FAX: 973-916-0770

MODEL WJ-228

INSTALLATION AND MAINTENANCE INSTRUCTIONS



These installation instructions have been provided to assist the installer in making a good installation. Inside you will find a step by step typical installation, pictured in road map fashion for your convenience. Please familiarize yourself with these instructions before installing your Humidity Source Quality Humidifier.

APPLICATION

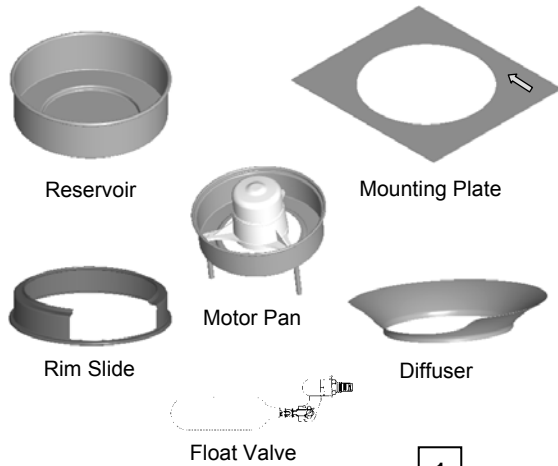
The model WJ-228 humidifier has been designed to discharge the mist directly into the air stream of either supply or return ducts. Check to insure that the air in the duct has a high enough temperature and low enough humidity to allow for complete absorption of the mist. Reduce output if necessary.

Minimum air flow requirements for proper operation are:

WJ-228 1200 CFM

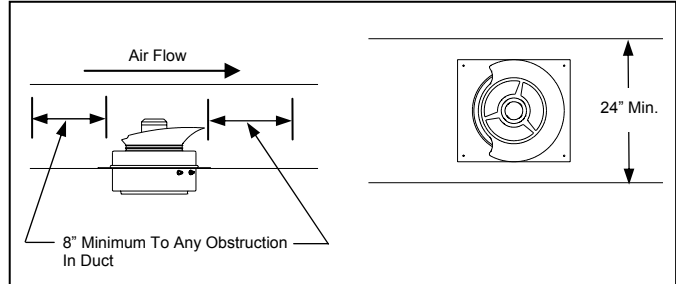
Humidity Source positive capacity atomizing humidifiers produce moisture that will quickly evaporate in the air duct if there is no impingement of water particles against barrier surfaces before the vapor is completely absorbed. It is important that minimum clearance be adhered to as shown in these installation instructions to prevent any condensation from forming in the duct.

Typical Installation For Model WJ-228

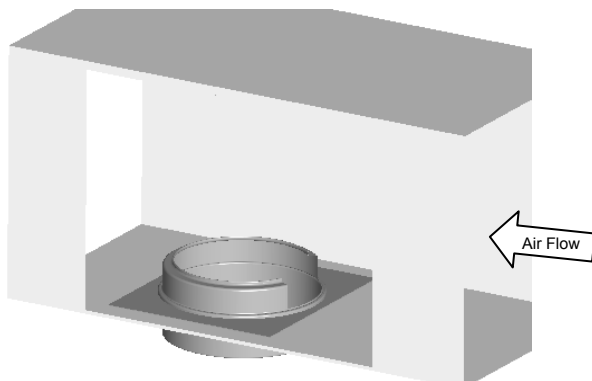
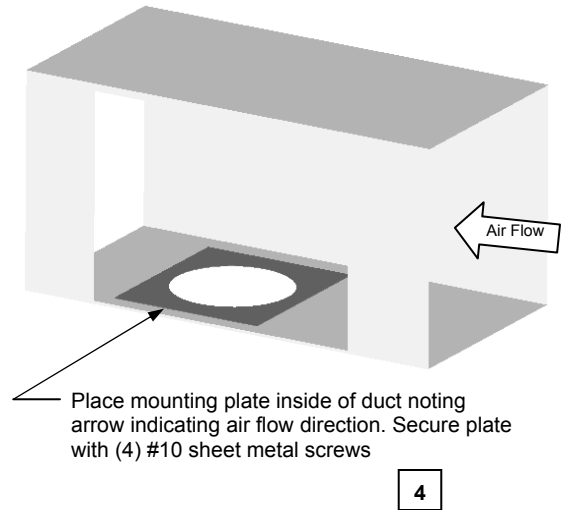
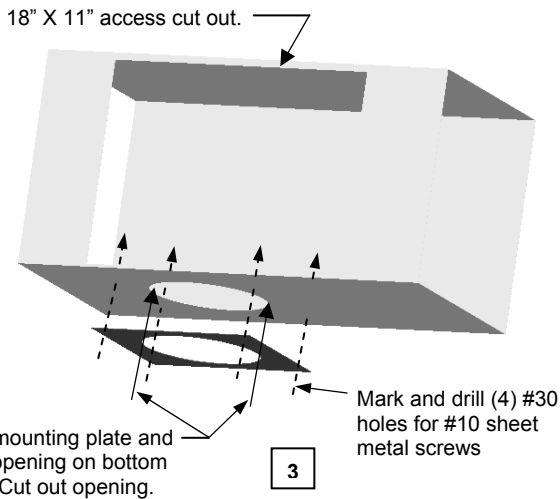


Remove humidifier components from box and identify them. 1

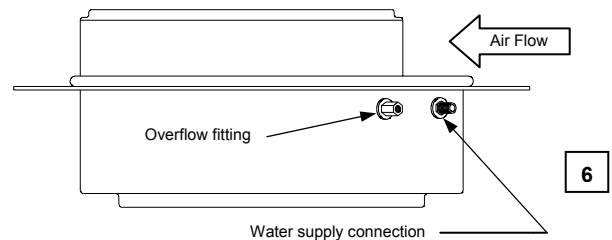
The examples shown below are based on air velocity in the duct of 800 ft/min. For increased velocities add 1' to the minimum obstruction distance for each 100ft/min. Distances based on 65 deg. F and 30% R.H. max.



Minimum duct height: WJ-228 14"
 Minimum duct width: 24"
 Note direction of air flow. Establish minimum duct size and minimum straight run requirements before proceeding. 2

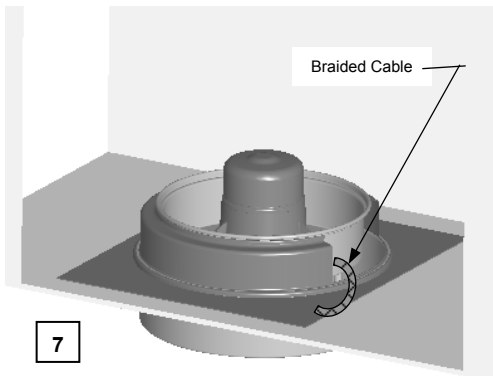


Insert reservoir and rim slide. Turn the reservoir so that the air flow markings are in line with the arrow on the mounting plate and the rim slide slot faces the direction of air flow.

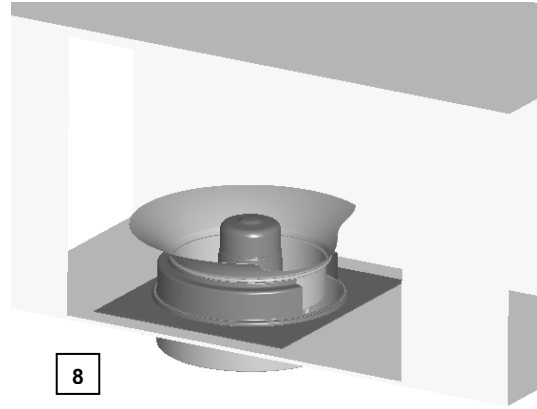


Water connections

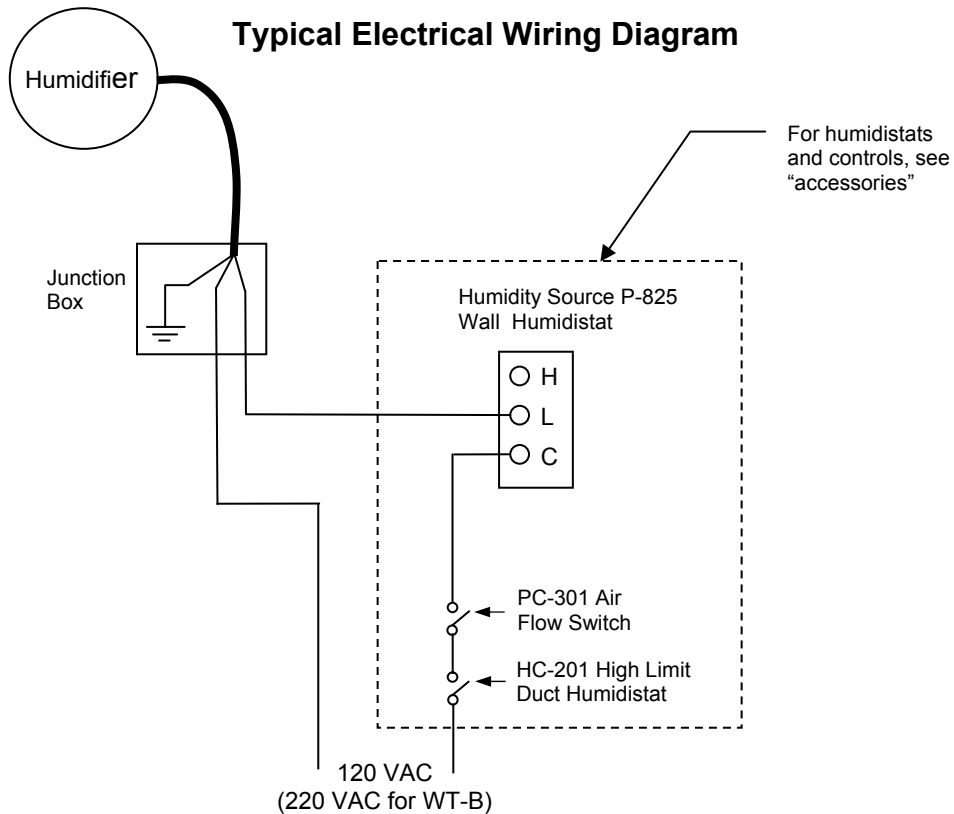
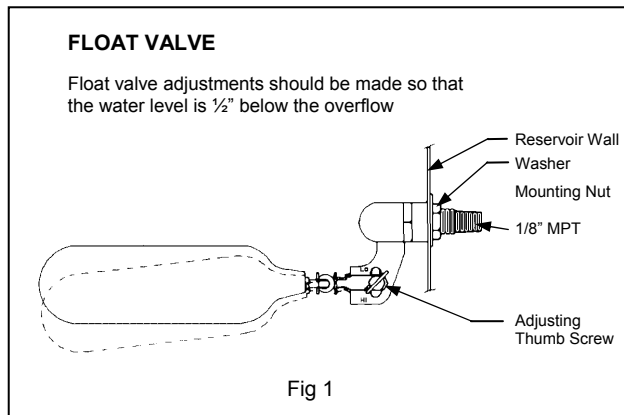
Insert float valve assembly (see Fig 1) and over flow connection with washers on the outside of the reservoir. Connect a water line to 1/8" MPT on the float valve and if overflow is necessary connect to the 1/4" FPT overflow fitting. Flush water line of impurities before making the water line connection to the float valve. Turn on the water supply and adjust the water level to 1/2" below the overflow fitting. See Fig 1 for float valve adjustments.



7
 Insert atomizer unit into reservoir making sure it is centered and the float valve is clear of the motor pan legs and moves freely. Position the braided cable so that it extends from the left side of the slot and through the hole on the mounting plate.

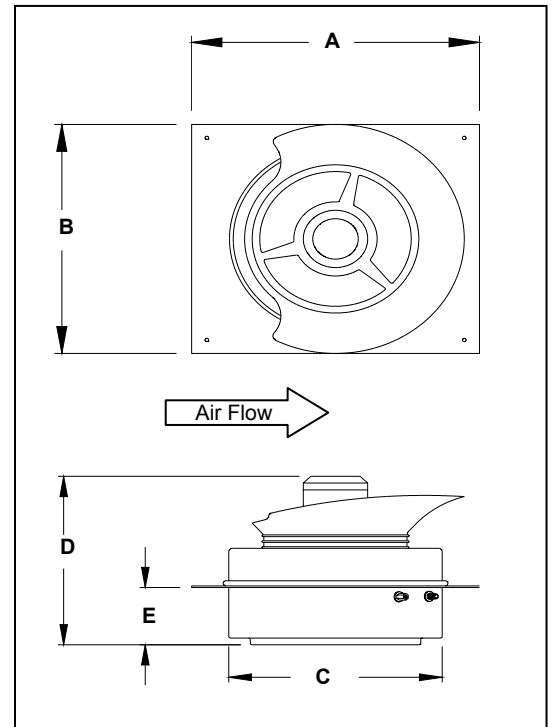


8
 To complete the installation insert diffuser and position as shown with open gap facing air flow. Be sure diffuser is properly seated. Refer to the electrical diagram below for power connections.



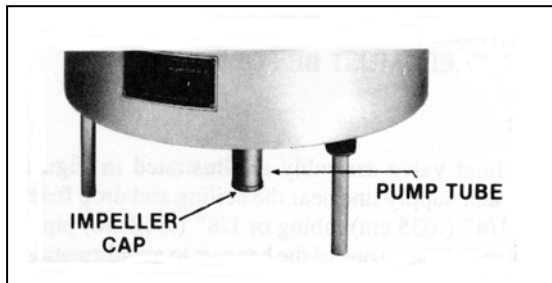
Specifications for Model WJ-228

"A" Dimension	19"
"B" Dimension	17"
"C" Dimension	12 13/16"
"D" Dimension	9 7/8"
"E" Dimension	4"
Duct Height	14" Min.
Duct Width	24" Min
Access Panel Size	18" x 11"
Power Required	1 ph. 50/60 Hz 115v
Power Consumption	90 watts
Operating Weight	29 lbs.
Operating Water Pressure	10-100 psig



MAINTENANCE

Cleaning Of The Atomizing Unit



All natural water systems have a certain amount of water solids which will accumulate in the atomizing unit of your humidifier. Over time this accumulation will reduce the efficiency and out-put of the humidifier. When this happens it will be necessary to clean the atomizing unit pump tube.

Before cleaning be sure to disconnect electrical power from the humidifier. Carefully lift atomizing unit out of reservoir. To remove the impeller cap, hold a flat file or the back of a table knife flat against the side of the tube and gently tap the cap which is held in place by a pressed fit. After the cap has been removed, the inside of the tube is visible and it is simple matter to clean it with a piece of cloth on the end of a screwdriver or a small round brush.

There are three ports through which water makes its way from the pump tube to the top of the rotating disc. These ports should be cleaned out with the aid of a wire.

Replace the impeller cap by tapping it evenly back into place, using plastic handle on screwdriver.

Inspect float valve assemble periodically, & replace when necessary, or every few years. Should this humidifier need service or repair some time in the future, return only atomizing unit direct to the factory.

Humidity Source LLC

90 Dayton Ave. Suite 58, Passaic, New Jersey 07055
Phone 973-916-1001 e-mail humiditysource@aol.com

Humidifier Accessories

Humidistats, Sensors & Controls

P-825 Humidistat
Human Hair Element



Standard

W351 Humidistat
Electronic Sensor



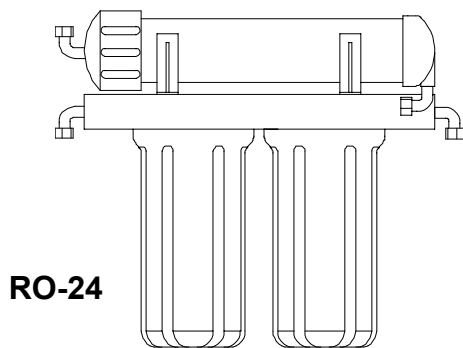
For high humidity
And/or close
tolerances

W351 ELECTRONIC HUMIDITY
CONTROL With Digital Display

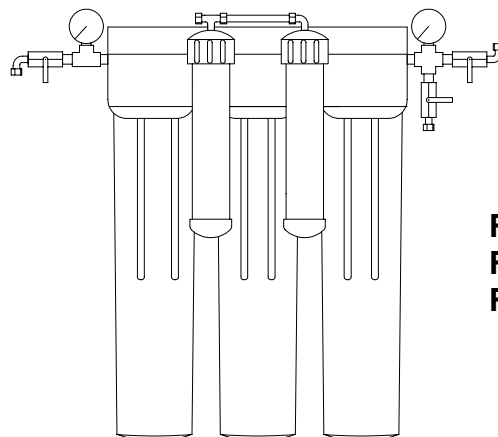


Reverse Osmosis Demineralizers

Humidity Source Reverse Osmosis Water
Treatment systems. Sizes range from industrial capacities
down to individual room units.



RO-24



RO-120
RO-450
RO-900

Humidity Source LLC

90 Dayton Ave. Suite 58, Passaic, New Jersey 07055
Phone 973-916-1001 e-mail HumiditySource@aol.com

Sample specifications for WF-HH-229

Cold water centrifugal atomizing type humidifier and mounting brackets designed for through the wall installations. Water reservoir includes float valve to automatically regulate water level. Humidifier includes motor, impeller, disk and breaker comb to produce a fine vapor. Rotating parts shall be electronically balanced to eliminate vibration. Tubes shall be employed to direct moisture into vertical or horizontal duct systems and equalize humidifier internal air pressure to that of the duct. All water exposed parts to be copper, brass, or non-ferrous alloy. Vapor output of the humidifier shall be constant while in operation and shall not depend on the temperature of the air or water. Humidifier(s) shall be Model WF-HH-229 as manufactured by Humidity Source. Must be UL listed for US and Canada.



SPECIFICATIONS

CAPACITY

Moisture Output – 2 lb./hr.

WEIGHT

Net: 17 lb.
Shipping: 21 lb.

Operating: 25 lb.

WATER CONNECTIONS & PRESSURES

Supply: 1/8" Male Pipe Thread
Overflow: 1/4" Female Pipe Thread
Operating Pressure Range: 10-100 psig

Electric Motor

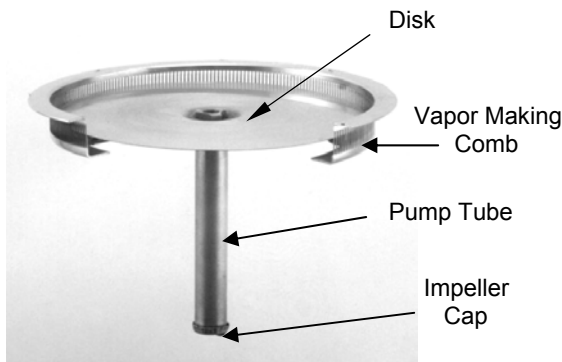
50 Watts
115 volts, single phase, 60 Hz.

CARTON SIZE

15 1/2" X 12 1/4" X 15 1/4"

UNIT SIZE

Height: 11 1/2"
Diameter: 10 1/4"

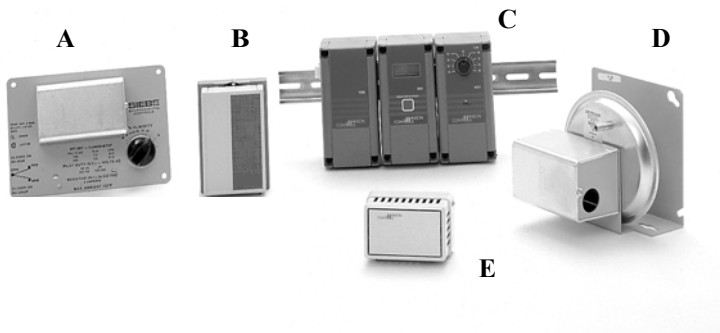
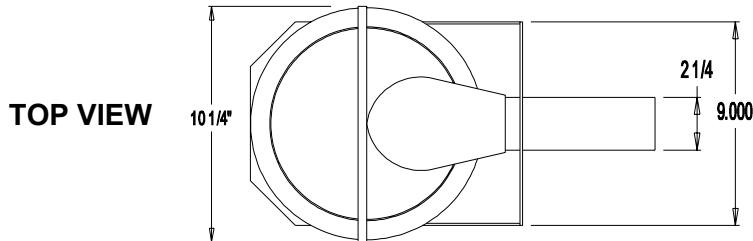
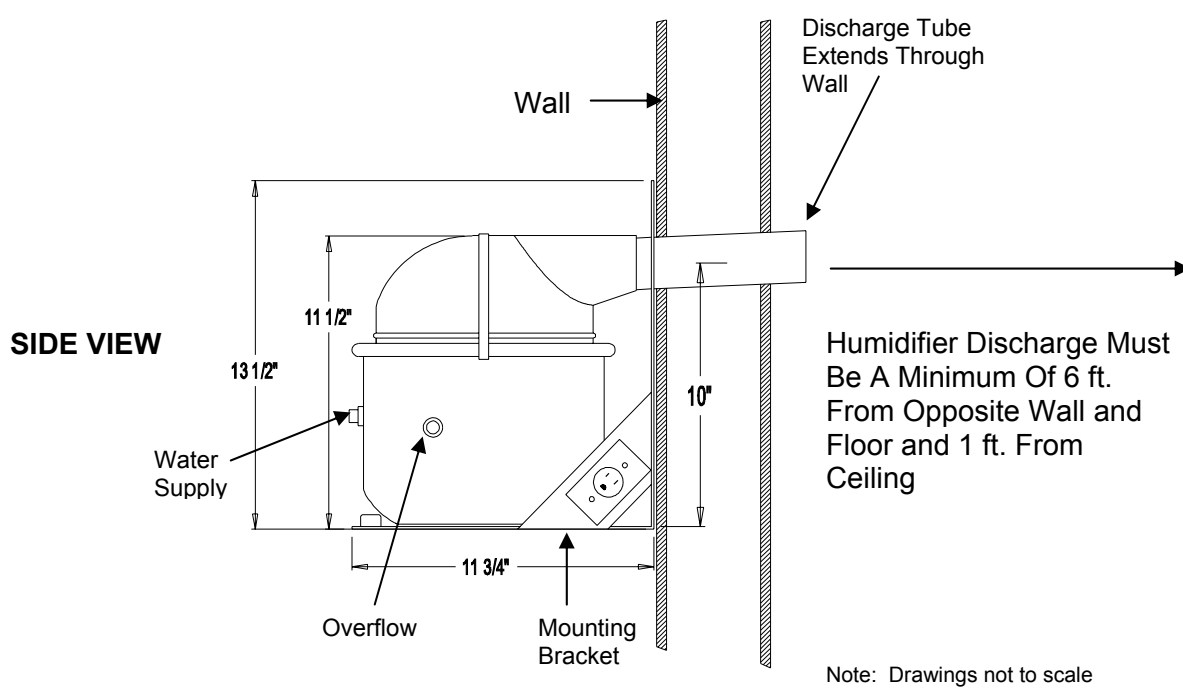


CENTRIFUGAL ATOMIZER

The heart of Humidity Source humidifier units is the patented masterfully engineered Centrifugal Atomizer. Water is drawn by centrifugal force up through the rotating impeller cap and pump tube, then spun across the disk rotating at 3250 RPM striking the Vapor-Maker Comb creating an extremely fine vapor. An integral fan under the rotating disk blows the vapor out of the unit resulting in a fine atomized vapor that is quickly absorbed into the air.

Humidity Source POSITIVE CAPACITY ATOMIZING humidifiers produce moisture that will quickly be absorbed in to the air stream, provided there is no impingement. It is therefore most important that all directions and minimum dimensions be strictly adhered to In order to avoid condensation.

TYPICAL THROUGH THE WALL INSTALLATION



- ACCESSORIES**
- A. Duct mounted, high limit humidistat. Model No. HC-201
 - B. Wall mounted humidistat. Model No. P825.
 - C. Johnston Controls electronic humidistat. Model No. W351 with remote sensor (E)
 - D. Air duct pressure switch. Model No. PC-301

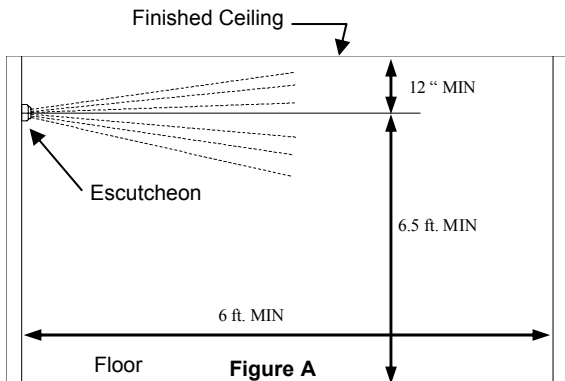
Humidity Source, LLC
 90 Dayton Ave. Suite 58, Passaic, New Jersey 07055
 TEL 973-916-1001 FAX: 973-916-0770

MODEL WF-HH-229

PRELIMINARY CONSIDERATIONS

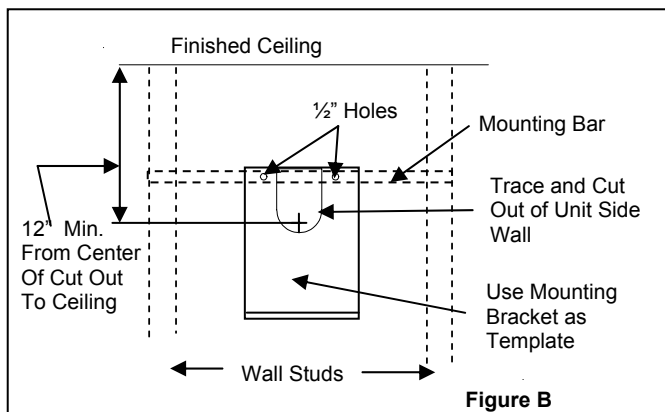
Before proceeding with the installation, the location of Model WF-HH-229 Humidifier must be selected. There are several through-the-wall considerations that can be chosen, utility or equipment rooms, a dead space area, closet space, etc.

Step 1. Select a location for your humidifier so that there will be 6 feet minimum space between the Escutcheon side of the wall and the nearest wall or obstruction. There should also be 6 ½ feet minimum distance to the floor and at least 12 inches from the ceiling (see Figure A). Failure to follow the minimum distance guidelines may result in moisture on the walls or ceiling.

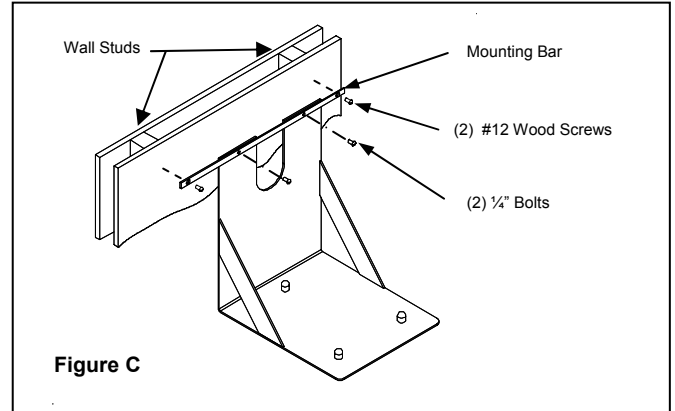


Step 2. Use the Mounting Bracket as a template and mark the location for (2) ½" diameter holes and slot for humidifier discharge tube (Figure B). Drill the ½" holes and cut the slot in the wall board on the unit side only. Cut a 3 ½" hole in the Escutcheon or unit discharge side of the wall to allow the extension tube to protrude through the wall. Establish a 2" per foot pitch toward the humidifier when cutting the 3 ½" hole.

Step 3. Fasten the Mounting Bar to the top of the Mounting Bracket with (2) ¼" bolts as shown in Figure C. Mount the entire assembly to the wall with (2) #12 wood screws through the Mounting Bracket. The Mounting Bar is sized to match normal wall stud spacing (16" centers). Insert (3) rubber feet in the bottom of the mounting plate, with rubber bumper up

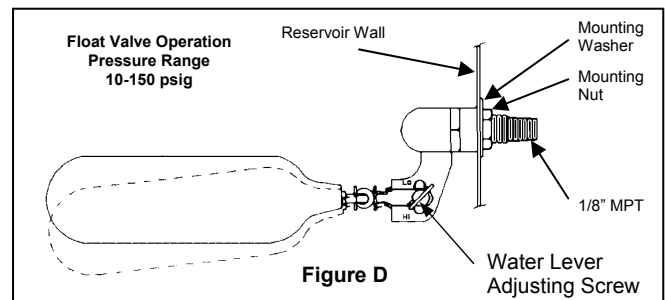


and attach nuts to the feet. Tighten the front nut and leave the (2) rear nuts loose.



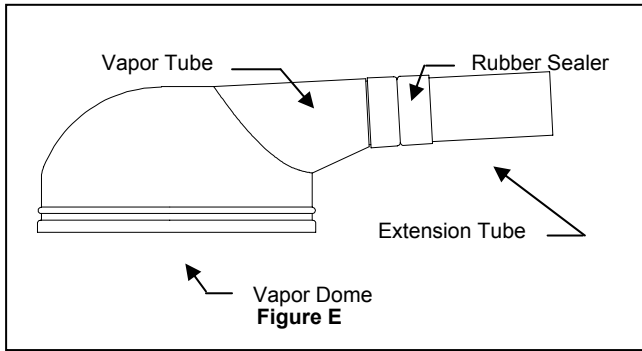
Step 4. Place the Reservoir assembly on the Mounting Bracket. Run a ¼" copper or PVC tubing line from an appropriate water supply to the Reservoir float valve fitting. It is recommended that a shut off valve be located at the water supply connection in case of water leaks and for easy removal of humidifier for maintenance. Turn on the water and adjust the Reservoir water level to 1" below the over flow port using the float valve adjusting thumb screw (Figure D).

Float Assembly Details

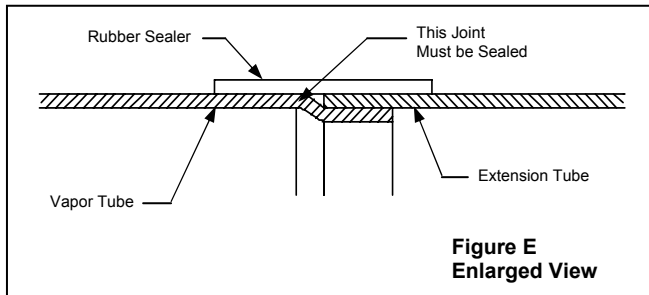


Step 5. Cut the Extension Tube to the correct length depending on your wall thickness. Allow sufficient Extension Tube length (¾") protruding through the wall to mount the Escutcheon. Do not cut the Extension Tube at the rubber seal end and smooth all rough edges after cutting.

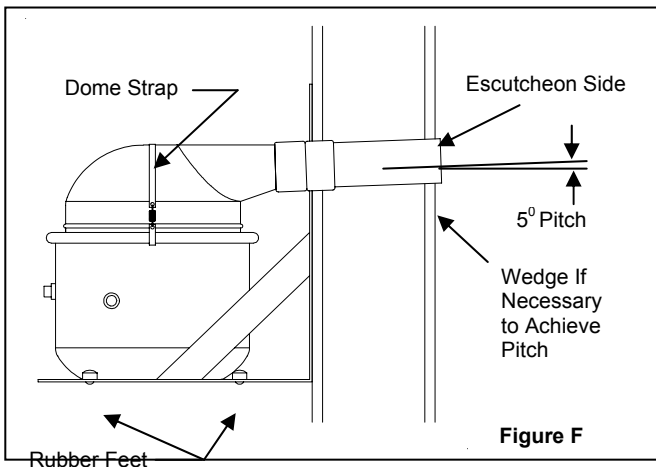
Step 6. Slip Rubber Sealer end of the extension tube all the way over the Vapor Tube. Roll the top layer of the Rubber Sealer off the extension tube and on to the Vapor Tube (Figure E).



Slip rubber sealer end of extension tube all the way over vapor tube of dome. Peel top layer of rubber sealer off the extension tube and on to the vapor tube.



Be sure that the rubber seal overlaps the extension tube and the extension tube overlaps the vapor tube as shown in the illustration above.

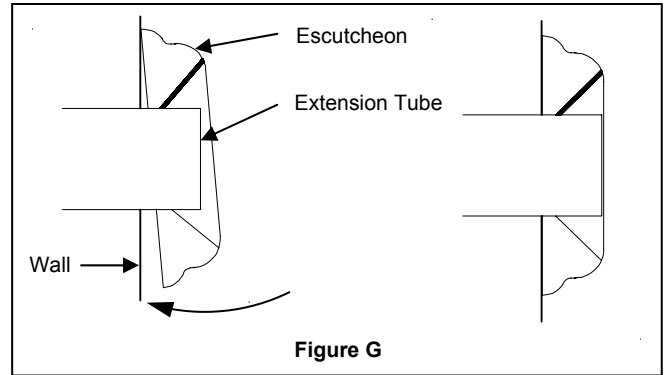


Step 7. Insert the Vapor Dome with Extension Tube through the wall from the humidifier side as shown in Figure F. The Extension Tube should have a downward pitch toward the humidifier of approximately 1" per foot. Place Vapor Dome on top of Reservoir and connect Dome Strap. Water placed in the Extension Tube should run back into the humidifier, if not wedge a piece of spacing material (like a piece of wood) under the Extension Tube to raise it.

Step 8. Adjust the two rear rubber feet on the Mounting Bracket to snug the Reservoir up against the front rubber foot to keep the reservoir firmly in place.

Step 9. Assemble the Escutcheon to the protruding Extension Tube as shown in the two steps shown in Figure G.

Step 10. Make electrical connections as shown in Figure H. The Humidity Source Humidifier is now ready for many years of service.



Wiring Diagram For P-825 Humidistat

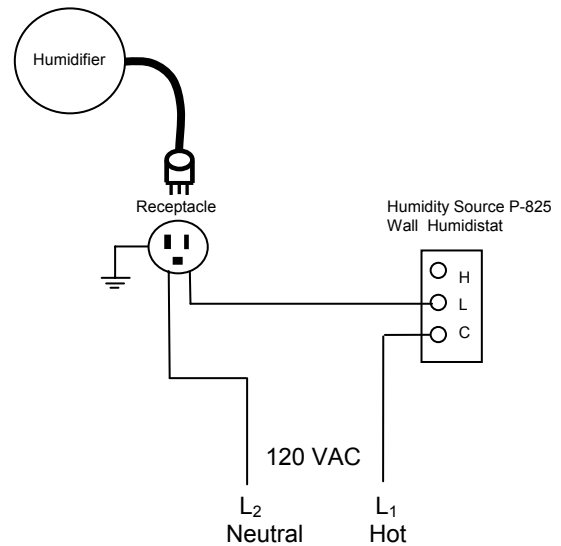


Figure H

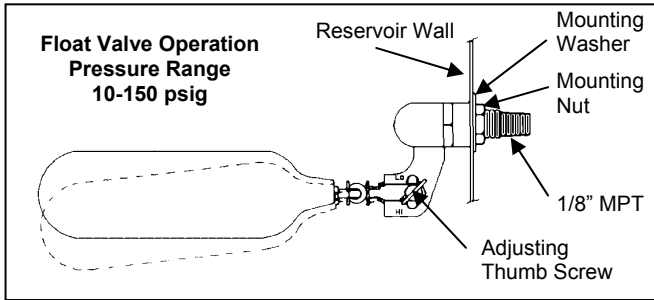


Figure 1

OPERATION

Positive capacity atomizing humidifiers produce a mist that will quickly evaporate into the air if there is no impingement of water particles against barrier surfaces before the water is completely absorbed. Strict attention to minimum clearance dimensions must be adhered to in order to avoid condensation.

MAINTENANCE

Unplug electric cord & remove dome. Carefully lift atomizing unit out of reservoir (Figure 2). Hold atomizing unit firmly and remove the perforated screen (2-A) by turning it slightly to the left until the four lugs are in line with the slots. To remove the impeller cap (2-B), hold a flat file or the back of a table knife flat against the side of the tube and gently tap the cap which is held in place by a pressed fit. After the cap has been removed, the inside of the tube is visible and it is simple matter to clean it with a piece of cloth on the end of a screwdriver or a small round brush.

There are three ports through which water makes its way from the pump tube to the top of the rotating disc (2-C). These ports should be cleaned out with the aid of a wire. See drawing on this page.

Replace the impeller cap by tapping it evenly back into place, using plastic handle on screwdriver.

Remove water from reservoir & rinse. Fill reservoir with white vinegar or other mild acid solution. Replace dome & atomizer on reservoir & block outlet of dome with plastic wrap & a rubber band. Run atomizer for 1/2 hour or until minerals are completely dissolved. If necessary, rinse with diluted chlorine bleach solution. Rinse with clean water and return to service. For hard water problems, see "demineralized water" below.

Inspect float valve assemble periodically, & replace when necessary, or every few years. Should this humidifier need service or repair some time in the future, return only atomizing unit direct to the factory.

DEMINERALIZED WATER

If your local water supply has a high mineral content, (call water company & ask for "total dissolved solids" or T.D.S.) This mineral will create tiny particles of airborne "white dust" when the mist evaporates in the air. To eliminate this dust, use an ion exchange or a reverse osmosis demineralizer. See Humidity Source data sheets for Reverse Osmosis demineralizing filters.

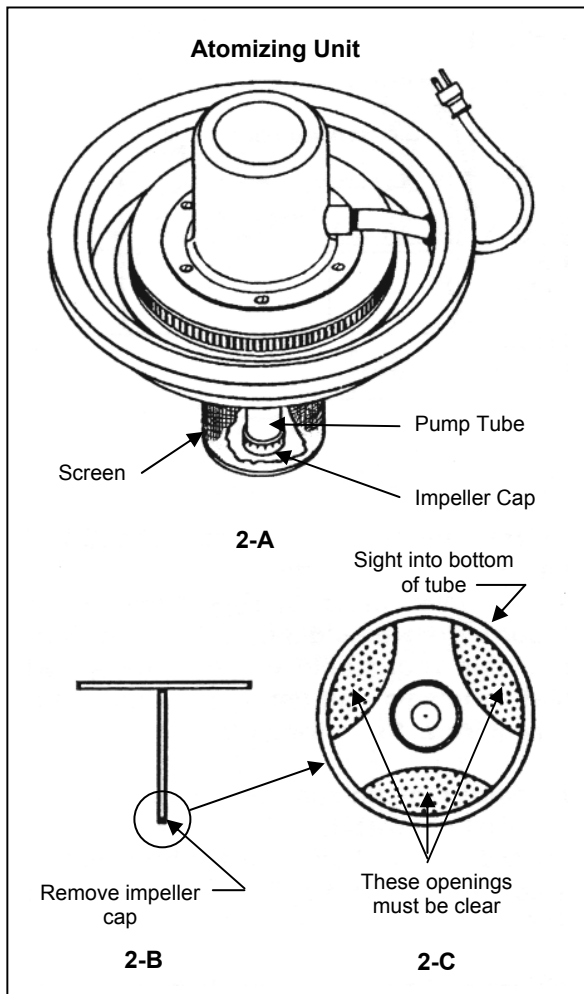
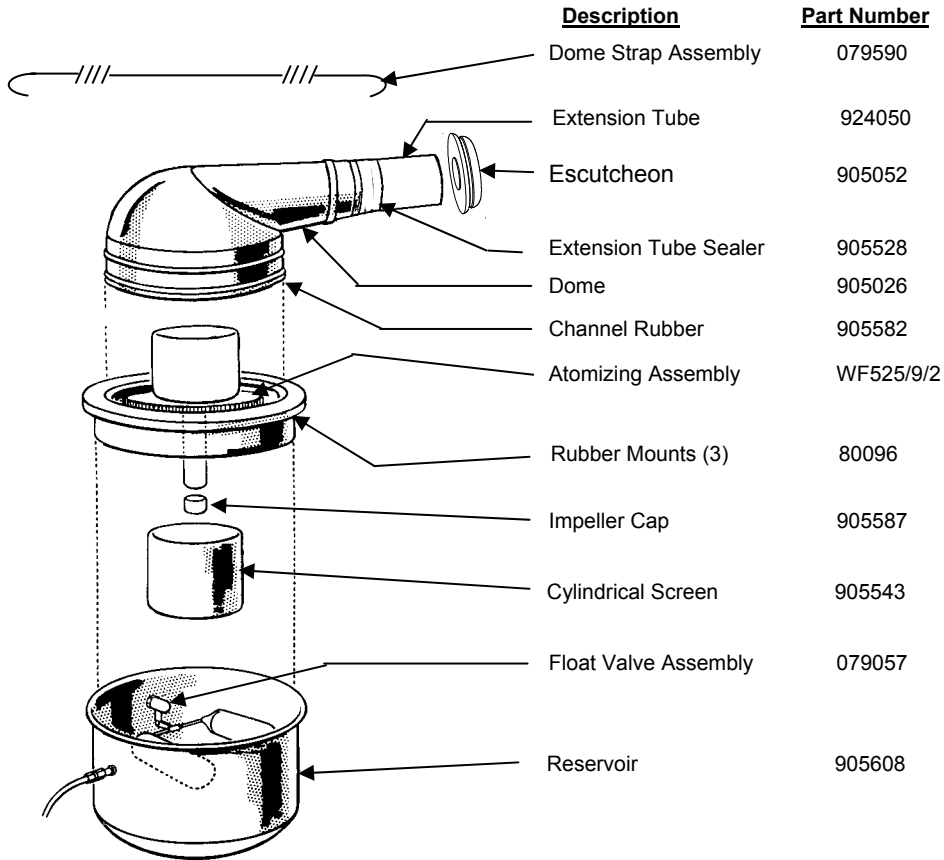


FIGURE 2

MODEL WF-HH-229 Replacement Parts



Humidifier Accessories

P-825 Humidistat
Human Hair Element



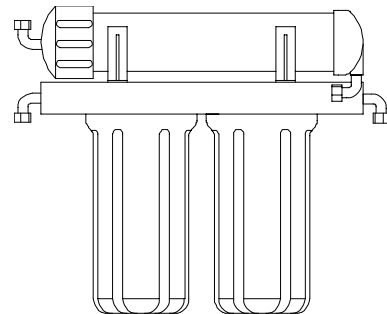
Standard

W351 Humidistat
Electronic Sensor



For high humidity
And/or close
tolerances

Humidity Source Reverse Osmosis water Treatment systems. Sizes range from industrial capacities down to individual room units.



Humidity Source, LLC

90 Dayton Ave. Suite 58, Passaic, New Jersey 07055
Phone 973-916-1001 e-mail HumiditySource@aol.com

Sample specifications for WT & WT-B

Cold water centrifugal atomizing type humidifier and mounting plate for installation in bottom of a straight run of air duct that is under either negative or positive pressure. Water reservoir (normally) is suspended from mounting plate to hang below bottom of duct and permit external plumbing connections for feed to automatic water valve within the reservoir. Atomizer and moisture diffusing ring stand in reservoir so that air will pass through, around, and over the atomizer. Atomizer include motor, impeller, disc and breaker comb to produce a fine vapor. Humidifier also includes a rim slide to regulate the air stream entering the atomizing section. All water exposed parts to be copper, brass, non-ferrous alloys and stainless steel. Operation is by means of wall mounted (P825) or return air duct mounted line voltage humidistat. Multiple units may be operated with one humidistat by using relay transformer. See installation instruction.



SPECIFICATIONS

CAPACITY:

Moisture Output – 24lb./hr.

Electric Motor:

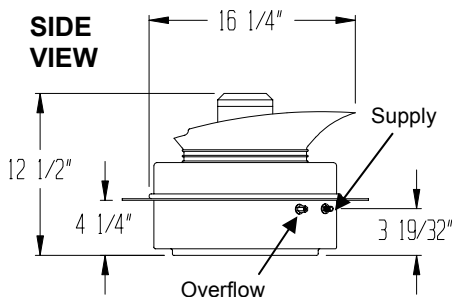
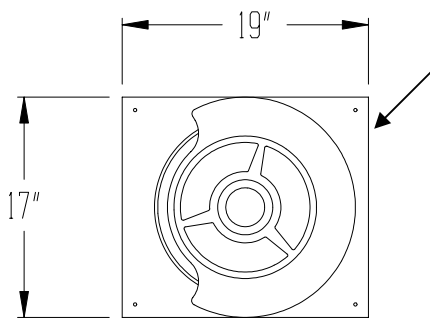
Model WT: 1.15 amps, 115 volts, 1 ph – 50/60 hz
Model WT-B: .55 amps, 230 volts 1 ph – 50/60 hz

WEIGHT:

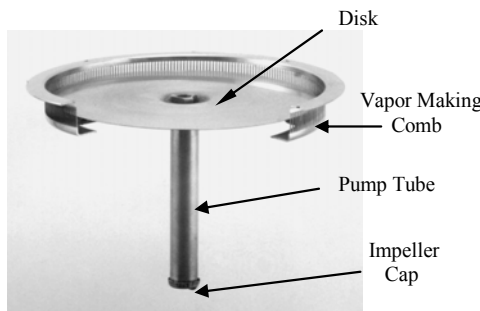
Net: 24 lb.
Shipping: 39 lb.
Operating: 37 lb.

WATER CONNECTIONS & PRESSURES:

Supply: 1/8 in. Male Pipe Thread
Overflow: 1/4 in. Female Pipe Thread
Operating Pressure Range: 10-100 psig



These specifications are subject to change without notice.



CENTRIFUGAL ATOMIZER

The heart of Humidity Source humidifier units is the patented masterfully engineered Centrifugal Atomizer. Water is drawn by centrifugal force up through the rotating impeller cap and pump tube, then spun across the disk rotating at 3250 RPM striking the Vapor-Maker Comb creating an extremely fine vapor. An integral fan under the rotating disk blows the vapor out of the unit resulting in a fine atomized vapor that is quickly absorbed into the air.

DUCT HUMIDIFIER APPLICATION DATA

Humidity Source positive capacity atomizing humidifiers produce moisture that will quickly evaporate in the surrounding air **if there is no impingement**. Strict attention to minimum clearance dimensions must be adhered to in order to avoid condensation.

ABSORPTION DISTANCE

Duct Air Velocity ft/min.	800	1000	1200
Absorption Distance Required	8'	10'	12'

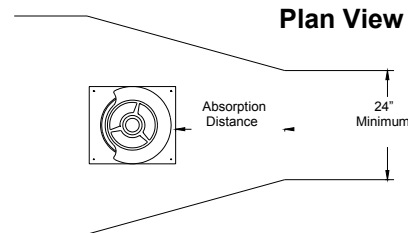
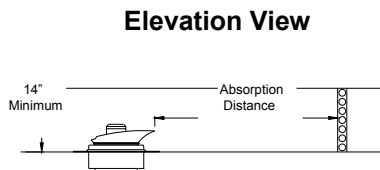
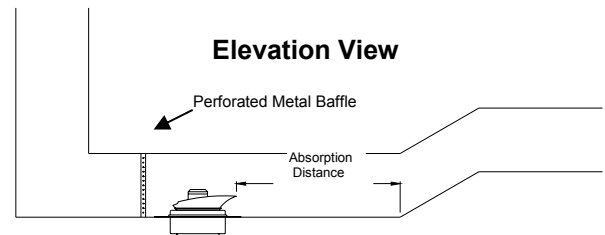
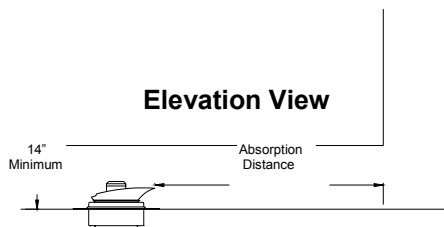
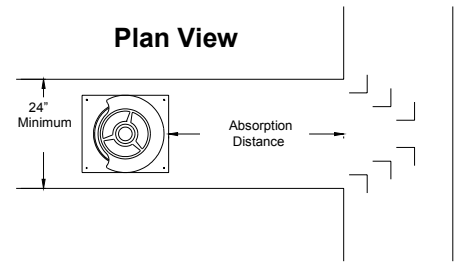
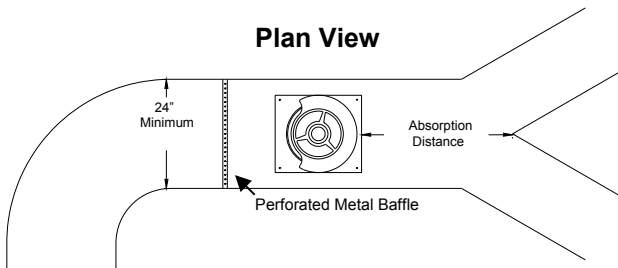
Based on 65 F minimum and 30% R.H. maximum. Longer distances apply for lower temperatures or higher humidity.

Unit must be placed far enough downstream of an elbow or blower to prevent turbulence, normally 8' is sufficient.

SPECIAL REQUIREMENTS

Where minimum straight run distance are not available, one or more of the following procedures may apply:

1. Install a high limit duct humidistat at point of obstruction. Set at 95%. Barber Colman Co. Model HC-201.
2. Install moisture eliminator in duct at point of obstruction supplied by sheet metal fabricator. Pipe to drain.
3. Install reduced capacity impeller cap on bottom of pump tube. Available from Humidity Source.
4. Rotate rim slide (rim slide built into unit).
5. Seal all duct seams in 8' section downstream of unit and install duct drain.
6. Install perforated metal baffle upstream of humidifier to reduce turbulence and stratification of air flow.
7. If water supply is hard, install a demineralizer to prevent "white dust" from being formed.
8. Install temperature control to prevent operation below 65 F minimum temperature.

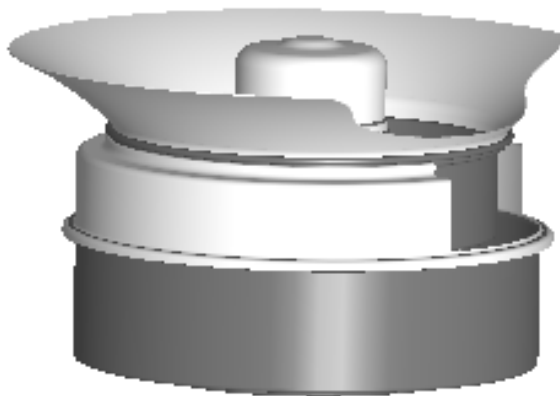


Humidity Source, LLC

90 Dayton Ave. Suite 58. Passaic, New Jersey 07055 USA
Ph. 973-916-1001 Fax 973-916-0770

MODELS WT and WT-B

INSTALLATION AND MAINTENANCE INSTRUCTIONS



These installation instructions have been provided to assist the installer in making a good installation. Inside you will find a step by step typical installation, pictured in road map fashion for your convenience. Please familiarize yourself with these instructions before installing your Humidity Source Quality Humidifier.

APPLICATION

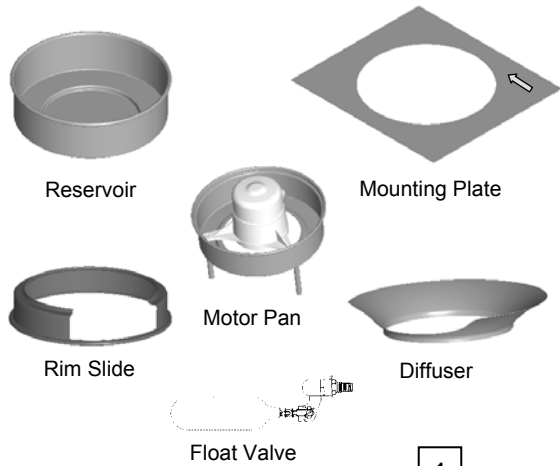
The model WT humidifier has been designed to discharge the mist directly into the air stream of either supply or return ducts. Check to insure that the air in the duct has a high enough temperature and low enough humidity to allow for complete absorption of the mist. Reduce output if necessary.

Minimum air flow requirements for proper operation are:

WT/WT-B	2000 CFM
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Humidity Source positive capacity atomizing humidifiers produce moisture that will quickly evaporate in the air duct if there is no impingement of water particles against barrier surfaces before the vapor is completely absorbed. It is important that minimum clearance be adhered to as shown in these installation instructions to prevent any condensation from forming in the duct.

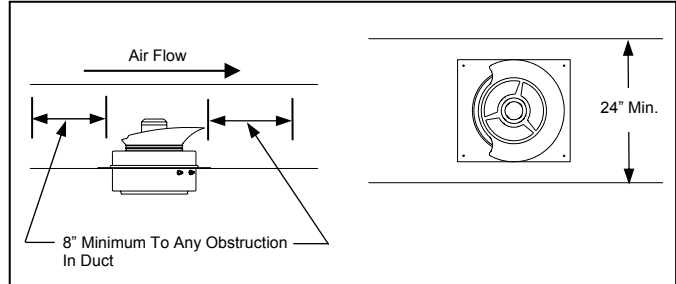
Typical Installation For Models WT and WT-B



Remove humidifier components from box and identify them.

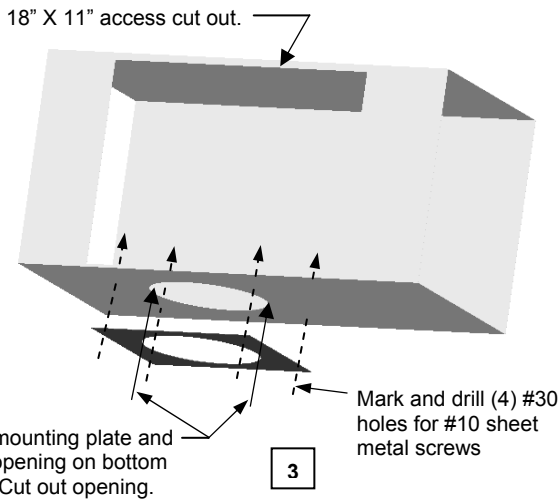
1

The examples shown below are based on air velocity in the duct of 800 ft/min. For increased velocities add 1' to the minimum obstruction distance for each 100ft/min. Distances based on 65 deg. F and 30% R.H. max.

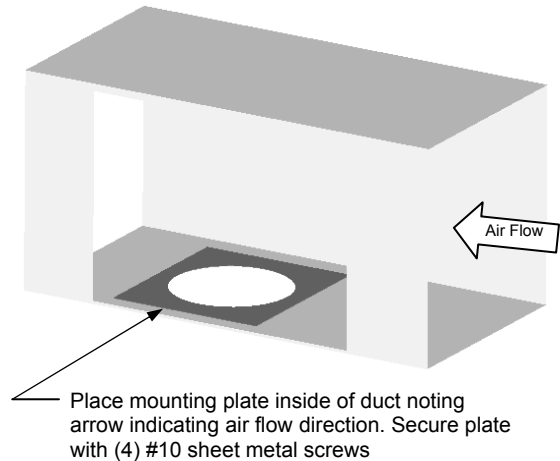


Minimum duct height: WT 16"
Minimum duct width: 24"
Note direction of air flow. Establish minimum duct size and minimum straight run requirements before proceeding.

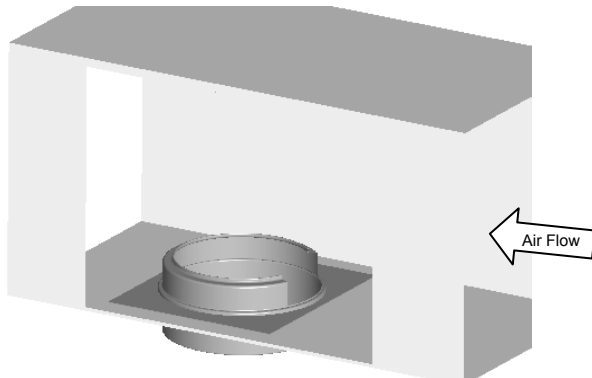
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3

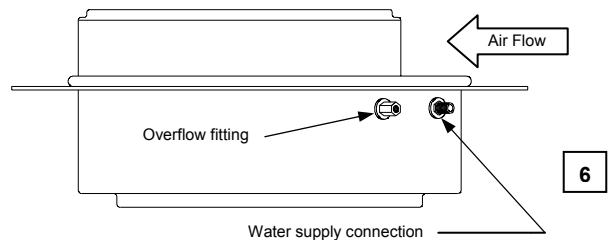


4



Insert reservoir and rim slide. Turn the reservoir so that the air flow markings are in line with the arrow on the mounting plate and the rim slide slot faces the direction of air flow.

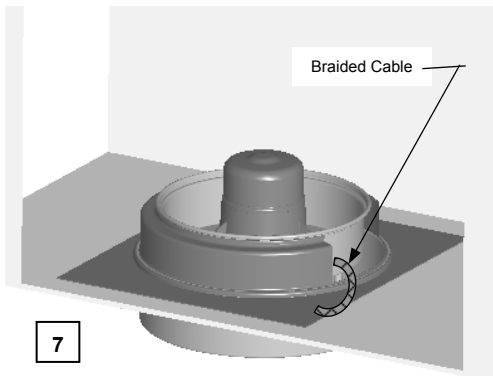
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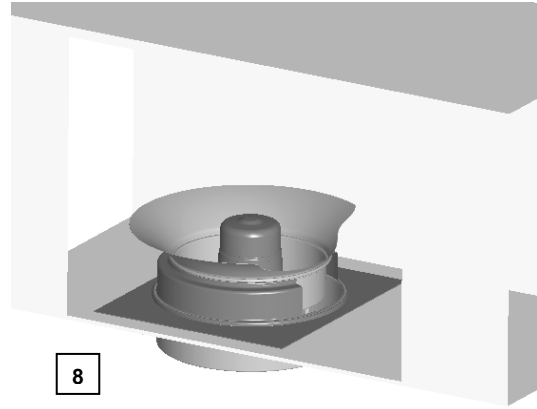
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Water connections

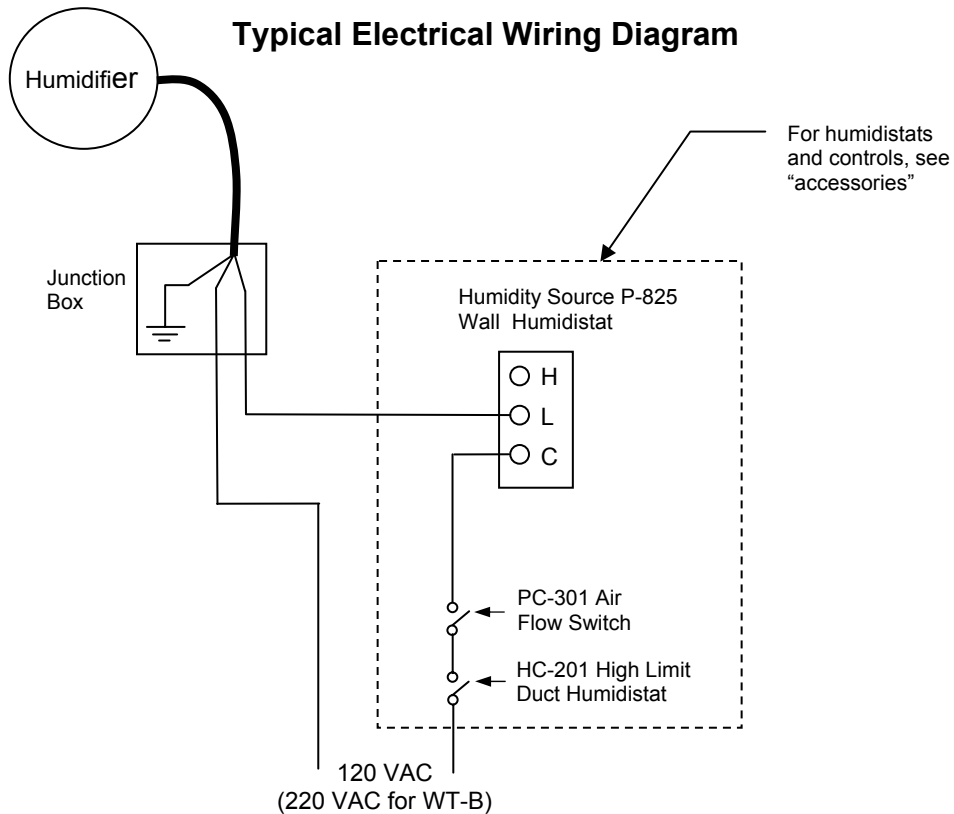
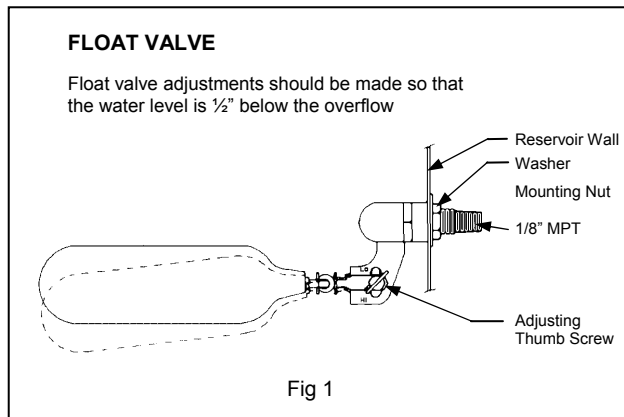
Insert float valve assembly (see Fig 1) and over flow connection with washers on the outside of the reservoir. Connect a water line to 1/8" MPT on the float valve and if overflow is necessary connect to the 1/4" FPT overflow fitting. Flush water line of impurities before making the water line connection to the float valve. Turn on the water supply and adjust the water level to 1/2" below the overflow fitting. See Fig 1 for float valve adjustments.



7
 Insert atomizer unit into reservoir making sure it is centered and the float valve is clear of the motor pan legs and moves freely. Position the braided cable so that it extends from the left side of the slot and through the hole on the mounting plate.

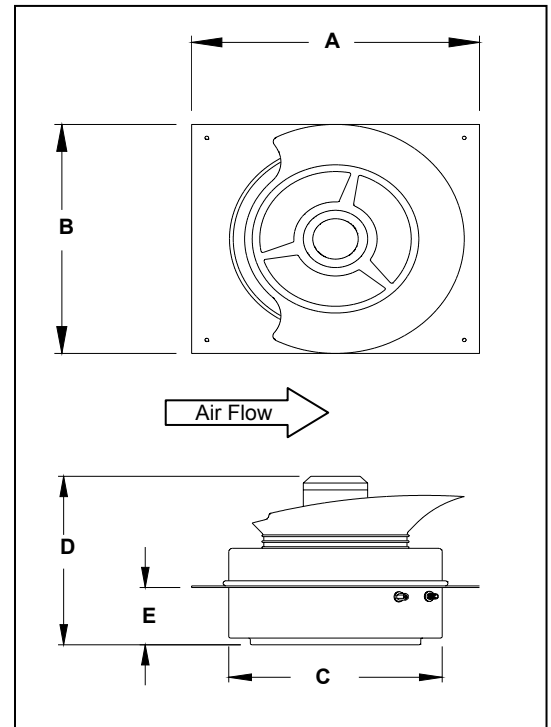


8
 To complete the installation insert diffuser and position as shown with open gap facing air flow. Be sure diffuser is properly seated. Refer to the electrical diagram below for power connections.



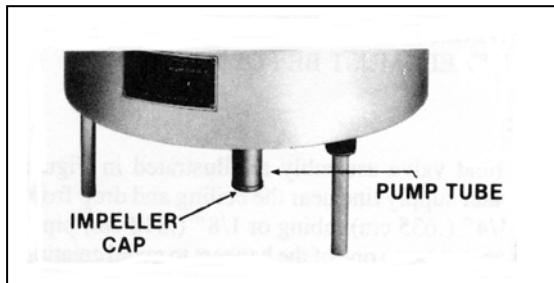
Specifications for Models WT/WT-B

"A" Dimension	19"
"B" Dimension	17"
"C" Dimension	14 9/16"
"D" Dimension	12 3/8"
"E" Dimension	4 3/8"
Duct Height	16" Min.
Duct Width	24" Min.
Access Panel Size	18" x 11"
Power Required	1 ph. 50/60 Hz 115v (WT) 1 ph. 50/60 Hz 230v (WT-B)
Power Consumption	132 watts (WT) 127 watts (WT-B)
Operating Weight	37 lbs.
Operating Water Pressure	10-100 psig



MAINTENANCE

Cleaning Of The Atomizing Unit



All natural water systems have a certain amount of water solids which will accumulate in the atomizing unit of your humidifier. Over time this accumulation will reduce the efficiency and out-put of the humidifier. When this happens it will be necessary to clean the atomizing unit pump tube.

Before cleaning be sure to disconnect electrical power from the humidifier. Carefully lift atomizing unit out of reservoir. To remove the impeller cap, hold a flat file or the back of a table knife flat against the side of the tube and gently tap the cap which is held in place by a pressed fit. After the cap has been removed, the inside of the tube is visible and it is simple matter to clean it with a piece of cloth on the end of a screwdriver or a small round brush.

There are three ports through which water makes its way from the pump tube to the top of the rotating disc. These ports should be cleaned out with the aid of a wire.

Replace the impeller cap by tapping it evenly back into place, using plastic handle on screwdriver.

Inspect float valve assemble periodically, & replace when necessary, or every few years. Should this humidifier need service or repair some time in the future, return only atomizing unit direct to the factory.

Humidity Source LLC

90 Dayton Ave. Suite 58, Passaic, New Jersey 07055
Phone 973-916-1001 e-mail humiditysource@aol.com

Humidifier Accessories

Humidistats, Sensors & Controls

P-825 Humidistat
Human Hair Element



Standard

W351 Humidistat
Electronic Sensor



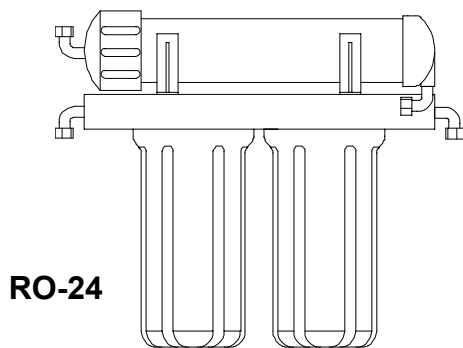
For high humidity
And/or close
tolerances

W351 ELECTRONIC HUMIDITY
CONTROL With Digital Display

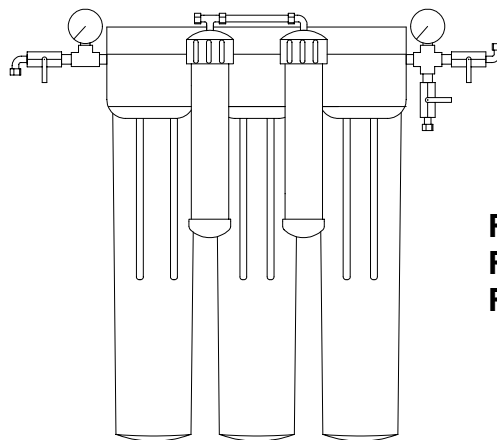


Reverse Osmosis Demineralizers

Humidity Source Reverse Osmosis Water
Treatment systems. Sizes range from industrial capacities
down to individual room units.



RO-24



RO-120
RO-450
RO-900

Humidity Source LLC

90 Dayton Ave. Suite 58, Passaic, New Jersey 07055
Phone 973-916-1001 e-mail HumiditySource@aol.com