



TRIPLE FOAM INSTALLATION MANUAL

Part # FOAMSTRMRTPLOOX

TABLE OF CONTENTS

Equipment Specifications Page: 1
 Suggested Tools and Installation Materials Page: 2
 Installation Instructions Page: 2
 Initial Start-Up Page: 7

Equipment Specifications

UNDERCARRIAGE APPLICATOR UNDERCARRIAGE01	
DIMENSIONS	TUNNEL LENGTH 12 IN
	TUNNEL WIDTH N/A
	UNIT HEIGHT N/A
	VEHICLE CLEARANCE N/A
ELECTRICAL	24, 120vac
PNEUMATICS	10SCFM @ 100PSI
WATER	6GPM @ 40PSI (15GPM PEAK)

Suggested Installation Tools and Materials

-  Hammer Drill with 1/4" Drill Bit
- Sledge Hammer
- Set of Standard Combo Wrenches
- Measuring Tape
- (6) Concrete Drive Screws 1/4"x1-1/4"
- Safety Goggles
- Torpedo Level

Notes and Safety Symbols

Where necessary, important points will be highlighted in this manual, using the following symbols:



NOTE: PROVIDES FURTHER INFORMATION!




STOP! PRECAUTION TO AVOID EQUIPMENT MALFUNCTION OR ERROR!



WARNING! DANGEROUS SITUATION WHICH MAY CAUSE EQUIPMENT DAMAGE, PERSONAL INJURIES OR FATALITIES!

Always follow all "Notes", "Warnings" and instructions. Failure to do so may have serious consequences in the overall performance of the equipment and/or the safety of the people working on the equipment!

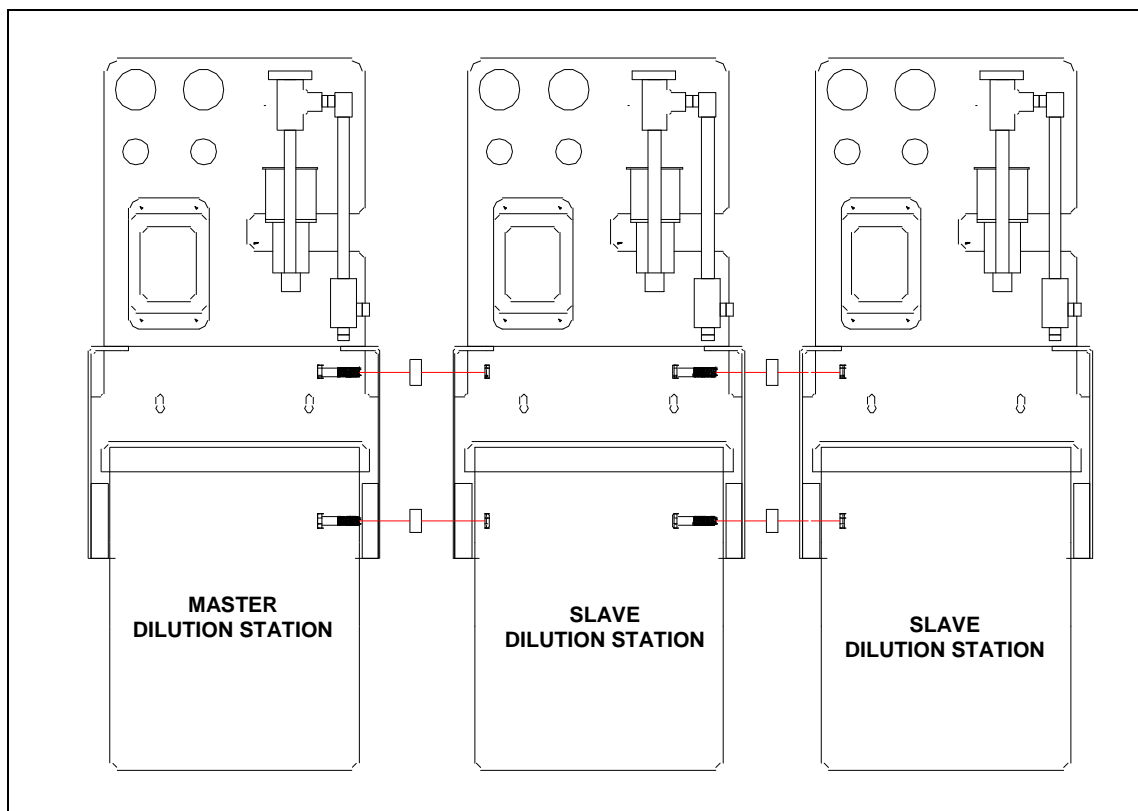
Installation Procedure

- ✓  **Upon** receiving your MCWW equipment, open all boxes and crates and verify that you have all the required components and there is no damage to the equipment. Verify that you have all your installation materials.



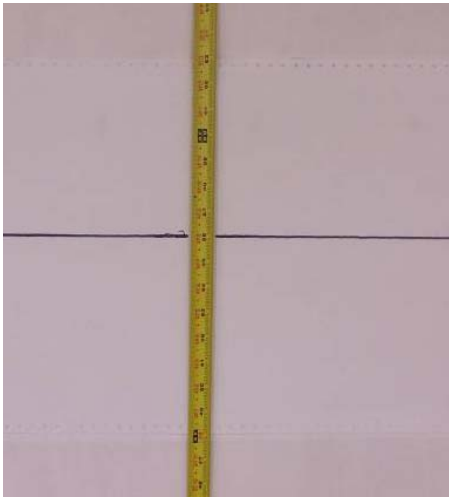
PLEASE COMMUNICATE WITH YOUR LOCAL MOTOR CITY WASH WORKS REPRESENTATIVE FOR ANY DAMAGE TO YOUR EQUIPMENT!

- **Remove** packaging material covering your **MCWW TRIPLE FOAM STREAMER SYSTEM** and locate the area where the foamers and the dilution station will be installed.
- If you have purchase the **TRIPLE FOAM SYSTEM WITH HYDROMINDER STYLE DILUTION STATIONS** secure the three dilution station together (starting with the **MASTER** dilution station to the left) using the 5/16" cap screws and plastic spacers supplied like shown on picture #1 below.

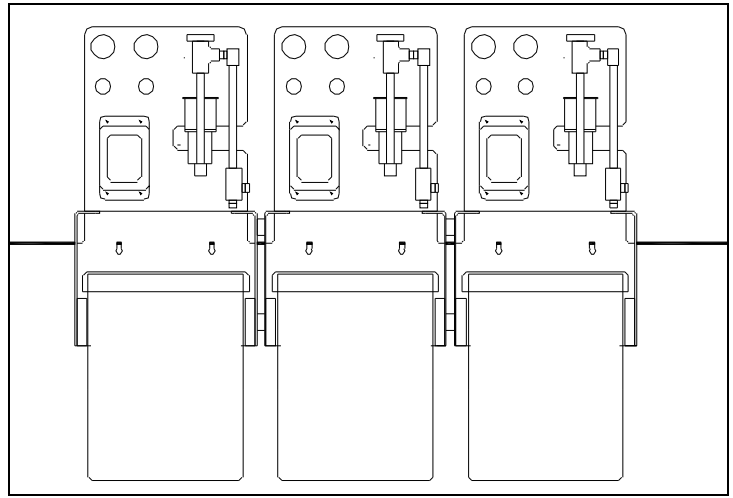


PIC #1: Assemble the Dilution Stations Together

- **Using** a measuring tape and a level, draw a horizontal line on the wall, 56" from the floor (see Pic# 2). This will ensure that enough height is left in order to slide a 55 gallon drum under the dilution station unit.
- **Secure** the dilution station unit to the wall using the two slotted openings located in the back of the station's frame. Use the line on the wall as a guide through the openings (see Pic # 3).

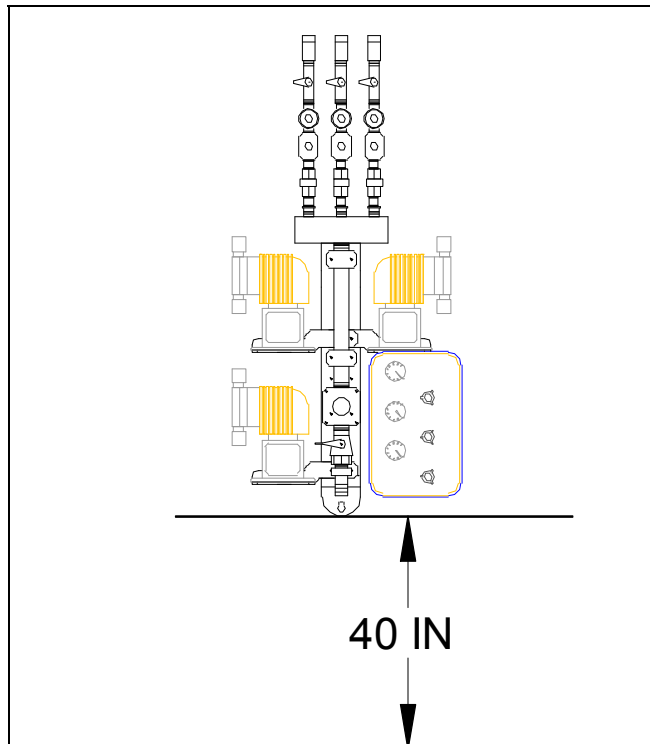


Pic #2: Line at 56" AFF



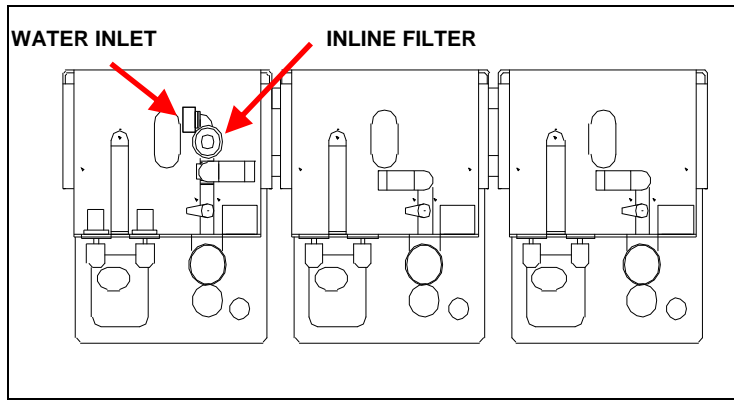
Pic #3: Line Through Screws Openings

- Secure** the supplied **IN-LINE FILTER** to the Master Dilution Station water inlet. Connect the 1/2" and 3/8" tubing between the Master Dilution Station and the two Slave Dilution Stations.
- If** you have purchased the **MCWW TACMINA DIRECT FEED DILUTION STATION** secure to the wall with the bottom of the dilution station 40 inches above the finished (see Picture #4). This will ensure that enough height is left in order to slide a 55 gallon drum under the dilution station unit.

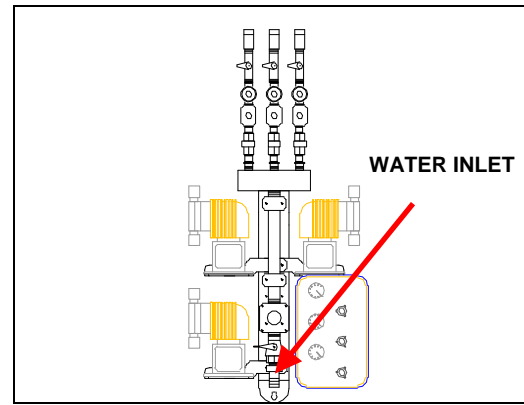


Pic #4: Tacmina Dilution Station

- Connect** the city water supply to the 3/4" hose adaptor at the Hydrominder® valve assembly (see Pic #5) or to the 3/4" hose barbed adaptor on the Tacmina Dilution Station (see Picture #6) Open the water supply to the unit and check for leaks.
- Install the** air supply from the main air compressor to the dilution station air inlet. Open the air supply to the unit and check for air leaks. Fix as required.

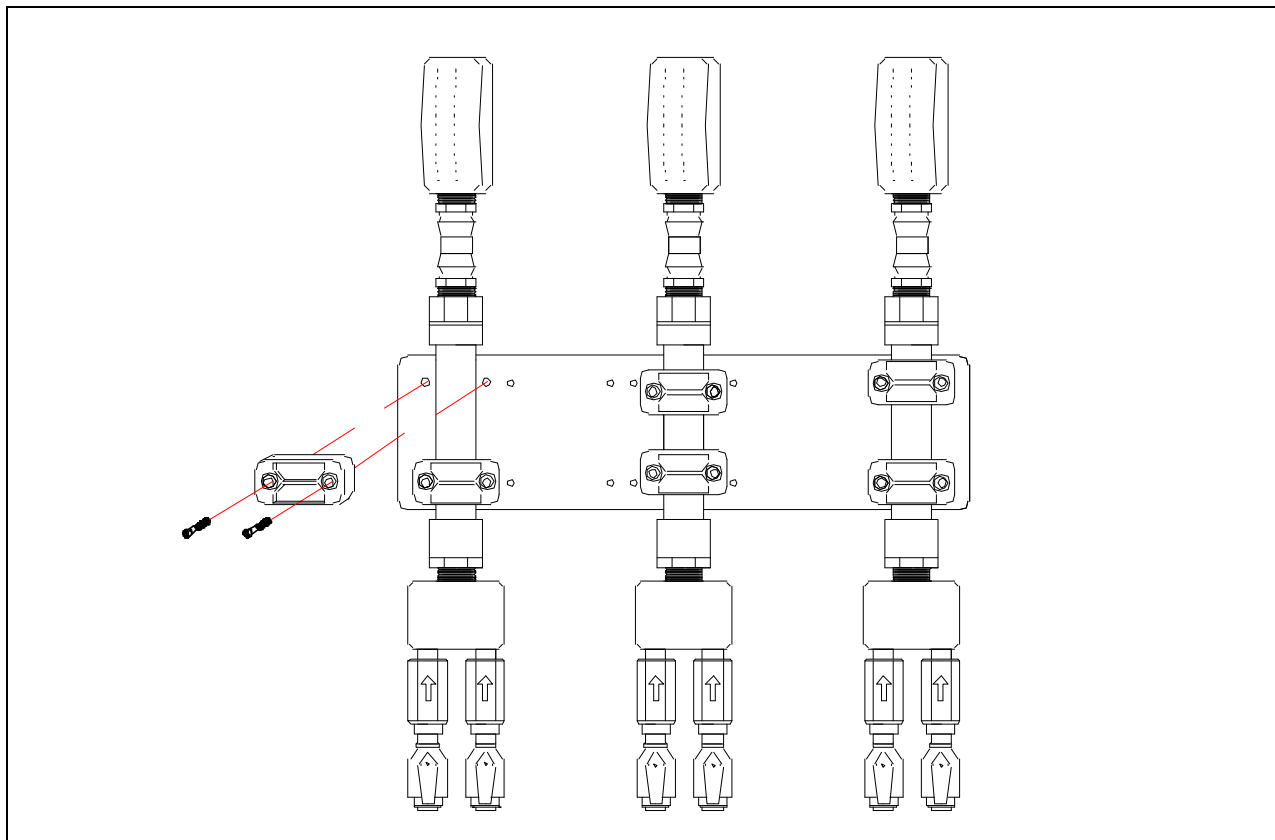


Pic #5: Hydrominder® Valve Water Inlet



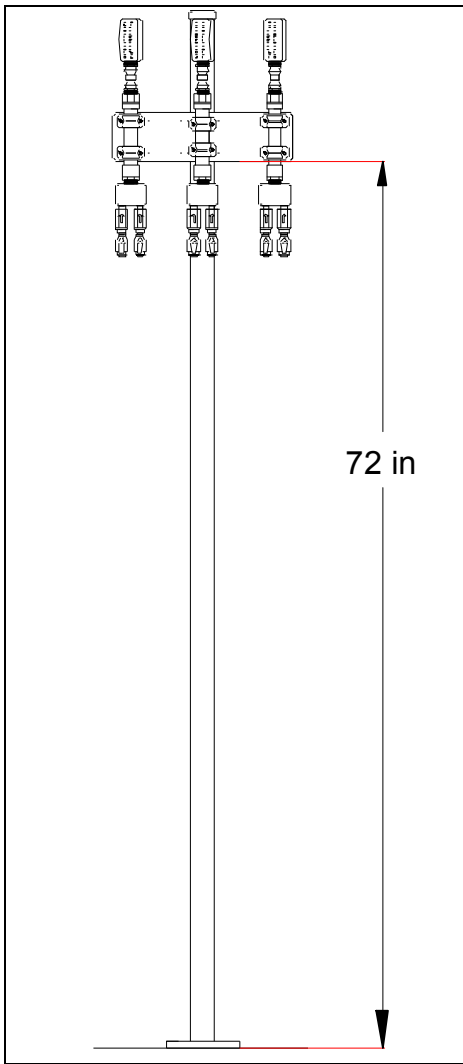
Pic #6: Tacmina Dltn Stn Water inlet

- Assembles** three streamers on a mounting plate using the supplied plastic clamps like shown below. Repeat with the second set of streamer.

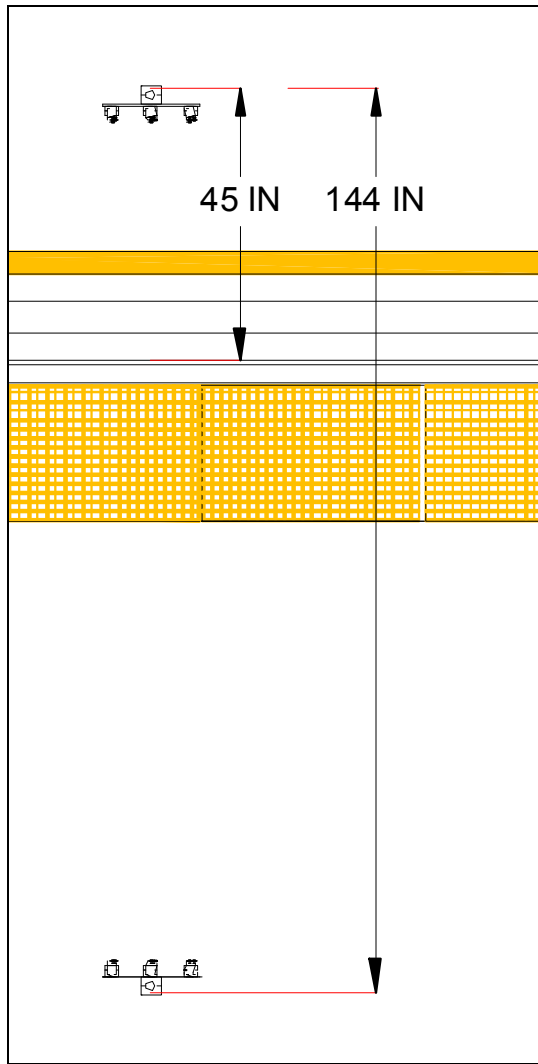


Pic #7: Foamer Streamers Assy

- Mount** the streamers assemblies on one stand 72" above the base plate (see Picture #8). Repeat for the other stand. Secure the stand to the floor on **DRIVER SIDE** of the conveyor 45 "away from the inside edge of the inside guide rail (see Picture #9) using four 1/2" wedge anchor bolts. Level properly. Secure the **PASSENGER SIDE** stand 144" away from the driver side. Level properly.



Pic #8: Foamer Streamers Stand

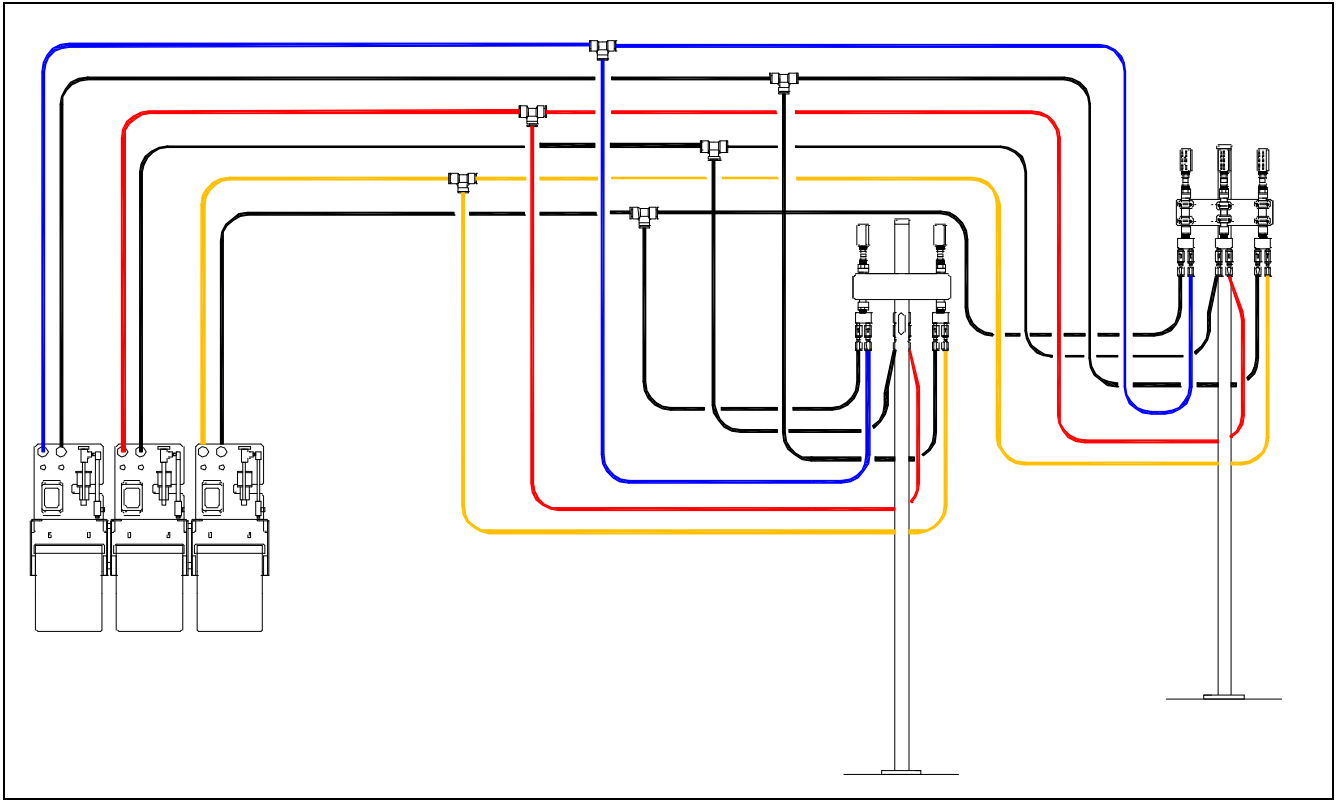


Pic #9: Foamer Streamers in Wash Bay

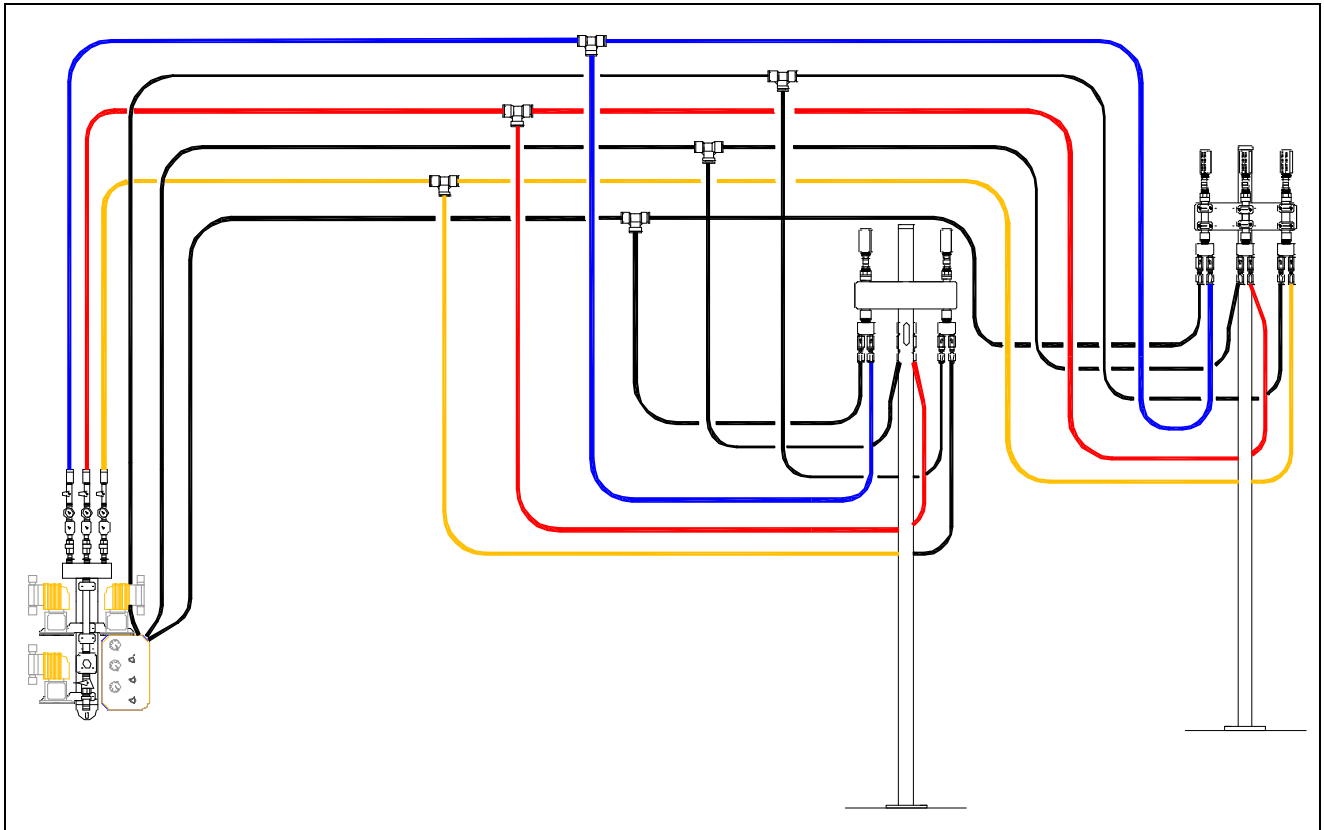
- Pull** three 1/2" CLEAR air lines from the dilution station to the applicator area and then split **EVENLY** with 3/8" tubing on each side (see Picture #10 or 11 below). Pull three **BLACK** 3/8" air lines from the dilution station to the applicator area and then split **EVENLY** on each sides. Connect the lines as shown on both picture #10 and 11.
- Connect** the main air valve to one function of your car wash controller. If you have purchased the **TACMINA DIRECT FEED DILUTION STATION** connect each pump and solenoid valves on a separate function.



STOP!
**CONFIRM THE VOLTAGE OF YOUR UNIT BY CHECKING THE
 VOLTAGE SPECS OF THE "MAC" VALVES OR THE CHEMICAL PUMPS**



Pic #10: Air Lines Pull for Hydrominder Style



Pic #11: Air Lines Pull for Tacmina Style

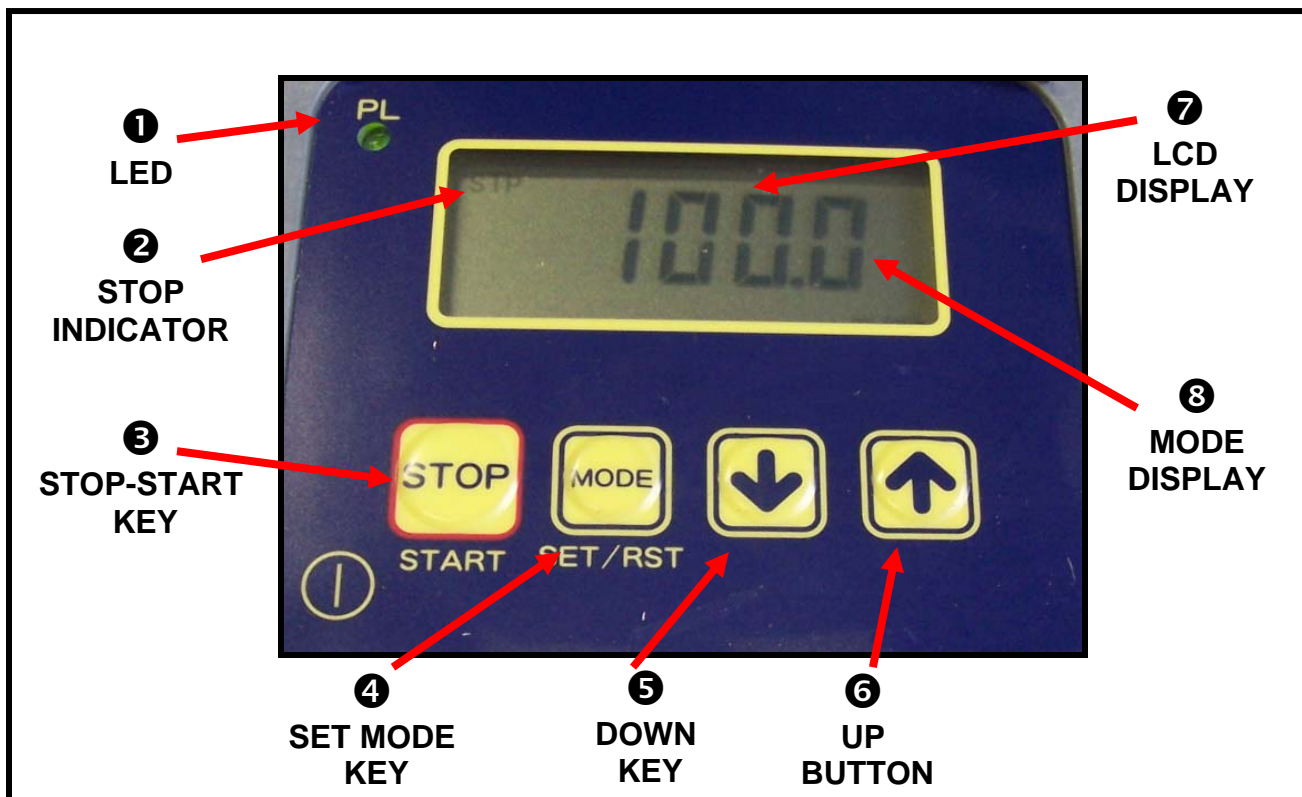
Initial Start-Up

- **Using** table #1, select the proper Hydrominder® “TIP” for the dilution ratio. Drop the suction line into the chemical drum and open the Hydrominders® water shut off valve, let the tanks fill and adjust the position of the float to avoid any overspill when the Hydrominder® valve is shut off.

TIP COLOR	DILUTION RATIO	TIP COLOR	DILUTION RATIO
NO TIP	4:1	TAN	36:1
GRAY	5:1	GREEN	48:1
BLACK	6:1	ORANGE	64:1
BEIGE	8:1	BROWN	75:1
RED	17:1	YELLOW	90:1
WHITE	23:1	PURPLE	120:1
BLUE	25:1	PINK	240:1

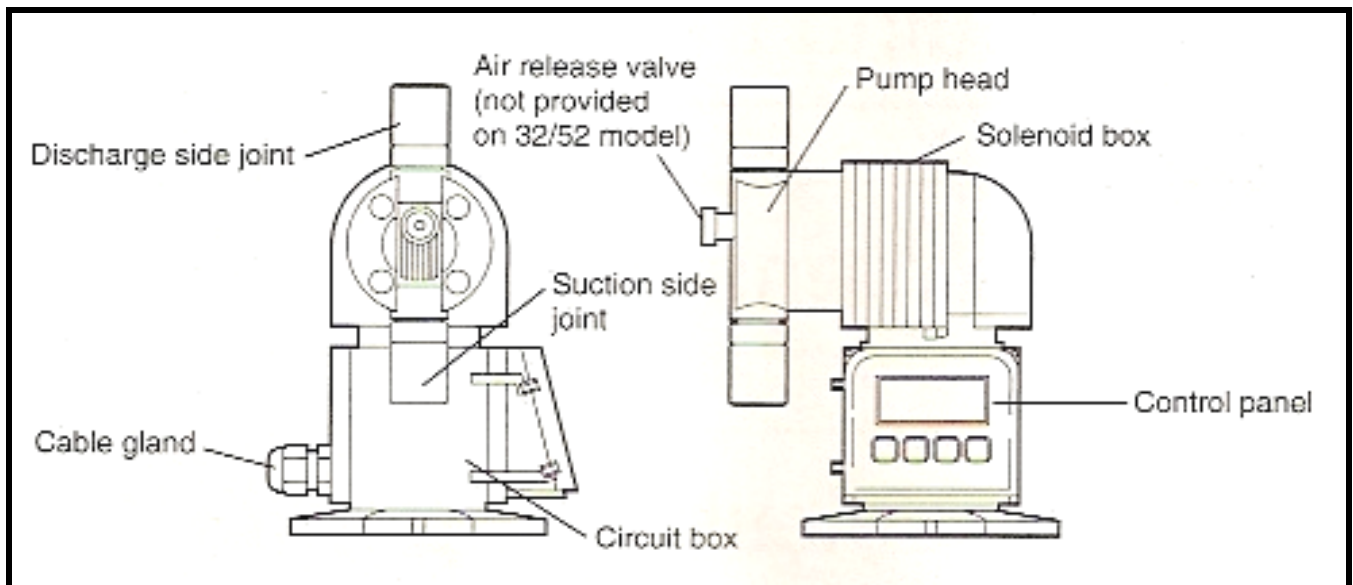
Table #1: Dilution Ratio @ 40 PSI

- **Turn** the water **ON** to the dilution station and manually push the override button on the main air valve. Set the **PUMP** pressure of each regulator to **40PSI**. Observe the fluid being pumped thru the air line all the way to each applicator. Turn **ON** slowly each **FOAM** air regulator one at a time and set to **20PSI**. Observe the foam being generated at the Streamer head. Balance the flow of foam generated from each side by using the small ball valves located on the fluid inlet side of each streamer. Repeat for each two other color.
- **Collect** a sample of the diluted solution and titrate if required. Change the colored Hydrominder® “TIP” for a different concentration if needed and repeat the same process.
- **If** you have purchased the **TACMINA DIRECT FEED DILUTION STATION**, turn on the water feed to the dilution station and turn on the function to the first pump and follow the instructions below.



Pic #12: Pump Control panel

- ❶ LED indicator which turns ON for each pump pulsation
- ❷ Stop indicator (STP or RUN) shown on the upper left corner of the LCD display
- ❸ Stop-Start key: When pushed, the pump is stopped allowing the user to change settings
- ❹ Set Mode key: Use to set the pump between three modes:
 - spm ⇒ Number of strokes set up mode or “stroke per minutes”
 - % ⇒ Ratio set up mode where 100% is 300 ml (max volume per minute)
 - mL/min ⇒ Discharge volume mode. This mode is for direct setting of the required total discharged volume; however calibration procedure may be needed.
- ❺ Down key: Used to decrease the value shown on the LCD display
- ❻ Up key: Used to increase the value shown on the LCD display
- ❼ LCD display
- ❽ Mode display: Used to display which mode between “spm”, “%” and “mL/min” is currently used for pump setting

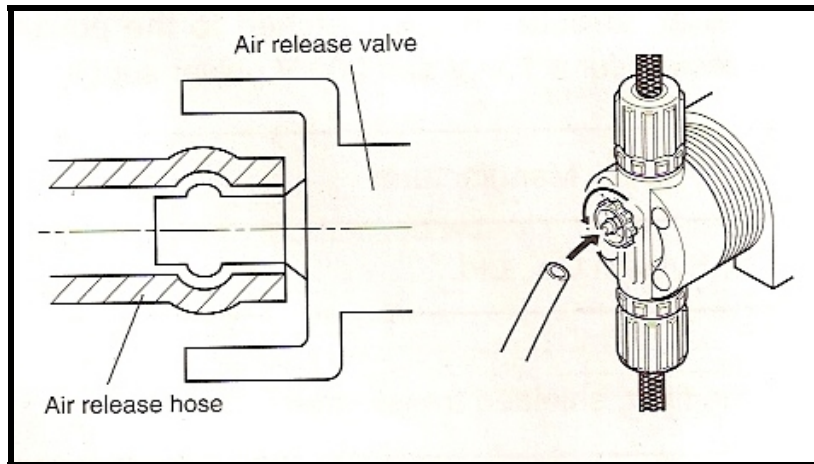


Pic #13: Pump Main Components

Initial Start-Up

At the time of start-up, most chemical pumps has to be bled from the air present in the pump head. This procedure called **PRIMING** or **AIR RELEASE** is described below.

- Drop** the pump suction line into the container. Make sure that the pump air release hose is also drop in the container with the suction line.
- Make** sure that the AIR RELEASE hose is firmly secure to the AIR RELEASE valve like shown on **Fig #14**.



Pic #14: Air Release Valve and Hose

- Turn ON** the pump with the PRE-OPERATION button located on the Reflex MCC door or by FORCING the CHEMICAL TEST output using the User-Interface
- Stop** the pump by pressing the **STOP** key. Using the **MODE** key, set the pump to “**spm**” mode.
- After** the “**spm**” mode is selected, press the **STOP** key again. The pump is now pumping.
- Press** both **↓** and **↑** keys simultaneously. This will “force” the pump at 300 spm.
- Open** the AIR RELEASE valve (see Fig #14) about 1 to 1 ½ turns counterclockwise while operating the pump. Any residual air present in the pump head is now discharged thru the tube. When chemical is visually pumped thru the tube, release the two “**arrow**” keys. Stop the pump by pressing the “**stop**” key. Set the pump back to its initial mode by pressing the “**mode**” key.

Pump Calibration

A calibration set up is required only when you want to control the pump with the VOLUME DISCHARGE mode (mL/min). The correct discharge volume is set by measuring the maximum volume at the discharge under actual chemical viscosity as well as actual piping conditions and “storing” this value into the pump control memory.

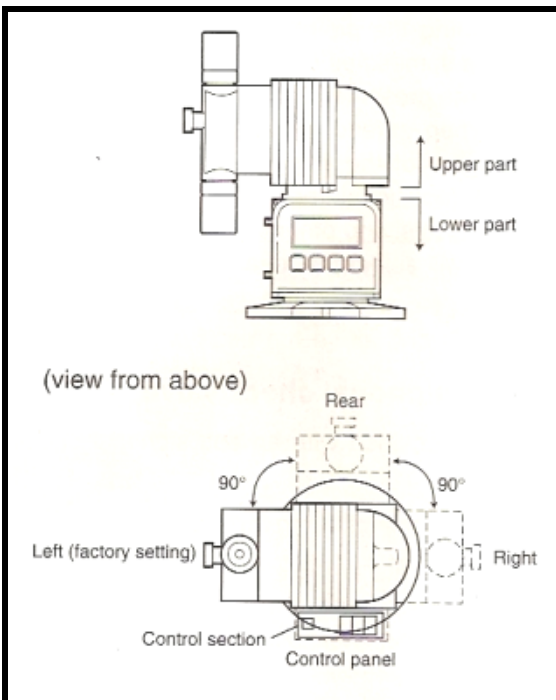
- Insure** that the pump has been properly primed and that there is no air present in the pump head. If the pump has never been primed follow the procedures previously explained in the previous section.
- Turn ON** the pump using the reflex User Interface and press the **STOP** key to stop the pump.
- Pour** the chemical to be actually used into a graduated cylinder of at least of 400 ml (14 ounces).
- Take out the suction line from the actual chemical container and drop it into the graduated cylinder.
- Press** the **MODE** key several times to set the mode to “**mL/min**” (maximum discharge volume).

- Press** and hold the **MODE** key for about 2 seconds will “flash” ON and OFF the current max volume of the pump.
- Pressing** and holding again the **MODE** key for about 2 seconds will set the pump into “calibration” (CAL) mode.
- Record** the chemical level of the graduated cylinder and press the **STOP** key. The pump will operate for ONE minute and stop.
- Check** the chemical level in the cylinder and measure the total volume pumped. Press the **MODE** key to redisplay the Maximum Volume Screen.
- Set** the screen value to the volume find in step 9) by using the **↓** and **↑** keys.
- Finally**, press the **MODE** key again to bring the pump back to Discharge Volume mode.

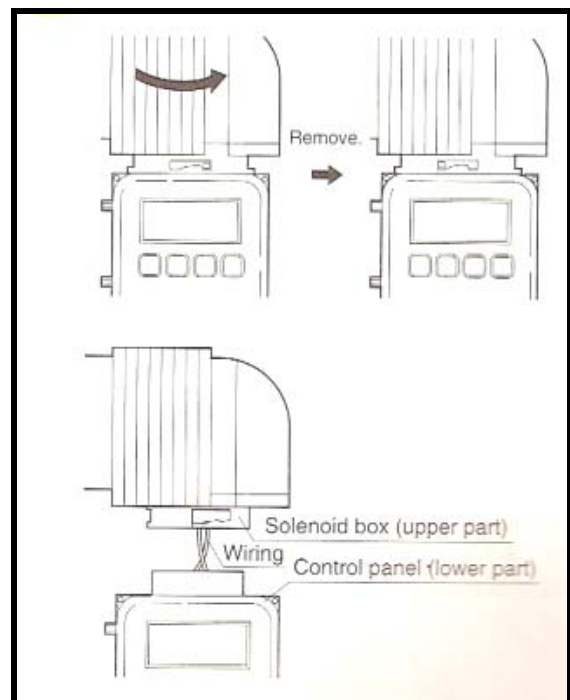
You have now successfully calibrated your digital pump! The pump will now accurately pump to a 10th of a milliliter (0.004 ounce).

Rotation Of The Head Assembly

The pump upper section can be “fitted” on the pump body facing three different directions (see Fig #7).



Pic #15: Pump Head Direction



Pic #16: Pump Head Removal

- Slightly** press downward while turning the upper section assembly by about 1/16 of a turn COUNTERCLOCKWISE (see Fig #16).
- Make** sure that the AIR RELEASE hose is firmly secure to the AIR RELEASE valve like shown on Fig #14.



WARNING! THE UPPER HEAD ASSEMBLY IS CONNECTED WITH WIRES TO THE BOTTOM PART OF THE PUMP. BE CAREFUL TO DON'T PULL ON THE WIRES WHEN LIFTING THE HEAD ASSEMBLY. DOING SO MAY DAMAGE THE PUMP AND SOME OF ITS INTERNAL WIRING.

- To secure the upper head assembly back to the bottom part, align the GROOVES of the upper head mating part to the protrusions of the lower part and lower until the upper head bottoms out. To finally secure the upper head assembly, turn CLOCKWISE for about 1/16 of a turn until it locks like shown on **Fig #15**.

Warranty and Return Procedure:

Motor City Wash Works warrants this product to be free of defect in material and/or workmanship for a period of **one year**. During the warranty period MCWW will at its discretion, at no charge to the customer, repair or replace this product if found defective, with a new or refurbished unit, not to include costs of removal or installation. Any product returned to MCWW for warranty has to have a **Return Material Authorization Number**. All shipping costs to MCWW are assumed by the customer. This is only a summary of **MCWW's Limited Warranty**. Please, communicate with MCWW for our complete warranty.

Prior to returning any product to MCWW, the customer must call in for a **Return Material Authorization Number** and a copy of our **Return Material Authorization** Form must be completed. The **RMA** number must be written clearly on the outside of the shipping package and a copy of the form must be included in the package.