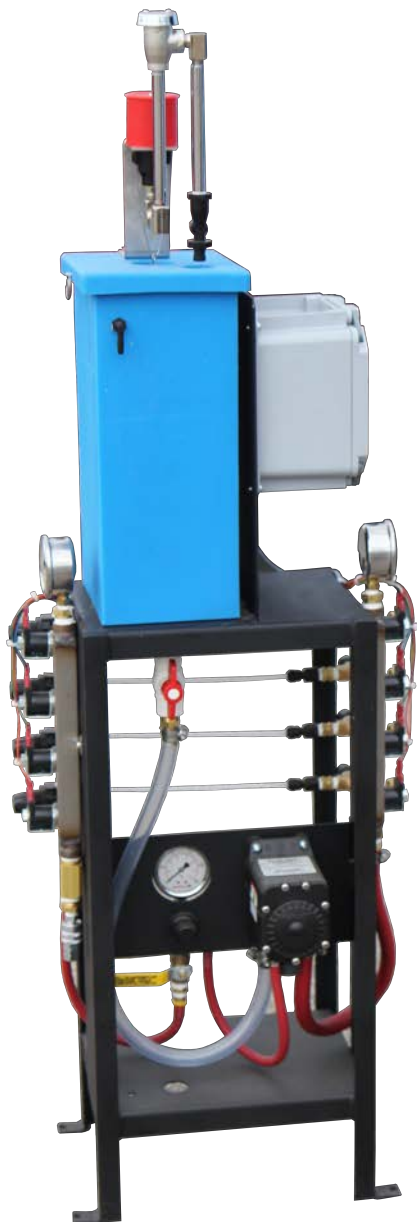


MAGIKIST



TMXSF Presoak Tire/Motor Clean System Instruction Manual



The TMXSF Presoak Tire/Motor Clean system is a foaming presoak or tire/motor clean system that will deliver foaming product to multiple bays. Constructed with a stainless steel manifold and a combination of stainless steel and brass wetted parts to resist corrosion. The air driven double diaphragm pump maintains constant supply volumes and operates on a demand basis by pumping at a higher or lower rate as required.

The solution and air quantity are controlled at the unit to prevent air locks and reduce solution line draining. Individual solution and air controls for each bay allow for independent and precise metering and control of solution delivery. Pump output pressure is controlled by its own dedicated air regulator. Gauges provide easy visual monitoring of the pressure at the pump and the manifolds.

This manual is intended to assist you with the installation and set up of your TMXSF unit as well as provide the necessary information to help you to become familiar with the safe operation and the maintenance requirements of your Presoak Tire/Motor Clean system.

Please read all instructions before installing and operating your unit.

IMPORTANT OPERATING INSTRUCTIONS

Water Supply

The water supplied to the suction reservoir of the TMXSF unit must not exceed a maximum pressure of 70 PSI (483 KPa) and a maximum temperature of 49 °C (120 °F). It is recommended that a water supply capable of at least 4 USGPM be used. The water supply should be a flexible hose with a male garden hose fitting which will attach to the female garden hose fitting on the MagikMinder proportioner on the solution tank lid. See the “MagikMinder” manual for details regarding the setup and operation of the MagikMinder.

Before you Start

Before running your TMXSF unit ensure that you are familiar with its operation by thoroughly

reading this manual and familiarizing yourself with the connections and controls on the unit. Ensure that all the plumbing connections are complete and that all wiring connections are correct.

Freezing Conditions

The pump, reservoirs and water lines must be protected from freezing conditions to prevent damage to these items. The unit should be operated and stored in a location that remains above 0 °C (32 °F) and below 50 °C (122 °F).

Air Supply

The air supply to your TMXSF unit should be clean and dry and be regulated to a maximum of 120 PSI. The supply air requirements for the system are shown in the specification

SETUP & OPERATION

	TMXSF1/2/3/4	TMXSF5/6/7/8
Number of Bays	1 to 4	5 to 8
Min. Water Supply	3 GPM - 5 GPM	6 GPM - 8 GPM
Recommended Air Supply Pressure	90-120 PSI	
Min. Air Supply	3-4 CFM @70-80 PSI	8-10 CFM @70-80 PSI
Solution Outlet Fittings	3/8" Tube Quick Release Type	
Solution Reservoir	4 US gal/15L Polyethylene	
Solution Control	MagikMinder Auto Proportioner	
Dispensing Control	Solution-Needle Valve Air - Adj. Regulator	

Mounting the Unit

Your TMXSF unit should be placed on a level floor and should be positioned so as to facilitate the connection of the lines running to the bays. This will normally be at least 12" from the wall. Once the location has been determined the unit should be securely anchored to the floor using the mounting feet. The water supply line should be a flexible hose and the solution and air discharge lines should normally be flexible poly tubing with a minimum operating pressure of 100 PSI. Do not make rigid connections to the unit. A water shut-off should be located close by. A minimum 3/8"-1/2" air supply line should be run to within 3 ft of the unit.

Wiring connections to the Unit

Refer to the wiring diagram for wiring connections to the unit.

Connecting the Bay Supply Lines

With the poly bay supply lines all terminating at the unit you can begin to insert them into the outlet fittings. The 3/8" lines insert into the 3/8" solution fittings. Ensure the ends of the tubing are cut squarely and cleanly and push them into

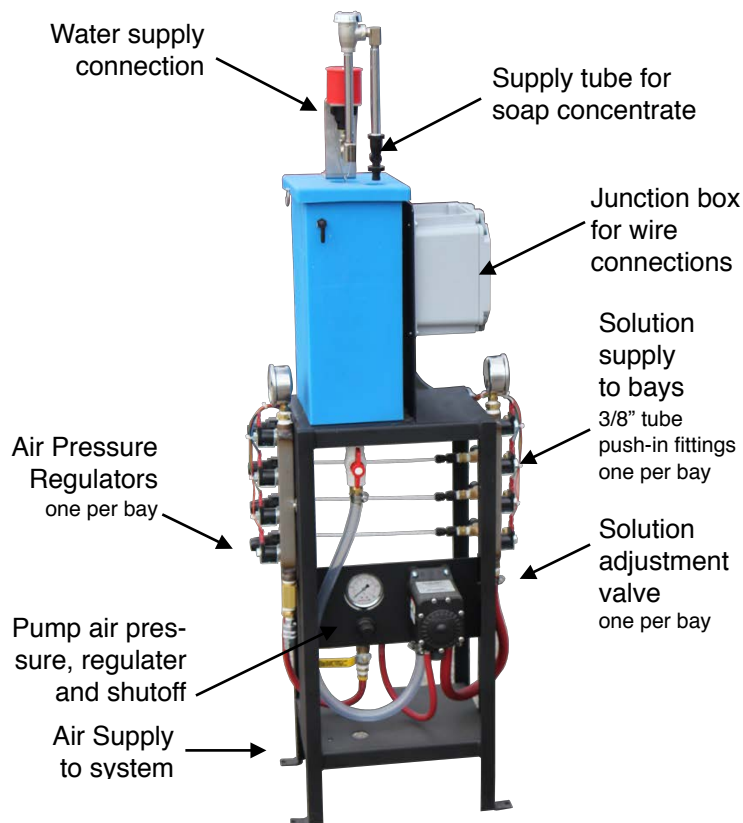
the fittings as far as possible. Leave enough slack in the lines for movement and vibrations. If you need to remove a line from the a fitting, simply push the collar surrounding the line in toward the fitting and hold while pulling on the line firmly. See the bay connection diagram for bay connection details.

Filling the Solution Tank

1. With the water supply connected, attach the float chain to the MagikMinder and set the float at a preliminary level of approximately 15-18 ball links. The final level can be set once the tank fills to maintain it at around the half full level.
2. The MagikMinder comes with various metering orifices which alter the solution concentration levels. If you know the concentration level you wish to attain install the corresponding orifice into the inlet fitting on the side of the MM10 educator. Then slide the weight over the hose and carefully place the suction hose over the fitting and tighten the gear clamp.
3. If you do not know the final concentration you desire in the tank then start with the red orifice and adjust the concentration with another orifice later.
4. Place the strainer end of the suction hose into the liquid soap concentrate and turn on the water supply to the unit. It may take a couple of fills to get the concentrate up into the hose and to the MagikMinder especially if the soap is very viscous.
5. You can now adjust the level higher or lower in the tank by lengthening or shortening the ball chain on the float however you must ensure that liquid always remains over the suction strainer when the float is at it's lowest position.

Starting the TMXSF Unit

1. Ensure the all electrical connections are made and correct. Ensure the air supply will be adequate and is connected to the unit and turned on. The gauge on the air manifold will indicate the air pressure being supplied to the unit. This should be between 90 and 120 PSI.



2. Open the ball valve on the bottom of the solution tank and turn all the needle valves clockwise until they are gently closed.
3. Gently pull on the air regulator knobs to unlock them and give each one a half turn counter-clockwise.
4. Open one needle valve one full turn counter-clockwise corresponding to the first bay you are planning to set up.
5. Open the ball valve supplying air to the pump and adjust the regulator by gently pulling the knob out to unlock and turning clockwise to increase the pressure or counter-clockwise to reduce it. The gauge should read approximately 70 to 80 PSI.
6. Activate the bay you are setting up by inserting the required vend and set the selector switch to "Presoak" or "Tire Clean" or "Motor Clean", depending on which switch function is to operate this unit. The TMXSF unit will start as soon as the wash gun is open in this bay.
7. The pump may at first pump very rapidly while it expels the air inside the chambers but should start to pump solution within a very short time and solution will eventually begin to run out of

the brush in the bay. The gauge on the solution manifold will increase and decrease as solution is being discharged and as the pump cycles. Depending on how far away the bay is from the unit and the time setting for the bay, it may initially take several vends to fill up the lines and have the solution discharge from the brush. If the amount of solution discharging does not appear to be sufficient you can increase the amount by opening the needle valve more. The pump will only pump if solution is being discharged and/or the pressure in the solution manifold is lower than the pump discharge pressure even though the unit may be energized.

8. When sufficient solution is being discharged from the wash gun you can slowly start to supply air to the brush by turning the corresponding air regulator clockwise. This should be done in $\frac{1}{4}$ to $\frac{1}{2}$ turn increments while someone else watches the wash gun for changes in the discharge consistency.
9. It may take up to 30 seconds for changes to become apparent at the wash gun, dependent on the distance from the TMXFS and the wash bay. As the air is added the solution should become more foam like. The more air that is supplied the "drier" the solution will become. For best results the solution should not be too wet such that it runs down quickly on the surface it sprayed on, and not too dry where there is not enough product being applied. If too much air is supplied it is possible to get a situation where only air will be discharged with little or no solution. Thus it is important to increase the air being supplied to the bay in small increments.
10. Once the desired solution consistency is achieved you can repeat the procedure for the other bays. You may have to perform some final "fine tuning" as the system is being used since small changes occur when more than one bay is operating at once. The solution concentration, air supply pressure to the unit, pump air supply pressure setting and individual bay settings all effect the quality and quantity of the solution supplied at the bay.

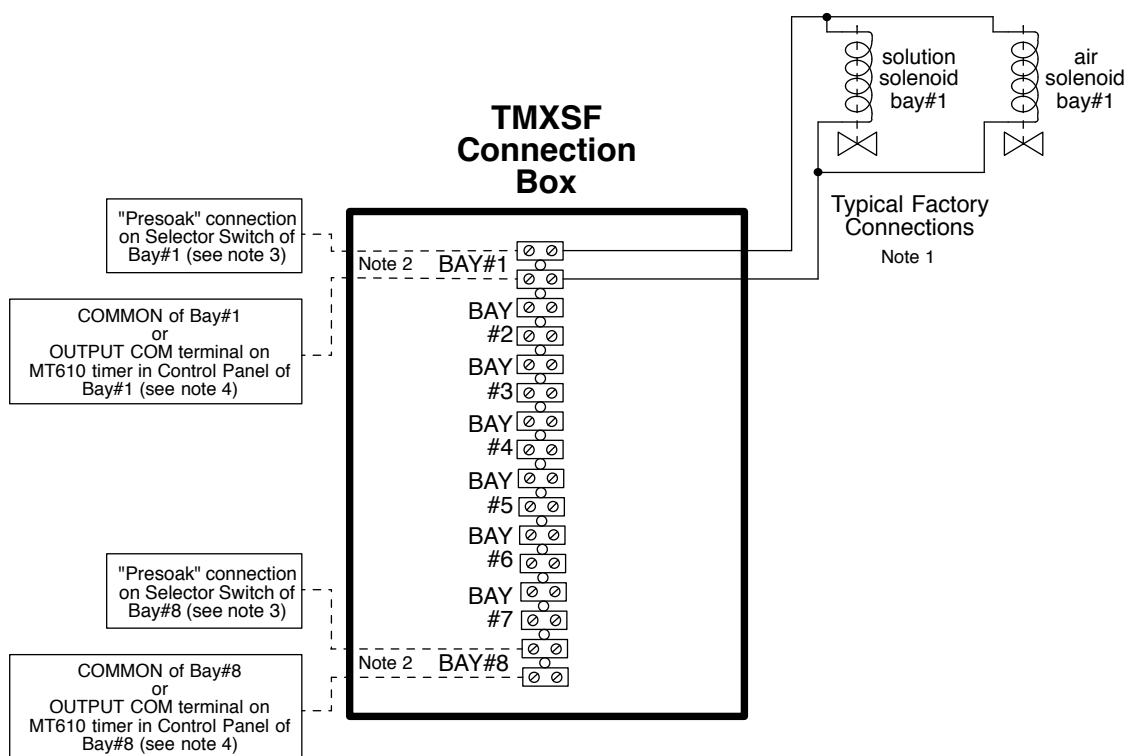
TROUBLESHOOTING

Problem	Cause	Remedy
Pump does not operate	<ul style="list-style-type: none"> • Check air supply to unit. Ball valve for pump air is closed. • No call for product. Selector switch in bay not on "Presoak", "Tire Clean", or "Motor Clean" position. • Needle valve for bay is closed all the way. 	<ul style="list-style-type: none"> • Turn on air supply/compressor or open ball valve. • Ensure selector switch is in the correct position that is wired to operate TMXSF system and that bay timer is operating. • Open solution needle valve more.
Pump does not operate and pressure gauge on solution manifold is at 0.	<ul style="list-style-type: none"> • Check valve into high pressure line has released some high pressure back into line from presoak system. • Pump has failed. 	<ul style="list-style-type: none"> • Release pressure on outlet of pump or solution manifold and pump should start again. • Replace pump.
Solution dispensing rate too high or detergent consumption too high	<ul style="list-style-type: none"> • Needle valve(s) open too much. • Pump supply pressure too high. • Concentration too high in reservoir. 	<ul style="list-style-type: none"> • Reduce needle valve setting. • Reduce pump supply pressure to 70-90 PSI. • Reduce concentration and use smaller orifice in Magikminder.
Solution is too "runny"/dry	<ul style="list-style-type: none"> • Incorrect ratio of solution/air. 	<ul style="list-style-type: none"> • Increase air to bay for drier solution and decrease air/increase solution for more fluid solution.
Inconsistent solution quality	<ul style="list-style-type: none"> • Air pressure supply fluctuating too much due to lack of capacity. • Concentration of solution fluctuating. • Low quality or inconsistent product 	<ul style="list-style-type: none"> • Use larger compressor. • Check MagikMinder operation/connections. • Ensure soap product being used has some foaming capability.
Pump & control operational but no product discharges from 1 or more bays.	<ul style="list-style-type: none"> • Solenoid malfunction or loose wire. • Line(s) to bay blocked or generator plugged. 	<ul style="list-style-type: none"> • Check wires and solenoid operation. • Clear line(s) /generator.
Tubing line to bay broke.	<ul style="list-style-type: none"> • Check valve into high pressure line has released enough high pressure back into line from presoak system to break the tubing. 	<ul style="list-style-type: none"> • Repair the tubing and replace the check valve on the bay that the tubing runs to.



WIRING DIAGRAM – FOR THE TMXSF MULTIBAY PRESOAK SYSTEM –

- This diagram represents the wiring for a typical installation. However, due to differences in equipment, your installation may not follow this diagram exactly. Contact your supplier should you require further information.
- Field wiring shown in dotted lines. Minimum field wire size is #18. Wire colour codes shown are optional and are for reference only.
- All field installations must meet applicable codes. Always disconnect power before servicing.



Note 1: These connections are made at the factory. Connections for the other bays that the foam system is equipped to support are also made at the factory in a manner similar to that shown for bay#1.

Note 2: Connections to these terminals must be made for each bay by the installer. The diagram shows the connection only for bay #1 and bay#8. Other bays are connected in the same manner using the terminals corresponding to that bay.

Note 3: It is assumed that the "PRESOAK" connection on the selector switch provides 24vac between itself and the COMMON connection for that bay when the selector switch is placed in the PRESOAK position. Before making this connection to the TMXSF control panel, use a voltmeter to ensure that this is correct.

Note 4: If you are using the CPAX control panel or other control panel with the MT610 timer, simply run this wire to the OUTPUT COM terminal of the MT610 timer for that particular bay.



BAY CONNECTION DIAGRAM
- FOR THE TMSF MULTIBAY
PRESOAK SYSTEM -

