

Thank you for purchasing a Versa Trac™ foam marking system. By following this installation, use and maintenance guide carefully, your unit will provide years of reliable service.

Richway Industries Ltd. makes a continued effort to improve its products. As such, we reserve the right to make design changes without obligations to add them to machines already in the field.

Please take a moment to fill out the following for future reference:

Model #: _____

Serial #: _____

Date of Purchase: _____

Purchased From: _____

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SAFETY FIRST



Important

Do not operate without reading and understanding this owners manual



Caution: To reduce the risk of explosion or fire

- This foam marker is designed to operate from a 12 volt DC power supply only.
- Do not attempt to operate machine without covers in place.
- Never operate this machine with a damaged electrical cord. Disconnect from electrical supply if machine is not working properly or cord is damaged.
- Disassembly or attempted repairs, if accomplished incorrectly can create a short hazard. Only qualified personnel should perform repair service.
- Do not remove covers or attempt repairs while connected to electrical source.
- Never attempt to replace electrical wires and cables with smaller gauge or inferior wire and cable.
- Do not attempt to operate this machine without the appropriate fuse in place.
- Do not attempt to bypass fuse. If fuse is no longer serviceable, a short hazard may exist.
- Never replace original fuse with a higher amperage fuse.
- Inspect all components for damage after any electrical problem.
- Never operate this product in or near explosive atmospheres or where aerosol (spray) products are being used.
- Do not pump combustible liquids or vapors with this product or use in or near an area where flammable, explosive liquids, or vapors may exist.
- Do not use this product near flames.



Caution: To prevent injury

- Never operate machine while unattended.
- Inspect machine for damage after use.
- Close supervision is necessary when this product is used near children or invalids.
- Never allow children to operate this machine.
- All electrical components generate heat. To avoid serious burns never touch internal components immediately after use.
- Always disconnect power source before servicing.
- Wear safety goggles and all proper clothing when operating, servicing or refilling this machine. Always read and follow manufacturer recommendations when handling any chemicals.
- Richway foam markers are designed to operate at low pressure. Personal injury may result when air pressure exceeds 15 psi.
- Agricultural chemical mist or liquid can cause permanent eye, skin or lung damage or death. Always wear proper protective clothing, goggles, aspirator, gloves or other protective garments as recommended by the labels of the chemicals used.

INSTALLATION

To install Versa Trac foam markers, several components must be connected. Every application may be slightly different. The following is a guide to help you choose the best locations for installing its components.

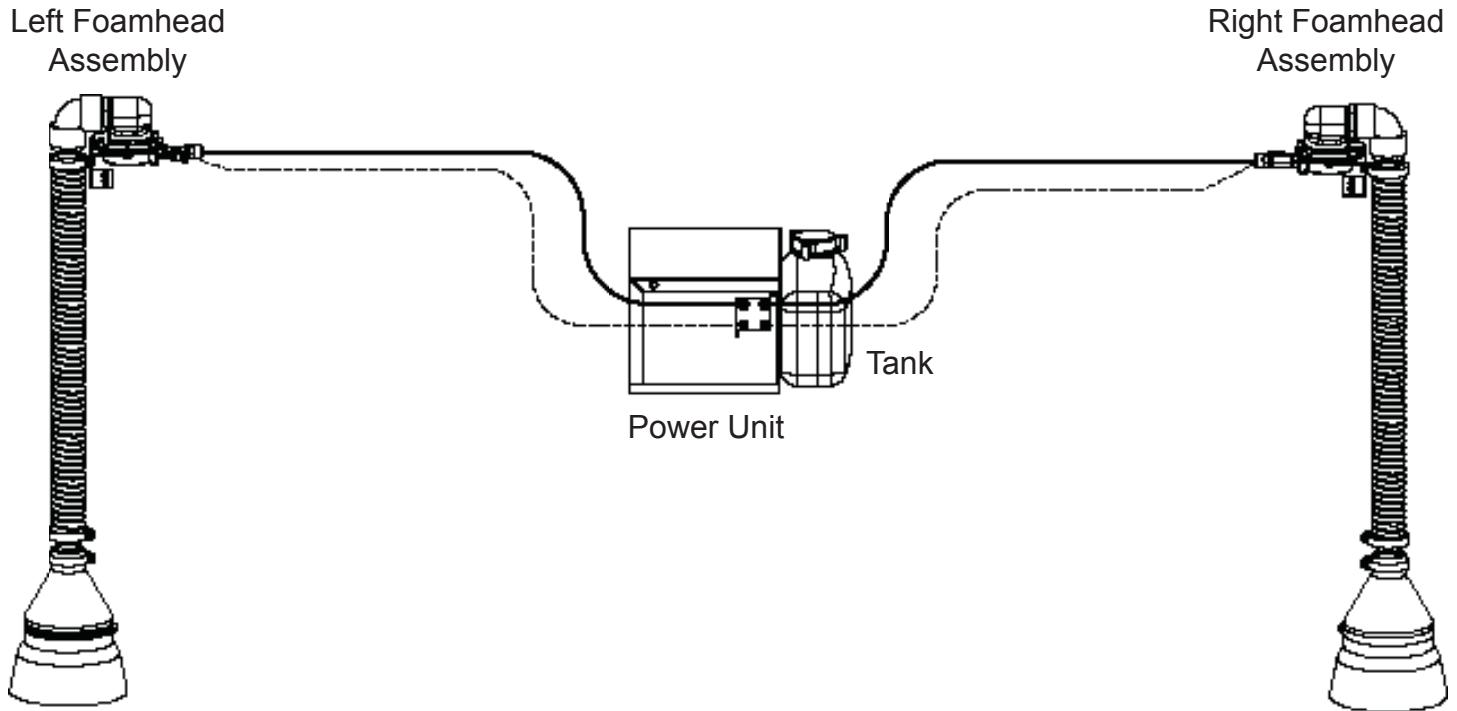


FIGURE 1 - Versa Trac Model VTD-2010 Foam Marker

TANK & POWER UNIT ASSEMBLY

When considering a location for mounting the tank and power unit assembly, it will be important that the assembly is accessible for easy filling. The Versa Trac tank is designed to be mounted to a horizontal frame member or platform. The assembly should be attached to a platform or frame using 3/8" bolts of an appropriate length, with flat washers and lock washers.

FOAMHEADS™

Foamheads are mounted at the end of the spray boom. Air and Liquid connections are provided with quick connect fittings as shown on the foamhead below.

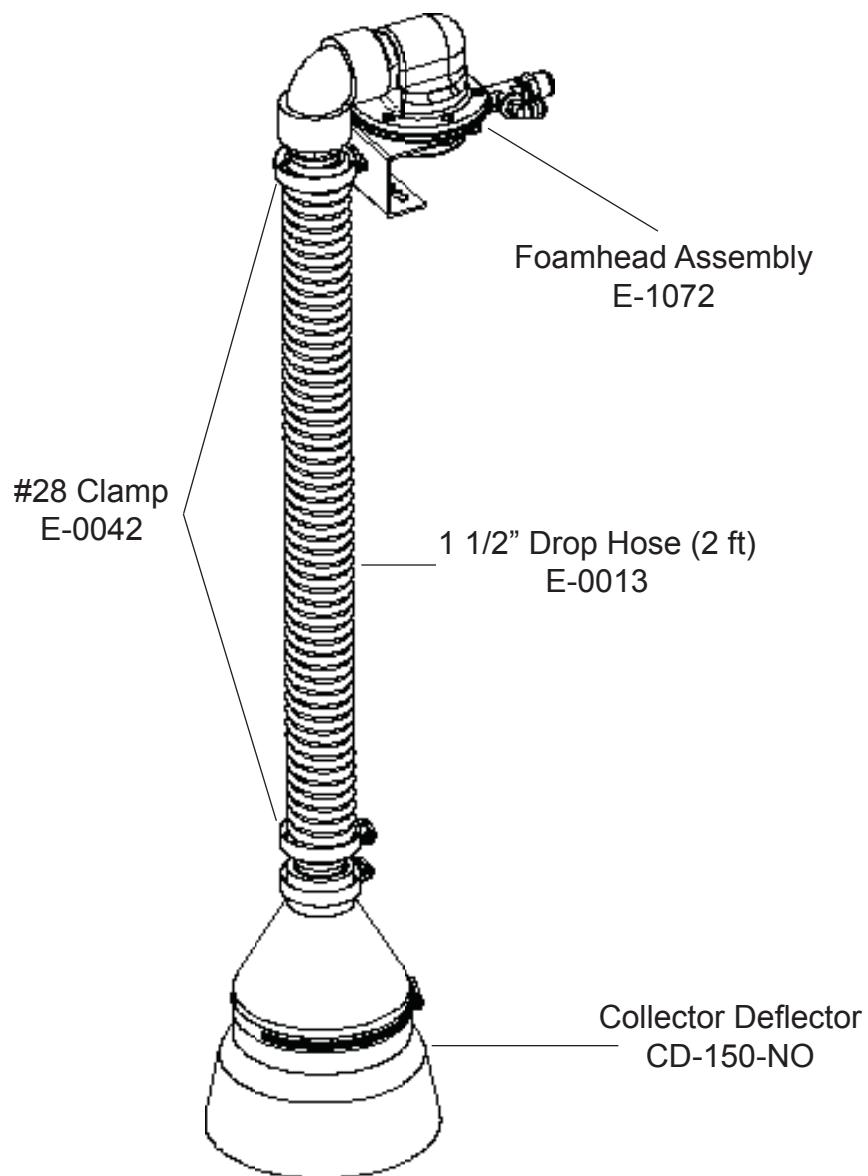


FIGURE 2 - Versa Trac Foamhead and Boom End Assembly

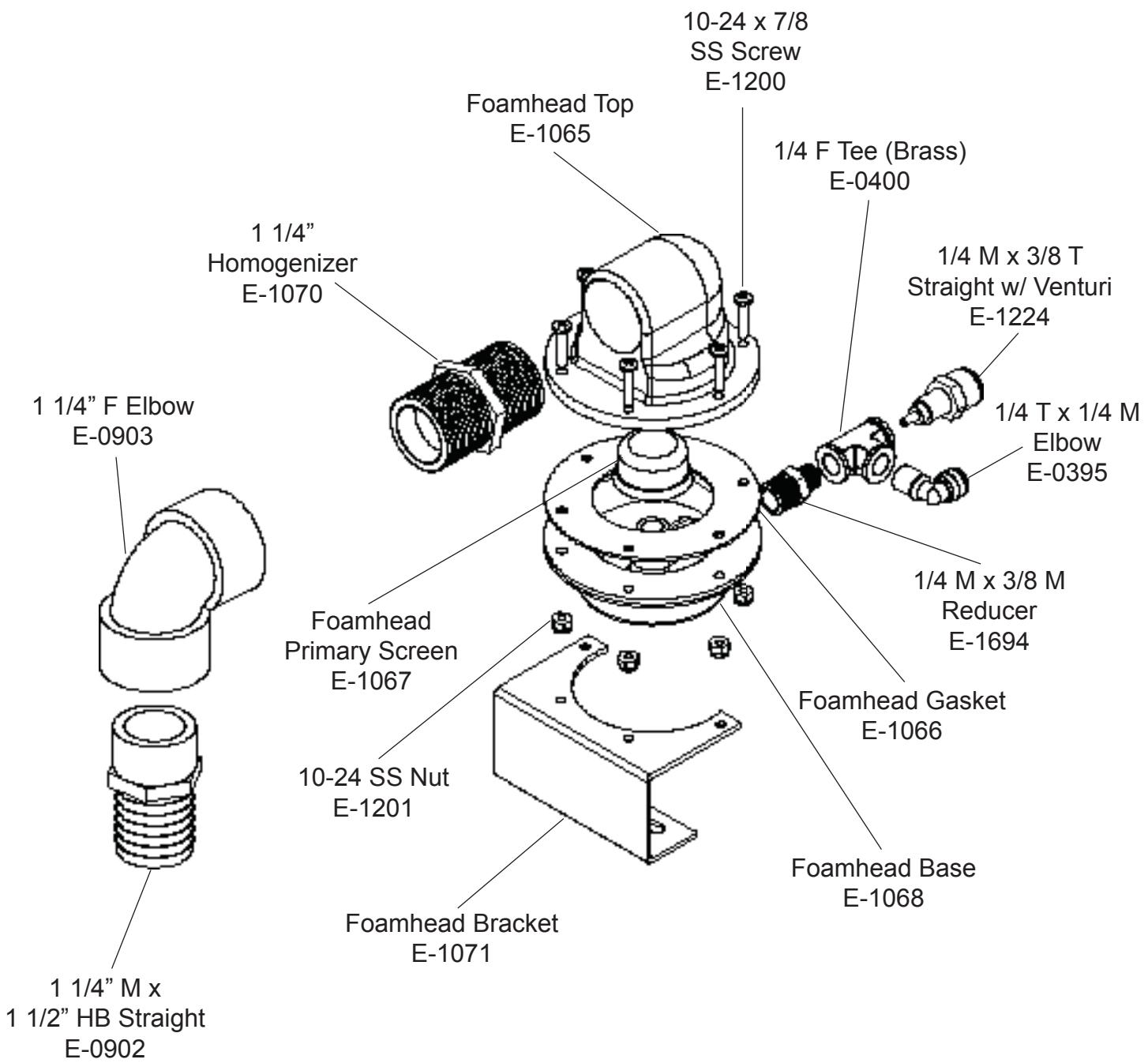


FIGURE 3 - Versa Trac Foamhead Assembly

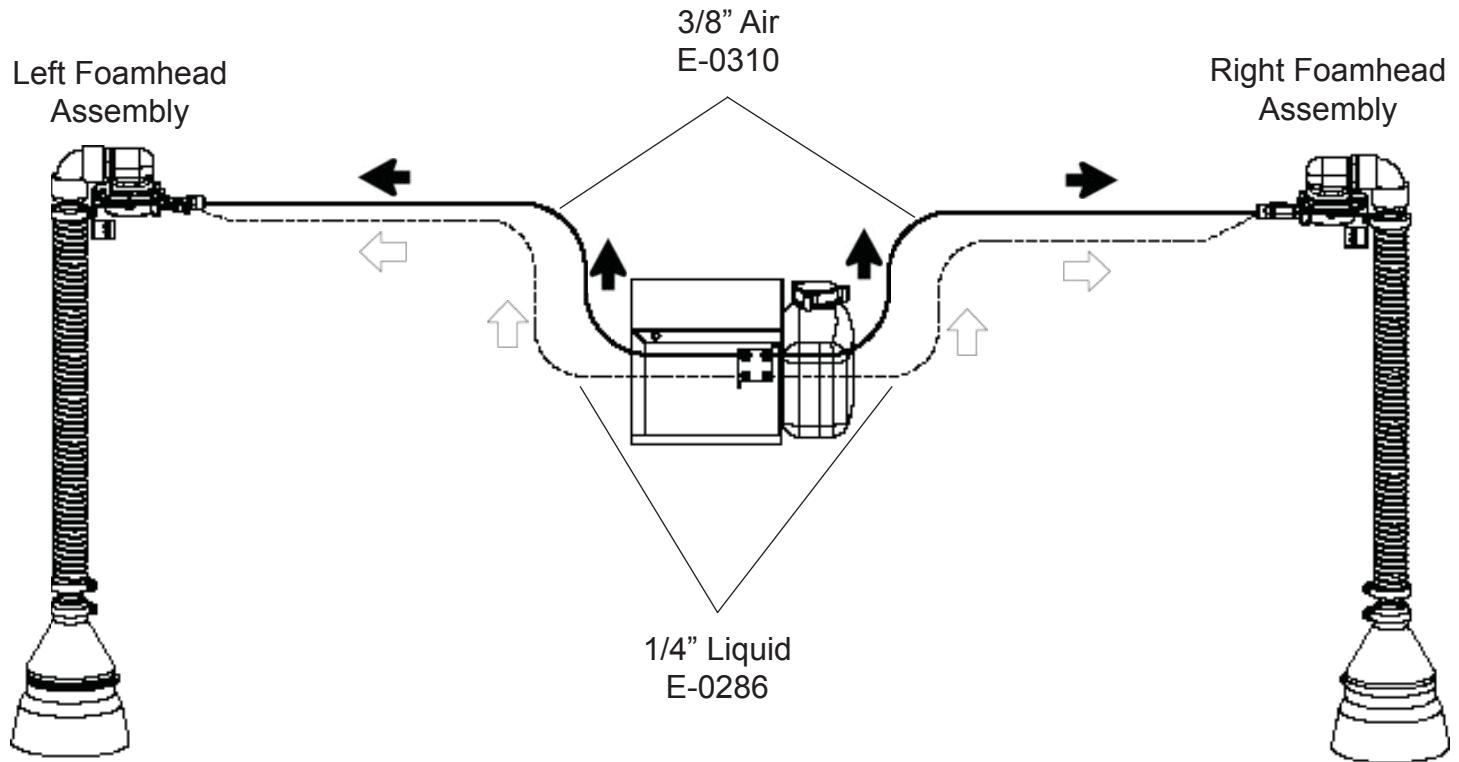


FIGURE 4 - Versa Trac Liquid and Air Flow

All Versa Trac foam markers are labeled to show where the air and liquid fittings connect to the power unit.

FOAMHEAD TUBING

The Versa Trac comes with two 85 foot rolls of 1/4" boom tubing, and two 85 foot rolls of 3/8" boom tubing. The 1/4" boom tubing routes liquid to the foamhead, while the 3/8" boom tubing routes air to the foamhead.

Route one 1/4" and one 3/8" tube from each foamhead assembly to the power unit. See Figure 3 on the prior page for a visual image. Beginning at the end of your boom, attach the tubing using nylon cable ties, provided, to secure the tubing at 3 to 6 foot intervals. These ties assure a positive clamping without damaging the tubing. Be sure to leave enough slack at the hinge to fold and extend the spray boom. Repeat this procedure for the other side of your boom.

DROP HOSE

After the foamhead and boom end assemblies are in place, the 1 1/2" drop hoses are secured onto the boom end elbow assembly with the #28 hose clamps provided. The drop hoses should be trimmed so the discharge end is left approximately 1 foot above the ground or to desired length. If Collector Deflectors are to be used, it may be desirable to trim drop hoses higher. This will prevent loss of the collectors from impact with the ground.

FOAM STREAMERS™

Neon Orange Foam Streamers are standard equipment with all Versa Trac foam markers. When placed on the drop hose, these attachments produce a stream of foam. This will be particularly effective in "over the top" post emergent crop conditions. Replacements can be ordered with part number CH-FS-150.

COLLECTOR DEFLECTORS

Collector Deflectors are standard equipment on Versa Trac foam markers. Collector Deflectors, when attached to the drop hose, will produce a larger, denser foam ball. The resulting foam ball will be more visible due to its size, and will last longer on the ground. However, the heavier foam from Collector Deflectors normally will not stay on top of vegetation when post-emergent spraying. You may choose to remove the Collector Deflectors and install foam streamers, under these conditions.

SWITCH BOX

Mount the switch box in a location convenient to the operator. Versa Trac foam markers are equipped with an electrical plug assembly. This plug assembly allows for easy separation of the switch box from the power unit. After the switch box and power unit are installed, connect the plug assembly.

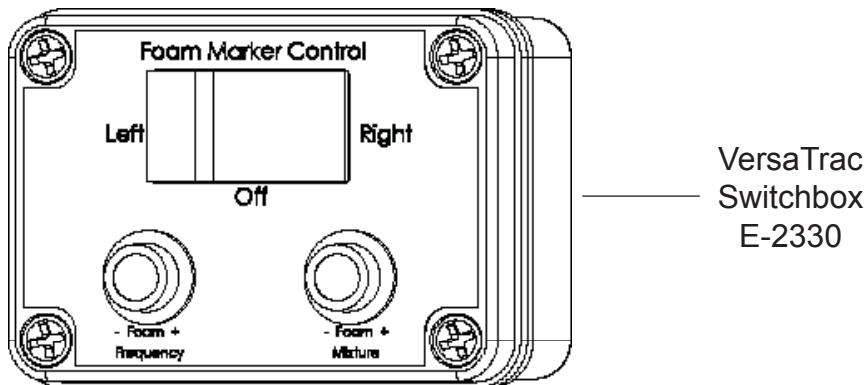


FIGURE 5 - Versa Trac Switch Box

WIRING

Caution

- This machine is designed to operate off of a 12 volt DC power supply only.
- Do not operate this machine without covers in place.
- Never operate this machine with a damaged electrical cable.
- Only qualified personnel should perform repair service.
- Do not remove covers or attempt repairs while connected to electrical source.
- Never attempt to replace electrical wires and cables with smaller gauge or inferior products.
- Do not operate machine without the appropriate fuse.
- Do not attempt to bypass fuse.
- Never replace fuse with a higher amperage fuse.
- Inspect all components for damage after any electrical problem.
- Never operate this machine in or near explosive atmosphere or where aerosol products are used.

To prevent accidental grounding of circuit, do not connect the two-wire battery cable until all other connections have been made and checked for accuracy. If a greater length of wiring cable is needed, extension cables are available. When adding wire, be sure to use wire of the same or heavier gauge. Using smaller wire can cause poor performance, blown fuses, and electrical parts failure.

Route the two-wire battery cable from the switch plate to the battery. Be sure it is out of the way and secure it using plastic coated clamps to prevent damage from rubbing off insulation by sharp edges. The white wire of the battery cable should be attached directly to the positive (+) post of the battery by use of the ring mounting terminal. The black wire of the battery cable should be attached directly to the negative (-) mounting post. Check all connections for accuracy before completing battery connections.

NOTE: Versa Trac foam markers normally draw 12-15 amperes.

When connecting to an electrical system with two 6 volt batteries wired in series, be certain to connect the battery terminals so that a full 12 volts is supplied. If connected to 6 volts, the power unit will run slowly and the foam switching valves will not operate correctly.

OPERATION



Caution

- Do not attempt to operate machine without covers in place.
- Never operate machine while unattended.
- Inspect machine for damage after use.
- Close supervision is necessary when this product is operated near children or invalids.
- Never allow children to operate this machine.
- Wear safety goggles and all proper clothing when operating, servicing or refilling this machine.
- Agricultural chemical mist or liquid can cause permanent eye, skin or lung damage or death.
- Always read and follow manufacturer recommendations when handling any chemical.
- Never operate this product in or near explosive atmospheres or where aerosol products are being used.
- Do not pump combustible liquids or vapors with this product or use in or near an area where flammable or explosive liquids or vapors may exist.
- Do not use this product near flames.

FILLING THE TANK



Caution

- Wear safety goggles and all proper clothing when operating, servicing or refilling this machine.
- Always read and follow manufacturers recommendations when handling any chemical.
- Do not pump combustible liquids or vapors with this product.

1. **BE SURE POWER UNIT IS TURNED OFF.** Remove the cap from the top of the tank.
2. Fill tank with 100% foam concentrate. Note: For an increase in foam variability, the manufacturer suggests mixing the foam concentrate with water at a rate of 50%.
3. Replace cap at the top of the tank.

TUBING CONNECTIONS

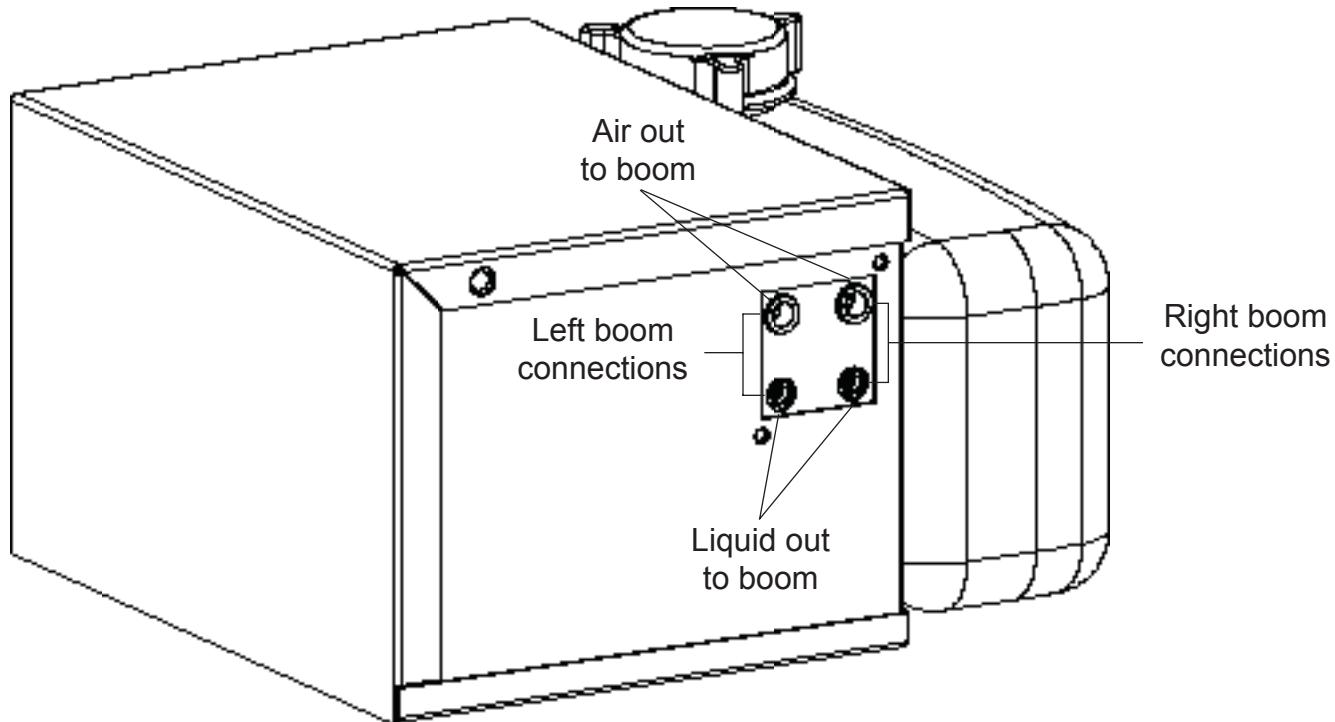


FIGURE 6 - Versa Trac Air/Liquid Connections

FRESH WATER TANK FITTINGS

Fittings have been included with this foam marking system that allow you to connect to your fresh water source. Suction from the foam marking system will take the water from your fresh water tank to the power unit for mixing with the foam concentrate. IT IS IMPORTANT THAT YOUR TANK IS VENTED TO PREVENT DAMAGE DUE TO THE SUCTION! Do not operate without a line strainer in place.

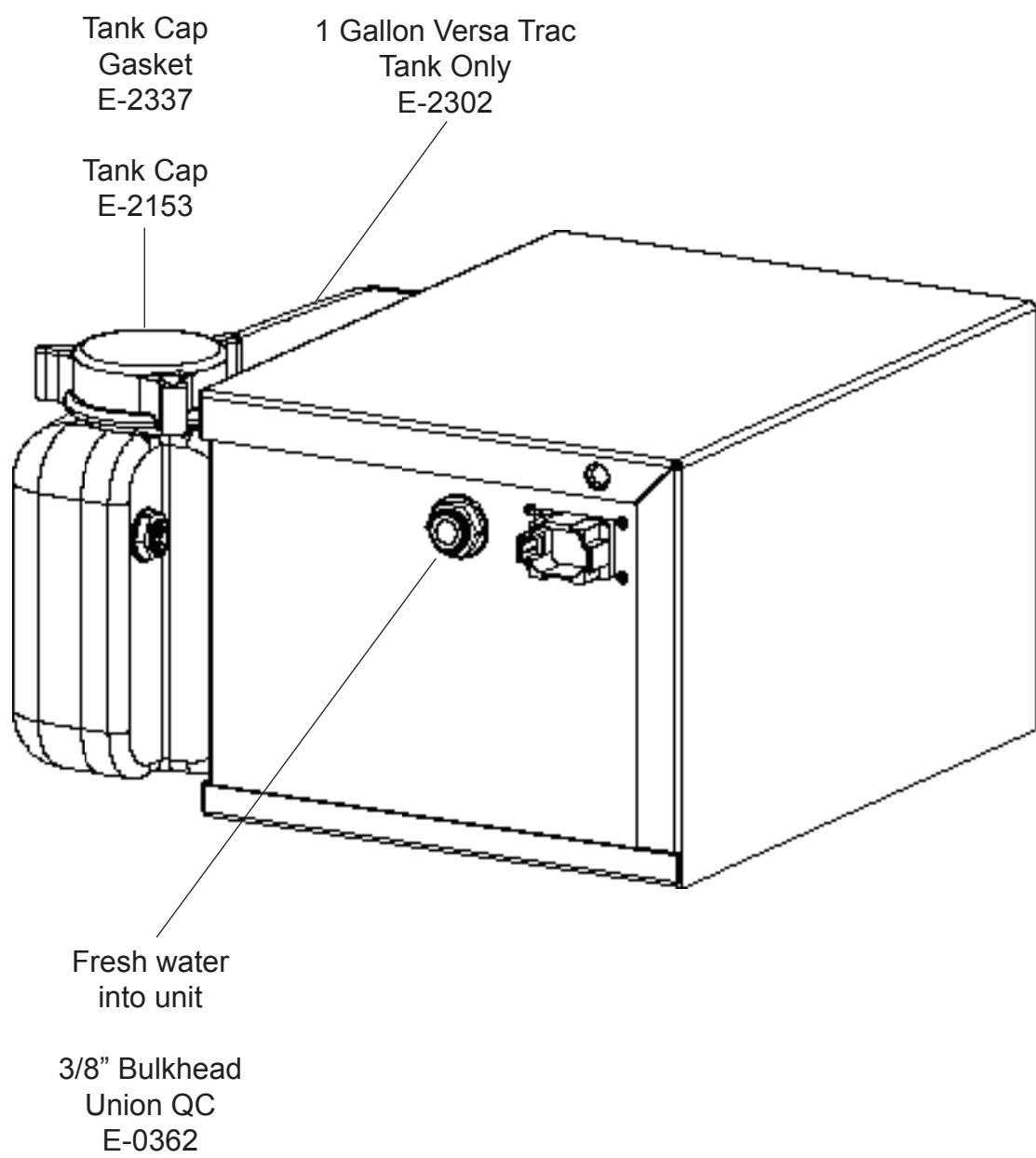


FIGURE 7 - Versa Trac Power Unit External Components

MAINTENANCE



Caution

- All electrical components generate heat. To avoid serious burns, never touch internal components immediately after use.
- Always disconnect power source before servicing.
- Wear goggles and all protective clothing when operating, servicing or refilling this machine. Always read and follow manufacturer recommendations when handling any chemical.
- Do not remove covers or attempt repairs while connected to electrical source.
- Disassembly or attempted repairs, if accomplished incorrectly, can create hazards. Only qualified personnel should perform repair service.

FOAMHEADS AND SCREEN/STRAINER

The foamheads have been designed so that the screens inside may be cleaned as necessary. Remove the foamheads from the boom and rinse thoroughly with hot water.

The screen/strainer located in the tank should be checked occasionally to insure sufficient liquid flow to the foamhead assemblies.

TANK AND HOSES

At the end of the season flush the tank with warm water. Check the airlines and liquid lines for holes and replace as required. Be sure to flush, then drain, all liquid from the system prior to storage in freezing temperatures.

IMPORTANT

The liquid lines and tank must be drained completely prior to storage. If liquid in this system is allowed to freeze, several components may be damaged.

WINTERIZATION

Follow the procedures below to prevent component damage.

1. Remove the in-line filter at the bottom of the tank and completely flush the tank with warm water.
2. Replace in-line filter. Turn on machine and allow to operate until no foam is generated.
3. Add anti-freezing solution such as windshield washer solvent or RV antifreeze to tank.
4. Turn on machine until anti-freezing solution reaches the foamheads.
5. Check the airlines and liquid lines for holes and replace as required. **Be sure to flush, then drain, all liquid from the system prior to storage in freezing temperatures.**

TROUBLE-SHOOTING

If you do not get foam:

1. Be sure that the airline and liquid lines do not have a hole in them or are not pinched, and remove air and liquid tubing at each foamhead and check for flow.
2. Be sure you have enough foam concentrate in the tank.
3. Check and clean the screen-strainer located in the tank.
4. Check battery connections to be certain the positive and negative terminals are not reversed.
5. Be sure the flow controls located at the switchbox are turned for maximum output.

Problem	Solution
Not enough foam	<ul style="list-style-type: none">• Check foam concentrate tank• Check for holes in airline• Check for pinched air or liquid lines• Clean screen-strainer/foamhead• Adjust flow controls on switchbox
Wet foam	<ul style="list-style-type: none">• Adjust flow controls on switchbox• Clean screen-strainer/foamhead
Foam is surging	<ul style="list-style-type: none">• Adjust flow controls on switchbox
Foam does not last on the ground	<ul style="list-style-type: none">• Adjust flow controls on switchbox• Use a high quality foam concentrate• Use collector deflectors
Blowing foam in windy weather	<ul style="list-style-type: none">• Adjust flow controls on switchbox• Add water to foam solution

APPENDIX 1

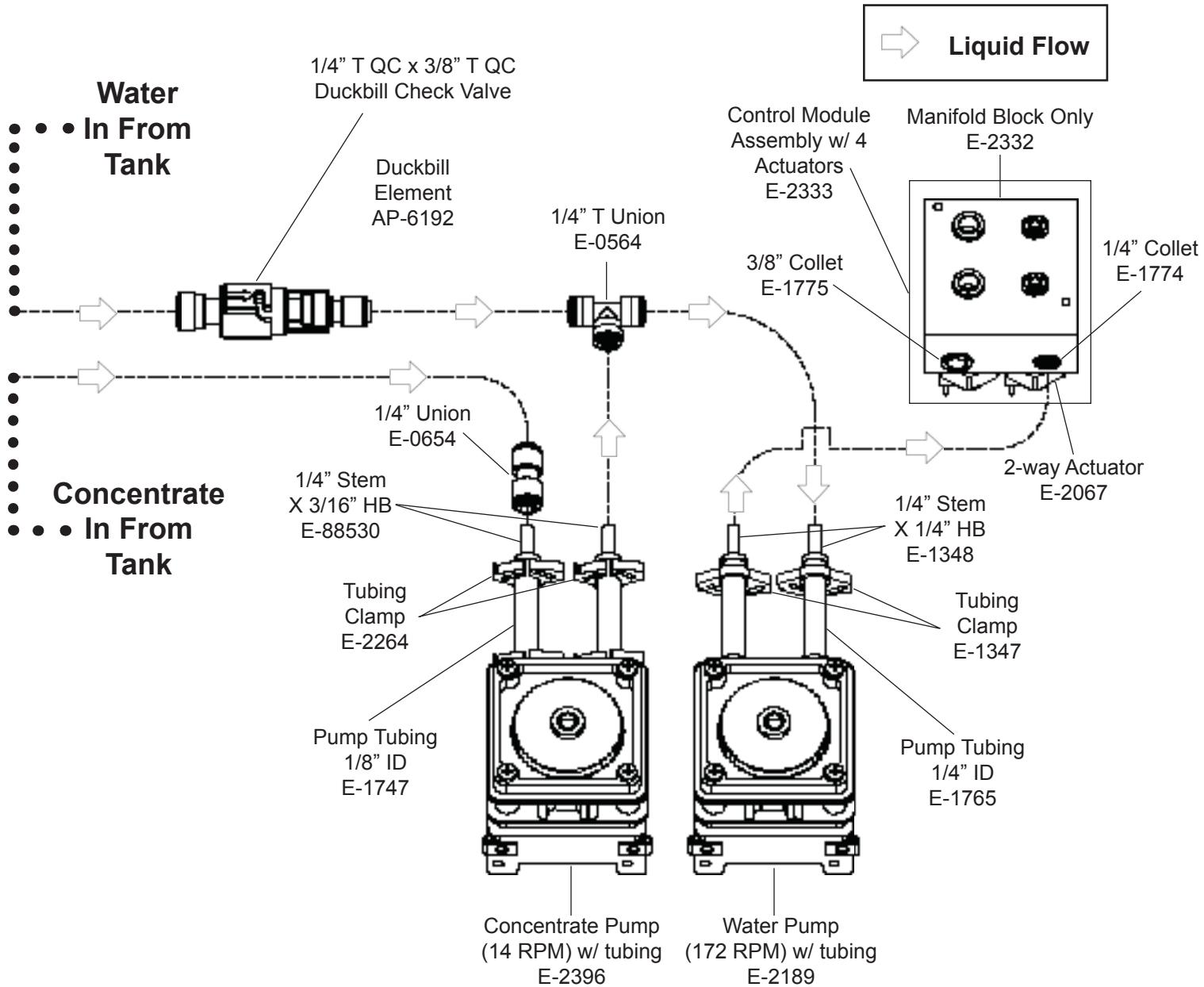


FIGURE 8 - Versa Trac Power Unit Internal Liquid Components

APPENDIX 2

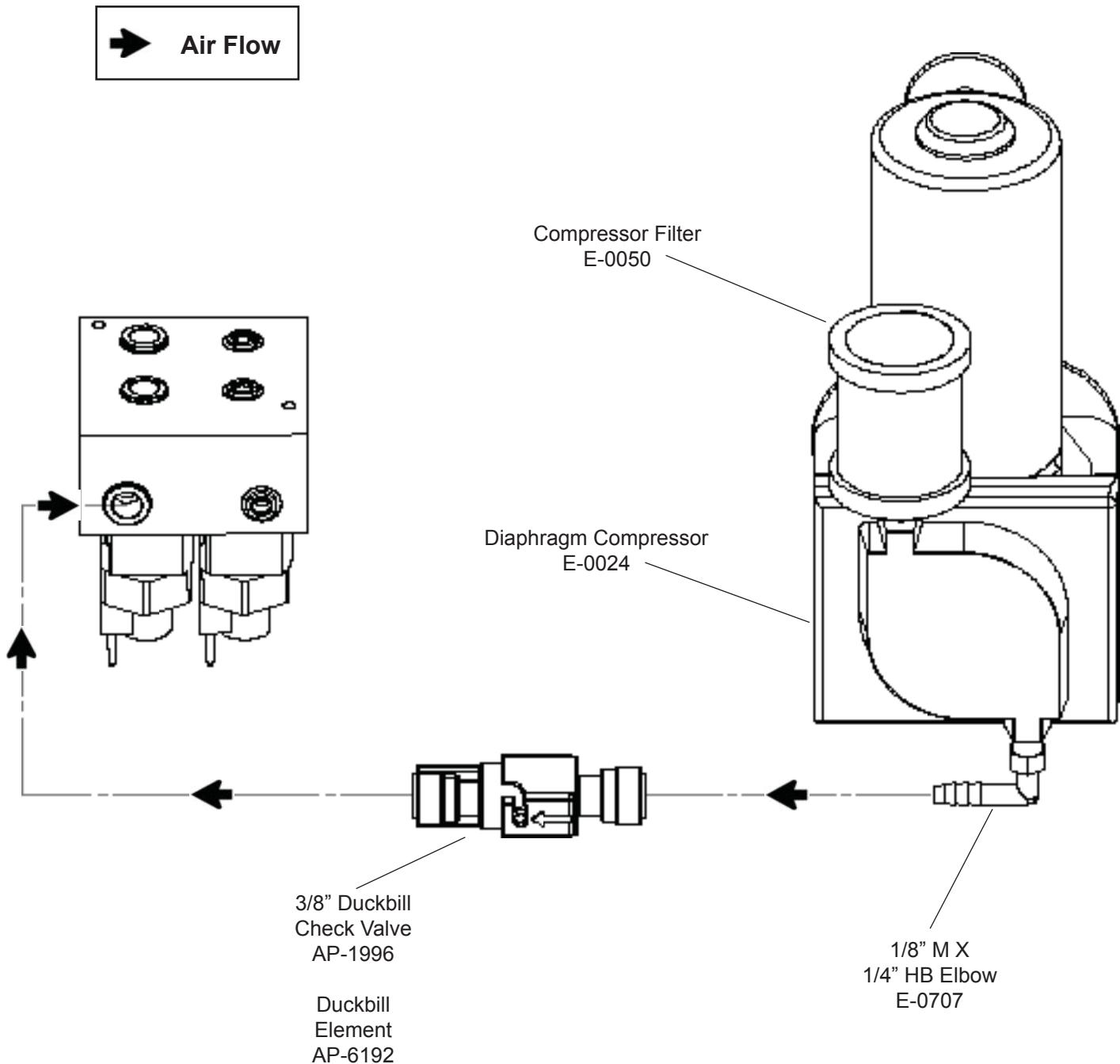


FIGURE 9 - Versa Trac Power Unit Internal Air Components

**Concentrate To
Power unit**

APPENDIX 3

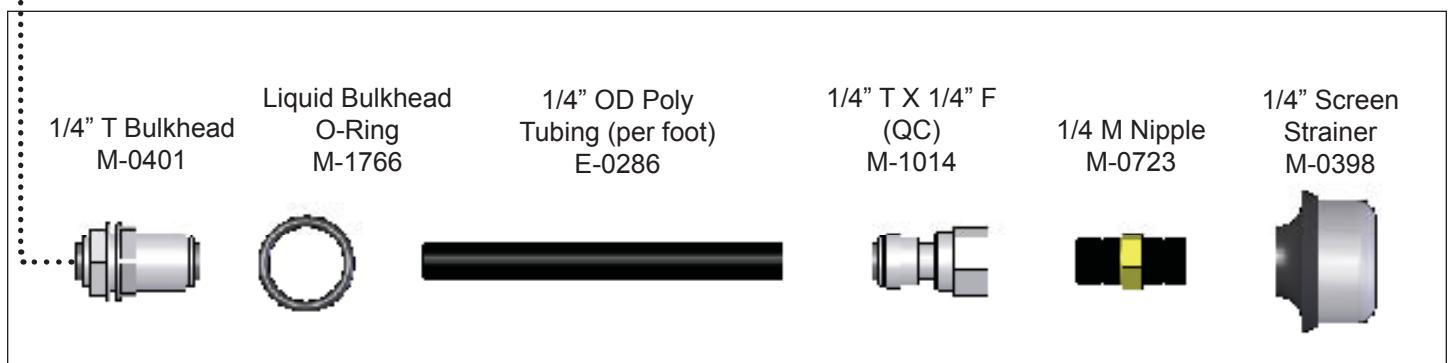


FIGURE 10 - Versa Trac Tank Components

APPENDIX 4

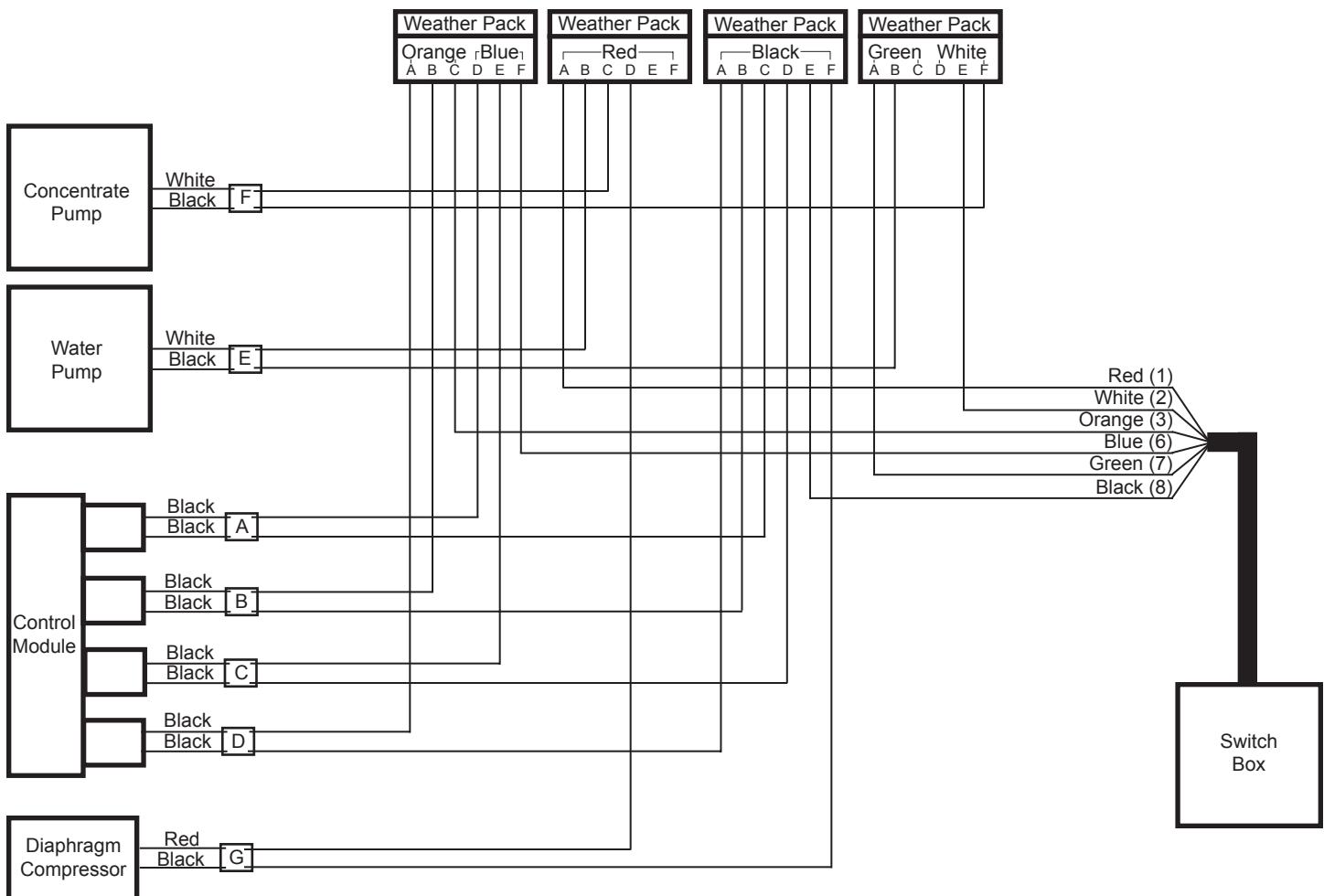


FIGURE 11 - Versa Trac Power Unit Wiring Diagram

WARRANTY INFORMATION

Limited Warranty

Richway Industries, Ltd., foam marking systems and components are warranted against defects in materials and workmanship for a period of 1 year from date of shipment.

During this warranty period, Richway will repair or replace at no charge, those parts or components which upon receipt by Richway, following warranty analysis, prove to be defective.

This warranty does not apply to parts or products not manufactured by Richway Industries, Ltd., including but not limited to solenoid valves, diaphragm compressors, etc., the warranty of such items being limited to the actual warranty extended to Richway Industries, Ltd., by its supplier.

Further, this warranty does not cover part or component failures or damage due to misapplication, misuse, abuse, breakage, or improper installation, storage or handling, abnormal conditions of temperature, water, dirt, corrosive or other contaminants.

Products covered by this warranty must be used in compliance with all federal, state, and local regulations.

Disclaimer of Other Warranties

The foregoing limited warranty is in lieu of all other warranties, expressed or implied, including merchantability or fitness for a particular purpose. In no event shall Richway Industries, Ltd., be liable for indirect, consequential or special damages of any nature, whatsoever.

COMPANY INFORMATION

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