Thank you for purchasing a BOOM TRACKER™ 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: _____

Document BTR&N-0103.doc

Table of Contents

SAFETY FIRST

IMPORTANT

Do not operate without reading and understanding this owner's manual

Caution: To reduce the risk of explosion or fire

- This foam marker is designed to operate off of a 12volt 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 electrical shock and/or short hazards. 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 real shock or 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 use air compressor to pump anything other than atmospheric air.
- 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.

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.
- The air compressor in this unit may be thermally protected and may automatically restart when the protector resets. 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.
- Inspect pressure relief periodically for proper operation.
- The pressure relief valve has been adjusted so that it will produce a 20-psi maximum output. Do not increase this pressure output.
- Richway foam markers are designed to operate at low pressure. Personal injury may result when air pressure exceeds 20 psi.
- The foam tank is pressurized. Do not attempt to remove tank cap while machine is turned on.
- After machine is turned off pressure remains in the system. Exhaust the tank by pulling the ring on pressure relief valve located on top of the cap. Remove tank cap slowly.
- Agricultural chemical mist or liquid 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 BOOM TRACKER 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. **For best performance, the power unit should not be mounted higher than three feet above the bottom of the tank.** Mounting these components higher will result in decreased foam output and long start up times.

TANK

When considering a location for mounting the tank, it will be important that the assembly is accessible for easy filling. The BOOM TRACKER tank stand is designed to be mounted to a horizontal frame member or platform. The tank and power unit need not be mounted adjacent to each other. For maximum liquid flow, the highest point of the liquid line should not be more than three feet above the bottom of the tank.

POWER UNIT

The power unit should be attached to a platform or frame using fasteners of an appropriate size. The model BTR power unit should be mounted in a contaminant free area to insure an efficient, trouble-free compressor. The power unit may be mounted in the cab to keep filters clean. If the power unit is mounted outside, regular cleaning of primary and compressor filters is necessary. Do not operate this system without the power unit cover in place.

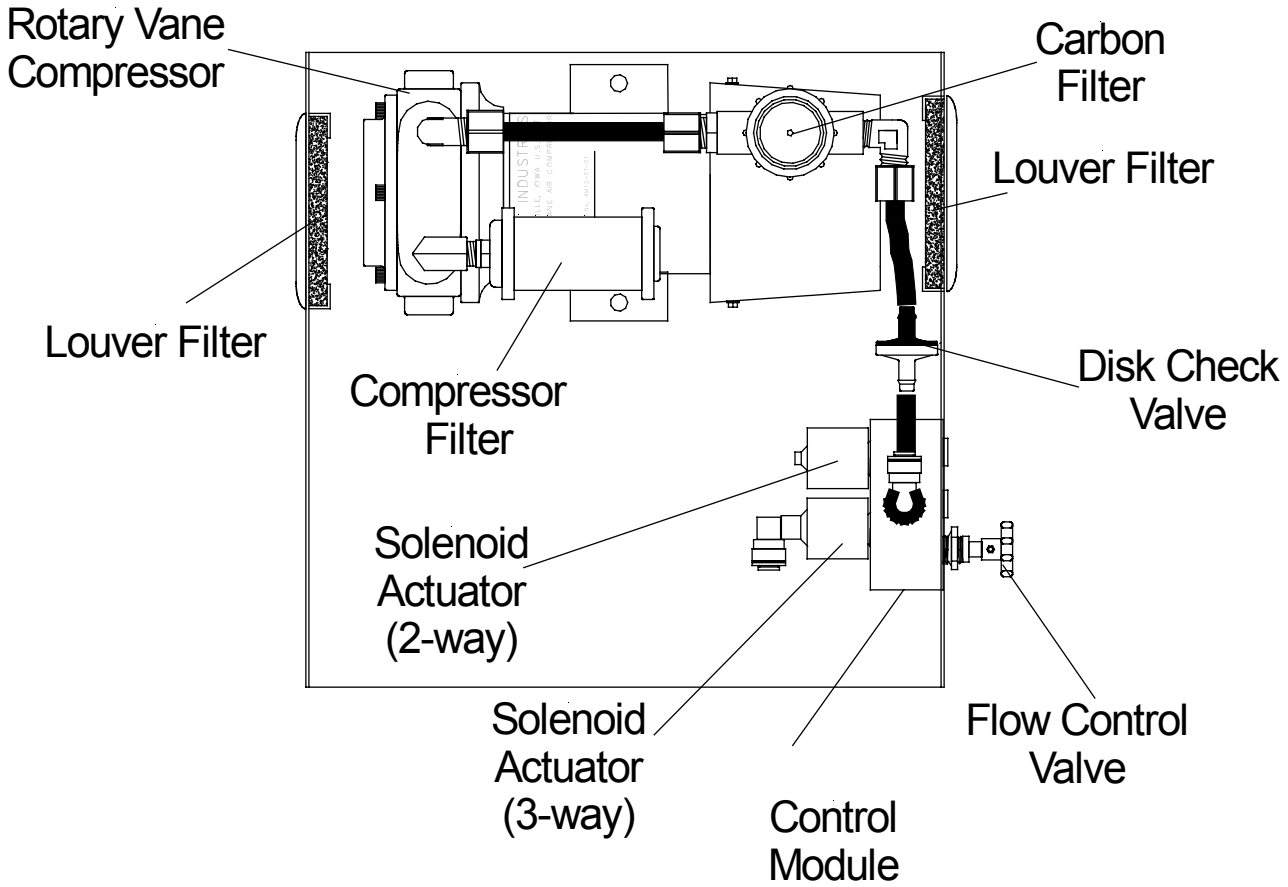


FIGURE 1 - BOOM TRACKER Model BTR Power Unit

BOOM TRACKER model BTN foam markers are equipped with a relief valve that has been factory set at 20 psi. This valve prevents over-pressurization of the system. Check its operation periodically. **Do not attempt to operate the system or adjust the relief valve above 20 psi.**

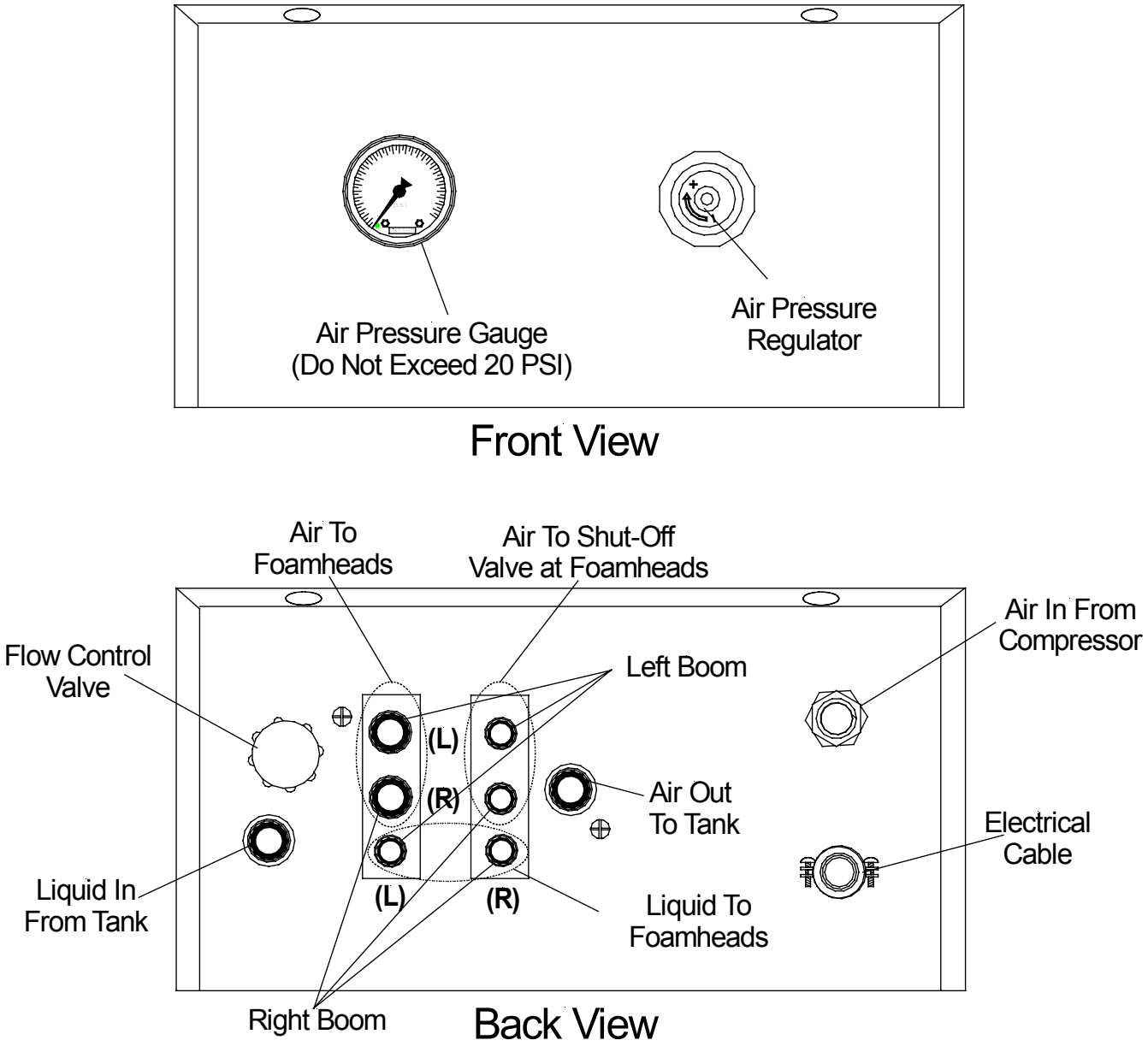


FIGURE 2 - BOOM TRACKER Model BTN Power Unit Connections

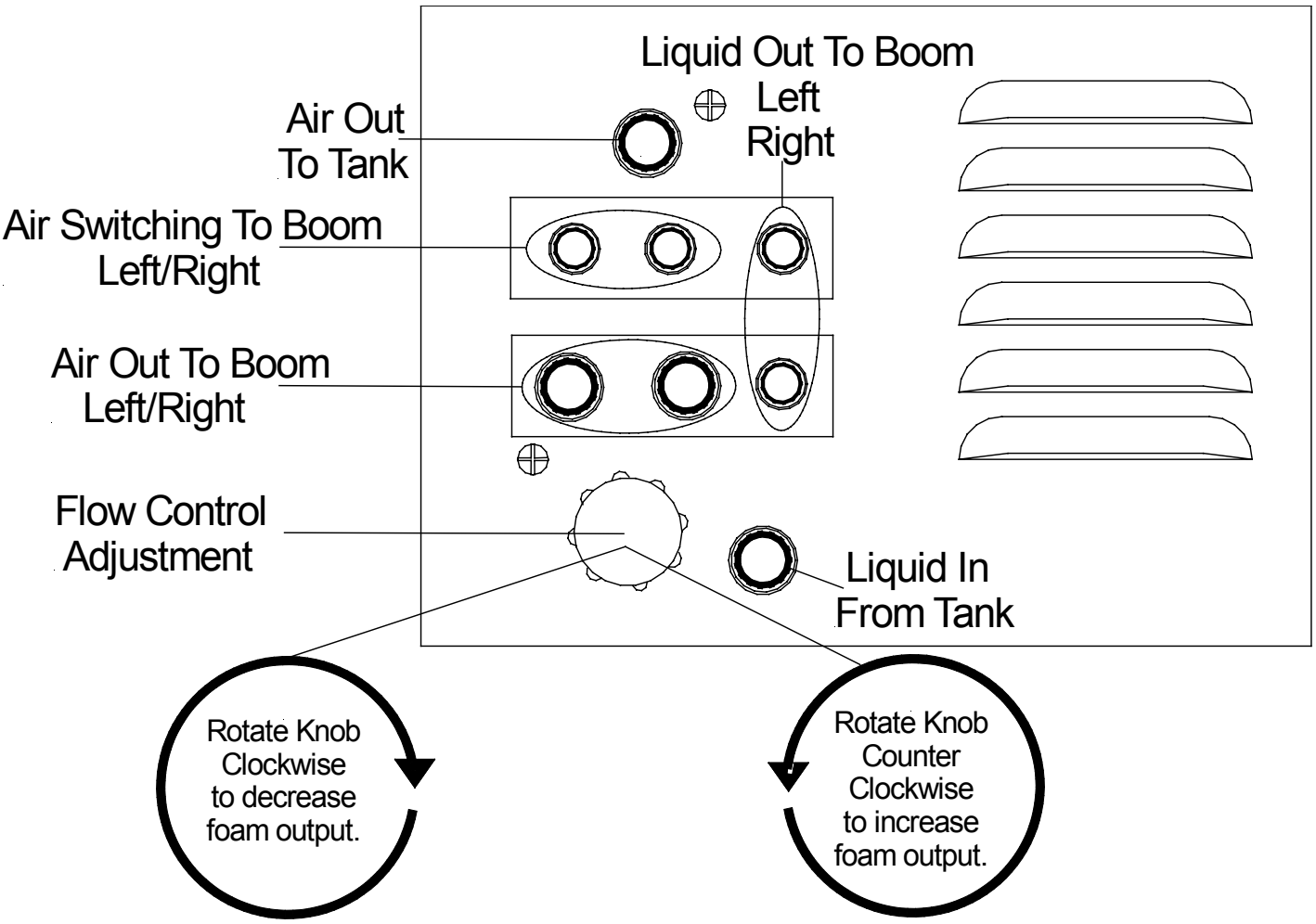


FIGURE 3 - BOOM TRACKER Model BTR Power Unit Connections and Flow Control Adjustment

SWITCH BOX
Mount the switch box in a location convenient to the operator. See Figures 10 and 11 for connecting the switchbox and cable assembly to the appropriate power unit.

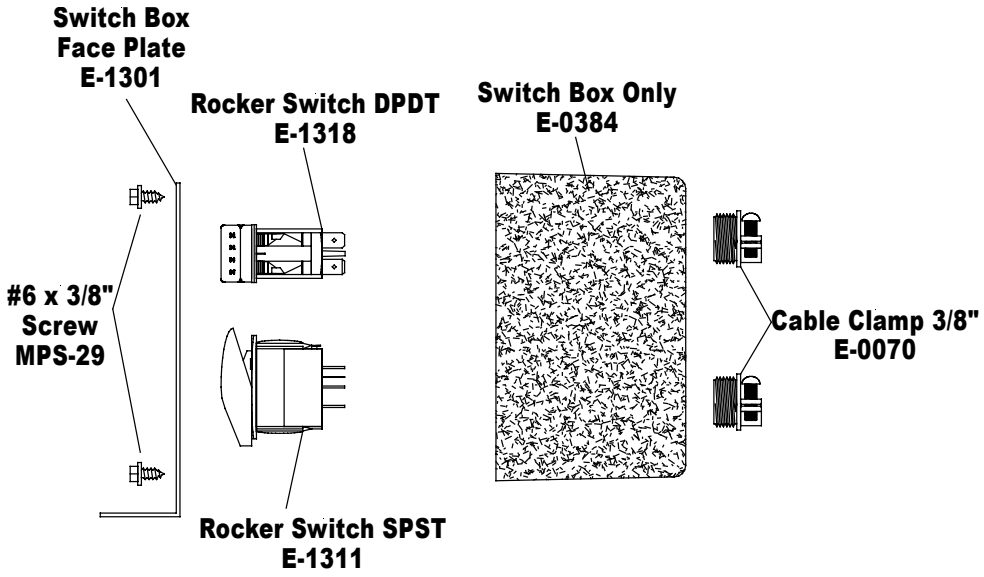


FIGURE 4 - BOOM TRACKER Model BTR and BTN Switch Box

FOAMHEADS™
Foamheads are mounted at the end of the spray boom. Mount foamhead assemblies on boom tubing with the u-bolts provided. Install 1¼" male by 1½" hose barb straight fittings onto foamhead elbows. Ideally, the foamheads should be mounted one half the distance of your nozzle spacing beyond the last spray nozzle. Optional remote mounting kits are available in 15 and 25 feet (See Appendix 4). These kits move the foamhead away from the end of the boom for increased impact protection.

FOAMHEAD TUBING
This system is equipped with Quick-Lock style fittings on the foamheads and at the power unit. Firmly push the tubing into the desired fitting, making certain that it will not pull out. To remove tubing, push in the tubing, hold down the dark gray center collet and pull tubing out.

Route one 3/8" and two ¼" poly tubes from each foamhead assembly to the power unit. See figure 8 and 9. 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 1/2 of your boom.**

FOAMHEAD CHECK VALVES

Disk check valves need to be installed in both lines at each foamhead. Cut into the 3/8” boom tubing about 6” back from the foamhead. Install the 3/8” disk check valve by sliding the hosebarb end into the tubing. The white half of the 3/8” check valve should be facing the foamhead. Repeat the procedure for the ¼” disk check valve, but the black half of the ¼ ‘” check valve should be facing the foamhead. See Figure 3 for proper disk check valve installation.

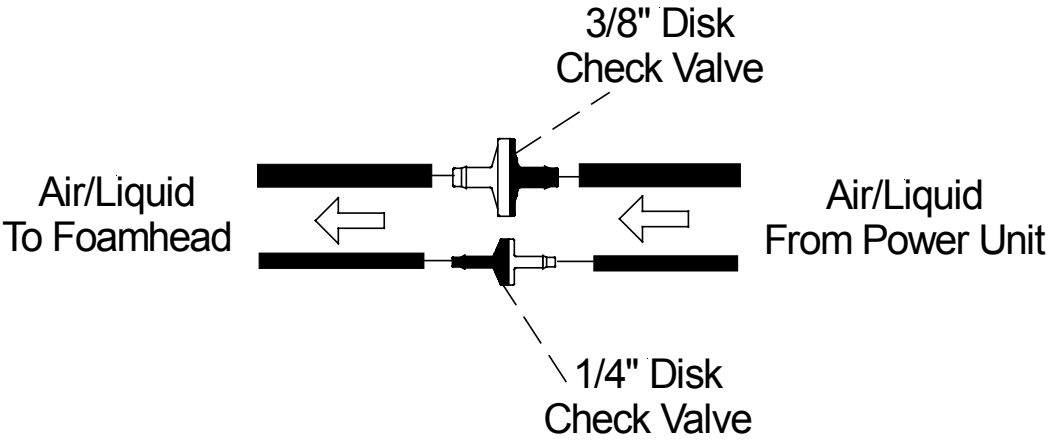


FIGURE 5 - BOOM TRACKER Boom End Disk Check Valve Installation

DROP HOSE

After the foamhead and boom end assemblies are in place, the 1 ½" drop hoses are secured onto the foamhead 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 deflector heads 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™

Foam Streamers are standard equipment with all BOOM TRACKER 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.

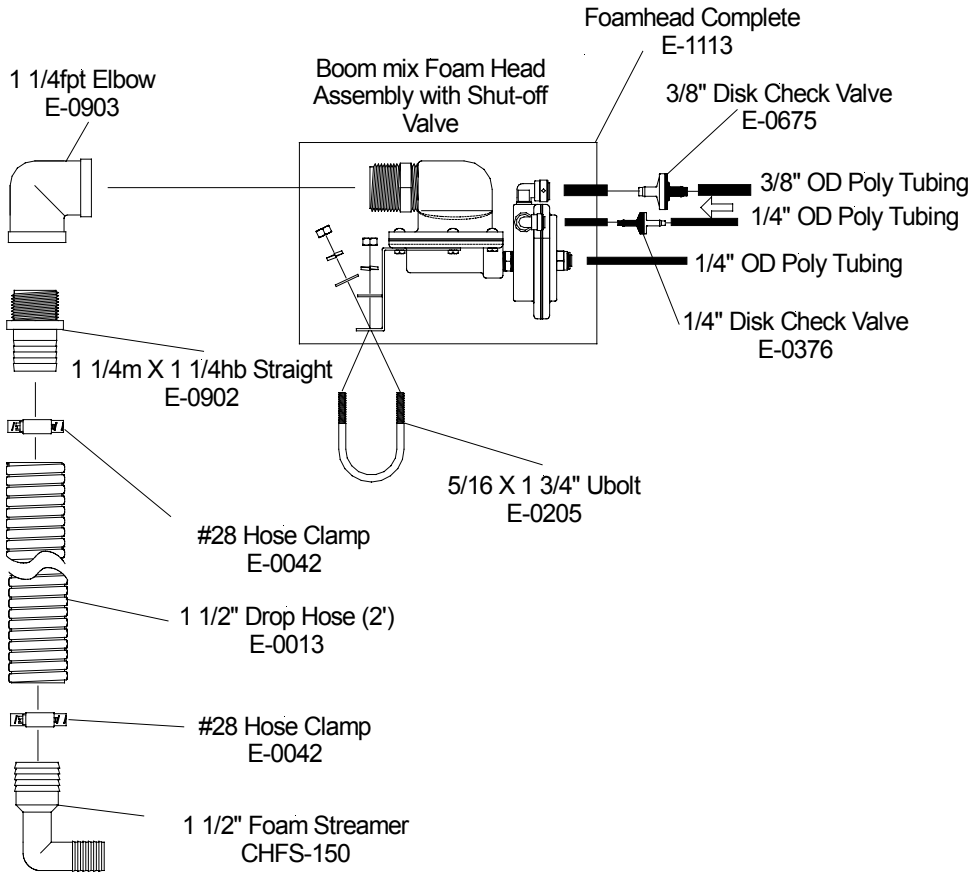


FIGURE 6 - BOOM TRACKER Foamhead and Boom End Assembly

COLLECTOR DEFLECTORS

Collector deflectors are standard equipment on BOOM TRACKER foam markers. Collector deflectors, when attached to 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.

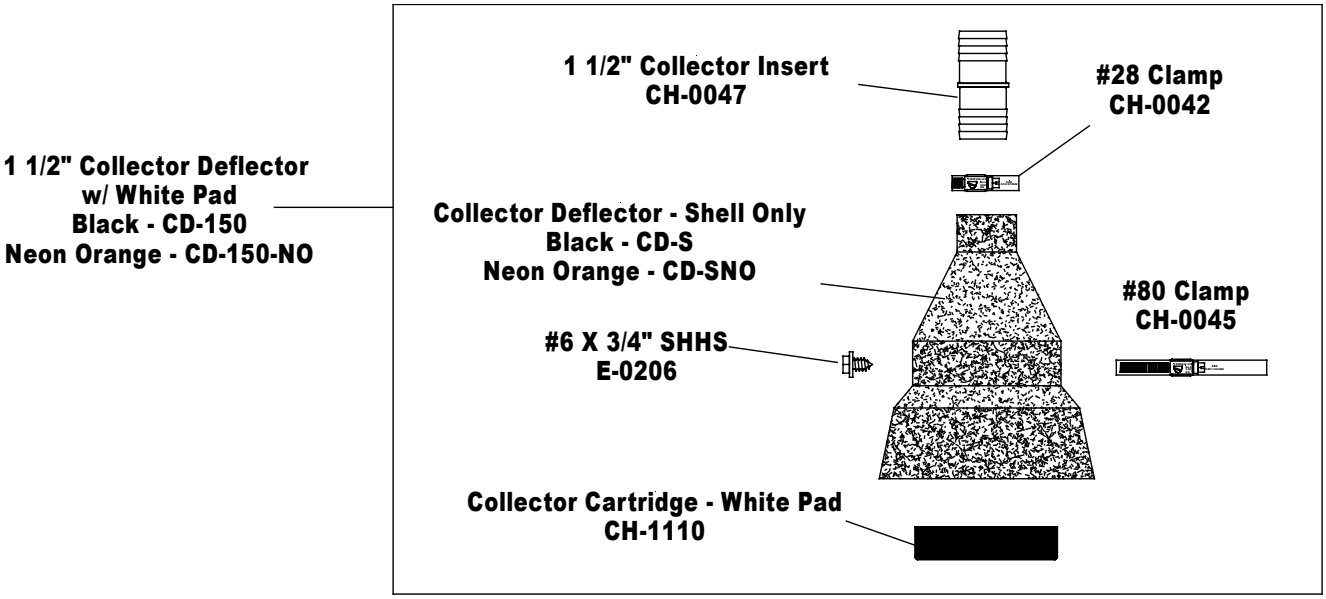


FIGURE 7 - Collector Deflector

TANK CONNECTIONS

Route one 1/4” OD poly tube from the switch box to the liquid filter outlet located at the bottom of the tank. The second 1/4" line is connected between the 1/4" bulkhead at the power unit and the switch box. It is important to protect the liquid line from sharp edges to prevent leakage. Cut appropriate length of 3/8" OD poly tubing to route from the power unit to the fitting on the threaded tank cap. Be sure to provide slack for ease of cap removal during filling (see figures 7 and 8). **To install tubing, loosen the compression nuts, insert hose, and hand tighten until hose is secure.**

NOTE: **Securing airline with nylon cable ties or metal cable clamps with a plastic coating provide a convenient way of routing airline to prevent pin holes or pinching.**

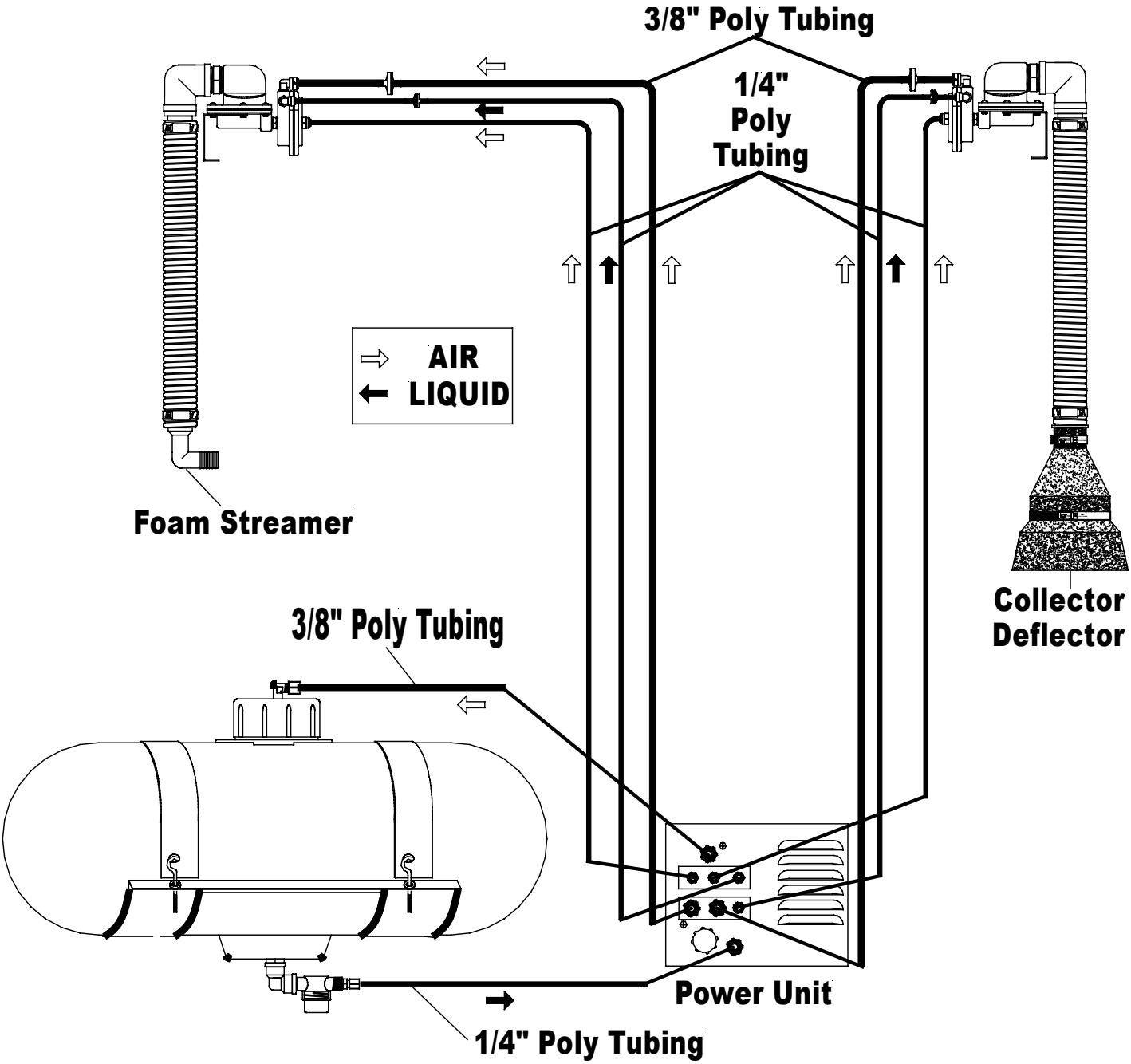


FIGURE 8 - BOOM TRACKER Model BTR Liquid and Air Flow

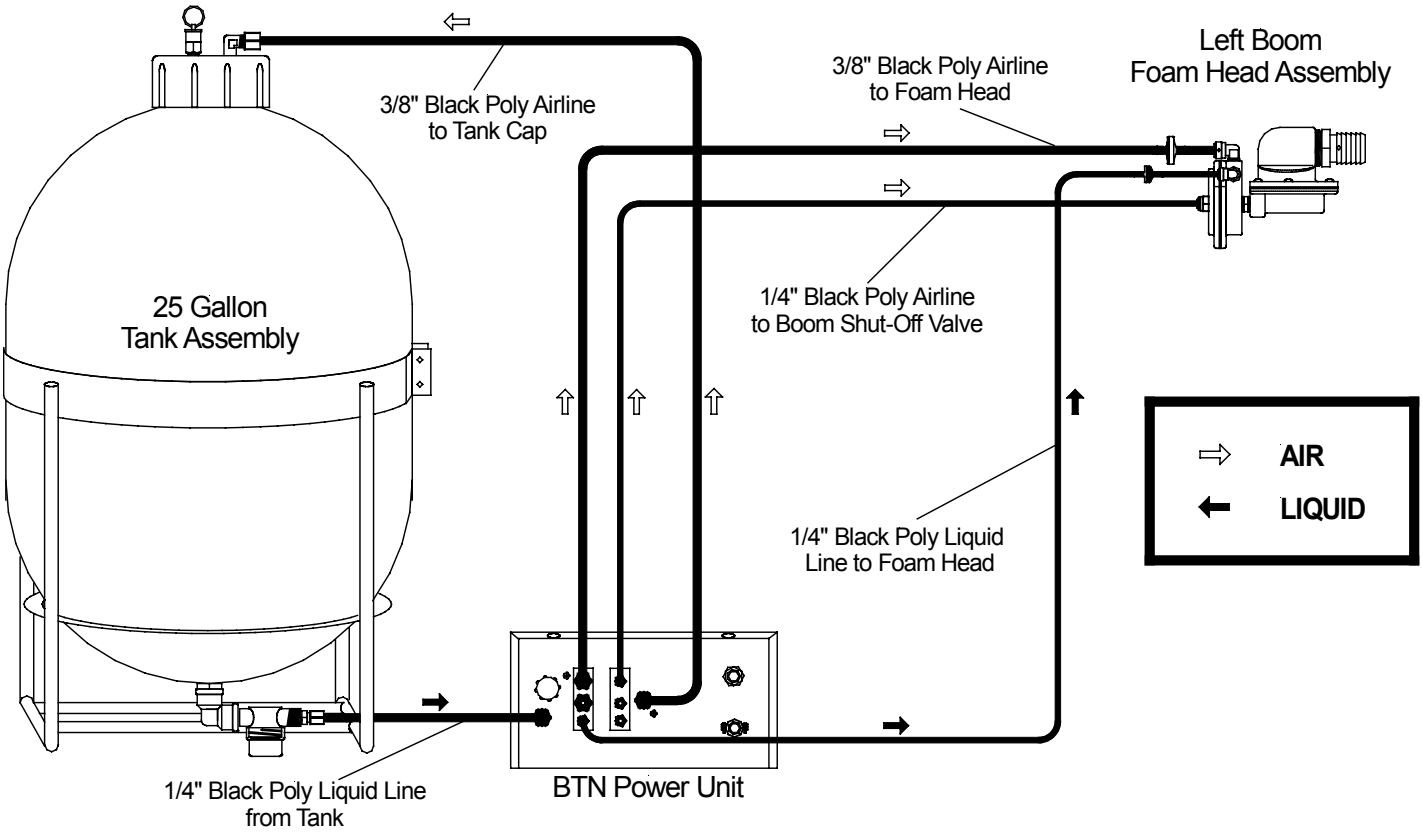


FIGURE 9 - BOOM TRACKER Model BTN Liquid and Air Flow

WIRING

CAUTION

- This machine is designed to operate off 12 volt DC power 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.

WIRING (cont'd)
To prevent accidental grounding of circuit, do not connect two-wire battery cable until all other connections have been made and checked for accuracy. If a greater length of wiring cable is needed, additional lengths are available. When adding wire, be sure to use wire of the same or larger gauge. Ten-gauge wire is preferred. Using smaller wire can cause poor performance, blown fuses, and rapid compressor motor failure.

To complete installation, several electrical connections must be made. Route the 3-wire cable from the switch box to the power unit. Pass the cable through the cable clamp located in the power unit box wall. Connect the red and black wires of the three-wire power cable to the matching wire connectors in the power unit. The red wire connects to the group of wires with red wire from the compressor. The black wire attaches to group of wires containing the black wire from the compressor. The white wire is connected to the 3-way switching valves (see figure 10). Secure cable into cable clamp by tightening screws.

Check all connections for accuracy before completing battery connections. Route the two-wire battery cable from the switch box 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 red wire of the battery cable should be attached directly to the positive (+) post of the battery by use of the cable mounting bolt. The black wire of the battery cable should be attached directly to the negative (-) mounting bolt.

NOTE: BOOM TRACKER Model R foam markers normally draw 14-16 amperes.

The BTR is equipped with a 25-ampere fuse. The BTN is equipped with a 20-ampere fuse. DO NOT use a fuse with a higher ampere rating in this system. 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, compressor will run slowly and solenoid valves may not operate correctly.

NOTE:
Power unit cover removed
for illustration purposes only.
Do not operate without power
unit cover in place

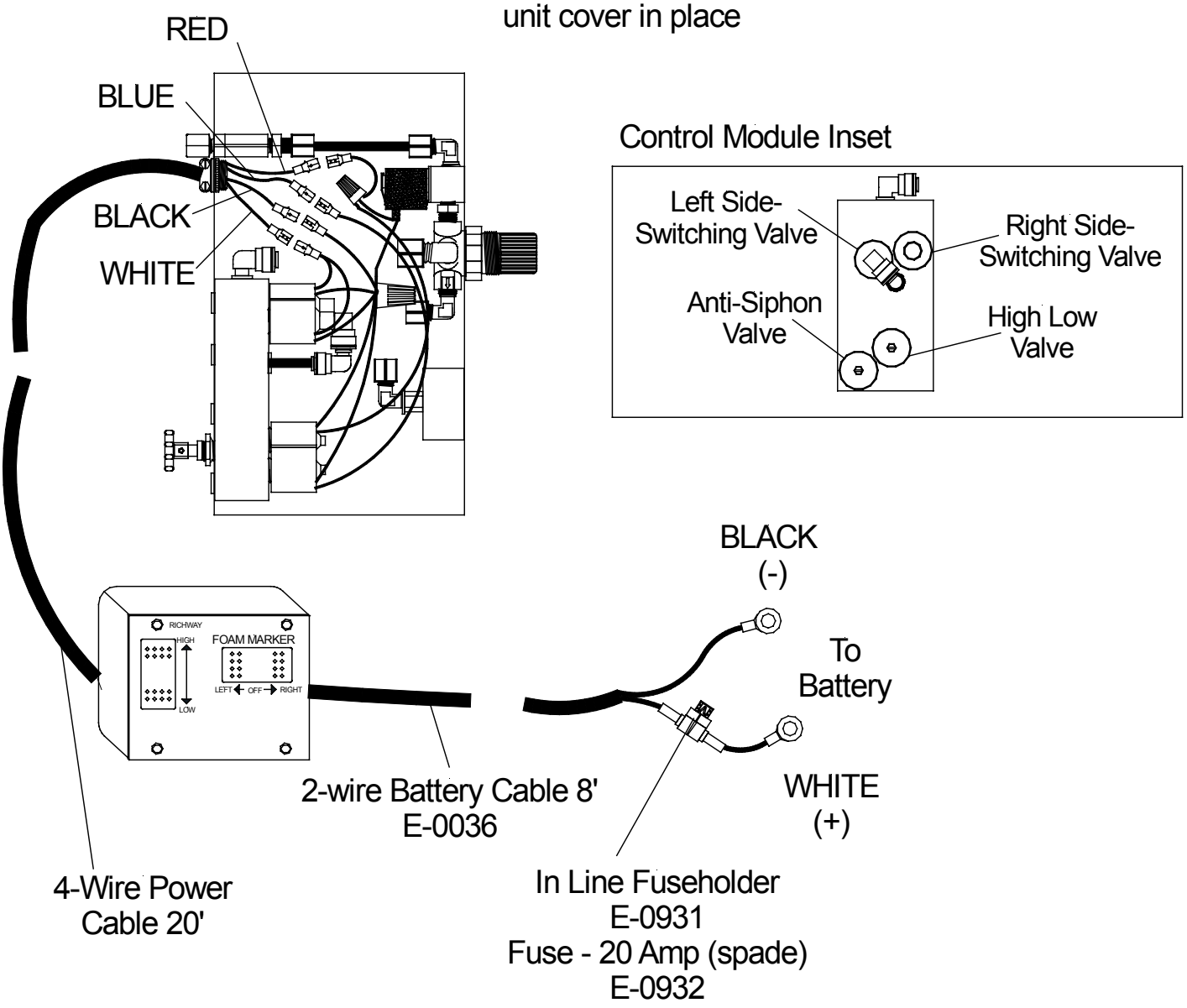


FIGURE 10 - BOOM TRACKER Model BTN Wiring

NOTE:
Power unit cover removed for illustration purposes only. Do not operate without power unit cover in place

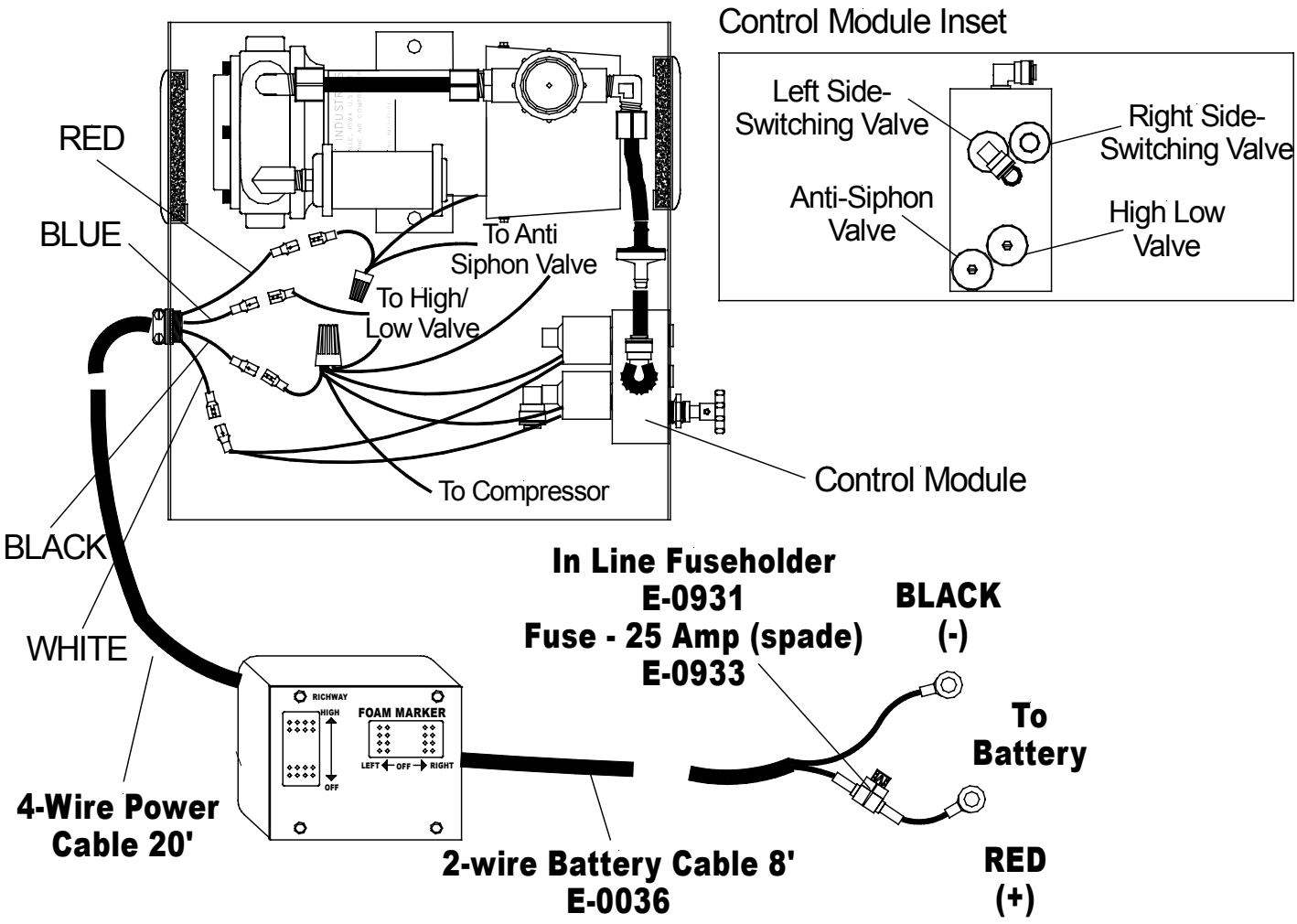


FIGURE 11 - BOOM TRACKER Model BTR Wiring

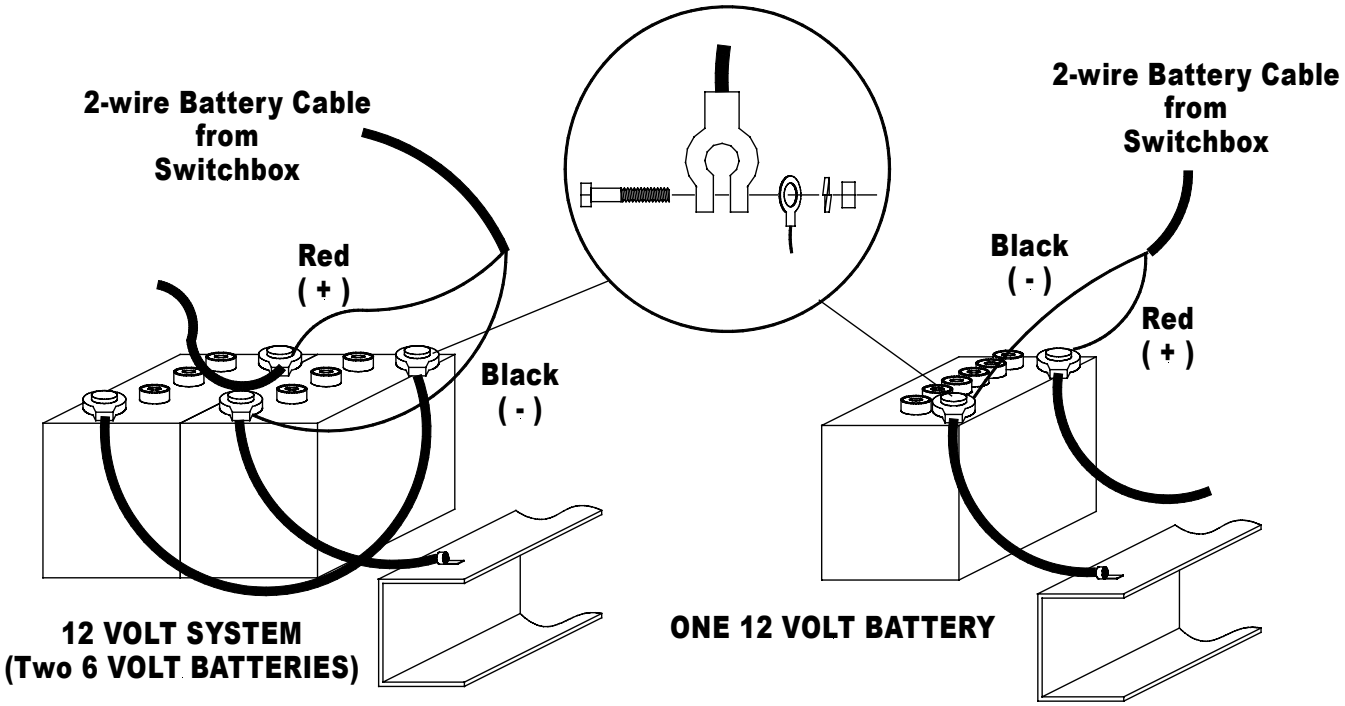


FIGURE 12 - BOOM TRACKER Battery Connections

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 use air compressor to pump anything other than atmospheric air.
- 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.
- The foam tank is pressurized with air from the compressor. Do not attempt, for any reason, to remove tank cap while machine is turned on.
- After machine is turned off pressure remains in the system. Remove tank cap slowly to allow pressure to exhaust.

COMPRESSOR CHECK - BTR
After checking all wiring for accuracy, turn switch box to the "on" position and check that air is flowing out of the compressor.

MIXING FOAM
Foam mixing takes some experience. Different water sources may require different amounts of concentrate to obtain the desired foam density. Water hardness, pH, and impurities will all affect the rate of concentrate required for consistent long-lasting foam.

NOTE: It is worthwhile to determine the proper foam/water mixing ratios for your water source with the initial filling. Doing so will save time in the future and aid in consistent foam quality.

If hard water is a problem, commercial softening agents are available. You can make your own softening agent by dissolving a commercial water softening powder (available in most grocery stores) in hot water and adding a portion of this mixture to your tank each time you fill. Experimentation will reveal the correct amount to use. A good starting point is one and one half ounces per gallon of water. Mix ratios for foam concentrates advertised, as 80 to 1 or 160 to 1 must be adjusted for use with your water. Such ratios are only a guideline.

NOTE: When mixing foam, warm water will improve BOOM TRACKER performance.

Heat, humidity, wind and crop cover will also affect the life of foam. Using a good quality marking agent, such as GOODMARK, may be very important.

GOODMARK Premium life, " hot weather" foam concentrate, up to one hour life in cooler weather, 20-40 minutes in hot weather, good hard water tolerance.

FILLING THE TANK

⚠ CAUTION

- The foam tank is pressurized with air from the compressor. Do not attempt, for any reason, to remove tank cap assembly while unit is in operation.
- After machine is turned off, pressure remains in the system. Pull the ring on the pressure relief valve to allow pressure to exhaust.
- Wear safety goggles and all proper clothing when operating, servicing or refilling this machine.
- Always read and follow manufacturer recommendations when handling any chemical.
- Do not pump combustible liquids or vapors with this product.

1. BE SURE POWER UNIT IS TURNED OFF.

CAUTION! Pressure is built up in the tank. **Before attempting to remove the cap on the tanks, pull the ring on the pressure relief valve mounted in the tank cap to release any pressure that might be built up in the tank.** Remove the tank cap slowly.

2. Starting with a small amount of water (2 gal), mix the foam concentrate according to the label directions. If considerably more concentrate is needed above the manufacturer's suggested ratio (usually 2-5 ounces per gallon) to produce good foam, use of a softener or soft water may be

required. If the foam is too stiff (dry), it will surge out at irregular intervals. Under this condition, water should be added until the foam becomes more wet. **NOTE:** In windy conditions, a wetter, heavier foam may be desired.

Good foam A blob of foam on your overturned palm should stay in place if properly mixed.

3. With the mixing ratio determined, fill the tank leaving about 4 inches of air space at the top of the tank. No agitation is present in the tank. You may find it necessary to partially fill the tank, add the foam concentrate. Then completely fill the tank.

4. Replace cap at the top of the tank.

FLOW CONTROL VALVE

The flow control valve regulates the amount of foam solution flowing to the foamheads. To increase liquid flow, turn the adjusting knob counter- clockwise. This valve has been factory preset at 2 ½ turns open. This setting provides for a moderate foam output. See Figure 13 for BTN adjustment and Figure 3 for BTR adjustment.

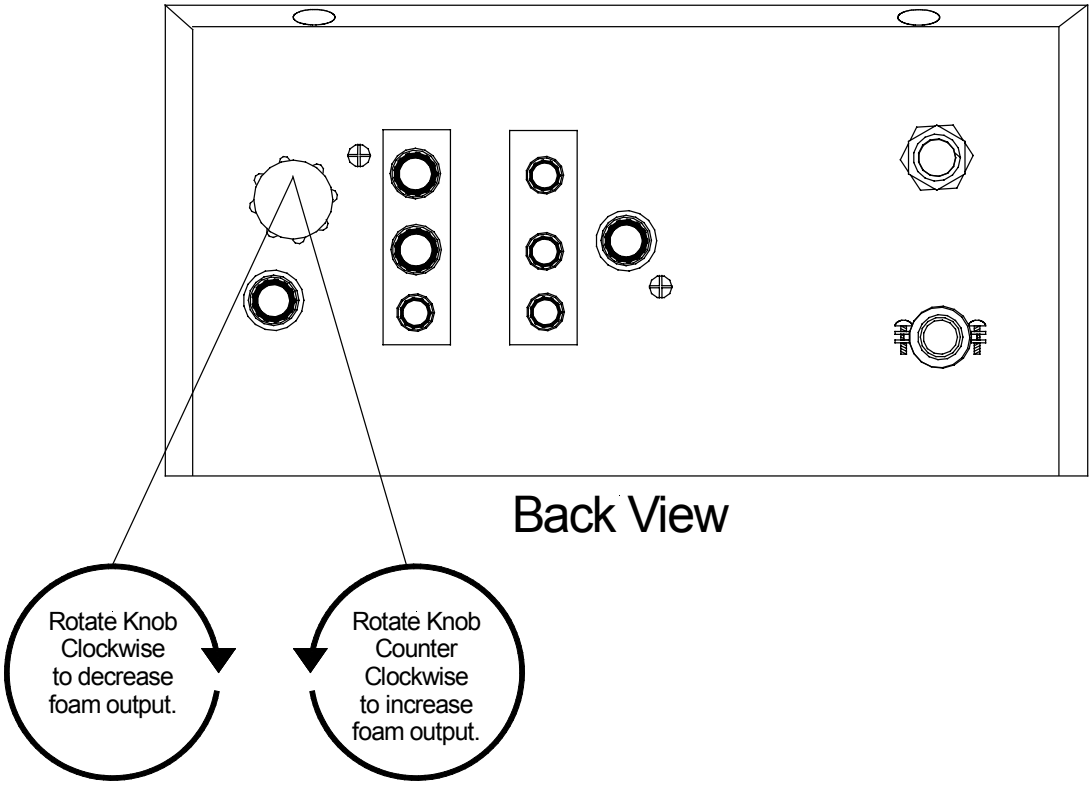


FIGURE 13 - Flow Control Adjustment

AIR PRESSURE ADJUSTMENT - BTN

Air pressure is regulated at the power unit with the air pressure regulator**. To adjust, pull knob out and rotate clockwise to increase, counter clockwise to decrease air pressure. Push the knob in to lock.**

Richway foam markers are designed to operate at low pressure. BTN foam markers are equipped with a relief valve that has been factory set at 20 psi. This valve prevents over-pressurization of the system. Check its operation periodically. Do not attempt to operate the system or adjust the relief valve above 20 psi. Do not attempt to bypass or remove this valve.

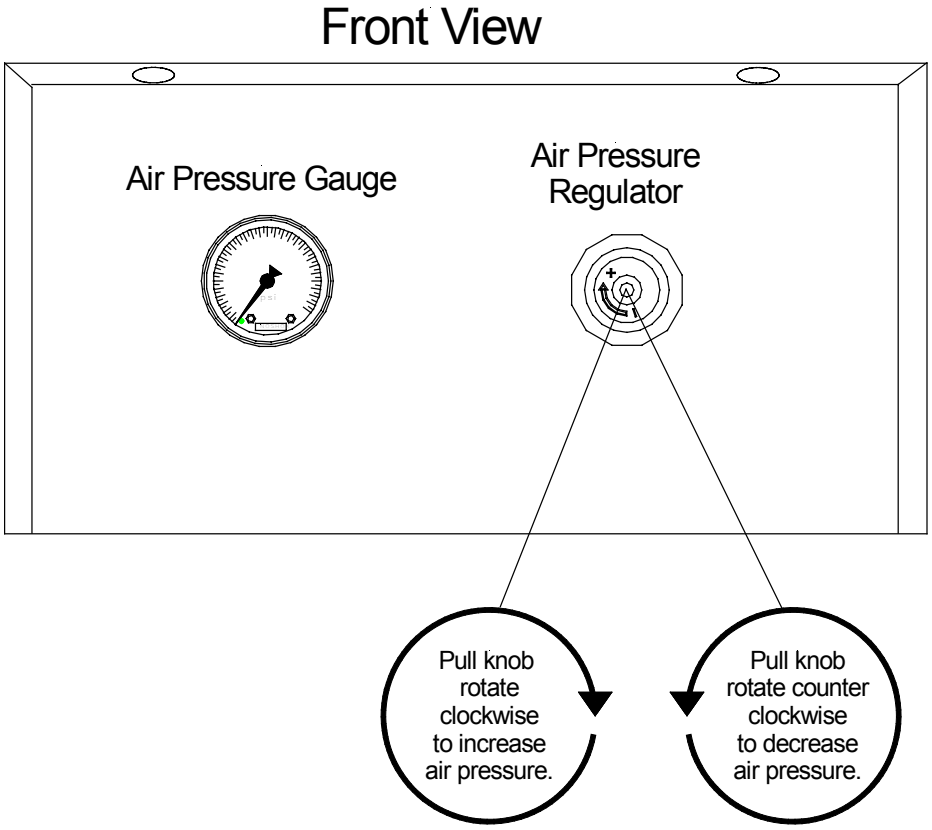


FIGURE 14 - Air Pressure Adjustment

MAINTENANCE

⚠ CAUTION

- All electrical components generate heat. To avoid serious burns, never touch internal components immediately after use.
- The air compressor in this unit may be thermally protected and may automatically restart when the protector resets. 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.

AIR FILTERS

Richway BOOM TRACKER foam marking systems need little maintenance, but regular routine cleaning of filters is essential. The air filters must be kept clean. Dirty filters prevent proper operation of the marking system and will overload the motor. This will blow fuses and possibly lead to compressor failure. **Every 40 operating hours, or more often if extremely dusty, remove the compressor intake and carbon filter and clean them by blowing out.** Compressor and carbon filters must be replaced periodically.

Clean the louvered primary filter pads located on the power unit box after every 100 hours of use. Remove the filter element and wash in warm soapy water or blow dust free with compressed air.

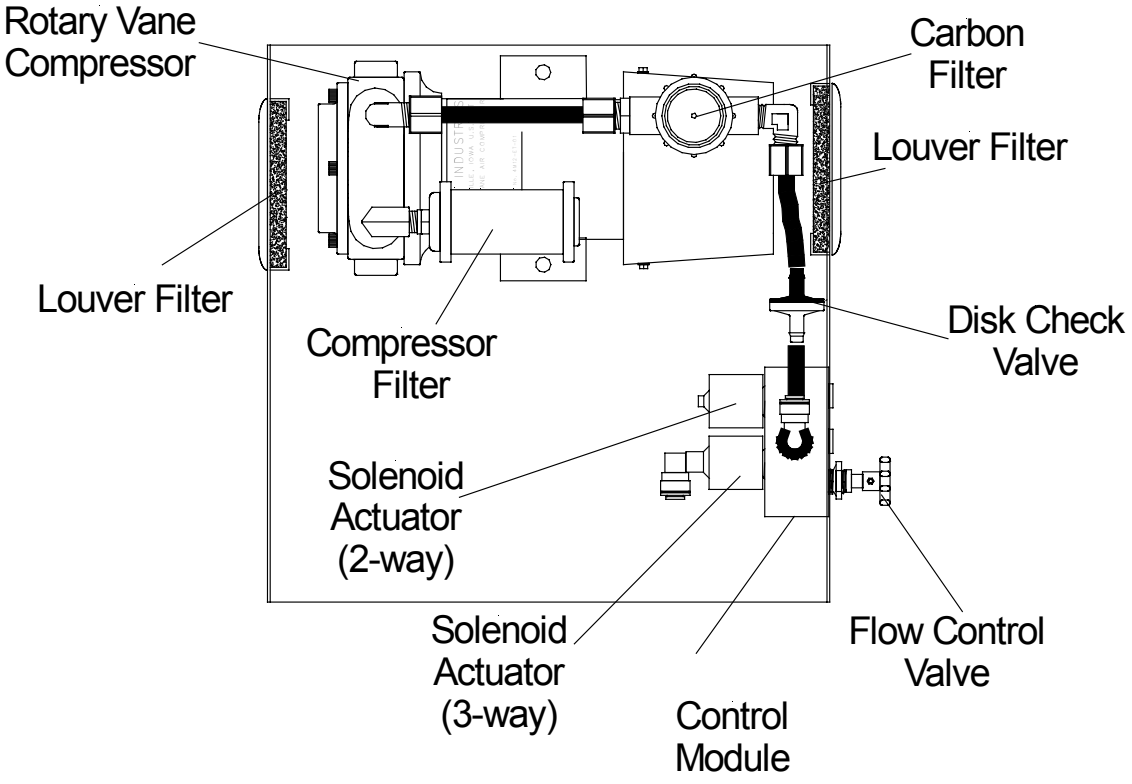


FIGURE 15 - BOOM TRACKER Model BTR Power Unit Filters

FOAMHEADS AND IN-LINE FILTER

The foamheads have been designed so that the elements inside can be cleaned as necessary. The screens inside this unit should be washed periodically with hot water. The in-line filter element, located at the bottom of the tank, should be cleaned occasionally to insure sufficient liquid flow (See Appendix 1).

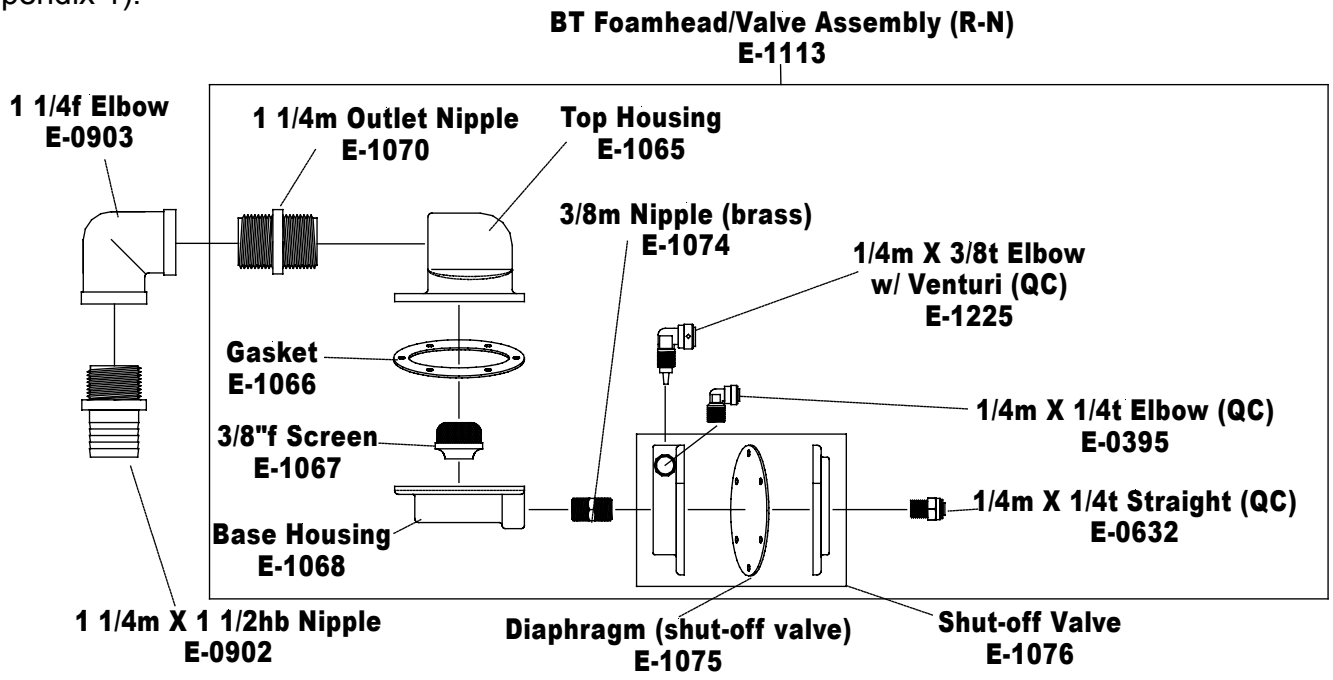


FIGURE 16 - BOOM TRACKER Foamhead / Valve Assembly

TANK AND HOSES

At the end of the season remove the in-line filter bowl at the bottom of the tank and 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.

COMPRESSOR

The compressor used on BTR foam markers should provide years of service if properly cared for. Dust and other contaminants should be prevented from contact with compressors. If the power unit is mounted where it is exposed to the elements, protect it against the elements when not in use.

The rotary vane compressor is carefully designed and manufactured to provide long life and trouble-free service. However oil or other contaminants may cause the vanes to stick. Should this occur, in most cases it can be corrected by cleaning with a non-petroleum-based solvent. Windshield washer solvent is adequate.

Remove the compressor end cap. Carefully remove and clean the vanes and rotor. **Do not force rotor off shaft, pry or strike.** If rotor is difficult to remove, use a solvent to dissolve deposits holding the rotor onto the motor shaft. Wipe the compressor housing checking for rough surfaces and/or pitting,

replace as necessary. Make sure the vanes slide freely before reassembling. The compressor is designed to operate with no lubrication. Use of oils will cause particles to collect, preventing free vane movement. Occasionally, the carbon vanes will have to be replaced due to wear. **After 600 to 800 hours of use inspect the vanes for wear removing the compressor end cap to inspect.** The vanes should fill at least two thirds of the slot in the rotor. If the vanes are worn past this point, replace them immediately.

Brushes should be examined when inspecting the carbon vanes or every 800 to 1000 hours. Brushes are easily examined and replaced by removing the compressor from the power unit box, removing the fan shroud, unscrewing the brush caps, and examining the brushes for wear. **If brushes are 1/2 inch or less in length, replace immediately.**

DISK CHECK VALVES

During operation 3/8" disk check valves allow air to flow from the compressor through the airline. When the compressor is turned off, these valves prohibit foam solution from back flowing to the compressor through the airline. It is therefore essential, that these check valves function correctly.

Symptoms of check valve failure are:

A. Traces of liquid in the airline. Remove fitting and inspect airline tubing periodically.
B. Fluid detected at the carbon filter bowl especially during initial compressor start up.
C. Failure of the compressor to operate when switch is activated may be due to water trapped in the compressor. Remove the end cap and dry the compressor.

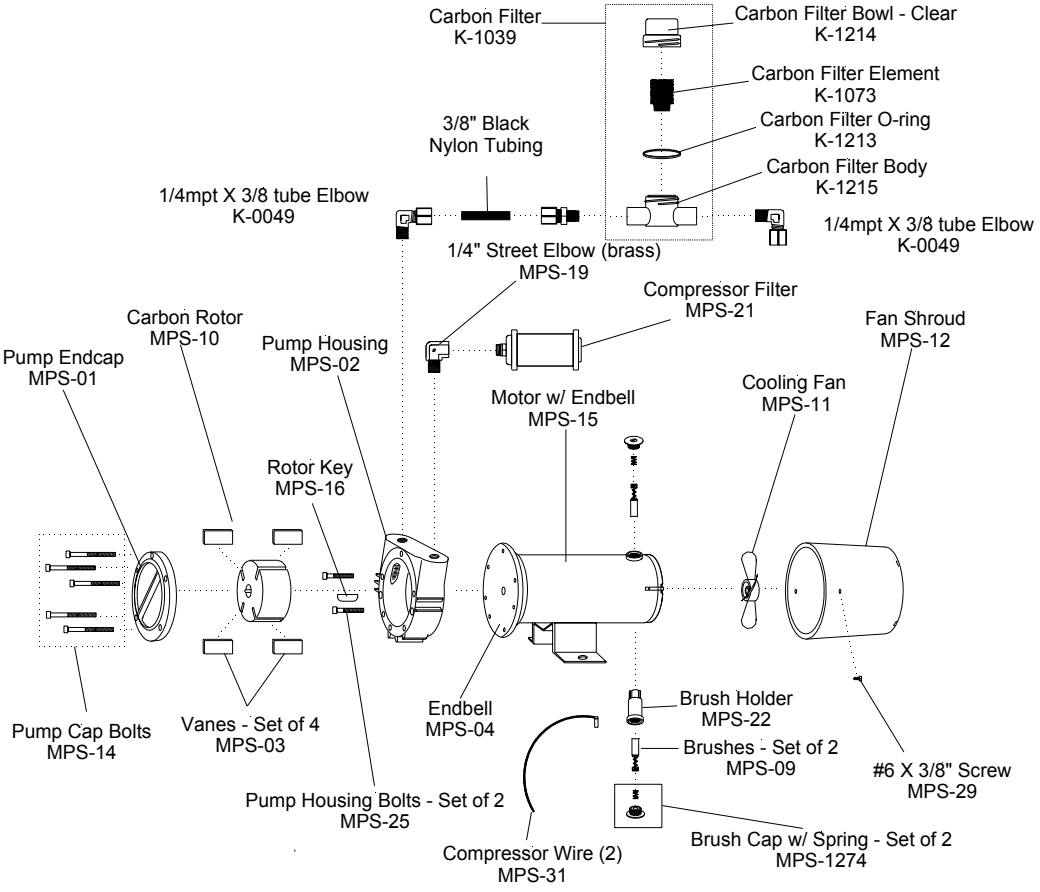


FIGURE 17 - Rotary Vane Compressor Model RV12

WINTERIZATION

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. Follow the procedure below to prevent component damage.

1. Remove the in-line filter bowl 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 to tank.
4. Turn on machine and run until anti-freezing solution has been drained.
5. Check the airlines and liquid lines for holes and replace as required.

IMPORTANT Be sure **to flush, then purge, all liquid from the system prior to storage in freezing temperatures.** 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.

TROUBLE-SHOOTING

If you do not get foam:

1. Be sure that the compressor is connected properly and that air is blowing into the tank. To be sure the airline and liquid lines do not have holes in them and are not pinched, remove air and liquid tubing at each foamhead and check for flow.

2. Be sure you have enough foam concentrate in the tank. Very hard water may require a great amount of concentrate to produce good foam. Not having enough foam concentrate in the tank may make good foam, but may not make enough foam. Be sure to use a high quality concentrate such as GOODMARK.

3. Be sure the threaded tank cap is properly installed.

4. Check and clean the in-line filter.

5. Be sure the flow control valve is open.

6. Check anti-siphon valves for proper operation.

7. If the foam mixture in the tank is several days old, it is possible that the solution is no longer able to foam or produces little foam. Drain tank, rinse, and start with a fresh solution.

PROBLEM: not enough foam - not enough foam concentrate in tank; hole in airline; pinched air or liquid lines. Clogged in-line filter/foam heads. Adjust liquid flow control valve.

PROBLEM: wet foam - not enough foam concentrate; clean in-line filter/foamheads; reduce liquid flow.

PROBLEM: surging - if foam is "surging" out under considerable pressure, you probably are using too much concentrate.

PROBLEM: 3 - 4 hours per 10-gallon tank - not enough concentrate being used. Reduce liquid flow.

PROBLEM: foam does not last on the ground - use slightly more concentrate or a higher quality foam concentrate such as GOODMARK. Use collector heads.

PROBLEM: blowing foam in windy weather - mix foam solution with slightly less foaming agent or more water to produce a wetter, heavier foam.

APPENDIX 1

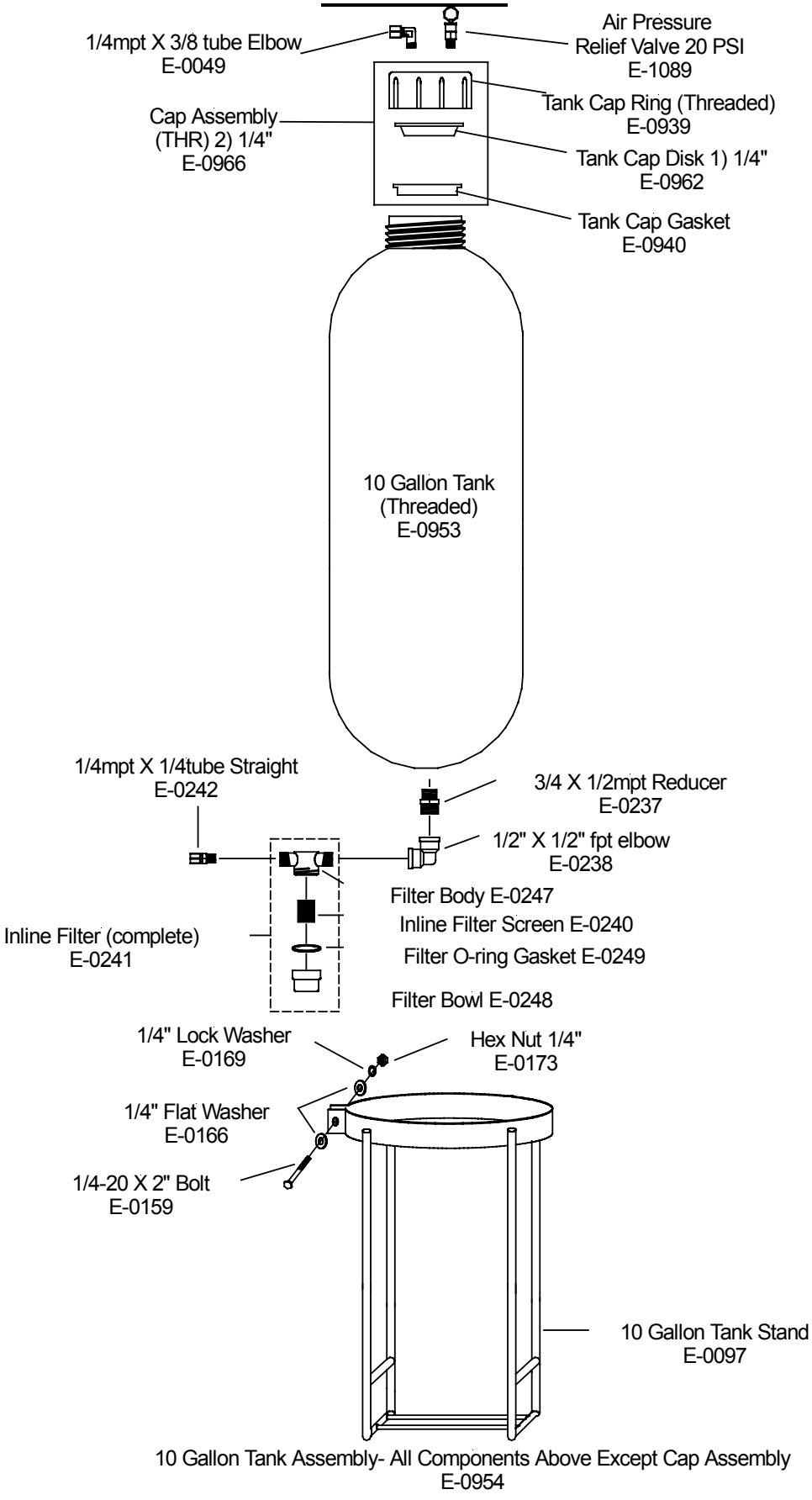
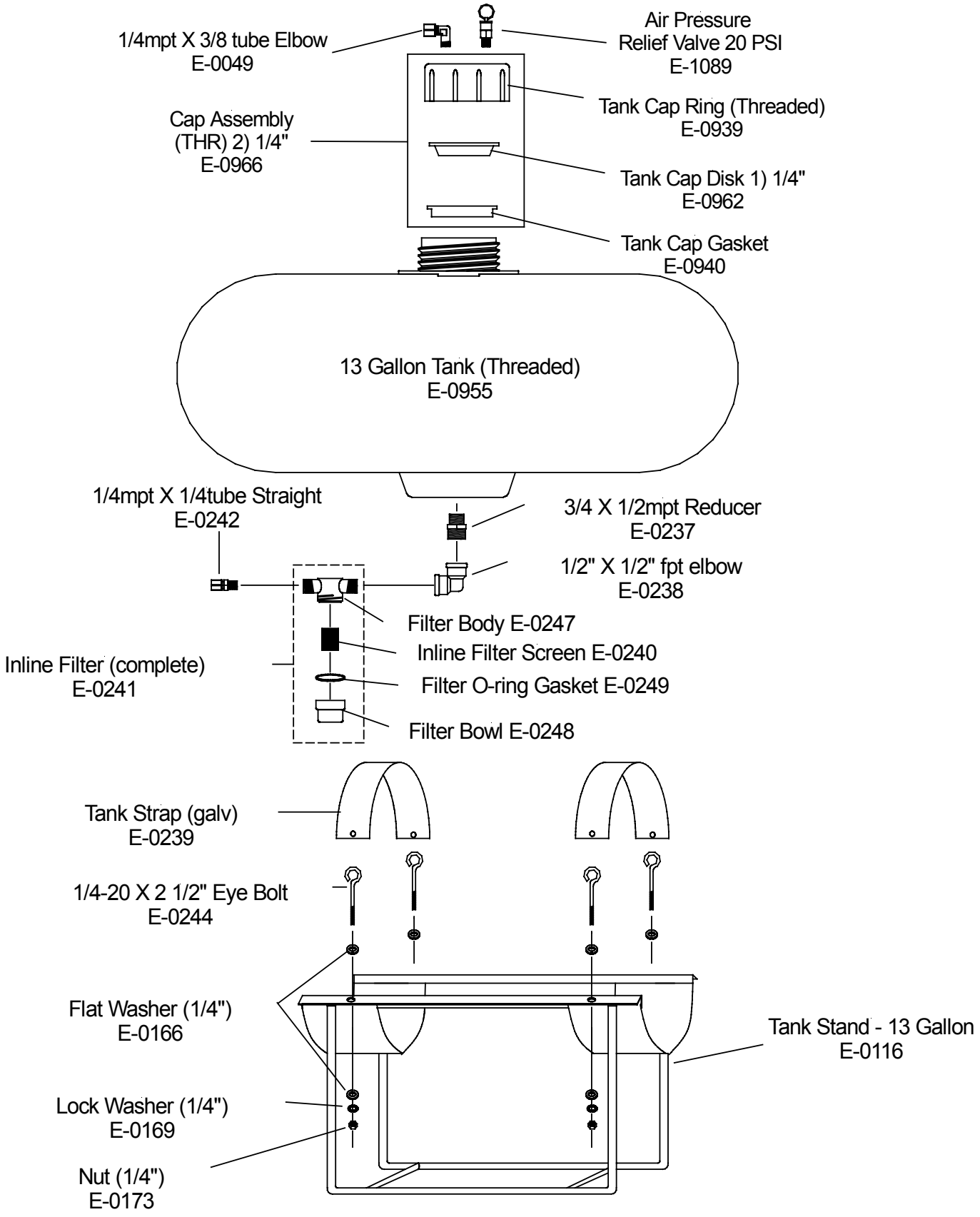


FIGURE 18 - BOOM TRACKER Tank 10 Gallon



13 Gallon Tank Assembly- All Components Above Except Cap Assembly
E-0956

FIGURE 19 - BOOM TRACKER Tank 13 Gallon

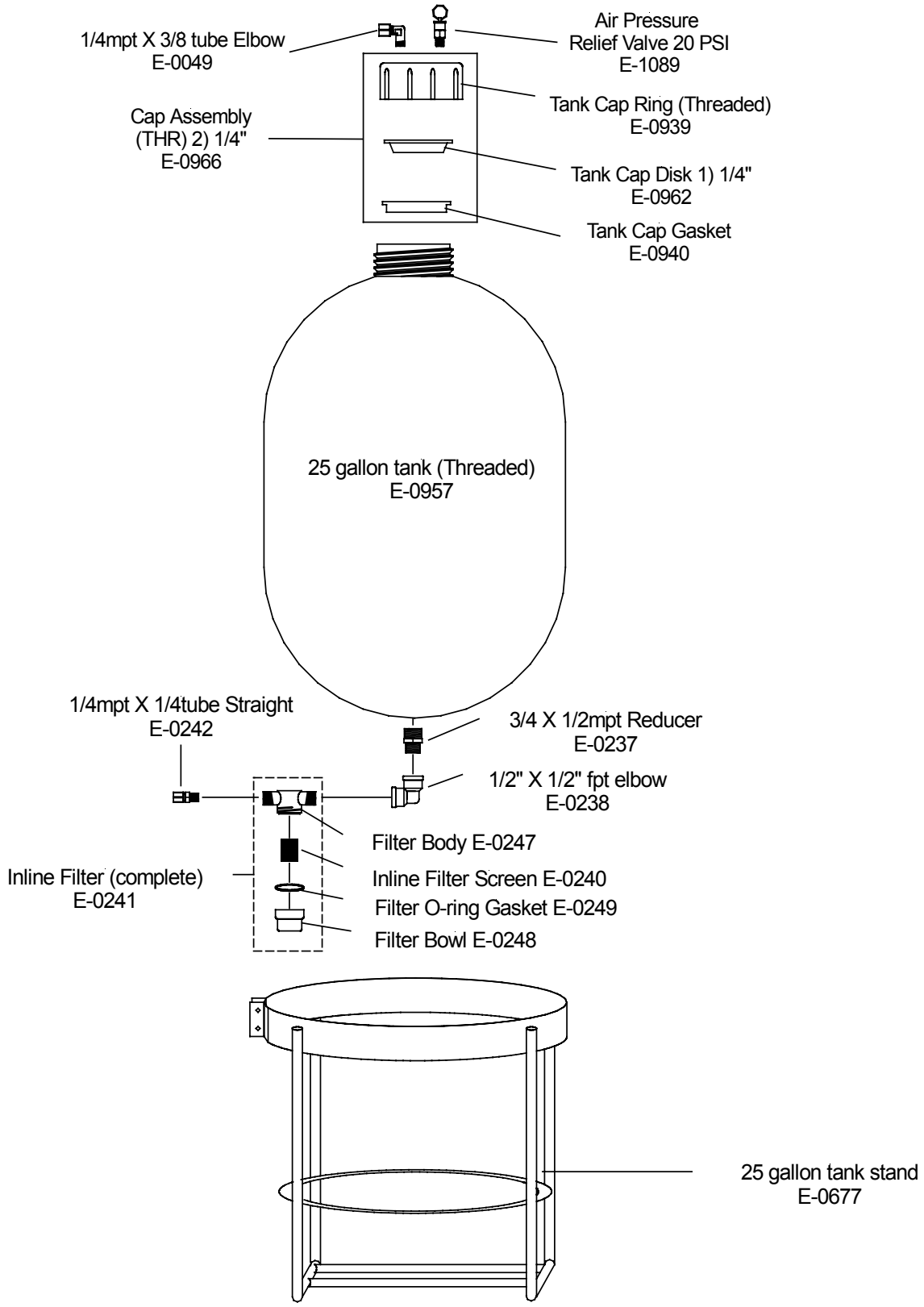
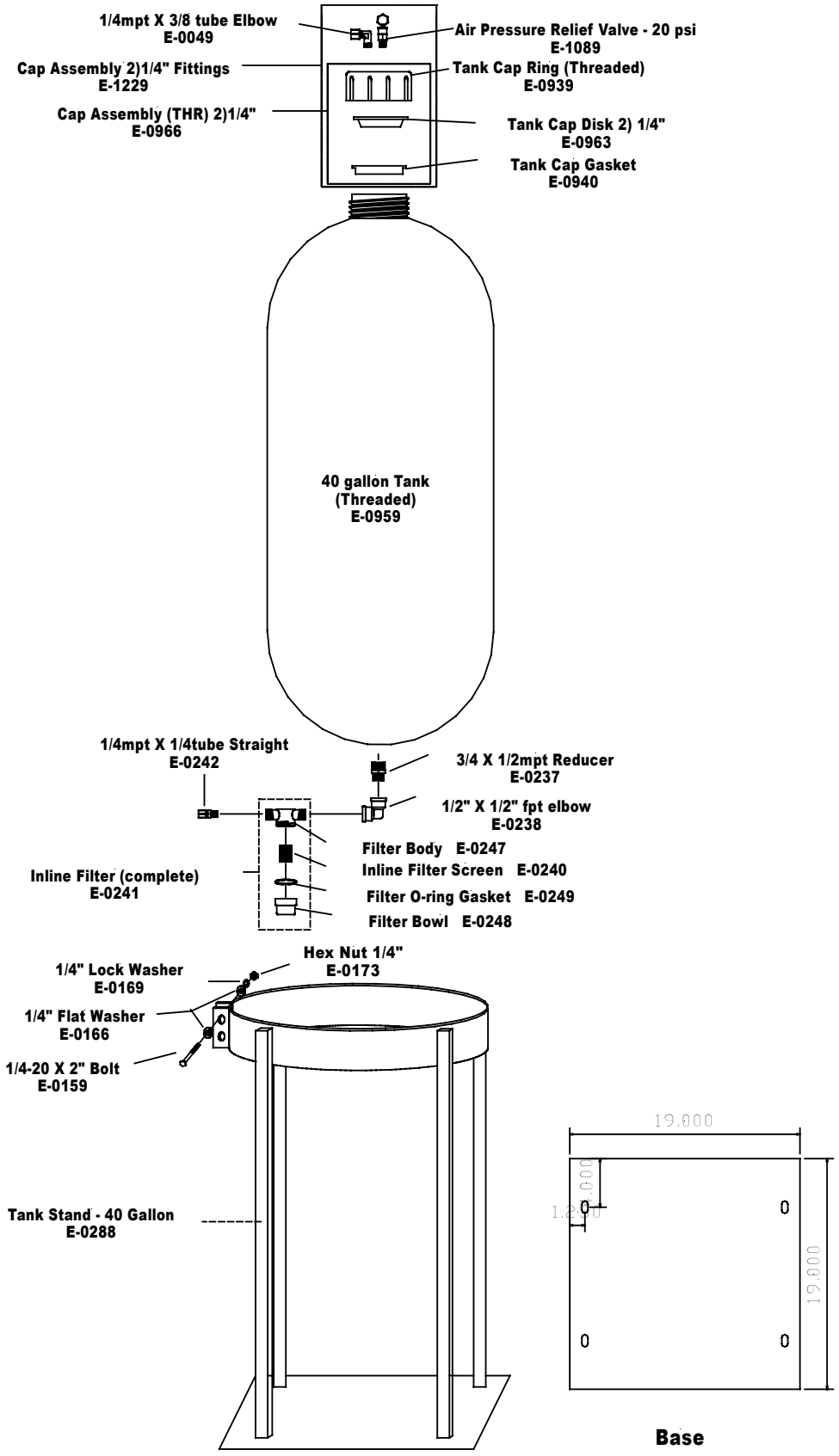


FIGURE 20 - BOOM TRACKER Tank 25 Gallon



40 Gallon Tank Assembly- All Components Above Except Cap Assembly
E-0960

FIGURE 21 - BOOM TRACKER Tank 40 Gallon

APPENDIX 2

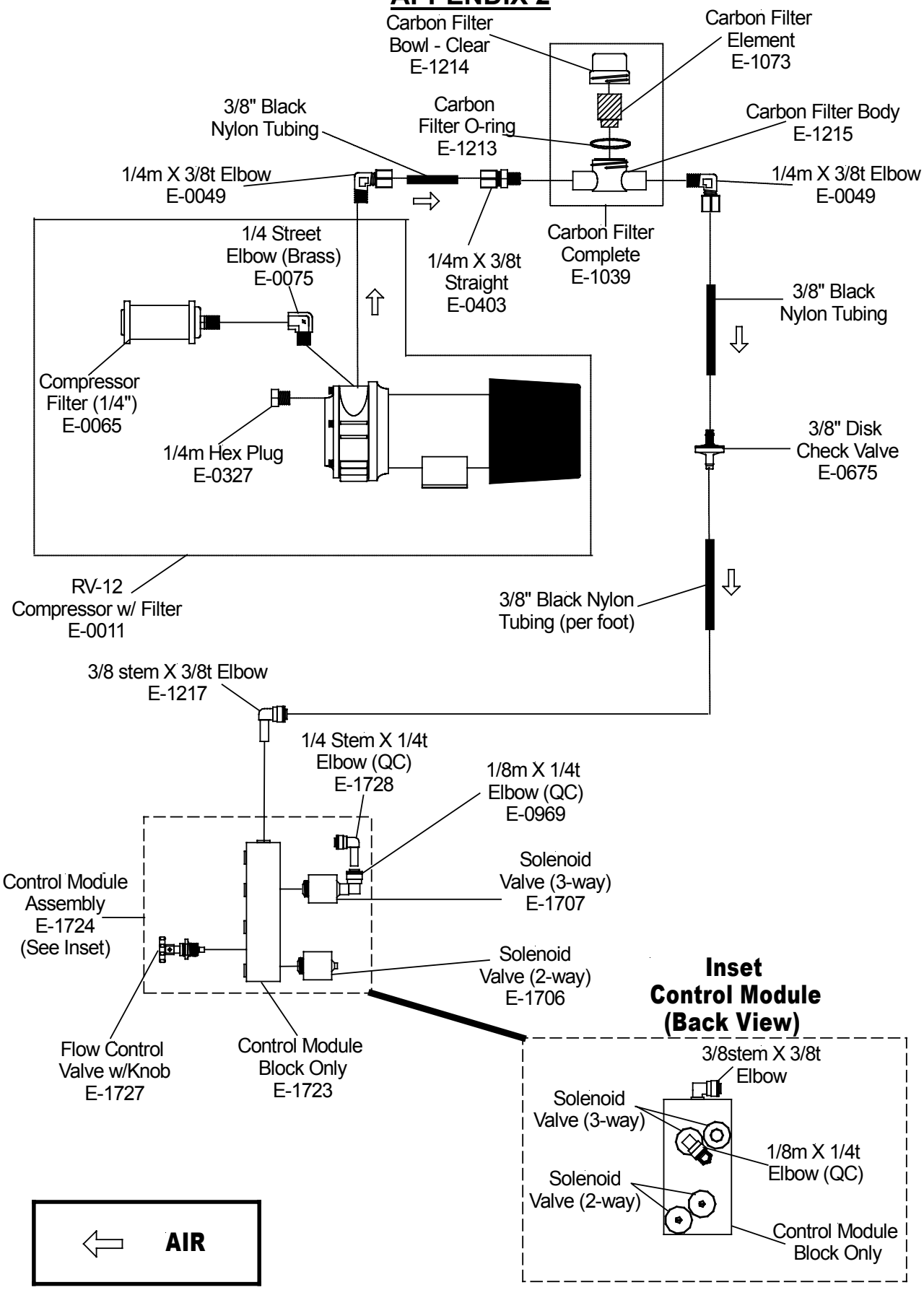


FIGURE 22 - BTR Power Unit Liquid Flow Circuit

APPENDIX 3

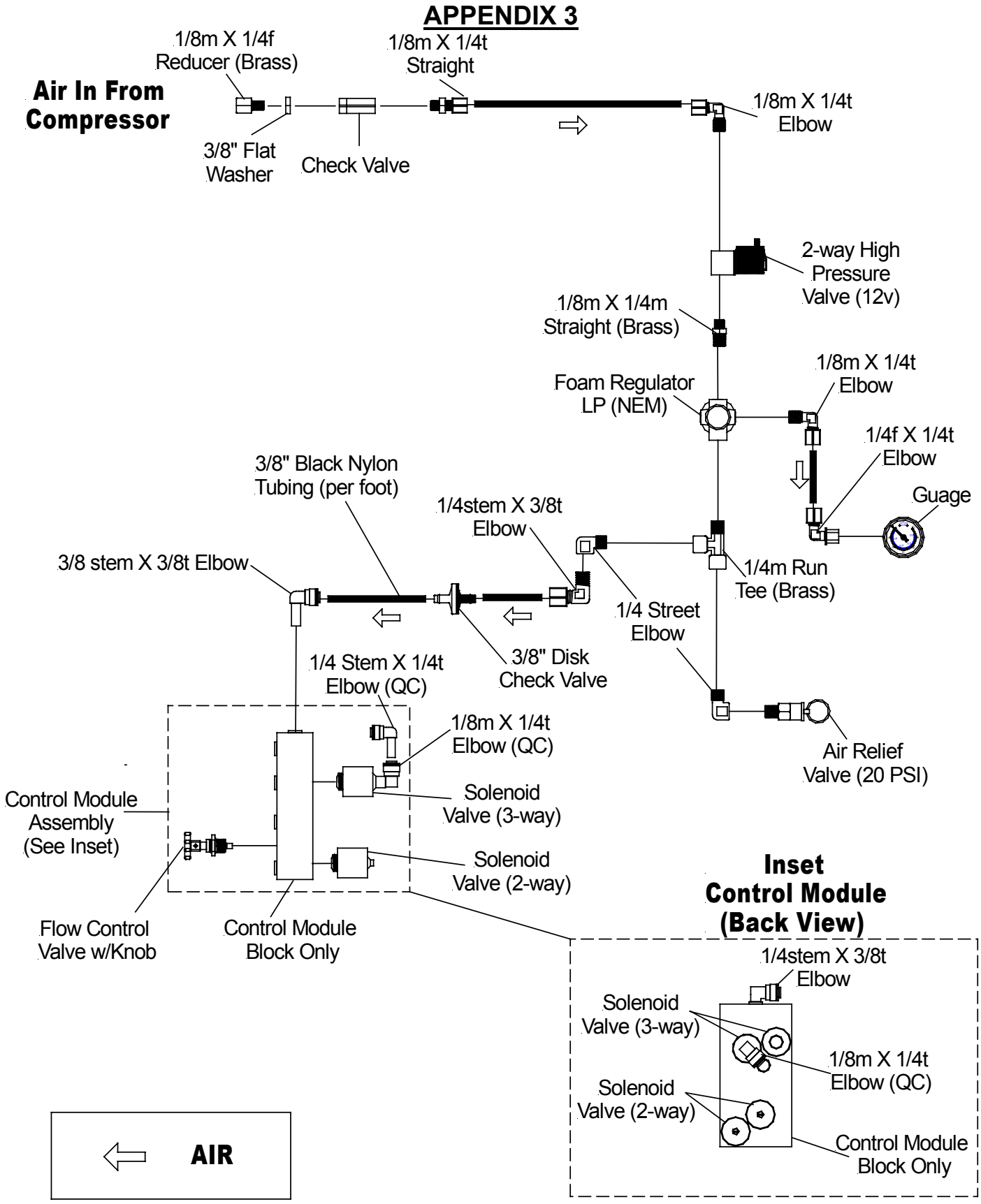


FIGURE 23 - BTN Power Unit Air Flow Circuit

APPENDIX 4

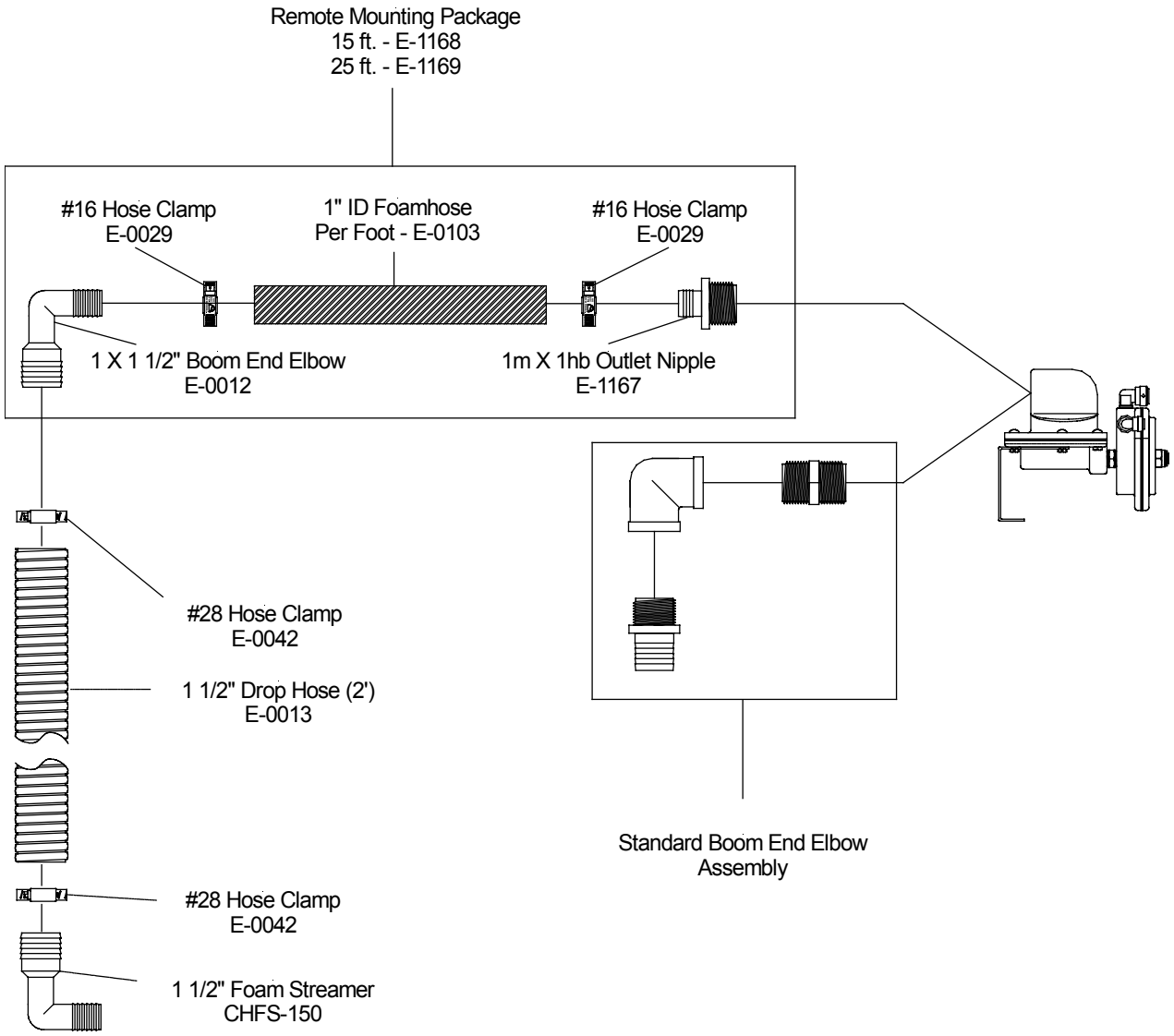
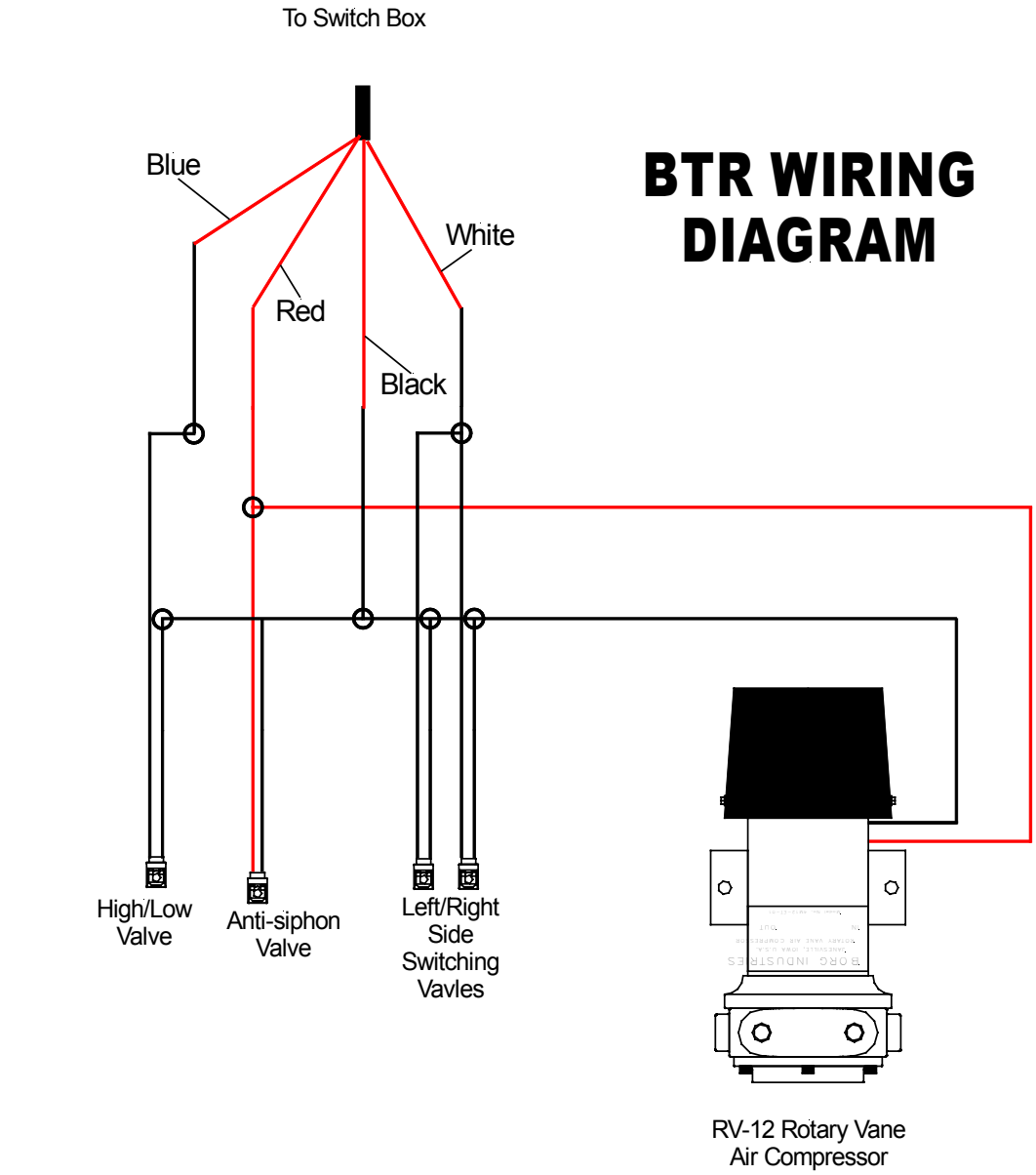


FIGURE 24 – BTR and BTN Remote Foamhead Mounting

APPENDIX 5



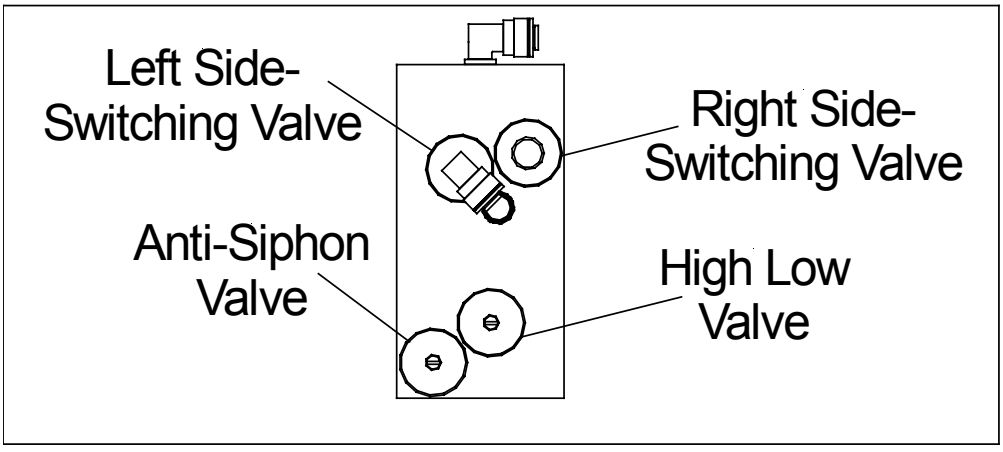


FIGURE 25 - BTR Wiring Schematic

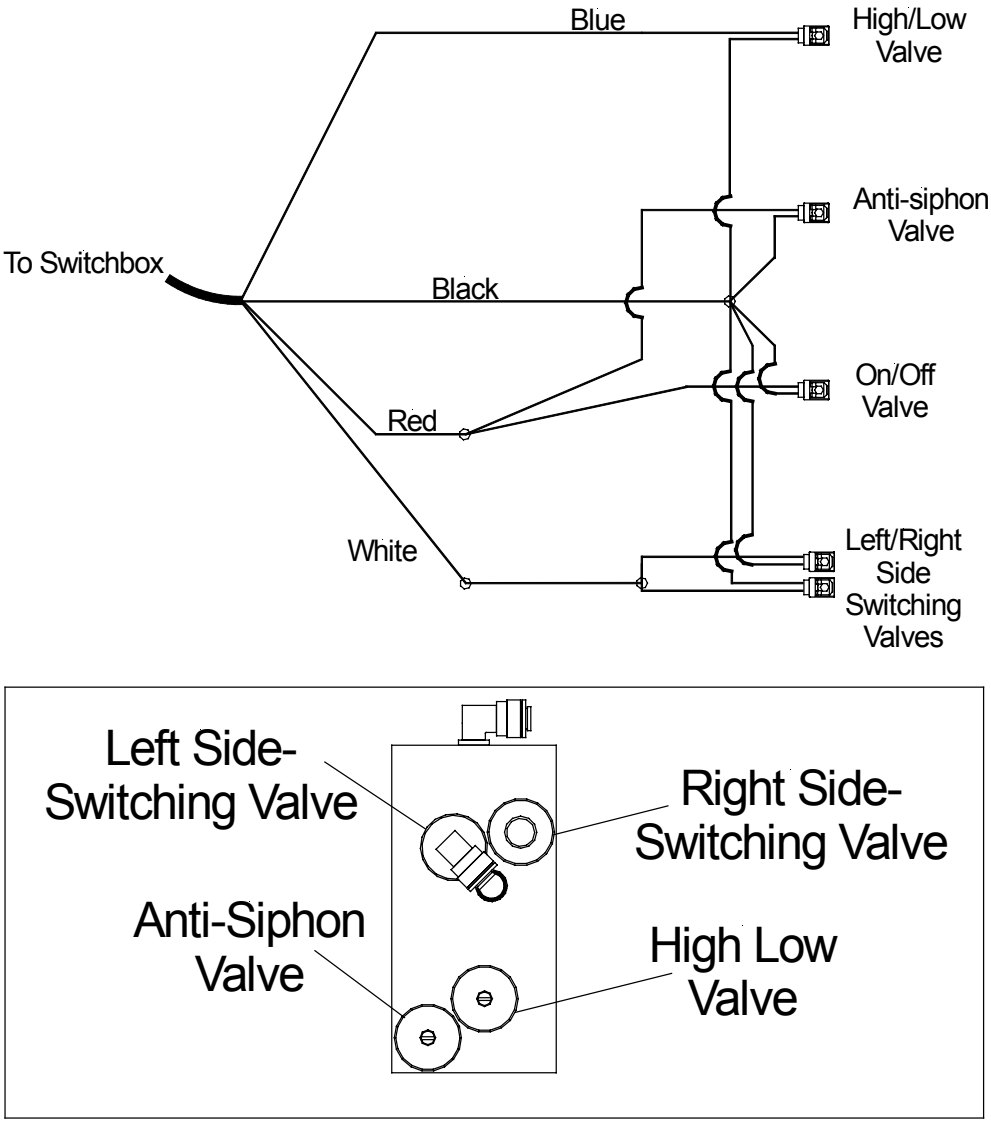


FIGURE 26 - BTN Wiring Schematic

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. Reimbursements of shipping charges are not included.

This warranty does not apply to parts or products not manufactured by Richway Industries, Ltd. The warranty of such items is 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, and 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.

RICHWAY INDUSTRIES, LTD.
PO BOX 508, 504 NORTH MAPLE STREET
JANESVILLE, IOWA 50647 (USA)
TOLL FREE 800-553-2404, USA & CANADA
TELEPHONE 319-987-2976
FAX 319-987-2251
www.richwayind.com
EMAIL info@richwayind.com

Document BTR&N-0103.DOC