

Bendix® Trailer System-Guard™ Air Dryer

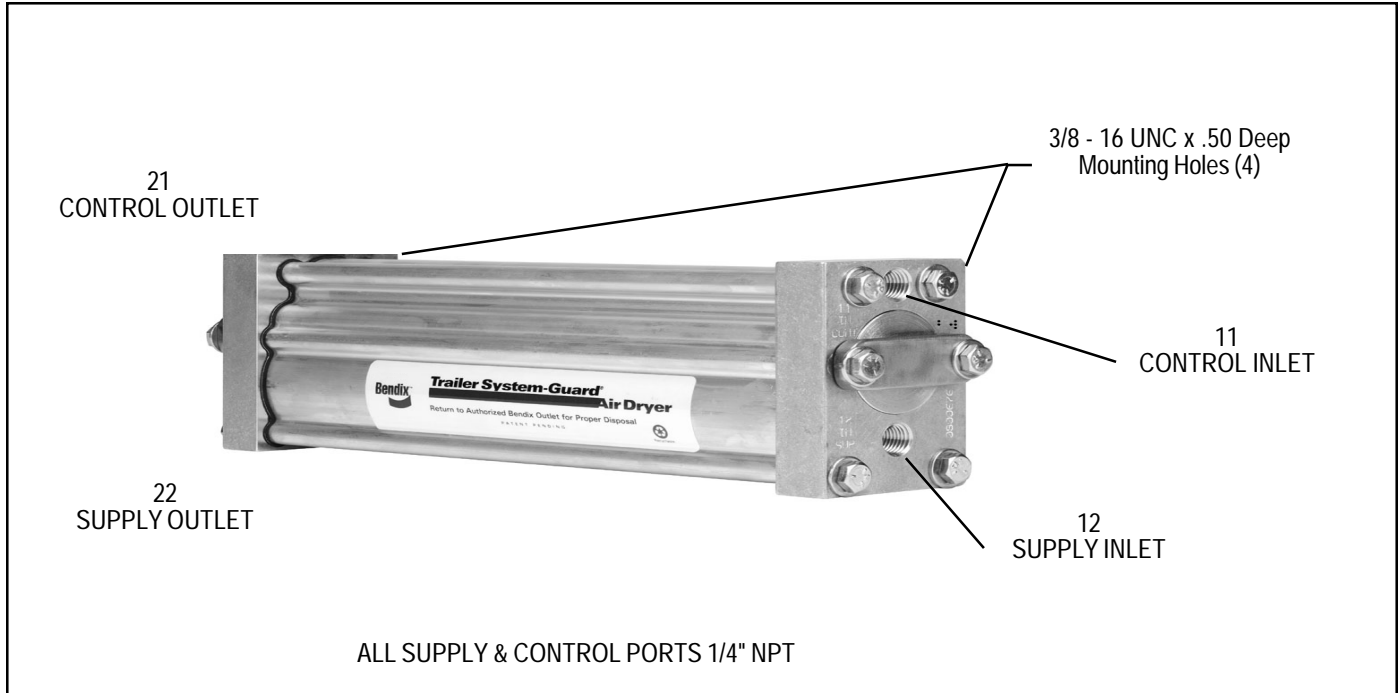


FIGURE 1 - TRAILER SYSTEM-GUARD™ AIR DRYER

DESCRIPTION

The Bendix® Trailer System-Guard™ air dryer removes moisture and contaminants from the trailer air system. It is not intended to take the place of a dryer normally located on the power unit. It acts as a buffer to remove moisture during wet times and gives up water vapor during dry times. It protects the trailer air brake system when, for short periods of time, the trailer is pulled by vehicles without an air dryer or during times when the trailer is disconnected from the tractor.

The Trailer System-Guard™ air dryer consists of two desiccant air dryers mounted in a single housing, one to protect the trailer service system and the other to protect the trailer supply system.

PREVENTIVE MAINTENANCE

Every 300 operating hours, 8,000 miles, or one (1) month:

1. Visually inspect for physical damage or wear to the Trailer System-Guard™ air dryer. This can include, but is not limited to, chaffed or broken air hoses and or broken or missing parts.

2. Check mounting bolts for tightness. If loose re-torque per "Mounting the Trailer System-Guard™ Air Dryer".

Every 900 operating hours or 25,000 miles or every three (3) months:

Check for moisture in the air brake system by opening reservoirs, drain cocks, or valves and checking for the presence of water. If moisture is present the tractor and trailer should be checked for leaks. If leakage is not excessive check the tractor air dryer for proper operation. If defective, the tractor dryer should be repaired, rechecking trailer reservoirs again after 3 months. If the tractor dryer operates satisfactorily and the trailer has not been connected to a tractor without an air dryer and the trailer glad hands were not open to the atmosphere for some extended period of time, the trailer dryer should be replaced.

If the trailer has been connected to a tractor without an air dryer or the trailer has been parked for an extended period of time, the trailer should be coupled to a tractor with an air dryer. This will help the trailer air dryer remove moisture from the trailer. Place the unit back in service and recheck for moisture after 3 months.

WARNING! PLEASE READ AND FOLLOW THESE INSTRUCTIONS TO AVOID PERSONAL INJURY OR DEATH:

When working on or around a vehicle, the following general precautions should be observed at all times.

1. Park the vehicle on a level surface, apply the parking brakes, and always block the wheels. Always wear safety glasses.
2. Stop the engine and remove ignition key when working under or around the vehicle. When working in the engine compartment, the engine should be shut off and the ignition key should be removed. Where circumstances require that the engine be in operation, **EXTREME CAUTION** should be used to prevent personal injury resulting from contact with moving, rotating, leaking, heated or electrically charged components.
3. Do not attempt to install, remove, disassemble or assemble a component until you have read and thoroughly understand the recommended procedures. Use only the proper tools and observe all precautions pertaining to use of those tools.
4. If the work is being performed on the vehicle's air brake system, or any auxiliary pressurized air systems, make certain to drain the air pressure from all reservoirs before beginning **ANY** work on the vehicle. If the vehicle is equipped with an AD-IS™ air dryer system or a dryer reservoir module, be sure to drain the purge reservoir.
5. Following the vehicle manufacturer's recommended procedures, deactivate the electrical system in a manner that safely removes all electrical power from the vehicle.
6. Never exceed manufacturer's recommended pressures.
7. Never connect or disconnect a hose or line containing pressure; it may whip. Never remove a component or plug unless you are certain all system pressure has been depleted.
8. Use only genuine Bendix® replacement parts, components and kits. Replacement hardware, tubing, hose, fittings, etc. must be of equivalent size, type and strength as original equipment and be designed specifically for such applications and systems.
9. Components with stripped threads or damaged parts should be replaced rather than repaired. Do not attempt repairs requiring machining or welding unless specifically stated and approved by the vehicle and component manufacturer.
10. Prior to returning the vehicle to service, make certain all components and systems are restored to their proper operating condition.
11. For vehicles with Antilock Traction Control (ATC), the ATC function must be disabled (ATC indicator lamp should be ON) prior to performing any vehicle maintenance where one or more wheels on a drive axle are lifted off the ground and moving.

Note: The Trailer System-Guard™ air dryer is intended to remove moisture and other contaminants normally found in the air brake system. Using alcohol, anti-freeze, oil or other de-icing substances in the brake system can damage the air dryer and will therefore void the Trailer System-Guard™ air dryer warranty.

OPERATION & LEAKAGE TESTS

Build the air system to governor cutout. Shut off the engine. Using a soap solution, check all lines and fittings leading to and from the Trailer System-Guard™ air dryer for leakage and integrity. Repair any excessive leaks - exceeding a 1" bubble in 5 seconds-before restoring vehicle to service.

OPERATION: GENERAL

The trailer dryer works as a buffer, removing moisture during exposure to wet air (trailer hooked to a tractor without an air dryer, or trailer is parked for extended periods with open glad hands) and giving up water vapor when reconnected to a tractor equipped with an air dryer. The Trailer System-Guard™ air dryer depends on dry tractor air to remove water vapor from the desiccant collected during wet times.

TRAILER SYSTEM-GUARD™ AIR DRYER REMOVAL

This removal process is presented for the replacement of the Trailer System-Guard™ air dryer.

1. Identify and disconnect the four air hoses from the Trailer System-Guard™ air dryer.
2. Remove the locknuts, washers and grommets that secure the Trailer System-Guard™ air dryer and remove it from the vehicle.

REPLACING OR RETROFITTING THE TRAILER SYSTEM-GUARD™ AIR DRYER: GENERAL

The following instructions are presented for reference purposes only, since Bendix aftermarket replacement Trailer System-Guard™ air dryers are packaged with the most up-to-date installation instructions. The instructions packaged with the Trailer System-Guard™ air dryers should be followed in lieu of those presented here.

MOUNTING THE TRAILER SYSTEM-GUARD™ AIR DRYER

1. After positioning the Trailer System-Guard™ air dryer according to the location requirements, mark the position of the predrilled mounting holes on the selected location. A template for the mounting pattern is included on page 4. **Note: Only three of the four mounting holes must be used for securing the air dryer to the frame rail.** Securing the air dryer at all four mounting holes can lead to damage and eventual failure of the air dryer. Any three of the four mounting holes can be used for installation. Selection is at the discretion of the installer. If mounting the dryer on a trailer cross member center the template to maximize clearance and facilitate installation. **Note:** Check the vehicle manual before drilling the selected location.

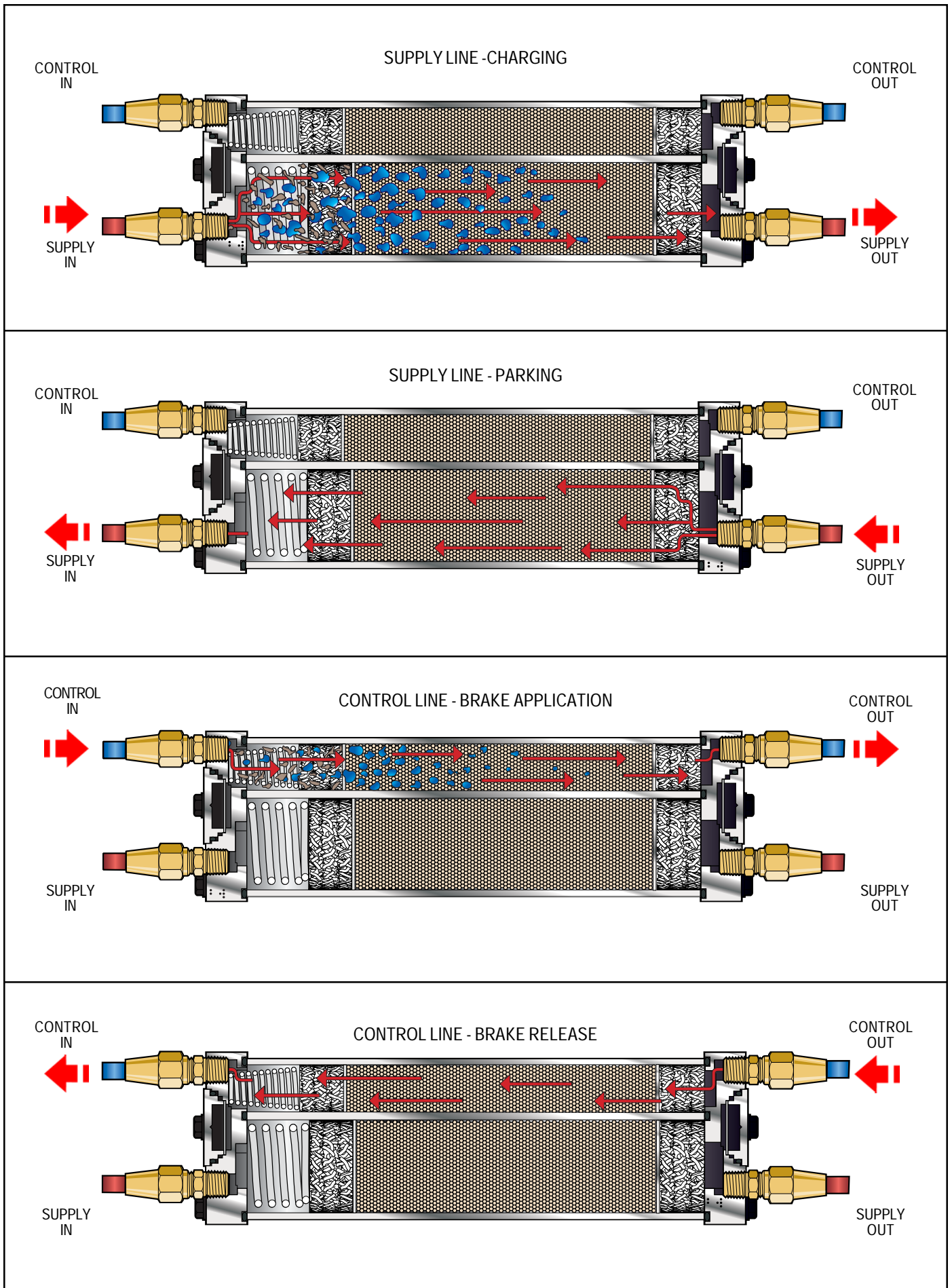
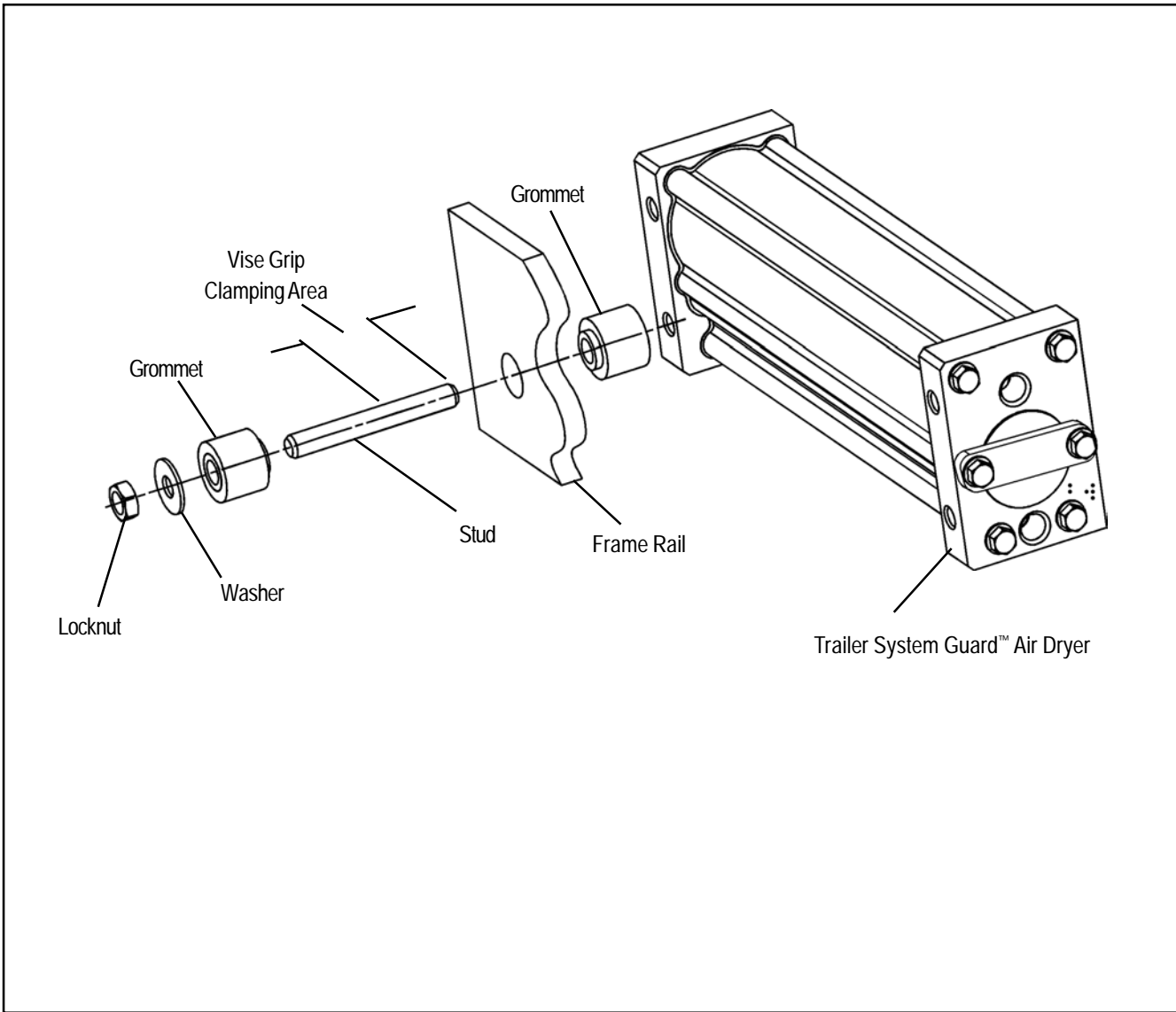


FIGURE 2 - TRAILER SYSTEM-GUARD™ AIR DRYER OPERATION (VIEWED FROM MOUNTING HOLE SIDE)



Template 10.25 inches

FIGURE 3 - TRAILER SYSTEM-GUARD™ AIR DRYER INSTALLATION

2. Drill the **three** marked mounting holes into the frame rail using a 5/8" diameter drill.
3. By hand, install the studs into the three corresponding holes on the air dryer. To tighten attach vise grips to the studs within 1" of the air dryer and turn 1/4 to 1/2 turns. Thread damage on the stud in the area near the air dryer is acceptable. Care should be taken to prevent damage to the last 1-1/2 inches of the stud at the end opposite the air dryer end cover.
4. Place a rubber grommet with the flat side toward the air dryer over each of the installed studs.
5. Align and insert the air dryer mounting studs with grommets into the 3 mounting holes on the vehicle frame rail. The raised portion or shoulder of the grommets must fit into the mounting holes drilled into the frame rail.
6. Install the remaining grommets on each of the mounting studs with the raised portion or shoulder toward the frame rail. Ensure the shoulder fits into the frame rail mounting hole.
7. Using the flat washer and locknut secure the air dryer. Tighten the locknuts using a 9/16" wrench turn until the locknut, washer and outside grommet just make contact (no actual compression of the rubber grommet) then turn two(2) more turns.

CONNECTING THE AIR HOSES

Follow Figure 4 for air hose arrangement.

1. The Trailer System-Guard™ air dryer supply and control line fittings are 1/4"-18 NPT. Cut the supply and control lines and install 1/4 inch fittings.

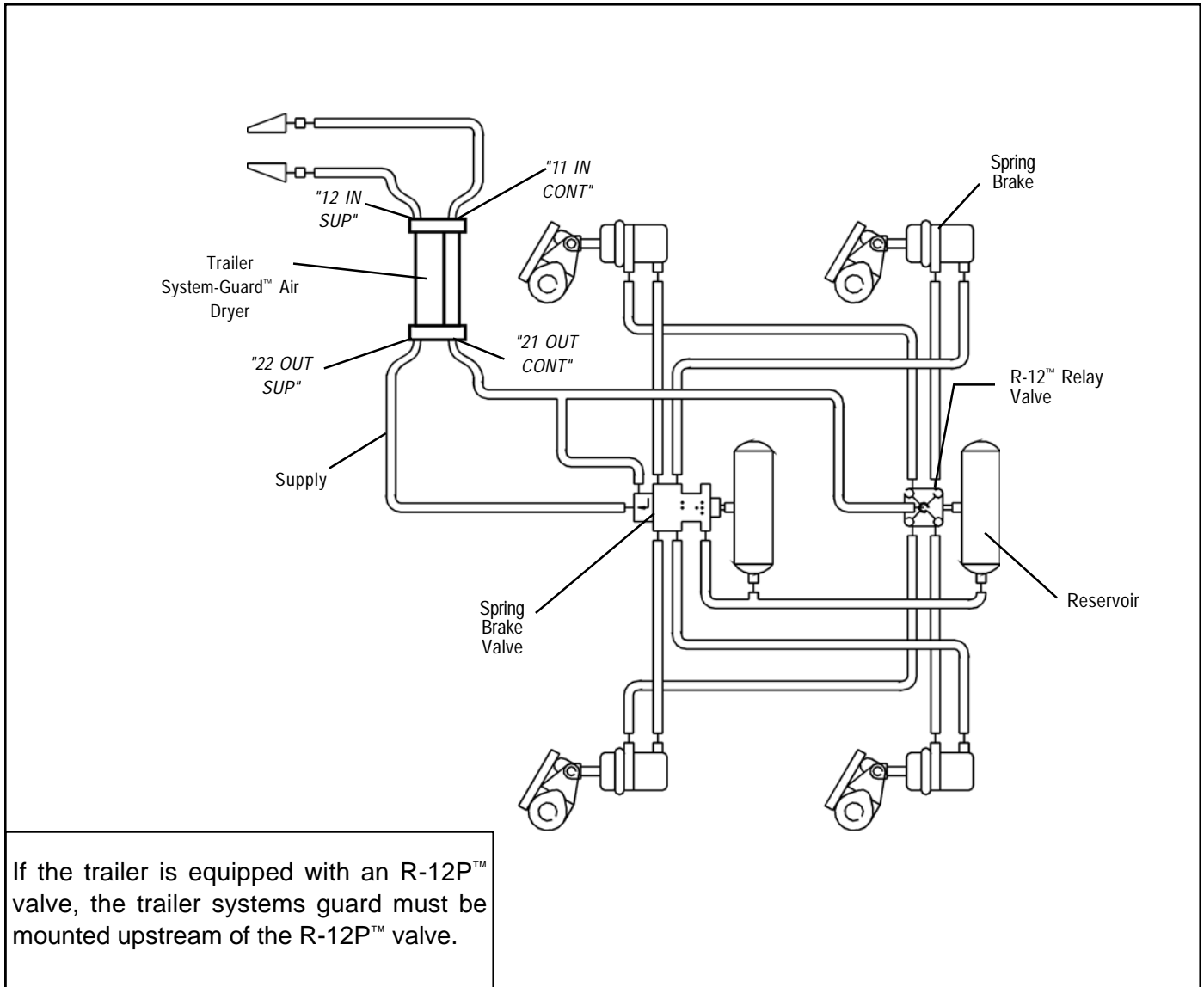


FIGURE 4 -TRAILER SYSTEM-GUARD™ AIR DRYER PLACEMENT

2. Connect the supply and control lines to the Trailer System-Guard™ air dryer making sure to keep the control and supply circuits separate as shown. Do not switch lines end to end. All ports are identified as indicated in figures 1 and 2.
3. Affix the Alcohol Warning Decal to the trailer bulkhead. Before applying the decal remove all oil and road contaminants from the mounting location with a good cleaning solvent.

OPERATIONAL TEST

Build the air system to governor cutout. Shut off the engine. Using a soap solution, check all lines and fittings leading to and from the Trailer System-Guard™ air dryer for leakage and integrity. Repair any excessive leaks - exceeding a 1" bubble in 5 seconds - before restoring vehicle to service.

TEMPLATE INCLUDED - DO NOT REDUCE THIS DOCUMENT

