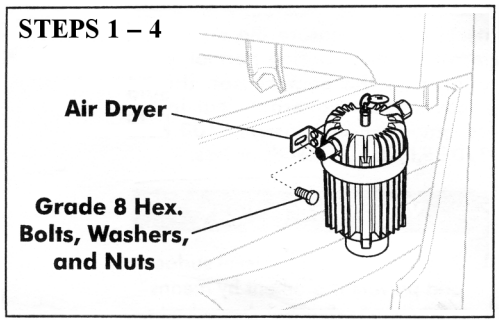
Complete Installation Instructions and Repair Parts List

The Stark Air Dryer Coalescer helps prevent brake line freeze-ups, clogging, deterioration and corrosion of air-operated components in vehicle compressed air systems. This Air Dryer Coalescer offers three-part protection in filtering, coalescing and cooling of a vehicle's compressed air. EXPELLO AIR PRODUCTS recommends the use of an Expello Drain Valve on vehicle Wet Tanks to assure complete system protection. Please follow these Installation Instructions for the most effective system.

Locating the Stark Air Dryer Coalescer on the Vehicle

- For the best results the air dryer should be mounted in a location that permits free circulation of air for air dryer cooling efficiency. Keep the air dryer away from heat sources such as mufflers, exhaust stacks, engine, transmission, etc. The unit **must** be mounted vertically.
- Eight inches (8") is required directly below the air dryer to allow for servicing of the unit without removing it from the vehicle. (Filter/Coalescer Kit 995242).
- Every 5 minutes for 1 second the air dryer purges contaminants and sludge out the bottom of the unit. This will cause the area under the air dryer to be coated with oil and water. Please consider this when selecting your location.
- Locate the air dryer between the compressor and the Wet Tank and as close to the wet tank as possible. A minimum of ten feet (10') of metal discharge line is required between the compressor and the air dryer especially on turbo charged air compressors. This discharge line should be sloped toward the air dryer whenever possible to avoid water traps in the system that will freeze. The maximum inlet temperature to the air dryer is 185° F.
- The air dryer must be kept clean. In the event it is covered with mud or debris, the air dryer can be steam cleaned or power washed. Consider this when selecting a location. **DO NOT** paint the air dryer.

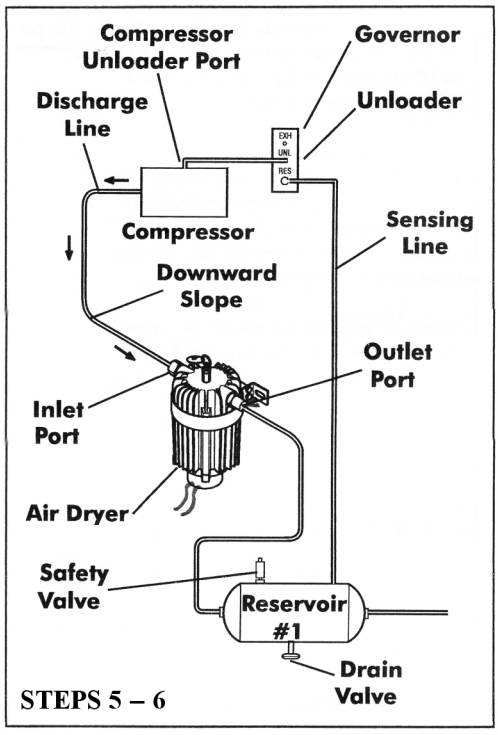


Mounting the Stark Air Dryer Coalescer

1. Park the vehicle on a level surface and use wheel chocks to prevent the vehicle from rolling.
2. Drain the system air pressure to zero PSI. It is recommended to purge and drain all air reservoirs at this time to assure all contaminants air removed.
3. Typical mounting requires the drilling of .406 diameter holes through the frame rail.
4. Use at least two (2) ⅜" hex bolts, plain washers and nuts to fasten the air dryer to the frame rail using the bracket. Fasteners are not included and must be **grade 8** or better. **Torque to 25 ft./lbs.**

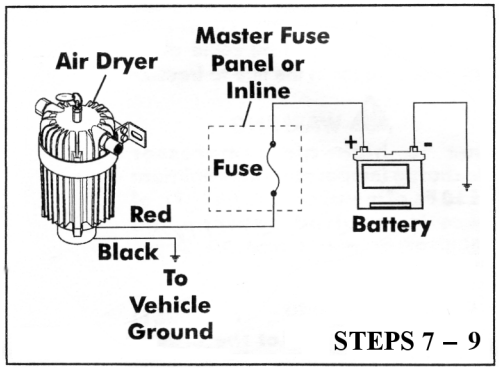
Connecting the air lines to the Stark Air Dryer Coalescer

5. The discharge line should slope down from the compressor discharge port to the air dryer inlet or "IN" port. Do not allow loops or depressions where water can accumulate and freeze. Connect the discharge line to the air dryer "IN" port which is a ½" NPT female adapter.
6. Connect an air line of the same size as the discharge line to the "OUT" port of the air dryer. This port contains the Check Valve and it also is a ½" NPT female connection. This discharge line should also slope downward to the first supply air reservoir (Wet Tank) where it is connected.



Electrical Connections for the Stark Air Dryer Coalescer

7. Connect the Black wire (ground) to the vehicle system ground first. **Do not use the Air Dryer for a ground**. The frame can be used as a ground but be sure to make contact with the bare frame. Insulate all exposed connections.
8. Connect the Red wire (power) to the master fuse panel. The "run" side of the ignition "on" switch is recommended. A 10-amp fuse is required either in - line or at the master fuse panel connection. Insulate all exposed connections.
9. Use 14 GA wire if it is necessary to extend the wire. Make certain all splices are waterproof.



Installation Instructions and Repair Parts List (continued)

Operational Checks

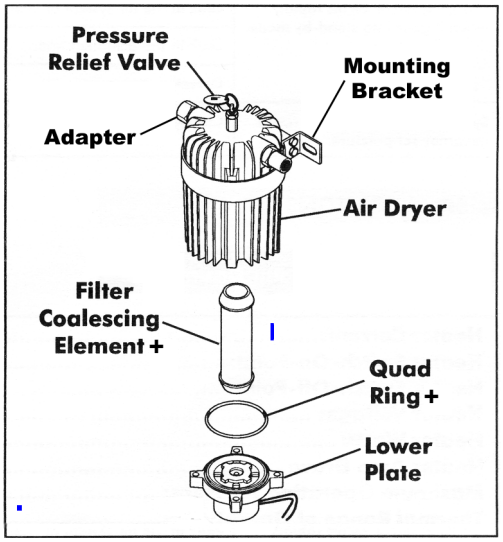
1. Close all air tank valves and assure all air lines are securely connected.
2. Start the engine to build system air pressure to compressor "cut out", typically 120 PSI.
3. When power is applied to the wires of the Stark Air Dryer Coalescer the air dryer will purge a distinct one - second blast of air. The air dryer will continue to purge these one - second blasts every five minutes as long as power is applied and system pressure is maintained.
4. Once system pressure is achieved, turn the engine "off" and inspect the air system for leaks by listening for air leaks or spaying a soapy solution on air connections to detect bubbles. An air tight system will assure the compressor does not cycle excessively extending compressor life.
5. If the temperature is below 45° F the Heater in the base of the Air Dryer will make the valve area warm to the touch. The power must be "on" for the heater to work. An ohmmeter will indicate a closed circuit if the Heater is in the "ON" mode. Once the Heater reaches 105° F the heater turns "off" and the ohmmeter will read an open circuit. The Heater will automatically turn back "ON" again once the Air Dryer is placed in temperatures below 45° F. Most Heaters are in the "ON" position when delivered from the factory.

TROUBLESHOOTING GUIDE

Problem	Probable Cause	Solution
Stark Air Dryer Coalescer does not operate (purge).	No system pressure established	Check all air line connections to be sure they match the diagram.
Follow steps 1 - 4 from above to assure system pressure is established	Stark Air Dryer Coalescer may have ice build up in the purge area not allowing air to pass through	Make sure the lead wires have the correct power and give the heater time to thaw the unit. The valve should be warm to touch 60 seconds after start-up.
Stark Air Dryer Coalescer leaks air out the exhaust (EXH) port **or** has faulty ejections	Valve internals may have a piece of debris or an ice chip stuck on the valve seat	Allow the air dryer to purge a few times to blowout the debris or melt the ice. You can easily make the valve purge several times by slowly applying and removing power repeatedly. The valve will purge immediately when power is applied each time. If leaking persists, the seat may be worn and a new Lower Plate Assembly may be required. (See Repair Parts)
Stark Air Dryer Coalescer leaks air at other locations other than the exhaust (EXH) port like the "Whistle Stop" Indicator	O-Rings may be deteriorated and old or may have become unseated due to over pressurization; Clogged Filter/Element	Rebuild the Air Dryer with Rebuild Kit 995242 or other kits. See Repair Parts List Below. "Whistle Stop" indicator will chatter if filter/element is clogged. Replace with kit 995242.
The compressor runs continuously or cycles rapidly	Defective Governor or Compressor Unload Valve	Repair or replace Governor or Compressor.
	Leak in air system (most likely the Sensing Line) or faulty Air Dryer Check Valve	Repair leaks or replace check valve. (995257)

AIR DRYERS AND REPAIR/REBUILD KITS

Part Number	Description - Air Dryers and Repair Parts
995018	Electronic Air Dryer Coalescer, 24 Volt Heated
995019	Electronic Air Dryer Coalescer, 12 Volt Heated
995364	Lower Plate Assembly, 12 Volt Heated
995365	Lower Plate Assembly, 24 Volt Heated
+ 995242	Filter/Coalescer Element Kit (includes O-ring)
995250	Adapter, ⅞-14 to ½" NPT Female – "IN" port
995253	Pressure Relief Valve, ¼" NPT
995259	Mounting Bracket Assembly



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