



A9 Pressure Regulator CDS Conversion Kits

Installation Instructions
SD-420/122025

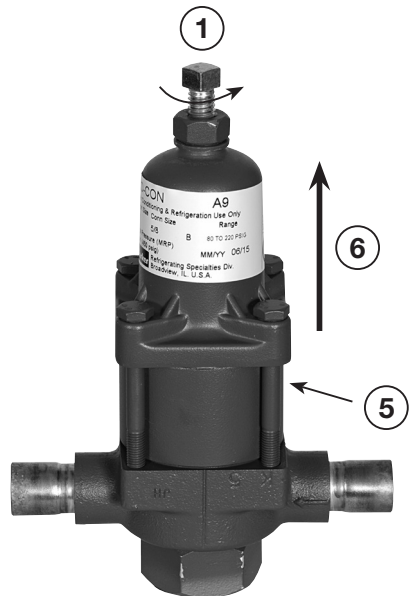


The **A9 to CDS Conversion Kit** is a unique aftermarket solution to convert an existing A9 outlet pressure regulator into a modulating, stepper motor driven CDS valve. By utilizing the existing A9 body, there is no brazing required to complete the conversion, saving considerable time and expense. The conversion kit reduces the seal surface area of the installed valve, making this an ideal upgrade opportunity versus a valve or seal rebuild, or even as a full store scheduled retrofit. Once the retrofit is complete, you will find that the solution pays for itself through improvements in system performance, and through future serviceability and diagnostic capabilities.

For optimal performance, make sure to pair your CDS conversion kit with a Sporlan Pressure Control.

A9 DISASSEMBLY

1. Back out the adjustment stem on top of the bonnet on the existing valve until it can be loosened by hand.
2. The hot gas bypass line to be modified should be pumped down, isolated and residual refrigerant reclaimed.
3. All power should be removed from any solenoid operator on the valves.
4. The coils and all wiring should be removed at the relays or other connections in the control panel. Any vacant knockout holes should be plugged per electrical code.
5. The A9 bolts should be loosened and the seals broken carefully in case of any residual pressure. Once the seals have been broken completely, loosen and remove the bolts.
6. Remove the existing Bonnet, Diaphragm, Adaptor and all associated seals from the existing A9 body.



7. Remove the piston disc from the A9 body using a magnet to pull the part from the body.
8. Do NOT remove the plug or bottom cap from the A9 body.
9. Inspect the gasket seating surface. If necessary clean with a lightly oiled rag to assure that it is clean and flat. (Before cleaning surface put a dry rag into the valve body to eliminate



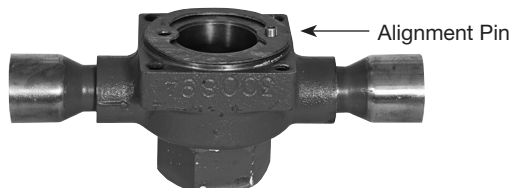
CDS KIT INSTALLATION

any contaminants from getting into the valve.)

1. Lightly lubricate the new gasket seal with refrigeration oil.

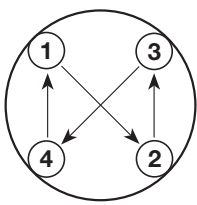


2. Place the new gasket on the sealing surface of the existing body making sure to line up the hole in the gasket with the alignment pin protruding from the sealing surface.





3. Install the CDS adaptor onto the existing body, making sure to align the key hole in the adaptor with the alignment pin protruding from the sealing surface.
4. Install the new bolts supplied with the adaptor. Tighten in a star cross pattern to 10-foot pounds of torque.



WIRING THE CDS VALVE

1. Route the kit cables to the appropriate control panel and connect to the control board used.
NOTE: To prevent cable damage, grommets or strain reliefs should be used whenever the cable passes through the panel or any metal bulkhead. The cable should be supported in the proper manner and care should be taken that routing avoids hot piping or sharp edges.

- Connect the four wires leads on the CDS motor kit to the appropriate terminals on the control board. Consult with the controller manufacturer for the correct wiring sequence.

NOTE: For correct valve operation with the supplied M12 cable, the white and black wire need to be switched at the controller terminals. If that is not done, the valve will operate in the opposite direction of the controller command.



Wiring Sequence	
Cable	Controller
Black	Black
White	White
Red	Red
Green	Green



M12 Wiring Sequence	
Cable	Controller
Black	White
White	Black
Red	Red
Green	Green

- The CDS Conversion Kit installation is now complete. Follow the procedures for setting up your valve controller to complete the system upgrade. (A pressure transducer can be installed using the pressure tap on the conversion kit. See photo below.)



⚠ WARNING – USER RESPONSIBILITY

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FOR USE ON REFRIGERATION and/or AIR CONDITIONING SYSTEMS ONLY

