

SUPER SEAL ACR™

Super Seal is a light or low viscosity particle free liquid that travels with the oil and refrigerant throughout the system. When a leak is detected Super Seal forms a low tensile crystalline structure, at point of leakage, when activated by moisture from the surrounding air.

Professional Formula - For Small Systems 230 btuh/.067 KW up to 18,000 btuh/5.3 KW

For professional use only: Always wear safety glasses and protective gloves

Do not use on mobile systems, ask for Super Seal Premium™ or Super Seal Pro™

Use in compliance with the Montreal Protocol and Regional or Federal laws for the handling of refrigerant.

Important before proceeding:

You should not be losing more than 14% of the entire refrigerant charge over a 4 week period to have maximum results with Super Seal. Sealant should only be injected into a refrigeration system that is moisture and contaminate free, as this could cause premature compressor failure. It is highly recommended to use Cliquight DRY R™ to remove moisture prior to installation of Sealant and proceed as follows:

Before installing Super Seal ACR™ check the overall condition of the unit. The system should be operating within its approximate normal pressure/ temperature conditions. Check the compressor by taking a temperature reading at its base. Readings above 130°F/ 54°C or compressor discharge temperatures above 225 F (107.2 C) may indicate a line restriction or low oil/refrigerant charge. Measure temperature at inlet and outlet of liquid line drier; a temperature differential of 2 degree or greater indicates drier replacement is necessary. Failure to replace a contaminated or plugged filter drier may result in compressor failure. Where there is the possibility of refrigerant contamination an acid/moisture test should be performed and followed up with recommended clean up procedure. If the system has to be evacuated it is advisable to change both liquid and suction line driers and obtain a minimum of 350 microns or less to eliminate moisture and non-condensable. Charge to factory required levels.

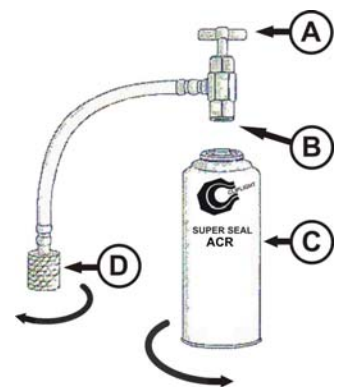
INSTRUCTIONS A:

clock wise = cw and counter clockwise = ccw.

Install into a fully charged system.

Instructions A can be used when static pressure of 410A system is 300 psig or lower. The term static pressure refers to the equalized system pressure when the unit is off.

1. Turn off A/C or R unit and allow enough time for refrigerant to equalize in system.
2. Confirm that can tapper piercing pin (B) is fully retracted below seating washer. Turn valve handle (A) ccw
3. Thread Super Seal ACR™ can (C) onto can-tapper (B) by turning cw Be careful not to cross thread or over tighten.
4. Thread female fitting (D) onto vacuum pump and draw vacuum for approximately 1 minute to eliminate air in tap hose. (Where Regional and Federal laws permit you may use systems refrigerant to purge hose.)
5. Remove female fitting (D) from vacuum pump while it is running to maintain vacuum in tap hose. After disconnecting shut down vacuum pump.
6. Thread female fitting (D) onto low side service port immediately after removing from vacuum pump.
7. Turn can-tapper piercing handle (A) cw until it stops. This action pierces the can.
8. Hold can upside down and above the low side service port. Turn handle (A) ccw slowly allowing the systems refrigerant to fully charge can. The can will become warm once the refrigerant mixes with its contents. Systems which contain smaller amounts of refrigerant will produce less than noticeable heat. Allow the can to dissipate the additional heat of charging which should take between 2 to 5 minutes depending on systems charge and ambient air conditions. When the can's temperature has equalized with ambient air conditions then proceed with next step. Be sure to check that all connections from can to unit are secure and that there is no leakage occurring.
9. Turn handle cw (A) until it stops isolating charged can from A/C or R unit.
10. While holding the can upside down, turn on A/C or R unit. Slowly turn handle (A) ccw gradually releasing sealant into the system. This should take approximately 2 to 3 minutes. Releasing sealant too quickly could result in liquid slugging. Shake can gently to determine when empty. If all of the contents in can are not emptied after 5 minutes, turn can-tapper piercing handle (A) cw until it stops. Turn off A/C or R unit and repeat steps 8, 9 and 10 as many times as necessary to empty contents of can. This should dislodge any particles that may have entered the can from the refrigerant system. If this fails remove hose from low side service port, while A/C or R unit is on, and attach hose to refrigerant canister and charge can. Close valve cw and reattach can to low side of the A/C or R system. Proceed to step #6.
11. Once can is empty remove female fitting (D) from low side service port, then shut down A/C or R unit. Allow system's pressure to equalize. The A/C or R unit should be left off for approx. 5 minutes. This procedure allows product to mix with systems oil and when the unit is restarted will allow for equal distribution throughout system.
12. Reclaim residual refrigerant from can and hose using a recovery machine. Always purge recovery machine with dry nitrogen after reclaiming refrigerant from can and hose. When finished reclaiming refrigerant, dispose of can and hose.



Important before proceeding to use Super Seal ACR with R410a systems:

Instructions A can be used when static pressure of 410A system is 300 psig or lower. The term static pressure refers to the equalized system pressure when the unit is off.

The maximum allowable working pressure of the Super Seal can is 400 psig. Because of the higher-pressure characteristics of R 410a it is possible to exceed the can rating which could possibly lead to an accidental release of the product. The can has been fitted with a special safety relief valve, which will vent between 420 and 480 psig to prevent this from occurring. This is seen as an indent-curved arch on the bottom center of the can. If refrigerant needs to be recovered it is highly recommend changing out the suction and liquid line driers. An evacuation of 350 microns or less should then be carried out. After this has been accomplished, proceed with the following steps.

INSTRUCTIONS B:

clock wise = cw and counter clockwise = ccw.

1. Confirm that can taper piercing pin (B) is fully retracted below searing washer. Turn valve handle ccw
2. Thread Super Seal can (C) onto can-tapper by turning cw. Be careful not to cross thread or over tighten.
3. Thread female fitting (D) onto vacuum pump and draw vacuum for approximately 1 minute to eliminate air in tap hose.
4. Remove female fitting (D) from vacuum while it is running to maintain vacuum in tap hose.
5. Thread female fitting (D) onto low side service port immediately after removing from vacuum pump.
6. With can and hose assembly attached to low side service port, perform a second evacuation from the high side service port. Run the vacuum pump until you obtain 350 microns or less. Close your isolation valve on your vacuum pump and watch for any increases. If the pressure increases to 600 microns in less then one minute proceed to draw vacuum again down to 350 microns or less then continue on to next step. (Do not wait for increase of pressure) Isolate gauges and vacuum pump from system using shut off valves. Do not disconnect.
7. Hold can upside down and above the low side port. Turn can- taper piercing handle (A) cw until it stops. This action pierces the can.
8. Then turn handle ccw allowing product to flow from can to the unit.
9. Once can is emptied remove can and hose assembly from low-side charging port.
10. Proceed to carry out a third evacuation on the high side to remove any non-condensable, which may have entered the system during the installation of the sealant. This should only take between 3 to 5 minutes.
11. Recharge unit to manufactures specifications. Remove gauges after manufactures or original existing charge has been completed.
12. Turn unit on and perform system check to confirm that the unit is operating in peak performance using condenser and evaporator delta temperatures as a guideline. Allow the system to run for approximately 5 minutes and then shut down. A dwell period of another 5 minutes should allow for pressure equalization and excess sealant to migrate back to compressor oil sump. This operation is to allow for equal distribution of the sealant throughout the refrigeration system once it has been restarted.
13. The unit can now be started and follow its normal cycle of operation.

TAPPING VALVE AND HOSE NOT TO BE REUSED.

NOTE: One 1oz/28ml can of Super Seal ACR™ should only be used on units which contain a minimum refrigerant amount of 1.9 oz. /53.9 g. and up to 41b/1.82 kg. and contain a minimum 10oz/296ml of oil capacity in compressor sump. Super Seal ACR™ is to be used only on the low-pressure side of A/C or R unit.

Can and hose must not be subject to pressures that exceed 300psi/20.7bar working pressure.

Eye Contact: Remove contact lenses and immediately flush eyes with water and continue washing for several minutes. Obtain medical attention.

Skin Contact: Remove contaminated clothing. Wash with soap and water. If irritation persists or if contact has been prolonged, obtain medical attention.

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Super Seal training manual is available in a PDF file at www.cliplight.com/hvacr/