

SIMPLIFIES R-22 A/C RETROFITS BY IMPROVING OIL RETURN

- ReStart treatment specifically for R-22 retrofits
- Eliminates oil change-out by boosting oil return when using R-407C, R-427A and others
- POE lubricant with Rx-Acid Scavenger® technology addresses acids at retrofit
- Four fluid ounce bottle to be used with the Universal Treatment Injector (4779-0)
- A/C ReStart Connect Inject is a quick, one-time disposable injector for on-site simplicity
- Single dosage treats up to 5 ton A/C systems

Description:

A/C ReStart is a specially formulated treatment when retrofitting an R-22 air conditioning system to an alternative such as R-407C, R-427A or other. A/C ReStart is a POE lubricant based treatment with Acid Scavenger® Technology designed to boost oil return within the system while addressing trace acids when converting to R-410A is not an economic option for the owner.

Some applications do require added consideration and OEM equipment guidance should be sought. A/C ReStart aligns with a handful of published OEM field trials that demonstrate adequate mineral oil return occurs in an HFC retrofit system when a minimum 15% of the compressor oil charge needs to be POE lubricant. This is an important distinction with competitive products that use half or less of the dosage charge used in A/C ReStart. The formula employs Acid Scavenger Technology, since POE lubricant has the ability to disturb oil byproducts that have laid dormant within the R-22 line-set for years. The technology neutralizes any acidic byproducts to best restart the system with the alternative refrigerant for additional service.

Application:

Use A/C ReStart when the decision has been made to retrofit the air conditioner with an R-22 alternative when replacing with R-410A equipment is not economically viable. A/C ReStart is NOT an alternative to Nu-Calgon's Rx11-flush for reinstating the cleanliness of the copper line-sets when replacing the indoor/outdoor units with R-410A options. When using the existing R-22 equipment with R-427A, R-407C (or other) with the existing oil, A/C ReStart aids in oil return for the best outcome for the balance of its service life.

Refrigeration Oil

A/C ReStart™



A/C ReStart comes in a traditional four fluid ounce canister to be used with the readily available and reusable Universal Treatment Injector. Another version, the A/C ReStart Connect Inject, is a quick, one-time disposable injector option that has the four fluid ounce treatment already pre-charged into the vessel. This billable option does not require the purchase and ongoing management of a reusable injector for all service trucks in the organization.

A single dosage of A/C ReStart will treat air conditioning systems up to five tons in capacity. For larger systems or applications with longer line-sets/liquid receivers, additional A/C ReStart dosages are required.

A/C ReStart or A/C Re-New for R-22 Retrofits:

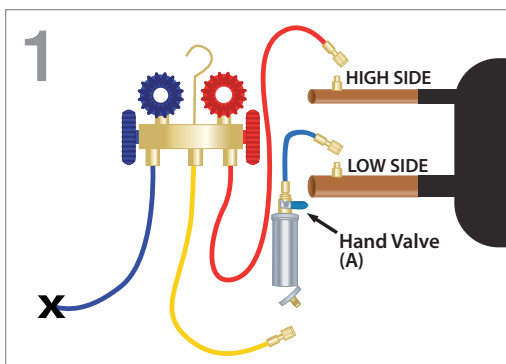
A/C Re-New is a comprehensive *renewal* solution for R-22 retrofits. A/C Re-New not only assists in oil return, it also aids the aging equipment by reducing energy consumption, quiets the compressor and improves TEV or reversing valve operation if sticking due to friction from years of service. A/C ReStart is a lower cost *restart* option that addresses solely oil return and circulating trace acidity when retrofitting the R-22 system.

Packaging:

A/C ReStart, 4 fluid ounce can	4060-55
Universal Treatment Injector	4779-0
A/C ReStart Connect Inject	4060-56
Connect Injector Tool	4155-01

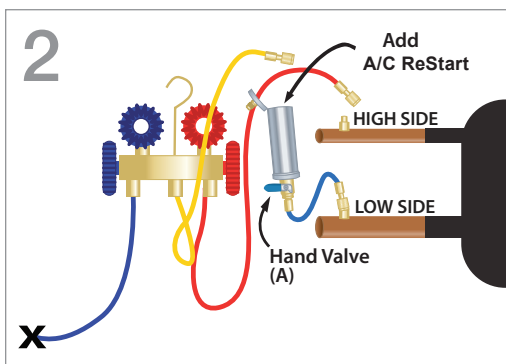
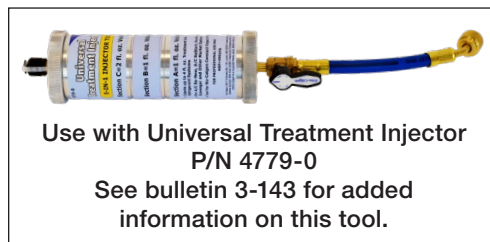
Directions for A/C ReStart (4060-55)

Four fl. oz. Dosage Treats up to 5 Tons



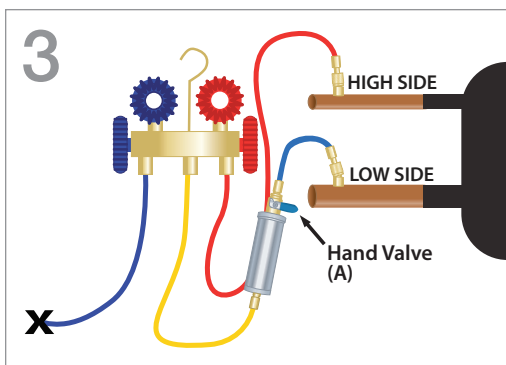
STEP 1:

- Make sure system is running and low side and high side service ports are properly identified. If unit is a heat pump, be sure it is in cooling mode. Hand-valve (A) must be closed.
- Unscrew the aluminum injector cap with 1/4" male inlet fitting.
- Connect the 1/4" SAE fitting of blue hose to suction service port of system.
- Crack open hand valve (A) on injector to chase the remaining air out of the blue hose, then close hand valve (A).



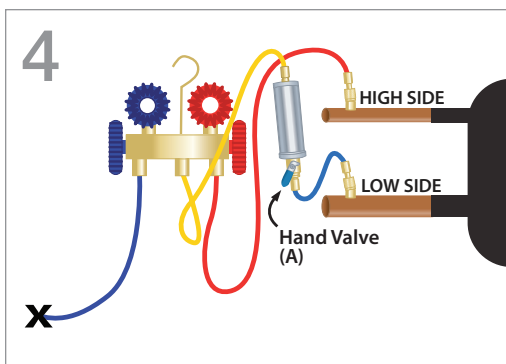
STEP 2:

- Pour in 4 fl. oz. of Nu-Calgon A/C ReStart.
- Recap the Injector with the aluminum cap with 1/4" male inlet fitting. Make sure the cap is hand tight to ensure a good seal is made at the cap.



STEP 3:

- Make sure both valves on gauge set are closed. Connect high side (red) line of manifold gauge set to the high side service port.
- Barely thread the middle manifold hose (yellow) to the 1/4" male inlet fitting of the Universal Treatment Injector (side opposite of the valve/blue hose). Do not thread to the point of depressing the Schrader core.
- Briefly crack open high side manifold valve to purge air out of the yellow hose, then quickly tighten yellow hose fitting at the injector, and close high side manifold valve.



STEP 4:

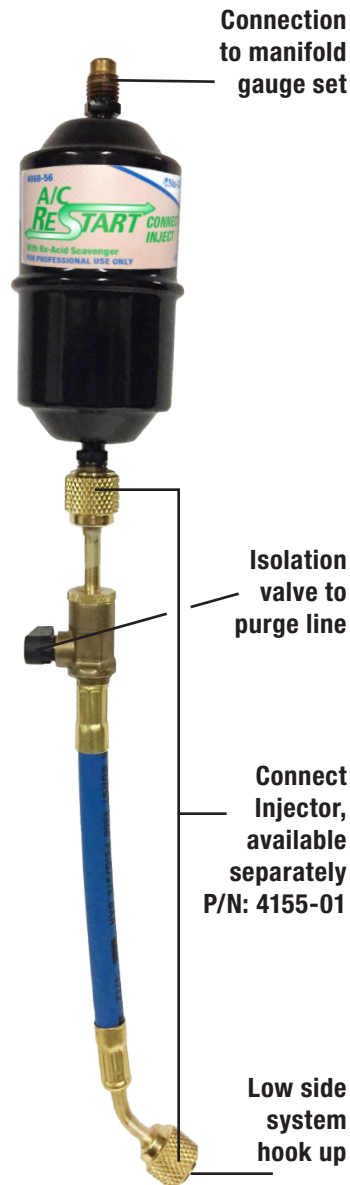
- Open injector hand valve (A) so A/C ReStart will be allowed to flow from injector into the low side of the system.
- Briefly open high side valve of the manifold gauge set to allow a little high side liquid to flow through the yellow hose/injector. Close high side manifold valve. Repeat process as necessary for a one minute duration for A/C ReStart to be fully injected into the low side of the system.
- Close high side valve of the manifold gauge set and wait an additional one minute for the injector assembly to equalize to suction pressure.
- Fully close hand valve (A) on Universal Treatment Injector and remove blue hose from suction service port.
- Once disconnected from system, slowly open hand valve (A) on injector so it equalizes the assembly to atmospheric pressure - ensure outlet fitting is pointed toward the ground. Close hand valve (A).
- Ensure injector remains capped to prevent contamination on its next use.

Note: Use two A/C ReStart canisters for A/C systems between 5-10 tons. For larger A/C systems, approximately 15% of the oil charge needs to be A/C ReStart. Remove equal amount of existing oil first.

Directions for A/C ReStart Connect Inject (4060-56)

One Injector Treats up to 5 Tons

1. Make sure system is running and low side and high side service ports are properly identified. If unit is a heat pump, be sure it is in cooling mode. Remove caps from the Connect Inject.
2. Make sure isolation valve on Connect Injector (4155-01) is turned off and connect to low side service port. Barely screw on Injector, briefly open valve to purge hose and then tighten.
3. Connect high side (red) line of manifold gauge set to the high side service port. Briefly crack open high side manifold valve to purge air out of the yellow hose. Close high side manifold valve, then quickly tighten yellow hose fitting to the A/C ReStart Connect Inject.
4. Open isolation valve on Connect Injector. Over the next minute, with the vessel in a vertical position, slowly modulate high pressure through injector by opening high side manifold valve so product flows into system. Close manifold valve and allow a few seconds for Injector to stabilize to low side pressure.
5. Remove manifold and Injector from the system service ports and replace caps. Remove Connect Injector Tool so it can be used for the next installation – do not discard. Properly discard black colored Injector.



Note: Use two A/C ReStart Connect Injects for A/C systems between 5-10 tons. For larger A/C systems, approximately 15% of the oil charge needs to be A/C ReStart. Remove equal amount of existing oil first.

Read and understand the product's label and Safety Data Sheet ("SDS") for precautionary and first aid information. The SDS is available on the Nu-Calgon website at www.nucalgon.com. Always wear protective eye wear and gloves when handling any Nu-Calgon product.