# UNIVERSAL INJECTOR FOR REFRIGERANT SYSTEM TREATMENTS

- Reusable 5-in-1 injector
- Modular design allows for customized system treatment
- Injector allows for 1,2,3 and 4 fl. oz. treatments, plus tool for Connect Inject Products
- For use with A/C Re-New, A/C ReStart, Rx-Acid Scavenger and Connect Inject Products
- Designed for 600 maximum rated pressure



#### **Description**

The Universal Treatment Injector is a multi-use tool designed for field configuration to dose a variety of Nu-Calgon treatments into the system, depending on the situation. The tool is modular in design allowing assembly to a desired internal volume, whether it is 1, 2, 3 or 4 fluid ounces. The advantage to this design is the cavity of the injector matches exactly to the volume of the treatment dosage, so there is no headspace above the liquid requiring the added step of air evacuation by a vacuum pump before system injection.

The Universal Treatment Injector has threaded sections that are clearly marked with instructions on how to assemble to create the specific volume desired. For Nu-Calgon's Rx-Acid Scavenger, a 1, 2, 3 or 4 fl. oz. volume treatment could be selected depending on the size of the system and the compressor sump oil charge(s). For Nu-Calgon's A/C Re-New and A/C ReStart, a 4 fl. oz. volume configuration of the injector is required to put in the full dosage into the system for best results. The fifth configuration of the Universal Treatment Injector allows the use of the hose/endcap assembly as a tool to inject any of Nu-Calgon's Connect Inject products into the system.

#### **Application**

The Universal Treatment Injector is a tool for use with the industry-established method of injecting liquid treatment into air conditioning or refrigeration equipment by using the system's existing pressure differential. The method requires a manifold gauge set, using high-side liquid of a running refrigerant system to propel the chemical treatment in the injector into the lower pressure suction line. This pressure delta sends the entire contents in the injector into the system within minutes. The Universal Treatment Injector is a reusable device to inject a desired treatment into any refrigerant system that has readily available high and low side service ports.

Use the Universal Treatment Injector with these Nu-Calgon products:

#### **Packaging**

Universal Treatment Injector 4779-0





## **Universal Treatment Injector (p/n: 4779-0)**

**USAGE OPTIONS** 

## **Option 1**

### 4 fl. oz. Treatment

Use sections A, B, C. For A/C Re-New (4057-55 & 4057-54) and A/C ReStart (4060-55)

## **Option 2**

### 3 fl. oz. Treatment

Use sections A & C. For Rx-Acid Scavenger (4301-02)





## **Option 3**

### 2 fl. oz. Treatment

Use sections A & B. For Rx-Acid Scavenger (4301-02)

### **Option 4**

### 1 fl. oz. Treatment

Use section A only. For Rx-Acid Scavenger (4301-02)





## **Option 5**

Use endcap assembly to install these Nu-Calgon Connect Inject Products





4060-56





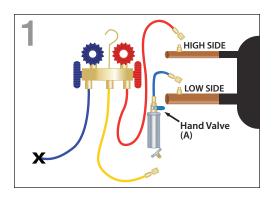
To low side system

From high side

system service access through manifold gauge set.

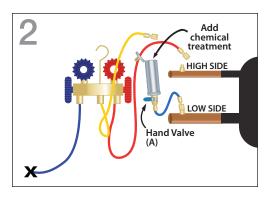
service access

## **Directions for the Universal Treatment Injector**



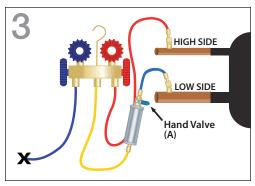
#### STEP 1:

- Determine what treatment to add to the system. Configure the injector to the proper internal volume per the treatment recommendations on the bottle.
- 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).



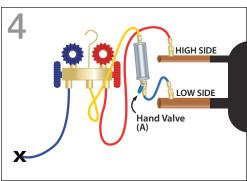
#### STEP 2:

- Pour in Nu-Calgon A/C Re-New, A/C ReStart or RX-Acid Scavenger.
- Recap the Universal Treatment 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 Injector Tool (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 the chemical treatment 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 the chemical treatment 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 the 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: For further details, consult literature on A/C Re-New, A/C ReStart or Rx-Acid Scavenger.

## **Directions for Connect Inject Products**

- 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.
- Remove hose/endcap assembly from the Universal Treatment Injector to use as a tool to inject any of the Connect Inject products.
- Make sure isolation valve on endcap assembly is turned off and connect to low side service port. Barely screw on Injector, briefly open valve to purge hose and then tighten.
- 4. 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 inlet of the Connect Inject vessel.
- 5. Open isolation valve on endcap assembly. 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.
- 6. Remove manifold and Injector from the system service ports and replace caps. Remove endcap assembly and reassemble to the Universal Treatment Injector - do not discard so it can be used for the next installation. Properly discard black colored treatment vessel.

