

# E-Contaminator Newsletter

*A Publication of Neutronics Automotive*

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**FAQ's**

How does A/C Sealant work?

Most A/C Sealants are installed through the low side port of the system. They then travel with the refrigerant and oil until they escape the system through a leak. While they are escaping, they come in contact with moisture and air on the outside of the leak. They then form a crystalline seal at the leak point.

Can the Sealant Detector Plugs be cleaned?

Despite our efforts, we have not found any suitable cleaning method for the plugs. The holes in the plug are so small that it is impossible to get them clean.

Have a comment or question about blend refrigerants, contamination, sealants, or anything else A/C. Email me @

Peter.Coll@Neutronicsinc.com  
Or call 610-524-8800 x 112

A/C Sealant Detector Distribution Partners:

Snap-On Tools	ACT700
RTI	360-81733-00
Four Seasons	69058
Neutronics	ACSD

For more distributors visit:  
www.RefrigerantID.com

**A/C Season Heats Up!**

As we enter the HEAT of the A/C season, we are receiving reports of A/C sealants being found every day. Take a look at the photos on the right from Arizona. After detecting sealant with the Neutronics "Quick Detect" A/C Sealant Detection kit, the system was evacuated and these photos were taken.

**Rob from Ft Collins, CO Writes:**

"We tried our new detector and found sealant present. To be sure we even tried twice with the same result. Now the low side 134a coupler is locked up tight. Could this be the sealant or just coincidence? If not coincidence, this does not bode well for using a gauge set on these systems does it?"

Thanks Rob!

With A/C Sealants now available to the public at nearly every auto parts store and major retailer, the use of sealants has grown exponentially. Don't get caught unprepared, use your sealant detector on every car.



This orifice tube clearly shows the sealant clogging the system.



The Sealant has found a home in the Accumulator

**Refrigerant Identifiers, More Important Now Than Ever Before!**

**"Joe Backyard Mechanic" Retrofitting Causing Havoc with R134a Systems**

During the past several years, the number of "Joe Backyard Mechanic" retrofit kits available to the public has increased dramatically. These kits are marketed to the consumer as an inexpensive method of retrofitting an R12 system to R134a without the need for a professional technician. Although this sounds like a great idea, these kits all but guarantee that the A/C system will become contaminated with mixed refrigerant. In addition, the chances that retrofitting the vehicle will make the system blow cold

again are few and far between.

**Read The Fine Print**

At \$34.95 for the entire kit including 3 cans of R134a with oil and sealant as well as a charging hose, fittings and a label, the kit is a great value until you read the fine print. In order to properly install the refrigerant, the user needs to have or buy a \$3,000 recovery machine. This makes your \$269.00 service look like quite a bargain! We all know that "Joe Backyard Mechanic" will conveniently skip over this part of the instructions and start the retrofit. He knows that if the system still does not blow cold, there must have been another problem and he can always take the car back to the repair shop to get it work-

ing correctly.

**What You Can Expect To Find**

The installation of these kits poses a real threat to the technician. It is unlikely that "Joe Backyard Mechanic" will tell the service writer that he tried to fix it himself. On top of that, it is very likely that the refrigerant in the system is now a blend of R134a and R12. Finally, each of these kits includes A/C Sealant in the refrigerant because the system didn't lose it's charge by itself. The bottom line, identify the refrigerant in every car you touch and be sure to charge for your time to test!

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## Neutronics Introduces Two Breakthrough Products

### FlexTemp™

The Neutronics FlexTemp™ Temperature Probe provides a fast and easy method of diagnosing basic A/C system problems. Using time proven temperature across component measurements, the experienced technician can accurately measure temperature differentials. By knowing the temperature gain or loss, the technician can determine if a given component is operating properly or if there are other system faults. This simple and time saving tool is a must for every A/C service technician. For more information of the FlexTemp and our other exciting Automotive service tools, visit us on the web @

[www.RefrigerantID.com](http://www.RefrigerantID.com)



### A/C Diagnostic Tool

The Neutronics Automotive A/C diagnostic tool provides a simple to follow, step by step process for troubleshooting and diagnosing mobile A/C systems that's the same for every car, every time! This exciting new tool will save valuable time on A/C diagnosis and make the shop more money! This new tool consolidates industry proven troubleshooting techniques (high and low side pressures, temperature across key A/C components, clutch cycling rates and ambient temperature and humidity) into a simple to use, high technology shop tool designed for use by any automotive technician.



Neutronics Automotive and AAA Approved Auto Repair are pleased to present the 2003 Automotive A/C System Contamination Seminar:

July 8th in Allentown, PA  
July 9th in Reading, PA  
July 10th in Scranton, PA  
July 22nd in Vestal, NY  
July 23rd in Lansdale, PA  
July 24th in Williamsport, PA

For more information call AAA @ (888) 627-9227

*"Finally, there are hundreds of tons of blend refrigerants sold in the USA each year. If you haven't come across one yet, your turn will come soon enough."*

## A/C Sealant Detection Tips & Tricks From the Factory & Field

### Forget The Pressure, Just Go With The Flow!

Instead of connecting a gauge set when using the sealant detector, try connecting the proper coupler to the high side port and checking the flow level. If the flow reads 1.5 or higher with the engine off, let the test run per the instructions. If the flow is less than 1.5, start the engine and turn on the A/C to MAX. If the flow remains below 1.5, the system is probably low on refrigerant and you'll need to add a small charge of refrigerant to the system.

### To Reuse or Not To Reuse, That is The Question?

Alright folks, you all know that we strongly recommend using a new plug for each test but we know you just can't resist trying to use an old plug for one more car. If you just can't restrain yourself, be sure that the flow reading on the second car is above 1.5 on the flow meter. If the car fails the test, you must retest using a fresh plug. With time, the oil and dye from the A/C system will begin to dry within the plug and restrict flow. When you reuse the plug, the added restriction could give you an incorrect indication that sealant is present.

### Putting a Round Peg in a Square Hole...

You are probably well aware by now that the "Quick Detect" kit includes a standard R12 High Side connector. But what do you do when you come across a '92 Honda with the old style R12 fitting. Joe in West Chester, PA gave us the easy answer. The R12 R/R machine in your shop probably has an adapter for the High Side hose that will fit right in line between the High side port and the "Quick Detect" coupler.

### Neutronics Distribution Partners

UView  
Automotive Video, Inc.  
CPS Products  
ETW  
Four Seasons  
ISN  
Pete Kitts  
RTI Technologies  
Snap-On Tools  
SPX/Robinair  
White Industries  
Arizona Mobile Air  
A&M Motor Supply  
AIR of Sacramento  
Art's Parts  
Automobile Accessories Co.  
Reibes Auto Parts  
California Auto Refrigeration  
Decker Auto  
Johnson Industries  
Kohlweiss  
Macgo  
Motor Parts Distributors  
Winchester Auto  
Auto Wares  
Central Nebraska Equip.  
Jones Automotive  
M Eagles Tools  
National Parts Supply  
Paramount Tool  
Topline Tool

## EPA Approves RS-24 Refrigerant As A Replacement for R12

The EPA has approved yet another blend refrigerant under the guidelines set forth by the Significant New Alternatives Program (SNAP). RS-24 is a blend of R134a, R125 and R601 that is promoted as a "Drop-In" replacement for R12.

As advertised, conversion to RS-24 is completed in 10 easy steps. Although RS-24 contains a significant amount of R134a,

the instructions do not require replacement of the mineral oil with a PAG or Ester. The R601 or Hydrocarbons found in RS-24 will carry the mineral oil to lubricate the system.

The addition of RS-24 brings the number of SNAP approved refrigerants to 11. Each requiring a dedicated recovery machine and unique fittings. The mere fact that the manufacturer of RS-24 chose to endure the

EPA's approval process tells us that there is a fantastic market for blend refrigerants in the USA and Canada. Finally, there are hundreds of tons of blend refrigerants sold in the USA each year. If you haven't come across one yet, your turn will come soon enough. In fact, if you do not identify the refrigerant in each and every car, you may have seen them many times over and never knew it.