

Get your customers to say "YES" to needed fluid services.



The Science of Good Business Proof It's Time to Change

"We are always looking for processes to increase gross profit & deliver quality service. The Fluid Rx Diagnostics Program does just that."

Shawn Ball
L&S Toyota of Beckley

"The most important aspect of the program is the trust factor we have developed with our customers."

Todd Renfro
Buchanan Auto Stores

Vital Fluids Analysis

Reveals the True Condition of:

- ✓ Transmission Fluid
- ✓ Power Steering Fluid
- ✓ Brake Fluid
- ✓ Gear Oil
- ✓ Motor Oil



Testing for All Ten Fluids

 **Fluid Rx Diagnostics®**

FOREWORD

EVERY MINUTE OF EVERY DAY- hundreds of vehicles roll out of service bays with at least one degraded vital fluid. If technicians had tested these fluids, and car owners were shown the results, 65 to 70% of customers would have said **“YES”** to these required fluid services.

Not knowing, or identifying the condition of these fluids represents a huge loss of potential revenues and profits. It is why money constantly drives out their service bays; part of an estimated \$87 billion in unperformed services annually.

Knowing is simple and profitable. Fluid Rx Diagnostics has developed the only scientific process that instantly reveals the true condition of all vital automotive lubricants and fluids. It takes only minutes to perform and increases fluid service sales as much as 300% in the first 90 days.

Inside this magazine is your introduction to why Fluid Rx Diagnostics is the quickest and easiest way to get customers to say **“YES”** to required fluid services.

Best Regards,



Ron McElroy, CEO
Fluid Rx Diagnostics by Magna-Guard, Inc.

INNOVATION AWARDS

“PREVENTATIVE MAINTENANCE TOOL OF THE YEAR” • “ATF DIAGNOSTICS”



Fluid Rx Diagnostics “The Leader in Instant Lubricant Diagnostics”

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ABOUT FLUID Rx DIAGNOSTICS

FOUNDER & CEO

Ron McElroy is your quintessential talented overachiever. As a product design engineer, he has received two “Best New Product Awards”, and four “Product Innovation Awards”. He has created and brought to the automotive market new products that have revolutionized the way we integrate aftermarket electronics into OEM audio systems. His latest innovations have changed the dynamics of performing fluid preventative maintenance services and are extending vehicle service life.

McElroy is also a dive master and world class blue water spear fisherman, an award winning chef, a band leader, accomplished composer and musician, a published author, the Founder or Cofounder of five cutting edge companies including Autosonics, OEM Interface and Fluid Rx, and the owner and captain of the good ship Artic Witch, a sixty foot wooden ketch built for a North Atlantic expedition. McElroy has also served his country in the United States Air Force as an airborne crypto communications technician flying missions aboard Super Connie C121 command aircraft during the Vietnam War.



COMPANY PROFILE

Fluid Rx Diagnostics was developed by Ron McElroy, the creator of Magna-Guard Oil Filter Magnets. Fluid Rx Diagnostics allows industry professionals and consumers alike to determine when fluid services are required based on the true condition of automotive lubricants.

Beginning in 2002, in conjunction with Herguth Laboratories, McElroy began offering a low-cost, easy-to-perform, and highly accurate test that mirrored laboratory results. This simple yet effective one-drop test was made to act as a means in which service advisors and customer service personnel could interact with consumers without bias or opinion. For over a decade, it has been a straightforward method of communicating a vehicle’s actual fluid requirements in conjunction with or in advance of the manufacturer’s time/mileage recommendations.

The award winning Fluid Diagnostics by Magna-Guard has earned the trust and accreditation of many industry agencies. Our Instant Lubricant Diagnostics kit has been awarded the Professional Tool & Equipment News (PTEN) Innovation Award, “Preventative Maintenance Tool of the Year”.

Initially created to help the service and oil change industry, it is here where Fluid Rx Diagnostics proved to be a powerful diagnostic tool as well as providing a significant boost in customer relations. As more and more OE affiliated dealership fixed-operations discovered the process a unique and specialized training program was developed to help maximize the application of Vital Fluid Analysis. To date, thousands of service providers have utilized our diagnostic tools and have seen fluid sales double and triple within a few months. At the same time, the Fluid Rx Diagnostics Vital Fluid Analysis Program has increased customer loyalty and retention by allowing consumers to be an active participant in these preventative maintenance decisions.

The Fluid Rx Diagnostics process is on-going. Under McElroy’s leadership, his team of industry experts monitors the state of the automotive lubricant industry in an effort to stay ahead of the new blends and proprietary fluids.

RADIAL PLANAR CHROMATOGRAPHIC ANALYSIS

All modern lubricants contain additives that inhibit breakdown. As these additives become depleted the fluid degrades and is no longer able to perform its intended function.

Fluid Rx Diagnostics is a patented radial planar chromatographic analysis tool that provides a measurement of additive depletion, the fluids dispersant properties and the level of sludge or debris in a lubricant.

The material and density of the test medium is unique and made to a specific specification to provide consistent calibration of lubricant chromatograms to laboratory analysis. This same filter paper is used in the medical industry to separate blood cells and in the nuclear industry to identify particle contamination in a solution.



As a drop of fluid percolates through the unique Fluid Rx Diagnostics filter paper, bands and/or zones of different hues, densities, and even unwanted wear metals and debris form a chromatogram. Changes in appearance of these zones or bands are a clear indication that something in the lubricant has changed. A closer look at the zones, their unique formation, and the debris fields contained therein reveal high particle counts that can be correlated to ISO* Code.

The chromatograms in each fluid diagnostic chart, pictures of fluids at various stages of condition, are correlated to laboratory analysis by SGS Herguth Laboratories of Vallejo, California. Simply compare the sample chromatogram to our diagnostic chart for an in-the-field scientific analysis to evaluate the fluid conditions as:

GOOD

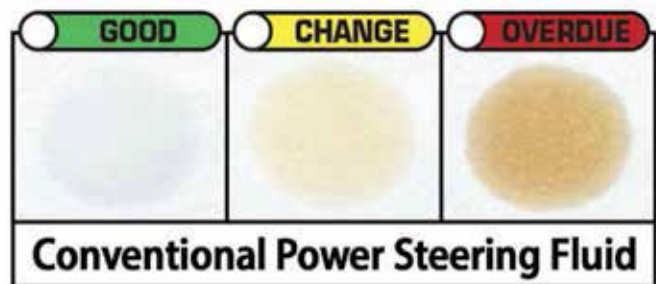
This sample is slightly darker than new and absorbs into the filter paper very quickly.

CHANGE

This sample has become darker due to normal degradation and the presence of wear debris. Although this fluid will provide some protection the degradation process will become much faster.

OVERDUE

This sample has gone beyond its useful service life and needs to be changed immediately. Changing fluids before they become degraded will save the customer many dollars in needless repairs and extend the service life of the vehicle.



Fluid Rx Diagnostics is NOT a color test as are fluid dab trays.



Fluid Rx Diagnostics is correlated to laboratory analysis. It provides scientific verification of when a fluid should be serviced, regardless of OE time mileage recommendations, by measuring additive depletion, dispersant properties, and the total sludge or debris content of automotive lubricants.

WHY FLUID TESTING IS NECESSARY

Historically, fluid preventative maintenance intervals have been dictated by the Original Equipment (OE); based on time-in-service or by mileage - under normal or severe driving conditions. Although these recommendations are better than none, it is well documented* that approximately 30% of the time these vital fluids become degraded prior to OE service recommendations.


Today's drive trains are more complex and require unique fluid technologies to meet their increased performance requirements. They are smaller and lighter, with more horsepower and higher torque, and subjected to significant increases in operating temperatures, all of which contribute to and accelerate fluid degradation and breakdown.

"Lifetime Fluids" – although this buzz-word sells more cars for the OEMs, there is no new fluid alchemy that prevents fluids from breaking down. So, is this a product of technology or a marketing strategy?

CUSTOMER CONFUSION: WHEN IS FLUID PREVENTATIVE MAINTENANCE REQUIRED?

NORMAL VERSUS SEVERE SCHEDULES

When polled by AAA, only 6% of motorists felt they did most of their driving under severe conditions. In actuality, 66% drive under severe conditions.

Severe conditions as defined by 

- Driving on short trips of less than 5 miles in normal temperatures or less than 10 miles in freezing temperatures.
- Driving in hot weather stop-and-go traffic.
- Driving at low speeds of less than 50 miles per hour for long distances.
- Driving on roads that are dusty, muddy or have salt, sand or gravel spread on the surface.
- Towing a trailer, carrying a camper (if a pickup truck) or transporting items on a roof rack or in a car-top carrier.

GM OIL LIFE MONITOR

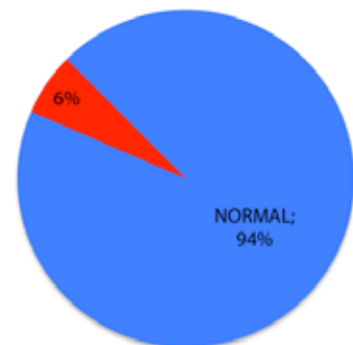
The original GM Oil Life Monitor(OLM) system was not a mileage counter nor did it have a sensor to analyze the condition of the oil. Instead, a computer based software algorithm determined when to change oil based on engine operating conditions.

GM Oil Life Monitor Oil Drain Interval Expectations	
Highway Driving	7,000 - 12,000 miles
Urban Driving	4,000 - 6,000 miles
Trailer Towing	5,000 - 7,000 miles
Typical Mixed Service	4,000 - 7,000 miles
Short Trip Service (less than two miles)	3,000 - 4,000 miles

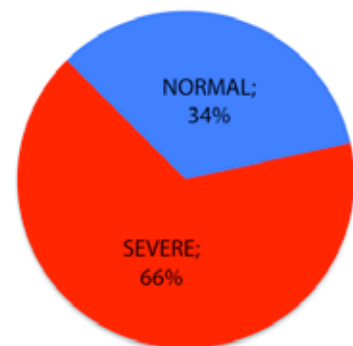
With the introduction of the 2013 model year GM recalibrated their OLM system to include a mileage parameter activated at 5,000 miles and recalled vehicles equipped with the original OLM.

GM did not get specific on why they made this change, but it can be inferred that they determined that the longer oil change intervals might have had a negative impact on long-term engine performance and customer satisfaction.

Perceived Driving Conditions



Actual Driving Conditions



* SAE Technical Paper Series 2008-01-1740

THE BENEFITS OF VITAL FLUID ANALYSIS

Every morning you unlock the doors, put out the “open” sign and optimistically greet the new business day. You are grateful for your repeat customers and excited to see the new faces that have discovered or been referred to your business.

Your client base is built on trust. Your business model relies on your customers’ confidence in the thoroughness and superior quality of your work. And, your future success depends on discovering new ways to increase ticket averages and expand your customer base. Yet, everyday too many service facilities fail to perform a complete multi-point inspection (MPI) that can identify and take advantage of basic fluid preventative maintenance opportunities.

WHY IS THIS IMPORTANT?

Every day, thousands of vehicles roll out of service bays with at least one degraded fluid. This contributes to the estimated \$80-billion plus in unperformed services annually.

“KNOWLEDGE IS POWER”

In a matter of minutes, Fluid Rx Vital Fluids Analysis provides service advisors and technicians with the tools to identify and show customers the true condition of their vehicle’s vital fluids. This gives your customers the information they need to make informed decisions on the fluid preventative maintenance of their vehicles and say “**YES**” to your recommendations.

Service facilities that have added Fluid Rx Vital Fluids Analysis to their MPI experienced as much as a 300% increase in fluid services within the first 90 days. This has also proven to bolster customer loyalty and retention.

- Showing Vital Fluid Analysis test results builds trust and confidence in your fluid recommendations
- Provides service advisors much more confidence in obtaining customer approval for needed services
- Increases ticket averages, and at the same time bolsters customer loyalty and retention

ADVANTAGES OVER FLUID DAB-A-LUBE TRAYS:



Vital Fluid Analysis & Instant Lubricant Diagnostics gives you the benefits of having a laboratory analysis in the palm of your hand*.

Proper use of Fluid Rx Diagnostics tools and procedures allow your service advisors and technicians to make fluid service recommendations that comply with Motorist Assurance Program (MAP) Uniform Inspection and Communications Standards (UICS) and California Bureau of Automotive Repair (BAR) “Preventative Maintenance Best Practices”.

- Fluid Dab-a-Lube Trays rely on a subjective comparison made by the service advisor or technician based solely on fluid color or appearance – not fluid analysis.
- Fluid Dab-a-Lube Trays do not provide the customer with the information they need to make a service decision based on credible information that they can clearly understand or rely upon.
- The average Dab-a-Lube presentation takes 8 to 10 minutes from beginning to end to perform. The labor costs alone exceeds that of a Vital Fluid Analysis presentation - no mess or cleanup required, no chance of multiple fluid contamination or spilling of fluids.

*All Vital Fluid Analysis & Instant Lubricant Diagnostics charts are correlated to laboratory analysis by SGS Herguth Laboratories.

FLUID DIAGNOSTIC OPPORTUNITIES

DEALERSHIP & AFTERMARKET

Completing a Multi-Point Inspection (MPI) at customers' first visit and all subsequent intervals, and walking them through the inspection and testing results, are essential in developing trust and confidence in your maintenance practices and services. This is your opportunity to demonstrate the consistency, quality and credibility of your inspections and service recommendations. This also is when and how loyalty and retention are developed and maintained.

Surprisingly, the most neglected MPI category is vital fluids maintenance, which includes transmission, power steering and brake fluids as well as gear oils. It is also one of the highest-margin categories.

The bottom line: following our Blueprint-for-Success process (*page 13*), dramatically increase your opportunities to increase ticket averages and loyalty and retention with no increase in marketing costs or car counts.

DEALERSHIPS may choose to offer Vital Fluid Analysis from the first visit forward or choose to qualify vehicle eligibility based on OE mileage recommendations; 10,000 miles / 24,000 miles*.

AFTERMARKET Service Centers, Repair Shops and Quick Lubes should test every car and expect that the majority of vehicles will require one or more fluid services**.

BENEFITS FOR DEALERSHIPS AND AFTERMARKET:

- The average Service Advisor closing rate is 65%.
- The average dealership / service center experiences as much as a 300% increase in fluid services within the first 90 days.
- The average ROI profits are \$20 to \$40 for every dollar invested in the program.

DEALERSHIP VITAL FLUID ANALYSIS REPORT CARDS:



Part #95120-R



Part #95120-B

AFTERMARKET KITS & VITAL FLUID ANALYSIS 10-SPOT REPORT CARD:



Part #70240-2



Part #75228-2



Part #91020

*On average, Dealerships qualify 70% of their total car count as eligible for Vital Fluid Analysis.

**The average service age of domestic vehicles is 12 years, foreign vehicles 11 years.

Fluid Rx Diagnostics Instant Lubricant Diagnostics 10-Spot Customer Presentation Chart

The reviewer found the chart to be a great tool for upselling necessary or additional fluid maintenance.

by Mike Schmidt, Managing Editor

Service writer and technician Brandon Kuchler recently tested the Fluid Rx Diagnostics Instant Lubricant Diagnostics 10-Spot Customer Presentation Chart at his Grandview Heights, Ohio-based shop. After using it for some time, he found it to be a great tool for upselling necessary or additional fluid maintenance.

According to the company, the chart features an overview on the benefits of proper fluid preventative maintenance and test results for brake, power steering and transmission fluids, as well as crankcase and gear oils – all in one display. Kuchler utilized the chart on almost every vehicle that came in the shop where the customer was present, and he says it gave the customers a great visual comparison.

Kuchler employed the test sheets most often for transmission fluid health and brake fluid comparisons, and he deemed the setup of the Fluid Rx Diagnostics chart to be “pretty easy.” All it took, he says, was placing a new card on the clipboards provided and entering customer information.

“It was usually more work to get the fluid sample from the vehicle than it was to place it on the card for presentation,” states Kuchler.

The chart also provided both

English and Spanish-language versions of the information, which pleased Kuchler quite a bit.

“If you have a bilingual shop or customers, it is nice to have,” he says. “The kit also had bilingual (report cards) and clipboards sized for the (test sheets).”

Kuchler adds that the kit also includes the Teflon-coated sampling tool for testing fluids.

While he appreciated the usefulness of the chart as a means for upselling, Kuchler says a bigger test sheet for a standard-sized clipboard with additional spaces for comparisons, especially for fluid samples, would be ideal.

“That way it would be easier to present a whole picture of the customer’s fluid’s condition at one time, instead of one or two at a time,” he adds.

All in all, the Fluid Rx Diagnostics Instant Lubricant Diagnostics 10-Spot Customer Presentation Chart left a favorable impression on Kuchler. He found it to be most effective when the customer was present, but Kuchler says he also could use the test sheets, take pictures of them and send them to his customers for review as well.

“It works as long as the customer is open to the suggestion of more work than they originally brought their vehicle in for,” he adds. **PTEN**



PRODUCT DESCRIPTION:

The Fluid Rx Diagnostics Instant Lubricant Diagnostics 10-Spot Customer Presentation Chart combines all 10 diagnostics charts, making it simple and convenient to test and evaluate virtually every year, make and model of vehicle that rolls into the service bay, according to the company. This chart features an overview on the benefits of proper fluid preventative maintenance and test results for brake, power steering and transmission fluids as well as crankcase and gear oils – all in one easy-to-understand display. The laminated analysis chart is designed for both countertop and in-vehicle presentations and shows results for all standard and most proprietary fluids including the newest formulas from GM, Ford, Chrysler, Nissan, Toyota, BMW, Mercedes-Benz, Audi and Volkswagen.

Circle 173 on card, or enter at “e-inquiry” on VehicleServicePros.com

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DEPARTMENT OF CONSUMER AFFAIRS

BAR
Bureau of Automotive Repair

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Rancho Cordova, CA 95670
www.bar.ca.gov

Fluid and Flush Services

The Bureau of Automotive Repair (Bureau) has spent the last year reviewing the marketing and disclosure practices for providing fluid and flush services in the automotive repair industry. After careful review of the practices and communications of automotive repair stations, as well as conducting meetings and workshops with the manufacturers of vehicles and automotive fluids and chemical agents, the Bureau has decided not to pursue a new public awareness campaign at this time. Instead, the Bureau will ensure the materials we currently provide to consumers and the automotive industry contain useful information on fluid and flush services.

Background on Fluid and Flush Services

Automotive technology has improved significantly, and late-model vehicles are lasting longer and require fewer repairs and maintenance. Due to these improvements, vehicle owners are saving on repair costs. However, owners that take their vehicles in for an oil change are commonly approached by repair facility personnel about performing other preventative maintenance services. The Bureau holds that manufacturer maintenance schedules should be a starting point for industry repair and service standards for fluid and flush services.

Any act or omission related to an automotive repair dealer conducting its business to maintain, repair, or service a motor vehicle falls under the provisions of Article 3 of the Automotive Repair Act (Act). This includes any preventative maintenance services, such as fluid and flush services, that the automotive repair dealer may provide.

The fact of the matter is that vehicle manufacturers are experts on preventative maintenance and, although they provide schedules for these services, most consumers are not certain if the services being recommended by their repair facility are required by the manufacturer at that point in time or if they will be of any benefit to them.

Consumers rely on the repair facility for full disclosure when preventative maintenance services such as automatic transmission, power steering unit, radiator, or brake system fluid exchanges or flushes are being recommended.

Over the past few years, the Bureau has seen a significant increase in the marketing of fluid and flush products and services through the media and various social network sites. For this reason, the Bureau, whose highest priority is to protect the public, decided to conduct a review of the solicitation and sale of preventative maintenance services. The primary goal of this review was to research the history of automotive repair and to determine whether or not these services are being solicited and sold by repair facilities with full disclosure to their customers. In other words, are repair technicians being up-front about the need for, or benefits of, the services they are recommending and selling to consumers?

Fluid and Flush Services *(continued from cover)*

Industry Response

Our conversations with manufacturers, the repair industry, and others have convinced us that we were successful in communicating our concerns about how some businesses were selling these products and services. We believe the industry heard our concerns and took them to heart, and have taken meaningful steps to ensure these services and products are sold in compliance with the Act. As a result, the Bureau believes there is no need for additional outreach or regulations at this time.

The Bureau's Ongoing Efforts

Information about consumers' rights relative to automotive repair services, information on the complaint process, and the status on automotive repair dealer licenses will continue to be updated and disseminated to consumers through our public Web site, social network sites, media alerts, and other outreach materials, such as brochures and fact sheets. The Bureau's bottom line message about preventative maintenance services is this:

Consumers: Your owner's manual was written by the manufacturer that built your vehicle. It contains the most accurate description of how to care for your vehicle. Take the time to look it over so you have an idea of what type of preventative maintenance services are recommended by the manufacturer and when they are due, what services are not recommended by the manufacturer, and those that may void any vehicle warranties.

If you are approached about having fluid or flush services done on your vehicle, ask the technician why the service is needed and if the service is recommended by the vehicle manufacturer at this time. All automotive repair dealers have access to required maintenance information on the vehicles they service or repair. If you are still unsure if the service is required or will be of any benefit to you, don't feel pressured to agree to those services until you do some research. If your owner's manual doesn't provide you with an answer, contact others knowledgeable in the industry before making a decision.

In addition, keep good records of services done on your vehicle. These records will help you keep track of preventative maintenance that has already been performed and can assist you in making decisions in the future.

Automotive Repair Industry: BAR does not regulate the products or services you sell; we regulate how you sell them to your customers. Any preventative maintenance services provided to consumers must comply with the provisions of the Act, so be familiar with your responsibilities as an Automotive Repair Dealer under the Act and its regulations. By maintaining compliance with the Act and by following the preventative maintenance services best practices below, you will earn consumer trust, enjoy the business of repeat customers,

and your automotive repair station will remain a proud leader in the industry.

Preventative Maintenance Services Best Practices

- Obtain customer authorization and inspect the vehicle before making service recommendations.
- Openly and honestly communicate with your customers.
- Ask customers about vehicle driving conditions and use.
- Ask customers about driving habits and vehicle maintenance and repair history.
- Communicate maintenance service recommendations made by the vehicle manufacturer.
- If recommending an accelerated maintenance service that deviates from the vehicle manufacturer, explain why.

The Bureau wishes to thank all those who participated in the discussions over the past year on this issue. We understand that our review took us into some interesting areas, such as chemical engineering, product development, equipment manufacturing, and other subjects. While the Bureau appreciated the opportunity to learn more about these topics and their relationship to the automotive repair industry, we also recognize that our role, mandate, and mission lie solely within the repair processes set forth in the Act.

We also recognize that many opinions and views were shared during our review of this issue and want to make it clear that the Bureau does not endorse nor disapprove of any specific products or services available in the marketplace today. For example, our research into brake fluid testing does not reflect BAR support of one technology over another. In many instances, it may be prudent for the automotive repair dealer to perform multiple types of testing to verify whether the brake fluid continues to meet U.S. Department of Transportation standards for which it was certified.

We appreciate your interest and patience in working with us through these issues. The Bureau looks forward to our continuing dialog with the automotive repair industry and other interested parties on areas of mutual interest affecting California consumers. **BAR**

Sincerely,



PATRICK DORAIS, Acting Chief
Bureau of Automotive Repair

CALIFORNIA BUREAU OF AUTOMOTIVE REPAIR:

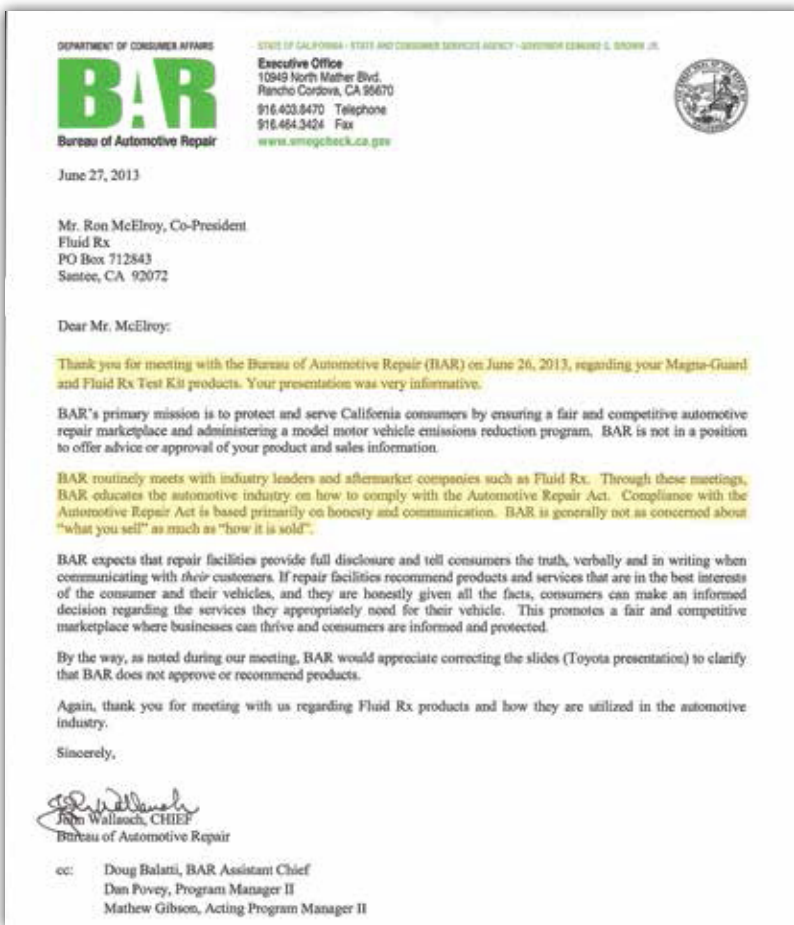
FLUID RX DIAGNOSTICS CORRESPONDENCE WITH THE CALIFORNIA BAR

Fluid Rx Diagnostics by Magna-Guard, Inc. CEO Ron McElroy has been working with and has had ongoing dialog with the California Bureau of Automotive Repair (BAR) since 2002. The BAR letter below is in testament to this relationship.

The BAR is the trendsetter for the nation's regulations on automotive repair. In a 2013 newsletter, BAR Chief, Patrick Dorais published a review of the marketing and disclosure practices for providing fluid and flush services (*page 12-13*) and created the following guidelines:

BAR "PREVENTATIVE MAINTENANCE SERVICES BEST PRACTICES"

First and foremost, Fluid Rx Diagnostics tools and programs follow, and are in compliance with BAR Guidelines as well as Automotive Maintenance & Repair Association (AMRA) and Motorist Assurance Program (MAP) Uniform Inspection & Communication Standards (UICS).



- 1 Obtain customer authorization and inspect the vehicle before making service recommendations.
- 2 Openly and honestly communicate with your customers.
- 3 Ask customers about vehicle driving conditions and use.
- 4 Ask customers about driving habits and vehicle maintenance and repair history.
- 5 Communicate maintenance service recommendations made by the vehicle manufacturer.
- 6 If recommending an accelerated maintenance service that deviates from the manufacturer, explain why.

Our Blueprint-for-Success Seven Point Process mirrors BAR, AMRA and MAP procedures and provides service providers and customers alike with the information they need to identify the true condition of Vital Fluids.

SCIENCE OF GOOD BUSINESS • PROOF IT'S TIME TO CHANGE

LET US SHOW YOU HOW TO GET YOUR CUSTOMERS TO SAY "YES" TO NEEDED FLUID SERVICES.

Here is your key to installing Instant Lubricant Diagnostics and Vital Fluid Analysis into any Fixed Ops, Service Center or Quicklube Multi-Point (MPI) Inspection process.

First, please go to our website: www.fluidrxdiagnostics.com, click on "Tech & Training", then scroll down to "Videos" and view "The Science of Good Business". (<http://www.fluidrxdiagnostics.com/technical-information-and-training/videos/>)

The following Seven Point Process is supported with quality instructional videos that are short, concise and to the point. Each segment provides word tracks and visual technical support for these processes.

SEVEN POINT PROCESS WITH INSTRUCTIONAL VIDEOS

- 1** Offer a complimentary Vital Fluids Analysis as part of your MPI. *(Please see Instructional Video*)*
- 2** Ask your customer for permission to perform the tests and either give them a brochure or review and briefly explain the technology being used and the benefits of proper fluid preventative maintenance.
- 3** Perform the fluid tests ASAP in accordance with our fluid sampling guidelines and document the results. *(Please see Instructional Video*)*
- 4** Walk through the OEM's fluid service recommendations and then share the results of each fluid test with your customer. Point out which fluids are "GOOD" as well as those that require servicing. *(Please see Instructional Video*)*
- 5** Advise your customer that changing fluids before they become degraded will reduce fuel consumption, optimize performance and reliability, and extend the vehicle's service life.
- 6** Offer to perform all required or suggested fluid services and give your customer the cost and time estimate for completing them.
- 7** After servicing a fluid, perform a post fluid test to ensure the service was successfully completed. The fluid must test "GOOD" or the service must be repeated. *(Please see Instructional Video*)*

Your success is our business. We provide complementary online training and support. Simply contact your supplier to make an appointment with our trainers for a 45 minute Go-To-Meeting training session for you and your staff. We'll provide an overview of our technology, walk you and your staff through our Blueprint-for-Success Seven Point Process and answer your questions.

**Please contact your supplier directly for the links to our instructional videos.*

WHY FLUIDS MAINTENANCE

Should Be Included in Every MPI

The truth about 'lifetime fluids,' and the bottom-line impact of including fluids in your inspections.

BY RON MCELROY

New car sales may be the face of all dealerships but fixed ops generate approximately 60 percent of all profits. One of the most important tools or process within this department is your multi-point inspection (MPI). It is your key to identifying and maximizing additional service opportunities.

Surprisingly, the most neglected MPI category is vital fluids maintenance, which includes transmission, power steering and brake fluids as well as gear oils. It is also one of the highest-margin categories, on average \$108 per service.

FIRST CONTACT SETS THE TONE

Completing a MPI at customers' first visit and all subsequent intervals, and walking them through the inspection and testing results, are essential in developing trust and confidence in your maintenance practices and services. This is your opportunity to demonstrate the consistency, quality and credibility of your inspections and service recommendations. This also is when and where loyalty and retention to your dealership are developed and maintained.

The bottom line: A thorough and complete MPI dramatically increases your opportunities to increase ticket averages and overall sales, with no increase in marketing costs or car counts.

In the past decade, there has been a paradigm shift in why and when to recommend vital fluid services. It is not just original equipment manufacturer (OEM) time-in-service or mileage anymore. Fluid condition is the most important qualifier in determining when to recommend and perform fluid preventative maintenance.

Why, then, are vital fluids omitted from many OEMs' lists of preventative maintenance service? Manufacturers have been courting higher J.D. Power customer satisfaction ratings by marketing their cars as having a lower "cost of ownership." One way to accomplish this is to reduce or eliminate servicing vital fluids. They promote their cars as being supplied with (protected by) "lifetime fluids," no servicing needed – just gas up and go.

WHY FLUID TESTING IS NECESSARY

Historically, OEMs have specified vital fluid service intervals based on time-in-service or mileage – one recommendation for normal driving conditions and an

accelerated recommendation for severe driving conditions. Additionally, today's vital fluids are subjected to increases in heat torque that shorten their lifecycle. Yes, chemical engineering is better than ever; however, no fluid alchemy exists that prevents fluid breakdown. This prompts the question: Are "lifetime fluids" a product of technology or a marketing strategy?

MANY VEHICLE OWNERS' MANUALS STATE:

Regular maintenance is essential to obtain the highest level of performance from your vehicle. In addition to scheduled maintenance, your vehicle requires ongoing general maintenance such as fluid checks and visual inspections. Be sure to perform these procedures regularly to ensure the most trouble-free operation of your vehicle. With proper maintenance and care, your vehicle will last longer and deliver economic efficiency and more dependable performance.



If the goal is to service fluids before they become depleted, then fluid diagnostics is the best strategy to identify when services should be recommended and performed.

OEMs RETHINK 'LIFETIME FLUIDS'

Some OEMs, it should be noted, have recently retreated from their "lifetime fluids" stance. Many have returned to time-in-service recommendations, especially when the vehicle is operated under severe driving conditions, which is the case for most cars.

An analysis card for fluids like power steering and transmission can be very influential on customers.



The first discussion between a service advisor and customer about an MPI should cover vital fluids.

The California Bureau of Automotive Repair (BAR) recognizes this conundrum and has published its stance on recommending services, especially those that are not covered or recommended by the OEMs. The BAR's "Preventative Maintenance Services Best Practices" are as follows:

- ✓ Obtain customer authorization and inspect the vehicle before making service recommendations.
- ✓ Openly and honestly communicate with your customer.
- ✓ Ask customers about vehicle driving conditions.
- ✓ Ask customers about driving habits and vehicle maintenance repair history.
- ✓ Communicate maintenance service recommendations made by the manufacturer.
- ✓ If recommending an accelerated maintenance service that deviates from the vehicle manufacturer's recommendations, explain why.

The MPI is all about empowerment. When you provide your technicians and service advisors with the tools and means to communicate clearly with integrity, you empower your customers to base their preventative maintenance decisions on credible information and visual aids that speak to the problem as well as the solution.

7 STEPS TO INCLUDE FLUIDS IN A MPI

The following seven-point process provides a program to add fluid diagnostics to your MPI that is simple to implement.

- 1 Offer a complementary fluid analysis as part of your MPI.

Fluid Rx Diagnostics

The Importance of Vital Fluids Preventative Maintenance:

Fluids are an important part of any vehicle service checklist. Changing fluids before they become depleted will reduce fuel consumption, optimize performance, and extend component service life thereby reducing your overall operating and repair costs over the life of your vehicle.

The owner's manual for your vehicle recommends changing fluids based on miles driven or the time duration between changes (whichever comes first) for normal or severe driving conditions. These service recommendations are designed to avoid damage to your vehicle from operating with depleted fluids. Maintain your warranty by performing recommended fluid services.

The test results will help you and your service advisor to determine if fluid services are needed and to plan future services. Keep these results with your vehicle's service and repair receipts for reference and proof of proper fluid preventative maintenance.

Ask your Service Advisor to test your vehicle's vital fluids . . .

. . . and show you the results

- 2 Ask customers for permission to perform the tests, and give them a brochure or explain the technology being used and the benefits of proper fluid preventative maintenance.
- 3 Perform the fluid test ASAP in accordance with fluid sampling guidelines, and document the results.
- 4 Walk through the OEM's fluid service recommendations and then share the results of each fluid test with your customer. Point out which fluids are "GOOD" as well as those that require service.
- 5 Explain to your customer that changing fluids before they become depleted can reduce fuel consumption, optimize performance and reliability, and extend the vehicle's service life.
- 6 Offer to perform all required or suggested fluid services, and give your customer the cost and a time estimate for completing them.
- 7 After servicing a fluid, perform a post-fluid test to ensure the service was successfully completed. The fluid must test "GOOD," or the service must be repeated.

"Yes, chemical engineering is better than ever, but no alchemy can prevent fluid breakdown."

ONE SERVICE MANAGER'S STORY

The most authoritative voices come from the professionals who implement these programs on a daily basis. One such professional is Don Fritz, service manager at Rogers Toyota in Lewiston Idaho. Here is what he wrote about adding fluid diagnostics to his department's MPIs:

"I don't think I have ever actually discussed the results of implementing fluid testing in my service department. I was introduced to the fluid diagnostic sheets a few years ago in the Tacoma, Washington area. It sounded like a great way to tie fluid conditions into our multi point inspection instead of just recommending based off of time, miles or color.

"The beauty of being able to present inspection results with confidence to customers showed immediate results. The "RED," "YELLOW," "GREEN" theme works seamlessly with our MPI's "PASS," "CAUTION," "FAIL." This generated additional confidence that led to definitive word tracks that the advisors began using, and they closed more sales.

"The first time I saw this make a significant impact was when I implemented the process in one of my express service lanes. We averaged nearly 40 cars per day but we were consistently at the bottom of the list compared to our other stores in the group. Fluid exchange services were tracked monthly by the organization, and the results were emailed and posted. We began using the diagnostic sheets, gave the advisors simple menus and a few word tracks, and the needle moved quickly! We went from the bottom of the list to the number 2 or 3 position, which was over much larger stores in the group.

"I implemented this process at the dealership I am at, and we immediately saw a 300% increase in fluid exchange services. We are pacing for much more than that, since everyone has acclimated to the process and believe in the product. Seeing is believing; this eliminates any argument out of presenting fluid conditions to your customers."

IMPROVING YOUR BOTTOM LINE

Every day, hundreds of vehicles roll out of service bays with at least one depleted fluid. This contributes to the generally accepted projections of \$80 billion-plus of unperformed vehicle services for 2015. If your MPI does not include fluid diagnostics, then your techs and service advisors are missing the opportunity to get your customers to say, "Yes" to needed fluid services. [SD](#)



RON MCELROY
CEO and founder of Fluid Rx Diagnostics by Magna-Guard Inc.

Ron is the founder or co-founder of five companies. In his career, he has received two "best new product" awards and four "product innovation" awards for automotive products that integrates electronics into OEM systems and change the dynamics of fluids preventative maintenance services.

“LIFETIME FLUIDS”

TILL WHOSE DEATH DO US PART?

BY RON MCELROY

There are a few things in life that we can count on . . . death, taxes and nothing lasts forever -- especially in the automotive world. For the most part, we all share the same basic needs: a job, food, shelter and reliable transportation -- usually in the form of an automobile.

As we go through life, we discover that we have little control over death and taxes. Getting something to last forever seems to be up for debate, at least in the automotive industry. This is what the term “Lifetime Fluids” implies. Is this a reliability factor? And whose lifetime is the manufacturer talking about? Our lifetime? The lifetime of the car? The lifetime of the transmission? Or the lifetime of the fluid? Is it subject to the terms of the warranty? If so, what’s the OEM’s drivetrain warranty? And how about fluid service requirements? Do they refer to normal or severe operating conditions as a determining factor?

What first appeared to be an exciting new fluid service discovery has raised a multitude of important yet unanswered questions. The most important of which is this: Are “Lifetime Fluids” a product of technology or a marketing strategy?

“Lifetime Fluid” -- although this buzzword sells cars for the OEMs, at what expense to the dealerships? And are new car owners now stuck with a ticking time-bomb?





“IT’S ESTIMATED THAT OVER 13 MILLION AUTOMATIC TRANSMISSIONS FAIL EVERY YEAR AND MOST OF THESE FAILURES OCCUR IN VEHICLES WITH PERFECTLY RUNNING ENGINES. SO WHY DON’T TRANSMISSIONS LAST AS LONG AS ENGINES?”

Technology has made major improvements to the internal combustion engine over the last 15-20 years. These innovations have increased efficiency, extended Service intervals and improved performance and reliability. For instance, with the advent of fuel injection as opposed to carburetors, oil change intervals have doubled. The common 3,000 mile interval has been replaced with a 5,000- to 6,000-mile oil change for most cars.

But not all so-called improvements go as planned and sometimes recalls are

necessary to make adjustments. For instance, GM’s extended oil change interval via the dashboard warning light. They discovered that the algorithm that sets off the service oil light was not aggressive enough to prevent lubrication failure and the resulting damage to their engines before they were out of warranty. This is a good example of what most of have learned by experience. If we test our oil and change it before the additives are depleted (regardless of what the owner’s manual says) we can expect our vehicle’s engine to last well over 200,000 miles.

Technology has also transformed the transmission, downsizing it into a smaller, lighter mechanism with improved efficiency and performance. But what about reliability? It’s estimated that over 13 million automatic transmissions fail every year and most of these failures occur in vehicles with perfectly running engines. So why don’t transmissions last as long as engines? After all, they are an integral component of the drivetrain and are usually covered under the same OE warranty as the engine.

There are several basic reasons why transmissions are stressed more severely today than those from the past and why we’re seeing so many transmissions fail. First, they’re more complex, having morphed from 4-speed to 6- and now even 8-speed capabilities. And new fuel-efficient transmission designs including the Continuously Variable Transmission (CVT) and the Dual Clutch Transmission (DCT) require unique fluid technologies to meet their increased performance requirements. They’re smaller and lighter despite increased engine horsepower.

Today's transmissions are subjected to higher torque and -- most importantly -- they often experience an increase in operating temperatures. The Automatic Transmission Rebuilders Association (ATRA) estimates that 90% of all transmission failures are due to overheating of the transmission fluid. Perhaps the number one culprit is failed automatic transmission fluids due to OEMs marketing and promoting "Lifetime Fluids". Automatic Transmission Fluid (ATF) is the most complex of all lubricants and is often transmission specific. It must reduce friction to prevent wear, yet at the same time, it must allow a certain level of adhesion so clutch materials can properly engage. (Plus a host of other requirements.)

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ATFs contain a wide variety of chemical compounds including anti-wear additives, rust and corrosion inhibitors, detergents, dispersants and surfactants, kinematic viscosity and viscosity index improvers and modifiers, seal swell additives and agents, anti-foaming additives and anti-oxidation compounds to inhibit oxidation and boil-off, cold-flow improvers, high temperature thickeners, gasket conditioners, pour point depressant and petroleum dye. In other words, there's a whole lot more going on between the gears.

Despite all the intense demands and requirements of ATF to provide proper performance and protection, many



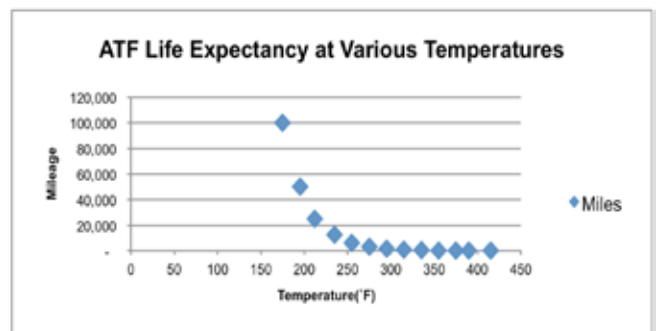
OEMs insist that their ATF (as well as brake and power steering fluid) is formulated so that the owner never needs to change the fluid. They refer to them as "Lifetime Fluids". But does anyone really believe a car will last forever – especially if you don't change the fluids? Or, have these car makers discovered a new fluid alchemy; one that defies everything we know about tribology and fluid maintenance?

"Friction" and "Heat" are the dynamic duo that drives the oxidation rate of vehicle fluids. The normal operational temperature for transmission fluids is approximately 170° Fahrenheit.

At this temperature the fluid's service life under "normal driving conditions" should reach or exceed 100,000 miles. But what about severe driving conditions; after all, most vehicles fall into this operational category. For every 20° increase in the fluid's operating temperature, the resulting rate of oxidation doubles, thereby cutting the fluid's service life in half. The following chart clearly demonstrates the vulnerability of ATF when subjected to operating temperatures above 170°.

The approximate life expectancy of ATF at various temperatures can be seen here:

Temperature	Mileage
175 F	100,000 miles
195 F	50,000 miles
212 F	25,000 miles
235 F	12,500 miles
255 F	6,250 miles
275 F	3,125 miles
295 F	1,562 miles
315 F	781 miles
335 F	390 miles
355 F	195 miles
375 F	98 miles
390 F	49 miles
415 F	less than 30 minutes!



The operating temperature limits of ATF clearly show why shorter fluid maintenance intervals are strongly recommended for vehicles operated under severe driving conditions (most cars). When the fluid exceeds 300° damage may occur. The metals in the transmission, depending on how severely they are overheated, may warp and become distorted.

“SO WITH ALL OF THIS DATA SHOWING THAT TRANSMISSIONS NEED SERVICING TO MAINTAIN PERFORMANCE AND RELIABILITY, AND TO MEET THE EXPECTED CONVENTIONAL SERVICE LIFE STANDARD, WHY ARE THE OEMS SHIFTING FROM A REGULAR PREVENTATIVE MAINTENANCE SCHEDULE TO PROMOTING A SEALED TRANSMISSION WITH A “LIFETIME FLUID” THAT NEVER REQUIRES SERVICING?”

The industry consensus is that fluids are good for the lifetime of the fluid and nothing more. Once a fluid is dirty and worn out it must be changed. So with all of this data showing that transmissions need servicing to maintain performance and reliability, and to meet the expected conventional service life standard, why are the OEMs shifting from a regular preventative maintenance schedule to promoting a sealed transmission with a “Lifetime Fluid” that never requires servicing? Could it have something to do with an OEM offering FREE SERVICE during the warranty period of the vehicle and lifetime fluids are just another way for them to lower their costs?

It’s interesting to note most OEMs offer similar models across the board in both price points and performance. So then, what’s the new paradigm shaping car



sales? New car sales are often driven by J. D. Power Consumer Satisfaction Surveys. The survey results clearly show that drivers want cars that they don’t need to service or maintain. Hence, sealed mechanical systems and lifetime fluids.

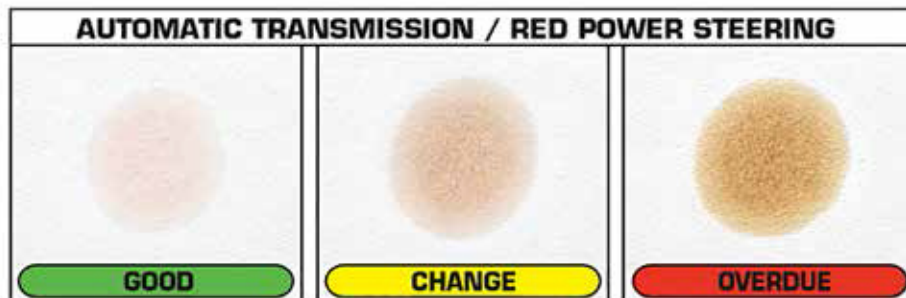
The cost of ownership is another major factor. How much will it cost to perform required maintenance to satisfy the vehicle’s warranty? The program is great for the warranty period and the first owner will rave about the low maintenance car for which he received four free oil changes and maybe a brake job. These marketing programs dramatically reduce maintenance costs for both the auto manufacturer and the driver -- at least until the warranty runs out. It’s a scientific fact that fluid preventative

maintenance prolongs the service life of a vehicle. Therefore, no-maintenance practices are more likely market-driven than engineering-driven. And this is where the rubber meets the road. SO -- as Service providers, what is our responsibility to our customer and to the dealership? Whether they are leasing or buying, do we owe it to our customers to qualify their driving habits and the way they operate their vehicle in terms of “normal” or “severe”? Do we use fluid diagnostic tools to evaluate and show them when fluid services are needed and tell them benefits of servicing fluids before they become depleted? Or, do we just pass the buck. No servicing, “LIFETIME FLUID” – “SEALED SYSTEM”, regardless of the fact that the service is warranted and that it’s good business for the dealership to do so.

One of these scenarios is manifesting into a class action lawsuit against one OEM for allegedly misrepresenting that certain models of their vehicles with automatic transmissions supposedly do not need to have the ATF replaced during the life of the vehicle. The OEM coins this term “lifetime” fluid. According to the lawsuit the “key selling feature” of these vehicles has been its Service and Warranty program, which “promises to ‘maximize vehicle safety, reliability and resale value by minimizing breakdowns resulting from wear, and minimizing cost and inconvenience.’” It’s further alleged that failure to replace the transmission fluid leads to sudden and premature catastrophic failure of the transmission and that the owners are forced to shell out the cost of repair / replacement despite express instruction that replacing the fluid was not “necessary”.

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Previous to “Lifetime Fluids” OEM “time / mileage” Service recommendations were the industry standard. But replac-



ing fluids too late leads to premature component wear and damage that may lead to expensive repairs or shorten the useful lifetime of the vehicle. Replacing fluids before they’re needed costs consumers millions of dollars each year and can be considered environmentally taxing. With the advent and proliferation of “fluid-science” and “instant lubricant diagnostics” tools, the landscape of preventative maintenance has significantly changed to include fluid condition as a qualifying standard for recommending fluid services.

“That’s why we’re now testing the fluids for our customers and showing them the actual condition of their vehicle’s vital fluids” said Todd Renfro, Service Director for the Buchanan Auto Stores, “so they can make an informed decision on the preventative maintenance of their cars. We see using fluid diagnostics technology to identify the condition of specific fluids to be an excellent method to install and maintain integrity with our clientele.”

A crackdown and investigation was recently conducted by the California Bureau of Automotive Repair (BAR) that focused on Service providers performing unwarranted fluid services. The BAR’s initial position on Service recommendations was taken directly from OEM vehicle owner’s manuals. Any services performed outside these OEM specifications were suspect. Aftermarket associations including Automotive Maintenance and Repair Association (AMRA/ MAP), California Automotive Business Coalition (CalABC), Automotive Oil Change Association (AOCA) and industry chemical and tool manufacturers presented white papers and scientific

documentation to the BAR supporting their Service recommendations. The aftermarket demonstrated that the fluid service recommendations being offered to consumers were in their best interest, regardless of whether they were in alignment with OEM recommendations. Consumer benefits include prolonging the vehicle’s useful service life, maintaining performance, maintaining efficiency, reducing breakdowns and reducing overall repair costs over the vehicle’s service life.

So how about “Lifetime Fluids”? Once again, does anyone really believe that a car will last forever – especially if you don’t change the fluids? Are we really expected to buy into and sell “To Infinity and Beyond” as the famous Disney character says?

You’re in the automotive Service industry. Your Dealership relies on your Fixed Operations Departments to generate profits and instill trust, confidence and loyalty in your customers. You are there to provide them with the services they need to maintain their vehicle’s performance, reliability and service life -- INCLUDING FLUID SERVICES. After all, that’s why they came to you in the first place.

Ron McElroy is CEO and Founder of Fluid Rx Diagnostics by Mag-na-Guard, Inc. He has received two “Best New Product Awards” and four “Product Innovation Awards” for creating and bringing to the automotive market innovative new products that have revolutionized the way we integrate aftermarket electronics into OEM systems and that have changed the dynamics of performing fluid preventative maintenance services.

THE BLOOD TYPE AND VITAL SIGNS OF POWER STEERING FLUIDS

WHY AND WHEN THEY SHOULD BE SERVICED

BY RON MCELROY

The latest trend in the automaker's marketing arsenal is "Lifetime Fluids." While this sounds great to consumers, it comes at the detriment of dealership Fixed Operations business and presents an obstacle to providing proper fluid maintenance for our patrons.

The cold hard fact is that nothing lasts forever – especially vital fluids that are subjected to extreme conditions and temperatures. While great strides have been made to improve the performance and service life of lubricants and the various fluids that are essential to the health, longevity and safety of every modern vehicle (such as power steering fluid), there's little evidence to suggest that a new fluid alchemy exists that can extend a fluid's lifecycle indefinitely.

(Perhaps the closest thing we have to a modern-day "lifetime fluid" is coolant / antifreeze. In most cases, it's good for 100,000 miles or more. Considering today's operating environment and demands, the same cannot be said for brake, power steering or transmission fluids.)



This new marketing tool does beg the question: “Who benefits from a lifetime fluid?” And, if such technology were possible, why has it not been created for motor oil? In reality, it appears to be a marketing tactic by OEMs to reduce new car buyers’ perceived “cost of ownership” during the warranty period – and designed to increase J.D. Power customer satisfaction ratings.

Power steering fluid is the lifeblood of the hydraulic system that steers the vehicle’s wheels. This system is typically composed of an engine-driven pump, hydraulic cylinder, valves, hoses and a gear assembly. The properties the fluid and its additive package must include low compressibility, seal and pump lubricity and corrosion protection.

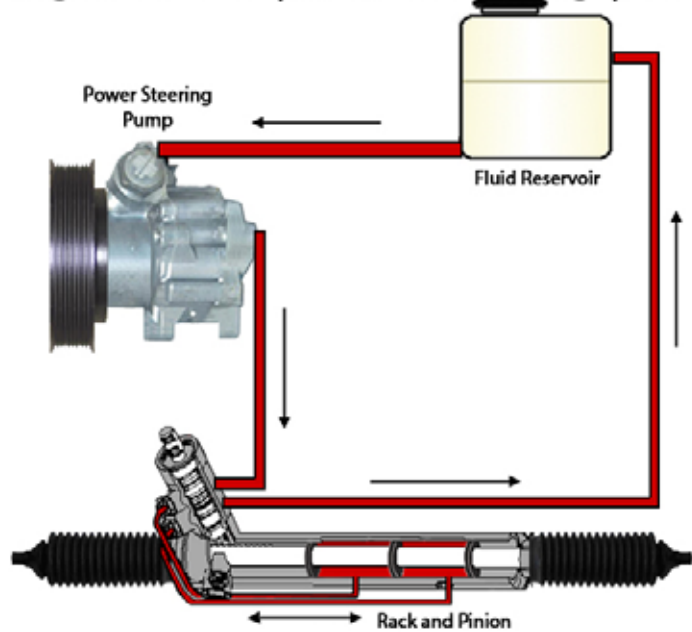
The first commercially produced vehicle equipped with power steering was the 1951 Chrysler Imperial. It was the development of “Hydraguide™” that made steering the massive front-end weight created by their new Hemi V-8 possible and practical. Soon, power steering was included on other high-end cars like Lincolns and Cadillacs and quickly became a luxury option available on select vehicles.

These early hydraulic steering systems were very robust, well-ventilated, operated under 500 psi and required minimum maintenance. Nearly bulletproof, little or no service was required to keep them operating properly. Therefore auto manufacturers didn’t include any power steering services as recommended scheduled maintenance.

Until recently, power steering fluid was referred to as “the forgotten fluid”. But today, it’s perhaps the most overlooked element of fluid preventative maintenance, even though its health is critical to the performance of the vehicle’s steering -- and preventing costly repairs.

Today, power steering fluid exchanges are an integral Service component of proper fluid maintenance -- necessary to maintain the performance and integrity of this system. Why? Because today’s much smaller rack & pinion systems, un-

Diagram of a Basic Hydraulic Power Steering System



like the previous generation’s, operate under considerably more pressure (up to 2,500 psi) which raises the normal operating temperature of the fluid to about 178°F.

Additionally, modern engine bays are tightly-packed. Thus, restricted airflow concentrates heat on this system. Over time,

the fluid becomes burnt and oxidized. As the additive package breaks down, harmful contaminants are formed, thereby changing its viscosity. The net result? Heat and contamination stresses seals and hoses and cause components (including the pump and the rack and pinion) to work harder, which can lead to premature failure.





Conventional power steering fluids are usually composed of mineral oil or synthetic oil. These oils are blended with additives to control foaming, prevent corrosion and provide lubrication to the pump and steering gear. Common fluids used in power steering systems include conventional mineral oil, DEXRON® II or III, MERCON® ATF, ATF+4® and Pentosin®.

Each of these fluids is formulated to work in different environments. Most power steering fluids will not have the same level of friction modifiers as transmission fluids. Always verify applications because an incorrect substitution may cause premature failure of a power steering system.

Automatic transmission fluids are often used as power steering fluids because they maintain a relatively consistent viscosity throughout a wide temperature range, including colder temperatures. Most of these fluids are designed to lubricate and inhibit corrosion when used with specific kinds of materials. Some

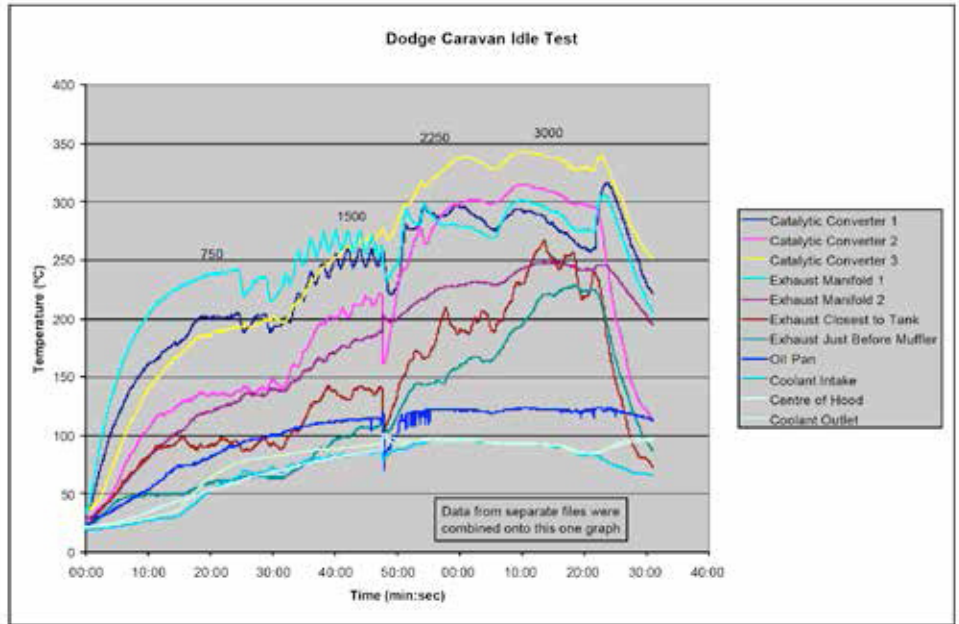
work well with polymers and exotic metals, while other will have harsh reactions with the same materials.

Friction and heat are the dynamic duo that drives shear and oxidation that depletes vehicle fluids. “Over time, seals and hoses decay and wear particles in the steering pump and gears can

contaminate the fluid. Additive depletion and high operating and underhood temperatures will eventually cause the fluid to oxidized and break down,” said Patrick Borrow, Technical Director at International Lubricants. “When this occurs, the fluid is no longer able to perform its intended function.”



To illustrate Patrick's point regarding heat, the accompanying graph shows underhood temperature measurements taken at idle on a Dodge Caravan. For example at idle (750 rpm) the manifold temperature is 243°C or 469°F. As we documented in our previous "Lifetime Fluids" article (Fixed Ops Magazine, March/April 2014) the normal operating temperature for ATF fluids, including some of the same fluids use for power steering, is approximately 170°F. For every 20°F increase in the fluid's operating temperature, the resulting rate of oxidation doubles, thereby cutting the fluid's service life in half.

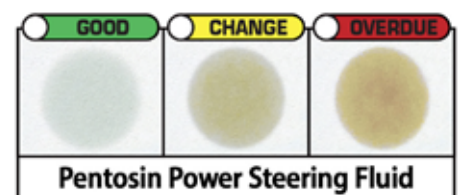
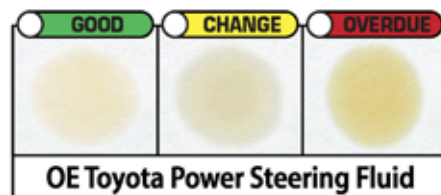
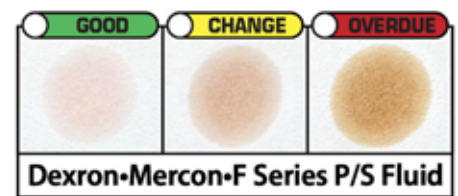
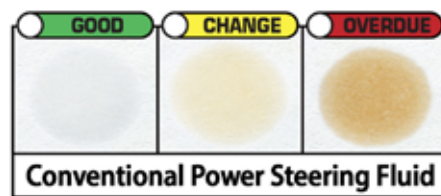


“IN THE END, FIXED OPERATIONS PROFESSIONALS ARE IN THE SERVICE BUSINESS AND PREVENTATIVE MAINTENANCE IS WHY OUR CUSTOMERS COME TO US. “LIFETIME FLUIDS” NEED SERVICING, TOO.”

It's a scientific fact that operating a vehicle on depleted fluids leads to premature component failure. That's why testing and verifying a fluid's condition is as important as following OE time / mileage Service recommendations. And in some cases, even more so.

One accredited method for on-the-spot testing is chromatographic analysis. Here's how it works.

All modern lubricants contain additives that help inhibit breakdown. As these additives are depleted, sludge is formed. One drop of sample fluid is placed on the test sheet. As the fluid percolates through the unique filter paper, bands and / or zones of different hues and densities (even unwanted wear metals and debris) form a chromatogram. Changes in the appearance of the zones or bands are a clear indication that something in the lubricant has changed. A closer look at the zones, their unique formation



and the debris fields contained therein reveals high particle-counts that can be correlated to ISO Code.

The following instant lubricant diagnostics chromatographic charts show how specific power steering fluids, including OE "lifetime fluids", appear at different points of depletion, as correlated to ISO laboratory analysis.

"With the advent of "lifetime fluids" it's become more important now than ever before to test all vital fluids and verify their condition," said Mike Holmes, General Manager at Bill Pearce Courtesy Honda in Reno, Nevada. "Our financial gains for our dealership speak for themselves, but we believe the most important aspect of fluid evaluation is

the trust factor we have developed with our customers. It allows them to make informed decisions on the maintenance of their vehicles."

The bottom line is that "lifetime fluids" – while a wonderful idea – are no more a reality than a lifetime tire, the "100-MPG carburetor" (remember that one?) or the 10-year car wax. In the end, Fixed Operations professionals are in the Service business and preventative maintenance is why our customers come to us. "Lifetime fluids" need servicing, too.

Ron McElroy is CEO and Founder of Fluid Rx Diagnostics by Magna-Guard, Inc. He has received two "Best New Product Awards" and four "Product Innovation Awards" for creating and bringing to the automotive market innovative new products that have revolutionized the way we integrate aftermarket electronics into OEM systems and that have changed the dynamics of performing fluid preventative maintenance services.

NEW FLUID DIAGNOSTIC KITS TELLS OPERATORS - AND CUSTOMERS WHAT FLUID SERVICE INTERVALS SHOULD REALLY BE

By Garrett McKinnon
& Jessica Odom
NOLN Staff Writers
June 2010

Are manufacturer recommended service intervals enough? We hear the message preached all the time: The only surefire way to avoid charges of overselling is to carefully follow automaker-recommended intervals.

“NOT ALL MILES ARE DRIVEN EQUAL.”

The problem with that attitude is that strictly doing so can be disingenuous to your customers. After all, how many of them really get under the hood to inspect the condition of their power steering fluid or brake fluid or transmission fluid? And, let's face it. Not all miles driven are equal. I know plenty of little old ladies who probably don't tax their cars' fluid very much, having been a teenage boy once upon a time, I also know that some of us are prone to driving our cars harder than they were ever designed to be driven, something that can have a deleterious impact on fluid life.

The problem, then, lies in how to tell at a glance what a fluid's condition is. There's the “sniff test”, but the problem with that approach is that by the time a fluid smells burned, significant damage may have already be done to the particular system associated with that fluid. There's also the “color test”, but put virgin motor oil in an older engine and run it for a day or two and see if you can really discern much difference.

Yet 63 percent of operators and managers polled in a recent online survey said that while following manufacturer drain service intervals is important, you have to monitor the individual condition of the fluids, as well.

Which is where a new generation of fluid diagnostic tools comes in. And we're not talking about having a fluid diagnosed in a laboratory or using an

expensive machine, either. These days, it's as simple as applying a small fluid sample to a piece of paper.

“RPC RESULTS PROVIDE A UNIQUE AND PERMANENT RECORD OF THE CONDITION OF THE LUBRICANT.”

“The radial planar chromatographic – RPC – analysis process has been used by chemists and lubricant engineers for many years to monitor the condition of in-service lubricants and to determine if the fluids are acceptable or should be condemned,” said Ron McElroy, founder and inventor of Fluid Rx Diagnostics. “RPC results provide a unique and permanent record of the condition of the lubricant.”

According to McElroy, railroads developed the RPC process in the 1930s to monitor and set fluid service intervals for the locomotive engines. Automakers even used RPC technology from the 1950s to the 1990s to monitor oxidation, cycling and wear test results on ATF.



“All modern lubricants contain additives that inhibit breakdown. As these additives are depleted, sludge is formed. The RPC analysis tool, Fluid Rx Diagnostics, provides a measure of additive depletion and the level of sludge or debris in a lubricant, indicating whether the fluid is in good condition, needs to be changed or is overdue for replacement,” McElroy said.

The process is simple. When a sample of lubricant is placed on a special filter paper, or substrate, the lubricant will begin to percolate through the substrate, leaving any sludge or debris behind. The presence of a significant amount of sludge or debris, generally visible as a dark ring on the substrate, gives technicians and customers a clear indication of whether the fluid has reached or passed its useful life.

The differences between this process and the old “color test” that attempted to ascertain fluid condition base solely on color are many.

“This is not a color test. It's an objective scientific analysis that is repeatable and verifiable. You can't fool the substrate,” McElroy said.

In fact, McElroy had Canada's Department of National Defense test the system. Fluids were tested both with the RPC process and with laboratory analysis. In 93 of 97 tests, the samples correlated exactly with each other in determining fluid condition.

Operators with long memories of color strips and the hassles – up to and including potential legal issues – that went with them may be reluctant to use RPC technology, which is why McElroy said the industry has gone to great lengths to get RPC fluid analysis products approved. The Fluid Rx Diagnostics system has been tested not only by Canada's DND, but also Herguth Laboratories and the Noria Corporation. The RPC process meets several ASTM standards for testing fluids, and has been approved for use by the Automotive Maintenance and Repair Association / Motorist Assurance Program (AMRA/MAP), The California Business Coalition, The California Bureau of Automotive Repair and even OEMs like Ford, Fleetgard, Detroit Diesel, Hyundai, and Kia. In fact, Ford dealerships use the RPC Instant Lubricant Diagnostics kits in many of their service departments.

Operators who have taken the plunge have come away impressed.

“We started using Fluid Rx Diagnostics for a couple of reasons,” said Monte Benedick, operator of brake and wheel center in Leandro, California. “First, I wanted to have proof of what I am selling customers, that when we check something I have a way to back up what I am telling the customer. Second, I also wanted to be better than the other shops around me. I wanted something that sets me apart from the others. We are always looking to better than our competition, and this helped.”

Benedick said technicians love Fluid Rx Diagnostics because it gives confirmation to their recommended service intervals.

“There are no questions. There’s no need to second guess anything,” he said. “What I like most is I have proof. We put the test paper with the work orders so I can come back to it for any reason to say, ‘See, we tested this fluid and, yes, it needed to be flushed.’”

And technicians aren’t the only ones relieved to see concrete evidence of a fluid’s condition.

“The customers I have talked to all love it. I keep the cards on the desk where the customers are being helped. Customers will pick it up and ask what it is, so we get a chance to talk with them about it. I tell them that we actually test the fluid, not just guess that the fluid needs to be flushed. That seems to put customers at ease. Some of our regular customers even ask to make sure we are testing their fluids.”

“IT’S A LEGITIMATE CHEMICAL TEST. NO ONE IS SELLING A SERVICE THAT IS NOT NEEDED.”

Other operators agreed. “We require all of our shops to use Fluid Rx Diagnostics. All of our fluid maintenance services are sold based on the test results,” said Tom McVey, a principal with Quality Tune-Up

Shops, a chain of nearly 40 automotive service facilities in central California. “The fluid samples make for a nice presentation, and it makes it easier for the employees or service writers to sell the service. It’s a legitimate chemical test. No one is selling a service that is not needed.”

Neither Benedick nor McVey said they’ve had any questions from customers about the legitimacy of the kits.

“I’ve been present during presentations, and it’s easy for a customer to see he needs the service. I think it makes our shops more credible to the customer,” McVey said. “We use a standard checklist, and we staple the fluid test results to the checklist. As with anywhere else, the stores that offer to do the needed services get the most add-ons.”

Both operators also said they’ve noticed the impact that Fluid Rx Diagnostics have made on their operations.

“Since we began checking the fluids, our fluid flush sales have gone up for sure. When we checked fluids without Fluid Rx Diagnostics, we were not consistent about fluid condition. I have 22 year experience in this business, and I still cannot look at a fluid and say with consistency whether or not it needs to be flushed,” Benedick said. “With these kits, I can.”

McVey seconded that notion. “I think this is one of the best ways to aid the sales process at the stores,” he said.

McElroy mentioned that some operations even go as far as to charge for a fluid analysis, but he said he believes shops can get a bigger return on investment by offering to do fluid analysis for free and profiting from the extra add-on sales it can lead to. McVey agreed, adding that they pay for the test kits in a unique way.

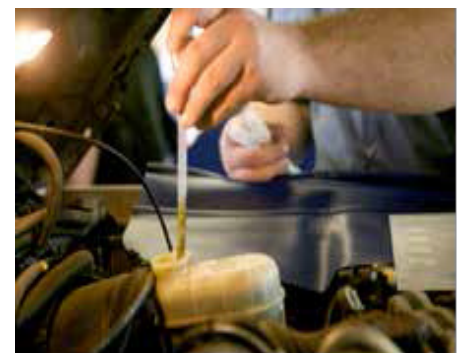
“We pay for Fluid Rx Diagnostics with part of the shop’s advertising budget.”

As with any recommendation, results from the fluid diagnostics must be reported honestly, and one thing Fluid Rx Diagnostics cannot do is guarantee that every car that pulls into your shop will need a fluid service. In fact, McElroy said that tests in association with various laboratories have shown that, most often, half of all cars tested will be within the bell curve of what their OEMs recommend as far as fluid maintenance intervals. Further, another 20 percent (like those driven by the little old ladies mention earlier) will probably be in a situation where they could extend fluid maintenance intervals past those recommended by the OEM – though to do so could impact any warranty they may have on the vehicle, McElroy cautioned.

It is that remaining 30 percent of vehicles, however, that will need fluid maintenance services before the time/mileage intervals recommended by the OEM, a fact drivers of these vehicles wouldn’t have known if not for Fluid Rx Diagnostics.

“IT ALLOWS CUSTOMERS TO UNDERSTAND A CAR’S FLUID MAINTENANCE NEEDS”

“This really is a ‘diagnostic’ on the fluid. It identifies a need and gives the customer a call to action. It allows customers to understand a car’s fluid maintenance needs, and that it’s about more than just mileage,” McElroy said.



A technician takes a sample of brake fluid for testing. In many cases, the radial planar chromatographic tests can quickly and easily tell if a lubricant or fluid needs to be replaced.

"We implemented this process at my Toyota dealership and we immediately saw a 300% increase in fluid exchange services."

Don Fritz – Rogers Toyota Scion

"The customer retention that this program delivers is second to none with the trust and relationship you build with your customers and their vehicles."

Louis Piero – R&H Toyota/Scion

"To date in this store we have not had a customer concern when the evidence is presented properly as to the need."

Bob Betten – Price Auto Group

"We are always looking for processes to increase gross profit and to deliver quality service. The Fluid Science Program does just that!"

Shawn Ball – L&S Toyota of Beckley

"This has given our Service Advisors much more confidence in obtaining customer approval for the needed service."

Darrell Wageman – Dan Cava Toyota

"We have the ability to intelligently and honestly speak to our customers on the needs of their vehicle using the Fluid Science Program."

Todd Renfro – Buchanan Auto Stores

"The Fluid Rx Diagnostics test definitely shows when fluids have degraded. It provides a comfort level for franchisees and our customers, allowing us to make better service decisions."

Tom McVey – Quality Tune-Up Centers

"I thought we were doing a good job of checking cars. But, in the first two weeks of using Fluid Rx Diagnostics, we doubled the number of fluid services."

Monte Benedick – Brake and Wheel Center

"This is an amazing tool. . . It gives our guys confidence in selling the stuff they normally wouldn't sell. . . I'm bragging about you guys."

Bill Marter – Freehold Buick GMC

"This low cost, simple kit offers all the proof you need that it's time to change those fluids. I was impressed with how simple and quickly it worked for me."

Lauren Fix – Lauren Fix, The Car Coach

See testimonial letters at www.FluidRxDiagnostics.com/reviews-press/testimonials/

The Science of Good Business

Proof it's Time to Change

The Importance of Vital Fluids Preventative Maintenance:

Fluids are an important part of any vehicle service checklist. Changing fluids before they become depleted will reduce fuel consumption, optimize performance, and extend component service life thereby reducing your overall operating and repair costs over the life of your vehicle.

The owner's manual for your vehicle recommends changing fluids based on miles driven or the time duration between changes (whichever comes first) for normal or severe driving conditions. These service recommendations are designed to avoid damage to your vehicle from operating with depleted fluids. Maintain your warranty by performing recommended fluid services.

The test results will help you and your service advisor to determine if fluid services are needed and to plan future services. Keep these results with your vehicle's service and repair receipts for reference and proof of proper fluid preventative maintenance.

Ask your technician to perform diagnostics of your vehicle's vital fluids...



...and show your test results



How it works:

All modern lubricants contain additives that inhibit breakdown. As these additives are depleted the fluid degrades.

Degraded fluids affect lubrication regimes reducing clearances or plugging passageways thus increasing friction, heat and wear. The increase in friction results in higher energy requirements or malfunctions. The resulting increase in operating temperatures causes autocatalytic effects on the fluids ability to prevent sludge and accelerates acid buildup promoting corrosion. The net result is an increase in maintenance and operating costs and shorter component life.

Vital Fluids Analysis™ is a patented radial planar chromatographic analysis tool that provides a measure of additive depletion and the level of sludge or debris in a lubricant. The ISO* diagnostic chart shows how each fluid appears at various stages of depletion on the unique test sheet.



INNOVATION AWARD "Preventative Maintenance Tool of the Year"

Industry Memberships, Affiliations & Accreditations



Vital Fluids Analysis™ follows all Motorist Assurance Program (MAP) Standards and California BAR guidelines when making fluid service recommendations. We provide Auto Dealerships, Service & Repair Centers and Fast Lubes world-wide with our user-friendly testing and analysis tools that show customers and technicians alike when fluid services are needed.

Authorized Distributor

