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**PROBLEM**

- TCC apply/release problems
- Converter codes
- Burnt converters
- Engine stalls when put in gear
- Low line pressure
- Converter apply complaints
- Converter & transmission overheating
- Loss of power
- Planetary & bushing failure
- High/Low line pressure
- Delayed engagements
- Soft and/or harsh shifts
- Insufficient line rise
- Delayed engagement in Reverse
- Flare upshifts
- Loss of 3rd & 4th gear
- No TCC apply
- Low line pressure

**SOLUTION**

1. Oversized Lockup Control Valve & Cutback Valve Kit
   - Tool Required: F-94987-TL5 & VB-FIX
   - Part Number: 94987-05K

2. Cutback Valve & Sleeve Assembly
   - Part Number: 94987-01K

3. Oversized Secondary Regulator Valve Kit
   - Tool Required: F-94987-TL17 & VB-FIX
   - Part Number: 94987-17K

4. Oversized Pressure Regulator Valve & Boost Valve Assembly Kit
   - Tool Required: F-94987-TL11 & VB-FIX
   - Part Number: 94987-11K*

5. Main Boost Valve Assembly
   - Part Number: 94987-09K*

6. Oversized Solenoid Modulator Valve Kit
   - Tool Required: F-94987-TL14 & VB-FIX
   - Part Number: 94987-14K

*Note: These kits fit '99-later models: Isuzu NPR, GMC Forward Tiltmaster, Chevrolet Forward, Nissan UD and Mitsubishi Fuso Trucks.

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What's Working Grows Up at Expo 2012!

ATRA’s 2012 Powertrain Expo, October 25th-29th:

FROM THE CEO: If you’re Going to be in the Industry… BE in the Industry! — by Dennis Madden

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Be sure to read our Feature Story, Seal Aftermarket Products Champions More Profits for Shops, pg 16, (Paid Advertisement)
It occurred to me that 2012 marks the 20th Powertrain Expo I’ve had the privilege to participate in, and I’m proud of each and every one of them. Thinking back, a lot of those events blend together, making them seem the same. But they weren’t; they were all different. The training was different, the products and services from the exhibitors were different, even the people were different; many of whom have since retired.

What remains the same is that ATRA’s Powertrain expo is the place where the industry gathers once a year to share ideas and discover new technologies.

The transmissions may be different but the dedication to training is still our top priority. And when it comes to training programs we’ve learned that less is more. Rather than three or four sessions running concurrently we’ve narrowed it down to two. In fact, there are a few “must see” programs that run without a competing seminar, so you won’t miss any of the valuable information.

With so much information it’s hard to remember everything. No problem: we record the audio from the seminars, and provide them as part of the complete registration. The files are accessible as a download after the show so you have a complete training package of written and audio material to review over and over.

As much as today’s transmissions have changed, running a transmission repair business has changed even more. The commoditization of the transmission has forced us to look at business differently. Today our greatest obstacle is reaching potential customers. Reaching new customers has always been a challenge but the competition today is fierce and consumers have alternatives when it comes to fixing their cars.

That’s why our business seminars are based on targeted research, and every program is directed at addressing the situations created by today’s market trends. Our goals are so specific that we no longer offer a series of concurrent seminars; we have one program that takes you from beginning to end.

This year’s program focuses on the dealer customer. These are people who have the ability to pay for top-notch repairs from a professional repair shop. These customers are out there and many of them are eager to find a dealer alternative… if you know what they’re looking for.

Of course, Expo wouldn’t be Expo without our trade show. This is your best source for taking a firsthand look at the latest innovations in tools, parts, and services. Distributors and manufacturers worldwide bring their latest products and services to the show. You’ll get the first glimpse of what they have to offer, and special deals that are only available to you for attending.

Perhaps one of the best parts about ATRA’s Powertrain Expo is the people attending. Nowhere else will you find this concentration of successful shop owners and technicians, willing to share their success stories and business strategies.

So how do you find these business leaders? It’s easy, make sure you’re where they are: in the training session and social events. And speaking of social events, there’s the Raybestos luncheon and Transtar reception, both on Saturday.

The Raybestos luncheon gives you a recharge after the training sessions and right before heading to the opening of the trade show. This year we have a special guest speaker: Five-time New York Times best-selling author and “Pitbull of personal development”, Larry Winget (www.larrywinget.com). Larry says, there are no “secrets for success” but he has a special way of making this point. This is an event you won’t want to miss.

After a long day what could be better than enjoying hors d’oeuvres and a cool beverage with your new-found friends at the Transtar reception on Saturday night. What a way to top off a perfect day.

ATRA’s Powertrain Expo is more than training seminars, a trade show and social events. It’s the only place where this industry - your industry - gathers to share ideas, discover new technologies and develop business strategies. It’s the most, well-attended event for the transmission-repair professional but it won’t be complete without you.

So, if you’re going to be in this industry… BE in this industry. The biggest event in the industry happens once a year and that time is now! We’ll see you in Las Vegas!

FROM THE CEO

If you’re Going to be in the Industry...

BE in the Industry!

by Dennis Madden

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Plus, unlike some competitors, the warranty is good for fleet vehicles. That means you get the same advantages and coverage for commercial use, no exceptions.

For technical questions, contact the Powertrain Assistance Center at 1-800-392-7946 or visit FordParts.com.

*See dealer for limited-warranty details. Remanufactured diesel engines are covered by a two-year/unlimited-mileage warranty.
The 6L50 (RPO MYB) was introduced in 2007 in several Cadillac applications and has since developed into a very reliable and durable transmission.

A lot of shops have never seen one of these transmissions, as they are now just starting to come out of warranty.

Since the 6L50 introduction, its little brother, the 6L45 (RPO MYA) was introduced in some applications. Both are available in 2WD and AWD formats. Like the 6L80/6L90, they share a lot of common components and operational strategies.

A lot of shops have never seen one of these transmissions, as they are now just starting to come out of warranty. I’ve had the pleasure of working on several as I travel around the country, and most of the issues are fairly simple to address. One issue that you want to keep an eye out for relates to the output shaft on 2007-2010 applications.

You may have a vehicle that exhibits any or all of these symptoms:

• Pop-snap-grinding noise during acceleration or deceleration
• No movement forward
• No movement in reverse
• No movement in either direction
• Intermittent noise or no movement

Figure 1
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Excessive wear in this region in customer field tests.

Contact pressure during engagement on reaction plate from FEA simulation.
Rust on the transmission output splines and transfer case input splines

If you see any of these symptoms, or if you have one of these units apart for some reason, you need to inspect the transmission output shaft and transfer case input shaft for wear and damage. Two areas of concern have developed:

• The output shaft splines on the transmission and the input shaft splines on the transfer case wear as rust forms on the splines. Upon disassembly, always check for rust and inspect the splines for wear. The splines were packed with grease during assembly, but over time the grease washes away, leading to metal-to-metal contact between the splines. Over time, this contact leads to rust formation and spline damage. As this problem develops, the symptoms will increase in regularity and severity.

• The splines may be in good shape but the shaft is broken at its base. Always inspect the shaft at its base, where the fillet is located, for cracks or damage. Shafts have been known to break in this area, so a close inspection could prevent a comeback for you down the road.

GM Powertrain has made updates to address both of these areas. Spline wear was addressed by adding an O-ring on the transmission output shaft and redesigning the transmission output shaft and transfer case input shaft splines.

The O-ring (figure 1) traps grease in the splines to eliminate oxygen and provide lubrication for the spline contact areas. This eliminates rust and wear issues. Upon assembly with new parts, you should fully coat the splines of the transmission output shaft and the transfer case input shaft with high temperature wheel bearing grease.

To address issues with shaft breakage, GM Powertrain redesigned the fillet. The updated shaft has a wider fillet and a different hardening process to eliminate possible stress fractures (figure 2).

So at this point you’re probably asking, “How do I get the parts I need to address this condition?” Part numbers were issued for the updated parts from GM Service Parts Operations (GM Customer Care). Here’s a list of parts, depending on your application:

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
<th>RPO Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>24251229</td>
<td>Shaft Assembly, Transmission Output</td>
<td>MYB, MX7</td>
</tr>
<tr>
<td>96043341</td>
<td>Shaft Assembly, Transmission Output</td>
<td>MYA</td>
</tr>
<tr>
<td>19256369</td>
<td>Shaft, Transfer Case Input</td>
<td>CTS</td>
</tr>
<tr>
<td>19256370</td>
<td>Shaft, Transfer Case Input</td>
<td>STS, SRX</td>
</tr>
<tr>
<td>1051344 (U.S.)</td>
<td>Lubricant, Wheel Bearing Grease</td>
<td></td>
</tr>
<tr>
<td>993037 (Canada)</td>
<td>Lubricant, Wheel Bearing Grease</td>
<td></td>
</tr>
<tr>
<td>24231525</td>
<td>Gasket; Transfer Case</td>
<td></td>
</tr>
<tr>
<td>24251228</td>
<td>O-Ring Seal</td>
<td></td>
</tr>
</tbody>
</table>

Upon disassembly, always check for rust and inspect the splines for wear. The splines were packed with grease during assembly, but over time the grease washes away, leading to metal-to-metal contact between the splines.

So far we’ve looked at the problem and the product changes to address the issue. But what do you do if you pull one of these units and find no damage to the splines? If the splines and shafts are in good shape, you can probably reuse the shafts, as this product update would be cost prohibitive for every repair.

To reduce the chance that spline damage will occur, simply stack two O-rings (24251228) onto the shaft during assembly. Now I realize the old design shaft doesn’t have a groove to house the O-ring like the updated shaft, but that’s why we’re going to use the double O-ring. The friction of two O-rings on the shaft is enough to maintain the grease between the splines.

One other thing comes to mind when servicing these units: The transfer case has two dowels located across from each other in the front half of the transfer case. Make sure the dowels stay in the transfer case to provide alignment between the transmission and the transfer case. Many times the dowels fall out, leading to alignment issues.

Well that’s about all the time we have for now. Until next time, remember: “To measure a man, measure his heart.”
S.O.S.

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**A Quick Peek at Things to Come**

A look at what we’ll be covering at this year’s Expo on the Jatco JF613E transmission.

With ATRA’s Expo just around the corner, we’re going to take a little peek at what we’ll be covering on the Jatco JF613E. In the January/February 2012 issue, we examined some of the electronics and power flow. In this issue we’re going to explore pressure switch identification and function, along with some familiar hydraulic functions.

The pressure switch identification is shown in figure 1. These switches are vary by model. This transmission is used in the European market in Renault and some Nissan models that we don’t see here in the States. The JF613E can be found in the Mitsubishi Outlander from 2007 to present here in the U.S.

The pressure switch information in this article is from some Mitsubishi models seen here in the U.S. There are differences found in the European models that will be covered at Expo. Of course, we may also see changes in the U.S. models; time will tell.

There can be as many as five pressure switches in this transmission. These switches are normally open and receive 12 volts from the TCM (figure 2). The pressure switches close at about 10 to 15 PSI and should pull the voltage.
New Transmission-by-Vehicle App

for smart phones

New, Global Edition Transmission App Simplifies Identifying Transmissions by Vehicle

You can now use your mobile phone to identify automatic transmissions in virtually any vehicle in the world.

Developed to eliminate confusion over look-alike transmissions, this mobile app identifies transmissions by vehicle make, model, year and engine for import and domestic applications through the 2012 model year and is updated continuously with new vehicle listings.

You can select Honda, for example, to learn that a 2002 Honda Accord with V6 3.0L engine has a 4-speed, front wheel drive transmission (model B7XA).

Scan with your smart phone and bookmark!
The TCM uses this information to determine when each clutch is applied, to control shift timing and clutch pressure. The pressure switch apply chart is shown in figure 3.

This transmission uses a lockup solenoid shift valve (switch valve) to control the apply of the low-reverse brake clutch and lockup clutch. Sounds similar to the Chrysler 41TE, doesn’t it?

When the on/off type low-reverse brake shift solenoid is off, the lockup solenoid switch valve is held in the lockup position by the return spring. Pilot pressure from the lockup and low-reverse brake normally low (N/L) linear type solenoid goes to the lockup control valve to apply the torque converter clutch (figure 4).

When the TCM commands the low-reverse brake solenoid on, pilot pressure strokes the lockup solenoid shift valve against the return spring. This switches the pilot pressure from the lockup and low-reverse brake linear solenoid to the low-reverse brake clutch control valve to apply the low-reverse brake clutch, as shown in figure 5.

The normally high (N/H) linear type line pressure solenoid controls pilot pressure to the mainline pressure boost valve to raise and lower mainline pressure (figure 6). Reverse boost pressure is controlled directly by the manual valve to the middle of the boost valve to control mainline pressure in reverse. During failsafe operation, the line

<table>
<thead>
<tr>
<th>Pressure Switch</th>
<th>Low Clutch</th>
<th>2-6 Brake</th>
<th>3-5/R Clutch</th>
<th>High Clutch</th>
<th>L/R Brake</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gear</td>
<td>Open 12V</td>
<td>Open 12V</td>
<td>Open 12V</td>
<td>Open 12V</td>
<td>Closed 0V</td>
</tr>
<tr>
<td>P/N</td>
<td>Open 12V</td>
<td>Open 12V</td>
<td>Open 12V</td>
<td>Open 12V</td>
<td>Closed 0V</td>
</tr>
<tr>
<td>Reverse</td>
<td>Open 12V</td>
<td>Open 12V</td>
<td>Closed 0V</td>
<td>Open 12V</td>
<td>Closed 0V</td>
</tr>
<tr>
<td>Man 1st</td>
<td>Closed 0V</td>
<td>Open 12V</td>
<td>Open 12V</td>
<td>Open 12V</td>
<td>Closed 0V</td>
</tr>
<tr>
<td>Drive 1st</td>
<td>Closed 0V</td>
<td>Open 12V</td>
<td>Open 12V</td>
<td>Open 12V</td>
<td>Open 12V</td>
</tr>
<tr>
<td>Drive 2nd</td>
<td>Closed 0V</td>
<td>Closed 0V</td>
<td>Open 12V</td>
<td>Open 12V</td>
<td>Open 12V</td>
</tr>
<tr>
<td>Drive 2nd/LU</td>
<td>Closed 0V</td>
<td>Closed 0V</td>
<td>Open 12V</td>
<td>Open 12V</td>
<td>Open 12V</td>
</tr>
<tr>
<td>Drive 3rd</td>
<td>Closed 0V</td>
<td>Open 12V</td>
<td>Closed 0V</td>
<td>Open 12V</td>
<td>Open 12V</td>
</tr>
<tr>
<td>Drive 3rd/LU</td>
<td>Closed 0V</td>
<td>Open 12V</td>
<td>Closed 0V</td>
<td>Open 12V</td>
<td>Open 12V</td>
</tr>
<tr>
<td>Drive 4th</td>
<td>Closed 0V</td>
<td>Open 12V</td>
<td>Open 12V</td>
<td>Closed 0V</td>
<td>Open 12V</td>
</tr>
<tr>
<td>Drive 4th/LU</td>
<td>Closed 0V</td>
<td>Open 12V</td>
<td>Open 12V</td>
<td>Closed 0V</td>
<td>Open 12V</td>
</tr>
<tr>
<td>Drive 5th</td>
<td>Open 12V</td>
<td>Open 12V</td>
<td>Closed 0V</td>
<td>Closed 0V</td>
<td>Open 12V</td>
</tr>
<tr>
<td>Drive 5th/LU</td>
<td>Open 12V</td>
<td>Open 12V</td>
<td>Closed 0V</td>
<td>Closed 0V</td>
<td>Open 12V</td>
</tr>
<tr>
<td>Drive 6th</td>
<td>Open 12V</td>
<td>Closed 0V</td>
<td>Open 12V</td>
<td>Closed 0V</td>
<td>Open 12V</td>
</tr>
<tr>
<td>Drive 6th/LU</td>
<td>Open 12V</td>
<td>Closed 0V</td>
<td>Open 12V</td>
<td>Closed 0V</td>
<td>Open 12V</td>
</tr>
</tbody>
</table>

The switches close at approximately 10-15 psi.
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2005–2010 Kia Lotze (Non USA)
2006–2011 Kia Opirus (Non USA)
2006–2010 Kia Optima (Non USA)
2007–2010 Kia Rondo (Non USA)
Reverse boost pressure is controlled directly by the manual valve to the middle of the boost valve to control mainline pressure in reverse.

The transmission cooling system is somewhat different than what we’re used to seeing. This cooling system is made up of three components: a thermal check valve, a fluid warmer/cooler, and an auxiliary cooler (figure 7). The auxiliary cooler is attached to the transmission with brackets, and the cooler lines are connected directly to the rear cover.
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The warmer/cooler is attached to a flange on the right rear of the case, just above the axle.

Transmission oil from the torque converter travels through the valve body and case, into the warmer/cooler, back into the case, out through the rear cover to the auxiliary cooler, and back into the rear cover to the lube circuit. All this is done without the use of a roadmap.

Engine coolant runs through the warmer/cooler, out through the thermal check valve to the upper radiator tank. The thermo check valve uses a wax element to move an internal valve to restrict the flow of engine coolant. The thermo check valve maintains ATF temperature within an operating range between 75°C (167°F) and 88°C (190°F).

This system is slightly different than some models used in Europe. For example, the Renault only uses the warmer/cooler located on the flange above the axle.

Well, that’s all for now; we’ll be going over much more about this Jatco 6-speed front wheel drive at Expo in October… I hope to see you there!
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The global automatic transmission aftermarket industry is a very close community of expert technicians, product, and market experts. The proliferation of information such as technical guidance and product solutions may seem overwhelming at times although too important to be ignored. Industry tips are always offered with the intention of alleviating issues during the rebuild process, expediting the rebuilds and/or preventing comebacks. These product solutions can come at a high cost. The sustainability and strength of our industry is dependent on both increased efficiencies and profitable growth at the shop level. Seal Aftermarket Products is a company that focuses on building value and being your source for engineered solutions.

Value Proposition
As a supplier of rebuild kits, clutch plates, hard parts, bushings, washers, filters, pistons and electronics; Seal Aftermarket Products has many opportunities to add value through their products and enhance the rebuild experience of a technician. The way that the Toledo Trans kit brand overhauls are subkitted can reduce the rebuild time. Toledo Trans-Kit overhauls include components such as washers, nuts, and solenoid repair components not regularly found in other overhauls. The inclusion of these necessary components reduces the time and expense of buying these items separately. The instruction sheets included in the Bryco brand overhauls can alleviate concerns with similarly sized seals. The products provided by Seal Aftermarket Products include added value for the shop and the rebuild technician. The idea generation for these value propositions originates from the industry technical sources, the distributors, or from the customer of the distributors, the rebuild technician.

Adding Value through Design
Rebuild technicians have great networks of information available to them, ATRA, ATSG, TRNW to name a few. Seal Aftermarket Products supports these service groups and closely monitors the information posted on the websites of these service groups for the purpose of...
offering immediate solutions to individual concerns or identifying opportunities to develop future aftermarket fixes. Developing aftermarket fixes can include upgrading the material of the part to be more heat resistant; redesigning the component part all together because the OE design simply wears or fails faster than what is desirable; or tooling a component part because the OE manufacturer has discontinued production yet there is a great deal of demand in the aftermarket. A driving force behind the creation of aftermarket solutions is that the solutions improve the efficiency of the rebuilds, which can reduce costs and increase profits. Growing profits at the shop level makes the entire automatic transmission aftermarket industry stronger.

Transmission Rebuilders Network Worldwide (www.trnw.net) is an excellent example of a forum where technicians, rebuilders, and shop owners can go for rebuilding tips, diagnostic help, and troubleshooting. Our new product development team monitors this site in hopes of identifying opportunities for enhancements or aftermarket fixes. Bill Anthony, Seal Aftermarket Product’s Research and Development Manager, stated, “This site is where we realized there was a need for an enhanced aftermarket sealing ring for the 4T65E second clutch.” We obtained the transmission, verified the problem, and developed a solution. When Bill recently saw a post on TRNW from the largest Aamco shop in Houston, Texas regarding the 4T65E second clutch problem, he immediately sent samples of the sealing rings which solved the shops’ problems. The TRNW site is an open forum for an exchange of information. Bill Anthony regularly responds directly to the individual with assistance whenever Seal Aftermarket Products has the aftermarket fix.

Another great network of transmission repair specialists is ATRA (www.atra.com). Lance Wiggins, in the January/February 2011 issue of GEARS wrote an article titled “The RE5R05A… Again?” In Lance’s article he points out that the RE5R05A transmission can have significant differences among its component parts. For example, Wiggins points out that the type 1 and type 2 valve body systems are different and “aren’t interchangeable”; there are two different turbine shaft and stator support lengths; the front, center, and rear planet assemblies are built differently for various model vehicles. Throughout his article Wiggins cautions purchasing replacement parts for this unit as there are a multitude of variations. As a premier kit packager of the Toledo Trans-Kit and Bryco brand kits, the kit development team at Seal Aftermarket Products must keep track of all of the variations of a transmission in the United States and globally in addition to updating components to accommodate the premature wear characteristics of the transmission once it has been in the field. Specific to the RE5R05A, Seal Aftermarket Products was the first to add the updated forward sun gear and turbine shaft sealing rings which remedy the ATRA identified problem of flare on the 2-3 shift and TCC concerns. The process of developing aftermarket fixes or solutions involves listening to the problems experienced by the rebuild technician; verifying the mechanics of the problem; making the corrective change to Seal Aftermarket Products’ product offering; and then servicing the industry, according to Bill Anthony. “Developing and updating the Toledo Trans-Kits with the rebuilder in mind is what we do and why I am so dang proud of these overhaul kits,” exclaims Bill Anthony.
Seal Aftermarket Product’s Director of New Product Development, Bill Fantozz, has instituted a bushing program designed to resolve the industry’s bushing shortage problem. “Availability of the original equipment manufacturer (OEM) parts is getting tougher and tougher especially when the original manufacturer discontinues production of the component part. Discontinuing production of a component usually occurs when the complete transmission or a section of the transmission is no longer needed at the new transmission production or dealership service levels” according to Fantozz.

Once the need for the product has been identified Fantozz says, “there is really no budget constraint that would limit my ability to fill the void in the industry.” Fantozz talks about the OE bushing manufacturer that supplied the aftermarket for so many years and then stopped production creating a global supply crisis. “What I have done,” stated Fantozz, “is basically circled the globe looking for not just one but multiple bushing manufacturers so that Seal Aftermarket Products can fulfill the bushing demand.” Fantozz anticipates the bushing development process will take another 6 months for a significant impact on supply to occur in the market. “We have double checked every bushing bore and shaft size; we have adjusted the finished bushing size due to rebuild technician concerns. This has taken much longer than we would have liked however we know we will have a superior bushing product once completed. Unfortunately, all of the bushings cannot be tooled at the same time” stated Fantozz.

Bill Fantozz has also initiated the launch of a molded piston program with the objective of improving the performance and availability of various piston applications known to be problematic in our industry. The piston project currently includes many different pistons applications such as the DPO/AL4 7 pistons, FNR5 3 pistons, RC4A-EL/JR405E 2 pistons, 62TE 3 pistons, MLYA, SLYA 1 piston, 5R55N 1 piston, 5L40E 8 pistons, 6L80E 5 pistons, and 4L80E 3 pistons. A higher grade rubber compound is extremely important as the aftermarket has the benefit of knowing the wear characteristics of the original. These wear issues have been largely communicated across the technical networks. Fantozz offers the example of the 62TE pistons needed to be made from a more heat tolerant rubber compound as the transmission could be exposed to additional heat from engine exhaust system as a result of that vehicles engine and transmission design. The Seal Aftermarket Product pistons (brown color rubber) for the 62TE are made from Fluorocarbon Elastomers (FKM) which are more abrasion resistant and can withstand higher temperatures than the OE version. The DPO/AL4 pistons (blue color rubber), Fantozz stated are upgraded to an Ethylene Acrylic Elastomer (AEM). Other aftermarket DPO/AL4 pistons are made of a less tolerant ACM Polyacrylate material.

Seal Aftermarket Products’ distributors in Mexico complained about sealing rings in the DPO/AL4 blowing out. It took two years and the engineering collaboration of Dupont® and Seal Aftermarket Products to develop a revolutionary sealing ring for the DPO/AL4 that out performs other sealing rings in the market. Robert Bateman from Transmisiones El Gringo stated, “I just finished installing the (Toledo
Trans-Kit) DPO kit in a 04 Renault Megane. The rings are awesome, I did a wet pressure test and compared the seal with other rings and I can tell the difference, the other guys rings blew out.”

**Promoting Value**

Seal Aftermarket Products is actively searching for ways to find aftermarket fixes or solutions that improve efficiencies and profitability for shops. In the quest for the “Best Aftermarket Solution” process or product idea Seal Aftermarket Product is offering a $500 first prize for the idea or process chosen from all submitted either by mail, email, or on www.seal-aftermarketproducts.com website. The primary criterion is that the ideas optimizes a shop’s or rebuild technician’s efficiency and/ or profitability. Please visit our website for rules and regulations. Seal Aftermarket Products booth # 323 will also have forms for idea submissions. An expert panel of five judges will participate in a blind review of all ideas to choose the winner. The winner will be selected and announced on the last day of Powertrain Expo, October 29, 2012. The winner does not need to be present to win.

Over the years, the team at Seal Aftermarket Products has found that the best way to add value for the shops and rebuild technicians is to listen to them, analyze their issues, and become their source for engineered solutions.

Developing aftermarket fixes can include material upgrades, reengineering the component, or tooling a component to provide an availability of supply to the aftermarket. Creating aftermarket solutions and aftermarket fixes is what has served as the foundation for the integrated relationship between Seal Aftermarket Products and several large production rebuilders. Reducing costs and bettering efficiencies of the rebuild is important on a large scale and small scale as this is what ultimately adds to the sustainability of the automatic transmission aftermarket industry.
Great Rebuilding Technique Is No Longer Enough...

Today’s computer controls can ruin your rebuilds, unless you give them a chance to start over.

Once, not so long ago, if you wanted to offer terrific rebuilds, you had to go the extra mile: replace bushings, set clearances, maybe install modification kits. You might even have to update the unit with the latest fixes, from one of the many companies that specialized in finding and correcting those annoying little problems that could cause a rebuilt to tank.

It was a lot of effort, but it made a difference. With a little extra effort, you could build a transmission that would last and last, and shift “much, much better than new.”

These days that isn’t enough. Oh, you still have to put in that extra effort if you want to offer great rebuilds. But today, you aren’t the final arbiter of how that transmission’s going to behave.

Because today’s transmissions are computer controlled. And the computer decides how and when the transmission will shift.

That’s not necessarily a bad thing: When they’re working right, those computer controls make for some really outstanding shift performance. But it does add an important step to the mix: shift adapts.

**Shift Adapts**

The computer constantly monitors transmission behavior and adjusts — or adapts — to operating conditions. Things like clutch wear, temperature, and even the driver’s behavior all affect the shift adapts.

Again, a good thing. It’s why today’s transmissions can operate so well. But here’s the rub: You need to reset those adapts after every transmission repair. Here’s why:

As the transmission wears, the computer is busy adapting to that wear. It sees how long it takes for a clutch to apply, and alters the hydraulic operation to adjust the shift timing and feel.

Now you rebuild the transmission… or maybe just repair it. Everything’s new, fresh, and crisp. Meanwhile the computer is still adjusting the shifts based on that wear… wear that’s no longer there.

The results can be catastrophic.

In some cases it may just have an annoying shift until the system readapts to its new conditions. But in other cases, clutch apply could overlap, causing real damage or even transmission failure.

The solution? Reset the transmission shift adapts.

When you reset the adapts, you’re actually doing two things: First, you’re putting the system back to its base settings, so the system can work without damaging anything. Second, the computer knows the adapts have been reset, so it accelerates its
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Once you’ve reset the adapts to zero, you’ll need to drive the vehicle and help the computer begin its relearning process.

Resetting the Adapts
How do you reset the adapts? On most cars it’s fairly easy: All you need is a good scan tool with the latest cartridge for the vehicle you’re working on.

While there are some minor differences from one system to the next, the general procedure is simply to select Reset Adapts from the menu. That should clear the adapt memories on most vehicles. Then you’re ready to perform the initial learning procedure.

Initial Learning Procedure
Once you’ve reset the adapts to zero, you’ll need to drive the vehicle and help the computer begin its relearning process. In most cases you can clean up transmission operation with these 3 simple steps:
1. Bring the engine and transmission to normal operating temperature.
2. Perform five or six accelerations at light throttle — about 15%. Make sure the transmission shifts all the way from 1st through high gear, including applying the converter clutch.
3. Perform five or six accelerations at medium throttle — about 30%-40%. Once again, make sure the transmission shifts all the way through the ranges, from 1st through high gear, including lockup.

Now the transmission should shift okay and be ready to deliver. Make sure you check once more for any codes in memory, and don’t forget to let the customer know that the transmission will continue to adapt to his driving over the next few weeks.

Nissan Techniques
That’s all you need to do for most transmissions. But there are exceptions, such as Nissan and VW/Audi. According to Nissan, you’ll need a Consult scan tool to reset the shift adapts. But I’ve performed it successfully using an aftermarket scan tool.

Nissan’s procedure depends on the type of transmission you’re working on. For the Nissan 5-speed, the procedure’s easy:
1. Key on, engine off.
2. Transmission in park.
3. Connect your scan tool.
4. Set your scan tool to A/T.
5. Select Work Support.
6. Select Initialization.

That’s all there is to it. Take the car out and go through the initial learning procedure to begin the relearn process.

If you’re working on a Nissan CVT, the procedure’s a little more involved:
1. Key on, engine off.
2. Set the parking brake (this is important; you’ll be shifting the transmission out of park later in the procedure).
3. Connect your scan tool.
4. Set your scan tool to Transmission.
5. Select and print Data Calibration for comparison later.
6. Erase the EEPROM:
   - Apply the brake with your left foot and hold it.
   - Shift the transmission into reverse.
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• Apply the accelerator about half way; you want both the closed throttle position signal and wide open throttle position signal to be off.
• Choose Erase on your scan tool.
7. Shift the transmission back to park.
8. Release the brake.
9. Turn the key off.
10. Wait five seconds.
11. Turn the key on, engine off.
12. Select and print the Calibration Data again.

Compare the initial calibration data to the second reading. The new printout should be different than the first, indicating that the adaptive memory’s been reset.

Take the car out and go through the initial learning procedure to begin the relearn process.

VW/Audi Techniques

VW/Audi’s procedure for resetting the shift adapts also involves using their proprietary scan tool and software. No problem, if you have one on hand. But chances are you don’t, and they’re not cheap.

Fortunately there are some bypasses for that. One of the easiest is when working on a VW or Audi equipped with a ZF transmission. For them, just disconnect the transmission electrical connector and drive the car around the block. Then shut off the engine and plug the transmission connector back in.

That’s all there is to it: The transmission shift adapts are reset to zero. Go out and drive the car using the initial learning procedure to help the computer begin the relearn process.

To reset later VW/Audi with the 09G 6-speed transmission, you’ll need to perform what VW calls a Kickdown Adjustment. Here’s how to perform it:

1. Key on, engine off.
2. Connect your scan tool normally and set it for the vehicle you’re working on.
3. Make sure there are no engine or transmission codes in memory; clear codes if necessary. This reset won’t work if there are any engine or transmission codes in memory.
4. The throttle body alignment must have been successful. Unless you worked on the throttle body, the alignment should be fine.
5. Don’t touch the accelerator during this procedure.
6. Follow these steps on your scan tool:
   [Select]
   [02 – Auto Trans]
   [Basic Settings – 04]
   Set Group to 001
   [Go!]
   Don’t touch the accelerator pedal.
   You should see System in Grundeinstellung on the display.
   [Done, Go Back]

That’s all there is to it; the system adapts should be reset. Perform the initial relearning procedure to start the process, and you should be ready to return the vehicle to the customer.

These days as before, it’s still important to go the extra mile while repairing the transmission. But you haven’t crossed the finish line until you’ve reset the shift adapts and performed the initial relearning procedure.
In a recent challenge to understand more about EMI (electromagnetic interference), I spent the better part of two months reading reports, rules, and SAE standards, and testing all of these issues. To Dave Wilkes, thank you for this challenge.

It started with a Jaguar that was shifting into neutral on the 1-2 shift, and again on the 6-5, 5-4, or 4-3 crowded downshifts. This Jaguar was equipped with the Ford 3.0L engine and ZF6HP26 transmission.

During the diagnosis, the technician confirmed that the TCM was commanding an intermediate shift. There were no codes and no other symptoms. After days of diagnosis and TCM replacements, a breakthrough came when Dave replaced the spark plugs and the problem disappeared.

But why? Why would worn spark plugs cause the transmission to shift into neutral? And, more importantly, how can you diagnose this problem if it shows up in your shop? So Dave challenged me to solve this mystery.

The problem was EMI; electromagnetic interference. The worn plugs were inducing stray electrical signals into the computer system, causing the TCM to “Bit Flip” (see the side bar for explanation) the signal and command the transmission to shift into neutral. So how do we identify and track down that EMI?

EMI is all around us. Every electrical wire you pass by on the highway creates EMI; every time you drive by an airport there’s EMI. The fact is every vehicle is under a constant bombardment of EMI. But there are acceptable levels that all vehicles can endure.

The Society of Automotive Engineers (SAE) standard J1113 defines what a normal acceptable level of EMI for all vehicles.

The problem comes in when the EMI exceeds normal levels. Common causes for these high levels of EMI include a faulty alternator, worn electrical motors, and, as we’ll see, even worn out spark plugs.

First, let’s look at alternator EMI and how to identify it.

**Alternator EMI**

For most vehicles, alternator EMI usually causes erratic VSS readings or TCC behavior.

For most vehicles, alternator EMI usually causes erratic VSS readings or TCC behavior.
alternator. Turns out, the easiest way to monitor this is to turn on the radio. That’s right… and it works to perfection.

Tests show the VSS reading and the radio buzz vary with one another. With the vehicle’s engine running and the transmission in park, raise and lower the RPM. If the noise and the VSS signal vary at the same time — and most importantly the buzz doesn’t have an ignition clicking noise! — you’re looking at an alternator problem.

Verify this by turning the vehicle off and disconnecting the alternator. Then restart the engine, and raise and lower the RPM. If the alternator is the source of the EMI then the buzz should be gone and the VSS should read normally.

A more sensitive tester would be an old, handheld transistor radio. That’s because automotive radios have capacitors built in specifically to filter out alternator noise. Transistor radios have no such protection. Just hold the transistor radio near the alternator and you’ll hear any EMI it’s developing.

The fix for EMI from the alternator is to replace it: A simple test and quick repair gets the customer back on the road.

Spark Plug EMI

Worn spark plugs can cause excessive EMI. To test the spark plugs for EMI, there are a couple helpful hints you can use. First, check the mileage and see if the spark plugs have been changed. The vehicles with these problems all had the original plugs, and had between 80k and 110k miles on them.
Wear isn’t the only possibility for spark plug EMI; the wrong spark plug can cause the same problem as worn out spark plugs.

One thing to remember about spark plugs is that they don’t all wear at the same rate. This is particularly true on cars with wastespark ignition systems; the ones where a single coil fires two spark plugs, usually on opposite sides of the engine. Very often on these systems, one of the plugs will look almost new, even after 80k miles. Meanwhile the other plug is completely worn out.

The easiest test for faulty spark plug EMI is checking the AM radio for a clicking noise. If you hear the clicking, look for a secondary ignition problem — including worn spark plugs. But this test is model specific; certain models, as we know, are built better than others.

Another test for worn spark plug EMI is to check the fuel trim. (For more on fuel trim refer to GEARS January/February 2012 issue written by Steve Bodofsky). All of the vehicles tested had +8 to +10 long term fuel trim. Short term fuel trim is always erratic because it’s the real time adjustment for fuel delivery.

If you determine there’s an issue or the mileage is high simply replace the spark plugs. Let’s face it: If the spark plugs have 80k miles on them, they’re due for replacement. And you’re already going to have to remove them to check them for wear. So while they’re out, replace them. If the problem’s gone, the car’s fixed, and a set of plugs are relatively cheap.

NOTE: While replacing the spark plugs, always apply antiseize to the threads; the same antiseize you use when replacing an oxygen sensor. Many of today’s engines have aluminum heads; the dissimilar metals between the head and spark plug can cause the threads to seize and tear out if you don’t use antiseize on the threads.

EMI issues will be more common as time goes on. Understanding the rules of EMI will help you get the vehicle repaired much faster and without the headaches.

Lastly, using the AM radio is the fastest way to determine EMI, and your scan tool is the second fastest way to...
"We think the Beast is a great product and we use a lot of them. We are a large shop and have been in business for 31 years."
John Guerrisky, Aamco Transmission, Williamsport, PA

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Bobby Hinson, B&R Transmissions, Matthews, NC

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determine EMI. Checking the mileage is key to identifying this type of problem.

The units tested with VSS issues had the computer located in the firewall, which is a great insulator for EMI. Units tested for shifting into neutral had the TCM in the transmission.

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So... What is Bit Flipping?

The reason that EMI creates these seemingly random problems is called *bit flipping*, which is caused by an electrical pulse, or *transient voltage*. The transient voltage enters the wiring system as a signal. If the computer sees the signal as abnormal, it will set a code.

But if the signal *could* be considered normal — even though it’s wrong for the conditions — the computer will accept the signal, and deliver a command based on that signal. But since the signal is based on faulty data created by EMI, the command won’t be correct for the actual conditions.

With the scan tool installed, select PIDs relative to transmission operation. You may notice some PIDs going to an N/A command at the same time the transmission shifts into neutral. You may also notice the data going blank, meaning the PID name is there but the associated command won’t register.

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A portable AM radio is an excellent tool for detecting EMI. Place it near the suspect components like the alternator, accessory motors and ignition components like spark plugs. If the components are producing excessive EMI you’ll hear a buzz from the radio.
To understand this concept, it’s helpful to recognize how network communication operates. The network is nothing more the codes consisting of zeros and ones. An example might be 010101 verses 111111. Code 010101 might be a signal for the TCM to command 2nd gear. Code 111111 might be an N/A signal, which obviously isn’t normal, but the computer accepts the signal and makes a command that causes the transmission to behave erratically or in this case neutral.

Both signals are accepted as normal, but the outcomes are completely different. In a report written for Intel Products about EMI, they determined that vehicle electronics are affected by several factors, including harsh environments, power transients, radio frequency interference, electrostatic discharge, and power line electric and magnetic fields. Which, of course, includes the alternator and the ignition systems on every vehicle we work on.

This is why EMI can have such a dramatic effect on transmission and engine operation. And it’s why you can end up chasing your tail trying to fix a problem that really isn’t there; it’s just a ghost… a ghost created by EMI.

If you’d like to read more about EMI, search the internet for any of these resources:

- SAE J1113
- Intel Products Report
- EMI Design Techniques for Microcontrollers in Automotive Applications
- Gradient Descent Bit Flipping Algorithms for Decoding LDPC Codes

This is an example of a Ford coil-on-plug system (the boot was removed so you can see the contact spring). In this example the contact spring is worn out and barely contacts the spark plug, making it a source for excessive EMI.

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Well, the data’s in from the 2012 Dealer Survey, and I can’t wait to share it with everyone at this year’s Powertrain Expo.

As I was going through the data and finding ways to put it into charts and explain what we found, I couldn’t help but go back to the product lifecycle and the three generations that define the past 70 years of this industry. In fact, I don’t think you can fully grasp the data from this survey or even past surveys if you’re unclear about these two concepts.

I know we’ve discussed this in several articles over the past few years but I’m not sure it’s been clear enough for everyone to grasp. So let’s revisit the idea, but from a slightly different perspective.

Figure one shows the product lifecycle and three distinct periods we’ve termed generations; Generation I, II and III. These generations describe what it took (from a big-picture perspective) to be profitable in the transmission repair industry.

I’m sure this chart looks familiar to a lot of readers so I won’t repeat what we’ve covered in past articles other than to say that we’re in the decline phase of the lifecycle. What this chart doesn’t say is why. For that we’ll use a different example and use it as a parallel for the transmission business.
When CDs were first introduced the players were expensive and the titles somewhat limited.

Figure two shows the lifecycle of the compact disc (CD). The CD was introduced in 1982 as a revolutionary way to store and distribute music. It was lightweight and offered superior sound compared with records or tapes. It was also less prone to damage.

When CDs were first introduced the players were expensive and the titles somewhat limited. I remember buying a portable compact disc player in 1985 for about $350; it was the coolest thing around for playing music.

As time went by the players became less costly and music CDs more plentiful. The CD went through a tremendous growth phase as everyone replaced their old record players with a CD player; they were even available in cars. Wow! Pretty soon everyone had one. Records and tapes became obsolete.

Fast forward to 1997 and the introduction of the first MP3 player: It was new technology, and just like the CD player from 1982, very few people had
them. As they became more common, people chose them over CDs and the MP3 entered its growth phase. In fact, many auto manufacturers no longer include a CD player as standard equipment; they have MP3 players. The introduction of the MP3 player caused the decline of the CD.

This is an important consideration for our own lifecycle. That is, what occurred to put us into the decline phase? For that, let’s go through each generation, because they each have their own lifecycles. Let’s first look at the transition from Generation I to Generation II (figure 3).

Recall that in Generation I there were only a few people rebuilding transmissions, so they had a built-in market. If you wanted your transmission fixed you had to go to Fred; the guy on 2ND Avenue downtown. As automatic transmissions became more reliable and easier to rebuild, more people began working on them. Competition increased and the pressure was on for the craftsmen of Generation I.

Then, in 1963, the first AAMCO franchise opened. With these and other independent shops opening it was becoming difficult for some of the old timers to hang on. This was the beginning of Generation II.

The key to success during Generation II was sales skills. The AAMCO franchise pioneered this model with sales scripts and rebuttals to customer objections. We also saw management trainers with similar approaches for generating sales.

For those who knew how to sell it was a great time. The Generation I group had little to hold onto other than their reputations. One thing they could do, however, was compete on price; but selling your work for little profit doesn’t take you very far.

So it was the introduction of franchises and advanced sales techniques that caused the decline of Generation I and introduced Generation II.

Now let’s look at the shift from Generation II to Generation III (figure 4). Everyone’s humming along, sales are good, and then we start to see something new: remanufactured transmissions. All of a sudden the transmission is turning into a commodity. Worse yet, you can buy them through the internet.

Armed with a price — even a bogus one! — customers have an idea of the cost before they call the shop; so much for our sales scripts. With so many options for transmission repair, consumers don’t have to go to a transmission shop to have their transmissions fixed.

On top of that, dealers have thrown their hats into the ring, adding even more competition. This correlates with what we’ve discovered from last year’s study and is a big part of why we’re looking for ways to attract those dealer customers.

So just like the problem with Generation I, where being able to fix the transmission wasn’t enough to compete with Generation II businesses, we’re now seeing Generation II businesses having difficulty competing with the commoditization of the transmission, bringing into play: Generation III.

Generation II and Generation III do have a few things in common. For example, they both work at developing trust with the customer. The difference is Generation II works at developing that trust after they make contact with the customer, or maybe at best as part of their advertising.

On the other hand, Generation III works to build that trust before they see the customer. Another way to think of it is that Generation II works at making the sale after the phone call, while Generation III works on making it to help generate the call. That is, customers are calling already having confidence that they’ll be treated fairly.

There’s a lot more to the Generation III model, but this should give you a better idea of how we’ve transitioned between the generations. As for the product lifecycle in figure one, what’s missing from it is the new product lifecycle that so many shops are experiencing.

We’re headed for some exciting times ahead, as long as you stay ahead of the curve. We’ll be discussing that at this year’s What’s Working seminars at Expo: See you there.
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Up Your Business

“Why Didn’t You Tell Me?”

Up Your Business is an exclusive GEARS Magazine feature. In upcoming issues I’ll share details about real customer disputes that I’ve helped settle through mediation and arbitration. Due to confidentiality constraints, the names of the parties won’t be mentioned and some of the stories may be slightly modified.

I’ll present the evidence and testimony given by the parties prior to and during the hearing, and incorporate comments from members of the ATRA’s What’s Working Forum who participated in a discussion of the case. And finally, I’ll tell you what the final ruling was and why.

Thanks to each of you who shared your perspective, provided your input, and offered your feedback through your comments on the ATRA’s What’s Working Forum.

Details such as the make and model of the vehicle and the amounts of money involved in the dispute have been omitted. Generally speaking, those facts aren’t important because it’s more about how the situation occurred and what the shop did or failed to do to avoid the dispute.

The Details

Here are the details for this issue’s case. I’ve pointed out the details on which the customer and shop disagreed.
1. The customer’s car — a late model, front wheel drive import — was towed into the shop with a severe fluid leak.
2. The car had a little over 90,000 miles, the transmission was the original, and it had never been rebuilt.
3. The shop’s diagnosis confirmed the problem to be to be a broken case, requiring an overhaul or replacement.
4. According to the shop’s testimony, the service adviser anticipated that hard part failure had caused the case damage and verbally estimated a price range for a new case, a complete rebuild, and torque converter. They also stated that he included an allowance for hard parts or a core, if needed. (The customer claims this conversation never took place.)
5. The service adviser also quoted a price for a reman unit and a core charge. He advised the customer that the core charge was because the case was broken.
6. According to the shop, even though the price for the reman was higher than the rebuild estimate, the customer elected to go with the reman unit. (The customer claims he wasn’t given a choice.)
7. The service adviser wrote up the work order and the customer approved the installation of the reman unit including the core charge, installation, and fluid.
Less mess...

...more profit

800-544-7520
8. The unit was ordered and the job was completed in a timely manner with the final price exactly as quoted.

9. The customer said he would like the transmission core back since he paid for it. The shop had no objection. The customer took the core when he picked up his car.

10. A few days later, the customer called the shop and told them he was upset because he felt they hadn’t been honest with him. He told them that he took the core to another shop that said they could have repaired it by replacing the case and repairing the internal damage. They said in the worst case, they could have purchased a rebuildable core and rebuilt it. Additionally, they also told him they could have installed a used transmission. They advised him that all of these scenarios would have been much less expensive than the reman unit. In short, he felt the shop should have told him these options were available.

11. The shop’s response was that they did discuss replacing the case and repairing the internal damage, but the customer chose the reman even though it was more money.

12. The customer said he didn’t believe that conversation ever took place (See #4). All he had was the quote for the reman unit that was on the work order. He felt the shop was just covering up their deception.

13. The shop also stated that they didn’t offer a used unit as a choice.
because, as a policy, they don’t install used transmissions.

14. The dispute escalated to arbitration. The customer was seeking a refund for the difference between the amount he paid the first shop and the amount quoted by the second shop. The shop sought to have the case dismissed contending that the customer chose the reman alternative, and, since they don’t install used transmissions, they weren’t obligated to offer that choice.

Four Questions
Here are four questions for you to consider before I reveal the arbitrated decision.

1. Is there anything the shop should have done differently from the beginning?
2. Since the estimate to repair the original transmission wasn’t in writing, how do you feel the arbitrator should treat the conflicting testimony?
3. Do you think the shop was obligated to tell the customer about the used unit alternative?
4. Do you think the shop should have done something to resolve this dispute without arbitration? If so, what would you have done?

Forum Feedback
Here’s what the ATRA’s What’s Working Forum feedback was on these questions:
With respect to question #1, there was little disagreement.
• Most of the respondents felt this was a simple case of “buyer’s remorse” and the shop acted appropriately.
• There were a few comments stating that it would be a better practice to provide all estimates in writing and keep a record indicating the one(s) the customer rejected and the one he approved. There was some debate over question #2.
• Some felt, because there’s less profit in a reman, the shop would have logically made the offer to repair the original transmission.
• Most felt that it didn’t really matter if the shop offered the repair option because, ultimately, the customer approved the purchase of the reman.
• As an added note, most thought the real culprit was the second shop for throwing the first shop under the bus. Since the repairs were already completed, there was nothing to gain by building a fire and fanning the flames.

On question #3, again there was some discussion.
• The most common opinion was that shops aren’t obligated to talk about the used transmission alternative or present any alternatives they don’t offer. It simply isn’t logical or good business.
• However, there were a number of responses that it’s more ethical and even a good business practice to offer the used transmission option. I feel this is a management or marketing decision rather than a matter of ethics or legality.
Finally, on question #4, the consensus was that the shop owed this customer nothing. However, if something could be done to avoid arbitration it should be done. All agreed the complaint had no legal foundation, but there were no suggestions for resolving it.

**The Ruling**

I chose this particular case because I felt it was a great example of how people often get so caught up in their stories about what happened, didn’t happen, or should have happened that the simple facts of the case get lost.

The customer in this case was a victim, not of the shop, but of his own story about the shop. He allowed outside influences and the negative emotions associated with a sudden, unexpected, and expensive repair to become the basis of a story that simply had nothing to do with ethics or legality.

Congratulations to the members of the ATRA’s *What’s Working* Forum for seeing through the customer’s story.

My ruling on this case was 100% for the shop, and the case was dismissed.

Here is a quick summary of the reasons for this decision:

- The facts of this case are very clear once the story surrounding them is peeled away. Even if everything the customer said was 100% accurate, the shop wins the case.
- Unless the shop sold the customer a reman unit when all he needed was a minor leak repair, the shop did nothing wrong. The customer made no such claim.
- The question of whether they offered or should have offered multiple repair choices to the customer isn’t relevant. The parties agreed that the shop offered to install a reman unit at a set price, and the customer approved it. The fact that alternatives (including a used unit) were available in the marketplace doesn’t make the shop responsible to offer or disclose them. However, if the customer had asked about used or other repair alternatives and the shop withheld information, they could have been exposed to a claim of deception or fraud. Again, the customer made no such claim.
- Price is not a legitimate basis for a complaint unless there is evidence of discrimination, collusion, gouging, or fraud. Testimony by a competitor giving an after-the-fact price quote is of no consequence unless it specifically addresses one of the above issues. Additionally, unless there’s a true apples-to-apples comparison, price is very difficult to adjudicate in any case.
- The second shop’s involvement wasn’t material to the case, and their statements had no bearing on the decision. For those of you who wanted to burn down the second shop, you’re reacting to the customer’s hearsay statements. We don’t know that the second shop actually did anything more than look at the core and give the customer some repair alternatives and estimates. Furthermore, their estimates were not in writing and the shop didn’t testify at the hearing.

**What We Learned**

This is one of those cases that nobody wins. The customer is absolutely convinced that the first shop used deception to sell a more expensive solution to his problem. The shop did nothing unethical or illegal and wins the case, but loses the customer’s future business and his referrals.

It’s possible that the dispute could have been avoided if the shop used the procedure of providing written estimates for each option discussed. This is generally a better practice than verbally discussing repair options and putting only the agreed repair on the repair order.

Once the job was complete, there was really nothing the shop could do to avoid arbitration. Even offering to negotiate a rebate on the repair cost or a discount on future services would send the wrong message: that the shop did something dishonest or inappropriate.

Customers aren’t always right, but they’re never wrong. A major car repair is an emotional experience. They might be wrong on the facts, but their emotions are true, real, and can’t be dismissed as wrong. Help them make good repair choices based on facts and keep the facts straight with great documentation.

**About the Author**

Thom Tschetter has served our industry for more than three decades as a management and sales educator. He owned a chain of award-winning transmission centers in Washington State for over 25 years. In 1996 his business was honored as the number 1 small business in the state and ranked in the top 10, nationally. Thom also has served the Better Business Bureau as a certified arbitrator for over 15 years and is using that experience as topics for this feature column.

Thom is always eager to help members of our industry and continues to be active in his retirement. You can contact him by phone at (480) 773-3131 or e-mail to coachthom@gmail.com.
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With so much emphasis on safety and accident prevention, why do workers still have accidents or become injured on the job? Unsafe conditions and mechanical failures that cause accidents and injury are the main cause, and can be readily correctable. However, there are also other root causes at work, and a primary one is human behavior.

*Insufficient training or the lack thereof* is a basic cause for accidents and injury. Workers may simply not be aware of the hazards involved with a job, tool, or equipment. Every worker should be trained to do a particular task or use a certain tool correctly and safely. From day one, workers must be informed of the hazards they may be exposed to at the workplace and shown ways to protect themselves from injury or illness.

*Displaying poor work habits will set bad examples* which can come from job familiarity or begin when a new job is started. A new worker could be following the example of a veteran worker who has developed unsafe work practices or habits that have not been corrected. Regular training can help new and long-term workers develop acceptable work habits. Supervisors can play an important role in controlling poor work habits by constantly reinforcing good work practices when they do their shop walk-through.

*Displaying an “indifferent” attitude or showing a lack of concern.* This attitude could be temporary because of personal problems or it could become a dangerous habit. Continually observe worker performance and reinforce job safety standards. Safe work performance is important for the well being of all workers in the shop.

*Showing off in the workplace is a bad idea.* The worksite is not an arena for any type of horseplay, showing off, or clowning around. There are enough inherent hazards in a Transmission Shop without creating more for attention. Daring or inappropriate behavior should not be encouraged or tolerated.

*Rushing through the job can be disastrous.* Completing a job within a short amount of time can sometimes be a good thing, but if it’s done where speed jeopardizes safety then it’s a bad and even dangerous thing. Safety should be the determining factor of the speed of any job.

*When someone loses control of their emotions* it can result in unsafe behavior and accidents. Supervisors should be aware of workers who are “hot headed,” or are depressed. They should either talk with the worker or suggest employee assistance programs that could be of help. (This suggestion should be exercised at the discretion of the supervisor)

*A worker may have physical limitations* that make it impossible to perform the job properly such as poor eyesight, poor hearing, fatigue or other health ailments. Workers may not recognize that their condition is jeopardizing safe work performance. Pre-employment and periodic work physicals can help surface a health issue.

The good news is that many of these human factors can be corrected. Stay in touch with workers. Conduct a walk-through of the shop daily. Talk to workers and observe how they’re doing their jobs. Schedule periodic training where questions about safe work practices can be discussed. Worker attitudes and behaviors can be a negative factor in causing accidents but they can also be a positive factor in accident prevention.
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By now you’re probably tired of hearing about ground problems. “Electrical problems; check the grounds. I got it.” But the fact is, a startling number of the calls that come into the ATRA HotLine end up being traced back to faulty grounds. All too often, that’s after hours… or even days… of intense diagnostic procedures. And that’s time you won’t be able to charge for… time you’ll never get back.

The really sad part is that, in most cases, the check is fairly easy and doesn’t require any special knowledge or information. Just a simple voltage drop and most faulty grounds become obvious.

Usually, it’s the vehicles that have been around for some time causing all of the fuss. Time and mileage have had their way with the electrical system, wearing away insulation or vibrating connections loose. And you’re left to track down the problem.

To demonstrate some of the problems caused by these faulty grounds, we’re going to look at three vehicles taken from the ATRA HotLine database.

**Ground Fault #1: Noisy Speed Sensor**

The vehicle involved would be a 1999–2003 Ford Motorhome or F-series with a 4R100 or E4OD transmission but you can use this approach on other vehicles with similar systems. The complaint is usually something like, “starts in 2nd or 3rd.” A quick check of the scan data reveals a VSS reading that varies with engine RPM.

This problem can show up on any Ford 4-Wheel Antilock Brake System (4WABS) unit with a Programmable Speedometer Module (PSOM). There are a couple of quick, easy diagnostic procedures to verify this condition.
On a 4WABS vehicle, the DSS (Differential Speed Sensor) is the primary input for vehicle speed. The two-wire sensor sends an AC signal to the 4WABS where it’s converted to a DC signal. That DC signal is then distributed to the other modules, such as the PSOM and the Cruise Control Module (CCM), to name just a few.

Start your diagnosis at the 4WABS: Use a scope to measure the AC signal from the DSS to the 4WABS module. Check the AC voltage and frequency. You’re looking for a good, undisrupted signal from the DSS to the 4WABS.

Then check the DC signal from the 4WABS. Again, you’re looking for a good, undisrupted signal from the 4WABS to the other modules.

In this case we’re picking up a noise in the signal. Verify the noise; is it into or out of the module? If you can determine that, it will help you split the system in half.

You can do a couple of quick tests, such as unplugging the alternator, unplugging any motors (such as the cooling fan or blower motor), checking the sparkplug gaps, checking grounds to make sure they’re tight and the wires aren’t damaged (figure 1), and unplugging other modules.

Did unplugging connectors change the noise reading? Did resolving any noticeable ground problems help? If so, you’ve found the source of the electrical noise. The repair may require adding a permanent ground to the component, or even replacing the faulty component.

Unplugging the ignition coils might not give you the answers you’re looking for, although it can help reveal coil boot leakage. Typically when a coil fails, your only choice will be to replace it.

Another test is to unplug the DSS at the differential. If you’re still seeing a speed signal while the vehicle’s sitting still, either you’re looking at stray electromagnetic interference (EMI), a module failure, or a faulty ground.

Testing the grounds is easy using a voltage drop test. Test the grounds at the PCM (figure 2), at the firewall, and at the 4WABS module.

DIAGNOSTIC TIP: Sometimes electrical noise can be too transient or have too high a frequency to show up

<table>
<thead>
<tr>
<th>Terminal Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ground Circuit</td>
</tr>
<tr>
<td>2</td>
<td>Sensor Signal Return</td>
</tr>
<tr>
<td>3</td>
<td>TR Sensor To PCM Circuit</td>
</tr>
<tr>
<td>4</td>
<td>Transfer Case To TR Sensor Circuit</td>
</tr>
<tr>
<td>5</td>
<td>Starter Circuit</td>
</tr>
<tr>
<td>6</td>
<td>Backup Light</td>
</tr>
<tr>
<td>7</td>
<td>Fused Accessory Feed</td>
</tr>
<tr>
<td>8</td>
<td>Starter Circuit</td>
</tr>
</tbody>
</table>
on a digital meter. To isolate those erratic noise problems, check the voltage drop with a scope.

A voltage drop test revealed there was excess resistance in the ground circuits. The fix? We built a seven-pin ground harness (figure 3) and wired the ground circuits for the PCM and the 4WABS directly to the frame. A retest showed the problem was history. Note: The seven leads of the new ground harness go directly into the seven pin slots of the PCM, illustrated in figure 2.

**Ground Fault 2: DTC 654/P1705**

This is a problem on 1990 through mid-1996 Ford Motorhome and F-series vehicles with 4R100/E4OD transmissions but again, we’re using this as a sample from a hotline call; you can use this on other vehicles too. Code 654/P1705 is a Ford-defined code; it suggests the transmission range circuit is indicating something other than park or neutral during the self test. In this case the transmission was in park during the self test.

So the first thing the technician did was to replace the transmission range (TR) sensor and make sure it was adjusted properly. That didn’t correct the problem, so he moved on to Ford’s Pinpoint Test D. Here are the initial steps that Ford recommends:

- Check electrical signal operation.
- Check continuity of TR sensor harness circuits.
- Check TR circuit for short to power & ground.
- Check TR sensor resistance.
- Check park/neutral circuits.

And then their procedure asks you to install your breakout box. If you have one, great: Install it and continue your diagnostics.

But if you don’t have a breakout box, you’re not out of luck. You can test the TR sensor circuits directly at the sensor connector.

<table>
<thead>
<tr>
<th>Transmission Range Selector Lever Position</th>
<th>Resistance (Ohms)</th>
<th>Voltage Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>P</td>
<td>Min: 3770, Max: 4607</td>
<td>3.97 - 4.85</td>
</tr>
<tr>
<td>R</td>
<td>Min: 1304, Max: 1593</td>
<td>3.24 - 3.96</td>
</tr>
<tr>
<td>N</td>
<td>Min: 660, Max: 807</td>
<td>2.55 - 3.11</td>
</tr>
<tr>
<td>D</td>
<td>Min: 361, Max: 442</td>
<td>1.88 - 2.30</td>
</tr>
<tr>
<td>2</td>
<td>Min: 190, Max: 232</td>
<td>1.23 - 1.51</td>
</tr>
<tr>
<td>1</td>
<td>Min: 78, Max: 95</td>
<td>0.61 - 0.75</td>
</tr>
</tbody>
</table>

With the key on, engine off, back-probe pin 3 (figure 4); you should see around 4.5 volts with the selector in park. When you move the shifter out of park, the voltage should drop as you move through each range (figure 5). The PCM watches the voltage on circuit 199 to change; that’s how it knows what gear the transmission’s in.

On this vehicle, the voltage didn’t drop when the technician moved the selector out of park. The reason? There was no ground at TR sensor pin 2 to pull the voltage signal down. He ran a ground to pin 2 and just like that, the sensor was working right again. Once more the problem was just a bad ground.

**NOTE:** One of the more confusing issues when testing Ford computer systems is that they call the ground circuit “sensor return.” This is just a bit of Ford weirdness; when you see sensor return, think ground.

**Ground Fault 3: No Upshifts**

This time we’re looking at a 2001 Dodge Ram 1500 that wouldn’t upshift. There were no codes. A scan check showed that the desired governor pressure was going up but the actual wasn’t. So I asked the technician to put a gauge on the governor tap; sure enough, no governor pressure.

Next he unplugged the connector at the trans, started the truck, and put it in gear. Now he had line pressure at the governor circuits, so we knew the transmission was capable of creating governor pressure.

So our next step was to run a simple test to check the wiring harness from the TCM, to the relay, to the transmission, and back to the TCM. We have several wiring diagrams available for these systems. In this case the one we needed (figure 6) only required going through 5 simple steps:

1. Key off.
2. Unplug PCM connectors C-2 and C-3.
3. With a fused jumper, apply system voltage to harness connector C3, pin 25.
5. Check voltage at harness connector C2, pins 8, 11, and 21. You should see system voltage at each terminal.

The technician found voltage fluctuating at pin 8, but when he checked it at transmission connector pin 5, he had system voltage. This indicated a problem in the wire between the two connectors, so he ran a new wire from transmission connector pin 5 to harness connector pin 8.

With the new wire in place, he had good system voltage at pins 8, 11, and 21, so the power circuits appeared okay.

Next, he plugged the connectors back into the PCM and rechecked transmission operation. Suddenly he had a new problem: code P1765 — transmission 12-volt supply relay control circuit.

We knew that the control circuit worked when we supplied power and ground to it. So I had him connect a
new ground to harness connector C1, pins 31 and 32, and try it again. This time everything worked the way it was supposed to.

Ground problems: We’ve said it before, and I’m sure we’ll be saying it many more times over the years. Before you start replacing computers or sensors, always check the grounds. Because that’s not just smart… that’s street smart!
Finding Qualified Help: The Experts Weigh In

Whenever a shop owner asks about finding qualified help, one of the first questions to come up is “why?” Why do you need to find help? Most of the more successful shops we’ve talk to have employees who’ve been with them for years. If your employees are heading for the door, you may have a bigger problem to address than where to find new technicians.

But sometimes there’s a really good reason for a shop to need help. Maybe an employee retired after years of loyal service. Or maybe someone left to open his own shop. Then again, maybe your business improved so much that you need to expand your staff.

Whatever the reason, you need to find help. And not just any help: You need qualified, dependable technicians who’ll be an asset to your shop. Not easy to find in today’s market.

So we decided to ask the experts: the business consultants who regularly grace the pages of GEARs and will be presenting their wisdom at this year’s Expo.

Who weighed in? The list is long and distinguished:

- Thom Tschetter; Win-Win Consulting
- Maylon Newton; Educational Seminars Institute
- Danny Sanchez; Autoshop Solutions
- Bob Spitz; Management Success
- Art Eastman; independent consultant
- Dennis Madden and Rodger Bland; ATRA and GEARs
- Steve Bodofsky; Steve Bodofsky Productions (What, you thought I wasn’t going to put my 2¢ in?)

One thing to keep in mind: These tips depend on your shop being a place people would like to work. If you have a poor reputation — from either an employee or consumer standpoint — there’s a good chance those quality technicians will know… and they’ll avoid you like the plague.

But if your shop has a reputation for honest, quality work and for treating employees fairly and providing comfortable working conditions, these tips might be just what you need to find that once-in-a-lifetime hire.

Heard It through the Grapevine…

Virtually everyone who got involved in the discussion had one suggestion in common: The best way to find great help is by networking. Start with your parts or tools salespeople; see
if they know anyone who’d be a good fit for your shop.

These are the people who know all the technicians in your area. They work with them on a daily basis; they know which guys are sharp and which ones are just so much hot air. And for those suppliers, helping you find good help is a win-win: A good technician in a quality shop means more parts sales, more tool sales, and so on. Everyone benefits.

Ask your technicians; they may know other techs who’d be a good fit in your shop. And bringing in a friend means working with someone they already know and get along with, which creates a friendlier, more productive work environment.

Maybe you have a good relationship with other shops in the area. Ask them for a referral. Even your customers may know someone in the business who’d be interested in working for a quality shop with a good reputation.

**Advertise**

Once upon a time, if you were looking to hire someone, you put an ad in the local newspaper. But today, newspapers are becoming scarce. Fewer and fewer people receive them, and it won’t be long before there aren’t any traditional newspapers left.

But they’re not completely out of the picture. Many newspapers have switched to an online presence. They still cover the same basic region, and, lo and behold, they still offer a Help Wanted section. Check on line and see if there are any of these “electronic newspapers” covering your area.

Newspapers aren’t the only source for a Help Wanted ad. Today, one of the best resources for individual advertising is Craig’s List. They have a complete Help Wanted section, and they only charge $25 to advertise a job there.

Remember to word your ad carefully: Don’t scare away a potentially good hire by being too demanding. Do you really need someone with 20 years experience, or would you be happy with an intelligent person with a good attitude who’s been turning wrenches for four or five years? Better to lower your demands and talk to more potential hires than chase away a terrific find.

Danny Sanchez points out that, very often, the person researching those ads isn’t the technician himself. He may ask his spouse or other family member to handle the search while he’s at work. So your ad must be accessible to non-technicians, too.

Another place for your ad: GEARS Magazine. GEARS has a classified section in the back, and it’s targeted to your potential audience. What’s more, if you’re an ATRA Member, you can place up to three classified ads a year for free! Non-members pay $95 — hmmm… another good reason to consider joining.

Don’t forget other online sources, such as TRNi, TRNw, IATN, and so on. These groups are terrific networking sites for some of the best technicians in the business. And placing an ad there usually involves just a small membership fee.

There are also dozens (hundreds? thousands?) of job sites on line, including some that specialize in automotive technicians. Try typing “automotive technician recruiters” in Google and see what pops up.

When writing your ad, remember to include a pay range and whether you provide family medical insurance. As Art Eastman points out, technicians — like the rest of us — are concerned about the bottom line. Giving them figures to compare will give you a boost over your competition.

Here’s an interesting idea: Thom Tschetter used to advertise for technicians on the local radio stations. But he wrote the ads to do double duty: He’d ask for top technicians who want to work in a quality, professional environment. Customers would hear that and think, “Hey, that’s the kind of place I’d like to take my car.” So the ad for technicians would also attract customers.

And radio advertising can be cheap, especially if you’re looking to hire
Finding Qualified Help: The Experts Weigh In

people. “Many local stations are eager

to lend their support to help people find
jobs, so you may be able to negotiate a
really terrific deal,” says Thom.

Recruiters

If you can’t find someone on your
own, maybe it’s time to talk to a recru-
ter. Recruiters — sometimes more col-
loquially called headhunters — are
guys who specialize in finding the best
potential employees and sending them
to you.

The advantage of an employment
recruiter is they do the leg work for
you; sometimes including the initial
interview process. They’ll find out
whether a candidate meets your basic
requirements, or if he has a criminal
record or some other flaw that might
eliminate him as a candidate.

The downside of using a recruiter
is they charge a lot more than conven-
tional ads; from hundreds of dollars
for a single ad to a percentage of the
employee’s first year’s salary. But for
the right person that still might be a
worthwhile investment.

Recruit with Your Web
Page

Bob Spitz pointed out that shop
owners too often wait until they’re
busy and in trouble to start looking for
help. A better strategy is to look around
before you’re desperate.

Start by adding an Employment
Opportunities page to your web site.
A page with a short blurb about the
benefits of working for your shop,
along with a brief application form that
someone can fill out and submit on line.
And maybe a link where they can add
their resume.

Who knows? Maybe you’ll hear
from a real star, looking to shine for
you. And even if you aren’t looking
right now, that information will give
you a starting point if you find an open-
ing down the road.

On the other hand, if the candidate
is that good, maybe it’s time to con-
sider increasing your staff. Employees
— good employees — pay for them-
selves. They don’t cost you money;
least, they shouldn’t. They’re there
to make you money. If you can find
room, bringing in a new technician
should be a great way to improve your
bottom line.

Another way to avoid that emer-
gency hire is to grow your own: Hire
young people who show strong poten-
tial and show them the ropes. For more,
see Employees: Off the Shelf or Grown
Your Own? in GEARS, March 2011.

Check Productivity

Are you really sure you need to
hire? Maybe your technicians just aren’t
being as productive as they should be.
Bob Spitz mentioned that, when a shop
owner says he needs to hire another
technician, his first question is, “Are
you sure that’s the solution?”

Too often, shop owners hire addi-
tional employees because their exist-
ing ones aren’t turning as much work
as they should. A productivity check
reveals that their technicians are only
producing 20 billable hours each week.
That’s a different problem; one that can
be solved by making those technicians
more productive.

A shop in that situation can reduce
its workforce by 40% or more simply
by improving the productivity of its
existing technicians. Suddenly three
technicians can handle the work that
was being done by four.

How can you test that productiv-
ity? There are a few programs out there
that’ll do it for you: Profitboost (www.
profitboost.com) and Management
Feedback (www.easyworks.com) are
good choices. Have a look and see how
they can help.

How do you make your exist-
ing technicians more productive? Try
adding a commission to their salary,
tied directly to their productivity. A
commission makes them the masters
of their bottom line. It usually won’t
be long before they’re picking up the
slack; and eliminating that extra pay-
check will more than cover those com-
misions.

Recruiting; Not Hiring

In this article, we looked at some
ideas for attracting potential hires.
That’s the recruiting portion of the
process: bringing them in the door to
apply for a job.

But just because someone applies
for a job doesn’t mean you should hire
him. You need to be prepared to inter-
view and evaluate that potential hire, to
see if he’s the one you’re looking for…
or if you should keep looking.

This is where a lot of shop owners
are completely out of their element.
Maylon Newton pointed out that, for
too many shop owners, the interview
process is backward: The technician
ends up interviewing the shop owner
to decide whether he’d like to work there.

You need to prepare your interview
process ahead of time. Start with a job
application form. You can download
them free on line. Have the applicant
fill it out, and don’t forget to read
it. Same thing with a resume. Look
for inconsistencies, and make sure the
person in front of you is the same guy
presented on paper.

Look for certifications: They don’t
prove competence, but they do indicate
a level of pride and professionalism.
See what kind of tools he has. Is it a box
you could replace and fill for a couple
hundred bucks, or a huge collection that
took years to accrue? Again, it doesn’t
prove competence, but it says some-
thing about professional attitude.

So how do you get a better idea of
competence? How about testing? Maylon
Newton has some tests he uses to evalu-
ate technicians, and he’s provided them
to ATRA; contact the Membership
department to get a copy.

Before you go too far into the
interview process, make sure of your
legal limitations. Once again, Google
is your friend: Search for “hr policies
required by law.” This will provide all
sorts of references to help you make
sure which questions you can ask, and
which to shy away from.

Finally, don’t forget to check ref-
ences. Anyone can give you names
and phone numbers. You need to hear
what those people have to say. One of
the best questions you can ask a previ-
ous employer is “Would you hire this
person again?”

“Where can you find qualified
technicians?” That was the question
we began looking at three issues ago.
For some shops, that wasn’t the right
question. But if it is, there are a lot of
avenues to follow. The right technicians
are out there… if you know where to
look.
You’re Invited!

Transtar Industries and ATRA
request the pleasure of your company
at the Powertrain 2012
Opening Night Reception

Bally’s Resort & Casino
Saturday, October 27, 2012
5:00 – 7:00 p.m.

www.transtar1.com
855-TRANSTAR
7350 Young Drive, Cleveland, OH 44146
It began five years ago as an experiment... an experiment to see whether we could rebuild and rejuvenate a stagnant transmission repair industry. Five years later it’s been a resounding success: Dozens — even hundreds — of shops have turned their businesses around, and gone from struggling to thriving, thanks in a large part to what they learned from the What’s Working program.

Not that we can take all the credit. Ideas came from every sector of the industry; some great, others less so. But thanks to the dedication and commitment of ATRA, its Members, and its associate business consultants, the result has been proof that the transmission industry still has gas left in the tank.

And this year’s Expo may be the shot of nitrous that really kicks things ahead... because Friday’s program — The Dealer Alternative — promises to answer virtually every question that’s been brought up so far.

Questions like, “What do you do when the customer can’t afford the repairs?” or “How do you attract customers who can pay your bill?” These are the questions that have plagued shops all across the country since before transmission rebuilds crossed the $1000 threshold.

And now, thanks to the dedication and ongoing research by a key segment of the industry, we may just have the answers.

The Research

The Friday seminars kick off with ATRA CEO Dennis Madden providing the latest results of this year’s What’s Working survey. In this survey, nearly 1000 respondents were asked where they would take their cars for transmission repairs... and why.

What we discovered was that the two largest consumer segments — making up nearly half of the customer base — were divided equally between independent transmission shops and the dealer. That is, roughly a quarter of the potential customers claimed they’d choose an independent shop, and a statistically identical number said they’d take their car to the dealer for transmission repair.

But what was even more revealing is that the consumers who’d normally choose the independent shop were generally in the lowest income group of all the consumers surveyed. Those who’d choose the dealer were in the highest income group.

As Dennis points out, “That’s not surprising, because independent shops have been advertising to those less-affluent customers for years. Our base consists of shops with names like Budget, Discount, Payless, and so on. There are shops out there still advertising transmission work for under $1000.

“Our industry has done a terrific job marketing to customers who have virtually no chance of paying for the transmission repairs their cars need. And it’s been working: That’s why they make up the bulk of the market that chooses the independent transmission shop over any other type of service center.”

It’s not surprising at all. In fact, very little discovered in the latest survey was particularly unexpected. But it was hugely informative: The data provides a detailed profile of the consumers that independent transmission shops have been targeting over the years, and it clearly defines who they need to attract if they hope to redefine their position as the dealer alternative.

Attracting the Dealer Customer

Okay, now you have specific consumer data... what do you do with it? How do you target that new audience and let them know that they can trust your shop to provide the same level of service they’ve come to expect from the dealers?

Danny Sanchez, of Autoshop Solutions, Inc., has some thoughts on that. He’ll be talking about how to attract those more affluent consumers away from the dealer.

And that’s something of a problem, because, as we’ve discussed before on the pages of GEARS, those customers generally aren’t looking for an alternative. They have the money and they’re generally happy with the dealer. So...
**THURSDAY**

**What’s Working Kick-Off Seminar**

Hosted by Rodger Bland, ATRA

2:00pm - 6:00pm

We’ll start this year’s Expo off with a bang! As shop owners and ATRA staff present a wide range of topics ranging from social media to the nuts & bolts of discovering your customer’s buying habits – All topics will have one common trait – they are all based on What’s Working in our industry today. Hear from shop owners and managers who are using techniques and procedures that are proven winners that constantly add to their bottom lines!

Rodger Bland, managing editor of GEARS magazine will host these fast paced, engaging sessions that promises to provide you real world solutions that you can begin using as soon as you get back in the shop!

**BONUS!** Rodger will reveal a program designed to increase your overall sales by 10% in one year. And you don’t have to spend a fortune doing it – in fact, it will cost less than 1% of your current gross sales number – Interested? We thought so! See you Thursday at this year’s What’s Working kick off seminar.

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**FRIDAY**

**8:30am - 10:00am**

**The Dealer Alternative**

Dennis Madden, ATRA

ATRA’s 2011 consumer study showed that an equal number of people prefer the dealer for transmission repair as do those who prefer an independently-owned transmission shop. The 2012 study reveals why these consumers prefer the dealer and offers insight into what these individuals look for and expect from an auto repair shop. Dealer customers are better able to pay for your services and are willing to spend more for quality work. Make them your customer.

**10:30am - 12:00pm**

**Attracting the Dealer Customer**

Danny Sanchez, Autoshop Solutions

Danny Sanchez is a 25-year veteran with dealership experience and knows how to attract dealer customers. Penny saver & other conventional advertising won’t cut if you’re trying to attract this group. Learn how to create a message that’ll cause this group to pick up the phone and call.

---

why look elsewhere?

According to Danny, the best opportunity you may have is when the dealer’s customer needs you the most. Because that’s when he’s faced with the dealer’s price for a rebuilt transmission. That “sticker shock” may be just enough to get him to look around for an alternative to the dealer.

And that’s when he’s most likely to stumble onto your web site. Because, when the dealer tells him a transmission for his Mercedes is going to cost about $10,000, even the most loyal dealer customer might start looking for other options.

So put it on your web site:

“As Much As 40% Below Dealer Pricing.”

Now, let’s clear one thing up right away: No one’s suggesting you should cut your prices. In fact, you don’t necessarily have to be working cheaper than the dealer on most transmissions. All you need is one transmission that’s 40% cheaper than the dealer’s price to make that statement. And, when you consider those Mercedes transmissions, chances are a 40% savings would still put the price above your regular rate!

As Danny points out, the goal is simple: You need to address the one concern that got the customer to visit your site in the first place. And that one concern is price. He’s there because of the shock he received when the dealer gave him a price for his transmission.

That sticker shock got him to visit your web site. That’s your opportunity to show him why he needs to call you. Price alone won’t do it. You need to show him that he can get professional service, quality repairs, an ironclad warranty… and still maybe save a few bucks.

It’s a lot to ask of a web site, but it’s a great first step in convincing him that you really are the dealer alternative.

**First Impressions: The Customer Encounter**

So the dealer’s customer found your web site, and he sees that you’re claiming to be the dealer alternative. He’s your customer now, right?

Not yet. In fact, you don’t even want to try to sell him on becoming your customer yet. All you want from your web site is one thing: getting him
Okay, your marketing is working and those dealer customers are beginning to call and stop by with their car. They’re a different group with different expectations. You’ll need the right people with the right skill to turn these leads into customers. Let Bob show you how!

You’re attracting these dealer customers and have the right staff to get ‘em in the door. So far so good. Now you have to provide the right service. Not just good service but great service. Maylan talks about the shop procedures you’ll need to keep these customers coming back for more.

to call your shop.

Bob Spitz, of Management Success!, reminds us about the important distinction between marketing and sales. When your phone rings, “this is where marketing ends and sales begins.”

What’s the difference? “Marketing is about generating interest,” explains Bob. “It’s where you show people what you have to offer, and what you can do. Sales is about agreement. It’s about gaining the customer’s agreement that what you have to offer will satisfy his desires, needs, and wants.”

Most importantly, when you pick up that phone, you have to convince that customer that he’s the most important person in your world. It doesn’t matter what else is happening or how bad your day is going.

“Nobody wants to be challenged to bring his car into your shop,” says Bob. “The consumer’s reach is tentative at best; he’s scared, he’s dealing with the unknown, and there’s a lot of money involved. And if you don’t handle him properly, he’s gone.

“He has to know that whoever he’s talking to is truly interested in him and his problems.

“It comes down to tone; the tone of the person answering the phone is key. The whole world has to stop when that phone rings. It doesn’t matter what else is going on in the shop; when that phone rings, everything else has to stop.”

And you have only one real goal when you pick up that phone: Getting the customer to bring his car in to your shop. Don’t try to sell the repair; you’re not there yet. You just want him to come in. Selling the repair comes later.

**It’s Not Just Service**

It’s no secret to anyone in the business that independent shops can do just as good a job repairing a transmission as any dealer; often better.

But, according to Maylan Newton of Educational Seminars Institute (ESI), that isn’t what brings the customer to the independent shop over the dealer.

“One of the biggest differences between an independent shop and the dealer is how we make the customer feel. Customers buy from people they trust and like. They buy from people who make them feel special.

“That’s what I hear most from consumers: ‘I prefer the independent over the dealership because they treat me like a person; not a number. They smile when I come in; they remember my name; they remember my dog’s name; they care about me. It’s like going home.”’

Sure, the dealer has the fancy waiting room, the coffee and donuts. But, according to Maylan, it’s not what you give them; it’s how you make them feel that matters most. And that requires a personal connection.

Of course, you still have to provide quick service, quality repairs, nationally honored warranties, and so on. But in most cases that just puts you on par with the dealer. What really sets you apart is that personal attention… letting the customer know that he’s important… that getting him back on the road is your highest priority.

This is where you can make the biggest difference to your customer. He expects the great work; if he can save a few bucks, terrific. But what he really wants is to matter. He wants you to care… to make him feel special. He walks in a stranger… he wants to leave as a friend.

Do that, and you can be sure you’ll be the dealer alternative for him… and for everyone he knows.

The Dealer Alternative: It’s a nice catchphrase, but what does it really mean? To customers it means that you can provide the same great service and quality repairs they’ve come to expect from the dealer. And maybe just a little more.

For you, it means a whole new market to explore: A market of consumers with the wherewithal to pay for the repairs they need. And it may well be that breath of fresh air you’ve been looking for to turn your business around and start earning a profit again.

If you haven’t made plans to attend this year’s Expo, well, maybe you should adjust those plans right away. There’s still time to reserve your place and join other, likeminded transmission professionals as we approach the pinnacle of the What’s Working program to date.

So don’t wait: Call and sign up today… and we’ll see you in Las Vegas!
### Thursday, October 25

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>12:00pm - 6:00pm</td>
<td>Attendee Registration</td>
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<tr>
<td>2:00pm - 6:00pm</td>
<td>What’s Working Kick-off Seminar - Hosted by Rodger Bland (ATRA)</td>
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<tr>
<td>2:00pm - 3:30pm</td>
<td>Technical Seminars</td>
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<td></td>
<td>ATF: What’s Beneath the Cap? - Scott Halley, Ed Kanzman (The Lubrizol Corporation)</td>
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<tr>
<td></td>
<td>What Are You Doing to Reduce Comebacks? - Bill Brayton (ATRA)</td>
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<tr>
<td>4:00pm - 5:30pm</td>
<td>Technical Seminars</td>
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<td>Let’s Talk About Excitement, Drive &amp; Devotion! - Lance Wiggins (ATRA)</td>
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<td>Technical Seminars</td>
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### Friday, October 26

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<tr>
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<tbody>
<tr>
<td>8:00am - 3:00pm</td>
<td>Attendee Registration</td>
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<tr>
<td>8:30am - 10:00am</td>
<td>Management Seminars</td>
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<td></td>
<td>The Dealer Alternative - Dennis Madden (ATRA)</td>
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<tr>
<td>10:30am - 12:00pm</td>
<td>Attracting the Dealer Customer - Danny Sanchez (Autoshop Solutions)</td>
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<tr>
<td>8:30am - 10:00am</td>
<td>Technical Seminars</td>
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<td>2012-2013 Chrysler Automatic Transmission Update - Alan McAvoy (Chrysler Group LLC)</td>
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<td></td>
<td>Essential Oscilloscope Know-How Part 1 - Dan Marinucci (Commuquique)</td>
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<tr>
<td>10:30am - 12:00pm</td>
<td>Technical Seminars</td>
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<td></td>
<td>Essential Oscilloscope Know-How Part 2 - Dan Marinucci (Commuquique)</td>
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<tr>
<td>10:30am - 12:00pm</td>
<td>Technical Seminars</td>
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<td>Top Ten Ways to Batch a Diagnosis - Sean Boyle (Southern Illinois University)</td>
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<tr>
<td>12:00pm - 1:00pm</td>
<td>ATRA Member Meeting</td>
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<tr>
<td>1:00pm - 2:30pm</td>
<td>Technical Seminars</td>
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<td>Tips &amp; Tricks from the Builders Bench - John Parmenter (Precision International)</td>
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<td>2:45pm - 4:15pm</td>
<td>Technical Seminars</td>
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<td>Word on the Street Jatco JF613E 6Speed - Mike Souza (ATRA)</td>
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<td>4:15pm - 6:00pm</td>
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<td>Methatronic Communications - Dr William (Bill) Henney (P.I.M.I.)</td>
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<td>4:30pm - 6:00pm</td>
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<td>Fixing It Right the First Time - Stevie Lavalle (TEST Research)</td>
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<td>Keeping Your Shop Safe Makes You Money - Carl Mustari (Chattahoochee Tech College)</td>
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<tr>
<td>1:00pm - 2:30pm</td>
<td>Management Seminars</td>
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<td></td>
<td>First Impressions - Bob Spitz (Management Success)</td>
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<td>2:45pm - 4:30pm</td>
<td>Management Seminars</td>
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<td></td>
<td>It's Not Just Service - Maylan Newton (ESi)</td>
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### Saturday, October 27

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<th>Time</th>
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<tbody>
<tr>
<td>7:00am - 10:00am</td>
<td>ATRA Chapter President’s Meeting</td>
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<td>8:00am - 3:00pm</td>
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<td>7:45am - 9:15am</td>
<td>Technical Seminars</td>
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<td></td>
<td>6T40-6T45 Updates &amp; Product Issues - Steve Garrett (ATRA)</td>
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<tr>
<td>9:15am - 10:45am</td>
<td>Technical Seminars</td>
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<td>The Road Less Traveled - Bob Warnke (Sonnax Industries)</td>
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<td>8:00am - 9:00am</td>
<td>Management Seminars</td>
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<td>Eye on the Prize - Art Eastman (Trans Shop Consultants)</td>
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<tr>
<td>9:00am - 10:30am</td>
<td>Management Seminars</td>
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<td></td>
<td>Attitude Adjustment - Maylan Newton (ESi)</td>
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<tr>
<td>11:00am - 1:00pm</td>
<td>ATRA Luncheon featuring Larry Winget - Sponsored by Raybestos</td>
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<tr>
<td>1:00pm - 5:00pm</td>
<td>Trade Show</td>
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<tr>
<td>5:00pm - 7:00pm</td>
<td>Cocktail Reception - Hosted by Raybestos</td>
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### Sunday, October 28

<table>
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<td>11:00am - 2:00pm</td>
<td>Attendee Registration</td>
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<tr>
<td>8:00am - 10:30am</td>
<td>Management Seminars</td>
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<td></td>
<td>Then &amp; Now - Scott Johnson (Profit Boost) (Breakfast sponsored by CARFAX and profitboost)</td>
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<tr>
<td>11:00am - 12:00pm</td>
<td>Management Seminars</td>
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<td>Ready, Set, Action! - Dennis Madden (ATRA)</td>
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<tr>
<td>9:00am - 10:30am</td>
<td>Technical Seminars</td>
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<td></td>
<td>Hands-On Hybrid Transaxle Diagnosis - Jack Rosebro (Perfect Sky)</td>
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<tr>
<td>9:00am - 10:30am</td>
<td>Technical Seminars</td>
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<td>Testing Hybrid Electric Motor-Generators (MGU) in the Field: What Works &amp; What Doesn’t - Mark Quarto (Automotive Research &amp; Design) - Encore</td>
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<tr>
<td>11:00am - 12:30pm</td>
<td>Technical Seminars</td>
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<tr>
<td></td>
<td>Hands-On Hybrid Transaxle Diagnosis - Jack Rosebro (Perfect Sky)</td>
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<td>11:00am - 12:30pm</td>
<td>Technical Seminars</td>
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<td>12:00pm - 5:00pm</td>
<td>Trade Show</td>
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### Monday, October 29

<table>
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<th>Time</th>
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<tbody>
<tr>
<td>9:00am - 2:00pm</td>
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### November 2012 ATRA Powertrain Expo

Atra Powertrain Expo Sponsored by GEARS Magazine atrapowertrainexpo.com

Danny Sanchez is a 25-year veteran with dealership experience and knows how to attract dealer customers. Penny saver & other conventional advertising won’t cut if you’re trying to attract this look for and expect from an auto repair shop. Dealer customers are better able to pay for your transmission repair as do those who prefer an independently-owned transmission shop. The 2012 study reveals why these consumers prefer the dealer and offers insight into what these individuals look for and expect from an auto repair shop. Dealer customers are better able to pay for your transmission repair as do those who prefer an independently-owned transmission shop. The 2012 ATRA’s 2011 consumer study showed that an equal number of people prefer the dealer for...
## Registration Form

**Registration Date:** October 25th - 29th, 2012 • Las Vegas, NV

### Company Information
- **Company Name:** [Company Name]
- **ATRA Account Number:** [ATRA Account Number]
- **Contact Person:** (will receive all correspondence)
- **Address:**
  - **City:** [City]
  - **State:** [State]
  - **Zip:** [Zip]
  - **Country:** [Country]
- **Area Code Phone No.:** [Area Code]
- **Fax No.:** [Fax No.]
- **Email Address:** [Email Address]

### Registration Details
- **Registration Form:**
  - October 25th - 29th, 2012
  - • Las Vegas, NV

### Registration Fees

**TO REGISTER:** Call toll free 1-800-428-8489 or FAX this completed form to 805-988-6761

<table>
<thead>
<tr>
<th>Conference Type</th>
<th>Qty</th>
<th>Before Sept. 1st</th>
<th>Sept. 1st - Oct. 10th</th>
<th>ALL ON-SITE</th>
<th>SUBTOTAL</th>
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<td>$395</td>
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<td>Technical or Management Conference*</td>
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<tr>
<td>Extra Luncheon Ticket</td>
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</tbody>
</table>

**Discount for current ATRA Members only.**

Join or renew today and enjoy the member discount right away!

| I do not wish to receive any advertising or promotional material from Exhibitors. |

### Payment Information
- **Check enclosed payable and mail to:** ATRA, 2400 Latigo Avenue, Oxnard, CA 93030
- **Check #:** [Check #]
- **Charge to:**
  - □ MasterCard
  - □ Visa
  - □ AMEX
  - □ Discover
- **Card Number:** [Card Number]
- **Expiration Date:** [Expiration Date]
- **Security Code:** [Security Code]
- **Print Name on Card:** [Print Name on Card]
- **Signature:** [Signature]

---

*Conference Registrants may be eligible to receive Trade Show Badges for spouse and/or children by contacting ATRA Registration at 1-800-428-8489.*

[Call ATRA for details]

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Every 5th Conference attendee is free!
POWERTRAIN INDUSTRY NEWS

VBX Introduces New AW55-50 Linear Solenoid Sets

VBX is proud to announce the immediate availability of guaranteed remanufactured linear solenoid sets for AW55-50 valve bodies.

According to company president Tim LaCerra, “The solenoid sets are available for the A-code and B- or C-code valve bodies. The solenoid sets are 100% guaranteed, feature new cans, and are available for each manufacturer of AW55-50 valve bodies. In addition, they are adjusted during the testing process so they arrive completely ready to install.”

For additional information, contact VBX toll free at 1-866-2GET-VBX or visit them on the web at www.vbxus.com.

Tri Component Introduces New Converter Sprag

Tri Component Products Corporation proudly offers the VC-6-1 as part of its growing line of converter sprags.

The VC-6-1 (22 Cams, O.D. 2.613”, I.D. 1.957”, thickness 0.53”) fits Volkswagen and Fichtel and Sachs applications such as the ZF4HP18, 4HP22, 5HP24, and many others.

JASPER Offers Over-The-Counter Trans Valve Body

This kit contains premium valve body paper and Gold Stripe® sealing rings combined with OEM sealing rings.

Kit number 2598 is in stock and available for immediate delivery.

For more, visit TransTec on line at www.TransTec.com.

TransTec Introduces New ZF5 Overhaul Kit

We are pleased to announce the availability of TransTec® overhaul kit 2598 which kit covers the rear wheel drive five speed ZF5HP19 transmission. This unit is found in certain models of the BMW 3 and 5 series as well as the Z4 from 1997-up.

Featured Components

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Sonax 68RFE Center Pump Gear and Bushing

Chrysler 68RFE pump bodies frequently have a scored bearing surface or pump wear and fractures where the center gear drive flange passes through the pump casting.

GEARS does not endorse new products but makes this new information available to readers. If you have a new product, please email the press release information with applicable digital photo or drawing to fpasley@atra.com or send by mail to GEARS, 2400 Latigo Avenue, Oxnard, CA 93030.
The Sonnax center pump gear 72530B-02 or bushing 72530B-03 salvages pumps with this type of wear. When the center pump gear bore is oversized, machine the score damage out of the pump to accept a precision, steel-backed aluminum bushing. If there’s no pump body damage, simply drop in the replacement center gear with the redesigned drive flat engagement contour to repair and upgrade the pump.

For more, visit Sonnax on line at www.sonnax.com.

**New Filter System for G-TEC Cooler Line Flusher**

In its continuing effort to reduce labor time and simplify operations of its G-TEC or TurboTank Heated Cooler Line Flusher, G-TEC is proud to introduced the UFO single-bolt, 4-inch, 28-micron, checkable, cleanable, and re-usable filter system.

The UFO filter has only one bolt through the center of the round filter housing instead of the four bolts they previously offered. With only one nut to loosen and tighten when servicing the filter, this will reduce your operating time and cut your labor cost.

If you want to see the dirt you’re flushing from your heat exchangers, just add a UFO to your flusher.

G-TEC’s filter screens will fit most popular heated cooler line flushers used in the transmissions shop, so if you need a replacement 4”, 28-micron filter, call G-TEC at 800-725-6499, or visit them on line at www.g-tec.com.

**PML Heavy Duty Transmission Pan for Chevy and GM Trucks**

PML is excited to be the first to offer a heavy duty transmission pan for the GM 6L80/6L80E transmission. The new pan’s added fluid capacity will help keep your transmission running cool under heavy loads.

Designed for Silverado, Sierra, Avalanche, and Escalade, this pan provides two full quarts of additional fluid capacity over the stock 6L80 pan.

This pan features:

- Cast aluminum construction, designed with fins to dissipate heat.
- Thick walls to provide added strength to the transmission housing.
- Drain plug for easier maintenance.
- Thick gasket flange, machined flat, for a leak-free seal.
- Multiple locations for a temperature sending unit.

To view images and pricing, check out PML’s web site at www.yourcovers.com.

**EVT Parts Now Has Mounts in Stock for Every Application**

Need new mounts? EVT Parts has the mounts you’re looking for… in stock and for less. And not just transmission mounts: EVT also handles engine mounts for nearly every make and model on the road today.

You probably know just how expensive today’s mounts can be from the dealer. Sometimes they’re so expensive you have to get a approval before adding one to a transmission job.

But EVT offers quality aftermarket mounts for a lot less than the factory mounts. Very often that price may be so low you’ll feel comfortable adding them without having to ask for an additional approval.

Most importantly, EVT keeps a wide range of mounts in stock, so you won’t have to wait for the mounts you need. Order a mount today, and in most cases it’ll be shipped the same day. So you can return the customer’s car quickly and fixed right.

For more, visit EVT on line at www.evtparts.com, or call, toll free, 1-866-EVT-PARTS (388-7278). Or call their regular line at 1-323-758-1302. Call today!

**A&A Midwest Welcomes Leonard O’Connell as New COO**

30-year aftermarket veteran brings diverse operations, human resources and marketing skills to the newly created position within family-run company

After a national search, Leonard “Len” O’Connell, a veteran automotive aftermarket leader, has joined A&A Midwest as chief operating officer (COO). O’Connell will be based at the A&A Midwest Chicago location. All company managers now report to O’Connell who has taken over the day-to-day administration operations for A&A Midwest, which offers cores, recycling, and auto wrecking services. The company also sells engine and transmission hard parts through its EngineQuest and TransmissionQuest divisions. In addition to Chicago, the company operates from Las Vegas, NV and also owns an auto recycling facility in Blue Island, IL.

O’Connell reports directly to both
Scott Stolberg, who is based in Las Vegas, and his brother, William “Billy” Stolberg, in Chicago. The brothers jointly operate the company as co-presidents.


A & Reds Launches Eparts Connection Web Site

A & Reds Launches Eparts Connection Web Site

A & Reds is proud to announce the launching of its Eparts Connection web site. Customers can go to the A & Reds web site www.areds.com and log in to Eparts Connection two ways: the Visitor Entrance with no user name or password, or as an Existing Customer if they already have an Eparts Connection account.

Using Eparts Connection gives transmission rebuilders 24/7 access to A & Reds’ extensive line of automatic and standard transmission parts and transfer case parts in real time. Catalogs can be downloaded from the web site free of charge.

Some of the features rebuilders will like are:
• VIN Lookup (VIN Decoder)
• Free access to service information and labor time guides
• Ability to create order forms for individual transmissions saving time on future orders.

Free access to the Epart Manager web site where the shops can create invoices, maintain inventory, and track sales history.

New to the Eparts Connection web site this month is the Vehicle VIN Lookup. This tool will help mechanics learn more about the vehicles they’re working on, such as engine type, transmission, and what options are on the vehicle.

These are some of the many features available through the A & Reds Eparts Connection web site; look for updates in future issues of GEARS.

Transmission rebuilders needing more information or a user name and password can contact Rob Rasmussen at 800-835-1007, ext 124.

New Engineers Join Sonnax

Sonnax Industries, Inc. recently expanded its engineering department and welcomed three new engineers including a senior manager. This expansion enhances the company’s already strong capabilities in product development and manufacturing.

Robert K. Steinmetz as senior engineering manager has oversight of engineering and quality control functions. He possesses many years of experience coordinating the design and development of automotive transmission products. Steinmetz most recently served as engineering manager for Transtar Industries’ Recon Torque Converter group, and prior to Recon was a program manager at LuK USA. He holds a BS in mechanical engineering from the University of Toledo and an Executive MBA from Kent State University.

Also joining Sonnax is Patrick Keller, a project engineer assigned to develop and test new products for the company’s transmission product line. Keller was formerly a project engineer with Ultra Dynamics in Columbus, Ohio. He holds a BS in engineering technology from Michigan Technological University.

James G. Daris recently joined Sonnax as a manufacturing engineer, and will work closely with the company’s product development team to help ensure efficient and effective manufacturing processes. Daris has over 18 years of manufacturing experience in aerospace, defense, and tier I and II automotive industries, most recently as principal manufacturing engineer with Timken. He holds a BS in mechanical engineering from Polytechnic University.

Sonnax is a diversified supplier of specialized drivetrain products to the automotive and commercial vehicle industries, and to industrial sectors utilizing drivetrain technology. Sonnax is an employee-owned company. Visit Sonnax on line at www.sonnax.com.

ATR Transmission Remanufacturing Has New Web Site

ATR Transmission Remanufacturing Inc., an ISO 9001:2008 certified remanufacturer of fleet transmissions, is proud to announce it has launched its new web site! The web site is now up and ready for viewing.

ATR has redesigned its web site to offer more information about its ISO remanufacturing processes, ATR
POWER INDUSTRY NEWS

product lines, its turnkey program highlights, quality policy, technical bulletins, and our management team. It also features news/events, blog/posts, and much more information about ATR.

ATR supplies transmissions from squad cars to waste trucks. You can see why ATR is the premier supplier of fleet transmissions in the industry at www.atreman.com or call for more information at 1-866-738-7267.

When experience counts, trust ATR. Fleet focused… customer driven!

LuK® Clutch Distributes Technical Assistance Poster

Valley City, OH - Schaeffler Group USA Inc. has initiated the distribution of more than 180,000 LuK branded technical assistance posters promoting the proper diagnosis and installation of clutch kits, clutch hydraulics and flywheels. The poster helps the technician identify common installation errors that lead to unwarranted product returns and reduction in productivity at the shop level. The technical information for the poster came directly from the Schaeffler Automotive Aftermarket Technical Hotline that helps consumers with proper installation techniques and trouble shooting difficult applications.

The four-color fold out poster also contains technical information regarding LuK flywheels and hydraulics which are often overlooked components to the drivetrain repair process. Clutch replacement is not an everyday occurrence at the typical shop, and the conveniently sized poster is meant to be hanged in the bays for easy access to the information. The Schaeffler tech-line number is also prominently featured so the technician can call for help in trouble-shooting problematic applications.

Bill Hanvey, Vice-President of Sales and Marketing said of the poster, “We are committed to the education and training of the professional installers to help them make their shops more productive. Un-warranted returns affect everyone in the distribution chain and through our Schaeffler tech-line and tools such as the technical poster, we are trying to prevent the loss of time and money at ground level.”

Electronic versions are available for download and viewing at the Schaeffler aftermarket website, www.Schaeffler-Aftermarket.us.

Schaeffler Group USA Inc. is a leading partner to the automotive and commercial vehicle replacement parts markets in North America. The group, which includes the LuK, INA and FAG brands, offers a broad range of technologies for engine, transmission and chassis applications.

New from Precision International

Precision International now has available Overhaul Kits, Banner Kits, and Master Kits for A5GF1

Overhaul Kit: K77900CC
Banner Kit: K7700CCW/O
Master Kit: K7700CC

Application:
HYUNDAI (USA): SONATA 2006-11
HYUNDAI (NON USA): GRANDEUR 2005-10, SONATA 2006-11
KIA (USA): FORTE 2011-
KIA (NON USA): CARENS 2006-11, GRAND CARNIVAL 2009-11
LOTZE 2005-10, OPIRUS 2006-11, OPTIMA 2006-10
RONDO 2007-10

For more information, visit Precision International on line at www.transmissionkits.com.

Aisin Warner Linear Solenoid Rebuilt Tool Kit

VBX is proud to announce the immediate availability of our NEW Aisin Warner Linear Solenoid Rebuilt Tool Kit.

According to company president, Tim LaCerra, “the Tool Kit contains the VBX Patent Pending Bushing Installer, Bushing Remover, new Bushings and Cans with the VBX re-designed relief holes. The Tool Kit contains enough Cans and Bushings to rebuild one AW55-50SN Valve Body.”

In addition to the Tool kit, Reload Kits are available for AW55-50SN, TF80/TF81/AF21 and 09G/TF60 Valve Bodies.

To view the complete Instructional Video of the Tool Kit, please visit: www.vbxus.com. Click on the Video Tab and select the video entitled “Aisin Warner Linear Solenoid Tool Instructions.” For additional information, please contact VBX toll free at 1-866-2GET-VBX.
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For information on Shopper advertising in GEARS, contact GEARS, 2401 Latigo Avenue, Chatsworth, CA 91303, or call (805) 604-2000.

For our Canadian Subscribers

Some of the 800- toll free numbers listed in the shopper ad section do not work in Canada. Therefore, as a service to you we have listed direct line phone numbers to our shopper advertisers:

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Autocomp Technologies (713) 697-5511
Precision of New Hampton Inc (641) 394-5955
Lory Transmission Parts (305) 642-4621
Miami Transmission Kits (305) 885-7355
ART Auto Sport Unlimited Remanufactured Transmissions (616) 748-5725
Weller Auto Trucks has many different shop locations
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BUSINESS FOR SALE: Very successful automatic transmission shop located in the interior of British Columbia, Canada. Great fishing, hunting and skiing. Established in 1970, grosses $450,000 to $500,000 annually. Great reputation and established clients. Owner wishes to retire. Turn key operation. Phone (250) 374-6284, e-mail sndymckinley@yahoo.ca.

HELP WANTED: Transmission Builder - Established family owned and operated transmission shop in business for 30 years. Five day work week, competitive pay, benefits, vacation time. Shop is clean and spacious with the latest equipment and tools; located 45 minutes east of St Louis. Email resume to: hytechtrans@sbcglobal.net. ATRA Mbr


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<td><a href="http://www.superior-transmission.com">www.superior-transmission.com</a></td>
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<td>Transtar Industries, Inc</td>
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<td>Whatever It Takes Transmission Parts, Inc</td>
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<td><a href="http://www.wittrans.com">www.wittrans.com</a></td>
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