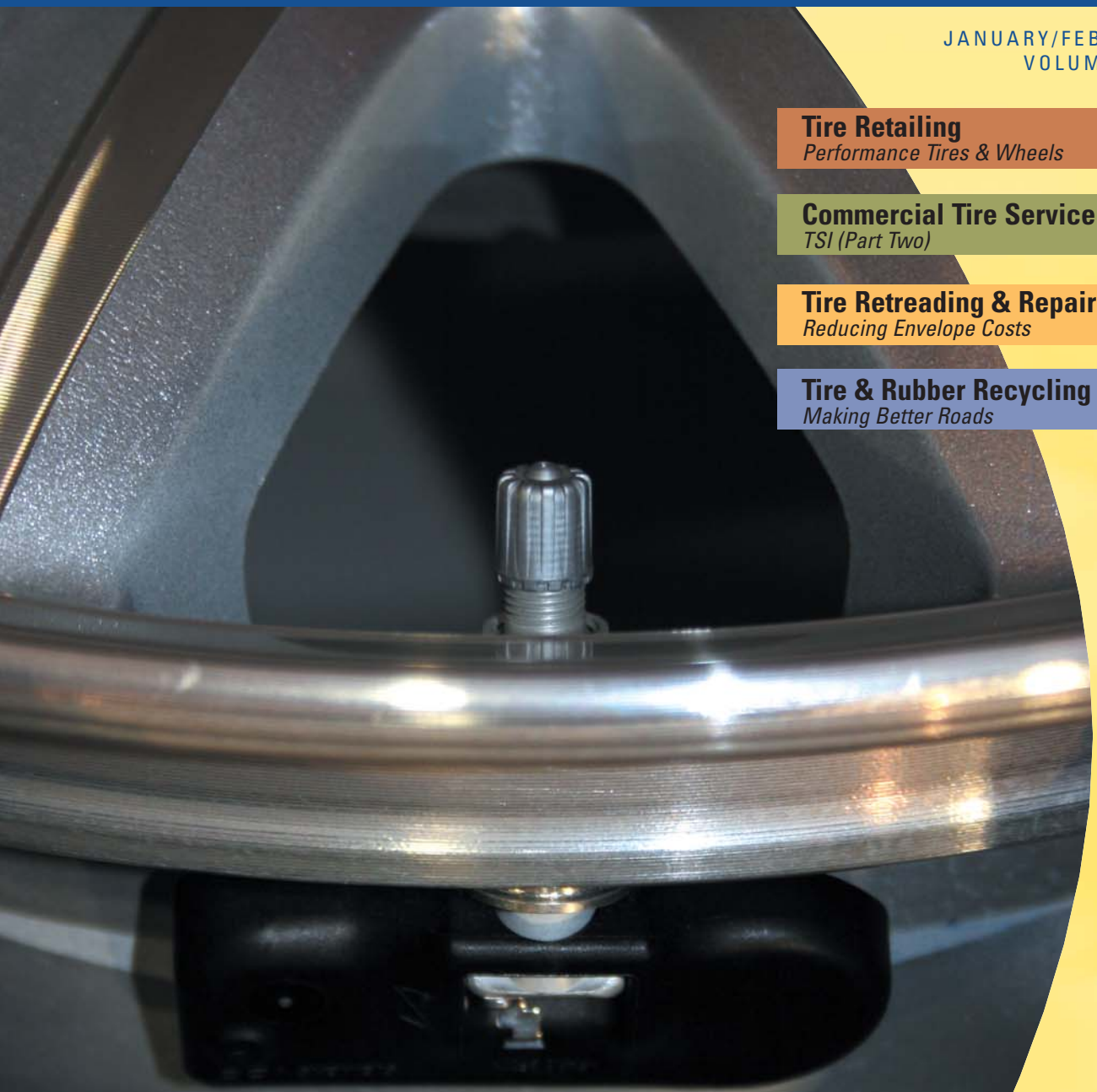
Today's Tire Industry

The educational resource for tire dealers, retreaders and rubber recyclers.

JANUARY/FEBRUARY 2006
VOLUME 4/ISSUE 1



TPMS *for Tire Dealers* 4

TIA
TIRE INDUSTRY ASSOCIATION®

WORKING FOR THE INDUSTRY...WORKING FOR YOU.

TPMS *for Tire Dealers*

by Kevin Rohlwing
Editor and TIA Senior Vice President of Education and Technical Services

Self-help books have been around for a long time, but the movement has definitely gotten out of hand when there's a *Bird Watching for Dummies*. I know it's probably an easy to navigate reference guide so the bird watcher can figure out which bird is being watched, but come on, bird watching? Come to find out, there are hundreds of *Dummies* books on everything from aquariums to yoga. The whole premise of the series is to reach the "frustrated and hard-working souls who know they're not dumb, but find the technical complexities of computers and the myriad of personal and business issues… make them feel helpless." I'm not sure how bird watching fits in there, but maybe I'm underestimating the complexity of watching a bird or the size of that market.

Since we don't have a *Dummies* book for tire pressure monitoring systems (TPMS), TIA has developed the first in a series of educational programs to train dealers on how this new technology will affect their companies. Our goal is to make sure TIA members have continuous access to the latest information on servicing all types of original equipment and aftermarket TPMS. This article and the new training program are just the first steps toward preparing the industry for millions of cars, minivans, trucks and SUV's that will be produced from this point forward.

Instead of wasting space with the entire historical perspective of TPMS, I'll just reassure everyone that it's

"The TPMS Training Program… gives technicians a sound understanding of how to identify a vehicle with a TPMS, how to service and install the valve stem sensor, and how to protect the sensor during the demount/mount process."

covered in the new training program. In fact, here's a list of all of the topics so we can move on to the real issues:

- History of TPMS
- TPMS Government Regulations
- Types of TPMS (direct and indirect)
- Valve Stem Sensor Installation, Torque and Service Procedures
- Run-Flat Demounting/Mounting/Inflation with a Valve Stem Sensor
- Run-Flat Demounting/Mounting/Inflation with a Band-Mounted Sensor
- Direct TPMS Relearn/Recalibration Procedures
- Indirect TPMS Relearn/Recalibration Procedures

The TPMS Training Program can't possibly cover "everything," but it gives technicians a sound understanding of how to identify a vehicle with a TPMS, how to service and install the valve stem sensor, and how to protect the sensor during the demount/mount process. The TIA member price for one kit is $150, or about the cost of one sensor. The training kit includes a 50-minute video and DVD as well as a 120-page workbook.

Believe it or not, training technicians to handle TPMS is the easy part. In addition to the TIA Training Program, Mitchell1 has released a reference guide for servicing TPMS on 1998-2005 models, so there's more than enough information available. But as it stands right now, there are only about four million vehicles that have a TPMS, so

'When it comes to handling an assembly with a valve stem or band-mounted sensor, speed is the last thing on the list. The process of demounting and mounting any tire on a wheel with a valve stem or band-mounted sensor is slow and deliberate.'

nobody is seeing them in great numbers. Since the total compliance date isn't until September 1, 2007, it's going to be a few years before a significant percentage of vehicles have a TPMS.

What the industry must realize is that TPMS is going to require a completely different business model in some situations, while others will only need to make modified adjustments. But nobody will be spared the learning curve on how vehicles with TPMS are going to impact operations. Only one thing is for certain; if tire dealers are forced to send enough TPMS customers to the new car dealer, more and more of them will get into the tire business, if they're not there already.

I've called it the NASCAR mentality for years, and I still believe too many dealers have a pit-stop approach to installing tires. When it comes to handling an assembly with a valve stem or band-mounted sensor, speed is the last thing on the list. The process of demounting and mounting any tire on a wheel with a valve stem or band-mounted sensor is slow and deliberate. It also requires extreme care, so markets with a lot of run-flat and low aspect ratio tires are going to require more advanced equipment in order to protect the sensor.

Since the trend in factory wheels is to eliminate the outer flange for appearance, technicians will have to use tape weights to dynamically balance tire and wheel assemblies. The inside flange hasn't changed (yet) so any computer balancer can easily perform a static balance, but ride disturbances are easier to identify with modern suspension systems so the likelihood of comebacks is higher using that approach. As if the slowdown from handling sensors isn't enough, dealers without advanced balancing equipment that makes tape weights easier to install will be forced to add a few more minutes to each set of four tires.

That's just the start of the equipment list that every dealer will have to follow in order to handle TPMS. For instance, the growing number of sensor monitoring/recalibrating tools will play an important role in every operation. A dealer must know if the sensor or TPMS was transmitting and operational *before* a technician touches a vehicle and notify the customer. It's equally important to know that the system remains operational *after* the service has been completed and communicate that with the consumer.

Then there's the fact that each vehicle manufacturer uses a different everything. From grommets and o-rings to replacement sensors, there are very few, if any, consistencies between domestic and foreign automobiles. To make matters worse, each individual manufacturer has multiple configurations and recalibration procedures within their own models. So the bottom line is nothing is standardized, except for the fact that all valve stem sensors use a special nickel-plated valve core. The special valve core is the only component or procedure that is standard for all valve stem sensors. Dealers will have to refer to the vehicle manufacturer for all TPMS service requirements after that.

While this "dependence" on the car makers and lack of standardization seems troubling, there is good news on the horizon for TIA members and the industry. General Motors had a representative attend the Tires at Two seminar for TPMS during the Performance Tires & Wheels/SEMA Show and he provided everyone, including myself, with valuable information. He made an excellent point when he commented that from the standpoint of GM, it's in their best interest for independent tire dealers to have the correct information on TPMS because it ultimately affects customer satisfaction with a new vehicle purchase. TIA is utilizing the contacts within GM to help establish an on-going relationship with all of the new car and sensor manufacturers so we can make sure our

'TIA's new TPMS Training Program is just the start of the learning process and members who jump on board right away will be better prepared to service the tires and wheels of the future before the "future" is actually here.'

members have the proper guidelines for each model year as soon as they are available.

But the good news doesn't stop there. Standardization is on the way with Daimler/Chrysler being the first major automotive manufacturer to introduce a universal TPMS platform with only two different sensors, two different grommet/o-ring kits, and no recalibration (the system resets itself automatically). Siemens VDO, an original equipment supplier of valve stem sensors that developed this technology, has been working with TIA for a couple of years to introduce a valve stem TPMS that is technician-friendly, and early reports suggest it was successful. They even developed a hinged sensor (see photo below) that can accommodate different rim configurations. Other TPMS manufacturers are pursuing similar universal approaches that make replacement and recalibration much easier.

The industry has no choice but to accept the fact that there are going to be a small number of model years, basically 1998-2006, where the level of technology has resulted in a myriad of systems and procedures related to TPMS. As the new car makers are able to standardize and simplify TPMS on their vehicles, it will become much easier for tire dealers to continue servicing the tires on all makes and models. In the meantime, the industry must educate and prepare itself for radical changes at the sales counter and in the shop.

TIA's new TPMS Training Program is just the start of the learning process and members who jump on board right away will be better prepared to service the tires and wheels of the future before the "future" is actually here. ■