

## SMARTIRE® TPMS BY BENDIX CVS FOR TRACTORS SMARTIRE® TRAILER-LINK TPMS FOR TRAILERS

**Not taking care of your fleet's tires *will* cost you plenty – from higher operating costs and increased downtime, to customer dissatisfaction, and even potential accidents.**

The SmarTire® Tire Pressure Monitoring System (TPMS) by Bendix CVS helps your drivers and technicians keep up-to-date on potentially dangerous tire conditions. Tire inflation issues can be handled promptly in the yard, or by the driver, before they become a problem on the road.

### Tire Pressure Management – Accurate Alerts Are Imperative

Did you know that just a couple of hours into your route, the temperature of your tires can increase 20% or more? The SmarTire TPMS system adjusts alerts based on the current tire conditions displayed on the SmarTire gauge notifies the driver which tire is low and how much pressure to add. That's because the system's sensors are in the pressure vessel of the tire, allowing them to accurately measure tire temperature and pressure and make adjustments accordingly ... a requirement for an effective daily tire pressure management program.

The wheel-mounted SmarTire sensors wirelessly transmit data to the receiver which, in turn, analyzes the information to determine if an alert is necessary. Through an in-cab display, or integrated vehicle cluster, the SmarTire system reports both tire pressure and temperature information, instantly warning of tire-related problems, including alerts for low and high tire pressure, extreme low tire pressure, and extreme high temperature, before they pose a safety hazard. Real-time protection.

For your maintenance team back at the shop, data is available from the in-cab dash display, on the vehicle network from your telematics provider, or via a hand-held reader that makes it easy for them to check the tires on your trucks and trailers in the yard.



*SmarTire® TPMS for tractors helps your drivers and technicians keep up-to-date on potentially dangerous tire conditions.*

It's all about drive time,  
not down time.

SmarTire TPMS for tractors and SmarTire Trailer-Link is available now as factory installed at most OEMs, or as a retrofit kit at any Bendix authorized distribution channel partner.



## Information from the road is available wirelessly to your back office.

And for even more convenience, the same SmarTire TPMS data can be relayed wirelessly to fleet operators and accessible via SafetyDirect®, a user-friendly Web portal available from Bendix. With tire-related data flowing between drivers, technicians and management, your fleet tire management program can help you more accurately manage tire pressures daily, further enhancing your fleet's operating efficiency. In fact, fleets that use the SmarTire TPMS system report a 2% increase in fuel economy per vehicle plus a significant increase in tire carcass and tread life.

## Temperature Compensation

Since the SmarTire® TPMS system sensors are mounted inside the pressure vessel of the tire, they directly measure the contained pressure and the temperature of each tire. This direct temperature measurement allows the SmarTire system to adjust the first level alert to compensate for increased tire temperature as a result of driving the vehicle.

**The SmarTire system displays actual tire pressure and temperature for each wheel location, along with a deviation value that shows the amount of over- or under-inflation based on each tire's cold inflation pressure (CIP).** This value represents a tire's deviation from current target pressure, compensated for tire temperature, an important feature because tire pressure rises when a tire's temperature increases from use or outside conditions. As a result, drivers and fleets can accurately maintain tire pressures anytime – whether a truck has been sitting idle or has been driving for hundreds of miles.

## Guard Against Blowouts

Our innovative temperature compensation feature also allows the system to provide earlier warnings of a potentially severe tire problem. Especially critical for trailers, the SmarTire TPMS high-temperature warning alerts drivers to possible thermal issues, such as an overheated wheel-end due to a bearing or brake issue.

## Alerts

Three SmarTire TPMS system alerts help drivers, and technicians keep tires in top operating condition.

- **The Pressure Deviation Alert – unique to Bendix ...** is the first warning of an under-inflated tire. If a tire deviates 15% (pressure compensated) from its proper inflation pressure, the driver is alerted to the condition by a warning light and an optional audible alarm.



- **The Critical Low Pressure Alert ...** is the second warning of an under-inflated tire. It warns the driver when a tire's pressure falls 20% below the cold inflation pressure. This visual and audible warning is intended to alert the driver to a critical tire condition and the need to take immediate action.



- **The High Temperature Alert ...** is the third system-generated notification. It warns the driver when a tire's temperature exceeds 185°F (85°C). The SmarTire in-cab display will show both the actual temperature, and which tire is experiencing the problem, along with an orange LED and high temperature icon.



\*All alerts are customizable by the fleet using the gauge.

### THE NUMBERS TELL IT ALL... UNDER-INFLATED TIRES ADD REAL COSTS TO YOUR FLEET

- ✓ Only 44% of all truck tires are within 5 psi of their target inflation
- ✓ Nearly 90% of all tire failures are from under-inflation
- ✓ Almost 50% of all emergency roadside assistance calls are a result of tire failure

#### Running on 20% under-inflated tires cuts:

- carcass life by 30%;
- tread life by 25%; and
- fuel mileage by 2%, increasing your fuel spend by up to \$1,000 per year for a single truck

#### But checking tires can also be expensive

- Time to check tires on a tractor-trailer ≈ 30 minutes
- Hours per year for each tractor-trailer ≈ 42 hours
- The average hourly rate of a technician ≈ \$60
- The cost to check tires annually/tractor-trailer ≈ \$2,500

**With just the labor savings alone, SmarTire® TPMS by Bendix can pay for itself in just eight months!**

## Add SmarTire® Trailer-Link™ For Your Trailers For More Savings

The newest addition to the SmarTire technology is SmarTire Trailer-Link TPMS. It uses the same wheel-mounted sensors as the tractor system – along with a combination wireless ECU/antenna on the trailer – to read what’s happening and automatically transmit the trailer tire alerts, pressure and temperature information data to the existing SmarTire TPMS dash gauge.

When you pair any truck and trailer equipped with SmarTire TPMS by Bendix, an automatic electronic “handshake” will occur, displaying the data, and monitoring the whole truck and trailer in minutes, with no programming by the driver or technician required. If the tractor is not equipped with the SmarTire® TPMS system, the SmarTire Trailer-Link uses a lamp mounted to the nose of the trailer that will blink to notify the driver there is a problem. The lamp is mounted in an easy-to-see location when the driver uses the side view mirror.

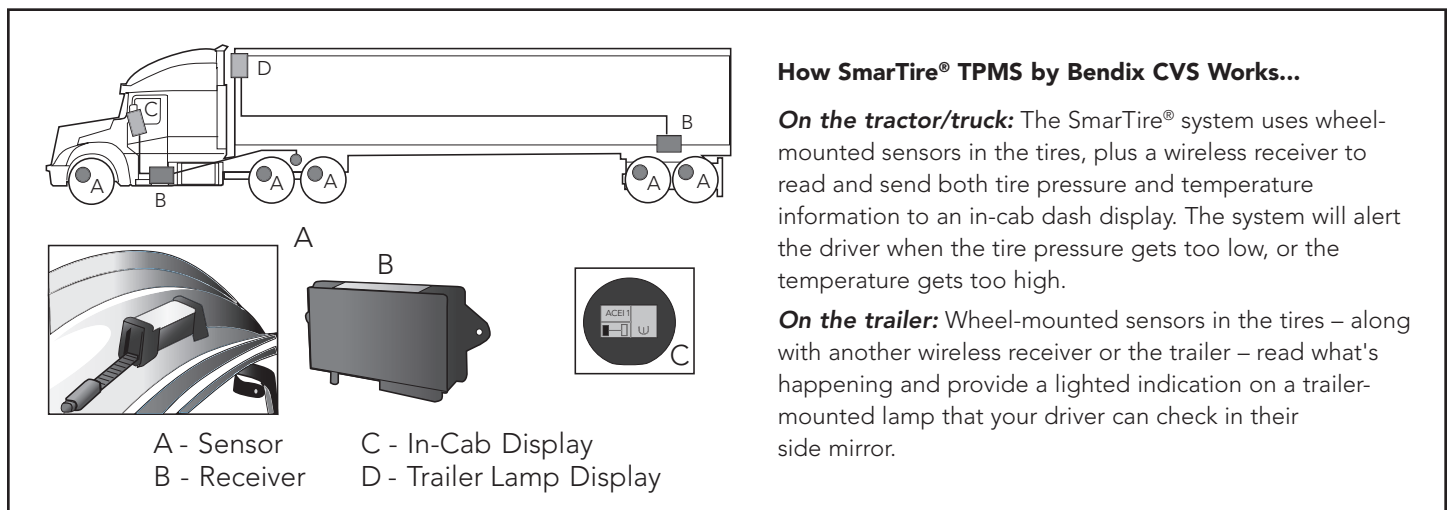
## Underinflated Tires Mean Overinflated Operating Costs

The SmarTire TPMS and SmarTire Trailer-Link TPMS Systems by Bendix CVS delivers:

- **Flexibility that works with all wheel and tire types;**
  - No need for special wheel or valve stem installations.
- **Proven components;**
  - Robust, weatherproof components road tested in the harshest environmental conditions.
- **Retrofitability on any tractor, truck or trailer;**
  - Your trucks could be safer and saving money today.
- **Communication via an J1939 vehicle network;** and
  - Information from the system for operations can be delivered via telematics or download.
  - Potential notification to maintenance facilities to prepare for repairs on vehicles coming in for service.



*SmarTire Trailer-Link uses the same wheel-mounted sensors as the tractor system – along with a combination ECU/antenna on the trailer.*



## Leading The Way To Safer Roadways

Today's roadways are increasingly busy and the need has never been greater – especially in today's Compliance, Safety, Accountability (CSA) environment – for solutions to help commercial vehicle drivers respond to situations they encounter every day. Bendix is leading the way in improved highway safety with an ever-growing portfolio of road-tested, advanced commercial vehicle technologies that are affordable and effective. From shorter, straighter stops, to safety data, to systems that help drivers mitigate a variety of crashes and more, our solutions are driving a new era of safety.

### Active Safety Technologies

- Bendix® ESP® Full-Stability Technology
- Bendix® Wingman® Advanced™ – A Collision Mitigation Technology
- Bendix® TABS-6™ Advanced and TABS-6™ Advanced MC – Trailer Roll-Stability Technologies

### Supportive Safety Technologies

- Bendix™ BlindSpotter® Blind Spot Detection
- AutoVue® Lane Departure Warning System
- Bendix™ VORAD® – A Collision Warning System
- SmarTire® Tire Pressure Monitoring System (TPMS) by Bendix CVS for tractors
- SmarTire® Trailer-Link™ TPMS by Bendix CVS for trailers
- Bendix® Air Disc Brakes
- Bendix® ES® (Extended Service) Wide Drum Brakes



*Bendix active and supportive safety technologies, including SafetyDirect, do not replace the need for safe drivers. No commercial vehicle safety technology replaces the most important safety components of all – a skilled, alert professional driver exercising safe driving habits, as well as continuous, comprehensive driver training.*



#### **Log-on and Learn from the Best**

On-line training that's available when you are—24/7/365.  
Visit [www.brake-school.com](http://www.brake-school.com).

**SmarTire TPMS from Bendix ... because safety and savings revolves around your tires™. Learn more about SmarTire TPMS and SmarTire Trailer Link from Bendix CVS. Talk to your Bendix Account Manager, call 1-800-AIR-BRAKE (1-800-247-2725), or visit us online at [www.bendix.com](http://www.bendix.com) today.**