Keys to successful TPMS Diagnostics

• Have established SOPs in place
  – Pre-evaluate every vehicle
  – Test before you touch!
• Know the difference between a Tire Pressure Telltale and Malfunction Indicator Lamp (MIL)
• Get familiar with your tools
• Have access to informational resources to aid in diagnostic process
So....here’s what we’ve heard over the years...

• Honda Lo-Line TPMS Sensor Replacement
  – “I put in this new sensor in a 2008 Honda Civic, registered all of the sensor IDs through the OBD II with my tool, drove the car, and the MIL is still on.”

• Multi-Format/Programmable Sensors
  – “What do you mean I have to program it first?”
  – “I put this multi-format sensor in and the MIL is still on? Oh....you mean I still have to do the relearn procedure?!!”
Performing positional relearn on Cadillac models equipped with OE magnetically activated sensors

- “I put the vehicle in learn mode, place my magnet over the sensor, and the horn will not chirp. However, the customer tells me that when they take it to the dealer, they don’t have any problems.”
Replacing sensors on Toyota trucks with sensor in full-sized spare
  – “As I go around activating the sensor IDs with my tool, I always get duplicate sensor when I activate the left rear tire or spare.”

Radio Frequency Interference (RFI)
  – “I put the vehicle in learn mode, horn chirps. I go to activate the left front sensor and the horn chirps before I can even use my activation tool on it.”
• Owner’s manual instructs technician to initiate learn mode by using hazard lights
  – This relearn will only work for relearning the existing sensors back to the vehicle
  • For example: Following a tire rotation on a 2010 Ford F-250, this would be acceptable.
When new sensors are installed on the vehicle the following relearn MUST be performed:

- Press and release the brake pedal
- Place the vehicle in ACC mode three times
- While still in ACC mode, press and release the brake pedal, then turn ignition off
- Place the vehicle in ACC mode three times
- Horn chirps, vehicle is in learn mode.
- Activate the sensors in the following order: LF, RF, RR, RR, LR.
• When programming or cloning sensors.......  
  – Be aware of the location of the old sensor  
    • Especially if it is still transmitting  
  – Some other issues..........
• TPMS Set Switch

  – Purpose

  • Sets base-line for vehicle tire pressure
  • **Re-establishes** communication between sensors in wheels and ECU

    – If this button is pressed and the sensor IDs in the wheel do not match the sensor IDs stored in the ECU, then the vehicle will enter a “closed-loop” and lock the technician out of the system. Tools are available to quickly correct the “closed-loop”
• Registering New Sensor IDs to Vehicle
  – Once new sensor IDs are registered to vehicle, activate the sensors while the MIL is illuminated
    • MIL should go out once all sensors have been activated
    • If MIL goes solid:
      – Turn vehicle off, then on, and activate sensors again
      – Verify proper IDs were entered
      – Verify proper inflation pressure
Registering New Sensor IDs on Chryslers

- Vehicles are not driven “CONTINUOUSLY” for 10 minutes at 45mph
- Technicians unaware that many tools offer OBDII communication for relearn
- Hi-line vs. Lo-line
  - Know you application, this will affect which type of sensor is used as a replacement
Air Pressure Displays After Relearn

- Following a system relearn, many models will display 0 psi on the DIC
  - Correct air pressures will populate once vehicle is driven
Multiple Calls on This Platform

- Vehicle arrives to shop in “closed-loop” condition
- TPMS tire pressure telltale following new sensor registration
• OK....has anyone had any other issues they could not solve?