DTU

DISCOUNT TIRE UNIVERSITY

TPMS REBUILD & INSTALLATION

FACILITATOR GUIDE

TPMS REBUILD & INSTALLATION

CLASS PREPARATION

Welcome to TPMS Rebuild & Installation! TPMS is a foundational safety feature on a vehicle. It includes sensors that are attached to each wheel and reads the air pressure of each tire. This pressure is then transmitted to the onboard computer, where the goal is to detect the loss of air pressure and alert the driver.

Each sensor is exposed to extreme forces and corrosion over time. Some sensors contain one time use parts and must be rebuilt every time a tire is dismounted from the wheel. Rebuilding a TPMS sensor is one of the most intricate tasks that we perform in our service bays.

In this course, we will introduce you to the different types of sensors, along with each sensor's anatomy. We will also walk through the different installation processes and the precision tools used. Each participant will be required to demonstrate a basic rebuild and installation of a few types of sensors. This course wraps up with a brief assessment.

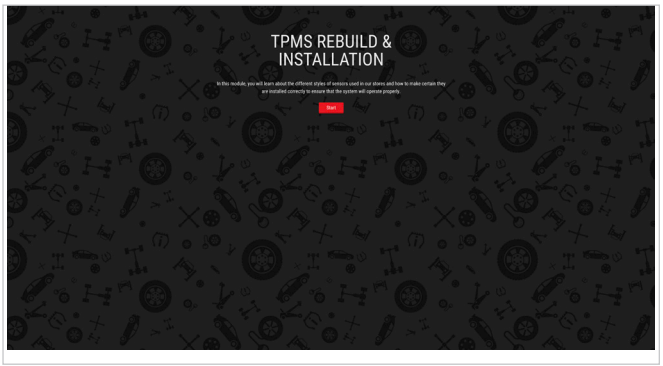
MATERIALS

This course requires several tools and accessories. These include:

- Two wheels: basic and large diameter
- Four TPMS hand torque tools
- Three sensors and their rebuild kits:
    1. Rubber valve
    2. Basic aluminum valve sensor
    3. Snap-in valve sensor
- Protective sleeve, vice grip pliers, and a drill bit
- Band and bracket kit with 5/16" nut driver or power drill

CLASS PREPARATION *(continued)*

BEFORE CLASS



1. Log onto the KC and access the DTU Academy page via the DTU menu.
2. Open the TPMS Rebuild & Installation online presentation.
3. Download and print the Participant Reference Guide for the number of learners enrolled in the course.
4. Download and print the Facilitator Guide.
5. Based on the number of participants, set up the appropriate number of different styles of sensors to hand out and pass around.

TIME

There are five sections and a final assessment within this course. They are:

Section Name	Duration
Introduction	2 minutes
Installing Sensors	5 minutes
Rebuilding Sensors	6 minutes
Removing Seized Sensors	3 minutes
Working with Banded Sensors	4 minutes
Final Assessment	5 minutes

TPMS REBUILD & INSTALLATION

CLASS PREPARATION *(continued)*

END OF COURSE

There will be a final assessment for this course. At the end of the Working with Banded Sensors section, send participants the link so they can individually take the TPMS Rebuild & Installation Final Assessment. It should take approximately five minutes to complete. Then go into DTU > LMS and mark the participant complete for the TPMS Rebuild & Installation course.

INTRODUCTION

Learning Objective

Welcome the participants and pull from their own experiences with TPMS.

Discussion

- Listen to the audio.
- Discuss the importance of quality in our work.

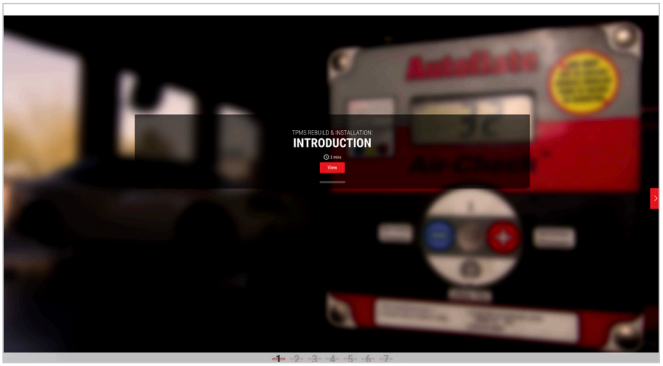
TPMS REBUILD & INSTALLATION

ONLINE MODULE

SECTION 1 - INTRODUCTION — 2 Minutes

Discussion

- How TPMS works on most vehicles. Point to the animation.
- Why it is a Best Practice to rebuild every time.



Ask

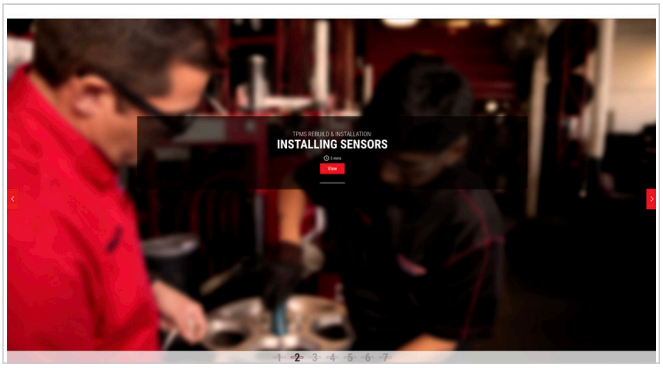
- Who remembers the most common types of sensors from Wheel Basics?

Pass out the two types of sensors to each table in the room.

SECTION 2 - INSTALLING SENSORS — 5 Minutes

Demonstration

- With a wheel and sensor, illustrate what the proper sensor angle and position looks like.
- Show what a sensor with an additional crush washer looks like.
- Show the four different TPMS hand tools on the two types of sensors.



Handout

Have each table locate the hex [retaining] nut on the sensors at their table.

Exercise

Read the name of a sensor and ask the class to identify the correct tool.

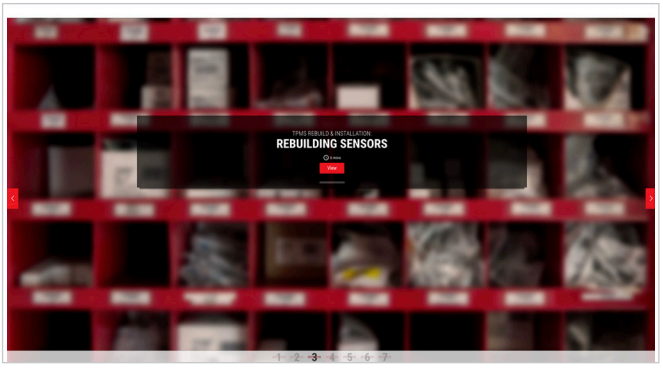
Answer the four assessment questions as a class.

ONLINE MODULE *(continued)*

SECTION 3 - REBUILDING SENSORS — 6 Minutes

Discussion

- Reiterate the importance of rebuilding every time. Speak about the attention to detail that is required.
- Why metal caps are bad.
- Where to find the correct kits to pull.



Rebuild Demonstrations

Using a wheel, rebuild kit, and the appropriate torque tool, demonstrate the three rebuild scenarios:

1. Rubber valve
2. Clamp-in valve
3. Replacement valve kit

Answer the two assessment questions as a class.

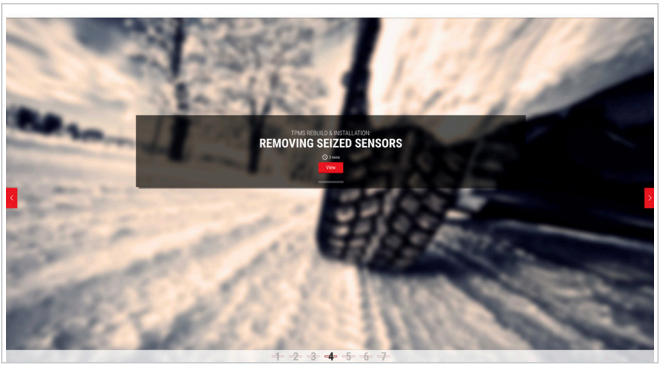
SECTION 4 - REMOVING SEIZED SENSORS — 3 Minutes

Discussion

- Why sensors become stuck.

Demonstration

- Install the sleeve and stabilize the sensor using vice grips. A drill is not required for a classroom setting.



Answer the three assessment questions as a class.

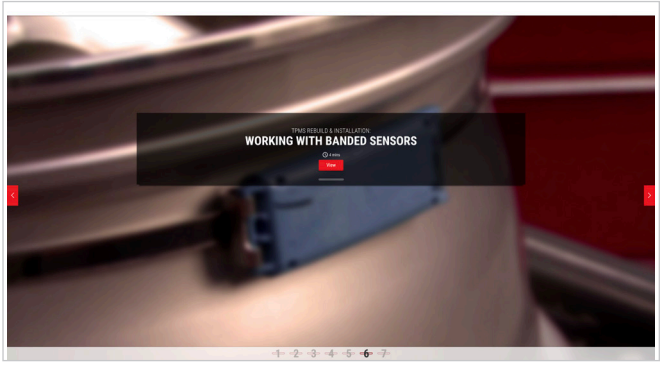
ONLINE MODULE *(continued)*

SECTION 5 - WORKING WITH BANDED SENSORS — 4 Minutes

Demonstration

- Using a large diameter wheel, install the band and bracket kit using the 5/16” socket and drill. Next, install the sensor.

Answer the two assessment questions as a class.



FINAL ASSESSMENT — 5 Minutes

Send participants the assessment link so they can individually take the TPMS Rebuild & Installation Final Assessment. It should take approximately five minutes to complete. Then go into DTU > LMS and mark the participant complete for the TPMS Rebuild & Installation course.

REGIONAL TRAINING ACADEMY