VEHICLE TECHNOLOGY TRENDS AND DIAGNOSTICS OVERVIEW

VT117L01

This course is the latest live course delivery of I-CAR's popular NEW series, which annually takes a look at vehicle technology and trends. It covers features and collision repair procedures for several 2017 models both foreign and domestic, but also includes information on automotive collision diagnostics and scan tools. This course includes information on the increasing importance of performing diagnostic scans, and the differences between certain electrical troubleshooting tools.

Course Content

Module 1—Trends Highlight

The course kicks off with an industry overview of new technology. Topics of discussion will include the OEM's commitment to making automatic breaking standard, the use of UHSS front door rings, and the use of composite reinforcements.

Module 2—North American Vehicle Manufactures

The Fiat Chrysler Automobiles section will discuss collision repairs on the 2017 Chrysler Pacifica and the 2017 Fiat Spider. The Ford Motor Company section will discuss Ford continuing the use of aluminium, collision repairs for the 2017 Ford Escape and the 2017 Lincoln MKZ Hybrid, and the Gorilla Class used on the new Ford GT. General Motors Company will wrap up the module discussing collision repairs on there new vehicles.

Module 3—Asian Vehicle Makers

The Honda and Acura modules will include information on the 2017 Honda Ridgeline and its acoustic side glass, the revision to Honda's weld-through primer recommendation and cover what to expect as the new Acura NSX goes into production. The Kia portion will cover collision repairs for the 2017 Kia Sportage and Kia Niro. Next up, there will be a discussion on the several collision position statements from Nissan and Infiniti.

Module 4—European Vehicle Makers

The European module will cover Jaguar and Volvo. The Jaguar topic will cover technologies on the 2017 F-Pace. Volvo's section will include the 2017 S90 and cover the fact that sectioning is still allowed on the UHSS on new Volvo structures.

Module 5—Near Future Trends

The next module looks at what may affect the collision repair industry in the near future. Topics that will be discussed include: intelligent Damage Detection Systems, Resistance spot Riveting Technology, Ethanol Fuel Cell Vehicles.

Module 6—Evolving Vehicle Technology

This module is an introduction to diagnostics and scan tools, it provides the student with an introduction to the various safety system technologies found on today's vehicles. This module communicates the importance of performing pre and post-scans based on the required trouble codes and calibration requirements of each system.

Module 7—Diagnostic Overview

The course continues by discussing how Standard Operating Procedures (SOP) for diagnostics and scans can be beneficial to a repair facility. Discussion will also explain what the collision advantage is and how it can help identify where electrical damage may be.

Module 8—Scan Tool Capabilities

This module will focus on introducing the various scan tools available and what their capabilities are. Comparisons will be made between basic scan tools and advanced aftermarket tools as well as a discussion on why OEM san tools may be required.

Module 9—Options for a Repair Facility

The course concludes with a discussion on all of the options for a repair facility as it relates to properly incorporating diagnostics into a repair. This module will provide recourses and suggestions on how to repair facility can:

- keep as much of the diagnostic repairs in house.
- Use a remote diagnostic tool
- Work with an independent diagnostic specialist

Recommendations

This course covers a variety of topics related to technology in current and future vehicles. It is recommended that students have basic understanding of several of the subject areas contained in the course and understand where they can find repair information on new trends. Courses that are helpful include:

- Alternative Fuel Vehicle Damaged Analysis and Safety (ALT03)
- Introduction to Carbon Fibre (CFR01)
- Aluminium Panels and Structures Damage Analysis (DAM05)
- Damage Analysis of Advanced Automotive Systems (DAM07)
- Steel Unitised Structure Technologies and Repair (SPS07)

Registration

To register for Vehicle Technology Trends and Diagnostics Overview (VT117L01) visit www.i-car.com.au or click here.

Course Benefits

Points: 1

Estimated Duration: 4 Hours

Format: Classroom & Virtual Classroom

Meets the I-CAR training requirements for the following roles:

- ESTIMATOR
- PRODUCTION MANAGEMENT
- STEEL STRUCTURAL TECHNICIAN
- ALUMINIUM TECHNICIAN
- NON-STRUCTURAL TECHNICIAN
- REFINISH TECHNICIAN
- ASSESSOR

After completing this course, you will be able to:

- Explain the importance of scan tools for collision repair
- Discuss the growing use of composite reinforcements
- Understand the unique collision repair considerations for many of the new 2017 vehicle platforms
- Discuss the near future trends facing the automotive industry and how they affect collision repair
- Describe the various safety systems on modern vehicles
- Use the collision advantage to help identify hidden electrical damage
- Determine the basic differences between OBDII and OEM codes
- Determine when OEM scan tools are required
- Describe why maintaining good vehicle voltage for scans and troubleshooting is important
- Understanding the limitations of electrical system self-diagnostics

I-CAR® AUSTRALIA