

## Upcoming Training Event — ASCCA Mount Diablo Chapter 20 *Special Event*

**Thursday, May 28, 2015**

**6:00 - 9:00 pm ~ Dinner included**



### ***“Air Conditioner Repair Refresher”*** presented by Standard Motor Parts

*AC Repair “Comebacks” rank Number 1 in every repair shop.  
Get your team’s game on before the hot weather begins and  
your bays are full of AC Repair!*

*Another Chapter 20 Membership Value Brought To You In Partnership With  
**STANDARD MOTOR PARTS***

*All Attendees will be issued a Certificate of Completion*

#### About the Trainer

Steve Mussa has been an automotive and marine technician for over 23 years, and has been in the automotive industry for more than 45 years, including Territory Manager and Trainer for Standard Motor Products / Four Seasons for 22 years before his retirement last year. He has been owner/partner with M&M Automotive, and Speed Center Auto & Marine Repair. Steve lives in Oakhurst.

#### About SMP



Established in 1919 and traded on the NYSE, Standard Motor Products, Inc., (SMP®) is a leading independent manufacturer, distributor and marketer of replacement parts for motor vehicles in the automotive aftermarket industry, with an increasing focus on the original equipment and original equipment service markets.

Organized into two major operating segments, SMP® supplies independent professional automotive technicians and do-it-yourselfers with high-quality replacement parts for engine management and temperature control products for domestic and import vehicles.

We distribute through traditional and non-traditional channels under our own brand names, such as Standard®, BWD®, TechSmart®, Intermotor®, Hayden®, ACI®, Four Seasons®, and through private labels.

#### Event location



#### Auto Electric & Fuel

2655-B Monument Blvd  
Concord, CA 94520  
(925) 357-9595



**Hosted by ASCCA Chapter 20**

**RSVP to Mary Kemnitz**

**P | 925-963-2924 or 925-356-0683**

**Cost: ASCCA Member or Member Employee \$30**

**Non-member \$50**

**AC Clinic Manual \$5 (normally \$25), not obligatory**

## ***Air Conditioning Tips and Techniques 2015***

This one night seminar will bring you right up-to-date on the very latest HVAC technology, best service practices and diagnostic techniques.

### ***Class agenda:***

#### **Things To Know Before You Start:**

- Heat transfer
- Rate of heat transfer
- Super Heat
- Subcooling

#### **Air Conditioning Technology Update – Get Ready to Service R-1234yf Vehicles and Electronically Controlled Variable Displacement Compressors with Refrigerant Volume Flow Sensors.**

Millions of R-1234yf equipped vehicles are already on the road. Learn about the new refrigerant, system components, service equipment, technician certification requirements and safety concerns.

We may be looking at a multi-refrigerant future. Several alternatives to R-1234yf are also being considered.

The Corporate Average Fuel Economy Standard must reach 54.4 mpg by 2025 and a new EPA/NHTSA program, “AC 17”, rewards OE manufacturers for new air-conditioning technologies that reduce climate change emissions AND improve fuel economy. Many of the technologies necessary to achieve these new federal standards are already here. Join us and get ready to service these complex systems.

The customer complaint is poor AC performance. The vehicle is equipped with an ECV compressor with refrigerant volume flow and RPM sensors. It is also equipped with an internal heat exchanger (IHX) and uses reduced evaporator reheat and default to recirculate strategies – where will you start your diagnosis?

Millions of vehicles are now using Electronically Controlled Variable Displacement Compressors (ECVs) with refrigerant volume flow sensors. Learn how to test and service these compressors.

Did you know that the engine should not be run without refrigerant in the system?

New compressors are using improved oil retention systems. What does this mean for service?

Internal Heat Exchangers (IHX) are already here – we explain how they work.

#### **Service and Repair Update**

How to identify the root causes of catastrophic compressor failure.

Replacement condenser capacities may be significantly different from the original – including O.E. units. Learn how to adjust the system charge level to optimize replacement condenser performance using differential temperature testing.

Airflow Issues – the engine may show no signs of overheating but poor AC performance may still be caused by a failed fan clutch – learn how to diagnose with an infrared tachometer.

High Voltage Hybrid system service.

Testing and repairing ***Dual Evaporator*** Systems – why special precautions are necessary.

Flushing is so important and but is rarely performed correctly. How to perform an effective flush quickly and inexpensively.

Leak detection Tips; Dye and electronic – including Hydrogen Trace Gas leak detection.

Critical, Recovery, & Evacuation procedures including air contamination elimination in recovered refrigerant.

Quick tips for checking condenser restrictions!

#### **The Latest Pattern Failures and Common Problems**

Dodge Diesel Trucks – how an undetected failed electro viscous clutch can ruin the AC system

Ford and Honda Scroll Compressor Issues and fixes.

Real World Case Studies