

# PRODUCT INFO

## NEWS FROM CARQUEST



### **Service Parts Identification Label**

Since the mid 80's, GM cars, and earlier on GM trucks, have been equipped with an important label called a Service Parts Identification Label or SPID for short. This label contains all the codes that reveal what factory installed options the vehicle originally had. Data such as paint codes, trim codes, transmission and engine equipment, rear axle ratio, special performance options, and other data can be learned by studying this label. The label also aids the assembly workers so that they install the right parts on the line as the vehicle is being manufactured.

Typical locations are; the trunk lid, spare tire carrier, console cover, glove box, under the hood, and inside the quarter panel. There may be times when you will see a reference to these codes (Called RPO or Regular Production Option Codes) in the catalog

listings. Obtaining the right part hinges upon retrieving the code from the SPID label to see how the vehicle is equipped.

For example, a vehicle may use two speed sensors, which look identical, but function differently. The SPID label helps you identify which part is in the vehicle. To avoid vehicle damage, returns and customer dissatisfaction, it is important to make sure the appropriate replacement part is chosen. Using the data on the SPID label to reference the catalog listings where appropriate will assure you get the right part for the job.

The SPID label is a permanent part of the vehicle and under no circumstances should it be removed. Use this important label to help make sure you are giving your customers the right part for the job!



PR203 FUEL PRESSURE REGULATOR

### **PR203 Fuel Pressure Regulator**

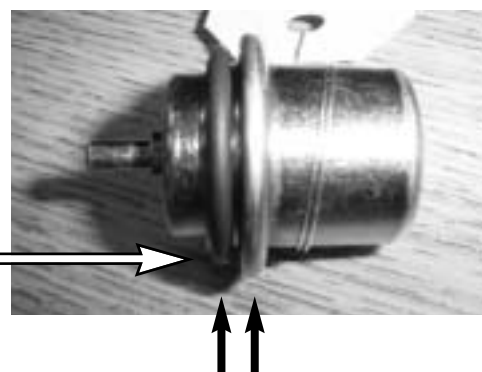
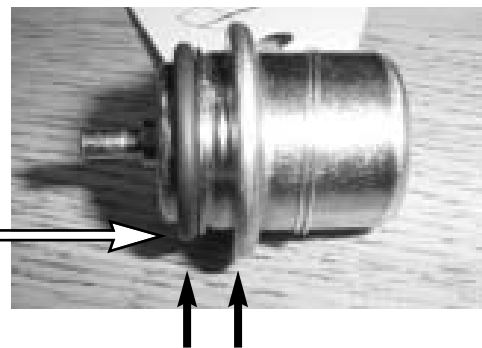
#### **CAUTION:**

When installing an O-Ring seal on a fuel pressure regulator. Make sure the O-Ring is in the lower groove.

**YES**

When O-ring is installed in upper groove it does not seal and will cause a fuel leak.

**NO**





# **CARQUEST Announces New Training Programs for 2005**

**Available Now:**

## **PTS52: AC Electrical Diagnostics**

It's late in the day and you are finishing a big AC job when you discover that the AC clutch won't come on! We've all been there. The good news is that the AC Clutch and Engine Cooling Fan are still usually controlled by a relay. The bad news is that a test light and jumper wire fall short when faced with today's operation strategies and vehicle networks. The aftermarket technician must be prepared to diagnose many different makes and models. In order to do so, you must be able to quickly find the information you need and decide on a strategy that fits the problem.

This all new one night course is for the AC technician that wants to improve their ability to diagnose the underhood electrical components that control the AC system. You will learn to develop diagnostic strategies that you can apply to every diagnosis whether or not you have scan tool capability for the vehicle. Examples and case studies will include Chrysler, Ford, General Motors, and Toyota vehicles.

### **Here's what's included:**

- Diagnosis of AC clutch controls including Belt-Lock Control, Ford CCRM, GM Class 2 bus, and Toyota Belt Lock.
- Diagnosis of cooling fan circuits including Ford CCRM, Chrysler Solid State Relay, and GM Series/Parallel fans.
- Schematic analysis and component diagnostic techniques to help you quickly find the root cause of circuit faults.
- AC Clutch and Cooling Fan control diagnosis using scan data and bi-directional control.
- A workbook that contains Power Tips and diagnostic techniques that you will be able to use in the shop.

### **These specific problems will be addressed:**

1. I just installed a new compressor and it won't turn on. I can make it work if I jumper the relay. Now what?
2. This cooling fan won't come on until the AC pressure is really high! What should I do?
3. The AC clutch won't engage on this Taurus. How do I check this relay box?
4. The AC light flashes on this Toyota and it won't blow cold. How do I check for codes?
5. The AC clutch turns off in traffic on this Town Car and there are no codes. What do I do now?

## **PTS53: AC Electronic Controls**

Climate controls are closely integrated with on-board engine controls, networks, body computers, and modules. The aftermarket technician must be prepared to diagnose many different makes and models. In order to do so, you must be able to quickly find the information you need and decide on a strategy that fits the problem.

This all new one night course will enhance your ability to identify "need to know" facts about a system, determine if you can effectively diagnose it with your scan tool and develop diagnostic strategies that you can apply to every diagnosis whether or not you have scan tool capability for the vehicle. Examples and case studies will include Chrysler, Ford, General Motors, and Toyota vehicles.

### **Here's what's included:**

- Diagnosis of temperature and blower controls including Ford GEM/REM system, Chrysler ATC, and Ford Blower Module.
- Schematic analysis and component diagnostic techniques to help you quickly find the root cause of circuit faults.
- Climate control diagnosis using scan data and bi-directional control.
- A workbook that includes Power Tips and diagnostic techniques that you can use in the shop.

### **These specific problems will be addressed:**

1. The ATC on this Chrysler won't go into Auto mode. Should I replace the control head?
2. The rear AC on this Windstar blows on low only. How do I check the blower switch?
3. The blower doesn't work on this Continental, how do I know if the module is bad?
4. The passenger of this Oldsmobile says she can't control the temperature on her side. How do I get codes out of this car?
5. The AC on this Sunfire blows hot. The clutch won't come on and it looks like its controlled by Class 2? What should I do next?

## **PTS51: Electronic Climate Control Diagnostics II**

Climate controls are closely integrated with on-board engine controls, networks, body computers, and modules. The test light and jumper wire fall short when faced with operation strategies and vehicle networks. The aftermarket technician must be prepared to diagnose many different makes and models. In order to do so, you must be able to quickly find the information you need and decide on a strategy that fits the problem.

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This all new two night course will enhance your ability to identify “need to know” facts about a system, determine you can effectively diagnose it with your scan tool and develop diagnostic strategies that you can apply to every diagnosis whether or not you have scan tool capability for the vehicle. Examples and case studies will include Chrysler, Ford, General Motors, and Toyota vehicles.

**Here’s what’s included:**

- Diagnosis of AC clutch controls including Belt-Lock Control, Ford CCRM, GM Class 2 bus, and Toyota Belt Lock.
- Diagnosis of cooling fan circuits including Ford CCRM, Chrysler Solid State Relay, and GM Series/Parallel fans.
- Diagnosis of temperature and blower controls including Ford GEM/REM system, Chrysler ATC, and Ford Blower Module.
- Schematic analysis and component diagnostic techniques to help you quickly find the root cause of circuit faults.
- Climate control diagnosis using scan data and bi-directional control.
- A workbook that includes Power Tips and diagnostic techniques that you can use in the shop.

**Available May 23 2005:**

**OBDII EVAP System Diagnostics**

It is imperative for today’s technician to have the ability to understand and diagnose Evaporative Emissions Systems. Many vehicles are presented for repairs with no symptoms other than an illuminated MIL.

Due to the computer strategies in place, driving the vehicle to verify the condition or the repair is not possible or too time consuming. He must have a way to see that the system is functioning properly to reduce the possibility of a comeback.

This will be a one night interactive program designed for the driveability technician. It will focus on quick diagnosis of electrical and hardware malfunctions relating to the EVAP system and the prevention of comebacks. The techniques demonstrated can be applied to many makes and models of vehicles.

The case studies will demonstrate problem solving through understanding system operation and strategy, schematic analysis, and data interpretation. Common tools such as a DVOM, a test light, a vacuum pump, and a scan tool will be used. The use of a dedicated EVAP tester will also be demonstrated. Examples of systems on Chrysler, Ford, GM, and selected imports will be used.

The main objective of this course is to improve the

diagnostic abilities of the technician with skills he can apply to a variety of problems. However, pattern failure items and field solutions will be included.

**Topics:**

- Detailed system operation
  - What does the PCM test?
  - Which sensors and actuators are used?
  - When does the test run?
- DTC setting parameters
  - What sets each DTC?
  - What are the parameters?
  - How do I verify repairs?
  - What are the common failures?
- Diagnostic procedures using common tools
  - Voltmeter
  - Vacuum pump
- Leak test strategies
  - Dedicated tester
  - Ultrasonic

**Advanced O2 and Fuel Trim Diagnosis**

There have been changes in the design and operation of O2 sensors. The feedback control of fuel mixture is still a problem area for technicians. A technician must diagnose the new sensors and determine the root cause of fuel trim codes. Many vehicles are presented for repairs with no symptoms other than an illuminated MIL. Due to the computer strategies in place, driving the vehicle to verify the condition or the repair is not possible or too time consuming. The technician must have a way to see that the system is functioning properly to reduce the possibility of a comeback.

This will be a one night interactive program designed for the driveability technician. It will focus on quick diagnosis of electrical and hardware malfunctions relating to O2 sensors and fuel control to aid in the prevention of comebacks. The techniques demonstrated can be applied to all makes and models of vehicles that use the sensors covered.

The case studies will demonstrate problem solving through understanding system operation and strategy, schematic analysis, and data interpretation. Common tools such as a DVOM and a scan tool will be used. The power of waveform and data graph analysis will also be demonstrated. Diagnostic case studies will include Chrysler, Ford, GM, and selected imports will be used.

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The main objective of this course is to improve the diagnostic abilities of the technician with skills he can apply to a variety of problems. However, pattern failure items and field solutions will be included.

**Topics:**

Detailed system operation

How does the sensor work?

How does the circuit operate?

How does the heater work?

How does the scan tool display the data?

DTC setting parameters

What sets each DTC?

What are the parameters?

How do I verify repairs?

What are the common failures?

Diagnostic procedures using common tools

DVOM

Propane

Scan tool

Oscilloscope Diagnosis

Connection

Waveform interpretation

Data graph interpretation

Fuel trim diagnostic strategies

Determine direction

Narrow focus

Common failures

Bulletins and flashes

**Available August 2005:**

**General Motors Driveability Solutions**

General Motors has made changes in the design and operation of their engine control. Many vehicles are presented for repair with no symptoms other than a MIL that is illuminated. In other cases, the MIL is out, there are no codes, and the engine runs poorly. The technician must be able to quickly determine what information is needed, which components should be tested, and decide on a direction.

This will be a two night interactive program designed for the driveability technician. It will focus on quick diagnosis of malfunctions relating to GM engine control components and systems.

The case studies will demonstrate problem solving through understanding system operation and strategy, schematic analysis, and data interpretation. Common tools such as a DVOM, a test light, and a scan tool will be used. Examples of systems with throttle control, coil on plug, cam phasing, and computer controlled starters will be diagnosed.

The main objective of this course is to improve the diagnostic abilities of the technician with skills he can apply to a variety of problems. However, pattern failure items and field solutions will be included.

**Topics:**

42 Volt hybrid introduction

Cam phasing

Coil on plug

Returnless fuel system

Misfire diagnosis

Repair through i flash

Throttle actuator control

Computer controlled starter

Ignition system diagnosis

EGR diagnosis

Catalyst diagnosis

**Contact your local CARQUEST Territory Manager to register!**



# i flash.

## **2534 Global Programmer Firmware update Action Required**

Effective Monday, January 17<sup>th</sup>, a new firmware update for the 2534 Global Programmer was released. All customers must perform this update to optimize their equipment. One of the more important improvements will permit on car Ford flash programming, as well as changes to Chrysler VIN programming. The update and instructions are available for download from:

[http://www.bsecorp.com/downloads\\_free.php](http://www.bsecorp.com/downloads_free.php)

Download file: *PS02051Web:iflash 2534 Global Programmer Software Update Package (2.42 MB)*

## **New Ford Module Programming Software Available from Motorcraft Action Required**

On January 12<sup>th</sup>, Ford released a large update to their 'Ford Module Programming' software.

An error message: "Software version not found" means that the following step must be taken:

The software will have to be re-downloaded from [www.motorcraft.com](http://www.motorcraft.com). Previously users downloaded the

file (in the membership section) called FMP34.exe, the new file is FMP35.exe (note - remember which folder you download the file in). Once downloaded to your PC, the FMP35.exe file needs to be run. This will update your PC program and your desktop icon for Ford Module Programming.

*-Note- An active membership account to Ford Module Programming subscription is needed.*

## **Ford PCM Part # Supersession Data**

Blue Streak has requested and has been informed from Ford that they will make the PCM part number supersession spreadsheet available on their [www.motorcraft.com](http://www.motorcraft.com) website. Previously this information was only available inside the subscribers section. This information is crucial for technicians to inform themselves of updates on any given PCM and now you can verify an update is required, prior to subscribing.

A change in PCM part number denotes a calibration update is required, that is why the supersession list is so helpful.

From [www.motorcraft.com](http://www.motorcraft.com) (go to)

- "Technical Resources"
- "Quick Guides"
- "Latest Calibration Information".



## **New Ford Off-Board Harness Available**

### **Part # BCFD35753**

#### **Off-Board Harness Ford CAN**

A new harness to reprogram Ford Powertrain Control Modules equipped with CAN (Controller Area Network). This harness connects directly from the PCM to the 2534 Global Programmer, allowing off vehicle re-programming.

Ford first introduced CAN on some vehicles in 2003 and will continue migrating to this protocol until 2007 model year. Please make sure to use the Ford CAN harness only on CAN equipped cars and trucks. A detailed list is attached on the Schedule A, it is also provided with in the new harness package.



## **Flash Programming and Radio Codes**

When programming Body Control Modules on some vehicles, they may lose their stored radio code. Please make sure you have recorded this code prior to programming. It can usually be found with the radio operations manual and warranty information.



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**Part # BXBD32051**  
**Powertrain 2004 Cartridge**

Powertrain 2004 is now available. The CAN-key adapter is also included when ordering this cartridge. As of February 1, 2005 BDM kits BEBD31031 and BEBD31021 will be shipping with this new cartridge and CAN-Key adapter.

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**Part # BXBD33903**  
**Software Bundle D**

- **Powertrain 2004 Cartridge**
- **Mastermind 2003 Cartridge**
- **CAN-key adapter**

With the release of Powertrain 2004 BDM owners who wish to update to the latest powertrain software can do so. This new cartridge will be required in addition to the Mastermind cartridge. Mastermind 2003 is the last of this series.

For customers who need to update their Mastermind and wish to purchase the Powertrain 2004 this bundle offers an affordable way to get right up to date.

Customers will need to return their old Mastermind cartridge in the box provided with this bundle and follow the shipping instructions enclosed. There will be a \$100 core charge, credited on the return.





## Ford Starter Solenoid Redesign


We have recently redesigned various Blue Streak Ford Starter Solenoids. 1985 and earlier solenoids now more closely resemble OE units in fit and form but enjoy the design improvements listed below.



The following design changes have been implemented:

Old Style  New Style 

**Feature:** Top bracket location.  
**Benefit:** Matches OE style.

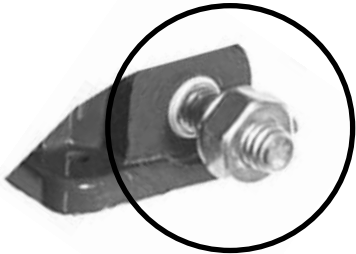
 **Spring Clip**

**Feature:** New spring retention clip.  
**Benefit:** Prevents contact bolt from turning.


**O-Ring Seals**



**Feature:** Industrial style o-ring seals in key locations.  
**Benefit:** Prevents moisture intrusion.



**Feature:** Tin plated contact bolts.  
**Benefit:** Provides corrosion protection and extended contact life.



**Feature:** High temperature wire.  
**Benefit:** Prevents shorting.

**Extra Thick Disc**



**Feature:** Thick contact disc.  
**Benefit:** Higher electrical capacity.

Part numbers affected: SS-581X, SS-584X, SS-588X, SS-591X, SS-598X, SS-613X