

**CARDONE**

New & Remanufactured  
Automotive Products

**BRAKES**

**DRIVETRAIN**

**ELECTRONICS**

**ENGINE**

**FUEL/AIR SYSTEMS**

**MOTORS**

**PUMPS**

**STEERING**

*We see the future of automotive  
technology, and we're already  
years ahead.*

CARDONE Industries, Inc.  
5501 Whitaker Ave.  
Philadelphia, PA 19124-1799  
www.cardone.com

**FLASH<sup>2</sup>**  
**ALL-MAKES™**  
**REPROGRAMMER**

*Don't let another customer  
slip away to the O.E. dealer.*

*Increase your profits in a FLASH!*

**CARDONE**  
**SERVICE**  
**PLUS**



## What you need to know about FLASH

- FLASH Reprogramming is an electronic method of placing the latest OEM-released calibration codes into an Electronic Control Unit (ECU).
- Automotive Original Equipment Manufacturers (OEMs) have been mandated through the U.S. Environmental Protection Agency and California Air Resources Board to release emissions-related calibration data to the aftermarket beginning in the 2004 model year.
- The Society of Automotive Engineers (SAE) created the "Recommended Practice for Pass-Thru Vehicle Programming" specification called J2534.
- OEM's such as GM, Ford, Chrysler and Mazda, have released most of their vehicle reprogramming data starting in 1996, with some GM models going back to 1993. GM and Ford have also released reprogramming data for many additional vehicle modules beyond the emissions-related mandate. Toyota and Honda have released data back to 2001.

### FLASH Reprogramming is not complicated:

- A pass-thru device connects the ECU to a PC from where the OEM-released data is transferred.
- Based on the vehicles application-specific information, the latest update is selected via the PC and the information is sent to the ECU.



**FLASH**  
Reprogramming  
Within 24 hours

## How does FLASH Reprogramming affect you?

- You don't need to take the vehicle to the dealership for FLASH Reprogramming repairs and updates. Don't give the dealership the opportunity to take away your customers.
- Add revenue to your shop location with minimal investment and quick payback.
- Service your customers' vehicles correctly and completely. FLASH Reprogramming allows you to fix known OEM drivability problems by updating the calibration codes. Sometimes a minor adjustment to the ECU can improve engine or transmission performance – including better fuel economy, improved emissions and smoother idle. FLASH Reprogramming is already an essential part of many vehicle repairs, and as vehicles become more dependent on computers, FLASH repairs and updates will continue to increase.



## CARDONE FLASH Reprogramming Solutions

Choose the option that is right for your business:

- Perform your own FLASH Reprogramming with the FLASH<sup>2</sup> All-Makes Reprogramming tool. Contact your CARDONE sales representative or visit [www.cardone.com](http://www.cardone.com) for details on how to purchase the FLASH<sup>2</sup> All-Makes Reprogrammer.
- Order your ECU and FLASH<sup>2</sup> All-Makes Reprogramming service through CARDONE's Priority Plus Service (same day shipping if ordered before 2:00 PM EST).
- Send your ECU to CARDONE for R&R and FLASH Reprogramming service.
- Order your ECU from CARDONE and have it FLASH Reprogrammed at an aftermarket facility.



## The History & Future of FLASH

In September 2000, the aftermarket won a major victory with the passing of Bill SB1146 in California. In the past, manuals, technical service bulletins, training and diagnostic materials were only distributed to new car dealers. This bill mandates that all materials, including FLASH Reprogramming information, are available to the aftermarket. The significance of SB1146 bill is that it ensures that all future repair technologies are available to the aftermarket.

As of 2004, all new vehicles must support the SAE J2534 as mandated by the EPA. SAE J2534 provides the potential for FLASH Reprogramming of all OEMs as they make their data available. FLASH Reprogramming is a growing part of electronics repairs today and will grow more rapidly in the future as vehicles are manufactured with more electronically-driven and monitored components and systems.



CARDONE is committed to making automotive electronics a profitable part of your business. For more information on the FLASH<sup>2</sup> All-Makes Reprogrammer, please visit [www.cardone.com](http://www.cardone.com). While you're there, check out CARDONE WebCat at [www.cardone.com](http://www.cardone.com) for the most current application information.

