

# Reflash J2534-1

Рост сложности программного обеспечения электронных систем современных автомобилей вызывает увеличение вероятности ошибок программистов.

Поэтому согласно требованиям EPA все автомобили, начиная с 2004 модельного года обязаны соответствовать стандарта SAE J2534. Их

суть в том, что в ПО компьютера автомобиля (ECM/PCM) должны быть внедрены соответствующие программные модули, допускающие использование неоригинального оборудования и приложений MS Windows (версии DLL, API приложения) для проведения перепрограммирования (изменения «калибровок»).

При этом EPA выразило уверенность в том, что цена ПО будет «скольчестной, столь и разумной».

Перепрограммирование ECM иногда может быть единственным способом устранения неисправности, поэтому технология J2534 особенно важна для сервисных центров не обремененных приставкой «официальный дилер»

# Reflash J2534-1

Устройство J2534 с одной стороны подключается к персональному компьютеру/ноутбуку через стандартный интерфейс PC (обычно USB), а с другой – в привычный диагностический разъем (DLC J1962)



Программное обеспечение таких «девайсов» обязательно содержит драйвера программного устройства API (ISO22900-2).

Можно сказать, что в настоящее время такие модули производятся «всеми кому не лень» т.е. десятком фирм.

# Reflash J2534

Технология J2534 заключается в том, что, используя подключение к Интернету, персональный компьютер, соответствующие интерфейс и программное обеспечение, каждый желающий, в том числе и техники обычных сервисных центров могут проводить изменение «калибровок» и перепрограммирование блоков управления автомобиля. Интерфейс обычно выполнен в виде конструктивно законченного модуля, который подключается между диагностическим разъемом автомобиля и соответствующим портом персонального компьютера

# Reflash J2534-1

Volkswagen > Touareg > 2004 - 2008

[Login out](#)

[Vehicle](#) [Tech Info](#) [Search](#)



- + [Component Locations \(Touareg 2\)](#)
- + [Wiring Diagrams](#)
- + [Maintenance Schedules](#)
- + [Fluid Capacity Charts](#)
- + [Technical Bulletins](#)
- + [Campaign Circulars](#)
- + [Training](#)
- + [OBD II Information](#)
- + [Special Tools](#)
- + [Pass Thru Reprogramming](#)
  - Consumer Solution: PTV010415 -
  - Consumer Solution: PTV010504 -
  - Consumer Solution: PTV010515 -
  - Consumer Solution: PTV010618 -
  - Consumer Solution: PTV010732 -
  - Consumer Solution: PTV010705 -
  - Consumer Solution: PTV010752 -
  - Consumer Solution: PTV010753 -
  - Consumer Solution: PTV010813 -
  - Pass Thru Background Information
- + [Immobilizer System](#)
- + [Measured Value Blocks](#)
- + [Setting Readiness Codes](#)
- + [What's New](#)
- + [VIN Cards](#)
- + [Tech Tips](#)
- + [Volkswagen Acronym Glossary](#)
- + [Warnings and Cautions](#)
- + [Search](#)

**Volkswagen > 7L > Touareg > 2007 >  
3.6L (BHX) 03H906032-AG, 3.6L (BHL) 03H906032-D >  
PTV010618 > Overview**  
**PTV010618 - Update Programming to Eliminate Slight Tip-**  
**• [Update Programming, Air Conditioning Not Blowing  
\(includes Pass Thru application\)](#)**  
**• [PT01-06-18 Technical Bulletin \(PDF\)](#)**

[Subscription Status](#) | [FAQs](#) | [Contact Us](#) | [Help](#)

# Reflash J2534

Пример цены подписки к Т.Н. «дилерской» информации

Volkswagen > Touareg > 2004 - 2008

Vehicle Tech Info Search



The technical information you requested requires a subscription:

- If you already have an active subscription, please login:

Username:   
Password:   
[Login >>](#) [Forgot My Password](#)

OR

- If you do not have an active subscription, please select which subscription you would like to purchase:

Subscription Length	Volkswagen > Touareg > 2004-2008	Volkswagen (Multi-platform)
3 day	\$29.95 	\$49.95 
30 day	\$49.95 	\$199.95 
365 day	\$79.95 	\$999.95 

Copyright © 2008. All rights reserved.

[Subscription Status](#) | [FAQs](#)

## Reflash J2534

J2534 допускает программирование ECM (PCM) разных производителей, используя одно устройство (VCI).

Ожидается рассмотрение и утверждение стандарта J2534-2, который расширит зону действия его требований на другие электронные системы и уточнит/определит требования по использованию CAN протокола для доступа к перепрограммированию (re-flash communication).

К концу 2009 г. вводятся изменения (дополнения) некоторых правил EURO5 для автомобилей, продаваемых в Евросоюзе. Требования возможности перепрограммирования с использованием SAE J2434 станут обязательными в EU.

Примечание. Предусмотрен 6-месячный переходный период

# Reflash J2534



400 Commonwealth Drive, Warrendale, PA 15096-0001

## SURFACE VEHICLE RECOMMENDED PRACTICE

SAE J2534

ISSUED  
FEB2002

Issued 2002-02

### Recommended Practice for Pass-Thru Vehicle Programming



Hi, alflash: MySAE | Logout

Contact Us | Press Center | Career Center

SAE Global Supplier Marketplace

Entire Site  Advanced Search

Home Membership Events & Education Publications Standards Forums Automobile Aerospace Commercial Vehicle Motorsports

SAE Home > Publications > Standards

### Recommended Practice for Pass-Thru Vehicle Programming

Document Number: J2534/1

Date Published: December 2004

#### Issuing Committee:

Vehicle E E System Diagnostic Standards Committee

#### Scope:

This SAE Recommended Practice provides the framework to allow reprogramming software applications from all vehicle manufacturers the flexibility to work with multiple vehicle data link interface tools from multiple tool suppliers. This system enables each vehicle manufacturer to control the programming sequence for electronic control units (ECU's) in their vehicles, but allows a single set of programming hardware and vehicle

*Members Receive 20% Discount at Checkout on Items Under \$500*

Delivery Method	List Price	Member Price	Add to Cart
Download (Protected by DRM Security)	\$61.00	\$48.80	<input type="button" value="Add to Cart"/>
Mail	\$61.00	\$48.80	<input type="button" value="Add to Cart"/>

Information on: [Download](#) | [Mail/Post](#) | [Fax](#) | [DRM Security](#)

SAE International  
Ads by Google

# Reflash J2534

SAE J2534-1 API is the "Recommended Practice for Microsoft Windows 32-Bit Application Programming Interface for Pass-Through Vehicle Reprogramming". Vehicle manufacturers will be required to provide a Windows software application for reprogramming their model year 2004 and beyond vehicles using a J2534-1 capable interface (e.g. [CarDAQ-Plus](#)). This standard and associated EPA requirements will give all vehicle service/repair facilities, not just dealers, the ability to perform in-field ECU software updates.

*If you want hands on training on J2534, an engineer from Drew Technologies teaches SAE class C0733 "Understanding and Using the SAE J2534-1 API to Access Vehicle Networks".*

In addition to reprogramming, J2534 supports diagnostics and calibration. The API provides protocol-independent functions to: read and write messages, establish periodic messages, perform filtering, and assert ECU reprogramming voltages.

- [Introduction to PassThru \(J2534\) Programming](#)
- [Discovery of the DLL](#)
- [Possible Error Codes](#)

The [PassThru \(SAE J2534-1\) v0404](#) specification can be purchased from SAE. The following pages explain DrewTech's implementation, and should be useful to end-users who want to program with our DLL:

Category	Name	Description
Setup	<a href="#">PassThruOpen</a>	Initialize and connect to a CarDAQ
	<a href="#">PassThruClose</a>	Disconnect from a CarDAQ
	<a href="#">PassThruConnect</a>	Connect to a vehicle network
	<a href="#">PassThruDisconnect</a>	Disconnect from vehicle network
	<a href="#">PassThruioctl</a>	Fast init sequence (ISO 9141)
	<a href="#">PassThruioctl</a>	Five baud init sequence (ISO 9141)
	<a href="#">PassThruioctl</a>	Report configuration parameter

# Reflash J2534

**GDS** GLOBAL DIAGNOSTIC SYSTEMS

Technical Information | Community

**KIA MOTORS**

► Locksmith

**Tech Times**

MORE ▶

3/6/2008	[Spectr..]	Techline FAQ's - Volume11...
3/6/2008	[All Mo..]	GDS Updates (Volume 11, I...
3/6/2008	[All Mo..]	Pressure and Vacuum (Volu...
3/6/2008	[Optima..]	2006.5 Optima (MG) 2.4L C...
3/6/2008	[Passen..]	Fuel Filter Replacement F...

**TSB**

MORE ▶

4/3/2008	[Amanti..]	2007MY Amanti (GH) PCM Up...
3/25/2008	[Sporta..]	Sportage (KM) Passive Occ...
2/21/2008	[Sedona..]	Sedona (GQ) PCM Upgrade M...
2/20/2008	[Passen..]	"Passenger Air Bag Off" I...
2/4/2008	[Sedona..]	Sedona (GQ) Corroded Heat...

**Campaign**

MORE ▶

**Pitstop**

MORE ▶

Technical Information

Community

- TSB
- Campaign
- Tech Times
- Pitstop
- Training
- PDI Materials
- Glove Box Materials
- J-2534

++ GDS ++ - Microsoft Internet Explorer

HOME GDS GLOBAL DIAGNOSTIC SYSTEM Preparation Diagnosis Vehicle S/W Management Repair LOG OFF EXIT

VCI : USB On VMI : Off Internet Off VIN Optima/Magentis(MG) / 2007 / D 2.0 VGT System ENGINE / 2.0L DIESEL(VGT) Search Prt Sc ECU

Vehicle S/W Management ECU Upgrade EventList

**ECU Upgrade**

Auto Mode ENGINE TSB Manual Mode

**ID Register**

**Option Treatment**

**Data Treatment**

**Inspection / Test**

Setting Shop Manual TSB Case Analysis ETM DTC Guide DTC Current Data Actuation Test Flight Record DVOM Oscilloscope Simulation Test ECU Upgrade No DTC Fault Code Searching Knowledge Feedback Internet Update

**ECU Upgrade**

Current ROM ID A1MG0M0EI02S Latest ROM ID A1MG0M0EI01T

Upgrade Event 63.MG DIESEL 2.0 WHITE SMOKE

**Information**

The ECU upgrade is successfully finished.

ROM ID : A1MG0M0EI01T

● CAUTION

\*During the ECU Upgrade, Failure to follow these instructions may result in damage to the ECU and/or the vehicle.

1. DO NOT operate any of the vehicles other systems(climate control, lighting, audio, etc.).

2. DO NOT disturb or disconnect the ECU Board Link Connector.

3. DO NOT turn off the VCI or DO NOT disconnect VCI USB Connector.

4. DO NOT start the vehicle or turn the IG key off.

5. DO NOT operate any of the vehicles other systems(climate control, lighting, audio, etc.).

OK

Start

++ GDS ++ - Microsoft Internet Explorer

EN

12:28

# Reflash J2534

Стоимость некоторых устройств J2534:

Поставщик / Цена / Модель:

Drew Technologies \$1,555.13 CarDAQ Plus

Actia \$999.95 PassThru+ XS

Vetronix Corporation\*\$1,595.00 ES6510 Flasher

EASE Diagnostics \$1,150 Universal Reprogrammer

Snap-On \$1,495.00 Pass Thru Pro

Blue Streak Electronics Inc. \$1,299 .00BSE-2534 Global  
Programmer и др.

\* В 2003 году Vetronix был куплен фирмой ETAS (Robert Bosch)

# Reflash J2534

Аппаратные J2534 «интерфейсы» соединения с ECM

## Flasher LT

*Welcome to the future of  
affordable, in vehicle  
J-2534 reprogramming.*

### Bosch Diagnostics Presents: The Flasher LT

The Flasher LT is a laptop based pass-thru vehicle network interface that connects directly to the vehicle's J-1962 OBD II connector. Flasher LT offers fast, reliable, manufacturer specific J-2534 reprogramming capability in your shop at an affordable price.

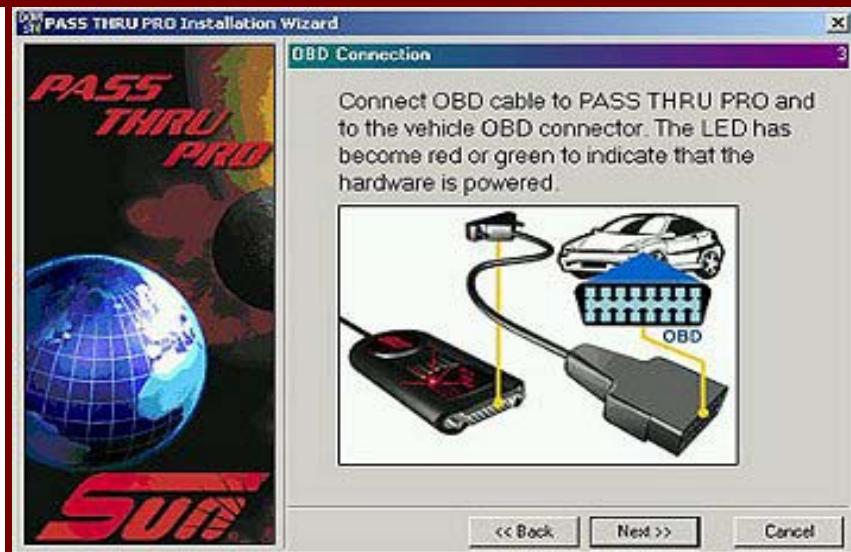
Original equipment manufacturers introduced reprogrammable ECU's on vehicles in the mid 1990's. There are millions of vehicles currently on the road in need of software updates to correct drivability concerns. In addition, control module replacement requires initialization programming.



# Reflash J2534



ACTIA Inc.  
PassThru+XS





**Drew  
Technologies, Inc.**

# CarDAQ-Plus



Reprogramming Device /  
Embedded Platform



**J2534-ON-KIT**

**Price: \$1,150.00 + 1 Bonus**

## J2534 On-Board Reprogramming Kit

This kit allows you to reprogram controllers in the vehicle.  
(OEM Data Subscriptions Not Included)

Includes:

- Universal Reprogrammer Unit
- EASE Flash Wizard
- OBD II Cables (Blue & Black)
- GM OBD I Cable
- Power Transformer
- Cigarette Plug Power Cable
- USB Cable
- Carrying Case



# Reflash J2534

Пример возможности техников не авторизованных СТО  
доступа к перепрограммированию (J2534)

HOME      **SUZUKI.** WELCOME, *alflash*      YOUR ACCOUNT CONTACT LOG OUT

VEHICLE INFORMATION  
TOOLS & EQUIPMENT  
OBD-OBD II & DIAGNOSTICS  
LOCKSMITH REGISTRY  
TRAINING/CERTIFICATION  
GIFT SHOP  
CONTENT INDEX

SHOPPING CART   
ITEMS: 0  
TOTAL: \$0.00

**SUZUKI ECU PROGRAMMING SYSTEM (SEPS)**

BACK

**ANNUAL SUBSCRIPTION**  
\$ 499.99 MSRP

**PURCHASE NOW!** 





**SEPS SUBSCRIPTION INCLUDES: (SDS TOOL KIT SOLD SEPARATELY)**

1. One year access to SEPS software/updates  
2. Database (ECU calibration files)  
3. Online Operator's Manual  
4. Serial Number & additional information \* provided by mail

**Operators Manual**  
 Easy to Use Instructions Download and Read Completely Before Downloading and Installing [FREE PREVIEW](#)

ADVANTAGE | DEALER LOCATOR | SITE MAP | FAQS | POLICIES | PLUGINS

# Примеры сервисных бюллетеней

Affected Unit	Year	Vehicle	Engine	Aspiration	Transmission	Reprogramming J-2534 Files			Details	November 2008 Neccesary connector
						Specification	Pack Number			
ECM	2003	Baja	2.5L	non-Turbo	MT, AT	FED, CAL	UD-S205C	P0172, Hard start with open throttle, P030X, P0172, Hesitation		None
ECM	2003	Impreza	2.5L	non-Turbo	MT, AT	FED, CAL	UD-S205C	P0172, Hard start with open throttle, P030X, P0172, Hesitation(Step2), Hesitation(Step1)		E/G-2
ECM	2003	Legacy	2.5L	non-Turbo	MT, AT	FED, CAL	UD-S205C	P0172, Hard start with open throttle, P030X, P0172, Hesitation		None
ECM	2003	Outback	2.5L	non-Turbo	MT, AT	FED, CAL	UD-S205C	P0172, Hard start with open throttle, P030X, P0172, Hesitation		None
ECM	2004	Baja	2.5L	non-Turbo	MT, AT	FED	22611AJ20D	P0172, P0464, P0139		None
ECM	2004	Forester	2.5L	non-Turbo	MT, AT	FED, CAL	22611AJ012	P0172, P0139		None
ECM	2004	Forester	2.5L	Turbo	AT	FED, CAL	UD-S211A	Rough idle after cold soak in high altitude area		None
ECM	2004	Forester	2.5L	Turbo	MT	FED, CAL	UD-S222C	Rough idle after cold soak in high altitude area, Cruise control intermittently shuts off		None



**Technical Service  
Information Bulletin**

July 9, 2007

Title: **HESITATION OR BUMP FEELING UPON ACCELERATION FROM A STOP**

Models: **'07 LS 460/460L**

TC009-07

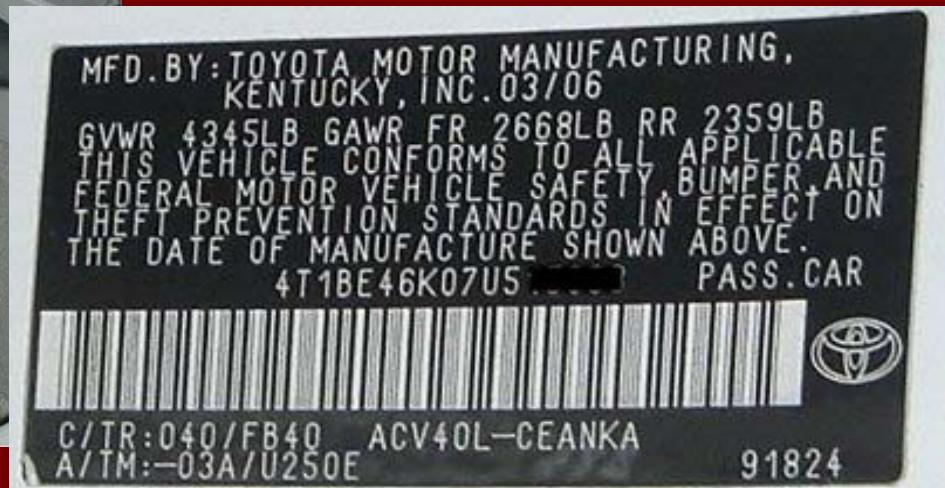
**Introduction** Some 2007 model year LS 460 and 460L customers may complain about a condition where a hesitation or gear engagement bump feeling occurs when accelerating after being stopped in the Drive position for a few seconds. The Transmission Control Module (TCM) logic has been revised to improve this condition.

- Applicable Vehicles**
- 2007 model year **LS 460/460L** vehicles produced **BEFORE** the Production Change Effective VIN shown below.

MODEL	PRODUCTION CHANGE EFFECTIVE VIN
LS 460	JTHBL46F*75046335
LS 460L	JTHGL46F*75019253

# Reflash J2534

Возможности  
перепрограммирования  
на примере  
Toyota Camry ACV40L ('07MY)



# «В начале было СЛОВО...»

**Vehicle Communications**

**Vehicle Summary**

Manufacturer: Toyota	Engine: 2.4L (L4)
Make: Toyota Car	VIN:
Model: CAMRY	PCM VIN:
Year: 2007	Number: N/A
Owner: Unassigned	
Technician:	

**Data Link Status**



**EASE Interface Style:**  
FVI-CAN-USB

**OBD II Interface Status**

USB: V0000570
Cable Status: Connected
Interface Type: Startup CAN
Variation: 00000
Tool Status: Finding Capabilities

**Date and Times**

Program Running: 00:16:19	Date: 5/6/2009
Receiving Data: 00:00:07	Current Time: 10:37:08 AM

**?** Help

 Communications...  Start Over...  Reset  Save...  OK  Close

# TSB about Reflashing

Сервисный бюллетень (TSB) о необходимости  
перепрограммирования блока управления (ECM)  
Тойота Камри ACV40L-  
для оптимизации режимов переключения А/Т и  
повышении плавности её переключения

T-SB-0068-08

May 21, 2008



## ECM Calibration: Enhancement to Shifting Performance & Smoothness

Service  
Category Engine/Hybrid System

Section Engine Control

Market USA

Toyota Supports  
ASE Certification The ASE logo, which consists of the letters "ASE" in a stylized font inside a blue circular emblem with a gear-like border.

# Reflash J2534

## «Калибровка» (Cal. ID) программы управления до перепрограммирования

2007 Camry  
2AZ-FE  
4T1BE46K07U615038

2007\_Camry\_2A  
File Notes  
**Health Check**  
Data 1-07.  
Tire Pressure  
Immobiliser  
Occupant De  
SRS Airbag  
Engine and E  
Cruise Control  
ABS/VSC/TRAC  
Air Conditioner  
Combination  
Main Body

**Health Check Results**

-Health Check does not display live data  
-Changes in vehicle condition will not update automatically  
-To update Health Check, click the Refresh button

System	Current	Pending	History	Permanent	Monitor Status	Calibration	Update?
Engine and ECT	0	0	0	-	Inc	33366000	?
Cruise Control	0	-	-	-	-	-	-
Tire Pressure Monitor	0	-	-	-	-	-	-
ABS/VSC/TRAC	0	-	-	-	-	-	-
Immobiliser	0	-	0	-	-	-	-
Occupant Detection	0	-	0	-	-	-	-
SRS Airbag	0	-	0	-	-	-	-
Air Conditioner	0	-	0	-	-	-	-
Combination Meter	0	-	0	-	-	-	-
Main Body	0	-	0	-	-	-	-

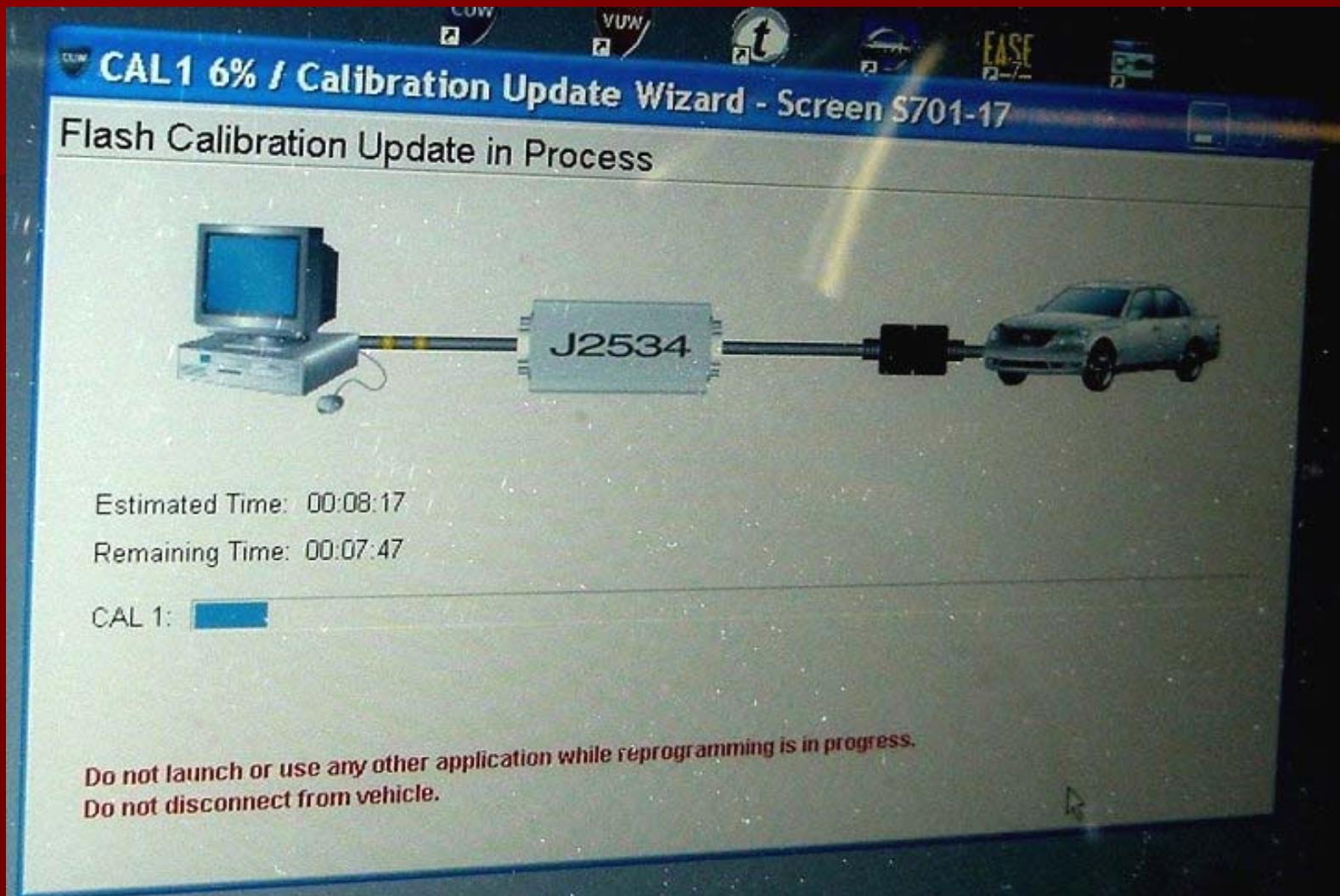
# Reflash J2534

## Номер (Calibtation ID) новой версии ПО

### Calibration Information

MODEL YEAR	MODEL	ENGINE	EMISSION SPEC	TRANS	PREVIOUS CALIBRATION ID	NEW CALIBRATION ID	VDS
2007–2009	Camry	2AZ-FE	Federal	5AT	33366000		BE46K
					33366100	<a href="#">333A5100</a>	
					333A5000		
			Calif.	5AT	33368000		
					33368100	<a href="#">333A7100</a>	
					333A7000		
	Solara	2AZ-FE	Federal	MT	33367000		CE30P
					333A6000	<a href="#">333A6100</a>	
			Federal	5AT	30658000		
					30658100		
					30658200	<a href="#">30660100</a>	
					30660000		
			5MT	5MT	30628000		
					30657000	<a href="#">30628100</a>	
					30657100		

# Reflash J2534: - «Процесс пошел!»



# Reflash J2534

## Проверка «калибровки» (Cal. ID) после перепрограммирования

2007 Camry  
2AZ-FE

4T1BE46K07U515038

2007\_Camry\_2A  
File Notes  
Health Check  
Data 1-07.  
Tire Pressure  
Immobiliser  
Occupant De  
SRS Airbag  
Engine and E  
Cruise Contro  
ABS/VSC/TRAC  
Air Conditioner  
Combination  
Main Body

### Health Check Results

- Health Check does not display live data
- Changes in vehicle condition will not update automatically
- To update Health Check, click the Refresh button

System	Current	Pending	History	Permanent	Monitor Status	Calibration	Update?
Engine and ECT	0	0	0	-	Inc	333A5100	?
Cruise Control	0	-	-	-	-	-	-
Tire Pressure Monitor	0	-	-	-	-	-	-
ABS/VSC/TRAC	0	-	-	-	-	-	-
Immobiliser	0	-	0	-	-	-	-
Occupant Detection	0	-	0	-	-	-	-
SRS Airbag	0	-	0	-	-	-	-
Air Conditioner	0	-	0	-	-	-	-
Combination Meter	0	-	0	-	-	-	-
Main Body	0	-	0	-	-	-	-

# Reflash J2534



Иногда, использование возможностей J2534 и реализация TSB – единственный способ устранения неисправности автомобилей!

Использованы материалы уполномоченных сайтов и описания производителей оборудования J2534