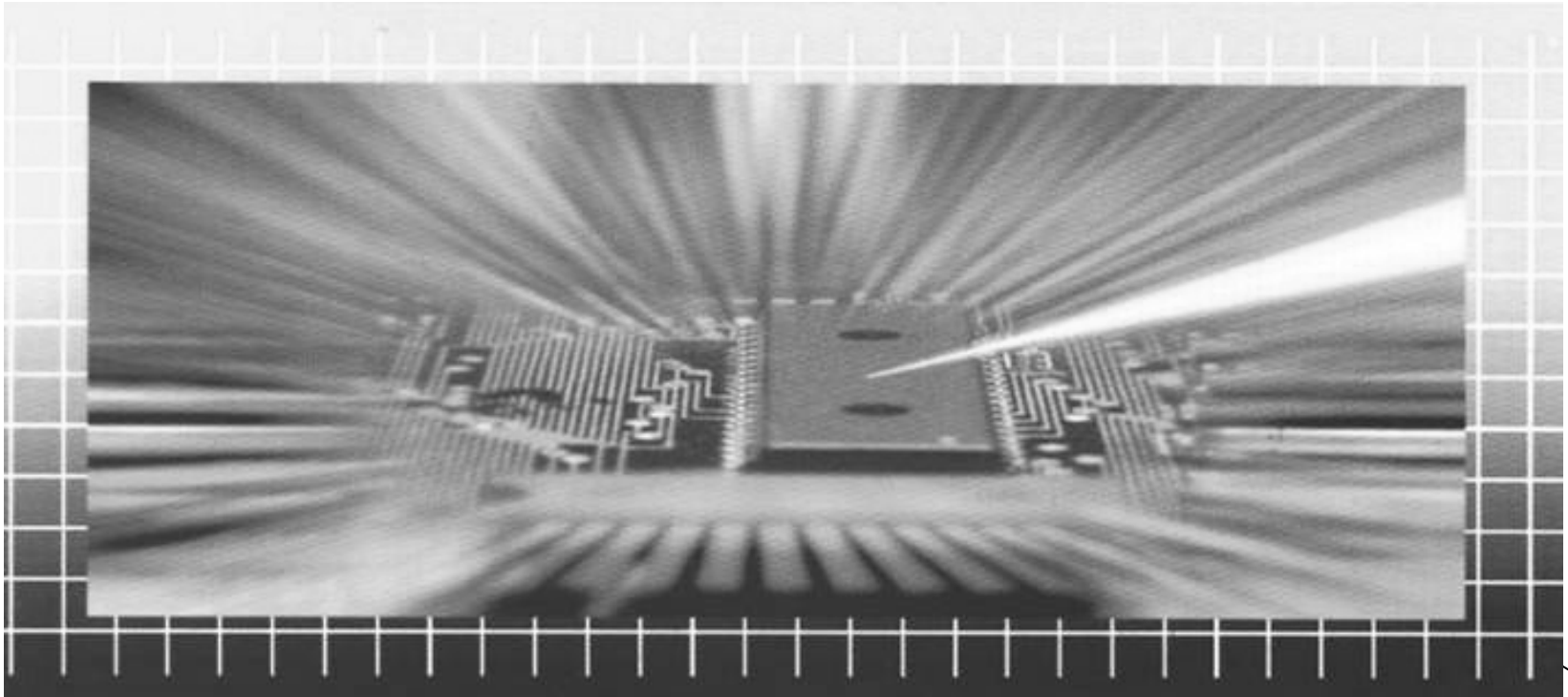


Flashing and Software Calibration Number (SCN)



Objectives

At the end of this presentation the participants will be able to:

- Explain when, why and how flashing is performed
- Explain when, why and how SCN coding is performed

Introduction

Flashing is a way to update control unit software

- Flashing is required
 - If DTB requires updating of software
 - Requested by TAC/EDAC
 - New ECU part number

SCN coding identifies control unit software and coding conforming to Vehicle


- SCN is required
 - After flashing fuel control unit (ME) or Electronic Transmission Controller (ETC)
 - After replacement of ME or ETC
 - Required by law, can be fined if not done
 - Vehicle may not function correctly if not performed
 - Prevents after-market performance enhancements
 - In future additional control modules will require SCN coding

Flashing

- Flashing is performed using SDS
 - Via CD in SDS
 - DAS (software updates)
 - Via on-line (near future)
- SDS downloads software into appropriate control unit
- Flashing is only to be performed when needed, otherwise issues may arise

Note: Keep battery charger connected to vehicle during flash, battery voltage critical to process, verify proper connection to X11/4

SDflash Release CD


 Mercedes-Benz
STAR DIAGNOSIS NOTICE

The following tables show the flashware available on the SDflash Release CD:

	Model 211	Model 215	Model 220	Model 230 (except 230.476)	Model 230.476
Central Gateway (CGW)	X	X	X		X
System diagnosis (SD)				X	
Audio gateway (AGW)	X	X	X		
BOSE sound system		X	X		
Tele Aid		X	X	X	X
Instrument Cluster (IC)	X				

Engine Control Module

	Engine 112	Engine 113	Engine 275
ME-SFI 2.8	X	X	
ME-SFI 2.7.1			X

Automatic transmission control module

	Models equipped with automatic transmission 722.9
Automatic transmission 722.9	Flashware on this CD for this ECM has been superceded - Please use SDflash CD Release 0004483010 for this application.

Note:
 The software included on this SDflash Release CD is provided to support spare part installation as well as any technical repairs outlined in existing/future DTB's.
 There is no need to flash an ECM unless specifically instructed by and existing/future DTB, TAC/EDAC, or when prompted by the STAR Diagnosis System.
 The Automatic Transmission 722.9 flashware contained on this SDflash Release CD has been superceded; please use SDflash CD Release 0004483010 for this application.

Mercedes-Benz USA, LLC 12/2003
 Dealer Workshop Services

Software Calibration Number SCN

- As of 2003 emission regulations require SCN in all coded emission related control units
- SCN identifies control unit software and coding for a specific vehicle (similar to version coding)
 - Coding string adapts the control unit to the individual vehicle, incorporates vehicle equipment, safety information and emissions
 - Check digit also referred to as test digit checks VIN, SCN and code string
- Must get new SCN when replacing or flashing ME or new Transmission control units
- If improperly completed certain features of vehicle may become inoperative (Tip start, cruise control)

SCN Coding Process

- Receive SCN coding from Technicalinformation@mbusa.com
Via E-mail or SDS help desk
- Information needed
 - Your name
 - Your E-mail address
 - Dealer name and number
 - Part# for ME or Transmission control module
 - VIN

SCN Coding Process Continued

- Information returned via e-mail
 - SCN coding (example 1131531279-15-002)
 - Code string (example 08-7D-08-&D-AC-0E-EF-FB-12-47-2B-BF-99-52-14-2C)
 - Note: make sure to use code string as received including zeros
 - Test digit (example 1A-0C-9D-43)
- DAS in ME – Control Unit Adaptations / Version Coding / Coding / SCN Coding / Perform SCN Coding

Note: Process will change

3-Software calibration number (Rep.) 0-Diagnosis equipment list

Vehicle data

Vehicle identification number WDBRN40J03A000000 Category PKW

Control units

VPD	Installed part number	Identified part number	SCN	Coding string	Check digit
30001 - Engine control unit	2711534879	2711534879	2711534879 15 0002	6B C6 D9 C1 4E 92 A4 00	B0 2A 0A 9E



B

Applications

SDflash

Tools

Star Setup

C



A



New line Delete line(s)
Generate New vehicle

		Programming		Coding		
		Online	Offline	DAS menu	SCN (Software Calibration Number)	
Control unit	Model/major assembly				Online	Offline
AGW	Models 211, 220	X	X	X	---	---
SDS	Model 230	X	X	---	---	---
CGW Step 1	Models 211, 220	X	X	X	---	---
CGW		X	X	X	---	---
SDS		X	X	X	---	---
ASSYST		X	X	X	---	---
ASSYST PLUS		X	X	X	---	---

Bulletins

- S-B-07.61/38
- S-SI-07.08/001
- S-B-54.21/101
- S-B-07.61/27a
- P-B-54.21/74

Questions?