

Module Configuration - System Operation and Component Description

System Operation

Programmable Module Installation (PMI)

PMI is a scan tool process which configures settings in a new module. Data used for the PMI process is automatically downloaded from the original module and stored when a scan tool session is started. If this data cannot be retrieved from the module being replaced, the scan tool may prompt for As-Built data entry or display a list of parameter values that need to be manually selected. Some modules are reprogrammed during PMI when a strategy/calibration update is available.

It is important that the original module remain installed, regardless of whether or not it communicates, when the scan tool session is started with the vehicle. The new module should only be installed when the scan tool PMI procedure instructs to do so.

Module Reprogramming

Module reprogramming (also referred to as flashing) is a scan tool process which updates the strategy/calibration in a module. Reprogramming a module with the same level of software does not improve module operation or repair a hardware failure. Module reprogramming is automatically carried out during PMI when a later strategy/calibration is available.

Limit module reprogramming to circumstances where a published TSB, GSB, SSM or FSA recommends doing so.

A module cannot communicate with other modules on the communication network while being reprogrammed. After the reprogramming process, clear any network communication Diagnostic Trouble Codes (DTCs) which may have been set in other modules.

Some modules are reprogrammed in coordination with other modules.

Programmable Parameters

Programmable parameters are customer preference items that may be modified by the dealer via the scan tool, or in some cases, modified by the customer following a procedure listed in the Owner's Literature. While many configuration options may exist for a module, only a few of these options are programmable parameters. Some parameters must be changed in multiple modules at the same time.

Adaptive Learning and Calibration

Some modules require a separate learning procedure be carried out if replaced as part of a repair procedure. For adaptive learning and calibration instructions, refer to the specific module removal and installation procedures.

Vehicle Identification Block

Vehicle identification block commonly stores powertrain configuration items such as VIN, tire size, axle ratio, and whether or not the vehicle is equipped with cruise control. A separate programming routine is not present for the vehicle identification block in the diagnostic scan tool. It is programmed as part of the PMI routine when a module is replaced. Vehicle identification block Diagnostic Trouble Codes (DTCs) may indicate the need for a PMI routine to be performed.

As-Built Data

As-Built data is a VIN-specific module configuration record. During vehicle build, the configuration from all modules is downloaded and stored in the As-Built database. As-Built data does not reflect customer preference items that have been changed from the default state. These items need to be changed using programmable parameters after the module is configured.

It is not necessary to obtain As-Built data unless directed to do so by the scan tool. This data may be accessed from the PTS web site.

Module Configuration and Parameter Chart

The chart describes specific module configuration information:

Module Name	Module Address	Programmable Module Installation (PMI) Available	Reprogram/Flash Capable	Requires Adaptive Learning or Calibration	Available Programmable Parameters
APIM	7D0	Yes	Yes	No	Aftermarket rear parking aid camera
ABS module	760	Yes	Yes	IVD initialization	None
ACM	727	Yes	Yes	No	None
BCM	726	Yes	Yes	- BMS reset - TPMS calibration	- Aftermarket rear parking aid camera - Bed lamp enable/disable - DRL by autolamps configuration - Hood ajar switch - Locking feedback light - Perimeter alarm - Piezo sounder feedback - Remote start enable/disable - Remote start light enable
CCM	764	Yes	Yes	Radar horizontal and vertical alignment calibration	None
DSP	783	Yes	Yes	No	None
DDM	740	Yes	Yes	Windows initialization	None
DSM	744	Yes	Yes	No	Easy entry/exit enable
FCIM	7A7	Yes	Yes	No	None
GWM	716	Yes	Yes	No	None
GFM (trailer TPMS)	7A1	No	No	No	None
GFM2 (upfitter switch)	7D2	No	No	No	None
HUD module	7B2	No	No	No	None
HSWM	714	Yes	Yes	No	- Temperature setpoint - Normal or warm - Warmer or hot

Module Name	Module Address	Programmable Module Installation (PMI) Available	Reprogram/Flash Capable	Requires Adaptive Learning or Calibration	Available Programmable Parameters
IPC	720	Yes	Yes	No	• Manual regen • Remote start feature configuration • Climate settings ▪ driver seat ▪ passenger seat ▪ steering wheel • Trailer brake controller
IPMA module	706	Yes	Yes	• Camera calibration	None
IPMB	7B1	Yes	Yes	• Camera calibration	None
PAM	736	Yes	Yes	No	None
PCM	7E0	Yes	Yes	• Misfire Monitor Neutral Profile Correction procedure	None
PDM	741	Yes	Yes	• Windows initialization	None
PSCM	730	Yes	Yes	No	None
RTM	751	Yes	Yes	No	None
RCM	737	Yes	Yes	• ABS module initialization	None
RBM	766	No	No	No	None
SCME (integrated with DSM)	776	Yes	Yes	No	None
SCMG	712	Yes	Yes	No	None
SCMH	713	Yes	Yes	No	None
SODL	7C4	Yes	Yes	No	None
SODR	7C6	Yes	Yes	No	None
SASM	797	Yes	Yes	• Steering Wheel Angle Trim • Steering Motor Angle Trim	None
SECM	7C5	Yes	Yes	• Steering Wheel Angle Trim • Steering Motor Angle Trim	None
SCCM	724	Yes	Yes	No	None
TBM	757	No	No	No	None
TRM	791	Yes	Yes	No	None
TCM (6.7L diesel)	7E9	No	No	No	None
TCCM	761	No	No	No	None
TCU	754	Yes	Yes	No	None

Module Name	Module Address	Programmable Module Installation (PMI) Available	Reprogram/Flash Capable	Requires Adaptive Learning or Calibration	Available Programmable Parameters
WACM	725	Yes	No	No	None

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