Module Configuration - System Operation and Component Description

System Operation

Programmable Module Installation (PMI)

PMI is a diagnostic 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 diagnostic scan tool session is started. If this data cannot be retrieved from the module being replaced, the diagnostic scan tool may prompt for Configuration 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 the diagnostic scan tool identifies the vehicle and obtains configuration data prior to removing any modules. The new module must be able to communicate with the diagnostic scan tool in order to carry out PMI .

Module Reprogramming

Module reprogramming (also referred to as flashing) is a diagnostic 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 diagnostic scan tool, or in some cases, modified by the customer following a procedure listed in the Owner 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.

Direct Configuration Data (formerly known as VID block)

The direct configuration data commonly stores powertrain configuration items such as tire size, axle ratio, and whether or not the vehicle is equipped with cruise control.

Configuration data is a VIN -specific module configuration record. During vehicle build, the configuration from all modules is downloaded and stored in the configuration database. Configuration 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 configuration data unless directed to do so by the diagnostic 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
ABS module	760	Yes	Yes	• IVD initialization	None
ACCM	7C7	No	No	No	None
ACM	727	Yes	Yes	No	None
APIM	7D0	Yes	Yes	No	None
AWD module	703	Yes	Yes	No	None
BCM	726	Yes	Yes	No	• Battery type normal configuration
BCMC (BJB)	6F0	Yes	Yes	No	None
BECM	7E4	Yes	Yes	No	None
BECMB	723	Yes	Yes	No	None
CCM	764	Yes	Yes	• Radar horizontal and vertical alignment calibration	None
DCDC	746	No	No	No	None
DDM	740	Yes	Yes	• Windows initialization	None
DSP	783	Yes	Yes	No	None
GSM	732	Yes	Yes	No	None
GWM	716	Yes	Yes	No	None
HVAC module	733	Yes	Yes	No	None
IPC	720	Yes	Yes	No	None
IPMA	706	Yes	Yes	• Camera calibration	None
OCS module	765	No	No	• OCS module re-zero	None
PACM	750	No	No	No	None
PAM	736	Yes	Yes	No	None
PCM	7E0	Yes	Yes	No	None
PDM	741	Yes	Yes	• Windows initialization	None
PSCM	730	Yes	Yes	No	None

Module Name	Module Address	Programmable Module Installation (PMI) Available	Reprogram/Flash Capable	Requires Adaptive Learning or Calibration	Available Programmable Parameters
RCM	737	Yes	Yes	No	None
RTM	751	Yes	Yes	No	None
SCCM	724	Yes	Yes	No	None
SOBDMC	7E6	Yes	Yes	No	None
SODL	7C4	Yes	Yes	No	• BLIS / CTA enable/disable • Blockage enable/disable
SODR	7C6	Yes	Yes	No	• BLIS / CTA enable/disable • Blockage enable/disable
TCU	754	Yes	Yes	No	None
TRM / TBM	791	Yes	Yes	No	None
WACM	725	Yes	Yes	No	None