Module Configuration - System Operation and Component Description

System Operation

Programmable Module Installation (PMI)

Programmable Module Installation (PMI) is a scan tool process which configures settings in a new module. Data used for the Programmable Module Installation (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 Programmable Module Installation (PMI) when a strategy/calibration update is available.

It is important that the scan tool identifies the vehicle and obtains configuration data prior to removing any modules. The new module must be able to communicate with the scan tool in order to carry out Programmable Module Installation (PMI).

Module Programming

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 Programmable Module Installation (PMI) when a later strategy/calibration is available.

Limit module reprogramming to circumstances where a published TSB procedure 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. Follow the IDS key cycling instructions carefully to avoid reprogramming errors, including failure of programming one or more of the 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 (VID) Block

Vehicle identification block commonly stores powertrain configuration items such as <u>VIN</u>, tire size, axle ratio, and whether or not the vehicle is equipped with cruise control.

As-Built Data

As-Built data is a <u>VIN</u>-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 technician service publication 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
<u>ABS</u> module	760	Yes	Yes	• IVD initialization	None
<u>ACM</u>	727	Yes	Yes	No	None
<u>APIM</u>	7D0	Yes	Yes	No	• Rear camera
<u>ATCM</u>	792	No	No	No	None
<u>BCM</u>	726	Yes	Yes	No	• Front/rear tire placard (pressure) • Lock feedback horn • Mislock horn • Perimeter alarm - vehicle doors present • Rear camera • Remote start - vehicle doors present • Remote start enable/disable • Trailer outage • Trailer module present
<u>BECMB</u>	723	Yes	No	No	None
<u>CCM</u>	764	Yes	Yes	No	None
<u>DCDC</u> (voltage quality	746	Yes	No	No	None

module [VQM])					
DSP	783	Yes	No	No	None
FCIM	7A7	Yes	Yes	No	• Remote start features
GWM	716	Yes	Yes	No	None
HUD	7B2	No	No	No	None

IPC	720	Yes	Yes	No	• Day/year
					• Digital speedometer
					• Driver Beltminder
					• Hood ajar warning
					• Intelligent access menu
					• Maintenance settings
					• Mid-passenger Beltminder
					• MyKey speed limiter
					• MyKey volume limit
					• Passenger Beltminder
					• Remote start climate settings
					  − Driver seat
					  − Passenger seat
					  − Rear defrost
					• Remote start feature
					• Trailer control (off road package)
					• Trailer lighting
					• Trailer sway

IPMA	706	Yes	Yes	• Camera calibration	None
OCSM	765	No	No	• OCSM re-zero	None
PAM (integrated with BCM)	736	Yes	Yes	No	None
PCM	7E0	Yes	Yes	No	None
PSCM	730	Yes	Yes	No	None
RCM	737	Yes	Yes	No	None
RTM	751	Yes	Yes	No	None
SCCM	724	Yes	Yes	No	None

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SODL	7C4	Yes	Yes	No	• BLIS/ CTA enable/disable
SODR	7C6	Yes	Yes	No	• BLIS/ CTA enable/disable
TCU	754	Yes	No	No	None
TRM	791	Yes	Yes	No	None

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