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03T19-19		MARCH 2003	19
Expiration Date (U.S. and Canada)		Expiration Date (International)	
Engine Family	Fuel System		
M11 M11 M11 L10 L10 L10 Gas NH, NT NH, NT NH, NT NH, NT Signature, ISX, QSX15 Signature, ISX, QSX15 K6, K19 K6, K19 K38, KTA38GC K50, G38, G50 6B, B5.9 6C, C8.3 K19G, G19 B5.9G, B5.9 LPG B5.9G, B5.9 LPG QST30 QSK45 QSK60 ISM, ISMe, QSM11 ISM, ISMe, QSM11 C Gas Plus C Gas Plus ISL, ISLe3, QSL9 ISBe/ISB (6 Cylinder Common Rail Fuel System) ISBe/ISB (6 Cylinder Common Rail Fuel System)	CELECT CELECT Plus CENTRY Fuel System CELECT CENTRY Fuel System Natural Gas CENTRY Fuel System CELECT CELECT Plus CENTRY Fuel System Signature, ISX, QSX15 Signature, ISX CM870 CENTRY Fuel System QSK CENTRY Fuel System CENTRY Fuel System Bosch VP44 and VP30 CAPS Natural Gas Natural Gas Natural Gas Plus Bosch P Pumps QSK QSK ISM CM875 or Combined CM870 and CM570 Natural Gas Natural Gas Plus CAPS CM850 CM850		
Design Application	Market Application		
Automotive	All		
Industrial	All		

Marine Propulsion		Marine	
CPL	Engine Serial Number Range		
	From	To	

Service/Parts Topics

ECM No Communication Troubleshooting Tree

Publications Affected by This Service
Parts Topic

Engine	Operation and Maintenance	Troubleshooting and Repair	Shop	Other
B5.9G, C8.3G, L10G		3666118		
ISB, QSB5.9		3666194		
ISB, ISB^e		3666477, 4021337		
ISC, ISL, QSC8.3, QSL9		3666271		
ISM, QSM11		3666266		
K19, K38, K50, NT		3666070		
L10, M11, N14		3666130, 3666070, 3666084		
QSK19, QSK45, QSK60		3666113		
QST30		3666214		
Signature, ISX, QSX15		3666259, 4021334		
<p>NOTE: Publications identified as Other include the following: ¹Master Repair Manual, ²Parts Catalog, ³Specifications Manual, ⁴Alternative Repair Manual, ⁵Wiring Diagram, and ⁶Features Manual.</p>				

Warranty Impact	
None	The information in this document has no effect on current warranty coverages or repair practices, nor does it authorize TRP or Campaign actions.

This service/parts topic introduces the ECM - No Communication Troubleshooting Tree.

ECM - No Communication Troubleshooting Tree

Symptoms

- Electronic control module will **not** communication with the INSITE™ service tool.
- Electronic control module will **not** accept calibration.
- Electronic control module has a password that will **not** be accepted.
- Electronic control module has a footprint error message.

How To Use This Tree

This symptom tree can be used to troubleshoot all no communication symptoms listed above.

Shop Talk

Guided Step 1 - Verification of power to datalink adapter.

Guided Step 1A - Verify datalink adapter power light is on.

Conditions	
<ul style="list-style-type: none">• Turn keyswitch ON.• Connect the datalink adapter to	

<p>the ECM using the appropriate cables.</p>	
<p>Action</p> <p>look at the power light on the datalink adapter.</p> <ul style="list-style-type: none"> In the Datalink Adapter Identification Diagram located in Procedure 022-999, Service Tools and Hardware - Overview, refer to the light marked A for the location of the power light on the INLINE™ adapter being used. If using an INLINE™ I, the light may be solid or flashing. 	
<p>Is the datalink adapter power light on?</p>	<p>Is the datalink adapter power light on?</p>
<p>YES</p>	<p>NO</p>
<p>No Repair</p>	<p>No Repair</p>
<p>Go to 2A</p>	<p>Go to 1B</p>

Guided Step 1B - Inspect the pins at the datalink adapter cable connections.

<p>Conditions</p> <ul style="list-style-type: none"> Turn keyswitch OFF. Disconnect the datalink adapter cable. 	
<p>Action</p> <p>for inline™ or inline™ ii:</p>	

<p>Inspect the datalink adapter cable, engine-side datalink connector and 25-pin datalink adapter port for the following:</p> <ul style="list-style-type: none"> • Bent or broken pins • Pushed back or expanded pins • Corroded pins • Moisture in or on the connector • Missing or damaged seals. <p>For INLINE™ I:</p> <p>Inspect the PC COM port, serial cable, and 9-pin datalink adapter port for the following:</p> <ul style="list-style-type: none"> • Bent or broken pins • Pushed back or expanded pins • Corroded pins • Moisture in or on the connector • Missing or damaged seals. 	
<p>Are pins okay and connections good?</p>	<p>Are pins okay and connections good?</p>
<p>YES</p>	<p>NO</p>
<p>No Repair</p>	<p>Replace the datalink adapter cable or repair/replace the engine-side connector.</p>
<p>Go to 1C</p>	<p>Go to 1A</p>

Guided Step 1C - Check for voltage at the datalink adapter cable 25-pin connector.

<p>Conditions</p> <ul style="list-style-type: none"> • Turn keyswitch ON. 	
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- Connect the ECM to a computer with INSITE™ using the appropriate cables.

Action

for inline™ or inline™ ii:

- Disconnect the 25-pin connector of the datalink cable from the datalink adapter and check for voltage.
- Use a multimeter to measure the voltage across the ground pin and the unswitched battery (+) pin on the datalink adapter cable.
- Refer to the datalink communication configuration in Procedure 022-999, Service Tools and Hardware - Overview.

For INLINE™ I:

- Disconnect the 9-pin connector of the PC serial cable from the datalink adapter and check for voltage.
- Use a multimeter to measure the voltage across the signal ground pin and the data terminal ready pin, and the signal ground pin and the request to send pin on the serial cable.
- Refer to the Serial Cable Pinout Diagram in Procedure 022-999, Service Tools and Hardware - Overview.

For INLINE™ or INLINE™ II:

Is a minimum of 9 volts available across the ground pin and the unswitched

For INLINE™ or INLINE™ II:

Is a minimum of 9 volts available across the ground pin and the unswitched

battery (+) pin? For INLINE™ I: Are 5 volts available across the signal ground pin and the data terminal ready pin, and the signal ground pin and the request to send pin on the serial cable?	battery (+) pin? For INLINE™ I: Are 5 volts available across the signal ground pin and the data terminal ready pin, and the signal ground pin and the request to send pin on the serial cable?
YES	NO
Replace the datalink adapter.	No Repair
Go to 1A	Go to 1D

Guided Step 1D - Check datalink adapter voltage supply.

<p>Conditions</p> <ul style="list-style-type: none"> • Turn keyswitch ON. 	
<p>Action</p> <p>for 9-pin or 6-pin datalink connector:</p> <ul style="list-style-type: none"> • Check the voltage across the unswitched battery (+) pin and ground pin on the datalink connector. • Refer to the datalink communication configuration diagram in Procedure 022-999, Service Tools and Hardware - Overview. • Check any external power source being used. <p>For 3-pin datalink connector:</p> <ul style="list-style-type: none"> • Check the external power source 	

<p>being used.</p> <p>NOTE: INLINE™ I receives power via the computer COM port.</p>	
<p>Is a minimum of 9 volts available across the unswitched battery (+) pin and the ground pin?</p>	<p>Is a minimum of 9 volts available across the unswitched battery (+) pin and the ground pin?</p>
<p>YES</p>	<p>NO</p>
<p>Replace the datalink adapter cable.</p>	<p>No Repair</p>
<p>Go to 1A</p>	<p>Go to 1E</p>

Guided Step 1E - Check for voltage at the vehicle battery or from the computer.

<p>Conditions</p> <ul style="list-style-type: none"> • Turn keyswitch ON. 	
<p>Action</p> <p>for inline™ or inline™ ii:</p> <ul style="list-style-type: none"> • Check for voltage at the batteries using a multimeter. Refer to the electronic wiring diagram for the voltage specification. <p>For INLINE™ I:</p> <ul style="list-style-type: none"> • Plug the 9-pin connector on the INLINE™ I datalink adapter directly into the computer's communication port. 	

<p>For INLINE™ or INLINE™ II:</p> <p>Is battery voltage available?</p> <p>For INLINE™ I:</p> <p>Does the INLINE™ I power light come on?</p>	<p>For INLINE™ or INLINE™ II:</p> <p>Is battery voltage available?</p> <p>For INLINE™ I:</p> <p>Does the INLINE™ I power light come on?</p>
<p>YES</p>	<p>NO</p>
<p>For INLINE™ or INLINE™ II:</p> <p>Repair or replace the appropriate wiring harness. Refer to OEM service information.</p> <p>For INLINE™ I:</p> <p>Replace the serial cable.</p>	<p>For INLINE™ or INLINE™ II:</p> <p>Clean the battery connections or replace the battery.</p> <p>For INLINE™ I:</p> <p>Contact PC Administration Support for repair.</p>
<p>Go to 1A</p>	<p>Go to 1A</p>

Guided Step 2 - Verification of datalink communication.

Guided Step 2A - Verify datalink adapter communication light is flashing.

<p>Conditions</p> <ul style="list-style-type: none"> • Turn keyswitch ON. • Connect the datalink adapter to the engine using the appropriate cables. 	
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<p>Action</p> <p>look at the datalink adapter communication light.</p> <ul style="list-style-type: none"> In the Datalink Adapter Identification Diagram, located in Procedure 022-999, Service Tools and Hardware - Overview, refer to the light marked B for the location of the communication light on the INLINE™ adapter being used. 	
<p>Is the datalink adapter communication light flashing?</p>	<p>Is the datalink adapter communication light flashing?</p>
<p>YES</p>	<p>NO</p>
<p>No Repair</p>	<p>No Repair</p>
<p>Go to 3A</p>	<p>Go to 2B</p>

Guided Step 2B - Identify the type of datalink adapter being used.

<p>Conditions</p> <p>Action</p> <p>identify what type of datalink adapter is being used.</p> <ul style="list-style-type: none"> Refer to the Datalink Adapter Identification in Procedure 022-999, Service Tools and Hardware - Overview. 	
<p>Is the datalink adapter being used an INLINE™ I?</p>	<p>Is the datalink adapter being used an INLINE™ I?</p>

YES	NO
No Repair	No Repair
Go to 2D	Go to 2C

Guided Step 2C - Check for the datalink adapter communication light on solid.

<p>Conditions</p> <ul style="list-style-type: none"> • Turn keyswitch ON. 	
<p>Action</p> <p>look at the datalink adapter communication light on the datalink adapter.</p> <ul style="list-style-type: none"> • In the Datalink Adapter Identification Diagram, located in Procedure 022-999, Service Tools and Hardware - Overview, refer to the light marked B for the location of the communication light on the INLINE™ adapter being used. 	
Is the datalink adapter communication light on solid?	Is the datalink adapter communication light on solid?
YES	NO
Turn the keyswitch OFF and disconnect the datalink adapter from the power supply for 30 seconds. Reconnect the configuration and check for light on solid. This repair may need to be repeated several times.	No Repair
Go to 2C-1	Go to 2D

Guided Step 2C-1 - Check for the datalink adapter communication light on solid.

<p>Conditions</p> <ul style="list-style-type: none"> • Turn keyswitch ON. 	
<p>Action</p> <p>look at the datalink adapter communication light on the datalink adapter.</p> <ul style="list-style-type: none"> • In the Datalink Adapter Identification Diagram located in Procedure 022-999, Service Tools and Hardware Overview, refer to the light marked B for the location of the communication light on the INLINE™ adapter being used. 	
<p>Is the datalink adapter communication light on solid?</p>	<p>Is the datalink adapter communication light on solid?</p>
<p>YES</p>	<p>NO</p>
<p>Reflash the datalink adapter with INSITE™, if applicable.</p>	<p>No Repair</p>
<p>Go to 2C-2</p>	<p>Go to 2A</p>

Guided Step 2C-2 - Check for the datalink adapter communication light on solid.

<p>Conditions</p> <ul style="list-style-type: none"> • Turn keyswitch ON. 	
<p>Action</p> <p>look at the datalink adapter communication light on the datalink adapter.</p> <ul style="list-style-type: none"> • In the Datalink Adapter Identification Diagram located in Procedure 022-999, Service Tools and Hardware Overview, refer to the light marked B for the location of the communication light on the INLINE™ adapter being used. 	
<p>Is the datalink adapter communication light on solid?</p>	<p>Is the datalink adapter communication light on solid?</p>
<p>YES</p>	<p>NO</p>
<p>Replace the datalink adapter.</p>	<p>No Repair</p>
<p>Go to 2A</p>	<p>Go to 2A</p>

Guided Step 2D - Verify the ECM is powering up.

<p>Conditions</p>	
<p>Action</p> <p>cycle the keyswitch.</p> <p>NOTE: Automatic shutdown devices can shut off power without turning the keyswitch OFF.</p>	

Do the amber warning and red stop lamps come on when the keyswitch is cycled.	Do the amber warning and red stop lamps come on when the keyswitch is cycled.
YES	NO
No Repair	No Repair
Go to 2E	Go to 2D-1

Guided Step 2D-1 - Check for vehicle keyswitch input to the ECM.

<p>Conditions</p> <ul style="list-style-type: none"> • Turn keyswitch ON. 	
<p>Action</p> <p>check for voltage at the oem connector across the vehicle keyswitch input pin and an external ground.</p> <ul style="list-style-type: none"> • Refer to Procedure 019-064, Keyswitch Battery Supply Circuit, and the electronic wiring diagram for the correct pin locations and voltage specification. 	
Is battery voltage available?	Is battery voltage available?
YES	NO
No Repair	Repair or replace the wiring harness. Refer to OEM service information.
Go to 2D-2	Go to 2A

Guided Step 2D-2 - Check for poor unswitched battery power due to a bad connection.

<p>Conditions</p> <ul style="list-style-type: none"> • Disconnect the appropriate connector from the ECM. 	
<p>Action</p> <p>check for voltage at the ecm engine connector across the unswitched battery supply pins and battery ground pins.</p> <ul style="list-style-type: none"> • Refer to the electronic wiring diagram for the correct pin locations. 	
<p>Is a minimum of 9 volts available at the ECM engine connector across the unswitched battery supply pins and battery ground pins?</p>	<p>Is a minimum of 9 volts available at the ECM engine connector across the unswitched battery supply pins and battery ground pins?</p>
<p>YES</p>	<p>NO</p>
<p>Reseat the connectors and cycle the keyswitch.</p>	<p>Repair or replace the wiring harness. Refer to OEM service information.</p>
<p>Go to 2D-3</p>	<p>Go to 2A</p>

Guided Step 2D-3 - Check for unswitched battery power.

<p>Conditions</p> <ul style="list-style-type: none"> • Disconnect the appropriate connector from the ECM. 	
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<p>Action</p> <p>check for voltage at the ecm engine connector across the unswitched battery (+) pins and the unswitched battery (-) pins.</p> <ul style="list-style-type: none"> Refer to the electronic wiring diagram for the correct pin locations. 	
<p>Is a minimum of 9 volts available at the ECM engine connector across the unswitched battery (+) pins and the unswitched battery (-) pins?</p>	<p>Is a minimum of 9 volts available at the ECM engine connector across the unswitched battery (+) pins and the unswitched battery (-) pins?</p>
<p>YES</p>	<p>NO</p>
<p>No Repair</p>	<p>Repair or replace the wiring harness. Refer to OEM service information.</p>
<p>Go to 4F</p>	<p>Go to 2A</p>



Guided Step 2E - Check for bent, broken, or corroded pins at the datalink adapter cable connections.

<p>Conditions</p>	
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<p>Action</p> <p>inspect the datalink adapter cable, engine side datalink connector, and datalink adapter connector for the following:</p> <ul style="list-style-type: none"> • Bent or broken pins • Pushed back or expanded pins • Corroded pins • Moisture in or on the connector 	
<p>Are pins and connections good?</p>	<p>Are pins and connections good?</p>
<p>YES</p>	<p>NO</p>
<p>No Repair</p>	<p>Replace the datalink adapter cable or repair/replace the engine-side datalink adapter connector.</p>
<p>Go to 2F</p>	<p>Go to 2A</p>

Guided Step 2F - Verify the correct part number of the datalink adapter is being used.

<p>Conditions</p>	
<p>Action</p> <p>check the part number of the cables being used.</p> <ul style="list-style-type: none"> • Refer to the Datalink Communication Configurations in Procedure 022-999, Service Tools and Hardware - Overview. 	
<p>Is the correct part number being used?</p>	<p>Is the correct part number being used?</p>

YES	NO
No Repair	Use the correct part number
Go to 2G	Go to 2A

Guided Step 2G - Troubleshoot the J1587 or J1939 datalink circuit.

<p>Conditions</p>	
<p>Action</p> <p>check the resistance of the datalink circuit.</p> <ul style="list-style-type: none"> Refer to Procedure 019-166, Datalink Circuit, SAE J1587, for J1587 and Procedure 019-165, Datalink Circuit, SAE J1939, for J1939. Check that all pins needed for communication are populated. 	
Is the circuit good?	Is the circuit good?
YES	NO
No Repair	Repair or replace the J1587 or J1939 OEM harness.
Go to 2H	Go to 2A

Guided Step 2H - Try to communicate using a different datalink adapter.

<p>Conditions</p> <ul style="list-style-type: none"> • Turn keyswitch ON. 	
<p>Action</p> <p>use a different datalink adapter, if available.</p> <ul style="list-style-type: none"> • When changing from one INLINE™ to another, verify the connection setup in INSITE™ is correct. Refer to the INSITE™ Base Manual for instructions. 	
<p>Was communication successful?</p>	<p>Was communication successful?</p>
<p>YES</p>	<p>NO</p>
<p>Replace the original datalink adapter.</p>	<p>ROM boot and recalibrate the ECM. Refer to Procedure 019-427, ECM ROM Boot, and Procedure 019-032, ECM Calibration Code.</p>
<p>Go to 2A</p>	<p>Go to 2A</p>

Guided Step 3 - Verification of computer configuration.

Guided Step 3A - Verify the PC light is lighting up when initializing communication with the ECM.

<p>Conditions</p> <ul style="list-style-type: none"> • Turn keyswitch ON. • Connect all datalink cables to the ECM and datalink connector. 	
<p>Action</p> <p>watch the pc light on the datalink adapter while initializing communication with the ecm.</p> <ul style="list-style-type: none"> • In the Datalink Adapter Identification Diagram, located in Procedure 022-999, Service Tools and Hardware - Overview, refer to the light marked C for the location of the PC light on the INLINE™ adapter being used. 	
<p>Does the PC light on the datalink adapter light up?</p>	<p>Does the PC light on the datalink adapter light up?</p>
<p>YES</p>	<p>NO</p>
<p>No Repair</p>	<p>No Repair</p>
<p>Go to 4A</p>	<p>Go to 3B</p>

Guided Step 3B - Check the serial cable connections at the datalink adapter and the PC.

<p>Conditions</p> <ul style="list-style-type: none"> • Turn keyswitch ON. 	
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<p>Action</p> <p>inspect the serial cable, pc serial port, and datalink adapter port for the following:</p> <ul style="list-style-type: none"> • Bent or broken pins • Pushed back or expanded pins • Corroded pins • Moisture in or on the connector • Missing or damaged seals. 	
<p>Are pins and connections good?</p>	<p>Are pins and connections good?</p>
<p>YES</p>	<p>NO</p>
<p>No Repair</p>	<p>Replace the serial cable or repair/replace the connector port.</p>
<p>Go to 3C</p>	<p>Go to 3A</p>

Guided Step 3C - Verify the correct part number of the serial cable is being used.

<p>Conditions</p> <p>Action</p> <p>check the part number of the cables being used.</p> <ul style="list-style-type: none"> • Refer to the Serial Cable Pinout Diagram in Procedure 022-999, Service Tools and Hardware - Overview. 	
<p>Is the correct part number being used?</p>	<p>Is the correct part number being used?</p>
<p>YES</p>	<p>NO</p>

No Repair	Use the correct part number.
Go to 3D	Go to 3A

Guided Step 3D - Check that the correct datalink protocol is selected in INSITE™.

<p>Conditions</p> <ul style="list-style-type: none"> • Turn keyswitch ON. • Connect the INSITE™ electronic service tool. 	
<p>Action</p> <p>look at the datalink protocol selected in insite™.</p> <ul style="list-style-type: none"> • Refer to the INSITE™ Base Manual for instructions. • INLINE™ and INLINE™ I only communicate via J1587. For INLINE™ II, the available protocols have flashing lights on the datalink adapter. 	
<p>Does the datalink protocol selected in INSITE™ match the protocol being used?</p>	<p>Does the datalink protocol selected in INSITE™ match the protocol being used?</p>
<p>YES</p>	<p>NO</p>
No Repair	Select the correct datalink protocol in INSITE™.
Go to 3E	Go to 3A

Guided Step 3E - Verify the computer is configured for the correct communication port.

<p>Conditions</p> <ul style="list-style-type: none"> • Turn keyswitch ON. 	
<p>Action</p> <p>check which communication port the serial cable is connected to on the computer.</p> <ul style="list-style-type: none"> • Verify the communication port being used matches the communication port selected in INSITE™. Refer to the INSITE™ Base Manual for instructions. 	
<p>Is the correct COM port selected in INSITE™?</p>	<p>Is the correct COM port selected in INSITE™?</p>
<p>YES</p>	<p>NO</p>
<p>No Repair</p>	<p>Correct the COM post setting on the PC.</p>
<p>Go to 3F</p>	<p>Go to 3A</p>

Guided Step 3F - Verify other devices are not using the communication port selected.

<p>Conditions</p> <ul style="list-style-type: none"> • Turn keyswitch ON. 	
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<p>Action</p> <p>check for other devices using the communication port selected such as pda hot sync, infrared, etc.</p> <ul style="list-style-type: none"> • Contact PC administration support for assistance. 	
<p>Are there other devices using the communication port?</p>	<p>Are there other devices using the communication port?</p>
<p>YES</p>	<p>NO</p>
<p>Disable other devices. Call PC administration support for assistance.</p>	<p>No Repair</p>
<p>Go to 3A</p>	<p>Go to 3G</p>

Guided Step 3G - Verify the datalink adapter is working.

<p>Conditions</p> <ul style="list-style-type: none"> • Turn keyswitch ON. 	
<p>Action</p> <p>try to communicate with another datalink adapter.</p>	
<p>Does the PC light on the datalink adapter light up?</p>	<p>Does the PC light on the datalink adapter light up?</p>
<p>YES</p>	<p>NO</p>
<p>Replace the datalink adapter.</p>	<p>No Repair</p>
<p>Go to 4A</p>	<p>Go to 3H</p>

Guided Step 3H - Verify the INSITE™ software is working.

<p>Conditions</p>		
<p>Action</p> <p>reinstall insite™ software.</p> <ul style="list-style-type: none"> Refer to INSITE™ installation instructions. 		
<p>Does the PC light on the datalink adapter light up?</p>	<p>Does the PC light on the datalink adapter light up?</p>	
<p>YES</p>	<p>NO</p>	
<p>No Repair</p>	<p>No Repair</p>	
<p>Go to 4A</p>	<p>Call PC administration support</p>	

Guided Step 4 - Identify the reason for the communication problem.

Guided Step 4A - Check for invalid footprint error message.

<p>Conditions</p> <ul style="list-style-type: none"> Turn keyswitch ON. 		
<p>Action</p> <p>look for an invalid footprint or invalid</p>		

state error message in insite™.	
Was a footprint error message displayed?	Was a footprint error message displayed?
YES	NO
No Repair	No Repair
Go to 4A-1	Go to 4B

Guided Step 4A-1 - Recalibrate the ECM.

<p>Conditions</p> <ul style="list-style-type: none"> • Turn keyswitch ON. 	
<p>Action</p> <p>recalibrate the ecm.</p> <ul style="list-style-type: none"> • Refer to Procedure 019-032, ECM Calibration Code. 	
Was the calibration successful?	Was the calibration successful?
YES	NO
No Repair	ROM boot and recalibrate the ECM. Refer to Procedure 019-427, ECM ROM Boot, and Procedure 019-032, ECM Calibration Code.
Repair complete	Go to 4B

Guided Step 4B - Check for password error message.

<p>Conditions</p> <ul style="list-style-type: none"> • Turn keyswitch ON. 	
<p>Action</p> <p>look for a password error message in insite™.</p>	
<p>Was a password error message displayed?</p>	<p>Was a password error message displayed?</p>
<p>YES</p>	<p>NO</p>
<p>No Repair</p>	<p>No Repair</p>
<p>Go to 4B-1</p>	<p>Go to 4C</p>

Guided Step 4B-1 - Determine if the password is known.

<p>Conditions</p> <ul style="list-style-type: none"> • Turn keyswitch ON. 	
<p>Action</p> <p>try to find the password.</p>	
<p>Is the password known?</p>	<p>Is the password known?</p>
<p>YES</p>	<p>NO</p>
<p>No Repair</p>	<p>Use Zap-It to clear the password. Refer to the INSITE™ Base Manual for instructions.</p>
<p>Go to 4B-3</p>	<p>Go to 4B-2</p>

Guided Step 4B-2 - Verify the password cleared.

<p>Conditions</p> <ul style="list-style-type: none"> • Turn keyswitch ON. <p>Action</p> <p>check for password.</p>	
<p>Was the ECM password cleared successfully?</p>	<p>Was the ECM password cleared successfully?</p>
<p>YES</p>	<p>NO</p>
<p>No Repair</p>	<p>ROM boot and recalibrate the ECM. Refer to Procedure 019-427, ECM ROM Boot, and Procedure 019-032, ECM Calibration Code.</p>
<p>Repair complete</p>	<p>Repair complete</p>

Guided Step 4B-3 - Enter the password.

<p>Conditions</p> <ul style="list-style-type: none"> • Turn keyswitch ON. <p>Action</p> <p>enter the password.</p>	
<p>Did the ECM take the password?</p>	<p>Did the ECM take the password?</p>
<p>YES</p>	<p>NO</p>
<p>No Repair</p>	<p>Use Zap-It to clear the password. Refer to the INSITE™ Base Manual for instructions.</p>

[Go to 4C](#)

[Go to 4B-2](#)

Guided Step 4C - Check the datalink protocol selected in INSITE™.

<p>Conditions</p> <ul style="list-style-type: none">• Turn keyswitch ON.• Connect the INSITE™ electronic service tool.	
<p>Action</p> <p>look at the datalink protocol selected in insite™.</p> <ul style="list-style-type: none">• Refer to the INSITE™ Base Manual for instructions.• INLINE™ and INLINE™ I only communicate via J1587. For INLINE™ II, the available protocols have flashing lights on the datalink adapter.	
<p>Does the protocol selected in INSITE™ match the protocol being used?</p>	<p>Does the protocol selected in INSITE™ match the protocol being used?</p>
<p>YES</p>	<p>NO</p>
<p>No Repair</p>	<p>Select the correct datalink protocol in INSITE™.</p>
<p>Go to 4D</p>	<p>Repair complete</p>

Guided Step 4D - Check for compatibility between the datalink hardware and vehicle protocol.

<p>Conditions</p> <ul style="list-style-type: none"> • Turn keyswitch ON. 	
<p>Action</p> <p>verify the datalink available on the vehicle is compatible with the datalink adapter being used.</p> <ul style="list-style-type: none"> • Refer to the INSITE™ Release Notes for Compatibility Table. 	
<p>Is the datalink available on the vehicle compatible with the datalink adapter?</p>	<p>Is the datalink available on the vehicle compatible with the datalink adapter?</p>
<p>YES</p>	<p>NO</p>
<p>No Repair</p>	<p>Use the datalink hardware supported by the vehicle.</p>
<p>Go to 4E</p>	<p>Repair complete</p>



Guided Step 4E - Check for compatibility between INSITE™ software and ECM software.

<p>Conditions</p>	
<p>Action</p> <p>verify the ecm software is supported by insite™ software.</p> <ul style="list-style-type: none"> • Refer to INSITE™ Release Notes for Compatibility Table. 	
<p>Does the INSITE™ software support the ECM software?</p>	<p>Does the INSITE™ software support the ECM software?</p>

YES	NO
No Repair	Install INSITE™ software that supports the ECM software.
Go to 4F	Repair complete

Guided Step 4F - Try to communicate with the bench calibrator.

<p>Conditions</p> <ul style="list-style-type: none"> • Turn keyswitch ON. 	
<p>Action</p> <p>try to communicate using the bench calibrator.</p>	
Was communication successful?	Was communication successful?
YES	NO
There is a problem in the OEM wiring. Refer to OEM service information.	ROM boot and recalibrate the ECM. Refer to Procedure 019-427, ECM ROM Boot, and Procedure 019-032, ECM Calibration Code.
Repair complete	Repair complete

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