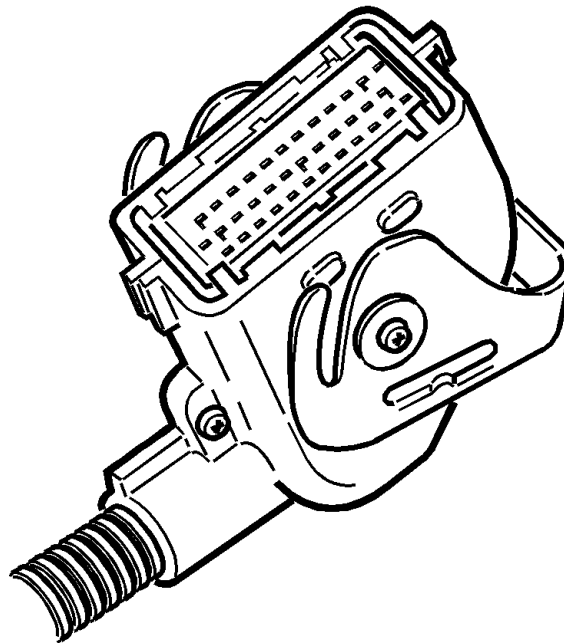


Fault Tracing & Performance Control  
Connectors, Engine ECU  
VN with D12A

## Connectors, D12A Control Unit



T2012118

This Service Bulletin concerns checking the terminals in the connector for the engine wiring harness and the cab wiring harness, as well as replacing wires in the connectors. See [“Connector Terminal, Checking” page 2.](#)

**Note:** The tool used in this procedure can be found in Repair kit: 3947553.

# Service Procedures

## 3713-06-02-01

### Connector Terminal, Checking

**Note:** The tool used in this procedure can be found in Repair kit: 3947553.

*Special tools: 9998482*

1



#### CAUTION

If there are other ground cables connected to the battery (such as engine ECU, satellite system, etc.), disconnect those grounds first, then remove the battery ground cable. Electronic modules may be damaged when additional grounds are connected/disconnected without the main battery ground connected. Always disconnect the main battery ground **last**.

Turn the ignition key to the OFF position and disconnect the negative battery cable.

2

Clean the connectors and the control unit before the removing the connectors from the control unit.

3

Release the locking clamp and remove the connector from the control unit.

4

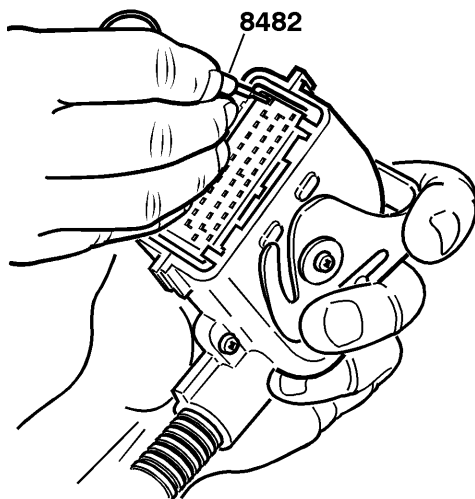
Check the terminals in the connector using gauge 9998482.

Insert the gauge into the terminal. Move the gauge in and out of the terminals to check that the terminal has proper clamping force on the gauge.

**Note: If the terminal does not have any clamping force or if it is very weak, it must be replaced.**

Refer to "Engine ECU Terminal, Replacement" page 3. Tool 9998482 is from VE D12 engine Kit 3947553.

9998482



T2012119

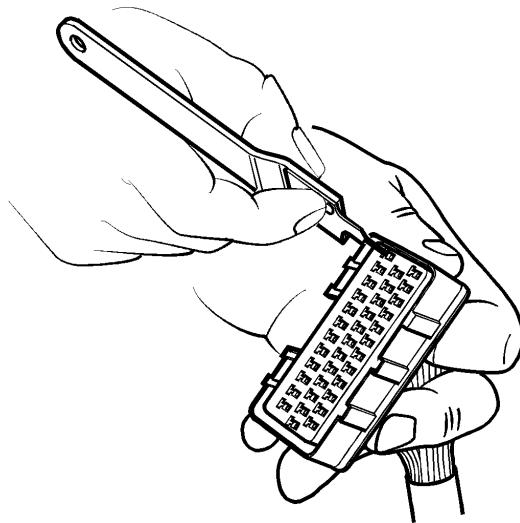
## Engine ECU Terminal, Replacement

*Special tools: 9512636, 9998482, 1078054*

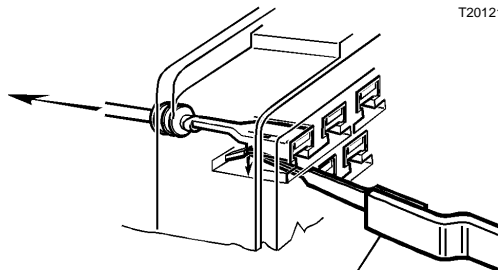
**1**

Remove the screws for the connector housing locking clamp and the connector housing. Cut the tie strap fastening the wiring harness to the connector housing.

**2**



T2012120

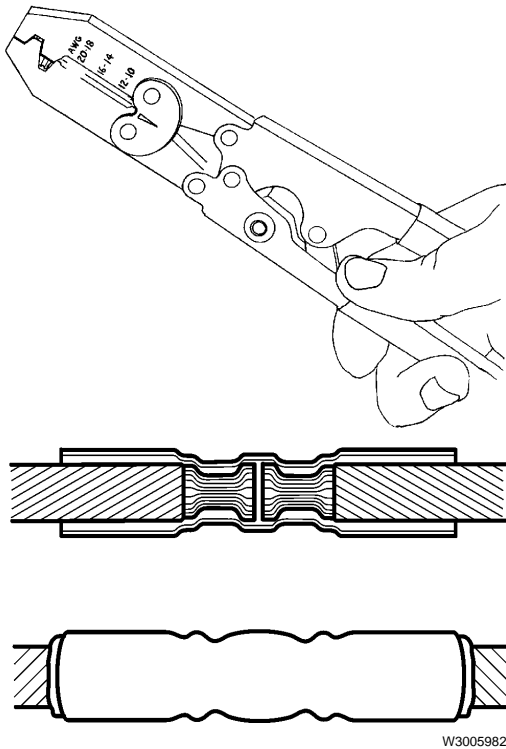


**2636**

T2012121

Remove the terminal locking plate from the connector. Remove the faulty terminal from the connector using tool 9512636. Remove the tape from the wiring harness and conduit. Cut the wire that has the faulty terminal to the correct length for proper installation. Tool 9512636 is from VE D12 engine Kit 3947553.

9512636



**3**

Strip the insulator back on the end and crimp the replacement terminal splice 1078054. Crimp the butt splice connector using crimpers 3947557 (Packard crimpers 12085115) in the 18-20 anvil. Pull gently on the connection to check for a proper crimp. Use a heat gun on the butt splice insulator until the insulator shrinks around the wire and sealant is visible to ensure the connection is sealed. (1078054 from VE D12 engine Kit 3947553.)

1078054, 3947557

**4**

Insert the terminal into the connector until it locks. Pull on the wire gently to insure the terminal is locked. Install the terminal locking plate in the connector.

**5**

Tape the wire harness and conduit from where the tape was removed.

**6**

Install the tie strap, fastening the wire harness to the connector housing. Install the screws for the connector housing and clamp.

**7**

Insert the connector back into the control unit and lock the clamp.

**8**



**CAUTION**

If there are other ground cables connected to the battery (such as engine ECU, satellite system, etc.), connect the battery ground cable first, then connect those grounds. Electronic modules may be damaged when additional grounds are connected/disconnected without the main battery ground connected.

Connect the negative battery cable and check for any fault codes. Remove all inactive fault codes.