

This Field Service Bulletin replaces bulletin FSB 255-024 dated 5.2012.

Date 8.2012 Group **255** No. **024** Release **04** Page 1(8)

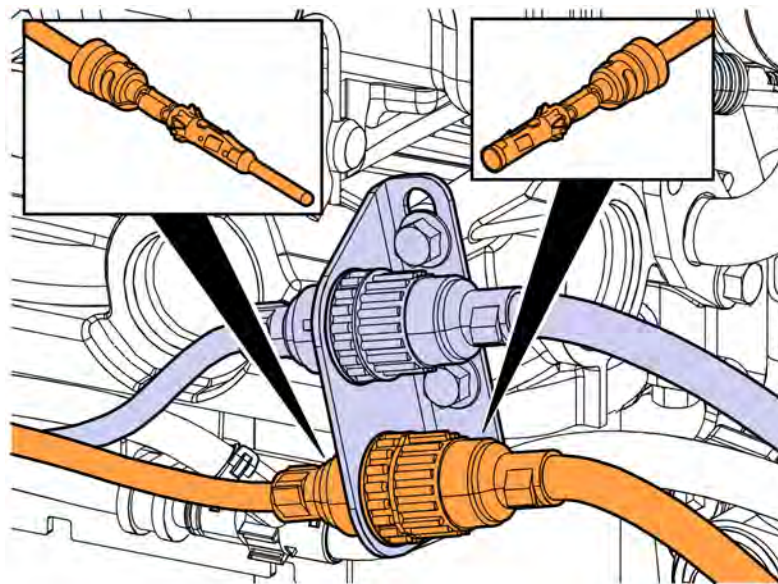
Engine Variable Geometry Turbocharger
(VGT) Actuator Connector Pin, Replacement

VAH, VHD, VN, VT
D11, D13, D16

**FSB 255-024, Engine Variable Geometry
Turbocharger (VGT) Actuator Connector Pin,
Replacement**

(August 2012)

Severe fretting damage of the engine variable geometry turbocharger (VGT) actuator harness may cause an unreliable signal to the engine VGT actuator on certain VOLVO VAH, VHD, VN and VT vehicles. An unreliable signal to the engine VGT actuator will generate diagnostic trouble codes (DTCs). If DTCs are logged and pin fretting is identified as the cause, the engine VGT actuator connector pin and socket contacts should be replaced. Replacement of the pin and socket contacts will eliminate pin fretting and increase the reliability of the signal to the engine VGT actuator.



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Service personnel: Please circulate, read and initial

Service Manager	Warranty Administrator	Workshop Foreman	Service Technicians					

Required Parts

Connector Pin Replacement Parts			
Item #	Part Number	Description	Crimp Jaw Position
1	984945	Pin, Eng VGT Actuator Conn	B
2	3963409	Socket, Eng VGT Actuator Conn	B
3	20734499	Wire Seal, Eng VGT Actuator Conn	N/A

Connector Pin Replacement Tools		
Item #	Part Number	Description
1	9808646	Extraction Tool, Connector Socket
2	9809774	Extraction Tool, Connector Pin
3	88890003	Crimp Pliers
4	88890004	Crimp Jaw

Procedure

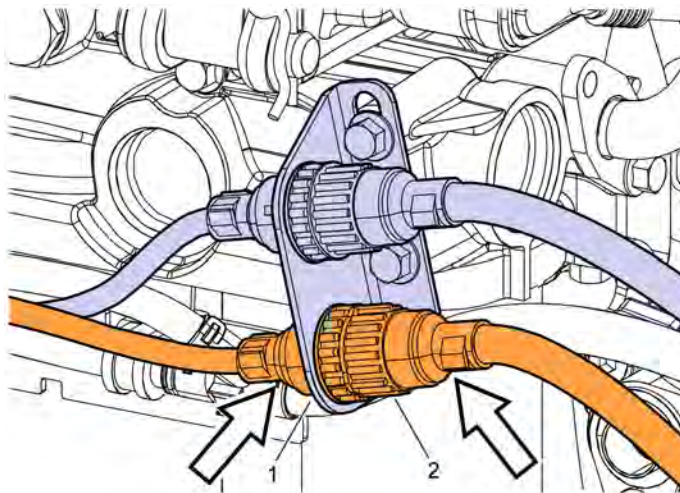
You must read and understand the precautions and guidelines in Service Information, Function Group 20, "Engine Safety Practices" before performing this procedure. If you are not properly trained and certified in this procedure, ask your supervisor for training before you perform it.

- 1 Raise the hood.
- 2 Disconnect all cables from the negative (ground) battery terminals to prevent personal injury from electrical shock and prevent damage to electrical components.
- 3 Disconnect both harness couplers.

Note: The connectors shown are for reference only. Your actual configuration may be different, depending on vehicle model and components.

Note: In the event the connectors or harnesses are damaged, replace engine VGT actuator component connector (Item 1, Figure below) with part number 984944, engine VGT actuator engine harness connector (Item 2) with part number 3963412. Additionally, plug seal part number 970771 is required to seal any unused pin and socket locations of the connector housings.

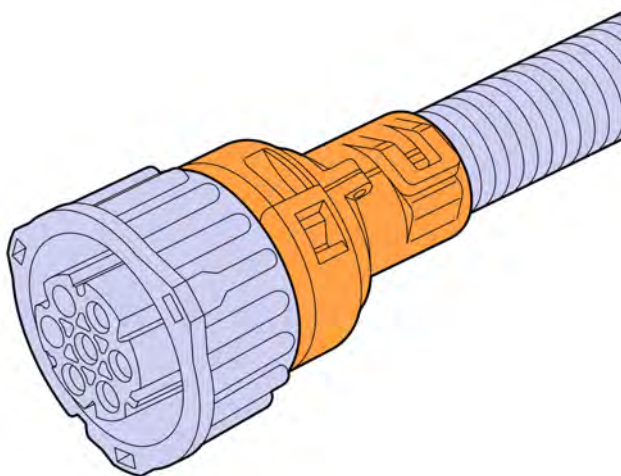
- 4 Remove harnesses from the mounting bracket.



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- 5 Remove the conduit clamps from both harness sections.

Note: The engine VGT actuator harness connector is shown for reference only.



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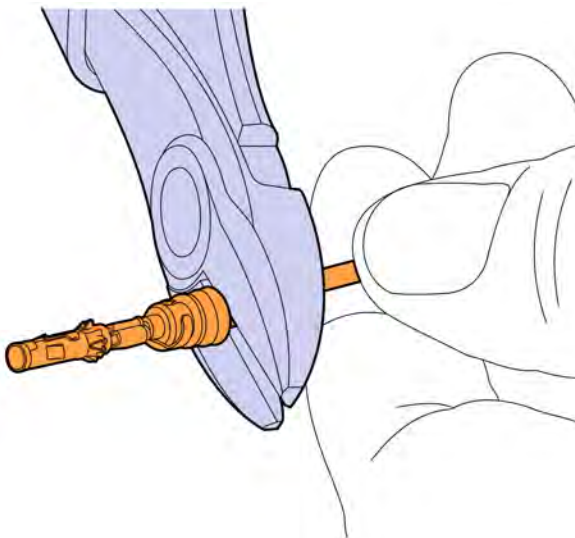
- 6 Using extraction tool 9808646 or 9809774, remove the defective pins from the connectors.

Note: Before removing terminals, note and document pin locations for reassembly purposes.



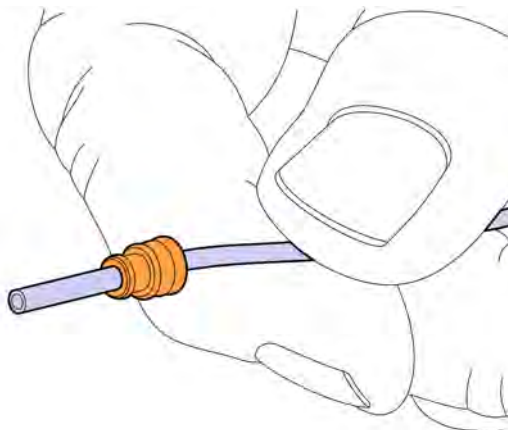
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- 7 Cut and remove old pins from the harnesses.



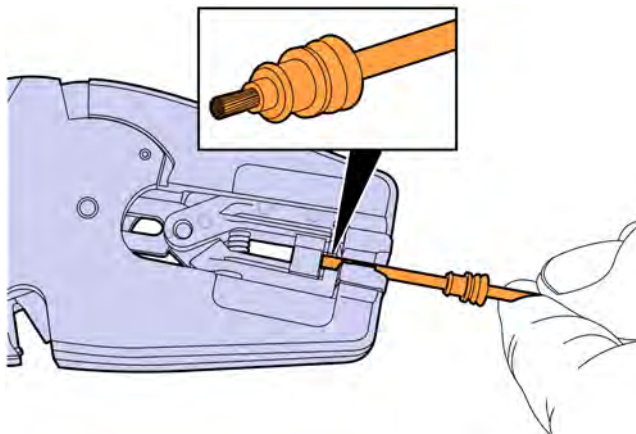
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- 8 Assemble the wire and the appropriate wire seal as shown in figure below.



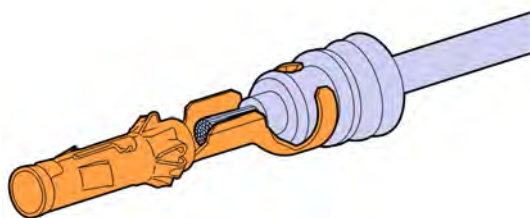
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- 9 Using a suitable wire stripper, strip 5 mm (0.2 in) of insulation from the end of each wire.



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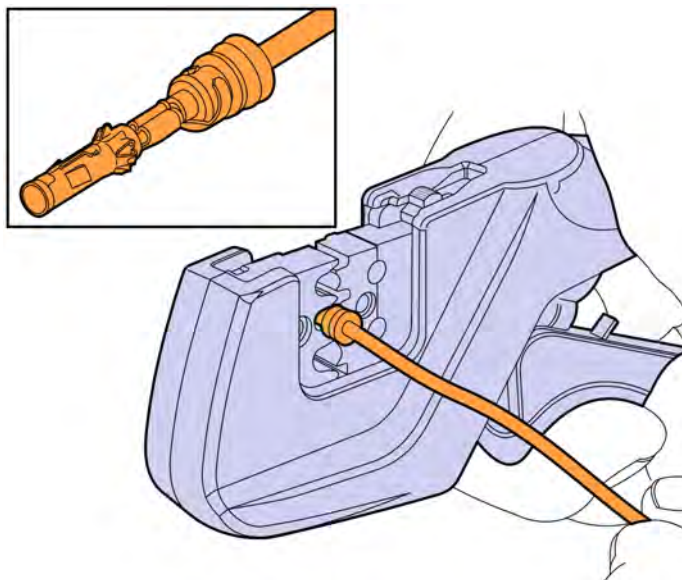
- 10 Pre-assemble the appropriate pin or socket contact with stripped wire and seal.



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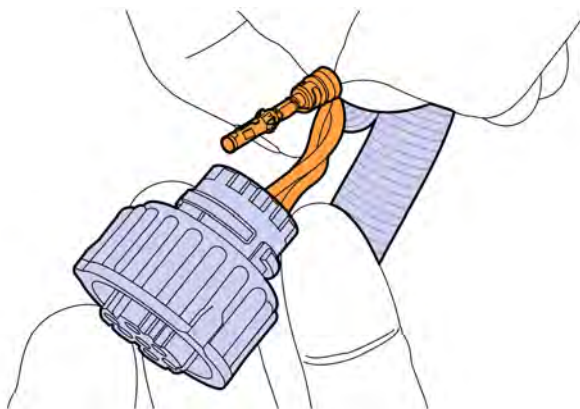
11 Using crimp pliers 88890003 and crimp jaw 88890004, crimp the pin or socket contact.

Note: See table on page 1 for the proper crimp jaw position.



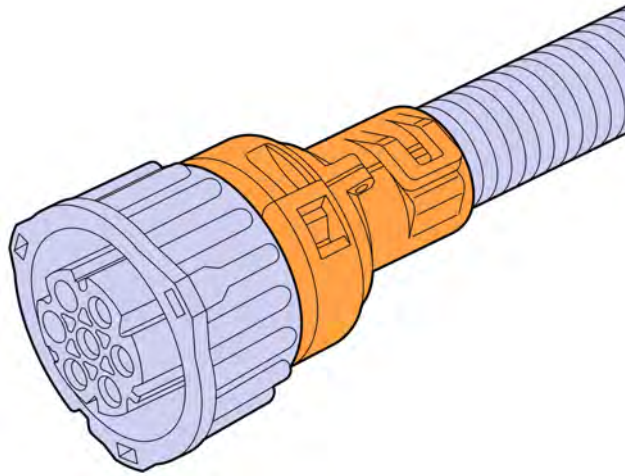
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12 Insert the crimped pin or socket in the correct position of the connector.



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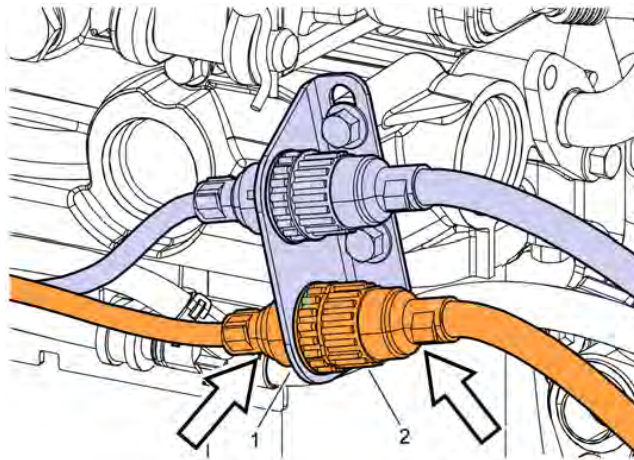
13 Install the conduit clamps.



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14 Install the harnesses onto the bracket and secure.

15 Connect the harnesses.



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16 Reconnect all previously removed cables to the negative (ground) battery terminals.

17 Lower hood.

Reimbursement

This repair may be eligible for reimbursement if a product failure was experienced within time and mileage limits of the applicable Warranty coverage. Reimbursement is obtained via the normal claim handling process.	
Claim Type (used only when uploading from the Dealer Bus. Sys.)	W
Primary Labor Code	
With 2007 Emissions	25578-0-01 — 0.7 hrs
With 2010 Emissions	25578-0-02 — 0.7 hrs
Causal Part	984945

VOLVO Trucks North America engages in a continuous program of testing and evaluating to provide the best possible product. VOLVO Trucks North America, however, is not committed to, or liable for updating existing chassis.