



This Field Service Bulletin replaces bulletin, "FSB 255-023, SRA and TSS Connector Pin Replacement", PV729-FSB255-023_M (USA52909) dated (04/2012).

Date	Group	No.	Release	Page
4.2012	255	023	02	1(8)

Connector Pin, Replacement

CHU, CXU, GU, LEU, MRU, TD, CMM, CMH
MP7, MP8, MP10

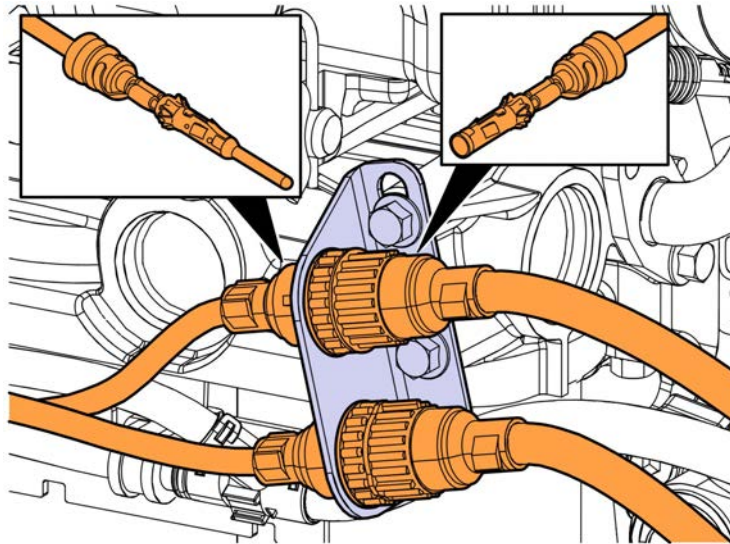
SB-10044247-9335

FSB 255-023, Connector Pin, Replacement

(April 2012)

Severe fretting damage of the Engine Variable Geometry Turbocharger Actuator (Engine VGT Actuator) harness and Turbine Shaft Speed Sensor (TSS) connectors may cause an unreliable signal to the engine VGT Actuator on certain MACK CHU, CXU, GU, LEU, MRU, TD, CMM, and CMH trucks. 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 and TSS 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.

Note: This bulletin also applies to MACK Trucks Australia.



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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	984946	Pin, TSS Connector	A
4	11039671	Socket, TSS Connector	A
5	20734499	Wire Seal, Eng VGT Actuator Conn	N/A
6	25325008	Wire Seal, TSS Connector	N/A

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

Procedure

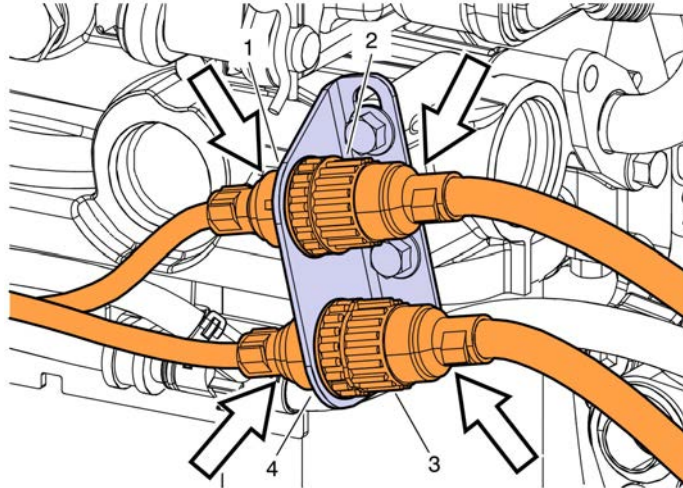
You must read and understand the precautions and guidelines in Service Information, group 20, "General Safety Practices, Engine" before performing this procedure. If you are not properly trained and certified in this procedure, ask your supervisor for training before you perform it.

- 1 Raise the cab or 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 truck 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, and replace TSS engine harness connector (Item 3) with part number 984849. The TSS component connector (Item 4) is not available as a replacement item. Replace the TSS component connector as an assembly (see IMPACT for the appropriate part number). Additionally, plug seal part number 970771 is required to seal any unused pin and socket locations of the connector housings.

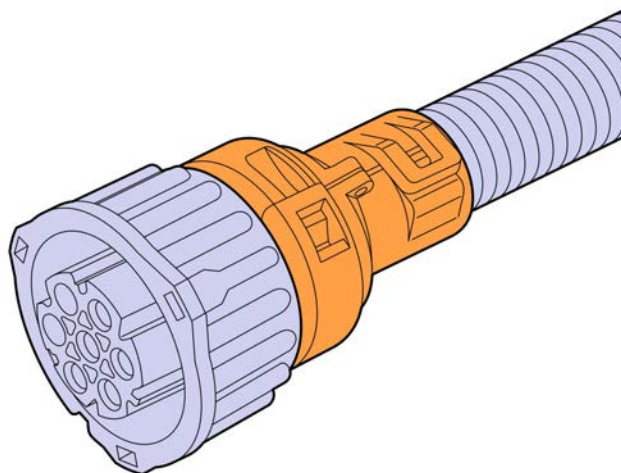
- 4 Remove harnesses from the mounting bracket.



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- 5 Remove the conduit clamps from both harness sections.

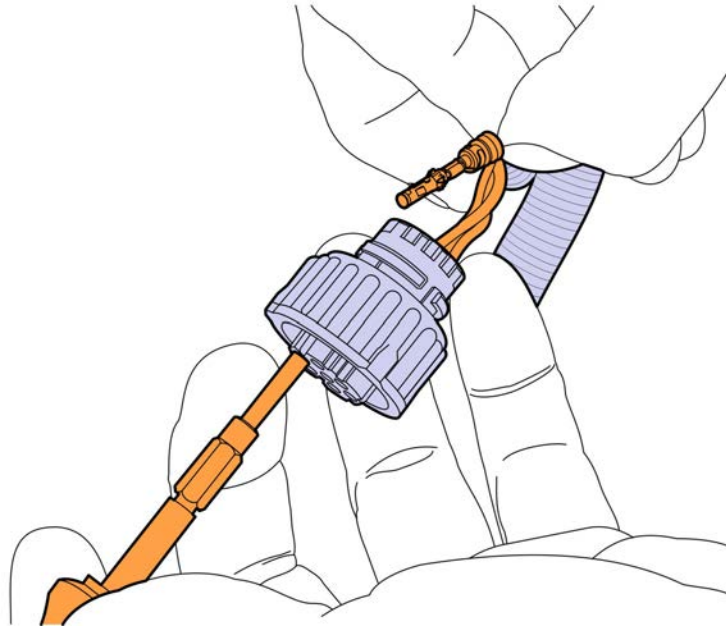
Note: The engine VGT Actuator harness connector is shown for reference only. The procedure is the same for the TSS harness connectors.



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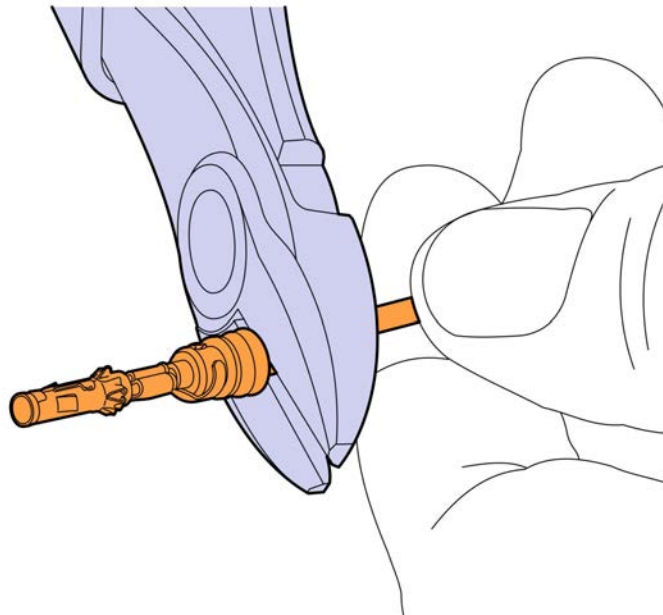
- Using extraction tool 9808646 or 9809774, remove the defective pins from the connectors.

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



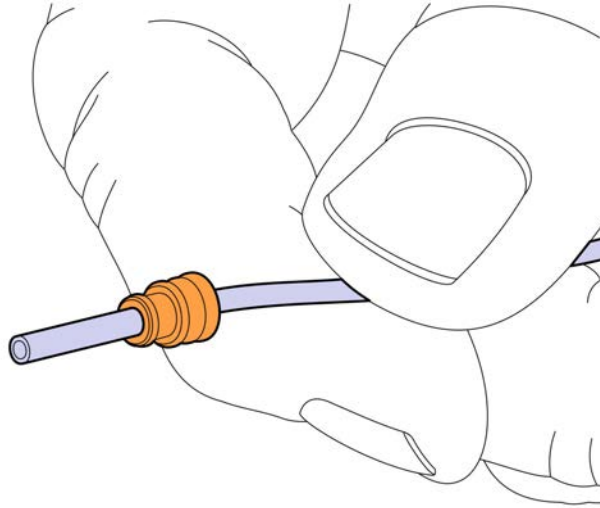
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- Cut and remove old pins from the harnesses.



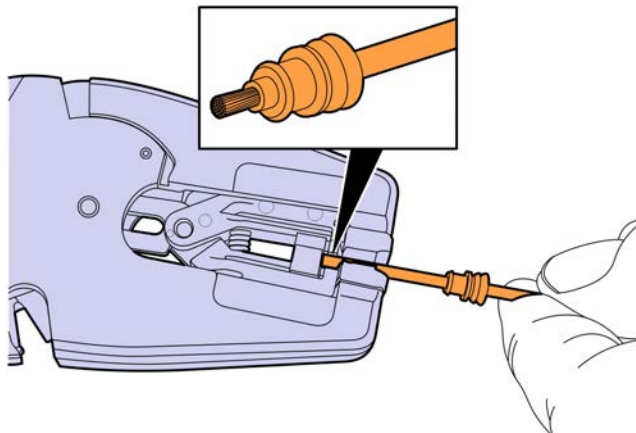
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8 Assemble the wire and the appropriate wire seal as shown in figure below.



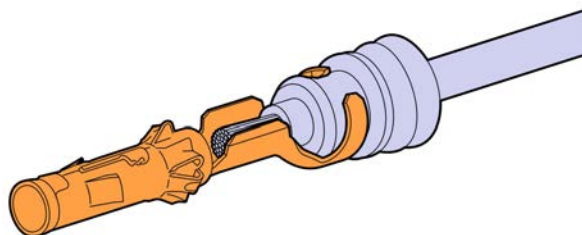
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9 Using a suitable wire stripper, strip 5 mm (0.2 in) of insulation from the end of each wire.



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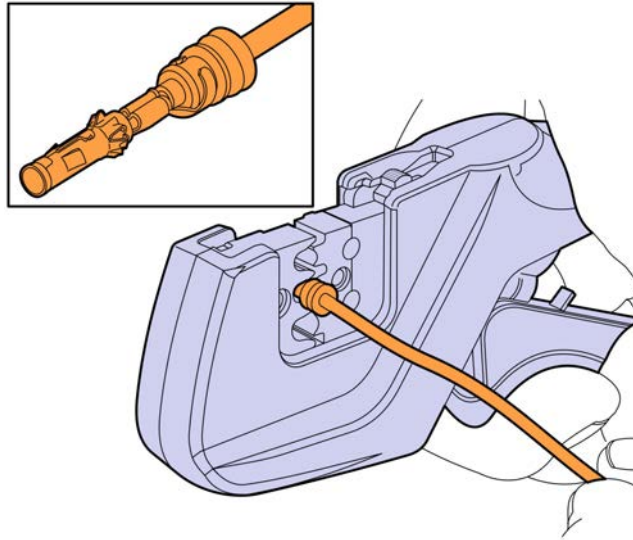
10 Pre-assemble the appropriate pin or socket contact with stripped wire and seal.



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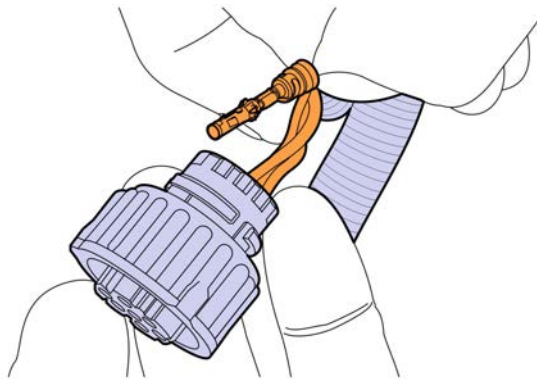
11 Using crimp pliers 88890003 and crimp jaw 88890004, crimp the pin or socket contact.

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



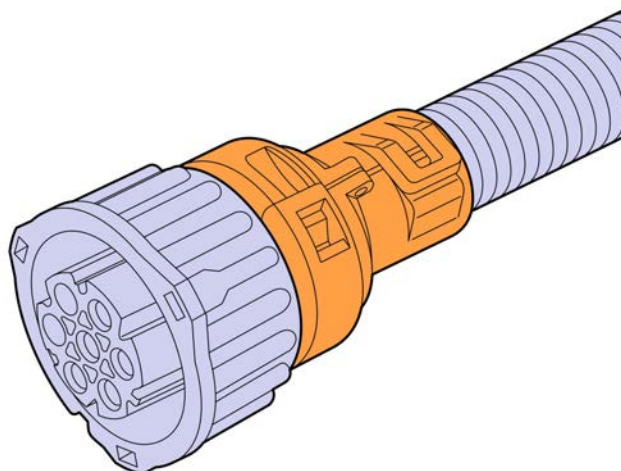
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12 Insert the crimped pin or socket in the correct position of the connector.



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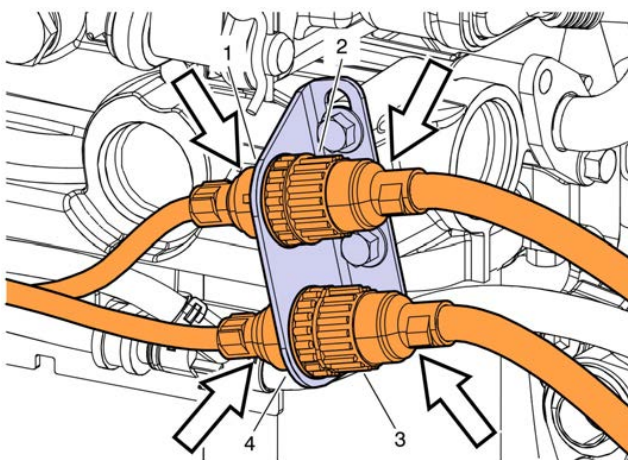
13 Install the conduit clamps.



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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 the cab or 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
Labor Code	
Primary Labor Code for engine VGT Actuator or TSS Harness Pins Replacement	2732C-01-80 0.7 hrs.
Causal Part	984945

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