

Service Bulletin

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Subject: MIL ILLUMINATION WITH DTC P2135 OR DTCs P0123 AND/OR P0222 AFTER THROTTLE BODY REPLACEMENT	Bulletin No: 01-015/13
	Last issued: 08/22/2013

BULLETIN NOTE

- This bulletin supersedes the previous bulletin 01-015/13 issued on 06/14/2013 and 01-030/11, issued on 09/27/2011. The REPAIR PROCEDURE has been revised.
- Changes are noted below in Red beside the change bar.

APPLICABLE MODEL(S)/VINS

2003-2004 Mazda6 3.0L

DESCRIPTION

Some vehicles may experience a MIL illumination with DTC P2135 stored in memory or DTCs P0123 and/or P0222 after the throttle body has been replaced.

- DTC P2135: Throttle Position Sensor No.1 / No. 2 Voltage Correlation
- DTC P0123: Throttle Position Sensor No.1 Circuit High Input
- DTC P0222: Throttle Position Sensor No.2 Circuit Low Input

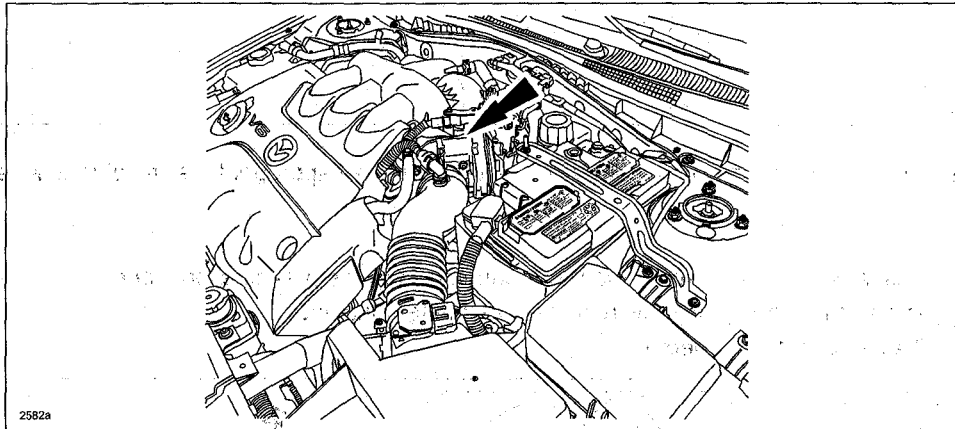
DTCs P0123 and/or P0222 may be stored immediately (or some time later) after installing a new throttle body with either part number AJ57-13-640D or AJT1-13-640. This is due to an abnormal electrical noise within the engine harness of certain vehicles. This condition can be prevented or corrected by installing the throttle body harness (with diode) as described in this service bulletin.

NOTE: The throttle body harness (with diode) should only be used to correct DTCs P0123 and/or P0222 that were set **AFTER** the throttle body was replaced. Vehicles that have stored DTCs P0123 and/or P0222 without a throttle body replacement should be diagnosed and repaired according to the workshop manual, not this service bulletin.

CONSUMER NOTICE: The information and instructions in this bulletin are intended for use by skilled technicians. Mazda technicians utilize the proper tools/equipment and take training to correctly and safely maintain Mazda vehicles. These instructions should not be performed by "do-it-yourselfers." Customers should not assume this bulletin applies to their vehicle or that their vehicle will develop the described concern. To determine if the information applies, customers should contact their nearest authorized Mazda dealership. Mazda North American Operations reserves the right to alter the specifications and contents of this bulletin without obligation or advance notice. All rights reserved. No part of this bulletin may be reproduced in any form or by any means, electronic or mechanical—including photocopying and recording and the use of any kind of information storage and retrieval system—without permission in writing.

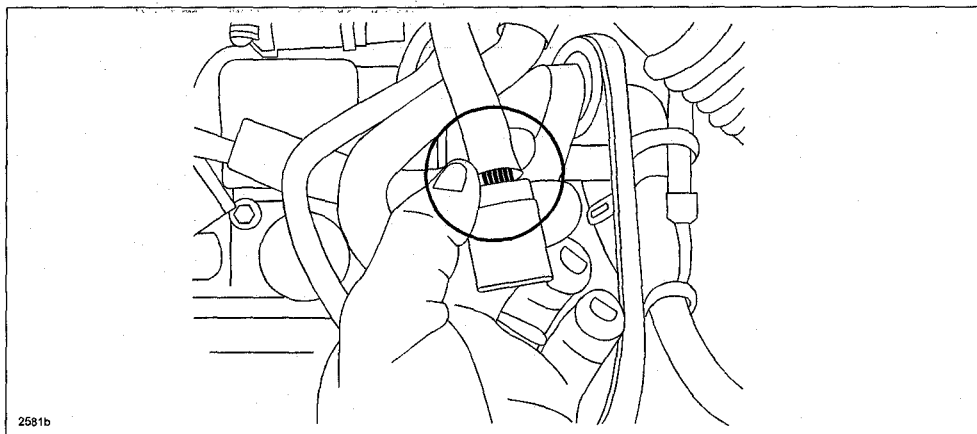
REPAIR PROCEDURE

1. Verify customer concern.
2. Determine which DTC(s) are present.
 - If DTCs P0123 and/or P0222 are present (**AFTER** throttle body replacement), install throttle body harness/diode (AJT1-13-ZS8) according to "Throttle Body Harness (with Diode) Installation Procedure" below.
 - If DTC P2135 is present, replace the throttle body with a new part (AJT1-13-640) according to the online instructions on MS3 or Workshop Manual (section 01-13 INTAKE AIR SYSTEM REMOVAL/INSTALLATION (AJ)), then install a throttle body harness/diode (AJT1-13-ZS8) according to "Throttle Body Harness (with Diode) Installation Procedure" below.

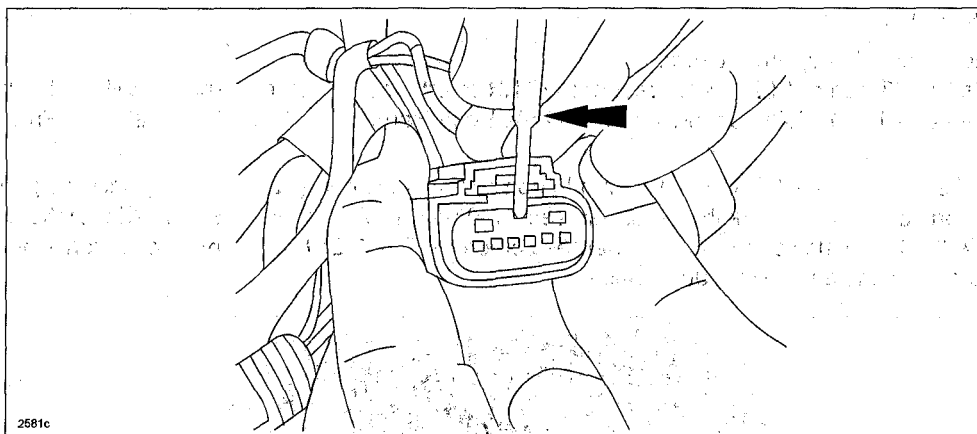


Throttle Body Harness (with Diode) Installation Procedure:

1. Record the customer's preset radio stations.
2. Disconnect the negative battery cable.
3. Disconnect connector from the throttle body.
4. Disconnect the harness retainer from the intake manifold.



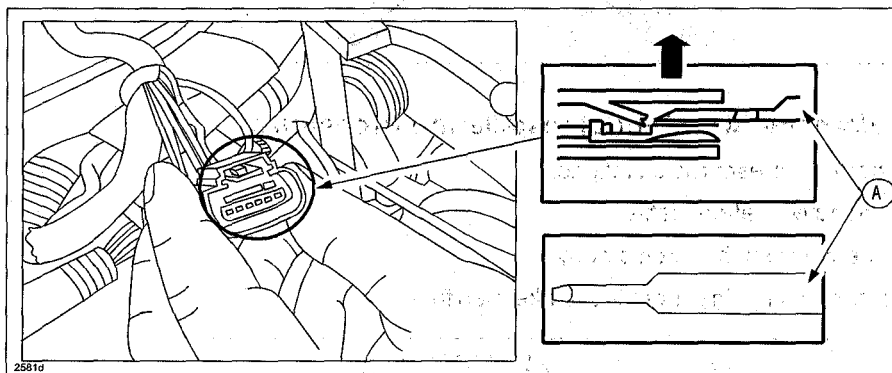
5. Remove the terminal lock from the connector.



6. Remove all six (6) terminals from the original connector using an appropriate terminal tool (A) as shown below.

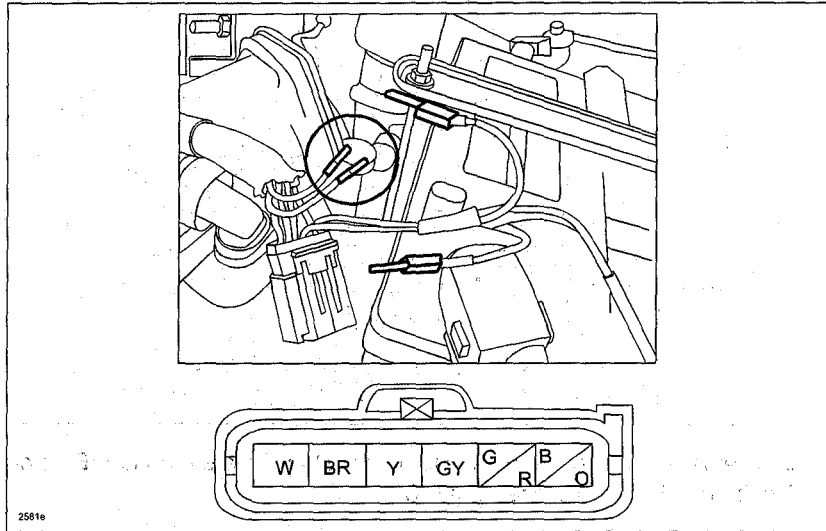
NOTE:

- This is necessary to install the new connector with the pre-installed diode.
- Angle of the tool goes upward to release the terminal lock.
- Discard original connector.



7. Re-insert W, GY, G/R, and B/O female terminals into connector.

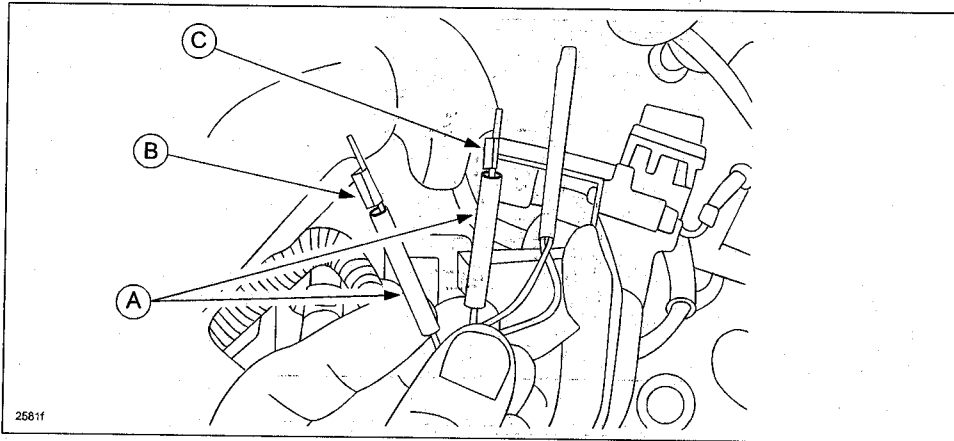
ETB Connector B2-25 Wiring Locations:



Location	Wire Color	Location	Wire Color
#1	White (W)	#4	Gray (GY)
#2	Brown (BR) *	#5	Green/Red (G/R)
#3	Yellow (Y) *	#6	Black/Orange (B/O)

* - Pre-installed wires

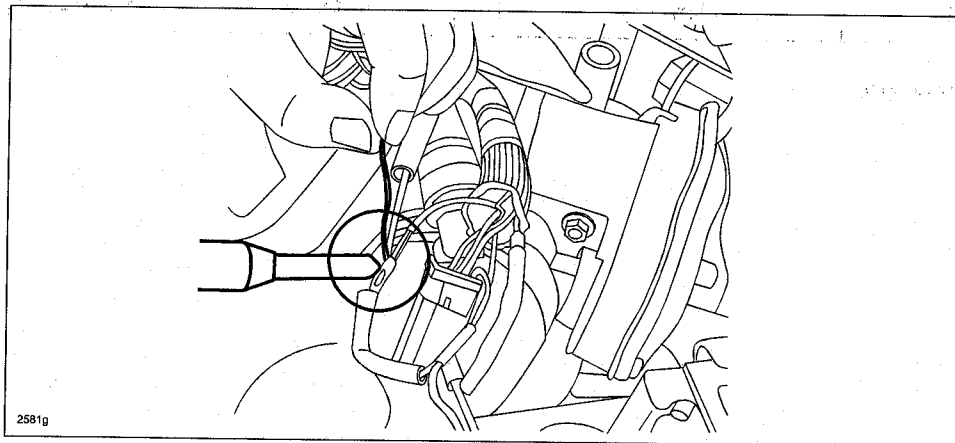
8. Re-install the red terminal lock onto the connector.
9. Place the heat shrink (A) over both Yellow (B) and Brown (C) male terminals.



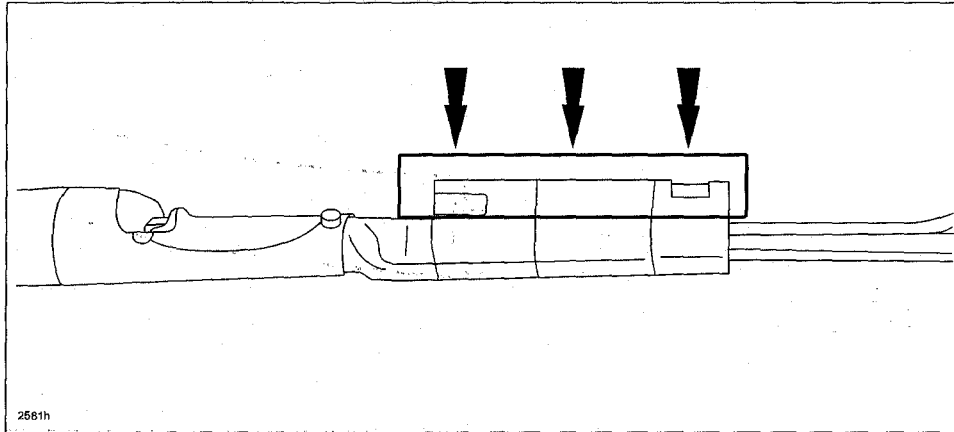
10. Connect the Yellow female terminal (from vehicle harness) and male terminal (B) (from new connector). Repeat for the Brown female and male terminal (C).
11. Solder the joints together.

CAUTION:

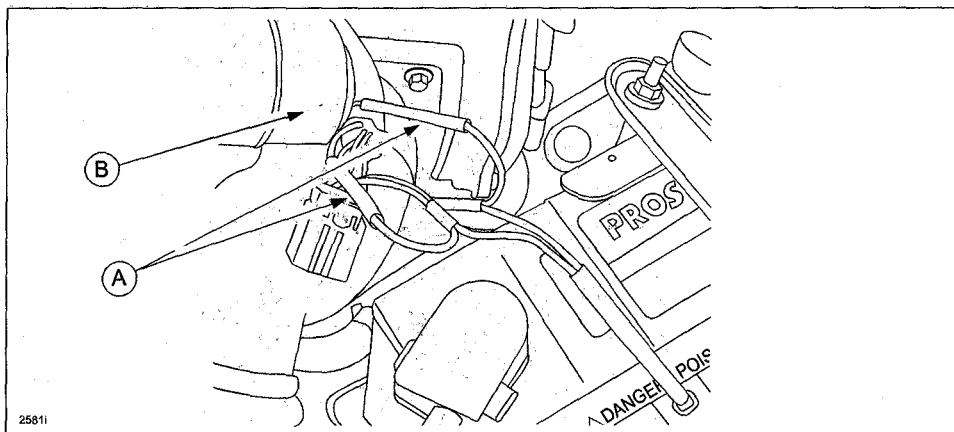
- Before soldering, make sure the soldering iron is fully warmed up and its edge is cleaned with a sponge or rag soaked in water.
- Be careful not to melt the heat shrink tube while soldering.
- To prevent the heat shrink tube from shrinking due to heat generated during soldering, the heat shrink tube must be kept away from the heat generated at the soldering spot.



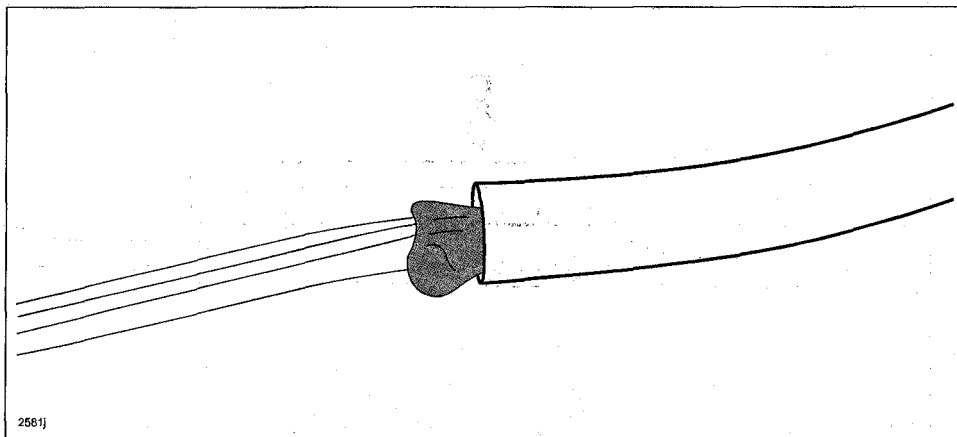
12. Using suitable pliers, squeeze both the Yellow and Brown female terminals at the protrusion to prevent sharp edges protruding through the heat shrink tubing.



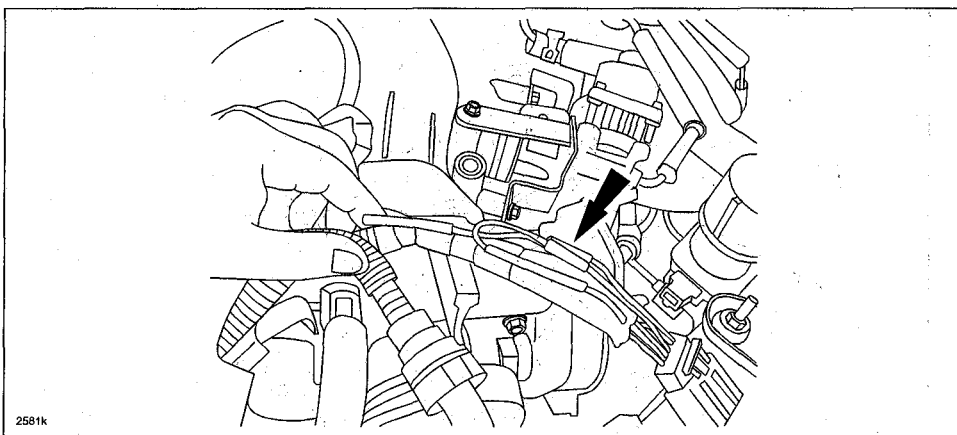
13. Place heat shrink (A) over both solder joints and shrink using a heat gun (B).



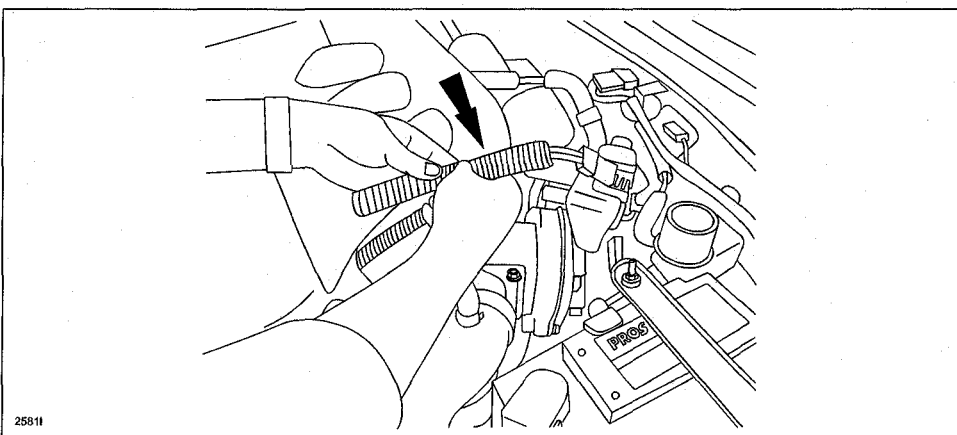
NOTE: Warm the wire up until plastic comes out from the edge, but do not touch the plastic right after shrinkage when it is soft.



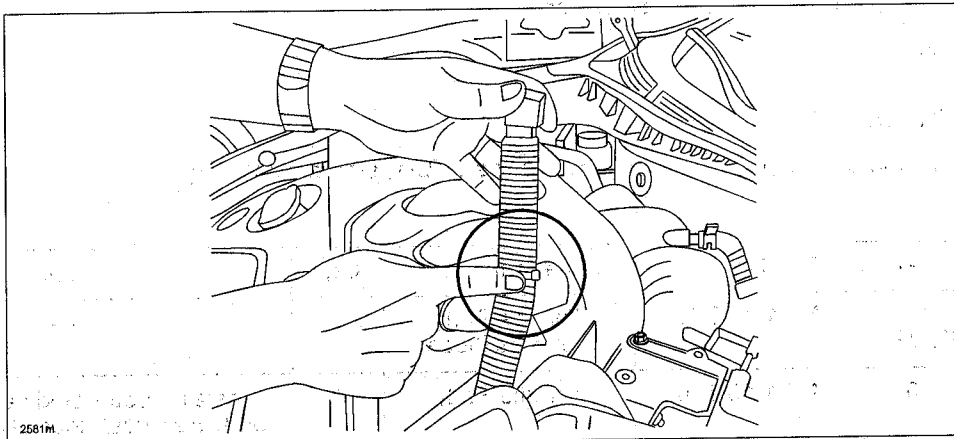
14. Fold the wires so they are flush with the harness.



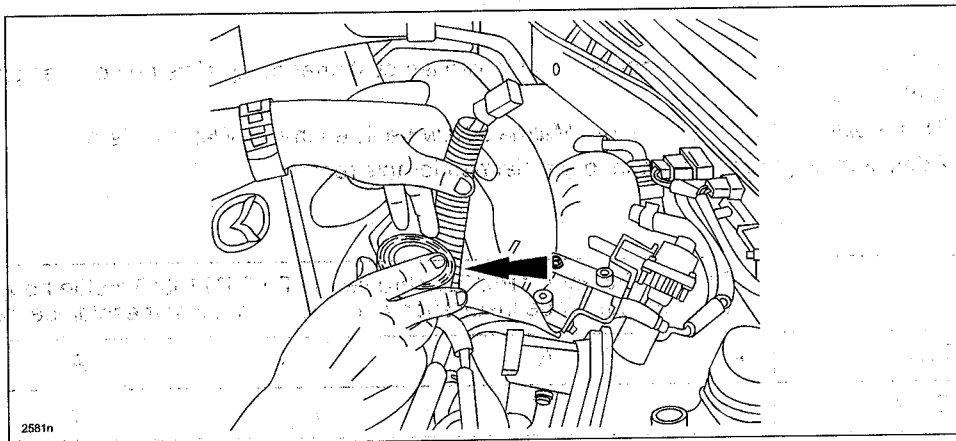
15. Install the corrugated tube.



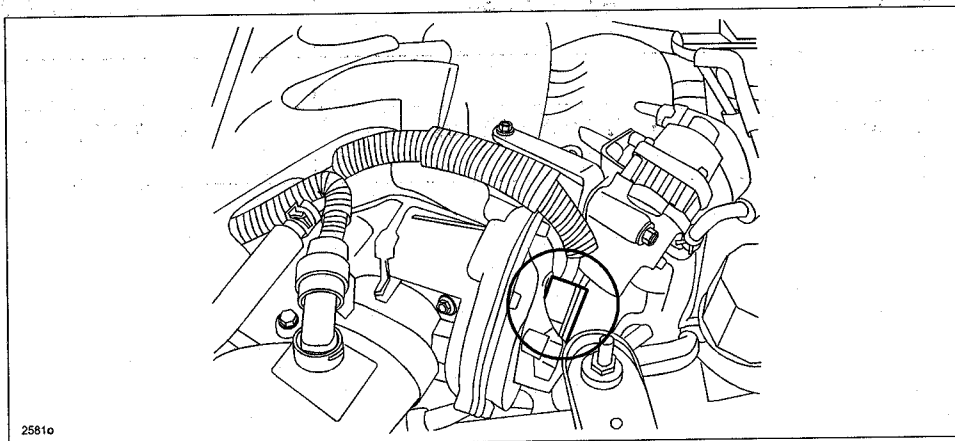
NOTE: Be sure the harness fastener can be seen after installing the tube.



16. Secure the tube with electrical tape.



17. Reconnect the harness to the electronic throttle body.



18. Connect the negative battery cable.
19. Re-enter the customer's preset radio stations.
20. Verify repair.

PART(S) INFORMATION

NOTE: Order the correct part numbers based on the DTC(s) stored in memory.

DTC(s) Stored	Part Number	Description	Qty.	Notes
DTCs P0123 and/or P0222	AJT1-13-ZS8	Throttle Body Harness/Diode	1	---
DTC P2135	AJT1-13-640	Throttle Body	1	Install Throttle Body and Throttle Body Harness/Diode (AJT1-13-ZS8)

WARRANTY INFORMATION

NOTE:

- This warranty information applies only to verified customer complaints on vehicles eligible for warranty repair.
- This repair will be covered under Mazda's New Vehicle Limited Warranty term.
- Additional diagnostic time cannot be claimed for this repair.

	DTCs P0123 and/or P0222: Throttle body harness/diode installation only	DTC P2135: Throttle body and throttle body harness/diode installation
Warranty Type	A	A
Symptom Code	6X	6X
Damage Code	9Q	9Q
Part Number Main Cause	AJT1-13-ZS8	AJT1-13-640
Quantity	1	1
Operation Number / Labor Hours:	YY727XRX / 0.5 Hrs.	YY728XRX / 1.4 Hrs.