SMVDJ70DVVC

DIRECT VARIABLE VANE CONTROL (DVVC)

VDJ MODELS 2007 - CURRENT

Installation Guide

PLEASE CAREFULLY READ THE FOLLOWING INSTALLATION GUIDE BEFORE PROCEEDING. THIS PART SHOULD ONLY BE INSTALLED BY A QUALIFIED TECHNICIAN. FAILURE TO CORRECTLY INSTALL, MAY RESULT IN ENGINE OR COMPONENT DAMAGE!!!

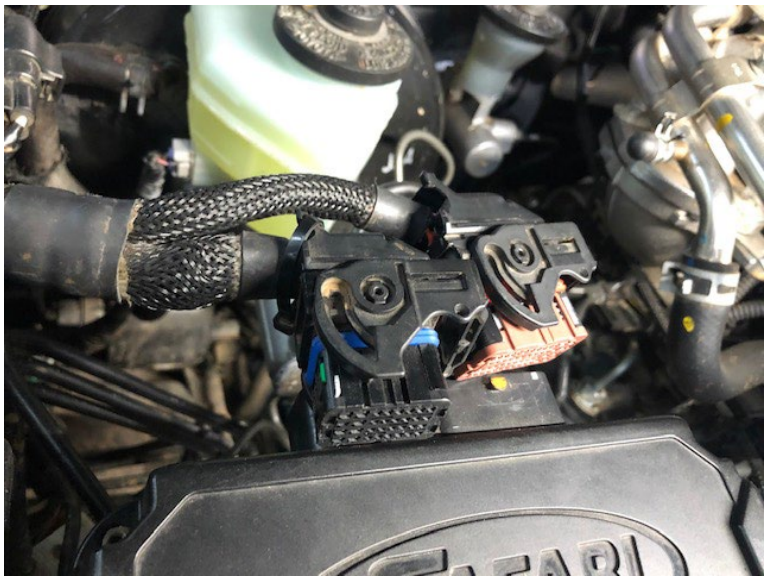
Parts List

ITEM	PART NO	DESCRIPTION	QTY
1	333-283-900	HARNESS - ECU – 70 SERIES - DVVC	1
2	333-283-950	RESISTOR	1
3	000-093-100	BOLT - BH - M4 x 10MM S/S	4
4	000-300-300	WASHER - FLAT - M4 S/S	4
5	000-987-140	CABLE TIE - NYLON - 140MM	1
6	000-987-290	CABLE TIES – 280 x 4.8MM	10
OPTIONAL - PART AVAILABLE SEPARATELY			
7	333-289-001	MOUNTING BRACKET - A	1

INSTALLATION TIME 1.5 HOURS

1 **Disconnect the negative battery terminal**

2 Disconnect both the header connectors from the Safari Armax ECU.



3 Remove the ECU and the mounting bracket base plate from the vehicle.

4 Remove the ECU from the base plate.

5 Install the resistor onto the supplied base plate using 4 x button head bolts.

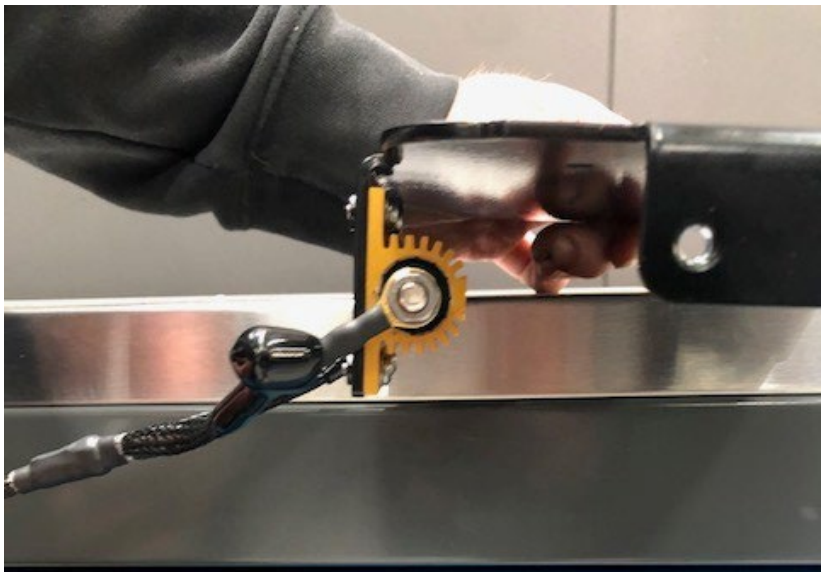
6

Connect the 2 eyelets on the resistor branch of the wiring harness to the resistor.

(You can connect the eyelets to the resistor in either polarity configuration).

Align the eyelets as shown and tighten in position.

Slide terminal rubber boots over the ends of resistor.



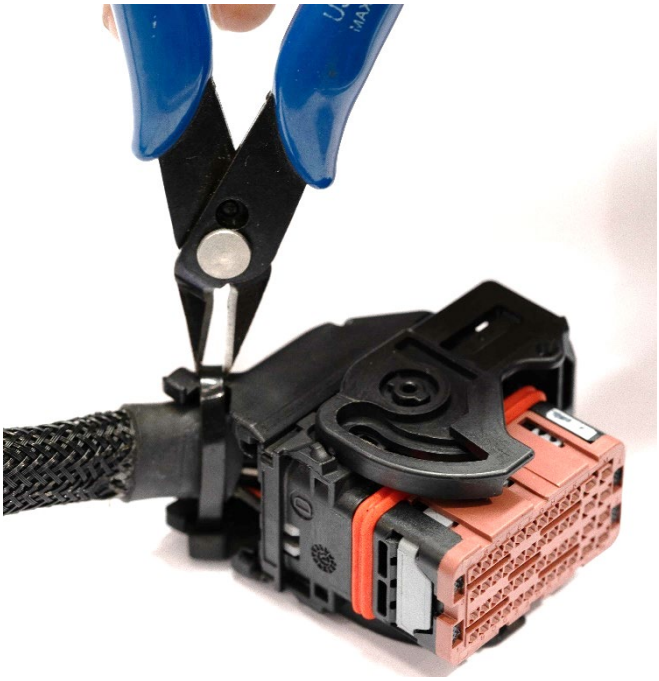
7

Install the ECU and base plate back into the vehicle.

DO NOT reconnect header connectors to the ECU.

8

Cut the cable tie from the larger 48 pin brown header connector wire cap.

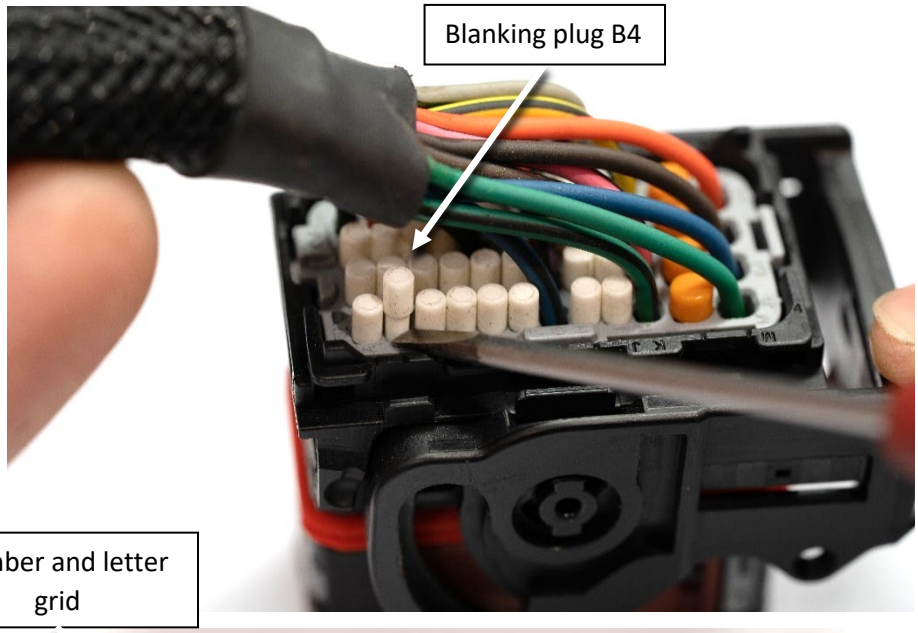


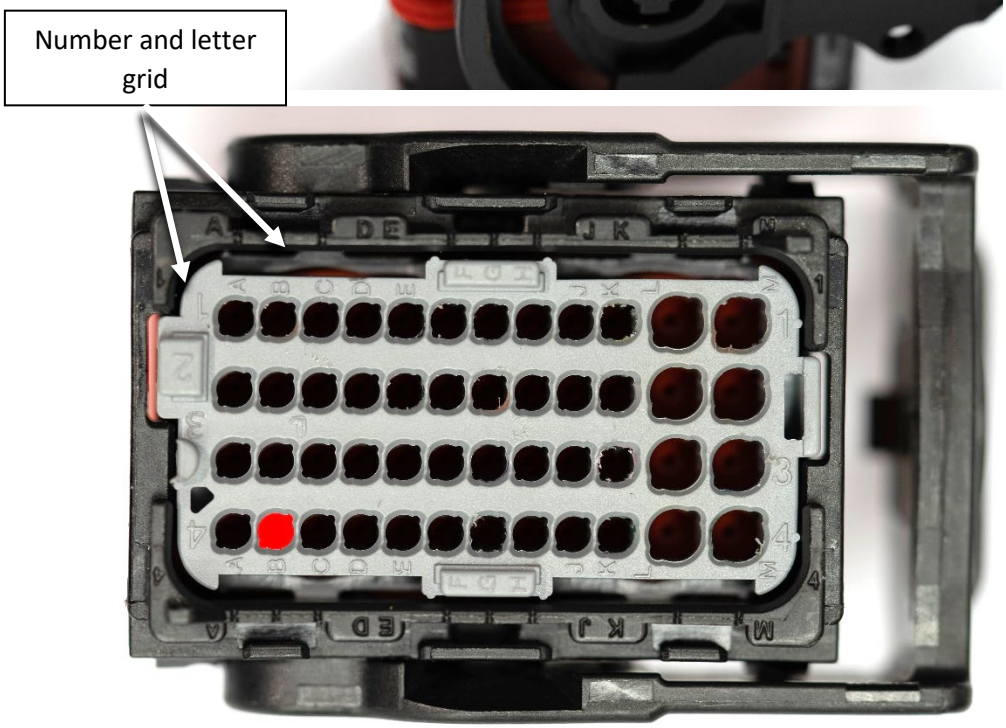
9 Remove the wire cap from the 48-pin header connector (brown). Use small flat head screwdriver and gently spread both front tabs as shown in image. Apply gentle pressure on the wire cap and slide the wire cap off the header connector.

10 Using the number and letter grid system marked on the connector locate position B4.

Remove blanking plug from position B4 by gently prying upwards.

See diagram for location.



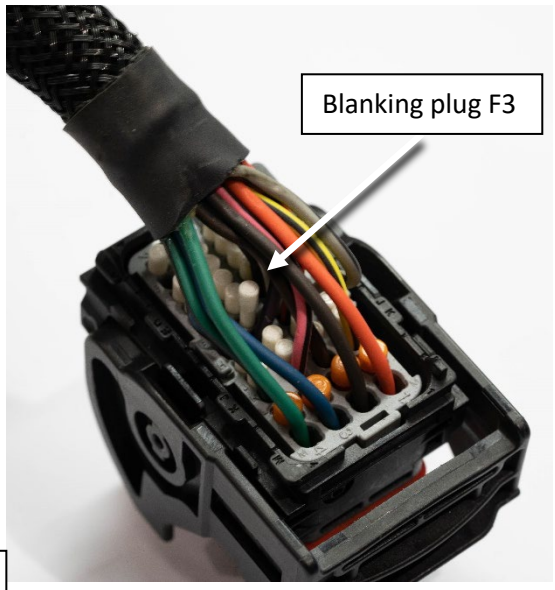


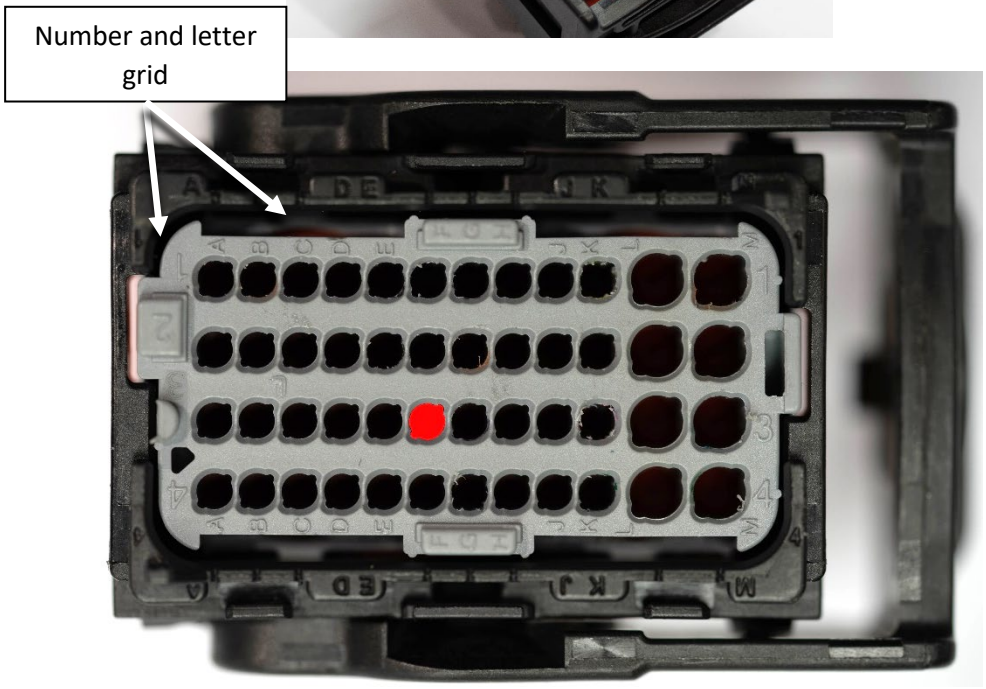
11

Using the number and letter grid system marked on the connector locate position F3.

Remove blanking plug from position F3 by gently prying upwards.

See diagram for location.



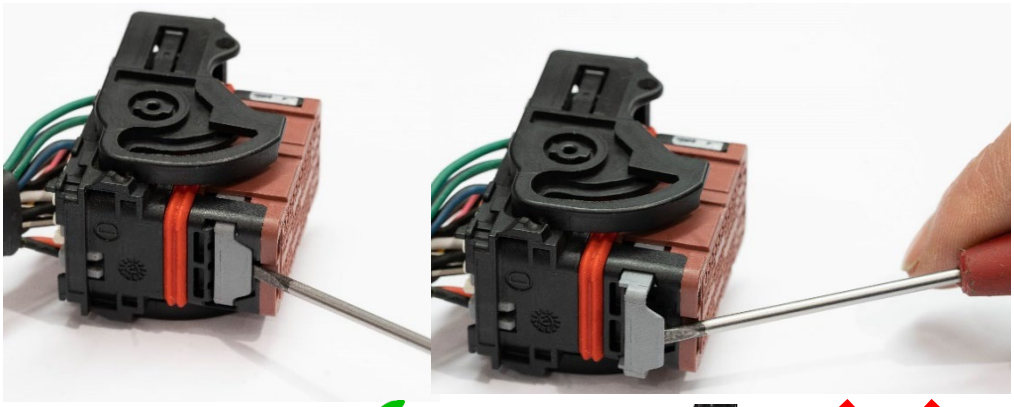


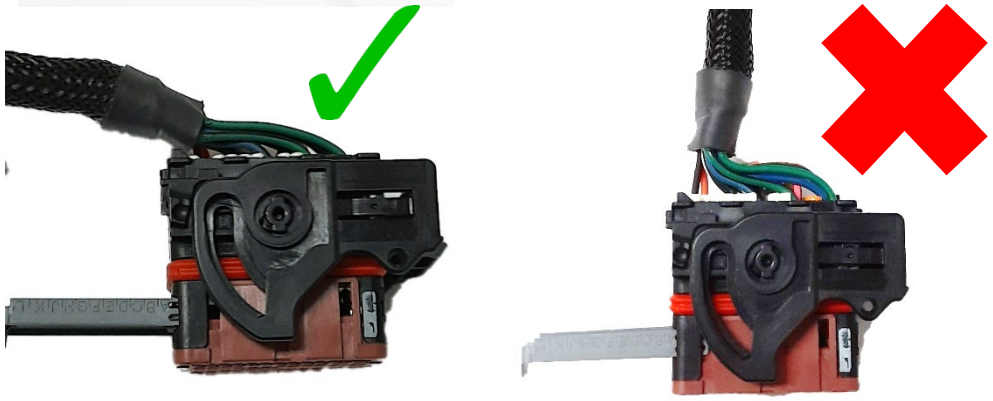
12

Gently pry secondary locking tab. Pull away from the header connector until locking tab stops.

WARNING!!

CAUTION MUST BE TAKEN NOT TO TWIST OR CONTORT THE HARNESS WHEN THE SECONDARY LOCK IS DISENGAGED.





TERMINAL ALIGNMENT

1

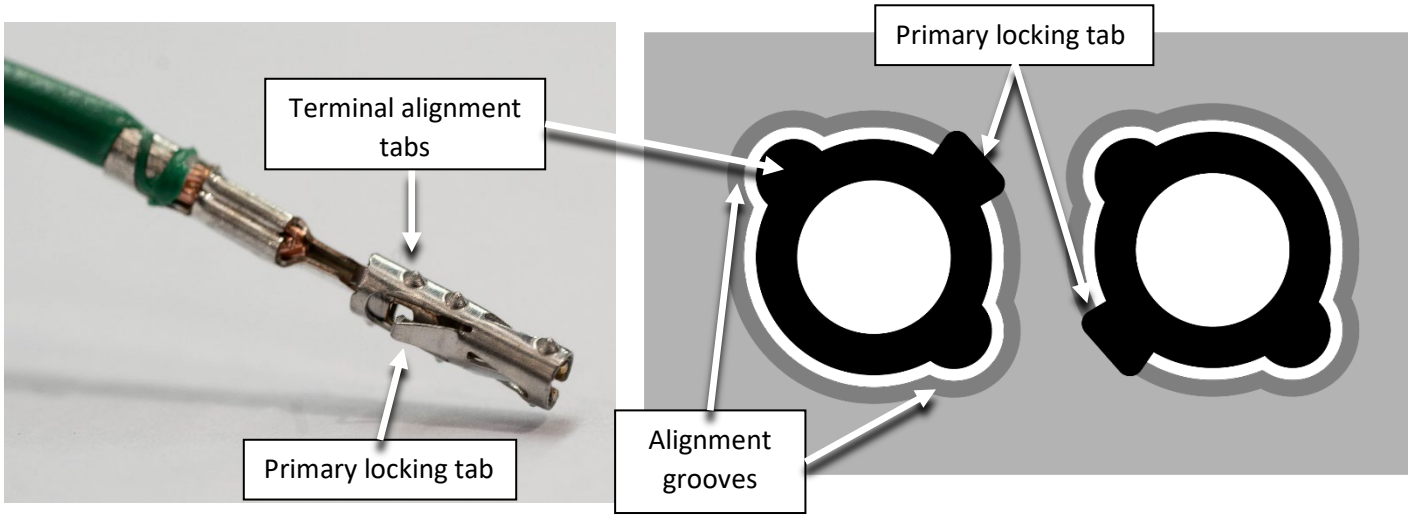


Diagram is showing terminal (black) orientation into the header connector (gray).

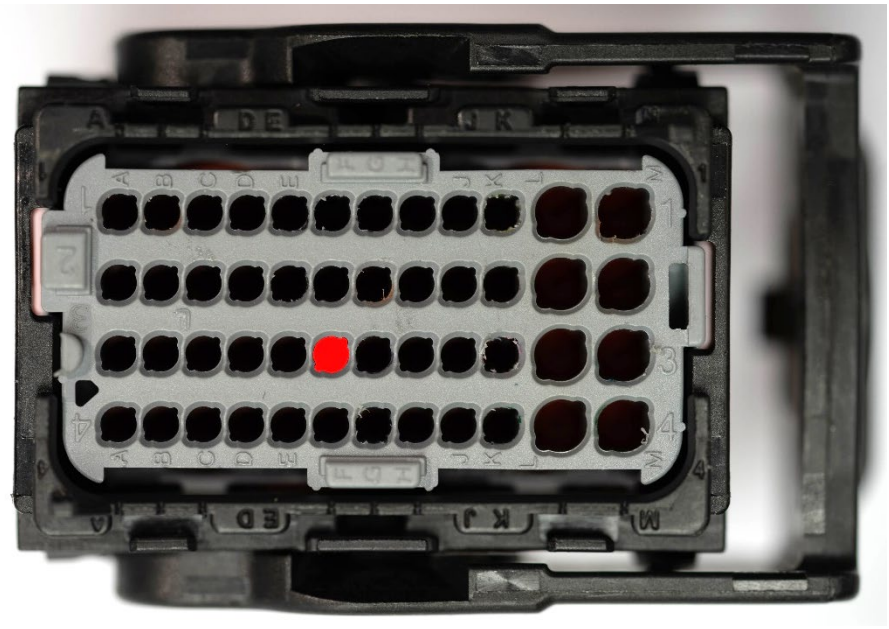
The header connector has alignment grooves that align the terminal tabs.

This means that there are only 2 possible ways that the terminal can be orientated to be inserted into the connector.

TERMINAL INSTALLATION

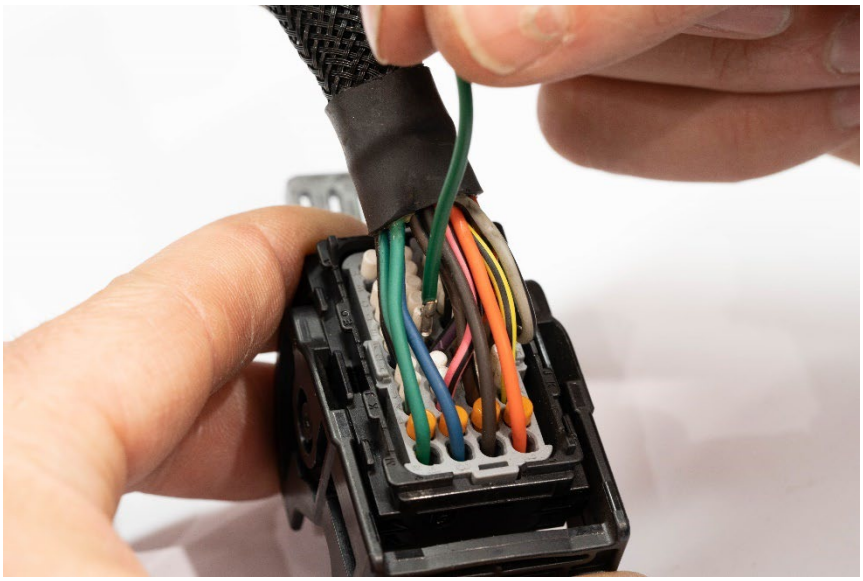
1 Locate the terminated **GREEN** wire on the DVVC loom.

Locate position F3 on the header connector.

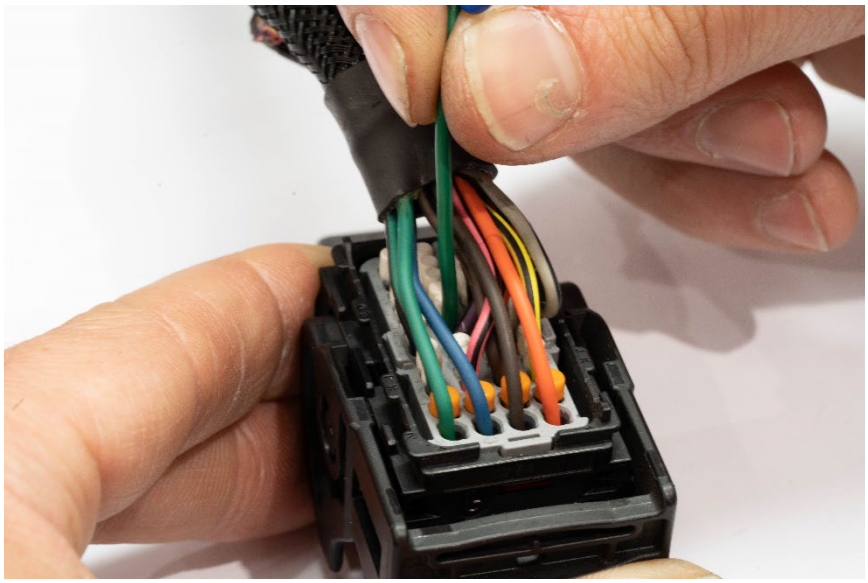


Align terminal tabs with the alignment grooves in the header connector.

Install the terminal into the header connector. Once the terminal reaches the bottom you should hear a click and it should lock onto the primary locking tab. **Do not allow the wire to rotate as the terminal is going in!!**



Gently pull up on the wire to ensure that the primary locking tab has engaged.

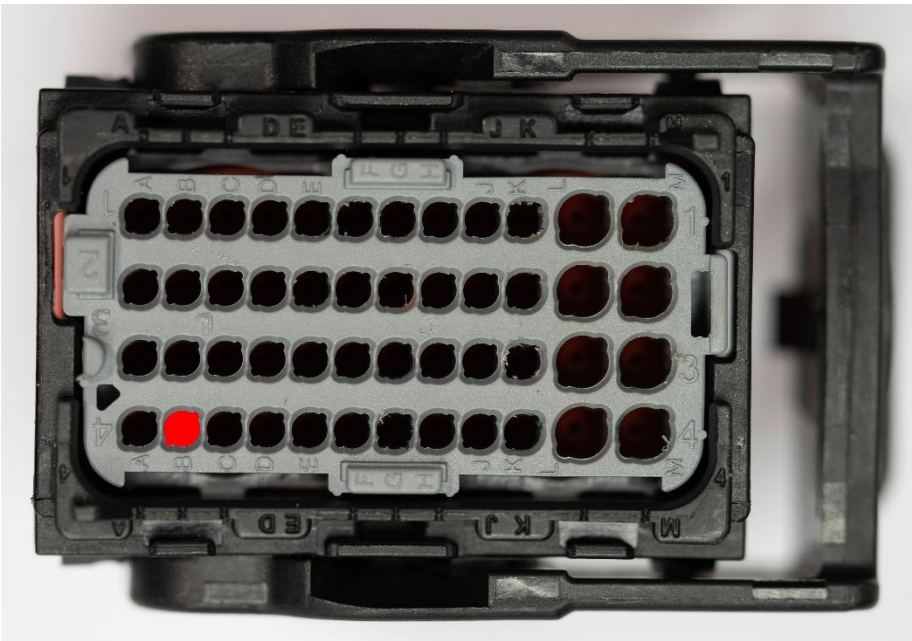


2

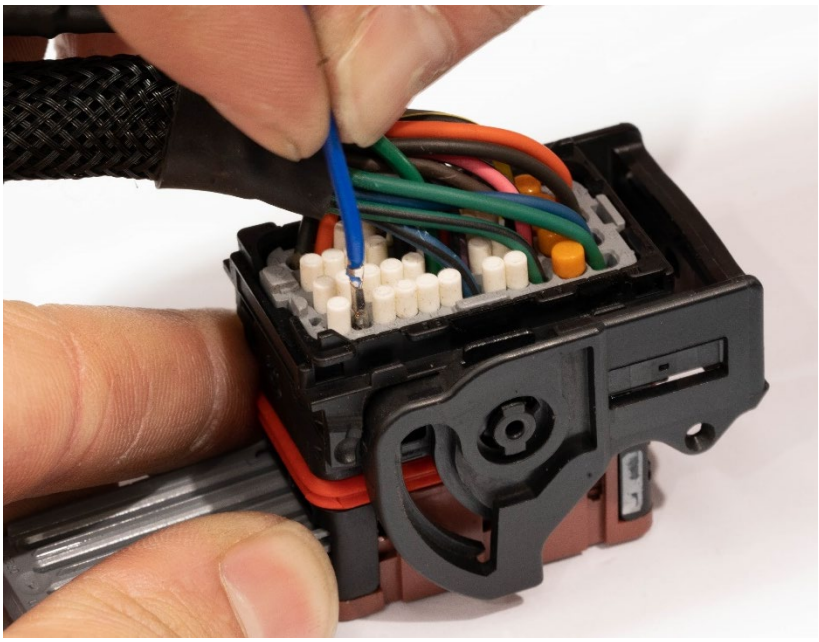
Locate the terminated **BLUE** wire on the DVVC loom.

Locate position B4 on the header connector.

Align terminal tabs with the alignment grooves in the header connector.



Install the terminal into the header connector. Once the terminal reaches the bottom you should hear a click and it should lock onto the primary locking tab.

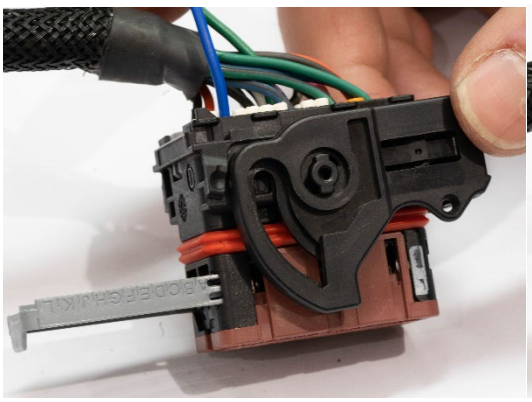


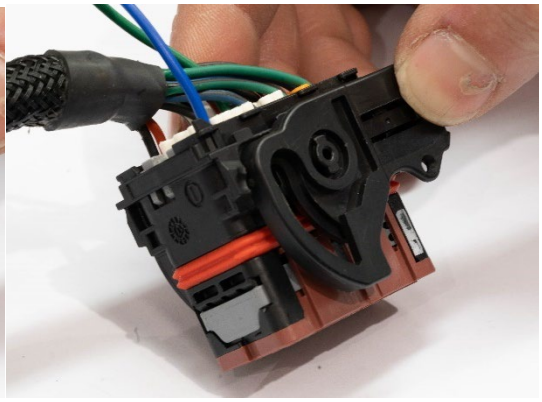
Do not allow the wire to rotate as the terminal is going in!!

Gently pull up on the wire to ensure that the primary locking tab has engaged.

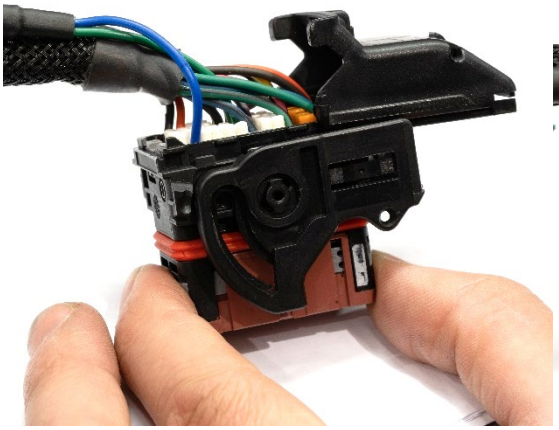
3 Slide the secondary locking tab back into the locked position.

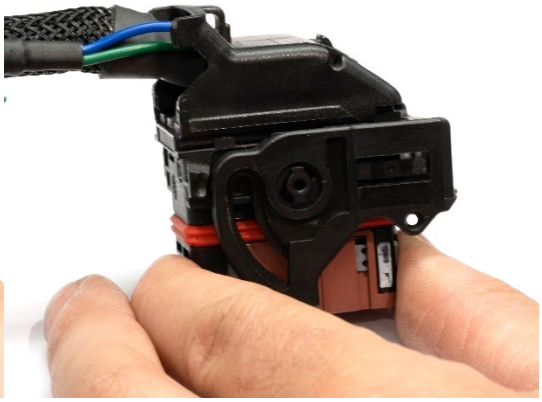
If the secondary locking tab doesn't slide all the way in it means that the terminal has rotated inside the header connector or not fully seated in the connector. **Contact Safari immediately for assistance. Damage will occur if terminal is removed.**





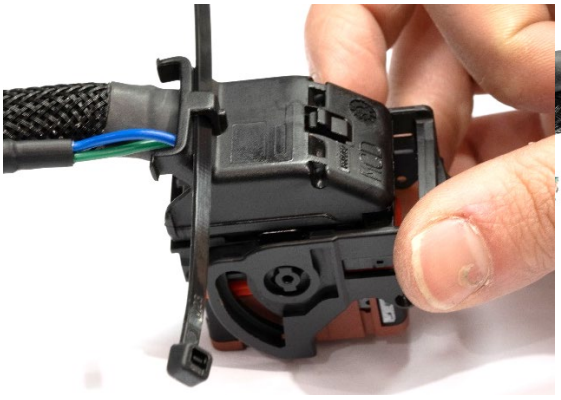
4 Install the wire cap onto the header connector.

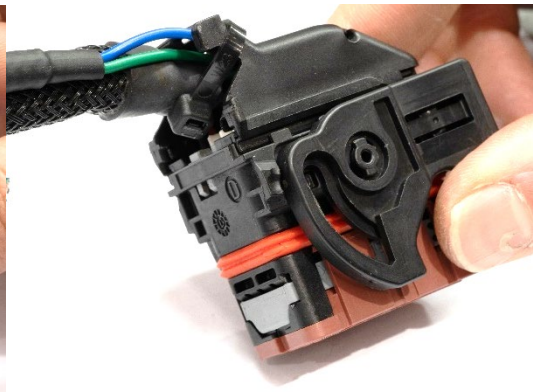




5 Secure the wiring harness to the header connector with the supplied cable tie.

Neatly trim off excess and ensure that the head of the cable tie is orientated as shown.

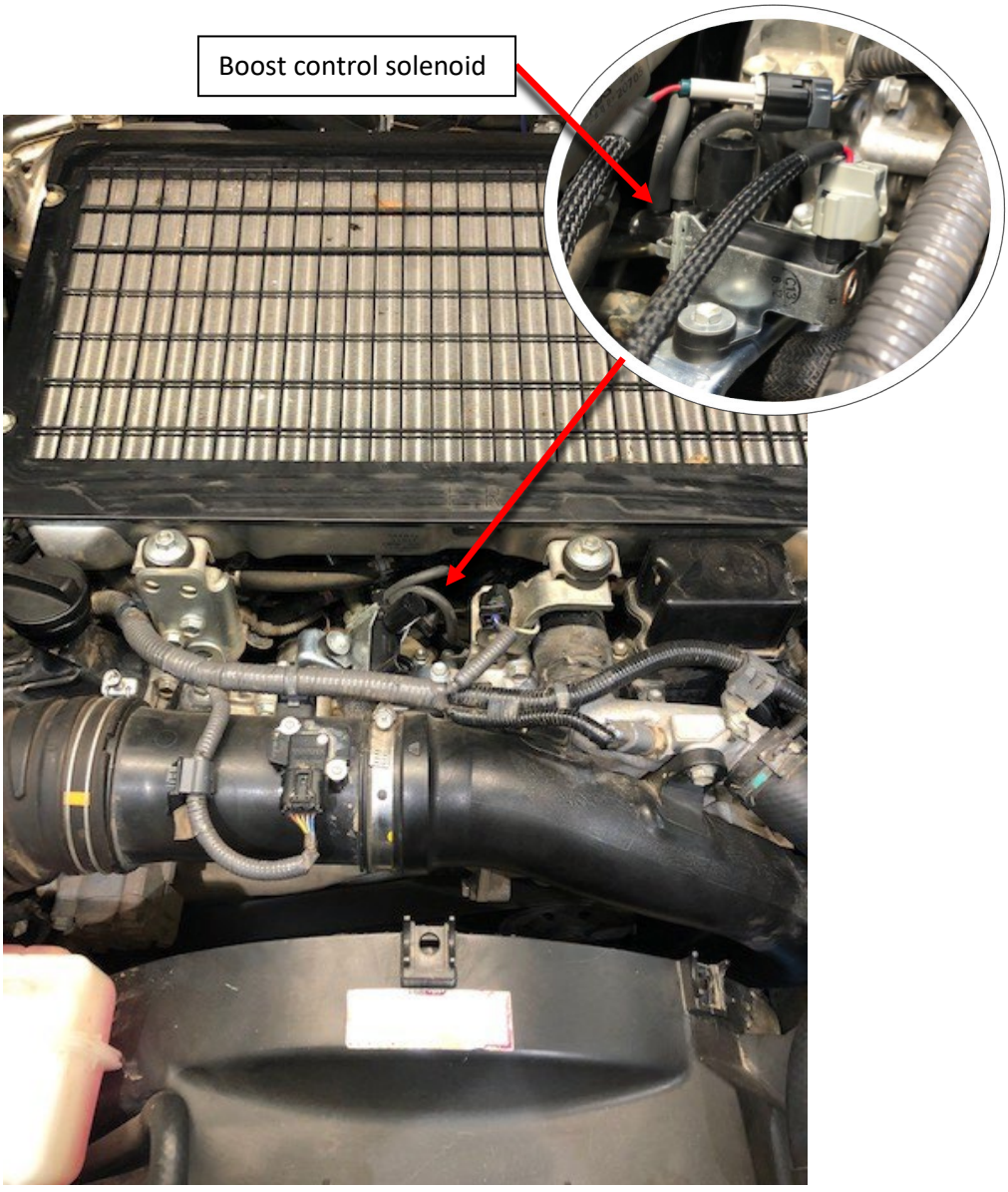




6 Reconnect the header connectors to the ECU.

7 Route the DVVC harness around to the boost control solenoid by following the Armax wiring harness and securing with supplied cable ties.

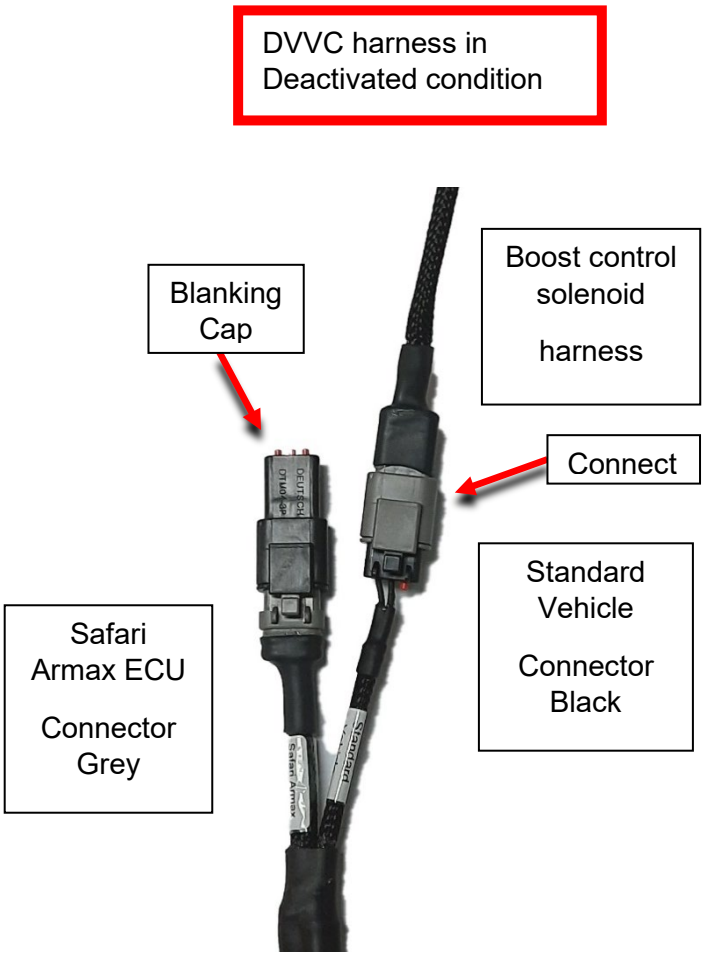
8 Connect the DVVC harness to the boost control solenoid.



9 Ensure that the Boost control solenoid harness is connected to the Standard vehicle harness connector as shown and plug the blanking cap into the Armax ECU harness connector as shown.

Caution!!!

Vehicle will trigger check engine light if step not followed correctly.



10

Reconnect the vehicle battery

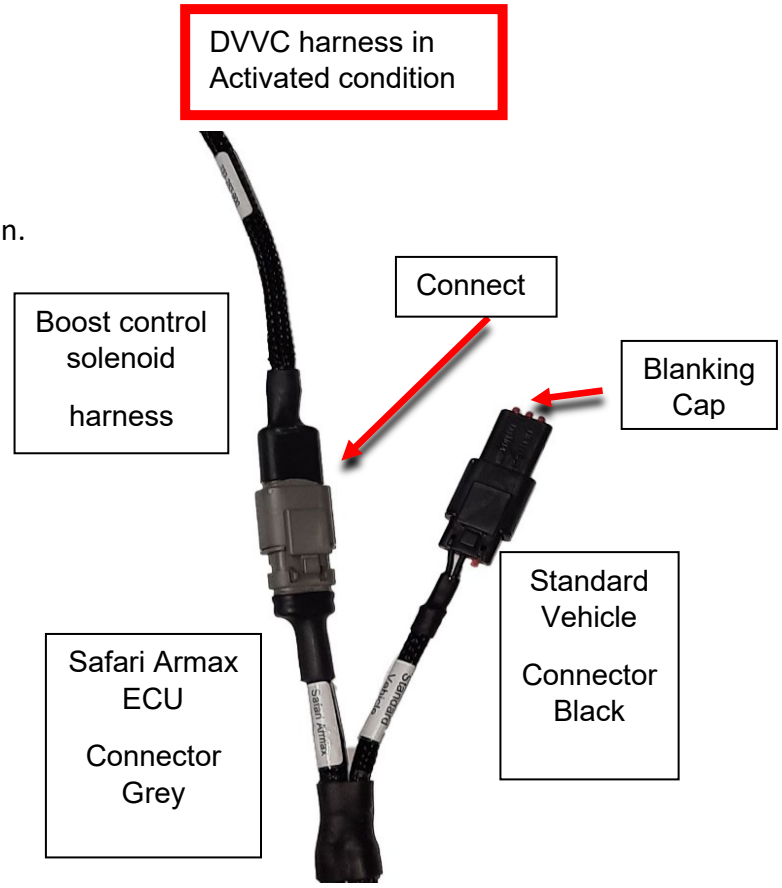
11

Contact Safari 4x4 engineering to get the correct tune file installed into the vehicle. DO NOT START/DRIVE THE VEHICLE UNTIL THE TUNE FILE HAS BEEN UPDATED!!

12 Once the new tune file has been loaded into the Armax ECU the DVVC System can be Activated as shown by:

1. Unplug the boost control solenoid harness from the Standard vehicle harness connector and plug it into the Safari Armax ECU harness connector as shown.

2. Unplug the blanking cap from the Safari Armax ECU harness connector and plug it into the Standard vehicle harness connector as shown.



13 Record a log file of the vehicle and E-Mail it to: Support @Safari4x4.com.au so the file can be checked and the approval given for the vehicle to be released to the customer.

14 Please read revised user manual for bridge out connector procedure and demonstrate the new procedure to the customer. Place the user manual into the glove compartment of the vehicle with the Bridge out connector.