I-19-02-B VCM REPLACEMENT AND PIN REPAIR

KIT CONTENTS (P/N 2208321)



REF	PART DESCRIPTION	PART NUMBER	QTY
1	Vehicle Control Module (VCM)	4016189	1
2	Heat Shrink Tube	2410766	1
3	VCM Connector Assembly	2415294	1

TOOLS REQUIRED

- 5 mm Allen Wrench
- 6 mm Allen Wrench
- In-lb Torque Wrench
- Small Flat Bladed Screwdriver
- Wire Stripper
- Electrical Tape

- Heat Gun
- Terminal Removal Tool PF-52576



I-19-02-B Vehicle Control Module (VCM) & Connector Replacement

VCM REMOVAL

1. Connect to motorcycle using Digital Wrench and record Master PIN and key fob number(s).

Key Fob Settings					
Keyfob Number	Current	New Value	Original		
Key Fob 1		0			
Key Fob 2		0			
Key Fob 3		0			
Key Fob 4		0			
Master PIN = N/A	Read Current	Write New			
No Communications Check Connections/Power and Try Again					

IMPORTANT

Make sure you accurately record BOTH the Master PIN and key fob number(s) before disconnecting the VCM.

 Using a 5 mm Allen Wrench, remove the fastener ③ securing the Vehicle Control Module (VCM) mounting plate to the top of the battery box.





3. Lift the VCM mounting plate enough to access the negative battery terminal.

4. Using a Phillips screwdriver, remove the negative battery cable fastener, and secure the ground cables away from the terminal.



- 5. Disconnect the three multi-plugs from the VCM.
- 6. Move the VCM forward to disengage the retaining posts that secure the front of the VCM to the battery box and remove. Return the VCM to Indian Motorcycle.

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REPLACING THE VCM CONNECTOR

1. Locate the two electrical tape pieces on the middle VCM connector. Peel and remove the electrical tape closest to the connector of the VCM harness as shown.



2. Raise the white terminal lock into service mode by inserting a small flat bladed screwdriver through the access windows in both sides of the outer connector body. Pry gently upwards to push up both sides of the white terminal lock.



3. The white terminal lock will come up 3.8 mm and stop due to retaining tabs on the sides. There may be an audible click noted.



IMPORTANT

Do not remove the white terminal lock from the outer connector body.

ACAUTION

If the white terminal lock is removed, the terminals can fall out of position. Avoid excessive movement of the harness/connector to ensure the terminals stay in their locations.

4. Using Terminal Removal Tool PF-52576 remove the Red Wire (Pin 11) from the connector block. Insert PF-52576 into the small, round release slot of the associated terminal(s) until it releases the terminal retainer. Gently pull the wire out of the connector.



5. Measure and cut approximately two inches from the end of the Red Wire (Pin 11). Discard the terminal end of the wire.



- 6. Using a Wire Stripper, remove approximately 1/2 inch of insulation from Red Wire (Pin 11) and the new terminal wire.
- 7. Install the solder tube onto the wires.
- 8. Using a Heat Gun, apply heat to the solder tube until the tube is properly secured around both ends of the wire as shown.



9. Insert the Terminal Removal Tool **PF-52576** into the small, round release slot of the associated terminal(s) until it releases the terminal retainer. Gently pull the wire out of the connector.



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10. Remove and replace the wires from the old connector block to the new one. Refer to the **CONNECTOR BLOCK PIN LAYOUT** image and table when replacing the wires. After replacing each wire, listen for an audible click and gently pull on the wire to make sure it is secure.

NOTICE

For best results, extract and replace pins from the connector block one at a time while transferring them to the new connector block. Leaving the Terminal Removal Tool **PF-52576** in the place of the pin you are replacing may also help to avoid confusion about what terminal the wire came out of.

IMPORTANT

The bottom end of the connector pin has a terminal retainer tab that allows the pin to clip into the terminal block.



This raised tab must ALWAYS face the outside of the terminal block when installing the wire into the new terminal block.



NOTICE

The white terminal lock must stay up at the service position for all wire replacement. If you are having problems with the wires not coming out of the terminal block, double check that the terminal lock is in the service position.

STOP!

Once all of the pins have been transferred to the new connector block, place a white piece of paper between the electrical wires as shown. Take a picture of both sides of the connector and wires and submit the photos to the ASK Polaris case.



- 11. Press down on the white terminal lock to release it from service mode.
- 12. Cut a 3 inch strip of electrical tape and wrap around the harness wires as shown.



CONNECTOR BLOCK PIN LAYOUT



Viewed from the back-side of the connector where the wires enter the connector.

PIN	COLOR WIRE
1	YELLOW
٢	GREEN
3	PINK
4	GREY
5	RED
6	GREY/BLUE
(\bar{J})	GREEN
8	ORANGE/WHITE
9	RED/WHITE
10	NA
11	RED
12	GREEN/RED
(13)	GREEN
14)	BROWN
(15)	NA
16	NA
17	BLACK
18	NA
(19)	NA
20	RED

VCM INSTALLATION

- 1. Connect the three connectors to the NEW VCM. Listen for an audible click.
- 2. Connect the negative battery cable and torque fastener to specification.



TORQUE Battery Terminal Fastener: 40 in-1bs (5 N·m)

3. Engage the VCM bracket posts fully into the battery box slots.



ACAUTION

Do not allow the VCM to contact the positive (B+) terminal or damage to the VCM will result.

4. Install the fastener ③ securing the Vehicle Control Module (VCM) mounting plate to the top of the battery box. Torque fastener to specification.





5. Connect to motorcycle using Digital Wrench and **rewrite the** key fob number(s) previously recorded.



IMPORTANT

Make sure Digital Wrench at the most current version

- 6. Chose the "key fob maintenance" screen and power the motorcycle off and then back on. If the fob was programmed properly, the MASTER PIN should now show when opening "key fob maintenance" again.
- 7. Perform the Vehicle Controller update.

NOTICE

If a customer had previously entered a personal security system pin, it will need to be programmed at this point. Please see **Team Tip I-13-09-01** for instructions.

- 8. Test ride the motorcycle to ensure proper operation.
- 9. File a claim for I-19-02-B