

December 2, 2022

Version 1

Product Update: 2021 Accord CVT Replacement

AFFECTED VEHICLES

Year	Model	Trim	VIN Range
2021	Accord	Sport Only	Check the iN VIN status for eligibility.

BACKGROUND

Due to an improper heat treatment during the manufacturing process, the driven pulley in the CVT was not properly hardened. Over time, this may lead to abnormal wear to the driven pulley or damage to the CVT belt which may cause the vehicle to experience a slip accompanied by an abnormal noise and multiple warning lights. Some vehicles may not move forward after coming to a stop.

CUSTOMER NOTIFICATION

Owners of affected vehicles will be sent a notification of this campaign.

Do an iN VIN status inquiry to make sure the vehicle is shown as eligible.

Some vehicles affected by this campaign may be in your new or used vehicle inventory. Repair these vehicles before they are sold.

CORRECTIVE ACTION

Replace the transmission if VIN is affected/included.

CUSTOMER INFORMATION:The information in this bulletin is intended for use only by skilled technicians who have the proper tools, equipment, and training to correctly and safely maintain your vehicle. These procedures should not be attempted by "do-it-yourselfers," and you should not assume this bulletin applies to your vehicle, or that your vehicle has the condition described. To determine whether this information applies, contact an authorized Honda automobile dealer.

PARTS INFORMATION

Part Name	Part Number	Quantity
ATR Kit	06200-6A7-A11RM	1
Drain Plug Washer (18mm)	90471-PX4-000	1
Gasket (10mm)	90471-59C-000	1
Exhaust Pipe Gasket	18302-SP0-003	2
Self-Lock Nut (10mm)	90212-SA5-003	6
Washer Bolt (12x45mm)	90163-TVA-A02	2
Washer Bolt (12x105mm)	90166-TVA-A02	1
Flange Bolt (12x50mm)	90167-TBA-A00	2
Flange Nut	90371-TBA-A00	1
Washer Bolt (12x35mm)	90162-TVA-A02	1
Washer Bolt (12x50mm)	90164-TVA-A02	2
Split Pin (3.0x22mm)	94201-30220	2
Flange Nut (10mm)	90002-S10-000	2
Self Lock Nut (10mm)	90212-SA5-003	2
Flange Bolt (14x35mm)	90181-TBA-A00	2
Flange Bolt (14x90mm)	90179-SDA-A00	4
Flange Bolt (14x45mm)	90163-TBA-A00	2
Self-Lock Nut (12mm)	90370-SJA-000	6
Set-Ring (28x2.0mm)	44319-SE0-000	2

- To order a replacement transmission fill out AT/CVT Order form under Reman Parts/Special Orders section on the iN.
- If you have not contacted Tech Line then use the last 7 digits of the VIN for the Tech Line Reference number.
- If the 11th character of the VIN has a letter instead of a number, replace it with a zero.
- Select Tech Line Agent Name –Tech Line.

Last seven characters of the VIN.

Enter last seven characters of the VIN to Tech Line Reference Number. If the first character is a "letter", replace it with a "0".

Tech Line Image Upload

DPTS ID:

Tech Line Reference No. **0018128**

Tech Line Agent Name: << SELECT >>

Vehicle Information

VIN: **1HGCR3F33A018128** Model: << SELECT >> Model Year: << SELECT >>

Mileage:

Comments:

Image Upload

Images Uploaded: 0 [Image Upload](#) [View Image](#)

For video or large photo files, email them to techline@ahm.honda.com. A Tech line reference number or VIN and dealer number MUST be included in the subject line when sending files to Tech Line.

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- Fill out the AT/CVT Order form under Reman Parts/Special Orders section on the iN.

CVT Order

Dealer Information

Dealer Number: WAND01

DPTS ID/Name: << SELECT >> Repair Order Date:

Telephone No.: Ext. Approved by Parts Manager: Yes No

Vehicle Information

VIN: 1HGCV1F68MA003017 Model: ACCORD 1.5 Model Year: 2021

Mileage: 5000 Repair Order Number:

Is the vehicle drivable?: Yes No Transmission Number:

Warranty/Goodwill Information

Warranty Status: IN WARRANTY Warranty Type: WAR Customer Pay

First Use Date: 11/28/2020 Goodwill VSC Authorization:

Customer Information

Customer Name:

Customer Contact No.:

Customer's Complaint:

Problem Description

Engagement Problems	Noise/Vibration Problems
Does the transmission have an engagement problem? <input type="radio"/> Yes <input type="radio"/> No	Does the transmission have a noise or vibration problem? <input type="radio"/> Yes <input type="radio"/> No
Delayed engagement into D or R? <input type="radio"/> Yes <input type="radio"/> No	Grinding noise? <input type="radio"/> Yes <input type="radio"/> No
Shudder or judder while driving? <input type="radio"/> Yes <input type="radio"/> No	Whine noise? <input type="radio"/> Yes <input type="radio"/> No
Slips in forward gear? <input type="radio"/> Yes <input type="radio"/> No	Converter lock-up noise? <input type="radio"/> Yes <input type="radio"/> No
Slips in reverse gear? <input type="radio"/> Yes <input type="radio"/> No	Vibration while driving? <input type="radio"/> Yes <input type="radio"/> No
Harsh engagement or clunk into D or R? <input type="radio"/> Yes <input type="radio"/> No	Vibration at idle? <input type="radio"/> Yes <input type="radio"/> No
Does engine stall in D or R? <input type="radio"/> Yes <input type="radio"/> No	Other noise? <input type="text"/>

Fluid Leak Problems

Does the transmission have a fluid leak? Yes No

Did leak recur after cleaning? Yes No

Is leak at a seal? Yes No

Is leak at a gasket? Yes No

Is leak at an O-Ring? Yes No

Is leak through case? Yes No

Leak rate? Wet Drip Stream

Diagnose

Is the malfunction indicator light (MIL) on? Yes No

Does the D light flash? Yes No

Is a transmission DTC stored? (record freeze data) Yes No

If yes, what is the OBDII DTC?

After clearing the DTC, does the same DTC recur? Yes No

Transmission temperature when the problem occurs? Cold Normal Hot

Has the transmission had any previous repairs (solenoids, ECM/PCM, etc.)? Yes No

If yes, repair description?

Does problem occur while? Driving Parked

Does the problem occur while? Accel. Decel. Cruise

Shift lever position when problem occurs? P R N D S L

Vehicle speed when the problem occurs? MPH

Engine RPM when the problem occurs? RPM

Throttle position when the problem occurs? Idle 1/4 1/2 3/4 Full

Strain the fluid through a paint strainer, is the fluid contaminated? Yes No

Describe the fluid color: Normal Dark Vary Dark

Does the faster hitch receiver (inside) look like the vehicle is used for towing? Yes No

[Hours of Operation](#)

- Once the CVT order has been received, your order will be reviewed by RPO. Additional requests and images may be required by RPO before release of the CVT.

REQUIRED MATERIALS

Part Name	Part Number	Quantity
Super High Temp Urea Grease (Fixes 10 Vehicles)	08798-9002	1
HCF-2 (1 US QT)	08200-9006	8
Molykote M77 (Fixes 10 Vehicles)	08798-9010	1

TOOLS INFORMATION

Enter a short description of your concept here (optional).

Part Name	Part Number	Quantity
Universal Lifting Eyelet	07AAK-SNAA120	1
A and Reds Engine Support Hanger	AAR-T1256	1
Subframe Adapter	VSB02C000016	1
Ball Joint Remover	07MAC-SL00202	1
Ball Joint Thread Protector	AB07AAE-SJAA100	1
Subframe Alignment Pin	070AG-SJAA10S	1

WARRANTY CLAIM INFORMATION

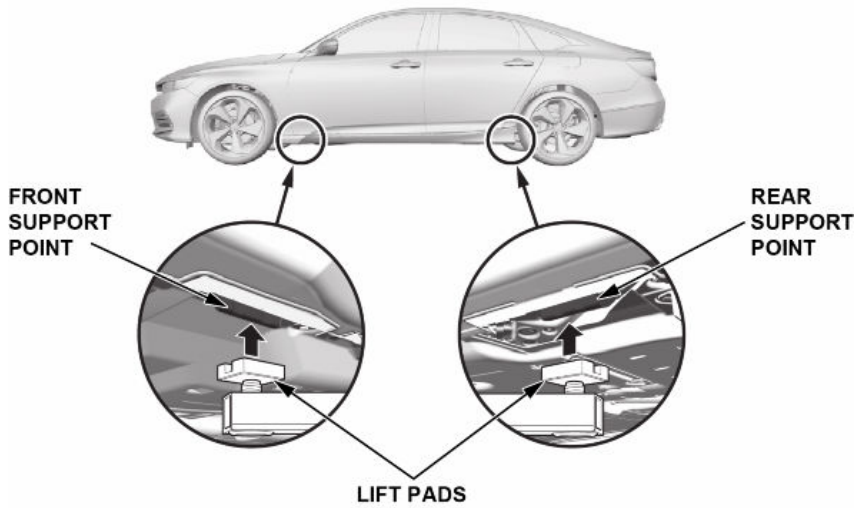
Operation Number	Description	Flat Rate Time	Defect Code	Symptom Code	Template ID	Failed Part Number
2181DB	Replace the transmission (includes alignment).	6.2 hr	6VP00	FCO00	A22052A	20031-6A7-A10

REPAIR PROCEDURE

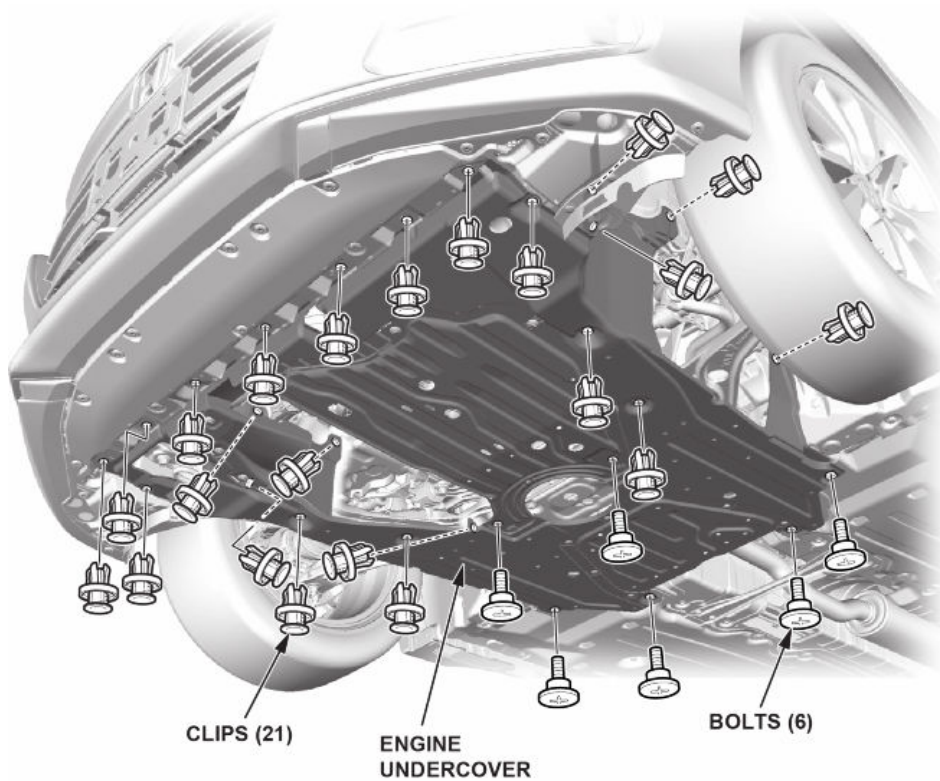
1. Put the vehicle on a lift.

NOTE: Be sure the lift pads are properly placed to avoid damaging the vehicle.

- Position the lift pads under the vehicle's front support points and rear support points.
- Raise the lift a few inches, and rock the vehicle gently to be sure it is firmly supported.
- Raise the lift to its full height, and inspect the vehicle support points for solid contact with the lift pads.

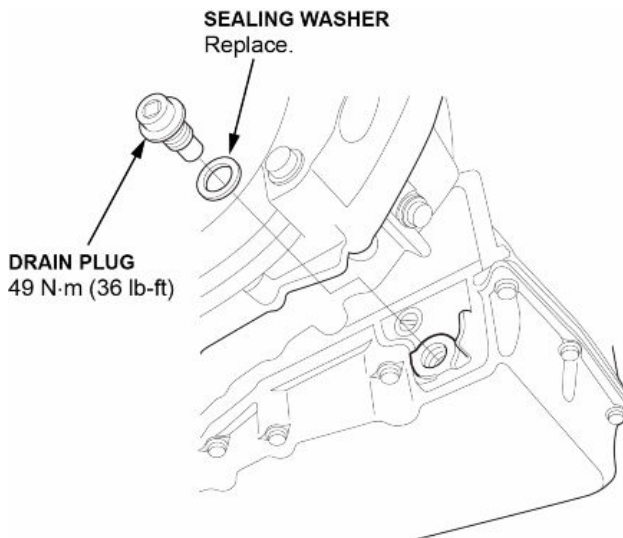


2. Remove the engine undercover.



3. Drain the transmission fluid.

- Remove the drain plug with the sealing washer and drain the transmission fluid for at least 5 minutes.
NOTE: Remove metal particles from the magnetic surface of the drain plug.
- Reinstall the drain plug with a new sealing washer.

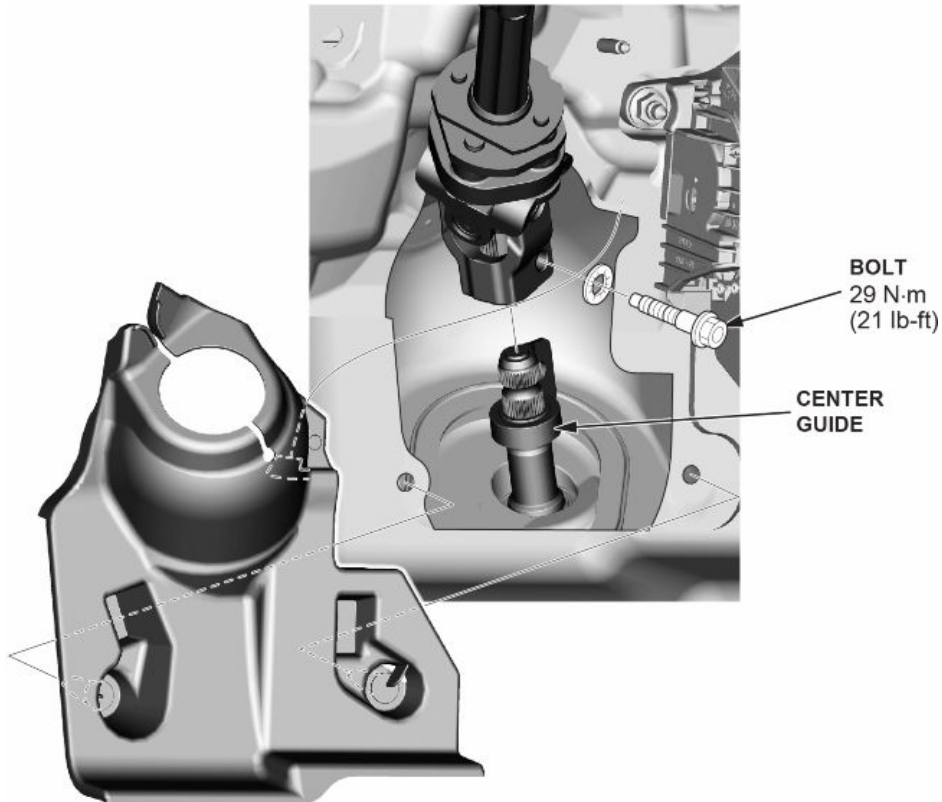


4. Lower the vehicle.

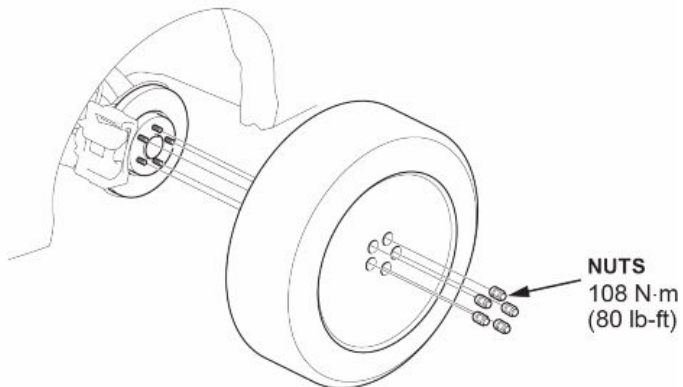
5. Disconnect the steering joint.

NOTE:

- Hold the steering wheel with the steering wheel holder tool.
- Set the steering wheel to the straight-ahead position, before disconnecting the shaft.
- Do not turn a steering wheel while disconnecting a steering joint.
- If the center guide is in place and has not moved, leave it in place.
- If the center guide has come off, discard it.
- Be careful not to pull out the lower side from the steering shaft during working.



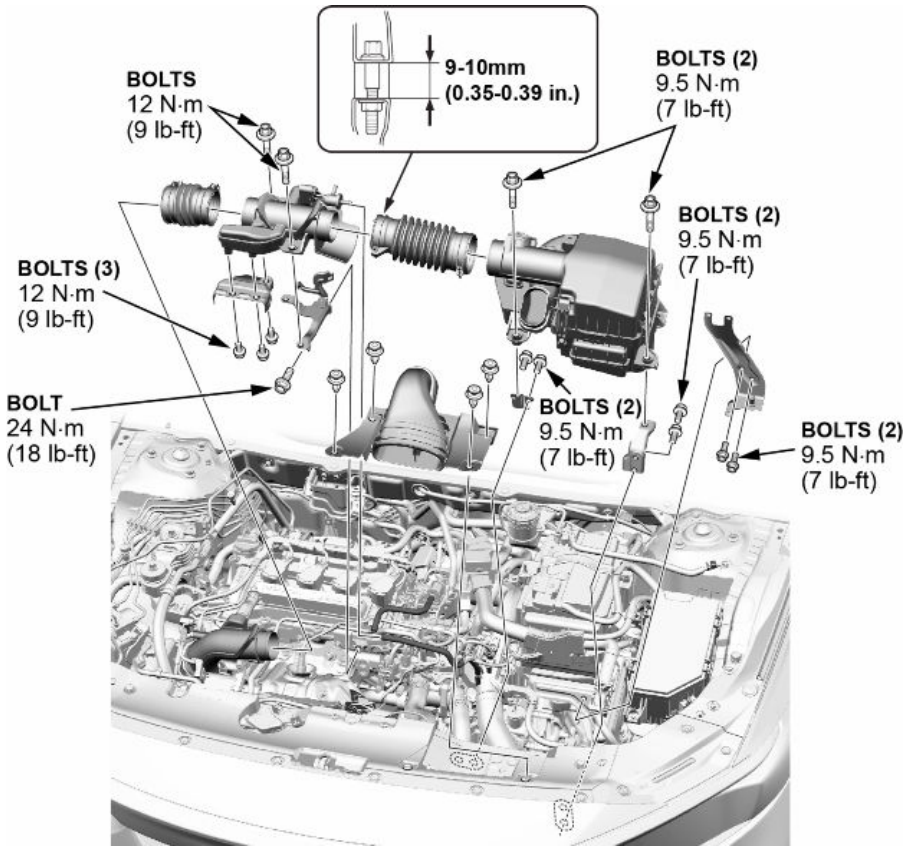
6. Remove both front wheels.



7. Remove the air cleaner.

NOTE:

Remove the necessary part(s).



8. Remove the 12 volt battery.

- Disconnect and isolate the cable with the 12 volt battery sensor from the 12 volt battery.

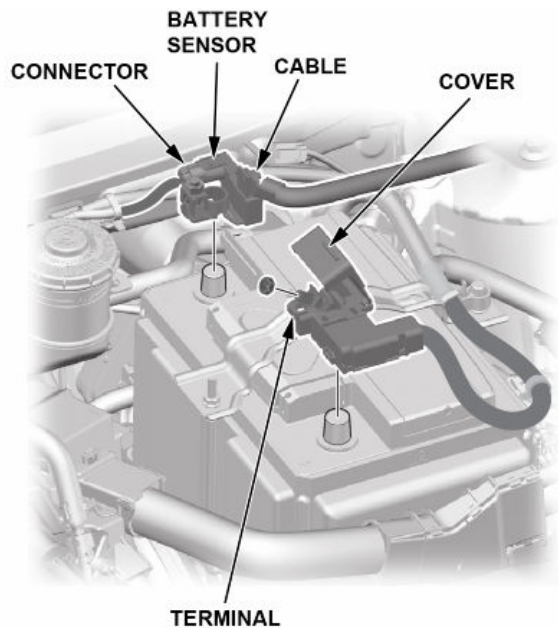
NOTE:

- Make sure to the vehicle is in the OFF (LOCK) mode.
- Always disconnect the negative side first.
- To protect the connector from damage, do not hold it when removing the terminal.
- Do not disconnect the 12-volt battery sensor from the cable.

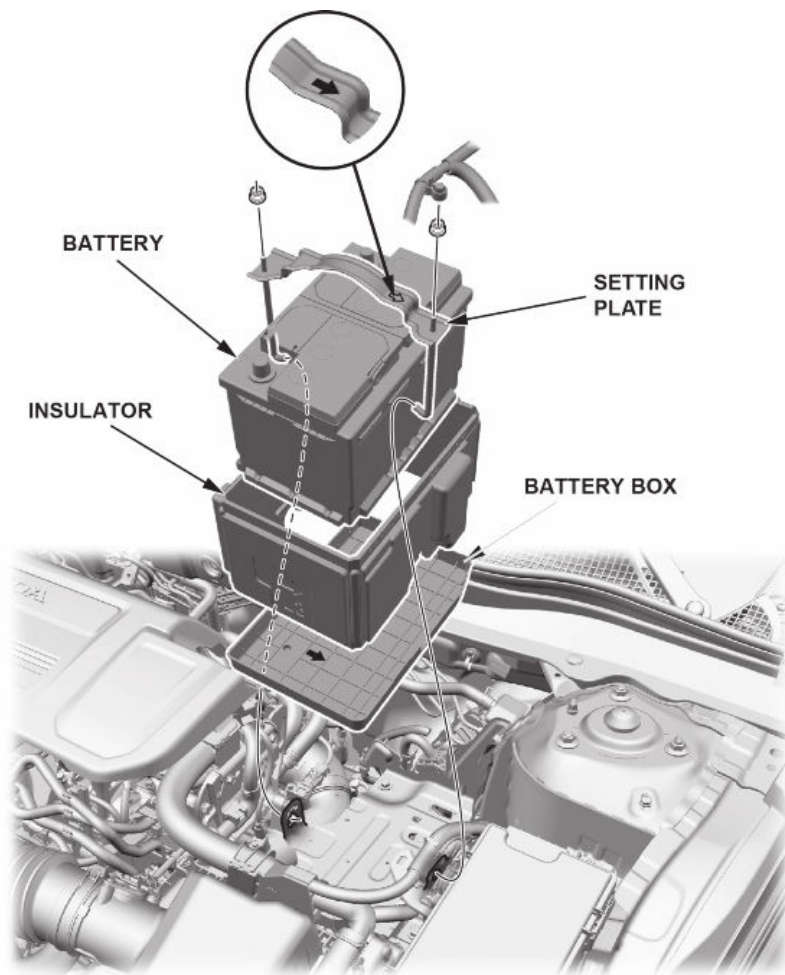
- Open the cover.

NOTE: If necessary, remove the cover.

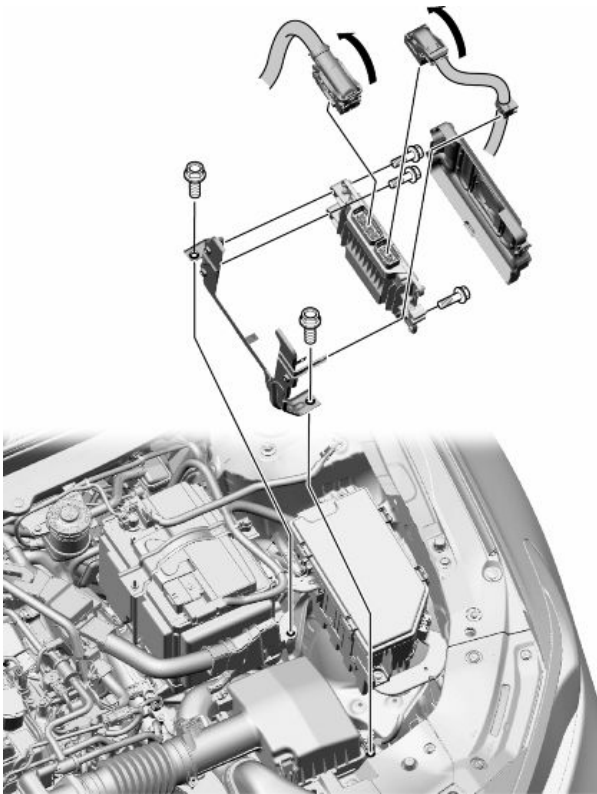
- Disconnect the terminal from the 12-volt battery.



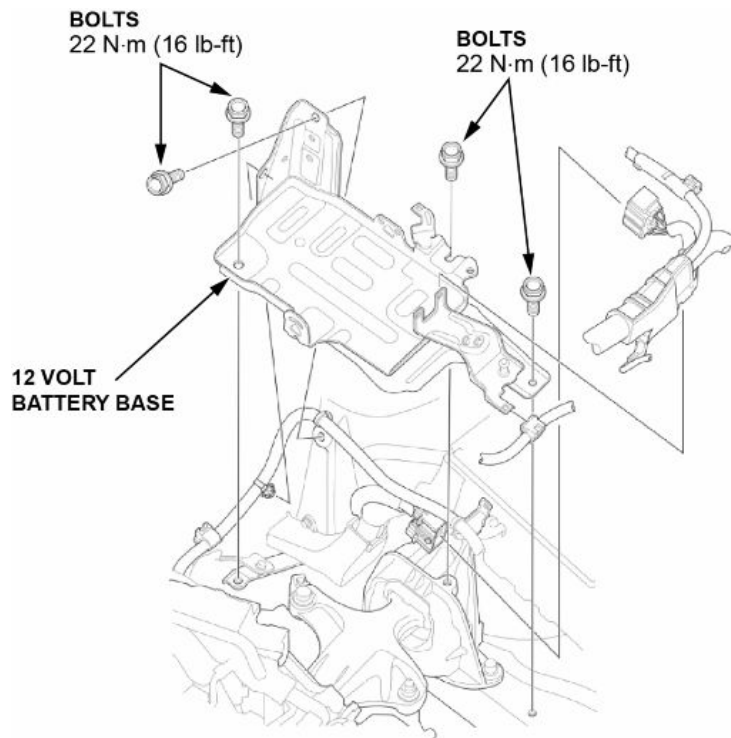
- Remove the Setting Plate, Insulator, Battery, and battery box.



9. Remove the PCM and the PCM bracket.



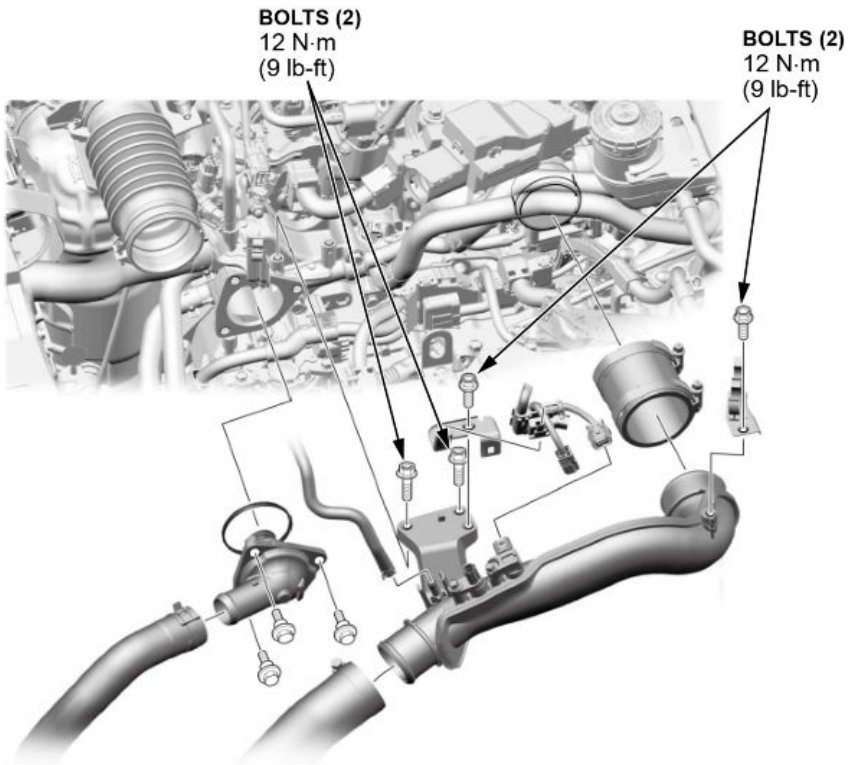
10. Remove the 12 volt battery base.



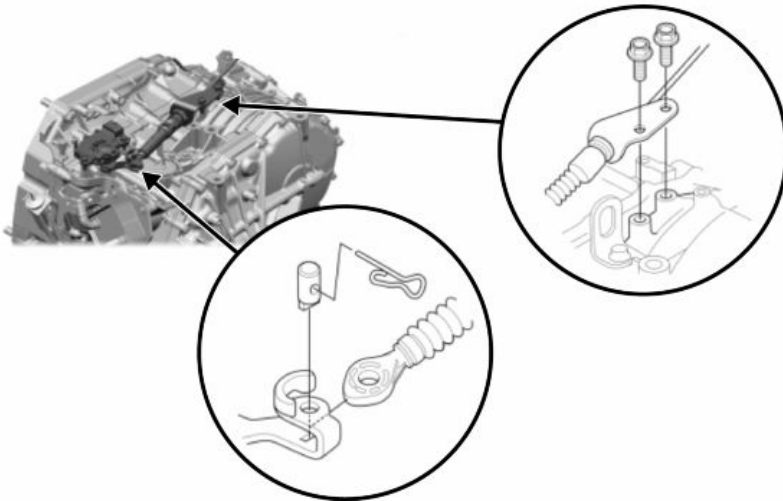
11. Remove the intercooler pipe B.

NOTE:

Only remove the necessary part(s).

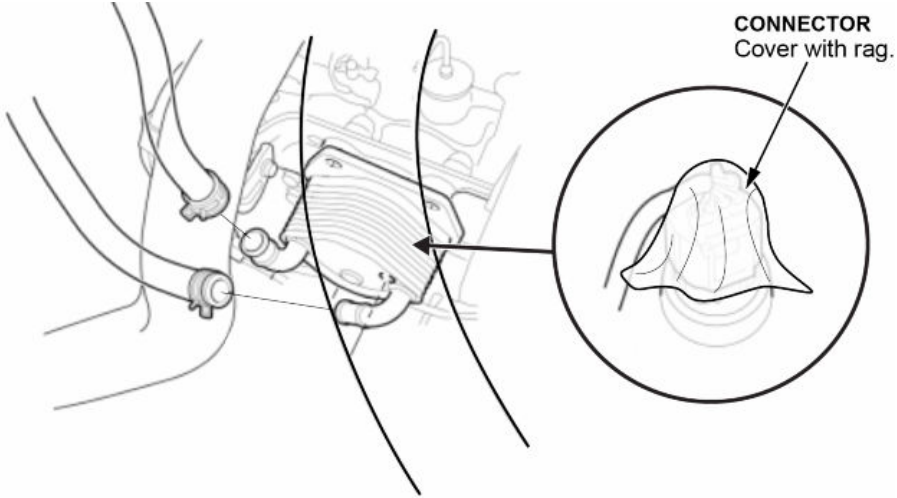


12. Remove the shift cable (transmission side).

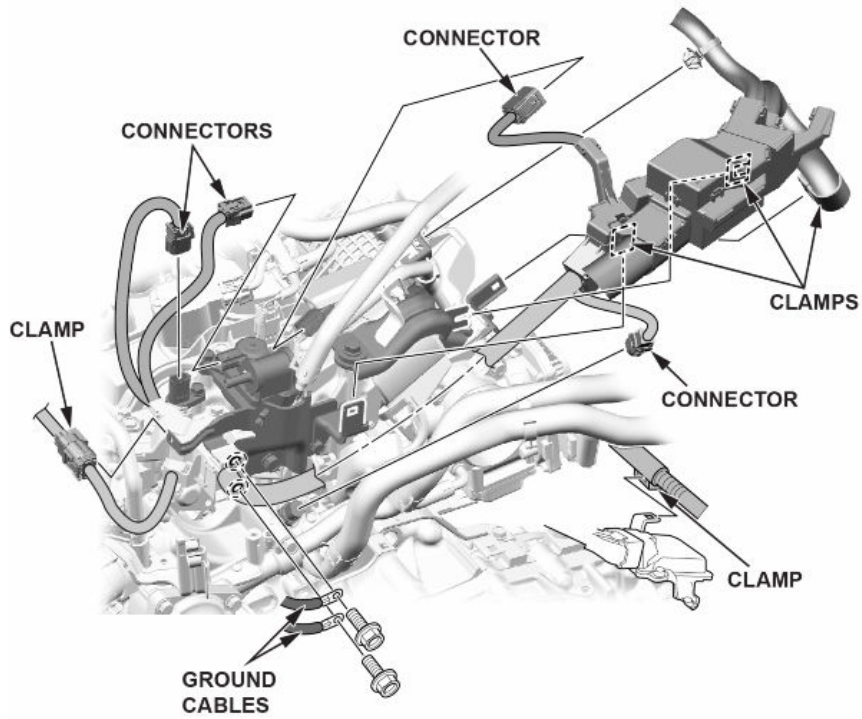


13. Remove the CVTF hoses.

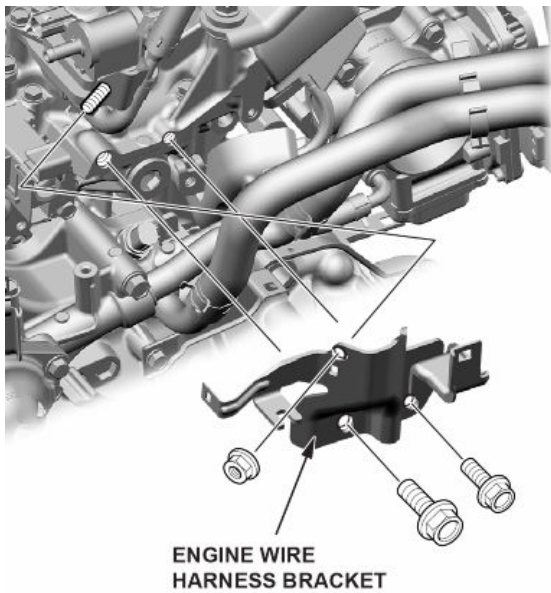
- Pinch/Clamp CVTF Warmer hoses and remove them from the CVTF Warmer.



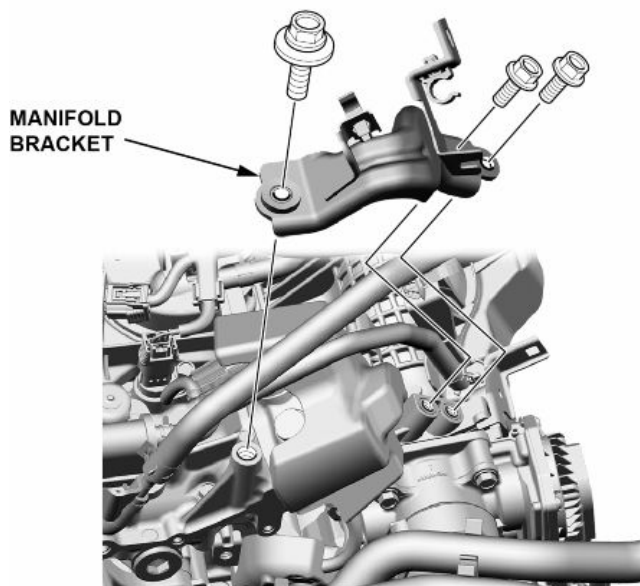
14. Move the engine wire harness.
- Disconnect the connectors.



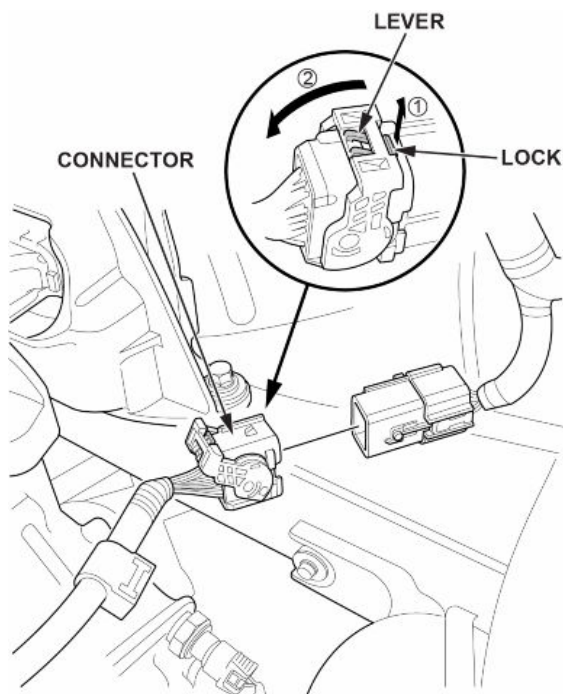
- Remove the ground cables and the harness clamps.
- Remove the engine wire harness bracket.



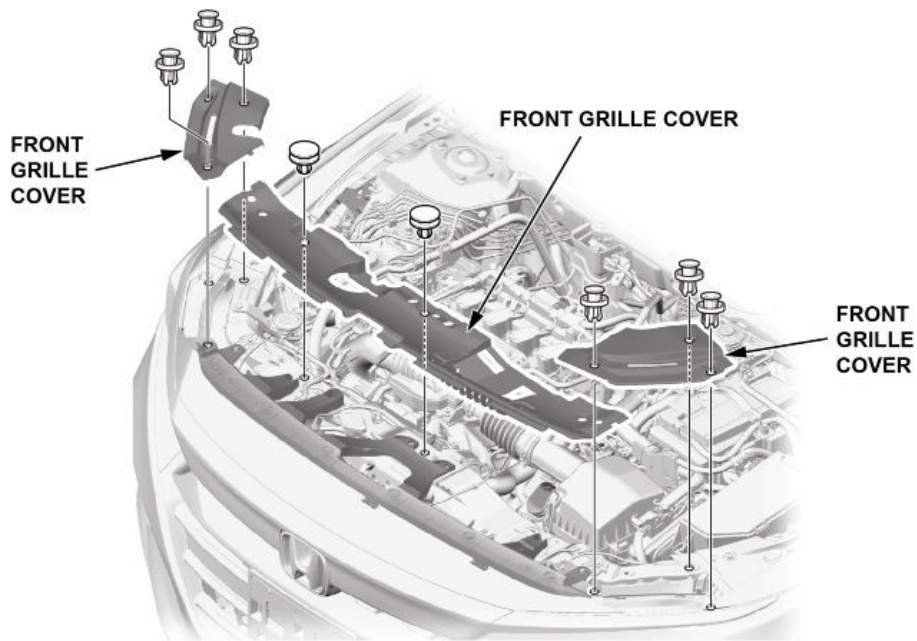
- Remove the Intake Manifold bracket.



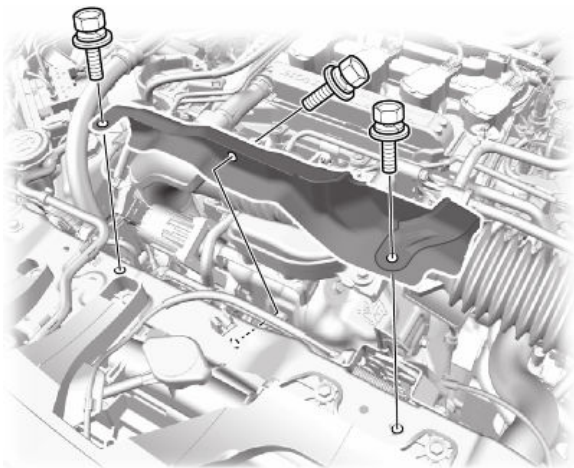
- Swing the Engine Wire harness out of the way.
15. Disconnect the TCM harness connector.
- Disconnect the connector by pulling the lock and the lever up in the numbered sequence shown.



16. Remove the front grille cover.



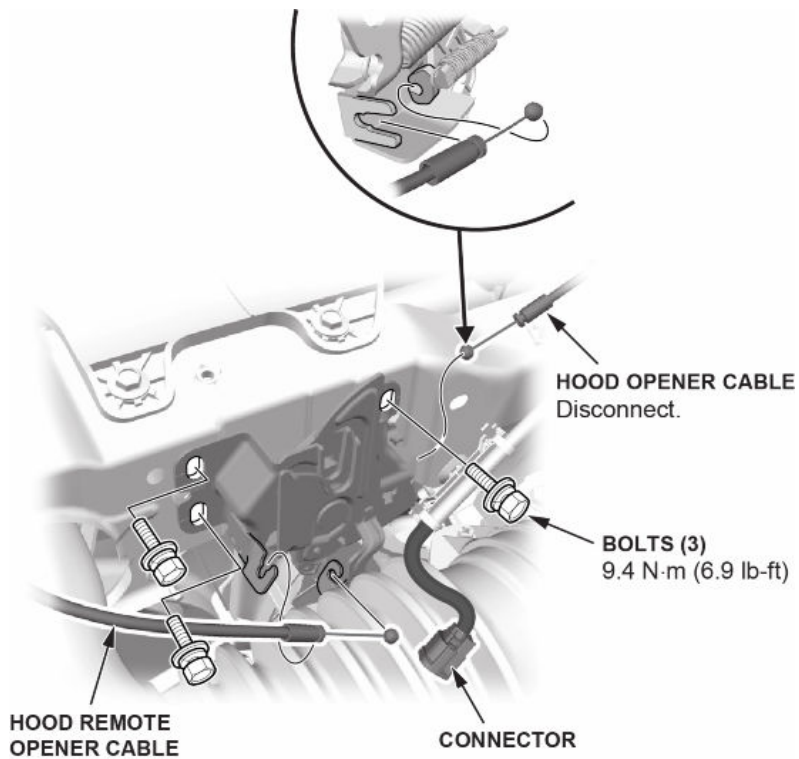
17. Remove the hood latch heat shield.



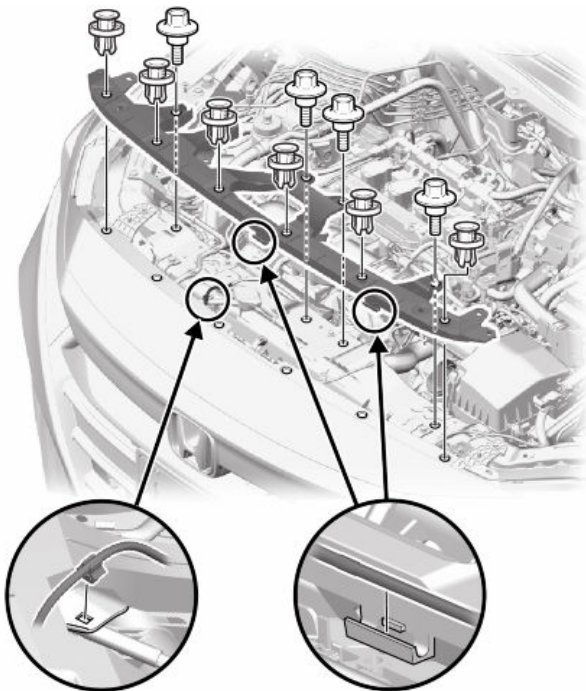
18. Move the coolant reservoir hose and clamp.

19. Remove the front bumper center upper beam.

- Disconnect the connector, then disconnect hood opener cable and the hood remote opener cable.



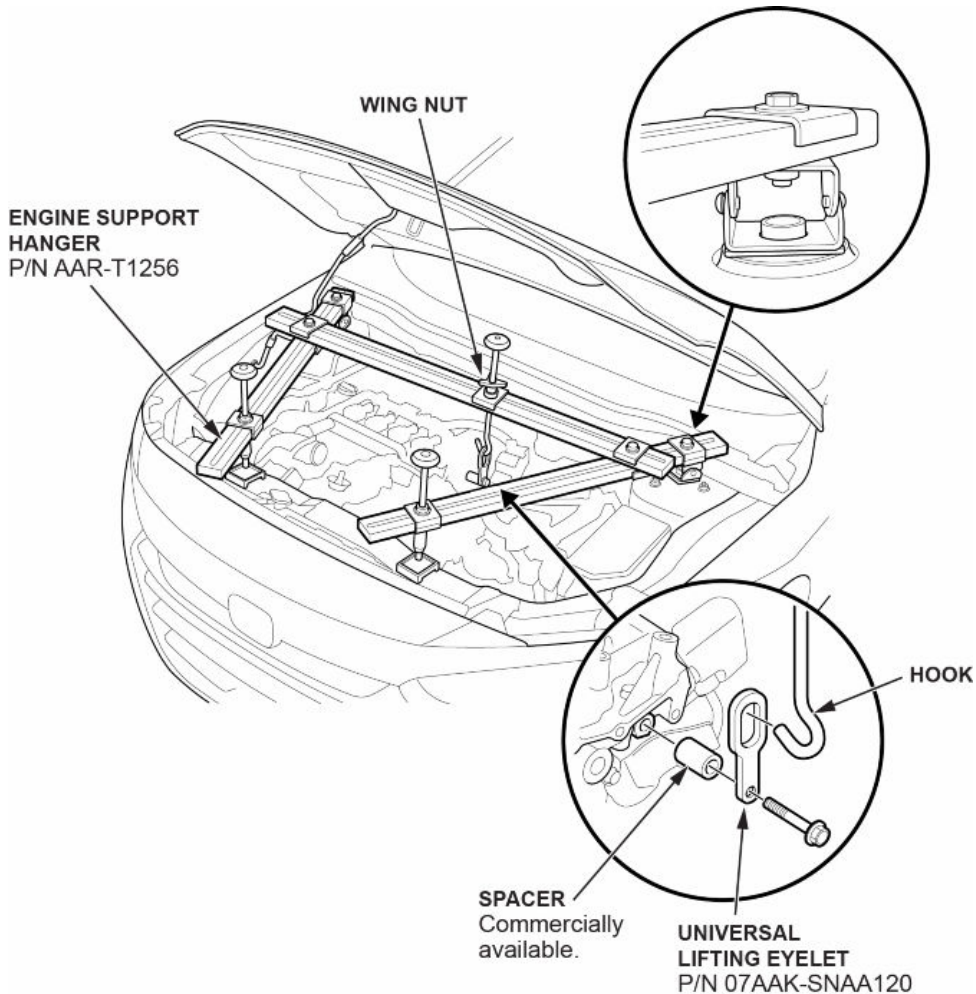
- Remove the Front Bumper Center Upper Beam.



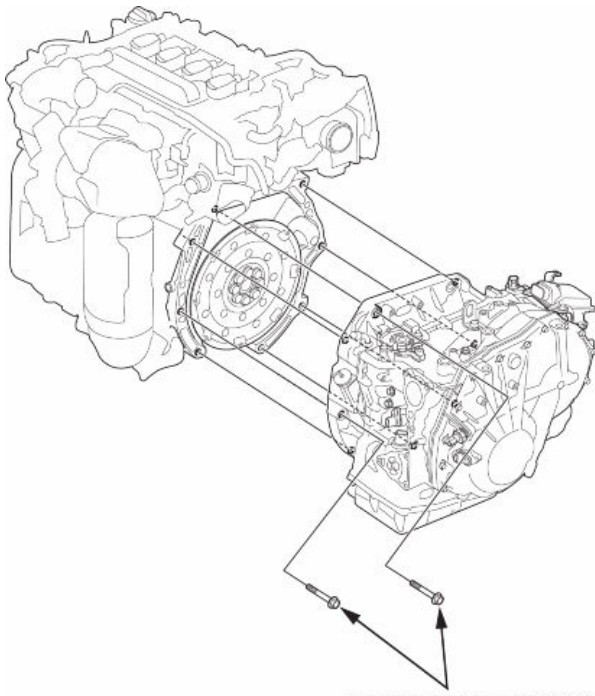
20. Install the engine support hanger.

NOTE: Be careful not to damage the hood opener cable when installing the engine support hanger at the front bulkhead.

- Remove the Front Damper caps.
- Install the universal lifting eyelet with an about 35.5 mm (1.398 in) commercially available spacer.
- Install the engine support hanger onto the vehicle as shown.
- Attach the hook to the slotted hole in the universal lifting eyelet.
- Tighten the wing nut by hand and lift and support the engine/transmission.



21. Remove the upper transmission assembly mounting bolts.

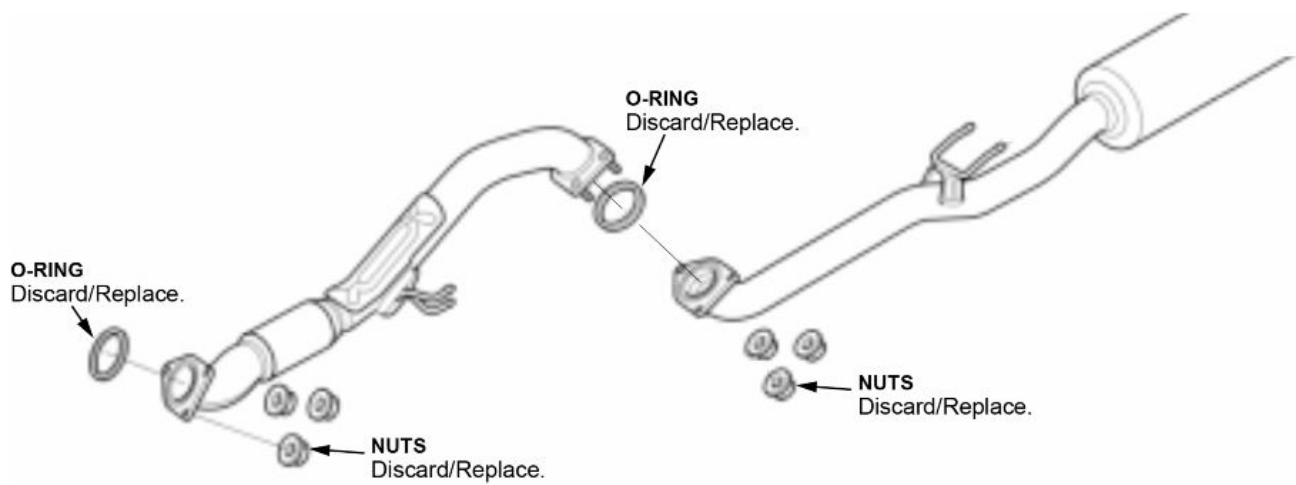


**UPPER TRANSMISSION
ASSEMBLY MOUNTING BOLTS**
64 N·m (47 lb-ft)

22. Remove the transmission mount bracket mounting bolt/nut (transmission side).

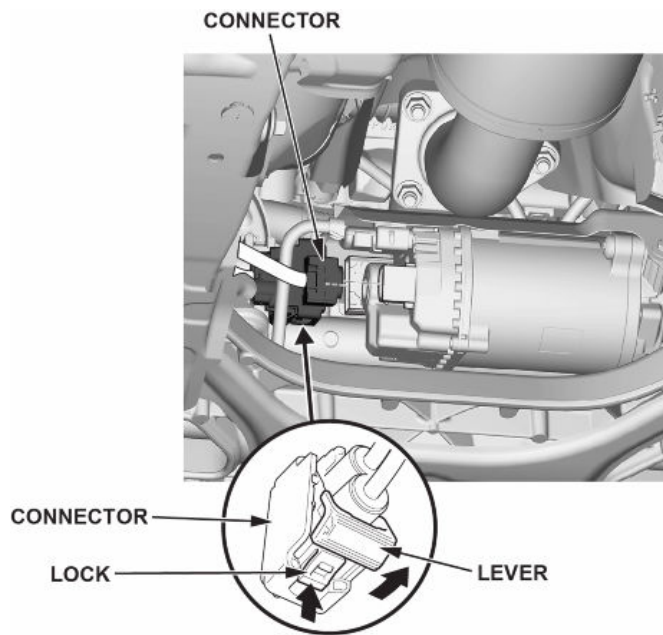
23. Lift the vehicle up.

24. Remove exhaust pipe A.



25. Disconnect the connector (EPS).

- Disconnect the connector by pushing the lock and the lever up in the numbered sequence shown.
- Disconnect the connector.

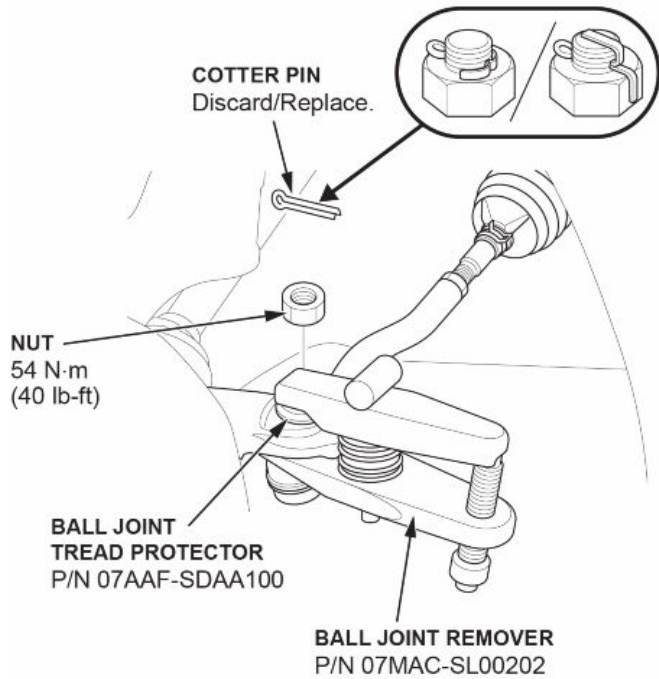


26. Disconnect tie-rod end ball joints (both sides).

- Remove the cotter pin.
- Remove the nut.
- Disconnect the tie-rod end ball joint from the knuckle using the ball joint tread protector and the ball joint remover.

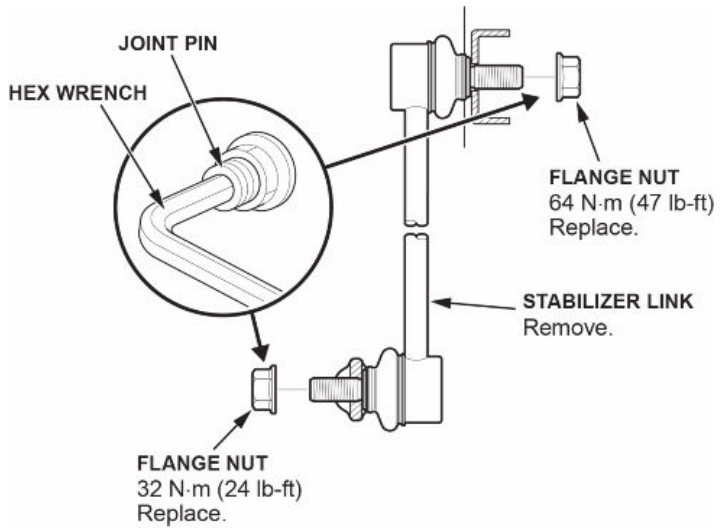
NOTE:

- Be careful not to damage the ball joint boot when installing the ball joint remover.
- During installation, install the new cotter pin after tightening the nut, and bend its end as shown.

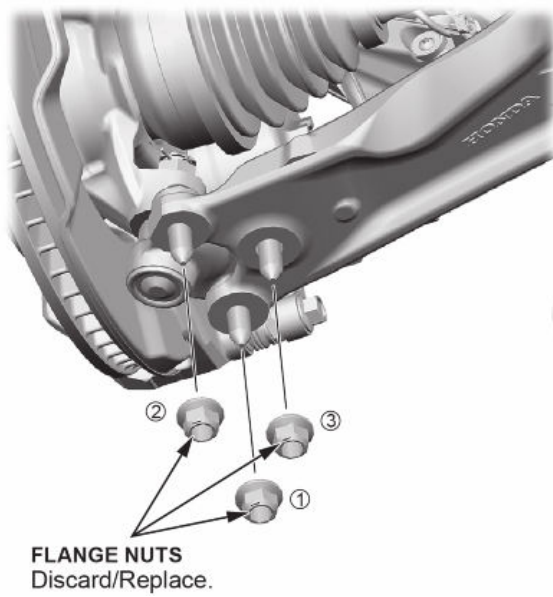


27. Disconnect front stabilizer link ball joints (both sides).

- Remove the flange nuts while holding the respective joint pin with a hex wrench.
- Remove the stabilizer link.



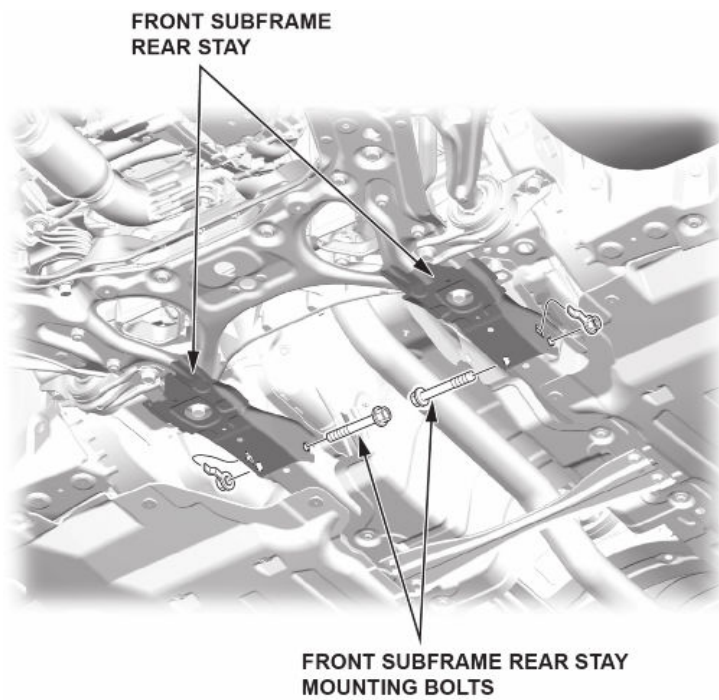
28. Disconnect the front lower arm ball joint.



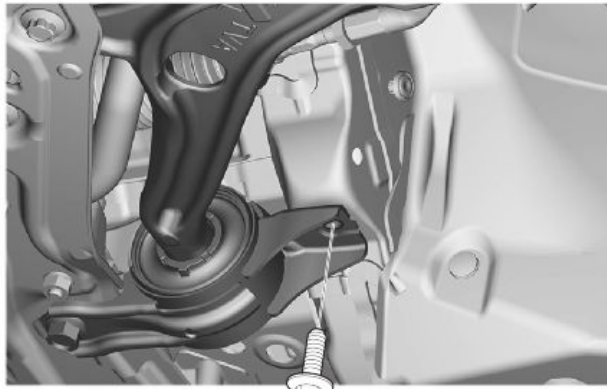
29. Remove the lower torque rod.



30. Remove the front subframe rear stay mounting bolts.



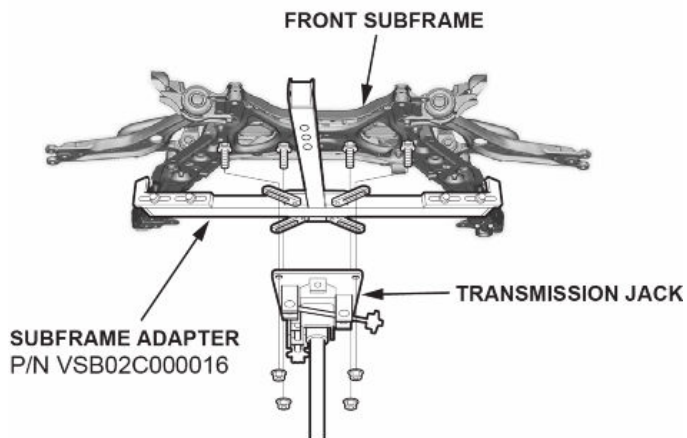
31. Remove the front lower arm mounting bolt.



LOWER ARM
MOUNTING BOLT

32. Support the front subframe.

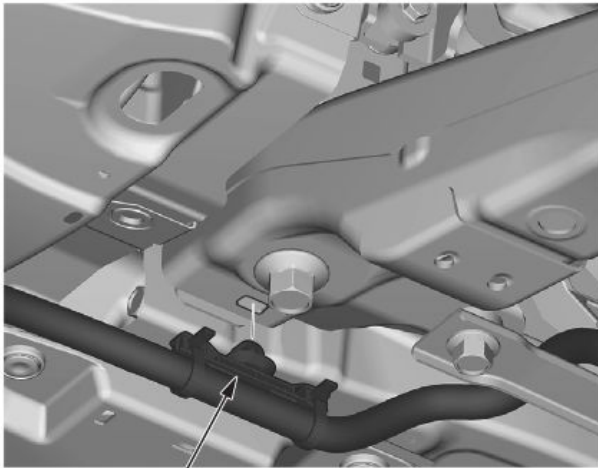
- Set the subframe adapter (VSB02C000016) on a transmission jack, line up the slots in the arms with the bolt holes on the corner of the jack base, and tighten the bolts.
- Attach the subframe adapter to the front subframe.



33. Remove the front subframe.

NOTE:

Remove the harness clamp from the front subframe.

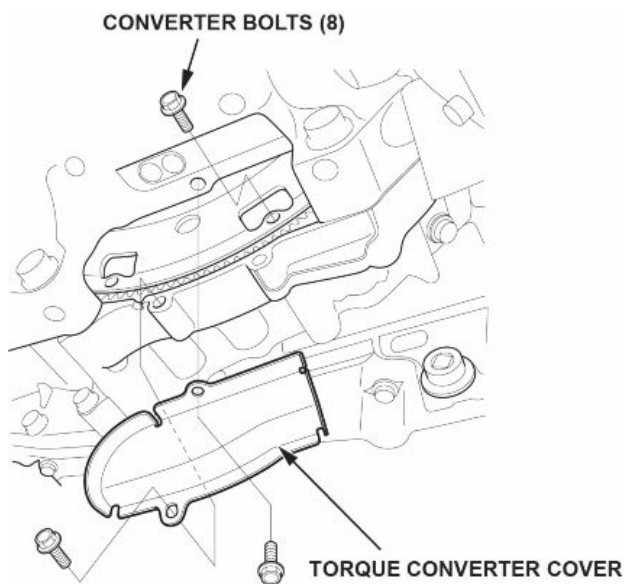


HARNESS CLAMP

34. Support the transmission with a transmission jack.

35. Disconnect the drive plate.

- Remove the torque converter cover.
- Remove eight torque converter bolts while rotating the crankshaft pulley.

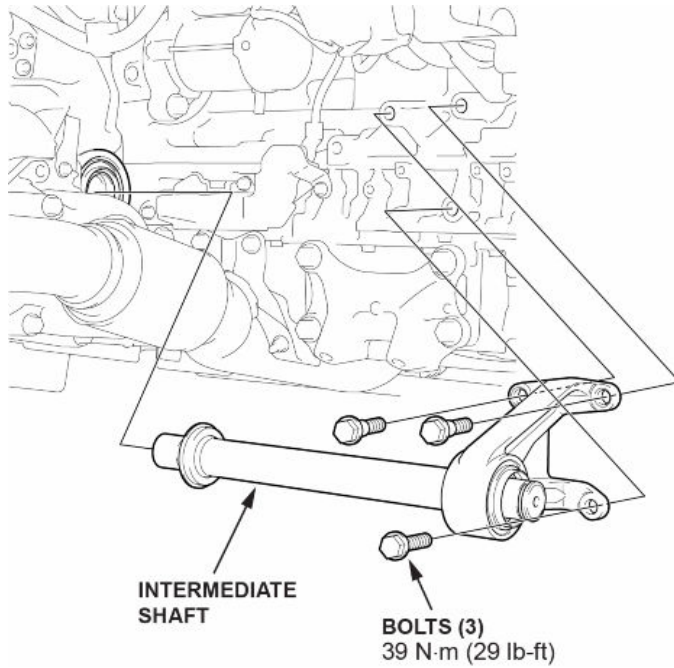


36. Disconnect both sides of the front driveshaft inboard joint.

NOTE: Secure the driveshaft to the body with a nylon strap on both sides.

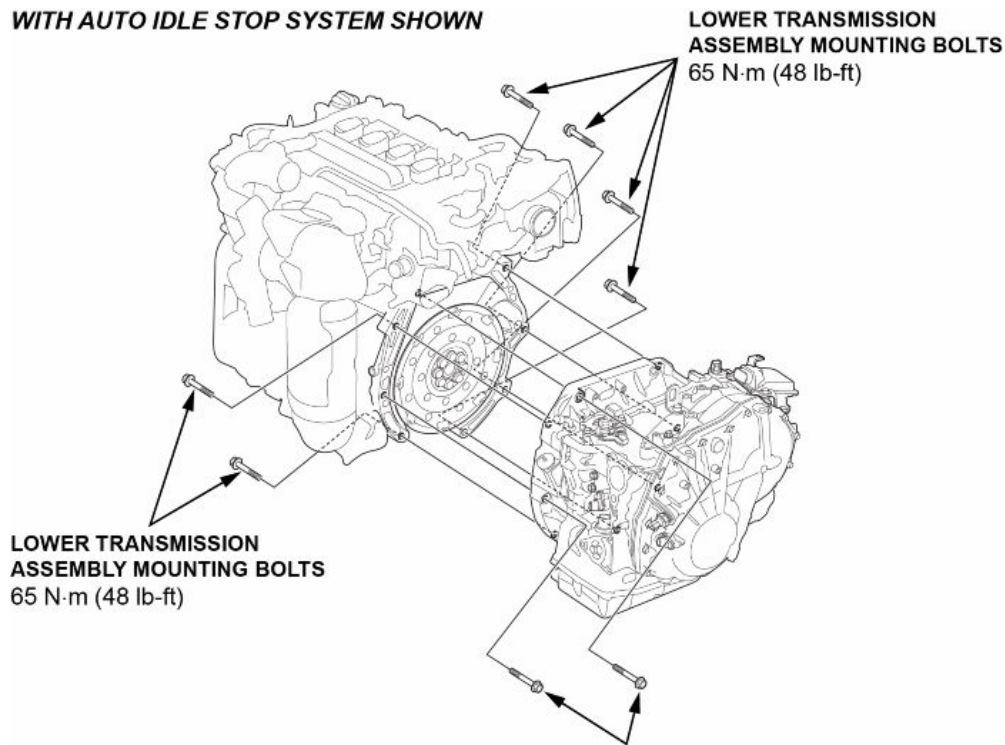
37. Remove the intermediate shaft.

NOTE: Hold the intermediate shaft horizontal until it is clear of the differential to prevent damaging the oil seal.



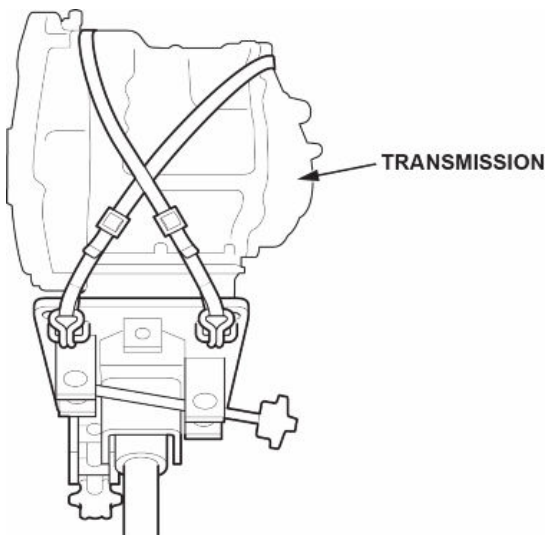
38. Remove the lower transmission assembly mounting bolts.

WITH AUTO IDLE STOP SYSTEM SHOWN



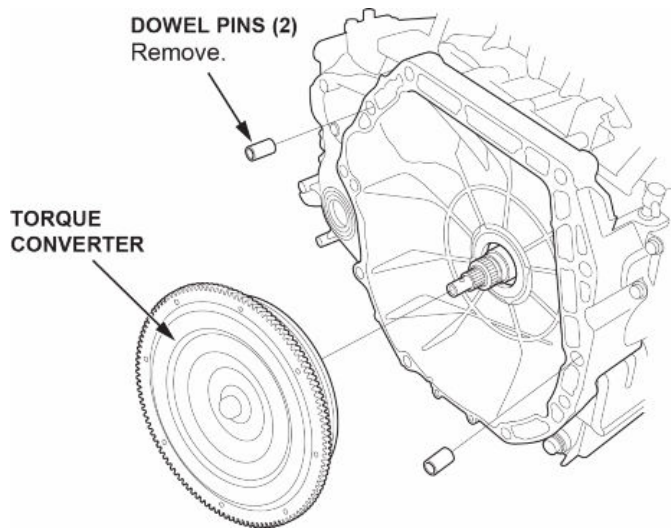
39. Remove the transmission.

- Check once again that the transmission is free of hoses and electrical wiring.
- Hold the transmission on the transmission jack.
- Lower the transmission by loosening the wing nut of the engine support hanger, and tilt the engine just enough for the transmission to clear its end from the side frame.
- Slide the transmission away from the engine, then remove it from the vehicle.
NOTE: Do not let the torque converter move to the drive plate side.
- Lower the transmission carefully.
NOTE: Be careful not to drop the torque converter.



40. Remove the torque converter.

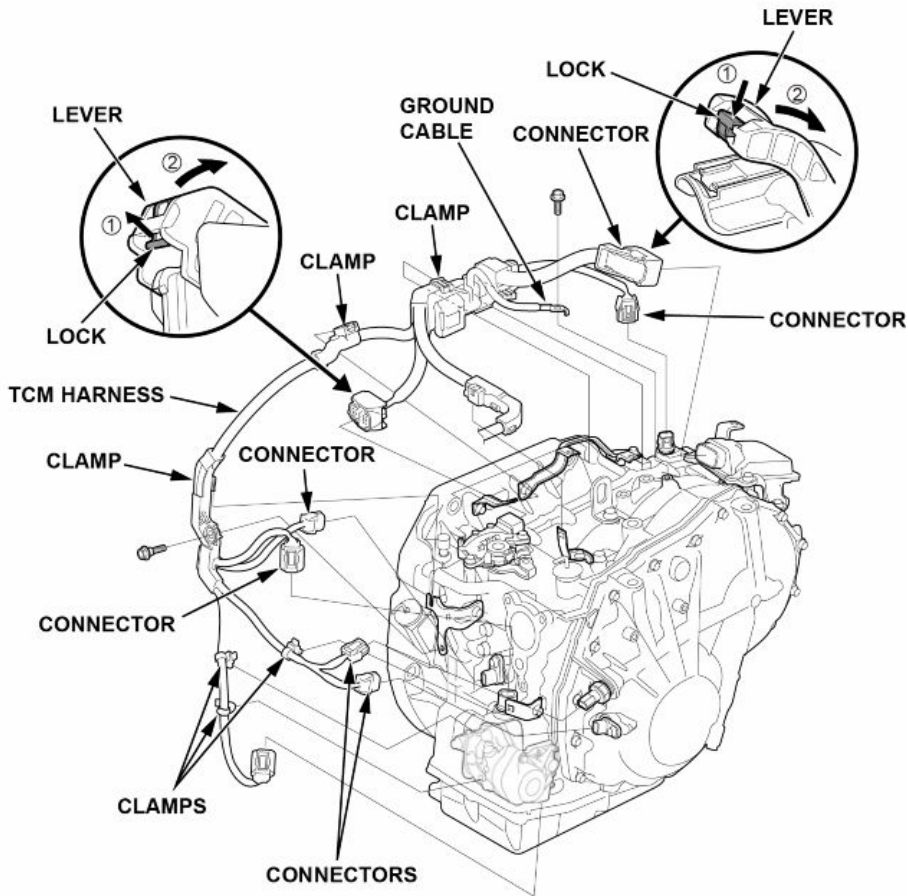
- Remove the torque converter.
- Remove the dowel pins.



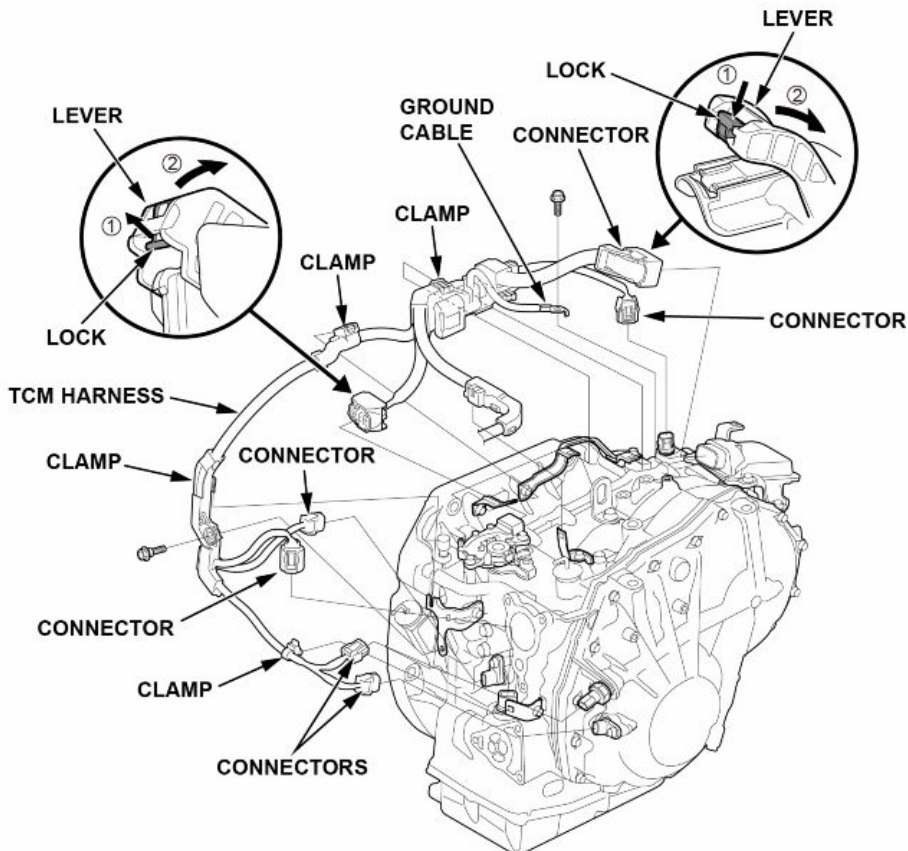
41. Remove the TCM harness.

- Disconnect the connectors.
- Disconnect the connector by pushing the lock and pulling the lever in the numbered sequence shown.
- Disconnect the connector by pulling the lock and the lever in the numbered sequence shown.
- Remove the ground cable.
- Remove the harness clamps, then swing the TCM harness out of the way.

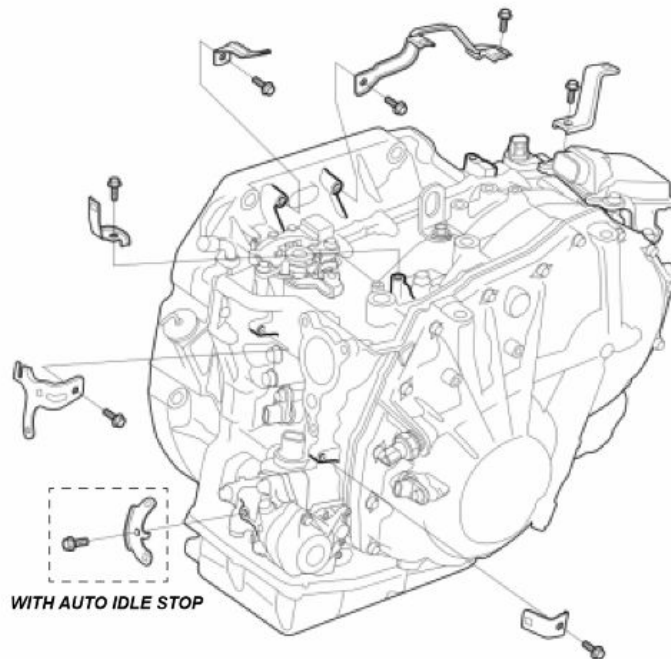
WITH AUTO IDLE STOP SYSTEM



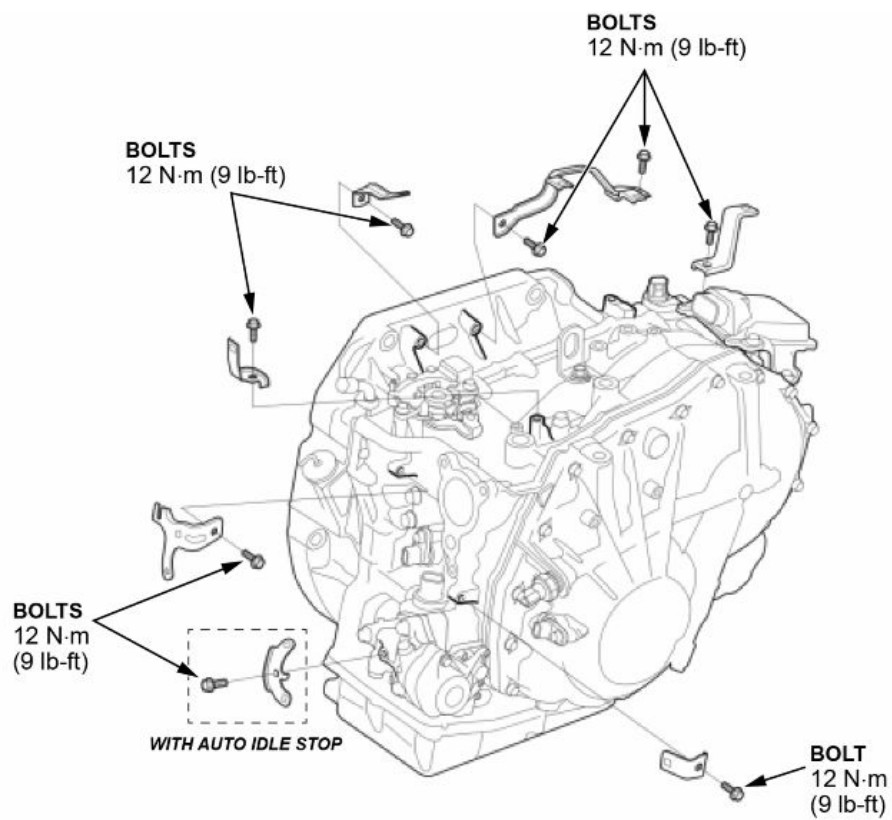
WITHOUT AUTO IDLE STOP SYSTEM



42. Remove the harness brackets.



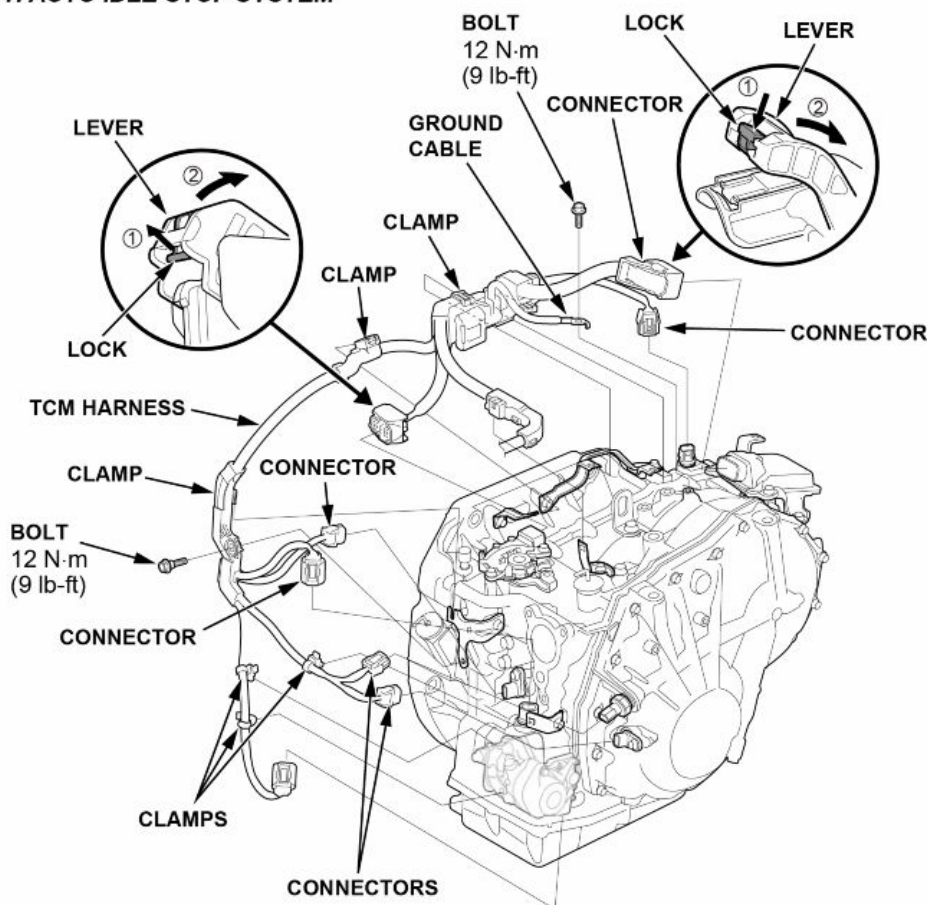
43. Install the harness brackets to the new transmission.



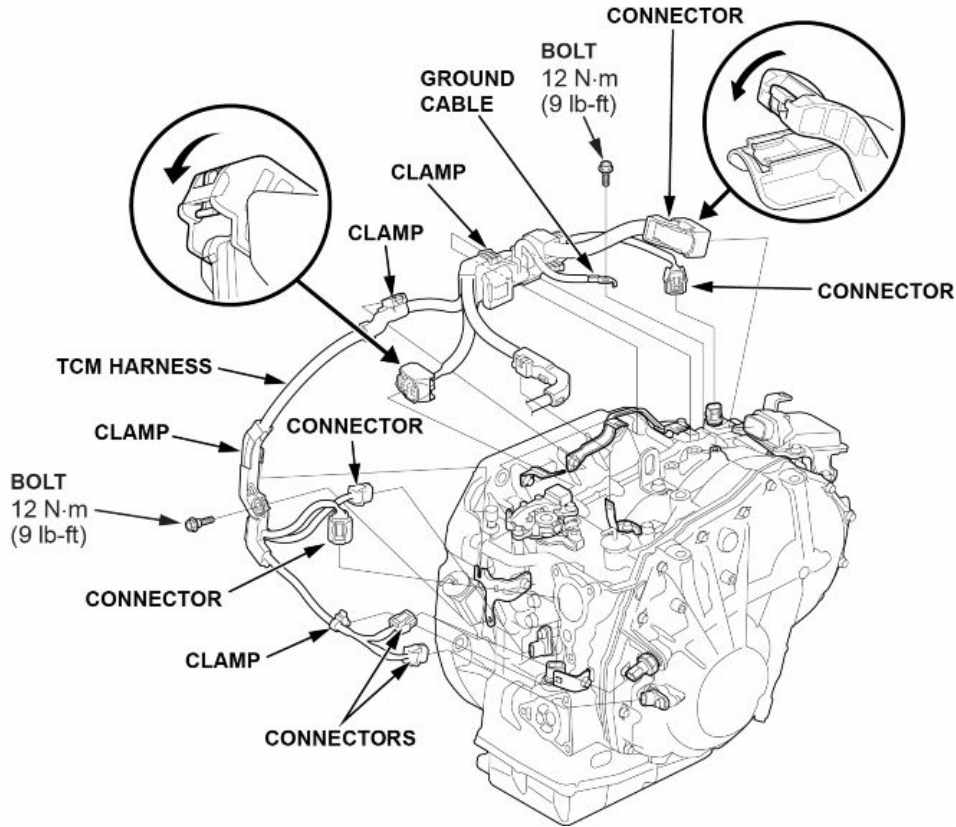
44. Install the TCM harness to the new transmission.

- Install the harness clamps.
- Install the ground cable.
- Connect the connectors, and make sure they are fully seated.

WITH AUTO IDLE STOP SYSTEM



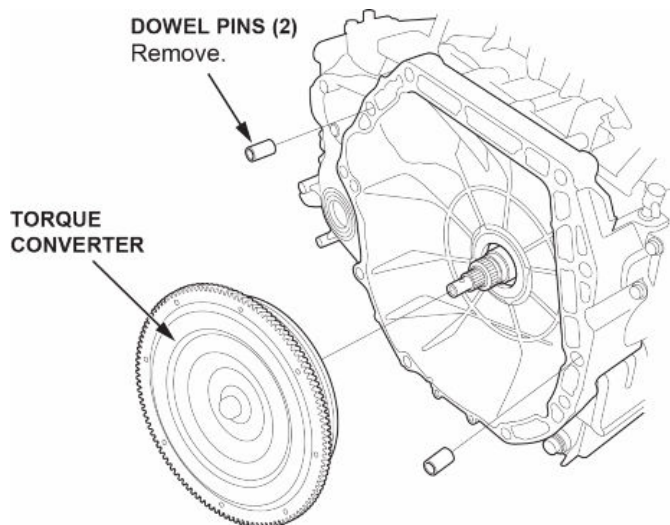
WITHOUT AUTO IDLE STOP SYSTEM



45. Install the torque converter.

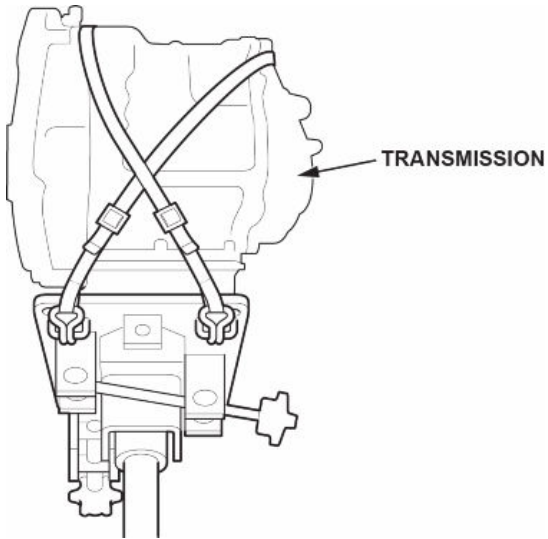
- Install the dowel pins.
- Install the torque converter.

NOTE: Make sure the torque converter is fully engaged on the transmission. Failure to do so will result in severe transmission or engine damage.



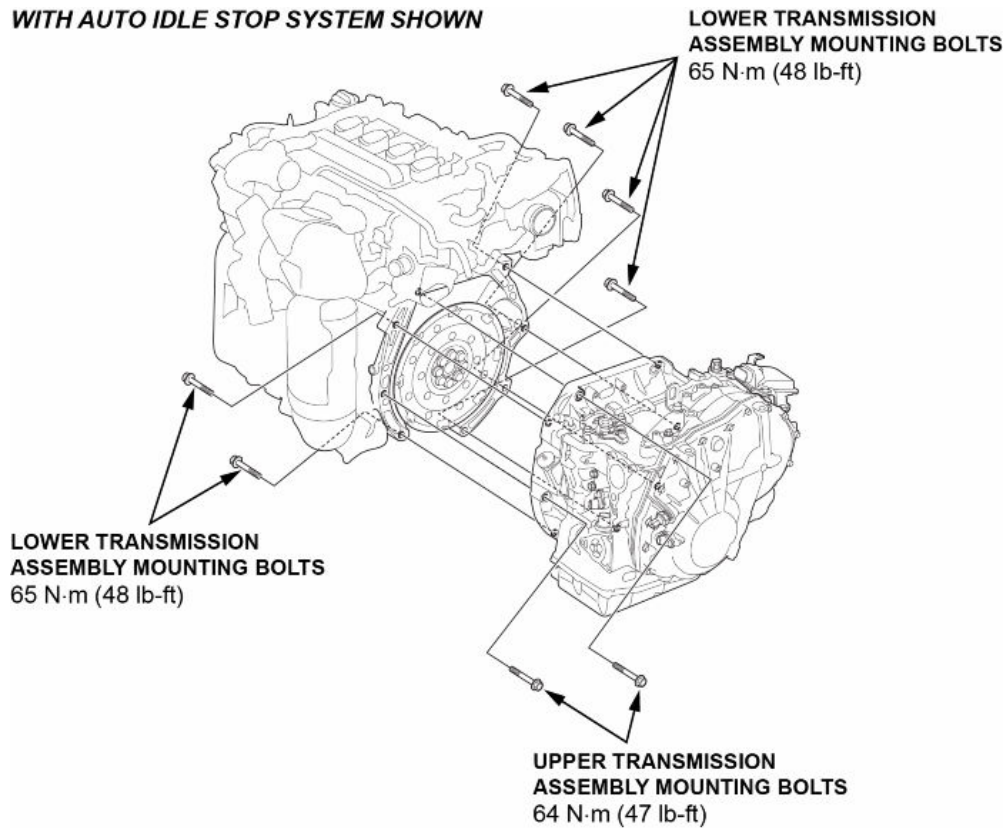
46. Install the transmission.

- Hold the transmission on a transmission jack, and raise it to engine level.
NOTE: Be careful not to drop the torque converter.
- Attach the transmission to the engine.



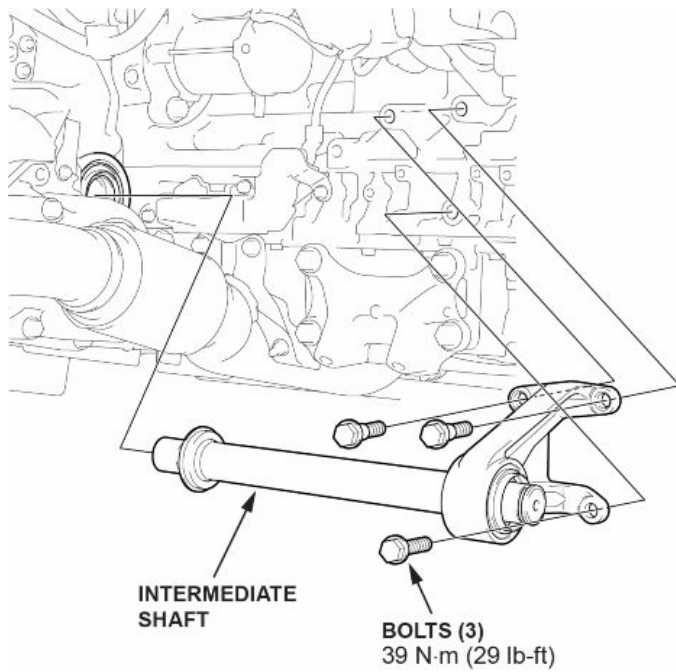
47. Install the lower transmission assembly mounting bolts.

WITH AUTO IDLE STOP SYSTEM SHOWN

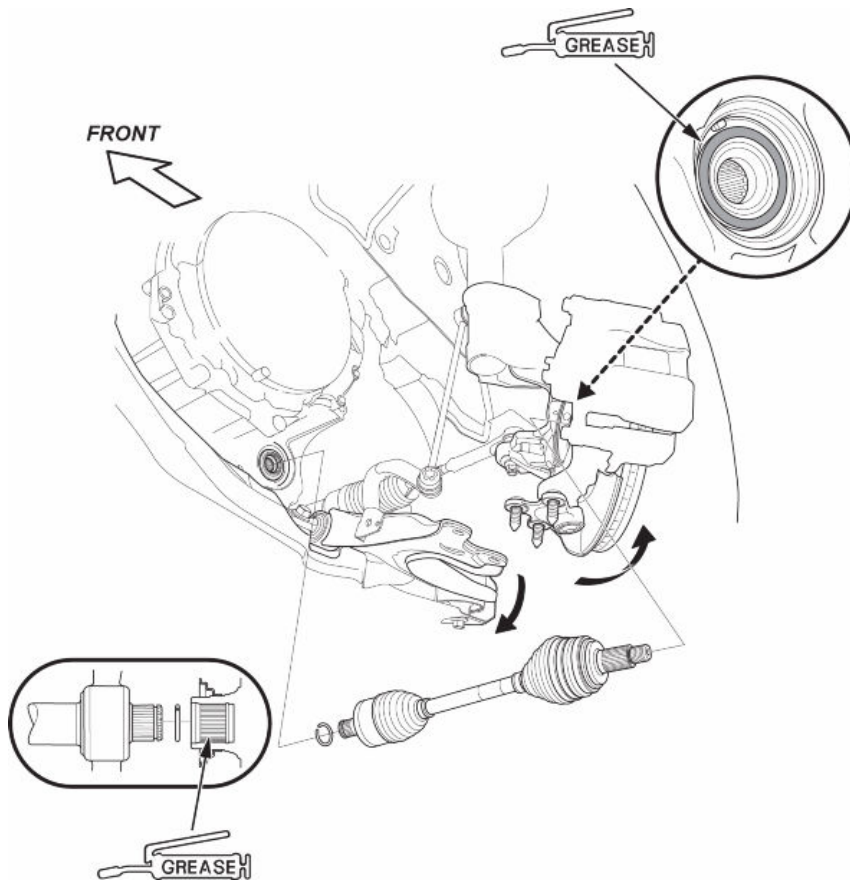


48. Install the intermediate shaft.

NOTE: Hold the intermediate shaft horizontal until it is clear of the differential to prevent damaging the oil seal.

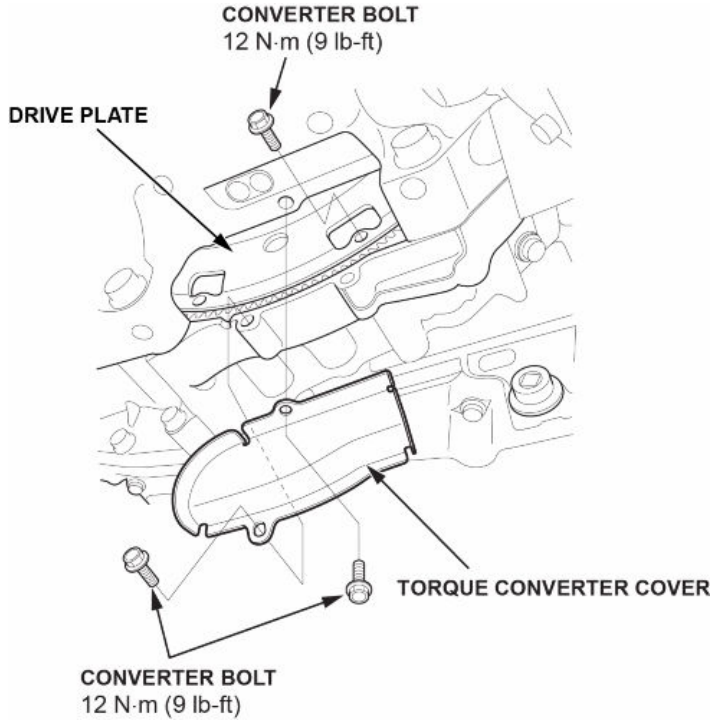


49. Connect both sides of the front driveshaft inboard joint.



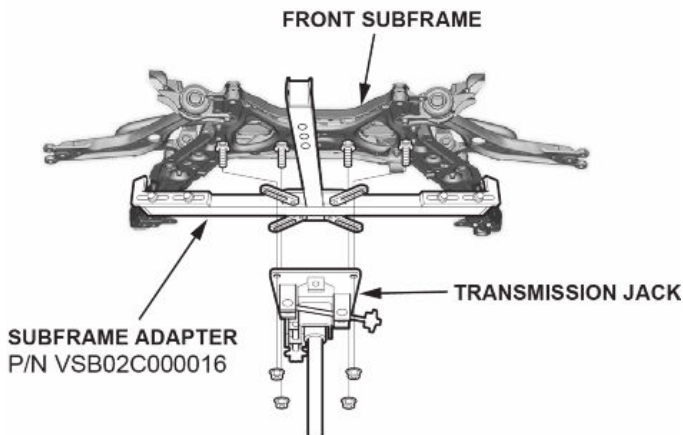
50. Connect the drive plate.

- Attach the drive plate to the torque converter with eight torque converter bolts.
- Rotate the crankshaft pulley as necessary to tighten the bolt to half of the specified torque, then to the final torque, in a crisscross pattern.
- Check that the crankshaft rotates freely.
- Install the torque converter cover.



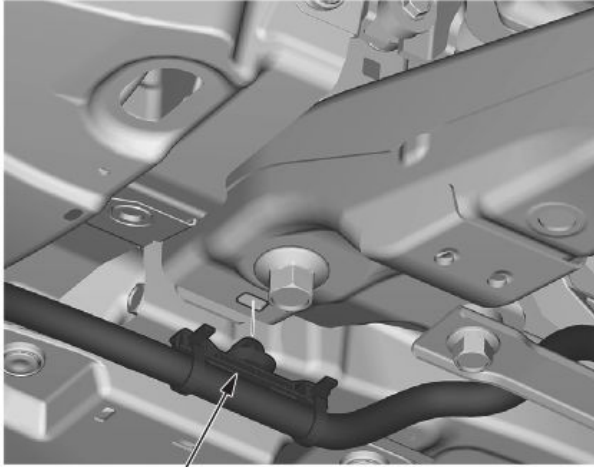
51. Support the front subframe.

- Set the subframe adapter (VSB02C000016) on a transmission jack, line up the slots in the arms with the bolt holes on the corner of the jack base, and tighten the bolts.
- Attach the subframe adapter to the front subframe.

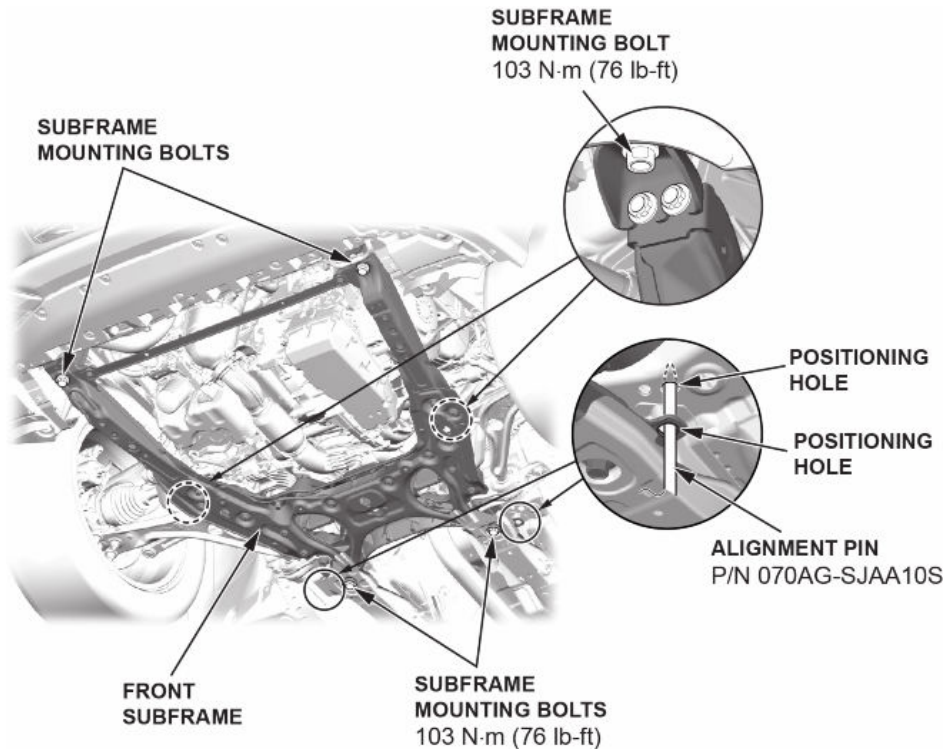


52. Install the front subframe.

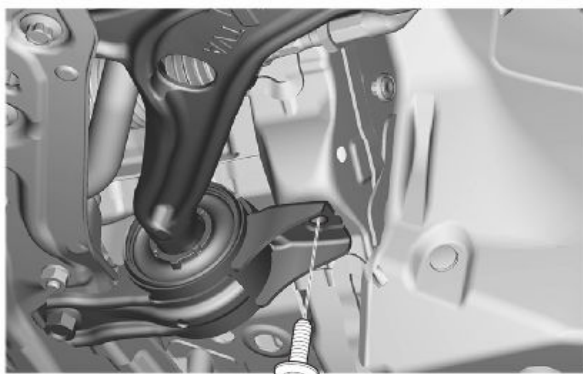
- Lift the front subframe up to the body, and loosely install the new subframe mounting bolts.
- Insert the subframe alignment pin through the positioning hole on the right rear subframe, and into the positioning hole on the body, then loosely tighten the subframe right rear mounting bolt.
- Insert the subframe alignment pin through the positioning hole on the left rear subframe, and into the positioning hole on the body, then loosely tighten the subframe left rear mounting bolt.
- Tighten the subframe mounting bolts to the specified torque in the numbered sequence as shown. Use the subframe alignment pin when tightening the rear side subframe mounting bolts.
- Check all of the subframe mounting bolts, and retighten if necessary.
- Install the harness clamp to the front subframe.



HARNESS CLAMP

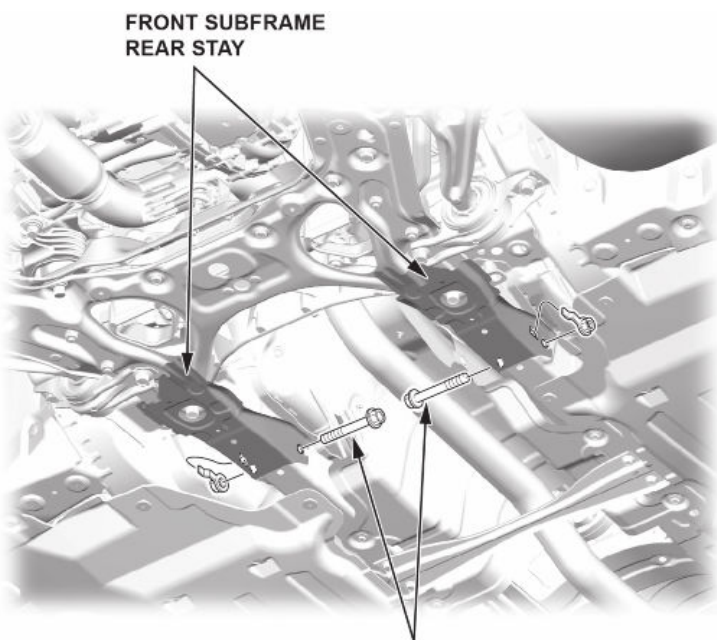


53. Install the front lower arm mounting bolt.



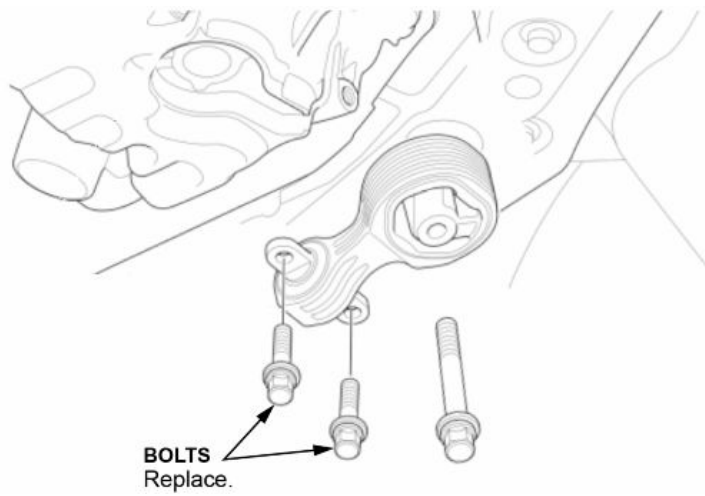
**FRONT LOWER ARM
MOUNTING BOLT**
93 N·m (69 lb-ft)
Replace.

54. Install the front subframe rear stay mounting bolts.



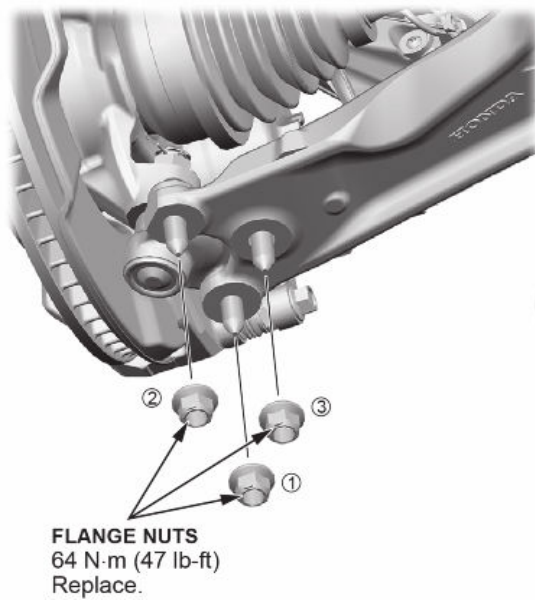
**FRONT SUBFRAME REAR STAY
MOUNTING BOLTS**
93 N·m (69 lb-ft)

55. Loosely install the lower torque rod.



56. Connect both sides of the front lower arm ball joint.

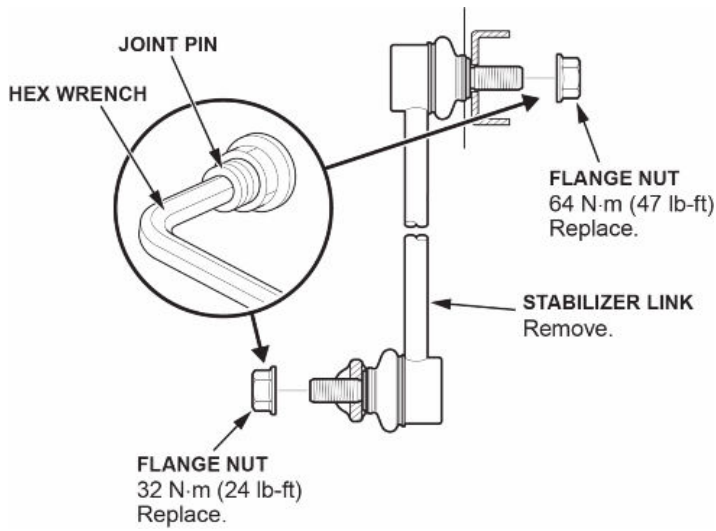
NOTE: During reassembly, loosely install new flange nuts, then tighten them to the specified torque in the numbered sequence shown.



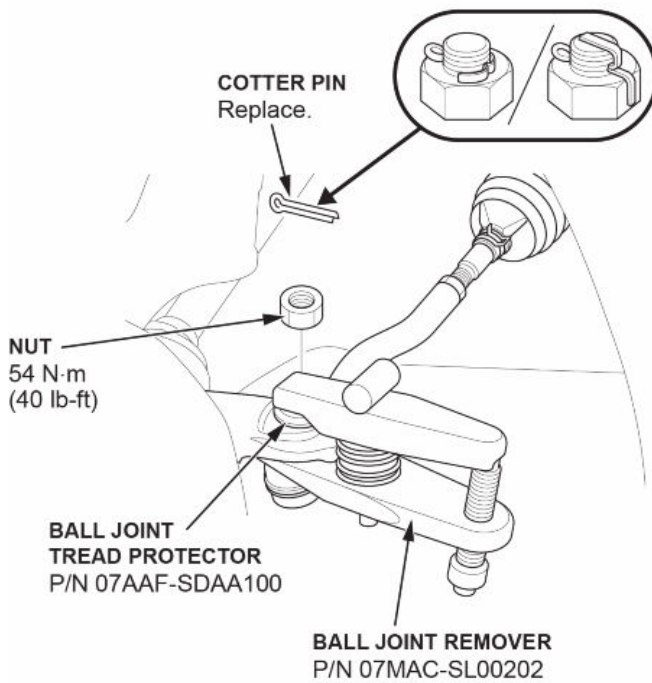
57. Connect both sides of the front stabilizer link ball joint.

- Install the flange nuts while holding the respective joint pin (B) with a hex wrench.

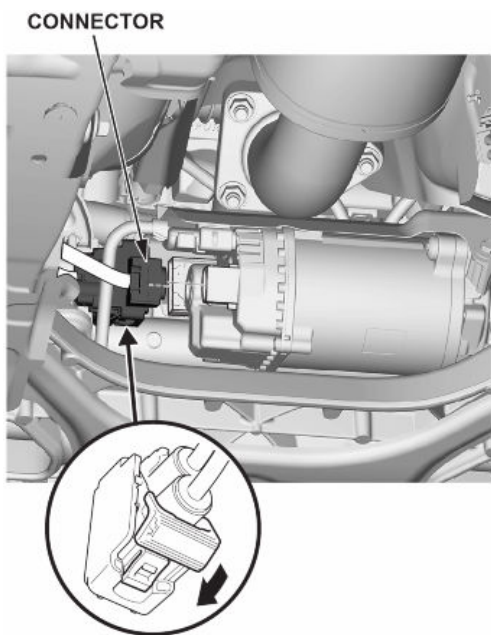
NOTE: Use new flange nuts during reassembly.



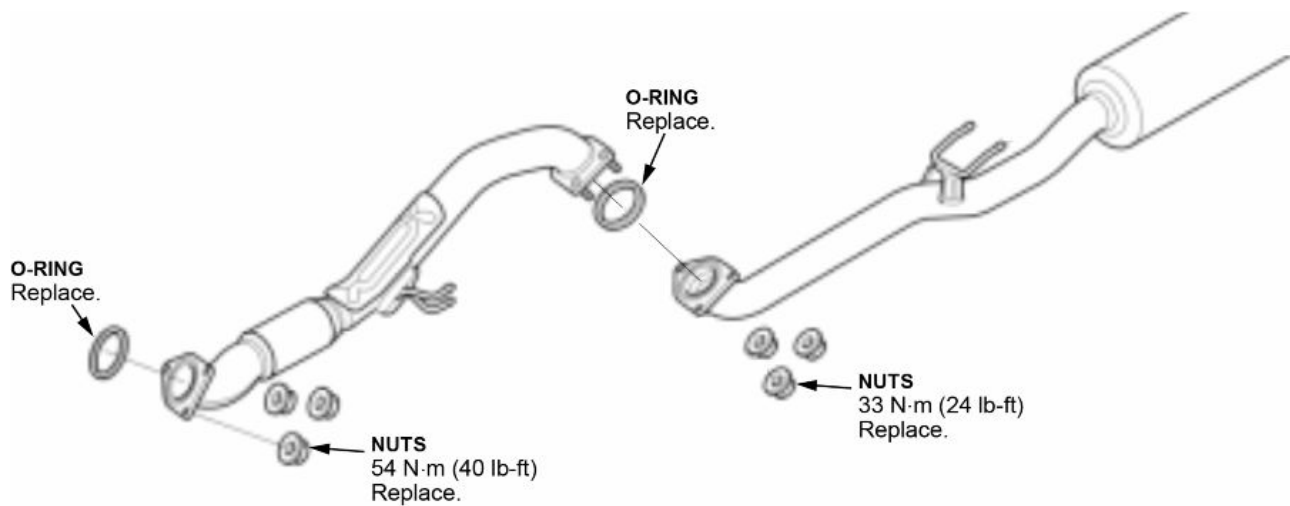
58. Connect both sides of the tie-rod end ball joint.



59. Connect the EPS connector.

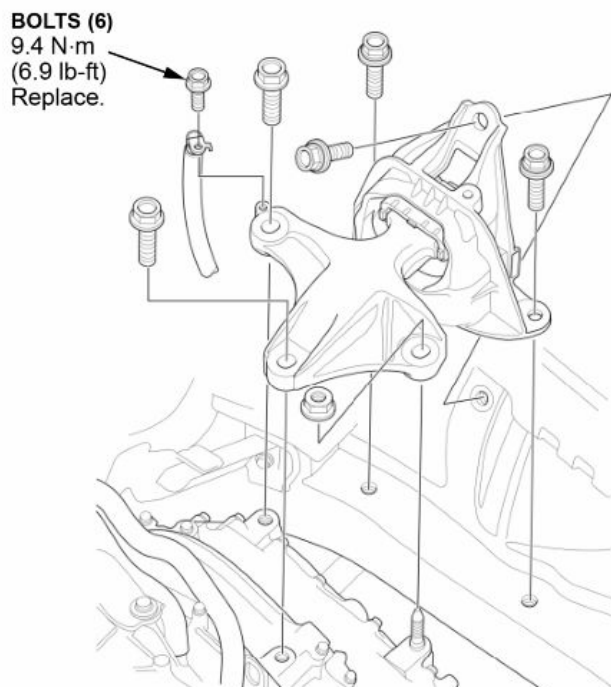


60. Install the exhaust pipe A.



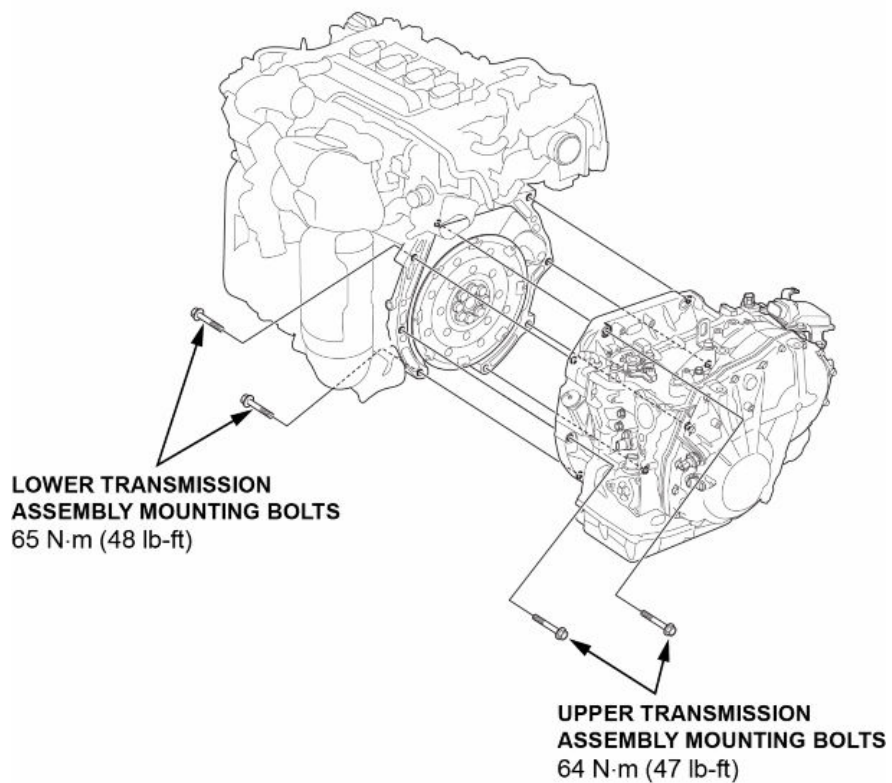
61. Lower the vehicle.

62. Loosely install the transmission mount bracket mounting bolt/nut (transmission side).



63. Install the upper transmission assembly mounting bolts.

WITH AUTO IDLE STOP SYSTEM SHOWN



64. Remove the engine support hanger.

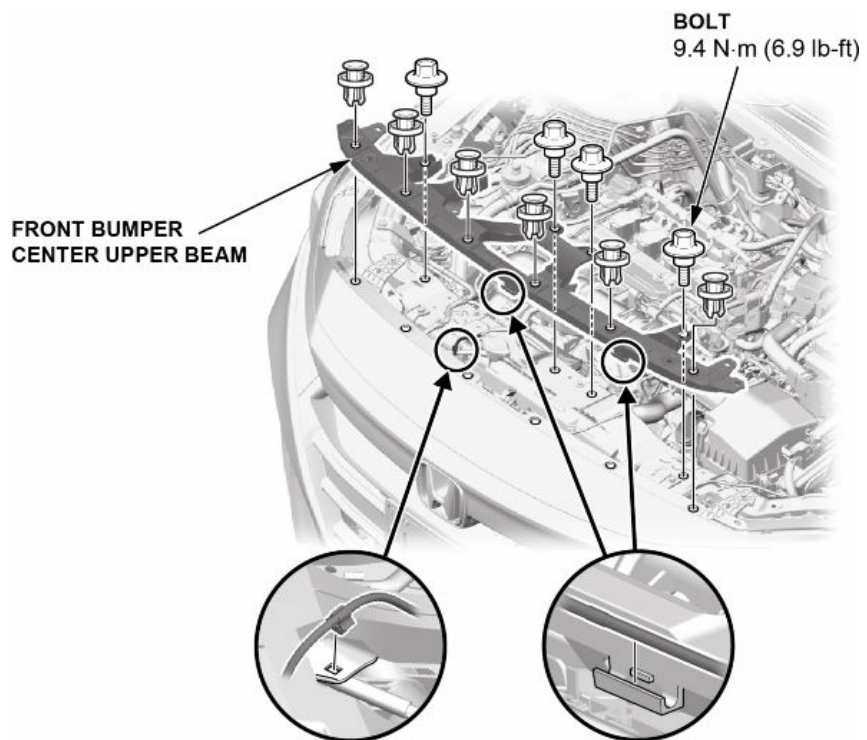
- Remove the engine support hanger and the sub hanger stay.
- Install the front damper caps.

65. Tightening procedure of the engine/transmission mount, torque rod mounting bolt.

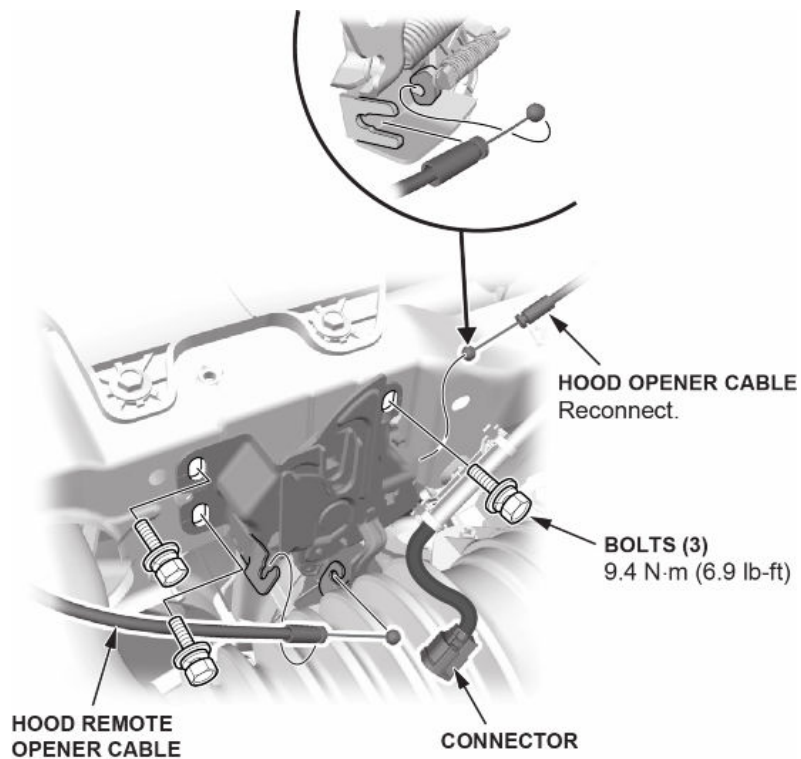
Mount Removed	Mount Tightening Sequence
Side Engine Mount	①, ②, ③, and ④
Transmission Mount	②, ③, and ④
Lower Torque Rod	③, and ④
Upper Torque Rod	①

Mount No.	Mount Name	Mount Bolt/Nut Tightening Sequence			
		①	②	③	④
①	Side Engine Mount	49 N·m (36 lb-ft) Replace.	49 N·m (36 lb-ft) Replace.	93 N·m (69 lb-ft) Replace.	93 N·m (69 lb-ft) Replace.
②	Transmission Mount	55 N·m (41 lb-ft) Replace.	55 N·m (41 lb-ft) Replace.	55 N·m (41 lb-ft) Replace.	55 N·m (41 lb-ft) Replace.
③	Lower Torque Rod	75 N·m (55 lb-ft) Replace.	83 N·m (61 lb-ft) Replace.		
④	Upper Torque Rod (M/T)	70 N·m (52 lb-ft) Replace.	70 N·m (52 lb-ft) Replace.	70 N·m (52 lb-ft) Replace.	
	Upper Torque Rod (CVT)	70 N·m (52 lb-ft) Replace.	70 N·m (52 lb-ft) Replace.		

66. Install the front bumper center upper beam.

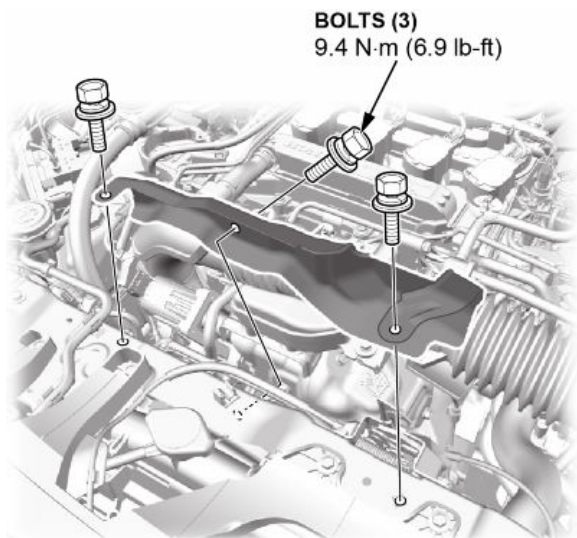


- Reconnect the connector, then reconnect the hood opener cable and the hood remote opener cable.

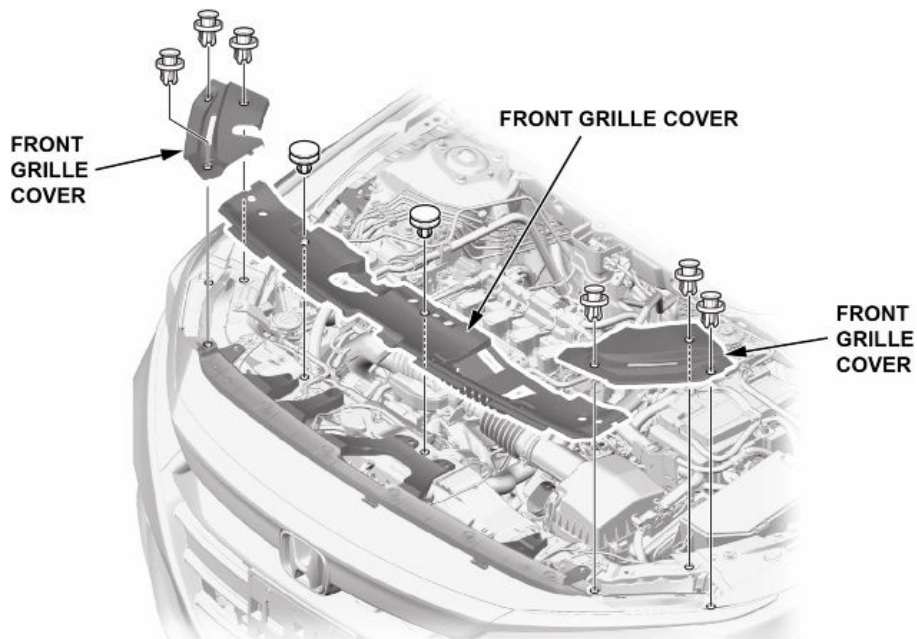


67. Install the coolant reservoir hose clamp.

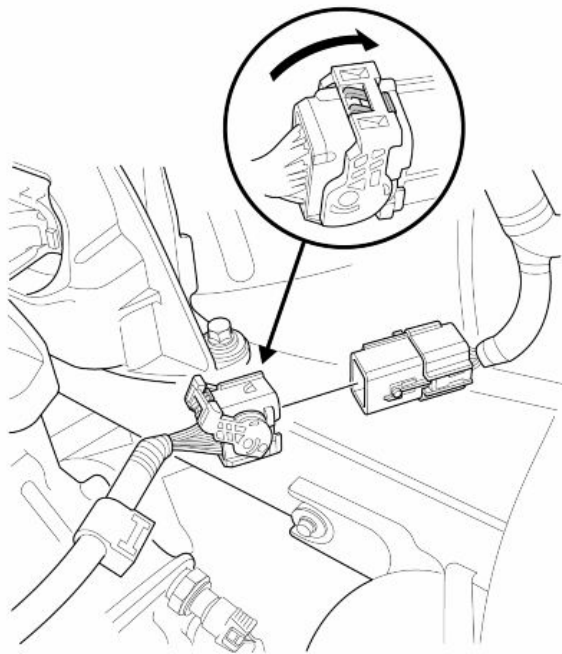
68. Install the hood latch heat shield.



69. Install the front cover grill covers.

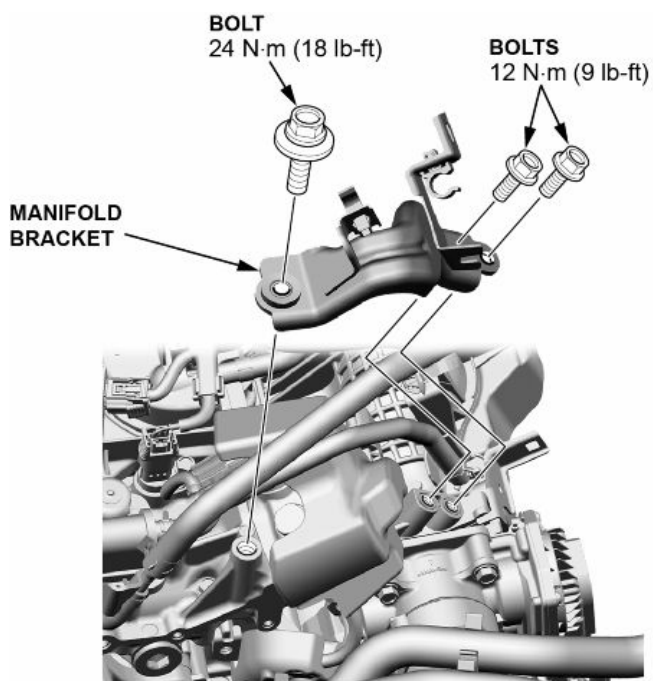


70. Connect the TCM harness connector.

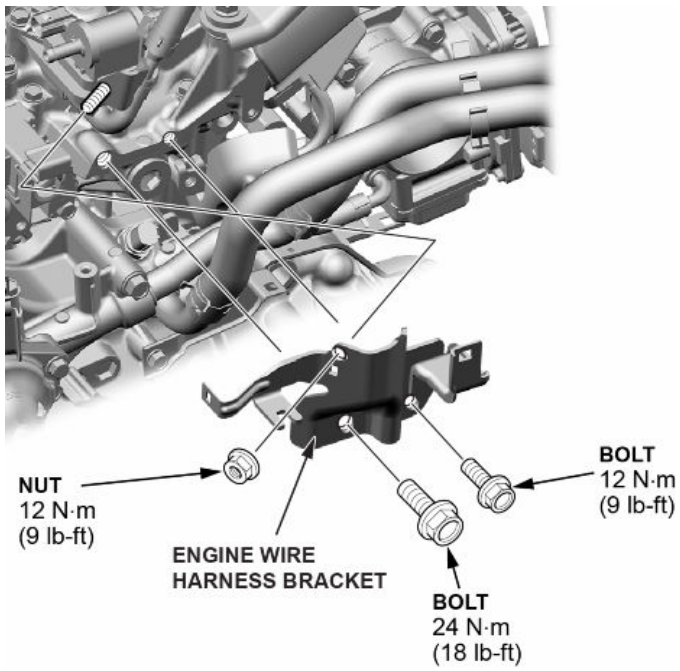


71. Install the engine wire harness.

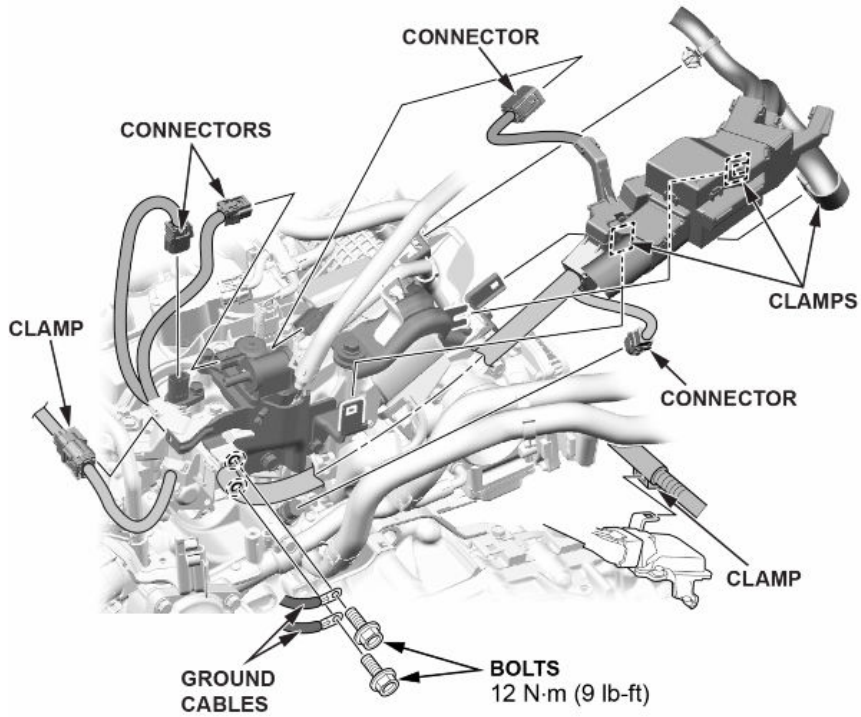
- Install the engine harness bracket.



- Install the intake manifold bracket.

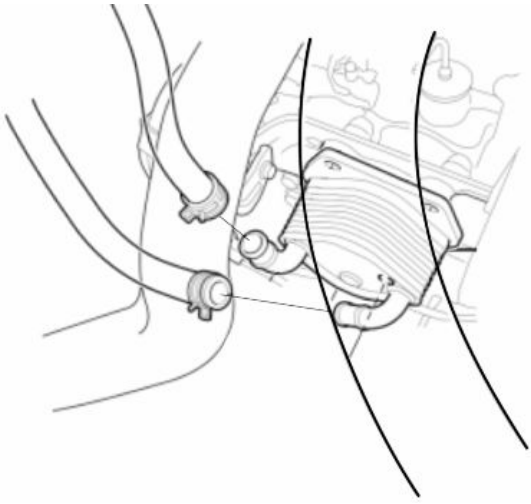


- Install the harness clamps and the engine wire harness.



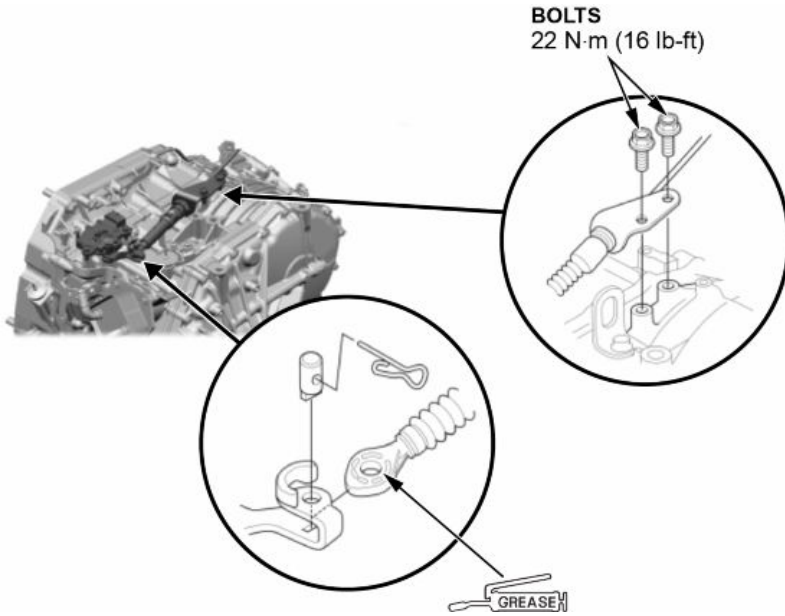
- Install the ground cables.
- Connect the connectors.

72. Install the CVTF warmer hoses.

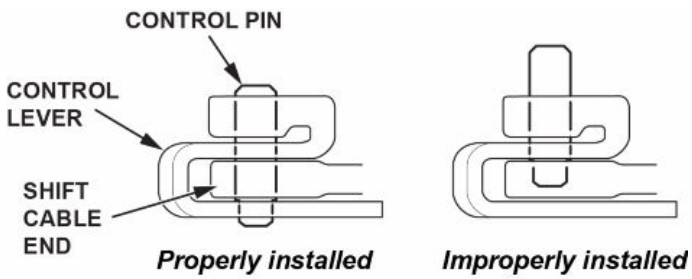


73. Install the shift cable (transmission side).

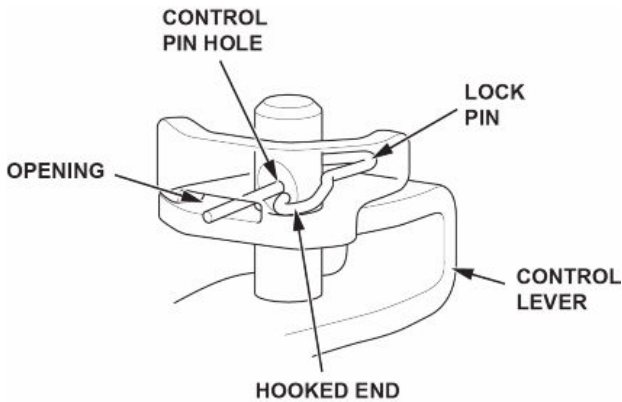
NOTE: Be sure to adjust the shift cable after installing the shift cable.



NOTE: Make sure the control pin is inserted through the shift cable end and fully seated on the control lever.

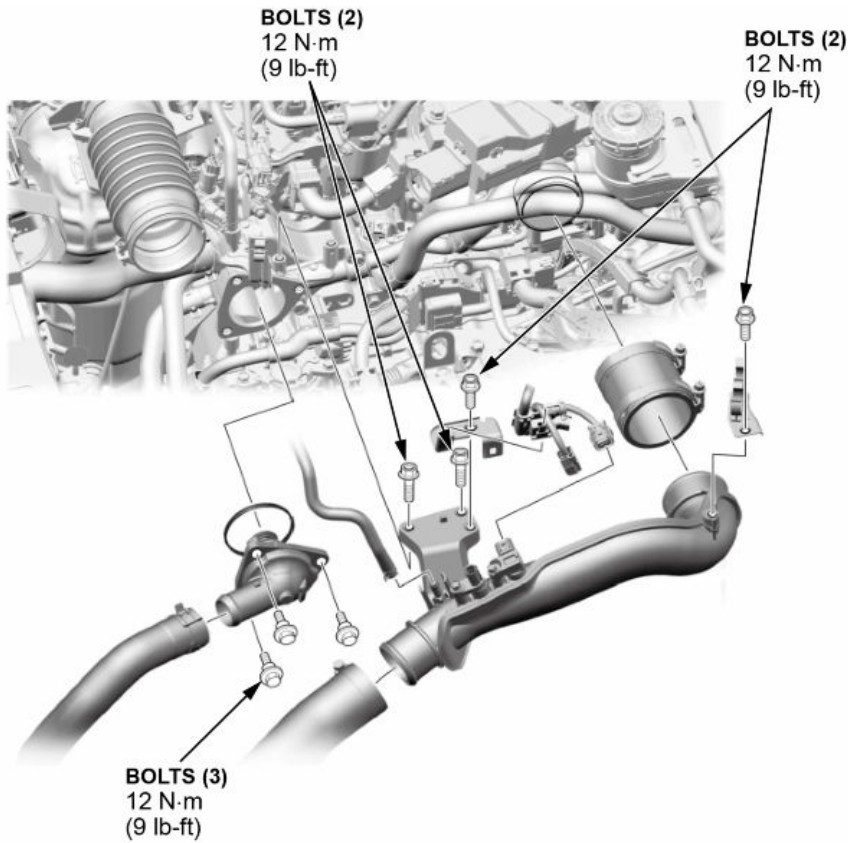


NOTE: Make sure the lock pin is inserted through the control pin hole to the opening of the control lever so that the hooked end of the lock pin locks into the control pin hole.

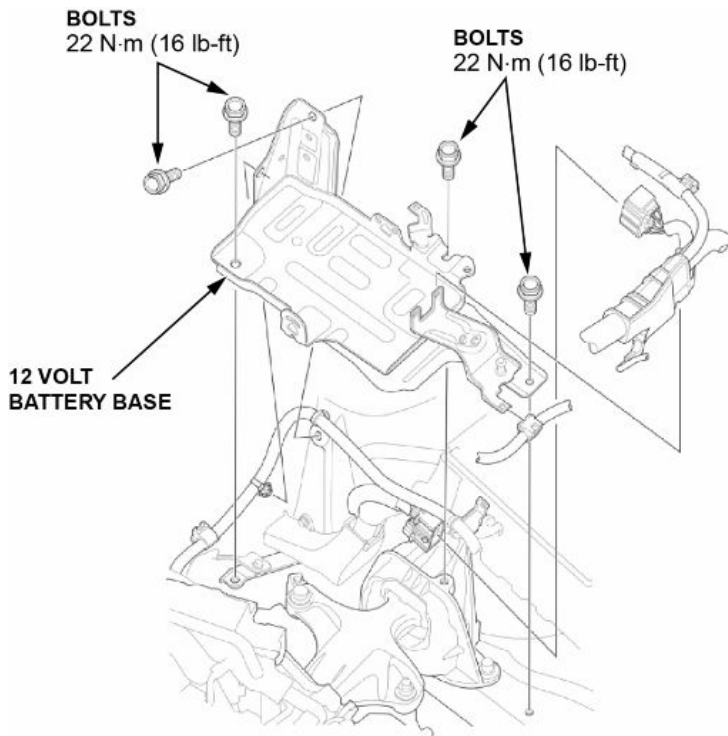


74. Install the intercooler outlet pipe B.

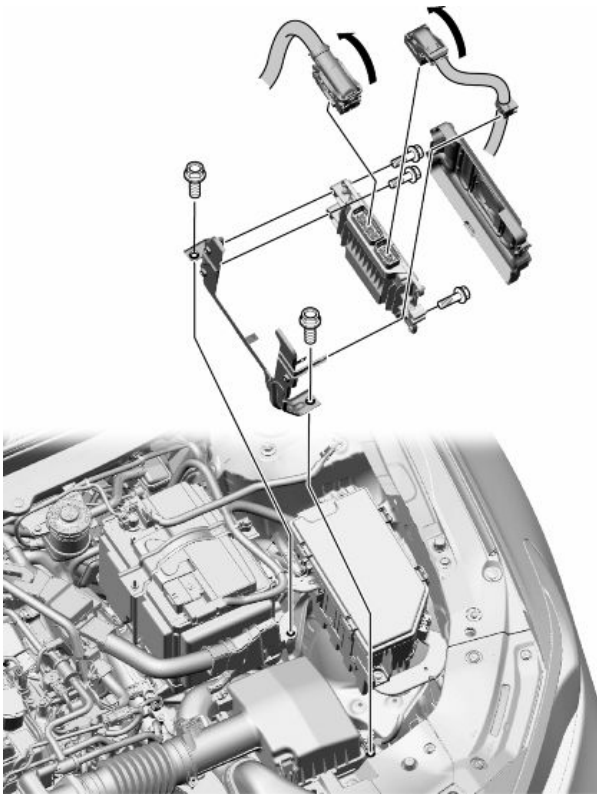
NOTE: Only install the previously removed part(s).



75. Install the 12 volt batter base.



76. Install the PCM and PCM bracket.



77. Install the 12 volt battery.

NOTE: Do not deform the 12 volt battery setting plate by overtightening the nuts.

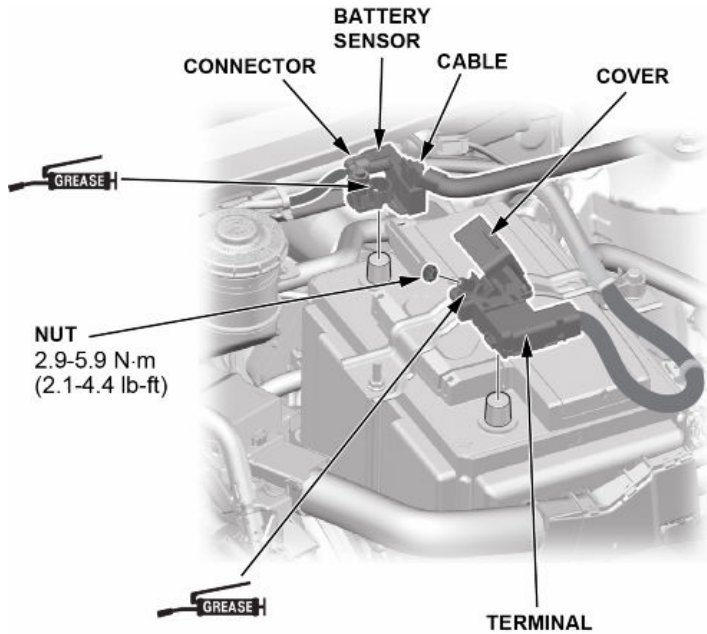
- Reinstall battery box, Battery, Insulator, and the Setting Plate.
- Clean the 12 volt battery terminals.
- Connect the positive terminal to the 12 volt battery.

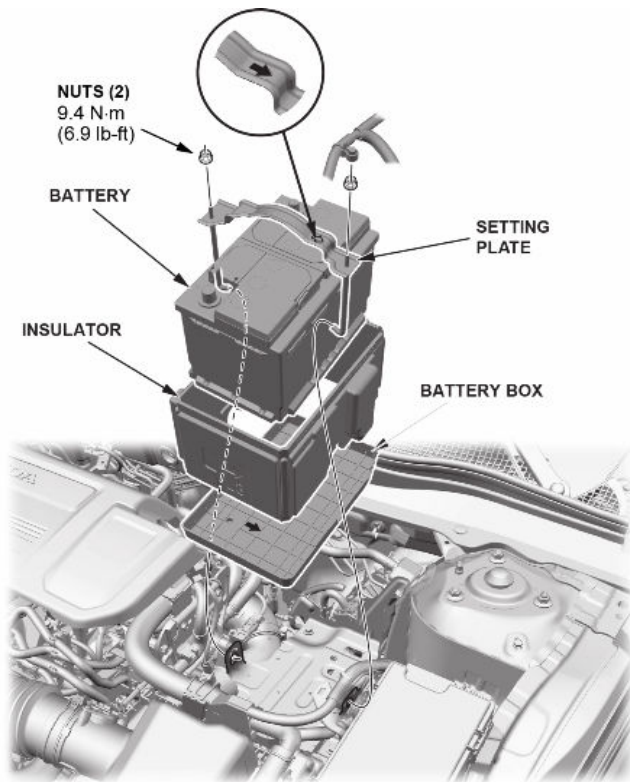
NOTE: Always connect the positive side first.

- Connect the negative cable and the 12 volt battery sensor to the 12 volt battery.

NOTE: To protect the connector from damage, do not hold it when installing the terminal.

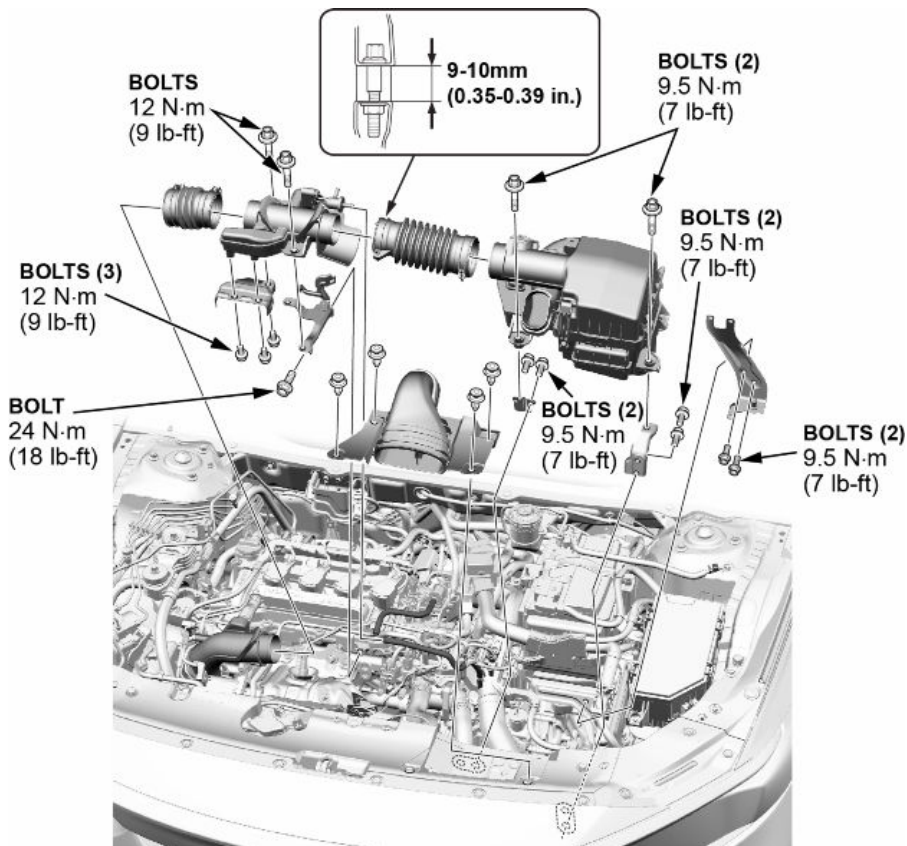
- Apply multipurpose grease to the terminals to prevent corrosion.
- Close the cover.



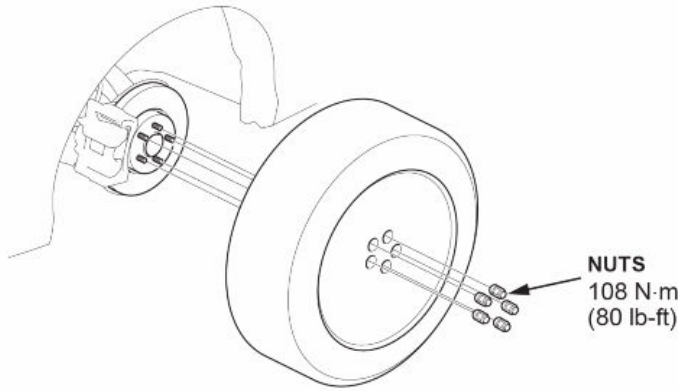


78. Install the air cleaner.

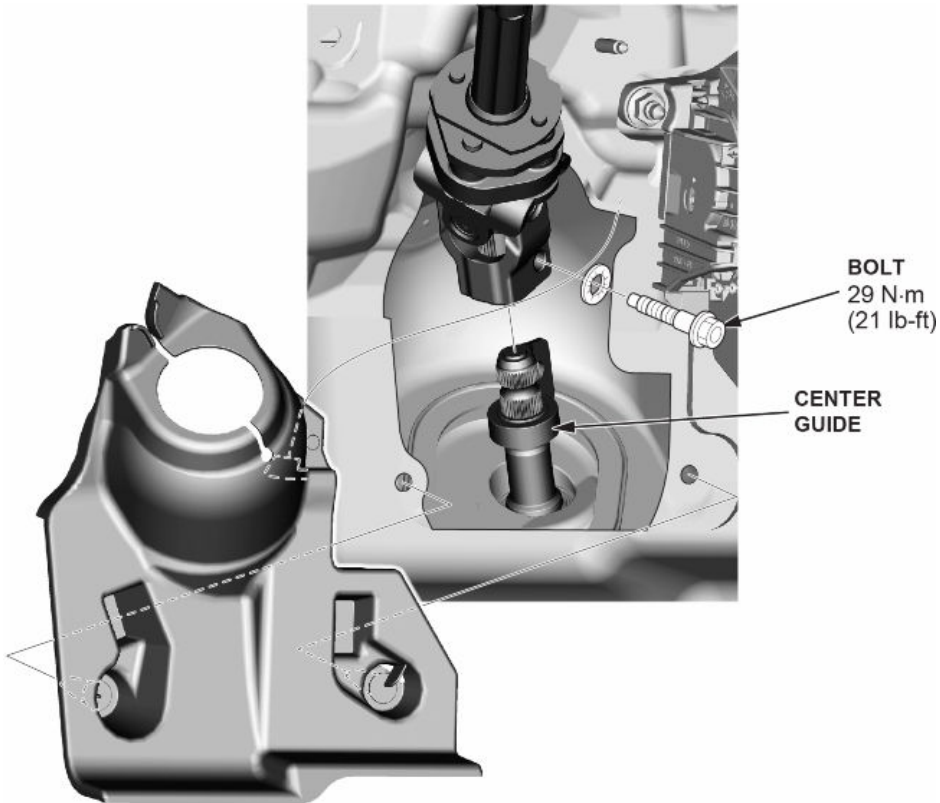
NOTE: Only install the previously removed part(s).



79. Install both front wheels.

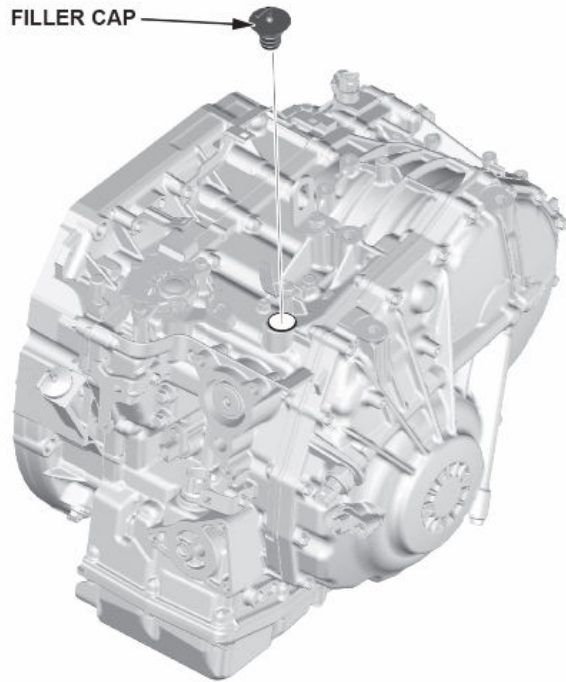


80. Connect the steering joint.



81. Fill the transmission with new fluid.

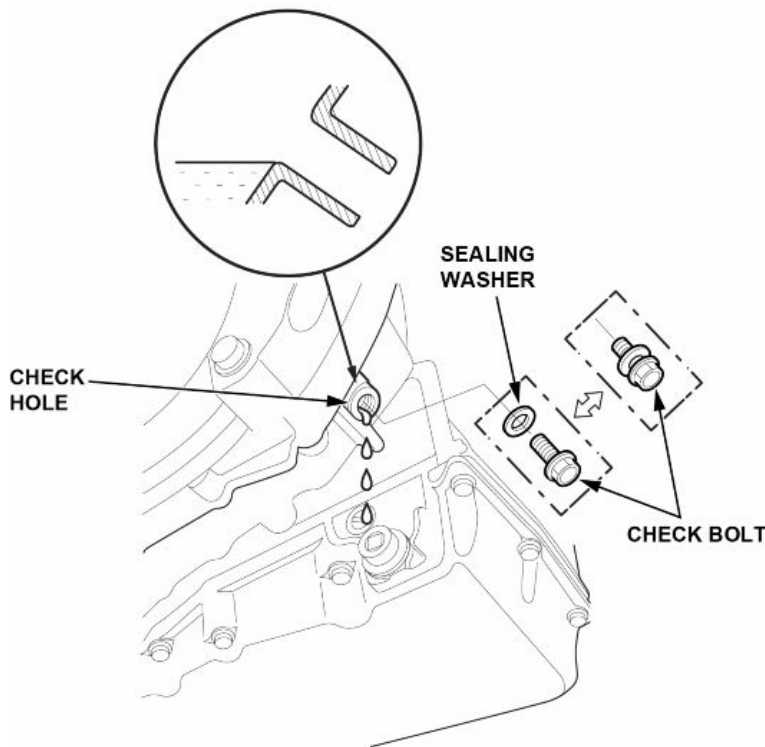
- Remove the filler cap.
- Refill the transmission with HCF-2 Continuously Variable Transmission Fluid into the filler hole.
NOTE: Using the wrong type of fluid will damage the transmission.
- **Transmission Fluid (HCF-2) Capacity: 7.6 L (8.0 US qt).**
- Install filler cap with the lever toward the front of the vehicle.



82. Check the transmission fluid level.

NOTE: Do the transmission fluid level check immediately, after the shift lever operation.

- Start the engine.
- While pressing the brake pedal firmly, shift in turn the transmission to:
 - P-R-N-D-S-L-S-D-N-R-P position/mode (without paddle shifter).
 - P-R-N-D-sport mode switch (on/off)-D-N-R-P (with paddle shifter), and wait for at least **3 seconds** to each position/mode.
- Turn the engine off.
- Integrated washer type: Remove the check bolt.
- Separated washer type: Remove the check bolt with the sealing washer.
- Check the transmission fluid level at the check hole.



NOTE: The transmission fluid is at the proper level if the transmission fluid is dripping from the check hole gradually.

- If the transmission fluid is drip-less from the check hole, check for transmission fluid leaks at the transmission, the transmission fluid pan, the transmission fluid hoses, and the transmission fluid lines. If a problem is found, fix it before filling the transmission with transmission fluid, then recheck the fluid level. If no problem is found add the needed amount of transmission fluid.
- If the transmission fluid is flowing out of the check hole, wait until the transmission fluid is at the proper level.

NOTE: The transmission fluid is at the proper level if the transmission fluid is dripping from the check hole gradually.

83. Auxiliary Transmission Fluid Pump - Air Bleed (with auto idle stop system).

iHDS Method:

- Connect the vehicle to the iHDS.
- Start the engine, and warm it up to normal operating temperature (the radiator fan comes on twice).
- Turn the engine off.
- Select the Electrical Oil Pump Activation in the Function Test Menu, and drive the auxiliary transmission fluid pump for at least **15 seconds** with the iHDS.

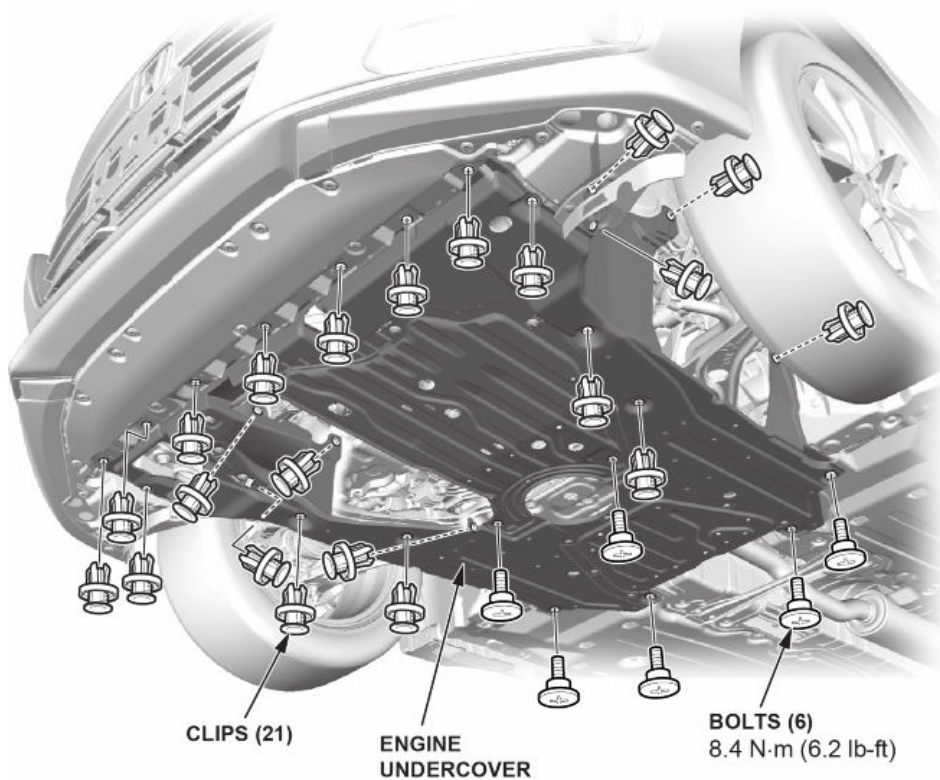
NOTE: Do not drive the auxiliary transmission fluid pump for more than **160 seconds** at a time.

Procedure without iHDS:

- Start the engine, and warm it up to normal operating temperature (the radiator fan comes on twice).
- Do the auto idle stop system operation. If the auto idle stop system does not operate for at least **15 seconds**, repeat this procedure, and recheck, or do the procedure with the HDS.

84. Recheck the transmission fluid level.

85. Install the engine undercover.



86. Reset the learning value.

- Select the A/T SYSTEM with the HDS.
- Select the CVT OIL Pressure Learning Value Reset in the Adjustment Menu with the HDS, and follow the screen prompts.
- Turn the vehicle to the OFF (LOCK) mode, then disconnect the HDS from the DLC.

87. Check the front wheel alignment, refer to the service information.

88. Memorize the VSA sensor neutral position.

NOTE: Do not press the brake pedal during this procedure.

- Set the steering wheel in the straight-ahead position.
- Select the ADJUSTMENT from the ABS/VSA menu with the HDS, then select ALL SENSOR, and follow the screen prompts.

89. Vehicle road test.

- Park the vehicle on level ground.
- Apply the parking brake, and block all four wheels.
- Start the engine.
- Shift the transmission to D position/mode while pressing the brake pedal. Press the accelerator pedal, and release it suddenly. The engine should not stall.
- Repeat previous step in all positions/modes.
- Prepare the HDS to take a SNAPSHOT (refer to the HDS user's guide for more details if needed):
- Set the Trigger Type to Parameter.
- Adjust the Parameter setting to APP Sensor A (V) above 1.1 V.
- Set the Record Time to **60 seconds**.
- Set the Trigger Point to (Negative) - **30 seconds**.
- Find a suitable level road.
- When you are ready to do the test, press OK on the HDS.
- Accelerate quickly until APP Sensor A (V) reads 1.2 V. Maintain a steady throttle at 1.2 V until the vehicle reaches a reasonable speed, then slow the vehicle, and come to a stop.
- Save the snapshot if the entire event was recorded, or increase the recording time setting as necessary, repeat the previous bullet.
- Adjust the parameter setting to 2.2 V.
- Test-drive the vehicle again. Accelerate quickly until APP Sensor A (V) reads 2.3 V. Maintain a steady throttle at 2.3 V until the vehicle reaches a reasonable speed, then slow the vehicle, and come to a stop.
- Save the snapshot if the entire event was recorded, or increase the recording time setting as necessary, and repeat the previous bullet.
- Accelerate quickly until the accelerator pedal is to the floor. Maintain a steady pedal until the vehicle reaches reasonable speed, then slow to a stop, and save the snapshot.

- Review each snapshot individually, and compare APP Sensor A (V), the Vehicle Speed, and the Engine Speed to the following table:

APP Sensor A (V)	Position/Mode	Vehicle Speed	Engine Speed
1.2 V	D	25 mph (40 km/h)	950 – 1,550 rpm
		37 mph (60 km/h)	950 – 1,550 rpm
		62 mph (100 km/h)	1,500 – 2,100 rpm
	S*	25 mph (40 km/h)	1,740 – 2,340 rpm
		37 mph (60 km/h)	2,030 – 2,630 rpm
		62 mph (100 km/h)	2,660 – 3,260 rpm
	L*	25 mph (40 km/h)	2,300 – 2,900 rpm
		37 mph (60 km/h)	3,040 – 3,640 rpm
		62 mph (100 km/h)	3,900 – 4,500 rpm
2.3 V	D	25 mph (40 km/h)	1,620 – 2,220 rpm
		37 mph (60 km/h)	1,700 – 2,300 rpm
		62 mph (100 km/h)	1,860 – 2,460 rpm
	S*	25 mph (40 km/h)	1,900 – 2,500 rpm
		37 mph (60 km/h)	2,140 – 2,740 rpm
		62 mph (100 km/h)	2,660 – 3,260 rpm
	L*	25 mph (40 km/h)	2,800 – 3,400 rpm
		37 mph (60 km/h)	3,200 – 3,800 rpm
		62 mph (100 km/h)	3,900 – 4,500 rpm
4.5 V	D	25 mph (40 km/h)	3,700 – 4,300 rpm
		37 mph (60 km/h)	5,100 – 5,700 rpm
		62 mph (100 km/h)	5,700 – 6,300 rpm
	S*	25 mph (40 km/h)	3,700 – 4,300 rpm
		37 mph (60 km/h)	5,100 – 5,700 rpm
		62 mph (100 km/h)	5,700 – 6,300 rpm
	L*	25 mph (40 km/h)	4,300 – 4,900 rpm
		37 mph (60 km/h)	5,020 – 5,620 rpm
		62 mph (100 km/h)	5,500 – 6,100 rpm

*: Without paddle shifter

- With paddle shifter: Test-drive the vehicle with the 7-Speed Manual shift mode, and compare the Speed Stage, the Vehicle Speed, and the Engine Speed to the following table:

SPORT Mode with 7-Speed Manual shift mode (With Paddle Shifter)

Speed Stage	Vehicle Speed	Engine Speed
1st	25 mph (40 km/h)	4,059 – 4,659 rpm
2nd	25 mph (40 km/h)	2,636 – 3,236 rpm
	37 mph (60 km/h)	4,104 – 4,704 rpm
3rd	25 mph (40 km/h)	1,960 – 2,560 rpm
	37 mph (60 km/h)	3,090 – 3,690 rpm
	62 mph (100 km/h)	5,350 – 5,950 rpm
4th	25 mph (40 km/h)	1,461 – 2,061 rpm
	37 mph (60 km/h)	2,342 – 2,942 rpm
	62 mph (100 km/h)	4,104 – 4,704 rpm
5th	25 mph (40 km/h)	1,109 – 1,709 rpm
	37 mph (60 km/h)	1,814 – 2,414 rpm
	62 mph (100 km/h)	3,223 – 3,823 rpm
6th	37 mph (60 km/h)	1,389 – 1,989 rpm
	62 mph (100 km/h)	2,516 – 3,116 rpm
7th	37 mph (60 km/h)	1,083 – 1,683 rpm
	62 mph (100 km/h)	2,006 – 2,606 rpm

- Park the vehicle on an upward slope (about 16 degrees), apply the parking brake, and shift the transmission to P position/mode. Release the brake; the vehicle should not move.

NOTE: Always use the parking brake to hold the vehicle when stopped on an incline. Depending on the grade of the incline, the vehicle could roll if the brake is released.

END