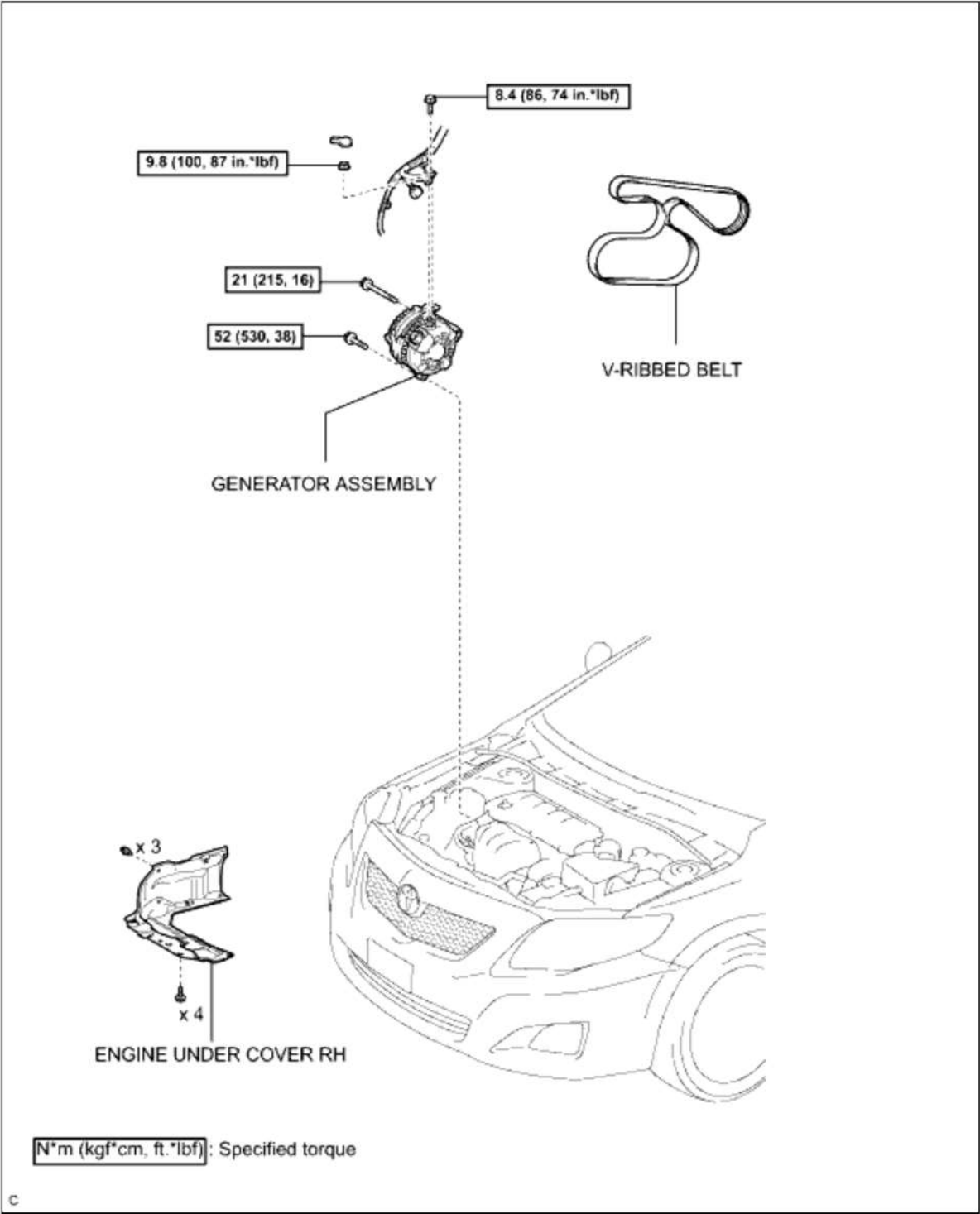


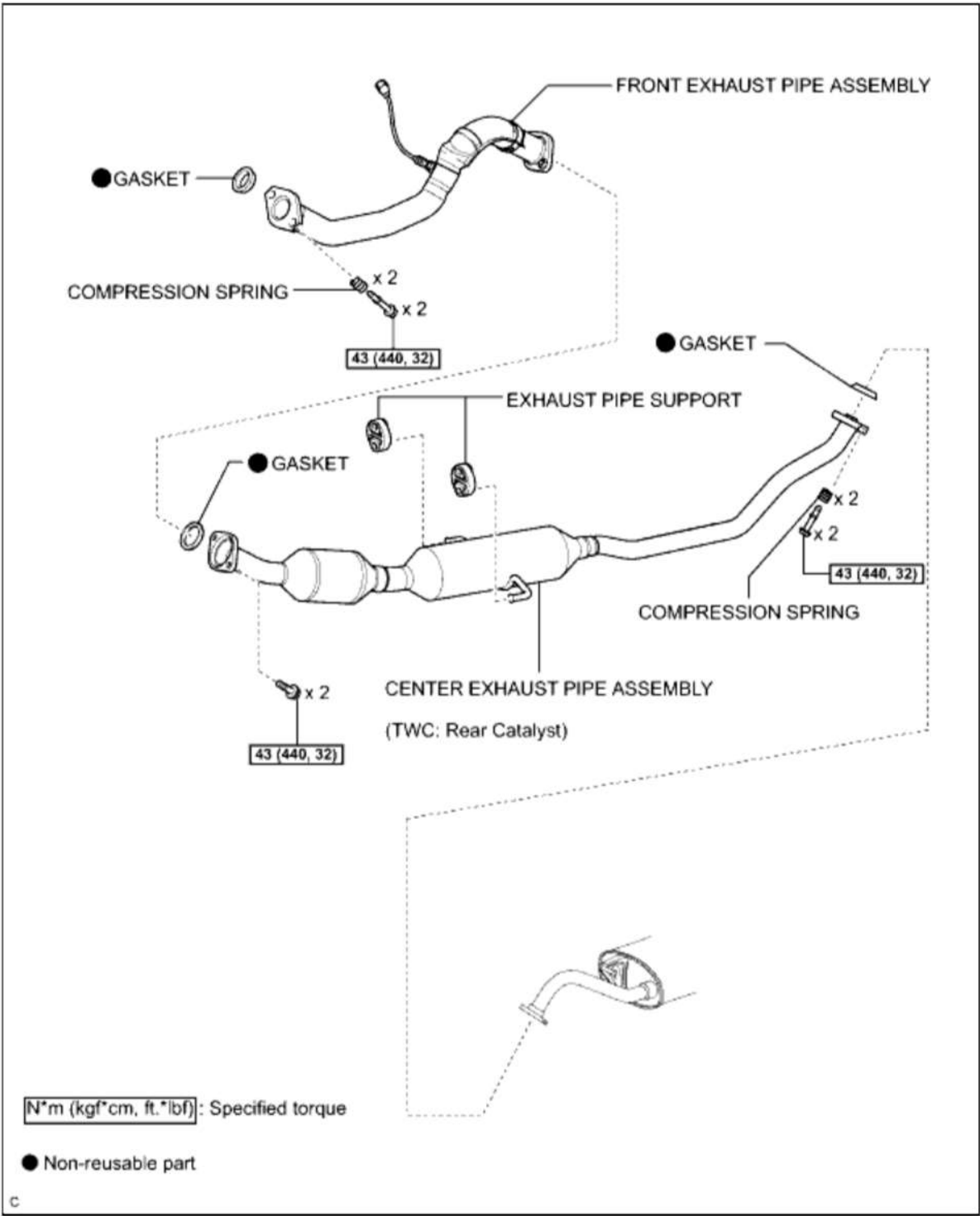
Last Modified: 3-10-2010	6.4 K	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000002CR3005X
Title: 2AZ-FE INTAKE / EXHAUST: EXHAUST MANIFOLD: COMPONENTS (2010 Corolla)		

COMPONENTS

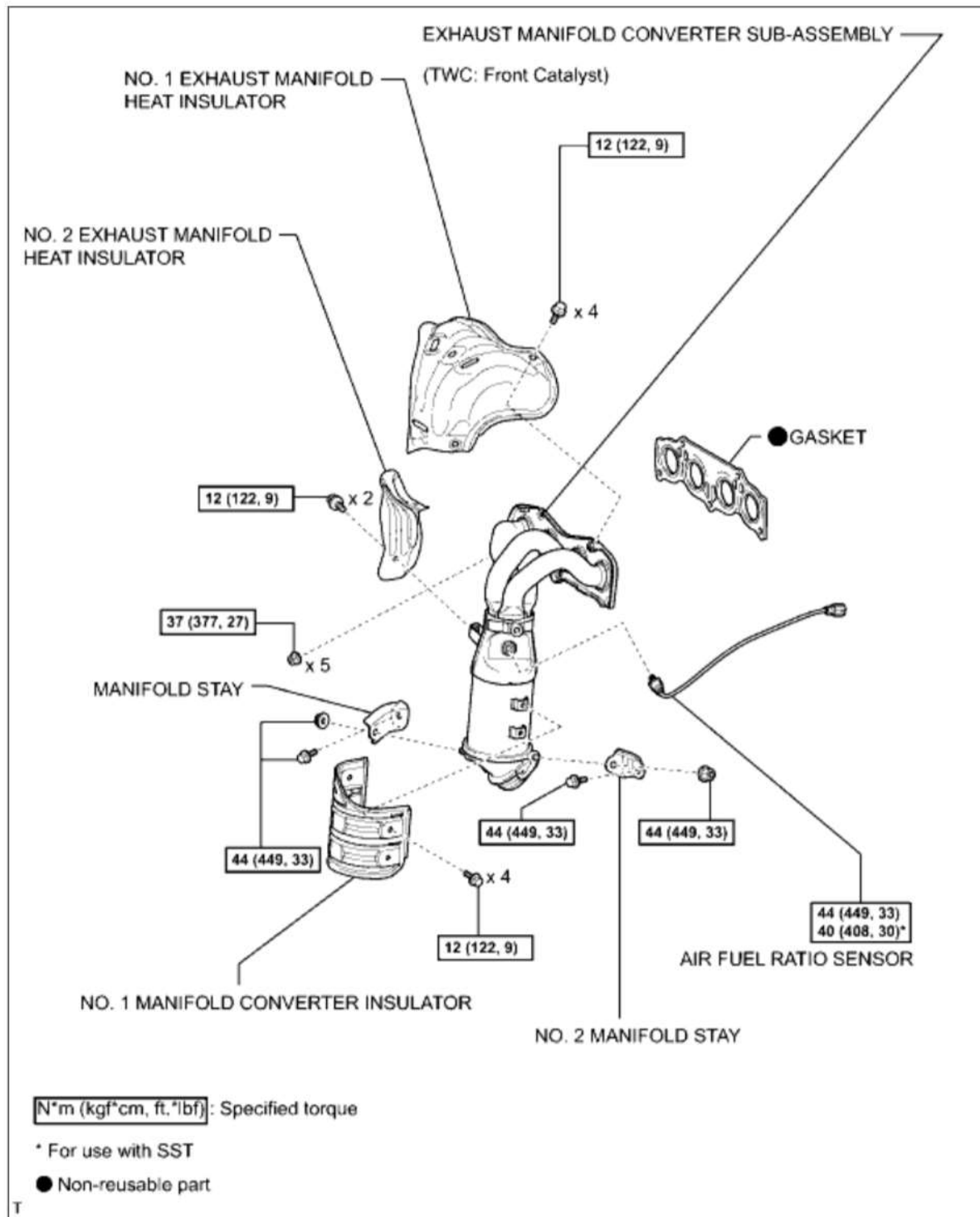
ILLUSTRATION



ILLUSTRATION



ILLUSTRATION



Last Modified: 3-10-2010	6.4 A	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000002CR4005X
Title: 2AZ-FE INTAKE / EXHAUST: EXHAUST MANIFOLD: REMOVAL (2010 Corolla)		

REMOVAL

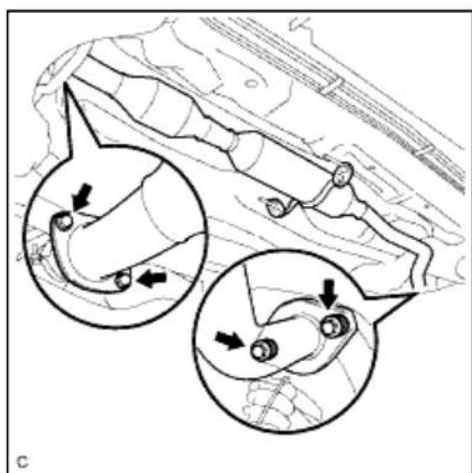
1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

2. REMOVE V-RIBBED BELT

3. REMOVE GENERATOR ASSEMBLY



4. REMOVE CENTER EXHAUST PIPE ASSEMBLY



(a) Remove the 4 bolts and 2 compression springs.

(b) Remove the center exhaust pipe assembly from the 2 exhaust pipe supports.

(c) Remove the 2 gaskets.

5. REMOVE FRONT EXHAUST PIPE ASSEMBLY

(a) Disconnect the heated oxygen sensor connector.



(b) Remove the 2 bolts, 2 compression springs and front exhaust pipe assembly.

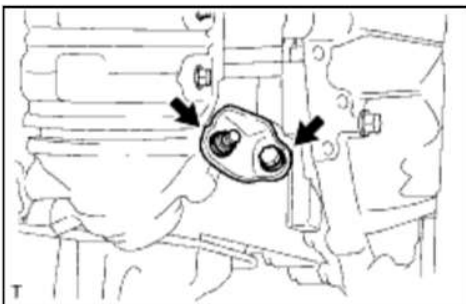
(c) Remove the gasket from the exhaust manifold.

6. REMOVE MANIFOLD STAY



(a) Remove the bolt, nut and manifold stay.

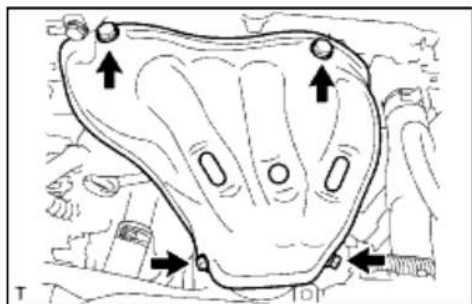
7. REMOVE NO. 2 MANIFOLD STAY



(a) Remove the bolt, nut and No. 2 manifold stay.

8. REMOVE NO. 1 EXHAUST MANIFOLD HEAT INSULATOR

(a) Remove the 4 bolts and No. 1 exhaust manifold heat

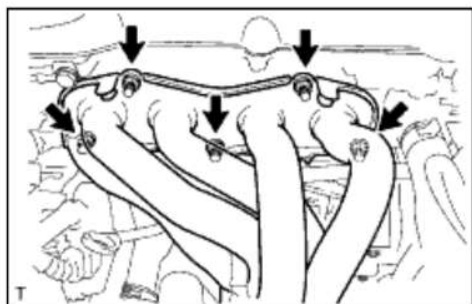


insulator.

9. REMOVE AIR FUEL RATIO SENSOR



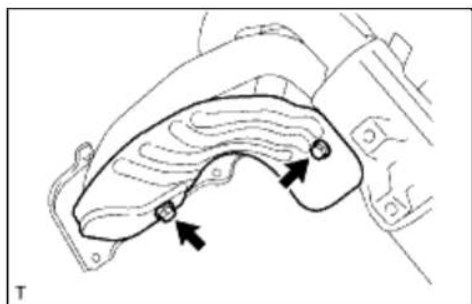
10. REMOVE EXHAUST MANIFOLD CONVERTER SUB-ASSEMBLY



(a) Remove the 5 nuts and exhaust manifold converter sub-assembly.

(b) Remove the gasket.

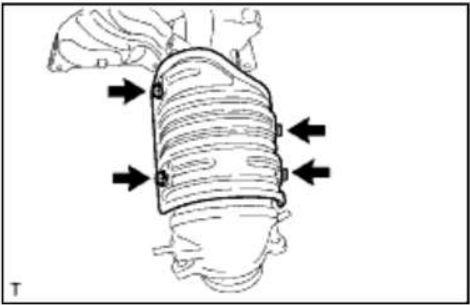
11. REMOVE NO. 2 EXHAUST MANIFOLD HEAT INSULATOR



(a) Remove the 2 bolts and No. 2 exhaust manifold heat insulator.

12. REMOVE NO. 1 MANIFOLD CONVERTER INSULATOR

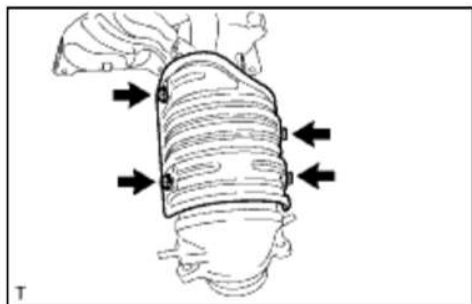
(a) Remove the 4 bolts and No. 1 manifold converter insulator.



Last Modified: 3-10-2010	6.4 A	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000002CR1005X
Title: 2AZ-FE INTAKE / EXHAUST: EXHAUST MANIFOLD: INSTALLATION (2010 Corolla)		

INSTALLATION

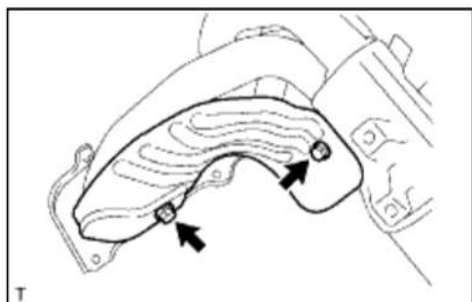
1. INSTALL NO. 1 MANIFOLD CONVERTER INSULATOR



(a) Install the No. 1 manifold converter insulator with the 4 bolts.

Torque: 12 N·m (122 kgf·cm, 9ft·lbf)

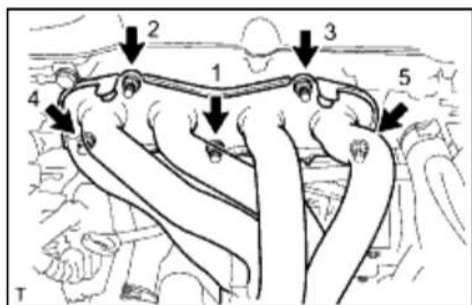
2. INSTALL NO. 2 EXHAUST MANIFOLD HEAT INSULATOR



(a) Install the No. 2 exhaust manifold heat insulator with the 2 bolts.

Torque: 12 N·m (122 kgf·cm, 9ft·lbf)

3. INSTALL EXHAUST MANIFOLD CONVERTER SUB-ASSEMBLY

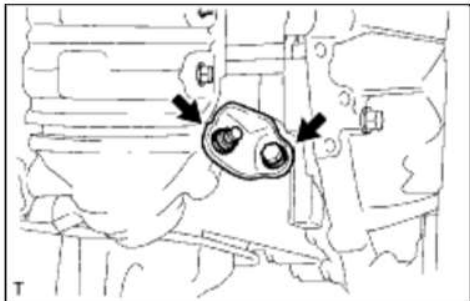


(a) Install a new gasket.

(b) Install the exhaust manifold converter sub-assembly with the 5 nuts in the order shown in the illustration.

Torque: 37 N·m (377 kgf·cm, 27ft·lbf)

4. INSTALL NO. 2 MANIFOLD STAY



(a) Install the No. 2 manifold stay with the bolt and nut.

Torque: 44 N·m (449 kgf·cm, 33ft·lbf)

5. INSTALL MANIFOLD STAY

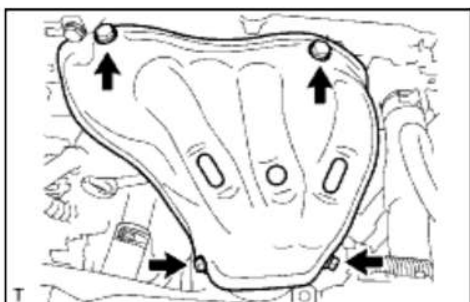


(a) Install the manifold stay with the bolt and nut.

Torque: 44 N·m (449 kgf·cm, 33ft·lbf)

6. INSTALL AIR FUEL RATIO SENSOR INFO

7. INSTALL NO. 1 EXHAUST MANIFOLD HEAT INSULATOR

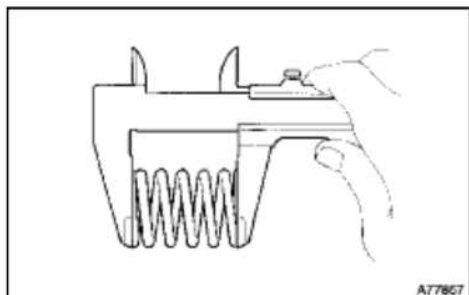


(a) Install the No. 1 exhaust manifold heat insulator with the 4 bolts.

Torque: 12 N·m (122 kgf·cm, 9ft·lbf)

8. INSTALL FRONT EXHAUST PIPE ASSEMBLY

(a) Using a vernier caliper, measure the free length of the compression springs.



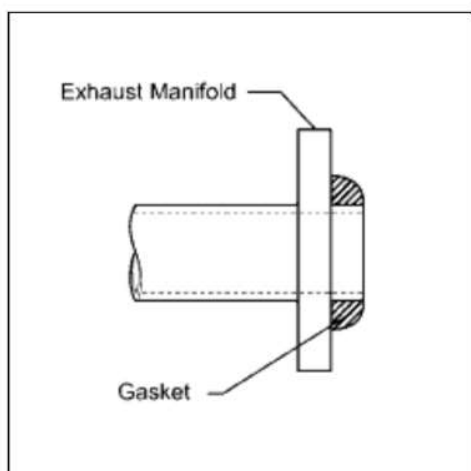
Minimum

41.5 mm (1.63 in.)

HINT:

If the free length is less than the minimum, replace the compression spring.

(b) Remove the remains of exhaust manifold converter with wire brash.



(c) Fully insert a new gasket to the exhaust manifold.

NOTICE:

- Be sure to install the gasket in the correct direction.
- Do not reuse the gasket.
- Do not damage the gasket.



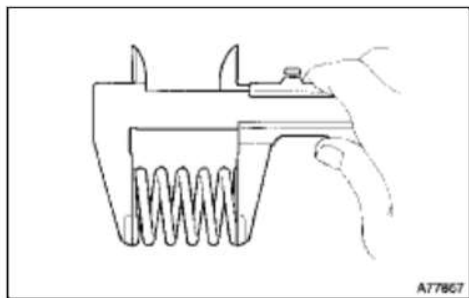
(d) Install the front exhaust pipe assembly with the 2 bolts and 2 compression springs.

Torque: 43 N·m (440 kgf·cm, 32ft·lbf)

(e) Connect the heated oxygen sensor connector.

9. INSTALL CENTER EXHAUST PIPE ASSEMBLY

(a) Using a vernier caliper, measure the free length of the

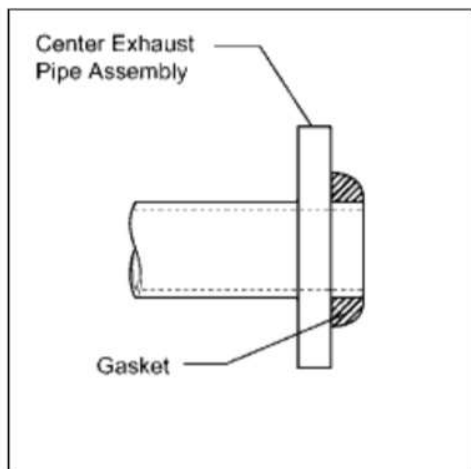


compression springs.

Minimum	38.5 mm (1.52 in.)
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HINT:

If the free length is less than the minimum, replace the compression spring.



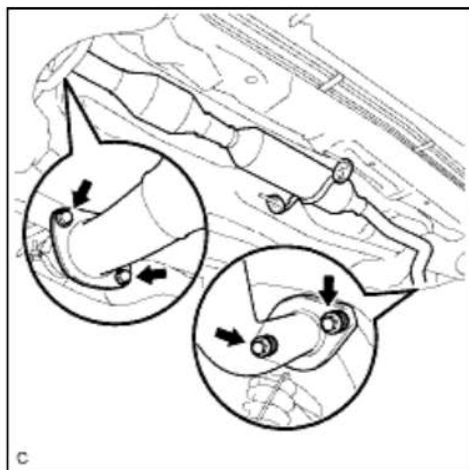
(b) Fully insert a new gasket to the center exhaust pipe assembly.

NOTICE:

- Be sure to install the gasket in the correct direction.
- Do not reuse the gasket.
- Do not damage the gasket.

(c) Install a new gasket to the front exhaust pipe assembly.

(d) Connect the center exhaust pipe assembly to the 2 exhaust pipe supports.



(e) Install the center exhaust pipe assembly with the 4 bolts and 2 compression springs.

Torque: 43 N·m (440 kgf·cm, 32ft·lbf)

10. INSTALL GENERATOR ASSEMBLY



11. INSTALL V-RIBBED BELT

INFO

12. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

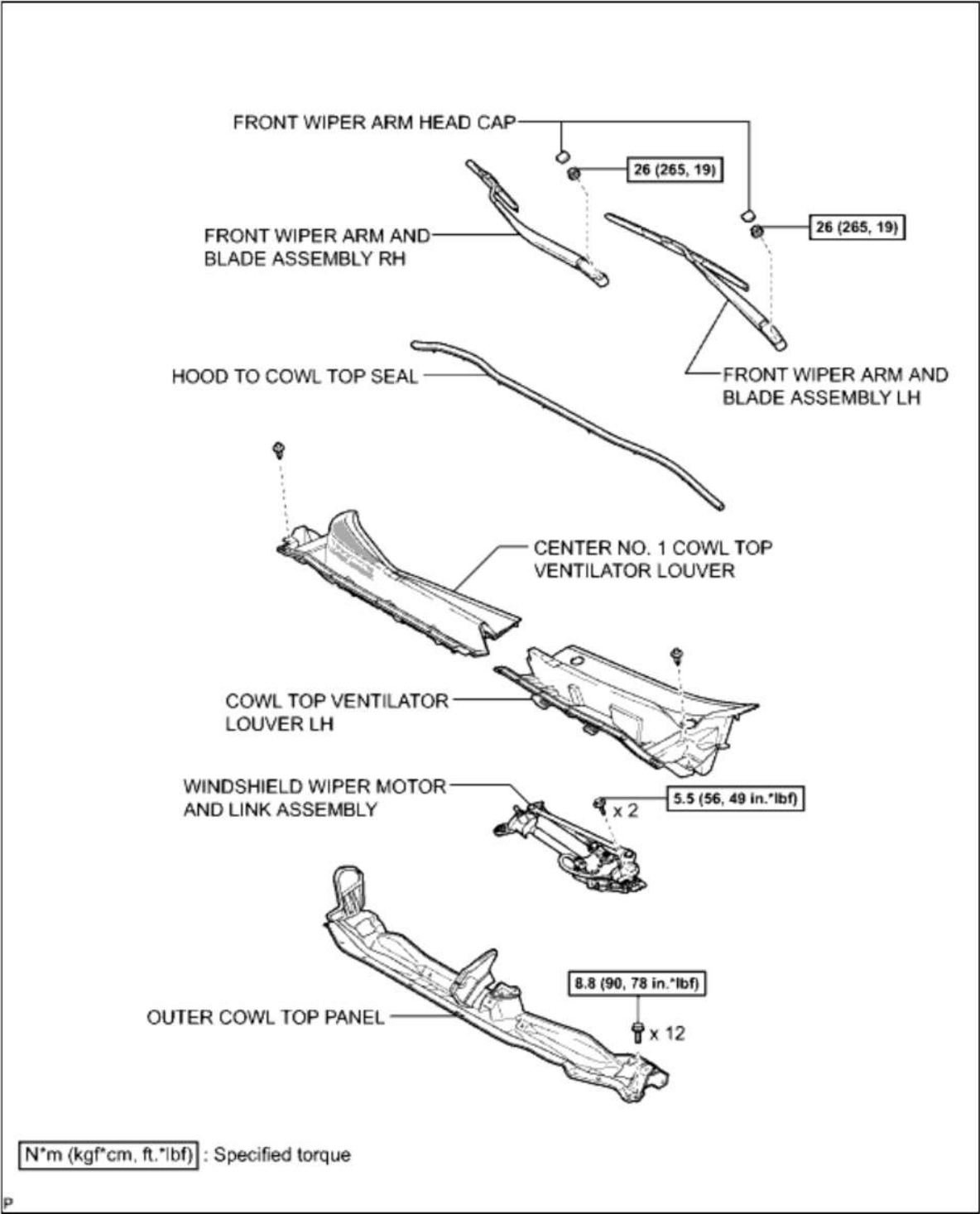
13. INSPECT FOR EXHAUST GAS LEAK



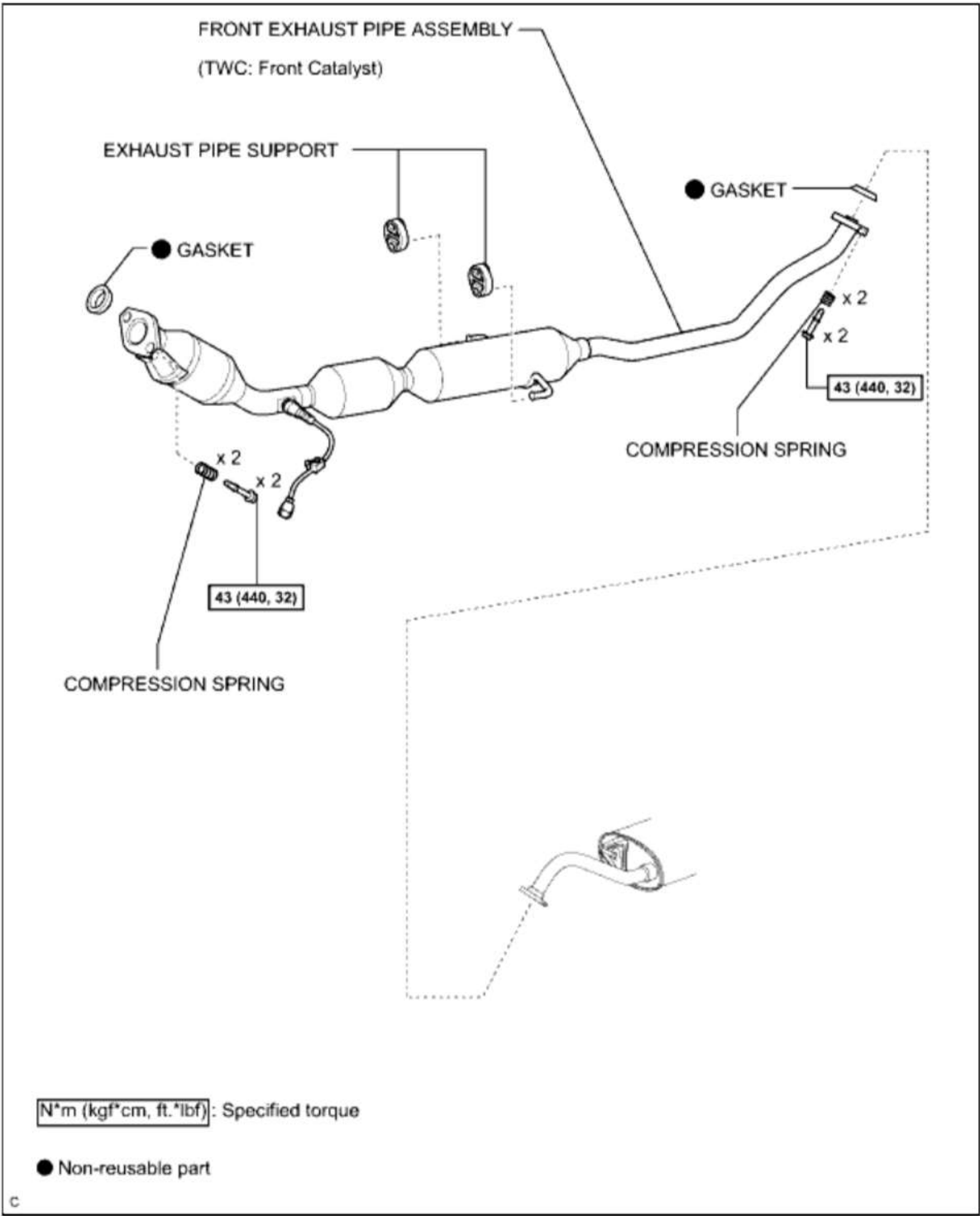
Last Modified: 3-10-2010	6.4 K	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000002WV5021X
Title: 2ZR-FE INTAKE / EXHAUST: EXHAUST MANIFOLD: COMPONENTS (2010 Corolla)		

COMPONENTS

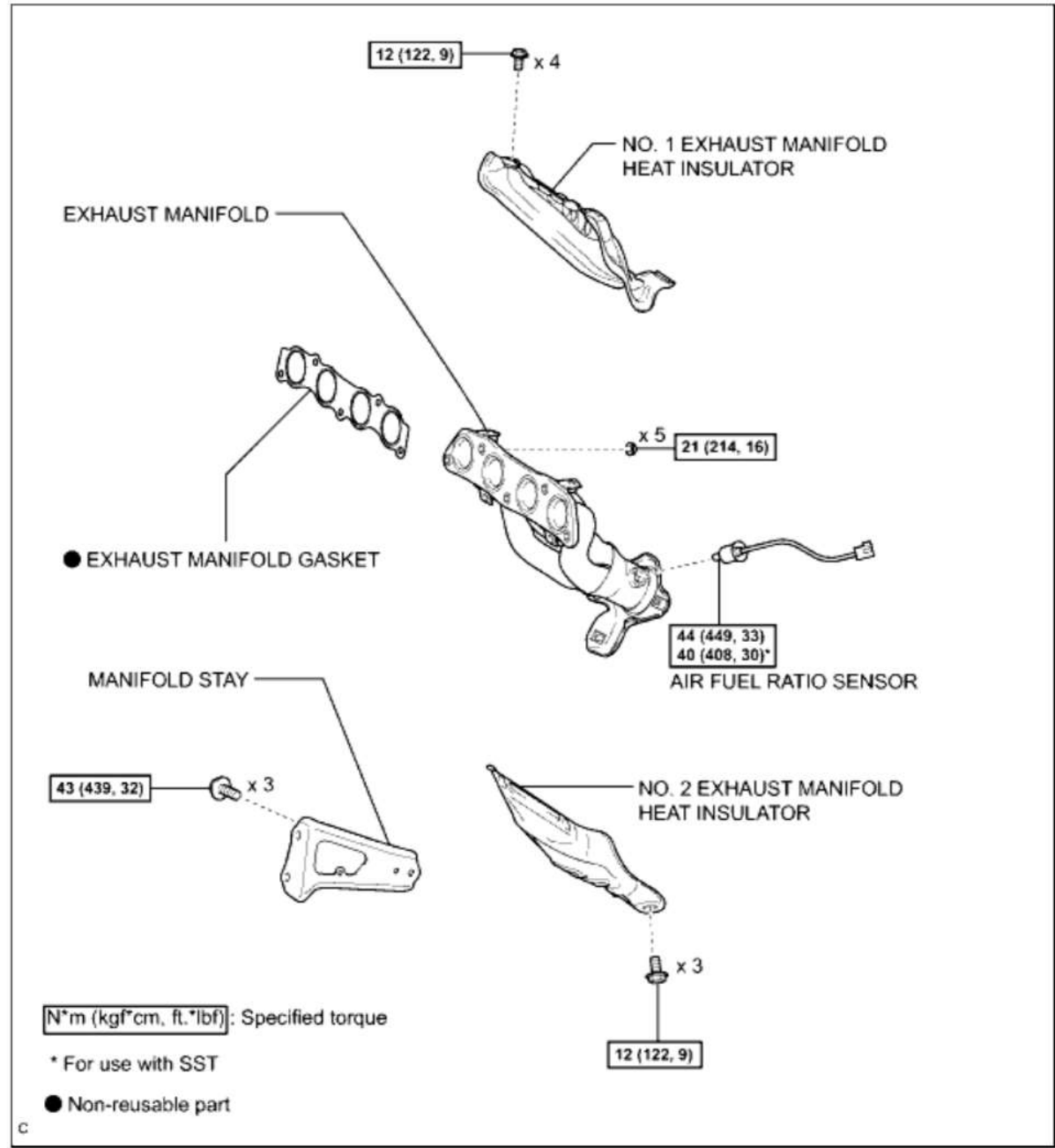
ILLUSTRATION



ILLUSTRATION



ILLUSTRATION

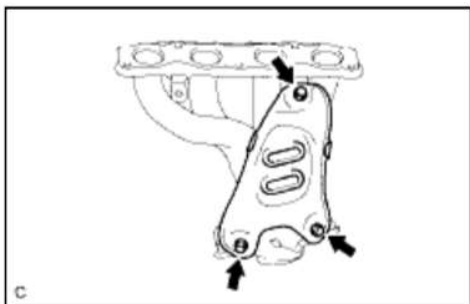


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Last Modified: 3-10-2010	6.4 A	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000002Y7I023X
Title: 2ZR-FE INTAKE / EXHAUST: EXHAUST MANIFOLD: INSTALLATION (2010 Corolla)		

INSTALLATION

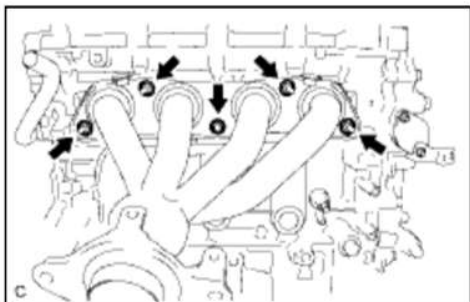
1. INSTALL NO. 2 EXHAUST MANIFOLD HEAT INSULATOR



(a) Install the No. 2 exhaust manifold heat insulator with the 3 bolts.

Torque: 12 N·m (122 kgf·cm, 9ft·lbf)

2. INSTALL EXHAUST MANIFOLD

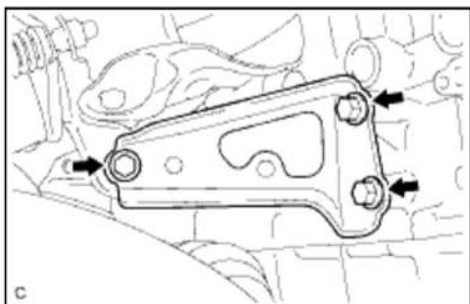


(a) Install a new exhaust manifold gasket.

(b) Install the exhaust manifold with the 5 nuts.

Torque: 21 N·m (214 kgf·cm, 16ft·lbf)

3. INSTALL MANIFOLD STAY

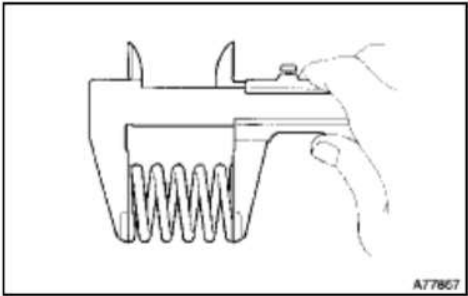


(a) Install the manifold stay with the 3 bolts.

Torque: 43 N·m (439 kgf·cm, 32ft·lbf)

4. INSTALL FRONT EXHAUST PIPE ASSEMBLY

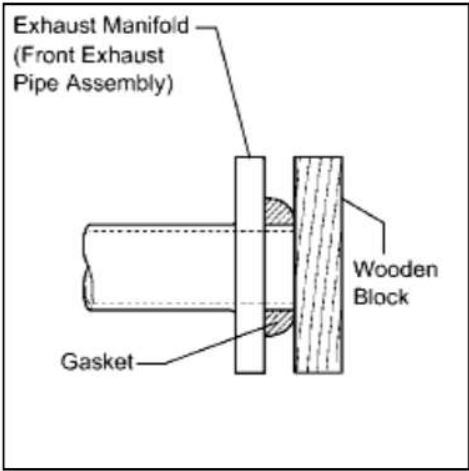
(a) Using a vernier caliper, measure the free length of the compression springs.



Minimum (front)	41.5 mm (1.63 in.)
Minimum (rear)	38.5 mm (1.52 in.)

HINT:
If the free length is less than the minimum, replace the compression spring.

(b) Fully insert new gaskets to the exhaust manifold and front exhaust pipe assembly.



(c) Using a plastic hammer and wooden block, tap in the 2 new gaskets until their surface are flush with the exhaust manifold and front exhaust pipe assembly.

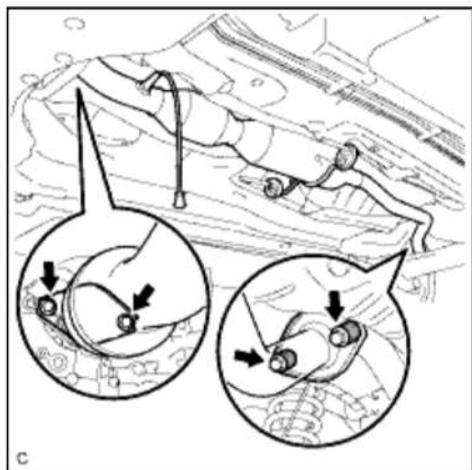
NOTICE:

- Be sure to install the gaskets in the correct direction.
- Do not reuse the gaskets.
- Do not damage the gaskets.
- Do not push in the gaskets by using the exhaust pipe when connecting it.

(d) Connect the front exhaust pipe assembly to the 2 exhaust pipe supports.

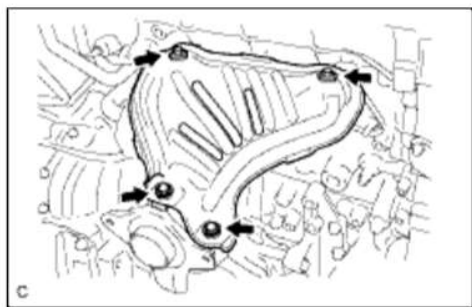
(e) Install the front exhaust pipe assembly with the 4 bolts and 4 compression springs.

Torque: 43 N·m (440 kgf·cm, 32ft·lbf)



(f) Connect the heated oxygen sensor connector.

5. INSTALL NO. 1 EXHAUST MANIFOLD HEAT INSULATOR



(a) Install the No. 1 exhaust manifold heat insulator with the 4 bolts.

Torque: 12 N·m (122 kgf·cm, 9ft·lbf)

6. INSTALL AIR FUEL RATIO SENSOR

7. INSTALL NO. 2 CYLINDER HEAD COVER

8. INSTALL OUTER COWL TOP PANEL (except TMC Made)

9. INSTALL OUTER COWL TOP PANEL (for TMC Made)

10. INSTALL WINDSHIELD WIPER MOTOR AND LINK ASSEMBLY

11. INSTALL COWL TOP VENTILATOR LOUVER LH

12. INSTALL CENTER NO. 1 COWL TOP VENTILATOR LOUVER

13. INSTALL HOOD TO COWL TOP SEAL

14. INSTALL FRONT WIPER ARM AND BLADE ASSEMBLY RH

15. INSTALL FRONT WIPER ARM AND BLADE ASSEMBLY LH

16. INSTALL FRONT WIPER ARM HEAD CAP

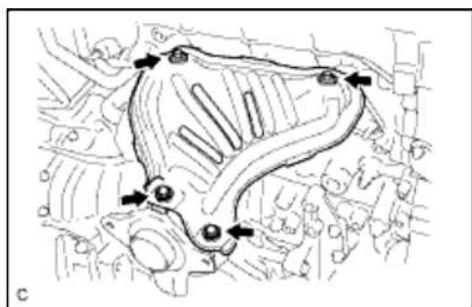
17. INSPECT FOR EXHAUST GAS LEAK



Last Modified: 3-10-2010	6.4 A	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000002Y70023X
Title: 2ZR-FE INTAKE / EXHAUST: EXHAUST MANIFOLD: REMOVAL (2010 Corolla)		

REMOVAL

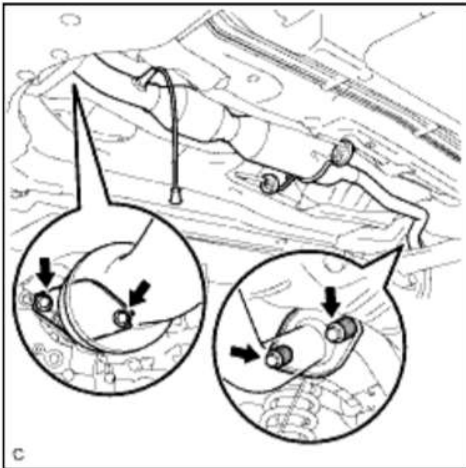
1. REMOVE FRONT WIPER ARM HEAD CAP [INFO](#)
2. REMOVE FRONT WIPER ARM AND BLADE ASSEMBLY LH [INFO](#)
3. REMOVE FRONT WIPER ARM AND BLADE ASSEMBLY RH [INFO](#)
4. REMOVE HOOD TO COWL TOP SEAL [INFO](#)
5. REMOVE CENTER NO. 1 COWL TOP VENTILATOR LOUVER [INFO](#)
6. REMOVE COWL TOP VENTILATOR LOUVER LH [INFO](#)
7. REMOVE WINDSHIELD WIPER MOTOR AND LINK ASSEMBLY [INFO](#)
8. REMOVE OUTER COWL TOP PANEL (for TMC Made) [INFO](#)
9. REMOVE OUTER COWL TOP PANEL (except TMC Made) [INFO](#)
10. REMOVE NO. 2 CYLINDER HEAD COVER [INFO](#)
11. REMOVE AIR FUEL RATIO SENSOR [INFO](#)
12. REMOVE NO. 1 EXHAUST MANIFOLD HEAT INSULATOR



(a) Remove the 4 bolts and No. 1 exhaust manifold heat insulator.

13. REMOVE FRONT EXHAUST PIPE ASSEMBLY

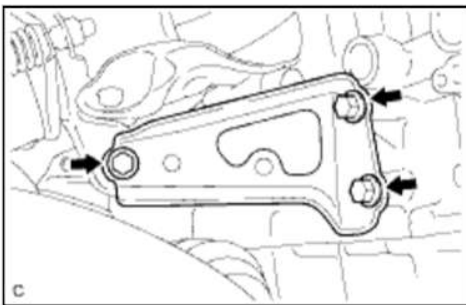
(a) Disconnect the heated oxygen sensor connector.



(b) Remove the 4 bolts and 4 compression springs.

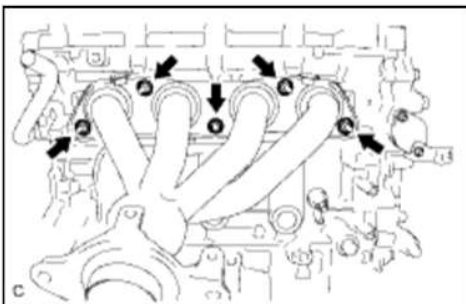
(c) Remove the front exhaust pipe assembly from the 2 exhaust pipe supports.

14. REMOVE MANIFOLD STAY



(a) Remove the 3 bolts and manifold stay.

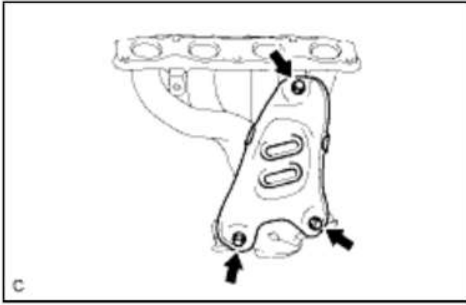
15. REMOVE EXHAUST MANIFOLD



(a) Remove the 5 nuts and exhaust manifold.

(b) Remove the exhaust manifold gasket.

16. REMOVE NO. 2 EXHAUST MANIFOLD HEAT INSULATOR



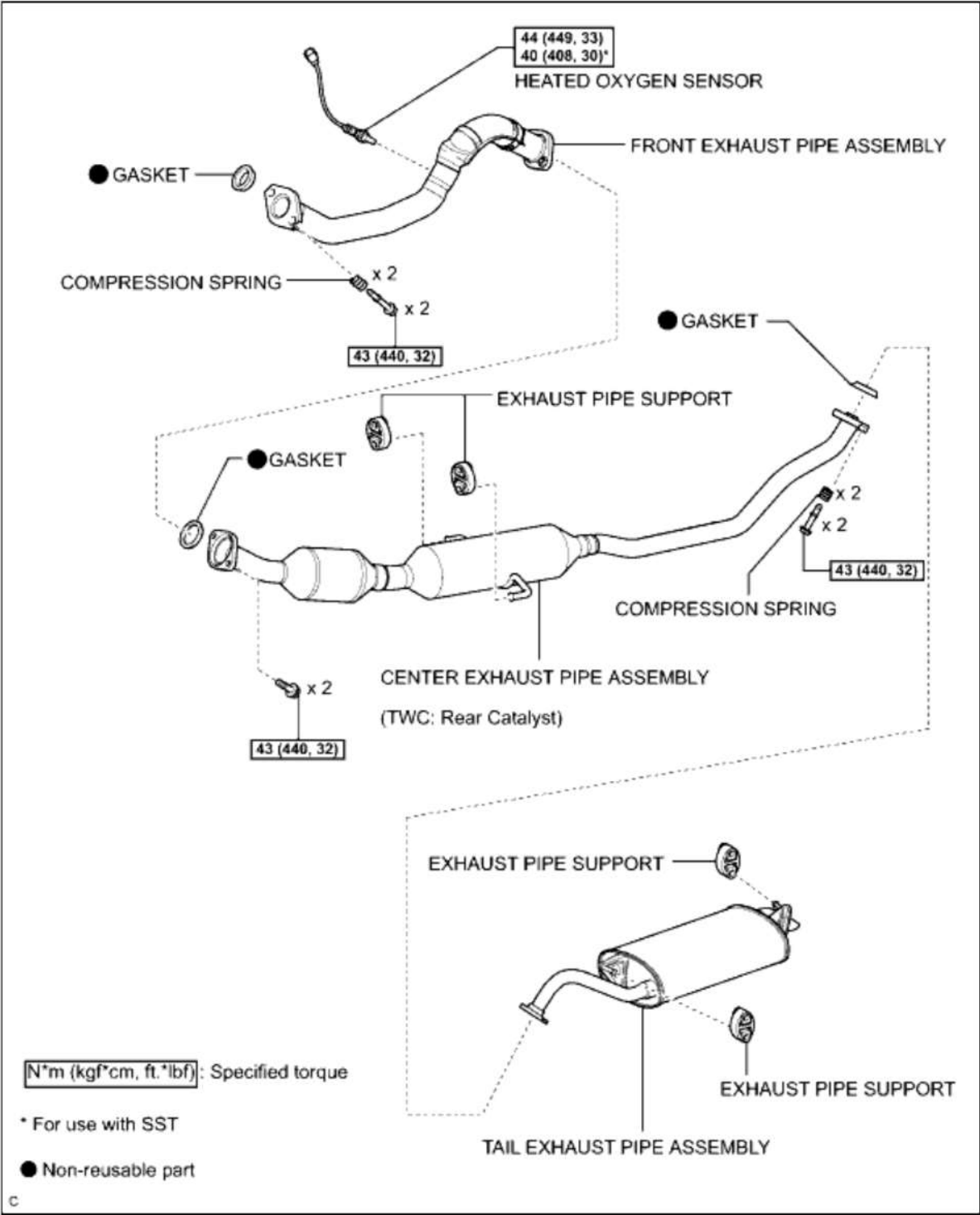
(a) Remove the 3 bolts and No. 2 exhaust manifold heat insulator.



Last Modified: 3-10-2010	6.4 K	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000002WV001NX
Title: 2AZ-FE INTAKE / EXHAUST: EXHAUST PIPE: COMPONENTS (2010 Corolla)		

COMPONENTS

ILLUSTRATION



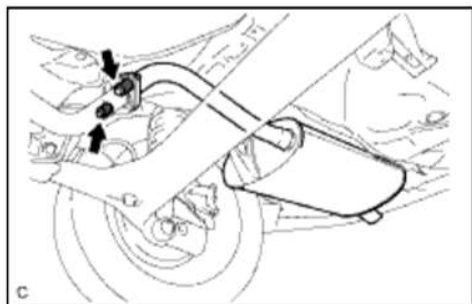


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Last Modified: 3-10-2010	6.4 A	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM00000090J038X
Title: 2AZ-FE INTAKE / EXHAUST: EXHAUST PIPE: REMOVAL (2010 Corolla)		

REMOVAL

1. REMOVE TAIL EXHAUST PIPE ASSEMBLY



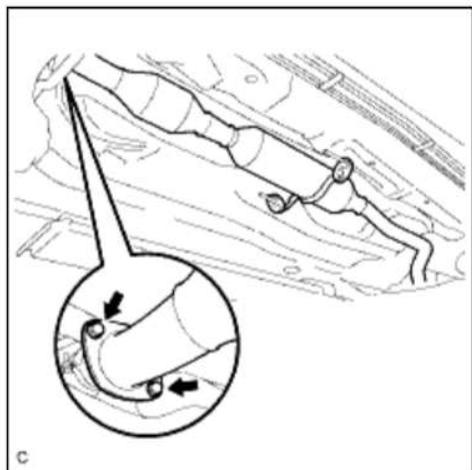
(a) Remove the 2 bolts and 2 compression springs.

(b) Remove the tail exhaust pipe assembly from the 2 exhaust pipe supports.

(c) Remove the gasket from the center exhaust pipe assembly.

2. REMOVE HEATED OXYGEN SENSOR

3. REMOVE CENTER EXHAUST PIPE ASSEMBLY



(a) Remove the 2 bolts.

(b) Remove the center exhaust pipe assembly from the 2 exhaust pipe supports.

(c) Remove the gasket from the front exhaust pipe assembly.

4. REMOVE FRONT EXHAUST PIPE ASSEMBLY

(a) Remove the 2 bolts, 2 compression springs and front



exhaust pipe assembly.

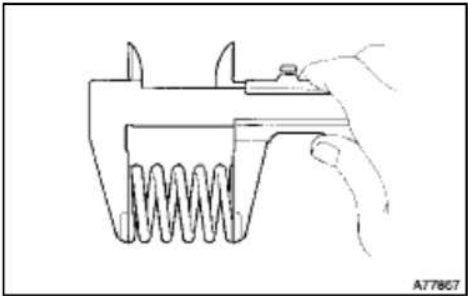
(b) Remove the gasket from the exhaust manifold.



Last Modified: 3-10-2010	6.4 A	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM00000090H038X
Title: 2AZ-FE INTAKE / EXHAUST: EXHAUST PIPE: INSTALLATION (2010 Corolla)		

INSTALLATION

1. INSTALL FRONT EXHAUST PIPE ASSEMBLY

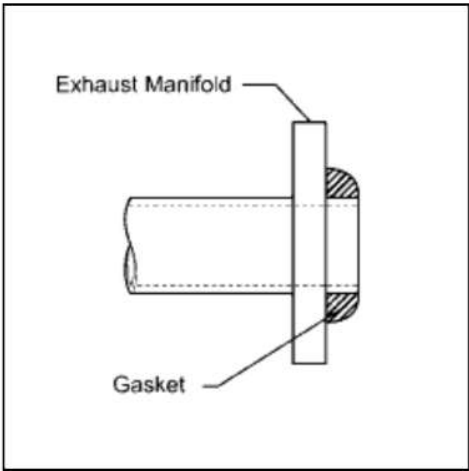


(a) Using a vernier caliper, measure the free length of the compression springs.

Minimum	41.5 mm (1.63 in.)
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HINT:
If the free length is less than the minimum, replace the compression spring.

(b) Remove the remains of exhaust manifold converter with wire brash.



(c) Fully insert a new gasket to the exhaust manifold.

NOTICE:

- Be sure to install the gasket in the correct direction.
- Do not reuse the gasket.
- Do not damage the gasket.

(d) Install the front exhaust pipe assembly with the 2 bolts and 2 compression springs.

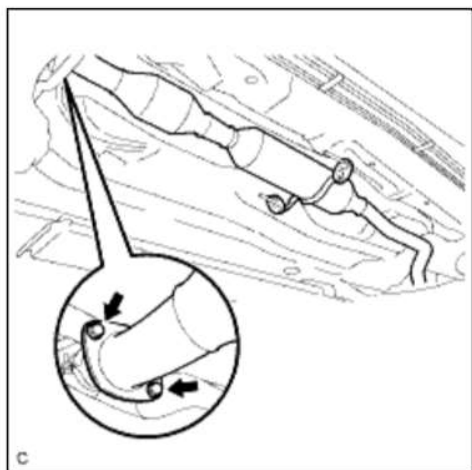
Torque: 43 N·m (440 kgf·cm, 32ft·lbf)



2. INSTALL HEATED OXYGEN SENSOR



3. INSTALL CENTER EXHAUST PIPE ASSEMBLY



(a) Install a new gasket to the front exhaust pipe assembly

(b) Connect the center exhaust pipe assembly to the 2 exhaust pipe supports.

(c) Install the center exhaust pipe assembly with the 2 bolts.

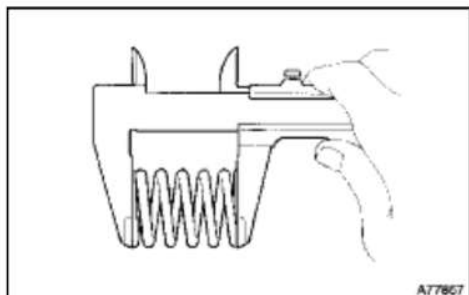
Torque: 43 N·m (440 kgf·cm, 32ft·lbf)

4. INSTALL TAIL EXHAUST PIPE ASSEMBLY

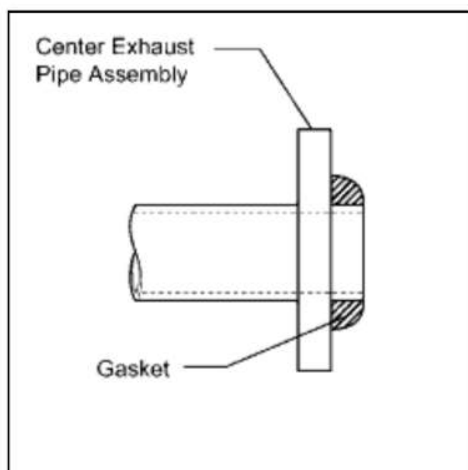
(a) Using a vernier caliper, measure the free length of the compression springs.

Minimum	38.5 mm (1.52 in.)
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HINT:



If the free length is less than the minimum, replace the compression spring.

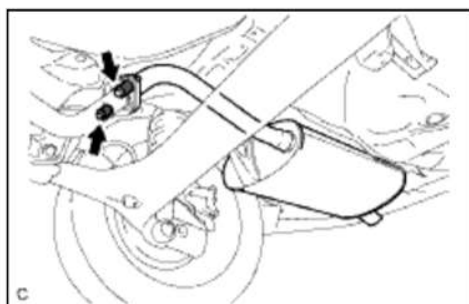


(b) Fully insert a new gasket to the center exhaust pipe assembly.

NOTICE:

- Be sure to install the gasket in the correct direction.
- Do not reuse the gasket.
- Do not damage the gasket.

(c) Connect the tail exhaust pipe assembly to the 2 exhaust pipe supports.



(d) Install the tail exhaust pipe assembly with the 2 bolts and 2 compression springs.

Torque: 43 N·m (440 kgf·cm, 32ft·lbf)

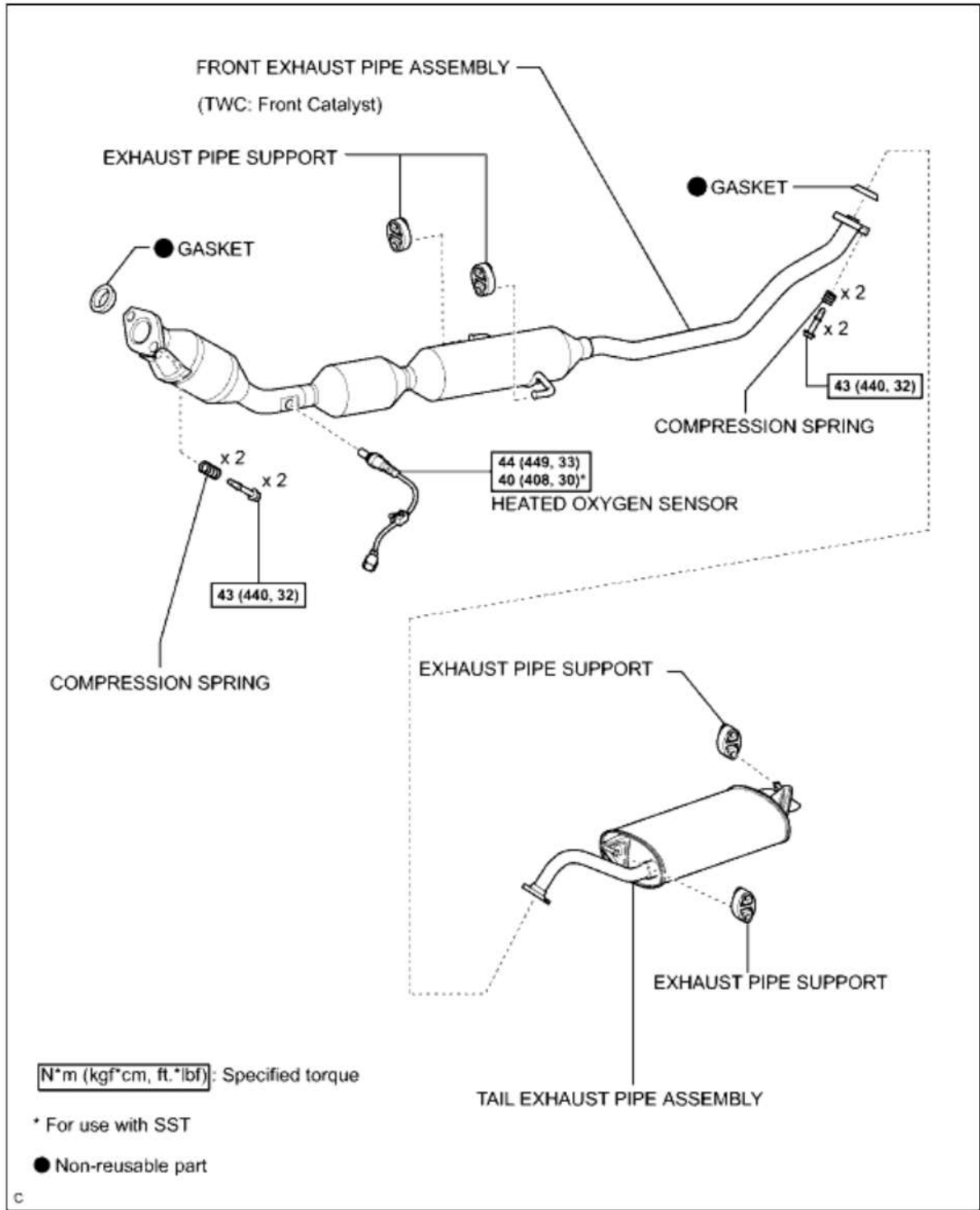
5. INSPECT FOR EXHAUST GAS LEAK



Last Modified: 3-10-2010	6.4 K	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000002WV001MX
Title: 2ZR-FE INTAKE / EXHAUST: EXHAUST PIPE: COMPONENTS (2010 Corolla)		

COMPONENTS

ILLUSTRATION



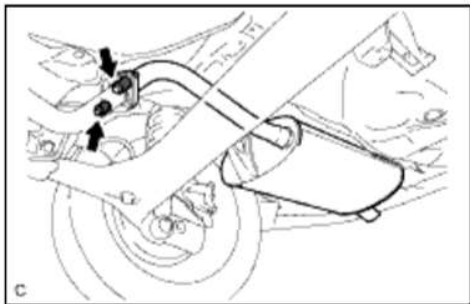


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Last Modified: 3-10-2010	6.4 A	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM00000090J037X
Title: 2ZR-FE INTAKE / EXHAUST: EXHAUST PIPE: REMOVAL (2010 Corolla)		

REMOVAL

1. REMOVE TAIL EXHAUST PIPE ASSEMBLY



(a) Remove the 2 bolts and 2 compression springs.

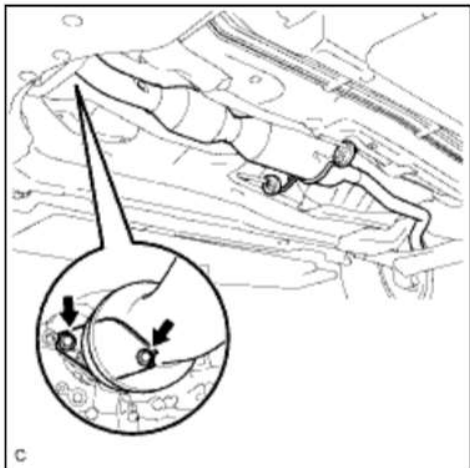
(b) Remove the tail exhaust pipe assembly from the 2 exhaust pipe supports.

(c) Remove the gasket from the front exhaust pipe assembly.

2. REMOVE HEATED OXYGEN SENSOR



3. REMOVE FRONT EXHAUST PIPE ASSEMBLY



(a) Remove the 2 bolts and 2 compression springs.

(b) Remove the front exhaust pipe assembly from the 2 exhaust pipe supports.

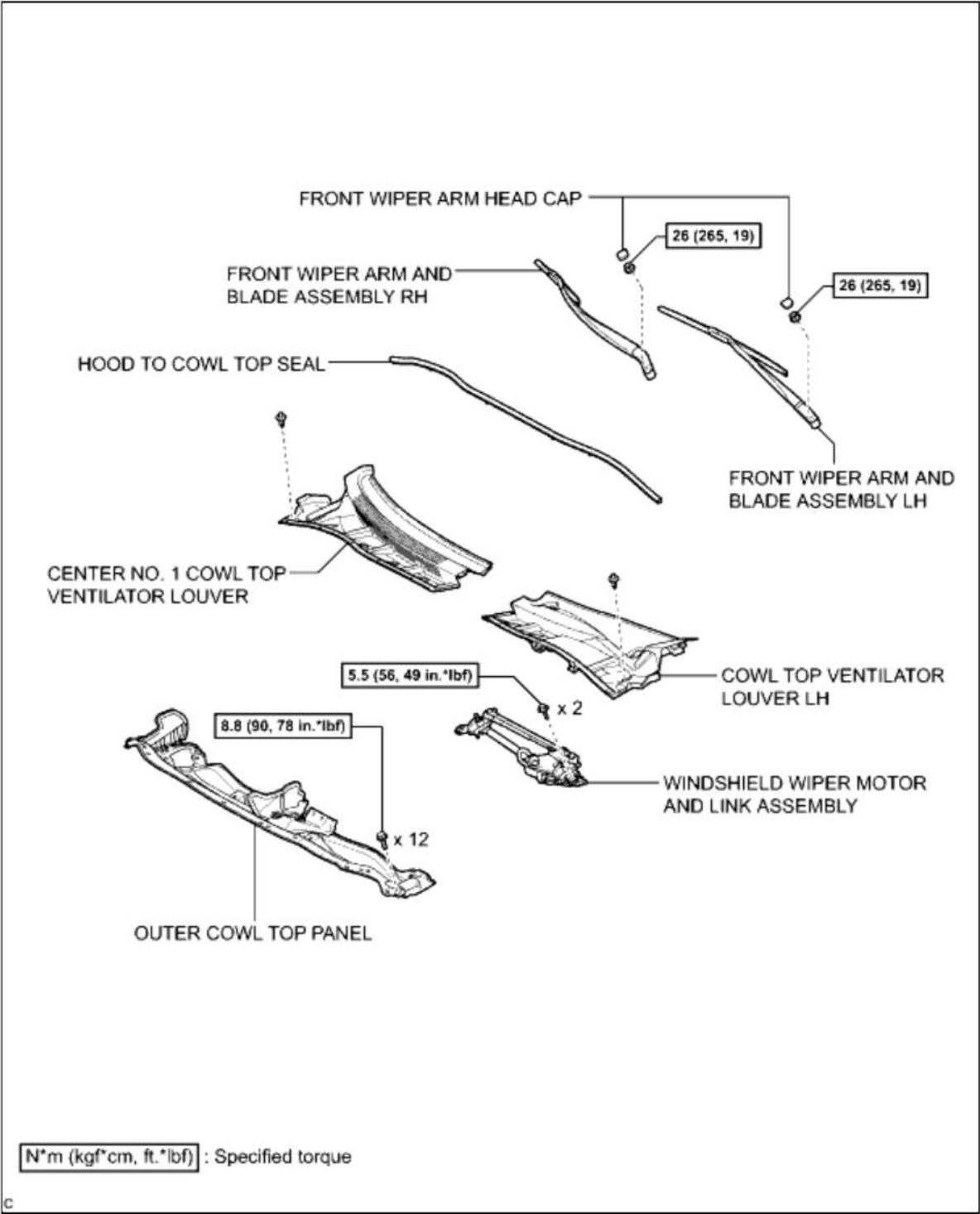
(c) Remove the gasket from the exhaust manifold.



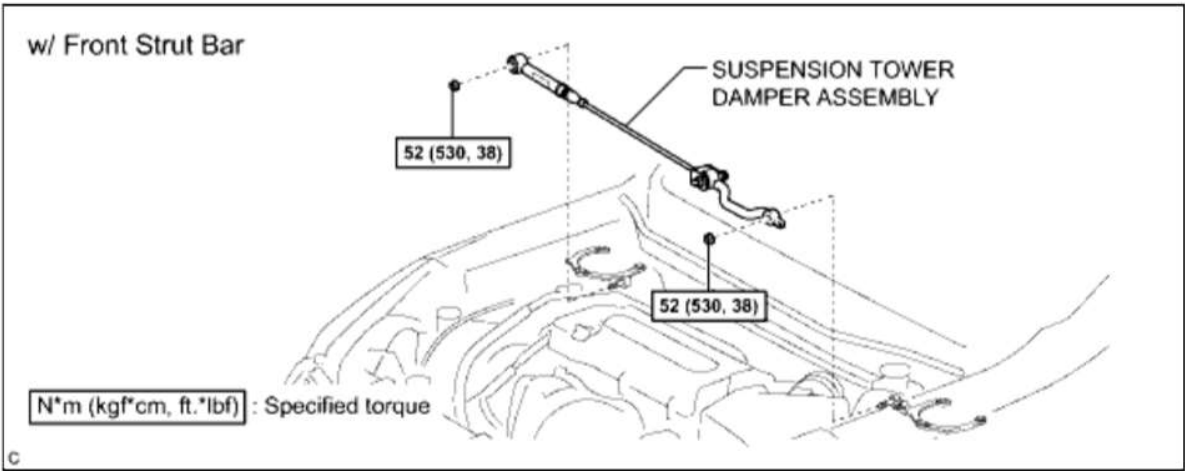
Last Modified: 3-10-2010	6.4 K	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000000X9Z01RX
Title: 2AZ-FE INTAKE / EXHAUST: INTAKE MANIFOLD: COMPONENTS (2010 Corolla)		

COMPONENTS

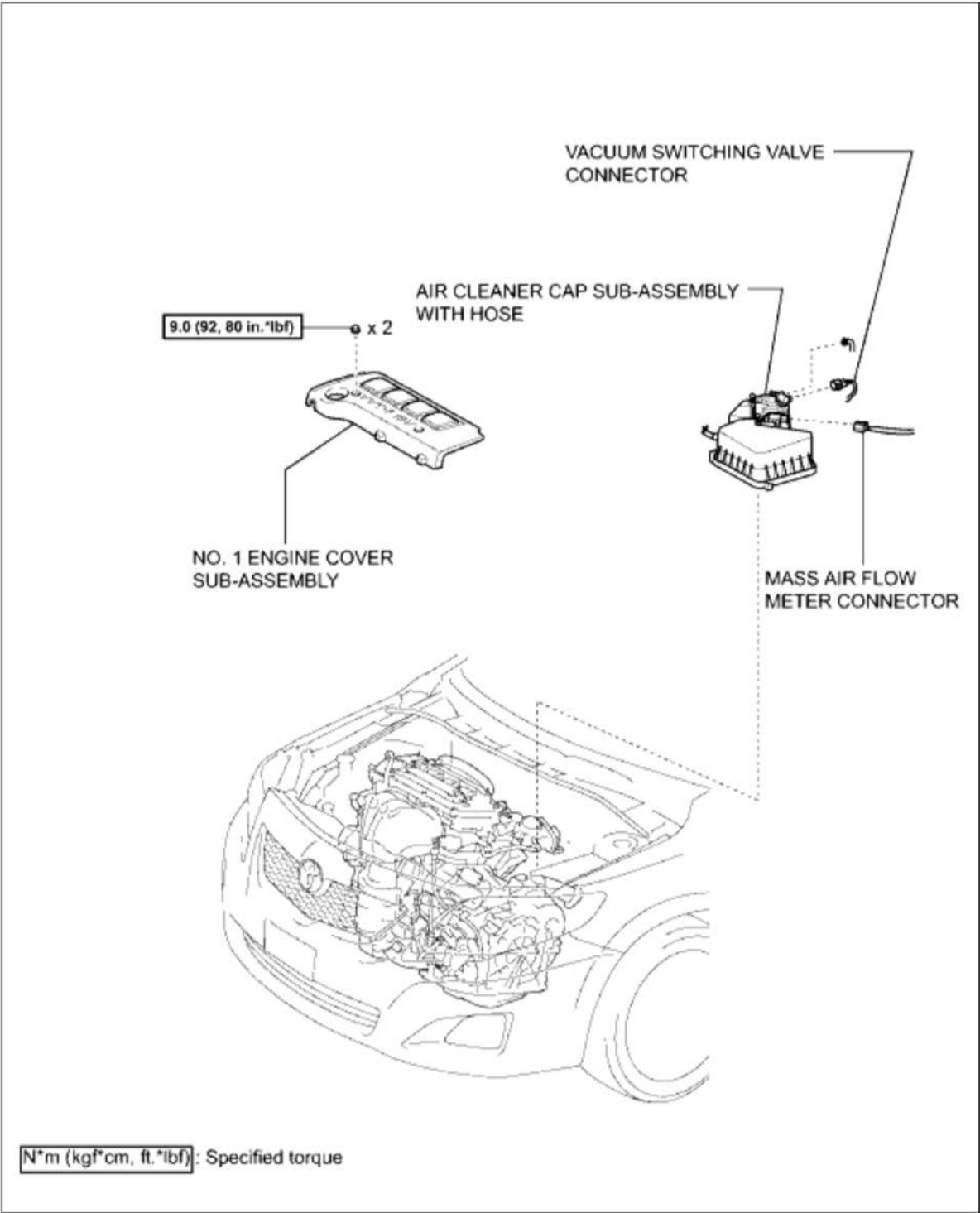
ILLUSTRATION



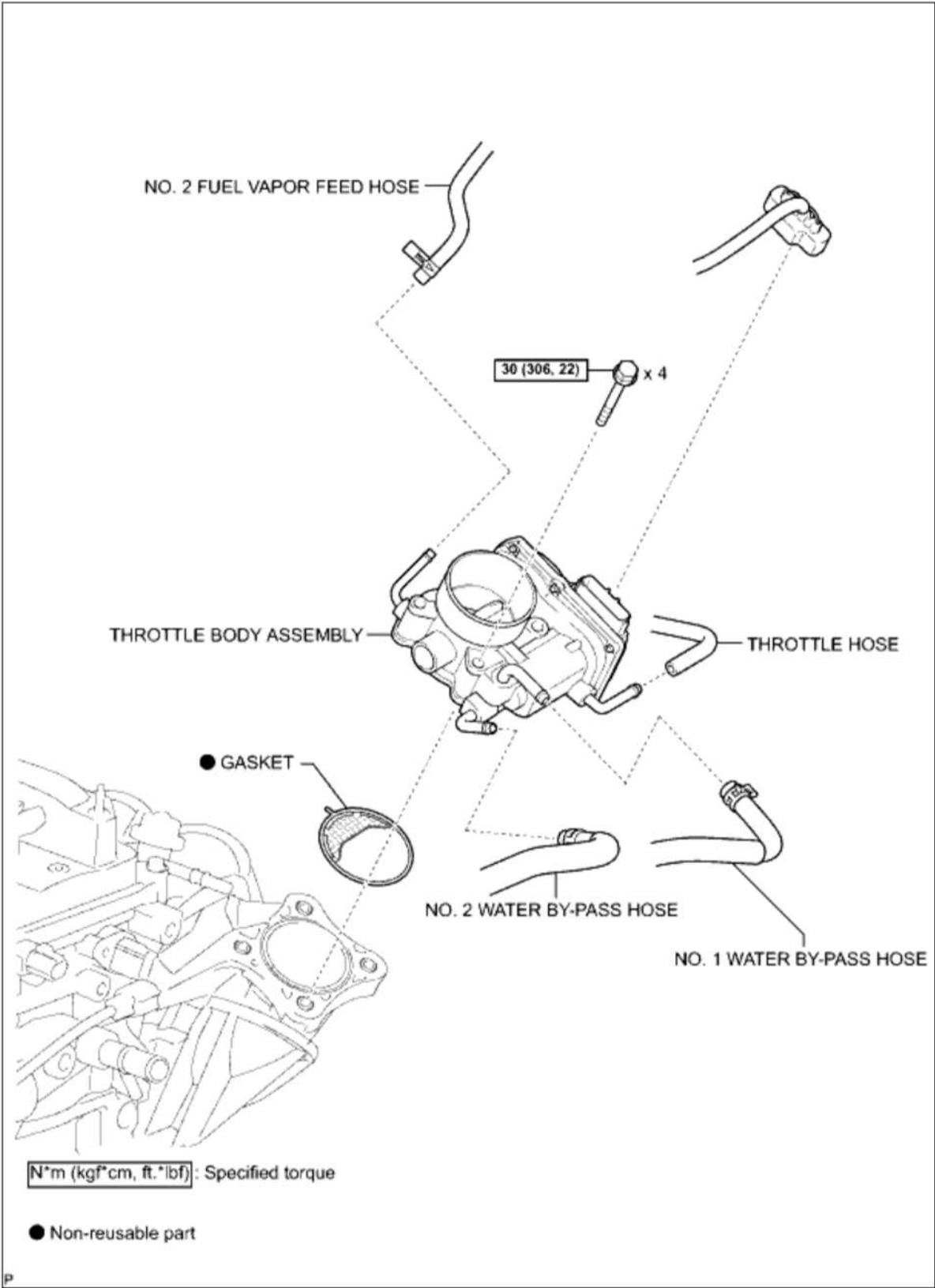
ILLUSTRATION



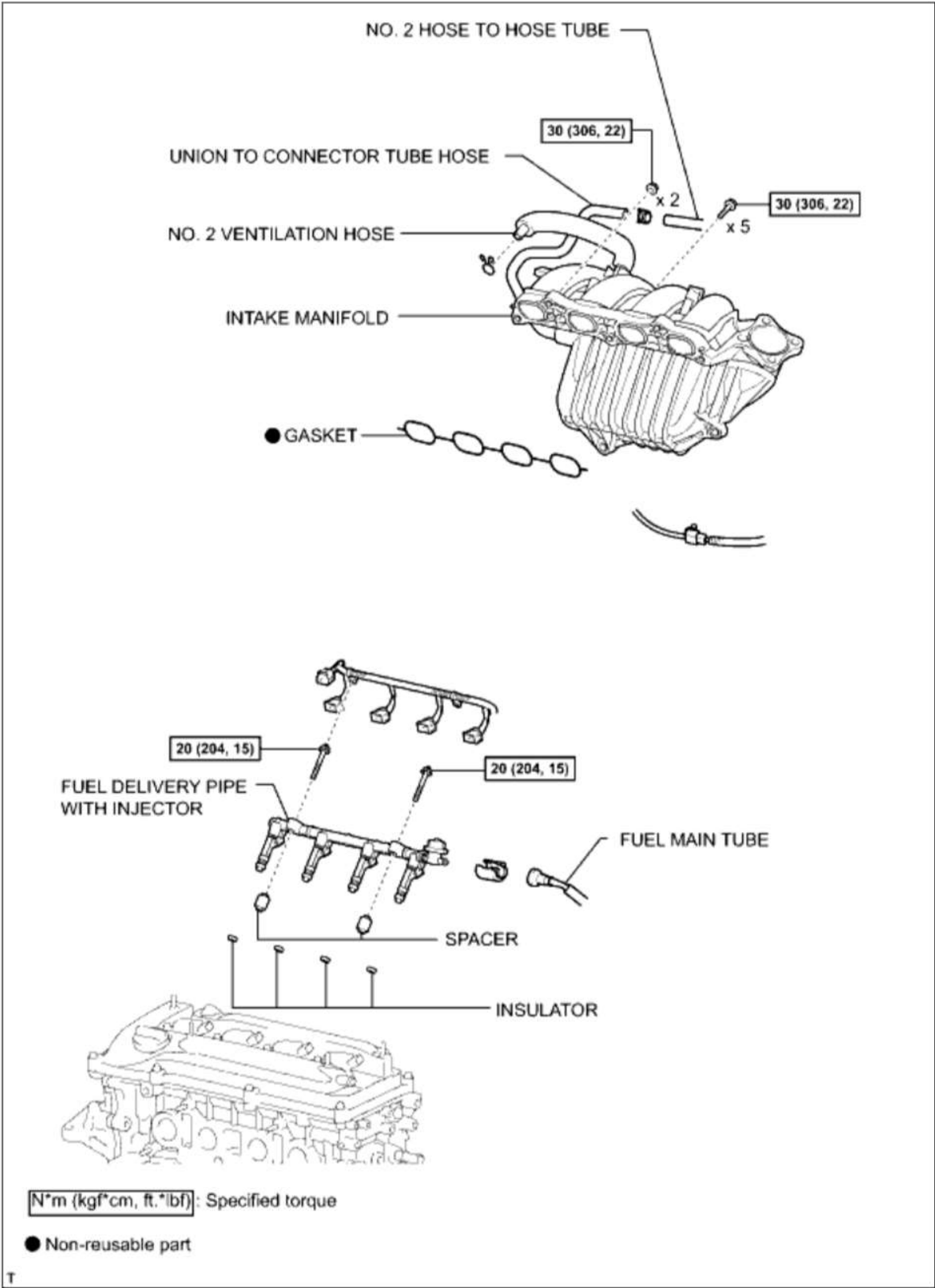
ILLUSTRATION



ILLUSTRATION



ILLUSTRATION



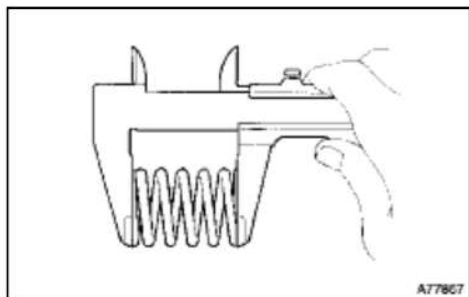
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Last Modified: 3-10-2010	6.4 A	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM00000090H037X
Title: 2ZR-FE INTAKE / EXHAUST: EXHAUST PIPE: INSTALLATION (2010 Corolla)		

INSTALLATION

1. INSTALL FRONT EXHAUST PIPE ASSEMBLY

- (a) Using a vernier caliper, measure the free length of the compression springs.

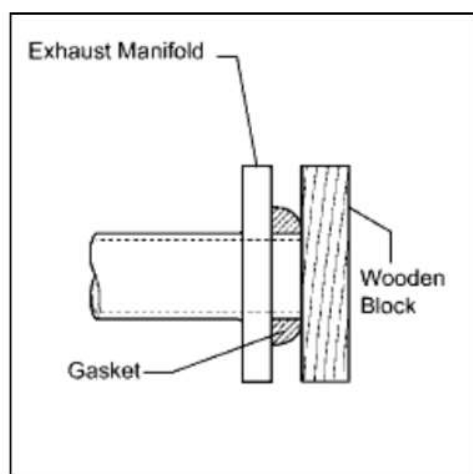


Minimum	41.5 mm (1.63 in.)
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HINT:

If the free length is less than the minimum, replace the compression spring.

- (b) Fully insert a new gasket to the exhaust manifold.



- (c) Using a plastic hammer and wooden block, tap in the new gasket until its surface is flush with the exhaust manifold.

NOTICE:

- Be sure to install the gasket in the correct direction.
- Do not reuse the gasket.
- Do not damage the gasket.
- Do not push in the gasket by using the exhaust pipe when connecting it.

- (d) Connect the front exhaust pipe assembly to the 2 exhaust pipe supports.



(e) Install the front exhaust pipe assembly with the 2 bolts and 2 compression springs.

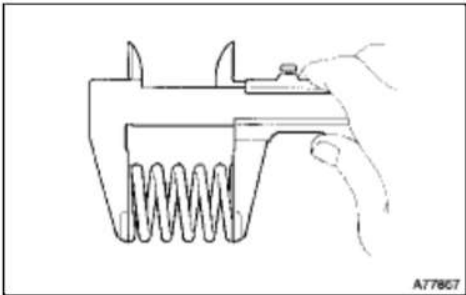
Torque: 43 N·m (440 kgf·cm, 32ft·lbf)

2. INSTALL HEATED OXYGEN SENSOR



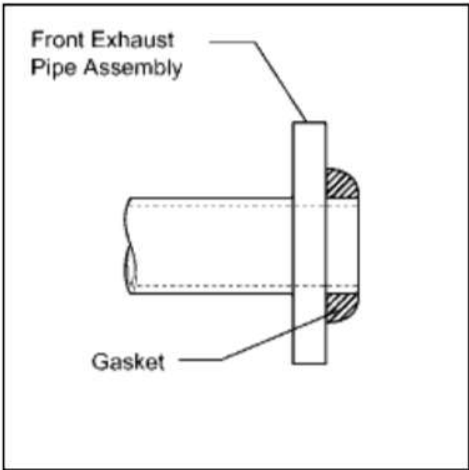
3. INSTALL TAIL EXHAUST PIPE ASSEMBLY

(a) Using a vernier caliper, measure the free length of the compression springs.



Minimum	38.5 mm (1.52 in.)
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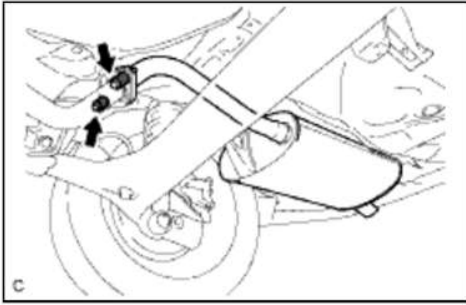
HINT:
If the free length is less than the minimum, replace the compression spring.



(b) Fully insert a new gasket to the front exhaust pipe assembly.

NOTICE:

- Be sure to install the gasket in the correct direction.
- Do not reuse the gasket.
- Do not damage the gasket.



(c) Connect the tail exhaust pipe assembly to the 2 exhaust pipe supports.

(d) Install the tail exhaust pipe assembly with the 2 bolts and 2 compression springs.

Torque: 43 N·m (440 kgf·cm, 32ft·lbf)

4. INSPECT FOR EXHAUST GAS LEAK



Last Modified: 3-10-2010	6.4 A	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM0000017UI02VX
Title: 2AZ-FE INTAKE / EXHAUST: INTAKE MANIFOLD: REMOVAL (2010 Corolla)		

REMOVAL

1. DISCHARGE FUEL SYSTEM PRESSURE

INFO

2. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

3. REMOVE NO. 1 ENGINE COVER SUB-ASSEMBLY

INFO

4. DRAIN ENGINE COOLANT

INFO

5. REMOVE FRONT WIPER ARM HEAD CAP

INFO

6. REMOVE FRONT WIPER ARM AND BLADE ASSEMBLY LH

INFO

7. REMOVE FRONT WIPER ARM AND BLADE ASSEMBLY RH

INFO

8. REMOVE HOOD TO COWL TOP SEAL

INFO

9. REMOVE CENTER NO. 1 COWL TOP VENTILATOR LOUVER

INFO

10. REMOVE COWL TOP VENTILATOR LOUVER LH

INFO

11. REMOVE WINDSHIELD WIPER MOTOR AND LINK ASSEMBLY

INFO

12. REMOVE OUTER COWL TOP PANEL

INFO

13. REMOVE SUSPENSION TOWER DAMPER ASSEMBLY (w/ Front Strut Bar)

INFO

14. REMOVE AIR CLEANER CAP SUB-ASSEMBLY WITH HOSE

INFO

15. REMOVE AIR CLEANER CASE SUB-ASSEMBLY

INFO

16. REMOVE THROTTLE BODY ASSEMBLY

INFO

17. DISCONNECT FUEL MAIN TUBE

INFO

18. DISCONNECT NO. 2 VENTILATION HOSE

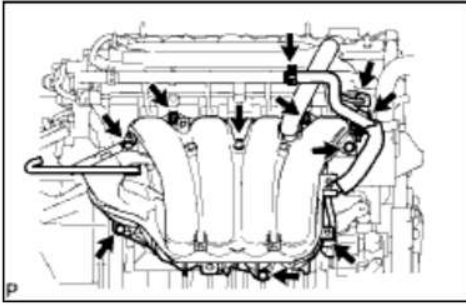
INFO

19. REMOVE FUEL DELIVERY PIPE WITH INJECTOR

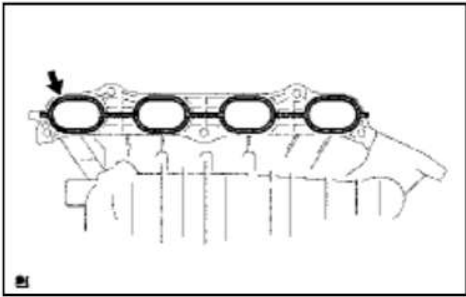
INFO

20. REMOVE INTAKE MANIFOLD

(a) Disconnect the union to connector tube hose from the No. 2 hose to hose tube.



- (b) Disconnect the camshaft timing oil control valve connector.
- (c) Remove the wire harness clamp.
- (d) Remove the union to connector tube hose from the vacuum hose clamp.
- (e) Remove the 5 bolts, 2 nuts and intake manifold.



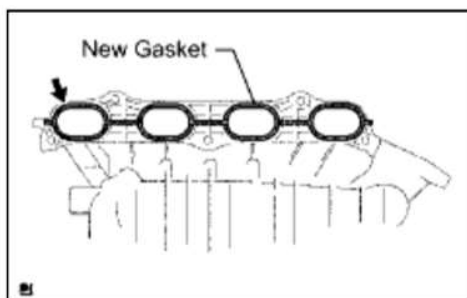
- (f) Remove the gasket from the intake manifold.



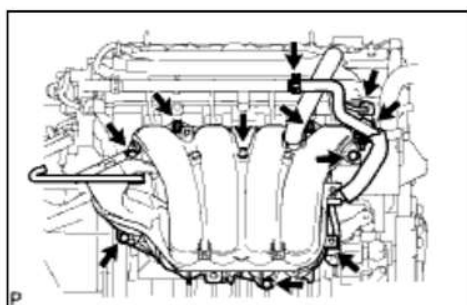
Last Modified: 3-10-2010	6.4 A	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM0000017UF02TX
Title: 2AZ-FE INTAKE / EXHAUST: INTAKE MANIFOLD: INSTALLATION (2010 Corolla)		

INSTALLATION

1. INSTALL INTAKE MANIFOLD



(a) Install a new gasket into the intake manifold.



(b) Install the intake manifold with the 5 bolts and 2 nuts.

Torque: 30 N·m (306 kgf·cm, 22ft·lbf)

(c) Fit the union to connector tube hose into the vacuum hose clamp.

(d) Install the wire harness clamp.

(e) Connect the camshaft timing oil control valve connector.

(f) Connect the union to connector tube hose to the No. 2 hose to hose tube.

2. INSTALL FUEL DELIVERY PIPE WITH INJECTOR INFO

3. CONNECT NO. 2 VENTILATION HOSE INFO

4. CONNECT FUEL MAIN TUBE INFO

5. INSTALL THROTTLE BODY ASSEMBLY INFO

6. INSTALL AIR CLEANER CAP SUB-ASSEMBLY WITH HOSE INFO

7. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

8. ADD ENGINE COOLANT INFO

9. INSPECT FOR COOLANT LEAK 

10. INSPECT FOR FUEL LEAK 

11. INSTALL NO. 1 ENGINE COVER SUB-ASSEMBLY 

12. INSTALL SUSPENSION TOWER DAMPER ASSEMBLY (w/ Front Strut Bar) 

13. INSTALL OUTER COWL TOP PANEL 

14. INSTALL WINDSHIELD WIPER MOTOR AND LINK ASSEMBLY 

15. REMOVE COWL TOP VENTILATOR LOUVER LH 

16. INSTALL CENTER NO. 1 COWL TOP VENTILATOR LOUVER 

17. INSTALL HOOD TO COWL TOP SEAL 

18. INSTALL FRONT WIPER ARM AND BLADE ASSEMBLY RH 

19. INSTALL FRONT WIPER ARM AND BLADE ASSEMBLY LH 

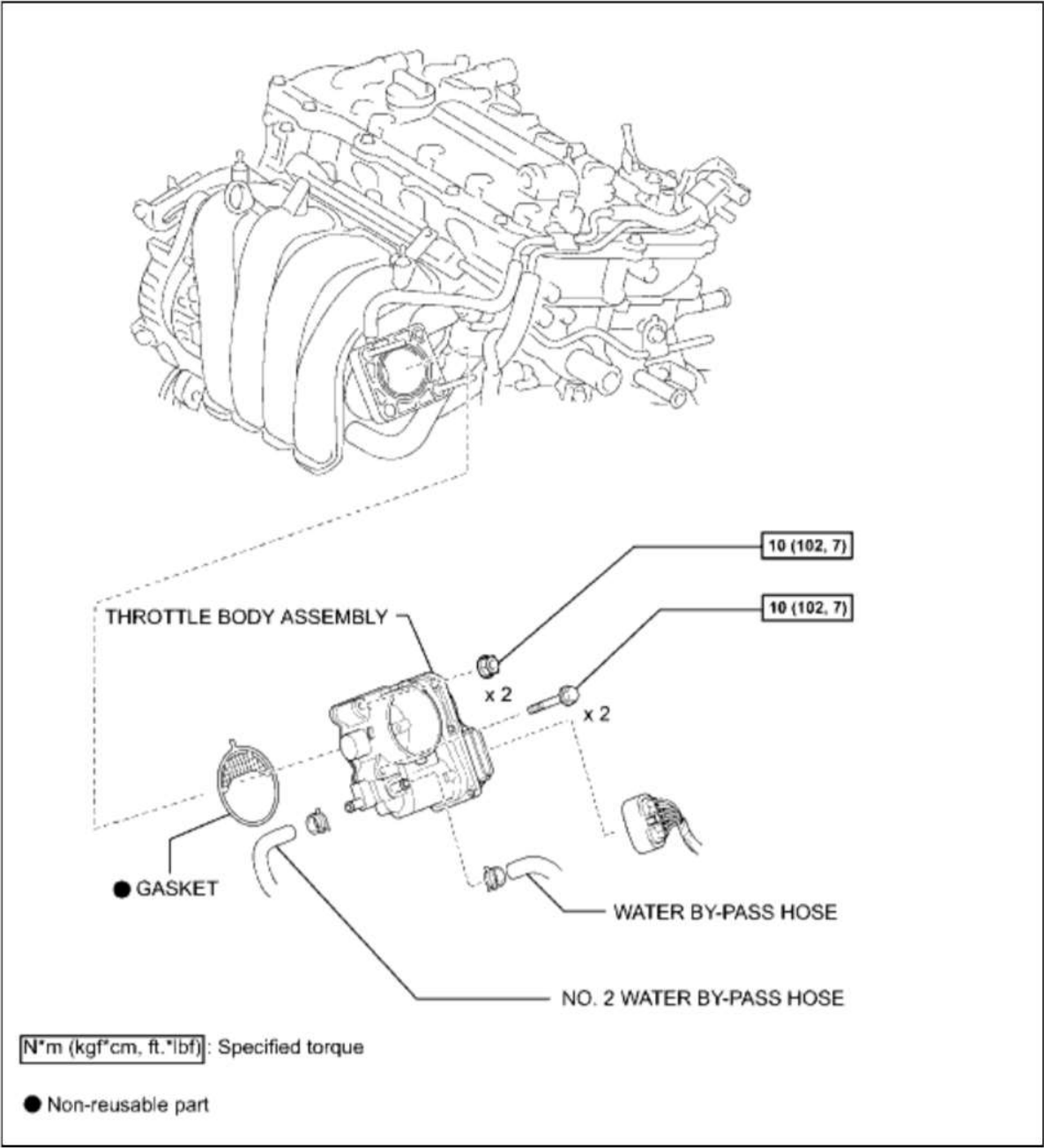
20. REMOVE FRONT WIPER ARM HEAD CAP 



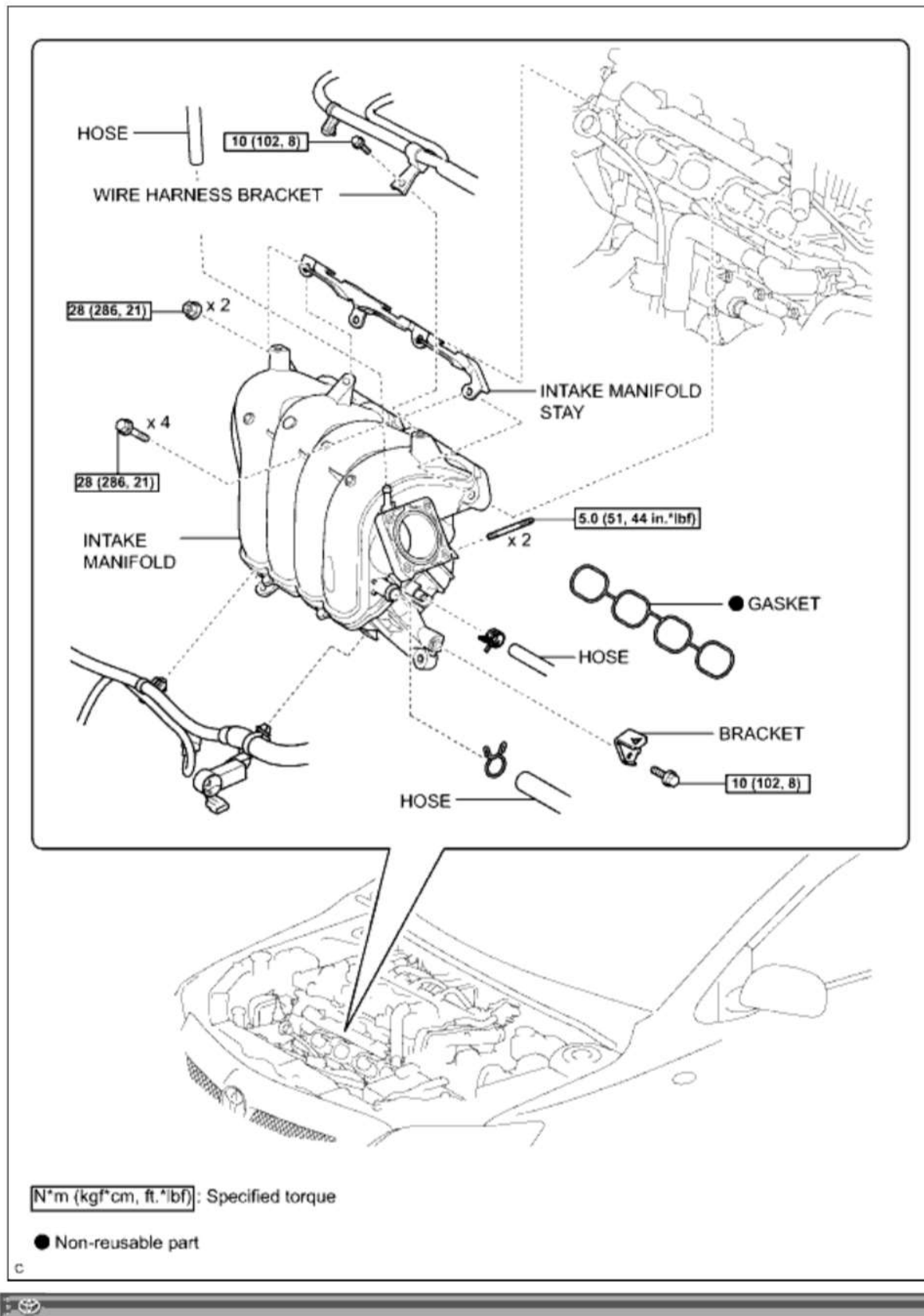
Last Modified: 3-10-2010	6.4 K	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000002WSQ00WX
Title: 2ZR-FE INTAKE / EXHAUST: INTAKE MANIFOLD: COMPONENTS (2010 Corolla)		

COMPONENTS

ILLUSTRATION



ILLUSTRATION



Last Modified: 3-10-2010	6.4 A	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000002WTS01TX
Title: 2ZR-FE INTAKE / EXHAUST: INTAKE MANIFOLD: REMOVAL (2010 Corolla)		

REMOVAL

1. DRAIN ENGINE COOLANT

[INFO](#)

2. REMOVE NO. 2 CYLINDER HEAD COVER

[INFO](#)

3. REMOVE AIR CLEANER CAP SUB-ASSEMBLY

[INFO](#)

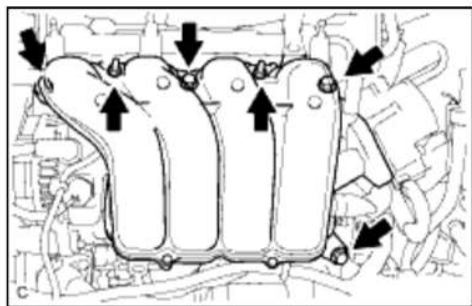
4. REMOVE THROTTLE BODY ASSEMBLY

[INFO](#)

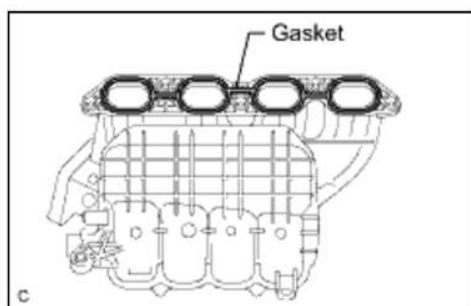
5. REMOVE INTAKE MANIFOLD

(a) Remove the bolt and disconnect the wire harness bracket.

(b) Disconnect the 3 hoses.



(c) Remove the 4 bolts, 2 nuts, intake manifold stay and intake manifold.



(d) Remove the gasket from the intake manifold.

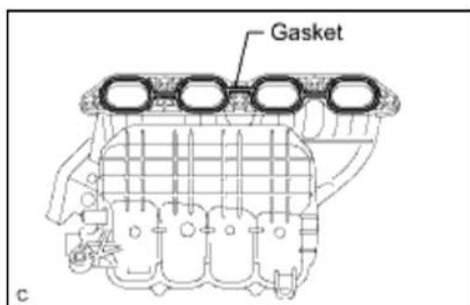
(e) Remove the bolt and bracket.

(f) Using a "TORX" socket E6, remove the 2 stud bolts from the intake manifold.

Last Modified: 3-10-2010	6.4 A	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000002WTQ01TX
Title: 2ZR-FE INTAKE / EXHAUST: INTAKE MANIFOLD: INSTALLATION (2010 Corolla)		

INSTALLATION

1. INSTALL INTAKE MANIFOLD



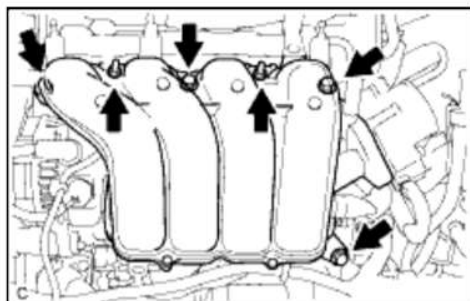
- (a) Using a "TORX" socket E6, install the 2 stud bolts to the intake manifold.

Torque: 5.0 N·m (51 kgf·cm, 44in·lbf)

- (b) Install the bracket with the bolt.

Torque: 10 N·m (102 kgf·cm, 8ft·lbf)

- (c) Install a new gasket into the intake manifold.



- (d) Install the intake manifold and intake manifold stay with the 4 bolts and 2 nuts.

Torque: 28 N·m (286 kgf·cm, 21ft·lbf)

- (e) Connect the 3 hoses.

- (f) Connect the wire harness bracket with the bolt.

Torque: 10 N·m (102 kgf·cm, 8ft·lbf)

2. INSTALL THROTTLE BODY ASSEMBLY

INFO

3. INSTALL AIR CLEANER CAP SUB-ASSEMBLY

INFO

4. INSTALL NO. 2 CYLINDER HEAD COVER

INFO

5. ADD ENGINE COOLANT

INFO

6. INSPECT FOR COOLANT LEAK

INFO

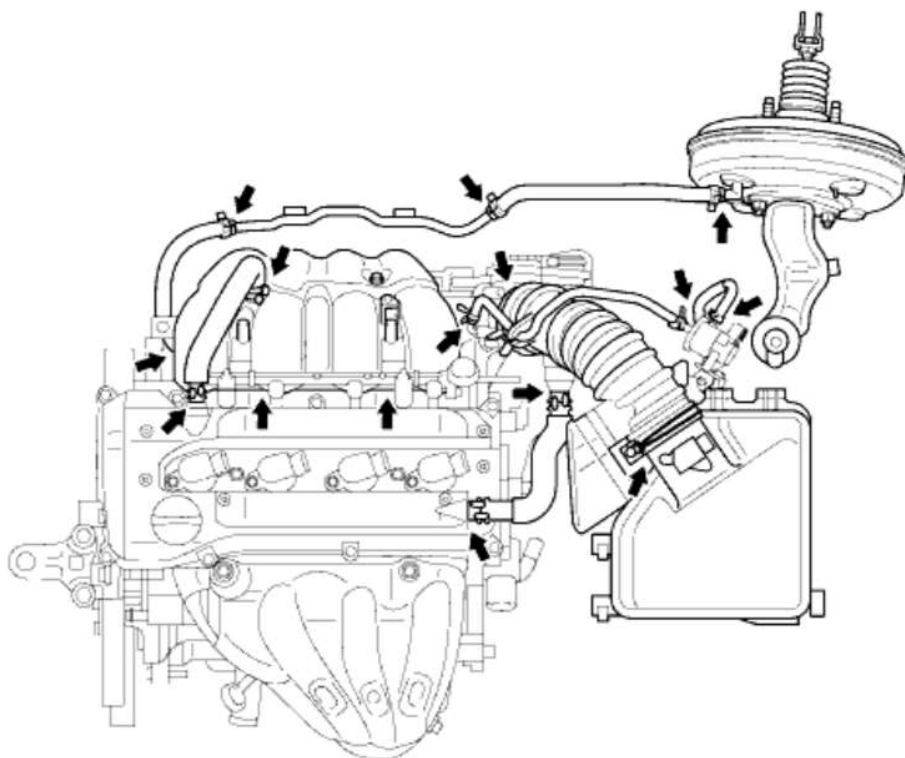


Last Modified: 3-10-2010	6.4 G	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM00000341100CX
Title: 2AZ-FE INTAKE / EXHAUST: INTAKE SYSTEM: ON-VEHICLE INSPECTION (2010 Corolla)		

ON-VEHICLE INSPECTION

1. INSPECT INTAKE SYSTEM

- (a) Check that there are no vacuum leaks at the points shown in the illustration.

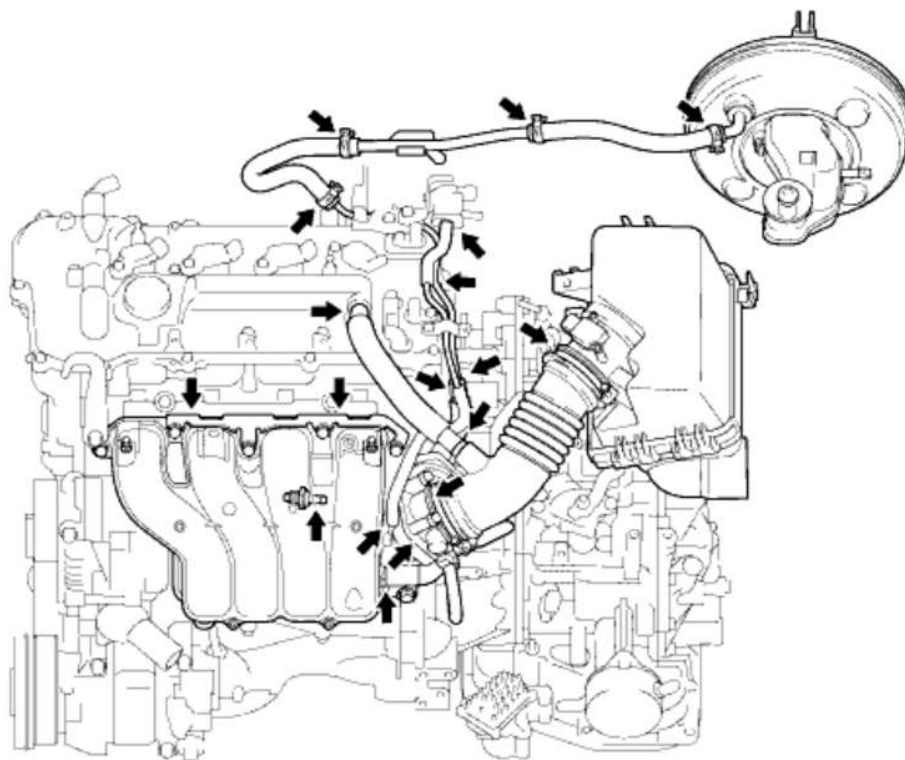


Last Modified: 3-10-2010	6.4 G	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM00000341000FX
Title: 2ZR-FE INTAKE / EXHAUST: INTAKE SYSTEM: ON-VEHICLE INSPECTION (2010 Corolla)		

ON-VEHICLE INSPECTION

1. INSPECT INTAKE SYSTEM

- (a) Check that there is no air suction at the points shown in the illustration.



c



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