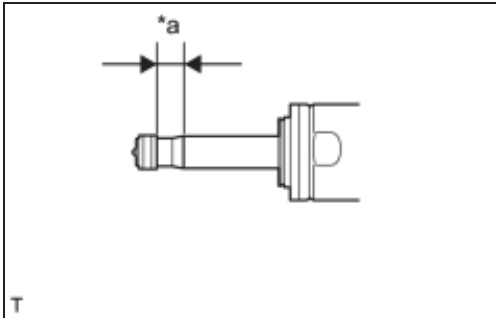


Last Modified: 8-1-2012	6.4 A	From: 201203
Model Year: 2013	Model: FR-S	Doc ID: RM000000Q4608BX
Title: FA20 FUEL: FUEL INJECTOR (for Direct Injection): INSTALLATION (2013 FR-S)		

INSTALLATION

1. INSTALL FUEL INJECTOR SEAL

(a) Apply engine conditioner to the injector area shown in the illustration. Using a piece of cloth, remove the carbon deposits from the injector and its grooves.



Text in Illustration

*a	Clean Area
----	------------

NOTICE:

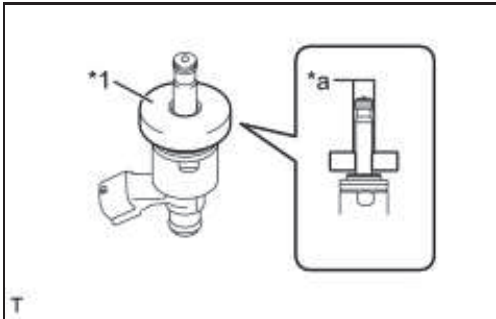
- Do not clean the tip of the injector.
- Do not use a wire brush to clean the injector.
- If an injector is dropped or the tips of the injectors are struck, replace it with a new one.

(b) Apply engine oil to the injector contact surface of SST (guide). Then attach SST (guide) to the injector with the tapered inner portion facing the tip of the injector, as shown in the illustration.

SST: 09260-39020

09261-03020

Text in Illustration



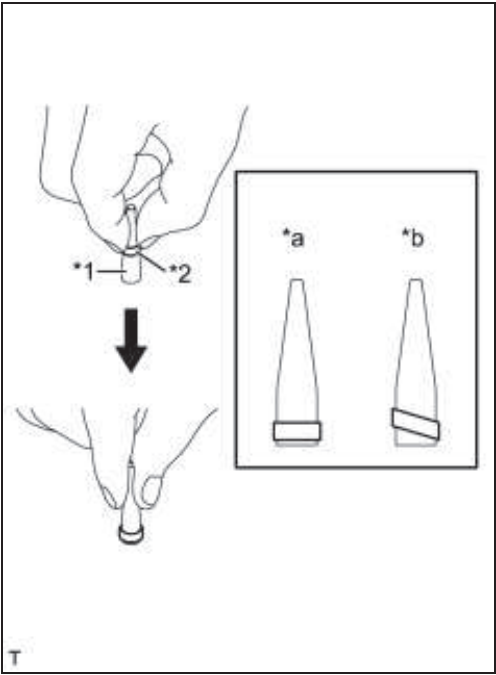
*1	SST (Guide)
*a	Tapered Inner Portion

(c) Install a new injector seal to SST (holder).

SST: 09260-39020

09261-03010

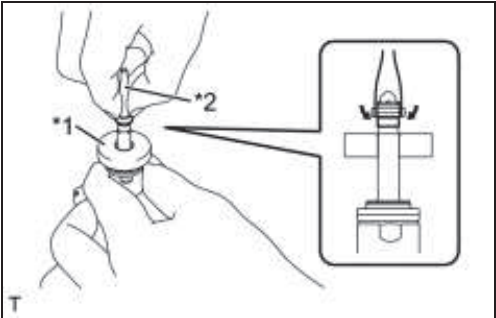
Text in Illustration



*1	SST (holder)
*2	Injector Seal
*a	CORRECT
*b	INCORRECT

NOTICE:
Be careful not to install the injector seal to SST (holder) at an angle. Doing so will stretch the seal and correcting this problem is very complicated.

(d) Install SST (holder with injector seal) to the tip of the injector. Slide the seal downward into the injector groove (injector connector side) with your fingers, as shown in the illustration.



SST: 09260-39020
09261-03010
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Text in Illustration

*1	SST (Guide)
*2	SST (Holder)

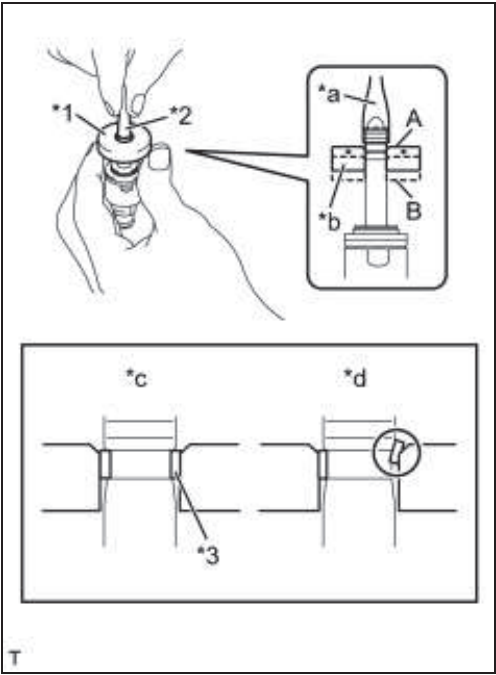
HINT:
Check that the seal covers the circumference of the injector groove as shown in the illustration.

(e) Using SST (holder), gently press downward on the injector seal (injector connector side). Then slowly slide SST (guide) toward the injector tip to settle the seal into the injector groove.

SST: 09260-39020
09261-03010
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Text in Illustration

*1	SST (Guide)
----	-------------



*2	SST (Holder)
*3	Injector Seal
*a	Gently Press
*b	Slowly Slide
*c	CORRECT
*d	INCORRECT

NOTICE:

Be careful that the seal is not pinched between SST (guide) and the injector groove. Replace the seal if it becomes damaged.

HINT:

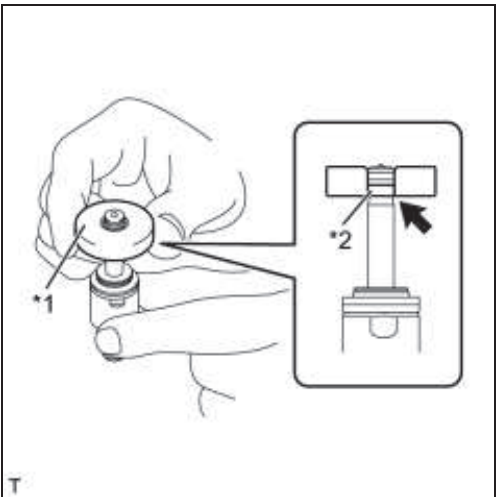
- When using SST (guide) to settle the seal into the groove, SST (guide) only needs to be slid upward to the position labeled A in the illustration.
- After using SST (guide) to settle the seal into the groove, return SST (guide) to its position labeled B in the illustration.

(f) Slowly slide SST (guide) toward the tip of the injector. When the injector contact surface of SST (guide) aligns with the seal (injector connector side) as shown in the illustration, hold the position for 5 seconds or more to fully align the seal into the injector groove.

SST: 09260-39020

09261-03020

Text in Illustration



*1	SST (Guide)
*2	Injector Seal

NOTICE:

Be careful that the seal is not pinched between SST (guide) and the injector groove. Replace the seal if it becomes damaged.

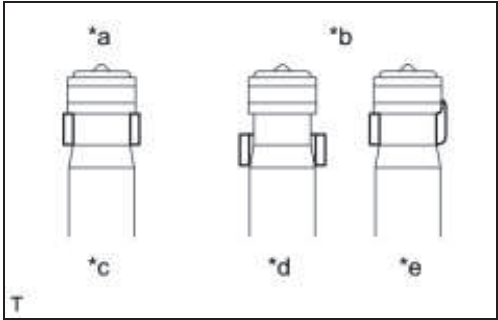
HINT:

- Set SST (guide) so that its bottom surface and seal are flush.
- If there is difficulty in sliding SST upward, slowly wiggle it from side to side while sliding it up the injector little by little.

(g) After installing the seals, check that they are not

scratched, deformed or protruding from the injector groove.

Text in Illustration



*a	CORRECT
*b	INCORRECT
*c	Normal
*d	Protruding
*e	Deformed

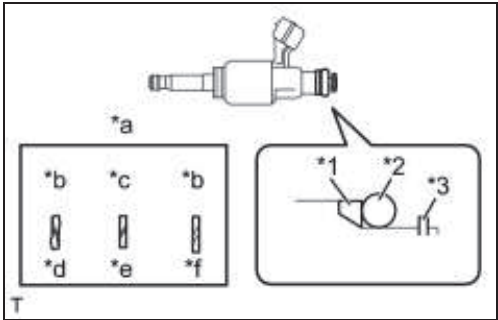
NOTICE:
If a seal is scratched, deformed or protruding from the groove, replace it with a new one.

2. INSTALL FUEL INJECTOR ASSEMBLY

NOTICE:
If the tip of the fuel injector assembly is struck or the fuel injector assembly is dropped, replace the fuel injector assembly with a new one.

(a) Install new backup rings (No. 1 and No. 2) and a new injector seal to the fuel injector as shown in the illustration.

Text in Illustration



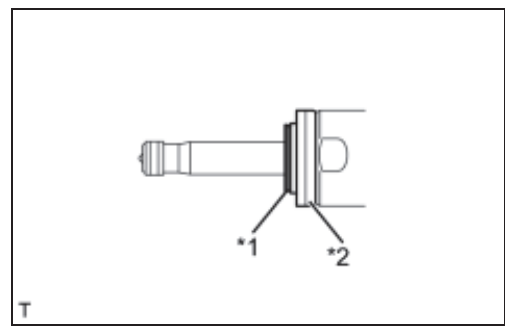
*1	No. 2 Backup Ring
*2	Injector Seal
*3	No. 1 Backup Ring
*a	Alignment Opening
*b	INCORRECT
*c	CORRECT
*d	Overlapped
*e	Normal
*f	Stretched

NOTICE:

- Check that there is no foreign matter or damaged areas in the injector seal groove.
- Check that the No. 1 and No. 2 backup rings are installed in the correct direction.
- Make sure that the backup rings and injector seal are installed in the correct order.
- Check that the alignment openings of the backup rings are not overlapped or stretched as shown in the

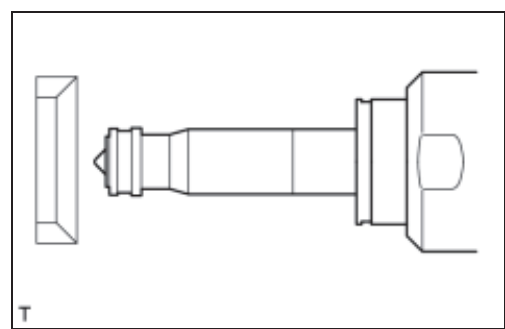
- illustration.
- After installing the injector seal, check that it is not contaminated with foreign matter and is not damaged.

(b) Install a new fuel injector insulator and C-ring to the fuel injector.



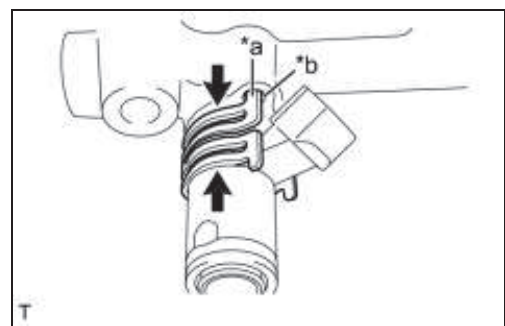
Text in Illustration

*1	C-Ring
*2	Fuel Injector Insulator



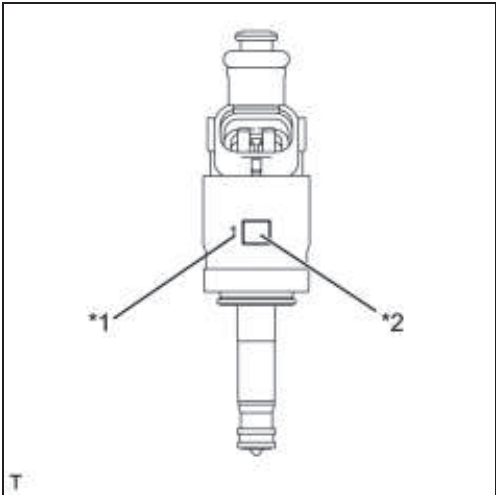
NOTICE:
Install a new fuel injector insulator to the fuel injector as shown in the illustration.

- (c) Install the nozzle holder clamp.
- (d) Apply new engine oil to the surface of the injector insertion hole in the fuel delivery pipe.



Text in Illustration

*a	Protruding section
*b	Baffle hole
	No gap



NOTICE:

- Check that there are no foreign objects or scratches in the inner face of the fuel injector assembly insertion hole in the fuel delivery pipe.
- Ensure that gasoline does not adhere to the fuel injector seal or to inside the attachment hole.
- Insert the fuel injector assembly in a straight line into the fuel delivery pipe without tilting it.
- Ensure that there is no gap between the nozzle holder clamp and the fuel injector pipe on the high-pressure side.
- If using a new fuel injector assembly, use one with the same numbers.

Text in Illustration

*1	Number
*2	Quick Response Code

NOTICE:

- Make sure that there is no gap between the delivery pipe and the clamp.
- Check that there is no foreign matter or damage to the injector insertion hole of the delivery pipe.
- Insert the injector straight into the delivery pipe without tilting it.

(e) Install the nozzle holder clamp, aligning the protrusions on the nozzle holder clamp with the baffle on the fuel delivery pipe.

3. INSTALL FUEL DELIVERY PIPE LH

(a) Install the fuel delivery pipe LH with the 2 bolts.

Torque: 19 N·m (194 kgf·cm, 14ft·lbf)

(b) Connect the 2 fuel injector assembly connectors.

4. INSTALL FUEL DELIVERY PIPE RH

(a) Install the fuel delivery pipe RH with the 2 bolts.

Torque: 19 N·m (194 kgf·cm, 14ft·lbf)

(b) Connect the fuel pressure sensor connector and 2 fuel injector assembly connectors.

5. INSTALL FUEL DELIVERY PIPE

(a) Temporarily install the new fuel delivery pipe with the 2 union nuts and 3 bolts.

(b) Tighten the 3 bolts.

Torque: 6.4 N·m (65 kgf·cm, 57in·lbf)

(c) Using a union nut wrench, tighten the 2 union nuts.

Torque: 35 N·m (357 kgf·cm, 26ft·lbf)

6. INSTALL NO. 2 FUEL DELIVERY PIPE

(a) Temporarily install the new No. 2 fuel pipe with the 2 union nuts.

(b) Using a union nut wrench, tighten the 2 union nuts.

Torque: 35 N·m (357 kgf·cm, 26ft·lbf)

7. INSTALL INTAKE MANIFOLD

INFO

