





 SUBARU	PART NUMBER: A091SCA001		
	DESCRIPTION: ENGINE BLOCK HEATER KIT		
Installation Instructions			
KIT CONTENTS:			
	A	B	
	C	D	
	Block Heater Element W/ Gasket	Heater Harness	
	14mm Hex Bit Tool	Black Wire Ties (4x) Gold Wire Ties (2X)	
TOOLS / MATERIALS REQUIRED:			
<ul style="list-style-type: none"> • 3/8" & 1/2" Drive ratchets • Socket extension 1/2" drive (6" long) • 3/8" Drive extension (3" long) • 1/2" Breaker bar • 14mm socket- shallow (1/2" drive) • 14mm wrench • 12mm wrench • Adjustable pliers (large) • Screwdriver (flat blade) • Coolant drain pan • Coolant (mixed to oe specifications) • High temperature gasket compound • NOTE: It is required that the exhaust flange gaskets and rear donut gasket be replaced. These items are sold separately. 			
<small>Note: If the vehicle uses a 14mm block plug the hex bit removal tool is included in the engine block heater kit. If the vehicle uses a 17mm block plug the hex bit removal tool is not included in the kit and must be purchased separately.</small>			
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1	<p>Disconnect battery negative terminal. Remove engine under covers (if equipped) and drain the cooling system.</p>
2	<p>Disconnect connector</p>  <p>Disconnect both oxygen sensor wires at the front of the engine. Disconnect the wires from their retaining clips.</p>
3	 <p>Remove exhaust system bolts (6-14mm flange nuts at cylinder heads).</p>  <p>Remove exhaust system bolts 1-14mm support bolt at the center and 2-14mm spring bolts. Disconnect resonator flange from exhaust extension pipe.</p>  <p>Remove the front and rear exhaust sections and set aside. Leave the exhaust extension pipe in place above the subframe.</p>
4	 <p>Locate 36mm threaded core plug on RH side of engine.</p>

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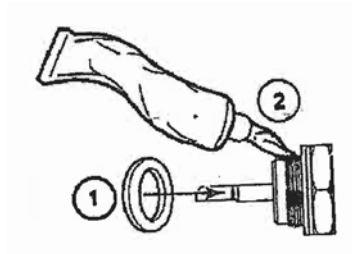
Insert 14mm hex bit into core plug and loosen.

6

Remove core plug and drain remaining coolant.

NOTE: Be careful when removing plug as coolant may be hot.

7



Install gasket (1) and coat threads of heater body with high temperature gasket compound (2).

8



Install engine block heater into core plug opening and tighten with adjustable pliers until gasket is seated completely to engine block.<Reference information> The torque value of block heater plug: 90[N.m] /66.4[lb.ft]. **Caution: Failure to follow proper tightening procedures may allow coolant to leak onto the hot exhaust pipe and cause a fire, resulting in serious personal injury and property damage.**

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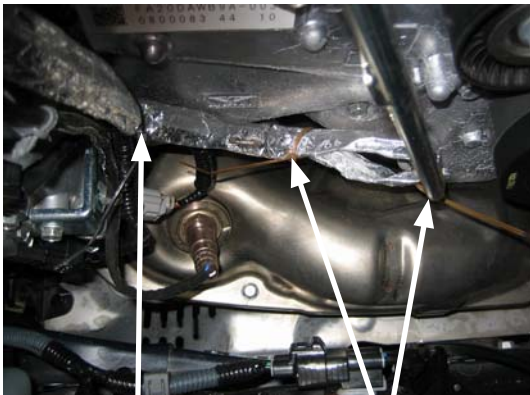
Plug harness into heater element. Orient orange connector towards the front by twisting the orange connector inside the heater. Inside of heater can be rotated relative to the outer body.

10



Route block heater harness forward towards the oil filler tube.

11



Black Wire Tie Gold Wire Ties

With a gold wire tie, attach the block heater harness to the oil filler tube. Route the harness towards the cam position sensor. Use a gold wire tie to attach the two sections of the block heater harness together to ensure that the block heater harness does not make contact with the engine casting or the exhaust manifold. Using a black wire tie, attach the block heater harness to the cam position sensor harness located above the oxygen sensor.

12

Fuse box main electrical harness



Wire ties

Route engine heater harness between the engine block and the upper radiator hose. Use the wire tie provided to attach the engine heater harness to the engine electrical harness at two locations. Route the engine heater harness to the passenger side chassis member.

13

Wire tie



Route the engine heater harness forward along the passenger side chassis member. At the forward end of the chassis, use the wire tie provided to secure the engine heater harness to the hole in the chassis member. Route the harness downward along the inner surface of the chassis member and around the passenger side of the radiator.

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Route the engine heater harness to the passenger side of the lower air intake opening. Using the male plug protector attach the male plug to the grill work.

15

Re-install exhaust system and engine under covers (if equipped).

16

Refill coolant.

