

AIR BYPASS VALVE [SKYACTIV-G 2.5T]

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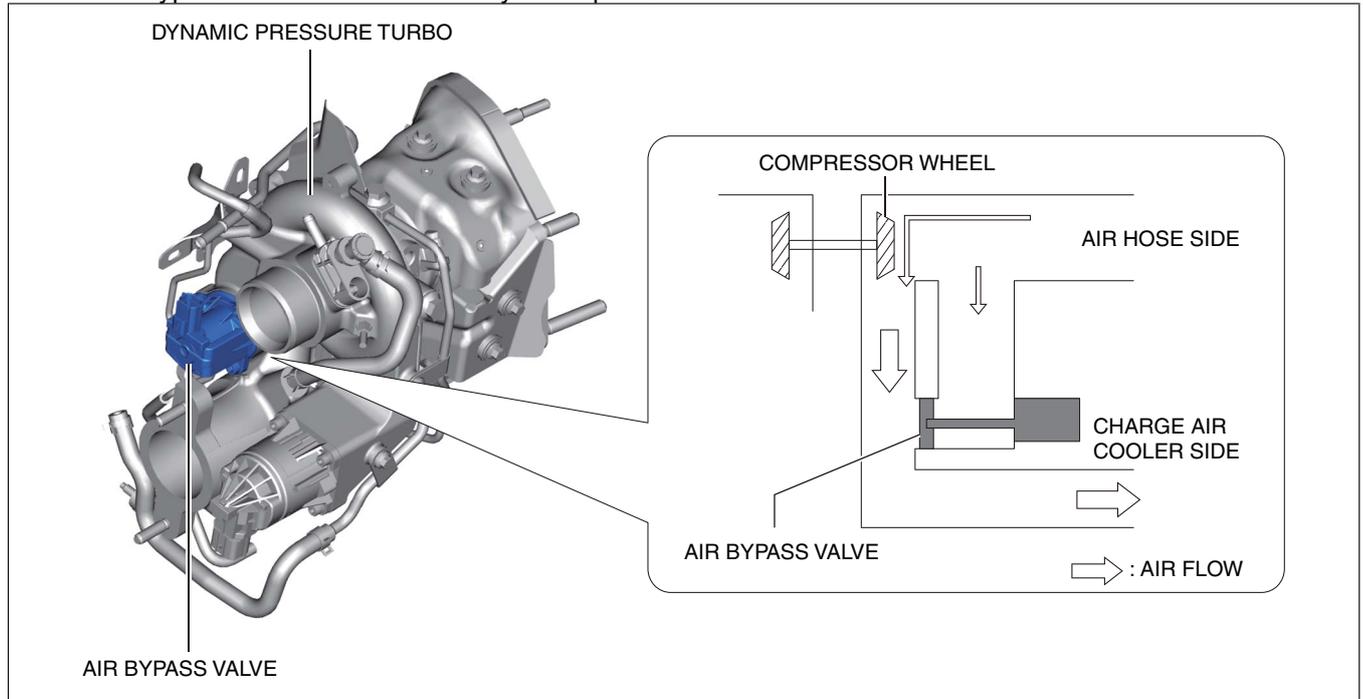
Purpose, Function

- The air bypass valve flows back the boosted intake air pressure to the upstream of the compressor wheel of the dynamic pressure turbo to reduce engine load or to prevent surging*.

* : Surging is a phenomenon in which vibration and noise occur and pressure and flow rate fluctuate due to flow-back of the boosted pressure caused by having no exit.

Construction

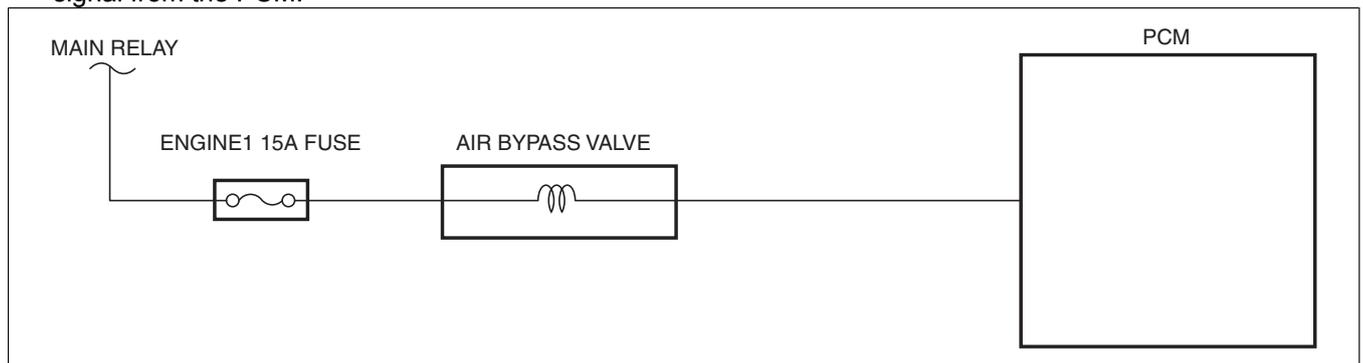
- The air bypass valve is built into the dynamic pressure turbo.



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Operation

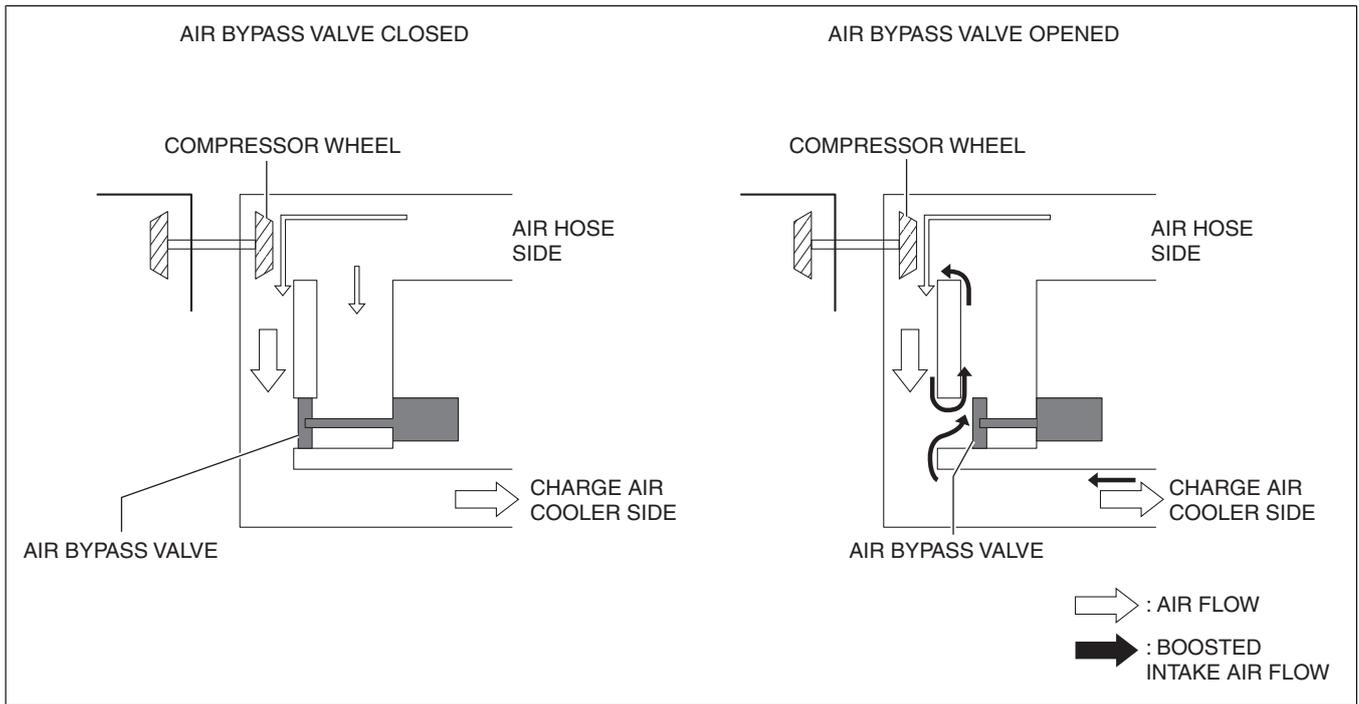
- The coil is energized and the plunger is operated to open/close the air bypass valve according to the control signal from the PCM.



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- By opening the air bypass valve, the boosted intake air flows back to the upstream of the compressor wheel of the dynamic pressure turbo.

Air bypass valve opened/closed schematic diagram



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- For the boost control, refer to CONTROL SYSTEM. (See BOOST CONTROL [SKYACTIV-G 2.5T].)

Fail-safe

DTC	Fail-safe
P0034:00 P0035:00	• Stop the supercharging pressure control. (fully open the wastegate valve)