

DESCRIPTION AND OPERATION > EXHAUST TAIL PIPE FLOW CONTROL SYSTEM**DESCRIPTION AND OPERATION > EXHAUST TAILPIPE FLOW CONTROL VALVE SYSTEM**

The exhaust tailpipe flow control system is used to tune the exhaust note for high performance vehicles. The vehicle is equipped with two tailpipe exhaust valves. One in the left tailpipe and one in the right tailpipe. Each exhaust tailpipe valve is installed in the low restriction exhaust path of a dual outlet muffler, near the exhaust tip.

When a tailpipe exhaust valve is open, the low restriction exhaust path is opened to the atmosphere, and the exhaust note becomes more aggressive.

An output circuit from the chassis control module is used to control the actuator that opens the left and right exhaust tailpipe valves. The exhaust flow control valve opens and closes when the chassis control module commands the actuator by pulse width modulation of the control signal.

To provide a more aggressive exhaust note when the vehicle is started, the exhaust tailpipe valves are opened during an engine crank event during specific modes of operation if that option is available. Once the engine is running, accelerator pedal position, transmission gear and engine speed are used to determine the commanded state (open or closed) of the exhaust tailpipe valves.

There are four specific exhaust performance modes that result in different behavior of the exhaust tailpipe valves. These modes are:



NOTE: You may notice an exhaust tone change due to the AFM system activation. Review the cylinder deactivation exhaust flow control system operations for additional details.

1. Winter/Eco Mode: Exhaust tailpipe valves will be closed at all times when the engine is running.
2. Tour Mode: Exhaust tailpipe valves are closed when the engine is idling and during normal/non-aggressive driving. Valves open during aggressive driving.
3. Sport Mode: Exhaust tailpipe valves are open when the engine is idling and during most driving scenarios. See note above.
4. Track Mode: Exhaust tailpipe valves are open at all times. See note above.

It is possible to personalize the exhaust sound. When engine sound enhancement is turned off via the personalization menu, the exhaust tailpipe valves will be put into track mode no matter which vehicle mode (Winter/Eco, Tour, Sport, or Track) is displayed on the drivers instrument panel.