

Hi-Performance Exhaust Valve Controller

Hi and thank you for visiting.

If you have already installed an Exhaust-Valve Cut-Out on your vehicle or intend to, then YOU REALLY NEED TO READ THIS!

If you've purchased an exhaust valve cut-out, generally from an online store, you'll find that the valve itself is reasonably well made. The kit generally comes complete with piping, clamps, bolts, nuts and a remote control with unlock/open and lock/close buttons or a toggle switch. Then there is the control unit that comprises of a receiver and exhaust valve controller, all-in-one that plugs to your vehicle's power and ground.

Now, here are the facts surrounding exhaust valve cut-outs.

You've probably either have had problems with the exhaust valve motor destroying itself and/or the gears that in turn drives the valve open and close. Or found that the valve is not fully closing. Either way, the exhaust valve only seems to last a short period of time. Well, the issue is generally not the exhaust valve, itself. It's the control unit. YES, THE CONTROL UNIT! The control unit unfortunately has smarts that aren't particularly smart. The control unit basically consists of a receiver module that receives a radio frequency signal from the remote-control fob and then decodes the signal to either open or close the exhaust valve. Or, if there is a toggle switch then the internal circuitry simply reads the voltage position of the switch to either open or close the exhaust valve. The internal logic circuits then send a command to two mechanical relays that both operate and therefore, switches power to the exhaust valve motor with the polarities set in one direction to open the valve, assuming an open signal was received. Furthermore, when a close signal is received, both relays receive a command to now operate and therefore, switches power to the exhaust valve motor with the polarities set in the other direction to close the valve.

Now, this system may seem all well and good, but here is the issue! With every press of the remote-control button or toggle switch, operates the exhaust valve to either open or close. Now, if the exhaust valve is fully open, and you press the remote-control button or toggle switch to open the exhaust valve again, the control unit does not know that the exhaust valve has fully opened or fully closed. Power is then sent to the exhaust valve motor to open for the full-time cycle that it takes the valve to fully open from the fully closed state. So, the exhaust valve motor continues to be driven to open again even when the valve has fully opened. The same can occur when the valve is fully closed then another close signal has been received and therefore the valve is driven to close again. No motor should ever be driven this way and regardless of the quality of the motor, the motor shaft, coupler and the gears, the weakest part will soon eventually destroy itself.

Welcome to the **Hi-Performance Exhaust Valve Controller**.

This electronic controller is so smart that it knows when the exhaust valve has either fully opened, fully closed or anywhere in between. It's also easy to operate, as all the design complexity is incorporated within the controller, so there are no complex buttons or controls. Just three push-buttons that allows you to Open "O", Close "C" or automatically control the exhaust valve "Hi-Lo" (also designed to control two exhaust valves). In the "Hi-Lo" position, the Controller reads the accelerator pedal's position, so to fully control the opening and closing of the exhaust valve.

The **Hi-Performance Exhaust Valve Controller** is programmable, so you can adjust settings in the Controller that matches the exhaust valve's opening/closing timing cycle. (Note: If installing two exhaust valves, ensure that both valves are exactly the same and from the one manufacturer or supplier). This Controller has been designed to control most exhaust valve's that are operated by two-wires, +12v and 0 volts dc. It has also been designed to control electric and vacuum/boost exhaust valves driven by its own +12-volt solenoid. The Hi-Performance Exhaust Valve Controller will then control the solenoid.

The **Hi-Performance Exhaust Valve Controller** can be fitted to both new vehicles with fly-by-wire, as well as older vehicles with mechanical linkages to the accelerator pedal (Note: Vehicles with mechanical linkages to the accelerator pedal will require a switch to be installed. Switch is included). If your vehicle has an automatic kick-down switch, then you can simply wire into it. Whether your car is petrol, diesel, naturally-aspirated, turbocharged, supercharged, nitrous-injected, as long as it has an exhaust system then you can install an exhaust valve cut-out and have it perfectly controlled with the **Hi-Performance Exhaust Valve Controller**.

In the "Hi-Lo" position, go from a quiet exhaust note to the roar of your engine by simply depressing the accelerator pedal. Release your accelerator pedal and the Controller will automatically close the exhaust valve as the exhaust sound returns to a quiet state. With fly-by-wire vehicles you can select either a High response valve activation or Low response valve activation input from the accelerator pedal. Simply, if you select High response the exhaust valve will open with only a small depression of the accelerator pedal. Selecting a Low response, you'll need to push the accelerator pedal further down for the Controller to open the exhaust valve. Older vehicles without fly-by-wire will operate the exhaust valve whenever the switch on the accelerator pedal is operated and will be the same in both High response valve activation or Low response valve activation selections.

The Controller interfaces directly to your exhaust valve. Plug directly into a 12-volt DC power socket or wire into your ignition for a more permanent installation.

The **Hi-Performance Exhaust Valve Controller** can fit snugly on your dash or wherever suits your taste. And most importantly, the Controller operates the opening and closing of the exhaust valve and turns off the power to your exhaust valve at exactly the right moment.

The **Hi-Performance Exhaust Valve Controller** has no mechanical relays and is fully electronically controlled and the exhaust valve motor(s) is also electronically driven by solid-state components. If operating two exhaust valves for a dual exhaust system, the internal circuitry of the Hi-Performance Exhaust Valve Controller drives each exhaust valve independently. Now that's smart!

If you've already installed exhaust valve cut-outs to your vehicle and you are after automatic control and timing accuracy, then this **Hi-Performance Exhaust Valve Controller** is exactly what you need. Accurate control of the exhaust valve motor is crucial and fundamental to the proper operation and longevity of the motor.