

## EMISSION CONTROL PROGRAM

# Highlights

1

NAPA® Echlin® offers more than 1,300 EVAP components for import and domestic applications

2

NAPA® Echlin® also offers over 550 crankcase and 1,000 exhaust gas recirculation (EGR) emissions components

3

NAPA® Echlin's emission components are precision engineered and tested for durability and OE-matching performance



## What's in your box?™



# Growing Market

In the U.S., it is estimated that passenger vehicles create 374.2 million metric tons of carbon dioxide per year. That is 29% of the country's total emissions. To combat the rising emissions rates, the Environmental Protection Agency (EPA) continues to tighten vehicle emission standards to help further reduce greenhouse gas emissions.

Not only do the emission systems of existing vehicles need to be maintained, but new vehicles will likely be equipped with even more complex emission systems. As more complex systems and components are added, repair opportunities will grow, especially in states with vehicle emission testing requirements.

## Projected Industry CO<sub>2</sub> Compliance Targets

Model Year	Cars CO <sub>2</sub> (g/mile)	Light Trucks CO <sub>2</sub> (g/mile)	Fleet CO <sub>2</sub> (g/mile)
2022 (SAFE reference)	181	261	224
2023	166	234	202
2024	158	222	192
2025	149	207	179
2026	132	187	161
<b>Total change 2022-2026</b>	<b>-49</b>	<b>-74</b>	<b>-63</b>

Source: EPA



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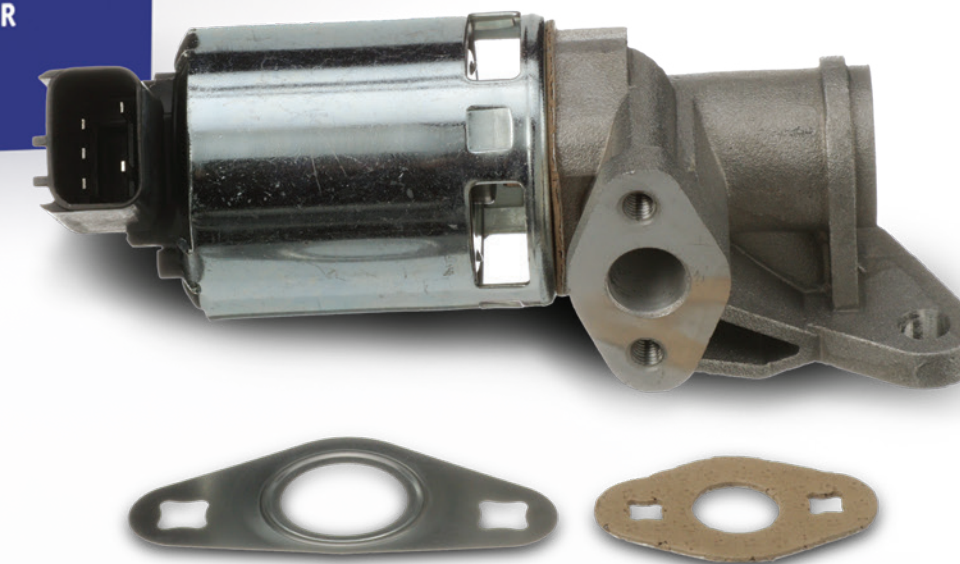
Emission Control Program

NAPAEchlin.com

# Sales Opportunities

NAPA® Echlin's 2-26486 EGR Valve is specifically designed for the 5.7L V8 engine found in 2010-03 Chrysler, Jeep, and Dodge vehicles. This precision manufactured EGR Valve also includes both gaskets so that a comprehensive replacement of the commonly failed OE EGR Valve can be performed.

**2-26486**  
Chrysler / Dodge / Jeep  
Cars, Trucks & SUVs  
(2010-03)

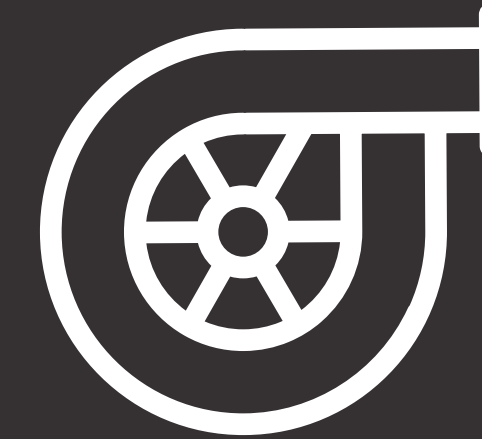


The NAPA® Echlin® 2-26486 is a direct-fit replacement for the original, offering long-lasting durability

# Impact on Engine Systems



A stuck open purge solenoid will cause the engine to continuously draw fuel vapors from the EVAP system, causing a rich condition and drastically reducing MPG



Modern forced induction engines utilize check valves to prevent positive pressure from entering the EVAP system — It is important to ensure that these valves are working properly to avoid damage to emission components



Failed emission components will often cause the Check Engine Light to illuminate — With emission systems becoming increasingly complicated, it is helpful to scan DTCs, which will aid in directing you to the exact part needing repair or replacement

# What's New

## EVAP Components

NAPA® Echlin® is continually expanding its already 1,300+ part EVAP emission catalog. When considering the extreme conditions under which many EVAP components operate, installing high-quality replacement parts is paramount. NAPA® Echlin® extensively tests all EVAP components to provide technicians and customers with reliable, high-quality parts.

For the most recent applications, check the online catalog at [NAPAEchlin.com](https://NAPAEchlin.com).



**2-284435**  
**Vapor Canister Purge Valve Hose**  
Ford F-150  
(2023-16)  
VIO: 4.2M



**2-33037**  
**Canister Purge Solenoid**  
Ford F-150  
(2023-18)  
VIO: 1.9M



**2-33042**  
**Canister Purge Solenoid**  
Audi / VW Cars & SUVs  
(2022-14)  
VIO: 1.7M



# What's New

## Crankcase Emission Components

NAPA® Echlin's already impressive 550+ Crankcase Emission Component catalog continues to grow every year. Key features of our Crankcase Breather Hoses and PCV Valves are that they retain OE fitting designs and include high-quality seals for a complete and easy repair.

For the most recent applications, check the online catalog at [NAPAEchlin.com](http://NAPAEchlin.com)



**2-9929**  
**Engine Crankcase Breather Hose**  
**Hyundai / Kia Cars & SUVs**  
**(2023-10)**  
**VIO: 4.2M**



**2-9915**  
**Engine Crankcase Breather Hose**  
**Ford Cars & SUVs**  
**(2020-13)**  
**VIO: 1.7M**



**2-9825**  
**PCV Valve**  
**Nissan Cars & SUVs**  
**(2023-19)**  
**VIO: 1M**



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**Crankcase Emission Components**

**NAPAEchlin.com**

# What's New

## EGR Components

NAPA® Echlin's diverse 1,000+ EGR program continues to grow each year. NAPA® Echlin® is devoted to providing high-quality replacement EGR components and repair kits so that technicians can provide their customers with a complete and reliable service.

For the most recent applications, check the online catalog at [NAPAEchlin.com](http://NAPAEchlin.com)



**2-40242**  
EGR Tube  
Toyota / Lexus SUVs  
(2022-16)  
VIO: 821K



**2-36053**  
EGR Valve  
Subaru Cars & SUVs  
(2024-19)  
VIO: 598K



**EGR933**  
EGR Valve  
RAM Trucks  
(2023-19)  
VIO: 534K



# EVAP Components

Evaporative Emission Control Systems, also referred to as 'EVAP,' are responsible for preventing fuel vapors from escaping into the atmosphere from a vehicle's fuel system.

NAPA® Echlin® is dedicated to providing high-quality replacement EVAP components in order to keep this vital system working as intended.



## Canister Purge Valves

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Manufactured using high-grade industrial plastic which withstands high engine temperatures

120+ SKUs / 61M VIO



## Canister Vent Valves

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Extensively tested to ensure reliable operation even in the most extreme conditions

120+ SKUs / 27M VIO



## Canister Vent Solenoids

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Our proprietary molding techniques provide superior resistance to environmental influences, drastically reducing the possibility of leaks

145+ SKUs / 176M VIO



## Canister Purge Solenoids

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Designed to seamlessly integrate with the computer to operate just like the vehicle manufacturer intended

300+ SKUs / 228M VIO



# EVAP Components

NAPA® Echlin® EVAP components are designed and manufactured using the highest-quality materials and processes in order to provide parts which match the OEM form, fit, and critical function.

It is important that these parts can be installed with ease and that they operate exactly as intended by the vehicle manufacturer.



## **Fuel Vapor Canisters**

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Constructed using industrial grade materials in order to provide a prolonged service life

600+ SKUs / 36M VIO



## **Leak Detection Pumps**

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A continually expanding line of direct-fit pumps engineered to match OEM function

70+ SKUs / 46M VIO



## **ESIM (Evaporative System Integrity Module)**

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Designed and tested to accurately detect pressure change and provide corresponding voltage information to the vehicle's PCM

4 SKUs / 24M VIO

\*ESIMs are a type of leak detection pump designed by Chrysler. These components use two weights, a diaphragm, and a switch to detect pressure differences across a variety of conditions.

# Top Movers: EVAP Components

## IMPORT APPLICATIONS



**2-283735**

Canister Purge Solenoid  
Toyota / Lexus  
Cars, Trucks & SUVs  
(2018-06)



**2-282647**

Canister Vent Solenoid  
Nissan / Infiniti  
Cars, Trucks & SUVs  
(2023-03)



**2-283660**

Canister Purge Solenoid  
Hyundai / Kia  
Cars & SUVs  
(2014-06)



**2-284028**

Canister Purge Solenoid  
Toyota / Lexus  
Cars, Trucks & SUVs  
(2012-03)



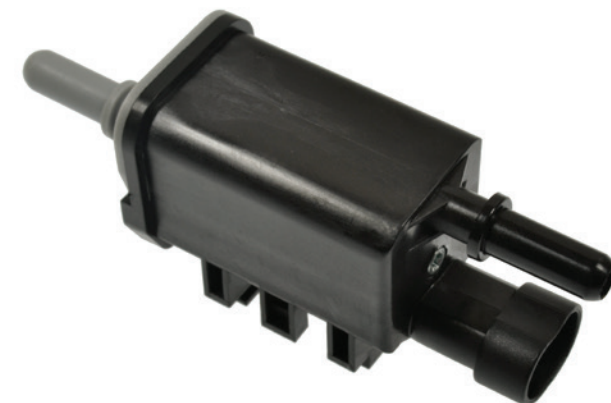
**2-283684**

Canister Purge Solenoid  
VW / Audi  
Cars & SUVs  
(2015-98)



**2-283727**

Canister Purge Solenoid  
GM  
Cars, Trucks & SUVs  
(2020-09)



**2-282571**

Canister Purge Solenoid  
GM  
Cars, Trucks & SUVs  
(2020-03)



**2-283993**

Canister Purge Solenoid  
Ford  
Cars, Trucks & SUVs  
(2021-11)



**2-282570**

Canister Purge Solenoid  
GM  
Cars, Trucks & SUVs  
(2014-04)



**2-284016**

Canister Purge Valve  
GM  
Cars & SUVs  
(2021-12)



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**EVAP Components**

**NAPAEchlin.com**

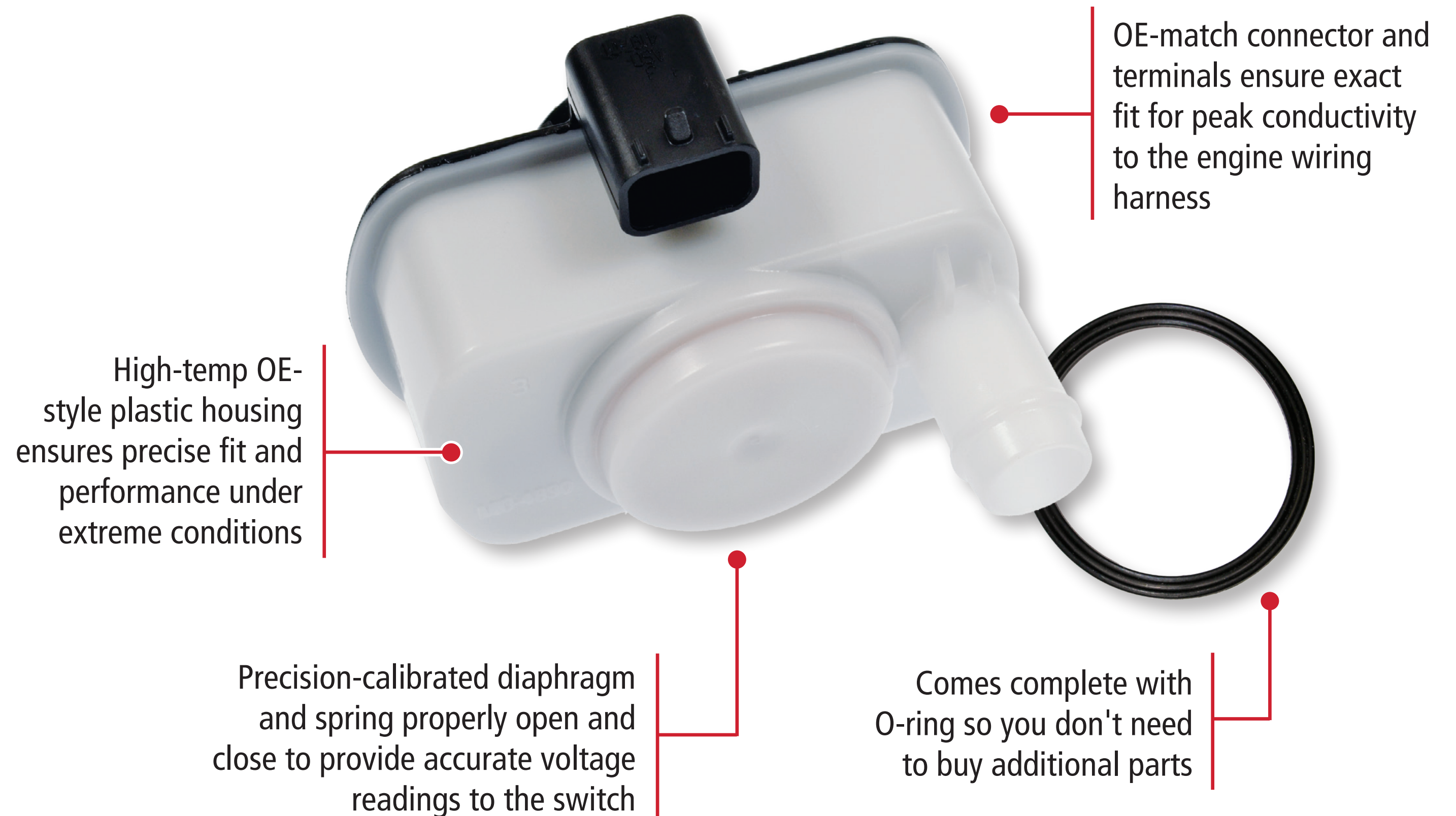
# Precision Engineering

## EVAP Components

Evaporative System Integrity Modules (ESIM), also known as Evaporative System Integrity Monitors, are a key EVAP component on many late-model Chrysler, Dodge, Jeep, RAM and Fiat vehicles. Unlike previous Leak Detection Systems, ESIMs do not contain a solenoid. Instead, ESIMs use two weights, a diaphragm and a switch to detect pressure differences across a variety of conditions.

All NAPA® Echlin® Evaporative System Integrity Modules are built to match the OEM part for fit, form, and function.

## NAPA® Echlin® Evaporative System Integrity Module



**2-71013**

Chrysler / Dodge / Jeep / RAM  
(2021-07)

# Crankcase Emission Components

NAPA® Echlin's 550 Crankcase Emission Components are made to keep a vehicle's emission system operating as the vehicle manufacturer intended. Key features of our products ensure that the vehicle maintains long-term reliability, performance, and fuel economy.

## Did You Know

Many forced-induction vehicles rely on the PCV valve to protect engine internals. Under heavy load, a failed PCV valve will allow positive pressure into the crankcase, resulting in damage to vital seals inside of it.



### PCV Valves

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These valves control gas emissions and reroute gas produced by the crankcase back into the engine's combustion chambers

365+ SKUs / 236M VIO



### PCV Grommets

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Manufactured using high-quality synthetic materials to resist breakdown from heat and promote a long-lasting seal around the PCV Valve

25 SKUs / 14M VIO



### Engine Oil Separators

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Designed to match OE function of air and oil separation to reduce carbon buildup and maintain engine efficiency

45+ SKUs / 33M VIO



### Engine Crankcase Breather Hoses

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Constructed using high-temperature-resistant materials and OE-style fittings to ensure proper fit, form, and function

95+ SKUs / 109M VIO



### Crankcase Ventilation Filters

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Engineered and tested to match OE filtration specifications

17 SKUs / 8M VIO



ECHLIN

Crankcase Emission Components

NAPAEchlin.com

# Top Movers: Crankcase Emission Products

## IMPORT APPLICATIONS



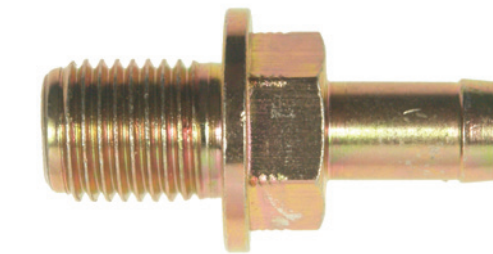
**2-9651**  
PCV Valve  
Hyundai / Kia  
Cars & SUVs  
(2023-07)



**2-9541**  
PCV Valve  
Nissan  
Cars, Trucks & SUVs  
(2020-02)



**2-9520**  
PCV Valve  
Honda / Acura  
Cars, Trucks & SUVs  
(2019-03)



**2-9554**  
PCV Valve  
Honda / Acura  
Cars  
(2019-02)



**2-9709**  
PCV Valve  
Honda / Acura  
Cars & SUVs  
(2019-13)

## DOMESTIC APPLICATIONS



**2-9210**  
PCV Valve  
GM  
Cars, Trucks & SUVs  
(1999-70)



**2-9627**  
PCV Valve  
Chrysler / Dodge / Jeep / RAM  
Cars, Trucks & SUVs  
(2020-07)



**2-9688**  
PCV Valve Elbow  
GM  
Cars & SUVs  
(2023-04)



**2-9397**  
PCV Valve  
Ford  
Trucks, Vans & SUVs  
(2004-97)



**2-9220**  
PCV Valve  
GM  
Cars, Trucks & SUVs  
(2012-70)



ECHLIN

Crankcase Emission Components

NAPAEchlin.com

# EGR Program

NAPA® Echlin's 1,000+ part EGR program doesn't stop at EGR Valves. NAPA® Echlin® offers a diverse selection of high-quality replacement EGR parts ranging from hoses to switches and even valve repair kits.

NAPA® Echlin® EGR parts are subject to a stringent testing and validation process which ensures long-term durability, reliability, and service life.



## **EGR Valves**

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Built from industrial grade materials for durability and calibrated to ensure precise operation

620+ SKUs / 110M VIO

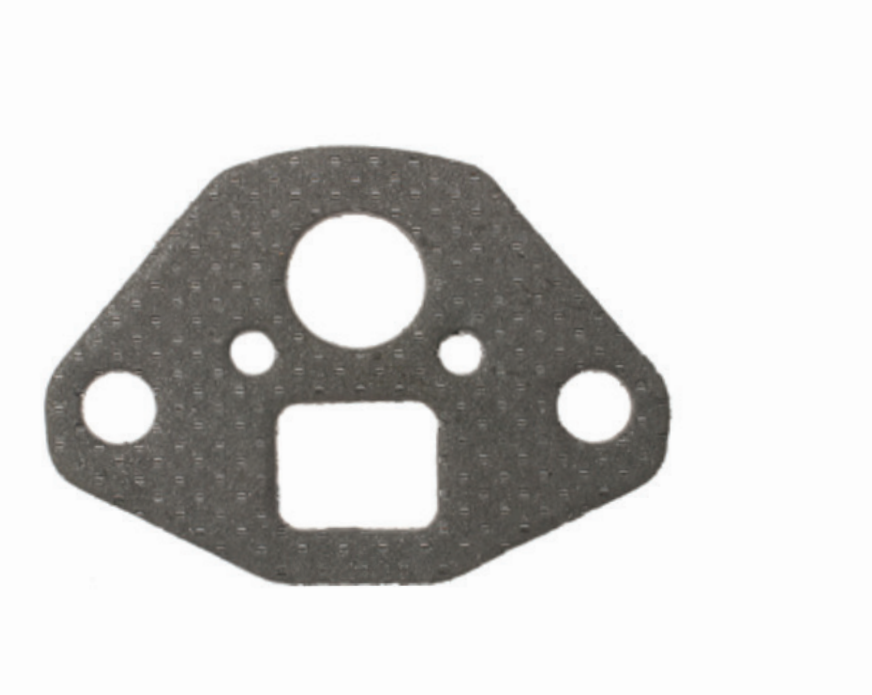


## **EGR Control Solenoids**

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Made with the finest components including multiple precious metal contacts and polymer thick film resistors

65+ SKUs / 33M VIO



## **EGR Valve Mounting Gasket**

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Designed and manufactured using application-specific, heavy-duty materials to seal against extreme EGR temperatures

190+ SKUs / 111M VIO

## **NAPA® Echlin's offering of EGR Emissions Products also includes:**

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EGR Delay Valves

EGR Pressure Feedback Hoses

EGR Repair Kits

EGR Time Delay Control Switches

EGR Tubes

EGR Valve Control Solenoid Filters

...and much more

# Top Movers: EGR Products

## IMPORT APPLICATIONS



**2-26333**

EGR Valve  
Honda / Acura  
Cars, Trucks & SUVs  
(2010-97)



**2-26684**

EGR Valve  
Mazda / Ford  
Cars & SUVs  
(2022-03)



**2-26793**

EGR Valve  
Honda / Acura  
Cars, Trucks & SUVs  
(2020-08)



**2-26653**

EGR Valve  
Mazda / Ford / Mercury  
Cars & SUVs  
(2006-01)



**2-2520**

EGR Valve Mounting Gasket  
Acura / Nissan / Subaru /  
GM / Ford / Jeep  
Cars, Trucks & SUVs  
(2019-72)



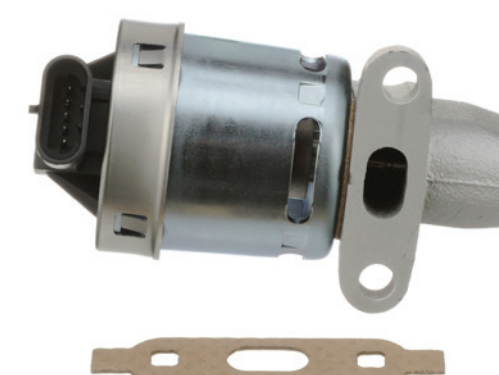
**2-26486**

EGR Valve  
Chrysler / Dodge / Jeep  
Cars, Trucks & SUVs  
(2010-03)



**2-26809**

EGR Valve  
Chrysler / Dodge / Jeep  
Vans & SUVs  
(2011-07)



**2-26156**

EGR Valve  
GM  
Cars & SUVs  
(2009-00)



**2-26154**

EGR Valve  
GM  
Cars, Trucks & SUVs  
(2005-93)



**2-36000**

EGR Valve  
GM  
Trucks & SUVs  
(1995-87)

# Precision Engineering

Every NAPA® Echlin® EGR Valve, like the 2-26809, is calibrated for precise performance. To ensure trouble-free operation, each one must pass comprehensive quality testing including computer-controlled bench testing for resistance, leakage, and response and flow rates.

## NAPA® Echlin® EGR Valve

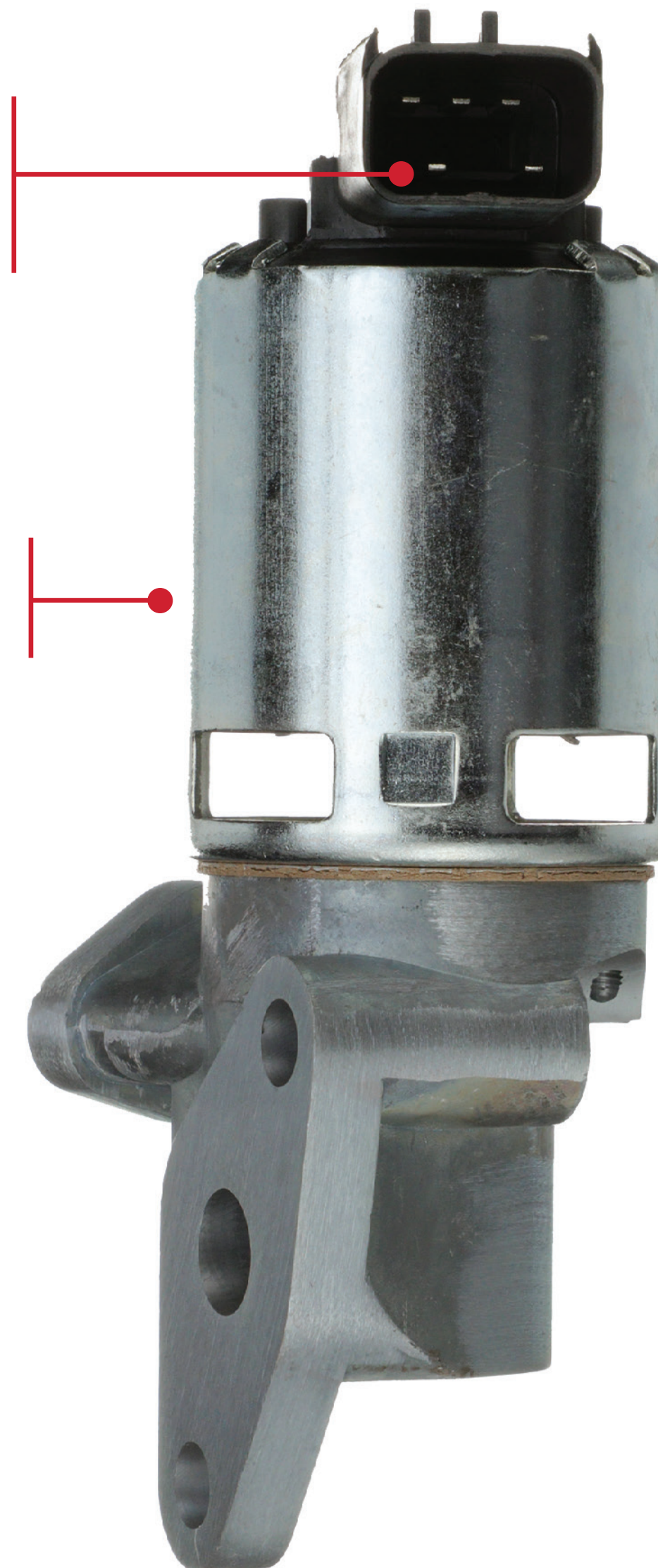
Alloy sensor contact ensures durability and proper performance

Direct-fit replacement for ease of installation

Heavy-duty solenoids and stainless steel valve components ensure durability

Includes stainless steel gasket to ensure complete replacement

**2-26809**  
Chrysler / Dodge / Jeep  
SUVs & Vans  
(2011-08)





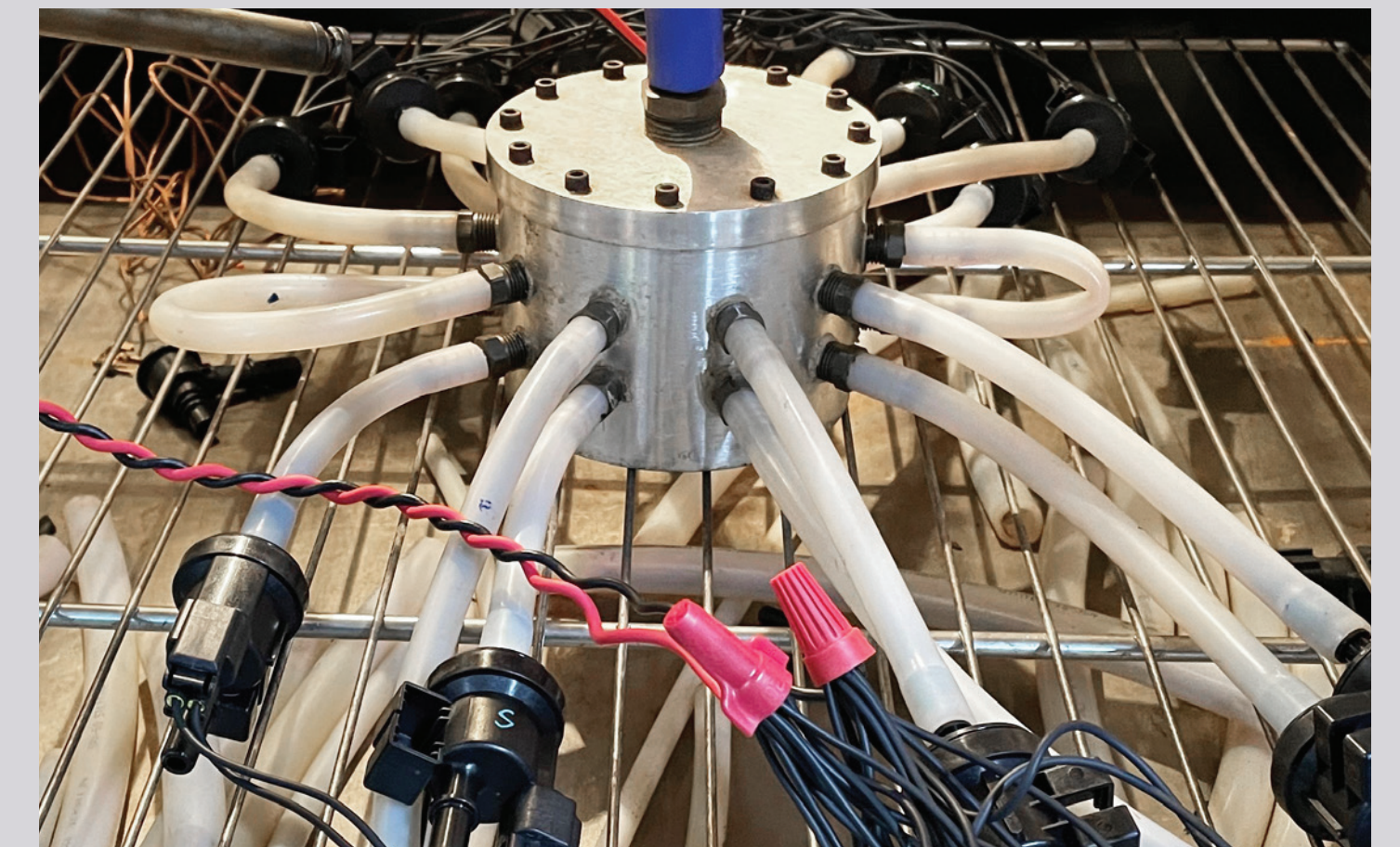
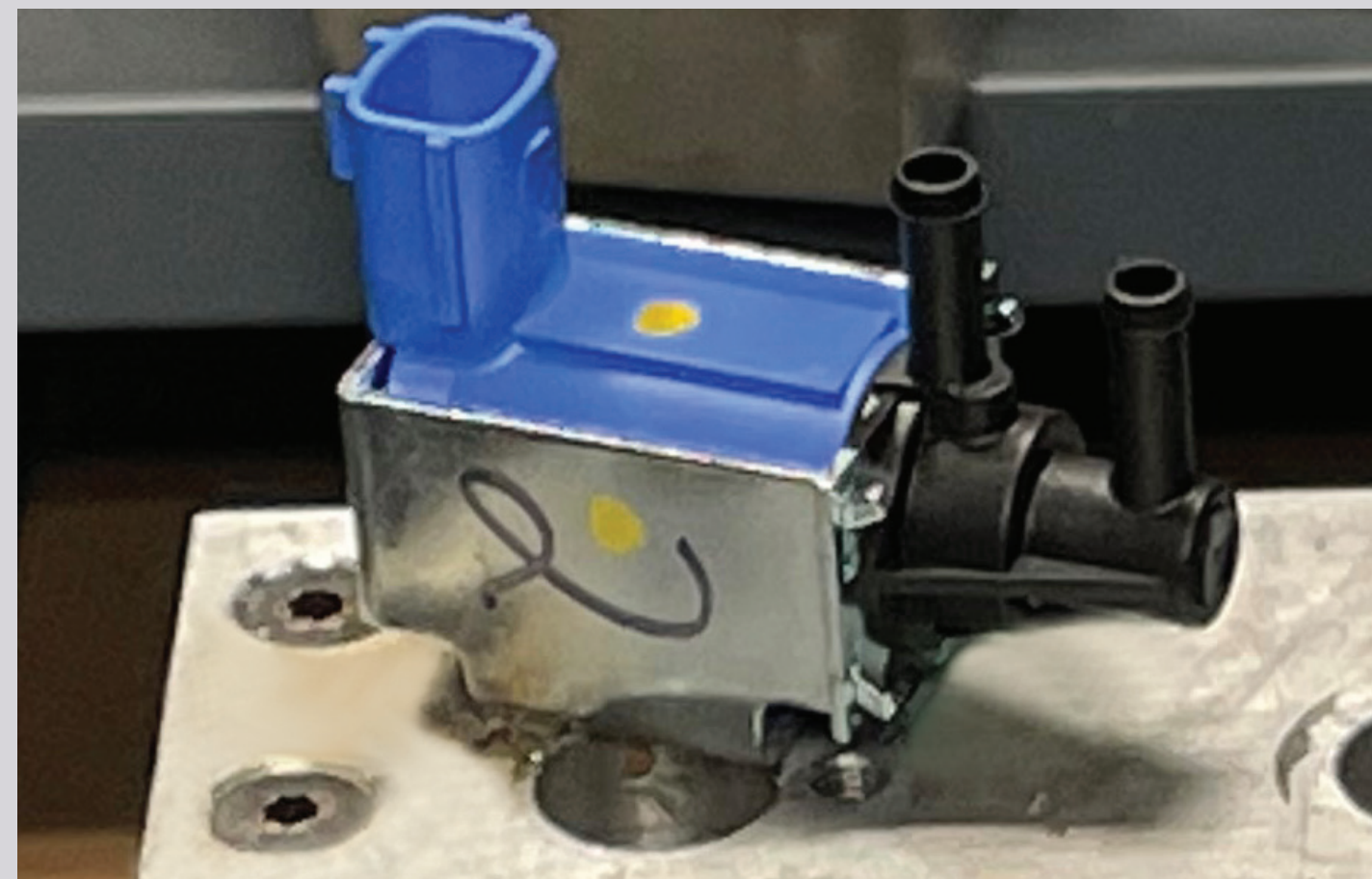
# Testing and Validation

Our parts undergo rigorous examination and product validation, including extensive performance benchmarking, product life-cycle testing and end-of-line testing.

Processes can vary from category to category, but it is always thorough. For example, NAPA® Echlin® Canister Purge Solenoids go through a barrage of tests including accelerated wear, thermal cycling, thermal shock, salt fog, vibration, and drop testing.



NAPA® Echlin® Emission Control products undergo on-vehicle testing at our Lewisville, Texas facility.



Canister Purge Solenoids are pictured undergoing vibration testing (left) and thermal cycle testing (right).

# NAPA® Echlin® Pro Training Tech Tip

As experienced ASE-certified automotive technicians themselves, NAPA® Echlin® Pro Trainers are experts in emission systems.

Here's what they say to look out for during an emission system service.



**After an EVAP system is repaired, it is important to verify the repair by running a self test and verifying that no DTCs have returned (this might not be possible for some small EVAP leak codes)**



**The emission systems on modern vehicles are fine-tuned to operate in symphony with each other — If one component fails, it will cause others to operate less efficiently**



**EGR low-flow DTCs can be caused by restricted intake passages, faulty control solenoids, and faulty EGR valves — Always ensure that the control system is operating properly and that the intake passages are free of carbon build up**



**ECHLIN**

**Emission Control Program**

**NAPAEchlin.com**

# NAPA® Echlin® Professional Training

## Award-Winning In-Person, Live Virtual, and Online Learning

NAPA® Echlin® Pro Training delivers accredited classes that educate technicians in the latest automotive repair technologies, and techs can earn CEU credits.

An extension of NAPA® Echlin® training, our extensive YouTube video library has over 500 technical and installation videos.



### Available Classes

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Diagnosing Secondary AIR Injection Systems

Chrysler EVAP Tips and Tricks

Diagnosing Catalytic Converter Codes

EVAP System Diagnosis

Misfire Diagnostics

Lean Engine Diagnosis

Rich Engine Diagnosis



### Available Classes

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Misfire Diagnosis

Honda / Acura Diagnosis

Nissan / Infiniti Diagnosis

Ford Gas Vehicle Update

EVAP Diagnostics

Advanced Engine Mechanical Diagnostics

GM Engine Controls



For information on replacing emission components, search “EVAP,” “Crankcase,” or “EGR” on the **NAPA® Echlin®** YouTube channel