

# TURBOCHARGER KITS & RELATED PARTS

1

NAPA® Echlin® offers over 140 Turbocharger Kits for gas, diesel, domestic and import applications

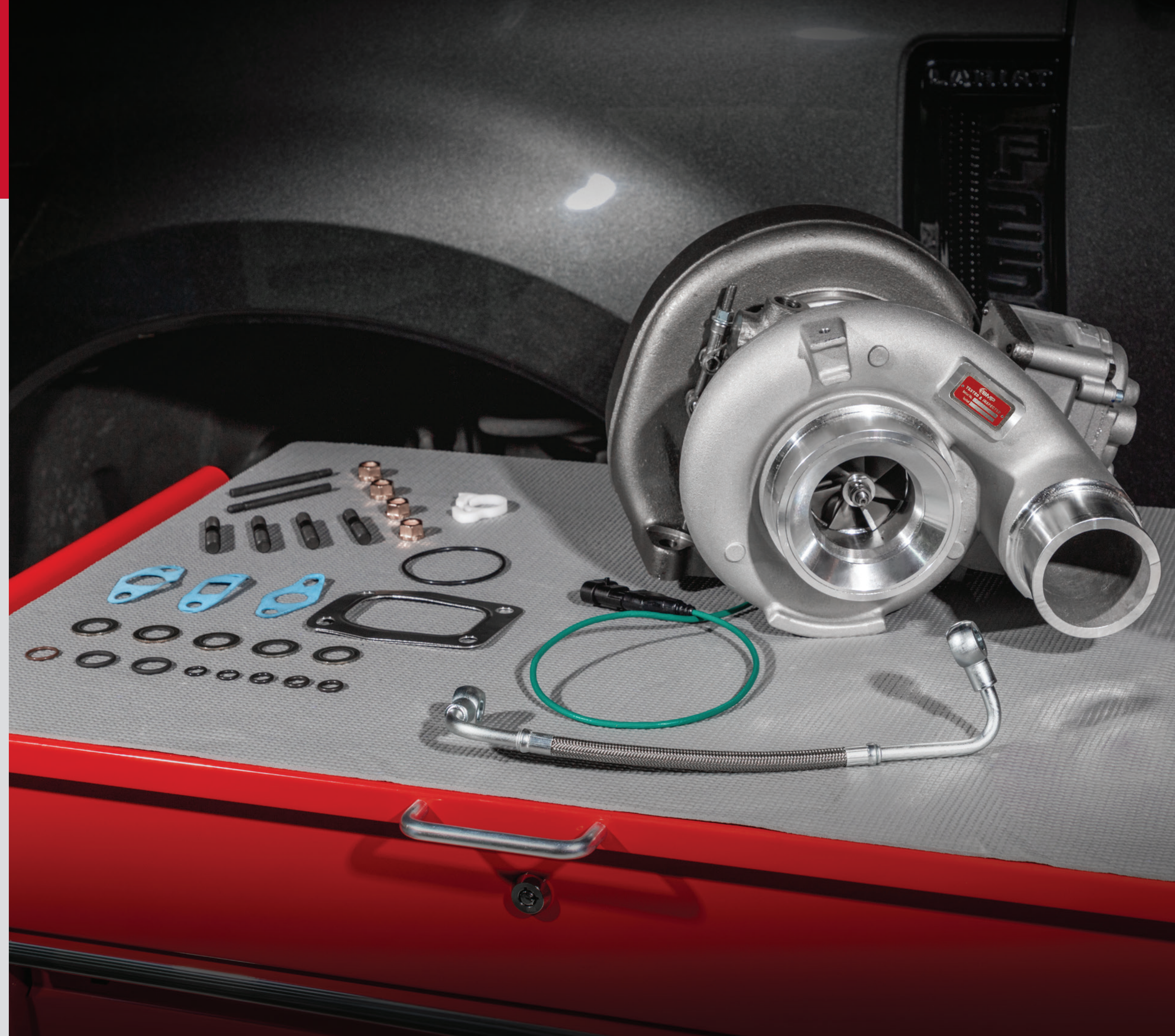
2

Echlin® complete Turbocharger Kits include everything needed for a complete and trouble-free installation

3

The entire Echlin® Turbocharger line is supported by a fast and efficient Drop-Ship Program

**What's in your box?™  
Here's what's in ours.**



**ECHLIN**

**LOOKS RIGHT. FITS RIGHT. PERFORMS RIGHT.**

[NAPAEchlin.com](http://NAPAEchlin.com)



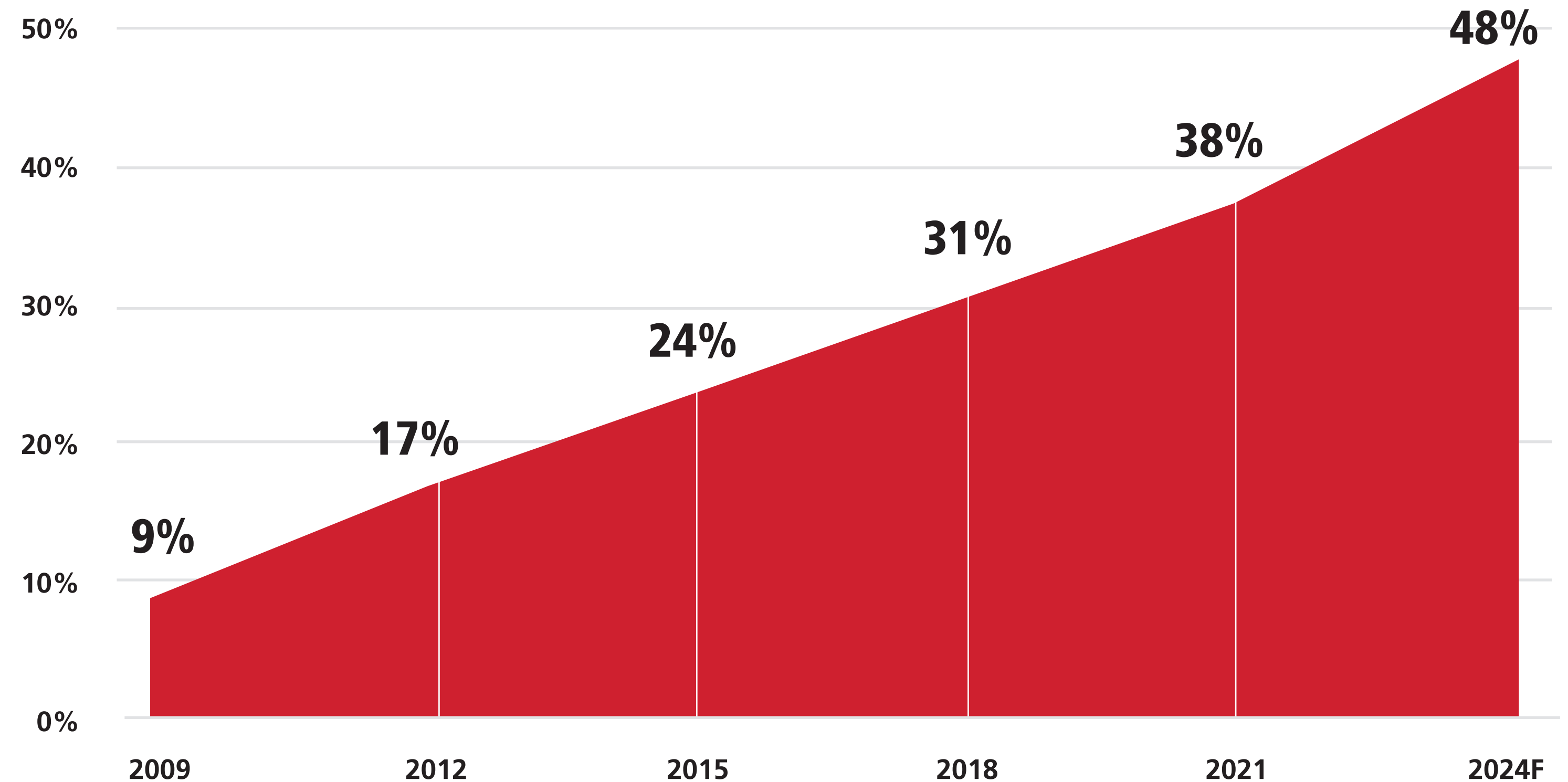
# Growing Market

To help boost the performance and efficiency of smaller displacement engines, automakers have continued adding turbochargers to their vehicle line-ups. In fact, in 2023 almost half of all new vehicles using an internal combustion engine came equipped with a turbocharger.

## Did you know

Many new vehicles, especially Fords, come from the factory with two turbochargers.

## New Vehicles Equipped with Turbochargers



Source: SMP Internal Data



From 2010 to 2020, the number of registered vehicles with turbochargers grew by more than 400%! As these vehicles age, they will represent millions of service opportunities.

# Opportunities

The GM 1.4L Ecotec engines may develop an oil leak around the PCV valve and plugs on the front engine cover (GM Service Bulletins PIP5197/PIO957).

The loss of oil can starve the turbocharger of lubrication, causing the turbocharger to fail prematurely.

## Echlin® Pro Training Tip

Before installing a replacement turbo on a GM 1.4L, carefully check for any oil leaks. It is likely the original turbo failed due to a lack of lubrication.



Echlin® New, No-Core Turbocharger Kits for the GM 1.4L Ecotec engine contain everything needed for a complete repair, helping technicians do the job right

**2-551021 includes a premium turbocharger, new gaskets, oil line and required hardware**

## 2-551021 GM 1.4L Ecotec Engines

Buick Encore (2022-20) (2018-13)  
Chevrolet Trax (2022-13)  
Chevrolet Cruze (2016-11)  
Chevrolet Sonic (2020-12)

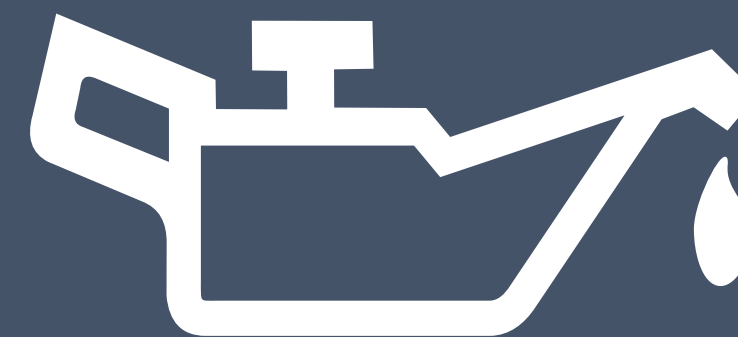




# Impact on Engine Systems



Low boost conditions  
can be caused by air leaks  
in the intake ductwork or  
intercooler



Turbos usually don't fail on  
their own — The primary  
causes of turbo failure are  
contamination and lack  
of oil



A turbo failure can send oil  
and metal debris through  
the intake — The entire  
intake system, including  
the intercooler, should be  
thoroughly inspected



# What's New

## NEW TURBOCHARGER KITS

Our offering of New Turbocharger Kits continues to grow. Echlin's commitment to introducing new Turbocharger Kits helps our distribution partners better serve their customers.

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



### TRB120N

GM Trucks & Vans  
6.6L (2010-07)  
VIO: 240K



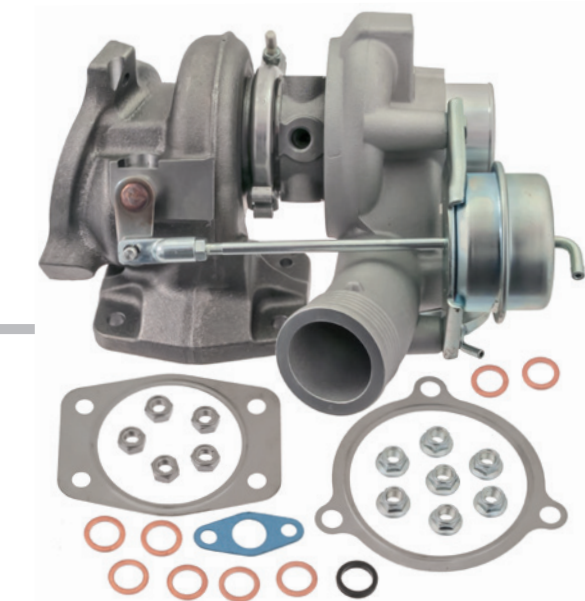
### TRB123N

GM Trucks  
6.6L (2016-11)  
VIO: 530K



### 2-551107

Mazda SUVs  
2.3L / 2.5L (2012-07)  
VIO: 110K



### 2-551096

Volvo Cars & SUVs  
2.4L / 2.5L (2009-03)  
VIO: 70K





# What's New

## RELATED PARTS

From turbo sensors and actuators to coolant and oil lines, regularly introducing related parts for the turbocharger system is a staple of Echlin's complete Turbocharger Program.

To see all of our turbocharger related parts, check the online catalog at [NAPAEchlin.com](http://NAPAEchlin.com).



### Bypass Valve

**2-11027**

GM Cars & SUVs  
(2023-20)  
VIO: 560K



### Oil Drain Tube

**2-56112**

Ford Cars & SUVs  
(2020-14)  
VIO: 980K



### Oil Line

**2-56130**

Nissan Trucks  
(2023-17)  
VIO: 170K



### Coolant Line

**2-56165**

Ford / Lincoln SUVs  
(2023-20)  
VIO: 730K



### Oil Line

**2-56168**

Dodge / Jeep SUVs  
(2023-18)  
VIO: 712K



### Wastegate Solenoid

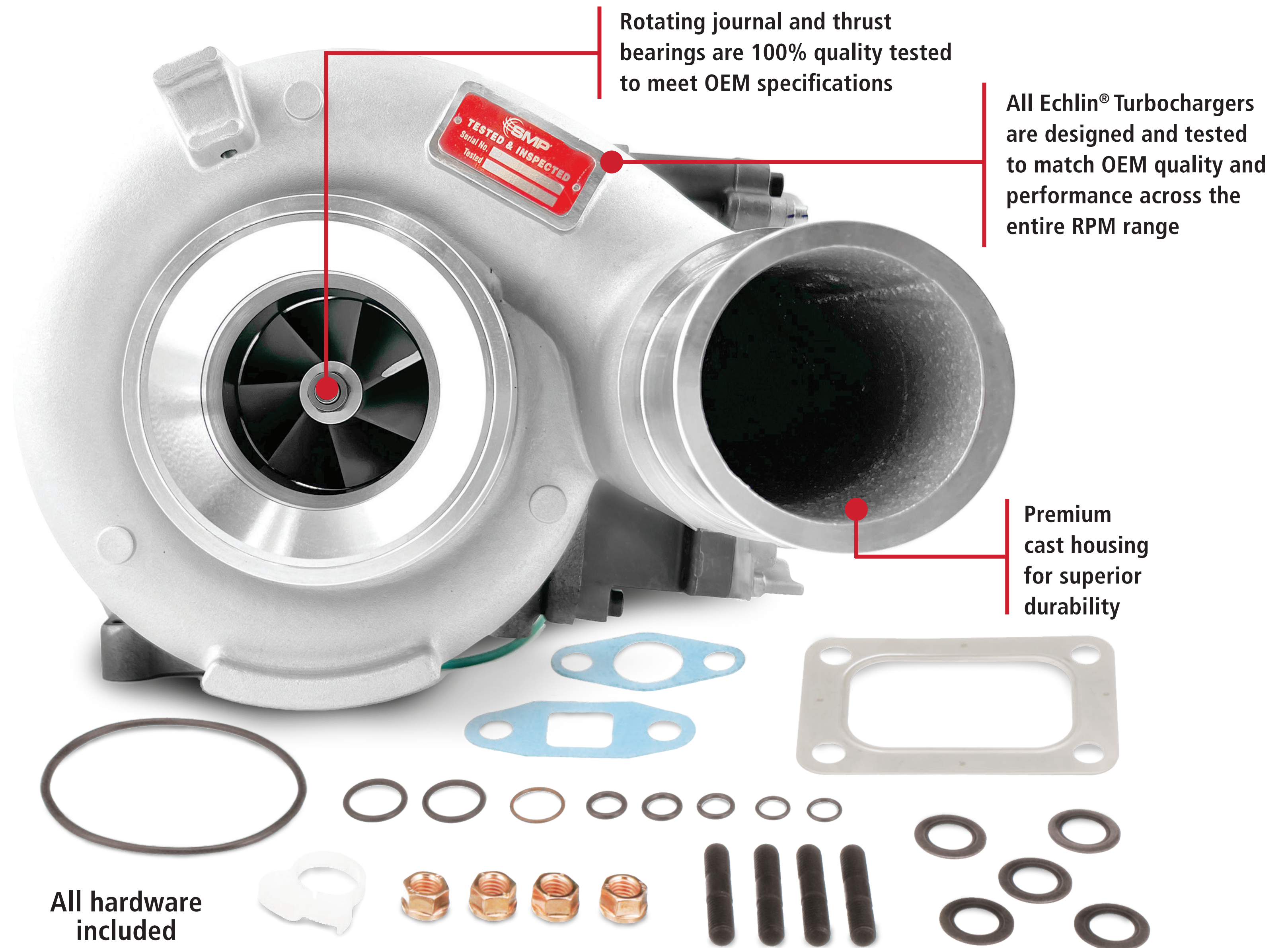
**2-16921**

GM Trucks & Vans  
(2016-11)  
VIO: 535K



# Echlin® Quality

Turbochargers operate at temperatures in excess of 1700°F with the turbine spinning up to 200,000 RPM. Using quality components to manufacture a premium replacement is critical to optimal turbocharger performance.

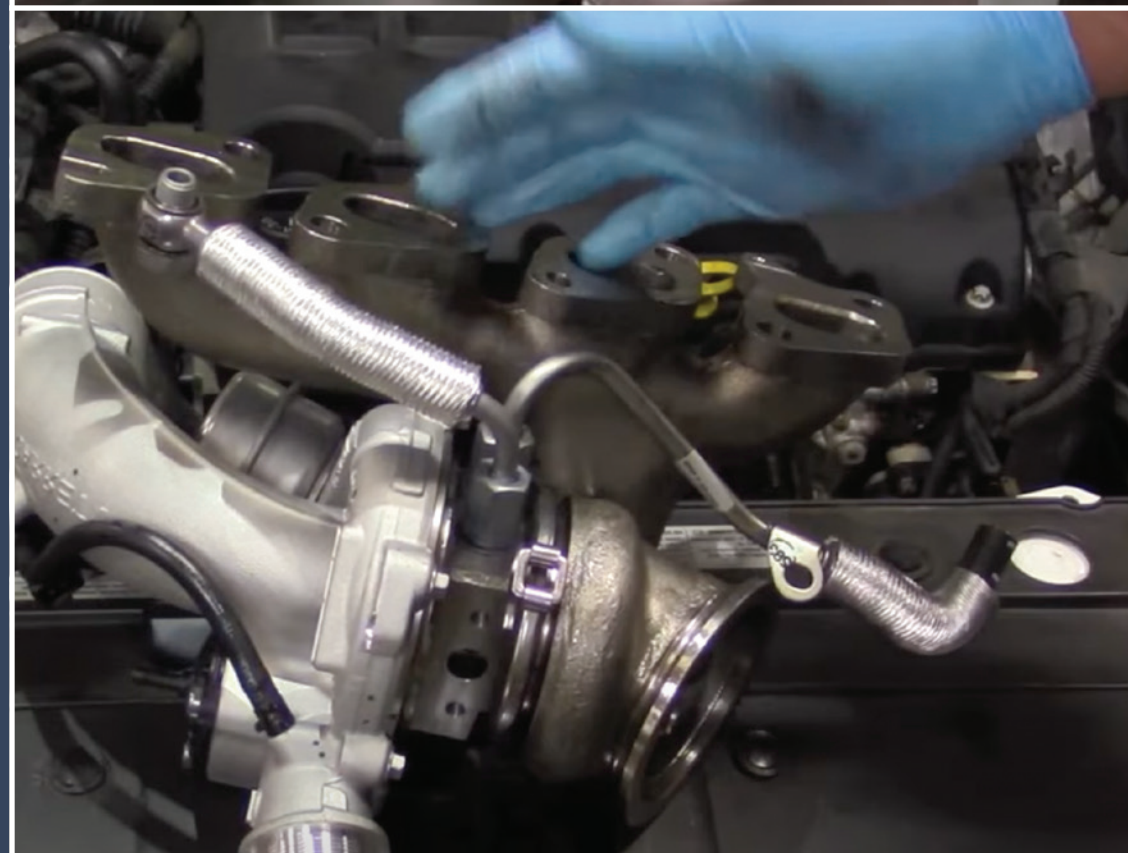
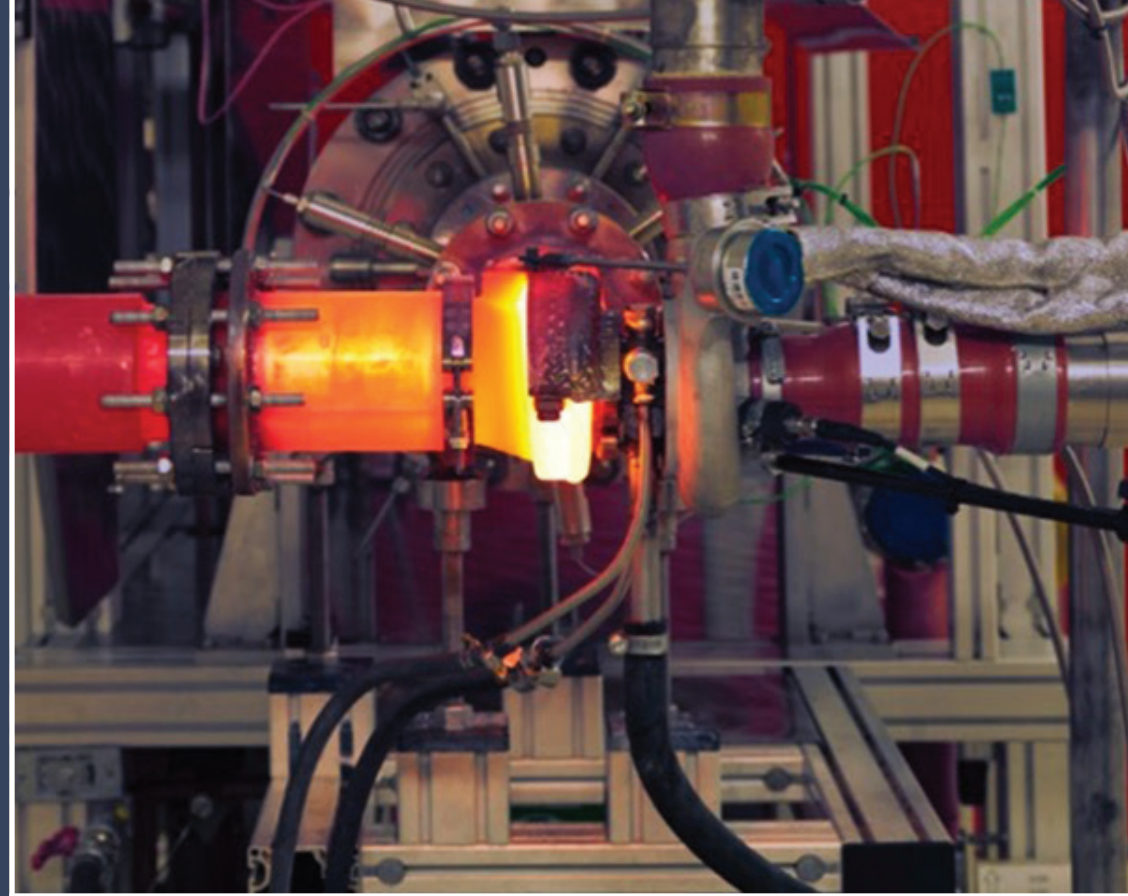




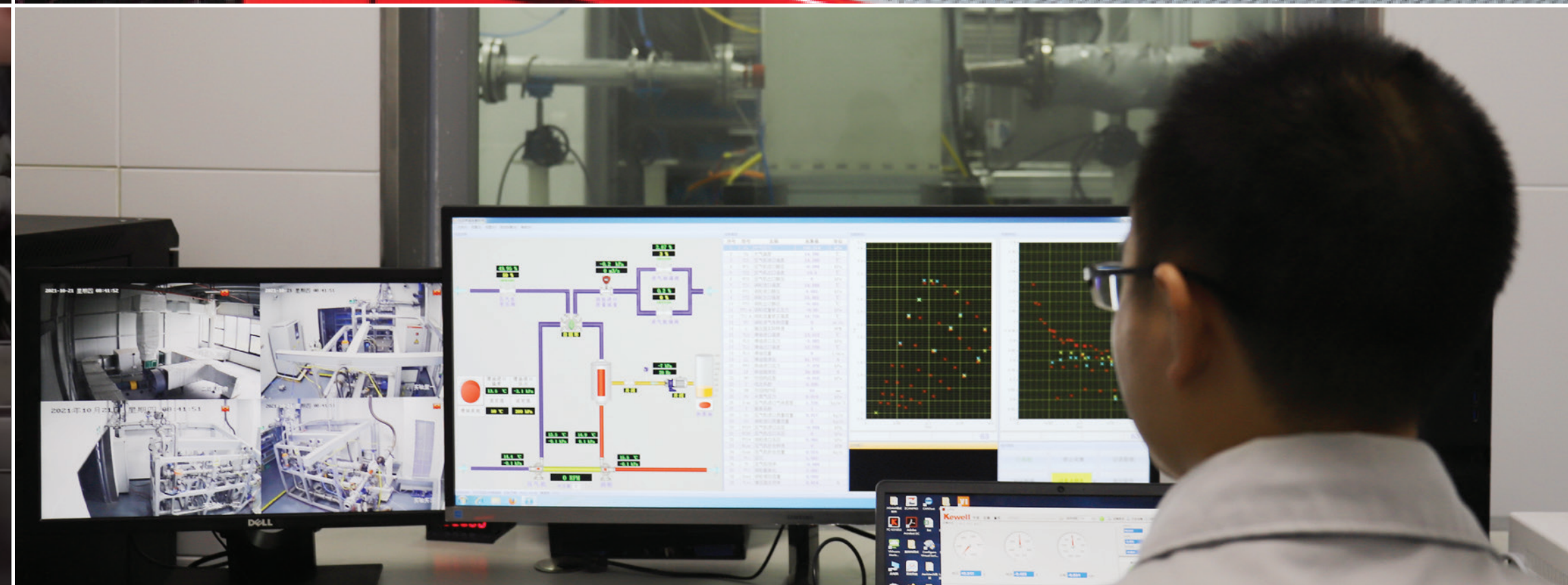
# Testing and Warranty

All Echlin® Turbochargers are subjected to a stringent testing regimen. Hot gas stand and burst testing ensure structural integrity, durability, and optimal performance. Echlin® Turbochargers aren't just 100% end-of-line tested but are also tested on real vehicles, guaranteeing easy installation and proper operation.

That's why all Echlin® Turbocharger Kits come with a 3-year / 36,000-mile limited warranty.



**3/36**  
**3-Year / 36,000-Mile**  
**Limited Warranty**





# Top Movers: Turbocharger Kits



**GASOLINE**



**2-551021**

GM Cars & SUVs  
1.4L (2022-11)



**2-551037**

Hyundai / Kia Cars & SUVs  
2.0L (2020-15)



**2-551103**

Ford / Lincoln Cars & SUVs  
(Right Side) 3.5L (2019-10)



**2-551102**

Ford / Lincoln Cars & SUVs  
(Left Side) 3.5L (2019-10)



**2-551101**

Ford Cars & SUVs  
1.0L (2021-14)

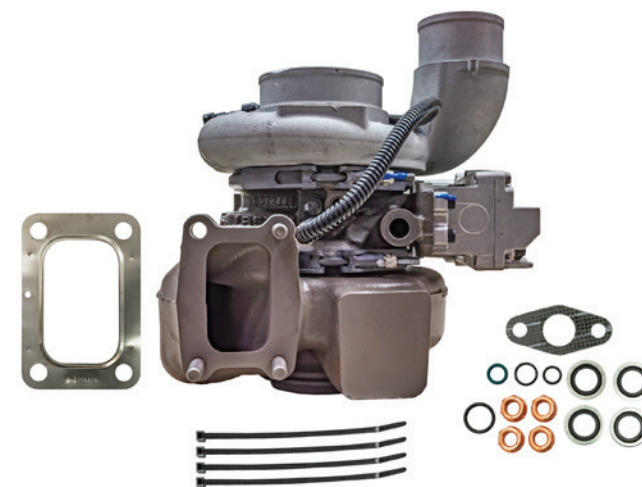


**DIESEL**



**TRB338R**

Dodge / RAM Trucks  
6.7L (2012-07)



**TRB301R**

RAM Trucks  
6.7L (2018-13)



**TRB225NX**

Ford Super Duty Trucks & Vans  
6.0L (2010-06)



**TRB826N**

Ford Super Duty Trucks  
6.4L (2010-08)



**TRB215N**

Ford Trucks & SUVs  
7.3L (2003-99)

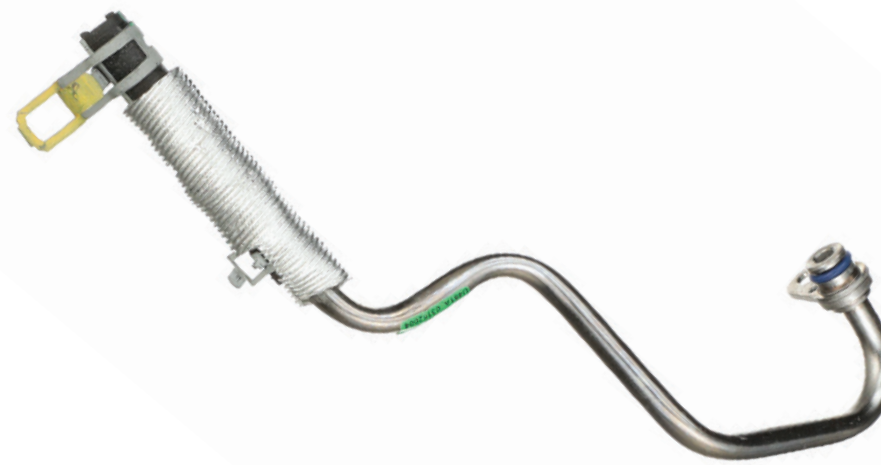


# Related Parts

The Echlin® Turbo Program includes all related components to do the job right: coolant lines, oil lines, drain tubes, gasket sets and charge air coolers.

## Echlin® Pro Training Tip

When replacing a failed turbocharger, experts recommend also replacing the oil drain tubes and oil feed lines. Oil sludge build-up in these components is often a cause of turbocharger failure.



### Turbo Coolant Lines

Exact OEM fitment engineered to provide cooling on turbochargers

30+ SKUs with coverage through 2024



### Turbo Oil Drain Tubes

Upgraded, zinc-coated steel resists corrosion. Includes a new gasket\*

20+ SKUs with coverage through 2022



### Turbo Oil Lines

Helps keep the turbo lubricated as designed for a longer service life. Includes new gaskets\*

70+ SKUs with coverage through 2023



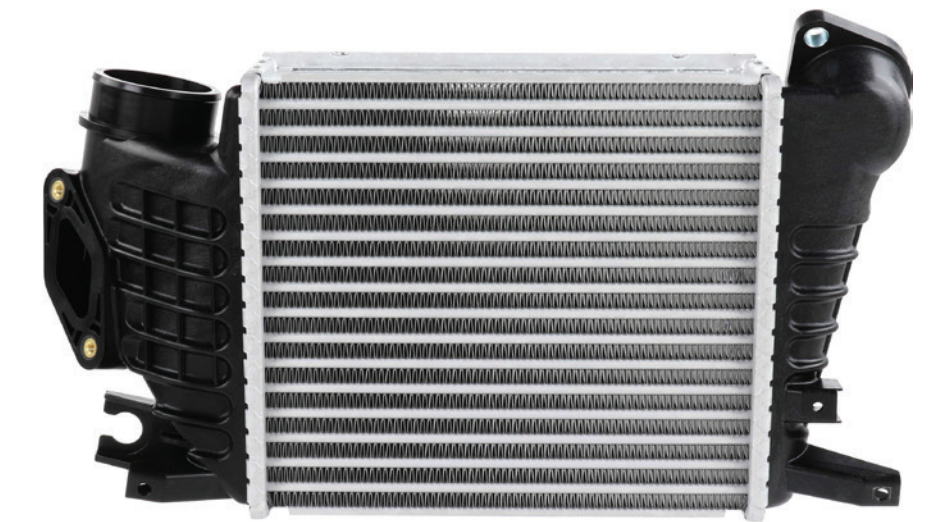
### Turbo Gasket Sets

Echlin's Turbos come complete with gaskets, but sometimes, the technician only needs gaskets



### Water to Air Coolers

Cools the air using heat transfer between water and intake air before it enters the intake manifold



### Air to Air Coolers

Cools the air using heat transfer between ambient air and intake air before it enters the intake manifold

\* where required



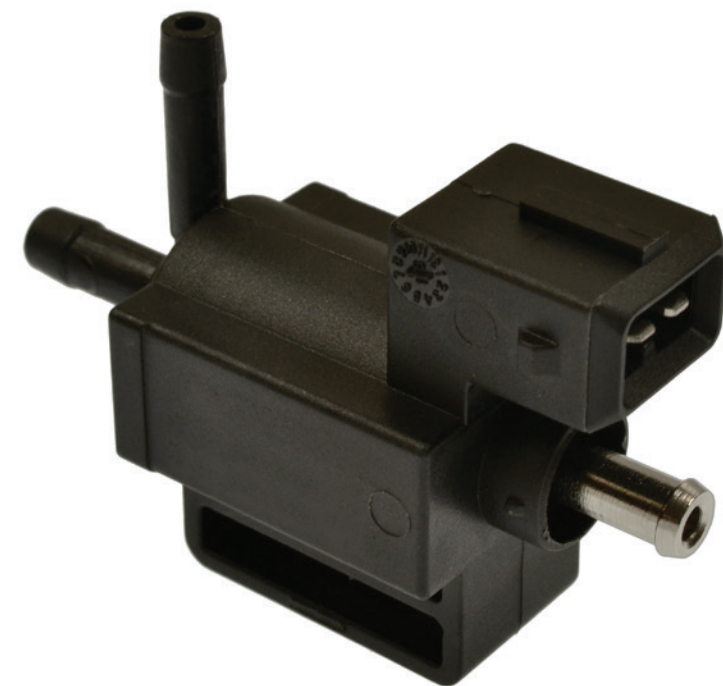
# Related Parts

Echlin® also supplies a full line of related and supporting components for turbochargers. Technicians can count on Echlin® to provide comprehensive coverage for turbocharger systems.



## **Turbo Actuators**

Direct OE replacement for Ford and GM diesel trucks



## **Turbo Wastegate Solenoids**

Regulates the amount of boost on turbocharged engines

Import and domestic coverage through 2021



## **MAP Sensors**

Measures turbo manifold pressure to the ECM, calculates air density and required fuel delivery for optimum combustion

340+ SKUs with coverage through 2024



## **Turbo Bypass Valves**

Includes an upgraded internal spring to help the turbo spool up faster, and maintain constant boost pressure

Import and domestic coverage through 2023



## **Turbo Speed Sensors**

Provides the ECM with a speed reading which helps prevent excessive turbo RPM that can cause turbo and/or engine damage





# Packaging with a Purpose

The most complete Turbo Program includes complete support. That’s why Echlin® provides illustrated installation instructions and on-the-box alert labels for every New, No-Core Turbo Kit, to help technicians perform a successful install.

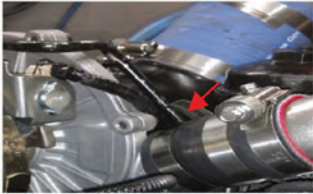
## NAPA® ECHLIN® Step-by-Step Turbocharger Removal and Installation Instructions



1. Remove plastic cover on top of engine bay and detach wire harness from mounts. Move the wiring harness out of the way to improve access.  
Retirer le couvercle en plastique situé sur le dessus du compartiment moteur et détacher le faisceau électrique des supports. Refaire la cubierta de plástico del compartimiento del motor y desconecte de su montaje el arnés de cableado. Ponga a un lado el arnés de cableado para facilitar el acceso.



2. Remove turbocharger intake tube.  
Retirer le tube d'admission du turbocompresseur. Desconnecte la tubería de entrada del turbocompresor.



3. Disconnect charge air cooler inlet pipe.  
Débrancher le tuyau d'admission du refroidisseur d'air de suralimentation. Desconnecte la tubería de entrada del interenfriador.



4. Disconnect turbocharger variable vane hydraulic control valve electrical connector.  
Débrancher le connecteur électrique de la soupape de commande hydraulique à aube fixe à incidence variable du turbocompresseur. Desconnecte el conector eléctrico de la válvula de control hidráulico de las paletas variables del turbocompresor.



5. Remove fasteners connecting the oil supply line to the turbo. Discard gasket. REUSE fasteners.  
Retirer les pièces qui fixent la canalisation d'huile au turbocompresseur. Jeter le joint d'étanchéité. RÉUTILISER les pièces de fixation. Desinstale los sujetadores que conectan la línea de suministro de aceite al turbocompresor. Deseche la empaquetadura. VUELVA A UTILIZAR los sujetadores.



6. Remove fastener on the flange of oil supply line connected to the oil cooler. Discard O-ring & fastener.  
Retirer la pièce de fixation située sur la bride de la canalisation d'huile branchée au refroidisseur d'huile. Jeter le joint torique et la pièce de fixation. Desinstale el sujetador en la brida de la línea de suministro de aceite conectada al enfriador de aceite. Deseche la junta tórica y el sujetador.



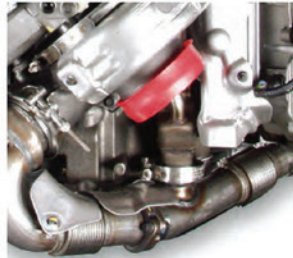
7. Remove and discard the fastener and the wire retainer.  
Retirer et jeter la pièce de fixation et la bride de retenue métallique. Desinstale y deseche el sujetador y el reten del cable.



8. Remove Marman clamp from the turbocharger turbine outlet.  
Retirer la bride de serrage Marman de l'orifice de sortie de la turbine du turbocompresseur. Desinstale la abrazadera de apriete de tornillo del tubo de salida de la turbina del turbocompresor.



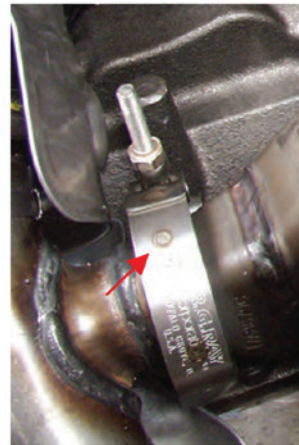
9. Remove Marman clamp from the turbocharger turbine inlet.  
Retirer la bride de serrage Marman de l'orifice d'entrée de la turbine du turbocompresseur. Desinstale la abrazadera de apriete de tornillo del tubo de entrada de la turbina del turbocompresor.



10. Loosen the exhaust inlet pipe-to-EGR cooler clamp.  
Desserrer le collier de serrage qui unit le tuyau d'entrée des gaz d'échappement au refroidisseur du système EGR. Afloje la abrazadera que conecta la tubería de entrada del escape al enfriador de EGR.

4. Install & properly position turbocharger inlet Marman clamp. Installer et positionner correctement la bride de serrage Marman sur l'orifice d'entrée du turbocompresseur. Instalar y colocar correctamente la abrazadera de apriete de tornillo de la tubería de ingreso del turbocompresor.

5. Install exhaust inlet pipe-to-EGR cooler clamp. Installer le collier de serrage qui unit le tuyau d'admission des gaz d'échappement à la tubulure d'échappement. Instalar la abrazadera que conecta la tubería de entrada del escape al el enfriador EGR.



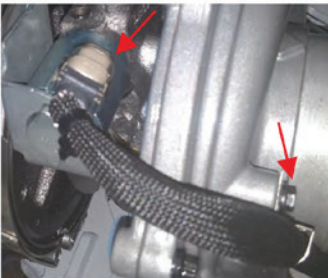
6. Install LH and RH exhaust inlet pipe-to-exhaust manifold nuts. Alternate tighten the bolts on each side of the engine to draw inlet pipes equally to each exhaust manifold flange. Notes: Gap between pipe flange and exhaust manifold should be even for both exhaust connections on the engine.

Installer les écrous qui unissent le tuyau d'admission des gaz d'échappement à la tubulure d'échappement, du côté gauche et du côté droit du moteur. Serrer les boulons alternativement de chaque côté du moteur afin de caier les tuyaux d'admission uniformément sur la bride de chacun des tubulures d'échappement. Note : L'espace libre entre la bride de tuyau et la tubulure d'échappement doit être exactement le même pour les deux raccords de tuyaux d'échappement sur le moteur.

Instale las tuercas del lado izquierdo y lado derecho del múltiple que conecta la tubería de entrada al escape. Apriete alternadamente los pernos en cada lado del motor de manera que las tuberías de entrada se asienten de manera pareja en cada brida del múltiple del escape. Nota: El espacio entre la brida de la tubería y el múltiple del escape debe ser igual en ambas conexiones del escape del motor.



7. Install turbocharger exhaust Marman clamp.  
Installer la bride de serrage Marman de l'échappement du turbocompresseur. Instalar la abrazadera de apriete de tornillo en el escape del turbocompresor.



8. Install wire retainer & fastener. Reconnect the turbocharger variable vane hydraulic control valve connector.

Installer la pièce de fixation et la pièce de retenue métallique. Rebrancher le connecteur électrique de la soupape de commande hydraulique à aube fixe à incidence variable du turbocompresseur.

Instalar el reten del cable y el sujetador. Vuelva a conectar el conector de la válvula de control hidráulico de las paletas variables del turbocompresor.



9. Install oil supply tube, then pour a quart of new engine oil into the inlet hole of the turbocharger.

Installer la canalisation d'huile, puis verser 946 ml d'huile moteur fraîche dans l'orifice de remplissage d'huile du turbocompresseur.

Instalar la tubería de suministro de aceite, luego vierte un cuarto de galón de aceite nuevo de motor por el agujero de entrada del turbocompresor.



10. Position oil supply line with new gasket, then install original fasteners.

Positionner correctement la canalisation d'huile sur le nouveau joint d'étanchéité, puis installer les pièces de fixation d'origine.

Coloque la línea de suministro de aceite con una empaquetadura nueva, luego instale los sujetadores originales.



11. Install inlet & outlet air hoses to the turbocharger compressor.

Installer les tuyaux flexibles de prise d'air et de sortie d'air sur le compresseur du turbocompresseur.

Instalar las mangueras de aire de entrada y salida al compresor del turbocompresor.



Detailed installation videos available on Echlin's YouTube channel

**ALERT:**  
PROPER DIAGNOSIS IS REQUIRED BEFORE REPLACING THE TURBO

Failure to properly diagnose the root cause can lead to a repeat problem and void the warranty

**ALERTE :**  
UN DIAGNOSTIC PRÉCIS DOIT ÊTRE POSÉ AVANT DE PROCÉDER AU REMPLACEMENT DU TURBOCOMPRESSEUR

Tout défaut de poser un diagnostic précis de la cause peut entraîner la répétition du problème et invalider la garantie

**ALERTA:**  
ANTES DE REEMPLAZAR EL TURBOCOMPRESOR DEBE HACER UN DIAGNÓSTICO APROPIADO

Si no hace el diagnóstico apropiado, la causa del fallo puede producir un problema repetido y anular la garantía





# Echlin® Pro Training Tech Tips

Echlin® Pro Trainers have installed hundreds of turbos and trained thousands of technicians. Here's what they say to look out for during a turbo install.



**When replacing a failed turbo, ensure that there is no debris, oil, water, or shop rags in the ductwork or the intercooler before starting the engine for the first time**



**If the intercooler and/or charge pipes are replaced, it is a good idea to pressure test the system – This ensures there are no boost leaks and that the vehicle will run properly**



**Turbos need clean oil to lubricate them, many need clean coolant to cool them, and they all need clean air from a fresh filter to breathe – Ensure that all of these things are new or replaced when installing a new turbo**

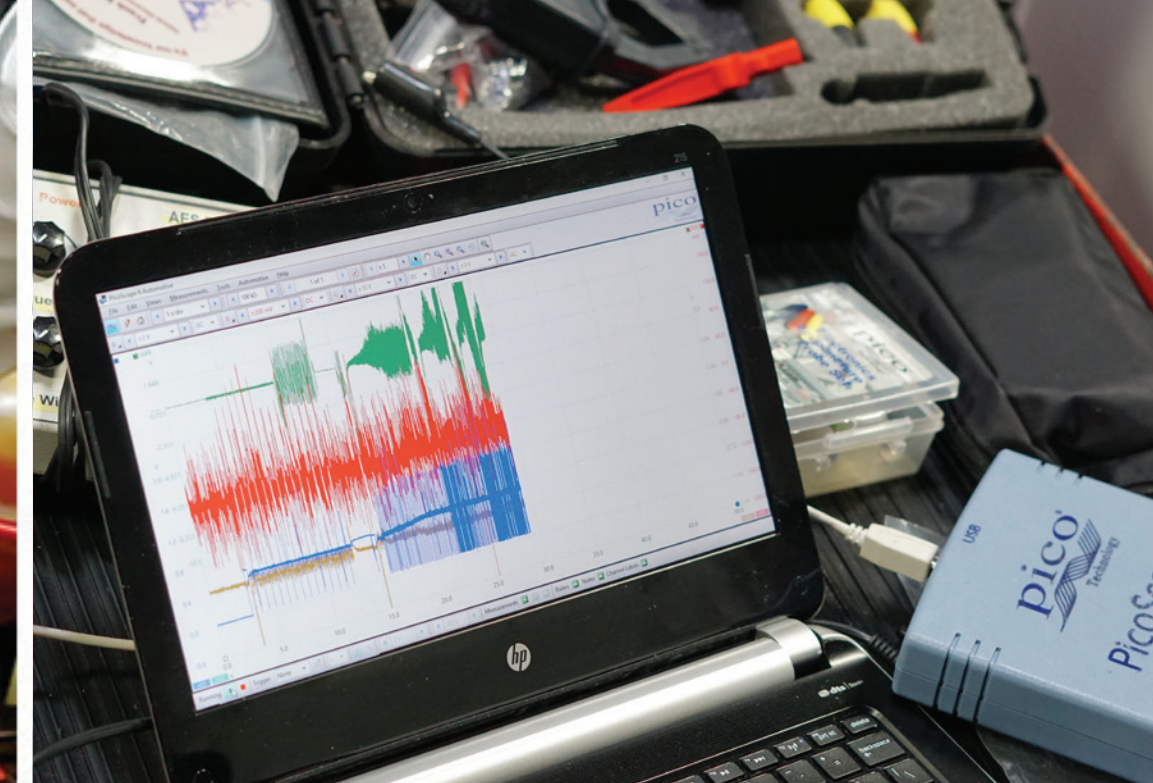


# Echlin® Professional Training

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

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

An extension of Echlin® training, our extensive YouTube video library has over 550 technical and installation videos.



### Available Classes

---

6.7 Cummins Tips and Tricks

6.7 Power Stroke Tips

Duramax Diesel Updates

Forced Air Induction Technologies

Ford EcoBoost



### Available Classes

---

Duramax Diagnosis and Service

Ford EcoBoost

Modern Turbocharger Diagnostics

Unleash The Power of Your  
Scan Tool



For information on replacing turbochargers and components, search “Turbo” on the **NAPA® Echlin®** YouTube channel