CLOYES®
ESTABLISHED IN 1921

Cloyes Tech Center Installation Videos

Chrysler, Dodge, Jeep, RAM, Ford, Mazda, Mercury, Lincoln, Subaru



Save Time & Money. Reduce Installation Errors

Scan the QR Code for your vehicle's installation video

Chrysler Dodge 2.7L

Kit Family:
9-0397
9-0707

Chrysler, Dodge, Jeep, RAM 3.7L/4.7L

Kit Family:
9-0393

Chrysler, Dodge, Jeep, RAM 3.6L

Kit Family:
9-0511

Ford 5.0L

Kit Family:
9-0510
9-0757

Ford, Mazda, Mercury 4.0L

Kit Family:
9-0398

Ford, Mazda, Lincoln, Mercury 3.5L/3.7L

Kit Family:
9-4226
9-0738

Ford, Lincoln, Mercury 4.6L/5.4L/6.8L

Kit Family:
9-0387
9-0391

Ford, Lincoln, Mercury 4.6L/5.4L/6.8L

Kit Family:
9-0387
9-0391

Subaru 3.0L/3.6L

Kit Family:
9-0561S
9-0561SX

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INFO@CLOYES.COM

For Installation Tips, Instructions and Tech Videos, visit us online:

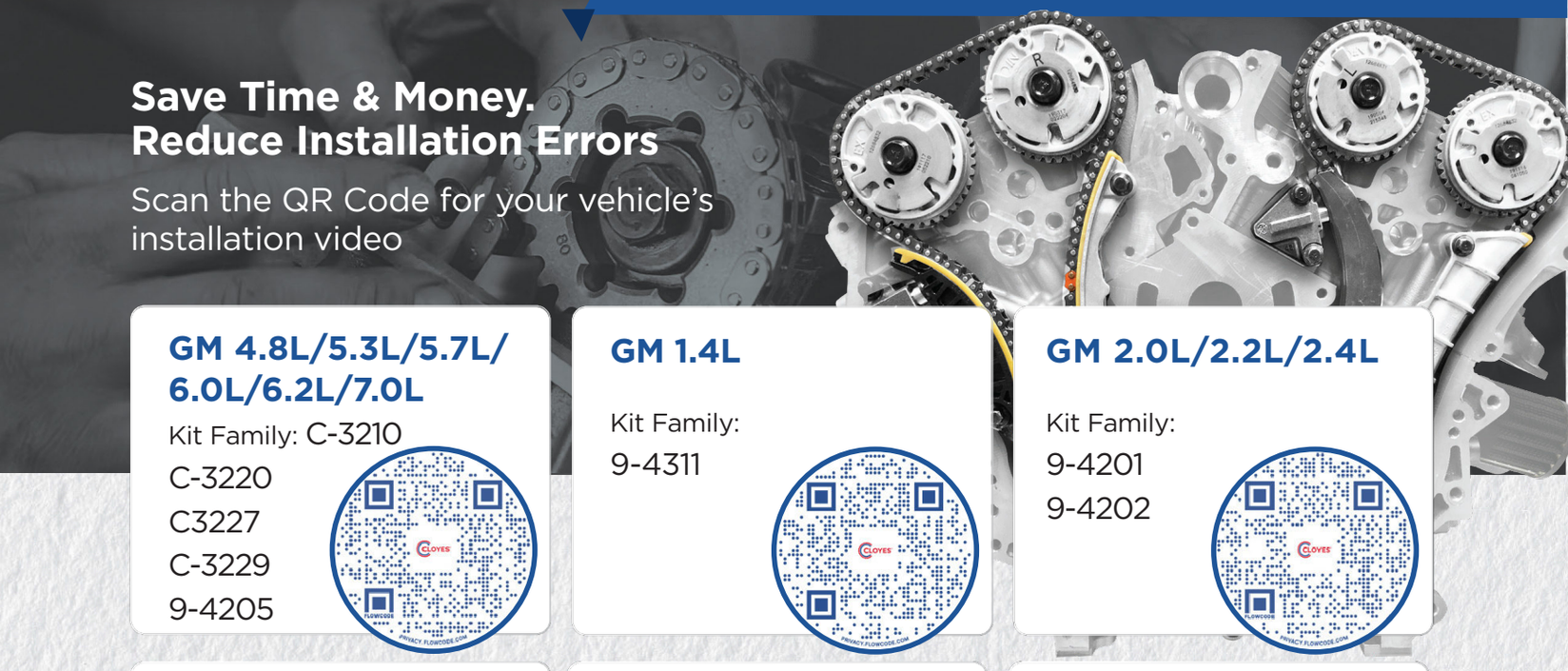
CLOYES.COM

Cloyes, based in Fort Smith, Ark., is the North American leader and global designer, developer, manufacturer, and distributor of timing drive systems and components for original equipment manufacturers and the automotive aftermarket. Its products are mission critical components for engine performance and function and are used in high-performance and replacement applications. Cloyes serves a broad customer base, including wholesale distributors, national and local retailers, re-packagers, and production engine rebuilders, and sells its products under the Cloyes® brand worldwide and the Dynagear® and CY-LENT® brands throughout North America.

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Cloyes Tech Center Installation Videos

GM, Honda, Acura, Nissan, Infinity, Toyota, Lexus, Scion, Subaru



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GM 4.8L/5.3L/5.7L/ 6.0L/6.2L/7.0L

Kit Family: C-3210
C-3220
C3227
C-3229
9-4205

GM 1.4L

Kit Family:
9-4311

GM 2.0L/2.2L/2.4L

Kit Family:
9-4201
9-4202

GM 2.8L/3.0L/3.6L Diagnosis

Kit Family:
9-0753

GM 2.8L/3.0L/3.6L Replacement

Kit Family:
9-0753

Honda, Acura 2.4L/ K24

Kit Family:
9-0711

Nissan, Infinity 3.5L/4.0L

Kit Family:
9-0719
9-0720
9-0730

Toyota, Lexus, Scion 2.0L/2.5L/2.7L

Kit Family:
9-4313

Subaru 2.0L/2.4L/2.5L

Kit Family:
9-0975

GM 3.0L/3.6L HFV6

Kit Family:
9-0753

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IMPORTANT INFORMATION
GM HFV6 2.8L/3.0L/3.2L/3.6L

WARNING

PERFORMING THIS REPAIR ON AN UNHEALTHY ENGINE MAY RESULT IN A COSTLY PREMATURE FAILURE WHICH MAY NOT BE COVERED BY WARRANTY

Ask yourself...Why does this vehicle need a timing system replacement? If the current timing system failed due to unhealthy engine conditions, your vehicle may need a more extensive repair or even an engine replacement.

Excessive engine sludge, PCV issues, particulate/debris buildup in the oil system will:

- Clog oil feed ports, reducing oil feed/lubrication to components.
- Prematurely wear chain components resulting in chain stretch.
- Affect the performance of cam phasers and chain tensioners leading to timing system instability which can result in premature failure.

Direct injection engines are especially prone to particulate matter issues.

This could be up to a 15-hour repair. Avoid a costly failure.
Watch these two videos - total time just 15 minutes.

DIAGNOSIS
VIDEO 1

WATCH THIS 7-MINUTE VIDEO TO DETERMINE IF THE ENGINE IS REPAIRABLE

REPAIR
VIDEO 2

IF THE ANSWER TO VIDEO 1 IS YES, THEN WATCH THIS 8-MINUTE VIDEO FOR PROPER INSTALLATION

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IMPORTANT INFORMATION
GM HFV6 2.8L/3.0L/3.2L/3.6L

IF YOU WATCHED THE VIDEOS AND HAVE DETERMINED THAT A TIMING SYSTEM REPLACEMENT IS THE CORRECT REPAIR, HERE ARE THE KEY INSTALLATION TIPS

ENGINE INSPECTION CHECKLIST DURING REPAIR

CHECK OIL PRESSURE

- GM specifies 30 PSI of oil pressure at 2,000 RPM for this engine,



ENSURE PCV SYSTEM IS CLEAR OF SLUDGE BUILDUP

- PCV tube is in the right-hand valve cover.
- Clean the valve cover PCV tube and chamber.
- A healthy PCV systems will prevent sludge buildup.
- Use the updated valve cover gasket which helps prevent the PCV system from being overwhelmed by oil splash.

CHECK IDLER SPROCKET MOUNTING POSTS

- Cracks can develop in the idler sprocket mounting points of both the left or right banks. These cracks will cause reduced oil pressure/oil feed to the idler sprockets.

CHECK VVT SYSTEM OIL SUPPLY

- Check all oil feed ports to the phasers, solenoids, and tensioners.
- There are check valves located on the bottom of each cylinder head at front of the engine. Blockage in these check valves will create VVT issues and must be removed and replaced if oil supply issues are present.

NEED PRODUCT SUPPORT OR HAVE INSTALLATION QUESTIONS?
BEFORE, DURING OR AFTER THE REPAIR. CALL US WITH ANY QUESTIONS.
CALL 479-646-1662 EXT. 228 | TECHSUPPORT@CLOYES.COM

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CHECKLIST DURING THE TIMING KIT INSTALLATION

PRIMARY GUIDE LOWER

- Unless you are servicing the oil pump, do not disturb the bolts on this guide. Leave guide bracket in place and simply replace nylon show (see 4:28 mark in the Video 2). This maintains critical torque consistency of the oil pump housing bolts.

IDLER SPROCKETS

- Make sure you install the idler sprockets on the correct banks. The flat side with the protruding center feature installs against the engine.

CAM PHASERS

- Vehicles with production date prior to 6/5/2009 require the use of thrust washers behind cam phasers.
- Cloyes phasers VC108, VC109. VC110, and other 4-bolgt style phasers require GM #12632859 washers, approx. 0.051" - 0.053" thick.

TENSIONER ACTIVATION

- Double check tensioner activation. After the pin is pulled, you may still need to fully compress and release the tensioner piston to ensure proper activation.

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IMPORTANT INFORMATION
GM HFV6 2.8L/3.0L/3.2L/3.6L

CHECKLIST AFTER THE REPAIR

OIL & FILTER

After the successful timing system installation, advise the vehicle owner of the importance of frequent and high-quality oil changes.

- Advise vehicle owner to check oil levels often!
- This engine consumes oil, multiple "top-offs" may be needed between service.
- We recommend oil and filter change EVERY 3,000-5,000 MILES.
- Use only GM recommended Dexos full synthetic oil and a high-quality filter.

PK00253 RevB: 9/22/2025

WARNING

FAILURE TO PROPERLY ACTIVATE THE SECONDARY TENSIONERS WILL LEAD TO CATASTROPHIC ENGINE FAILURE



SECONDARY TENSIONERS PART NUMBER 9-5686

The tensioners in this application are shipped in their deactivated state. Follow the installation and activation process below to avoid catastrophic engine failure.

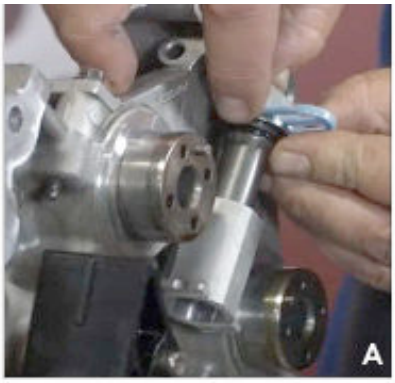
WATCH PROPER INSTALLATION VIDEO

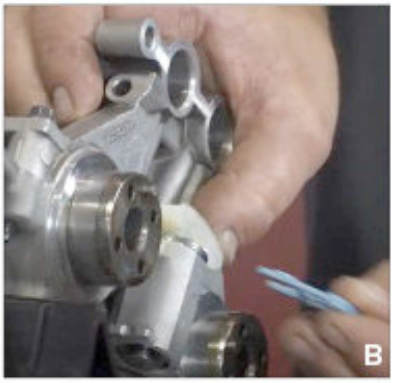
INSTALLATION/ACTIVATION PROCESS

FIGURE A - Insert body of tensioner into the block and push until fully seated.

FIGURE B - Once tensioner is installed, remove clip. THIS STEP DOES NOT ACTIVATE the tensioner. The clip is simply to avoid accidental activation while installing.

FIGURE C - After the cam phasers and chains are installed, YOU MUST THEN ACTIVATE THE TENSIONERS by pressing on the chain above the tensioner pad allowing the tensioner plunger to fully compress and release. Make sure the tensioners properly activate and apply spring pressure to the chains.







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ADVERTENCIA

LA NO ACTIVACIÓN CORRECTA DE LOS TENSORES SECUNDARIOS PUEDE CONDUCIR A UNA FALLA CATASTRÓFICA DEL MOTOR



APLICA PARA EL TENSOR SECUNDARIO NÚMERO DE PIEZA 9-5686

Los Tensores De Esta Aplicación Son Empacados Y Enviados Desactivados. Por Favor Siga Las Instrucciones De Instalación/Activación Descritas A Continuación Para Evitar Fallas

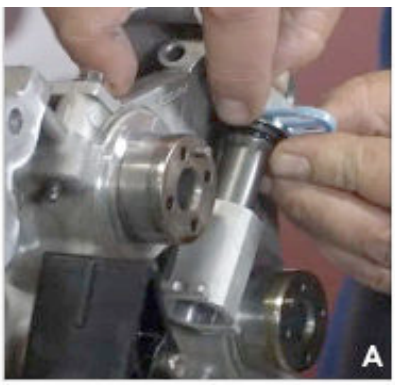
INSTALLATIÓN VIDEO ADECUADA

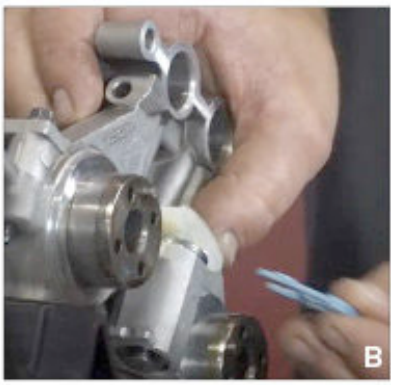
Las Instrucciones De Instalación/Activación

IMAGEN A - Instale los tensores en cada uno de los lugares que corresponde y asegúrese que han tenido un correcto asentamiento.

IMAGEN B - Una vez que los tensores están instalados, remueva los seguros, ESTE PASO NO ACTIVA los tensores. Los seguros simplemente evitan la activación accidental al momento de la instalación.

IMAGEN C - Después de que los engranes variables y las cadenas son instaladas, se DEBEN ACTIVAR LOS TENSORES presionando hacia abajo la cadena desde la parte superior de la guía de cadena, generando que el émbolo del tensor se comprima y luego se libere. Confirme que los tensores quedaron activados correctamente aplicando presión en las cadenas y observando como regresan por la acción del resorte interno de cada tensor.







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