



**1996-2004 FORD MUSTANG COYOTE ENGINE SWAP HEADERS
BH3364 (1-3/4")
Installation Instructions**



Thank you for using Hooker Blackheart products on your engine swap project. These headers are part of the complete Hooker Blackheart Coyote engine swap system for 1996-2004 Ford Mustang vehicles. These instructions have been written with the assumption that you are installing a Coyote engine into your car using a **1996-04 OE, Maximum Motorsports MMKM-2** K-member with **Prothane™ 6-504** polyurethane motor mounts, or an **AJE/MU40-UM** or **Team Z/TZM-KM-SWAP 4** K-member with Hooker Blackheart engine brackets made specifically for each of them. These headers are not known to be compatible with any other aftermarket K-members than those listed above.

Automotive work can be dangerous. Work only on a clean, dry and level surface and use lifting/supporting equipment specifically designed for automotive work. If you are unsure of your capability, or that of your equipment, seek professional assistance to install these components.

These headers are designed for off-road/competition use only and carry no CARB E.O. exemption to permit legal installation/use on pollution controlled motor vehicles.

NOTES: These headers are designed and validated to be compatible with T45, T56 Magnum (Ford spec), TKO 500/600 (Ford spec), 4R70W, 6R80, MT82, and Powerglide transmissions. Compatibility with any other transmission is unknown.

Use of these headers on a 1996-2004 stock K-member requires the use of a specific oil pan, which is not yet available from Holley/Hooker. When these headers are installed with the AJE, Team Z, or Maximum Motorsports K-members listed above, the stock 2011-17 Mustang Coyote oil pan, or Moroso™ 20571 Coyote oil pan may be used. Aftermarket K-members may affect the specific installation steps required to install these headers. In such cases, use these instructions as a go-by and adjust as-needed for your specific situation.

These headers are compatible with the stock vehicle clutch cable system when used with manual transmission bellhousings configured with the SN95-up factory type 7 o'clock clutch fork position.

BEFORE BEGINNING:

Check that the hardware package includes the following:

Qty.	Description
16	M8 x 1.25 Header Bolts
16	M8 x 1.5 Header Bolts

INSTALLATION:

1. Disconnect the negative battery cable from the battery.
2. Raise the vehicle to a comfortable height for working beneath it.

3. Remove the starter from the engine.
4. Remove the pinch bolt connecting the steering shaft rag joint to input shaft of the steering rack and then separate shaft from the rack and position it in a vertical hanging position towards the ground.
5. Remove the stock exhaust manifold studs from the engine.
6. Install the headers into the vehicle in the following manner for the specific K-member you are using:

Stock K-member – This installation requires more patience and dexterity than any of the other K-members do. If you lack either of these attributes, consider asking a friend who does to help you with the installation.

Install the headers into the car after installation of the engine onto the K-member has been carried out, but prior to installing the transmission. After lowering the engine onto the K-member, install the retaining nuts onto the motor mount studs protruding through the K-member engine stands and hand tighten the nuts.

Use an assistant to tilt the engine down in the front, which will raise the engine at the rear and provide the clearance needed to insert the right side header into place from beneath the car. Level the engine again and attach the header to the cylinder head using a stock exhaust manifold gasket and the included header bolts that have the same thread pitch as the manifold studs you removed. Install all the bolts and run them in by hand as far as possible.

Insert the left side header into place from beneath the car and swing the steering shaft back into its general installed position before attaching the header to the left side cylinder head using a stock exhaust manifold gasket and the correct supplied header bolts.

Tighten all the header bolts to approximately 18 ft./lbs. and then install the transmission. **NOTE:** The tools found most useful for tightening the header bolts during the installation of the headers on the development vehicle were a flex head ratchet with a shallow socket, a typical length combination wrench (not long pattern) and an offset box end wrench.

Use a suitable tool and grind/file the profile of the stock starter shim plate between the engine and transmission to match the profile of the transmission bellhousing in the area below the starter. Use of aftermarket SFI steel bell housings may not be possible with the stock K-member as the large diameter of the bolt flange may prevent starter installation.

Maximum Motorsports MMKM-2 K-member – This installation is carried out using the steps from the stock K-member installation and is considerably less demanding due to the extra access space provided by the Maximum Motorsports K-member.

AJE MU40-UM or Team Z TZM-KM-SWAP 4 K-members – Install the headers into the car after Installation of the engine onto the K-member has been carried out (prior to, or following the installation of the transmission). Install both headers from the bottom of the car and tighten all the bolts to approximately 18 ft. /lbs.

7. Re-install the starter, steering shaft and negative battery cable.

COMPATIBILITY INFORMATION:

These headers are designed to be used with a Motorcraft/Ford **SA-1062/FR3Z-11002-C** (2014-15 Mustang), **SA-1067/GR3Z-11002-A** (2016-17 Mustang), or Ford Performance **M-11000-C50** Coyote starter. The Motorcraft/Ford **SA-991/BR3Z-11002-B 9** (2011-13 Mustang) starter is not compatible with these headers, nor are any aftermarket starters that are known to exist currently.

These headers are comprehensively designed for installation using Prothane™ 6-504 motor mounts (stock, Maximum Motorsports and K-members) or Hooker Blackheart engine brackets (AJE or Team Z TZM-KM-SWAP 4 K-members) and Hooker Blackheart transmission crossmembers and 2.5" and 3" dual exhaust systems co-developed for this vehicle application.

An O2 bung is included on each header collector for providing O2 sensor compatibility/operation. Depending on the length of the specific O2 sensors you are using on your car, the O2 sensor on the driver's side header collector may experience interference with the gear range electrical switch on 4R70W or 6R80 transmission. In the case of such occurrences, the O2 bung/sensor must be moved to a non-interfering location.

The tube bend geometry of these headers has been validated to be compatible with the stock 2011-17 Mustang and Moroso 20571 Coyote oil pans. The front wall of the sump of the stock Coyote oil pan will need to be dented slightly to clear the Team Z K-member cross bar.