



**1984-1995 Ford Mustang – Stock K-member
Coyote Engine Swap Mounting Brackets
71221025HKR**



Installation Instructions

Thank you for choosing to use these Hooker Blackheart engine swap mounting brackets as part of your Coyote swap project. These mounting brackets are part of the most comprehensively engineered system of mounting components, headers and exhaust systems available for this Coyote swap application. Please read these instructions thoroughly before attempting installation.

PRE-INSTALLATION CONSIDERATIONS:

These engine mounting brackets have been designed solely for use with the factory stock 1984-1995 Mustang K-member and **Prothane™ 6-504** (red or black) polyurethane engine mounts only.

Installation of the engine using these brackets requires the use of a **Holley 302-50** Coyote oil pan.

BEFORE BEGINNING:

Check that the hardware package includes the following:

Qty.	Description
2	M14 x 2.0 x 30mm Bolts
2	M14 x 2.0 Lock Nuts
2	M14 Flat Washers
14	M10 x 1.5 x 30mm Bolts
8	M10 x 1.5 Lock Nuts

Qty.	Description
2	7/16-14 x 1" Bolts
2	7/16-14 Lock Nuts
1	3/8-16 x 1" Bolt
1	3/8-16 Lock Nut

INSTALLATION:

1. Disconnect the battery.
2. Discharge any residual pressure in the stock fuel system.
3. Remove the stock driveshaft, transmission, and engine from the vehicle.
4. Place the Prothane™ mounts on a bench in the same orientation as shown in **Figure 1** below and remove the bolts/nuts that attach the bottom plates to the Prothane™ motor mounts. Remove the bottom plates from the mounts.



Figure 1

5. Clamp the bottom plates in a vise and remove the threaded studs attached to them. You can accomplish this by merely cutting the threaded portion of the studs off flush with the outer surface of the plates. However, it is recommended that you use a 3" cut-off wheel to remove the welds on the heads of the studs to remove them if you intend to swap out your K-member for a Maximum Motorsports MMKM-2.1 K-member in the future. If so, save the studs so they can be welded back onto the bottom plates for use with the Maximum Motorsports K-member in the future.
6. Once the threaded studs have been removed, lay each bottom plate back onto its respective mount as shown in **Figure 2**. Attach the Hooker Blackheart engine adapter brackets onto the Prothane™ motor mounts with (x8) of the supplied M10 bolts (**Figure 3**). Once all the nuts have been started on the bolts, tighten all (x8) nut/bolt assemblies fully in an alternating incremental manner.



Figure 2



Figure 3

7. Using the supplied 3/8" bolt and nut, attach the supplied gusset bracket onto the bottom side of the passenger's mounting bracket as shown in **Figures 4 and 5**. Leave the bolt and nut loose so as to allow the bracket to move freely at this time. **Note:** The end of the gusset bracket that has the hole in it (not the end that has a slot in it) should be positioned against the face of the engine bracket.



Figure 4



Figure 5

8. Attach the left and right mount/bracket assemblies to the engine with the remaining (x6) supplied M10 bolts (**Figures 6 & 7**). Lower the engine down as close to the K-member as possible without the Hooker Blackheart brackets actually touching it.

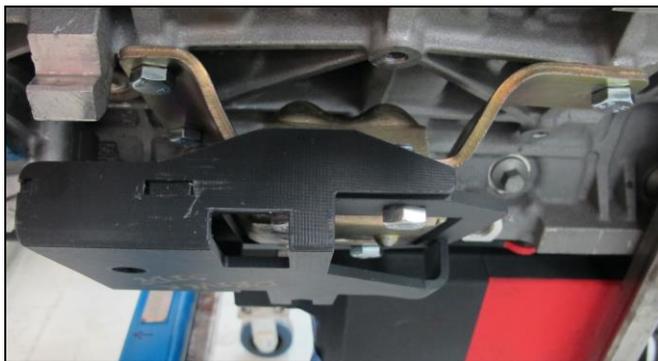


Figure 6 – left side



Figure 7 – right side

9. Install the supplied M14 bolts into the large holes at the front of the Hooker Blackheart brackets and feed them through the large slots in the K-member where the studs for the factory engine mounts used to reside. Place the supplied washers over the threaded ends of the bolts and install the supplied M14 nuts onto the bolts. Do not tighten these nuts/bolts yet.

10. Install (x1) supplied 7/16" bolt into the slotted hole in the rear of the left side Hooker Blackheart bracket and feed it through the small corresponding hole in the K-member engine stand. Install one supplied 7/16" nut onto the bolt threads. Do not tighten this nut/bolt yet.
11. Install the remaining 7/16" bolt into the slotted hole in the gusset bracket attached to the bottom of the right side engine bracket, and through the corresponding hole at the base of the right side K-member engine stand. Now install the remaining 7/16" nut onto the bolt threads. Do not tighten this nut/bolt yet.
12. Have a helper lower the engine down slowly onto the K-member while you use two wrenches to tighten the large M14 nuts/bolts evenly from side to side while checking to ensure the engine remains as level as possible during the process (see **Figure 8** for visual reference). Once the M14 nuts/bolts are fully drawn down and tightened, tighten the remaining nuts/bolts that were installed into the engine bracket assemblies. Remove the engine hoist from the engine once all fasteners have been tightened.



Figure 8

13. If installing the Hooker Blackheart 70103317-RHKR long tube Coyote swap headers as part of your project, install them now, per the instructions included in their packaging, before installing your transmission in your car.

COMPATIBILITY INFORMATION:

The engine position provided by these Hooker Blackheart engine brackets requires removal of the stock OE vacuum brake booster. An SN95 Mustang Hydroboost master cylinder or manual master cylinder conversion is typically employed in this swap application.

The Hooker Blackheart **71221025HKR** engine brackets install the Coyote engine on a stock Fox Body K-member the same nominal height, offset and fore/aft location as where it sits on a stock 1996-04 Mustang K-member, in reference to the upper K-member mounting planes and fastener hole locations that are shared between all 1979-04 Mustangs. This engine positioning provides optimized U-joint working angles and maximized inter-component compatibility.

Headers, Manifolds and Exhaust Systems -

Hooker Blackheart Fox Body Mustang long-tube Coyote headers (**70103317-RHKR only**), full-length exhaust systems (2.5" and 3") and muffler/turn-down exhaust systems (3" only).

Additional Coyote engine swap components such as EFI fuel control systems, fuel filters, fuel pumps and plumbing hose/fittings can be found at www.holley.com.

TRANSMISSION INSTALLATION GUIDELINES:

These Hooker Blackheart engine mounting brackets provide the user with unique fitment/compatibility advantages that determine the amount of effort required to install a particular transmission in the swap vehicle. You may need to install the transmission multiple times (depending on the transmission) to obtain proper clearance with the floor, so be sure to use suitable lifting equipment to avoid injury.

Powerglide (with JW Performance 92462-46P Ultra-bell) installation –

Install using a Hooker Blackheart **71222015HKR** transmission crossmember and Prothane™ **7-1604** transmission mount. Tunnel clearancing may be needed for transmission case servo bore/cover on right side of transmission.

T45 (exc. Cobra, 1996-98 GT spec only) and 4R70W/4R75E installations -

Install using a Hooker Blackheart **71222016HKR** crossmember, **71223018HKR** adapter bracket and Prothane™ **6-1608** transmission mount. Slight trimming of the shifter opening around the rear of the shifter housing is to be expected for T45 installations. 4R70W installations should require no floor modifications other than possibly for the transmission electrical harness connector and shift linkage.

6R80 or MT82 installations -

Install using a Hooker Blackheart **71222016HKR** crossmember, **71223019HKR** adapter bracket and a Prothane™ **7-1604** transmission mount. 6R80 installations may require slight hammer clearancing of the transmission tunnel just above the rear end of the transmission case only. MT82 installations should be expected to require extensive transmission tunnel modifications/rebuilding to clear the top side of the transmission and the shifter assembly.

TKO 500/600 (with Quicktime RM-6081 bellhousing) installations -

Install using a Hooker Blackheart **71222016HKR** crossmember, **71223025HKR** adapter bracket and Prothane™ **6-1604** transmission mount. Due to the top-side height of these transmissions, considerable clearancing/modification of the transmission tunnel will be required to install them in this application. Low-profile versions of these transmissions are available in the aftermarket to minimize the work required to install them.

T56 Magnum (Ford spec, with Quicktime RM-8080 bellhousing) installations -

Install using a Hooker Blackheart **71222016HKR** crossmember and Prothane™ **7-1604** transmission mount. Hammer clearancing of the tunnel sheet metal above the shifter housing will be required as well as possible cutting/trimming of the tunnel sheet metal to clear the shifter/shifter housing.

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In this connection, the retail purchaser, the buyer, the ultimate consumer assumes the burden of the entire cost of any and all necessary service, alterations, or repair.

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