



**1979-1993 Ford Mustang – Team Z and AJE K-member  
LS Engine Swap Mounting Brackets  
71221020HKR, 71221021HKR, 71221022HKR, & 71221023HKR  
Installation Instructions**



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

These specific engine brackets are designed for use on 1979-93 Fox Body Mustangs only.

**PRE-INSTALLATION CONSIDERATIONS:**

These engine mounting brackets have been designed for use with current production **Team Z TZM-KM-SWAP4** or **AJE MU40-UM** K-members only. Installation of the engine using these brackets will allow the use of any Holley or Weiland brand LS oil pan.

**BEFORE BEGINNING:**

Check that the hardware package includes the following:

Team Z Brackets		AJE Brackets	
Qty.	Description	Qty.	Description
2	1/2"-13 x 3-1/4" Bolts	2	M14 x 1.5 x 110mm Bolts
2	1/2"-13 Nuts	2	M14 x 1.5 Nuts
8	M10 x 1.5 x 25mm Bolts	8	M10 x 1.5 x 25mm Bolts

**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. Install the Team Z or AJE K-member into the vehicle per their included instructions.
5. Using the supplied M10 bolts, attach the Hooker Blackheart engine brackets to the sides of the LS engine to be installed. Install the bracket with the "V" shaped notch along the outer profile of its base plate on the passenger's side of the engine and the bracket with the "semi-circle" shaped notch on the driver's side of the engine.
6. If you are using a Team Z K-member, chase through the holes in the engine mount stand tubes with a 1/2" drill bit to rid them of any burrs or welding slag that may be inside the tubes.
7. Lower the engine into the vehicle and down onto the K-member engine support stands. The M10 holes in the passenger's side bracket are slightly slotted to account for manufacturing tolerances of the K-member, adjust the bracket as needed to allow the engine the drop down over the mounting tubes of the K-member.
8. Couple the engine brackets to the K-member with the included M14 (AJE brackets) or 1/2" (Team Z brackets) bolts and nuts.

## **COMPATIBILITY INFORMATION**

These K-members require the use of an aftermarket steering shaft to accommodate the lower steering rack position they provide. The engine position provided by these Hooker Blackheart engine brackets is compatible with the stock OE vacuum brake booster.

When used with the related Hooker Blackheart transmission crossmembers for this application, the Hooker Blackheart **71221020HKR** and **71221022HKR** engine brackets permit the engine to be installed at the stock installed 5.0L crankshaft centerline position (height, inclination angle and offset).

The Hooker Blackheart **71221021HKR** and **71221023HKR** engine brackets provide a ½" dropped position at the location of the engine mounts, which will provide the user with increased under-hood clearance and the ability to achieved reduced U-joint operating angles on vehicles with greatly lowered rear suspension ride heights. The use of ½" drop engine brackets will result in a ¼" reduction of header collector ground clearance when using the Hooker Blackheart LS swap long-tube headers for this application.

### **Accessory Drives:**

**Holley Corvette-style system** – compatible with battery relocation to trunk (use Holley low-mount or hi-mount compressor bracket); installation at Corvette offset will require modification/relocation of electrical power distribution box. Clears stock hood.

**Holley F-body-style system** – compatible; use of the Holley low-mount SD7B10 compressor/bracket *may* require front anti-sway bar to be spaced down with SN95 Mustang sway bar brackets (or use Holley hi-mount SD7B10 compressor bracket). Clears stock hood.

**OE Corvette** – compatible, **excluding** A/C compressor (use Holley low mount or high-mount A/C bracket/compressor); requires battery relocation to trunk and modification/relocation of electrical power distribution box. Clears stock hood.

**OE F-body** – compatible, **excluding** A/C compressor (use Holley low-mount or high-mount A/C bracket/compressor). Clears stock hood.

**OE GTO** – compatible, **excluding** A/C compressor (use Holley low-mount or high-mount A/C bracket/compressor). Clears stock hood.

**OE Vortec truck** – compatible, **excluding** A/C compressor (use Holley low-mount or high-mount A/C bracket/compressor). Large truck alternator clearance under stock hood with OE or Maximum Motorsports K-members will require use of 1/2" K-member shims.

### **Headers, Manifolds and Exhaust Systems:**

Hooker Blackheart 1979-1993 Mustang LS swap long-tube headers, 8501HKR exhaust manifolds, 8510HKR turbo manifolds and related crossover and turbine inlet tubes, full-length exhaust systems (2.5" and 3") and muffler/turn-down exhaust systems (3" only).

### **LIMITATION OF LIABILITY – DISCLAIMER:**

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