

with Installation Instructions

Owner's Manual

High Temperature/ Pressure Sensor Remote Mount Kit

For use with all Banks Pressure Sensors

THIS MANUAL IS FOR USE WITH THE FOLLOWING PART NUMBERS:
66422 - HIGH TEMPERATURE/PRESSURE SENSOR REMOTE MOUNT KIT

Gale Banks Engineering
546 Duggan Avenue • Azusa, CA 91702
(626) 969-9600 • Fax (626) 334-1743

Product Information & Sales: (888) 635-4565
Customer Support: (888) 839-5600
Installation Support: (888) 839-2700

bankspower.com

A large, stylized, grey "banks" logo is positioned diagonally in the bottom right corner of the page.

General Installation Practices

Dear Customer,

If you have any questions concerning the installation of your exhaust pressure sensor remote mount kit, please call our Technical Service Hotline at (888) 839-2700 between 7:00 am & 4:00 pm (PT).

If you have any questions relating to shipping or billing, please contact our Customer Service Department at (888) 839-5600.

Thank you.

- 1.** Before starting work, familiarize yourself with the installation procedure by reading all of the instructions.
- 2.** The exploded view (**Figure 1**) provides only general guidance. Refer to each step and section diagram in this manual for proper instruction.
- 3.** Throughout this manual, the left side of the vehicle refers to the driver's side, and the right side to the passenger's side.
- 4.** Disconnect the negative (ground) cable from the battery (or batteries, if there are two) before beginning work.
- 5.** Route and tie wires and hoses a minimum of 6" away from exhaust heat, moving parts and sharp edges. Clearance of 8" or more is recommended where possible.
- 6.** When raising the vehicle, support it on properly weight-rated safety stands, ramps or a commercial hoist. Follow the manufacturer's safety precautions. Take care to balance the

vehicle to prevent it from slipping or falling. When using ramps, be sure the front wheels are centered squarely on the topsides; put the transmission in park or in gear if manual; set the hand brake; and place chocks behind the rear wheels.

CAUTION! Do not use floor jacks to support the vehicle while working under it. Do not raise the vehicle onto concrete blocks, masonry or any other item not intended specifically for this use.

7. During installation, keep the work area clean. Do not allow anything to be dropped into intake, exhaust, or lubrication system components while performing the installation, as foreign objects will cause immediate engine damage upon start-up.

Tools Required:

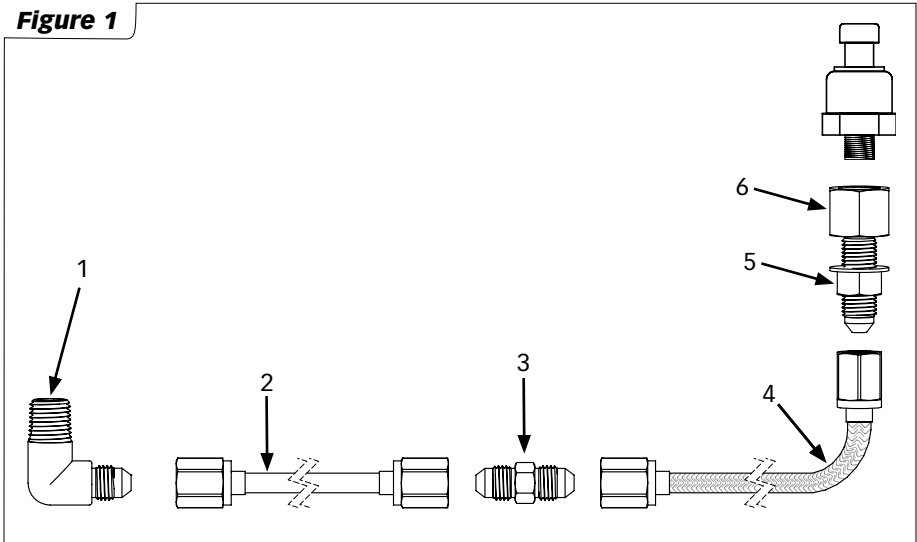
- Phillips Screwdriver
- Hand drill or power drill
- 3/32nd & 11/32nd Drill Bit
- 1/2" Drill Bit (if using premade bracket)
- 1/8"- 27 NPT Tap
- 7/16" wrench
- 1/2" wrench
- 9/16" wrench
- 11/16" wrench
- 15/16" or large adjustable wrench
- Thread Sealant
- Marker

Section 1: Included Parts

Figure 1 Banks Exhaust Pressure Sensor Remote Mount Kit

Item #	Description	Part #	QTY
1	1/8" NPT to -4 AN Elbow	63069	1
2	-4 Hard Line	24091	1
3	-4 AN Coupler	63068	1
4	-4 AN Braided-Line	94075	1
5	Flange Nut	91618	1
6	-4 AN to 1/8 NPT BulkHead	63059	1
7	Cable P-Clamp, 7/8" x 1/2"	62072	1
8	Anti-Seize	90045	1

Figure 1



Introduction

This kit is required for pressure readings to be obtained directly from the exhaust manifold. Sensors directly fitted to exhaust manifolds will deteriorate extremely fast, therefore, a remote mount kit must be present to isolate the temperature from the sensor and ensure longevity of the sensor.

Installation

All parts of the kit must be used to obtain accurate and safe readings. Drilling and tapping operations generate debris and can damage nearby components. In order to avoid damage to the vehicle, remove the component before drilling and tapping. Ensure that no debris enters the engine during the entire installation process.

1. Choose a location on your manifold to mount your 1/8" NPT to -4 AN elbow fitting (*See Figure 1*). Recommended location is a section where all exhaust gasses from each cylinder have mixed or converged. Be aware of any possible interference before the fitting is fully plumbed.

2. OPTION 1: Drill and Tap (0.12" Minimum Wall-Thickness)

NOTE: It is **HIGHLY** recommended that your manifold has a minimum 0.12" (~1/8") wall-thickness to drill & tap. Thinner walls will not provide the necessary engagement of at least 3 threads on the elbow fitting. Lower than 3 threads will not provide a secure fit.

2a. Use a center punch to mark the hole's location and keep the drill bit from wandering. Use an 11/32" drill bit to drill a hole at marked location. Drill perpendicular to the manifold surface to allow for accurate pressure readings. Deburr sharp edges and thoroughly clean out any leftover metal debris.

2b. Use a 1/8"-27 NPT tap to thread the drilled hole. Ensure the tap is perpendicular to the surface. As you tap, check the thread depth once every rotation by removing the tap and screwing in the elbow fitting. Use a small

amount of supplied Anti-Seize, the fitting should screw in about 1-2 turns past hand tight (using a 7/16" wrench).

OPTION 2: Weld 1/8" Bung (USE IF MATERIAL IS NOT THICK ENOUGH)

2c. Use a center punch to mark the hole's location and keep the drill bit from wandering. Use a 3/32nd drill bit to drill a hole at marked location. Drill perpendicular to the manifold surface to allow for accurate pressure readings. Deburr sharp edges and thoroughly clean out any leftover metal debris.

2d. Weld 1/8" Bung aligned with previously drilled hole. Be sure to check for any weld protrusion on the inside of the manifold. Use a small amount of supplied Anti-Seize when installing the 90° elbow into welded bung.

3. The Flex-Line can be installed in either direction, allowing for flexibility with fitment. Connect either end of the -4 AN Hard-Line fitting (using a 9/16" wrench) to your previously installed elbow fitting (*See Figure 1*). Using a brake line bending tool, the hard-line can be bent over a large radius (1" diameter or higher) to help with fitment.

4. On the opposite end of the Hard-Line, install the Male-to-Male -4 AN coupler (using a 1/2" wrench). *See Figure 1.*

5. Connect the other end of the -4 AN Braided Flex-Line to opposite end of Male-to-Male coupler (using a 9/16" wrench). *See Figure 1.*

6. Determine final location of sensor installation. The sensor should be mounted in a vertical or near-vertical position to ensure no moisture build-up occurs.

Mounting

OPTION 1: Supplied P-Clamp

1. If using the supplied cushioned P-Clamp option, mark hole to be drilled. Ensure you have enough length to reach the location with your assembly, and that there is no interference with surrounding parts. Drill pilot hole for a small sheetmetal screw, or a hole big enough to fit a 1/4" bolt.

2. On the opposite end of the Braided Flex-Line, install the -4 AN to NPT BulkHead (using an 11/16" wrench). **See Figure 2.**

3. Using a small amount of thread sealant on the sensor's threads, install into the female portion of the AN-NPT BulkHead (using a 15/16" or large adj. wrench). **See Figure 2.** Insert sensor into sensor hose-clamp, and insert small sheetmetal screw or 1/4" bolt into previously marked location to secure sensor, to complete installation.

OPTION 2: Bracket Mount

1. If using a pre-made bracket, drill a 1/2" hole to accommodate the -4 AN to NPT BulkHead (See Figure 1). Use the supplied flange nut to secure the adapter to the bracket (**See Figure 3**).

2. Install the opposite end of the Braided Flex-Line onto the male end of the BulkHead. Use **Figure 3** to reference what an assembled bracket should look like.

3. Using a small amount of thread sealant on the sensor's threads, install into the female portion of the AN-NPT BulkHead (using a 15/16" or large adj. wrench). **See Figure 3.**

Mounting

OPTION 1: Supplied P-Clamp

1. If using the supplied cushioned P-Clamp option, mark hole to be drilled. Ensure you have enough length to reach the location with your assembly, and that there is no interference with surrounding parts. Drill pilot hole for a small sheetmetal screw, or a hole big enough to fit a 1/4" bolt.
2. On the opposite end of the Braided Flex-Line, install the -4 AN to NPT BulkHead (using an 11/16" wrench). **See Figure 2.**
3. Using a small amount of thread sealant on the sensor's threads, install into the female portion of the AN-NPT BulkHead (using a 15/16" or large adj. wrench). **See Figure 2.** Insert sensor into sensor hose-clamp, and insert small sheetmetal screw or 1/4" bolt into previously marked location to secure sensor, to complete installation.

Figure 2



OPTION 2: Bracket Mount

1. If using a pre-made bracket, drill a 1/2" hole to accommodate the -4 AN to NPT BulkHead (See Figure 1). Use the supplied flange nut to secure the adapter to the bracket (**See Figure 3**).
2. Install the opposite end of the Braided Flex-Line onto the male end of the BulkHead. Use **Figure 3** to reference what an assembled bracket should look like.
3. Using a small amount of thread sealant on the sensor's threads, install into the female portion of the AN-NPT BulkHead (using a 15/16" or large adj. wrench). **See Figure 3.**

Figure 3



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