



INSTALLATION INSTRUCTIONS

FOR

**HEALEY 100, 100-6 and 3000 up to and including BJ8
Phase I (up to chassis number 26714)**

Thank you for purchasing our ***Fahrpass for Healey*** suspension upgrade kit, featuring Bilstein Gas Pressurized Shocks. We believe this is the finest kit of its kind and have taken great pains to ensure that your kit performs as well as, or better than, expected.

In order to ensure a trouble-free installation, please read and follow these instructions exactly. Don't take shortcuts, and if unsure of how to proceed **CALL**. Read the full instructions prior to commencing installation.

This kit can be installed by a competent DIY owner with basic hand tools. If you are not confident installing the kit, call us and we will recommend an experienced installer in your area.

Basic Safety Warning

Installation requires raising the car off the ground. Always use an appropriate jack. **The car must be supported by jack stands at all times!** We suggest that you do the front installation first, lower the car, and then proceed with the rear installation.

During the installation the springs will be under compression. Compressed springs hold a tremendous amount of energy. If the installation instructions are not followed precisely, this energy may be released possibly resulting in bodily harm and vehicle damage. Follow the instructions and don't take short cuts.

Failure to follow instructions voids the warranty. Fahrpass for Healey is not liable for injury or damages caused by failure to follow instructions or observe normal safety practices.

BEFORE YOU BEGIN

1. We recommend a thorough inspection of your car's steering and suspension systems prior to installation of our kit. Upgrading shock absorbers will not cure problems caused by worn ball joints, tie rod ends, steering components and suspension bushings. Also check wheel bearing adjustment when the vehicle is raised.

2. Check your kit contents. Your kit contains the following parts:
 - a. Two Bilstein Shocks, part number 24-025768, FRONT
 - b. Two Bilstein Shocks, part number 24-025775, REAR
 - c. Four brackets (see photos to ID)
 - d. Four long spacer tubes (see photos to ID)
 - e. One Hardware Kit – part number HWK-2
3. Open the Hardware Kit and identify each component.

HARWARE KIT CONTENTS			
KIT HWK-2, Big Healey except BJ8-Phase 2			
Item	Size	Quantity	Where Used
Bolt	3/8-24 x 5 1/2 hex head	4	Front Upper Bracket (see note below)
Bolt	3/8-24 x 2 1/2	4	Front Lower Bracket
Bolt	3/8-24 x 1 1/4	4	Rear Upper to Frame
Bolt	7/16-20 x 2 1/4	8	Shock to Bracket
Nut	3/8-24	4	Rear Upper Bracket to Frame
Nut	3/8-24 nylock	8	Front Lower, Rear Lower Bracket
Nut	7/16-20	2	Front Lower
Spilt washer	3/8	8	Front Upper Bracket, Rear Upper Bracket to Frame
Spilt washer	7/16	8	Shock to Bracket
Washer, Flat	3/8	4	Rear Lower Bracket to Frame
Washer, Fender	3/8 x 1.25 OD	4	Rear Upper Bracket to Frame
Washer, Fender	7/16 x 1.25 OD	8	Shock to Bracket
Shock Eyelet Sleeve	16x11x33mm	8	Shock Front and Rear Upper/Lower Eye
Note: Some early kits may contain 2 x hex head and 2 x socket head bolts, see info in instructions			

4. Contact us if you are missing any components.

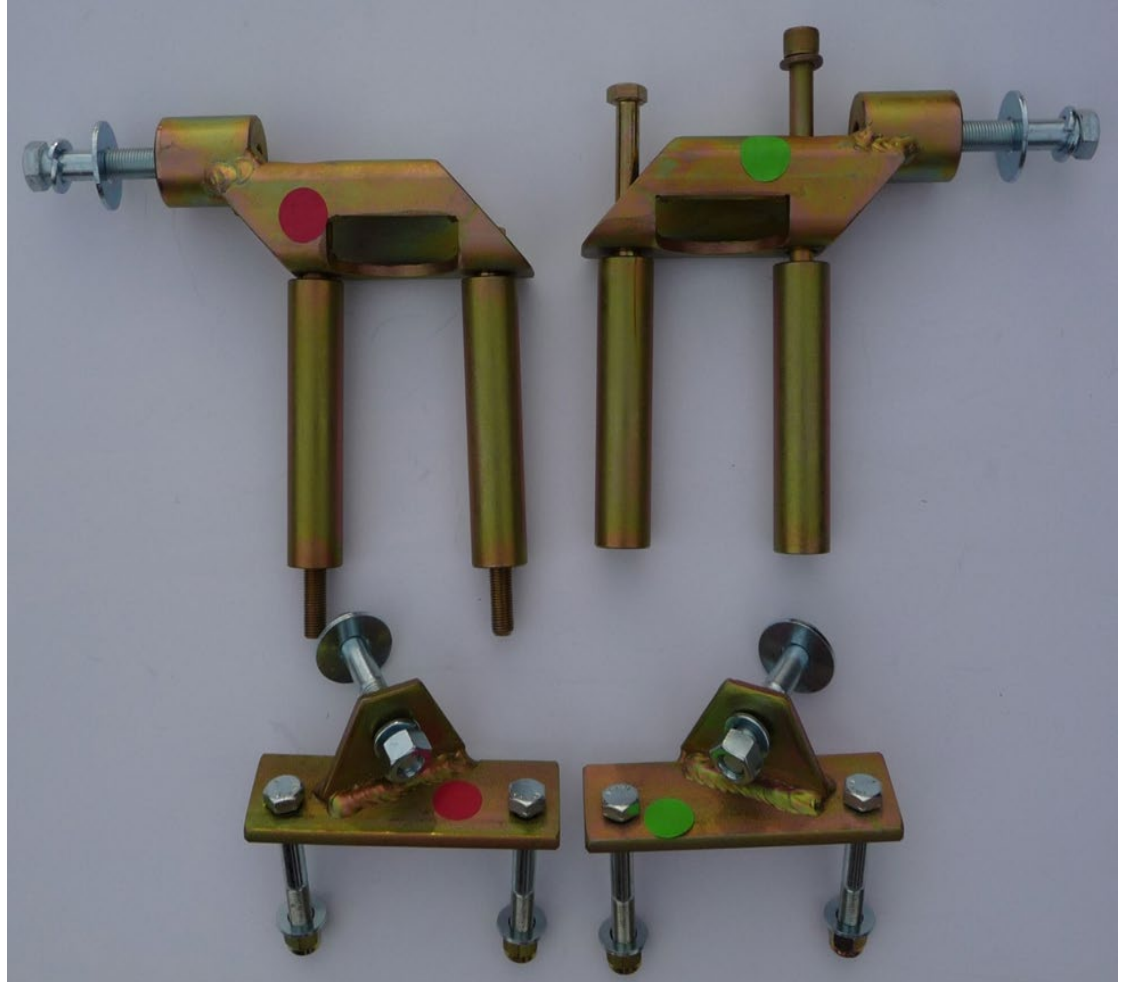
5. Brackets are handed, left and right. All brackets are marked with colored dots. **Red** dot means LEFT hand side. **Green** dot means RIGHT hand side (when viewed from the driver's seat).

6. Assemble the necessary tools:

- Jack and Jack Stands
- 3/8" or 1/2" Socket Set with ratchet
- Basic hand wrenches for 3/8" and 7/16" bolts
- Torque Wrench to match socket set
- Small tube of BLUE Loctite or other thread locking fluid
- Cleaning supplies, rags, wire brush, etc.
- Large Crescent wrench or adjustable pliers (for removing the Armstrong shock valve body).
- 1" wide ratchet strap (for compressing shocks)

7. Consider giving your car's underside a thorough cleaning, at least around the areas you will be working in.

FRONT INSTALLATION



FRONT COMPONENTS WITH HARDWARE (Red = Left, Green = Right)

Lower Mount

1. Determine a suitable location for the work.
2. Pull the Emergency Brake and Chock the rear wheels to prevent vehicle from moving.
3. Raise the vehicle off the ground with the jack and support it with jack stands *under the frame* (both sides).

4. Remove the front wheels.



5. Loosen the two bolts which hold the lower spring plate to the rear lower A-arm. **Loosen, do not remove!**

6. Remove the inner (frame/engine side) bolt and discard.

7. Place the Lower bracket (pictured above) on top of the A-arm and insert one 3/8" x 2 1/4" bolt through the bracket and A-arm and start a 3/8" nylock nut. Please see the photo below for the proper orientation of the bracket.

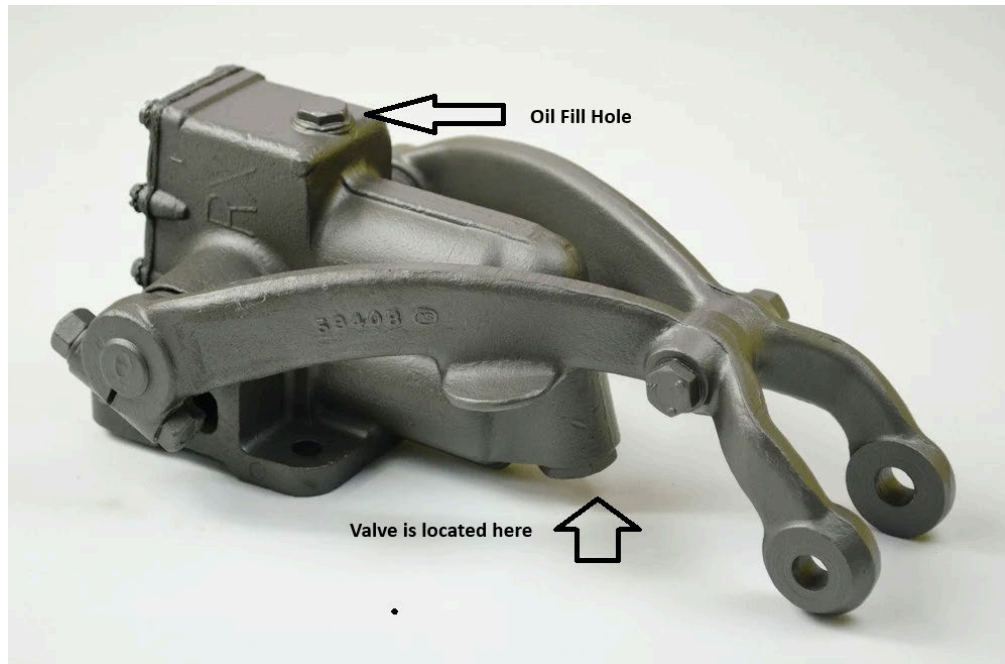


Front Right Installation. Shock is installed BEHIND the spring.

8. Tighten until contact is made, but do not fully tighten.
9. Remove the wheel side bolt.
10. Rotate the bracket so that it is over the wheel side bolt hole and insert another 3/8" x 2 1/4" bolt and add the nylock nut.
11. Check the spring clearance and pull the bracket away from the spring if necessary.
12. Tighten both bolts to 37 ft./lbs. (50 Nm). No Loctite is needed.

Upper Mount

1. Support the lower control arm with a suitable floor jack as far outboard as possible. **Caution! Spring under compression! Control arm must be supported in a stable fashion.**
2. Remove the four bolts securing the original Armstrong lever action shock. All four must be removed to access the large nut retaining the valve assembly.
3. Remove the plug on the original Armstrong shock (big hex head) and extract the shock valve assembly. See photos below. Remove the spring and valve components. Save these in case a future owner wants to return the car to its original configuration.



4. Check the fluid level and top up with hydraulic fluid if needed (jack oil will do). While the Armstrong unit will no longer function as a shock absorber, it will still serve as the upper control arm and the fluid lubricates the A-arm.
5. Reinstall the large hex head plug.
6. Check the threads on the shock tower for damage. Damaged threads must be repaired, or warranty is void.

7. Reinstall the Armstrong shock, securing it with two old bolts on the INBOARD (engine) side. Clean threads and use Loctite.
8. Install the upper bracket using the new 3/8" x 5 1/2" bolts, 3/8" split washers and tubular spacers. The shock attaching bung faces the rear of the vehicle. If a socket head bolt is supplied, it is for the rear hole. Use Loctite.
9. Be sure bolts do not bottom out before the bracket is tight. You may need to clean the area around the old Armstrong shock for good contact. Tighten all four bolts to 37 ft./lbs. (50 Nm).
10. If an aftermarket camber plate has been installed, the caster, camber and toe must be checked and adjusted.

Shock Installation

1. Locate the front shocks, #24-025768.
2. If inner steel bushings have been installed, you may want to remove them and replace them with the new, silver bushings supplied in the hardware kit. These are a better fit to the mounting bolts than those originally supplied by Bilstein. If no bushings are installed, insert the bushings supplied. If too tight to hand fit, they can be pressed in with a vise. Use a little vaseline or white lithium grease.
3. The end with the blue cover is UP.

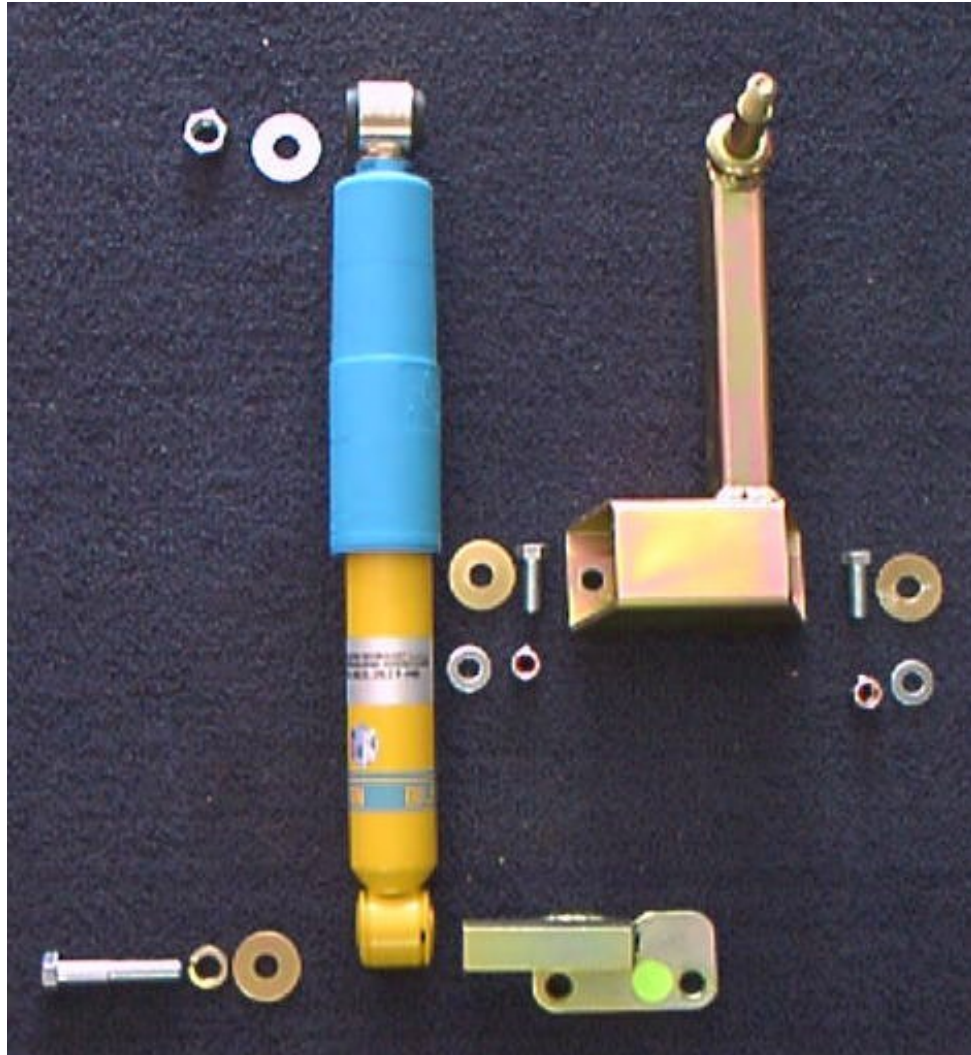
4. Install the shocks using 7/16" x 2 ¼" bolts, 7/16" split washers, 7/16" fender washers, and 7/16" nuts (lower only). The fender washers go on the outside of the shocks with the split washers in between the fender washers and the bolt heads.

5. Install the upper mount first. Shocks will have to be compressed in order to install the lower mount bolt. You can do this by hand, but a 1" ratchet strap works best.

5. Use Loctite and tighten to 53 ft./lbs. (72 Nm).

6. Reinstall the wheels and lower the car to the ground.
Front installation complete.

REAR INSTALLATION



REAR COMPONENTS WITH HARDWARE (right side shown)

Lower Mount

1. Determine a suitable location for the work.
2. Chock the front wheels to prevent the vehicle from moving.
3. Raise the vehicle off the ground with the jack and support it with jack stands *under the frame* (both sides).

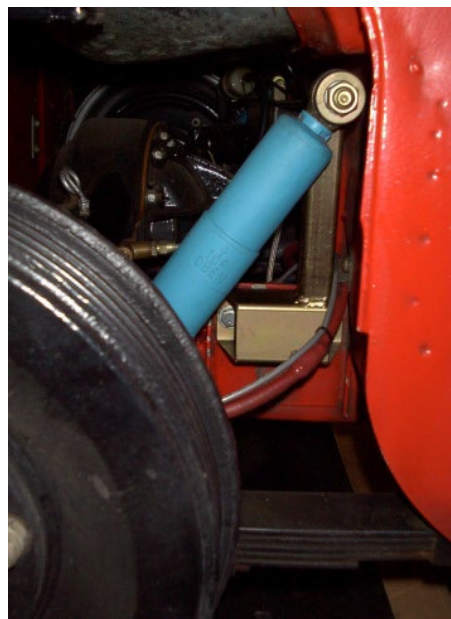
4. Remove the rear wheels.
5. Remove the rear seats to provide better access.
6. Remove the entire Armstrong shock assembly along with the connecting link. Save components in case a future owner may wish to return the car to original.
7. Remove the two FRONT U-bolt nuts.
8. Position the lower bracket so that the shock attachment is towards the front of the car. Install with new 3/8" nylock nuts and 3/8" flat washers. No Loctite required

Upper Mount

1. Install the upper shock bracket in the old Armstrong mounting holes using 3/8" x 1 1/4" bolts, 3/8" split washers, 3/8" fender washers and 3/8" nuts. The bracket upright should be towards the front of the car.



Rear Lower mount, right side



Rear Upper mount, right side

2. Loosen the rear muffler/exhaust mountings as it may be necessary to slightly reposition the exhaust system after fitting the shocks.

Shock Installation

1. Locate the rear shocks, #24-025775.
2. If inner steel bushings have been installed, you may want to remove them and replace them with the new, silver bushings supplied in the hardware kit. These are a better fit to the mounting bolts than those originally supplied by Bilstein. If no bushings are installed, insert the bushings supplied. If too tight to hand fit, they can be pressed in with a vise. Use a little vaseline or white lithium grease.
3. The end with the blue cover is UP.
4. Install the shocks using 7/16" x 2 1/4" bolts, 7/16" split washers, 7/16" fender washers, and 7/16" nuts. The fender washers go on the outside of the shocks with the split washers in between the fender washers and the bolt heads.
5. Install the upper mount first. Shocks will have to be compressed in order to install the lower mount bolt. You can do this by hand, but a 1" ratchet strap works best.
5. Use Loctite and tighten to 53 ft./lbs. (72 Nm).
6. Slight realignment of the exhaust system may be necessary. The exhaust pipe may touch the shock with the car in the air. Retighten the exhaust system.

6. Reinstall the wheels and lower the car to the ground. The rear installation is now complete.

SPECIAL NOTE OF FUEL PUMP INTERFERENCE

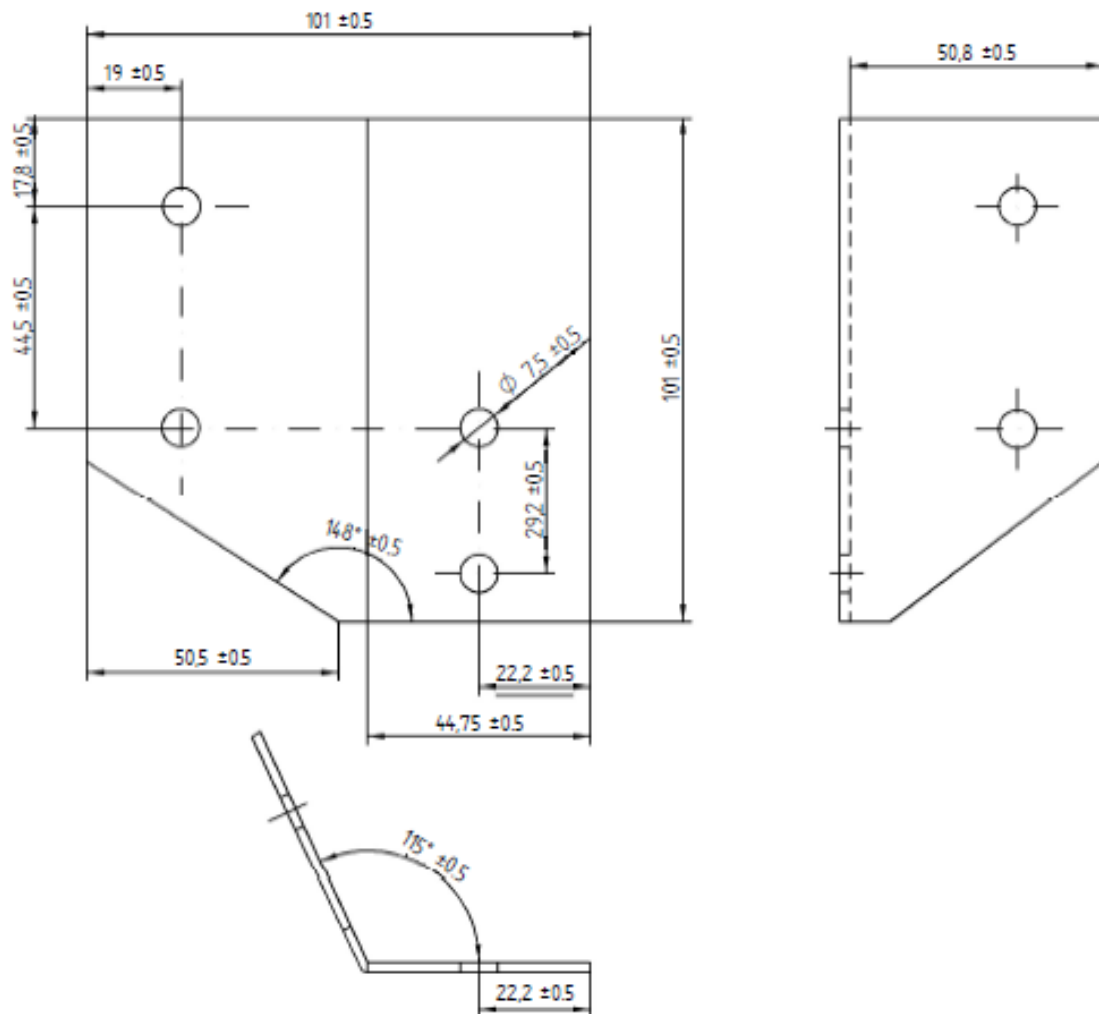
Over the years, many different fuel pumps have been fitted to Big Healeys; single pumps, dual pumps, aftermarket pumps, etc. It is rare to find a Healey with its original fuel pump and fuel lines intact. Depending on the pump fitted to your car, you may encounter some interference with the rear shock installation. Usually this only requires a minor modification of the original bracket, tubing or hoses.

However, Fahrspass for Healey does offer a fuel pump relocation bracket (part # D521) if more significant adjustment is needed. This bracket is included with all kits.

Feel free to fabricate your own bracket based on the drawing below or contact us to order our bracket.

Fuel Pump Bracket BJ7 BJ8

Aluminum 3003 T1/16" = 1.5-2.0mm



FINAL NOTES

Congratulations on completing one of the most significant upgrades available for the Big Healey. We are confident that you will notice a huge difference in the ride and handling of your Healey.

Your comments about our product and/or these instructions would be most welcome. If we can make our kit better, we want to do so.

CONTACT INFORMATION

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Limited Lifetime Warranty

*Your **Fahrspass for Healey** suspension kit is warranted to the original purchaser for as long as he or she owns the vehicle. The warranty covers defects in materials or workmanship, including failure of the Bilstein shocks, under normal use. During the warranty period Fahrspass will repair or replace any defective components, at its option.*

Improper installation, modification or other unintended usage voids warranty, as does racing, rallying and off-road use. The warranty is limited to replacement or repair of damaged components and does not include any compensation for labor or consequential damages (i.e. towing). Contact us if you have a potential warranty issue before attempting replacement or repairs.