

A Comprehensive Guide to the Basic Settings and Checks for the Bosch KE Jetronic Fuel Injection System

The Bosch KE Jetronic fuel injection system is a mechanical fuel injection system that was used on a variety of vehicles from the 1970s to the 1990s. It is a relatively simple system that is easy to maintain and troubleshoot.



Bosch KE-Jetronic tests and adjustments: Basic settings and checks for the KE-Jetronic from Bosch

by Jim Northrup

★★★★☆ 4.4 out of 5

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The KE Jetronic system consists of the following components:

- Air flow sensor
- Control pressure regulator
- Fuel pressure regulator
- Ignition timing device
- Cold start valve

- Warm-up regulator
- Lambda sensor (oxygen sensor)

The air flow sensor measures the amount of air that is entering the engine. This information is used by the control pressure regulator to set the fuel pressure. The fuel pressure regulator then sends the fuel to the injectors, which spray it into the engine's cylinders.

The ignition timing device controls the timing of the spark plugs. The timing of the spark plugs is important because it affects the efficiency of the engine.

The cold start valve is a solenoid that is used to provide extra fuel to the engine when it is cold. This helps to ensure that the engine starts easily.

The warm-up regulator is a thermostat that is used to control the temperature of the engine. The warm-up regulator helps to ensure that the engine reaches its optimal operating temperature quickly.

The lambda sensor is an oxygen sensor that is used to monitor the oxygen content of the exhaust gas. The lambda sensor sends this information to the control unit, which then adjusts the fuel mixture to maintain the correct air/fuel ratio.

Basic Settings

The following are the basic settings for the Bosch KE Jetronic fuel injection system:

- Air flow sensor: 0.8-1.0 V

- Control pressure: 2.5-3.0 bar
- Fuel pressure: 2.0-2.5 bar
- Ignition timing: 10-15 degrees BTDC
- Cold start valve: 0.5-1.0 A
- Warm-up regulator: 0.5-1.0 A
- Lambda sensor: 0.1-0.9 V

Checks

The following are the basic checks that should be performed on the Bosch KE Jetronic fuel injection system:

- Air flow sensor: Check the voltage at the air flow sensor connector. The voltage should be 0.8-1.0 V.
- Control pressure regulator: Check the control pressure at the fuel rail. The control pressure should be 2.5-3.0 bar.
- Fuel pressure regulator: Check the fuel pressure at the fuel rail. The fuel pressure should be 2.0-2.5 bar.
- Ignition timing device: Check the ignition timing with a timing light. The ignition timing should be 10-15 degrees BTDC.
- Cold start valve: Check the current draw of the cold start valve. The current draw should be 0.5-1.0 A.
- Warm-up regulator: Check the current draw of the warm-up regulator. The current draw should be 0.5-1.0 A.

- Lambda sensor: Check the voltage at the lambda sensor connector. The voltage should be 0.1-0.9 V.

Troubleshooting

If you are having problems with your Bosch KE Jetronic fuel injection system, the following are some troubleshooting tips:

- Air flow sensor: If the air flow sensor is not working properly, the engine may run lean or rich. You can check the air flow sensor by measuring the voltage at the air flow sensor connector. The voltage should be 0.8-1.0 V.
- Control pressure regulator: If the control pressure regulator is not working properly, the fuel pressure may be too high or too low. You can check the control pressure regulator by measuring the control pressure at the fuel rail. The control pressure should be 2.5-3.0 bar.
- Fuel pressure regulator: If the fuel pressure regulator is not working properly, the fuel pressure may be too high or too low. You can check the fuel pressure regulator by measuring the fuel pressure at the fuel rail. The fuel pressure should be 2.0-2.5 bar.
- Ignition timing device: If the ignition timing device is not working properly, the engine may run rough or have poor performance. You can check the ignition timing device by using a timing light. The ignition timing should be 10-15 degrees BTDC.
- Cold start valve: If the cold start valve is not working properly, the engine may be difficult to start when it is cold. You can check the cold start valve by measuring the current draw.

- Warm-up regulator: If the warm-up regulator is not working properly, the engine may take too long to reach its optimal operating temperature. You can check the warm-up regulator by measuring the current draw.
- Lambda sensor: If the lambda sensor is not working properly, the engine may run lean or rich. You can check the lambda sensor by measuring the voltage at the lambda sensor connector. The voltage should be 0.1-0.9 V.

The Bosch KE Jetronic fuel injection system is a reliable and efficient fuel injection system. By following the basic settings and checks outlined in this article, you can ensure that your KE Jetronic system is operating at its peak performance.



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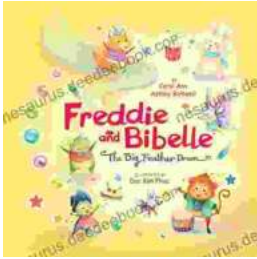
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