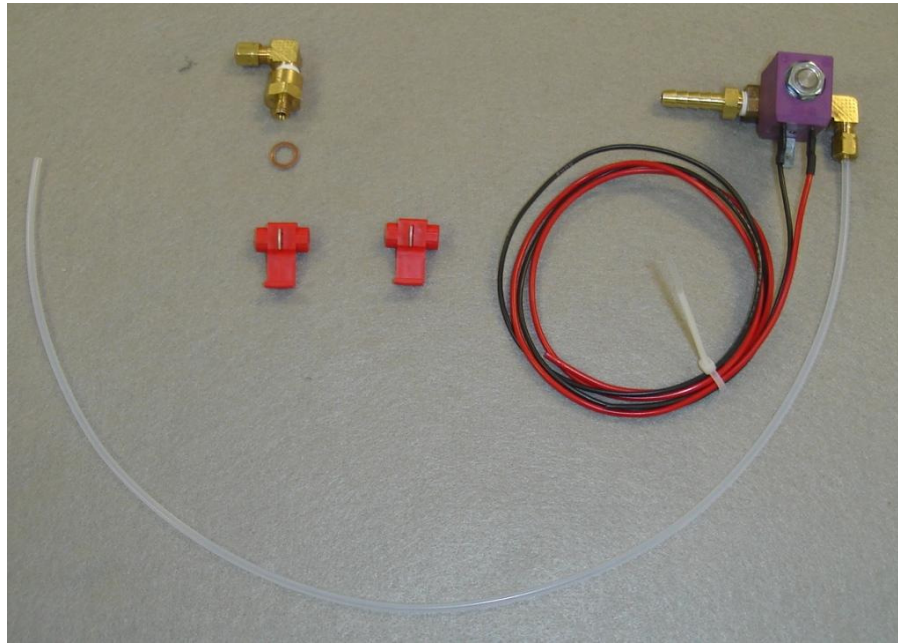




Control Pressure Rest Pressure Kit User's manual

UnwiredTools, LLC
2200 East Cedar #1
Flagstaff, AZ 86004
www.unwiredtools.com
info@unwiredtools.com



User's Guide *Control Pressure Rest Pressure Kit* *For 1974 to 1977 Bosch CIS Systems*

Note: The fuel system should be under pressure even when the car is off. ALWAYS follow these precautions:

- 1. Always wear safety glasses.**
- 2. When the fuel lines are first loosened about 10cc of pressurized fuel will squirt out. Surround the fitting being loosened with rags.**
- 3. Have a fire extinguisher handy.**



**Control Pressure Rest Pressure Kit
User's manual**

UnwiredTools, LLC
2200 East Cedar #1
Flagstaff, AZ 86004
www.unwiredtools.com
info@unwiredtools.com

Printed in the U.S.A.
Copyright © 2008 *UnwiredTools, LLC*
All Rights Reserved.

NOTICE REGARDING WARRANTIES

The *UnwiredTools™* does not warrant the CP Rest Pressure Kit for any aspect of its use, fitness for use, suitability, or safety for any purpose whatsoever. The user assumes all risk and responsibility for use of the CP Update Kit.

The information in this Manual therefore is provided as a general guide or illustration. It is your responsibility and not that of UnwiredTools to ensure that this Product is suitable for your vehicle and that it meets your needs or requirements. This Manual is provided "as is" and without any warranties of any kind. UnwiredTools makes no representations or warranties with respect to this Manual, e.g., as to its accuracy, completeness or appropriateness to any particular vehicle or situation. UNWIREDTOOLS HEREBY DISCLAIMS ANY AND ALL WARRANTIES AS TO THIS MANUAL, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. UNWIREDTOOLS ALSO DISCLAIMS ANY LIABILITY FOR YOUR USE OF THE MANUAL. PLEASE USE IT AT YOUR OWN RISK. This Manual may be updated from time to time. Users are encouraged to visit our Web site at www.unwiredtools.com to obtain the latest version, to obtain information about the Product, and to obtain other support information.



Theory of Operation

The Bosch CIS mechanical fuel injection system works by converting the flow of intake air into a precisely metered flow of fuel. Figure 1 shows a VW fuel distributor where the air moves up to move the Sensor plate. On most Mercedes and Porsche applications the airflow direction is down but the principle is the same. When the Sensor plate moves the Main lever moves, which in turn pushes the Control plunger up and down. The Control plunger uncovers a set of finely machined narrow slits, one per cylinder. Fuel flows to the injectors through the port on top, shown as A in Figure 1.

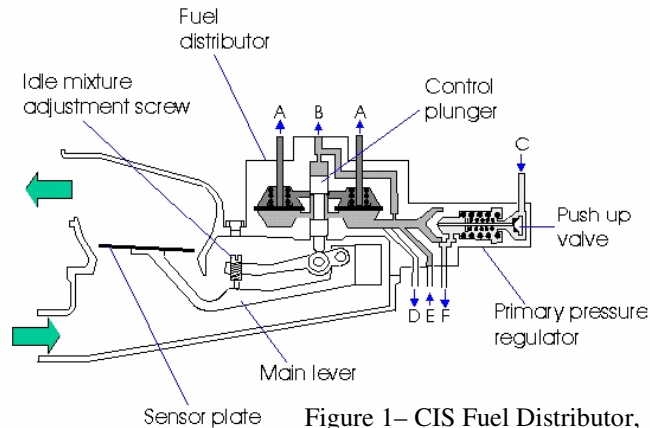


Figure 1— CIS Fuel Distributor, 1978 and later

Rest Pressure

In order for a warm/hot engine to restart quickly, fuel pressure must be maintained even after the car is shut off. Keeping the fuel under pressure helps to prevent vapor lock. The fuel pressure which remains after the engine shut off is called rest, or residual, pressure. There are a few components in the Bosch CIS system responsible for maintaining rest pressure. The critical ones are the fuel pump check valve, accumulator, system pressure regulator and either a push valve (78 and later—see Figure 1) or a warm-up regulator with integrated shut off valve (1974-1977).

Control Pressure Rest Pressure Kit

The Control Pressure Rest Pressure Kit is designed for Bosch CIS systems that do not have a push valve (1974 to 1977). There are two main reasons for installing the control pressure update kit:

1. **If you have or are planning on installing the UTCIS-G™, UTCIS-V™ or UTCIS-PT™ on your 1974 to 1977 vehicle. In order to maintain proper rest pressure the control pressure update kit is required.** The UCTIS™ product by itself does not include an internal shut-off valve like the OE 1974-1977 warm up regulator.
2. If you have the OE warm up regulator on your 1974 to 1977 vehicle and you're having hot start problems. The control pressure update kit will maintain a higher rest pressure and will reduce vapor lock.



Control Pressure Rest Pressure Kit User's manual

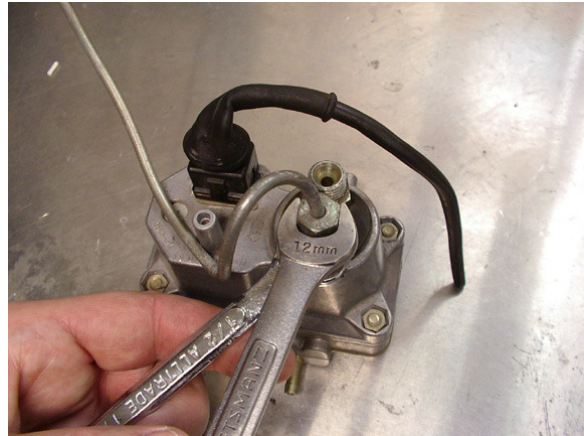
UnwiredTools, LLC
2200 East Cedar #1
Flagstaff, AZ 860004
www.unwiredtools.com
info@unwiredtools.com

Installation:

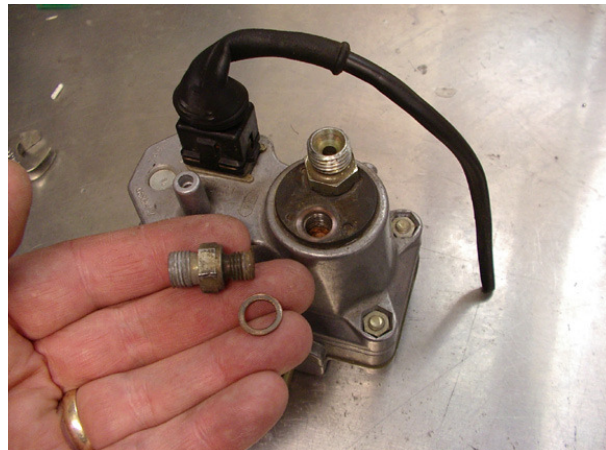
The installation of the Control Pressure Rest Pressure Kit involves removing the smaller outlet fitting of the WUR.

Note: When the fittings are loosened about 10cc of pressurized fuel is sprayed out. Carefully review the cautions on the front page of this manual and proceed carefully.

The smaller fuel line fitting must be removed. Two 12mm wrenches are required. Use the lower wrench to hold the WUR fitting in place while loosening the fuel line fitting. Don't try to remove the fuel line fitting without a backing wrench.



Once the fuel line fitting is removed then the WUR fitting underneath can be removed. The old copper washer is not needed



The brass fitting shown at right can now be installed in place of the fitting you just removed. Use the new washer supplied to ensure a good seal.





Control Pressure Rest Pressure Kit User's manual

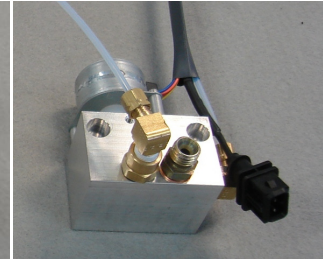
UnwiredTools, LLC
2200 East Cedar #1
Flagstaff, AZ 860004
www.unwiredtools.com
info@unwiredtools.com

The fitting is shown here after installation on both the OE warm-up regulator and the UTCIS™.

Next install the white Teflon line and tighten the compression fitting nut. Install the warm-up regulator or UTCIS™ on the vehicle.



Fitting installed on
OE WUR



Fitting installed on
UTCIS™

Mount the shut-off valve in a convenient location making sure the white Teflon line will not kink when installed. The white Teflon line can be cut to length with a razor blade. Don't forget to tighten the compression fitting nut on the valve. The barbed outlet of the valve is low pressure and tees back into the return line to the tank.



The two wires attached to the shut-off valve need to be powered by the same circuit that powers the warm-up-regulator. Use the red tap connectors provided to attach the two valve wires to the wires that go into the warm-up-regulator connector. The polarity of the wires does not matter.



Control Pressure Rest Pressure Kit User's manual

UnwiredTools, LLC
2200 East Cedar #1
Flagstaff, AZ 86004
www.unwiredtools.com
info@unwiredtools.com

Starting, monitoring, troubleshooting:

Start the car and check carefully for leaks around the fittings. Once the engine is completely warm shut the car down and check the rest pressure. It depends on the vehicle but in general 20 minutes after the engine is shut off the rest pressure should be at least 1.5 bar. For vehicle specific rest pressure data please feel free to contact us. If the rest pressure is below 1.5 bar after 20 minutes and there are no leaks then another component in the system is at fault. For help with troubleshooting please feel free contact us.