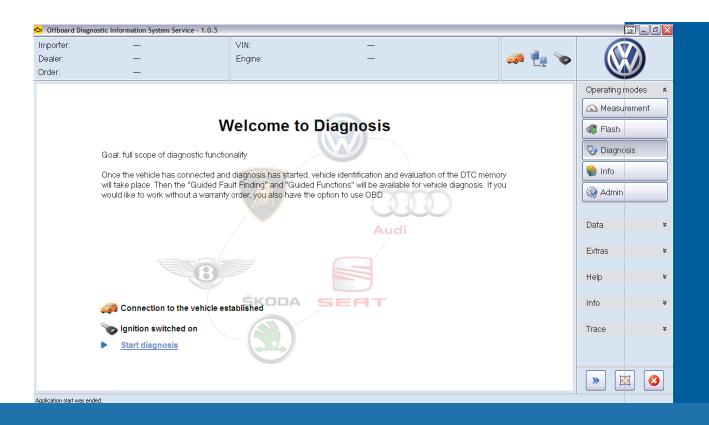




# Reference Guide 810123UC

# Offboard Diagnostic Information System (ODIS Service)



Volkswagen Group Canada, Inc. Volkswagen Academy Printed 5/2012

Course Number 810123UC

Based on ODIS Service Software Version 1.0.5

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The pages in this reference manual are screen shots from the Volkswagen version of ODIS Service. The technical procedures outlined in this guide are the same between Audi and Volkswagen.

# **The Offboard Diagnostic Information System**

The Offboard Diagnostic Information System (ODIS) is the software that will be replacing the VAS-PC diagnostic software in the near future. It is an extension of the VAS-PC software that adds many features to help with vehicle diagnosis and repair. ODIS does not replace Guided Fault Finding (GFF). Guided Fault Finding is an integral component of ODIS.

ODIS can be used on VAS 5051B, VAS 5052A and VAS 6150 diagnostic tools, as long as they are correctly updated. It cannot be used on the VAS 5051A or VAS 5052.







The ODIS interface is different from VAS-PC, and is very intuitive. With the this Reference Guide and some practice, it won't take long for you to discover the advantages of ODIS.

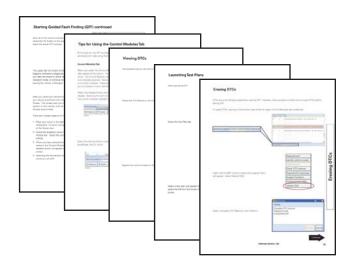


ODIS-1

#### **Using this Reference Guide**

This reference guide contains a series of Job Aids that are designed to help you quickly move through the ODIS interface.

In addition to being listed in the Table of Contents, the titles of each Job Aid are clearly marked on the sides of every page. This allows for "thumbing through" of this Reference Guide to quickly find the Job Aid that will help you with your current ODIS task.



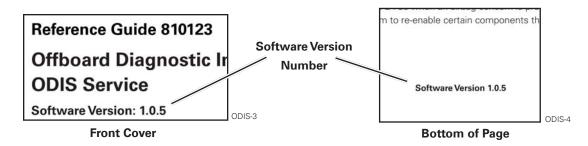
As with any computer program, practicing is the best way to learn. Be sure to use ODIS regularly, and use these Job Aids if you have questions.

The ODIS interface has its own User Guide, and this series of Job Aids is not designed to replace that document. These Job Aids are designed to get started quickly. If you want more detailed information, consult the User Guide in the ODIS interface.



This Reference Guide only covers the ODIS software version shown on the cover, which is also shown on the bottom center of each page. As with any software program, there will be updates and changes. If you are using a version of ODIS software that is different than the version shown in this Reference Guide, the Scan Tool may show different screens or information.

The electronic version of this Reference Guide will be updated periodically, but it will not be reprinted. Always check the Certification Resource Center for the latest Reference Guide version.

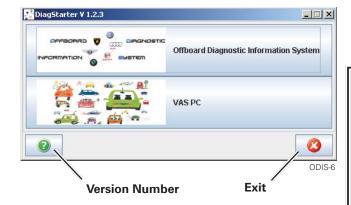


# **Launching ODIS**

The ODIS application is launched from the Scan Tool Desktop using the **DiagStarter** icon. Double-click the icon, then select Offboard Diagnostic Information System.



#### **VAS-PC** and ODIS Selection Window



#### **Release Notes**

This screen appears upon launch. It lists the vehicles supported, changes and restrictions to ODIS since the last update. Each of the changes is a hyper-link that takes you to the information.

To continue, select the **OK** button on the lower right of the window.

If the check box at the bottom of the window remains checked, this window appears at startup of the program.

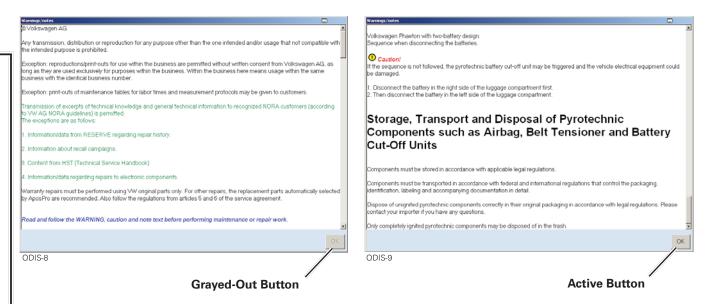




#### **Launching ODIS (cont)**

#### Warnings/Notes

The Warnings/Notes screen requires you to take specific action. Read all warnings and notes. After scrolling to the bottom of this list, the  $\underline{\mathbf{OK}}$  button turns from gray to black. Selecting the  $\underline{\mathbf{OK}}$  button at this point allows you to proceed.

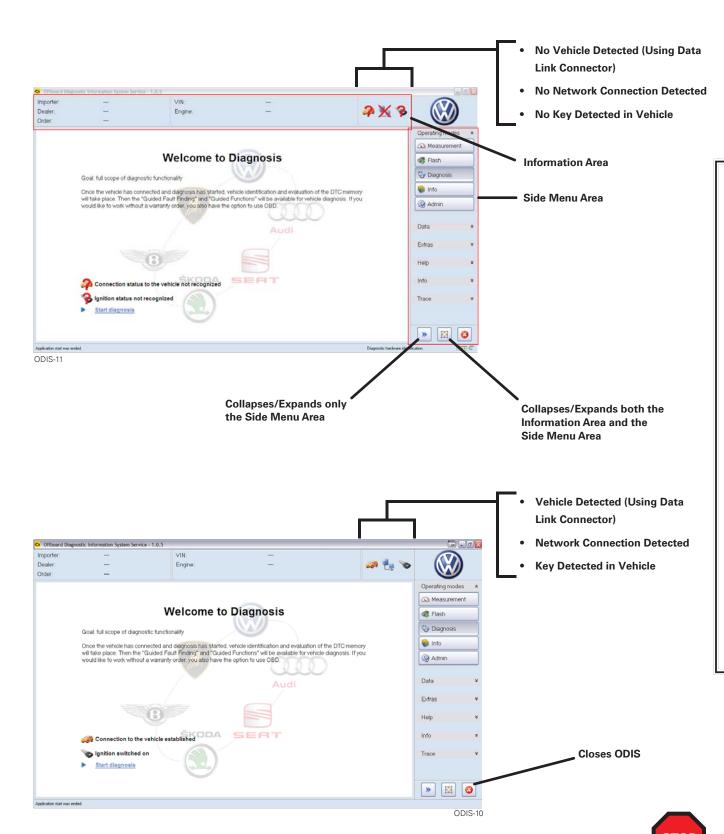


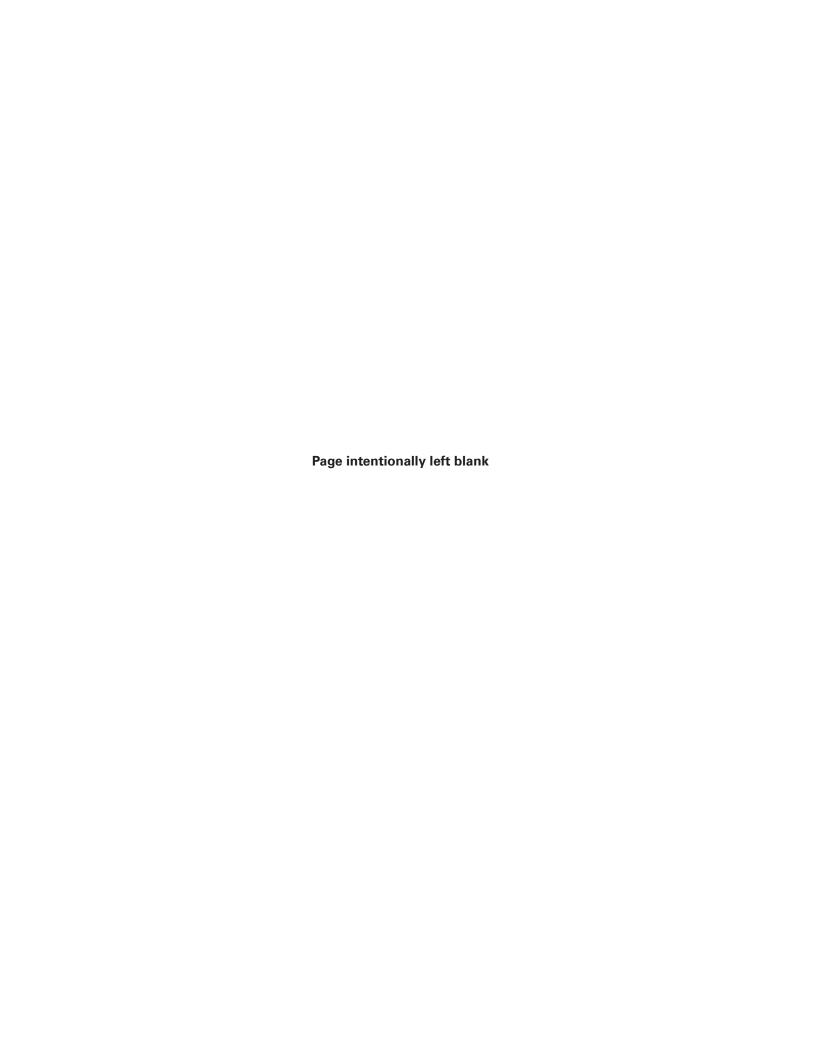
Congratulations! You have arrived at the ODIS main screen!





# **Using the ODIS Window**





#### **Launching Guided Fault Finding**

Before ODIS allows you to start GFF, the Data Link Connector (DLC) must be connected and key recognized in the vehicle. If the Scan Tool is not connected to the internet, it will not perform operations such as Software Version Management (SVM), GEKO, unlocking component protection or uploading diagnostic logs.



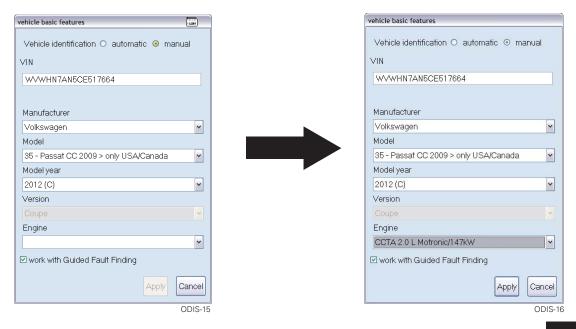
From the ODIS main screen, select the **Start diagnosis** hyper-link.



A Vehicle Identification window appears with the Vehicle Identification Number (VIN) already in place. The top of this window has Automatic or Manual Vehicle Identification selections. If you choose Automatic, CAREFULLY review the information that is automatically inserted to make sure the vehicle and equipment are identified correctly.

If using Manual, use the drop down menus to identify the vehicle type. This is very similar to ElsaWeb vehicle identification menus.

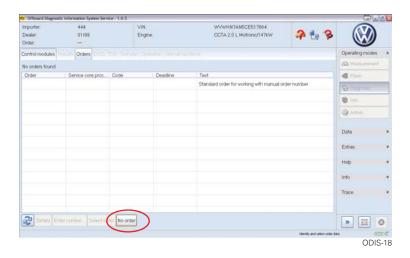
When the vehicle identification is complete, make sure the **Work with Guided Fault Finding** is checked and select **Apply**. If Guided Fault Finding is not selected, the diagnostic capabilities are severely limited.



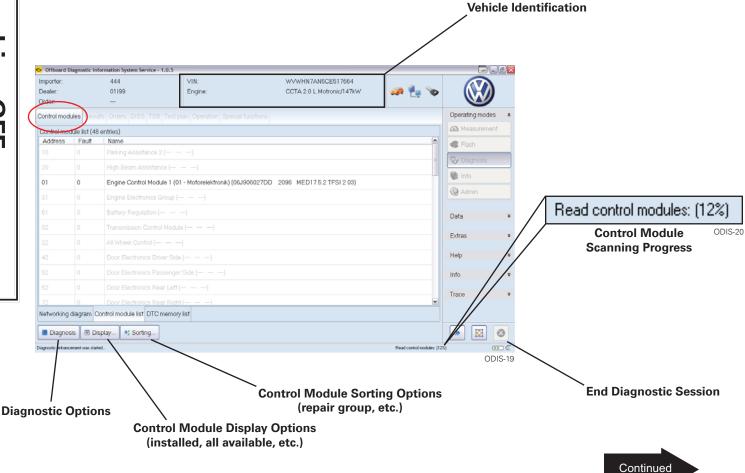
# Launching GFF

# **Launching Guided Fault Finding (cont)**

After your Global User ID is entered, Vehicle Diagnosis starts. The screen changes and displays many tabs. The Orders tab is automatically selected, however this tab is not yet used by our market. Select the **No Order** button at the bottom of the page to continue.



Selecting No Order automatically switches the upper tab from Orders to Control Modules and it begins to look for the control modules that are installed in the vehicle.



#### **Launching Guided Fault Finding (cont)**

After all of the control modules have been identified, select the **OK** button on the popup window. This starts the actual GFF process.

 Address
 Fault
 Name

 10
 0
 Parking Assistance 2 (— — —)

 20
 0
 High Beam Assistance 2 (— — —)

 01
 0
 Engine Control Module identification is complete.

 31
 0
 Engine Electronic

 51
 0
 Drive Motor Control Module identification is complete.

 61
 0
 Battery Regulati

 02
 0
 Transmission Control Module (09G927750LF 1741 AQ 250 6F )

 42
 0
 Door Electronics Driver Side (— — —)

 52
 0
 Door Electronics Passenger Side (— — —)

 63
 0
 Brakes 1 (1K0907379RC 0106 FSP MK60FC1 )

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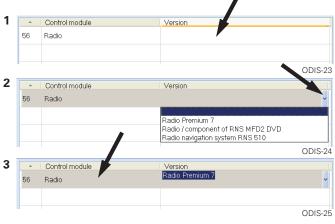
This upper tab switches to the Operation tab. If the vehicle is in transport mode, ODIS may give you the option to take the vehicle out of transport mode or continue with the GFF process and leave the vehicle unchanged.

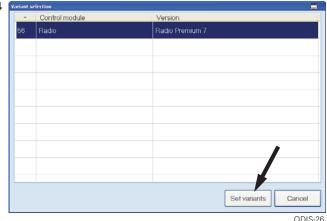
If ODIS detects that there may be more than one variant of a control module, you may be presented with a Variant Selection screen. This screen asks you to specifically identify a system on the vehicle, such as what type of radio or climate control head.

There are four steps to fill in this screen and continue:

- Place your cursor in the blank Version box and click/select. An arrow appears on the right side of the Version box.
- Select the drop down arrow that appears in the Version box. Select the correct option for your vehicle.
- Click/select in the Control Module Box and the Set Variants button appears on the bottom of the screen.
- 4. Selecting the **Set Variants** button allows you to continue with GFF.









#### **Launching Guided Fault Finding (cont)**

After completing the Variant screens, the GFF test plan continues. There may be a couple of screens regarding warranty, diagnostic protocol and ElsaWeb.

After passing these screens, the control modules are scanned.

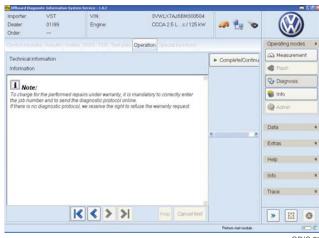
When the vehicle scan is complete, ODIS may direct you to the DISS tab. This tab is not used in the North American market. The following upper tabs will probably be the most useful for your next steps in GFF:

#### **Test Plan Tab**

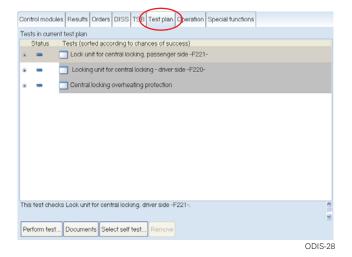
This tab can be selected to view the test plans loaded by GFF as a result of DTCs in the control modules.

#### **Control Module Tab**

This tab can be selected to view which control modules have DTCs. Control modules that have recorded DTCs are displayed in red. The number of DTCs are displayed in the Faults column.



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#### **Tips for Using the Control Modules Tab**

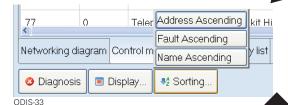
#### **Control Modules Tab**

When you select the Control Modules tab, the default screen shows the Control Module List. Notice that there are grayed-out control modules. These are control modules that may not be present on your vehicle, depending on options. Note: If an installed control module is not communicating with the Gateway due to a fault, it appears grayed-out in the Control Module screens.

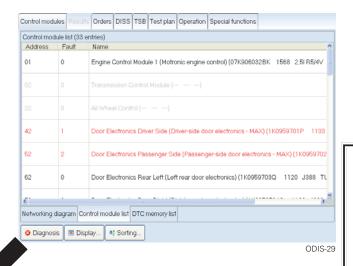
Select the **Display** button and Actual Installation displays. Selecting Actual Installation narrows the list to the control modules installed on your vehicle.

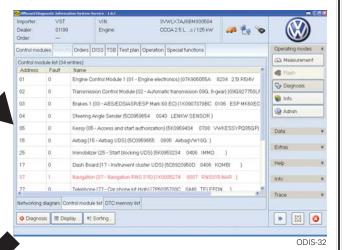


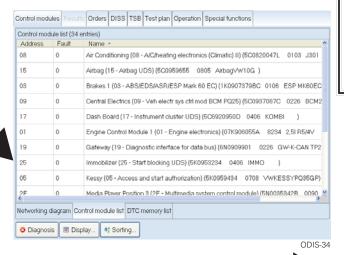
Select the **Sorting** button to sort the control modules by address, fault or name.



Sorting can also be performed using the Address, Fault and Name Columns headers above the control module list.



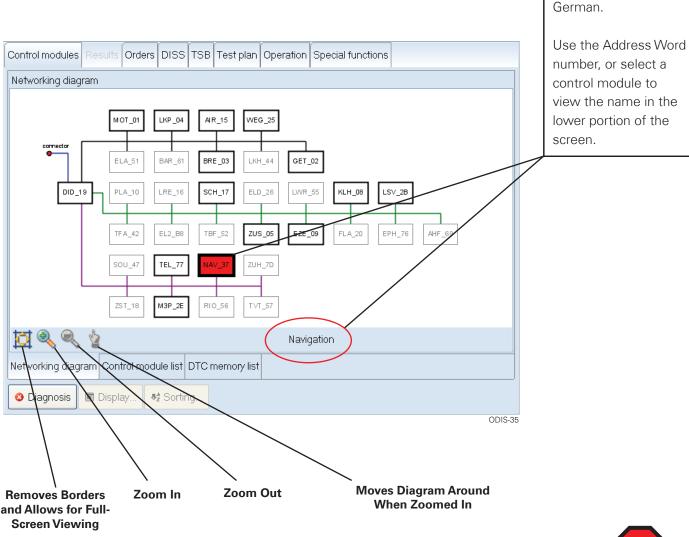




#### Tips for Using the Control Modules Tab (cont)

Choosing the lower **Networking Diagram** tab displays a "topology" view of the possible control modules on the vehicle. This screen may not represent the exact topology of the vehicle. Always refer to the Repair Information for the latest topology.

- Control modules in a light black border are not identified due to options or communication DTCs
- Control Modules surrounded by a bold black border are identified and have no DTC events in memory
- Red colored control modules have one or more DTC events in memory
- Control modules that are not communicating may appear as grayed-out the same as control modules that are not installed
- The status of a control module under the Control Modules tab is static and is not updated until the vehicle is rescanned

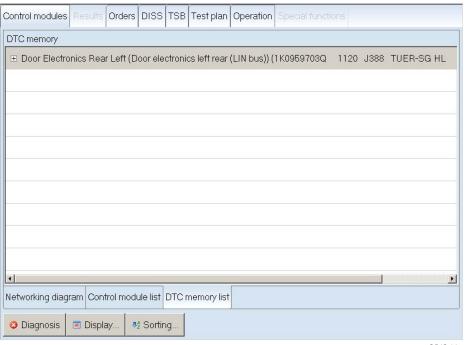


The control module

abbreviations are in

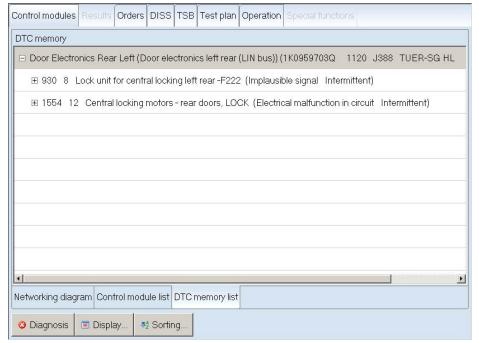
# **Viewing DTCs**

After launching GFF:



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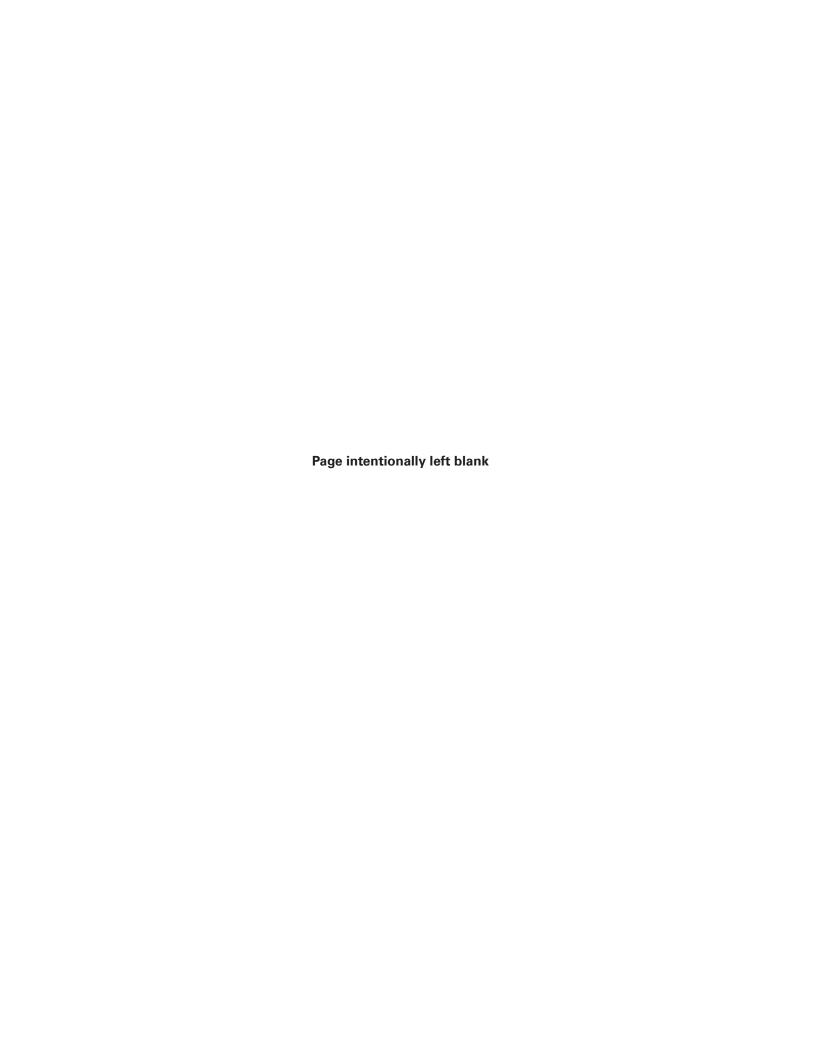
Select the **DTC Memory List** lower tab.



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Click on the "+" symbol to expand the control module information and show its DTCs.

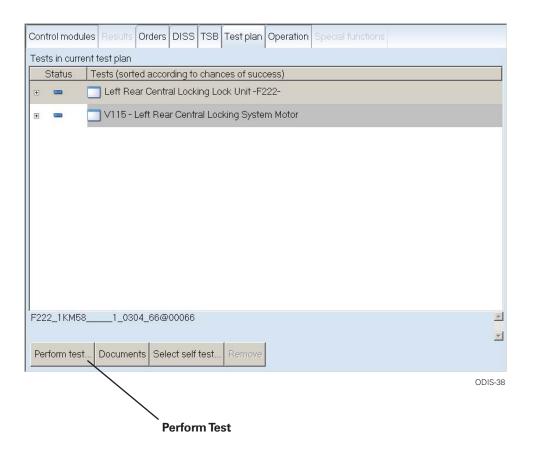




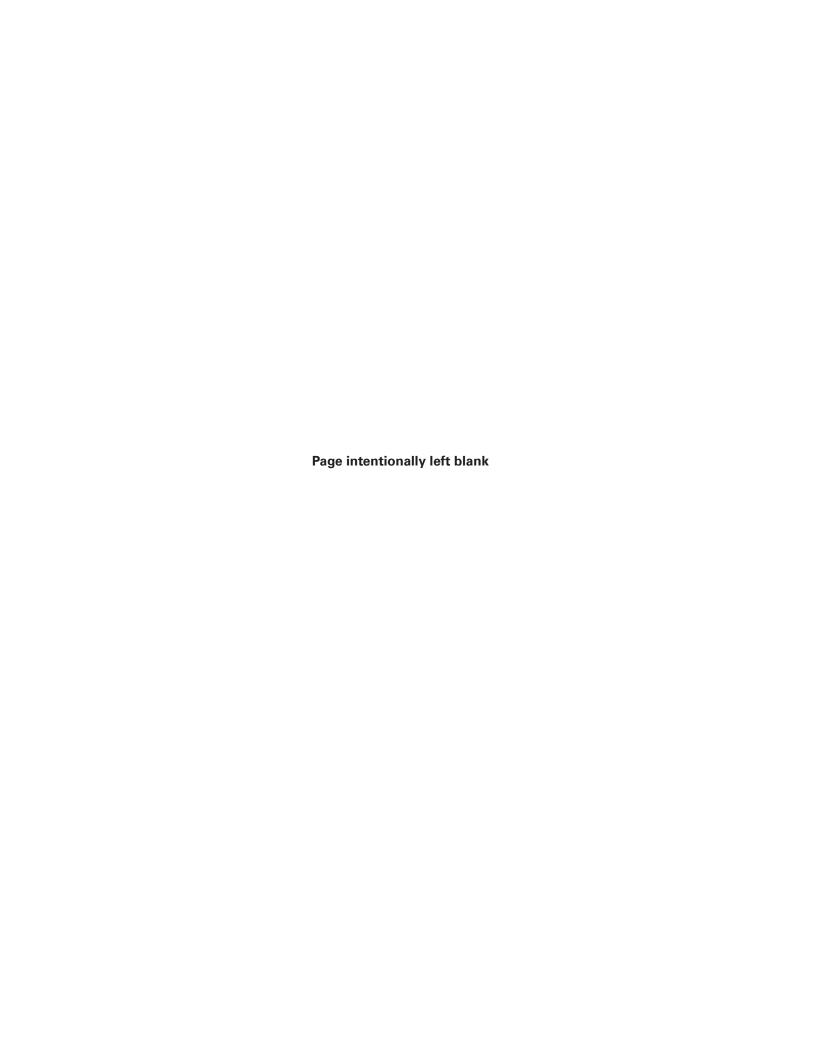
# **Launching Test Plans**

The complete list of DTCs can be displayed after launching GFF.

Select the **Test Plan** tab,



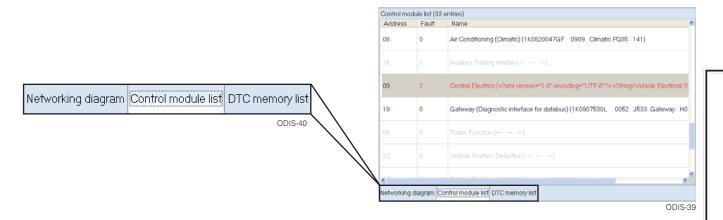
Select a test plan (appears highlighted), then select the **Perform Test** button in the lower left corner.



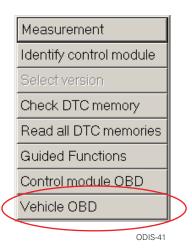
# **Erasing DTCs**

DTCs are automatically erased when exiting GFF. However, this procedure outlines how to erase DTCs before exiting GFF.

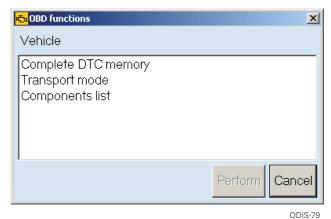
To erase DTCs, use any of the bottom tabs while the upper Control Modules tab is selected.



Right click on ANY control module and a popup menu appears. Select **Vehicle OBD**.



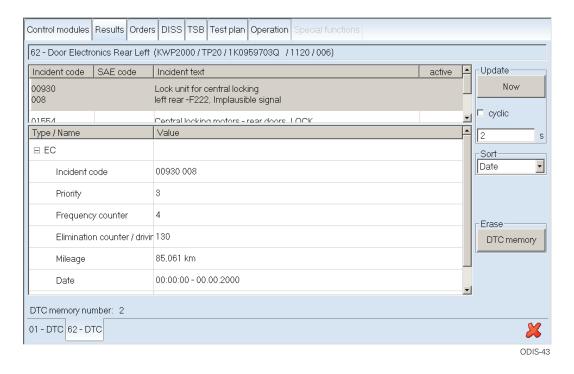
Select **Complete DTC Memory**, then **Perform**.



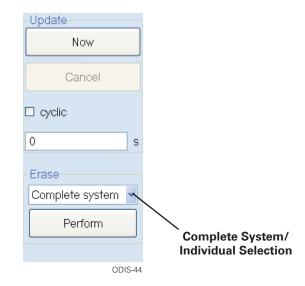
Continued

#### **Erasing DTCs (cont)**

This takes you to the Results upper tab. From this point on, it remains black instead of gray. In addition to erasing DTCs, the Results tab allows you to re-check the system to see if DTCs have been resolved.



You can now chose **Erase** and select to erase either the Complete System or Individual. At the time of this printing, either choice would erase ALL DTCs in all control modules.



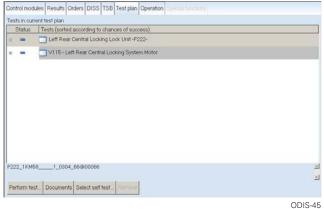


Be careful when erasing all DTCs when an airbag concern is present and not yet repaired. Erasing the DTCs allows the system to re-enable certain components that it may have deactivated because of the DTC.



# **Selecting User Generated Test Plans**

After launching GFF, select the <u>Test Plan</u> tab. This tab displays the test plans that have been loaded by GFF. However, you can also attach your own test plans.

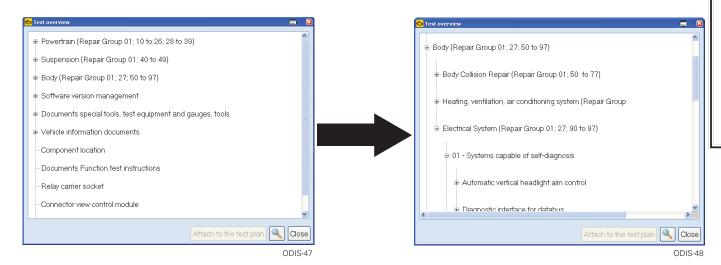


Select **Select Self Test** from the lower tabs.



The Test Overview window will appear. This window allows you to search for test plans.

Expand the folders to find the test plan you want. This is very similar to the Function/Component Selection area in VAS-PC.



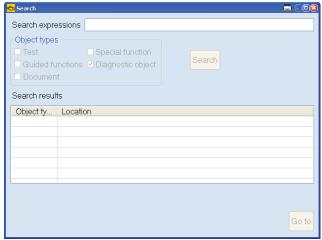


# **Selecting User Generated Test Plans (cont)**

You can search for test plans by using the **search icon** (magnifying glass) at the bottom of the Test
Overview window.

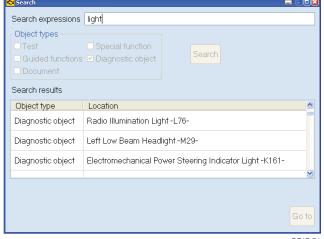


A search window appears, allowing you to search for test plans using specific words.



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The results of your search appears in the lower part of the window. Scroll through the results to find the correct test plan.

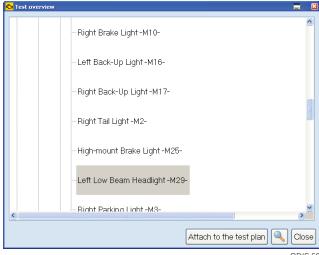


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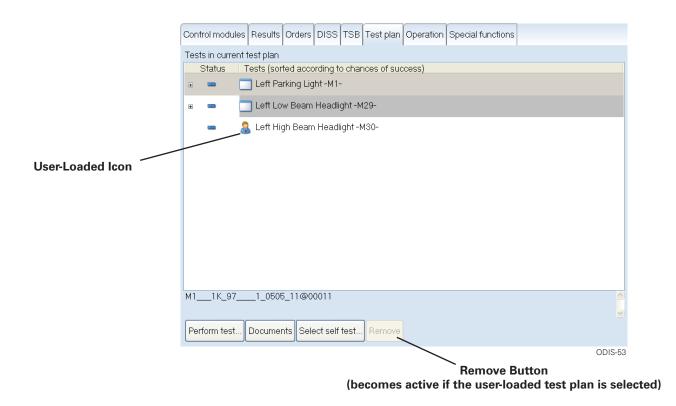
# **Selecting User Generated Test Plans (cont)**

When you select a test plan from the search feature, you are directed to that test plan in the Test Overview menu structure. This test plan can now be attached using the **Attach** to Test Plan button.

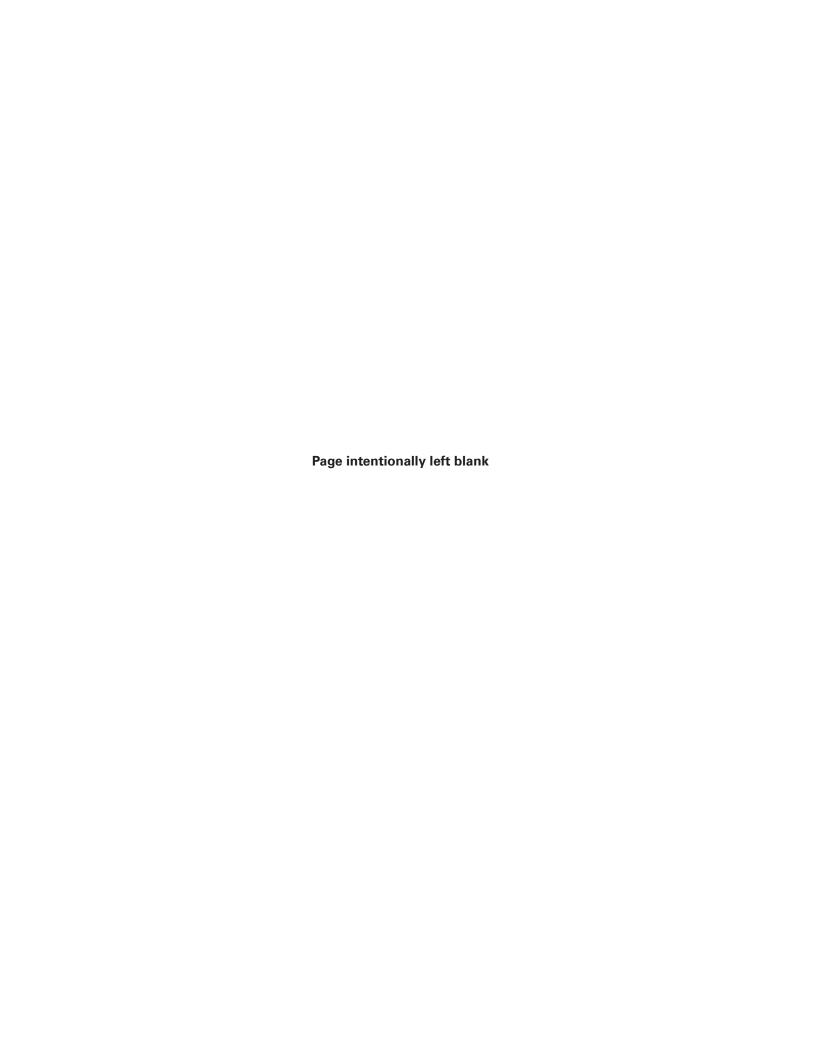


When you return to the Test Plan tab, you can see the new test plan that you have attached. Since this is a userattached test plan, there is an icon of a person next to it.

All user-based test plans can be removed using the Remove button at the bottom of the screen. ODIS-attached test plans cannot be removed.

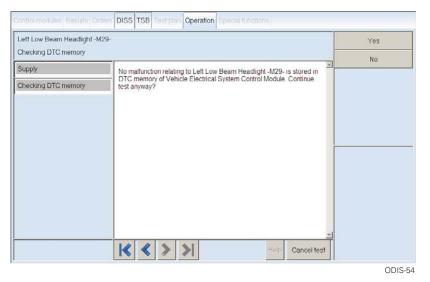






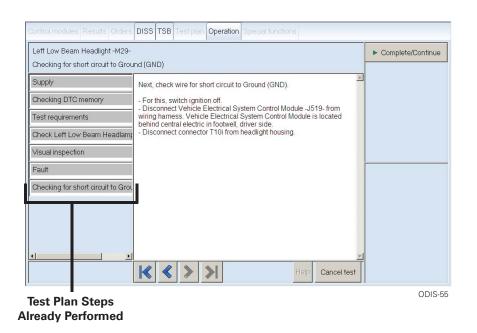
#### Understanding the GFF the Test Plan

After you have selected a test plan to run, the upper tab changes to Operation. This test plan window displays the GFF test that is currently running.

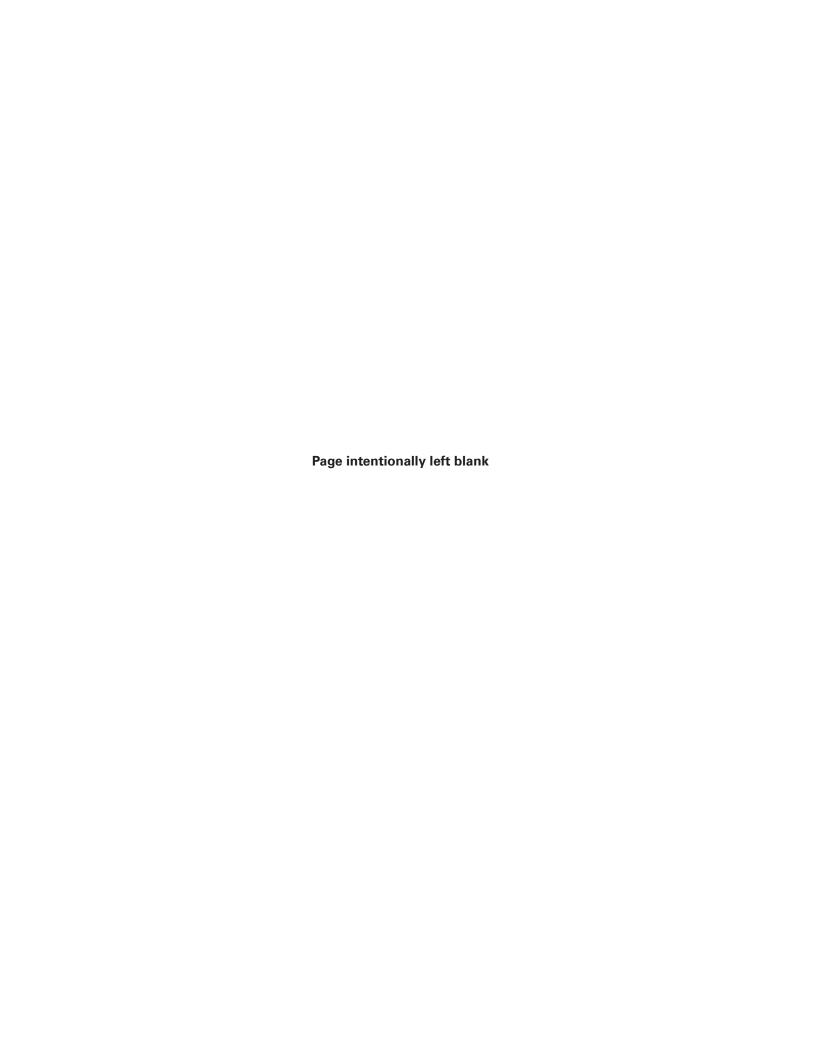


The test plan window is similar to the test plan window in VAS PC GFF. Any Documents or Connector Views are available as buttons on the right side of the screen. The main difference is that the steps of the test plan that have been already performed are listed in order on the left side of the page. This helps you to understand what has been done so far.

The buttons on the center bottom of the test plan allow you to go back and review steps. At the time of this printing, you could not restart the test plan at an earlier step by doing this. The test plan could only be continued at the farthest step of progress.



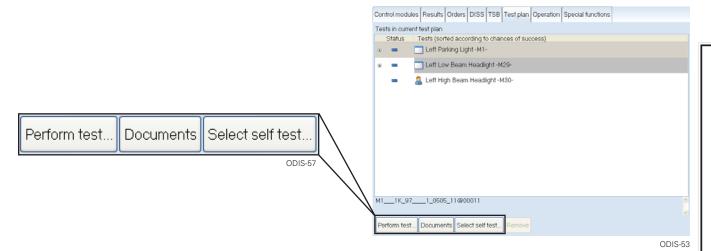




#### **Documents**

GFF contains Documents that contain additional information about a particular system or operation. These documents may be as simple as a connector view, or more complex such as the complete outline of the test plan including expected system operation.

Documents are available in the test plans, but can also be accessed under the Test Plan upper tab.



Documents for the Test Plan or the Test Program can be selected.

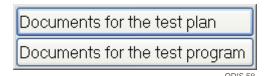
#### **Documents for the Test Plan:**

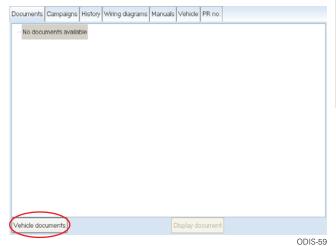
Displays documents for ALL automatic and attached test plans

#### **Documents for the Test Program:**

• Displays documents for the highlighted test plan

Depending on your choice, a list of documents may or may not appear. If the documents you're looking for don't appear, select the **Vehicle Documents** button at the bottom left of the screen.

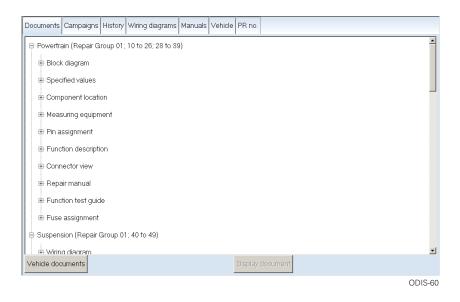




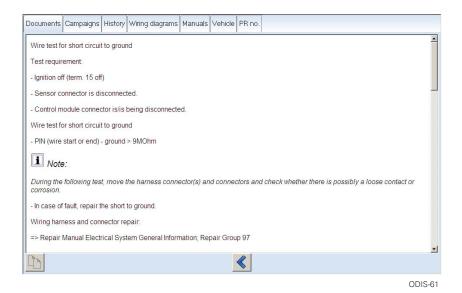


# **Documents (cont)**

Selecting the **Vehicle Documents** button brings up a folder list of all of the documents for the vehicle.



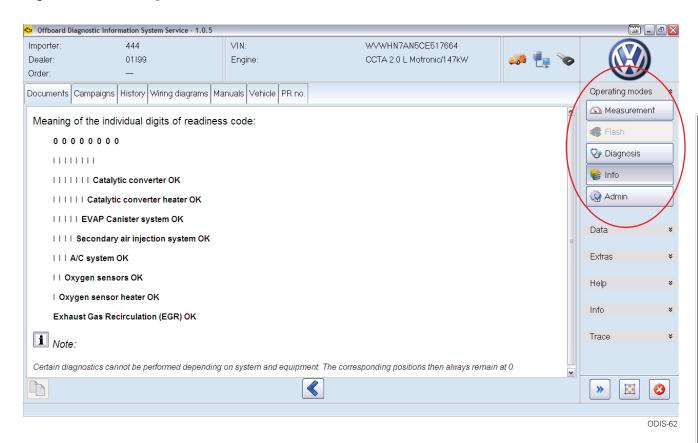
Expand the folders to view the documents. After you have located a document you want to view, select the **Display Document** button in the lower right corner of the window.





#### **Documents (cont)**

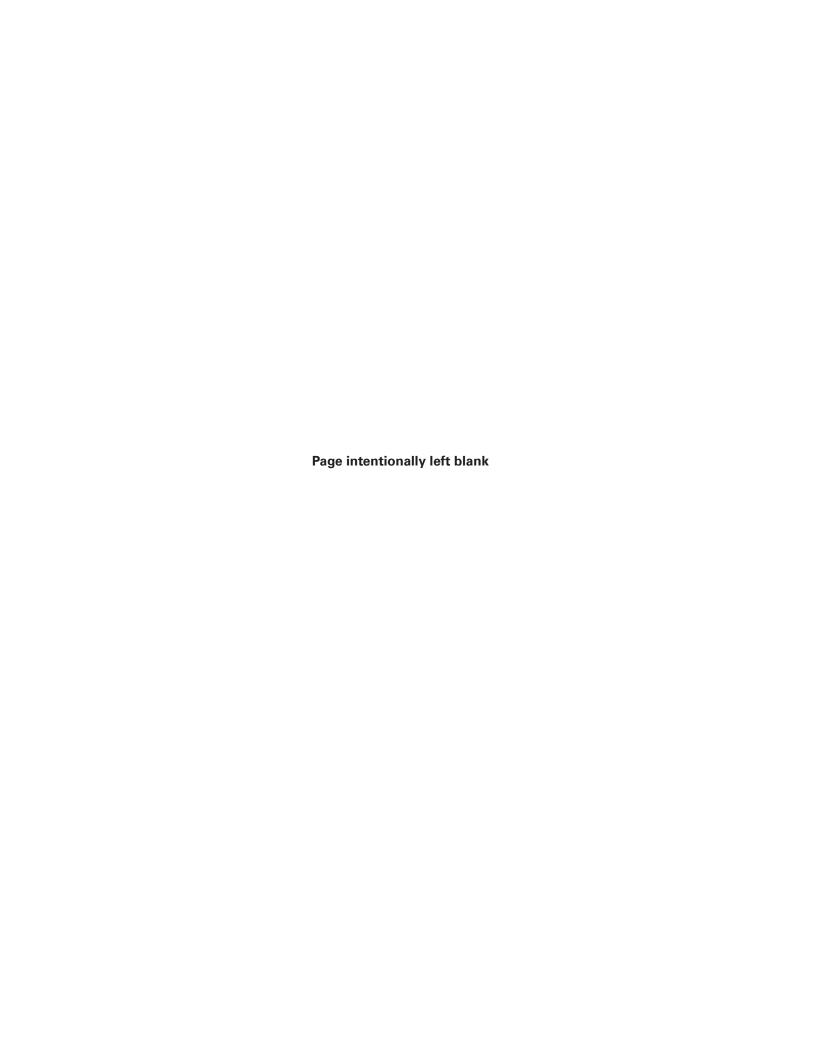
It is VERY IMPORTANT to note that selecting **Documents** exits the Diagnosis function of ODIS. After selecting **Documents**, you are now in the Info section. To return to any test plans or other diagnosis features, select the **Diagnosis tab** on the right side of the screen.





NOTE: The Search function in the right side screen menu under **Extras** can be used to search through all of ODIS, including **Documents**.





# Saving/Interrupting

Saving or interrupting a job requires you to use some of the menus on the right side of the screen.

Expand the Data section by selecting the arrows next to the work Data in the side menu area. Select the **Stop** button under Diagnostic Session.

A "Save As" window appears. This window already has the save location and filename in place. You can either accept these or change them.

If the job is saved to the default location (pictured), that tester can be used to restart the job later. If the job is saved to a USB memory stick, that job can be restarted on any tester loaded with ODIS.

After saving, a window may appear requesting you to either send a support inquiry or cancel. At this point, since you are saving the job for later, choose the **Cancel** option.





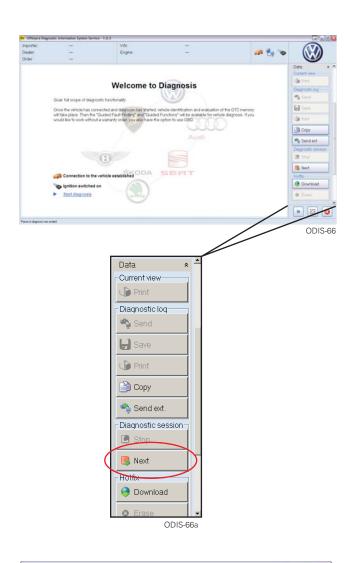


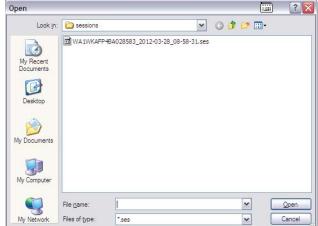
# Saving/Interrupting (cont)

After the job is saved, you return to the main ODIS window.

To load a saved job, expand the Data tab in the side menu area, and select the **Next** button. The tester must be in communication with the original vehicle to load the saved job. If ODIS detects a different VIN, the test program is ended.

A window appears listing the saved jobs. Select the job you want to load, then select **Open**.

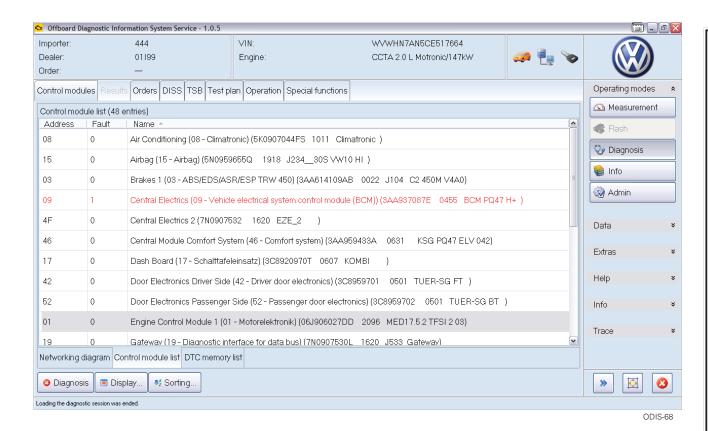


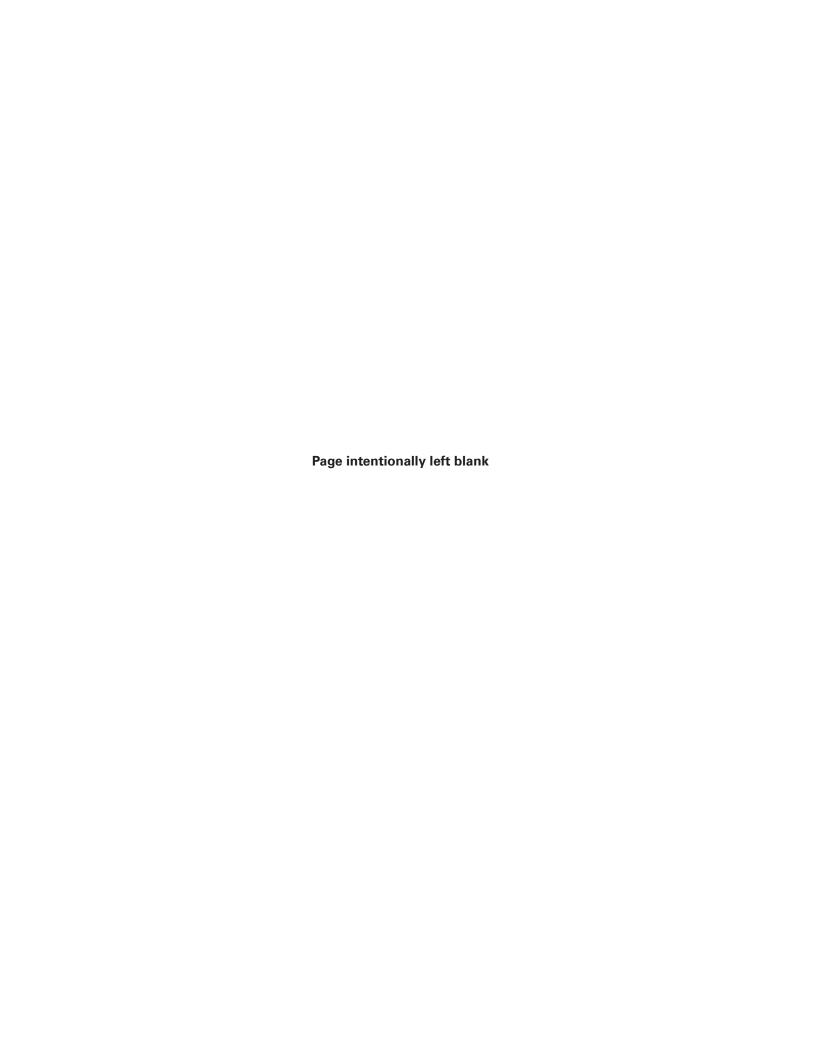




#### Saving/Interrupting (cont)

The vehicle information and diagnosis log are now loaded. Any DTCs that have occurred since the test plan was saved do not appear until the vehicle is scanned again.

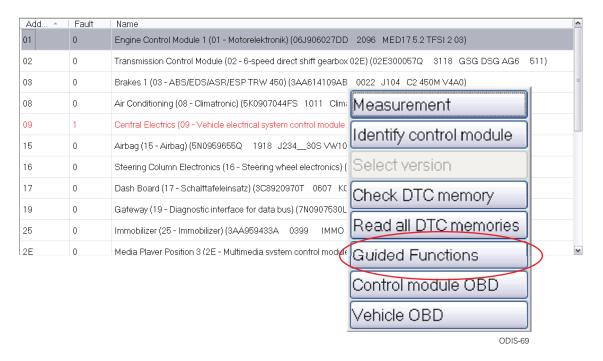




#### **Guided Functions**

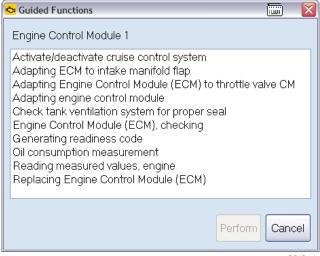
To access Guided Functions, right click on a control module in any of the Control Module screens. This example shows the Control Modules tab, but the menu can also be accessed from the Network Topology screen by right clicking on a control module.

Scroll down and select **Guided Functions**.



A list of functions appears.

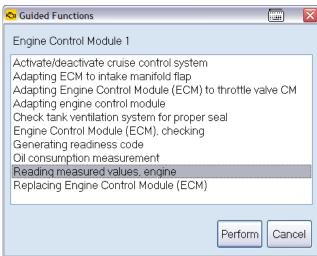
These functions are SPECIFIC to this control module, and not all of the available Guided Functions are available for all control modules.





### **Guided Functions (cont)**

Select the function you want, then select the **Perform** button.



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That test plan automatically launches.



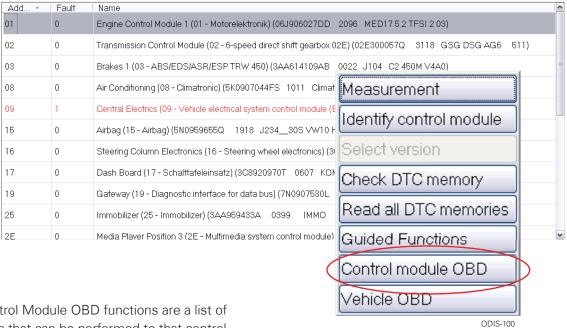
The test plan is not added to your Test Plan list.





#### **Control Module OBD**

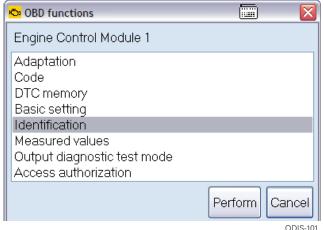
To access Control Module OBD, right click on a control module in any of the Control Module screens. This example shows the Control Modules tab, but the menu can also be accessed from the Network Topology screen by right clicking on a control module.



The Control Module OBD functions are a list of functions that can be performed to that control module. This function is different from the previous OBD operation in VAS-PC

The OBD Functions menu appears. Depending on the control module, different functions may be available.

We've chosen **Identification**.



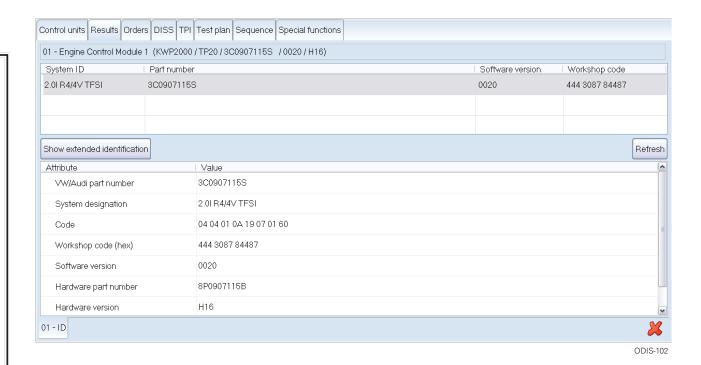


A Measured Values option is displayed in the OBD functions menu, as shown above. This OBD Function Measured Values interface is difficult to use. Use the Measured Values function located under Guided Functions.



# **Control Module OBD (cont)**

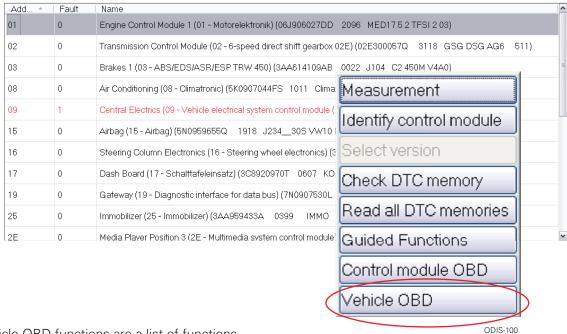
The screen switches to the Results tab. This screen shows the control module part number, coding and software versions.





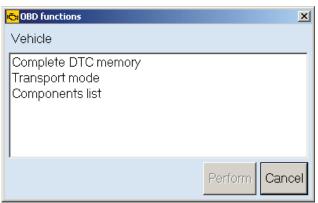
#### **Vehicle OBD**

To access Vehicle OBD, right click on a control module in any of the Control Module screens. This example shows the Control Modules tab, but the menu can also be accessed from the Network Topology screen by right clicking on a control module.



The Vehicle OBD functions are a list of functions that can be performed to all control modules in the vehicle.

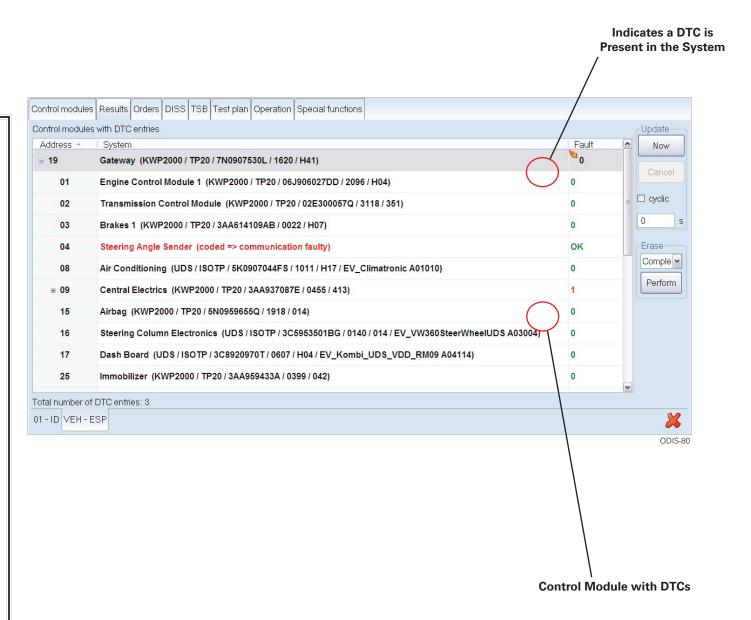
A menu appears with three options. These three options are covered in the following pages.





### **Vehicle OBD Complete DTC Memory**

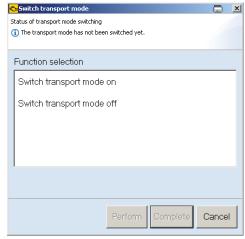
This option checks the DTC memory of the vehicle. This can be helpful to validate that the DTC has been eliminated after a repair.





### **Vehicle Self-Diagnosis Transport Mode**

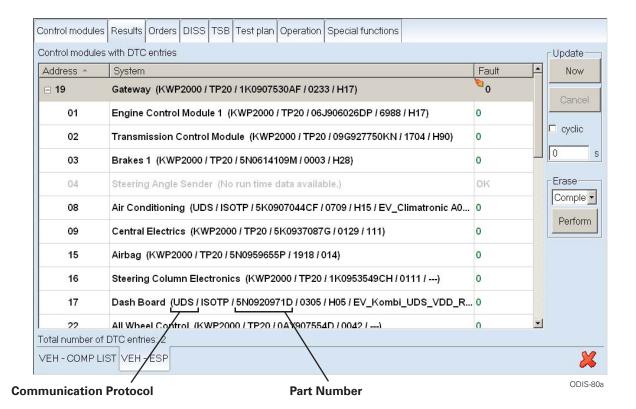
This option allows you to take the vehicle out of Transport Mode (and if necessary, put it back into Transport Mode).



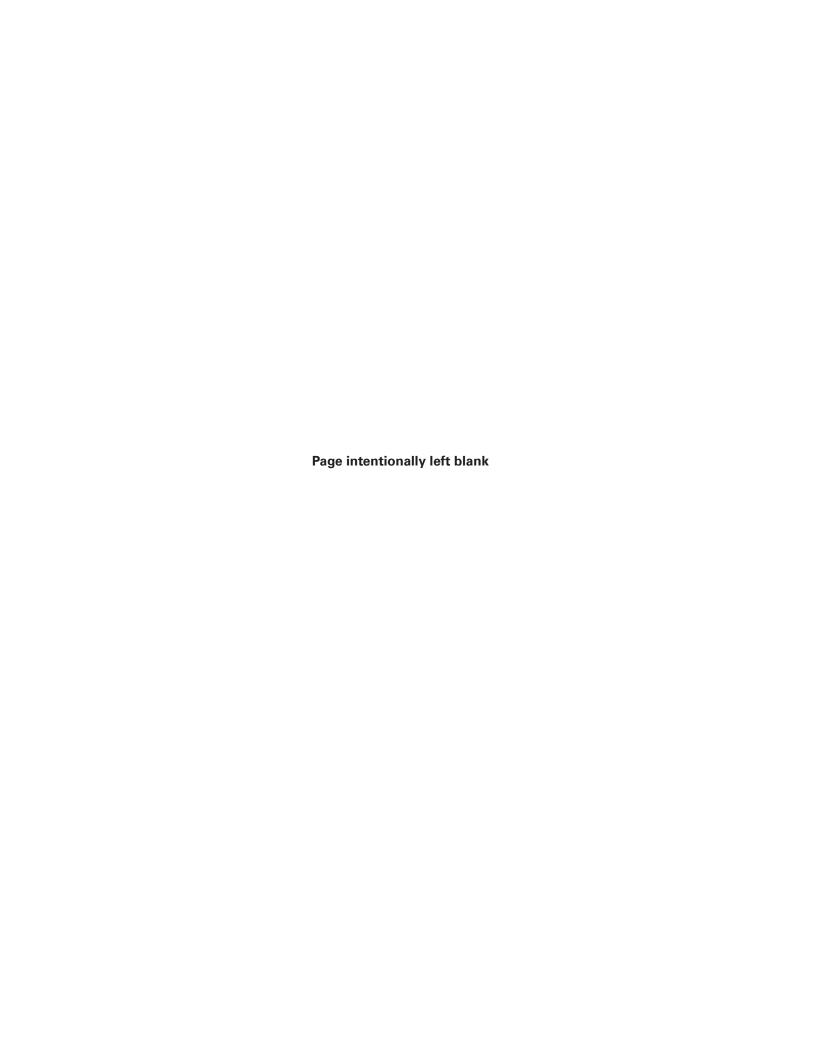
ODIS-81

#### **Vehicle OBD Component List**

This option lists all control module part numbers and their communication protocol.

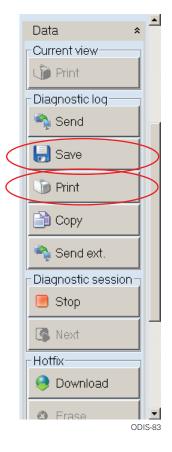




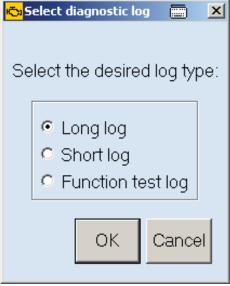


### **Diagnostic Logs, Printing and Saving**

Diagnostic logs can be printed or saved in multiple formats. To begin the process, expand the **Data** section in the Side Menu Area. From here, you can select **Save** or **Print**.



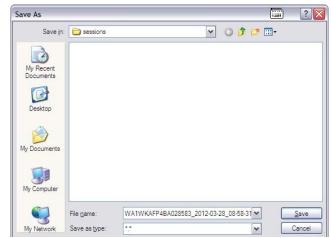
The menu that appears after selecting either **Print** or **Save** provides three options. Choose your desired option and select **OK**.





# **Diagnostic Logs, Printing and Saving (cont)**

If saving to a file, select the correct destination and change the filename (if necessary).



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A confirmation window appears with the filename and the destination where the file was saved.



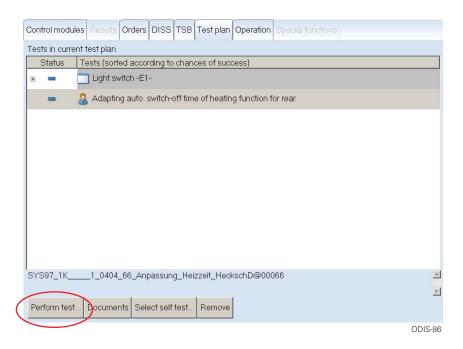
ODIS-85a



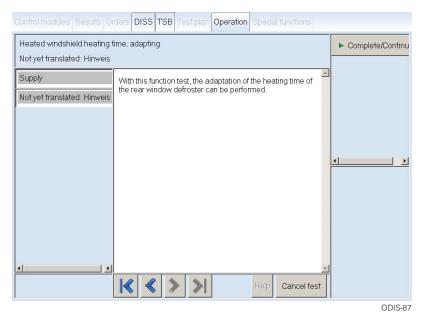
### **Performing Adaptations**

To start, review the Test Plans section to learn how to locate and load test plans. This section assumes you know how to load test plans and that the Adaptation test plan has already been loaded.

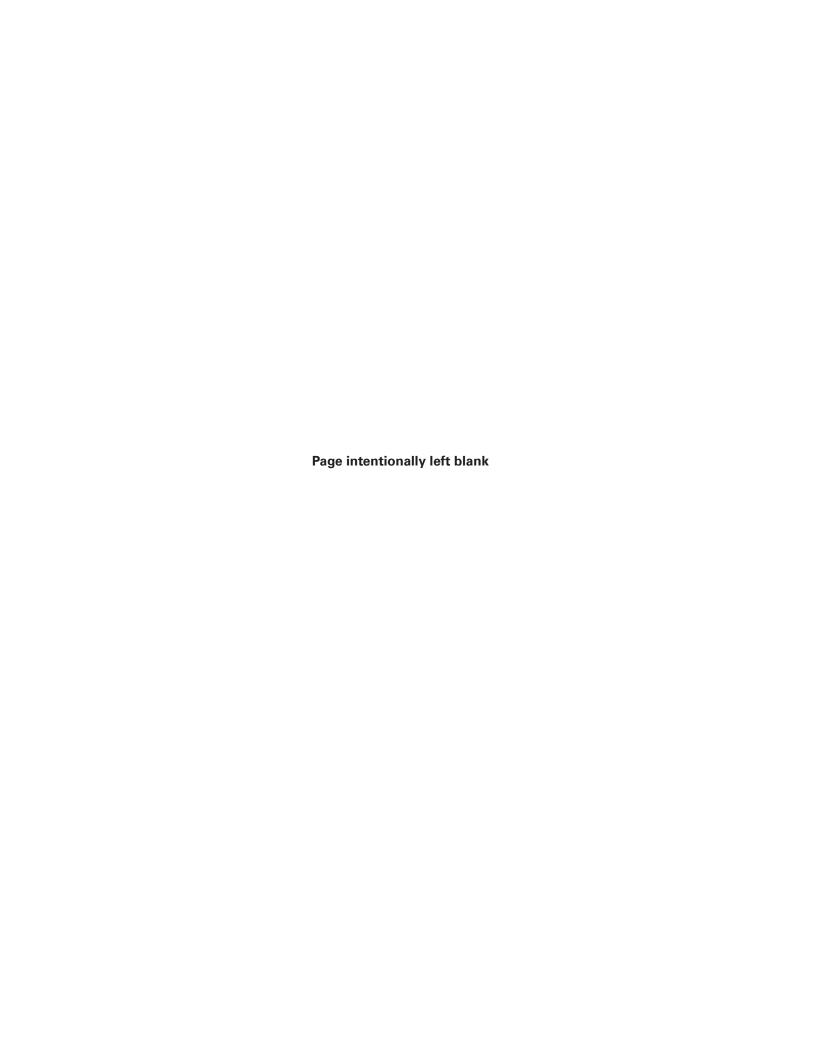
With your test plan selected, select **Perform Test** in the lower left of the screen. This test plan is for adapting the heating time of the rear window.



The test plan for running the rear window adaptation will load and run. Follow the test plan to perform the adaptation.

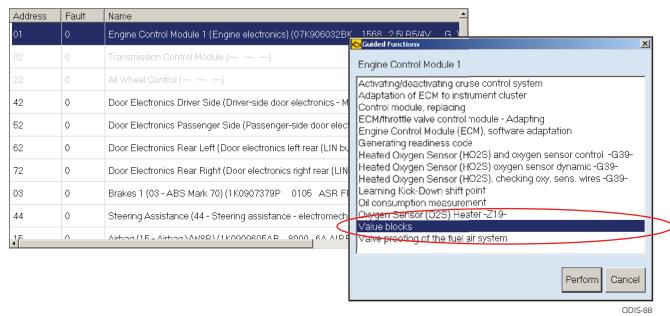




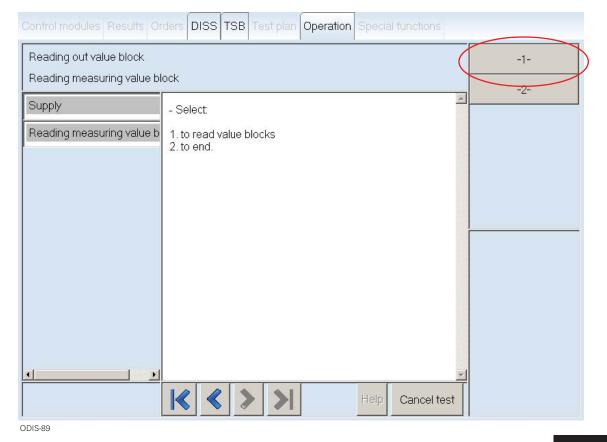


### **Measuring Value Blocks**

The quickest way to view Measuring Value Blocks for a control module is to right-click on that control module and select **Measured Values**.

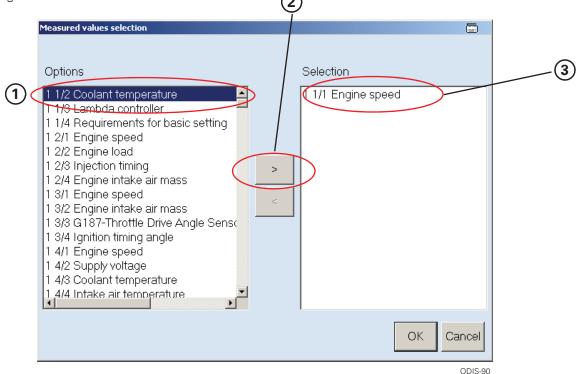


The Measuring Value Block GFF test plan launches. Select **1** to continue.



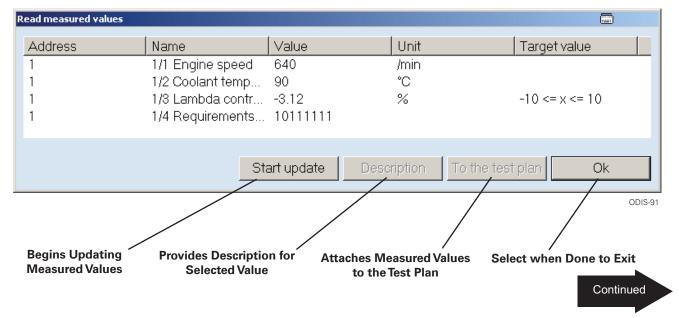
#### **Measuring Value Blocks (cont)**

A window appears that lists all of the available measured values for that control module on the right. To load a control module for reading, select it and click on the right arrow or double-click. The selected measured value will move to the right side. Multiple measured values can be selected by holding down the Control (CTRL) key and clicking on additional values.



The selected measured values appear in a new window. The **Start Update** button begins a cyclic update of the measured values. The **Description** button provides a description if a single measured value is selected. The **OK** button exits the Read Measured Values window.

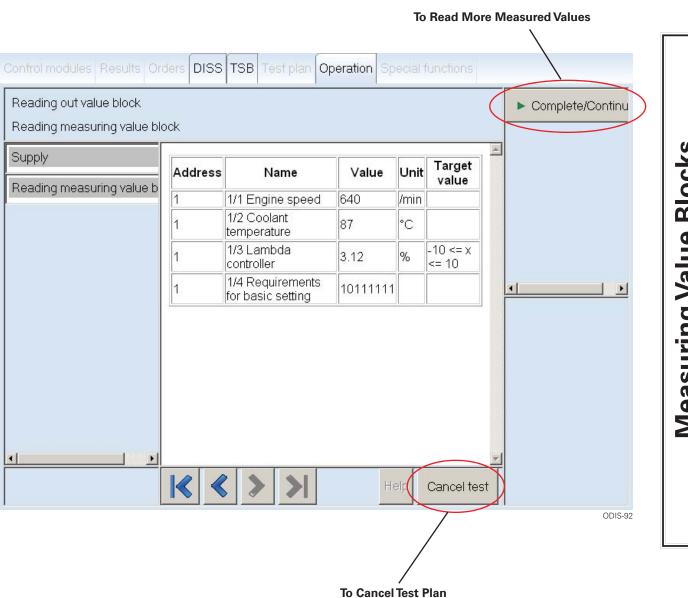
The Read Measured Values window can be resized, and each of the columns can also be resized to display more or less information.

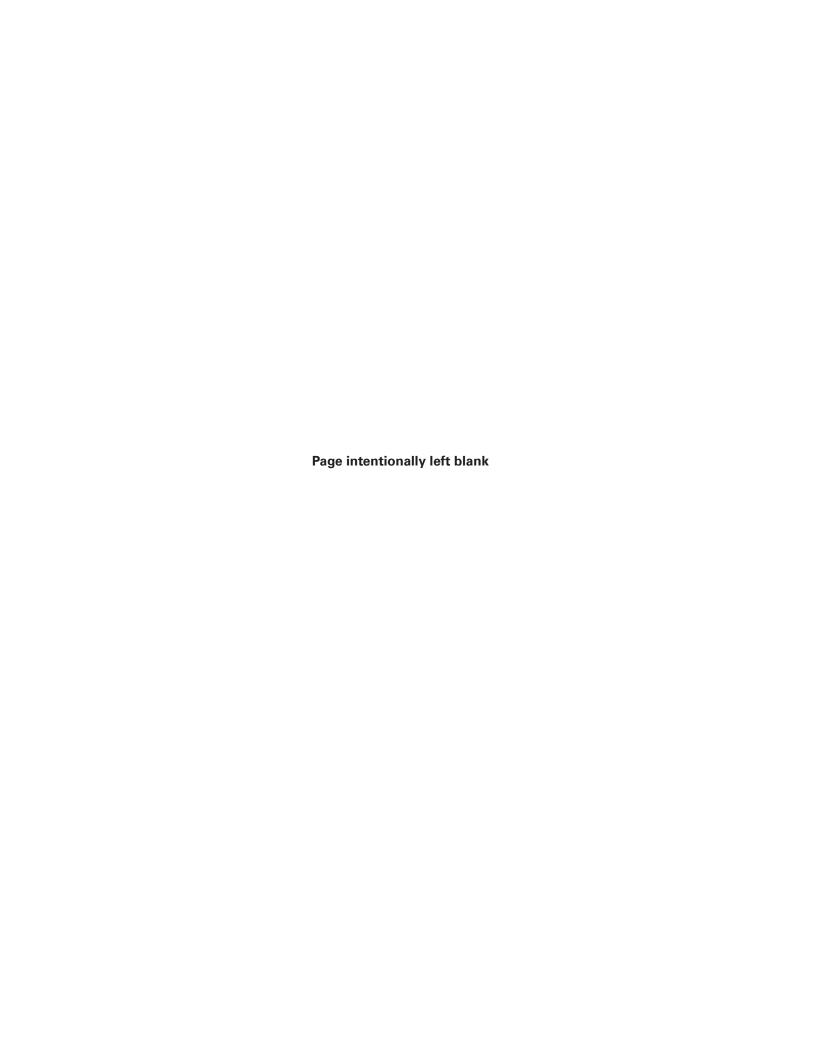


# **Measuring Value Blocks (cont)**

After the Read Measured Values window has been closed, the GFF test plan displays a graph of the measured values that were read.

At this point, the test plan can be exited, or more measured values can be read.





### **Support**

If you are having difficulty with the ODIS application or the test plans, you can quickly and easily let the developers know about it so that it can be quickly fixed.

First, select **Support** on the right side menu under Help.

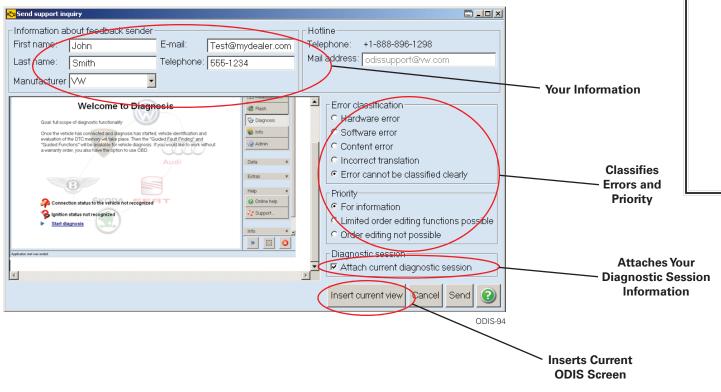


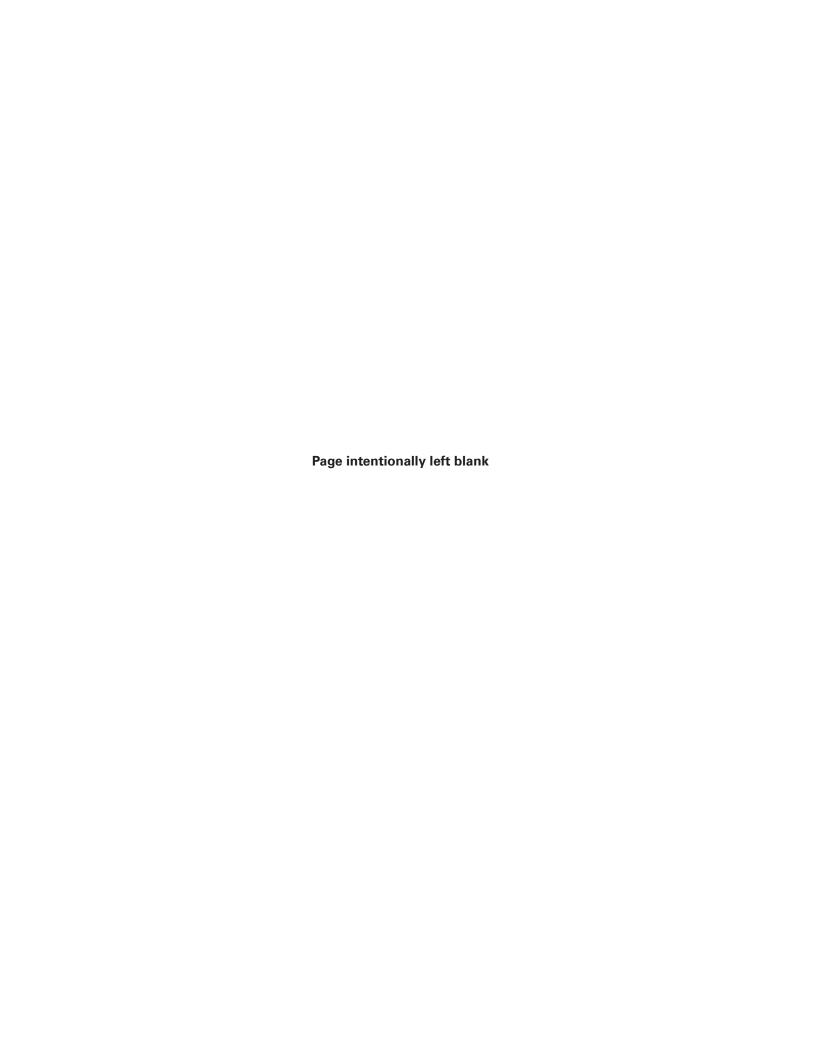
When the support window appears, type in your personal information and vehicle brand.

Also, classify your concern. The priority can be left at "For Information."

If you think it would be helpful, you can attach your diagnostic session, and the "Insert Current View" button can be used to place a screenshot into the support window.

When you are all done, select **Send** and your support information will be on its way to helping to improve ODIS.

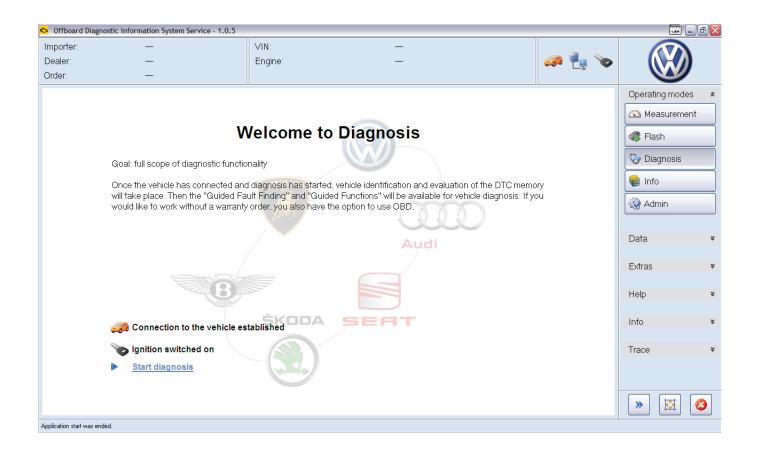




# **Knowledge Assessment**

This Reference Guide does not have a knowledge assessment. It is designed to be use as reference, or in conjunction with the ODIS Service Workbook 810223UC.

The ODIS Service Workbook 810223UC has an assessment of its own that can be found in the Certification Resource Center.



Volkswagen Group Canada Inc. 777 Bayly Street W. Ajax, Ontario L1S-7G7 May 2012

