DA-ST512

(DTC Read & Clear Application)
User's Manual

DTC Read & Clear Application

This application reads or clears fault codes (DTCs) from the vehicle or a selected vehicle bus. If the "Clear DTCs" option is selected this application will attempt to clear stored fault codes on the CAN networks, MOST network (optical network) nodes, SCP and/or ISO if supported. It should be noted that this functionality only works in vehicle normal mode, and that any permanent DTCs may re-log immediately or may require conditions to be satisfied before re-logging. There is also the opportunity to save the DTC information. This can then be printed next time the ST512 is connected to the PC via the DA App Hub.

Note: It is assumed that appropriate service actions have been performed on any known vehicle DTCs prior to any DTCs being cleared on the vehicle.

DTC Process

On starting the application the first menu displays three main options described below -

Read DTCs	- Read and display fault codes from detected vehicle ECUs.
Clear DTCs	- Clear fault codes from detected vehicle ECUs.
Advanced Mode: On/Off	- Indicates if advanced menu options are enabled or not and allows the current setting to be toggled if required.

If "Advanced Mode" is turned on selecting read or clear DTCs will display the sub-menu options below, otherwise this sub-menu will be skipped and a complete vehicle read or clear performed.

Complete Vehicle	- Read/Clear of ECUs on all networks (i.e. HS CAN, MS CAN, MOST & SCP).
HS CAN ECUs Only	- Read/Clear of ECUs on the HS CAN bus (J1962 pins 6 & 14).
MS CAN ECUs Only	- Read/Clear of ECUs on the MS CAN bus (J1962 pins 3 & 11).
MOST ECUs Only	- Read/Clear of ECUs on the MOST bus (via MS CAN gateway ECU).
SCP ECUs Only	- Read/Clear of ECUs on the SCP bus (J1962 pins 2 & 10).
ISO ECUs Only	- Read/Clear of ECUs on the ISO bus (J1962 pins 7 & 15) or DS2 bus (J1962 pin 8 only).
Select ECU Name	- Display list of all the detected ECUs and select one to read or clear.
Enter ECU Address	- Select vehicle bus then enter a target ECU address to read or clear (this is for experienced users only).

Select the required sub-menu option to either start a DTC read and display fault information or clear DTCs and display a confirmation.

Complete Vehicle, HS CAN, MS CAN, MOST, SCP or ISO ECUs Only

For Reading DTCs -

After selecting any of these options a DTC summary screen displays a list of detected ECUs and the total DTCs read from each module (sorted by highest DTC count first, then by ECU name). There are also options to **Save DTC Information** and **Clear DTCs** from all modules in the list.

By selecting an ECU containing faults the list of DTCs is displayed, plus an option to **Clear module DTCs**. Further information screens for an individual DTC can be viewed by selecting it and clicking **OK** a number of times. Press **X** at any point to return to the DTC list, then press **X** again to return to the DTC summary.

The information displayed for an individual DTC consists of it's description, type, status flags etc. The last screen is the snapshot menu (advanced mode only) allowing raw or decoded snapshot and extended DTC information to be displayed, or saved to an SD card if one is inserted.

For Clearing DTCs -

After detecting the vehicle ECUs each one is cleared in turn then a confirmation screen is displayed. (To re-read DTCs return to the main menu by pressing **X** and select "**Read DTCs**").

Select ECU Name

For Reading DTCs -

First a list of all detected vehicle ECUs is displayed, allowing one to be selected for reading. If fault codes are detected a list of DTCs is displayed and further information can be read as for the other options above. If no faults are detected the message "**No DTCs Logged**" is displayed.

For Clearing DTCs -

Again a list of all detected vehicle ECUs is displayed, allowing one to be selected for clearing. After the clear is complete a confirmation screen is displayed.

Enter ECU Address (experienced users only)

For Reading DTCs -

Select the vehicle bus from the menu (i.e. HSCAN, MSCAN, MOST, SCP, ISO or DS2) then enter an ECU address to be read using the arrow keys and **OK** to confirm (e.g. 7E0 for engine management). If fault codes are detected a list of DTCs is displayed and further information can be read as for the other options above. If no faults are detected the message "**No DTCs Logged**" is displayed.

For Clearing DTCs -

Again select the vehicle bus from the menu then enter a target ECU address to be cleared. After the clear is complete a confirmation screen is displayed.

Note: To enter a 29-bit CAN address precede the 8-bit node address with a zero (e.g. 010 for engine management).

Save DTC Print Information

The application allows DTCs to be saved to one of five memory blocks.

For Saving DTC Information -

First the DTCs must be read. Once the DTCs have been read it is then possible to select "**Save DTC information**". This will display a list of memory blocks, where a tick next to the block means it is empty or a cross means data has already been saved to it. Navigating to a used block will display the time and date when data was saved to it.

To save the current DTC data to a memory block select it then press **OK**. If the block is already in use you will also need to select **OK** on a confirmation screen to overwrite the existing data. Pressing **X** will return to the previous menu.

For Printing DTC Information -

To print the information saved to any of these blocks the ST512 should be connected to a PC via a USB cable. The DTCs can then be saved and printed using the DA App Hub by selecting the **DTC Report** tab. Each block is displayed with the VIN of the vehicle the DTC log was saved on and the date and time it was saved.

Selecting **Print Saved DTC** on the block you wish to print will allow you to save the DTCs in a PDF format (the default name will be the VIN and time). Once saved this can be viewed or printed.

Selecting **Erase Saved DTC** on a desired block will erase that block. Next time the ST512 is connected to a vehicle this block will be available to have DTCs saved to it.
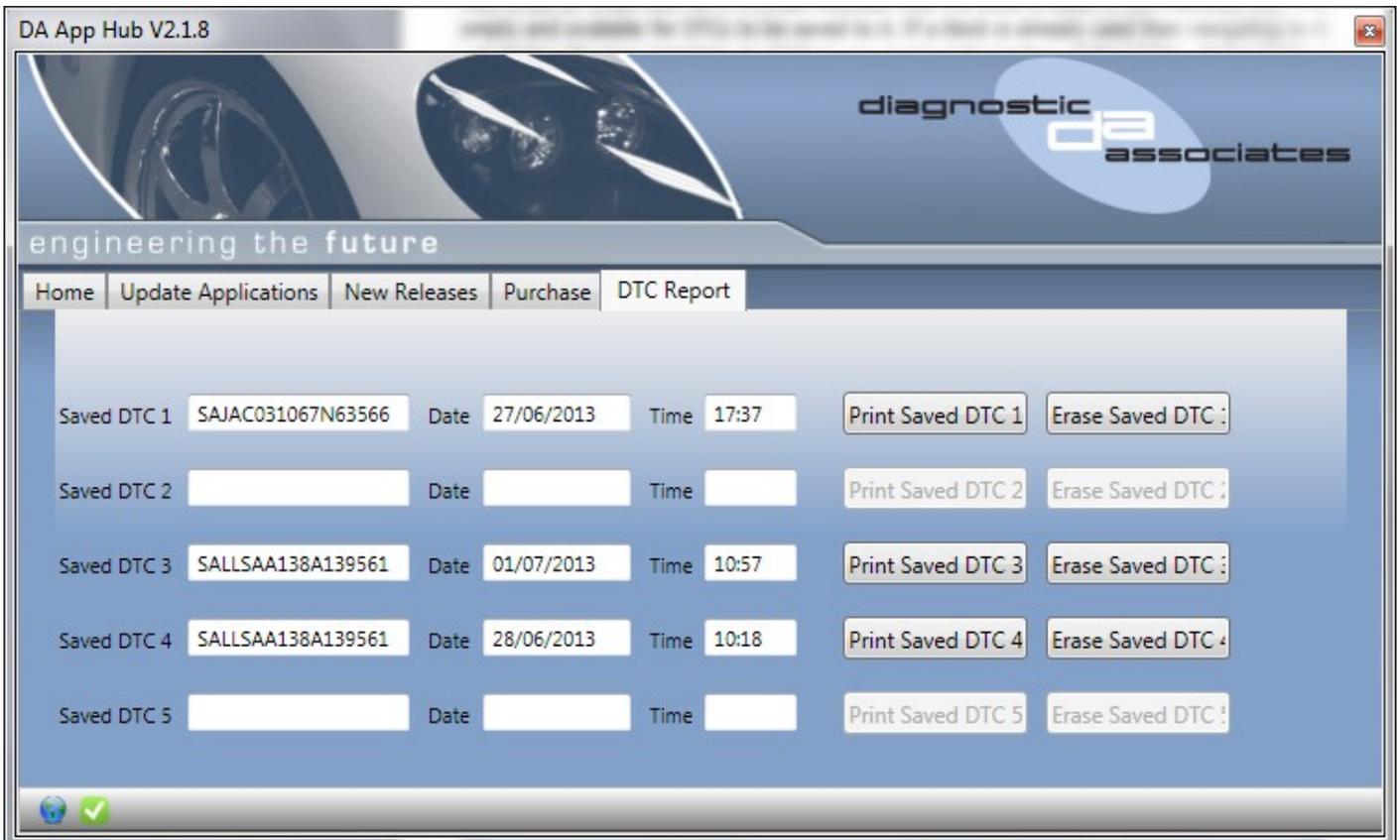
DTC Read & Clear Model Year Updates

The software associated with the DTC Read & Clear application is updated periodically to increase it's coverage for new JLR vehicles and model year updates. You can check for these updates by connecting your device to a PC via the supplied USB cable, and launching the DA App Hub. This tool will connect to the Diagnostic Associates file server and check to see if a newer version of the DTC Read & Clear application is available to download.

DTC Read & Clear Supported JLR Vehicles

The following JLR vehicles and associated model years are supported by the DTC Read & Clear application at the time this user manual was produced. To obtain an up-to-date version of this table you should visit the Diagnostic Associates website.

Jaguar & Land Rover Vehicle Coverage												
DTC Read & Clear												
Vehicle / Model Year	<MY05	MY05	MY06	MY07	MY08-MY09	MY10-MY11	MY12-MY13	MY14	MY15	MY16	MY17	MY18-MY19
Defender	-	-	-	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	-	-
Discovery/LR3/LR4	-	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Range Rover Velar	-	-	-	-	-	-	-	-	-	-	Yes	Yes
Range Rover Sport	-	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Range Rover	-	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Freelander/LR2	-	-	-	Yes	Yes	Yes	Yes	Yes	Yes	-	-	-
Evoque	-	-	-	-	-	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Discovery Sport	-	-	-	-	-	-	-	Yes	Yes	Yes	Yes	Yes
XJ - New	-	-	-	-	-	Yes	Yes	Yes	Yes	Yes	Yes	Yes
XJ - Old (MY98>)	Yes	Yes	Yes	Yes	Yes	-	-	-	-	-	-	-
XK - New	-	-	-	Yes	Yes	Yes	Yes	Yes	Yes	-	-	-
XK - Old (MY97>)	Yes	Yes	Yes	Yes	-	-	-	-	-	-	-	-
XF	-	-	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
XE	-	-	-	-	-	-	-	-	-	Yes	Yes	Yes
E-Pace	-	-	-	-	-	-	-	-	-	-	Yes	Yes
F-Pace	-	-	-	-	-	-	-	-	-	Yes	Yes	Yes
I-Pace	-	-	-	-	-	-	-	-	-	-	-	Yes
F-Type	-	-	-	-	-	-	-	Yes	Yes	Yes	Yes	Yes
S-Type (MY99>)	Yes	Yes	Yes	Yes	-	-	-	-	-	-	-	-
X-Type (MY01>)	Yes	Yes	Yes	Yes	Yes	-	-	-	-	-	-	-
(Yes) - Covered for MY : (Yes*) - CAN protocol ECUs only currently : (-) - N/A												