



**SP Diagnostics - [www.spsupport.com](http://www.spsupport.com)**



**SP Diagnostics SD-MAT**

# **Getting Started Guide**



## INTRODUCTION

### Please read this information carefully before using your new SPD SD-MAT tool

Thank you for purchasing your SPD SD-MAT tool. We at SP Diagnostics believe that you will have many years of successful business as a result of your investment and it is our aim to ensure that you will remain as up-to-date as possible.

Always ensure you have the latest version of software and vehicle data that is available. Follow the instructions for **Software Update** procedure.

Please refer to this manual when using the tool and don't hesitate to contact your distributor if you experience any difficulty with it.

### Safety Information



- Always wear eye protection when handling batteries.
- Keep batteries away from children.
- No smoking, avoid open flames or creating sparks near batteries.
- Explosion hazard. Batteries emit an explosive mixture of hydrogen and oxygen during and after charging.
- Corrosive hazard. Wear protective equipment to shield eyes, hands, and clothing

### Product Details:

Modern battery management systems used in today's vehicles require their systems to be reconfigured each time a battery is fitted, the SD-MAT tool allows you to reconfigure the stored battery data on these modern vehicles.

The SD-MAT tool allows you to enter the new battery information quickly and simply, it can also display the current battery's details. In addition, the SD-MAT can be used to initiate a diesel particulate filter regeneration.

- Regeneration must be undertaken on a level concrete surface.
- Regeneration must be undertaken externally and must not use exhaust extraction instead.
  - Must be undertaken away from combustible materials.
- Regeneration will generate high levels of heat and noise whilst being undertaken, you will need to:
  - Ensure adequate levels of fuel are available and regeneration must not be started if the fuel light is on.
  - Essential that the level of engine oil is checked to ensure sufficient is available.
  - Ensure that timing belts have been replaced in line with the manufacturer's service levels.
- Regeneration cannot repair worn or damaged components.
- Regeneration can take between 5 – 60 minutes dependent on the manufacturer.




## Features:

- Replacement of vehicle batteries
- Display of battery condition
- Display of battery replacement history
- Regenerates Diesel Particulate Filters
- Resets EOLYS Additive Lights
- ID Fault Codes
- Filter Replacement Function
- Static Regeneration
- Numerous Systems Covered
- Supports Vehicles from 2000 on

## SPD SD-MAT tool Navigation:

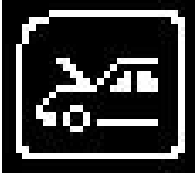


## USER INTERFACE:

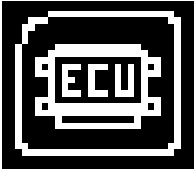
	<p>Navigation buttons</p> <ul style="list-style-type: none"><li>• The arrow keys are used to navigate through the menus.</li><li>• The OK button is used to confirm a selection.</li><li>• The ESC button is used to go back to the previous screen.</li></ul>
	<p>The mini USB connector is used to connect to a PC to allow you to update the SPD SD-MAT tool with additional software.</p>
	<p>The J1962 connector needs to be connected to the vehicle's OBD socket in order to get power and make communications with the particular vehicle.</p>

## Menu & Icons

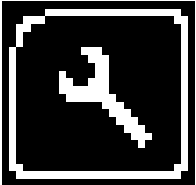
### Main Menu



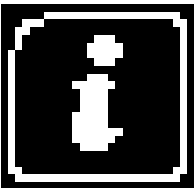
Diagnostic / Vehicle Selection Icon – Select this to go into Vehicle Specific Serial Diagnostics



Diagnostic / ECU Selection Icon – Select this to go into ECU Specific Serial Diagnostics

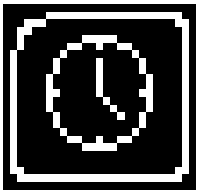


System Setup Icon – Select this to configure the various settings of the SPD SD-MAT Tool

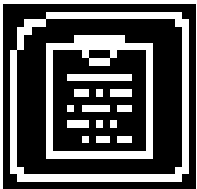


Information Icon – Select this to display software and hardware version information

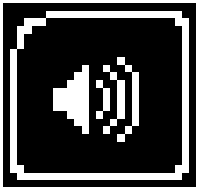
## System Setup Menu



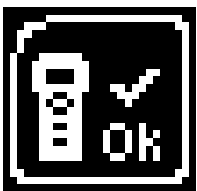
Clock Icon – Select this to view the date and time of the SPD SD-MAT Tool



Garage Information Icon – Select this to display your user details. This is changed through the PC Suite



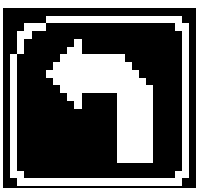
Volume Icon – Select this to turn the sounder ON or OFF



Test Icon – Select this to carry out hardware tests on the SPD SD-MAT Tool if requested by Technical Support



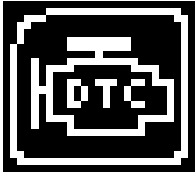
Language Selection – Select this icon to change the language used by the SPD SD-MAT Tool.



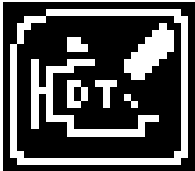
'Back' Icon – Select this to return to the previous menu



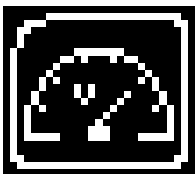
## Additional Icons used (depending on Software purchased)



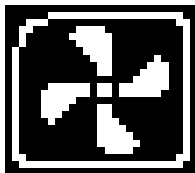
**Diagnostic Trouble Codes** – Select this to read the Diagnostic Trouble Codes on the vehicle you are currently diagnosing.



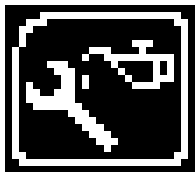
**Erase Diagnostic Trouble Codes** – Select this to clear the Diagnostic Trouble Codes on the vehicle you are currently diagnosing.



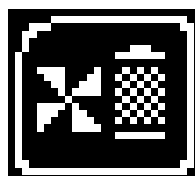
**Live Data** – Select this to display Live Data (Components) for the vehicle you are currently diagnosing.



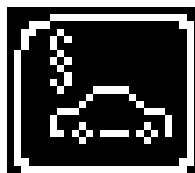
**Actuator** – Select this to run actuators for the vehicle you are currently diagnosing.



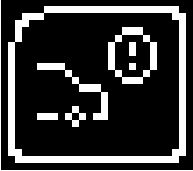
**Service** – Select this to access service related functions only. Service functions are also accessible under the vehicle selection option.



**Micro Filter** - Heating, air conditioning or automatic air conditioning: replace micro filter/carbon canister this is important because micro filters trap 80% of the pollen and traffic fumes before it gets into the cabin, helps keep drivers and passengers alert and helps demist windows quickly even on a rainy winter's day.

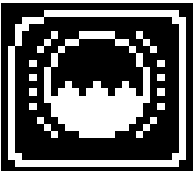


**Statutory Inspection** - (where relevant) - Statutory inspection for vehicles 3 years and older

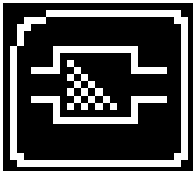


**Rear Brake Pads** - Brake pads are changed, and the brake caliper cavities are cleaned. Failure to get your brake pads matched correctly will result in a brake imbalance front to rear on your vehicle, and if the calipers are cleaned, any squeaking in the brakes should be diminished.

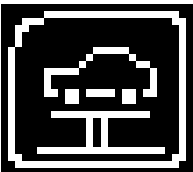
Brake discs:- Surface and thickness - the importance of having a safe level of thickness in your brake discs is paramount to your driving safety; if necessary, the brake discs will be replaced.



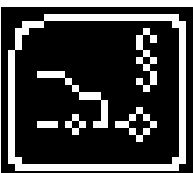
**Brake Fluid** - Brake fluid is changed. The problem with brake fluid is that it absorbs moisture from the air quickly. This is important because the amount of moisture in your brake fluid affects your vehicle's performance.



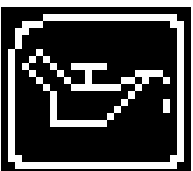
**Fuel Filter** - Diesel filter is changed. This filter is important to the general efficiency of diesel engines. As the fuel passes through this filter, unwanted particles and residue will become trapped, so that the fuel is passing to the engine is 'clean'. Therefore, this filter has to be replaced when indicated to ensure that your engine is running at optimum performance.



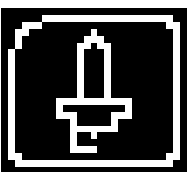
**Vehicle Inspect** – General inspection of the vehicle.



**Emissions Test** – This is part of the statutory test that tests the emissions fall within the limits required.



**Engine Oil** - The engine oil and oil filter are changed because keeping the oil at the right level and clean is vital to the protection and longevity of the life of movable engine parts. Also, if you do a lot of short journeys, your oil filter will be more susceptible to blockages caused by the condensation of water in the oil.



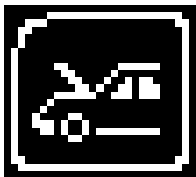
**Spark Plugs** - Spark plugs are replaced. When it comes to fuel efficiency, spark plugs are one of the most critical parts of a petrol/gasoline car's engine. Defective spark plugs can result in worsening emissions and increased fuel consumption, and can even result in misfires if not replaced. Replacing these worn spark plugs will improve the performance of the engine.

## Quick Start Guide

Now you are ready to start using the SD-MAT Tool to diagnose faults and also carry out service functions on the range of cars covered



Connect the SD-MAT Tool to a vehicle using the 16 Pin Diagnostic plug. The SD-MAT Tool will then power up and take you to the Main Menu screen.



Using the keypad, navigate to the Manufacturer Icon and press OK.

Using the keypad to navigate up and down the menus you will be given the following options:

Select the **Manufacturer**

Select the **Model**

Select the **Type** of system

Select the **Size** of the engine

Select the **Fuel** type

Select the **Year** of the vehicle

Select the **Variant** of the vehicle

Select the **Engine Code** (if applicable)

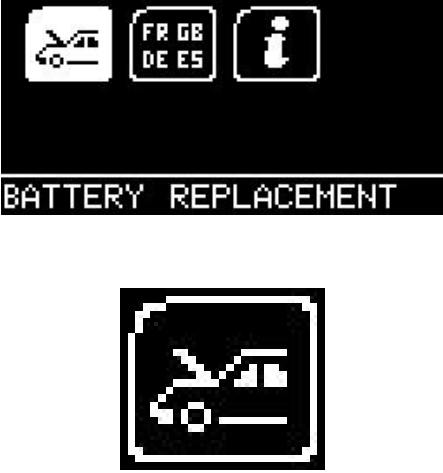


Finally you will be shown the **System** or **Systems** fitted to that choice of vehicle

**The SPD SD-MAT Tool will now load the correct software and establish communications with the vehicle!**

## Coding a Battery to a Vehicle



Now you can start using the SPD SD-MAT tool to configure the battery to the vehicle and diagnose faults on the range of cars covered.

### Example system:

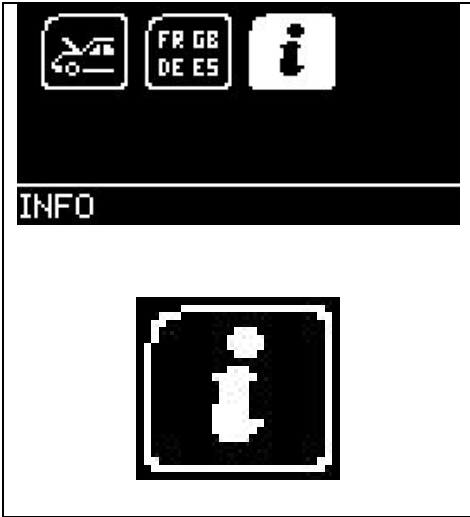
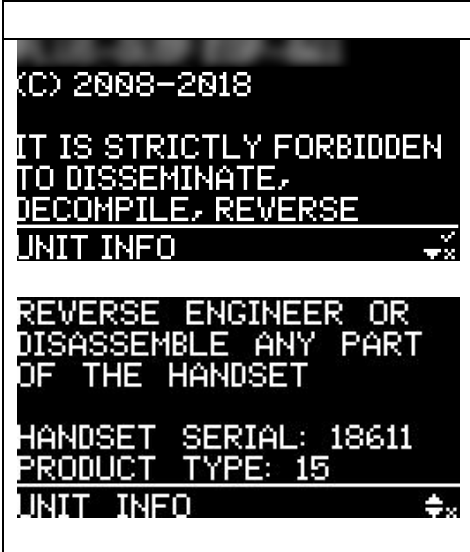
	<p>First replace the old battery with the new one, ensuring the key is <b>not</b> in the ignition.</p> <p>Connect the SPD SD-MAT tool to a vehicle using the 16 Pin Diagnostic plug.</p> <p>The tool will take you to the Main Menu screen.</p> <p>Using the keypad, navigate to the battery replacement option and press OK.</p>
	<p>Using the keypad to navigate up and down the menus you will be given the following options:</p> <ul style="list-style-type: none"><li>• Select the <b>Manufacturer</b>. You will then be asked to switch the Ignition On</li><li>• Select the <b>Function</b>. Select Validate Battery</li><li>• Follow on screen instructions</li></ul>
	<ul style="list-style-type: none"><li>• Select the <b>Validate Battery</b>.</li><li>• Follow on screen instructions<ul style="list-style-type: none"><li>○ The system will register a new battery to the vehicle</li><li>○ You will be informed if battery validation was concluded successfully.</li></ul></li></ul>

## Changing the preset Language

If you want to change the language the tool displays, you can select this option and choose the language you wish to use. This will then be stored in memory until you change it again.

 <p>The screenshot shows a black background with three icons at the top: a keypad icon, a language selection icon with 'FR GB' over 'DE ES', and an information icon. Below the icons, the word 'LANGUAGE' is displayed in white capital letters. In the center, a larger version of the language selection icon is shown, which is a square with a double border containing 'FR GB' on the top line and 'DE ES' on the bottom line.</p>	<p>Using the keypad, navigate to the Language Icon and press OK.</p>
 <p>The screenshot shows a black background with the text 'SELECT LANGUAGE' at the top. Below it, a list of language options is displayed in white capital letters: 'ENGLISH', 'FRANCAIS', 'ESPANOL', 'DEUTSCH', and 'EXIT'. A white arrow points to the left of the word 'ENGLISH'.</p>	<p>Select the required language.</p> <p>The system will register and remember your selection. The selected Language will now be the default language used.</p>

## Information screen

 <p>The screenshot shows a handset keypad with three icons: a handset, a language selection menu (FR GB / DE ES), and an information icon (a lowercase 'i' in a circle). The information icon is highlighted with a white border.</p> <p>INFO</p>	<p>Using the keypad, navigate to the Information Icon and press OK.</p>
 <p>The screenshot shows the handset information screen with a warning message and unit details. The text is as follows:</p> <pre>(C) 2008-2018 IT IS STRICTLY FORBIDDEN TO DISSEMINATE, DECOMPILE, REVERSE UNIT INFO</pre> <hr/> <pre>REVERSE ENGINEER OR DISASSEMBLE ANY PART OF THE HANDSET HANDSET SERIAL: 18611 PRODUCT TYPE: 15 UNIT INFO</pre>	<p>The information screen is displayed with a warning along with the Serial number of the unit and the product identification number.</p> <p>You may be asked to navigate to this screen by technical support to establish the serial number of your handset.</p>

## **SOFTWARE UPDATE**

### **Overview:**

Software updates are done through an update suite that is available to download from the SPD SD-MAT tool website.

[spdiagnostics.com/sdmat](http://spdiagnostics.com/sdmat)

Download and install the application suite using the application suite user guide for help if required.

Once the suite is installed you simply need to follow the steps shown on screen to update the handset to the latest software.

### **Minimum requirements:**

Windows PC running Windows 7/8/10

5MB of free disk space

Free USB port

## **COPYRIGHT AND WARRANTY**

### **Copyright:**

SPD SD-MAT tool is made by SP Diagnostics and it is strictly forbidden to disseminate, decompile, reverse engineer or disassemble any part of the hardware or software incorporated within it or associated with it and is protected by international law.

### **Warranty:**

This tool is warranted to be free of defects in materials and workmanship for a period of two years from the date of purchase. SP Diagnostics and the manufacturer will, at our option, repair the unit or replace the unit with a remanufactured tool. This limited warranty applies only to SPD SD-MAT tool and does not cover any other equipment, static damage, water damage, overvoltage, dropping unit or damage resulting from extraneous causes including owner misuse. SP Diagnostics and the manufacturer are not liable for any incidental or consequential damages for breach of this warranty. The warranty is void if owner attempts to disassemble the unit or modify the cable assembly.





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