# Service Information

Volkswagen

**Diagnostic Device Hardware & Windows®** **Number: VHW-17-05**

**Subject: VAS 6154 Diagnostic Interface – Initial Setup Guide** **Date: Feb. 08, 2017**

***Supersedes VHW-16-07 due to additional information***

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**ATTENTION!**

**Personnel tasked with preparing VAS 6154 for workshop service must have knowledge of networking systems, and specific working knowledge of the dealership LAN / WLAN, as well as any security restriction measures in place that could affect its access and use.**

***Notes***:

- ***Personnel with working knowledge of their dealership LAN / WLAN should read this guide in its entirety before performing any configurations. Personnel who do not have working knowledge of the dealership LAN / WLAN or do not otherwise understand the information contained in this guide must ask a qualified person to perform the initial setup.***
- *Heed all prerequisite requirements and notes. Perform all instructions in the section order given and heed all* ***cross-references to sections in the VAS 6154 User's Guide on CD.***
- *This guide may be revised at any time. Always check ServiceNet for the latest version.*



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## 1.0 – Introduction and Process Overviews - MUST READ!

### 1.1 – General Information

This document describes the **initial setup** and configuration of a **new VAS 6154 prior to startup** on a diagnostic laptop or tablet device with ODIS Service diagnostic software.

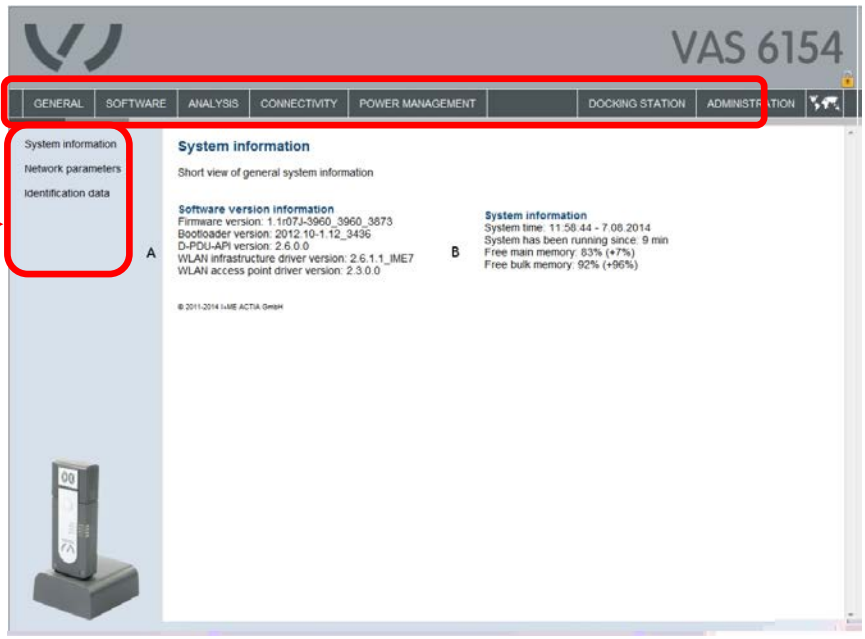
### 1.2 – Web Interface – Overview

The initial setup configurations are performed with the VAS 6154 (and connected WLAN Module) plugged in to the base station, which is connected to the diagnostic device. A network address entered into the web browser on the diagnostic device generates a web interface in which the configurations are performed:

**VAS 6154 in Base Station** **Diagnostic Device** **Web Interface for Configurations**

The configuration and information display layout on the VAS 6154 web interface is similar to ODIS Service.

- The **Main Categories** are listed horizontally:
- Selecting a Main Category reveals a number of **Subcategory** menus listed vertically in the left margin:
- The initial setup and configuration instructions that follow will specify a **Main Category** and an applicable **Subcategory** with the necessary instructions.



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## 1.3 – Initial Setup and Configuration - Overview & Checklist

All configuration selections, pre-set default settings, and any changes to default settings that may be necessary must be **"Accepted"** during the web interface procedures.

After all configurations are made, their parameters must be saved by **"Rebooting"** the VAS 6154 module.

The setup and configuration processes **must be performed in the step-by-step order specified below:**

**Check ☑ when completed:**

| Initial Setup & Configuration Checklist | | | | |
|---|---|---|---|---|
| **Step** | **Instructions** | | **Subsection** | ☑ |
| **1** | Preparation Prerequisites | | **2.1** | |
| **2** | Install Base Station Network Drivers | | **2.2** | |
| **3** | Prepare WLAN Module | | **2.3** | |
| **4** | Configure Web Interface Language | | **2.4** | |
| **5** | Unlock Communication Modes | | **2.5** | |
| **6** | Identify WLAN Module | | **2.6** | |
| **7** | Configure Connection Parameters (Subsection **2.7**)* | for WLAN Infrastructure | 2.7.1 | |
| | | for WLAN Direct | 2.7.2 | |
| | | for USB Connection | 2.7.3 | |
| **8** | Reboot Module | to save configurations | 2.7.4 | |
| **9** | Perform Module Self-Test | | 2.7.5 | |
| **10** | Setup USB Module and Install USB Drivers | | **3.0 / 3.1** | |
| *Separate configurations are required for each communication method | | | | |

| **Optional Setting** instructions located on the **User's Guide on CD:** | **User's Guide on CD Section** |
|---|---|
| Power Management (auto-shutdown and warning buzzer) | 2.5.7 |
| Roaming Settings (WLAN Infrastructure only) | 2.5.9.3 |
| Password Settings | 2.5.11 |



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## 2.0 – Initial Setup and Configuration

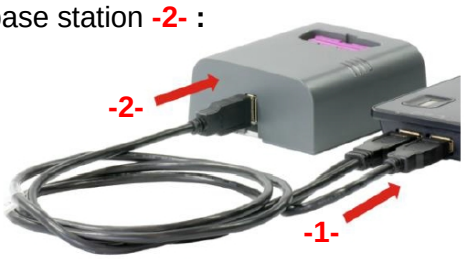
### 2.1 – Preparation Prerequisites – MUST READ!

**ATTENTION!**
**Ensure a successful setup by using the checklist and preparing accordingly!**

| ☑ | Prerequisites |
|---|---|
| | **Person preparing VAS 6154 for service has knowledge of networking systems, and specific working knowledge of the dealership LAN / WLAN.** |
| | **Service Information** document: **VAS 6154 Diagnostic Interface – Introduction Guide** read and understood. |
| | Dealership network performance recommended: **6 Mbps** (single franchise) / **8 Mbps** (dual franchise). |
| | Diagnostic device operating system is known: Either **Windows® 7** or **Windows 10** |
| | VAS 6154 must be able to connect to the same Dealership WLAN as the diagnostic device. |
| | Free IP addresses are available on the WLAN (where applicable). |
| | WLAN must support **WPA2 encryption**. (It is not possible to connect to other types or open connections.) |
| | **Broadcast services are not blocked** by a network firewall or other security measures. |
| | The latest ODIS Service application version is installed on the diagnostic device. |
| | Diagnostic device plugged in to power adapter and booted to Windows desktop. |
| | Wireless switch on diagnostic device in **ON** position, ("Wireless LAN ON" & "802.11a Enabled"). |
| | Diagnostic device connects to, and functions without restriction on dealership network. |

### 2.2 – Install Base Station Network Drivers

1. Connect the **double end** of USB-Y cable to available USB ports on diagnostic device **-1-** , and then connect the **single end** to base station **-2- :**




2. **Wait** for Windows to locate and automatically install the drivers.
   - ☐ Windows 7: A confirmation window appears near the taskbar.
   - ☐ Windows 10: A very brief progress graphic appears in the taskbar.



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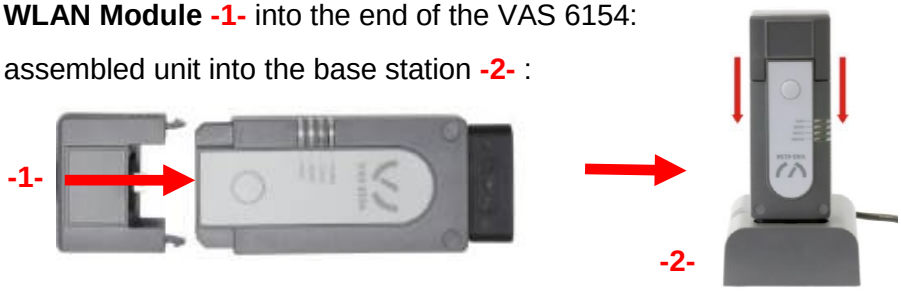
## 2.3 – Prepare WLAN Module

1. Plug the **WLAN Module -1-** into the end of the VAS 6154:
2. Plug the assembled unit into the base station **-2-** :




## 2.4 – Configure Web Interface Language

A **one-time configuration** is necessary to set the language displayed by the web interface.

1. **Open Internet Explorer** and **manually enter** the following IP address in the browser's address bar:

**http://192.168.1.69** (optional: **http://vas6154-dock**):

**A delay before the web interface language selection appears is normal… please be patient!**

**If a connection is not established, ensure all connections are secure and then Refresh (F5) the IP address (or enter the optional address).**

2. Select the desired **interface language**, scroll down and apply the selection by clicking the **checkmark:**

**(cont.)**



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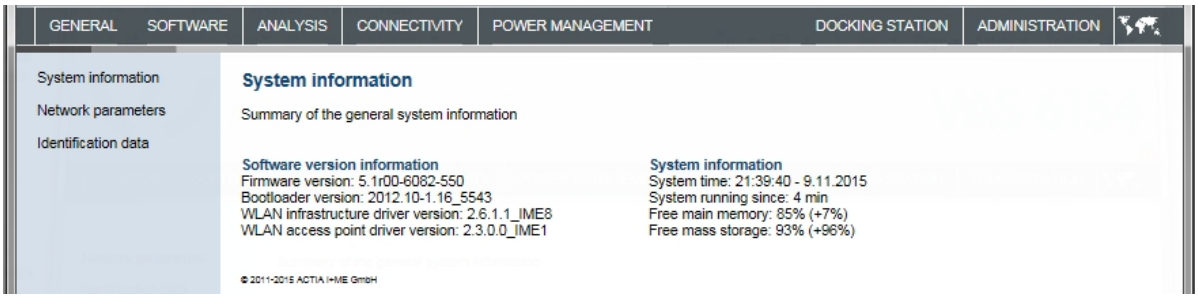
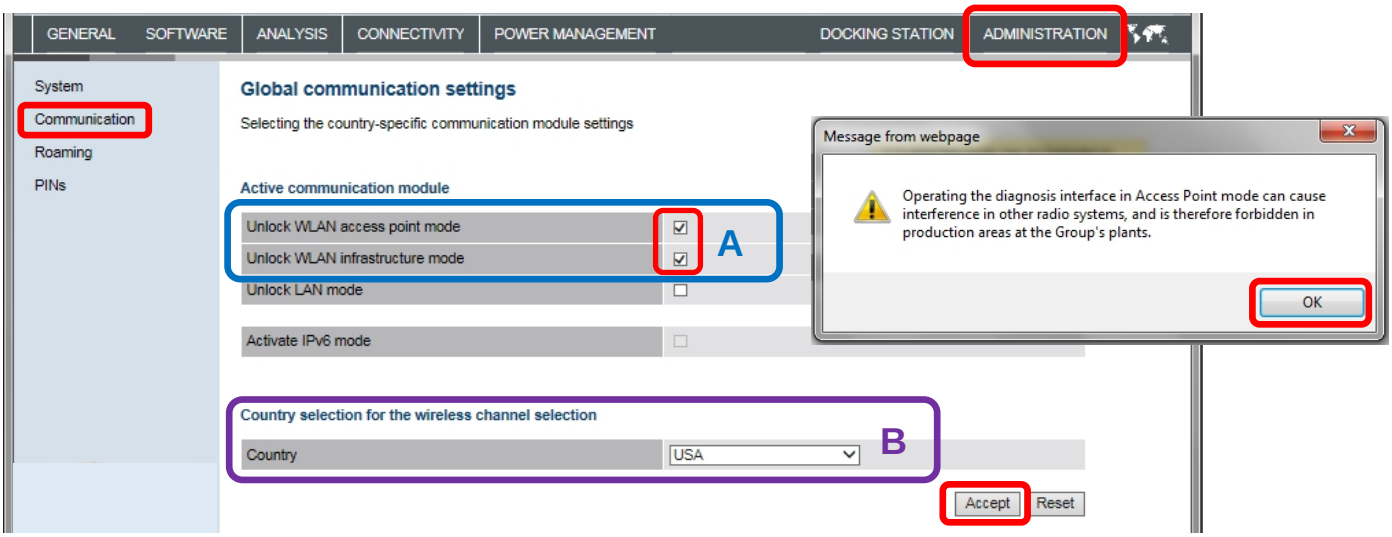
The **General – System Information** page appears first by default every subsequent time the web interface is accessed:




## 2.5 – Unlock Communication Modes

The communication modes must be unlocked, and the country in which the network operates set.

1. From the web interface: Select the **ADMINISTRATION** main category, and then select the **Communication** subcategory:
2. Check ☑ the **Unlock WLAN access point mode** **AND** **Unlock WLAN infrastructure mode** selections **-A-**: (Click **OK** when the Access Point interference message appears.):
3. Select the applicable **wireless channel selection - Country** from the dropdown **-B-:**
4. Select **Accept,** and then **wait a moment** while the parameters are written:




[Proceed to Section 2.6]



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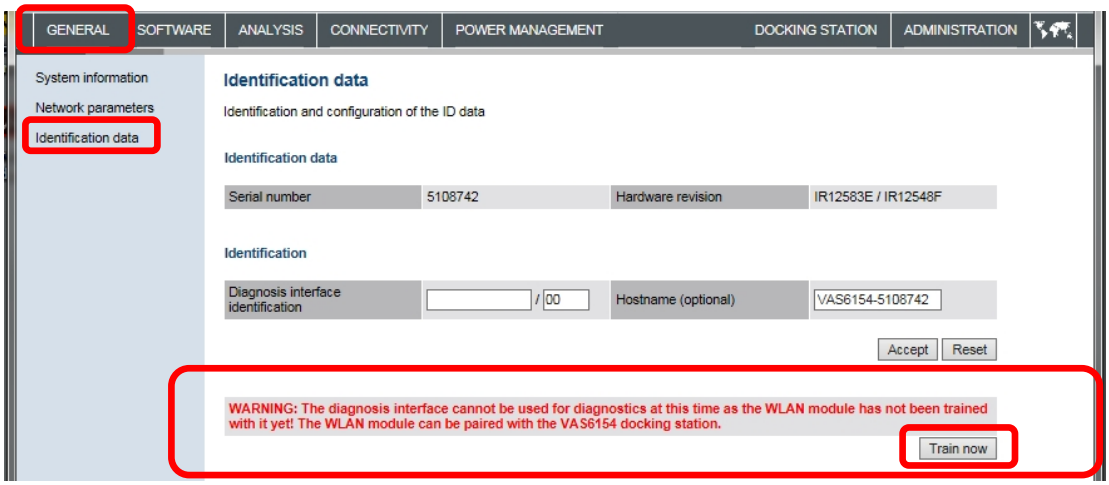
## 2.6 – Identify WLAN Module

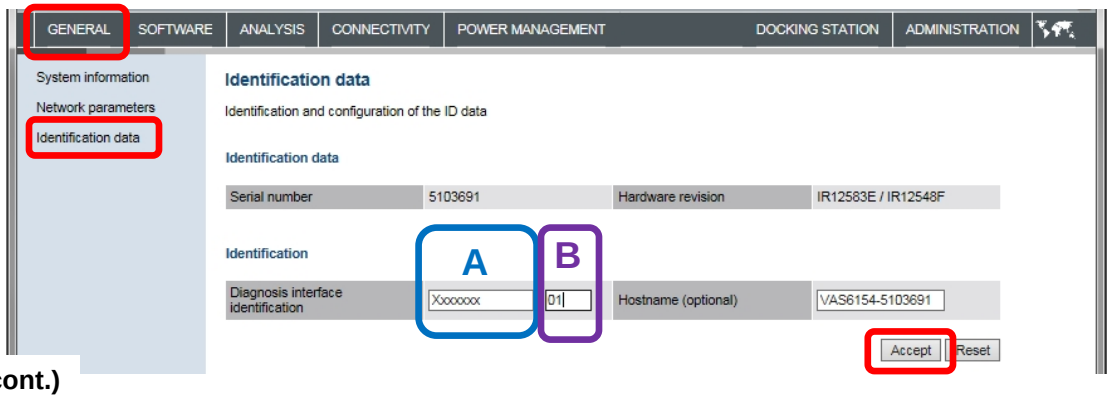
If more than one VAS 6154 connects to the Dealership WLAN, each must be assigned **a different name and ID number.**

1. Choose and record a **unique name** and **two-digit ID number**.
2. Carefully peel-off the self-adhesive numbers chosen for the **ID Number** and apply them to the **add-on WLAN Module** as illustrated (number shown is example only):

3. Select the **GENERAL** main category, and then select the **Identification data** subcategory:
4. **If** the display contains the **WARNING:** text illustrated below, select **Train now:**




5. Enter the name chosen for the module in the **Diagnostic interface identification** entry field **-A-:**
6. Enter the **Module ID** chosen for the module in the **Diagnostic interface identification** entry field **-B-**
7. Select **Accept**, and then **wait a moment** while the parameters are written:

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***Note***:
*If the dealership WLAN operates in a* **Remote Authentication Dial In User Service (RADIUS)** *environment, the name chosen for the VAS 6154 should be used as the hostname for the RADIUS certificate.*

## 2.7 – Configure Connection Parameters

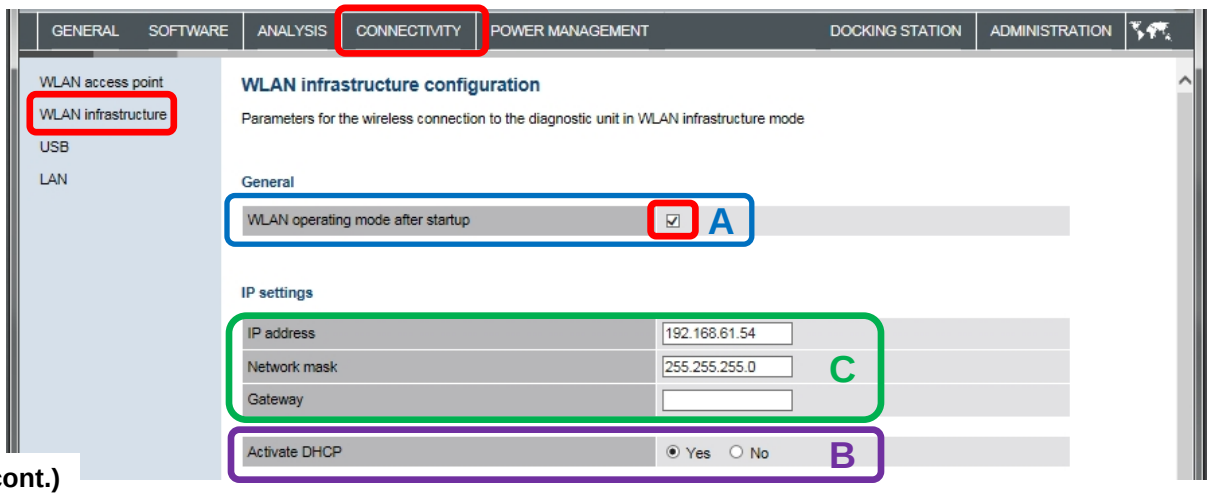
***Prerequisites:***

- ☐ *The following details of the dealership WLAN* ***must be known:***
  - ☐ *Dealership WLAN SSID (network name)*
  - ☐ *Network IP set up for either* **DHCP OR Static IP**
  - ☐ ***If Static IP:*** *Dealership specific address information available for manual entry*
  - ☐ *WPA2 encryption method and applicable key/password/certificate information as applicable*

***Notes***:
- *The WLAN Module's default IP setting is* **DHCP**. *The default IP address and network mask are pre-set in the applicable web interface configuration windows.*
- *The network* ***must support WPA2 encryption*** *for WLAN Infrastructure mode. Connection to other encryption types or open networks is not possible.*

### 2.7.1 – Configure WLAN Infrastructure Connection Parameters

1. Select the **CONNECTIVITY** main category, and then select the **WLAN Infrastructure** subcategory:
2. Check ☑ the **WLAN operating mode after startup** selection **-A-:**
   - ☐ **If** the dealership WLAN is set up for **DHCP:** Skip to **Step 5 - Page 9**
   - ☐ **If** the dealership WLAN is set up for **Static IP:** Continue with **Steps 3 & 4 below.**
3. **For Static IP Only**: Select **No** to deselect the DHCP default **-B-:**
4. **For Static IP Only:** Enter the **dealership-specific IP address /network mask etc**. information **-C-:**

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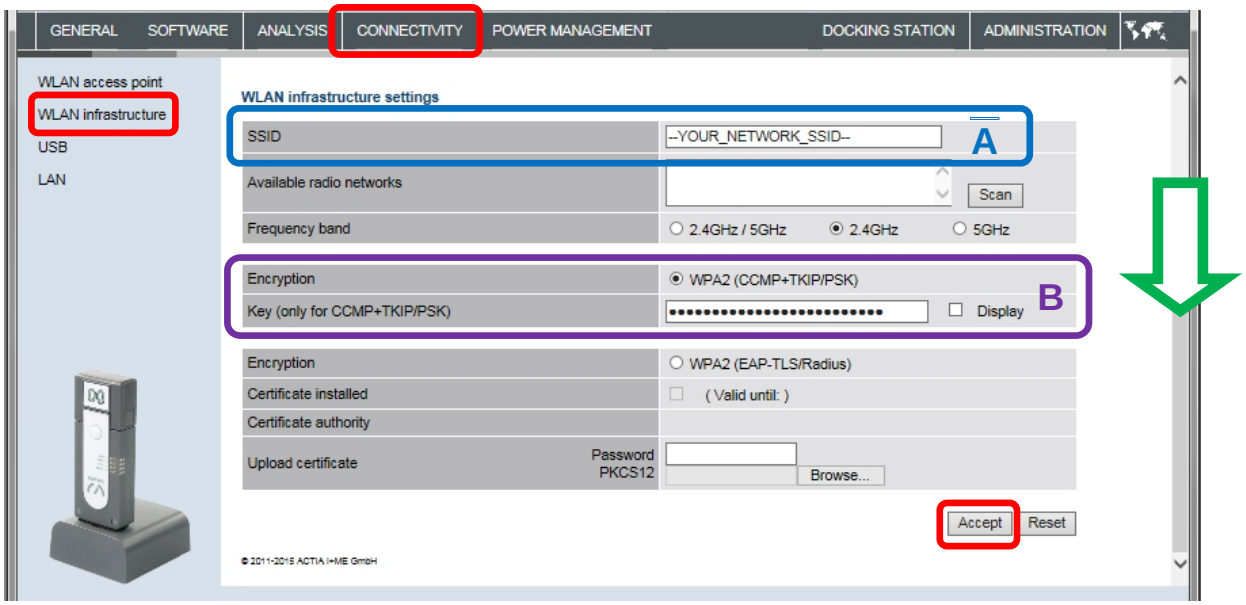
5. If necessary, **scroll down the window** to reveal the selection - entry fields illustrated below:

> ***Note***:
> - *The default encryption method is* **WPA2 (CCMP+TKIP/PSK),** and its configuration is described below.
> - **If** *the network is set up for* **WPA2 (EAP-TLS/Radius),** activate this method in the web interface and enter the required information.

6. Enter the **Dealership WLAN SSID** (network name) **-A-:**
7. Enter the **WPA2 encryption key for the Dealership WLAN -B-:** (as applicable).
8. Select **Accept,** and then **wait a moment** while the parameters are written:




## 2.7.2 – Configure WLAN Direct Connection Parameters

A **DHCP wireless access point** with **WPA2 encryption** and a **unique SSID name** are pre-set by default.

After the pre-set default or alternate settings are **"Accepted"**, the wireless access point network **must be configured in the applicable Windows system on the diagnostic device.**

**WLAN Direct Connection** configuration steps **differ slightly between Windows 7 and Windows 10 devices.** Please heed the following section titles carefully.

> ***Notes***:
> - **VAS 6154 and ODIS Service software cannot detect network IP address conflicts.** *Please review the default settings in all displayed categories carefully.*
> - *Alternate settings should only be made to resolve network IP conflicts, fulfil dealership network requirements, or as required by dealership IT policies where applicable.*

**(cont.)**



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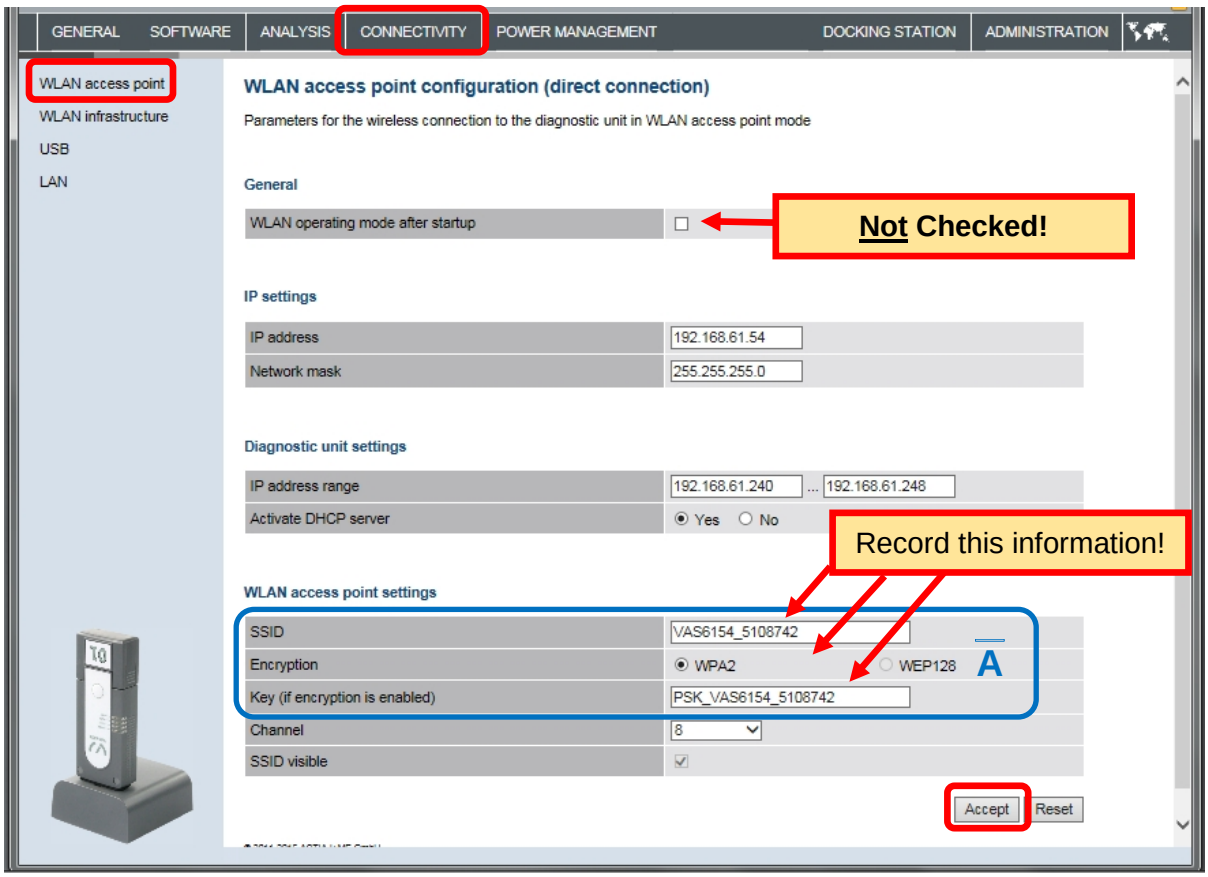
1. Select the **WLAN access point** subcategory:
2. Ensure that the **WLAN operating mode after startup** box is **NOT CHECKED** as illustrated below.
3. **Review the categories and pre-set default settings** displayed to **determine if they need to be changed** as per the ***Note*** on Page 9. If alternate settings are necessary, **perform them now.**
4. **Record** the access point **SSID, Encryption** type and security **Key -A-** on a piece of paper for the steps that follow: *Note: The information displayed below is an example only! Each VAS 6154 is different!*
5. Select **Accept,** and then **wait a moment** while the parameters are written:




6. **Minimize** the browser displaying the VAS 6154 web interface.

**Continue with Windows system-specific configurations as applicable:**

- ☐ **Windows 7 devices**: Proceed to **Section 2.7.2.1 – Page 11**
- ☐ **Windows 10 devices**: Skip to **Section 2.7.2.2 – Page 12**



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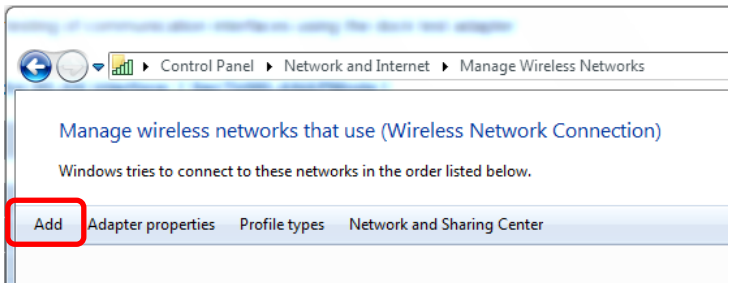
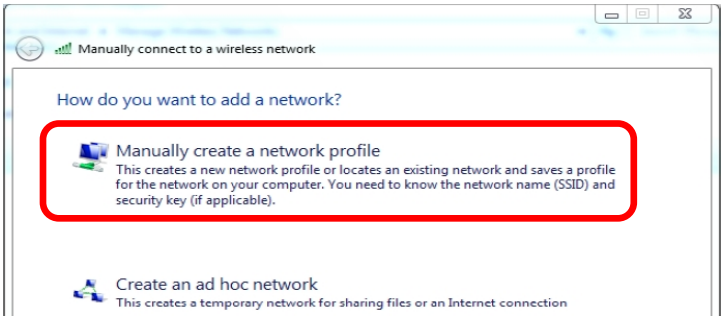
### 2.7.2.1 – Continuation - Windows 7

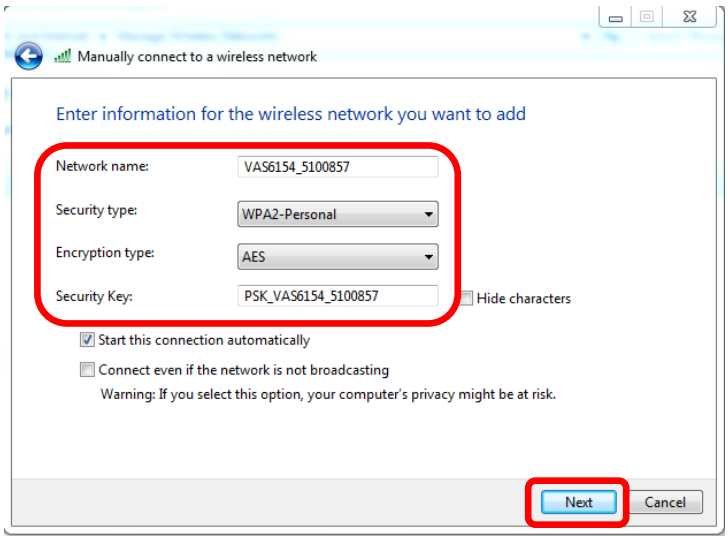
1. Go to: **Start > Control Panel > Network and Sharing Center > Manage Wireless Networks,** and then **s**elect **Add:**

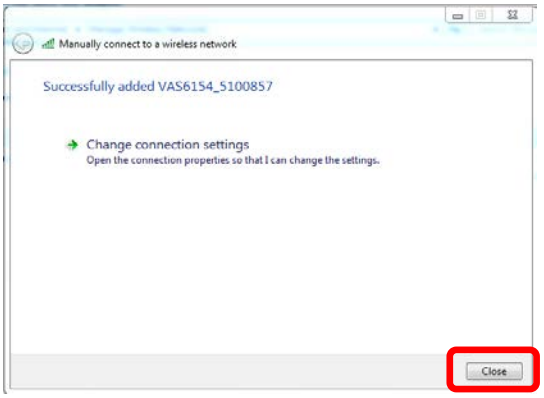



2. Select **Manually create a network profile:**




3. Enter the **WLAN access point SSID** (Network name) **recorded in Step 4 - Page 10**
4. From the **Security type** dropdown: Select **WPA2 – Personal**
5. From the **Encryption type** dropdown: Select **AES**
6. Enter the **Security Key** recorded in **Step 4 - Page 10,** and then select **Next /Close:**

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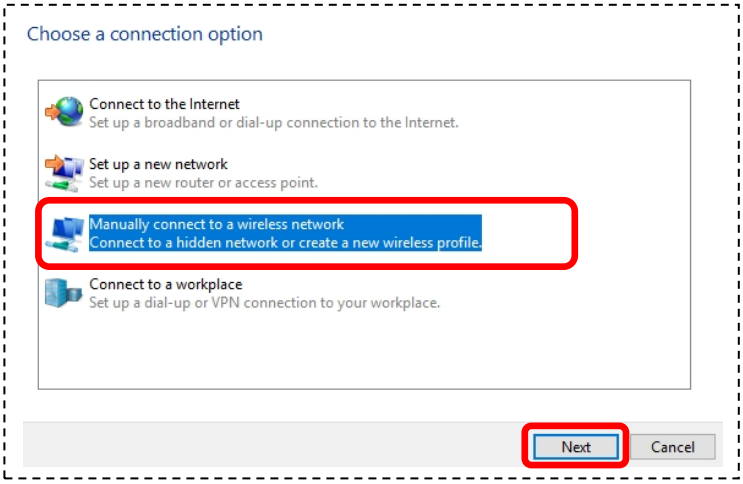
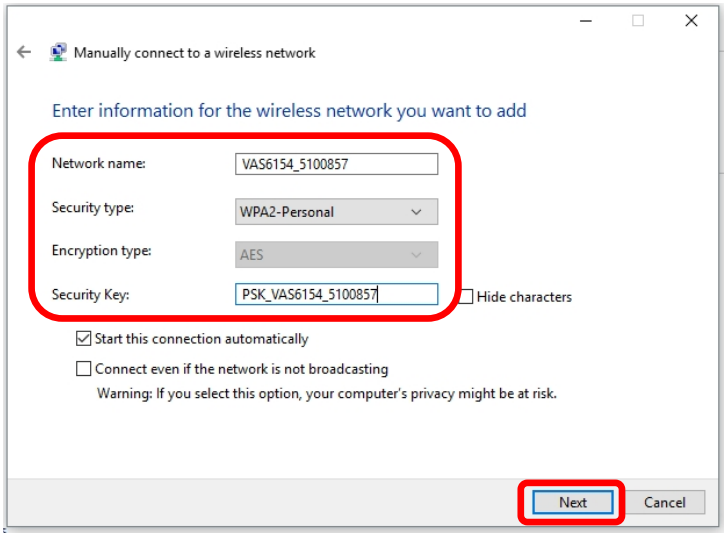
### 2.7.2.2 – Continuation – Windows 10

1. Go to: **Control Panel > Network and Sharing Center.**
2. Select

3. Select **Manually connect to a wireless network**, and then select **Next:**




4. Enter the **WLAN access point SSID** (Network name) **recorded in Step 4 - Page 10:**
5. From the **Security type** dropdown: Select **WPA2 – Personal**
6. From the **Encryption type** dropdown: Select **AES**
7. Enter the security **Key** recorded in **Step 4 - Page 10,** and then select **Next . . . Close:**

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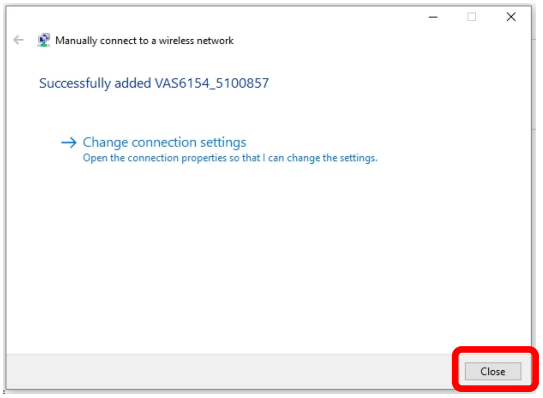


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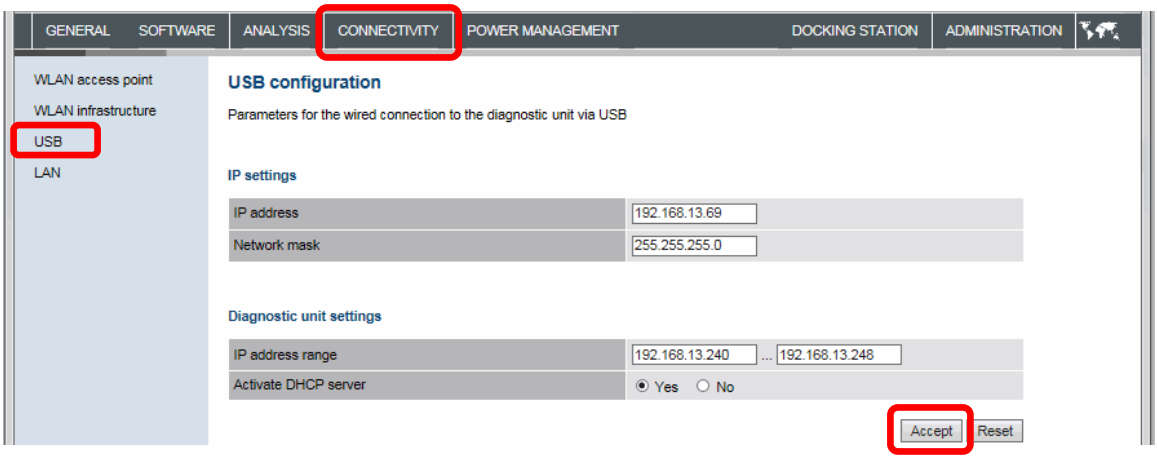
### 2.7.3 – Configure USB Connection Parameters

A **DHCP - USB network** is pre-set as a default.

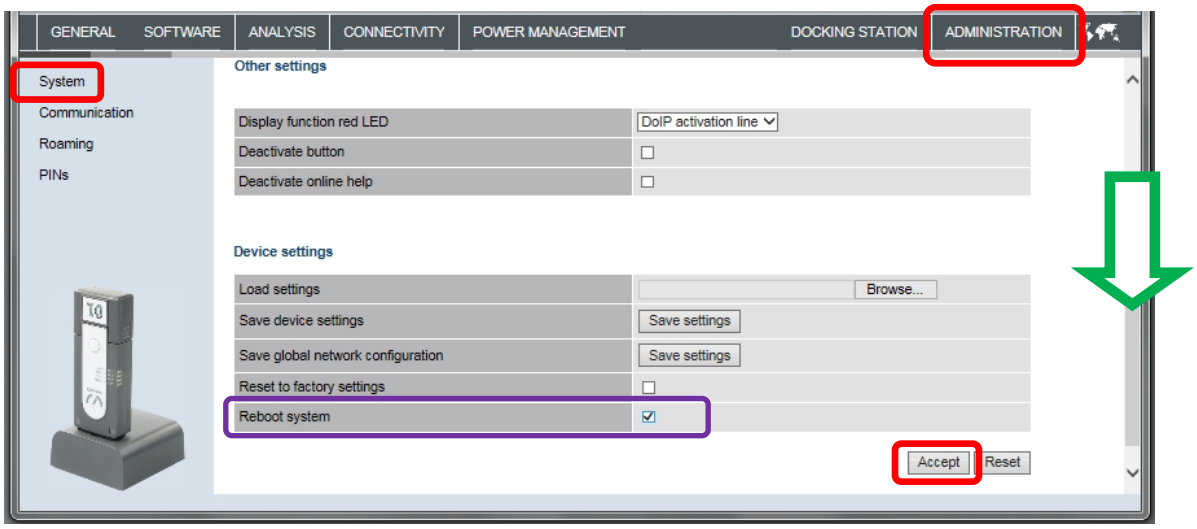
1. **Restore** the browser displaying the VAS 6154 web interface.
2. Select the **USB** subcategory:
3. Select **Accept,** and then **wait a moment** while the parameters are written:




### 2.7.4 – Reboot Module (to save configurations)

All configuration parameters must be saved by rebooting the module as follows:

1. Select the **ADMINISTRATION** main category, and then select the **System** subcategory:
2. **Scroll down** and then check **Reboot system:**
3. Select **Accept,** and then **wait a moment** while the parameters are written:




**(cont.)**



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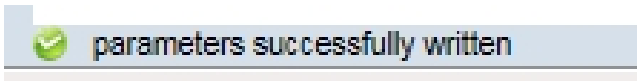
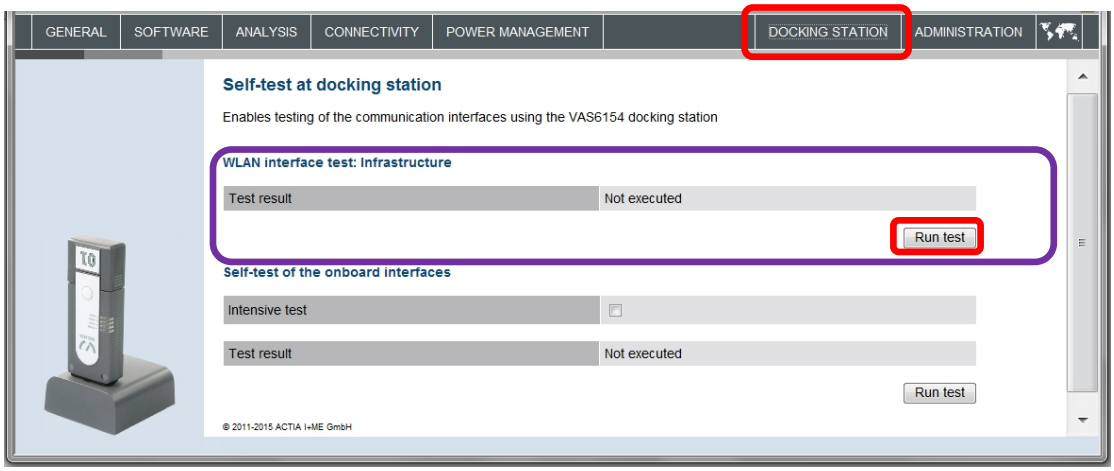
3. **Wait** until the system reboots (the display briefly goes blank) and **"parameters successfully written"** is displayed in the page footer:



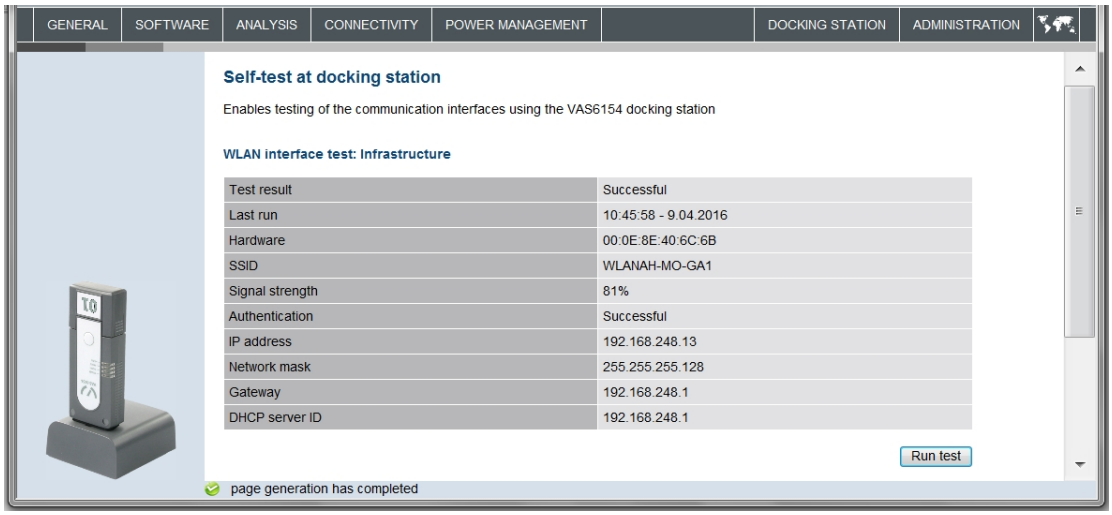

### 2.7.5 – Perform Module Self-Test

Confirm successful VAS 6154 WLAN Infrastructure setup and function on the configured dealership WLAN by performing a self-test as follows:

1. Select the **DOCKING STATION** main category: Retry selection if no connection is made initially.
2. From the **WLAN interface test: Infrastructure** subcategory, click **Run test:**




The approx. 90-second test checks the network broadcast functions of the VAS 6154 on the WLAN.




If the self-test is unsuccessful, heed the ***Prerequisites*** in **subsections 2.1 and 2.7,** repeat the WLAN Infrastructure setup as per **subsection 2.71,** and then reboot the device as per **subsection 2.7.4.**

**(cont.)**



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3. Close the web browser displaying the VAS 6154 web interface.
4. Disconnect the USB-Y cable from the docking station and diagnostic device.
5. **Remove the VAS 6154 from the docking station.**
6. Depress the retainer clips and separate the WLAN Module from the VAS 6154:

**ATTENTION!**

**DO NOT connect or disconnect any of the add-on modules from the 6154 when it is powered-up and transmitting (LEDs on).**

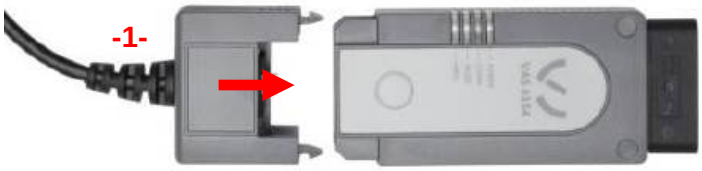
**Module malfunctions will result!**

**Connections and disconnections of add-on modules must ONLY take place when the 6154 is removed from the base station or vehicle DLC.**

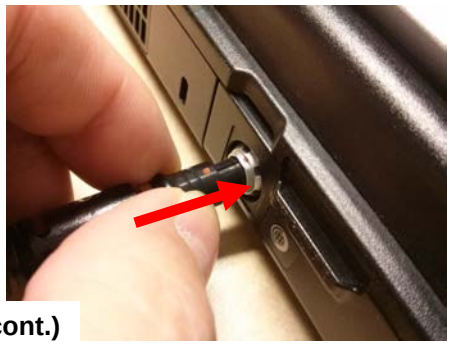
## 3.0 – Setup USB Module

### 3.1 – Install USB Drivers

1. Connect the **USB Module with cable -1-** to the VAS 6154:




2. Plug the end of the USB cable into a **Rugged USB 2.0** port on the diagnostic device:



**(cont.)**



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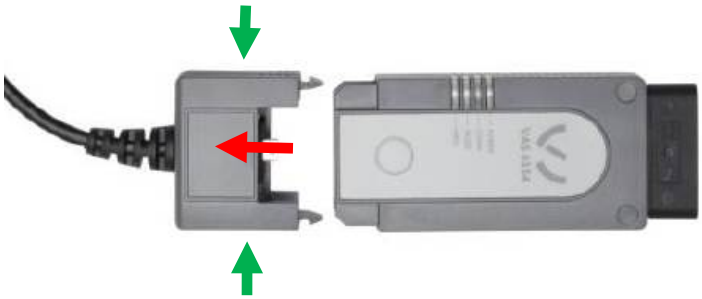
When the USB connection is established with the diagnostic device for the first time, a Windows USB driver installation routine automatically installs the necessary drivers.

3. Close the installation confirmation pop-up(s) as necessary.
4. **Disconnect the USB cable from the USB 2.0 port on the diagnostic device.**
5. Depress the retainer clips and separate the USB Module with cable from the VAS 6154 housing:



***Notes***:

- Before using the VAS 6154 for vehicle diagnostics, a number of startup steps must be performed in conjunction with the ODIS Service application. For startup and use details, refer to **Service Information – Diagnostic Device Hardware and Windows** document title:

  ***VAS 6154 Diagnostic Interface – Startup Guide***

- For tips on proper handling of the VAS 6154 and its add-on modules, refer to **Service Information – Diagnostic Device Hardware and Windows** document title:

  ***VAS 6154 Diagnostic Interface – In-Use Best Practices***

  The above documents are posted separately in ServiceNet.

- Carefully store the VAS 6154, USB and WLAN add-on modules in a safe, clean location until ready to use.



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