Service Information

Audi
Truth in Engineering

Diagnostic Device Hardware & Windows® **Number: AHW-17-09**

Subject: VAS 6154 Diagnostic Interface – Initial Setup Guide **Date: Apr 25, 2017**

***Supersedes AHW-17-05 due to updated instructions for Section 2.3* - Prepare WLAN Module**

Table of Contents

Section		Page
1.0	Introduction and Process Overviews – MUST READ!	2
1.1	General Information	2
1.2	Web Interface – Overview	2
1.3	Initial Setup and Configuration – Overview & Checklist	3
2.0	Initial Setup and Configuration	4
2.1	Preparation Prerequisites – MUST READ!	4
2.2	Install Base Station Network Drivers	4
2.3	Prepare WLAN Module	5
2.4	Configure Web Interface Language	5
2.5	Unlock Communication Modes	6
2.6	Identify WLAN Module	7
2.7	Configure Connection Parameters	8
3.0	Setup USB Module	15
3.1	Install USB Drivers	15

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.

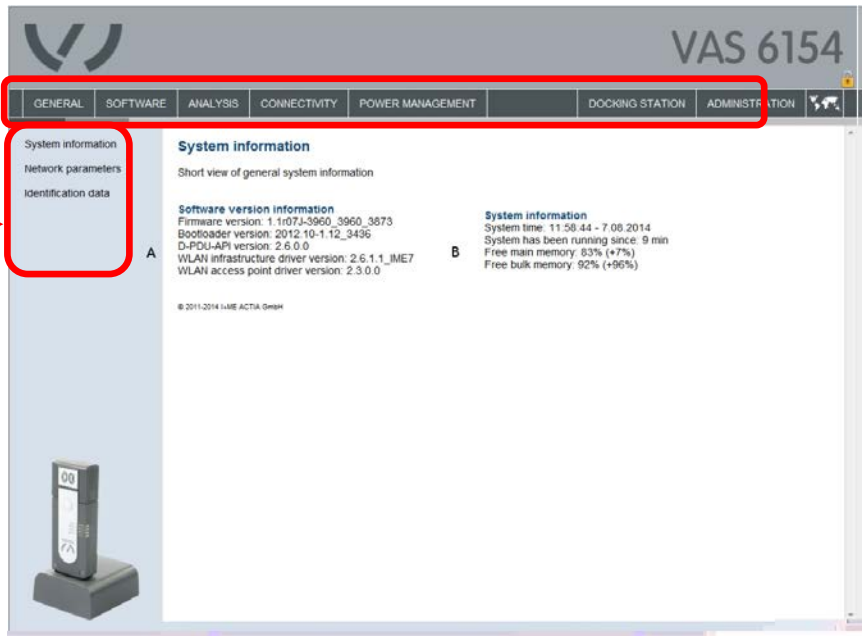
1.2 – Web Interface – Overview

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

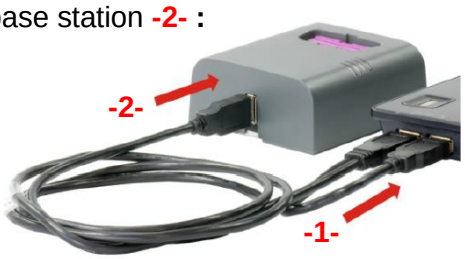
2.1 – Preparation Prerequisites – MUST READ!

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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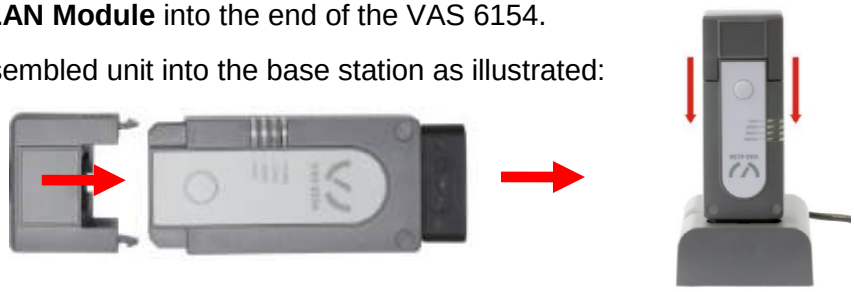
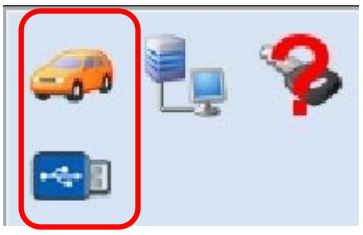
2.3 – Prepare WLAN Module

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

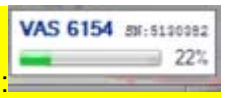


3. Open ODIS
4. ODIS should see the VAS 6154 while it's in the docking station. This will be evident by the Vehicle and USB icons showing as below.

   Example:



   Note: If the VAS 6154 is new or there was a recent ODIS update, you may see a firmware update window in the bottom right hand corner of the screen. It should take 3-5 minutes to complete. The VAS 6154 will show disconnected in ODIS during some of this process, but will re-connect when complete. Warning: Do NOT unplug the VAS 6154 from the docking station while the firmware update is running.

   Example of Firmware Update: 

   Note: If ODIS does NOT recognize the VAS 6154 when it's docked, try the below steps before contacting Diagnostic Software Support.

   - Click on Extras > Diagnostics Interface and re-select the VAS 6154
   - Remove and Re-insert the VAS 6154 into the docking station
   - Disconnect and Re-connect the VAS 6154 docking station USB cables from the laptops docking station
   - If the VAS 6154 replaced a VAS 5054A, please ensure ODIS was re-installed and you selected the VAS 6154 as the default Diagnostic Interface.

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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:

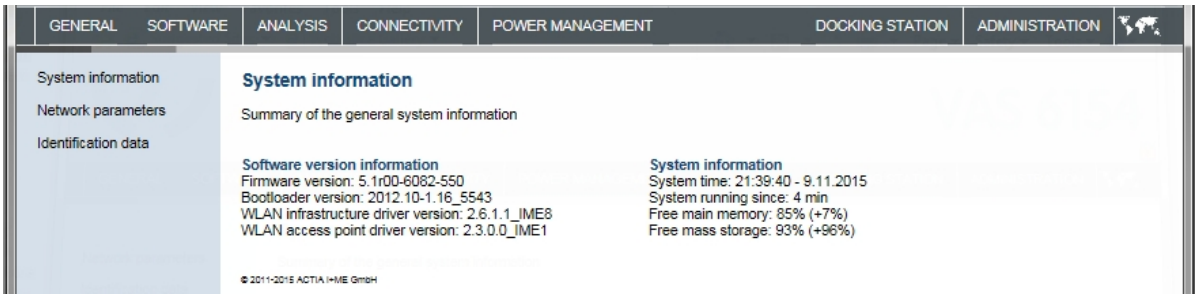
   http://192.168.1.69 (optional: **http://vas6154-dock**):

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:**

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



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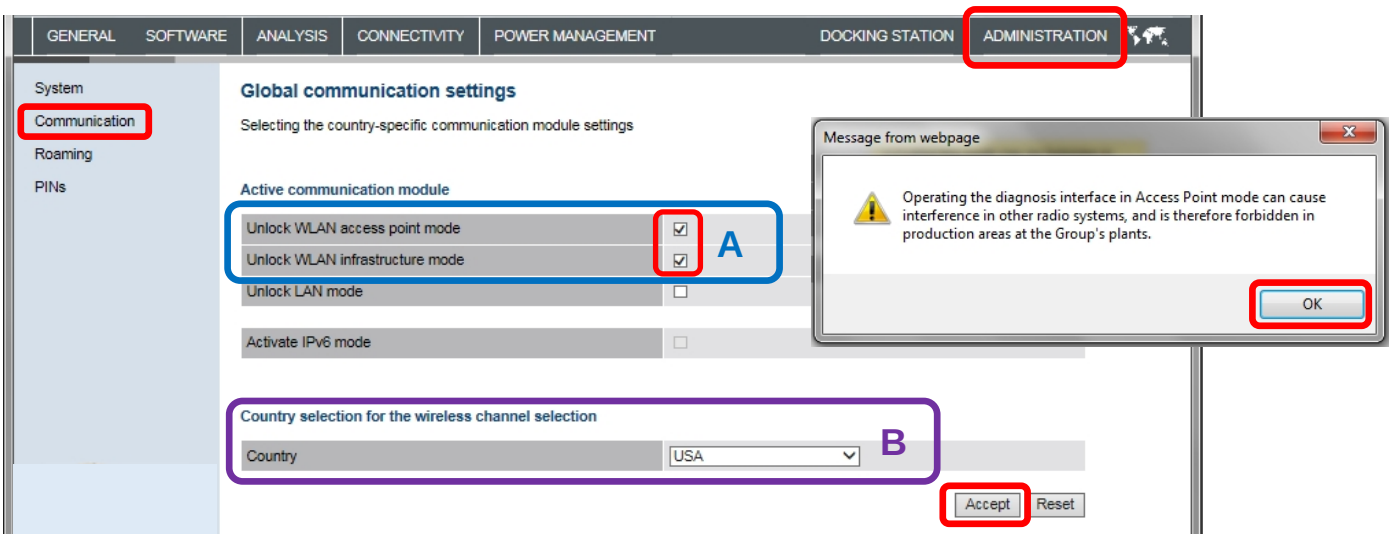
2.5 – Unlock Communication Modes

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](#)

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):

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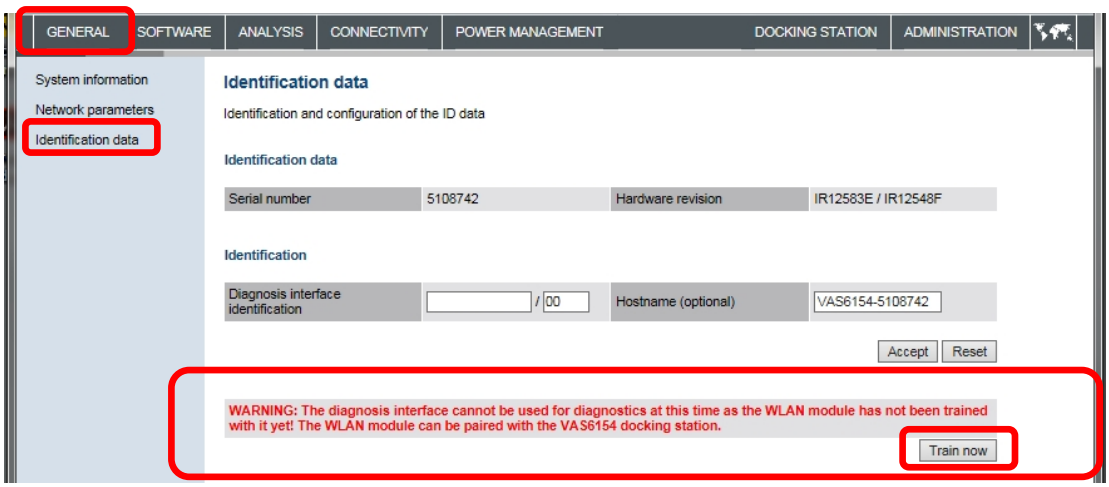
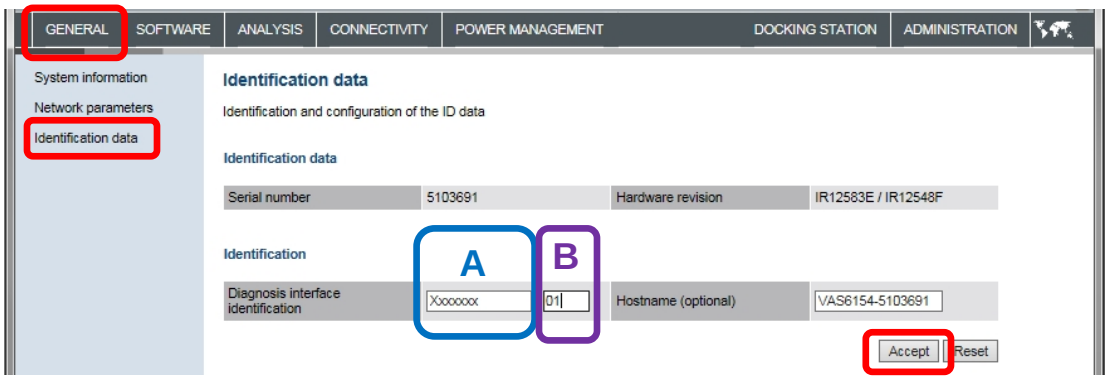
3. Select the **GENERAL** main category, and then select the **Identification data** subcategory:
4. **If** the display contains the **WARNING:** text illustrated below, select **Train now:**



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

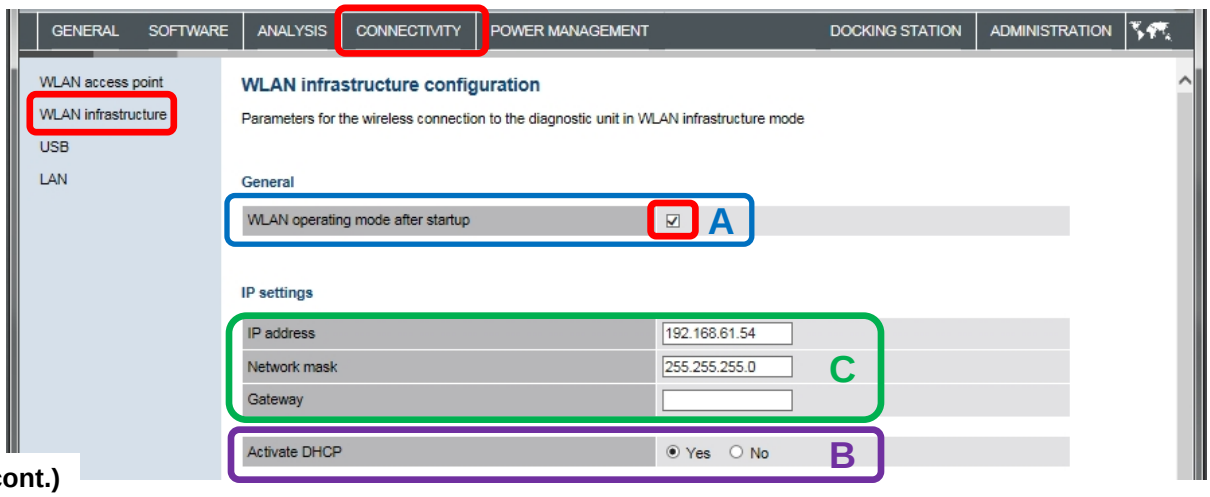
Prerequisites:

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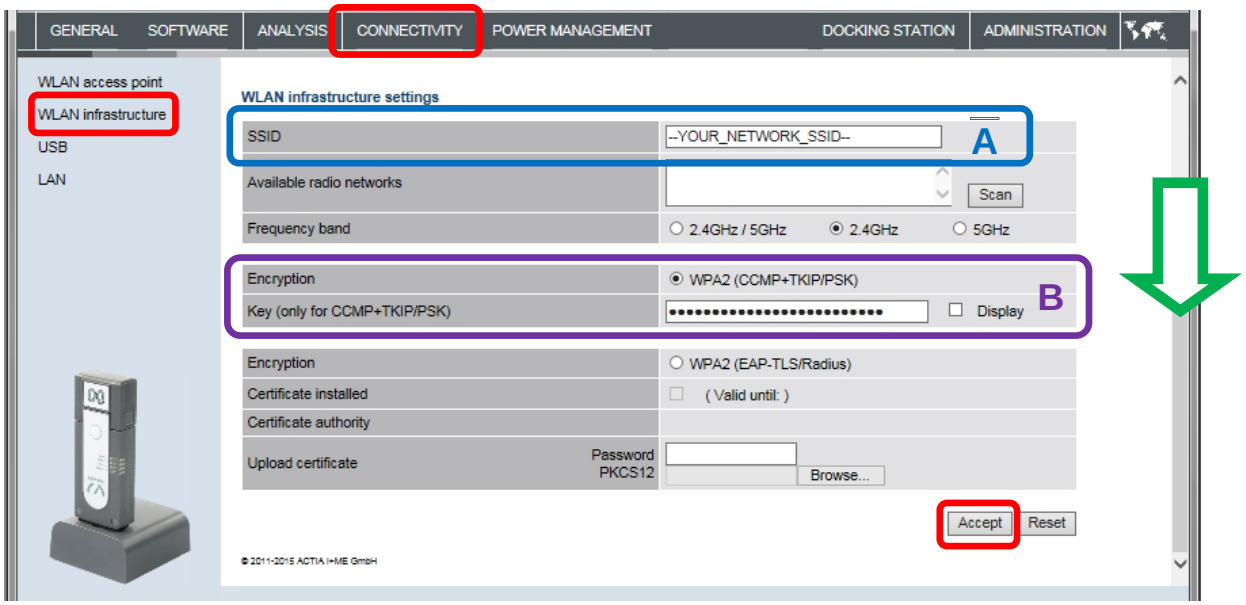
5. If necessary, **scroll down the window** to reveal the selection - entry fields illustrated below:

> ***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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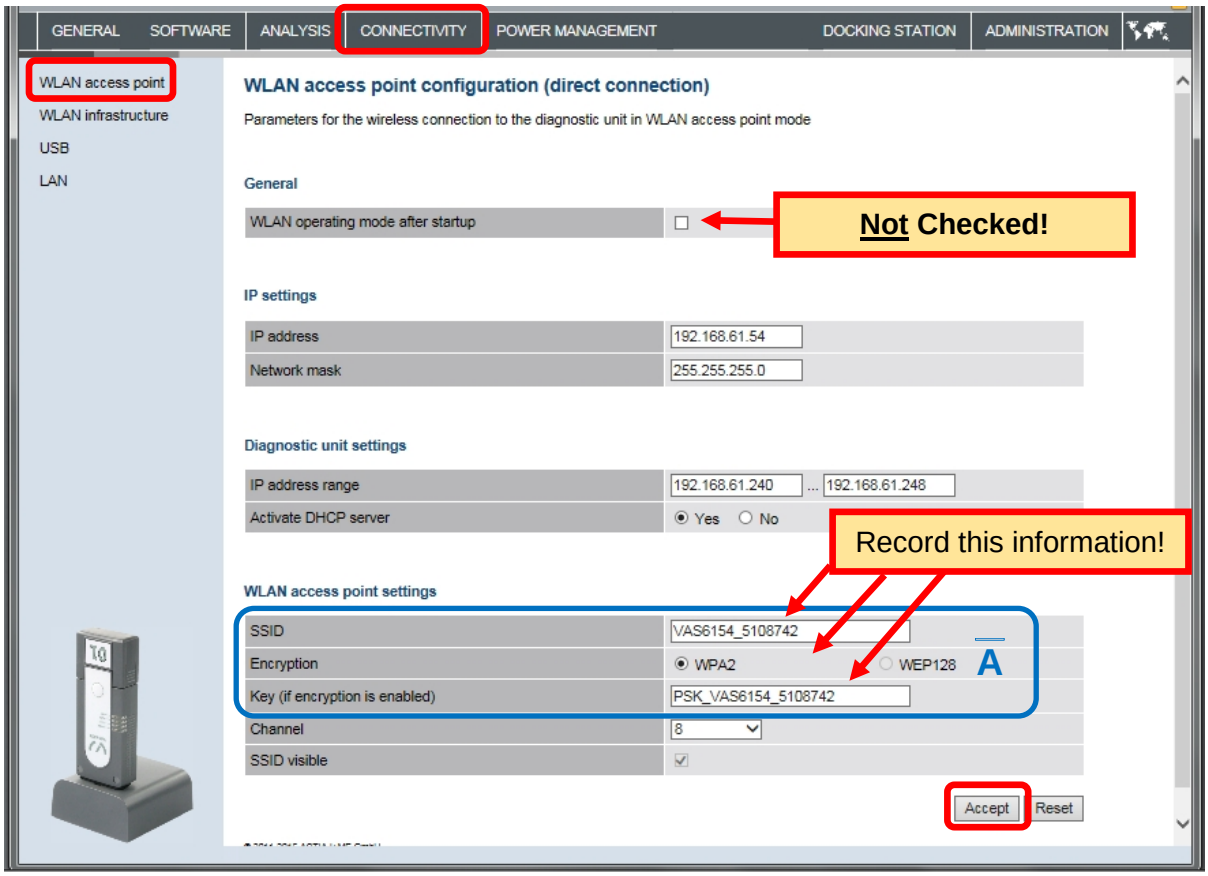
1. Select the **WLAN access point** subcategory:
2. Ensure that the **WLAN operating mode after startup** box is **NOT CHECKED** as illustrated below.
3. **Review the categories and pre-set default settings** displayed to **determine if they need to be changed** as per the ***Note*** on Page 9. If alternate 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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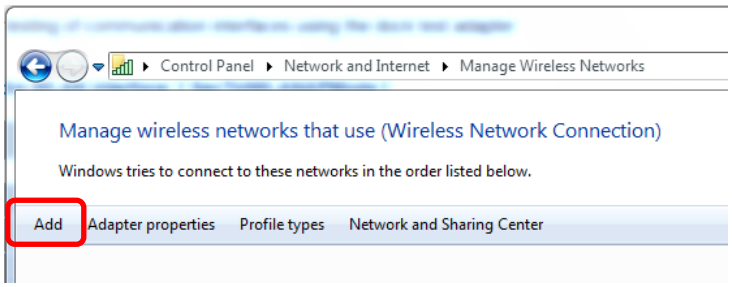
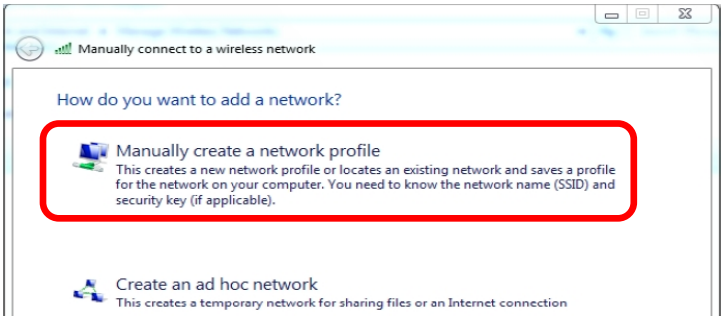
2.7.2.1 – Continuation - Windows 7

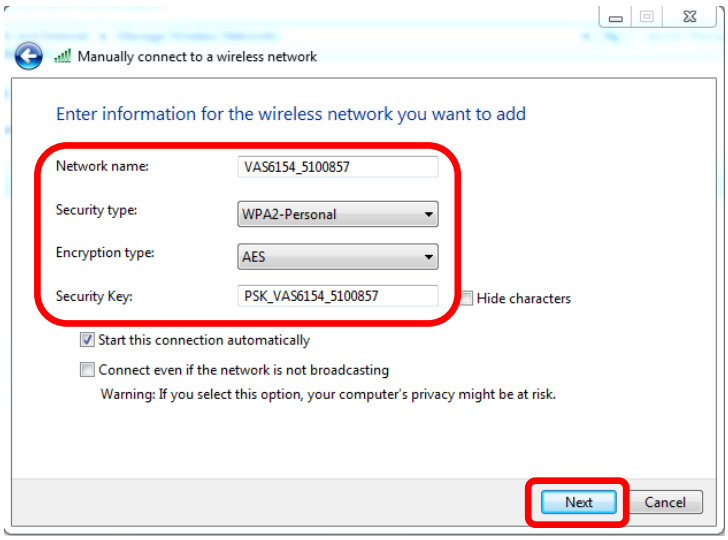
1. Go to: **Start > Control Panel > Network and Sharing Center > Manage Wireless Networks,** and then **s**elect **Add:**

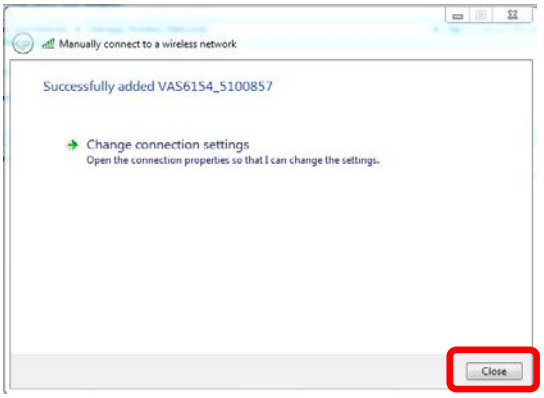


2. Select **Manually create a network profile:**



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:**





Proceed to Section 2.7.3 – Page 13

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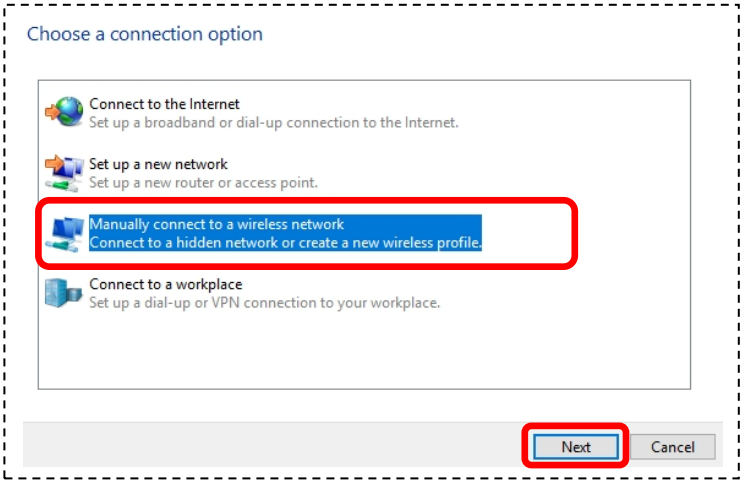
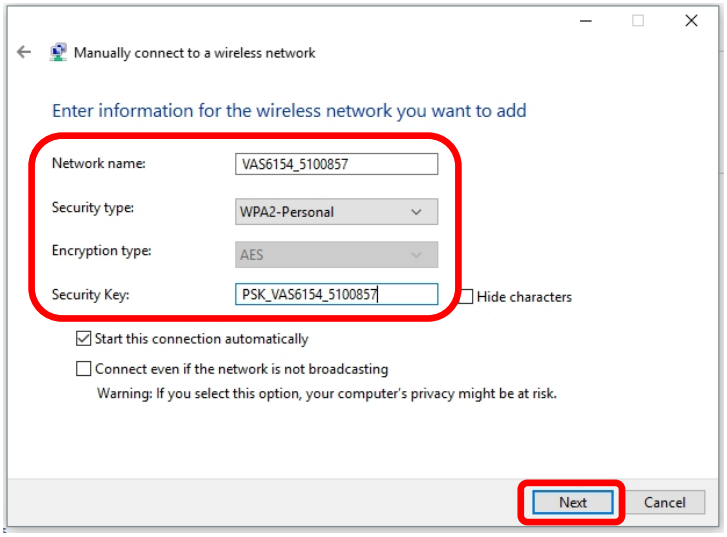
2.7.2.2 – Continuation – Windows 10

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

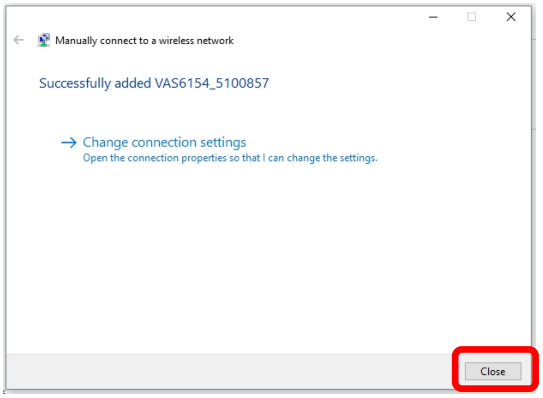
3. Select **Manually connect to a wireless network**, and then select **Next:**



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:**



. . .



Proceed to Section 2.7.3 – Page 13

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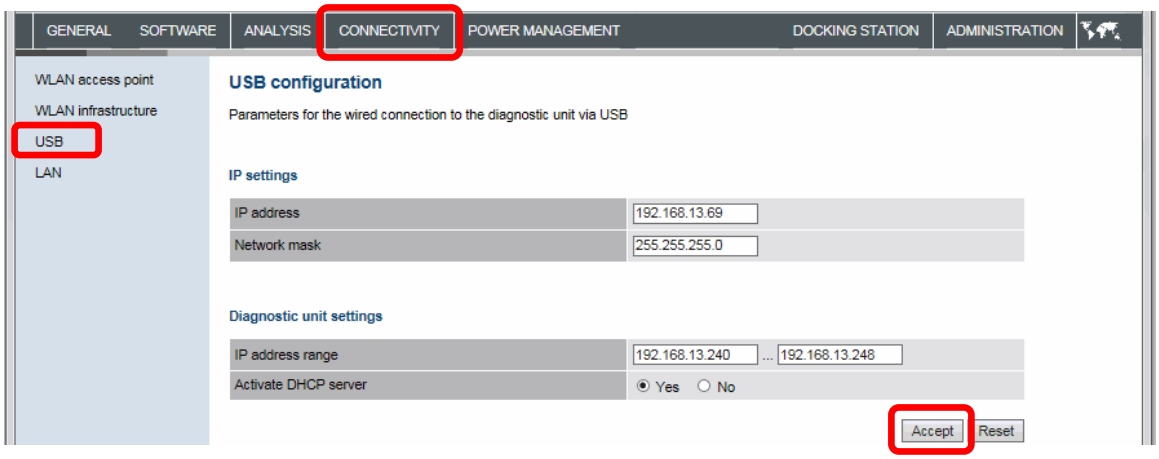
2.7.3 – Configure USB Connection Parameters

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

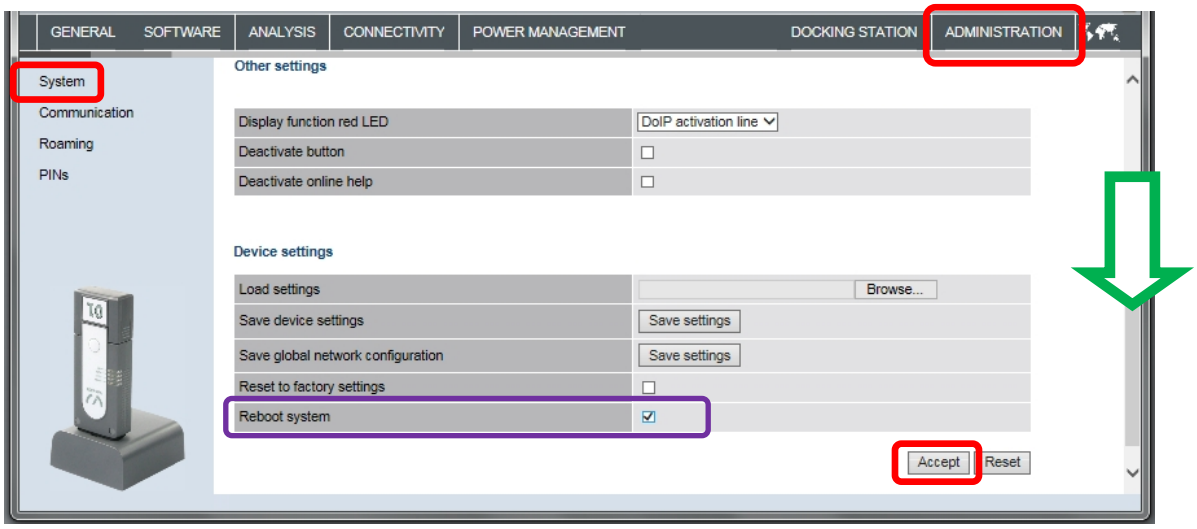
1. **Restore** the browser displaying the VAS 6154 web interface.
2. Select the **USB** subcategory:
3. Select **Accept,** and then **wait a moment** while the parameters are written:



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:



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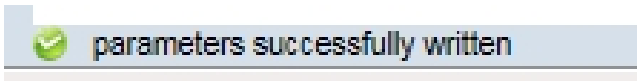
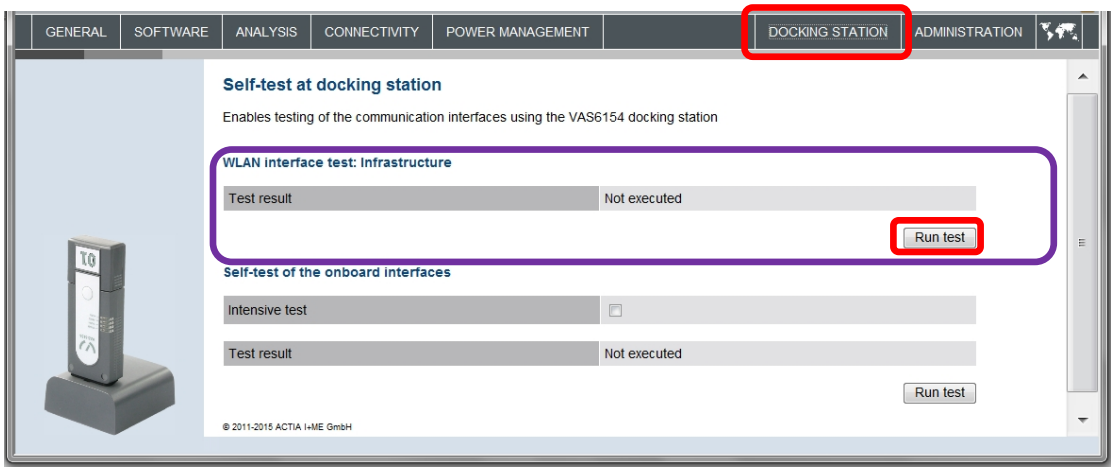
3. **Wait** until the system reboots (the display briefly goes blank) and **"parameters successfully written"** is displayed in the page footer:



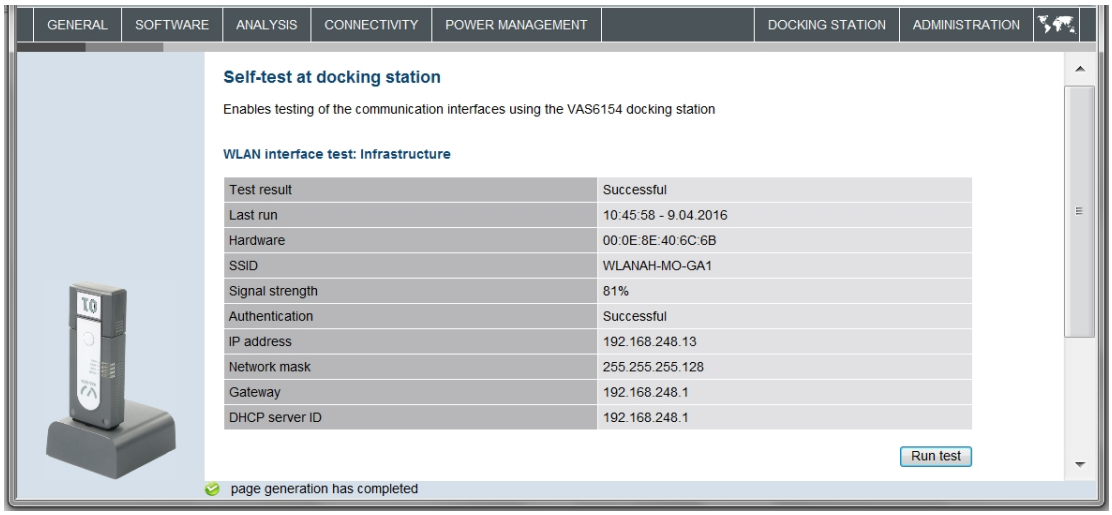
2.7.5 – Perform Module Self-Test

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.**

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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).

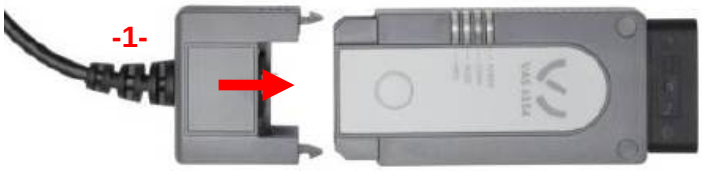
Module malfunctions will result!

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

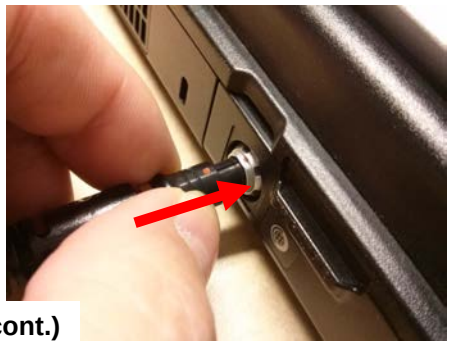
3.0 – Setup USB Module

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:



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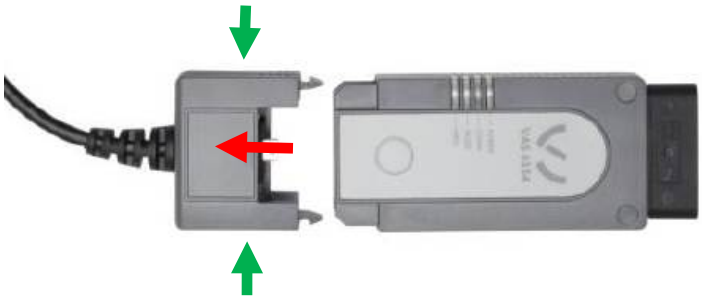
When the USB connection is established with the diagnostic device for the first time, a Windows USB driver installation routine automatically installs the necessary drivers.

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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