Service Information

Audi
Truth in Engineering

Diagnostic Device Hardware & Windows® **Number: AHW-16-15**

Subject: VAS 6154 Diagnostic Interface – WLAN Performance Optimizations **Date: Dec. 16, 2016**

Supersedes AHW-16-12 due to complete revision with additional information and updated title.

1.0 - Introduction

The performance of a VAS 6154 on the dealership's wireless network (WLAN) depends on many variables. These include different WLAN types, speeds, security features etc., and operation in a wide range of dealership environments, e.g.: building materials, workshop layout and electrical construction.

If a VAS 6154 fails to connect intermittently, is slow to connect or consistently loses connections, various optimizations can be applied to improve its performance on the WLAN. **Carefully review all section topics that follow, then check & determine applicability.**

ATTENTION:

- **The following optimizations are best performed by personnel with specific working knowledge of the dealership WLAN, and are familiar with VAS 6154 components, its initial setup and use.**
- **Personnel who do not have specific working knowledge of the dealership WLAN or do not understand the following information should ask a qualified person for assistance.**
- **This information may be revised at any time. Always check ServiceNet for the latest version.**

2.0 – Optimizations

Prerequisites:

- ☐ *Dealership **wireless network type** is known:* **DHCP or Static IP – dual-band or single band.**
- ☐ *Diagnostic laptop or tablet device with* **Windows® 7**
- ☐ *Diagnostic device plugged in to power adapter and booted to Windows desktop*
- ☐ *Initial VAS 6154 set up performed per the* **Initial Setup Guide** *document (posted on ServiceNet)*
- ☐ *WLAN Module plugged-in to VAS 6154 diagnostic interface*
- ☐ *VAS 6154 docking station and USB-Y cable on hand*

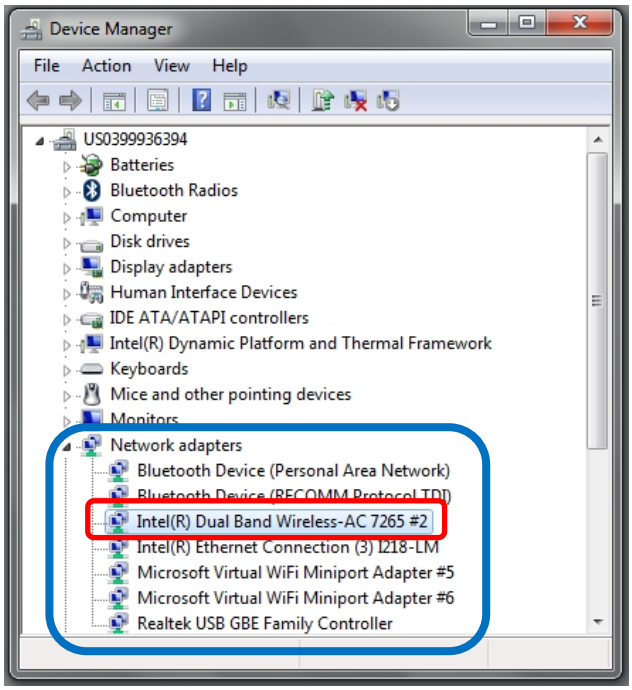
2.1 – Windows WLAN Power Management

Windows may automatically turn off WLAN functions when no network traffic is recorded by the diagnostic device after 20 minutes. This feature can be disabled as follows:

(cont.)

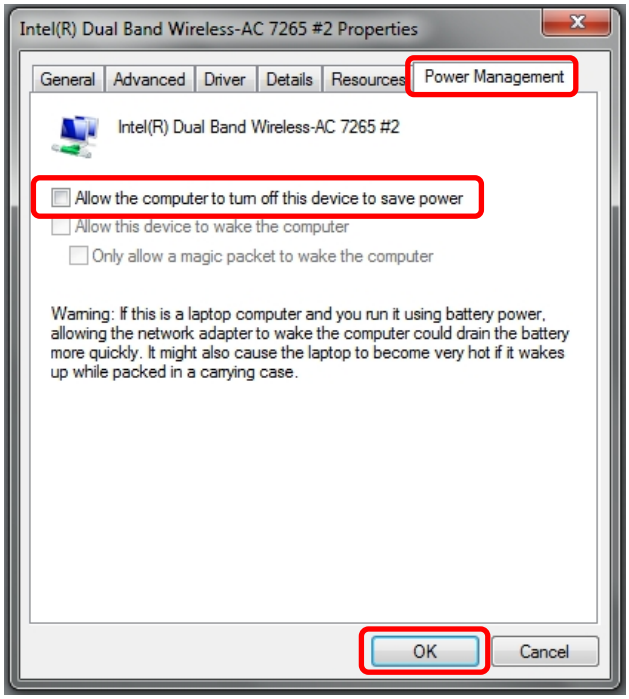
© 2016 Audi of America, Inc.
All rights reserved. Information contained in this document is based on the latest information available at the time of printing and is subject to the copyright and other intellectual property rights of Volkswagen Group of America, Inc., its affiliated companies and its licensors. All rights are reserved to make changes at any time without notice. No part of this document may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, nor may these materials be modified or reposted to other sites, without the prior expressed written permission of the publisher.

1. From the Windows desktop, go to: **Start > Control Panel > Device Manager**
2. Expand the **Network adapters** category, and then double-click the applicable **wireless** adapter:



Note:
The wireless network adapter illustrated here is an example only! Adapter brand names and types vary between devices.

3. Select the **Power Management** tab:
4. **Uncheck** the **Allow the computer to turn off this device to save power** function, select **OK,** and then **Close** all open windows:



© 2016 Audi of America, Inc.
All rights reserved. Information contained in this document is based on the latest information available at the time of printing and is subject to the copyright and other intellectual property rights of Volkswagen Group of America, Inc., its affiliated companies and its licensors. All rights are reserved to make changes at any time without notice. No part of this document may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, nor may these materials be modified or reposted to other sites, without the prior expressed written permission of the publisher.

2.2 – VAS 6154 Power Management

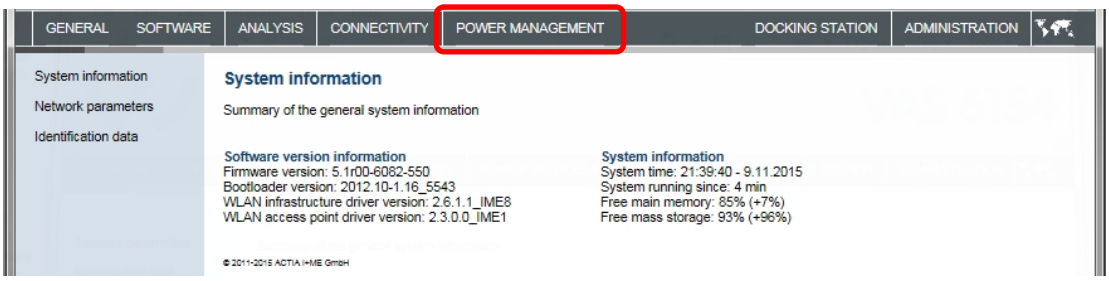
VAS 6154 power management functions can be disabled from its **Web Interface** as follows:

1. Connect single end of USB-Y cable to base station and double end to available USB ports on diagnostic device, and then plug in the VAS 6154 with connected WLAN module into the base station:

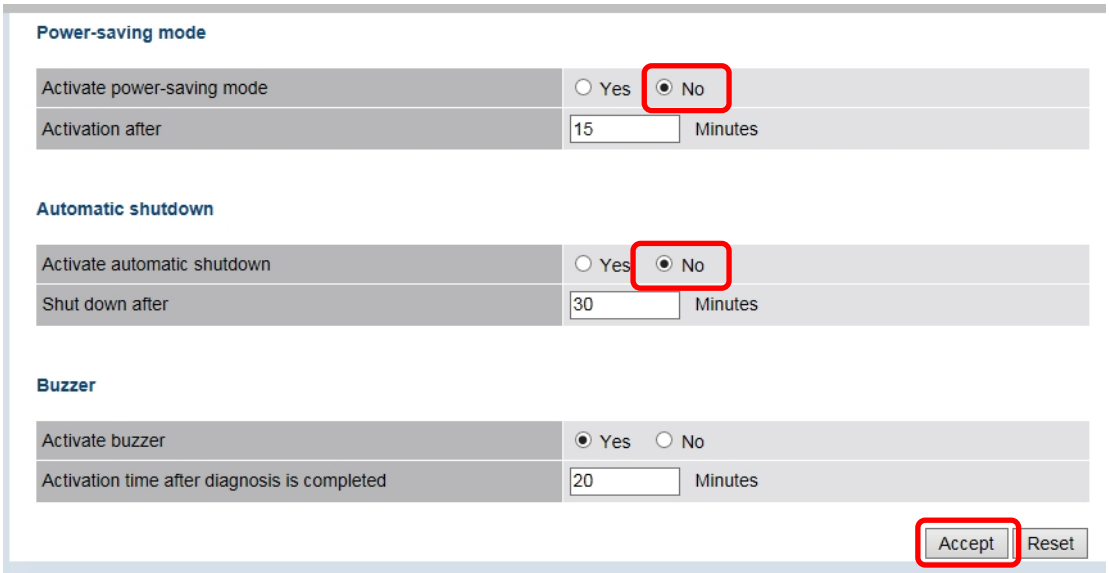
2. From the Windows desktop, open **Internet Explorer** and **manually enter** the following IP address in the browser's address bar:

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

3. Select the **Power Management** main category:



4. **Deactivate** the **Power-saving mode** and **Automatic shutdown** functions as illustrated (select **No**), and then select **Accept:**



© 2016 Audi of America, Inc.
All rights reserved. Information contained in this document is based on the latest information available at the time of printing and is subject to the copyright and other intellectual property rights of Volkswagen Group of America, Inc., its affiliated companies and its licensors. All rights are reserved to make changes at any time without notice. No part of this document may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, nor may these materials be modified or reposted to other sites, without the prior expressed written permission of the publisher.

2.3 – Change Communication Frequency

The frequency band at which the VAS 6154 communicates can be optimized for the dealership wireless network and its operating environment, e.g.: physical barriers like walls and ceilings, above or below grade and potential for electrical interference. Be aware of the following pros-and-cons and decide accordingly:

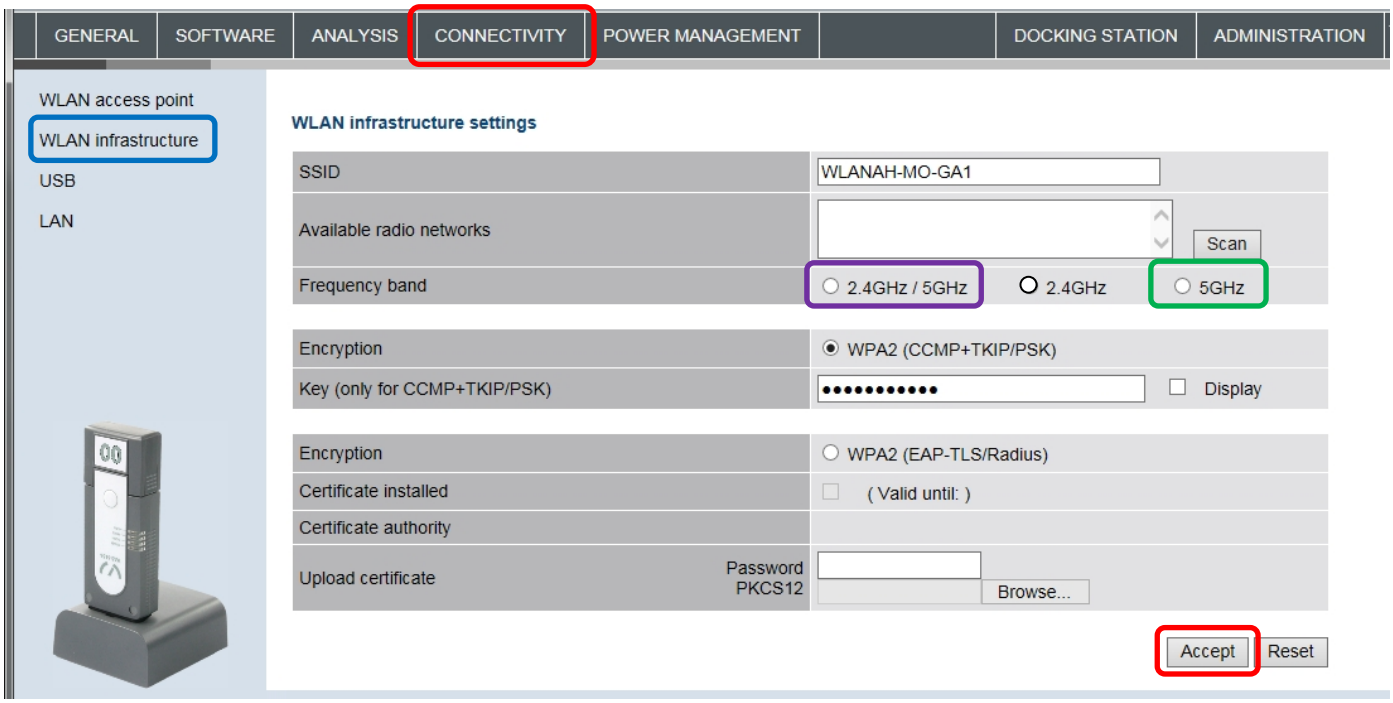
- A dedicated **2.4GHz** connection has better range and barrier capabilities than a 5.0GHz connection, but tends to be slower, less stable and more prone to microwave and other electrical interference.
- A dedicated **5.0GHz** connection tends to be faster, more stable and less prone to electrical interference compared to a 2.4GHz connection, but has poorer range and, in some cases, worsened barrier capabilities.

If a VAS 6154 exhibits frequent connectivity issues at the default 2.4GHz setting, i.e.: does not connect sometimes or disconnects, **and the technician users proximity to the wireless access point is relatively close,** we suggest switching to the **5.0GHz** frequency band, **OR** select to automatically toggle between the two (dual-band network only).

Prerequisite:

☐ *VAS 6154 connected to base station with active web Interface session (Ref. Section 2.1).*

1. Select the **Connectivity** main category and **WLAN Infrastructure** subcategory:
2. Scroll down and select the **5GHz** frequency band, **OR** toggle **2.4GHz / 5GHz** (if supported), and then select **Accept:**



© 2016 Audi of America, Inc.
All rights reserved. Information contained in this document is based on the latest information available at the time of printing and is subject to the copyright and other intellectual property rights of Volkswagen Group of America, Inc., its affiliated companies and its licensors. All rights are reserved to make changes at any time without notice. No part of this document may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, nor may these materials be modified or reposted to other sites, without the prior expressed written permission of the publisher.

2.4 – Assign Static IP Address to VAS 6154

When starting GFF in WLAN Infrastructure mode, quicker network connections to the VAS 6154 may be obtained when it is assigned and operates exclusively with a **static IP address**, and a "network host name" is added to the interface software.

A static IP and its related addresses must be assigned by the dealership Systems Administrator or IT Professional responsible for the dealership network.

ATTENTION:

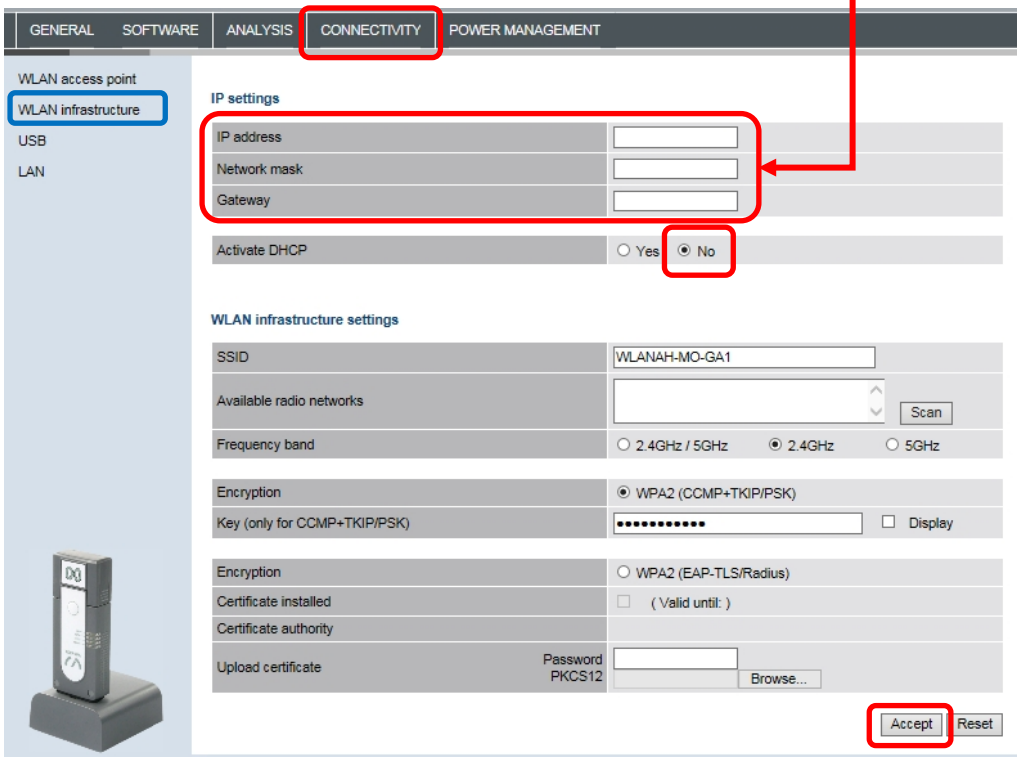
The assignment of a static IP address, subnet mask and gateway information MUST be coordinated with, and recorded by personnel qualified to do so as mentioned above. These addresses cannot be randomly created and applied.

When all required addresses are known, proceed as follows:

Prerequisite:

- ☐ *VAS 6154 connected to base station with active web Interface session (Ref. Section 2.1).*

1. Select the **Connectivity** main category and **WLAN Infrastructure** subcategory:
2. In the **IP settings** category: Deactivate **DHCP** (select **No**), and then enter the assigned **static IP address, Network mask and Gateway information:** Then select **Accept:**



3. Close the web interface session and proceed to Section 2.5.

© 2016 Audi of America, Inc.
All rights reserved. Information contained in this document is based on the latest information available at the time of printing and is subject to the copyright and other intellectual property rights of Volkswagen Group of America, Inc., its affiliated companies and its licensors. All rights are reserved to make changes at any time without notice. No part of this document may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, nor may these materials be modified or reposted to other sites, without the prior expressed written permission of the publisher.

2.5 – Add Static IP Address & Host Name to Interface Software

Prerequisite:

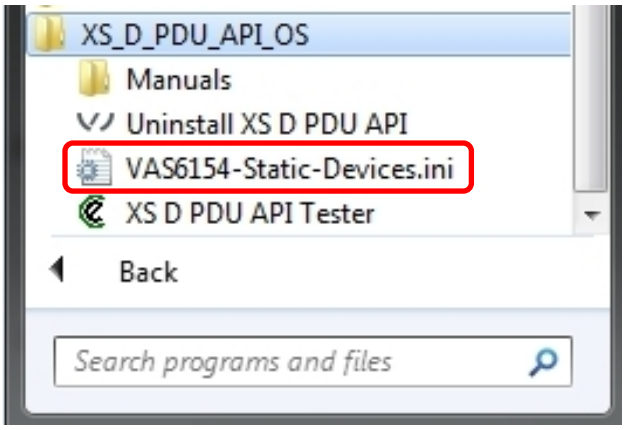
☐ *Static IP address etc. must be assigned to VAS 6154 (Ref. Section 2.4)*

1. Record the **serial number** from the **VAS 6154 module** on a piece of paper, and then add the prefix **VAS6154-** in front of the recorded serial number. Example: **VAS6154-5100885**

Note:
A dash (**-**) *must separate the prefix from the serial number!*

The number created above will be entered as a **network hostname** in the following procedure.

2. From the Windows desktop, go to: **Windows Start > All Programs > XS_D_PDU_API_OS**
3. Select: **VAS6154-Static-Devices.ini**

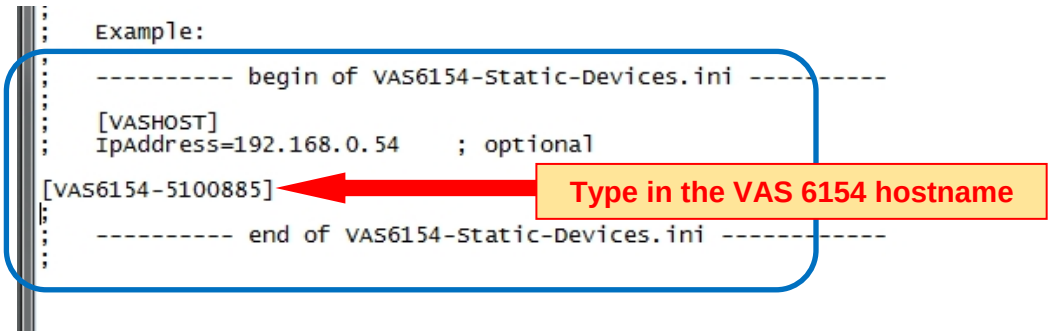


An editable VAS6154 Device Management .ini “Notepad” document is displayed:

(cont.)

© 2016 Audi of America, Inc.
All rights reserved. Information contained in this document is based on the latest information available at the time of printing and is subject to the copyright and other intellectual property rights of Volkswagen Group of America, Inc., its affiliated companies and its licensors. All rights are reserved to make changes at any time without notice. No part of this document may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, nor may these materials be modified or reposted to other sites, without the prior expressed written permission of the publisher.

4. In the **------begin of VAS6154-Static-Devices.ini------** section, below the example text, type in the **network hostname** created in Step 1 - Page 6 **in brackets** as illustrated below:

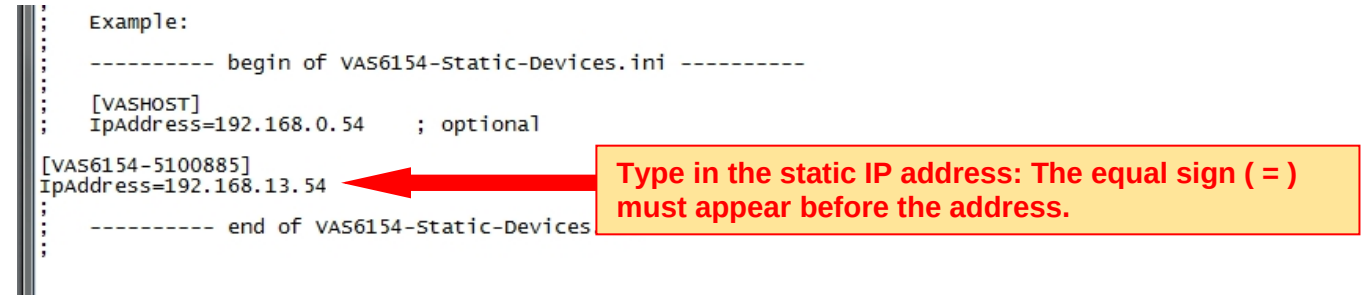


Notes:

- *The hostname* **must** *be typed-in in* **brackets [. . . .]**
- *A* ***semicolon*** **(;)** *must* **NOT** *precede the typed-in hostname.*
- *The hostname illustrated above* ***is an example only!*** *All VAS 6154 serial numbers are different!*

5. In the **------begin of VAS6154-Static-Devices.ini------** section, below the example text, confirm that the network hostname created above appears **in brackets.**

6. Type in **IpAddress=** followed by the **dealership-specific network static IP address <u>below the hostname</u>** as illustrated below:



7. **Save** and close the .ini Notepad document.

Notes:

- *A semicolon* **(;)** *must* **NOT** *precede the typed-in static IP address.*
- *The static IP address illustrated above* ***is an example only!*** *All dealership-specific static IP details are different!*

When configured as described above, the interface software will automatically locate and connect to the VAS 6154 whose hostname (serial number) was entered in the .ini. This essentially "pairs" the VAS 6154 with the diagnostic device, and the two should be used together at all times.

© 2016 Audi of America, Inc.
All rights reserved. Information contained in this document is based on the latest information available at the time of printing and is subject to the copyright and other intellectual property rights of Volkswagen Group of America, Inc., its affiliated companies and its licensors. All rights are reserved to make changes at any time without notice. No part of this document may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, nor may these materials be modified or reposted to other sites, without the prior expressed written permission of the publisher.