OPUS | IVS

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DREW TECHNOLOGIES

Legacy of Leadership

Mongoose-Plus User Guide

TOP 20 MOTOR 2021

Contents

Please Note

Mongoose-Plus® interfaces have been carefully designed and tested to comply with **OBDII protocols**. However, some vehicle models are not in full compliance with these protocols for various reasons. In addition, the computer control systems or sensors on any given vehicle may be malfunctioning or out of specification.

While **OPUS IVS™** testing and the experiences of thousands of **Mongoose-Plus®** users have shown the unit to be safe and reliable, there is an inherent risk in using any product that may potentially affect the operation or drive-ability of your vehicle.

If you are concerned about the operation of your vehicle at any time while using **Mongoose-Plus®**:

* Pull off the roadway immediately or as soon as it is safe to do so.
* Disconnect the **Mongoose-Plus®** from the **OBDII port**.
* Consult a licensed mechanic or automobile service center.

Please report any issues or concerns to our **Technical Support Department** at J2534support@opusivs.com or **(734) 222-5228** option 2,1. We are open Monday-Friday, 9:00am-5:30pm Eastern Time. We maintain an active database of the feedback we receive, and your comments can help us continuously improve the product.

Copyright & Trademarks

Limited Warranty

Opus IVS™ guarantees that every **Mongoose-Plus®** is free from physical defects in material and workmanship under normal use for one year from the date of purchase.

In no event shall Opus IVS™ liability exceed the price paid for the product. Opus IVS™ shall be exempt from all other claims whether based upon direct, indirect, special, incidental, or consequential damages resulting from the use of the product, its accompanying software, or its documentation. Opus IVS™, makes no warranty or representation, expressed, implied, or statutory, with respect to its products or the contents or use of this documentation and all accompanying software, and specifically disclaims its quality, performance, merchantability, or fitness for any particular purpose. **Opus IVS™** reserves the right to revise or update its products, software, or documentation without obligation to notify any individual or entity. Please direct all inquiries to:

Opus IVS™
7322 Newman Blvd
Building 3
Dexter, MI 48130
United States

FCC Statement

The wireless module has been tested and found to comply with the **FCC Part 15** and **ICRSS-210** rules. These limits are designed to provide reasonable protection against harmful interference in approved installations. This equipment generates,uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference may not occur in a particular installation. This device complies with **Part 15** of the **FCC** rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received,including interference that may cause undesired operation. Modifications or changes to this equipment not expressly approved by the part responsible for compliance may render void the user's authority to operate this equipment.

Modular Approval, **FCC** and **IC**.

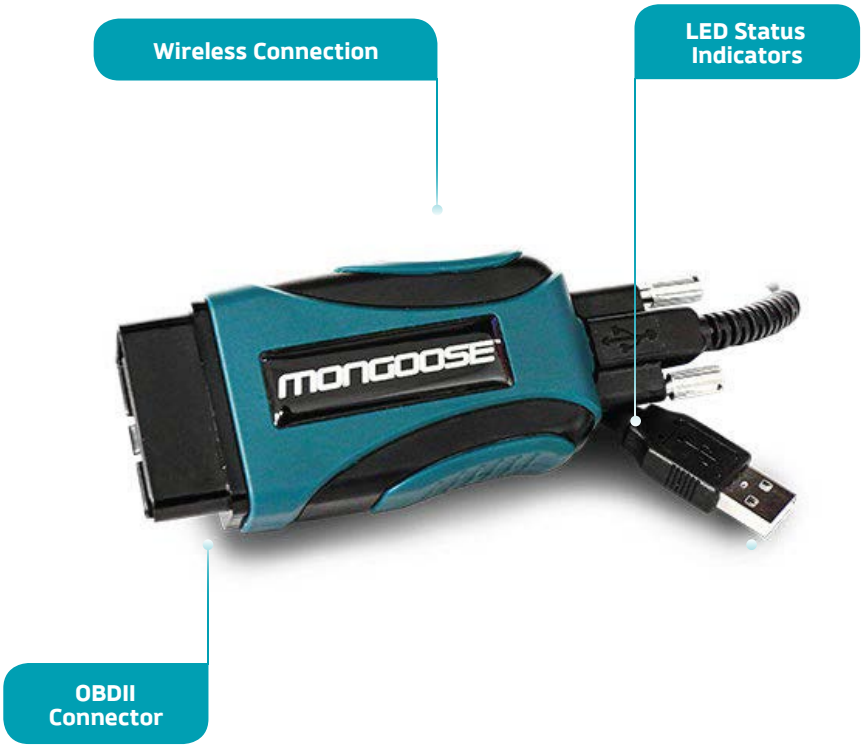
FCC ID SQGBT900
IC SQGBT900

In accordance with **FCC Part 15**, the **BT900-SA** is listed above as a modular transmitter device.

Introduction

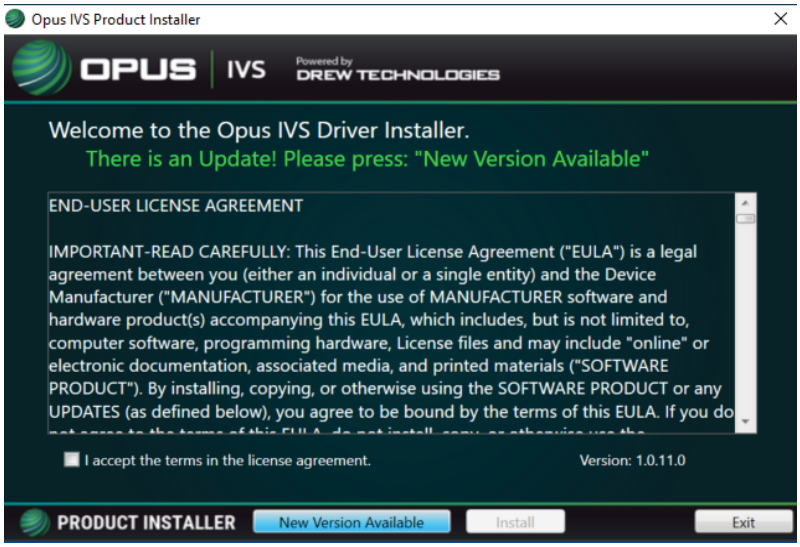
Thank you for choosing the **Mongoose-Plus®!** The **Mongoose-Plus®** will allow you to re-flash modern vehicle controllers to stock as well as perform dealer level diagnostics on select manufacturer's vehicles. The **Mongoose-Plus®** is an SAE J2534-compliant device at a low cost. It provides a direct connection to a laptop or desktop computer via a USB connection. All of the electronics are contained in the OBDII connector shell, making it a compact and rugged vehicle communications tool. The **Mongoose-Plus®** is powered by the USB connector, so there's no need to re-start the **Mongoose-Plus®** if it is unplugged from a vehicle.

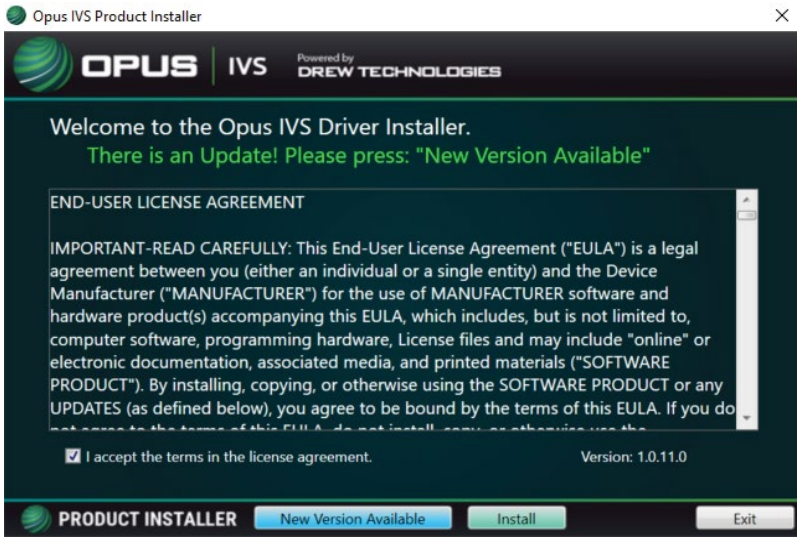
Getting to know the Mongoose-Plus®



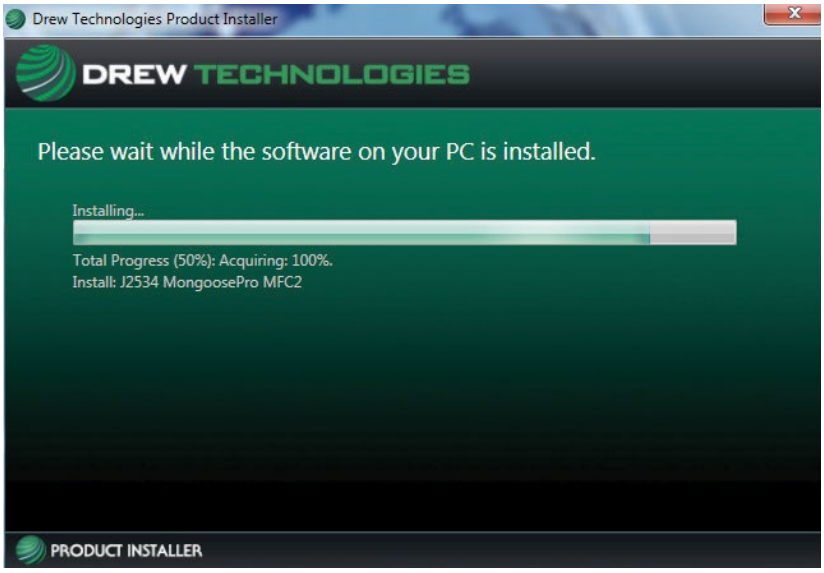
Driver Installation

1. Go to or click this link to go to the **OPUS IVS™** downloads page: https://www.opusivs.com/support/downloads.
2. Click the **Set-up** link for the respective **Mongoose-Plus®** be installed.
3. Click **Run** to install the software once the software has to downloaded to your PC.
4. Upon receiving this screen, read, check the box next to **Accept** then click **Install**.





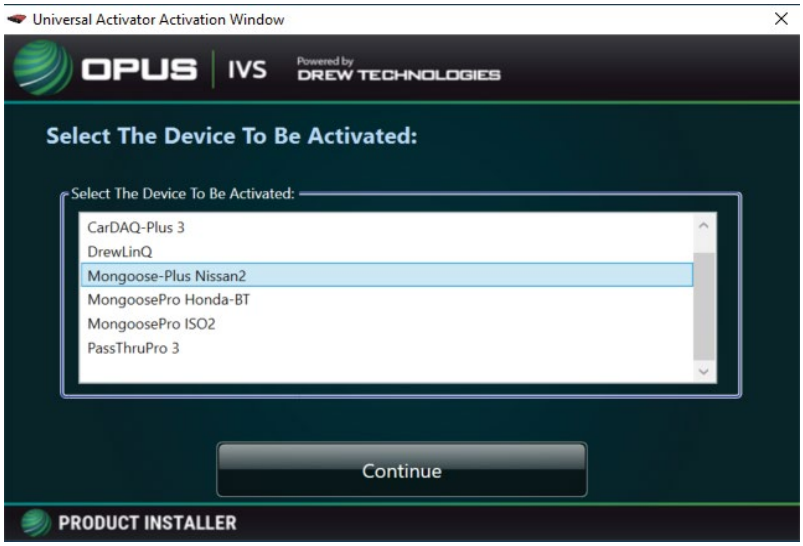
5. Installing...



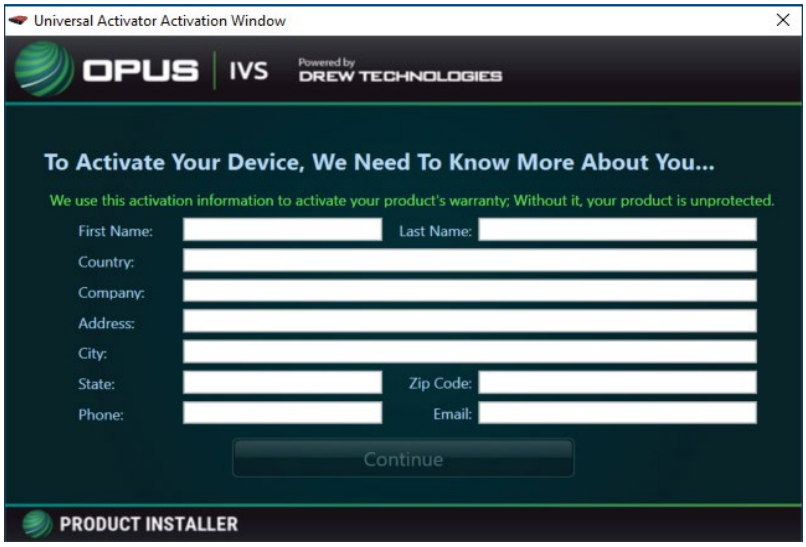
6. Once the setup application has finished, connect the **Mongoose-Plus®** to the PC. Once you have gotten a message in the lower, right-hand corner of your screen that the device has been installed, click on **Activate My Device**.

7. The **Device Activator** application will reopen after clicking **Activate My Device**. Click the **Activate My Device! button**.

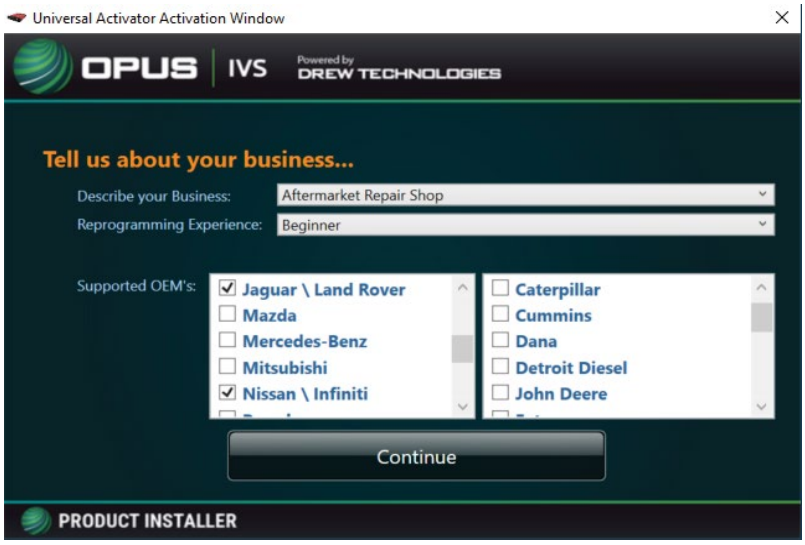
8. Select the interface device you want to activate and click **Continue**.



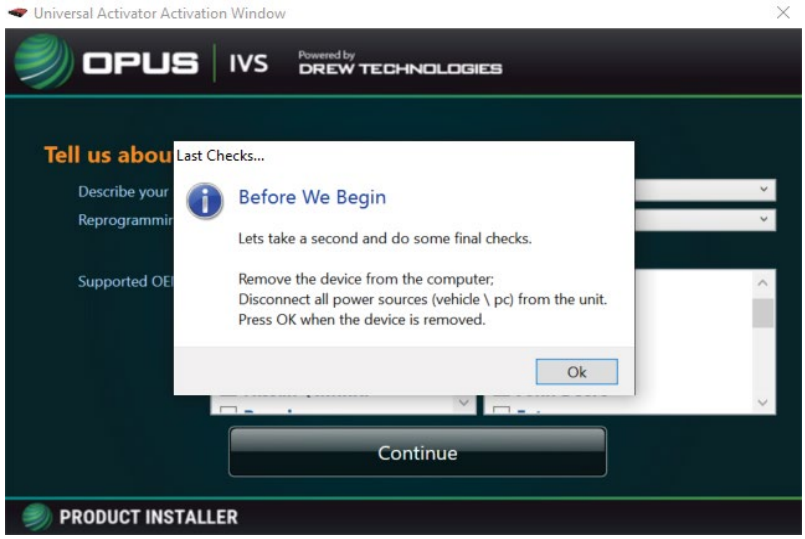
9. Enter the applicable information and click **Continue**.



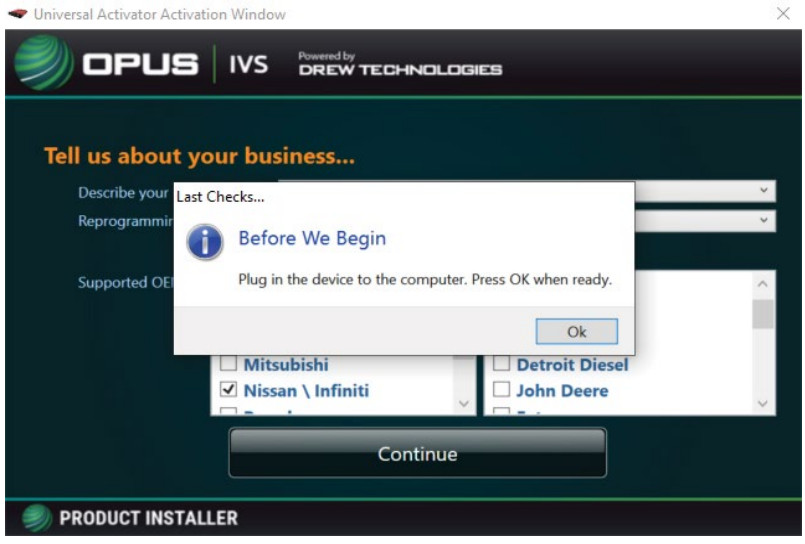
10. Select your type of business and level of programming experience, then select the OEM's you are planning to support. Click **Continue**.



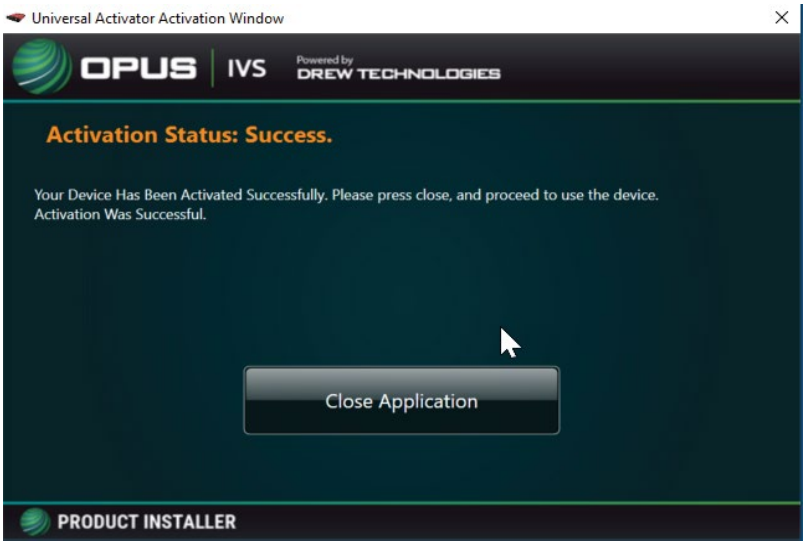
11. Leave the **Mongoose-Plus®** disconnected from the PC.



12. Plug your **Mongoose-Plus®** to the PC, and click **OK**.



13. This is the screen you will see once your device activation is successful.



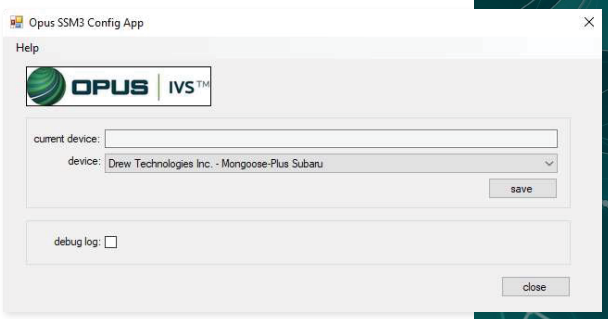
NOTE: Once product activation is performed successfully, you can also install the device on other PC's and not have to perform the activation procedure again.

Subaru SSM3 Driver User Guide

READ ME FIRST

Your Opus IVS VCI driver and configuration application are installed during the device installation process. Before proceeding please ensure that you have completed the steps in the Mongoose Plus User Guide & CarDAQ Plus 3 User Guide.

Using OPUS IVS VCI with SSM3



SELECTING THE OPUS IVS VCI FOR USE WITH SSM3

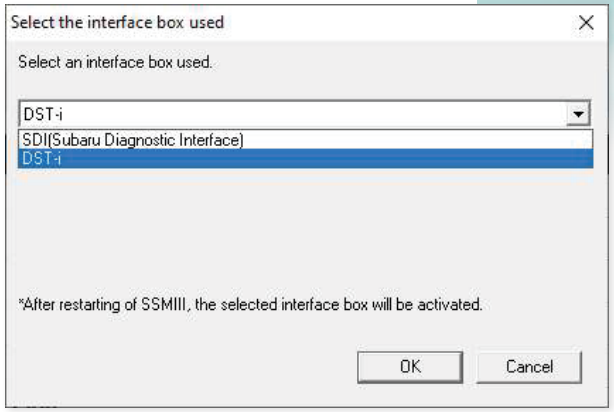
1. Using the Opus SSM3 Config App you will select the correct device to be used with SSM3 software. If the Opus SSM3 Config App is not running you can find this in the Start | Drew Technologies menu.
2. To select the Opus IVS VCI as your default device, in the Device drop-down list select Device Technologies - CarDAQ-Plus3 OR Device Technologies - Mongoose Plus Subaru.
3. Click the Save button
4. To complete the selection process click the Close button.

If you are experiencing issues using the Opus IVS VCI with SSM3 you can enable Debug Logging here to create a log Opus IVS support can use to help resolve your issue.

SELECTING THE OPUS IVS VCI FOR USE WITH SSM3

1. Using the SSM3 software, press F10 or select I/F Box in the toolbar.

2. Next, in the “Select the interface box used” window, select DSTi as the vehicle interface.
3. Finally, click the OK button to complete the process.
4. Congratulations you are ready to scan your Subaru vehicles.



TROUBLESHOOTING

Common Problems

1. In the Device selection drop-down list I can't see any Drew Technologies devices.

Ensure that you have completed the device installation process as outlined in the Mongoose Plus User Guide & CarDAQ Plus 3 User Guide provided with your device.

2. I have SSM4. Do I need to follow any of these steps?

No, SSM4 and SSM5 do not require a special device selection to operate.

3. I keep having to make the device selection everytime I reboot my Windows device.

Ensure that you have sufficient privileges to save to the Windows Registry. Please contact your System Admin or login with an Admin privileges.

4. SSM3 takes a long time to scan the entire vehicle?

The SSM3 software is traditionally very slow to complete this process. Later versions of the software (SSM4 and SSM5) significantly improved the speed of this request.

The DSTi VCI has no speed advantage over the Opus IVS device. This is a software related issue.

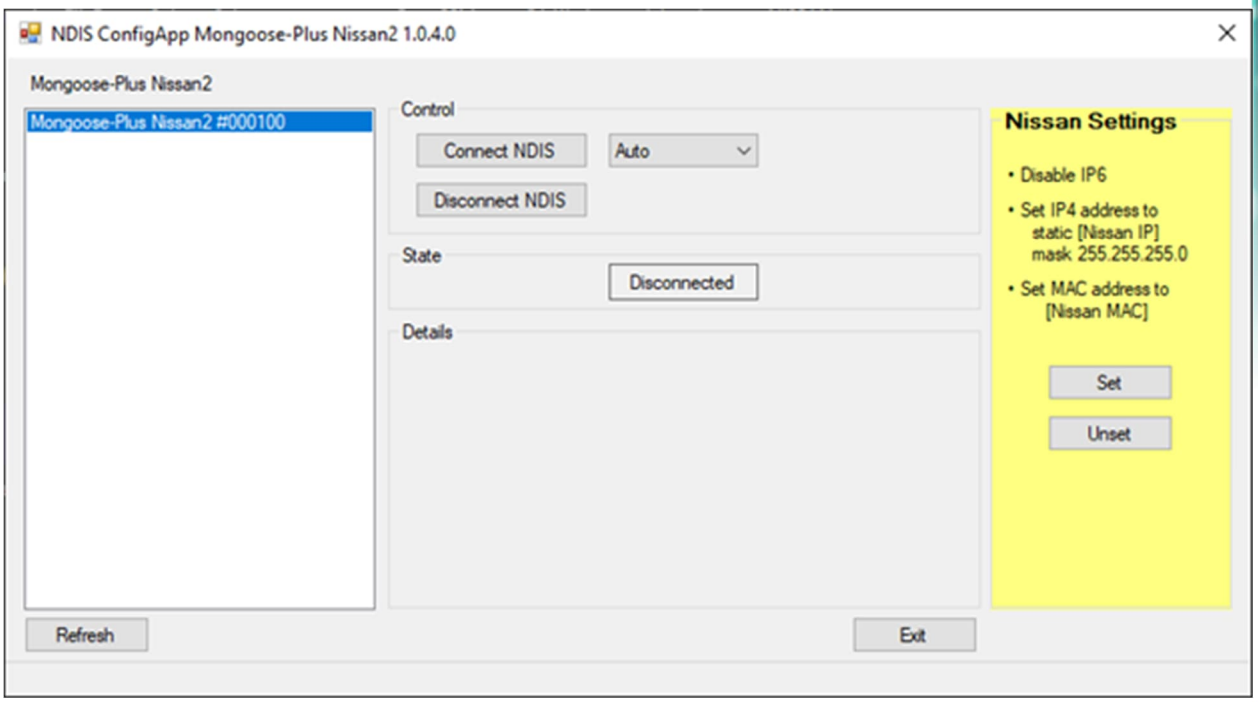
If you still need help consult the User Guide or contact us:
email: J2534support@opusivs.com
phone: 1-734-222-5228 Option (2,1)
www.opusivs.com

Nissan NDIS Config App Guide

READ ME FIRST

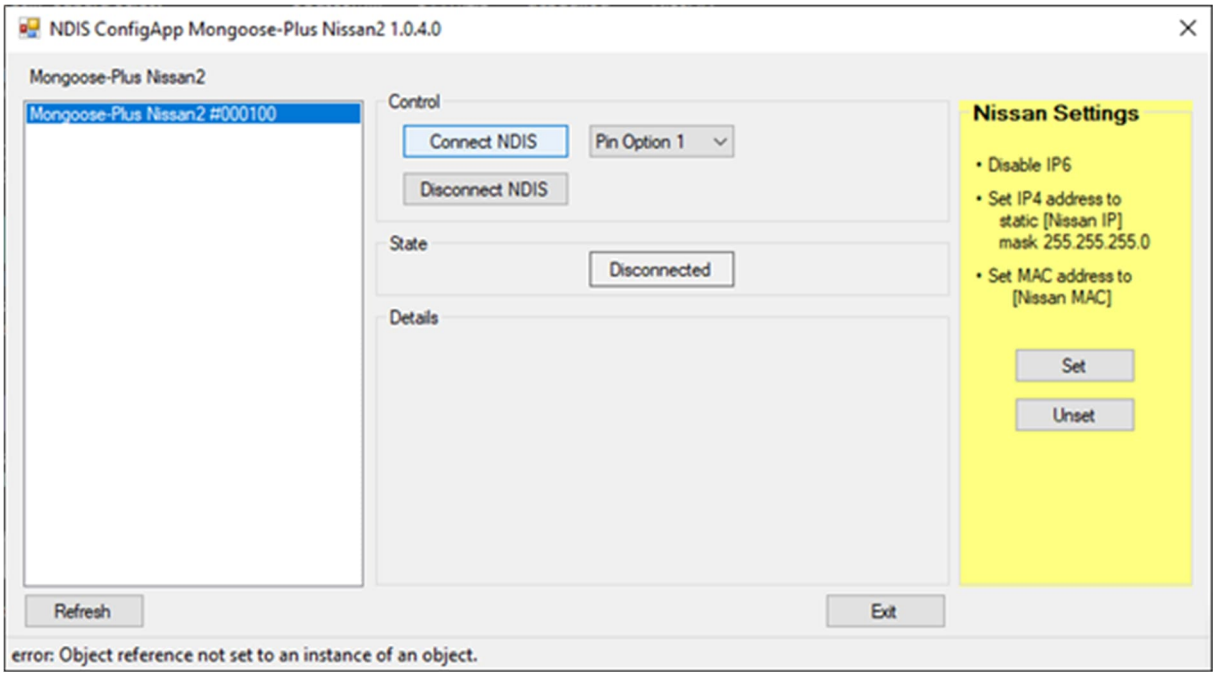
Preparing for Nissan Consult 4 with your Mongoose Plus Nissan2.

1. Plug the Mongoose Plus Nissan2 into your PC and the vehicle DLC.
2. Click the start button.
3. Click on “all apps”
4. Scroll down to Drew Technologies, inc.
5. Click on “Mongoose-Plus Nissan2 NDIS Config App”
6. Once open confirm the device is seen on the right-hand side of screen and click on it.

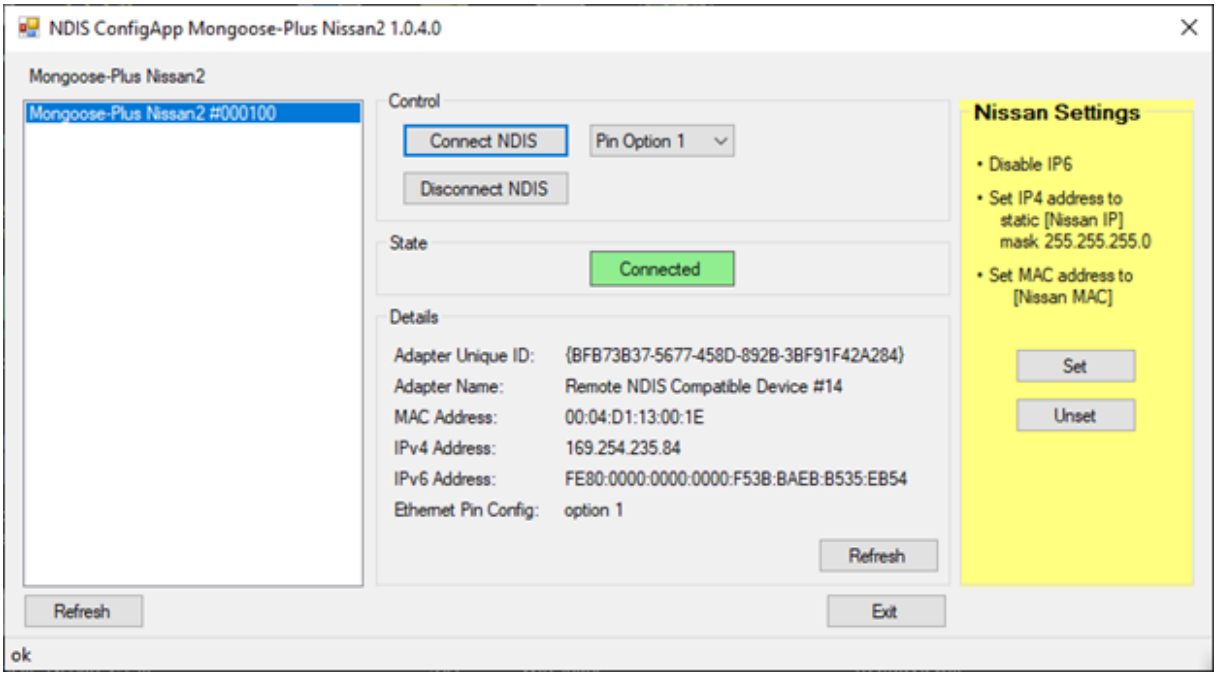


Preparing for Nissan Consult 4 with your Mongoose Plus Nissan2.

7. Click “Connect NDIS”

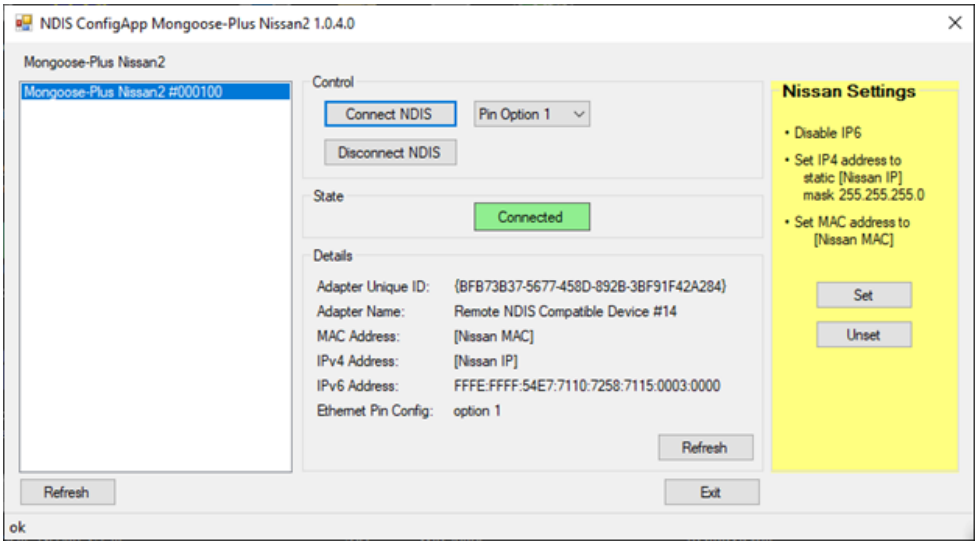


8. If the MAC address does not read [Nissan MAC] and the IP address does not read [NissanIP], click “Set” under Nissan settings. Note: this may take 2 min.

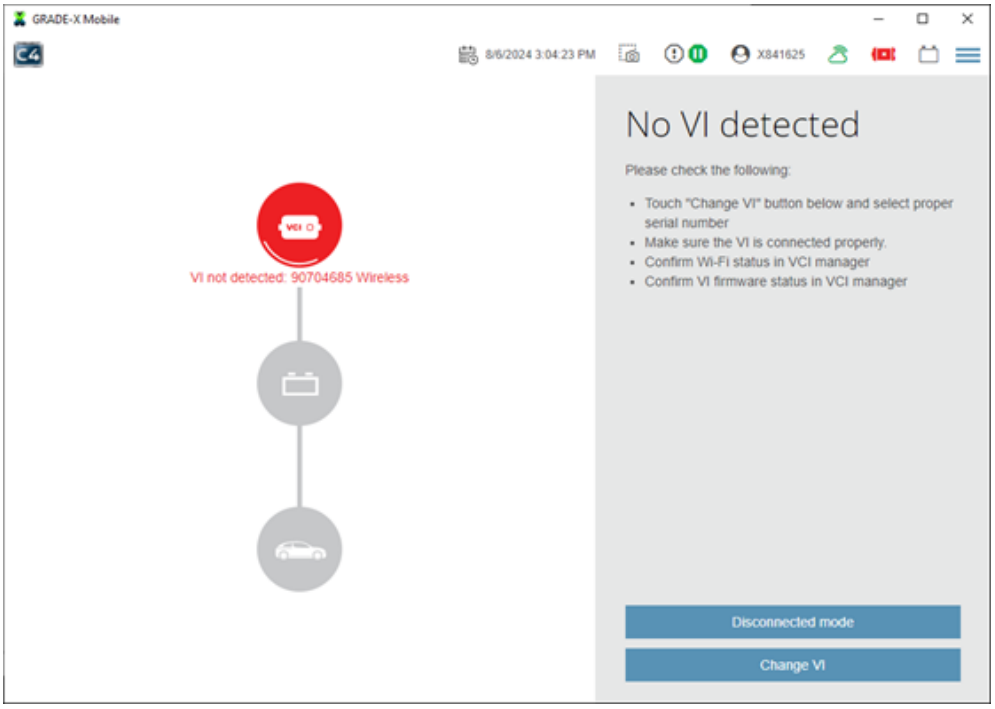


Preparing for Nissan Consult 4 with your Mongoose Plus Nissan2.

9. After the “Details” pane clears of information, click connect again and confirm that [Nissan MAC] & [Nissan IP] are shown.

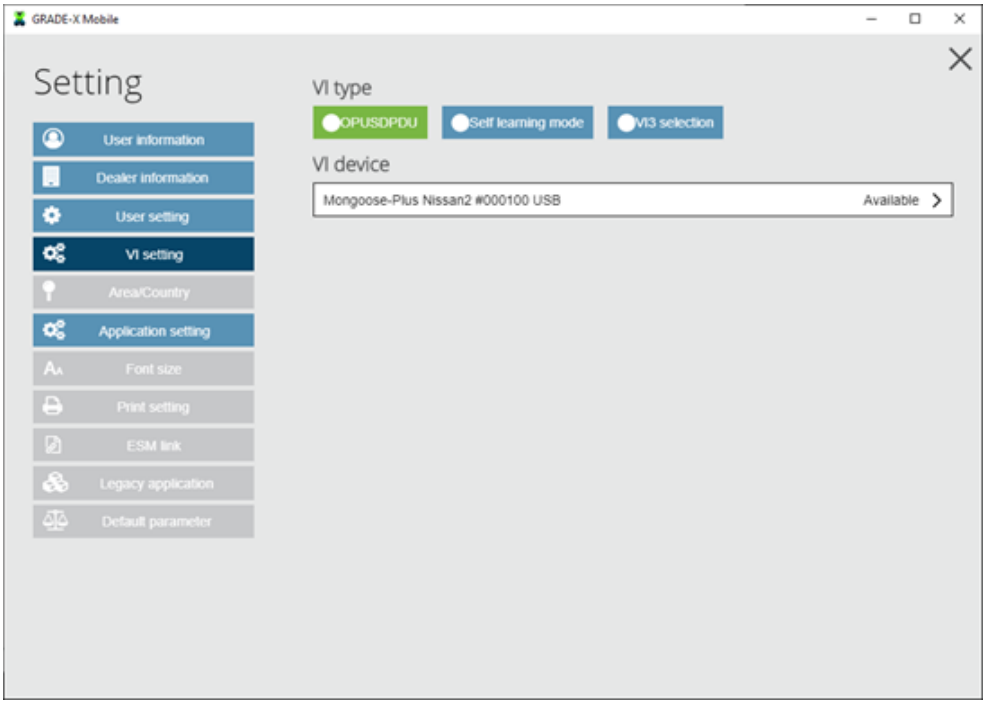


10. Click “Disconnect NDIS” and close the window.
11. You may now launch Consult 4.
12. Consult 4 will not automatically see the Mongoose. Click "ChangVI"

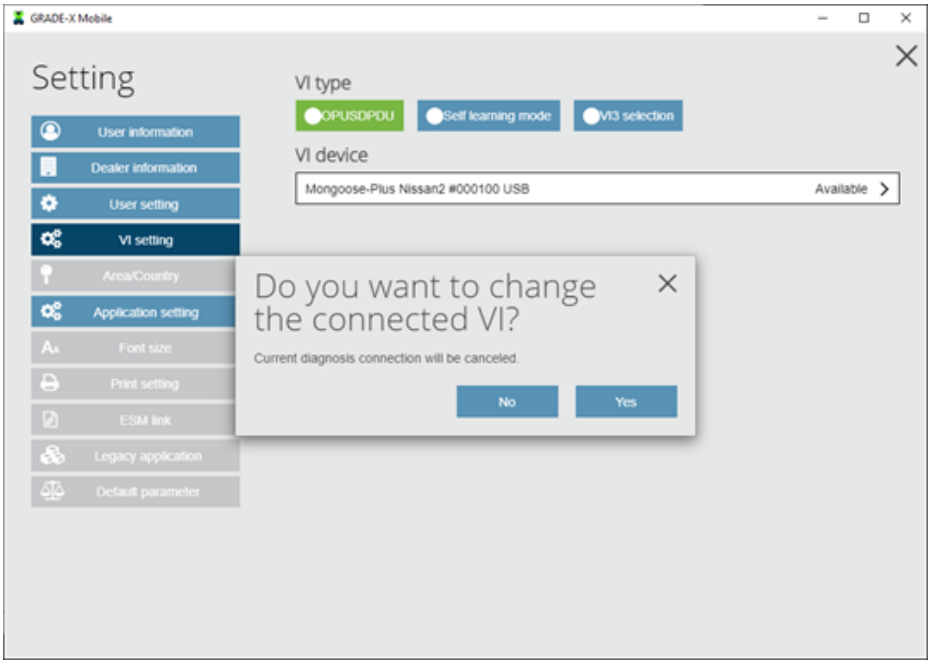


Preparing for Nissan Consult 4 with your Mongoose Plus Nissan2.

13. Click on "OPUSDPDU" and click on the Mongoose Nissan2 entry below.



14. Click yes to select the Mongoose Plus Nissan2.

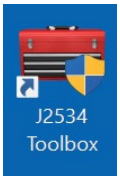


15. Consult 4 will now start connecting to the vehicle

J2534 Toolbox 3

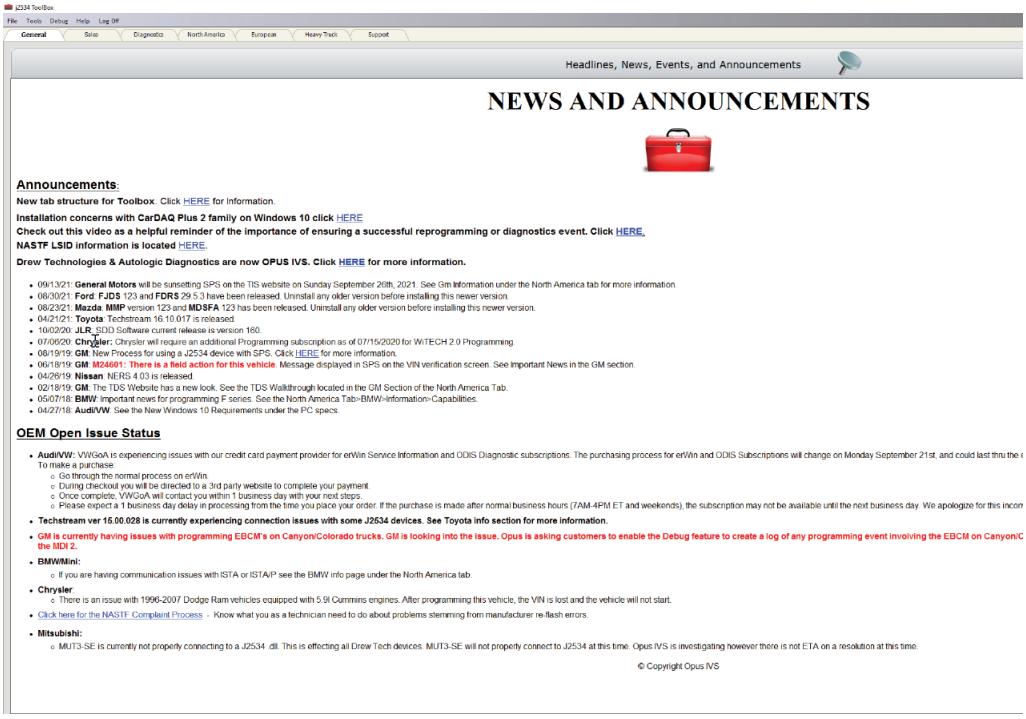
The purpose of the **J2534 Toolbox** is to provide current, relative information and assistance to the user. The information is provided via various walk-through documents, OEM documentation, web-links, quick-links, videos, basic diagnostic functions, connection verification and much more. The **J2534 Toolbox** should be referred to regularly as information is updated continually.

1. Locate and double-click the **J2534 Toolbox Icon** on the desktop



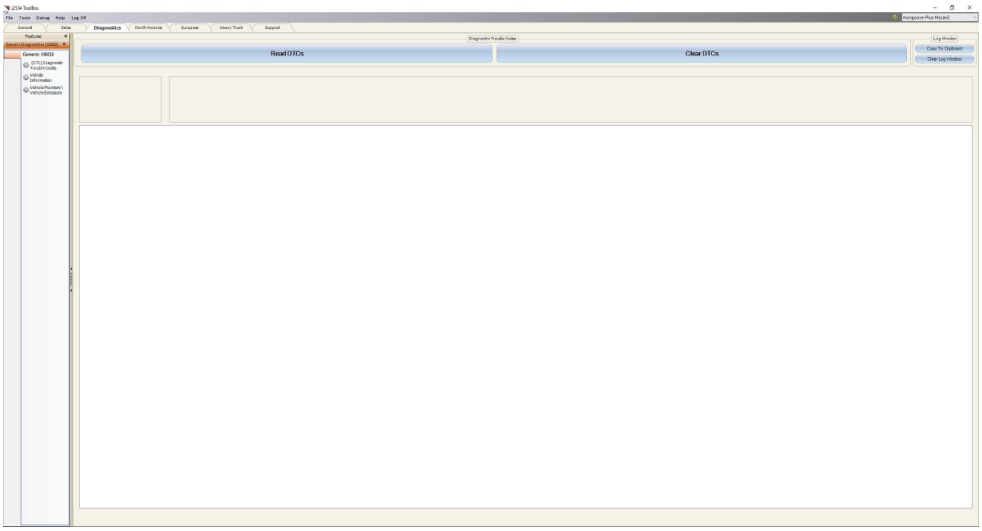
2. Select your interface from the drop-down menu and click **Auto Login**.

a. GENERAL TAB Contains important news, current OEM concerns, training broadcast invitations and current information you should review.



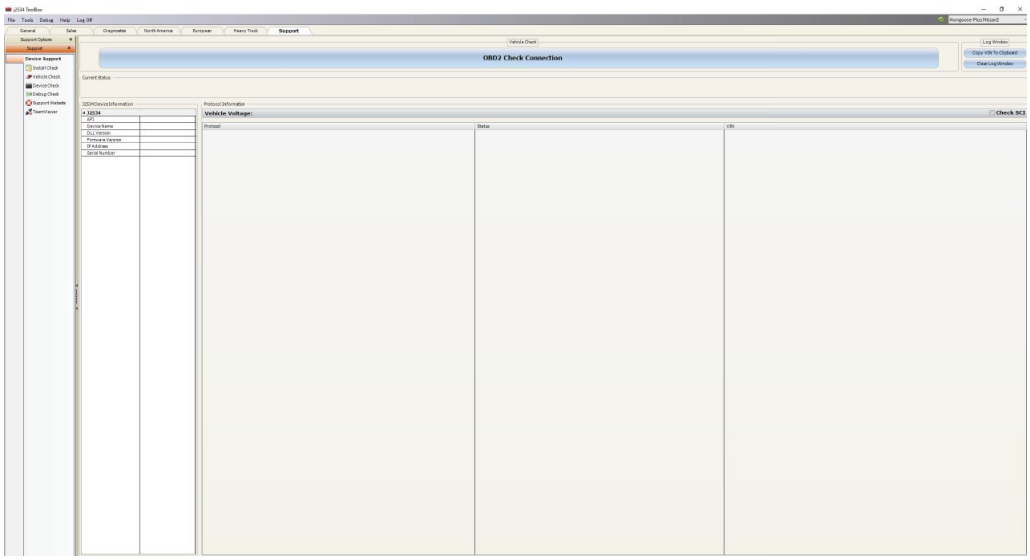
b. SALES TAB Connects you to the **Opus IVS™** website.

c. DIAGNOSTIC TAB Contains relative links, some diagnostic functions, information and videos about flashing and OEM's that currently provide diagnostics via J2534.



d. FLASHING TAB Contains the information pertaining to OEM J2534 flashing including links, information, walk-throughs, and some helper functions.

e. SUPPORT TAB Contains functions to check driver installation, vehicle communication, updating the device, create debug logs, contact Technical Support and other resources.



f. TRAINING TAB Contains general information, installation and Using OEM J2534 Application Videos with Drew Technologies products.

Maximum Voltage Per Mongoose-Plus® Product

Product	Max VBatt	Min VBatt CAN	Min VBatt J1850	Min VBatt K-Line	Min VBatt SCI
Chrysler 2	32	N/A	9	6	10
Ford 2	32	N/A	N/A	6	N/A
GM 3	32	N/A	9	6	N/A
Honda 2	32	N/A	N/A	6	N/A
ISO/CAN 3	32	N/A	N/A	6	N/A
Nissan	32	N/A	N/A	6	N/A
Subaru	32	N/A	9	6	N/A
Toyota 3	32	N/A	9	6	N/A
VW 2	32	N/A	N/A	6	N/A

Mongoose-Plus®
Vehicle Connector Pin Assignments

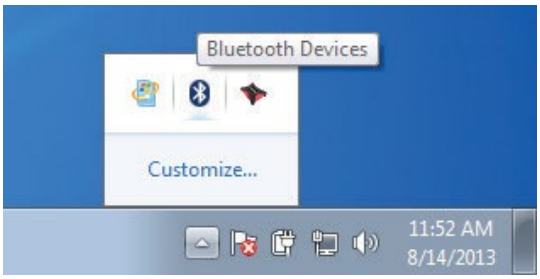
Feature	VW2	Honda2	ISO/CAN3	MFC3	Ford2	Nissan2	GM3	Chrysler2	Subaru
Product Code	SQ	SN	SP	SL	SM	SO	SR	SS	SU
USB ID	0x018F	0x018C	0x018E	0x018A	0x018B	0x018D	0x191	0x192	Ox194
CAN-FD 1 (6&14)	●	●	●	●	●	●	●	●	●
CAN-FD 2 (3&11)	●	●		●	●		●	●	●
CAN-FD 2 (3&8)				●				●	●
CAN-FD 3 (12&13)							●	●	
CAN-FD 3 (1&9)							●	●	
CAN-FD ? (SW Pin 1)							●		
Fault Tolerant CAN3 (1&9)								●	
Fault Tolerant CAN1 (6&14)								●	
Ethernet/NDIS (3&11) ISO 13400-3 option 1	●	●	●	●		●	●		●
Ethernet/NDIS (1&9) ISO 13400-3 option 2					●			●	
Ethernet Activtion (meas V on pin 8,pull up 4.7k, 500 ohms)	●	●	●	●	●	●	●	●	●
J1850 (VPW) (Pin 2)				●			●	●	●
J1850 (PWM) (2&10)				●	●				●
ISO Serial K-line (Pin 7)	●	●	●	●	●	●	●	●	●
ISO Serial K-line or L line(Pin 15)	●	●	●	●	●	●	●	●	●
K line (pin 1)								●	
K line (pins 3,6,7,8, 9,12,13,15)							●		
DiagH(Pin 1)		●							
DiagH(Pin 14)		●							
GM UART (pins 1,9)							●		
SCI (Pin 6,7,9,12,14,15)								●	
STG(Pin 1)	●	●		●	●	●			●
STG(Pin 9)	●	●		●	●	●			●
STG(Pin 15)	●	●	●	●	●	●	●	●	●
VPP 5Volts(Pin 12)	●	●		●		●			●
VPP FEPS(Pin 13)				●	●				●
UART Echo Byte	●	●	●	●	●	●	●	●	●
TP 1.6 / 2.0	●								
Measure V on pin 1	●	●		●	●	●	●	●	●
J2534-1 0500 support	●	●	●	●	●	●	●	●	●

Bluetooth Setup

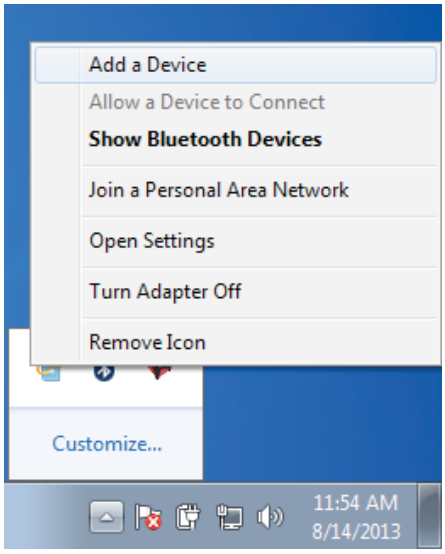
Bluetooth is an option that can be purchased with some **Mongoose-Plus®** versions. If you have purchased **Bluetooth**, your **Mongoose-Plus®** will have a **BT** at the end of the model number. Please note that **Opus IVS™** does not recommend doing any reprogramming over **Bluetooth**.

1. Make sure your **Mongoose-Plus®** is plugged into the DLC. You have 2 minutes to pair after device is powered up. If you exceed 2 minutes remove **Mongoose-Plus®** from DLC and start over. Note: USB cable must be removed to pair Bluetooth.

2. To pair your **Mongoose-Plus® BT**, right click on the **Bluetooth icon** in the System Tray.



3. Click on **Add Device**



4. Select your device from the available options, then click **Next**.
5. Enter the pairing code **2534** in the text box and click **Next** pair the **Mongoose-Plus®**.
6. Your **Mongoose-Plus®** has been successfully paired with your PC.

NOTE: Only have one (1) **Mongoose-Plus®** paired with your PC to avoid erroneous test results. The **Mongoose-Plus®** driver will inform if you have multiple devices paired to your PC.

Technical Support

Please contact **Opus IVS™** for technical support at J2534support@opusivs.com.or **(734)** 222-5228 option **2,1**.

If technical support finds it necessary for the unit to be returned for repair, you will be asked for your contact information and then provided with a **Return Merchandise Authorization number (RMA #)**. **Opus IVS™** will use the **RMA #** to track the unit through the repair process. Please write this number on the outside of your shipping box so it can be routed to the correct department. If the necessary repair is not covered by **Opus IVS™'** warranty, you will be contacted for payment arrangements.

Mongoose-Plus LED Indicators

Mongoose-Plus LED Indicators - USB Only Device				
LED	Blinking Red	Solid Red	Blinking Green	Solid Green
Left LED	N/A	Firmware Error - Call Support	Device Start Up Process	Device is Functioning
Right LED	Data Transfer	Vehicle Power With No USB	N/A	N/A

Mongoose-Plus LED Indicators - USB and Bluetooth Device								
LED	Blinking Red	Solid Red	Blinking Green	Solid Green	Blinking Blue/Green	Solid Blue	Blinking Blue	Blinking White/Blue
Left LED	N/A	Firmware Error- Call Support	Device Start Up Process	Device is Functioning	N/A	Bluetooth On	N/A	N/A
Right LED	Data Transfer	N/A	N/A	N/A	Pairable	Bluetooth Connected	Not Pairable	Data Transfer

Note: If not Pairable, unplug from the vehicle connector and plug it back in (restart the device)

Environmentals

Environmental conditions, 5°C to 40°C and a Maximum relative humidity 80% for temperatures up to 31°C decreasing linearly to 50% relative humidity at 40°C

Indoor use only

Altitude: 2000m above mean sea level
Relative humidity: 0 to 90%
Over voltage category: II
Pollution degree: 2

Mongoose-Plus

OPUS | IVS

Powered by

DREW TECHNOLOGIES

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Dexter, MI 48130
United States

877.888.2534
844.*REFLASH* (844.733.5274)

opusivs.com