

# **OPUS Mongoose Plus OEM Vehicle Interface Cable User Guide**

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**OPUS Mongoose Plus OEM Vehicle Interface Cable** 



#### **Product Information**

# **Specifications**

• Brand: Opus IVSTM

• Model: Legacy Leadership Plus

• Wireless Connection

LED Status Indicators

• OBDII Connector

• FCC ID: SQGBT900

• IC: SQGBT900

# **Product Usage Instructions**

## Introduction

The Legacy Leadership Plus by Opus IVSTM is a versatile device equipped with wireless connection capabilities, LED status indicators, and an OBDII connector for seamless integration.

#### **Driver Installation**

- 1. Go to or click this link to go to the OPUS IVSTM downloads page: OPUSI VSTM Downloads Page.
- 2. Click "Run" to install the software once downloaded to yourPC.
- 3. Upon receiving the installation screen, read, check the box next to "Accept," then click "Install."
- 4. Follow the on-screen instructions for installation.

## **Device Activation**

- 1. The Device Activator application will reopen after clicking "Activate My Device." Click the "Activate My Device!" button.
- 2. Select the interface device you want to activate and click "Continue."

#### **FAQ**

- Q: Can the Legacy Leadership Plus be used with all vehicle models?
  - A: The Legacy Leadership Plus is compatible with most vehicle models that support OBDII protocols.
     However, it is recommended to check the product specifications for compatibility details.
- Q: How do I know if the device is successfully connected?
  - A: The LED status indicators on the Legacy Leadership Plus will provide visual cues to indicate successful connection. Refer to the user manual for specific LED status meanings.

# **Safety Information**

#### **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 driveability 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 <a href="mailto:J2534support@opusivs.com">J2534support@opusivs.com</a> or (734) 222–5228 option 2,1. We are open Monday–Friday, 9:00am–5:30pm Eastern Time. We main-tain an active database of the feedback we receive, and your comments can help us continuously improve the product.

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Mongoose-Plus®, CarDAQ®, IMclean®, IMready® and J2534 ToolBox are registered trademarks of Opus IVS™ All other trademarks and brand names are the property of their respective owners,

# **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<sup>TM</sup> liability exceed the price paid for the product. Opus IVS<sup>TM</sup> 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<sup>TM</sup>, 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<sup>TM</sup> 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<sup>TM</sup>
- 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
- 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**

- 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 downloaded to your PC.
- 4. Upon receiving this screen, read, check the box next to Accept then click Install.





5. Installing...



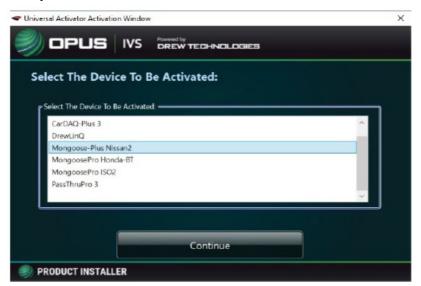
6. Once the setup application has finished, connect the Mongoose-Plus ® to the PC. Once you have gotten a message in the lower, right-hand corner of your screen that the device has been installed, click on Activate My Device.



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.



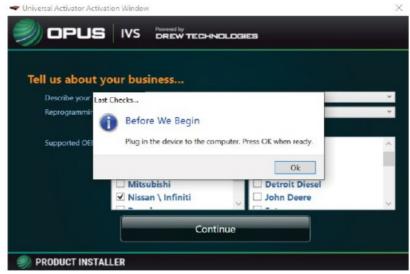
10. Select your type of business and level of programming experience, then select the OEM's you are planning to support. Click Continue.



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

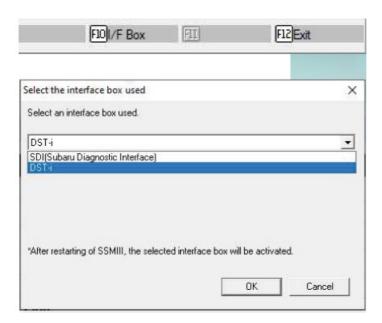
SELECTING THE OPUS IVS VCI FOR USE WITH SSM3



- 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.

**Warning:** 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: <u>J2534support@opusivs.com</u>

• **phone:** 1-734-222-5228 Option (2,1)

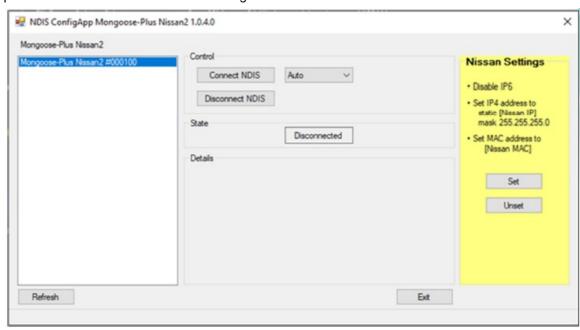
• www.opusivs.com

# **Nissan NDIS Config App Guide**

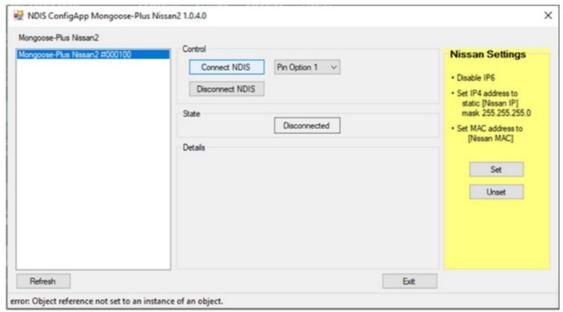
#### **READ ME FIRST**

# Preparing for Nissan Consult 4 with your Mongoose Plus Nissan2.

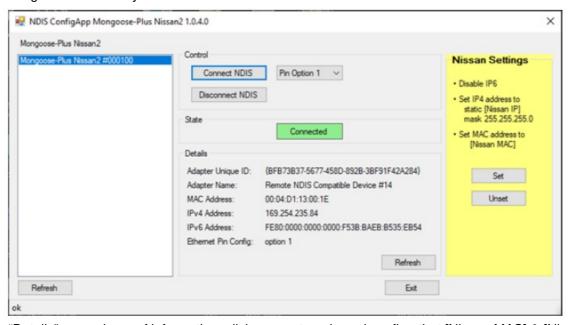
- 1. Plug the Mongoose Plus Nissan2 into your PC and the vehicle DLC.
- 2. Click the start button.
- 3. Click on "all apps"
- 4. Scroll down to Drew Technologies, inc.
- 5. Click on "Mongoose-Plus Nissan2 NDIS Config App"
- 6. Once open confirm the device is seen on the right-hand side of screen and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



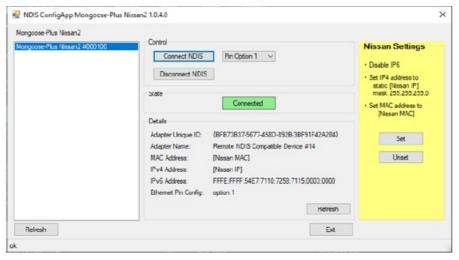
7. Click "Connect NDIS"



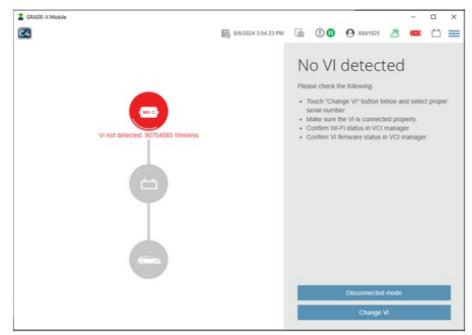
8. If the MAC address does not read [Nissan MAC] and the IP address does not read [NissanIP], click "Set" under Nissan settings. Note: this may take 2 min.



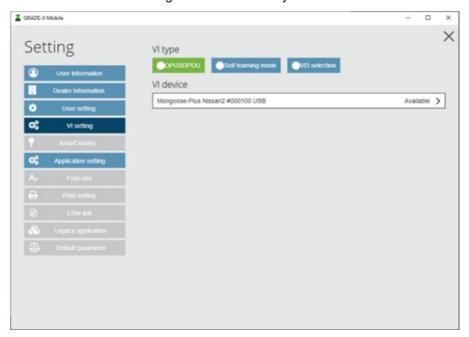
9. After the "Details" pane clears of information, click connect again and confirm that [Nissan MAC] & [Nissan IP] are shown.



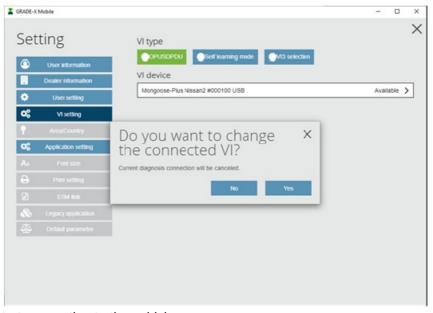
- 10. Click "Disconnect NDIS" and close the window.
- 11. You may now launch Consult 4.
- 12. Consult 4 will not automatically see the Mongoose. Click "ChangVI"



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

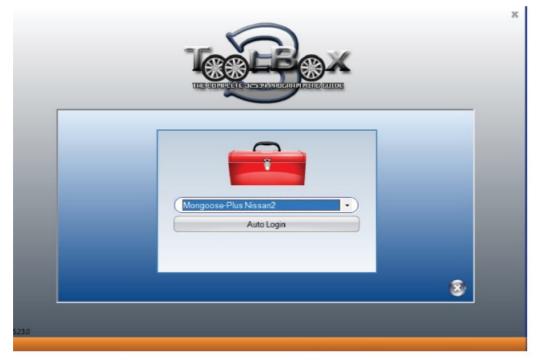
#### J2534 Toolbox 3

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.

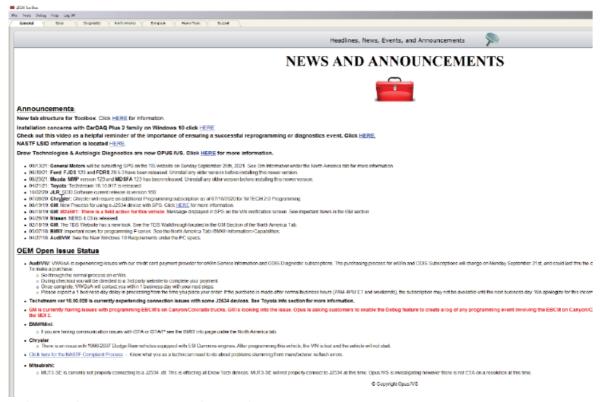
1. Locate and double-click the J2534 Toolbox Icon on the desktop



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



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

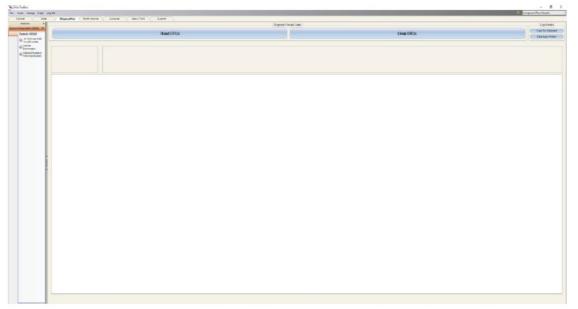


• **SALES TAB:** Connects you to the Opus IVS™ website.

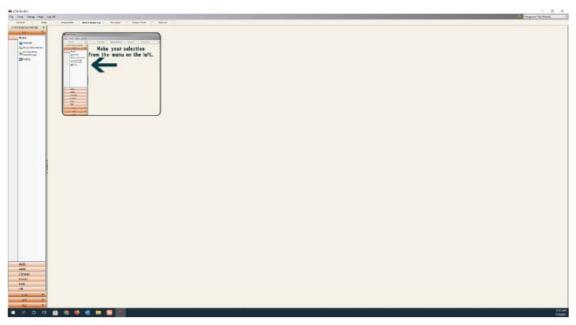




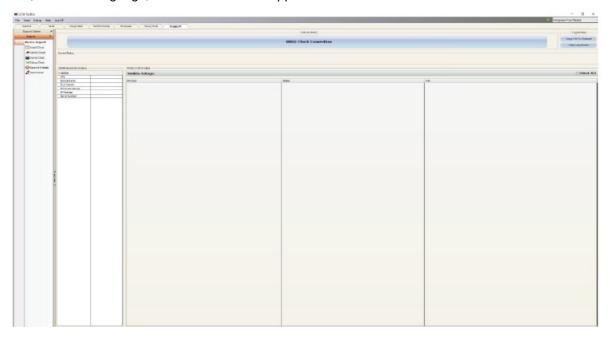
• **DIAGNOSTIC TAB:** Contains relative links, some diagnostic functions, information and videos about flashing and OEM's that currently provide diagnostics via J2534.



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



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



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

# **Maximum Voltage**

# **Maximum Voltage Per Mongoose-Plus® Product**

| Product    | Max VBatt | Min VBatt<br>CAN | Min VBatt<br>J1850 | Min VBatt K–Li<br>ne | 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           |

# **Connector Pin Assignments**

**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<br>(1&9)                                      |        |        |          |        |        |         |       | •         |        |
| Fault Tolerant CAN1<br>(6&14)                                     |        |        |          |        |        |         |       | •         |        |
| Ethernet/NDIS (3&11)<br>ISO 13400-3 option 1                      | •      | •      | •        | •      |        | •       | •     |           | •      |
| Ethernet/NDIS (1&9)<br>ISO 13400-3 option 2                       |        |        |          |        | •      |         |       | •         |        |
| Ethernet Activtion<br>(meas V on pin 8,pull<br>up 4.7k, 500 ohms) | •      | •      | •        |        | •      | •       | •     | •         | •      |
| J1850 (VPW) (Pin 2)   |        |        |          | •      |        |         | •     | •         | •      |
| J1850 (PWM) (2&10)  |        |        |          | •      | •      |         |       |           | •      |
| ISO Serial K-line<br>(Pin 7)                                      | •      | •      | •        | •      | •      | •       | •     | •         | •      |
| ISO Serial K-line or<br>L line(Pin 15)                            | •      | •      | •        | •      | •      | •       | •     | •         | •      |
| K line (pin 1)  |        |        |          |        |        |         |       | •         |        |
| K line (pins 3,6,7,8,<br>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  | •      | •      | •        | •      | •      | •       | •     | •         | •      |

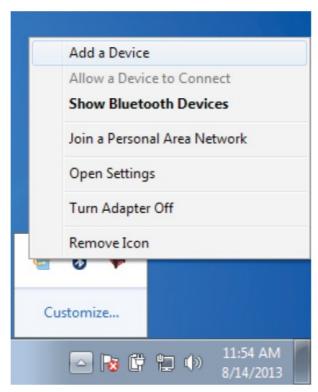
# **Bluetooth Setup**

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<sup>™</sup> for technical support at <u>J2534support@opusivs.com</u>. 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<sup>™</sup> 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<sup>TM</sup> 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<br>Support | Device Start Up Process | Device is<br>Functioning |  |  |  |
| Right LED                                      | Data Transfer | Vehicle Power With No<br>USB     | N/A                     | N/A                      |  |  |  |

| Mongoo        | Mongoose-Plus LED Indicators – USB and Bluetooth Device |                                     |                                 |                        |                         |                        |                   |                         |  |
|---------------|---|-------------------------------------|---------------------------------|------------------------|-------------------------|------------------------|-------------------|-------------------------|--|
| LED           | Blinking<br>Red   | Solid Red                           | Blinking<br>Green               | Solid Gree<br>n        | Blinking Blu<br>e/Green | Solid Blue             | Blinking Bl<br>ue | Blinking W<br>hite/Blue |  |
| Left LE       | N/A   | Firmware<br>Error- Cal<br>I Support | Device S<br>tart Up P<br>rocess | Device is F unctioning | N/A                     | Bluetooth<br>On        | N/A               | N/A                     |  |
| Right L<br>ED | Data Tra<br>nsfer                                       | N/A                                 | N/A                             | N/A                    | Pairable                | Bluetooth<br>Connected | Not<br>Pairable   | Data Trans<br>fer       |  |

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

# Contact

# **Powered by DREW TECHNOLOGIES**

- 7322 Newman Blvd Building 3 Dexter, MI 48130 United States
- 877.888.2534

- 844.REFLASH (844.733.5274)
- opusivs.com

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# **Documents / Resources**



OPUS Mongoose Plus OEM Vehicle Interface Cable [pdf] User Guide
REVISED\_15, REVISED\_10, Mongoose Plus OEM Vehicle Interface Cable, Mongoose Plus, O
EM Vehicle Interface Cable, Vehicle Interface Cable, Cable

# References

- OPUS IVS Buy Automotive Diagnostic Tools and J2534 Devices
- User Manual

Manuals+, Privacy Policy

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