AN700 – Axiomatic Electronic Assistant Installation and Troubleshooting

Introduction

The Axiomatic Electronic Assistant is a software configuration tool that runs on the Windows operating system and is connected to a J1939 BUS via an Axiomatic USB to CAN converter (P/Ns: AX070502 or AX070506K). Upon being connected to the BUS, the Axiomatic EA will find all Electronic Control Units (ECU) on the bus and recognize those manufactured by Axiomatic. Using this tool, a user can quickly configure an Axiomatic ECU for their desired performance, over a wide variety of applications. The Axiomatic Electronic Assistant can also be used to create setpoint files of parameters for each desired application, as well as to reflash the software.

To access the Axiomatic Electronic Assistant software and its associated user manuals, go to the Axiomatic website at: https://www.axiomatic.com. From the website, go to the "EA & Other Configuration Tools" page, under the "Support" tab. To obtain the password for the "EA & Other Configuration Tools" page, contact Axiomatic.

Electronic Assistant Downloads

The basic set of downloads which can be found under EA & Other Configuration Tools - Axiomatic Technologies Corporation includes the following items:

- Axiomatic Electronic Assistant and USB-CAN Converter - User Manual
- Axiomatic Electronic Assistant - Program (.zip file)
- USB-CAN Drivers (.zip file)

Once you have downloaded the file, extract all the files.

Installation

Install the CAN Network Termination Resistor.

DETAIL A
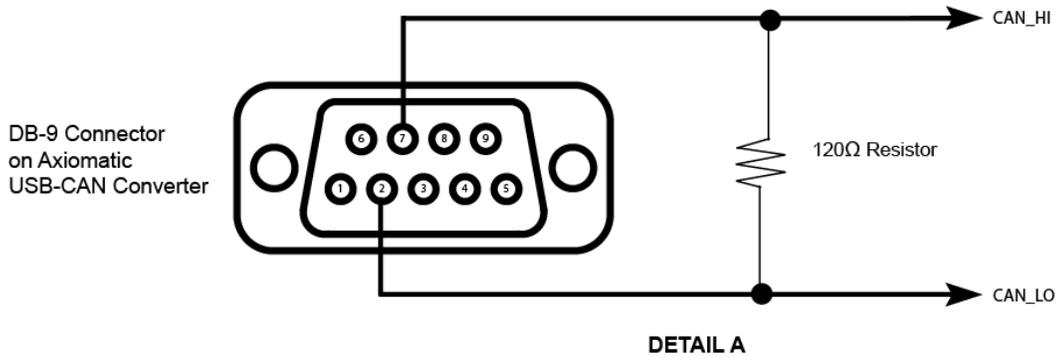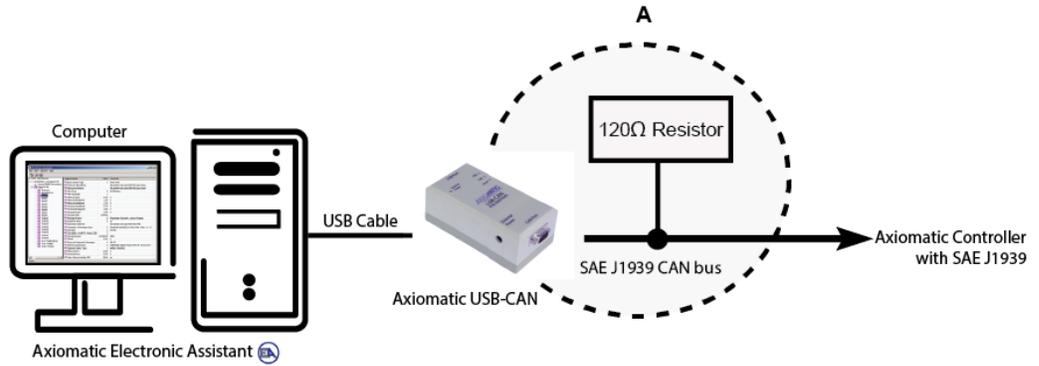
Unplug and plug in the USB-CAN converter hardware. To know that the driver has been successfully installed, look at the USB-CAN converter hardware. The USB LED should turn green.

Please note: Newer Windows operating systems, including 64-bit versions of Windows Vista, Windows 7, Windows 8, Windows 8.1, and Windows 10, only allow signed drivers to be installed. See the troubleshooting section for more details.

Setpoint Files

Once the software has been installed and the wiring connections have been made, launch the Axiomatic EA software and click on the 'Open CAN Port' icon.

To **upload** setpoint files to the module:

1. Click on the 'Open Setpoint File' icon.
2. Browse your computer to find the .xml file that will be uploaded.
3. From the setpoint file viewing window, choose the menu option: Program →
   Program Setpoints into ECU.

The file will begin to load over the CAN network, and a progress bar will be displayed.

To **download** setpoints from the module:

1. Choose the menu option "File → Save Setpoints as…"
2. The setpoints will be read from the device.
3. Select a location to save the setpoint file in.

Troubleshooting

If Windows Does Not Install the Driver Automatically:

1. When the files have been extracted, on your computer go to Start, Devices and Printers.
   a) Under 'Unspecified' an icon with 'USBCAN Converter' should appear.
   b) Right click on this and select 'properties'.
   c) On the new window, click on the 'Hardware' tab.
   d) Click on the 'Properties' button. A new window will open.
   e) Under the 'General' tab click on the 'Change Settings' button. A new window will open.
   f) Click on the 'Driver' tab and click on 'Update Driver'. A new window will open.
   g) Click on 'Browse my computer for driver software.'
   h) Click on the 'Browse' button and look for the extracted folder.
   i) The driver should be successfully installed.

To confirm that the driver has been successfully installed, look at the USB-CAN converter hardware. The USB LED should turn green.

1. If the USB Light Does Not Turn on and/or Driver Does Not Install:
   a) From the control panel window on the computer, go to 'hardware and sound'.
   b) Select 'Devices and Printers.'
   c) Right click on USBCAN Converter and go to 'properties', go to the hardware tab and click on 'properties', then change the settings.
   d) Select 'Update Device Software', and browse for the driver program from Page 1 (saved to your computer)
   e) Once the driver software is installed, the USB light will turn on.

2. Network Security Settings:

- Some network security systems will block the download files. Resolving this issue may require IT department support.

Error Codes

The error code 10 usually means that there is a problem with the CAN-USB and/or PC. Close the Axiomatic EA and disconnect the USB-CAN. It should work after the USB-CAN has been reconnected, and the Axiomatic EA has been restarted.
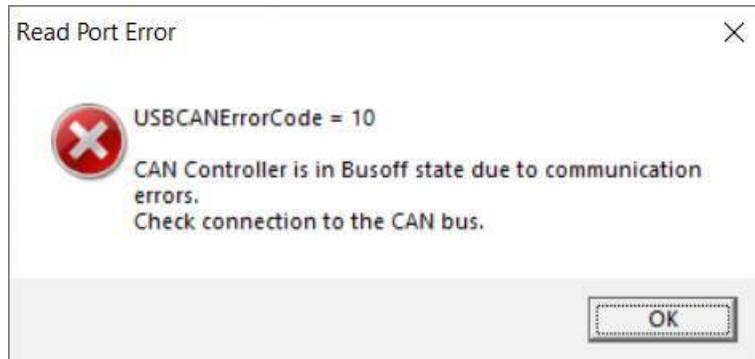
The error code 9 (passive) is shown when the Axiomatic EA cannot detect any J1939 module on the network. Common causes of this error are bad CAN wiring, a missing termination resistor, or the unit not being powered. Check the wiring and try again.
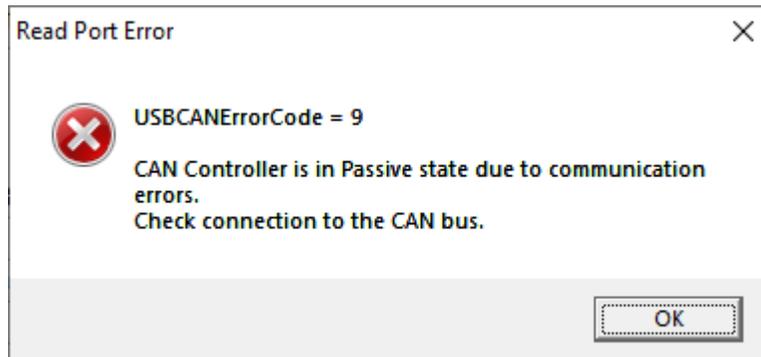
Version	Date	Authors	Comments
1.00	July 5, 2019	Gustavo Del Valle / Sue Thomas	Initial Release
2.00	September 9, 2019	Gustavo Del Valle / Sue Thomas	
2.01	June 28, 2021	Gustavo Del Valle / Sue Thomas	Added error codes.
2.02	July 6, 2023	Kiril Mojsov	Legacy Updates & Marketing Review