Drew Technologies, Inc.

CarDAQ-M
J2534-1&2 Module
Quick Start Guide

CarDAQ-M has been carefully designed and tested to comply with OBDII protocols, which are used on most 1996 and newer cars and light trucks sold in the USA. 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.

Note: Vehicles manufactured for use outside of the USA may not comply with OBDII protocols, even though an SAE J1962 connector is located in the vehicle. Connection to vehicles manufactured for use outside of the USA is AT YOUR OWN RISK. Drew Technologies will not be held responsible for ANY direct, indirect or consequential damage that arises as a result of connecting to such a vehicle.

Before installing CarDAQ-M, we recommend visiting this website for service information: www.nastf.org.

While Drew Technologies testing and the experience of thousands of CarDAQ-M users have shown the interface 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. Drew Technologies will not be held responsible for ANY direct, indirect or consequential damage that arises as a result of using CarDAQ-M on a vehicle.

If you are concerned about the operation of your vehicle at any time while using CarDAQ-M:

- If you are driving, pull off the roadway immediately or as soon as it is safe to do so.
- Disconnect CarDAQ-M from the OBDII port.
- Consult a licensed mechanic or automobile service center.

Report any issues or concerns to our Technical Support Dept. at support@drewtech.com. We are open Monday through Friday, 9:00 a.m. to 5:30 p.m. Eastern Time. We maintain an active database of the feedback we receive, and your comments can help us continuously improve the product.

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1. Introduction

Thank you for choosing CarDAQ-M! You now have the most complete and upgradeable J2534 Pass-Thru device available for technicians today. The CarDAQ-M will allow you to re-flash modern vehicle controllers to stock as well as perform dealer level diagnostics on select manufacturer's vehicles.

This Quick Start Guide covers the initial setup, features, and common questions. This manual is always available at www.drewtech.com. Information for individual manufacturers can be found in the J2534 Toolbox application.

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2. Getting to Know CarDAQ-M

Your package includes: the CarDAQ-M interface, a USB cable, an OBD-II cable, and a installation CD that includes PC drivers and the J2534 Toolbox.

CarDAQ-M Expansion Modules

The CarDAQ-M was designed to be the last J2534 tool you will ever need. As OBDII standards change and vehicle manufacturers make vehicle computer systems ever more complex, the CarDAQ-M will have expansion modules available to stay up to date. By connecting these modules end-to-end, the CarDAQ-M can be updated to support new vehicle technologies that currently do not exist. Simply purchase an expansion module, connect it to the CarDAQ-M and now you have the most current J2534 tool.
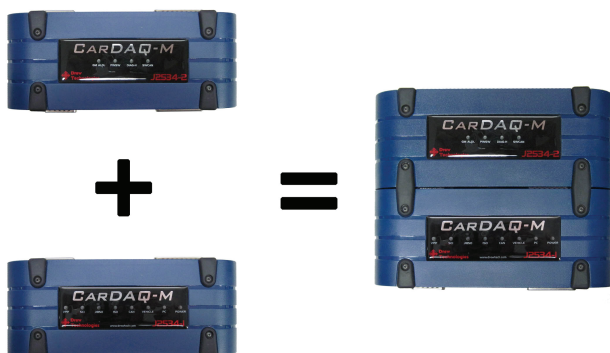
⚠️ <u>Do not connect the CarDAQ-M to your PC until you have installed the software below.</u>

Installing the CarDAQ-M Software to your PC

1. Insert the CD that came with your CarDAQ-M into the CD/DVD slot of your PC. Make sure your CarDAQ-M is not connected to the PC at this point. The Autoplay options will appear:

2. Click on [Run setup.exe] to begin the installation.

3. The J2534 ToolBox, Tech2Win Driver and the CarDAQ-M drivers will now begin installation. Follow the Setup Wizard instructions.
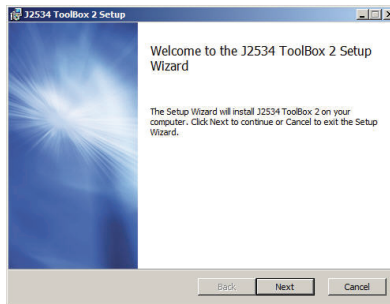

4. When the installation is finished, power up your CarDAQ-M from a vehicle with the OBDII cable.

5. Connect the USB cable from CarDAQ-M to your PC. The drivers will automatically be found and installed on Windows Vista and 7 computers.

For Windows XP, a few more steps are required:

a. The "Found New Hardware Wizard" will pop up when you connect your CarDAQ-M.

b. Make sure "No, not this time" is selected and click [Next]. This screen appears:
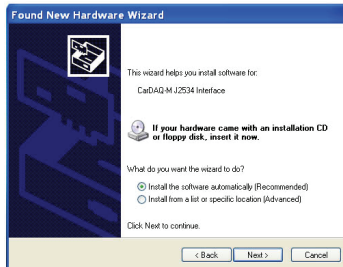
c. Select "Install the software automatically (Recommended)" and click [Next]. After the progress bar finishes, click [Finish]. Windows XP users are finished installing at this point and can run the software they will be using with the CarDAQ-M.

Adding an Expansion Module to CarDAQ-M

Note: Unplug all cables from CarDAQ-M before connecting or disconnecting modules.

To add an expansion to CarDAQ-M:

1. Remove the half tabs on the side of the CarDAQ-M with a 1/16" Allen style wrench. This is the side with the "Vehicle" and "Expansion-C" connectors. Save the screws you remove.

2. Connect the expansion module so that the text on the labels read the same direction. Make sure the USB port on the J2534-1 module is accessible.

3. Fasten the two modules together with the four full tabs and additional screws that came with the new expansion module.

The Capabilities of J2534 and CarDAQ-M

The CarDAQ-M is the most complete J2534 pass-thru device available today. The capabilities of CarDAQ-M are largely determined by software the vehicle manufacturers provide. More information on specific manufacturers can be found in the J2534 Toolbox.

Reprogramming with J2534

J2534 and federal law mandate that automakers allow shop technicians the ability to re-flash emissions-related vehicle electronic control units, typically engine and transmission controllers. Some automakers allow for more modules, and some have enabled factory diagnostics. Use the J2534 Toolbox for more information on the capability provided from each manufacturer.
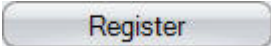
J2534 ToolBox™

The J2534 ToolBox is a program created by Drew Technologies to help distribute current information to technicians working with J2534. The J2534 ToolBox has up-to-date information on manufacturer reprogramming issues, links to manufacturer sites, and much more. The J2534 Toolbox is installed from the disk that came with your CarDAQ M. The J2534 Toolbox can also be downloaded from www.drewtech.com/downloads.

Registering/Creating an Account

To begin using the J2534 Toolbox click on the J2534 Toolbox icon on you desktop.

When toolbox starts up you will need login in to use all of the features provided. If you do not have an account, click on the Register button. The J2534 Toolbox requires an account to access all of the features that make it useful to you as an information source.

As you work through the registration process fill out all information completely and correctly.

Step 1 (Personal Information) of the registration will require you to fill out information regarding your J2534 Toolbox account.

Step 2 (Business Information) will require some information about your business.

Step 3 (Device Registration) will require you to register the CarDAQ M you are using. Please have the CarDAQ M connected to the PC at this point.
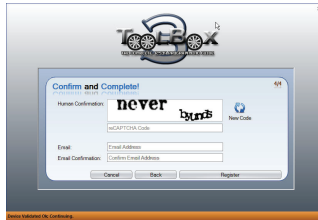
Step 4 (Registration Confirmation) confirms your J2534 Toolbox account.

Your CarDAQ M has now been registered.

All features of the J2534 Toolbox will now be available to you. *Remember to save your login information so that you can login quickly.* If you lose your login information you will need to click on "Forgot Password?" at the login screen.

J2534 Toolbox Resources

Once you have logged in to the account you registered for you will have access to all of the benefits the J2534 Toolbox has to offer. Make sure to spend some time clicking through all the tabs at the top to familiarize yourself. These tabs include:

General – This tab will be shown every time you log in. This tab has up to date information with news and current issues in the J2534 service world.

Flashing – This tab has all the information you will need before you get started with a re-flash. Reference the information here before you get started when you need to do a re-flash.

Diagnostics - This tab has all the information you will need before you get started with diagnostics through J2534. The manufacturers listed here will provide diagnostics with your J2534 Pass-Thru device.

Support – This tab houses all of the tools you will need to make sure your Pass-Thru device is working correctly. This section also has the software to update the drivers and firmware for your Pass-Thru device.

Sales – The sales tab will give you information about our other products that can be purchased for vehicle service.

Recalls – This tab has recalls available for all vehicles 1996 and newer.

Forums – The J2534 Toolbox has dedicated forums available for having discussions on using J2534 devices. There are topics dedicated to manufacturers and the use of the J2534 Toolbox itself.

Updating the CarDAQ-M Drivers on your PC

Unplug CarDAQ-M's cable from your PC before completing the steps below.

To update the CarDAQ-M drivers on your PC:

1. Open your web browser and go to the downloads page at www.drewtech.com
2. Determine if your computer is running a 32 or 64 bit version of Microsoft Window. Right click on [Computer] in the Start menu and click on [Properties] to find this information.
3. Download the "Drivers Only" installer for your 32 or 64 bit version of Windows.
4. Once the download has finished, run the file. It will be named "J2534 CarDAQ-M.msi" for the 32 bit version and "J2534 CarDAQ-M_x64.msi" for the 64 bit version.
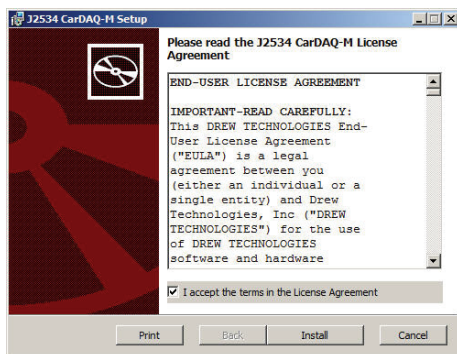
5. Follow the Setup Wizard's instructions to complete the install

Specifications

__J2534-1&2 Modules__

Supported Protocols

- CAN Bus (capable of ISO 15765, GMLAN, J1939, and ISO14229)

- 2nd CAN (Dual or Single Wire)

- Ford SCP (J1850PWM)

- GM Class2 (J1850VPW)

- KWP2000 (ISO9141/14230)

- Chrysler SCI (J2610)

o Compliant to SAE J2534 (Feb 2002) and SAE J2534-1 (Dec 2004)

o Compliant to ISO 22900-1 MVCI physical layer

o Programming voltage on J1962 pin 6, 9, 11, 12, 13, 14 or Aux

o Ground pin 9

Specifications

Name	Value
Input Voltage Range	7VDC to 26VDC
Supply Current	140mA @ 7VDC
	100mA @12VDC
Operating Temperature	+0C to +60C ambient
Storage Temperature	-20C to +85C ambient
Size	1.25"H x 7.5"D x 3.25"W

Connectors and Status Indicators

PC Connection Panel

Ports and their functions:

Expansion A and B: Future PC connection options.
USB: For a direct to PC USB connection.
AUX: External programming voltage supply. For use on some vehicles that have special programming needs.
PWR: External power option which maybe needed for future expansion modules.

Expansion Panel

This side of CarDAQ-M allows future modules to be connected for more capability. An expansion module is connected to the CarDAQ-M with both the Vehicle and Expansion C ports, then secured by with metal tabs and screws between the modules.

Vehicle: OBDII cable is connected here.
Expansion C: Connection for future expansion modules.

6. Troubleshooting and Support

Some questions and answers to common questions with the CarDAQ-M:

Q: I have connected my CarDAQ-M to my computer with the USB cable, but nothing happens.

A: Make sure the drivers are installed on your computer using Install Check in the J2534 Toolbox. If you have not run the driver installer from the CarDAQ-M CD, disconnect the CarDAQ-M from the computer and install the drivers.

Q: I have installed the drivers and connected my CarDAQ-M but nothing seems to be working.

A: Connect CarDAQ-M to your computer and to a vehicle. Turn the vehicle key to the "On" position. Open the J2534 Toolbox and go to the support tab. Use the Vehicle Check application to see if a protocol is found. If a error occurs instantly, re-install the drivers.

Q: How do I re-install the drivers on the PC?

Find the CD that came with your CarDAQ-M or download the installer from the website. Run the installer. Click on the "Remove" button to uninstall. Run the installer again to install the drivers on your PC.

Q: I am having problems re-flashing a vehicle.

A: Gather the following pieces of information: computer operating system, CarDAQ-M driver and firmware versions, vehicle information, and error messages from the manufacturer's program. Contact the vehicle manufacturer's technical support with this information. If the vehicle manufacturer's technical assistance cannot get you going, contact Drew Technologies for assistance.

If all else fails...

Please contact Drew Technologies for technical support at support@drewtech.com. 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#). Drew Technologies 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 Drew Technologies' warranty, you will be contacted for payment arrangements.

Limited Warranty

Drew Technologies, Inc. guarantees that every CarDAQ M is free from physical defects in material and workmanship under normal use for one year from the date of purchase.

IN NO EVENT SHALL DREW TECHNOLOGIES, INC.'S LIABILITY EXCEED THE PRICE PAID FOR THE PRODUCT. DREW TECHNOLOGIES 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. Drew Technologies, Inc. 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. Drew Technologies, Inc. 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:
Drew Technologies, Inc.
3915 Research Park Dr
Suite A10
Ann Arbor, MI

Notes:

Notes:

Other Drew Tech Products

Drew Technologies has several products available for data acquisition, diagnostics, development, testing, and reprogramming for modern vehicles. Visit www.drewtech.com for more information

CarDAQ-Plus™ - Fully SAE J2534 compliant. Ethernet and USB connectivity to a computer, a built-in operating system for running internal programs, protocol support for all modern vehicles, and six analog inputs.

Mongoose Pro™ - Drew Technologies' family of low-cost, high-performance PassThru (SAE J2534) vehicle interfaces. Connect any laptop with USB 2.0 directly to the OBD-II (SAE J1962) connector with full-speed performance.
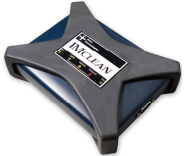
IMclean™ - OBD2 emissions test tool. Certified for use in California and other states.

IMready™ - Low cost emissions tester. Plug into a vehicle and get a simple green, yellow, red indication for pass/wait/fail. Runs the whole emission test