DREW TECHNOLOGIES

CarDAQ M
Quick Start Guide



PLEASE NOTE

CarDAQ M 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 Drew Tech's testing and the experiences of thousands of CarDAQ M 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 CarDAQ M:

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

Please report any issues or concerns to our Technical Support Department at support@drewtech.com or (734)222-5228 option 3. 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.

COPYRIGHT & TRADEMARKS

Copyright 1999-2015 Drew Technologies, Inc., All Rights Reserved. MongoosePro, CarDAQ, ScanDAQ, IMclean, IMready and J2534 ToolBox are registered trademarks of Drew Technologies, Inc. All other trademarks and brand names are the property of their respective owners.

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 48108

Contents

PLEASE NOTE 2

COPYRIGHT & TRADEMARKS 2

LIMITED WARRANTY 2

Introduction 4

Get to know CarDAQ M 4

CarDAQ-M Expansion Modules 4

Driver installation 5

Adding an expansion Module to your CarDAQ M 6

The Capabilities of J2534 and CarDAQ-M 7

Reprogramming with J2534 7

DrewTech Tech2Win Driver 10

Specifications 10

Specifications 11

Connectors and Status Indicators 11

Technical Support 12

Other Drew Tech Products 12

Introduction

Thank you for choosing CarDAQ-M! 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.

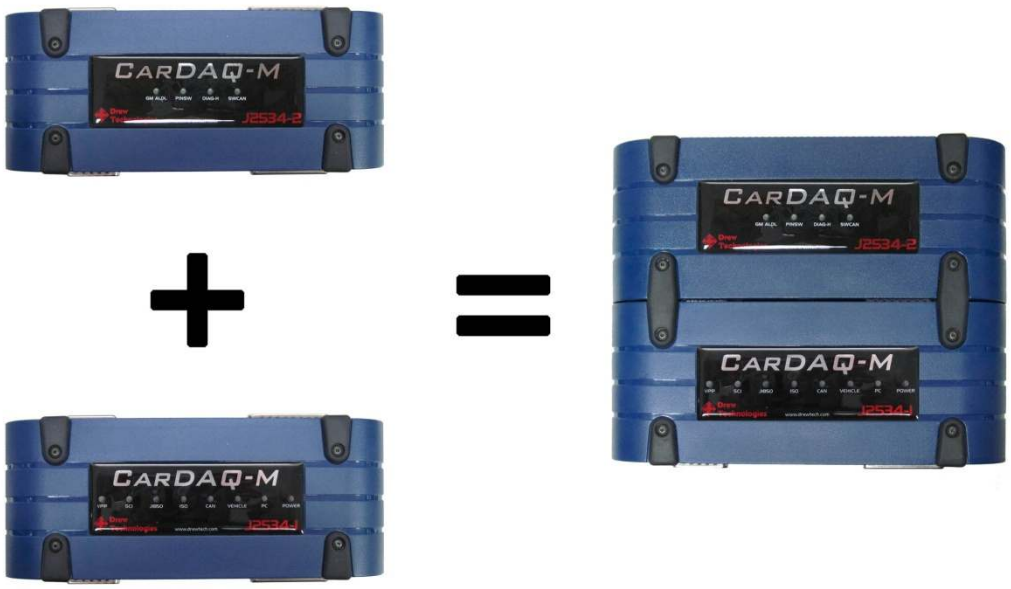
This Quick Start Guide covers the initial setup, features, and common questions. This manual is always available at www.drewtech.com. Information for individual manufacturers can be found in the J2534 Toolbox 3 application.

Get to know CarDAQ M

Your package includes: the CarDAQ-M interface, a USB cable, an OBD-II cable, and the 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.



Driver installation

1. Insert the CD included with your CarDAQ M into your PC. You will need to have an internet connection to get the latest drivers. If your PC does not have a Disk Drive, please go to http://www.drewtech.com/downloads/index.html to get the CarDAQ M Installer.
2. Run the Setup application, check the box next to "I accept the terms…" and click install.



3. The Setup application will install the CarDAQ M Drivers, the J2534 Toolbox 3 and the DrewTech Tech2Win driver on your PC.



4. When the installer is finished, click “Exit.”



Once the setup application has finished, Connect the USB cable to your CarDAQ M and to the PC. Once you have gotten a message in the lower right hand corner that the device has been installed, you may begin to use your CarDAQ M.

Adding an expansion Module to your 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.

1. Double Click the J2534 Toolbox 3 Icon on the Desktop.



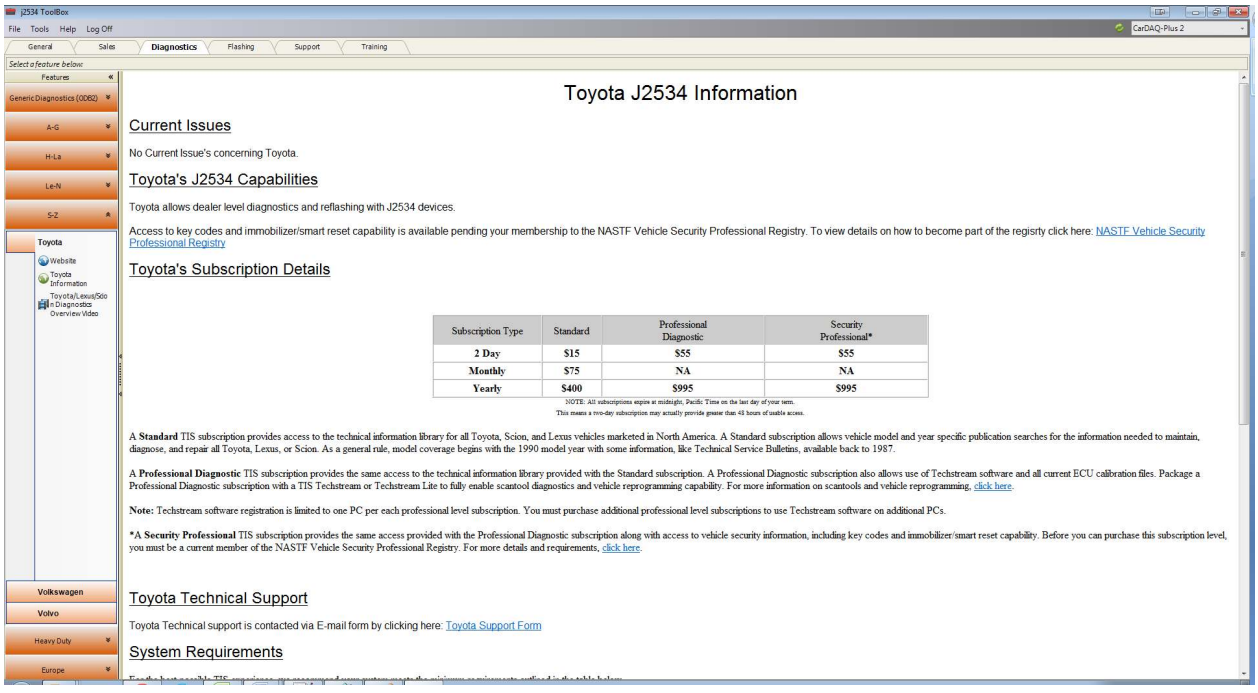
2. Select your interface from the drop down, enter your serial number and click Auto Login.



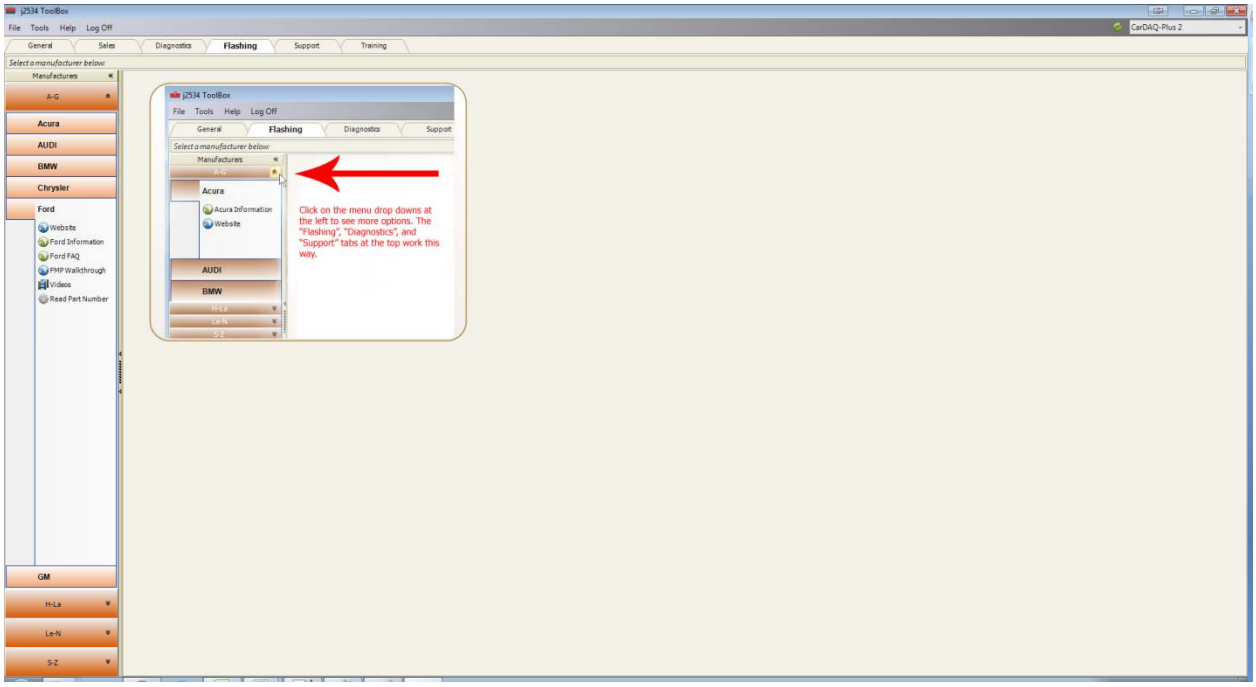
3. The Toolbox will open with 6 tabs available. The first is General, it has news, current OEM concerns, and training broadcast invitations. The sales tab is connected to the Drew Tech website.



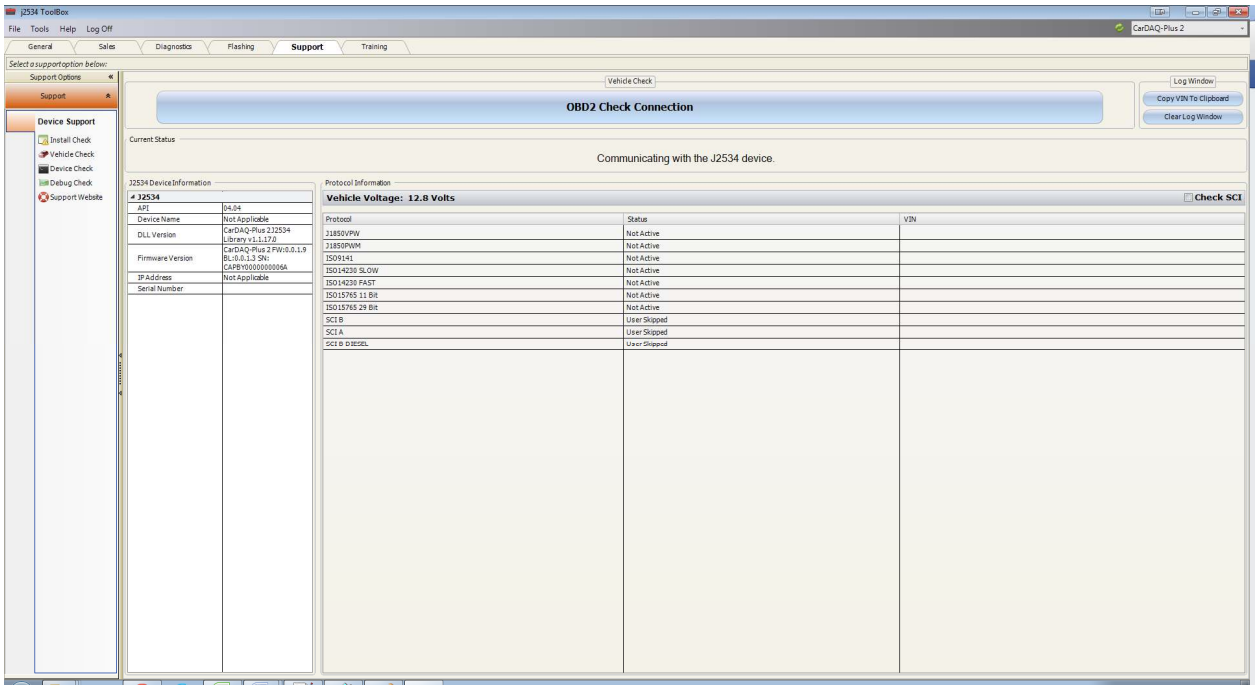
4. The Diagnostics tab has basic Diagnostic functions, as well as links, information and videos about all OEMs that currently provide Diagnostics via J2534.



5. The flashing Tab has contains the information pertaining to OEM J2534 reflashing including links, information, walkthroughs, and some helper functions.



6. The Support tab has functions to check driver installation, vehicle communication, update your device, create debug logs, and contact Technical Support.

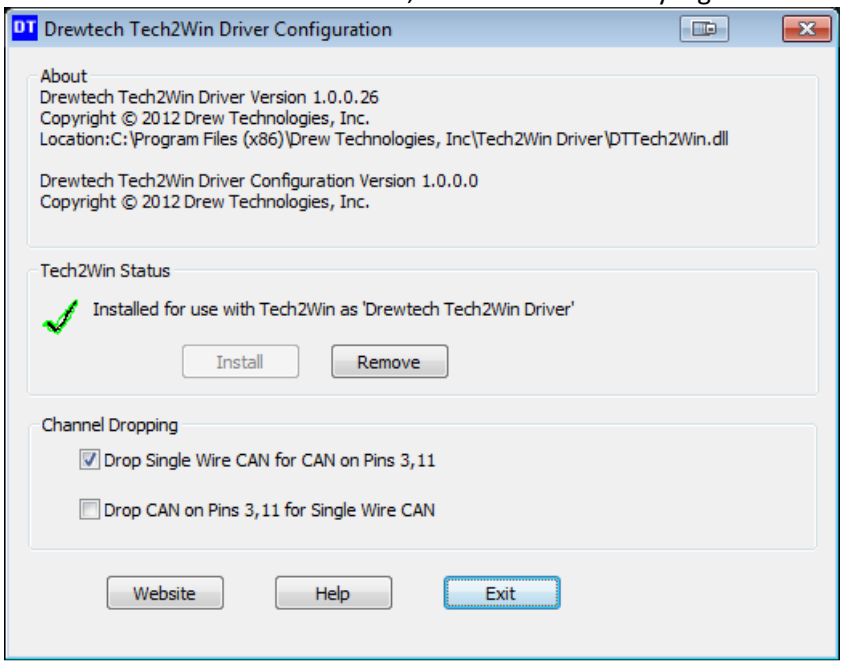


7. The Training tab includes videos of installing and using OEM J2534 applications with Drew Technologies products.

DrewTech Tech2Win Driver

The DrewTech Tech2Win driver allows technicians to use the CarDAQ M as an interface for the Tech2Win application. If you experience concerns, the first place you can check the status and configuration by following the instructions below:

1. Go Start>All Programs>Drew Technologies, Inc.>Tech2WinDriver and open the Drewtech Tech2Win Driver Configuration application.
2. Confirm that the driver is installed, which is indicated by a green check mark.



3. If there is a red X, click Install. If Install does not work. Close the Configuration tool and right click on the start menu short cut and choose “Run as Administrator.” Then click Install once the configuration application is running.
4. Depending on which systems you are diagnosing, you will want to check the top or bottom check box under Channel dropping to communicate on either proprietary CAN channel. CAN on 6 & 14 is not affected by this.

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)
  - Compliant to SAE J2534 (Feb 2002) and SAE J2534-1 (Dec 2004)
  - Compliant to ISO 22900-1 MVCI physical layer
  - Programming voltage on J1962 pin 6, 9, 11, 12, 13, 14 or Aux
  - 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.



Technical Support

Please contact Drew Technologies for technical support at support@drewtech.com or 734-222-5228 opt. 3.

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.

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



Mongoose Pro™ - DrewTech's 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.



CarDAQ-Plus 2™ - The CarDAQ-Plus 2 is Drew Technologies J2534 interface that supports all J2534-1 module flashing as well as some J2534-2 non emissions flashing and diagnostics.



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