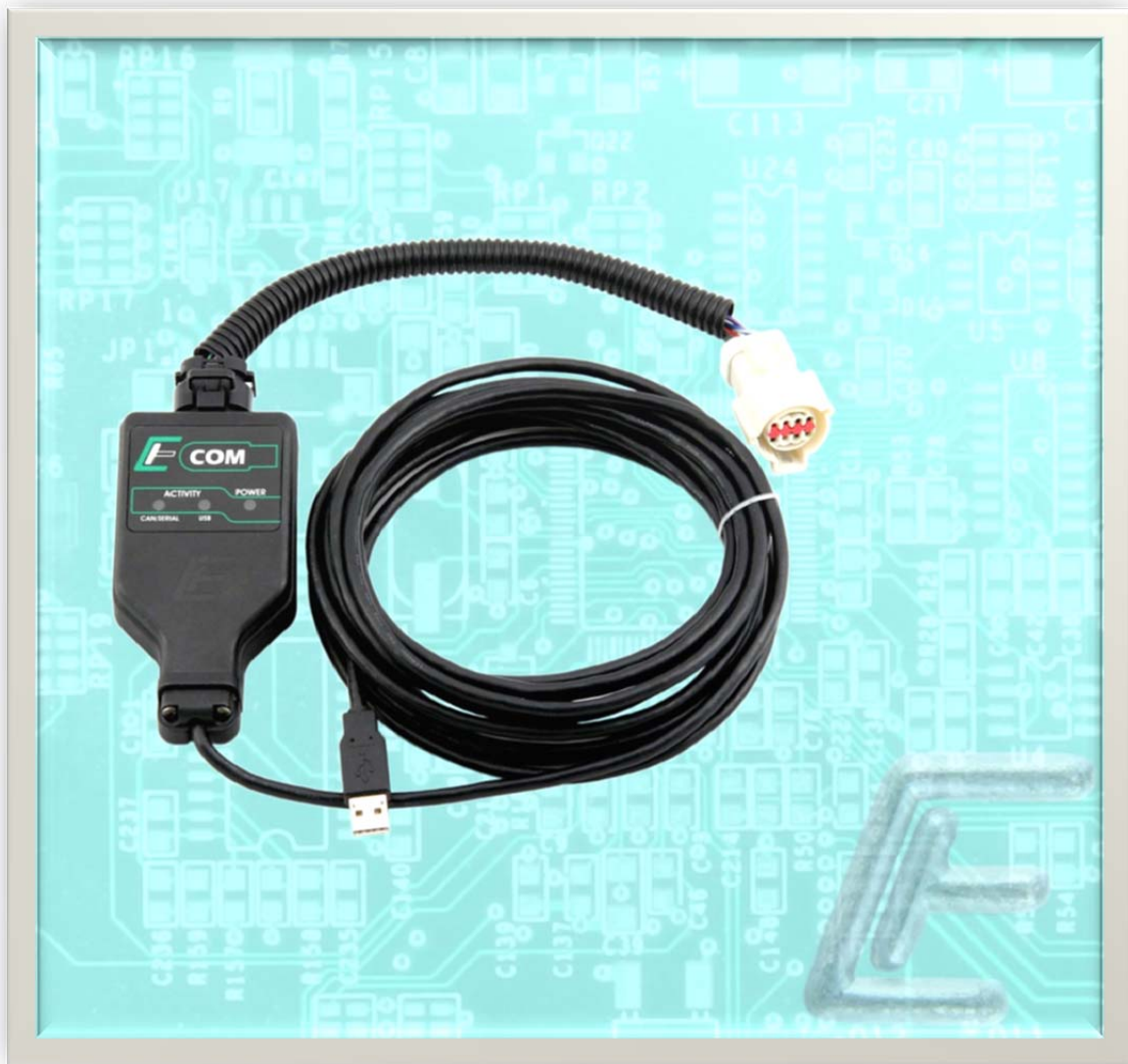


# ECOM™ Driver Installation Manual



**For All ECOM™ E204600X Product Variations**

<b>CHANGE RECORD</b>				
<b>REV</b>	<b>DATE</b>	<b>SECTION / PAGE</b>	<b>REASON / REMARKS</b>	<b>MODIFIED BY</b>
A	07/03/08	All	Initial Release	R. Rader
B	07/22/13	All	Updated pictures and text for latest install. Removed last section regarding EDIS	J. Kaufmann
C	11/18/14	All	Updates to latest driver install	PEARSON

## 1 TABLE OF CONTENTS

1	TABLE OF CONTENTS.....	3
2	INTRODUCTION.....	4
3	ECOM INSTALLATION PROCEDURE.....	5
3.1	Running the Setup Program.....	5
3.2	Connecting the ECOM.....	9
4	TROUBLESHOOTING ECOM PROBLEMS.....	10

### TRADEMARK STATEMENT:

ECOM™, CANCapture™ and EDIS™ are trademarks of Enovation Controls, LLC.

## 2 INTRODUCTION

Thank you for purchasing an ECOM cable from EControls (a subsidiary of Enovation Controls, LLC).

The ECOM cable is a USB 2.0 device that allows Controller Area Network (CAN) traffic to be transmitted and received using a computer or laptop. It was originally designed by EControls to provide a CAN interface for our OEM customers to communicate with our ECUs, but it is now offered for use in custom software development.

ECOM is available in multiple variations which are designated numbered as **E204600X**, where

**E204600** = the ECOM family part number root, and

**X** = an application-specific part number modifier..

For example, the following ECOM variations are designated by part number and logo color as follows:

ECOM Part Number	Logo Color	Application
E2046002	Green	GCP / 4G Engine Control Module (ECM) interface with EDIS PC Display
E2046003	Blue	GCP / 4G Engine Control Module (ECM) interface with CANCapture

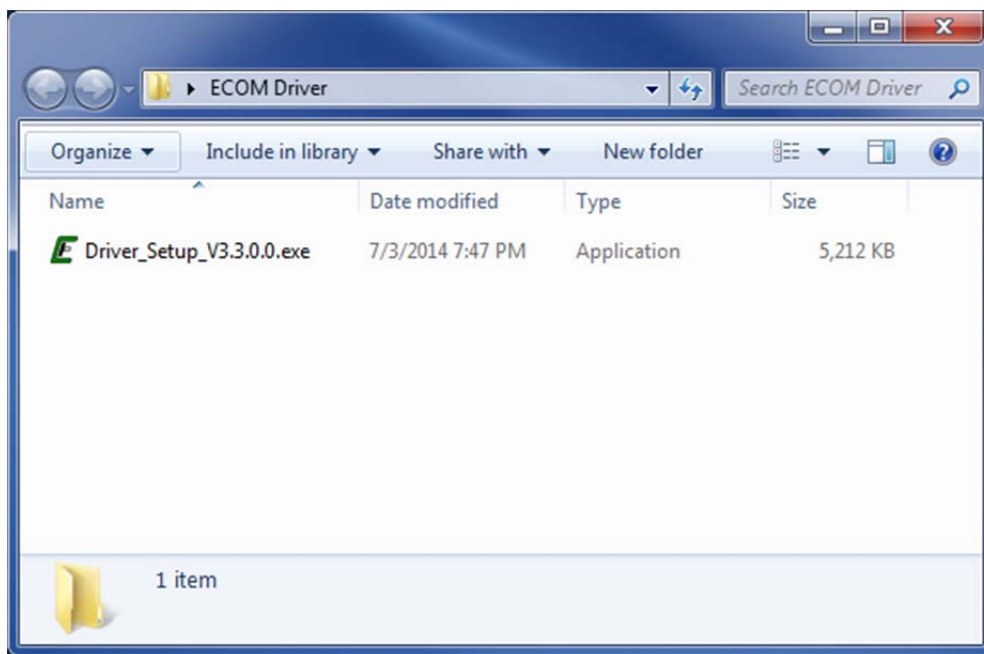
To start using any variation of ECOM variation you will first need to install the software driver. Please refer to the steps contained in the following sections of this document for software driver installation instructions.

## 3 ECOM INSTALLATION PROCEDURE

### 3.1 Running the Setup Program

**IMPORTANT:** Before proceeding, make sure that all ECOM devices are detached from your computer and that all programs are closed.

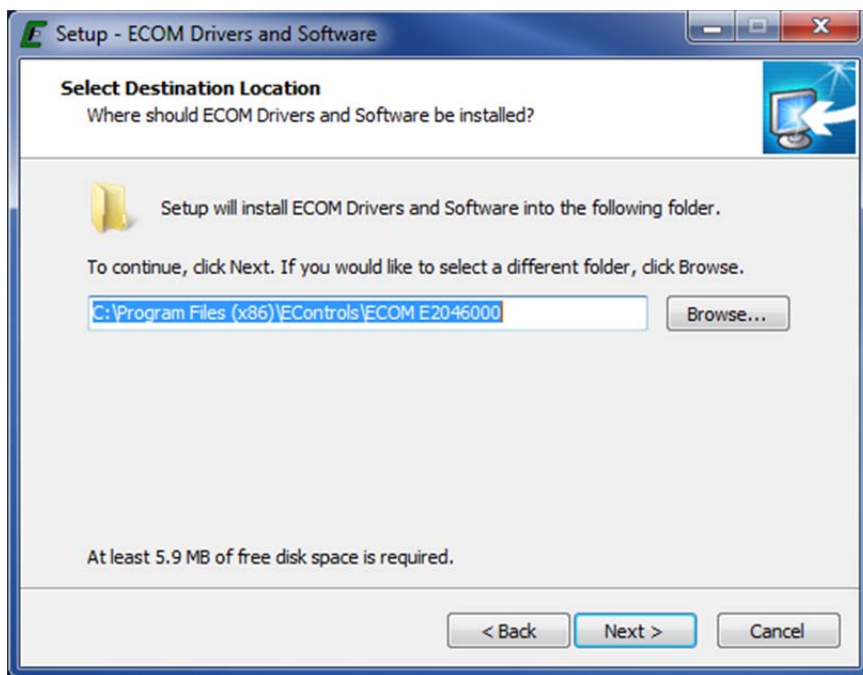
- 1) Download and run the ECOM driver installation application. Versions 3.1.0.15 or newer will work on 32-bit and 64-bit Windows operating systems including Windows XP, Windows Vista, Windows 7, and Windows 8.



- 2) After the **WELCOME to the ECOM Drivers and Software Setup Wizard** opens, click on the **[NEXT>]** button

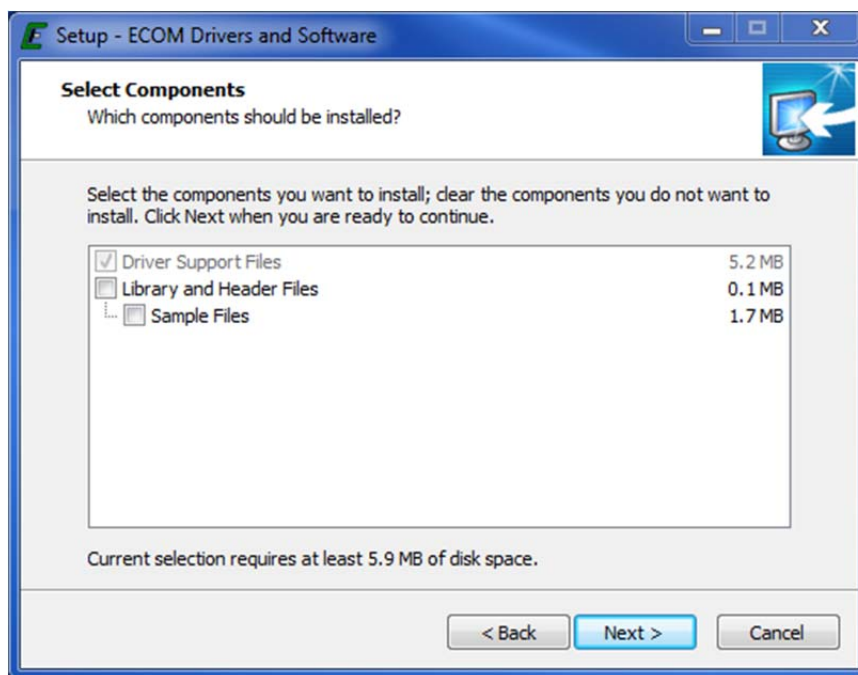


- 3) Select the folder you wish to use for installing the driver software. This folder will contain a few example programs and the uninstaller, depending on the options you select in the next step.



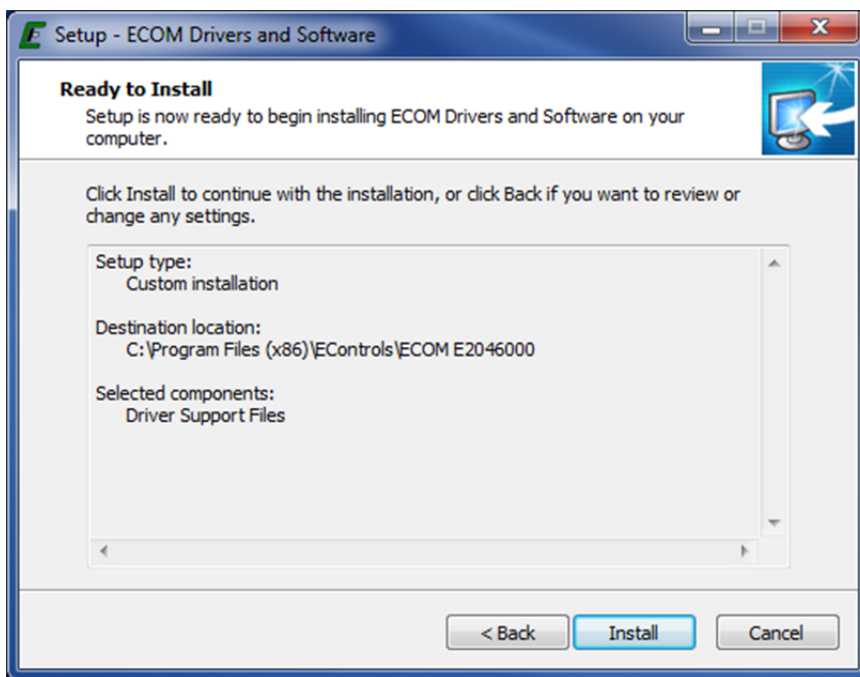
4) Select the options to install:

- **Driver Support Files** – required drivers for using the ECOM device. All software that uses the ECOM must have this to function properly
- **Library and Header files** – optional files that are only required if you plan to develop custom software using the ECOM and developer’s API.
- **Sample Files** – includes a number of sample files to demonstrate how to program a custom application using the ECOM library. This includes a few Microsoft Excel examples, a C# example, a LabView example, and a Java example.

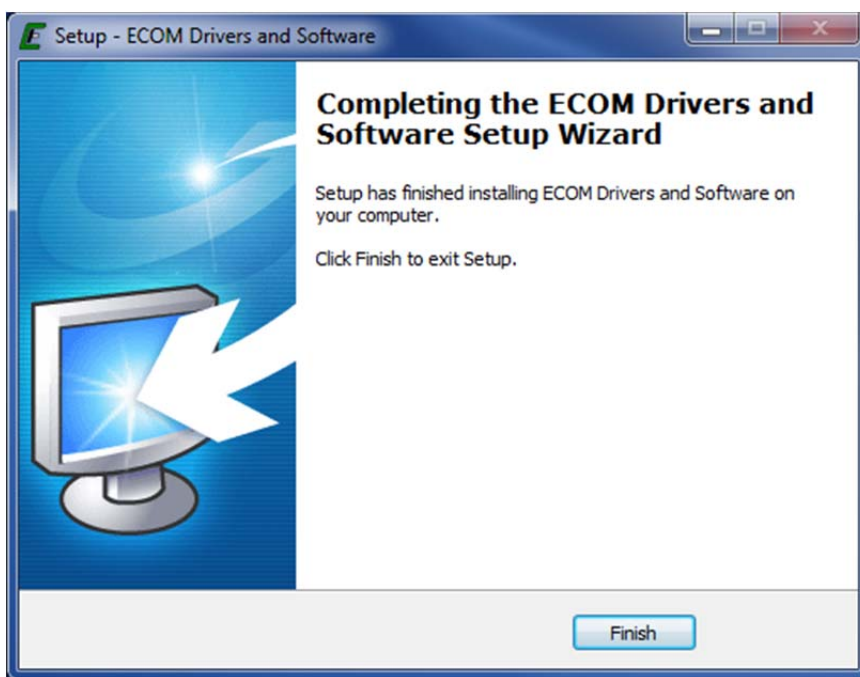


**NOTE:** This installation **\*does not\*** include EControls Display and Interface Software (EDIS) for connecting to any EControls ECMs or other CAN based devices. If you are planning on using the EDIS software to connect to an EControls controller, then you only need to select “Driver Support Files” and must then install the appropriate EDIS application separately.

5) The **Ready to Install** window will now open. Verify all settings and click Install.



- 6) Wait for the installation to complete. While Windows installs the hardware device drivers, the installation may appear to be unresponsive for up to a minute.
- 7) Once the installation is complete, the **Completing the ECOM Drivers and Software Setup Wizard** window will open. To finish the installation place the mouse cursor over the **[Finish]** button and click with the left-hand mouse button once to close.



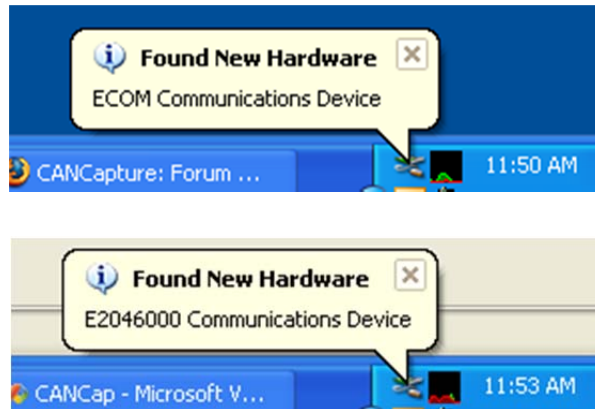
The ECOM drivers are now ready to use.



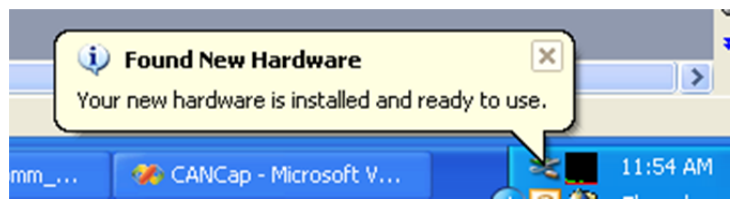
## 3.2 Connecting the ECOM

The first time you insert an ECOM device into a new USB slot, Windows will complete the hardware installation for that specific ECOM and port.

A *Found New Hardware ECOM Communications Device* bubble – followed by a *Found New Hardware E2046000 Communications Device* bubble – should appear at the bottom of your computer screen, indicating that it recognizes the ECOM device.



Subsequently a bubble should appear at the bottom of your computer screen message will appear stating that the drivers are installed and the new hardware is ready to use.

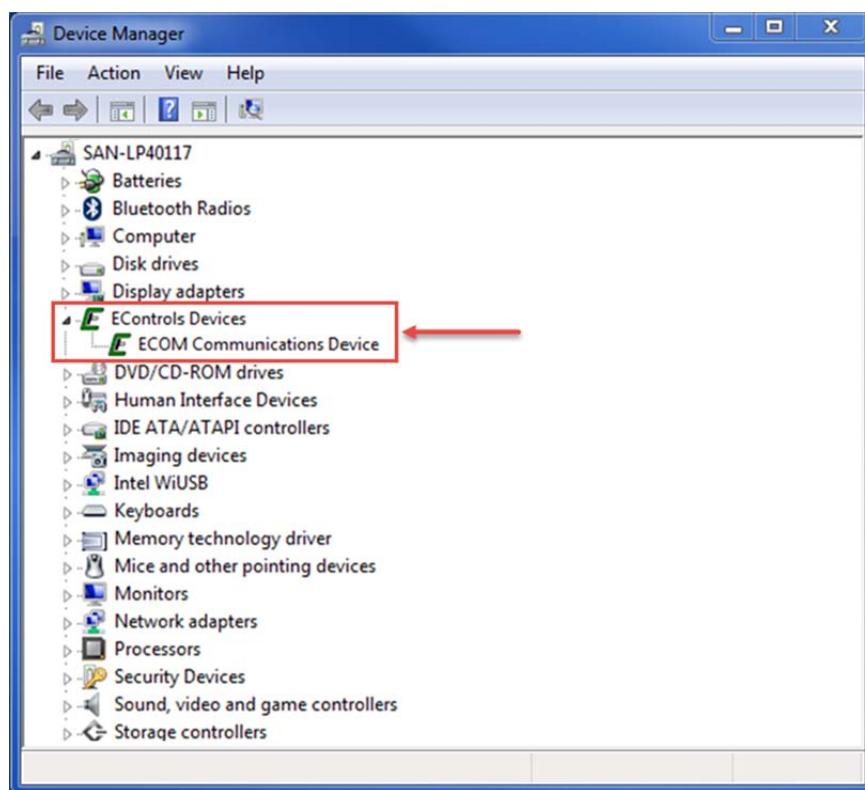


A message may appear asking you if you want to restart your computer to enable you to use the new software.

- If you are planning on using the ECOM at this time select **[Yes]**.
- Otherwise it is safe to select **[No]** and wait until a later time to reboot. Until you do so, any software that uses the ECOM may not function properly.

## 4 TROUBLESHOOTING ECOM PROBLEMS

- 1) When the ECOM drivers are properly installed and loaded, the power light on the ECOM device will turn from red to green. Thus if the power LED is red, then you should focus on driver installation problems, and if it is green, then you should focus on other problems such as the CAN wiring.
- 2) When the ECOM driver is properly loaded, an entry should appear in your “Device Manager” as seen in the screen shot below. If an error or no icon appears, then please check all connections and try the installation again.



- 3) Although not necessarily a software installation problem, physical CAN hardware issues and other wiring problems will prevent you from communicating with other CAN nodes. These types of errors can be easily identified by looking for a red flashing LED on the ECOM device. This flashing LED indicates a physical CAN error, which can often be fixed by resolving one of the following common problems:
  - Wiring is disconnected or CAN-H and CAN-L wires are reversed
  - The software using the ECOM device is configured for the incorrect baud rate. Please check the proper baud rate for your bus and controllers and then reconfigure your software to match.

- The CAN bus requires at least one 120 ohm *terminating* resistor connected between CAN-H and CAN-L in order to function properly. If the CAN bus you are connecting to is already functional then this would imply it already has the terminating resistor and thus should not be a problem. Please consult your documentation on CAN for specifics about the terminating resistors.
- The red flashing light on the CAN LED will also occur if there is no other node on the CAN bus when the ECOM attempts to transmit a CAN packet. In this case you must connect and activate another CAN device in order to resolve this error.