

MGM Brakes e-Stroke Diagnostic Program Users Guide

The e-Stroke Diagnostic Program may be used to acquire the following e-Stroke System information:

- Current Wheel Specific Brake & Lining Status
- Stored Brake Fault History
- System Status
- CCM Information: Software Version, Configuration, Serial Number

P/N 9090109 - RS-232 Diagnostic Program Kit Contents:

1. 8090091 – Diagnostic Program Software CD, Technical Manual
2. 8290220 – 10 ft RS-232 Diagnostic / Programming Harness
3. 8090090 – USB High Speed Serial Adapter Harness

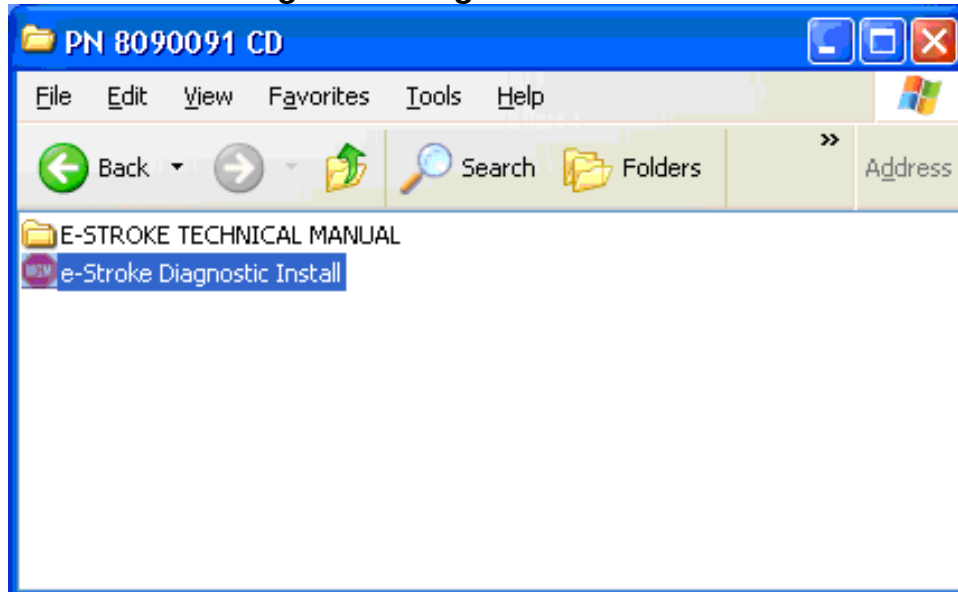
P/N 9090111 - SAE J1939 Diagnostic Program Kit Contents:

1. 8090091 – Diagnostic Program Software CD, Technical Manual
2. 8290304 – SAE J1939 Diagnostic Harness, 9-Pin
3. 8090097 – USB / CAN Adapter
4. 8290239 – Harness, New Flyer Adapter

1.0 Program Install Instructions:

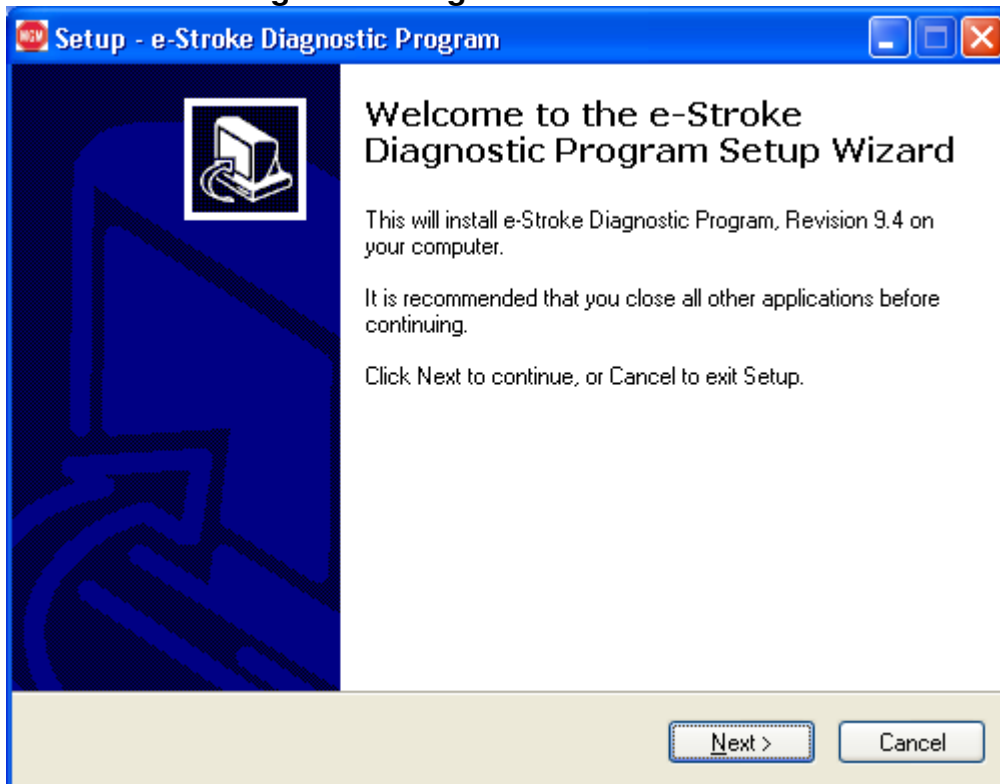
- 1.1. Access the contents of the P/N 8090091 CD on the computer which the program is to be installed.
- 1.2. Double (left) Click the ***e-Stroke Diagnostic Install*** file to begin the installation.

Figure 1: e-Stroke Diagnostic Program Install File located on CD



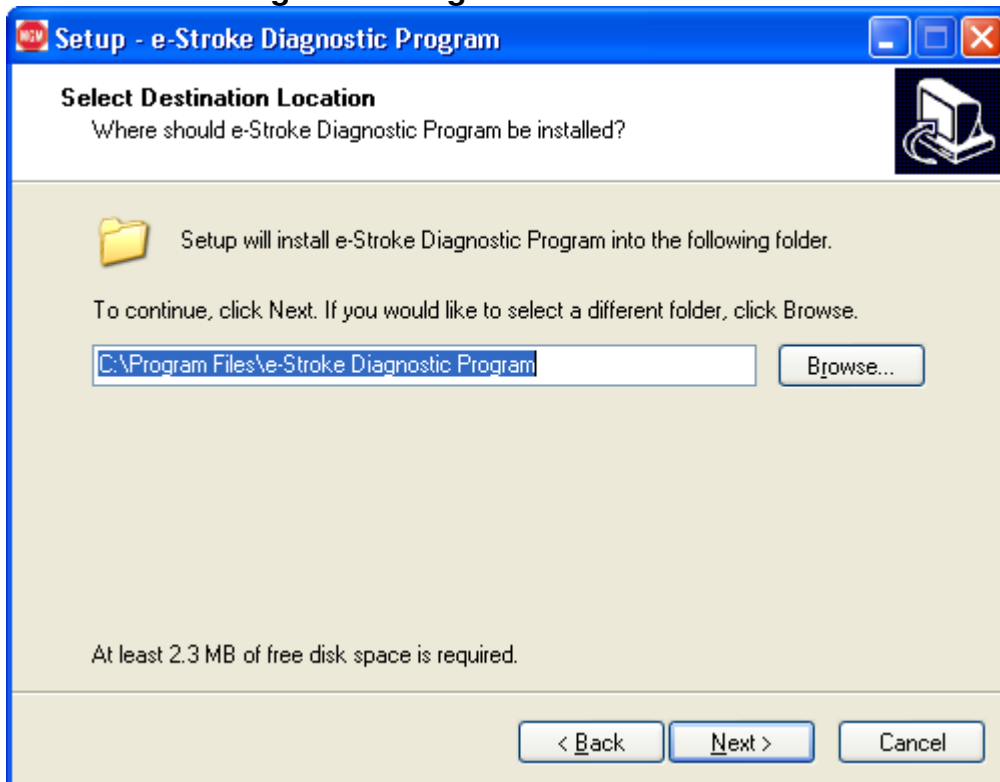
1.3. Double (left) Click the *Next* button to Start the Install process.

Figure 2: e-Stroke Diagnostic Program Install



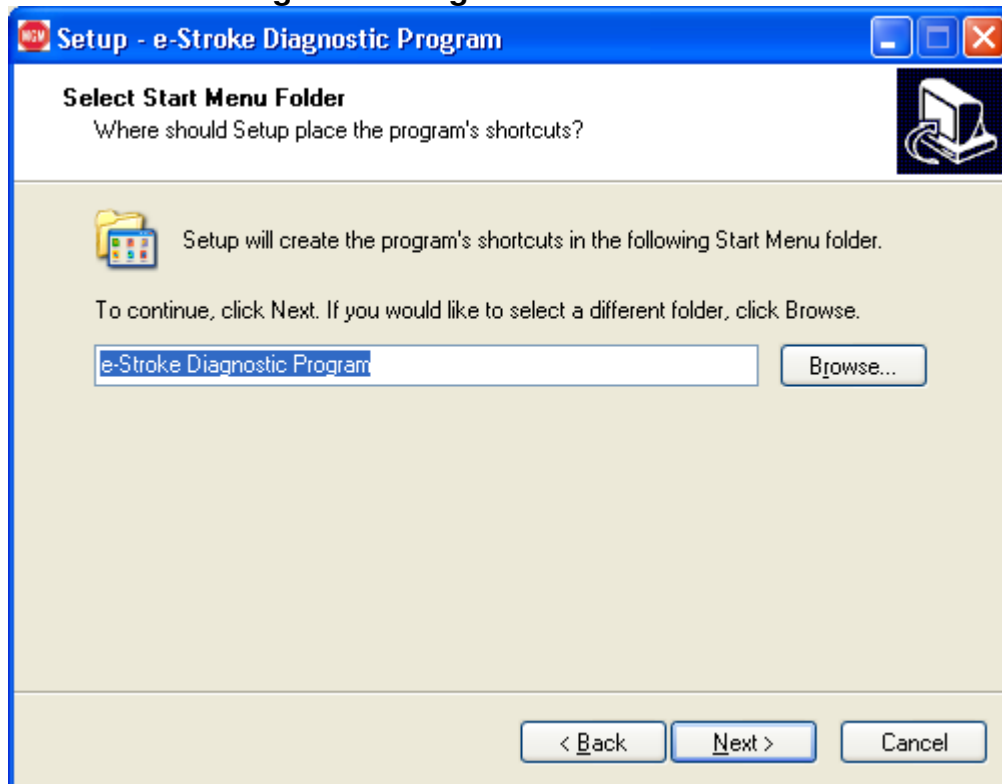
1.4. Double (left) Click the *Next* button to accept the default Install Location.

Figure 3: e-Stroke Diagnostic Program Install



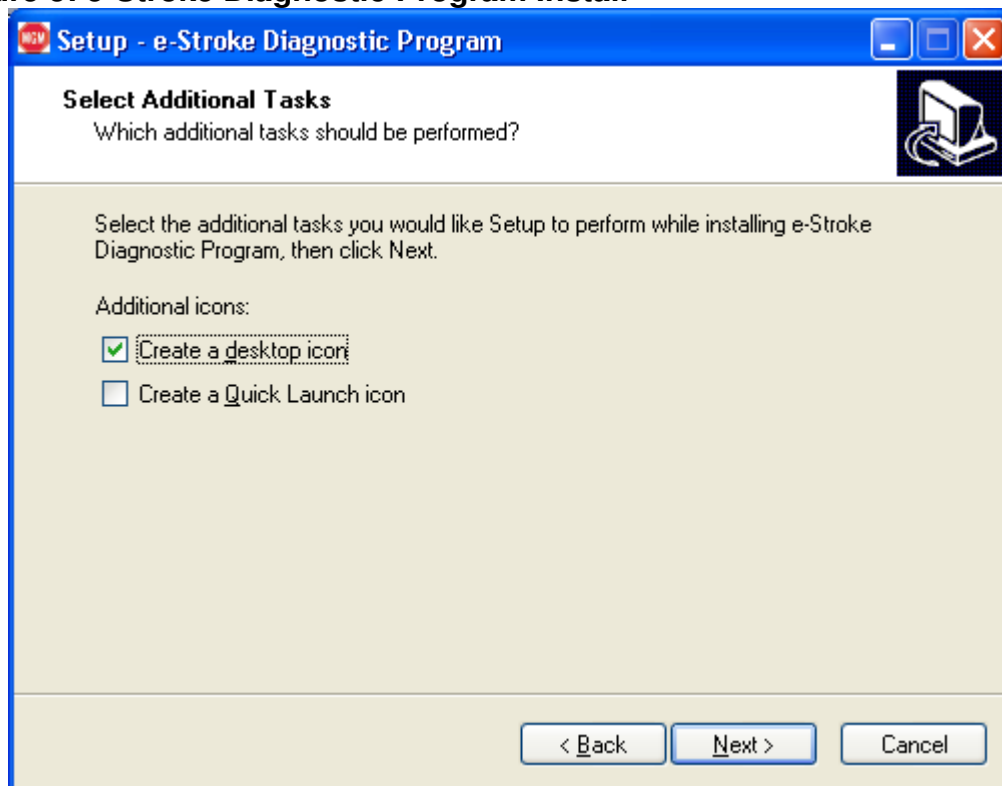
1.5. Double (left) Click the *Next* button to accept the default Folder Name.

Figure 4: e-Stroke Diagnostic Program Install



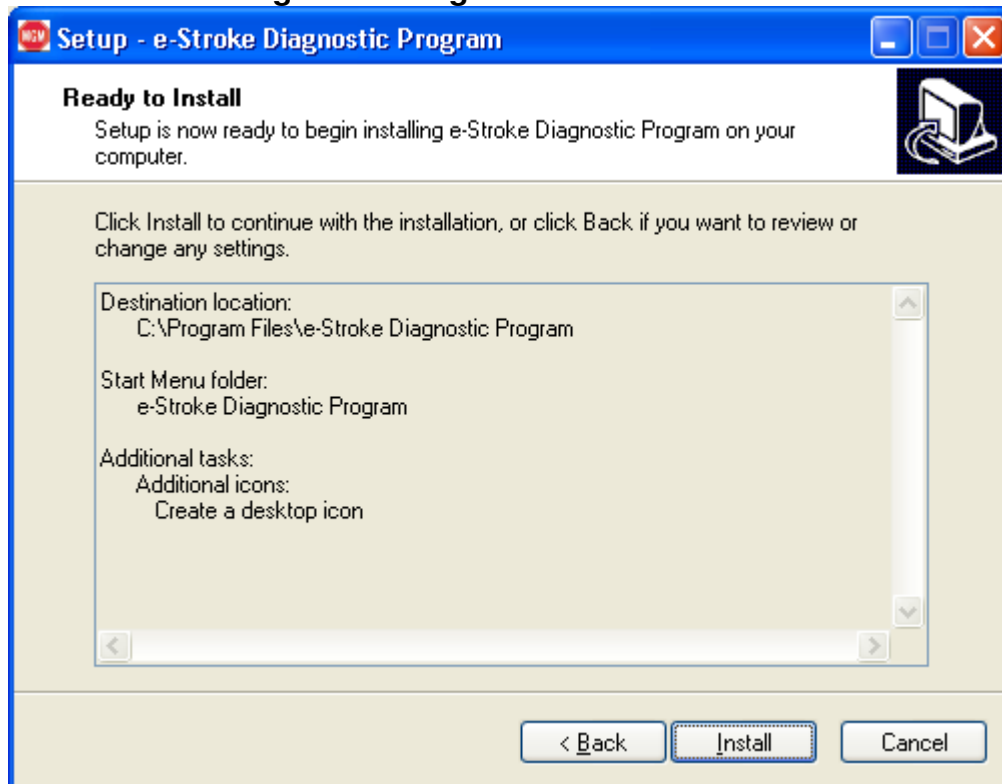
1.6. Check the box next to "Create a desktop icon" and Double (left) Click the *Next* button to accept the Additional Task.

Figure 5: e-Stroke Diagnostic Program Install



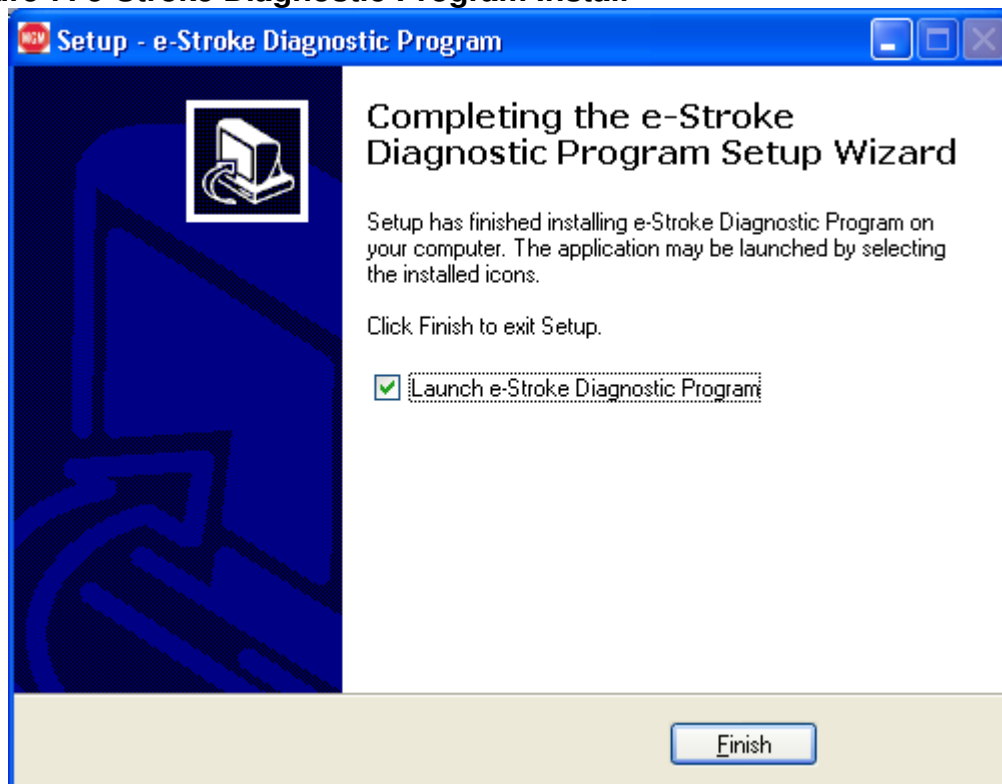
1.7. Double (left) Click the *Install* button to continue with the Installation.

Figure 6: e-Stroke Diagnostic Program Install



1.8. Double (left) Click the *Finish* button to complete the Install.

Figure 7: e-Stroke Diagnostic Program Install



2.0 Harness Connections:

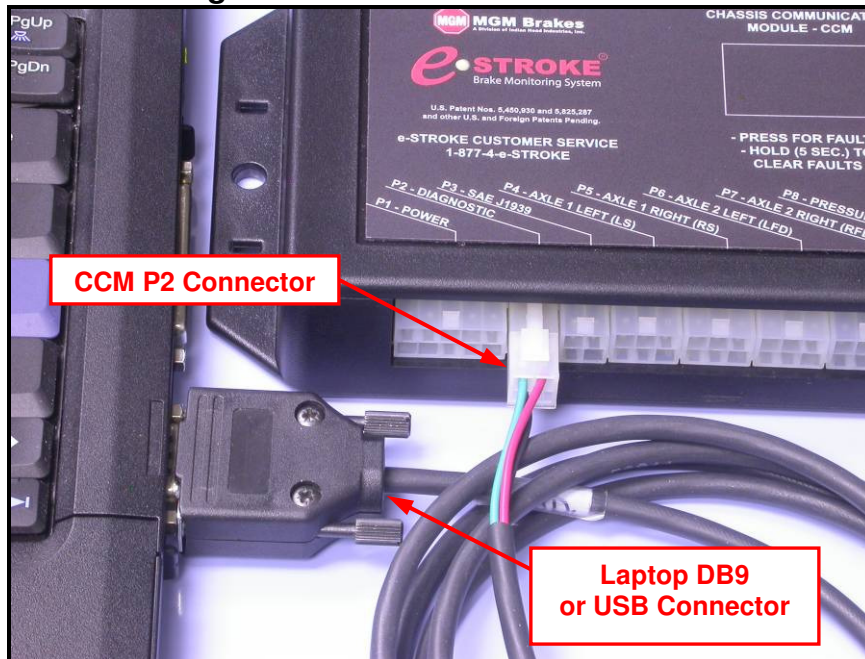
2.1. RS-232 Diagnostic Connection:

Diagnostic Harness P/N 8290220 connects the computer to the e-Stroke CCM. Plug the White 4-Pin connector into the CCM P2 connector. Connect the DB9 connector into the computers serial COM port. See Figure 8 below.

2.1.1. If a serial COM port is not available then the USB High Speed Serial Adapter Harness P/N 8090090 must be used. Simply plug the DB9 connectors together, and then plug the adapter harness USB connector into a USB receptacle on the computer.

2.1.2. P/N 8090090 Adapter Harness package includes a Software CD and instructions. Follow the manufacturers' instructions to install and configure the Adapter.

Figure 8: RS-232 Diagnostic Harness Connections



2.2. SAE J1939 Diagnostic Connection:

Diagnostic Harness P/N 8290304 and Adapter Harness P/N 8090097 connects the computer to the vehicle J1939 Diagnostic Port.

2.2.1. Connect P/N 8290304 Diagnostic Harness to the vehicle 9-Pin Diagnostic Port.

2.2.2. Note: Some 2009 & newer New Flyer applications will require the P/N 8290239 Adapter for connection to the 9-pin Diagnostic Connector. If the Select Port Window does not “Gray” out when connected to the vehicle 9-Pin (Fig. 10-B) than the P/N 8290239 Adapter may be required.

2.2.3. Connect P/N 8290304 Diagnostic Harness to P/N 8090097 Adapter Harness.

2.2.4. Connect P/N 8090097 Adapter Harness to Computer USB Port.

- 2.2.5. P/N 8090097 Adapter Harness package includes a Software CD and instructions. Follow the manufacturers' instructions to install and configure the Adapter.

3.0 Diagnostic Program Operation:

- 3.1. Double (left) Click the *e-Stroke Diagnostic Program Desktop Icon* to start the program.

Figure 9: e-Stroke Diagnostic Program Desktop Icon



- 3.2. The appropriate COM port must be selected using the *Select Port* drop down window. See Figure 10-A.
- 3.2.1. The computer DB9 / Serial connector will typically operate as COM 1 where equipped.
- 3.2.2. P/N 8090090 USB High Speed Serial Adapter will be assigned a COM port number when connected to the computer. The COM port assigned to the USB Adapter Harness can be looked up in the Device Manager.
- 3.2.3. The COM port does not need to be selected when the J1939 connection is used. The *Select Port* drop down window will “Gray” Out when the J1939 connection is active. See Figure 10-B.

Finding COM Port with the Device Manager:

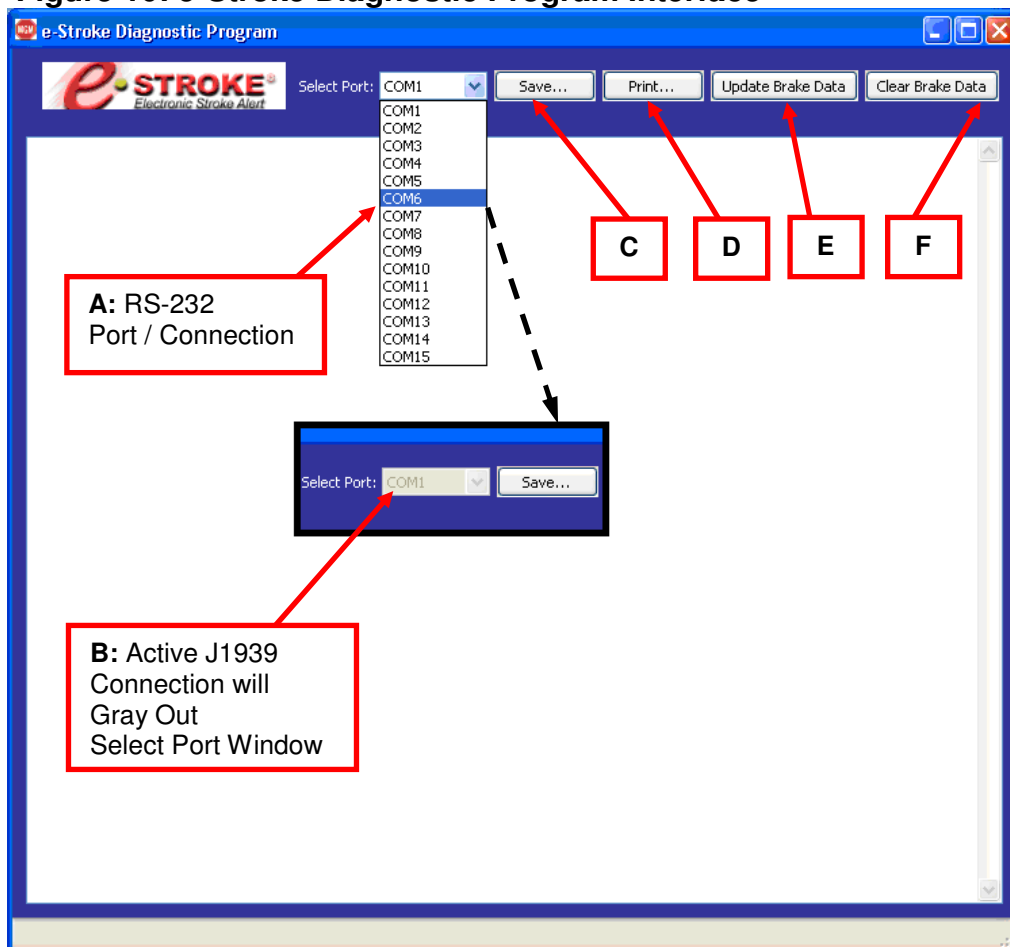
To locate the Computers Device Manager follow these steps with the USB device plugged in to the computer.

Note: This instruction applies to most Windows applications.

1. Select the ***Start Button***, then ***Settings***, and then ***Control Panel***.
2. Once the Control Panel Window is open select the ***System Icon***.
3. Once the System Properties Window is open select the ***Hardware Tab*** and then the ***Device Manager Button***.
4. With the ***Device Manager*** open, locate the ***Ports (COM & LPT)*** item.
5. Left Click the ***+ (Cross)*** next to “Ports (COM & LPT)”.
6. All of the active COM ports will now be displayed with number assignments.
7. Find the COM port which lists the USB Adapter and note the COM number.

- 3.3. **Update Brake Data:** Press the **Update Brake Data Button** to acquire and update the brake data. See Figure 10-E.
 - Note that each time **the Update Brake Data Button** is **Pressed** the brake data is refreshed and replaces the previously displayed data.
 - The displayed data must be saved if a record is required. Use the slider on the right of the window to navigate the report.
- 3.4. **Clear Brake Data:** Press the **Clear Brake Data Button** to clear the stored fault code history from the CCM. See Figure 10-F.
- 3.5. **Save Report:** Press the **Save** button to save a text report of the brake data. See Figure 10-C.
- 3.6. **Print Report:** The displayed brake data can also be printed by **Pressing** the **Print** button. See Figure 10-D.
 - Note: Saved and Printed Brake Data will include a Date and Time Stamp at the beginning of the report.

Figure 10: e-Stroke Diagnostic Program Interface



3.7. The e-Stroke Diagnostic Program has 1 display window which provides the following e-Stroke Brake & System information. See Figures 11, 12.

- **CCM / System Information** - *CCM Serial Number, Software Version Number, CCM Type.*
- **System Configuration** - *Axles with Brake Stroke Sensors, Axles with Lining Wear Sensors (Drum / Disc).*
- **Active Brake Status** – *Displays Current Active Brake Status.*
- **Stored Brake Fault History** – *Displays Non-Current Stored Fault Counts for Brake Status.*
- **Active Lining Wear Status** - *Displays Current Active Lining Status.*
- **Stored Lining Wear Fault History** – *Displays Non-Current Stored Fault Counts for Lining Sensors*
- **Brake Application Pressure** - *Displays Current Brake Application Pressure which is present as the data is updated.*
- **Stored Pressure Transducer Fault History** – *Displays Non-Current Stored Fault Counts for Pressure Transducer.*
- **SAE J1708 / J1939 Status** – *Displays status of SAE J1708 and J1939 connections when RS-232 connection is used.*

Note: When SAE J1939 is used for the diagnostic program connection, it is assumed that J1939 is operational and this status is not displayed.

Figure 11: Diagnostic Information Display

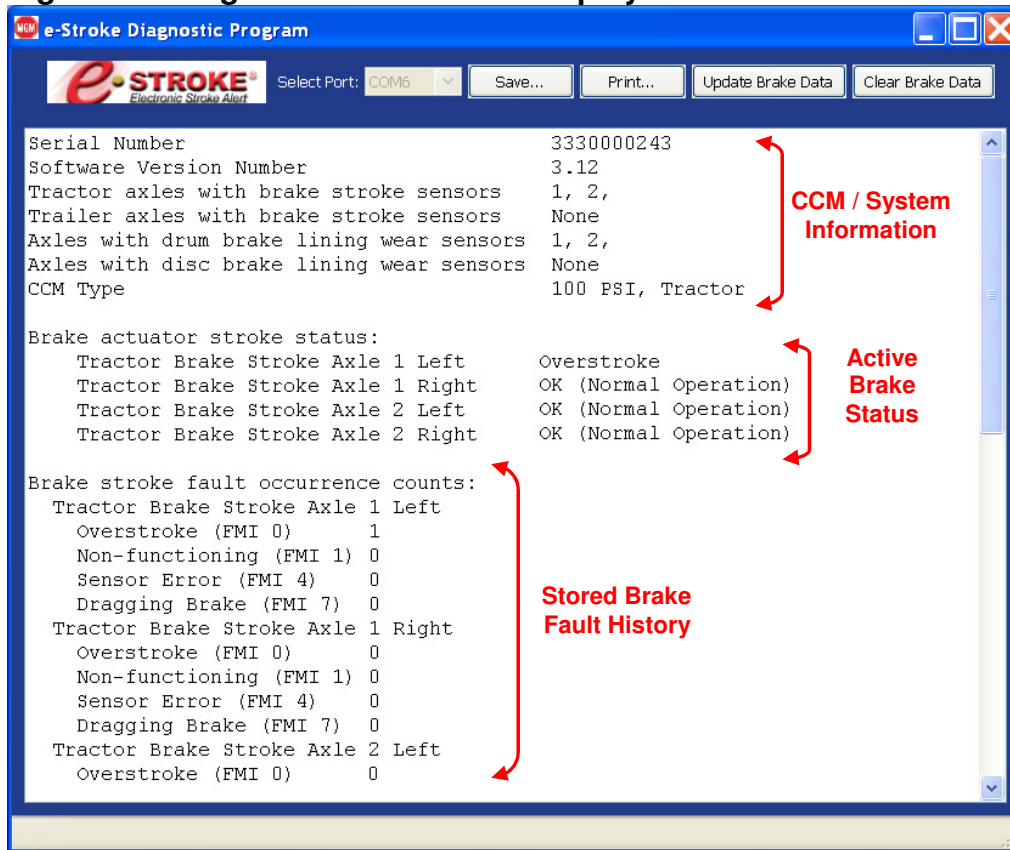


Figure 12: Diagnostic Information Display

