



Mazda Enhanced OBD II User Guide

### Warnings

The exclamation point within the triangle is a warning sign alerting you of important instructions accompanying the product. Please observe all warnings.



**Do not operate the vehicle indoors.** A running engine produces lethal carbon monoxide exhaust fumes that can seriously harm or kill you if inhaled. Only run the vehicle motor outdoors with proper ventilation. Many scan tool operations do not require a running motor.



**Do not attempt to operate or observe the scan tool while driving a vehicle.** Driving requires the full attention of the driver. Operating or observing the scan tool will cause driver distraction and could cause a fatal accident.



**Ensure the PC, cable, and OBD II adapter do not interfere with the vehicle controls.** A cable dangling in front of the foot pedals, gear shifter, or steering wheel can interfere with vehicle operation and cause a fatal accident. Always ensure the PC, cable, and OBD II adapter are securely fastened out of the way. If the scan tool and PC cannot be safely attached as to not interfere with the vehicle controls, then do not drive the vehicle with the OBD II adapter connected to the vehicle.

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# CHAPTER 1 Preface

Congratulations on your purchase of an Auterra's Mazda Enhanced OBD II software package. Please take time to read through these operating instructions and become familiar with the operating procedure.

The Mazda Enhanced OBD II software is included with the Dyno-Scan™ for Windows software. A unique Mazda Enhanced Product Key is purchased to unlock the features.

The enhanced software allows you to:

- Read enhanced diagnostic trouble codes (DTCs) from systems like ABS and airbag
- Display enhanced DTC definitions from Body and Chassis systems
- Turn off the ABS and airbag light

The enhanced upgrade works on many 1996 to 2008 Mazda, Lincoln and Mercury vehicles<sup>1</sup>. Not every vehicle will support every enhanced system.

#### **Detecting Supported Systems**

If you already own a Dyno-Scan for Windows scan tool, it can detect available enhanced OBD II systems on your vehicle using version 8.0.5 or higher software.

Select the File > Connect menu then select Mazda Enhanced from the Vehicle Connection Type menu option and press the Connect to Vehicle button. The software will detect all available enhanced OBD II systems on your vehicle to assist in your enhanced OBD II purchasing decision.

<sup>&</sup>lt;sup>1</sup> The Mazda enhanced package does not support Mazda's MCAN or UBP protocols.

| Connect the scan tool to the vehicle<br>the "Connect to Vehicle" button belo | e's diagnostic connector,<br>w. | turn on the ignition, and press |
|--|---------------------------------|---------------------------------|
| ehicle Connection Type:  |                                 |                                 |
| Mazda Enhanced   | ×                               | Connect to Vehicle              |
| Connect to Vehicle Demo  |                                 | Connect to Vehicle              |

Note the following when detecting enhanced OBD II vehicle systems:

- 1. Upgrade to the latest Dyno-Scan for Windows software by download the upgrade from the Auterra web site (<u>www.auterraweb.com</u>).
- 2. If you already own an Auterra scan tool and it has an older OBD II adapter version, an adapter firmware update or new OBD II adapter may be required before all available vehicle systems are detected. Please contact Auterra for upgrade options available.

#### Supported Systems

The Mazda Enhanced package supports these vehicle system:

- 4x4 Control Module
- ABS (Antilock Brake System)
- Air Conditioning / Cruise Control
- Airbag / SRS (Supplemental Restraint System)
- Anti-Lock Brake / Traction Control Module
- Electronic Automatic Temperature Control
- Electronic-Controlled Power Steering
- Generic Electric Module
- Generic Electronic Module
- Instrument Cluster
- Instrument Cluster
- Parking Aid Module
- Passive Anti-Theft System
- Powertrain Control Module
- Remote Anti-Theft / Personality Module

- Remote Keyless Entry
- Restraint Control Module
- Security Module
- Tire Pressure Monitor
- Transmission Control Module

# CHAPTER 2

## Requirements

To use the S-204 Mazda Enhanced OBD II software package you must have one of these scan tool kits:

- A-302 Dyno-Scan for Windows CAN USB
- A-301 Dyno-Scan for Windows CAN
- A-101 Dyno-Scan for Windows
- A-500 DashDyno SPD
- A-501 DashDyno SPD ProPack

The following Auterra software is required:

• Dyno-Scan for Windows 8.0.5 or higher

Check the Dyno-Scan for Windows version in the Help > About Dyno-Scan...



If you have an older version of the Auterra Dyno-Scan for Windows software, just download the latest software from our web site Downloads page.

www.auterraweb.com/downloads.html

# CHAPTER 3 Installation

The Mazda Enhanced OBD II software is already part of the version 8.0.5 or higher Dyno-Scan for Windows software. There is no CD ROM to be shipped – only a Product Key to unlock the features within the software.

- 1 Purchase the S-204 Mazda Enhanced OBD II software from the Auterra web site. You will also need to purchase any Dyno-Scan for Windows or DashDyno scan tool kit unless you already own one.
- 2 Email the following information to Auterra at: <a href="mailto:support@auterraweb.com">support@auterraweb.com</a>
  - Your 4-digit order number used to purchase the S-204 Mazda Enhanced software. The order number is emailed to you after placing an order on our web site.
  - Your existing Dyno-Scan for Windows Product Key.
  - Your complete name and mailing address.
- 3 Auterra Support will respond to your email with a Mazda Enhanced Product Key. **Please keep this key in a safe place and do not lose it.**
- 4 Start the Dyno-Scan for Windows software.
- 5 Go to the Help > Product Registration Keys... menu option.
- 6 Press the Enter Product Key button and enter the Mazda Enhanced Product Key.

| 1 | Product Registration Keys | X                        |
|---|---------------------------|--------------------------|
|   | Product                   | Product Key              |
|   | Dyno-Scan for Windows     | 1234-5678-1234-5678-1234 |
|   | Toyota Enhanced           | 1234-5678-1234-5678-1234 |
|   |                           |                          |
|   |                           | Enter Product Key OK     |

7 Congratulations! Your Mazda Enhanced software is now ready for use.

# **Using Mazda Enhanced Software**

Using your Mazda Enhanced OBD II software is easy, and this section shows you how.

#### **Connecting to Vehicle**

When connecting to a vehicle, the Connect dialog's Vehicle Connection Type dropdown will show a "Mazda Enhanced" menu option. Select this option and press the "Connect to Vehicle" button.

| Connect  |                                 |
|--|---------------------------------|
| Connect the scan tool to the vehicle's diagnostic connector,<br>the "Connect to Vehicle" button below. | turn on the ignition, and press |
| Mazda Enhanced   | Connect to Vehicle              |
| Connect to Vehicle Demo  | Connect to System               |

The software will now detect the systems available on the vehicle.

| Detecting Vehicle              |        |  |  |
|--------------------------------|--------|--|--|
| Detecting vehicle. Please wait | Cancel |  |  |

After the vehicle is detected, select the system to connect to and press the "Connect to System" button.

| System Connect- Step 2 |   |  |  |
|------------------------|---|--|--|
| <b>I</b>               | Select the vehicle sub-system below to connect to and press the "Connect to System" button below. |  |  |
| ABS (Ar                | ntilock Brake System)   |  |  |
|                        | Connect to System Cancel  |  |  |

You are now connected to the selected Mazda Enhanced system.

Once connected to the vehicle, you can switch systems quickly.

- 1 Select File > Connect.
- 2 Press the "Connect to System" button. This button is only available after the vehicle has been successfully detected.
- 3 On the "System Connect Step 2" dialog, select the system and press "Connect to System".

## Trouble Codes

The Stored Diagnostic Trouble Codes pane will show any DTCs stored on the enhanced system.

| 🕂 Auterra Dyno-Sca  | an                       |                               |   |          |                  |                |                                  |
|---------------------|--------------------------|-------------------------------|---|----------|------------------|----------------|----------------------------------|
| File View Live Data | a Playback Tools Help    |                               |   |          |                  |                |                                  |
| 🗄 🔊 Connect   🚍   🍾 | 🔊 New 📲 🦠 Open 📲 🚽 🚳 Hol | 1   •\$• •\$•   •\$• •\$• 📮 🛙 | Live 🕨 🔶 🖬 🖉  | 0 %      | 🈣 🗞 🍳 🖻 🎲        | × -            |                                  |
| Navigation 😥 🔯      | Stored Diagnostic Troub  | le Codes                      |   |          |                  | Options        | File Properties (1988)           |
| Scan Tool           | Diagnostic Tr            | ouble Code                    | the second se | Category |                  | DTC Caused MIL |                                  |
|                     | ⊖ C0265                  |                               | Chassis   |          |                  |                | _                                |
| General Information |                          | DTC Data                      | base  |          | Desc             | ription        |                                  |
|                     | GM                       |                               |   | EB       | CM Relay Circuit |                | _                                |
| Trouble Codes       | Diagnostic Tr            | ouble Code                    | The second  | Category |                  | DTC Caused MIL |                                  |
|                     | ⊕ U12B9                  |                               | Network Error   |          |                  |                |                                  |
|                     |                          |                               |   |          |                  |                |                                  |
| Live Data           | Pending Diagnostic Tro   | Ible Codes                    |   |          | _                | Options        | -                                |
| *                   | Diagnostic Tr            | ouble Code                    |   | Category | 1 1              | DTC Caused MIL |                                  |
| Oxygen Sensors      |                          |                               |   |          |                  |                |                                  |
|                     |                          |                               |   |          |                  |                | File Properties M Dyno Setup Pro |
| Test Results        |                          |                               |   |          |                  |                | Run Statistics                   |
|                     |                          |                               |   |          |                  |                | 11 2↓ □                          |
| On-Board Tests      |                          |                               |   |          |                  |                |                                  |
|                     |                          |                               |   |          |                  |                |                                  |
|                     | Freeze Frame             |                               |   |          |                  |                |                                  |
|                     | Parameter                | $\nabla$                      | Туре  |          | Value            | Units          |                                  |
|                     |                          |                               |   |          |                  |                |                                  |
|                     |                          |                               |   |          |                  |                |                                  |
| Scan Tool           |                          |                               |   |          |                  |                |                                  |
| Dyno                |                          |                               |   |          |                  |                | -                                |
| Analyze             |                          |                               |   |          |                  |                |                                  |
| ».                  |                          |                               |   |          |                  |                |                                  |
| Connected VPv       | V Live                   | 0 %                           |   |          |                  |                |                                  |

#### **Clearing Trouble Codes**

Select the Tools > Clear DTCs menu option to clear codes and turn off any dashboard light (e.g. ABS or airbag). Clear DTCs will only clear codes for the currently connected enhanced system.

Please note the following when clearing DTCs:

- 1 Some vehicles require the ignition key to be turned off then on again before the code is cleared.
- 2 Some codes cannot be cleared while the vehicle is running.
- 3 The dashboard light and diagnostic trouble code may not be clearable until the system repair has been completed.